

CITY OF LAS VEGAS, NEVADA

APPROVED FOR CONSTRUCTION

THIS APPROVAL IS FOR WORK IN CITY OF LAS VEGAS ROW OR CITY OF LAS VEGAS EASEMENTS ONLY. OBTAINING PERMISSION OR EASEMENTS FOR WORK SHOWN ON PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE UTILITY.

L19-00930

107V7846-F1B

APPROVAL:

DATE:

7/16/19

CONTACT INFORMATION

ENGINEER: BLACK & VEATCH CORPORATION
8965 S EASTERN AVE, SUITE #325
LAS VEGAS, NV 89123

CONTACT: JASON FRAYER
(702) 460-8926

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE, NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

PROJECT DESCRIPTION

AT&T WIRELESS PROPOSES A NEW WIRELESS INSTALLATION ON A LIGHT POLE. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- INSTALL (1) CANISTER ANTENNA
- INSTALL (1) ANTENNA MOUNT
- INSTALL (3) RADIO UNITS
- INSTALL (2) CROSS BAND COMBINERS
- INSTALL (1) RF DISCONNECT
- INSTALL (1) HANDHOLE
- INSTALL (1) PULL BOX

By others: COX

PROJECT INFORMATION

PROPERTY OWNER: CITY OF LAS VEGAS

SITE CONTACT: NA

FA NUMBER: 14856588

USID: 231644

PAGE ID: WRSOLO26223

COUNTY: CLARK

LATITUDE (NAD 83): 36.280619°

LONGITUDE (NAD 83): -115.266153°

GROUND ELEVATION: 2421.84' A.M.S.L.

ANTENNA TIP HEIGHT: 29'-11" AGL

ZONING JURISDICTION: CITY OF LAS VEGAS

ZONING DISTRICT: CITY OF LAS VEGAS

PARCEL #: 12521812001

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: I-B

POWER COMPANY: NV ENERGY

RF ENGINEER: BRIAN CRISS
(702) 768-0163

LEASING AGENT: JASON FRAYER
(702) 460-8926

ZONING AGENT: JASON FRAYER
(702) 460-8926

CONSTRUCTION MANAGER: SUMANTH CHEJARLA
CHEJARLAS@BV.COM

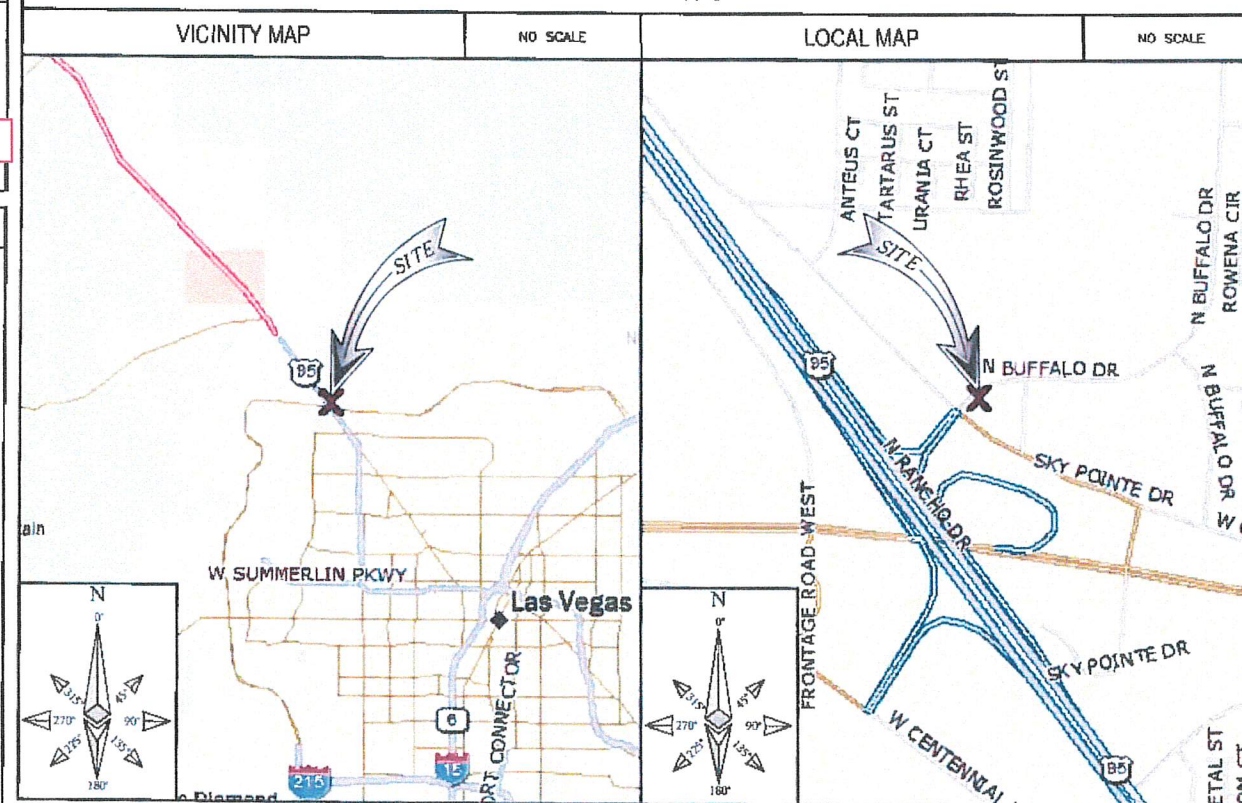


CRAN_NVL08296F_R02

USID #: 231644
PICO SMALL CELL

ADJACENT TO
BUFFALO & SKYPOINT
LAS VEGAS, NV 89117

LOCATION MAPS



DRIVING DIRECTIONS

DIRECTIONS FROM AT&T OFFICE:

FROM 10550 W CHARLESTON, LAS VEGAS, NV: GO STRAIGHT ON SR 159, GO TURN LEFT ONTO S TOWN CENTER DR, GO KEEP LEFT ONTO N TOWN CENTER DR, GO TURN RIGHT ONTO E SUMMERLIN PKWY, GO KEEP RIGHT ONTO N RAINBOW BLVD RAMP, GO TURN LEFT ONTO N RAINBOW BLVD, GO TURN LEFT ONTO GRAM K GRACSON EXPT RAMP, GO KEEP LEFT ONTO US 95 RAMP, TAKE EXIT ON 91, GO KEEP RIGHT ONTO SKY POINTE DR RAMP, GO KEEP LEFT ON SKY POINTE DR RAMP, GO TURN LEFT ONTO SKY POINTE DR, GO TURN RIGHT ONTO N BUFFALO DR. SITE WILL BE ON THE RIGHT.

APPLICABLE CODES

JURISDICTION: CITY OF LAS VEGAS, NEVADA

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN CONFORMING TO THESE CODES.

• 2012 INTERNATIONAL BUILDING CODE (IBC) WITH NEVADA STATE AMENDMENTS

• 2011 NATIONAL ELECTRIC CODE (NEC) WITH NEVADA STATE AMENDMENTS

IN THE EVENT OF A CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL.

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST ISSUE; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.

APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & MAY IMPOSE CHANGES OR MODIFICATIONS.

LEASING REPRESENTATIVE: _____ DATE: _____

ZONING VENDOR: _____ DATE: _____

AT&T RF ENGINEER: _____ DATE: _____

CONSTRUCTION MANAGER: _____ DATE: _____

AT&T CX MANAGER: _____ DATE: _____

SITE ACQUISITION MANAGER: _____ DATE: _____

A/E MANAGER: _____ DATE: _____

AT&T PROJECT MANAGER: _____ DATE: _____

PROPERTY OWNER: _____ DATE: _____

DRAWING INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	EXPANDED SITE PLAN AND UTILITY ROUTE
A-1.1	ENLARGED SITE PLAN
A-2	POLE ELEVATIONS AND RISER DETAILS
A-3	EQUIPMENT DETAILS
A-4	EQUIPMENT DETAILS
E-1	ELECTRICAL DETAILS AND DIAGRAMS
E-2	ELECTRICAL CALCULATIONS AND SCHEDULES
E-3	ELECTRICAL ONE-LINE DIAGRAM
G-1	GROUNDING DIAGRAMS
GN-1	GENERAL NOTES, LEGEND AND ABBREVIATIONS
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES

FOR REFERENCE

LS-1	SMALL CELL SITE SURVEY
-	CITY OF LAS VEGAS CELL SITE APPROVAL

AS-BUILT REDEFINE	
THE MARK-UP ON THIS DRAWING REFLECTS THE AS-BUILT INSTALLATION	
Subcontractor	Date
Wecom Inc.	12.31.19
Field Coordinator	Date
Marked Engineer: Shall Review Redline Drawings To Ensure Changes Are Not Allowed To Be Made To Original Design Before Approval	
Checked Engineer	Date
Patrick Fleming	12.31.19

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

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



UNDERGROUND
SERVICE ALERT
811 or
1-800-642-2444
48 HOURS BEFORE YOU DIG



Know what's below.
Call before you dig.



AT&T MOBILITY
10550 W. CHARLESTON
SUITE B
LAS VEGAS, NV 89135



BLACK & VEATCH

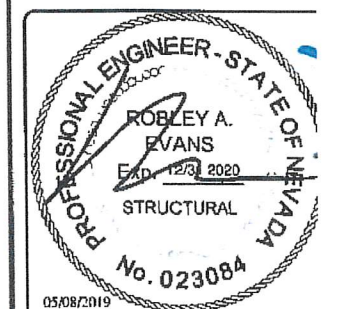
BLACK & VEATCH CORPORATION
8965 S EASTERN AVE
SUITE #325
LAS VEGAS, NV 89123

PROJECT NO: 129084.151

DRAWN BY: SA

CHECKED BY: GM

REV	DATE	DESCRIPTION
0	05/08/19	ISSUED FOR REVIEW



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

NVL08296F_R02
ADJACENT TO
BUFFALO & SKYPOINT
LAS VEGAS, NV 89117
PICO SMALL CELL

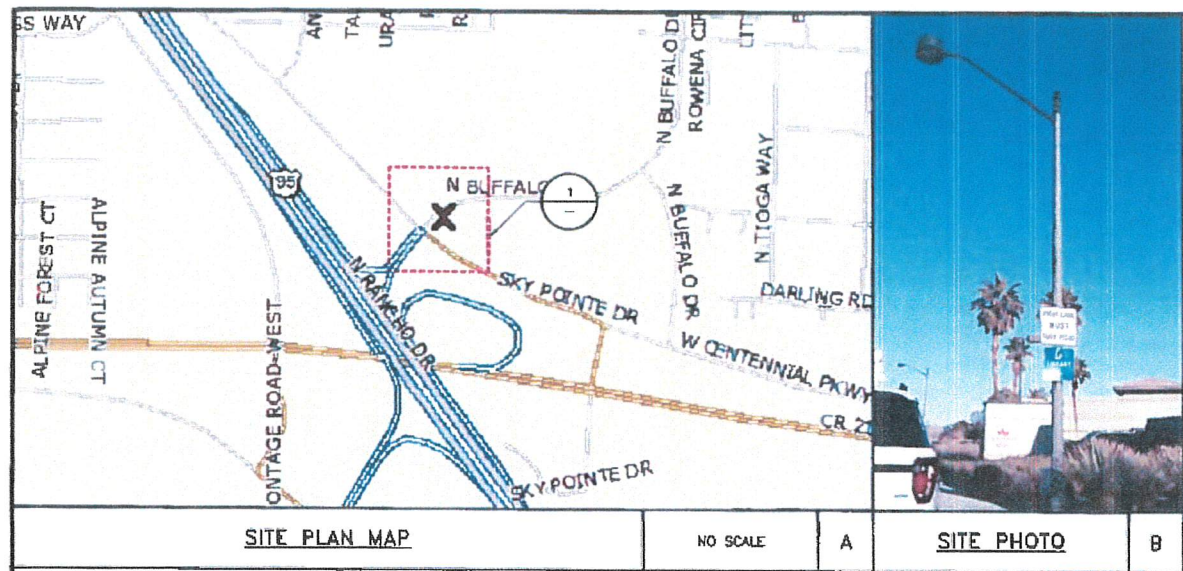
SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

