Contract

FROM: Lord, Aeck & Sargent, Inc.

1175 Peachtree Street NE

Suite 2400

Atlanta, GA 30361

TO: Bidding Contractors

This addendum forms a part of the Contract Documents and modifies the original Construction Documents previously issued as noted below.

This Addendum consists of 3 pages, and the attachments listed below, with a revision date of July 31, 2018, unless otherwise indicated. In modified specifications, new text is indicated by highlighting or underlining. Drawings listed herewith and attached indicate revisions with clouds. Modifications to documents included in this addendum are primarily related to the following:

- 1. Requests for clarification from Contractor walk-throughs/RFI's
- 2. Drawing and Specification clarifications.

The documents stated herein revise or modify the referenced specification or drawing as noted.

BIDDER'S QUESTION CLARIFICATIONS:

		Deanmant	
Name ban	Description	Document	A 44a a b a d
Number	Description	Updated	Attached
1	Is there any additional information available for the existing roof	No	No
	manufacturer/assembly that we will be tying into? Additionally, is there an		
	existing roof warranty that will need to be maintained?		
	The existing roof membrane is PVC, Sarnafil G410 membrane, 60mil		
	thickness. It was installed in 2015 and included a 20 year, NDL Warranty that		
	needs to be maintained.		
2	Can you please clarify on the slab on grade which "C.J" markings are	No	No
	Contraction Joints (detail 3/S201) and which are Construction Joints (detail		
	5/S201)?		
	Construction joints may be placed at any contraction joint ("CJ") location at		
	the contractor's option.		
3	Will the Owner be responsible for all costs associated with the Utility company	No	No
	for the new transformer or are we to carry an allowance for this scope? The		
	GC (project) should include all costs of the secondary conductors exiting the		
	transformers and terminating in the electrical room. At this writing, the party		
	who will bear the cost of the new transformer has not yet been determined		
	pending final discussions with Georgia Power (who will need to review based		
	on the additional loads/revenue). The contractor will need to coordinate the		
	exact routing and connection requirements with the utility company.		

4	Note 1 in the Rain Garden details calls for "Appropriate plants and planting	Yes	Yes
	schedule TBD". Please advise if this schedule will be provided prior to bid		
	submission or if we are to carry an allowance for this scope.		
	An allowance is to be carried for this scope. Please see Specification Section		
	01 2100.		
5	Can you please provide information on the existing fire alarm system		
	manufacturer and the contractor that is currently performing the maintenance		
	and inspections? The design team believes the existing fire alarm system is		
	Silent Knight but does not know who is currently maintaining the system.		

DRAWINGS

Number	Name	Description	Attached
A111	Enlarged Plan	Clarification for millwork/ furniture scope at Media Center near Study #607; added a detail ke on plan A1/A111.	y Yes
A223	Wall Section at Brick	Added a key note to storefront sill on detail A4/A233	Yes
A225	Wall Section at Overhead Door	Revised the metal canopy key note to coordinate with the specifications	Yes
A411	Enlarged Ceiling Plan	Added a detail key and additional dimensions on A1/A411	Yes
A604	Interior Elevations and Details	Revised the height of interior storefront of Maker Space #604 and #605; revised the counter top key note; Removed/ added details. Revised key notes to coordinate with spec sections.	y
A610	Interior Details	Added new details; revised the counter top key note	Yes
A700	Finish Legend	Revised the finish legend to eliminate finish materials that are not to be used.	Yes
C300	Layout and Staking Plan	Removed references to Alternates	Yes
C301	Fire Site Access Plan 1	Removed references to Alternates	Yes
C400	Grading & Drainage Plan	Removed references to Alternates	Yes
EC101	Intermediate ES&PC Plan	Removed references to Alternates	Yes
EC102	Final ES&PC Plan	Removed references to Alternates	Yes
E002	Electrical – Details and Schedules	Relocated panel HC, LC and transformer. Added notes to remove abandoned equipment as necessary.	Yes
E111	Electrical – Floor Plans - Power	Relocated devices, and noted a few as existing	Yes
E121	Electrical – Floor Plans - Lighting	Added occupancy sensors in classrooms per pre- bid walk through discussion, noted lighting as relocated.	Yes
M001	Mechanical – Legend Notes and Details	Clarification provided on controls by CCI, and barometric relief option on RTU.	Yes
M101	Mechanical - Controls	New Sheet with Controls Sequences	Yes
M102	Mechanical - Controls	New Sheet with Controls Sequences	Yes

SPECIFICATIONS

Section Number	Name	Description	Attached
00 0110	Table of Contents	Incorporate new (and revised) specification sections	Yes
01 2100	Allowances	Incorporate allowance for landscaping for Rain Garden	Yes
07 9000	Joint Sealers	Incorporate pre-compressed foam sealer	Yes
08 6223	Tubular Skylights	Replace current specification section with new section for alternative Basis of Design skylight	Yes
09 9600	High Performance Coatings	Add this section	Yes
09 9727	Dry Erase Coating over	Add this section	Yes

