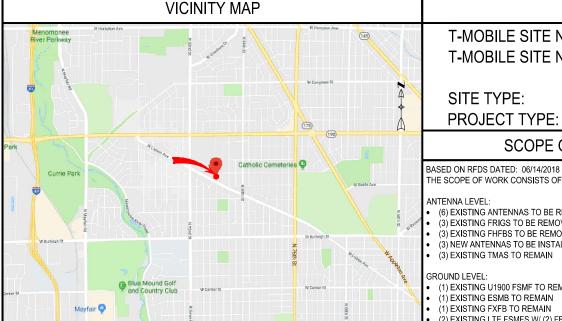
T - Mobile * stick together*





PROJECT INFORMATION

T-MOBILE SITE NUMBER: ML12105B

T-MOBILE SITE NAME:

SCOPE OF WORK

SITE TYPE:

PROJECT TYPE:

(6) EXISTING ANTENNAS TO BE REMOVED (3) EXISTING FRIGS TO BE REMOVED

(3) EXISTING FHFBS TO BE REMOVED

(3) NEW ANTENNAS TO BE INSTALLED

(3) EXISTING TMAS TO REMAIN

MILWAUKEE FIRE STATION BG

MONOPOLE

M-MIMO 2.1

SITE ADDRESS:

SHEET INDEX

DESCRIPTION

EXISTING & PROPOSED EQUIPMENT LAYOUT

EXISTING AND PROPOSED ANTENNA LAYOUT

RFDS DIAGRAM & NEW EQUIPMENT SPECIFICATIONS

ANTENNA AND CABLE SCHEDULE

SYSTEM CONNECTION DIAGRAM

GROUNDING RISER AND NOTES

GENERAL NOTES AND SPECIFICATIONS

GENERAL NOTES AND SPECIFICATIONS

8814 W. LISBON AVE. MILWAUKEE, WI 53201

SHEET

T-1

C-3

C-4

RF-2

RF-3

T-MOBILE OPS

R.F ENGINEER

SITE ACQUISITION

CONSTRUCTION

SITE OWNER

JURISDICTION: CITY OF MILWAUKEE MILWAUKEE

TITLE SHEET

ELEVATION

OVERALL SITE PLAN

LATITUDE NORTH: 43° 5' 0.3474" LONGITUDE WEST: -88° 1' 21.4104"

SITE COORDINATES:

REV.

1117 SANDPIPER CT. BARTLETT, IL 60103 CONTACT: INFO@WESTINENGINEERING.COM PHONE: 773 - 423 8220

ML12105B

OFFICE: (773) 444-5400

MILWAUKEE FIRE STATION BG

8814 W. LISBON AVE. MILWAUKEE, WI 53201

REV.	SUBMITTAL	APPROVED	DATE
Α	ISSUED FOR REVIEW	КВ	10/26/18
В	CLIENT REVISIONS	КВ	11/07/18
0	FINAL CD	KB	11/08/18

SCONS AHMED E-26737 ILLINOIS S/ONAL E Exp. 7/31/202

XPIRES: ILILY 31 2020

CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE

PREPARED BY: KB CHECKED BY: RA APPROVED BY: RA

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

APPLICANT:

DOWNERS GROVE, IL 60515 FAX: 773 - 444 5521



1117 SANDPIPER CT PH: 773 - 423 8220 INFO@WESTINENGINEERING.COM

SITE ACQUISITION:



18660 MIDWEST ROAD, SUITE 140 OAKBROOK TERRACE, L 60161



Call before you dig.

Know what's below.

APPLICABLE CODES:

BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE and WISCONSIN CODES ELECTRICAL CODE: 2008 NATIONAL ELECTRICAL CODE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE ADOPTED

ACCESSIBILITY REQUIREMENTS:

ADA ACCESS REQUIREMENTS ARE NOT REQUIRED. THIS FACILITY DOES NOT REQUIRE POTABLE WATER AND WILL NOT PRODUCE ANY SEWAGE

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

NOTES TO GENERAL CONTRACTOR:

APPROVALS

GC SHALL VERIFY ALL EXISTING PLANS, DIMENSIONS & CONDITIONS ON JOB SITE. GC SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER OF RECORD OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION GC SHALL COMPLY WITH OSHA SAFETY REQUIREMENTS AT ALL TIME DURING SITE

CONSTRUCTION.

G.C SHALL HAVE THE SITE MANNED WITH A CREW AND SUPERVISOR DURING

G.C. SHALL CONFIRM WITH T-MOBILE CONSTRUCTION MANAGER AND A&E FIRM FOR THE MOST RECENT SET OF DRAWINGS AND STRUCTURAL ANALYSIS PRIOR TO BIDDING ON

(1) EXISTING U1900 FSMF TO REMAIN (1) EXISTING ESMB TO REMAIN (1) EXISTING FXFB TO REMAIN (2) EXISTING LTE FSMFS W/ (2) FBBCS TO BE REMOVED (1) EXISTING FBBA TO BE REMOVED 1) NEW POLE TO BE INSTALLED LOCATION MAP (1) NEW AMOB W/ (3) NEW ABIA AND (1) ASIA TO BE INSTALLED 1) NEW 8"X8" HOFFMAN BOX FOR POWER TO BE INSTALLED 1) NEW 6"X6" HOFFMAN BOX FOR TELCO TO BE INSTALLED 1) EXISTING SAR F/M TO REMOVED AND REPLACED WITH (1) NEW OBTAIN CURRENT RFDS WITHIN 48 HRS. PRIOR TO CONSTRUCTION FOLLOW PORT MATRIX PER RF CONFIGURATION FOLLOW CURRENT T-MOBILE STANDARDS AND OPERATING PROCEDURES RETURN ALL UNUSED NEW AND USED EQUIPMENT/MATERIALS TO CTDI IN THE SAME CONDITIONS WHEN IT WAS REMOVED PROVIDE CLOSEOUT DOCUMENT WITHIN 72 HRS AFTER SITE CLOSE OPEN PERMITS AFTER SITE COMPLETION

DRIVING DIRECTIONS:

GET ON I-88 E FROM DOWNERS DR AND BUTTERFIELD FRONTAGE RD. FOLLOW I-294 N

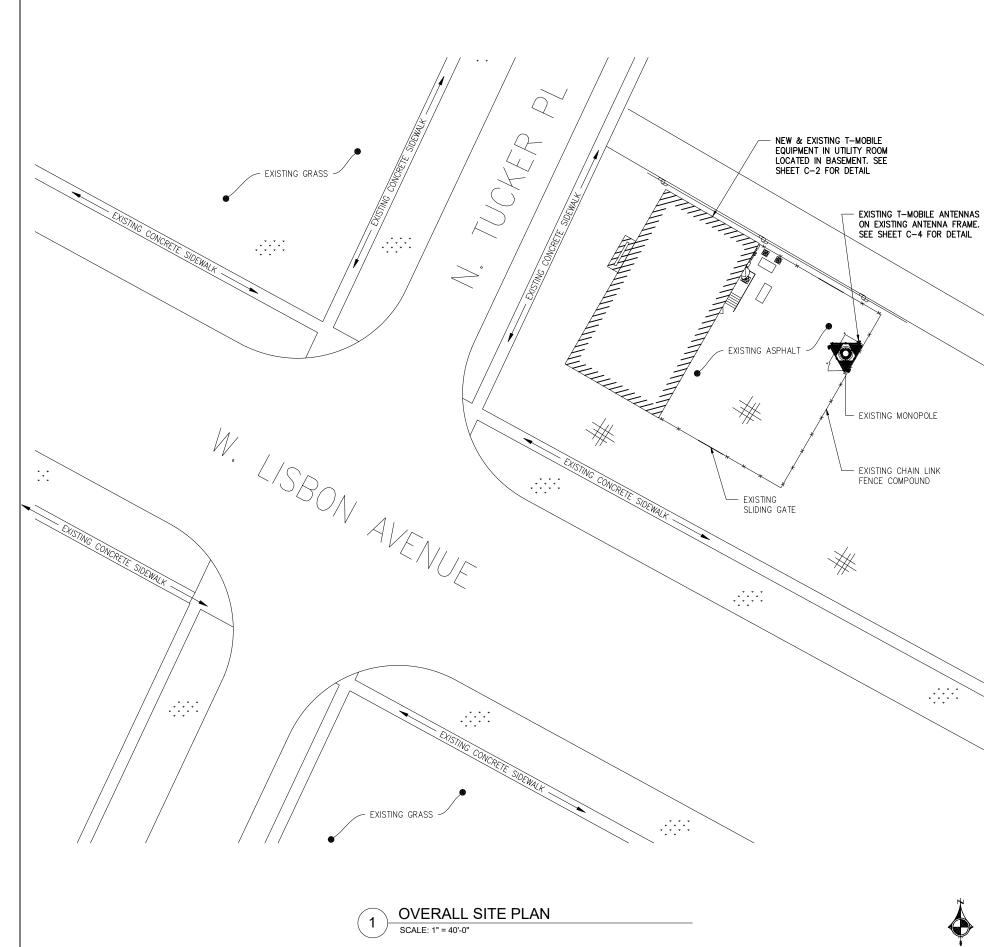
AND I-94 W TO WI-175 IN MILWAUKEE. TAKE EXIT 308C FROM I-94 W. DRIVE TO W LISBON

FROM T-MOBILE OFFICE:

AVE. DESTINATION WILL BE ON THE RIGHT

CONSTRUCTION NOTES:

