

33VW0020SMC
LSV_DURANGO HILL-PARK_SC
7947.25 W GOWAN RD
LAS VEGAS, NV 89128
APN: 138-08-799-011

Red Lined Set
 King Communications

James Diggins
 OCT 16 2019



ALL CONSTRUCTION AND MATERIAL 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 SPECIFICATIONS 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.

CITY OF LAS VEGAS

APPROVED FOR CONSTRUCTION

THIS APPROVAL IS FOR WORK IN CLV R/W OR CLV EASEMENTS ONLY. OBTAINING PERMISSION OR EASEMENTS FOR WORK SHOWN ON PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE UTILITY.

APPROVAL: _____ DATE: _____

LSV_DURANGO HILL-PARK_SC
33VW0020SMC
 7947.25 W GOWAN RD
 LAS VEGAS, NV 89128

PROJECT NO: 114365.001
 CHECKED BY: MEH

ISSUED FOR:			
REV	DATE	DRWN	DESCRIPTION
A	8/22/17	GEH	PRELIMINARY REVIEW

B&T ENGINEERING, INC.
 12685
 Expires 12/31/17

**THIS DOCUMENT IS
 PRELIMINARY IN
 NATURE AND IS NOT
 A FINAL, SIGNED
 AND SEALED
 DOCUMENT**

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.

SHEET NUMBER: **T-1** REVISION: **A**

APPROVALS

PROJECT MANAGER: _____ DATE: _____
 CONSTRUCTION MANAGER: _____ DATE: _____
 RF ENGINEER: _____ DATE: _____
 SITE ACQUISITION: _____ DATE: _____
 LANDLORD: _____ DATE: _____

PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL EQUIPMENT ON AN EXISTING STREETLIGHT WITHIN AN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING:
 - INSTALL PROPOSED SMALL CELL EQUIPMENT ONTO EXISTING STREETLIGHT

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
LS-1	SITE SURVEY
A-1	SITE PLAN & EXHIBIT PHOTO
A-2	POLE ELEVATIONS & PLAN VIEWS
A-3	EQUIPMENT DETAILS
E-1	ELECTRICAL NOTES
E-2	ELECTRICAL ONE-LINE DIAGRAM
E-3	ELECTRICAL DETAILS
E-4	HAND HOLE DETAILS



CALL NEVADA ONE CALL
 (800) 227-2600
 CALL 3 WORKING DAYS
 BEFORE YOU DIG!



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 OF EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

SITE INFORMATION

PROPERTY OWNER: PUBLIC RIGHT-OF-WAY
 APPLICANT ADDRESS: SABRE INDUSTRIES, INC. 8653 EAST HIGHWAY 67 ALVARADO, TX 76009 (817) 852-1700
 LAT/LONG TYPE: NAD 83
 LATITUDE: 36.226063°
 LONGITUDE: -115.279155°
 GROUND ELEVATION: ± 2423' AMSL
 JURISDICTION: CITY OF LAS VEGAS
 APN: 138-08-799-011
 CURRENT ZONING: M-D
 EXISTING LEASE AREA: N/A
 EXISTING OCCUPANCY: U
 PROJECT OCCUPANCY: U
 EQUIPMENT LOCATION: OUTDOOR
 ANTENNA LOCATION: EXISTING STREETLIGHT

CONSULTANT TEAM

ARCHITECT/ENGINEER: B+T GROUP 1717 S. BOULDER AVENUE TULSA, OK 74119 CONTACT: DUSTIN SPEARS- PROJECT MANAGER TEL: (918) 587-4630 FAX: (918) 295-0265
 CABLE OWNER/LANDLORD: COX NEVADA TELCOM, LLC 1700 VEGAS DRIVE LAS VEGAS, NV 89106 CONTACT: DANIELLE ETZBACH (404) 269-3997
 OWNER REP: COX COMMUNICATIONS 1700 VEGAS DRIVE LAS VEGAS, NV 89106 CONTACT: ANTHONY EBERSOLE (702) 545-1643
 DEVELOPER: COX NEVADA TELCOM, LLC ATTN: COX BUSINESS
 POWER: NV ENERGY (702) 633-8400
 FIBER: COX (702) 936-8898
 TELEPHONE: CENTURYLINK (702) 361-3332

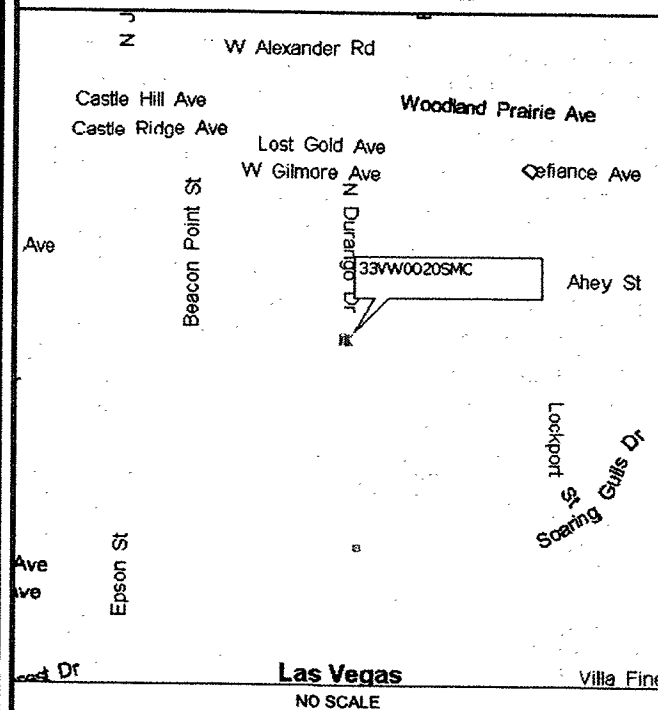
CODES

2012 INTERNATIONAL BUILDING CODE W/ NV STATE AMENDMENTS
 2011 NATIONAL ELECTRICAL CODE W/ NV STATE AMENDMENTS

DO NOT SCALE DRAWINGS

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

VICINITY MAP



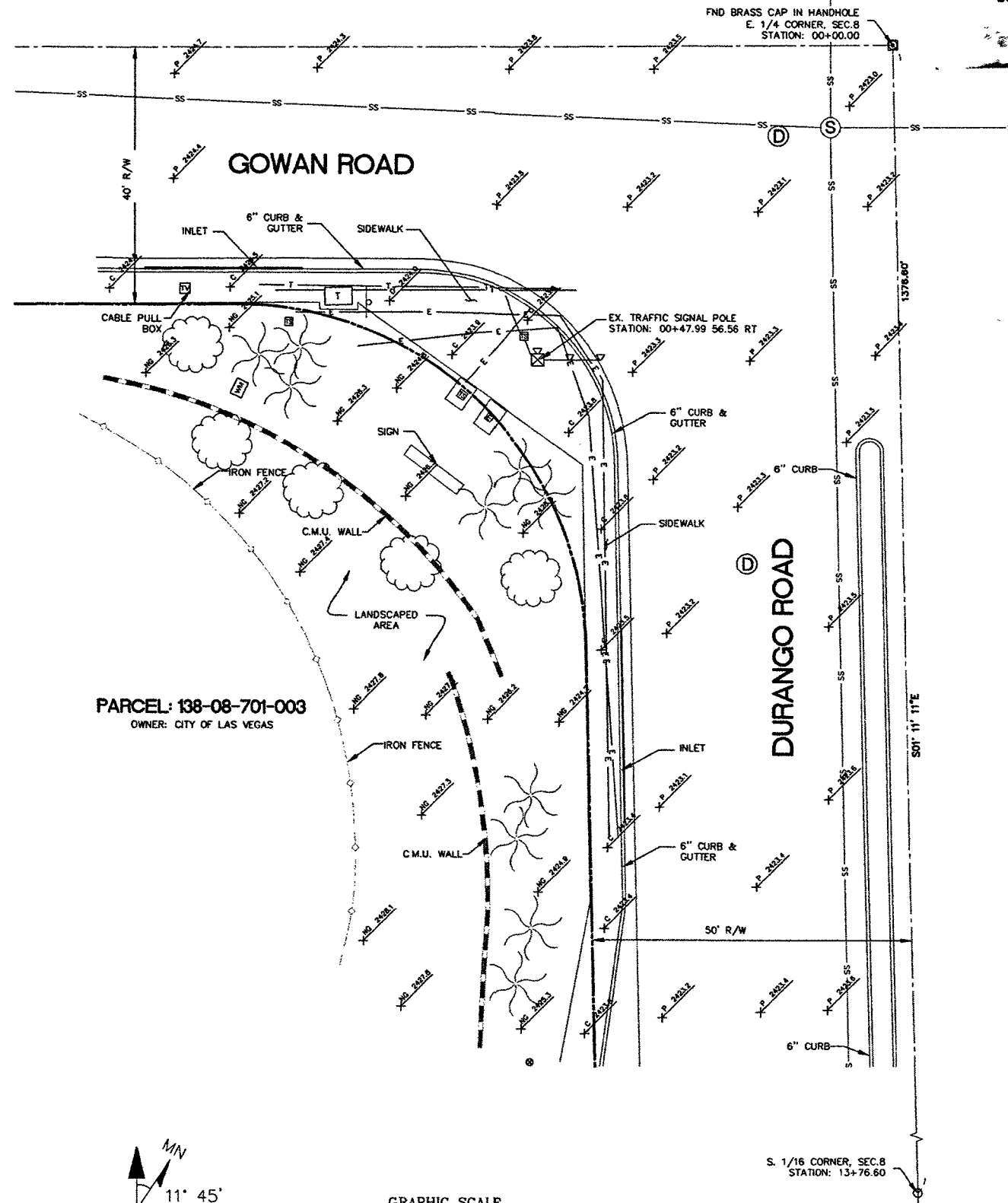
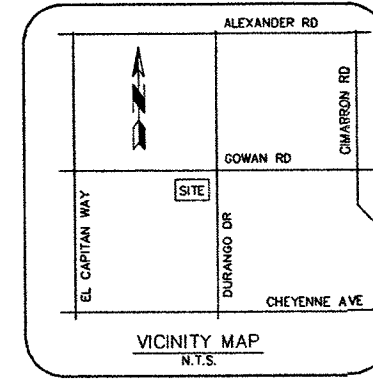
DRIVING DIRECTIONS