OTHER

N/A

END OF ADDENDUM NO. 2

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AIA A310 - Bid Bond

AIA - Agreement Form

AIA A312 - Performance Bond

AIA A312 - Payment Bond

AIA G715 - Supplemental Attachment for ACORD Certificate of Insurance 25-S

AIA G706 - Contractor's Affidavit of Payment of Debts and Claims

AIA G706A - Contractor's Affidavit of Release of Liens

AIA A707- Consent of Surety to Final Payment

AIA A707A - Consent of Surety to Reduction in or Partial Release of Retainage

AIA A201 - General Conditions for the Construction Contract

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01 4300 - Exterior Mockups

01 4533 - Special Inspections and Testing Services

01 5000 - Temporary Facilities and Controls

01 6000 - Product Requirements

01 6201 - Pre-Bid Substitution Request

01 7000 - Execution Requirements

01 7390 - Indoor Air Quality

01 7419 - Construction Waste Management and Disposal

01 7800 - Closeout Submittals

01 7810 - Special Project Warranty on Roofs and Walls

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Revised 7/31/18

07 9513 - Expansion Joint Cover Assemblies

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08 1416 - Flush Wood Doors

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08 4000 - Aluminum Framing Systems

08 6223 - Tubular Skylights

Revised 7/31/18

08 7100 - Finish Hardware

08 8000 - Glazing

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SECTION 01 2100 - ALLOWANCES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Cash allowances.

1.02 CASH ALLOWANCES

- A. Costs Included in Cash Allowances: Cost of product to Contractor or subcontractor, less applicable trade discounts.
- B. Costs Not Included in Cash Allowances: Product delivery to site and handling at the site, including unloading, uncrating, and storage; protection of products from elements and from damage; and labor for installation and finishing.
- C. Approved differences in costs will be adjusted by Change Order.

1.03 ALLOWANCES SCHEDULE

A. Include the stipulated sum of \$8,000.00 for purchase, delivery and installation of plant material for exterior Rain Garden.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

SECTION 07 9000 - JOINT SEALERS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Section Includes:
 - 1. Sealants and joint backing.
- B. Work of this section includes:
 - 1. Sealing of joints indicated in the schedule at the end of this section and in other locations required by the Contract Document.
 - 2. Seal joints in exterior envelope to prevent the entry or escape of water or air.
 - 3. Seal joints on the interior of the building to prevent the passage of water or air from space to space or between adjacent building materials and assemblies.
 - 4. Joints of a nature similar to that of joints indicated shall be sealed with same sealer, whether or not specifically indicated on the drawings and schedules to be sealed.

1.02 REFERENCES

- A. AAMA 800 Voluntary Specifications and Test Methods for Sealants; 2007.
- B. ASTM C 920 Standard Specification for Elastomeric Joint Sealants; 2005.
- C. ASTM C 1193 Standard Guide for Use of Joint Sealants; 2005a.

1.03 DEFINITIONS

- A. M Type Substrates: Cast-in-place concrete, concrete masonry units, clay brick, masonry mortar, natural stone.
- B. G Type Substrates: Glass and transparent plastic glazing sheets.
- C. A Type Substrates: Metals, porcelain, glazed tile, and smooth plastics.
- D. O Type Substrates: Wood, unglazed tile; substrates not included under other categories.
- E. Use T: Surfaces bearing pedestrian or vehicular traffic.
- F. Use NT: Non-traffic-bearing surfaces.

1.04 SUBMITTALS

A. Product Data:

- 1. Provide manufacturer's data on each joint sealer indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, color availability, and installation instructions.
- 2. Provide manufacturer's technical guide containing recommendations for primers for each exterior sealant/substrate combination.
- B. Samples: Submit two cured samples for each product exposed to view, illustrating full range of sealant colors available for selection.
- C. Installer's Preconstruction Inspection Report: List all conditions detrimental to performance of joint sealer work.
- D. Warranty.

1.05 MOCK-UP

- A. Before beginning installation, install sealers in joints in actual construction as directed by the Architect, to show color, materials, and installation.
- B. Locate where directed.
- C. Keep mock-ups intact as the standard for evaluating the completed joint sealer work.

D. Mock-up may remain as part of the Work.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in original containers or bundles with labels showing manufacturer, product name or designation, color, shelf life, and installation instructions.