- 1. ELEVATIONS ARE ABOVE MEAN SEA LEVEL.
- ALL EXISTING EASEMENTS, PROPERTY LINES, SECTION LINES AND ROADWAYS ARE INDICATED ON THIS DRAWING ARE GATHERED BY VISUAL INSPECTION, SURVEY DRAWINGS, AND INFORMATION RECEIVED FROM THE CARRIER
- 3. ALL CONSTRUCTION SHALL CONFORM TO CURRENT LOCAL., STATE, AND FEDERAL CODES.
- 4. THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT EXISTING STRUCTURES, UTILITIES, WALKWAYS, PAVEMENT AND OTHER FACILITIES FROM UNNECESSARY EXPOSURE TO DAMAGE.; ALL NEW UNDERGROUND TRENCHING SHALL BE HAND DUG.
- 5. THE CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING UNDERGROUND POWER, TELCO, GROUNDING CONDUITS, AND ALL OTHER UTILITIES EASEMENTS AND/OR WIRES PRIOR TO TRENCHING. ANY DAMAGE CAUSED TO THE EXISTING UNDERGROUND SERVICES OR SYSTEMS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. VERIFY WITH UTILITY NEW SERVICE HAS BEEN APPLIED FOR. THERE SHALL BE NO SPLICING OF GROUND CONDUCTORS BELOW GRADE.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE SAFETY AND IF NECESSARY THE REPAIR OF ALL PUBLIC UTILITIES SERVICES SUCH AS GAS, TELEPHONE, ELECTRIC. CABLE. AND WATER.
- 7. DO NOT INTERRUPT SERVICES TO ANY ADJACENT STRUCTURES OR FACILITIES WITHOUT WRITTEN PERMISSION FROM THE PROPERTY OWNER.
- 8. EROSION CONTROL MEASURES SUCH AS SILT FENCING AND/OR HAYBALES SHALL BE UTILIZED TO PREVENT SOIL AND DEBRIS FROM CONTAMINATING ADJACENT PROPERTIES, ROADS, AND AREAS.
- 9. COMMENCEMENT OF CONSTRUCTION SHALL BEGIN ONLY WITH THE WRITTEN APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE; ALL CONSTRUCTION AND MATERIAL ORDERING (WITH THE EXCEPTION OF THE TOWER) SHALL BE DONE WITH DRAWINGS LABELED "ISSUED FOR CONSTRUCTION
- 10. ALL CLEAN SOIL MAY BE USED ON SITE UNLESS OTHERWISE NOTED IN THE REGULATORY COMMENTS OR BID DOCS.
- 11. ACCESS TO OTHER CUSTOMERS ON SITE CAN NOT BE BLOCKED AT ANYTIME .
- 12. ALL SAFETY HAZARDS MUST BE MARKED WITH WARNING TAPE OR SAFETY FENCE.
- PROPER SIGNAGE MUST BE POSTED AT ACCESS OF COMPOUND PER OSHA SPEC.
- 14. ANY ACCIDENTS ON SITE MUST BE REPORTED TO THE T-MOBILE MANAGER IMMEDIATELY AFTER ATTENGDING TO THE PERSON(S) NEEDS AND ADMINISTERING FIRST AIDE IF NEEDED.
- 15. GC'S ARE NOT TO CONTACT LANDOWNERS. ALL MATTERS MUST BE REPORTED TO PROJECT MANAGEMENT TEAM.
- 16. PROVIDE 2 PULL STRINGS SECURELY FASTENED AT EACH END OF ALL CONDUITS. THE PULL STRINGS ARE TO BE 200 LB. TEST POLYETHYLENE CORD. PROVIDE CAP ON THE END OF EACH CONDUIT AND MARK AS SHOWN ON THIS SITE PLAN.
- 17. ALL CONDUITS MUST BE PROPERLY INSTALLED AND SEALED TO PREVENT FREEZING AND DAMAGE.





1400 OPUS PLACE DOWNERS GROVE, IL 60515 OFFICE: (773) 444-5400 FAX: (773) 444-5521



WESTIN Engineering Consultants, Ltd

1117 SANDPIPER CT.
BARTLETT, IL 60103
CONTACT: INFO@WESTINENGINEERING.COM
PHONE: 773 - 423 8220

SITE NUMBER
ML12105B

MILWAUKEE FIRE STATION BG

SITE ADDRESS 8814 W. LISBON AVE. MILWAUKEE, WI 53201

REV.	SUBMITTAL	APPROVED	DATE
Α	ISSUED FOR REVIEW	КВ	10/26/18
В	CLIENT REVISIONS	КВ	11/07/18
0	FINAL CD	КВ	11/08/18



EXPIRES:JULY 31, 2020

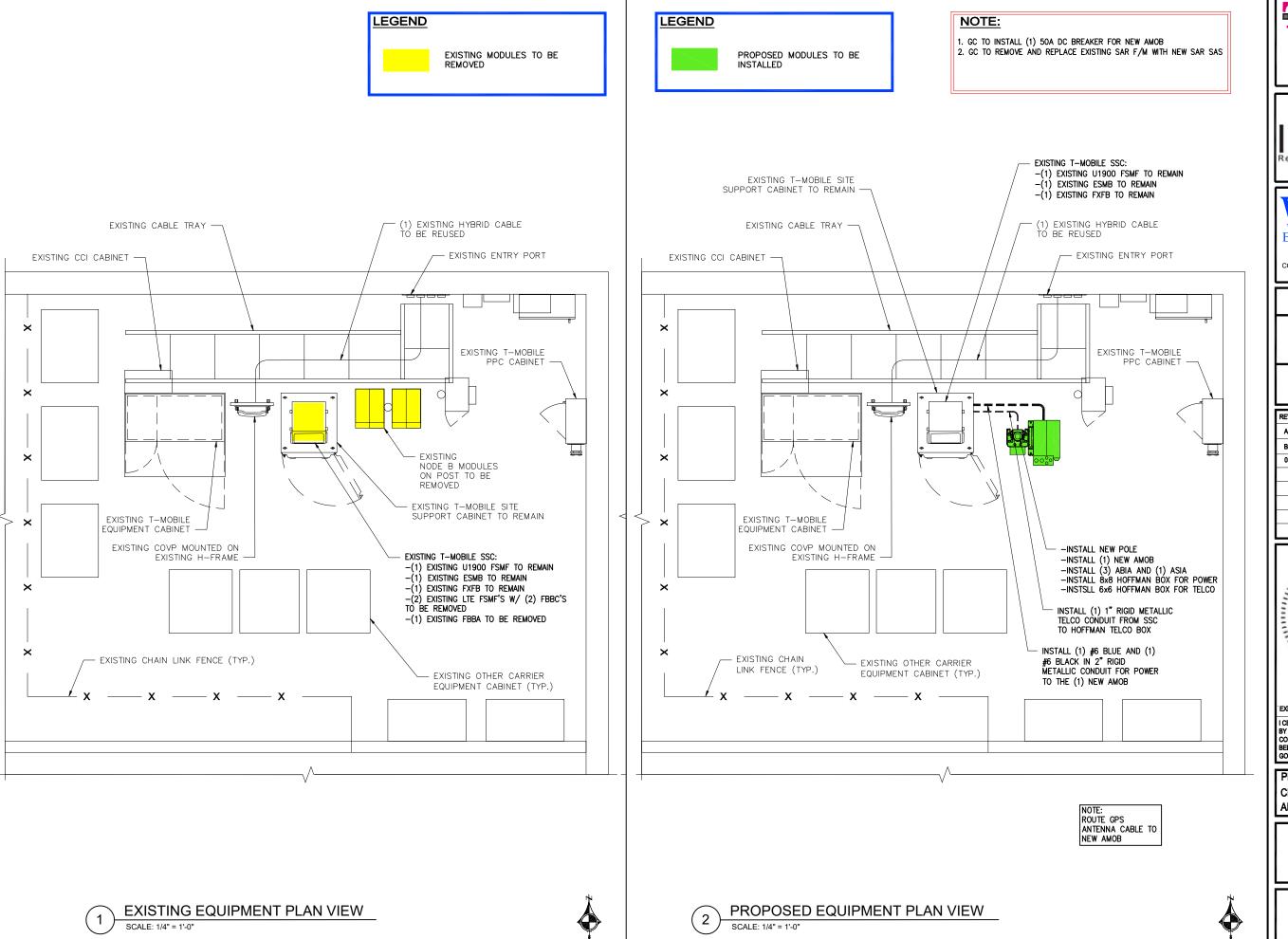
I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE.