DEPART COX OFFICE AT 1700 VEGAS DR ON VEGAS DR. BEAR RIGHT ONTO US-95 BRANCH [NV-599]. BEAR LEFT ONTO NV-574 [W CHEYENNE AVE]. ROAD NAME CHANGES TO W CHEYENNE AVE. TURN RIGHT ONTO N DURANGO DR. TURN LEFT ONTO W GOWAN RD. ARRIVE AT 33VW0020SMC.

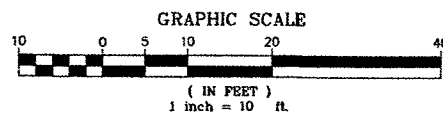
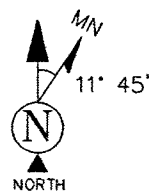
Red Lined Set
King Communications

Chris Boyano

OCT 16 2019



PARCEL: 138-08-701-003
OWNER: CITY OF LAS VEGAS



NOTES

1. A TITLE REPORT WAS NOT PROVIDED AT THE TIME OF THE SURVEY.
2. THE BOUNDARY AND RIGHT-OF-WAY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OR A L.I.A./N.S.P.S. TITLE SURVEY OF THE PROPERTY AND IS NOT INTENDED TO VERIFY OWNERSHIP. ANY CORNER OR CONTROL MONUMENTS SHOWN HEREON ARE FOR THE PURPOSE OF CONTROLLING RECORD BOUNDARY OR RIGHT-OF-WAY INFORMATION. THE SURVEYOR HAS NOT MADE CORNER DETERMINATIONS ON ANY SUCH MONUMENTS.
3. SURVEYOR DOES NOT GUARANTEE THE LOCATION, EXISTENCE, SIZE OR DEPTH OF ANY PUBLIC OR PRIVATE UTILITY. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON MARKINGS PROVIDED BY THE UTILITY PROVIDERS OR FROM THE CITY OF LAS VEGAS GIS MAPS AND IS APPROXIMATE IN LOCATION. ADDITIONAL UTILITY FACILITIES MAY BE PRESENT IN THE PROJECT AREA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. REMOVAL, RELOCATION AND/OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

BASIS OF BEARING

THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 8, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM NEVADA STATE PLANE ZONE EAST, DETERMINED BY GPS OBSERVATIONS.

BEARING=SOUTH 01°11'11" EAST

CENTER OF GEODETIC COORDINATES

EXISTING TRAFFIC SIGNAL POLE LOCATION
LATITUDE: 36° 13' 33.794" NORTH (NAD83)
LONGITUDE: 115° 16' 44.880" WEST (NAD83)
ELEVATION @ GRADE = 2423.9' (NAVD88)

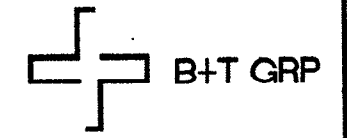
SITE BENCHMARK

BRASS CAP IN HANDHOLE MARKING THE EAST QUARTER CORNER OF SECTION 8, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M.

ELEVATION=2422.56' (NAVD-88)

LEGEND

▲	FOUND NAIL	—T—	SIGN
●	FOUND BRASS CAP FLUSH	—●—	BOLLARD
○	FOUND ALUMINUM CAP FLUSH	—□—	BREAKLINE
⊙	CALCULATED POSITION	—P—	PARKING METER
⊕	SEWER MANHOLE	—FND—	FOUND
⊖	SEWER CLEANOUT	—EX—	EXISTING
⊗	TELEPHONE MANHOLE	—NG—	NATURAL GRADE
⊘	TELEPHONE VAULT	—P—	PAVEMENT GRADE
⊙	TELEPHONE PEDESTAL	—C—	CONCRETE GRADE
⊚	TELEVISION PEDESTAL	—C.M.U.—	CONCRETE MASONRY UNIT
⊛	WATER VALVE	—C.L.F.—	CHAIN LINK FENCE
⊜	FIRE HYDRANT	—R/W—	RIGHT-OF-WAY
⊝	WATER METER	—R/W—	RIGHT-OF-WAY LINE
⊞	WATER MANHOLE	—ADJ.—	ADJOINING BOUNDARY LINE
⊟	IRRIGATION CONTROL VALVE	—EASE.—	EASEMENT LINE
⊠	STORM MANHOLE	—CENT.—	CENTERLINE
⊡	CATCH BASIN	—CH.—	CHAIN LINK FENCE
⊢	TRAFFIC SIGNAL	—IR.—	IRON FENCE
⊣	TRAFFIC SIGNAL WITH MAST	—ST—	U/G STORM SEWER LINE
⊤	TRAFFIC SIGNAL JUNCTION BOX	—SS—	U/G SANITARY SEWER LINE
⊥	ELECTRIC MANHOLE	—OHE—	O/H ELECTRIC LINE
⊦	ELECTRIC JUNCTION BOX	—E—	U/G ELECTRIC LINE
⊧	POWER POLE	—G—	U/G GAS LINE
⊨	DOWN GUY	—T—	U/G COMMUNICATIONS LINE
⊩	ELECTRIC TRANSFORMER	—W—	U/G WATER LINE
⊪	LIGHT POST	—PA.—	PAVED AREA
⊫	STREET LIGHT W/ MAST ARM	—BR.—	BRICK AREA
⊬	PALM TREE	—CON.—	CONCRETE AREA
⊭	TREE (TYP)		



SITE NAME:
33VW0020SMC

SITE ADDRESS:
7947.25 W. GOWAN ROAD
LAS VEGAS, NV 89129

SUBMITTALS

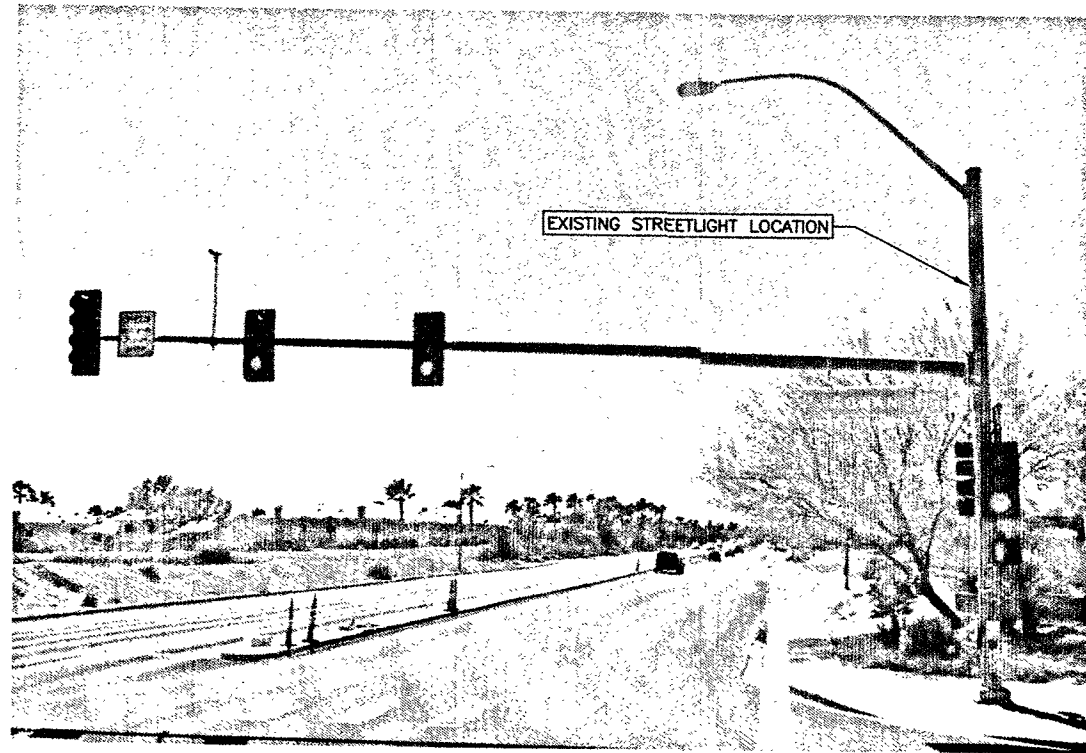
NO.	BY	DATE	SUBMITTAL
1	MJG	06/15/17	SITE SURVEY

