Exhibit C.1

Department of Community Services
Land Use Planning Division
www.multco.us/landuse

Multnomah County

1600 SE 190th Avenue, Portland Oregon 97233-5910 • PH. (503) 988-3043 • Fax (503) 988-3389

AGENCY REVIEW

Attached is a site review permit application (as submitted). Please evaluate and comment on these materials so that we can incorporate your feedback into our completeness review. This is not a substitute for public notice of a complete application. Once we determine the application is complete an additional notice will be mailed (with any revised information), offering you the opportunity to comment or informing you of a date for public hearing, as appropriate.

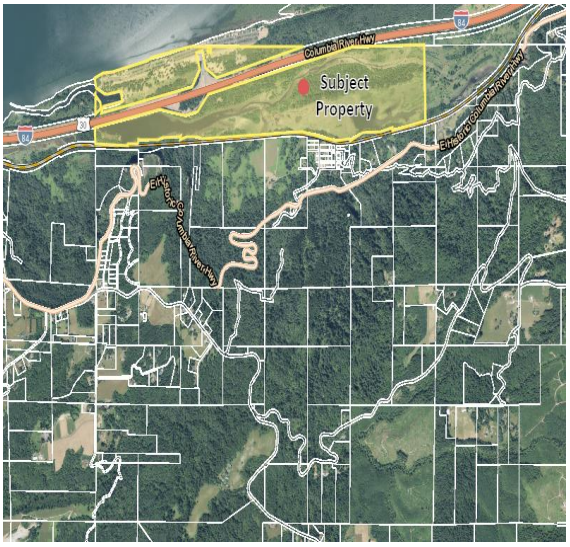
National Scenic Area Site Review

To:

- ☒ Gorge Commission / Cultural Advisory Committee
- ☒ U.S. Forest Service NSA Office
- ☒ Confederated Tribes of Warm Springs
- ☒ Confederated Tribes of the Umatilla Indian Reservation
- ☒ Nez Perce Tribe
- ☒ Confederated Tribes & Bands of the Yakama Nation
- ☒ State Historic Preservation Office
- ☒ Oregon Department of Transportation
- ☐ PSU / Institute for Natural Resources
- ☐ Oregon Department of Fish and Wildlife
- ☐ City of Troutdale

From: Marisol Cervantes, Planner

Vicinity Map **N↑**



Case File: T3-2023-16947

Location: Levy Code 203
Tax Lot 1000, Township 1N, Range 5E, Section 30, W.M.
Alternative Account #R945300220 Property ID #R495067

Proposal: Oregon Parks and Recreation Department (OPRD) proposes two pedestals with two electric vehicle charging stations (EV) mounted on each pedestal in the Rooster Rock State Park Day Use parking-lot.

Your written comments are needed no later than 4:00 p.m., July 17, 2023.

Zoning: Gorge Open Space (GSO) & Gorge Public Recreation (GSPR) ☐ GMA ☒ SMA

National Scenic Area resources that may be impacted by this project include:

☒ Key Viewing Areas	☐ Cultural Resource	☒ Wetland/Stream/Lake Buffer
☒ Sensitive Wildlife Habitat	☒ Rare Plants	☐ Deer/Elk Wintering Range
☐ Historic Uses/Structures	☐ Natural Area	☒ Adjacent to Recreational Uses

RIVIAN

PROJECT INFORMATION

SITE ADDRESS	**ROOSTER ROCK STATE PARK CORBETT, OR 97019**
COORDINATES	45.54696, -122.23621, 0.00000
COUNTY	MULTNOMAH

PROJECT DESCRIPTION

INSTALLATION OF (04) RIVIAN LEVEL 2 CHARGERS, ALL RELATED ELECTRICAL AND CIVIL ACTIVITIES, AND INSTALLATION OF NECESSARY PARKING SIGNS.

ODOT SPECIFICATION

THE STANDARD SPECIFICATIONS OF THE STATE OF OREGON, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

APPLICABLE CODES

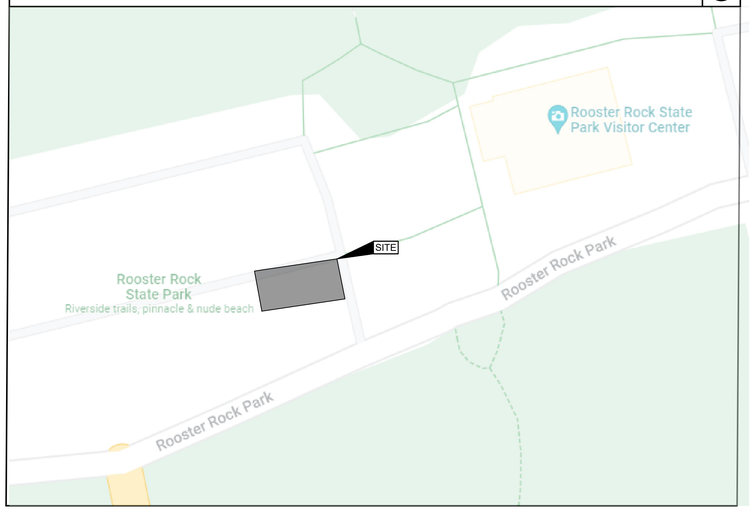
2018 INTERNATIONAL BUILDING CODE (IBC)
2020NATIONAL ELECTRIC CODE (NEC)

LOCATION MAP

N.T.S. @2021GOOGLE

VICINITY MAP

N.T.S. @2021GOOGLE



INDEX

SHEET	SHEET NAME
C0	COVER SHEET
--	RIVIAN EQUIPMENT SPEC SHEET
C1	CIVIL GENERAL NOTES
C3	SITE PLAN
C4	CIVIL DETAILS
E1	ELECTRICAL GENERAL NOTES
E2	SYSTEM ONE-LINE DIAGRAM & PANEL SCHEDULE
E3	ELECTRICAL DETAILS

Oregon Utility Notification Center
811 or 800-332-2344

NOT FOR CONSTRUCTION

REV.	DATE	DESCRIPTION
	05.20.2022	CD 90
	07.12.2022	CD 90_REV A

RIVIAN

ROOSTER ROCK STATE PARK CORBETT, OR 97019

PROJECT MANAGER: A. TALARICO
DESIGNER / ENGINEER: P. RAO
SHEET NAME: COVER SHEET
PROJECT NO.: XXXXX
SHEET NO.: C0

RIVIAN WAYPOINTS CHARGER: KEY FEATURES

Max charge speed of 11.5kW[1], compared to common 6.8 or 7.2kW varieties
Aesthetic exterior design and SAE J1772 plug provides maximum compatibility
Plug and Charge (ISO 15118) compatible
Enables for over-the-air firmware updates via ethernet, cellular, or Wi-Fi
Remotely view and control settings via a Rivian-developed online portal, Rivian Energy Cloud
Time of sale information communicated via user-friendly display screen ($/kWh)
Provides charger location, real-time charging updates, and payment details to drivers

[1] When plugged into a vehicle with sufficiently sized on-board charger and at 240V AC
[2] Pending

Wall-Mount Waypoints Charger

Single Pedestal Waypoints Charger

Dual Pedestal Waypoints Charger

RIVIAN WAYPOINTS CHARGER: TECHNICAL SPECIFICATIONS

ELECTRICAL	
Input	2-Pole, Single Phase, Nominal Voltage: 208 / 240V AC, 60Hz
Max. Continuous Current	48A
DIP Switch Adjustable Max. Current Values	40A, 32A, 24A, 20A, 16A, 12A, 6A
Vehicle Connector Type	SAE J1772 (IEC 62196 Type 1)
Output Cable Length	18 ft [5.49m]
Recommended Installation Type	Hardwired with non-GFCI type Service Panel Breaker
Wiring	L1, L2, Ground (no neutral)

MECHANICAL, ENVIRONMENTAL, AND CERTIFICATIONS	
Operating Ambient Temperature	-35°C to +50°C
Ventilation	Not Required
Dimensions (Ind. Mount Plate) HxWxD	16.27 x 7.32 x 5.75in [413.23 x 185.79 x 146.02mm]
Enclosure Rating	NEMA 3R, Outdoor Use
Certifications	UL and cUL Listed to UL2594, UL2231, UL1998
Codes & Standards	FCC Part 15 Class B, NEC 265 compliant, ENERGY STAR[2]
Mounting Configurations	Wall Mount, Rivian Pedestal Mounted (single or dual)

CONNECTIVITY	
Card Reader (NFC)	ISO 14443 A/B, ISO 151693, and FeliCa
Bluetooth	Version 5.0
Local Area Network (LAN)	Wi-Fi – 2.4GHz (802.11 b/g/n), Ethernet – 10/100BASE-T
Wide Area Network (WAN)	Cellular – LTE Cat M1 / LTE Cat NB1
Vehicle Communication	ISO 15118[2]

RIVIAN

NOT FOR CONSTRUCTION

FOR REFERENCE ONLY

REV.	DATE	DESCRIPTION
	05.20.2022	CD 90
	07.12.2022	CD 90_REV A

RIVIAN

ROOSTER ROCK STATE PARK CORBETT, OR 97019

PROJECT MANAGER: A. TALARICO
DESIGNER / ENGINEER: P. RAO
SHEET NAME: RIVIAN EQUIPMENT SPEC SHEET
PROJECT NO.: XXXXX
SHEET NO.:

GENERAL CONSTRUCTION NOTES (ALL MAY NOT APPLY)

1. ALL WORK SHALL COMPLY WITH ALL STATE AND LOCAL CODES AND ANY OTHER REGULATING AUTHORITIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK.
2. PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FROM RIVIAN OF ANY DISCREPANCIES. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED AT THE SUBCONTRACTORS SOLE EXPENSE.
3. SUBCONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO RIVIAN FOR APPROVAL BEFORE MAKING ANY CHANGES. DEVIATION FROM PLANS BEFORE WRITTEN APPROVAL FROM RIVIAN PLACES LIABILITY ON THE SUBCONTRACTOR.
4. ALL EQUIPMENT SHALL BE MOUNTED AS SHOWN. WHERE DETAILS ARE NOT PROVIDED, CONTRACTOR SHALL USE BEST CONSTRUCTION PRACTICES.
5. ALL SURFACES SHALL BE PATCHED AND PAINTED AROUND NEW DEVICES AND EQUIPMENT TO MATCH EXISTING FINISHES.
6. ANY METAL SHAVINGS FROM SITE WORK SHALL BE CLEANED FROM ALL SURFACES WHERE OXIDIZED OR CONDUCTIVE METAL SHAVINGS MAY CAUSE RUST, ELECTRICAL SHORT CIRCUITS, OR OTHER DAMAGE.
7. APPROVALS FROM BUILDING INSPECTORS SHALL NOT CONSTITUTE AUTHORITY TO DEVIATE FROM THE DRAWINGS.
8. NEW PAVEMENT INSTALLED AS PART OF THIS PROJECT SHALL MATCH EXISTING PAVEMENT SECTION. ASPHALT AND GAB DEPTHS SHALL BE MAINTAINED
9. EXISTING CURB, PAVEMENT MARKINGS, AND OTHER EXISTING ENTITIES ARE OBTAINED FROM AERIAL IMAGERY. SURVEY AND/OR FIELD VERIFICATION IS REQUIRED TO OBTAIN TRUE LOCATION AND DIMENSIONS.
10. THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. RIVIAN & GPD GROUP DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINES, EASEMENTS, ROADS, AND SETBACKS IF APPROXIMATE LOCATIONS ARE SHOWN IN PLAN.
11. THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
12. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND FEDERAL, STATE AND LOCAL JURISDICTION CODES, ORDINANCES AND APPLICABLE REGULATIONS.
13. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATION ON THE DRAWINGS.
14. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
15. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
16. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
17. THE GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
18. CONSTRUCTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
20. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES.
21. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
22. 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.
23. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY AN INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATED BY THE CONTRACTOR.
24. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT, LOCAL PERMITTING AGENCY AND EPA REQUIREMENTS.
25. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
26. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING RIVIAN.
27. GRANULAR BACKFILL: SHALL MEET THE FOLLOWING GRADATION PER THE TABLE BELOW:

SIEVE SIZE	TOTAL PERCENT PASSING
1 1/2 INCH (37.5 MM)	100
1 INCH (25.0 MM)	75 TO 100
3/4 INCH (19.00 MM)	80 TO 100
3/8 INCH (9.5 MM)	35 TO 75
NO. 4 (4.75 MM)	30 TO 60
NO. 30 (0.600 MM)	7 TO 30
NO. 200 (0.75 MM)	3 TO 15

28. ~~GRANULAR BEDDING AND TRENCH BACKF~~ILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SW OR SW-SM).
29. UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTICS SILTS AND CLAYS (LL>45). MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION, AND DEBRIS AS DETERMINED BY THE CONSTRUCTION MANAGER. TYPICAL THESE WILL BE SOILS CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND OL.
30. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES PER APPLICABLE PLAN PREPARED BY CONTRACTOR. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ALL TIMES.
31. PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.

