

REC. 16,001493 9/23/19
7465 RB



City of Fitchburg
Planning/Zoning Department
5520 Lacy Road
Fitchburg, WI 53711
(608-270-4200)

Telecommunication Facilities Permit

Applicant/Contact Person: RICHARD ROGERS (AGENT FOR U.S. CELLULAR)
Address: N70W7292 BRIDGE RD Phone Number of Contact Person: _____
City, State, Zip Code: CEDEARW, WI 53012 Email of Contact Person: WJROSSOC@HOTMAIL.COM
Project Address: 2512 S. FOX HENRY RD Lot: _____ Subdivision: _____

Project Description:

INSTALL A 125'6" MONOPOLE CELL TOWER AND RELATED EQUIPMENT FOR A WIRELESS COMMUNICATION FACILITY TO IMPROVE NEEDED WIRELESS COVERAGE IN THIS PART OF FITCHBURG. EXISTING NETWORK IS OVER-CAPACITY TO PROVIDE NEEDED COVERAGE.

Application Details:

1. All required documentation, as indicated on the application checklist.
2. Application shall be accompanied by three (3) sets of full-size plans. Two (2) of the three (3) sets of plans shall be no larger than 11"x17".
3. One electronic pdf copy of your application and all supplemental files is also required to be sent to planning@fitchburgwi.gov.

The preceding information is considered to be the minimum information for submission, and the City may require additional information for its review. It is the responsibility of the owner/applicant to insure compliance with all local and state requirements. The below signed applicant acknowledges the above information and hereby submits the attached information for the City's Telecommunications Facilities Permit. Any interpretations provided by city officials as the result of submitting the attached information are based on the submitted plans, and any plan changes may affect the interpretations.

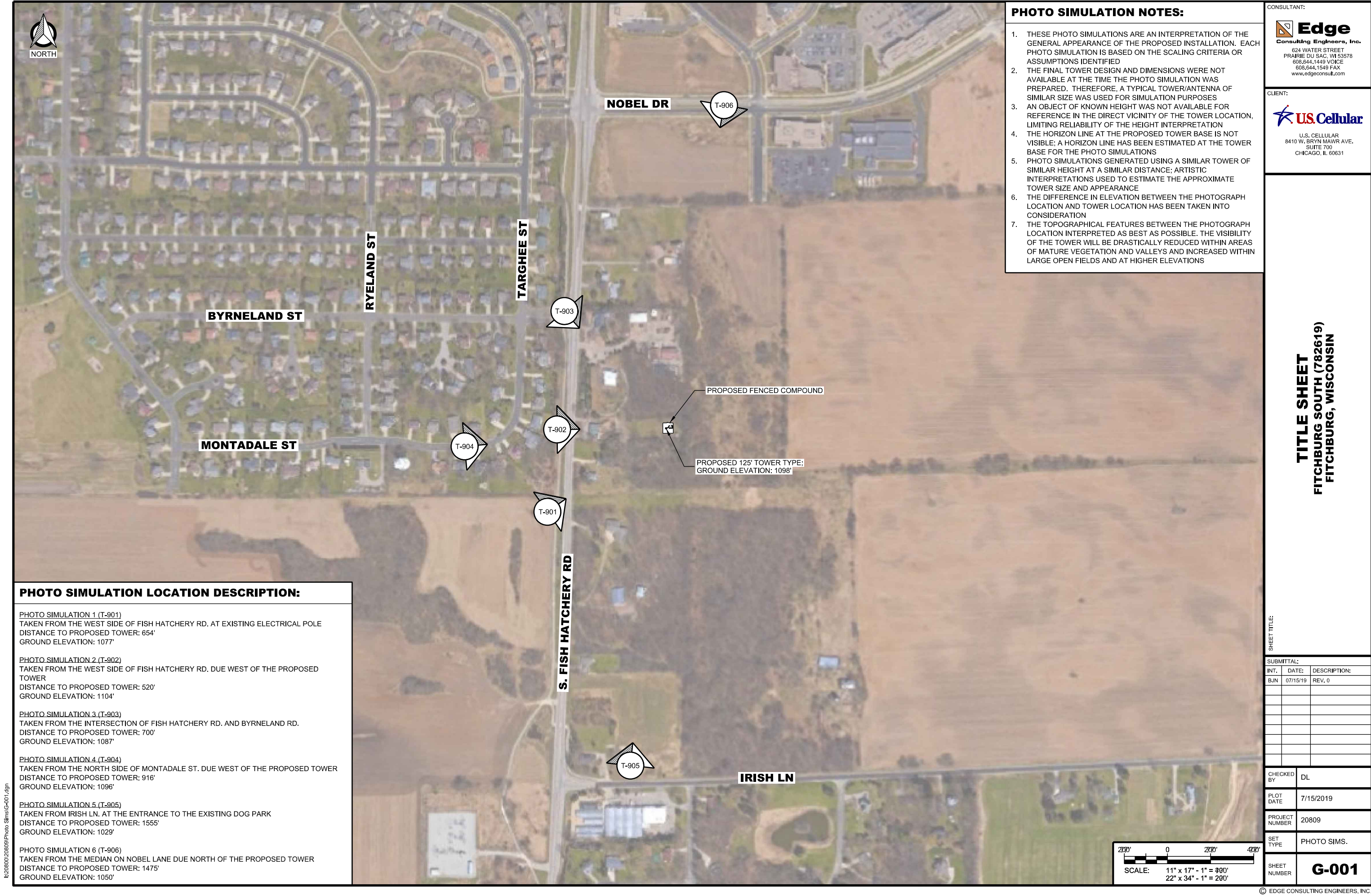
Signed: [Signature]
Applicant or Authorized Agent

Date: Sept. 19, 2019

** Applications are due at least 4 weeks prior to the desired Plan Commission Meeting. This time frame assumes a complete application; if the application is incomplete the Plan Commission date will be adjusted

FOR CITY USE ONLY

Date Received: 9/19/19 Meeting Date: 11/19/19
Fee Paid: \$465.00 Request No.: TFP-2320-19



- PHOTO SIMULATION NOTES:**
1. THESE PHOTO SIMULATIONS ARE AN INTERPRETATION OF THE GENERAL APPEARANCE OF THE PROPOSED INSTALLATION. EACH PHOTO SIMULATION IS BASED ON THE SCALING CRITERIA OR ASSUMPTIONS IDENTIFIED
 2. THE FINAL TOWER DESIGN AND DIMENSIONS WERE NOT AVAILABLE AT THE TIME THE PHOTO SIMULATION WAS PREPARED. THEREFORE, A TYPICAL TOWER/ANTENNA OF SIMILAR SIZE WAS USED FOR SIMULATION PURPOSES
 3. AN OBJECT OF KNOWN HEIGHT WAS NOT AVAILABLE FOR REFERENCE IN THE DIRECT VICINITY OF THE TOWER LOCATION, LIMITING RELIABILITY OF THE HEIGHT INTERPRETATION
 4. THE HORIZON LINE AT THE PROPOSED TOWER BASE IS NOT VISIBLE; A HORIZON LINE HAS BEEN ESTIMATED AT THE TOWER BASE FOR THE PHOTO SIMULATIONS
 5. PHOTO SIMULATIONS GENERATED USING A SIMILAR TOWER OF SIMILAR HEIGHT AT A SIMILAR DISTANCE; ARTISTIC INTERPRETATIONS USED TO ESTIMATE THE APPROXIMATE TOWER SIZE AND APPEARANCE
 6. THE DIFFERENCE IN ELEVATION BETWEEN THE PHOTOGRAPH LOCATION AND TOWER LOCATION HAS BEEN TAKEN INTO CONSIDERATION
 7. THE TOPOGRAPHICAL FEATURES BETWEEN THE PHOTOGRAPH LOCATION INTERPRETED AS BEST AS POSSIBLE. THE VISIBILITY OF THE TOWER WILL BE DRASTICALLY REDUCED WITHIN AREAS OF MATURE VEGETATION AND VALLEYS AND INCREASED WITHIN LARGE OPEN FIELDS AND AT HIGHER ELEVATIONS

PHOTO SIMULATION LOCATION DESCRIPTION:

PHOTO SIMULATION 1 (T-901)
TAKEN FROM THE WEST SIDE OF FISH HATCHERY RD. AT EXISTING ELECTRICAL POLE
DISTANCE TO PROPOSED TOWER: 654'
GROUND ELEVATION: 1077'

PHOTO SIMULATION 2 (T-902)
TAKEN FROM THE WEST SIDE OF FISH HATCHERY RD. DUE WEST OF THE PROPOSED TOWER
DISTANCE TO PROPOSED TOWER: 520'
GROUND ELEVATION: 1104'

PHOTO SIMULATION 3 (T-903)
TAKEN FROM THE INTERSECTION OF FISH HATCHERY RD. AND BYRNELAND RD.
DISTANCE TO PROPOSED TOWER: 700'
GROUND ELEVATION: 1087'

PHOTO SIMULATION 4 (T-904)
TAKEN FROM THE NORTH SIDE OF MONTADALE ST. DUE WEST OF THE PROPOSED TOWER
DISTANCE TO PROPOSED TOWER: 916'
GROUND ELEVATION: 1096'

PHOTO SIMULATION 5 (T-905)
TAKEN FROM IRISH LN. AT THE ENTRANCE TO THE EXISTING DOG PARK
DISTANCE TO PROPOSED TOWER: 1555'
GROUND ELEVATION: 1029'

PHOTO SIMULATION 6 (T-906)
TAKEN FROM THE MEDIAN ON NOBEL LANE DUE NORTH OF THE PROPOSED TOWER
DISTANCE TO PROPOSED TOWER: 1475'
GROUND ELEVATION: 1050'

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

TITLE SHEET
FITCHBURG SOUTH (782619)
FITCHBURG, WISCONSIN

SHEET TITLE

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
BJN	07/15/19	REV. 0

CHECKED BY:	DL
PLOT DATE:	7/15/2019
PROJECT NUMBER:	20809
SET TYPE:	PHOTO SIMS.
SHEET NUMBER:	G-001



Edge
Consulting Engineers, Inc.

624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com



U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

PHOTO SIMULATION 1
FITCHBURG SOUTH (782619)
FITCHBURG, WISCONSIN

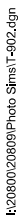
SHEET TITLE:

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
BJN	07/15/19	REV. 0
CHECKED BY	DL	
PLOT DATE	7/15/2019	
PROJECT NUMBER	20809	
SET TYPE	PHOTO SIMS.	
SHEET NUMBER	T-901	

I:\20800\20809\Photo Sims\T-901.dgn

A

ACTUAL PHOTO BEFORE SIMULATION



ACTUAL PHOTO BEFORE SIMULATION

SHEET
NUMBER



K:\20809\20809\Photo Sims\T-903.dgn

A **ACTUAL PHOTO BEFORE SIMULATION**

CONSULTANT:

**Edge**
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

**U.S. Cellular**
U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

PHOTO SIMULATION 3
FITCHBURG SOUTH (782619)
FITCHBURG, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
BJN	07/15/19	REV. 0
CHECKED BY:		DL
PLOT DATE:	7/15/2019	
PROJECT NUMBER:	20809	
SET TYPE:	PHOTO SIMS.	
SHEET NUMBER:	T-903	



PROPOSED 125' MONOPOLE

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

PHOTO SIMULATION 4
FITCHBURG SOUTH (782619)
FITCHBURG, WISCONSIN

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
BJN	07/15/19	REV. 0

CHECKED BY	DL
PLOT DATE	7/15/2019
PROJECT NUMBER	20809
SET TYPE	PHOTO SIMS.
SHEET NUMBER	T-904

N:\20800\20809\Photo Sims\T-904.dgn

A

ACTUAL PHOTO BEFORE SIMULATION



N:\20809\20809\Photo Sims\T-905.dgn

A

ACTUAL PHOTO BEFORE SIMULATION

CONSULTANT:

**Edge**
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

**U.S. Cellular**
U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

PHOTO SIMULATION 5
FITCHBURG SOUTH (782619)
FITCHBURG, WISCONSIN

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
BJN	07/15/19	REV. 0

CHECKED BY:	DL
PLOT DATE:	7/15/2019
PROJECT NUMBER:	20809
SET TYPE:	PHOTO SIMS.
SHEET NUMBER:	T-905



N:\20800\20809\Photo Sims\T-906.dgn

A

ACTUAL PHOTO BEFORE SIMULATION

CONSULTANT:



624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:



U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

PHOTO SIMULATION 6
FITCHBURG SOUTH (782619)
FITCHBURG, WISCONSIN

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
BJN	07/15/19	REV. 0

CHECKED BY:	DL
PLOT DATE:	7/15/2019
PROJECT NUMBER:	20809
SET TYPE:	PHOTO SIMS.
SHEET NUMBER:	T-906



FITCHBURG SOUTH (782619)
MADISON, WI
CONSTRUCTION DRAWINGS
125' MONOPOLE

CONSULTANT:
Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:
U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT. NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

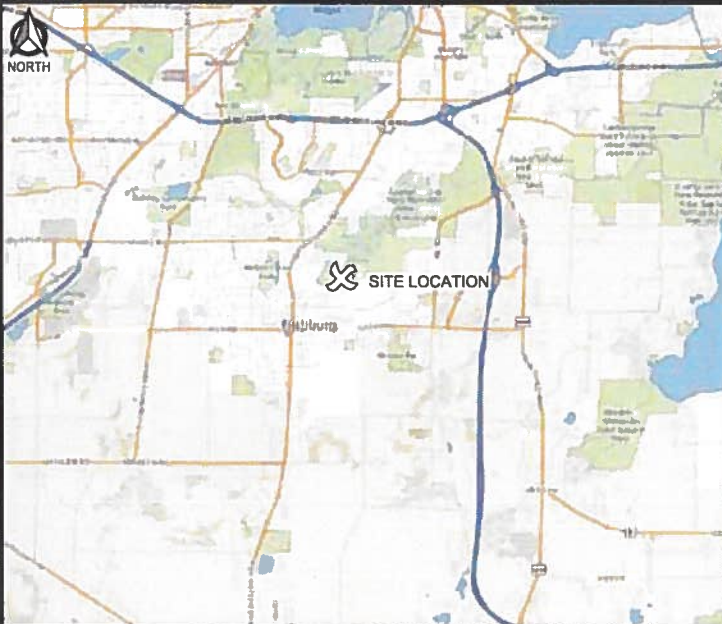
TITLE SHEET
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE:

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADP	08/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY	DCL
PLOT DATE	8/16/2019
PROJECT NUMBER	20809
SET TYPE	FINAL CDs
SHEET NUMBER	G-001

SITE LOCATION MAPS



SHEET INDEX

NO.:	SHEET TITLE
G-001	TITLE SHEET
G-002	GENERAL SPECIFICATIONS
G-003	GENERAL SPECIFICATIONS
G-004	GENERAL SPECIFICATIONS
-	TOPOGRAPHIC SITE SURVEY *
C-101	SITE PLAN
C-102	ENLARGED SITE PLAN
C-103	GRADING PLAN
C-501	CONSTRUCTION DETAILS
C-502	FENCE DETAILS
C-503	GRADING DETAILS
T-001	ANTENNA SPECIFICATIONS
T-002	EQUIPMENT SPECIFICATIONS
T-201	SITE ELEVATION
T-301	ANTENNA AND EQUIPMENT CONFIGURATION
T-501	INSTALLATION DETAILS
T-502	CABLE DETAILS
T-503	CABLE BANDING DETAILS
T-504	ICE BRIDGE DETAILS
T-505	PLUMBING DIAGRAM
A-001	EQUIPMENT PAD NOTES
A-002	EQUIPMENT CABINET SPECIFICATIONS
A-101	EQUIPMENT PAD PLAN
A-102	EQUIPMENT PAD PLAN
A-201	EQUIPMENT PAD ELEVATIONS
A-501	EQUIPMENT PAD DETAILS
E-101	GROUNDING PLAN
E-501	GROUNDING DETAILS
E-502	GROUNDING DETAILS
E-503	UTILITY DETAILS
E-504	UTILITY RACK DETAILS

* PREPARED BY OTHERS

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.

DIRECTORY

CLIENT:
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT. NE SUITE 101
CEDAR RAPIDS, IA 52402
CONTACT: KEVIN HAINES
PHONE: 319.560.3944

ENGINEERING COMPANY:
EDGE CONSULTING ENGINEERS, INC.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PROJECT MANAGER: DAVE LYSHEK
PHONE: 608.644.1449
FAX: 608.644.1549

SITE ACQUISITION:
WIRELESS PLANNING, LLC
100 W. HENRY CLAY STREET
WHITEFISH BAY, WI 53217
CONTACT: DICK ROGERS
PHONE: 414.507.3751

SURVEYOR:
MERIDIAN SURVEYING, LLC
N8774 FIRELANE 1
MENASHA, WI 54952
CONTACT: CRAIG KEACH
PHONE: 920.993.0881

TREE SERVICE:
ALLISON TREE, LLC
1830 SUGAR RIVER ROAD
VERONA, WI 53593
CONTACT: R. BRUCE ALLISON, PhD
PHONE: 608.848.2345

SITE LOCATION:
2512 S. FISH HATCHERY ROAD
MADISON, WI 53711

E911 ADDRESS: TBD

SITE #: 782619

PROPERTY OWNER:
STRASSMAN LIVING TRUST &
HACHERY HOUSE LLC
2512 S. FISH HATCHERY ROAD
MADISON, WI 53711

TOWER OWNER:
U.S. CELLULAR
8410 W. BRYN MAWR AVE., SUITE 700
CHICAGO, IL 60631

SITE COORDINATES (PER 1-A CERTIFICATE):
AT TOWER BASE (CENTER OF LEASE PARCEL)
LAT: 42°-59'-28.13"
LONG: 89°-25'-36.95"
GROUND ELEVATION (NAVD 88): 1093.2'

PLSS INFORMATION:
PART OF THE NE1/4 OF THE SE1/4,
SECTION 16, T.6N., R.9E.,
CITY OF FITCHBURG,
DANE COUNTY
WISCONSIN

TAX KEY NUMBER:
225/0609-164-8430-2 (LEASE & EASEMENT)
225/0609-164-8420-2 (EASEMENT)

UTILITY INFORMATION

ELECTRIC SERVICE PROVIDER: MG&E

FIBER PROVIDER: SPECTRUM **TBD**

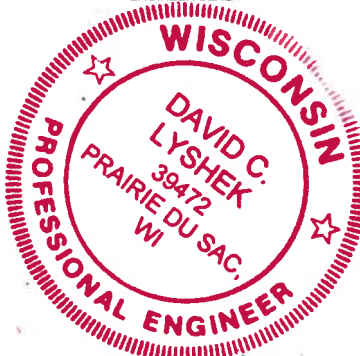


TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN, CALL DIGGERS HOTLINE

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

ENGINEER SEAL:



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: *[Signature]*
DATE: 8/20/2019

I:\200900\20809\CAD\CDs\Plan\G-002.dgn

GENERAL REQUIREMENTS

1.

SITE WORK SHALL BE COMPLETED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS (U.S. CELLULAR STANDARD PLANS AND SPECIFICATIONS) AND THE REFERENCED STANDARDS.
- A.

ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS.
- B.

UNIFORM BUILDING CODE (UBC) BUILDING OFFICIALS & CODE ADMINISTRATORS (BOCA) AS APPLICABLE.
- C.

AMERICAN CONCRETE INSTITUTE (ACI).
- D.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
- E.

ELECTRONICS INDUSTRIES ASSOCIATION STANDARDS (EIA/TIA-222-F) MOST CURRENT VERSION ADOPTED BY SUBJECT STATE.
- F.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
2.

WHERE A CONFLICT OCCURS BETWEEN REFERENCED STANDARDS AND U.S. CELLULAR STANDARD PLANS AND SPECIFICATIONS, THE MORE STRINGENT STANDARD SHALL APPLY.
3.

THE FACILITY IS AN UNOCCUPIED SPECIALIZED MOBILE RADIO FACILITY.
4.

PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC UTLINE ONLY, UNLESS NOTED OTHERWISE THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
5.

PRIOR TO THE SUBMISSIONS OF THE BIDS, THE CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FAMILIAR WITH THE FIELD CONDITIONS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
6.

THE CONTRACTOR SHALL RECEIVE IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY IDENTIFIED BY THE CONTRACT DOCUMENTS.
7.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE NOTED.
8.

THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING BEST SKILLED PERSONNEL. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE LANDLORDS AUTHORIZED REPRESENTATIVE.
9.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE SITE AND NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BEFORE STARTING ANY WORK.
10.

WHEN CONTRACTOR'S ACTIVITIES IMPEDE OR OBSTRUCT TRAFFIC FLOW, CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL DEVICES, SIGNS, AND FLAGMEN IN ACCORDANCE WITH PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
11.

THE CONTRACTOR SHALL COORDINATE SITE ACCESS AND SECURITY WITH THE PROPERTY OWNER AND U.S. CELLULAR PRIOR TO CONSTRUCTION.
12.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS SUCH AS BUT NOT LIMITED TO, PAVING, CURBS, AGRICULTURAL CROPS, DRAIN TILE, FENCES, LANDSCAPING, GALVANIZED SURFACES, ETC. AND UPON COMPLETION OF WORK REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION.
13.

THE LOCATIONS OF UTILITIES SHOWN ON THE PLAN ARE BASED ON EXISTING RECORDS, FIELD LOCATIONS OR OWNER SUPPLIED INFORMATION AND MAY NOT BE ACCURATE. THE CONTRACTOR SHALL MARK ALL PUBLIC & PRIVATE UTILITIES. THE CONTRACTOR SHALL CALL THE LOCAL "ONE CALL" PROVIDER A MINIMUM OF THREE BUSINESS DAYS PRIOR TO EXCAVATING TO ALLOW MEMBER UTILITIES TO LOCATE THEIR FACILITIES. THE PROPERTY OWNER SHALL BE NOTIFIED IN A SIMILAR FASHION TO ALLOW HIM TO LOCATE HIS PRIVATE UTILITIES.
14.

WHEN EXCAVATING AROUND UTILITIES, THE CONTRACTOR SHALL USE REASONABLE CARE IN LOCATING AND PROTECTING UTILITIES. U.S. CELLULAR SHALL BE NOTIFIED IMMEDIATELY OF ANY CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED CONSTRUCTION.
15.

DAMAGE TO PUBLIC OR PRIVATE UTILITIES SHALL BE REPORTED TO U.S. CELLULAR AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE RESULTING FROM CONTRACTOR'S NEGLIGENCE OR FAILURE TO ACT WITH DUE REGARD SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
16.

UNLESS OTHERWISE NOTED ON THE PLANS, CONTRACTOR SHALL ASSUME ALL SURFACE FEATURES SUCH AS BUILDINGS, PAVEMENTS, LANDSCAPING FEATURES AND PLANTS ARE TO BE SAVED AND PROTECTED FROM DAMAGE.
17.

KEEP THE CONSTRUCTION SITE CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.

18.

THE CONTRACTOR SHALL PROVIDE ON-SITE TRASH RECEPTACLES FOR COLLECTION OF NON-TOXIC DEBRIS. ALL TRASH SHALL BE COLLECTED ON A DAILY BASIS.
19.

ALL TOXIC AND ENVIRONMENTALLY HAZARDOUS SUBSTANCES SHALL BE USED AND DISPOSED OF IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS. UNDER NO CIRCUMSTANCES SHALL RINSING OR DUMPING OF THESE SUBSTANCES OCCUR ON-SITE.
20.

THE CONTRACTOR SHALL MAINTAIN AND SUPPLY U.S. CELLULAR WITH AS-BUILT PLANS UPON COMPLETION OF THE PROJECT.
21.

MEANS AND METHODS OF CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, THE DESIGN AND PLACEMENT OF FORMS AND SHORING ARE THE RESPONSIBILITY OF THE CONTRACTOR.
22.

THE GENERAL CONTRACTOR SHALL COORDINATE/ASSIST DIFFERENT TRADE CONTRACTORS IN TERMS OF COORDINATION OF SITE ACCESS.
23.

ALL ARCHITECTURAL, MECHANICAL & ELECTRICAL SYSTEM AND COMPONENTS IN THIS FACILITY SHALL BE INSTALLED TO RESIST WIND, ICE AND SNOW FORCES AS PER NATIONAL STANDARDS AND BUILDING CODES (LATEST ADOPTED EDITION).
24.

U.S. CELLULAR WILL OBTAIN NECESSARY PERMITS AND LICENSES FROM THE FEDERAL COMMUNICATIONS COMMISSION (FCC) AND THE FEDERAL AVIATION ADMINISTRATION (FAA). UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS, CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL OTHER PERMITS NECESSARY FOR CONSTRUCTION.
25.

U.S. CELLULAR WILL ORDER AND PAY FOR ANY NECESSARY ELECTRIC AND TELEPHONE UTILITY INSTALLATIONS TO THE POINT OF TERMINATION AS SHOWN ON THE PROJECT PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITIES.
26.

U.S. CELLULAR WILL PROVIDE PRIMARY HORIZONTAL AND VERTICAL CONTROL FOR CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE TO CORRECTLY TRANSFER LINE AND GRADE. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL STAKING OR RE-STAKING.
27.

U.S. CELLULAR MAY RETAIN THE SERVICES OF A TESTING LABORATORY TO PERFORM QUALITY ASSURANCE TESTING ON VARIOUS PORTIONS OF THE CONTRACTORS WORK. WHEN REQUESTED, THE CONTRACTOR SHALL INFORM THE TESTING LABORATORY AND ASSIST THEM IN COMPLETING TESTS.
28.

THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY UTILITIES OR FACILITIES IT DEEMS NECESSARY TO COMPLETE IT'S WORK. THIS INCLUDES, BUT IS NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, HEAT, LIGHTING OR SECURITY.
29.

NOTIFY ENGINEER 2 DAYS IN ADVANCE OF INITIATING SITE CONSTRUCTION ACTIVITIES.

DEMOLITION

1.

PERFORM DEMOLITION AND REMOVAL OF EXISTING MATERIALS OR STRUCTURES AS SHOWN ON THE PLANS AND AS SPECIFIED IN SPECIAL CONDITIONS. PROTECT EXISTING FACILITIES OR STRUCTURES THAT ARE TO REMAIN.
2.

COMPLETE DEMOLITION IN A SYSTEMATIC MANNER BEGINNING AT THE HIGHEST LEVEL.
3.

NEATLY SAW OR CUT JOINTS AT THE LIMITS OF REMOVAL; WHENEVER POSSIBLE LOCATE CUTS AT EXISTING JOINTS.
4.

PATCH AND REPAIR ANY DAMAGED SURFACES OR STRUCTURAL MEMBERS AT THE LIMITS OF REMOVAL.
5.

REMOVAL DEMOLITION DEBRIS FROM THE SITE ON A REGULAR BASIS. DISPOSE ALL DEBRIS OFFSITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. BURNING OF MATERIAL SHALL NOT BE ALLOWED UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.

CLEARING AND GRUBBING

1.

REMOVE TREES, STUMPS, SHRUBS, GRASS AND OTHER VEGETATION AS SHOWN ON THE PLANS TO ALLOW FOR CONSTRUCTION OF NEW CELLULAR FACILITIES.
2.

WHEN POSSIBLE, NEATLY TRIM OR CUT BACK EXISTING TREES OR VEGETATION TO ALLOW FOR CONSTRUCTION OF NEW CELLULAR FACILITIES.
3.

WHEN CLEARING TREES, PROTECT ALL SURROUNDING STRUCTURES, PAVEMENTS AND LANDSCAPING BY TOPPING, TRIMMING AND USING GUY LINES.
4.

COMPLETELY REMOVE ALL STUMPS AND ROOTS. STUMPS AND ROOTS MAY BE REMOVED BY GRUBBING, CHIPPING OR GRINDING.
5.

DISPOSE OF ALL DEBRIS OFFSITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. BURNING OF MATERIAL SHALL NOT BE ALLOWED UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.

EARTHWORK

1.

REMOVE TOPSOIL FROM BENEATH ALL PROPOSED ROADS, PARKING AREAS, BUILDINGS AND AREAS TO RECEIVE MORE THAN 6" OF FILL. STOCKPILE TOPSOIL FOR USE DURING RESTORATION.
2.

ALL TREES DESIGNATED TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION BY A 5 FOOT HIGH TREE BARRIER UTILIZING WIRE FENCING, OR PROTECTIVE SAFETY NETTING.
3.

GRADE AREAS IN ACCORDANCE WITH ELEVATIONS AND GRADES SHOWN ON THE PLANS OR AS NECESSARY IN GRADING TO PROVIDE DRAINAGE.
4.

FILL MATERIAL USED IN GRADING OPERATIONS SHALL CONSIST OF EARTH WHICH IS FREE OF DEBRIS, BOULDERS OR ORGANIC MATERIAL. FILL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 90% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.
5.

ALL FILL SHALL BE TESTED FOR FIELD DENSITY. TESTS SHALL BE TAKEN IN EACH LIFT OF FILL AT LOCATIONS DESIGNATED BY THE OWNER'S REPRESENTATIVE.
6.

SELECT GRANULAR FILL SHALL BE USED WHEN FILLING OR BACKFILLING BENEATH AND/OR AROUND ANY STRUCTURES, ROADS OR PARKING AREAS. SELECT FILL SHALL BE PLACED IN 9" LIFTS AND COMPACTED TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. SELECT GRANULAR FILL SHALL CONSIST OF SAND, GRAVEL OR MIXTURE OF SAND AND GRAVEL FREE OF ORGANIC MATERIAL. THE MATERIAL SHALL HAVE A 2" MAXIMUM SIZE, LESS THAN 10% PASSING NO. 200 SIEVE, A PLASTICITY INDEX OF 6 OR LESS, AND A UNIFORMITY COEFFICIENT OF 5 OR GREATER.
7.

ALL DISTURBED AREAS SHALL BE RESTORED AS SOON AS POSSIBLE WITH 4" TOPSOIL, SEED, FERTILIZER AND MULCH. GRASS SEED SHALL BE A SUITABLE MIX CONTAINING BOTH ANNUAL AND PERENNIAL VARIETIES OF FESCUE, RYE AND BLUEGRASS. FERTILIZER SHALL CONTAIN A MINIMUM OF 10% EACH OF NITROGEN, PHOSPHORIC ACID AND POTASH. MULCH SHALL BE A STRAW OR HAY MIXTURE FREE OF NOXIOUS WEED SEEDS. APPLY SEED AND FERTILIZER AS RECOMMENDED BY MANUFACTURER. MULCH SHALL BE CRIMPED AFTER APPLICATION.
8.

THE CONTRACTOR SHALL VERIFY, UPON COMPLETION OF DEVELOPMENT, THE SITE IS PROPERLY STABILIZED AND ALL INDICATED SWALES AND STORMWATER FACILITIES ARE CONSTRUCTED AS INDICATED ON THE PLANS.
9.

TOWER, TOWER FOUNDATIONS, SLABS, MODULAR BUILDINGS, AND ELECTRICAL AND MECHANICAL FEATURES ARE TO BE DESIGNED AND SPECIFIED BY OTHERS.

EROSION CONTROL

1.

CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH THE MOST STRINGENT OF: PROJECT PLANS, SPECIAL PROVISIONS, APPLICABLE STATE DEPARTMENT OF NATURAL RESOURCES OR LOCAL ORDINANCES.
2.

ESTABLISH EROSION CONTROL MEASURES PRIOR TO STARTING CONSTRUCTION AND MAINTAIN THROUGHOUT CONSTRUCTION. INSPECT EROSION CONTROL MEASURES FOLLOWING EACH RAINFALL EVENT AND REPAIR AS NECESSARY.
3.

SEDIMENTATION CONTROL SHALL BE ACCOMPLISHED DURING CONSTRUCTION THROUGH THE USE OF SILT FENCING PLACED AS SHOWN ON THE ATTACHED PLAN. THE CONTROL DEVICES SHALL BE SET AT THE ONSET OF SITE GRADING TO PREVENT SILTING OF THE EXISTING STORMWATER FACILITIES.

ROAD AND PARKING AREA CONSTRUCTION

1.

PREPARE SUBGRADE FOR ROADS AND PARKING AREAS IN ACCORDANCE WITH "EARTHWORK" SECTION.
2.

PROOF ROLL ROAD TO IDENTIFY UNSUITABLE MATERIALS. EXCAVATE UNSUITABLE MATERIAL AND DISPOSE OFFSITE. BACKFILL UNDERCUT EXCAVATION USING 3" BREAKER RUN MATERIAL. BREAKER RUN MATERIAL SHALL BE CRUSHED STONE MEETING THE FOLLOWING GRADATION:

	SIEVE SIZE	% WEIGHT PASSING
	3"	100
	1-1/2"	0-50
	3/4"	0-20
	#200	0-10
3.

PLACE CRUSHED AGGREGATE BASE COURSE IN MAXIMUM OF 6" THICK LIFTS IN ACCORDANCE WITH DETAIL DRAWINGS. MOISTURE CONDITION BASE COURSE AS NECESSARY TO ACHIEVE COMPACTION. BASE COURSE SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. BASE COURSE MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:

3" BASE COURSE	SIEVE SIZE	% WEIGHT PASSING
	3"	100
	2-1/2"	25-60
	3/4"	0-20
	3/8"	0-5

1-1/2" BASE COURSE	SIEVE SIZE	% WEIGHT PASSING
	1-1/2"	100
	1"	70-100
	3/4"	55-95
	3/8"	30-65
	#4	25-55
	#10	15-40
	#200	0-10
4.