PREPARED BY: KB
CHECKED BY: RA
APPROVED BY: RA

SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER



1400 OPUS PLACE DOWNERS GROVE, IL 60515 OFFICE: (773) 444-5400 FAX: (773) 444-5521



1117 SANDPIPER CT. BARTLETT, IL 60103 CONTACT: INFO@WESTINENGINEERING.COM PHONE: 773 - 423 8220

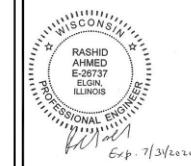
ML12105B

MILWAUKEE FIRE STATION BG

SITE ADDRESS

8814 W. LISBON AVE. MILWAUKEE, WI 53201

REV.	SUBMITTAL	APPROVED	DATE
A	ISSUED FOR REVIEW	КВ	10/26/18
В	CLIENT REVISIONS	КВ	11/07/18
0	FINAL CD	КВ	11/08/18



EXPIRES:JULY 31, 2020

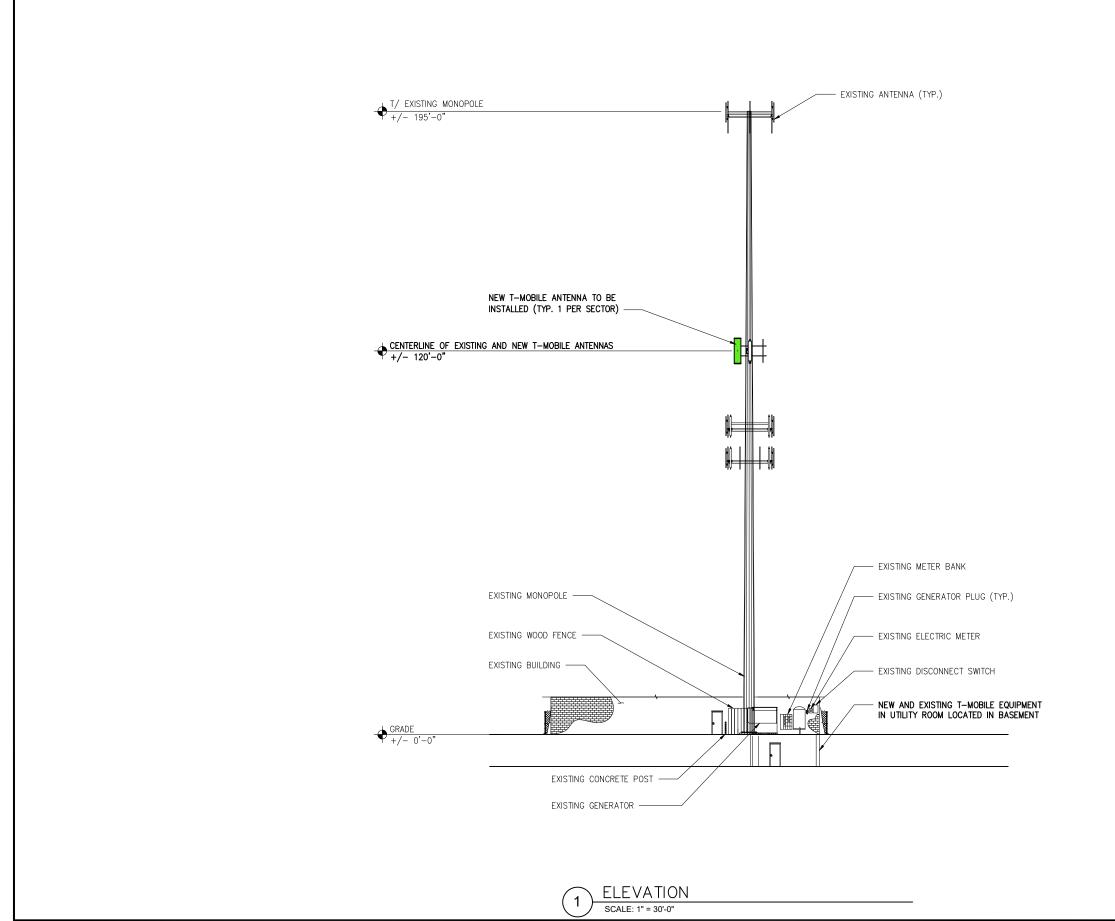
I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE.

PREPARED BY: KB CHECKED BY: RA APPROVED BY: RA

SHEET TITLE

EXISTING & PROPOSED EQUIPMENT LAYOUT

SHEET NUMBER





1400 OPUS PLACE DOWNERS GROVE, IL 60515 OFFICE: (773) 444-5400 FAX: (773) 444-5521



WESTIN

Engineering Consultants

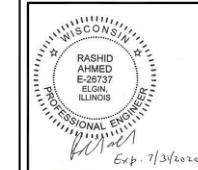
1117 SANDPIPER CT.
BARTLETT, IL 60103
CONTACT: INFO@WESTINENGINEERING.COM
PHONE: 773 - 423 8220

ML12105B

MILWAUKEE FIRE STATION BG

SITE ADDRESS 8814 W. LISBON AVE. MILWAUKEE, WI 53201

REV.	SUBMITTAL	APPROVED	DATE
Α	ISSUED FOR REVIEW	КВ	10/26/18
В	CLIENT REVISIONS	КВ	11/07/18
0	FINAL CD	КВ	11/08/18



EXPIRES:JULY 31, 2020

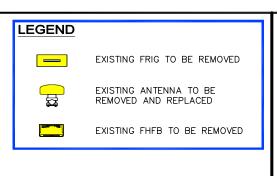
I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE.

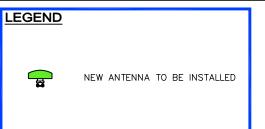
PREPARED BY: KB
CHECKED BY: RA
APPROVED BY: RA

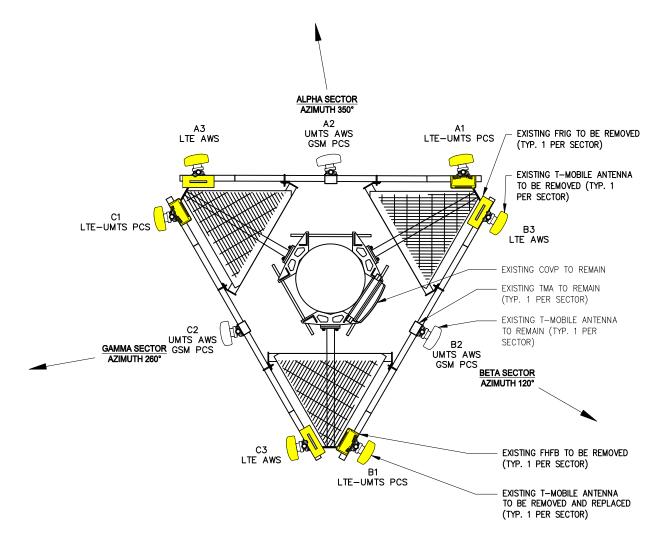
SHEET TITLE

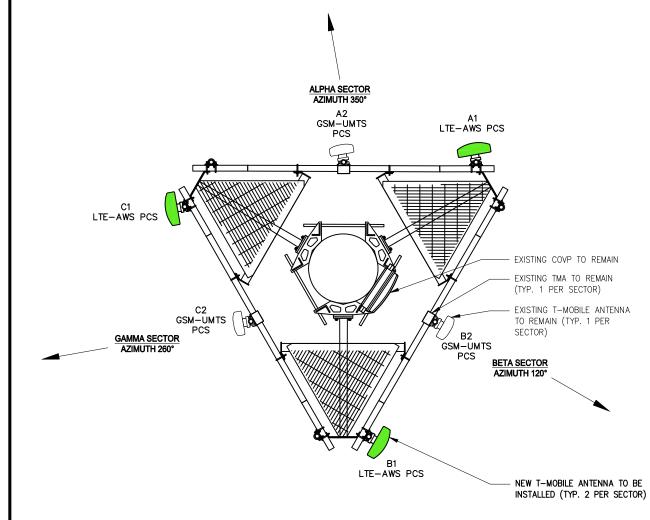
ELEVATION

SHEET NUMBER









PROPOSED ANTENNAS CONFIGURATION

SCALE: 1/4" = 1'-0"



1400 OPUS PLACE DOWNERS GROVE, IL 60515 OFFICE: (773) 444-5400 FAX: (773) 444-5521



WESTIN

1117 SANDPIPER CT. BARTLETT, IL 60103

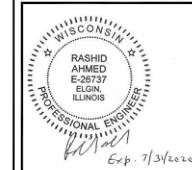
BARTLETT, IL 60103 CONTACT: INFO@WESTINENGINEERING.COM PHONE: 773 - 423 8220

ML12105B

MILWAUKEE FIRE STATION BG

SITE ADDRESS 8814 W. LISBON AVE. MILWAUKEE, WI 53201

REV.	SUBMITTAL	APPROVED	DATE
A	ISSUED FOR REVIEW	КВ	10/26/18
В	CLIENT REVISIONS	КВ	11/07/18
0	FINAL CD	КВ	11/08/18
		1	1



EXPIRES:JULY 31, 2020

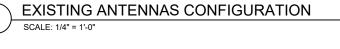
I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE.

PREPARED BY: KB
CHECKED BY: RA
APPROVED BY: RA

SHEET TITLE

EXISTING AND PROPOSED ANTENNA LAYOUT

SHEET NUMBER





	CUSTOM CONFIGURATION - TOWER TOP EQUIPMENT SCHEDULE													
ANTENNA SECTOR	ANTENNA MARK	ANTENNA MODEL #	TECHNOLOGY	ELECTRICAL TILT	MECHANICAL TILT	RAD CENTER	AZIMUTH	RRU MODEL	TMA MODEL	TOWER TOP COVP MODEL	ANTENNA CABLE DESCRIPTION			
ALPHA	A1	AAFIA (P)	LTE AWS+PCS	3	-	120'-0"	350°	-	-	(1) COVP (E)				
ALFIIA	A2	TMBXX-6517-A2M (E)	GSM-UMTS PCS	4	-	120'-0"	350°	-	(1) ETW190VS12UB (E)					
ВЕТА	B1	AAFIA (P)	LTE AWS+PCS	3	1	120'-0"	120°	ı	-		(1) COVP (E)	(1) COVP (E)	(1) COVP (E)	(1) COVP (E) (1) 275 F
BEIA	B2	TMBXX-6517-A2M (E)	GSM-UMTS PCS	3	_	120'-0"	120°	ı	(1) ETW190VS12UB (E)	(SHARED)	(1) 270 111 1011 11011 011 1100 (E)			
GAMMA	C1	AAFIA (P)	LTE AWS+PCS	2	_	120'-0"	260°	-	-					
GAMMA	C2	TMBXX-6517-A2M (E)	GSM-UMTS PCS	4	-	120'-0"	260°	-	(1) ETW190VS12UB (E)					

ANTENNA SCHEDULE SCALE: N.T.S.

CONFIGURATION EQUIPMENT SCHEDULE					
QUALITY	MANUFACTURE	EQUIPMENT TYPE	MODEL	EXISTING/ PROPOSED	
1	NOKIA	SYSTEM MODULE	FSMF	(E)	
1	NOKIA	SYSTEM MODULE	ESMB	(E)	
1	NOKIA	SYSTEM MODULE	FXFB	(E)	
1	NOKIA	SYSTEM MODULE	AMOB	(P)	
3	NOKIA	SYSTEM SUB MODULE	ABIA	(P)	
1	NOKIA	SYSTEM SUB MODULE	ASIA	(P)	

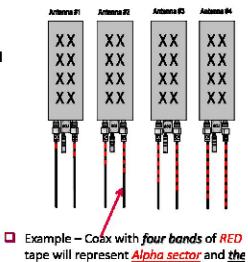
☐ Coax/Jumper lines will be identified by sector color and by number of bands around the coax/jumper

☐ Antennas will be labeled (back of antenna

view) Right to left 1 - X ports

Coax Color Coding

Sector A	Rec
Sector B	Choen
Sector C	Bioe
Sector D	Yellow
Sector E	White
Sector F	Purple
LMU	Brown + Sector Color Bands (1,2)
Fiber ID	ling
Unused Coax	Firk
Microwave	Orange
PWE T-1's + GPS Downlink cable	ID w/Label Maker



4th port of antenna.