GENERAL FOUNDATION NOTES (ALL MAY NOT APPLY)

1. DETERMINATION OF FINAL BEARING ELEVATIONS, TOPSOIL AND EXCAVATION STRIPPING DEPTH, INSPECTION OF ALL SUBSOIL EXPOSED DURING STRIPPING, SITE GRADING, EXCAVATION OPERATIONS, APPROVAL OF FILL MATERIALS, DENSITY TESTING OF FILLS TO ENSURE PLACEMENT PER SPECIFICATION REQUIREMENTS, INSPECTION OF FOUNDATION BEARING SURFACES, AND VERIFICATION OF ALLOWABLE BEARING PRESSURES ARE THE TESTING LABORATORY'S RESPONSIBILITY.
2. ALL FOUNDATIONS ARE TO REST ON FIRM UNDISTURBED SOIL OR COMPACTED FILL FREE FROM ORGANIC MATTER. IF POOR SOIL CONDITIONS ARE ENCOUNTERED AT FOUNDATION DEPTHS SHOWN, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH CONSTRUCTION.
3. CONTRACTOR SHALL COMPACT SUBGRADE. SEE FROST/NO FROST DESIGN NOTES BELOW.
4. FOUNDATIONS HAVE BEEN DESIGNED BASED ON AN ASSUMED ALLOWABLE SOIL BEARING CAPACITY OF 1500 PSF.
5. NEW FOOTINGS PLACED ADJACENT TO EXISTING FOOTINGS SHALL BEAR AT THE SAME ELEVATION, UNLESS NOTED OTHERWISE.
6. STEP FOOTINGS AT A RATIO OF ONE (1) VERTICAL TO TWO (2) HORIZONTAL WITH A MAXIMUM VERTICAL STEP OF 2'-0" UNLESS NOTED OTHERWISE.
7. INUNDATION AND LONG TERM EXPOSURE OF BEARING SURFACES, WHICH WILL RESULT IN DETERIORATION OF BEARING FORMATIONS, SHALL BE PREVENTED. FOOTINGS SHALL BE PLACED IMMEDIATELY FOLLOWING FOOTING EXCAVATIONS AND BEARING SURFACE INSPECTION.
8. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
9. GROUNDWATER ASSUMED TO BE BELOW EXCAVATION DEPTH. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION ON SITE, CONTRACTOR SHALL PROVIDE FOR ANY SITE DRAINAGE AND DE-WATERING REQUIRED.
10. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING PUBLIC AND PRIVATE UTILITIES PRIOR TO EXCAVATION. IF NECESSARY, UTILITIES SHALL BE RELOCATED PRIOR TO FOUNDATION INSTALLATION.

L2 CHARGING STATION FOUNDATIONS - FROST DESIGN NOTES (BOTTOM OF FOUNDATION ABOVE FROST LEVEL):

1. CONCRETE FOUNDATIONS SHOULD BEAR DIRECTLY ON A PROPERLY COMPACTED FREE-DRAINING GRANULAR FILL CONSISTING OF NO. 57 STONE OR AN APPROVED EQUIVALENT.
2. GRANULAR FILL SHOULD EXTEND VERTICALLY TO THE MINIMUM RECOMMENDED REGIONAL FROST DEPTH AND LATERALLY 2/3D FROM THE FOUNDATION PERIMETER (EXCLUDING SIDE OF PERIMETER ADJACENT TO CURB). GRANULAR FILL SHOULD BE PLACED IN 6 INCH LOOSE LIFTS AND COMPACTED WITH A VIBRATORY COMPACTOR. THE COMPACTION EQUIPMENT SHOULD BE OPERATED OVER THE FULL WIDTH OF THE FOUNDATION UNDERCUT AREA UNTIL VISIBLE DEFORMATION OF THE BACKFILL CEASES. SEE SHEET T-1 FOR LOCAL FROST DEPTH.
3. GEOTEXTILE (FILTER FABRIC) SHOULD BE PLACED BETWEEN THE GRANULAR BACKFILL AND COHESIVE SOILS TO PRECLUDE THE INFILTRATION OF FINES.

L2 CHARGING STATION FOUNDATIONS - NO FROST DESIGN NOTES (BOTTOM OF FOUNDATION BELOW FROST LEVEL)

1. CONCRETE FOUNDATIONS SHOULD BE SUPPORTED ON A 6 INCH COMPACTED LAYER OF APPROVED FREE-DRAINING GRANULAR MATERIAL.
2. APPROVED MATERIAL SHOULD BE COMPACTED OVER THE FULL WIDTH OF THE INFILL AREA UNTIL VISIBLE DEFORMATION OF THE BACKFILL CEASES.

CONCRETE (ALL MAY NOT APPLY)

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 301-10, "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE" AND ACI 302, 305 AND 306 UNLESS NOTED OTHERWISE.
2. ALL DETAILING, FABRICATION AND PLACING OF CONCRETE SHALL CONFORM TO ACI 318-14, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAIL REINFORCED CONCRETE STRUCTURES" UNLESS NOTED OTHERWISE.
3. SAFETY AND PERFORMANCE OF THE STRUCTURE ARE THE RESPONSIBILITY OF THE CONTRACTOR INSOFAR AS THEY ARE AFFECTED BY THE LOCATION AND DETAILS OF CONSTRUCTION JOINTS. SHOP DRAWINGS OF THE PROPOSED CONSTRUCTION JOINT LOCATIONS AND DETAILS ARE TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.
4. MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS OR VOIDS.
5. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS AS FOLLOWS: ALL CONCRETE - 2500 PSI. ALL CONCRETE EXPOSED TO WEATHER SHALL CONTAIN 6% (± 1%) AIR ENTRAINMENT.
6. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
7. WELDED WIRE FABRIC REINFORCING SHALL CONFORM TO ASTM A1064 AND BE FURNISHED IN FLAT SHEETS AND INSTALLED ON CHAIRS OR PRECAST CONCRETE BLOCKS.
8. NO TACK WELDING OF REINFORCING IN THE FIELD IS PERMITTED.
9. PROVIDE CORNER BARS AT ALL LOCATIONS WHERE REINFORCEMENT CHANGES DIRECTION.
10. PROVIDE STRAIGHT AND DIAGONAL BARS AT EDGES OF ALL OPENINGS.
11. REINFORCING EMBEDMENT AND LAP SPLICES (INCHES) FOR 2500 PSI CONCRETE.

		OTHER		TOP*	
	BAR SIZE	ANCHORAGE	SPLICE	ANCHORAGE	SPLICE
#	3	15	19	19	24
#	4	19	25	25	33
#	5	24	31	31	41
#	6	29	37	37	49

* HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE BELOW BAR

12. NON-SHRINK GROUT SHALL MEET A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 6000 PSI.

WHEN ALLOWED OR SPECIFIED, FIBER REINFORCED CONCRETE SHALL MEET THE FOLLOWING SPECIFICATION (ALL MAY NOT APPLY)

STRENGTH	2500 PSI CNS-F*
MINIMUM CEMENT FACTOR	800#
MAXIMUM W/C	0.42
ENTRAINED AIR	6.5% AVG.
SLUMP	4" MAX. UNLESS HRWR OR MID RANGE WR; THEN 6" - 8"
WATER REDUCER	NORMAL TYPE A
RETARDER	NORMAL TYPE D AS NEEDED (REQUIRED IF CONCRETE TEMPERATURE EXCEEDS 85° F)
CONCRETE TEMPERATURE	50° - 90° F
ACCELERATOR	NON-CHLORIDE TYPE ONLY THE USE OF CALCIUM CHLORIDE IS PROHIBITED.
FIBER	1.5" @ 1.5 LBS. PER CUBIC YARD (AS FIBERMESH 300 OR EQUIVALENT)

*'CNS': DESIGNATES A CONCRETE MIX DESIGN WITH 2 GALLON PER CUBIC YARD OF CALCIUM NITRITE CORROSION-INHIBITOR AT 7.5% SILICA FUME.

*'F' DESIGNATES A CONCRETE MIX DESIGN WITH 1.5 LBS. FIBRILLATED MONOFILAMENT FIBER 1.5 INCHES IN LENGTH REINFORCEMENT PER CUBIC YARD OF CONCRETE

LANDSCAPE/IRRIGATION NOTES (ALL MAY NOT APPLY)

1. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED OR MULCHED SHALL BE GRADED TO MATCH EXISTING CONDITIONS.
2. SOD SHALL BE SELECTED PER ZONE AND MATCHED TO EXISTING SITE. SOD SHALL BE A FIRST GRADE CERTIFIED BLEND CONTAINING NO MORE THAN 30 PERCENT OF OTHER GRASSES AND CLOVERS, AND FREE FROM ALL NOXIOUS WEEDS.

   ZONES 3, 4 & 5: APPROVED BLUE GRASS BLEND
   ZONE 6: APPROVED FESCUE BLEND
   ZONES 7 & 8: APPROVED BERMUDA BLEND
   ZONES 9 & 10: APPROVED ST AUGUSTINE FLORATAM BLEND
3. ALL DISTURBED AND PROPOSED LANDSCAPE AREAS SHALL RECEIVE X" OF XX MULCH TO MATCH EXISTING CONDITIONS.
4. PLANT GUARANTEE (IF APPLICABLE): CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF PROJECT ACCEPTANCE BY THE OWNER.
5. IRRIGATION RELOCATION: CONTRACTOR FIELD VERIFY IF EXISTING IRRIGATION IS PRESENT, DETERMINE POINT OF CONNECTION, SYSTEM PRESSURE, FIXTURE TYPES, AND POTENTIAL FOR EXPANSION. IF FOUND THAT THE EXISTING IRRIGATION SYSTEM IS CAPABLE OF EXPANSION AND REUSE THEN IT SHALL BE MODIFIED TO PROVIDE 100% COVERAGE OF THE LANDSCAPE AREA. IF THE EXISTING IRRIGATION SYSTEM IS NOT CAPABLE OF EXPANSION, CONTRACTOR TO INSTALL A NEW CONTROLLER, BOOSTER PUMP, AND OTHER APPARATUSES NEEDED FOR A COMPLETE IRRIGATION SYSTEM. IRRIGATED AREAS SHALL BE IRRIGATED BY DRIP IRRIGATION OR SIMILAR FIXTURES BY THE SAME SUPPLIER. CONTRACTOR SHALL ENSURE BUILDING WALLS AND WINDOWS WILL NOT BE DAMAGED OR STAINED BY IMPROPER IRRIGATION INSTALLATION OR POOR SELECTION OF FIXTURES. SYSTEM SHALL INCLUDE ALL SPRINKLER FIXTURES, DRIP TUBING, PIPING, VALVES, WIRING AND CONTROLS TO PROVIDE A COMPLETE FUNCTIONAL SYSTEM THAT SHALL COMPLY WITH CITY CODE. PRIOR TO UPDATING THE IRRIGATION SYSTEM, A CERTIFIED IRRIGATION DESIGNER SHALL PROVIDE SHOP DRAWINGS TO ENGINEER FOR APPROVAL. UPON APPROVAL OF SHOP DRAWINGS, THE UPDATED IRRIGATION SYSTEM SHALL BE APPROVED BY OWNER FOR FINAL ACCEPTANCE.

