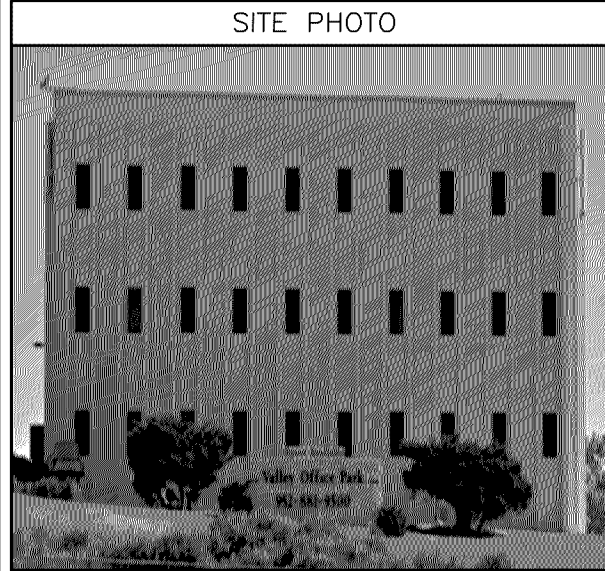




PROJECT: LTE 3C
SITE #: MNL03046
FA #: 10104056
PTN #: 3511796519
PACE #: MRUMW012604
SITE NAME: 35W & 106TH STREET
JURISDICTION: BLOOMINGTON
ADDRESS: 10800 LYNDALE AVE. S.
 BLOOMINGTON, MN 55420



PROJECT INFORMATION

SITE NAME: 35W & 106TH STREET
COUNTY: HENNEPIN
JURISDICTION: BLOOMINGTON
ADDRESS: 10800 LYNDALE AVE S
 BLOOMINGTON, MN 55420

SITE NUMBER: MNL03046
FA NUMBER: 10104056
PTN: 3511796519
PACE: MRUMW012604
USID: 48970

LATITUDE: 44° 48' 27.10008" N (44.807920) (NAD '83)
LONGITUDE: 93° 17' 21.48" W (-93.289862) (NAD '83)
ELEVATION: 33' AMSL (NAVD '88)

BUILDING OWNER: VALLEY OFFICE PARTNERS
 10800 LYNDALE AVE, S. SUITE 181
 BLOOMINGTON, MN 55420

GROUND OWNER: VALLEY OFFICE PARTNERS
 10800 LYNDALE AVE, S. SUITE 181
 BLOOMINGTON, MN 55420

LANDLORD CONTACT: TIM EIDE
 (952) 881-9500

APPLICANT: AT&T WIRELESS
 901 S. MARQUETTE AVE.
 MINNEAPOLIS, MN 55402

AT&T PROJECT MANAGER: PETER MCENERY
 PHONE: (952) 229-9667
 EMAIL: PM753T@ATT.COM

AT&T CONSTRUCTION MANAGER: ANN WEIZENEGGER
 PHONE: 952-229-9676
 EMAIL: AW2946@ATT.COM

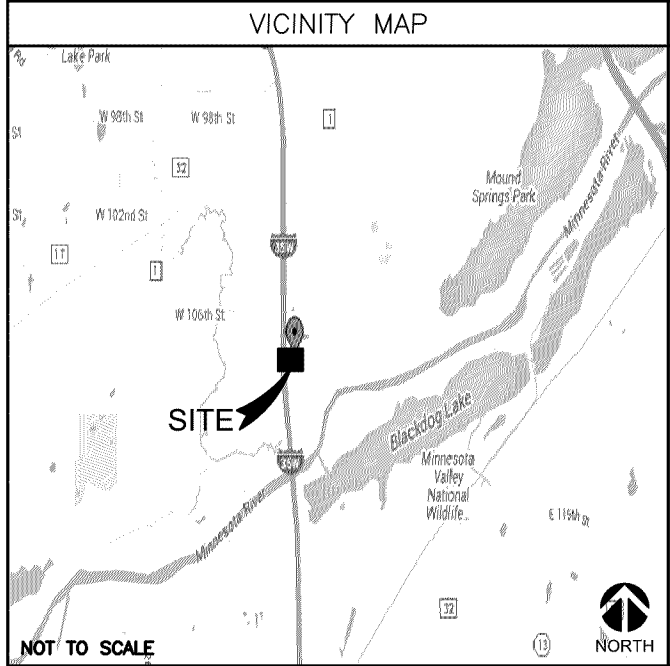
PROJECT CONSULTANTS

PROJECT MANAGEMENT: SAC WIRELESS
 540 W. MADISON ST., 17TH FLOOR
 CHICAGO, IL 60661
 CONTACT: AMY HUTCHINGS
 EMAIL: AMY.HUTCHINGS@SACW.COM

