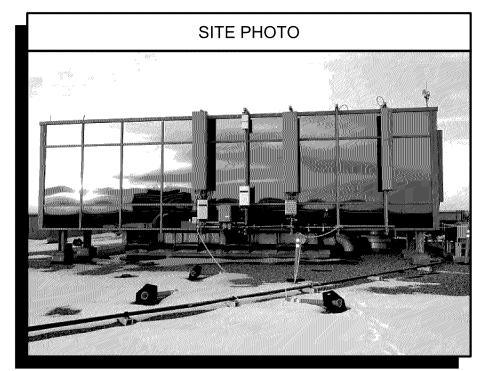
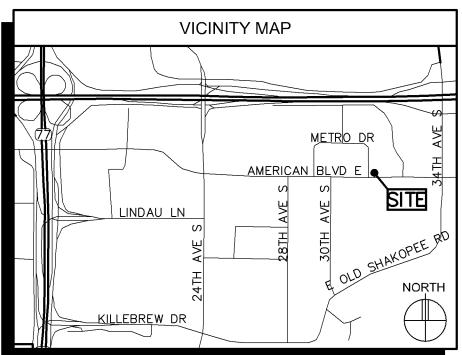
CASE #PL2021-208 SE #PL2021-208 | Comparison of the comparison o

MIN AIRPORT L-SUB 6





	SHEET INDEX							
SHEET	SHEET DESCRIPTION							
T-1	PROJECT INFORMATION, MAPS, DIRECTIONS, AND SHEET INDEX							
A-1	SECTOR ELEVATIONS							
A-2	PROPOSED KEYS							
A-3	GENERAL NOTES & ONE-LINE DIAGRAM							
A-4	PHOTOS							

	ISSUE SUMMARY								
REV	DESCRIPTION	SHEET OR DETAIL							
Α	ISSUED FOR REVIEW	ALL							
В	ISSUED FOR OWNER SIGNOFF	ALL							
0	ISSUED FOR BID / CONSTRUCTION	ALL							

VZW DEPARTMENTAL APPROVALS								
JOB TITLE	NAME	DATE						
RF ENGINEER	JOSHUA MARTIN	4/7/2021						
CONSTRUCTION ENGINEER	BRENT FORBES	4/8/2021						

LESSOR / LICENSOR APPROVAL							
SIGNATURE	PRINTED NAME	DATE					
EMAIL	THOMAS BOONE	9/21/2021					
LESSOR / LICENSOR: PLEASE CHECK THE APPROPRIATE BOX BELOW NO CHANGES. CHANGES NEEDED. SEE COMMENTS ON PLANS.							

SHE LOCATION	

CONTACTS

LESSOR: INTERNATIONAL PLAZA PARTNERS

VERIZON WIRELESS 10801 BUSH LAKE ROAD BLOOMINGTON, MN 55438 LESSEE:

CONSTRUCTION DEPT (952) 946-4700

DESIGNER:

DESIGN 1 OF EDEN PRAIRIE, LLC. 9973 VALLEY VIEW ROAD EDEN PRAIRIE, MN 55344

(952) 903-9299

STRUCTURAL HERZOG ENGINEERING

530 NORTH 3RD STREET, SUITE 230 MINNEAPOLIS, MN 55401

MIN AIRPORT

20202204430

HENNEPIN

N 44° 51' 32.00"

W 93° 13' 35.00"

VARIES (SEE KEYS)

"X" = (2) 1-5/8" COAX CABLES (EXISTING) "Y" = (2) 1-5/8" COAX CABLES (EXISTING)

"Z" = (2) 1-5/8" COAX CABLES (EXISTING)

(4) HYBRID CABLES (EXISTING)

818.0' AMSL

NO

10-22-20

ANTENNA CENTERLINE HEIGHT: VARIES (SEE KEYS)

7900 INTERNATIONAL DRIVE

PROJECT NUMBER:

SITE ADDRESS:

COUNTY:

LATITUDE:

LONGITUDE:

GROUND ELEVATION:

ANTENNA TIP HEIGHT:

STRUCTURE HEIGHT:

BASED ON RFDS DATED:

PROJECT DESCRIPTION:

ADD (3) ANTENNAS

ADD POWERSHIFT EQUIPMENT

CABLE ROUTES:

OVERALL STRUCTURE HEIGHT: GENERATOR ON SITE:

DESIGN

9973 VALLEY VIEW RD. EDEN PRAIRIE, MN 55344 (952) 903-9299 WWW.DESIGN1EP.COM

PROJECT INFORMATION verizon^v

10801 BUSH LAKE ROAD BLOOMINGTON, MN 55438 (952) 946-4700

PROJECT 20202204430 LOC. CODE # 140128

> MIN **AIRPORT** L-SUB 6

7900 INTERNATIONAL DRIVE BLOOMINGTON, MN 55425

SHEET CONTENTS:

CONTACTS ISSUE SUMMARY SHEET INDEX DEPARTMENTAL APPROVALS LESSOR APPROVAL PROJECT INFORMATION VICINITY MAP GENERAL NOTES

DRAWN BY:	SJD
DATE:	02-24-21
CHECKED BY:	MJS
REV. A	03-25-21
REV. B	04-12-21
REV. 0	09-23-21

SITE LOCATION

CASE #PL2021-208

NOTES:

1. PROPOSED ANTENNAS TO BE INSTALLED IN ACCORDANCE W/ANALYSIS BY HERZOG ENGINEERING, LLC, PROJECT \$211095. NOTIFY ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES BETWEEN THE ANALYSIS/CONSTRUCTION DRAWINGS AND THE EXISTING CONDITIONS. THE CONTRACTOR SHALL VERIFY THAT THE HEIGHTS OF THE EXISTING EQUIPMENT MATCH THE ANALYSIS.

SPECIFICATIONS:

- WRAPPING SCOPE OF WORK INCLUDES PROVIDING COORDINATION OF THE MATERIALS AND LABOR FOR WRAPPING THE "AIR 6449 B770" ANTENNAS WITH CONCEALMENT FILM. CONTRACTOR SHALL UTILIZE FINISH COAT COLOR SHERWIN WILLIAMS SW 6228 "REFUGE" OR EQUIVALENT TO MATCH EXISTING PAINTED EQUIPMENT.
- CONTRACTOR TO FURNISH THE "AIR 6449 B77D" ANTENNAS WITH CONCEALMENT FILM. CONCEALMENT FILM TO BE 3M "ENVISION PRINT WRAP FILMS 480MC". CONCEALMENT FILM TO BE PRINTED A SOLID-COLOR AND PRINTING TO BE PERFORMED BY A 3M MCS CERTIFIED GRAPHICS MANUFACTURER. PRINTED CONCEALMENT FILM TO BE COVERED WITH 3M "ANTI-GRAFITTI WRAP MATTE OVERLAMINATE 8590M". CONCEALMENT FILM TO BE INSTALLED ON "AIR 6449 B77D" ANTENNAS AND SHALL EXCLUDE HEAT—SINK FINS, MANUFACTURER'S LABELS, VENTILATION HOLES AND CABLE CONNECTIONS. INSTALLATION OF THE OVERLAMINATED, PRINTED CONCEALMENT FILM ONTO ANTENNAS TO BE BY A TRAINED 3M "PREFERRED", "ENDORSED" OR "CERTIFIED" INSTALLER OR GRAPHIC INSTALLATION COMPANY. FOR PROCURING THE PROPER 3M CONCEALMENT FILM CONTACT:
- NICHOLAS LOWRY
 BRAND INK
 99 FIFTH AVE NW, SUITE 300
 ST. PAUL, MN 55112
 OFFICE: (612) 256-2786
 FAX: (612) 234-4287
 EMALL: NICK@BRANDINK.COM

WEBSITE: WWW.BRANDINK.COM

NOTE:
ELEVATION SHOWN, TYP. FOR SECTORS 'X' & 'Z', U.N.O.
SEE ANTENNA KEY FOR ADDITIONAL INFORMATION.

Y SECTOR

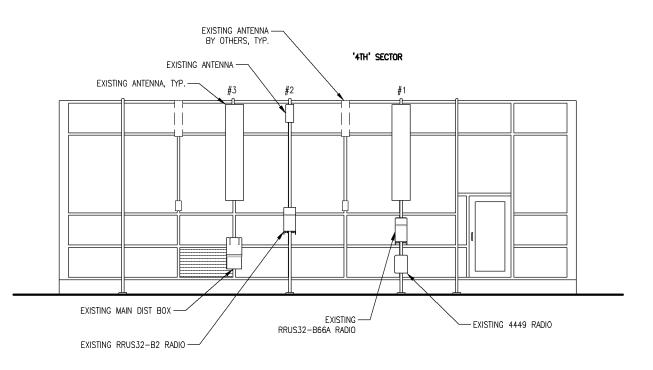
EXISTING ANTENNA

Y'SECTOR

EXISTING ANTENNA, TYP.