811



AS-BUILT REDLINE	
THE MARK-UP ON THIS DRAWING REFLECTS THE AS-BUILT INSTALLATION	
Subcontractor	Wecom Inc.
Date	12.31.19
Fiber Coordinator	
Date	
Market Engineer	Shelley Boller
Change Order	01/01/2020
Code Compliance	
Market Lead Engineer	Patrick Fleming
Date	12.31.19

THIS DRAWING IS NOT A SITE SURVEY
THE PURPOSE OF THIS DRAWING IS TO SHOW HOW THE DEVELOPED SITE RELATES TO THE PARENT PARCEL AND ADJACENT PROPERTIES. R.O.W. MEASUREMENTS ARE APPROXIMATIONS.

at&t
AT&T MOBILITY
10550 W. CHARLESTON
SUITE 8
LAS VEGAS, NV 89135

BLACK & VEATCH
BLACK & VEATCH CORPORATION
8965 S EASTERN AVE
SUITE #325
LAS VEGAS, NV 89123

PROJECT NO: 129084.151
DRAWN BY: SAI
CHECKED BY: GAK

REV	DATE	DESCRIPTION
0	05/06/19	ISSUED FOR REVIEW

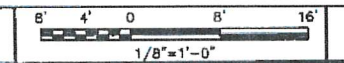
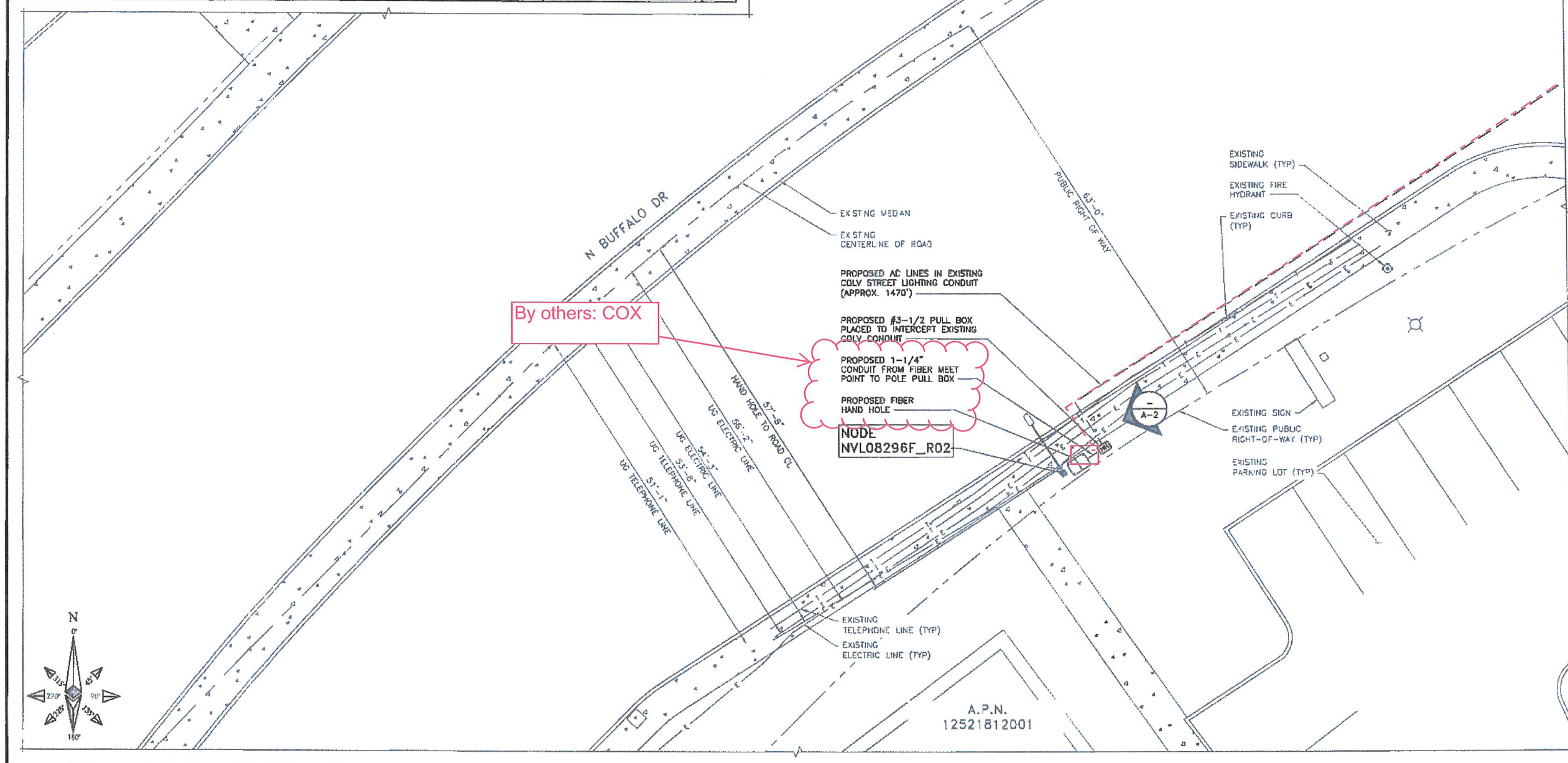
PROFESSIONAL ENGINEER - STATE OF NEVADA
ROBLEY A. EVANS
Exp. 12/31/2020
STRUCTURAL
No. 023084
05/07/2019

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NVL08296F_R02
ADJACENT TO
BUFFALO & SKYPOINT
LAS VEGAS, NV 89117
PICO SMALL CELL

SHEET TITLE
ENLARGED SITE PLAN

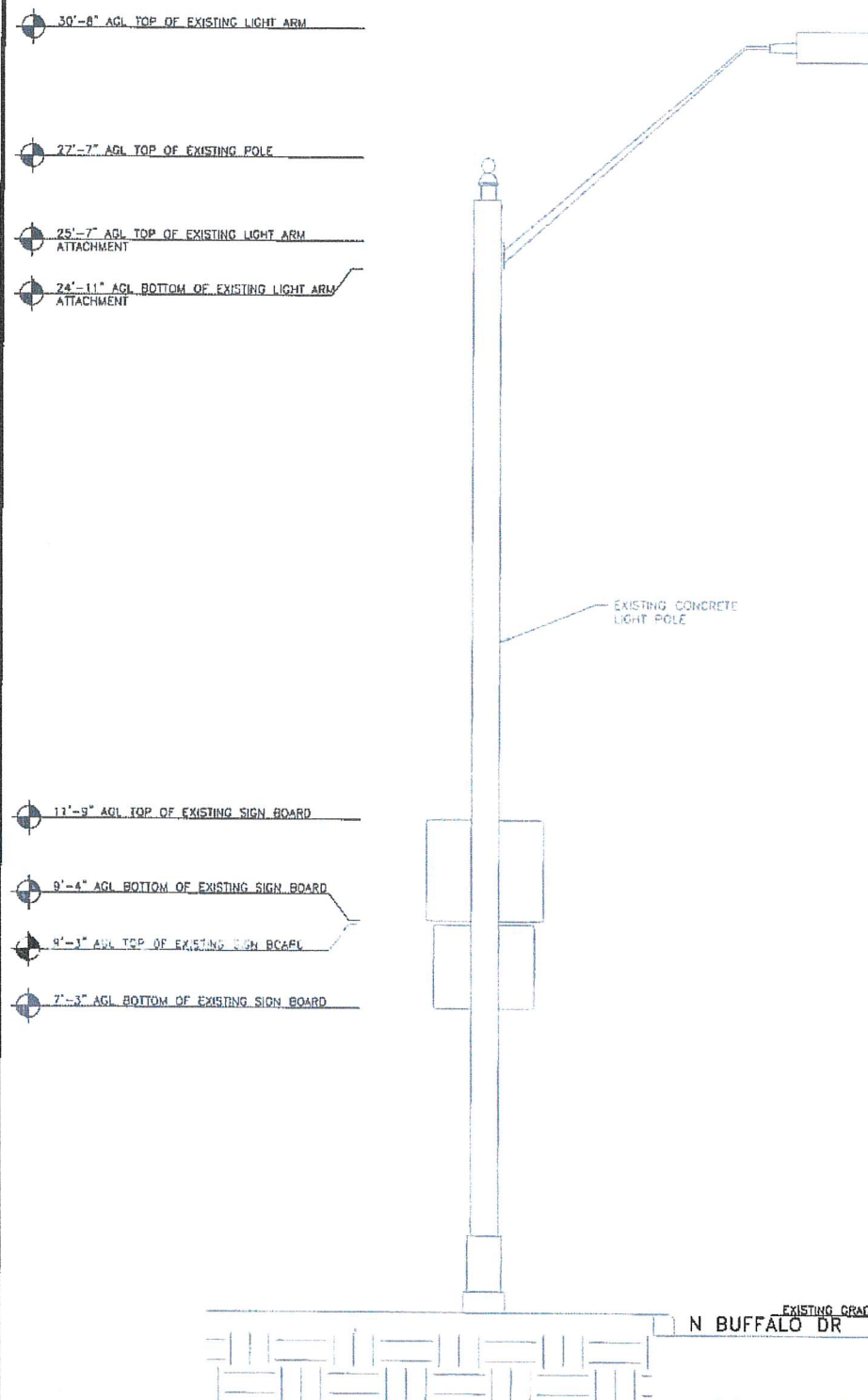
SHEET NUMBER
A-1.1



ENLARGED SITE PLAN

NOTE

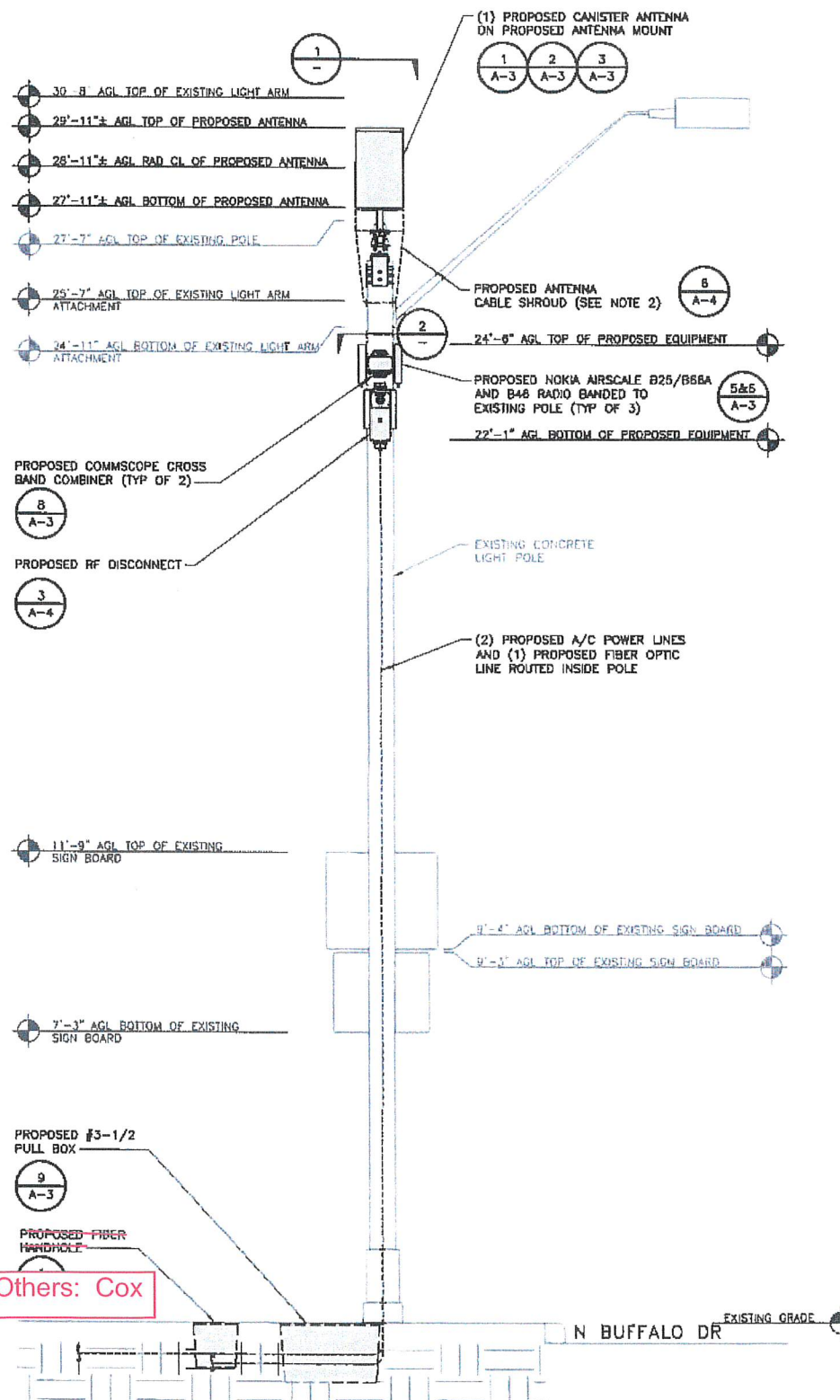
THESE DRAWINGS HAVE BEEN CREATED BASED ON STRUCTURAL CALCULATIONS PERFORMED BY BLACK & VEATCH CONFIRMING THAT THE STRUCTURE HAS SUFFICIENT CAPACITY TO SUPPORT THE PROPOSED LOADING



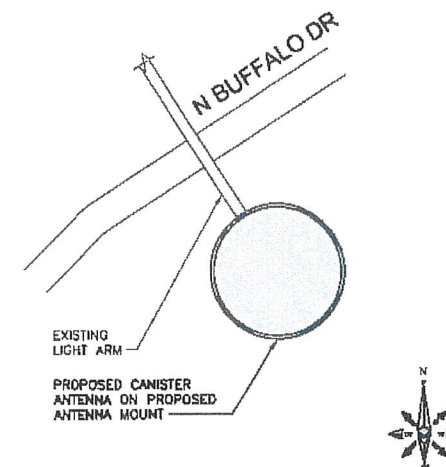
EXISTING NORTHEAST ELEVATION

NOTE

1. REFER TO THE RFDs FOR THIS NODE FOR THE AZIMUTH INFORMATION.
2. CABLE SHROUD NOT ENTIRELY SHOWN FOR CLARITY.
3. ALL EQUIPMENT TO BE PAINTED TO MATCH EXISTING STRUCTURE.
4. ALL POLE PENETRATIONS TO BE SEALED AGAINST WATER AND INSECT INTRUSION



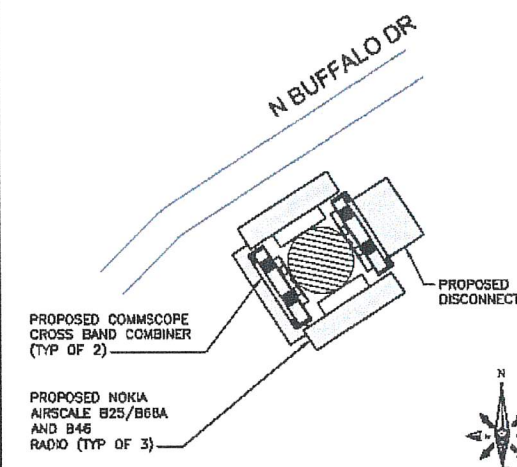
PROPOSED NORTHEAST ELEVATION



ANTENNA PLAN VIEW

NO SCALE

1



RADIO PLAN VIEW

NO SCALE

2

AS-BUILT REDLINE	
THE MARKUP ON THIS DRAWING REFLECTS THE AS-BUILT INSTALLATION.	
Subcontractor	Date
Wecom Inc.	12.31.19
Field Coordinator	Date
Marked Engineer Shall Review Redline Drawings To Ensure Changes Do Not Affect The Original Design Intent. Approval Code/Initials	
Marked Level Engineer	Date
Patrick Fleming	12.31.19

NOT USED

NO SCALE

3



AT&T MOBILITY
10550 W. CHARLESTON
SUITE B
LAS VEGAS, NV 89135

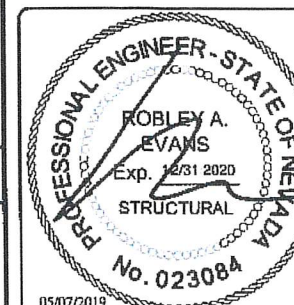


BLACK & VEATCH

BLACK & VEATCH CORPORATION
8865 S EASTERN AVE
SUITE #325
LAS VEGAS, NV 89123

PROJECT NO: 129084.1512
DRAWN BY: SAL
CHECKED BY: GAC

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NVL08296F_R02
ADJACENT TO
BUFFALO & SKYPOINT
LAS VEGAS, NV 89117
PICO SMALL CELL

SHEET TITLE
**POLE ELEVATIONS
AND RISER DETAILS**

SHEET NUMBER

A-2



NOTICE

RF energy emitted by this device may exceed the FCC's general public exposure limits. Stay at least 1 foot away from the device. Call 800-638-2822 for help if you need access within 1 foot.

RF NOTICE DECAL

AT&T operates antennas at this structure.

Above this point you are entering an area where radio frequency (RF) fields may exceed the FCC General Population Exposure limits.

Follow safety guidelines for working in an RF environment.

Keep 1 ft. away from the fronts of antennas.

Contact AT&T at 800-638-2822, ext. 9, 3 and follow their instructions prior to performing any maintenance or repairs above this point.

This is AT&T Site USID

CAUTION

AT&T operates antennas at this structure.

Above this point you are entering an area where radio frequency (RF) fields may exceed the FCC General Occupational Exposure limits.

Follow safety guidelines for working in an RF environment.

Keep 1 ft. away from the fronts of antennas.

Contact AT&T at 800-638-2822, ext. 9, 3 and follow their instructions prior to performing any maintenance or repairs above this point.

Cell Site USID

EME PLACARD/DECAL

NOTE: SPECIFIC EME PLACARD WILL BE PLACED AFTER EME REPORT

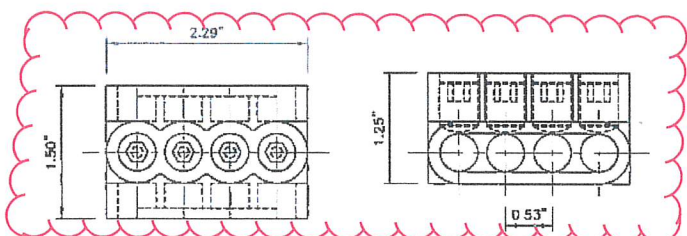
RF SIGNAGE DETAIL

NO SCALE

1

MULTI-TAP CONNECTOR WITH CLEAR INSULATION, DOUBLE-SIDED (PCSB4-4-6Y)

Not Used



CONNECTOR DETAIL

NO SCALE

2

BUSSMANN - HEB SERIES

BREAKAWAY MODEL#: HEB-AW-RLC-A (5.8" LONG)

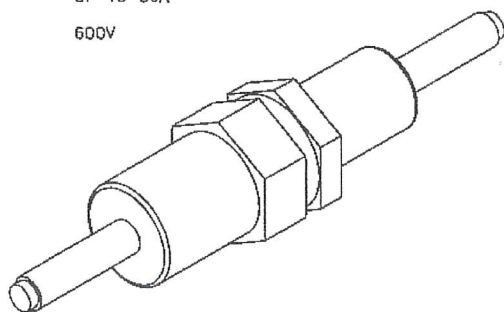
NON-BREAKAWAY MODEL#: HEB-AA (4.4" LONG)

WIRE RANGE: #8-16; (2) #12-16

RECOMMENDED FUSES: BAF, FNM, FNO, KLM AND KTK

AMPS: UP TO 30A

VOLTS: 600V



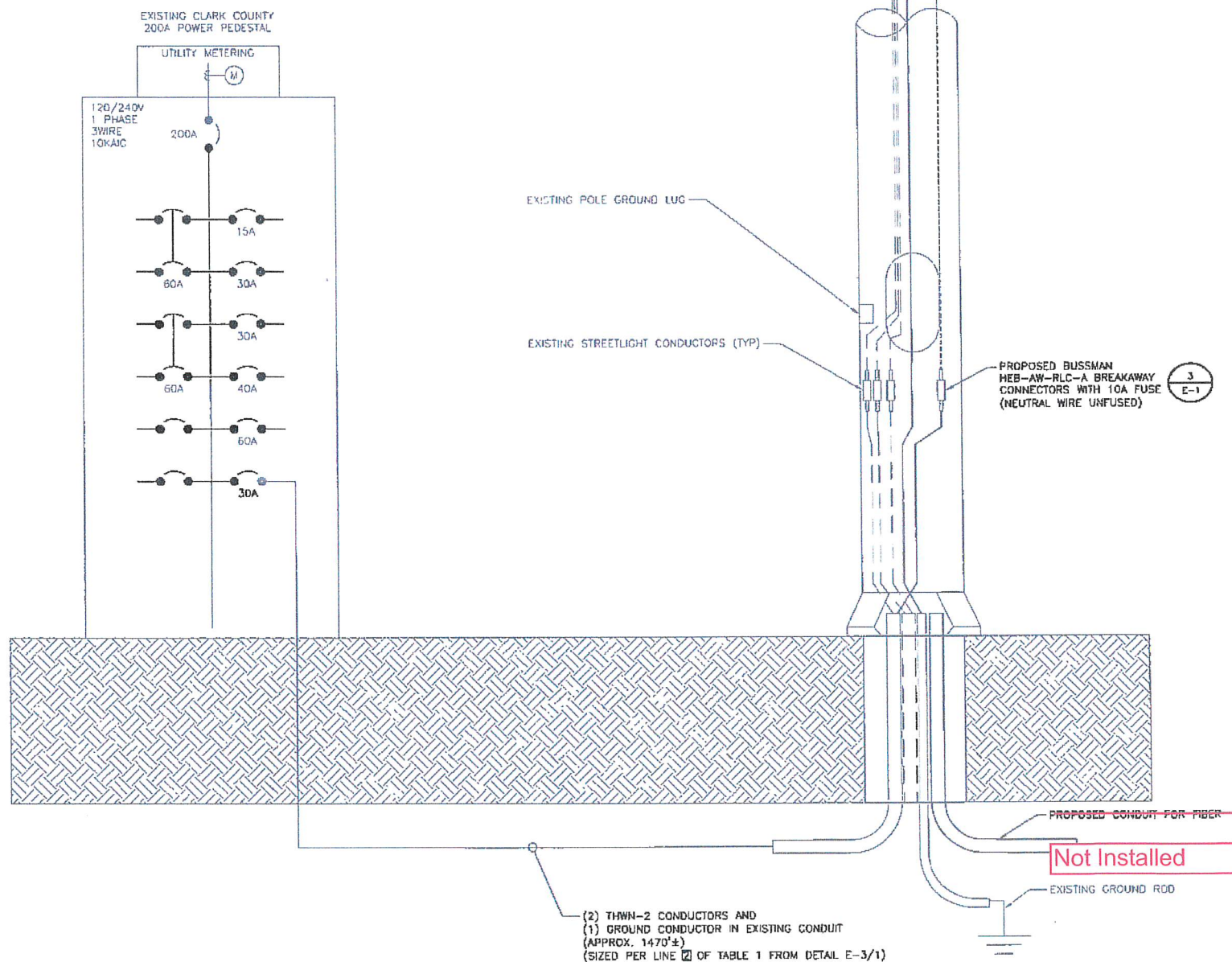
PROPOSED BREAKAWAY AND NON-BREAKAWAY IN-LINE FUSE HOLDER

NO SCALE

3

NOTES

1. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. ALL NEW CONDUCTOR WIRE TO BE INSTALLED SHALL BE COPPER THWN-2, THW-2, RHW-2, XHHW-2 WIRE UNLESS NOTED OTHERWISE.
3. ALL GROUNDING AND BONDING TO BE PER THE RECOGNIZED EDITION OF THE NATIONAL ELECTRIC CODE (NEC).
4. ALL INSTALLED CONDUCTORS AND SIGNAL CABLES TO BE CLEARLY MARKED "COX COMMUNICATIONS" WITH BRASS OR FIBERGLASS TAGS.