Front of the Antenna

1400 OPUS PLACE DOWNERS GROVE, IL 60515 OFFICE: (773) 444-5400 FAX: (773) 444-5521



1117 SANDPIPER CT. BARTLETT, IL 60103

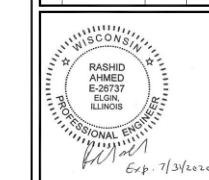
CONTACT: INFO@WESTINENGINEERING.COM PHONE: 773 - 423 8220

ML12105B MILWAUKEE FIRE

STATION BG SITE ADDRESS 8814 W. LISBON AVE.

MILWAUKEE, WI 53201

REV.	SUBMITTAL	APPROVED	DATE
Α	ISSUED FOR REVIEW	КВ	10/26/18
В	CLIENT REVISIONS	КВ	11/07/18
0	FINAL CD	КВ	11/08/18
L			



EXPIRES:JULY 31, 2020

I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE.

PREPARED BY: KB CHECKED BY: RA APPROVED BY: RA

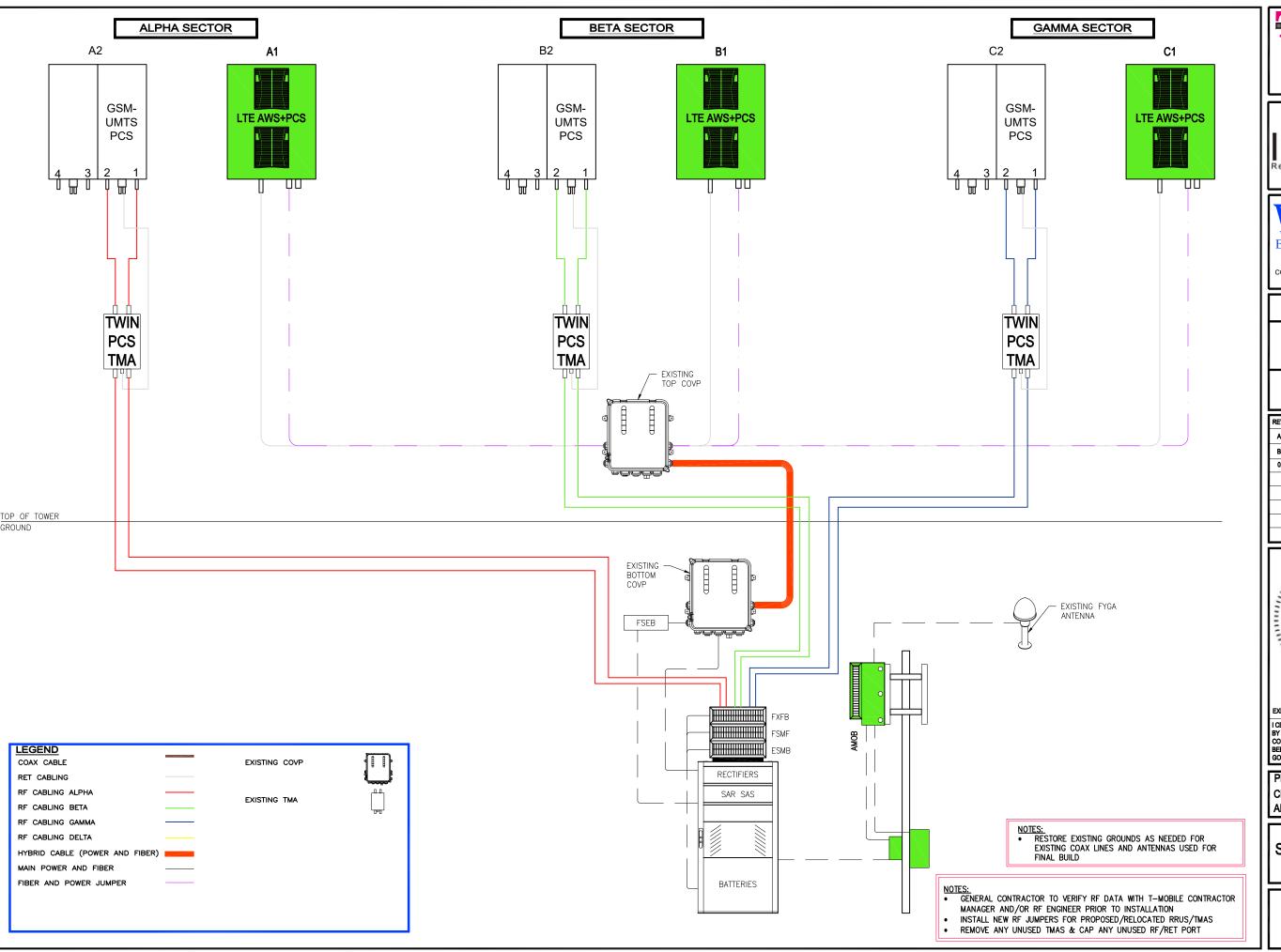
ANTENNA AND CABLE **SCHEDULE**

SHEET NUMBER

RF-1

TAGGING COLOR AND NOTES

EQUIPMENT SCHEDULE





1400 OPUS PLACE DOWNERS GROVE, IL 60515 OFFICE: (773) 444-5400 FAX: (773) 444-5521



WESTIN

ingineering Consultants

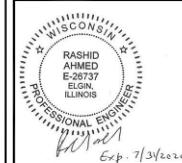
1117 SANDPIPER CT.
BARTLETT, IL 60103
CONTACT: INFO@WESTINENGINEERING.COM
PHONE: 773 - 423 8220

ML12105B

MILWAUKEE FIRE STATION BG

SITE ADDRESS 8814 W. LISBON AVE. MILWAUKEE, WI 53201

REV.	SUBMITTAL	APPROVED	DATE
A	ISSUED FOR REVIEW	КВ	10/26/18
В	CLIENT REVISIONS	КВ	11/07/18
0	FINAL CD	КВ	11/08/18



EXPIRES:JULY 31, 2020

I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE.

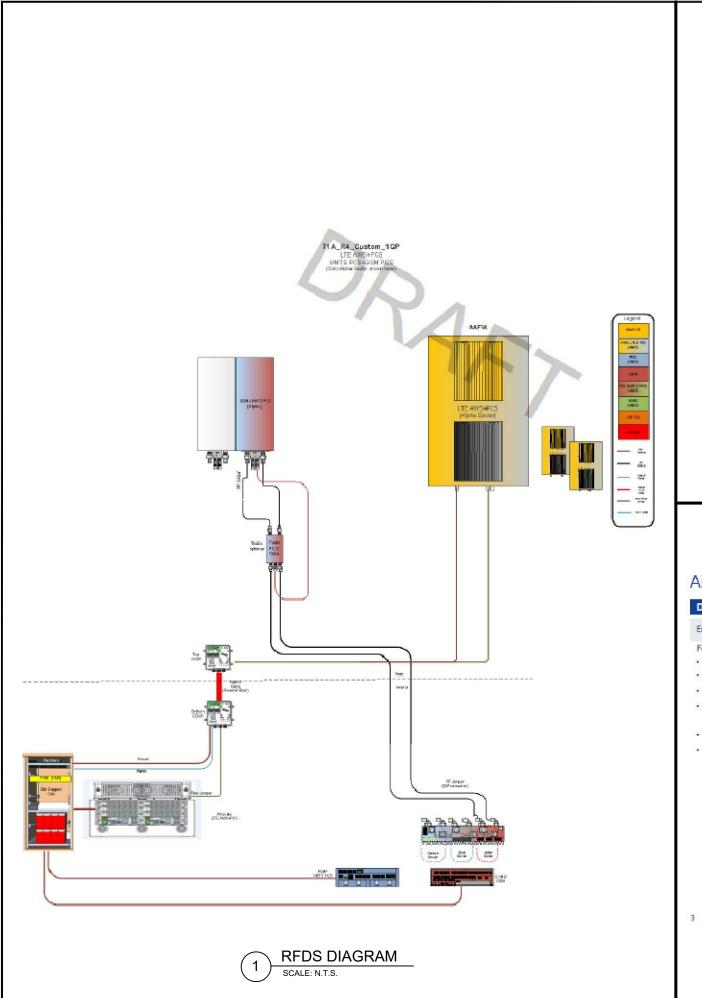
PREPARED BY: KB
CHECKED BY: RA
APPROVED BY: RA

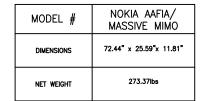
SHEET TIT

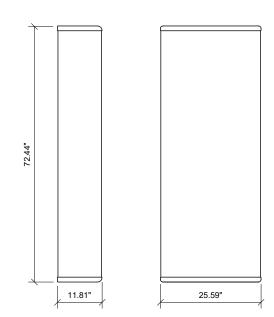
SYSTEM CONNECTION DIAGRAM

SHEET NUMBER

RF-2







AAFIA/MASSIVE MIMO ANTENNA DETAIL

AirScale Subrack Outdoor AMOB datasheet



AMOB DETAIL

SCALE: N.T.S.



1400 OPUS PLACE DOWNERS GROVE, IL 60515 OFFICE: (773) 444-5400 FAX: (773) 444-5521



1117 SANDPIPER CT. BARTLETT, IL 60103 CONTACT: INFO@WESTINENGINEERING.COM PHONE: 773 - 423 8220

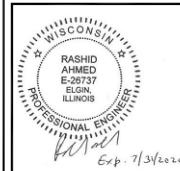
ML12105B

MILWAUKEE FIRE STATION BG

8814 W. LISBON AVE.

MILWAUKEE, WI 53201

REV.	SUBMITTAL	APPROVED	DATE
A	ISSUED FOR REVIEW	КВ	10/26/18
В	CLIENT REVISIONS	КВ	11/07/18
0	FINAL CD	КВ	11/08/18



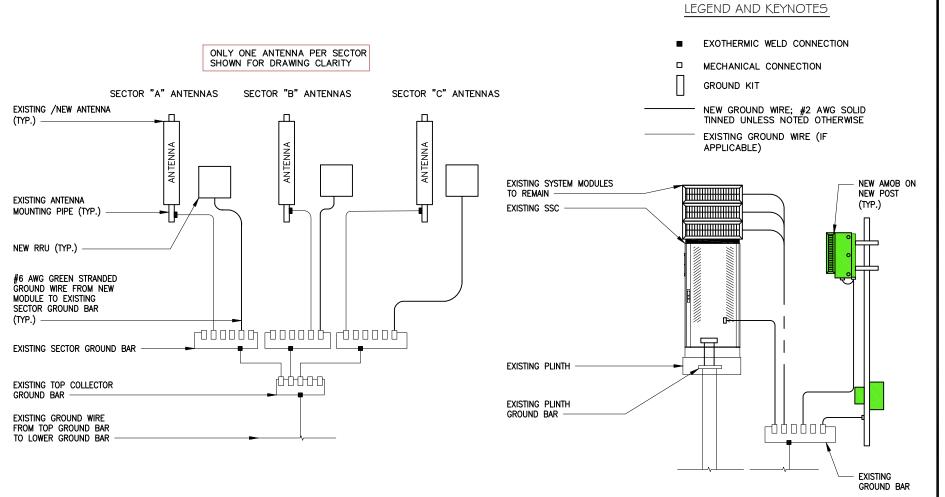
EXPIRES:JULY 31, 2020

I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE.

PREPARED BY: KB CHECKED BY: RA APPROVED BY: RA

RFDS DIAGRAM & NEW EQUIPMENT SPECIFICATIONS

RF-3

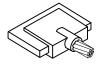


GROUNDING RISER DIAGRAM SCALE: N.T.S



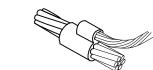
Type GR

SINGLE CABLE TO TOP OF GROUND ROD.



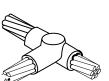
Type LJ

TAP OF CABLE TO EDGE OF HORIZONTAL FLAT BUSBAR.



PARALLEL TAP CONNECTIONS OF HORIZONTAL CABLES.

Type PC



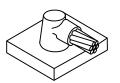
Type TA

TEE CONNECTIONS OF HORIZONTAL RUN AND TAP CABLES.



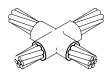
Type VS

CABLE DOWN AT 45° TO RANGE OF STEEL PIPES



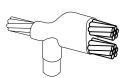
Type HS

HORIZONTAL COPPER CONDUCTOR TO FLAT STEEL SURFACE OR TOP OF HORIZONTAL PIPE.



Type XB

CROSS OF HORIZONTAL CABLES LAPPED AND NOT CUT.



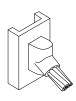
Type NC

THROUGH CABLE PLUS TAP CABLE TO TOP OF GROUND ROD.



Type GT

THROUGH CABLE TO TOP OF GROUND ROD.



Type VS

CABLE DOWN AT 45° TO VERTICAL STEEL SURFACE.

GENERAL NOTES:

- PRIOR TO INSTALLING ANY ELECTRICAL WORK, THE CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY EXISTING SITE LOCATIONS AND CONDITIONS AND UTILITY SERVICE REQUIREMENTS OF THE JOB.
- 2. IN THE EVENT OF ANY CONFLICT OR INCONSISTENCY BETWEEN ITEMS SHOWN ON THE PLANS AND/OR SPECIFICATIONS, THE MORE RESTRICTIVE NOTE, SPECIFICATION OR CODE SHALL PREVAIL.
- 3. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS & AMBIGUITIES, IN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. PLANS AND/OR SPECIFICATIONS WILL BE CORRECTED, OR A WRITTEN INTERPRETATION OF THE ALLEGED DEFICIENCY, OMISSION, CONTRADICTION OR AMBIGUITY WILL BE MADE BY THE ENGINEER BEFORE THE AFFECTED WORK PROCEEDS.
- ELECTRICAL WORK SHALL INCLUDE, BUT NOT LIMITED TO, ALL LABOR MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE POWER AND LIGHTING SYSTEMS, TELEPHONE AND COMMUNICATION SYSTEMS, PANEL BOARDS, CONDUITS, GROUNDING, ETC. AS INDICATED ON ELECTRICAL DRAWINGS OR AS REQUIRED BY CODE.
- 5. ALL WORK SHALL COMPLY WITH THE N.E.C. (NATIONAL ELECTRICAL CODE) AND ANY LOCAL ORDINANCES, CODES, AND ALL OTHER ADMINISTRATIVE AUTHORITIES HAVING JURISDICTION.
- 6. ALL EQUIPMENT AND MATERIAL FURNISHED AND INSTALLED UNDER THIS CONTRACT SHALL BE (U.L.) LISTED, NEW, FREE FROM DEFECTS, AND SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. SHOULD ANY TROUBLE DEVELOP DURING THIS PERIOD DUE TO FAULTY WORKMANSHIP, MATERIAL OR EQUIPENT, THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS & LABOR TO CORRECT THE TROUBLE WITHOUT COST TO THE
- ALL WORK SHALL BE EXECUTED IN A WORKMAN LIKE MANNER AND SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING RELATED TO ELECTRICAL WORK, AND SHALL RESTORE ALL EXISTING LANDSCAPING, SPRINKLER SYSTEMS, CONDUITS, WIRING, PIPING, ETC. DAMAGED BY THE ELECTRICAL WORK TO ORIGINAL OR BETTER CONDITION.
- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, & FALL OF POTENTIAL GROUND TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO P. M. CLEAN SITE OF ALL DEBRIS RESULTING FROM WORK AND LEAVE IN A COMPLETE AND UNDAMAGED CONDITION.
- LL BROCHURES, MANUALS, CATALOGS, SHOP DRAWINGS, ETC., SHALL BE TURNED OVER TO THE OWNER AT JOB COMPLETION.

SERVICE EQUIPMENT NOTES:

- SERVICE EQUIPMENT SHALL HAVE A SHORT CIRCUIT RATING EQUAL TO OR EXCEEDING THE MAXIMUM AVAILABLE FAULT CURRENT AT
- ALL ELECTRICAL EQUIPMENT SHALL BE ANCHORED TO WITHSTAND 90 M.P.H. WIND SPEED, EXPOSURE C.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT UV STABLE, WEATHER PROOF, ENGRAVED PLASTIC LABELS.
- REPAIR ANY EQUIPMENT PAINT SURFACE THAT HAS BEEN DAMAGED IN THE COURSE OF INSTALLATION.

GROUNDING NOTES:

- GROUND RODS SHALL BE INSTALLED NOT MORE THAN 10 FOOT APART.
- GROUND RODS SHALL BE INSTALLED 42" MIN. BELOW GRADE.
- ALL BELOW GRADE GROUND RINGS AND GROUND LEADS SHALL BE # 2 AWG SOLID, TINNED BARE COPPER WIRE.
- ALL BELOW GRADE CONNECTIONS SHALL BE EXOTHERMIC WELDS.
- UNLESS PROVIDED W/ A FACTORY APPLIED LEAD, ALL CONNECTIONS TO GROUND BARS SHALL BE BURNDY HYGROUND COMPRESSION LUGS OR EQUAL.
- STEEL SHALL BE TO BARE METAL. GRIND GALV. FINISH OR PAINT OFF PRIOR TO WELDING, REPAIR GALV. FINISH OR PAINT AS REQUIRED, MATCH PAINT COLOR.
- ALL LUG CONNECTORS SHALL BE 2 HOLE LONG BARREL COMPRESSION TYPE OR APPROVED EQUAL.
- ALL HARDWARE TO ATTACH MECHANICAL GROUND CONNECTIONS SHALL BE STAINLESS STEEL.
 - ALL MECHANICAL CONNECTIONS SHALL HAVE NOAX OR APPROVED EQUAL APPLIED BETWEEN COMPRESSION LUG AND FIXTURE.



DOWNERS GROVE, IL 60518 OFFICE: (773) 444-5400



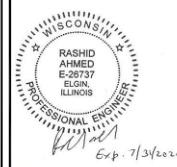
1117 SANDPIPER CT BARTLETT, IL 60103 CONTACT: INFO@WESTINENGINEERING.COM PHONE: 773 - 423 8220

ML12105B

MILWAUKEE FIRE STATION BG

SITE ADDRESS 8814 W. LISBON AVE. MILWAUKEE, WI 53201

REV.	SUBMITTAL	APPROVED	DATE
A	ISSUED FOR REVIEW	КВ	10/26/18
В	CLIENT REVISIONS	КВ	11/07/18
0	FINAL CD	КВ	11/08/18



EXPIRES:JULY 31, 2020

CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AN BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE.

PREPARED BY: KB CHECKED BY: RA APPROVED BY: RA

SHEET TITLE

GROUNDING RISER AND NOTES

SHEET NUMBER

G-1

EXOTHERMIC WELD SCHEDULE

SCALE: N.T.S.

PART 1 GENERAL

GENERAL REQUIREMENTS

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

ALL SYMBOLS AND ABBREVIATIONS ARE CONSIDERED CONSTRUCTION INDUSTRY STANDARDS. IF A CONTRACTOR HAS A QUESTION REGARDING THEIR EXACT MEANING THE ARCHITECT/ENGINEER SHALL BE NOTIFIED FOR CLARIFICATIONS. WHERE SPECIFIED, MATERIALS TESTING SHALL BE TO THE LATEST STANDARDS AVAILABLE AS REQUIRED BY THE LOCAL GOVERNING AGENCY RESPONSIBLE FOR RECORDING THE RESULTS.