PAVEMENT MARKING NOTES (ALL MAY NOT APPLY)

1. ALL PAVEMENT MARKINGS TO BE WHITE PAVEMENT PAINT, UNLESS STATED OTHERWISE. ALL PAVEMENT MARKINGS WITHIN ADA AREAS SHALL BE PAINTED BLUE EXCEPT FOR COLORS DEFINED ON THE ADA PAVEMENT SYMBOL.
2. MARKING (STRIPING) PAINT FOR PARKING SPACES, TRAFFIC ARROWS, ADA PARKING AND SYMBOLS, ETC., PER LOCAL REQUIREMENTS AND AS FOLLOWS:
3. PAVEMENT MARKINGS PAINT SHALL BE WATER BASE FAST DRYING 100% ACRYLIC TYPE: WATER BASE TO MEET FEDERAL SPECIFICATION TTP-01952B. FOR COLD WEATHER APPLICATION PAINT PRODUCT SHALL BE IN ACCORDANCE WITH ASTM-D2369, D1394, D3723, D1475, D562 AND D711.
4. PROVIDE A NON-SLIP AGGREGATE ADDITIVE TO MARKING PAINT USED AT ADA ACCESS RAMPS.
5. APPLY 2 COATS WITHIN THE SAME DAY, UTILIZING STRAIGHT EDGES, YELLOW ON CONCRETE/WHITE ON ASPHALT EXCEPT WHEN MATCHING ADJACENT OR EXISTING COLOR WHEN THE PAVING IS AN EXPANSION OR SEGMENT OF A LARGER LOT.

TRAFFIC CONTROL NOTES (ALL MAY NOT APPLY)

1. DURING THE CONSTRUCTION PERIOD; SIDEWALKS, SHOULDERS, TRAVEL LANE(S), OR STREETS MAY HAVE TO BE TEMPORARILY CLOSED OR RESTRICTED FOR THE UNLOADING / LOADING OF EQUIPMENT OR AS A RESULT OF CONSTRUCTION ACTIVITIES THEMSELVES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DIRECTLY WITH THE LOCAL GOVERNING AUTHORITIES ON ANY SUCH CLOSURES AND MUST OBTAIN WRITTEN PERMISSION FROM THE APPROPRIATE AUTHORITIES PRIOR TO IMPLEMENTING SUCH CLOSURES OR RESTRICTIONS. ANY CLOSURE OR RESTRICTION MUST COMPLY WITH THE STATE MANUAL OF UNIFORM CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS (LATEST EDITION AND REVISION), AND WITH ANY AND ALL ADDITIONAL APPLICABLE CITY, VILLAGE, OR COUNTY REQUIREMENTS. THE CONTRACTOR SHALL PREPARE AND SUBMIT A FORMAL TRAFFIC CONTROL / MOT PLAN TO THE LOCAL GOVERNING AUTHORITIES IF REQUESTED. ALL REQUIRED CONSTRUCTION TRAFFIC MAINTENANCE DEVICES SHALL BE PROVIDED, ERECTED AND MAINTAINED, AND ULTIMATELY REMOVED BY THE CONTRACTOR.
2. THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ALL ABUTTING PROPERTIES AND INTERSECTING STREET AT ALL TIMES DURING THE CONSTRUCTION OF THE IMPROVEMENTS ANTICIPATED. DRIVEWAYS MUST BE MAINTAINED AND ALL TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORK DAY. PER THE STATE MUTCD AND OTHER APPLICABLE APPROPRIATE GOVERNING REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, CONES, SIGNAGE, BARRELS, MESSAGE BOARDS, LIGHTING, FLAGMEN, LAW ENFORCEMENT OFFICERS, ETC. TO AVOID DAMAGE AND / OR INJURY TO VEHICLES AND PERSONS TRAVERSING THE CONSTRUCTION AREA.

SPECIAL INSPECTIONS (ALL MAY NOT APPLY)

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND OVERSEEING OF ALL SPECIAL INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. SPECIAL INSPECTIONS MUST BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL.

EXISTING SLAB REINFORCEMENT INVESTIGATION/X-RAY (ALL MAY NOT APPLY)

1. CONTRACTOR SHALL VERIFY POST TENSIONING AND REINFORCEMENT LOCATION IN EXISTING CONCRETE SLAB PRIOR TO DRILLING.

NOT FOR CONSTRUCTION

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	05.20.2022	CD 90
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RIVIAN

ROOSTER ROCK STATE PARK CORBETT, OR 97019

PROJECT MANAGER: A. TALARICO
DESIGNER / ENGINEER: P. RAO
SHEET NAME: CIVIL GENERAL NOTES
PROJECT NO.: XXXXX
SHEET NO.: C1

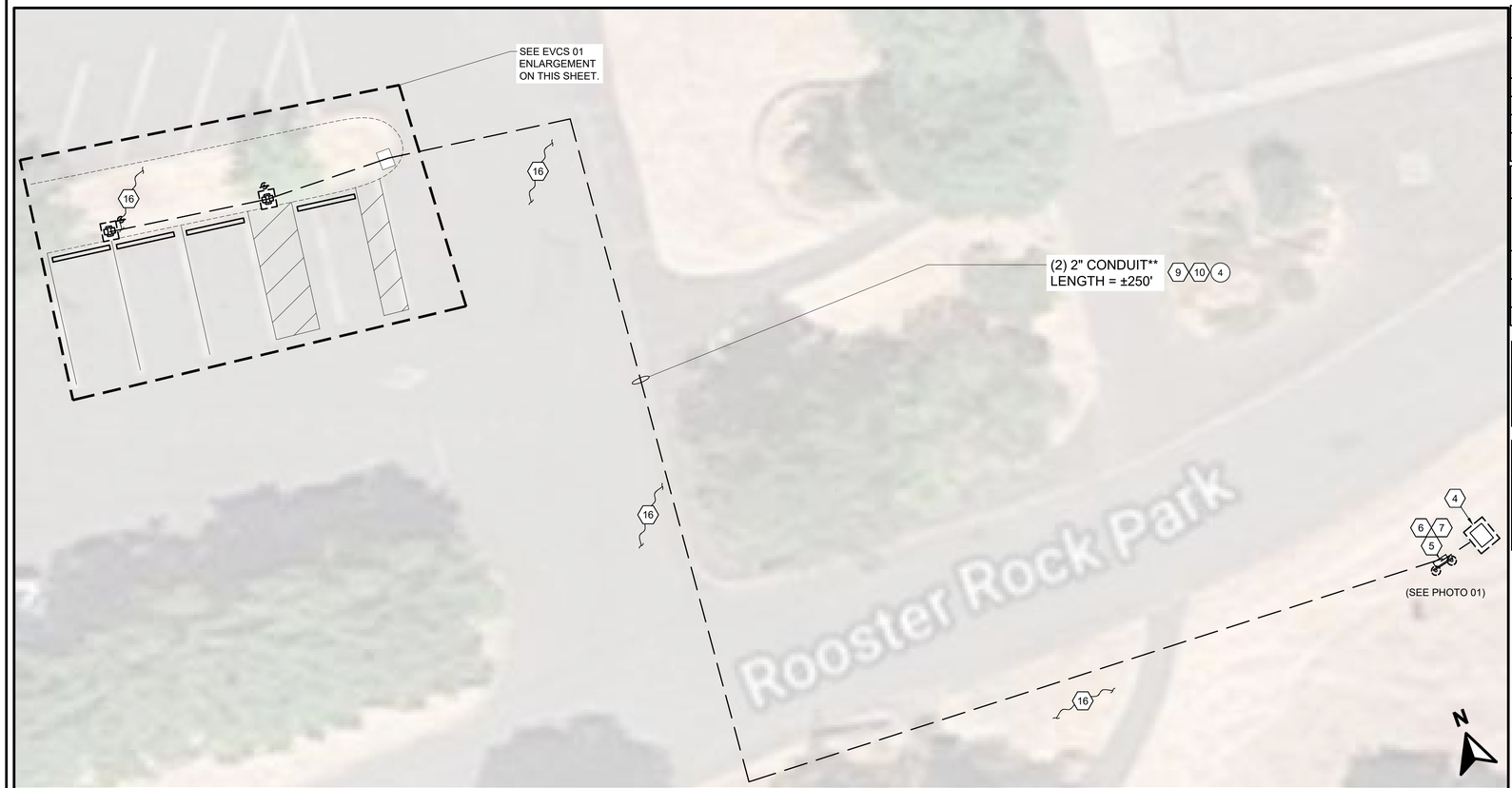
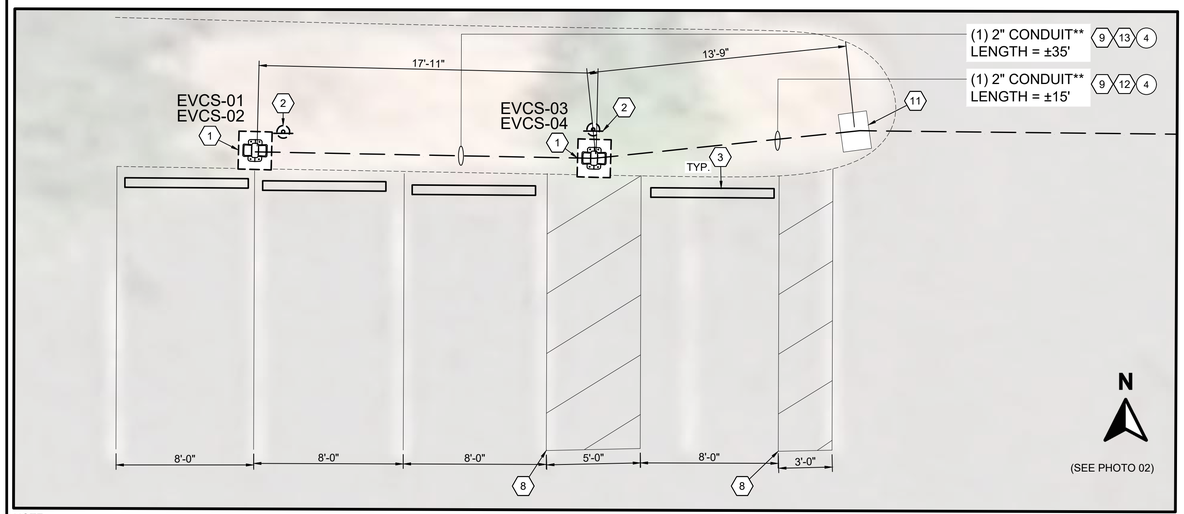


PHOTO 01

PHOTO 02



NOTE:
PROPOSED GEOMETRICS ARE BASED ON EXISTING AERIAL IMAGERY. THE CONTRACTOR SHALL FIELD VERIFY DIMENSIONS PRIOR TO CONSTRUCTION ACTIVITIES. CONTACT RIVIAN IMMEDIATELY SHOULD A DISCREPANCY EXIST.