TERRAMARK
LAND SURVEYING
24654 N. LAKE PLEASANT PKWY #103-163
PEORIA, AZ 85383
P. 480-440-1748
F. 623-777-1782
www.terramarksurveying.com

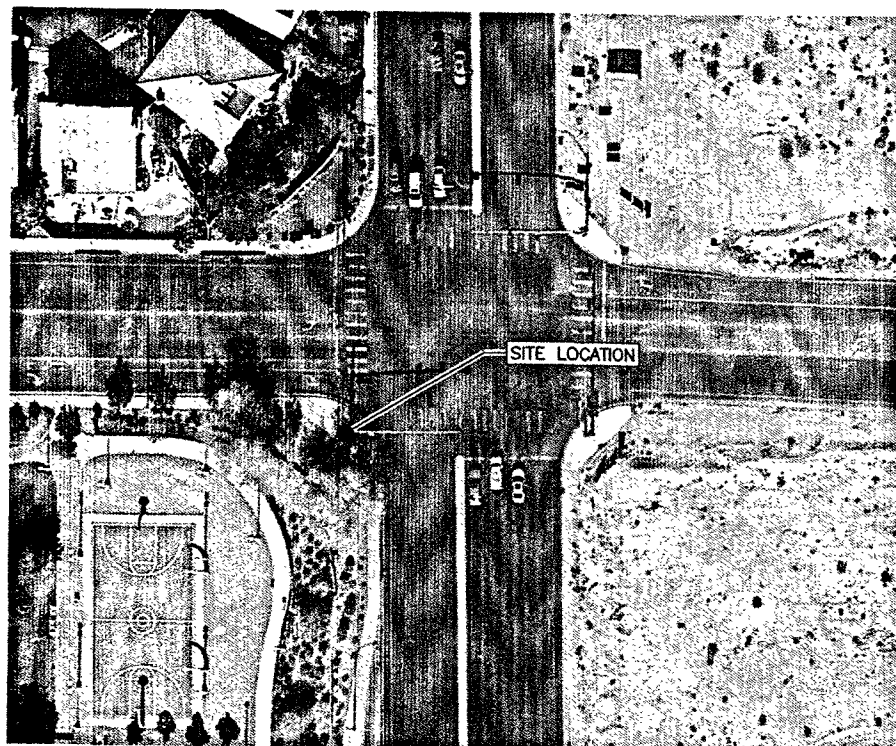
SITE SURVEY

JOB NO: 1502008-20	FIELD BY: MJG	DRAWN BY: MJG
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SHEET NO.: 1 OF 1	SHEET NAME: LS-1
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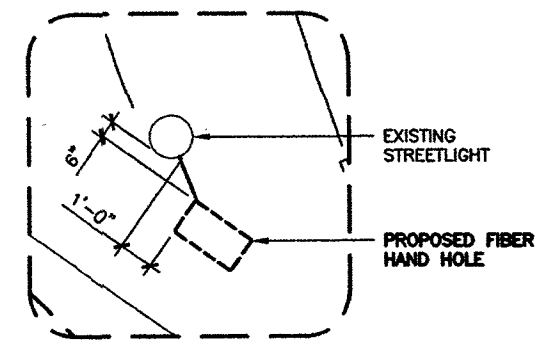
1 PHOTO ELEVATION
SCALE: N.T.S.



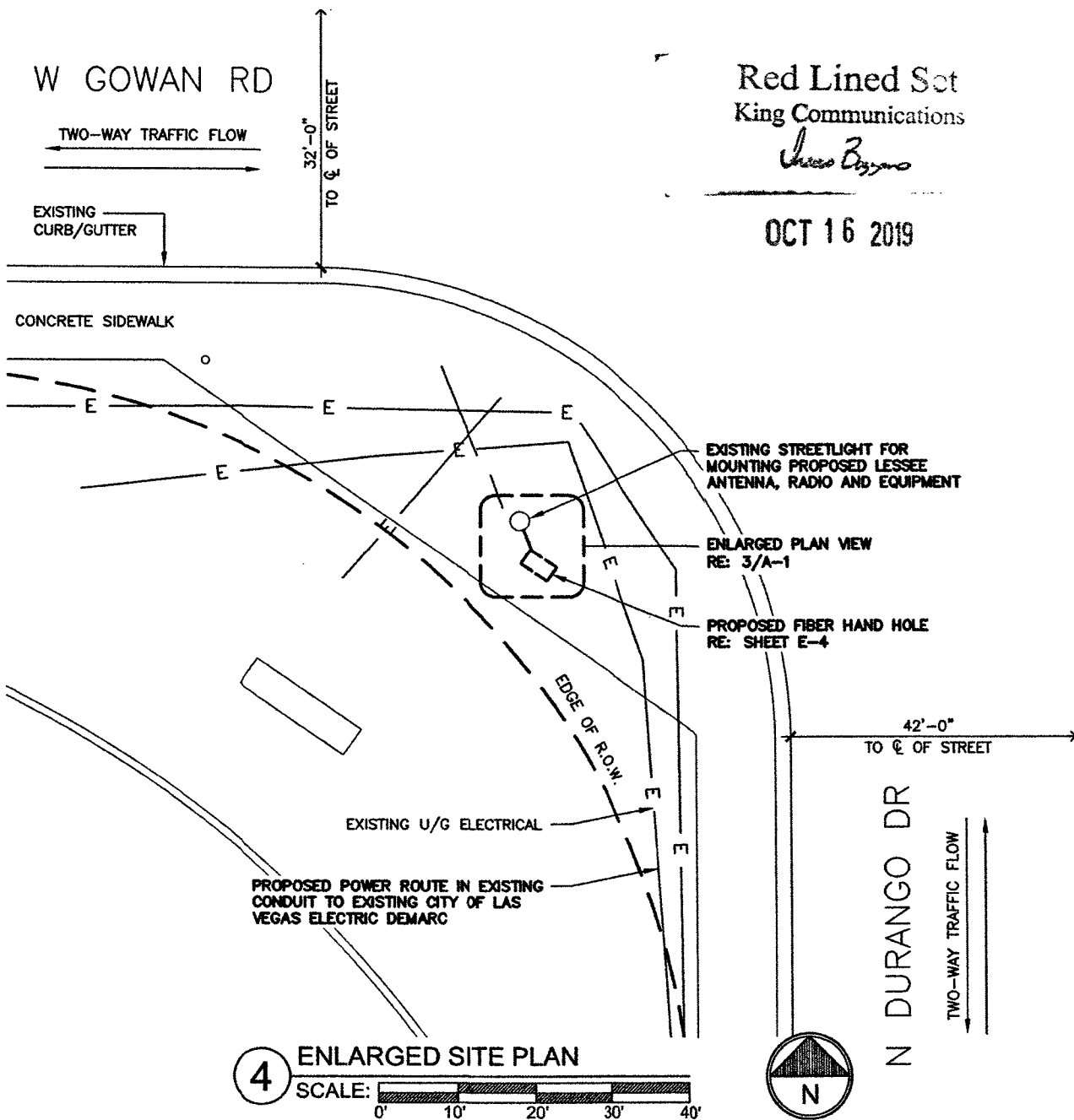
2 AERIAL SITE LOCATION
SCALE: N.T.S.



NOTE:
THIS SITE PLAN WAS GENERATED WITH THE USE OF
A SURVEY. PROPERTY LINES, POWER & TELCO
UTILITY POINT CONNECTIONS/ROUTES AND EASEMENTS
SHOWN ON THESE PLANS AND DIMENSIONS SHOULD
BE VERIFIED IN THE FIELD.



3 HAND HOLE PLACEMENT
SCALE: 0' 1' 4' 8' 16'



4 ENLARGED SITE PLAN
SCALE: 0' 10' 20' 30' 40'

Red Lined Set
King Communications
James Diggins
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LSV_DURANGOHILL-PARK_SC