PLACE BASE COURSE WITH CROWN OR UNIFORM SLOPE AS NECESSARY TO PROVIDE DRAINAGE FROM THE SITE.
5.

GEOTEXTILE FABRIC SHALL BE USED IN THE EVENT OF UNSTABLE SOIL CONDITIONS. VERIFICATION OF SUCH CONDITIONS IS THE RESPONSIBILITY OF THE CONTRACTOR.

CONSULTANT:



Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:



U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT., NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

GENERAL SPECIFICATIONS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY	DCL
PLOT DATE	8/16/2019
PROJECT NUMBER	20809
SET TYPE	FINAL CDs
SHEET NUMBER	G-002

1. CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94. CONCRETE SHALL BE 6 BAG MIX HAVING A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI, MAXIMUM AGGREGATE SIZE OF 1", MAXIMUM WATER CEMENT RATIO OF 0.45, AIR ENTRAINMENT OF 6% +/- 1%, AND SLUMP OF 3" +/- 1". DEVIATIONS FROM THE MIX MUST BE APPROVED BY U.S. CELLULAR PRIOR TO USE.
2. CONCRETE CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE MOST STRINGENT OF: PROJECT PLANS, SPECIAL PROVISIONS, OR THE AMERICAN CONCRETE INSTITUTE (ACI) PUBLICATIONS. CONCRETE WORK FOR TOWER FOUNDATIONS SHALL BE COMPLETED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS PROVIDED BY THE TOWER VENDOR.
3. FORM MATERIALS WILL COMPLY WITH ACI 301. PLYWOOD FORMS SHALL BE APA B-B PLYFORM CLASS I SOUND SHEETS. LUMBER SHALL BE SPRUCE-PINE-FIR SPECIES #2 OR BETTER GRADE. TUBULAR COLUMN FORMS MAY BE SPIRALLY WOUND LAMINATED FIBER MATERIAL. FORM TIES SHALL BE REMOVABLE OR SNAP-OFF METAL TYPE.
4. CONCRETE SHALL BE MADE OF CEMENT MEETING THE REQUIREMENTS OF ASTM C150, NORMAL, TYPE I PORTLAND, FINE AND COARSE AGGREGATES FOR CONCRETE SHALL MEET THE REQUIREMENTS OF ASTM C33.
5. PLACE, SUPPORT AND SECURE REINFORCEMENT STEEL AT LOCATIONS SHOWN ON PLANS. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH ACI 315. REBAR YIELD STRENGTH = 60,000 PSI.
6. AIR ENTRAINING ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTM C260; WATER REDUCING ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTM C494, TYPE A. ALL OTHER ADMIXTURES ARE PROHIBITED WITHOUT PRIOR APPROVAL BY U.S. CELLULAR.
7. VAPOR BARRIER SHALL BE 6 MIL THICK POLYETHYLENE, MEETING THE REQUIREMENTS OF ASTM D2103.
8. CURING COMPOUND SHALL MEET THE REQUIREMENTS OF ASTM C309.
9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
10. ALL CONSTRUCTION AND EXPANSION JOINTS SHALL BE INSTALLED PER THE DRAWINGS.
11. ALL EXPOSED CORNERS OF CONCRETE WORK SHALL BE CHAMFERED 3/4" UNLESS NOTED OTHERWISE.
12. PLACE, SUPPORT AND SECURE REINFORCEMENT STEEL AT LOCATIONS SHOWN ON PLANS. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH ACI 315.
13. ALL FORM WORK SHALL BE RIGID, TIGHT, LEVEL, PLUMB AND SUFFICIENTLY SHORED TO RESIST CONSTRUCTION LOAD CONDITIONS. COAT FORMS WITH RELEASE AGENT PRIOR TO PLACING REINFORCING STEEL.
14. PREPARE SUBGRADE FOR CONCRETE IN ACCORDANCE WITH PROJECT PLANS AND SPECIAL PROVISION. DO NOT PLACE CONCRETE ON FROZEN SUBGRADE.
15. PROVIDE U.S. CELLULAR A MINIMUM OF 48 HRS. NOTICE PRIOR TO PLACING CONCRETE TO ALLOW FOR INSPECTION AND SCHEDULING OF TESTING.
16. UTILIZE CHUTES, TROUGHS OR CONVEYORS TO PLACE CONCRETE SO THAT HANDLING OF CONCRETE IS MINIMIZED. AVOID SEGREGATION OF THE AGGREGATE AND DISTURBING REINFORCING STEEL.
17. UNIFORMLY CONSOLIDATE CONCRETE USING HAND TOOLS OR MECHANICAL VIBRATORS. THOROUGHLY CONSOLIDATE EACH LAYER PRIOR TO PLACING SUBSEQUENT LAYERS.
18. WHEN PLACING OPERATIONS ARE TEMPORARILY SUSPENDED, THE UNFINISHED FACE OF THE POUR SHALL BE COVERED WITH WET BURLAP UNTIL PLACING OPERATIONS ARE RESUMED. WHEN PLACING OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES, PROVIDE AN BONDING AGENT TO CONSTRUCTION JOINT.
19. TROWEL FINISH SURFACES UNLESS OTHERWISE DIRECTED ON THE PLANS.
20. AFTER FINAL FINISHING, PROVIDE POLYETHYLENE VAPOR BARRIER OR CURING COMPOUND TO MAINTAIN MOISTURE AND TEMPERATURE OF CONCRETE.
21. IN EXTREME WEATHER PLACE AND CURE CONCRETE IN ACCORDANCE WITH EITHER ACI 306R-89 FOR COLD WEATHER OR ACI 305R-89 FOR HOT WEATHER.
22. WELDING OF REINFORCING STEEL IS PROHIBITED.
23. REMOVE FORMS IN A MANNER THAT DOES NOT DAMAGE THE CONCRETE. FILL AND PATCH POCKETS OR HOLES ON EXPOSED SURFACES USING MORTAR MIXTURE.
24. PROVIDE TEST CYLINDERS AS FOLLOWS:
 - A. EQUIPMENT ENCLOSURE:
 - 1 CYLINDER AT 7 DAYS.
 - 1 CYLINDER AT 14 DAYS.
 - 2 CYLINDERS AT 28 DAYS.
25. NOTIFY ENGINEER 48 HOURS IN ADVANCE OF TOWER FOUNDATION INSTALLATION.
26. REFER TO TOWER MANUFACTURER SPECIFICATIONS REGARDING FOUNDATION REQUIREMENTS.

- 1.0 SCOPE:
- 1.1 THIS SECTION COVERS THE REQUIREMENTS FOR THE MATERIALS AND THE CONSTRUCTION OF SITE FENCING. SEE SITE PLAN AND DRAWINGS FOR DETAILS.
- 2.0 SPECIAL REQUIREMENTS:
- 2.1 ALL WIRE, FABRIC, FITTINGS, HARDWARE AND STEEL MEMBERS USED FOR SITE AREA FENCING SHALL BE HOT DIPPED GALVANIZED (ASTM A153) OR OTHER APPROVED NON CORROSIVE MATERIAL AND CONFORM TO FEDERAL SPEC RR-F-191G (1-25-74).
- 2.2 ALL NON-CORROSIVE MATERIAL SHALL BE PRE-APPROVED BY THE PROJECT MANAGER.
- 2.3 ANY DAMAGE TO GALVANIZING OR NON-CORROSIVE COATING DURING CONSTRUCTION SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S RECOMMENDED METHODS.
- 3.0 GATE:
- 3.1 LOCATION OF GATE SHALL CONFORM TO THE SITE PLAN.
- 3.2 ALL JOINTS BETWEEN TUBULAR GATE MEMBERS SHALL BE WELDED OR HEAVY FITTINGS PROVIDING RIGID AND WATERTIGHT CONNECTIONS.
- 3.3 GATE HINGES SHALL PROVIDE FOR 180 DEGREE RADIUS GATE SWING. ALL HINGE NUTS SHALL BE ON THE INSIDE AND DOUBLE-NUT TO DETER UNAUTHORIZED ENTRY.
- 3.4 BARBED WIRE GUARD SHALL BE INSTALLED ON TOP OF GATES. ADEQUATE CLEARANCE SHALL BE MAINTAINED TO ALLOW GATE OPERATION.
- 3.5 GATE SHALL BE INSTALLED PLUMB AND SHALL OPEN AND CLOSE FREELY.
- 3.6 GATE POSTS SHALL NOT BE SHARED AS A CORNER POST.
- 4.0 FENCE POSTS:
- 4.1 LOCATION OF CORNER POSTS SHALL BE DETERMINED FROM STAKES AND PROPERTY PINS INSTALLED BY THE REGISTERED LAND SURVEYOR UNDER CONTRACT FOR THE PROJECT. IF THE STAKES ARE NOT PRESENT OR DO NOT CONFORM TO THE SITE PLAN, CONSULT WITH THE PROJECT MANAGER.
- 4.2 CORNER POSTS SHALL BE SET WITHIN ONE INCH (1") OF DIMENSIONS INDICATED ON THE SITE PLAN.
- 4.3 FENCE POSTS SHALL BE VERTICALLY PLUMB IN ALL PLANES WITHIN 1/2 INCH (1/2").
- 4.4 LINE POSTS BETWEEN CORNER AND GATE POSTS SHALL BE EQUALLY SPACED WITH A TEN FOOT (10') MAXIMUM SPACING. GATE POST LOCATIONS SHALL BE IN ACCORDANCE WITH SITE PLAN AND SHALL BE VERIFIED WITH THE PROJECT MANAGER.
- 4.5 ALL FOUR CORNERS POSTS AND BOTH GATE POSTS SHALL BE CONNECTED TO THE SITE GROUNDING SYSTEM (REFER TO GROUNDING SYSTEM STANDARD).
- 4.6 FENCE POST OUTSIDE DIAMETER (O.D.) ARE MINIMUM SPECIFICATIONS. LARGER SIZES MAY BE SUBSTITUTED WITH APPROVAL FROM PROJECT MANAGER.
- 5.0 FABRIC:
- 5.1 FABRIC SHALL BE TENSIONED PER MANUFACTURER'S RECOMMENDATIONS TO PRESENT A NEAT APPEARANCE.
- 5.2 FABRIC SHALL BE SECURED AT CORNER AND GATE POSTS USING STRETCHER BARS AND TENSION BAND CLIPS.
- 5.3 FABRIC SHALL BE SECURED TO THE TOP RAIL AND BRACE RODS USING TIE CLIPS.

CONSULTANT:

 **Edge**
Consulting Engineers, Inc.

624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

 U.S. Cellular

U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT. NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

GENERAL SPECIFICATIONS
FITCHBURG SOUTH (782619)
MADISON, WI

3711.13HS

SUBMITTAL:		
NT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B
CHECKED BY:	DCL	
PLOT DATE	8/16/2019	
PROJECT NUMBER	20809	
SET TYPE	FINAL CDs	
SHEET NUMBER	G-003	

ELECTRICAL NOTES

1.0 GENERAL

- 1.1

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC. FOR A COMPLETE AND PROPERLY OPERATING SYSTEM ENERGIZED THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- 1.2

CONTRACTOR IS TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF PERMANENT POWER TO THE SITE.
- 1.3

CONTRACTOR SHALL OBTAIN ALL NECESSARY BUILDING PERMITS, INSPECTIONS AND APPROVALS, AND PAY ALL REQUIRED FEES PURSUANT TO THE WORK.
- 1.4

ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE NATIONAL, STATE AND LOCAL CODES. ALL COMPONENTS SHALL BE U.L. APPROVED.
- 1.5

CONTRACTOR SHALL BEFORE SUBMITTING HIS BID, VISIT THE SITE OF THE PROJECT AND BECOME FAMILIAR WITH THE CONDITIONS. NO ALLOWANCE WILL BE MADE FOR EXISTING CONDITIONS OR FAILURE OF THE CONTRACTOR TO OBSERVE THEM.
- 1.6

EXACT LOCATION OF ALL EQUIPMENT SHALL BE COORDINATED WITH OWNER AND OTHER TRADES.
- 1.7

CONTRACTOR SHALL PROVIDE ALL VERIFICATION OBSERVATION TESTS AND EXAMINE ALL WORK PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT/ENGINEER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- 1.8

ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN SAFE CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT (SEE NOTE 1.7 FOR EXCEPTIONS). MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, NBFU AND "UL" LISTED.
- 1.9

WHERE EQUIPMENT IS SPECIFIED BY MANUFACTURER AND TYPE, SUBSTITUTION SHALL ONLY BE MADE WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL SUBMIT DETAILS OF PROPOSED MATERIALS, REASON FOR CHANGE AND CHANGE IN CONTRACT AMOUNT.
- 1.10

EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY LABELED WITH ENGRAVED PLASTIC LABELS FOR EACH PANELBOARD, PULL BOX, J-BOX, SWITCH BOX, ETC. IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
- 1.11

THESE PLANS ARE DIAGRAMMATIC ONLY AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE.
- 1.12

THE TEMPERATURE RATING ASSOCIATED WITH THE AMPACITY OF A CONDUCTOR SHALL BE SO SELECTED AND COORDINATED AS TO NOT EXCEED THE LOWEST TEMPERATURE RATING OF ANY CONNECTED TERMINATION, CONDUCTOR, OR DEVICE.
- 1.13

ALL ENCLOSURES CONTAINING THE SERVICE CONDUCTORS-SERVICE RACEWAY, CABLE ARMOR, BOXES, FITTINGS, CABINETS MUST BE EFFECTIVELY BONDED TOGETHER.
- 1.14

ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 UNLESS OTHERWISE SPECIFIED, WITH UV PROTECTION (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH SPECIFIED BY NATIONAL STATE AND LOCAL CODES. IT IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO NOTIFY THE DIGGER HOTLINE OR OTHER SUCH NOTIFYING AGENCY PRIOR TO THE START OF DIGGING, TRENCHING, EXCAVATION, OR OTHER SUCH EARTH REMOVAL; SEE G-001 FOR NOTIFICATION REQUIREMENTS.
- 1.15

THE UNDERGROUND SERVICE ENTRANCE WORK MUST BE CONSTRUCTED ACCORDING TO THE LOCAL BUILDING CODE, NEC & UTILITY STANDARDS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL UTILITY BEFORE QUOTING AND DURING THE CONSTRUCTION.

ELECTRICAL NOTES (CONTINUED)

2.0 MATERIALS, ELECTRICAL WIRING AND RACEWAYS

- 2.1

ALL CIRCUIT BREAKERS, FUSES, CONDUCTORS AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT TO WHICH THEY MAY BE SUBJECTED AND A MINIMUM OF 10,000 AIC RATING UNLESS SPECIFIED OTHERWISE.
- 2.2

PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA "WPD 8" LIFT COVER PLATES.
- 2.3

METER SOCKET AMPERAGE, VOLTAGE AND NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS AND MANUFACTURED BY SQUARE "D" COMPANY OR AN APPROVED EQUAL.
- 2.4

INSTALLATION OF RIGID METAL CONDUIT SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF ARTICLES 300 & 346-NEC. SHALL BE UL APPROVED.
- 2.5

INSTALLATION OF ELECTRICAL METALLIC TUBING (EMT) SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF ARTICLES 300 & 348-NEC. SHALL BE U.L. APPROVED.
- 2.6

INSTALLATION OF INTERMEDIATE METAL CONDUIT (IMC) SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF ARTICLES 300 & 348-NEC. SHALL BE UL APPROVED.
- 2.7

PLASTIC CONDUIT SHALL BE SCHEDULE 40, HIGH IMPACT, POLYVINYL CHLORIDE AND SHALL BE USED WITH UNTHREADED SOLVENT CEMENT PLASTIC CONDUIT FITTINGS. COUPLINGS SHALL HAVE A CENTER STOP TO TYPE ENSURE PROPER SEATING. CONDUIT SHALL BE MANUFACTURED BY CARLON OR ACCEPTABLE EQUAL SHALL BE IN COMPLIANCE WITH ART 300 & 347-NEC, UL APPROVED.
- 2.8

ALL WIRING OF ALL KINDS MUST BE INSTALLED IN CONDUIT, UNLESS OTHERWISE NOTED OR APPROVED BY THE ELECTRICAL ENGINEER.
- 2.9

ALL WIRING SHALL BE IN ACCORDANCE WITH THE (NEC) NATIONAL ELECTRICAL CODE OR AS INDICATED ON PLANS.
- 2.10

RACEWAYS SHALL BE STEEL GALVANIZED AND/OR PAINTED, WITH SIZE AS SPECIFIED AND IN ACCORDANCE WITH THE (NEC) NATIONAL ELECTRICAL CODE UNLESS OTHERWISE NOTED ON PLANS. ALL RACEWAYS SHALL BE APPROVED PRIOR TO INSTALLATION.
- 2.11

JUNCTION BOXES OR PULL BOXES SHALL MEET (NEC) NATIONAL ELECTRICAL CODE STANDARDS AND AS APPROVED FOR INSTALLATION OF RACEWAYS AND WIRING.
- 2.12

THE RACEWAY AND WIRING INSTALLATION SHALL BE GROUNDED PERMANENTLY AND EFFECTIVELY IN ACCORDANCE WITH ARTICLE 250 OF THE (NEC) NATIONAL ELECTRICAL CODE.
- 2.13

THE CONTRACTOR SHALL BE AWARE THAT ALL STATE AND LOCAL CODES SHALL APPLY TO THIS INSTALLATION AND MUST BE ADHERED TO.

3.0 SCOPE OF WORK

- 3.1

THE CONTRACTOR SHALL PROVIDE ALL ELECTRICAL WIRING AND EQUIPMENT UNLESS OTHERWISE INDICATED. MAIN COMPONENTS ARE AS FOLLOWS:

A. PROVIDE ELECTRICAL SERVICE AS INDICATED ON THE DRAWINGS.

B. PROVIDE FIBER CONDUIT WITH PULL WIRE AS INDICATED HEREIN AND ON DRAWINGS.

C. COORDINATE ELECTRICAL SERVICE WITH LOCAL POWER COMPANY.

E. COORDINATE FIBER SERVICE WITH LOCAL FIBER COMPANY.

F. INSTALL WIRE AND CONDUIT AS INDICATED. PROVIDE CABLE SUPPORTS AS INDICATED.

G. PROVIDE GROUNDING AS INDICATED.
- 3.2

ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" OR "AS-BUILT" DRAWINGS AT THE COMPLETION OF THE JOB SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS SHALL BE PROVIDED TO CLIENT. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO CLIENT AT JOB COMPLETION.
- 3.3

PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF ELECTRICAL WORK.
- 3.4

UPON COMPLETION OF WORK, CONDUIT CONTINUITY, SHORT CIRCUIT, AND GROUNDING FALL POTENTIAL TEST WILL BE MADE FOR APPROVAL. SUBMIT TEST REPORTS TO CLIENT. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE IN A COMPLETE AND UNDAMAGED CONDITION.
- 3.5

THE COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF SITE ACCEPTANCE BY CLIENT. ANY WORK MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AND AT THE EXPENSE OF THE CONTRACTOR.
- 3.6

THE ELECTRICAL CONTRACTOR SHALL VERIFY THE ELECTRICAL EQUIPMENT PROVIDED BY CLIENT'S SUPPLIERS.

CONSULTANT:



Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:



US Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT., NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

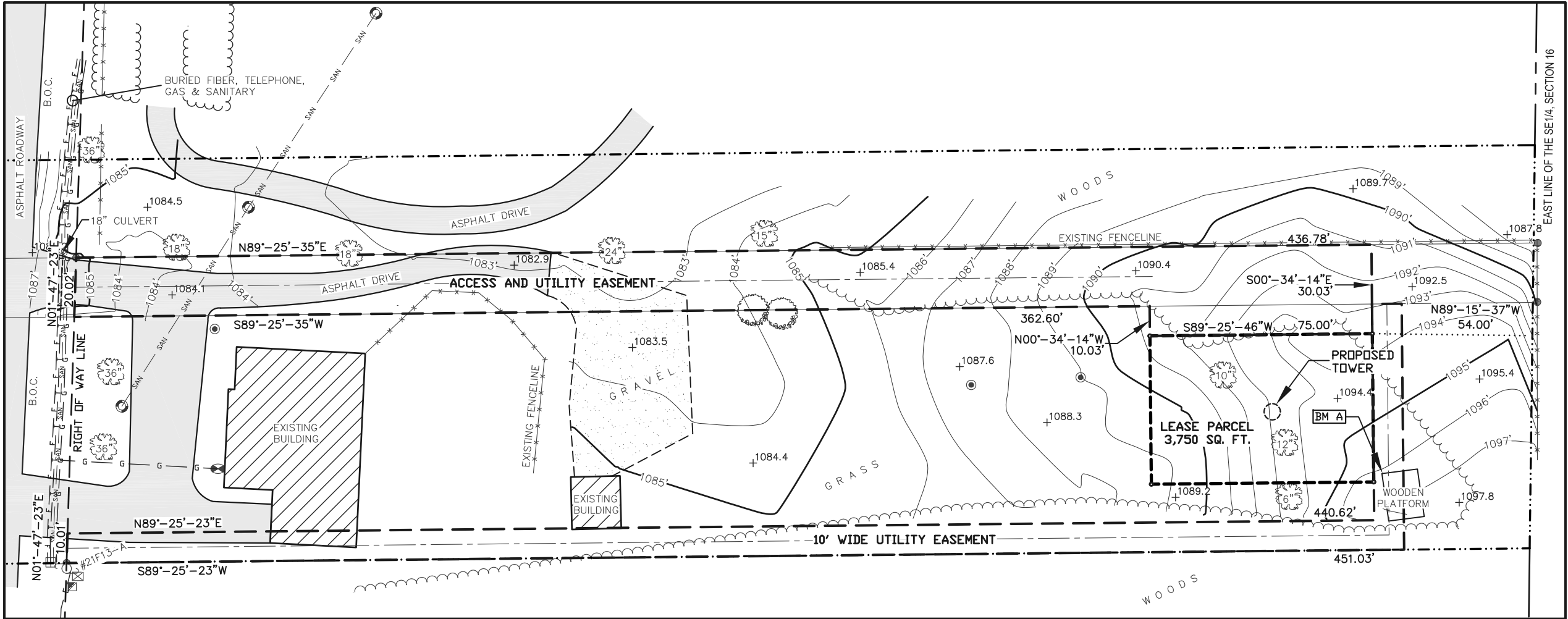
GENERAL SPECIFICATIONS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE	8/16/2019
PROJECT NUMBER	20809
SET TYPE	FINAL CDs
SHEET NUMBER	G-004



SURVEYED FOR:

Edge
Consulting Engineers, Inc.

624 Water Street
Prairie du Sac, WI 53578
608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

SURVEYED FOR:

U.S. Cellular

8410 BRYN MAWR AVENUE
CHICAGO, IL 60631

MERIDIAN
SURVEYING, LLC

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

SITE NAME:
FITCHBURG SOUTH

SITE NUMBER:
782619

SITE ADDRESS:
**2512 S. FISH HATCHERY ROAD
MADISON, WI 53711**

PROPERTY OWNER:
STRASSMAN LIVING TRUST &
HATCHERY HOUSE LLC.
2512 S. FISH HATCHERY ROAD
FITCHBURG, WI 53711

PARCEL NO.:
225/0609-164-8420-2 (EASEMENT) &
225/0609-164-8430-2 (LEASE)

ZONED: RURAL RESIDENTIAL

DEED REFERENCE:
DOC. NO. 4544235 & NO. 4674296

LEASE EXHIBIT
FOR
US CELLULAR

BEING A PART OF THE NE1/4 OF THE
SE1/4, SECTION 16, T.6N., R.9E., CITY
OF FITCHBURG, DANE COUNTY,
WISCONSIN

2	4-10-19	Added Lease and Easements	JD
1	3-19-19	Preliminary Survey	JD
NO.	DATE	DESCRIPTION	BY

DRAWN BY: J.D.	FIELD WORK DATE: 3-14-19
CHECKED BY: S.C.D.	FIELD BOOK: M-53, PG. 9
JOB NO.: 10989	SHEET 2 OF 3

—LEGEND—

- = 1" X 18" IRON PIPE SET
- = 6" NAIL SET
- = 1" IRON PIPE FOUND
- ⊙ = COUNTY MONUMENT FOUND
- ⦿ = METAL POST
- ⊗ = SANITARY MANHOLE
- ⊙ = GAS METER
- ⊞ = FIBER OPTIC PEDESTAL
- ⊞ = TELEPHONE PEDESTAL
- ⊞ = ELECTRIC TRANSFORMER
- ⊙ = EXISTING POWER POLE
- B.O.C. = BACK OF CURB
- SAN — = SANITARY SEWER MAIN
- T — = BURIED TELEPHONE
- G — = BURIED GAS LINE
- F — = BURIED FIBER OPTIC LINE
- * — = CHAINLINK FENCE LINE
- ~ — = EDGE OF BRUSH/WOODS
- - - - = PROPERTY LINE

GRAPHIC SCALE
1 inch = 40 ft.

BENCHMARK INFORMATION
SITE BENCHMARK: (BM A)
SET 6" NAIL IN NW LEG OF WOODEN PLATFORM
ELEVATION: 1097.74'

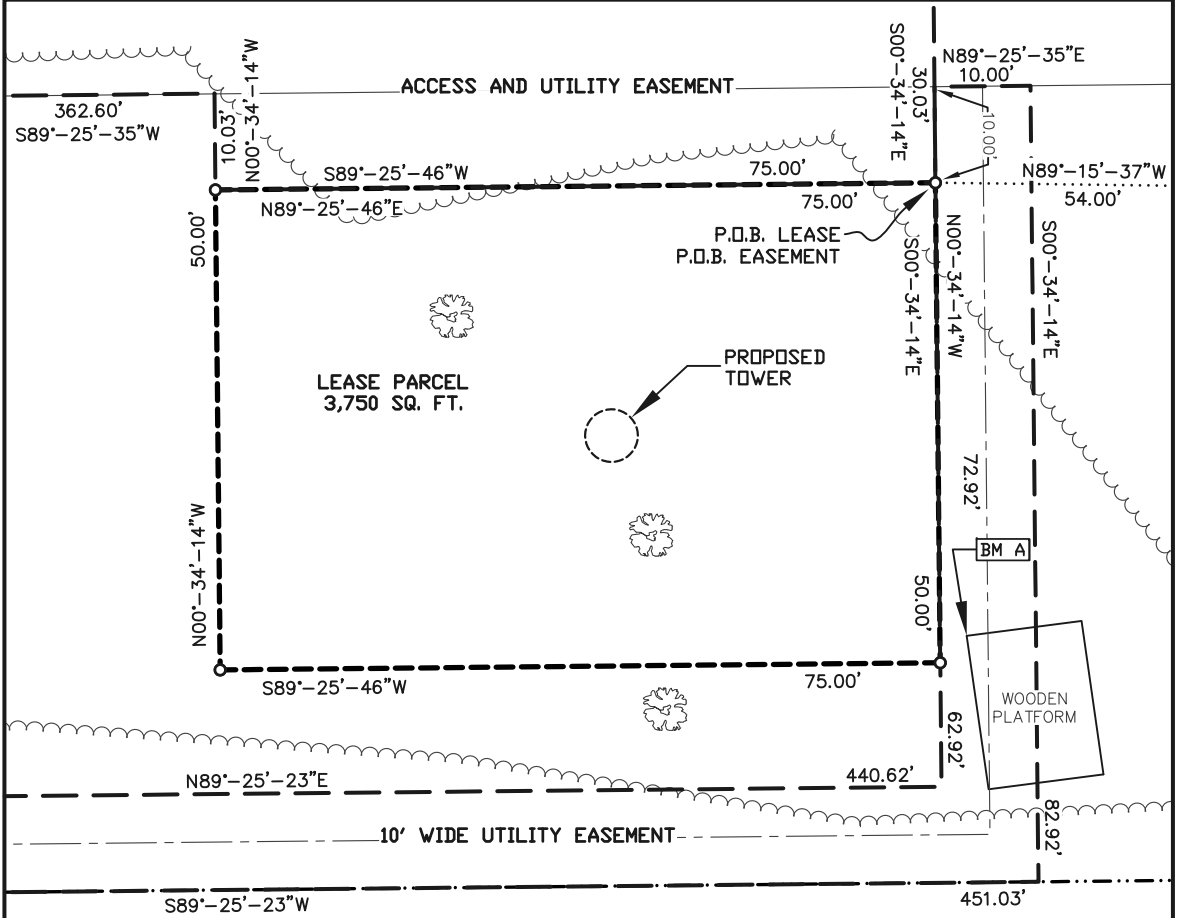
SURVEYOR'S CERTIFICATE
I, Steven C. DeJong, Professional Land Surveyor
of Meridian Surveying, LLC., certify that I have surveyed the
described property and that the map shown is a true and accurate
representation thereof to the best of my knowledge and belief.

Dated this _____ day of _____, 2019.

WISCONSIN PROFESSIONAL LAND SURVEYOR
Steven C. DeJong, S-2791

BEARINGS REFERENCED TO THE DANE COUNTY
COORDINATE SYSTEM (NAD83/2011) - SOUTH
ZONE AND THE EAST LINE OF SE1/4, SECTION
16, T.6N., R.9E, WHICH BEARS: S00°-44'-23"W

GRAPHIC SCALE
1 inch = 20 ft.



LEASE PARCEL

A part of the Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4) of Section Sixteen (16), Township Six (6) North, Range Nine (9) East, City of Fitchburg, Dane County, Wisconsin containing 3,750 square feet (0.086 acres) of land and being described by:

Commencing at the East Quarter Corner of said Section 16; thence S00°-44'-23”W 986.04 feet along the East line of the SE1/4 of said Section 16; thence N89°-15'-37”W 54.00 feet to the point of beginning; thence S00°-34'-14”E 50.00 feet; thence S89°-25'-46”W 75.00 feet; thence N00°-34'-14”W 50.00 feet; thence N89°-25'-46”E 75.00 feet to the point of beginning, being subject to any and all easements and restrictions of record.

ACCESS & UTILITY EASEMENT

A part of the Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4) of Section Sixteen (16), Township Six (6) North, Range Nine (9) East, City of Fitchburg, Dane County, Wisconsin containing 9,496 square feet (0.218 acres) of land and being described by:

Commencing at the East Quarter Corner of said Section 16; thence S00°-44'-23”W 986.04 feet along the East line of the SE1/4 of said Section 16; thence N89°-15'-37”W 54.00 feet to the point of beginning; thence S89°-25'-46”W 75.00 feet; thence N00°-34'-14”W 10.03 feet; thence S89°-25'-35”W 362.60 feet to a point on the easterly right of way line of South Fish Hatchery Road; thence N01°-47'-23”E 20.02 feet along said easterly right of way line; thence N89°-25'-35”E 436.78 feet; thence S00°-34'-14”E 30.03 feet to the point of beginning, being subject to any and all easements and restrictions of record.

10 FOOT WIDE UTILITY EASEMENT

A part of the Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4) of Section Sixteen (16), Township Six (6) North, Range Nine (9) East, City of Fitchburg, Dane County, Wisconsin containing 5,237 square feet (0.120 acres) of land and being described by:

Commencing at the East Quarter Corner of said Section 16; thence S00°-44'-23”W 986.04 feet along the East line of the SE1/4 of said Section 16; thence N89°-15'-37”W 54.00 feet to the point of beginning; thence N00°-34'-14”W 10.00 feet; thence N89°-25'-35”E 10.00 feet; thence S00°-34'-14”E 82.92 feet; thence S89°-25'-23”W 451.03 feet to a point on the easterly right of way line of South Fish Hatchery Road; thence N01°-47'-23”E 10.01 feet along said easterly right of way line; thence N89°-25'-23”E 440.62 feet; thence N00°-34'-14”W 62.92 feet to the point of beginning, being subject to any and all easements and restrictions of record.

SURVEYED FOR:



Edge
Consulting Engineers, Inc.

624 Water Street
Prairie du Sac, WI 53578
608.644.1449 voice
608.644.1549 fax
www.edgeconsult.com

SURVEYED FOR:



8410 BRYN MAWR AVENUE
CHICAGO, IL 60631

MERIDIAN
SURVEYING, LLC

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

SITE NAME:
FITCHBURG SOUTH

SITE NUMBER:
782619

SITE ADDRESS:
**2512 S. FISH HATCHERY ROAD
MADISON, WI 53711**

PROPERTY OWNER:
STRASSMAN LIVING TRUST &
HATCHERY HOUSE LLC.
2512 S. FISH HATCHERY ROAD
FITCHBURG, WI 53711

PARCEL NO.:
225/0609-164-8420-2 (EASEMENT) &
225/0609-164-8430-2 (LEASE)

ZONED: RURAL RESIDENTIAL

DEED REFERENCE:
DOC. NO. 4544235 & NO. 4674296

LEASE EXHIBIT
FOR
US CELLULAR

BEING A PART OF THE NE1/4 OF THE
SE1/4, SECTION 16, T.6N., R.9E., CITY
OF FITCHBURG, DANE COUNTY,
WISCONSIN

2	4-10-19	Added Lease and Easements	JD
1	3-19-19	Preliminary Survey	JD
NO.	DATE	DESCRIPTION	BY

DRAWN BY:	J.D.	FIELD WORK DATE:	3-14-19
CHECKED BY:	S.C.D.	FIELD BOOK:	M-53, PG. 9
JOB NO.:	10989	SHEET	3 OF 3



- NOTE:
1. CONTRACTOR IS TO REFER TO TREE MANAGEMENT PLAN PROVIDED BY OTHERS PRIOR TO CONSTRUCTION.
 2. TO PROTECT ROOT PLATE ZONE, CONTRACTOR TO BORE UNDER ROOTS RATHER THAN CUT WHEN TRENCHING UTILITIES.

LEGEND: (THIS SHEET)

-  EXISTING TREE TO REMAIN
-  EXISTING TREE THAT CAN BE REMOVED

CONSULTANT:

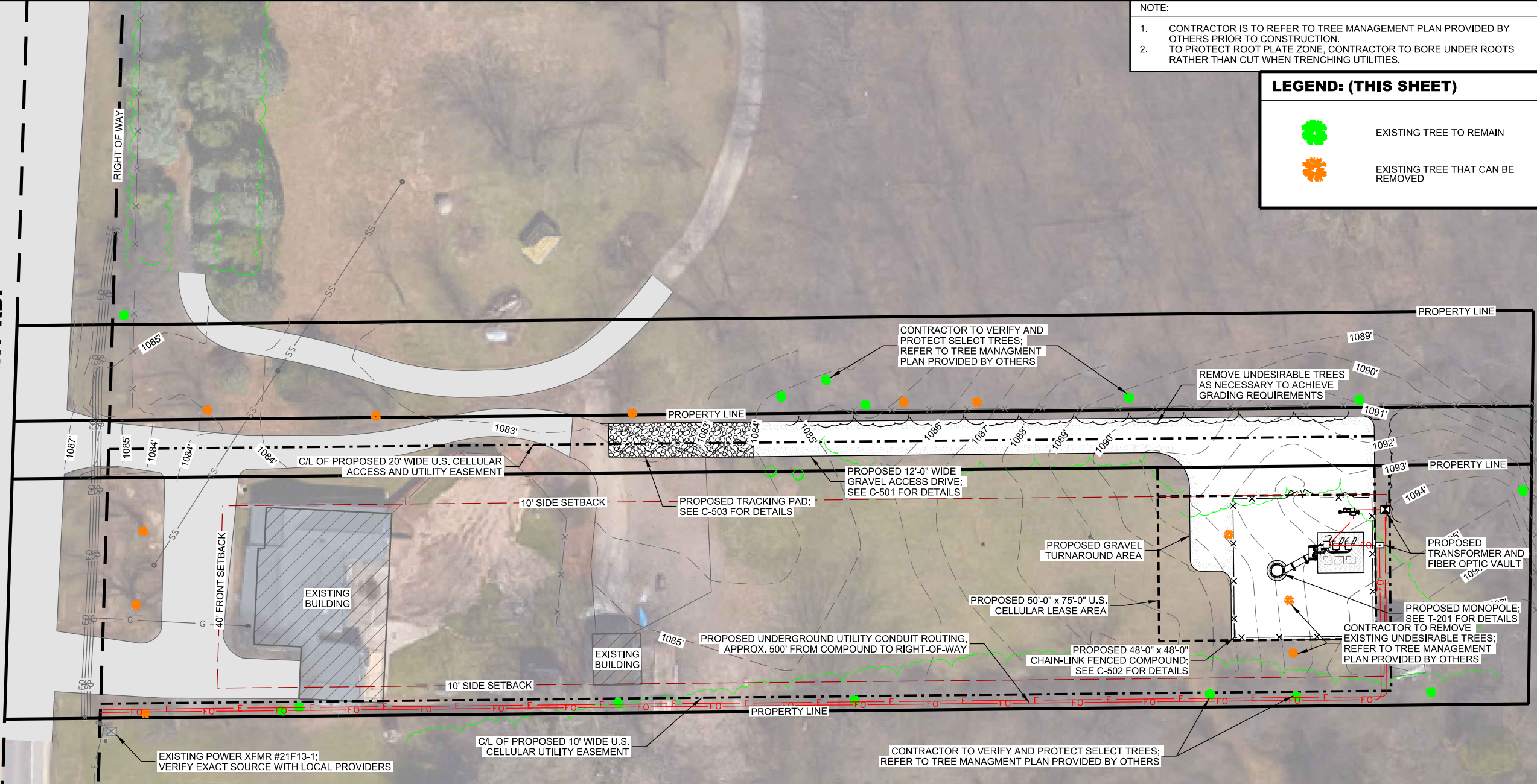
Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

SITE PLAN
FITCHBURG SOUTH (782619)
MADISON, WI

S. FISH HATCHERY RD.



EXISTING POWER XFMR #21F13-1;
VERIFY EXACT SOURCE WITH LOCAL PROVIDERS

C/L OF PROPOSED 10' WIDE U.S.
CELLULAR UTILITY EASEMENT

CONTRACTOR TO VERIFY AND PROTECT SELECT TREES;
REFER TO TREE MANAGEMENT PLAN PROVIDED BY OTHERS

PROPOSED MONOPOLE;
SEE T-201 FOR DETAILS

CONTRACTOR TO REMOVE
EXISTING UNDESIRABLE TREES;
REFER TO TREE MANAGEMENT
PLAN PROVIDED BY OTHERS

PROPOSED 48'-0" x 48'-0"
CHAIN-LINK FENCED COMPOUND;
SEE C-502 FOR DETAILS

PROPOSED 50'-0" x 75'-0" U.S.
CELLULAR LEASE AREA

PROPOSED GRAVEL
TURNAROUND AREA

PROPOSED 12'-0" WIDE
GRAVEL ACCESS DRIVE;
SEE C-501 FOR DETAILS

PROPOSED TRACKING PAD;
SEE C-503 FOR DETAILS

10' SIDE SETBACK

EXISTING BUILDING

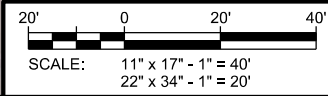
40' FRONT SETBACK

C/L OF PROPOSED 20' WIDE U.S. CELLULAR
ACCESS AND UTILITY EASEMENT

RIGHT OF WAY

APPROX. TOWER LOCATION

© GOOGLE MAPS 2018



A **AERIAL OVERVIEW OF SITE**

SHEET TITLE:

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE:	8/20/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs
SHEET NUMBER:	C-101



CONSULTANT:
Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:
U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT., NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

ENLARGED SITE PLAN
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

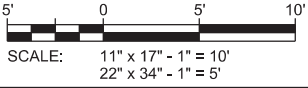
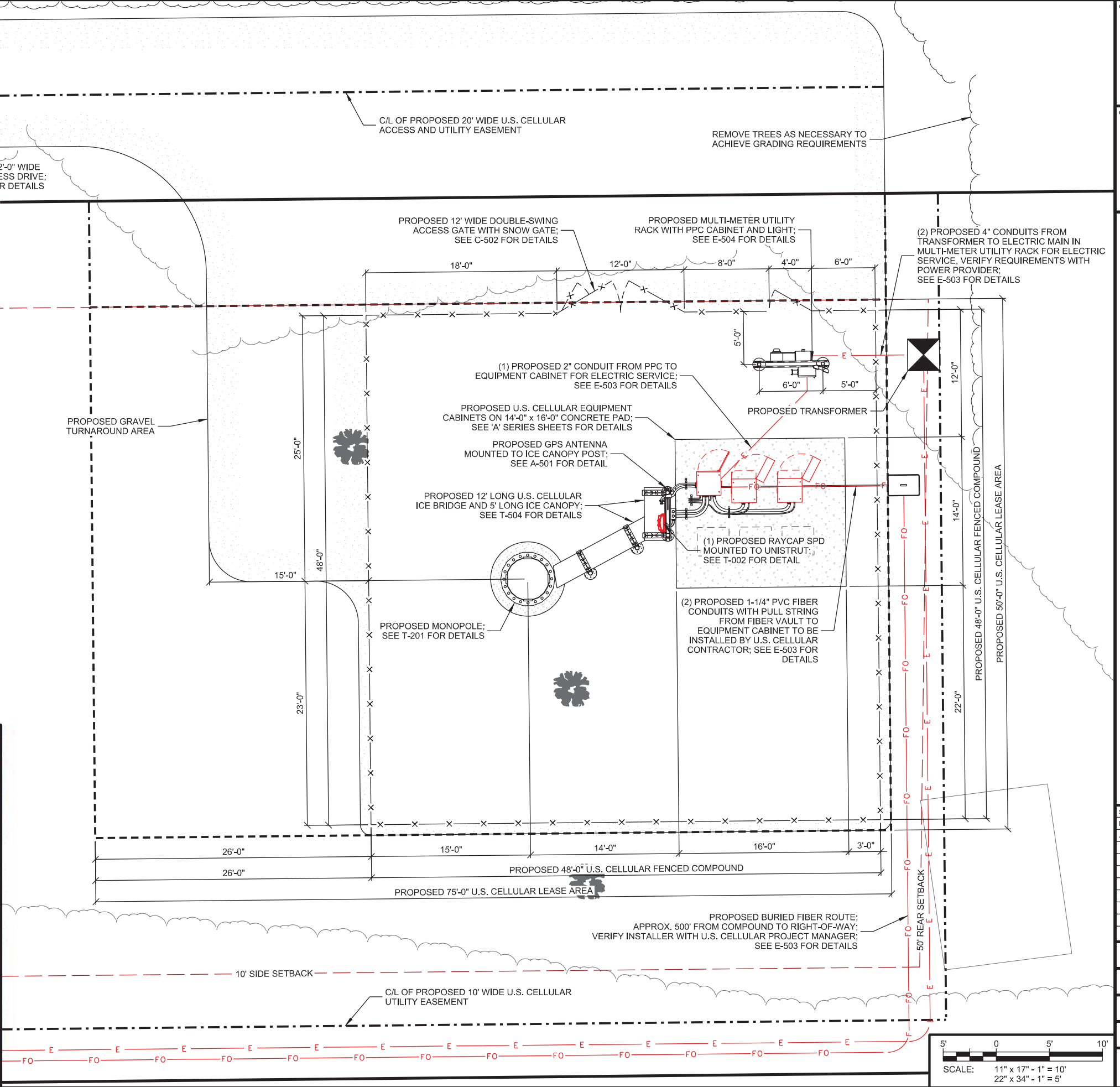
SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE:	8/16/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs

SHEET NUMBER
C-102



A **PROPOSED COMPOUND LOCATION**





NORTH

NOTE:

1. THIS GRADING PLAN WAS PREPARED PRIOR TO RECEIPT OF TOWER FOUNDATION DESIGN AND GEOTECHNICAL REPORT. PROPOSED GRADES, ELEVATIONS AND CORRESPONDING SOIL COVER MAY REQUIRE FINAL ADJUSTMENT ONCE THE ABOVE NOTED DOCUMENTS ARE AVAILABLE. RECOMMENDATIONS IN THIS GRADING PLAN SHOULD NOT SUPERCEDE ANY REQUIREMENTS SPECIFIED IN THE FOUNDATION DESIGN.

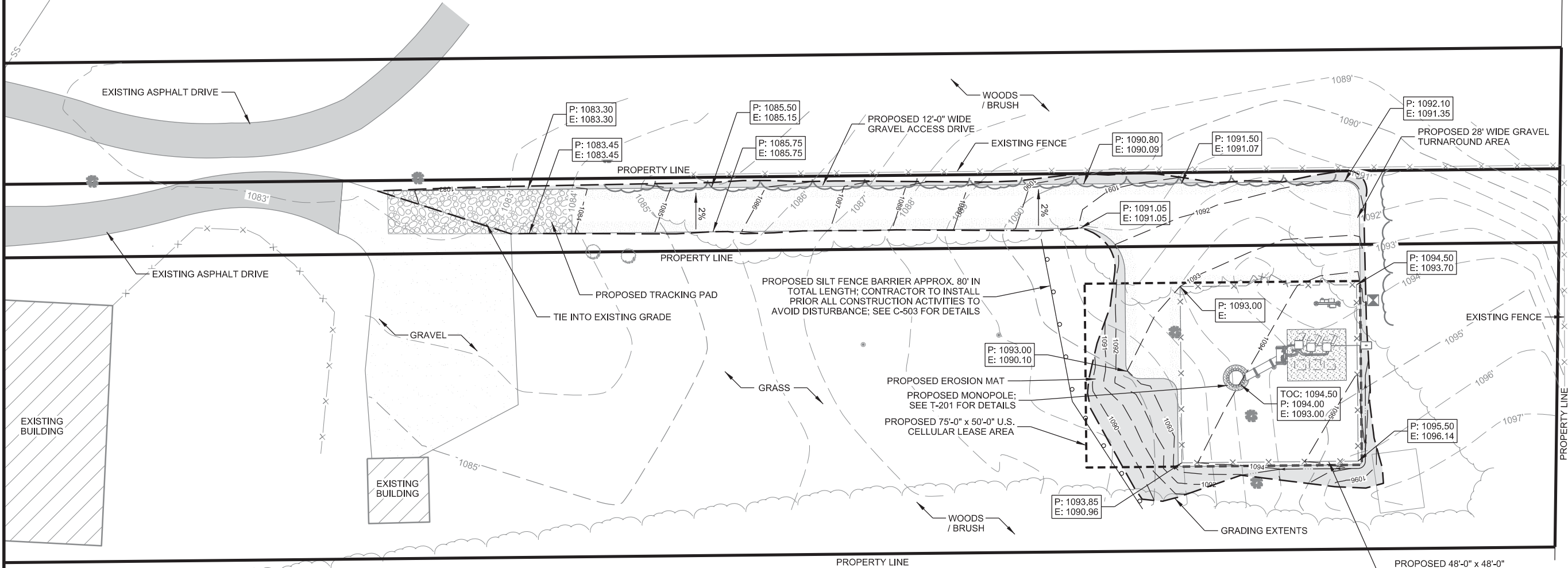
CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

GRADING & EROSION CONTROL PLAN
FITCHBURG SOUTH (782619)
MADISON, WI



LEGEND: (THIS SHEET)

- 973' --- EXISTING CONTOUR GRADES
--- 973' --- PROPOSED CONTOUR GRADES
X SPOT ELEVATIONS
--- PROPOSED DRAINAGE PATH
--- SILT FENCE
EROSION MAT

GRADING NOTES: (THIS SHEET)

1. CONTOUR INTERVAL IS 1 FOOT.
2. CONTRACTOR SHALL GRADUALLY MATCH INTO EXISTING GRADE.
3. NO PROPOSED EARTHWORK SHALL HAVE A GREATER SLOPE THAN 3:1.
4. DRIVEWAY GRADE WITHIN 25 FEET OF PUBLIC ROAD ACCESS POINT SHALL BE LESS THAN 10% (10:1).
5. THIS GRADING PLAN INCLUDES DRIVEWAY SLOPES IN EXCESS ON 10%. SITE ACCESS ON THE STEEP SLOPES MAY BE DIFFICULT DURING WINTER MONTHS AND/OR ICY CONDITIONS.
6. FINISHED GRADE SLOPES GREATER THAN 4:1, DITCH BOTTOMS AND GRASS SURFACES WITHIN 6 FEET OF ANY PAVED OR GRAVEL SURFACE REQUIRE EROSION MAT (TYPE 2.D - 12 MONTH LONGEVITY, DOUBLE NET EROSION CONTROL BLANKET)
7. ALL DISTURBED GRASS/TURF AREAS SHALL BE RESTORED WITH TOPSOIL, SEED AND MULCH. TOPSOIL TO BE 6-INCHES MINIMUM. SEED TO CONSIST OF NATIVE PURE LIVE SEED (PLS) AT 98% PURITY AND 95% GERMINATION. MULCH TO BE WEED-FREE GRAIN STRAW.
8. INSTALL DITCH CHECKS EVERY 300 FEET AND IMMEDIATELY UPSTREAM OF CULVERTS TO PREVENT EXCESSIVE EROSION.
9. CONTRACTOR TO PERFORM MAINTENANCE AND INSPECTION OF EROSION CONTROL DEVICES AND EXPOSED GRADE THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL CONTINUE MAINTENANCE AND INSPECTION UNTIL FULL VEGETATION ESTABLISHMENT AND/OR PROJECT ACCEPTANCE.

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY

DCL

PLOT DATE

8/16/2019

PROJECT NUMBER

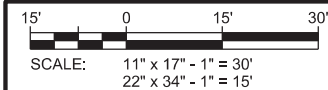
20809

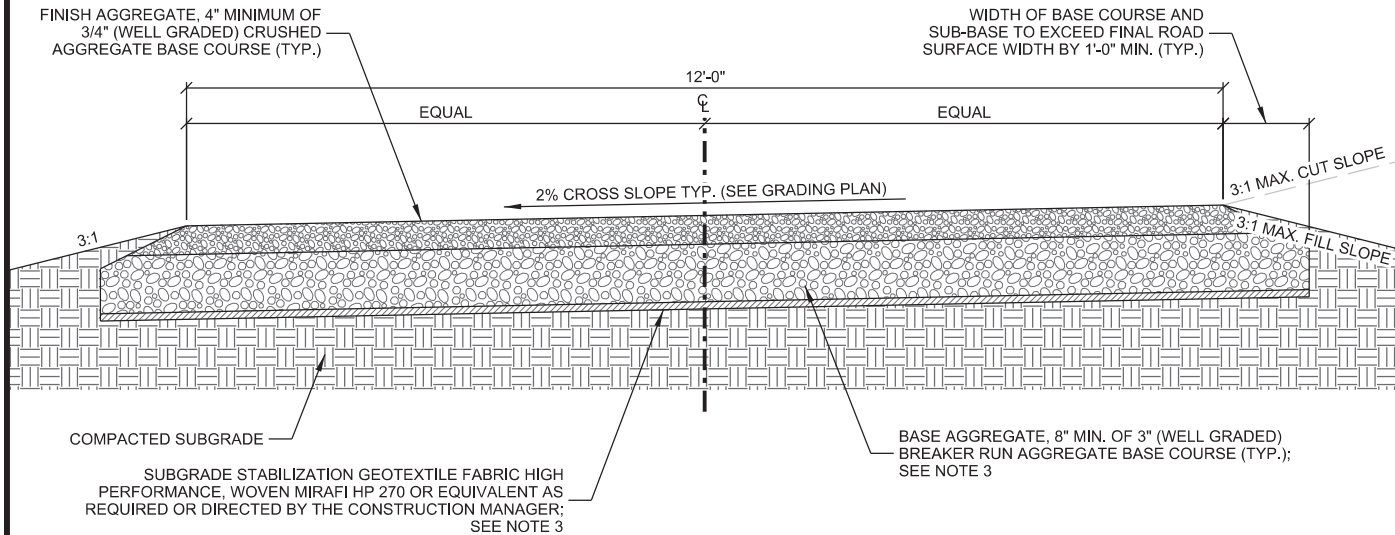
SET TYPE

FINAL CDs

SHEET NUMBER

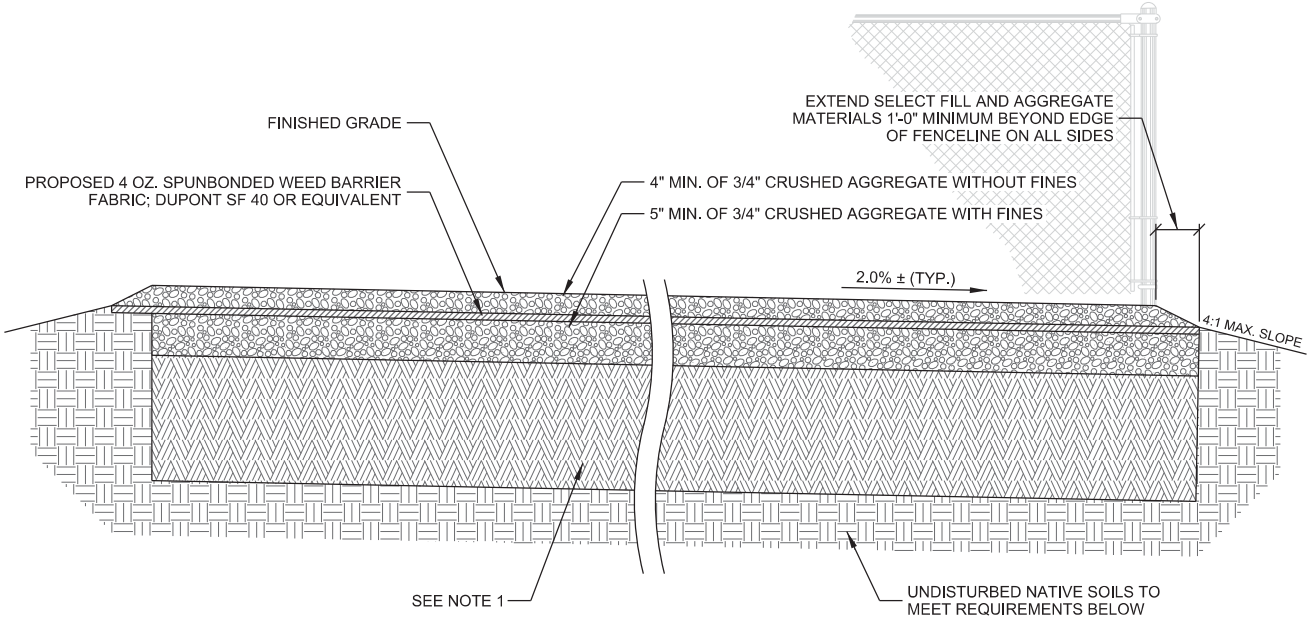
C-103





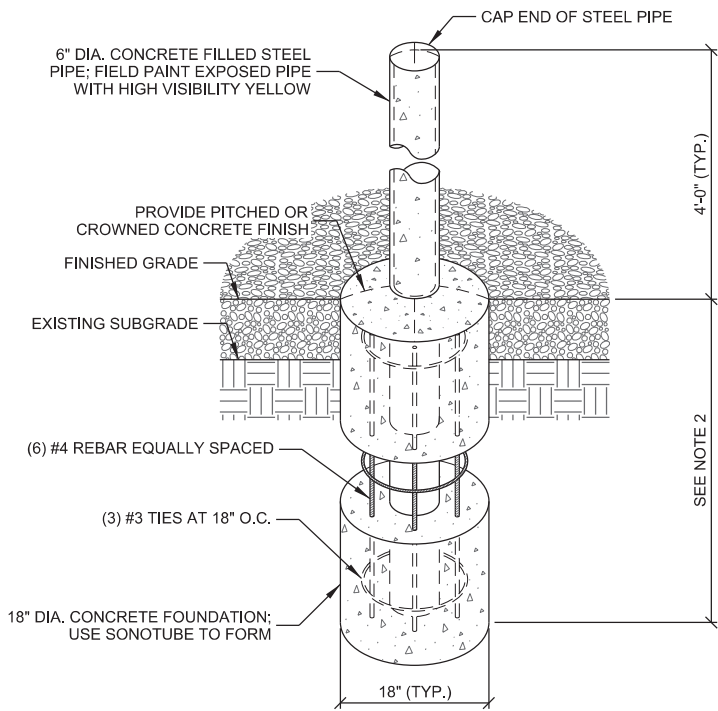
- GENERAL NOTES:
1. REMOVE ALL TOPSOIL, ORGANIC MATERIAL AND WET OR POOR SOILS ALONG ACCESS DRIVE. CONTRACTOR TO REVIEW SITE CONDITIONS AND CONSULT GEOTECHNICAL REPORT FOR ANTICIPATED DEPTH OF SOILS THAT WILL REQUIRE REMOVAL. IF POOR SOILS ARE ENCOUNTERED AT A DEPTH OF MORE THAN 12", CONTACT CONSTRUCTION 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 AND/OR SUBGRADE STABILIZATION 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
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

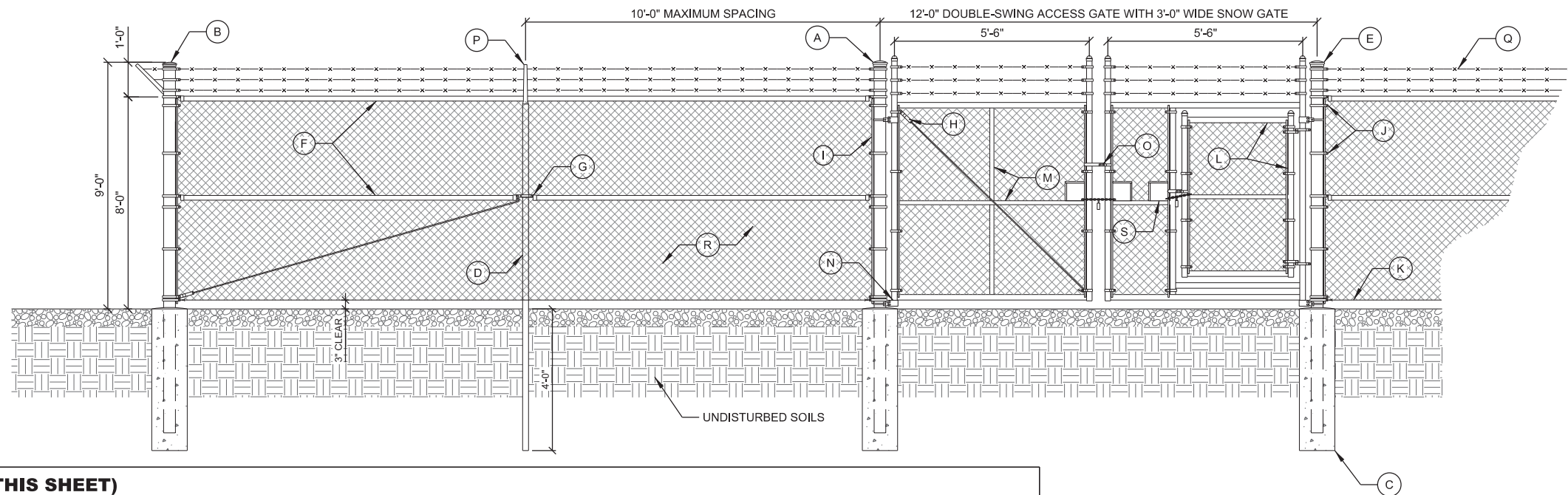
U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

CONSTRUCTION DETAILS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE:

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

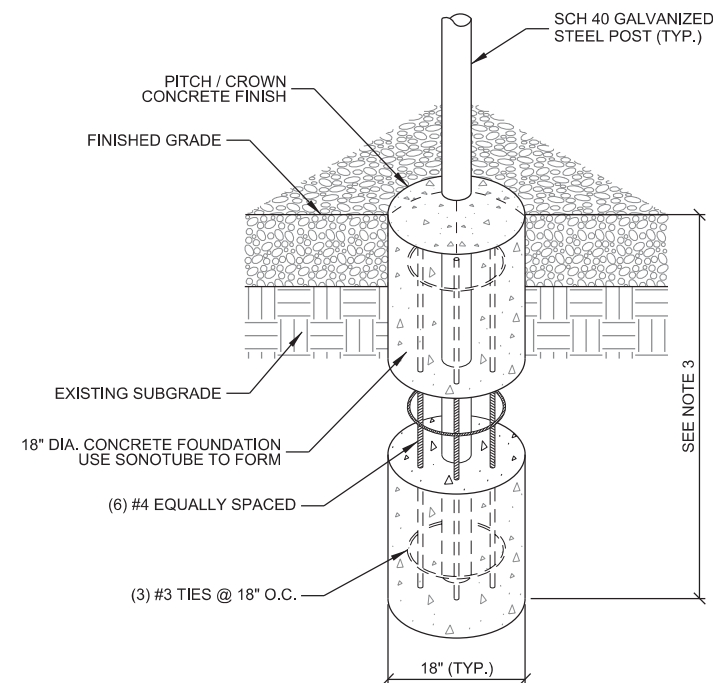
CHECKED BY:	DCL
PLOT DATE:	8/16/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs
SHEET NUMBER:	C-501



REFERENCE NOTES: (THIS SHEET)

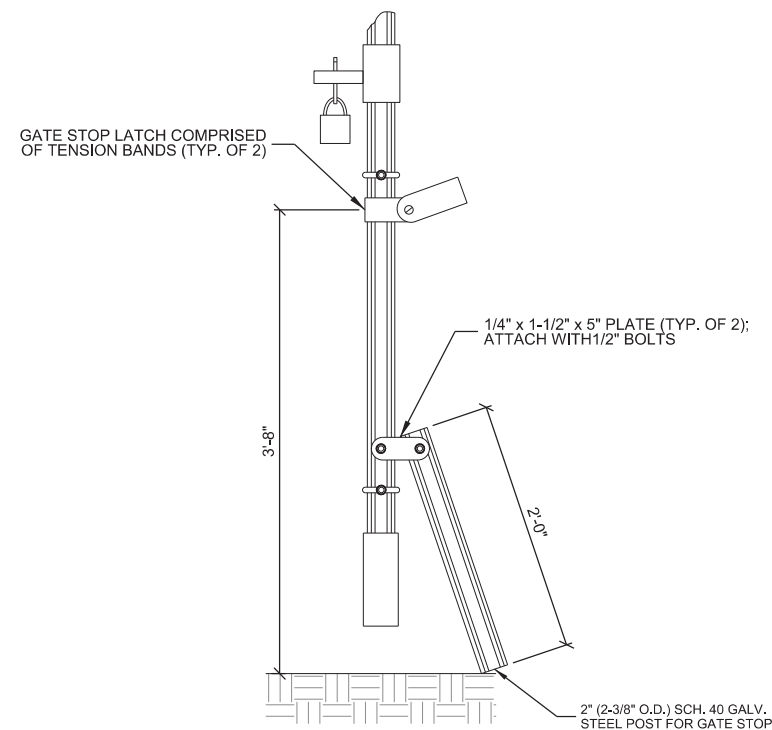
- | | | |
|---|--|--|
| (A) 4" (4-1/2" O.D.) SCH. 40 GALV. STEEL GATE POST | (G) OFFSET BRACE RAIL ENDS FOR MID BRACE RAIL | (N) MALLEABLE BUTT HINGES (TYP.) |
| (B) 4" (4-1/2" O.D.) SCH 40 GALV. STEEL CORNER POST | (H) 5/16" O.D. TRUSS ROD WITH TRUSS TIGHTENER ASSEMBLY | (O) GATE LATCH;
VERIFY REQUIREMENTS WITH FENCE MANUFACTURER |
| (C) CONCRETE PIER FOUNDATION AT CORNERS AND GATE;
SEE DETAIL BELOW | (I) 3/16" x 3/4" STRETCHER BAR; TO EXTEND FULL HEIGHT OF
FENCE FABRIC | (P) 45° BARB ARM FENCE POST CAP |
| (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 | (J) 3/4" TENSION BAND (TYP.). | (Q) (3) STRANDS OF 4 PT. GALV. BARB WIRE |
| (E) FENCE POST CAP (SIZE VARIES) | (K) TENSION WIRE | (R) #9 GAUGE GALV. CHAIN LINK FENCE FABRIC WITH TWISTED TOP
SELVAGE AND KNUCKLED BOTTOM SELVAGE |
| (F) 1-1/4" (1.66" O.D.) TOP RAIL & MID BRACE RAIL PIPE | (L) 1-1/2" (1.9" O.D.) SCH. 40 GALV. STEEL FENCE GATE FRAME | (S) 6" x 6" HANDHOLE FOR CHAIN LOCK |
| | (M) 1-1/4" (1.66" O.D.) SCH. 40 GALV. STEEL HORIZONTAL AND
VERTICAL GATE BRACES | |