1.07 PROJECT SITE CONDITIONS

- A. Environmental Limitations: Do not install sealers if any of the following conditions exist:
 - 1. Air or substrate temperature exceeds the range recommended by sealer manufacturer or is below 40 degrees F (4.4 degrees C) or is above 100 degrees F (38 degrees C).
 - 2. Substrate is wet, damp, or covered with snow, ice, or frost.
 - 3. Substrate is dusty, oily, or otherwise contaminated.
- B. Dimensional Limitations: Do not install sealers if joint dimensions are less than or greater than that recommended by sealer manufacturer; notify the Architect and get joint sealer manufacturer's recommendations for alternative procedures.
- C. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.08 WARRANTY

A. Submit a written warranty signed by the Contractor guaranteeing to correct failures in joint sealer work within a five year period after Date of Substantial Completion, without reducing or otherwise limiting any other rights to correction which the Owner may have under the contract documents. Failure is defined as failure to remain weathertight due to faulty materials or workmanship. Correction is limited to replacement of sealers.

PART 2 PRODUCTS

2.01 SUBSTITUTIONS

A. Refer to Section 01 6000 - Product Requirements.

2.02 SEALANTS

- A. High Movement Silicone Sealant: One- or two-part, non-acid-curing, ASTM C 920, Grade NS, Class 25, Use NT, plus movement capability of 50 percent in extension, 50 percent in compression.
 - 1. Products:
 - a. Dow Chemical Company; Dowsil 756SMS, 790, or 795: www.dowcorning.com. (60 g/l), (26 g/l), (32 g/l)
 - b. Momentive GE Silicones: SCS 2000 SilPruf Sealant or SCS2700 SilPruf LM Sealant; (20 g/l), (27 g/l); www.siliconeforbuilding.com.
 - c. Pecora Corporation; 890NST: www.pecora.com. (98 g/l)
 - d. Sika Corporation: Sikasil WS-290 or WS-295; (29 g/l), (37 g/l); usa.sika.com.
- B. Butyl Sealant:
 - 1. ASTM C 920, Grade NS, Class 12-1/2, Uses NT; single component, solvent release, nonskinning, nonsag.
- C. One-Part Nonsag Urethane Sealant: ASTM C 920, Type S, Grade NS, Class 25, Use NT.
 - 1. Products:
 - a. Master Builders / BASF; MasterSeal NP 1: www.master-builders-solutions.basf.com. (35 g/l)
 - b. Pecora Corporation; Dynatrol I-XL: www.pecora.com. (68 g/l)
 - c. Sika Corporation; Sikaflex 1a: www.sika.com. (47.6 g/l)

- D. Concealed Sealant in Contact with Weather-Resistant Membrane / Silicone for Low-Energy Substrates:
 - 1. Products:
 - a. Dow Chemical Company; Dowsil 758 Silicone Weather Barrier Sealant: www.dowcorning.com (61 g/l)
- E. Non-Curing Sealers:
 - 1. Butyl Polyisobutylene Tape Sealer: Solvent-free, 100 percent solids; complying with 804.3, as described in AAMA 800; nonstaining and nonmigrating; provide in rolls with release paper.
 - a. Integral shimming spacer.
- F. Precompressed foam sealers: Self-expanding foam impregnated with non-curing sealant resins.
 - 1. Primary Seal:
 - a. Size as required to provide watertight seal when installed.
 - b. Products:
 - 1) Emseal; Colorseal: www.emseal.com.
 - 2) Polytite Manufacturing Corporation; PolytiteR: www.polytite.com.

2.03 ACCESSORIES

- A. Primer for Silicone Sealants: Nonstaining type, as recommended by joint sealant manufacturer for specific substrates encountered on the project and as verified by testing.
- B. Joint Cleaner: Noncorrosive and nonstaining type, recommended by sealant manufacturer; not damaging to substrates, and compatible with joint forming materials.
- C. Backer Rods: Flexible, nonabsorbent, compressible polyethylene foam, either open cell or nongassing closed cell, unless otherwise restricted by sealant manufacturer; preformed to appropriate size and shape.
- D. Bond-Breaker Tape: Self-adhesive, polyethylene or other plastic tape, unless otherwise restricted by sealant manufacturer; suitable for preventing sealant adhesion.
- E. Masking Tape: Nonabsorbent, nonstaining.
- F. Tooling Agents: Approved by sealant manufacturer; nonstaining to sealant and substrate.

2.04 SEALANT COLORS

- A. The Architect will select sealant colors from manufacturer's full range of available colors for each respective sealant and adjacent substrate.
- B. Obtain approval of mock-up color before ordering job quantities of sealant.
- C. Required colors:
 - 1. Brick to brick control joint.
 - 2. Brick to aluminum or steel framing.
 - 3. Fiber cement panel to fiber cement panel
 - 4. Fiber cement panel to aluminum framing

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine joints for characteristics that may affect sealer performance, including configuration and dimensions.
- B. Verify that joint backing and release tapes are compatible with sealant.

3.02 PREPARATION

- A. