



**Nevada Department of Tourism and Cultural Affairs
DIVISION OF MUSEUMS & HISTORY**

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Carson City, Nevada 89701
(775) 687-7630 Fax (775) 687-4333

Brian Sandoval
Governor

Peter Barton
Administrator

Claudia Vecchio
Director

Refers to Agenda item 5

Date: April 15, 2016

To: Board of Museums and History

Through: Peter Barton, Administrator
Division of Museums and History

From: Carrie Edlefsen, Administrative Services Officer II
Division of Museums and History

Subject: Private Funds Budget Adjustments – NSRMCC – BA 5037

Approval for the below stated budget adjustment is being requested for SFY 2016:

**BA 5037 – Board of Museums and History Dedicated Trust Fund
Revenue Authority Changes**

<u>RGL</u>	<u>Description</u>	<u>Original Authority</u>	<u>Change</u>	<u>Adjusted Authority</u>
4454	Outside Bank Account	\$ 0	\$34,342	\$34,342

Expenditure Authority Changes –

<u>Category</u>	<u>Description</u>	<u>Original Authority</u>	<u>Change</u>	<u>Adjusted Authority</u>
35	Administration	\$25,519	\$34,342	\$59,861

Justification:

Funds are being requested to be withdrawn from the Morgan Stanley Investment account for use towards the NSRMCC Gateway Improvement Project. The Nevada Department of Transportation has provided \$55,450 in funding towards this project. Total project cost is anticipated to be \$100,532.

Please sign below to signify your approval of this additional change to the budget.

Chairman of the Board of Museums and History Finance Sub Committee

Date



UTILITIES ALERT

SANDRA WENDEL & ASSOCIATES
1624 10TH STREET, SUITE 3
MINDEN, NV 89423
PH: 775-782-8942
SANDRA@SWLSA.COM
NV #201 AND CA #2806

LANDSCAPE ARCHITECT

BID DOCUMENTS



NEVADA STATE RAILROAD MUSEUM
GATEWAY IMPROVEMENT PROJECT
2180 SOUTH CARSON STREET
FEDERAL PROJECT # TAP-0529(002) - PROJECT # 73802



LOCATION MAP

OWNER:

STATE OF NEVADA
NEVADA DEPT. OF TOURISM AND CULTURAL AFFAIRS
DIVISION OF MUSEUMS & HISTORY
CONTACT: GREG CORBIN, MUSEUM DIRECTOR III
2180 SOUTH CARSON STREET
CARSON CITY, NEVADA 89701
(775) 687-6953, EXT. 223 FAX (775) 687-8294

LANDSCAPE ARCHITECT:

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CONTACT: SANDRA WENDEL, PRINCIPAL
1624 10TH STREET, SUITE 3
MINDEN, NEVADA 89423
(775) 782-8942
sandra@swlsa.com

ELECTRICAL ENGINEER:

JENSEN ENGINEERING, INC.
CONTACT: GERALD G. JENSEN, P.E.
9655 GATEWAY DRIVE, SUITE A
RENO, NEVADA 89521
(775) 852-2288 FAX (775) 852-3388
jeneng@nvcbell.net

NEVADA DEPT. OF TRANSPORTATION:

FEDERAL PROJECT NO.: TAP-0529(002)
LOCAL PUBLIC AGENCY PROJECT NO.: 73802
CONTACT: KIRSTEN E. KEHE, P.E.
1263 STEWART SREET
CARSON CITY, NEVADA 89712
(775) 888-7669

SHEET INDEX:

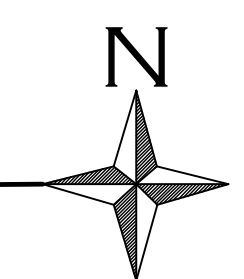
- LANDSCAPING
- L1 TITLE PAGE
- L2 SITE AND LOCATION OF IMPROVEMENTS
- L3 SIGN DESIGN-BUILD SPECIFICATIONS

- ELECTRICAL ENGINEERING
- E1 SPECS AND SCHEDULES
- E2 SITE PLAN

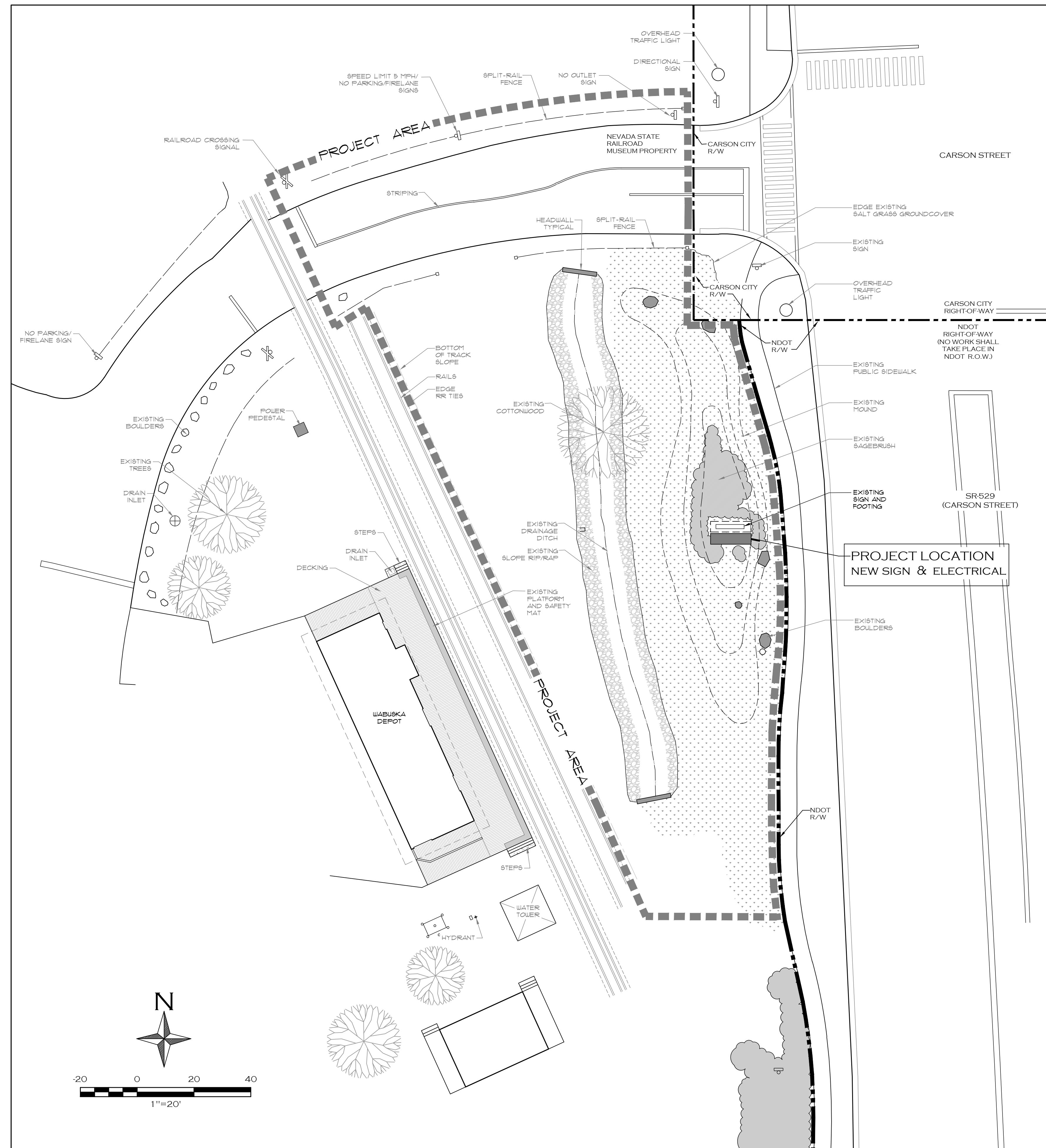
REVISION	
NDOT / 90% SUBMITTAL	02.03.14
100% SUBMITTAL	07.11.14
100% REVISED SUBMITTAL	09.26.14
BID AND SUBMITTAL SET	11.04.14
BID DOCUMENTS	02.16.16

DATE	FEB. 18, 2016
SCALE	NO SCALE
DRAWN	SW
CHECKED	SW

TITLE SHEET
NO SCALE



DRAWING TITLE
TITLE SHEET
SHEET:
L1
OF 3 SHEETS



DESCRIPTION OF IMPROVEMENTS

SIGN & ELECTRICAL

- a. Demolish existing sign, posts (everything but the concrete footing) and remove from site. Leave footing in place and cover with thin layer of soil to conceal.
- b. Install new approved sign per design/build specifications Sheet L4. Install adjacent to and south of existing footing.
- c. Install all digital and electronic features, including burial of all conduits as specified on the Electric Drawings Sheets E1 and E2.
- d. Repair all decking disturbed during the underground installation of power and digital lines connecting the building to the grounds on the south side of the depot.