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

THIS SPACE INTENTIONALLY LEFT BLANK

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

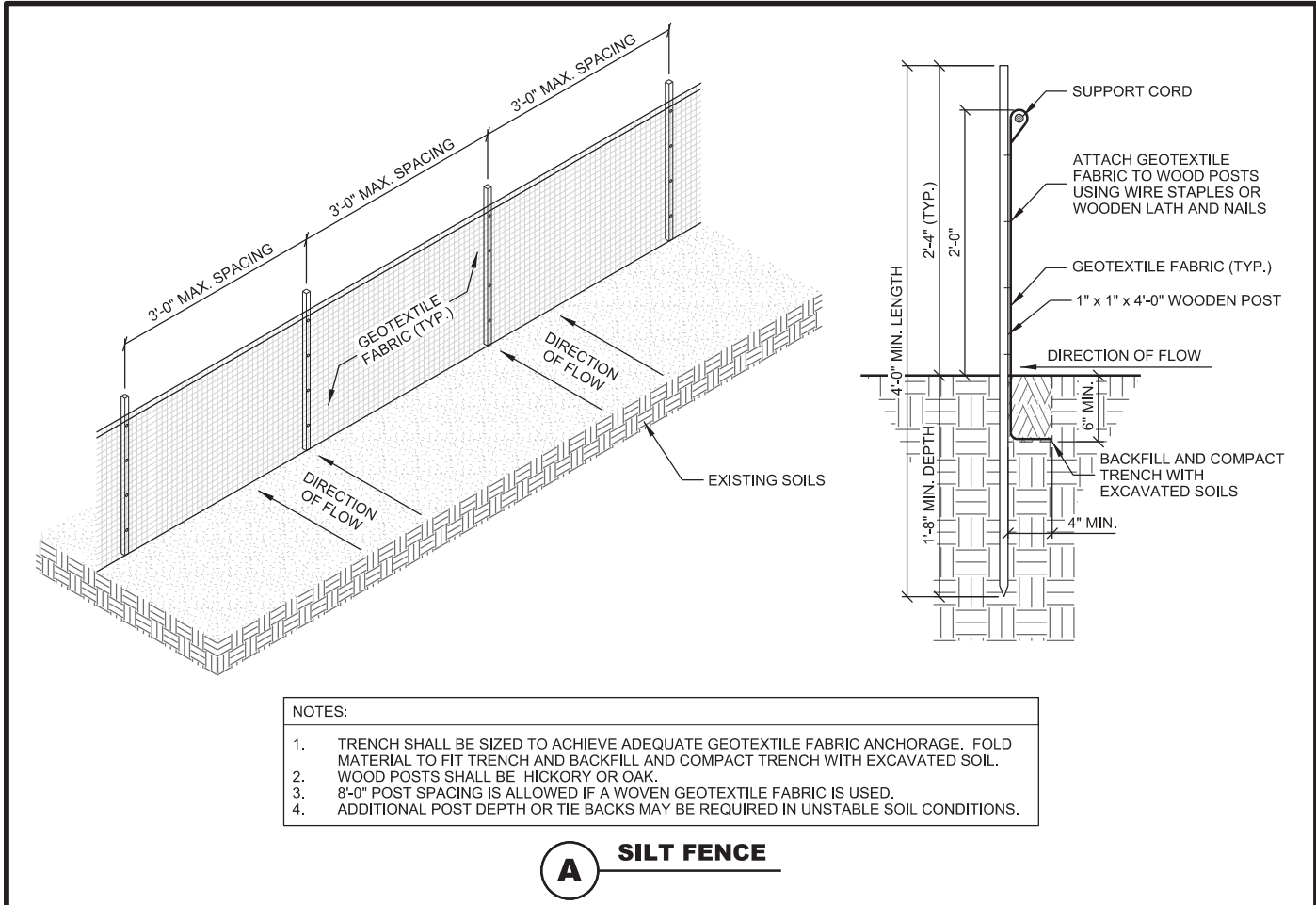
FENCE DETAILS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

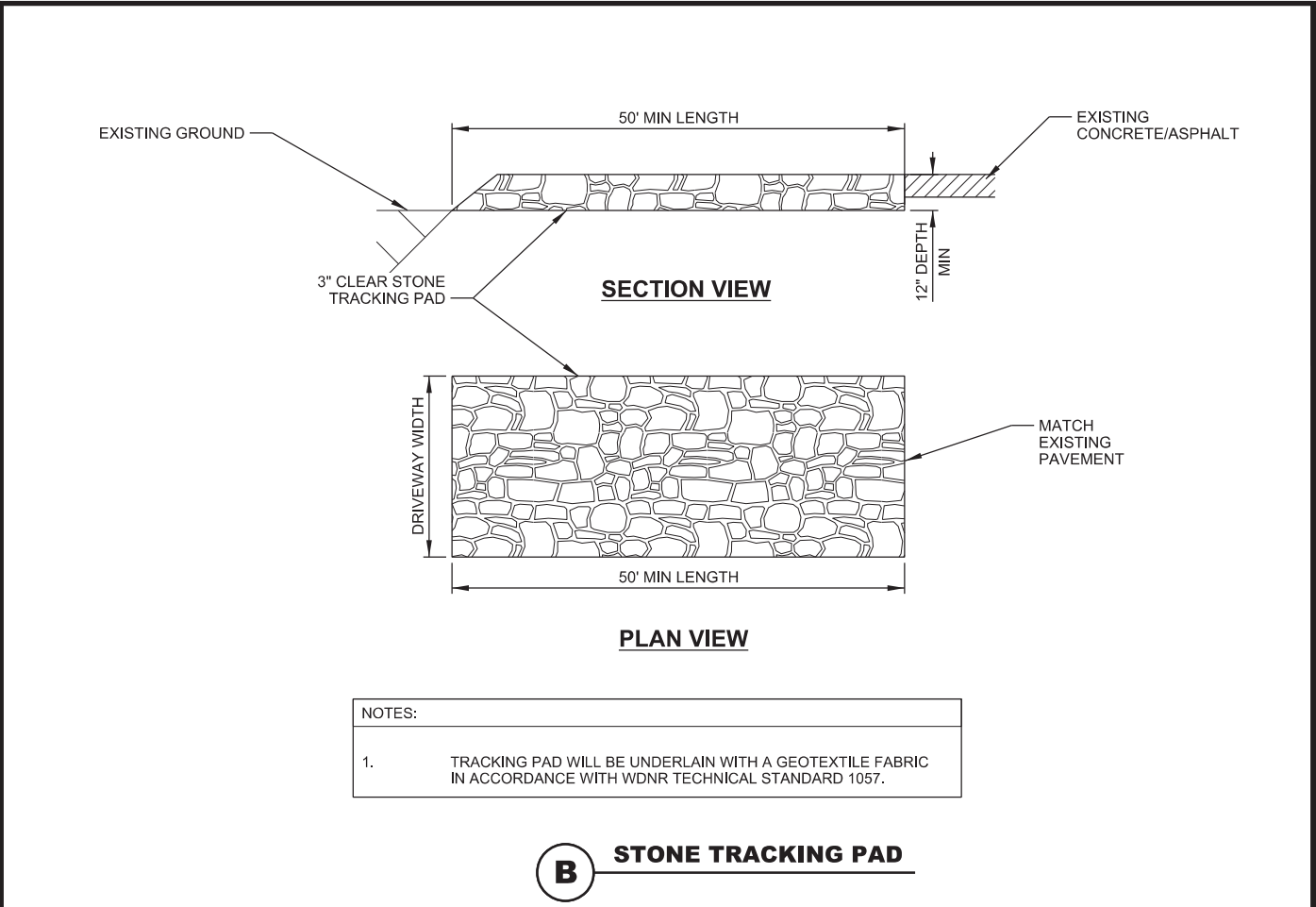
SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY	DCL
PLOT DATE	8/16/2019
PROJECT NUMBER	20809
SET TYPE	FINAL CDs
SHEET NUMBER	C-502



THIS SPACE INTENTIONALLY LEFT BLANK



THIS SPACE INTENTIONALLY LEFT BLANK

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

GRADING DETAILS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY: DCL

PLOT DATE: 8/16/2019

PROJECT NUMBER: 20809

SET TYPE: FINAL CDs

SHEET NUMBER: **C-503**

© EDGE CONSULTING ENGINEERS, INC.

TWIN658LU0p0G

TWIN DUAL BAND | 8-PORT PANEL | XPOL | 65° | 2433 MM (95.8 IN)

PRODUCT OVERVIEW	Frequency Range (MHz)	617-906	617-906	1695-2700	1695-2700
	Array	■ R1	■ R2	■ Y1	■ Y2
	Connector	1-2	3-4	5-6	7-8
	Connector Type	4.3-10 Female Long Neck	4.3-10 Female Long Neck	4.3-10 Female Long Neck	4.3-10 Female Long Neck
	Polarization	XPOL	XPOL	XPOL	XPOL
	Azimuth Beamwidth (avg)	65°	65°	65°	65°
	Electrical Downtilt	0-10°	0-10°	2-10°	2-10°
	Dimensions	2433 x 660 x 214 mm (95.8 x 26.0 x 8.4 in)			



ELECTRICAL SPECIFICATIONS Low Band

■ R1 ■ R2

Frequency Range		MHz	(2x) 617-906		
Frequency Sub-Range		MHz	617-698	698-798	800-906
Polarization		---	(2x) ±45°		
Gain	Low Tilt	dBi	15.1	15.2	15.5
	Mid Tilt	dBi	15.2	15.3	15.6
	High Tilt	dBi	15.3	15.4	15.7
	Over all Tilts	dBi	15.2 ± 0.6	15.3 ± 0.5	15.6 ± 0.5
Azimuth Beamwidth (3 dB)		degrees	68.9 ± 2.6	68.6 ± 3.2	68.4 ± 4.3
Elevation Beamwidth (3 dB)		degrees	10.0 ± 0.7	9.0 ± 0.5	8.0 ± 0.4
Electrical Downtilt		degrees	0-10		
Impedance		Ohms	50		
VSWR		---	1.5:1		
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBm (dBc)	< -110 (< -153)		
Front-to-Back Ratio ± 30° @ 180° from boresite		dB	> 27.7	> 27	> 26.0
Upper Sidelobe Rejection 20° Sector Above Main Beam		dB	> 20.6	> 19	> 17.9
Cross Polar Discrimination at Mechanical Boresight (0°)		dB	> 20.8	> 21	> 23.1
Maximum Power Per Port		Watts	500		
Interband/Intraband Isolation		dB	25/30	25/30	25/30

Standard values based on NGMN-P-BASTA version 9.6 recommendation.

Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

REV082318NA

CONNECTING PEOPLE + TECHNOLOGY
www.amphenol-antennas.com

1 of 6

TWIN658LU000G

TWIN DUAL BAND | 8-PORT PANEL | XPOL | 65° | 2433 MM (95.8 IN)

MECHANICAL SPECIFICATIONS

Antenna	Length	mm (in)	2433 (95.8)
	Width	mm (in)	660 (26.0)
	Depth	mm (in)	214 (8.4)
Net Weight - Antenna Only		kg (lbs)	TBD
Windload	Calculation	km/h (mph)	161 (100)
	Frontal	N (lbf)	1364 (308)
	Lateral	N (lbf)	240 (54)
Survival Wind Speed		km/h (mph)	241 (150)
Connector	Type	---	4,3-10 Female
	Quantity	---	8
	Position	---	Bottom
Radome Color		---	ANSI 70 Gray
Radome Material		---	UV Stabilized ABS or Hips
Lightning Protection (Grounding Type)		---	Direct Ground
Shipping	Length	mm (in)	TBD
	Width	mm (in)	TBD
	Depth	mm (in)	TBD
	Shipping Weight	kg (lbs)	TBD
	Shipping Volume	m ³ (ft ³)	TBD

Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

REV082318NA

CONNECTING PEOPLE + TECHNOLOGY
www.amphenol-antennas.com

5 of 6

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

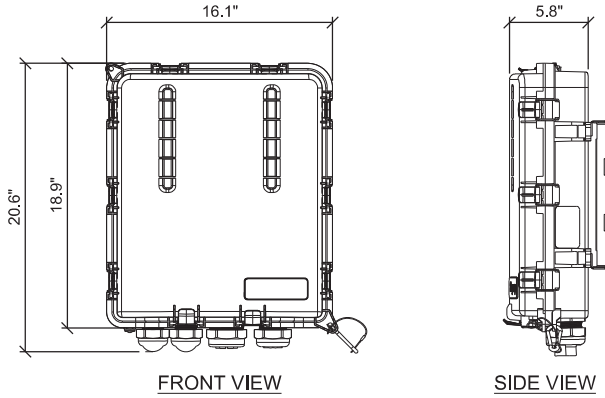
ANTENNA SPECIFICATIONS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE:	8/16/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs
SHEET NUMBER:	T-001



DUAL ERS BRACKET

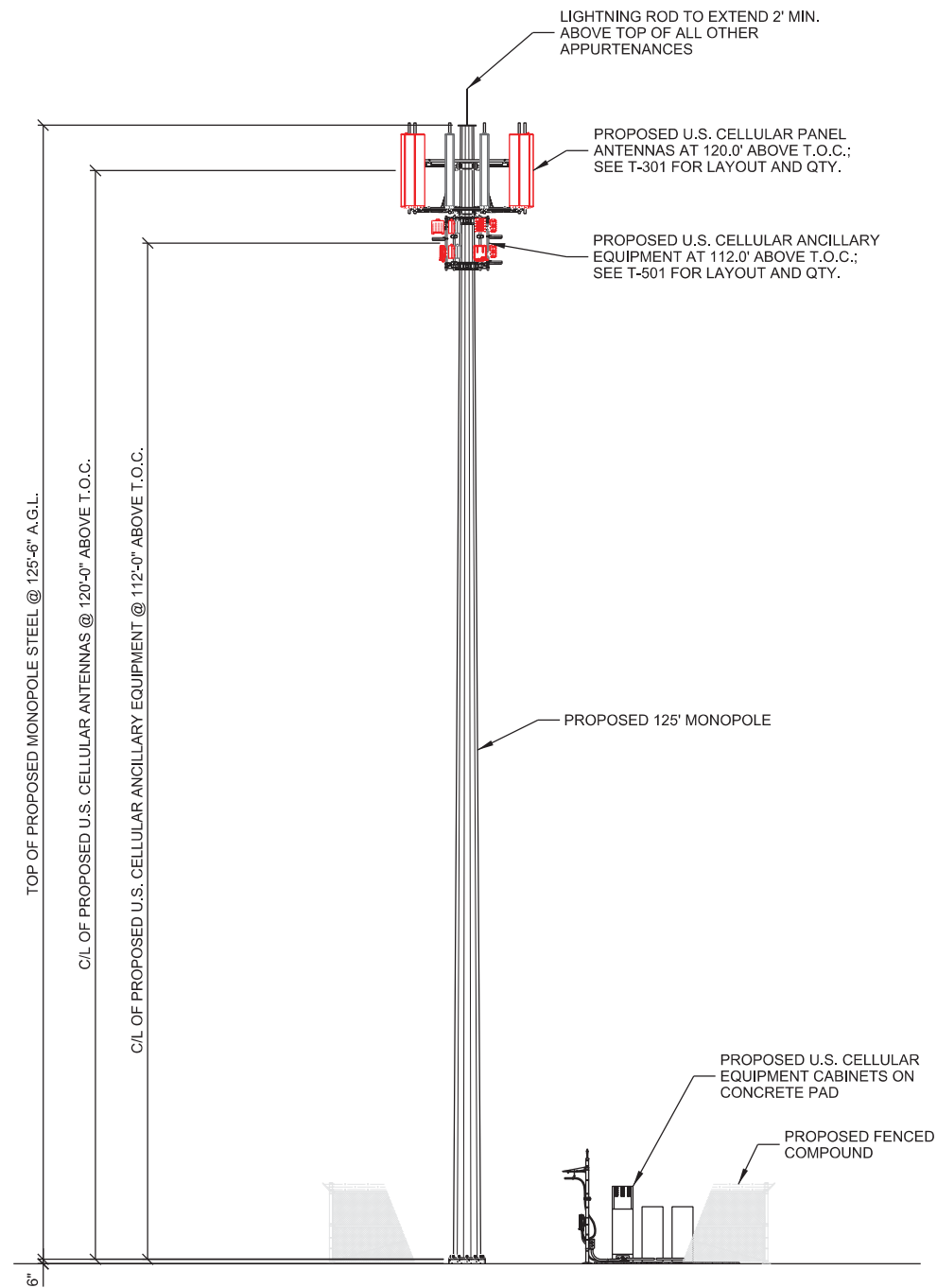
PLAN VIEW



CHECKED BY	DCL
PLOT DATE	8/16/2019
PROJECT NUMBER	20809
SET TYPE	FINAL CDs
SHEET NUMBER	T-002

© EDGE CONSULTING ENGINEERS, INC.

N:\20800\20809\CAD\CDs\Plan\T-201.dgn



NOTES:

1. CONTRACTOR TO VERIFY HEIGHT AND DIRECTION OF ANTENNAS WITH PROJECT MANAGER.
2. CONTRACTOR TO VERIFY LIGHTNING ROD EXTENDS 2' MIN. ABOVE ALL ANTENNAS & EQUIPMENT.

A

SITE ELEVATION

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

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular

U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

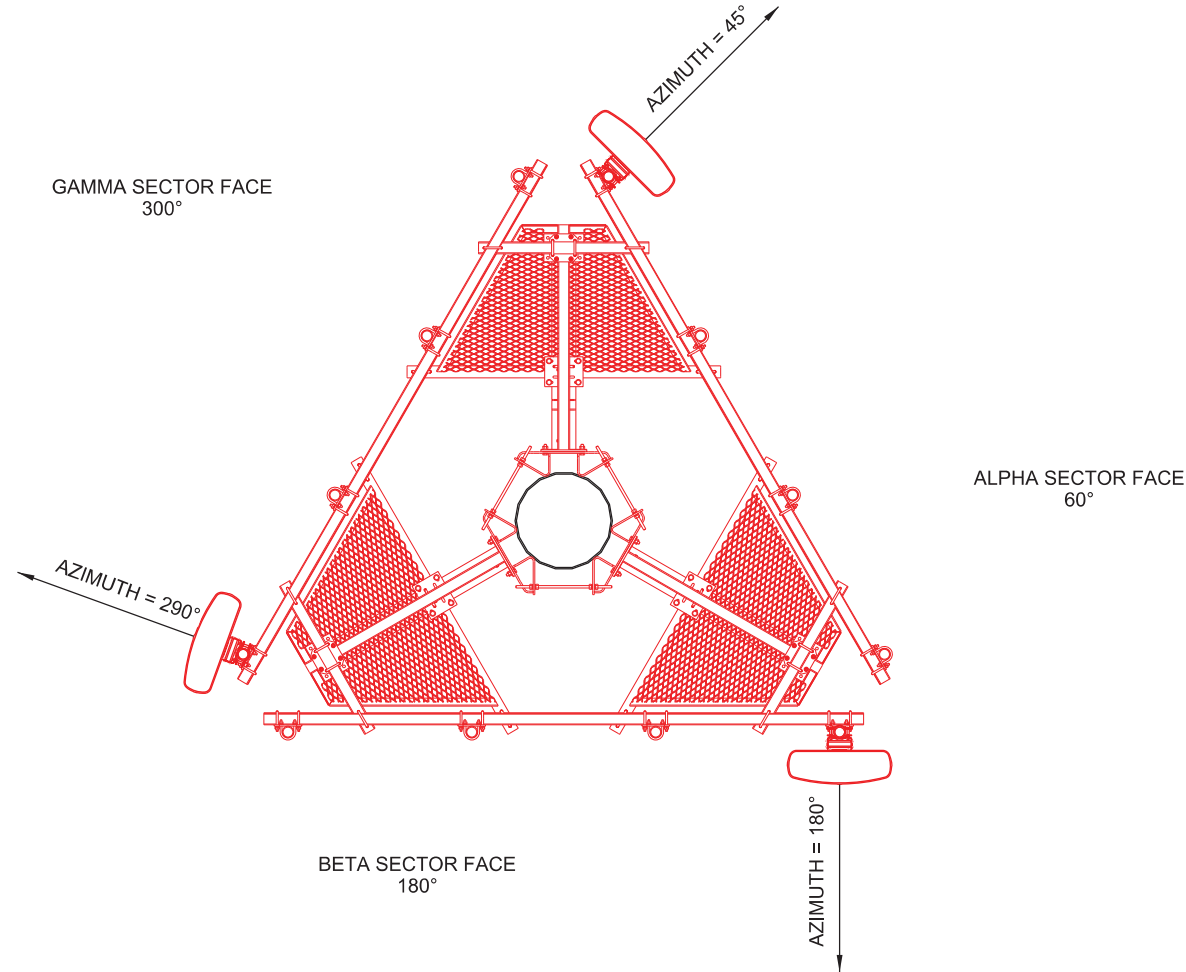
**SITE ELEVATION
FITCHBURG SOUTH (782619)
MADISON, WI**

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY	DCL
PLOT DATE	8/16/2019
PROJECT NUMBER	20809
SET TYPE	FINAL CDs
SHEET NUMBER	T-201



	Antenna Position	Technology	Antenna Model	Antenna Quantity	RAD Center	Azimuth	All M.B. Elect. Tilt	All L.B. Elect. Tilt	Mech. Tilt	Surge Protector Qty.	Radio Model	Radio Qty.	Cable Type	Cable Qty.
ALPHA	A1	LTE	TWIN658LU000G	1	120'	45°	3°	3°	0°	1	RRU-4449	1	1-1/4" Hybrid	1
	A2	-	-	-	-	-	-	-	-	-	-	-	-	-
	A3	-	-	-	-	-	-	-	-	-	-	-	-	-
	A4	-	-	-	-	-	-	-	-	-	-	-	-	-
	A5	-	-	-	-	-	-	-	-	-	-	-	-	-
BETA	B1	LTE	TWIN658LU000G	1	120'	180°	3°	3°	0°	-	RRU-4449	1	Shared	-
	B2	-	-	-	-	-	-	-	-	-	-	-	-	-
	B3	-	-	-	-	-	-	-	-	-	-	-	-	-
	B4	-	-	-	-	-	-	-	-	-	-	-	-	-
	B5	-	-	-	-	-	-	-	-	-	-	-	-	-
GAMMA	G1	LTE	TWIN658LU000G	1	120'	290°	3°	3°	0°	-	RRU-4449	1	Shared	-
	G2	-	-	-	-	-	-	-	-	-	-	-	-	-
	G3	-	-	-	-	-	-	-	-	-	-	-	-	-
	G4	-	-	-	-	-	-	-	-	-	-	-	-	-
	G5	-	-	-	-	-	-	-	-	-	-	-	-	-
Total:				3						1		3		1
NOTE: All low band and mid band RET's on each antenna need to be set to respective value identified in the table for each sector. #AX119														

- NOTE:
- ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.

A ANTENNA AND EQUIPMENT LAYOUT

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

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

ANTENNA AND EQUIPMENT CONFIGURATION
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

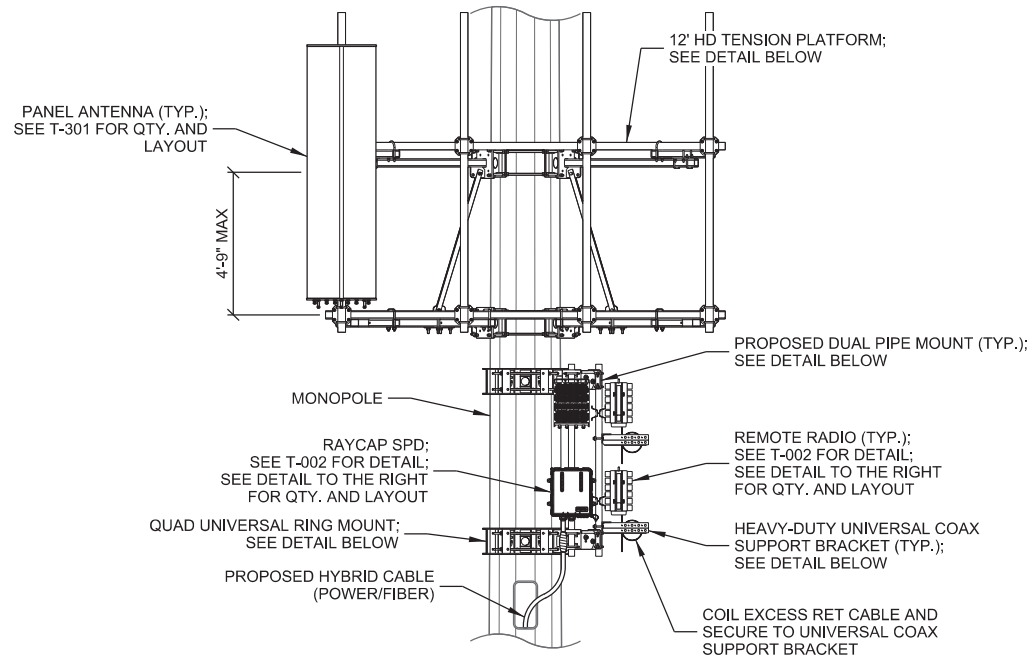
SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE:	8/16/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs

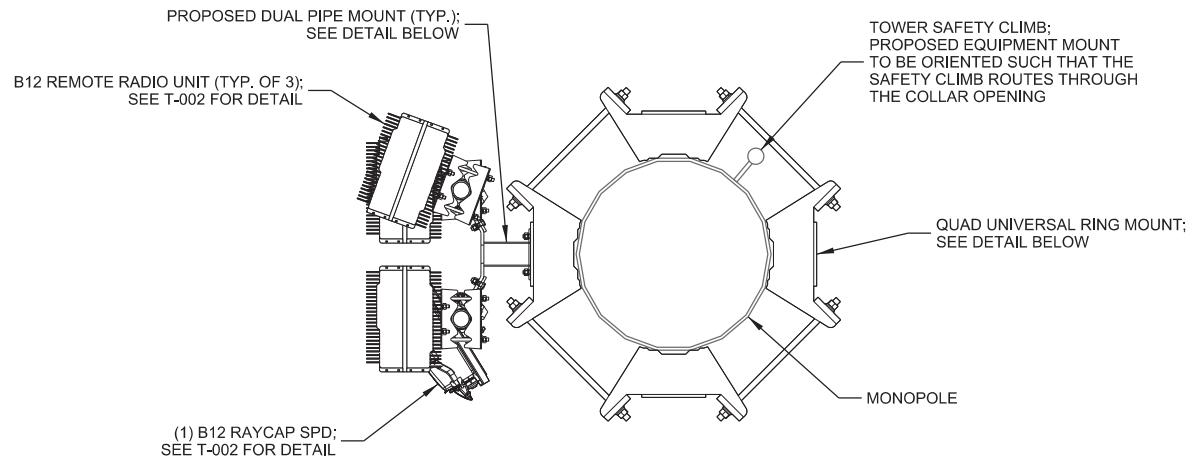
PER U.S. CELLULAR RDP DATED
07/30/2019 PROVIDED BY OTHERS

SHEET NUMBER
T-301



- NOTE:
1. ROUTE CABLES ALONG ROUND MEMBERS ON TOWER STANDOFFS OR TRAP BOXES AND SNAP-IN HANGERS; SEE T-502 FOR DETAIL.
 2. ROUTE POWER AND FIBER CABLES FROM RAYCAP SPD TO REMOTE RADIO HEADS AND RF MODULES 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.
 3. ALL INSTALLED DEVICES TO BE BONDED TO ANTENNA/DEVICE GROUND BAR WITH #6 STRANDED INSULATED GROUND LEADS.
 4. PER TIA STANDARDS: FALL PROTECTION ANCHORAGES SHALL BE AVAILABLE AT A MAXIMUM SPACING OF FOUR (4) FEET OVER THE HEIGHT NOT EQUIPPED WITH A SAFETY CLIMB SYSTEM OR OVER THE LENGTH OF THE OBSTRUCTION TO THE CLIMBING FACILITY.

A ANTENNA & EQUIPMENT MOUNTING



- NOTE:
1. THIS DETAIL IS A GENERAL SCHEMATIC, SEE T-301 FOR ACTUAL TOWER ORIENTATION.
 2. PER TIA STANDARDS: FALL PROTECTION ANCHORAGES SHALL BE AVAILABLE AT A MAXIMUM SPACING OF FOUR (4) FEET OVER THE HEIGHT NOT EQUIPPED WITH A SAFETY CLIMB SYSTEM OR OVER THE LENGTH OF THE OBSTRUCTION TO THE CLIMBING FACILITY.

B RADIO EQUIPMENT LAYOUT PLAN

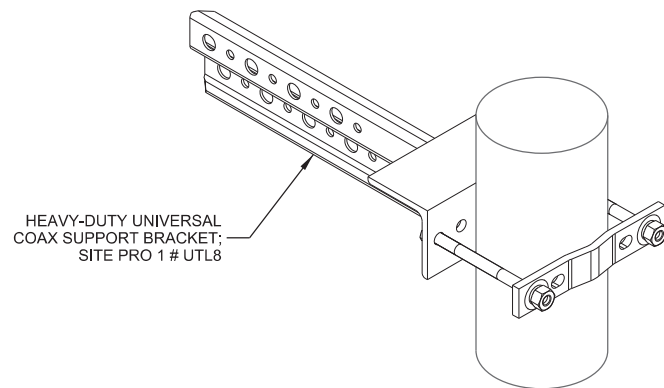
MANUFACTURER: SITE PRO 1
MODEL: UTL8

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

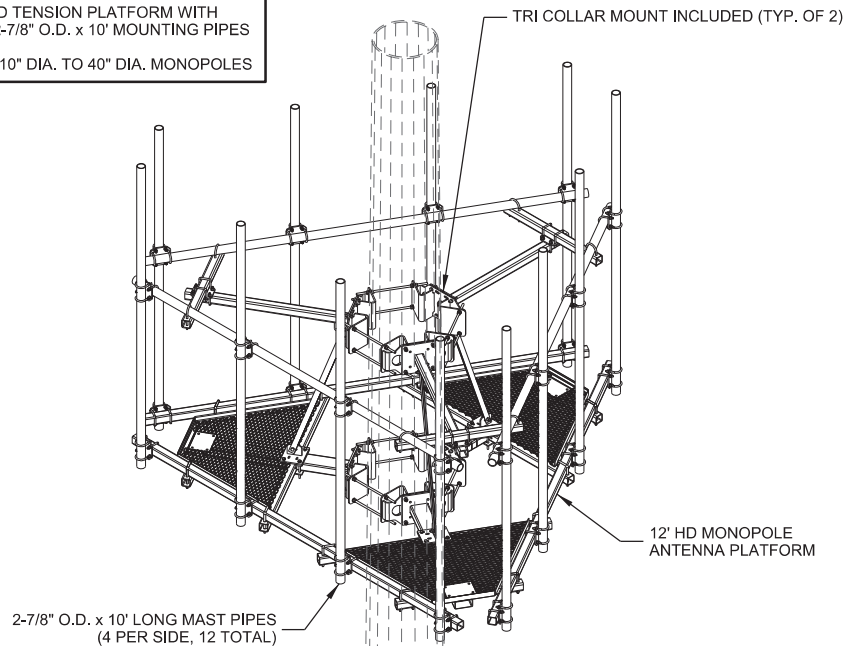
CAN BE BOLTED DIRECTLY TO PIROD KNOCK-DOWN LEGS WITH INCLUDED HARDWARE



C HEAVY-DUTY UNIVERSAL COAX SUPPORT BRACKET

MANUFACTURER: SABRE
MODEL: C10855721C

12' HD TENSION PLATFORM WITH (12) 2-7/8" O.D. x 10' MOUNTING PIPES
FITS 10" DIA. TO 40" DIA. MONOPOLES



- 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.

D MONOPOLE ANTENNA PLATFORM

MANUFACTURER: SITE PRO 1
MODEL: CWT8

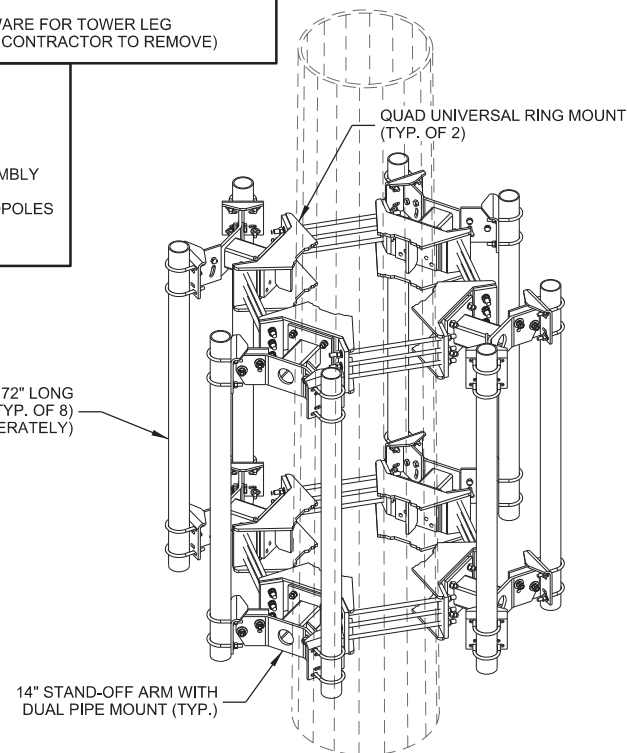
DUAL PIPE MOUNT WITH 14" STANDOFF
ACCEPTS 2-3/8", 2-7/8", OR 3-1/2" O.D. PIPES (ORDER SEPARATELY)

INCLUDES ATTACHMENT HARDWARE FOR TOWER LEG (NOT NECESSARY FOR INSTALL, CONTRACTOR TO REMOVE)

MANUFACTURER: SITE PRO 1
MODEL: UQB4

QUAD UNIVERSAL RING MOUNT
FOUR SIDED RING MOUNT ASSEMBLY
FITS 12" TO 60" DIAMETER MONOPOLES
6" x 6" BOLT PATTERN

2" SCH 40 (2-3/8" O.D.) x 72" LONG GALV. PIPE (TYP. OF 8) (ORDER SEPARATELY)



E MONOPOLE REMOTE RADIO MOUNT

CONSULTANT:

Edge
Consulting Engineers, Inc.