EVCS ENLARGEMENT
SCALE: 3"=1'-0"

EVCS CIRCUIT SCHEDULE

EVCS #	EVCS STALL TYPE	CHARGING LEVEL
01	STANDARD	LEVEL 2
02	STANDARD	LEVEL 2
03	STANDARD	LEVEL 2
04	STANDARD ACCESSIBLE	LEVEL 2

PARKING STALL SCHEDULE

EXISTING STANDARD STALLS UTILIZED AS A RESULT OF THIS PROJECT	4
PROPOSED RIVIAN STALLS	4
PROPOSED STANDARD STALLS	0
NET STALL COUNT	+0

FEEDER REFERENCE

(#) DENOTES FEEDER REFERENCE. REFER TO SHEET E2 FOR FEEDER/CIRCUIT SCHEDULE.

NOTE:

AERIAL IMAGERY FROM GOOGLE EARTH DATED ON 06/2017. THIS PLAN IS FOR REFERENCE ONLY.
MAP DATA: GOOGLE, LANDSAT/ COPERNICUS

CONSTRUCTION KEYNOTES (#)

1. PROPOSED RIVIAN LEVEL 2 DISPENSER (04) MOUNTED ON RIVIAN DUAL PORT PEDESTAL(02) WITH INDIVIDUAL CAST IN PLACE CONCRETE FOUNDATION WITH BOLLARDS. SEE DETAILS ON SHEET C4.
2. PROPOSED PARKING SIGN (TYPICAL OF 2). SEE DETAILS ON SHEET C4.
3. PROPOSED WHEELSTOPS (TYPICAL OF 4). SEE DETAIL ON SHEET C4.
4. EXISTING TRANSFORMER.
5. EXISTING 200A PANEL AND UTILITY METER.
6. CONTRACTOR SHALL INSTALL NEW 200A PANEL WITH MORE BREAKER SLOTS TO ACCOMODATE EV CHARGERS.
7. RIVIAN PROPOSING TO OCCUPY FOUR (4), 2POLE, 50A BREAKERS FOR EV CHARGERS - EVCS-01, EVCS-02 AND EVCS-03, EVCS-04.
8. RE-STRIPE 4" WIDE SOLID EV ACCESSIBLE STALLS AS SHOWN IN THE DRAWING.
9. PROPOSED CONDUIT(S) SHALL BE DIRECTIONALLY BORED. SEE DETAILS ON SHEET E3.
10. PROPOSED (2) 2" CONDUIT SHALL BE DIRECTIONALLY BORED FROM 200A PANEL TO HANDHOLE.
11. PROPOSED HAND HOLE.
12. PROPOSED (1) 2" CONDUIT SHALL BE DIRECTIONALLY BORED FROM HANDHOLE TO EV CHARGERS: EVCS-01 and EVCS-02.
13. PROPOSED (1) 2" CONDUIT SHALL BE DIRECTIONALLY BORED FROM HANDHOLE TO EV CHARGERS: EVCS-03 and EVCS-04.
14. ALL DISTURBED AREAS SHALL BE SODDED/MULCHED UNLESS OTHERWISE NOTED. SEE LANDSCAPE/IRRIGATION NOTES ON SHEET C1.
15. EXISTING TREE(S) TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER PRIOR TO PERFORMING WORK IF TREE DISTURBANCE IS UNAVOIDABLE.
16. CONTRACTOR SHALL TAKE EXTRA CARE TO PRESERVE THE EXISTING CONDITION / SIDEWALK /TREES / PLANTS. MAINTAIN DISTURBANCE TO THE MINIMUM AND RESTORE WHEN WORK IS COMPLETE.
17. APPROXIMATE LOCATION OF THE EXISTING KIOSK. CONTRACTOR SHALL COORDINATE UNDERGROUND ELECTRICAL WITH ANY CHARGING INFRASTRUCTURE THAT MIGHT INTERFERE DURING INSTALLATION. SEE PHOTO 01.

** CONTRACTOR SHALL COORDINATE CONDUIT ROUTING WITH PROPERTY OWNER AND INSTALL THE FOLLOWING CONDUIT TYPE WHERE APPLICABLE (UNLESS OTHERWISE NOTED):
- PVC SCH 40 BELOW GRADE. PVC SCH 80 BELOW DRIVES AND PARKING LOTS.
- RGS 8'-0" OR LESS ABOVE GRADE.
- RGS TO BE USED IN PARKING GARAGES.
- EMT 8'-0" MINIMUM ABOVE GRADE AND WHERE NOT SUBJECT TO DAMAGE. CONTRACTOR SHALL VERIFY WITH ELECTRICAL INSPECTOR IF EMT IS APPROVED AT THIS PROJECT PRIOR TO ROUGH-IN.

GENERAL SHEET NOTES

1. CONTRACTOR SHALL REMOVE EXISTING PAVEMENT AND/OR CURB AS NECESSARY USING CLEAN SAWCUTS TO INSTALL PROPOSED UNDERGROUND CONDUITS AND REPLACE PAVEMENT AND/OR CURB AFTER CONDUITS HAVE BEEN INSTALLED. CONTRACTOR SHALL MEET OR EXCEED EXISTING PAVEMENT SPECIFICATIONS. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK.
2. APPLY LIQUID ASPHALT AT ALL JOINTS BETWEEN CONCRETE AND ASPHALT AND WHERE PROPOSED ASPHALT MEETS EXISTING, INCLUDING SAW CUT JOINTS.
3. CONTRACTOR RESPONSIBILITIES INCLUDES CHARGING STATION PAD, TRENCHING, CONDUIT INSTALLATION, AND WIRING.
4. CONTRACTOR SHALL RETURN SIDEWALKS, LANDSCAPING, PLANTERS, IRRIGATION SYSTEMS, AND ANY OTHER FACILITIES DISTURBED BY THE WORK TO THE SAME OR BETTER CONDITION THAN EXISTED PRIOR TO THE COMMENCEMENT OF THE WORK.
5. EXACT PLACEMENT AND ORIENTATION OF THE RIVIAN CHARGING STATIONS MAY VARY. VERIFY WITH RIVIAN PM PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL CONTACT UTILITY LOCATION SERVICES PRIOR TO THE START OF CONSTRUCTION. EXTREME CAUTION SHOULD BE USED WHEN EXCAVATING OR ROUTING CONDUIT AROUND OR NEAR UTILITIES.
7. CONTRACTOR TO PAINT PROPOSED EV PARKING SPACES PER JURISDICTIONAL REQUIREMENTS.
8. EXISTING CURB, PAVEMENT MARKINGS, AND OTHER EXISTING ENTITIES ARE OBTAINED FROM AERIAL IMAGERY. SURVEY AND/OR FIELD VERIFICATION IS REQUIRED TO OBTAIN TRUE LOCATION AND DIMENSIONS.
9. THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. RIVIAN & GPD GROUP DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINES, EASEMENTS, ROADS, AND SETBACKS IF APPROXIMATE LOCATIONS ARE SHOWN IN PLAN.
10. CONTRACTOR SHALL HAND DIG AROUND ALL EXISTING UTILITIES.
11. CONDUIT ELBOWS SHALL BE SIZED PER NEC. CONTRACTOR SHALL VERIFY MANUFACTURER ALLOWABLE FILL. SEE FEEDER SCHEDULE FOR CONDUCTOR SPECIFICATIONS.
12. ALL CONDUITS ACCESSIBLE TO THE PUBLIC OR WHICH CAN BE DAMAGED SHALL BE RIGID GALVANIZED STEEL.
13. CONTRACTOR SHALL PROVIDE WATER TIGHT & FIRE TIGHT FITTINGS IN ALL PENETRATIONS.
14. CONTRACTOR SHALL COORDINATE ANY/ALL BUILDING OUTAGES WITH BUILDING OWNER.
15. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY ONLY. CONDUIT PLACEMENT TO BE VERIFIED BY CONTRACTOR BASED ON EXISTING SITE CONDITIONS AND PHYSICAL MEASUREMENTS.
16. ALL UNDERGROUND CONDUITS ROUTED TO PROPOSED EQUIPMENT SHALL BE ROUTED UP THROUGH CONCRETE SLAB.

NOT FOR CONSTRUCTION

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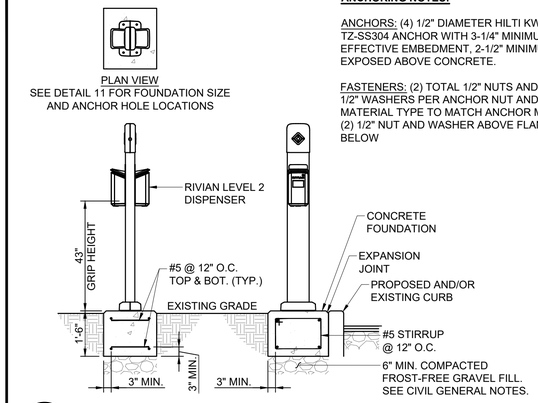
RIVIAN

ROOSTER ROCK STATE PARK CORBETT, OR 97019

PROJECT MANAGER: A. TALARICO
DESIGNER / ENGINEER: P. RAO
SHEET NAME: SITE PLAN
PROJECT NO.: XXXXX
SHEET NO.: C3



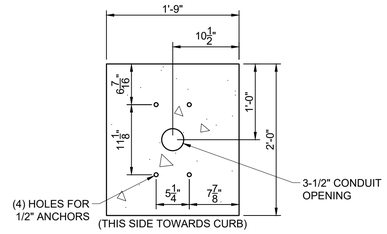
ANCHORING NOTES:

ANCHORS: (4) 1/2" DIAMETER HILTI KWIK BOLT TZ-SS304 ANCHOR WITH 3-1/4" MINIMUM EFFECTIVE EMBEDMENT, 2-1/2" MINIMUM EXPOSED ABOVE CONCRETE.

FASTENERS: (2) TOTAL 1/2" NUTS AND (2) TOTAL 1/2" WASHERS PER ANCHOR NUT AND WASHER MATERIAL TYPE TO MATCH ANCHOR MATERIAL (2) 1/2" NUT AND WASHER ABOVE FLANGE, (1) BELOW

1 LEVEL 2 PEDESTAL FOUNDATION DETAIL
NO SCALE

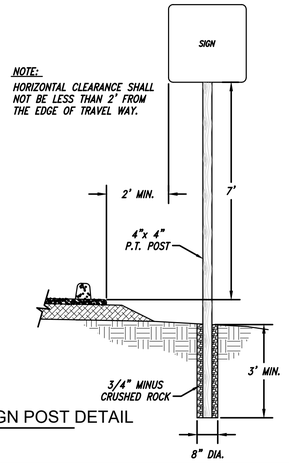
NOTES:
1. REFER TO PEDESTAL FOUNDATION DETAIL AND DETERRENT BOLLARD DETAIL FOR FOUNDATION REINFORCEMENT AND ANCHORING.