TYPICAL POLE SITE TEMPLATE

NO SCALE

4



AT&T MOBILITY
10550 W. CHARLESTON
SUITE B
LAS VEGAS, NV 89135



BLACK & VEATCH

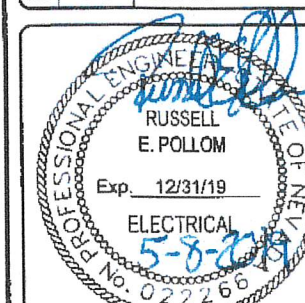
BLACK & VEATCH CORPORATION
8865 S EASTERN AVE
SUITE #325
LAS VEGAS, NV 89123

PROJECT NO: 128084.151

DRAWN BY: SA

CHECKED BY: CA

REV	DATE	DESCRIPTION
0	05/08/19	ISSUED FOR REVIEW
3		E-1



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

NVLO8296F_R02
ADJACENT TO
BUFFALO & SKYPOINT
LAS VEGAS, NV 89117
PICO SMALL CELL

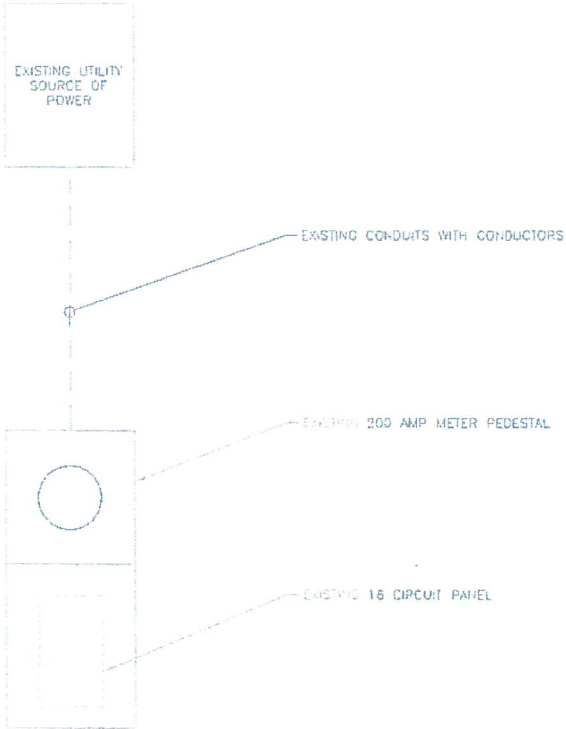
SHEET TITLE
ELECTRICAL DETAILS
AND DIAGRAMS

SHEET NUMBER

E-1

EXISTING ELECTRICAL LOAD STUDY

EXISTING LOAD.....27.05 AMPS
ALLOWED LOAD 80%.....160.00 AMPS



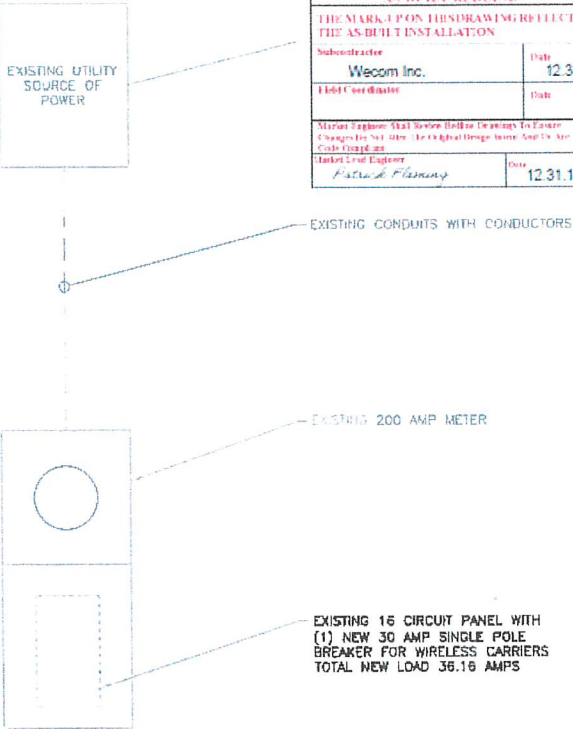
EXISTING SINGLE LINE DIAGRAM

NO SCALE

1

PROPOSED ELECTRICAL LOAD STUDY

EXISTING LOAD.....27.05 AMPS
SAFETY FACTOR 125%.....33.82 AMPS
PROPOSED LOAD.....2.34 AMPS
TOTAL LOAD.....36.16 AMPS
ALLOWED LOAD 80% OF 200 AMPS.....160.00 AMPS



PROPOSED SINGLE LINE DIAGRAM

NO SCALE

2

Site Name:		BUFFALO & SKYPOINT						MODEL NUMBER:		EXISTING CLARK COUNTY METER AND LOAD CENTER PEDESTAL							
SITE NUMBER:		CRAN_NVL08296F_R02						PHASE:		1		WIRE:		3			
VOLTAGE:		240 /120		Volts AC		BUS S RATING:		200		AMPS							
MAIN BREAKER:		200 AMP															
MOUNT:		SURFACE															
ENCLOSURE TYPE:		NEMA 3R															
PANEL STATUS:		EXISTING															
CKT	LOAD DESCRIPTION	BREAKER AMPS	BREAKER POLES	BREAKER STATUS	SERVICE LOAD VA	Demand Factor	USAGE FACTOR	PHASE A VA	PHASE B VA	USAGE FACTOR	Demand Factor	SERVICE LOAD VA	BREAKER STATUS	BREAKER POLES	BREAKER AMP	LOAD DESCRIPTION	CKT
1	STREET LIGHTS	60	2	ON	972.00	1.00	1.25	1380		1.25	1.00	132	ON	1	15	PHOTO CELL	2
3					972.00	1.00	1.25		1965	1.25	1.00	600	ON	1	30	EXISTING LOAD	4
5	STREET LIGHTS	60	2	ON	1104	1.00	1.25	1380		1.00	1.00	0	OFF	1	30	SPARE	6
7					1104	1.00	1.25		2910	1.25	1.00	1224	ON	1	40	EXISTING LOAD	8
9								480		1.25	1.00	384	ON	1	60	EXISTING LOAD	10
11									0								12
13								0									14
15									563	1.25	1.00	450	NEW	1	30	PACTECHSOL PTS90122-3-AA777-PN-8	16
								PHASE A	PHASE B								
								3240	5438	VA							
								TOTAL	KVA	8.68							
									AMPS	36.16							

PROPOSED PANEL SCHEDULE AND CALCS

NO SCALE

3



AT&T MOBILITY
10550 W. CHARLESTON
SUITE B
LAS VEGAS, NV 89135

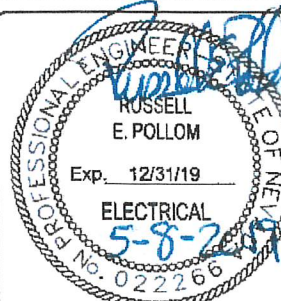


BLACK & VEATCH

BLACK & VEATCH CORPORATION
8865 S EASTERN AVE
SUITE #325
LAS VEGAS, NV 89123

PROJECT NO: 129084 151
DRAWN BY: S
CHECKED BY: CA

0 05/06/19 ISSUED FOR REVIEW
REV DATE DESCRIPTION



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ADJACENT TO
BUFFALO & SKYPOINT
LAS VEGAS, NV 89117
PICO SMALL CELL

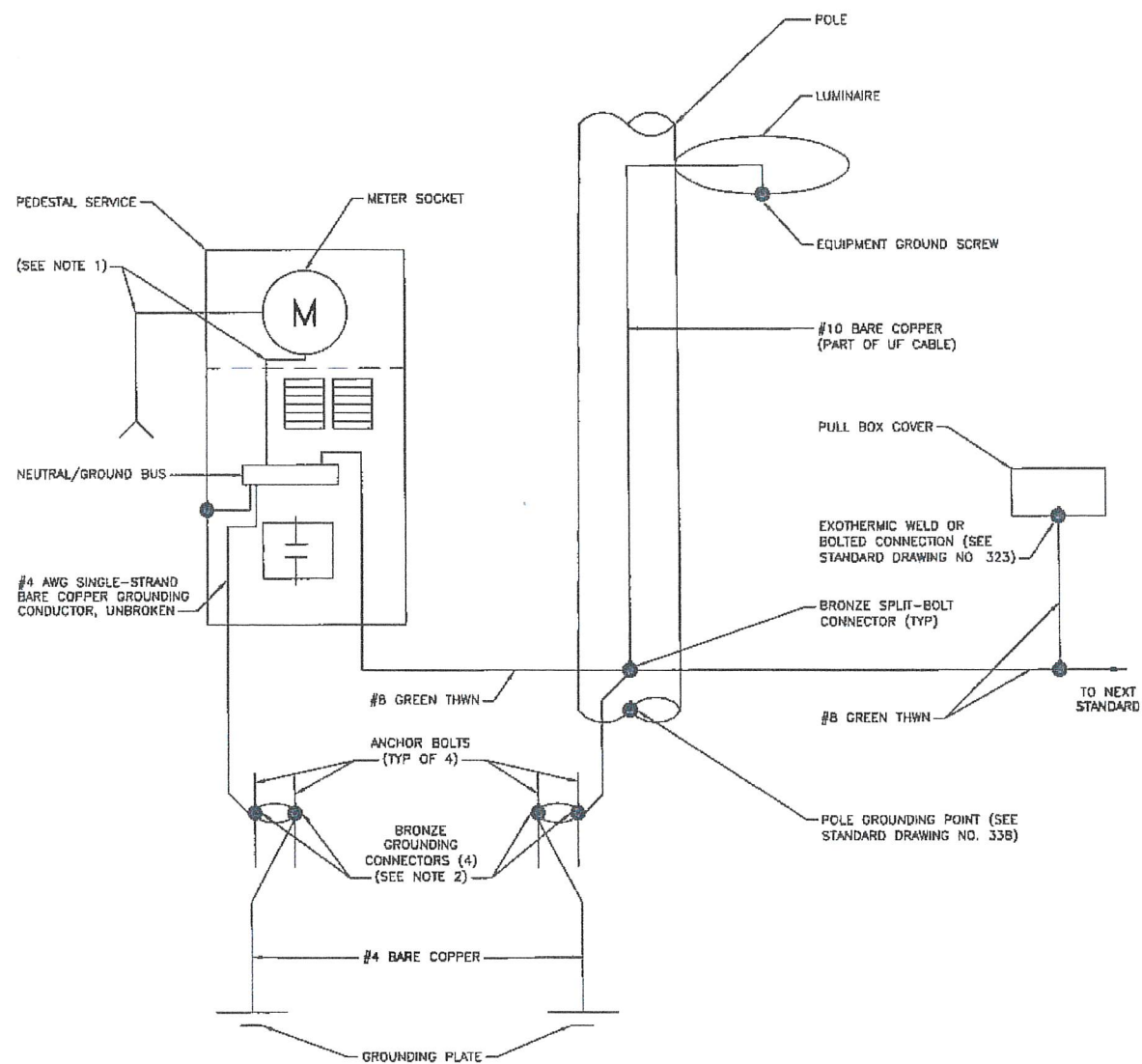
SHEET TITLE
ELECTRICAL CALCULATION
AND SCHEDULES

SHEET NUMBER

E-2

NOTES

1. FOR CONDUIT SIZE AND WIRING REQUIREMENTS FOR STREETLIGHT SERVICE, SEE STANDARD DRAWING NO. 332.52 FOR LAS VEGAS AND CLARK COUNTY ONLY AND 332.51 FOR ALL OTHER ENTITIES.
2. SEE STANDARD DRAWING NO. 321, 332.51, OR 332.52.



