ADDENDUM #04

DATE: September 29, 2023 **PROJECT NO.:** Project # 20229080

CRSA Project # 21-031

TO: Gramoll Construction PROJECT: Rio Grande Depot Seismic

155 S. 750 W. 300 S. Rio Grande St.

North Salt Lake, UT 84054 SLC, UT 84101

This Addendum forms a part of the Contract Documents and modifies the original Bid Documents dated October 3, 2022 as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of (6) 8-1/2" x 11" Addendum pages, (20) 8-1/2" x 11" Specification pages and (27) 30" x 42" Addendum drawing pages.

I. CHANGES TO PRIOR ADDENDA:

I-1 Note: Addenda 1, 2 and 3 were issued as part of Bid Packages 1 and 2. Addendum 4 is the first addendum for bid package 3.

II. CHANGES TO BIDDING REQUIREMENTS:

II-1 None

III. CHANGES TO AGREEMENT & OTHER CONTRACT FORMS:

III-1 None

IV. CHANGES TO CONDITIONS OF THE CONTRACT:

IV-1 None

V. CHANGES TO SPECIFICATIONS:

- V-1 Table of Contents: 055316 Plank Gratings specification removed from project manual.
- V-2 033713 Shotcrete: Added test panel mock up table under 1.07.B.1.
- V-3 055000 Metal Fabrications: Removed Unistrut as Basis of Design. Added manufacturers of metal grating.
- V-4 055100 Metal Stairs: 1.05.B. Remove IAS qualification. Add option in lieu of AISC certification.
- V-5 092116 Gypsum Board Assemblies: Added paragraphs under 3.05 Joint Treatment to identify locations of Level 4 and Veneer-Plaster finish.

VI. CHANGES TO DRAWINGS:

- VI-1 AE001: Updated wall type B5. Added wall types B7 and VP. Moved wall type C1 detail to bottom row.
- VI-2 AE400: Added VP wall type to plans.
- VI-3 AE401: Added VP wall type to plans.
- VI-4 AE402: Added veneer plaster keynote to elevations.
- VI-5 AE410: Change wall type from B5 to B7.
- VI-6 AE505: Changed gyp board notes to veneer plaster system.
- VI-7 AE506: Changed gyp board notes to veneer plaster system.
- VI-8 AE507: Changed gyp board notes to veneer plaster system.

- VI-9 AE512: Detail D5 removed "Unistrut" and matched structural detail on SF504.
- VI-10 AE513: Changed gyp board notes to veneer plaster system.
- VI-11 Structural revisions to the following drawings: SB002, SB100, SB100B, SB502, SB503, SB511, SB604, SF201, SF202, SF203, SF301, SF501, SF502, SF503, SF504, SF511.
- VI-12 See addendum summary from Colvin Engineers.

VII. ADDITIONAL INFORMATION:

- VII-1 Preproposal meeting minutes and attendance for Concrete & Plaster VBS Bidding is included.
- VII-2 Project Schedule is included.
- VII-3 Design information for abatement scaffolding in the grand lobby is being made available on Gramoll's bidding website.

VIII. SUBSTITUTION REQUESTS:

- VIII-1 102113.13 Metal Toilet Compartments: Proposed substitution of Hiny Hiders Solid Plastic. This is denied as metal partitions are preferred.
- VIII-2 087100: Proposed substitution of Sargent products for mortise locks, cylindrical locks and door closers is approved.
- VIII-3 087100: Proposed substitution of dormakaba products for mortise locks, cylindrical locks and door closers is approved.
- VIII-4 See approval requests writeup from Colvin Engineers

IX. ANSWERS TO BIDDER'S QUESTIONS:

- IX-1 Question: Page 7 of the RFP states "The submittal of your management plan to complete the concrete scope and statement of qualifications shall be combined into no more than ten 8.5 X 11 pages (single-sided, not including the cost proposal)." Can you clarify that you want all elements requested in both the Management Plan and Statement of Qualifications, Including References, Risk Identification, and Schedule to be included in this 10 pages? Can you clarify that the 10-page limit does not include Bonding Statement, Termination and Debarment Certification, Cover letter, covers and dividers/tabs?
 - a) Answer: The 10-page limit does not include the Bonding Statement, Termination and Debarment Certification, Cover letter, covers and dividers/tabs.
- IX-2 See comments/questions writeup from Colvin Engineers
- IX-3 Question: Can access holes be cut into the exterior concrete walls for material ingress at grids 11 and 16 as needed in the center of the basement walls, say 1 ea. 3-foot square at approximately 4 feet above the floor slab on the west and east elevation?
 - a) Answer: Structurally, access holes can likely be cut in the exterior concrete walls, staying away from points of beam bearing above. Propose locations for design team to review. Reaveley
- IX-4 Question: Can the lobby floor at elevation 100.00 be shored to allow a man lift or scissor lift to be used for seismic wall construction? Same with level 116.00. A design will be submitted for your review.
 - a) Answer: Yes, floor lobby can be shored. Submit design as noted. Reaveley



- IX-5 Question: Will you be submitting a revise drawing that addresses the existing footing in the basement on gridline A.1 between Grids 11.5 and 15.5
 - a) Answer: Is this in reference to RFI 051, addressing the existing self in the basement? If so, yes, drawings are being revised in addendum. Reaveley
- IX-6 Question: Is there a vapor barrier required under the basement SOG?
 - a) Answer: Yes, per detail C1/AE511. CRSA
- IX-7 Question: On sheet SB 502 detail B3 states that the construction sequence requires concrete to meet design strength for demo and pour of alternate segments. It also states that demo and pour of alternating sections after 28 days cure. Which requirement takes precedence, concrete strengths or 28 days?
 - a) Answer: Wording has been clarified in addendum. Reaveley
- IX-8 Question: On sheet SB 502 detail C2 indicates roughen surface of the footing pours. Is it the engineer's intent to roughen all of the surfaces that the footings and walls pour against existing concrete surfaces or just the footings?
 - Answer: Surface roughness on detail only applies to extent of footing overlap with existing wall, does not extend on wall surface above. - Reaveley
- IX-9 Question: Does the GC cover cost to maintain the temperature above 40 degrees for the entire interior of the building throughout the winter? Does the concrete subcontractor need to cover concrete mix additives throughout the winter as well as all cost to prevent freezing outside of the building during placements and curing?
 - Answer: Gramoll Construction will provide heat inside the building. Any heat or protection needed outside the building will be the subcontractor's responsibility. – Gramoll
- IX-10 Question: For the final surface amplitude of the shotcrete "called out" walls, is ½" the allowable deviation with a nozzle finish? Please verify shotcrete wall finish type and specification.
 - a) Answer: Brushed finish is acceptable as these walls will eventually be covered up. CRSA
- IX-11 Question: Interior scaffolding required for the concrete scope; will this be supplied by the GC?
 - a) Answer: Subcontractors should provide an option price for scaffolding their work. It is Gramoll's intent to review the overall project scaffolding requirements with the selected subcontractors. Gramoll
- IX-12 Question: Will the GC provide work lighting and temporary power and a water source for the concrete scope of work?
 - a) Answer: Gramoll Construction will provide general OSHA required access/egress lighting and temporary power locations in the building. It will be the subcontractor's responsibility to provide work and task lighting and power distribution from the temporary power locations. There is a water source available in the basement. Gramoll
- IX-13 Question: Will the concrete sub-contractor have access through exterior windows where needed, provided the window seals are protected? Are the windows accessible to open?
 - a) Answer: exterior windows may be used for access with approval.



Subcontractors will be responsible for removal and replacement. Subcontractors will be required to protect existing surfaces and finishes both inside and outside the building and will be responsible for any damage. - Gramoll

- IX-14 Question: Will the GC be responsible for covering the doors, floors, and windows for our equipment pass through, hoses, rebar, forms, scaffolding etc.
 - a) Answer: Gramoll construction is providing general building and surface protection. Subcontractors will be responsible to provide protection for their specific work tasks as needed. Gramoll
- IX-15 Question: Will all the hanging piping in the basement wall areas be removed within 4 feet of the walls, if not what utilities will remain?
 - a) Answer: The majority of the piping in the basement within four feet of the exterior walls will be removed. There are penetrations through the foundation that will remain. Gramoll
- IX-16 Question: Will testing be performed on all of the dowels epoxied into the existing walls, will pull test be required, if so at what interval?
 - Answer: Testing doweled epoxy bars is not required into the existing walls unless the contractor proposes to utilize a differing diameter bar or epoxy. - Reaveley
- IX-17 Question: Will the owner provide an air filtration system for the work duration for the basement improvements?
 - a) Answer: No. Subcontractor will be responsible for air quality while performing their work. Gramoll
- IX-18 Question: Are there any weight regulations for equipment, etc. while working in the main lobby area? If so, please provide further information on the existing floors load capacities, same with the mezzanine.
 - Answer: There are weight regulations for all equipment. The EOR should review any proposed equipment. In general, live load on the floors should be limited to 100psf.- Reaveley
- IX-19 Question: Will GCs provide an allowance for escalation, or would they prefer that we carry escalation costs for labor, material, etc. in our proposal?
 - a) Answer: Any anticipated cost escalations should be included in the proposal.- Gramoll
- IX-20 Question: Per the Concrete RFP, liquidated damages are "\$1,000.00 per day." When is the substantial completion date in which these liquidated damages are enforced?
 - a) Answer: The project schedule is included in the addendum. Subcontractors should address scheduling in their management plans. When the subcontractors are selected the schedule will be reviewed and updated and the subcontractors will then be committed to the schedule dates. - Gramoll
- IX-21 Question: Under the "Notice to Contractors" section in the Concrete RFP, it shows that proposals are to be submitted on the 5th of October 2023 @ 2:00 PM. However, the website, http://gramoll.com/bidding/ states that subcontractor and supplier bids will be accepted until, "2:00 PM, Thursday,



- October 19, 2023." Please clarify.
- a) Answer: The concrete and plaster VBS proposals are due on October 5th, 2023, per the RFP's. Gramoll
- IX-22 Question: What is the anticipated completion date for this project? Will a schedule be provided before the submittal date?
 - Answer: The project schedule is included in the addendum and posted on the bidding website. - Gramoll
- IX-23 Question: What is the acceleration value on the wall mass for out of plane forces on the existing masonry and CIP concrete or shotcrete strengthening?
 - Answer: The out of plane wall force is 0.43*W (W = weight of wall and cladding) at the BSE-2E hazard level. - Reaveley
- IX-24 Question: The regularly spaced epoxy anchors in detail B1/SB502 call for 10 ½" min. embedment. Is it appropriate to achieve a minimum embedment within 5 inches of the exterior face so that no more than 1 wythe is not anchored back to the concrete or shotcrete strengthening?
 - Answer: Due to the presence of header courses throughout the structure, it is not necessary to achieve a minimum embedment with 5" of the exterior face of masonry. Reaveley
- IX-25 Question: Is the extension of the dowels in B1/SB502 beyond the 90 degree bend a standard hook?
 - a) Answer: Typical 90 degree hook is required. Reaveley
- IX-26 Question: Most of the footing details that indicate a portion of the existing to be removed say "demo as required." Two of the details say, "Remove a portion of existing footing" (C2/SB502, B4/SB503). Are these 2 details the only details where detail B3/SB502 (Alternating Foundation Strengthening) applies?
 - a) Answer: Detail B3/SB502 applies to both basements of the wings, areas A and C. Reaveley
- IX-27 Question: What is the purpose of the new concrete wall jumping from 10" thick to 24" thick at level 96'-0"? Can this possibly by 10" to 18" or even possibly less?
 - a) Answer: The eccentric footing causes a large amount of moment in the wall. Wall thickness to remain as shown on construction documents. Reaveley
- IX-28 Question: Please confirm that the footings and the columns in the lower level does not have any rebar or reinforcing in the existing concrete. At what level do you expect to find reinforcing in the existing concrete?
 - Answer: It is believed that the existing footings and columns are unreinforced. Exact conditions will not be known until structural work commences. - Reaveley
- IX-29 Question: Will there be any waste chutes provided on the upper levels provided by the GCs?
 - a) Answer: Subcontractors should provide waste chutes as needed for



their work. - Gramoll

- IX-30 Question: Will the GC be providing any concrete washout bins?
 - a) Answer: Concrete subcontractor is to provide concrete washout bins. Gramoll
- IX-31 Question: Can the mezzanine deck be cored in several areas to allow concrete placement of the underside concrete deck? If so, can you clarify the layout?
 - a) Answer: Structurally, it is likely that the mezzanine deck can be cored to facilitate concrete placement. Contractor to propose locations for design team to review. Reaveley

END OF ADDENDUM



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SECTION 033713 SHOTCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Pneumatically applied concrete.

1.02 RELATED REQUIREMENTS

- A. Section 032000 Concrete Reinforcing.
- B. Section 033000 Cast-in-Place Concrete: Reinforcement.
- C. Section _____: Control and expansion joint devices.
- D. Section 079200 Joint Sealants: Sealing control and expansion joints.

1.03 REFERENCE STANDARDS

- A. ACI 506.2 Specification for Shotcrete 2013 (Reapproved 2018).
- B. ASTM A884/A884M Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement 2019, with Editorial Revision (2020).
- C. ASTM A1064/A1064M Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete 2018a.
- D. ASTM C1602/C1602M Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete 2018.
- E. ASTM C33/C33M Standard Specification for Concrete Aggregates 2018.
- F. ASTM C150/C150M Standard Specification for Portland Cement 2022.
- G. ASTM C260/C260M Standard Specification for Air-Entraining Admixtures for Concrete 2010a (Reapproved 2016).
- H. ASTM C330/C330M Standard Specification for Lightweight Aggregates for Structural Concrete 2017a.
- ASTM C332 Standard Specification for Lightweight Aggregates for Insulating Concrete 2017.
- J. ASTM C494/C494M Standard Specification for Chemical Admixtures for Concrete 2019, with Editorial Revision (2022).
- K. COE CRD-C 48 Handbook for Concrete and Cement Standard Test Method for Water Permeability of Concrete 1992.
- L. NSF 61 Drinking Water System Components Health Effects 2021.
- M. NSF 372 Drinking Water System Components Lead Content 2022.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Cooperate with artist performing sculpturing work.
- B. Preinstallation Meeting: Convene one week before starting work of this section.

1.05 SUBMITTALS

- A. See Section 013000 Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on admixtures.
- C. Shop Drawings: Indicate formwork, and dimensions, reinforcement, accessories, and
- D. Mix design test reports.

1.06 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 506.2.
 - 1. Maintain one copy of document on site.

B.	Design work of this section under direct supervision of a Professional Structural Engineer experienced in design of shotcrete structures and licensed in Utah.
C.	Applicator Qualifications: Company specializing in performing shotcrete installations, with minimum years of documented experience.
D.	Acceptable Applicators: 1.

1.07 MOCK-UP

2.

- A. Sample Panel: Provide mock-up of sufficient size to indicate special treatment or finish required.
- B. Test Panels: Prior to starting work provide mock-up for evaluation of materials and workmanship:
 - 1. Provide three test panels fabricated by placing shotcrete onto plywood for each mix design being considered, for each shooting position to be encountered

Test Panel 1	Representative of CSW-3, bar size of #7 at 6"o.c.
Test Panel 2	Representative of CJC-5, tie spacing of #4's at 3"o.c.
Test Panel 3	Contractors option Addendum 4

- 2. Repair core holes after testing, in accordance with ACI 506.2.
- C. Locate mock-ups where directed.
- D. Mock-ups may remain as part of the Work.

1.08 FIELD CONDITIONS

- A. Maintain material and surrounding air temperature at minimum 50 degrees F (10 degrees C) prior to and during installation and maintain material at this minimum temperature for 7 days after completion of work. Provide equipment and cover to maintain minimum temperature.
- B. Suspend shotcrete operations during high winds, rainy weather, or near freezing temperatures when work cannot be protected.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Cement: ASTM C150/C150M, Type I Normal; white color.
- B. Aggregate: Normal weight, ASTM C33/C33M, 3/8 inch (9 mm) maximum size.
- C. Aggregate: Lightweight, ASTM C330/C330M.
- D. Aggregate: Insulating, ASTM C332.
- E. Admixtures: Chemical type complying with ASTM C494/C494M (wet mix only).
- F. Air-Entraining Admixture: Complying with ASTM C260/C260M (wet mix only).
- G. Waterproofing Admixture: Admixture formulated to reduce permeability to liquid water, with no adverse effect on concrete properties.
 - 1. Admixture Composition: Crystalline, functioning by growth of crystals in capillary pores.
 - Potable Water Contact Approval: National Science Foundation (NSF) certification for use on structures holding potable water, based on testing in accordance with NSF 61 and NSF 372
- H. Reinforcing Bars: Type and size as indicated on drawings.
- I. Water: ASTM C1602/C1602M: clean, potable, and not detrimental to shotcrete.
- J. Curing Compound: Water-based, spray-on, penetrating curing compound and hardener; not detrimental to application of subsequent surface finish materials; containing no wax, resin, or solvents.

- 1. Manufacturers:
 - a. W. R. Meadows. Inc: Deck-O-Treat: www.wrmeadows.com/#sle.
- K. Bonding Agent: _____ type; Compatible with substrate and subsequent materials.
- L. Alignment Wire: Small gauge, high strength steel wire.

2.02 SHOTCRETE MIX

- Provide wet or dry mix design that gives good compaction and low percentage of rebound, is stiff enough not to sag.
- B. Comply with following requirements:
 - Compressive Strength (28 day minimum): As noted on structural drawings
 - Aggregate Size (maximum): 3/8 inch (9 mm).
- C. Maintain quality control records during production of shotcrete; make records available.

2.03 EQUIPMENT

- A. Mixing Equipment: Capable of thoroughly mixing aggregate, cement, and water in sufficient quantity to maintain continuous placement.
- B. Delivery Equipment: Capable of discharging wet mix aggregate, cement, and water accurately, uniformly, and continuously.
- C. Water Supply: Uniform water pressure at discharge nozzle sufficiently greater than operating air pressure to ensure intimate mixing with aggregate-cement mix; provide water pump to system if line water pressure is inadequate.

2.04 SOURCE QUALITY CONTROL

- A. An independent testing agency will provide inspection and testing services, as specified in Section 014000 Quality Requirements.
- B. Prior to start of work, testing agency will review mix proportions, gradation, and quality of aggregate.
- C. Provide inspection for compliance with design mix.
- D. Test samples in accordance with ACI 506.2.
- E. Independent testing agency will test mock-up panels as follows:
 - 1. Drill 3 inch (75 mm) diameter core samples from test panels.
 - 2. Test for strength.
- F. Modify mix design as required based on results of testing.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that conditions are acceptable and are ready to receive work.
- C. Verify that field measurements are as indicated on drawings.
- D. Verify fabricated forms are:
 - 1. True to line and dimension.
 - 2. Adequately braced against vibration during placement.
 - 3. Constructed to permit escape of trapped air during gunning operations.
- E. Verify correct placement of reinforcement with sufficient clearances to permit complete encasement.
- F. Verify that embedded fittings, pipe, conduits, and other items are correctly and securely placed.
- G. Ensure easy access to shotcrete surfaces for screeding and finishing, and to permit uninterrupted application.

3.02 PREPARATION

Remove existing unsound concrete and existing unsound masonry from substrate surfaces.

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- 1. Minimize abrupt changes in depth of area to be repaired.
- 2. Remove square external corners from substrate by radiusing the edges.
- B. Sandblast surfaces to receive shotcrete.
- C. Determine operating procedures for placement in close quarters, extended distances, or around unusual obstructions where placement velocities and mix consistency may be adjusted during application.
- D. Clean and wet cementitious or absorptive substrate surfaces prior to receiving shotcrete. Keep porous surfaces damp for several hours prior to placement of shotcrete.
- E. Apply bonding agent.
- F. Protect adjacent surfaces not receiving shotcrete.

3.03 ALIGNMENT CONTROL

- A. Provide alignment wire to establish thickness and plane of required surfaces.
- B. Install alignment wire at corners and offsets not established by forms.
- C. Tighten alignment wire true to line. Position adjustment devices to permit additional tightening.

3.04 APPLICATION

- A. Place reinforcement in accordance with ACI 506.2.
- B. Use mixing and delivery equipment capable of thoroughly mixing aggregate, cement, and water in sufficient quantity to maintain continuous and uniform placement.
- C. Do not apply shotcrete more than 45 minutes after adding Portland cement to the mix.
- D. Do not place shotcrete on surfaces that are frozen, spongy, or where there is free water.
- E. Achieve maximum compaction with minimum rebound.
- F. Build-up to required thickness in multiple passes to achieve layering. Encase reinforcement with the first pass.
- G. Allow each layer to take initial set before applying succeeding layers.
- H. Do not permit applied shotcrete to sag, slough, or displace.
- I. After initial set of final layer, remove excess material outside of forms and alignment lines.
- J. Sandblast to remove laitance. Clean with air/water pressure jet.
- K. Finish surface of final layer with natural gun finish.
- L. Remove rebound material that does not fall clear of work; discard salvaged rebound.
- M. Immediately after placement, protect shotcrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- N. Maintain surfaces wet for a minimum of 7 days.
- O. Apply curing compound to exposed surfaces according to manufacturer's instructions.
- P. Sound test the applied material with hammer for voids. Expose voids and replace with new shotcrete ensuring full bond with adjacent work.

3.05 FIELD QUALITY CONTROL

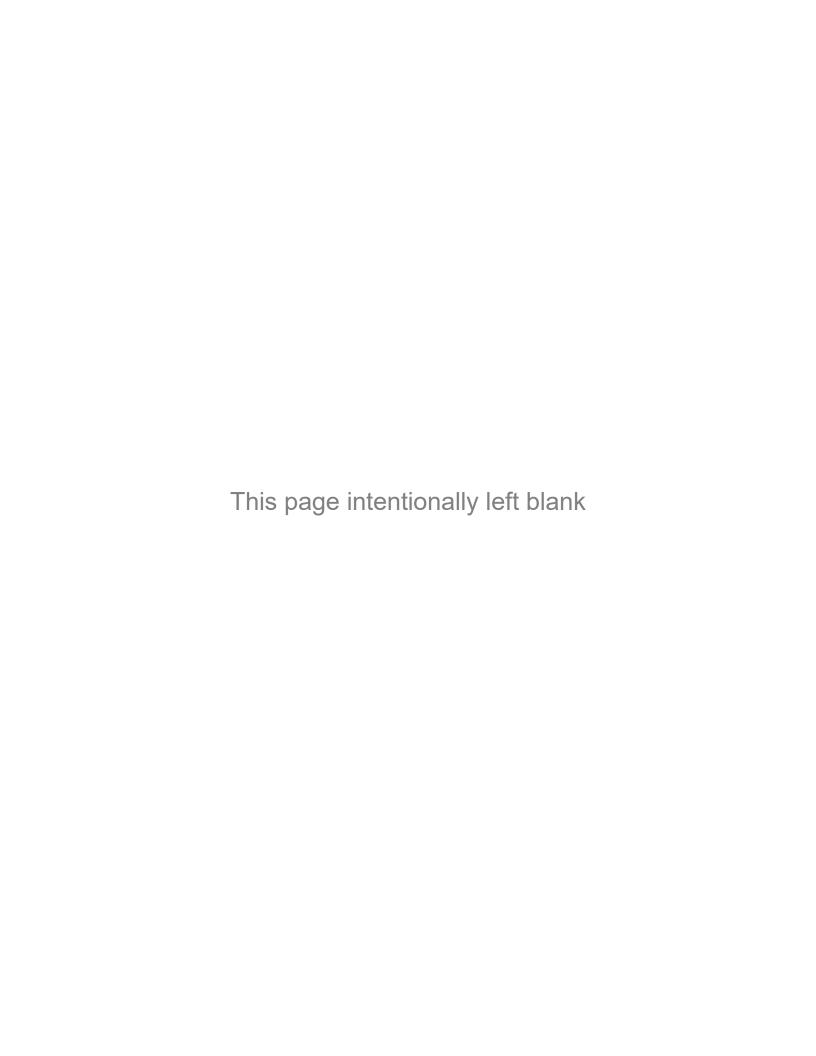
- A. Provide additional test panels, as specified for mock-up, during the course of the work as may be requested by the testing agency.
- B. In-Place Shotcrete: Take a set of 3 unreinforced cores for each mix and for each workday or for every 50 cu. yd. of shotcrete placed; whichever is less. Test cores for compressive strength according to ACI 506.2 and ASTM C 42. Do not cut steel reinforcement.
- C. Strength of shotcrete will be considered satisfactory when mean compressive strength of each set of 3 unreinforced cores equals or exceeds 85 percent of specified compressive strength, with no individual core less than 75 percent of specified compressive strength.

D. Mean compressive strength of each set of 3 unreinforced cubes shall equal or exceed design compressive strength with no individual cube less than 88 percent of specified compressive strength.

3.06 PROTECTION

A. Do not permit applied work to damage adjacent surfaces.

END OF SECTION 033713



SECTION 055000 METAL FABRICATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Shop fabricated steel and catwalk items.

1.02 RELATED REQUIREMENTS

- A. Section 051200 Structural Steel Framing: Structural steel column anchor bolts.
- B. Section 055100 Metal Stairs.
- C. Section 055133 Metal Ladders.

1.03 REFERENCE STANDARDS

- A. ASTM A36/A36M Standard Specification for Carbon Structural Steel 2019.
- B. ASTM A53/A53M Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless 2022.
- C. ASTM A123/A123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products 2017.
- D. ASTM A307 Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength 2021.
- E. ASTM A500/A500M Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes 2021a.
- F. ASTM A501/A501M Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing 2021.
- G. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2023.
- H. AWS D1.1/D1.1M Structural Welding Code Steel 2020, with Errata (2022).
- SSPC-Paint 20 Zinc-Rich Coating (Type I Inorganic, and Type II Organic) 2019.

1.04 SUBMITTALS

- See Section 013000 Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
 - 1. Design data: Submit drawings and supporting calculations, signed and sealed by a qualified professional structural engineer.
 - a. Include the following, as applicable:
 - 1) Design criteria.
 - 2) Engineering analysis depicting stresses and deflections.
 - 3) Member sizes and gauges.
 - 4) Details of connections.
 - 5) Support reactions.
 - 6) Bracing requirements.
- C. Designer's Qualification Statement.

1.05 QUALITY ASSURANCE

A. Design ____ under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in Utah.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Manufacturer includes but is not limited to:

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- 1. Unistrut Corporation www.unistrutohio.com.
- 2. Ohio Gratings, Inc.: https://www.ohiogratings.com/
- 3. BarnettBates: https://barnettbates.com/ Addendum 04

2.02 MATERIALS - STEEL

- A. Steel Sections: ASTM A36/A36M.
- B. Steel Tubing: ASTM A501/A501M hot-formed structural tubing.
- C. Bolts, Nuts, and Washers: ASTM A307, Grade A, plain.
- D. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I Inorganic, complying with VOC limitations of authorities having jurisdiction.

2.03 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- D. Furnish components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.04 FINISHES - STEEL

- A. Galvanizing of Structural Steel Members: Galvanize after fabrication to ASTM A123/A123M requirements. Provide minimum 1.7 oz/sq ft galvanized coating. (Provide minimum 530 g/sq m galvanized coating.)
- B. Galvanizing of Non-structural Items: Galvanize after fabrication to ASTM A123/A123M requirements.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive work.

3.02 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- C. Obtain approval prior to site cutting or making adjustments not scheduled.

END OF SECTION 055000

SECTION 055100 METAL STAIRS

PART 1 GENERAL

1.01 SECTION INCLUDES

- Stairs with concrete treads.
- B. Stairs with metal treads.
- C. Structural steel stair framing and supports.
- D. Handrails and guards.

1.02 RELATED REQUIREMENTS

- A. Section 033000 Cast-in-Place Concrete: Concrete fill in stair pans; mesh reinforcement for landings.
- B. Section 033000 Cast-in-Place Concrete: Placement of metal anchors in concrete.

1.03 REFERENCE STANDARDS

- A. ADA Standards 2010 ADA Standards for Accessible Design 2010.
- B. AISC 201 AISC Certification Program for Structural Steel Fabricators, Standard for Steel Building Structures 2006.
- C. ASCE 7 Minimum Design Loads and Associated Criteria for Buildings and Other Structures Most Recent Edition Cited by Referring Code or Reference Standard.
- D. AWS A2.4 Standard Symbols for Welding, Brazing, and Nondestructive Examination 2020.
- E. AWS B2.1/B2.1M Specification for Welding Procedure and Performance Qualification 2021.
- F. AWS D1.1/D1.1M Structural Welding Code Steel 2020, with Errata (2022).

1.04 SUBMITTALS

- A. See Section 013000 Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories.
 - Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
 - 2. Include the design engineer's seal and signature on each sheet of shop drawings.
- C. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated no more than 12 months before start of scheduled welding work.
- D. Designer's Qualification Statement.
- E. Fabricator's Qualification Statement: Fabricator may provide shop fabrication inspection and testing in compliance with the requirements of the design documents.

1.05 QUALITY ASSURANCE

- A. Welder Qualifications: Welding processes and welding operators qualified in accordance with AWS D1.1/D1.1M and dated no more than 12 months before start of scheduled welding work.
- B. Fabricator Qualifications:
 - 1. A qualified steel fabricator that is certified by the American Institute for Steel Construction (AISC) under AISC 201. *In lieu of AISC certification, fabricator may provide shop fabrication inspection and testing in compliance with the requirements of the design documents. Addendum 04*
 - 2. A company specializing in manufacturing products specified in this section, with not less than ten years of documented experience.

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PART 2 PRODUCTS

2.01 METAL STAIRS - GENERAL

- A. Metal Stairs: Provide stairs of the design specified, complete with landing platforms, vertical and horizontal supports, railings, and guards, fabricated accurately for anchorage to each other and to building structure.
 - 1. Regulatory Requirements: Provide stairs and railings that comply with most stringent requirements of local, state, and federal regulations; where requirements of Contract Documents exceed those of regulations, comply with Contract Documents.
 - 2. Handrails: Comply with applicable accessibility requirements of ADA Standards.
 - 3. Dimensions: As indicated on drawings.
 - 4. Shop assemble components; disassemble into largest practical sections suitable for transport and access to site.
 - 5. No sharp or rough areas on exposed travel surfaces and surfaces accessible to touch.
 - 6. Separate dissimilar metals using paint or permanent tape.
- B. Metal Jointing and Finish Quality Levels:
- C. Fasteners: Same material or compatible with materials being fastened; type consistent with design and specified quality level.
- D. Anchors and Related Components: Same material and finish as item to be anchored, except where specifically indicated otherwise; provide all anchors and fasteners required.

2.02 HANDRAILS AND GUARDS

- A. Wall-Mounted Rails: Round pipe or tube rails unless otherwise indicated.
 - 1. Outside Diameter: 1-1/4 inch (32 mm), minimum, to 1-1/2 inches (38 mm), maximum.
- B. Guards:
 - 1. Top Rails: Round pipe or tube rails unless otherwise indicated.
 - a. Outside Diameter: 1-1/4 inch (32 mm), minimum, to 1-1/2 inches (38 mm), maximum.
 - 2. End and Intermediate Posts: Same material and size as top rails.
 - a. Horizontal Spacing: As indicated on drawings.
 - b. Mounting: Welded to top surface of stringer.

END OF SECTION 055100

SECTION 092116 GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Performance criteria for gypsum board assemblies.
- B. Metal stud wall framing.
- C. Acoustic insulation.
- D. Cementitious backing board.
- E. Gypsum wallboard.
- F. Joint treatment and accessories.

1.02 RELATED REQUIREMENTS

- A. Section 054000 Cold-Formed Metal Framing: Structural steel stud framing.
- B. Section 061000 Rough Carpentry: Wood blocking product and execution requirements.
- C. Section 092216 Non-Structural Metal Framing.

1.03 REFERENCE STANDARDS

- A. AISI S100 North American Specification for the Design of Cold-Formed Steel Structural Members 2016, with Supplement (2020).
- B. ANSI A108.11 American National Standard Specifications for Interior Installation of Cementitious Backer Units 2018.
- C. ANSI A118.9 American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units 2019.
- D. ASHRAE Std 62.1 Ventilation for Acceptable Indoor Air Quality Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- E. ASTM A36/A36M Standard Specification for Carbon Structural Steel 2019.
- F. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.
- G. ASTM C475/C475M Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board 2017 (Reapproved 2022).
- H. ASTM C514 Standard Specification for Nails for the Application of Gypsum Board 2004 (Reapproved 2020).
- ASTM C645 Standard Specification for Nonstructural Steel Framing Members 2018.
- J. ASTM C754 Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products 2020.
- K. ASTM C840 Standard Specification for Application and Finishing of Gypsum Board 2020.
- L. ASTM C954 Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness 2022.
- M. ASTM C1002 Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs 2022.
- N. ASTM C1047 Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base 2019.
- O. ASTM C1178/C1178M Standard Specification for Coated Glass Mat Water-Resistant Gypsum Backing Panel 2018.
- P. ASTM C1325 Standard Specification for Fiber-Mat Reinforced Cementitious Backer Units 2022.
- Q. ASTM C1396/C1396M Standard Specification for Gypsum Board 2017.

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- R. ASTM C1658/C1658M Standard Specification for Glass Mat Gypsum Panels 2019, with Editorial Revision (2020).
- S. ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber 2021.
- T. ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements 2009 (Reapproved 2016).
- U. ASTM E413 Classification for Rating Sound Insulation 2022.
- V. GA-216 Application and Finishing of Gypsum Panel Products 2021.

1.04 SUBMITTALS

- A. See Section 013000 Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.
- C. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

- A. Provide completed assemblies complying with ASTM C840 and GA-216.
- B. Interior Partitions: Provide completed assemblies with the following characteristics:
 - 1. Acoustic Attenuation: STC of 45-49 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.

2.02 METAL FRAMING MATERIALS

A.	Manufacturers - Metal Framing, Connectors, and Accessories:		
	1. ClarkDietrich;: www.clarkdietrich.com/#sle.		
	 Jaimes Industries;: www.jaimesind.com/#sle. MarinoWARE;: www.marinoware.com/#sle. 		
	4.	Phillips Manufacturing Co;: www.phillipsmfg.com/#sle.	
	5.	R-stud;: www.rstud.com/#sle.	
	6.	SCAFCO Corporation;: www.scafco.com/#sle.	
	7.	Steel Construction Systems;: www.steelconsystems.com/#sle.	
	8.	Supreme Steel Framing System Association; Supreme Stud: www.ssfsa.com//#sle.	

- B. Non-structural Steel Framing for Application of Gypsum Board: See Section 092216.
- C. Non-structural Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf (L/120 at 240 Pa).
 - 1. Studs: C-shaped with knurled or embossed faces.
 - 2. Runners: U shaped, sized to match studs.
 - 3. Furring Members: Hat-shaped sections, minimum depth of 7/8 inch (22 mm).
 - 4. Furring Members: U-shaped sections, minimum depth of 3/4 inch (19.1 mm).
 - 5. Furring Members: Zee-shaped sections, minimum depth of 1 inch (25.4 mm).
- D. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection and prevent rotation of studs while maintaining structural performance of partition.
 - Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100.
 - 2. Material: ASTM A653/A653M steel sheet, SS Grade 50/340, with G60/Z180 hot-dipped galvanized coating.

2.03 BOARD MATERIALS

- A. Manufacturers Gypsum-Based Board:
 - 1. American Gypsum Company; ____: www.americangypsum.com/#sle.

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	2. 3. 4.	CertainTeed Corporation;: www.certainteed.com/#sle. Georgia-Pacific Gypsum;: www.gpgypsum.com/#sle. Gold Bond Building Products, LLC provided by National Gypsum Company;: www.goldbondbuilding.com/#sle. PABCO Gypsum;: www.pabcogypsum.com/#sle. USG Corporation;: www.usg.com/#sle.		
	6.	USG Corporation;: www.usg.com/#sle.		
B.		sum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to mize joints in place; ends square cut. Application: Use for vertical surfaces and ceilings, unless otherwise indicated. Thickness:		
		a. Vertical Surfaces: 5/8 inch (16 mm).		
	3.	Paper-Faced Products:		
	0.	American Gypsum Company; LightRoc Gypsum Wallboard: www.americangypsum.com/#sle.		
		b. American Gypsum Company; FireBloc Type X Gypsum Wallboard: www.americangypsum.com/#sle.		
		c. American Gypsum Company; FireBloc Type C Gypsum Wallboard: www.americangypsum.com/#sle.		
		d. CertainTeed Corporation; Type C Drywall: www.certainteed.com/#sle.		
		e. CertainTeed Corporation; Type X Drywall: www.certainteed.com/#sle.		
		f. Georgia-Pacific Gypsum; ToughRock: www.gpgypsum.com/#sle.		
		g. Georgia-Pacific Gypsum; ToughRock Fireguard X: www.gpgypsum.com/#sle.		
		h. Georgia-Pacific Gypsum; ToughRock Fireguard C: www.gpgypsum.com/#sle.		
		i. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond Fire-Shield Gypsum Board: www.goldbondbuilding.com/#sle.		
		j. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond Fire-Shield C 5/8" Gypsum Board: www.goldbondbuilding.com/#sle.		
		k. USG Corporation; Sheetrock Brand EcoSmart Panels Firecode X 5/8 in. (15.9 mm): www.usg.com/#sle.		
		 USG Corporation; Sheetrock Brand Firecode X Panels 5/8 in. (15.9 mm): www.usg.com/#sle. 		
		m. Substitutions: See Section 016000 - Product Requirements.		
C.	Bac	king Board For Wet Areas: One of the following products:		
0.	1.	Application: Surfaces behind tile in wet areas including tub and shower surrounds, shower ceilings, and		
	2.			
		Mold Desistance, Cours of 40, when tested in accordance with ACTM D2272		

- 3. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
- ANSI Cement-Based Board: Non-gypsum-based; aggregated Portland cement panels with glass fiber mesh embedded in front and back surfaces complying with ANSI A118.9 or ASTM C1325.
 - a. Thickness: 5/8 inch (16 mm).
- 5. Glass Mat Faced Board: Coated glass mat water-resistant gypsum backing panel as defined in ASTM C1178/C1178M.
 - a. Fire-Resistance-Rated Type: Type X core, thickness 5/8 inch (16 mm).
- D. Backing Board For Non-Wet Areas: Water-resistant gypsum backing board as defined in ASTM C1396/C1396M; sizes to minimum joints in place; ends square cut.
 - 1. Application: Vertical surfaces behind thinset tile, except in wet areas.
 - 2. Type X Thickness: 5/8 inch (16 mm).
 - 3. Edges: Tapered.

2.04 GYPSUM BOARD ACCESSORIES

- A. Beads, Joint Accessories, and Other Trim: ASTM C1047, rigid plastic, galvanized steel, or rolled zinc, unless noted otherwise.
 - 1. Corner Beads: Low profile, for 90 degree outside corners.

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- a. Products:
 - 1) CertainTeed Corporation; No-Coat Drywall Corner: www.certainteed.com/#sle.
 - 2) ClarkDietrich; Strait-Flex Big-Stick: www.clarkdietrich.com/#sle.
- 2. L-Trim with Tear-Away Strip: Sized to fit 1/2 inch (13 mm) thick gypsum wallboard.
- Finishing Compound: Surface coat and primer, takes the place of skim coating.
 - Products:
 - a. CertainTeed Corporation; Quick Prep Plus Interior Prep Coat: www.certainteed.com/#sle.
 - b. Substitutions: See Section 016000 Product Requirements.
- C. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inches (0.84 mm) in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion-resistant.
- D. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch (0.84 to 2.84 mm) in Thickness: ASTM C954; steel drill screws, corrosion-resistant.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.02 FRAMING INSTALLATION

- A. Metal Framing: Install in accordance with ASTM C754 and manufacturer's instructions.
- B. Studs: Space studs at 16 inches on center (at 406 mm on center).
 - 1. Extend partition framing to structure where indicated and to ceiling in other locations.
 - 2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
 - 3. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.
- C. Blocking: Install wood blocking for support of:
 - 1. Framed openings.
 - 2. Wall-mounted cabinets.
 - 3. Plumbing fixtures.
 - 4. Toilet partitions.
 - Toilet accessories.
 - 6. Wall-mounted door hardware.

3.03 ACOUSTIC ACCESSORIES INSTALLATION

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
- B. Acoustic Sealant: Install in accordance with manufacturer's instructions.

3.04 BOARD INSTALLATION

- A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Cementitious Backing Board: Install over steel framing members and plywood substrate where indicated, in accordance with ANSI A108.11 and manufacturer's instructions.

3.05 JOINT TREATMENT

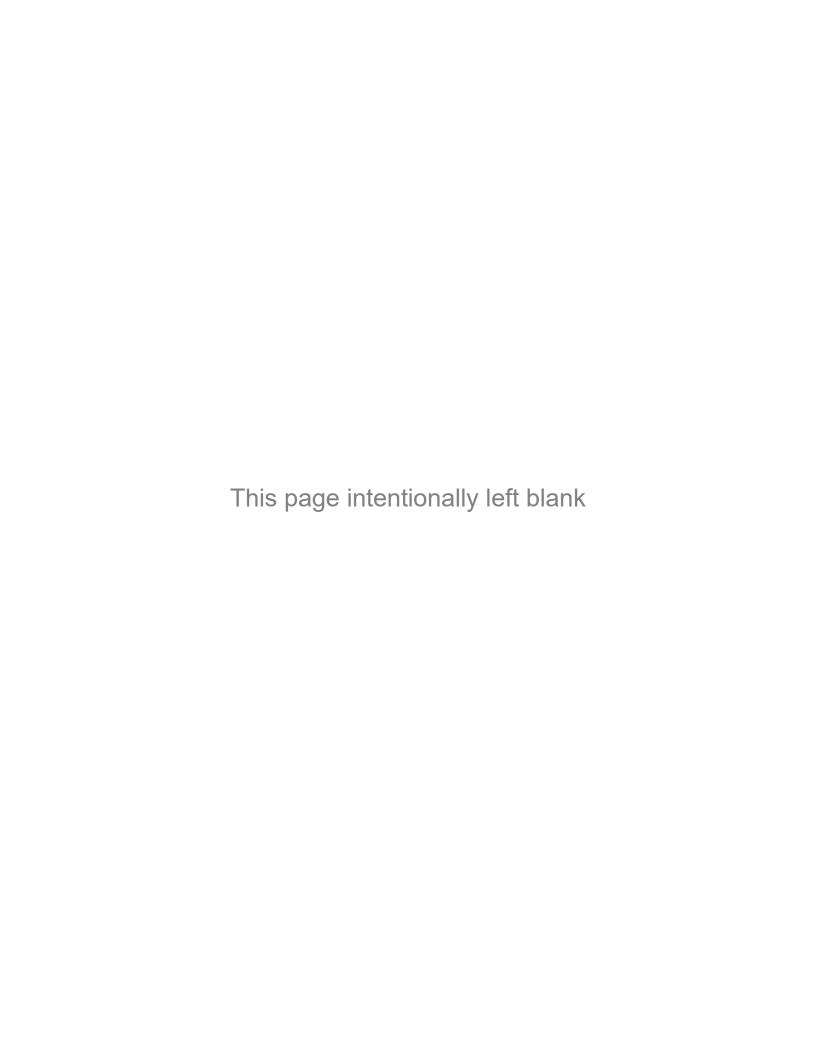
- A. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
 - 1. <u>Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated. Occurs in all ceilings, Lobby 141, Lecture 134, and Board 154.</u>
 - 2. Level 3: Walls to receive textured wall finish.
 - 3. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.

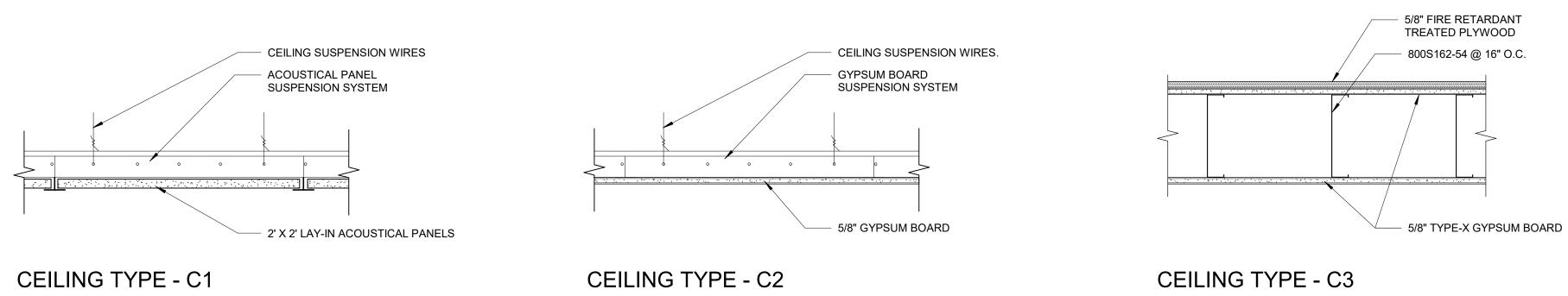
- BP-03 | September 6, 2023 CRSA Project#: 21-031
- 4. <u>Level 1: Fire-resistance-rated wall areas above finished ceilings, whether or not accessible in the completed construction.</u>
- B. <u>Veneer-plaster: Walls of historic significance to receive paint finish, unless otherwise indicated.</u> <u>Occurs in Grand Lobby 124 and vestibules 120, 121, 130, and 131.</u>
- C. <u>Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.</u>
 - 1. <u>Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).</u> Addendum 04

3.06 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet (3 mm in 3 m) in any direction.

END OF SECTION 092116





5/8" TYPE 'X' GYPSUM

WALL BOARD

2 1/2" 20 GA. METAL
 STUDS @ 16" O.C.

3" WIDE 20 GA. METAL

WALL 4'-0" O.C. MAX.

SHOTCRETE WALL, THICKNESS VARIES,

SEE STRUCTURAL

SB & SF SHEETS

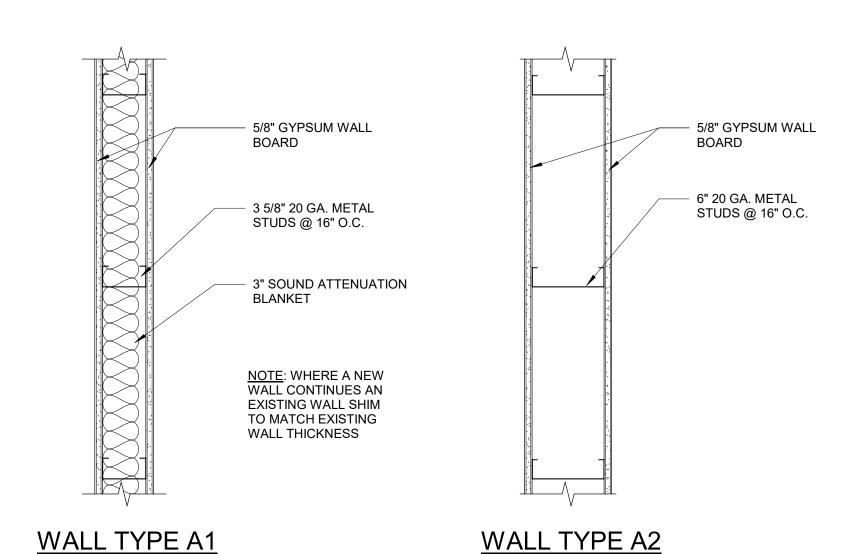
STRAP TO CONC.

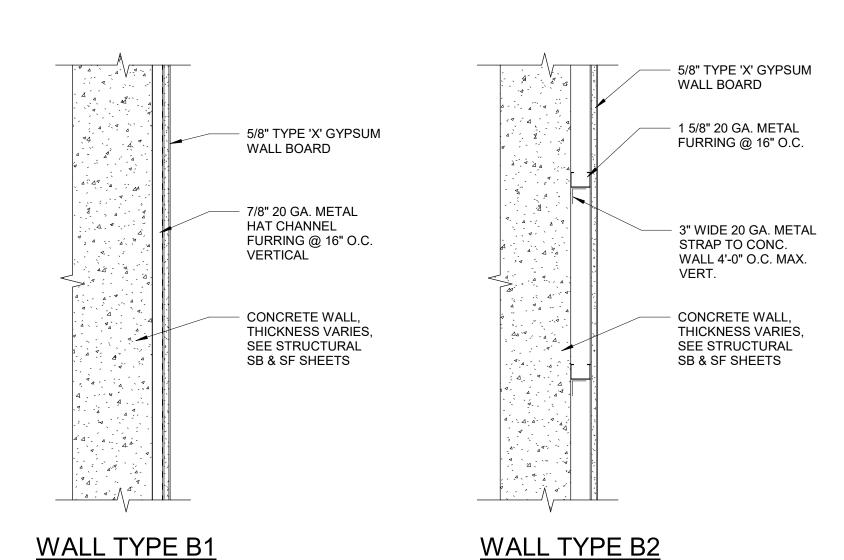
CEILING TYPES

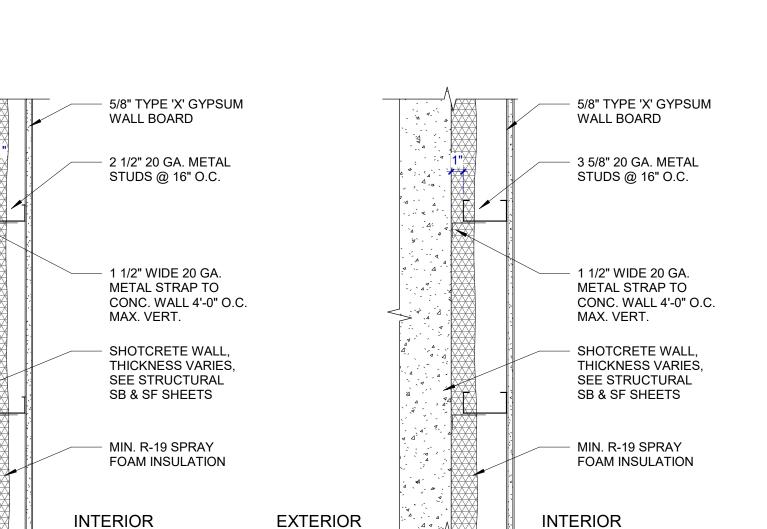
EXTERIOR

WALL TYPES

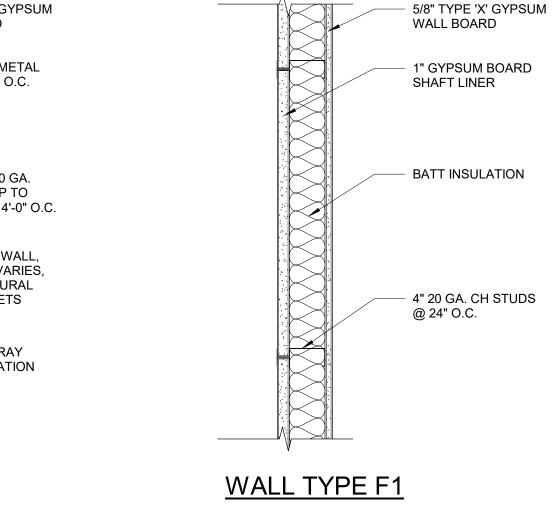
WALL TYPE E1



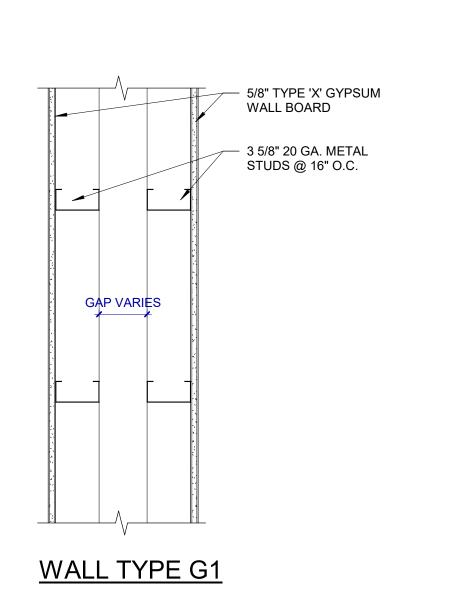




WALL TYPE E2



WALL TYPE B3



WALL TYPE B5

mmmmmm

5/8" TYPE 'X' GYPSUM

- 3 5/8" 20 GA. METAL STUDS @ 16" O.C.

WALL BOARD

WALL TYPE B4

5/8" TYPE 'X' VENEER

600S162-54 @ 16" O.C.

VENEER PLASTER

PROVIDE STIFFCLIP

SCREWS TO STUD & w/(2) 1/4" SCREW

FOR SEISMIC) @ 8'-0"

O.C. VERT. EÁ. STUD

ANCHORS (RATED

CONCRETE WALL AS OCCURS,

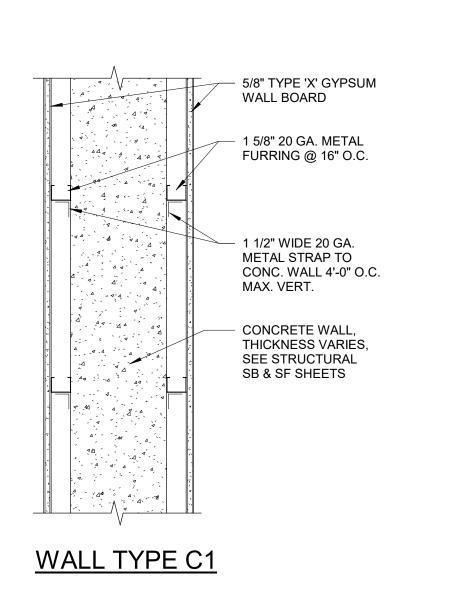
THICKNESS VARIES,

SEE STRUCTURAL

SB & SF SHEETS

LB600 w/(4) #12

PLASTER BASE



WALL TYPE B6

5/8" TYPE 'X' GYPSUM

* NO GYPSUM BOARD WHERE B6 WALLS

STRUCTURAL METAL

STUD SEISMIC

REINFORCEMENT,

SEE STRUCTURAL

SF531 FOR FRAMING

SHEETS SF530 -

ATTACHMENT TO EXISTING WALL

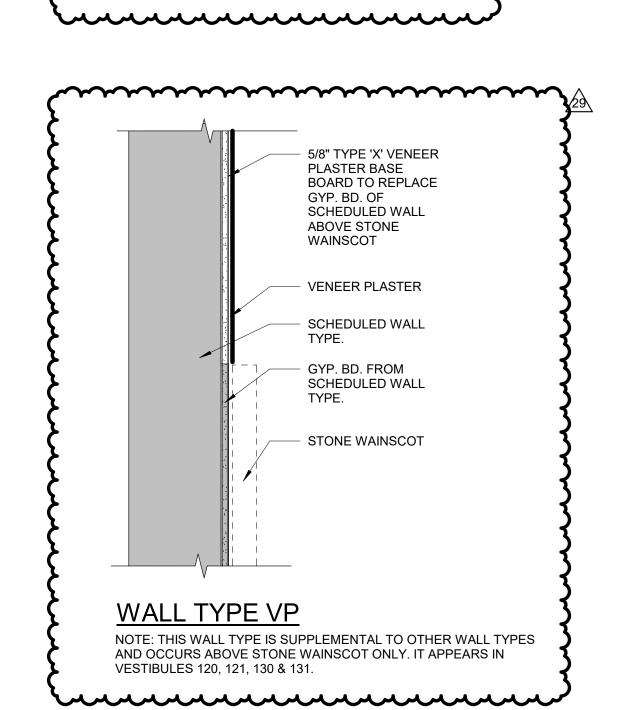
- EXISTING UNREINFORCED

MASONRY WALL

DETAILS AND

ARE NOTED AS SIM.

WALL BOARD



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WALL TYPE B7

5/8" TYPE 'X' GYPSUM

600S162-54 @ 16" O.C.

PROVIDE STIFFCLIP LB600 w/(4) #12

SCREWS TO STUD & w/(2) 1/4" SCREW

FOR SEISMIC) @ 8'-0"

O.C. VERT. EA. STUD

- CONCRETE WALL AS OCCURS,

THICKNESS VARIES,

SEE STRUCTURAL

SB & SF SHEETS

ANCHORS (RATED

WALL BOARD

ARCHITECTURE · PLANNING · INTERIORS 175 S MAIN STREET, STE 300 · SLC, UTAH 84111 801-355-5915 www.crsa-us.com

ARCHITECT

155 S 750 W

NORTH SALT LAKE, UT 84054

CRSA 175 S. MAIN ST., STE. 300 SALT LAKE CITY, UT 84111	C/O SARA STAFFANSON sara@crsa.com (801)746-6830
STRUCTURAL ENGINEER REAVELEY ENGINEERS + ASSOC. 675 EAST 500 SOUTH, SUITE 400 SALT LAKE CITY, UT 84102	C/O JEROD JOHNSON jjohnson@reaveley.com (801) 486-3883
MECHANICAL ENGINEER COLVIN ENGINEERING ASSOC. 505 E. SOUTH TEMPLE SALT LAKE CITY, UT 84102	C/O ALLEN EVANS aevans@cea-ut.com (801) 322-2400
SPECTRUM ENGINEER SPECTRUM ENGINEERING 324 STATE ST. STE. 400 SALT LAKE CITY, UT 84102	C/O MICHAEL FACKRELL michael.fackrell@speceng.co (801) 328-5151
CM/GC GRAMOLL CONSTRUCTION	C/O JIM GRAMOLL

jim.gramoll@gramoll.com

RIO GRANDE DEPOT SEISMIC UPGRADE

300 SOUTH RIO GRANDE STREET SALT LAKE CITY, UT 84101 DFCM PROJECT #20229080

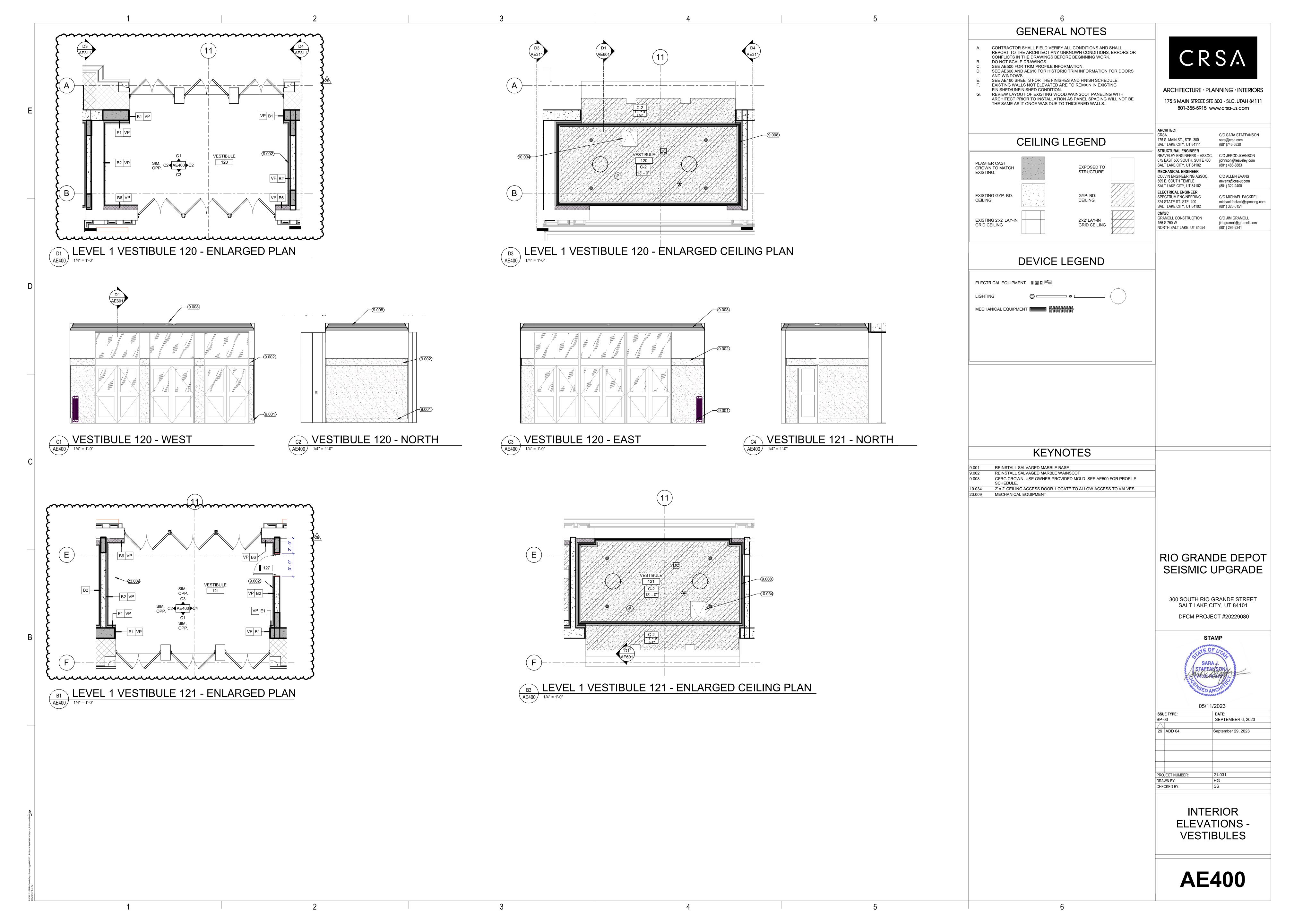
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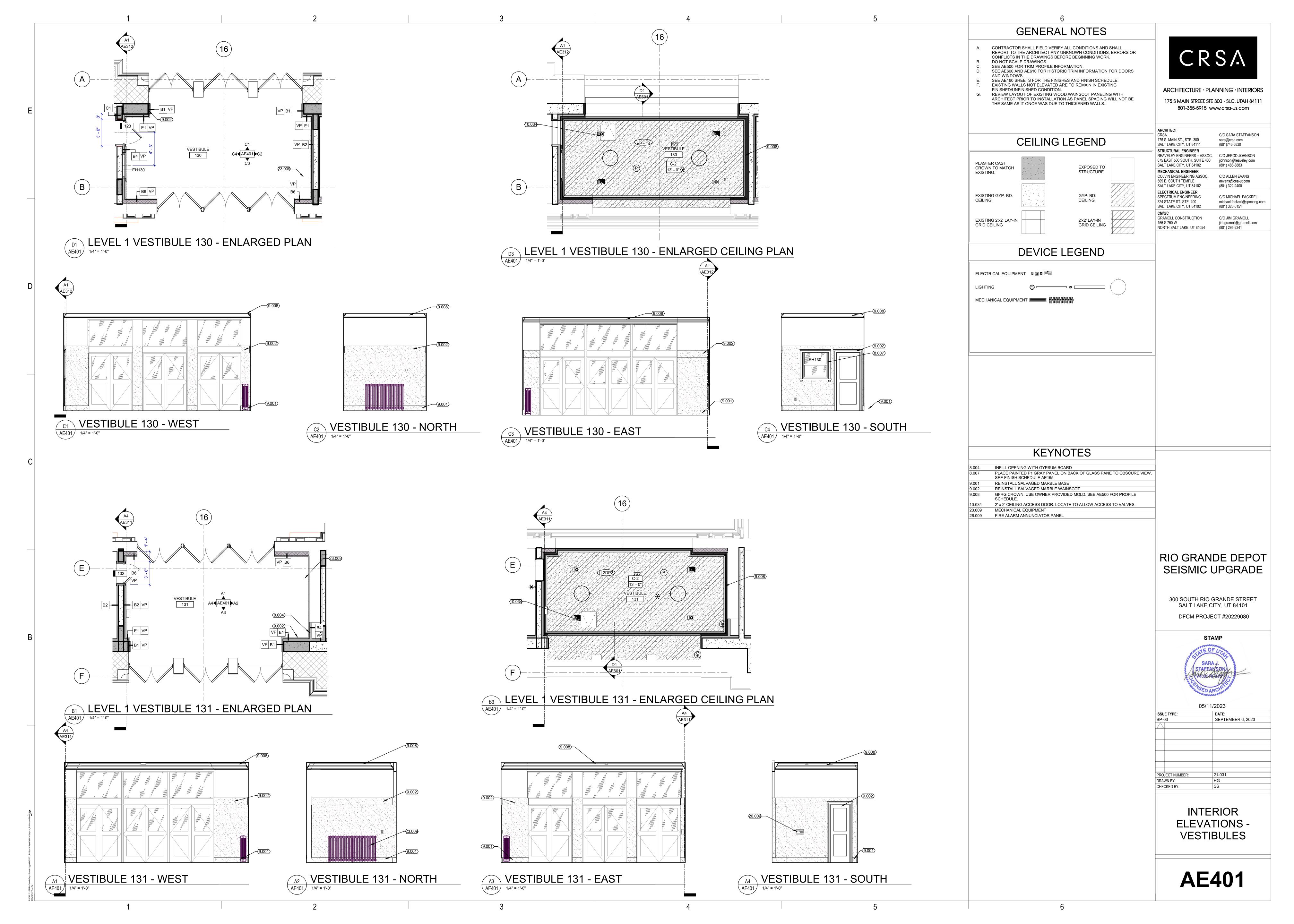
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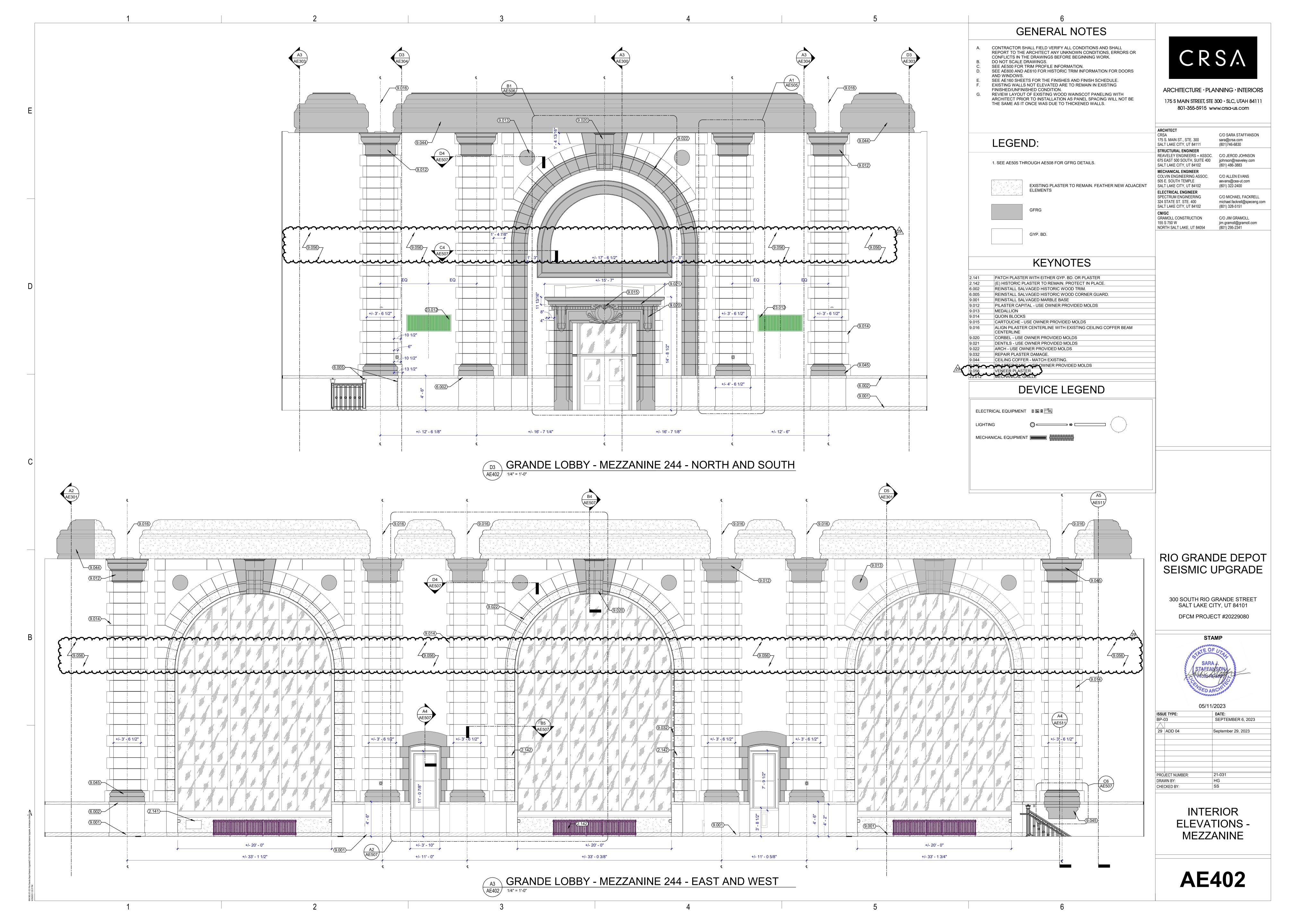
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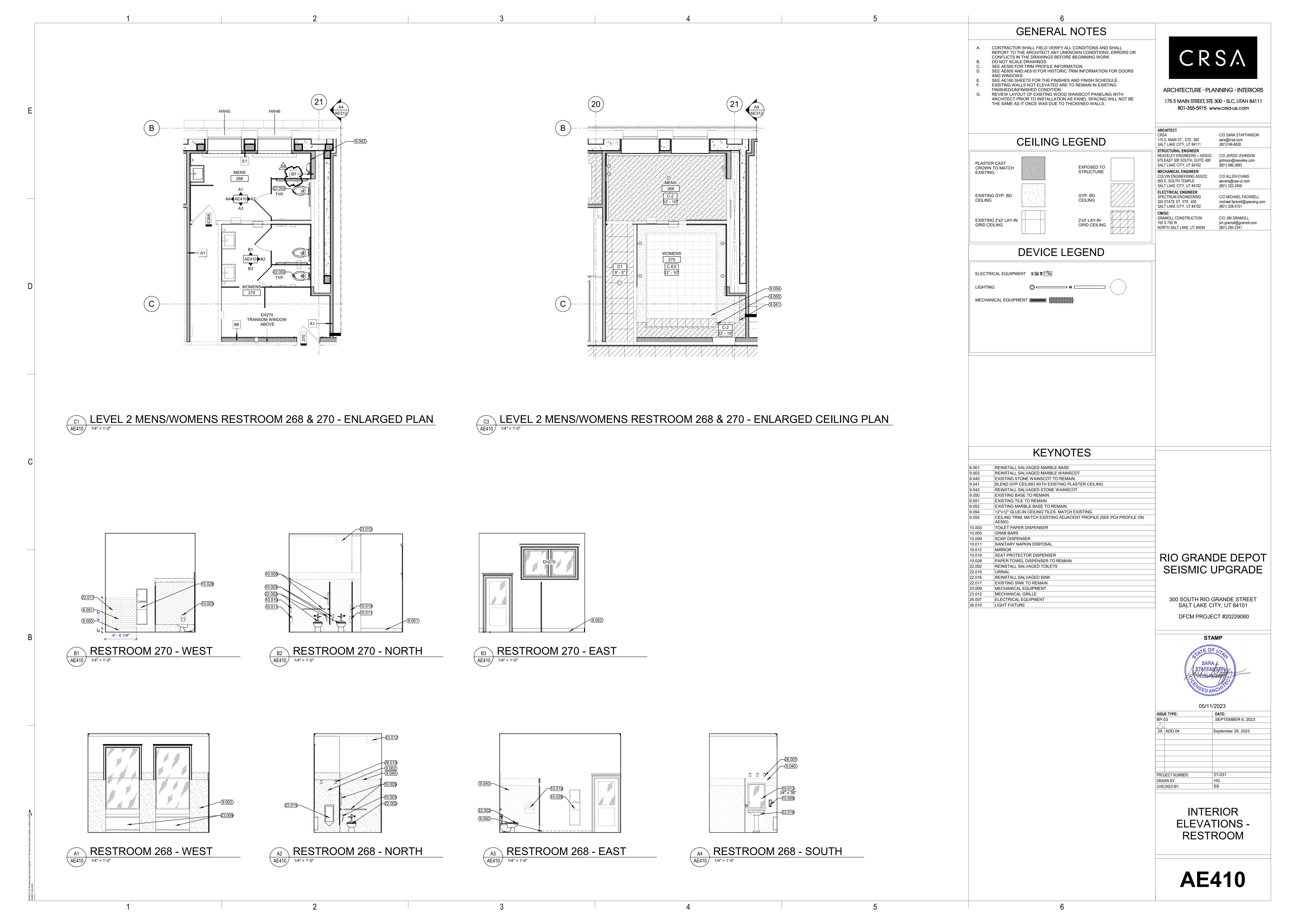
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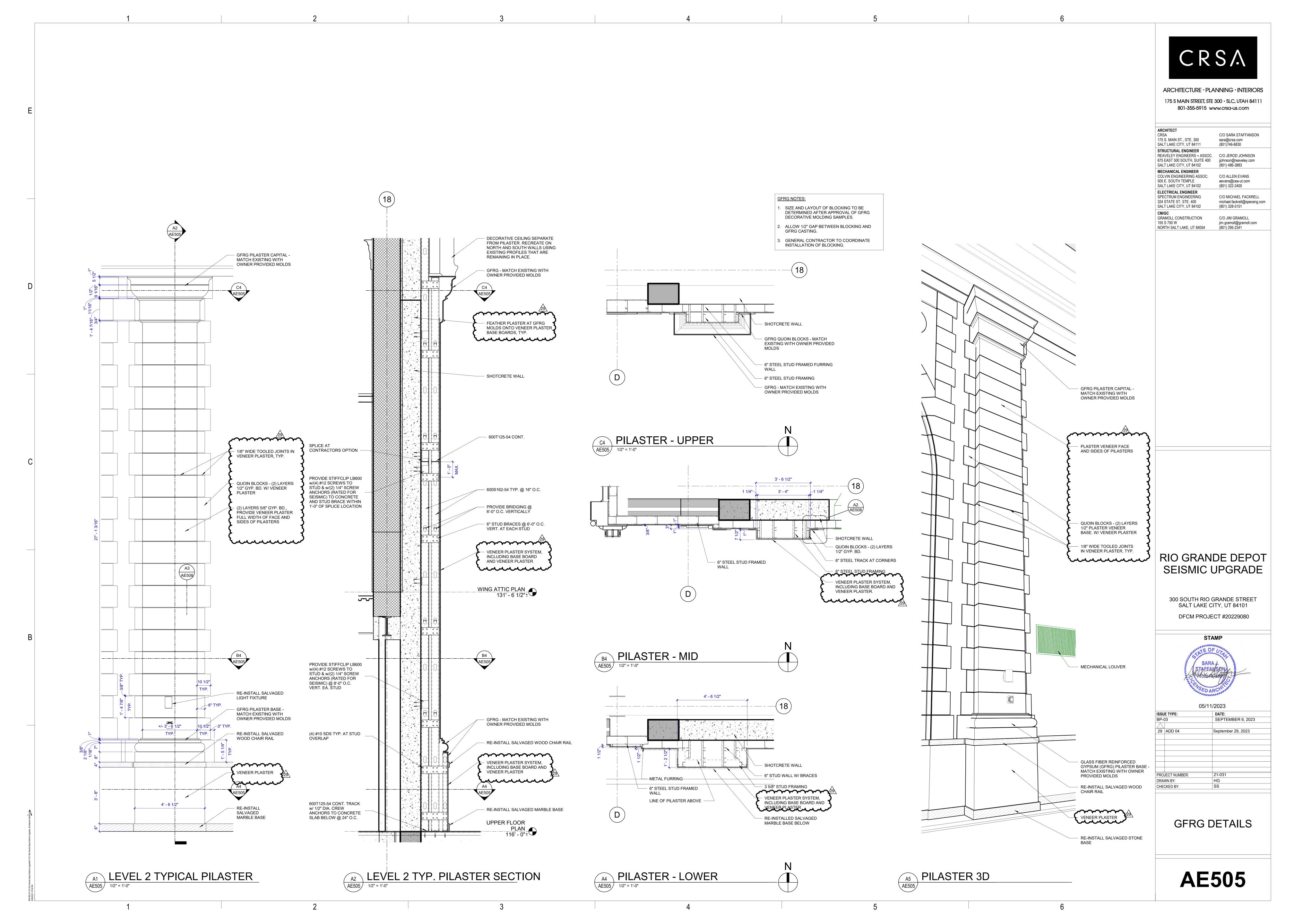
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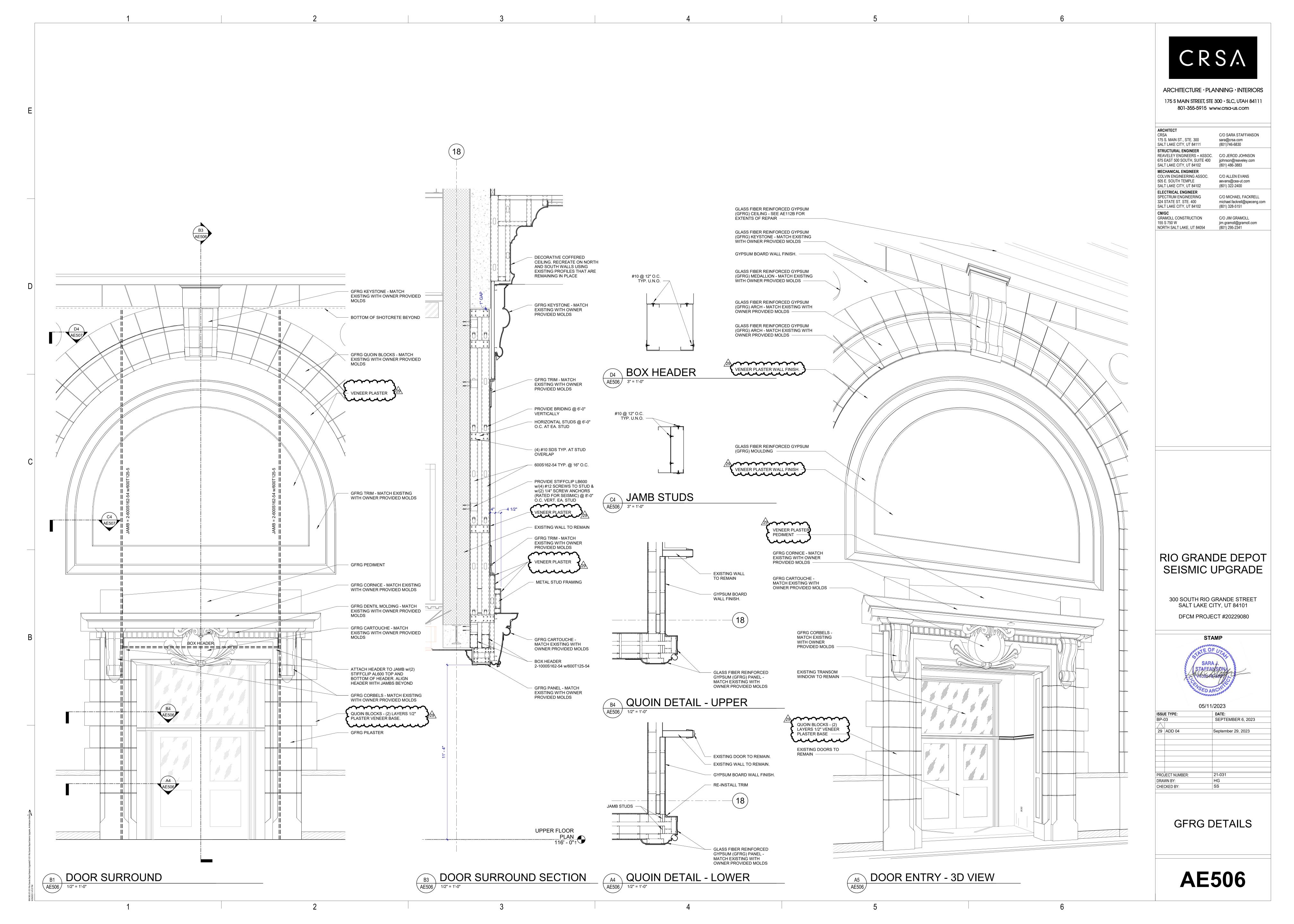


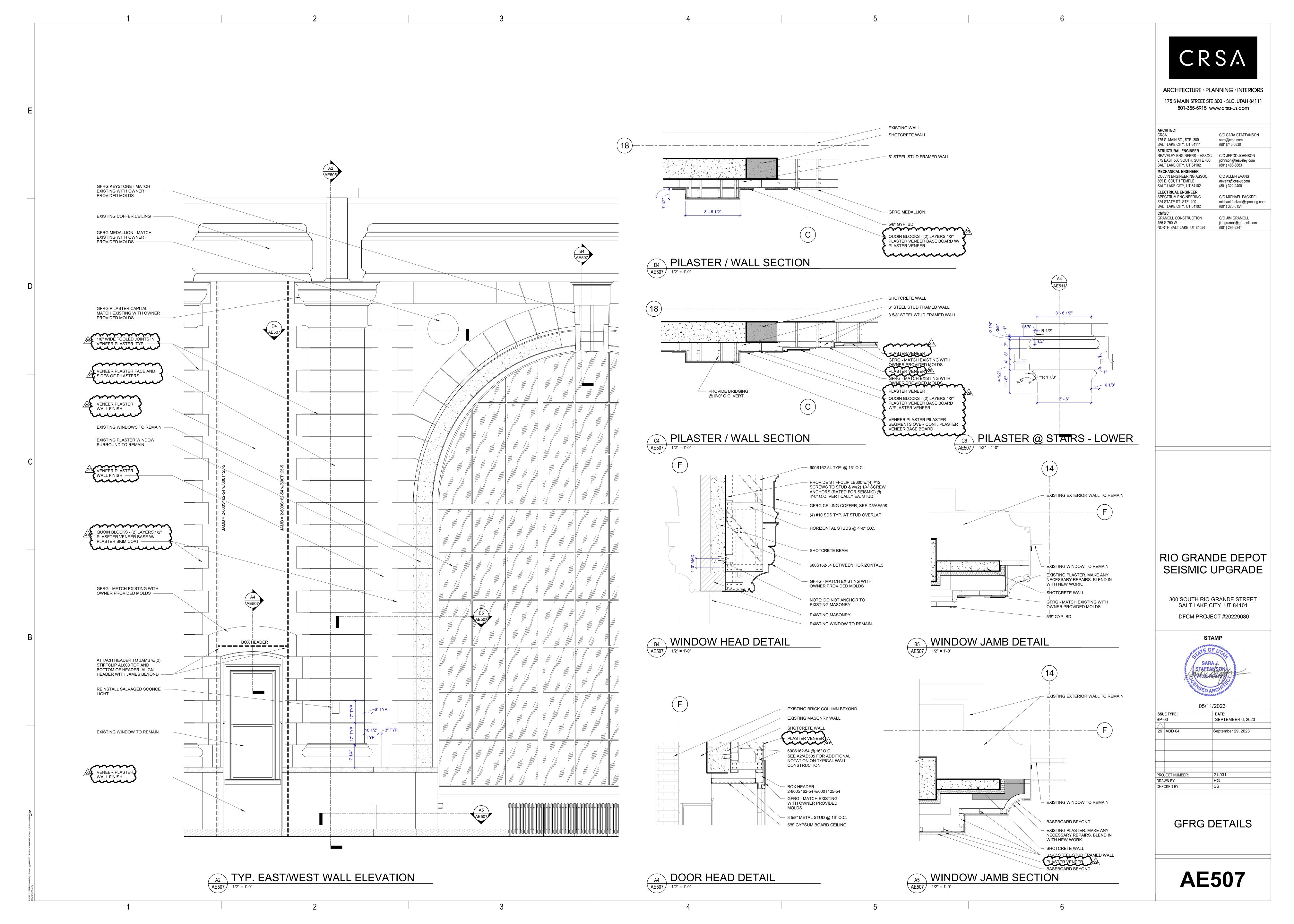


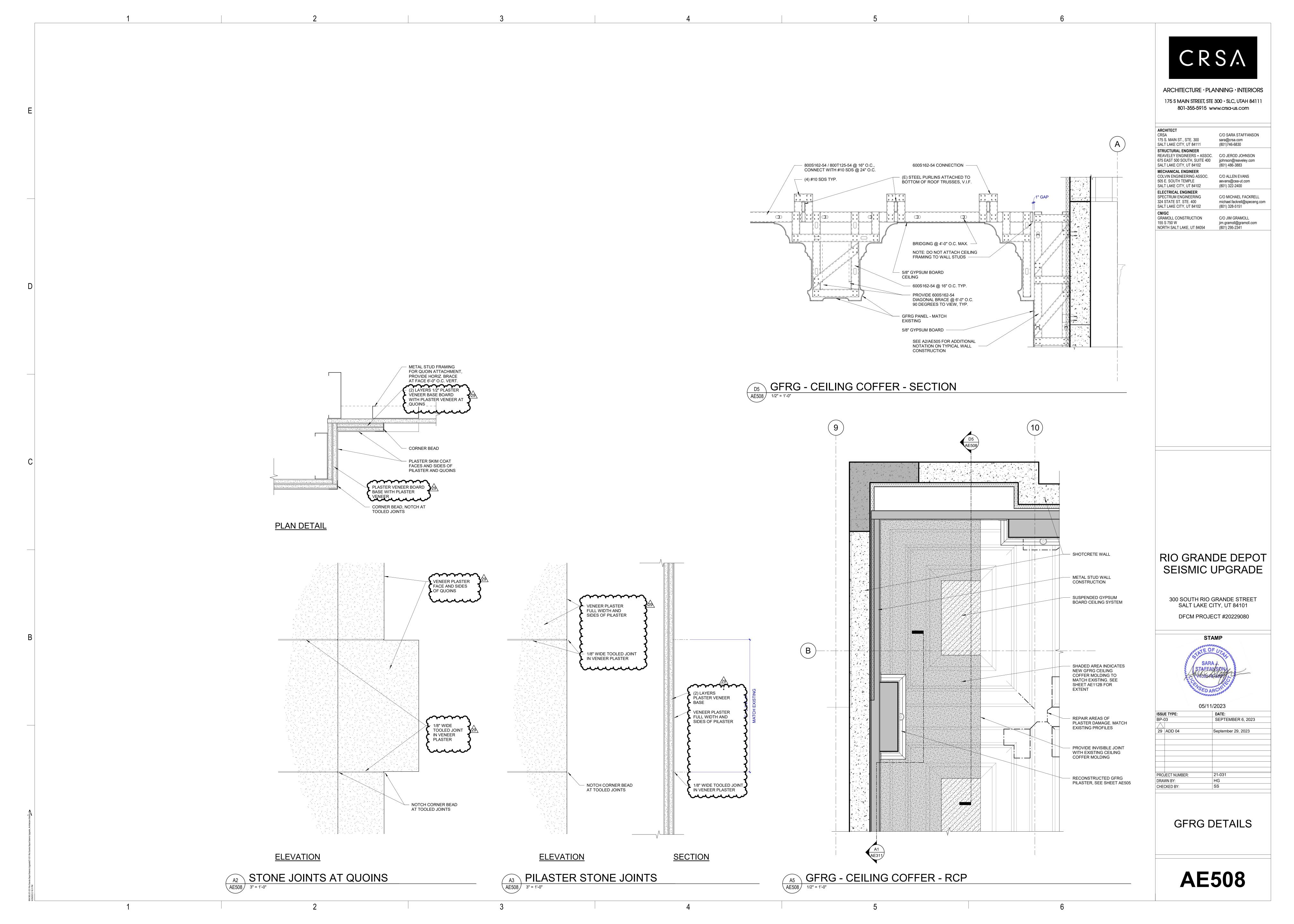


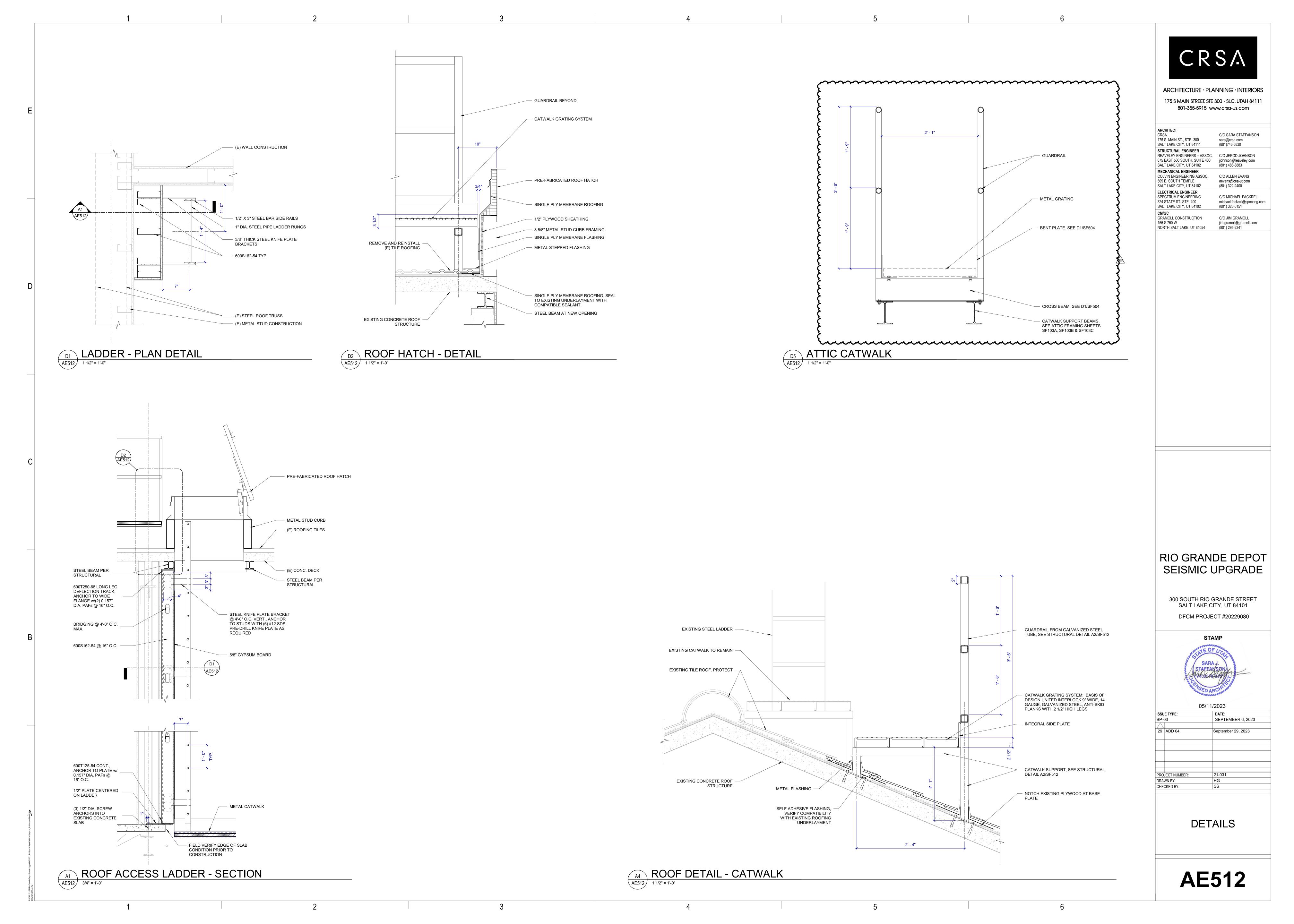


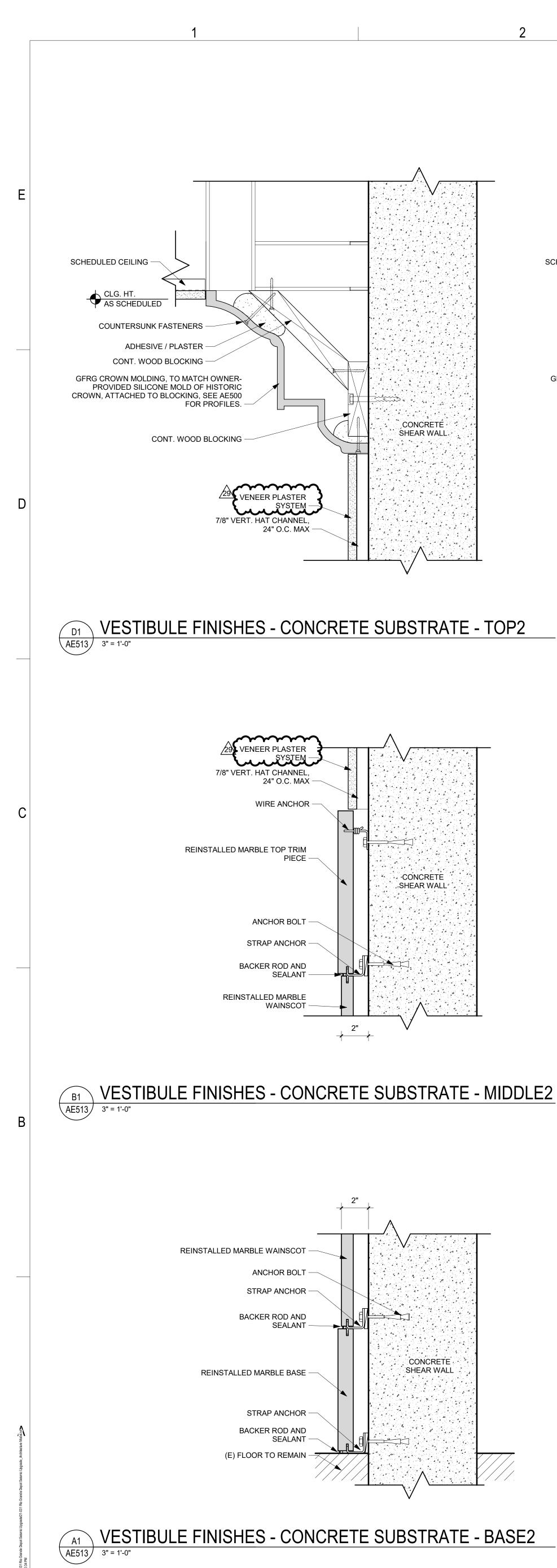










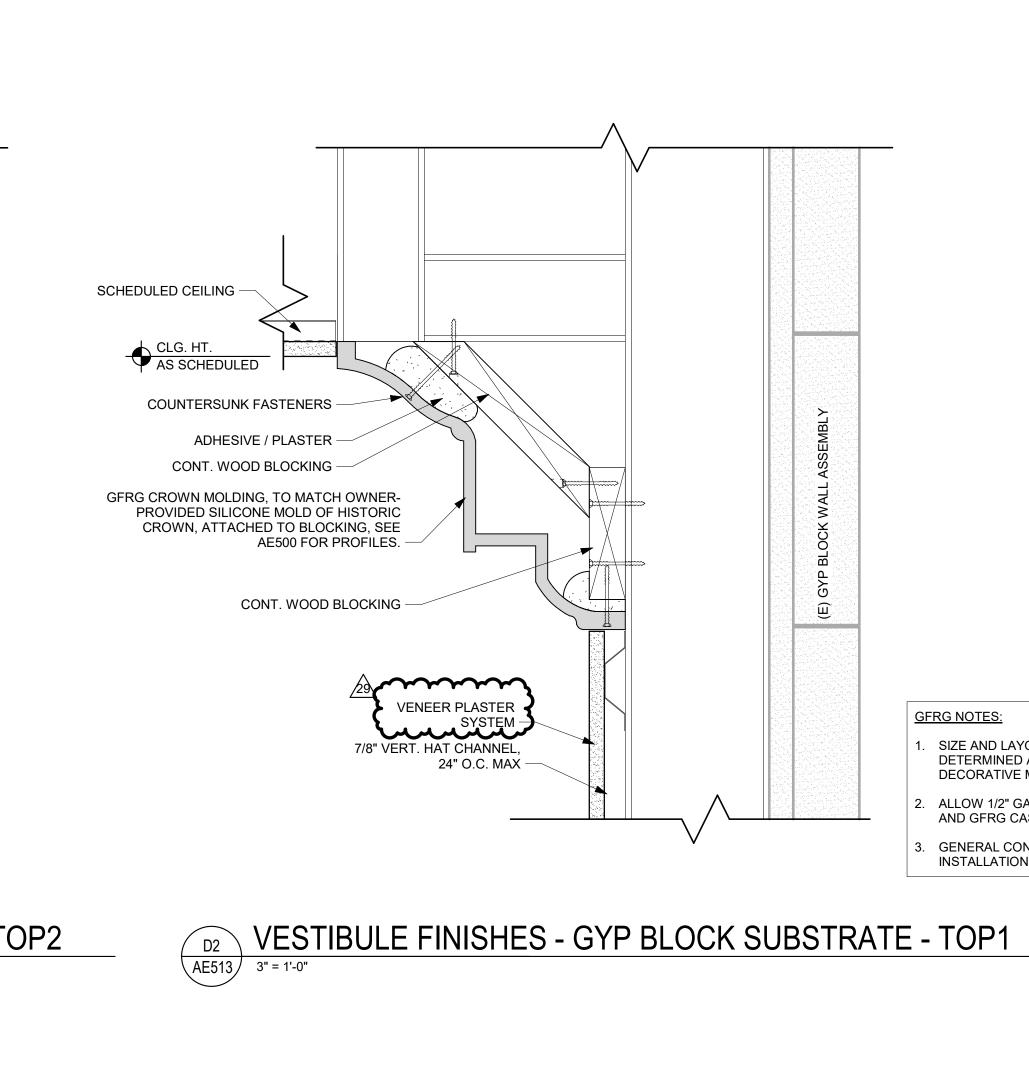


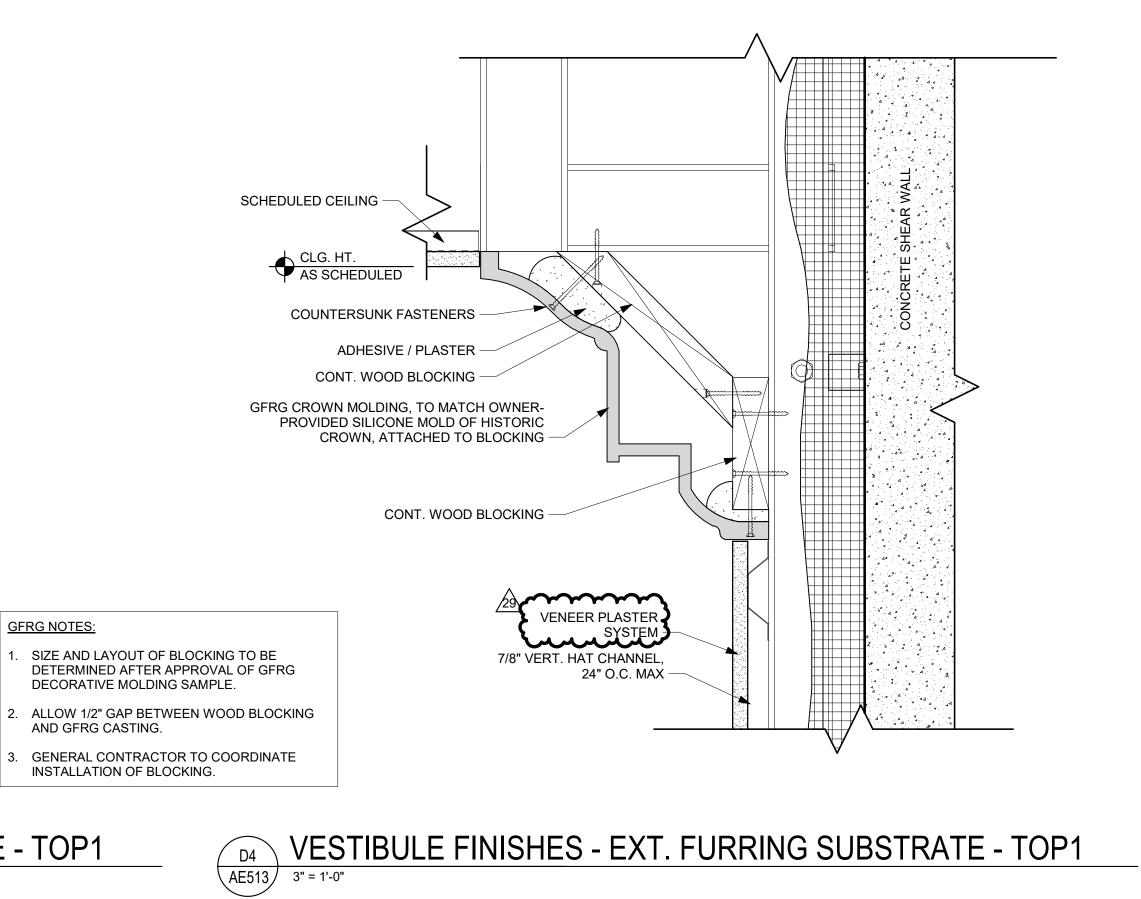
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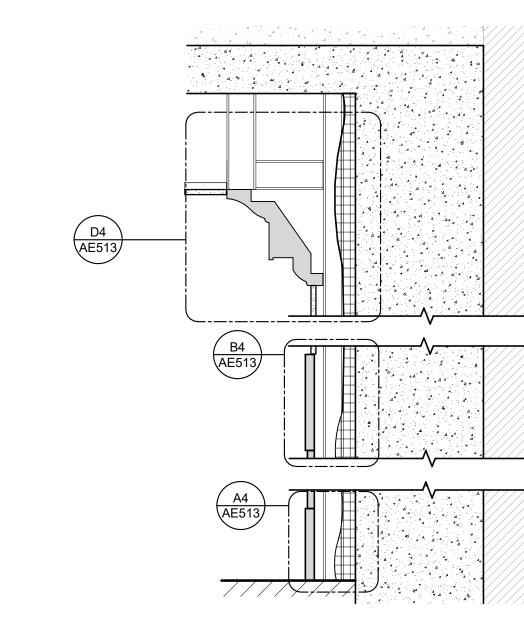
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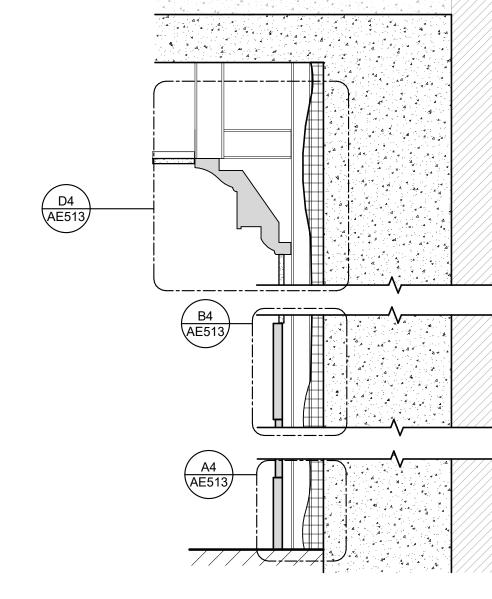
SHEAR WALL

CONCRETE SHEAR WALL









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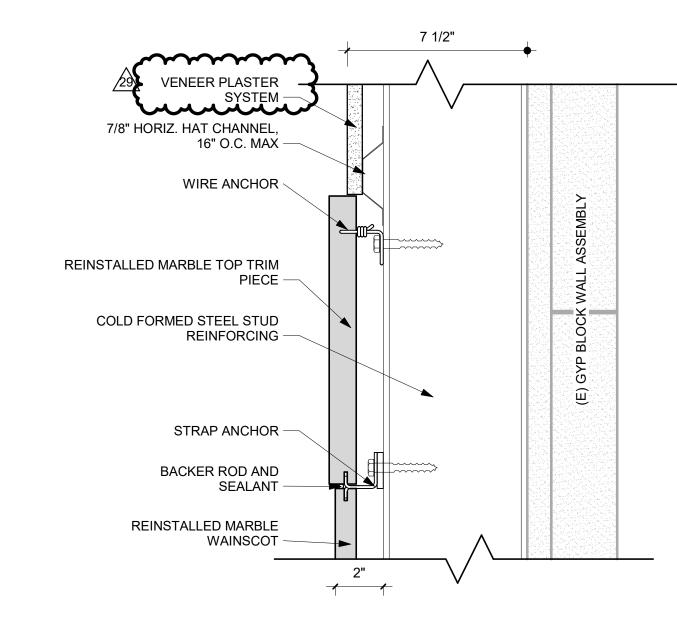
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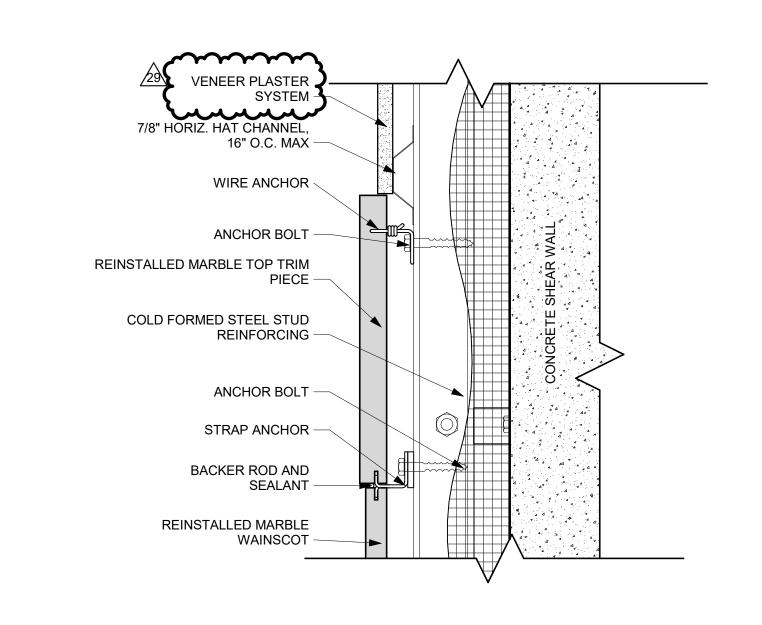
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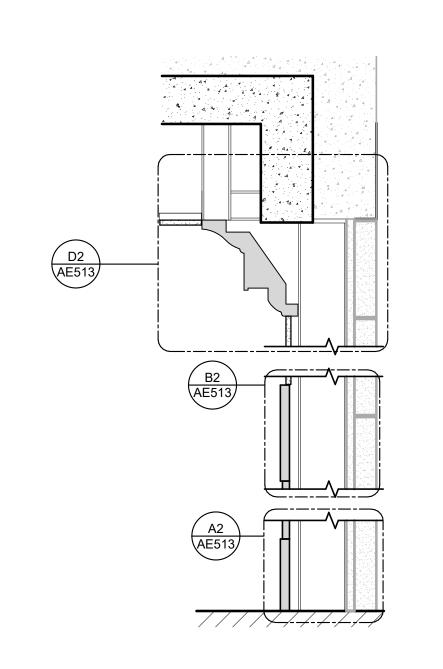




VESTIBULE FINISHES - GYP BLOCK SUBSTRATE - MIDDLE1

AE513 3" = 1'-0"

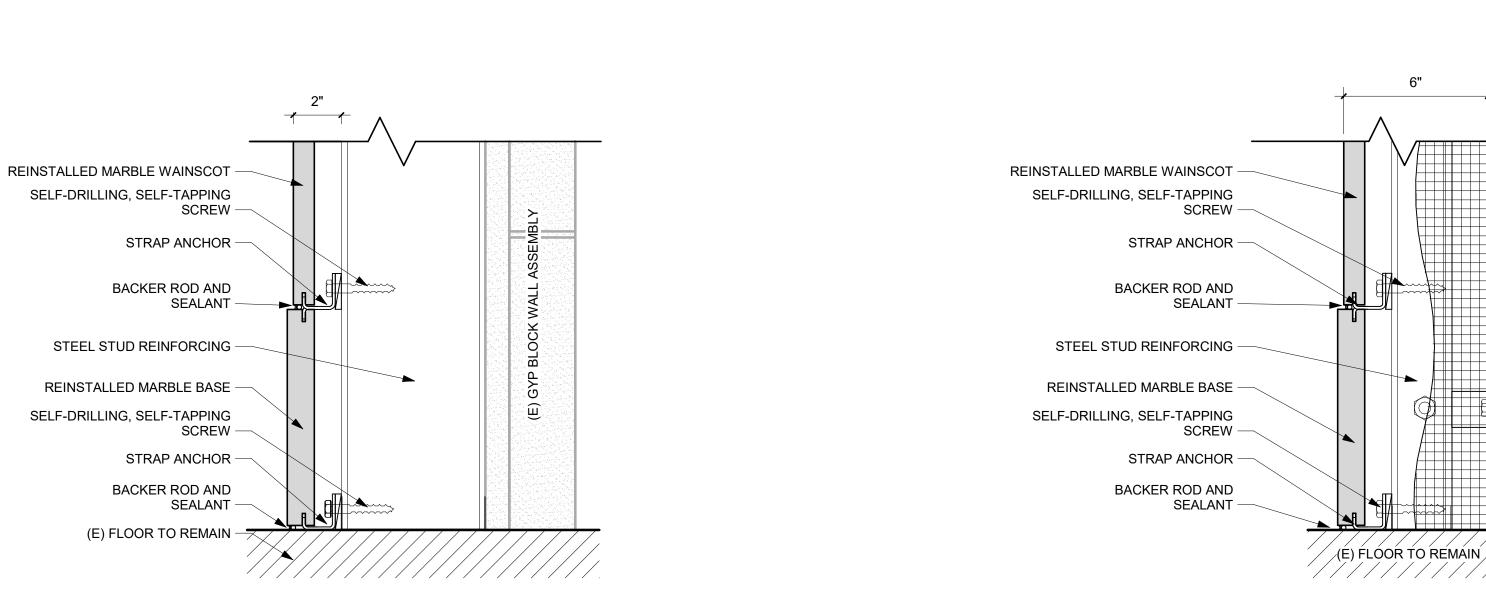


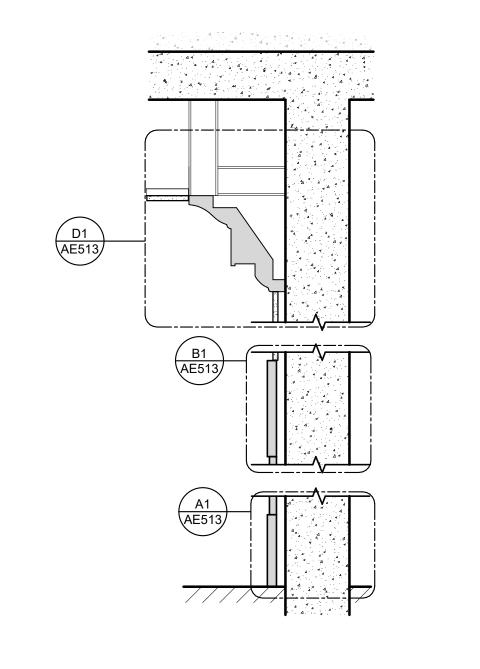


VESTIBULE FINISHES - EXT. FURRING SUBSTRATE - MIDDLE1

AE513 3" = 1'-0"







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VESTIBULE FINISHES - GYP BLOCK SUBSTRATE - BASE1

AE513 3" = 1'-0"

VESTIBULE FINISHES - EXT. FURRING SUBSTRATE - BASE1

AE513 3" = 1'-0"



BP-03 - ADDENDUM 4

Date	September 29, 2023
Date	September 23, 2023

Below is a summary of changes to the specifications:

SPECIFICATION - DESCRIPTION OF CHANGE		
033713	Added specified test panel mock ups under 1.07.B.1	

Below is a summary of changes to the construction documents:

	SHEET - DESCRIPTION OF CHANGE
SE002	Added metal grating to GSN
SB100	Existing concrete shelf shown
SB100B	Existing concrete shelf shown and details revised
SB502	Wording clarified in detail B3/Sb502
SB503	Detail revised for existing concrete shelf
SB511	Added detail callouts on typical elevation
SB604	Added note to stirrups of CB-10
SF201	Revised to show updated catwalk location
SF202	Revised to show updated catwalk location
SF203	Revised to show updated catwalk location
SF301	Existing concrete shelf shown in A3/SF301, drafting revisions to C4/SF301
SF501	Minor revisions to details based on field verification
SF502	Minor revisions to details based on field verification
SF503	Minor revisions to details based on field verification
SF504	Drafting error revision
SF511	Minor revisions to details based on field verification

to slow, or the full effort of a worker on an ordinary spud wrench. B. Provide pretensioned joints with Group A (threads not excluded) Type 1 bolts for all steel to steel connections that are part of the Lateral Force Resisting System (LFRS). Faying surfaces shall meet the requirements of a slip-critical Class A surface except for faying surfaces of end plate moment connections. Tighten bolts by the turn of the nut, calibrated wrench, or direct tension indicator method. Alternate fastener designs as defined by AISC shall be submitted to the Engineer for review and acceptability prior to installation. Provide hardened washers beneath turned element.

few impacts of an impact wrench, application of an electric torque wrench until the wrench begins

C. Provide pretensioned joints with Group A (threads not excluded) Type 1 bolts for steel to steel connections subject to significant load reversal, fatigue with no load reversal, tensile fatigue, and the conditions listed in AISC 360 Section J.1.10. Tighten bolts by the turn of the nut, calibrated wrench, or direct tension indicator method. Alternate fastener designs as defined by AISC shall be submitted to the Engineer for review and acceptability prior to installation.

D. Provide slip critical joints with Group A Type 1 bolts for steel to steel connections subject to fatigue with load reversal, joints that utilize oversized holes, and joints that utilize slotted holes not loaded perpendicular to the long direction of the slot. Faying surfaces shall meet the requirements of a slip-critical Class A surface. Tighten bolts by the turn of the nut, calibrated wrench, or direct tension indicator method. Alternate fastener designs as defined by AISC shall be submitted to the

Engineer for review and acceptability prior to installation. E. Provide hardened washers beneath the turned element of all bolts or nuts. Provide hardened beveled washers, to compensate for the lack of parallelism, where the outer face of the bolted parts has a slope greater than one in twenty with respect to the plane normal to the bolt axis. Hardened washers or plates installed over oversized holes or slotted holes shall be at least 5/16" thick and shall conform to ASTM F436. Plates or bars installed at slotted holes shall have a size sufficient to completely cover the slot after installation.

F. Where a steel to steel beam connection is not detailed in the drawings, provide a standard AISC framed connection with the capacity to support one half of the total uniform load capacity of the given shape for the span and for the steel specified. G. Bolts, nuts and washers shall not be reused.

5.6. Beam Web Stiffener Plates:

A. Provide full-height web stiffener plates to each side of all beams above all bearing points. Unless noted otherwise, stiffener plates shall be the thickness indicated in the typical stiffener plate detail.

5.7. Metal Bar Grating: A. Metal bar grating shall comply with the most recent requirements of the National Association of Architectural Metals Manufacturers, Metal Bar Grating Division (NAAMM MBG). Products shall conform to the latest edition of the Metal Bar Grating Manual, ANSI/NAAMM MBG 531, or the Heavy Duty Metal Bar Grating Manual, ANSI/NAAMM MBG 532, as appropriate. B. Materials: Unless noted otherwise, metal bar grating of the following types shall conform with the following standards:

1. Steel: ASTM A569 (allowable fiber unit stress F = 18,000 psi) 2. Stainless Steel: ASTM A167, alloys 304/316 (allowable fiber unit stress F = 20,000 psi) 3. Aluminum: ASTM B221, alloys 6063-T6/6061-T6 (allowable fiber unit stress F = 12,000 psi)

C. Metal bar grating shall be provided with mill finish, unless otherwise noted. D. Unless noted otherwise, provide W-19-4 (1.1/2" x 3/16") Steel grating in locations where metal bar grating is specified.

E. All metal bar grating shall be firmly and positively anchored to supporting members. Unless noted otherwise, weld grating to supporting members with 3/16" fillet welds, 3/4" long. Locate welds at each end of bearing bars approximately 6 in from each side of grating panel. At intermediate supports in panel, locate one weld at middle of panel.

ment and the second sec 6. Cold-Formed Steel

6.1. Material:

A. Studs: 1. Base metal thickness of less than 54 mil: ASTM A1003 or A653. Fy = 33 ksi. 2. Base metal thickness of 54 mil or greater: ASTM A1003 or A653. Fy = 50 ksi.

B. Track, Connection Clips, and Miscellaneous Shapes: 1. Base metal thickness of less than 54 mil: A1003 or A653, Fy = 33 ksi. 2. Base metal thickness of 54 mil or greater: A1003 or A653, Fy = 50 ksi

6.2. Design, fabrication and construction shall comply with the following Codes and Standards: A. American Iron and Steel Institute (AISI) S100-16, "North American Specification for the Design of

Cold-Formed Steel Structural Members", dated 2016. B. American Iron and Steel Institute (AISI) S202-15: Code of Standard Practice for Cold-formed

Steel Framing, 2015 C. American Iron and Steel Institute (AISI) S220-15, "North American Standard for Cold-Formed Steel Framing-Nonstructural Members. D. American Iron and Steel Institute (AISI) S240-15: North American Standard for Cold-Formed

Steel Structural Framing E. American Iron and Steel Institute (AISI) S400-15/S1-16: North American Standard for Seismic Design of Cold-formed Steel Structural Systems, 2015, with Supplement 1, dated 2016.

6.3. Non-Load-Bearing Cold-Formed Steel Framing:

A. All non-load cold-formed steel (and/or) joist framing members along with all runner, bridging, and end track shall be of the designation shown on the plans, schedules, and details. The framing member designators used in the plans, schedules, and details follow the convention established by the Steel Stud Manufacturers' Association (SSMA) and the North American Steel Framing Alliance (NASFA). Framing members provided shall comply with the designations according to this convention. See Steel Stud Manufacturers Association- Nomenclature for an explanation of the stud or track designations.

B. All components shall be galvanized. C. Where not noted in the drawings, all framing members shall have a base metal thickness of 33

D. All jamb, header, and sill components shall be continuous without splices unless noted otherwise

Jambs shall extend continuous from floor to floor, roof, or wind girt. Web punchouts in header stud members shall not be located within 12 inches of the support. F. Fasteners for steel stud construction shall be self-drilling and self-tapping meeting ASTM C1513. Screw-type fasteners shall penetrate the joined materials with a minimum of three threads exposed. Furnish, install, and tighten screws per the manufacturer's recommendations and per the sizes indicated in the details. The minimum screw-type fastener size shall be #10 for any connection, unless noted otherwise, or the manufacturers' minimum recommended size for framing clips and bridging. Screws shall have a center-to-center spacing of at least 3 times the nominal diameter of the screw unless noted otherwise. Screws shall have center-of-screw to edge-of-steel dimensions of at least 1.5 times the nominal diameter of the screw unless noted

G. See the Typical Steel Stud Wall Bridging Detail for wall stud bridging requirements. Proprietary bridging systems may be used upon submission, review, and approval by the Architect/Engineer. Cold-rolled channel (or steel angle) bridging shall not be used without suitable full-depth angle

clips fastened to the studs and channel or angle to prevent stud roll-over. H. Wall to floor or roof connections shall use deflection tracks or steel clips designed to accommodate vertical deflection of the floor or roof structure. See specific details for further

I. Connection clips as specified in the schedules and details use The Steel Network (TSN) products as the basis of design. Other manufacturer's connection clips, must be submitted for review and approved by the Architect/Engineer prior to use, and shall clearly indicate all ICC/IAPMO code reports, load capacities and engineering associated with their use. Follow all manufacturers' recommendations for the use of these products.

6.4. Welding:

A. The steel stud contractor shall contact the Quality Assurance Agency prior to beginning any welds. A program of joint preparation and welding procedures should be worked out between the two parties before the welding is started so that correct welds will be made from the beginning. B. Certification of Welders: All shop and field welding shall be executed by AWS certified welders who have been specifically certified for the process of welding being performed. The welder's certification will be considered as being current unless the welder is not engaged in the process of welding being performed for a period exceeding six months or there is a specific reason to

Standards. Certification and appropriate records must be provided to the Architect prior to beginning work. C. Unless noted otherwise, all welded connections shall be done using 1/8" AWS type 6013 or 7014 rod with a welding heat of 60-110 amperes depending on the gauge of material and the fit of the parts. Wire tying of framing components shall not be permitted. Welds and damaged coatings on studs shall be repaired with zinc galvanizing repair paint.

question a welder's ability as required by AWS. Certification and records must comply with AWS

6.5. Submittals with Prefabricated Systems or systems intended to replace conventional framing herein shall have complete shop drawings and calculations of all elements for review and bear the stamp of a Professional Engineer registered in the State of Utah.

7. Miscellaneous

7.1. Post-Installed Anchors in Concrete and Masonry A. Anchorage to hardened concrete and grout-filled masonry shall include all mechanical and adhesive anchors and epoxy doweled reinforcing bars of size, quantity, spacing, and embedment as shown on the drawings. Additional anchors shall not be used without approval from the

Engineer prior to installation. B. Special inspection is required during the installation of all post-installed anchors. Refer to applicable code evaluation reports and the Quality Assurance and Statement of Special Inspections sections of the General Structural Notes.

C. Anchorage to Concrete: 1. All post-installed anchors into hardened concrete shall be selected from the following preapproved products, unless noted otherwise:

• • •	
Steel Screw Anchor	Evaluation Report
Hilti Kwik HUS-EZ	ICC ESR-3027
DeWalt Screw-Bolt+	ICC ESR-3889
Simpson Titen HD	ICC ESR-2713
Steel Expansion/Wedge Anchor	Evaluation Report
Hilti Kwik Bolt TZ2	ICC ESR-4266
DeWalt Power-Stud+ SD2	ICC ESR-2502
Simpson Strong-Bolt 2	ICC ESR-3037
Adhesive Anchor System	Evaluation Report
Hilti HIT-HY 200	ICC ESR-3187
Hilti HIT-RE 500 V3	ICC ESR-3814
DeWalt AC200+	ICC ESR-4027
DeWalt Pure 110+	ICC ESR-3298
Simpson SET-3G	ICC ESR-4057

2. Adhesive anchors shall be installed into concrete having a minimum age of 21 days. For installations sooner than 21 days, consult the adhesive manufacturer.

D. Anchorage to Masonry: 1. All post-installed anchors into grout-filled masonry shall be selected from the following preapproved products, unless noted otherwise:

Steel Screw Anchor	Evaluation Report
Hilti Kwik HUS-EZ	ICC ESR-3056
DeWalt Screw-Bolt+	ICC ESR-4042
Simpson Titen HD	ICC ESR-1056
Steel Expansion/Wedge Anchor	Evaluation Report
Hilti Kwik Bolt TZ2	ICC ESR-4561
DeWalt Power-Stud+ SD1	ICC ESR-2966
Simpson Wedge-All	ICC ESR-1396
Adhesive Anchor System	Evaluation Report
Hilti HIT-HY 270	ICC ESR-4143
DeWalt AC100+ Gold	ICC ESR-3200

E. Alternate anchors or adhesives are permitted with approval of the Engineer. The Contractor shall submit the proposed anchor product data and code evaluation report demonstrating the anchor

is equivalent to or exceeds the capacity of the specified anchor. F. Installation of adhesive anchors horizontally or upwardly inclined to support sustained tension loads shall be performed by personnel certified by an applicable certification program. Certification shall include written and performance tests in accordance with the ACI/CRSI Adhesive Anchor Installer Certification program, or equivalent. Proof of current certification shall

be submitted to the Engineer for approval prior to commencement of installation. G. Anchors shall be installed according to the Manufacturer's Printed Installation Instructions and applicable code evaluation reports including: 1. Hole diameter, depth, and cleaning procedure

2. Adhesive mixing, preparation, and placement 3. Installation torque

considered to be self-supporting.

H. Locate all existing reinforcement and embedded items prior to drilling into concrete or masonry elements. Do not damage rebar or embeds while drilling or installing anchors. I. Grout all defective or abandoned holes with non-shrink grout or an injectable epoxy adhesive matching the surrounding concrete compressive strength. Consult the Architect for additional requirements at architecturally exposed concrete.

J. Carbon steel anchors are limited to use in dry, interior locations. K. Holes for post-installed anchors may not be core drilled unless specifically allowed by the manufacturer's installation instructions and the code evaluation report.

8. Special Instructions

8.1. The project specifications are not superseded by the General Structural Notes but are intended to be complementary to them. Consult the specifications for additional requirements in each section. Notes and specific details on the drawings shall take precedence over General Structural Notes and typical

8.2. The architectural drawings are the prime contract drawings. Consultant drawings by other disciplines are supplementary to the architectural drawings. All omissions or conflicts, including dimensions, between the various elements of the consultants' drawings and/or specifications shall be brought to the attention of the Architect before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the Architect without additional cost to the Owner. Any work done by the Contractor after discovery of such discrepancy shall be done at the Contractor's risk.

8.3. The structural drawings shall be used in conjunction with the architectural drawings. Primary structural elements and overall structural layout are indicated within the structural plans and details. Some secondary elements, architectural layouts, alcoves, elevations, slopes, depressions, curbs, mechanical equipment and electrical equipment, are not indicated within the structural drawings. Detailing and shop drawing production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings.

8.4. Shoring and Bracing Requirements: A. Floor and Roof Structures -- The General Contractor is responsible for the method and sequence of all structural erection. The Contractor shall provide temporary shoring and bracing as the method of erection requires to provide adequate vertical and lateral support. Shoring and bracing shall remain in place as the chosen method requires until all permanent members are in place and all final connections are completed, including all roof and floor attachments. The building

shall not be considered stable until all connections are complete. B. Foundation walls must be braced until the complete floor or roof systems is completed. Do not backfill until floor or roof systems are in place. C. Walls above grade shall be braced until the structural system is complete. Walls shall not be

8.5. All expansion joints (E.J.) shown in the structural drawings shall be considered seismic separation joints, unless noted otherwise. The width dimensioned shall be provided with a tolerance of (+1"/-0")

regardless of the tolerances stated in material reference standards.

8.6. Submittals: A copy of all shop drawings that have been submitted for review must be kept at the construction site for reference. These drawings must bear the appropriate review stamps. The shop drawing review shall not relieve the Contractor of the responsibility of completing the project according to the contract documents. The General Contractor shall review and mark all shop drawings prior to submitting them to the Architect for review. Shop Drawings made from reproductions of (these) contract drawings will be rejected.

8.7. Project Coordination: It shall be the responsibility of the General Contractor to coordinate with all trades any and all items that are to be integrated into the structural system. Openings or penetrations through, or attachments to the structural system that are not indicated on these drawings shall be the responsibility of the General Contractor and shall be coordinated with the Architect/Engineers. The order of construction is the responsibility of the General Contractor. It is the Contractor's obligation to provide all items necessary for the chosen procedure.

8.8. Contractor shall field verify all dimensions, and conditions. If the contract drawings do not represent actual conditions, Contractor shall notify Architect/Engineer prior to fabrication or construction within

8.9. Notice of Copyright: The structural drawings, plans, schedules, notes and details are hereby copyrighted by Reaveley Engineers. Submission or distribution of documents to meet official regulatory requirements or for similar purposes in connection with the project is not to be construed as publication in derogation of Reaveley Engineers' reserved rights. The documents defining the structure are instruments of service prepared by Reaveley Engineers for one use only. Furthermore, these documents shall not be reproduced, or copied, in whole or in part by the Contractor or subcontractors for preparation of shop drawings or other submittals.

9. Quality Assurance

9.2. Contractor Responsibilities:

9.1. Quality Assurance Agency Requirements: A. The Owner shall engage a qualified Quality Assurance Agency (QAA) to provide all special inspection and quality assurance testing for the project. The QAA shall provide all information necessary for the building official to determine that the agency meets the applicable requirements. 1. The QAA shall be objective, competent and independent from the Contractor responsible for

the work being inspected. The agency shall disclose to the building official and the registered design professional in responsible charge possible conflicts of interest so that objectivity can be confirmed. 2. The QAA shall have adequate equipment to perform required tests. The equipment shall be periodically calibrated.

3. The QAA shall employ experienced personnel educated in conducting, supervising and evaluating tests and special inspections. Experience or training shall be considered relevant where the documented experience or training is related in complexity to the same type of special inspection or testing activities for projects of similar complexity and material qualities. 4. The QAA shall send copies of all inspection and testing reports to the building official, Owner, Architect, Engineer and Contractor. Reports shall indicate that the work inspected was or was not completed in conformance to the approved construction documents. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If they are not corrected,

the discrepancies shall be brought to the attention of the, Architect and Engineer. 5. The QAA shall submit a final report documenting required special inspections and tests, and correction of any discrepancies noted in the inspections or tests. The final report shall be distributed to the building official, Owner, Architect and Engineer in a timely manner prior to the completion of the project.

A. The Contractor shall submit a written statement of responsibility to the building official and the

Owner or the owner's authorized agent prior to the commencement of work on the systems or components listed in the statement of special inspections. The Contractor's statement of responsibility shall contain acknowledgement or awareness of the special requirements contained in the statement of special inspections. B. Notification of QAA: The Contractor shall notify the QAA in a timely manner so that inspection

and testing may be performed as outlined in the statement of special inspections.

9.3. Structural Observations by the Engineer of Record. A. The Engineer of Record will perform structural observations at critical phases of the project as listed below. Observations will be made on a periodic basis throughout the construction of the structural system. During this timeframe, site visits will be made approximately every month. Copies of the Engineer's report will be distributed to the Architect, Contractor, Owner, and QAA.

B. The contractor shall notify the Structural Engineer at least 24 hours in advance before any of the 1. Placing concrete in any footing, mat footing, deep foundation, grade beam, or pier. Closing any wall forms.

3. Placing concrete in any column, beam. Or suspended slab. 4. Shotcrete placement of any wall, column or beam 5. Completing the structural steel framing.

6. Completing the welding of major sections of steel decking. C. Observation visits to the site by the Engineer's field representatives shall not be construed as inspection or approval of construction.

10. Statement of Special Inspections

10.1. The following materials, systems and components require special inspection or testing per Chapter 17 of the International Building Code (IBC).

10.2. For items requiring continuous inspection, a special inspector must be present onsite during the performance of that task. In most cases, periodic inspections/tests shall be performed prior to commencing the task, intermittently during the task, and at the completion of the task. Frequency marked with (E) designates periodic inspections that must be performed prior to or upon completion of every task.

Structural Steel per IBC Section 1705.2.1, 1705.12.1 & 1705.13.1

Detailed Instructions Prior to Welding (Table N5.4-1, AISC 360-16): Welder qualification records Verify welder qualification records and continuity records

4		J
Item	Frequency	Detailed Instructions
Verify welding procedures (WPS) and consumable certificates	Periodic (E)	
Material identification	Periodic	Verify type and grade of material.
Welder identification	Periodic	Confirm a system is in place by which a welder who has welded a joint or member can be identified.
Fit-up groove welds	Periodic	Verify joint preparation, dimensions, cleanliness, tacking, and backing.
Fit-up of CJP welds to HSS T-, Y- and K- joints without backing	Periodic	Verify joint preparation, dimensions, cleanliness and tacking
Access holes	Periodic	Verify configuration and finish.
Fit-up of fillet welds	Periodic	Verify dimensions, cleanliness and tacking.
During Welding (Table N5.4-2, AISC Use of qualified welders	360-16):	Verify that welders are appropriately qualified.
Control and handling of welding	Periodic	Verify packaging and exposure control.
consumables	1 chodic	verny packaging and exposure control.
Cracked tack welds	Periodic	Verify that welding does not occur over cracked tack welds.
Environmental conditions	Periodic	Verify wind speed is within limits as well as precipitation and temperature.
WPS followed Welding techniques	Periodic Periodic	Verify items such as settings on welding equipment, travel speed, welding materials, shielding gas type/flow rate, preheat applied, interpass temperature maintained, and proper position. Verify interpass and final cleaning, each pass
Troiding tooliniquos	1 officials	is within profile limitations, and quality of each pass.
Steel headed stud anchors	Periodic	Verify placement and installation of steel headed stud anchors.
After Welding (Table N5.4-3, AISC 3	360-16) <i>:</i>	
Welds cleaned	Periodic	Verify that welds have been properly cleaned.
Size, length, and location of welds	Periodic (E)	Verify the size, length and location of welds.
Welds meet visual acceptance criteria	Periodic (E)	Verify that welds meet crack prohibition, base metal fusion, profile, size, undercut, and porosity provisions.
Arc strikes	Periodic (E)	Verify that arc strikes do not exist outside the permanent weld areas.
k-area	Periodic (E)	When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks.
Weld access holes in rolled heavy shapes and built-up heavy shapes (flange >2")	Periodic (E)	After rolled heavy shapes and built-up heavy shapes are welded, visually inspect the weld access holes for cracks.
Backing & weld tabs removed	Periodic (E)	If required on the approved construction documents, verify that back and weld tabs are removed.
Repair activities	Periodic (E)	Verify that repair activities are performed in accordance with AISC 360 and AWS D1.1.
Documentation	Periodic (E)	Document the acceptance or rejection of the welded joint or member.
Prohibited welds	Periodic (E)	Verify no prohibited welds have been added without approval of the EOR.
Nondestructive Testing (Section N5.	5. AISC 360-16):	
CJP welds (Risk Cat. III or IV)	Periodic (E)	UT testing shall be performed on <u>all</u> CJP groove welds in butt, T- and corner joints subject to transversely applied tension loading in materials 5/16-inch thick or greater.
Welded joints subject to fatigue	Periodic (E)	Welded joints subject to fatigue (see Table A-3.1 of AISC 360) shall have radiographic or UT testing.
Prior to Bolting (Table N5.6-1, AISC Certifications of fasteners	Continuous	Verify that manufacturer's certificates are available for fastener materials.
Fasteners marked	Periodic	Verify that fasteners have been marked in accordance with ASTM requirements.
Proper fasteners for joint	Periodic	Verify grade, type, and bolt length if threads are excluded from the shear plane.
Proper bolting procedure	Periodic	Verify proper procedure is used for the joint detail.
Item	Frequency	Detailed Instructions

Connecting elements	Periodic	Verify appropriate faying surface condition and hole preparation, if specified, meet requirements.
Pre-installation verification testing	Periodic	Observe and document verification testing by installation personnel for fastener assemblies and methods used.
Proper storage	Periodic	Verify proper storage of bolts, nuts, washers, and other fastener components.
During Bolting (Table N5.6-2, AISC	360-16):	
Fastener assemblies	Periodic	Verify that fastener assemblies are of suitable condition, paced in all holes, and washers and nuts are positioned as required.
Snug-tight prior to pretensioning	Periodic	Verify that joints are brought to snug-tight condition prior to pretensioning operation.
Fastener component	Periodic	Verify that fastener component not turned by wrench is prevented from rotating.
Pretensioned fasteners	Periodic	Verify that fasteners are Pretensioned in accordance with RCSC Specification, progressing systematically from the most rigid point toward the free edges.
After Bolting (Table N5.6-3, AISC 36	60-16) <i>:</i>	
Documentation	Periodic (E)	Document the acceptance or rejection of bolter connections.
Other Steel Inspections (Section N5	.8, AISC 360-16: Table	J8.1, J10.1, AISC 341-16):
Structural steel details	Periodic	All fabricated steel or steel frames shall be inspected to verify compliance with the details shown in the approved construction documents, such as braces, stiffeners, member locations, and proper application of joint details at each connection.
Anchor rods and other embedments supporting structural steel	Periodic	Shall be on the premises during the placement of anchor rods and other embedments supporting structural steel for compliance with
31001		construction documents. Verify the diameter, grade, type, and length of the anchor rod or embedded item, and the extent or depth of embedment prior to placement of concrete.

printe faving surface condition and

Item	Frequency	Detailed Instructions
Steel Roof and Floor Decks Prior to Pi	acement (IBC 17	05.2.2 and Table 1.1, SDI QA/QC 2017):
Materials	Periodic (E)	Verify compliance of deck and all deck accessories with approved construction documents, including profiles, material properties, and base metal thickness.
Documentation	Periodic (E)	Document acceptance or rejection of deck and deck accessories
Steel Roof and Floor Decks After Plac	ement (IBC 1705	.2.2 and Table 1.2, SDI QA/QC 2017):
Compliance with construction documents	Periodic (E)	Verify compliance of deck and all deck accessories installation with construction documents. Verify deck materials are represented by the mill certifications that comp with the construction documents.
Document acceptance or rejection of deck and deck accessories	Periodic (E)	
Steel Roof and Floor Decks Prior to W	/elding (IBC 1705	.2.2 and Table 1.3, SDI QA/QC 2017):
Welding procedure specifications available	Periodic	Verify that WPS is available.
Certifications of welding	Periodic	Verify that manufacturer certifications for weld consumables are available.
consumables		
	Periodic	Verify type and grade of materials to be welde
consumables Material identification Welding equipment	Periodic Periodic	Verify type and grade of materials to be welde
Material identification	Periodic	
Material identification Welding equipment	Periodic	
Material identification Welding equipment Steel Roof and Floor Decks During We	Periodic elding (IBC 1705.	2.2 and Table 1.4, SDI QA/QC 2017):

Item	Frequency	Detailed Instructions
WPS followed	Periodic	Verify items such as settings on welding equipment, travel speed, welding materials, shielding gas type/flow rate, preheat applied, interpass temperature maintained, and proper position.
Steel Roof and Floor Decks After Weld	ding (IBC 1705.2	.2 and Table 1.5, SDI QA/QC 2017):
Size, length, and location of welds	Periodic	Verify size and location of welds, including support, sidelap, and perimeter welds.
Welds meet visual acceptance criteria	Periodic (E)	Verify weld meets visual acceptance criteria based upon weld/base-metal fusion, weld profiles, weld size, undercut, and porosity.
Repair activities	Periodic (E)	Verify that repair activities are acceptable.
Document acceptance or rejection of welds	Periodic (E)	
Steel Roof and Floor Decks Prior to M	echanical Faster	ning (IBC 1705.2.2 and Table 1.6, SDI QA/QC 2017).
Pre-installation verification	Periodic	Verify manufacturer installation instructions are available for mechanical fasteners as well as the proper tools and storage for the fasteners.
Steel Roof and Floor Decks During Me	echanical Fasten	ing (IBC 1705.2.2 and Table 1.7, SDI QA/QC 2017):
Fastener Placement	Periodic	Verify that fasteners are positioned as required and installed in accordance with the manufacturer's instructions.
Steel Roof and Floor Decks After Mec	hanical Fastenin	g (IBC 1705.2.2 and Table 1.8, SDI QA/QC 2017):
Spacing, type and installation of fasteners	Periodic (E)	Verify the spacing, type and installation of support, sidelap and perimeter fasteners.
Repair activities	Periodic (E)	Verify that repair activities are acceptable.
Document acceptance or rejection of mechanical fasteners	Periodic (E)	

		manufacturer's instructions.
Steel Roof and Floor Decks After Med	chanical Fastening ((IBC 1705.2.2 and Table 1.8, SDI QA/QC 2017):
Spacing, type and installation of fasteners	Periodic (E)	Verify the spacing, type and installation of support, sidelap and perimeter fasteners.
Repair activities	Periodic (E)	Verify that repair activities are acceptable.
Document acceptance or rejection of mechanical fasteners	Periodic (E)	
oncrete Construction per IBC Section	ons 1705.3 & 1705.	12
Item	Frequency	Detailed Instructions
Reinforcing steel	Periodic	Verify prior to placing concrete that reinforcing is of specified type, grade and size; that it is free of oil, dirt and rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
Welding of reinforcing steel	Periodic	Visually inspect all welds and also verify weldability of reinforcing steel based upon carbon equivalent and in accordance with AWS D1.4.
Cast-in bolts & embeds	Periodic	Inspection of anchors or embeds cast in concrete is required when allowable loads have been increased or where strength design is used.
Post-installed adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads	Continuous	All post-installed anchors/dowels shall be specially inspected as required by the approved ICC-ES report. Horizontally or upwardly inclined anchors that resist sustained
Post-installed mechanical anchors and adhesive anchors not defined above	Periodic	tension loads require continuous inspection and approved installers.
Use of required mix design	Periodic	Verify that all mixes used comply with the approved construction documents; ACI 318: Ch. 19, 26.4.3-26.4.4; and IBC 1904.1, 1908.2 1908.3.
Concrete sampling for strength tests, slump, air content, and temperature	Continuous	Samples for strength tests shall be taken in accordance with ASTM C172, cured per ASTM C31 and tested in accordance with ASTM C39 by a testing agency complying with ASTM C1077. Acceptance criteria for strength tests shall be per ACI 318 Section 26.12.3. For each mix placed, samples shall be taken not less than once a day, nor less than once for each 150 yd³ of concrete, nor less than once for each 5000 ft² of surface area for slabs or walls At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete.

Concrete & shotcrete placement Continuous

Item	Frequency	Detailed Instructions
Curing temperature and techniques	Periodic	Verify that the ambient temperature for concrete is kept at > 50°F for at least 7 days after placement. High-early-strength concrete shall be kept at > 50°F for at least 3 days. Accelerated curing methods may be used (se ACI 318: 26.4.7-26.4.9). The ambient temperature for shotcrete shall be > 40°F for the same period of time as noted for concrete Shotcrete shall be kept continuously moist for at least 24 hours after shotcreting. All concret materials, reinforcement, forms, fillers, and ground shall be free from frost. In hot weather conditions ensure that appropriate measures are taken to avoid plastic shrinkage cracking and that the specified water/cement ratio is no exceeded.
In-situ strength verification	Periodic	Verify that adequate strength has been achieved prior to the removal of shores and forms or the stressing of post-tensioned tendons.
Formwork	Periodic	Verify that the forms are placed plumb and conform to the shapes, lines, and dimensions of the members as required by the approved construction documents.
Reinforcement in special moment frames, special structural walls, and all components of special structural walls including coupling beams and wall piers	Continuous	Verify that ASTM A 615 reinforcing steel used in these areas complies with ACI 318: 20.2.2. by means of certified mill test reports. If this reinforcing steel is to be welded chemical test shall be performed in accordance with AWS D1.4.
Welding of Reinforcing Steel (IBC Ta	ble 1705.3):	
Verification of weldability	Periodic	Verify weldability of reinforcing steel other tha A706 based upon carbon equivalent and in accordance with AWS D1.4. Continuous inspection is required for welding of reinforcin steel used in intermediate or special concrete moment frames, boundary elements of special structural walls or shear reinforcement.
Other reinforcing steel	Periodic	Visually inspect all welds in accordance with AWS D1.4.
Single-pass fillet welds, 5/16" max	Periodic	
	Continuous	

Soils per IBC Section 1705.6		
Item	Frequency	Detailed Instructions
Verify subgrade is adequate to achieve design bearing capacity	Periodic	Prior to placement of concrete.
Verify excavations extend to proper depth and material	Periodic	Prior to placement of compacted fill or concrete.
Verify that subgrade has been appropriately prepared prior to placing compacted fill	Periodic	Prior to placement of compacted fill.
Perform classification and testing of compacted fill materials	Periodic	All materials shall be checked at each lift for proper classifications and gradations not less than once for each 10,000ft ² of surface area.
Verify proper materials, densities and lift thicknesses during placement and compaction.	Continuous	



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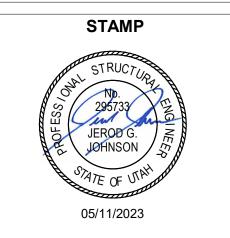
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RIO GRANDE DEPOT SEISMIC UPGRADE

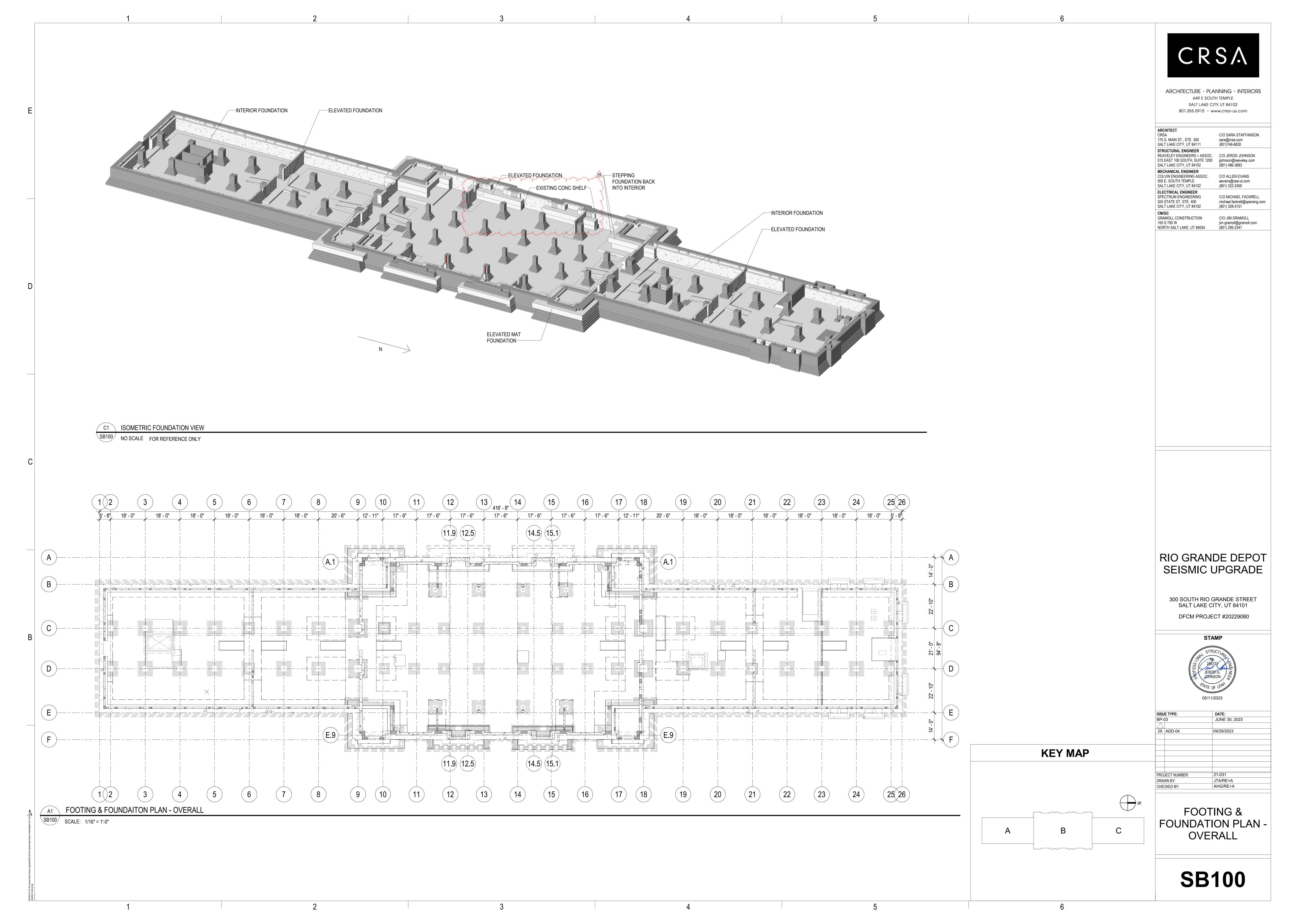
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ISSUE TYPE:	DATE:			
BP-03	JUNE 30, 2023			
29 ADD-04	09/29/2023			
PROJECT NUMBER:	21-031			
DRAWN BY:	JTA/RE+A			
CHECKED BY:	AHG/RE+A			

GENERAL **STRUCTURAL NOTES**

SE002



4. DOWEL ALL CONCRETE WALLS TO FOOTING PER ALL CONCRETE FOOTINGS PER TYPICAL DETAIL NOTE: TYPICAL BOTTOM OF NEW FOUNDATIONS SHALL A3/SB501. ALIGN WITH OR BE ABOVE BOTTOM OF EXISTING FOUNDATIONS. DO NOT UNDERMINE ANY EXISTING FOUNDATIONS. F.V. ALL BOTTOM OF FOOTING ELEVATIONS PRIOR TO CONSTRUCTION (15) (10) 13 (17) (18) FOOTINGS. (12.5) (12.5)(11.9) A1 (14.5) A1 2'-11" MAT — F.V. CONDITION FOUNDATION INSIDE CONC **CORE PRIOR TO** F.V. CONDITION = CONSTRUCTION INSIDE CONC ! **CORE PRIOR TO** CONSTRUCTION `A - 1 #8 @ 12" O.C. EA 🖟 WAY TOP & BOT SHWAY TOP & BOT— INNER LAYER $^+$ INNER LAYER $^-$ TOF = 94' - 6" TOF = 94'- 6" TOCP = 92' - 81/2"TOCP = 92 8 1/2" SB503 TOF = 96' - 2' FOUNDATION F.V. TOF = 90' - 4'' /HSS4X4X1/4 FROM F.V. -EXISTING CONCRETE DOWEL CONC COL FOUNDATION TO EXISTING CONCRETE TO - \pm DOWEL CONC COL WALL TO REMAIN TO EXISTING WALL,_ UNDERSIDE OF EXISTING TO EXISTING WALL B1/SB502 | 16' - 0" MEZZANINE BEAM B1/SB502 CONTINUE FC16.0-3 **BOTTOM TRANSVERSE** EXIST UNREINFORCED =++ STEPPED CONC FOOTINGS REINFORCING INTO FC12.0-2. NEW 4" THICK REINFORCED CONCRETE SLAB ON GRADE, SEE B5/\$B501. REINFOR¢E SLAB W/#3 @ 12" O.C. E.W. PLACE CONTROL JOINT @ 12'-0" O.C. MAX. PROVIDE #3 DOWELS IN EPOXY AT INTERFACES WITH CONTINUE FC16.0-3 NEW AND EXISTING CONCRETE/MASONRY PER DETAIL **BOTTOM TRANSVERSE** ~EXISTING SUMP TO B5/SB506 EXISTING SUMP REINFORCING INTO REMAIN BLOCKOUT TOSG = 89'-4" TO REMAIN FC12.0-2. FC9.5-2 AROUND FOOTING AS REQ'D (D)-CONTINUE FC16.0-3 **BOTTOM TRANSVERSE** REINFORCING INTO $^{+}$ DOWEL CONC COL TO EXISTING WALL -EXISTING CONCRETE TO B1/SB502 HSS4X4X1/4 FROM −2'-11" MAT **EXISTING CONCRETE** -∤#8 @ 12" O.C. EA FOUNDATION TO **FOUNDATION** TOF = 89' - 4" WALL TO REMAIN -WAY TOP & BOT UNDERSIDE OF EXISTING ALIGN WITH BEAM ABOVE_ MEZZANINE BEAM TOCP = 92' - 8 1/2" TOF = 90' - 4" DOWEL CONC COL TO EXISTING WALL _#8 @ 12" O.C. EA ⁻ TOCP = 92' - 8 1/2" -2'-11" MAT **FOUNDATION** (E.9) \Vdash F.V. CONDITION -INSIDE CONC CORE PRIOR TO F.V. CONDITION CONSTRUCTION INSIDE CONC -CORE PRIOR TO -DEMO EXSTING CONCRETE WALL AS REQUIRED TO CONSTRUCTION A1 SB504 ENSURE THAT CONCRETE JAMB COLUMN IS SB506/12.5) (14.5) SB506 (15.1) CONTINUOUS FROM BASEMENT TO UPPER FLOOR, TYPICAL ALL CORNERS. NOTIFY EOR PRIOR TO DEMO (9) (10)(15) (18) 13 (17) FOOTING & FOUNDATION PLAN - GRAND LOBBY SB100B/ SCALE: 1/8" = 1'-0"

FOOTING & FOUNDATION PLAN NOTES

1. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE RETAINING AND / OR SITE WALLS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

2. SEE TYPICAL STEP DETAIL AT CONTINUOUS FOOTING AND TYPICAL STEP DETAIL AT MAT FOOTING FOR REINFORCING REQUIREMENTS D1/SB501, C1/SB501.

3. PROVIDE REINFORCEMENT AT WALL ENDS, INTERSECTIONS AND OPENINGS PER TYPICAL

DETAILS D2/SB601 AND C2/SB601.

TYPICAL DETAIL D2/SB501. 5. PROVIDE COMPACTED STRUCTURAL FILL UNDER

6. THE BOTTOM OF ALL NEW FOUNDATIONS SHALL MATCH OR BE ABOVE THE BOTTOM OF ALL EXISTING FOUNDATIONS WHERE OCCURS. WHERE THE DEPTH OF EXISTING FOUNDATIONS VARIES ALONG A NEW FOUNDATION, THE EXCAVATION SHALL BE BENCHED/SLOPED ACCORDINGLY. SEE FOUNDATION SCH. FOR EPOXY DOWELS INTO ALL EXISTING

7. DO NOT UNDERMINE ANY EXISTING FOUNDATIONS. F.V. ALL BOTTOM OF FOOTING ELEVATIONS PRIOR TO CONSTRUCTION

EXISTING BUILDING NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO DETAILING, FABRICATING, ERECTING OR INSTALLING ANY STRUCTURAL ELEMENT. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM IN A TIMELY MANNER SUCH THAT WORK WILL NOT BE DELAYED.

2. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING OF EXISTING STRUCTURE DURING CONSTRUCTION.

CONCRETE SHEAR WALL NOTES

1. VERIFY ALL DATUM ELEVATIONS W/ ARCHITECTURAL DRAWINGS.

2. VERIFY ALL OPENING LOCATIONS AND DIMENSIONS WITH ARCHITECTURAL.

3. CONCRETE JAMB COLUMN LOCATIONS (CJC) ARE APPROXIMATE, SEE ARCHITECTURAL FOR ROUGH OPENINGS AND OFFSET DISTANCE FOR DOOR JAMBS, WINDOW JAMBS AND ANY ARCHITECTURAL COVERS.

4. SEE A1/SB511 FOR ADDITIONAL REINFORCING AT OPENINGS THROUGH CONCRETE SHEAR WALLS NOT SHOWN ON ELEVATIONS.

5. SEE SB510 FOR CONCRETE JAMB COLUMN SCHEDULES & D2/SB510 FOR CONCRETE JAMB COLUMN REINFORCEMENT / TIE DIAGRAMS.

6. EXTEND ALL HORIZONTAL LINTEL BARS 'Ld' DEVELOPMENT LENGTH BEYOND EDGES OF OPENINGS.

7. CONCRETE FOOTINGS TO BE CENTERED ON SCHEDULED THICKNESS OF CONCRETE WALL OR CONCRETE SHEAR WALL, UNO.

8. SEE D1/SB510 FOR TYPICAL CONCRETE JAMB COLUMN REINFORCING TO FOOTING.

9. TERMINATE ALL HORIZONTAL SHEAR WALL REINFORCING AT JAMB COLUMNS PER B1/SB510

10. SEE C1/SB510 FOR TYPICAL VERTICAL REINFORCING SPLICES AT CONCRETE JAMB COLUMNS AND SHEAR WALLS.

SLAB ON GRADE PLAN NOTES

1. ALL SLABS ON GRADE SHALL BE 4 INCHES THICK CONCRETE SLAB ON GRADE PROFILE DETAIL B5/SB501 FOR SUBGRADE REQUIREMENTS.

2. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS, ETC.

3. SEE ARCHITECTURAL DRAWINGS AND FINISH SCHEDULE FOR SLAB DEPRESSIONS, SLOPES TO DRAINS AND SLAB AREAS TO RECEIVE FLOOR TILE

4. SEE TYPICAL CONCRETE SLAB ON GRADE DETAILS FOR CONSTRUCTION JOINTS, CONTROL JOINTS AND ADDITIONAL SLAB REINFORCING C2/SB501.

5. SUBMIT SLAB ON GRADE CONTROL JOINT PLAN FOR REVIEW.

6. PROVIDE HOUSEKEEPING PADS AND CURBS PER DETAIL C4/SB501. VERIFY DIMENSIONS AND LOCATIONS OF CURBS AND PADS WITH MECHANICAL AND EQUIPMENT SUPPLIER.

KEY MAP

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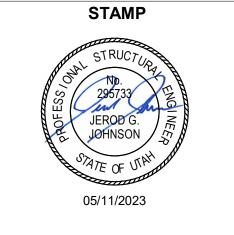
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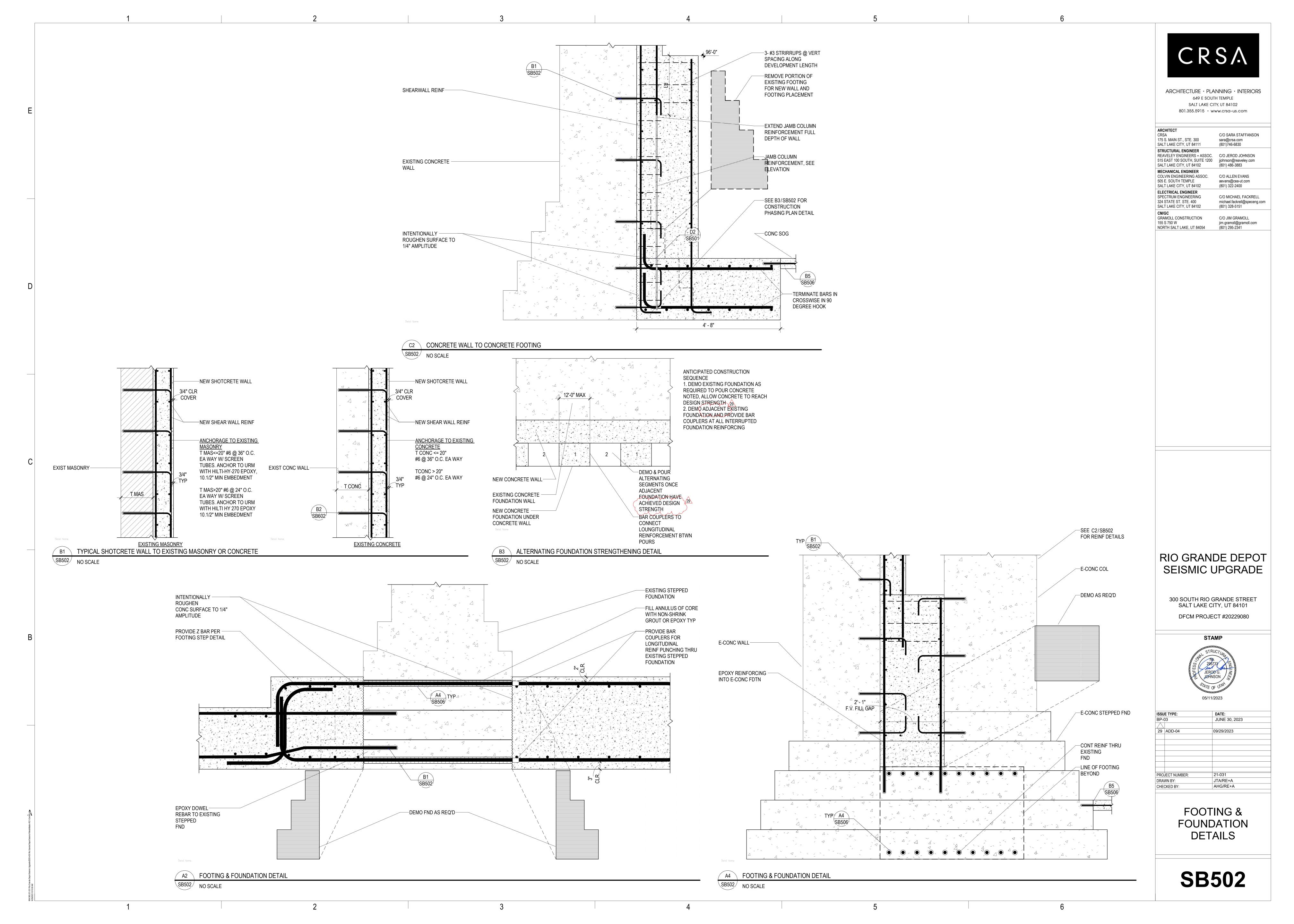
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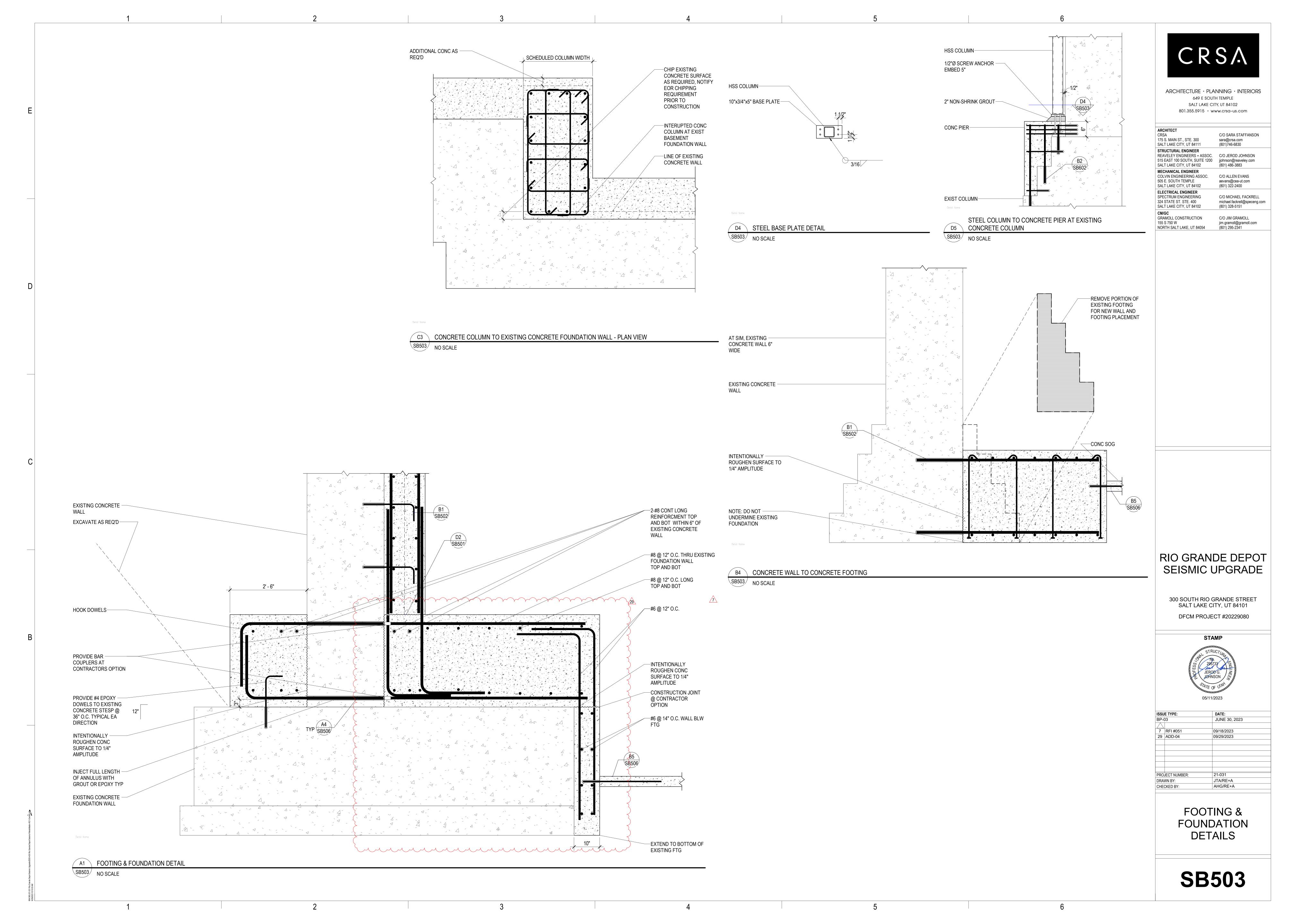


BP-	-03	JUNE 30, 2023
29	ADD-04	09/29/2023
PRO	DJECT NUMBER:	21-031
DRA	AWN BY:	JTA/RE+A
CUI	ECKED BY:	AHG/RE+A

FOOTING & FOUNDATION PLAN -**GRAND LOBBY**

SB100B





COUPLIING COUPLING BEAM -BEAM SLEEVED OPENING . COUPLIING SEE DETAIL C4/SB601 FOR TYPICAL SLEEVE DETAIL 4 COUPLING BEAM **BOTTOM REINF** —COUPLING SKIN REINF (WHERE OCCURS)/ **COUPLING BEAM** CONC JAMB-—CONC LINTEL SKIN REINF COLUMN STACKED -TYPICAL SHEAR **OPENINGS WITH** WALL REINF **COUPLING BEAMS** STACKED COL REINF **OPENINGS WITH COUPLING BEAMS OPENING** CONC JAMB COL+ WALL PIER ANCHOR COUPLING BEAM DOWELS TO MATCH TOP REINF VERT JAMB COL REINF COUPLING BEAM SKIN REINF OPENING COUPLING BEAM **BOTTOM REINF** —CONC BEAM \OPENING/ \succ VERT JAMB COL REINF-←SEE DETAIL C2/SB601 FOR TYPICAL OPENING DETAIL -VERT JAMB COL REINF-OPENINGS WITH COUPLING BEAMS OPENINGS WITH D2 SB510 **COUPLING BEAMS** SHEAR WALL REINF BARS BELOW WINDOW DOWELS TO — MATCH VERT JAMB COL -WALL PIER ANCHOR REINF (WHERE REQ'D) +DOWELS TO MATCH $_{ extstyle 4}$ VERT JAMB COL REINF WALL REINFORCEMENT LEGEND —CONC FOOTING (REINF NOT 1. DIAGRAM INTENDED FOR GENERAL LAYOUT PURPOSES ONLY. SEE ELEVATIONS FOR SPECIFIC CONDITIONS. SCHEDULED SHEAR WALL REINF 2. SEE SCHEDULES FOR REINFORCEMENT SIZE AND SPACING. 3. VERTICAL SHEAR WALL REINFORCEMENT MAY BE OMITTED INSIDE CONCRETE JAMB COLUMNS. SCHEDULED BEAM/JAMB COLUMN REINF 4. SEE ARCHITECTURAL DRAWINGS FOR ALL ROUGH OPENING DIMENSIONS AND LOCATIONS. 5. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF ALL MECHANICAL OPENINGS. - - SCHEDULED BEAM/JAMB COLUMN STIRRUPS/TIES 6. WHEN EDGE OF CONCRETE ADJACENT TO OPENING WILL NOT ALLOW DEVELOPMENT LENGTH TERMINATE BAR WITH STANDARD HOOK OR HEADED BAR TYPICAL CONCRETE SHEAR WALL ELEVATION REINFORCEMENT DIAGRAM

SB511 NO SCALE

CRSA

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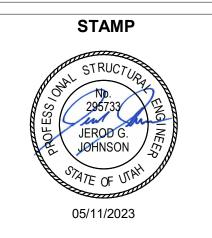
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RIO GRANDE DEPOT SEISMIC UPGRADE

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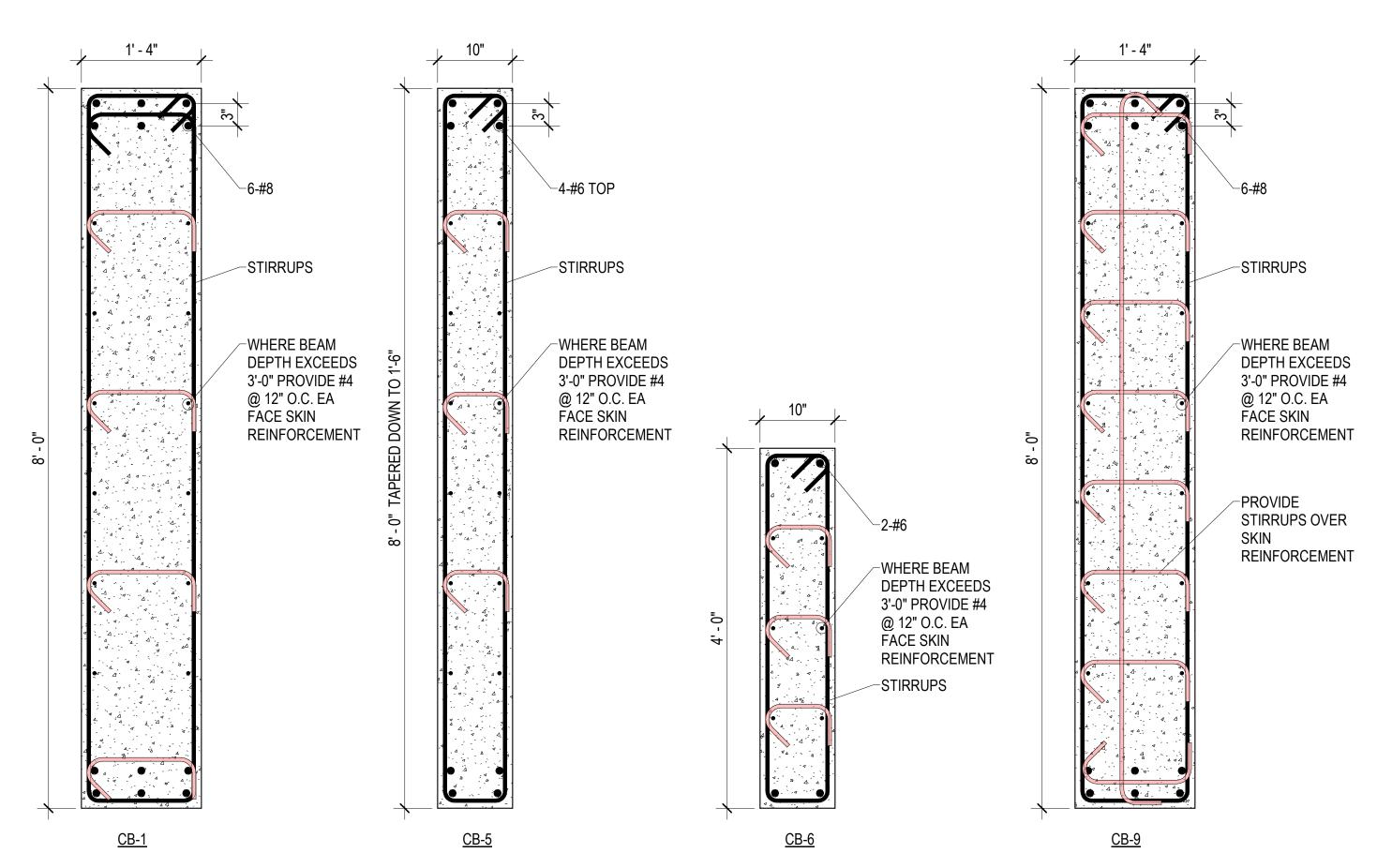


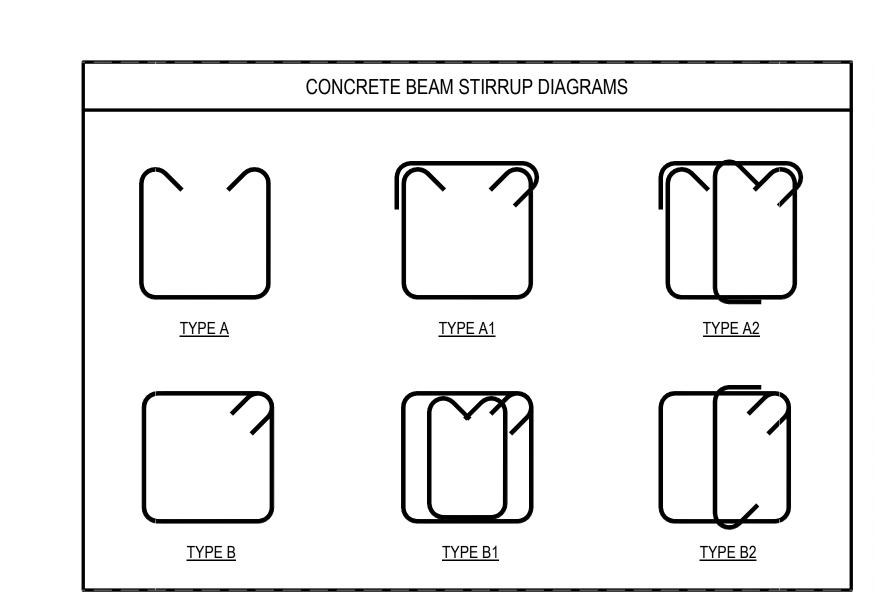
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29 ADD-04	09/29/2023
PROJECT NUMBER:	21-031
DRAWN BY:	JTA/RE+A
CHECKED BY:	AHG/RE+A

TYPICAL CONCRETE
SHEAR WALL
ELEVATION
REINFORCEMENT
DIAGRAM

SB511

	CONCRETE BEAM SCHEDULE																						
	BEAM			REINFO	DRCEMENT HR	1		REINFO	DRCEMENT HR2	2		REINFO	DRCEMENT HR	3		REINFO	DRCEMENT HR	4				STIRRUPS	
MARK	WIDTH	DEPTH	NO.	SIZE	LOCATION	TYPE	NO.	SIZE	LOCATION	TYPE	NO.	SIZE	LOCATION	TYPE	NO.	SIZE	LOCATION	TYPE	NOTES	NO. SIZE	TYPE	END	SPACING
CB-1	1' - 4"	8' 0"	6	#8	TOP	CONT.	6	#8	BOT	CONT.										#4	A1		12" O.C.
CB-2	1' - 4"	1' 8"	5	#6	TOP	CONT.	5	#6	BOT	CONT.										#3	A1		8" O.C.
CB-4	1' - 0"	1' 4"	3	#6	TOP	CONT.	3	#6	BOT	CONT.										#3	A1		12" O.C.
CB-5	10"	VARIES	4	#6	TOP	CONT.	2	#6	BOT	CONT.									CB-5	#3	A1		6" O.C.
CB-6	10"	4' 0"	2	#6	TOP	CONT.	2	#6	BOT	CONT.									CB-6	#3	A1		12" O.C.
CB-7	3' - 1"	3' 8"	6	#6	TOP	CONT.	6	#6	ВОТ	CONT.									SEE A1/SF501	#4	SEE A1/SF501		12" O.C.
CB-8	3' - 6 3/4"	1' 2"	13	#5	TOP	CONT.	10	#5	ВОТ	CONT.									SEE A1/SF503	#3	SEE A1/SF503		6" O.C.
CB-9	1' - 4"	8' 0"	6	#8	TOP	CONT.	6	#8	BOT	CONT.										#4	A1		5" O.C.
CB-10	3' - 1"	2' 8"	6	#6	TOP	CONT.	6	#6	ВОТ	CONT.										#4	SEE A4/SF503	29	12" O.C.
			•			•	•			·				•		'						,	





C4 BEAM STIRRUP DIAGRAMS

SB604 NO SCALE

CONCRETE BEAM REINFORCEMENT/TIE DIAGRAM

SB604 SCALE: 1" = 1'-0"

RIO GRANDE DEPOT SEISMIC UPGRADE

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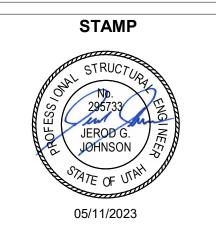
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C/O MICHAEL FACKRELL

michael.fackrell@speceng.com

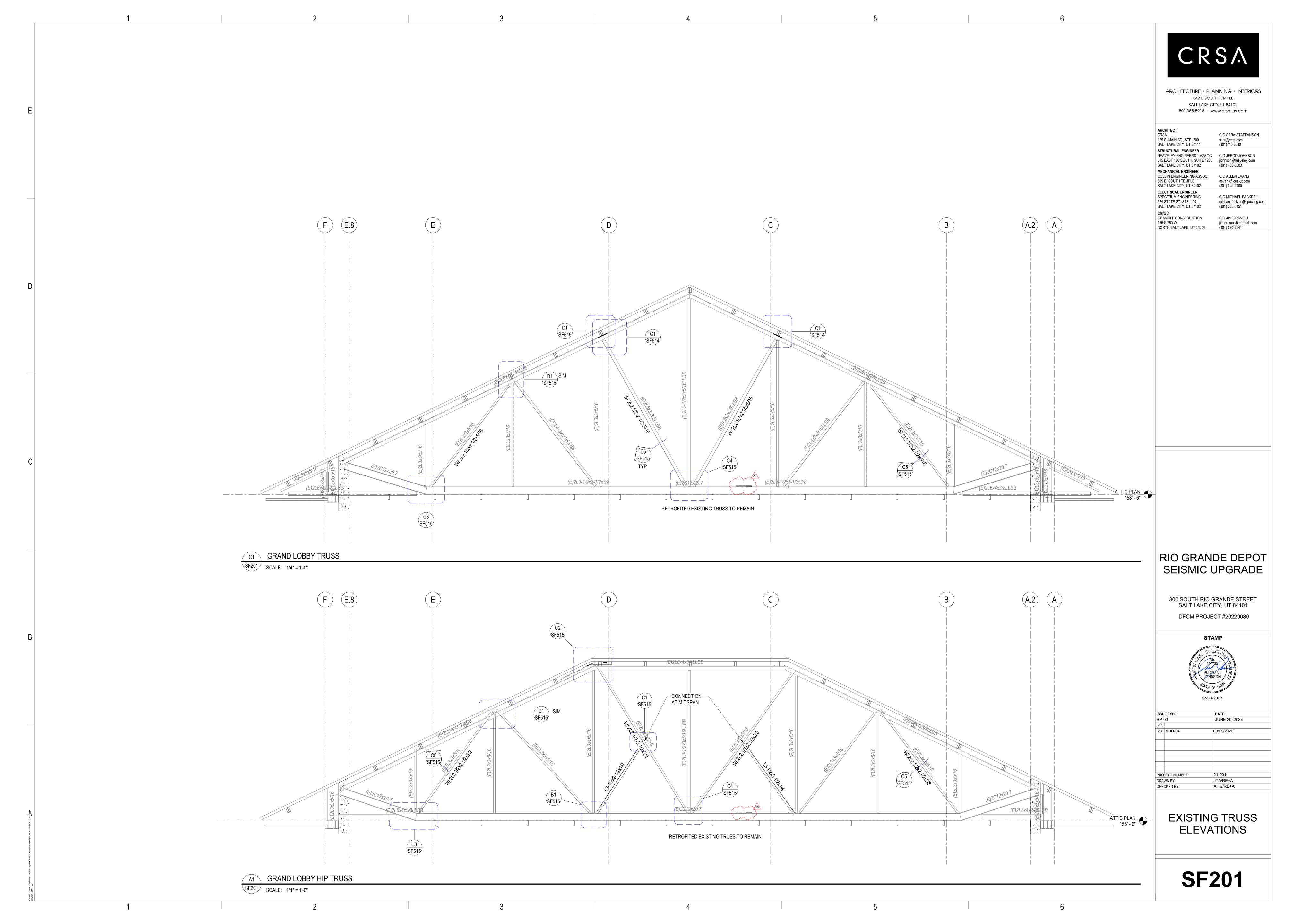
300 SOUTH RIO GRANDE STREET SALT LAKE CITY, UT 84101 DFCM PROJECT #20229080

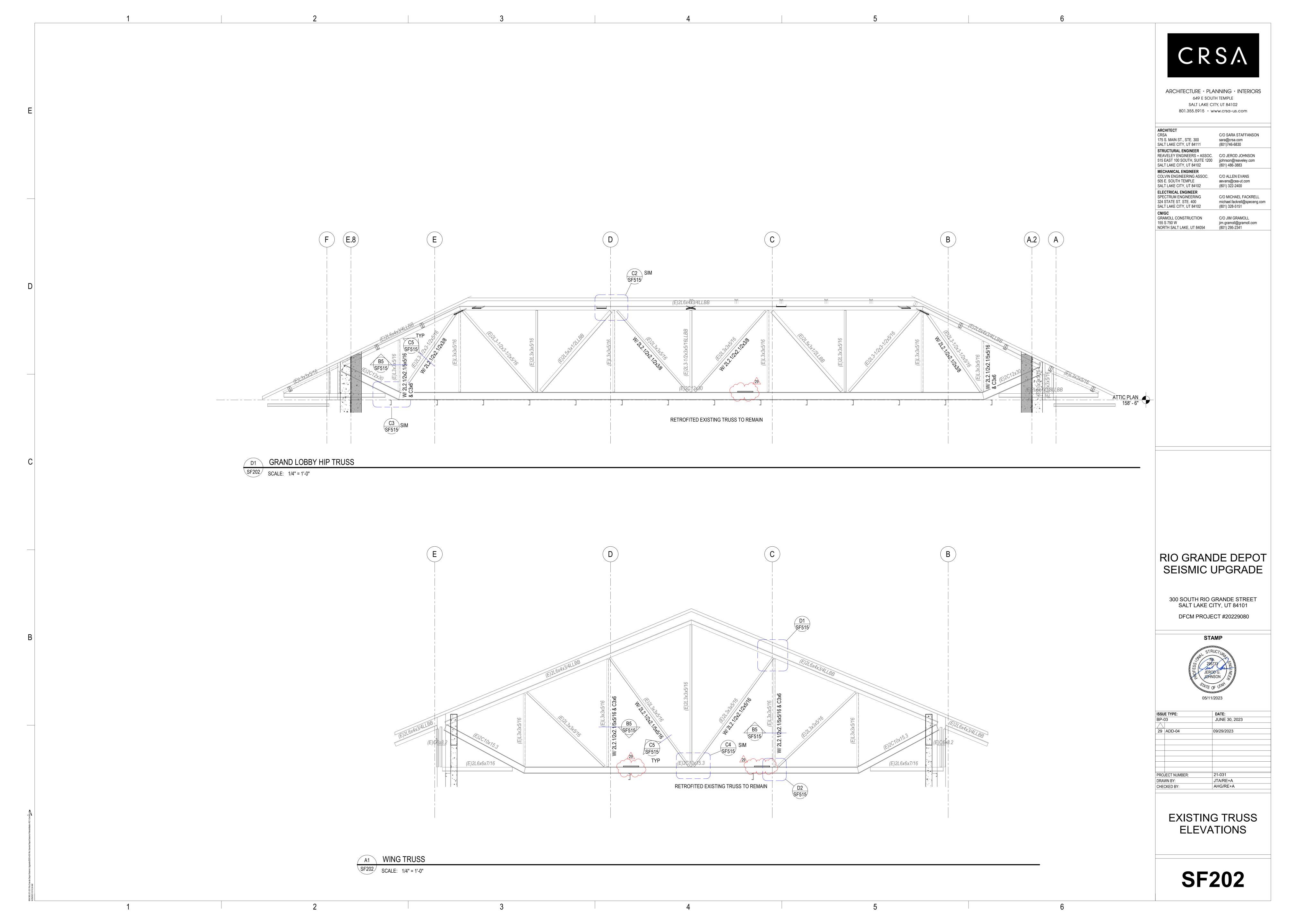


ISSUE TYPE:	DATE:
BP-03	JUNE 30, 2023
29 ADD-04	09/29/2023
PROJECT NUMBER:	21-031
DRAWN BY:	JTA/RE+A
CHECKED BY:	AHG/RE+A

CONCRETE BEAM SCHEDULE

SB604





(E)2L3x3x5/46 (E)2L6x4x3/4LLBB RETROFITED EXISTING TRUSS TO REMAIN WING HIP TRUSS SF203 SCALE: 1/4" = 1'-0" (E)2L6x4x3/4LLBB RETROFITED EXISTING TRUSS TO REMAIN SF515 MING HIP TRUSS SF203 SCALE: 1/4" = 1'-0"



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RIO GRANDE DEPOT SEISMIC UPGRADE

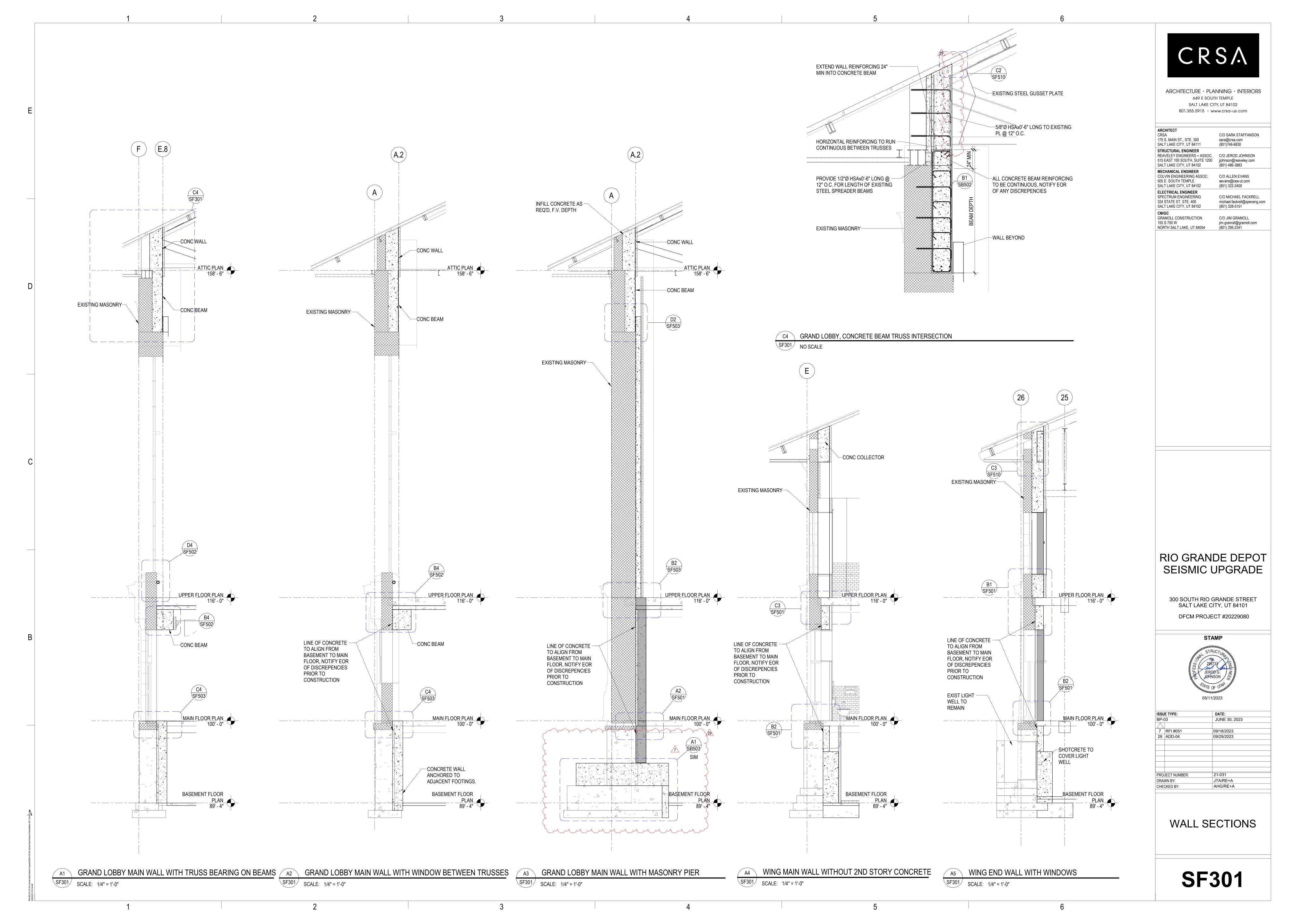
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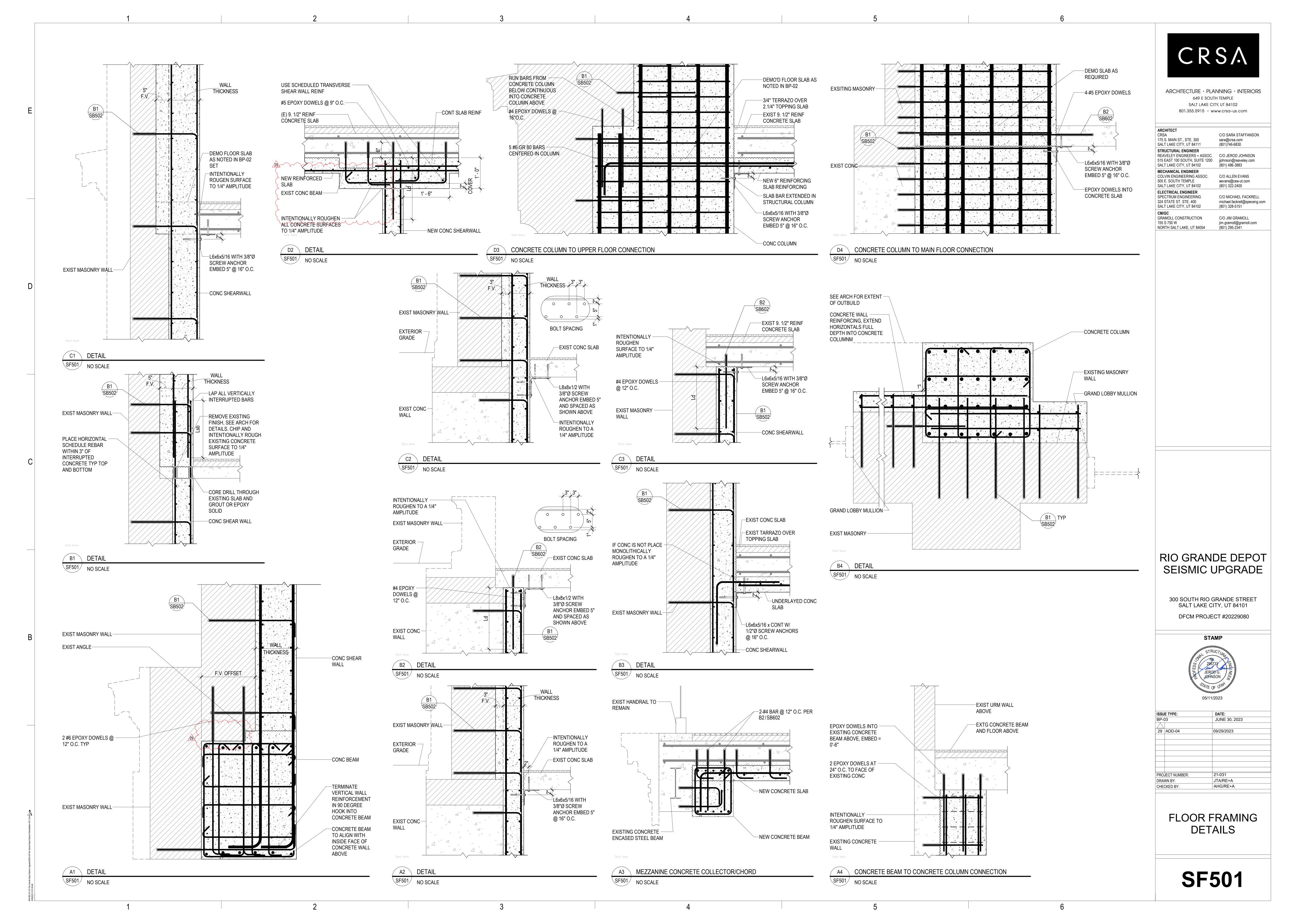


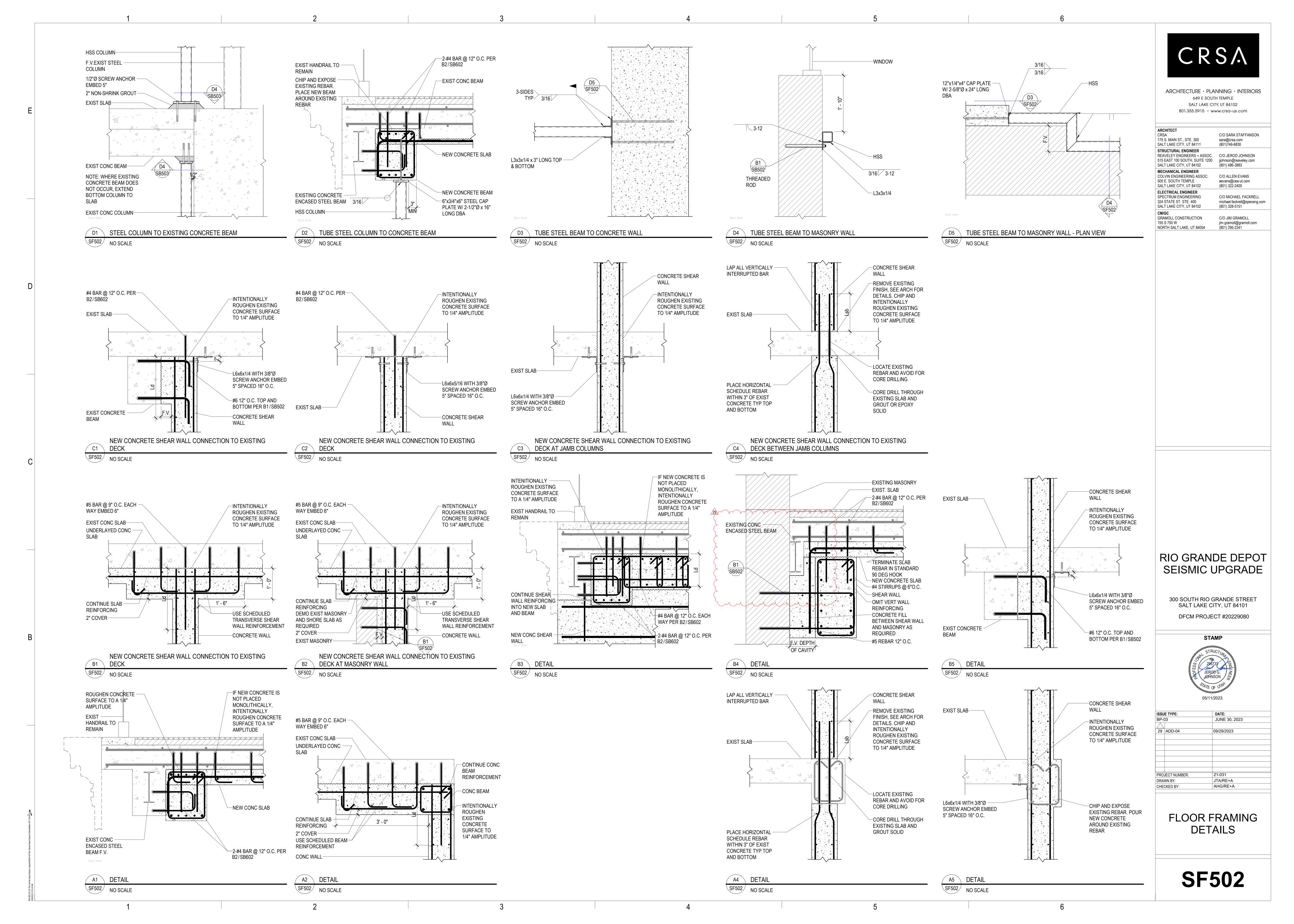
ISSU	IE TYPE:	DATE:
BP-	03	JUNE 30, 2023
$\overline{\wedge}$		
29	ADD-04	09/29/2023
DD∩	JECT NUMBER:	21-031
	WN BY:	JTA/RE+A
	CKED BY:	AHG/RE+A

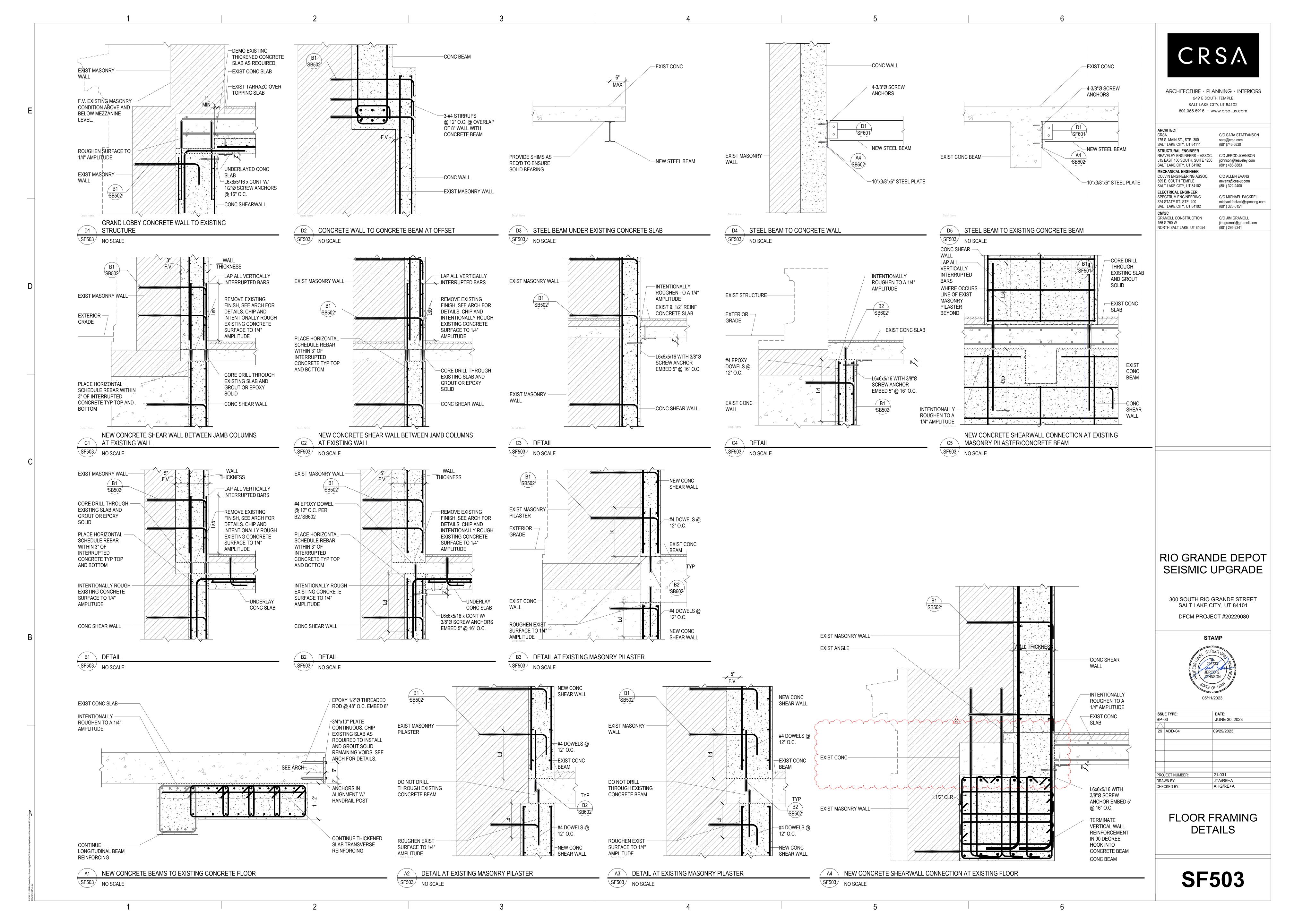
EXISTING TRUSS ELEVATIONS

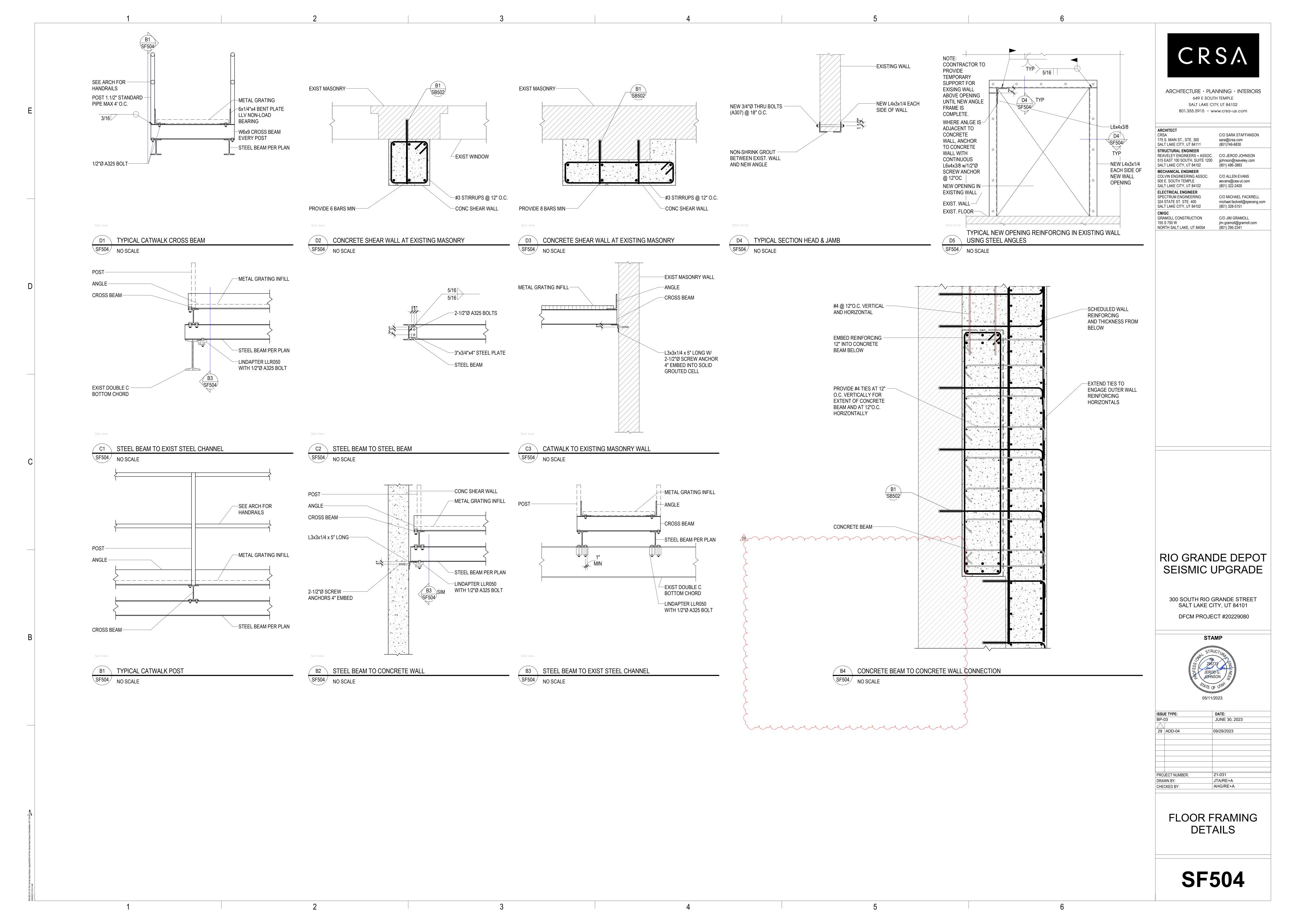
SF203

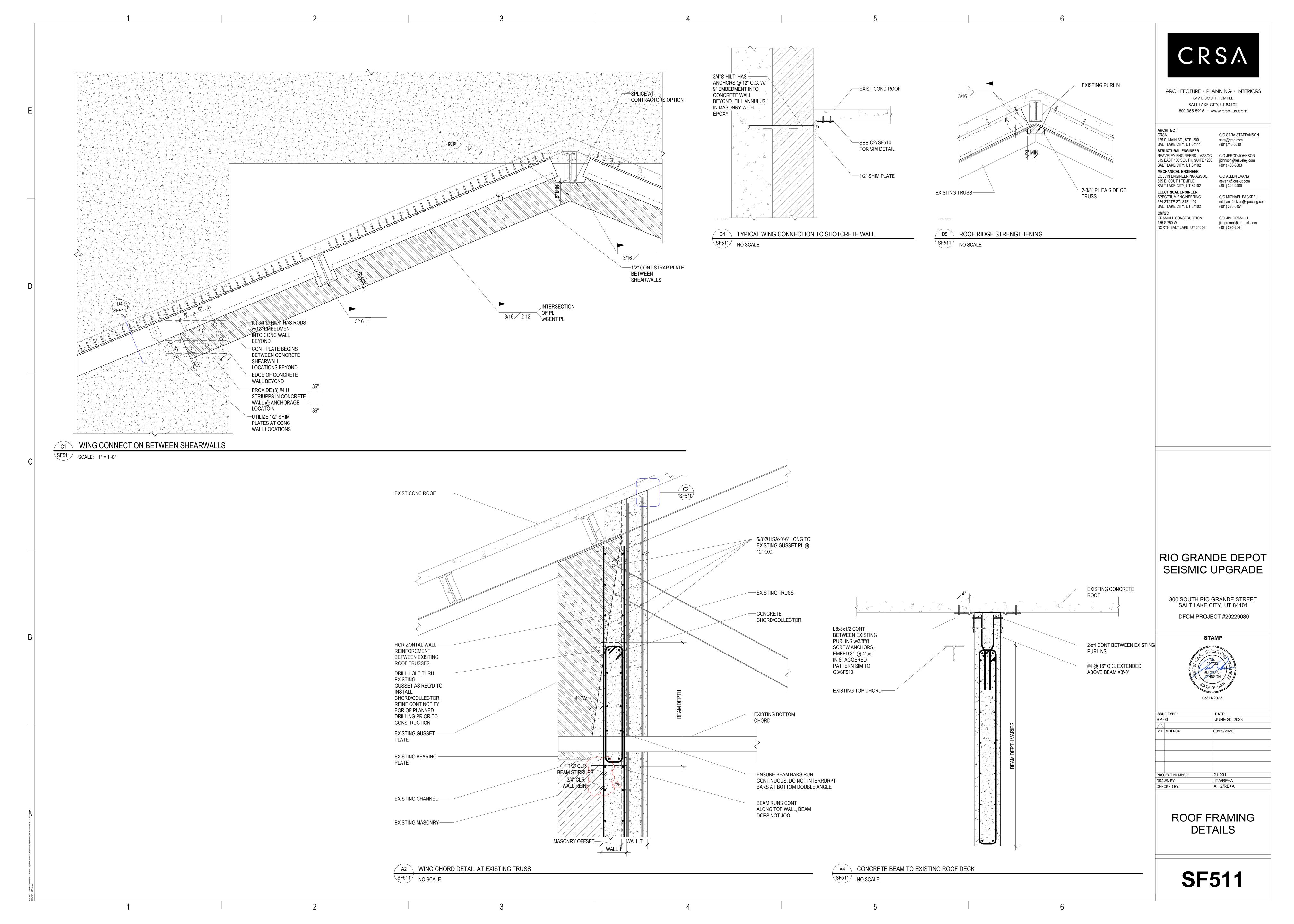














Mechanical Addendum 04 - BP-03

Project Rio Grande Depot Seismic Upgrade

This Addendum shall be considered part of the Contract Documents and Project Manual for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents and Project Manual, the Addendum shall govern and take precedence.

Drawings

Item	Sheet	Description
04.01	PL601	For sewage ejector systems SE-1 and SE-2, delete pump motor soft start listed in Remark #2.

Comments/Questions

Item	Sheet	Comment/Question	Response
04.02	PL601	SE-1 and SE-2 pumps are scheduled to have soft start. Grinder pumps cannot be soft start.	Soft start has been deleted for SE-1 and SE-2.
04.03	PL601	Note 8 in the schedule for SP-1 would need to be negated for oil sensing.	The basis of design (B.O.D.) system specified for SP-1 utilizes a discriminating liquid sensor in conjunction with mercury float switch level controls to prevent pumping elevator hydraulic fluid into the sanitary system. Alternate methods for pump control and hydraulic fluid detection are acceptable so long as the design intent for pump staging and hydraulic fluid detection are maintained. Refer to the Prior Approval Request section of this addendum for additional commentary regarding the proposed alternate system.

Item	Sheet	Comment/Question	Response
04.04	PL601	For SP-1, elevator pumps are typically installed in a concrete vault instead of a basin.	The current design has SP-1 serving various plumbing fixtures and a single floor drain in the elevator equipment room for the hydraulic elevator. This system does not serve the sump at the bottom of the elevator shaft. Oil sensing is specified for this system in response to observed conditions in the field prior to construction that showed evidence of hydraulic fluid discharge into the elevator equipment room floor drain (2018 IPC 1003.4). At this time we do not believe a concrete pit is necessary for code compliance.
04.05	PL601	For SP-2, the third smaller pump cannot be connected to the same control panel as the other pumps. The third pump being in the same basin with the other two pumps even on its own panel will not work. Please advise as how you would like to proceed here.	SP-2 will require a control panel capable of triplex pump control to meet the needs of this application. The B.O.D. system utilizes a PLC panel with a fluid level transducer to allow programmable control for all three pumps, staged as specified. The nature of low-volume intermittent RPZ discharge in conjunction with potential high-volume discharge associated with RPZ failure presents a unique challenge. This application requires an equipment configuration that meets these needs by utilizing advanced control options.

Prior Approval Requests - Approved

Item	Item	Manufacturer / Model	Remarks
04.06	Wafer Check Valves	Metraflex / CVO700-DINC	N/A
04.07	SP-1 Oil Sensor/Controls	Zoeller / Oil Smart Duplex Panel	Oil sensing pump switch in lieu of mercury float switches and discriminating liquid sensor shall be capable of staging pumps in the same manner as indicated in Detail 4PL501.
04.08	Volume Control Dampers – Multi- Blade	United Enertech / MD-105	Opposed blade pattern only. Furnish with locking, indicating quadrant regulators per specifications.
04.09	Volume Control Dampers – Single- Blade	United Enertech / SB	Only for duct sizes up to 9-1/2"x30" per specifications. Furnish with locking, indicating quadrant regulators per specifications.

Item	Item	Manufacturer / Model	Remarks
04.10	Louvers	United Enertech / FL-D-6.1	Furnish with min. 12 gauge blades and options/accessories as listed in specifications.
04.11	Gravity Backdraft Dampers (Low Velocity Counterbalance Type) (< 2.0" W.C.)	United Enertech / CB-600	Furnish with adjustment device to permit setting for varying differential static pressure.

Prior Approval Requests - Not Approved

Item	Item	Manufacturer / Model	Remarks
04.12	Insulated Flexible Round Ductwork	JPL / PR-25	Vapor barrier permeance exceeds 0.10 perm per ASTM E96. B.O.D. flexible ductwork has internal working pressure of 15" W.G. positive and the product submitted for prior approval is rated for maximum 6" W.G. positive working pressure.
04.13	Fire/Smoke Dampers for Static Systems (Non High-Rise Buildings)	United Enertech / F/S-3V-II & F/S-3V-3-II	Specifications require airfoil shaped blades for fire/smoke dampers.
04.14	Louvers	United Enertech / FL-D-4	Specifications require 6" deep louvers.

Note: Acceptance of prior approval requests does not constitute an exception to any of the requirements or obligations prescribed in the Contract Documents. Engineer's review of prior approval requests is only for general compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents, and for general compliance with the information given in the Contract Documents. Contractor shall be solely responsible for complying with the Contract Documents, as well as with Supplier instructions consistent with the Contract Documents, Owner's directions, and Laws and Regulations.

End of Mechanical Addendum 04 – BP-03

Activity Name	Original Duration	Remaining Duration	Planned Start	Planned Finish	Actual Start	Actual Finish	%	2 2023 2024 2025 2026 2027 2028 2029 2030				
Project Design												
BP-01 & BP-02 Salvage & Demo w/MEP & FS	1	0	05-Oct-22	05-Oct-22	19-Aug-22	19-Aug-22	100%	BP-01 & BP-02 Salvage & Demo w/MEP & FS				
Archives Removed from RGD- Revised Date	40	0	15-Sep-22	09-Nov-22	30-Sep-22	28-Oct-22	100%	■ Archives Removed from RGD- Revised Date				
Seismic Upgrade Documents BP-3 w/ MEP & FS	1	0	18-May-23	18-May-23	11-May-23	11-May-23	100%	Seismic Upgrade Documents BP-3 w/ MEP & FS				
Pre & Post Abatement Demo BP-01 & BP-02 * REVISED *	1	0	07-Oct-22	07-Oct-22	24-Aug-22	03-Oct-22	100%	■ Pre & Post Abatement Demo BP-01 & BP-02 * REVISED *				
CMGC												
Pre-Abatement Demo Bidding BP-01 & BP-2	20	0	11-Oct-22	07-Nov-22	06-Oct-22	21-Nov-22	100%	■ Pre-Abatement Demo Bidding BP-01 & BP-2				
Grand Lobby Plaster Molds PR-1	30	0	29-Aug-22	07-Oct-22	20-Sep-22	17-Oct-22	100%	■ Grand Lobby Plaster Molds PR-1				
BP-03 Seismic Upgrades- Plan Review & Budget Information	80	0	17-May-23	05-Sep-23	17-May-23	05-Sep-23	100%	BP-03 Seismic Upgrades- Plan Review & Budget Information				
BP-03 Seismic Upgrades- Bidding & Contracts	60	55	13-Sep-23	06-Dec-23	08-Sep-23		8%	BP-03 Seismic Upgrades- Bidding & Contracts				
BP-03 CONSTRUCTION- All Levels	837	837	15-Feb-24	03-May-27			0%	BP-03 CONSTRUCTION- All Levels				
Phase One Demo												
Construction Start- PRE-ABATEMENT DEMO BP-01	1	0	20-Feb-23	20-Feb-23	27-Feb-23	27-Feb-23	100%	Construction Start- PRE-ABATEMENT DEMO BP-01				
DEMO-Basement- Doors, Demo Walls, Casework, MP&E	25	0	22-Mar-23	26-Apr-23	14-Mar-23	20-Mar-23	100%	■ DEMO-Basement- Doors, Demo Walls, Casework, MP&E				
Main Level- Historic Salvage, Wainscot, Window, Door, Base	22	0	07-Apr-23	08-May-23	06-Mar-23	19-Apr-23	100%	■ Main Level- Historic Salvage, Wainscot, Window, Door, Base				
Upper Level- Historic Salvage- Window, Doors, Base	20	0	22-Feb-23	21-Mar-23	27-Feb-23	14-Apr-23	100%	■ Upper Level- Historic Salvage- Window, Doors, Base				
DEMO-Upper Level-Demo Walls & Ceilings	37	0	08-Mar-23	27-Apr-23	06-Mar-23	17-Mar-23	100%	DEMO-Upper Level-Demo Walls & Ceilings				
DEMO-Main Level- Demo Walls, Ceilings, MP&E Removal	17	0	24-Apr-23	16-May-23	20-Mar-23	31-Mar-23	100%	■ DEMO-Main Level- Demo Walls, Ceilings, MP&E Removal				
Remove Historic Radiators in Vestibules	4	0	03-Apr-23	06-Apr-23	04-Apr-23	14-Apr-23	100%	Remove Historic Radiators in Vestibules				
Fire Sprinkler & Fire Alarm- Zones and Demo*** REV***	22	0	03-Apr-23	02-May-23	10-Apr-23	24-Apr-23	100%	Fire Sprinkler & Fire Alarm- Zones and Demo*** REV***				
DFCM NTP Notice to Proceed- Revised- NOT RECEIVED	1	0	20-Feb-23	20-Feb-23	20-Feb-23	20-Feb-23	100%	I DFCM NTP Notice to Proceed- Revised- NOT RECEIVED				
Notice to Proceed- Original Date NOT RECEIVED	1	0	21-Nov-22	21-Nov-22	21-Nov-22	21-Nov-22	100%	Notice to Proceed- Original Date NOT RECEIVED				
HVAC Temp. Controls for Systems during DEMO	10	0	01-Mar-23	14-Mar-23	27-Feb-23	01-Mar-23	100%	I HVAC Temp. Controls for Systems during DEMO				
DFCM NTP Notice to Proceed- Revised #3 *** CCD-001 ***	1	0	01-Mar-23	01-Mar-23	17-Mar-23	17-Mar-23	100%	I DFCM NTP Notice to Proceed- Revised #3 *** CCD-001 ***				
FIRE ALARM- Prep for Demolition *** Fire Watch ***	10	0	01-Mar-23	14-Mar-23	22-Mar-23	24-Apr-23	100%	■ FIRE ALARM- Prep for Demolition *** Fire Watch ***				
DEMO- MP&E Removal	17	0	01-Mar-23	23-Mar-23	06-Mar-23	21-Apr-23	100%	DEMO- MP&E Removal				
Abatement by Owner												
Abatement Demolition Start- R&R Env.	1	0	05-May-23	05-May-23	24-Apr-23	24-Apr-23	100%	Abatement Demolition Start- R&R Env.				
Abatement Upper Level	60	0	04-May-23	26-Jul-23	25-Apr-23	_	100%	Abatement Upper Level				
Abatement Main Level Areas A & C	50	0	21-Aug-23	30-Oct-23	21-Aug-23		100%	Abatement Main Level Areas A & C				
Abatement Basement Level	66	0	30-Jun-23	29-Sep-23	30-Jun-23		100%	Abatement Basement Level				
Abatement Grand Lobby- Main Level B	68	61	15-Sep-23	_	21-Aug-23		10%					
Abatement Grand Lobby- Mezzanine	67	66	18-Oct-23	19-Jan-24	12-Sep-23		1%					
L												
Actual Work ♦ Milestone					F	Page 1 of 3		Date Revision Approved				
Remaining Work				n:		d .	D	18-Sep-23 Updates JT 20-Sep-23 Updates JT				

Rio Grande Depot

Critical Remaining Work

JT JT

Updates

Updates

20-Sep-23

22-Sep-23

Activity Name	Original Duration	Remaining Duration	Planned Start	Planned Finish	Actual Start	Actual Finish	% 2	2023	2024	2025	2026	2027	2028	2029	2030
Phase Two Demo															
Construction Start- POST ABATEMENT DEMO BP-02	1	0	30-Jun-23	30-Jun-23	27-Jun-23	27-Jun-23	100%	l Construction Start- POST ABATEMENT DEMO BP-02							
Basement Level- Demo & Prep for Seismic	24	0	21-Aug-23	22-Sep-23	21-Aug-23	12-Sep-23	100%	Basement Level- Demo & Prep for Seismic							
Basement MP&E Demo & Prep for Concrete Floor Removal	16	0	21-Aug-23	12-Sep-23	21-Aug-23	12-Sep-23	100%	■ B	asement MP&E	Demo & Prep	for Concrete F	loor Removal			
Attic Levels - Demo ACT Ceiling & Insulation	10	0	03-Jul-23	14-Jul-23	27-Jun-23	06-Jul-23	100%	I Attio	Levels - Demo	ACT Ceiling &	Insulation				
Attic Levels - DEMO M,P,& E	20	0	03-Jul-23	28-Jul-23	03-Jul-23	28-Jul-23	100%	■ Att	ic Levels - DEM	O M,P,& E					
Upper Levels Demo M,P,& E	10	0	03-Jul-23	14-Jul-23	03-Jul-23	14-Jul-23	100%	I Uрр	er Levels Demo	M,P,& E					
Upper Level Demo & Prep for Seismic	60	18	03-Jul-23	22-Sep-23	03-Jul-23		70%		Upper Level De	mo & Prep for	Seismic				
Fire Sprinkler Demo- Basement	5	5	21-Sep-23	27-Sep-23	,		0%	l F	ire Sprinkler D	emo- Basemer	nt				
Main Level Floor Opening for Seismic	20	20	21-Sep-23	18-Oct-23			0%	<u> </u>	Main Level Floo	r Opening for	Seismic				
Basement Concrete Floor Removal	40	10	05-Sep-23	30-Oct-23	05-Sep-23		75%	■ 0	Basement Con	crete Floor Rei	moval				
Fire Sprinkler Demo All Levels	45	45	20-Oct-23	21-Dec-23			0%		Fire Sprinkle	r Demo All Lev	vels				
Main Level Demo & Prep for Siesmic	25	25	15-Dec-23	19-Jan-24			0%		☐ Main Level	Demo & Prep f	or Siesmic				
Main Level Stairway Demo & Prep for Seismic	23	23	15-Jan-24	15-Feb-24			0%		■ Main Level	Stairway Den	no & Prep for S	eismic			
Main Level Floor Openings w/ Shoring for Siesmic	25	25	29-Jan-24	04-Mar-24			0%	☐ Main Level Floor Openings w/ Shoring for Siesmic							
Grand Lobby & Mezzanine- Demo & Prep for Seismic	40	40	08-Mar-24	02-May-24			0%		Grand I	obby & Mezza	nine- Demo &	Prep for Seism	ic		
Upper Level Shoring & Floor Openings for Siesmic	25	25	15-Mar-24	19-Apr-24			0%	■ Upper Level Shoring & Floor Openings for Siesmic							
BP-3					I.										
Approvals & Permits	50	50	07-Dec-23	15-Feb-24			0%		Approvals	& Permits					
BP-3 Construction Start	1	1	15-Feb-24	16-Feb-24			0%		l BP-3 Cons	truction Start					
Closeout- All Activities Complete	36	36	12-Mar-27	03-May-27			0%					Closeou	t- All Activitie	s Complete	
Basement Level			'	·		'									
Excavation for Concrete Footings & Gravel for Slab	40	40	16-Feb-24	12-Apr-24			0%		Excavati	ion for Concre	te Footings & (Gravel for Slab			
Structural/Seismic- Basement Level	160	160	15-Mar-24	25-Oct-24			0%			Structural/Sei	smic- Basemer	nt Level			
Concrete Floor Basement	20	20	08-Nov-24	06-Dec-24			0%			Concrete Floo	or Basement				
Fire Sprinkler Basement	30	30	06-Dec-24	17-Jan-25			0%		[Fire Sprink	ler Basement				
Rough Electrical Basement Level	60	60	06-Dec-24	28-Feb-25			0%			Rough Ele	ectrical Basem	ent Level			
Mechanical & Plumbing Basement Level	60	60	06-Dec-24	28-Feb-25			0%			Mechanic	al & Plumbing	Basement Leve	·1		
Architectural Elements Basement	30	30	03-Mar-25	14-Apr-25			0%			Architec	etural Elements	s Basement			
Main Level															
Structural/Seismic Upgrades Main Level	130	130	25-Oct-24	25-Apr-25			0%		_	Structu	ral/Seismic U _l	pgrades Main I	evel		
Fire Sprinkler Main Level & Upper Level	40	40	25-Apr-25	20-Jun-25			0%			Fire S	Sprinkler Main	Level & Upper	Level		
Rough Electrical Main Level	30	30	25-Apr-25	06-Jun-25			0%			☐ Rough	n Electrical Ma	in Level			
Mechanical & Plumbing Main Level	70	70	25-Apr-25	01-Aug-25			0%			Med Med	hanical & Plur	mbing Main Lev	rel		
Finish Electrical Main Level	66	66	01-Aug-25	03-Nov-25			0%				Finish Electric	al Main Level			
Architectural Elements- Main Level	180	180	03-Nov-25	13-Jul-26	1		0%			_	Arch	nitectural Elem	ents- Main Lev	vel	

Rio Grande Depot 18 September 2023 BP- 03 Gramoll Construction . Rio Grande

								Granac							
Activity Name	Original Duration	Remaining Duration	Planned Start	Planned Finish	Actual Start	Actual Finish	%	2023	2024	2025	2026	2027	2028	2029	2030
Upper Level A&C															
Structural/Seismic- Mezzanine Level & Grand Lobby	180	180	25-Apr-25	02-Jan-26			0%				Structural/S	Seismic- Mezza	anine Level & C	arand Lobby	
Structural/Seismic- Upper Level Area A & Area C	135	135	15-Aug-25	20-Feb-26			0%				Structural	/Seismic- Upp	oer Level Area	A & Area C	
Rough Electrical Upper Level Area A & C	60	60	20-Feb-26	15-May-26			0%				Rough	Electrical Upp	er Level Area A	A & C	
Mechanical & Plumbing Upper Level Area A & C	60	60	20-Feb-26	15-May-26			0%				Mecha:	nical & Plumb	ing Upper Leve	l Area A & C	
Architectural Elements- Upper Level Area A & C	134	134	13-Jul-26	15-Jan-27			0%					■ Architectur	al Elements- U	pper Level Are	ea A & C
Archtectural Ceiling Finishes- Upper Level A & C	40	40	15-Jan-27	12-Mar-27			0%					Archtectu	ıral Ceiling Fin	ishes-Upper l	Level A & C
Grand Lobby			'	<u>'</u>	1										
Mezzanine- Metal Stud Wall Framing	65	65	02-Jan-26	03-Apr-26			0%				Mezzanii	ne- Metal Stud	Wall Framing		
Archtectural Elements- Grand Lobby & Mezzanine	160	160	03-Apr-26	13-Nov-26			0%					Archtectural I	Elements- Grai	nd Lobby & Me	ezzanine
Architectural Plaster- Grand Lobby & Mezzanine	240	240	10-Apr-26	12-Mar-27			0%					- Architect	ural Plaster- G	rand Lobby &	Mezzanine
Install Historic Salavage- Marble/Stone Mezz. & Lobby	65	65	13-Nov-26	12-Feb-27			0%				-	Install His	toric Salavage-	- Marble/Stone	e Mezz. & Lob
Installation of Historic Salvaged Items- Wood	60	60	18-Dec-26	12-Mar-27			0%					Installati	on of Historic S	Salvaged Items	- Wood
Attic Level			'	<u>'</u>	J.										
Structural Seismic Attic Level Areas A & C	60	60	06-Oct-25	29-Dec-25			0%				Structural S	eismic Attic Le	evel Areas A &	С	
Structural Steel- Attic Areas A & C	36	36	29-Dec-25	17-Feb-26			0%				Structural	Steel- Attic Ar	eas A & C		
Structural/ Seismic Attic Level Area B	60	60	02-Jan-26	27-Mar-26			0%				Structura	al/ Seismic At	tic Level Area I	3	
Structural Steel- Attic Area B	35	35	06-Feb-26	27-Mar-26			0%				■ Structura	al Steel- Attic	Area B		
Attic Levels A & C- Spray Foam Insulation	28	28	17-Feb-26	27-Mar-26			0%				Attic Lev	els A & C- Spr	ay Foam Insul	ation	
Metal Grate Catwalks Area B	20	20	20-Feb-26	20-Mar-26			0%				☐ Metal Gra	ate Catwalks A	area B		
Attic Level B- Spray Foam Insulation System	10	10	27-Mar-26	10-Apr-26			0%				Attic Lev	vel B- Spray Fo	am Insulation	System	
Metal Grate Catwalks Area A & C	25	25	27-Mar-26	01-May-26			0%				■ Metal G	rate Catwalks	Area A & C		
M,P,& E Attic Level Area B	40	40	03-Apr-26	29-May-26			0%				■ M,P,&	E Attic Level A	Area B		
Fire Sprinkler- Attic Levels A, B, & C	66	66	10-Apr-26	13-Jul-26			0%				Fire	Sprinkler- Att	ic Levels A, B,	& C	
M,P,& E Attic Levels A & C	66	66	10-Apr-26	13-Jul-26			0%				M ,P,	& E Attic Leve	ls A & C		
Exterior Work						1									
Structural- Exterior Conc. Footings	80	80	15-Mar-24	05-Jul-24			0%		Struc	tural- Exterio	Conc. Footing	gs			
Exterior Surfaces Replacement Following Structural Footings	40	40	15-Aug-24	09-Oct-24			0%		E	xterior Surfac	es Replacemen	t Following St	ructural Footir	ngs	



Division of Facilities Construction and Management 4315 South 2700 West, FL 3 Taylorsville, UT 84129-2128 Telephone (801) 957-7230

CONCRETE VBS PRE-PROPOSAL MINUTES 9/20/23

20229080

DATE: 9/20/23

PROJECT: Rio Grande Depot Seismic Upgrade PROJECT NUMBER:

AGENCY: State of Utah, DFCM PROJECT MANAGER: Ashley Greenwood ARCHITECT: CRSA Architecture CONTRACTOR: Gramoll Construction

IN ATTENDANCE: See attached sign-in sheet

Introductions were given by those in attendance. The overall project scope was reviewed. It was noted that the project is largely being handled through insurance funding. Expectations for the VBS proposals were reviewed noting the scoring criteria.

A summary of the project schedule was provided noting that a copy of the schedule will be provided in the upcoming addendum. Proposals were reaffirmed to be due by October 5th, as noted in the RFP, and interviews will be conducted only if necessary. Selection will be provided by October 19th.

It was requested to provide the current design for the scaffolding in the Grand Lobby that will be used by the abatement contractor. It was noted that leaving this "dance floor" abatement scaffolding in-place is an option but Gramoll will work with the subcontractor to make a scaffolding decision. Gramoll will include the abatement scaffolding design documents on their website. Equipment, such as scissor lifts, will require submission to the Structural Engineer to review and may also require shoring.

No combustible equipment or materials will be allowed in the building. Equipment will required to be electrically or battery powered. Gramoll will provide four spider boxes per level for subcontractor use. 48ov 3-phase power is available at the main switch gear only.

It was noted that SLC does not allow any discharges into the stormwater system.

It was asked what the source of water will be for construction use. It was noted that that there is a 4" culinary main in the basement that comes in through the north end of the building.

It was noted that the personnel elevator at the north end of the building will not be available during construction. The service elevator at the south end, however, will be available.

A site walk-through was offered following the meeting. Follow-up site visits were recommended and will need to be scheduled through John Thompson (801-949-7441). Gramoll Construction can provide access to the building but all questions must be submitted in writing and answered in addenda.

MEETING MINUTES by Sean Gramoll

RIO GRANDE DEPOT SEISMIC RETROFIT & RESTORATION **CONCRETE VALUE BASED PRE-PROPOSAL MEETING**

MEETING DATE: Wednesday, September 20, 2023, 2:00 PM LOCATION: Rio Grande Depot

NAME	COMPANY	PHONE	EMAIL
Jim Gramoll	Coronall Const	801-949-7655	Jgramolle Gramoll.com
TOO WARDSWOM!	RLW CEINE	801-553-1661	TODEWADSCERCEM
Lance Seifeit	RLW	801-597-6809	Lance e wadsco, com
Ray Chay 2	A-Core Inc.	801-673-9228	ray@a-core.com
Scott Talbott	A-lore Inc.	801-209-7625	scott@g-core.com
Rugel Men	III Realize Stru	67 801-763-0872	russelleteal se com
FRANK SOTORA	TAMOSKema	801-557-770	3 Frank . Sutera etanlska
Dustin Englan	d England Conc	MICTUM 435	dustin pengland construction les
Kyle Sonnon Selt	Pikus	801-381-5261	some felt Kepikus concrete
MIKE HUGHES MARK OLSEN	MKA	206-218-9653	MUSSN @MKANC. Com
WAYNE SOWEKS	Senewick	801-554-9087	WAYNE Sowers @ Sodywick . Can



Division of Facilities Construction and Management 4315 South 2700 West, FL 3 Taylorsville, UT 84129-2128 Telephone (801) 957-7230

PLASTER VBS PRE-PROPOSAL MINUTES 9/20/23

DATE: 9/20/23

PROJECT: Rio Grande Depot Seismic Upgrade PROJECT NUMBER: 20229080

AGENCY: State of Utah, DFCM PROJECT MANAGER: Ashley Greenwood ARCHITECT: CRSA Architecture CONTRACTOR: Gramoll Construction

IN ATTENDANCE: See attached sign-in sheet

Introductions were given by those in attendance. The overall project scope was reviewed. It was noted that the project is largely being handled through insurance funding. Expectations for the VBS proposals were reviewed noting the scoring criteria.

It was noted that some locations are identified in the plans for plaster crack repairs. The RFP also notes to provide a unit cost for repairs that are not identified.

A summary of the project schedule was provided noting that a copy of the schedule will be provided in the upcoming addendum. Currently that schedule anticipates plaster restoration to start in 2025. Proposals were reaffirmed to be due by October 5th, as noted in the RFP, and interviews will be conducted only if necessary. Selection will be provided by October 19th.

It was requested to provide the current design for the scaffolding in the Grand Lobby that will be used by the abatement contractor. It was noted that leaving this "dance floor" abatement scaffolding in-place is an option but Gramoll will work with the subcontractor to make a scaffolding decision. Gramoll will include the abatement scaffolding design documents on their website. Equipment, such as scissor lifts, will require submission to the Structural Engineer to review and may also require shoring. Hoisting equipment will require submission to the Structural Engineer to review.

Questions arose regarding the desired finish of the plaster and drywall surfaces. It was requested to submit these questions in writing and the Design Team will review and respond.

A site walk-through was offered following the meeting. Follow-up site visits were recommended and will need to be scheduled through John Thompson (801-949-7441). Gramoll Construction can provide access to the building but all questions must be submitted in writing and answered in addenda.

MEETING MINUTES by Sean Gramoll

RIO GRANDE DEPOT SEISMIC RETROFIT & RESTORATION PLASTER VALUE BASED PRE-PROPOSAL MEETING

MEETING DATE: Wednesday, September 20, 2023, 3:00 PM LOCATION: Rio Grande Depot

NAME	COMPANY	PHONE	EMAIL
Fundl Philly		861-375-7312	Philly 550 @ Acl.
Joe Sembrat	Evergreene	301-758-9685	jsembrat@evergreene.c
Dalling	Unin Doing	81-355-322	Dan/in Design
Bren+ Lynch	unlimited DESIGN	80-715-2925	BLynch @ UNIIMITED
Control of the Contro			
WEAT PROPERTY OF THE PROPERTY			

Marie Control of the			



SUBSTITUTION REQUEST (During the Bidding/Negotiating Phase)

PROJECT:	SUBSTITUTION REQUEST NUMBER:
TO:	DATE:
RE:	A/E PROJECT NUMBER:
SPECIFICATION TITLE:	DESCRIPTION:
SECTION: PAGE:	ARTICLE/PARAGRAPH:
PROPOSED SUBSTITUTUION:	
MANUFACTURER: ADDRESS:	
TRADE NAME:	
Attached data includes product description, specifications, d adequate for evaluation of the request; applicable portions of Attached data also includes a description of changes to the C require for its proper installation.	rawings, photographs, and performance and test data of the data are clearly identified.
 The Undersigned certifies: Proposed substitution has been fully investigated and deterspecified product. Same warranty will be furnished for proposed substitution Same maintenance service and source of replacement part Proposed substitution will have no adverse effect on other Proposed substitution does not affect dimensions and func Payment will be made for changes to building design, include the substitution. 	as for specified product. s, as applicable, is available. trades and will not affect or delay progress schedule. tional clearances.
SUBMITTED BY:	
SIGNED BY:	
FIRM:	
ADDRESS:	
TELEPHONE:	
A/E's REVIEW AND RECOMMENDATION:	
Approve Substitution—Make submittals in accordance w	ith Specification Section 01 33 00 Submittal Procedures.
Approve Substitution as noted—Make submittals in acco	rdance with Specification Section 01 33 00 Submittal
Reject Substitution—Use specified materials.	
Substitution Request received too late—Use specified ma	aterials.
SIGNED BY:	DATE:
SUPPORTING DATA ATTACHED: Drawings Product	Data Samples Tests Reports .

Product Comparison

GRADE 1 - Cylindrical Locksets

BEST Access Systems - 9K Series

VS

Schlage - ND Series









Certification & Warranty	ND Series (Specified)	9K Series (Proposed)
ANSI A156.2, Series 4000, Grade 1	Yes	Yes
UL Rating	3 hour A label doors	3 hour A label doors
Warranty	7 Years	7 Years
Meets A117.1 Accessibility Code	Yes	Yes
Title 19 Compliance	Yes	Yes
Construction	ND Series (Specified)	9K Series (Proposed)
Lock Chassis	Zinc Plated for corrosion resistance	Critical latch and chassis components are brass or corrison-treated steel.
Latch	1/2" Steel	9/16" Solid Brass
Strike	ANSI Curved Lip Strike Standard	STK Curved Lip Strike - Standard
Key Pinning	6 Pin Standard	7 Pin Standard
Levers	Yes	Yes
Roses	Yes	Yes
Rose Locking Pin	N/A	Yes
No Exposed Keeper Hole On Exterior Trim	Yes	Yes
Antimicrobial Finish Option	Yes	Yes
RQE Feature Option	Yes	Yes
Non IC Lever Option	Standard	Yes
Lost Motion Trim Option	Yes	Yes
Installation	ND Series (Specified)	9K Series (Proposed)
Door Thickness	1-5/8" - 2-1/8", 1-3/8" (with Spacer rings available)	1-3/4" - 2-1/4", 1-3/8" (with Spacer rings available)
Installation	Thru Bolt Mounting	Thru Bolt Mounting
Backset	2-3/4" Standard, 2-3/8", 3-3/4" and 5" Available	2-3/4" Standard, 3-3/4", and 5" Available

N/A means either Not Available or Information has not been located

This is a general comparison of a like product.

Consult Manufacturer Catalog for Detail and Accuracy

Product Comparison

GRADE 1 - Mortise Locksets

BEST Access Systems - 40H Series

VS

Schlage - L9000 Series





Certification & Warranty	L9000 Series (Specified)	40H Series (Proposed)				
ANSI A156.13, Series 1000, Grade 1	Yes	Yes				
UL Rating	3 hour A label doors	3 hour A label doors				
Warranty	10 Year Limited	Limited Lifetime				
Meets A117.1 Accessibility Code	Yes	Yes				
Title 19 Compliance	Yes	Yes				
Construction	L9000 Series (Specified)	40H Series (Proposed)				
Field Handing	Yes	Yes				
ANSI Strike	Curved Lip Strike - Standard	Curved Lip Strike - Standard				
Key Pinning	6 Pin Standard	7 Pin Standard				
	Hoove 12 Cauga Stool Stool is	0.095" Cold Rolled Steel, Steel				
Lock Case	Heavy 12-Gauge Steel, Steel is Zinc Dichromate Plated	is Zinc Dichromate Plated for				
	Zinc Dichiomate Plated	Corrison Protection				
Latchbolt	3/4" 2 Piece Stainless Steel Anti-	3/4" 1 Piece Stainless Steel A				
Lateriboit	Friction	Friction				
Deadbolt	1" 1 Piece Hardened Stainless	1" Stainless Steel				
Deauboit	Steel					
Faceplate	BS, BZ or SS; 8"H x 1-1/4"W x	BS, BZ, SS; 8"H x 1-1/4"W x				
Facepiale	7/32"T	1/16"T				
Levers	Yes	Yes				
Roses	Yes	Yes				
Eschutcheons	Yes	Yes				
Antimicrobial Finish Option	Yes	Yes				
Decorative Lever Option	Yes	Yes				
Anti Vandal Trim Option	Yes	Yes				
Installation	L9000 Series (Specified)	40H Series (Proposed)				
Door Thickness	1-3/8" - 2-1/2", Over 2-1/2"	 1-3/4" - 5" Available				
DOOL LINGWIESS	varies by Function and Trim					
Installation	Standard ANSI A115.1 prep	Standard ANSI A115.1 prep				
Backset	2 - 3/4"	2 - 3/4"				
		·				

N/A means either Not Available or Information has not been located

This is a general comparison of like products.

Consult Manufacturer Catalog for Detail and Accuracy









Nothing Closes Like the BEST EHD9000

When a door closer fails, it can be a safety issue. It can cause headaches for maintenance and leave doors open when they shouldn't be. The BEST EHD9000 was designed to be the most reliable, durable, and rugged door closer in the industry. When you need something as solid as your reputation, start with BEST.

BEST EHD9000 Extra Heavy-Duty Surface Door Closer

Built to perform in even the highest traffic areas, the EHD9000 addresses issues common in other closers so your building remains safe and doors operate as intended. It's the last closer you'll ever need.

Built to Last.

The EHD9000's single-piece cast iron design is quality you can feel. Expertly cast in Germany, it's sturdy with no seams — unlike competitors who use a threaded, two-piece construction with a steel tube — and designed to work from day one to decades down the road.

Simpler Installation and Adjustment.

Front-facing spring-size indicator and adjustment points don't hide important parts from you like some competitors do. Even if you forget to adjust before installation, it's all right there — under the cover, on the front.

Adjusts to Temperatures.

Featuring self-regulating valves and our proprietary ester oil, the EHD9000 automatically adjusts itself to changing temperature to maintain your ideal closing speed, backcheck and delayed action settings.

Durable, Long-Lasting Cover.

Our cover is durable. Unlike many competitors who use only a single attachment clip, the EHD9000's dual-clamp design strongly secures the cover on both ends.

Unmatched Versatility.

The EHD9000 is non-handed with backcheck and advanced variable backcheck as standard functions, so you always have the right closer on hand. With one of the largest arm ranges in the market and a wide variety of finishes, the EHD9000 offers a solution for virtually all applications.

Ideal for these applications:



Education, K-12 & Universities Prevent injury; durable in high-use environments



Healthcare facilities ADA compliant; can be adjusted to hold door open for emergencies and reduce the spread of bacteria



Government offices & facilities Ideal for high-traffic areas and reduces wall damage



Transportation/Airports Reduces HVAC costs by ensuring all doors close promptly



Optional Delayed Action valve can delay door closing to allow extra time to pass through the opening.





Key Benefits

Protect the security and safety of a building and its occupants

- They offer protection from injury by preventing a door from swinging open or closing too quickly
- They help stop the spread of bacteria by assisting with ingress and egress
- They help prevent the spread of fire in building by keeping doors closed
- They contribute to HVAC savings by keeping doors closed

Ease of installation

- Intuitive markings on the closer body to ease identifying the valve adjustment.
- No guessing with the spring size indicator knowing specifically what spring size the door closer is set to-
- Easy adjustment from the front provides for fast and simple installation
- Allen head spring power adjustment
- Self-regulating valves ensures consistent flow of fluid throughout the door closer for wide temperature ranges

Design flexibility

- · Full offering of finishes, including plated
- 30+ arm offerings for a variety of applications
- · Optional metal cover in a variety of painted and plated finishes
- · Non-handed for both push and pull side mounting
- · Utilizes same hole pattern as LCN4040XP
- One closer body covers the size 1-6+50% range.

Robust cast iron housing

- Rugged reliable single-piece cast iron construction
- Hardened pinion & piston for durable heavy use applications increase safety & decrease liability
- Standard backcheck on all closers protect the door and frame while controlling the door from abrupt opening

For questions about ordering and to be sure you get the right configuration for your needs, contact your BEST dormakaba sales representative. 6161 East 75th Street, Indianapolis, IN 46250 USA | 855-365-2407 | bestaccess.com



SUBSTITUTION REQUEST (During the Bidding/Negotiating Phase)

PROJECT:	Rio Gra	rande Depot Structural/Seismic Renovations SUBSTITUTION REQUEST NU	[A/E Lloo]			
	Salt L	Lake City, UT FROM: Exic	quio Marquez			
то:	CRSA	A Architects DATE: 09/	/25/23			
	Salt L	Lake City, UT A/E PROJECT	NUMBER: 21-031			
RE:	Produc	ct Substitution Request CONTRACT F	FOR:			
SPECIFICATION TITLE: 8200 Series Mortise Lock DESCRIPTION: Locksets						
SECTION:	08710	DESCRIPTION	2.06. 4			
PROPOSED SUBSTITUTUION: MANUFACTURER: Sargent Manufacturing ADDRESS: 100 Sargent Drive, New Haven, CT 06536 TRADE NAME: Door Hardware Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified. Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.						
 The Undersigned certifies: Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product. Same warranty will be furnished for proposed substitution as for specified product. Same maintenance service and source of replacement parts, as applicable, is available. Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule. Proposed substitution does not affect dimensions and functional clearances. Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution. 						
SUBMITTE	D BY:	Exiquio Marquez				
SIGNED BY	Y:	exiquio.marquez@assaabloy.com	(Email Address Represents Digital Signature)			
FIRM:		DSS Rockies				
ADDRESS:		4500 E Cherry Creek South Dr - Ste 940, Denver, CO 80246				
TELEPHONE: (303) 942-0568						
A/E's REVIEW AND RECOMMENDATION: Approve Substitution—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures. Approve Substitution as noted—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures. Reject Substitution—Use specified materials. Substitution Request received too late—Use specified materials. SIGNED BY:						
SUPPORTING DATA ATTACHED: Drawings Product Data Samples Tests Reports https://content.assaabloyusa.com/AssetLibrary?constraints=dDocName:AADSS1004639-AADSS1062091-AADSS1083511-AADSS1176042						

SUBSTITUTION REQUEST (During the Bidding/Negotiating



Phase)

PROJECT:	Rio Gra	ande Depot Structural/Seismic Renovations	SUBSTITUTION REQUEST NUMBER:	VE Use]		
	Salt L	ake City, UT	FROM: Exiquio Marquez			
то:	CRSA	A Architects	DATE: 09/25/23			
	Salt L	ake City, UT	A/E PROJECT NUMBER: 21-031			
RE:	Product	t Substitution Request	CONTRACT FOR:			
SPECIFICATION TITLE: 10X Line Bored Lock DESCRIPTION: Locksets						
SECTION:	0071		ARTICLE/PARAGRAPH: 2.07, A			
PROPOSED SUBSTITUTUION: MANUFACTURER: Sargent Manufacturing ADDRESS: 100 Sargent Drive, New Haven, CT 06536 TRADE NAME: Door Hardware Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified. Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.						
 The Undersigned certifies: Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product. Same warranty will be furnished for proposed substitution as for specified product. Same maintenance service and source of replacement parts, as applicable, is available. Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule. Proposed substitution does not affect dimensions and functional clearances. Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution. 						
SUBMITTE	D BY:	Exiquio Marquez				
SIGNED BY	Y:	exiquio.marquez@assaabloy.com	(Email Address Represents Digital Signatu	·e)		
FIRM:		DSS Rockies				
ADDRESS:		4500 E Cherry Creek South Dr - Ste 940, Denver, CO 80246				
TELEPHONE: (303) 942-0568						
A/E's REVIEW AND RECOMMENDATION: Approve Substitution—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures. Approve Substitution as noted—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures. Reject Substitution—Use specified materials. Substitution Request received too late—Use specified materials. SIGNED BY: DATE:						
SUPPORTING DATA ATTACHED: Drawings Product Data Samples Tests Reports https://content.assaabloyusa.com/AssetLibrary?constraints=dDocName:AADSS1062091-AADSS1182279-AADSS1184392						

SUBSTITUTION REQUEST (During the Bidding/Negotiating



Phase)

PROJECT:	Rio Gra	ande Depot Structural/Seismic Renovations	SUBSTITUTION REQUEST NUMBER: [A/E Use]			
	Salt Lake City, UT		FROM: Exiquio Marquez			
то:	CRSA Architects		DATE: 09/25/23			
	Salt Lake City, UT		A/E PROJECT NUMBER: 21-031			
RE:	Produc	t Substitution Request	CONTRACT FOR:			
SPECIFICATION TITLE: 281 Series Door Closers DESCRIPTION: Door Closers						
SECTION:	0074	26	ARTICLE/PARAGRAPH: 2.12, A			
PROPOSED SUBSTITUTUION: MANUFACTURER: Sargent Manufacturing ADDRESS: 100 Sargent Drive, New Haven, CT 06536 PHONE: (800) 727-5477 MODEL NO.: 281 Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified. Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.						
 The Undersigned certifies: Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product. Same warranty will be furnished for proposed substitution as for specified product. Same maintenance service and source of replacement parts, as applicable, is available. Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule. Proposed substitution does not affect dimensions and functional clearances. Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution. 						
SUBMITTE	D BY:	Exiquio Marquez				
SIGNED BY	Y:	exiquio.marquez@assaabloy.com	(Email Address Represents Digital Signature)			
FIRM:		DSS Rockies				
ADDRESS:		4500 E Cherry Creek South Dr - Ste 940, Denver, CO 80246				
TELEPHON	TELEPHONE: (303) 942-0568					
 A/E's REVIEW AND RECOMMENDATION: Approve Substitution—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures. Approve Substitution as noted—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures. Reject Substitution—Use specified materials. 						
Substitution Request received too late—Use specified materials.						
SIGNED BY: DATE:						
SUPPORTING DATA ATTACHED: Drawings Product Data Samples Tests Reports https://content.assaabloyusa.com/AssetLibrary?constraints=dDocName:AADSS1004565-AADSS1062091-AADSS1004915						

SUBSTITUTION REQUEST (During the Bidding/Negotiating Stage) Rio Grande Depot Structural / Seismic Substitution Request Renovations CM (21-475617) Project: Number: SubReq-28943 SALT LAKE CITY, UT Courtney Smith, Scranton Products From: Sean Gramoll, Gramoll Construction Co 09/26/2023 To: Date: sean.gramoll@gramoll.com, (801) 295-2341 A/E Project Number: Metal Toilet Compartments Contract For: State of Utah Purchasing Re: Specification Title: Metal Toilet Compartments Description: Manufacturers Section: 102113.13 Page: 1 Article/Paragraph: 2.01 Proposed Substitution: Hiny Hiders Solid Plastic Address: scrantonproducts.com Manufacturer: Scranton Products Phone: 570-348-0997 Trade Name: Scranton Hiny Hiders Solid Plastic Model No.: N/A Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified. Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation. The Undersigned certifies: · Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product. Same warranty will be furnished for proposed substitution as for specified product. • Same maintenance service and source of replacement parts, as applicable, is available. • Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule. Proposed substitution does not affect dimensions and functional clearances. Submitted by: Courtney Smith Courtney Smith Signed by: **Scranton Products** Firm: Address: 801 E. Corey Street Scranton, Pennsylvania 18504 (570) 348-0997 ext. 8032, courtney.smith@azekco.com Telephone: A/E's REVIEW AND ACTION Substitution approved - Make submittals in accordance with Specification Substitution Procedures. Substitution approved as noted - Make submittals in accordance with Specification Substitution Procedures. Substitution rejected - Use specified materials. Substitution Request received too late - Use specified materials. Signed by: Date:

Supporting Data Attached:

Drawings

Product Data

Samples

□ Tests

Reports