

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I HAVE SURVEYED THE HEREIN DESCRIBED PROPERTY AND THAT THIS MAP IS A TRUE REPRESENTATION THEREOF AND SHOWS THE SIZE AND LOCATIONS OF THE PROPERTY, ITS EXTERIOR BOUNDARIES, THE LOCATION OF ALL VISIBLE STRUCTURES, BOUNDARY FENCES, APPARENT EASEMENTS, ROADWAYS AND VISIBLE ENCROACHMENTS, IF ANY. THIS SURVEY IS MADE FOR THE USE OF THE PRESENT OWNERS OF THE PROPERTY AND ALSO THOSE WHO PURCHASE, MORTGAGE, OR GUARANTEE THE TITLE THERETO WITHIN ONE YEAR FROM DATE HEREOF.

I HAVE BEEN AUTHORIZED, UNDER THE DIRECTION OF US CELLULAR, TO SURVEY, MONUMENT, MAP AND DESCRIBE THE LAND SHOWN ON THIS PLAT.

DATED THIS 15TH DAY OF JUNE, 2008.
DESCRIBED JUNE 22ND, 2009

MATHEW D. REIGEL, PROFESSIONAL LAND SURVEYOR NO. S-2321

FLOOD PLAIN A WETLAND CERTIFICATE

I HEREBY CERTIFY THAT UPON REVIEW OF THE FEMA MAP, PANEL NO. 55020C0417C AND THE WISCONSIN DNR WETLANDS INVENTORY MAP AS ON FILE IN THE DADE COUNTY LAND RECORDS OFFICE, THAT LEASE PARCEL AND ACCESS EASEMENT THERETO ARE NOT WITHIN THE CONFINES OF A FLOOD PLAIN AS DEFINED BY FEMA NOR A WETLAND AS DEFINED BY THE WISCONSIN DNR.

MATHEW D. REIGEL
PROFESSIONAL LAND SURVEYOR NO. S-2321



LEASE PARCEL DESCRIPTION

A PART OF LOT 31 OF BELT LINE PROJECTS PLAT LOCATED IN THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 07 NORTH, RANGE 09 EAST, CITY OF MADISON, DADE COUNTY, WISCONSIN DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE S89°02'43"E, ALONG THE SOUTH LINE OF SAID SECTION 35, 1253.66 FEET TO THE SOUTHWEST CORNER OF SAID LOT 31; THENCE S89°02'43"E, ALONG THE SOUTH LINE OF SAID SECTION 35, 14.50 FEET; THENCE N00°33'46"E, 6.50 FEET TO THE POINT OF BEGINNING; THENCE N00°33'46"E, 40.00 FEET; THENCE S89°02'43"E, 36.00 FEET; THENCE S00°33'46"W, 40.00 FEET; THENCE N89°02'43"W, 35.00 FEET TO THE POINT OF BEGINNING. PARCEL CONTAINS 1,400.03 SQUARE FEET OR 0.03 ACRES. PARCEL IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

30' ACCESS AND UTILITY EASEMENT DESCRIPTION

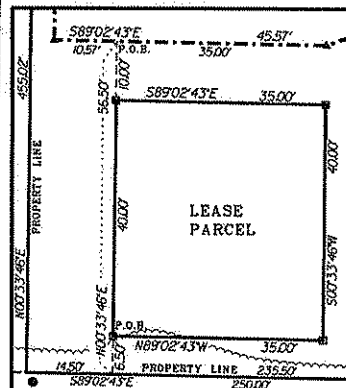
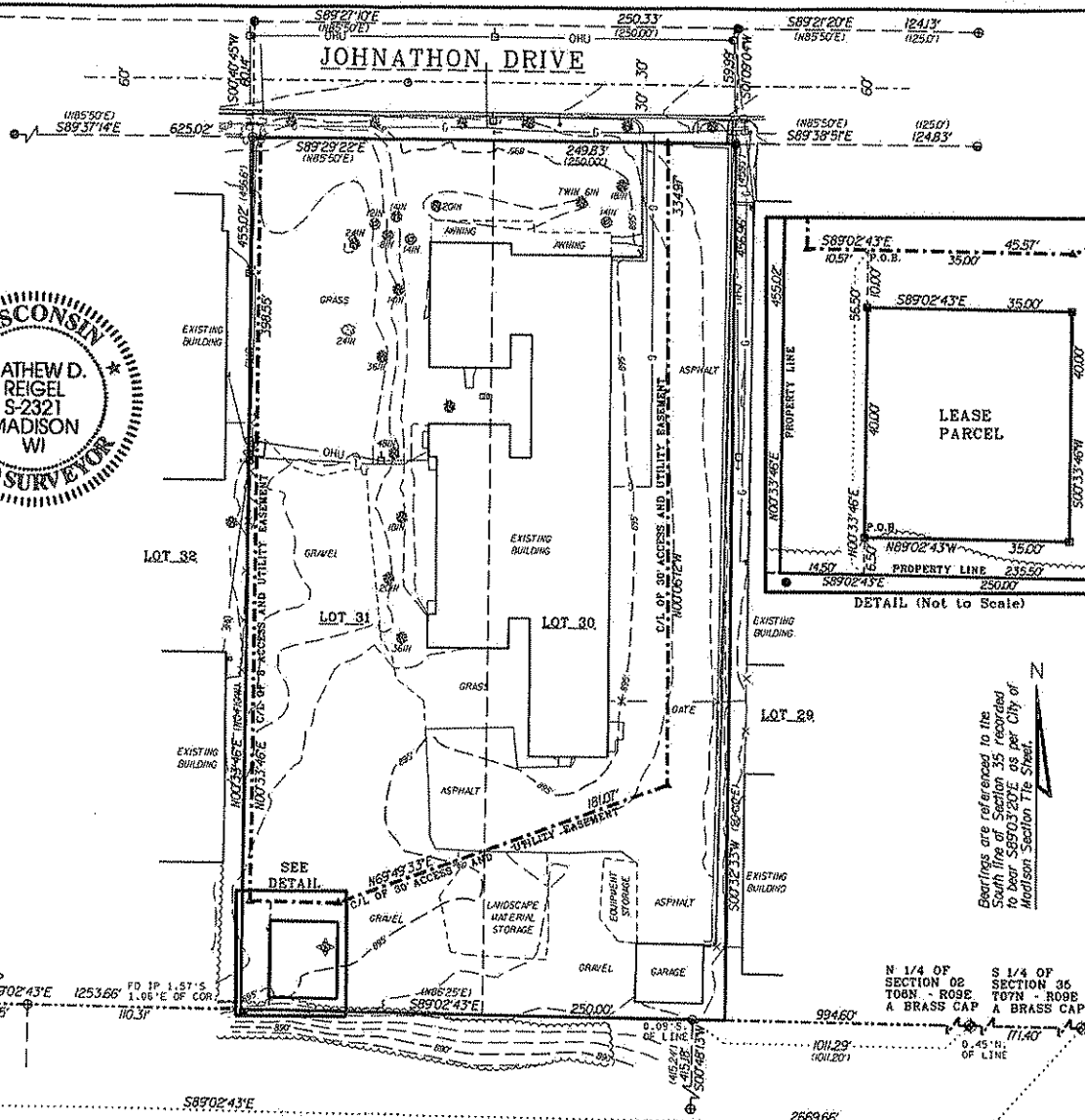
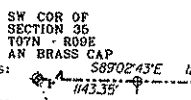
A PART OF LOTS 30 AND 31 OF BELT LINE PROJECTS PLAT LOCATED IN THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 07 NORTH, RANGE 09 EAST, CITY OF MADISON, DADE COUNTY, WISCONSIN WHOSE CENTERLINE IS DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE S89°02'43"E, ALONG THE SOUTH LINE OF SAID SECTION 35, 1253.66 FEET TO THE SOUTHWEST CORNER OF SAID LOT 31; THENCE S89°02'43"E, ALONG THE SOUTH LINE OF SAID SECTION 35, 14.50 FEET; THENCE N00°33'46"E, 56.50 FEET TO THE POINT OF BEGINNING; THENCE S89°02'43"E, 35.00 FEET; THENCE N89°49'33"E, 181.07 FEET; THENCE N00°06'12"W, 534.97 FEET TO THE POINT OF TERMINATION IN THE SOUTH LINE OF JOHNATHON DRIVE. PARCEL IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

0' ACCESS AND UTILITY EASEMENT DESCRIPTION

A PART OF LOT 31 OF BELT LINE PROJECTS PLAT LOCATED IN THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 07 NORTH, RANGE 09 EAST, CITY OF MADISON, DADE COUNTY, WISCONSIN WHOSE CENTERLINE IS DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE S89°02'43"E, ALONG THE SOUTH LINE OF SAID SECTION 35, 1253.66 FEET TO THE SOUTHWEST CORNER OF SAID LOT 31; THENCE S89°02'43"E, ALONG THE SOUTH LINE OF SAID SECTION 35, 14.50 FEET; THENCE N00°33'46"E, 56.50 FEET TO THE POINT OF BEGINNING; THENCE N89°02'43"W, 10.57 FEET; THENCE N00°33'46"E, 396.55 FEET TO THE POINT OF TERMINATION IN THE SOUTH LINE OF JOHNATHON DRIVE. PARCEL IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

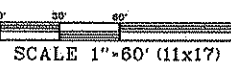


DETAIL (Not to Scale)

PROJECT: GREENWAY
SITE: W782514
SURVEYED FOR:
US CELLULAR
5117 W. TERRACE DRIVE
MADISON, WI 53707
PROPERTY OWNER:
VERA I. DANIELS
979 JOHNATHON DRIVE
MADISON, WI 53713
The Property lies in Flood
Zone X as per Community
Form Number 55020C0417C,
Effective January 02, 2009.

TOWER
Latitude: N 43° 01' 52.98"
Longitude: W 089° 23' 56.93"
Ground Elevation: 895.3'
(Per North American
Datum of 1983/91)
Per National Geodetic
Vertical Datum of 1988

Diggers Hotline Ticket #00002204641
888-000-REG-0311
NOTICE: THE LOCATION AND USE OF THE UNDERGROUND
UTILITIES AND SERVICES SHOWN ON THIS PLAT IS TO BE
A RESPONSIBLE OWNER'S OBLIGATION. NOT THE
DRAFTER'S OBLIGATION. THESE SERVICES ARE NOT
THE PROPERTY OF D14487001 SHOWN.
CALL DIGGERS HOTLINE
TOLL FREE 800-542-8599



LEGEND

- GAS
- WATER
- UNDERGROUND TELEPHONE
- OVERHEAD TELEPHONE
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- STORM SEWER
- SANITARY SEWER
- CABLE TV
- FIBER OPTIC CABLE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- FD 3/4" REBAR
- FD 1" IRON PIPE
- ▲ SET 12" SPIKE
- RECORDED AS
- RECORDED AS
- BENCH MARK
- POWER POLE
- HYDRANT
- TELEPHONE PEDESTAL

FILE PATH:	DRAFTED:	REVISIONS		
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1811	06/26/09			

REIGEL LAND SURVEYING
9308 High Road
Madison, Wisconsin 53662
Voice: 608-712-6757
reigellandsurveying@charter.net

PREPARED FOR: **U.S. Cellular**
517 W. TERRACE DRIVE
MADISON, WI 53707
PHONE: (608) 441-4532
FAX: (608) 441-4192

PROJECT INFORMATION:
SITE NAME: GREENWAY
SITE NUMBER: W782514
SITE ADDRESS: 517 JOHNATHON DRIVE
MADISON, WI 53713
OWNER: VERA I. DANIELS

SHEET TITLE: **TOPOGRAPHIC AND BOUNDARY SURVEY**
SHEET NUMBER: **1-1**

Bearings are referenced to the South in Section 35 recorded in Madison Section 16 Sheet.

GENERAL REQUIREMENTS

1. SITE WORK SHALL BE COMPLETED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS (US 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 222E) MOST CURRENT VERSION ADOPTED BY SUBJECT STATE.
 - F. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
2. WHERE A CONFLICT OCCURS BETWEEN REFERENCED STANDARDS AND US 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 RECALLED AND ARE INTENDED TO BE A DIAGNOSTIC OUTLINE ONLY, UNLESS NOTED OTHERWISE THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. 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 OWNERS 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 MANUFACTURERS 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 CONTRACT AND COORDINATION WITH THE LANDLORDS AUTHORIZED REPRESENTATIVE.
9. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE SITE AND NOTIFY THE OWNERS REPRESENTATIVE OF ANY DISCREPANCIES BEFORE STARTING ANY WORK.
10. WHEN CONTRACTORS ACTIVITIES INVEDE 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 US CELLULAR PRIOR TO CONSTRUCTION.
12. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, 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 OWNERS 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. US 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 US CELLULAR AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE RESULTING FROM CONTRACTORS NEGLIGENCE OR FAILURE TO ACT WITH DUE REGARD SHALL BE REPAIRED AT CONTRACTORS 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, OILS, 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 BURNING OR DUMPING OF THESE SUBSTANCES OCCUR ON-SITE.
20. THE CONTRACTOR SHALL MAINTAIN AND SUPPLY US 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 CONTRACTOR SHALL COORDINATE/ASSIST DIFFERENT TRADE CONTRACTORS IN TERMS OF COORDINATION AND SITE ACCESS.
23. ALL ARCHITECTURAL, MECHANICAL & ELECTRICAL SYSTEM AND COMPONENTS IN THIS FACILITY SHALL BE INSTALLED TO RESIST WIND, ICE AND SNOW LOADS AS PER NATIONAL STANDARDS AND BUILDING CODES (LATEST ADOPTED EDITION).