METER PEDESTAL GROUNDING DIAGRAM

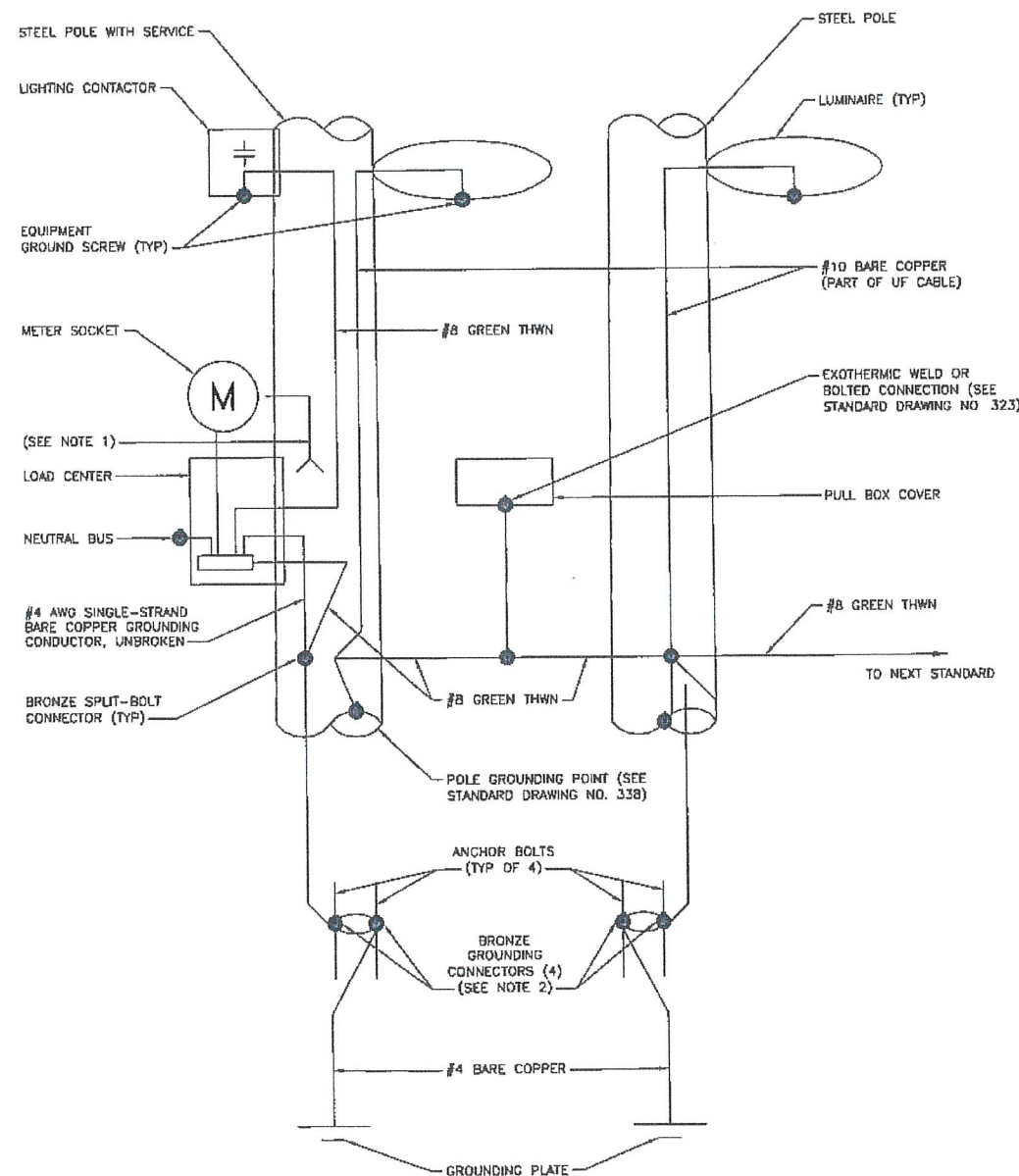
NO SCALE

1

NOTES

1. 125 AMP SERVICE: 1 #4 WHITE THW
2. 200 AMP SERVICE: 1 #1/0 WHITE THW

AS-BUILT REDLINE	
THE MARK-UP ON THIS DRAWING REFLECTS THE AS-BUILT INSTALLATION	
Subcontractor	Date
Wecom Inc.	12.31.19
Field Coordinator	Date
Marked Engineer	Date
Patrick Fleming	12.31.19



POLE EQUIPMENT GROUNDING DIAGRAM

NO SCALE

2



AT&T MOBILITY
10550 W. CHARLESTON
SUITE B
LAS VEGAS, NV 89135



BLACK & VEATCH

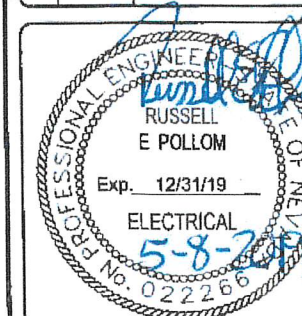
BLACK & VEATCH CORPORATION
8965 S EASTERN AVE
SUITE #325
LAS VEGAS, NV 89123

PROJECT NO: 129084.151

DRAWN BY: S/

CHECKED BY: G/

REV	DATE	DESCRIPTION
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NVL08296F_R02
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BUFFALO & SKYPOINT
LAS VEGAS, NV 89117
PICO SMALL CELL

SHEET TITLE
GROUNDING DIAGRAMS

SHEET NUMBER

G-1

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
GENERAL CONTRACTOR - OVERLAND CONTRACTING INC. (B&V)
SUBCONTRACTOR - CONTRACTOR (CONSTRUCTION)
OWNER - AT&T
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS.
3. GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL VISIT THE SITE AND SHALL BECOME FAMILIAR WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR AND SUBCONTRACTOR 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 SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOWN 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 SUBCONTRACTOR 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 SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER AND OSA 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 CONFORM 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 ANY PENETRATION WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. SUBCONTRACTOR 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. SUBCONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
15. SUBCONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
17. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND SUBCONTRACTORS 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 AND SUBCONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A10-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 SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR 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. SUBCONTRACTOR 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.
40. ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
41. CONTRACTOR TO ENSURE LOCATES ARE COMPLETED PRIOR TO DIGGING IN THE ROW. IF UTILITIES ARE INDICATED WITHIN 3 FEET OF THE PROPOSED ROUTE, OR IF CROSSING EXISTING UTILITY, CONTRACTOR TO POT HOLE EXISTING UTILITY TO DETERMINE DEPTH AND EXACT LOCATION PRIOR TO CONSTRUCTION. IF UTILITY IS DAMAGED DURING THE INSTALLATION OF THE NEW CONDUIT, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT THE UTILITY IMMEDIATELY AND IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO HAVE ANY DAMAGE FIXED AND/OR REPAIRED PRIOR TO CLOSING THE EXCAVATION.

GENERAL NOTES

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
- TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
- EXOTHERMIC WITH INSPECTION SLEEVE
- GROUNDING BAR
- GROUND ROD
- TEST GROUND ROD WITH INSPECTION SLEEVE
- SINGLE POLE SWITCH
- DUPLEX RECEPTACLE
- DUPLEX GFCI RECEPTACLE
- FLUORESCENT LIGHTING FIXTURE
(2) TWO LAMPS 48-T8
- SMOKE DETECTION (DC)
- EMERGENCY LIGHTING (OC)
- SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW
LED-1-25A400/51K-SR4-120-PE-DOBTXO
- CHAIN LINK FENCE
- WOOD/WROUGHT IRON FENCE
- WALL STRUCTURE
- LEASE AREA
- PROPERTY LINE (PL)
- SETBACKS
- ICE BRIDGE
- CABLE TRAY
- WATER LINE
- UNDERGROUND POWER
- UNDERGROUND TELCO
- OVERHEAD POWER
- OVERHEAD TELCO
- UNDERGROUND TELCO/POWER
- ABOVE GROUND POWER
- ABOVE GROUND TELCO
- ABOVE GROUND TELCO/POWER
- ABOVE GROUND FIBER
- ABOVE GROUND FIBER/POWER
- UNDERGROUND FIBER
- UNDERGROUND FIBER/POWER
- UNDERGROUND DUCT
- ABOVE GROUND POWER/AC
- ABOVE GROUND POWER/DC
- SECTION REFERENCE
- DETAIL REFERENCE
- ELEVATION REFERENCE
- BREAKLINE

LEGEND

AB	ANCHOR BOLT	INT	INTERIOR
ABV	ABOVE	LB(S)	POUND(S)
AC	ALTERNATING CURRENT	LF	AS-BUILT REDLINE
ADDL	ADDITIONAL	LT	THE MARK-UP ON THIS DRAWING REFLECTS THE AS-BUILT INSTALLATION
AFT	ABOVE FINISHED FLOOR	MA	Subcontractor
AFG	ABOVE FINISHED GRADE	ME	Wecom Inc.
AIC	AMPERAGE INTERRUPTION CAPACITY	ME	Field Coordinator
ALUM	ALUMINUM	MF	Marked Engineer: That Review Redlines Drawings To Ensure Changes Do Not Alter The Original Design Intent And To Assure Code Compliance
ALT	ALTERNATE	MG	Marked Lead Engineer
ANT	ANTENNA	MH	Field Coordinator
APPROX	APPROXIMATE	MTL	METAL
ARCH	ARCHITECTURAL	MTS	MANUAL TRANSFER SWITCH
ATS	AUTOMATIC TRANSFER SWITCH	MW	MICROWAVE
AWG	AMERICAN WIRE GAUGE	(N)	NEW
BATT	BATTERY	NEC	NATIONAL ELECTRIC CODE
BLDG	BUILDING	NO.(#)	NUMBER
BLK	BLOCK	NTS	NOT TO SCALE
BLKG	BLOCKING	OC	ON CENTER
BM	BEAM	OPNG	OPENING
BTC	BARE TINNED COPPER CONDUCTOR	(P)	PROPOSED
BDF	BOTTOM OF FOOTING	P/C	PRECAST CONCRETE
CAB	CABINET	PCS	PERSONAL COMMUNICATION SERVICES
CANT	CANTILEVERED	PCU	PRIMARY CONTROL UNIT
CEC	CALIFORNIA ELECTRIC CODE	PRC	PRIMARY RADIO CABINET
CHG	CHARGING	PP	POLARIZING PRESERVING
CLG	CEILING	PSF	POUNDS PER SQUARE FOOT
CLR	CLEAR	PSI	POUNDS PER SQUARE INCH
COL	COLUMN	PT	PRESSURE TREATED
COMM	COMMON	PWR	POWER CABINET
CONC	CONCRETE	QTY	QUANTITY
CONSTR	CONSTRUCTION	RAD	RADIUS
DBL	DOUBLE	RECT	RECTIFIER
DC	DIRECT CURRENT	REF	REFERENCE
DEPT	DEPARTMENT	REINF	REINFORCEMENT
DF	DOUGLAS FIR	REQ'D	REQUIRED
DIA	DIAMETER	RET	REMOTE ELECTRIC TILT
DIAG	DIAGONAL	RMC	RIGID METALLIC CONDUIT
DIM	DIMENSION	RRH	REMOTE RADIO HEAD
DWG	DRAWING	RRU	REMOTE RADIO UNIT
DWL	DOWEL	RWY	RACEWAY
(E)	EXISTING	SCH	SCHEDULE
EA	EACH	SHT	SHEET
EC	ELECTRICAL CONDUCTOR	SIAD	SMART INTEGRATED DEVICE
EL	ELEVATION	SIM	SIMILAR
ELEC	ELECTRICAL	SPEC	SPECIFICATION
EMT	ELECTRICAL METALLIC TUBING	SD	SQUARE
ENG	ENGINEER	SS	STAINLESS STEEL
EQ	EQUAL	STD	STANDARD
EXP	EXPANSION	STL	STEEL
EXT	EXTERIOR	STRUCT	STRUCTURAL
FAB	FABRICATION	TEMP	TEMPORARY
FF	FINISH FLOOR	THK	THICKNESS
FG	FINISH GRADE	TMA	TOWER MOUNTED AMPLIFIER
FIF	FACILITY INTERFACE FRAME	TN	TOE NAIL
FIN	FINISH(ED)	TOA	TOP OF ANTENNA
FLR	FLOOR	TOC	TOP OF CURB
FDN	FOUNDATION	TOF	TOP OF FOUNDATION
FOC	FACE OF CONCRETE	TOP	TOP OF PLATE (PARAPET)
FOM	FACE OF MASONRY	TOS	TOP OF STEEL
FOS	FACE OF STUD	TOW	TOP OF WALL
FDW	FACE OF WALL	TVSS	TRANSIENT VOLTAGE SUPPRESSION SYSTEM
FS	FINISH SURFACE	TYP	TYPICAL
FT	FOOT	UG	UNDERGROUND
FTG	FOOTING	UL	UNDERWRITERS LABORATORY
GA	GAUGE	UNO	UNLESS NOTED OTHERWISE
GEN	GENERATOR	UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UPS	UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
GLB	GLUE LAMINATED BEAM	VIF	VERIFIED IN FIELD
GLV	GALVANIZED	W	WIDE
GPS	GLOBAL POSITIONING SYSTEM	W/	WITH
GND	GROUND	WD	WOOD
GSM	GLOBAL SYSTEM FOR MOBILE	W.P.	WORK POINT
HDR	HEADER	WP	WEATHERPROOF
HGR	HANGER	WT	WEIGHT
HVAC	HEAT/VENTILATION/AIR CONDITIONING		
HT	HEIGHT		
IGR	INTERIOR GROUND RING		
IN	INCH		