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

ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE UNLESS

OTHERWISE NOTED

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE FROM THE START OF THE PROJECT TO THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO ASSESS CONDITIONS THAT MAY ADVERSELY AFFECT THE WORK OR THE COST OF THE WORK. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS. ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION OF NEW PORTION OF THE WORK AND ALIGNMENT OF THE NEW PORTION OF THE WORK TO THE EXISTING WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE

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

NO CHANGES ARE TO BE MADE TO THESE PLANS WITHOUT THE KNOWLEDGE AND WRITTEN CONSENT OF THE A & E. ANY REFERENCE TO THE WORDS APPROVED OR APPROVAL IN THESE DOCUMENTS SHALL BE HERE DEFINED TO MEAN GENERAL ACCEPTANCE OR REVIEW AND SHALL NOT RELIEVE THE CONTRACTOR AND/OR HIS SUB-CONTRACTORS OF ANY LIABILITY IN FURNISHING THE REQUIRED MATERIALS OR LABOR SPECIFIED. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR SUPPORTS FOR INSTALLATION OF ITEMS INDICATED ON THE DRAWINGS.

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

- LATEST LOCAL JURISDICTIONAL BUILDING CODES.
- ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND
- AMERICAN CONCRETE INSTITUTE (ACI)
- AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
- ANSI/TIA 222 G
- UNIFORM BUILDING CODE (UBC)
- NATIONAL ELECTRICAL CODE (NEC) WITH ALL AMENDMENTS
- AMERICAN INSTITUTE FOR STEEL CONSTRUCTION OR SPECIFICATIONS (AISC)
- UFE SAFETY CODE NIFFA 101
- FEDERAL AVIATION REGULATIONS

1.01 CARRIER REPRESENTATIVE

- THE SITE DEVELOPMENT MANAGER (SDM) OR HIS DESIGNEE (INCLUDING BUT NOT LIMITED TO THE ARCHITECT/ ENGINEER, OR CONSTRUCTION MANAGER) SHALL SERVE AS THE SINGLE POINT OF CONTACT
- BETWEEN THE CONTRACTOR AND OWNER, NOT WITHSTANDING THE REQUIREMENTS SPECIFIED HEREIN, THE SDM OR DESIGNATED REPRESENTATIVE IS EMPOWERED TO DIRECT THE CONTRACTOR TO VARY OR CHANGE FROM THE PLANS AND SPECIFICATIONS AS CIRCUMSTANCES OR CONDITIONS ARISE.
- CONTRACTOR SHALL VARIFY ALL CHANGES ARE ACCEPTED BY THE ENGINEER OF RECORD.

THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND COMPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

- THESE SPECIFICATIONS AND DESIGN DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE PERFORMED AND THE MATERIALS TO BE FURNISHED FOR THE CONSTRUCTION OF THE PROJECT.
- THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS INDICATED IN THE DOCUMENTS.D. THE PURPOSE OF THE SPECIFICATIONS IS EACH CONTRACTOR IS RESPONSIBLE FOR APPLICATION &

TO SUPPLEMENT THE INTENT OF THE DRAWINGS AND TO DESIGNATE A PROCEDURE, TYPE, OR QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.

MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. HOWEVER, NO CHANGES THAT ALTER THE CHARACTER INTENT OF THE DESIGN WILL BE MADE OR PERMITTED WITHOUT A CHANGE

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

- B. THE CONTRACTOR SHALL NOTIFY A & E OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES AS THEY MAY BE DISCOVERED IN THE PLANS, SPECIFICATIONS AND NOTES PRIOR TO STARTING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERRORS, OMISSIONS, OR INCONSISTENCIES AFTER THE START OF CONSTRUCTION THAT HAVE NOT BEEN BROUGHT TO THE ATTENTION OF THE A & E AND SHALL INCUR ANY7 EXPENSES REQUIRED TO RECTIFY THE SITUATION THE METHOD OF CORRECTION SHALL BE APPROVED BY THE A & E.
- THE CONTRACTOR, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING WHICH THE CONTRACTOR MIGHT NOT HAVE FULLY INFORMED HIMSELF PRIOR TO BIDDING
- NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED WILL BE ACCEPTED AS A REASON FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL THE REQUIREMENTS OF THE CONTACT DOCUMENTS.
- 1.04 BIDDING PROCESS -- INSTRUCTIONS TO BIDDERS A. CARRIER REQUESTS A FIRM LUMP SUM BID FOR ALL WORK DESCRIBED IN THE CONTRACT, AS INDICATED IN THESE CONSTRUCTION DRAWINGS/SPECIFICATIONS, APPARENT WITH FIELD VISIT, AND ACCORDING TO ANY OTHER AGREEMENTS AND DIRECTION.
- BIDDER WILL GUARANTEE BIDS FOR 60 DAYS FROM BID DUE DATE. BIDS SHALL INCLUDE ALL APPLICABLE STATE AND FEDERAL TAXES.
- PROPOSAL: (AS OUTLINED IN BID DOCUMENTS) IT IS UNDERSTOOD BY OWNER, THAT THE BIDDER IN SUBMITTING HIS BID, WARRANTS THAT HE HAS CAREFULLY EXAMINED THE SITE OF THE PROJECT TO ACQUAINT HIMSELF WITH:
- SURROUNDING PROPERTIES.
- MEANS OF APPROACH TO THE SITE.
- CONDITIONS OF THE ACTUAL JOB SITE.
- FACILITIES FOR DELIVERING, STORING, PLACING, HANDLING AND REMOVAL OF MATERIALS AND FOUIPMENT. ANY AND ALL DIFFICULTIES THAT MAY BE ENCOUNTERED.
- DURING THE EXECUTION OF ALL WORK IN ACCORD WITH THE CONTRACT DOCUMENTS.

1.05 CONTRACTS AND WARRANTIES

ABBREVIATED FORM OF AGREEMENT BETWEEN CARRIER REPRESENTATIVE AND CONTRACTOR MAY BE USED AND WILL BE EMPLOYED FOR CONTRACT PURPOSES.

- UNLESS ARRANGED OTHERWISE, EACH CONTRACTOR IS RESPONSIBLE FOR FILING THE BUILDING PERMIT AT THE LOCAL JURISDICTION AS THE CONTRACTOR OF RECORD, AND PROVIDE JURISDICTION WITH ALL PROOF REQUIRED TO OPERATE AS A CONTRACTOR IN THAT JURISDICTION.
- A COPY OF THE APPROVED DRAWINGS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY AND BY LAW SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED DRAWINGS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF DRAWINGS AT THE SITE FOR THE PURPOSE OF DOCUMENTING ALL AS-BUILT DRAWINGS TO THE A & E AT THE CONCLUSION OF THE PROJECT, OR TO TMO, AS DIRECTED.
- THE CONTRACTOR SHALL BE REIMBURSED, AT FACE VALUE, FOR THE AMOUNT OF ANY FEE PAID AS FOLLOWS:
- PLAN REVIEW FFF. BUILDING PERMIT FEE.
- CONNECTIONS AND INSPECTION FEES.

1.06 STORAGE
A. DO NOT USE THE CARRIER EQUIPMENT SPACE FOR STORAGE OF TOOLS OR MATERIALS WITHOUT WRITTEN SDM APPROVAL

- ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY LOCATION AND IN A MANNER THAT WILL NOT OBSTRUCT THE FLOW OF OTHER WORK. ANY EQUIPMENT OR MATERIAL STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE MANUFACTURER
- WHEN STORING MATERIALS ENSURE EVEN DISTRIBUTION OVER THE FLOOR OR ROOF SO AS NOT TO EXCEED THE DESIGNED LIVE LOADS FOR THE STRUCTURE. TEMPORARY SHORING OR BRACING SHALL BE PROVIDED WHERE THE STRUCTURE OF SOIL HAS NOT ATTAINED THE DESIGN STRENGTH FOR THE CONDITIONS PRESENT.

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

- PROVIDE PROTECTION FOR EQUIPMENT ROOM SURFACES PRIOR TO ALLOWING EQUIPMENT OR MATERIAL TO BE MOVED OVER
- MAINTAIN FINISHED SURFACES CLEAN, UNMARRED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY THE SDM.
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGED AREAS.

1.08 REPAIRS AND REPLACEMENTS

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

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

1.09 TEMPORARY FACILITIES

A. WATER: WATER IS NOT AVAILABLE TO THE CONTRACTORS

LIGHT, TELEPHONE AND POWER:

LIGHT AND POWER ARE AVAILABLE ON SITE. IF NOT, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY POWER (FOR THE OPERATION OF TOOLS, EQUIPMENT AND LIGHTING NECESSARY FOR FACILITY CONSTRUCTION), WATER AND TOILET **FACILITIES**

TELEPHONE: EACH CONTRACTOR TO PROVIDE HIS OWN TELEPHONE ACCESS IF REQUIRED. CONTRACTORS ARE NOT TO USE OWNER

IF PERMANENT POWER IS COMPLETED, ALL CONTRACTORS MAY USE THE SERVICE CONNECTION FOR PRODUCTION WORK ONLY, PROVIDED THAT FLECTRICAL CORDS AND CONNECTIONS ARE FINISHED BY CONTRACTORS AND ARE DISCONNECTED AND PROPERLY STORED DURING NON-WORKING HOURS.