24. US 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. US 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. US 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. US 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 IF DEEMED NECESSARY TO COMPLETE ITS 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.
6. 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, NEARLY TRIM OR CUT BACK EXISTING TREES OR VEGETATION TO ALLOW FOR CONSTRUCTION OF NEW CELLULAR FACILITIES.
3. WHEN CLEARING TREES, PROTECT ALL SURROUNDING STRUCTURES, ENVIRONMENT 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.
6. 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 2" OF FILL. STOCKPILE TOPSOIL FOR USE DURING RESTORATION.
2. ALL TREES DESIGNATED TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION BY A 6 FOOT HIGH TREE BARRIER UTILIZING WIRE FENCING, OR PROTECTIVE SAFETY NETTING. SEE DETAIL 1/1-1.
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 ROCKS, BouldERS OR ORGANIC MATERIAL. FILL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 90% OF UNMODIFIED 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 OWNERS 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 6" 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 8 OR LESS, AND A UNIFORMITY COEFFICIENT OF 8 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 PERCURE, RYE AND BLUEGRASS. FERTILIZERS 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.



**SPECIFICATIONS
 GREENWAY (#782514)
 MADISON, WISCONSIN**

SHEET TITLE	ISSUE DATE
	3/24/10
	PREPARED BY: CDE/STP
	DRAWN BY: CDE/STP
	CHECKED BY: CDE/STP
	DATE: 3/24/10
	PROJECT NUMBER: 782514
	FILE NAME: SP-1.dwg
	SHEET NUMBER: 1
	SP-1

9. THE CONTRACTOR SHALL VERIFY, UPON COMPLETION OF DEVELOPMENT, THE SITE IS PROPERLY STABILIZED AND ALL INDICATED SWALES & STORMWATER FACILITIES ARE CONSTRUCTED AS INDICATED ON THE PLANS.
10. TOWER, TOWER FOUNDATIONS, SLABS, MODULAR BUILDINGS, AND ELECTRICAL AND MECHANICAL FEATURES ARE TO BE DESIGNED AND SPEC'D BY OTHERS.
11. EROSION CONTROL - ALL MEASURES SHALL BE INSPECTED DAILY AND IMMEDIATELY FOLLOWING ALL RAIN FALL EVENTS. ALL DEFICIENCIES SHALL BE NOTED AND REPAIRED IMMEDIATELY.
12. SEDIMENTATION CONTROL - 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 SETTING OF THE EXISTING STORMWATER FACILITIES.

EROSION CONTROL

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH THE MOST STRINGENT OF: PROJECT PLANS, SPECIAL PROVISIONS, THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES "WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK", 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.

ROAD AND PARKING AREA CONSTRUCTION

1. PREPARE SUBGRADE FOR ROADS AND PARKING AREAS IN ACCORDANCE WITH "EARTHWORK" SECTION.
2. PROOF ROLL ROAD TO IDENTIFY UNSATURABLE MATERIALS. EXCAVATE UNSATURABLE MATERIAL AND DISPOSE OFFSITE. BACKFILL UNDERCUT EXCAVATION USING 3" BREAKER FROM MATERIAL. BREAKER RUN MATERIAL SHALL BE CRUSHED STONE MEETING THE FOLLOWING GRADATION:

SEIVE SIZE	% WEIGHT PASSING
3"	100
1 1/2"	90-0
3/4"	0-20
#200	0-10

3. PLACE CRUSHED AGGREGATE BASE COURSE IN MAXIMUM OF 4" 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 MOISTURE PROCTOR MAXIMUM DRY DENSITY. BASE COURSE MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:

3" BASE COURSE

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

1 1/2" BASE COURSE

SEIVE SIZE	% WEIGHT PASSING
1 1/2"	100
1"	70-100
3/4"	65-95
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.

CONCRETE AND STEEL REINFORCEMENT

1. CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94. CONCRETE SHALL BE 8 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 US CELLULAR PRIOR TO USE.
2. CONCRETE CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE MOST STRINGENT OR 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 8-B PLYFORM CLASS I SOUND SHEETS. LUMBER SHALL BE SPRUCE-PINE-FIR SPECIES #2 OR BETTER GRADE. TUBULAR COLUMN FORMS MAY BE SPRIALLY 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 318. REBAR YIELD STRENGTH = 60,000PSI.
6. AIR ENTRAINING ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTM C266. WATER REDUCING ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTM C901, TYPE A. ALL OTHER ADMIXTURES ARE PROHIBITED WITHOUT PRIOR APPROVAL BY US CELLULAR.
7. VAPOR BARRIER SHALL BE 6 MIL THICK POLYETHYLENE, MEETING THE REQUIREMENTS OF ASTM D2193.
8. CURING COMPOUND SHALL MEET THE REQUIREMENTS OF ASTM C569.
9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A186.
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 318.
13. ALL FORM WORK SHALL BE 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 US CELLULAR A MINIMUM OF 24 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 ENLAP UNTIL PLACING OPERATIONS ARE RESUMED. WHEN PLACING OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES, PROVIDE AN UNBONDED 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 308R-89 FOR COLD WEATHER OR ACI 308.1R-99 FOR HOT WEATHER.
22. WELDING OF REINFORCING STEEL ARE PROHIBITED.
23. REMOVE FORMS IN A MANNER THAT DOES NOT DAMAGE THE CONCRETE. FILL AND PATCH AND POCKETS OR HOLES ON EXPOSED SURFACES USING MORTAR MIXTURE.
24. PROVIDE TEST CYLINDERS AS FOLLOWS:
A. EQUIPMENT ENCLOSURES:
1 CYLINDER AT 7 DAYS
1 CYLINDER AT 14 DAYS
2 CYLINDER AT 28 DAYS.
25. NOTIFY ENGINEER 48 HOURS IN ADVANCE OF TOWER FOUNDATION INSTALLATION.
26. REFER TO TOWER MANUFACTURER SPECIFICATIONS REGARDING FOUNDATION REQUIREMENTS.



**SPECIFICATIONS
GREENWAY [#782514]
MADISON, WISCONSIN**

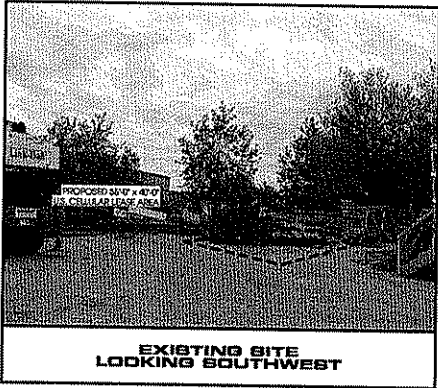
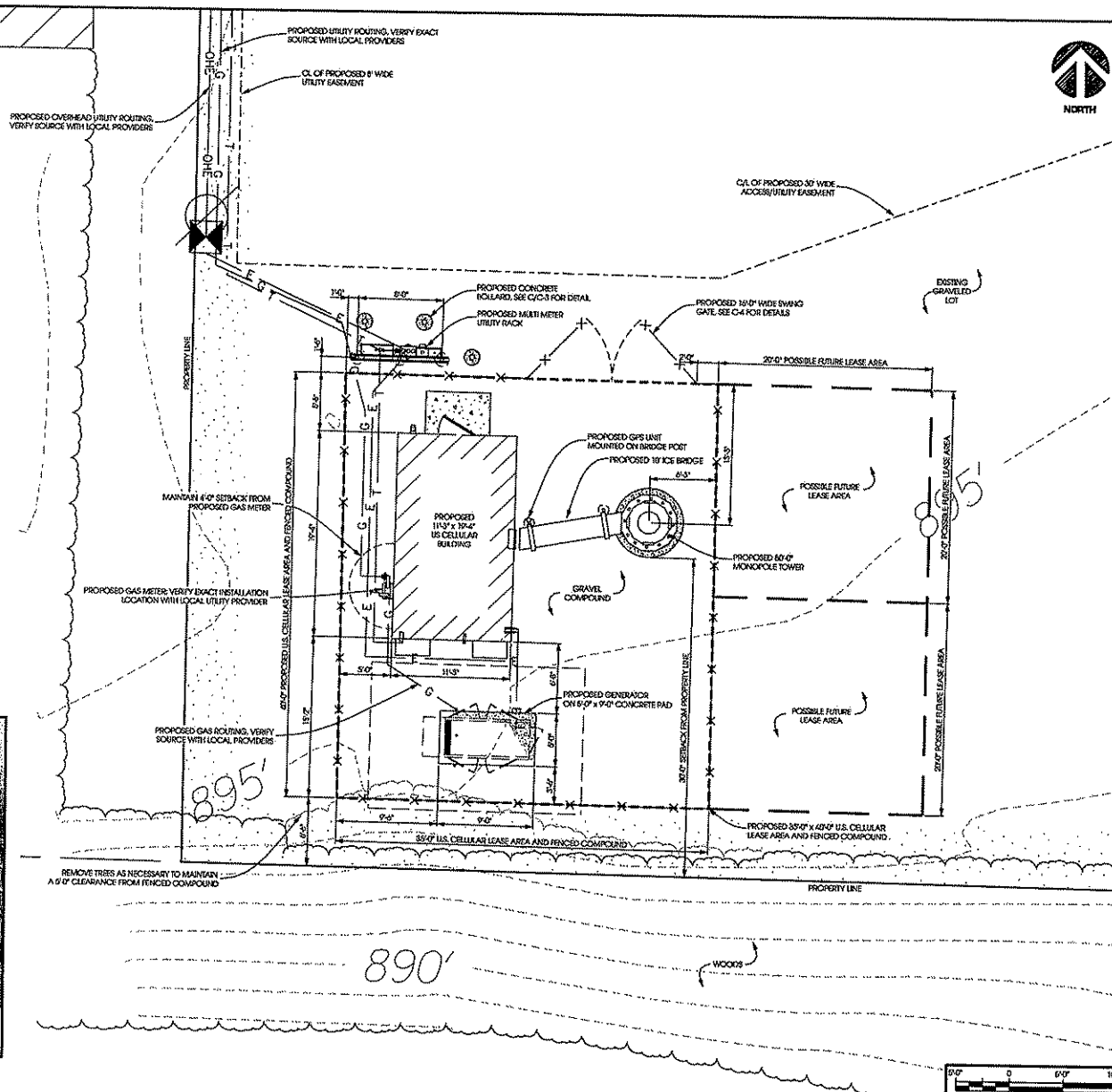
SHEET NO.

DATE	ISSUE
2023-08-28	ISSUE 01
2023-08-28	ISSUE 02
2023-08-28	ISSUE 03
2023-08-28	ISSUE 04
2023-08-28	ISSUE 05
2023-08-28	ISSUE 06
2023-08-28	ISSUE 07
2023-08-28	ISSUE 08
2023-08-28	ISSUE 09
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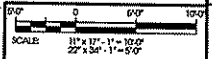


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**COMPOUND PLAN
GREENWAY (#782514)
MADISON, WISCONSIN**

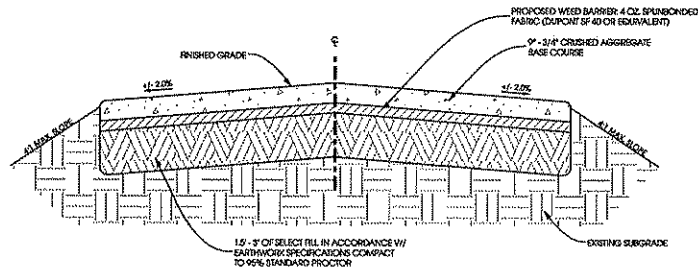


SHEET TITLE	
ISSUE DATE	
ISSUED BY	TONY D'AMICO 08-01-2009
CHECKED BY	ROBERTA WYR 08-03-2009
PLT DATE	
PROJECT NUMBER	
FILE NAME	
SCALE	



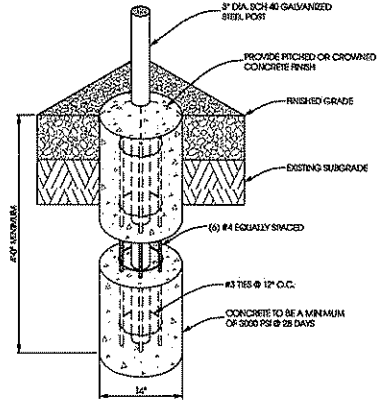
0-2

NOTES:
 CONSULT GRADING PLAN OR SITE PLAN FOR FINAL SITE GRADES. SUBSTANTIALLY MORE THAN 9" OF FILL MAY BE REQUIRED.
 ALL TOPSOIL, ORGANICS, AND WEY/POOR SOILS WITHIN COMPOUND SHALL BE REMOVED AND REPLACED WITH COMPACTED FILL. CONTRACTOR SHOULD ANTICIPATE THAT A MINIMUM OF 1" OF SOIL WILL REQUIRE REMOVAL AND COMPACTION. 1/2" ON ANY SITES WITH WEY SOILS. CONTRACTOR TO REVIEW SITE CONDITIONS AND CONSULT GEOTECHNICAL REPORT.



