



**CITY OF DULUTH**

Community Planning Division

411 W 1<sup>st</sup> St, Rm 208 \* Duluth, Minnesota 55802-1197

Phone: 218/730.5580 Fax: 218/723-3559

<b>File Number</b>	PL 18-063, CUP	<b>Contact</b>	Steven Robertson, 218-730-5295	
<b>Type</b>	Concurrent Use Permit to Place Private Obstructions in Public Right of Way/Public Facilities (Utility Poles)	<b>Planning Commission Date</b>	June 12, 2018	
<b>Deadline for Action</b>	<b>Application Date</b>	May 8, 2018		
	<b>Date Extension Letter Mailed</b>	N/A	<b>90 Days* (237.163)</b>	August 6, 2018
<b>Location of Subject</b>	2150 Maple Grove Road			
<b>Applicant</b>	Verizon Wireless	<b>Contact</b>		
<b>Agent</b>	Jaymes D Littlejohn	<b>Contact</b>		
<b>Legal Description</b>				
<b>Site Visit Date</b>	May 30, 2018	<b>Sign Notice Date</b>	May 25, 2018	
<b>Neighbor Letter Date</b>	N/A for Concurrent Use	<b>Number of Letters Sent</b>	N/A for Concurrent Use	

**Proposal**

The applicant is proposing to “own or control a wireless facility in the public right-of-way, including the replacement of the existing, city owned poles and foundations to the support the new facilities. The City will continue to own the replacement poles/foundations”.

The wireless facilities will not be stealthed or camouflaged; the equipment will be visibly attached to the exterior of the pole. The attachments will include 1 exterior mounted panel antenna, 2 power converters, and 2 radio units mounted approximately between at least 26 to 30 feet above the ground. The replacement poles will be 40 feet tall.

	<b>Current Zoning</b>	<b>Existing Land Use</b>	<b>Future Land Use Map Designation</b>
<b>Subject</b>	MU-C	Public Right of Way	Neighborhood Mixed Use
<b>North</b>	Varies	Commercial	Large-Scale Commercial
<b>South</b>	Varies	Commercial/Residential	Urban Residential
<b>East</b>	MU-C	Commercial	Public Right of Way
<b>West</b>	Hermantown	Hermantown	Hermantown

**Summary of Code Requirements**

UDC Section 50-37.7.C. The planning commission shall review the application, and council shall approve the application or approve it with modifications, if it determines that:

- 1) The proposed concurrent use will not harm or inconvenience the health, safety and general welfare of the city;
- 2) No portion of a public easement proposed of use is being physically occupied by the public.

## **Comprehensive Plan Governing Principle and/or Policies and Current History (if applicable):**

Principle #4 - Support emerging economic growth sectors. Emerging economic sectors add economic, cultural and social diversity. These include higher education, medical, value-added manufacturing, commercial outdoor recreation, historic resources interpretation, arts and music, information technology and visitor services.

The installation falls with the provisions of Minnesota Statute 237.162 and 247.1643, as amended in 2017.

This application is one of three being present to the June 12, 2018 Planning Commission. The three applications are for four separate sites (Maple Grove Road, 6<sup>th</sup> Avenue West, Canal Park Drive, and Railroad Street). In 2016 the city issued a Special Use Permit for 3 small wireless facilities on utility poles on private property owned by St Scholastica, and in 2017 the city issued a concurrent use permit for 3 small wireless facilities on utility poles owned by Minnesota Power in city right of way.

## **Review and Discussion Items**

1) Applicant is proposing to install small wireless facilities on existing city utility poles located within dedicated public rights-of-way. The proposed locations are located in rights-of-way near Maple Grove Road.

The wireless facilities will not be stealthed or camouflaged; the equipment will be visibly attached to the exterior of the pole. The attachments will include 1 exterior mounted panel antenna, 2 power converters, and 2 radio units mounted approximately between at least 26 to 30 feet above the ground. The replacement poles will be 40 feet.

2) Granting a concurrent use permit would give the applicant the ability to use dedicated public rights-of-way, with conditions, while preserving other existing public uses in the same right-of-way corridors. Concurrent use permits require a public hearing and recommendation by the Planning Commission, and is approved by the City Council via ordinance. Unlike street right-of-way vacations, concurrent use permits are not recorded at the County as they are voidable permits issued by the City to applicants who are private users of public rights-of-way.

3) Both small wireless facilities will be similar in general configuration. Ownership of the poles will remain with the City of Duluth, with the poles in dedicated public rights-of-way. Liability, maintenance, and operation of the small wireless facilities will remain the responsibility of the applicant. In the event of an accident, such as a vehicle hitting the utility pole, the city is not responsible for restoring or replacing any of the applicant's equipment.

4) The existing city utility poles will be replaced with new poles, as specified and approved by the City engineer. The new poles will have a structural analysis by the manufacturer to ensure that they can support the weight of the private small cell facilities and required public infrastructure. The poles will be embedded into the ground a distance of 15 feet.

5) Granting the proposed concurrent use permits will not harm or inconvenience the health, safety and general welfare of the city. The area proposed for the concurrent use permit will not take away from the public's ability to use the public right-of-way. The city will own the poles and continue to use them for utility purposes (lighting).

6) The UDC generally requires that new wireless facilities follow a location standard: first they should be collocated on existing towers or other structures on city owned properties first, and then existing towers or other structures on other (private) property, and so forth down the location standard list. As these small wireless facilities would be located on existing infrastructure in public right of way, and as per the recent change in state statute, the city is processing these applications as concurrent use permits and not special use permits, and the UDC's use-specific standards do not apply in this specific situation.

7) The city has the ability to regulate land use, however, the Federal Communications Commission preempts local review on the potential environmental effects of radio frequency (RF) emissions, with the presumption that the applicant and service provider is in compliance with the Commission's RF rules.

8) At the time that this memo was written, only one written comment was received. Vic Lund, Traffic Engineering for St. Louis County, wrote that Installation of facilities within the county road right-of-way must be approved by St. Louis County Public Works Department by way of the St. Louis County Right-of-Way (Utility) Permit.

**Staff Recommendation:**

Based on the above findings, Staff recommends that the Planning Commission recommend approval of the two concurrent use permits subject to the following conditions:

- 1) The project be limited to, constructed, and maintained according to construction drawings signed May 3, 2018, and included with this staff report, and as revised per the City Engineer's comments of May 29, 2018, updated June 5, 2018.
- 2) Applicant, or successor, shall remove the proposed obstructions at applicant's expense if directed to do so by the City with appropriate notice, as outlined with other conditions in the concurrent use permit ordinance to be approved by the City Council.
- 3) Any alterations to the approved plans that do not alter major elements of the plan may be approved by the Land Use Supervisor without further Planning Commission approval; however, all other changes must be approved by amending the City Council's approved ordinance.