2 LEVEL 2 & DETERRENT BOLLARD FOUNDATION DETAIL
NO SCALE

NOTES:
1. GENERAL CONTRACTOR SHALL SUPPLY HARDWARE.
2. SIGN SHALL BE MOUNTED TO 2 LBS/FT GALVANIZED U-CHANNEL USING 1/4" HARDWARE.
3. U-CHANNEL FOR SIGN SHALL BE PROVIDED BY CONTRACTOR AND MOUNTED IN 12" DIA., 3'-0" DEEP CONCRETE FOUNDATION UNLESS OTHERWISE NOTED.
4. SIGN POST SHALL BE MOUNTED IN CONCRETE BOLLARD, WHERE APPLICABLE. SEE DETAIL 4 ON THIS SHEET.
5. IF PAINT FINISH IS DAMAGED DURING INSTALLATION, CONTRACTOR SHALL REPAINT AS REQUIRED (VERIFY REFLECTIVITY WITH PROPERTY OWNER).
6. SIGN POST SHALL BE PLUGGED/CAPPED TO PREVENT WATER INTRUSION FROM TOP.

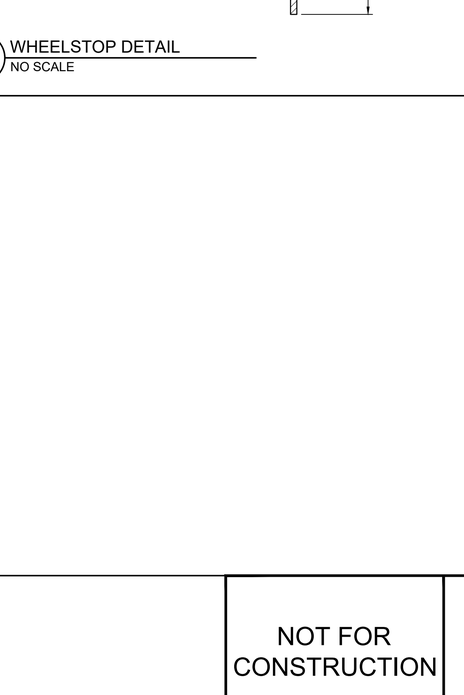
3 NON-ILLUMINATED PARKING SIGN DETAIL
NO SCALE



4 WOOD SIGN POST DETAIL
NO SCALE

NOTES:
1. WHEELSTOP SIZE AND ANCHOR LOCATIONS:
   1.1. FULL SIZE - 72"L X 8"W X 6"H; ANCHORS LOCATED 9" FROM EACH END
   1.2. HALF SIZE - 36"L X 8"W X 6"H; ANCHORS LOCATED 6" FROM EACH END
2. WHEELSTOP TO BE LOCATED 6" FROM SIDE OF PARKING STALL.
3. SEE SITE PLAN FOR LOCATION AND QUANTITY OF WHEELSTOPS.

WHEN TO USE:
1. IN FRONT OF ALL WAYPOINT DISPENSERS, STRUCTURES, ETC.
   1.1. NOT NECESSARY IF THERE IS CURB AND DISPENSER IS AT LEAST 3' FROM CURB
2. TO PREVENT VEHICLES FROM ENCROACHING WALKWAY WHEN PARKING



5 WHEELSTOP DETAIL
NO SCALE

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RIVIAN

ROOSTER ROCK STATE PARK CORBETT, OR 97019

PROJECT MANAGER	DESIGNER / ENGINEER
A. TALARICO	P. RAO

SHEET NAME: CIVIL DETAILS

PROJECT NO.: XXXXX

SHEET NO.: C4

GENERAL ELECTRICAL SPECIFICATIONS (ALL MAY NOT APPLY)

1. THE FOLLOWING ARE ABBREVIATED SPECIFICATIONS. ALL ITEMS NECESSARY FOR A COMPLETE AND OPERABLE JOB (TO THE SATISFACTION OF OWNER) WHETHER SHOWN OR IMPLIED SHALL BE HELD AS THE RESPONSIBILITY OF THE CONTRACTOR

2. IMPORTANT NOTE: "CONTRACTOR" REFERENCED IN THESE SPECIFICATIONS SHALL INDICATE WORK BY ELECTRICAL CONTRACTOR OR ANY OF HIS SUBCONTRACTORS UNLESS NOTED OTHERWISE.

3. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT ONLY. COORDINATE INSTALLATION WITH OTHER TRADES TO VERIFY THE ACTUAL SPACE CONDITIONS THAT ARE TO BE MAINTAINED. NO ADDITIONAL PAYMENT WILL BE APPROVED FOR FAILURE TO COMPLY.

4. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.

5. CONTRACTOR SHALL NOTE SCALE ELECTRICAL DRAWINGS. REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT AND CONFIRM WITH CONSTRUCTION MANAGER ANY SIZES AND LOCATIONS WHEN NEEDED.

6. CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE ALL ITEMS DEFINED IN THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: THE CONTRACT, SPECIFICATIONS, AND CONSTRUCTION DRAWINGS. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO INSTALL ALL ELECTRICAL EQUIPMENT, CONDUIT, WIRING ETC. AS SHOWN OR IMPLIED ON THE DRAWINGS AND TO PROVIDE A COMPLETE OPERATIVE SYSTEM TO THE SATISFACTION OF OWNER.

7. CONTRACTOR SHALL PROVIDE ON-SITE SUPERVISION AT ALL TIMES WHILE THE WORK IS BEING PERFORMED AND SHALL DIRECT ALL WORK, USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

8. INSTALLATION OF ALL ELECTRICAL EQUIPMENT, DEVICES, CONDUITS, ETC. MUST BE COORDINATED WITH ALL OTHER TRADES. COORDINATE SHUTDOWN TIMES AND WORKING HOURS WITH BUILDING OWNER, INCLUDING OFF HOURS, WEEKEND, AND HOLIDAY WORK AS REQUIRED.

9. ANY DISCREPANCIES FOUND WITHIN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE OWNER IN WRITING PRIOR TO THE AWARD OF THE CONTRACT AND AN ADDENDUM WILL BE ISSUED TO COVER SAME.

10. GUARANTEE - CONTRACTOR SHALL FURNISH OWNER WITH A WRITTEN GUARANTEE TO PROMPTLY REMEDY ALL DEFECTS OF WORK OR MATERIALS WITHOUT CHARGE FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE AND INSPECTION.

11. MATERIALS - ALL MATERIALS AND EQUIPMENT SHALL BE NEW, IN ORIGINAL CONTAINERS/WRAPPINGS, SHALL BE SPECIFICATION GRADE, AND LABELED OR LISTED BY U.L. OR AN ACCREDITED TESTING ORGANIZATION AS REQUIRED BY LOCAL INSPECTORS.

12. CONTRACTOR SHALL PROVIDE ADEQUATE AND REQUIRED LIABILITY INSURANCE FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK

13. ALL EQUIPMENT SHALL BE DESIGNED TO OPERATE ON VOLTAGE AND PHASE SPECIFIED. CONTRACTOR FURNISHING EQUIPMENT OTHER THAN INDICATED SHALL BE RESPONSIBLE FOR ANY CHANGES IN CONDUCTORS, RACEWAYS, SWITCHES, MAIN FEEDERS, AND APPURTENANCES AND PAY ALL ASSOCIATED COSTS. REQUIREMENTS FOR ANY INCREASE IN CAPACITIES SHALL BE REVIEWED BY ENGINEER.

14. CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC. ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.

LICENSES, CERTIFICATIONS OF INSPECTION (ALL MAY NOT APPLY)

1. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ALL GOVERNING AGENCIES THAT REQUIRE SITE INSPECTION OF THE WORK AND/OR SIMPLY NOTIFICATION. THE CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS, LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK.

2. CONTRACTOR AND ALL OF HIS SUBCONTRACTORS THAT PERFORM ANY WORK ON THIS PROJECT SHALL BE CURRENTLY LICENSED BY ALL AGENCIES WHICH GOVERN OVER THE LAND(S) ON WHICH CONSTRUCTION IS TO TAKE PLACE. CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS AS REQUIRED, ALL COSTS SHALL BE BORNE BY CONTRACTOR.

3. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS INCIDENTAL TO WORK UNDER THIS CONTRACT. WHEN THE WORK IS COMPLETED, THE REQUIRED CERTIFICATES OF APPROVAL SHALL BE FURNISHED TO THE BUILDING OWNER. CONTRACTOR MUST BE LICENSED IN THE STATE, COUNTY AND CITY OF THE PROJECT SITE.

CODES AND ORDINANCES (ALL MAY NOT APPLY)

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH STATED EDITION OF NEC AND ALL APPLICABLE CODES AND ORDINANCES, INCLUDING SUCH AS PERTAIN TO THE SAFETY AND HEALTH RELATIONS. CODES AND ORDINANCES SHALL TAKE PRECEDENCE OVER THE DRAWINGS AND SPECIFICATIONS ONLY IN CASE OF CONFLICT AND SHALL INCLUDE BUT NOT BE LIMITED TO:

A. UL - UNDERWRITERS LABORATORIES
B. NEC - NATIONAL ELECTRICAL CODE
C. NEMA - NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
D. OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT
E. SBC - STANDARD BUILDING CODE
F. NFPA - NATIONAL FIRE CODES

POST CONSTRUCTION AND PROJECT CLOSEOUT DOCUMENTATION (ALL MAY NOT APPLY)

1. AS-BUILT REQUIREMENTS: DO NOT USE RECORD DOCUMENTS FOR CONSTRUCTION PURPOSES. TO PROTECT RECORD DOCUMENTS FROM DETERIORATION AND LOSS, STORE IN A SECURE, FIRE-RESISTANT LOCATION. PROVIDE ACCESS TO RECORD DOCUMENTS FOR THE OWNER'S REFERENCE DURING NORMAL WORKING HOURS. MAINTAIN A CLEAN, UNDAMAGED SET OF BLUE OR BLACK LINE PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS. MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. MARK DRAWINGS THAT ARE MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE. MARK RECORD SETS WITH RED ERASABLE PENCIL. USE OTHER COLORS TO DISTINGUISH BETWEEN VARIATIONS IN SEPARATE CATEGORIES OF THE WORK. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER BUT WAS NOT SHOWN ON THE CONTRACT DRAWINGS, DETAILS OR SHOP DRAWINGS. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE. NOTE RELATED RECORD DRAWING INFORMATION AND PRODUCT DATA. UPON COMPLETION OF THE WORK, SUBMIT ONE (1) COMPLETE SET OF RECORD DOCUMENTS TO THE CONSTRUCTION MANAGER FOR THE OWNER'S RECORDS. CONTRACTOR SHALL SUBMIT AS-BUILT SET OF PLANS TO THE ENGINEER WITHIN 7 DAYS OF COMPLETION OF CONSTRUCTION.

EXISTING CONDITIONS AND DEMOLITION (ALL MAY NOT APPLY)

1. ALL ELECTRICAL DEMOLITION WORK, INCLUDING MATERIAL REMOVAL FROM THE SITE, SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. BEFORE PROCEEDING WITH THE DEMOLITION WORK, THE CONTRACTOR SHALL OBTAIN FROM THE BUILDING OWNER A LIST OF ANY REMOVED ITEMS TO BE SALVAGED. ALL OTHER REMOVED MATERIALS AND EQUIPMENT SHALL BE PROPERLY DISCARDED OFF THE PREMISES.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PROPERTY RESULTING FROM THE CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE AT THE COMPLETION OF WORK.

3. EXISTING UTILITIES AND CONDITIONS ARE SHOWN FROM FIELD DATA AND EXISTING DOCUMENTS AND ARE NOT NECESSARILY COMPLETE OR ACCURATE. ALL FIELD CONDITIONS SHALL BE VERIFIED BY CONTRACTOR BEFORE START OF CONSTRUCTION.

4. CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE, EXPOSE, AND DETERMINE IF CONFLICTS EXIST WITH THE PROPOSED IMPROVEMENTS. CONTRACTOR SHALL NOTIFY THE OWNER IN ORDER TO RESOLVE ANY CONFLICTS. EXISTING ELECTRICAL CONDUIT, WIRING, ETC. DAMAGED DURING RENOVATION SHALL BE REPLACED IN LIKE KIND AND CHARACTER, AND AT THE EXISTING UTILITY LINES, DRAIN OR FIELD TILE DAMAGED SHALL BE REPAIRED OR REPLACED, AS NEEDED, IN LIKE KIND AND CHARACTER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING CONDUITS, CONTROL WIRING, ETC., WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.

5. THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONFLICTS OR DISCREPANCIES IN THE CONTRACT DOCUMENTS OR FIELD CONDITIONS PRIOR TO EXECUTING THE WORK IN QUESTION. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF DETAILS ARE CONSIDERED UNSOUND, UNSAFE, NOT WATERPROOF, OR NOT WITHIN CUSTOMARY TRADE PRACTICE. IF WORK IS PERFORMED, IT WILL BE ASSUMED THAT THERE IS NO OBJECTION TO THE DETAIL. DETAILS ARE INTENDED TO SHOW THE END RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS, AND SHALL BE INCLUDED AS PART OF THE WORK.

6. SITE VISIT - CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK. NO EXTRAS WILL BE PERMITTED FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS. QUANTITIES OF MATERIALS SHALL BE PER CONTRACTOR'S MEASUREMENTS.

BASIC ELECTRICAL MATERIALS AND METHODS (ALL MAY NOT APPLY)

1. WHERE STRUCTURAL OPENINGS ARE NOT AVAILABLE, THE CONTRACTOR SHALL CORE DRILL OR CUT CHASES IN WALLS AND FLOORS AS REQUIRED. ALL NEW OPENINGS SHALL BE COORDINATED WITH THE ENGINEER. ALL PENETRATIONS OF THE BUILDING WALLS, CEILING AND FLOORS, THE CONTRACTOR SHALL SEAL WITH QUALITY CAULK, FIRE RATED AND WATERTIGHT, SUBMITTED FOR APPROVAL BY THE OWNER.

2. TRASH REMOVAL: CONTRACTOR SHALL REMOVE ALL TRASH CREATED BY HIMSELF OR HIS SUBCONTRACTORS DUE TO DEMOLITION OR CONSTRUCTION. THE CONTRACTOR SHALL ALSO REMOVE TRASH CREATED BY OTHER SUBCONTRACTORS INCLUDING CABLE REELS, CARDBOARD BOXES AND PACKING. PROMPTLY CLEAN-UP ALL SOILING, DEBRIS AND OTHER UNSIGHTLY OR HAZARDOUS CONDITIONS, CAUSED BY WORK OR DELIVERIES UNDER THIS CONTRACT, FROM THE BUILDING GROUNDS, ENTRIES, CORRIDORS, STAIRWAYS, ELEVATORS OR OTHER PUBLIC AREAS. ALL SHALL BE REMOVED FROM THE SITE IN A TIMELY FASHION TO A LEGAL DISPOSAL FACILITY.

3. SIGNAGE: CONTRACTOR SHALL MAINTAIN SECURITY AROUND PERIMETER OF CONSTRUCTION SITE DURING ALL HOURS BY INSTALLING A TEMPORARY RIBBON FOR INTERIOR WORK TO IDENTIFY CONSTRUCTION AREAS AS REQUIRED. SIGNAGE SHALL BE POSTED WITH NOTIFICATIONS OF "NO TRESPASSING" AND "CONSTRUCTION AREA".

4. CHECK ACCURACY OF ALL DIMENSIONS IN THE FIELD. UNLESS SPECIFICALLY NOTED, DO NOT FABRICATE ANY MATERIALS OFF SITE, NOR DO ANY CONSTRUCTION UNTIL THE ACCURACY OF DRAWING DIMENSIONS HAVE BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CUTTING, SUBSEQUENT PATCHING, AND REQUIRED FLASHING FOR ALL ITEMS NECESSARY FOR ELECTRICAL PART OF THE CONTRACT. PATCH, PAINT, AND REPAIR ANY AREA DAMAGED TO THE SATISFACTION OF THE BUILDING OWNER.

6. THE EXACT LOCATIONS OF ALL ELECTRICAL DEVICES, EQUIPMENT AND CONDUIT, AS SHOWN ON THE DRAWING, IS APPROXIMATE. WHEN NOT SHOWN IN DETAIL, THE EXACT LOCATION OR ROUTING SHALL BE DETERMINED BY THE CONTRACTOR, SUBJECT TO THE APPROVAL OF OWNER.

7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORT FOR THE MOUNTING AND SUPPORT OF ALL ITEMS REQUIRING THE SAME AS REQUIRED BY N.E.C.

8. TRENCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION.

9. WHEN DIRECTIONAL BORING IS REQUIRED, CONTRACTOR SHALL INSTALL A LOOSE TONING WIRE WITHIN INSTALLED CONDUIT TO ALLOW FOR IDENTIFICATION OF UNDERGROUND CONDUITS.

10. ALL BOLTS SHALL BE STAINLESS STEEL.

11. FOR UNDERGROUND RACEWAYS, PROVIDE ADDITIONAL SLACK IN CONDUCTORS AND CONDUIT EXPANSION JOINTS IN ORDER TO ALLOW FOR EARTH MOVEMENT FROM SETTLEMENT, FROST, ETC. IN ORDER TO PREVENT DAMAGE TO THE CONDUCTORS OR TO THE EQUIPMENT CONNECTED TO THE RACEWAYS PER THE NEC.

12. CORE DRILLED HOLES SHALL BE 1" LARGER THAN THE DIAMETER OF THE CONDUIT BEING INSTALLED AND SHALL BE SPACED 6" APART MINIMUM, EDGE TO EDGE. CONTRACTOR SHALL VERIFY REINFORCEMENT LOCATION IN EXISTING CONCRETE PRIOR TO DRILLING AND MAINTAIN 6" CLEARANCE FROM EDGE OF HOLE TO EXISTING REINFORCEMENT. PROVIDE WATER & FIRE SEALANT AFTER CONDUITS HAVE BEEN INSTALLED. INFORM ENGINEER IMMEDIATELY OF ANY INTERFERENCES OR CABLES FOUND THAT WOULD PREVENT CONDUITS FROM BEING LAID OUT AS SPECIFIED.

ELECTRICAL EQUIPMENT (ALL MAY NOT APPLY)

1. ALL EQUIPMENT SHALL BE DESIGNED TO OPERATE ON VOLTAGE AND PHASE SPECIFIED. CONTRACTOR FURNISHING EQUIPMENT OTHER THAN INDICATED SHALL BE RESPONSIBLE FOR ANY CHANGES IN CONDUCTORS, RACEWAYS, SWITCHES, MAIN FEEDERS, AND APPURTENANCES AND PAY ALL ASSOCIATED COSTS. REQUIREMENTS FOR ANY INCREASE IN CAPACITIES SHALL BE REVIEWED BY ENGINEER.

FIRESTOPPING AND SEALING ELECTRICAL PENETRATIONS (ALL MAY NOT APPLY)

1. CONTRACTOR SHALL FURNISH AND INSTALL FIRESTOPPING FOR SEALING AROUND ELECTRICAL PENETRATIONS THROUGH FIRE OR SMOKE BARRIERS, AND FLOORS.

2. PROVIDE SHOP DRAWINGS OF EACH CONDITION REQUIRING PENETRATION SEALS AND THE PROPOSED UL SYSTEMS MATERIALS, ANCHORAGE, METHODS OF INSTALLATION, AND ACTUAL ADJACENT CONSTRUCTION. SUBMITTAL PACKAGE SHALL ALSO INCLUDE A COPY OF THE UL ILLUSTRATION OF EACH PROPOSED SYSTEM INDICATING MANUFACTURER APPROVED MODIFICATIONS (IF APPLICABLE) AND THE MANUFACTURER'S SPECIFICATIONS, RECOMMENDATIONS, INSTALLATION INSTRUCTIONS, AND MAINTENANCE INSTRUCTIONS.

3. FIRESTOPPING MATERIALS SHALL BE INTUMESCENT SAFETY BARRIERS DESIGNED TO BLOCK THE SPREAD OF FIRE AND SMOKE THROUGH PENETRATIONS CREATED BY ELECTRICAL INSTALLATIONS IN FIRE RATED WALLS AND FLOORS. MATERIALS SHALL BE FLAME, TOXIC FUME, AND WATER RESISTANT AND SHALL HAVE A MINIMUM 3 HOUR FIRE RATING. FIRE RATING SHALL BE DEFINED BY TESTS CONDUCTED BY ASTM, UL OR OTHER TESTING AND INSPECTION AGENCIES ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.

4. PROVIDE MATERIALS BY THE FOLLOWING MANUFACTURERS TO SUIT THE APPLICATION: SPECIFIED TECHNOLOGIES, INC (STI), SOMERVILLE, NJ; TREMCO, INC., BEACHWOOD, OH; OR 3M INC., MINNEAPOLIS, MN

FAULT CURRENT, COORDINATION STUDY, AND ARC FLASH (ALL MAY NOT APPLY)

1. CONTRACTOR SHALL CONDUCT A FAULT CURRENT CALCULATION ON ALL EQUIPMENT AND MARK AS REQUIRED PER THE N.E.C.

2. CONTRACTOR SHALL PROVIDE AN ARC-FLASH STUDY AND LABEL ALL EQUIPMENT AS REQUIRED PER THE N.E.C.

GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS (ALL MAY NOT APPLY)

1. ALL RACEWAYS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE N.E.C. AND ANY LOCAL CODES.

2. ALL CONDUITS SHALL CONTAIN A CODE SIZE GROUNDING CONDUCTOR.

3. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED WITH GREEN-COLORED INSULATION.

4. GROUNDING ELECTRODE CONDUCTORS SHALL BE STRANDED CABLE.

5. MATERIALS AND CONNECTION COMPONENTS FOR GROUNDING AND BONDING SHALL BE MANUFACTURED BY ERICO, THOMAS & BETTS, OR BURNDY.

ELECTRICAL IDENTIFICATION (ALL MAY NOT APPLY)

1. PROVIDE NAMEPLATES FOR ALL MAJOR ELECTRICAL EQUIPMENT AND ON EQUIPMENT AS DIRECTED BY OWNER.

2. PROVIDE ALL FEEDERS AND BRANCH CIRCUIT WIRING WITH COLOR CODED VINYL TAPE WRAPPED A MINIMUM OF 1.5 TIMES AROUND CIRCUMFERENCE OF JACKET/SHIELDING TO DESIGNATE PHASE.

3. COLOR CODING OF CONDUCTORS SHALL BE PER NEC REQUIREMENTS.

4. CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL SERVICE CONDUITS. CAUTIONS TAPE TO READ "CAUTION BURIED ELECTRIC"

CONDUCTORS AND CABLES (ALL MAY NOT APPLY)

1. WIRING - ALL CONDUCTORS SHALL BE EQUAL TO OR BETTER THAN MINIMUM #12 AWG FOR POWER, #14 AWG FOR CONTROL WITH 98% CONDUCTIVITY STRANDED COPPER, 600V, COLOR CODED, UNLESS NOTED ALUMINUM (AL). REFER TO "ALUMINUM CONDUCTOR REQUIREMENTS" THIS SHEET. PROVIDE 75°C RATED CONDUCTORS FOR AMPACITIES ABOVE 100A AND 60°C RATED CONDUCTORS FOR AMPACITIES OF 100 AMPS OR LESS. PROVIDE SOLID OR STRANDED FOR #10 AWG AND SMALLER, STRANDED FOR #8 AWG AND LARGER. UNLESS NOTED OTHERWISE ON DRAWINGS.