NOTES & CONSTRUCTION REQUIREMENTS

1. An engineered survey was not required or prepared as part of this project. Maps have been prepared by the Landscape Architect based on Google's map projections and field verification. The Landscape Architect cannot be held responsible for measurements and field locations that are not 100% accurate. The Contractor shall bring any discrepancies to the attention of the Owner and Landscape Architect prior to beginning work.
2. All construction shall be done in accordance with these plans, the General Conditions and project specifications, The Standard Specifications for Public Works Construction, Uniform Building Code or other local or state regulations that may apply - except as modified by these plans or Special Provisions.
3. Call Underground Service Alert '811' prior to initiating work. The existing lines shall be marked prior to digging or trenching. The Contractor shall protect all utilities and above grade features to remain from damage during all phases of construction. The Landscape Architect assumes no responsibility for the utilities not shown or not in the location shown on these plans.
4. The acquisition of all necessary permits associated with construction shall be the Contractor's responsibility.
5. The Contractor shall maintain all existing drainage facilities and grade elevations related to drainage and shall not erect any obstruction which shall interfere with drainage or storm drains.
6. It is understood that minor deviation may be necessary during the course of the project. These deviations may be done if approved by the Landscape Architect or Owner and if consistent with the original approved design.
7. No materials of any kind shall be stockpiled or construction equipment parked on concrete or asphalt surfaces. Stockpiling of materials and parking of vehicles or equipment should only occur in non-planted areas.
8. Excess or unsuitable material which cannot be used onsite shall be disposed of offsite at the sole expense of the Contractor.
9. The Contractor shall assume sole and complete responsibility of job site conditions during the course of construction for this project, including safety of all persons and property. This requirement shall apply continuously, and not be limited to normal working hours.
10. The Contractor shall protect from damage existing improvements on and around the site including, but not limited to, pavement, curb and gutter, sidewalk, landscaping, signage, storm and sanitary sewers, utilities, telephone and cable television. The Contractor shall assume sole responsibility for the repair and/or replacement of any improvements (new or existing) damaged throughout the course of construction, either as a direct result of his activities or his failure to adequately protect the improvements, at no cost to the Owner.
11. It is the Contractor's responsibility to verify locations and/or elevations and areas of possible conflict prior to beginning construction. Should the Contractor find any discrepancies between the conditions existing in the field and the information shown on these drawings, he shall notify the Owner's representative before proceeding with construction.
12. 48 hours minimum notice shall be given to any parties involved in inspections.
13. Sign Warranty to be per the terms of the Owner-Purchaser Contract.
14. The Contractor shall provide copies of all Sign and Electrical Parts, Warranties, Operations and Maintenance Manuals used on the project and instruct the Owner in the proper usage of the Sign.
15. All submittals shall meet the approval of the Landscape Architect and Owner prior to the start of production or installation. Shop drawings are required per notes Sheet L4 that shall meet or exceed the stated requirements.

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BID DOCUMENTS



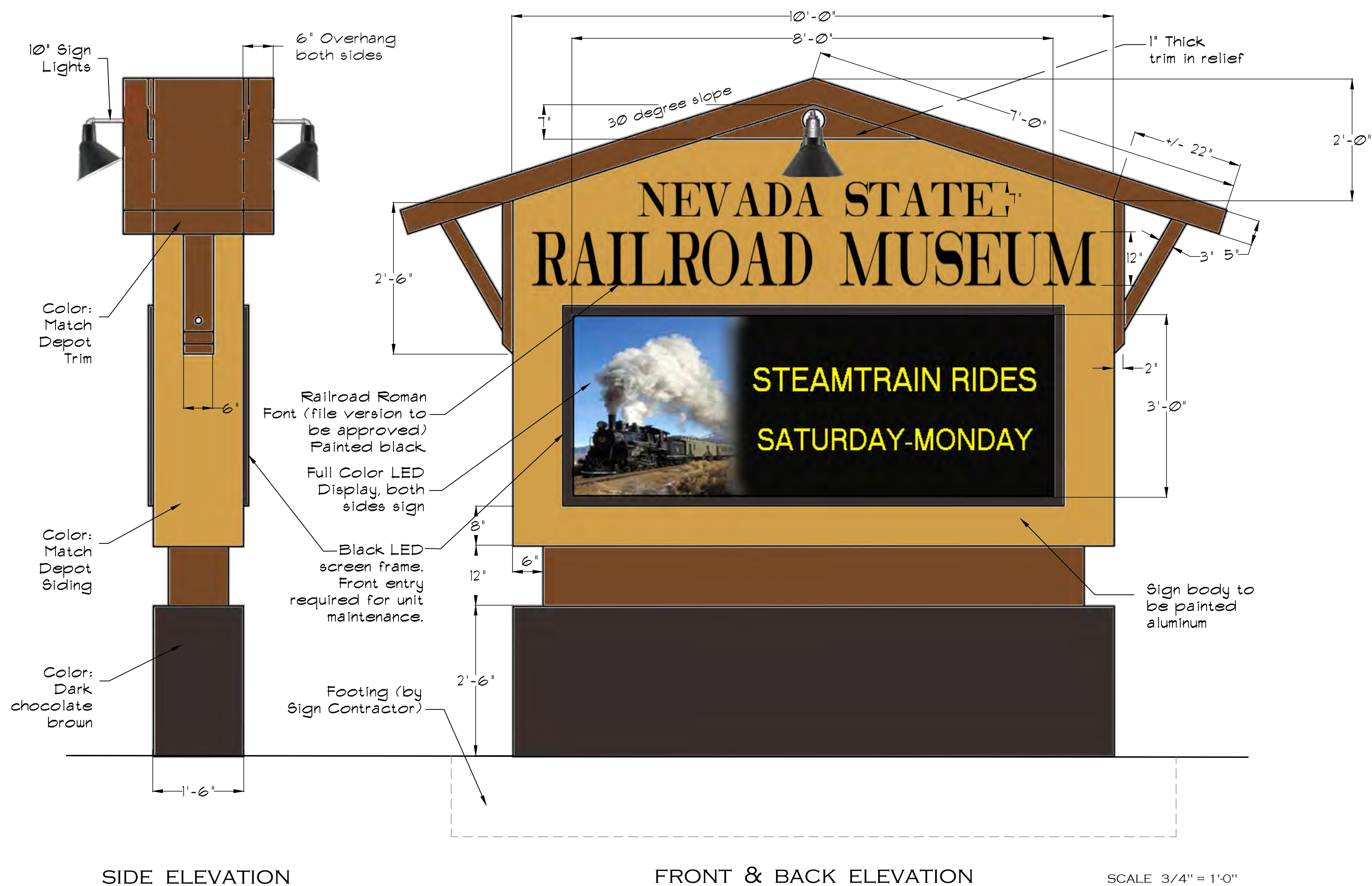
NEVADA STATE RAILROAD MUSEUM
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2180 SOUTH CARSON STREET
FEDERAL PROJECT # TAP-0529(002) - PROJECT # 73802

REVISION	
△	NDOT / 90% SUBMITTAL 02.03.14
△	100% SUBMITTAL 07.11.14
△	100% REVISED SUBMITTAL 09.26.14
△	BID AND SUBMITTAL SET 11.04.14
△	BID DOCUMENTS 02.16.16

DATE: FEB. 18, 2016
SCALE: 1" = 20'
DRAWN: SW
CHECKED: SW

DRAWING TITLE
DESCRIPTION
SHEET:
L2
OF 3 SHEETS

SITE AND LOCATION OF IMPROVEMENTS



SIDE ELEVATION

FRONT & BACK ELEVATION

SCALE 3/4" = 1'-0"