### Legend

 Zoning Boundaries

The City of Duluth has tried to ensure that the information contained in this map or electronic document is accurate. The City of Duluth makes no warranty or guarantee concerning the accuracy or reliability. This drawing/data is neither a legally recorded map nor a survey and is not intended to be used as one. The drawing/data is a compilation of records, information and data located in various City, County and State offices and other sources affecting the area shown and is to be used for reference purposes only. The City of Duluth shall not be liable for errors contained within this data provided or for any damages in connection with the use of this information contained within.



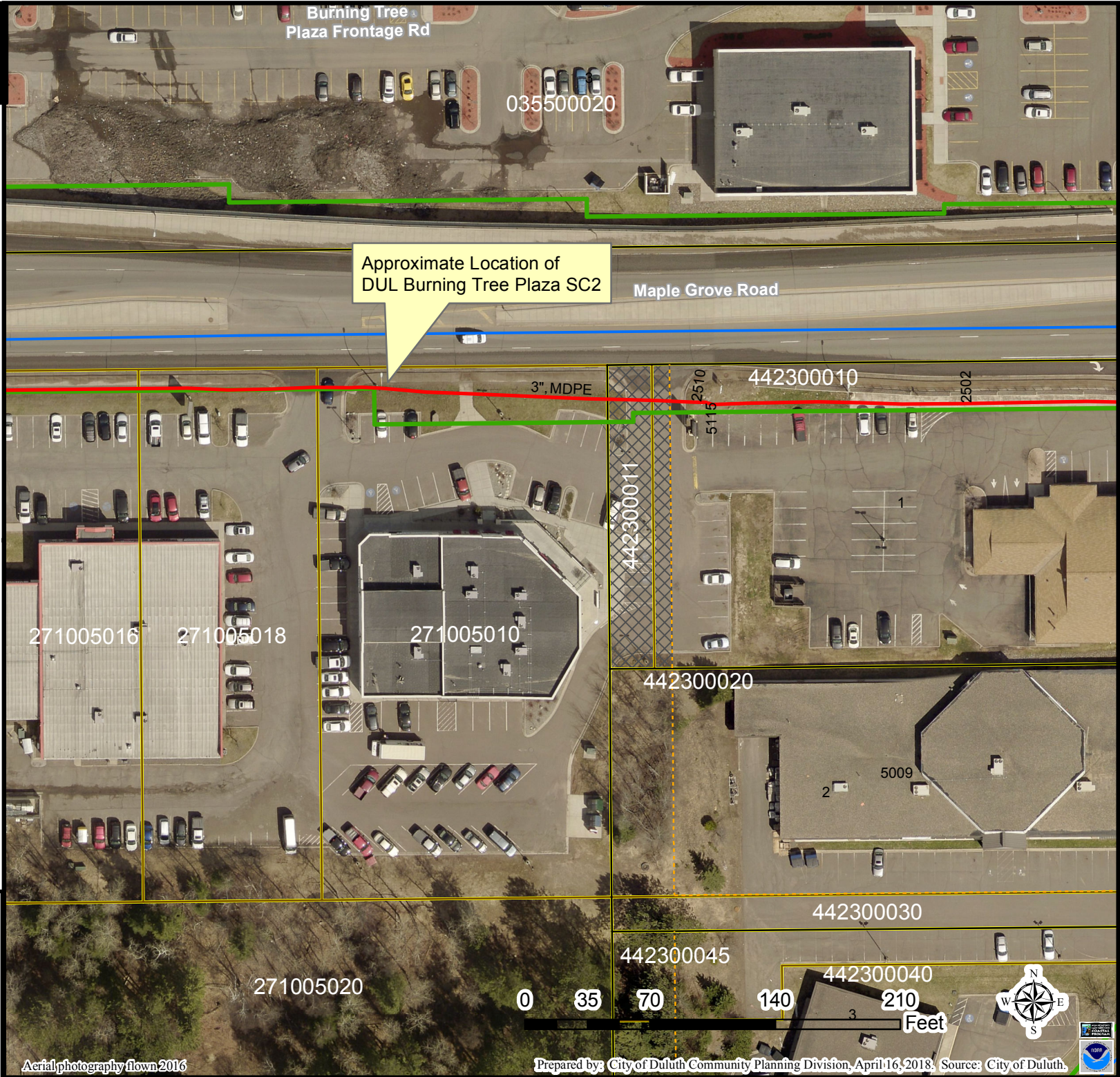


# Site Map

**Legend**

- Gas Main
- Water Main
- Hydrant
- Sanitary Sewer Mains**
  - CITY OF DULUTH
  - WLSSD; PRIVATE
  - Sanitary Sewer Forced Main
- Storage Basin
- PS Pump Station
- Storm Sewer Mains**
  - Storm Sewer Pipe
  - Storm Sewer Catch Basin
- Boundary Lines**
  - <all other values>
  - Subtype, ROW\_TYPE
    - Lot Line
    - Parcel Line
    - ROW (Road)
    - ROW (Not Road)
    - Subdivision Line
    - Water Line
    - Survey Line
    - Municipal Boundary
    - Vacated ROW

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04/27/2016



**SITE NAME:** DUL BURNING TREE PLAZA SC2

**SITE NUMBER:** 20151281300

**LOCATION CODE:** 393108

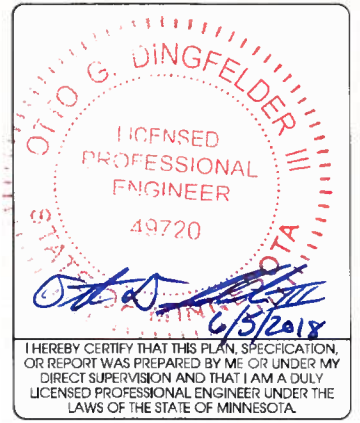
**SITE TYPE:** SMALL CELL

**INSTALLATION TYPE:** REPLACEMENT LIGHT POLE



PROJECT NO: 20151281300  
 LOCATION CODE: 393108  
 EDGE PROJECT NO: 16590  
 CHECKED BY: OGD

REV.	DATE	DESCRIPTION	INT.
A	08/29/2017	PRELIM SMALL CELL DWGS	KJM
0	09/12/2017	FINAL DRAWINGS	MTS
1	10/26/2017	FINAL DRAWINGS	DGS
2	04/24/2018	FINAL DRAWINGS	MWH
3	05/03/2018	FINAL DRAWINGS	MWH
4	06/05/2018	FINAL DRAWINGS	RJK