2. WIRE SIZE OF BRANCH CIRCUITS SHALL BE ADJUSTED TO COMPENSATE FOR VOLTAGE DROP BASED UPON ACTUAL CONDUIT ROUTING. CONTRACTOR SHALL MAINTAIN VOLTAGE DROP AS RECOMMENDED BY N.E.C. (NOT TO EXCEED 3%).

3. PROVIDE A SEPARATE NEUTRAL FOR EACH BRANCH CIRCUIT, FEEDER, ETC. NEUTRALS ARE NOT PERMITTED TO BE SHARED.

4. CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.

5. ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NO-OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED - NO SUBSTITUTIONS.

6. CABLE - MC CABLE NOT PERMITTED.

7. PROVIDE WIRE AND CABLE MANUFACTURED BY ONE OF THE FOLLOWING: AMERICAN INSULATED WIRE CORPORATION; NEXANS; CERROWIRE; SOUTHWIRE; OR ENCORE WIRE.

8. PROVIDE CONNECTORS MANUFACTURED BY ONE OF THE FOLLOWING: AMP INCORPORATED; GENERAL SIGNAL, O-Z/GEDNEY UNIT; SQUARE D COMPANY, ANDERSON; ILSCO; OR BURNDY.

RACEWAY AND BOXES (ALL MAY NOT APPLY)

1. RACEWAYS: UNLESS NOTED OTHERWISE, ALL EXPOSED CONDUIT SHALL BE R.G.S., SCHEDULE 80 AND COVERED 6" BELOW FINISHED GRADE TO BE PVC, SCHEDULE 40. PROVIDE WEATHERPROOF FLEX CONNECTIONS WHERE REQUIRED. CONTRACTOR SHALL PROVIDE JUNCTION AND/OR PULL BOXES WHERE SHOWN ON THE DRAWINGS, OR AS REQUIRED, WHETHER SHOWN ON THE DRAWINGS OR NOT, AND SIZED PER N.E.C. PROVIDE NON-METALLIC ENCLOSURE WITH OPEN BOTTOM AND GASKETED COVER MANUFACTURED BY QUAZITE OR EQUIVALENT WITH DRIVE-OVER COVER ABLE TO WITHSTAND OCCASIONAL NON-DELIBERATE LIGHT VEHICULAR TRAFFIC. LABEL COVER TO SUIT INSTALLATION (I.E. "POWER" "COMMUNICATIONS", "LIGHTING", ETC.) AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

A. ABOVE GRADE / PARKING GARAGES: R.G.S.
B. BELOW GRADE: SCHEDULE 40 PVC. SCHEDULE 80 PVC BELOW DRIVES AND PARKING LOTS.
2. ALL WIRING SHALL BE INSTALLED IN CONDUIT. ALL CONDUIT SHALL BE A MINIMUM OF 3/4".

3. CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LBS TEST POLYETHYLENE CORD. CONTRACTOR SHALL PROVIDE MANUFACTURED LONG RADIUS BENDS FOR ALL CONDUITS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH 'BRITE ZINC' OR 'GOLD GALV'.

4. OUTLET BOXES SHALL BE CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.

5. PROVIDE METAL CONDUIT AND TUBING MANUFACTURED BY ONE OF THE FOLLOWING: ALFLEX CORPORATION; ANAMET INCORPORATED, ANACONDA METAL HOSE; ANIXTER BROTHERS INCORPORATED; CAROL CABLE COMPANY INCORPORATED; ELECTRI-FLEX COMPANY; GRINNELL COMPANY, ALLIED TUBE AND CONDUIT DIVISION; MONOGRAM COMPANY, AFC; REPUBLIC CONDUIT; OR WHEATLAND TUBE COMPANY.

6. PROVIDE NONMETALLIC CONDUIT AND TUBING MANUFACTURED BY ONE OF THE FOLLOWING: ANAMET INCORPORATED, ANACONDA METAL HOSE; CANTEX INDUSTRIES, HARSCO CORPORATION; CONDUX INTERNATIONAL, ELECTRICAL PRODUCTS; HUBBELL INCORPORATED, RACO, INCORPORATED; THOMAS & BETTS CORPORATION, CARLON ELECTRICAL PRODUCTS; OR O-Z/GEDNEY, UNIT OF GENERAL SIGNAL.

7. PROVIDE CONDUIT BODIES AND FITTINGS MANUFACTURED BY ONE OF THE FOLLOWING: CROUSE-HINDS, DIVISION OF COOPER INDUSTRIES; EMERSON ELECTRIC COMPANY, APPLETON ELECTRIC COMPANY; HUBBELL INCORPORATED, KILLARK ELECTRIC MANUFACTURING COMPANY; THOMAS & BETTS CORPORATION, CARLON ELECTRICAL PRODUCTS; OR O-Z/GEDNEY, UNIT OF GENERAL SIGNAL.

8. PROVIDE METAL WIREWAYS MANUFACTURED BY ONE OF THE FOLLOWING: HOFFMAN ENGINEERING COMPANY; KEYSTONE/REES, INCORPORATED; OR SQUARE D COMPANY.

9. PROVIDE BOXES, ENCLOSURES, AND CABINETS MANUFACTURED BY ONE OF THE FOLLOWING: CROUSE-HINDS, DIVISION OF COOPER INDUSTRIES; HOFFMAN ENGINEERING COMPANY, FEDERAL-HOFFMAN INCORPORATED; HUBBELL INCORPORATED, RACO INCORPORATED; THOMAS & BETTS, CARLON ELECTRICAL PRODUCTS; O-Z/GEDNEY, UNIT OF GENERAL SIGNAL; ROBROY INDUSTRIES INCORPORATED, ELECTRICAL DIVISION; OR SCOTT FETZER COMPANY, ADALET-PLM.

SAFETY SWITCHES (ALL MAY NOT APPLY)

1. ALL DISCONNECT SWITCHES SHALL BE HEAVY-DUTY CONSTRUCTION WITH LOCKABLE HANDLES SIZED AS NOTED ON THE DRAWINGS AND/OR RISER DIAGRAM. PROVIDE NEMA ENCLOSURE AS REQUIRED BY EXPOSURE TYPE. ALL FUSIBLE SWITCHES SHALL BE PROVIDED WITH DUAL ELEMENT FUSES SIZED PER THE EQUIPMENT MANUFACTURER'S RECOMMENDATION.

FUSES (ALL MAY NOT APPLY)

1. FUSES SHALL BE DUAL ELEMENT, TIME DELAY CURRENT LIMITING. CONTRACTOR SHALL COORDINATE FUSE SIZES WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS AND PER THE N.E.C.

2. PROVIDE FUSES MANUFACTURED FROM ONE OF THE FOLLOWING: COOPER BUSSMAN, INCORPORATED; EAGLE ELECTRIC MANUFACTURING COMPANY INCORPORATED, COOPER INDUSTRIES INCORPORATED; FERRAZ SHAWMUT INCORPORATED.

3.

NOT FOR CONSTRUCTION

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	05.20.2022	CD 90
	07.12.2022	CD 90_REV A

RIVIAN

ROOSTER ROCK STATE PARK CORBETT, OR 97019

PROJECT MANAGER	DESIGNER / ENGINEER
A. TALARICO	P. RAO

SHEET NAME: ELECTRICAL GENERAL NOTES

PROJECT NO.: XXXXX

SHEET NO.: E1

GENERAL SHEET NOTES

1. ALL CONDUIT & WIRING FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE.
2. ALL CONDUITS ACCESSIBLE TO THE GENERAL PUBLIC OR WHICH CONDUITS CAN BE DAMAGED SHALL BE RIGID GALVANIZED STEEL.
3. THE AFOREMENTIONED STANDARDS IDENTIFY THE REQUIREMENTS MET BY THE LEVEL 2 CHARGERS, INCLUDING BUT NOT LIMITED TO :
   - PROTECTION AGAINST ELECTRIC SHOCK
   - OVERLOAD AND SHORT CIRCUIT PROTECTION
   - FAULT PROTECTION
   - DEGREES OF PROTECTION AGAINST ACCESS TO HAZARDOUS LIVE PARTS
   - THE INTERNAL COMPONENTS OF THE SYSTEM ARE PROPRIETARY. ANY QUESTIONS CONCERNING ACTUAL INTERNAL PROTECTIVE DEVICES MUST BE COORDINATED DIRECTLY WITH RIVIAN.
4. TENANT SUB-METERING NOT REQUIRED.
5. CONTRACTOR SHALL FIELD VERIFY EXACT PLACEMENT OF PROPOSED EQUIPMENT AND MAINTAIN REQUIRED CLEARANCES PER NEC.
6. LEVEL 2 CHARGERS CAN OPERATE ON 240V OR 208V SINGLE PHASE.
7. LEVEL 2 CHARGERS USED ON THIS PROJECT COMPLY WITH THE FOLLOWING STANDARDS:
   - UL AND cUL LISTED TO UL2594, UL2231, UL1998

PANEL NAME:	PANEL	**MAINS TYPE:**	MCB	**DISTRIBUTION TYPE:**	120/240V, 1-PH, 3-WIRE
		MAINS RATING (A):	200	**RATED FAULT CURRENT:**	10 KAIC (VERIFY W/ UTILITY PRIOR TO ORDERING)
STATUS:	NEW	**BUS RATING (A):**	200	**RATING TYPE:**	FULLY RATED
LOCATION:	PARKING	**ENCLOSURE:**	NEMA 3R	**SERVICE ENTRANCE RATED:**	YES
SUPPLY FROM:	EXISTING 50kVA TRANSFORMER	**MOUNTING:**	H-FRAME	**ISOLATED GND BAR:**	YES

CKT #	LOAD L	R	HV	M	C	DESCRIPTION	NOTE	AMP	POLE	TOTAL PER PHASE IN KVA A	B	AMP	POLE	NOTE	DESCRIPTION	LOAD L	R	HV	M	C	CKT #
1					4.80	**PROPOSED RIVIAN LEVEL 2 CHARGER EVCS-01**		50	2	9.60		50	2		**PROPOSED RIVIAN LEVEL 2 CHARGER EVCS-03**					4.80	2
3					4.80						9.60									4.80	4
5					4.80	**PROPOSED RIVIAN LEVEL 2 CHARGER EVCS-02**		50	2	9.60		50	2		**PROPOSED RIVIAN LEVEL 2 CHARGER EVCS-04**					4.80	6
7					4.80						9.60									4.80	8
9						EXISTING		20	1	0.00		30	1		EXISTING						10
11											0.00										12
13										0.00											14
15											0.00										16
17										0.00											18
19											0.00										20
21										0.00											22
23											0.00										24
								TOTAL KVA =		19.20	19.20				38.40 **TOTAL CONN KVA**						
								TOTAL AMPS =		160.0	160.0				160.00 **TOTAL CONN AMPS**						

	DEMAND FACTOR	A	B	TOTAL
LIGHTING	1.25	0.00	0.00	0.00
FIRST 10KVA RECEPTACLES (3.33 KVA PER PHASE)	1.00	0.00	0.00	0.00
REMAINING RECEPTACLES	0.50	0.00	0.00	0.00
HVAC EQUIP	1.00	0.00	0.00	0.00
25% OF LARGEST MOTOR	0.25	0.00	0.00	0.00
MISCELLANEOUS	1.00	0.00	0.00	0.00
CONTINUOUS	1.25	24.00	24.00	48.00
TOTALS (KVA)		24.00	24.00	48.00
TOTALS (A)		200.00	200.00	200.00

NOTES

X - Existing breaker to be reused or replaced (If not in good working condition)
B - Provide new breaker in available space. Match AIC rating of existing breakers.