PROPOSED SIGN STREET VIEW

1 DESIGN / BUILD SIGN SPECIFICATIONS

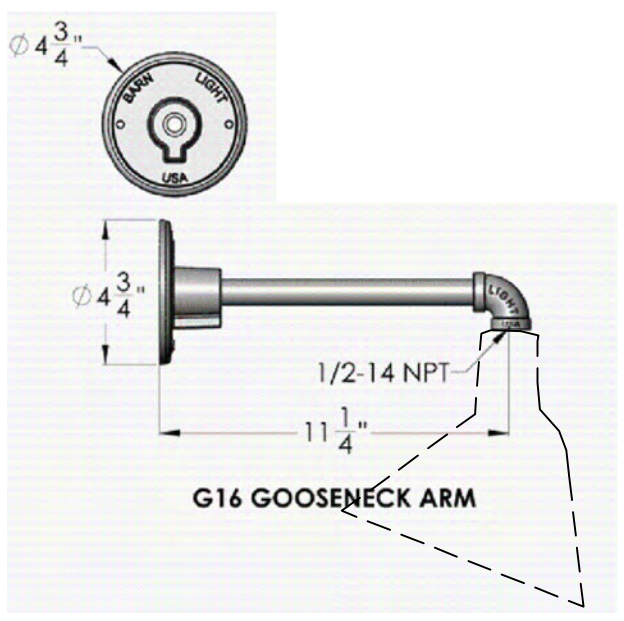
SHOP DRAWING & CONSTRUCTION REQUIREMENTS:

- Conceptual approval from the Nevada State Railroad Museum for the sign shown in these drawings has been secured.
- Remove existing sign and footing completely. Care shall be taken to prevent damage to the surrounding landscape.
- Final design approval shall be obtained, based on detailed Shop Drawings submitted by the Sign Contractor.
- Physical submittals shall be supplied that clearly show key visual elements such as construction material, colors, and finishes, etc. The Contractor shall supply additional visual submittal if requested during the design/build process.
- Construction criteria include longevity in terms of materials ability to withstand climate, deterioration, vandalism, limited annual maintenance. All materials, paints, glues, finishes, lettering, fasteners and assembly shall be of the highest quality and conform to the best practices available.
- All notes and recommendations in the adjacent drawings are provided solely as design 'suggestions' based on the Landscape Architect's discussions with sign purveyors and construction professionals.
- The Contractor assumes full responsibility for final design/ build features.
- Conformance to the visual, scaled representation is required.
- Colors to match existing Depot.
- Provide the Railroad Museum with unopened, one gallon cans of each type of stain, paint or finish used in sign construction.
- See Civil Drawings, Sheets E1 and E2 for electrical and cable requirements. The Sign Contractor shall verify that proposed electrical design will suffice for this project.
- The LED performance specifications shall be determined by the Sign Contractor and approved for use by the Owner.
- Sign Design and Construction shall meet all applicable Carson City Building Codes, including the following: 2012 Northern Nevada Amendments, 2012 International Building Code and the 2011 National Electrical Code.



LIGHT SHADE SPECIFICATIONS:

- Fixture: 10' Diameter Frontier Angle Shade
- Supplier: Barnlight Electric (or approved equal)
- Color: 100-Black
- G16 Gooseneck Arm



EXISTING SIGN TO BE REMOVED

SIGN DESIGN-BUILD SPECIFICATIONS

SANDRA WENDEL & ASSOCIATES
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 LANDSCAPE ARCHITECT

BID DOCUMENTS



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DRAWING TITLE
 SIGN
SHEET:
 L3
 OF 3 SHEETS

SECTION 16000 - ELECTRICAL SPECIFICATIONS

- 1.0 GENERAL PROVISIONS
CONSIDER THE GENERAL CONTRACT REQUIREMENTS AS PART OF THE SPECIFICATIONS. WHERE REQUIREMENTS OF THESE SPECIFICATIONS DO NOT COINCIDE WITH GENERAL CONTRACT REQUIREMENTS, THE STRICTER REQUIREMENTS WILL GOVERN.
- 2.0 WORK INCLUDED
PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, APPARATUS, ETC. INCLUDING THOSE REASONABLY INFERRED, AS REQUIRED FOR A COMPLETE INSTALLATION OF ALL ELECTRICAL WORK SHOWN WITHIN THESE ELECTRICAL CONSTRUCTION DOCUMENTS, OR DETAILED IN THE ELECTRICAL SPECIFICATIONS. ALL ELECTRICAL WORK SHALL BE PERFORMED BY LICENSED ELECTRICIANS AND TECHNICIANS. REPAIRS AND REPLACEMENTS FOR DEFECTIVE EQUIPMENT OR MATERIALS AS COVERED BY WARRANTY/GUARANTEES SHALL BE CONSIDERED WITHIN THE SCOPE OF WORK AND SHALL BE PERFORMED AT NO ADDITIONAL COST (EXCEPTION: LIGHTING LAMPS).
- 3.0 RELATED WORK SPECIFIED ELSEWHERE
ELECTRICAL CONSTRUCTION DOCUMENTS AND GENERAL CONTRACT REQUIREMENTS SHALL BE CONSIDERED AS A WHOLE. ALL ELECTRICAL WORK SHALL ACCOMMODATE THE REQUIREMENTS OF THIS DIVISION TO ENSURE PROPER PERFORMANCE OF THE ELECTRICAL WORK REQUIRED.
- 4.0 SITE INVESTIGATION
ELECTRICAL CONTRACTOR SHALL THOROUGHLY INVESTIGATE ALL EXISTING CONDITIONS AT THE PROJECT SITE PRIOR TO SUBMITTING A BID. NO EXTRA PAYMENT WILL BE MADE FOR FAILURE TO OBSERVE EXISTING CONDITIONS EVIDENT DURING THE SITE VISIT.
- 5.0 REGULATIONS AND STANDARDS
ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF: THE NATIONAL ELECTRICAL CODE (NEC); THE ADOPTED STANDARDS OF THE NEVADA STATE PUBLIC WORKS DIVISION, THE INTERNATIONAL BUILDING CODE (IBC); AND THE WASHOE-RTC STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK). ADDITIONALLY, ALL STATE AND LOCAL CODES AND ORDINANCES SHALL BE UPHOLD. CONTRACTOR SHALL NOT OMIT ANY COMPONENT OR PORTION OF THESE ELECTRICAL CONSTRUCTION DOCUMENTS WHICH MAY EXCEED THE LISTED STANDARDS. NO ELECTRICAL WORK DETAILED IN THE ELECTRICAL CONSTRUCTION DOCUMENTS OR ELECTRICAL SPECIFICATION SECTION SHALL BE INTERPRETED TO PERMIT WORK WHICH FAILS TO CONFORM TO THESE REQUIREMENTS. WHERE CONFLICTS OCCUR, HIGHER STANDARDS SHALL GOVERN. RULINGS AND INTERPRETATIONS BY GOVERNING AGENCIES SHALL BE CONSIDERED A PART OF THIS DIVISION IF COMMONLY IMPOSED UPON THE TRADE PRIOR TO SUBMISSION OF BID.
- 6.0 FEES
ELECTRICAL CONTRACTOR SHALL INCLUDE ALL FEES AND ROYALTIES FOR TESTING IN THE BID.
- 7.0 DRAWINGS AND SPECIFICATIONS
7.1 ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, ELEVATIONS, AND INSTALLATION REQUIREMENTS OF ALL ELECTRICAL EQUIPMENT PRIOR TO "ROUGH-IN". LOCATIONS SHALL BE VERIFIED FOR APPROPRIATE SPACE (LENGTH, WIDTH, AND HEIGHT) AND CLEARANCE PRIOR TO FABRICATING OR ORDERING ANY EQUIPMENT OR MATERIALS. ANY DISCREPANCIES SHALL BE REPORTED TO THIS ENGINEER IMMEDIATELY. FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS AND INSTRUCTIONS.
7.2 ELECTRICAL CONTRACTOR SHALL SUBMIT WRITTEN REQUEST-FOR-INFORMATION (RFI) DOCUMENTS TO THIS ENGINEER PRIOR TO PERFORMING ANY WORK WHERE AMBIGUITY ARISES. ELECTRICAL CONTRACTOR SHALL NOT PERFORM ANY FIELD MODIFICATIONS OR DEVIATIONS FROM THE ELECTRICAL CONSTRUCTION DOCUMENTS AND/OR SPECIFICATIONS WITHOUT APPROVED WRITTEN RESPONSE FROM THIS ENGINEER THROUGH AN APPROPRIATELY SUBMITTED RFI.
7.3 ELECTRICAL CONTRACTOR SHALL PERFORM ELECTRICAL WORK PER MANUFACTURER'S DIRECTIONS WHERE SAID DETAILS ARE NOT SPECIFICALLY COVERED OR INDICATED BY THESE ELECTRICAL CONSTRUCTION DOCUMENTS AND ELECTRICAL SPECIFICATIONS. WHEN CONFLICT ARISES, SECTION 7.2 OF THIS SPECIFICATION SHALL DICTATE PERFORMANCE.
7.4 ALL SERVICES RENDERED BY THIS ENGINEER ARE PROFESSIONAL OPINIONS AND RECOMMENDATIONS, ONLY. UNDER NO CIRCUMSTANCE IS IT THE INTENT OF THIS ENGINEER TO DIRECTLY CONTROL THE PHYSICAL ACTIVITIES OF THE CONTRACTOR OR HIS EMPLOYEES.
- 8.0 MATERIALS
8.1 APPEARANCE AND FINISH OF MATERIALS SHALL BE OF THE HIGHEST STANDARDS. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, OPERATING NORMALLY, AND SHALL BE OF HIGHEST AVAILABLE QUALITY. ANY DEFECTIVE MATERIALS SHALL BE IDENTIFIED AND REMOVED FROM SITE, IMMEDIATELY.
8.2 PROVIDE UNDERWRITERS LABORATORY (UL) LISTED MATERIALS AND EQUIPMENT WHEREVER STANDARDS FOR SAID ITEMS HAVE BEEN ESTABLISHED. UNLISTED DEVICES SHALL BE INSTALLED IN EQUIPMENT NORMALLY LISTED OR LABELED, AND SHALL CONFORM TO 'LISTED' STANDARDS AS FAR AS POSSIBLE.
- 9.0 CLEAN WORK
REGULARLY REMOVE DEBRIS FROM THE PROJECT SITE, AS REQUIRED, DURING CONSTRUCTION. CLEAN ALL RACEWAYS, FIXTURES, AND OTHER EQUIPMENT PRIOR TO FINAL ACCEPTANCE BY OWNER.
- 10.0 CLOSING IN OF UNINSPECTED WORK
ELECTRICAL CONTRACTOR SHALL NOT CLOSE IN OR CONCEAL ANY ELECTRICAL WORK PERFORMED PRIOR TO INSPECTION AND APPROVAL.
- 11.0 STANDARD FIELD TESTS
11.1 ELECTRICAL CONTRACTOR SHALL PERFORM POWER CONDUCTOR INSULATION TESTING.
11.2 CONDUCTOR INSULATION SHALL BE TESTED USING A 1000 VOLT DC INSULATION TESTER. TEST POWER CONDUCTORS ACCORDING TO TEST EQUIPMENT MANUFACTURER'S RECOMMENDED TESTING PROCEDURES. TEST POWER CONDUCTORS DISCONNECTED IN PLACE. MINIMUM RESISTANCE VALUES FOR BRANCH CIRCUIT CONDUCTORS SHALL BE 100 MEGOHMS. PROMPTLY REPORT ANY LOWER VALUE TO THE ENGINEER.
11.3 PERFORM POLARITY TESTS FOR ALL UTILIZATION EQUIPMENT.
11.4 PROVIDE WRITTEN TABULATED RESULTS OF CONDUCTOR INSULATION TESTING, TO THE ENGINEER, PROMPTLY AFTER TESTING AND PRIOR TO ENERGIZING OF CONDUCTORS.
11.5 ANY WORK WHICH FAILS TO MEET THE REQUIREMENTS OF THESE ELECTRICAL CONSTRUCTION DOCUMENTS, OR ANY OF THE ABOVE-LISTED TESTING SHALL BE CONSIDERED DEFECTIVE AND SHALL BE PROMPTLY CORRECTED OR REMOVED FROM SITE.
- 12.0 IDENTIFICATION
ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL CIRCUIT IDENTIFICATION TAGS ON CONDUCTORS AT ALL PULLBOXES AND AT EQUIPMENT SERVED. IDENTIFICATION TAGS SHALL INDICATE DEVICE DESIGNATION, EQUIPMENT SERVED, VOLTS/PHASE/WIRE, AND PANEL / CIRCUIT NUMBER.
- 13.0 PENETRATIONS
PROVIDE AND INSTALL COMMERCIALLY ACCEPTED METHODS FOR WATER-TIGHT PENETRATION OF EXTERIOR WALL. CONSULT OWNER REPRESENTATIVE FOR DETERMINATION OF EXACT PENETRATION LOCATIONS FOR EXTERIOR WALL.
- 14.0 EXCAVATION AND BACKFILL
14.1 PROVIDE ALL EXCAVATION, BACKFILL, TRENCHING, HORIZONTAL DIRECTIONAL BORING, COMPACTION, PATCHING ETC. REQUIRED FOR THE ELECTRICAL WORK DETAILED IN THE ELECTRICAL CONSTRUCTION DOCUMENTS AND THIS ELECTRICAL SPECIFICATION. ELECTRICAL WORK SHALL CONFORM TO REQUIREMENTS OF THE WASHOE-RTC STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK).
14.2 INSTALL RACEWAYS AND CONDUIT PROMPTLY. PERFORM BACKFILL PROMPTLY UPON INSPECTION AND APPROVAL.
14.3 UNDERGROUND ELECTRICAL WORK SHALL BE PERFORMED WITH CONSIDERATION FOR EXISTING SERVICES. ELECTRICAL CONTRACTOR SHALL PROMPTLY AND COMPLETELY REPAIR OR REPLACE ANY SYSTEMS DISRUPTED DURING ELECTRICAL INSTALLATION AND RETURN TO WORKING ORDER.
14.4 BACKFILL SHALL CONFORM TO REQUIREMENTS OF WASHOE-RTC STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK).

SECTION 16000 - ELECTRICAL SPECIFICATIONS (CONTINUED)