SITE ACQUISITION & ZONING: SAC WIRELESS
 540 W. MADISON ST., 17TH FLOOR
 CHICAGO, IL 60661
 CONTACT: JEFFREY KURPIEL
 EMAIL: JEFFREY.KURPIEL@SACW.COM

ENGINEER ON RECORD: LETS AMERICA INC.
 112 S. KYRENE ROAD, SUITE 1
 CHANDLER, AZ. 85226
 PHONE: (480) 961-9151
 EMAIL: INFO@LETSINC.COM

CONSTRUCTION: SAC WIRELESS
 540 W. MADISON ST, 16TH FLOOR
 CHICAGO, IL 60661
 CONTACT: DIANA HUBBARD
 EMAIL: DIANA.HUBBARD@SACW.COM



DIRECTIONS

DIRECTIONS FROM: 901 S. MARQUETTE AVE. MINNEAPOLIS, MN 55402

1. TAKE S 8TH ST TO MN-65 S
2. TAKE I-35W S TO W 106TH ST IN BLOOMINGTON.
3. TAKE EXIT 5 FROM I-35W S.
4. TAKE THE LEFT 2 LANES TO TURN SLIGHTLY LEFT ONTO MN-65 S
5. MERGE ONTO I-35W S
6. KEEP LEFT TO STAY ON I-35W S
7. TAKE EXIT 5 FOR 106TH ST
8. CONTINUE ON W 106TH ST

ARRIVE AT: 10800 LYNDALE AVE S, BLOOMINGTON, MN 55420

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN MINNESOTA, CALL GOPHER STATE ONE CALL

TOLL FREE: 1-800-252-1166 OR FAX A LOCATE: 1-800-236-4967

www.gopherstateonecall.org

MINNESOTA STATUTE REQUIRES MIN OF 48 HOURS NOTICE BEFORE YOU EXCAVATE

Know what's below.
Call before you dig.

INDEX OF DRAWINGS

SHEET NO.	SHEET DESCRIPTION
T-1	TITLE SHEET
SP-1	NOTES & SPECIFICATIONS
A-1	COMPOUND PLAN & SITE PHOTOS
A-2	EQUIPMENT PLAN
A-3	EXISTING BUILDING ELEVATION
A-3.1	PROPOSED BUILDING ELEVATION
A-4	EXISTING & PROPOSED ANTENNA PLAN
A-5	PROPOSED ANTENNA & CABLE CONFIGURATION
A-6	ANTENNA, RRH & MOUNTING DETAIL
A-6.1	MOUNT DETAIL
A-7	EXISTING CABLE ROUTING, CABLE NOTES & COLOR CODING
E-1	GROUNDING DETAILS

SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST, CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

PROPOSED-ANTENNA SOLUTION

- INSTALL (3) PROPOSED ANTENNA MOUNTS, (1) PER SECTOR. (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T LTE 3C PANEL ANTENNAS, (1) PER SECTOR. (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T LTE 3C RRHS, (1) PER SECTOR. (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T DC2-48-60-0-9E
- INSTALL (1) PROPOSED AT&T DC3 EXPANSION PACK (GEN 1)
- INSTALL (3) PROPOSED AT&T 15A BREAKERS
- INSTALL (1) PROPOSED AT&T CONVERTER
- INSTALL (1) PROPOSED AT&T RECTIFIER
- INSTALL (1) PROPOSED AT&T EMT FROM CABINET TO FC12

NOTE, PER SCOPING DOCUMENT:

- ADD DC/FIBER JUMPERS
- INSTALL INTERDUCT ON ROOFTOP FROM DC2's TO FC12
- PROPOSED RAYCAP MODULES INSTALLED IN EXISTING RAYCAP IN SHELTER FIF
- PAINTING REQUIRED
- LIFT/CRANE NEEDED
- CHECK PLUMBING FOR POSITION

CODE COMPLIANCE

- 2015 MINNESOTA BUILDING CODE
- 2015 MINNESOTA CONSERVATION CODE FOR EXISTING BUILDINGS
- 2015 MINNESOTA ENERGY CODE
- 2015 MINNESOTA MECHANICAL AND FUEL GAS CODES
- TIA/EIA-222-G