624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular

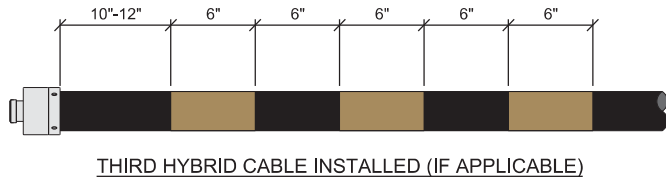
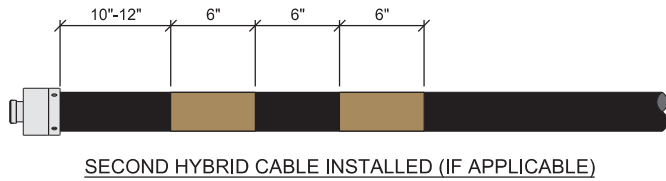
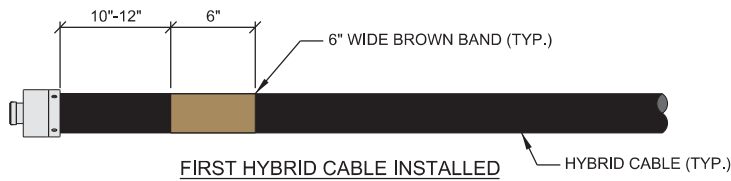
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

**INSTALLATION DETAILS
FITCHBURG SOUTH (782619)
MADISON, WI**

SHEET TITLE

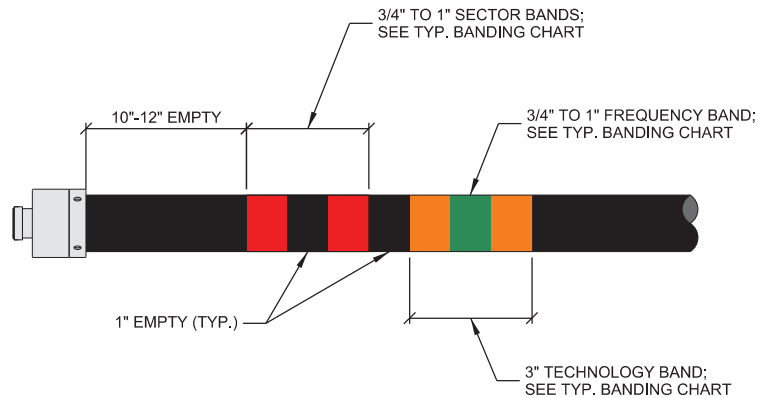
SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE:	8/16/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs
SHEET NUMBER:	T-501

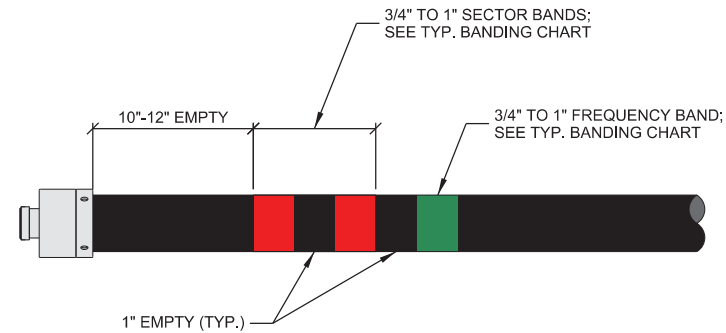


- NOTES:
1. AT THE TOP OF THE TOWER/BUILDING/WATER TOWER AND AT THE ENTRY POINT OF THE GROUND LEVEL JUNCTION BOX, HYBRID CABLES MUST BE BANDED IN ACCORDANCE TO THE ILLUSTRATION ABOVE.
 2. REFER TO LATEST EDITION OF U.S. CELLULAR STANDARD: STD72 TO VERIFY CURRENT COLOR CODING

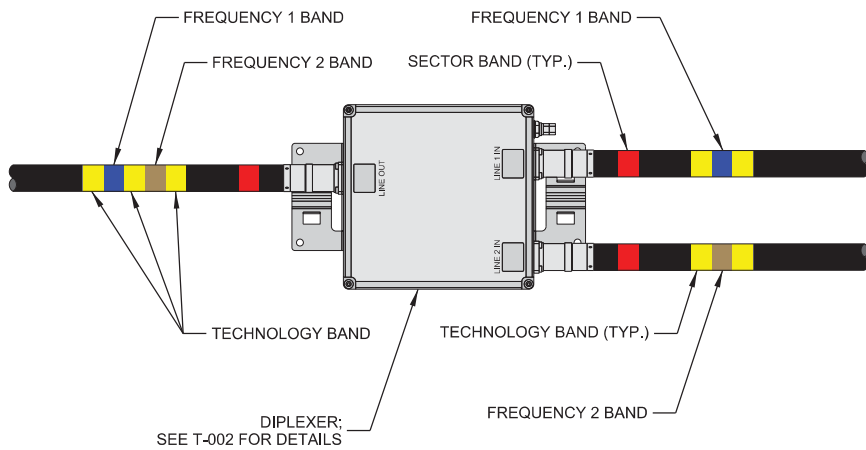
A TYP. HYBRID COLOR CODE



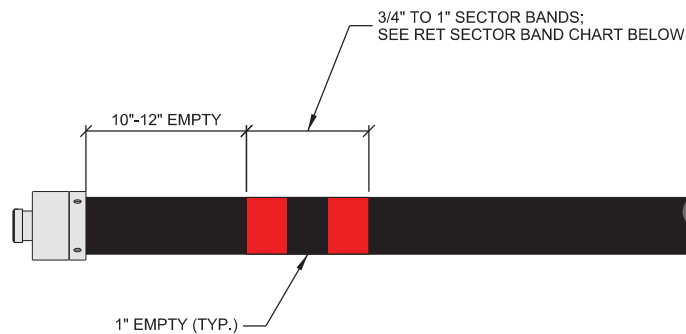
B TYP. COAX JUMPER BANDING



C TYP. POWER JUMPER BANDING



D TYP. COAX BANDING THROUGH DIPLEXER



E TYP. RET CABLE BANDING

SECTOR BAND				
SECTOR	LINE 1 1st TECHNOLOGY	LINE 2 1st TECHNOLOGY	LINE 1 2nd TECHNOLOGY (IF APPLICABLE)	LINE 2 2nd TECHNOLOGY (IF APPLICABLE)
ALPHA	(1) RED BAND	(2) RED BANDS	(1) RED BAND	(2) RED BANDS
BETA	(1) WHITE BAND	(2) WHITE BANDS	(1) WHITE BAND	(2) WHITE BANDS
GAMMA	(1) BLUE BAND	(2) BLUE BANDS	(1) BLUE BAND	(2) BLUE BANDS
DELTA (IF APPLICABLE)	(1) GREEN BAND	(2) GREEN BANDS	(1) GREEN BAND	(2) GREEN BANDS
EPSILON (IF APPLICABLE)	(1) VIOLET BAND	(2) VIOLET BANDS	(1) VIOLET BAND	(2) VIOLET BANDS
ZETA (IF APPLICABLE)	(1) BROWN BAND	(2) BROWN BANDS	(1) BROWN BAND	(2) BROWN BANDS

TECHNOLOGY BAND	
TECHNOLOGY	BANDING
CDMA	YELLOW
GSM	VIOLET
LTE	ORANGE

FREQUENCY BAND		
BAND	TECHNOLOGY	BANDING
B12	700	GREEN
B5	800	BROWN
B2	1900	BLUE
B4	2100	WHITE

F TYP. BANDING CHART

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

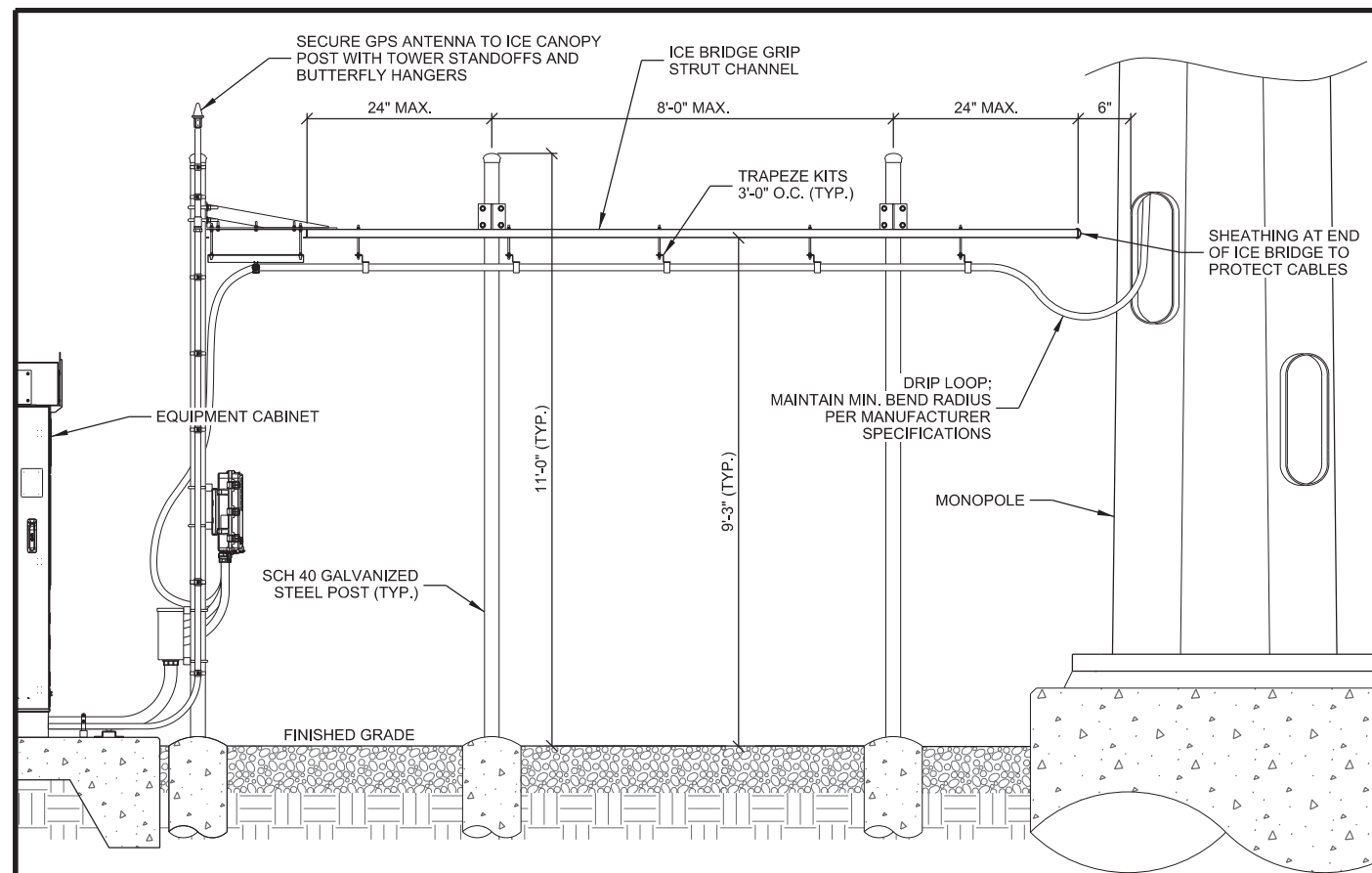
U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

CABLE BANDING DETAILS
FITCHBURG SOUTH (782619)
MADISON, WI

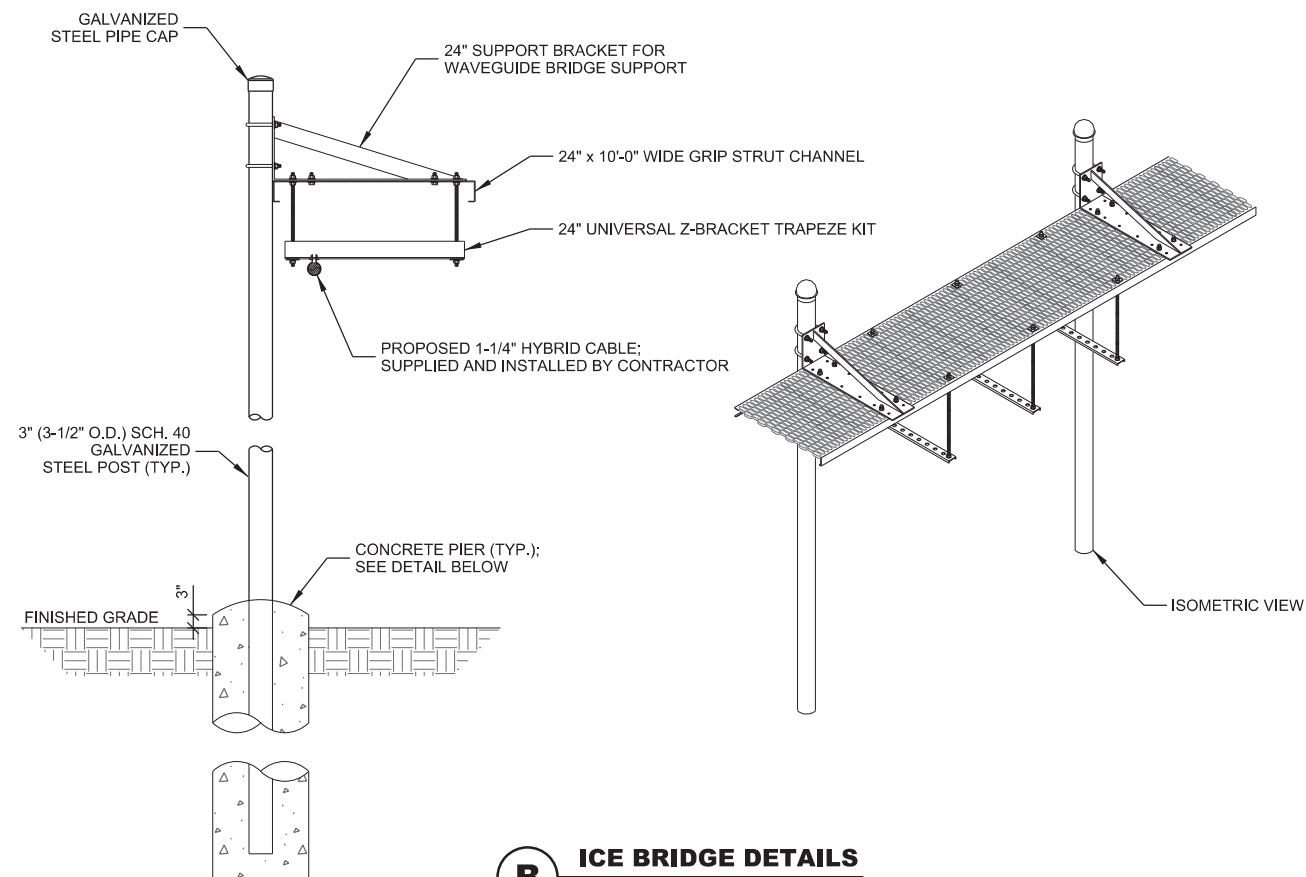
SHEET TITLE

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

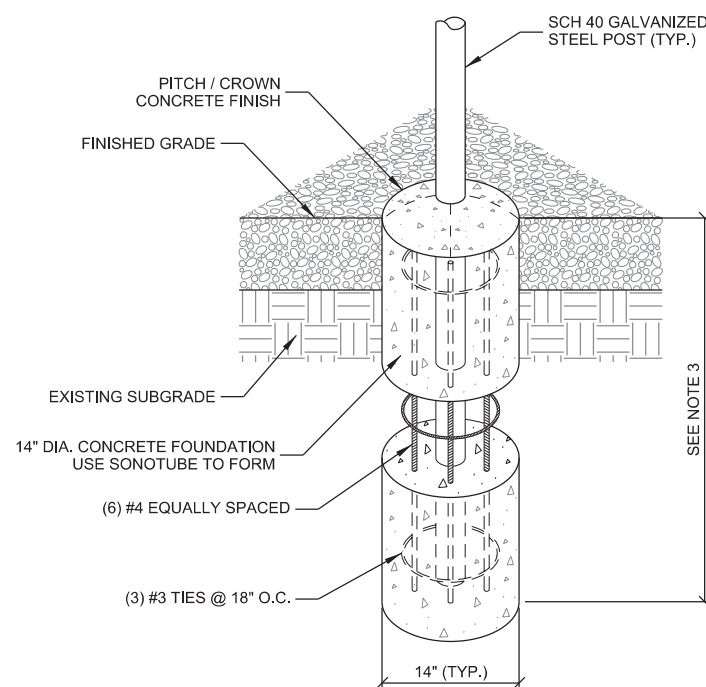
CHECKED BY	DCL
PLOT DATE	8/16/2019
PROJECT NUMBER	20809
SET TYPE	FINAL CDs
SHEET NUMBER	T-503



A ICE BRIDGE INSTALLATION



B ICE BRIDGE DETAILS



C PIER FOUNDATION

THIS SPACE INTENTIONALLY LEFT BLANK.

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.

I:\20800\20809\CAD\CDs\Plot\T-504.dgn

CONSULTANT:



624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:



U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT. NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

ICE BRIDGE DETAILS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE F.

SUBMITTAL:

[illegible]C
B

ED	DCL
----	-----

P
D

8/16/2019

P

20809

ST

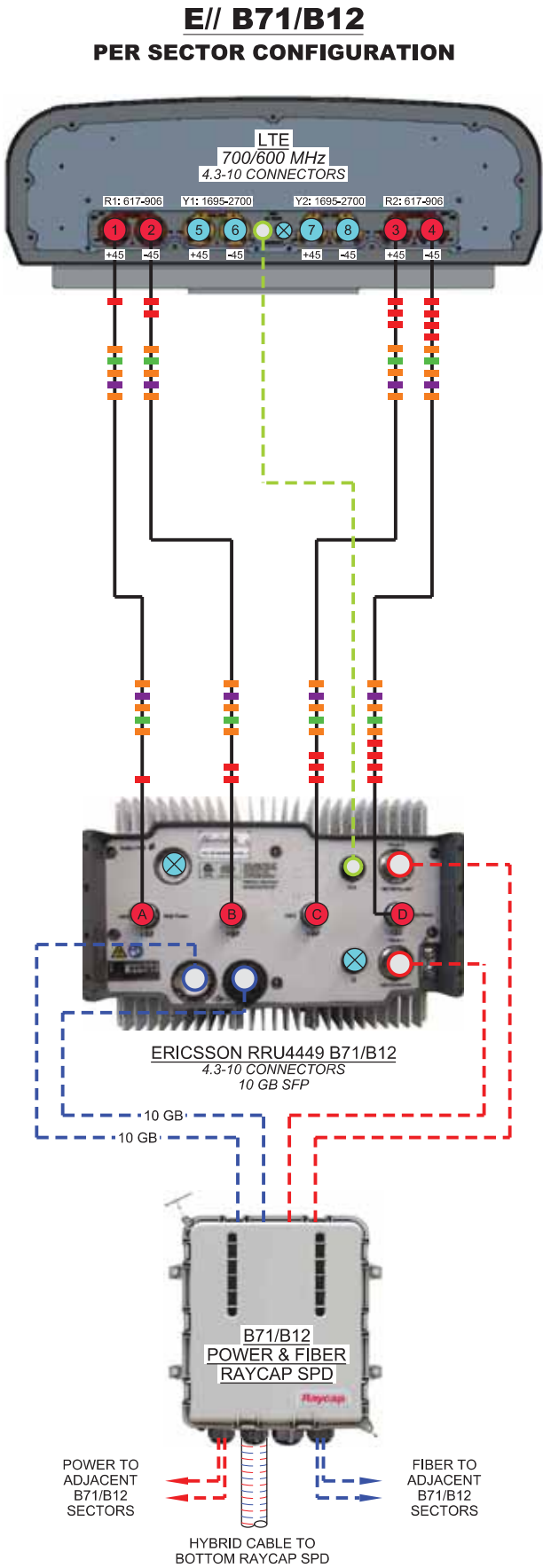
FINAL CDs

SN

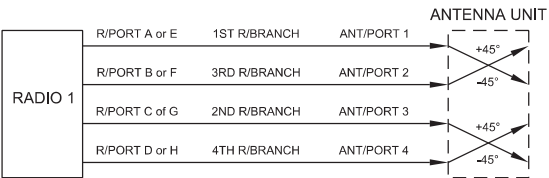
T-504



- NOTES:
1. ALL JUMPERS BETWEEN RADIO UNITS & ANTENNAS MUST BE THE SAME LENGTH.
 2. CONTRACTOR TO INSTALL WEATHERPROOF CAP ON ALL UN-USED PORTS.



CROSS POLE ANT. TO RADIO PORT DIAGRAM



CABLE LEGEND

- EUPEN HYBRID CABLE
- 1/2" COAX JUMPER
- FIBER JUMPER
- POWER JUMPER
- RET JUMPER
- MID BAND PORT
- LOW BAND PORT
- WEATHERPROOF CAP

CONSULTANT:

Edge
Consulting Engineers, Inc.

624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular

U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

**PLUMBING DIAGRAM
FITCHBURG SOUTH (782619)
MADISON, WI**

SHEET TITLE

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE:	8/16/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs
SHEET NUMBER:	T-505

Edge
Consulting Engineers, Inc.

PLUMBING DIAGRAM: AX119

CONTAINS U.S. CELLULAR® CONFIDENTIAL INFORMATION. NOT FOR EXTERNAL USE OR DISCLOSURE WITHOUT PROPER AUTHORIZATION.

N:\20800\20809\CAD\CDs\Plan\A-001.dgn

EQUIPMENT:

- (A) LTE EQUIPMENT CABINET WITH MOUNTING PLINTH;
SEE A-002 FOR DETAILS
- (B) BATTERY BACKUP CABINET;
SEE A-002 FOR DETAILS
- (C) RAYCAP SPD SECURED TO ICE BRIDGE;
SEE C-102 FOR QUANTITY
- (D) 12" x 12" x 6" FIBER/POWER JUNCTION BOX SECURED TO UNISTRUT
- (E) GROUND BAR ON INSULATORS

CONDUITS:

- (F) 1-1/4" (1.66" O.D.) SCH. 40 PVC CONDUIT STUB-UPS WITH PULL STRING TO FIBER VAULT (TYP. OF 2); STUB-UP CONDUITS IN FRONT CORNER OF COMPOUND FOR MICROWAVE DISH INSTALLATIONS
- (G) 2" (2-3/8" O.D.) SCH. 40 PVC CONDUIT STUB-UP WITH PULL STRING TO PPC
- (H) 1" (1-1/4" O.D.) SCH. 40 PVC CONDUIT STUB-UP TO WITH PULL STRING FOR ALARM CABLING TO PPC
- (I) 2-1/2" (2-7/8" O.D.) LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT FROM LTE EQUIPMENT CABINET PLINTH TO JUNCTION BOX (TYP. OF 2)
- (J) 2-1/2" (2-7/8" O.D.) LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT FROM BATTERY BACKUP CABINET TO LTE EQUIPMENT CABINET PLINTH FOR POWER
- (K) 2" (2-3/8" O.D.) LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT FROM LTE EQUIPMENT CABINET TO UNISTRUT RACK FOR MICROWAVE DISH CABLING (IF APPLICABLE)
- (L) 1" (1-1/4" O.D.) LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT FROM LTE EQUIPMENT CABINET PLINTH TO UNISTRUT RACK FOR GPS CABLING
- (M) 1-1/2" (1.9" O.D.) LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT FROM JUNCTION BOX TO RAYCAP SPD FOR POWER CABLING (TYP. OF PER RAYCAP SPD)
- (N) 1-1/4" (1.66" O.D.) LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT FROM JUNCTION BOX TO RAYCAP SPD FOR FIBER CABLING (TYP. OF PER RAYCAP SPD)
- (O) 3/4" (1" O.D.) LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT FROM LTE EQUIPMENT CABINET FOR GROUND LEAD (TYP. OF 2)
- (P) 3/4" (1" O.D.) LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT FROM BATTERY BACKUP CABINET FOR GROUND LEAD
- (Q) LIQUID-TIGHT CONDUIT FITTING (TYP.)
- (R) ROXTEC WEATHERPROOF SEAL (IF APPLICABLE);
SIZE TO ACCEPT MICROWAVE DISH CABLING QUANTITY AND DIAMETER
- (S) 1'-0" UNISTRUT CONDUIT TIE DOWN (TYP.);
SEE A-501 FOR DETAILS

EQUIPMENT PAD RACK:

- (T) 2'-0" WIDE x 5'-0" LONG ICE BRIDGE;
SEE A-501 FOR DETAILS
- (U) P-1000T GALV. UNISTRUT OR APPROVED EQUIV.;
UNISTRUT TO BE CUT TO LENGTH TO ENSURE PROPER FASTENING TO POST WITHOUT EXCESS
- (V) UNISTRUT END CAP AT EACH END OF UNISTRUT;
SITE PRO 1 #: UNICAP OR APPROVED EQUIV.;
- (W) HYBRID CABLE;
MAINTAIN MINIMUM BEND RADIUS
- (X) HEAVY-DUTY UNIVERSAL COAX SUPPORT BRACKET;
SEE A-501 FOR DETAILS
- (Y) GPS ANTENNA SECURED TO ICE BRIDGE POST;
SEE A-501 FOR DETAILS
- (Z) CONCRETE PIER;
SEE A-501 FOR DETAILS

CONCRETE AND REINFORCING NOTES:

- ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH LOCAL BUILDING CODE REQUIREMENTS AND MOST CURRENT VERSION OF ACI STANDARDS.
- ALL CONCRETE UNLESS SPECIFICALLY NOTED SHALL BE NORMAL WEIGHT(145 PCF) AND SHALL ACHIEVE A 28-DAY COMPRESSIVE STRENGTH (f_c) OF 4,000 PSI. EXPOSED EXTERIOR CONCRETE TO BE AIR ENTRAINED WITH 6% +/- 1% AIR CONTENT. CONTRACTOR TO PERFORM CONCRETE SLUMP TEST (4" MAX SLUMP). NO WATER TO BE ADDED AFTER SLUMP HAS BEEN MEASURED.
- ALL CONCRETE REINFORCING SHALL BE ASTM A615 GRADE 60 AND PLACED IN ACCORDANCE WITH ACI STANDARDS
- REMOVE ALL ORGANIC MATERIAL, SOFT AND/OR UNSUITABLE SOILS WITHIN FOUNDATION FOOTPRINT. DO NOT UTILIZE THESE SOILS FOR BACKFILL.
- CONSULT GEOTECHNICAL INVESTIGATION REPORT FOR ANTICIPATED SOIL CONDITIONS AND CONSTRUCTION CONSIDERATIONS.
- FOUNDATION DESIGN BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 2000 PSF AND MAX. PLASTICITY INDEX OF 20, CONTRACTOR TO CONFIRM BEARING SOILS MEET THESE CONDITIONS BEFORE INSTALLATION.
- SOILS NOT MEETING THE DESIGN BEARING STRENGTH SHALL BE UNDERCUT AND REPLACED WITH 3-INCH BREAKER STONE. UNDERCUT ONE FOOT ON EACH SIDE OF THE FOOTING FOR EVERY FOOT IN DEPTH. CONSULT WITH ENGINEER FOR REQUIRED UNDERCUT DEPTH.
- CONTRACTOR TO ENSURE POSITIVE DRAINAGE FROM ALL FOUNDATIONS.

CONSULTANT:



CLIENT:



SHEET TITLE

EQUIPMENT PAD NOTES
FITCHBURG SOUTH (782619)
MADISON, WI

SUBMITTAL:

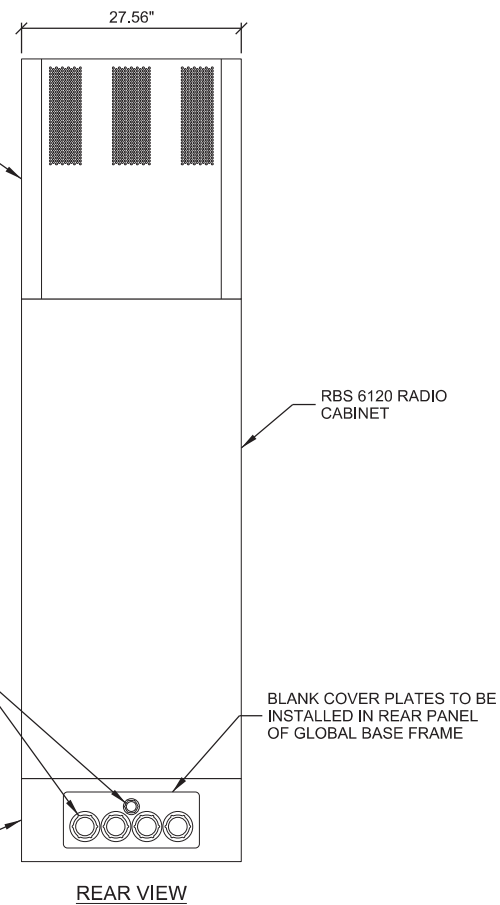
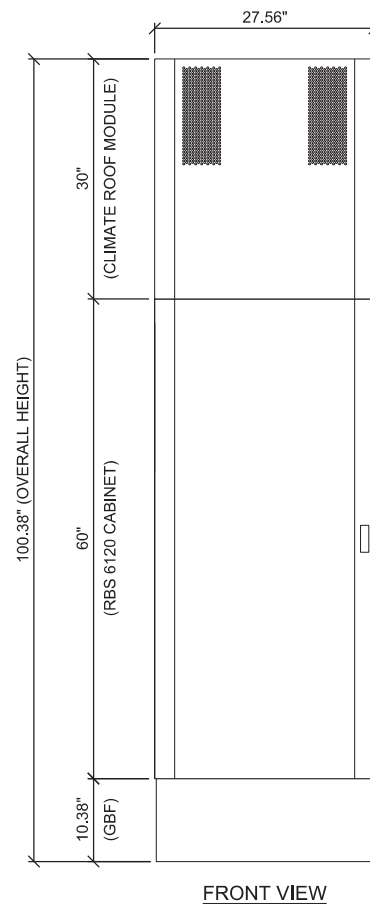
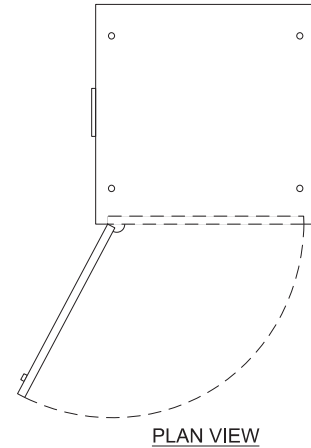
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE	8/16/2019
PROJECT NUMBER	20809
SET TYPE	FINAL CDs

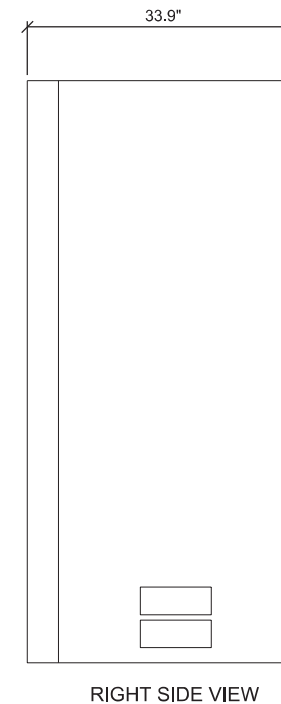
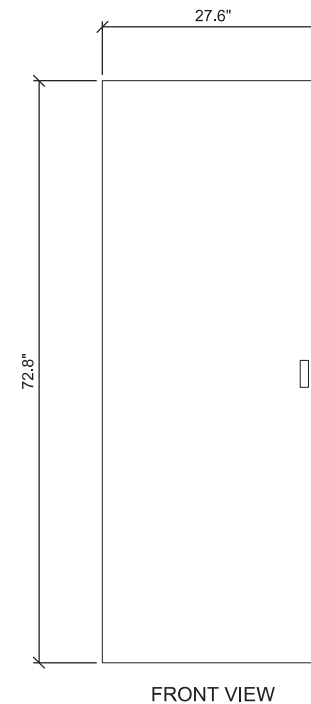
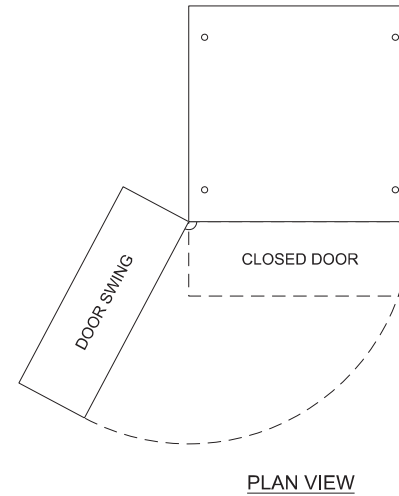
SHEET NUMBER
A-001

CLEARANCE REQUIREMENTS:
FRONT: 47.24" (1200 mm)
REAR: 7.87" (200 mm)
LEFT: 3.94" (100 mm)
RIGHT: 3.94" (100 mm)

DESCRIPTION: GLOBAL BASE FRAME (GBF)
MANUFACTURER: ERICSSON
MODEL: 5/BYB 701 01
DIMENSIONS: 10.38" x 27.09" x 27.56" (H x W x D)
WEIGHT: 80.5 LBS



CLEARANCE REQUIREMENTS:
FRONT: 28" (700 mm)
REAR: 8" (200 mm)
LEFT: 39" (1000 mm)
RIGHT: 10" (250 mm)



NOTES:

1. CONTRACTOR TO INSTALL 1/2" THICK SKIRTBOARD RUBBER MAT BENEATH CABINET; PAD TO HAVE A 1/2" SMALLER FOOTPRINT THAN THE CABINET, PERIMETER OF PAD TO BE SEALED WITH OUTDOOR GRADE 100% SILICONE CAULK.
2. ERICSSON IS RESPONSIBLE FOR FINAL INSTALLATION OF PROPOSED BBS 6101 BATTERY SYSTEM WITH ASSOCIATED PLUMBING AND EQUIPMENT.
3. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS WITH ERICSSON PRIOR TO INSTALLATION.