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

- EXTERIOR: VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIAL, DUST, SMUDGES, AND OTHER FOREIGN MATTER.
- REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES. 2. IF NECESSARY TO ACHIEVE A UNIFORM DEGREE
- OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.
- C. INTERIOR: VISUALLY INSPECT INTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIAL, SMUDGES AND OTHER FOREIGN MATTER.
- REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES. REMOVE PAINT DROPPINGS, SPOTS, STAINS AND
- DIRT FROM FINISHED SURFACES.
- CONTRACTOR SHALL WASH AND WAX FLOOR PRIOR TO FINAL ACCEPTANCE FROM SDM. WAX SHALL BE THE ANTI-STATIC

PAYMENT OF CONTRACTOR LICENSES & BONDS.1.11 CHANGE ORDER **PROCEDURE**

CHANGE ORDER MAY BE INITIATED BY THE SDM, AND OR THE CONTRACTOR. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE SDM, SHALL PREPARE WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT IT TO THE SDM FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES IN THE SCOPES OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED AND APPROVED BY THE SDM SHALL BECOME THE SOLE RESPONSIBILITY OF THE

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

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

SHOP DRAWINGS

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

- SHOP DRAWINGS FOR ALL STRUCTURAL STEEL SHALL BE SUBMITTED TO THE ENGINEER OF RECORD UNLESS SPECIFICALLY NOTED OTHERWISE; CONTRACTOR SHALL NOT FABRICATE STEEL UNTIL DRAWINGS HAVE BEEN ACCEPTED IN WRITING
- ALL SHOP DRAWINGS TO BE REVISED, CHECKED AND CORRECTED BY GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO

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

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

1.15 COMPLIACE

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

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY COMPLIANCE WITH THE GOVERNING CODES AND TO NOTIFY THE SDM OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK.
- REFERENCES TO ANY STANDARD OR CODE OF PRACTICES IN THIS SPECIFICATION SHALL BE DEEMED TO MEAN THE EDITION CURRENT AT THE TIME OF AWARD OF THE CONTRACT
- THE TELECOMMUNICATIONS EQUIPMENT SPACE SHOWN IN THESE DRAWINGS IS NOT CUSTOMARILY OCCUPIED. WORK TO BE PERFORMED IN THIS FACILITY CANNOT REASONABLY BE PERFORMED BY PERSONS WITH A SEVERE IMPAIRMENT TO MOBILITY, SIGHT OR HEARING, THEREFORE, PER THE APPLICABLE CODES; THIS FACILITY SHALL BE EXEMPTED FROM ALL TITLE 24 ACCESS REQUIREMENTS.
- THE CONTRACTOR SHALL COMPLY WITH ALL ZONING AND SITE ACQUISITION SPECIAL STIPULATIONS AS OUTLINED IN THE JOB SPECIFICATIONS, OR AS DIRECTED BY THE SDM.
- ANSI/EIA 222 E
- UNIFORM BUILDING CODE (UBC)
- BUILDING OFFICIALS & CODE ADMINISTRATION (BOCA) NATIONAL ELECTRICAL CODE (NEC) WITH ALL AMENDMENTS
- AMERICAN INSTITUTE FOR STEEL CONSTRUCTION OR SPECIFICATIONS (AISC)
- 6. LIFE SAFETY CODE NFFA 101
- 7. FEDERAL AVIATION REGULATIONS



DOWNERS GROVE, IL 60518 OFFICE: (773) 444-5400





1117 SANDPIPER CT

BARTLETT, IL 60103

CONTACT: INFO@WESTINENGINEERING.COM

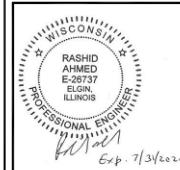
PHONE: 773 - 423 8220

ML12105B

MILWAUKEE FIRE STATION BG

8814 W. LISBON AVE. MILWAUKEE, WI 53201

REV.	SUBMITTAL	APPROVED	DATE
A	ISSUED FOR REVIEW	КВ	10/26/18
В	CLIENT REVISIONS	КВ	11/07/18
0	FINAL CD	КВ	11/08/18



EXPIRES:JULY 31, 2020

I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE.

PREPARED BY: KB CHECKED BY: RA APPROVED BY: RA

SHEET TITLE

GENERAL NOTES AND SPECIFICATIONS

GN-1

1.16 ADMINISTRATION

A. THE CONTRACTOR SHALL FURNISH TO THE SDM WITH THE NAME AND CONTACT TELEPHONE NUMBERS (MOBILE, PAGER AND RESIDENCE NOTE) OF THE CARRIER APPROVED ON—SITE SUPERVISOR. ANY CHANGES IN SUPERVISION MUST BE REPORTED TO THE SDM IMMEDIATELY AND ARE SUBJECT TO CARRIER APPROVAL

1.17 PERMIT AND LICENSES

- A. THE CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL REQUIRED LOCAL, STATE, AND/OR COUNTY CONSTRUCTION PERMITS AND LICENSES. COPES OF ALL PERMITS SHALL BE SENT TO SDM. APPROVALS FROM RELEVANT PLANNING BOARD, ENVIRONMENTAL BOARDS, AND/OR OTHER COMMITTEE WILL BE SUPPLIED BY OTHERS, BUT MUST BE CONFIRMED BY THE CONTRACTOR WITH THE SDM PRIOR TO THE APPLICATION FOR CONSTRUCTION PREMISES.
- B. FAA APPROVAL WILL BE SUPPLIED BY OTHERS BUT MUST BE CONFIRMED BY THE CONTRACTOR WITH THE SDM PRIOR TO THE ERECTING OF TOWER (IF APPLICABLE).
- C. FOR CONSTRUCTION SCHEDULING REFER TO THE INSTRUCTIONS PROVIDED BY THE SDM ITEMS TO BE INCLUDED:
- CLEARING AND GRUBBING
- BUILDING PERMIT
- 3. SHELTER DELIVERY AND PLACEMENT
- 4. BUILDING FOUNDATION EXCAVATION
- ACCESS ROAD
- 6. COMMERCIAL AC POWER
- 7. BUILDING FOUNDATION FORMING
- 8. INSPECTIONS
- LANDSCAPING
- 10. GROUNDING SYSTEM
- 11. ANTENNA INSTALLATION
- D. PRIOR TO COMMENCING THE WORK THE GENERAL CONTRACTOR SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES TO THE PROCESS. THIS WOULD INCLUDE (THOUGH NOT LIMITED TO) THE DESIGNATED REPRESENTATIVES OF EACH SUB-CONTRACTOR
- E. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY & VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR QUESTIONS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION & INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL DISCREPANCY IS CHECKED & CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO THE SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS OWN RISK AND EXPENSES. CONTRACTOR SHALL CALL ALL APPROPRIATE UTILITY COMPANIES 48 HOURS PRIOR TO START OF CONSTRUCTION TO HAVE UNDERGROUND UTILITIES LOCATED & MARKED.
- F. THE CONTRACTOR SHALL BE EQUIPPED WITH A MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A CELLULAR PHONE, AND BE AVAILABLE IN A REASONABLE AMOUNT OF TIME TO
- G. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY INCLUDING BUT NOT LIMITED TO PROTECTION OF ALL SITE PERSONNEL AND THE GENERAL PUBLIC DURING THE ENTIRE SITE CONSTRUCTION PERIOD. HE SHALL TAKE ALL REASONABLE PRECAUTIONS TO PLACE AND MAINTAIN BARRICADES, LAMPS, AND SIGNS.

CONSTRUCTION NOTES

- 1. ELEVATIONS ARE ABOVE MEAN SEA LEVEL.
- 2. ALL EXISTING EASEMENTS, PROPERTY LINES, SECTION LINES AND ROADWAY'S ARE INDICATED ON THIS DRAWING TO THE BEST OF THE ARCHITECTS KNOWLEDGE AS GATHER BY VISUAL INSPECTION, SURVEY DRAWINGS, AND INFORMATION RECEIVED FROM THE CARRIER.
- 3. ALL CONSTRUCTION SHALL CONFORM TO CURRENT LOCAL., STATE, AND FEDERAL CODES.
- 4. THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT EXISTING STRUCTURES, UTILITIES, WALKWAYS, PAVEMENT AND OTHER FACILITIES FROM UNNECESSARY EXPOSURE TO DAMAGE.; ALL NEW UNDERGROUND TRENCHING SHALL BE HAND DUG.
- 5. THE CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING UNDERGROUND POWER, TELCO, GROUNDING CONDUITS, AND ALL OTHER UTILITIES EASEMENTS AND/OR WIRES PRIOR TO TRENCHING. ANY DAMAGE CAUSED TO THE EXISTING UNDERGROUND SERVICES OR SYSTEMS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. VERIFY WITH UTILITY NEW SERVICE HAS BEEN APPLIED FOR. THERE SHALL BE NO SPLICING OF GROUND CONDUCTORS BELOW GRADE.

- 6. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE SAFETY AND IF NECESSARY THE REPAIR OF ALL PUBLIC UTILITIES SERVICES SUCH AS GAS, TELEPHONE, ELECTRIC, CABLE, AND WATER
- 7. DO NOT INTERRUPT SERVICES TO ANY ADJACENT STRUCTURES OR FACILITIES WITHOUT WRITTEN PERMISSION FROM THE PROPERTY OWNER
- 8. EROSION CONTROL MEASURES SUCH AS SILT FENCING AND/OR HAYBALES SHALL BE UTILIZED TO PREVENT SOIL AND DEBRIS FROM CONTAMINATING ADJACENT PROPERTIES, ROADS, AND ARFAS
- 9. COMMENCEMENT OF CONSTRUCTION SHALL BEGIN ONLY WITH THE WRITTEN APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE; ALL CONSTRUCTION AND MATERIAL ORDERING (WITH THE EXCEPTION OF THE TOWER) SHALL BE DONE WITH DRAWINGS LABELED "ISSUED FOR CONSTRUCTION
- 10. NO DUMPING SOILS ON SITE OR LEASE AREA, MUST BE HAULED OFF SITE.
- 11. ACCESS TO OTHER CUSTOMERS ON SITE CAN NOT BE BLOCKED AT ANYTIME .
- 12. ALL SAFETY HAZARDS MUST BE MARKED WITH WARNING TAPE OR SAFETY FENCE.
- 13. PROPER SIGNAGE MUST BE POSTED AT ACCESS OF COMPOUND PER OSHA SPEC.
- 14. ANY ACCIDENTS ON SITE MUST BE REPORTED TO CONTRACT OWNER WITHIN 2 HOURS OF EVENT.
- 15. GC'S ARE NOT TO CONTACT LANDOWNERS. ALL MATTERS MUST BE REPORTED TO PROJECT MANAGER AND TOWER OWNER.
- 16. PROVIDE 2 PULL STRINGS SECURELY FASTENED AT EACH END OF ALL CONDUITS. THE PULL STRINGS ARE TO BE 200 LB. TEST POLYETHYLENE CORD. PROVIDE CAP ON THE END OF EACH CONDUIT AND MARK AS SHOWN ON THIS SITE PLAN.