REFERENCE MATERIALS

- THESE DRAWINGS ARE BASED ON AT&T SCOPING DOCUMENT DATED 08/03/15
- CONTRACTOR TO USE LATEST VERSION OF THE RFDS DATED 09/01/2015 WITH THE CD'S PER SCOPE OF WORK

SPECIAL NOTES

1. ALL WORK SHALL BE INSTALLED IN CONFORMANCE WITH CURRENT AT&T CONSTRUCTION INSTALLATION GUIDE.
2. EXISTING CONDITIONS WILL BE CHANGED & VERIFIED IN FIELD. IF SIGNIFICANT DEVIATIONS OR DETERIORATION ARE ENCOUNTERED AT THE TIME OF CONSTRUCTION, A REPAIR PERMIT WILL BE OBTAINED & CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
3. THESE DRAWINGS ARE FULL SIZE & SCALEABLE ON 11"x17" SHEET SIZE. STATEMENT THAT COMPLIANCE WITH THE ENERGY CODE IS NOT REQUIRED.
4. SCOPE OF WORK DOES NOT INVOLVE MODIFICATIONS TO EXTERIOR ENVELOPE OF BUILDING, HVAC SYSTEMS OR ELECTRICAL LIGHTING.

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CARRIER:

4300 MARKET POINTE DR
STE 350 BLOOMINGTON, MN 55435

PLAN PREPARED FOR:

1501 E. WOODFIELD RD.
SUITE #300E
SCHAUMBURG, IL 60178
www.sacw.com
647.944.1600
A NOKIA COMPANY

PLAN PREPARED BY:

LETS America, Inc.
112 S. KYRENE RD. STE. 1
CHANDLER, AZ 85226
ARIZONA: 480-961-9151
LETS PROJ. #: LETS-ATT-MNP-012

REVISIONS

REV.	DATE	DESCRIPTION	INITIALS
A	09/21/15	90% CD'S	VSK
B	09/25/15	95% CD'S	JNA
C	11/25/15	95% CD'S	KNK
D	01/21/16	95% CD'S	JNA
0	02/03/16	FOR CONSTRUCTION	ME
Δ	02/04/16	CLIENT COMMENTS	SBA
Δ	02/12/16	CLIENT COMMENTS	SBA

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

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 Structural Engineer under the laws of the State of Minnesota. Print Name: MADHAN KUMAR KANTHA SAMY

Signature: *[Signature]*

Date: 02/12/16 License # 51479

DATE:

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA*

LTE 3C
10104056
35W & 106TH STREET
10800 LYNDALE AVE S
BLOOMINGTON, MN 55420

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR/CM - SAC WIRELESS
 SUB-CONTRACTOR - PER TRADE
 OWNER - AT&T WIRELESS
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO

PREVENT EROSION.

25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.

ANTENNA MOUNTING

40. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.
41. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
42. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
43. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
44. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
45. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
46. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
47. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFDS. REFER TO ND-00246.
48. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.
49. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
50. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.

TORQUE REQUIREMENTS

51. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
52. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
 - A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
 - B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.

FIBER & POWER CABLE MOUNTING

53. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
54. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
55. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.


COAXIAL CABLE NOTES

56. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
57. CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
58. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
59. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
60. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
61. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
62. CONTRACTOR SHALL GROUND ALL EQUIPMENT. INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
63. CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
64. CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.

GENERAL CABLE AND EQUIPMENT NOTES


65. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMA'S, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
66. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
67. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
68. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
69. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
 - A. TEMPERATURE SHALL BE ABOVE 50° F.
 - B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
 - C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
 - D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
70. ALL CABLES SHALL BE GROUNDING WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
 - A. GROUNDING AT THE ANTENNA LEVEL.
 - B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
 - C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
 - D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
 - E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
71. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.