DUL BURNING TREE PLAZA SC2  
 DULUTH, MN  
 REPLACEMENT LIGHT POLE  
 SMALL CELL DRAWINGS

SHEET TITLE  
**TITLE SHEET & PROJECT DATA**

SHEET NUMBER  
**G-001**

SITE INFORMATION	AREA MAP	PROJECT DESCRIPTION/SOW	SHEET INDEX																																
<p>APPROXIMATE ADDRESS: 2510 MAPLE GROVE RD DULUTH, MN 55811 SAINT LOUIS COUNTY</p> <p>SITE COORDINATES: LAT: 46°-48'-26.83"N LONG: 92°-10'-20.70"W GROUND ELEVATION: 1357.5' AMSL (PER BOUNDARY SURVEY)</p> <p>POLE HEIGHT: 35'-0" T.O.C.</p> <p>MAXIMUM APPURTENANCE HEIGHT: 35'-7" A.G.L.</p>		<ul style="list-style-type: none"> <li>INSTALL (1) REPLACEMENT STEEL LIGHT POLE AND ASSOCIATED CONCRETE FOUNDATION</li> <li>INSTALLATION OF PANEL ANTENNA</li> <li>INSTALLATION OF ERICSSON RRUS AND POWER CONVERTERS</li> <li>INSTALLATION OF LOAD CENTER</li> <li>INSTALLATION OF DIPLEXERS</li> <li>INSTALLATION OF ELECTRIC METER, BY VERIZON</li> <li>INSTALLATION OF HAND HOLE FOR FIBER AT POLE BASE, BY FIBER PROVIDER</li> <li>INSTALLATION OF CONDUIT FOR FIBER BETWEEN HAND HOLE AND POLE BASE (APPROX. 2'-0"), TO BE TRENCHED BELOW GRADE, BY VERIZON</li> <li>INSTALLATION OF CONDUIT FOR FIBER IN ROW, TO BE TRENCHED BELOW GRADE, BY PROVIDER</li> <li>INSTALLATION OF NEW ELECTRIC SERVICE CONDUIT AND CONDUCTORS FROM POLE BASE TO POWER SOURCE, BY VERIZON</li> <li>REMOVE EXISTING FOUNDATION, BY VERIZON</li> <li>REMOVE EXISTING LIGHT POLE AND DELIVER TO CITY OF DULUTH, BY VERIZON</li> <li>INSTALLATION OF GROUND SYSTEM AROUND POLE FOUNDATION</li> <li>ALL OTHER CONSTRUCTION RELATED ACTIVITIES TO BE COMPLETED BY OTHERS</li> </ul>	<table border="1"> <thead> <tr> <th>NO:</th> <th>SHEET TITLE</th> </tr> </thead> <tbody> <tr><td>G-001</td><td>TITLE SHEET &amp; PROJECT DATA</td></tr> <tr><td>G-002</td><td>GENERAL SPECIFICATIONS</td></tr> <tr><td>G-003</td><td>GENERAL SPECIFICATIONS</td></tr> <tr><td>C-101</td><td>SITE PLAN</td></tr> <tr><td>C-501</td><td>TRAFFIC CONTROL PLANS</td></tr> <tr><td>T-201</td><td>SITE ELEVATION</td></tr> <tr><td>T-501</td><td>ANTENNA DETAILS</td></tr> <tr><td>T-502</td><td>EQUIPMENT DETAILS</td></tr> <tr><td>S-001</td><td>STRUCTURAL NOTES **</td></tr> <tr><td>S-501</td><td>STRUCTURAL DETAILS **</td></tr> <tr><td>E-101</td><td>UTILITY PLAN</td></tr> <tr><td>E-102</td><td>UTILITY PLAN</td></tr> <tr><td>E-103</td><td>GROUNDING PLAN</td></tr> <tr><td>E-601</td><td>UTILITY DETAILS</td></tr> <tr><td>E-502</td><td>GROUNDING DETAILS</td></tr> </tbody> </table> <p>* COMPLETED BY OTHERS            ** REVIEWED AND APPROVED BY STRUCTURAL ENGINEER</p>	NO:	SHEET TITLE	G-001	TITLE SHEET & PROJECT DATA	G-002	GENERAL SPECIFICATIONS	G-003	GENERAL SPECIFICATIONS	C-101	SITE PLAN	C-501	TRAFFIC CONTROL PLANS	T-201	SITE ELEVATION	T-501	ANTENNA DETAILS	T-502	EQUIPMENT DETAILS	S-001	STRUCTURAL NOTES **	S-501	STRUCTURAL DETAILS **	E-101	UTILITY PLAN	E-102	UTILITY PLAN	E-103	GROUNDING PLAN	E-601	UTILITY DETAILS	E-502	GROUNDING DETAILS
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<p><b>APPLICABLE CODES</b></p> <p>ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:            - 2012 INTERNATIONAL BUILDING CODE            - 2014 NATIONAL ELECTRIC CODE            - TIA/EIA-222-G OR LATEST EDITION</p> <p>IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL</p>	<p><b>LOCATION MAP</b></p>	<p><b>PROJECT DIRECTORY</b></p> <p><b>LESSEE:</b>            VERIZON WIRELESS            10801 BUSH LAKE RD            BLOOMINGTON, MN 55438            CONTACT: RICK WENTA            PHONE: 952.946.4690</p> <p><b>LESSOR:</b>            CITY OF DULUTH            411 W 1ST ST            DULUTH, MN 55802            PHONE: 218.730.5000</p> <p><b>ENGINEERING COMPANY:</b>            EDGE CONSULTING ENGINEERS, INC.            2101 HIGHWAY 13 W            BURNSVILLE, MN 55337            CONTACT: OTTO DINGFELDER III, P.E.            PHONE: 608.644.1449</p> <p><b>RE ENGINEER:</b>            VERIZON WIRELESS            10801 BUSH LAKE RD            BLOOMINGTON, MN 55438            CONTACT: MICHAEL KOCH</p> <p><b>SITE ACQUISITION:</b>            JACOBS ENGINEERING GROUP, INC.            2727 PATTON ROAD            ROSEVILLE, MN 55113            CONTACT: AMY DRESCH            PHONE: 952.831.1043</p>	<p><b>11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED</b></p> <p>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.</p>																																
<p><b>LOCATION SCAN</b></p>		<p><b>ENGINEER OF RECORD</b></p> <p>EDGE CONSULTING ENGINEERS, INC.            CONTACT: OTTO DINGFELDER III (PE # 49720 (MN))            PHONE: 608.644.1449</p>	<p><b>STRUCTURAL REVIEW</b></p> <p>FOUNDATION DESIGN: EDGE CONSULTING ENGINEERS            PROJECT #: 16590            DATE: 10/17/2017</p> <p>POLE DESIGN: VALMONT            DRAWING #: MN379742P1            DATE: 10/12/2017</p> <p>CONTRACTOR TO REVIEW STRUCTURAL REPORT IN ITS ENTIRETY. ANY DISCREPANCIES OR DISAGREEMENTS BETWEEN THE REPORT AND THESE PLANS SHOULD BE RESOLVED PRIOR TO CONSTRUCTION.</p>																																