EXISTING

APPROVED Zoning Review Only 10/15/2021 NMJ



DESIGN

9973 VALLEY VIEW RD. EDEN PRAIRIE, MN 55344 (952) 903-9299 WWW.DESIGN1EP.COM

verizon/

10801 BUSH LAKE ROAD BLOOMINGTON, MN 55438 (952) 946-4700

PROJECT 20202204430

MIN AIRPORT L-SUB 6

LOC. CODE # 140128

7900 INTERNATIONAL DRIVE BLOOMINGTON, MN 55425

SHEET CONTENTS: SECTOR ELEVATIONS

DRAWN BY:	SJD
DATE:	02-24-21
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REV. A	03-25-21
REV. B	04-12-21
REV. 0	09-23-21

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CASE #PL2021-208

208					ANTENNA	A KEY										С	ABLE KEY						EQUIPMENT KEY		
munumununis.	AZIMUTH	POSITION	QTY	MANUFACTURER	MODEL	MOD TYPE	ANTENNA LENGTH	antenna Tip	antenna Center		MECH DOWNTILT	STATUS	QTY	COAX TYPE	MANUFACTURER	MODEL	DIELECTRIC	DIAMETER (INCH)	RUN (FEET)	STATUS	QTY MANUFACTUR	R MODEL	FIBER FEED TAIL	RRU PORT	STATUS
	330'	1.1	1	CSS	X7C-CAP-86-865-V 2ND PORT	850 CDMA +45 850 CDMA -45	96.0"	<u> 143'</u> -	139'		0.	EXISTING	1	MAIN MAIN	ANDREW ANDREW	LDF7-50 LDF7-50	FOAM FOAM	1-5/8" 1-5/8"	80°	EXISTING EXISTING					
	350	2	-	ERICSSON	AIR 6449 B77D	L-SUB 6	30.6"	140.3'	139'	3*	0°	PROPOSED		-							(1) Fiber Feed t	AL, COMMSCOPE #HFT410-3SE	J1−15	
	350	3.1	1	COMMSCOPE	NHH-45C-R2B	700/850 +45	95.9"	143'	139'	10°	0.	EXISTING			***		***				1 ERICSSON	4449	COMMSCOPE FIBER FEED TAIL	. 1	EXISTING
	***	3.2			2ND PORT	700/850 -45	*** *** *** ***								***		***						#HFT410-4SVHY-15	22	***
		3.3			3RD PORT	AWS LTE +45				4°	0.										1 ERICSSON	-			EXISTING
25.49		3.4			4TH PORT	AWS LTE -45																RRUS32 B66A	COMMSCOPE FIBER FEED TAIL #HFT410-4SVHY-15	2 -	
"X" SECTOR		3.5			5TH PORT 6TH PORT	AWS LTE +45 AWS LTE -45																- 0004	gill i ti to tovili i to	- 3 -	
J.C.IOK	350'	4	1	ERICSSON	KRE 101 2251/2	CBRS	17.7"	143'	142.3	10°	0,	EXISTING									<u> </u>		(1) HYBRID JUMPER	Т,	
	350'	5.1	1	COMMSCOPE	NHH-45C-R2B	700/850 +45	95.9"	143'	139'	10"	0,	EXISTING									- ERICSSON		COMMSCOPE FIBER FEED TAIL	. 3	
	***	5.2	***		2ND PORT	700/850 -45	***	en and and and	***	***	***			***			MA			***	***	4449	#HFT410-4SVHY-15	4	***
	***	5.3	***		3RD PORT	PCS LTE +45	***		***	4°	0,				***		***	***			1 ERICSSON		And and and and and and and and and	1	EXISTING
		5.4			4TH_PORT	PCS_LTE45																-RRUS32 B2	COMMSCOPE FIBER FEED TAIL	. 2	