ABBREVIATIONS



AT&T MOBILITY
10550 W. CHARLESTON
SUITE 8
LAS VEGAS, NV 89135



BLACK & VEATCH

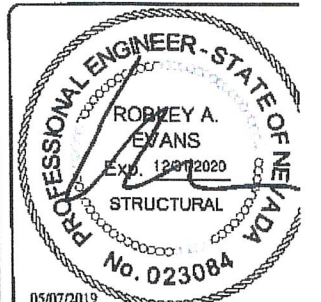
BLACK & VEATCH CORPORATION
8965 S EASTERN AVE
SUITE #325
LAS VEGAS, NV 89123

PROJECT NO: 129084.151

DRAWN BY: SA

CHECKED BY: GM

REV	DATE	DESCRIPTION
0	05/06/10	ISSUED FOR REVIEW



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

NVLO8296F_R02
ADJACENT TO
BUFFALO & SKYPOINT
LAS VEGAS, NV 89117
PICO SMALL CELL

SHEET TITLE
GENERAL NOTES, LEGEND
AND ABBREVIATIONS

SHEET NUMBER

GN-1

PART 1 - GENERAL

1.1 GENERAL CONDITIONS:

- A. CONTRACTOR SHALL INSPECT THE EXISTING SITE CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE SUBCONTRACTORS FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
- B. THE SUBCONTRACTOR SHALL OBTAIN PERMITS, LICENSES, MAKE ALL DEPOSITS, AND PAY ALL FEES REQUIRED FOR THE CONSTRUCTION PERFORMANCE FOR THE WORK UNDER THIS SECTION.
- C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. THE SUBCONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWING SHALL NOT BE SCALED TO DETERMINE DIMENSIONS.

1.2 LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES.

- A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE 2013 EDITION OF THE CALIFORNIA ELECTRICAL CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES. CONDUIT BENDS SHALL BE THE RADIUS BEND FOR THE TRADE SIZE OF CONDUIT IN COMPLIANCE WITH THE 2013 EDITION OF CEC.

1.3 REFERENCES:

- A. THE PUBLICATIONS LISTED BELOW ARE PART OF THIS SPECIFICATION. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE. THIS SPECIFICATION IS ISSUED FOR CONSTRUCTION UNLESS OTHERWISE NOTED. EXCEPT AS MODIFIED BY THE REQUIREMENT SPECIFIED HEREIN OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISION OF THESE PUBLICATIONS.

1. ANSI/IEEE (AMERICAN NATIONAL STANDARDS INSTITUTE)
2. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)
3. ICE (INSULATED CABLE ENGINEERS ASSOCIATION)
4. NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)
5. NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
6. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
7. UL (UNDERWRITERS LABORATORIES, INC.)
8. AT&T GROUNDING AND BONDING STANDARDS TP-76416

1.4 SCOPE OF WORK:

- A. WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL, AND ASSOCIATED SERVICES REQUIRED TO COMPLETE REQUIRED CONSTRUCTION AND BE OPERATIONAL.
- B. ALL ELECTRICAL EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY TESTED, ADJUSTED, AND ALIGNED BY THE SUBCONTRACTOR
- C. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATING, DRAINING, TRENCHES, BACKFILLING, AND REMOVAL OF EXCESS DIRT.
- D. THE SUBCONTRACTOR SHALL FURNISH TO THE OWNER WITH CERTIFICATES OF A FINAL INSPECTION AND APPROVAL FROM THE INSPECTION AUTHORITIES HAVING JURISDICTION.
- E. THE SUBCONTRACTOR SHALL PREPARE A COMPLETE SET OF AS-BUILT DRAWINGS, DOCUMENT ALL WIRING EQUIPMENT CONDITIONS, AND CHANGES WHILE COMPLETING THIS CONTRACT. THE AS-BUILT DRAWINGS SHALL BE SUBMITTED AT COMPLETION OF THE PROJECT.

PART 2 - PRODUCTS

2.1 GENERAL:

- A. ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED, NEW, AND FREE FROM DEFECTS.
- B. ALL ITEMS OF MATERIALS AND EQUIPMENT SHALL BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.
- C. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL AND SHALL CONFORM TO REQUIREMENT OF THE CALIFORNIA ELECTRICAL CODE.
- D. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING EQUAL TO OR GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 10,000 AC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT.

2.2 MATERIALS AND EQUIPMENT:

A. CONDUIT:

1. RIGID METAL CONDUIT (RMC) SHALL BE HOT-DIPPED GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED INSIDE IN ADDITION TO GALVANIZING.
2. LIQUIDTIGHT FLEXIBLE METAL CONDUIT SHALL BE UL LISTED.
3. CONDUIT CLAMPS, STRAPS AND SUPPORTS SHALL BE STEEL OR MALLEABLE IRON. ALL FITTINGS SHALL BE COMPRESSION AND CONCRETE TIGHT TYPE. GROUNDING BUSHINGS WITH INSULATED THROATS SHALL BE INSTALLED ON ALL CONDUIT TERMINATIONS.
4. NONMETALLIC CONDUIT AND FITTINGS SHALL BE SCHEDULE 40 PVC. INSTALL USING SOLVENT-CEMENT-TYPE JOINTS AS RECOMMENDED BY THE MANUFACTURER.

B. CONDUCTORS AND CABLE:

1. CONDUCTORS AND CABLE SHALL BE FLAME-RETARDANT, MOISTURE AND HEAT RESISTANT THERMOPLASTIC, SINGLE CONDUCTOR, COPPER, TYPE THHN/THWN-2, 900 VOLT, SIZE AS INDICATED, #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR USED.
2. #10 AWG AND SMALLER CONDUCTOR SHALL BE SOLID OR STRANDED AND #8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED.
3. SOLDERLESS, COMPRESSION TYPE CONNECTORS SHALL BE USED FOR TERMINATION OF ALL STRANDED CONDUCTORS.
4. STRAIN-RELIEF SUPPORTS GRIPS SHALL BE HUBBELL KELLEMS OR APPROVED EQUAL. CABLES SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC AND CABLE MANUFACTURER'S RECOMMENDATIONS.

5. ALL CONDUCTORS SHALL BE TAGGED AT BOTH ENDS OF THE CONDUCTOR, AT ALL PULL BOXES, J-BOXES, EQUIPMENT AND CABINETS AND SHALL BE IDENTIFIED WITH APPROVED PLASTIC TAGS (ACTION CRAFT, BRADY, OR APPROVED EQUAL).

C. DISCONNECT SWITCHES:

1. DISCONNECT SWITCHES SHALL BE HEAVY DUTY, DEAD-FRONT, QUICK-MAKE, QUICK-BREAK, EXTERNALLY OPERABLE, HANDLE LOCKABLE AND INTERLOCK WITH COVER IN CLOSED POSITION, RATING AS INDICATED, UL LABELED FURNISHED IN NEMA 3R ENCLOSURE, SQUARE-D OR ENGINEERED APPROVED EQUAL.

D. CHEMICAL ELECTROLYTIC GROUNDING SYSTEM:

1. INSTALL CHEMICAL GROUNDING AS REQUIRED. THE SYSTEM SHALL BE ELECTROLYTIC MAINTENANCE FREE ELECTRODE CONSISTING OF RODS WITH A MINIMUM #2 AWG CU EXOTHERMICALLY WELDED PITTAIL PROTECTIVE BOXES, AND BACKFILL MATERIAL. MANUFACTURER SHALL BE LYNCOLE XT GROUNDING ROD TYPES K2-(*)CS OR K2L-(*)CS. (*) 10' OR 20' AS AVAILABLE FROM MANUFACTURER, BUT NOT LESS THAN 8' MIN [REQUIRED PER CEC 250.52 A (5)].

2. GROUND ACCESS BOX SHALL BE A POLYPLASTIC BOX FOR NON-TRAFFIC APPLICATIONS, INCLUDING BOLT DOWN FLUSH COVER WITH "BREATHER" HOLES, KIT MODEL #XB-22. ALL DISCONNECT SWITCHES AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOD NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS ID NUMBERING, AND THE ELECTRICAL POWER SOURCE.

3. BACKFILL MATERIAL SHALL BE LYNCONITE AND LYNCOLE GROUNDING GRAVEL.

E. SYSTEM GROUNDING:

1. ALL GROUNDING COMPONENTS SHALL BE TINNED AND GROUNDING CONDUCTOR SHALL BE #2 AWG BARE, SOLID, TINNED, COPPER. ABOVE GRADE GROUNDING CONDUCTORS SHALL BE INSULATED WHERE NOTED.
2. GROUNDING BUSES SHALL BE BARE, TINNED, ANNEALED COPPER BARS OF RECTANGULAR CROSS SECTION. STANDARD BUS BARS WGB, SHALL BE FURNISHED AND INSTALLED BY THE SUBCONTRACTOR. THEY SHALL NOT BE FABRICATED OR MODIFIED IN THE FIELD. ALL GROUNDING BUSES SHALL BE IDENTIFIED WITH MINIMUM 3/4" LETTERS BY WAY OF STENCILING OR DESIGNATION PLATE.
3. CONNECTORS SHALL BE HIGH-CONDUCTIVITY, HEAVY DUTY, LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS USED. USE TWO-HOLE COMPRESSION LUGS WITH HEAT SHRINK FOR MECHANICAL CONNECTIONS. INTERIOR CONNECTIONS USE TWO-HOLE COMPRESSION LUGS WITH INSPECTION WINDOW AND CLEAR HEAT SHRINK.
4. EXOTHERMIC WELDED CONNECTIONS SHALL BE PROVIDED IN KIT FORM AND SELECTED FOR THE SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE CONNECTED.
5. GROUND RODS SHALL BE COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE, 5/8"x10'-0". ALL GROUNDING RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES.
6. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS IN COMPLIANCE WITH THE AT&T SPECIFICATIONS AND CEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULLBOXES, DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.