GENERAL GRADING NOTES

- CONTOURS AND SPOT ELEVATIONS SHOWN ARE ONLY CONTROLS AND THE PROFILES THEY FORM SHALL BE SMOOTH AND CONTINUOUS.
- 2. THE CONTRACTOR SHALL EXERCISE SUFFICIENT SUPERVISORY CONTROL DURING GRADING TO INSURE COMPLIANCE WITH THE PLANS, SPECIFICATIONS, AND CODE WITHIN THEIR PURVIEW.
- 3. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATION AND FOR THE SHORTEST PRACTICAL PERIOD OF TIME. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO AVOID ANY DAMAGE TO EXISTING FOLIAGE THAT LIES IN THE PROJECT AREA UNLESS DESIGNATED FOR REMOVAL AND SHALL BE LIABLE FOR SUCH DAMAGE AT HIS/HER EXPENSE.
- 4. DURING GRADING OPERATIONS AND PRIOR TO COMPLETION OF CONSTRUCTION, TEMPORARY DRAINAGE CONTROL SHALL BE PROVIDED TO PREVENT PONDING WATER AND IMPROPER DRAINAGE.5. PRIOR TO THE START OF GRADING ALL EXISTING VEGETATION AND DEBRIS, INCLUDING EXISTING STRUCTURES, FOOTINGS, FOUNDATIONS, RUBBLE, TREES AND ROOT SYSTEMS SHALL BE REMOVED FROM THE SITE.
- 6. THE EXPOSED SOILS SHALL THEN BE SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES, BROUGHT TO PROPER MOISTURE CONTENT AND COMPACTED TO AT LEAST 90% OF THE MAXIMUM DENSITY, AS DETERMINED BY THE CURRENT UNIFORM BUILDING CODE.
- 7. FILL SLOPES SHALL BE COMPACTED BY MEANS OF SHEEP FOOT COMPACTOR OR OTHER SUITABLE EQUIPMENT. COMPACTING SHALL CONTINUE UNTIL SLOPES ARE STABLE AND THERE IS NOT AN APPRECIABLE AMOUNT OF LOOSE SOIL ON THE SLOPES.
- 8. THE MAXIMUM CUT AND FILL SLOPES SHALL BE 2:1.
- 9. CONTRACTOR SHALL MAKE SURE ALL SURVEY STAKING IS PRESERVED AND PROTECTED BY MEANS OF OFFSETS OR WORKING AROUND STAKES. CONTRACTOR SHALL BE RESPONSIBLE FOR REESTABLISHING STAKES IF THEY ARE DISTURBED BY HIRING THE ORIGINAL SURVEYOR1O. TOP SOIL SHALL BE STOCKPILED TO THE EXTENT PRACTICABLE ON THE SITE FOR USE ON AREAS TO BE REVEGATATED. ANY AND ALL STOCKPILES SHALL BE LOCATED AND PROTECTED FROM EROSIVE ELEMENTS.

- 10. TEMPORARY SILT FENCES SHALL BE INSTALLED ALONG ALL BOUNDARIES OF THE CONSTRUCTION LIMITS AS SHOWN ON THESE DRAWINGS OR REQUIRED BY LOCAL CODES.
- 11. MINIMUM BUILDING PAD DRAINAGE SHALL BE 2%. DRAINAGE SHALL BE
 A MINIMUM OF 0.3 DEEP AND BE CONSTRUCTED A MINIMUM
- OF 2' FROM
 THE TOP OF CUT OR FILL SLOPES. THE MINIMUM SLOPE OF
 SWALES SHALL
 BE 0.50%.
- 12. IF ANY UNFORESEEN SUBSURFACE STRUCTURES ARE ENCOUNTERED
 DURING CONSTRUCTION THEY SHALL BE IMMEDIATELY BROUGHT TO
- ATTENTION OF THE ENGINEER BEFORE PROCEEDING FURTHER.
- 13. ALL DEPRESSIONS WHERE WATER MAY POND WILL BE FILLED IN MADE EQUAL TO ADJACENT GRADES, CREATING A LARGER DRAINAGE SCHEME FOR THE SITE

SERVICE NOTES:

- A. ELECTRICAL PLANS, DETAILS, AND DIAGRAMS ARE DIAGRAMMATIC ONLY; VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS WITH OWNER; PLACEMENT AND ROUTING OF ALL COMPONENTS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES
- B. SERVICE EQUIPMENT SHALL HAVE A FAULT WITHSTAND RATING EQUAL TO OR EXCEEDING THE MAXIMUM AVAILABLE FAULT CURRENT AT THE SUPPLY TERMINAL. INSTALLATION SHALL BE FREE FROM ALL FAULTS AND GROUNDS
- C. ALL ELECTRICAL EQUIPMENT, CONDUITS, AND SUPPORT SHALL BE ABLE TO WITHSTAND 80 M.P.H. WIND SPEED; EXPOSURE C
- D. ALL ELECTRICAL EQUIPMENT SHALL HAVE A PERMANENTLY AFFIXED NEOPRENE PLASTIC LABEL BLACK ON WHITE; LETTER HEIGHT SHALL BE ¼"; ALL NAMEPLATES TO BE FASTENED WITH (2) STAINLESS STEEL SCREWS, NOT ADHESIVE
- E. ALL WRING SHALL BE COPPER WITH THHN/THWN DUAL RATED 600V, COLOR CODED, #12 AWG MINIMUM UNLESS NOTED OTHERWISE

CONDUIT NOTES:

- F. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH GALVANIZED ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS, OR EXPOSED ON BUILDING EXTERIOR
- G. ELECTRICAL METALLIC TUBING SHALL BE U.L. LABEL; FITTING SHALL BE GLAND RING COMPRESSION TYPE
- H. CORING THROUGH FLOORS AND WALLS SHALL NOT BE DONE WITHOUT FINAL APPROVAL OF BUILDING OWNER OR OWNER REPRESENTATIVE
- I. CORING SHALL NOT BE PERFORMED DURING WORKING HOURS UNLESS OTHERWISE APPROVED BY THE OWNER

GENERAL NOTES:

- J. SUBMITTAL OF BID INDICATES CONTRACTOR IS FAMILIAR WITH ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED AS DETAILED AND OUTLINED IN THESE DRAWINGS
- K. THE ELECTRICAL PORTION OF THESE DRAWINGS IS ONLY A PART OF THE OVERALL DESIGN. IT IS NECESSARY FOR THE ELECTRICIAN TO CONSIDER ALL ASPECTS OF THIS PROJECT WHEN BIDDING AND PLANNING THE WORK
- L. IN THE EVENT OF A CONFLICTING DESIGN OR NOTATION, THE CONTRACTOR SHALL ASSUME THE MOST EXPENSIVE OR RESTRICTIVE METHOD UNTIL A CLARIFICATION IS MADE
- M. ALL THINGS, WHICH IN THE OPINION OF THE CONTRACTOR ARE DEFICIENCIES, OMISSIONS, CONTRADICTIONS, OR AMBIGUITIES, IN THESE DESIGN DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE WORK PROCEEDS; ALL CLARIFICATIONS MUST BE RECEIVED IN WRITING IN ORDER FOE THE MATTER TO BE CONSIDERED RESOLVED

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

- A. ALL WORK TO BE EXECUTED IN A WORKMAN LIKE MANNER AND SHALL PRESENT A NEAT, UNIFORM, AND WELL INSTALLED APPEARANCE; THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROTECTION, CLEAN-UP AND RESTORATION OF OWNER FACILITIES ASSOCIATED WITH THE WORK
- B. SUBMITTAL OF BID INDICATES CONTRACTOR IS AWARE AND WILL CONFORM TO ALL LOADING AND UNLOADING RESTRICTIONS, ELEVATOR RESTRICTIONS, AND UNDERSTANDS OWNER EXPECTATION REGARDING TO THE SCHEDULE OF CORING AND OTHER TENANT IMPACTING ACTIVITIES
- C. CONTRACTOR TO VERIFY ACCEPTANCE OF THESE PLANS AND DESIGNS WITH THE LOCAL UTILITY COMPANY ENGINEER BEFORE THE START OF ANY WORK AND ORDERING OF ANY MATERIAL
- D. CONTRACTOR TO VERIFY OWNER APPROVAL OF ANY PLANNED OUTAGES PRIOR TO SUBMITTAL OF BID



1400 OPUS PLACE DOWNERS GROVE, IL 60515 OFFICE: (773) 444-5400 FAX: (773) 444-5521



WESTIN

1117 SANDPIPER CT.
BARTLETT, IL 60103
CONTACT: INFO@WESTINENGINEERING.COM
PHONE: 773 - 423 8220

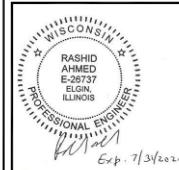
ML12105B

MILWAUKEE FIRE STATION BG

8814 W. LISBON AVE.

MILWAUKEE, WI 53201

	REV.	SUBMITTAL	APPROVED	DATE
	A	ISSUED FOR REVIEW	КВ	10/26/18
	В	CLIENT REVISIONS	КВ	11/07/18
	0	FINAL CD	КВ	11/08/18



EXPIRES:JULY 31, 2020

I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE.

PREPARED BY: KB
CHECKED BY: RA
APPROVED BY: RA

SHEET TITLE

GENERAL NOTES AND SPECIFICATIONS

SHEET NUMBE

GN-2