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**verizon**

**JACOBS**

Jacobs Engineering Group, Inc  
2727 Patton Road  
Roseville, Minnesota 55113  
www.jacobs.com

**Edge**  
Consulting Engineers, Inc.

2101 Highway 13 W  
Burnsville, MN 55337  
608.644.1449 voice  
608.644.1549 fax  
www.edgeconsult.com

PROJECT NO: 20151281300

LOCATION CODE: 393108

EDGE PROJECT NO: 16590

CHECKED BY: OGD

REV.	DATE	DESCRIPTION	INT.
A	08/29/2017	PRELIM SMALL CELL DWGS	KJM
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4	06/05/2018	FINAL DRAWINGS	RJK

APPROVED - SEE SHEET G-001  
FOR ENGINEER SEAL

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DUL BURNING TREE PLAZA SC2  
DULUTH, MN  
REPLACEMENT LIGHT POLE  
SMALL CELL DRAWINGS

SHEET TITLE

**SITE PLAN**

SHEET NUMBER

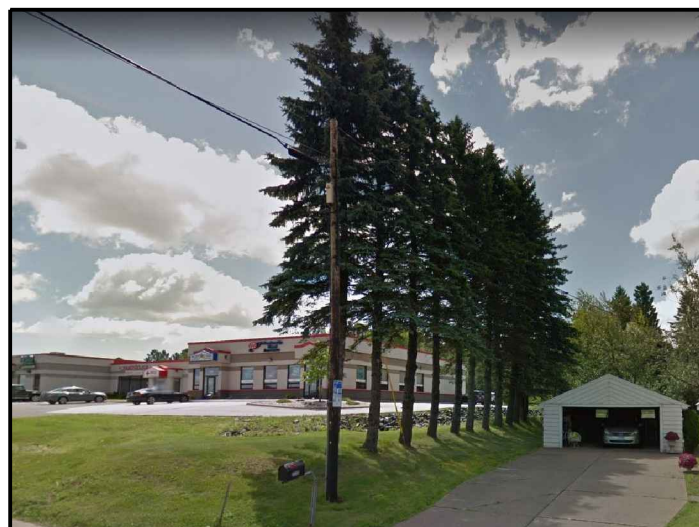
**C-101**



**A AERIAL OVERVIEW**



**B SITE OVERVIEW [LOOKING WEST]**



**C POWER SOURCE [LOOKING SOUTHEAST]**

**NOTES:**

CONTRACTOR TO COMPLETE A UTILITY LOCATE PRIOR TO COMMENCING ALL CONSTRUCTION ACTIVITIES.

CONTRACTOR TO RE-SEED ANY AND ALL DISTURBED GRASS AREAS. REFER TO THE LOCAL MUNICIPALITY FOR SEEDING SPECIFICATIONS.

**POWER AND FIBER ROUTING NOTE:**

THE PROPOSED POWER AND FIBER ROUTES ARE PRELIMINARY, AND WILL BE CONFIRMED WITH THE LANDLORD AND FIBER PROVIDER PRIOR TO CONSTRUCTION. IF THE GENERAL CONTRACTOR NOTICES ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL SOURCES OF POWER AND FIBER, THE VERIZON CONSTRUCTION ENGINEER AND PROJECT ENGINEER ARE TO BE NOTIFIED PRIOR TO COMMENCING WORK.

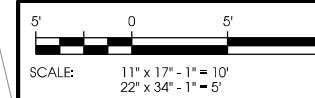
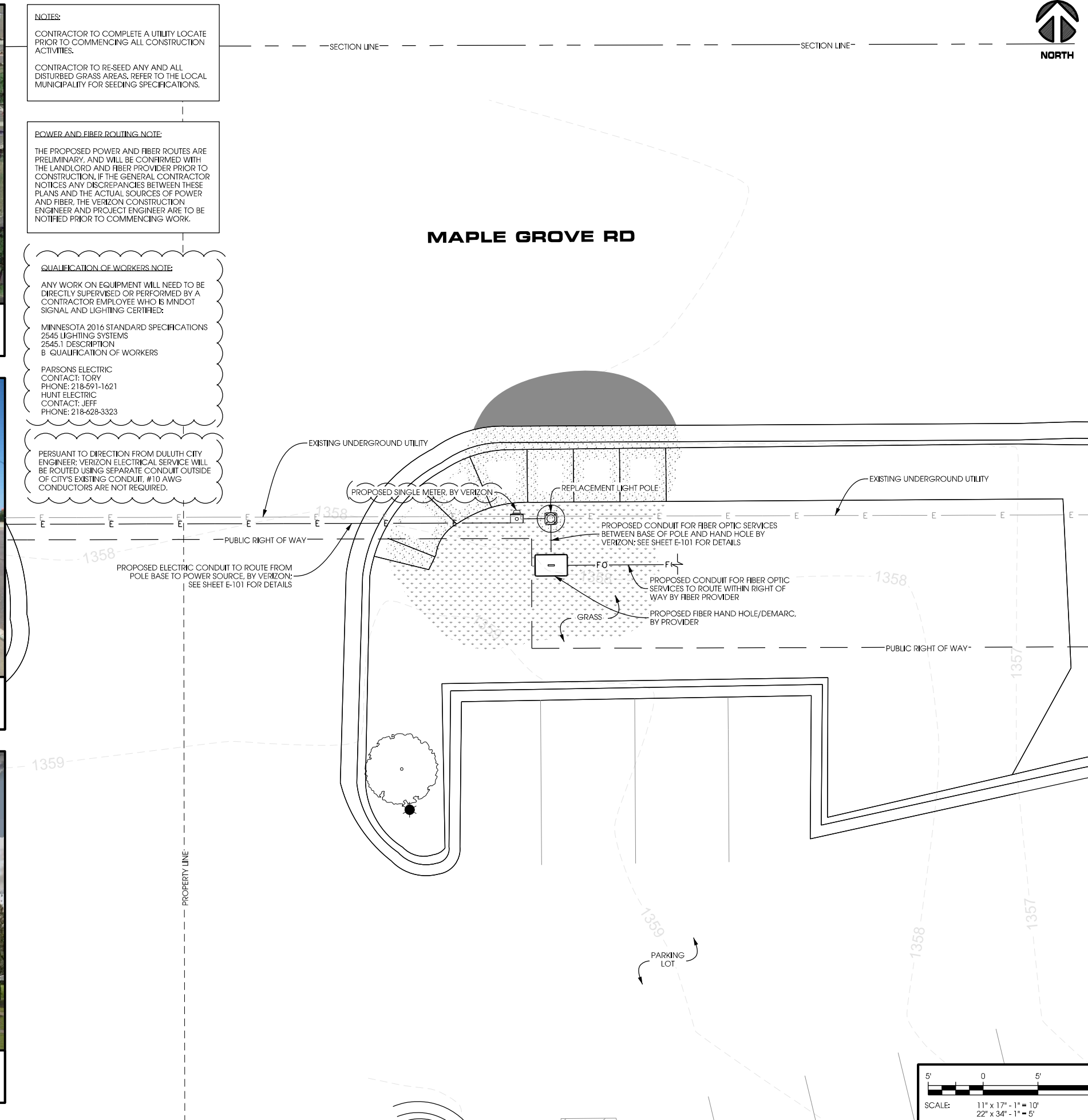
**QUALIFICATION OF WORKERS NOTE:**