CARRIER:



4300 MARKET POINTE DR
STE 350 BLOOMINGTON, MN 55435

PLAN PREPARED FOR:



1501 E. WOODFIELD RD.
SUITE #300E
SCHAUMBURG, IL 60178
www.sdcw.com
947.944.1600

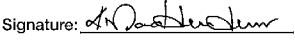
PLAN PREPARED BY:



LETS America, Inc.
112 S. KYRENE RD. STE. 1
CHANDLER, AZ 85226
ARIZONA: 480-961-9151
LETS PROJ. #: LETS-ATT-MNP-012

REVISIONS				
REV.	DATE	DESCRIPTION	INITIALS	
A	09/21/15	90% CD'S	VSK	
B	09/25/15	95% CD'S	JNA	
C	11/25/15	95% CD'S	KNK	
D	01/21/16	95% CD'S	JNA	
0	02/03/16	FOR CONSTRUCTION	ME	
△	02/04/16	CLIENT COMMENTS	SBA	
△	02/12/16	CLIENT COMMENTS	SBA	

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

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 Structural Engineer under the laws of the State of Minnesota.
 Print Name: MADHAN KUMAR KANTHA SAMY
 Signature: 
 Date: 02/12/16 License # 51479

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

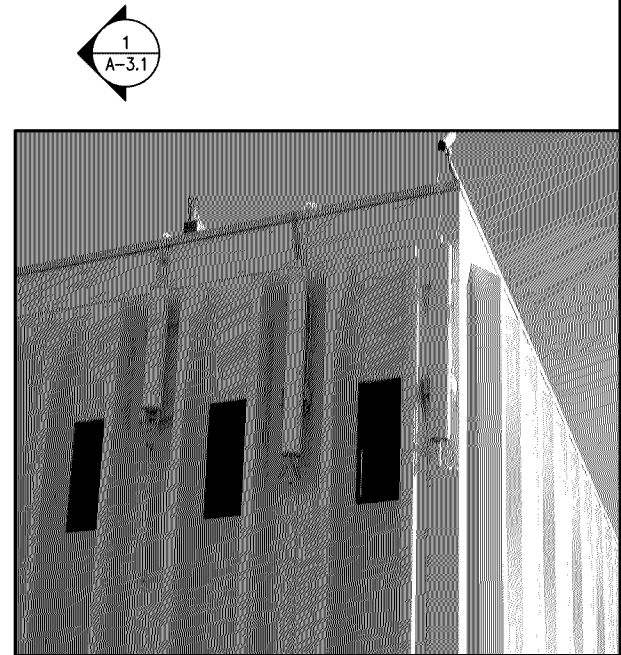
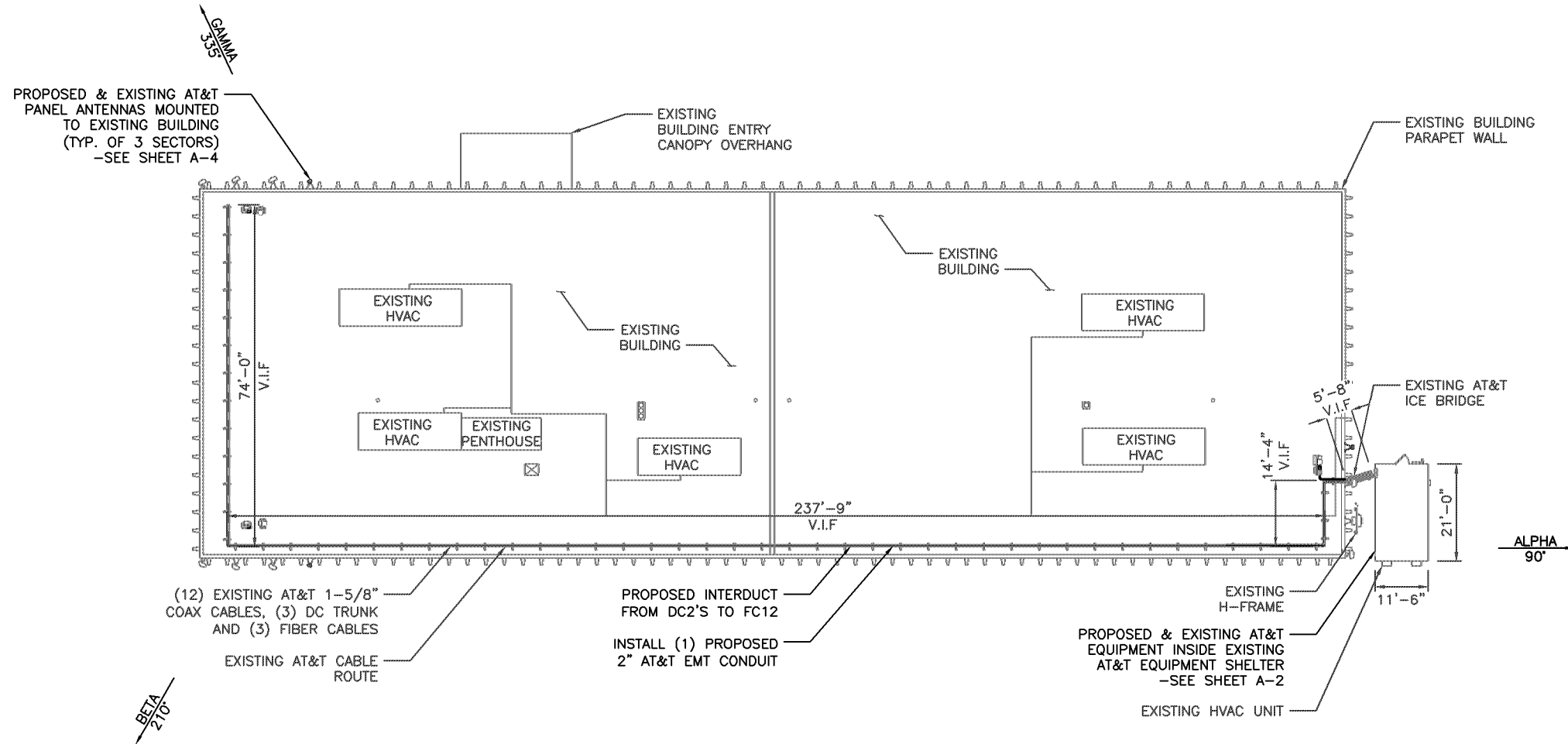
LTE 3C
10104056
35W & 106TH STREET
10800 LYNDALE AVE S
BLOOMINGTON, MN 55420