CONSULTANT:



CLIENT:



EQUIPMENT CABINET SPECIFICATIONS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE:

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED
BY

DCL

PLOT
DATE

8/16/2019

PROJECT
NUMBER

20809

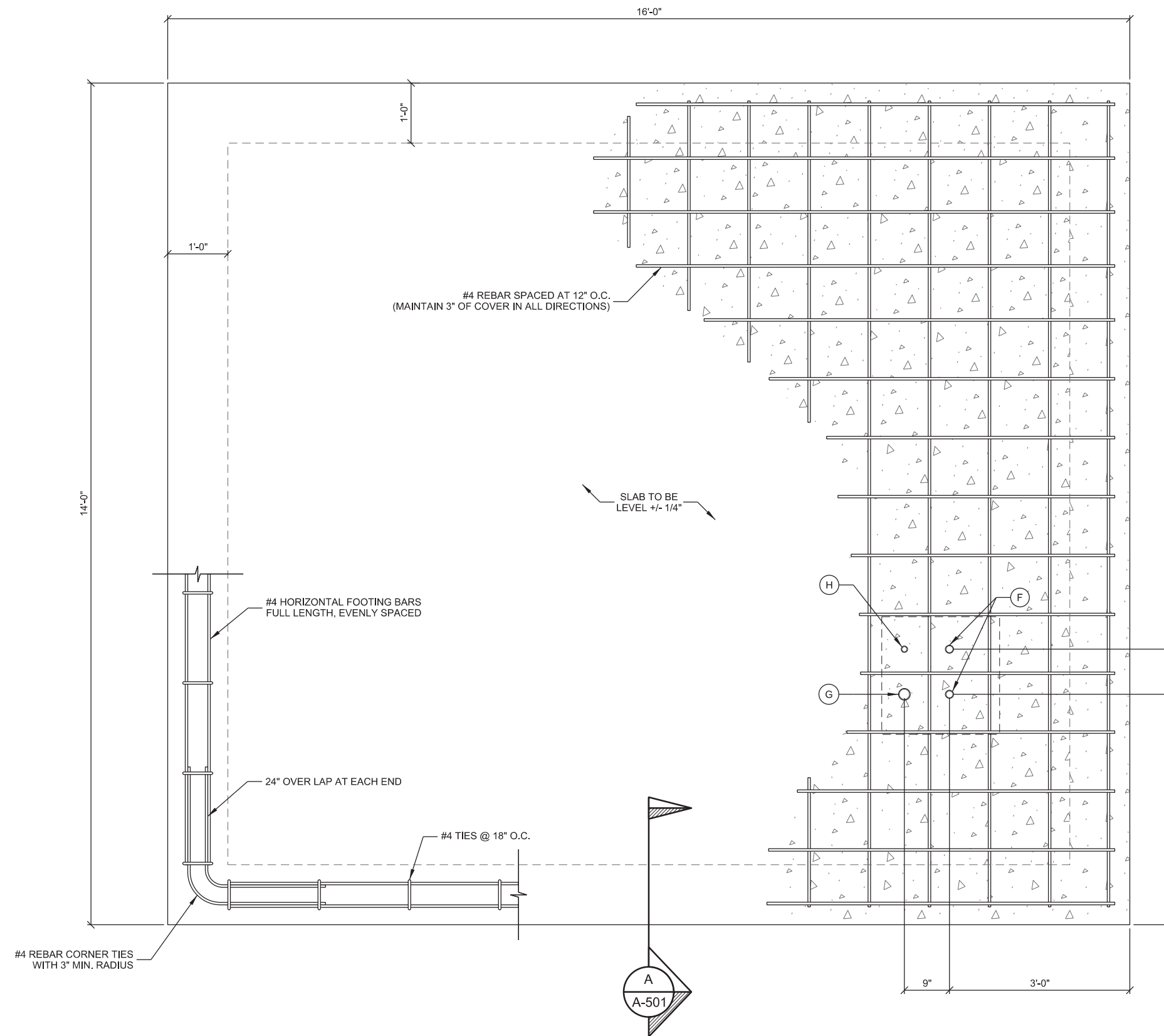
SET
TYPE

FINAL CDs

SHEET
NUMBER

A-002

N:\20809\20809\CAD\CDs\Plan\A-101.dgn



A EQUIPMENT LAYOUT
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
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

EQUIPMENT PAD PLAN
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

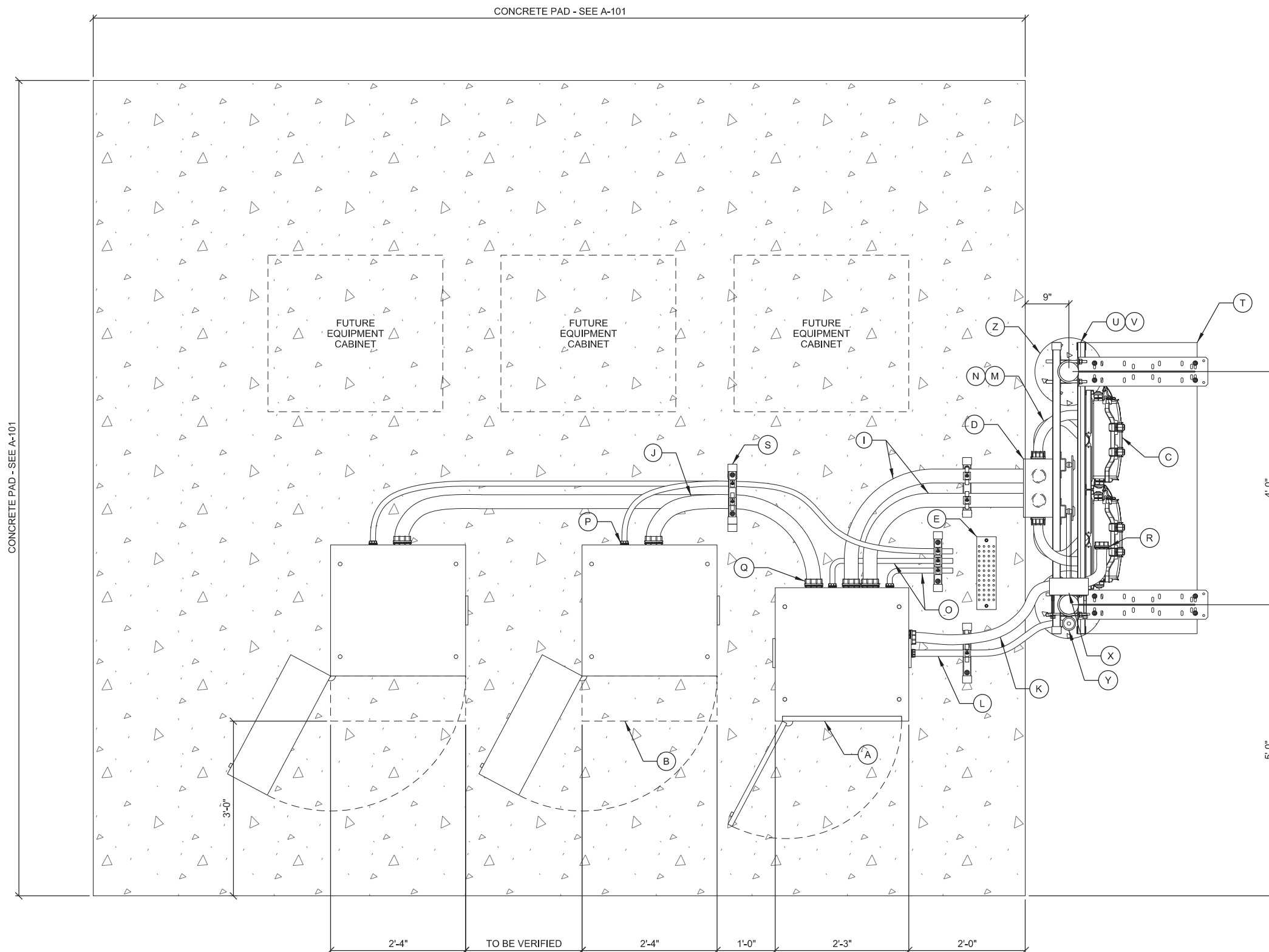
SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE:	8/16/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs
SHEET NUMBER:	A-101

D
A-201

C
A-201



A EQUIPMENT LAYOUT
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
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:
U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

EQUIPMENT PAD PLAN
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE:	8/16/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs
SHEET NUMBER:	A-102

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

EQUIPMENT PAD ELEVATIONS
FITCHBURG SOUTH (782619)
MADISON, WI

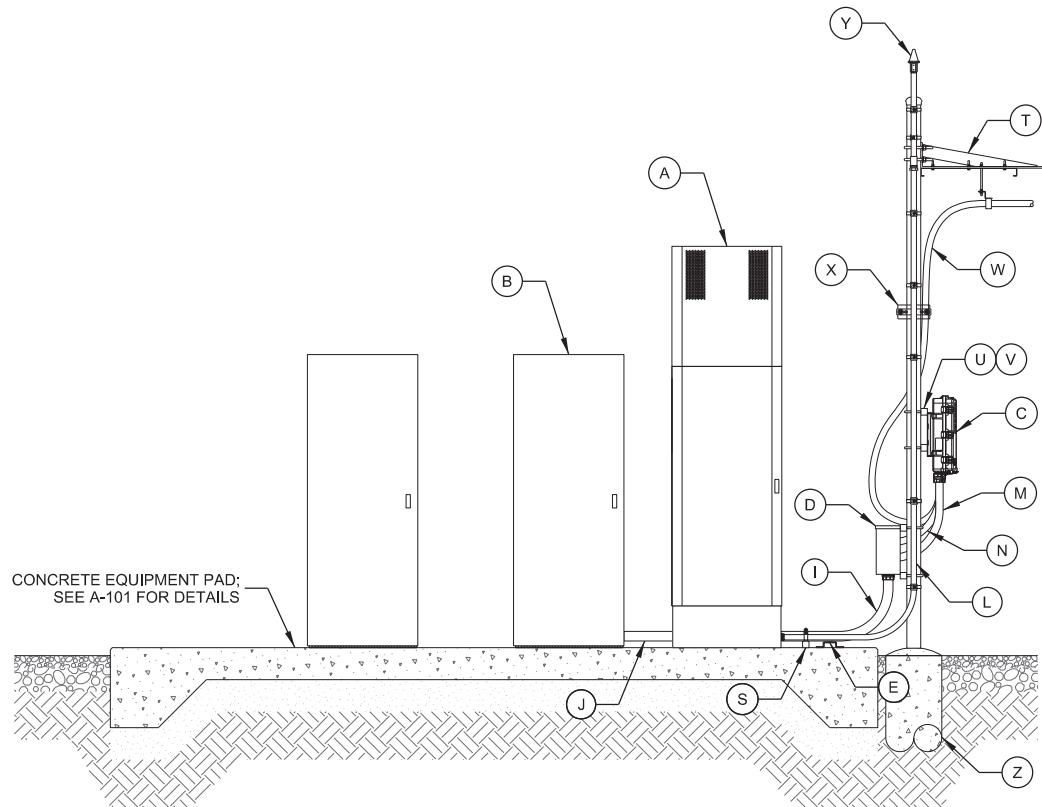
SHEET TITLE

SUBMITTAL:

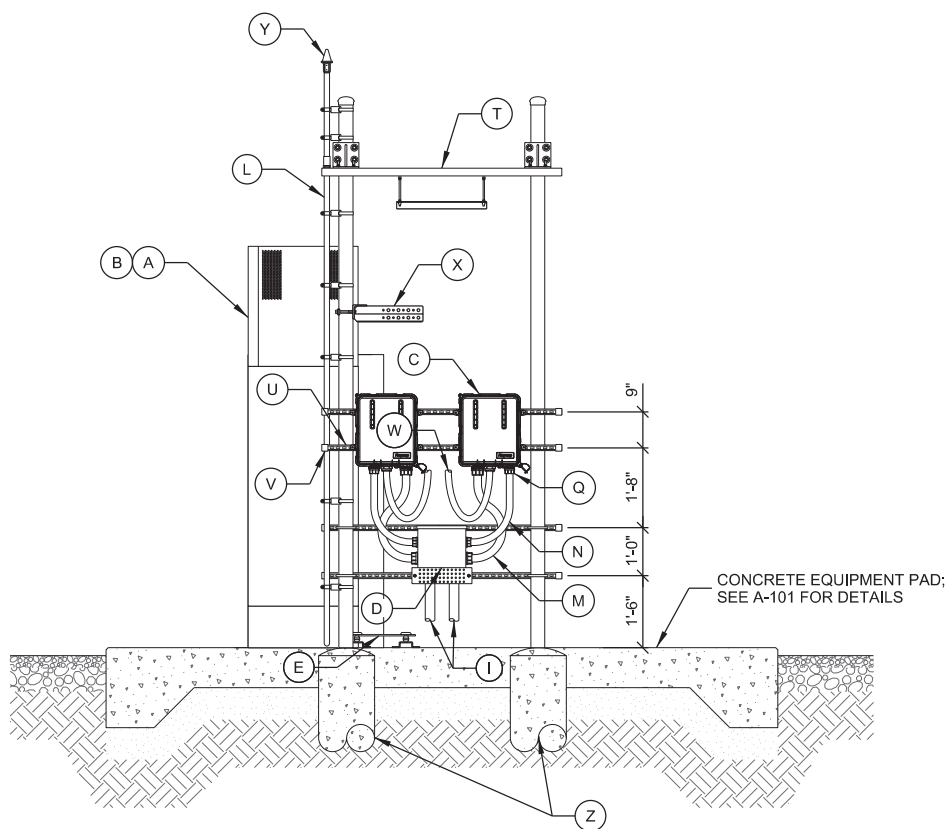
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE:	8/16/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs
SHEET NUMBER:	A-201

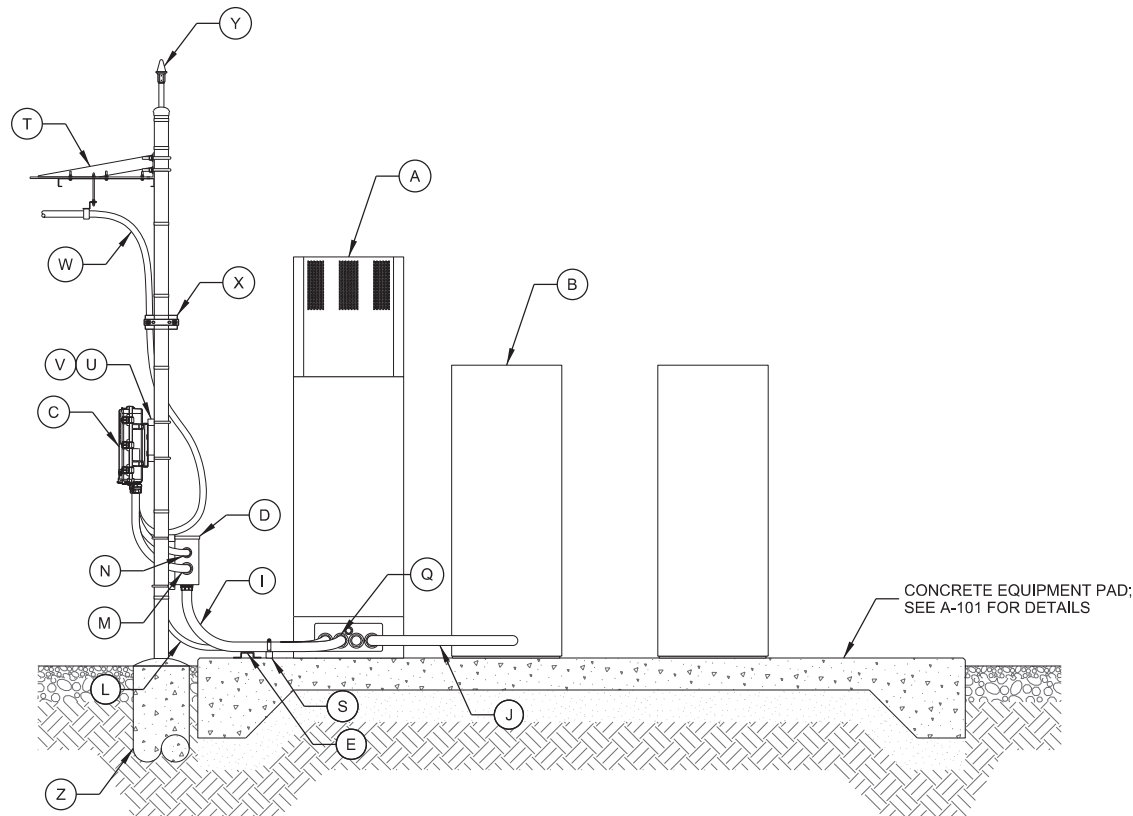
© EDGE CONSULTING ENGINEERS, INC.



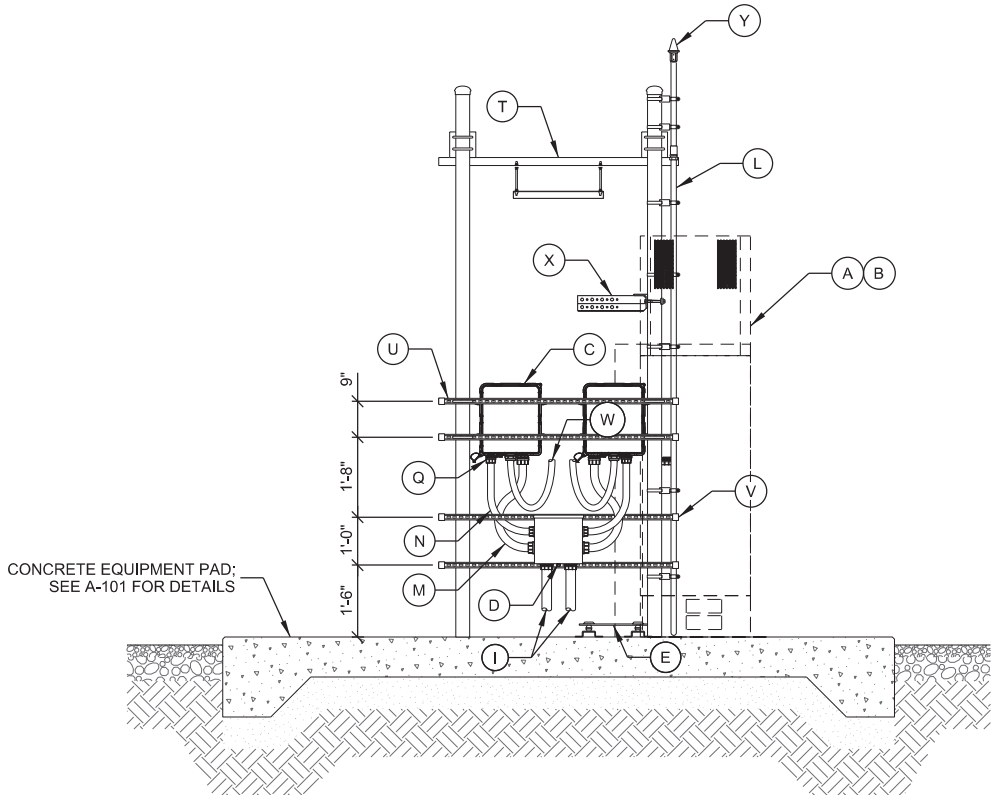
A **EQUIPMENT PAD ELEVATION**
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



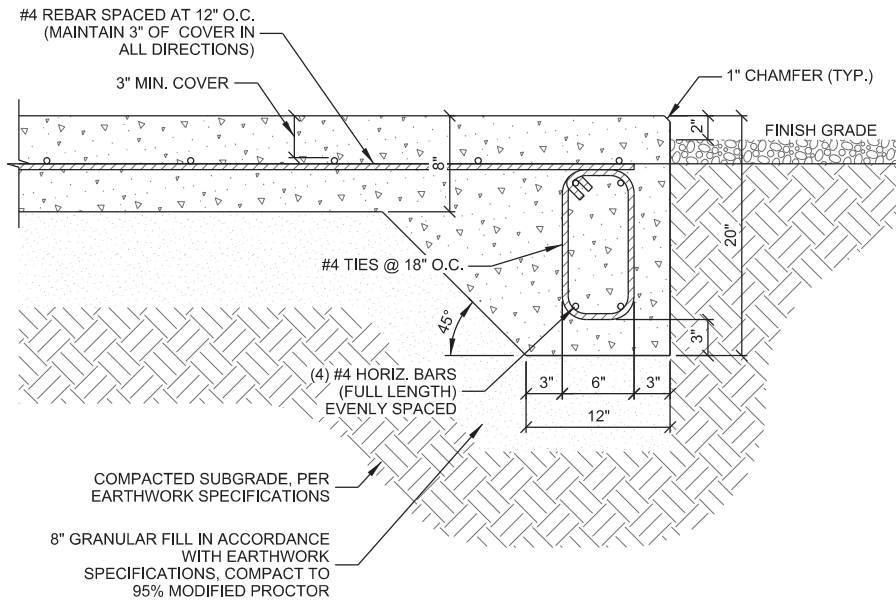
B **EQUIPMENT PAD ELEVATION**
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



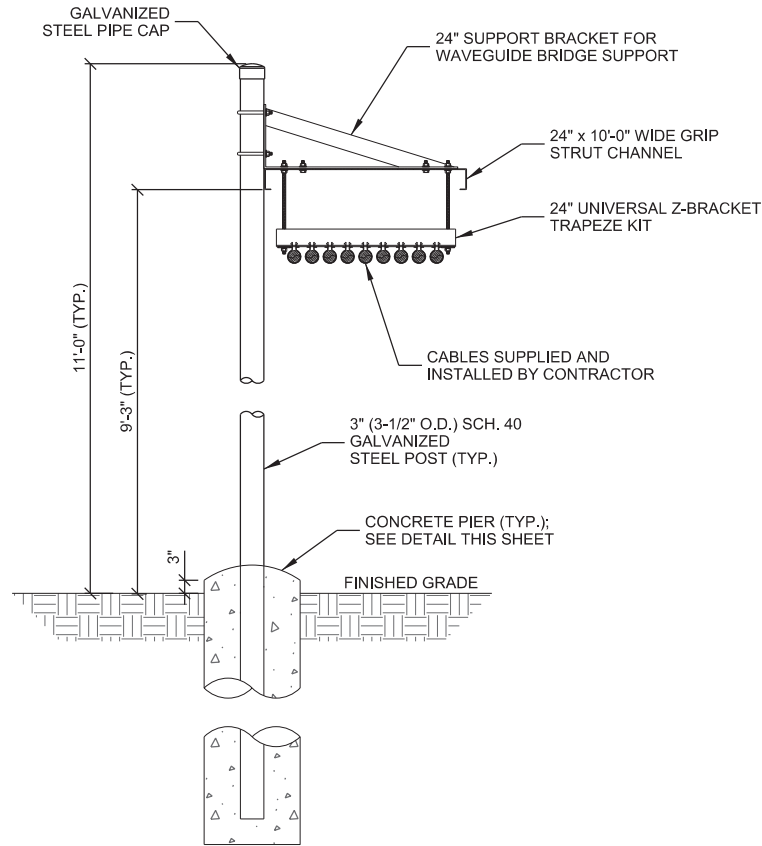
C **EQUIPMENT PAD ELEVATION**
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



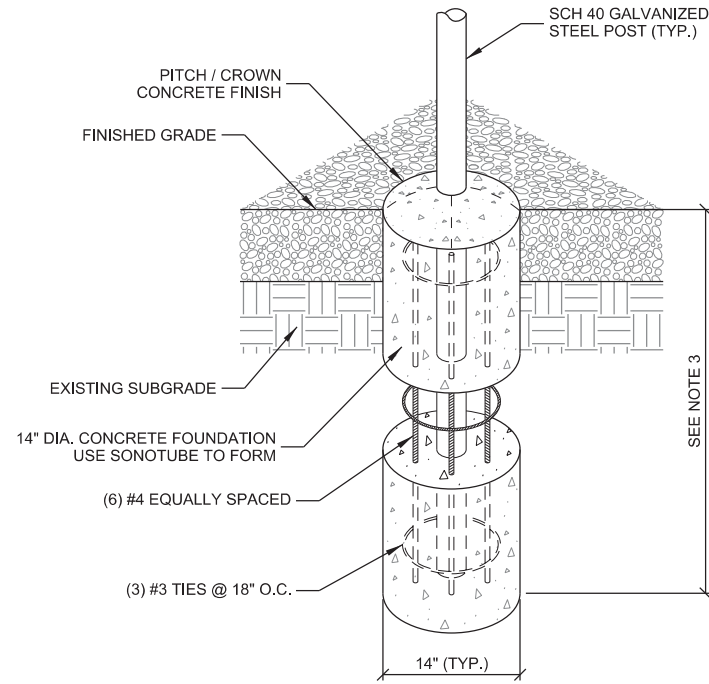
D **EQUIPMENT PAD ELEVATION**
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



A TYPICAL FOUNDATION



B ICE BRIDGE DETAILS



- 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

MANUFACTURER: SITE PRO 1
MODEL: UTL8

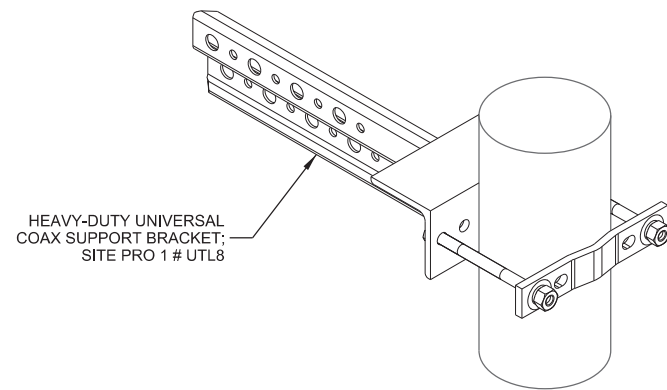
HEAVY-DUTY UNIVERSAL SUPPORT BRACKET

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

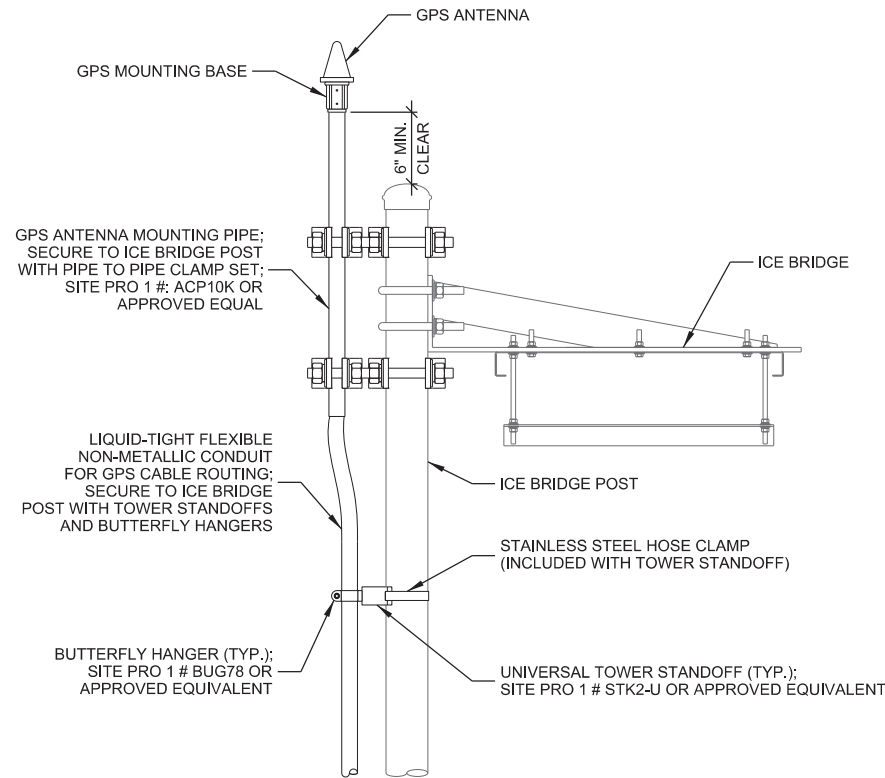
PUNCHED WITH 3/4" DIA. HOLES FOR SNAP-IN HANGERS AND 7/16" DIA. HOLES FOR HARDWARE

HOT-DIP GALVANIZED

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



D HEAVY-DUTY UNIVERSAL COAX SUPPORT BRACKET



E GPS ANTENNA MOUNTING

THIS SPACE INTENTIONALLY LEFT BLANK

CONSULTANT:

Edge
Consulting Engineers, Inc.