ANY WORK ON EQUIPMENT WILL NEED TO BE DIRECTLY SUPERVISED OR PERFORMED BY A CONTRACTOR EMPLOYEE WHO IS MNDOT SIGNAL AND LIGHTING CERTIFIED.

MINNESOTA 2016 STANDARD SPECIFICATIONS  
2545 LIGHTING SYSTEMS  
2545.1 DESCRIPTION  
B QUALIFICATION OF WORKERS

PARSONS ELECTRIC  
CONTACT: TORY  
PHONE: 218-691-1621  
HUNT ELECTRIC  
CONTACT: JEFF  
PHONE: 218-628-3323

PERSUANT TO DIRECTION FROM DULUTH CITY ENGINEER, VERIZON ELECTRICAL SERVICE WILL BE ROUTED USING SEPARATE CONDUIT OUTSIDE OF CITY'S EXISTING CONDUIT. #10 AWG CONDUCTORS ARE NOT REQUIRED.



LA:16590\16590\CAD\Plan\Final\C-101.dgn



PROJECT NO: 20151281300

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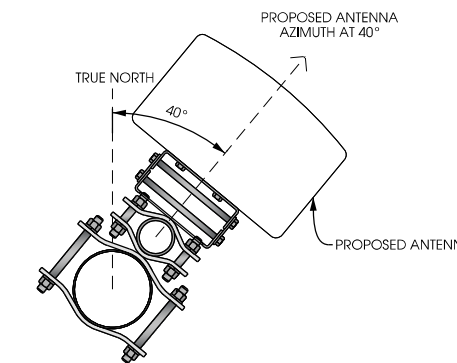
DUL BURNING TREE PLAZA SC2  
DULUTH, MN  
REPLACEMENT LIGHT POLE  
SMALL CELL DRAWINGS

SHEET TITLE

**SITE ELEVATION**

SHEET NUMBER

**T-201**



**C ANTENNA ORIENTATION**  
SCALE: NTS

ANTENNAS					
QUANTITY	MAKE	MODEL	CENTERLINE	TIP HEIGHT	AZIMUTH
1	JMA	X7CQAPFRO-260	30' AGL	31'-6" AGL	40°

EQUIPMENT			
QUANTITY	TYPE	MAKE	MODEL
1	RRU	ERICSSON	RRUS32 B66
1	RRU	ERICSSON	RRUS32 B2
2	DIPLXER	COMMSCOPE	CBC1923T-4310 E11F13PO6

CABLING			
QUANTITY	TYPE	MAKE	MODEL
6	COAX	COMMSCOPE	LFD4-50

**D ANTENNA AND CABLING**  
SCALE: NTS

**CAUTION**

Beyond this point, Radio frequency fields at this site may exceed the FCC Occupational Exposure Limit.

Failure to obey all posted signs and site guidelines for working in radio frequency environments could result in serious injury.

Transmitting Antennas(s)  
Radio frequency fields beyond this point MAY EXCEED the FCC Occupational Exposure Limit.  
Obey all posted signs and site guidelines.  
Call Verizon Wireless at 1-800-264-6620 PRIOR to working beyond this point.

**WARNING**

Beyond this point, Radio frequency fields at this site exceed the FCC rules for human exposure.

Failure to obey all posted signs and site guidelines for working in radio frequency environments could result in serious injury.

Transmitting Antennas(s)  
Radio frequency fields beyond this point MAY EXCEED the FCC General Population Exposure Limit.  
Obey all posted signs and site guidelines.  
Call Verizon Wireless at 1-800-264-6620 PRIOR to working beyond this point.

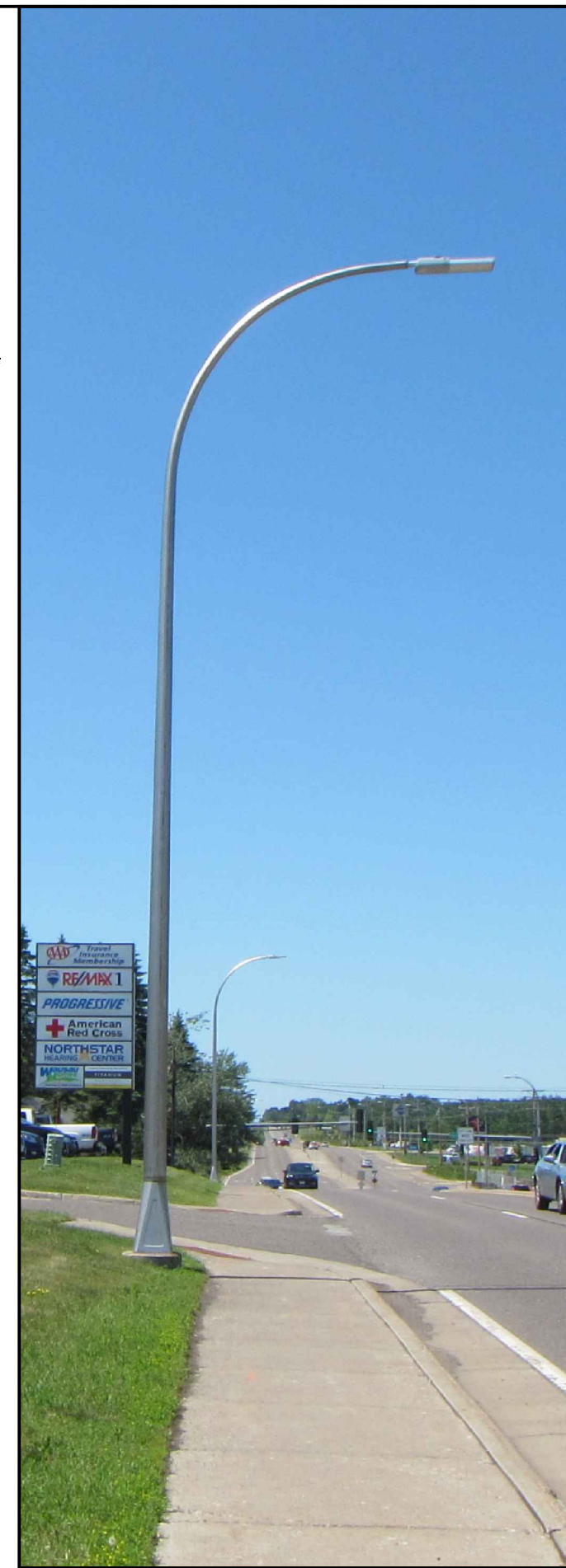
**NOTICE**

Beyond this point, Radio frequency fields at this site may exceed the FCC General Population Exposure Limit.

