

**Gavilan College**  
**Library & Student Resource Center**  
**(LSRC)**

**Schematic Design Submittal**

**Section 2**  
**Outline Specifications**



# **LIBRARY STUDENT RESOURCE CENTER (LSRC)**

**Gavilan College  
5055 Santa Teresa Blvd.  
Gilroy, CA. 95020**



**October 6, 2023  
SCHEMATIC DESIGN**

## OUTLINE SPECIFICATION

### DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

#### DIVISION 01 – GENERAL CONDITIONS

##### 01 56 39 Temporary Tree and Plant Protection

###### A. General Description of Scope:

1. Review of existing-to-remain trees in and near project work area by ISA Certified Arborist. Review to occur prior to mobilization and during construction.
2. Submit photos of tree prior to construction beginning.
3. Implement Arborist's recommendations to preserve trees such as:
  - a. Installation of temporary snow fence at dripline of tree.
  - b. Installation of 3" of mulch within snow fencing.
  - c. Canopy and root pruning as supervised by Arborist.

### APPENDICES

#### DIVISION 02 – EXISTING CONDITIONS

##### 02 41 19 Selective Demolition

###### A. General Description of Scope:

1. Demolition and removal, disconnecting, capping, and sealing, and abandoning in place of selected site elements.
2. Salvage of existing items to be reused or recycled.
3. Abandoning in-place and/or removing below-grade construction.

#### DIVISION 03 – CONCRETE

##### 03 21 00 Reinforcing Steel

###### A. Reinforcing Bars

1. Deformed billet steel bars, ASTM A615 or A706, plain finish, see drawings for grade. ASTM A706 for bars to be welded, and elsewhere as defined on drawings.

###### B. Welded Wire Fabric

1. Provide plain type, ASTM A185, in coiled rolls, or flat sheets, plain finished, void of rust, dust, scale, paint, grease and other coatings.

###### C. Accessories

1. Provide minimum 16 gage galvanized annealed tie wires, and chairs, bolsters, bar supports, and spacers sized and shaped for strength and support of reinforcing. Plastic accessories may be acceptable if approved by Architect prior to use.

##### 03 30 00 Cast-In-Place Concrete

###### A. Concrete Materials

1. Portland Cement: ASTM C 150, Type II.
  - a. Fly Ash: ASTM C 618, Class N or F.
2. Normal-Weight Aggregate: ASTM C 33, uniformly graded.
  - a. Fine Aggregate: Minimum sand equivalent (ASTM D2410) is 80.
  - b. Coarse Aggregate: Minimum cleanness value (Caltrans Test cv 227) is 80.
  - c. Do not use aggregates containing spalling-causing deleterious substances.
3. Water: Potable and complying with ASTM C 94.

- B. Admixtures
    - 1. General: Admixtures certified by manufacturer to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material and to be compatible with other admixtures and cementitious materials. Do not use admixtures containing calcium chloride
    - 2. Air-Entraining Admixture: ASTM C 260
    - 3. Water-Reducing Admixture: ASTM C 494, Type A
    - 4. High-Range, Water-Reducing Admixture: ASTM C 494, Type F
    - 5. Water-Reducing and Accelerating Admixture: ASTM C 494, Type E
  - C. Curing Materials
    - 1. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry.
    - 2. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
    - 3. Water: Potable
- 03 35 00 Concrete Finishing
- A. Single application cure-seal-hardener for new concrete floors:
    - 1. Cure-Densifier-Hardener.
    - 2. Basis-of-Design: Curecrete, "Ashford Formula".
- 03 54 00 Portland Cement Based Underlayment
- A. Basis-of-Design: ARDEX K-15, Premium Self-Leveling Underlayment.
  - B. Manufacturer: Ardex Americas.

#### **DIVISION 04 – MASONRY**

- 04 22 00 Concrete Unit Masonry
- A. Concrete Masonry Units
    - 1. Manufacturer
      - a. Basalite Concrete Products, LLC (Specified), 605 Industrial Way, Dixon, CA 95620, Phone: 707-678-1901, [www.basalite.com](http://www.basalite.com)
      - b. Approved equal
      - c. Obtain all CMU from a single manufacturer.
  - B. Mortar and Grout
    - 1. Cement: ASTM C150, Type I or II, low alkali; natural gray
    - 2. Hydrated Lime: ASTM C207, Type S
    - 3. Quicklime: ASTM C5
    - 4. Lime Putty
      - a. If made from quicklime, other than processed pulverized quicklime, slake lime, and then screen through a No. 16 mesh sieve. Before using, store and protect slaked and screened lime putty for not less than 10 days.
      - b. Processed pulverized quicklime shall be slaked for not less than 48 hours, and shall be cool when used.
      - c. Lime putty prepared from hydrated lime may be used immediately after mixing.
      - d. Lime putty prepared from quicklime or pulverized quicklime shall have a plasticity figure, after slaking and screening, of not less than 200, and shall weigh not less than 83 lbs. per cubic foot. Lime putty prepared from hydrated lime shall conform to ASTM C 207, Type S.
    - 5. Aggregate
      - a. For Mortar: ASTM C144
      - b. For Grout: ASTM C404
    - 6. Grout admixture: "Sika Grout Aid"



7. Water: Suitable for domestic consumption
  8. Water Repellent Mortar Admixture: Integral liquid polymeric water-repellent admixture for mortar added to the mortar at the time of mixing for use in the construction of water-repellent concrete masonry.
    - a. Product: Provide the following: RainBloc for Mortar, an integral liquid polymeric water-repellent admixture manufactured by ACM Chemistries, Inc., or approved equal
  9. Mortar shall be Amerimix Type S by Basalite or approved equal. Color(s) as noted on Drawings or selected during the submittal process.
  10. Mortar shall be Type S having a 28-day compressive strength of not less than 2,000 psi and shall conform to CBC Section 2103A.2.
- C. Surface Applied Water Repellent
1. Sure Klean Weather Seal by PROSOCO. Use either Sure Klean Weather Seal Siloxane WB Concentrate or Sure Klean Weather Seal Siloxane PD prediluted water repellent.
  2. Or approved equal.

04 43 13.16 Adhered Stone Masonry Veneer

- A. Quarried Stone Veneer:
1. Basis-of-Design: KO Natural Stone.
  2. Product: Signature Series, Monterey Estate; a blend of limestone and sandstone.
    - a. Material Standard: Comply with ASTM C568/C568M.
      - i. Classification: II Medium Density.
      - b. Description: Dolomitic limestone.
- B. Mortar Cement: ASTM C1329/C1329M.
1. Manufacturer: Lafarge North America Inc.
- C. Miscellaneous Masonry Accessories:
1. Compressible Filler: Pre-molded filler strips complying with ASTM D1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene urethane or PVC.
  2. Cementitious Damp-proofing for Limestone: Cementitious formulation recommended by ILI and non-staining to stone, compatible with joint sealants, and noncorrosive to veneer anchors and attachments.
  3. Lath Attachment Devices: Material and type required by ASTM C1063 for installations indicated.
- D. Masonry Cleaners:
1. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar and grout stains, efflorescence, and other new construction stains from stone masonry surfaces without discoloring or damaging masonry surfaces; expressly approved for intended use by cleaner manufacturer and stone producer.
  2. Manufacturers:
    - a. Diedrich Technologies, Inc.; a Hohmann & Barnard company.
    - b. Hydroclean; Hydrochemical Techniques, Inc.
    - c. PROSOCO, Inc.

**DIVISION 05 – METALS**

05 12 00 Structural Steel

- A. Materials and Components
1. Structural Steel Members: Type for general construction, weldable steel, conforming to requirements of ASTM A36, A36/A572, or A992 as per plans, and as required, shop primed or galvanized where left exposed to elements of weather. Title 24, 2203A.1 and 2205A
  2. Structural Pipe: Provide ASTM A53, (Type E or S) or A501

3. Tube Steel: Provide ASTM A500 Grade C Type or ASTM A1085
  4. Cast Steel: Provide in accordance with A27
  5. Machine Bolts: ASTM A307
  6. High strength bolts: ASTM F3125 Grade A325 or ASTM F3125 Grade A490
  7. Comply with Title 24, Section 2205A.
  8. Anchor Rods: As specified on drawings.
- B. Light Structural Steel
1. Standard Specifications for Flat-Rolled Carbon Steel Sheets of Structural Quality, ASTM A570 or A611, A446
  2. Standard Specifications for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing, ASTM A36 and A501, or Cold Formed Tubing, ASTM A500, Grade C or ASTM A1085
- C. Welding Electrodes
1. Conform to AWS D1.1-15 & Section 2204A.1, Title 24, Classification E70 series as required for rigid frames the electrodes shall meet Charpy V-notch 20 ft. lbs. At minus 20 degrees F
- D. Galvanizing
1. Provide hot-dip galvanizing in accordance with ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
- E. Primer
1. Provide Themec 10-99, zinc chromate, or other approved.
  2. Clean, prepare and shop prime members in accordance with SSPC. Do not prime specific surfaces to be welded or which will be embedded in concrete or other cementitious materials.
  3. Do not apply primer to structural steel framing members to be encased in cementitious spray-on fireproofing.
- F. Other Materials
1. Provide other materials, not specifically described or indicated but required for a complete and proper installation, as selected by Contractor subject to acceptance by Engineer.

05 30 00

#### Metal Decking

##### A. Roof and Floor Deck

1. Manufacturer: Per construction drawings
2. Fabricate panels, without top-flange stiffening grooves, to comply with SDI standards and with the following:
  - a. Prime-Painted Steel Sheet: ASTM A 1008/A 1008M, Structural Steel (SS), Grade 50 minimum unless noted otherwise in construction drawings, shop primed with manufacturer's standard baked-on, rust-inhibitive primer.
    1. Color: Manufacturer's standard
  - b. Galvanized-Steel Sheet: ASTM A 653/A 653M, Structural Steel (SS), Grade 50 unless noted otherwise in construction drawings, G60 zinc coating.
  - c. Galvanized and Shop-Primed Steel Sheet: ASTM A 653/A 653M, Structural Steel (SS), Grade 50 unless noted otherwise in construction drawings, G60 zinc coating; cleaned, pretreated, and primed with manufacturer's standard baked-on, rust inhibitive primer.
  - d. Aluminum-Zinc-Alloy-Coated Steel Sheet: ASTM A 792/A 792M, Structural Steel (SS), Grade 50 minimum unless noted otherwise in construction drawings, AZ50 aluminum-zinc-alloy coating.
  - e. Deck Profile: As indicated.
  - f. Profile Depth: As indicated.
  - g. Design Uncoated-Steel Thickness: As indicated.
  - h. Design Uncoated-Steel Thicknesses; Deck Unit/Bottom Plate: As indicated.
  - i. Span Condition: Double span, minimum.

j. Side Laps: Overlapped or interlocking seam at Contractor's option.

B. Accessories

1. General: Provide manufacturer's standard accessory materials for deck that comply with requirements indicated.
2. Mechanical Fasteners: Corrosion-resistant, low-velocity, power-actuated or pneumatically driven carbon-steel fasteners; or self-drilling, self-threading screws.
3. Side-Lap Fasteners: Corrosion-resistant, hexagonal washer head; self-drilling, carbon-steel screws, No. 10 (4.8-mm) minimum diameter.
4. Flexible Closure Strips: Vulcanized, closed-cell, synthetic rubber.
5. Miscellaneous Sheet Metal Deck Accessories: Steel sheet, minimum yield strength of 50,000 psi (345 MPa), not less than 0.0359-inch (0.91-mm) design uncoated thickness, of same material and finish as deck; of profile indicated or required for application.
6. Pour Stops and Girder Fillers: Steel sheet, minimum yield strength of 50,000 psi (345 MPa), of same material and finish as deck, and of thickness and profile recommended by SDI Publication No. 31 for overhang and slab depth.
7. Column Closures, End Closures, Z-Closures, and Cover Plates: Steel sheet, of same material, finish, and thickness as deck unless otherwise indicated.
8. Piercing Hanger Tabs: Piercing steel sheet hanger attachment devices for use with floor deck
9. Weld Washers: Uncoated steel sheet, shaped to fit deck rib, 0.0747 inch (1.90 mm) thick, with factory-punched hole of 3/8-inch (9.5-mm) minimum diameter.
10. Flat Sump Plates: Single-piece steel sheet, 0.0747 inch (1.90 mm) thick, of same material and finish as deck. For drains, cut holes in the field.
11. Recessed Sump Pans: Single-piece steel sheet, 0.0747 inch (1.90 mm) thick, of same material and finish as deck, with 3-inch- (76-mm-) wide flanges and level recessed pans of 1-1/2-inch (38-mm) minimum depth. For drains, cut holes in the field.
12. Galvanizing Repair Paint: ASTM A 780
13. Repair Paint: Manufacturer's standard rust-inhibitive primer of same color as primer.

05 40 00 Cold-Formed Metal Framing

A. Materials

1. Steel Sheet: ASTM A 653/A 653M, structural steel, zinc coated, of grade and coating as follows.
  - a. Grade: As indicated on the drawings.
  - b. Coating: G90 (Z275).

B. Non-Load Bearing Curtain Wall Framing.

1. Steel Studs: Manufacturer's standard C-shaped steel studs, of web depths indicated, punched, with stiffened flanges, complying with ASTM C 955, and as follows:
  - a. Minimum Uncoated-Steel Thickness: As indicated on the drawings.
  - b. Flange Width: As indicated on the drawings.
2. Steel Track: Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with unstiffened (straight) flanges, complying with ASTM C 955, and as follows:
  - a. Minimum Uncoated-Steel Thickness: As indicated on the drawings.
  - b. Flange Width: As indicated on the drawings.
3. Single Deflection Track: Manufacturer's single, deep-leg, U-shaped steel track; unpunched, with unstiffened flanges, of web depth to contain studs while allowing free vertical movement, with flanges designed to support horizontal and lateral loads, and as follows:
  - a. Minimum Uncoated-Steel Thickness: As indicated on the drawings.
  - b. Flange Width: As indicated on the drawings.
  - c. Vertical Deflection Clips: Manufacturer's standard bypass or head clips, capable of accommodating upward and downward vertical displacement of primary structure as indicated on the drawings.

- 05 50 00 Metal Fabrications
- A. Items included in 05 50 00:
    - 1. Miscellaneous shapes and supports.
  - B. Materials:
    - 1. Steel plates, shapes, and bars: ASTM A 36.
    - 2. Steel pipe: ASTM A 53, Standard Weight (Schedule 40).
    - 3. Steel tubing: ASTM A 500
    - 4. Finish: All exterior items galvanized; interior items shop primed.
    - 5. Z-furring strips: 2-1/2" deep x 20 gauge.
  - C. Premanufactured:
    - 1. Handrail wall brackets: Julius Blum, Inc., #376.
    - 2. Slotted channel framing: Unistrut Corporation; P1000 Series.
    - 3. Aircraft cable: Stainless steel, 1/8-inch diameter, with clevis, fork, and eye fittings by Wagner/Braun or equal.
- 05 51 33 Aluminum Ladders
- A. Basis-of-Design: O’Keeffe’s, Inc.
  - B. Ladders:
    - 1. Model 501 Heavy Duty Tubular Rail Fixed Access Ladder.
    - 2. Components:
      - a. Standard Floor Mounting Bracket.
      - b. Standard Intermediate Wall Bracket.
      - c. Off Floor Mounting Bracket.
      - d. Security Door.
- 05 52 00 Metal Railings
- A. Schedule 40 stainless steel railings.
  - B. Galvanized post sleeves. Size to fit post.
  - C. Non-shrink grout for sleeves.
- 05 55 16 Metal Stair Nosings
- A. Basis-of-Design: Wooster Products.
  - B. Stair Nosing:
    - 1. Model: M231BF-NG, 3" wide.
    - 2. Nosing Locations:
      - a. At top and bottom treads at all interior stairs indicated in drawings.
      - b. At each stair tread and landing edge at all exterior stairs indicated in drawings.
- 05 58 13 Metal Column Covers
- A. Basis-of-Design: Fry Reglet Corporation.
  - B. Column Cover:
    - 1. Model: E-Series, Economical, Butt-Joint.
    - 2. Materials and Finishes:
      - a. Thickness: 0.125 inch aluminum.
        - i. Architectural Class I, Color Anodic Finish.
        - ii. Color: Dark Bronze.

## **DIVISION 06 – WOOD, PLASTICS AND COMPOSITES**

- 06 16 43 Exterior Gypsum Sheathing
- A. Non-Rated Gypsum Board.
  - B. Basis-of-Design: DensGlass Sheathing (1/2-inch thick).
  - C. Manufacturer: Georgia-Pacific Building Products.
- 06 20 23 Interior Finish Carpentry
- A. Interior Millwork, Standing and Running Trim: Paint and Stain Grade.
    - 1. All Material Grades and Construction shall be WI Custom Grade, including all supplements, unless specified or indicated otherwise. Semi-exposed and other components shall be as permitted by WI standards for construction quality specified herein except as otherwise detailed or specified. Moisture content shall be in accordance with WI Standards for millwork.
  - B. Interior Wood Wall Paneling.
- 06 41 00 Architectural Wood Casework
- A. Custom Fabricated Cabinet Units.
    - 1. Type: Flush Overlay, Style A - Frameless.
    - 2. Quality: Provide casework conforming to AWS Custom grade.
  - B. Countertops: solid surfacing per section 06 61 16.
  - C. Cabinet Hardware.
  - D. Preparation for Installing Utilities.
- 06 61 16 Solid Surfacing Fabrications
- A. Basis-of-Design: Corian by DuPont.
    - 1. Series: Private Collection.
    - 2. Color: As selected by the Architect from the Manufacturer's full color line.

## **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

- 07 10 00 Below Grade Waterproofing
- A. Waterproofing Materials:
    - 1. Sheet Waterproofing (Blindside) and Associated Components.
  - B. Acceptable Manufacturer: W.R. Meadows, Inc.
  - C. Basis-of-Design Product: Water-Based (Emulsion)
    - 1. PRECON LOW TEMP.
      - a. Description: Is a composite sheet membrane comprised of a non-woven fabric, elastomeric membrane, and plasmatic core. The plasmatic core is a seven-layer matrix designed for low water vapor transmission (WVT). Once concrete is poured against W.R. Meadows, PRECON LOW TEMP and the concrete cures, a mechanical bond forms that secures the concrete to the membrane.
      - b. Uses: Is used as a blindside membrane in vertical applications where access to the positive side is limited. The membrane can also be used for horizontal applications for underslab waterproofing and vaporproofing. This low temperature version can be installed in temperatures down to 25° F (-4° C).
    - 2. For Use With: MEL-DRAIN rolled matrix drainage system.
    - 3. At End Laps: HYDRALASTIC 836 or MEL-ROL liquid membrane
- 07 13 26 Self-Adhering Sheet Waterproofing
- A. Modified Bituminous Sheet Waterproofing:
    - 1. General Underlayment.
    - 2. Roofing Underlayment.
    - 3. Flexible Membrane Flashing.

- B. Basis-of-Design: Underlayment.
  - 1. General Waterproofing:
    - a. GCP Applied Technologies, Bituthene 4000
    - b. Carlisle Coatings and Waterproofing Inc., CCW MiraDRI 860/861
    - c. Henry Company, Blueskin WP 200
    - d. Or Equal.
  - 2. Roofing Underlayment:
    - a. GCP Applied Technologies, Ice and Water Shield HT
    - b. Imetco, Aquablock 60
    - c. Or Equal
- C. Basis-of-Design: Flexible Membrane Flashing At Penetrations
  - 1. GCP Applied Technologies, Vycor 40
  - 2. GCP Applied Technologies, Perm A Barrier Wall Flashing
  - 3. DuPont FlexWrap
  - 4. DuPont StraightFlash
  - 5. DuPont Thru-Wall Surface Adhered Membrane with Integrated Drip Edge
  - 6. DuPont Preformed Inside and Outside Corners and End Dams
  - 7. Or Equal

07 21 10 Thermal and Acoustical Insulation

- A. Product: Fiberglass Batt Acoustical Insulation:
  - 1. Manufacturer: Johns Manville.
    - a. Type: Glass fiber batt, friction fit, unfaced.
    - b. Facing: None.
    - c. Thickness: At interior walls - R-11, unfaced.
- B. Product: Fiberglass Batt Thermal Insulation:
  - 1. Manufacturer: Johns Manville.
    - a. Within Closed Wall Cavity: R-19 pre-formed kraft-faced fiberglass batts at all exterior walls.
    - b. Exterior Wall Batt Insulation Exposed to Spaces Above Ceiling: R-19 Preformed foil-faced fiberglass batts at all exterior walls.
    - c. In All Exterior Soffits: Unfaced batts, in thicknesses sufficient to fill the entire cavity.
    - d. At Mechanical Curbs: As described in drawings.
- C. Product: Polyisocynaurate (Foam) Boar Insulation:
  - 1. Manufacturer: Johns Manville.
    - a. Basis of Design: AP Foil-Faced Rigid Foam Sheathing.
    - b. Description: Foil-faced, rigid foam insulating sheathing product recommended for concealed uses.
    - c. Construction: Foam bonded on both sides in the manufacturing process to foil facers. One side has a printed reflective foil faced and the other side has a printed non-reflective foil facer.

07 22 00 Roof and Deck Insulation

- A. Basis-of-Design: Johns Manville, ENRGY 3.
  - 1. Polyisocyanurate Board Insulation: ASTM C1289, Type II, Class 1, Grade 2 (20 psi).
  - 2. Thickness: Approximate 5 inches total thickness, composed of layers achieving specified thermal insulation value.
  - 3. Thermal Value: Provide minimum R-30 total LTTR assembly value.
  - 4. Refer to Section 07 54 16 Ketone Ethylene Ester (KEE) Roofing.

- 07 26 16 Below-Grade Vapor Retarders
- A. Manufacturers:
    - 1. Stego Industries Stego Wrap, 15 mil vapor barrier, Class A.
    - 2. W.R. Meadows, Perminator, 15 mil vapor barrier.
    - 3. Henry, Moistop Ultra 15.
- 07 27 26 Fluid-Applied Membrane Air Barriers, Vapor-Permeable
- B. Basis-of-Design: Hohmann & Barnard, Inc.
    - 1. Product: Enviro-Barrier VP.
  - C. Basis-of-Design: Sika.
    - 1. Product: Sikagard 535 Liquid Applied Acrylic Vapor Permeable Air Barrier.
- 07 42 13 Formed Metal Wall Panels
- A. Basis-of-Design: AEP Span, preformed metal wall panels.
  - B. Products: Flex Series. A mix and match combination of (4) four different panel profiles in order to achieve a variegated rib pattern.
    - 1. Flex Series 1.2FX10-12
    - 2. Flex Series 1.2FX20-12
    - 3. Flex Series 1.2FX30-12
    - 4. Flex Series 1.2FX40-12
  - C. Exterior Panel Color: As selected from the Manufacturer's full range.
    - 1. Primary Color Choice: Cool Sage Green (SRI: 41, LRV: 21).
    - 2. Secondary Color Choice: Cool Pebble (SRI: 48, LRV: 27.).
- 07 46 46 Fiber Cement Siding
- A. Basis-of-Design: James Hardie Building Products, Inc.
    - 1. Specialty Plank Siding: Artisan HZ5 Siding, Tongue and Groove.
    - 2. V-Groove 8-1/4 inches with 7 inches exposure.
    - 3. Finish: PrimePlus factory primer and sealer. Final finish color to be selected by the Architect and applied in the Field by the Contractor.
- 07 54 16 Ketone Ethylene Ester (KEE) Roofing
- A. Polyvinyl-Chloride Roofing Membrane - PVC with KEE Plasticizer.
    - 1. Basis-of-Design: Johns Manville JM PVC 80.
  - B. Coverboard: 1-layer 1/2" Dens Deck Prime by Georgia Pacific.
  - C. Tapered Insulation: See Section 07 22 00 Roof and Deck Insulation
  - D. Roof Insulation: See Section 07 22 00 Roof and Deck Insulation
  - E. Substrate Board: 1-layer 1/2" Dens Deck Prime by Georgia Pacific.
  - F. Walkways: Flexible walkways, factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads sourced from membrane roofing system manufacturer.
- 07 62 00 Sheet Metal Flashing and Trim
- A. Items included:
    - 1. Coping, parapet, and cap flashings where not provided under Section 07 54 16 Ketone Ethylene Ester (KEE) Roofing.
    - 2. Reglets and counter-flashings.
    - 3. Closure panels at edges of roof (above roof decking), as indicated in Drawings.
    - 4. Steel pipe downspouts shall be provided under Section 05 50 00 Metal Fabrications. Coordinate associated work with that section.
    - 5. Sill and head flashings for openings.
    - 6. Misc. other sheet metal flashings and trims not specifically described above.

- 07 72 00 Roof Accessories
- A. Roof Hatch:
    - 1. Basis-of-Design: Type F Ladder Access Roof Hatch by the BILCO Company.
    - 2. Type and Size: Single-leaf lid, 36-inches by 48 inches.
  - B. Guards:
    - 1. Basis-of-Design: Bil-Guard 2.0 Roof Hatch Safety Railing System by the BILCO Company.
  - C. Telescoping Safety Post:
    - 1. Basis-of-Design: Bilco LadderUp Safety Post model LU-2 by the BILCO Company.
- 07 76 00 Hybrid Pedestal System
- A. Manufacturer: Tile Tech, Inc.
  - B. Paver Pedestal System:
    - 1. Porcelain Pavers: Tile Tech, “Wood Plank” Series.
      - a. Size: Nominal 24” x 24” x 3/4”.
    - 2. Pedestals: Pedestal Assembly (“Uni-Just”) consists of 5 parts:
      - a. “Buffer Pads”
      - b. “Uni-Base”
      - c. “Uni-Collar”
      - d. “Uni-Insert”
      - e. “Uni-Cap”
    - 3. *Use of Buffer Pads under “Uni-Just” Pedestal systems is MANDATORY to prevent slippage of system over substrates.*
    - 4. *Ice and Water Shield Underlayment per Section 07 13 26, “Self-Adhering Sheet Waterproofing”. Pedestals can be placed directly over this substrate, at Designer’s option.*
- 07 84 13 Penetration Firestopping
- A. Penetration Firestopping Systems: Systems that resist spread of fire, passage of smoke and other gases, and maintain original fire-resistance rating of construction penetrated. Penetration firestopping systems shall be compatible with one another, with the substrates forming openings, and with penetrating items if any.
  - B. Manufacturers and Products:
    - 1. Hilti Corporation, “FS-ONE MAX” Firestop Intumescent Sealant.
    - 2. 3M Corporation, “CP 25WB+ Firestop Sealant.
- 07 92 00 Joint Protection
- A. Interior and Exterior Sealants:
    - 1. Silicone Joint Sealants.
    - 2. Polyurethane Joint Sealants.
    - 3. Mildew-Resistant Joint Sealants.
    - 4. Butyl Sealants
    - 5. Acoustical Sealants
  - B. Manufacturers:
    - 1. BASF Corporation.
    - 2. Dow Chemical Corporation.
    - 3. G.E. Silicones
    - 4. Pecora Corporation
    - 5. Sika Corporation, USA
    - 6. Tremco Corporation, USA



- 07 95 00 Expansion Control
- A. Items included:
    - 1. Architectural joint systems for building interiors.
    - 2. Architectural joint systems for building exteriors.
  - B. Manufacturer: Construction Specialties (CS).
  - C. Non-Rated 6" Interior Expansion Joints.
    - 1. Floor: CS, SSR-600.
    - 2. Wall-to-Wall (Parallel): CS, SFC-600
    - 3. Wall-to-Wall (Perpendicular): CS, SCW-600.
  - D. Non-Rated 6" Exterior Expansion Joints:
    - 1. Wall-to-Wall (Perpendicular): CS, ESC-600
    - 2. Seal Material: Santoprene.
      - a. Color: As selected by the Architect from the Manufacturer's Standard Range.

## **DIVISION 08 – OPENINGS**

- 08 11 13 Hollow Metal Doors and Frames
- A. Doors: Basis-of-Design - Steelcraft; An Allegion Company
    - 1. Non-Rated and Rated Steel Doors.
    - 2. Non-rated and Rated Metal Frames.
    - 3. Door Glazing
    - 4. Door Louvers
  - B. Materials - Doors:
    - 1. Exterior doors shall be 16 gauge hot dipped galvanized steel, with closed tops.
    - 2. Interior doors shall be 16 gauge commercial quality carbon steel.
    - 3. Wood Interior doors per section 08 14 00.
  - C. Materials - Door Frames:
    - 1. Exterior frames shall be 16 gauge hot dipped galvanized steel.
    - 2. Interior frames shall be 16 gauge commercial quality carbon steel.
- 08 14 00 Wood Doors
- A. Wood doors, non-rated.
    - 1. Flush wood doors for transparent finish: Solid core with WI Custom Grade faces, wood veneer species, and cut as selected by Architect; finish: clear lacquer, satin sheen.
  - B. Manufacturers: Provide flush wood doors by one of the following or equal:
    - 1. Masonite.
    - 2. VT Industries.
- 08 31 13 Access Doors and Frames
- A. Door and Frame Products:
    - 1. Non-Rated Flush Access Door.
    - 2. Non-Rated Recessed Access Doors.
    - 3. Fire-Rated Access Doors.
  - B. Manufacturers:
    - 1. Acudor
    - 2. Nystrom.
    - 3. Babcock-Davis.
    - 4. Milcor.
- 08 32 13 Sliding Aluminum-Framed Glass Doors
- A. Basis-of-Design: Walters & Wolf Interiors; Walters & Wolf VersaGlide.

- B. Finish: All exposed areas of aluminum and components as Clear Anodized Class II.
- 08 41 13 Aluminum-Framed Storefronts and Entrances
- A. Basis-of-Design (Exterior): Kawneer; Trifab 451T (Thermal) Framing System.
  - B. Basis-of-Design (Interior): Kawneer; Trifab VG 450 (Non-Thermal) Framing System.
  - C. Finish:
    - 1. Exterior Storefronts: All exposed areas of aluminum and components as Dark Bronze.
    - 2. Interior Storefronts: All exposed areas of aluminum and components as Clear Anodized Class II.
  - D. Doors:
    - 1. Entrance Door: Kawneer 500 Swing Door.
    - 2. Aluminum Flush: Kawneer Flushline.
- 08 43 33 Folding Glass Storefronts
- A. Basis-of-Design: NanaWall; SL45.
  - B. Finish:
    - 1. All exposed areas of aluminum and components as Clear Anodized Class II.
- 08 56 19 Pass-Thru Windows
- A. Basis-of-Design (Exterior): Nissen & Company.
  - B. Type: Pass-Through Sliding Window.
    - 1. Horizontal Sliding: Series "E" Sliding Service Window without screen.
    - 2. Sizes: Custom to suit on-site conditions.
    - 3. Frames: Type 6063-T5 aluminum extrusions.
    - 4. Glazing: Tempered glass, exterior clear vision per Section 08 81 00.
    - 5. Lock: Slide Bolt lock.
    - 6. Track: Top hung nylon track.
    - 7. Finishes:
      - a. Anodized 204R-1 clear aluminate.
      - b. Concealed Steel Items: Primed with iron oxide paint.
      - c. Apply one coat of bituminous paint to concealed aluminum and steel surfaces in contact with cementitious or dissimilar materials.
- 08 71 00 Door Hardware (*per Door Hardware Consultant*)
- A. Commercial Door Hardware for the following:
    - 1. Swinging doors.
    - 2. Other doors to the extent indicated.
  - B. Scheduled Door Hardware:
    - 1. Door Hardware Sets: Provide quantity, item, size, finish or color indicated, and named manufacturers' products.
    - 2. Hardware Sets do not include door security. Keypads, card readers, fab readers, etc. to be provided by the Low Voltage Consultant in consultation with the College's IT Department.
    - 3. Hardware Sets at Sliding Aluminum-Framed Glass Doors and Folding Glass Storefronts are per those Manufacturers and listed in those individual specification sections.
  - C. Hardware:
    - 1. Hinges
    - 2. Mechanical locks and latches
    - 3. Exit locks and exit alarms
    - 4. Door bolts
    - 5. Exit devices
    - 6. Lock Cylinders
    - 7. Keying

8. Keying control system
9. Operating trim
10. Accessories for pairs of doors.
11. Closers
12. Protective trim units
13. Stops and holders
14. Door gasketing
15. Thresholds

08 81 00 Glass Glazing

A. Glazing Products:

1. Insulating Glass Unit, Fully Tempered.
2. Tempered Vision Glass, Single Pane
3. Standard Vision Glass, Single Pane
4. Insulating Glass Unit, Fully Tempered / Obscured
5. Composite Insulated Aluminum Spandrel Panels

B. Glass Manufacturers:

1. Vitro Architectural Glass
2. Viracon, Inc.
3. Oldcastle Glass, Inc.
4. PPG Industries, Inc.

C. Pre-Finished Glazing Spandrel (Infill) Panel;

1. Basis-of-Design: Mapes-Ror.
2. 1" inch thick panel with 0.125-inch thick, smooth textured, aluminum exterior and interior faces laminated to hardboard.
  - a. Finish: Kynar or approved equal on both sides of panel.
  - b. Color: As selected by Architect from manufacturer's full range.

D. Spandrel Panel Manufacturers:

1. Mapes Industries, Inc.

08 90 00 Louvers and Vents

A. Manufacturers:

1. Airolite Company, LLC.
2. Ruskin Company.

B. Louver Products:

1. Factory fabricated and assembled, complete with frame, mullions, and accessories; AMCA Certified in accordance with AMCA 511.
2. Fixed Horizontal Drainable-Blade Louver, formed galvanized steel sheet construction, with intermediate mullions matching frame.

C. Accessories:

1. Blank-Off Panels.
2. Screens
3. Fasteners and Anchors
4. Flashings.
5. Sealant for Setting Sills and Sill Flashing.

**DIVISION 09 – FINISHES**

09 21 16 Gypsum Board

A. Manufacturers:

1. USG Corporation.
2. National Gypsum Company.

3. American Gypsum Company.
  4. CertainTeed Corporation.
  5. Georgia-Pacific Gypsum.
- B. Board Materials:
1. Gypsum Wallboard.
  2. Impact Resistant Wallboard
  3. Backing Board for Wet Areas
  4. Exterior Sheathing Board
  5. Shaftwall and Coreboard.
  6. Fiberboard Tack Base (for vinyl wall covering specified elsewhere).
  7. Prewrapped Vinyl Covered Tackboard Wall Paneling.
- 09 28 13 Cementitious Backing Boards
- A. Manufacturers:
1. USG
  2. Custom Building Products.
- B. Basis-of-Design:
1. USG, Durock Cement Board:
    - a. Thickness: 1/2-inch.
    - b. Edge: Smooth wrapped edge.
  2. Custom Building Products, Wonderboard Lite Backer Board:
    - a. Thickness: 7/16-inch.
    - b. Edge: Smooth wrapped edge.
- 09 30 13 Ceramic Tiling
- A. Interior Wall Tile:
1. Manufacturers: Dal-Tile.
  2. Basis-of-Design: Wall Classic. Color Wheel Collection - Glazed Ceramic.
    - a. Tile Size: 6-inch x 6-inch.
    - b. Tile Colors: Minimum of (43): (1) field and (3) accents.
      - i. Colors to be selected by the Architect.
  3. Grout Joints: Nominal 1/16 inch, all joints equal, except at expansion joint conditions. Provide minimum 1/8 inch wide joint at all expansion joint conditions.
  4. Provide surface bullnose trim at all open edges or ends. Unglazed or cut tile edges unacceptable.
- B. Grout
1. Manufacturer: Mapei.
  2. Colors: As selected by the Architect to complement tile colors selection.
- C. Latex Thinset Bond Coat at Walls: Thinset bond coat, consisting of cementitious mortar conforming to ANSI A118.4.
1. Manufacturer: Mapei
- 09 51 26 Acoustical Wood Ceilings
- A. Option 1: Wood Wall Panels
1. Basis-of-Design: WoodWorks Grille Forté Solid Poplar Walls Panels.
  2. Manufacturer: Armstrong World Industries, Inc.
  3. Wall Panel Type:
    - a. Surface Texture: Smooth.
    - b. Composition: Solid Wood.
    - c. Finish(s): Solid Wood (Poplar):
      - i. Natural Walnut
      - ii. Red Oak

- d. Panel Width: 12-inches.
  - e. Panel Length Size(s): With 1" reveal panel to panel @ length:
    - i. 48-inch (Nominal): 47-inches (Actual)
    - ii. 72-inch (Nominal): 71-inches (Actual)
    - iii. 96-inch (Nominal): 95-inches (Actual)
  - f. Slat Width: 1-1/4-inches.
  - g. Accessories: Flat Backer Kit.
- B. Option 2: Wood Wall Panels
- 1. Basis-of-Design: Basis-of-Design: Akupanel  
[https://woodupp.com/us/product/akupanel/?attribute\\_pa\\_color=stone](https://woodupp.com/us/product/akupanel/?attribute_pa_color=stone)
  - 2. Manufacturer: WoodUpp
  - 3. Wall Panel Type:
    - a. Two-Piece Panel System: Panels A and B.
      - i. Overall Panel Dimensions: 94.488-inches x 23.622-inches.
      - ii. Panel A measures 11.025-inches x 94.5inches.
      - iii. Panel B measures 12.6-inches x 94.5-inches
    - b. Panel Area: 15-1/2 SF.
    - c. Slat Width: 1.06-inches.
    - d. Gap: 0.511-inches between the slats.
    - e. Slat Mounting: Mounted on a base of 0.888-inch acoustic felt made from recycled plastic.
    - f. Panel Weight: 27lbs.
    - g. Color Options: Natural Oak, Brown Oak, Walnut, Copper Oxide, and Grey Oxide.

09 51 00

Acoustical Ceilings

- A. 24-inch x 48-inch Lay-In Ceiling Tiles:
  - 1. Manufacturers:
    - a. Armstrong World Industries.
  - 2. Basis-of-Design: Dune Second Look (24-inch x 24-inch panels)
    - a. Face Dimension: 15/16 inches.
    - b. Profile: Scored Angular Tegular
    - c. Texture: Fine Textured
    - d. Color: White
    - e. Edge Moldings: "L" shaped.
    - f. Free End: Berc 2 seismic clip.
- B. Suspension Grid: Armstrong World Industries
  - 1. Prelude XL 15/16" Exposed Tee with Superlock.
  - 2. Color: Silver.

09 54 26

Suspended Wood Ceilings

- A. Manufacturers:
  - 1. Armstrong World Industries.
- B. Basis-of-Design: Woodworks Linear Veneered Open
  - 1. Model: #6660W1.
  - 2. Color: Rift White Oak (NRO).
  - 3. 6-inch" O.C. Plank: 5-1/4" C 96" X 3/4" with 3/4" reveal.
- C. Accessories: Woodworks Linear Veneered Open
  - 1. 5370 - 12h HD Linear Carriers for 4-1/2" modules
  - 2. 5659W1 - 4" WoodWorks Trim (with aluminum substrate)
  - 3. 5671 - Ledger
  - 4. 5687 - Backer Clip
  - 5. 5948 - Linear and Channeled Trim Connector Clip

6. 6459BL - Rigid Attachment Clip
  7. 6603W1 - WoodWorks Concealed Trim
  8. 6657 - BioAcoustic Infill Panel (Black - Matte)
  9. 7146 - Solid Wood Trim
  10. 7891 - 12 Gauge Hanger Wire
- D. Suspension Grid: Armstrong World Industries
1. Prelude XL 15/16" Exposed Tee with Superlock.
  2. Color: Black.
- 09 60 10 Concrete Moisture Control Coating
- A. Items:
1. Concrete floor moisture emission testing.
  2. Concrete floor preparation.
  3. Water vapor and alkalinity control system at all concrete floors; slab-on-grade and elevated decks receiving finish flooring products.
- B. Manufacturer: Advanced Moisture Control, Inc.
- C. Basis-of-Design: Vapor-Green FC Membrane System.
1. Synthetic polymer blend concrete vapor control barrier and waterproofing membrane capable of forming a surface film meeting ASTM F1869 moisture result of less than 2.0 and hydrostatic resistance of 45 psi.
  2. Accessory Products:
    - a. Joint Detailing and Patching: Provide materials as recommended by manufacturer for application.
    - b. Cementitious Floor Leveling Material: Shall be self-leveling or trowelable with a minimum 28 day compressive strength of 3000 psi in accordance with ASTM C109, equal to the following products.
      - i. Ardex Engineered Cements, Inc, K-15 Premium Self-Leveling Underlayment.
      - ii. Quickrete No. 1249 Self-Leveling Floor Resurfacer.
      - iii. Mapei Ultraflex™ LFT™, Premium large-format tile mortar with polymer, LFT™.
      - iv. Use of gypsum or asphalt-based systems are not permitted.
- 09 61 43 Water Vapor Emission Testing
- A. Concrete moisture vapor emission and alkalinity testing.
1. Testing is required in all areas scheduled to receive adhesive applied flooring systems.
- 09 65 00 Resilient Flooring
- A. Luxury Vinyl Tile (LVT)
1. Manufacturer: Interface.
  2. Basis-of-Design: Level Set Collection.
    - a. Color: As Selected by the Architect from Nautical and Textured Woodgrains Collections.
      - i. Minimum of (6) different colors.
    - b. Size: Plank.
- B. Heterogeneous Sheet Flooring
1. Manufacturer: AHF Contract
  2. Basis-of-Design: Concepts of Landscape.
    - a. Color Selected by the Architect.
      - i. Minimum of (1) colors.
    - b. Thickness: 2mm.
    - c. Width: 78.74-inches.
    - d. Heat Guard Ultra Shield Finish.

09 65 13 Resilient Base and Transition Strips

A. Resilient Base

1. Manufacturer:
  - a. Burke Flooring.
2. Basis-of-Design: BurkeBase TP
  - a. Material Standard: Comply with ASTM F1861, Type TP, Group 1 (Solid).
  - b. Type: thermoplastic rubber.
  - c. Series: Pinnacle.
  - d. Coved Toe.
  - e. Accessories: Provide pre-molded inside and outside corners matching base profile.
  - f. Size: 4 inch high x stock coil lengths.
  - g. Adhesives shall be approved by the resilient base manufacturer.
3. Acceptable Alternatives:
  - a. Roppe, 700 Series Thermoplastic Wall Base.
  - b. Tarkett (formerly Johnsonite), Duracove Thermoplastic Rubber Wall Base – Type TP.

B. Transitions/Reducers/Edge Strips:

1. Manufacturer:
  - a. Burke Flooring.
2. Basis-of-Design: Burke Flooring, Mercer Vinyl Mouldings.
  - a. Material: Vinyl.
  - b. Adhesives shall be approved by the transition strip manufacturer.
3. Acceptable Alternatives:
  - a. Roppe, vinyl transition strips.
  - b. Tarkett (formerly Johnsonite), vinyl transition strips.

09 67 16 Epoxy Flooring

A. Epoxy Flooring System for Stalls at Gender Neutral Restrooms and Single Occupancy Unisex Restrooms.

1. Manufacturer: Dex-O-Tex
2. Basis-of-Design: “Terracolor”, Troweled Epoxy Floor.
3. Color: As Selected by the Architect from the Manufacturer’s full color range.

09 68 13 Tile Carpeting

A. Carpet Tile

1. Manufacturer: Interface.
2. Basis-of-Design: Biodiversity Collection; Modular Carpet Tiles.
  - a. Color: As Selected by the Architect.
    - i. Minimum of (6) different colors.
  - b. Size: Plank.
  - c. Pile Height: 1/4-inch maximum.
3. Accessories:
  - a. Crack Filler: Latex Base Type.
  - b. Adhesives: Provide type and brands of solvent free water-resistant adhesive as recommended by manufacturer of carpet tiles for conditions of installation. Adhesives shall allow slab moisture content up to 10 lbs. Provide adhesive warranty for slab moisture failure.
  - c. Resilient Base food Tile Carpeting: See Section 09 65 13 Resilient Base and Transition Strips.
  - d. Transition / Reducers / Edge Strips: See Section 09 65 13 Resilient Base and Transition Strips.

- 09 84 13 Fixed Sound Absorptive Panels
- A. Manufacturer and Basis-of-Design Product TBD in DD Phase after consultation with the College and Acoustician.
- 09 78 26 Fiberglass Reinforced Wall Panels (FRP)
- A. Protective, Prefinished Wall Surfacing, FRP and associated trim.
1. Manufacturer:
    - a. Marlite.
  2. Basis-of-Design: Standard FRP
    - a. Type: Prefinished protective wall covering.
    - b. Series/Style: Standard FRP.
    - c. Nominal thickness: 0.090 inches thick (embossed).
    - d. Size: 48-inches width by maximum sheet length available, height as shown on drawings.
    - e. Color: As selected by the Architect from the Manufacturer's full color line.
    - f. Finish: Pebbled.
  3. Accessories:
    - a. Accessory Moldings and Sealant:
      - i. Provide Marlite PVC trim to match panel color.
    - b. Trim Accessories: Manufacturer's standard one-piece vinyl extrusions designed to retain and cover edges of panels. Provide division bars, inside corners, outside corners, and caps as needed to conceal edges.
      - i. Color: Match panels.
    - c. Exposed Fasteners: Provide color matched nylon drive rivets recommended by panel manufacturer.
    - d. Concealed Mounting Splines: Continuous, H-shaped aluminum extrusions designed to fit into grooves routed in edges of factory-laminated panels and to be fastened to substrate.
    - e. Adhesive: Type recommended by wall covering manufacturer to suit substrate, UL Classified for installation, water-based type. Use of contact adhesive not permitted.
    - f. Sealant: Provide color matched silicone sealant. Mildew-resistant, single-component, neutral-curing silicone sealant recommended by plastic paneling manufacturer and complying with requirements in Section 07 92 00 "Joint Protection".
  4. Acceptable Alternatives:
    - a. Crane Composites.
      - i. Type: Reinforced polyester resin panel.
      - ii. Series/Style: Glasbord, with Surfaseal finish.
- 09 91 00 Painting
- A. Basis-of-Design: For Paint and High Performance Coatings
1. Manufacturer: Sherwin-Williams.
- B. Basis-of-Design: For Stains and Varnishes
1. Manufacturers: Sherwin-Williams.
- C. Colors shall be selected by Architect as specified on Architectural drawings and finish schedule.
1. Interior Colors: Minimum of (12) different colors.
  2. Exterior Colors: Minimum of (2) different colors.
- 09 96 23 Graffiti-Resistant Coatings
- A. Manufacturers:
1. Textured Coatings of America, Inc.
- B. Basis-of-Design:
1. Tex-Cote, "Rainstopper 2000W" base coat.



- 2. Tex-Cote, “Sacrificial Graffiti Gard System” finish coat.
- C. Color/Sheen: Clear, flat.

09 97 37

Dry Erase Coatings

- A. Field applied dry erase coatings including surface preparation and primer.
- B. Manufacturers:
  - 1. IdeaPaint.
- C. Basis-of-Design:
  - 1. Paint: CREATE White.
    - a. Color: White
  - 2. Primer: IdeaPaint PRIMER
    - a. Alternate Primers:
      - i. Sherwin-Williams Multi-Purpose
      - ii. PPG Seal Grip
      - iii. Glidden Gripper
      - iv. Kilz Premium.
    - b. Priming is required over stained surfaces for optimal hiding power, such as stained whiteboards or stained chalkboards.
    - c. Priming is required for surface color changes for optimal hiding power of original surface color.
    - d. Priming is required over new drywall, plastic, aluminum, steel (galvanized and ungalvanized), and vinyl.
    - e. Roller Covers: Provided by manufacturer. No substitutions.

**DIVISION 10 – SPECIALTIES**

10 11 16

Markerboards

- A. Basis-of-Design: Fixed Porcelain / Steel Markerboards.
  - 1. Manufacturer: Claridge Products and Equipment Co.
  - 2. Model: ‘Venue’ Dry Erase Markerboard.
- B. Basis-of-Design: Fixed Glass Markerboard.
  - 1. Manufacturer: Bendheim (or Claridge).
  - 2. Model: ‘Mag+’ Magnetic Dry-Erase Glass Markerboard.

10 11 23

Tackboards

- A. TBD in consultation with the College and JK Architecture Engineering.
- B. Types:
  - 1. Fabric Covered Tackboards
  - 2. Vinyl Covered Tackboards

10 14 00

Signage

- A. Basis-of-Design: Thermoformed Acrylic Permanent Room Signage.
  - 1. Sign Types:
    - a. Permanent Room Identification Signage.
    - b. Restroom Signage.
    - c. Exiting Signage.
    - d. Occupant Load Signage.
    - e. Assistive Listening System Device Signage.
    - f. Exterior Utility Room Identification Signage.
    - g. Accessible Entrance Signage.
    - h. Elevator Signage
  - 2. Manufacturers:
    - a. Best Sign Systems, Inc.

- b. Rowmark Signage Company
- c. ASI Sign Systems.
- d. Vomar Architectural Signage and Graphics.
- e. Or equal

10 14 19 Dimensional Letter Signage

A. Basis-of-Design: Cast Dimensional Characters, Backlit.

- 1. Letters:
  - a. Character Material: Cast Aluminum.
  - b. Character Height: As Indicated on Drawings.
  - c. Thickness: As Indicated on Drawings
  - d. Finishes: Integral Aluminum Finish, Clear Anodized.
  - e. Mounting: Concealed studs. Countersunk flathead through fasteners.
- 2. Manufacturers:
  - a. A.R.K. Ramos
  - b. Impact Signs
  - c. Gemini Incorporated
  - d. ACE Sign Systems, Inc.
  - e. ASI Signage Innovations
  - f. The Southwell Company
  - g. Or equal

10 21 13.19 Solid Plastic Toilet Compartments

A. Basis-of-Design: ARIA Toilet Partitions.

- 1. Manufacturers:
  - a. Scranton Products
- 2. Style: Full height floor mounted overhead braced toilet compartments.
- 3. Doors, Panels and Pilasters:
  - a. High density polyethylene (HDPE), fabricated from polymer resins compounded under high pressure, forming single thickness panel.
  - b. Waterproof and nonabsorbent, with self-lubricating surface, resistant to marks by pens, pencils, markers, and other writing instruments.
  - c. Thickness: 1 inch (25 mm) with 1/4 inch (6 mm) radiused edges. One edge of pilaster and transom panels to be ship lapped.
  - d. Fire Rating: Tested per ASTM E 84: Class A flame spread/smoke developed rating.

10 22 33 Accordion Folding Partitions

A. Manufacturer: Modern Fold

B. Basis-of-Design: Acousti-Seal Single Panel Systems.

- 1. Premier Series
  - a. STC: TBD from Manufacturer's three options.
  - b. Panel Thickness (Nominal): 3-inches.
  - c. Operation: Single Panel Manual.
  - d. Frame: Roll formed and welded 18 ga. steel.
  - e. Skin Face: Gypsum Board.
  - f. Markerboard finish on the classroom side of partitions.

10 26 00 Wall and Door Protection

A. Abuse-resistant Wall Coverings.

B. Manufacturer: J. Josephson, Inc.

C. Basis-of-Design: P3TEC Advanced Wall Protection.

- 1. Color and Pattern: As Selected by the Architect from the Manufacturer's full color line.

2. Thickness: .032” - .038” (varies by emboss and finish.
  3. Width: 48-inches
- 10 26 13 Corner Guards
- A. Basis-of-Design: Surface-Mounted, 48” high vinyl corner guards.
    1. Manufacturer:
      - a. Koroseal Wall Protection Systems.
    2. Products:
      - a. Korogard G875, wing size 3/4”.
      - b. Color as selected by Architect from Manufacturer’s full color line.
- 10 28 13 Toilet Accessories
- A. Basis-of-Design: Restrooms
    1. Manufacturer:
      - a. Bobrick.
    2. Products:
      - a. Stainless Steel Grab Bars: 5806 Series, Type 01, Stainless-Steel Grab Bars.
        - i. Model No. 5806.99X42, Type 01, 1 1/4 inch O.D., 42 inch long with concealed mounting.
        - ii. Model No. 5806.99X48, Type 01, 1 1/4 inch O.D., 48 inch with concealed mounting.
      - b. Stainless Steel, Channel-Framed Mirror: B-1658-1836, Stainless-Steel, Lock Tab, Channel-Frame Mirror with Tempered Glass.
      - c. Recessed Paper Towel Dispenser and Waste Receptacle: B-43944, Contura Series.
      - d. Stainless Steel Surface-Mounted Toilet Seat Cover Dispenser: B-4221, Contura Series.
      - e. Stainless Steel Surface-Mounted Soap Dispenser: B-2111 , Classic Series.
      - f. Sanitary Napkin Disposal Unit: B-4353, Contura Series.
      - g. Stainless Steel Recessed Dual Roll Toilet Tissue Dispenser: B-4388, Contura Series.
      - h. Stainless Steel Surface-Mounted Dual Roll Toilet Tissue Dispenser: B-4388, Contura Series.
      - i. Electric Hand Dryer: *See Section 10 28 40.*
  - B. Basis-of-Design: Custodian Room
    1. Manufacturer:
      - a. Bobrick.
    2. Product:
      - a. Stainless Steel Mop Rack With Utility Shelf: Model No. B-224X36.
  - C. Basis-of-Design: Trap and Piping Wrap
    1. Manufacturer: Plumberex Specialty Products.
    2. Products:
      - a. Plumberex, Handi-Shield MaXX Soft Under-Lav Insulated Cover or
      - b. Plumberex, Pro-Extreme Molded Under-Lav Insulated Cover.
- 10 28 40 Electric Hand Dryers
- A. Manufacturers and Basis-of-Design:
    1. Bobrick, Model No. B-7128, “TrimLine Series”, Surface-Mounted Automatic Hand Dryer.
    2. Excel, Model No. TA-SB, “ThinAir” Surface-Mounted Hand Dryer.
    3. American Specialties, Inc. Model No. 0199-1-93, Turbo-ADA High Speed Hand Dryer.
- 10 41 00 Emergency Access and Information Cabinets (Knox Boxes)
- A. Manufacturer: Knox Company.
  - B. Basis-of-Design: Series: “Knox Box”, Model 3200 Key Cabinet .
    1. (No alternate allowed - required by Local Fire Marshal)

- 10 44 00 Fire Protection Specialties
- A. Manufacturers:
    - 1. JL Industries
    - 2. Larsens Manuf. Co.
    - 3. or approved equal.
  - B. Fire Extinguisher Types:
    - 1. Multipurpose, 10 lb., dry chemical, UL Rating 2A 10B:C.
  - C. Fire Extinguisher Cabinet Types: Semi-Recessed.
    - 1. At Fire Rated Walls: One-hour rated.
    - 2. At Non-Rated Walls: Non-rated.
    - 3. Sized to accommodate accessories.
- 10 51 13 Metal Lockers
- A. Manufacturers and Product: DeBourgh Mfg. Co.
  - B. Basis-of-Design: All American Corridor
    - 1. Type: Steel Lockers, fully enclosed, fully assembled and welded. Welding of knockdown locker construction is not acceptable.
  - C. Construction Characteristics
    - 1. Tops, Bottoms, Shelves, Tier Dividers, End Panels: 16 gauge (0.060-inch) solid sheet steel.
    - 2. Backs: 18 gauge (0.048-inch) solid. *Mesh not permitted.*
    - 3. Frames, Sides and Intermediate Partitions: 1 x 1 x 1/8-inch steel angle with 13 gauge, 3/4-inch mesh welded to frame.
    - 4. Doors: 14 gauge, style as specified, welded door reinforcement.
    - 5. Hinges: 3-inch, 5 knuckle, welded to door panel and frame.
    - 6. Locking mechanism: Recessed stainless steel pan, operating latch free, with single point latch.
  - D. Characteristics: Lockers
    - 1. Style: Double Tier
    - 2. Locker Size: TBD.
    - 3. Doors: Louvered - traditional six louvers at top and bottom of door
    - 4. Top: Flat.
    - 5. Base: 6-inch, 14 Ga gusset style legs securely welded to locker bottom with 16 Ga spacer channel welded to locker bottom and Z-closure.
    - 6. Filler Panels: Manufacturer's standard fabricated from 18 Ga solid steel finished to match lockers. Provide slip joint fillers angle formed to receive filler panel
  - E. Latch: Sentry III Single-Point Latch
    - 1. Special Needs Latch (ADA) Latching operation with a three-point/three-sided latch with an extended 6-inch handle creating a weighted counterbalance allowing activation by either upward or downward motion.
  - F. Hardware and Accessories
    - 1. Lock: Padlocks provided by Owner
- 10 75 00 Flagpoles (*Civil*)

## **DIVISION 11 – EQUIPMENT**

- 11 51 00 Library Equipment
- A. TBD in consultation with the College and Library Consultant.
- 11 52 00 Audio Visual Equipment (*Low Voltage Consultant*)
- 11 52 13 Projection Screens (*Low Voltage Consultant*)

**DIVISION 12 - FURNISHINGS**

- 12 24 13 Roller Window Shades
  - A. Basis-of-Design: MechoShade Systems, Inc.; Mecho 5.
  - B. Operation:
    - 1. Manually Operated Hardware and Shade Brackets.
    - 2. Electrically Operated.
- 12 93 00 Site Furnishings
  - A. Bike rack: Columbia Cascade CycLoops ‘Circulo’. Model # 2170-3-05-SM-S, surface mounted, stainless steel finish.
  - B. Bike locker: Columbia Cascade CycLockers. Model #2176-2-PR-S, perforated stainless steel.

**DIVISION 13 – SPECIAL CONSTRUCTION (NOT USED)**

**DIVISION 14 – CONVEYING EQUIPMENT**

- 14 24 23 Hydraulic Passenger Elevators
  - A. Basis-of Design: Otis HydroFit 3,500 lb., 100 fpm, passenger elevator system

**DIVISION 21 – FIRE SUPPRESSION**

- 21 00 00 Fire Suppression System (*Fire Protection Engr.*)
- 21 00 50 Basic Fire Sprinkler Materials and Methods (*Fire Protection Engr.*)
- 21 10 00 Fire Sprinkler Systems (*Fire Protection Engr.*)

**DIVISION 22 – PLUMBING**

- 22 10 00 Plumbing Piping Systems
  - A. Sanitary and Storm Drainage
    - 1. Cast Iron No-hub
    - 2. Fittings: Cast Iron
    - 3. Coupling: Standard Duty
  - B. Hot and Cold Domestic Water
    - 1. Copper Tubing Type L
    - 2. Fittings: Copper
    - 3. Joints: Solder
  - C. Condensate Piping
    - 1. Type M
    - 2. Fittings: Propress
- 22 40 00 Plumbing Fixtures
  - A. China Fixtures - White Only - Toilets and Lavatories
    - 1. American Standard
    - 2. Kohler
    - 3. Approved Equivalent
  - B. Stainless Steel Fixtures - Break Sink, Mothers Rooms Sink
    - 1. Elkay
    - 2. Approved Equivalent
  - C. Faucets
    - 1. Kohler
    - 2. Chicago

3. Moen
4. Delta
5. Speakman
6. Approved Equivalent
- D. Mop Sink
  1. Florestone
  2. Symmons
  3. Approved Equivalent
- E. Carriers
  1. JR Smith
  2. Mifab
  3. Zurn
  4. Approved Equivalent
- F. Electric Water Coolers w/ Bottle Filler
  1. Elkay
  2. Approved Equivalent
- G. Downspout Boot/Cover
  1. JR Smith
  2. Mifab
  3. Sioux Chief
  4. Zurn
  5. Approved Equivalent
- H. Fixture Trim
  1. McGuire
  2. Dearborn Brass
  3. Oatey
  4. Approved Equivalent
- I. Floor Sinks
  1. Mifab
  2. Sioux Chief
  3. JR Smith
  4. Watts
  5. Zurn
  6. Approved Equivalent
- J. Flushometers - Water Closet/Urinal
  1. Sloan
  2. Approved Equivalent
- K. Hose Bibbs
  1. Chicago
  2. JR Smith
  3. Mifab
  4. Woodford
  5. Zurn
  6. Approved Equivalent
- L. Hub Drains
  1. JR Smith
  2. Zurn
  3. Approved Equivalent
- M. Roof/Overflow Drains
  1. JR Smith

- 2. Nifab
  - 3. Sioux Chief
  - 4. Watts
  - 5. Zurn
  - 6. Approved Equivalent
- 22 50 00 Plumbing Equipment
- A. Electric Water Heaters
    - 1. AO Smith
    - 2. Hubbell
    - 3. Approved Equivalent
  - B. Domestic Circulation Pumps
    - 1. Bell & Gossett
    - 2. Approved Equivalent

**DIVISION 23 – HEATING, VENTILATING AND AIR CONDITIONING**

- 23 00 50 Basic HVAC Materials and Methods (*Mech. Engr.*)
- 23 05 93 Testing, Adjusting and Balancing for HVAC (*Mech. Engr.*)
- 23 08 00.13 T-24 Commissioning of HVAC (*Mech. Engr.*)
- 23 09 23 Direct Digital Control System for HVAC (*Mech. Engr.*)
- 23 80 00 Heating, Ventilating and Air Conditioning (*Mech. Engr.*)

**DIVISION 26 – ELECTRICAL**

- 26 00 10 Basic Electrical Requirements (*Elect. Engr.*)
- 26 05 19 Building Wire and Cable (*Elect. Engr.*)
- 26 05 26 Grounding and Bonding (*Elect. Engr.*)
- 26 05 29 Electrical Hangers and Support (*Elect. Engr.*)
- 26 05 31 Conduit (*Elect. Engr.*)
- 26 05 33 Boxes (*Elect. Engr.*)
- 26 05 36 Cable Trays (*Elect. Engr.*)
- 26 05 43 Underground Ducts and Structures (*Elect. Engr.*)
- 26 05 46 Signal Systems Raceway (*Elect. Engr.*)
- 26 05 53 Electrical Identification (*Elect. Engr.*)
- 26 08 00 Electrical Commissioning (*Elect. Engr.*)
- 26 09 43 Network Addressable Lighting Control (*Elect. Engr.*)
- 26 22 13 Dry Type Transformers (*Elect. Engr.*)
- 26 24 16 Panelboards (*Elect. Engr.*)
- 26 27 16 Cabinets and Enclosures (*Elect. Engr.*)
- 26 27 26 Wiring Devices (*Elect. Engr.*)
- 26 28 16 Overcurrent Protective Devices (*Elect. Engr.*)
- 26 28 19 Disconnect Switches (*Elect. Engr.*)

- 26 29 00 Motor Controls (*Elect. Engr.*)
- 26 43 13 Surge Protective Devices (*Elect. Engr.*)
- 26 50 00 Lighting (*Elect. Engr.*)
- 26 73 19 Assistive Listening System (*Elect. Engr.*)

**DIVISION 27 – COMMUNICATIONS**

- 27 00 00 Communications Basic Requirements (*Elect. Engr.*)
- 27 05 00 Telephone Data Raceway System (*Elect. Engr.*)
- 27 05 28 Telecommunications Pathways (*Elect. Engr.*)
- 27 10 00 Communications Equipment Rooms (*Elect. Engr.*)
- 27 13 00 Communications Backbone Cabling (*Elect. Engr.*)
- 27 15 00 Horizontal Communications Rooms (*Elect. Engr.*)
- 27 51 00 Horizontal Communications Cabling (*Elect. Engr.*)

**DIVISION 28 – ELECTRONIC SAFETY AND SECURITY**

- 28 10 00 Access Control Systems (*Elect. Engr.*)
- 28 20 00 Video Surveillance (*Elect. Engr.*)
- 28 31 00 Intrusion Detection Alarm Monitoring (*Elect. Engr.*)
- 28 46 00 Fire Detection Alarm (*Elect. Engr.*)
- 28 47 00 Mass Notification (*Elect. Engr.*)

**DIVISION 31 – EARTHWORK**

- 31 00 00 Earthwork (*Civil Engr.*)
- 31 10 00 Site Clearing (*Civil Engr.*)
- 31 11 00 Clearing and Grubbing (*Civil Engr.*)
- 31 12 00 Selective Clearing (*Civil Engr.*)
- 31 22 00 Site Grading (*Civil Engr.*)
- 31 22 13 Rough Grading (*Civil Engr.*)
- 31 22 00 Site Grading (*Civil Engr.*)
- 31 22 16 Fine Grading (*Civil Engr.*)
- 31 23 16.13 Trench Excavation and Backfill to Utilities(*Civil Engr.*)
- 31 23 23 Fill (*Civil Engr.*)
- 31 25 00 Erosion and Sedimentation Controls (*Civil Engr.*)

**DIVISION 32 – EXTERIOR IMPROVEMENTS**

- 32 11 23 Aggregate Base Courses (*Civil Engr.*)
- 32 12 16 Asphalt Paving and Striping (*Civil Engr.*)
- 32 12 16.10 Asphalt Paving, Striping and Signage (*Civil Engr.*)



- 32 13 13 Concrete Paving (*Civil Engr.*)
- 32 13 13.1 Concrete Work (Landscape)
  - A. Flatwork color: natural.
  - B. Flatwork finish: medium topcast or beadblast.
  - C. Walls & curbs color: natural.
  - D. Walls & curbs finish: medium topcast or beadblast.
- 32 16 13 Concrete Curbs (*Civil Engr.*)
- 32 17 23 Pavement Markings (*Civil Engr.*)
- 32 17 26 Tactile Warning Surfacing (*Civil Engr.*)
- 32 30 00 Site Improvements (*Civil Engr.*)
- 32 31 13 Chain Link Fences and Gates (*Architect*)
- 32 32 16 Precast Conc Retaining Walls (*Civil Engr.*)
- 32 32 19 Unit Masonry Retaining Walls (*Civil Engr.*)
- 32 32 23.16 Manufactured Modular Walls (*Civil Engr.*)
- 32 84 00 Planting Irrigation
  - A. Irrigation controller: Hunter ACC with Data connection to internet via ethernet. Wall mounted to exterior of building in vandal resistant locking metal enclosure.
  - B. Irrigation backflow preventer: Febco 860, 3” size. Enclose in locking weather blanket.
  - C. Flow sensor: 2” size, compatible with Hunter ACC controller.
  - D. Master valve: 2” size, compatible with Hunter ACC controller. Normally closed.
  - E. Irrigation mainline: Purple pipe. Schedule 40 PVC up to 2”, Class 315 PVC for 2” and larger.
  - F. Irrigation laterals: Purple Pipe. Schedule 40 PVC.
  - G. Irrigation fittings: Schedule 40.
  - H. Gate valves: Nibco brass. To be located on mainline as isolation valves.
  - I. Ball valves: Nibco brass. To be located at valve manifolds to isolate the manifold.
  - J. Quick couplers: 1” size. Locking purple camps.
  - K. Remote control valves: Rainbird PSB.
  - L. Shrub plants: irrigated with (1) bubbler per shrub on flexible riser.
  - M. Trees: irrigated with (2) bubblers per tree. bubblers in 36” perforated drain tubes with grated cap.
  - N. Control wires: (1) 14 ga. control wire to each valve; (1) 12 ga. common wire looped through system, (1) 12 ga. spare common wire looped through system, (5) 14 ga. spare wires looped through system. Unassigned stations will have (1) 14 ga. wire run from controller to limit of project and stubbed-out in a splice box.
- 32 92 00 Planting
  - A. All shrub planting areas are to have 12” of amended topsoil. Topsoil may be from on-site, off-site, or a blend of both.
  - B. All topsoil to be horticulturally analyzed in compliance with the Model Water Efficient Landscape Ordinance and amended per analysis’ recommendations.
  - C. All shrub planting areas to have Mirafi 140N weed block fabric installed.
  - D. Slopes of 3:1 and greater to have jute netting installed on them.
  - E. All shrub planting areas are to have 3” of bark mulch installed. Non-stormwater planter mulch to be Republic Service’s ‘Pro-Chip’, natural color. Stormwater planter mulch to be Pacific Landscape Supply’s ‘Shredded Cedar’.
  - F. Shrubs to be a mix of 75% (5) gallon specimens, 25% (1) gallon specimens. Coverage of shrub planting areas at maturity to be 75% of planting areas.

- G. Trees to be 36” box size.
- H. Trees to be installed with (2) 3” tree stakes, (2) Z-Strap rubber ties from Sullivan & Mann Lumber, and (1) redwood cross brace between the stakes.
- I. Maintenance period to be (90) days from Substantial Completion.

32 92 19.16 Hydraulic Seeding

- A. All hyroseeded planting areas to have 12” of amended topsoil. Topsoil may be from on-site, off-site, or a blend of both.
- B. All topsoil to be horticulturally analyzed in compliance with the Model Water Efficient Landscape Ordinance and amended per analysis’ recommendations.
- C. Hydroseed to be Pacific Coast Seed’s “California Native Wildflower Mix”. Install at a rate of 18 lbs/acre.

**DIVISION 33 – UTILITIES**

- 33 05 00 Common Work Results for Utilities (*Civil Engr.*)
- 33 11 00 Water Utilities (*Civil Engr.*)
- 33 31 00 Sanitary Sewerage Piping (*Civil Engr.*)
- 33 40 00 Stormwater Utilities (*Civil Engr.*)
- 33 41 00 Subsurface Drainage (*Civil Engr.*)
- 33 41 13 Foundation Drainage (*Civil Engr.*)
- 33 52 00 Site Gas Distribution (*Civil Engr.*)

**END OF OUTLINE SPECIFICATION**

**Gavilan College  
Library & Student Resource Center  
(LSRC)**

**Schematic Design Submittal**

**Section 3  
Summary of Changes  
To Criteria Document**

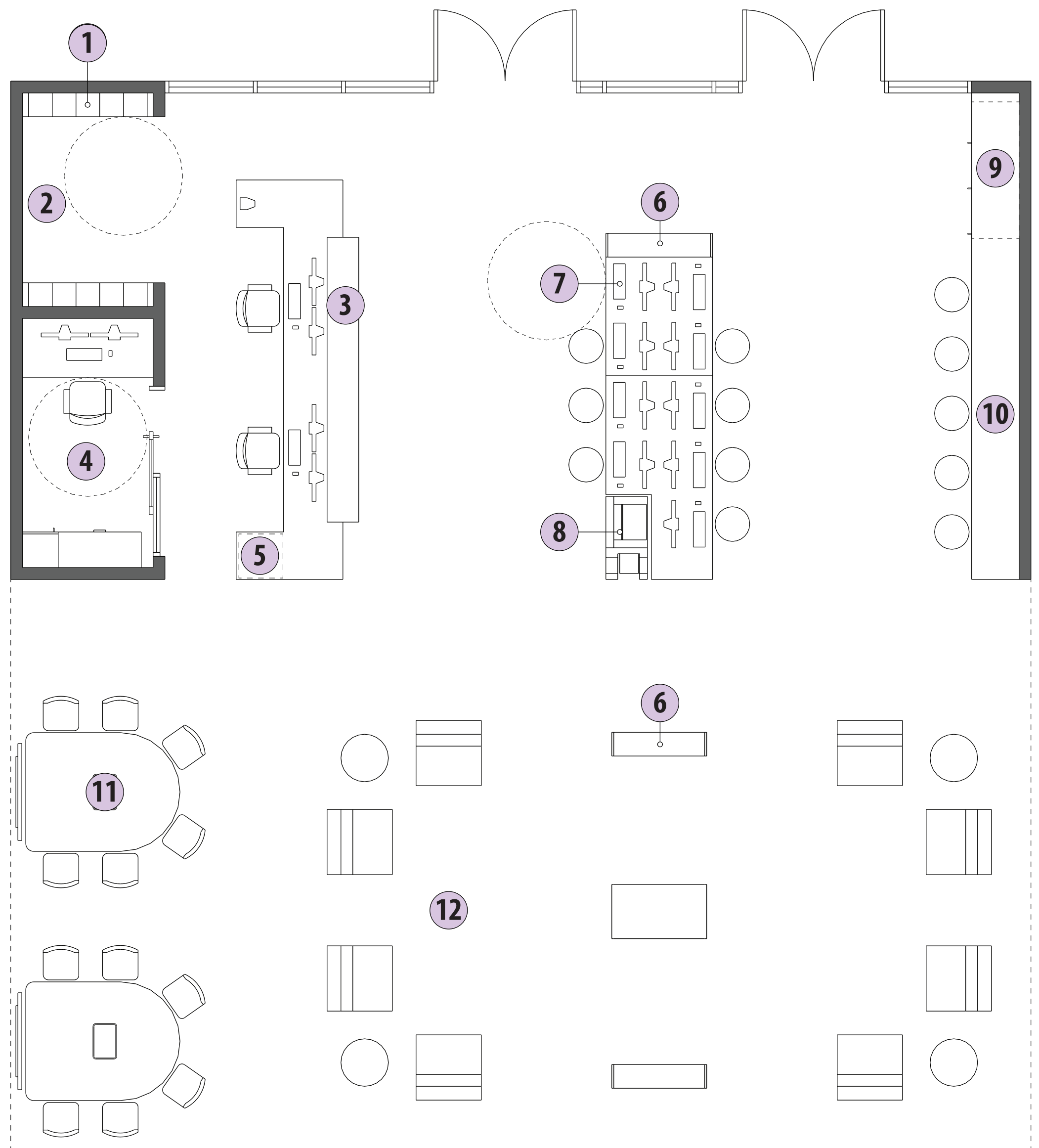
## 1.01 LIBRARY STUDENT RESOURCE CENTER | WELCOME CENTER

850 - 1,000 ASF

### LEGEND



- 1 PEER MENTOR LOCKERS
- 2 STUDENT ID STATION
- 3 WELCOME CENTER DESK
- 4 STAFF OFFICE
- 5 UNDER-COUNTER LAPTOP CART
- 6 DISPLAY CASE
- 7 INFORMATION KIOSK
- 8 COPY/PRINT STATION
- 9 TRASH / RECYCLE CENTER
- 10 TECHNOLOGY BAR
- 11 MEDIA TABLE
- 12 SEATING AREA



\* IN FINAL DESIGN, MAKE SURE WELCOME DESK IS PROMINENT AT BUILDING ENTRY AND CENTRAL TO OTHER PROGRAMS

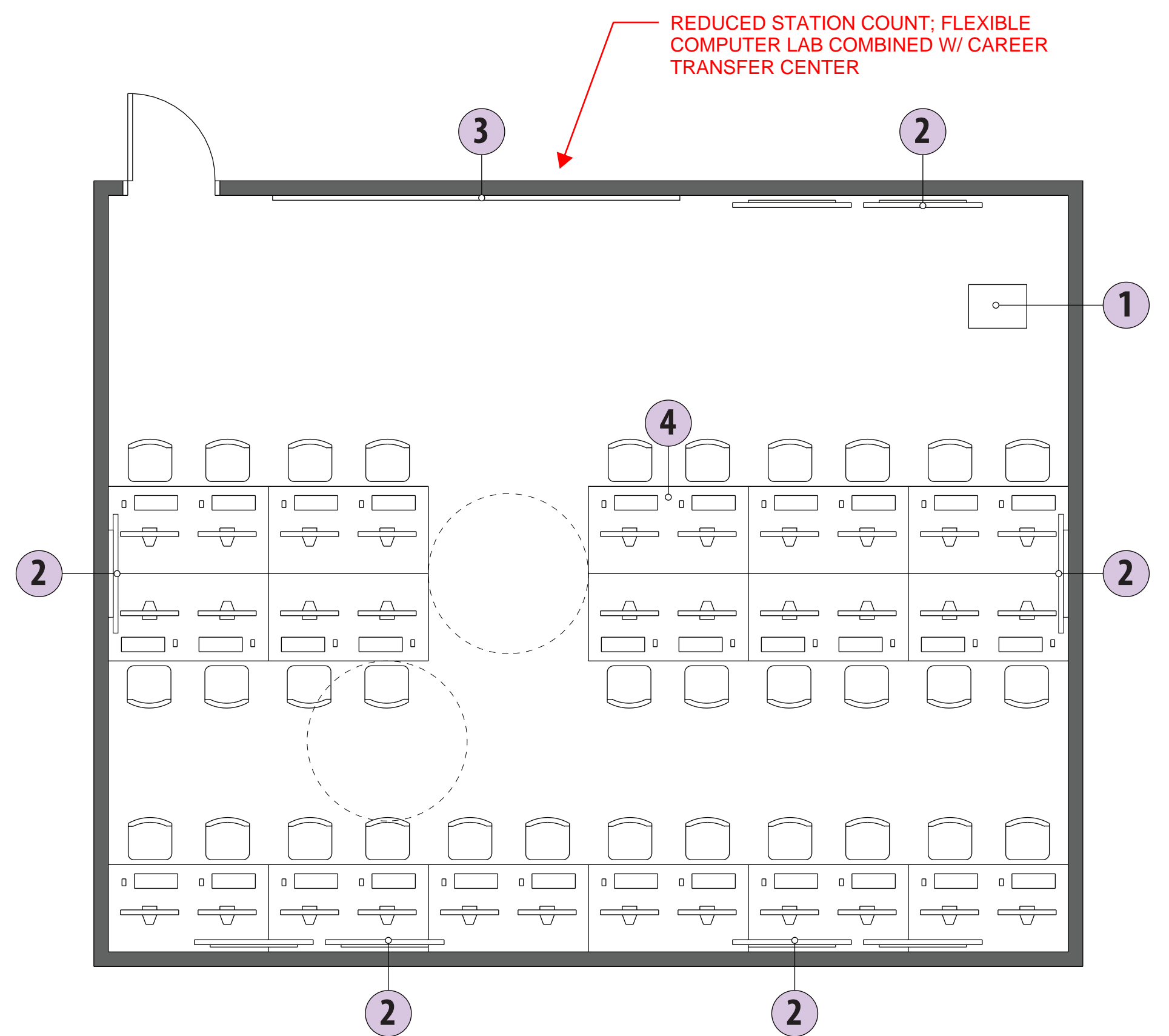
## 1.02 -1.04 SHARED RESOURCES

1,370 - 1,615 ASF

### LEGEND

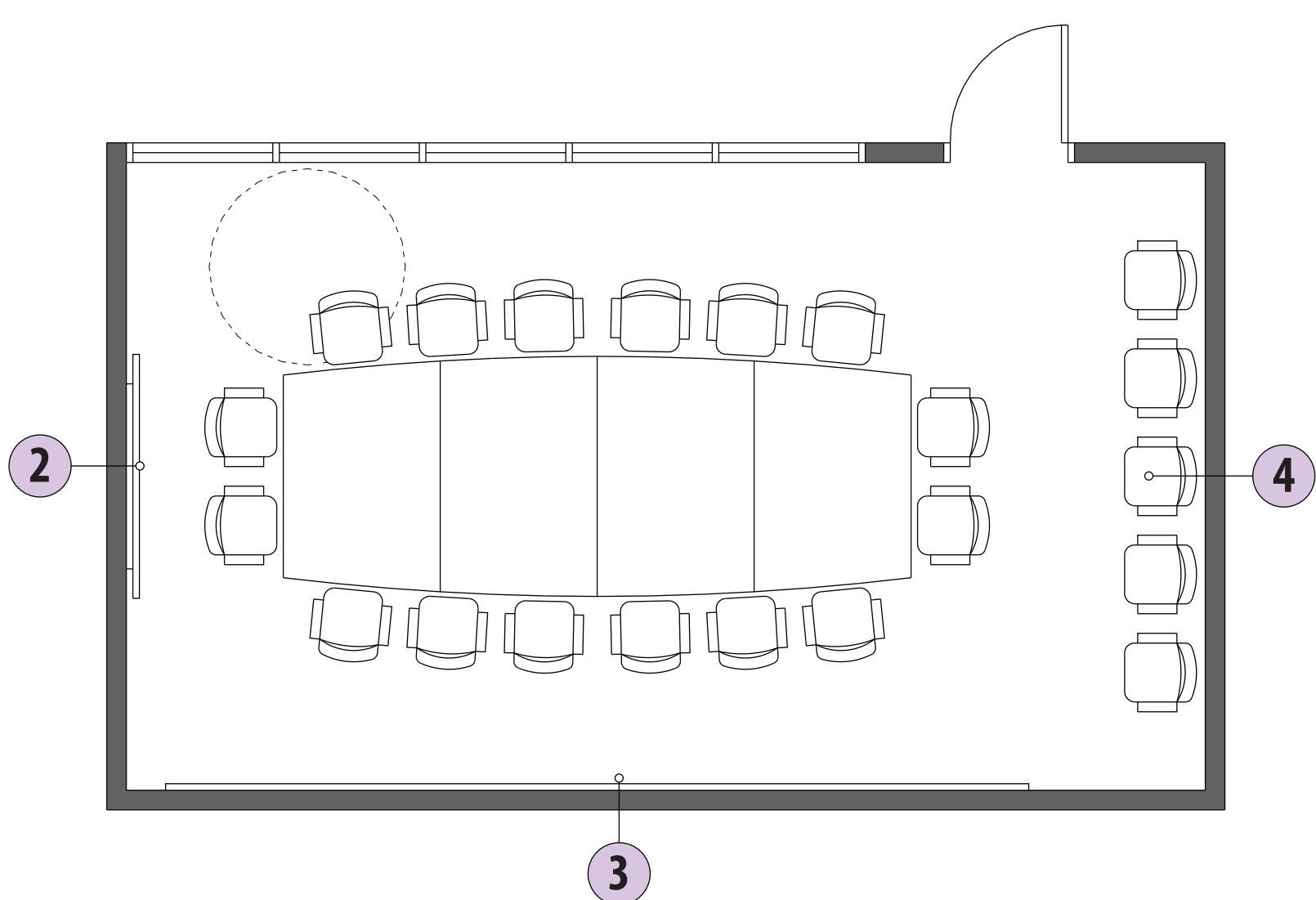


- 1 LECTERN
- 2 FLAT PANEL DISPLAY
- 3 WRITABLE SURFACE
- 4 MOVABLE FURNITURE
- 5 REFRIGERATOR
- 6 SINK
- 7 DISHWASHER
- 8 MICROWAVE
- 9 COUNTER + CHAIRS
- 10 DINING TABLE
- 11 LOUNGE FURNITURE



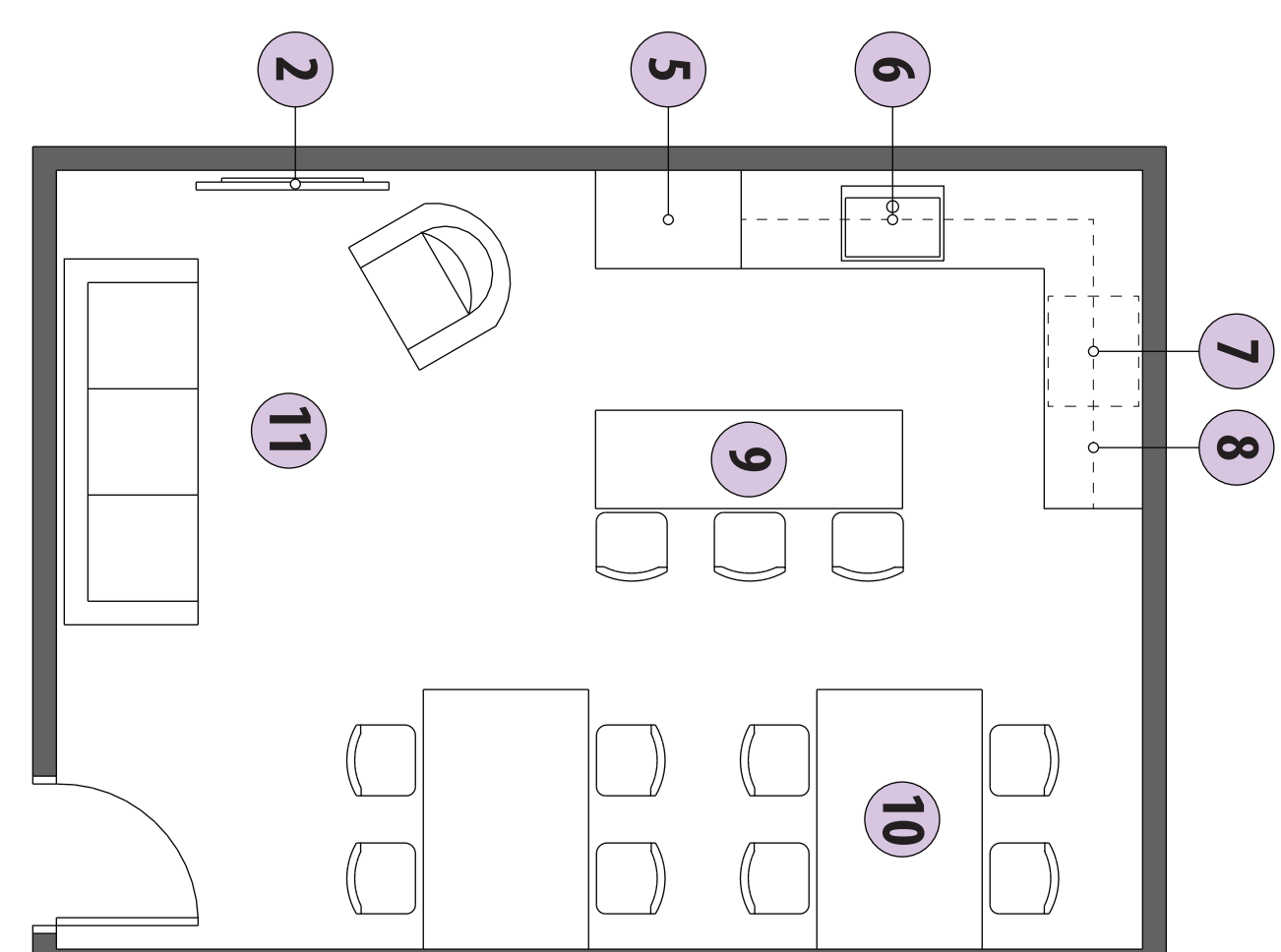
1.03 FLEXIBLE COMPUTER LAB

730 - 860



1.04 CONFERENCE ROOM

340 - 400

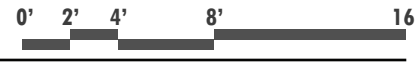


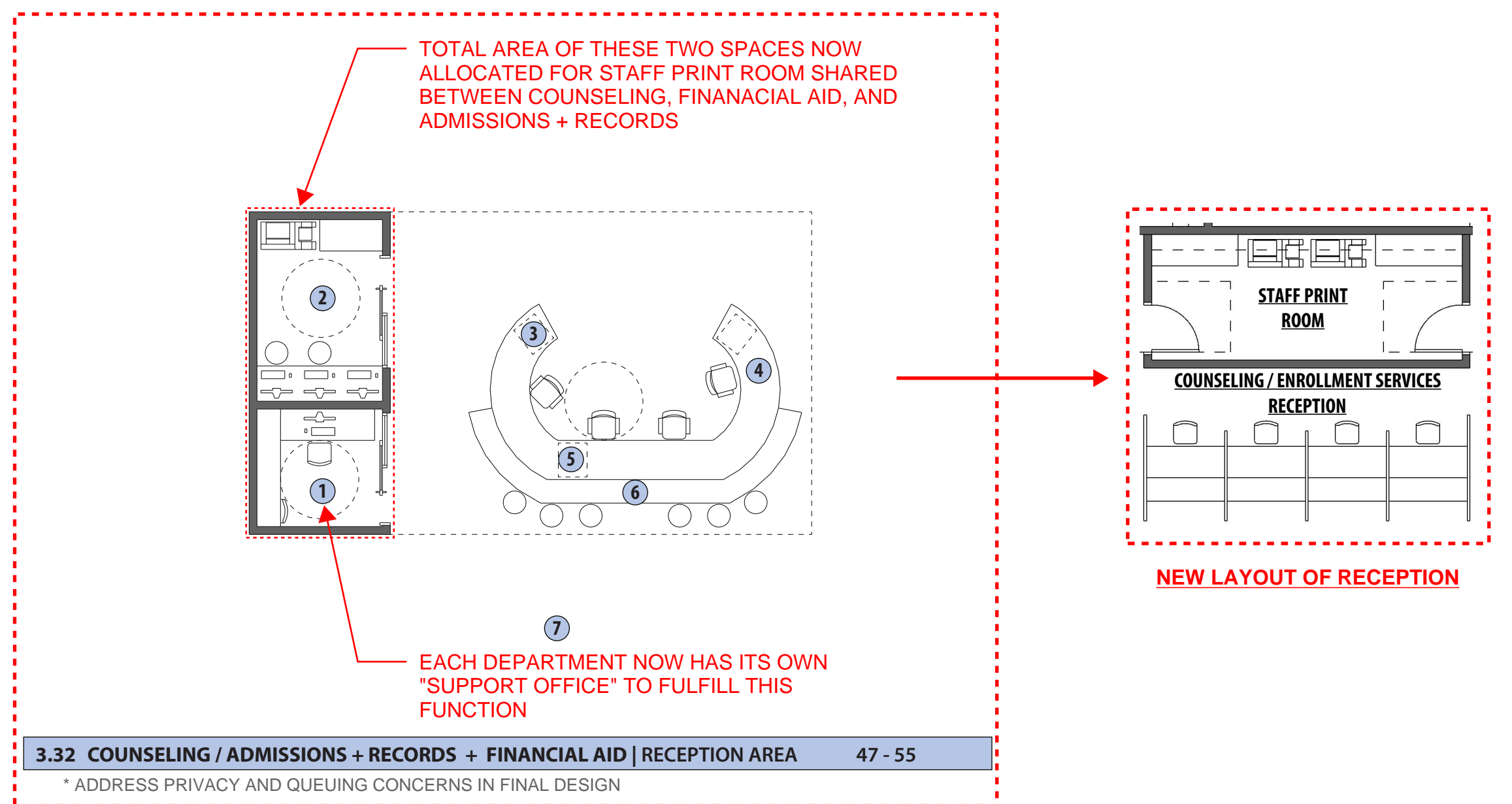
1.05 FACULTY + STAFF LOUNGE

300 - 355


GENERAL NOTE: ALL DEPARTMENTS TO HAVE ACCESS TO MICROWAVE AND REFRIGERATOR

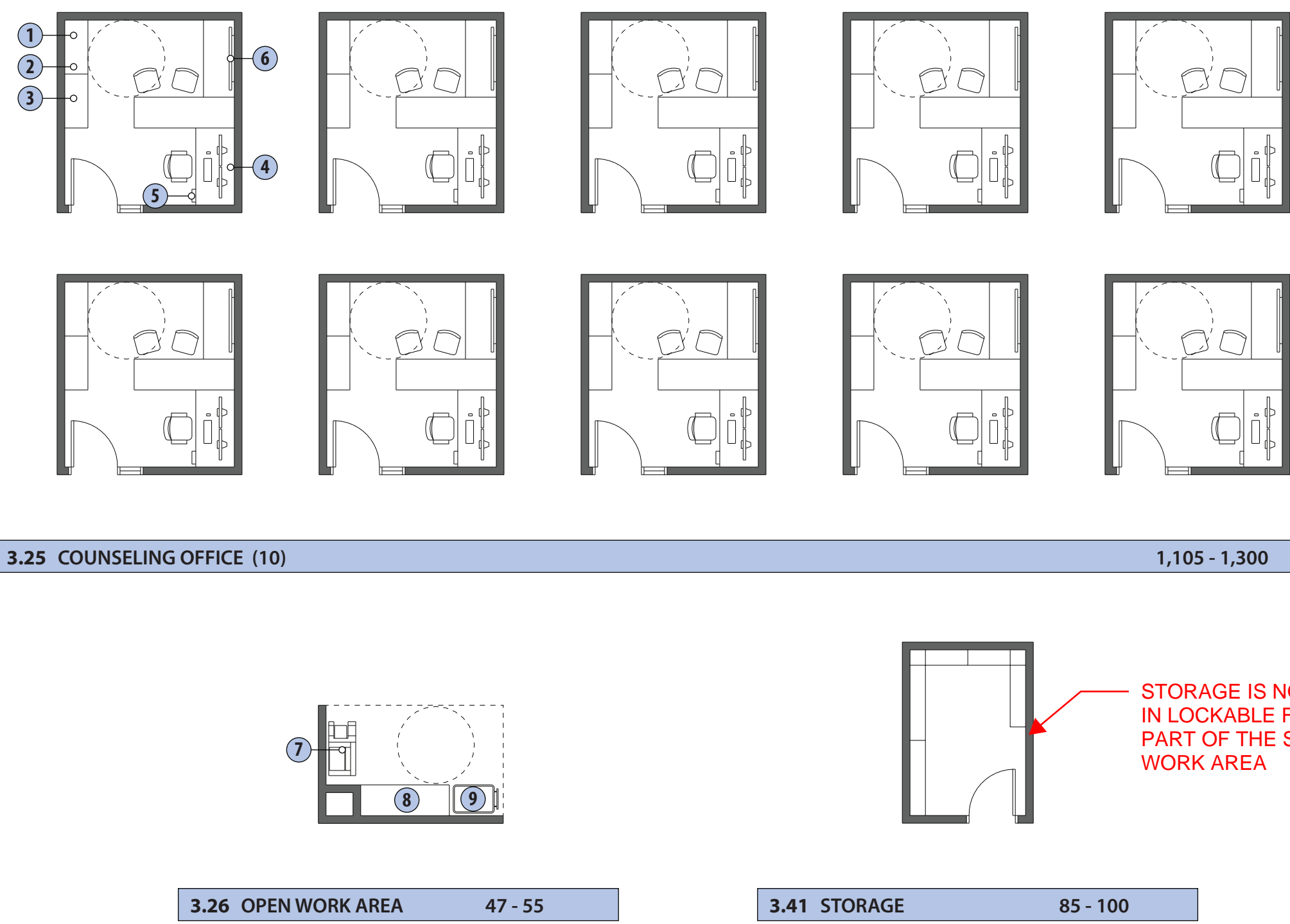
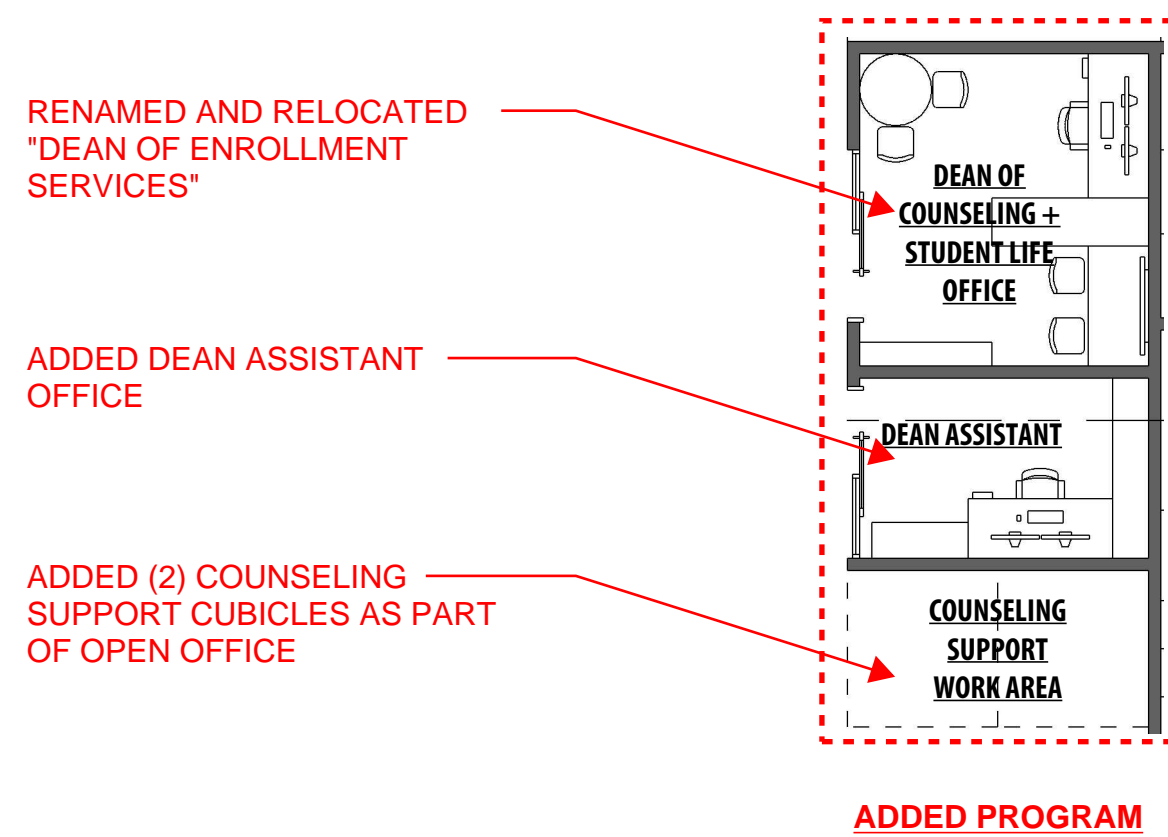
## COUNSELING RECEPTION AREA

- LEGEND**
- 
- ① FLEX STAFF / CONFIDENTIAL OFFICE / VIDEO PHONE
  - ② GO-PRINT STATION
  - ③ UNDER DESK FILE STORAGE
  - ④ INFORMATION KIOSK
  - ⑤ ID SCANNER
  - ⑥ RECEPTION DESK
  - ⑦ WAITING AREA (PART OF CIRCULATION SPACE)




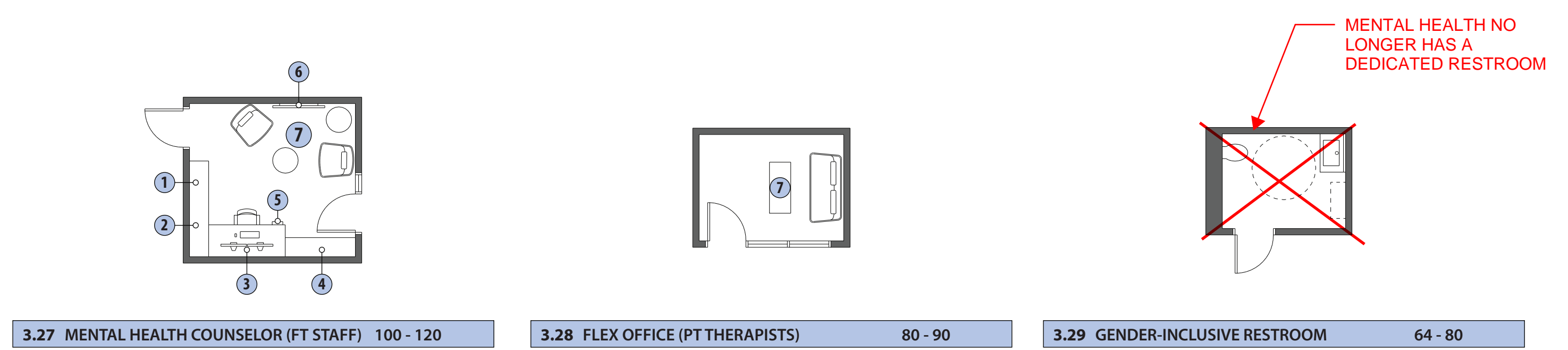
## COUNSELING

- LEGEND**
- 
- ① 42" WIDE LATERAL FILE CABINET
  - ② WALL MOUNTED OVERHEAD STORAGE UNIT
  - ③ BOOKSHELF
  - ④ 30" x 60" SIT-TO-STAND DESK
  - ⑤ MOBILE PEDESTAL
  - ⑥ FLAT PANEL DISPLAY
  - ⑦ PRINT/COPY/SCAN
  - ⑧ WORK COUNTER W/ CUBBIES BELOW
  - ⑨ UNDER COUNTER LAPTOP STORAGE




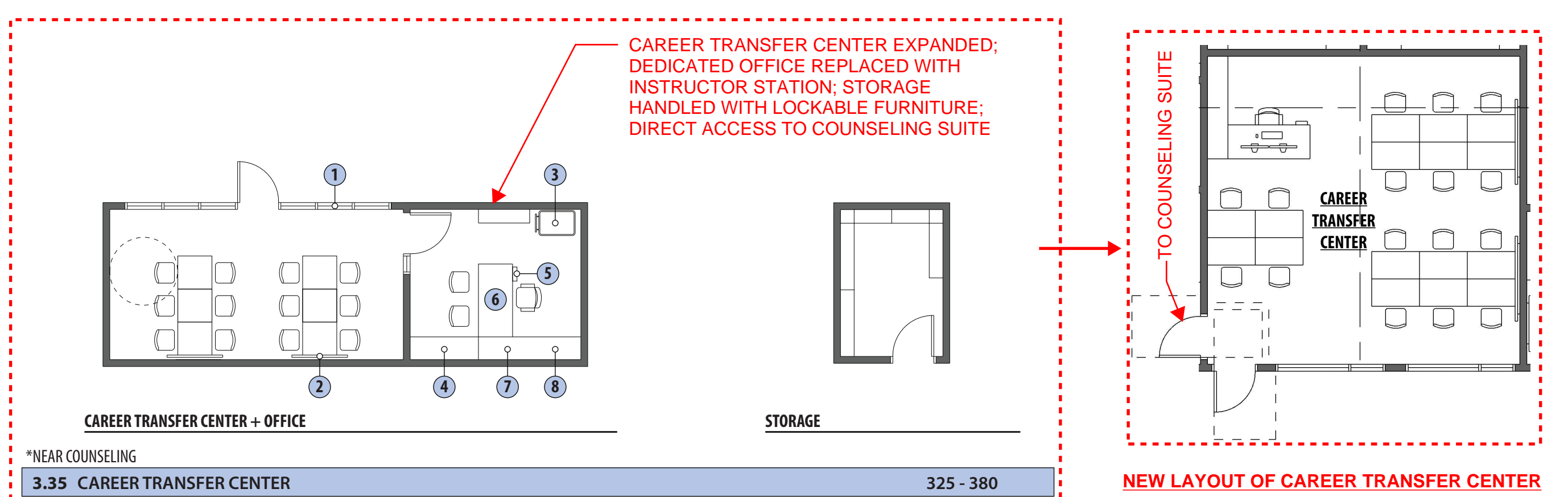
## MENTAL HEALTH SERVICES OFFICE

- LEGEND**
- 
- ① 42" WIDE LATERAL FILE CABINET
  - ② WALL MOUNTED OVERHEAD STORAGE UNIT
  - ③ 30" x 60" SIT-TO-STAND DESK
  - ④ BOOKSHELF
  - ⑤ MOBILE PEDESTAL
  - ⑥ FLAT PANEL DISPLAY
  - ⑦ LOUNGE SEATING



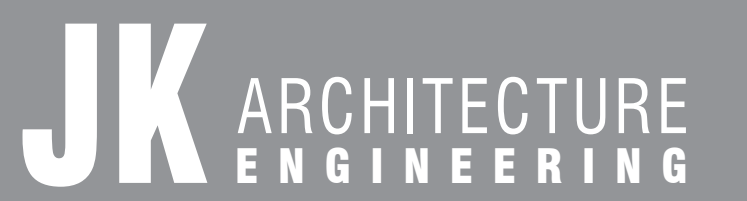
## CAREER TRANSFER CENTER

- LEGEND**
- 
- ① WINDOW WALL
  - ② MEETING TABLE W/ FLAT PANEL DISPLAY
  - ③ LAPTOP CART
  - ④ BOOKSHELF
  - ⑤ MOBILE PEDESTAL
  - ⑥ 30" x 60" SIT-TO-STAND DESK
  - ⑦ WALL MOUNTED OVERHEAD STORAGE UNIT
  - ⑧ 42" WIDE LATERAL FILE CABINET

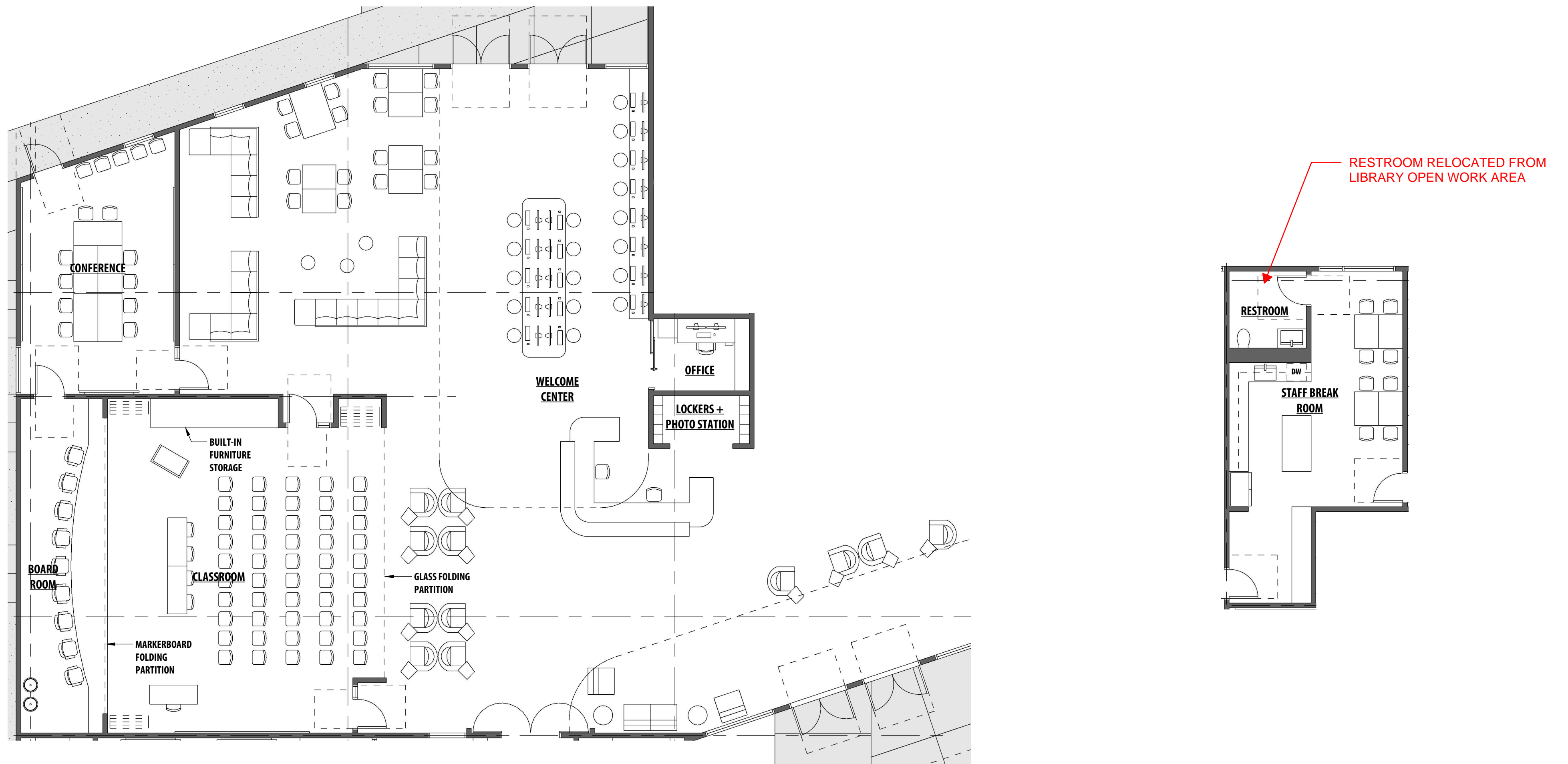




# WELCOME | SHARED SERVICES



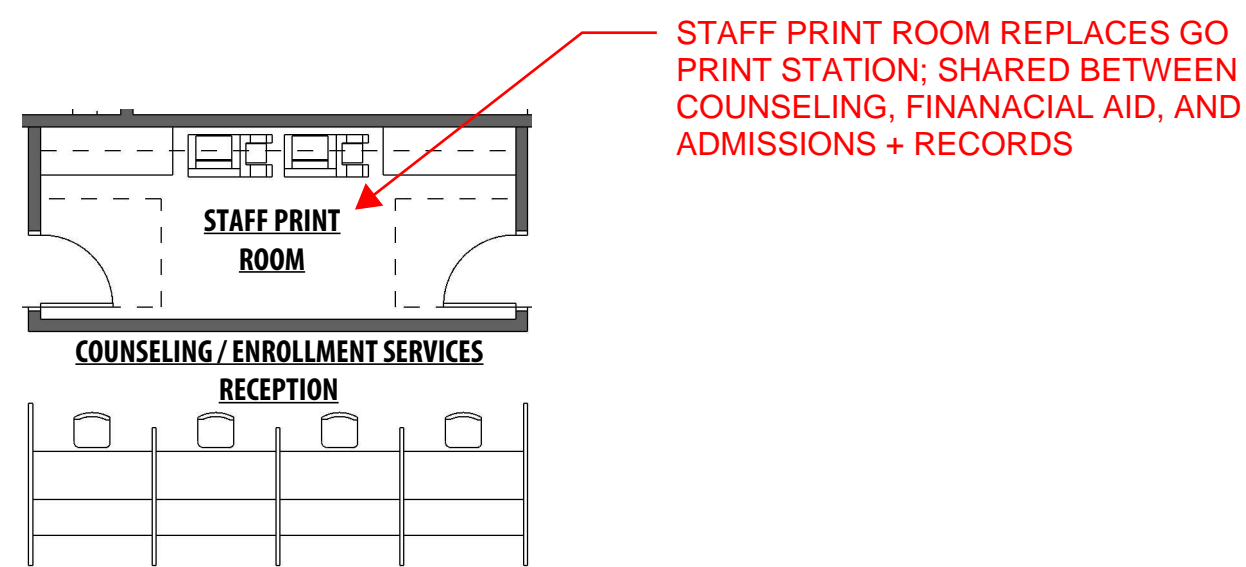
## UPDATED WELCOME CENTER + SHARED RESOURCES



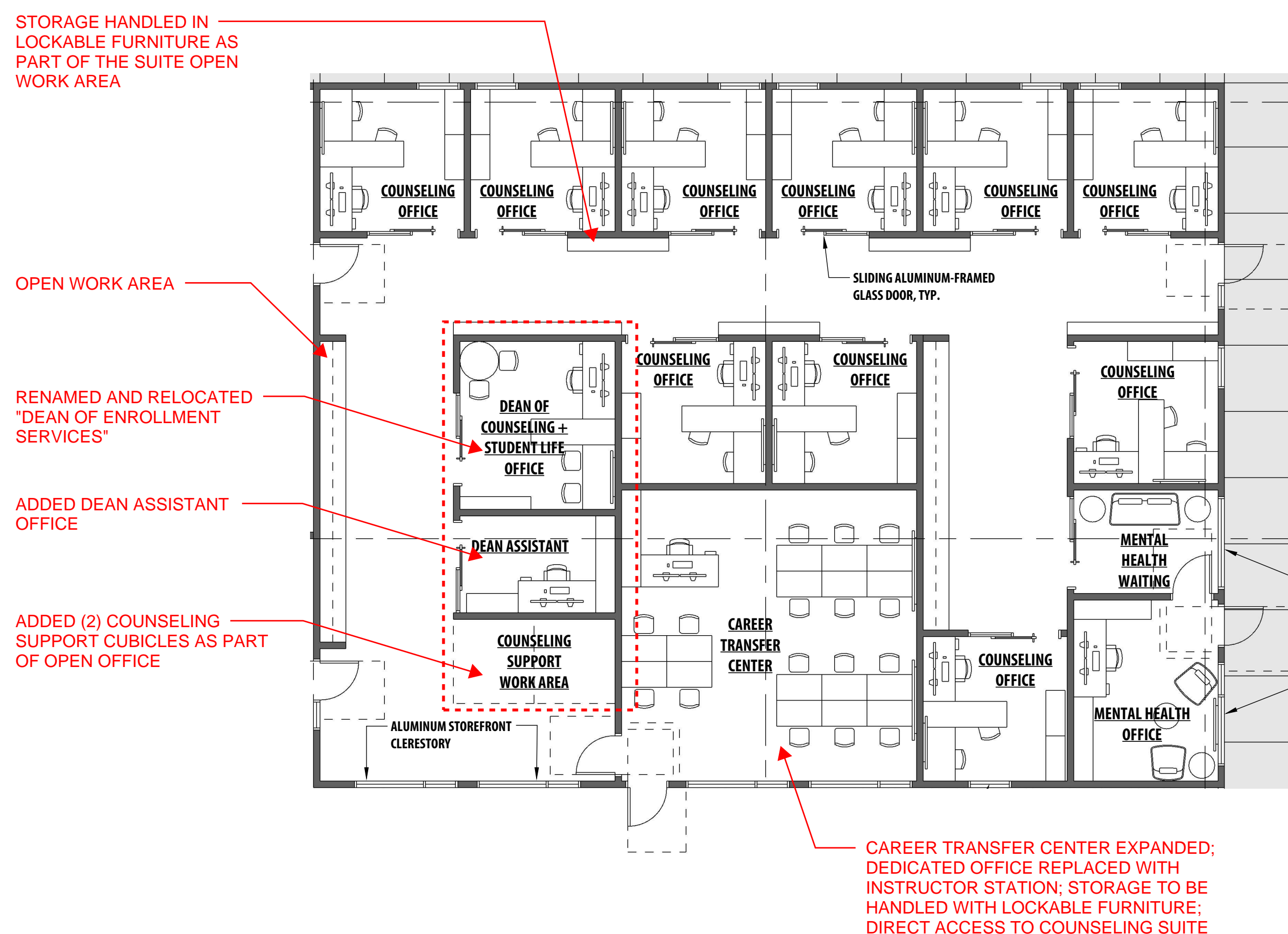
# COUNSELING



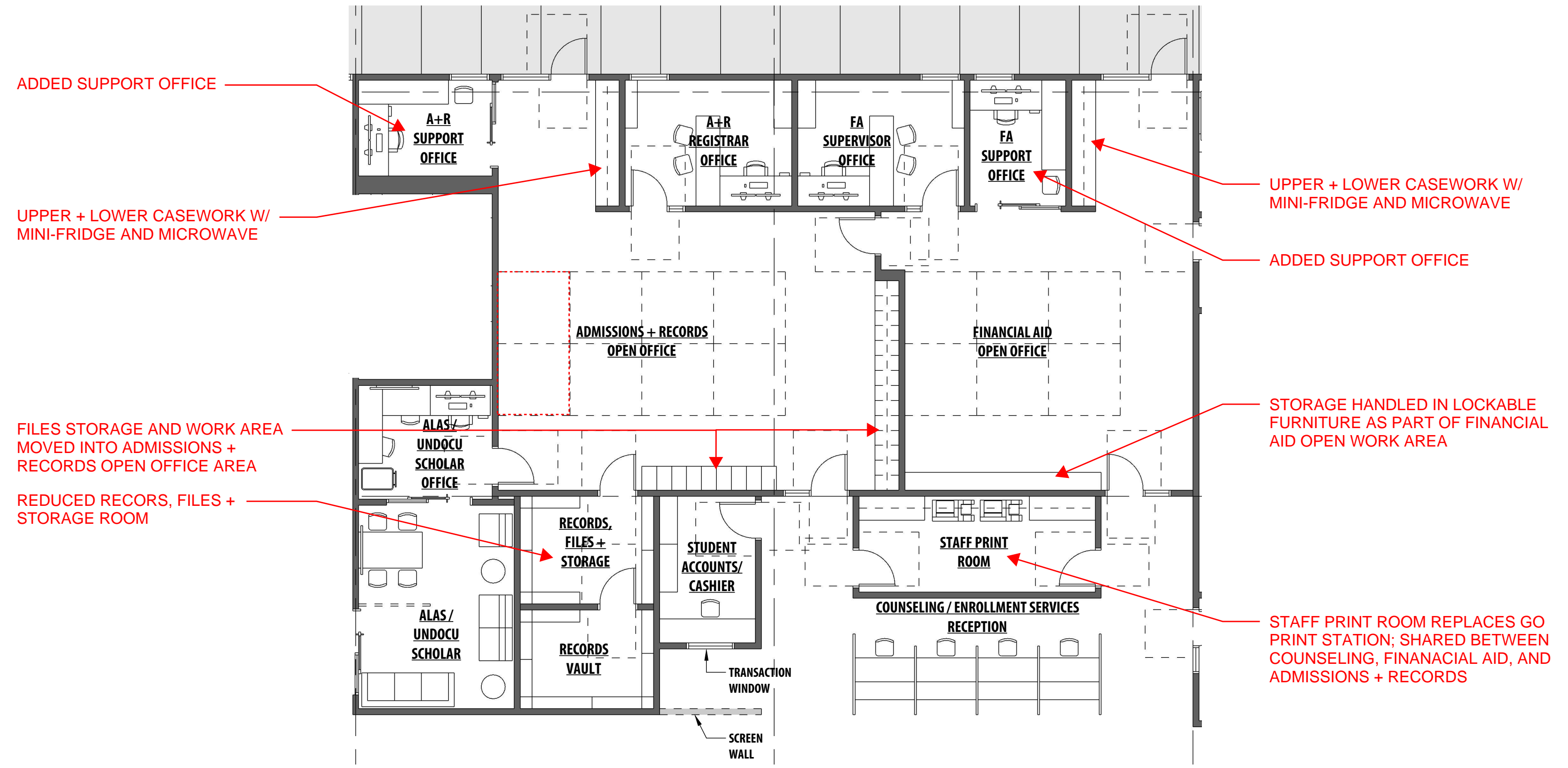
## UPDATED COUNSELING, FINANCIAL AID, AND ADMISSIONS + RECORDS RECEPTION AREA



## UPDATED COUNSELING + MENTAL HEALTH + CAREER TRANSFER CENTER



**UPDATED**  
**FINANCIAL AID, ADMISSIONS + RECORDS, AND ALAS/UNDOCU SCHOLAR**

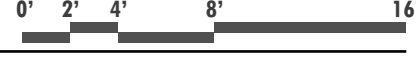




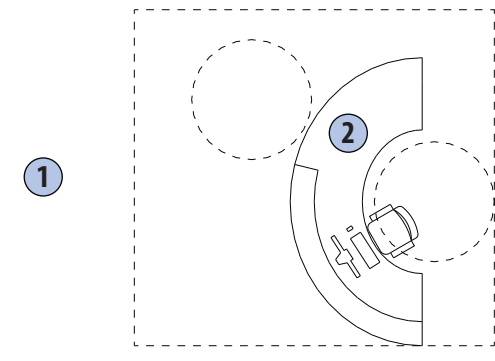
# SUPPORT SERVICES

GENERAL NOTE: ALL DEPARTMENTS TO HAVE ACCESS TO MICROWAVE AND REFRIGERATOR

## ACCESSIBLE EDUCATION CENTER (AEC)

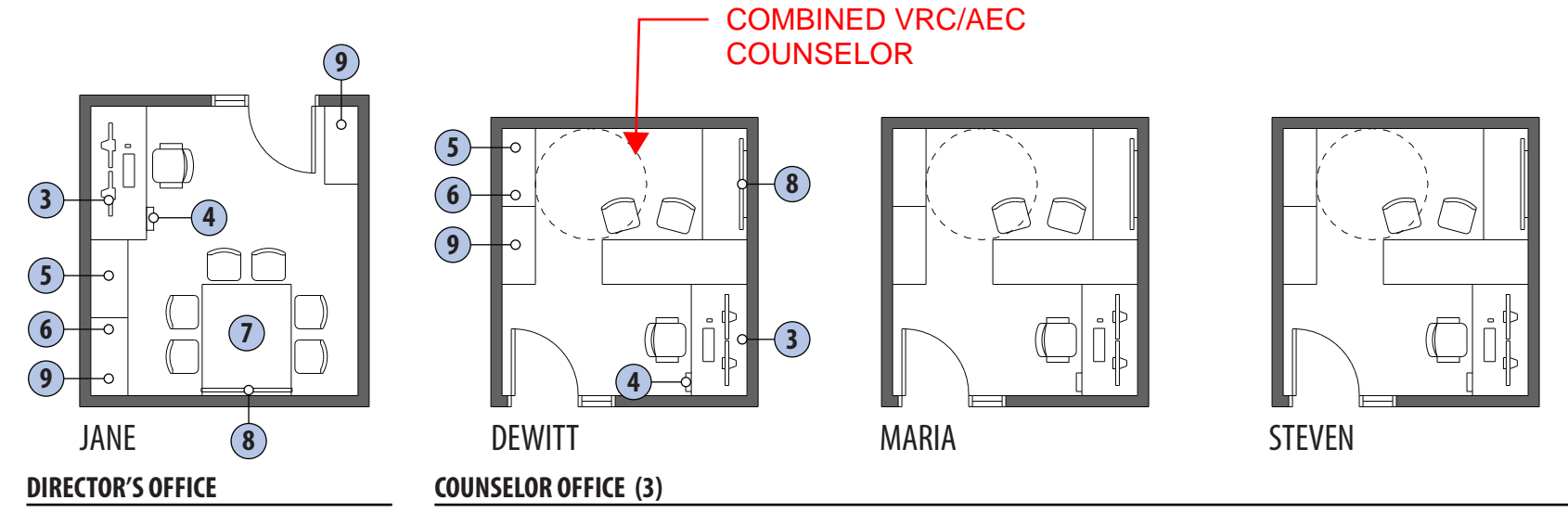
LEGEND 

- 1 WAITING AREA (PART OF CIRCULATION SPACE)
- 2 RECEPTION DESK
- 3 30" x 60" SIT-TO-STAND DESK
- 4 MOBILE PEDESTAL
- 5 42" WIDE LATERAL FILE CABINET
- 6 WALL MOUNTED OVERHEAD STORAGE UNIT
- 7 MEETING TABLE
- 8 FLAT PANEL DISPLAY
- 9 BOOKSHELF

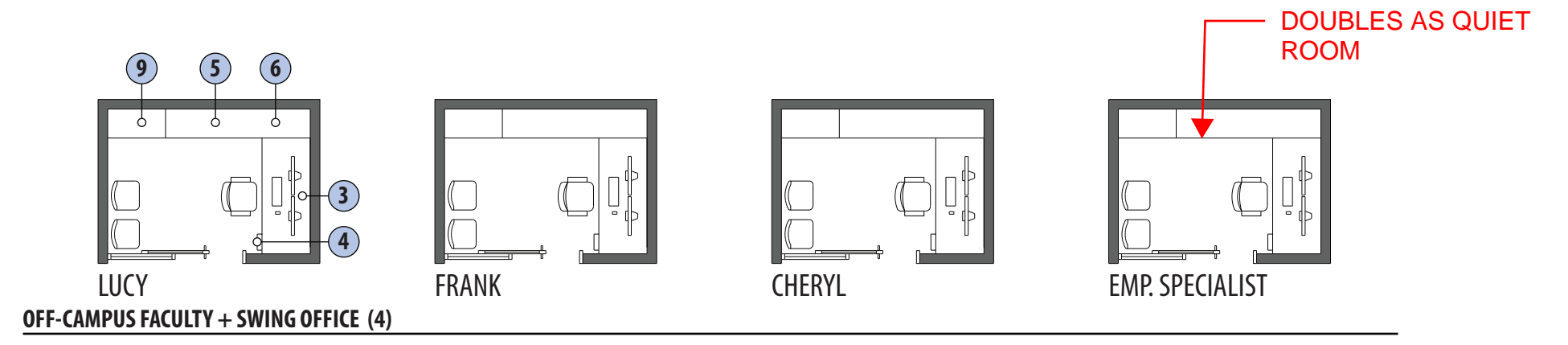


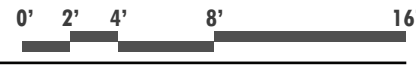
3.18 RECEPTION DESK + WAITING AREA 160 - 190

\*SEE JANE'S NOTES REGARDING FRONT OFFICE LAYOUT

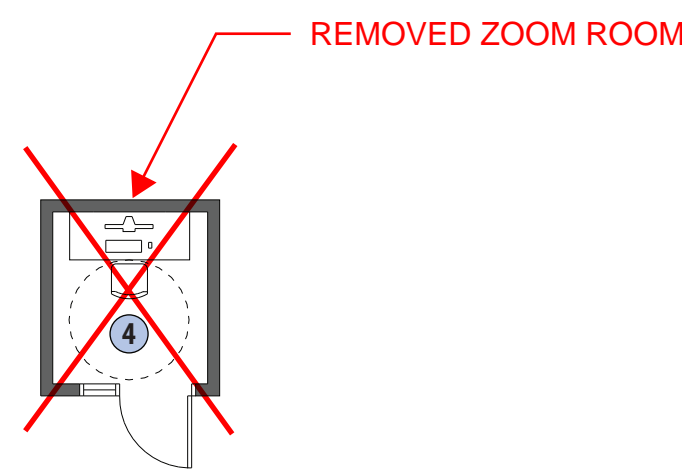


3.19 ACCESSIBLE EDUCATION CENTER 775 - 910

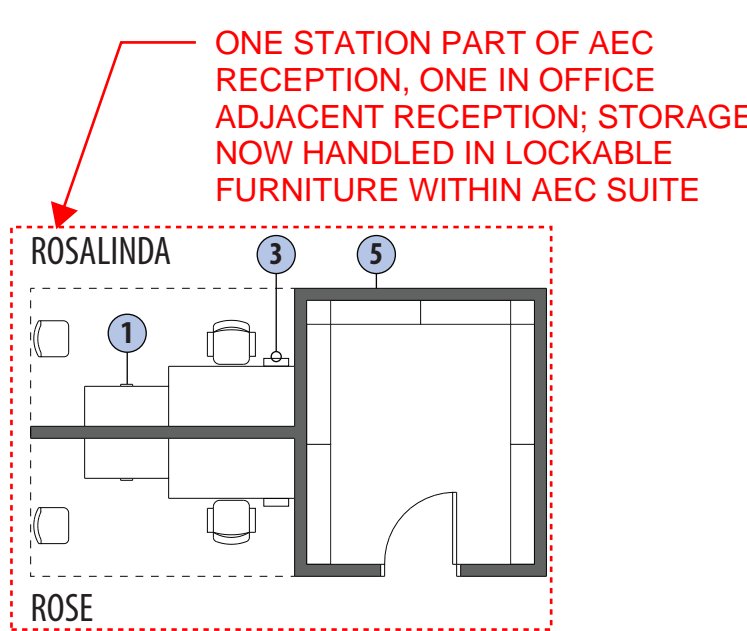


LEGEND 

- 1 42" WIDE LATERAL FILE CABINET
- 2 30" x 72" SIT-TO-STAND DESK
- 3 MOBILE PEDESTAL
- 4 ZOOM / VIDEO PHONE ROOM
- 5 STORAGE SHELVES
- 6 COMPUTER STATION
- 7 FLAT PANEL DISPLAY
- 8 LAPTOP CART
- 9 INSTRUCTOR'S STATION
- 10 TALL STORAGE CABINET
- 11 WORK COUNTER
- 12 BOOKCASE
- 13 WALL MOUNTED OVERHEAD STORAGE UNIT

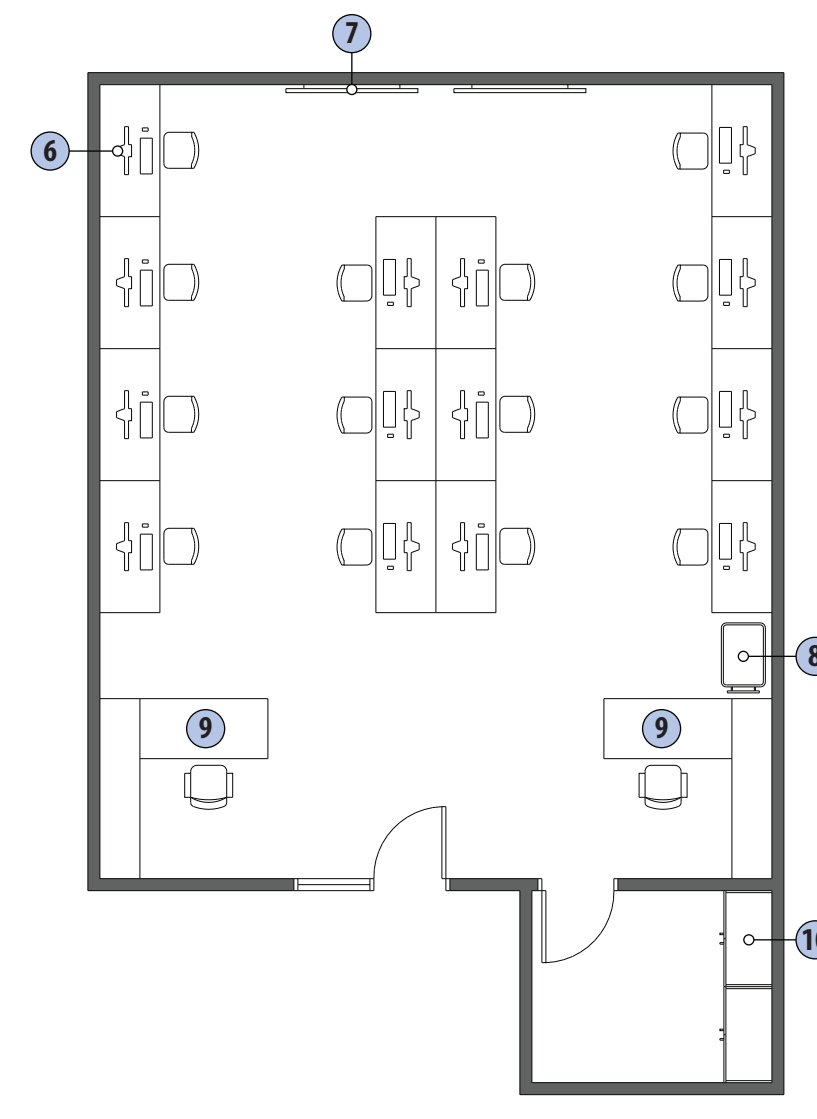


3.19 ZOOM / VIDEO PHONE 45 - 55



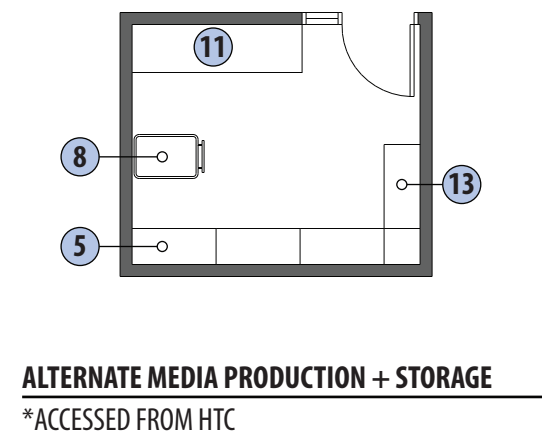
3.20 OPEN OFFICE AREA 185 - 220

\*SEE JANE'S NOTES REGARDING FRONT OFFICE LAYOUT



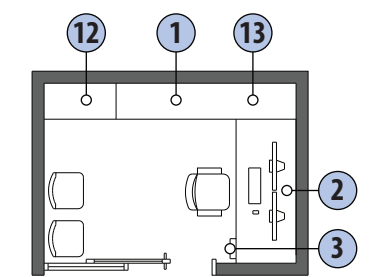
3.21 HIGH-TECH CENTER 925 - 1,090

\*CONNECT TO LEARNING SKILLS OPEN LAB



ALTERNATE MEDIA PRODUCTION + STORAGE

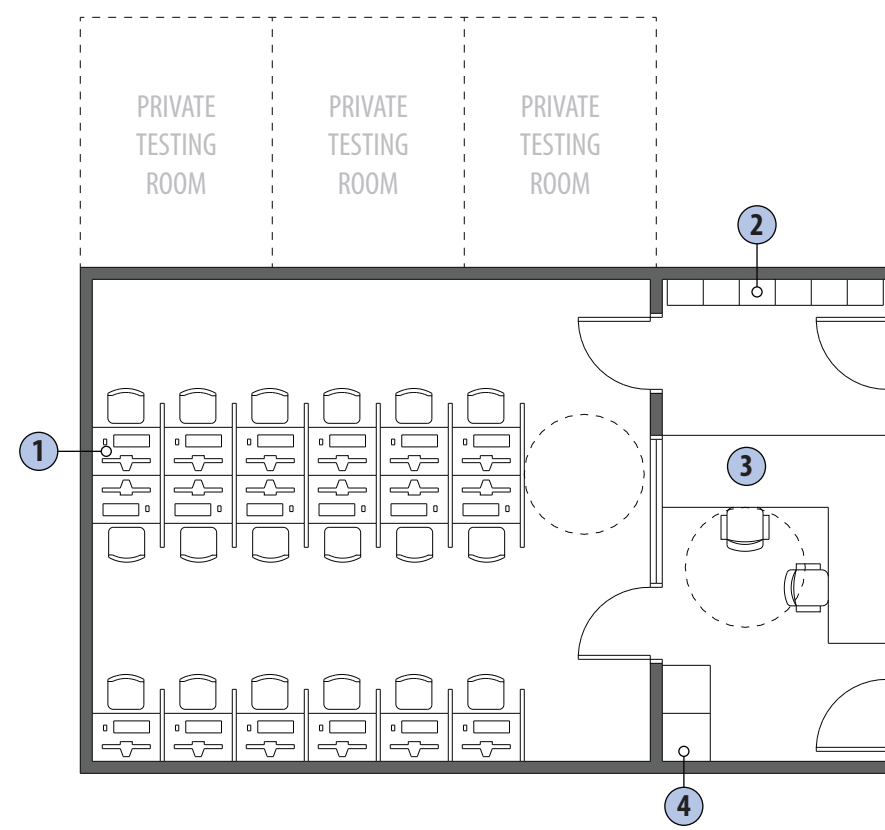
\*ACCESSED FROM HTC



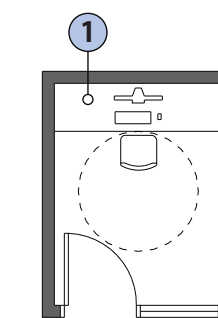
HTC FACULTY

LEGEND 

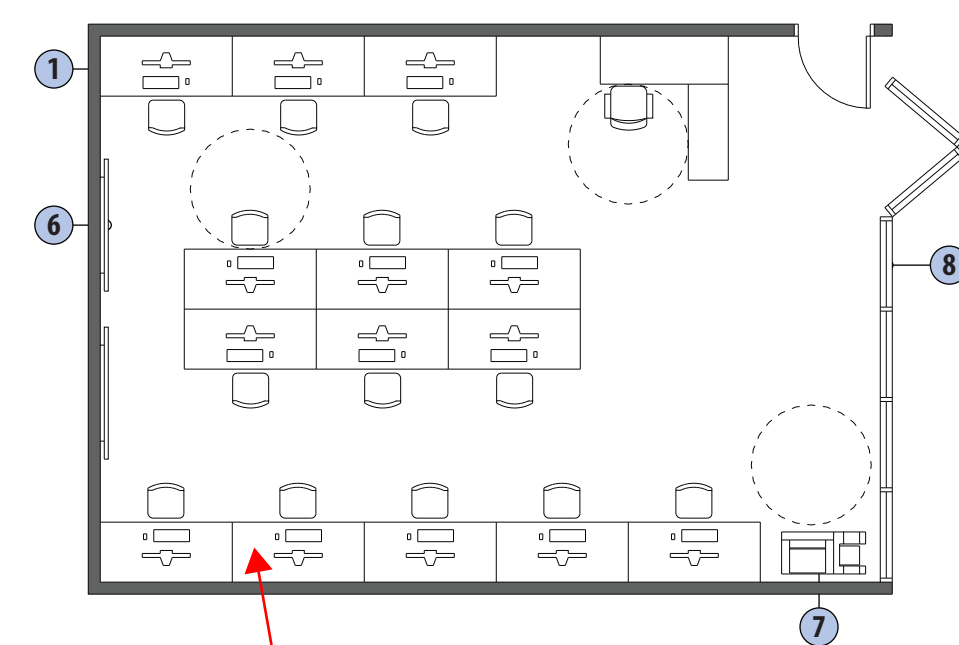
- 1 COMPUTER STATION
- 2 LOCKERS
- 3 WELCOME DESK
- 4 FLAT FILES
- 5 INSTRUCTOR STATION
- 6 FLAT PANEL DISPLAY
- 7 PRINT/COPY/SCAN
- 8 OPERABLE WALL - CONNECT TO LS OPEN LAB
- 9 TALL CABINET
- 10 LAPTOP CART



3.22 TEST PROCTORING CENTER (TPC) 700 - 825

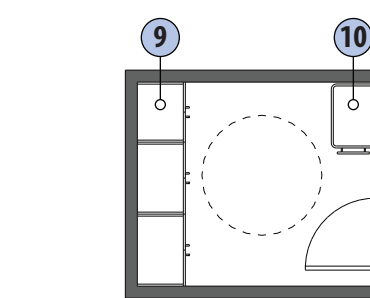


PRIVATE TESTING ROOM



3.23 LEARNING SKILLS LAB 900 - 1,060

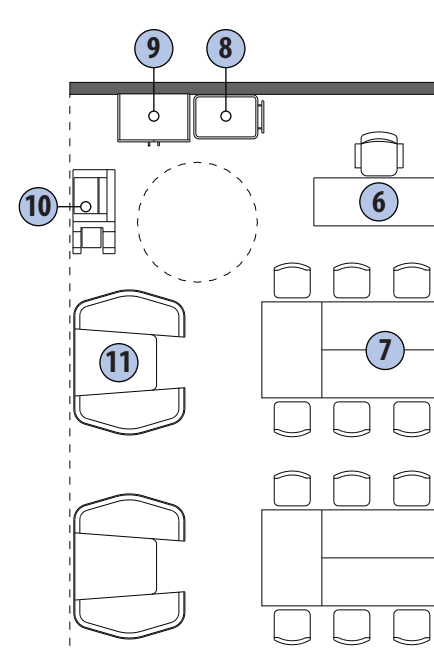
\*CONNECT TO LEARNING SKILLS OPEN LAB



LAPTOP STORAGE

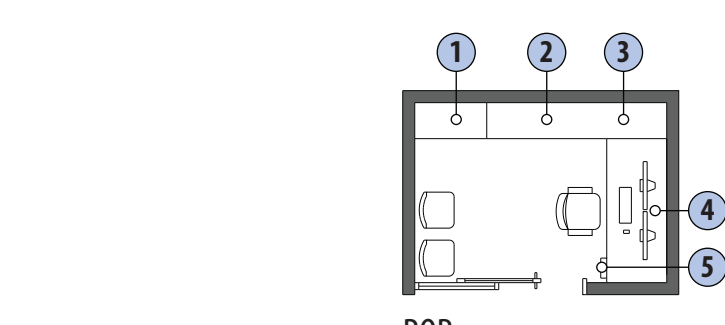
LEGEND 

- 1 BOOKSHELF
- 2 42" WIDE LATERAL FILE CABINET
- 3 WALL MOUNTED OVERHEAD STORAGE UNIT
- 4 30" x 72" SIT-TO-STAND DESK
- 5 MOBILE PEDESTAL
- 6 INSTRUCTOR STATION
- 7 MOVABLE FURNITURE
- 8 LAPTOP CART
- 9 STORAGE CABINET
- 10 PRINT/COPY/SCAN
- 11 4-PERSON HIGH-WALLED STUDY BOOTH

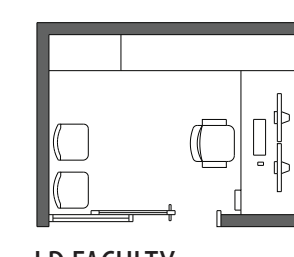


3.24 LEARNING SKILLS OPEN LAB 450 - 530

\*CONNECT TO LSL + HTC (BETWEEN)



LEARNING SKILLS INSTRUCTOR OFFICE (2)

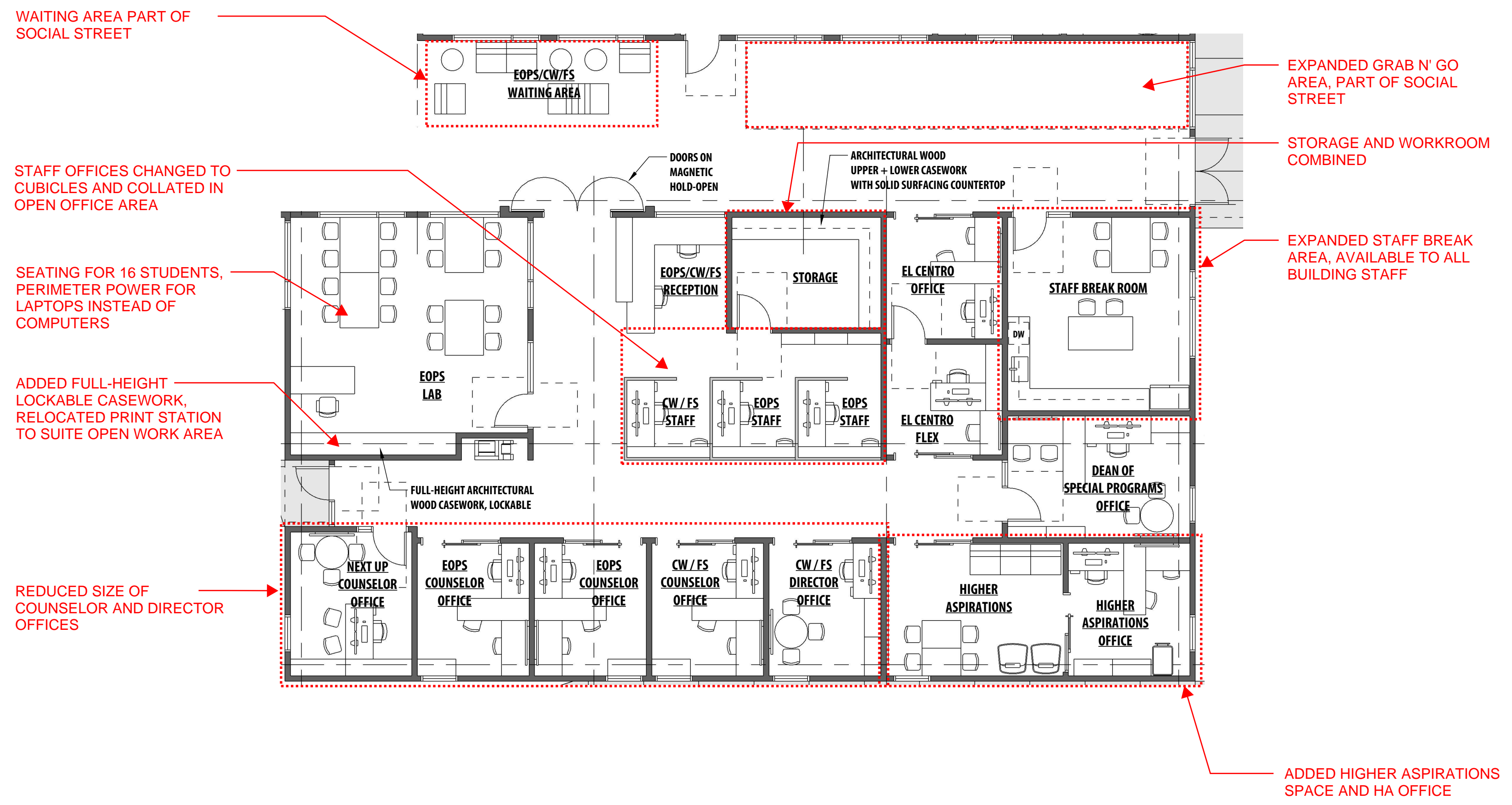


LD FACULTY



**UPDATED**

**SUPPORT SERVICES (EOPS + CALWORKS + FRESH SUCCESS, EL CENTRO, AND HIGHER ASPIRATIONS)**



**UPDATED**

**ACCESSIBLE EDUCATION CENTER + VETERANS RESOURCE CENTER**

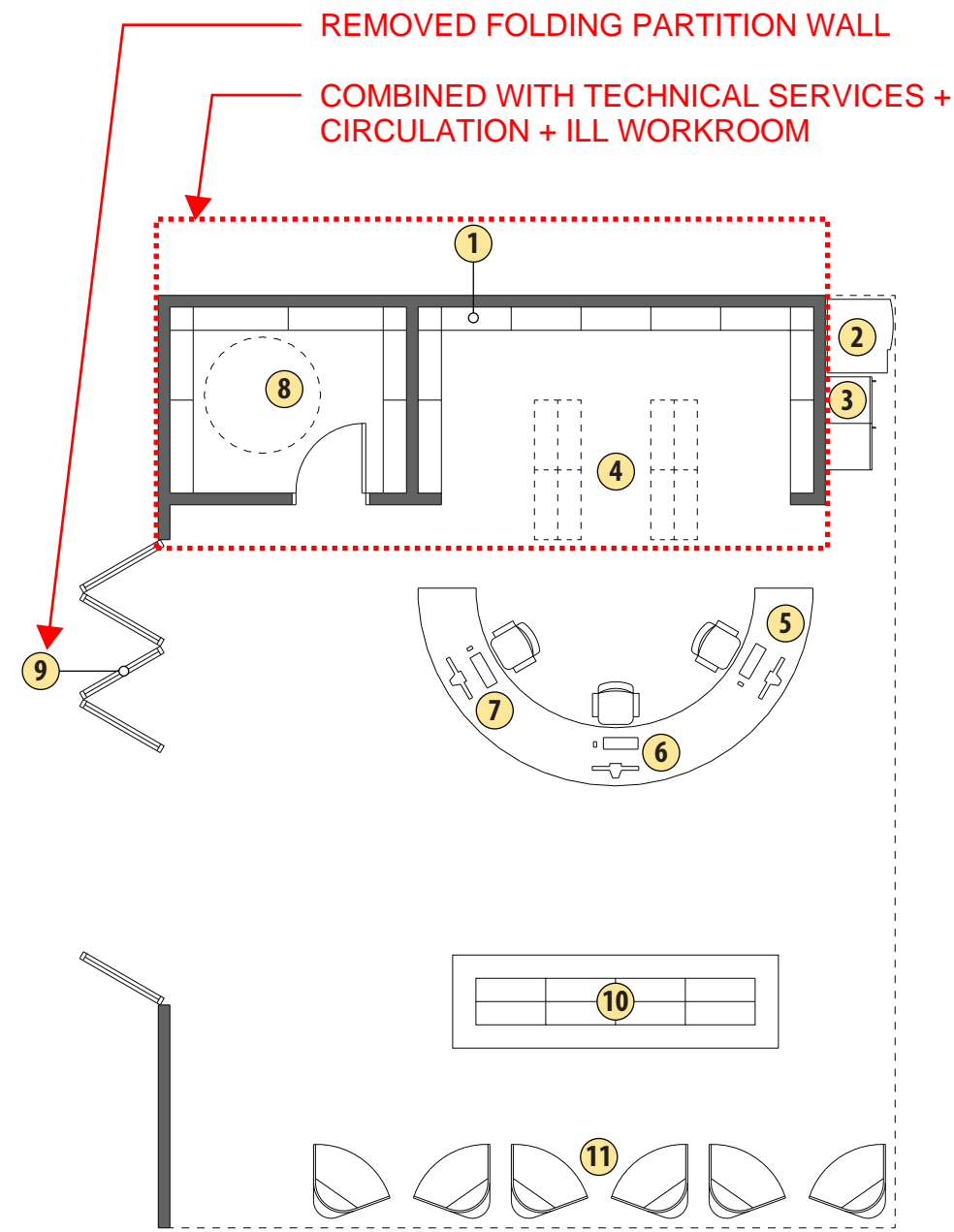


# LIBRARY + LEARNING SERVICES

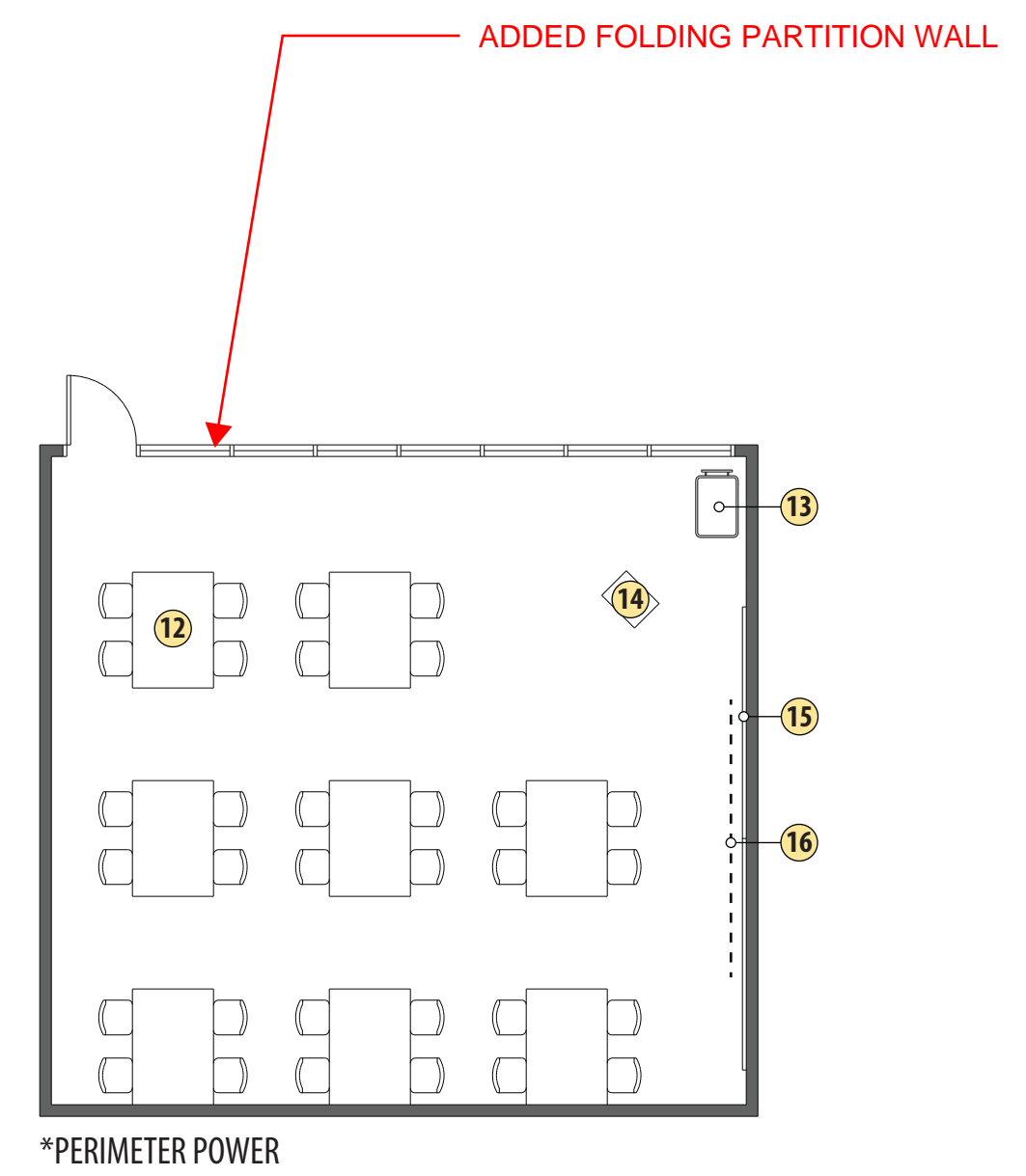
GENERAL NOTE: ALL DEPARTMENTS TO HAVE ACCESS TO MICROWAVE AND REFRIGERATOR

## LIBRARY PUBLIC AREAS

- LEGEND**
- 
- 1 RESERVE SHELVING
  - 2 SUPPLIES + VENDING MACHINE
  - 3 TRASH / RECYCLE
  - 4 EXPANDABLE COURSE RESERVES STORAGE
  - 5 REFERENCE STATION
  - 6 CIRCULATION DESK
  - 7 INTERNAL BOOK DROP
  - 8 STORAGE ROOM (INCLUDES HEALTH SERVICES ITEMS)
  - 9 FOLDING GLASS PARTITION WALL
  - 10 LOCKABLE BOOK / ART / ARTIFACTS DISPLAY
  - 11 LOUNGE FURNITURE
  - 12 MOVABLE FURNITURE
  - 13 LAPTOP CART
  - 14 MOBILE LECTERN
  - 15 WRITABLE SURFACE
  - 16 PROJECTOR SCREEN




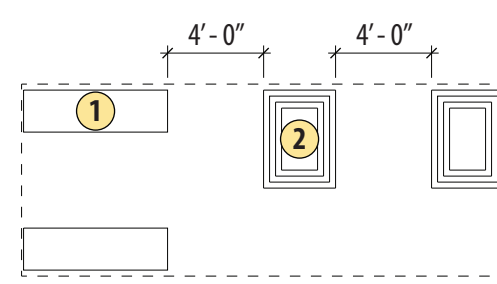
2.01 LIBRARY ENTRY + SERVICE POINT 730 - 860



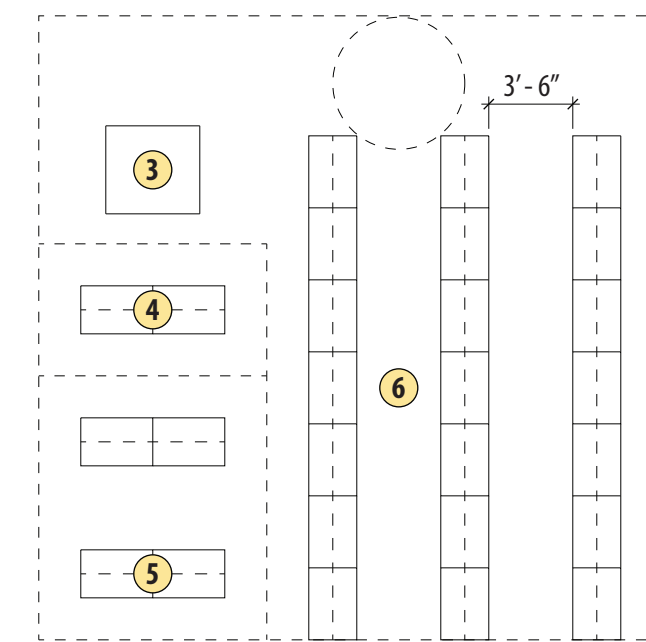
2.02 INFORMATION LITERACY CLASSROOM 720 - 840

## LIBRARY COLLECTION AREAS

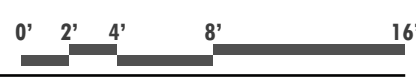
- LEGEND**
- 
- 1 OPEN ACCESS BOOK DISPLAY
  - 2 CURATED GLASS BOOK DISPLAY
  - 3 ATLAS (FLAT FILES)
  - 4 CLOSED STACK
  - 5 PERIODICAL ARCHIVE
  - 6 REFERENCE

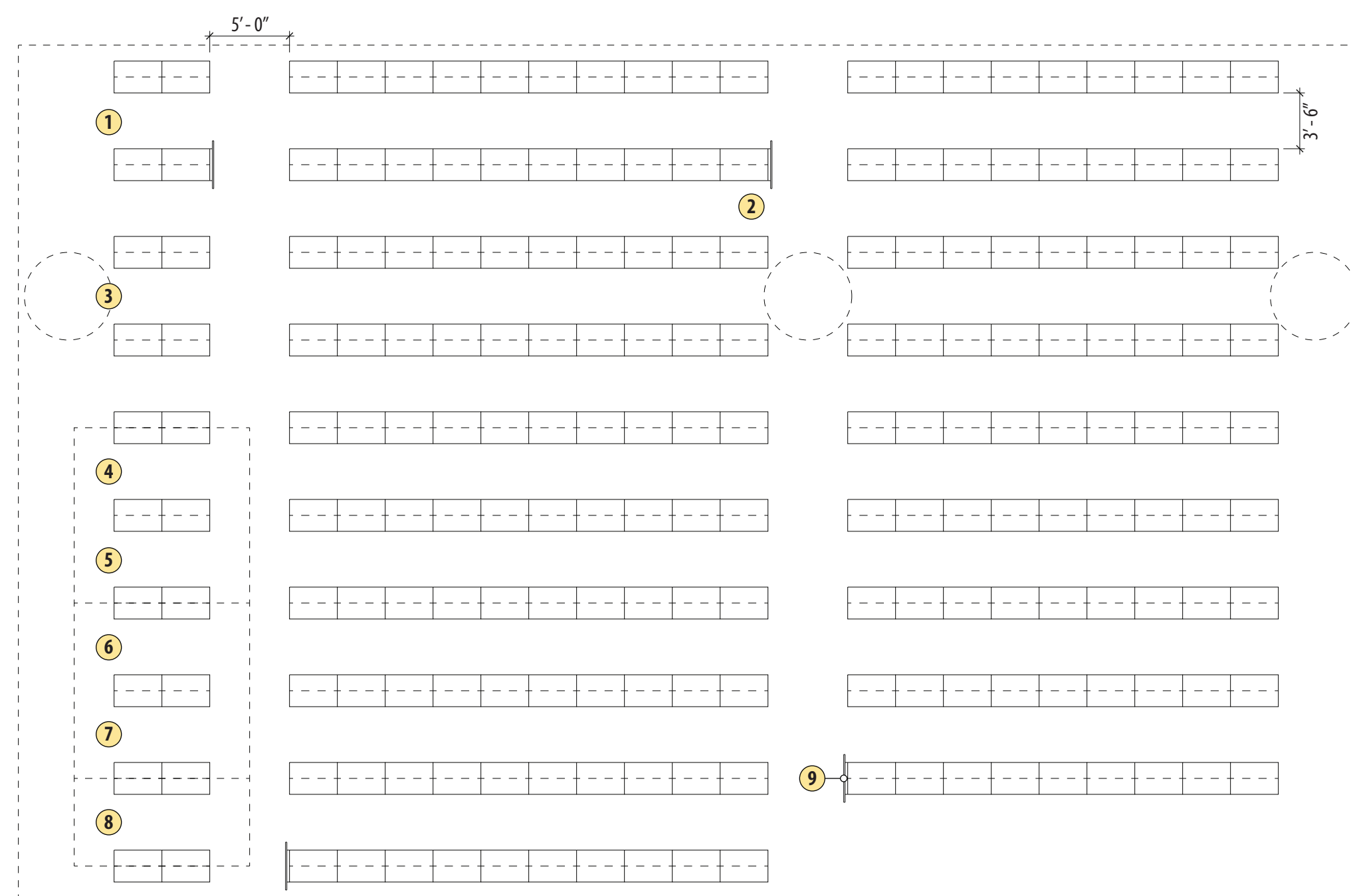


2.03 LIBRARY COLLECTION AREAS - DISPLAY 85 - 100




2.05 REFERENCE COLLECTION 400 - 475

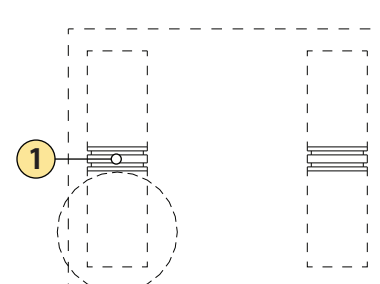
- LEGEND**
- 
- 1 MAIN STACKS
  - 2 CHILDREN + TEENS
  - 3 POPULAR FICTION + NON-FICTION
  - 4 ESL
  - 5 PROFESSIONAL DEVELOPMENT
  - 6 OVERSIZED BOOKS
  - 7 AUDIO BOOKS
  - 8 VIDEO / DVD COLLECTION
  - 9 DIGITAL OPAC TOUCH SCREENS



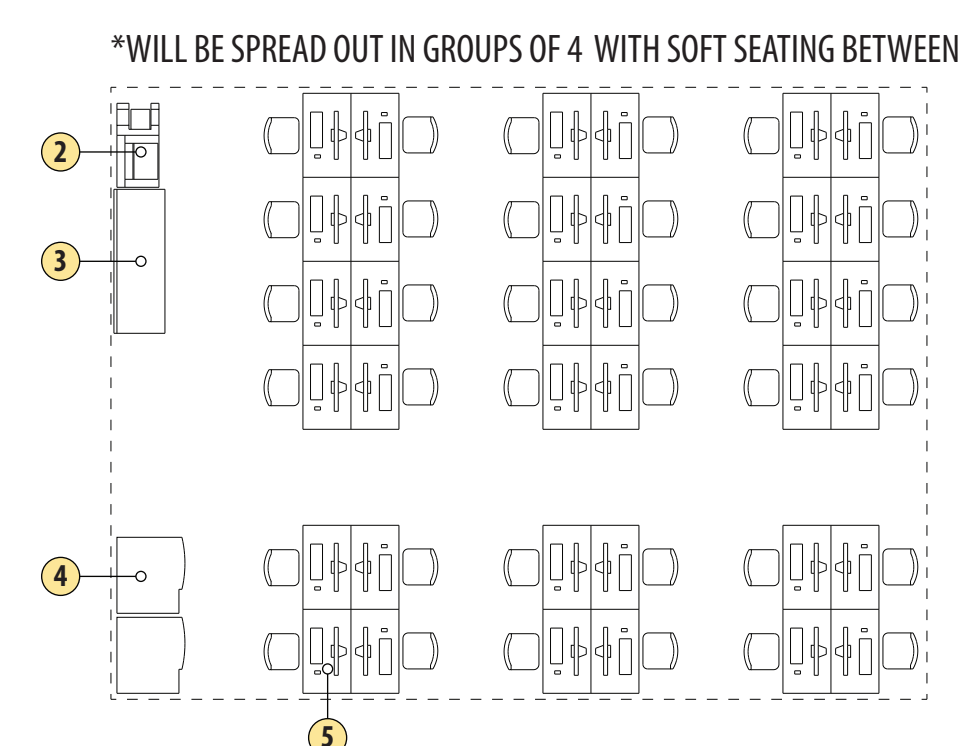
2.04 GENERAL CIRCULATION COLLECTION 3,275 - 3,855

## LIBRARY TECHNOLOGY

- LEGEND**
- 
- 1 DIGITAL OPAC TOUCH SCREENS
  - 2 PRINTING STATION
  - 3 WORK COUNTER
  - 4 LAPTOP / TABLET VENDING MACHINE
  - 5 COMPUTER STATION (35)



2.06 DIGITAL DISPLAYS 50 - 60



2.07 DESKTOP COMPUTER STATIONS 860 - 1,015

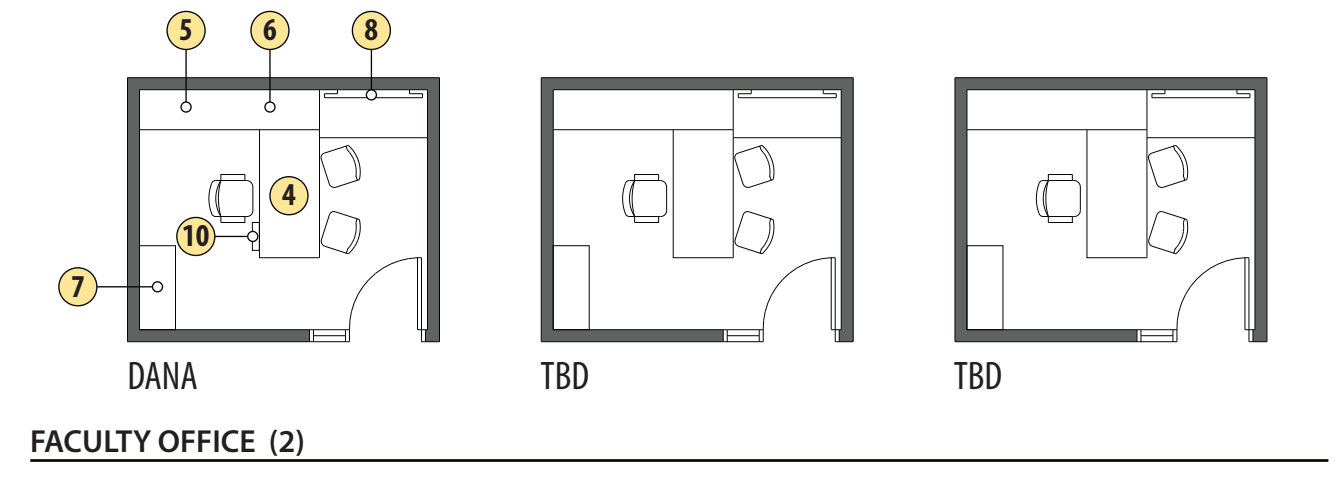
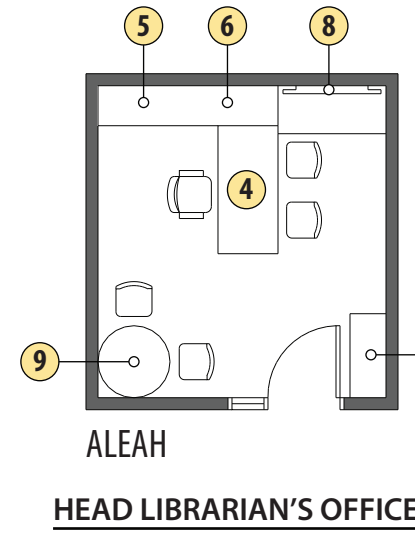
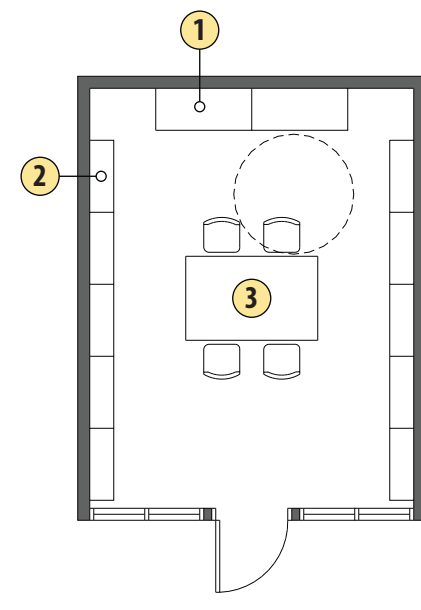


# LIBRARY + LEARNING SERVICES

GENERAL NOTE: ALL DEPARTMENTS TO HAVE ACCESS TO MICROWAVE AND REFRIGERATOR

## LIBRARY ARCHIVES + CLOSED RESERVES | FACULTY + STAFF WORK AREA

- LEGEND** 0' 2' 4' 8' 16'
- 1 FLAT FILES
  - 2 CLOSED STACKS
  - 3 MOVABLE WORK TABLE
  - 4 30" x 72" SIT-TO-STAND DESK
  - 5 42" WIDE LATERAL FILE CABINET
  - 6 WALL MOUNTED OVERHEAD STORAGE UNIT
  - 7 BOOKSHELF
  - 8 FLAT PANEL DISPLAY
  - 9 MEETING TABLE
  - 10 MOBILE PEDESTAL

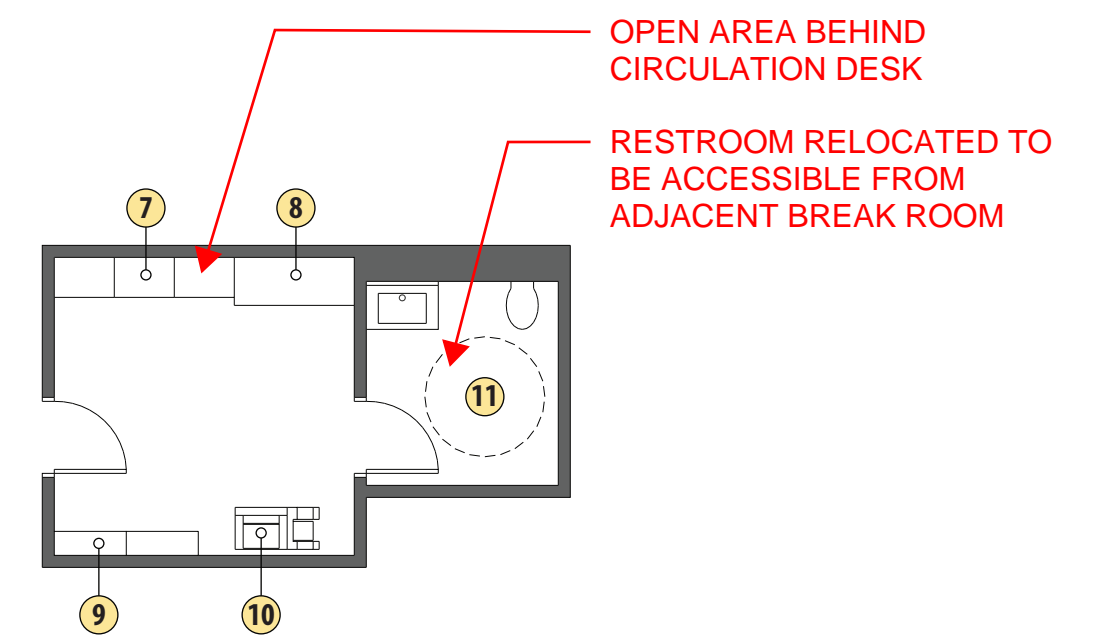
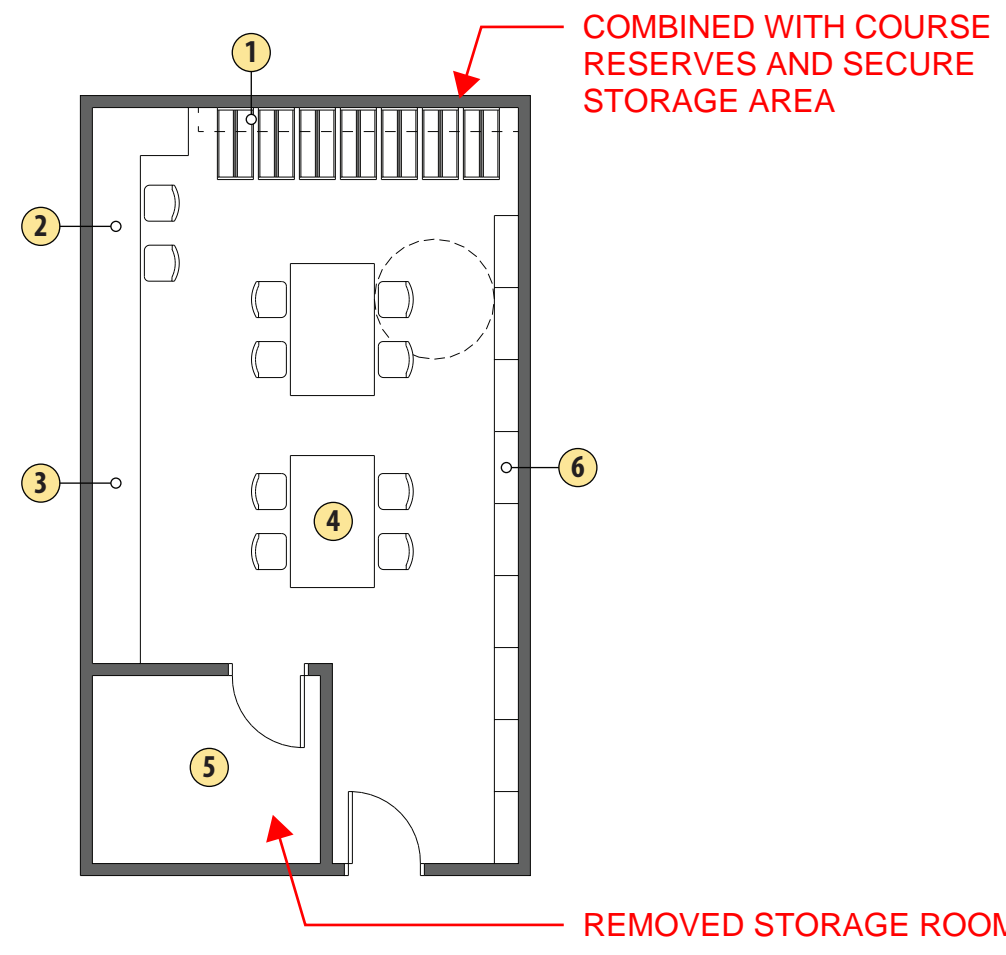


2.08 LIBRARY ARCHIVES + CLOSED RESERVES 135 - 160

2.09 FACULTY + STAFF WORK AREA 340 - 400

## TECHNICAL SERVICES + CIRCULATION + ILL

- LEGEND** 0' 2' 4' 8' 16'
- 1 WORKING CART PARKING
  - 2 RECEIVING / SHIPPING COUNTER
  - 3 MENDING / WORK COUNTER
  - 4 OPEN WORKSTATIONS
  - 5 STORAGE ROOM
  - 6 LOAN CATALOG RESERVES
  - 7 LOCKERS
  - 8 CENTRAL MAIL PICKUP AREA
  - 9 BOOKSHELF
  - 10 PRINTER / COPY / SCANNER
  - 11 FACULTY + STAFF RESTROOM

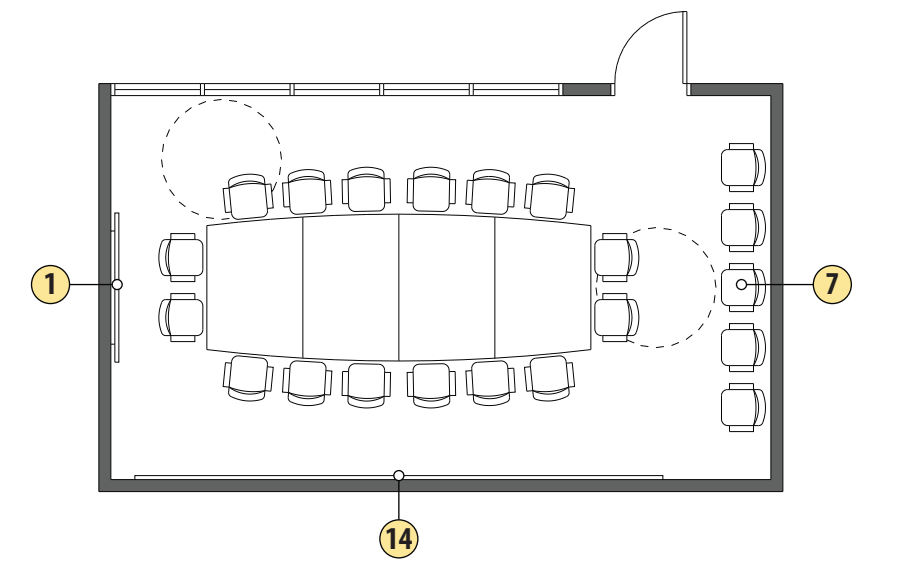
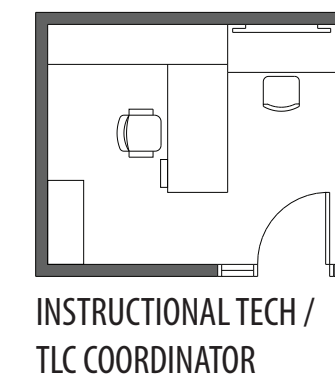
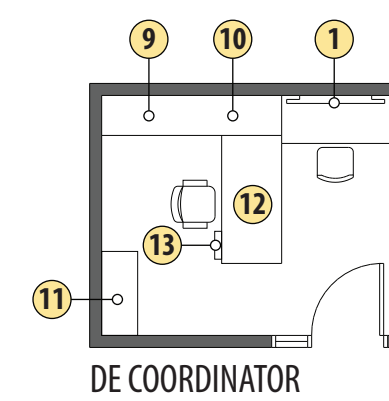
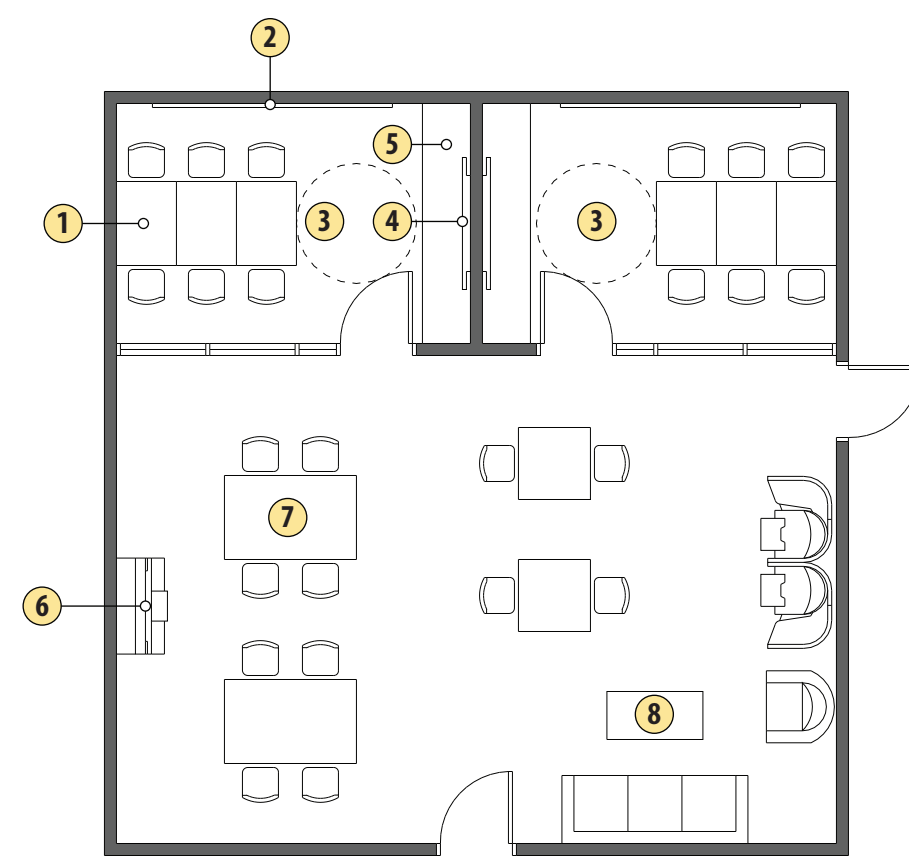


2.10 TECHNICAL SERVICES + CIRCULATION + ILL WORKROOM 510 - 600

2.11 OPEN WORK AREA 235 - 275

## TLC + DISTANCE EDUCATION

- LEGEND** 0' 2' 4' 8' 16'
- 1 MOVABLE FURNITURE
  - 2 WRITABLE SURFACE
  - 3 BREAKOUT ROOM
  - 4 FLAT PANEL DISPLAY
  - 5 STORAGE CUBBIES
  - 6 MOBILE DISPLAY SCREEN + WHITEBOARD
  - 7 LAPTOP TABLE W/ POWER
  - 8 LOUNGE
  - 9 42" WIDE LATERAL FILE CABINET
  - 10 WALL MOUNTED OVERHEAD STORAGE UNIT
  - 11 BOOKSHELF
  - 12 30" x 60" SIT-TO-STAND DESK
  - 13 MOBILE PEDESTAL
  - 14 WRITABLE SURFACE
  - 15 1-PERSON STUDY POD W/ LAPTOP TABLE



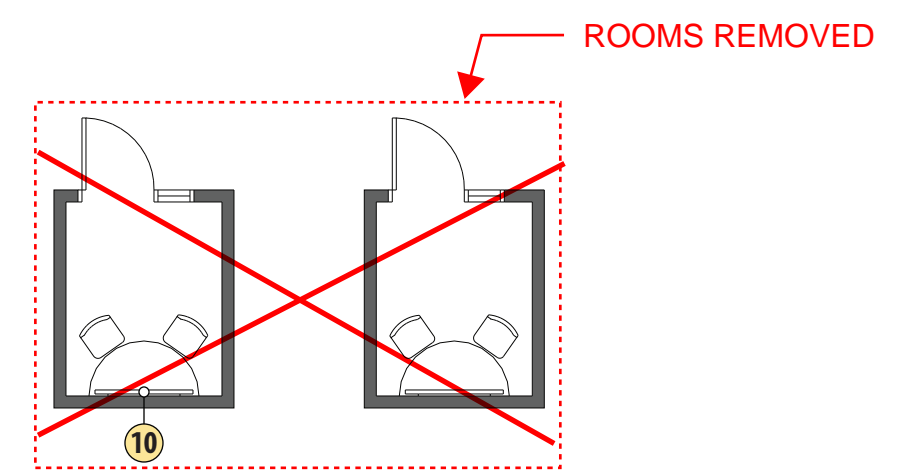
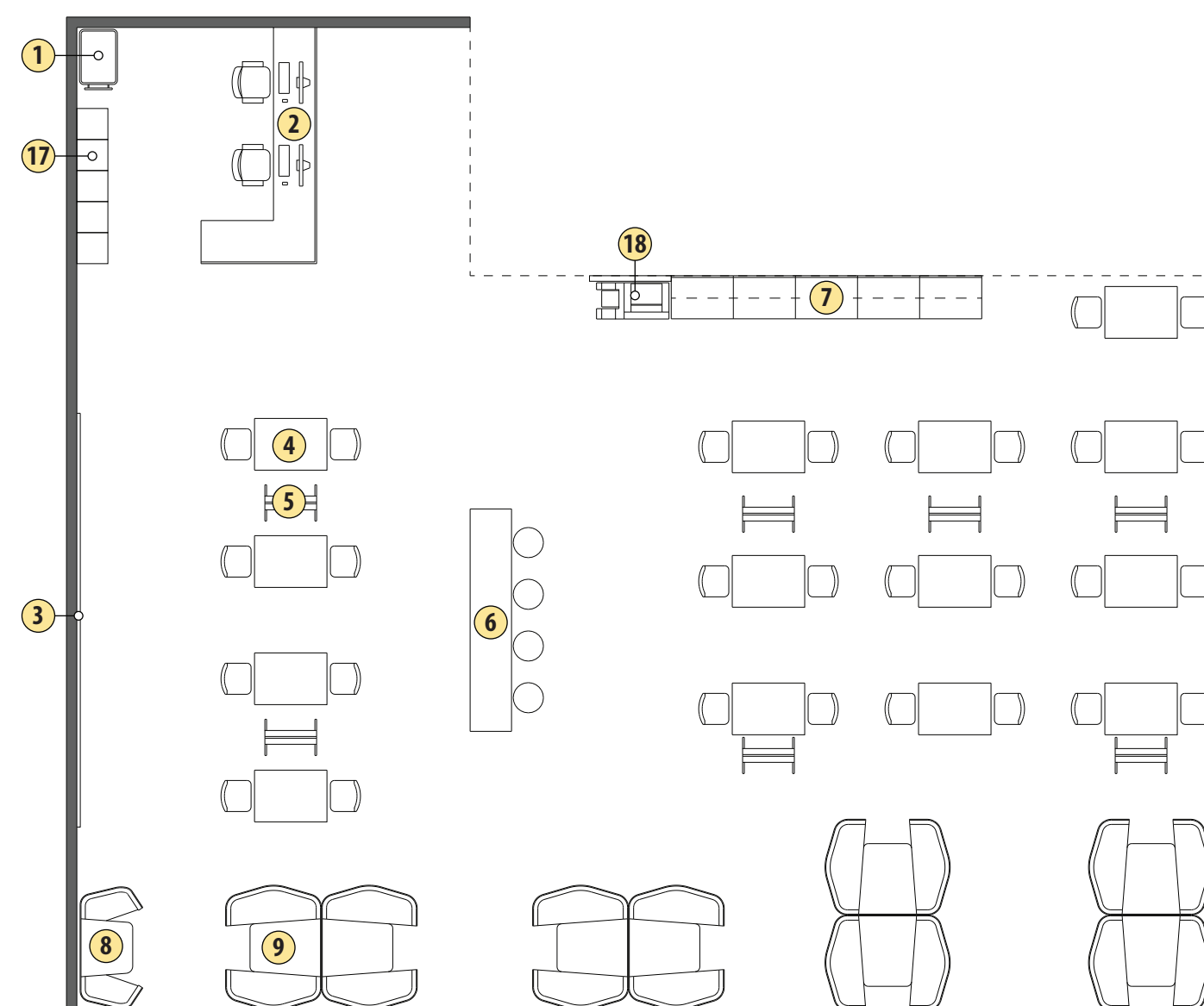
2.12 WORK AREA / WORK SPACE 350 - 415

2.13 FACULTY OFFICE 200 - 240

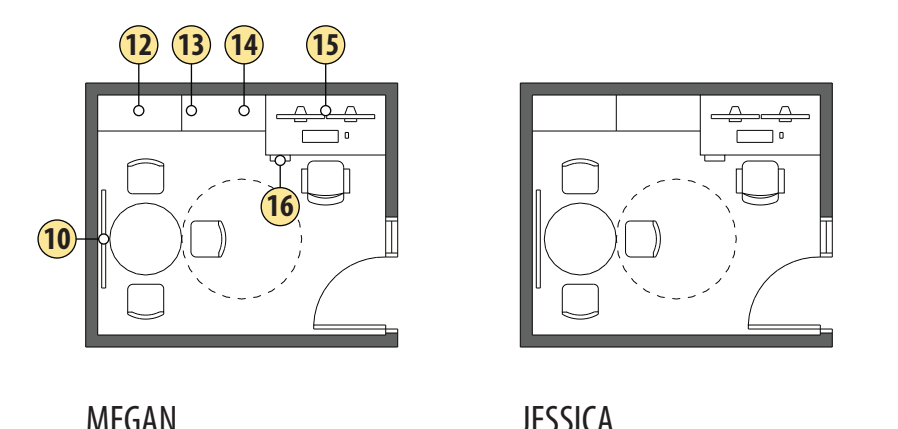
2.14 MEETING ROOM 375 - 440

## LEARNING COMMONS

- LEGEND** 0' 2' 4' 8' 16'
- 1 LAPTOP CART
  - 2 HELP DESK
  - 3 WRITABLE SURFACE
  - 4 2-PERSON READER TABLE
  - 5 MOBILE WRITABLE BOARD
  - 6 HIGH COUNTER W/ STOOLS
  - 7 TOOLS / LEARNING RESOURCE STORAGE + DISPLAY
  - 8 2-PERSON HIGH-WALLED STUDY POD
  - 9 4-PERSON HIGH-WALLED STUDY BOOTH
  - 10 FLAT PANEL DISPLAY W/ WALL MOUNTED CAMERAS / MICROPHONE
  - 11 MEETING TABLE W/ FLAT PANEL DISPLAY
  - 12 BOOKCASE
  - 13 WALL MOUNTED OVERHEAD STORAGE UNIT
  - 14 42" WIDE LATERAL FILE CABINET
  - 15 30" x 60" SIT-TO-STAND DESK
  - 16 MOBILE PEDESTAL
  - 17 STAFF LOCKERS (10)
  - 18 GO-PRINT STATION



2.16 MULTI-MEDIA / VIDEO EDITING ROOM (2) 40 - 50




2.15 LEARNING COMMONS OPEN AREA 1,345 - 1,580

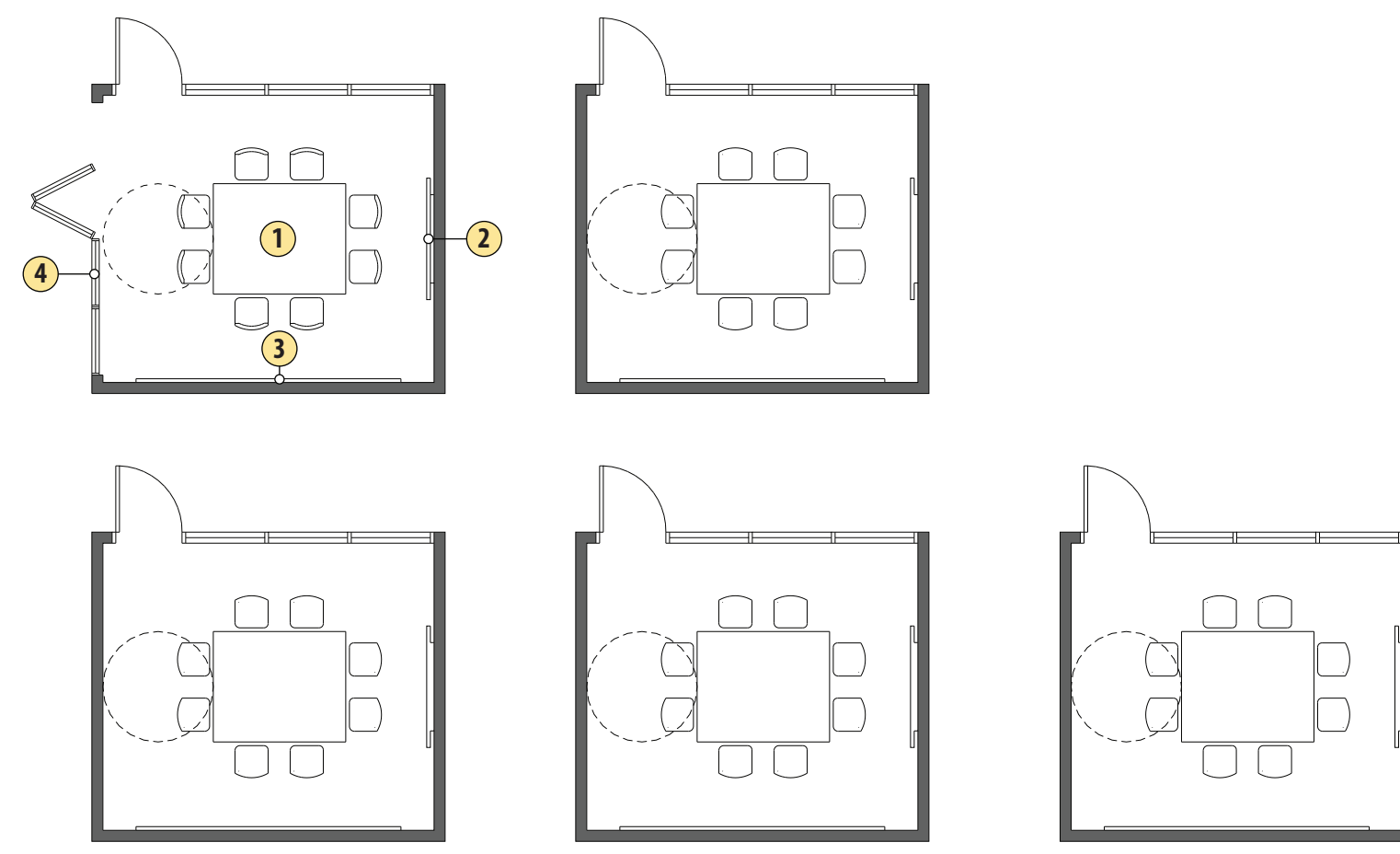
2.17 FACULTY + STAFF OFFICE (2) 375 - 440

# LIBRARY + LEARNING SERVICES

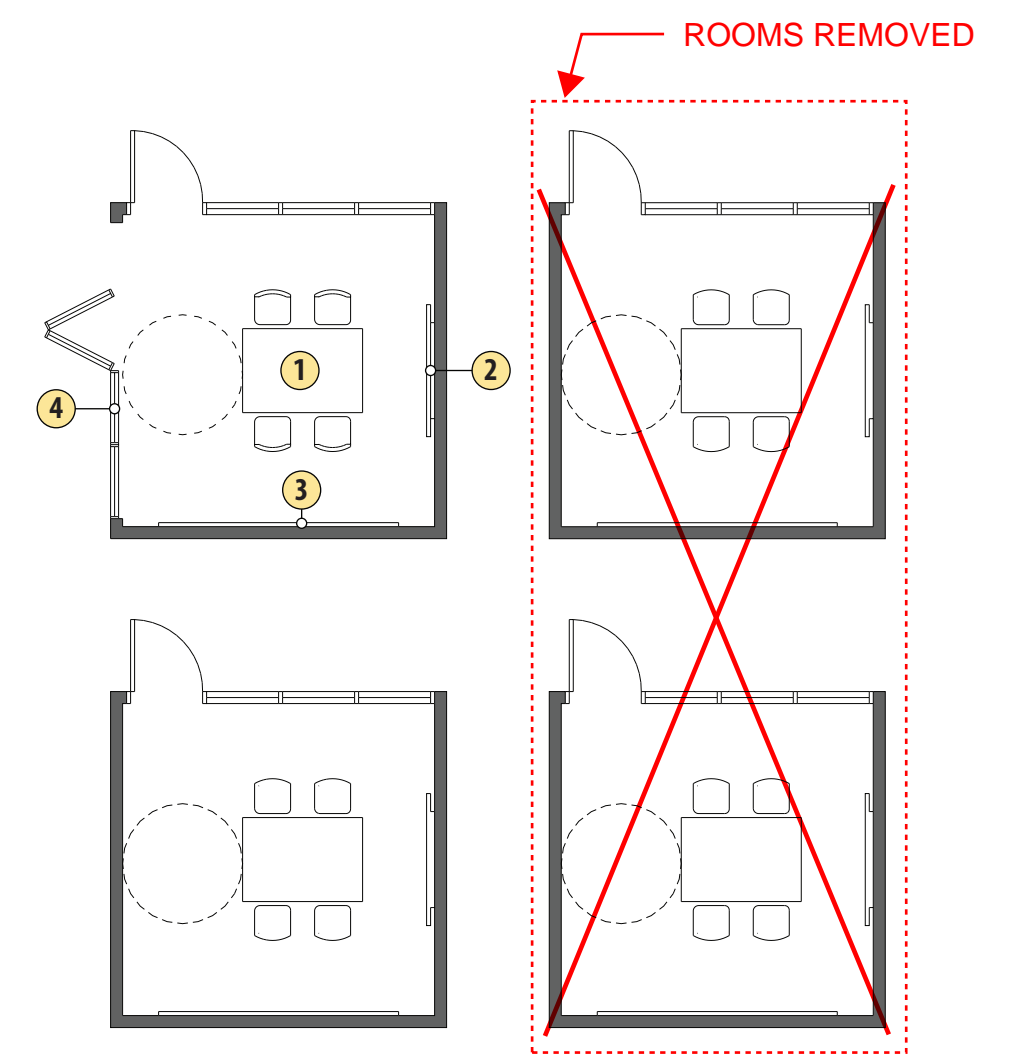
GENERAL NOTE: ALL DEPARTMENTS TO HAVE ACCESS TO MICROWAVE AND REFRIGERATOR

## LEARNING COMMONS

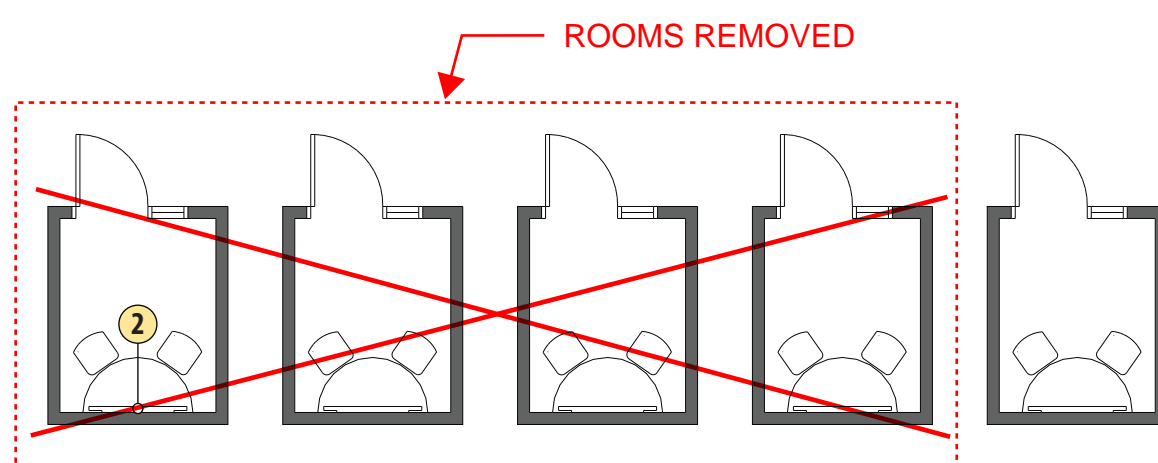
- LEGEND**
- 
- ① MOVABLE FURNITURE
  - ② FLAT PANEL DISPLAY
  - ③ WRITABLE SURFACE
  - ④ OPERABLE GLASS PARTITION WALL



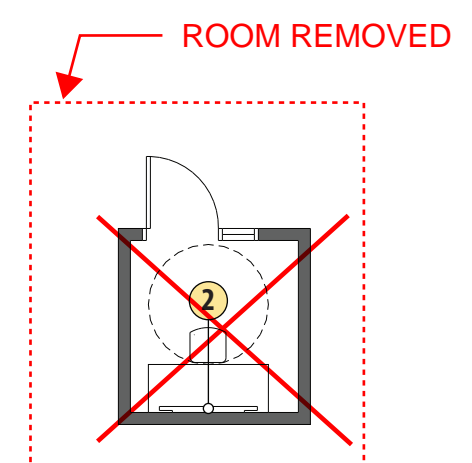
2.18 8-PERSON STUDY ROOM (5) 850 - 1,000



2.19 4-PERSON STUDY ROOM (4) 615 - 720




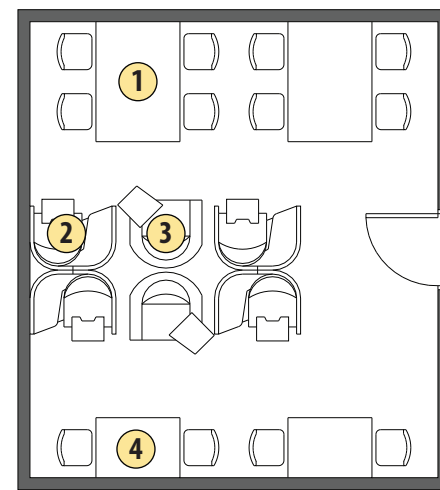
2.20 2-PERSON STUDY ROOM (5) 215 - 250



2.21 1-PERSON STUDY ROOM 40 - 50


## QUIET STUDY ROOM

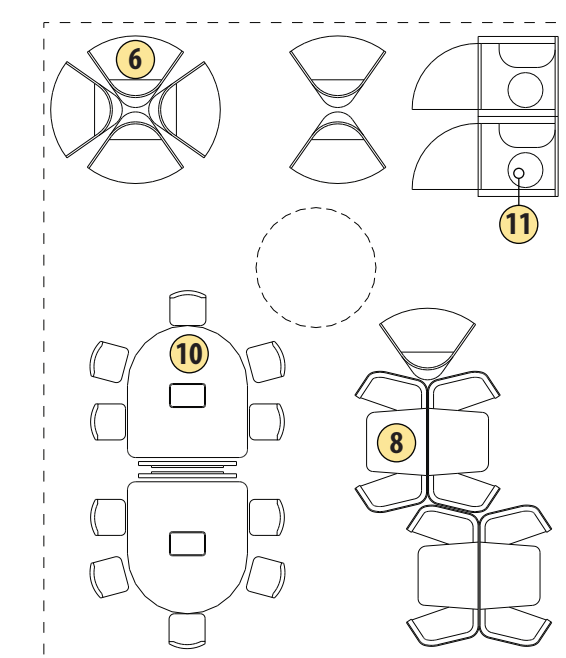
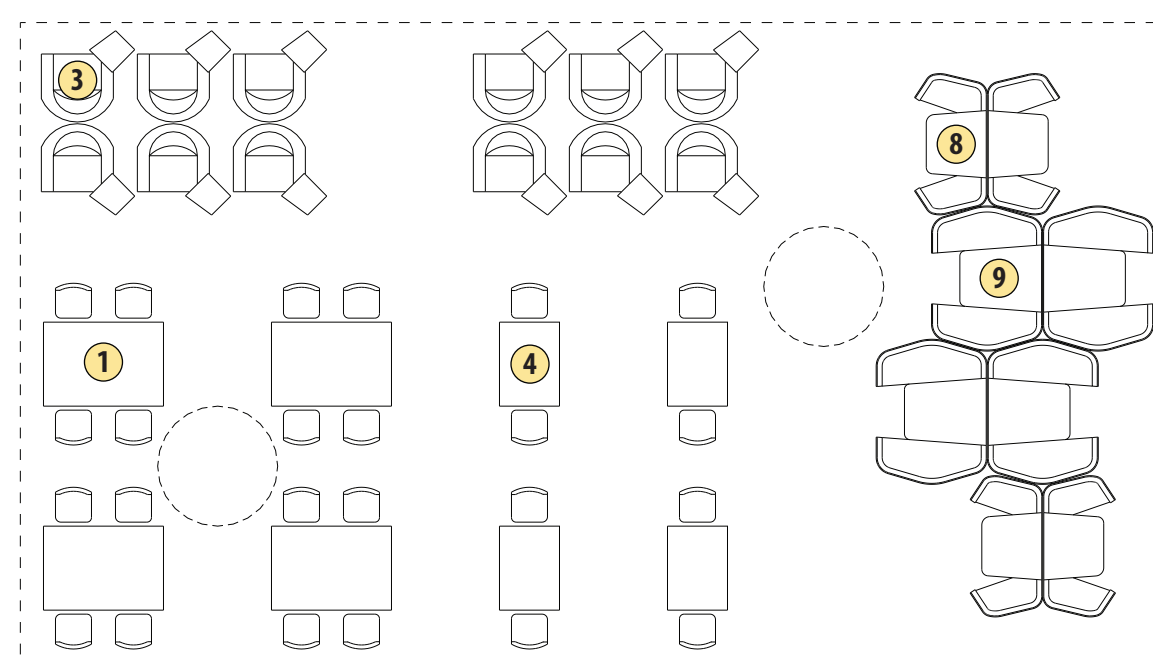
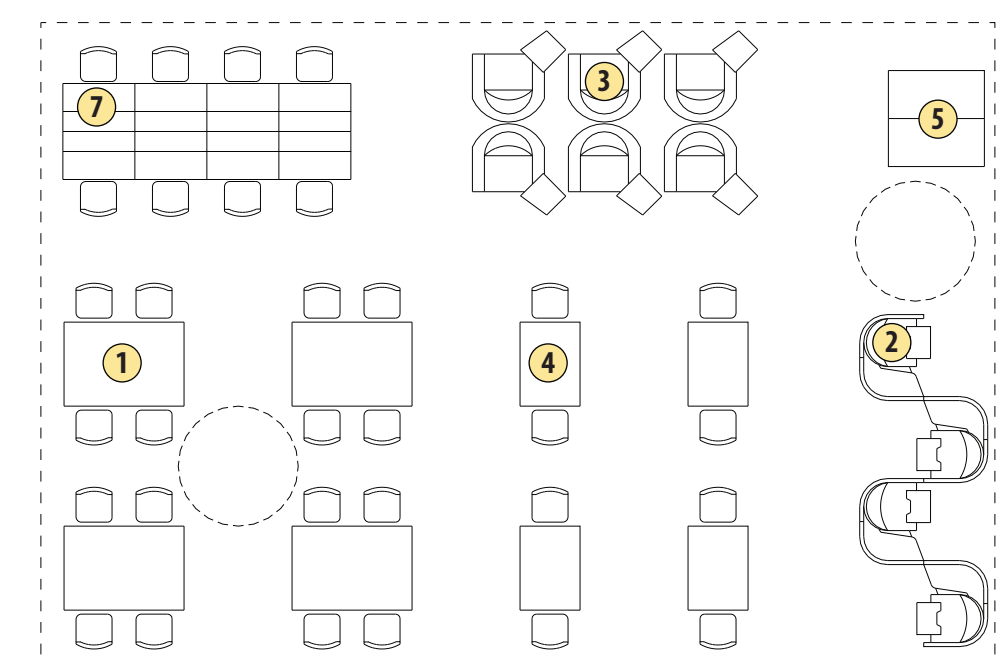
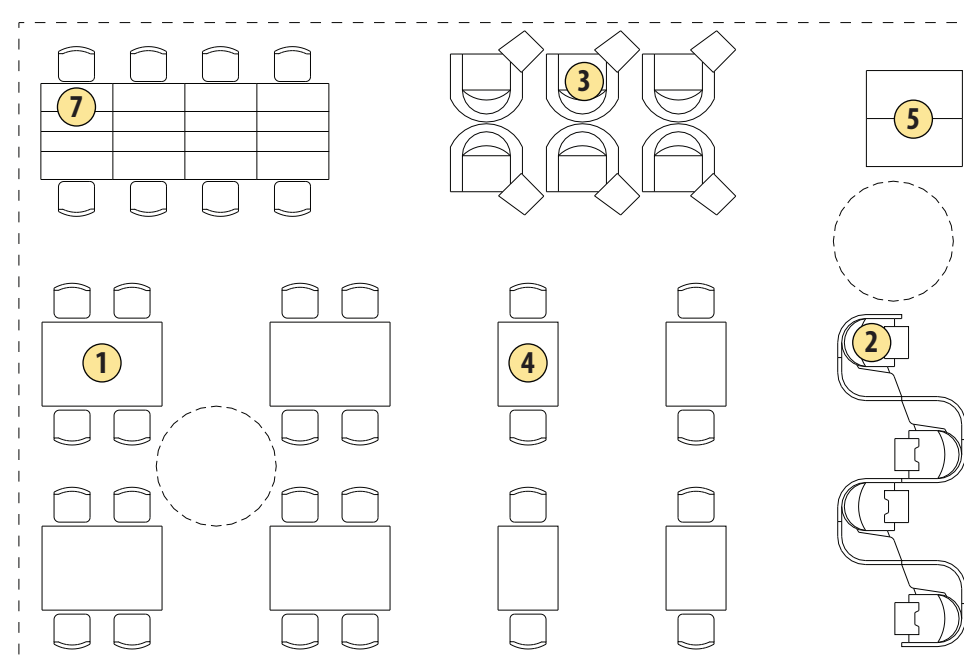
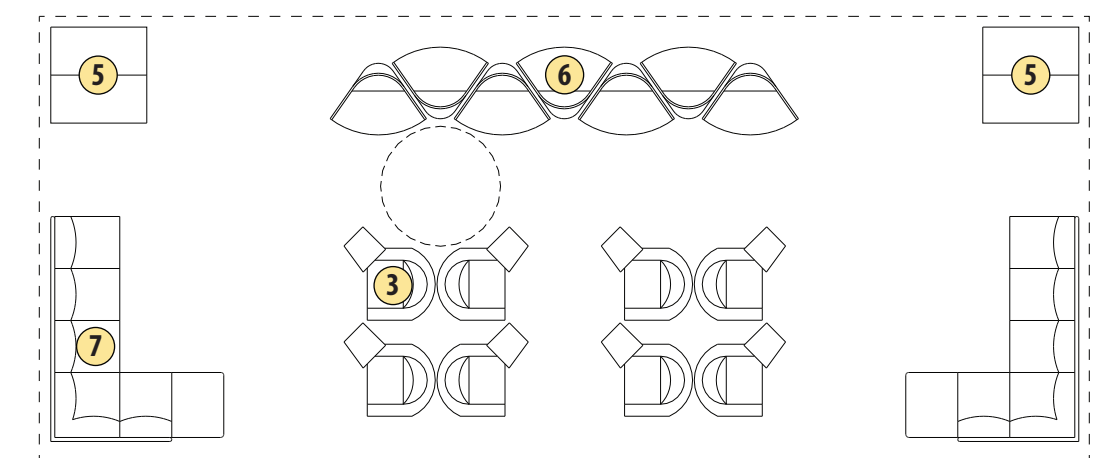
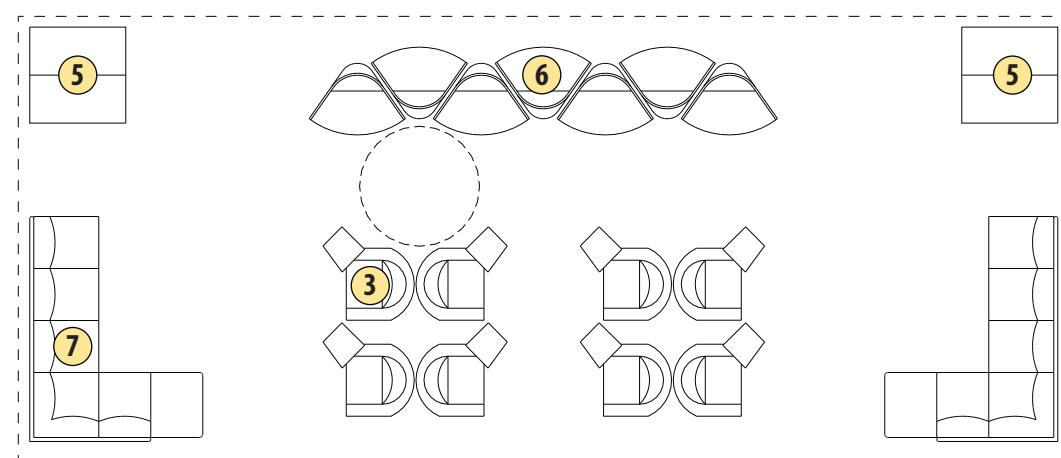
- LEGEND**
- 
- ① 4-PERSON READER TABLE
  - ② 1-PERSON HIGH-WALL STUDY POD
  - ③ LOUNGE CHAIR W/ TASK TABLE
  - ④ 2-PERSON READER TABLE



2.22 QUIET STUDY ROOM 255 - 300

## LIBRARY OPEN STUDY

- LEGEND**
- 
- ① 4-PERSON READER TABLE
  - ② 1-PERSON HIGH-WALL STUDY POD
  - ③ LOUNGE CHAIR W/ TASK TABLE
  - ④ 2-PERSON READER TABLE
  - ⑤ TRASH / RECYCLE STATION
  - ⑥ HIGH-BACK LOUNGE CHAIR
  - ⑦ INDIVIDUAL READER CARREL
  - ⑧ 2-PERSON HIGH-WALLED STUDY POD
  - ⑨ 4-PERSON HIGH-WALLED STUDY BOOTH
  - ⑩ 5-PERSON MEDIA TABLE
  - ⑪ VIDEO / PHONE BOOTHS



2.23 LIBRARY OPEN STUDY 2,800 - 3,300



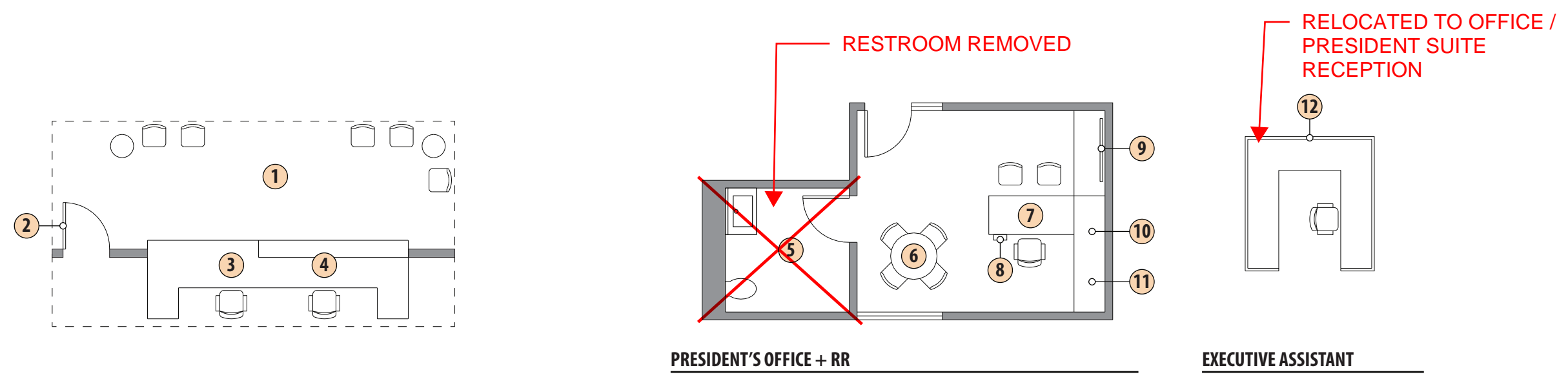


# ADMINISTRATIVE SUITE + BOARDROOM



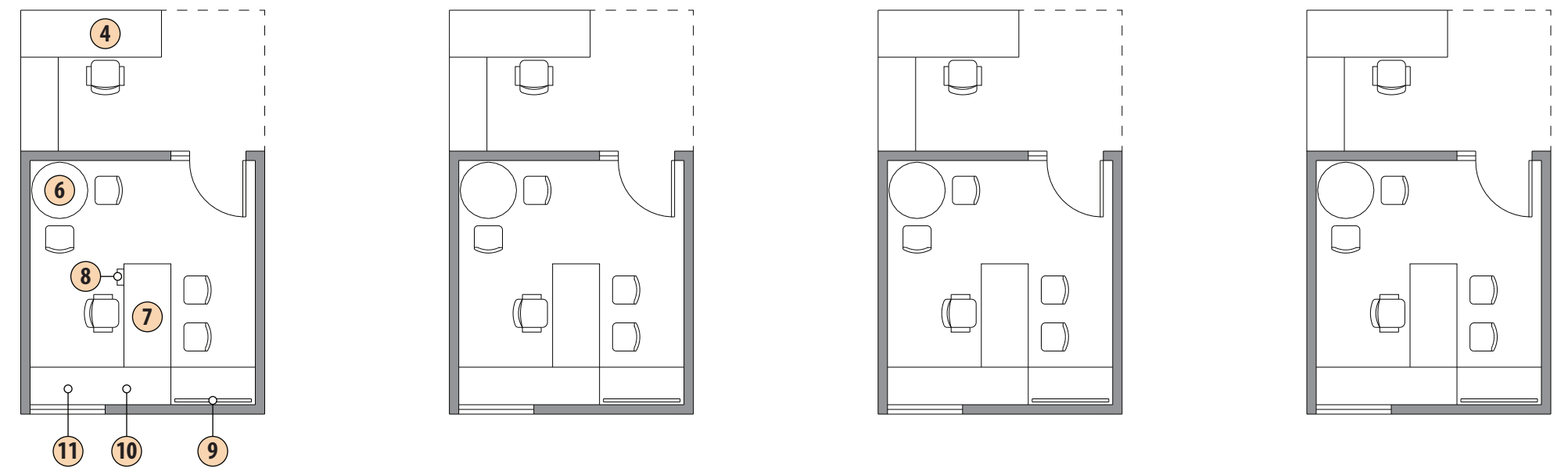
## ADMINISTRATIVE SUITE

- LEGEND** 0" 2" 4" 8" 16"
- 1 WAITING AREA
  - 2 CONTROL TO SUITE
  - 3 RECEPTION
  - 4 ADMINISTRATIVE ASSISTANT
  - 5 UNISEX RESTROOM
  - 6 MEETING TABLE
  - 7 30" x 60" SIT-TO-STAND DESK
  - 8 MOBILE PEDESTAL
  - 9 FLAT PANEL DISPLAY
  - 10 WALL MOUNTED OVERHEAD STORAGE UNIT
  - 11 42" WIDE LATERAL FILE CABINET
  - 12 6' ACOUSTIC CUBICLE
  - 13 STORAGE
  - 14 PRINT/COPY/SCAN
  - 15 SHARED SUPPLY STORAGE



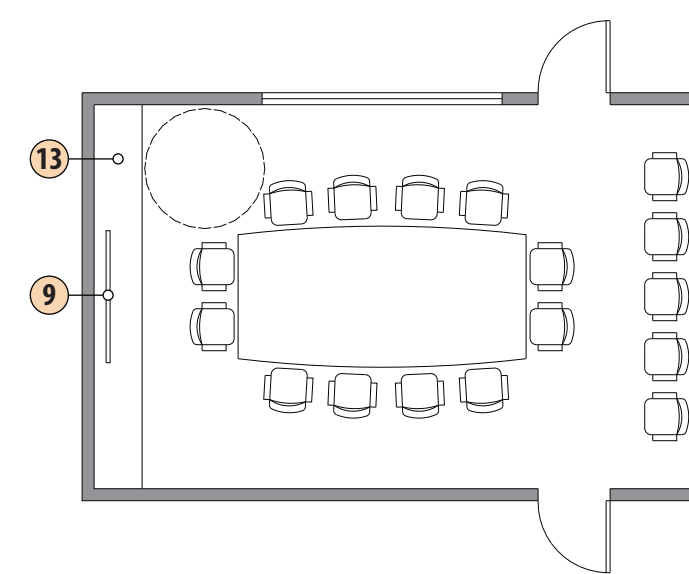
4.01 ADMINISTRATIVE OFFICES RECEPTION 255 - 300

4.02 PRESIDENT'S SUITE 293 - 344

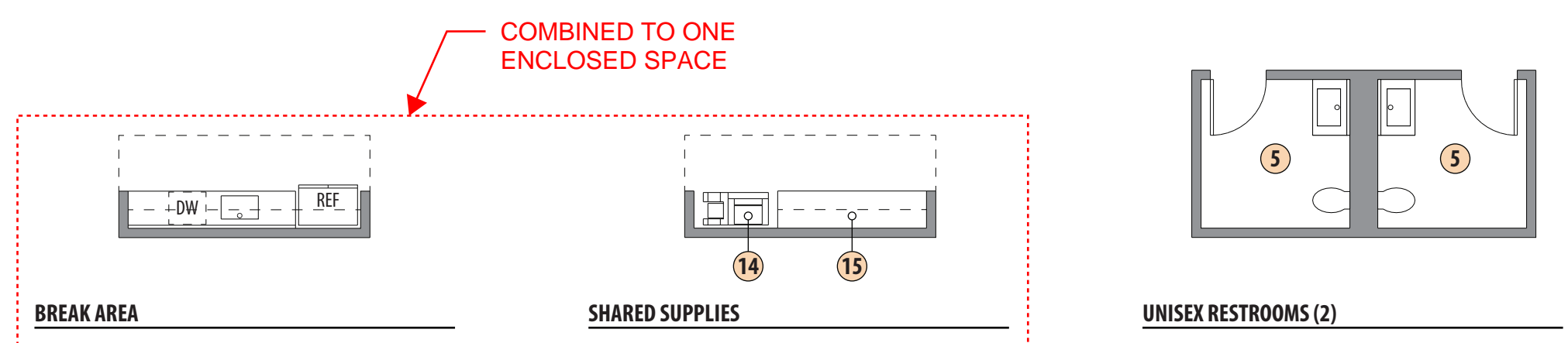


4.03 VP OFFICE+ ADMIN ASSISTANT 735 - 864

RENAMED "CABINET OFFICE"



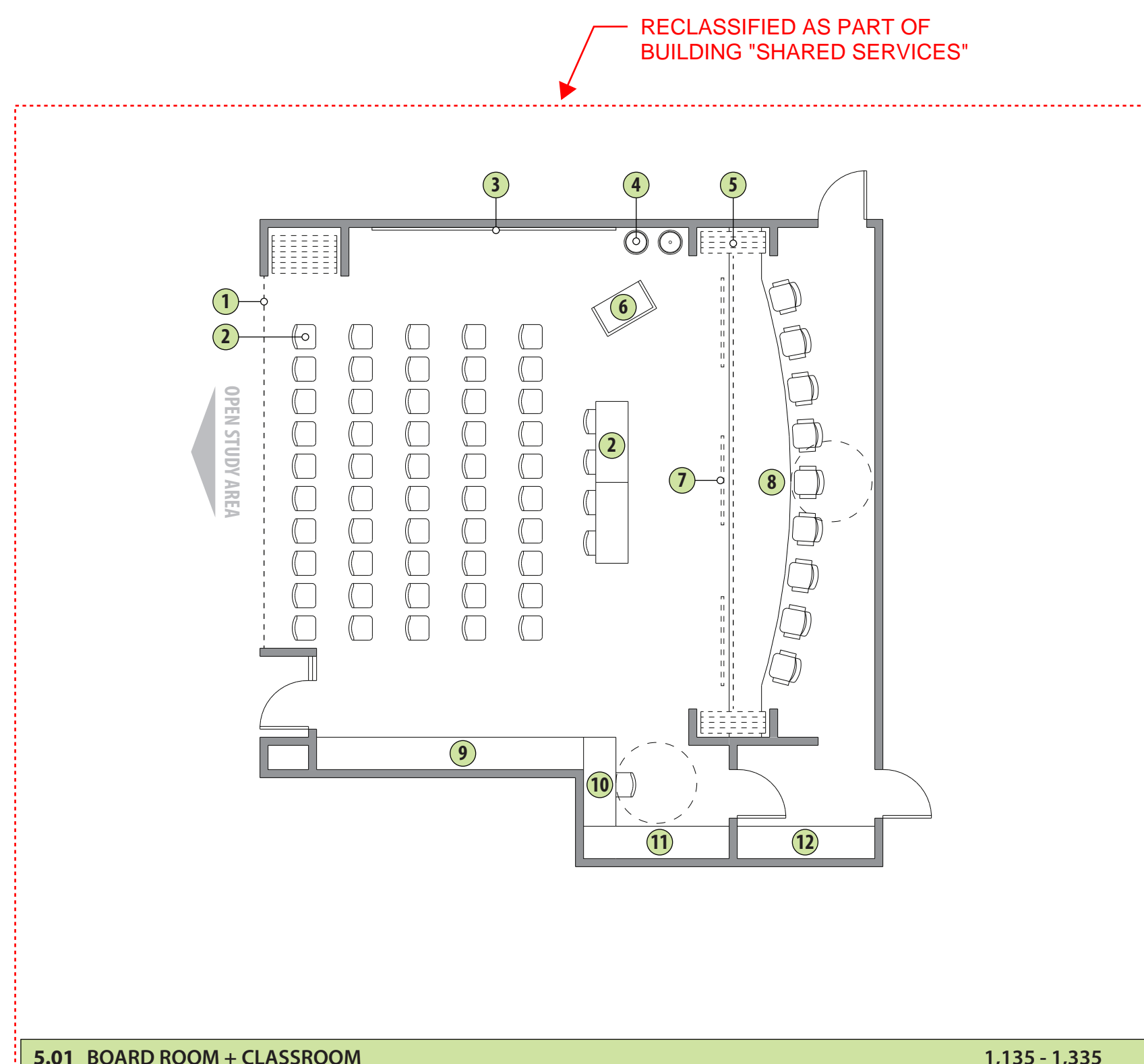
4.04 CONFERENCE ROOM 340 - 400



4.05 SUPPORT SPACES 243 - 258

## BOARD ROOM

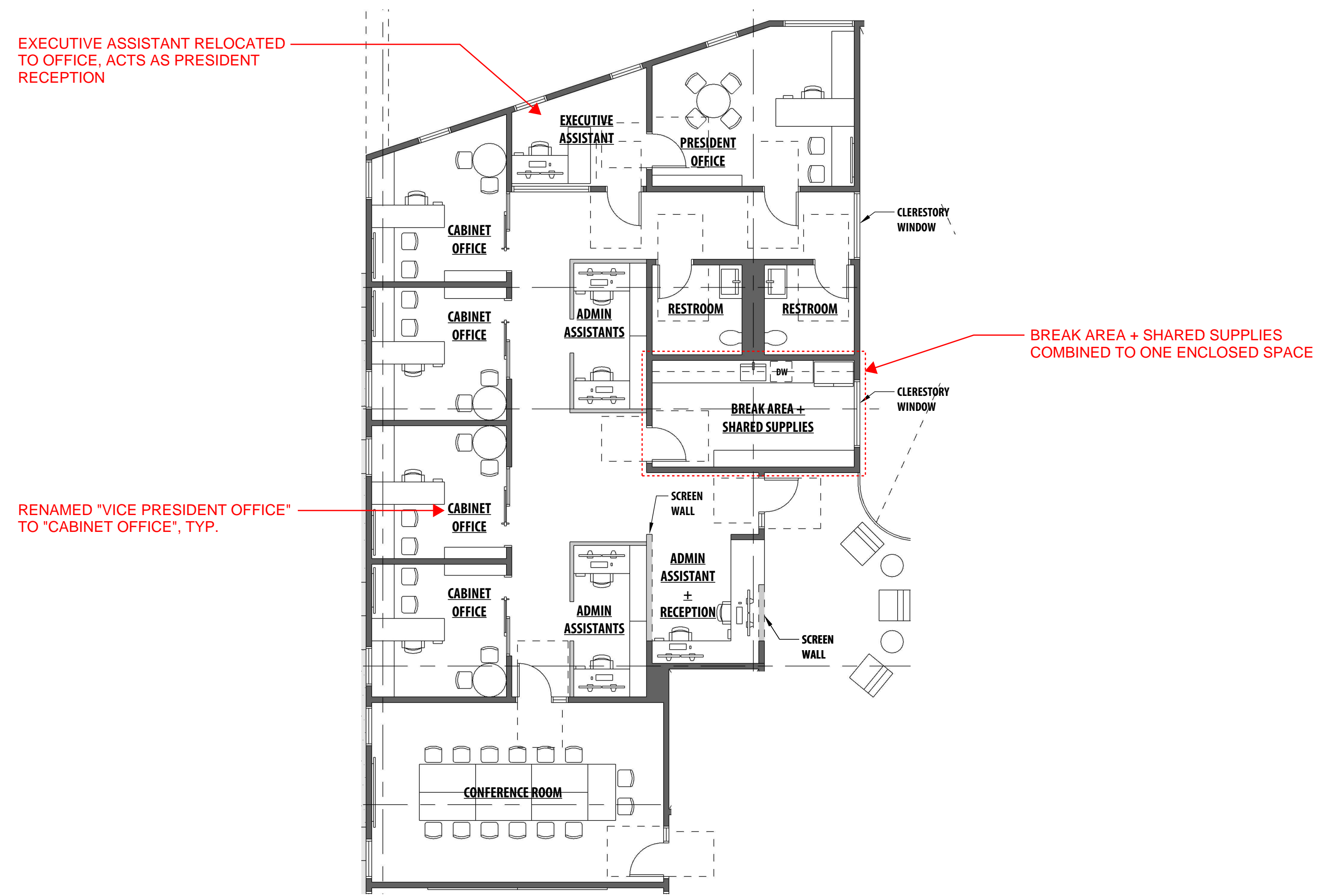
- LEGEND** 0" 2" 4" 8" 16"
- 1 OPERABLE GLASS WALL
  - 2 MOVABLE FURNITURE
  - 3 WRITABLE SURFACE
  - 4 FLAGS
  - 5 OPERABLE WALL W/ WHITEBOARD FINISH
  - 6 MOVABLE PODIUM
  - 7 FLAT PANEL DISPLAY (ABOVE)
  - 8 BOARD DAIS
  - 9 CASEWORK / TEACHING WALL
  - 10 TEACHING / AV STATION
  - 11 CLASSROOM STORAGE
  - 12 BOARD ROOM STORAGE



5.01 BOARD ROOM + CLASSROOM 1,135 - 1,335



## UPDATED ADMINISTRATIVE SUITE



**Gavilan College**  
**Library & Student Resource Center**  
**(LSRC)**

**Schematic Design Submittal**

**Section 4**  
**Acoustical Report**





22 September 2023

Robert Downey  
Flint Builders  
401 Derek Place  
Roseville, California 95678

Email: [rdowney@flintbuilders.com](mailto:rdowney@flintbuilders.com)

**Subject: Gavilan Community College, LSRC – Acoustical Basis of Design  
TA Project #23050**

Dear Robert,

This report is based on our recent meetings and the latest SD progress sets and floor plans provided to our team. Our acoustical basis of design criteria and initial input to the project are contained in this report.

## **SOUND ISOLATION**

### **Interior Walls**

Interior walls between adjacent spaces should be detailed according to the attached sound isolation floor plan markup. Note that all acoustical walls must be full-height, insulated, and sealed airtight.

### **Sound Masking**

A sound masking system is recommended for this project to ensure sound isolation and speech privacy throughout the facility. Private offices, open offices, study rooms, the Library, and the All Gender Restrooms will benefit significantly from the implementation of a sound masking system.

The attached sound masking floor plan markup outlines our recommended areas for sound masking coverage. These coverage areas can be expanded or reduced as the project progresses.

The sound masking frequency spectrum should meet the envelope shown in the attached detail SM1. Later in the project we will provide a zone markup along with our recommended sound level criteria for each zone. Different zones will require different sound level ranges, depending on the intended use of each space.

Design guidelines for sound masking should include a loudspeaker approximately every 144 square feet. Adjacent loudspeakers should be on separate channels alternating in a checkerboard pattern. Speakers on the same channel should not run parallel with any walkway or seating group. The spectrum should be adjusted to meet the curve provided, noting that low-frequency and high-frequency energy should be blended into the building environment and not cut or turned off.

Our preferred manufacturer for a turnkey sound masking system is LogiSon. We can also provide a custom sound masking system design as an additional service.

### **Library Staircase**

The open staircase entering the library is an acoustical concern. We anticipate noise buildup from the large open volume will create an unpleasant environment at the library entry and in particular, challenges for speech intelligibility at the Circulation Desk and focus at the nearest workstations.

Acoustically absorptive materials should be prioritized to reduce sound reflections and buildup. However, we expect a significant amount of sound transmission between floors to persist given the current design.

We are happy to review further as the design progresses.

### **Operable Partitions**

We understand that operable partitions are planned for multiple spaces in the building.

In our experience testing and inspecting operable partitions in the field, they are generally weaker sound isolators than solid walls. They are prone to sound ‘leaks’ around gaps and poor seals, and they often require regular upkeep to maintain their rated performance, especially for horizontal folding systems. In cases where confidentiality is critical, we recommend using a solid wall.

We have observed that the vertical folding systems from manufacturers like Skyfold consistently provide better acoustical performance and reliability over time.

### *Classroom/Boardroom*

We understand that the inner partition system in the Classroom/Boardroom will be used to convert the space into a classroom; it is not planned to have multiple concurrent events in the Boardroom Dais space and Classroom space. Therefore, the sound isolating performance of this partition is not significant.

The folding glass storefront system will separate the Classroom/Boardroom from the adjacent Lobby/Welcome center and should provide sound isolation. The system should achieve a minimum rating of STC<sup>1</sup> 40.

### **Doors**

Doors into acoustically sensitive spaces such as classrooms, labs, conference rooms, and counseling offices should be solid core, have full perimeter gasketing, and should have an automatic drop bottom, as shown in detail D1. This typically yields a rating of approximately STC 30 if the door seals properly.

### *Sliding Doors*

There are many sliding doors shown throughout the building. In general, it is more of a challenge to acoustically isolate spaces with sliding doors. We recommend confirming with the sliding door manufacturer that the system includes gasketing to fully seal when shut and that it achieves a minimum rating of STC 30. We recommend using hinged doors where confidentiality is required, such as the counseling areas and VP office areas.

### *Double Doors*

Double doors, such as those shown in the High Tech Center, do not isolate sound well and should either be reduced to a single door where possible or include a center mullion to seal against.

### **Interior Glazing**

Glazing looking into acoustically sensitive spaces such as classrooms, labs, conference rooms, and counseling offices should be at least 3/8-inch-thick and laminated. Laminated glass is a better sound isolator than monolithic glass of the same thickness.

### **Penetrations**

All penetrations to sound rated constructions should be sealed airtight as shown in details P1 to P5. Electrical outlet boxes in sound-rated walls should not be placed back-to-back. Instead, opposing outlets in common walls should be separated by a minimum of 16-inches and outlet box pads should be wrapped around the outlet boxes. Any outlet box or electrical panel in a sound rated wall that has a face area greater than 32 square inches needs to be backed with gypsum board or sheet lead as shown in Detail P5.

### **Roof Deck**

The floor-ceiling construction of the second level Roof Deck should have a minimum rating of STC 50. Typically, this is achieved with a normal-weight concrete composite metal deck or concrete slab, or a lightweight concrete composite metal deck with a finished ceiling.

We will review and provide further recommendations as the design is developed.

## ROOM ACOUSTICS

### Design Criteria

To control the buildup of sound and promote speech intelligibility, the Reverberation Time (RT60<sup>2</sup>) for the below spaces should be met.

Reverberation Time Criteria	
Space	RT60
Classrooms, Labs, Conference Rooms, Boardroom, Learning Resource Center	0.6 seconds
Open Office Areas, Teaching Learning Center	0.8 seconds
Library, Learning Commons, Study Areas	1.0 seconds
Lobby/Welcome Center	1.2 seconds

### Acoustical Ceiling and Wall Treatment

To achieve the design criteria, acoustically absorptive material should be incorporated on ceiling and wall surfaces.

#### *Classrooms, Labs, Learning Resource Center*

Classroom and lab spaces, including the Learning Resource Center, should incorporate an acoustical ceiling tile that has a minimum rating of NRC<sup>3</sup> 0.90.

Classrooms and labs where teaching occurs should incorporate acoustically absorptive panels on two adjacent wall surfaces to promote speech intelligibility. The panels should have a minimum rating of NRC 0.70. Common finish options include fabric-wrapped panels and PET felt panels.

Lab spaces that are primarily focused on quiet work instead of teaching do not require wall panels.

#### *Conference Rooms, Classroom/Boardroom*

Conference rooms and the Classroom/Boardroom should incorporate an acoustical ceiling tile that has a minimum rating of NRC 0.90.

These spaces should also incorporate acoustically absorptive panels on two adjacent wall surfaces to promote speech intelligibility and audio conference call quality. The panels should have a minimum rating of NRC 0.70.

#### *Open Office Areas, Teaching Learning Center*

Open office areas and the Teaching Learning Center should incorporate an acoustical ceiling tile that has a minimum rating of NRC 0.90.

#### *Library*

The library ceiling should incorporate an acoustically absorptive finish. At least 70% of the ceiling surface area should be covered with a material that has a minimum rating of NRC 0.90. Finish options

include 2-inch-thick panels attached directly to the deck, suspended clouds and baffles, wood slats and panels, and suspended large-format tile grids.

The suspended wood ceiling sections shown in the drawings could be designed to be acoustically absorptive by backing the wood ceiling with 2-inch-thick material. The wood ceiling system needs to have openings between slats/panels for this to be effective.

#### *Lobby/Welcome Center*

The lobby and welcome center areas should incorporate an acoustical ceiling tile that has a minimum rating of NRC 0.70.

The decking above the double height area should incorporate an acoustically absorptive finish. Direct-attach panels or acoustical spray insulation could be good options for this surface.

#### *Private Offices*

The acoustical ceiling tile in private offices should have a minimum rating of NRC 0.70.

We will review the application of acoustical finishes in greater detail and are happy to explore and recommend acoustical finish options as the design is developed.

## MECHANICAL NOISE CONTROL

### Design Criteria

We recommend that background noise from building systems meets the noise criterion (NC<sup>4</sup>) levels shown in the table below.

Space	Noise Criterion Level
Classrooms, Conference Rooms, Boardroom, Learning Resource Center	25-30
Private Offices, Labs	30-35
Library, Learning Commons, Teaching Learning Center, Open Office Areas, Study Areas	35-40
Lobby/Welcome Center	40-45

### Mechanical Unit Placement

The drawings show two RTUs above the library space. We recommend locating these units over nearby storage rooms or corridors if possible. In general, it is especially important to keep rooftop mechanical units and any drop-down ductwork away from spaces with a rating of NC-30 or less.

### Ductwork Routing

Wherever possible, main branch ductwork should not be run above/through areas with a rating of NC-30 or less.

Ductwork should run along corridors and branch off into individual rooms. Branches should not take off from the main duct trunk directly across from each other.

Ductwork should have smooth transitions not exceeding 10 degrees. Use long radius elbows and straight ducts at the entry into all rooms. Avoid using bullhead tees. Turning vanes should be the airfoil type.

Ductwork should not run along the top of full-height walls.

### VAVs

We recommend against the use of fan-powered VAV boxes.

Terminal boxes of any kind should not be located in or above spaces having a noise criterion of NC-30 or lower. The boxes serving spaces of NC-30 should be located in an adjacent corridor or storage area and be 'up-sized' to minimize noise.

### Diffusers, Registers, and Grilles

Diffusers should be selected for 5 to 10 NC points below the actual criteria for the spaces they are serving. The method manufacturers use for rating diffusers assumes that the room is very absorptive and that the typical listener is further away than would be found in this environment. Supply and return/exhaust air outlets are required to meet the noise criteria.

Diffusers serving spaces with a noise criterion of NC-35 or less should be preceded by a minimum of 5 feet of acoustical flex duct. Dampers should be a minimum of 10 feet upstream of all outlets.

### Equipment Mounting

All mechanical equipment should be vibration isolated from the structure. The isolators should be selected based on static and dynamic load including thrust and rotational inertia. Each isolator must be selected independently for the load distribution of the equipment. Specifications should require isolation hardware selections to be submitted and reviewed.

All ductwork, plumbing, and conduit connections to vibration isolated equipment should be made using resilient connections or flexible duct, hose, or conduit.

### Mechanical Noise Analysis

As the project progresses, we will require octave band sound power data for the specified mechanical units to complete a full mechanical noise analysis.

#

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#

We trust this information is helpful. Should you have any questions or need additional information, please do not hesitate to contact us.

Sincerely,  
Thorburn Associates Inc.



Dave Ernst  
Senior Associate



Philip Zumbrun, PE  
Associate Principal

DEE

Enclosure(s): Sound Isolation Floor Plan Markup  
Sound Masking Floor Plan Markup  
Sound Masking Detail SM1  
Door Detail D1  
Penetration Details P1-P5

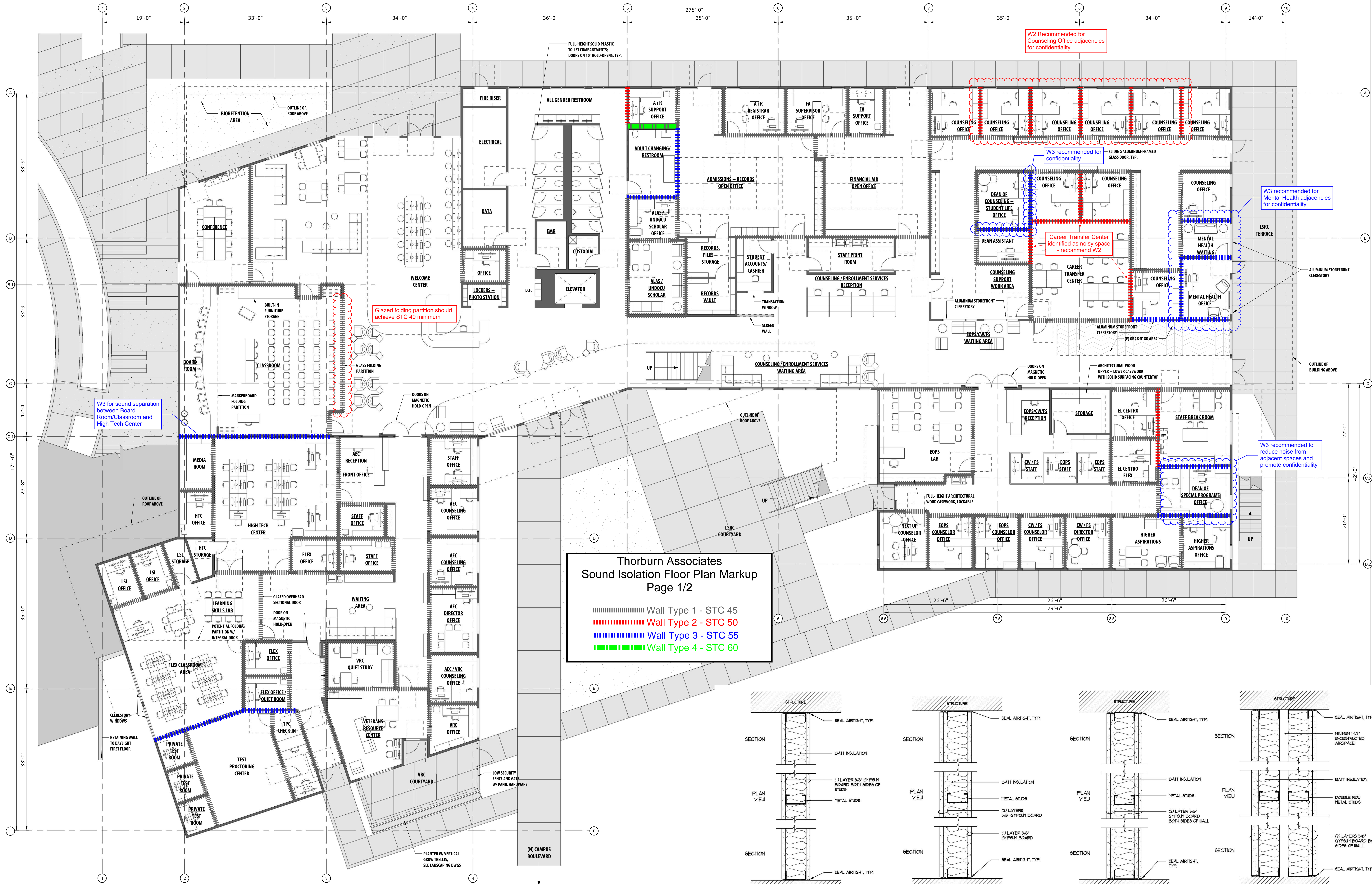
<sup>1</sup> **Sound Transmission Class (STC)** – The Sound Transmission Class is a single figure rating designed to give an estimate of the sound insulation properties of a partition. Numerically, STC represents the number of decibels of speech sound reduction from one side of the partition to the other. The STC is intended for use when speech and office noise constitute the principal noise problem.

<sup>2</sup> **Reverberation Time (RT60)** – The time required for the stored or reverberant sound to decrease by 60 dB.

<sup>3</sup> **Noise Reduction Coefficient (NRC)** – An average of the sound-absorption coefficients of a material in the mid-frequency octave bands (250, 500, 1000, and 2000 Hz) which include most of human speech.

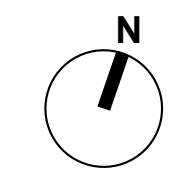
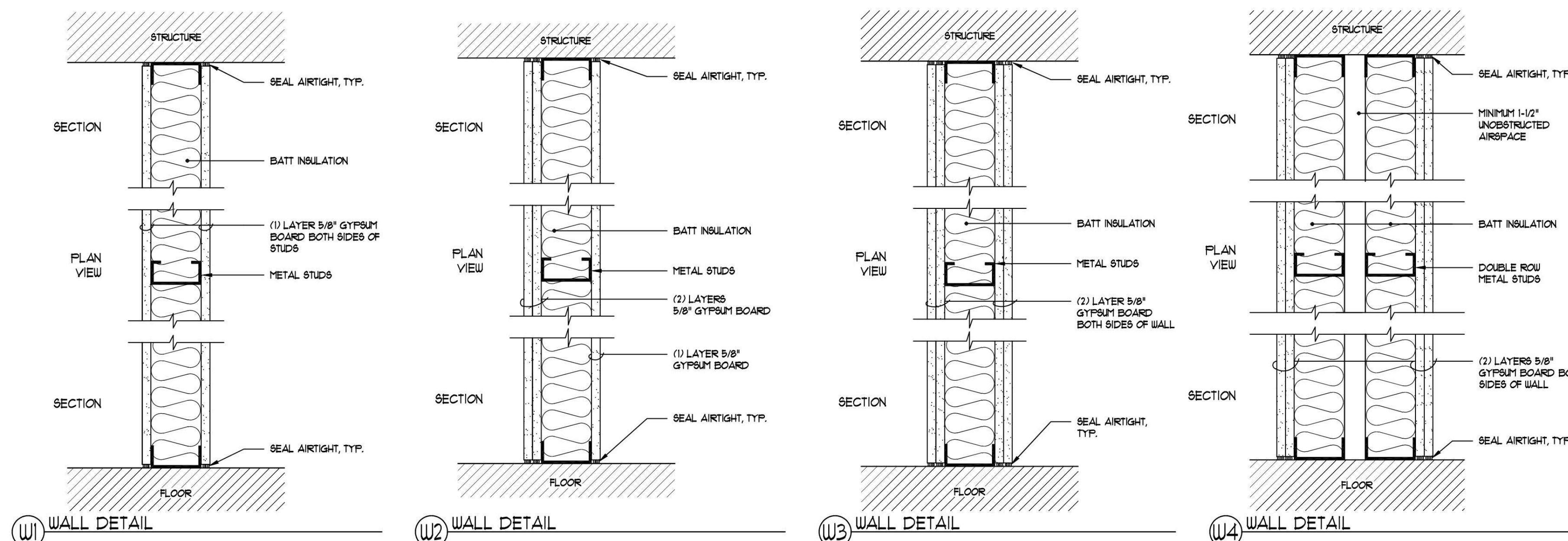
<sup>4</sup> **Noise Criterion (NC)** – Noise Criterion ratings approximate the human perception of "noisiness" within buildings. The NC rating is based on octave band sound pressure levels, compared with a standard family of curves. The highest curve that the sound pressure level falls under in all octave bands is the NC rating. This rating should not be used in environments with pure tones. High NC ratings are louder and an increase of 10 points is perceived as twice as loud.



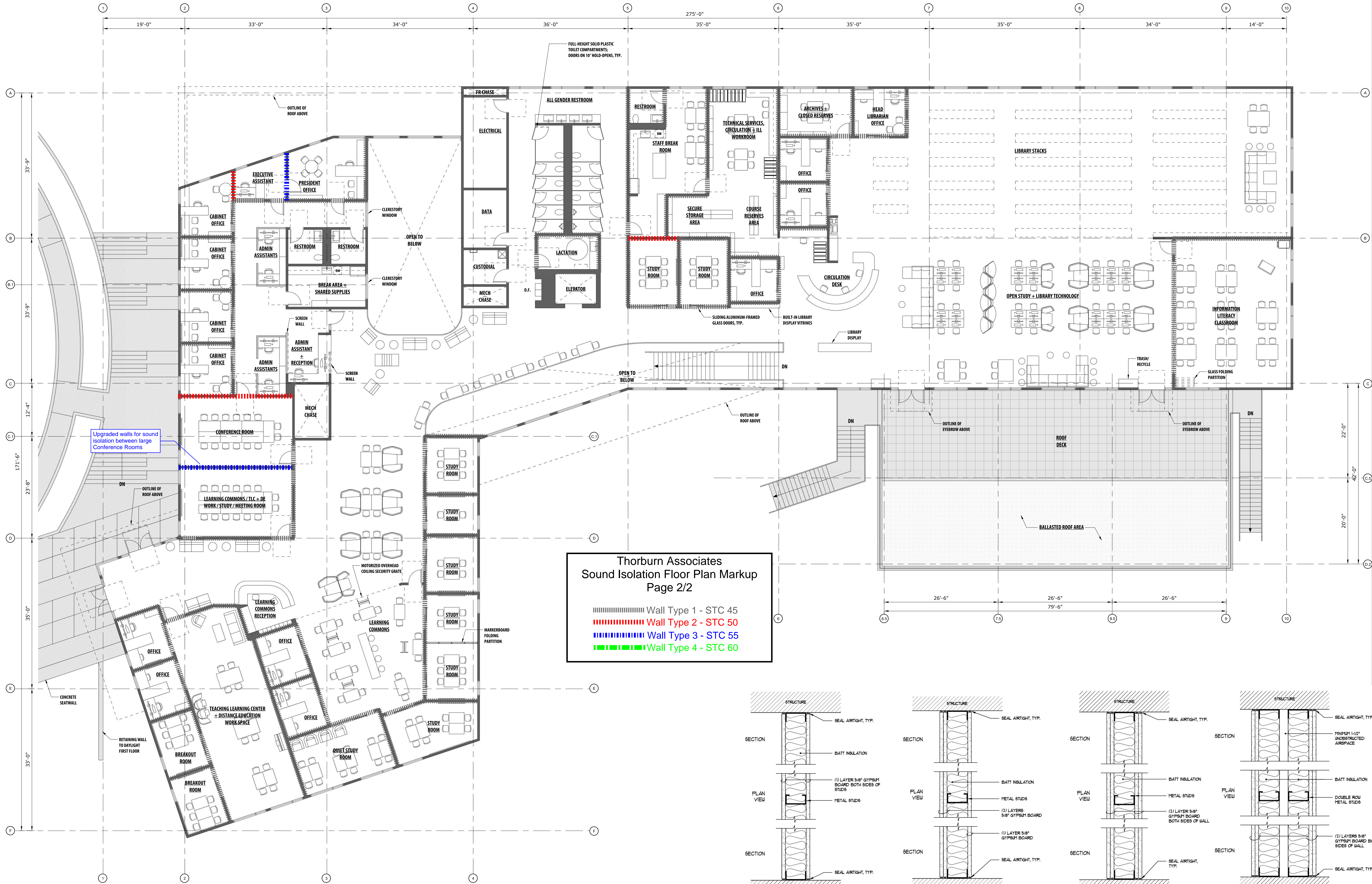


Thorburn Associates  
 Sound Isolation Floor Plan Markup  
 Page 1/2

Wall Type 1 - STC 45  
 Wall Type 2 - STC 50  
 Wall Type 3 - STC 55  
 Wall Type 4 - STC 60

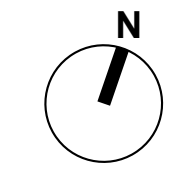
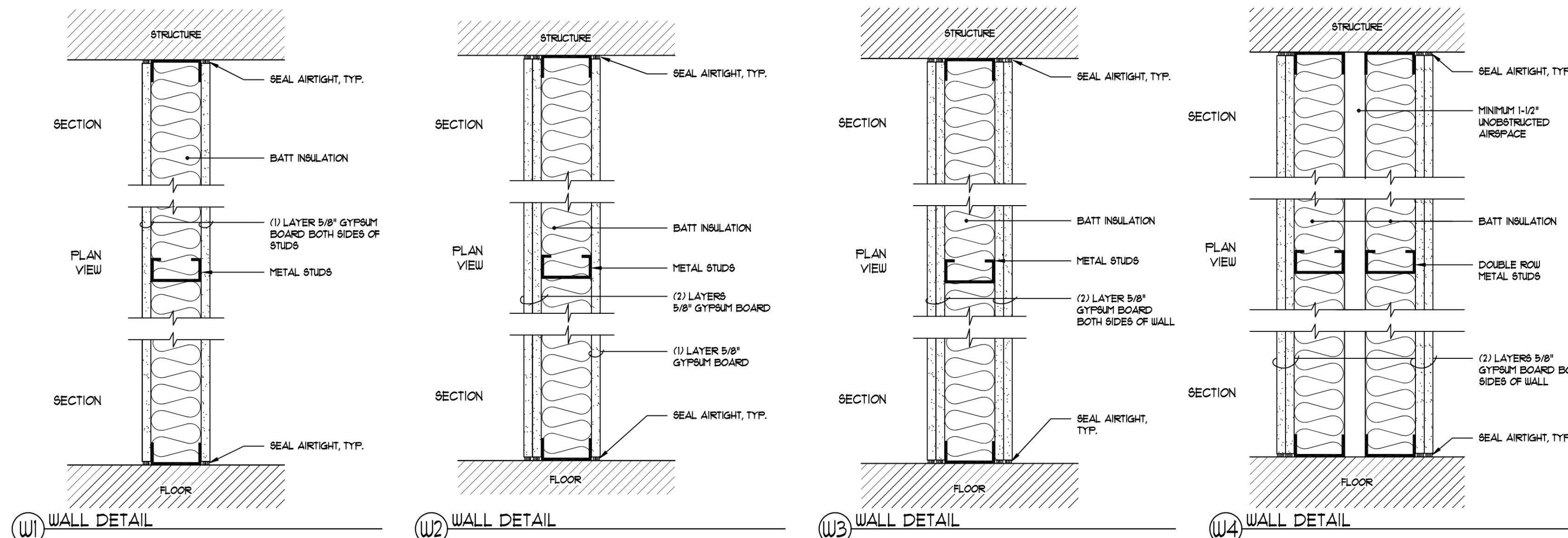




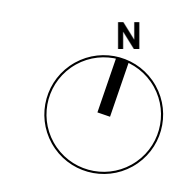
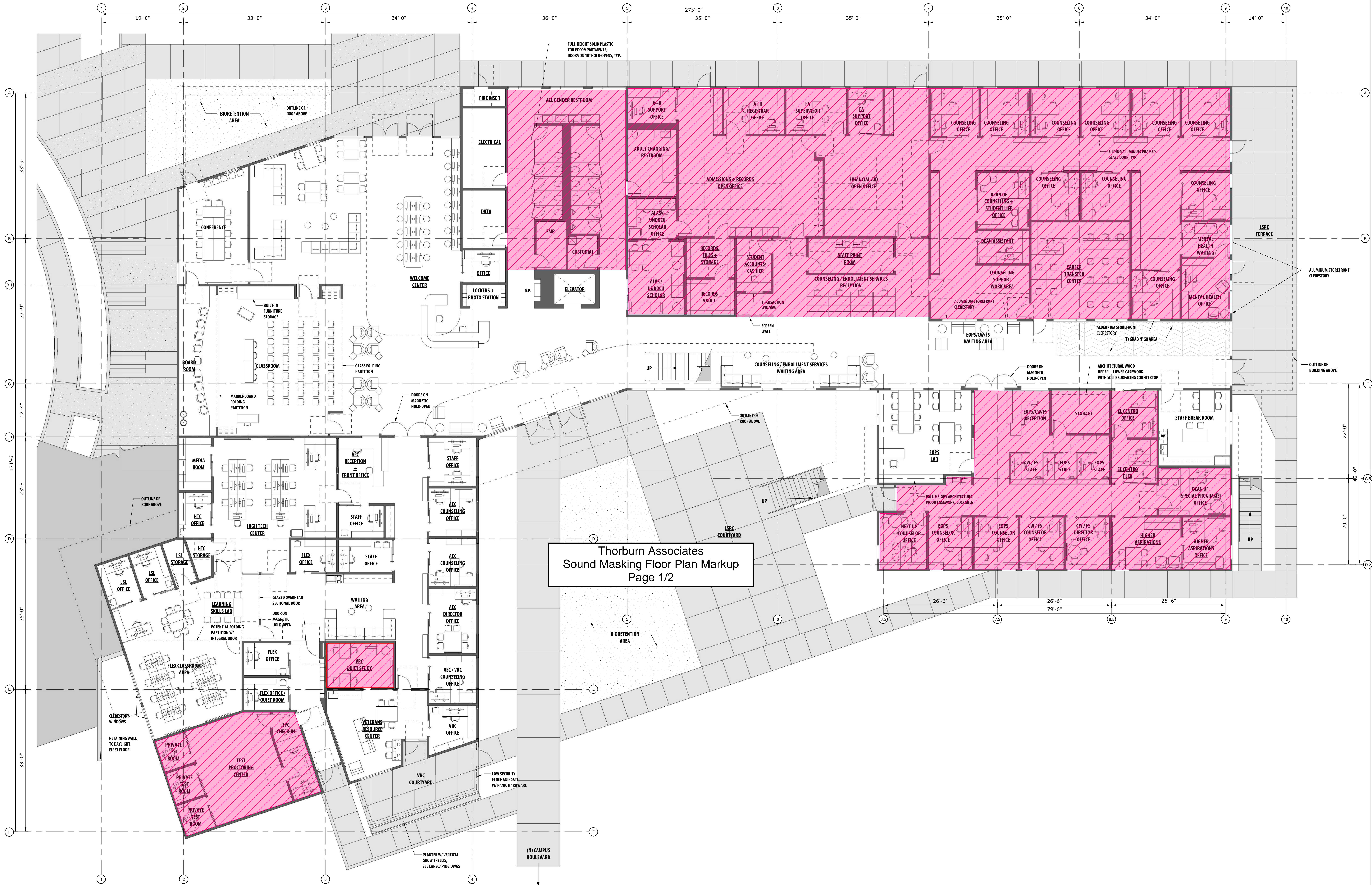


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 Sound Isolation Floor Plan Markup  
 Page 2/2

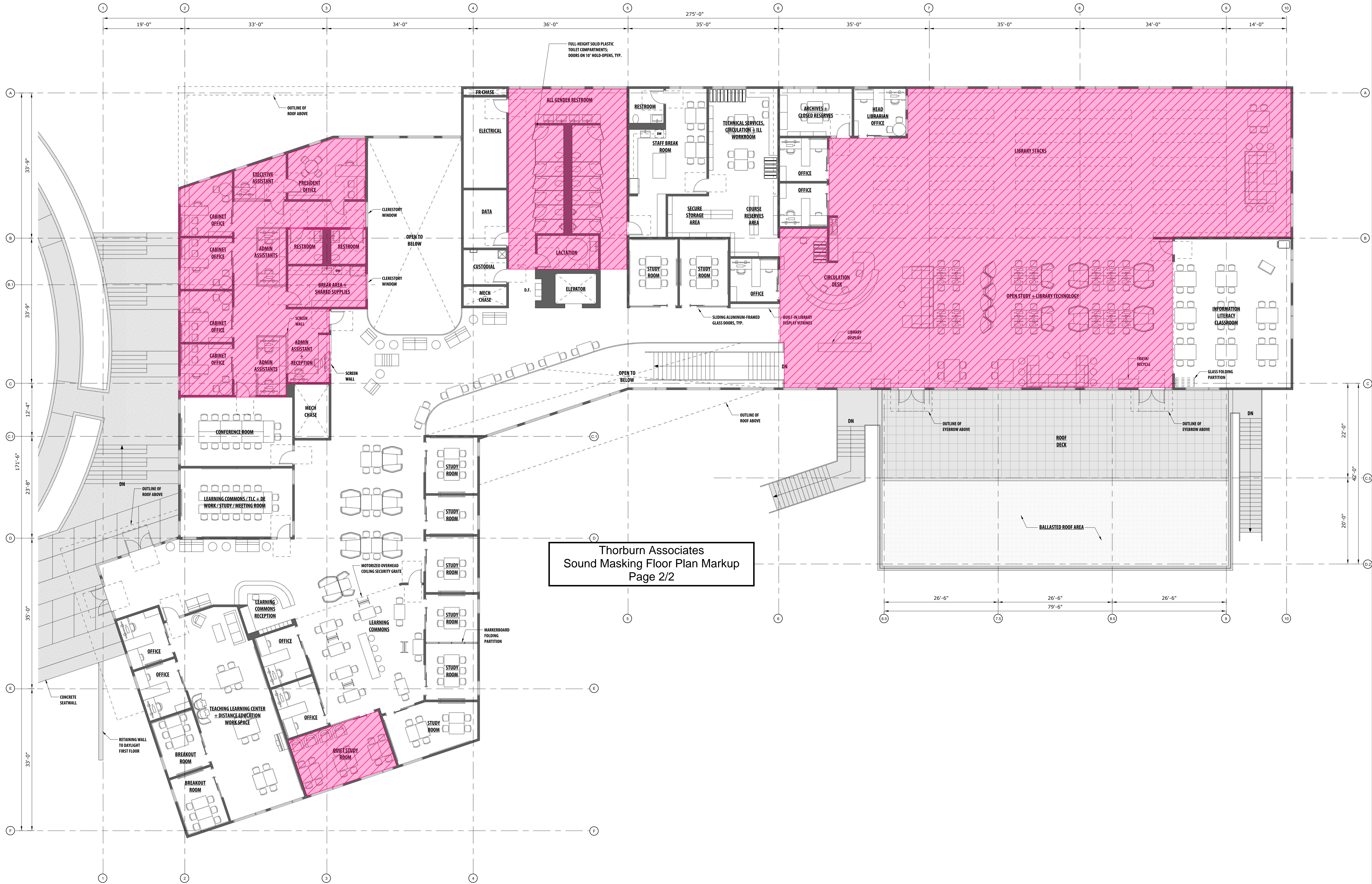
- Wall Type 1 - STC 45
- Wall Type 2 - STC 50
- Wall Type 3 - STC 55
- Wall Type 4 - STC 60



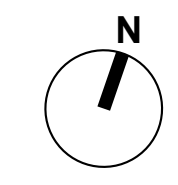








Thorburn Associates  
 Sound Masking Floor Plan Markup  
 Page 2/2



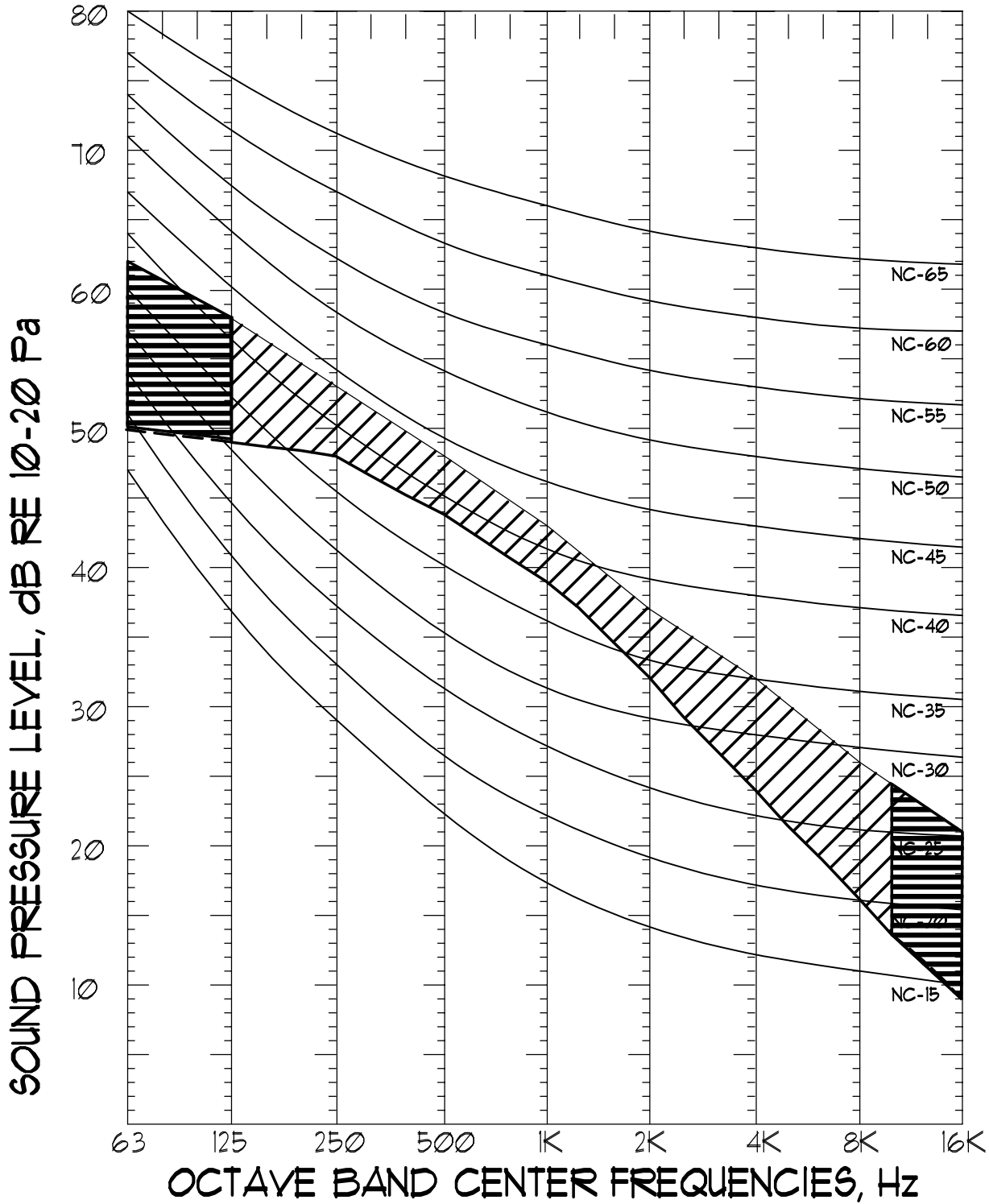




EXTENDED FREQUENCIES - BLEND MASKING ENVELOPE INTO BUILDINGS AMBIENT NOISE LEVEL FOR NATURAL SOUND



OCTAVE BAND SOUND MASKING SPECTRUM ENVELOPE



# NC CURVE AND SOUND MASKING ENVELOPE

23050\_SM1.dwg

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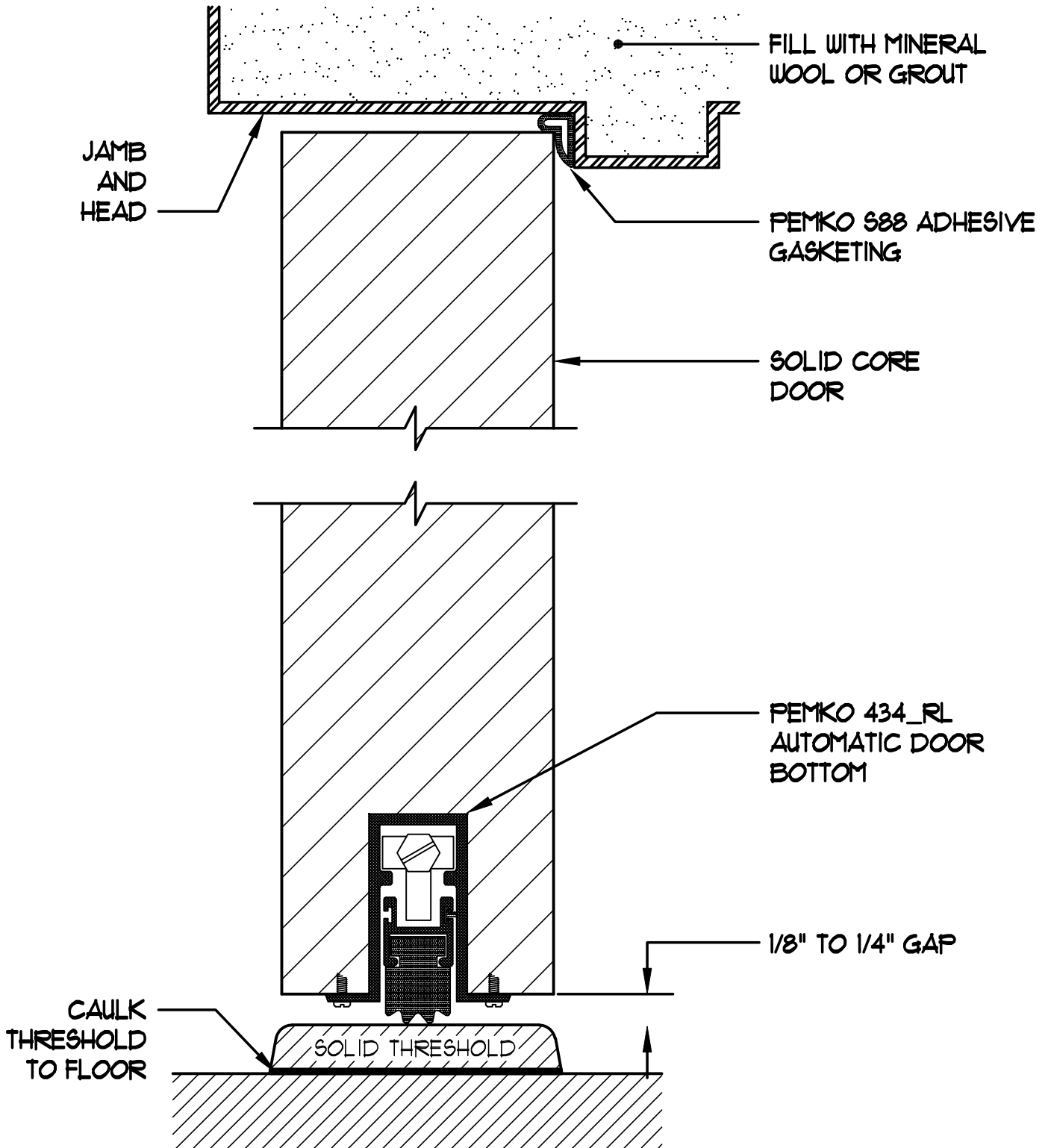
SAN FRANCISCO

LOS ANGELES

ORLANDO

CHARLOTTE

RALEIGH-DURHAM



**D1 DOOR DETAIL**

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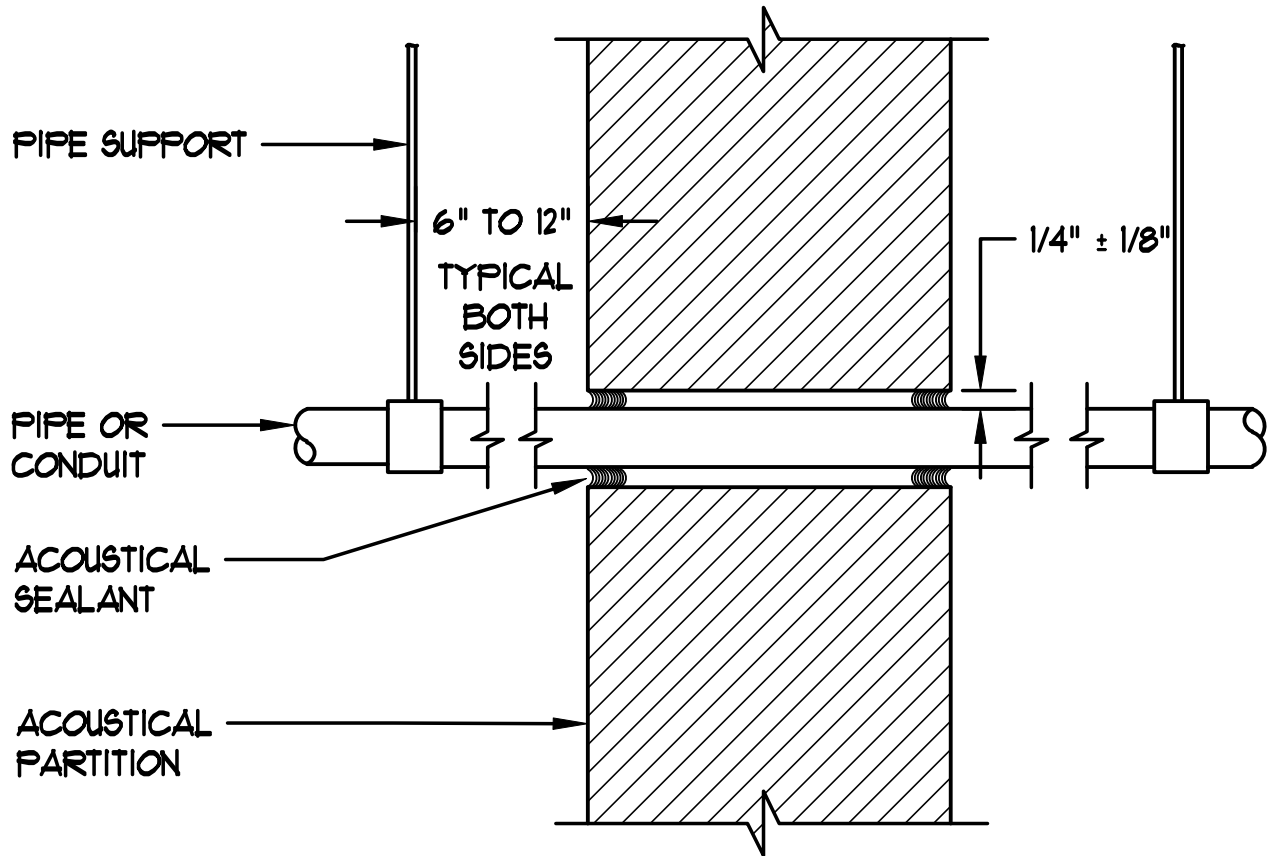
SAN FRANCISCO

LOS ANGELES

ORLANDO

CHARLOTTE

RALEIGH-DURHAM



# TYPICAL SMALL PIPE/CONDUIT PENETRATION THROUGH ACOUSTICAL PARTITION



(3" IN DIAMETER OR LESS)  
23050\_P1.dwg

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LOS ANGELES

ORLANDO

CHARLOTTE

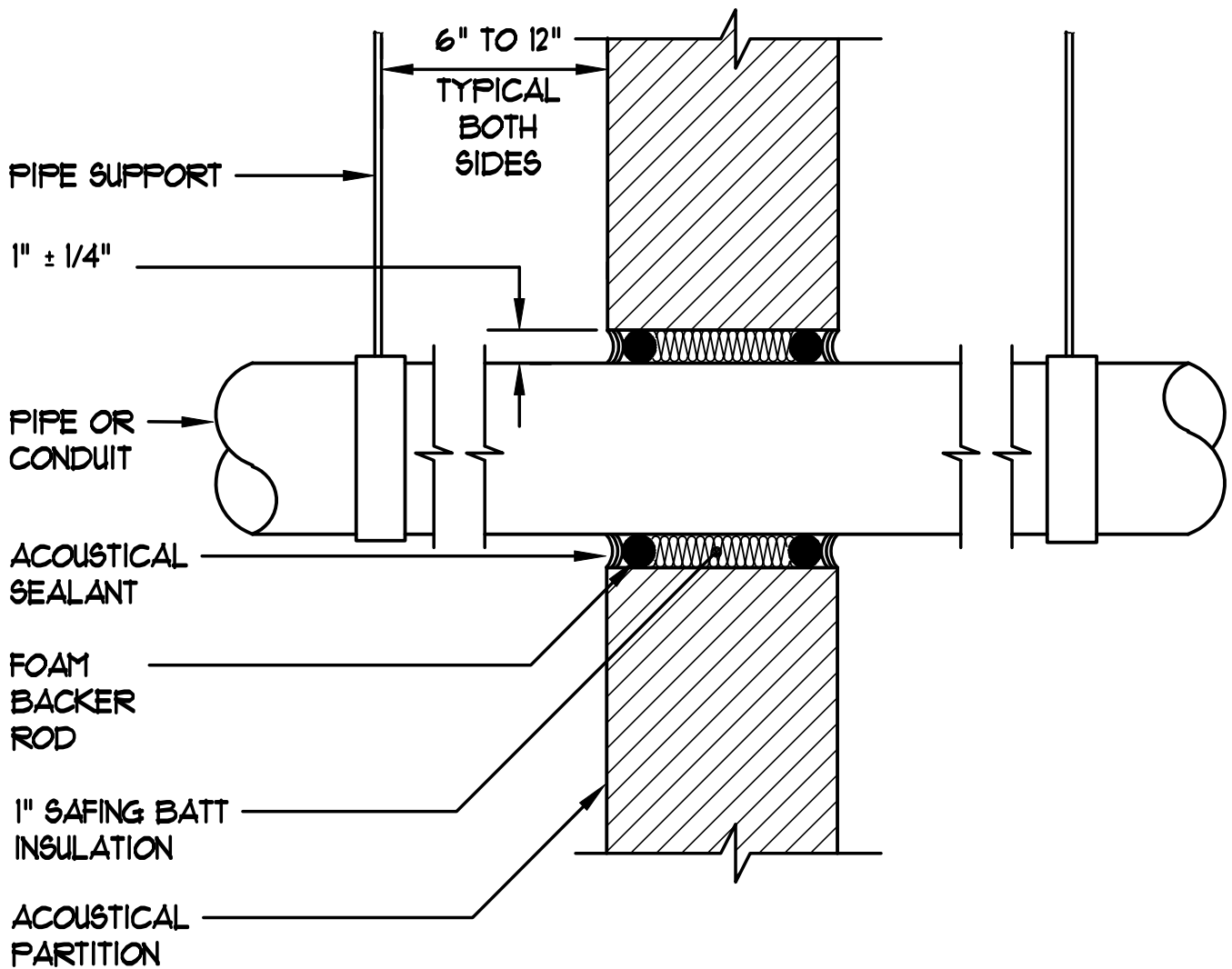
RALEIGH-DURHAM



**THORBURN ASSOCIATES**  
ACOUSTICAL, TECHNOLOGY, AND LIGHTING DESIGN

1.800.383.8490

JustAsk@TA-INC.COM



# TYPICAL LARGE PIPE/CONDUIT PENETRATION THROUGH ACOUSTICAL PARTITION

P2

(3" IN DIAMETER OR GREATER)  
23050\_P2.dwg

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RALEIGH-DURHAM

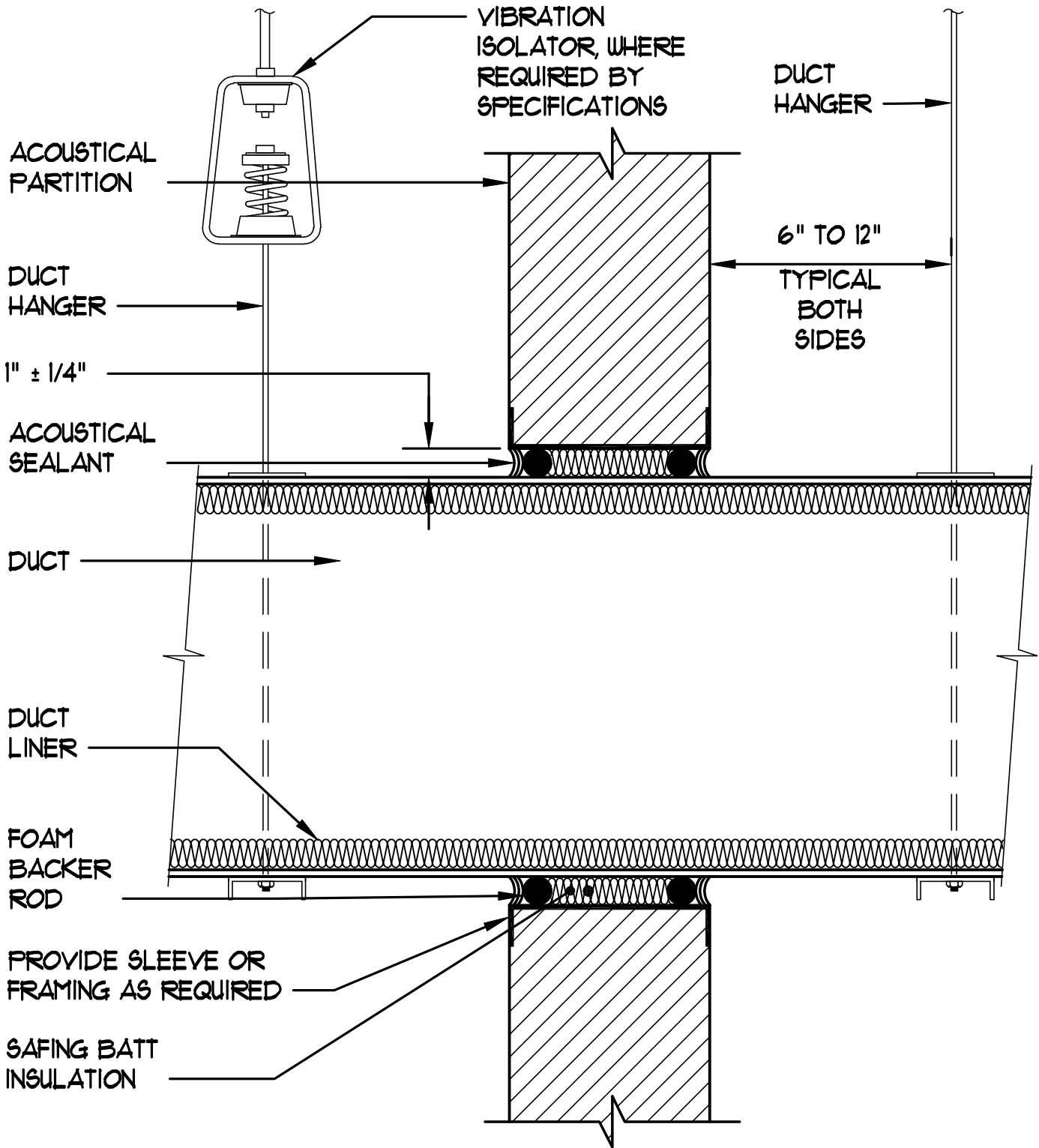


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## TYPICAL DUCT PENETRATION THROUGH ACOUSTICAL PARTITION

P3

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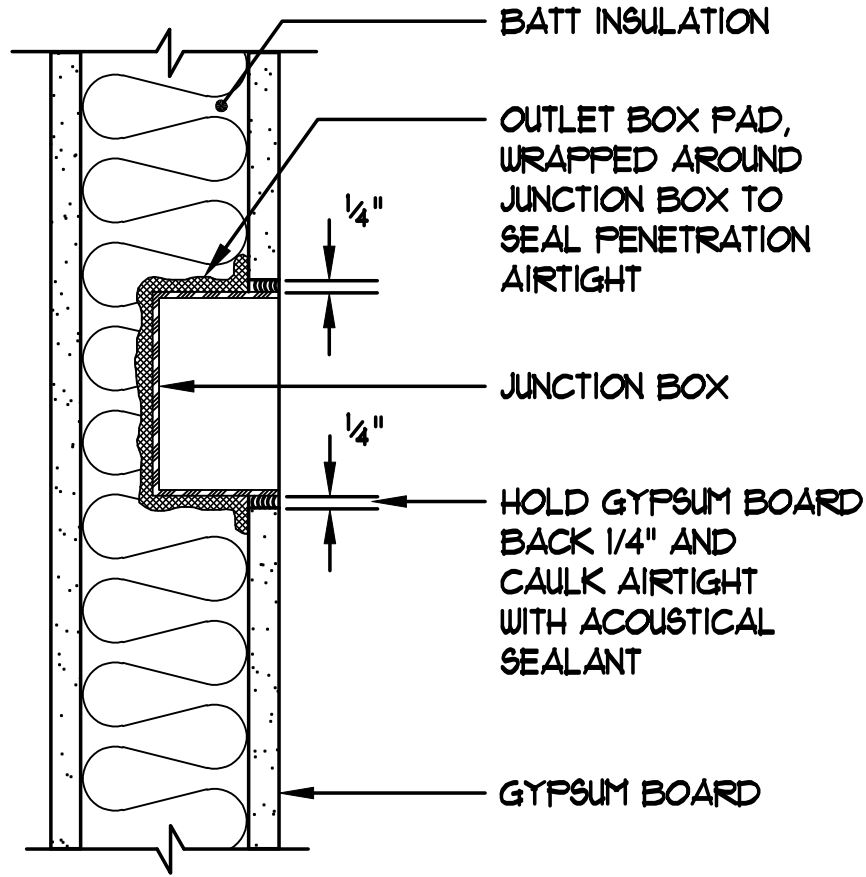
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**NOTES:**

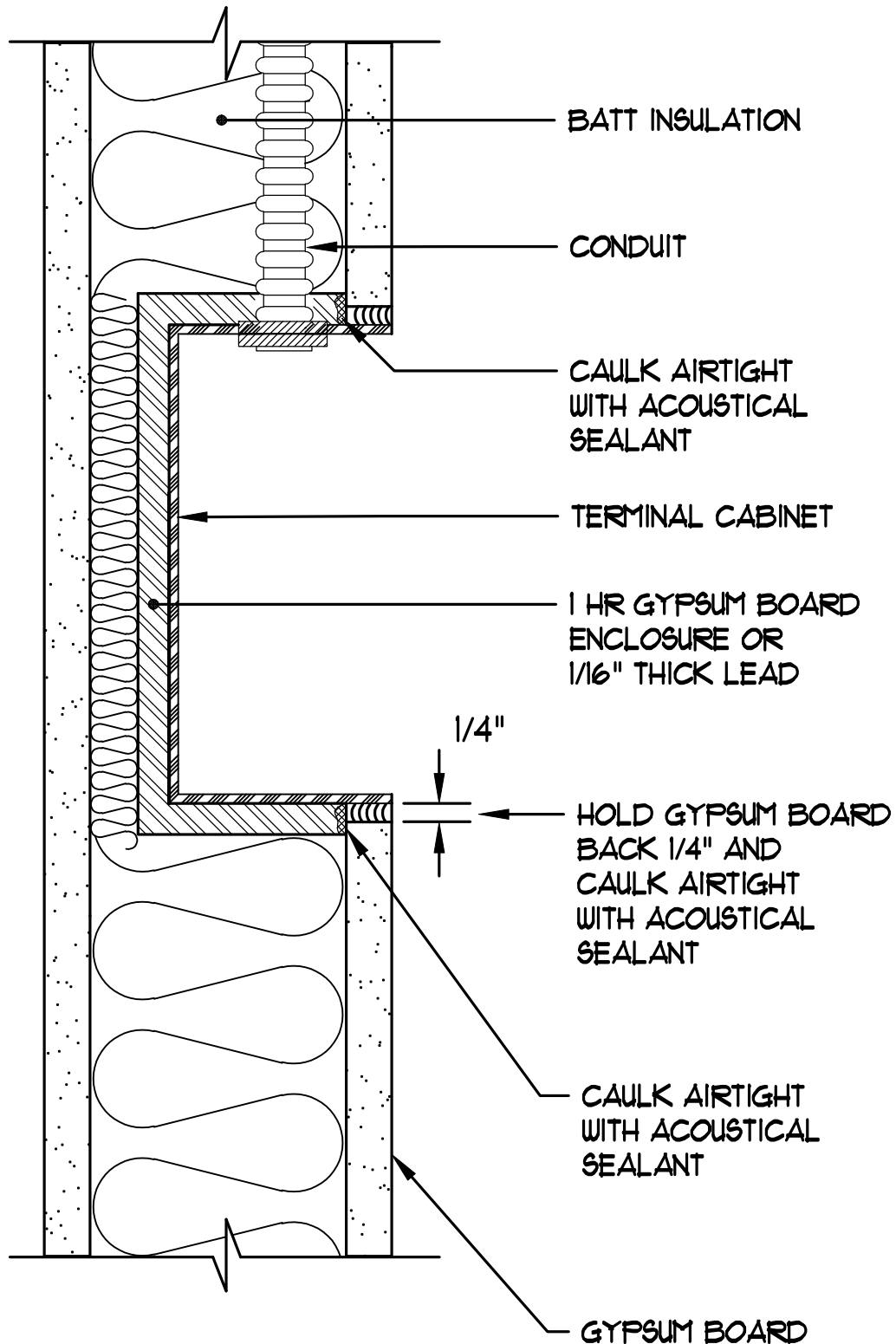
1. SEPARATE OUTLET BOXES A MINIMUM OF 16 INCHES.
2. OUTLET BOX PADS MANUFACTURED BY:  
LOWRY & ASSOCIATES, INC.  
SUN VALLEY, CA  
(818) 768-4661
3. OUTLET BOX PADS DISTRIBUTED BY:  
LOWRY & ASSOCIATES, INC.  
HAYWARD, CA  
(800) 252-2449
4. OUTLET BOX PADS DISTRIBUTED BY:  
WOOLF DISTRIBUTING  
CRYSTAL LAKE, IL  
(815) 477-9680

**P4** **OUTLET BOX DETAIL**

23050\_P4.dwg

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## LARGE OUTLET BOX PENETRATION

4 GANG – 32 SQUARE INCHES OR LARGER  
23050\_P5.dwg

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**Gavilan College**  
**Library & Student Resource Center**  
**(LSRC)**

**Schematic Design Submittal**

**Section 5**  
**Low Voltage System**  
**Basis of Design**

## **Gavilan LSRC Project Low Voltage Systems Basis of Design**

The following Low Voltage Systems Basis of Design was developed with the help of the LSRC Technical Advisory Group and the IT Department at Gavilan College.

NOTE: Some items need further exploration, which will be done during Design Development.

1. **Horizontal Cabling and IDF racks**
  - a. Cabling and patch panel manufacturer.
    - i. Preference is Leviton. Fiber Leviton or Corning.
  - b. Type of cables.
    - ii. COLORING SCHEME: TBD
    - iii. Station cables: (4) CAT6A
    - iv. Access Points: 2 CABLES; CAT8
    - v. Vape Sensors: NOT APPLICABLE
    - vi. Clock/PA: N/A
    - vii. CCTV: CAT8
    - viii. Security devices: POE
    - ix. Add other systems and cable types as necessary:
      1. PROJECTORS OR SMART BOARDS: CAT8
  - c. In-wall requirements
    - i. Conduit stubbed to accessible ceilings? YES
    - ii. CABLING TO EVERYTHING
    - iii. LV CONNECTIONS AT 2 WALLS
    - iv. Minimum sized conduits? 1 ½" MINIMUM
  - d. IDF requirements:
    - i. 2-post and 4-post.
      1. COMBINATION: 2 POST AND 4 POST.
      2. MOUNT: MIDDLE OF ROOM.
    - ii. Wire managers? YES, VERTICAL.
    - iii. Ladder rack? YES
  - e. Owner Furnished Equipment (i.e. Network switches).
    - i. AP W/SERVICE LOOP (FOR FLEXIBILITY FOR FUTURE PLACEMENT)  
(MINIMUM 60-FOOT GRID)
    - ii. SWITCHES
    - iii. SECURITY CAMERAS
2. **Clock/PA (This category is more for K-12 but it's good to ask)**
  - a. Manufacturer/software:
    - i. VOICE OVER IP IS CURRENTLY BEING DISCUSSED.
  - b. Does campus already own the software?
    - i. Not yet. TBD.
  - c. Who is responsible for adding FUTURE devices to the program? (Typically this is the IT department)
    - i. IT DEPARTMENT (TBD WHEN SYSTEM IS CHOSEN BY DISTRICT)

- d. Owner Furnished Equipment (i.e. IP Clocks/speakers, headend software existing).
  - i. CLOCKS – HARD WIRE POWER TO CLOCKS
  - ii. WIRELESS ACCESS POINTS ON EXTERIOR – ALL SIDES OF BUILDING – 6
    - 1. EXTERIOR ACCESS POINTS: 120 DEGREE DIRECTIONAL; OMNI-DIRECTIONAL IS AN OPTION

3. **Audio-visual (SAN BENITO CAMPUS as standard)**

- a. Specified manufacturer? (i.e. Extron, Crestron, PREFERRED.
- b. This is one of the most important sections to be clear what is needed here: below are some examples, gray areas here equate to scope gaps and change orders, and usually towards the end of the project when they are the most expensive.
- c. Projectors (short throw? Or ceiling mounted) and projector screens or monitors? THERE'S A MIX AT SAN BENITO; SPECIFIC TO BUILDING
- d. STUDY ROOMS TO HAVE NETWORKED MONITOR WITH ABILITY TO CAST WIRELESSLY
- e. Digital signage? YES. NOT INTERACTIVE.

iv. Differences between classrooms and conference (group) rooms

- c. Owner Furnished Equipment (i.e. TVs, monitors, projectors, projector screens controls, etc.).

4. **Security – Intrusion detection, Access control, CCTV (CONFIRM THAT WE HAVE THE STANDARDS AND WHAT HAS BEEN CHOSEN FOR SAN BENITO CAMPUS)**

- a. Manufacturers
  - i. Intrusion: NA
  - ii. Access Control: SEE SAN BENITO AS A STANDARD
  - iii. CCTV Cameras: SEE SAN BENITO AS A STANDARD
  - iv. CCTV recording (NVR, cloud base?): SEE SAN BENITO AS A STANDARD. CAMERAS WITH SELF STORAGE?
- b. What doors need Access controls? Shown them on the drawings. ALL EXTERIOR DOORS KEYLESS FOBS WITH RECEIVER, IDF/MDF, ANY SPACE MANAGING CASH, ANY ROOM STORING EXPENSIVE EQUIPMENT.
- c. What is required for Intrusion detection? Motion? Door contacts? Glass break? Etc. NA
- d. I have noticed panic buttons being installed in all rooms in recent college projects, this is part of the Access Control Scope, is that required? YES AT ADMIN OFFICE, MAIN AND EXEC SPACE, TO BE DISCUSSED WITH GROUPS. HARD WIRED. MESSAGE TO SECURITY ONLY NEEDS TO TAKE PRECEDENCE FOR LIFE SAFETY. CAREFULL ATTENTION TO HOW THIS WORKS.
- e. Owner Furnished Equipment (i.e. Cameras, NVRs, cloud base recording software, etc.)
  - i. CONTRACTOR PURCHASED AND INSTALLED

5. **ERRCS System**

- a. Is the Electrical Contractors scope to design and install? Make sure that this scope is clearly defined. PROVIDE PROVISIONS, CONDUIT PATHS TO ROOF.

b. There is always a spec section for this but it's always a gray area. There are usually unknowns to both the owner and design team until much later in the project, but the more info here, the better and cheaper and it can be captured early.

**Gavilan College**  
**Library & Student Resource Center**  
**(LSRC)**

**Schematic Design Submittal**

**Section 6**  
**Statement of Probable Cost**



# **FLINT**

## **GJCCD Library and Student Resource Center Project Gilroy, California**

Schematic Design Documents Statement of Probable Cost  
October 6, 2023  
FLINT Project Number - 2292

Prepared for Gavilan Joint Community College District

## Table of Contents

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<b>LSRC Building Detail</b>	<b>23</b>

## Narrative Statement

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### 1. Basis of Estimate:

This statement is based on the SD Package dated October 6th, 2023 from JKAE and associated consultants as well as Stakeholder/user group and Executive Committee meetings and feedback.

### 2. Items Not Included Within the Estimate:

- A. Increment #0 Utility Infrastructure project. Increment #0 construction scope shall be completed prior to start of construction of Increment #1 and #2
- B. Testing and Inspections
- C. DSA Plan check fees and building permit fees
- D. Utility Connection Fees
- E. Cost of off-site construction
- F. Major site and building structures demolition unless noted in body of estimate
- G. Costs of hazardous material surveys, abatement, and disposals unless noted within the estimate
- H. All site gas excluded
- I. New transformer, including installation, provided by others
- J. Site Low Voltage conduit to be provided by others directly North of building footprint
- K. No import of topsoil provided. Site landscaping assumed to be provided via onsite soil conditions.
- L. Furnishings, fixtures and equipment (FF&E), including site furniture, except built-in cabinets, counters and other casework indicated
- M. Concrete curing of slab on grade is to be provided by wet cure and no compound agents
- N. Elevated or depressed slab on grade
- O. Roof tie-back for support of maintenance crew (Not anticipated)
- P. Paging and clocks, not anticipated
- Q. LEED Certification and documentation
- R. Costs associated with Insurances included within the OCIP
- S. Any item not specifically called out in the body of this estimate
- T. Battery storage structure for PV System

### 3. Qualifications / Assumptions

- A. All CIP walls to be plywood formed concrete retaining walls unless indicated
- B. Retaining walls assumed with French drainage
- C. Roadway drainage to be provided via sloped asphalt and not concrete gutters
- D. Exterior wall insulation R-19 and not anticipated in soffit cavities or underside of roof deck
- E. All doors assumed as non-rated assemblies
- F. All metal decking assumed as non-acoustical
- G. Moisture control or mitigation applications. Flooring assumed per high RH adhesive
- H. Fire water or domestic water pump not anticipated
- I. UG utilities that are shown in Inc. 0 take precedence and costs have been removed from this estimate
- J. Existing sewer is anticipated to be relocated outside footprint in site infrastructure project
- K. Items that were not included in original criteria documents have been listed as alternate options
- L. Final Geotechnical Report pending

## Narrative Statement

---

### 4 . Notes:

We recommend that the client review this statement, and that any interpretations contrary to those intended by the design documents be fully addressed. This statement is based upon a detailed measurement of quantities when possible, and reasonable allowances for items not clearly defined in the documents. This estimate is based on historical cost data and does not include material quotes or subcontractor bids (unless specified).

The following variance report is based on comparison to the R3 budget estimate dated 06/02/23 and reviewed with the Gavilan College team. Subsequent to the R3 budget update, FLINT prepared a preliminary SD Submittal budget update which was reviewed by the Gavilan College team, however, due to numerous District directed floor plan changes, the SD preliminary design and budget update were not submitted until the design and budget were in aligned.

*(Please advise if any of the items indicated above should be incorporated into this estimate.)*

### CONSTRUCTION COST SUMMARY

Element	Area	Cost / SF	Total
A . Site Improvements	2.5 Acres 108,570 SF	\$60.13	\$6,527,985
B . LSRC Building	49,605 SF	\$1,034.39	\$51,311,139
C . Proposed Shift from Phase 2 to Phase 1 Items			-\$1,250,000
<b>Subtotal Cost of Design and Construction</b>	<b>49,605 SF</b>	<b>\$1,140.79</b>	<b>\$56,589,124</b>
D . Phase 1 CO # 01 Added Site Investigation and Borings			\$98,794
E . Phase 1 CO # 02 Time Extension and Additional Programming/Design Services			\$566,984
F . Phase 1 CO #03 Proposed Phase 1 Items (see Breakout Below)			
F1 . Early Procurement of Materials			\$300,000
F2 . BIM/VDC Shop Drawings			\$750,000
F3 . General Allowance			\$200,000
G . District Contingency			\$2,000,000
<b>Total Cost of Design and Construction</b>	<b>49,605 SF</b>	<b>\$1,219.73</b>	<b>\$60,504,902</b>

## VARIANCE REPORT SUMMARY

Element	SD Final Package, 10/06/23		
	Area	Total	Total
<b>A . Site Improvements</b>	108,570 SF	\$60	\$6,527,985
<b>B . LSRC Building</b>	49,605 SF	\$1,034	\$51,311,139
<b>C . Proposed Shift from Phase 2 to Phase 1 Items</b>			-\$1,250,000
<b>Additional Program SF</b>			Included
<b>Subtotal Cost of Design and Construction</b>	<b>49,605 SF</b>	<b>\$1,141</b>	<b>\$56,589,124</b>
<b>D . Phase 1 CO # 01 Added Site Investigation and Borings</b>			\$98,794
<b>E . Phase 1 CO # 02 Time Extension and Additional Programming/Design Services</b>			\$566,984
<b>F . Phase 1 CO #03 Proposed Phase 1 Items (see Breakout Below)</b>			
<b>F1 . Early Procurement of Materials</b>			\$300,000
<b>F2 . BIM/VDC Shop Drawings</b>			\$750,000
<b>F3 . General Allowance</b>			\$200,000
<b>G . District Contingency</b>			\$2,000,000
<b>Total Cost w/ District Contingency</b>	<b>49,605 SF</b>	<b>\$1,220</b>	<b>\$60,504,902</b>
<b>District Target Budget</b>			<b>\$51,516,940</b>
<b>Delta</b>			<b>\$8,987,962</b>
<b>Remaining Delta from Concept R3 Update</b>			<b>\$1,172,666</b>
<b>Variance from Concept R3 Update to SD Package</b>			<b>\$7,815,296</b>

**Site Variance from Concept R3 Update** **\$3,425,153**

1. Increased site limits by 58,570 SF from allowed Concept R3 limits \$3,425,153
2. Added grading and gravel for fire access road \$68,222
3. Added fire egress on East side of building which extended site limits \$114,813

**Building Variance from Concept R3 Update** **\$4,224,366**

**Div 3:**

4. Concrete exceeded allowance due to size of foundation elements. Foundation elements to be optimized, and in many cases, reduced in size, during DD phase \$165,000

**Div 4:**

5. Masonry exceeded allowance due to size of stone and transitioning to other finished and openings \$71,000

**Div 5:**

6. Railings exceeded allowance due to quantity increase and specified product as stainless steel. Budgeted for galvanized/painted (previously included as VE) \$217,000
7. Added 2nd exterior stair egress from roof deck \$40,000

**Div 6:**

**VARIANCE REPORT SUMMARY**

8 . Millwork exceeded allowance. Allowed 275 LF whereas 1,286 LF Is shown (previously included as VE)	\$769,000
<b>Div 7:</b>	
9 . Fiber Cement quantity decreased by 1,750 SF	(\$110,000)
10 . Metal Panels quantity increased by 2,390 SF	\$150,000
11 . Roofing specified as 80mil w/ KEE, budgeted for 60mil (previously included as VE)	\$150,000
12 . Pedestal Pavers quantity reduced and replaced with ballast	(\$35,000)
<b>Div 8:</b>	
13 . Exterior glazing increased by 2,600 SF	\$390,000
14 . Interior glazing and doors, frames, hardware exceeded allowance. Previously allowed 5,000 SF glazing, 50% hollow metal / 50% storefronts doors and design resulted in 850 SF glazing, 15% HM / 40% storefront / 45% sliding glass doors	\$340,000
15 . Added coiling security door	\$32,000
<b>Div 9:</b>	
16 . Framing and sheathing exterior walls increased 1' and further evaluation of exterior framing increased quantity due to waste and adjusted production factor	\$460,000
17 . Added sound masking for 22,000+ SF of floor space	\$110,000
18 . Interior flooring percentage of LVT to Carpet assumed higher than allowance. Added epoxy for restrooms originally assumed as LVT and added wayfinding allowance for carpet tiles	\$130,000
<b>Div 10:</b>	
19 . Added folding partition with door and exceeded allowance on glazed folding walls	\$40,000
20 . Glazed folding partitions unit cost increased based on subcontractor input.	\$50,000
21 . Added full height solid toilet partitions for gender neutral restrooms	\$60,000
22 . Exterior signage quantity and specifications exceeded allowance and includes backlighting	\$70,000
23 . Added metal lockers	\$30,000
24 . Added markerboards and tackboards previously excluded during VE and assumed as OFOI	\$50,000
<b>Div 11:</b>	
25 . Quantity of library shelving exceeded allowance	\$81,873
<b>Div 14:</b>	
26 . Elevator unit costs increased based on subcontractor input	\$15,000
<b>Div 21:</b>	
27 . Fire Suppression savings from Bid	(\$30,000)
<b>Div 22:</b>	
28 . Added (2) remote sink locations	(\$45,719)
<b>Div 23:</b>	
29 . HVAC increased from allowance due to increased zoning and control preferred by district.	\$458,764
<b>Div 26:</b>	
30 . Data / Telecom exceeded the previous VE allowance	\$595,260
<b>Additional Cost Variance from Concept R3 Update</b>	
31 . Phase 1 CO # 01 Added Site Investigation and Borings	<b>\$98,794</b>
32 . Phase 1 CO # 02 Time Extension and Additional Programming/Design Services	<b>\$66,984</b>

VARIANCE HISTORY

Element	SD Final Package, 10/06/23			SD Preliminary Package, 08/14/23			Concept R3 Update, 06/02/23		Concept R3, 051623			R2 Target Budget, 05/04/23		Concept R2, 05/04/23		Concept R1, 04/24/23		Original, 01/26/23						
	Area	Total		Area	Total		Area	Total	Area	Total	Area	Total	Area	Total	Area	Total	Area	Total	Area	Total				
A . Site Improvements	108,570 SF	\$60	\$6,527,985	98,440 SF	\$61	\$6,027,375	50,000 SF	\$62	\$3,102,833	50,000 SF	\$62	\$3,094,738	50,000 SF	\$62	\$3,101,466	95,000 SF	\$56	\$5,356,120	95,000 SF	\$57	\$5,449,139	95,000 SF	\$61	\$5,747,887
B . LSRC Building	49,605 SF	\$1,034	\$51,311,139	49,480 SF	\$997	\$49,315,070	49,236 SF	\$956	\$47,086,773	50,055 SF	\$950	\$47,562,568	50,055 SF	\$917	\$45,915,474	50,055 SF	\$1,025	\$51,316,672	50,055 SF	\$1,067	\$53,388,226	42,220 SF	\$1,227	\$51,785,224
C . Proposed Shift from Phase 2 to Phase 1 Items			-\$1,250,000			N/A																		
Additional Program SF			Included																					
Subtotal Cost of Design and Construction	49,605 SF	\$1,141	\$56,589,124	49,480 SF	\$1,118	\$55,342,445	49,236 SF	\$1,019	\$50,189,606	50,055 SF	\$1,012	\$50,657,306	50,055 SF	\$979	\$49,016,940	50,055 SF	\$1,132	\$56,672,792	50,055 SF	\$1,175	\$58,837,365	47,336 SF	\$1,315	\$62,239,409
D . Phase 1 CO # 01 Added Site Investigation and Borings			\$98,794			\$98,794			N/A						N/A									
E . Phase 1 CO # 02 Time Extension and Additional Programming/Design Services			\$566,984			\$442,784			\$500,000	\$10	\$500,000	\$10	\$500,000	\$10	\$500,000									
F . Phase 1 CO #03 Proposed Phase 1 Items (see Breakout Below)																								
F1 . Early Procurement of Materials			\$300,000																					
F2 . BIM/VDC Shop Drawings			\$750,000																					
F3 . General Allowance			\$200,000																					
G . District Contingency			\$2,000,000			\$2,000,000			\$2,000,000	\$40	\$2,000,000	\$40	\$2,000,000	\$40	\$2,000,000	\$40	\$2,000,000	\$40	\$2,000,000	\$47	\$2,000,000	\$47	\$2,000,000	
Total Cost w/ District Contingency	49,605 SF	\$1,220	\$60,504,902	49,480 SF	\$1,170	\$57,884,023	49,236 SF	\$1,070	\$52,689,606	50,055 SF	\$1,062	\$53,157,306	50,055 SF	\$1,029	\$51,516,940	50,055 SF	\$1,182	\$59,172,792	50,055 SF	\$1,215	\$60,837,365	47,336 SF	\$1,357	\$64,239,409
District Target Budget			\$51,516,940			\$51,516,940			\$51,516,940			\$51,516,940			\$51,516,940			\$51,516,940			\$51,516,940			
Delta			\$8,987,962			\$6,367,083			\$1,172,666			\$1,640,366			(\$0)			\$7,655,852			\$9,320,425			



## PROPOSED VALUE ENGINEERING

Element	SD Final Package, 10/06/23		
	Area	Total	Total
<b>A . Site Improvements</b>	108,570 SF	\$60	\$6,527,985
<b>B . LSRC Building</b>	49,605 SF	\$1,034	\$51,311,139
<b>C . Proposed Shift from Phase 2 to Phase 1 Items</b>			-\$1,250,000
Additional Program SF			Included
<b>Subtotal Cost of Design and Construction</b>	<b>49,605 SF</b>	<b>\$1,141</b>	<b>\$56,589,124</b>
<b>D . Phase 1 CO # 01 Added Site Investigation and Borings</b>			\$98,794
<b>E . Phase 1 CO # 02 Time Extension and Additional Programming/Design Services</b>			\$566,984
<b>F . Phase 1 CO #03 Proposed Phase 1 Items (see Breakout Below)</b>			
<b>F1 . Early Procurement of Materials</b>			\$300,000
<b>F2 . BIM/VDC Shop Drawings</b>			\$750,000
<b>F3 . General Allowance</b>			\$200,000
<b>G . District Contingency</b>			\$2,000,000
<b>Total Cost w/ District Contingency</b>	<b>49,605 SF</b>	<b>\$1,220</b>	<b>\$60,504,902</b>
<b>District Target Budget</b>			<b>\$51,516,940</b>
<b>Delta</b>			<b>\$8,987,962</b>
<b>SD Final - Proposed VE for SD, if all accepted</b>			<b>(\$8,987,962)</b>

### Proposed Value Engineering Options

#### Site VE

- 1 . Remove topcast and provide broom finish for all concrete finishes. (\$24,773)
- 2 . Eliminate unit pavers and provide concrete paving (\$26,849)
- 3 . Eliminate wall between VRC and test proctoring, including trellis (\$61,265)
- 4 . Remove 50% of site lighting fixtures (\$97,500)
- 5 . Reduce Bioswale coverage by 50% and remove from site SF (\$61,665)

#### Building VE

- 1 . Optimize foundation during DD phase. Assume 10% reduction of foundation sizes (\$111,712)
- 2 . Change masonry to thin set veneer to eliminate edge closure issues (\$92,959)
- 3 . Change railings from stainless steel to galvanized/painted with flat top bar and pickets (\$219,310)
- 4 . Change low roof deck from concrete to singly ply membrane. Need to confirm pedestal pavers work with singly ply on metal decking (\$19,500)
- 5 . Eliminate GRFC column covers from exterior columns and provide round columns (\$60,863)
- 6 . Reduce casework by 50% (quantity depends on type being removed) (\$623,639)

## PROPOSED VALUE ENGINEERING

Uppers \$400 LF	
Base \$800 LF	
Open Storage \$650 LF	
Reception Desk Base and Top \$1400 LF	
Reception Desk Upper Countertop \$800 LF	
7 . Change roofing membrane to 60mil, mechanically fasted, 1/4" coverboard, with 20 yr warrantee	(\$233,086)
8 . Reduce stone veneer by 50% and replace with cement plaster	(\$147,963)
9 . Change exterior finishes, other than stone, to cement plaster	(\$716,183)
Cement Plaster \$30 SF	
Fiber Cement & Metal Panel Flex \$53 SF	
Metal Panel Flush \$68 SF	
Stone Veneer \$85 SF	
10 . Eliminate exterior soffit finishes and have exposed to metal decking above.	(\$359,915)
11 . Eliminate NW corner canopy	(\$104,000)
12 . Change all sliding doors to HM frames with HM door w/ full lite with 18" sidelight	(\$512,547)
13 . Reduce exterior glazing by 35% and replace with cement plaster	(\$366,440)
14 . Eliminate coiling security door	(\$52,736)
15 . Eliminate sound masking. Need to confirm no other acoustical changes needed to remove	(\$149,053)
16 . Remove 50% of the suspended wood ceilings coverage	(\$323,888)
17 . Allow LVT in circulation spaces only with waiting areas to be carpeted. Assume 25% of LVT is changed to carpet	(\$36,796)
18 . Remove allowance for wayfinding using various colors for carpeting. Allow 3 colors total	(\$40,433)
19 . Remove wall protection allowance (additional wall covering on gypsum)	(\$19,500)
20 . Paint gypsum walls to 11' max in rooms with ceilings	(\$82,212)
21 . Remove dry erase wall painting allowance	(\$13,000)
22 . Remove Learning Skill Lab, Folding partition w/ door, 28'	(\$55,510)
23 . Remove Study Room, Markerboard folding partition, 12'	(\$25,870)
24 . Remove backlighting from exterior signage	(\$34,640)
25 . Reduce shade coverage on exterior windows from 100% to 50% and eliminate motorized shade allowance	(\$134,507)
26 . Remove windows coverings at all interior glazing	(\$11,120)
27 . Remove irrigation and planter allowance from roof deck	(\$120,793)
28 . Remove allowance for fiberglass insulation for roof drains	(\$84,500)
29 . Remove dedicated library package AC unit	(\$175,500)
30 . Revise zoning; remove averaging thermostats, convert 14 reheat to cooling only, combine 4 reheat zones, combine 3 cooling only zones	(\$161,200)
31 . Serve data rooms with transfer fans instead of split systems	(\$65,000)
32 . Use LG heat pumps vs Multistack	(\$213,200)
33 . HVAC system to provide only 1 primary pump and 1 secondary pump vs 2 of each for pumping redundancy	(\$27,300)
34 . Remove diesel powered emergency generator	(\$63,501)
35 . Reduce data from floor boxes and provide power only	(\$130,000)
36 . Reduce number of floor boxes, \$2,000 per box (currently 105)	TBD
37 . Reduce number of data drops, \$700 per drop (currently around 1,000)	TBD
38 . Reduce number of monitors to reduce AV infrastructure, \$1,250 per monitor (device savings for owner as well)	TBD
39 . Reduce program / building SF to achieve budget (estimated at \$600 / SF savings)	<b>5,213 SF</b> <span style="float: right; color: red;">(\$3,127,535)</span>

## Construction Cost Summary by Division

CSI Division	Total	Cost / SF
01 General Requirements	\$923,125	\$18.61
02 Existing Conditions	\$111,653	\$2.25
03 Concrete	\$3,557,032	\$71.71
04 Masonry	\$364,858	\$7.36
05 Metals	\$4,221,736	\$85.11
06 Wood, Plastics, & Composites	\$985,914	\$19.88
07 Thermal & Moisture Protection	\$3,576,434	\$72.10
08 Openings	\$2,920,463	\$58.87
09 Finishes	\$6,596,492	\$132.98
10 Specialties	\$645,734	\$13.02
11 Equipment	\$181,873	\$3.67
12 Furnishings	\$216,797	\$4.37
13 Special Construction		
14 Conveying Equipment	\$190,000	\$3.83
21 Fire Suppression	\$360,475	\$7.27
22 Plumbing	\$1,431,361	\$28.86
23 Heating, Ventilating, & Air-Conditioning	\$4,397,644	\$88.65
25 Integrated Automation		
26 Electrical	\$7,563,635	\$152.48
27 Communications		
28 Electronic Safety & Security		
31 Earthwork	\$596,414	\$12.02
32 Exterior Improvements	\$1,014,700	\$20.46
33 Utilities	\$482,508	\$9.73
Design Contingency	7.00% \$2,823,719	\$56.92
Escalation	3.00% \$1,294,877	\$26.10
DSA Contingency	3.00% \$1,333,723	\$26.89
A&E CA Fees	Lump Sum \$721,458	\$14.54
<b>Subtotal- Direct Cost of Construction</b>	<b>\$46,512,625</b>	<b>\$937.66</b>
1. Preconstruction / A&E Fees	Lump Sum \$3,458,542	\$69.72
2. General Conditions	8.05% \$3,744,266	\$75.48
3. GC Overhead & Profit Fee	3.35% \$1,683,606	\$33.94
4. DBE / Sub Bonds	2.28% \$1,184,244	\$23.87
5. Construction Contingency	2.70% \$1,255,841	\$25.32
6. Proposed Shift from Phase 2 to Phase 1 Items	(\$1,250,000)	(\$25.20)
<b>Total Cost of Design and Construction</b>	<b>\$56,589,124</b>	<b>\$1,140.79</b>

# **Site Improvements**

## Site Improvements Construction Cost Summary

CSI Division	Total	Cost / SF
01 General Requirements	\$286,264	\$2.64
02 Existing Conditions	\$111,653	\$1.03
03 Concrete	\$766,654	\$7.06
04 Masonry	\$15,686	\$0.14
05 Metals	\$152,259	\$1.40
06 Wood, Plastics, & Composites		
07 Thermal & Moisture Protection	\$79,950	\$0.74
08 Openings		
09 Finishes	\$11,572	\$0.11
10 Specialties	\$15,117	\$0.14
11 Equipment		
12 Furnishings	\$36,093	\$0.33
13 Special Construction		
14 Conveying Equipment		
21 Fire Suppression		
22 Plumbing		
23 Heating, Ventilating, & Air-Conditioning		
25 Integrated Automation		
26 Electrical	\$1,121,663	\$10.33
27 Communications		
28 Electronic Safety & Security		
31 Earthwork	\$596,414	\$5.49
32 Exterior Improvements	\$921,782	\$8.49
33 Utilities	\$482,508	\$4.44
Design Contingency	7.00% \$321,833	\$2.96
Escalation	3.00% \$147,583	\$1.36
DSA Contingency	3.00% \$152,011	\$1.40
A&E CA Fees	Lump Sum \$71,458	\$0.66
<b>Subtotal- Direct Cost of Construction</b>	<b>\$5,290,500</b>	<b>\$48.73</b>
1. Preconstruction / A&E Fees	Lump Sum \$342,557	\$3.16
2. General Conditions	8.05% \$425,885	\$3.92
3. GC Overhead & Profit Fee	3.35% \$191,499	\$1.76
4. DBE / Sub Bonds	2.28% \$134,700	\$1.24
5. Construction Contingency	2.70% \$142,844	\$1.32
<b>Total Construction Cost</b>	<b>\$6,527,985</b>	<b>\$60.13</b>

### Site Improvements Schedule of Areas & Control Quantities

Schedule of Areas		(SF) Area	(SF) Area
<b>Gross Site Area</b>	<b>2.5 Acres</b>	108,570	<b>108,570</b>
Footprint Area- LSRC Building		<u>(27,025)</u>	
<b>Finished Site Area</b>			<b>81,545</b>
Finished Site Area			81,545
PCC paving			17,115
Unit Pavers			1,050
AC Paving			15,435
Fire Access, East Access			3,650
Fire Access, South Road, Gravel			4,780
Planting Area, Hydroseed			15,965
Planting Area, Standard Planting			16,695
Planting Area, Bioswales			6,855
<b>Total</b>			<b>81,545</b>

## Site Improvements Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>1 GENERAL REQUIREMENTS</b>				
<b>(NO SPEC) FIELD ENGINEERING</b>				
Field Engineering				
Survey	108,570	sf	\$0.29	\$31,534
<b>31 25 00 EROSION AND SEDIMENTATION CONTROLS</b>				
Erosion Control				
Erosion control	108,570	sf	\$0.89	\$96,678
<b>(NO SPEC) FINAL CLEANING</b>				
Site Final Cleaning				
Final cleaning of new hardscape finishes	33,600	sf	\$0.24	\$8,092
<b>(NO SPEC) GENERAL TRADEWORK</b>				
General Tradework				
Trade labor, duration of project, Carpenter	865	mhr	\$147.26	\$127,382
Forklift, 10k capacity	5	mo	\$4,515.67	\$22,578
<b>Total - 1 GENERAL REQUIREMENTS</b>				<b>\$286,264</b>
<b>2 EXISTING CONDITIONS</b>				
<b>02 41 19 SELECTIVE DEMOLITION</b>				
<b>31 10 00 SITE CLEARING</b>				
<b>31 11 00 CLEARING AND GRUBBING</b>				
<b>31 12 00 SELECTIVE CLEARING</b>				
Site Demolition, , Per GBI 072723				
Sawcut hardscape paving, up to 4"	700	lf	\$12.97	\$9,077
Sawcut hardscape paving for conforming, up to 4"	440	lf	\$12.97	\$5,706
Remove AC paving, including agg	33,030	sf	\$1.12	\$37,093
Remove AC paving, North lot, including agg	11,225	sf	\$1.12	\$12,606
Remove PCC paving, including agg	2,525	sf	\$1.49	\$3,768
Remove PCC curbs	830	lf	\$5.00	\$4,151
Remove vegetation and gravel, allow 3", allow off haul	61,790	sf	\$0.26	\$16,161
Remove trees	24	ea	\$523.08	\$12,554
Remove signs/posts, bollards	16	ea	\$99.95	\$1,599
Remove utility structure - small	14	ea	\$338.40	\$4,738
Remove utility structure - large	7	ea	\$599.94	\$4,200
<b>HAZARDOUS MATERIAL REMOVAL AND ABATEMENT</b>				
Hazardous Material Removal and Abatement				
Not anticipated				Excluded
<b>Total - 2 EXISTING CONDITIONS</b>				<b>\$111,653</b>
<b>3 CONCRETE</b>				

## Site Improvements Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>03 21 00 REINFORCING STEEL</b>				
<b>Rebar</b>				
PCC paving, allow welded wire fabric	17,115	lb	\$2.26	\$38,676
Steps and ramps, allow 2 lb / sf	4,610	lb	\$2.26	\$10,417
Curbs, building skirt, allow 1 lb / lf	255	lb	\$2.26	\$576
Curbs, flush, at ADA ramp	105	lb	\$2.26	\$237
Curbs, vertical up to 8", allow 1.25 lb / lf	1,000	lb	\$2.26	\$2,260
Curbs, vertical up to 12", allow 1.5 lb / lf	60	lb	\$2.26	\$136
Curbs, ramp deepened curbs, allow 2 lb / lf	1,230	lb	\$2.26	\$2,779
CMU Footings, allow 20 lb / lf	1,100	lb	\$2.26	\$2,486
Retaining walls footing and walls, allow 50 lb / cy	17,100	lb	\$2.26	\$38,642
<b>32 13 13 CONCRETE PAVING</b>				
<b>32 13 13.1 CONCRETE WORK (LANDSCAPE)</b>				
<b>32 16 13 CONCRETE CURBS</b>				
<b>32 17 26 TACTILE WARNING SURFACING</b>				
<b>PCC Paving, Curbs, and Gutters</b>				
PCC paving, allow 4" per Geotech report	17,115	sf	\$18.17	\$310,958
PCC paving, premium for topcast finish	17,115	sf	\$1.11	\$19,056
<b>Site CIP Concrete</b>				
Steps, premium to PCC paving	385	sf	\$20.75	\$7,988
Ramp, premium to PCC paving	1,920	sf	\$3.44	\$6,610
Footings, 3' CMU walls, VRC patio	55	lf	\$200.00	\$11,000
<b>Curbs, Stem Walls, and Gutters</b>				
Curbs, building skirt, 1' wide	255	lf	\$30.13	\$7,683
Curbs, flush, at ADA ramp	105	lf	\$35.43	\$3,720
Curbs, vertical up to 8"	800	lf	\$40.73	\$32,588
Curbs, vertical up to 12"	40	lf	\$45.46	\$1,819
Stem wall, ramp deepened curbs, allow 24"	615	lf	\$48.47	\$29,811
Gutters, not anticipated				Excluded
<b>Tactile Warning Surfacing</b>				
ADA truncated texture strip	35	lf	\$109.34	\$3,827
<b>(NO SPEC) CIP RETAINING WALLS</b>				
<b>32 32 16 PRECAST CONC RETAINING WALLS</b>				
<b>32 32 19 UNIT MASONRY RETAINING WALLS</b>				
<b>32 32 23.16 MANUFACTURED MODULAR WALLS</b>				
<b>CIP Retaining Walls</b>				
Footing, concrete placement, allow 4' x 2', earth form	156	cy	\$343.85	\$53,487
Formwork, CIP concrete retaining wall	4,430	sf	\$36.82	\$163,093
CIP concrete retaining wall, concrete placement, 8" thick	55	cy	\$343.85	\$18,805
<b>Total - 3 CONCRETE</b>				<b>\$766,654</b>



## Site Improvements Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
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### 4 MASONRY

#### (NO SPEC) CONCRETE UNIT MASONRY

##### Site Masonry

CMU wall, Test Proctoring entry, allow 3' high	165	sf	\$56.67	\$9,351
Precast cap	75	lf	\$84.46	\$6,335

<b>Total - 4 MASONRY</b>	<b>\$15,686</b>
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### 5 METALS

#### 05 50 00 METAL FABRICATIONS

##### Site Miscellaneous Metals

Handrails, at ramps and stairs, galvanized metal	865	lf	\$149.01	\$128,896
Guardrails, at retaining walls as needed, galvanized metal	90	lf	\$259.59	\$23,363

<b>Total - 5 METALS</b>	<b>\$152,259</b>
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### 7 THERMAL & MOISTURE PROTECTION

#### 07 10 00 BELOW GRADE WATERPROOFING

##### Waterproofing

Waterproofing backside of retaining walls	2,215	sf	\$31.98	\$70,831
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#### 07 92 00 JOINT PROTECTION

##### Site Caulking and Sealants

Joint sealants at site concrete	17,115	sf	\$0.53	\$9,119
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<b>Total - 7 THERMAL &amp; MOISTURE PROTECTION</b>	<b>\$79,950</b>
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### 9 FINISHES

#### 09 91 00 PAINTING

##### Site Paint

Graffiti-resistant coat, 1-side of retaining walls	2,215	sf	\$5.22	\$11,572
Guardrails/Handrails, assumed as galvanized				Excluded

<b>Total - 9 FINISHES</b>	<b>\$11,572</b>
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### 10 SPECIALTIES

#### 10 75 00 FLAGPOLES

##### Flagpole

Flagpole allowance, inc footing	1	ea	\$15,117.31	\$15,117
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<b>Total - 10 SPECIALTIES</b>	<b>\$15,117</b>
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## Site Improvements Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
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### 12 FURNISHINGS

#### 12 93 00 SITE FURNISHINGS

##### Site Furnishings

Wall trellis	45	lf	\$535.66	\$24,105
Bike racks	4	ea	\$919.46	\$3,678
Bike lockers	1	ea	\$8,311.05	\$8,311
Bench seating, OFOI				Excluded
Table with seating, OFOI				Excluded
Bike repair station, OFOI				Excluded
Roof deck floor pots, OFOI				Excluded

<b>Total - 12 FURNISHINGS</b>	<b>\$36,093</b>
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### 22 PLUMBING

#### 33 52 00 SITE GAS DISTRIBUTION

##### Site Plumbing

Site gas piping- not anticipated (assume all new electric)				Excluded
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<b>Total - 22 PLUMBING</b>	
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### 26 ELECTRICAL

#### ELECTRICAL

#### 31 23 16.13 TRENCH EXCAVATION AND BACKFILL TO UTILITIES

##### Site Electrical, Per GLS 080323

Site power, 5 kV Transformer				By Others
Site power, N4SB-4A switchboard, 480V 3 Phase	1	ls	\$60,000.00	\$60,000
Site power, MSB 4SB-4B	1	ea	\$75,000.00	\$75,000
Site power, trenching/backfill, allow 3'x3'	140	cy	\$180.00	\$25,200
Site power, conduit, 4" & 3.5" LSRC, allow sch 40	1,680	lf	\$75.00	\$126,000
Site power, conduit, 2" LSRC, allow sch 40	420	lf	\$65.00	\$27,300
Site power, conduit, 1.5" LSRC, allow sch 40	840	lf	\$60.00	\$50,400
Site power, conduit, 1" LSRC, allow sch 40	420	lf	\$60.00	\$25,200
Site power, feeders	3,360	lf	\$85.00	\$285,600
Ssplice and connect to new infrastructure	1	ea	\$10,000.00	\$10,000
Site lighting, conduit & feeders	700	lf	\$50.00	\$35,000
Site lighting, fixture X1, including 14' pole	15	ea	\$10,000.00	\$150,000
Charging station allowance, per note 13 on E2.2	1	ls	\$20,000.00	\$20,000
Demo, trench and patchback of utilities, allowance	420	lf	\$75.00	\$31,500

##### Site Low Voltage

Site LV, trenching/backfill, allow 2'x2'	62	cy	\$180.00	\$11,160
Site LV, (4) 4" CO to LSRC, allow sch 40	420	lf	\$75.00	\$31,500
Site LV, cabling allowance	420	lf	\$150.00	\$63,000

## Site Improvements Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>TEMPORARY UTILITIES</b>				
<b>Temporary Power Establishment</b>				
Temporary connection for power during construction	1	ls	\$70,000.00	\$70,000
Cords, spider boxes, light strings	49,605	sf	\$0.50	\$24,803
<b>Total - 26 ELECTRICAL</b>				<b>\$1,121,663</b>

### 31 EARTHWORK

- 31 00 00 EARTHWORK
- 31 22 00 SITE GRADING
- 31 22 13 ROUGH GRADING
- 31 22 00 SITE GRADING
- 31 22 16 FINE GRADING
- 31 23 23 FILL

**Earthwork, Per GBI 072723**

Laydown area preparation	1	ls	\$30,000.00	\$30,000
Rough grading, cut and fill	3,449	cy	\$14.65	\$50,529
Import select fill, backfill and compact	1,395	cy	\$83.82	\$116,935
Spread onsite footing spoils	605	cy	\$14.65	\$8,862
Fine grading, PCC and landscaping	81,545	sf	\$1.08	\$88,112
Building pad over-excavation and recompact, allow 3'	3,310	cy	\$13.26	\$43,877
Finish building pad with 5' overbuild	31,675	sf	\$0.52	\$16,584
Excavation at building retaining wall and backfill	617	cy	\$113.71	\$70,161
Excavation at site retaining wall and backfill	194	cy	\$113.71	\$22,099
Bioswale rough grading	6,855	sf	\$4.67	\$32,014
Winterization, geogrid, etc	108,570	sf	\$0.98	\$106,126

**Fire Access Road**

Rough grading, cut 1' for aggregate base	177	cy	\$14.65	\$2,593
Stockpile cut to be used as fill	177	cy	\$48.14	\$8,522

<b>Total - 31 EARTHWORK</b>				<b>\$596,414</b>
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### 32 EXTERIOR IMPROVEMENTS

**32 11 23 AGGREGATE BASE COURSES**

**Aggregate Base, Per GBI 072723**

Aggregate below North conforming AC paving- allow 6"	12,085	sf	\$6.43	\$77,676
Aggregate below South conforming AC paving- allow 6"	3,350	sf	\$6.43	\$21,532
Aggregate base below PCC paving- allow 4"	17,115	sf	\$4.89	\$83,696
Aggregate base below unit pavers- allow 4"	1,050	sf	\$4.89	\$5,135
Aggregate base below curbs, not anticipated				Excluded

**Fire Access Road**

Aggregate base Fire Access Road, allow 12" compacted	4,780	sf	\$11.95	\$57,107
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## Site Improvements Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>32 12 16 ASPHALT PAVING AND STRIPING</b>				
<b>32 12 16.10 ASPHALT PAVING, STRIPING AND SIGNAGE</b>				
<b>32 17 23 PAVEMENT MARKINGS</b>				
<b>AC Paving</b>				
AC paving at North lot, conforming area	12,085	sf	\$6.79	\$82,065
AC paving at South lot, conforming area	3,350	sf	\$6.79	\$22,749
<b>Paving Specialties</b>				
Vehicular striping and signage	15,435	sf	\$0.60	\$9,260
<b>32 84 00 PLANTING IRRIGATION</b>				
<b>32 92 00 PLANTING</b>				
<b>32 92 19.16 HYDRAULIC SEEDING</b>				
<b>Landscape Planting and Irrigation</b>				
Bioswales, Sandy loam, 18"	6,855	sf	\$10.61	\$72,733
Bioswales, planting, non-irrigated	6,855	sf	\$3.23	\$22,137
Soil preparation and amendments	32,660	sf	\$1.00	\$32,651
Irrigation, shrub and turf	32,660	sf	\$3.92	\$128,061
Trees, 36" box size	22	ea	\$1,517.55	\$33,386
Shrubs allowance	16,695	sf	\$3.38	\$56,496
Hydroseed	15,965	sf	\$0.49	\$7,857
Mulch to shrub area	16,695	sf	\$1.08	\$17,982
Jute netting	8,195	sf	\$0.69	\$5,671
Landscape maintenance, 90-days	1	ls	\$14,923.81	\$14,924
Import topsoil, not anticipated				Excluded
<b>32 30 00 SITE IMPROVEMENTS</b>				
<b>32 31 13 CHAIN LINK FENCES AND GATES</b>				
<b>10 41 00 EMERGENCY ACCESS AND INFORMATION CABINETS (KNOX BOXES)</b>				
<b>Fencing and Gates</b>				
Chain link fencing, galv, 6' tall, around electrical utility pad	75	lf	\$79.20	\$5,940
Chain link fencing, galv, 3' tall, around VRC wall	55	lf	\$67.68	\$3,722
Chain link gate, galv, 6' tall, 4' wide, at electrical utility pad	1	ea	\$2,844.95	\$2,845
Chain link gate, galv, 6' tall, 4' wide, at VRC patio /w panic	1	ea	\$3,613.58	\$3,614
<b>(NO SPEC) UNIT PAVING</b>				
<b>Unit Paving</b>				
Precast concrete unit pavers, interlocking	1,050	sf	\$35.38	\$37,146
Sand bedding, 1"	1,050	sf	\$2.46	\$2,584
<b>Fire Egress Road</b>				
Fire egress road, allow EasyPave with gravel grid	3,650	sf	\$31.46	\$114,813
<b>Total - 32 EXTERIOR IMPROVEMENTS</b>				<b>\$921,782</b>

### 33 UTILITIES

## Site Improvements Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>31 23 16.13 TRENCH EXCAVATION AND BACKFILL TO UTILITIES</b>				
<b>33 05 00 COMMON WORK RESULTS FOR UTILITIES</b>				
<b>33 11 00 WATER UTILITIES</b>				
<b>33 31 00 SANITARY SEWERAGE PIPING</b>				
<b>33 40 00 STORMWATER UTILITIES</b>				
<b>33 41 00 SUBSURFACE DRAINAGE</b>				
<b>33 41 13 FOUNDATION DRAINAGE</b>				
<b>Utility Coordination</b>				
Potholing / utility locating	108,570	sf	\$0.10	\$11,338
BIM UG coordination	108,570	sf	\$0.28	\$30,486
UG piping/structures, demo and perm. Patching outside limits	110	lf	\$105.00	\$11,550
<b>Domestic Water</b>				
Domestic water, 6" pipe, allow PVC	55	lf	\$112.98	\$6,214
Domestic water, backflow preventer	1	ea	\$12,220.01	\$12,220
Domestic water, SOV in box	1	ea	\$4,188.44	\$4,188
Domestic water, connect to existing system	1	ea	\$2,266.88	\$2,267
Domestic water, water meter	1	ea	\$9,857.33	\$9,857
<b>Irrigation Water</b>				
Irrigation water, allow 2" pipe, allow PVC	40	lf	\$85.76	\$3,431
Irrigation water, backflow preventer	1	ea	\$9,145.51	\$9,146
Irrigation water, water meter	1	ea	\$6,321.66	\$6,322
<b>Fire Water</b>				
Fire water, to LSRC, 6" pipe, allow PVC	185	lf	\$112.98	\$20,902
Fire water, hydrant	1	ea	\$7,998.15	\$7,998
Fire water, backflow preventer, PIV, & FDC	1	ea	\$17,600.39	\$17,600
Fire water, SOV in box	1	ea	\$4,188.44	\$4,188
Fire water, connect to existing system	4	ea	\$2,266.88	\$9,068
<b>Sanitary Sewer</b>				
Sanitary sewer, 6" piping, allow PVC	30	lf	\$112.98	\$3,390
Sanitary sewer, connect to existing system, w/ CO	1	ea	\$2,266.88	\$2,267
Camera/flush downstream system	1	ls	\$9,412.85	\$9,413
<b>Storm Drainage</b>				
Storm drainage, 6" piping, allow PVC	471	lf	\$112.98	\$53,216
Storm drainage, 8" piping, allow PVC	217	lf	\$114.91	\$24,935
Storm drainage, area drain in landscaping	5	ea	\$754.14	\$3,771
Storm drainage, area drain in pavement	1	ea	\$1,354.56	\$1,355
Storm drainage, basin bubbler	3	ea	\$1,863.63	\$5,591
Storm drainage, junction box in pavement	2	ea	\$2,958.64	\$5,917
Storm drainage, overflow drain riser	4	ea	\$2,958.64	\$11,835
Storm drainage, manhole	1	ea	\$8,684.34	\$8,684
Storm drainage, not yet designed	108,570	sf	\$1.17	\$127,230
Storm drainage, connect to existing system	4	ea	\$2,266.88	\$9,068
Storm drainage, retaining wall drainage	525	lf	\$93.45	\$49,061

### Site Improvements Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
Storm drainage, outfall structure				w/ Inc 0
<b>Total - 33 UTILITIES</b>				<b>\$482,508</b>

# **LSRC Building**

## LSRC Building Construction Cost Summary

CSI Division	Total	Cost / SF	
01 General Requirements	\$636,861	\$12.84	
02 Existing Conditions			
03 Concrete	\$2,790,378	\$56.25	
04 Masonry	\$349,172	\$7.04	
05 Metals	\$4,069,477	\$82.04	
06 Wood, Plastics, & Composites	\$985,914	\$19.88	
07 Thermal & Moisture Protection	\$3,496,484	\$70.49	
08 Openings	\$2,920,463	\$58.87	
09 Finishes	\$6,584,920	\$132.75	
10 Specialties	\$630,617	\$12.71	
11 Equipment	\$181,873	\$3.67	
12 Furnishings	\$180,704	\$3.64	
13 Special Construction			
14 Conveying Equipment	\$190,000	\$3.83	
21 Fire Suppression	\$360,475	\$7.27	
22 Plumbing	\$1,431,361	\$28.86	
23 Heating, Ventilating, & Air-Conditioning	\$4,397,644	\$88.65	
25 Integrated Automation			
26 Electrical	\$6,441,972	\$129.87	
27 Communications			
28 Electronic Safety & Security			
31 Earthwork			
32 Exterior Improvements	\$92,918	\$1.87	
33 Utilities			
Design Contingency	7.00%	\$2,501,886	\$50.44
Escalation	3.00%	\$1,147,294	\$23.13
DSA Contingency	3.00%	\$1,181,712	\$23.82
A&E CA Fees	Lump Sum	\$650,000	\$13.10
<b>Subtotal- Direct Cost of Construction</b>		<b>\$41,222,125</b>	<b>\$831.01</b>
1. Preconstruction / A&E Fees	Lump Sum	\$3,115,985	\$62.82
2. General Conditions	8.05%	\$3,318,381	\$66.90
3. GC Overhead & Profit Fee	3.35%	\$1,492,107	\$30.08
4. DBE / Sub Bonds	2.28%	\$1,049,544	\$21.16
5. Construction Contingency	2.70%	\$1,112,997	\$22.44
<b>Total Construction Cost</b>		<b>\$51,311,139</b>	<b>\$1,034.39</b>



## LSRC Building Schedule of Areas & Control Quantities

Schedule of Areas	(SF) Area	(SF) Area
<b>Enclosed Areas</b>		
Level One	27,025	
Level Two	22,580	
<b>Subtotal, Enclosed Areas</b>		<b>49,605</b>
<b>Unenclosed Areas</b>		
Roof Overhangs, Soffits, and Canopies	2,815	
<b>Subtotal, Unenclosed Areas</b>	<b>2,815</b>	
<b>Total Gross Floor Area</b>		<b>49,605</b>

Control Quantities	Quantity	Unit	Ratio to Gross Area
Number of Stories	2	ea	0.040
Gross Area	49,605	sf	1.000
Enclosed Area	49,605	sf	1.000
Unenclosed Area	2,815	sf	0.057
Footprint Area	27,025	sf	0.545
Footprint Perimeter	930	lf	0.034
Level Two Perimeter	845	lf	0.037
Gross Wall Area	28,860	sf	0.582
Retaining Wall Area	2,380	sf	0.048
Finished Wall Area	26,480	sf	0.534
Exterior Glazing	24% 6,857	sf	0.138
Roof Area - Rooftop Deck	3,585	sf	0.072
Roof Area - Sloped	0	sf	0.000
Roof Area - Flat	25,520	sf	0.514
Roof Area - Metal Canopy	735	sf	0.015
Roof Area - Total	29,840	sf	0.602
Finished Area	49,605	sf	1.000
Interior Partitions- Level One	2,530	lf	0.094
Interior Partitions- Level Two	1,615	lf	0.072

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>1 GENERAL REQUIREMENTS</b>				
<b>FINAL CLEANING</b>				
<b>Final Cleaning</b>				
Final cleaning	49,605	sf	\$0.94	\$46,559
<b>TEMPORARY SCAFFOLDING AND PLATFORMS</b>				
<b>Temporary Material Access</b>				
Stair towers, per level	2	ea	\$10,000.00	\$20,000
<b>GENERAL TRADEWORK</b>				
<b>General Tradework</b>				
Trade labor, duration of project, Carpenter	2,768	mhr	\$147.26	\$407,623
VDC/BIM Manager, 4 month duration	693	mhr	\$130.43	\$90,428
Forklift, 10k capacity	16	mo	\$4,515.67	\$72,251
<b>Total - 1 GENERAL REQUIREMENTS</b>				<b>\$636,861</b>
<b>3 CONCRETE</b>				
<b>03 21 00 REINFORCING STEEL</b>				
<b>Rebar</b>				
Rebar, footings	93,510	lb	\$2.26	\$211,309
Rebar, SOG, curbs, elevator pit	28,311	lb	\$2.26	\$63,976
Rebar, topping slabs	27,096	lb	\$2.26	\$61,230
Rebar, retaining walls	7,052	lb	\$2.26	\$15,935
<b>03 30 00 CAST-IN-PLACE CONCRETE</b>				
<b>03 35 00 CONCRETE FINISHING</b>				
<b>07 26 16 BELOW-GRADE VAPOR RETARDERS</b>				
<b>CIP Foundations</b>				
Layout and excavation, earth formed	780	cy	\$323.78	\$252,548
Fabric and 2" slurry fill at footings	27,025	sf	\$2.63	\$70,980
Concrete, including placement	940	cy	\$326.07	\$306,504
Layout and set anchor bolts, allow 2' OC	465	ea	\$250.90	\$116,668
Backfill at footings	195	cy	\$148.62	\$28,981
Stockpile spoils for fill	605	cy	\$99.14	\$59,980
<b>CIP Slab on Grade</b>				
Formwork, SOG	930	sf	\$45.49	\$42,307
Formwork, curbs	1,365	sf	\$45.49	\$62,096
Formwork, elevator pit	380	sf	\$45.49	\$17,287
Formwork, block-outs at columns / braced frames	1,522	sf	\$37.25	\$56,687
Strip formwork	4,197	sf	\$10.72	\$44,995
Vapor barrier, 15 mil	27,025	sf	\$2.53	\$68,508

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
Gravel sub base, allow 4"	334	cy	\$293.48	\$97,918
Concrete, SOG	541	cy	\$284.83	\$154,096
Concrete, curbs	20	cy	\$284.83	\$5,760
Concrete, elevator pit	5	cy	\$284.83	\$1,424
Place and finish concrete, including control joints	566	cy	\$279.96	\$158,517
Slab wet cure	27,025	sf	\$2.07	\$55,838
Curecrete application, not anticipated				Excluded
Grout Columns / BF's at Block-Outs	1,522	sf	\$45.49	\$69,239
Sack and patch at stripped formwork	4,197	sf	\$11.50	\$48,278
Elevated SOG at DIAS, none per JKAE				Excluded
 <b>CIP Topping Slabs</b>				
Topping slab at level 2, 3.5" lightweight	523	cy	\$284.83	\$148,879
Topping slab at roof deck, 3.5" lightweight	83	cy	\$284.83	\$23,637
Topping slab at main roof, concrete pad at MEP unit	16	cy	\$284.83	\$4,615
Concrete, infill at stairs	18	cy	\$284.83	\$5,060
Place and finish topping slabs, stairs inc control joints	640	cy	\$279.96	\$179,071
Curbs, 6", at wet walls	310	lf	\$60.00	\$18,600
 <b>CIP Retaining Walls</b>				
Formwork, building retaining walls	4,760	sf	\$63.46	\$302,091
Concrete, retaining walls	71	cy	\$284.83	\$20,086
Place and finish concrete, including control joints	71	cy	\$245.01	\$17,278
Board form concrete, not anticipated				Excluded
<b>Total - 3 CONCRETE</b>				<b>\$2,790,378</b>

### 4 MASONRY

#### 04 43 13.16 ADHERED STONE MASONRY VENEER

Stone Veneer, per NCTS 072123

Stone Veneer, KO Natural Stone	3,288	sf	\$84.46	\$277,665
Trim stone at window/door returns	530	lf	\$111.31	\$58,996
Metal trim allowance at non-returns	280	lf	\$44.68	\$12,511

<b>Total - 4 MASONRY</b>				<b>\$349,172</b>
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### 5 METALS

#### 05 12 00 STRUCTURAL STEEL

Structural Steel Framing, Tonnage per Miyamoto 091523

Steel columns, gravity	61	tn	\$6,442.37	\$392,985
Steel columns, brace frames	53	tn	\$6,442.37	\$341,446
Steel beams, building	202	tn	\$6,442.37	\$1,301,359

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
Steel beams, at eyebrows	3	tn	\$6,442.37	\$19,327
Secondary steel allowance, 15%	47	tn	\$6,442.37	\$305,368
Steel plates and connections, per beam member	332	ea	\$304.28	\$101,021
<b>05 50 00 METAL FABRICATIONS</b>				
<b>05 51 33 ALUMINUM LADDERS</b>				
<b>05 52 00 METAL RAILINGS</b>				
<b>05 55 16 METAL STAIR NOSINGS</b>				
<i>Building Miscellaneous Metals</i>				
Miscellaneous metals- allow 10%	37	tn	\$6,442.37	\$236,048
Stairs, interior w/ landing	1	flt	\$154,122.97	\$154,123
Stairs, exterior w/ landing	1	flt	\$25,539.97	\$25,540
Stairs, exterior w/ landing, w/ angled staircase	1	flt	\$28,179.25	\$28,179
Railings, interior including stairs, stainless steel	188	lf	\$759.20	\$142,730
Railings, exterior including stairs, stainless steel	294	lf	\$759.20	\$223,205
Roof access ladders	1	ea	\$7,536.24	\$7,536
Roof tie-back supports, not anticipated per JKAE				Excluded
Mechanical screening, not anticipated				Excluded
<b>05 30 00 METAL DECKING</b>				
<i>Metal Decking</i>				
Metal decking at Level 2, W3 metal deck, 3"	22,580	sf	\$14.19	\$320,363
Metal decking at Roof deck, W3 metal deck, 3"	3,585	sf	\$14.19	\$50,864
Metal decking at roof, 18ga Type B, 1.5"	25,520	sf	\$12.65	\$322,845
Metal decking at metal canopies, 18ga Type B, 1.5"	500	sf	\$12.65	\$6,325
Premium for acoustical decking, none shown				Excluded
Deck openings, allow 1 per 2,000 sf	25	ea	\$546.69	\$13,559
Deck closure plates	845	lf	\$35.31	\$29,836
<b>05 58 13 METAL COLUMN COVERS</b>				
<i>Metal Column Covers</i>				
Exterior column covers	4	ea	\$11,704.55	\$46,818
<b>Total - 5 METALS</b>				<b>\$4,069,477</b>

## 6 WOODS, PLASTICS, & COMPOSITES

### (NO SPEC) ROUGH CARPENTRY

#### *Rough Carpentry*

Fire treated plywood at elec/data rooms	1,704	sf	\$15.53	\$26,469
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### 06 41 00 ARCHITECTURAL WOOD CASEWORK

#### 06 61 16 SOLID SURFACING FABRICATIONS

Millwork, including SS Tops for Base, FOB	<b>1,286</b>	<b>lf</b>		
Admin Reception, Base, 2' wide	10	lf	\$430.73	\$4,307

### LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
Admin Reception, Base, 3' wide	9	If	\$521.04	\$4,689
Admission & Records, Base, 2' wide	11	If	\$430.73	\$4,738
Admissions & Records, Upper	11	If	\$138.94	\$1,528
Adult Changing Restroom, Countertop, 2' wide	5	If	\$319.57	\$1,598
AEC Reception, Base, 2.5' wide	19	If	\$479.36	\$9,108
AEC Reception, Countertop, 1.5' wide	8	If	\$277.89	\$2,223
All Gender Restroom, Countertop, 2' wide	30	If	\$319.57	\$9,587
Archive Reserves, Open Casework , 1' wide	24	If	\$243.15	\$5,836
Archive Reserves, Open Casework , 2' wide	8	If	\$312.62	\$2,501
Boardroom DAIS, Countertop, 1.5' wide	10	If	\$277.89	\$2,779
Boardroom DAIS, Countertop, 4' wide, semi-curved	25	If	\$1,389.44	\$34,736
Boardroom DAIS, Structure and Finish	140	sf	\$212.58	\$29,761
Break Area + Shared, Base, 1.5' wide	13	If	\$382.10	\$4,967
Break Area + Shared, Base, 2' wide	14	If	\$430.73	\$6,030
Break Area + Shared, Upper	18	If	\$138.94	\$2,501
Circulation Desk, Base, 2.5' wide, curved	29	If	\$868.40	\$25,184
Circulation Desk, Countertop, 1.5' wide	21	If	\$277.89	\$5,836
Circulation, Base, 2' wide	8	If	\$430.73	\$3,446
Circulation, Upper	8	If	\$138.94	\$1,112
Classroom, Built-In Furniture, 3' wide	13	If	\$659.98	\$8,580
Counseling Reception, Countertop, 1.5' wide	20	If	\$277.89	\$5,558
Counseling Reception, Countertop, 2' wide	20	If	\$319.57	\$6,391
Counseling Suite, Base, 2' wide	46	If	\$430.73	\$19,813
Counseling Suite, Upper	46	If	\$138.94	\$6,391
EOPS Lab, Full-Height , 2' wide	15	If	\$451.57	\$6,774
EOPS Reception, Countertop, 1.5' wide	8	If	\$277.89	\$2,223
EOPS Reception, Base, 2.5' wide	17	If	\$479.36	\$8,149
Financial Aid, Base, 1.5' wide	16	If	\$382.10	\$6,114
Financial Aid, Base, 2' wide	11	If	\$430.73	\$4,738
Financial Aid, Upper	11	If	\$138.94	\$1,528
Lactation, Countertop, 2' wide	8	If	\$430.73	\$3,446
Lactation, Full Height Cabinet, 1' wide	3	If	\$382.10	\$1,146
Learning Commons Reception, Base, 2.5' wide , curved	17	If	\$868.40	\$14,763
Learning Commons Reception, Base, 2' wide	6	If	\$430.73	\$2,584
Learning Commons Reception, Countertop, 1' wide , curved	20	If	\$312.62	\$6,252
Library Display, Specialty , 1' wide	11	If	\$1,146.29	\$12,609
Library Display, Specialty , 2' wide	12	If	\$1,354.70	\$16,256
Library, Base, 2' wide	26	If	\$430.73	\$11,199
Records, Files, Storage, Vault, Open Casework , 1' wide	51	If	\$312.62	\$15,944
Restroom, Countertop, 2' wide	9	If	\$319.57	\$2,876
Staff Break Room, Base, 2' wide	47	If	\$430.73	\$20,244
Staff Break Room, Upper	37	If	\$138.94	\$5,141
Staff Print Room, Base, 2' wide	11	If	\$430.73	\$4,738
Staff Print Room, Upper	20	If	\$138.94	\$2,779
Storage, Base, 2' wide	18	If	\$430.73	\$7,753

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
Storage, Upper	18	lf	\$138.94	\$2,501
Tech Services Workroom, Base, 2' wide	21	lf	\$430.73	\$9,045
Tech Services Workroom, Upper	24	lf	\$138.94	\$3,335
Tech Services, Storage, Reserves, Open Casework , 1' wide	94	lf	\$312.62	\$29,387
Veterans Resource Center, Base, 2' wide	8	lf	\$430.73	\$3,446
Veterans Resource Center, Upper	8	lf	\$138.94	\$1,112
Waiting Area, Base, 2' wide	11	lf	\$430.73	\$4,738
Waiting Area, Upper	11	lf	\$138.94	\$1,528
Welcome Center Reception, Base, 2.5' wide , curved	29	lf	\$868.40	\$25,184
Welcome Center Reception, Countertop, 1.5' wide, curved	21	lf	\$659.98	\$13,860
Welcome Center, Base, 2' wide	26	lf	\$430.73	\$11,199
Welcome Center, Island	75	sf	\$312.62	\$23,447
Wood dividers, Counseling, allow 6' high	186	sf	\$99.34	\$18,477
Lockable drawers / cabinets allowance	1	ls	\$25,000.00	\$25,000
 <b>Millwork Installation</b>				
Miscellaneous millwork, base and uppers	1,001	lf	\$294.53	\$294,820
Miscellaneous millwork, reception desks, DAIS	285	lf	\$441.79	\$125,910
<b>Total - 6 WOODS, PLASTICS, &amp; COMPOSITES</b>				<b>\$985,914</b>

### 7 THERMAL & MOISTURE PROTECTION

#### 07 10 00 BELOW GRADE WATERPROOFING

##### Waterproofing

Waterproofing at walls below grade	2,380	sf	\$31.98	\$76,107
Waterproofing at elevator pit(s)	224	sf	\$34.75	\$7,784

#### 07 21 10 THERMAL AND ACOUSTICAL INSULATION

##### Rigid Insulation

Exterior wall, rigid insulation, allow 1"	26,480	sf	\$5.09	\$134,879
Exterior soffit, rigid insulation, allow 1"	2,385	sf	\$5.46	\$13,026

##### Insulation

Exterior wall insulation- R19	26,480	sf	\$2.21	\$58,564
Interior wall insulation- thermal	58,030	sf	\$1.67	\$97,118
Interior ceiling, R19 underside of roof at enclosed areas				Excluded
Exterior soffits, full fill per spec, not anticipated				Excluded

#### 07 27 26 FLUID-APPLIED MEMBRANE AIR BARRIERS, VAPOR-PERMEABLE

##### Weather Barriers

Fluid applied water/air barrier at exterior walls	26,480	sf	\$7.56	\$200,131
Fluid applied water/air barrier at exterior soffits	2,815	sf	\$7.56	\$21,275

#### 07 42 13 FORMED METAL WALL PANELS

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>Metal Wall Panels</b>				
Metal Panel, AEP Span Flex	9,880	sf	\$52.32	\$516,971
Metal Panel, AEP Span Flex, open canopy walls/soffit	815	sf	\$61.16	\$49,846
Metal Panel, AEP Span Flush	1,315	sf	\$68.14	\$89,604
<b>07 46 46 FIBER CEMENT SIDING</b>				
<b>Fiber Cement Siding</b>				
Fiber Cement, walls	5,800	sf	\$52.53	\$304,639
Fiber Cement, soffits	2,385	sf	\$58.42	\$139,321
<b>07 22 00 ROOF AND DECK INSULATION</b>				
<b>07 54 16 KETONE ETHYLENE ESTER (KEE) Roofing</b>				
<b>Membrane Roofing</b>				
Single ply roofing, main roof, 60 mil, mech attach, 1/4" cover	25,520	sf	\$17.75	\$453,010
Single ply roofing, parapets, average 24" high	1,680	sf	\$20.23	\$33,985
Single ply roofing, metal canopies, 60 mil	500	sf	\$20.23	\$10,114
Single ply, premium for 80 mil	27,700	sf	\$3.46	\$95,809
Single ply, premium for KEE	27,700	sf	\$2.31	\$63,873
Single ply, premium for cricketing due to thickness	25,520	sf	\$4.40	\$112,181
Single ply, premium for 1/2" substrate and coverboard	25,520	sf	\$0.77	\$19,615
Walking pads allowance	330	lf	\$50.82	\$16,771
<b>07 13 26 SELF-ADHERING SHEET WATERPROOFING</b>				
<b>07 76 00 HYBRID PEDESTAL SYSTEM</b>				
<b>Roof Deck Membrane Roofing</b>				
GCP, Ice and Water Shield	3,585	sf	\$19.29	\$69,149
Roof curb allowance for separation	82	lf	\$35.45	\$2,907
Rock ballast, allow river rock 2" thick	16	cy	\$417.20	\$6,675
<b>Pedestal Paver System</b>				
Pedestal pavers on rooftop deck	1,850	sf	\$74.10	\$137,094
<b>07 62 00 SHEET METAL FLASHING AND TRIM</b>				
<b>07 95 00 EXPANSION CONTROL</b>				
<b>Flashings and Sheetmetal, Galvanized</b>				
Window, head, jamb, sill	3,756	lf	\$65.74	\$246,911
Door, head, jamb, pan	23	lf	\$65.74	\$1,512
Roof reglet / counterflashing at parapet walls	840	lf	\$65.74	\$55,220
Transition flashing at different materials	880	lf	\$65.74	\$57,849
Base weep flashing	610	lf	\$64.20	\$39,162
Edge of deck coping	170	lf	\$62.87	\$10,688
Parapet cap flashing, including cleats	840	lf	\$83.08	\$69,787
Exterior wall, z-girts, allow 1"	26,480	sf	\$5.44	\$143,945
Exterior soffit, z-girts, allow 1"	2,385	sf	\$5.62	\$13,404

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>Expansion Control</b>				
Seismic joint covers	38	lf	\$212.13	\$8,061
<b>07 72 00 ROOF ACCESSORIES</b>				
<b>Roof Accessories</b>				
Roof Access Hatch & Safety Posts, F&I	1	ea	\$7,302.60	\$7,303
<b>(NO SPEC) FIREPROOFING</b>				
<b>Fireproofing</b>				
Fireproofing underside of deck, cementitious	155	sf	\$10.08	\$1,563
Fireproofing of structure, cementitious	448	sf	\$10.08	\$4,518
<b>(NO SPEC) FIRESTOPPING</b>				
<b>Firestopping</b>				
Firestopping allowance	49,605	sf	\$0.51	\$25,287
<b>07 92 00 JOINT PROTECTION</b>				
<b>Joint Sealants</b>				
Exterior joint sealants, flashing locations	7,119	lf	\$4.06	\$28,925
Interior joint sealants, millwork, doors, glazing	25,525	sf	\$2.03	\$51,901
<b>Total - 7 THERMAL &amp; MOISTURE PROTECTION</b>				<b>\$3,496,484</b>

## 8 OPENINGS

### 08 11 13 HOLLOW METAL DOORS AND FRAMES

### 08 14 00 WOOD DOORS

### 08 71 00 DOOR HARDWARE

#### Doors, Frames, and Hardware, FOB

Exterior, HM Doors, frames, and hardware	3	ea	\$2,767.05	\$8,301
Interior, HM Doors, frames, and hardware	25	ea	\$2,767.05	\$69,176
Fire rated door premium	4	ea	\$1,152.94	\$4,612
Oversized door premium	1	ea	\$1,537.25	\$1,537
Magnetic hold open premium, per leaf	5	ea	\$3,900.40	\$19,502
Premium for acoustical enhancements	28	ea	\$350.00	\$9,800
Premium for STC rated doors, not anticipated				Excluded

#### Doors, Frames, and Hardware, Install

Doors, frames, and hardware cost / sf, Install	28	ea	\$1,472.63	\$41,234
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### 08 31 13 ACCESS DOORS AND FRAMES

#### Access panels

Access panels, allow 4 per level	8	ea	\$648.83	\$5,191
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### OVERHEAD DOORS



## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>Overhead Doors</b>				
Learning Commons, coiling security, 25'	1	ea	\$30,774.25	\$30,774
Learning Commons, coiling security, motor premium	1	ea	\$5,919.88	\$5,920
Learning Commons, coiling security, electrical	1	ea	\$3,871.76	\$3,872
Leaning Skills Lab, glazed overhead sectional, motorized	1	ea	\$24,617.94	\$24,618
<b>08 32 13 SLIDING ALUMINUM-FRAMED GLASS DOORS</b>				
<b>08 41 13 ALUMINUM-FRAMED STOREFRONT AND ENTRANCES</b>				
<b>08 43 33 FOLDING GLASS STOREFRONTS</b>				
<b>08 56 19 PASS-THRU WINDOWS</b>				
<b>08 71 00 DOOR HARDWARE</b>				
<b>08 81 00 GLASS GLAZING</b>				
<b>Glazing, per US Glass 072123</b>				
Exterior storefront glazing	6,857	sf	\$147.46	\$1,011,065
Exterior glazing premium, 100% Tempered per G1.2 WIU	6,857	sf	\$4.61	\$31,622
Exterior storefront entries, per leaf	24	ea	\$11,834.22	\$284,021
Interior storefront glazing, allow 7' high	854	sf	\$97.26	\$83,059
Interior storefront glazing, clerestory, allow 3' high	96	sf	\$109.50	\$10,512
Interior storefront glazing, pass-through, allow 5' high	20	sf	\$147.93	\$2,959
Interior storefront entries, per leaf	42	ea	\$7,454.36	\$313,083
Aluminum sunshades / shade control, not anticipated				Excluded
BIM Modeling to LOD 300-350, exterior glazing	1	ls	\$20,800.00	\$20,800
<b>Folding Glass Storefronts</b>				
Classroom, glass folding storefront, 29' x10'	290	sf	\$225.00	\$65,250
Info Literacy Classroom, glass folding storefront, 29' x10'	290	sf	\$225.00	\$65,250
<b>Sliding Glass Doors, per Walter &amp; Wolf 072623</b>				
Interior storefront entries, sliders, 8' high, 9/16", 2 panel	64	ea	\$11,969.10	\$766,022
Interior storefront entries, sliders, 8' high, 9/16", 3 panel	3	ea	\$14,094.17	\$42,283
<b>Total - 8 OPENINGS</b>				<b>\$2,920,463</b>

### 9 FINISHES

#### 09 60 10 CONCRETE MOISTURE CONTROL COATING

##### Moisture Control System

Moisture control, not anticipated for new concrete

Excluded

#### PORTLAND CEMENT PLASTER

##### Cement Plaster

Cement Plaster, brown, lath and scratch for stone

3,288 sf

\$14.78

\$48,594

#### 05 40 00 COLD-FORMED METAL FRAMING

##### Metal Stud Framing & Sheathing

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
Exterior wall, framing, inc parapets, allow 16ga	28,860	sf	\$20.68	\$596,773
Exterior wall, framing, open canopy, allow 16ga	1,295	sf	\$25.81	\$33,421
Exterior soffit/canopy framing	2,385	sf	\$31.49	\$75,107
Exterior headers / jamb studs at openings	3,290	lf	\$24.43	\$80,356
Interior wall framing, allow 18ga	58,030	sf	\$18.32	\$1,062,981
Interior ceiling framing	3,340	sf	\$20.11	\$67,182
Interior soffit framing	1,912	sf	\$21.50	\$41,115
Interior headers / jamb studs at openings	3,875	lf	\$24.43	\$94,659
Detailing, shop drawings and BIM LOD 350	1,172	mhr	\$130.43	\$152,858
Interior framing, premium for 16 gauge, not anticipated per Miyamoto				Excluded
 <b>06 16 43 EXTERIOR GYPSUM SHEATHING</b>				
<b>09 21 16 GYPSUM BOARD</b>				
<b>09 28 13 CEMENTITIOUS BACKING BOARDS</b>				
<b>Gypsum Board Surfacing, Taped and Sanded</b>				
Exterior wall surfacing, including interior of parapet	30,540	sf	\$10.63	\$324,612
Exterior soffit surfacing	2,385	sf	\$11.79	\$28,129
Interior, shaft wall	2,400	sf	\$17.48	\$41,954
Gypsum Board, LV4 finish, 1-layer each side	113,660	sf	\$7.31	\$830,607
Gypsum Board, LV4 finish, interior side of ext. walls	28,860	sf	\$7.31	\$210,904
Gypsum Board premium, add layer at 1-hour fire walls	4,018	sf	\$3.28	\$13,175
Gypsum Board premium, add layer at 2-hour fire walls	700	sf	\$3.28	\$2,295
Gypsum Board premium, RC at 2-hour fire walls	700	sf	\$2.97	\$2,076
Gypsum board, at ceiling	3,340	sf	\$7.91	\$26,403
Gypsum board, at soffits	3,824	sf	\$7.91	\$30,229
Gypsum Board, acoustical & fireproofing caulking	142,520	sf	\$0.96	\$137,014
 <b>Acoustical Treatment</b>				
Gypsum Board, STC per Thorburn 090723	12,334	sf	\$4.02	\$49,524
Sound masking	22,625	sf	\$5.07	\$114,656
 <b>09 30 13 CERAMIC TILING</b>				
<b>Ceramic Tile</b>				
Ceramic wall tile, 7' at restroom walls	2,180	sf	\$31.99	\$69,743
 <b>06 20 23 INTERIOR FINISH CARPENTRY</b>				
<b>09 51 26 ACOUSTICAL WOOD CEILINGS (noted as wall paneling in spec)</b>				
<b>Wood Wall Paneling</b>				
Decorative wood / metal, allow 1% of finished wall	1,425	sf	\$99.47	\$141,763
 <b>09 84 13 FIXED SOUND ABSORPTIVE PANELS</b>				
Fabric wrapped wall panels, allow 2% of finished wall	2,850	sf	\$29.96	\$85,387
 <b>09 51 00 ACOUSTICAL CEILINGS</b>				
<b>09 54 26 SUSPENDED WOOD CEILINGS</b>				

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>ACT</b>				
ACT, 2x4 grid	35,590	sf	\$12.59	\$448,004
ACT, 2x4 tiles w/ 2nd look	35,590	sf	\$4.72	\$167,878
Suspended ceiling trim, allow 6"	285	lf	\$56.41	\$16,077
<b>Wood Ceilings</b>				
Suspended wood ceiling	4,955	sf	\$100.56	\$498,289
Suspended ceiling trim, allow 6"	415	lf	\$56.41	\$23,410
<b>03 54 00 PORTLAND CEMENT BASED UNDERLAYMENT</b>				
<b>09 61 43 WATER VAPOR EMISSION TESTING</b>				
<b>09 65 00 RESILIENT FLOORING</b>				
<b>09 65 13 RESILIENT BASE AND TRANSITION STRIPS</b>				
<b>09 68 13 TILE CARPETING</b>				
<b>Interior Floor Finishes, Including Base</b>				
LVT with high RH glue/tape, allowance	17,852	sf	\$14.51	\$259,015
Carpet tile with high RH glue/tape, allowance	29,763	sf	\$8.17	\$243,076
Carpet premium, pattern for wayfinding	29,763	sf	\$1.05	\$31,102
Walk-off mats allowance	230	sf	\$53.16	\$12,226
Base, allow 4" rubber	10,065	sf	\$5.94	\$59,816
<b>Cement Underlayment</b>				
Ardex, not anticipated for new structure				Excluded
<b>09 78 26 FIBERGLASS REINFORCES WALL PANELS (FRP)</b>				
<b>10 26 00 WALL AND DOOR PROTECTION</b>				
<b>10 26 13 CORNER GUARDS</b>				
<b>FRP and Wall Protection</b>				
Cornergards, allow 1 per 500 SF	100	ea	\$155.76	\$15,576
Wall protection allowance	1	ls	\$15,000.00	\$15,000
FRP allowance	400	sf	\$20.23	\$8,093
<b>09 67 16 EPOXY FLOORING</b>				
<b>Epoxy Flooring, Including Integral Base</b>				
Epoxy flooring at restrooms allowance	1,990	sf	\$29.48	\$58,663
<b>09 91 00 PAINTING</b>				
<b>09 97 37 DRY ERASE COATINGS</b>				
<b>Paint</b>				
Paint, exterior walls, Fiber Cement only	5,800	sf	\$3.05	\$17,676
Paint, exterior soffits, Fiber Cement only	2,385	sf	\$3.63	\$8,665
Paint, interior walls, gypsum board	140,340	sf	\$2.10	\$295,122
Paint, interior walls, dry erase allowance	1	ls	\$10,000.00	\$10,000
Paint, interior ceiling and soffits	7,164	sf	\$2.77	\$19,859
Paint, exposed ceilings	5,720	sf	\$2.77	\$15,856

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>Total - 9 FINISHES</b>				<b>\$6,584,920</b>

### 10 SPECIALTIES

#### 10 22 33 ACCORDION FOLDING PARTITIONS

##### Operable Partitions

Board Room DAIS, Folding wall w/ markerboards, 35'	1	ea	\$52,000.00	\$52,000
Learning Skill Lab, Folding partition w/ door, 28'	1	ea	\$42,700.00	\$42,700
Study Room, Markerboard folding partition, 12'	1	ea	\$19,900.00	\$19,900

#### 10 11 16 MARKERBOARDS

#### 10 11 23 TACKBOARDS

##### Markerboards and Tackboards

Markerboards, allow 4' height	920	sf	\$39.69	\$36,517
Tackboard allowance	1	ls	\$15,000.00	\$15,000

#### (NO SPEC) TV Mounts

##### TV Mounts

TV mounts, F&I	58	ea	\$732.20	\$42,468
TV monitor, by owner				Excluded

#### 10 44 00 FIRE PROTECTION SPECIALTIES

##### Fire Protection

Fire extinguishers, allow 1 per 2,500 sf	20	ea	\$800.00	\$15,874
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#### 10 51 13 METAL LOCKERS

##### Metal Lockers

Learning Commons Reception, metal lockers	8	ea	\$1,054.56	\$8,436
Lockers & Photo Station, metal lockers	10	ea	\$1,054.56	\$10,546
Test Proctoring, metal lockers	9	ea	\$1,054.56	\$9,491

#### 10 21 13.19 SOLID PLASTIC TOILET COMPARTMENTS

#### 10 28 13 TOILET ACCESSORIES

#### 10 28 40 ELECTRIC HAND DRYERS

##### Toilet Accessories, per Stumbaugh 071223

Toilet partition stalls, full height	23	ea	\$6,189.63	\$142,361
Toilet stall accessories	27	ea	\$1,807.00	\$48,789
Janitor mop sink rack	2	ea	\$1,220.38	\$2,441
Electric hand dryer allowance	2	ea	\$1,020.53	\$2,041
Electric hand dryer allowance, electrical conduit/power	2	ea	\$884.53	\$1,769

#### 10 14 00 SIGNAGE

#### 10 14 19 DIMENSIONAL LETTER SIGNAGE

##### Signage

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
Exterior signage, 24" letters, "Library Student Resource..."	28	ea	\$1,355.25	\$37,947
Exterior signage, 12" letters, "Library Student Resource..."	28	ea	\$749.78	\$20,994
Exterior signage, 12" letters, "Library Student Resource..."	28	ea	\$749.78	\$20,994
Exterior signage premium, backlighting	84	ea	\$115.29	\$9,685
Exterior signage premium, electrical conduit/power	84	ea	\$201.92	\$16,961
Interior code required signage	49,605	sf	\$0.98	\$48,703
Interior premium signage allowance	1	ls	\$25,000.00	\$25,000
<b>Total - 10 SPECIALTIES</b>				<b>\$630,617</b>

### 11 EQUIPMENT

#### FOOD SERVICE EQUIPMENT

##### Food Service Equipment

Coffey cart, by Owner

Excluded

#### 11 51 00 LIBRARY EQUIPMENT

##### Library Shelving, per Ross McDonald 072523

Shelving, 1-side, 66" high, 5 stack, per storage lf	160	lf	\$38.68	\$6,189
Shelving, 2-side, 66" high, 5 stack, per storage lf	3,610	lf	\$38.68	\$139,628
Shelving allowance for 78" ILO 66", extra stack	754	lf	\$25.79	\$19,442
Shelving allowance for signage at end panels	32	ea	\$519.19	\$16,614

<b>Total - 11 EQUIPMENT</b>	<b>\$181,873</b>
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### 12 FURNISHINGS

#### 12 24 13 ROLLER WINDOW SHADES

##### Window Treatments

Manual, mecho-shade, allow 50% interior windows	427	sf	\$20.03	\$8,554
Manual, mecho-shade, allow 50% exterior windows	3,428	sf	\$20.03	\$68,683
Motorized, mecho-shade, allow 50% exterior windows	3,428	sf	\$30.18	\$103,467

<b>Total - 12 FURNISHINGS</b>	<b>\$180,704</b>
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### 14 CONVEYING EQUIPMENT

#### 14 24 23 HYDRAULIC PASSENGER ELEVATORS

##### Elevators

Elevator, 2-stop, 3,500 lb	1	ea	\$190,000.00	\$190,000
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<b>Total - 14 CONVEYING EQUIPMENT</b>	<b>\$190,000</b>
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## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
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### 21 FIRE SUPPRESSION

- 07 84 13 PENETRATION FIRESTOPPING
- 21 00 00 FIRE SUPPRESSION SYSTEM
- 21 00 50 BASIC FIRE SPRINKLER MATERIALS AND METHODS
- 21 10 00 FIRE SPRINKLER SYSTEMS

Wet-Pipe Sprinkler System, Per Du-Mor 080823

Fire suppression system	49,605	sf	\$6.26	\$310,475
BIM Modeling to LOD 300-350	1	ls	\$50,000.00	\$50,000
Pre-action system, not anticipated				Excluded
Fire pump, not anticipated				Excluded

<b>Total - 21 FIRE SUPPRESSION</b>	<b>\$360,475</b>
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### 22 PLUMBING

- PLUMBING
- 07 84 13 PENETRATION FIRESTOPPING
- 22 10 00 PLUMBING PIPING SYSTEMS
- 22 40 00 PLUMBING FIXTURES
- 22 50 00 PLUMBING EQUIPMENT

Building Plumbing, per SVM 072523

Plumbing system base	49,605	sf	\$24.38	\$1,209,267
Additional roof drains/trap primers at terrace (1 in base)	2	ea	\$5,000.00	\$10,000
Additional hose bibs (2 in base)	6	ea	\$2,500.00	\$15,000
Garbage disposals allowance	3	ea	\$950.00	\$2,850
Coffee water hookup allowance	3	ea	\$900.00	\$2,700
Insulate all DCW piping	1	ls	\$25,000.00	\$25,000
Fiberglass insulation at roof drain / overflow piping	1	ls	\$65,000.00	\$65,000
BIM Modeling to LOD 300-350	1	ls	\$101,544.00	\$101,544
Water booster and required drainage, not anticipated				Excluded

<b>Total - 22 PLUMBING</b>	<b>\$1,431,361</b>
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### 23 HEATING, VENTILATING, & AIR-CONDITIONING

- HVAC
- 07 84 13 PENETRATION FIRESTOPPING
- 08 90 00 LOUVERS AND VENTS
- 23 00 50 BASIC HVAC MATERIALS AND METHODS
- 23 05 93 TESTING, ADJUSTING, AND BALANCING, FOR HVAC
- 23 08 00.13 T-24 COMMISSIONING OF HVAC
- 23 09 23 DIRECT DIGITAL CONTROL SYSTEM FOR HVAC
- 23 80 00 HEATING, VENTILATING AND AIR CONDITIONING

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>Building HVAC, per SVM 080123</b>				
90-ton ASHP plant	1	ea	\$710,750.00	\$710,750
50-ton package AC units	2	ea	\$235,650.00	\$471,300
25-ton library AC unit	1	ea	\$201,170.00	\$201,170
3-ton split systems	3	ea	\$28,963.33	\$86,890
Restroom exhaust cores	2	ea	\$40,365.00	\$80,730
Electrical room fans, inc fire smoke dampeners	2	ea	\$20,570.00	\$41,140
Reheat-VAV zones	61	ea	\$16,506.56	\$1,006,900
Cooling only-VAV zones	8	ea	\$14,126.25	\$113,010
Medium pressure and supply air duct mains	49,605	sf	\$7.69	\$381,580
Heating hot water pipe mains	49,605	sf	\$5.52	\$273,680
Web based BMS controls, HVAC and occupancy sensors	49,605	sf	\$9.80	\$486,040
Crane	1	ea	\$42,110.00	\$42,110
Duct insulation	49,605	sf	\$2.82	\$139,800
Labor, material, equipment, sub escalation allowance	1	ls	\$231,000.00	\$231,000
BIM Modeling to LOD 300-350	1	ls	\$101,544.00	\$101,544
<b>TEMPORARY UTILITIES</b>				
<b>Temporary Heating and Cooling</b>				
Temporary Heating and Cooling	1	ls	\$30,000.00	\$30,000
<b>Total - 23 HEATING, VENTILATING, &amp; AIR-CONDITIONING</b>				<b>\$4,397,644</b>

## 26 ELECTRICAL

- ELECTRICAL
- 07 84 13 PENETRATION FIRESTOPPING
- 26 00 10 BASIC ELECTRICAL REQUIREMENTS
- 26 05 19 BUILDING WIRE AND CABLE
- 26 05 26 GROUNDING AND BONDING
- 26 05 29 ELECTRICAL HANGERS AND SUPPORT
- 26 05 31 CONDUIT
- 26 05 33 BOXES
- 26 05 36 CABLE TRAYS
- 26 05 43 UNDERGROUND DUCTS AND STRUCTURES
- 26 05 46 SIGNAL SYSTEMS RACEWAYS
- 26 05 53 ELECTRICAL IDENTIFICATION
- 26 08 00 ELECTRICAL COMMISSIONING
- 26 09 43 NETWORK ADDRESSABLE LIGHTING CONTROL
- 26 22 13 DRY TYPE TRANSFORMERS
- 26 24 16 PANELBOARDS
- 26 27 16 CABINETS AND ENCLOSURES
- 26 27 26 WIRING DEVICES
- 26 28 16 OVERCURRENT PROTECTIVE DEVICES
- 26 28 19 DISCONNECT SWITCHES

## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
<b>26 29 00 MOTOR CONTROLS</b>				
<b>26 43 13 SURGE PROTECTIVE DEVICES</b>				
<b>26 50 00 LIGHTING</b>				
<b>26 73 19 ASSISTIVE LISTENING SYSTEM</b>				
Building Electrical, per GLS 092923				
MSB				
Panel, 277/480V, H1 & H2	2	ea	\$15,000.00	\$30,000
Panel, 120/208V, 500A, L1 & L2	2	ea	\$10,000.00	\$20,000
Sub Panels, 120/208V, 225A, L1A - L2G	16	ea	\$10,000.00	\$160,000
Home run conduit and wiring	1,805	lf	\$250.00	\$451,250
Fixtures	<b>49,605</b>	<b>sf</b>	<b>\$14.14</b>	
A, 2x4 Lay-in, 56W	274	ea	\$685.69	\$187,879
A1, 2x4 Lay-in, 40W				None Seen
B, 2x2 Lay-in, 56W	59	ea	\$493.53	\$29,118
C, 4" recessed, 1500L	177	ea	\$685.69	\$121,367
CE, 4" recessed, 1500L w/ battery backup				None Seen
C1, 4" recessed, 800L	77	ea	\$685.69	\$52,798
D, not used				None Seen
E, exit light, allow 1 per 2,500 SF	20	ea	\$584.73	\$11,695
F, 2" undercounter fixture, 9W				None Seen
G, 4' long strip light, 10,000L	12	ea	\$877.84	\$10,534
G1, 2' long strip light, 10,000L				None Seen
H, 8" suspended cylinder	68	ea	\$1,646.47	\$111,960
J, 12' long strip light	2	ea	\$4,539.95	\$9,080
J1, 18' long strip light	5	ea	\$5,981.12	\$29,906
J2, 28' long strip light	5	ea	\$9,998.40	\$49,992
J3, 6' long strip light	5	ea	\$2,367.67	\$11,838
J4, 4' long strip light	7	ea	\$1,887.28	\$13,211
K, 4" suspended pendant	12	ea	\$1,204.97	\$14,460
L, 12' long suspended	2	ea	\$5,020.34	\$10,041
M, 4' long wall mounted	6	ea	\$1,079.76	\$6,479
M1, 2' long wall mounted	4	ea	\$983.68	\$3,935
X, exterior decorative wall pack and fixture	23	ea	\$1,189.37	\$27,355
Lighting controls	758	ea	\$485.27	\$367,835
Receptacles	613	ea	\$234.12	\$143,516
Floor boxes	105	ea	\$2,494.33	\$261,905
WAP, allow 15 per floor	30	ea	\$1,500.00	\$45,000
Branch conduit and wiring, allow ave 50' per device	73,800	lf	\$12.97	\$957,536
Wiring devices and trim	2,234	ea	\$201.92	\$451,080
Inverters for egress lighting, allowance	2	ea	\$50,000.00	\$100,000
<b>Emergency Generator Backup</b>				
Diesel powered generator on skid, allowance	1	ls	\$48,846.73	\$48,847
<b>Solay Array</b>				



## LSRC Building Detail Elements

CSI Division	Quantity	Unit	Unit Cost	Total
Solar array allowance	75	kw	\$5,535.01	\$415,126
Battery backup allowance	1	ls	\$48,846.73	\$48,847
<b>11 52 00 AUDIO VISUAL EQUIPMENT</b>				
<b>11 52 13 PROJECTION SCREENS</b>				
<i>Audio Visual</i>				
Audio visual infrastructure	49,605	sf	\$10.00	\$496,050
Audio visual equipment, by Owner				Excluded
<b>27 00 00 COMMUNICATIONS BASIC REQUIREMENTS</b>				
<b>27 05 00 TELEPHONE DATA RACEWAY SYSTEM</b>				
<b>27 05 28 TELECOMMUNICATIONS PATHWAYS</b>				
<b>27 10 00 COMMUNICATIONS EQUIPMENT ROOMS</b>				
<b>27 13 00 COMMUNICATIONS BACKBONE CABLING</b>				
<b>27 15 00 HORIZONTAL COMMUNICATIONS ROOMS</b>				
<b>27 51 00 HORIZONTAL COMMUNICATIONS CABLING</b>				
<i>Data and Communications</i>				
Data / communications	49,605	sf	\$17.00	\$843,285
<b>28 10 00 ACCESS CONTROL SYSTEMS</b>				
<b>28 20 00 VIDEO SURVEILLANCE</b>				
<b>28 31 00 INTRUSION DETECTION ALARM MONITORING</b>				
<b>28 46 00 FIRE DETECTION ALARM</b>				
<b>28 47 00 MASS NOTIFICATION</b>				
Fire alarm	49,605	sf	\$8.00	\$396,840
Access control	49,605	sf	\$4.50	\$223,275
Security / intrusion	49,605	sf	\$5.64	\$279,932
Paging / clocks, not anticipated				Excluded
<b>Total - 26 ELECTRICAL</b>				<b>\$6,441,972</b>
<b>32 EXTERIOR IMPROVEMENTS</b>				
<b>LANDSCAPING</b>				
<i>Landscaping</i>				
Landscape planters allowance	1	ls	\$75,000.00	\$75,000
Irrigation allowance for roof deck	3,585	sf	\$5.00	\$17,918
<b>Total - 32 EXTERIOR IMPROVEMENTS</b>				<b>\$92,918</b>

**Gavilan College  
Library & Student Resource Center  
(LSRC)**

**Schematic Design Submittal**

**Section 7  
Schedule Update #18**

# Completion Schedule

#	ACTIVITY ID	ACT RESP	ACTIVITY NAME	ORIG DUR	REM'G DUR	START	FINISH	2024												2025												2026											
								O	N	D	J	F	M	A	M	J	Jul	A	S	Oct	N	D	J	F	M	A	M	J	Jul	A	S	Oct	N	D	J	F	M	A	M	J	Jul		
1	<b>GCC - Library &amp; Student Resource Center - #18 - I</b>			996	683	18-Jul-22 A	14-Jul-26																																				
2	<b>Project Milestones</b>			882	683	03-Jan-23 A	14-Jul-26																																				
3	PM-1010		Notice to Proceed - Pre-Construction Services	0	0	03-Jan-23 A		Services																																			
4	PM-1015		Submit to DSA - Inc # 0	0	0	01-Feb-24		◆ Submit to DSA - Inc # 0																																			
5	PM-1018		DSA Approval - Inc. # 0	0	0		19-Apr-24	◆ DSA Approval - Inc. # 0																																			
6	PM-1020		Submit to DSA - Inc #1	0	0	02-Apr-24		◆ Submit to DSA - Inc #1																																			
7	PM-1025		Summary - In Calendar Days - NTP - Substantial Completion - Sch	1010	728	03-Jan-23 A	03-Oct-25	Summary - In Calendar Days - NTP - Subs																																			
8	PM-1030		Start Construction	0	0	02-Jul-24		◆ Start Construction																																			
9	PM-1035		Summary - In Calendar Days - NTP - 95% CDs - Schedule Update	279	0	03-Jan-23 A	07-Oct-23	Summary - In Calendar Days - NTP - 95% CDs - Schedule Update #2																																			
10	PM-1040		DSA Approval - Inc #1	0	0		26-Jun-24	◆ DSA Approval - Inc #1																																			
11	PM-1045		Summary - In Calendar Days - DSA Approval - Substantial Comple	525	525	08-Nov-24	16-Apr-26	Summary - In																																			
12	PM-1050		Pad Certified	0	0		04-Nov-24	◆ Pad Certified																																			
13	PM-1055		Summary - In Calendar Days - NTP - 95% CDs - Due to Added Prc	465	208	03-Jan-23 A	01-May-24	Summary - In Calendar Days - NTP - 95% CDs - Due to Added Programming																																			
14	PM-1060		Slab on Grade Complete	0	0		13-Mar-25	◆ Slab on Grade Complete																																			
15	PM-1065		Summary - In Calendar Days - NTP - Substantial Completion - Due	1180	923	03-Jan-23 A	16-Apr-26	Summary - In																																			
16	PM-1070		Structure Complete	0	0		14-May-25	◆ Structure Complete																																			
17	PM-1080		Roof Complete	0	0		29-Jul-25	◆ Roof Complete																																			
18	PM-1090		Building Envelope Complete	0	0		19-Aug-25	◆ Building Envelope Complete																																			
19	PM-1100		Permanent Power Complete	0	0		07-Nov-25	◆ Permanent Power Complete																																			
20	PM-1120		Submit to DSA - Inc #2	0	0	02-May-24		◆ Submit to DSA - Inc #2																																			
21	PM-1130		DSA Approval - Inc #2	0	0		07-Nov-24	◆ DSA Approval - Inc #2																																			
22	PM-1140		GMP Approval	0	0		18-Jul-24	◆ GMP Approval																																			
23	PM-1150		Owner Move In	30	30	17-Apr-26	01-Jun-26	Owner																																			
24	PM-1160		Substantial Completion with Weather	0	0		16-Apr-26*	◆ Substantial C																																			
25	PM-1170		NTP for Construction - Inc #0	0	0	05-Jun-24		◆ NTP for Construction - Inc #0																																			
26	PM-1180		Final Completion	0	0		14-Jul-26	◆																																			
27	PM-1190		NTP for Construction - Inc #2 & #3	0	0	19-Jul-24		◆ NTP for Construction - Inc #2 & #3																																			
28	<b>District Academic Calendar</b>			694	540	03-Jan-23 A	11-Dec-25	11-Dec-25, District Academic Ca																																			
29	DC-1010		Spring Semester of 2023	84	0	30-Jan-23 A	09-Jun-23 A	ter of 2023																																			
30	DC-1020		Summer Semester of 2023	29	0	12-Jun-23 A	24-Jul-23 A	er Semester of 2023																																			
31	DC-1030		Fall Semester of 2023	78	45	21-Aug-23 A	12-Dec-23	Fall Semester of 2023																																			
32	DC-1040		Spring Semester of 2024	85	85	29-Jan-24*	30-May-24	Spring Semester of 2024																																			
33	DC-1050		Summer Semester of 2024	30	30	10-Jun-24*	23-Jul-24	Summer Semester of 2024																																			
34	DC-1060		Fall Semester of 2024	80	80	19-Aug-24*	12-Dec-24	Fall Semester of 2024																																			
35	DC-1070		Spring Semester of 2025	85	85	27-Jan-25*	29-May-25	Spring Semester of 2025																																			
36	DC-1080		Summer Semester of 2025	30	30	09-Jun-25*	21-Jul-25	Summer Semester of 2025																																			
37	DC-1090		Fall Semester of 2025	80	80	18-Aug-25*	11-Dec-25	Fall Semester of 2025																																			
38	DC-1100		Winter Intersession of 2023	17	0	03-Jan-23 A	23-Jan-23 A																																				
39	DC-1110		Winter Intersession of 2024	18	18	02-Jan-24*	26-Jan-24	Winter Intersession of 2024																																			
40	DC-1120		Winter Intersession of 2025	15	15	06-Jan-25*	27-Jan-25	Winter Intersession of 2025																																			
41	<b>RFP Phase/Project Award</b>			114	0	18-Jul-22 A	03-Jan-23 A	d																																			
42	RFP-1000	DISTR	RFP Released by District	0	0	18-Jul-22 A																																					



## GCC - Library Student Resource Center - #18 - DD 10.06.23

Project ID: GCC-LSRC-P  
Data Date: 06-Oct-23  
Run Date: 04-Oct-23  
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**Gavilan College  
Library & Student Resource Center  
(LSRC)**

**Schematic Design Submittal**

**END OF DOCUMENT**