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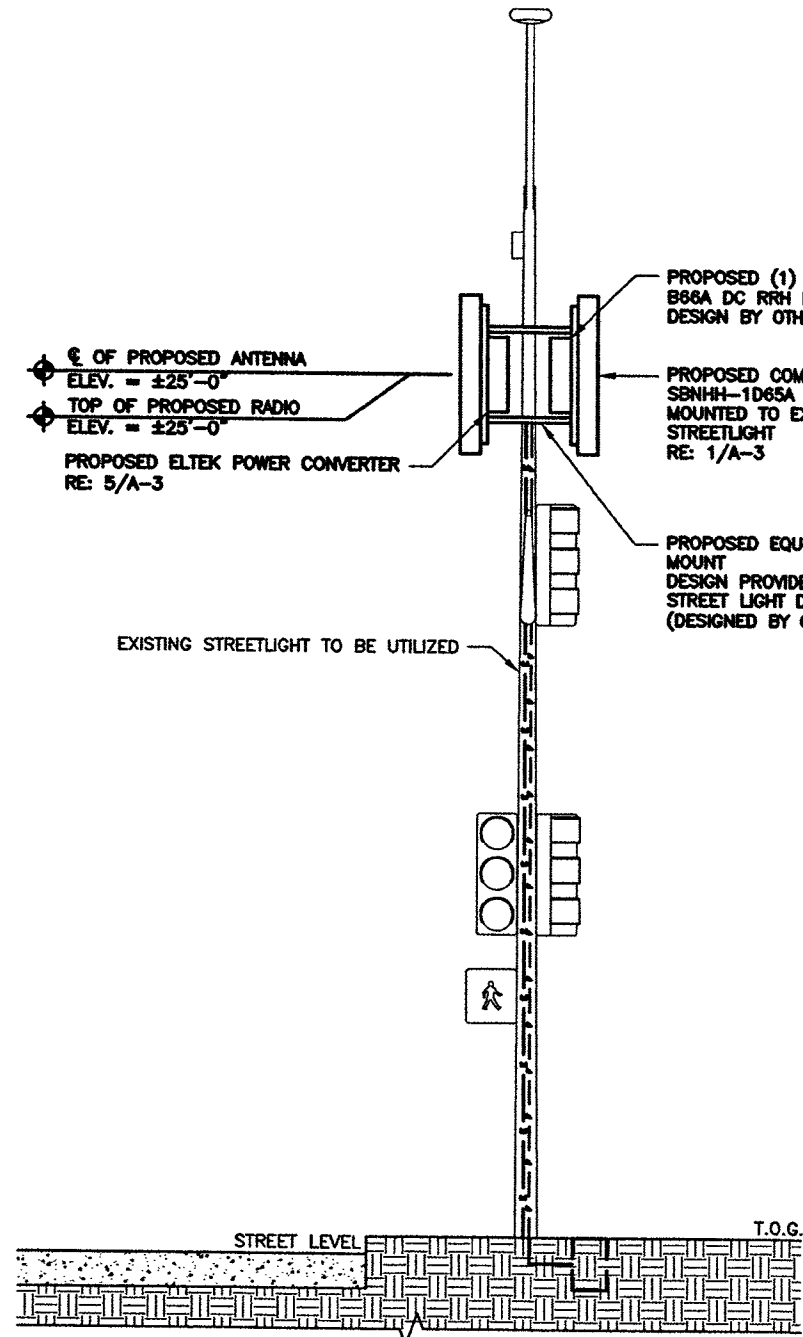
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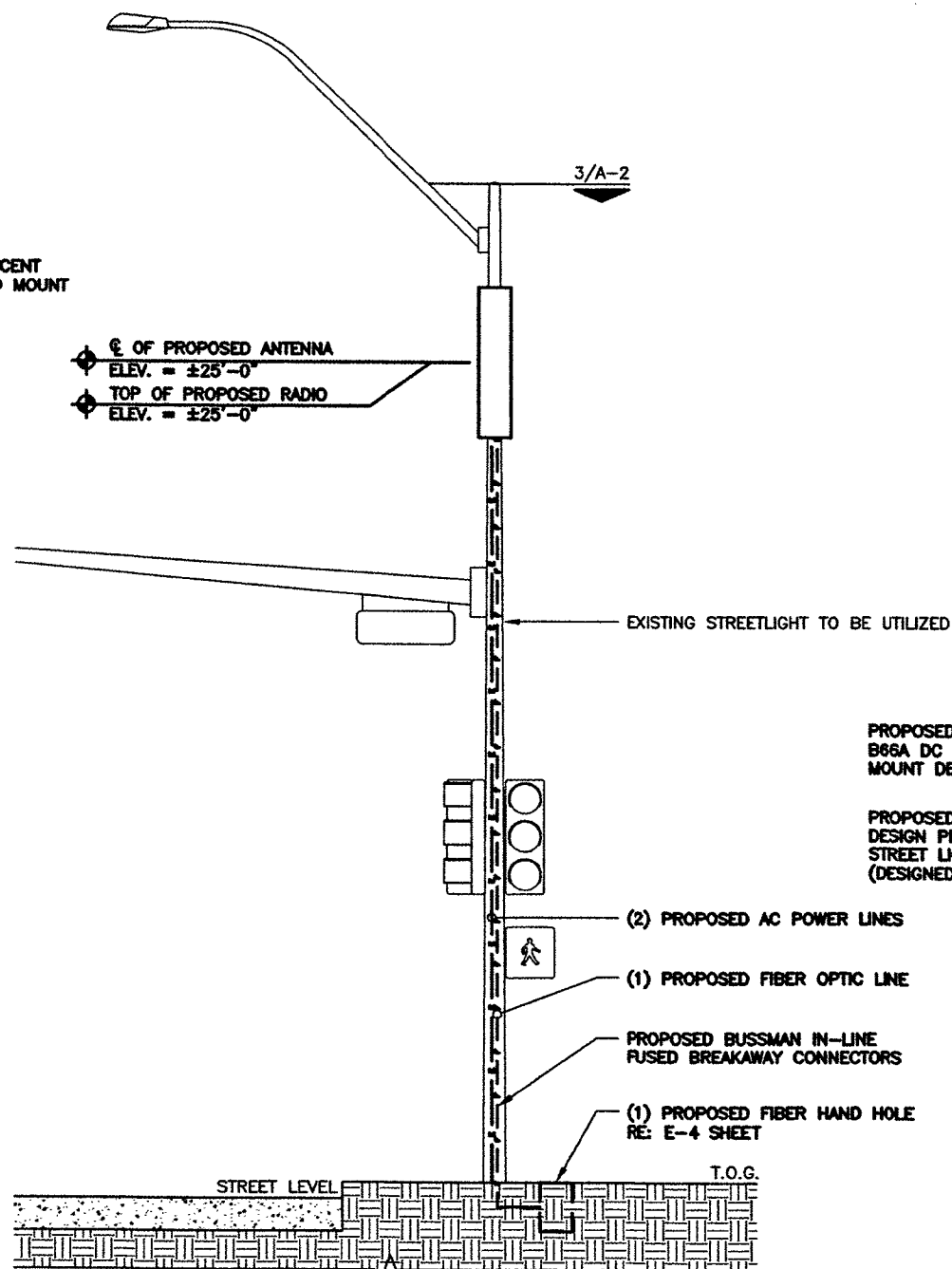
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SHEET NUMBER: A-1
REVISION: A

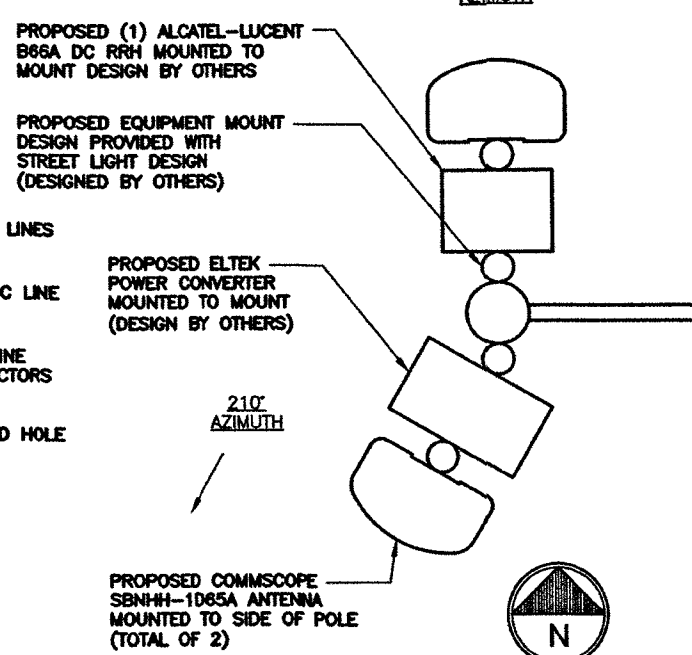
NOTE:
 PROJECT SCOPE OF WORK DOES NOT INCLUDE A STRUCTURAL EVALUATION OF THIS POLE OR STRUCTURE. NEW EQUIPMENT SHOWN ON THIS PLAN HAVE NOT BEEN EVALUATED TO VERIFY THE POLE OR STRUCTURE HAS THE CAPACITY TO ADEQUATELY SUPPORT THE EQUIPMENT. PRIOR TO ANY INSTALLATION, A STRUCTURAL EVALUATION OF THE POLE OR STRUCTURE SHOULD BE PERFORMED.



1 FINAL POLE ELEVATION (EAST)
 SCALE: 0' 1' 4' 8' 16'

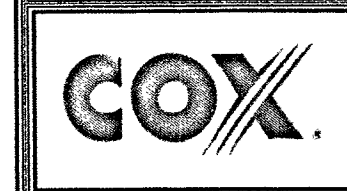
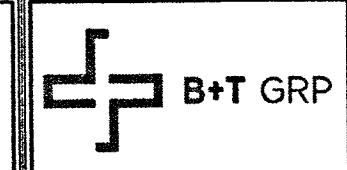


2 FINAL POLE ELEVATION (NORTH)
 SCALE: 0' 1' 4' 8' 16'



3 ANTENNA & RADIO PLAN VIEW
 SCALE: N.T.S.

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 King Communications
James Bizzano
 OCT 16 2019



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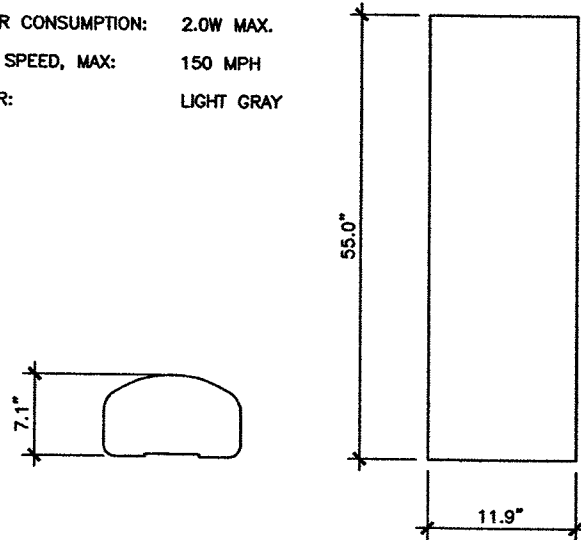
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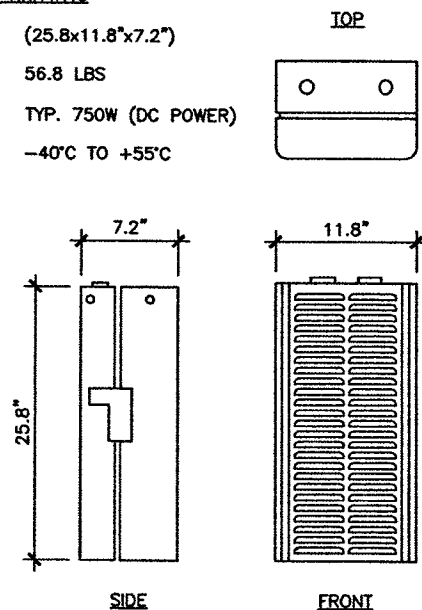
SHEET NUMBER: **A-2** REVISION: **A**

COMMSCOPE_SBNHH-1D65A
 DIMENSIONS: 55"x11.9"x7.1"
 WEIGHT: 33.5 LBS
 POWER CONSUMPTION: 2.0W MAX.
 WIND SPEED, MAX: 150 MPH
 COLOR: LIGHT GRAY



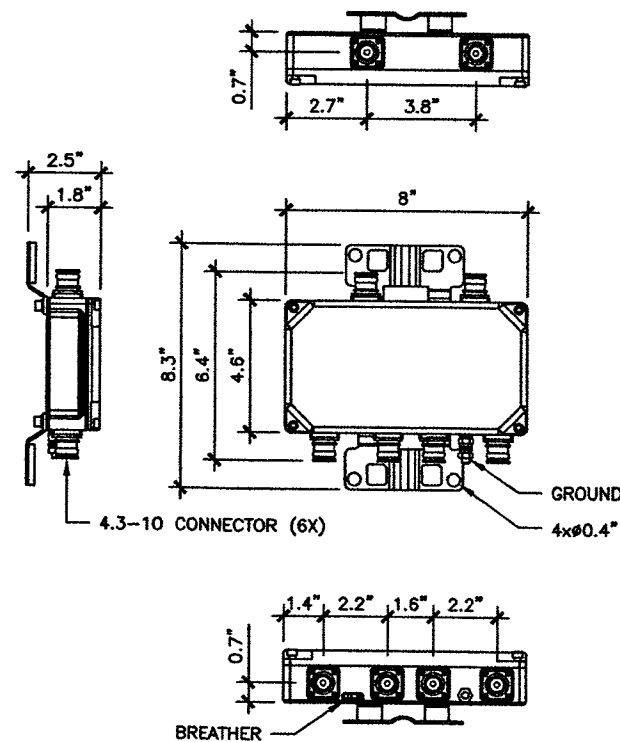
1 ANTENNA SPECIFICATIONS
 SCALE: N.T.S.

ALCATEL-LUCENT_B66A_RRH4X45
 DIMENSIONS (HxWxD): (25.8x11.8"x7.2")
 WEIGHT: 56.8 LBS
 POWER CONSUMPTION: TYP. 750W (DC POWER)
 TEMP. RANGE: -40°C TO +55°C



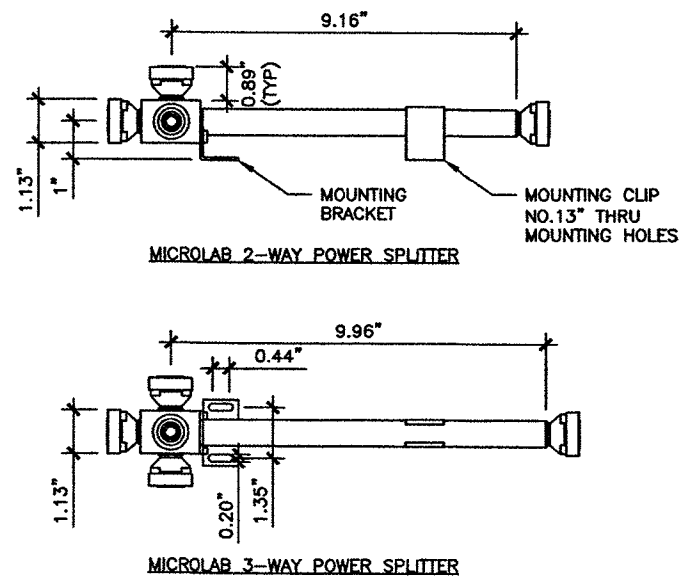
2 RRH SPECIFICATIONS
 SCALE: N.T.S.

COMMSCOPE_CBC1923T-4310_E11F13P06



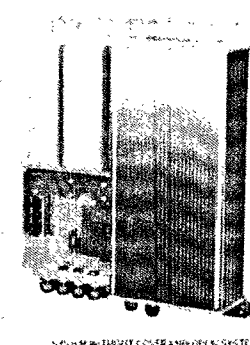
3 COMBINER DETAIL
 SCALE: N.T.S.

MICROLAB_POWER_SPLITTER
 DIMENSIONS (HxWxD): (9.16x#1.13") & (9.96x#1.13")
 WEIGHT: 0.85 LBS
 POWER RATING: 500W AVG. 3kWpk
 TEMP. RANGE W/O SOLAR LOAD: -35°C TO +75°C



4 POWER SPLITTER SPECIFICATIONS
 SCALE: N.T.S.

Red Lined
 King Communications
Jesus Pizarro
 OCT 16 2019



Part number	MFG0212.000 / C00212.000	MFG0212.000 / C1ECC212.000
INPUT DATA		
Voltage	100 - 250 Vac	
Frequency	45 - 65 Hz	
Mains Configuration	1 x Single phase + PE	
Mains Connection	4 mm ² pluggable terminals blocks in system box	
Surge protection (included in system box?)	IEC 61000-4-5 (Test level X: 8 kV)	
OUTPUT DATA		
Voltage (nominal/range)	-48Vdc / -43.2 - -57.6 Vdc	
Power maximum	1300 W ¹	1300 W ¹ / 650 W
Max. Current	27 A	27 A / 13.5 A
Surge protection (included in system box?)	IEC 61000-4-5 (Test level X: 8 kV)	
BATTERY DISTRIBUTION		
LVBD	Default	
MCB	2 x 30A	1 - 2 x 30A
Connection	4 mm ² pluggable screw terminals	
Battery compartment included	Yes (Battery cables for 1 string included)	
Supported battery dimensions (LxWxH)	4 pcs 136 x 66 x 95 mm or 151 x 65 x 100 mm	Optional TBC
LOAD DISTRIBUTION		
Number of branches (rating)	2 (20 A, 20 A)	2 - 4 (2 - 20 A)
Connection	4 mm ² pluggable screw terminals	
CONTROL & MONITORING		
Compact	3 x input Configuration: Digital temperature or battery symmetry; 1 used for battery temp.	
	3 x Relay Output (Max 75V / 2A / 0.2W)	
	Ethernet (RJ45); SNMP; Webpages; E-mail	
MECHANICAL DATA		
Dimensions (WxHxD)	467 x 542 x 150 mm [18.4 x 21.3 x 5.9"]	
Weight, including rectifiers, system box and battery compartment, excluding batteries	approx. 13 kg [28.7 lbs]	
OTHER		
Operating temperature	-45 to +55°C (-49 to +131°F)	
Storage temperature	-40 to +85°C (-40 to +185°F)	
Environment protection	IP 55 - Rectifiers and system box IP 33 - battery compartment (free vented)	
Seismic	Zone 4 (Telcordia GR-53 core)	
Cable entry	System box - from bottom via 8 IP65 cable glands / Battery box via 2 cable glands	

5 POWER CONVERTER DETAIL
 SCALE: N.T.S.



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SHEET NUMBER: **A-3** REVISION: **A**

NOTES:

1. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
3. HEIGHT SHALL BE VERIFIED WITH OWNER TO INSTALLATION.
4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
5. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.).
6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSFORMATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
7. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT, MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA & NBFU.
8. CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A.
9. CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS.
10. COMPLETE JOB SHALL BE GUARANTEED FOR A PRIOR OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
11. ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
12. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
13. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOW DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
14. USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE.
15. ALL CONDUCTORS SHALL BE COPPER.
16. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
17. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES AND DRAWINGS.
18. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
19. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
20. LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
21. WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM, NO BX OR ROMEX CABLE IS PERMITTED UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS.
22. GROUNDING CONDUCTORS SHALL BE SOLID TINED COPPER AND ANNEALED #2.
23. GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10' LONG. COPPERWELD OR APPROVED EQUAL.
24. METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS. MANUFACTURED BY SQUARE D COMPANY OR APPROVED EQUAL. ALL MATERIALS SHALL BE U.L. LISTED.