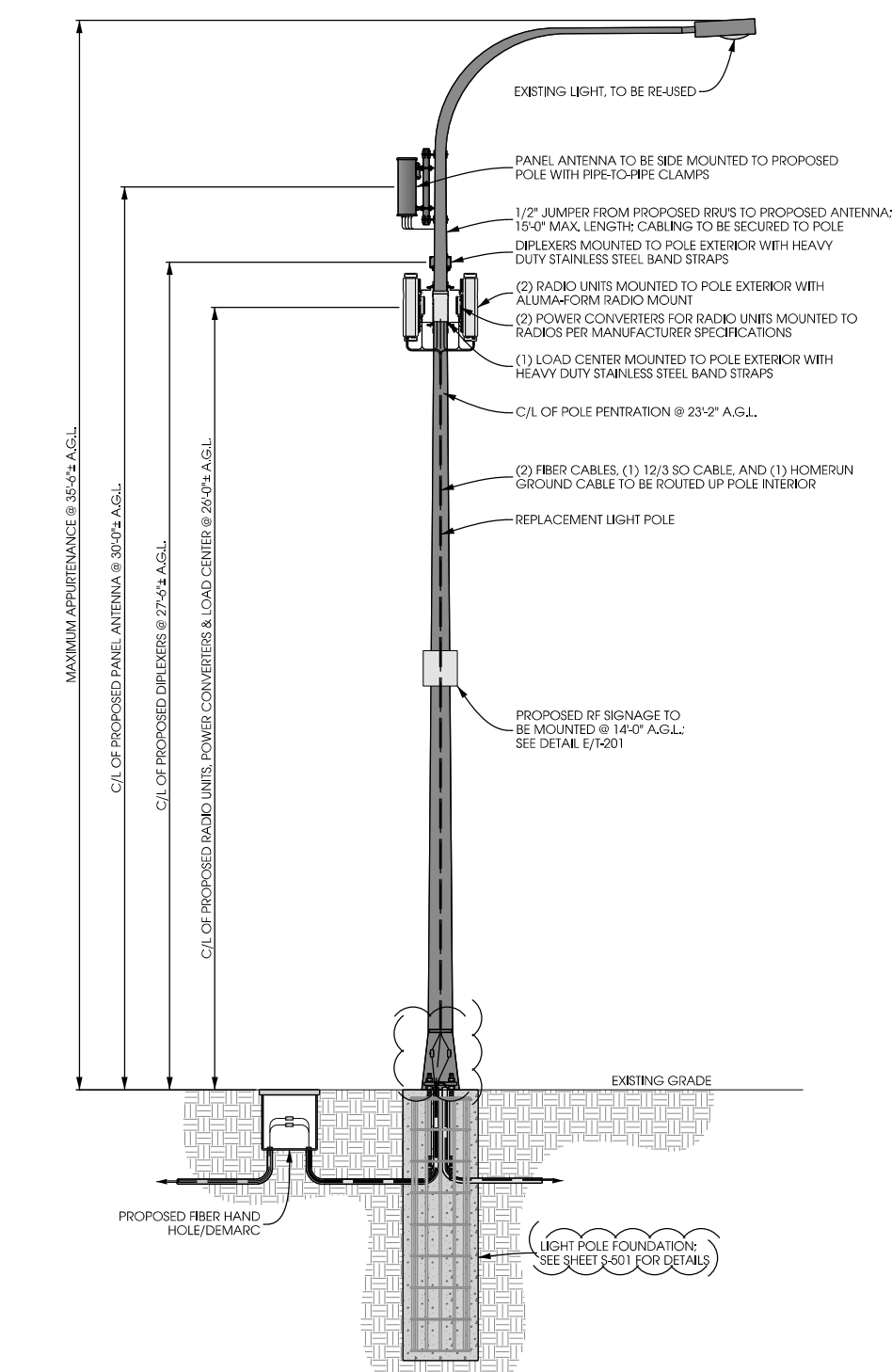
Failure to obey all posted signs and site guidelines for working in radio frequency environments could result in serious injury.

Transmitting Antennas(s)  
Radio frequency fields beyond this point MAY EXCEED the FCC General Population Exposure Limit.  
Obey all posted signs and site guidelines.  
Call Verizon Wireless at 1-800-264-6620 PRIOR to working beyond this point.

**E RF WARNING SIGNS**  
SCALE: NTS



**B SITE ELEVATION**



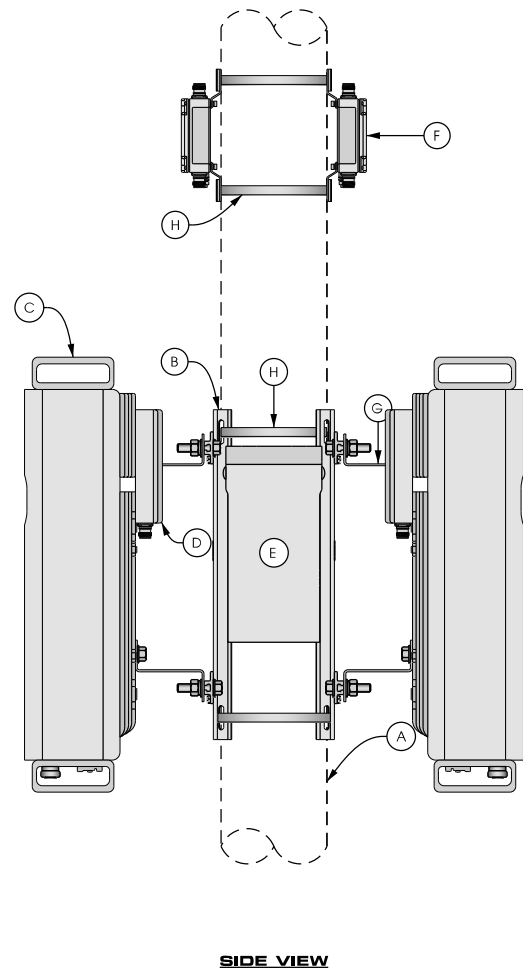
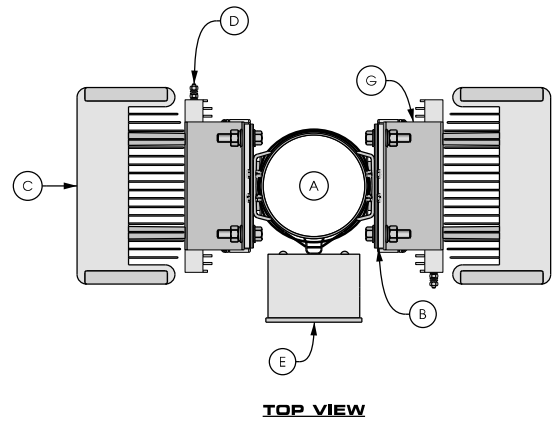
**A POLE ELEVATION**  
SCALE: 11" x 17" - 1" = 6'-0"  
22" x 34" - 1" = 3'-0"