SHEET TITLE
NOTES & SPECIFICATIONS

SHEET NUMBER
SP-1

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.



SITE PHOTO 2



SITE PHOTO 1

CARRIER:

4300 MARKET POINTE DR
STE 350 BLOOMINGTON, MN 55435

PLAN PREPARED FOR:

1501 E. WOODFIELD RD.
SUITE #300E
SCHAUMBURG, IL 60178
www.sacw.com
647.944.1600
A NOKIA COMPANY

PLAN PREPARED BY:

112 S. KYRENE RD. STE. 1
CHANDLER, AZ 85226
ARIZONA: 480-961-9151
LETS PROJ. #: LETS-ATT-MNP-012

REVISIONS

REV.	DATE	DESCRIPTION	INITIALS
A	09/21/15	90% CD'S	VSK
B	09/25/15	95% CD'S	JNA
C	11/25/15	95% CD'S	KNK
D	01/21/16	95% CD'S	JNA
O	02/03/16	FOR CONSTRUCTION	ME
△	02/04/16	CLIENT COMMENTS	SBA
△	02/12/16	CLIENT COMMENTS	SBA

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

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 Structural Engineer under the laws of the State of Minnesota. Print Name: MADHAN KUMAR KANTHA SAMY
Signature: *[Signature]*
Date: 02/12/16 License # 51479