25. CONDUIT:

- a. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
 - b. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
 - c. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIRE.
 - d. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE.
26. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
 27. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAIMAGED CONDITION.
 28. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.
 29. THE ELECTRICAL INSTALLATION WORK SHALL COMPLY WITH ALL LOCAL, STATE AND NATIONAL CODES, LAWS AND ORDINANCES APPLICABLE TO ELECTRICAL WORK.
 30. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND VERIFY EXISTING CONDITIONS BEFORE BIDDING AND SHALL INCLUDE IN HIS BID THE NECESSARY COSTS TO CONSTRUCT THIS PROJECT IN ACCORDANCE WITH INTENT OF THE ELECTRICAL DRAWINGS, SPECIFICATIONS, AND ALL APPLICABLE CODES.
 31. ALL MATERIAL AND EQUIPMENT FURNISHED AND INSTALLED UNDER THIS CONTRACT SHALL BE NEW, FREE FROM DEFECTS AND SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY OWNER OR HIS REPRESENTATIVE. SHOULD ANY TROUBLE DEVELOP DURING THIS PERIOD DUE TO FAULTY WORKMANSHIP, MATERIAL OR EQUIPMENT, THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIAL AND LABOR TO CORRECT THE TROUBLE WITHOUT COST TO THE OWNER.
 32. ALL WORK TO BE EXECUTED IN WORKMANLIKE MANNER AND SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED.
 33. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITER'S LABORATORIES.
 34. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING RELATED TO ELECTRICAL WORK, UNLESS NOTED OTHERWISE AND CO-ORDINATED WITH THE GENERAL CONTRACTOR.
 35. ELECTRICAL CONTRACTOR SHALL CO-ORINATE ALL WORK WITH CIVIL AND ARCHITECTURAL PLANS. THE REQUIREMENTS OF ALL EQUIPMENT ACTUALLY BEING INSTALLED SHALL BE VERIFIED PRIOR TO INSTALLING THE ELECTRICAL WORK.
 36. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER TYPE THWN-2, THW-2, RHW-2, XHHW-2, #14, #12, & #10 SOLID, #8 AND LARGER STRANDED, UNLESS NOTED OTHERWISE.
 37. ON COMPLETION OF THE WORK, THE INSTALLATION SHALL BE FREE FROM GROUNDS AND SHORT CIRCUITS.
 38. ELECTRICAL CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS TO THE ARCHITECT AN CUSTOMER UPON COMPLETION OF THE JOB.
 39. ELECTRICAL WORK SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED, INCLUDING BUT NOT LIMITED, TO COMPLETE ELECTRICAL SYSTEMS POWER AND LIGHTING, TELEPHONE CONDUIT SYSTEM, SIGNAL SYSTEMS, PANEL BOARD(S), CONTROL WIRING, GROUNDING, CONDUIT ONLY SYSTEMS, ETC., AS INDICATED ON ELECTRICAL DRAWINGS AND/OR REQUIRED BY GOVERNING CODES.
 40. RACEWAYS SHALL BE: RIGID STEEL CONDUIT: HOT-DIP GALVANIZED HEAVY WALLS AS MANUFACTURED BY REPUBLIC, TRIANGLE OR EQUAL, RIGID POLYVINYL CHLORIDE CONDUIT (PVC): HEAVY WALLS SCHEDULE 40 AS MANUFACTURED BY CARLON ELECTRICAL, VISQUEEN OR EQUAL, ELECTRICAL METALLIC TUBING (EMT): ZINC-COATED THIN WALL AS MANUFACTURED BY TRIANGLE, REPUBLIC OR EQUAL.
 41. FUSE TYPE SHALL BE BUSSMANN RK-1 OR CLASS "J" FUSE.
 42. PROVIDE ENGRAVED PLASTIC LABELS TO IDENTIFY ALL PANEL BOARDS, XFMRs., DISTRIBUTION PANELS, DISCONNECT SWITCHES, AND TRANSFER SWITCHES, LABELS SHALL READ IN THIS FASHION "A" 208Y/120V 3PH, 4W, 225A, CKT. BKR OR FUSES TYPE AND SIZES.

43. E.C. SHALL VERIFY AND TEST GROUND TO SOURCE TO A MAXIMUM OF 5 OHMS. IF THE GROUND TEST DOES NOT ACHIEVE THE 5 OHMS LESS, E.C. SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY CONDUCTORS AND GROUND RODS TO ACHIEVE 5 OHMS MAXIMUM.
44. BEFORE SUBMITTING BID, VERIFY EXISTING SITE CONDITIONS, ELECTRICAL SERVICE REQUIREMENTS AND THE EXACT SERVING UTILITY POINTS OF CONNECTION.
45. THE ELECTRICAL CONTRACTOR (E.C.) SHALL FURNISH AND PAY FOR ALL PERMITS AND RELATED FEES.
46. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL ELECTRICAL MATERIALS, EQUIPMENT AND WORK SHOWN ON THESE PLANS ARE TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
47. E.C. SHALL FURNISH AND INSTALL ALL SWITCHED, CONDUITS, WIRES, BOXES, LIGHT FIXTURES (INCLUDING LAMPS), SERVICE DEVICES, RECEPTACLES, SWITCHBOARDS AND PANEL BOARDS, ETC. REQUIRED FOR A COMPLETE AND OPERATING ELECTRICAL SYSTEM.
48. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL/LOCATION INFORMATION RELATING TO THE ELECTRICAL DRAWINGS.
49. ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGES AND HORSEPOWER RATING OF ALL MECHANICAL.
50. PRIOR TO INSTALLING ANY ELECTRICAL WORK, THE E.C. SHALL VERIFY EXACT LOCATIONS AND REQUIREMENTS ON THE JOB AND BU REFERENCE TO ARCHITECTURE, MECHANICAL AND EQUIPMENT SUPPLIERS DRAWINGS. SHOULD THERE BE ANY QUESTION OR PROBLEM CONCERNING THE NECESSARY PROVISIONS TO BE MADE, PROPER DIRECTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH ANY WORK.
51. OUTLET AND JUNCTION BOXES SHALL BE SIZED PER CODE FOR THE QUANTITY OF WIRES THEY CONTAIN. SEE ARTICLE 370 OF N.E.C. PROVIDE ADDITIONAL BOXES AND EXTENSION RINGS AS REQUIRED.
52. E.C. SHALL COMPLY WITH CABLE BENDING RADIUS REQUIREMENTS PER CABLE MANUFACTURES SPECIFICATION.
53. CONDUIT LAYOUTS SHOWN ON THE PLANS ARE DIAGRAMMATIC, NOT INDICATING THE ROUTING REQUIRED; THE CONTRACTOR SHALL ROUTE CONDUIT AS REQUIRED BY THE CONDITIONS OF INSTALLATION.
54. ALL EQUIPMENT PROVIDED BY THE E.C. SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING AGENCY ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION, FOR THE CONDITIONS OF THE INSTALLATION.
55. PLANS INDICATE THE NUMBER OF PHASE NATURAL AND GROUND CONDUCTORS WHERE MORE THAN THREE CONDUCTORS ARE TO BE INSTALLED IN A CONDUIT (THREE OR LESS CONDUCTORS ARE NOTE SHOWN). ADDITIONAL CONDUCTORS REQUIRED FOR CONTROL SHALL BE INCLUDED EVEN IF NOT EXPLICITLY SHOWN.
56. WHERE SIZE IS NOT SHOWN ON THE DRAWINGS, CIRCUITS SHALL CONSIST OF #12 PHASE AND GROUNDED (NEUTRAL CONDUCTORS) AND A #12 CU GROUND IN A 3/4" CONDUIT.
57. UNLESS SPECIFICALLY NOTED OTHERWISE, THE E.C. SHALL MAKE FINAL CONNECTIONS TO ALL UTILIZATION EQUIPMENT SHOWN ON THE DRAWINGS. VERIFY THE TYPE OF FINAL CONNECTION AND PROVIDE APPROPRIATE WIRING METHOD.
58. PRIOR TO TRENCHING IN ANY AREA, THE CONTRACTOR SHALL CONTACT ELECTRICAL, CIMMUNICATIONS/DATA, CABLE TV, GAS AND WATER UTILITY PROVIDERS (BLUE STRIKE) AND HAVE ALL UTILITIES IN THE AREA IDENTIFIED. IN ADDITION, THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A SUBCONTRACTOR SPECIALIZING IN THE LOCATION OF UNDERGROUND STRUCTURES TO IDENTIFY ANY OBSTACLES IN THE PATH OF TRENCHING (PRIOR TO COMMENCING ANY WORK). DAMAGE TO ANY UNDERGROUND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL CODE TO THE PROJECT.
59. ANY AND ALL WIRE THAT CARRIES A CURRENT MUST BE IN A CONDUIT. (GROUNDING WIRE FOR LOOPS, HALOS, ETC., IS CONSIDERED NON-CURRENT CARRYING)