- 15.0 SUPPORTS AND FASTENINGS
ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL SUPPORTS AND HANGARS FOR ALL RACEWAYS, CABINETS, BOXES, BACK-BOXES, AND EQUIPMENT. SUPPORTS AND HANGARS SHALL BE SECURELY ATTACHED TO STRUCTURE USING: (a) STRUCTURAL CHANNEL, BEAM-CLAMPS, THREADED HANGAR RODS FOR STEEL STRUCTURE (b) EXPANSION BOLTS FOR SOLID MASONRY, (c) CONCRETE PRESET INSERTS FOR EXPANSION BOLTS FOR CONCRETE, (d) MACHINE SCREWS, OR BOLTS AND BEAM CLAMPS FOR METAL.
- 16.0 RECORD DRAWINGS
ELECTRICAL CONTRACTOR SHALL PROVIDE A NEAT AND COMPLETE SET OF "AS-BUILT" RECORD DRAWINGS TO THE OWNER WITHIN TEN (10) DAYS OF FINAL ACCEPTANCE OF WORK. RECORD DRAWINGS SHALL INDICATE ALL DEVIATIONS FROM THE ELECTRICAL CONSTRUCTION DOCUMENTS, LOCATIONS OF STUB-OUTS AND CONCEALED ITEMS (PER FIELD DIMENSIONS) RECORD DRAWINGS SHALL BE OF EQUAL TO OR HIGHER QUALITY THAN THESE ELECTRICAL CONSTRUCTION DOCUMENTS (INCLUDING SIZE, CLARITY AND MEDIUM). ALL MAINTENANCE AND OPERATING MANUALS AS WELL AS ANY ADDITIONAL INSTRUCTIONS, SHALL BE CONSIDERED A PART OF THE RECORD DRAWINGS.
- 17.0 ELECTRICAL SUBMITTALS
ELECTRICAL CONTRACTOR SHALL SUBMIT FOUR (4) COPIES OF FACTORY DATA SHEETS FOR ELECTRICAL MATERIALS PROPOSED FOR THIS PROJECT TO THE ENGINEER. ELECTRICAL CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER, FOR ALL PROPOSED DATA SHEETS. ELECTRICAL CONTRACTOR SHALL ORDER AND/OR RELEASE ANY MATERIALS PROMPTLY AFTER SUBMITTAL APPROVAL. NO SUBSTITUTIONS OR ALTERNATE METHODS SHALL BE ACCEPTED AS A RESULT OF UNTIMELY WORK.
- 18.0 OWNERSHIP OF DOCUMENTS
THESE ELECTRICAL CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, AND ALL RELATED DOCUMENTS CONSTITUTE COPYWRITTEN MATERIALS OF JENSEN ENGINEERING, INC. ALL RIGHTS RESERVED. THESE MATERIALS SHALL REMAIN THE SOLE PROPERTY OF JENSEN ENGINEERING, INC. AND MAY NOT BE REPRODUCED, DISTRIBUTED, OR USED FOR ANY PURPOSE WITHOUT THE EXPLICIT WRITTEN CONSENT OF JENSEN ENGINEERING, INC.
- 19.0 ONGOING OPERATIONS
ELECTRICAL CONSTRUCTION WORK SHALL BE PERFORMED WITH DUE CONSIDERATION FOR ONGOING OPERATIONS AT THE PROJECT SITE AND SHALL MINIMIZE DISRUPTIONS IN EVERY RESPECT. PROVIDE AND INSTALL BARRICADES, DUST CONTAINMENT, NOISE ABATEMENT, ETC. TO ENSURE SAFETY OF NON-CONSTRUCTION PERSONNEL ON THE PROJECT SITE. ANY INTERRUPTIONS TO EXISTING SERVICES SHALL BE COORDINATED WITH THE OWNER PRIOR TO ENGAGEMENT. DISRUPTIONS SHALL BE TEMPORARY AND MUST BE SCHEDULED 2 WEEKS IN ADVANCE.
- 20.0 TEMPORARY POWER
ANY TEMPORARY CONSTRUCTION POWER SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC, AS WELL AS OSHA. COSTS FOR TEMPORARY POWER EQUIPMENT ARE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- 21.0 MATCH EXISTING
IDENTIFY ANY COMPONENTS WHERE DIRECTED TO MATCH EXISTING; PROVIDE AND INSTALL THE ITEM(S) EXACTLY. WHERE EXACT REPLACEMENT IS NOT AVAILABLE, NEW EQUIPMENT SHALL MATCH EXISTING EQUIPMENT IN FUNCTION AND APPEARANCE, AND MUST BE OF EQUAL OR GREATER QUALITY THAN EXISTING EQUIPMENT. WHERE SCOPE OF WORK OCCURS AT AN EXISTING FACILITY, ALL MATERIALS AND WORKMANSHIP SHALL BE OF GREATER QUALITY THAN EXISTING. TRANSITIONS FROM NEW WORK AREAS TO EXISTING AREAS SHALL BE SEAMLESS IN APPEARANCE AND FUNCTION.
- 22.0 CONDUCTORS
ALL CONDUCTORS SHALL CONFORM TO THE REQUIREMENTS STATED UNDER SECTION 5.0 OF THIS ELECTRICAL SPECIFICATION, AND UL LISTING STANDARDS. ALL CONDUCTORS SHALL BE COPPER, STANDARD AMERICAN WIRE GAUGE, SOFT-DRAWN, CONCEALED IN CONDUIT. CONDUCTOR INSULATION SHALL BE 600 VOLT, 90°C RATED TYPE THHN/THWN. CONDUCTORS SHALL BE CONTINUOUS FROM ORIGIN TO EQUIPMENT WITHOUT SPLICES, PER NEC. WHERE REQUIRED, SPLICES SHALL OCCUR IN SPLICE BOXES OR WIREWAYS PER PLAN. WIRE/CABLE SHALL BE HANDLED TO AVOID DAMAGE TO BOTH CONDUCTOR AND INSULATION. WIRE/CABLE SHALL BE DELIVERED IN STANDARD COILS OR REELS WITH SUITABLE PROTECTION FROM WEATHER AND DAMAGE DURING STORAGE, HANDLING, AND INSTALLATION. ELECTRICAL CONTRACTOR SHALL COLOR CODE CONDUCTORS CONSISTENTLY THROUGHOUT THE PROJECT ACCORDING TO THE FOLLOWING OUTLINE:
- | VOLTAGE | PHASE A | PHASE B | PHASE C | NEUTRAL | GROUND |
|----------|---------|---------|---------|---------|--------|
| 120/208V | BLACK | RED | BLUE | WHITE | GREEN |
- 23.0 CONDUIT SYSTEMS
23.1 CONDUIT ROUTES SHOWN ON THESE DOCUMENTS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE.
23.2 TYPE RMC (GRS) OR TYPE IMC CONDUIT SHALL BE USED FOR ALL EXPOSED LOCATIONS.
23.3 TYPE EMT CONDUIT MAY BE USED FOR INDOOR CONCEALED LOCATIONS. ALL FITTINGS SHALL BE STEEL.
23.4 TYPE RNC (PVC SCHEDULE 40) CONDUIT SHALL BE USED FOR ALL UNDERGROUND AND UNDER CONCRETE SLAB APPLICATIONS. ABOVE GRADE AND EXPOSED RISERS SHALL BE TYPE RMC. UNDERGROUND CONDUITS SHALL BE BURIED IN SAND ENVELOPE, MINIMUM OF 24" (TWO FEET) BELOW FINISHED GRADE. PROVIDE AND INSTALL GREEN INSULATED GROUNDING CONDUCTORS IN ALL NON-METALLIC CONDUITS.
23.5 TYPE FMC CONDUIT (INCLUDING TYPE 'MC' CABLE) IS NOT PERMITTED
23.6 TYPE LFMC CONDUIT IS NOT PERMITTED.
23.7 TYPE LFNC CONDUIT IS NOT PERMITTED.
23.8 TYPE ENT CONDUIT IS NOT PERMITTED.
23.9 TYPE NM & MM-C CABLE IS NOT PERMITTED.
23.10 PROVIDE AND INSTALL 200# PULL STRING IN ALL EMPTY OR SPARE CONDUITS.
- 24.0 TERMINATIONS AND SPLICES
CONNECTORS, SPLICES, AND LUGS SHALL BE LISTED FOR THE APPLICATION. CHECK ALL BUS CONNECTIONS FOR PROPER CONTACT PRESSURE. COMPLETE MECHANICAL LUG CONNECTIONS USING A CALIBRATED TORQUE WRENCH (OR SCREWDRIVER) ACCORDING TO LUG MANUFACTURER'S TIGHTENING RECOMMENDATIONS.
- 25.0 VANDAL PROTECTION
ALL ELECTRICAL WORK THAT IS ACCESSIBLE TO THE PUBLIC SHALL BE TAMPER-PROOF AND VANDAL RESISTANT. ALL EQUIPMENT WITH OPERABLE-DOOR ENCLOSURES SHALL BE LOCKING TYPE, OR PAD-LOCKING.
- 26.0 GROUNDING AND BONDING
PROVIDE AND INSTALL GROUNDING FOR ALL EQUIPMENT IN ACCORDANCE WITH NEC ARTICLE 250.
- 27.0 FINAL OBSERVATION
UPON ACCEPTANCE OF OPERATION AND MAINTENANCE INSTRUCTIONS AND RECORD DRAWINGS, THIS ENGINEER SHALL MAKE A FINAL OBSERVATION OF THE PROJECT AND GENERATE A PUNCH-LIST OF ANY UNACCEPTABLE ITEMS. FINAL PROJECT ACCEPTANCE SHALL NOT BE CONSIDERED UNTIL ALL ITEMS ON THE PUNCH-LIST HAVE BEEN CORRECTED.
- 28.0 PRELIMINARY OPERATION
IF THE OWNER DEMANDS THAT ANY PORTION OF THE ELECTRICAL SYSTEM BE OPERATED PRIOR TO FINAL COMPLETION AND ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL CONSENT, AND SUCH OPERATION SHALL BE PERFORMED UNDER SUPERVISION AND DIRECTION OF THE CONTRACTOR. ALL OPERATING EXPENSE THEREOF SHALL BE PAID BY THE OWNER. PRELIMINARY OPERATION AND PAYMENT THEREOF SHALL NOT BE CONSTRUED AS ACCEPTANCE OF WORK.
- 29.0 WARRANTY/GUARANTEES
ELECTRICAL CONTRACTOR SHALL PROVIDE A GUARANTEE OF THE ELECTRICAL WORK TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. LIGHTING LAMPS ARE EXEMPT FROM THIS REQUIREMENT, HOWEVER, LAMPS SHALL BE NEW AND IN PERFECT OPERATING CONDITION AT THE TIME OF FINAL ACCEPTANCE.