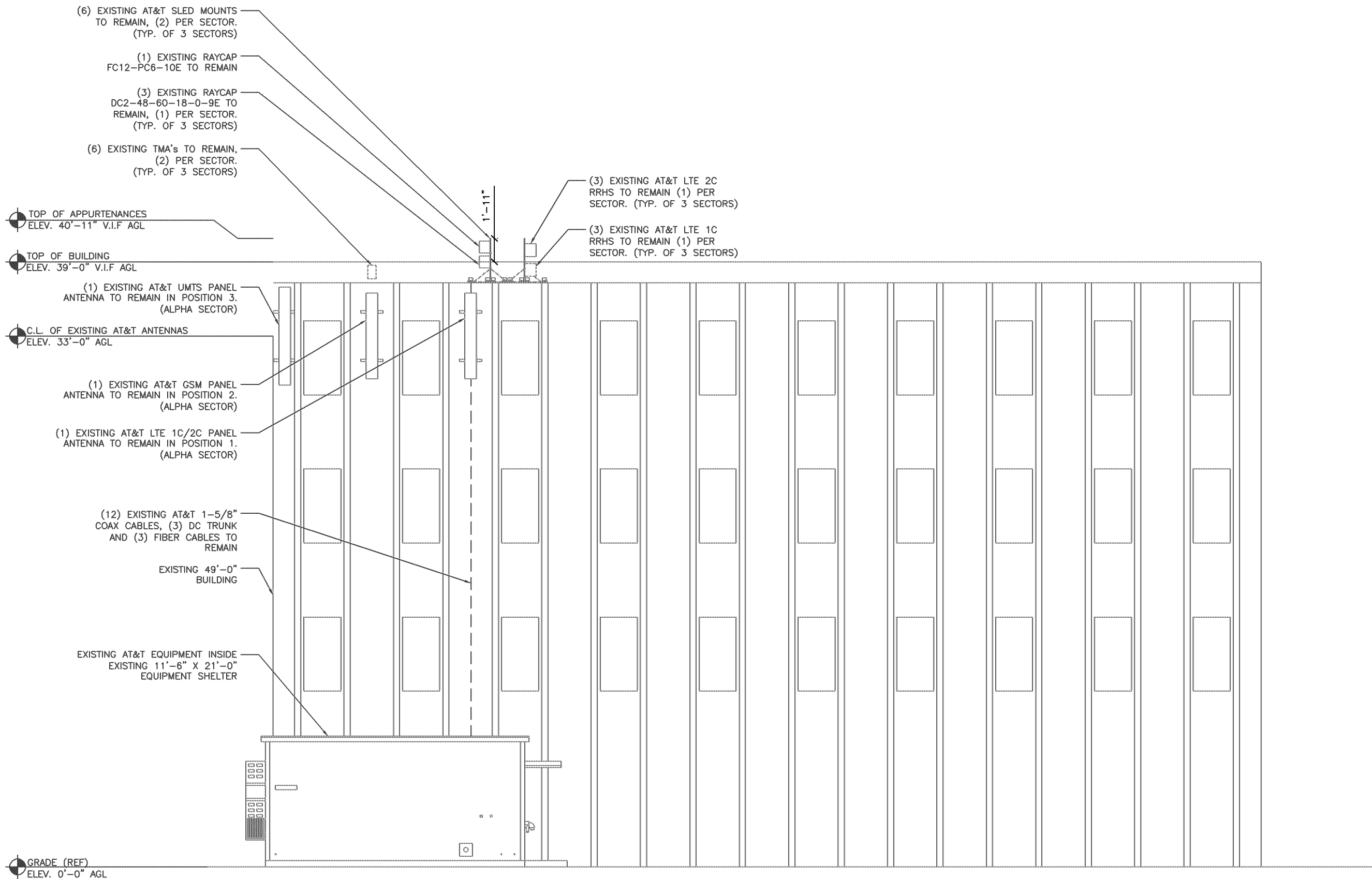
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

LTE 3C
10104056
35W & 106TH STREET
10800 LYNDALE AVE S
BLOOMINGTON, MN 55420

SHEET TITLE
COMPOUND PLAN & SITE PHOTOS

SHEET NUMBER
A-1

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.



CARRIER:

4300 MARKET POINTE DR
STE 350 BLOOMINGTON, MN 55435

PLAN PREPARED FOR:

1501 E. WOODFIELD RD.
SUITE #300E
SCHAUMBURG, IL 60178
www.sacw.com
647.944.1600
A NOKIA COMPANY

PLAN PREPARED BY:

112 S. KYRENE RD. STE. 1
CHANDLER, AZ 85226
ARIZONA: 480-961-9151
LETS PROJ. #: LETS-ATT-MNP-012

REVISIONS

REV.	DATE	DESCRIPTION	INITIALS
A	09/21/15	90% CD'S	VSK
B	09/25/15	95% CD'S	JNA
C	11/25/15	95% CD'S	KNK
D	01/21/16	95% CD'S	JNA
0	02/03/16	FOR CONSTRUCTION	ME
△	02/04/16	CLIENT COMMENTS	SBA
△	02/12/16	CLIENT COMMENTS	SBA

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

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 Structural Engineer under the laws of the State of Minnesota.
Print Name: MADHAN KUMAR KANTHA SAMY
Signature: *[Signature]*
Date: 02/12/16 License # 51479

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

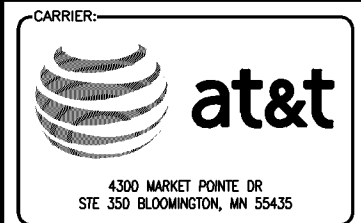
LTE 3C
10104056
35W & 106TH STREET
10800 LYNDALE AVE S
BLOOMINGTON, MN 55420

SHEET TITLE
EXISTING BUILDING ELEVATION

SHEET NUMBER
A-3

NOTES:

1. BUILDING STRUCTURAL CALCULATIONS IS PREPARED BY OTHERS. CONTRACTOR TO VERIFY WITH PROJECT MANAGER TO OBTAIN A COPY
2. CONTRACTOR SHALL REFER TO BUILDING STRUCTURAL CALCULATIONS FOR ADDITIONAL LOADS. NO ERECTION OR MODIFICATION OF BUILDING SHALL BE MADE WITHOUT APPROVAL OF STRUCTURAL ENGINEER.
3. ALL PROPOSED ANTENNAS AND OTHER APPURTENANCES SUCH AS FEED LINES AND/OR JUMPER MOUNTING PIPES, BRACKETS, SHALL BE PAINTED TO MATCH EXISTING CONDITIONS AND EXISTING AT&T ANTENNAS.
4. NOTE: DO NOT PAINT EXISTING RRHS OR PROPOSED 3C RRHS



REVISIONS			
REV.	DATE	DESCRIPTION	INITIALS
A	09/21/15	90% CD'S	VSK
B	09/25/15	95% CD'S	JNA
C	11/25/15	95% CD'S	KNK
D	01/21/16	95% CD'S	JNA
0	02/03/16	FOR CONSTRUCTION	ME
△	02/04/16	CLIENT COMMENTS	SBA
△	02/12/16	CLIENT COMMENTS	SBA

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

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 Structural Engineer under the laws of the State of Minnesota. Print Name: MADHAN KUMAR KANTHA SAMY
 Signature: *[Signature]*
 Date: 02/12/16 License # 51479

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

LTE 3C
 10104056
 35W & 106TH STREET
 10800 LYNDALE AVE S
 BLOOMINGTON, MN 55420

SHEET TITLE
PROPOSED BUILDING ELEVATION

SHEET NUMBER
A-3.1

- (6) EXISTING AT&T SLED MOUNTS, (2) PER SECTOR. (TYP. OF 3 SECTORS)
- (1) EXISTING RAYCAP FC12-PC6-10E
- (3) EXISTING RAYCAP DC2-48-60-18-0-9E, (1) PER SECTOR. (TYP. OF 3 SECTORS)
- (6) EXISTING TMA's, (2) PER SECTOR. (TYP. OF 3 SECTORS)
- (3) PROPOSED RAYCAP DC2-48-60-0-9E, (1) PER SECTOR. (TYP. OF 3 SECTORS) -SEE DETAIL 6/A-6
- (3) PROPOSED AT&T LTE 3C RRH'S, (1) PER SECTOR. (TYP. OF 3 SECTORS) -SEE DETAIL 5/A-6
- (3) EXISTING AT&T LTE 2C RRHS, (1) PER SECTOR. (TYP. OF 3 SECTORS)
- (3) EXISTING AT&T LTE 1C RRHS, (1) PER SECTOR. (TYP. OF 3 SECTORS)

- TOP OF APPURTENANCES
ELEV. 40'-11" V.I.F AGL
- TOP OF BUILDING
ELEV. 39'-0" V.I.F AGL
- C.L. OF PROPOSED & EXISTING AT&T ANTENNAS
ELEV. 33'-0" AGL

- (1) EXISTING AT&T UMTS PANEL ANTENNA IN POSITION 4. (ALPHA SECTOR)
- (1) EXISTING AT&T GSM PANEL ANTENNA IN POSITION 3. (ALPHA SECTOR)
- (1) EXISTING AT&T LTE 1C/2C PANEL ANTENNA IN POSITION 2. (ALPHA SECTOR)
- (12) EXISTING AT&T 1-5/8" COAX CABLES, (3) DC TRUNK AND (3) FIBER CABLES
- EXISTING 49'-0" BUILDING

- (2) PROPOSED AT&T LTE 3C PANEL ANTENNAS, (1) PER SECTOR IN POSITION 1. (ALPHA & BETA SECTORS) -SEE DETAILS 1/A-6
- (2) PROPOSED WALL MOUNTS, (1) PER SECTOR IN POSITION 1. (ALPHA & BETA SECTORS) -SEE DETAIL 4/A-6.1

PROPOSED & EXISTING AT&T EQUIPMENT INSIDE EXISTING 11'-6" X 21'-0" EQUIPMENT SHELTER

GRADE (REF)
ELEV. 0'-0" AGL

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.