Red Lined Set
King Communications

James E. King
OCT 16 2019



LSV_DURANGO HILL-PARK_SC

33VW0020SMC

7947.25 W GOWAN RD
LAS VEGAS, NV 89128

PROJECT NO: 114365.001
CHECKED BY: MEH

ISSUED FOR:			
REV	DATE	DRWN	DESCRIPTION
A	6/22/17	GEH	PRELIMINARY REVIEW

B&T ENGINEERING, INC.
12685
Expires 12/31/17

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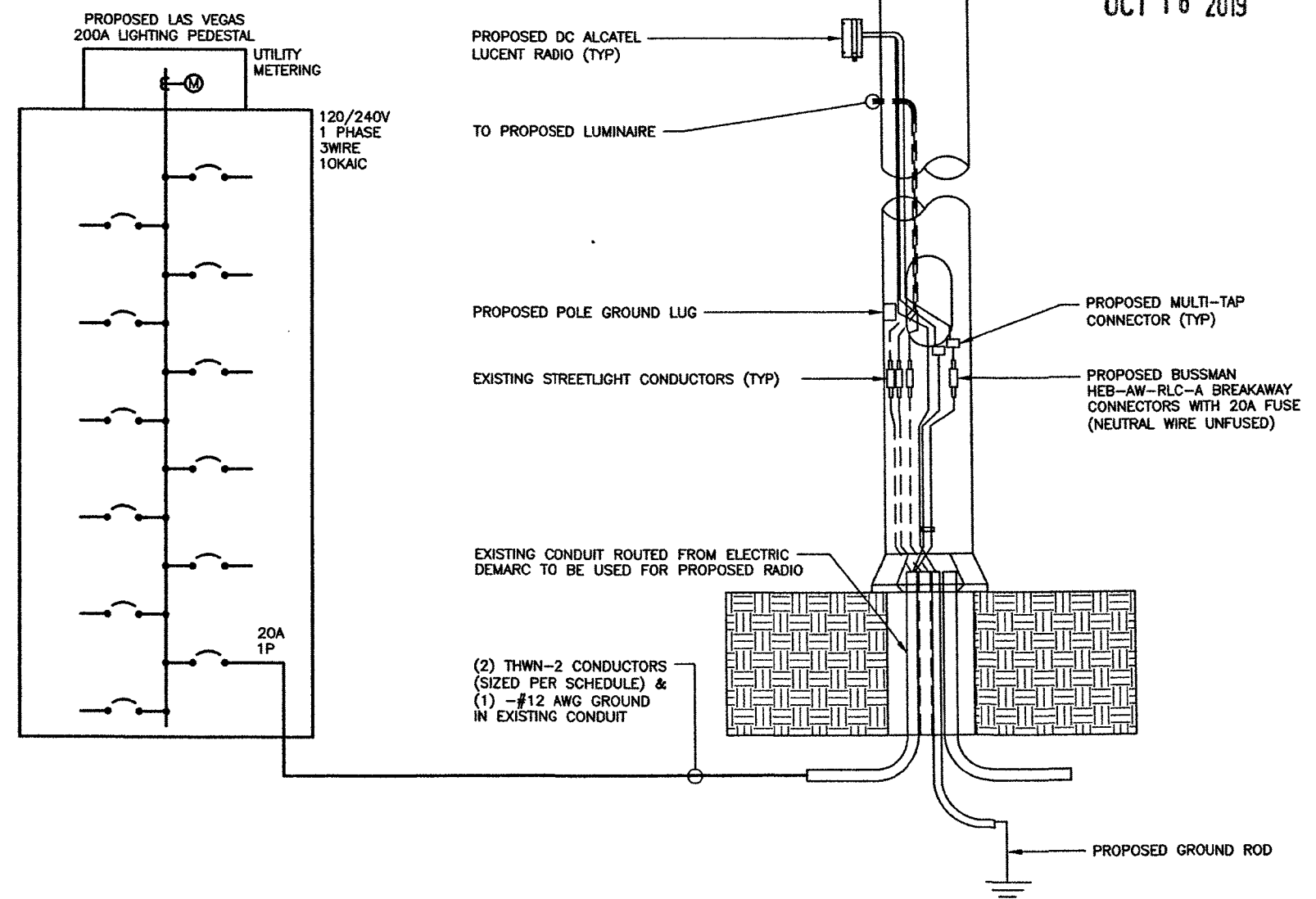
SHEET NUMBER: **E-1** REVISION: **A**

SITE NAME:		PROPOSED ELECTRICAL LOADING														
PANEL DESIGNATION:																
CITY OF LAS VEGAS LIGHTING PEDESTAL																
		SUPPLY VOLTAGE: 120 V														
		PHASE: 2														
		WIRE: 5														
CKT	LOAD DESCRIPTION	BREAKER AMPS	BREAKER POLES	BREAKER STATUS	SERVICE LOAD VA	USAGE FACTOR	BREAKER AMPS	PHASE A VA	PHASE B VA	USAGE FACTOR	SERVICE LOAD VA	BREAKER STATUS	BREAKER POLES	BREAKER AMPS	LOAD DESCRIPTION	CKT
1	ALCATEL-LUCENT B66A RRH	20	1	ON	300	1.00	300									2
NOTES:					PHASE A TOTAL VA		300									
					PHASE B TOTAL VA		0									
					TOTAL EVA		0.50									
					TOTAL AMPS		2.50									



Red Lined Set
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Jesus Boggio
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120VAC FEEDER CONDUCTOR MAXIMUM DISTANCE		
#14 AWG	260'-0"	3% VOLT DROP @ 2.5A
#12 AWG	400'-0"	3% VOLT DROP @ 2.5A
#10 AWG	675'-0"	3% VOLT DROP @ 2.5A



- NOTES:
- CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
 - ALL NEW CONDUCTOR WIRE TO BE INSTALLED SHALL BE COPPER THWN-2, THW-2, RHW-2, XHH2-2 WIRE UNLESS NOTED OTHERWISE.
 - ALL GROUNDING AND BONDING TO BE PER THE RECOGNIZED EDITION OF THE NATIONAL ELECTRICAL CODE (NEC).
 - ALL INSTALLED CONDUCTORS AND SIGNAL CABLES TO BE CLEARLY MARKED "COX COMMUNICATIONS" WITH BRASS OR FIBERGLASS TAGS.

1 ELECTRICAL ONE LINE DIAGRAM
SCALE: N.T.S.

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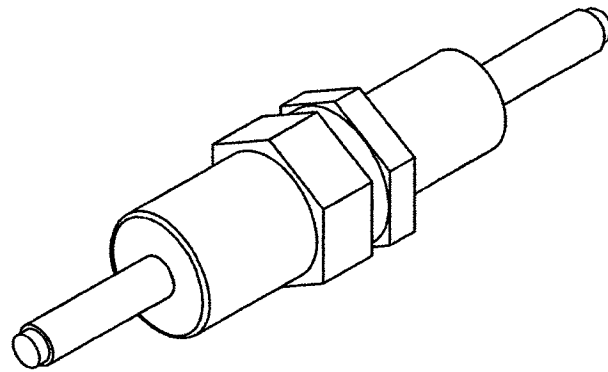
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E-2	A

BUSSMAN HEB-AW-RLC-A

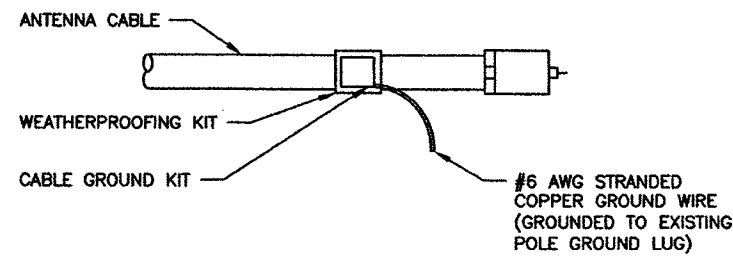
DIMENSIONS, LENGTH: 4.4"