F. OTHER MATERIALS:

1. THE SUBCONTRACTOR SHALL PROVIDE OTHER MATERIALS, THOUGH NOT SPECIFICALLY DESCRIBED, WHICH ARE REQUIRED FOR A COMPLETELY OPERATIONAL SYSTEM AND PROPER INSTALLATION OF THE WORK.
2. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY CEC.

G. PANELS AND LOAD CENTERS:

1. ALL PANEL DIRECTORIES SHALL BE TYPED/WRITTEN.

PART 3 - EXECUTION

3.1 GENERAL:

- A. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN ON OSA APPROVED DWG'S.
- B. EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT OR WATER, AND AGAINST CHEMICAL OR MECHANICAL INJURY DURING INSTALLATION AND CONSTRUCTION PERIODS.

3.2 LABOR AND WORKMANSHIP:

- A. ALL LABOR FOR THE INSTALLATION OF MATERIALS AND EQUIPMENT FURNISHED FOR THE ELECTRICAL SYSTEM SHALL BE INSTALLED BY EXPERIENCED WIREMEN, IN A NEAT AND WORKMAN-LIKE MANNER.
- B. ALL ELECTRICAL EQUIPMENT SHALL BE ADJUSTED, ALIGNED AND TESTED BY THE SUBCONTRACTOR AS REQUIRED TO PRODUCE THE INTENDED PERFORMANCE.
- C. UPON COMPLETION OF WORK, THE SUBCONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, REMOVE ALL LABELS AND ANY DEBRIS, CRATING OR CARTONS AND LEAVE THE INSTALLATION FINISHED AND READY FOR OPERATION.

3.3 COORDINATION:

- A. THE SUBCONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL ITEMS WITH THE OWNER-FURNISHED EQUIPMENT DELIVERY SCHEDULE TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.

3.4 INSTALLATION:

A. CONDUIT:

1. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT AS SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4" INCH TRADE SIZE.
2. PROVIDE RIGID PVC SCHEDULE 80 CONDUITS FOR ALL RISERS. RMC OTHERWISE NOTED. EMT MAY BE INSTALLED FOR EXTERIOR CONDUITS WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
3. THE INSTALLATION OF SCHEDULE 40 PVC AND RMC CONDUITS SHALL BE 24 INCHES MINIMUM DEPTH. ALL 90 DEGREE BENDS SHALL BE RMC. EXPANSION JOINTS ARE REQUIRED ON ALL CONDUIT RISERS.
4. USE GALVANIZED FLEXIBLE STEEL CONDUIT WHERE DIRECT CONNECTION TO EQUIPMENT WITH MOVEMENT, VIBRATION, OR FOR EASE OF MAINTENANCE. USE LIQUID TIGHT, FLEXIBLE METAL CONDUIT FOR OUTDOOR APPLICATIONS. INSTALL GALVANIZED FLEXIBLE STEEL CONDUIT AT ALL POINTS OF CONNECTION TO EQUIPMENT MOUNTED ON SUPPORT TO ALLOW FOR EXPANSION AND CONTRACTION.
5. A RUN OF CONDUIT BETWEEN BOXES OR EQUIPMENT SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF THREE QUARTER-BENDS. CONDUIT BEND SHALL BE MADE WITH THE UL LISTED BENDER OR FACTORY 90 DEGREE ELBOWS MAY BE USED.
6. FIELD FABRICATED CONDUITS SHALL BE CUT SQUARE WITH A CONDUIT CUTTING TOOL AND REAMED TO PROVIDE A SMOOTH INSIDE SURFACE.
7. PROVIDE INSULATED GROUNDING BUSHING FOR ALL CONDUITS.
8. SUBCONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONDUITS DURING CONSTRUCTION. TEMPORARY OPENINGS IN THE CONDUIT SYSTEM SHALL BE PLUGGED OR CAPPED TO PREVENT ENTRANCE OF MOISTURE OR FOREIGN MATTER. SUBCONTRACTOR SHALL REPLACE ANY CONDUITS CONTAINING FOREIGN MATERIALS THAT CANNOT BE REMOVED.
9. ALL CONDUITS SHALL BE SWABBED CLEAN BY PULLING AN APPROPRIATE SIZE MANDREL THROUGH THE CONDUIT BEFORE INSTALLATION OF CONDUCTORS OR CABLES. CONDUIT SHALL BE FREE OF DIRT AND DEBRIS.
10. INSTALL PULL STRINGS IN ALL CLEAN EMPTY CONDUITS. IDENTIFY PULL STRINGS AT EACH END.
11. INSTALL 2" HIGHLY VISIBLE AND DETECTABLE TAPE 12" ABOVE ALL UNDERGROUND CONDUITS AND CONDUCTORS.
12. CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE AGAINST COLLECTION OF TRAPPED CONDENSATION.
13. PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS TO ALLOW FOR RACEWAYS AND CABLES TO BE ROUTED THROUGH THE BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS UNLESS SPECIFICALLY SHOWN ON OSA APPROVED DWG'S. ANY CORING/CUTTING REQUIRED TO COMPLETE THE WORK, BUT NOT SHOWN ON OSA APPROVED DWG'S SHALL BE SUBJECT TO OSA REVIEW AND APPROVAL PRIOR TO BEGINNING ON SUCH WORK. SLEEVES AND/OR PENETRATION SHALL BE EFFECTIVELY SEALED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FIRE STOPS AT FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE, AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.

B. CONDUCTORS AND CABLE:

1. ALL POWER WIRING SHALL BE COLOR CODED AS FOLLOWS:

DESCRIPTION	208/240/120 VOLT SYSTEM	AS-BUILT REFERENCE
PHASE A	BLACK	THE MARK-UP ON THIS DRAWING REFLECTS THE AS-BUILT INSTALLATION. Subcontractor: Wecon Inc. Date: 12.31.19 Field Coordinator: Date: Master Engineer: Shall Review All Drawings To Ensure Changes Do Not Alter The Original Design From Approved Code Changes. Master Engineer: Patrick Fleming Date: 12.31.19
PHASE B	RED	
PHASE C	BLUE	
NEUTRAL	WHITE	
GROUNDING	GREEN	

2. SPLICES SHALL BE MADE ONLY AT OUTLETS, JUNCTION APPROVED FOR THIS PURPOSE.

3. PULLING LUBRICANTS SHALL BE UL APPROVED. SUBCO FOR PULLING CONDUCTOR OR CABLES INTO THE CONC
4. CABLES SHALL BE HEAVILY TRAINED, WITHOUT INTERLAC BOXES & EQUIPMENT TO PERMIT MAKING A NEAT ARR MANNER TO AVOID TENSION ON CONDUCTORS OR TERL FROM MECHANICAL INJURY AND MOISTURE. SHARP BENDS OVER CONDUIT BUSHINGS IS PROHIBITED. DAMAGED CABLES SHALL BE REMOVED AND REPLACED AT THE SUBCONTRACTOR'S EXPENSE.

C. DISCONNECT SWITCHES:

1. INSTALL DISCONNECT SWITCHES LEVEL AND PLUMB. CONNECT TO WIRING SYSTEM AND GROUNDING SYSTEM AS INDICATED.

D. GROUNDING:

1. ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENT OF THE BUILDING MANUFACTURER, AT&T GROUNDING AND BONDING STANDARDS TP-76416, ND-00135, AND THE CALIFORNIA ELECTRICAL CODE (2013 CEC EDITION).
2. PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEM INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
3. ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUNDING CONDUCTORS SHALL NOT BE LOOPED OR SHARPLY BENT. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES.
4. BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE SUBCONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM. THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 AWG COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). SEE STANDARD 6.3.2.2.
5. TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT AVAILABLE, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
6. SUBCONTRACTOR SHALL VERIFY THE LOCATIONS OF GROUNDING TIE-IN-POINTS TO THE EXISTING GROUNDING SYSTEM. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. ALL GROUNDING CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BY THE INSPECTOR HAVING JURISDICTION BEFORE BEING PERMANENTLY CONCEALED.
8. APPLY CORROSION-RESISTANCE FINISH TO FIELD CONNECTIONS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED. USE KOPR-SHIELD ANTI-OXIDATION COMPOUND ON ALL COMPRESSION GROUNDING CONNECTIONS.
9. A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS.
10. BOND ALL INSULATED GROUNDING BUSHINGS WITH A BARE 6 AWG GROUNDING CONDUCTOR TO A GROUND BUS.
11. DIRECT BURIED GROUNDING CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 36" MINIMUM BELOW GRADE, OR 6" BELOW THE FROST LINE. USE THE GREATER OF THE TWO DISTANCES.
12. ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.
13. THE INSTALLATION OF CHEMICAL ELECTROLYTIC GROUNDING SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHING HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.
14. DRIVE GROUND RODS UNTIL TOPS ARE A MINIMUM DISTANCE OF 36" DEPTH OR 6" BELOW FROST LINE. USING THE GREATER OF THE TWO DISTANCES.
15. IF COAX ON THE ICE BRIDGE IS MORE THAN 6 FT. FROM THE GROUNDING BAR AT THE BASE OF THE TOWER, A SECOND GROUNDING BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE. TO GROUND THE COAX CABLE GROUNDING KITS AND IN-LINE ARRESTORS
16. SUBCONTRACTOR SHALL REPAIR, AND/OR REPLACE, EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE SUBCONTRACTORS EXPENSE.

3.5 ACCEPTANCE TESTING:

- A. CERTIFIED PERSONNEL USING CERTIFIED EQUIPMENT SHALL PERFORM REQUIRED TESTS AND SUBMIT WRITTEN TEST REPORTS UPON COMPLETION.

- B. WHEN MATERIAL AND/OR WORKMANSHIP IS FOUND NOT TO COMPLY WITH THE SPECIFIED REQUIREMENTS, THE NON-COMPLYING ITEMS SHALL BE REMOVED FROM THE PROJECT SITE AND REPLACED WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS PROMPTLY AFTER RECEIPT OF NOTICE FOR NON-COMPLIANCE.

C. TEST PROCEDURES:

1. ALL FEEDERS SHALL HAVE INSULATION TESTED AFTER INSTALLATION, BEFORE CONNECTION TO DEVICES. THE CONDUCTORS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS. TESTING SHALL BE FOR ONE MINUTE USING 1000V DC. PROVIDE WRITTEN DOCUMENTATION FOR ALL TEST RESULTS.
2. PRIOR TO ENERGIZING CIRCUITRY, TEST WIRING DEVICES FOR ELECTRICAL CONTINUITY AND PROPER POLARITY CONNECTIONS.
3. MEASURE AND RECORD VOLTAGES BETWEEN PHASES AND BETWEEN PHASE CONDUCTORS AND NEUTRALS. SUBMIT A REPORT OF MAXIMUM AND MINIMUM VOLTAGES
4. PERFORM GROUNDING TEST TO MEASURE GROUNDING RESISTANCE OF GROUNDING SYSTEM USING THE IEEE STANDARD 3-POINT "FALL-OF-POTENTIAL" METHOD. PROVIDE PLOTTED TEST VALUES AND LOCATION SKETCH. NOTIFY THE ENGINEER IMMEDIATELY IF MEASURED VALUE IS OVER 5 OHMS.