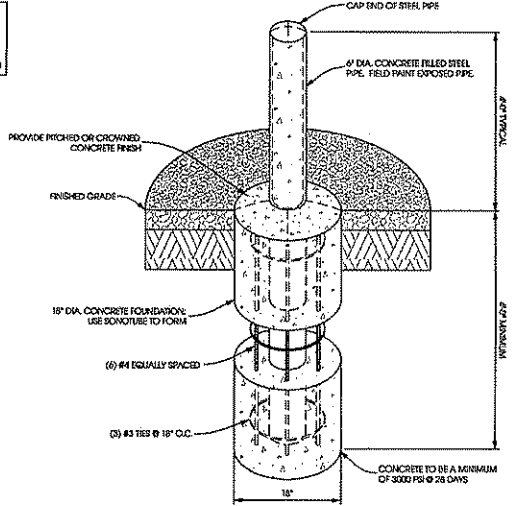
A
C-3 **COMPOUND CROSS SECTION**
 SCALE: NTS

NOTES:
 REINFORCING USED FOR UTILITY RACKS AND ICE BRIDGE POSTS.
 MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTIONS.
 PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48" DEPTH TO EXCEED LOCAL FROST DEPTH.



B
C-3 **PIER FOUNDATION DETAIL**
 SCALE: 11" x 17" - 1/2" = 1'-0"
 22" x 34" - 1" = 1'-0"

NOTES:
 MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTIONS.
 PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48" DEPTH TO EXCEED LOCAL FROST DEPTH.

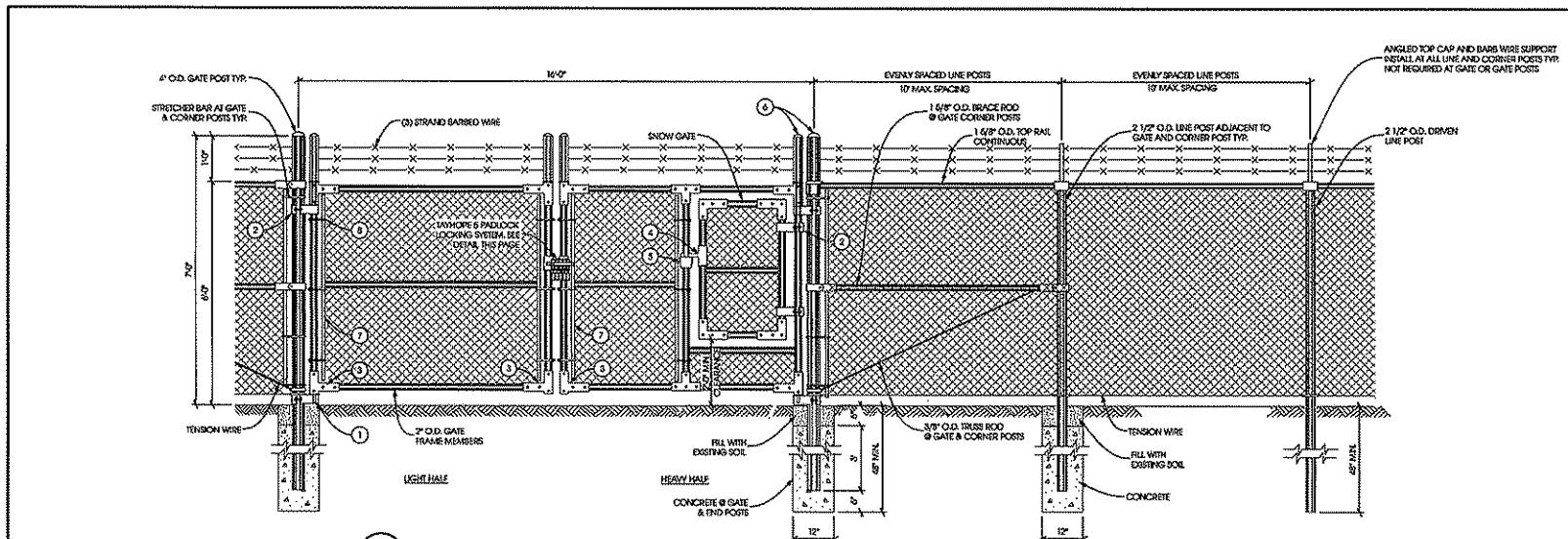


C
C-3 **PIPE BOLLARD DETAIL**
 SCALE: 11" x 17" - 1/2" = 1'-0"
 22" x 34" - 1" = 1'-0"

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CONSTRUCTION DETAILS
GREENWAY [#782514]
MADISON, WISCONSIN

SHEET TITLE	ISSUE DATE
	ISSUING DRAWING NUMBER 08-01-000
	PRELIMINARY CDS ID 22-000
	FINAL CDS 10-21-000
REVISIONS	
DRAWN BY	
CHECKED BY	
PROJECT NUMBER	
PROJECT NUMBER	
DATE	
PREPARED	
C.S. 5/20	
SHEET NUMBER	
C-3	



VEHICLE & SNOW GATES
SCALE: NTS

PART CODES	
1)	STRAIGHT PLUG
2)	GATE HINGE
3)	PIPE SLEEVE
4)	LATCH FORK
5)	POST CATCH
6)	DOMED CAP
7)	STRETCHER BAR
8)	HOOK BOLTS

GENERAL NOTES

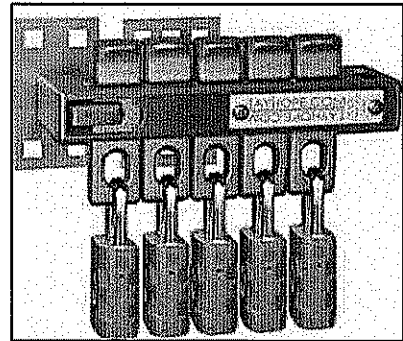
- 1.0 SCOPE:
- 1.1 THIS SECTION COVERS THE REQUIREMENTS FOR THE MATERIALS AND THE CONSTRUCTION OF SITE FENCINGS, GUY AREA FENCINGS, ACCESS ROAD GATES AND CHUTE GUARDS. SEE SITE PLAN AND DRAWINGS FOR DETAILS.
- 2.0 SPECIAL REQUIREMENTS:
- 2.1 ALL WIRE, FABRIC, FITTINGS, HARDWARE AND STEEL MEMBERS USED FOR SITE AREA FENCINGS, GUY ANCHOR FENCINGS AND ACCESS ROAD GATES SHALL BE HOT DIPPED GALVANIZED (GALV ALLOY) OR OTHER APPROVED NON-CORROSSIVE MATERIAL AND CONFORM TO FEDERAL SPEC RR-F-750 (1-2574).
- 2.2 ALL NON-CORROSSIVE MATERIAL SHALL BE PRE-APPROVED BY THE PROJECT MANAGER.
- 2.3 ANY DAMAGE TO GALVANIZING OR NON-CORROSSIVE COATINGS DURING CONSTRUCTION SHALL BE REPAIRED ACCORDING TO MANUFACTURERS RECOMMENDED METHODS.
- 3.0 FENCE POSTS:
- 3.1 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.
- 3.2 CORNER AND GATE POST FOR SITE SHALL BE 4" (OUTSIDE DIA) GALVANIZED PIPE. LINE POST SHALL BE 2 1/2" (OUTSIDE DIA) GALVANIZED PIPE.
- 3.3 CORNER POSTS SHALL BE SET WITHIN ONE INCH (1") OF DIMENSIONS INDICATED ON THE SITE PLAN.
- 3.4 FENCE POSTS SHALL BE VERTICALLY PLUMB IN ALL PLANS WITHIN 1/2 INCH (1/2").
- 3.5 CORNER AND GATE POST FOUNDATIONS SHALL BE A MINIMUM FOUR FEET (4') DEEP OR SIX INCHES (6") BELOW THE POST LINE, WHICHEVER IS GREATER, WITH MINIMUM THREE INCH (3") CLEARANCE BETWEEN BOTTOM OF POST AND BOTTOM OF THE HOLE.
- 3.6 POST FOUNDATIONS GATE AND CORNER POSTS SHALL BE 12 INCHES (12") IN DIAMETER.
- 3.7 LINE POSTS BETWEEN CORNER AND GATE POSTS SHALL BE EQUALLY SPACED WITH A TWELVE FOOT (12') MAXIMUM SPACING. GATE POST LOCATIONS SHALL BE IN ACCORDANCE WITH SITE PLAN AND SHALL BE VERIFIED WITH THE PROJECT MANAGER.
- 3.8 ALL POSTS EXCEPT GATE POSTS SHALL BE CAPPED WITH A COMBINATION CAP AND BASS WIRE SUPPORTING ANNA. GATE POSTS SHALL BE TWELVE INCHES (12") HIGHER THAN CORNER OR LINE POSTS TO PROVIDE FOR TERMINATION OF BARBED WIRE. GATE POSTS SHALL BE CAPPED WITH STANCHIONS ONLY.
- 3.9 ALL CORNER, GATE AND END PANELS SHALL HAVE MINIMUM 3/8" DIAMETER DIAGONAL TRUSS ROGS WITH TUMBUCKLES. HORIZONTAL BRACE ROGS, 1-1/8" OUTSIDE DIMENSION PIPE, SHALL BE INSTALLED BETWEEN POSTS.
- 3.10 A TOP RAIL (1-1/2" O.D.) GALVANIZED PIPE SHALL BE INSTALLED BETWEEN POSTS.
- 3.11 ALL FOUR CORNER POSTS AND BOTH GATE POSTS SHALL BE CONNECTED TO THE SITE GROUNDING SYSTEM (REFER TO GROUNDING SYSTEM STANDARDS).
- 4.0 FABRIC:
- 4.1 FENCE FABRIC SHALL BE SIX FOOT (6') HIGH, UNLESS OTHERWISE SPECIFIED, #8 GAUGE, GALVANIZED CHAIN LINK FABRIC WITH TWISTED TOP SERVAE AND KNUCKLED BOTTOM SERVAE.
- 4.2 FABRIC SHALL BE TENSIONED PER MANUFACTURERS RECOMMENDATIONS TO PRESENT A NEAT APPEARANCE. A MAXIMUM THREE INCH (3") GAP SHALL BE PERMITTED BETWEEN FABRIC AND FINAL GRADE.
- 4.3 FABRIC SHALL BE SECURED AT CORNER AND GATE POSTS USING STRETCHER BARS AND TENSION BAND CLIPS.
- 4.4 FABRIC SHALL BE SECURED TO THE TOP RAIL AND BRACE ROGS USING THE CLIPS.
- 4.5 THREE (3) RUNS OF 4 POINT GALVANIZED BARBED WIRE SHALL BE INSTALLED ALONG TOP OF FENCE. BARBED WIRE SHALL BE TENSIONED PER MANUFACTURERS RECOMMENDATIONS TO PRESENT A NEAT APPEARANCE.
- 5.0 GATE:
- 5.1 LOCATION OF GATE SHALL CONFORM TO THE SITE PLAN. GATE SIZE SHALL BE 16'0" WIDE (UNLESS OTHERWISE NOTED).
- 5.2 ALL JOINTS BETWEEN TUBULAR GATE MEMBERS SHALL BE WELDED OR HEAVY FITTINGS PROVIDING RIGID AND WATERIGHT CONNECTIONS.
- 5.3 GATE HINGES SHALL PROVIDE FOR 180 DEGREE RADIAL GATE SWING. ALL HINGE NUTS SHALL BE ON THE SUBOT AND LOCK BURNIT TO PREVENT UNAUTHORIZED ENTRY.
- 5.4 BARBED WIRE GUARD SHALL BE INSTALLED ON TOP OF GATES. ADEQUATE CLEARANCE SHALL BE MAINTAINED TO ALLOW GATE OPERATION.
- 5.5 GATE SHALL BE INSTALLED PLUMB AND SHALL OPEN AND CLOSE FREELY.
- 5.6 GATE POSTS SHALL NOT BE SHARED AS A CORNER POST.

MANUFACTURERS RECOMMENDATION:
TAYHOPE
70 SPRINGHURST AVENUE
TORONTO, CANADA M8K 1D8
PHONE: 1-416-394-6225
FAX: 1-416-394-7739
EMAIL: northtoronto2@taylorhpa.com

PART NUMBER:
6 PADLOCK TUBULAR MULTILOCK
STANDARD 05-TX

NOTES:
TO TYPICALLY BE INSTALLED ON MAIN
DOUBLE SWING GATE.