ELECTRICAL SYMBOLS AND NOMENCLATURE

SYMBOL	DESCRIPTION
Ⓟ	DOUBLE-OUTLET 'DUPLEX' RECEPTACLE
Ⓡ	THREE-PHASE (3Ø) RECEPTACLE (CONFIGURATION AS NOTED)
Ⓢ	SPECIAL RECEPTACLE (VOLTAGE/CONFIGURATION AS NOTED)
Ⓣ	JUNCTION BOX
Ⓡ	SAFETY DISCONNECT SWITCH (SIZE/VOLTAGE/CONFIGURATION AS NOTED)
---	ABOVE GRADE CONDUITS AND WIRING AS NOTED
- - -	UNDERGROUND CONDUITS AND WIRING AS NOTED
①	SHEET NOTE INDICATOR
Δ	REVISION 'DELTA' NOTE INDICATOR
+48'	48' MOUNTING HEIGHT AFF. (ACTUAL HEIGHT AS NOTED)
AFF.	ABOVE FINISHED FLOOR
AFG.	ABOVE FINISHED GRADE
A.T.S.	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CB	CIRCUIT BREAKER
(E)	EXISTING
F.B.O.	FURNISHED BY OTHERS
GFI	GROUND FAULT INTERRUPTING TYPE
LTG	LIGHTING
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
'MSB'	MAIN SWITCH BOARD
(N)	NEW
TYP	TYPICAL
UG	UNDER GROUND
WP	WEATHER PROOF
TRANS	TRANSFORMER

Panel Schedule by Jensen Engineering Inc.

PANEL (E) 120 / 240 VOLT 3 PHASE 4 WIRE 200 AMPERE MAIN L.O. : 200 AMPERE BUS

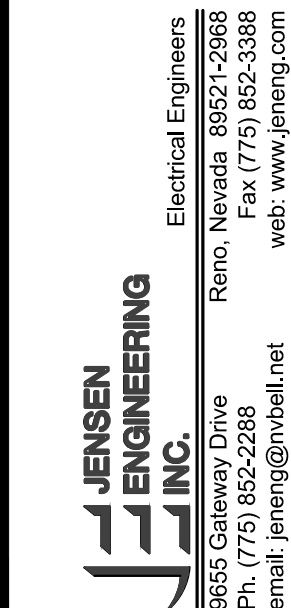
LOCATION (E) AT DEPO WEST WALL MOUNTING SURFACE INTERRUPTING (E) A.I.C.

CIRCUIT NUMBER	LOAD			LOAD DESCRIPTION			LOAD DESCRIPTION			LOAD		
	LINE A	LINE B	LINE C	POLE	TRIP	A B C	TRIP	POLE	LINE A	LINE B	LINE C	CIRCUIT NUMBER
1				20			15					2
3				20			15					4
5				20			15					6
7							15					8
9				20			20					10
11												12
13				20			50	2				14
15	200			20								16
17												18
19				20			20	1				20
21				20			20	1				22
23												24
25				100			20	1				26
27				100			20	1				28
29												30
31				2	100		15	1				32
33							15	1				34
35												36
37				20			20	1				38
39							20	1				40
41												42

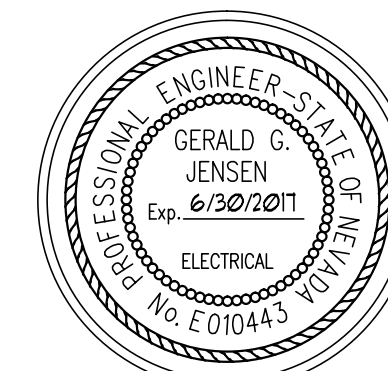
NOTES: BUS MATERIAL: NEW: N EXISTING: Y LINE TOTALS LINE AMPS TOTAL KVA LOAD

KEYED NOTES: (THIS SHEET ONLY)

- ① PROVIDE AND INSTALL NEW 20A / 1-POLE BREAKER IN EXISTING PANEL AT POSITION 15, AND CONNECT TO POWER NEW SIGN.



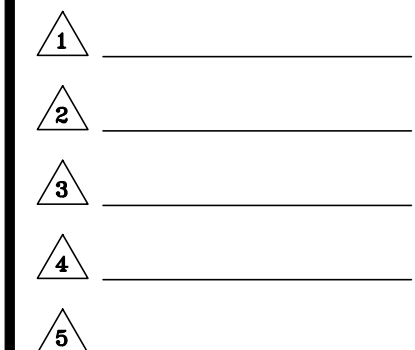
BID DOCUMENTS



2/17/2016

NEVADA STATE RAILROAD MUSEUM
GATEWAY IMPROVEMENT PROJECT
2180 SOUTH CARSON STREET
FEDERAL PROJECT # TAP-0529(002) - PROJECT # 73802