624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular

U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

EQUIPMENT PAD DETAILS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:	DCL
PLOT DATE:	8/16/2019
PROJECT NUMBER:	20809
SET TYPE:	FINAL CDs
SHEET NUMBER:	A-501

KEYNOTES: (THIS SHEET)

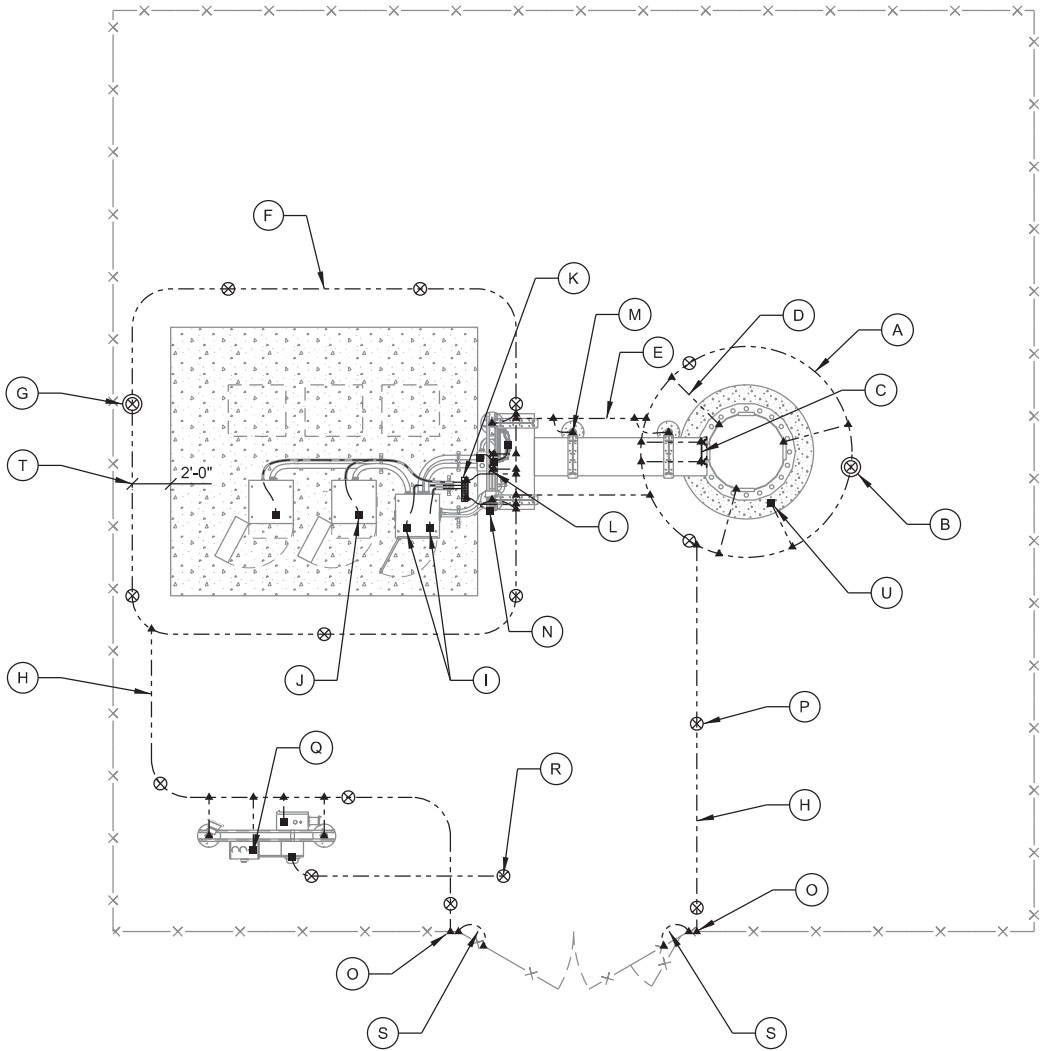
- (A) TOWER GROUND RING, #2 SOLID TINNED COPPER
- (B) TOWER GROUND RING INSPECTION WELL; SEE E-502 FOR DETAIL
- (C) TOWER GROUND BAR (TGB) WITH (2) GROUNDS FROM TGB TO TOWER GROUND RING; SEE E-501 FOR DETAIL
- (D) GROUND LEAD FROM TOWER STEEL TO TOWER GROUND RING (TYP. OF 3); SEE E-501 FOR DETAIL
- (E) GROUND LEAD FROM EQUIPMENT GROUND RING TO TOWER GROUND RING (TYP. OF 2), #2 SOLID TINNED COPPER
- (F) EQUIPMENT GROUND RING, #2 SOLID TINNED COPPER
- (G) EQUIPMENT GROUND RING INSPECTION WELL; SEE E-502 FOR DETAIL
- (H) GROUND LEAD FROM GROUND RING TO FENCE POST; SEE E-502 FOR DETAIL
- (I) LTE EQUIPMENT CABINET GROUNDING: (1) LEAD FROM MASTER GROUND BAR TO GROUND BAR INSIDE RBS CABINET AND (1) LEAD FROM MASTER GROUND BAR TO RBS PLINTH, #2 INSULATED COPPER (TYP.); ROUTE THROUGH NEW PENETRATIONS AND LIQUID-TIGHT CONDUIT FITTINGS THROUGH BACK OF MOUNTING PLINTH
- (J) (1) GROUND LEAD FROM BATTERY CABINET STEEL TO MASTER GROUND BAR, #2 INSULATED COPPER; ROUTE IN LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT BETWEEN BATTERY CABINET AND LTE CABINET AND OUT NEW PENETRATION THROUGH SIDE OF LTE CABINET PLINTH
- (K) MASTER GROUND BAR (MGB) MOUNTED HORIZONTALLY TO CONCRETE PAD ON INSULATORS; (2) GROUNDS FROM MGB TO EQUIPMENT GROUND RING; SEE E-501 FOR DETAIL
- (L) COLLECTOR GROUND BAR (CGB) MOUNTED TO UNISTRUT RACK ON INSULATORS; (2) CGB GROUNDS FROM CGB TO EQUIPMENT GROUND RING; SEE E-501 FOR JUNCTION BOX AND RAYCAP SPD GROUNDING DETAILS
- (M) GROUND LEAD FROM ICE BRIDGE POST TO TO BURIED GROUND RING (TYP.)
- (N) GROUND GPS UNIT TO ICE CANOPY POST
- (O) EXOTHERMIC CONNECTION AT FENCE POST; SEE SHEET E-502 FOR DETAIL
- (P) GROUND ROD (TYP.)
- (Q) GROUND UTILITY RACK CABINETS AND POSTS (TYP.), #2 SOLID TINNED COPPER
- (R) GROUND ELECTRIC METER TO (2) INDEPENDENT GROUND RODS, SPACED 10' O.C. WITH #2 SOLID TINNED COPPER
- (S) GATE GROUND LEAD GROUND LEADS TO GATE POST; SEE E-502 FOR DETAIL
- (T) MAINTAIN 2' SEPARATION BETWEEN GROUND RINGS AND FOUNDATIONS (TYP.)
- (U) TOWER FOUNDATION GROUND, #2 SOLID TINNED COPPER; SEE E-502 FOR DETAIL

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°. 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 CADWELD CONNECTIONS SHALL BE COATED WITH ZINGA 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.

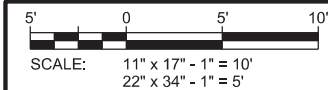
GROUNDING LEGEND: (THIS SHEET)

- ▲ EXOTHERMIC OR UL RATED IRREVERSIBLE CONNECTION
- MECHANICAL CONNECTION
- - - GROUND LEAD
- ⊗ GROUND INSPECTION WELL
- ⊗ COPPER CLAD GROUND ROD, (3/4" DIA. x 10' LONG) SPACE @ 10' O.C. MAX.
- ⊗ COPPER PLATE, (18" x 18" x .032" THK) SPACE @ 10' O.C. MAX.



NOTE:

1. THE PROVIDED GROUNDING PLAN IS NOT SITE SPECIFIC AND IS MEANT TO REPRESENT A TYPICAL GROUNDING CONFIGURATION.



CONSULTANT:



CLIENT:



GROUNDING PLAN
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY	DCL
PLOT DATE	8/16/2019
PROJECT NUMBER	20809
SET TYPE	FINAL CDs
SHEET NUMBER	E-101

KEYNOTES: (THIS SHEET)

- (A) GROUND KIT #6 THHN STRANDED INSULATED JUMPER CONNECTION TO GROUND BAR WITH 2 HOLE LONG BARREL LUG
- (B) FOR SINGLE ANTENNA AT ONE LEVEL OMIT ANTENNA GROUND BAR CONNECT GROUND KIT JUMPER DIRECTLY TO TOWER STEEL WITH UL LISTED BONDING CLAMP
- (C) UL LISTED BONDING CLAMP CABLE TO FLAT METAL BONDING CLAMP
- (D) 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
- (E) TGB GROUNDS #2 SOLID TINNED COPPER ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE FROM TGB TO TOWER GROUND RING (2) REQ'D
- (F) TOWER STEEL GROUNDS (IF APPLICABLE) #2 SOLID TINNED COPPER ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE FROM TOWER STEEL TO TOWER GROUND RING (3) REQ'D (USE GROUNDING TABS WHEN AVAILABLE)
- (G) COLLECTOR GROUND BAR (CGB) MOUNTED TO UNISTRUT RACK ON INSULATORS; (2) CGB #2 SOLID TINNED COPPER GROUNDS ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE FROM CGB TO EQUIPMENT GROUND RING
- (H) MASTER GROUND BAR (MGB) MOUNTED HORIZONTALLY TO CONCRETE PAD ON INSULATORS; (2) #2 SOLID TINNED COPPER GROUNDS ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE FROM MGB TO EQUIPMENT GROUND RING
- (I) RAYCAP SPD AND JUNCTION BOX TO BE BONDED TO CGB WITH #6 THHN STRANDED GREEN INSULATED
- (J) SECURE GPS TO ICE CANOPY POST WITH UL LISTED PIPE CLAMP; BOND WITH #2 SOLID TINNED COPPER LEAD
- (K) ICE BRIDGE POST GROUND #2 SOLID TINNED COPPER ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE
- (L) ICE BRIDGE SECTION GROUNDS #2 STRANDED INSULATED WITH 2 HOLE LONG BARREL ON EACH END (TYP.)
- (M) ICE BRIDGE SECTION TO POST GROUNDS #2 STRANDED INSULATED WITH 2 HOLE LONG BARREL ON SECTION; ORIENT LEAD WITH HIGH SIDE TOWARDS TOWER
- (N) TOWER FOUNDATION GROUND (IF APPLICABLE); SEE E-502 FOR DETAIL

GROUNDING LEGEND: (THIS SHEET)

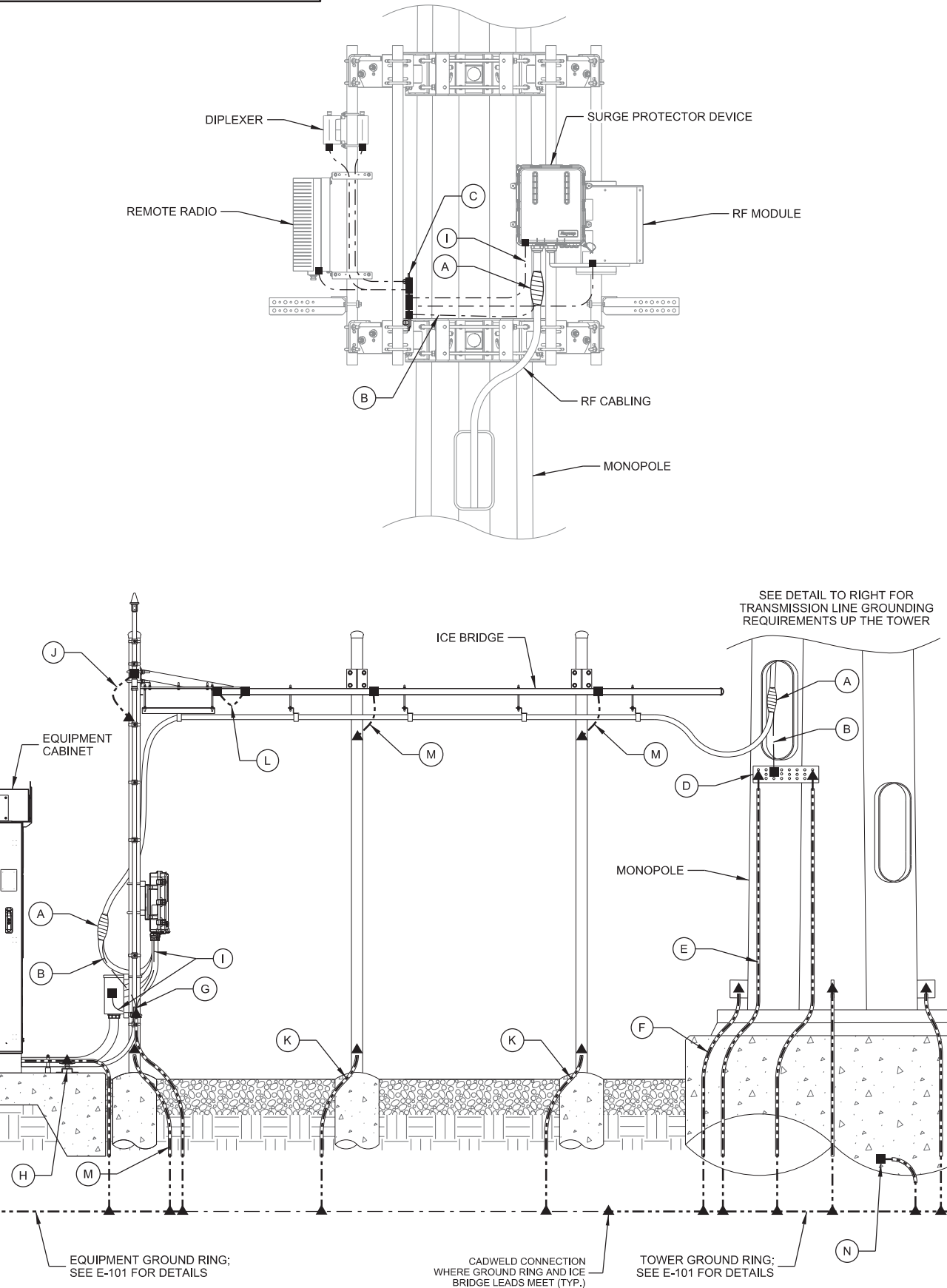
- ▲ EXOTHERMIC OR UL RATED IRREVERSIBLE CONNECTION
- MECHANICAL CONNECTION
- GROUND LEAD

NOTES: (THIS SHEET)

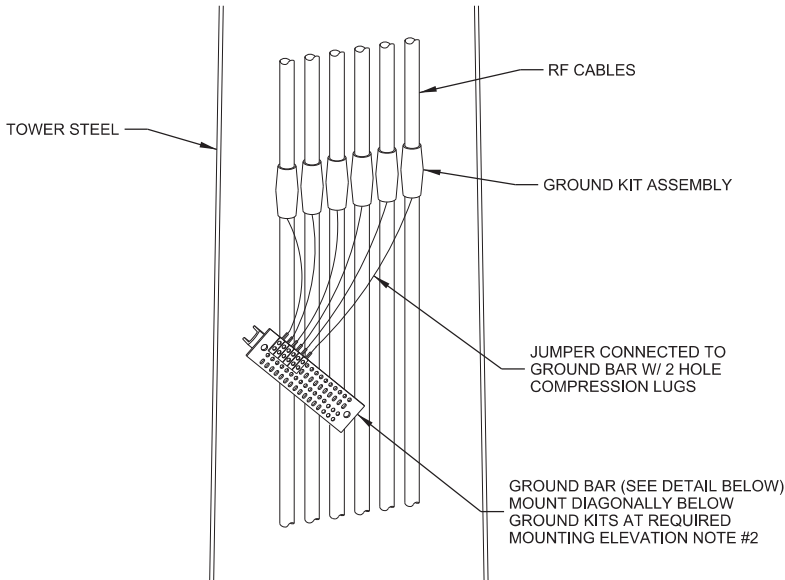
1. ALL BELOW-GRADE CONNECTIONS ARE TO BE EXOTHERMICALLY WELDED A MINIMUM OF 30" BELOW GRADE.
2. ALL LEADS EXTENDING ABOVE GRADE TO BE ENCASED IN 3/4" CONDUIT AND EXTEND A MINIMUM OF 6" ABOVE FINISHED GRADE AND 24" BELOW FINISHED GRADE.
3. COAT ALL EXOTHERMICALLY WELDED CONNECTIONS WITH ZINGA.
4. APPLY 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

NOTE:

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



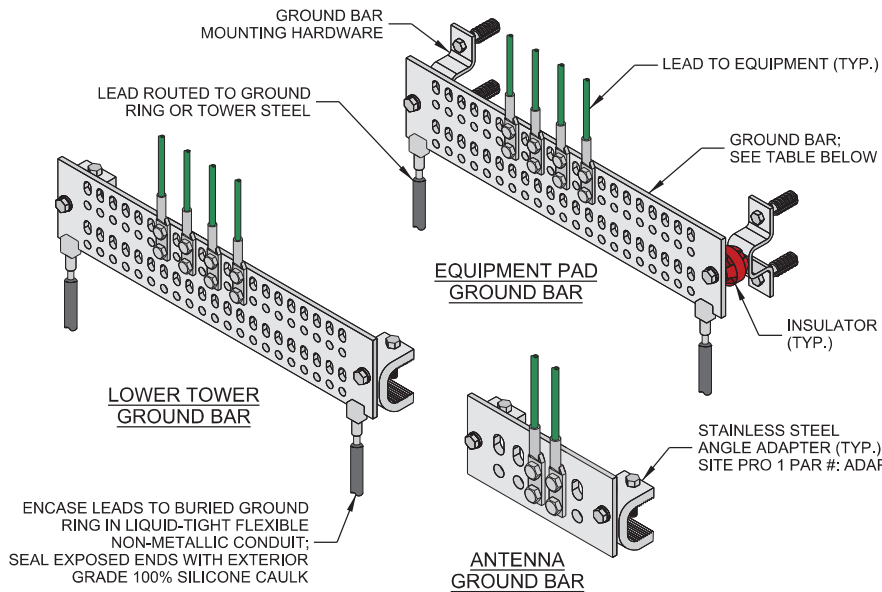
A GROUNDING DETAILS



NOTES:

1. INSTALL GROUND KITS ON EACH TRANSMISSION LINE IN THE FOLLOWING LOCATIONS:
A. ANTENNA / DISH LEVEL
B. AT 75 FOOT MAX INTERVALS FROM ANTENNA LEVEL TO BASE OF TOWER
C. TOWER BASE
D. COLLECTOR GROUND BAR / GROUND LEVEL
2. INSTALL ANTENNA GROUND BARS AT EACH ANTENNA TIER LEVEL FOR CONNECTION OF MULTIPLE ANTENNAS AT EACH LEVEL. WHEN ONLY ONE ANTENNA IS INSTALLED AT A LEVEL.

B CABLING GROUND KITS



GROUND BAR SCHEDULE:

EQUIPMENT PAD GROUND BAR	1/4" x 4" x 18" GROUND BAR WITH INSULATORS AND BRACKETS; SIZED FOR 42 SETS OF 2-HOLE LUGS SITE PRO PART #: TINMG418U-K OR EQUIVALENT
LOWER TOWER GROUND BAR	1/4" x 4" x 18" GROUND BAR; SIZED FOR 42 SETS OF 2-HOLE LUGS SITE PRO PART #: TINMG418U-K OR EQUIVALENT
ANTENNA GROUND BAR	1/4" x 2" x 6" GROUND BAR SIZED FOR 5 SETS OF 2-HOLE LUGS SITE PRO PART #: TINMG206U OR EQUIVALENT

C GROUND BAR

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

GROUNDING DETAILS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY:

DCL

PLOT DATE

8/16/2019

PROJECT NUMBER

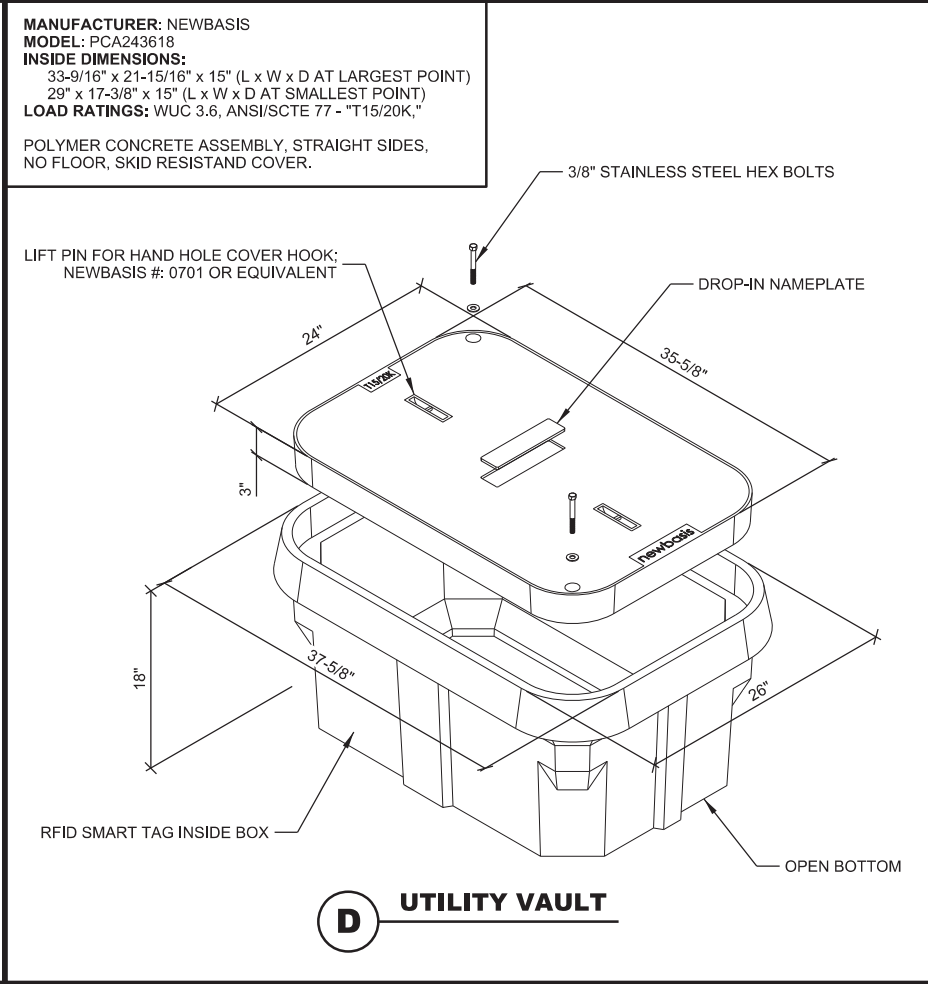
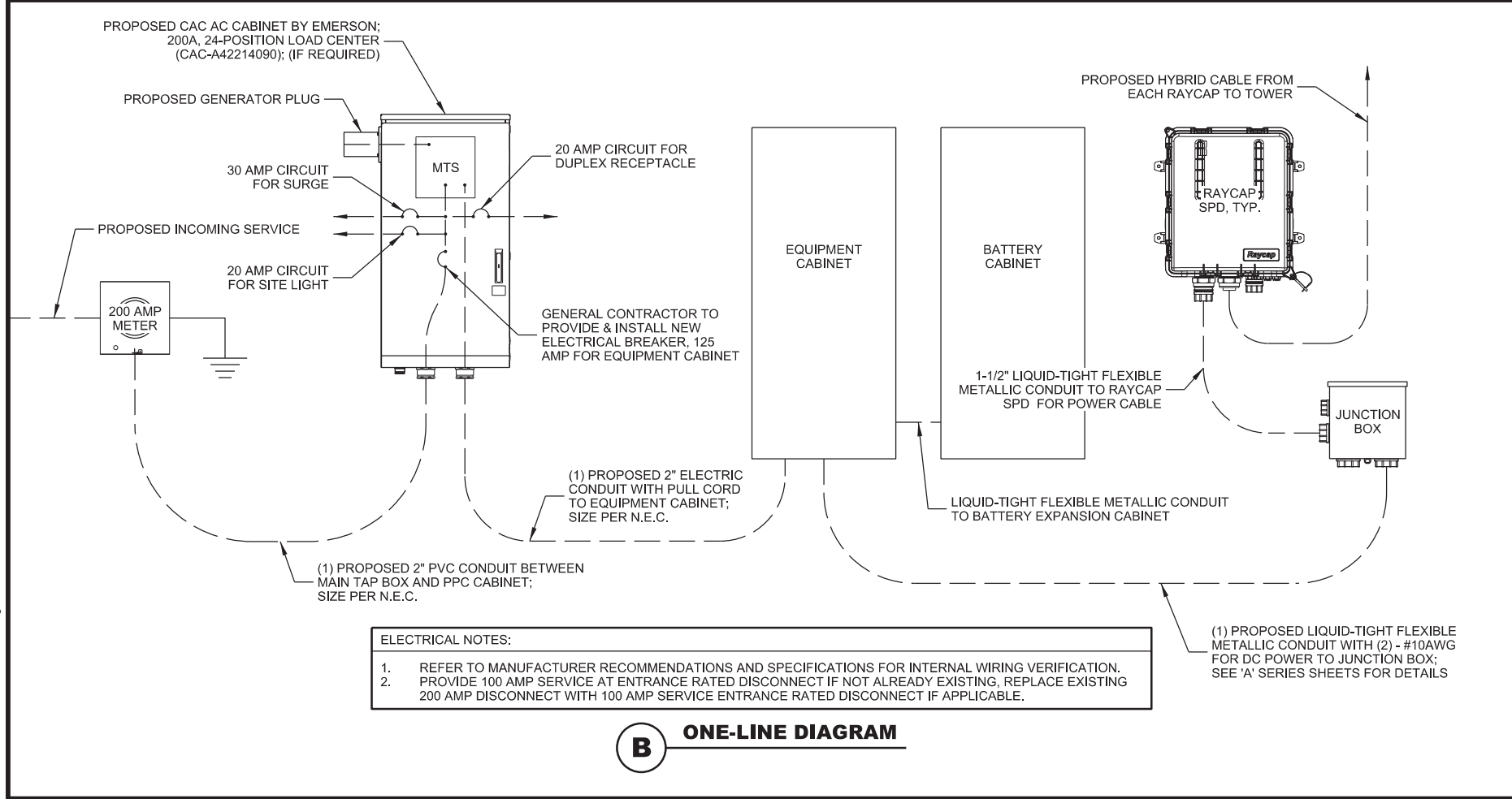
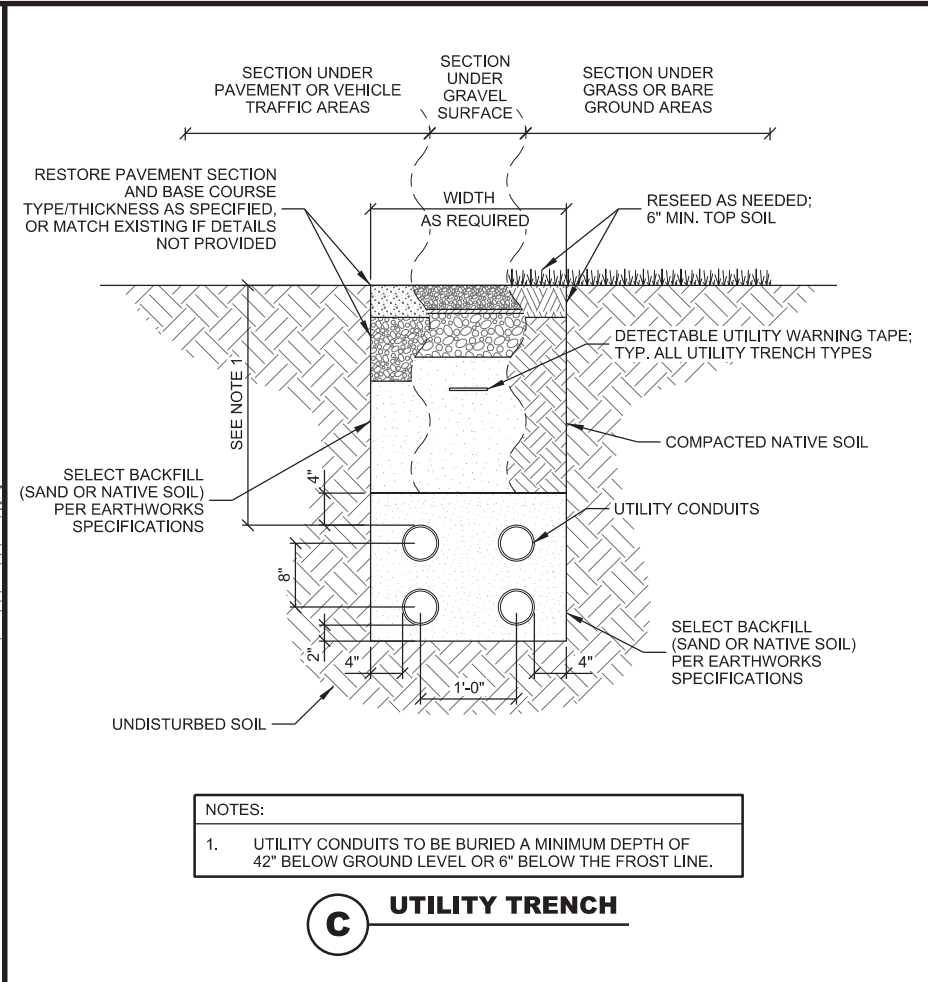
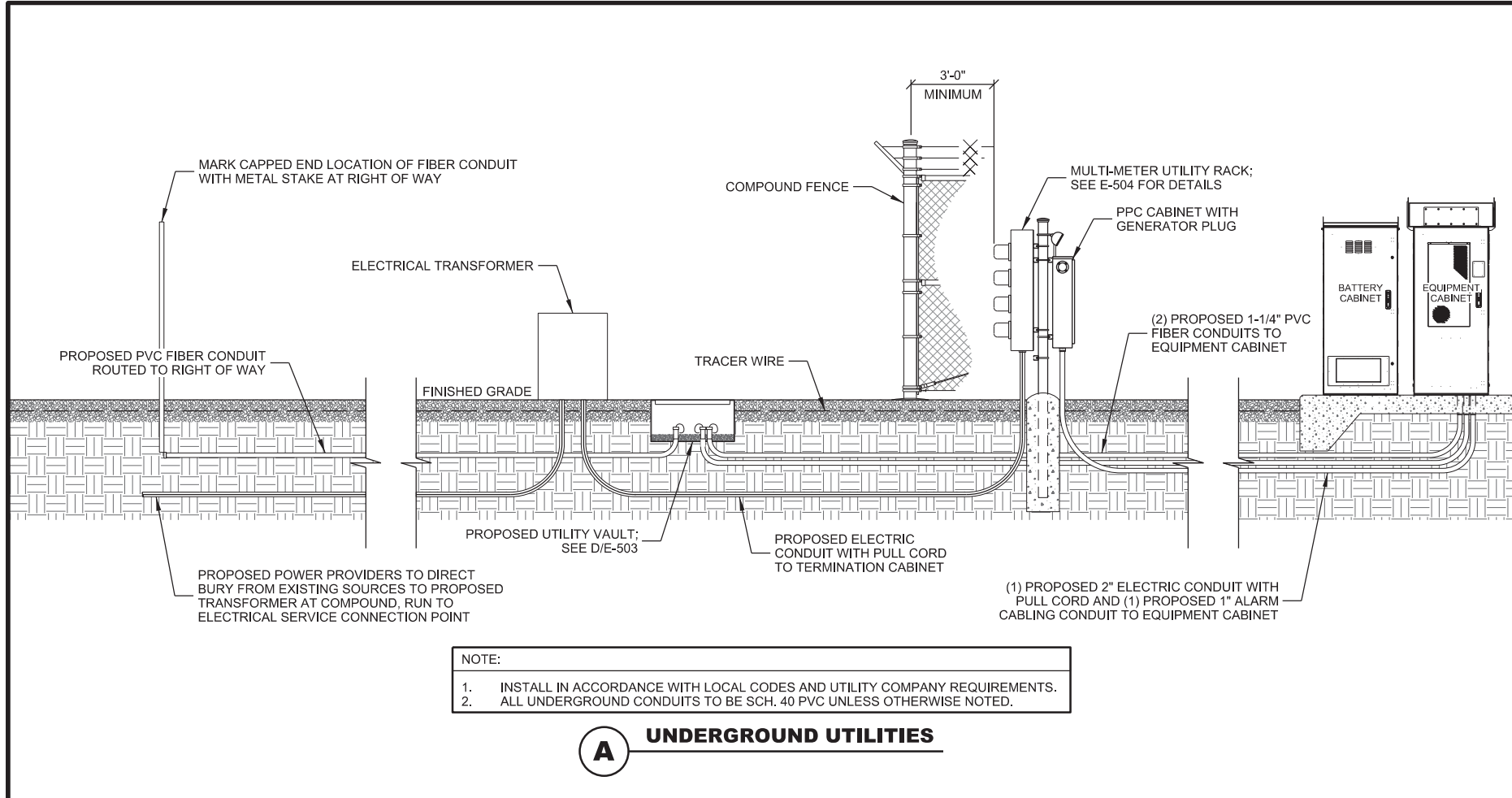
20809

SET TYPE

FINAL CDs

SHEET NUMBER

E-501



CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

UTILITY DETAILS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE:

SUBMITTAL:

INT.	DATE	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

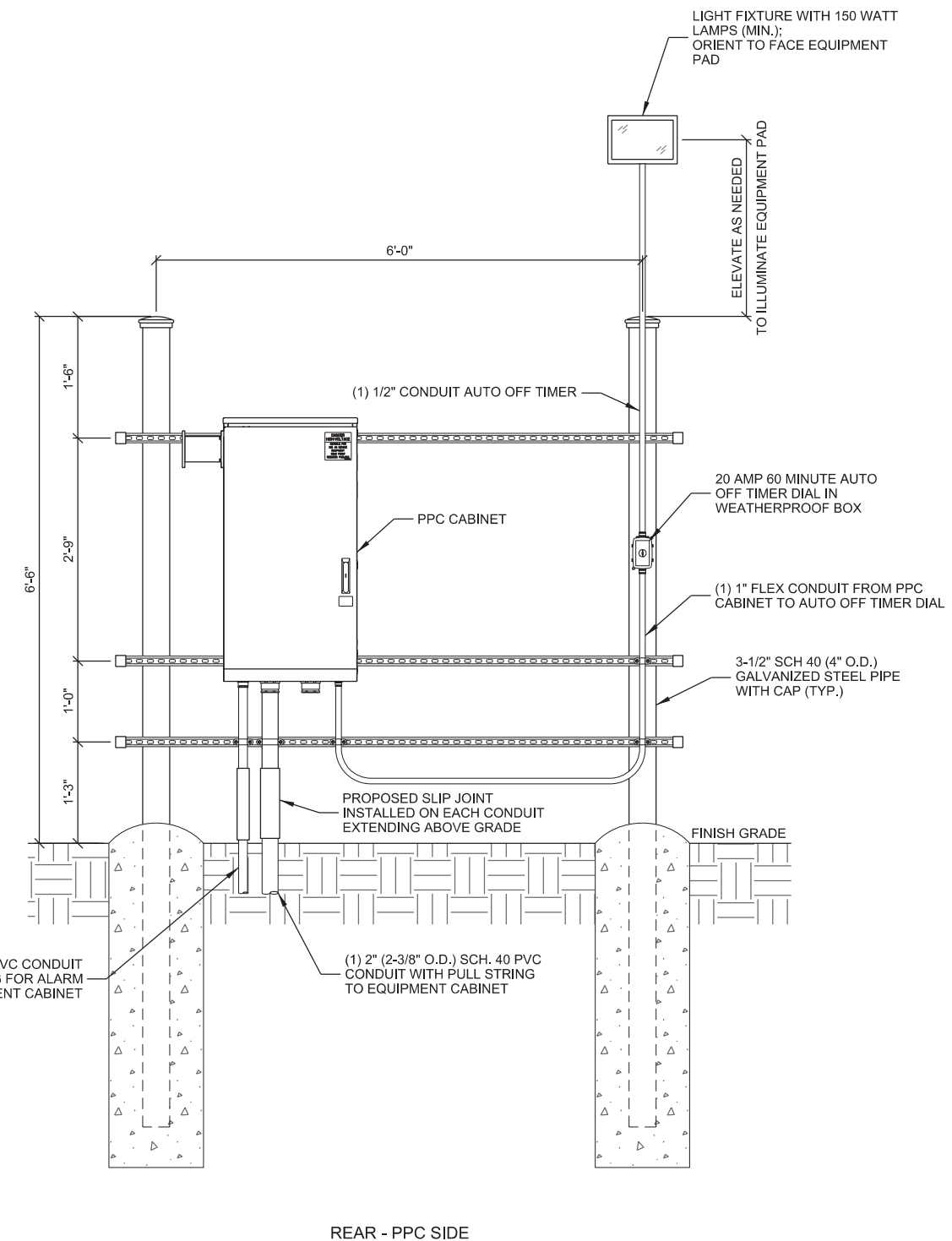
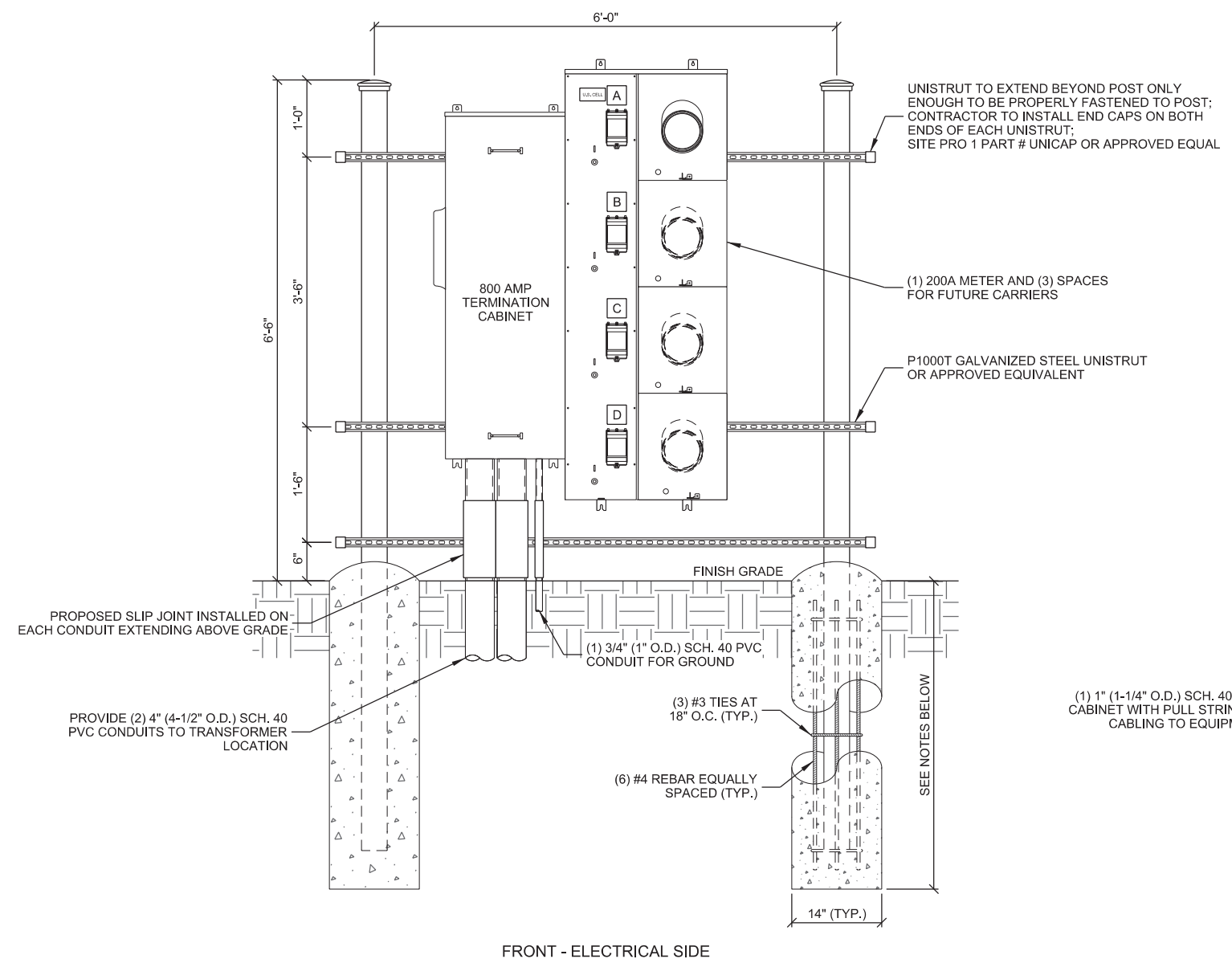
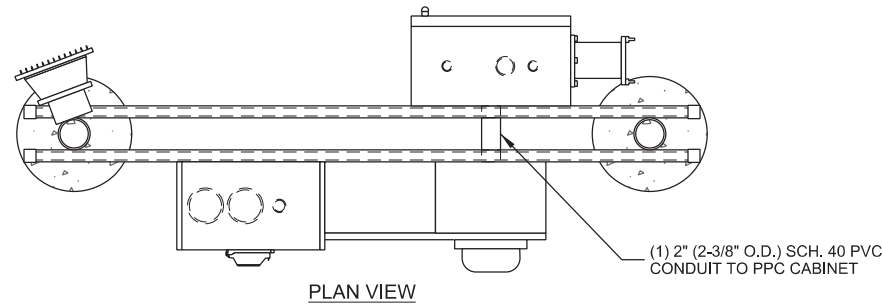
CHECKED BY: DCL

PLOT DATE: 8/16/2019

PROJECT NUMBER: 20809

SET TYPE: FINAL CDs

SHEET NUMBER: **E-503**



- NOTE:
1. CONTRACTOR TO INSTALL PVC CONDUITS FOR SERVICE LATERAL CONNECTION TO UTILITY.
 2. CONTRACTOR TO EXTEND CONDUITS UNDERGROUND BEYOND FENCELINE TO TRANSFORMER, CAP ENDS (NO DUCT TAPE ALLOWED) AND STAKE, EQUIP WITH PULL CORD, VERIFY REQUIREMENTS W/UTILITY PROVIDER.
 3. CONTRACTOR TO MARK CARRIER METER SLOT @ BREAKER OR SOCKET EXTERIOR.
 4. SOD EZ METER PAK, 120/240 VAC 1 PHASE, 3 WIRE OR EQUIV, VERIFY REQUIREMENTS WITH UTILITY PROVIDER.
 5. FINAL LAYOUT AND DESIGN DETERMINED BY CONTRACTOR/UTILITY, VERIFY FINAL DESIGN WITH U.S. CELLULAR.
 6. CONCRETE FOR PIER TO BE A MINIMUM OF 4,000 PSI AT 28 DAYS.
 7. MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTIONS.
 8. PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48"; DEPTH TO EXCEED LOCAL FROST DEPTH.

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
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

U.S. Cellular
U.S. CELLULAR - CEDAR RAPIDS
4201 RIVER CENTER CT, NE SUITE 101
CEDAR RAPIDS, IA 52402
PHONE: 319.560.3944

UTILITY RACK DETAILS
FITCHBURG SOUTH (782619)
MADISON, WI

SHEET TITLE

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADP	06/17/19	REV. A
JLM	08/16/19	REV. B

CHECKED BY	DCL
PLOT DATE	8/16/2019
PROJECT NUMBER	20809
SET TYPE	FINAL CDs
SHEET NUMBER	E-504

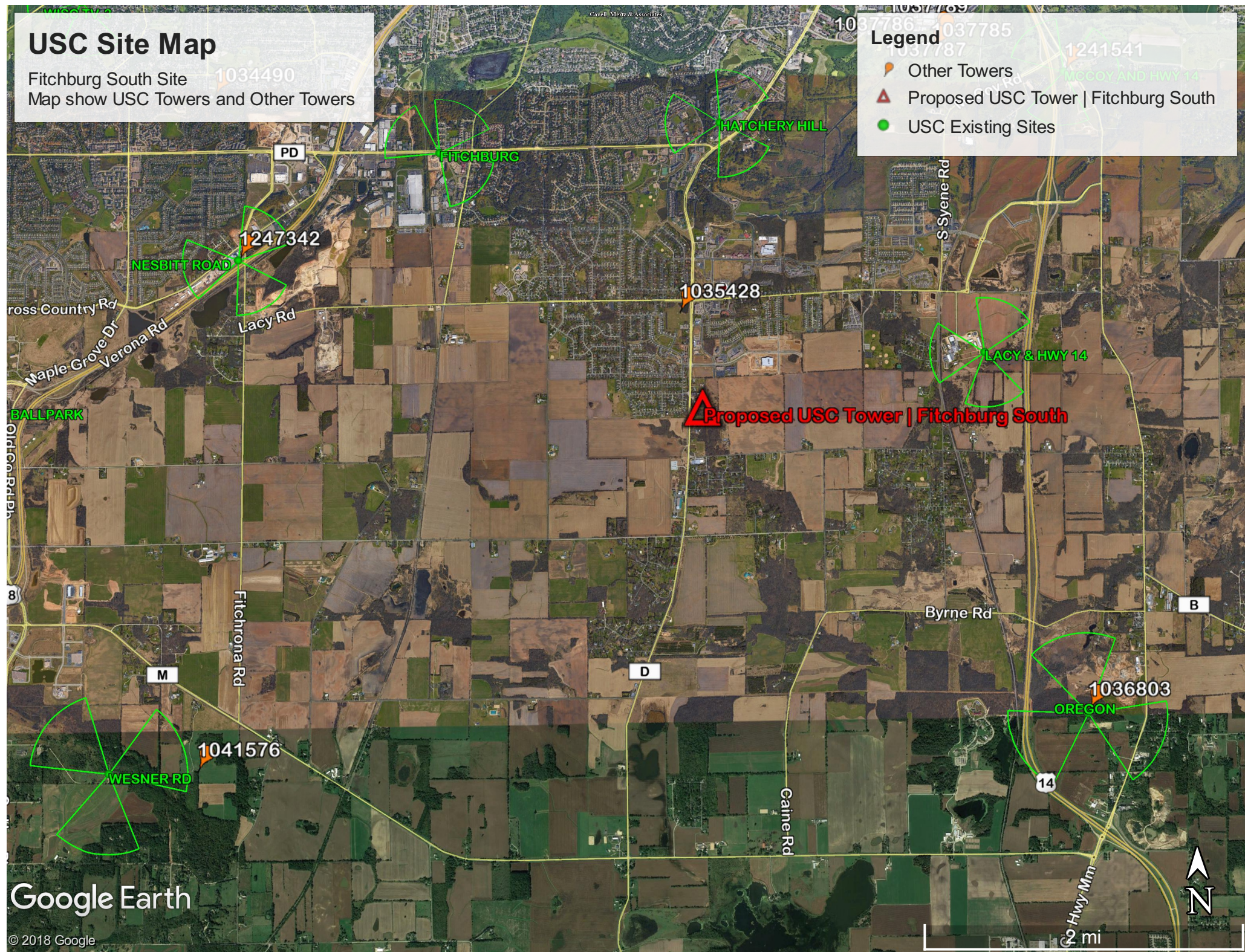
N:\20809\20809\CAD\CDs\Plate\Plate-E-504.dgn

USC Site Map

Fitchburg South Site
Map show USC Towers and Other Towers

Legend

- Other Towers
- Proposed USC Tower | Fitchburg South
- USC Existing Sites



Google Earth

© 2018 Google



Tree Management Plan for Construction Site in Fitchburg, WI

Location:

2512 S. Fish Hatchery Road, Fitchburg, WI 53711

Submitted to:

Ms. Natalie Doty
Edge Consulting Engineers
624 Water Street
Prairie du Sac, WI 53578

Prepared by:

R Bruce Allison
Allison Tree, LLC
1830 Sugar River Road
Verona, WI 53593

Date:

July 17, 2019

Construction of a US Cellular monopole cell tower is proposed on this partially wooded rural residential site. Edge Consulting Engineers, Inc., has provided me with copies of site survey including boundaries, grades, location of existing and proposed structures, select trees, and an aerial view. The gently sloping site has a house, garages and driveways on the west side of the lot along Fish Hatchery Road. The proposed tower construction is in the backyard lawn area. The lot has a regrowth sparsely wooded and shrub area along the north, east and south boundaries. The survey has located select landscape trees near the house and in the backyard lawn area. Using their site plan I have added additional trees along the north and south lot boundaries most of which are either on the fence line or outside of the lot but noted none-the-less to inform the construction process of possible impact to root systems during grading of the north boundary access road or trenching of the south boundary utilities. I have assigned numbers 1-27 to all of the trees and created the following table to state species, trunk size, condition and comments:

ID #	Species	DBH"	Condition	Comments
1	Black Walnut	18	Good	
2	Black Cherry	14	Fair	
3	Boxelder	12,12,18	Poor	Multistem, consider removal

4	Boxelder	8	Poor	Lean, consider removal
5	Black Cherry	12	Fair	Fence embedded, prune for clearance
6	Apple	8	Poor	
7	Black Cherry	12	Poor	
8	Black Walnut	8	Good	
9	Black Cherry	10	Fair	
10	Black Walnut	8	Good	
11	Hickory	12	Good	
12	Black Cherry	12	Fair	Multi-stem
13	Boxelder	24	Fair	Two trunks
14	Cottonwood	32	Fair	Tall, behind detached garage
15	Boxelder	18	Fair	
16	Black Walnut	16	Fair	
17	Boxelder	12	Poor	
18	Norway Maple	24	Poor	Co-dominant branching, decay
19	Norway Maple	21	Poor	Decay
20	Black Walnut	18	Poor	Decay
21	Boxelder	18	Poor	
22	Boxelder	24	Poor	Twin trunk
23	Black Walnut	15	Good	
24	Arborvitae	9	Fair	Two trees
25	Apple	10	Fair	
26	Apple	12	Fair	
27	Apple	6	Fair	

The planted landscape trees appear to be only the Norway maples west of the house, the two arborvitae and possibly the 3 apples in the lawn area. The Norway maples are in a decrepit condition and the apples unmanaged and unproductive. The shrub area along the backyard boundary consists primarily of invasive plants, buckthorn, honeysuckle, and sumac. The proposed access road along the north boundary will remove them and also require pruning or removal of obstructing trees 2-8. Prior to construction I recommend the contractor identify the access road limits and determine which trees are to be pruned or removed.

The south boundary line trees (10-17) may be affected by the proposed underground utilities. To avoid damage to the root plate zone defined as an area around the tree with a radius 3-5 times the trunk diameter, it may be necessary to borer under the roots rather than cut them during trenching. Alternatively, select tree removal can be considered in this area on the owner's property.

There are no heritage or significant trees on this site. I have checked with the Wisconsin Department of Natural Resources Website under Champion Trees, with the books by R. B.

Allison “Wisconsin’s Champion Trees,” and “Every Root Anchor,” and with the Dane County Tree Board website article on the Bicentennial Oaks by R. B. Allison.

After truck clearance needs have been determined by the contractor and construction zone limits have been established, clearance of invasive plants and select trees in the way can begin followed by placement of a snow-fence type tree protection fence with metal stakes can be placed separating the defined construction zone from all remaining trees. The project superintendent will have the responsibility to enforce the restriction of vehicles and equipment outside of the construction zone.

Following are photographs to illustrate my observations:



19



#18



#20



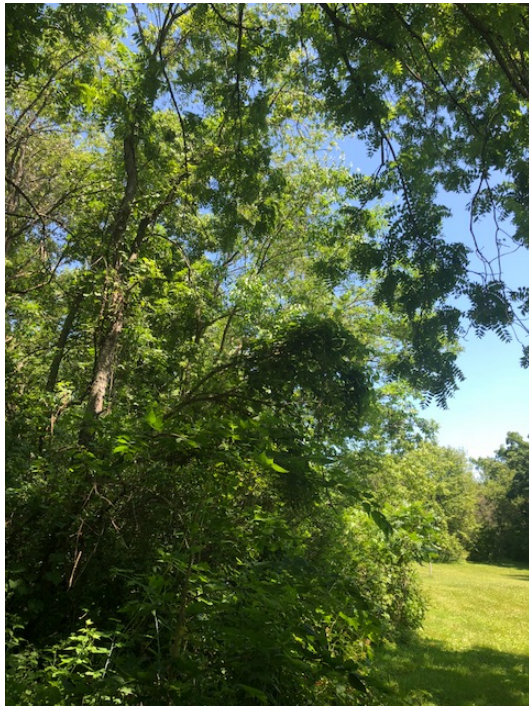
#21



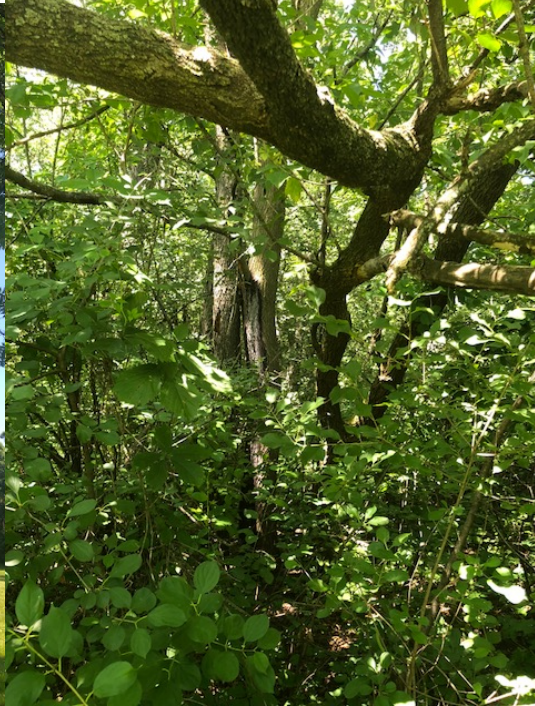
#22



#23, #1



#2



#3, #4



#5, #6

#25, #26, #27



#7, #8



#9



#11



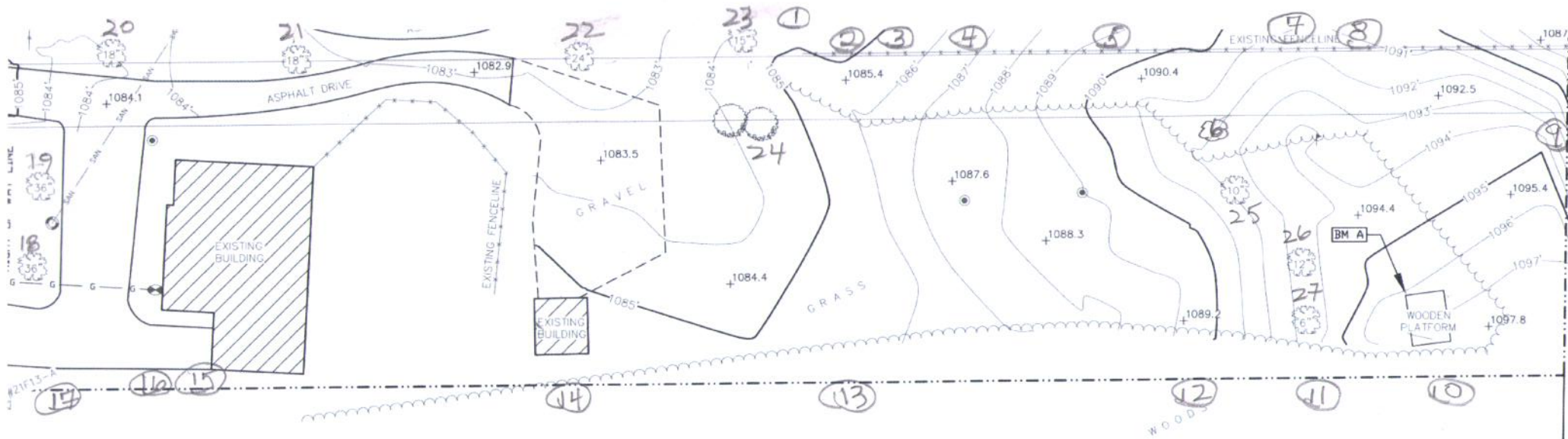
#12



#13



#15, #16, #17



**COMMITMENT FOR TITLE INSURANCE
ISSUED BY
FIDELITY NATIONAL TITLE INSURANCE COMPANY**

NOTICE

IMPORTANT—READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACONTRACTUAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

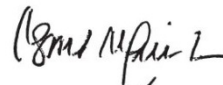
COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and the Commitment Conditions, Fidelity National Title Insurance Company, a Florida Corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I—Requirements have not been met within 180 Days after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

Fidelity National Title Insurance Company

By:



President

ATTEST



Secretary

Transaction Identification Data for reference only:

Issuing Agent: Solidifi Title & Closing, LLC

Issuing Office: Solidifi Title & Closing, LLC

Issuing Office's ALTA® Registry ID: 1030963

Loan ID Number:

Commitment Number: USC-1496409-C

Issuing Office File Number: USC-1496409-C

Property Address: 0 South Fish Hatchery Road, Madison, WI 53711

Revision Number:

SCHEDULE A

1. Commitment Date: April
2. Policy or Policies to be issued:
 - (a) ☒ 2006 ALTA® Owner's Policy
Proposed Insured: United States Cellular Operating Company LLC
Proposed Policy Amount: \$150,000.00
 - (b) ☐ 2006 ALTA® Loan Policy
2. The estate or interest in the Land described or referred to in this Commitment is FEE SIMPLE
3. The Title is, at the Commitment Date, vested in:

Hatchery House, LLC, a Wisconsin Limited Liability Company
4. The Land is described as follows:
SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

FIDELITY NATIONAL TITLE INSURANCE COMPANY



By: _____
Authorized Signatory

Exhibit A

Legal Description

The land referred to herein below is situated in the County of Dane, City of Fitchburg, State of Wisconsin and is described as follows:

Part of the Northeast 1/4 of the Southeast 1/4 of Section 16, Township 6 North, Range 9 East, in the City of Fitchburg, Dane County, Wisconsin, more fully described as follows: Beginning on the East line of said Section 16 at a point 976.9 feet South of the Northeast corner of said Northeast 1/4 of the Southeast 1/4; thence continue along said East line 83.1 feet; thence West parallel to the South line of the Northeast 1/4 of the Southeast 1/4 for a distance of 525.5 feet to the centerline of S. Fish Hatchery Road; thence North along the centerline of S. Fish Hatchery Road 83.1 feet; thence East parallel to the South line of said Northeast 1/4 of the Southeast 1/4, 523.3 feet to the point of beginning.

Parcel ID #225/0609-164-8430-2

This being the same property conveyed to Hatchery House, LLC, a Wisconsin Limited Liability Company from David R. Strassman and Cheryl L. Strassman, husband and wife in a deed dated July 20, 2010 and recorded July 22, 2010, as Instrument No. 4674296.

Property Commonly Known As: 0 South Fish Hatchery Road, Madison, WI 53711
County of Dane

“The property address and tax parcel identification number listed are provided solely for informational purposes, without warranty as to accuracy or completeness and are not hereby insured.”

All of the following Requirements must be met:

1. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.
2. Pay the agreed amount for the estate or interest to be insured.
3. Pay the premiums, fees, and charges for the Policy to the Company.
4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.

Lease from Hatchery House, LLC, a Wisconsin Limited Liability Company to United States Cellular Operating Company LLC

5. Any and all unpaid taxes, assessments, water charges, sewer rents, interest, and penalties thereon and sales thereof, if any, that guaranteed tax search might disclose or upon proof of payment of the above exception will be removed.
6. Satisfactory evidence should be had that improvements and/or repairs or alterations thereto are completed; that contractor, subcontractor, labor and materialmen are all paid.
7. The nature of the transaction to be insured herein must be disclosed to the company prior to the closing. Title may be subject to the additional exceptions as may be appropriate after disclosure of the type of transaction.
8. Compliance with Foreign Investment in Real Property Tax Act of 1980, Section 1445 and 897 of the IRS Code and related Treasury regulations.
9. Except in an exempt transaction, the company must be furnished with the seller's social security number or tax identification number and all other information necessary to complete IRS form 1099S
10. Obtain and record current Certificate of Municipal Liens showing all current real estate taxes, water, sewer charges paid to date in order to modify Schedule B-Section 2 herein.

(Additional Requirements may be listed here by number)

Obtain and record discharges, terminations, and/or releases for the following instruments:

1. Subject to review of current survey of tower site and easements prior to issuance of policy.
2. For United States Cellular Operating Company LLC (hereinafter referred to as LLC):
 - A. The Company must be provided with a copy of:
 - a. the Articles of Organization,
 - b. written Operating Agreement and all amendments thereto,
 - b. current membership roster, and
 - d. a certificate of good standing (or current registration) of LLC.
 - B. Unless the deed, mortgage/Deed of Trust and/or other encumbrance instrument(s) is/are executed by all Members, the Company must be furnished a Resolution of all Members of the

LLC approving the transaction and ratifying and confirming action taken or to be taken by the Manager(s) or Managing Member(s).

- C. In lieu of A and B above, certification by LLC's attorney that LLC is a valid and subsisting limited liability company in its state of organization and that execution and delivery of the deed, mortgage/Deed of Trust and/or other encumbrance instrument(s) is/are pursuant to the terms of its operating agreement.
- D. Execution of any recordable document (also any Company affidavit, cover sheet, or other executed document), must include proper state of formation; and, if applicable, correctly reflect any mergers, name changes, erroneous names used or variations in title.

3. For Hatchery House, LLC, a Wisconsin Limited Liability Company (hereinafter referred to as LLC):

- A. The Company must be provided with a copy of:
 - a. the Articles of Organization,
 - b. written Operating Agreement and all amendments thereto,
 - b. current membership roster, and
 - d. a certificate of good standing (or current registration) of LLC.
- B. Unless the deed, mortgage/Deed of Trust and/or other encumbrance instrument(s) is/are executed by all Members, the Company must be furnished a Resolution of all Members of the LLC approving the transaction and ratifying and confirming action taken or to be taken by the Manager(s) or Managing Member(s).
- C. In lieu of A and B above, certification by LLC's attorney that LLC is a valid and subsisting limited liability company in its state of organization and that execution and delivery of the deed, mortgage/Deed of Trust and/or other encumbrance instrument(s) is/are pursuant to the terms of its operating agreement.
- D. Execution of any recordable document (also any Company affidavit, cover sheet, or other executed document), must include proper state of formation; and, if applicable, correctly reflect any mergers, name changes, erroneous names used or variations in title.

4. Type of Tax: City/Town/Borough
For the period: 2018
In the amount of: \$1,819.78
Tax parcel ID: 225/0609-164-8430-2
Date Due: 1/31/19-PAID

Interest and penalties may accrue.

SCHEDULE B, PART II
Exceptions

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

The Policy will not insure against loss or damage resulting from the terms and provisions of any lease or easement identified in Schedule A, and will include the following Exceptions unless cleared to the satisfaction of the Company:

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I—Requirements are met.
2. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.
3. Any encroachment, conflicts in boundary lines, discrepancies, easements, measurement, encumbrance, violation, variation, adverse circumstance or other state of facts affecting the title that would be disclosed by an accurate and complete survey of the land. The term “encroachment” includes encroachments of existing improvements located on the land onto adjoining land, and encroachments onto the land of existing improvements located on adjoining land.
4. The exact acreage or square footage of the premises will not be insured.
5. Rights, facts, interests or claims of present tenants, lessees or parties in possession which are not shown by the Public Records, but which could be ascertained by an inspection of said Land or by making inquiry of persons in possession thereof.
6. Streams, riparian rights, littoral rights and the title to any filled-in-lands.
7. Taxes or special assessments which are not shown as existing liens by the public records.
8. Covenants, conditions and restrictions, if any, not appearing in the public records.
9. Any easements or servitudes not appearing in the public records.
10. Any lease, grant, exception or reservation of minerals or mineral rights together with any rights appurtenant thereto.
11. Homeowner's or other association dues, assessments or fees for which no notice of delinquency, lien, claim of lien or assessment has been filed of record in the real property records.
12. Unrecorded leases and agreements.

(Additional Exceptions may be listed here by number)

1. Rights of fee simple owners in and to the subject property.
2. Right-of-Way between David R. Strassman and Cheryl Strassman a/k/a Cheryl L. Strassman and Madison Gas and Electric Company, a Wisconsin corporation, dated December 07, 1988 recorded May 31, 1989, in Book 12883 Page 80, in Dane County, Wisconsin.

3. Right-of-Way between David R. Strassman and Cheryl L. Strassman and Madison Gas and Electric Company, a Wisconsin corporation, dated March 13, 1999 recorded November 12, 1999, as Instrument No. 3171443, in Dane County, Wisconsin.

Address Reference:

**United States Cellular Operating Company LLC
0 South Fish Hatchery Road
Madison, WI 53711
County of Dane**

Chain of Title

Grantees: Hatchery House, LLC, a Wisconsin Limited Liability Company
Grantors: David R. Strassman and Cheryl L. Strassman, husband and wife
Dated: July 20, 2010
Recorded Date: July 22, 2010
Consideration: \$0.00

Grantees: David R. Strassman and Cheryl L. Strassman, husband and wife
Grantors: David R. Strassman and Cheryl L. Strassman, as Trustee of Strassman Living Trust dated November 16, 2007
Dated: June 10, 2010
Recorded Date: June 24, 2010
Consideration: \$0.00

Grantees: David R. Strassman and Cheryl L. Strassman, Trustees or their successors in trust, under the Strassman Living Trust, dated November 16, 2007
Grantors: David R. Strassman aka Dave R. Strassman and Cheryl L. Strassman
Dated: November 16, 2007
Recorded Date: May 11, 2009
Consideration: \$0.00

Grantees: David R. Strassman and Cheryl L. Strassman
Grantors: Stephanie Pekol, as Personal Representative of the estate of Linda M. Pekol, Deceased
Dated: March 31, 1998
Recorded Date: April 17, 1998
Consideration: \$0.00

Grantees: Thomas A. Pekol and Linda M. Pekol, husband and wife, as joint tenants
Grantors: Alberta Pauline Gwaltney, a single woman
Dated: July 16, 1974
Recorded Date: July 18, 1974
Consideration: \$1.00
Book/Page: 523 / 517

COMMITMENT CONDITIONS

1. DEFINITIONS

- (a) “Knowledge” or “Known”: Actual or imputed knowledge, but not constructive notice imparted by the Public Records.
- (b) “Land”: The land described in Schedule A and affixed improvements that by law constitute real property. The term “Land” does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.
- (c) “Mortgage”: A mortgage, deed of trust, or other security instrument, including one evidenced by electronic means authorized by law.
- (d) “Policy”: Each contract of title insurance, in a form adopted by the American Land Title Association, issued or to be issued by the Company pursuant to this Commitment.
- (e) “Proposed Insured”: Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.
- (f) “Proposed Policy Amount”: Each dollar amount specified in Schedule A as the Proposed Policy Amount of each Policy to be issued pursuant to this Commitment.
- (g) “Public Records”: Records established under state statutes at the Commitment Date for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge.
- (h) “Title”: The estate or interest described in Schedule A.

2. If all of the Schedule B, Part I—Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company’s liability and obligation end.

3. The Company’s liability and obligation is limited by and this Commitment is not valid without:

- (a) the Notice;
- (b) the Commitment to Issue Policy;
- (c) the Commitment Conditions;
- (d) Schedule A;
- (e) Schedule B, Part I—Requirements; and
- (f) Schedule B, Part II—Exceptions; and
- (g) a counter-signature by the Company or its issuing agent that may be in electronic form.

4. COMPANY’S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company shall not be liable for any other amendment to this Commitment.

5. LIMITATIONS OF LIABILITY

- (a) The Company’s liability under Commitment Condition 4 is limited to the Proposed Insured’s actual expense incurred in the interval between the Company’s delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured’s good faith reliance to:
 - (i) comply with the Schedule B, Part I—Requirements;
 - (ii) eliminate, with the Company’s written consent, any Schedule B, Part II—Exceptions; or
 - (iii) acquire the Title or create the Mortgage covered by this Commitment.

- (b) The Company shall not be liable under Commitment Condition 5(a) if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.
- (c) The Company will only have liability under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.
- (d) The Company's liability shall not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Conditions 5(a)(i) through 5(a)(iii) or the Proposed Policy Amount.
- (e) The Company shall not be liable for the content of the Transaction Identification Data, if any.
- (f) In no event shall the Company be obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I—Requirements have been met to the satisfaction of the Company.
- (g) In any event, the Company's liability is limited by the terms and provisions of the Policy.

6. LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT

- (a) Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.
- (b) Any claim must be based in contract and must be restricted solely to the terms and provisions of this Commitment.
- (c) Until the Policy is issued, this Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.
- (d) The deletion or modification of any Schedule B, Part II—Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.
- (e) Any amendment or endorsement to this Commitment must be in writing and authenticated by a person authorized by the Company.
- (f) When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

7. IF THIS COMMITMENT HAS BEEN ISSUED BY AN ISSUING AGENT

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for the purpose of providing closing or settlement services.

8. PRO-FORMA POLICY

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

9. ARBITRATION

The Policy contains an arbitration clause. All arbitrable matters when the Proposed Policy Amount is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Proposed Insured as the exclusive remedy of the parties. A Proposed Insured may review a copy of the arbitration rules at <http://www.alta.org/arbitration>.