PANEL BOARD NOTES:

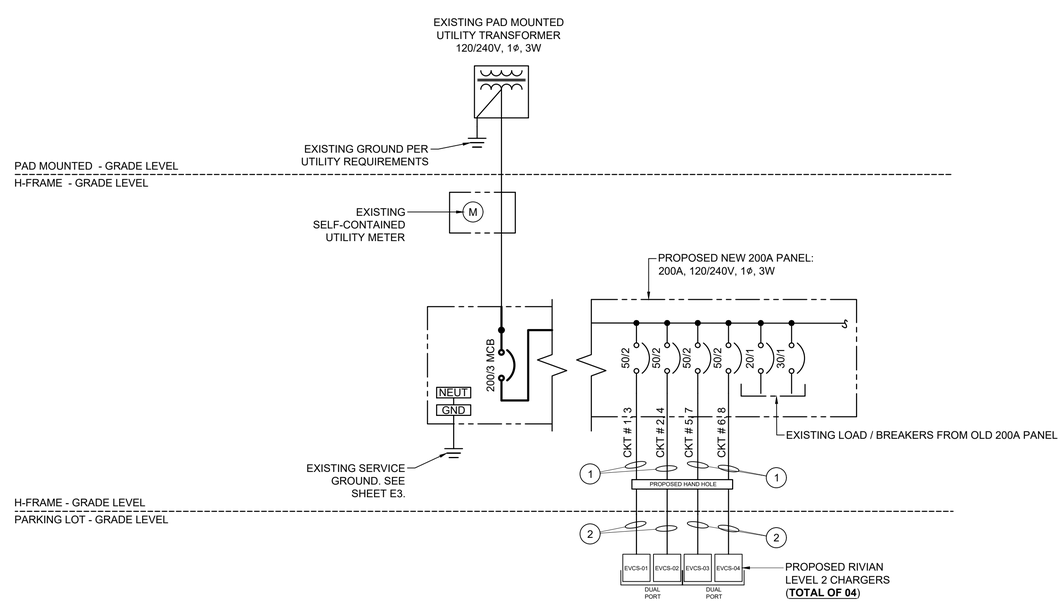
1. CIRCUITS SHALL BE REARRANGED AS REQUIRED TO MAINTAIN THE MOST BALANCED LOADS ON EACH PHASE WITHIN EACH PANEL. PROVIDE TYPED PANEL DIRECTORY MOUNTED PER MANUFACTURERS RECOMMENDATIONS WITH SERVICE EQUIPMENT.
2. CONTRACTOR IS RESPONSIBLE FOR LOADING ON ALL PANELS AND FEEDERS PER THE N.E.C. CONTRACTOR SHALL KEEP CIRCUIT CONTINUITY TO DEVICES TO REMAIN. E.C. SHALL VERIFY THAT ALL LOADS PLACED ON EXISTING PANELS AND FEEDERS DO NOT EXCEED THE MAXIMUM LOADING REQUIREMENT PER THE LATEST EDITION OF THE NEC. NOTIFY A/E IF OVERLOAD IS POSSIBLE.
3. PROVIDE EQUIPMENT WITH SUFFICIENT INTERRUPTING CAPACITY (AIC) REQUIRED FOR A SAFE INSTALLATION. AIC RATING NOTED ON EACH PANELBOARD SCHEDULE IS MINIMUM RATING ACCEPTED WITHOUT ADDITIONAL DOCUMENTATION THAT INDICATES DIFFERENTLY.

FEEDER/CIRCUIT SCHEDULE

NO	FROM	TO	NOMINAL VOLTAGE (V_{AC} - PHASE)	NOMINAL CURRENT (AMPS)	UPSTREAM OCPD (AMPS)	CONDUCTOR SPECIFICATION (THWN-2, 90°C)
1	NEW 200A PANEL AND EXISTING UTILITY METER	PROPOSED HANDHOLE	240V - 1ø	SEE PANEL SCHEDULE	SEE PANEL SCHEDULE	(4) #6 AWG Cu (1) #10 AWG Cu GND IN (2) 2" CONDUIT
2	PROPOSED HANDHOLE	PROPOSED RIVIAN LEVEL 2 CHARGERS (TOTAL OF 02)	240V - 1ø	40	50	(4) #6 AWG Cu (1) #10 AWG Cu GND IN (1) 2" CONDUIT
2		PROPOSED RIVIAN LEVEL 2 CHARGERS (TOTAL OF 02)	240V - 1ø	40	50	(4) #6 AWG Cu (1) #10 AWG Cu GND IN (1) 2" CONDUIT

FEEDER/CIRCUIT SCHEDULE NOTES

1. CONDUCTORS FOR UP TO (2) STATIONS CAN BE IN THE SAME CONDUIT. IF LESS THAN (2) STATIONS WORTH OF CONDUCTORS ARE ROUTED IN A SINGLE CONDUIT, CONTRACTOR SHALL DECREASE SPECIFIED CONDUIT SIZE ACCORDINGLY BASED ON NUMBER OF STATIONS PER NEC. SEE PLAN FOR CONDUIT SIZE.
2. ALL SPECIFIED CONDUCTOR SIZES ACCOUNT FOR VOLTAGE DROP AND HAVE BEEN DE-RATED FOR (4) CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT.
3. CONTRACTOR SHALL INSTALL THE FOLLOWING WHERE APPLICABLE (UNLESS OTHERWISE NOTED):
   - PVC SCH 40 BELOW GRADE. PVC SCH 80 BELOW DRIVES AND PARKING LOTS.
   - RGS 8'-0" OR LESS ABOVE GRADE AND IN PARKING GARAGES
   - EMT 8'-0" MINIMUM ABOVE GRADE AND WHERE NOT SUBJECT TO DAMAGE. CONTRACTOR SHALL VERIFY WITH ELECTRICAL INSPECTOR IF EMT IS APPROVED AT THIS PROJECT PRIOR TO ROUGH-IN.
4. MAXIMUM OF #6 WIRE CAN BE FED INTO LEVEL 2 CHARGER. FOR RUNS BEYOND 130' A CABLE REDUCER WILL BE REQUIRED WITHIN 10' OF CHARGERS AND LOCATED IN A JUNCTION BOX. CABLE REDUCER MAY ALSO BE REQUIRED FOR TERMINATIONS AT BRANCH BREAKER. CONTRACTOR TO VERIFY WITH MANUFACTURER.



PARTIAL ONE-LINE DIAGRAM

NOT FOR CONSTRUCTION

REV.	DATE	DESCRIPTION
	05.20.2022	CD 90
	07.12.2022	CD 90_REV A

RIVIAN

ROOSTER ROCK STATE PARK CORBETT, OR 97019

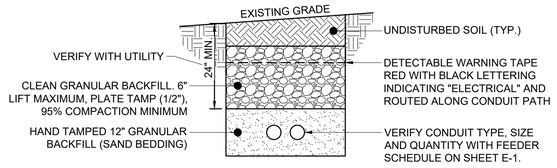
PROJECT MANAGER: A. TALARICO
DESIGNER / ENGINEER: P. RAO
SHEET NAME: SYSTEM ONE-LINE DIAGRAM AND PANEL SCHEDULE
PROJECT NO.: XXXXX
SHEET NO.: E2

CURRENT	CIRCUIT BREAKER SPECIFICATION	TYPICAL WIRE SPECIFICATION*	DIP SWITCH			FIGURE
			SWITCH 1	SWITCH 2	SWITCH 3	
6A	7.5A	14-12 AWG Cu	OFF	OFF	OFF	
12A	15A	14-12 AWG Cu	OFF	OFF	ON	
16A	20A	12-10 AWG Cu	OFF	ON	OFF	
20A	25A	10 AWG Cu	OFF	ON	ON	
24A	30A	10 AWG Cu	ON	OFF	OFF	
32A	40A	8 AWG Cu	ON	OFF	ON	
40	50A	8 AWG Cu	ON	ON	OFF	
48A (DEFAULT)	60A	6 AWG Cu	ON	ON	ON	

* THESE TYPICAL WIRE SIZES ARE BASED ON THE 90°C COLUMN IN THE NATIONAL ELECTRICAL CODE.

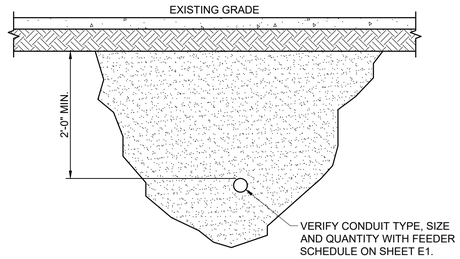
1 OPERATING CURRENT - DIP SWITCH SETTINGS DETAIL
NO SCALE

NOTES:
1. ANY EXCAVATION LEFT OPEN SHOULD BE SECURELY FENCED OFF.
2. ANY PAVEMENT DAMAGE DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO PRECONSTRUCTION CONDITIONS OR BETTER.
3. CONTRACTOR SHALL INSTALL CONDUITS BELOW LOCAL FROST LINE. SHOULD FIELD CONDITIONS VARY, CONTRACTOR SHALL COORDINATE WITH CONTACT ENGINEER LISTED ON SHEET T-1.
4. VERIFY WIDTH OF TRENCH REQUIRED. REFER TO SITE PLAN ON SHEET C-1 FOR ROUTING.
5. PROVIDE 1" OF GRANULAR BACKFILL BETWEEN CONDUITS.
6. CONDUITS UNDER DRIVES AND PARKING LOTS SHALL BE PVC SCHEDULE 80
7. CONTRACTOR IS RESPONSIBLE TO CALL AN UNDERGROUND LOCATING COMPANY TO MARK ALL EXISTING UNDERGROUND UTILITIES
8. CONTRACTOR SHALL COORDINATE WITH ALL EXISTING UTILITIES AND VERIFY AND KEEP REQUIRED DISTANCES FROM EXISTING UTILITIES.
9. CONTRACTOR IS RESPONSIBLE FOR ANY/ALL DAMAGES TO EXISTING UTILITIES AND MAKE ALL REPAIRS IF REQUIRED AND PAY ALL DAMAGE FEES.



2 TYPICAL CONDUIT UNDER SOLID TRENCH DETAIL
NO SCALE

NOTES:
1. CONTRACTOR SHALL INSTALL CONDUITS BELOW LOCAL FROST LINE. SHOULD FIELD CONDITIONS VARY, CONTRACTOR SHALL COORDINATE WITH CONTACT ENGINEER LISTED ON SHEET C0.
2. CONDUITS UNDER DRIVES AND PARKING LOTS SHALL BE PVC SCHEDULE 80.
3. CONTRACTOR IS RESPONSIBLE TO CALL AN UNDERGROUND LOCATING COMPANY TO MARK ALL EXISTING UNDERGROUND UTILITIES.
4. CONTRACTOR SHALL COORDINATE WITH ALL EXISTING UTILITIES AND VERIFY AND KEEP REQUIRED DISTANCES FROM EXISTING UTILITIES.
5. CONTRACTOR IS RESPONSIBLE FOR ANY/ALL DAMAGES TO EXISTING UTILITIES AND MAKE ALL REPAIRS IF REQUIRED AND PAY ALL DAMAGE FEES.



3 DIRECTIONAL BORE SECTION DETAIL
NO SCALE

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	05.20.2022	CD 90
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NOT FOR CONSTRUCTION

RIVIAN

ROOSTER ROCK STATE PARK CORBETT, OR 97019

PROJECT MANAGER	DESIGNER / ENGINEER
A. TALARICO	P. RAO

SHEET NAME: ELECTRICAL DETAILS

PROJECT NO.: XXXXX

SHEET NO.: E3