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

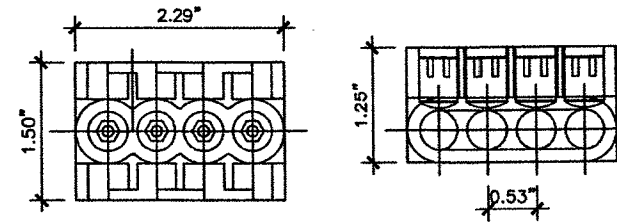


1 BREAKWAY FUSE DETAIL
SCALE: N.T.S.

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



2 ANTENNA CABLE GROUND KIT
SCALE: N.T.S.

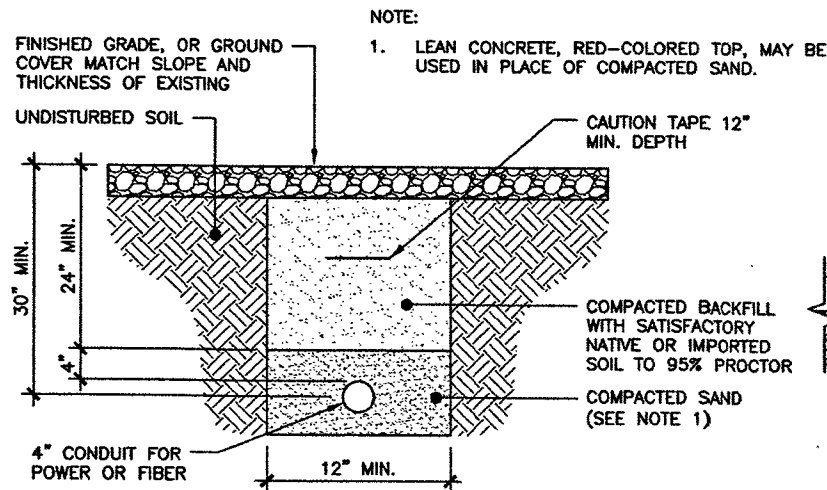


3 CONNECTOR DETAIL
SCALE: N.T.S.

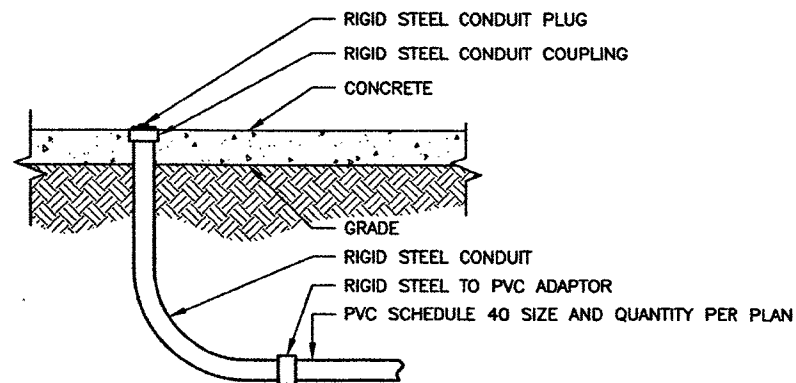
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4 CONDUIT TRENCH DETAIL
SCALE: N.T.S.



5 CONDUIT STUB-UP DETAIL
SCALE: N.T.S.



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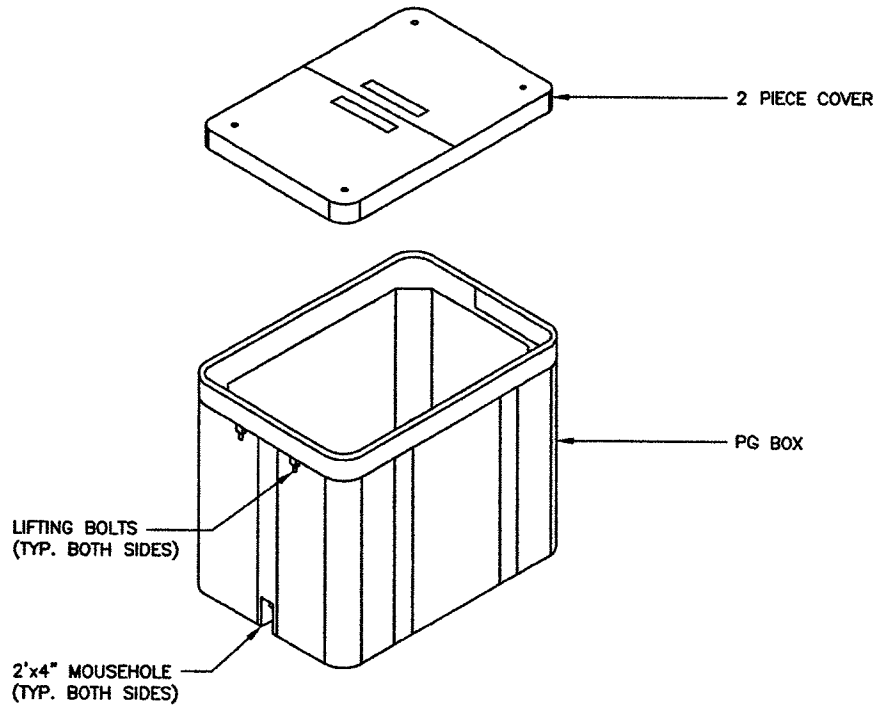
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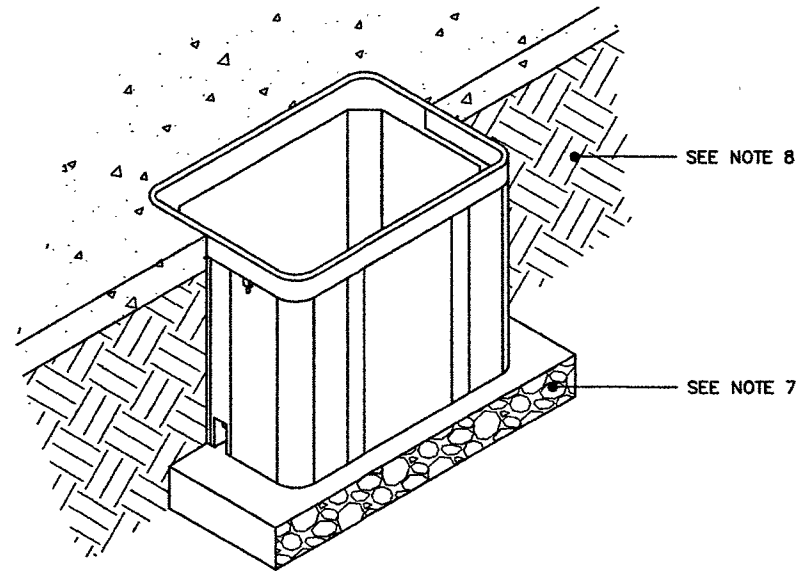
SHEET NUMBER: REVISION:

E-3

A

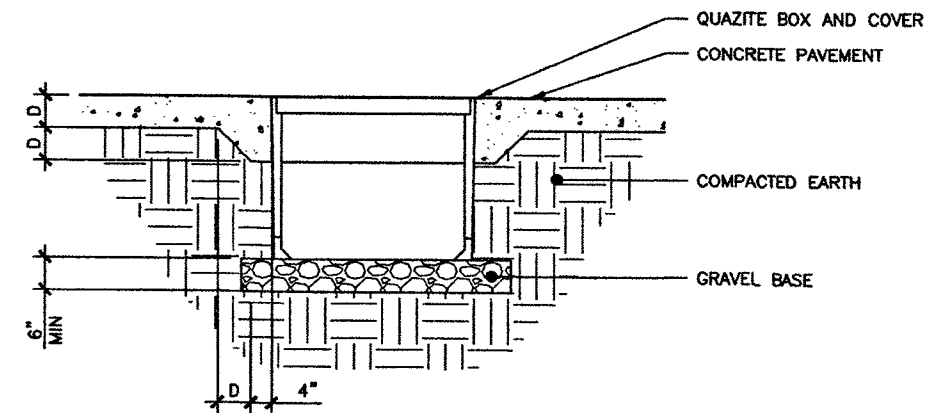


1 QUAZITE PG BOX WITH 2 PIECE COVER
SCALE: N.T.S.



2 ISO VIEW MOUNTED IN CONCRETE
SCALE: N.T.S.

1. CONCRETE COLLARS MAY BE DESIRED FOR INSTALLATIONS IN DRIVEWAYS, PARKING LOTS AND OFF-ROADWAY APPLICATIONS WHERE SUBJECT TO OCCASIONAL NON-DELIBERATE TRAFFIC. THIS APPLIES TO BOXES MADE FROM ANY MATERIAL TO PROVIDE ADDED PROTECTION FOR THE TOP LID. THIS IS NOT NECESSARY IN GRASSY AREAS OR AREAS SUBJECT TO PEDESTRIAN TRAFFIC.
2. CONCRETE ENCASEMENT TO BE 3,000 PSI MIN.
3. CONCRETE ENCASEMENT COLLAR DIMENSION "D" TO BE EQUAL TO DESIGN PAVEMENT DEPTH.
4. PAVEMENT AND SUBGRADE TO BE SHOWN ON THE ENGINEERING PLANS.
5. EXCAVATE THE HOLE APPROXIMATELY 6"-8" DEEPER THAN SUGGESTED HAND HOLE BURIAL DEPTH.
6. COMPACT THE SUBSOIL WITH A BACK-HOE OR A HYDRAULIC TAMPER. ADD APPROXIMATELY 6"-8" IF GRAVEL TO THE BOTTOM OF HOLE.
7. PLACE THE HAND HOLE ON THE LEVELED GRAVEL BED. LEVEL THE HAND HOLE.
8. BACK-FILL WITH LOOSE EARTH MATERIAL UP TO THE TOP SURFACE OF THE HAND HOLE. DO NOT BACK-FILL WITH CHUNKS OF FROZEN MATERIAL OR LARGE ROCKS NEXT TO THE GROUND SLEEVE. PACK THE BACK-FILL MATERIAL BY FOOT TAMPING, NO MACHINE TAMPING.
9. PROVIDE BARRIER HUBBELL QUAZITE P/N: PG 2436BC30 (OR APPROVED EQUAL)



3 QUAZITE PG BOX WITH 2 PIECE COVER
SCALE: N.T.S.



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