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FEBRUARY 8, 2019
USC CLASSROOM ENHANCEMENTS 2019
FOR SLOAN 112
PROJECT# 50003348-3,H27-Z341

ADDENDUM #2

TO: ALL HOLDERS OF RECORD OF CONTRACT DOCUMENTS

Acknowledge receipt of this addendum by inserting its number and date in the bid form. Failure to do so may subject bidders to disqualification. This addendum forms a part of the Contract Documents.

The attached noted items are corrections, additions, or deletions to the Contract Documents, as noted:

ATTACHMENTS

011000 – SUMMARY
096813 – TILE CARPETING
09 6900 - ACCESS FLOORING
09 9123 - INTERIOR PAINTING
101101- VISUAL DISPLAY BOARDS
12 4920 - MANUAL ROLLER SHADES _PREMIUM QUALITY
12 6100 BSD-FIXED AUDIENCE SEATING
E101

GENERAL NOTES

Replace all specification documents in their entirety with items in this addendum.



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SPECIFICATIONS

<u>Item No.</u>	<u>Description</u>
1.	Section 102600 WALL AND DOOR PROTECTION Remove this section in its entirety.
2.	Section 122400 WINDOW SHADE Remove this section in its entirety.

DRAWINGS

1. Electrical Drawing Sheet E101. Electrical Plans.

SECTION 01 1000 - SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: USC Sloan 112
- B. Owner's Name: University of South Carolina.
- C. Architect's Name: Brownstone Design LLC..
- D. The Project consists of the alteration of classroom.

1.02 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 5200 - Agreement Form.

1.03 DESCRIPTION OF ALTERATIONS WORK

- A. Scope of demolition and removal work is indicated on drawings.
- B. Scope of alterations work is indicated on drawings.
- C. Electrical Power and Lighting: Alter existing system and add new construction, keeping existing in operation.

1.04 WORK BY OWNER

- A. Items noted NIC (Not in Contract) will be supplied and installed by Owner before Substantial Completion. Some items include:
 - 1. Lectern.
 - 2. Security Camera.
 - 3. Audio Visual Equipment.
- B. Owner will supply and install the following:
 - 1. Lectern.
 - 2. Security.
 - 3. Audio Visual Equipment.
- C. Owner will supply the following for installation by Contractor:
 - 1. Video Conference Screens (Retrieve equipment from 743 greene street and deliver to project site – coordinate with project manager).
 - 2. Video Camera mounting poles Information concerning item can be retrieved from AV Department.

1.05 OWNER OCCUPANCY

- A. Owner intends to occupy the Project by the date stated in the Agreement as the contract completion date.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

1.06 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
 - 1. Locate and conduct construction activities in ways that will limit disturbance to site.
- B. Provide access to and from site as required by law and by Owner:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- C. Existing building spaces may not be used for storage.
- D. Utility Outages and Shutdown:
 - 1. Limit disruption of utility services to hours the building is unoccupied.
 - 2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
 - 3. Prevent accidental disruption of utility services to other facilities.

1.07 WORK SEQUENCE

- A. Coordinate construction schedule and operations with Owner.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION 01 1000

SECTION 09 6813 - TILE CARPETING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Carpet tile, fully adhered.
- B. Removal of existing carpet tile.

1.02 REFERENCE STANDARDS

- A. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2017.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate layout of joints.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing specified carpet tile with minimum three years documented experience.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Tile Carpeting:
- B. Basis of Design:
 - 1. Manufacturer: Mannington
 - 2. Series: T:X Style Collection
 - 3. Style: Ala Mode
 - 4. Color: Hazel (45296)
 - 5. Installation: Vertical Ashlar (pattern to run from door towards back of room, lines are parallel to side walls)

2.02 MATERIALS

- A. Tile Carpeting: , manufactured in one color dye lot.
 - 1. Tile Size: 24 by 24 inch (____ by ____ mm), nominal.
 - 2. Color: Hazel (45296).

2.03 ACCESSORIES

- A. Stair Nosing -
 - 1. Manufacturer: Johnsonite
 - 2. Series: Traditional
 - 3. Color: 86 Hunter Green
 - 4. Profile: SLN-XX-C
- B. Adhesives: As recommended by Product manufacturer
- C. Carpet Tile Adhesive: Recommended by carpet tile manufacturer; releasable type.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that sub-floor surfaces are smooth and flat within tolerances specified for that type of work and are ready to receive carpet tile.
- B. Cementitious Sub-floor Surfaces: Verify that substrates are dry enough and ready for flooring installation by testing for moisture and pH.
 - 1. Test in accordance with ASTM F710.
 - 2. Obtain instructions if test results are not within limits recommended by flooring material manufacturer and adhesive materials manufacturer.

3.02 PREPARATION

- A. Remove existing carpet tile.
- B. Prepare floor substrates as recommended by flooring and adhesive manufacturers.

3.03 INSTALLATION

- A. Starting installation constitutes acceptance of sub-floor conditions.
- B. Install carpet tile in accordance with manufacturer's instructions.
- C. Blend carpet from different cartons to ensure minimal variation in color match.
- D. Cut carpet tile clean. Fit carpet tight to intersection with vertical surfaces without gaps.
- E. Lay carpet tile in square pattern, with pile direction parallel to next unit, set parallel to building lines.
- F. Fully adhere carpet tile to substrate.
- G. Trim carpet tile neatly at walls and around interruptions.

- H. Complete installation of edge strips, concealing exposed edges.

END OF SECTION 09 6813

SECTION 09 6900 - ACCESS FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fixed height, low-profile access flooring systems.

1.02 RELATED REQUIREMENTS

- A. Section 09 6813 - Tile Carpeting: Finish for access flooring panels.
- B. Section 126100 - Fixed Audience Seating

1.03 REFERENCE STANDARDS

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ASTM E2322 - Standard Test Method for Conducting Transverse and Concentrated Load Tests on Panels used in Floor and Roof Construction; 2003 (Reapproved 2015).
- C. CISCA (AF) - Recommended Test Procedures for Access Floors; 2007.
- D. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
- E. ICC-ES AC300 - Acceptance Criteria for Access Floors; 2010, with Editorial Revision (2014).

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.

1.05 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's data sheets including loading capacities, materials, finishes, dimensions of components, profiles, and accessories.
- C. Shop Drawings: Indicate floor layout, appurtenances or interruptions, edge details, starting point of installation..
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- E. Manufacturer's Qualification Statement.
- F. Installer's Qualification Statement.
- G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. Extra Materials: Supply an additional 5 (five) percent of access flooring system components.

2. Panel Lifting Devices: One, of manufacturer's standard type.

1.06 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing the type of work required in this section and approved by access flooring manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Access Flooring - Adjustable Height:
 1. Haworth; Tec Crete : www.haworth.com/#sle.

2.02 PERFORMAMCE REQUIREMENTS

- A. General: Comply with the following system requirements and as indicated for specified components.
 1. Test in accordance with CISCA (AF).
 2. Comply with requirements of ICC-ES AC300.
 3. Accessibility: Comply with ICC A117.1 and ADA Standards.
- B. Uniform Load: 600 pounds per square foot (2929.46 kg/sq m), when tested in accordance with CISCA (AF) and ASTM E2322.
 1. Maximum Deflection: 0.04 inch (1 mm).
- C. Concentrated Load: Over an area of 1 inch by 1 inch (25 mm by 25 mm), 1250 pounds (567 kg) at any location, when tested in accordance with CISCA (AF).
 1. Maximum Deflection: 0.04 inch (1 mm).
 2. Permanent Deformation: 0.02 inch (0.5 mm) maximum at design load.
- D. Concentrated Load: Over an area of 1 inch by 1 inch (25 mm by 25 mm), 1250 pounds (567 kg) at any location, when tested in accordance with CISCA (AF).
 1. Maximum Deflection: 0.04 inch (1 mm).
 2. Permanent Deformation: 0.02 inch (0.5 mm) maximum at design load.
- E. Must be able to receive installed fixed audience seating system. (See Section 126100)

2.03 ACCESS FLOORING - ADJUSTABLE HEIGHT

- A. Factory-fabricated system consisting of removable floor panels and supporting understructure that allows access to space below floor without requiring removal of panels other than the one directly above the space to which access is needed; provide components and accessories required for complete installation.
- B. Components:
 1. Pedestal Assembly:
 - a. Material: Steel.

- b. Base: Manufacturer's standard shape and size in accordance with system performance requirements.
- c. Column: Threaded supporting rod to permit 1-1/2 inch (38 mm) adjustment.
- 2. Floor Panels:
 - a. Construction:
 - 1) Concrete core laminated with sheet steel plates.
- 3. Floor Covering: Field applied, as indicated.
 - a. Carpet Tile: As specified in Section 09 6813.

2.04 ACCESSORIES - Adjustable HEIGHT

- A. Fascia Panels: Laminated construction as follows:
 - 1. Front and Back Face Sheets: Aluminum sheet, ____ inch (____ mm) thick.
 - 2. Core: Plywood.
 - 3. Accessories: Include corner pieces, trim, reinforcing, and clip angles.
- B. Wall Base: Extruded plastic angles.
- C. Sealant: Any water-based, moisture-curing, or chemically-curing joint sealant suitable for purpose and compatible with materials being sealed; except acrylic latex emulsion.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify field measurements are as indicated on shop drawings.
- B. Verify that substrates comply with tolerances, dimensioned clearances, and other requirements specified in other sections, and that substrates are clean, dry, and free of conditions and deleterious substances that might interfere with system installation.
- C. Verify that required utilities are available, in proper location, and are ready for use.
- D. Start of installation constitutes acceptance of project conditions.

3.02 INSTALLATION - Adjustable HEIGHT ACCESS FLOORING

- A. Install components in accordance with manufacturer's instructions.
- B. Secure pedestal base plate to subfloor with metal fasteners.
- C. Install additional base units where grid pattern is interrupted by room appurtenances or at cut-outs.
- D. Provide floor and stairs with edge trim and end closures. Provide lateral braces at stair edges and other locations where pedestals are not braced.
- E. Fascia Panels:
 - 1. Install fascia panels at exposed sides.
 - 2. Secure panels to clip angles attached to structural floor and edge of floor panels.

3. Install metal trim at intersection of fascia panels and access floor and at abutting walls and columns.

3.03 TOLERANCES

- A. Maximum Out of Level Floor Panel Tolerance: 1/16 inch in 10 ft (1.6 mm in 3 m), non-cumulative.

3.04 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for additional requirements.

3.05 ADJUSTING

- A. Adjust pedestals to achieve a level floor and to assure adjacent floor panel surfaces are flush.

3.06 PROTECTION

- A. Do not permit traffic over unprotected floor surface.

END OF SECTION 09 6900

SECTION 09 9123 - INTERIOR PAINTING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
 - 1. Prime surfaces to receive wall coverings.
- D. Do Not Paint or Finish the Following Items:
 - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
 - 5. Floors, unless specifically indicated.
 - 6. Glass.
 - 7. Concealed pipes, ducts, and conduits.

1.02 REFERENCE STANDARDS

- A. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials; 2016.
- B. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
 - 2. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
 - 3. Manufacturer's installation instructions.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.

1.05 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Provide paints and finishes used in any individual system from the same manufacturer; no exceptions.
- B. Paints:
 - 1. Sherwin-Williams Company: www.sherwin-williams.com/#sle.
 - a. Type: Pre-Catalyzed Water Based Epoxy with Egg-shell finish
 - b. General Paint (Walls): Rainwashed SW 6211

2.02 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Ready mixed, unless intended to be a field-catalyzed paint.
 - 1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 2. Supply each paint material in quantity required to complete entire project's work from a single production run.
 - 3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

2.03 PAINT SYSTEMS - INTERIOR

- A. Paint I-OP - Interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board and wood.
 - 1. Two top coats and one coat primer.
 - 2. Top Coat Sheen:
 - a. Satin: MPI gloss level 4; use this sheen Egg-shell finish at all walls.

- B. Paint I-OP-MD-DT - Medium Duty Door/Trim: For surfaces subject to frequent contact by occupants, including metals:
 - 1. Medium duty applications include door frames and handrails.
 - 2. Two top coats and one coat primer.
 - 3. Top Coat(s): Interior Epoxy-Modified Latex; MPI #115 or 215.
 - 4. Top Coat Sheen:
 - a. Semi-Gloss: MPI gloss level 5; use this sheen at Handrails and door frames.
 - 5. Primer: As recommended by top coat manufacturer for specific substrate.

2.04 PRIMERS

- A. Primers: Provide the following unless other primer is required or recommended by manufacturer of top coats.

2.05 ACCESSORY MATERIALS

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 - 1. Gypsum Wallboard: 12 percent.
 - 2. Interior Wood: 15 percent, measured in accordance with ASTM D4442.

3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.

- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.
- F. Wood Surfaces to Receive Opaque Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.

3.03 APPLICATION

- A. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- C. Apply each coat to uniform appearance in thicknesses specified by manufacturer.
- D. Sand wood and metal surfaces lightly between coats to achieve required finish.
- E. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- F. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for general requirements for field inspection.
- B. Owner will provide field inspection.

3.05 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.06 PROTECTION

END OF SECTION 09 9123

SECTION 10 1101 - VISUAL DISPLAY BOARDS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Markerboards.

1.02 RELATED REQUIREMENTS

- A. Section 06 1000 - Rough Carpentry: Blocking and supports.
- B. Section 09 9123 - Interior Painting: Finishing of wood frame and chalkrail.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's data on markerboard.
- C. Shop Drawings: Indicate wall elevations, dimensions, joint locations, special anchor details.

1.04 QUALITY ASSURANCE

1.05 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide five year warranty for markerboard to include warranty against discoloration due to cleaning, crazing or cracking, and staining.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Visual Display Boards:
 - 1. Basis of Design: Steelcase Inc; [555 Series]:
www.steelcase.com/products/whiteboards/555-series/
 - 2. Claridge Products and Equipment, Inc; ____: www.claridgeproducts.com/#sle.
 - 3. MooreCo, Inc; ____: www.moorecoinc.com/#sle.
 - 4. Polyvision Corporation (Nelson Adams); ____: www.polyvision.com/#sle.

2.02 VISUAL DISPLAY BOARDS

- A. Markerboards: Porcelain enamel on steel, laminated to core.
 - 1. Color: White.
 - 2. Steel Face Sheet Thickness: 24 gage, 0.0239 inch (0.61 mm).

3. Core: Particleboard, manufacturer's standard thickness, laminated to face sheet.
4. Backing: Aluminum foil, laminated to core.
5. Height: 48 inches (1220 mm).
6. Length: 16 feet (4880 mm), in one piece.

B. Combination Units and Units Made of More Than One Panel: Factory-assembled markerboards in a single frame, of materials specified above.

2.03 MATERIALS

- A. Porcelain Enameled Steel Sheet: ASTM A424/A424M, Type I, Commercial Steel, with fired-on vitreous finish.
- B. Vinyl Coated Fabric: ASTM F793/F793M Category VI.
- C. Particleboard: ANSI A208.1; wood chips, set with waterproof resin binder, sanded faces.
- D. Foil Backing: Aluminum foil sheet, 0.005 inch (0.13 mm) thick.

2.04 ACCESSORIES

- A. Pen tray includes solid, cast aluminum end closures
- B. Wide profile, extruded aluminum trim with clear anodized finish.
- C. Mounting Brackets: Concealed.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that internal wall blocking is ready to receive work and positioning dimensions are as indicated on shop drawings.

3.02 INSTALLATION

- A. Install boards in accordance with manufacturer's instructions.
- B. Secure units level and plumb.

3.03 CLEANING

- A. Clean board surfaces in accordance with manufacturer's instructions.
- B. Cover with protective cover, taped to frame.

- C. Remove temporary protective cover at Date of Substantial Completion.

END OF SECTION 10 1101

SECTION 12 4920 - MANUAL ROLLER SHADES (PREMIUM QUALITY)

PART 1 - GENERAL

1.01 SCOPE

- A. SUPPLIER: Furnish and install Manual Roller Shades (Premium Quality)
- B. RELATED WORK SPECIFIED ELSEWHERE:
- C. Section 06100: Rough Carpentry

1.02 REFERENCES

- A. FLAME-RESISTANT MATERIALS SHALL PASS OR EXCEED ONE OR MORE OF THE FOLLOWING TESTS:
- B. National Fire Protection Association (NFPA) 701 (small scale for horizontal applications)
- C. Department of Transportation Motor Vehicle Safety Standard 302 Flammability of Interior Materials
- D. California Administrative Code Title 19
- E. Federal Standard 191 Method 5903 (used by Port Authority of New York and New Jersey for drapery, curtain, and upholstery material)

1.03 SUBMITTALS

- A. PRODUCT DATA: Manufacturer's descriptive literature shall be submitted indicating materials, finishes, construction and installation instructions and verifying that product meets requirements specified. Manufacturers recommendations for maintenance and cleaning shall be included.
- B. DRAWINGS AND DIAGRAMS: Wiring diagrams of any motorized components or units, working and assembly drawings shall be supplied as requested.
- C. SAMPLE: Responsible contracting officer or agent shall supply one sample shade of each type specified in this contract for approval. Supplied units shall be furnished complete with all required components, mounting and associated hardware, instructions and warranty.

1.04 QUALITY ASSURANCE:

- A. Supplier: Manufacturer, subsidiary or licensed agent shall be approved to supply the products specified, and to honor any claims against product presented in accordance with warranty.
- B. INSTALLER: Installer or agent shall be qualified to install specified products by prior experience, demonstrated performance and acceptance of requirements of manufacturer, subsidiary, or licensed agent. Installer shall be responsible for an acceptable installation.
- C. UNIFORMITY: Provide Manual Roller Shades of only one manufacturer for entire project.

1.05 DELIVERY, STORAGE AND HANDLING:

- A. Product shall be delivered to site in manufacturer's original packaging.
- B. Product shall be handled and stored to prevent damage to materials, finishes and operating mechanisms.

1.06 JOB CONDITIONS:

- A. Prior to shade installation, building shall be enclosed.
- B. Interior temperature shall be maintained between 60° F. and 90° F. during and after installation; relative humidity shall not exceed 80%. Wet work shall be complete and dry.

1.07 WARRANTY:

- A. Lifetime Limited Warranty. Fabrics warranted for 5 years. Specific product warranties available from manufacturer or its authorized agent.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

- A. Hunter Douglas Architectural/ 13915 Danielson St., Ste.100/ Poway, CA 92064/ Phone: 800-727-8953 Fax: 800-205-9819/ Website: www.HDarchitectural.com, or architect approved equivalent.
- B. Product substitutions must be approved by architect minimum of 30 days prior to close of bid.

2.02 MANUAL ROLLER SHADES

- A. PRODUCT: Hunter Douglas "Manual Roller Shades"
- B. MATERIALS:
 - 1. FABRICS: Inherently anti-static, flame retardant, fade and stain resistant, light filtering, room darkening, & blackout fabrics providing 0% openness factors. Fabric weights to range between 6.00 oz/sq.yd. - 20.70 oz/sq.yd. containing fiberglass, PVC, polyester, acrylic, vinyl laminates, cotton, & vinyl coatings. Avila - twilight -White
 - 2. CONTROL SYSTEM: Adjustment-free continuous qualified #10 stainless steel ball chain ((90-lb. test)) and pulley clutch operating system allows precise control and ensures a uniform look. Clutch will develop no more than ½ pound drag for ease of lifting. Glass reinforced polyester thermopolymer (PBT) plastic components conform to military specification MIL M-24519 and designed for smooth, trouble-free operation.
 - 3. ROLLER: Circular-shaped painted extruded aluminum tubes with thicker wall & ribs provide additional strength while locking into place the clutch & end plug. 3" outside diameter extruded tube to have a .090 wall thickness. 2" outside diameter extruded tube

to have a .072" wall thickness (1 1/2" & 1 1/8" tubes have .055" wall thickness) providing strength & durability.

4. END PLUG: Heat stabilized fiber reinforced plastic outside sleeve and center shaft provide bearing surfaces on which the roller rides ensuring smooth, wear resistant operation.
5. BOTTOM ROD: Extruded aluminum weight in a Sealed Pocket Hem Bar, or Flat Bottom Bar for fabrics that are not seamable. Bottom rod is for tracking adjustments and provides uniform look.
6. MOUNTING HARDWARE: Manufacturer's standard .07" nickel-plated, C1008/1010 cold rolled steel universal brackets including end plug bracket with lock down retainer device.
7. ADDITIONAL AVAILABLE OPTIONS: Top & Covers, Blockout Systems, Continuous Frame to keep light out. .

2.03 FABRICATION

- A. Shade measurements shall be accurate to within + 1/8" or as recommended in writing by manufacturer.

2.04 2.04 FABRICS

- A. FABRIC selection from the following: (0% Openness) Avila Twilight, Edessa Twilight, Geneva Twilight, Flocke, Morocco, Pima, Sheerweave 7000, Sheerweave 7100, Sheerweave 7300.

PART 3 - EXECUTION

3.01 INSPECTION:

- A. SUBCONTRACTOR shall be responsible for inspection on site, approval of mounting surfaces, installation conditions and field measurement for this work.
- B. OTHER INTERACTING TRADES shall receive drawings of shade systems, dimensions, assembly and installation methods from subcontractor upon request.

3.02 INSTALLATION:

- A. INSTALLATION shall comply with manufacturer's specifications, standards and procedures as detailed on contract drawings.
- B. ADEQUATE CLEARANCE shall be provided to permit unencumbered operation of shade and hardware.
- C. CLEAN finish installation of dirt and finger marks. Leave work area clean and free of debris.

3.03 DEMONSTRATION:

- A. Demonstrate operation method and instruct owner's personnel in the proper operation and maintenance of the blinds.

END OF SECTION 12 4920

SECTION 12 6100 - FIXED AUDIENCE SEATING

PART 1 GENERAL

1.01 SUMMARY:

- A. A. Deliver and install approximately 64 fixed padded and upholstered chairs as specified, floor mounted, with self-lifting seat that rises to a uniform 3/4-safety fold position.
- B. B. All parts to be made in the U.S.A.
- C. C. Schedule: Must meet project schedule (furniture installation to be week of July 23-27, 2019).
- D. D. Installation:
 - 1. General contractor will remove and dispose of existing seats, patch the existing concrete slab (as required) and will install flooring prior to seat installation.
 - 2. Vendor must receive materials when delivered to project site and must schedule delivery and storage of materials with project manager.
 - 3. Installer must remove all packing materials and remove from site.
 - 4. Installation must take place during standard hours (Monday-Friday 8:00 AM-4:30 PM). No work is allowed after hours or on weekends.
 - 5. Installer must clean room once installation is complete.

1.02 SECTION INCLUDES

- A. Fixed, upholstered theater chairs.
- B. Chair accessories.

1.03 RELATED REQUIREMENTS

1.04 REFERENCE STANDARDS

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ASTM E1352 - Standard Test Method for Cigarette Ignition Resistance of Mock-Up Upholstered Furniture Assemblies; 2016.

1.05 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's printed data sheets for products specified.
- C. Shop Drawings: Fabrication and installation details, chair layouts and dimensions and seat numbering scheme.

1. Field Measurements: Verify seating layout by field measurements and record field dimensions on shop drawings.
- D. Selection Samples: Manufacturer's color charts and swatches for fabric upholstery, indicating full range of materials, colors, and patterns available.
- E. Verification Samples: Full-size two-seat fabricated sample of each type of chair specified, including all accessories and one end panel, illustrating all finishes and workmanship to be expected in the finished Work; approved sample may be incorporated into the Work.

1.06 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer certified in writing by the seating manufacturer to be qualified for installation of specified seating.
- B. Fire Retardance of Upholstered Seating: Self-extinguishing when mock-up is exposed to smoldering cigarettes in accordance with ASTM E1352 or NFPA 261.
- C. Source Limitations:
 1. Obtain each type of fixed seating required, including accessories and mounting components, from a single manufacturer.
 2. Obtain fabric of a single dye lot for each color and pattern of fabric required except when yardage requirement exceeds maximum dye lot. Multiple dye lots shall be color matched for quality assurance.
- D. Fire Performance Characteristics of Upholstered Seating:
 1. Fabric shall be Class 1 according to DOC CS 191 and 16 CFR 1610.61, tested according to California Technical Bulletin 117.
 2. Padding shall comply with California Technical Bulletin 117.
- E. Build sample chairs for each model required to demonstrate aesthetic effects and set quality standards for fabrication.

1.07 PROJECT CONDITIONS:

- A. Environmental Limitations:
- B. Do not deliver or install seating until spaces are enclosed and weather tight, wet work in spaces is complete and dry, work above ceilings is complete, and temporary or permanent HVAC system is operating and maintaining ambient temperature and humidity at occupancy levels during the remainder of the construction period.
- C. Field Measurements:
- D. Take field measurements to verify or supplement dimensions indicated on contract drawings prior to manufacturing.

1.08 PROJECT COORDINATION:

- A. Do not deliver or install seating until space is free of lifts and/or scaffolding used by other trades which may interfere with installation and/or damage seating.
- B. Coordinate layout and installation of electrical wiring and devices with electrical contractor to ensure that floor junction boxes for electrical devices are accurately located for final connection to the building's power supply by the electrical contractor.
- C. Coordinate layout and installation of seating with HVAC contractor to ensure that vents are located in a manner that will not interfere with seating installation.
- D. Coordinate concrete requirements needed for proper installation.

1.09 WARRANTY:

- A. Provide a manufacturer's warranty covering the material and workmanship for the specified warranty period from date of final acceptance.
- B. Warranty Periods:
 - 1. Structural Components: five years.
 - 2. Operating Mechanisms: five years.
 - 3. Plastic, Wood and Painted Components: five years.
 - 4. Upholstery Fabric: one year.
 - 5. Electrical Components: one year.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Deliver seats to project site in unopened containers clearly labeled with manufacturer's name and identification of contents.
- B. Store seating units in dry and clean location until needed for installation. During installation, handle in a manner that will prevent marring and soiling of finished surfaces.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Fixed Theater Seating:
- B. Basis of Design:
 - 1. Manufacturer: Irwin
 - 2. Frames: Metal
 - a. Frames Metal Color: Myrtle Green (MYR)
 - b. Polyurethane Color: Myrtle Green (MYR)
- C. (Citation 90.12.00.4) w/ 151 sq in tablet. No seat should be less than 22". Brochure explains what the numbers mean. To get good quality seat, preference is 'Made in USA' and include

minimum load and warranty requirements. Also add text to include ADA arms, Row/seat numbering plates, and other accessories as needed, etc.

- D. Acceptable Substitutions:
1. American Seating Inc; _____: www.americanseating.com/#sle.
 2. KI Incorporated : www.ki.com

2.02 MATERIALS

- A. Steel shall meet requirements for ASTM A 36/A 36M plates, shapes, and bars; ASTM A 513 mechanical tubing; ASTM A 1008/A 1008M cold-rolled sheet; and ASTM A 1011 hot-rolled sheet and strip.
- B. Cast Iron shall meet requirements for ASTM A 48/A 48M, Class 25, gray iron castings free of blow holes and hot checks with parting lines ground smooth.
- C. Cast Aluminum shall meet requirements for ASTM B 85 aluminum-alloy die castings.
- D. All exposed metal parts shall be powder coated with a hybrid thermosetting powder coat finish. The powder coat finish shall be applied by electrostatic means to a thickness of 2 - 5 mils, and shall provide a durable coating having a 2H Pencil hardness. Prior to powder coating, metal parts shall be treated with a three-stage non-acidic, bonderizing process for superior finish adhesion, and after coating shall be oven baked to cause proper flow of the epoxy powder to result in a smooth, durable finish. Manufacturer's standard color range shall be used.
- E. Medium-density fiberboard shall meet requirements for ANSI A208.2, Grade MD, made with binder containing no urea formaldehyde.
- F. Concealed plywood shall meet requirements for HPVA HP-1 hardwood plywood.
- G. Plastic laminate shall meet requirements of NEMA LC 3, Grade VGS for vertical surfaces and Grade HGS for horizontal surfaces. Color and pattern: Nevamar Crest Mahogany W8343PV Polished Velvet.
- H. Seat Back: Manufacturer: Mayer Fabrics; Name: Malibu Woven Crypton; Color: C718-024 Glacier; Content: 100% Polyester; Backing Cryton 2.0 Finish: Cryton 2.0 with Antimicrobial Silver Ion Technology
- I. Seat Pan: Manufacturer: ArcCom; Name: Bronco; Color: Seafoam #7 ; Content: 100% Polyurethane face and 100% Polyester Knit back; Finish: Abrasion resistant , Mildew resistant.
- J. Molded Plastics:
1. Structural components shall be mar and dent resistant high density glass-filled polypropylene with UV stabilizers.
 2. Decorative components shall be mar and dent resistant high density polyethylene (HDPE) with UV stabilizers.
 3. Plastic components shall be chosen from manufacturer's standard offering.

2.03 UPHOLSTERED CHAIRS

- A. Fixed seating system designed to permit radial installation using common middle support standards in each row and aisle standards aligned as indicated on drawings. Width of seats not less than 22 inches (559 mm).
- B. Backs: shall be rectangular shaped, padded and upholstered on their face, with a one-piece injection molded polymer rear panel. The foundation of the back component shall be provided by a 7/16" thick, 5-ply hardwood inner panel that shall also serve as the upholstery substrate. The face of the back shall be upholstered over a 2" thick polyurethane foam pad. The polyfoam pad shall be securely cemented to the plywood inner panel and upholstered with a 1-piece cover securely fastened to the hardwood inner panel by means of upholstery staples to facilitate ease of re-upholstering. The rear designer panel shall be injection molded HDPE plastic, high impact-resistant, with textured outer surface, formed to enclose the edges of the inner upholstery panel at the top and both sides of the back, and shall be not less than 25" in length, extending down to the rear of the seat. There shall be no exposed screws above the armrests. Wings used for the attachment of the complete back assembly to the standards shall be not less than 14 gauge (.0747") steel. Wings shall be firmly secured to the inner panel through the use of threaded t-nuts fastened to the inner panel. Assembled chair shall have a nominal back height of 34". The back assembly shall be certified through routine ISO testing to withstand a 250 lb. static load test applied approximately 16" above the seat assembly and a 100,000 cycle 40 lb. swing impact test.
- C. Seats: Shall be padded and upholstered on their top surface with a structural, injection molded polypropylene seat foundation. Seats shall self-rise to a uniform position when unoccupied. The mechanism shall be certified through routine ISO testing to exceed 300,000 cycles during ASTM Designation F851-87 Test Method for Self-Rising Seat Mechanism. In addition, the seat shall withstand as a 600 lb. static load test applied approximately 3" from the front edge of the seat assembly and a 50,000 cycles 125 lb. vertical drop impact test.
1. Seat foundation shall be engineered glass-filled, injection molded polypropylene, strengthened by deep internal ribs and gussets, completely enclosing the self-rising hinge mechanism. Bottom surface of the foundation shall be textured and feature an attractive molded recess. Bolted attachment of the seat assembly to the chair standard shall be concealed by an integral color-coordinated plastic cap to present a finished, refined appearance.
 2. When unoccupied, the seat shall rise automatically to a 3/4 safety fold position, and upon a slight rearward pressure, shall achieve full-fold, allowing the patron additional passing room. The seat shall rotate on two, molded acetal shafts supported by nylon bearings with integral down-stops for exceptional strength. Seat-lift shall be accomplished by compression springs and self-lubricating plastic cams.
 3. The base structure for the cushion assembly shall be ergonomic substrate with thick molded polyurethane foam. Cushion to have a waterfall leading edge. Cushion assembly is upholstered with a carefully tailored fabric cover secured around the perimeter of the cushion frame by means of a drawstring and staples and securely locked to the seat foundation, preventing unauthorized removal; but facilitating convenient access by trained maintenance personnel.

- D. Chair width shall vary to accommodate sightlines and row lengths. Seat widths to be no less than 22".
- E. Back height and pitch shall be fixed as shown on seating layout drawings.
- F. Tablet arm equipped standards shall be provided with an assembly, which provides a folding writing tablet to the chair as designated on the contract drawings. The main support structure for the assembly shall be a 16 gauge (.065") laser-cut steel tube with a glass-filled polypropylene housing and attached to the support column with an integral ribbed post that binding into the steel support column and locked in place with tamper resistant hardware. The hinge mechanism for the writing tablet shall be molded glass-filled nylon capable of supporting 200 lbs. and flex under load without permanent deflection. The mechanism for the tablet shall allow for approximately 5" of horizontal movement when placed in the in-use position and provide a one-motion, anti-panic folding action. Tablets store directly below the armrest assembly for convenient access. Writing tablets to be 151 square inches construction from 5/8" 11-ply hardwood plywood surfaced on both sides with high pressure plastic laminate and a lacquered edge to match the dominant color of the laminate. Tablet arm assembly is capped with a comfort curved polymer armrest attached with concealed hardware (color to match chair frame color).
- G. Row-lettering and chair-numbering: Shall be provided for identification of all chairs as shown on approved seating layout drawings. Number plates shall be 5/8" x 1-5/8" aluminum with an aluminum finish and black sans serif numerals. The seat pans shall be recessed at the center of the front edge for the number plates, and attached by two (2) pop rivets. Letter plates shall be 5/8" x 1-5/8" with an aluminum finish and black sans serif numerals attached in recess of aisle standard armrest by two (2) escutcheon pins. Attaching hardware shall have a finish compatible to plates.
- H. Accessible Seating: Shall be designated on the seating layout drawings and designed to allow an individual to transfer from a wheelchair to the theatre chair. The aisle standard shall be equipped with an armrest capable of lifting to a position parallel with the support column, opening sideways access to the seat. Aisle standards so equipped shall be provided with a label, displaying an easily recognizable "handicapped" symbol. Decorative requirements of aisle standards are waived for the handicapped access standards.

2.04 FABRICATION:

- A. Manufacture fabric-covered cushions with molded padding beneath fabric and with fabric covering free of welts, creases, stretch lines, and wrinkles. For each upholstered component, install pile and pattern run in a consistent direction.
- B. Fabricate floor attachment plates to conform to floor slope, if any, so that standards are plumb and chairs are maintained at same angular relationship to vertical throughout project.

2.05 ACCESSORIES

- A. Tablet arm: Equipped standards shall be provided with an assembly, which provides a folding writing tablet to the chair as designated on the contract drawings. The main support structure for the assembly shall be a 16 gauge (.065") laser-cut steel tube with a glass-filled polypropylene

housing and attached to the support column with an integral ribbed post that binding into the steel support column and locked in place with tamper resistant hardware. The hinge mechanism for the writing tablet shall be molded glass-filled nylon capable of supporting 200 lbs. and flex under load without permanent deflection. The mechanism for the tablet shall allow for approximately 5" of horizontal movement when placed in the in-use position and provide a one-motion, anti-panic folding action. Tablets store directly below the armrest assembly for convenient access. Writing tablets to be 151 square inches construction from 5/8" 11-ply hardwood plywood surfaced on both sides with high pressure plastic laminate and a lacquered edge. The dominant color of the laminate. Tablet arm assembly is capped with a comfort curved polymer armrest attached with concealed hardware (color to match chair frame color).

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates for conditions detrimental to installation of fixed theater seating. Proceed with installation only after unsatisfactory conditions have been corrected.

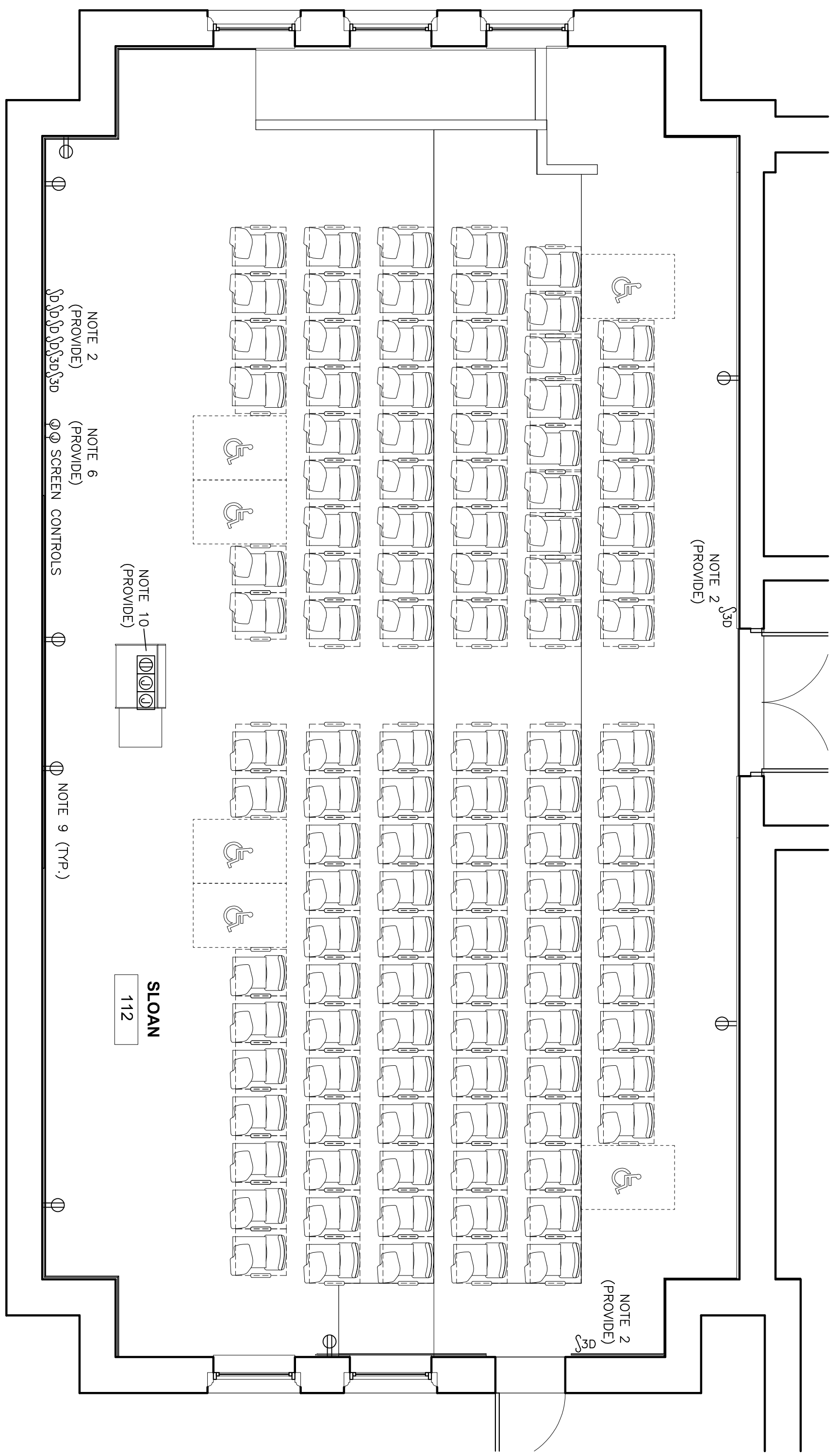
3.02 INSTALLATION

- A. Comply with manufacturer's installation instructions and approved shop drawings.
- B. Anchor support standards securely to substrate with at least two anchoring devices recommended by manufacturer.
 - 1. Place standards in each row laterally so the standards at the aisle will be in alignment.
 - 2. Vary width of seats and backs as required to optimize sightlines, and comply with the ADA Standards for row and aisle widths.

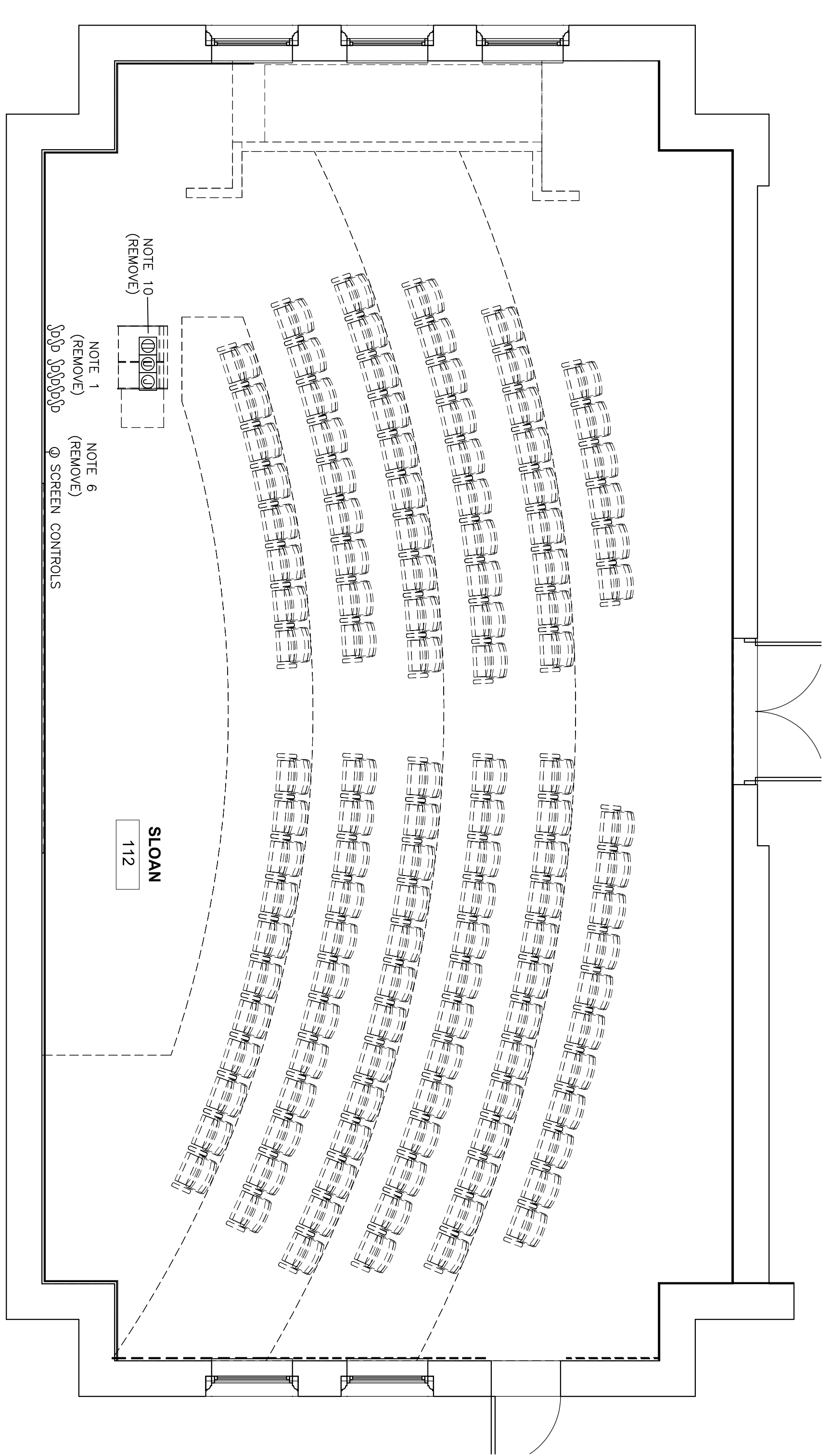
3.03 ADJUSTING

- A. Adjust seat mechanisms to ensure that seats in each row are aligned when unoccupied.
- B. Repair minor abrasions and imperfections in painted finishes with a coating that matches factory-applied finish; replace units that cannot be repaired to unblemished appearance.
- C. Replace upholstery fabric damaged or soiled during installation.

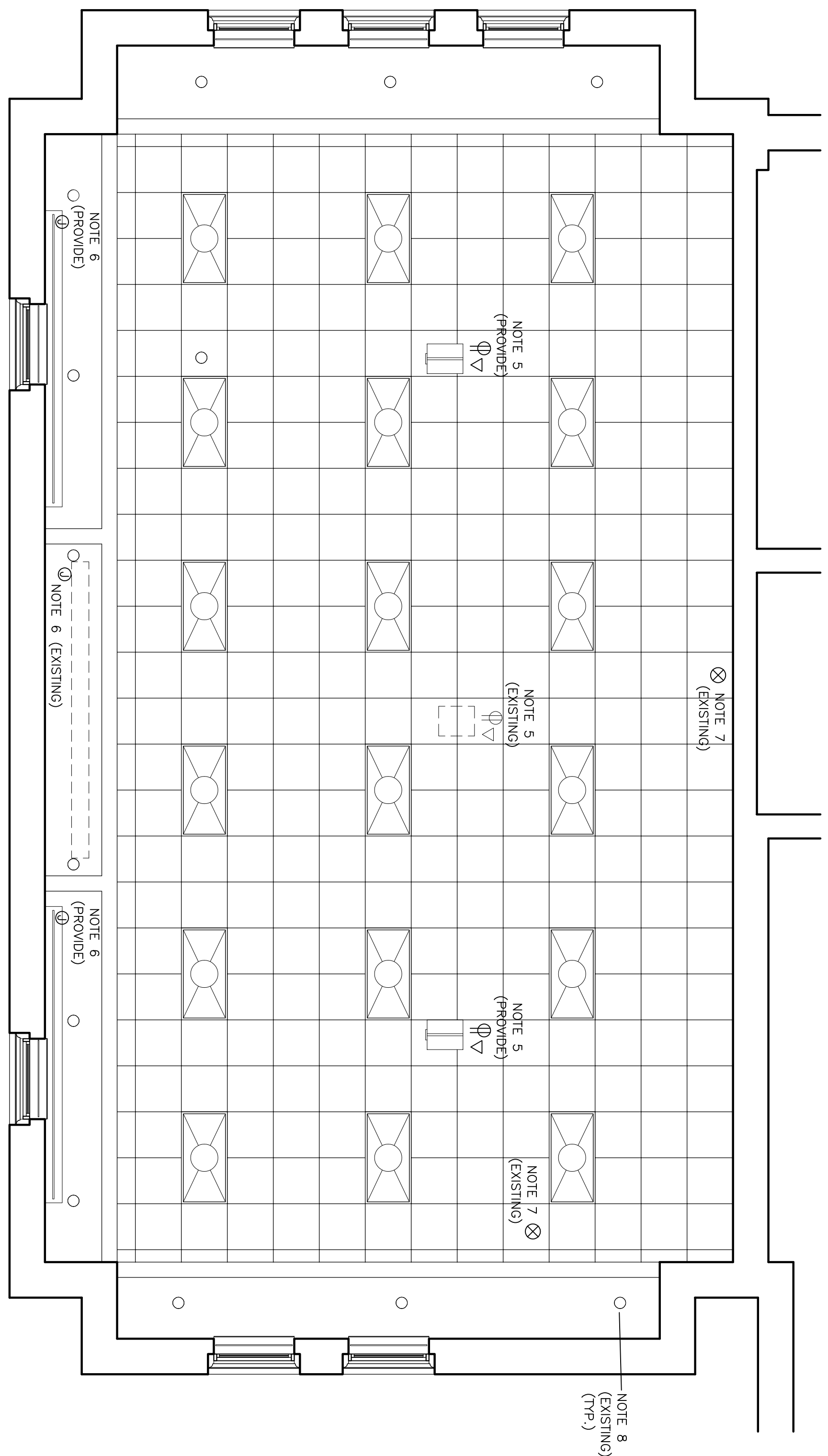
END OF SECTION 12 6100



2 ELECTRICAL RENOVATION PLAN
E101 1/4" = 1'-0"



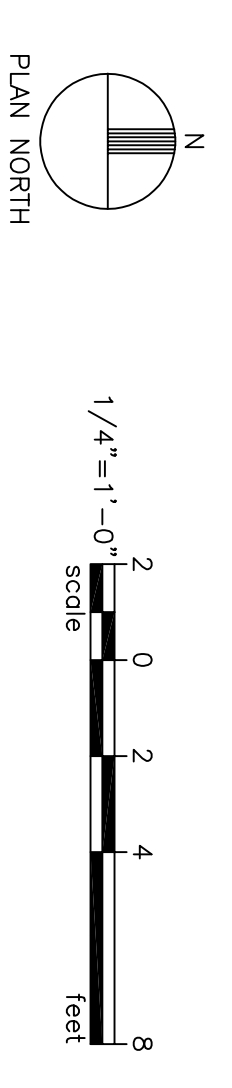
1 ELECTRICAL DEMOLITION PLAN
E101 1/4" = 1'-0"



3 ELECTRICAL CEILING RENOVATION PLAN
E101 1/4" = 1'-0"

ELECTRICAL NOTES

1. REMOVE EXISTING DIMMER SWITCHES FROM EXISTING BOXES AND MAINTAIN SWITCH LEGS W/INS FOR DEVICE REPLACEMENT.
2. PROVIDE FOUR (4) DIMMER SWITCHES (LUTRON "N" SERIES OR APPROVED EQUAL) TO REPLACE ONE-FOR-ONE EXISTING DIMMER SWITCHES NEAR EACH ENTRY POINT TO ROOM. PROVIDE ONE (1) DIMMER SWITCH NEAR EACH ENTRY POINT TO SPACE AND CORRESPONDING ONES AT LETTER POSITION IN SAME GANG AS THE FOUR (4) MENTIONED ABOVE. THE FRONT DIMMER SWITCH SHALL BE CONTROLLED BY THE OVERHEAD PROJECTOR. EXTEND DIMMER SWITCHES TO BE CONTROLLED BY THE OVERHEAD PROJECTOR. PROVIDE NEW PERMANENT LABELS ON DIMMERS - "TYPICAL" "TEAR" AND "SPRINT" DIMMERS. ALL DIMMERS AND PLATES SHALL BE WHITE IN COLOR.
3. ALL CONDUCTORS SHALL INSULATED COPPER, #12 IN SIZE AND INSTALL IN BUNDLES. ONLY METALLO BOXES SHALL BE USED.
4. SWITCHES SHALL BE MOUNTED WITH TOP OF BOX AT 48" AFF. (ADA COMPLIANT). THE THREE DIMMER BANK AT RELOCATED DOORWAY SHALL BE AT SAME HEIGHT.
5. EXISTING CEILING PROJECTOR SHALL BE REMOVED BY USC-UTS. REMOVE EXISTING PROJECTOR FROM CEILING AND PROVIDE NEW PROJECTOR. PROVIDE 20 AMP DUPLEX RECEPTACLES FLUSH MOUNTED IN CEILING TIE TO DATA EQUIPMENT LOCATION. COORDINATE PROVISIONS WITH USC-UTS.
6. DISCONNECT 120V POWER TO EXISTING PROJECTION SCREEN AND EXTEND SAME CIRCUIT TO THE TWO NEW PROJECTION SCREEN LOCATIONS. PROVIDE ONE 3/4" CONDUIT FROM EACH PROJECTION SCREEN TO CONTROL COORDINATE ALL THIS WORK WITH USC-UTS.
7. EXISTING EXIT SIGNS SHALL REMAIN IN PLACE.
8. EXISTING EMERGENCY LIGHTING SHALL REMAIN AS IS.
9. REPLACE ALL EXISTING DUPLEX RECEPTACLES WITH 20 AMP COMMERCIAL SPEC GRADE DUPLEX RECEPTACLES WITH NON-BREAKABLE NYLON DEVICE PLATES. ALL DEVICES AND PLATES SHALL BE WHITE.
10. RELOCATE POWER AND DATA FOR EXISTING LETTERS FROM SIDE LOCATION TO CENTER LOCATION AS SHOWN ON PLAN. REMOVE EXISTING DATA CABLES TO DATA EQUIPMENT LOCATION. PROVIDE NEW 16 GAUGE CAT-6 CABLES TO DATA EQUIPMENT LOCATION. PROVIDE NEW 20 AMP CIRCUIT FROM EXISTING LOCATION TO NEW LOCATION. PROVIDE BLANK OFF COVER TO FLOOR BOX AS REQUIRED IN EXISTING LOCATION TO BE COVERED BY NEW DATA EQUIPMENT. PROVIDE NEW DATA EQUIPMENT (LEGEND EVOLUTION SERIES 6-GANG OR APPROVED EQUAL) AT CENTER LOCATION. COORDINATE EXACT LOCATION WITH USC-UTS AND PROJECT MANAGER.



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Client
UNIVERSITY OF SOUTH CAROLINA

Project
2019 RENOVATION OF SLOAN RM 112 USC# 50003348-3 STATE# H27-Z341

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