REVISION



DATE

2-17-16

SCALE

AS SHOWN

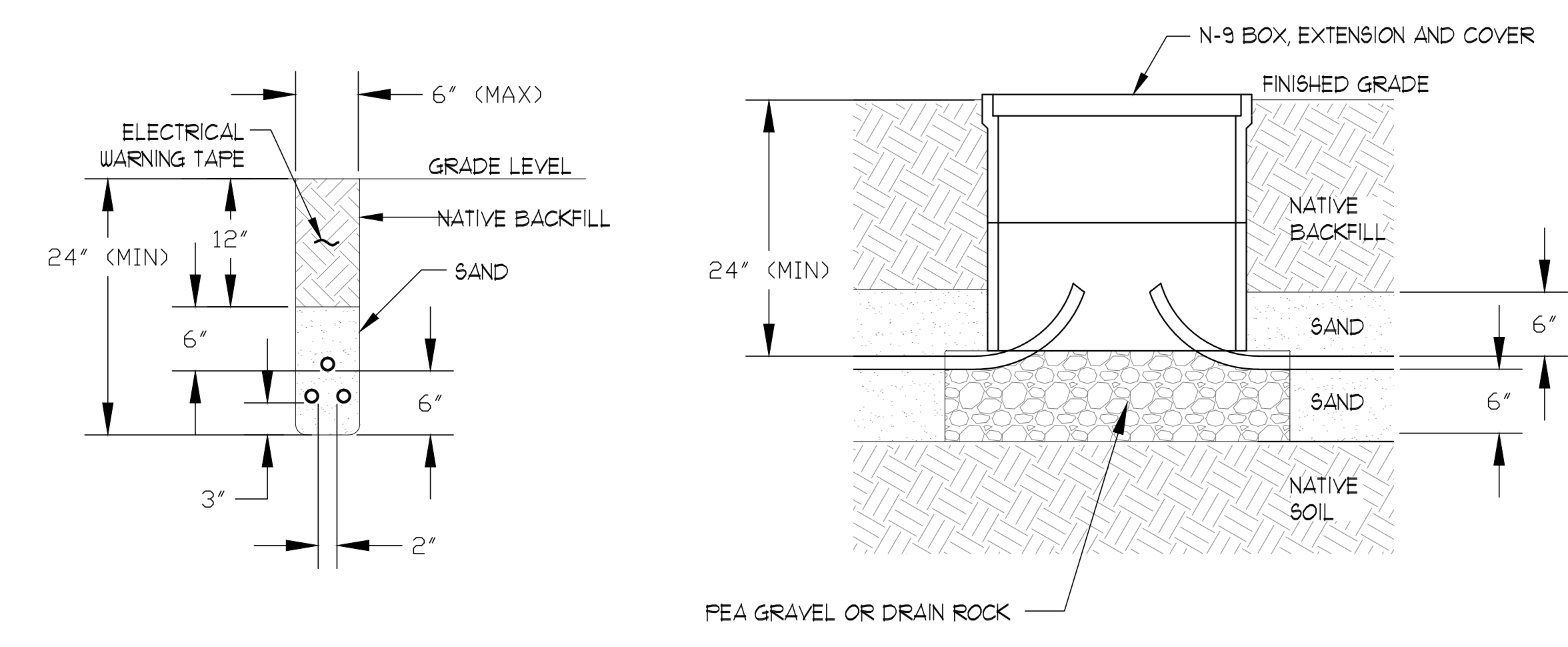
DRAWN

SJM

CHECKED

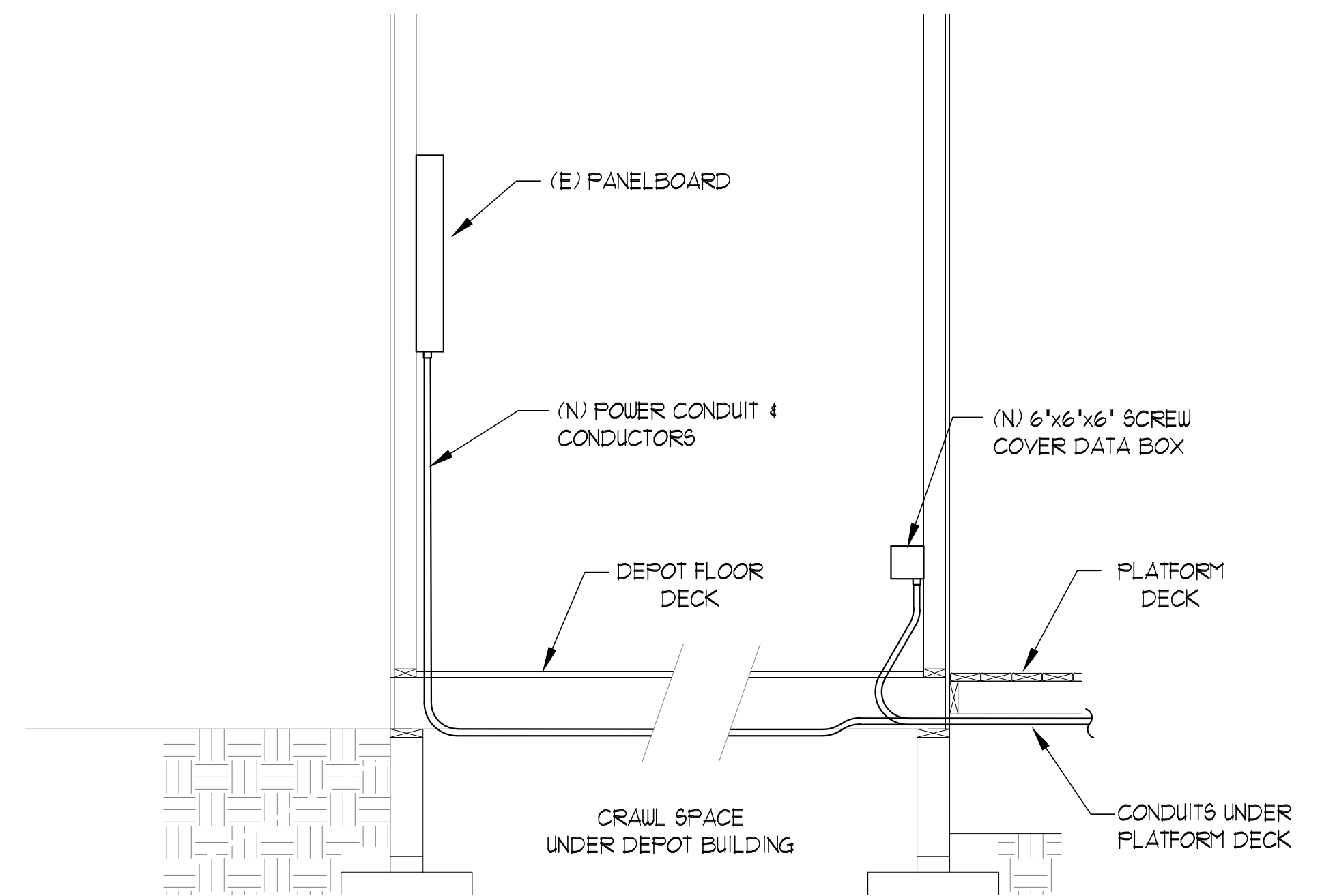
GGJ

DRAWING TITLE
SPECS & SCHEDULES
SHEET: [Symbol]
OF 1 SHEETS 2



ELECTRICAL CONDUIT TRENCH SECTION DETAIL (B) SCALE: 1" = 1'

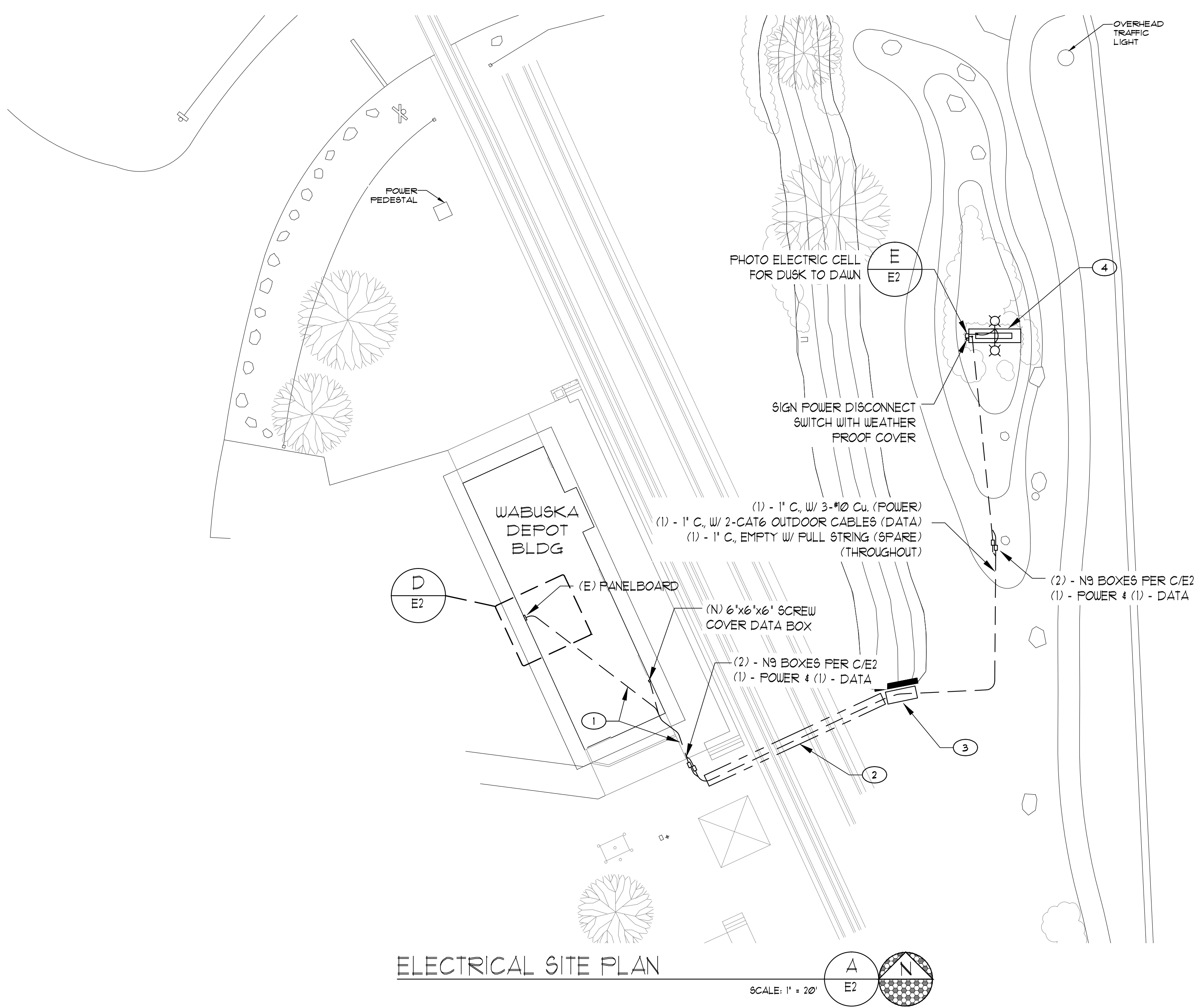
TYPICAL N-9 HANDHOLE SECTION DETAIL (C) SCALE: 1" = 1'



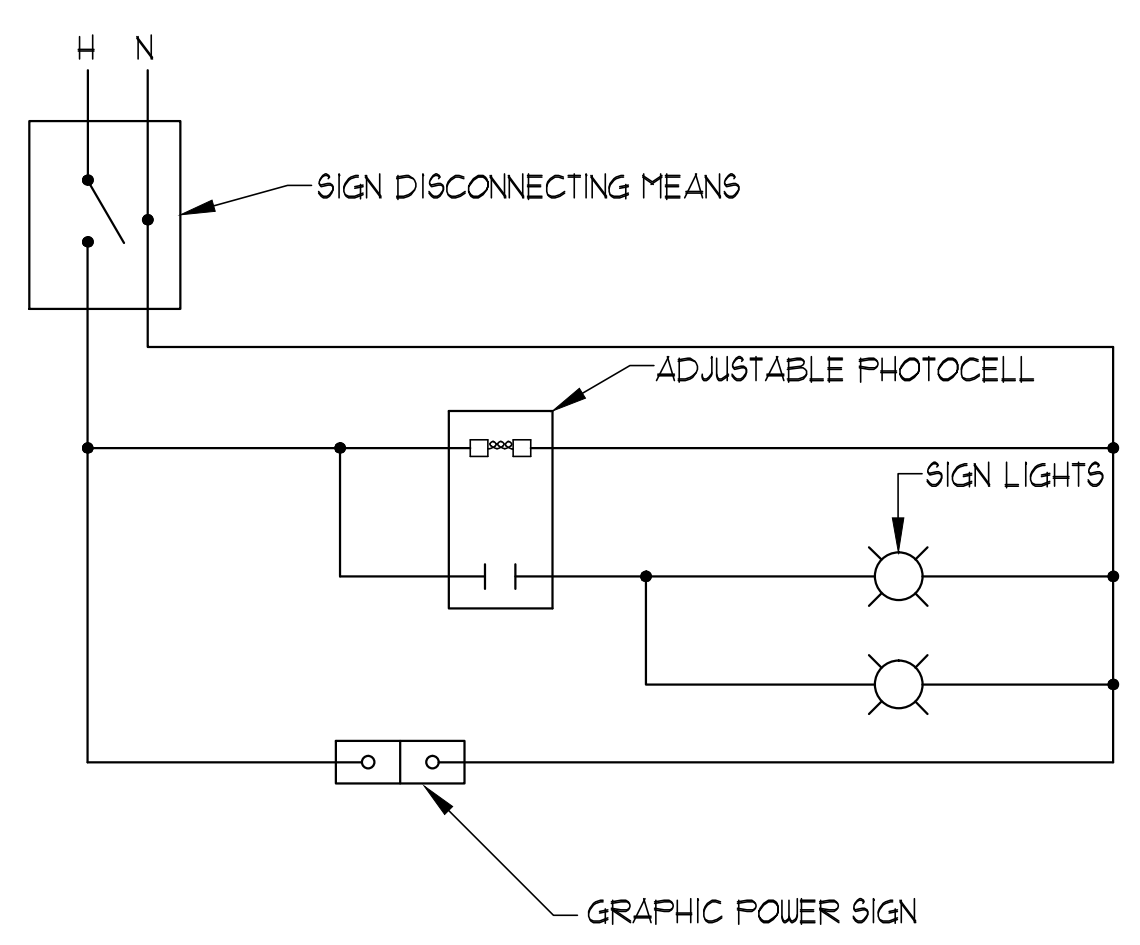
DEPOT BUILDING SECTION DETAIL (D) SCALE: 1/2" = 1'

KEYED NOTES: (THIS SHEET ONLY)

- 1 RUN CONDUITS THROUGH CRAWL SPACE UNDER DEPOT BUILDING AND OUT UNDER THE PLATFORM DECK. TRANSITION CONDUITS TO UNDERGROUND UNDER THE PLATFORM DECK WITH OUT EXPOSING TO PUBLIC VIEW. REMOVE AND REINSTALL TREX DECK PLANKING AS NECESSARY TO INSTALL CONDUITS. SEE C/E2.
- 2 INSTALL CONDUITS UNDER RAILROAD TRACKS USING HORIZONTAL DIRECTIONAL DRILLING. BORING UNDER TRACKS SHALL BE A MINIMUM OF 5' BELOW FINISHED GRADE AND SHALL EXTEND A MINIMUM OF 15' ON EACH SIDE OF NEAREST TRACK RAIL.
- 3 PROVIDE CONCRETE ENCASUREMENT OF CONDUITS WHERE THE CONDUITS CROSS THE EXISTING CULVERT AND RISE TO LESS THAN 24" BELOW FINISHED GRADE.
- 4 EXISTING MUSEUM SIGN TO BE REMOVED AND REPLACED WITH NEW PROGRAMMABLE ELECTRIC SIGN. CONNECT NEW POWER AND DATA SYSTEMS TO NEW SIGN AND CONNECT COMPLETE PER SIGN MANUFACTURER'S SHOP DRAWINGS. PROVIDE AND INSTALL 20A RATED SWITCH FOR POWER DISCONNECTING MEANS.
- 5 TRENCH FORM RAIL ROAD TRACKS TO SIGN SHALL BE ACCOMPLISHED USING A WALK-BEHIND SLOT TYPE TRENCHER TO MINIMIZE DAMAGE TO SURROUNDING LANDSCAPE.



ELECTRICAL SITE PLAN (A) SCALE: 1" = 20'



LIGHTING CONTROL SCHEMATIC NOTES:

1. LIGHTING CONTACTOR(S) SHALL BE 30A, 600V, 4-POLE, NEMA ENCLOSED
2. PHOTOCELL SHALL BE INTERMATIC *K4100/4200 OR EQUIVALENT.
3. LOCATE OUTSIDE LIGHTING CONTROLS (H.O.A, CLOCKS AND CONTACTORS) ADJACENT TO ELECTRICAL PANEL. LOCATE PHOTOCELL OUTSIDE FACING WEST.

LIGHTING CONTROL DIAGRAM (E) SCALE: NOT TO SCALE

JENSEN ENGINEERING INC.
Electrical Engineers
Reno, Nevada 89521-5288
PH (775) 852-2288 FAX (775) 852-3388
email: jenseng@mbell.net web: www.jenseng.com

BID DOCUMENTS

2/17/2016

**NEVADA STATE RAILROAD MUSEUM
GATEWAY IMPROVEMENT PROJECT
2180 SOUTH CARSON STREET
FEDERAL PROJECT # TAP-0529(002) - PROJECT # 73802**

REVISION	DATE
1	
2	
3	
4	
5	

DATE: 2-17-16
SCALE: AS SHOWN
DRAWN: SJM
CHECKED: GGJ

DRAWING TITLE: SITE PLAN & DETAILS
SHEET: 2 OF 2 SHEETS 2



**Nevada Department of Tourism and Cultural Affairs
DIVISION OF MUSEUMS & HISTORY**

412 E. Musser St., Suite #2
Carson City, Nevada 89701
(775) 687-7630 Fax (775) 687-4333

Brian Sandoval
Governor

Claudia Vecchio
Director

Peter Barton
Administrator

Refers to Agenda item 6

Date: April 15, 2016
To: Board of Museums and History Finance Sub Committee
Through: Peter Barton, Administrator
Division of Museums and History
From: Carrie Edlefsen, Administrative Services Officer II
Division of Museums and History
Subject: Category 48 Use of Funds – NSRMCC – BA 5037

The Nevada State Museum Carson City requests \$8,500 out of BA 5037, Category 48, Board Approved Special Projects for needed repairs to the Edwards Car.

The Edwards Car is in need of repairs. There are serious issues with the drive system, which have been patched together for several years. It has gotten to point that it makes no sense to keep patching the Edwards Car together.

To build a strong, reliable, and low maintenance system that will serve for a long time the following parts are required:

1 - CRV5-16-S-16T-60 Relief valve	\$ 270.81
1 - 119-1034-003 Hydraulic motor	\$2,666.79
1 - 6421-024 Hydrostatic Pump	\$2,511.00
1 - Core charge	\$1,500.00
Total	\$6,948.60

Fittings, hoses, and adapters will also be needed. This could total as much as \$1,500.00. The total cost for repairs should not exceed \$8,500. It is possible that some of the parts listed above can be found at a lower cost. Shop personnel will obtain quotes for the best possible prices.

The components listed above will give us a system that mimics that of the dinky which has given excellent service since the year 2000. This system should have sufficient torque to start the motor car on the grade, act as a braking feature, and move sufficiently fast to keep the volunteers from complaining about the slow operational speed.

The Edwards Car compliments our museum operations quite well. We use the Edwards Car as an interpretive tool during school tours often throughout the spring. The volunteers use the Edwards Car as

a training device to teach future motor car operators, including those who eventually move on to operate the McKeen Car. The Edwards Car stepped in for No. 25 on a few occasions last summer, as well. Also, the Edwards Car makes up the bulk of our operating schedule from May to September.

Please sign below to signify your approval of this special use of these funds.

Chairman of the Board of Museums and History Finance Sub Committee

Date