AT&T MOBILITY
10550 W. CHARLESTON
SUITE B
LAS VEGAS, NV 89135



BLACK & VEATCH

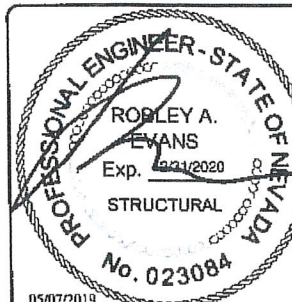
BLACK & VEATCH CORPORATION
8965 S EASTERN AVE
SUITE #325
LAS VEGAS, NV 89123

PROJECT NO: 129084.151

DRAWN BY: SA

CHECKED BY: CA

REV	DATE	DESCRIPTION
0	05/05/19	ISSUED FOR REVIEW



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

NVLO8296F_R02
ADJACENT TO
BUFFALO & SKYPOINT
LAS VEGAS, NV 89117
PICO SMALL CELL

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

GENERAL ELECTRICAL NOTES

1. DESIGN, FABRICATION, ERECTION, ALTERATION, AND MAINTENANCE SHALL CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE (UNO).
 - A. TA-222: STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS
 - B. TA-1019-A: INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS
 - C. ASC: MANUAL OF STEEL CONSTRUCTION
2. ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, UNO.
 - A. STRUCTURAL STEEL, ASTM A572 GRADE 85 (FY = 85 KSI).
 - B. ALL BOLTS, ASTM A325 TYPE 1 GALVANIZED HIGH STRENGTH BOLTS.
 - C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.
 - D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
3. ALL HOLES SHALL BE CUT WITH A GRINDER OR DRILLED. HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER OF RECORD.
4. ALL FASTENERS SHALL NOT BE REUSED.
5. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED ASTM A325 BOLTS.
6. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
7. HOT-DIP GALVANIZE ALL ITEMS, UNO.
GALVANIZE PER ASTM A123, ASTM A153/A153M OR ASTM A653 G90, AS APPLICABLE.
8. AFTER FINAL INSPECTION, ALL EXPOSED STRUCTURAL STEEL AS THE RESULT OF THIS SCOPE OF WORK INCLUDING WELDS, FIELD DRILLED HOLES, AND SHAFT INTERIORS (WHERE ACCESSIBLE), SHALL BE CLEANED AND COLD GALVANIZING APPLIED BY BRUSH. PHOTO DOCUMENTATION IS REQUIRED TO BE SUBMITTED TO THE INSPECTOR.

1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS D1.1/D1.1m, "STRUCTURAL STEEL WELDING CODE-STEEL".
2. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.
3. ALL ARC WELDING ON STRUCTURES SHALL BE DONE IN ACCORDANCE WITH AWS D1.1 (LATEST EDITION). THIS SHALL INCLUDE A CERTIFIED WELDING INSPECTOR (CWI) FOR ACCEPTANCE OR REJECTION OF ALL WELDING OPERATIONS, PRE-DURING-POST, USING THE ACCEPTANCE CRITERIA OF AWS D1.1. THE CWI SHALL WORK WITH THE GC ON THE LEVEL OF INTERACTION NEEDED TO CONDUCT THE WELDING INSPECTION. THE CERTIFIED WELDING INSPECTION IS THE RESPONSIBILITY OF THE GC.
4. FOR ALL WELDING, USE E60XX ELECTRODES FOR SMAW PROCESS AND E6XT-XX ELECTRODES FOR FCAW PROCESS, UNO.
5. SURFACES TO BE WELDED SHALL BE FREE FROM SCALE, SLAG, RUST, MOISTURE, GREASE OR ANY OTHER FOREIGN MATERIAL THAT WOULD PREVENT PROPER WELDING. GRIND THE SURFACE ADJACENT TO THE WELD FOR A DISTANCE OF 2" MINIMUM ALL AROUND. ENSURE BOTH AREAS ARE 100% FREE OF ALL CALVANIZING.
6. REPAIR THE CALVANIZED COATING. ALL AREAS AFFECTED BY THE FIELD DRILLING, FIELD GRINDING AND FIELD WELDING, BOTH INSIDE AND OUTSIDE THE MONOPOLE, SHALL BE REPAIRED. PRODUCTS TO BE APPLIED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. AREAS THAT HAVE BEEN TOUCHED UP SHOULD BE INSPECTED AS PART OF THE ROUTINE MAINTENANCE OF THE STRUCTURE. NO SPRAY PAINT IS ALLOWED. AFTER ZINC-RICH PAINT IS DRY, OVERCOAT WITH OWNER'S PAINT SPECIFICATIONS, APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. DO NOT WELD IF THE TEMPERATURE OF THE STEEL IN THE VICINITY OF THE WELD AREA IS BELOW 0° F. WHEN THE TEMPERATURE IS BETWEEN 0° F AND 32° F, PREHEAT AND MAINTAIN THE STEEL IN THE VICINITY OF THE WELD AREA AT 70° F DURING THE WELDING PROCESS.
8. DO NOT WELD ON WET OR FROST-COVERED SURFACES & PROVIDE ADEQUATE PROTECTION FROM HIGH WINDS.
9. MOVE ALL COAX AND OTHER FLAMMABLE MATERIALS FROM ANY AREA THAT MAY BE HEATED DURING CONSTRUCTION.
10. CONTRACTOR SHALL MAKE PROPER PRECAUTIONS AND PROCEDURES TO PROTECT THE STRUCTURE FROM CATCHING FIRE DURING ALL WELDING OPERATIONS. THE FOLLOWING FIRE SAFETY PREVENTION PROTOCOL IS THE MINIMUM REQUIREMENTS DURING WELDING OPERATIONS.
 - 500 GALLON WATER TANK WITH PUMP TO BE ON SITE AT ALL TIMES.
 - 2 FIRE EXTINGUISHERS ON SITE AT ALL TIMES.
 - 2 MAN FIRE WATCH ON ANY ADJACENT STRUCTURES, FIELDS AND POLE.
 - INTERMITTENT COOLING OF WELDED SURFACE TO REDUCE HEAT IN STRUCTURE.

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL SITES WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR AGENT SHALL SUBMIT A WRITTEN REPORT OF ANY STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NWR100000, SECTION III.A.12.
4. ACCUMULATED SEDIMENT IN BMP'S SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.
5. BMP'S TO BE IMPLEMENTED INCLUDE BUT ARE NOT LIMITED TO:
 - A. MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL
 - B. CONTROLLING STORMWATER FLOWING ONTO AND THROUGH THE PROJECT VIA THE USE OF SEDIMENT BERRMS AND STRAW WADDLES AS APPROPRIATE
 - C. STABILIZING SOILS THROUGH SITE RESTORATION AT COMPLETION OF PROJECT
 - D. PROTECTING STORM DRAIN INLETS VIA THE USE OF SAND BAGS, STRAW WADDLES AND FILTER FABRIC AS APPROPRIATE
6. BMP'S MUST BE IN PLACE WHEN SOILS ARE EXPOSED (NO WAITING PERIODS)

1. STRUCTURAL DESIGN ACCEPTANCE IS VALID ONLY FOR POLE FOUNDATIONS INSTALLED ON LEVELED SURFACES. ANY FOUNDATION INSTALLED WITHIN (5FT) FROM A SLOPE WILL REQUIRE SLOPE STABILITY ANALYSIS AND CALCULATIONS WITH A SEPARATE STRUCTURAL REVIEW AND FEE. GEOTECHNICAL WILL BE NEEDED FOR THE REVIEW.
2. SIDEWALKS MUST BE UNOBSTRUCTED AND HAVE AN ACCESS OF AT LEAST 3.0-FT FROM BACK OF CURB.

PERFORM THIRD PARTY SPECIAL INSPECTION FOR (STREET LIGHT FOUNDATION...).SPECIAL INSPECTION IS REQUIRED.

- REQUIRED.
1. INSPECTIONS SHALL BE PERFORMED BY AN ICC CERTIFIED INSPECTOR APPROVED BY CLARK COUNTY; EMPLOYED BY THE OWNER/DEVELOPER.
 2. PROVIDE SPECIAL INSPECTIONS IN ACCORDANCE WITH THE 2012 INTERNATIONAL BUILDING CODE FOR THE ITEMS LISTED BELOW.
 - A. MASONRY- PERIODIC
 - B. REINFORCING STEEL PLACEMENT- PERIODIC
 - C. GROUT-CONTINUOUS
 - D. CONCRETE PLACEMENT-CONTINUOUS
 - E. CONCRETE STRENGTH- CONTINUOUS
 - F. EPOXY FASTENED DOWELS AND ANCHORS-PERIODIC
 - G. _____
 3. THE INSPECTOR SHALL SUBMIT A STATEMENT TO THE OWNER/DEVELOPER, AND STRUCTURAL ENGINEER INDICATING COMPLIANCE WITH THE PLANS AND SPECIFICATIONS.
 4. SPECIAL INSPECTION OF THE FILL AROUND THE ((STREET LIGHT FOUNDATION...)) SHALL BE PROVIDED AT A FREQUENCY AS NECESSARY TO ENSURE THAT PROPER FILL AND COMPACTION IS ACHIEVED. COMPACTION TEST FOR EACH LIFT SHALL BE TAKEN PER CCAUSD 203.05.02. THE SPECIAL INSPECTOR SHALL SUBMIT A COMPLIANCE REPORT TO THE OWNER/DEVELOPER.

AS-BUILT REDLINE	
THE MARK-UP ON THIS DRAWING REFLECTS THE AS-BUILT INSTALLATION	
Subcontractor	Date
Wecorn Inc.	12.31
Field Coordinator	Date
Manager's Use Only: Has Original Design been Sent to Arc Code Grouping Marked Lead Engineer	
Patrick Fleming	Date 12.31.19



AT&T MOBILITY
10550 W. CHARLESTON
SUITE B
LAS VEGAS, NV 89135

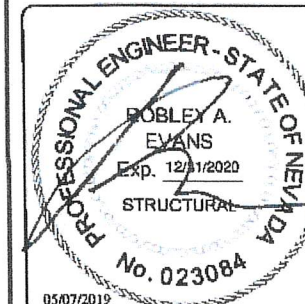


BLACK & VEATCH

BLACK & VEATCH CORPORATION
8965 S EASTERN AVE
SUITE #325
LAS VEGAS, NV 89123

PROJECT NO:	129084.151
DRAWN BY:	SA
CHECKED BY:	CA

0	05/06/19	ISSUED FOR REVIEW
REV	DATE	DESCRIPTION



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UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

NVLO8296F_R02
ADJACENT TO
BUFFALO & SKYPOINT
LAS VEGAS, NV 89117
PICO SMALL CELL

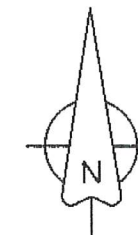
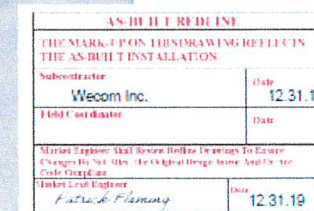
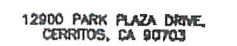
SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-3

SITE #/PACE_NAME:	CRAN_NVL08296F_R02_LTE_1C_1900
FA LOCATION CODE:	14858588
USID:	231644



20 0 10 20

FEET

A LATITUDE: 36°16'50.23"N
 LONGITUDE: 115°15'58.15"W
 GROUND ELEVATION: 2421.84'
 NAVD '88

Legend

	MONUMENT
	POLE
	DOWN GUY
	GAS VALVE
	PEDASTAL
	LAMP POST
	WATER VALVE
	FIRE HYDRANT
	WATER MANHOLE
	WATER METER
	SEWER MANHOLE
	UNKNOWN OR LABELED MANHOLE
	SANITARY SEWER MANHOLE
	STORM WATER MANHOLE
	ELECTRIC MANHOLE
	TELECOM MANHOLE
	TREE
FENCE LINE	
ROW LINE	
CENTER LINE	
SEWER	
TELEPHONE	
WATER	
ELECTRIC	
GAS LINE	
OVERHEAD ELEC	
FENCE BARS	
PROPERTY LINE	

ENGINEERS:



BLACK & VEATCH

6 SUNSET WAY
SUITE 8108
HENDERSON, NV 89014

SITE NO: CRAN_NYLD05295F_R02

DRAWN BY: KJC

CHECKED BY: CE

[illegible]

SURVEYOR:



CIS JOB NO:
CIS 315-1-31-114

SHEET TITLE
SMALL CELL
SITE SURVEY

SHEET NUMBER

1 OF 1