	**** *********************************	5.5 5.6		**************************************	5TH PORT 6TH PORT	PCS LTE +45 PCS LTE -45	**** **** **** ****		**** *********************************		### # 1 0000 0000 0000 0000						### ### #### #### #### ###	### #### #### #### ##### #####				-	#HFT410-4SVHY-15	3	**** **** **** ****
	90"	1.1	1	CSS	X7C-CAP-86-865-V	850 CDMA +45	96.0"	143'	139'	7°	0°	EXISTING	1	MAIN	ANDREW	LDF7-50	FOAM	1-5/8"	80'	EXISTING					
		1.2			2ND PORT	850 CDMA -45							1	MAIN	ANDREW	LDF7-50	FOAM	1-5/8"	80°	EXISTING				لــّــــــــــــــــــــــــــــــــــ	
	90"	2	1	ERICSSON	AIR 6449 B77D	L-SUB 6	30.6"	140.3	139'	3°	0.	PROPOSED				***	***	***) FIBSER FEED T	AL, COMMSCOPE #HFT410-3SE		CVICTNO
	90°	3.1	<u>I</u>	COMMSCOPE	NHH-45C-R2B 2ND PORT	700/850 +45 700/850 -45	95.9"	143'	139'	6.	0.	EXISTING			***						1 ERICSSON	4449	COMMSCOPE FIBER FEED TAIL #HFT410-4SVHY-15		EXISTING
	***	3.3			3RD PORT	AWS LTE +45				4.	0.										1 ERICSSON			1-1-1	EXISTING
	****	3.4		***	4TH PORT	AWS LTE -45	***	## AND AND AND	****	***				***** **** **** ****		ere			***	***		RRUS32	COMMSCOPE FIBER FEED TAIL		
"Y"	***	3.5			5TH PORT	AWS LTE +45	***		***	***	***	***		***		***	***	***		***		B66A	#HFT410-4SVHY-15	3	
SECTOR	***	3.6	***	***	6TH PORT	AWS LTE -45	***	***	***	***	***	***	***	***	***	***	***	## AM	***	***	***			4	***
	90°	4	1	ERICSSON	KRE 101 2251/2	CBRS	17.7"	143'	142.3	10°	0,	EXISTING							-				(1) HYBRID JUMPER		
	90°	5.1	_ 1	COMMSCOPE	NHH-45C-R2B	700/850 +45	95.9"	_ 143' _	139'	6*	0°	EXISTING			***						- ERICSSON	4449	COMMSCOPE FIBER FEED TAIL #HFT410-4SVHY-15	. 3	
		5.2			2ND PORT 3RD PORT	700/850 ~45															1 FOICEON		#111110-43711-13	4	CVICTING
		5.3 5.4			4TH PORT	PCS LTE +45 PCS LTE -45					0.										1 ERICSSON	-	COMMSCOPE FIBER FEED TAIL		EXISTING
	***	5.5	***	er ann ann ann ann ann a	5TH PORT	PCS LTE +45								***	***		***					RRUS32 B2	#HFT410-4SVHY-15	3	***
		5.6			6TH PORT	PCS LTE -45									***							-		4	***
	210	1.1	1_	CSS	X7C-CAP-86-865-V	850 CDMA +45	96.0"	143'	139'	7	0.	EXISTING	1_	MAIN	ANDREW	LDF7-50	FOAM	1-5/8"	80'	EXISTING					****
		1.2			2ND PORT	850 CDMA -45	· ··						1	MAIN	ANDREW	LDF7-50	FOAM	1-5/8"	80'	EXISTING				<u></u>	
	210"	2	1	ERICSSON	AIR 6449 B77D	L-SUB 6 700/850 +45	30.6"	140.3	139'	3"	0.	PROPOSED						***) FIBER FEED T	AL, COMMSCOPE #HFT410-3SE		EXISTING
	_ 210'	3.1		COMMSCOPE	NHH-45C-R2B 2ND PORT	700/850 -45	95.9"	_ 143' _	139'	8'		EXISTING									1 ERICSSON	4449	COMMSCOPE FIBER FEED TAIL #HFT410-4SVHY-15		FYIZIIII
	****	3.3			3RD PORT	AWS LTE +45			************	4°	0.			****					***		1 ERICSSON		NAME AND ADDR. ORDER ADDR. ORDER ADDR. ADDR. ADDR. ADDR.	1	EXISTING
		3.4			4TH PORT	AWS LTE -45																RRUS32	COMMSCOPE FIBER FEED TAIL		
z	***	3.5	***		5TH PORT	AWS LTE +45	***	##A ARRA ARRA ARRA	***	***	***	***	***	***		***		### #### #### #### ##### ###	***	***		B66A	#HFT410-4SVHY-15	3	
SECTOR	***	3.6		***	6TH PORT	AWS LTE -45				***							***		-					4	***
	210'	4	1	ERICSSON	KRE 101 2251/2	CBRS	17.7"	143'	142.3	10°	0°	EXISTING				***	***					_	(1) HYBRID JUMPER		
	210'	5.1	_ 1 -	COMMSCOPE	NHH-45C-R2B	700/850 +45	95.9"	_ 143' _	139'	8	0.	EXISTING									- ERICSSON	4449	COMMSCOPE FIBER FEED TAIL #HFT410-4SVHY-15	3	
	**************************************	5.2		**************************************	2ND PORT 3RD PORT	700/850 -45 PCS LTE +45	A A A			A*			****		**** **** **** ****		***				1 ERICSSON		#III IT IO TOVIII - IO	4	EXISTING
	***	5.4			4TH PORT	PCS LTE -45	****			T				***							- LNG330N		COMMSCOPE FIBER FEED TAIL		
	**** **** ****	5.5			5TH PORT	PCS LTE +45				ANN. ANN. ANN. AN												- RRUS32 B2	#HFT410-4SVHY-15	3	
	****	5.6	***		6TH PORT	PCS LTE -45	****	***	***	***	***************************************	***	***	***	***	***			***	***	***	~		4	***
	280"	1.1	1	COMMSCOPE	NHH-45C-R2B	700/850 +45	95.9"	143'	139'	8°	0.	EXISTING					***				1 ERICSSON	1,,,,	COMMSCOPE FIBER FEED TAIL	. 1 1	EXISTING
		1.2	-		2ND PORT	700/850 -45												***				4449	#HFT410-4SVHY-15	2	
		1.3			3RD PORT	AWS LTE +45				4*	0.										1 ERICSSON			1	EXISTING
		1.4			4TH PORT	AWS LTE -45																RRUS32	COMMSCOPE FIBER FEED TAIL		
		1.5			5TH PORT 6TH PORT	AWS LTE +45 AWS LTE -45	ARTE AREA AREA AREA								***							B66A	#HFT410~4SVHY~15	3 4	
"4TH" SECTOR	280°	2	1	ERICSSON	KRE 101 2251/2	CBRS	17.7"	143'	142.3'	10°	0.	EXISTING					***	ANA					(I) HYBRID JUMPER		
SECIOR	280'	3.1	_ 1	COMMSCOPE	NHH-45C-R2B	700/850 +45		143'	139'	8"	0°	EXISTING									- ERICSSON	- 4449	COMMSCOPE FIBER FEED TAIL	- 3	
	***	3.2	L		2ND PORT	700/850 -45	ARTE AREA AREA AREA						***				***	***				TTTJ	#HFT410-4SVHY-15	4	***
		3.3			3RD PORT	PCS LTE +45				4°	0								<u> </u>		1 ERICSSON	_		1 1	EXISTING
		3.4			4TH PORT	PCS LTE -45	ARTE AREA AREA AREA										**************************************				*** **** **** ****	RRUS32 B2	COMMSCOPE FIBER FEED TAIL #HFT410-4SVHY-15	$-\frac{2}{3}$	**** **** **** ****
		3.5	<u> </u>		5TH PORT 6TH PORT	PCS LTE +45 PCS LTE -45													<u> </u>			1	g	- 3 -	
1 1		0.0			OTTLE OTTL	I OU WILL TO									1	l	1				1 1		1	1 1	

EXISTING ADDITIONAL:

(4) RAYCAP DISTRIBUTION BOX MODEL# RVZDC-6627-PF-48 (ON ROOF)

(4) RAYCAP DISTRIBUTION BOX MODEL# RVZDC-4520-RM-48 (IN EQUIPMENT ROOM)

(1) COMMSCOPE HFT1206-24SV2-140 (X SECTOR)

(1) COMMSCOPE HFT1206-24SV2-170 (Y SECTOR)

(1) COMMSCOPE HFT1206-24SV2-200 (Z SECTOR)

(1) COMMSCOPE HFT1206-24SV2-170 (4TH SECTOR)

(1) POWERSHIFT EQUIPMENT, DC UP-CONVERTER UNIT (IN EQUIPMENT ROOM)

(2) POWERSHIFT EQUIPMENT, DC UP-CONVERTER MODULES (IN EQUIPMENT ROOM)

PROPOSED ADDITIONAL:

(2) POWERSHIFT EQUIPMENT, DC UP-CONVERTER MODULES (IN EQUIPMENT ROOM)

NOTES.

CONTRACTOR TO ACQUIRE THE MOST RECENT RFDS FROM VZW RF ENGINEER FOR VERIFICATION OF ANTENNA DOWNTILT

2. SCOPE OF WORK INCLUDES FURNISHING & INSTALLING ALL ATTACHMENT HARDWARE TO ADEQUATELY SUPPORT THROUGHOUT THE CABLE ROUTE INCLUDING, BUT NOT LIMITED TO, ALL NECESSARY BRACKETS, SNAP—INS, CUSHIONS, SLEEPERS, HOIST GRIPS & MISCELLANEOUS HARDWARE, FIELD VERIFY.

APPROVED

Zoning Review Only 10/15/2021 NMJ



9973 VALLEY VIEW RD. EDEN PRAIRIE, MN 55344 (952) 903-9299 WWW.DESIGN1EP.COM

verizon/

10801 BUSH LAKE ROAD BLOOMINGTON, MN 55438 (952) 946-4700

PROJECT 20202204430 LOC. CODE # 140128

MIN AIRPORT L-SUB 6

7900 INTERNATIONAL DRIVE BLOOMINGTON, MN 55425

SHEET CONTENTS: PROPOSED KEYS

DRAWN BY:	SJD
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REV. 0	09-23-21

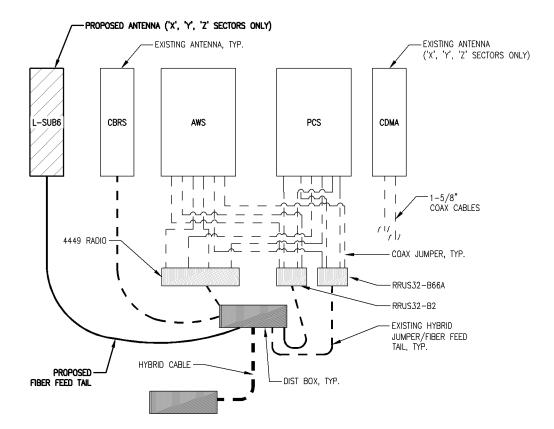
A-2



General Notes:

- In the event that Special Inspections are not performed in compliance with the contract terms, bid specifications and/or specified form, the General Contractor will be liable for all damages, construction performance, failures, and corrective actions related to the same.
- 2. The following general notes shall apply to drawings and govern unless otherwise noted or specified.
- The work delineated in these drawings and described in the specifications shall conform to codes, standards and regulations that have jurisdiction in the state of MN, and the city of BLOOMINGTON.
- Requirements and regulations pertaining to R.F. safety codes and practices must be incorporated in the work even though
 they may not be listed individually and separately in either the drawings or the specifications.
- Compare field conditions with drawings. Any discrepancies shall be directed to the Designer/Engineer for clarification prior to fabrication and/or construction. Submit necessary shop drawings prior to fabrication for approval by the Designer/Engineer. No information or details on these sheets may be used without the permission of the owner, or the Designer/Engineer.
- 6. Do not scale drawings
- 7. Unless otherwise shown or noted, typical details shall be used where applicable.
- 8. Details shall be considered typical at similar conditions.
- Safety measures: The contractor shall be solely and completely responsible for the conditions of the job site, including
 safety of the persons and property and for independent engineering reviews of these conditions. The job site review is not
 intended to include review of the adequacy of the contractor's safety measures.
- 10. Within these plans and specifications, "Owner" implies VERIZON WIRELESS.
- 11. The work is the responsibility of the general contractor unless noted otherwise.
- 12. The terms "contractor" and "g.c." refer to the owner's general contractor and the general contractor's sub-contractors. It is the general contractor's responsibility to determine the division of work among sub-contractors.
- 13. The general contractor is responsible in obtaining necessary public and private underground utility locate services prior to start of excavating / construction.

NOTE: ONE-LINE DIAGRAM ANTENNAS & RADIOS TYPICAL PER SECTOR, U.N.O.





CASE #PL2021-208

DESIGN

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MIN AIRPORT L-SUB 6

7900 INTERNATIONAL DRIVE BLOOMINGTON, MN 55425

SHEET CONTENTS: GENERAL NOTES ONE-LINE DIAGRAM

DRAWN BY:	SJD
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