WORKS ON 30mm to 70mm
DIAMETER PIPE
1 TO 8 PADLOCKS



TAYHOPE LOCK DETAIL
SCALE: NTS

SHEET TITLE	DATE
	3/20/06
DRAWING DATE	02/28/06
PROJ. NO.	02-00-0200
REV. NO.	02-00-0200
REV. NO.	
DRAWN BY	
CHKD BY	
APP.	
PROJECT NUMBER	
FILE NAME	
DATE	
DWG NUMBER	

**EQUIPMENT SHELTER
 GREENWAY [#782514]
 MADISON, WISCONSIN**

SHEET TITLE	ISSUE DATE
CONCRETE DRAWINGS 06/29/2007	PRELIMINARY CDS 02/22/2007
FINAL CDS 10/29/2007	
REVISIONS	
DRAWN BY	
CHECKED BY	
APP	
PLT DATE	
PROJECT NUMBER	
FILE NAME	
DATE	
SHEET NUMBER	

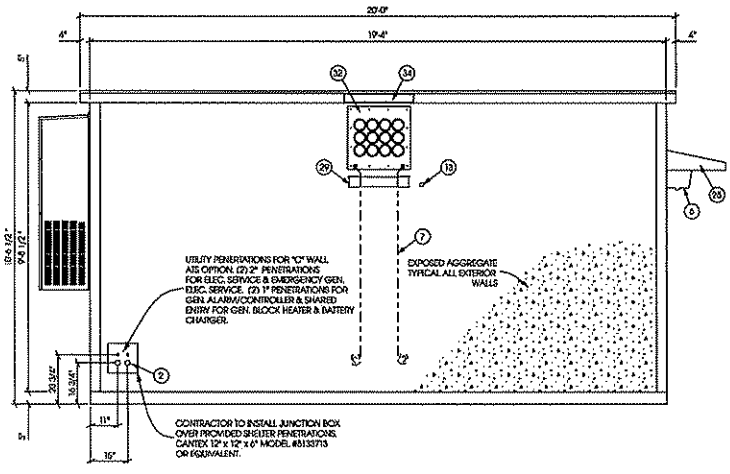
ITEM NO.	DESCRIPTION
1	200A ELECTRICAL SWITCH PANEL, CUTLER HAMMER
2	SERVICE ENTRY, 2" X 8" GALVANIZED NIPPLE
3	150A GROUNDING RECEPTACLE, CIRCULAR BITE AREA 10015622
4	150A/2P ENCLOSURE W/ 1/2" X 8" GALV. NIPPLE TO ITEM #3
5	SURGE ARRESTOR (SUPPLIED BY US CELLULAR)
6	INTERIOR LIGHT SWITCH/ 4 x 4 JUNCTION BOX
7	WIRE, #2 SOLID COPPER, BARE, TINNED
8	6-PLY CONDUIT, EGRESS OUTLET
9	GFCI RECEPTACLE/24" WP JUNCTION BOX
10	LOWER LIGHT CONTROLLER (SUPPLIED BY US CELLULAR)
11	100W HPS EXTERIOR LIGHT W/ PHOTOCELL, METALUX HPWL 100
12	INTERIOR LIGHTS, METALUX W/ HYDROMA HOLES
13	CAR. SCH. 40, 1 1/2" W/ NIPPLE, BRIGID, 1 1/2" X 8" LONG
14	3 TON AIR CONDITIONER #2 W/ 10 KW HEAT
15	3 TON AIR CONDITIONER #1 W/ 10 KW HEAT & ECONOMIZER
16	THERMOSTAT, BRIGSE STAGE HEAD/COOL
17	LOW TEMPERATURE ALARMA DAVYON 22203
18	HIGH TEMPERATURE ALARMA DAVYON 22203
19	MAGNETIC DOOR CONTACT
20	24V SMOKE DETECTOR W/ 1/2" CONDUIT DROP
21	ALARM TERMINATION BLOCK (SUPPLIED BY US CELLULAR)
22	6" X 6" X 3/4" TELCO BOARD
23	6" X 6" X 4" ENCLOSURE W/ (2) 3/4" CONDUIT ENDS
24	3/8" X 7 1/2" HOLLOW METAL DOOR
25	48" DOOR CANKER
26	DOOR LOCKING, 10" STAINLESS STEEL 320
27	HAZD GROUND, #2/0 GREEN W/ (6) EXT DROPS
28	1/2" PVC CAST @ 45° (GRND. PENETRATION)
29	1 1/4" X 4" X 20" GROUND BAR
30	GROUND STRAP, 1/4"
31	CABLE TRAY, 12" ZINC CHROMATE
32	WAVE GUIDE ENTRY PORT, MICROJECT B1118
33	UNISTRUF, 1-1/2"
34	1 1/2" X 3" X 3" GALV. ANGLE, ICE SHIELD
35	4" PVC COUPLING, TELCO ENTRY
36	4" X 4" JUNCTION BOX
37	6-1/2" W/ SQ. JUNCTION BOX
38	4 x 4 JUNCTION BOX W/ 1/2" X 6" WALL PENETRATION
39	4 x 4 JUNCTION BOX W/ 3/4" X 6" WALL PENETRATION
40	1 1/2" X 1 1/2" CABLE TRAY WALL MOUNTED SUPPORT ANGLE

CODE SUMMARY
 1997 - WISCONSIN STATE CODE
 1998 - IBC
 OCCUPANT LOAD = 0
 NOT DESIGNED FOR HUMAN HABITATION

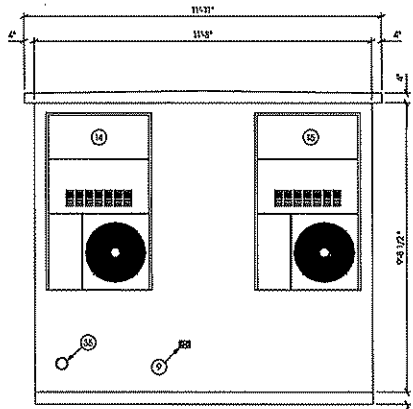
DESIGN PARAMETERS
 ROOF LIVE LOAD: 75 PSF
 FLOOR LIVE LOAD: 200 PSF
 WIND SPEED: 120 MPH
 SEISMIC ZONE: 4
 CONCRETE FC: 4000 PSI AT 28 DAYS
 CONCRETE UNIT WEIGHT: 150 PCF

PHYSICAL PROPERTIES
 SHELTER DIMENSIONS: 11'-3" W X 19'-4" X 10'-4 1/2" H
 SHIPPING DIMENSIONS: 11'-4" W X 20'-10" X 10'-7" H
 INTERIOR DIMENSIONS: 10'-9 1/2" W X 19'-0 1/2" X 9'-9 1/2" H
 SHELTER WEIGHT (AS SHIPPED): 47,500 #

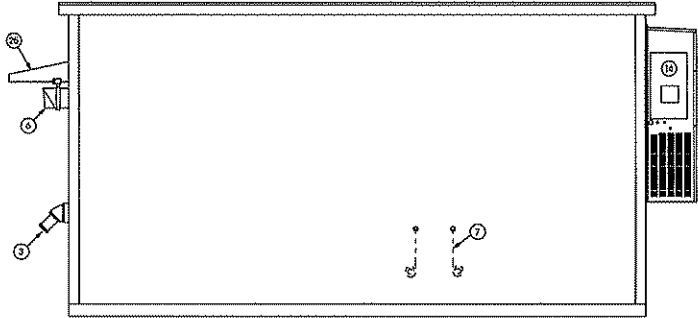
FINISH SCHEDULE
 EXTERIOR WALLS: EXPOSED LIGHT WEIGHT AGGREGATE
 EXTERIOR METALS: PPG UNITEK, CUSTOM COLOR MATCH
 INTERIOR WALLS: 5/8" WHITE WOOD GRAIN PANELS/7/8" OSB/1 1/2" R-ANX D15500 INSULATION
 CEILING: 5/8" WHITE WOOD GRAIN PANELS/7/8" OSB/1 1/2" R-ANX D15500 INSULATION
 FLOORING: 100 VERA TILE, CONSOLEUM CX-14 COLOR "WHITE/LIGHT PEBBLE"



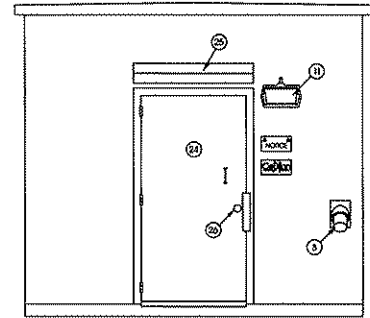
EAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION



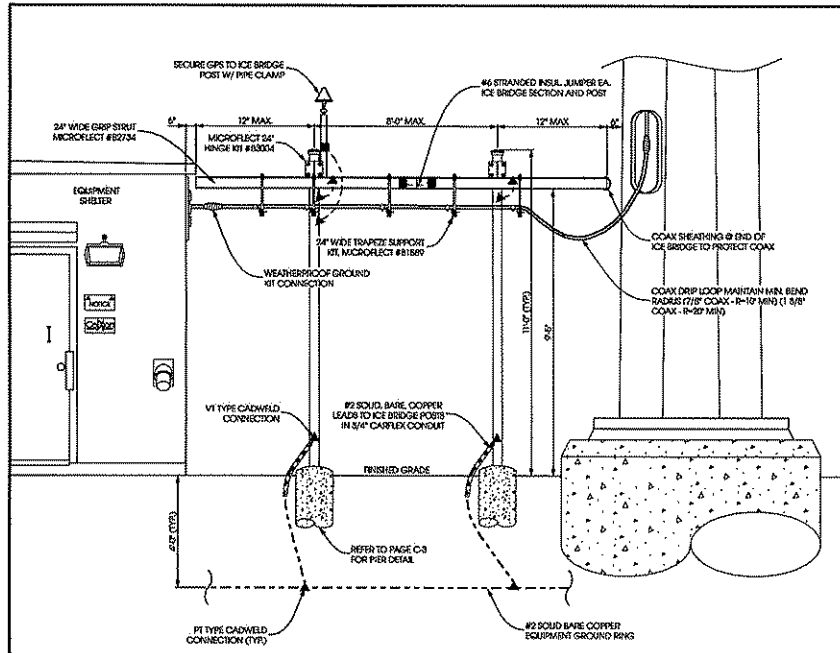
NORTH ELEVATION

EQUIPMENT SHELTER ELEVATIONS
 SCALE: NTS

DETAILS ON THIS SHEET PROVIDED BY CELLULON
 FOR 11'-3" X 19'-4" CONCRETE SHELTER

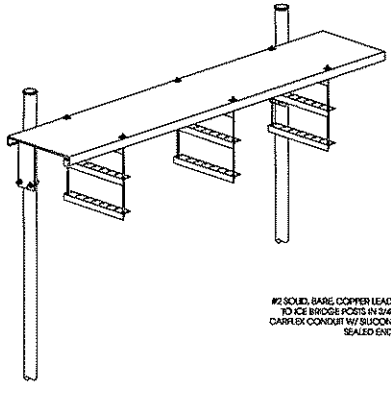
CELLULON
 6331 HANDEL JONES ROAD
 BOSSER CITY, LA 71111
 PHONE: 504/2132900
 FAX: 504/2132919
 WWW.CELLULON.COM

14/03/07 10:50:00 AM



- ICE BRIDGE NOTES:**
- FOR COMPONENTS AS SHOWN IN STANDARD DETAILS, MAXIMUM ALLOWABLE SPAN BETWEEN SUPPORTS ON A CONTINUOUS SINGLE SECTION OF BRIDGE CHANNEL SHALL BE NO MORE THAN 8 FEET FOR A TYPICAL 10 FOOT SECTION OF BRIDGE CHANNEL.
 - COMPONENTS FOR SPlicing BRIDGE CHANNEL SECTIONS SHOULD BE PROVIDED AT THE SUPPORT, IF POSSIBLE, OR AT A MAXIMUM OF 2 FEET FROM THE SUPPORT.
 - FREE ENDS OF ICE BRIDGE CHANNELS SHOULD NOT EXCEED A CANTILEVER DISTANCE OF 2 FEET FROM THE SUPPORTS.
 - CUT BRIDGE CHANNEL SECTIONS SHOULD BE GRINDED AND HAVE RAW EDGES TREATED WITH A MATERIAL TO RESTORE THE EDGES TO THE ORIGINAL CHANNEL, OR EQUIVALENT FINISH.
 - ICE BRIDGES MAY BE CONSTRUCTED WITH COMPONENTS FROM MANUFACTURERS OTHER THAN SPECIFIED, PROVIDED THE MANUFACTURER INSTALLATION GUIDELINES ARE FOLLOWED.
 - DEVIATIONS FROM STANDARDS FOR COMPONENT INSTALLATIONS ARE PERMITTED WITH THE RESPECTIVE MANUFACTURER'S APPROVAL.
 - DEVIATIONS FROM ICE BRIDGE FOUNDATIONS SHOWN ON SITE SPECIFIC DRAWINGS OR STANDARD DETAILS REQUIRE ENGINEERING APPROVAL.
 - 5/8\"

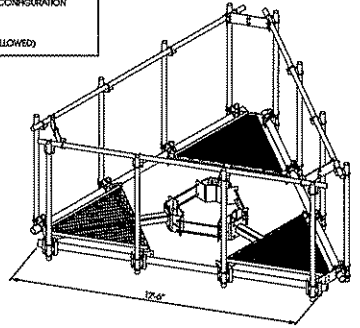
A
TYP. ICE BRIDGE DETAIL
A-2 SCALE: NTS



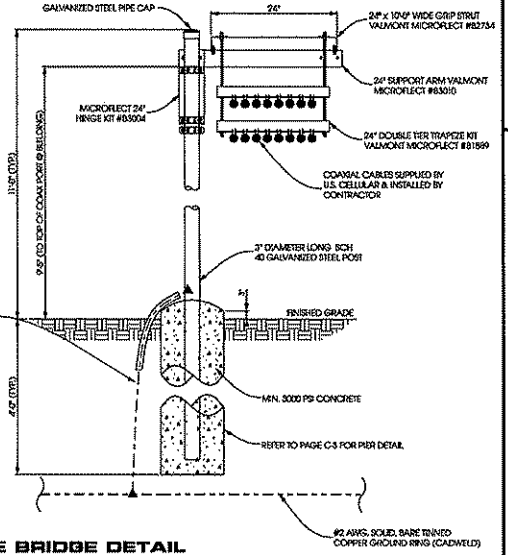
- ICE BRIDGE KIT:**
- 24\"
 - 24\"
 - 3\" SCH. 40 X 1/4\" LONG SUPPORT POSTS, CAPS, & MOUNTING HARDWARE - ALL GALV.
 - 2 LEVEL TRAP KIT (VALMONT MICRORECT #81899)
 - HINGE KIT (VALMONT MICRORECT #10004)

B
ICE BRIDGE DETAIL
A-2 SCALE: NTS

- NOTES:**
- U.S. CELLULAR TO DETERMINE EXACT ANTENNA MOUNTING FRAME APPLICATION TO MEET THE FOLLOWING MINIMUM DESIGN REQUIREMENTS:
 - STRUCTURAL CAPABILITY TO SUPPORT ANTENNA PANEL CONFIGURATION
 - MAINTAIN EQUIVALENT ANTENNA PANEL SEPARATION
 - MANIPULATED ANTENNA FRAME OF 200 LBS (MIN)
 - SECURE ALL COAX & JUMPERS WITH CLAMPS (NO ZIP TIES ALLOWED)



C
MONOPOLE ANTENNA PLATFORM
A-2 SCALE: NTS



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ICE BRIDGE DETAILS
GREENWAY (#782514)
MADISON, WISCONSIN

SHEET:	SCALE:
DATE:	
DESIGNED BY:	
CHECKED BY:	
PROJECT NO.:	
PROJECT NAME:	
PROJECT NUMBER:	
DATE:	
BY:	
CHECKED:	

A-2

**ANTENNA INSTALLATION
NOTES
GREENWAY [#782514]
MADISON, WISCONSIN**

ANTENNA & COAXIAL CABLE INSTALLATION

I. SCOPE

THIS SECTION COVERS THE SPECIFICATIONS FOR ANTENNA AND COAXIAL CABLE INSTALLATION. THE AREAS OF FOCUS ARE THE INSTALLATION OF: ANTENNAS, COAXIAL, CONNECTIONS, AND ICE BRIDGE.