**NOTE:**  
PROPOSED POLE TO BE MILLERBERND SD1-081-H-94F-350-W-FR LIGHT POLE

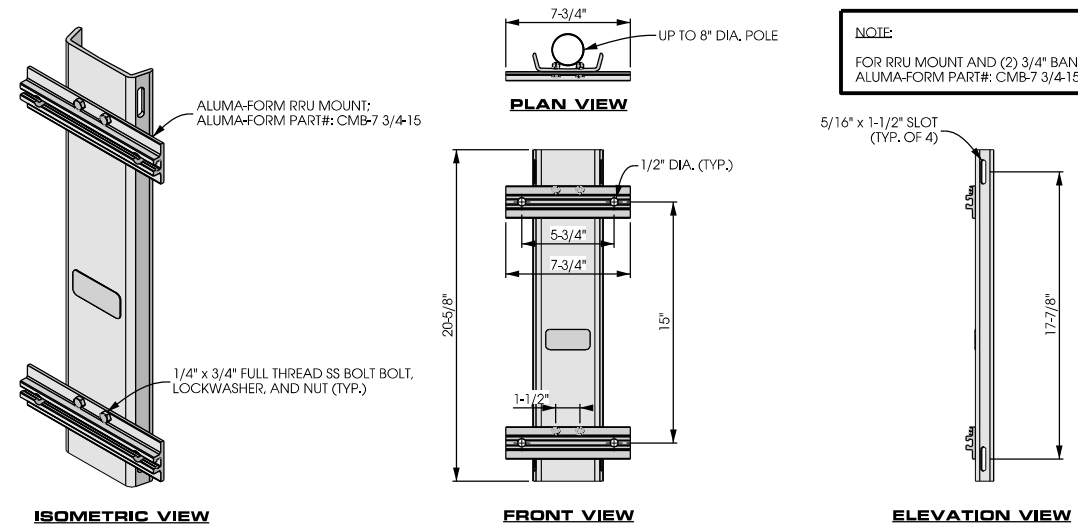
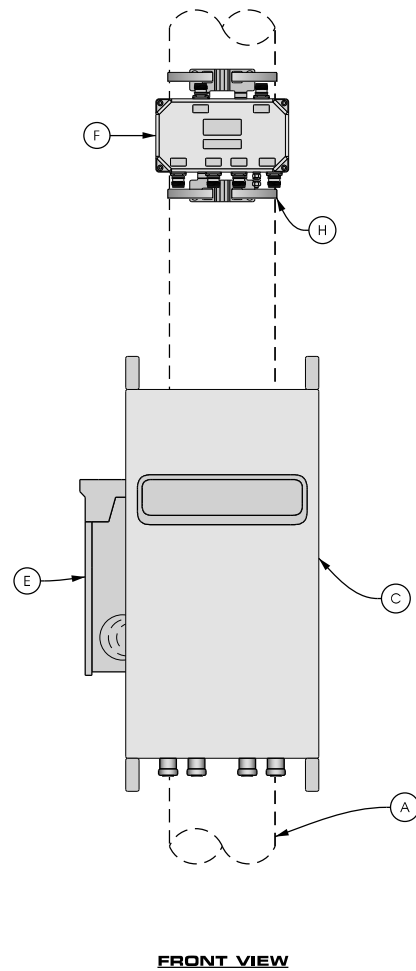
**NOTES:**  
TYPICAL INSTALLATION SHOWN.  
ALL ELEVATIONS ARE ASSUMED TO BE MEASURED FROM ABOVE GRADE LEVEL.  
ALL PROPOSED POLE-MOUNTED EQUIPMENT TO BE PAINTED TO MATCH POLE.

**NOTE:**  
PAINT ALL ANTENNAS, OUTDOOR EQUIPMENT, CABLING, AND MOUNTING HARDWARE TO MATCH THE POLE.

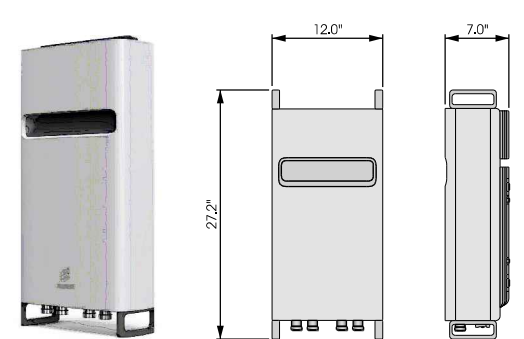
- KEYED NOTES:**
- A. UP TO 8" DIA. POLE
  - B. REMOTE RADIO UNIT (TYP. OF 2); SEE DETAIL B THIS SHEET
  - C. REMOTE RADIO UNIT (TYP. OF 2); SEE DETAIL C THIS SHEET
  - D. POWER SUPPLY UNIT SECURED TO BACK OF REMOTE RADIO UNIT (TYP. OF 2); SEE DETAIL D THIS SHEET
  - E. LOAD CENTER SECURED WITH HEAVY DUTY STAINLESS STEEL BAND STRAP; SEE DETAIL E THIS SHEET
  - F. DIPLEXER SECURED WITH HEAVY DUTY STAINLESS STEEL BAND STRAP (TYP. OF 2); SEE DETAIL F THIS SHEET
  - G. ANGLE ADAPTER MOUNTED TO BACK OF REMOTE RADIO UNIT PER MANUFACTURER'S SPECIFICATIONS (TYP.)
  - H. HEAVY DUTY STAINLESS STEEL BAND STRAP (TYP.)



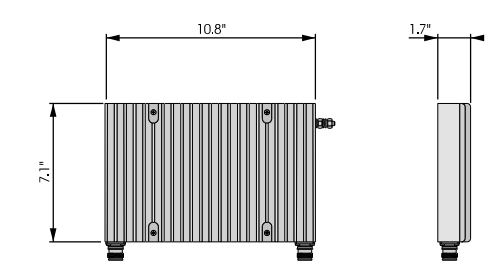
**A POLE ELEVATION**  
SCALE: 11" x 17" - 1/4" = 1'-0"  
22" x 34" - 1/2" = 1'-0"



**B EQUIPMENT MOUNTING**  
SCALE: NTS

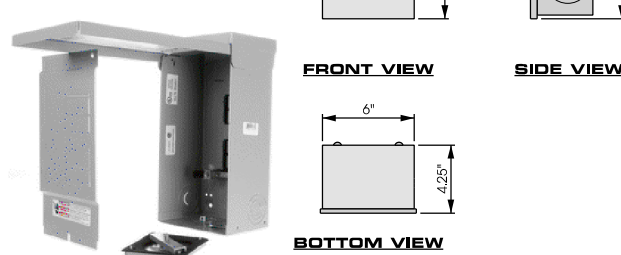


**C REMOTE RADIO UNIT**  
SCALE: NTS  
REMOBILE PART # RRUS32  
DIMENSIONS: 27.2" x 12.0" x 7.0" (H x W x D)  
WEIGHT: 60 LBS



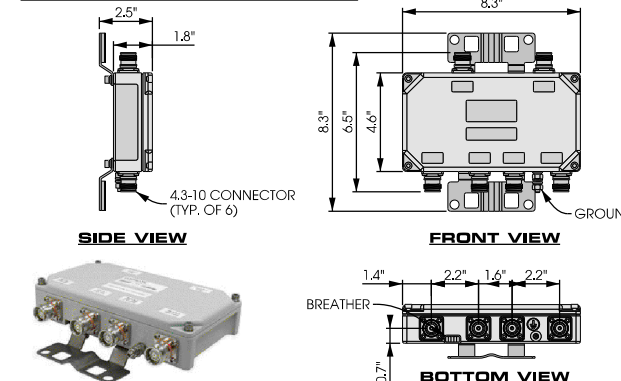
**D POWER SUPPLY UNIT**  
SCALE: NTS  
ERICSSON PART #: PSU AC-08  
DIMENSIONS: 10.8" x 7.1" x 1.9" (H x W x D)  
WEIGHT: 11.5 LBS

MANUFACTURER: SIEMENS  
MODEL: W0408ML1125  
DIMENSIONS: 12.25" x 6" x 4.25" (H x W x D)  
WEIGHT: 6.8 LBS.  
NUMBER OF POLES: 4 (EXPANDABLE TO 8)  
MAX. CURRENT RATING: 125 A  
VOLTAGE RATING: 240 VAC  
CONTRACTOR TO INSTALL LED LIGHT



**E LOAD CENTER**  
SCALE: NTS

MANUFACTURER: COMMSCOPE  
MODEL #: CBC19231-4310 / E11F13P06  
TWIN DIPLEXER PCS/AWS+WCS, DC BLOCK, 4.3-10  
DIMENSIONS: 8.3" x 4.6" x 1.8"  
WEIGHT: 4.4 LBS



**F DIPLEXER**  
SCALE: NTS



PROJECT NO:	20151281300
LOCATION CODE:	393108
EDGE PROJECT NO:	16590
CHECKED BY:	OGD

REV.	DATE	DESCRIPTION	INT.
A	08/29/2017	PRELIM SMALL CELL DWGS	KJM
0	09/12/2017	FINAL DRAWINGS	MTS
1	10/26/2017	FINAL DRAWINGS	DGS
2	04/24/2018	FINAL DRAWINGS	MWH
3	05/03/2018	FINAL DRAWINGS	MWH
4	06/05/2018	FINAL DRAWINGS	RJK

APPROVED - SEE SHEET G-001  
FOR ENGINEER SEAL

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DUL BURNING TREE PLAZA SC2  
DULUTH, MN  
REPLACEMENT LIGHT POLE  
SMALL CELL DRAWINGS

SHEET TITLE  
**EQUIPMENT DETAILS**

SHEET NUMBER  
**T-502**

**POWER AND FIBER ROUTING NOTE:**

THE PROPOSED POWER AND FIBER ROUTES ARE PRELIMINARY, AND WILL BE CONFIRMED WITH THE LANDLORD AND FIBER PROVIDER PRIOR TO CONSTRUCTION. IF THE GENERAL CONTRACTOR NOTICES ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL SOURCES OF POWER AND FIBER, THE VERIZON CONSTRUCTION ENGINEER AND PROJECT ENGINEER ARE TO BE NOTIFIED PRIOR TO COMMENCING WORK.

**NOTES:**

- CONTRACTOR TO COMPLETE UTILITY LOCATE PRIOR TO COMPLETING ANY CONSTRUCTION ACTIVITIES.
- CONTRACTOR TO MAINTAIN A MINIMUM 48" OF COVER BETWEEN DIRECTIONAL CORE AND ROADWAY PAVEMENT TO THE EXTENT PRACTICAL.
- CONTRACTOR TO PROVIDE A MINIMUM OF 12" OF CLEARANCE BETWEEN PROPOSED CONDUIT AND EXISTING UTILITIES.
- ALL CONCRETE DAMAGED AS PART OF THIS WORK TO BE REPAIRED/REPLACED TO ITS ORIGINAL CONDITION.
- ALL ASPHALT REMOVED DURING CONSTRUCTION IS TO BE PATCHED AND REPAIRED TO ITS ORIGINAL CONDITION.
- TEMPORARY HARD SURFACE TO BE PROVIDED IMMEDIATELY UPON BACK FILL, UNTIL PERMANENT REPAIR IS MADE.
- NOTIFY CITY OF DULUTH 7310-9310 2 WORKING DAYS PRIOR TO EXCAVATION OR DIRECTIONAL DRILLING WITHIN 6FT OF NATURAL GAS MAINS.
- OBTAIN PERMIT FROM ST. LOUIS COUNTY FOR ELECTRIC CONDUIT.



Jacobs Engineering Group, Inc  
2727 Patton Road  
Roseville, Minnesota 55113  
www.jacobs.com



2101 Highway 13 W  
Burnsville, MN 55337  
608.644.1449 voice  
608.644.1549 fax  
www.edgeconsult.com

PROJECT NO: 20151281300  
LOCATION CODE: 393108  
EDGE PROJECT NO: 16590  
CHECKED BY: OGD

REV.	DATE	DESCRIPTION	INT.
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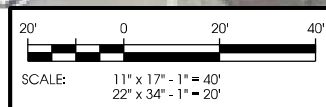
DUL BURNING TREE PLAZA SC2  
DULUTH, MN  
REPLACEMENT LIGHT POLE  
SMALL CELL DRAWINGS

SHEET TITLE  
**UTILITY PLAN**

SHEET NUMBER  
**E-101**



**A UTILITY PLAN**



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