II. ANTENNAS

- A. ANTENNAS SHALL BE PLUMB AND INSTALLED SO THAT THEIR WRP EXTENDS ABOVE VERTICAL PIPE MOUNT. DIRECTIONAL ANTENNAS SHALL BE ORIENTED TO PROPER AZIMUTH PROVIDED ON THE RF SPECIFICATION SHEETS. NOTE THE ANTENNA MAY BE ORIENTED USING THE REFLECTOR AS THE REFERENCE, ADJUSTING ITS AZIMUTH 180 DEGREES FROM MAXIMUM ANTENNA RADIATION.
- B. MICROWAVE ANTENNAS (DISHS) SHALL BE ASSEMBLED PER MANUFACTURERS DRAWINGS. STEEL ARMS AND RADOMES SHALL BE INSTALLED WITH POLARIZATION PROVIDED BY RF SPECIFICATION SHEET, IF PATH IS NOT READY TO ALIGN, DISH SHOULD BE POINTED TOWARD CALCULATED AZIMUTH OR DIRECTION OF FIELD STAKE OPPOSITE END. 2 STIFF ARMS SHALL BE PROVIDED FOR MICROWAVE DISHS 48" IN DIAMETER AND GREATER.
- C. A TRAVEL SHALL BE USED TO PROPERLY ALIGN CELLULAR AND MICROWAVE ANTENNAS.

III. COAXIAL CABLE

- A. COAXIAL CABLE SHALL BE SUPPORTED WITH SNAP IN HANGERS. SNAP IN HANGERS SHOULD BE USED EVERY 3 FEET THE ENTIRE HEIGHT OF TOWER. ANGLE ADAPTERS OR ROUND MEMBER ADAPTERS WITH BUTTERFLY CLAMPS SHALL BE USED ELSEWHERE I.E. SIDEARMS, PLATFORMS, AND MICROWAVE MOUNTS.
- B. COAXIAL CABLE SHALL ALSO BE SUPPORTED WITH HOISTING GRIPS, INSTALLED AT MAXIMUM INTERVALS OF 200 FEET. HOISTING GRIPS SHALL BE ATTACHED WITH SHACKLES BOULED IN THE 7/8" HOLE OF WAVEGUIDE LADDER.
- C. ALL JUMPERS USED BETWEEN COAXIAL CABLE AND ANTENNA SHALL BE SUPPORTED WITH 18 INCHES OF ANTENNA USING BUTTERFLY CLAMPS WITH ANGLE ADAPTERS OR ROUND MEMBER ADAPTERS AROUND PIPES. CELLULAR ANTENNAS TYPICALLY USE 6' JUMPERS; MICROWAVE DISHS USE 3' JUMPERS.
- D. COAXIAL CABLE SHALL BE NEATLY BENT WHEN REQUIRED, USING A MINIMUM BENDING RADIUS OF 10 TIMES THE DIAMETER OF THE COAXIAL CABLE. DRIP LOOPS SHOULD BEGIN AT THE ICE BRIDGE. THE BEND IN THE COAXIAL CABLE SHOULD BE AT A LOWER HEIGHT THAN THE ENTRY PORT.
- E. COAXIAL CABLE SHALL BE SUPPORTED WITH SNAP IN HANGERS ON THE WAVEGUIDE LADDER UNDER ICE BRIDGE. COAXIAL CABLE SHOULD BE NEARLY CUT 1/4" INSIDE BUILDING AND TERMINATED AT THE QUARTER WAVE SHORT.
- F. CONNECTORS WILL NORMALLY BE PROVIDED FIRST OFF REEL FROM FACTORY. CONNECTORS TERMINATED IN BUILDING SHALL BE NEATLY INSTALLED PER MANUFACTURERS SPECIFICATIONS.
- G. OPENINGS #1, #2, AND #3 SHOULD BE USED FOR THE X SECTOR; OPENINGS #5, #6, AND #7 SHOULD BE USED FOR THE Y SECTOR; OPENINGS #9, #10, AND #11 SHOULD BE USED FOR THE Z SECTOR; OPENINGS #4, #8, AND #12 SHOULD BE RESERVED FOR MICROWAVE WAVEGUIDE.
- H. COAXIAL CABLES SHOULD BE LABELED WITH TAGS INSIDE THE BUILDING.

SECTOR INDICATOR - PRIMARY COLORS
USE 2" WIDE COLORED TAPE TO INDICATE SECTORS
Y SECTOR FOR SECTORED SITE BROWN
Z SECTOR FOR SECTORED SITE BLACK
Z SECTOR FOR SECTORED SITE ORANGE
FUNCTION INDICATOR - SECONDARY COLORS
USE 1" WIDE COLORED TAPE TO INDICATE FUNCTION
RX: YELLOW RX2: GREEN TX: RED TX2: WHITE TX3: BLUE

I. ALL EXCEPTIONS NEED TO BE VERIFIED WITH THE PROJECT MANAGER.

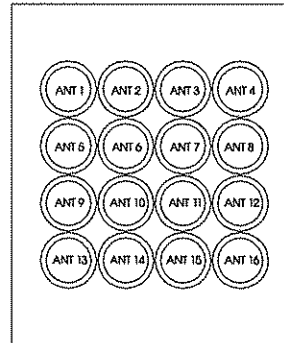
IV. CONNECTIONS

- A. ALL CONNECTIONS AND GROUNDING KITS SHALL BE WEATHER PROOFED USING COLD SHRINK OR ANDREW APPROVED WEATHER STRIPPING.
NOTE: NO PORTION OF CONNECTOR SHALL BE EXPOSED TO THE ELEMENTS.
- B. COAXIAL CABLE SHALL BE GROUNDED USING GROUNDING KITS AT THE TOP, BELOW THE BEND, BOTTOM, ABOVE THE ROAD ON TOWER GROUND BAR; AND ON BUILDING GROUND BAR BEFORE ENTRY INTO WAVEGUIDE PORTS. 4" CABLE BOOTS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
- C. GROUNDING KITS SHALL BE NEATLY INSTALLED SO THAT THE JUMPER RUNS IN THE SAME DIRECTION AS THE COAXIAL AND GROUND BAR. JUMPER WIRE SHOULD RUN IN A DIRECT PATH TO THE GROUND BAR/TOWER LADDER, BUT HAVE ADEQUATE BLACK FOR EXPANSION, CONTRACTION, AND REPAIR. NON-CRIMP GRIPSE SHOULD BE APPLIED BETWEEN LUG AND BAR/TOWER.
- D. TOWER GROUND BAR SHALL BE INSTALLED ON THE ANGLE BEHIND THE FIRST DIAGONAL WAVEGUIDE LADDER RUNS ABOVE 0V.

V. ICE BRIDGE

- A. ICE BRIDGE SHALL BE ATTACHED AT ONE END WITH BOLTS, TO THE ANGLE ON THE BUILDING, ABOVE THE WAVEGUIDE PORTS. SINCE THE ANGLE (80") IS TYPICALLY WIDER THAN THE ICE BRIDGE (24"), THE BRIDGE SHOULD BE CENTERED SO THAT IT COVERS THE WAVEGUIDE PORT ENTRY WHICH IS 24" WIDE. THE OPPOSITE END OF BRIDGE SHOULD BE 6" FROM TOWER FACE. IF FIELD CUT, IT SHOULD BE FILED SMOOTH AND COLD GALVANIZED.
- B. IF BRIDGE IS SUPPORTED BY VERTICAL PIPES, THEY SHOULD BE CUT EVENLY AND CHAPPED, APPROXIMATELY 18" ABOVE ICE BRIDGE.
- C. 2 TIER WAVEGUIDE LADDER SHALL BE INSTALLED UNDER ICE BRIDGE PROPERLY SUPPORTED PER TOWER MANUFACTURERS DRAWINGS.

ANTENNA COLOR CODING



COLOR CODING TO BE IDENTIFIED WHEN FINALIZED BY US CELLULAR

1ST TAPE - FOR SECTOR IDENTIFICATION
SECTOR X BROWN
SECTOR Y PURPLE
SECTOR Z ORANGE

2ND TAPE - FOR ANTENNA IDENTIFICATION
RX: RX1 GREEN
TX RED
RX1, RX3 YELLOW

3RD TAPE - FOR TECHNOLOGY IDENTIFICATION
TDMR/ANR WHITE
CDMA 800 GRAY
PCS 1900 BLUE

USE SCOTCH VINYL TAPE OR AVAILABLE AT GREENWAY OR LOCAL 3M DISTRIBUTOR.

NOTES:

- 1. IF ANTENNA IS DUPLEXED, WRAP LINE AS TX.
- 2. IF SECTOR HAS MORE THAN ONE TX, DOUBLE WRAP LINE FOR SECOND TX.
- 3. IF SECTOR IS SHARED BETWEEN CDMA AND TDMR WRAP WITH BOTH WHITE AND GRAY.

SHEET TITLE

ISSUE DATE:
XDRING DRAWING 02-06-01-2009
PRELIMINARY CDS 01-29-2009
FINAL CDS 10-29-2009

REVISIONS:

DRAWN BY:

MM

CHECKED BY:

AB

PLCK DATE:

10/01/2009

PROJECT NUMBER:

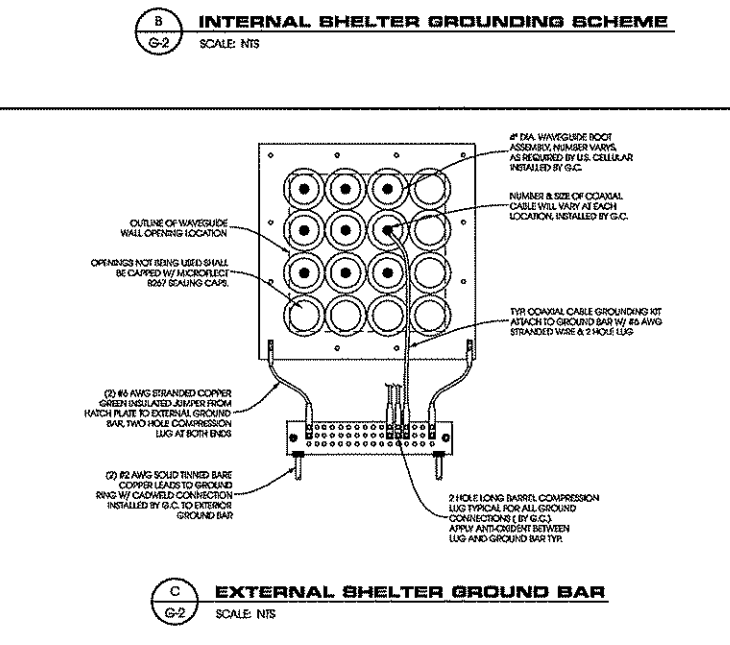
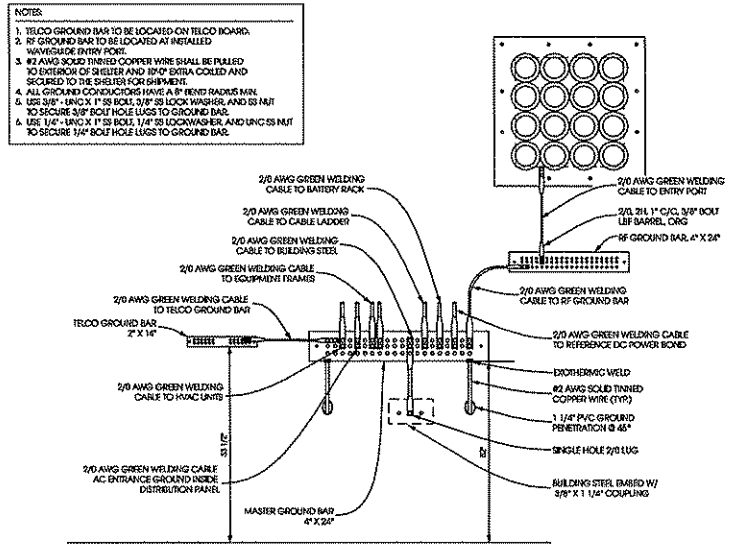
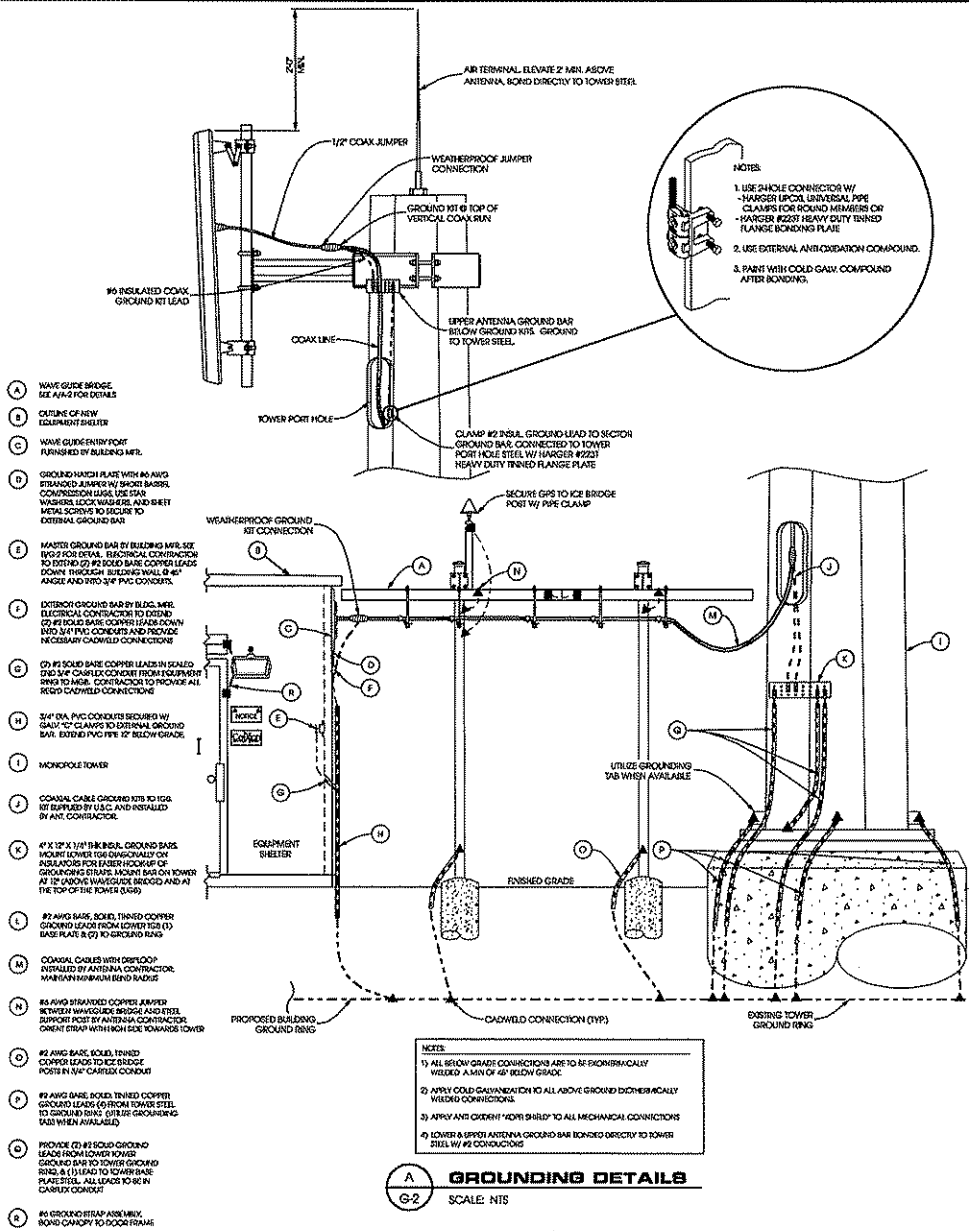
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A-3



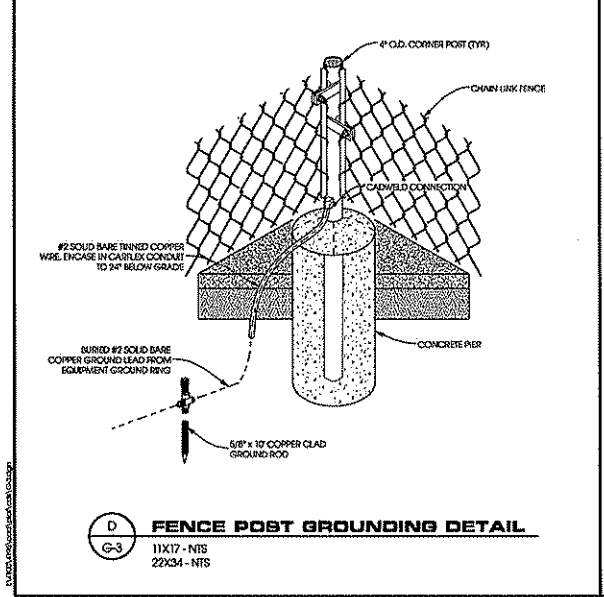
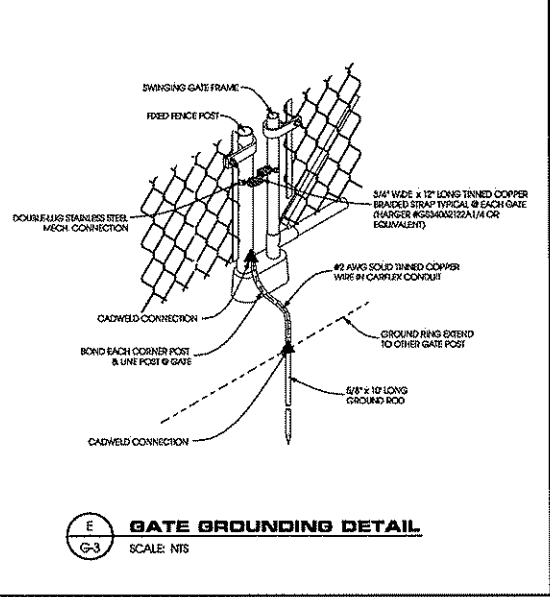
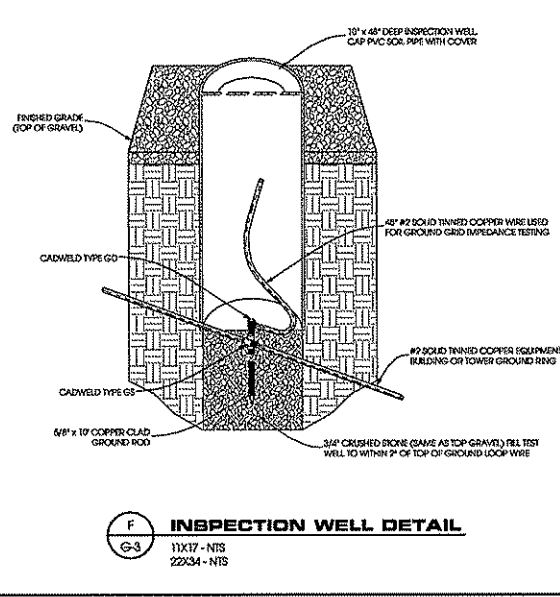
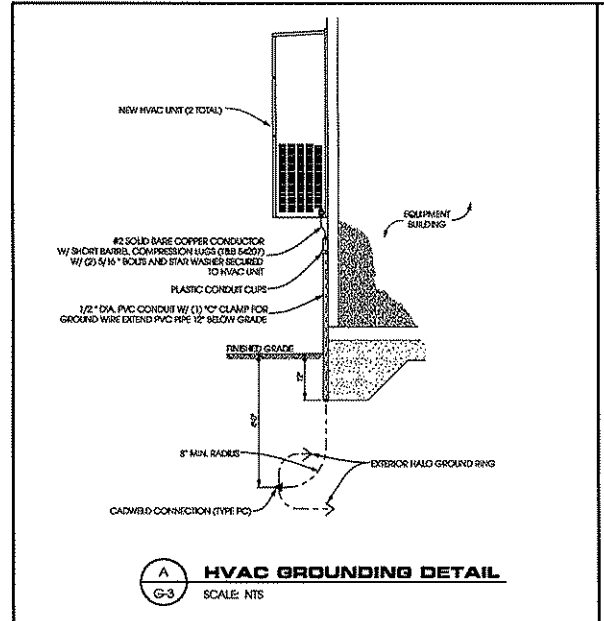
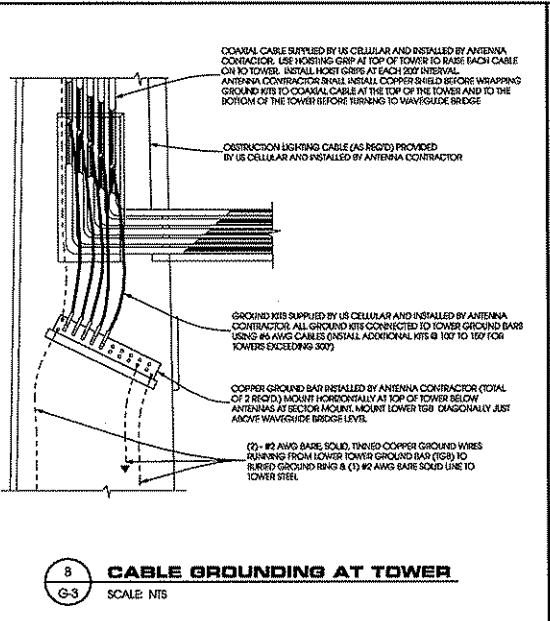
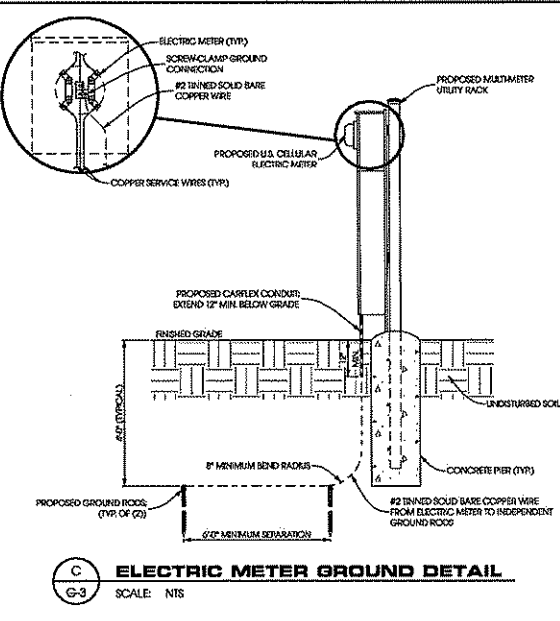
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GROUNDING DETAILS
GREENWAY (#782514)
MADISON, WISCONSIN

PROJECT:	ISSUE DATE:
DRAWING NO.:	CONTRACT NO.:
DATE:	PROJECT NO.:
REVISIONS:	
DRAWN BY:	CHECKED BY:
DATE:	DATE:
PROJECT NUMBER:	TITLE NAME:
DATE:	PROJECT NUMBER:
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GROUNDING DETAILS
GREENWAY (#782514)
MADISON, WISCONSIN

SHEET TITLE	
ISSUE DATE	
3D/3WG DRAWING# 01-01-2020	
PRELIMINARY CDR 02-22-2020	
FINAL CDR 03/29/2020	
REVISES:	
DRAWN BY:	JMB
CHECKED BY:	
DATE:	
PLT DATE:	10/21/2020
PROJECT NUMBER:	43%
FILE NAME:	0-3.dwg
DWG NUMBER:	
G-3	



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GROUNDING NOTES
GREENWAY (#782514)
MADISON, WISCONSIN

REVISIONS	ISSUE DATE:
	ZONING DRAWINGS 06-01-2009
	PRELIMINARY CDS 06-22-2009
	FINAL CDS 10-23-2009
REVISIONS	
DRAWN BY:	
NUM. CHECKED BY:	
ABS	
FLUX DATE:	10/17/2009
PROJECT NUMBER:	
APP.:	
DESIGNED:	
CHECKED:	
SHEET NUMBER	6-4

GROUNDING SYSTEM NOTES

1. SCOPE:

THIS SECTION COVERS THE SPECIFICATIONS FOR CELL SITE GROUNDING. THE AREAS OF FOCUS ARE: TOWER, BUILDING, AND INSTALLATION METHODS.

2. GENERAL:

- 2.1 ALL GROUND RODS SHALL BE 5/8" COPPER CLAD STEEL, 10 FT. LONG. GROUND RODS SHALL BE EQUALLY SPACED AT 10 FT. INTERVALS. REFER TO SITE GROUNDING PLAN FOR DETAILS AND PLACEMENT WITH GROUNDINGS.
- 2.2 GROUNDING A SYSTEM SHALL BE MEGGER TESTED TO ASSURE SATISFYING 6 OHMS OR LESS RESISTANCE.
- 2.3 ALL CADWELD CONNECTIONS TO GALVANIZED MATERIAL SHALL BE PROPERLY PREPARED TO ASSURE A SATISFACTORY CADWELD. THE CADWELD CONNECTION SHALL BE COATED WITH A COLD GALVANIZING BRAY TO PREVENT CORROSION.
- 2.4 CONTRACTOR SHALL PROVIDE PHOTO DOCUMENTATION OF THE GROUND SYSTEM BY PROVIDING A CD TO US CELLULAR. REQUIRED PHOTOS SHALL INCLUDE:
 - * ALL BUS BARS AND COAX GROUND CONNECTIONS.
 - * TOWER COUNTERPOISE
 - * BUILDING COUNTERPOISE
 - * CONNECTIONS TO POWER, TELCO, A.C., FENCING AND ICE BRIDGE.
- 2.5 CONTRACTOR SHALL PROVIDE AS-BUILT PLANS SHOWING LOCATION AND DIMENSIONS OF BELOW GRADE GROUNDING FEATURES.

3. INSTALLATION:

- 3.1 ALL EXTERIOR ABOVE AND BELOW GROUND CONNECTIONS SHALL BE CADWELD. NO ALUMINUM CONNECTIONS SHALL BE USED. UNLESS SPECIFIED OTHERWISE ON PLANS.
- 3.2 NO RIGHT-ANGLE CADWELD CONNECTION (OTHER THAN GROUND RODS TO GROUND RING CONNECTIONS) SHALL BE USED. ALL WIRE-TO-WIRE CONNECTIONS SHALL UTILIZE "Y-TYPE" CONNECTIONS.
- 3.3 ALL VERTICAL JUMPERS SHALL NOT BE WELDED WITHIN TWO (2) FT. OF THE GROUND ROD.
- 3.4 NDRP SHIELD REQUIRED FOR ALL MECHANICAL CONNECTIONS
- 3.5 ALL CADWELDS FINISHED WITH COLD GALVANIZED SHIELD

4. TOWER:

- 4.1 A #2 SOLID BARE COPPER WIRE SHALL BE BURIED A MINIMUM FOUR (4) FT. UNDERGROUND AND ENIRCLE TOWER FOUNDATION TWO (2) FT. FROM THE FOUNDATION. THIS GROUNDING SYSTEM SHALL BE CONNECTED TO THE BUILDING GROUND RING IN TWO (2) PLACES USING CADWELD CONNECTIONS. SUCH CONNECTIONS SHALL BE "Y-TYPE" CADWELD CONNECTIONS.
- 4.2 THREE (3) #2 SOLID BARE COPPER WIRES SHALL BE RUN FROM THE TOWER GROUND RING TO THE TOWER. THESE WIRES SHALL BE CONNECTED TO THE TOWER USING A CADWELD CONNECTION. NO SHARP BENDS SHALL BE PLACED IN THESE GROUND LEADS.
- 4.3 GROUND SYSTEM SHALL INCLUDE THE INSTALLATION OF AN ISOLATED LIGHTNING ROD AT THE TOP OF THE TOWER ABOVE THE HIGHEST ANTENNA. A #2 INSULATED COPPER WIRE SHALL BE CONNECTED TO THE TOWER LIGHTNING ROD USING AN APPROVED MECHANICAL CONNECTOR, OR CADWELDED, TO TOWER STEEL.

5. BUILDING:

- 5.1 A #2 SOLID BARE COPPER WIRE SHALL BE BURIED A MINIMUM OF FOUR (4) FT. UNDERGROUND AND ENIRCLE BUILDING FOUNDATION TWO (2) FEET FROM THE FOUNDATION. GROUND RING CORNERS SHALL BE INSTALLED WITH A MINIMUM TWO FOOT RADIUS (NO SHARP RIGHT ANGLE BENDS).
- 5.2 A #2 SOLID BARE COPPER WIRE SHALL BE INSTALLED FROM THE BUILDING GROUND RING AND CONNECTED TO THE COPPER BUS BAR LOCATED ON THE OUTSIDE OF BUILDING UNDER THE WAVEGUIDE PORT WITH A MINIMUM NINE (9) INCHES RADIUS. A "Y-TYPE" OR "PARALLEL-TYPE" CADWELD CONNECTION SHALL BE USED FOR ALL CONNECTIONS TO THE GROUND RING.
- 5.3 ONE (1) ADDITIONAL #2 SOLID BARE GROUND WIRE LEAD SHALL BE INSTALLED DIRECTLY BELOW THE ELECTRICAL SERVICE ENTRANCE PORT (GROUND LUGS ON THE MAIN DISCONNECT INSIDE THE BUILDING). THIS WIRE SHALL BE CONNECTED TO THE BUILDING GROUND RING USING "Y-TYPE" CADWELD CONNECTION.
- 5.4 ONE (1) ADDITIONAL #2 SOLID BARE COPPER GROUND WIRE LEAD SHALL BE INSTALLED DIRECTLY BELOW EACH HVAC UNIT.

6. FENCING:

- 6.1 A #2 SOLID BARE COPPER GROUND WIRE SHALL BE INSTALLED FROM THE FENCE CORNER POSTS TO THE GROUND RING AND SHALL BE BURIED A MINIMUM FOUR (4) FT. UNDERGROUND. THESE RUNS SHALL INCLUDE GROUND RODS EQUALLY SPACED AT 10 FT. INTERVALS. THESE RUNS SHALL BE BROUGHT ABOVE GROUND LEVEL AND SUPPORTED ABOVE GROUND WITH TEMPORARY POSTS UNTIL PERMANENT FENCING IS INSTALLED. GROUND WIRE SHALL BE CONNECTED TO THE FENCE POSTS USING CADWELD TYPE CONNECTIONS.

7. EXISTING GROUND SYSTEMS

- 7.1 CONTRACTOR SHALL PROVIDE CONNECTIONS TO ALL EXISTING GROUND SYSTEMS AT THE SITE (CADA, TELEPHONE, ETC.)

8. TESTING:

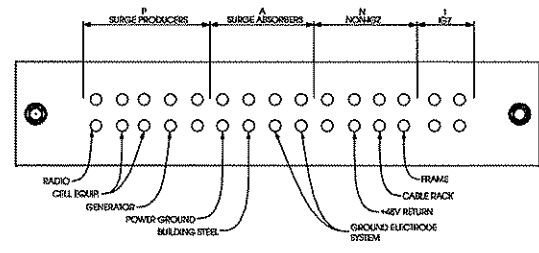
- 8.1 THE CONTRACTOR SHALL TEST THE DRIVEN ELECTRODE SYSTEM PRIOR TO CONNECTING THE GROUND LEADS FROM THE OTHER GROUNDING SYSTEMS. TRENCHES SHALL BE BACK FILLED IN ORDER TO ACHIEVE ACCURATE TEST RESULTS. TRENCHES SHALL NOT BE BACK FILLED AND COMPACTED TO FINAL DENSITY PRIOR TO TESTING. THE DRIVEN ELECTRODE SYSTEM IS COMPOSED OF THE GROUND RODS, THE INTERCONNECTION GROUND WIRE, AND THE CADWELD CONNECTIONS. ALL OTHER BONDS TO THE SYSTEM SHALL BE REMOVED.
- 8.2 THE GROUND FIELD RESISTANCE SHALL MEASURE 6 OHMS OR LESS TO GROUND. IF RESISTANCE IS NOT MET, CONTRACTOR SHALL PAY FOR NECESSARY ADDITIONS TO MEET CRITERIA.
- 8.3 TEST RESULTS SHALL BE DOCUMENTED & PROVIDED TO ENGINEER.

9. COMPLIANCE

- 9.1 ELECTRICAL CODE COMPLIANCE
 COMPLY WITH APPLICABLE LOCAL ELECTRICAL CODES REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION, AND NEC AS APPLICABLE TO ELECTRICAL GROUNDING AND BONDING, PERTAINING TO SYSTEMS, CIRCUITS AND EQUIPMENT.
- 9.2 UL COMPLIANCE
 COMPLY WITH APPLICABLE REQUIREMENTS OF UL607, 608A AND 509 PERTAINING TO GROUNDING AND BONDING OF SYSTEMS, CIRCUITS AND EQUIPMENT. USE GROUNDING AND BONDING PRODUCTS WHICH ARE UL LISTED AND LABELED FOR THEIR INTENDED USAGE.
- 9.3 IEEE COMPLIANCE
 COMPLY WITH APPLICABLE REQUIREMENTS OF RECOMMENDED INSTALLATION PRACTICES OF IEEE STANDARDS 80, 81, 141 AND 142 PERTAINING TO GROUNDING AND BONDING OF SYSTEMS, CIRCUITS AND EQUIPMENT.

MASTER GROUND BAR NOTES:

- THE MASTER GROUND BAR (MGB) IS THE EXTENSION OF THE BUILDING GROUNDING SYSTEM AND SERVES AS THE MAIN POINT OF BONDING WITHIN THE FACILITY. THE MGB WILL BE THE COMMON GROUND POINT WHERE ALL GROUND POINTS FOR THE FACILITY WILL CONNECT.
- THE MGB SHOULD BE LOCATED SO THAT THE BONDING CONDUCTOR IS AS SHORT AND STRAIGHT AS POSSIBLE TO THE FACILITY GROUND RING.
- THE MGB WILL BE LOCATED NEAREST THE PRIMARY GROUND WHILE MAINTAINING HEIGHT AND DISTANCE CLEARANCES REQUIRED BY APPLICABLE ELECTRICAL CODES.
- THE MGB WILL BE PREDRILLED COPPER ELECTRO-TYPED BUS BAR WITH STANDARD NEMA 100Y SIDING AND SPACING WITH MINIMUM DIMENSIONS OF 1/2" THICK BY 4" WIDE AND 24" IN LENGTH. THE LENGTH MAY BE LONGER TO MEET FUTURE GROWTH PROJECTIONS.
- THE MGB SHALL BE INSULATED FROM ITS SUPPORT WITH MINIMUM 2" SEPARATION REQUIREMENT ON ISOLATED STANDOFFS.
- THE MGB SHALL BE PERMANENTLY AND APPROPRIATELY LABELED AND IDENTIFIED WITH THE "P", "A", "N" AND "I" SECTION OF THE MGB CLEARLY AND PERMANENTLY IDENTIFIED.
- P = PRODUCERS, A = ABSORBERS, N = NON-PRODUCERS, I = ISOLATED (SWITCH, DC)
- ALL CONNECTIONS MADE TO MGB WILL BE STANDARD 2-HOLE LUGS.



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ELECTRICAL NOTES

GENERAL

- A. 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.
B. CONTRACTOR IS TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE, THE TEMPORARY POWER AND ALL HOODUP COSTS TO BE PAID BY CONTRACTOR.
C. CONTRACTOR SHALL OBTAIN ALL NECESSARY BUILDING PERMITS, INSPECTIONS AND APPROVALS AND PAY ALL REQUIRED FEES PURSUANT TO THE WORK.
D. 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 UL APPROVED.
E. 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.
F. EXACT LOCATION OF ALL EQUIPMENT SHALL BE COORDINATED WITH OWNER AND OTHER TRADES.
G. 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 USING ALL MAINTENANCE, FAULTY EQUIPMENT AND DISCREPANCIES.
H. 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 G, 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, NFRU AND "UL" LISTED.
I. 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 MATERIAL, REASON FOR CHANGE AND CHANGE IN CONTRACT AMOUNT.
J. 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)
K. THESE PLANS ARE DIAGRAMMATIC ONLY AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE.
L. THE NEUTRAL IS TO BE GROUNDED AT THE METER MAIN PEDestal ONLY. AT ALL OTHER POINTS IN THE DISTRIBUTION SYSTEM IT IS TO REMAIN INSULATED FROM ALL OTHER GROUNDS UNLESS OTHERWISE INDICATED ON DRAWINGS.
M. 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 REFER TO TABLE A.
N. ALL ENCLAVURES CONTAINING THE SERVICE CONDUITS OR SERVICE RACEWAY, CABLE ARMOR, BOXES, FITTINGS, CABINETS MUST BE EFFECTIVELY BONDED TOGETHER.
O. 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 OWNER HOTLINE OR OTHER SUCH NOTIFYING AGENCY FORTY EIGHT (48) HOURS PRIOR TO THE START OF DIGGING, TRENCHING, EXCAVATION, OR OTHER SUCH BARTH REMOVAL.
P. 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.

MATERIALS, ELECTRICAL WIRING AND RACEWAYS

- A. ALL CIRCUIT BREAKERS, FUSES, CONDUCTORS AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING TO WHICH THEY MAY BE SUBJECTED AND A MINIMUM OF 10,000 AIC RATING UNLESS OTHERWISE SPECIFIED OTHERWISE.
B. PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BUNKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATH-PROOF RECEPTACLES SHALL HAVE "WPO" 8" LIFT COVER PLATES.
C. 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.
D. INSTALLATION OF RIGID METAL CONDUIT SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF ARTICLES 300 & 348-NEC. SHALL BE UL APPROVED.
E. INSTALLATION OF ELECTRICAL METALLIC TUBING (EMT) SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF ARTICLES 300 & 348-NEC. SHALL BE UL APPROVED.
F. INSTALLATION OF INTERMEDIATE METAL CONDUIT (IMC) SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF ARTICLES 300 & 348-NEC. SHALL BE UL APPROVED.
G. PLASTIC CONDUIT SHALL BE SCHEDULE 40, HIGH IMPACT, POLYVINYL CHLORIDE AND SHALL BE USED WITH UNLEADED SOLVENT CEMENT PLASTIC CONDUIT FITTINGS. COMPONENTS 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.
H. ALL WIRING OF ALL KINDS MUST BE INSTALLED IN CONDUIT, UNLESS OTHERWISE NOTED OR APPROVED BY THE ELECTRICAL ENGINEER.
I. ALL WIRING SHALL BE COPPER TYPE THINNED AND IN ACCORDANCE WITH THE (NEC) NATIONAL ELECTRICAL CODE OR AS INDICATED ON PLANS.
J. RACEWAYS SHALL BE STEEL GALVANIZED, 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.
K. JUNCTION BOXES OR PULL BOXES SHALL MEET (NEC) NATIONAL ELECTRICAL CODE STANDARDS AND AS APPROVED FOR INSTALLATION OF RACEWAYS AND WIRING.
L. THE RACEWAY AND WIRING INSTALLATION SHALL BE GROUNDED PERMANENTLY AND EFFECTIVELY IN ACCORDANCE WITH ARTICLE 250 OF THE (NEC) NATIONAL ELECTRICAL CODE.
M. THE CONTRACTOR SHALL BE AWARE THAT ALL STATE AND LOCAL CODES SHALL APPLY TO THIS INSTALLATION AND MUST BE ADHERED TO.

GENERATOR

- A. CONTRACTOR SHALL COORDINATE ALL WORK WITH GENERATOR SET SUPPLIER TO PROVIDE A COMPLETE OPERATING EMERGENCY BACKUP SYSTEM.
B. A SURGE PROTECTOR IS TO BE INSTALLED ON THE LOAD SIDE OF THE GENERATOR TRANSFER SWITCH.
C. IF THE GENERATOR IS A "SEPARATELY DERIVED SYSTEM" ITS NEUTRAL MUST BE BONDED TO THE GENERATOR METAL CASE AND ITS GROUNDING ELECTRODE CONDUCTOR MUST BE TIED INTO THE CELLULAR EXTERIOR GROUNDING SYSTEM. (NEC 250.42)
D. IF THE GENERATOR IS NOT A "SEPARATELY DERIVED SYSTEM" BONDING AND GROUNDING OF GENERATOR NEUTRAL IS NOT REQUIRED.

SCOPE OF WORK

- A. THE CONTRACTOR SHALL PROVIDE ALL ELECTRICAL WIRING AND EQUIPMENT UNLESS OTHERWISE INDICATED. MAIN COMPONENTS ARE AS FOLLOWS:
1. PROVIDE ELECTRICAL SERVICE AS INDICATED ON THE DRAWINGS.
2. PROVIDE TELEPHONE CONDUIT WITH PULL WIRE AS INDICATED HEREIN AND ON DRAWINGS.
3. COORDINATE ELECTRICAL SERVICE WITH LOCAL POWER COMPANY.
4. COORDINATE TELEPHONE SERVICE WITH LOCAL TELEPHONE COMPANY.
5. INSTALL WIRE AND CONDUIT AS INDICATED, PROVIDE CABLE SUPPORTS AS INDICATED.
6. PROVIDE GROUNDING AS INDICATED.
B. 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 TRENCHES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO CLIENT AT JOB COMPLETION.
C. PATCH REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF ELECTRICAL WORK.
D. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND GROUNDING FALL POTENTIAL TEST WILL BE MADE FOR APPROVAL. SUBMIT TEST REPORTS TO CLIENT. CLEAN PREMISES OF ALL DEBRIS REMAINING FROM WORK AND LEAVE IN A COMPLETE AND UNDAMAGED CONDITION.
E. 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.
F. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE ELECTRICAL EQUIPMENT PROVIDED BY CLIENT'S SUPPLIER.

Table with columns: TERMINATION RATING, CONDUCTOR INSULATION RATING. Rows include 60 DEGREE C, 75 DEGREE C, 90 DEGREE C for various conductor types and ratings.

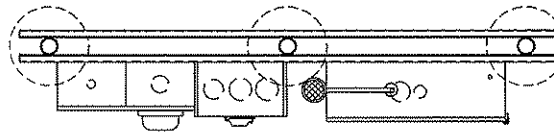


ELECTRICAL NOTES GREENWAY [#782514] MADISON, WISCONSIN

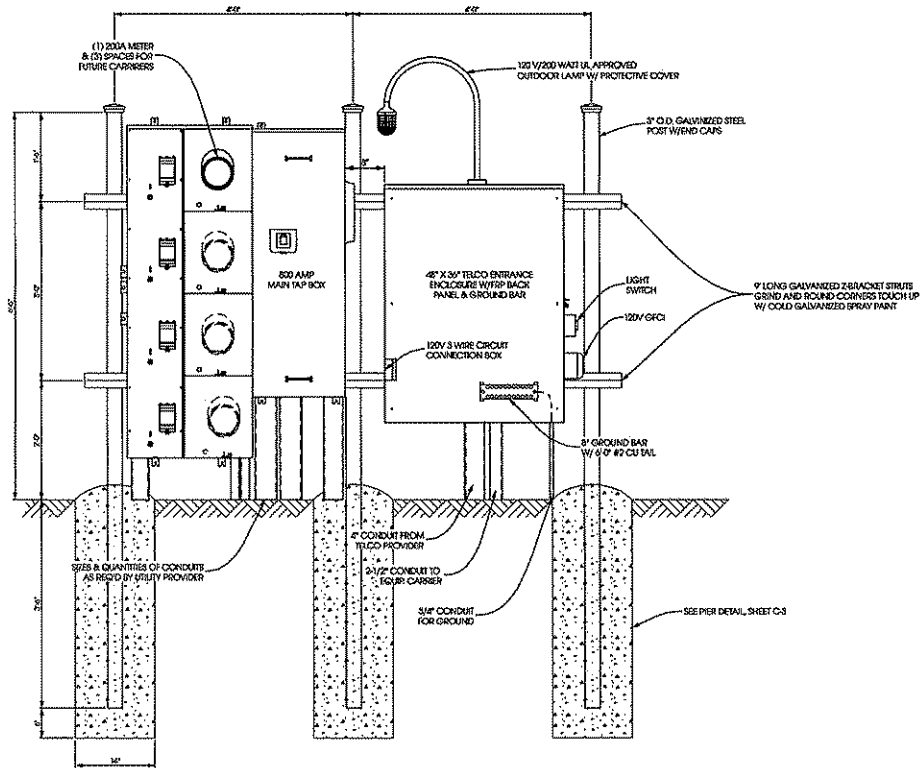
Table with project details including SHEET TITLE, REVISIONS, DRAWN BY, CHECKED BY, DATE, PROJECT NUMBER, and SHEET NUMBER E-1.

- NOTE**
1. INSTALL METAL CONDUITS FOR SERVICE LATERAL CONNECTION TO UTILITY AND BOND - VERIFY REQUIREMENTS W/UTILITY PROVIDER
 2. EXTEND SERVICE LATERAL CONDUITS UNDERGROUND BEYOND FENCELINE. CAP ENDS (NO JELLY TIPS ALLOWED) AND STAKE EQUIP WITH FULL CORD - VERIFY REQUIREMENTS W/UTILITY PROVIDER
 3. MARK CARRIER METER SLOT & BREAKER OR SOCKET EXTERIOR
 4. 800 EZ METER MAX 800 AMP, 120/240 VAC, 1 PHASE, 3 WIRE OR EQUIV. - VERIFY REQUIREMENTS W/UTILITY PROVIDER

FINAL LAYOUT & DESIGN DETERMINED BY CONTRACTOR/UTILITY. VERIFY FINAL DESIGN WITH US CELLULAR



PLAN VIEW



FRONT SIDE

A **MULTI-CARRIER UTILITY RACK DETAILS**
E-2 SCALE: NTS

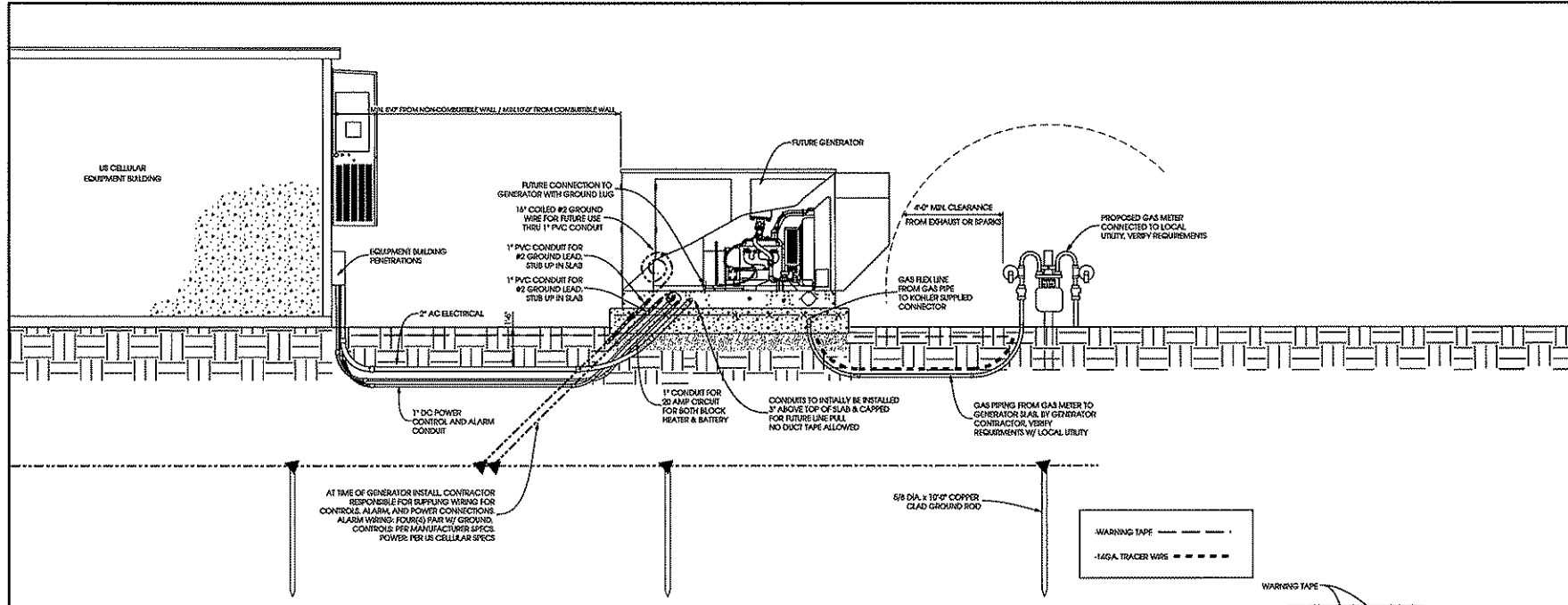
UTILITY RACK DETAILS
GREENWAY (#782514)
MADISON, WISCONSIN

SHEET TITLE

EDGE DATE
ISSUING DRAWINGS 06-01-2009
PROJ NUMBER 0206-09-15-000
RIVAL CDG 10-21-2009

REVISIONS

DRAWN BY	MSM
CHECKED BY	ASH
PLT DATE	10/21/2009
PROJECT NUMBER	4106
FILE NAME	E2.dwg
SHEET NUMBER	



EQUIPMENT LAYOUT
 SCALE: 1/8" = 1'-0"

NOTES:

A 2" SCHEDULE 40 PVC CONDUIT FOR AC ELECTRICAL CONNECTIONS BETWEEN THE GENERATOR AND THE BUILDING IS TO BE USED. SEPARATE 1" SCHEDULE 40 PVC CONDUITS FOR DC POWER, CONTROL AND ALARMING IS ADVISED. A MINIMUM OF 6" SPACING IS SUGGESTED BETWEEN CONDUIT CENTERLINES.

AT TIME OF INSTALLATION FOR VAPOR RELEASE, A RECOMMENDED 1/4" BLACK BORN PIPE, SCHEDULE 40, PIPED AND WRAPPED WITH UNDERGROUND TAPE, BURIED 18" BELOW FINISHED GRADE, PLACED IN A TRENCH ENCASED IN PVC TO PROTECT THE GAS LINE WITH A TRACE WIRE.

ENGINE EXHAUST MUST BE DIRECTED AWAY FROM VENTS AND BUILDING OPENINGS. AT MIN. 6" OF CLEARANCE IS RECOMMENDED WHEN PLACING THE GENERATOR AT ANY CELL SITE BUILDING OR OPENING.

WHEN GROUNDING THE GENERATOR, CAD WELD THE GENERATOR GROUNDING LUG TO THE GROUND RING #2 AWG BARE, SOLID TINNED COPPER WIRE, BURIED 50" BELOW GRADE.

CONDUIT INSTALLATION NOTES:

- ALL CONDUIT TO BE WRAPPED IN FELT
- ALL PENETRATIONS TO BE STUBBED THROUGH CONCRETE AT 45° ANGLE
- ALL CONDUITS TO STUB UP 3" ABOVE TOP OF CONCRETE
- ALL CONDUITS TO BE EQUIPPED WITH ELECTRICAL PVC
- ALL CONDUITS TO BE EQUIPPED WITH PULL CORDS & CAPPED FOR FUTURE LINE PULLS. NO DUCT TAPE ALLOWED

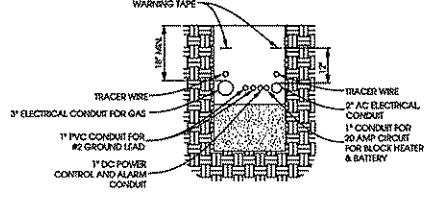
NATURAL GAS INSTALLATION WARNING:

-IF NO PROPANE TANK IS PROVIDED THEN ALL NATURAL GAS LINES NEED TO BE MARKED WITH WARNING TAPE FROM GAS METER TO GENERATOR AND A TRACER WIRE WILL NEED TO BE PROVIDED

NOTE:

COH-45 1/2" & 90° ESOHP W/ SPECIAL RADII. CALL ON PART # UATL18, UAS18 @ www.cartlon.com

SALES REP:
 SWINELL & ASSOCIATES, INC.
 260 RESIDENCY COURT
 BROOKFIELD, WI 53005
 262.764.0094
 FAX: 262.764.6580



UTILITY TRENCH DETAIL
 SCALE: NTS

WARNING TAPE & TRACE WIRE NOTES:

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

ISSUE DATE:	
ISSUE DESCRIPTION:	04-01-2007
PREPARED BY:	CDL/06-20-2009
TRIAL CDS:	15-21-2009
REVISION:	
DRAWN BY:	MM
CHECKED BY:	JMS
PLOT DATE:	1/21/2008
PROJECT NUMBER:	419
FILE NAME:	E-5.dwg
SHEET NUMBER:	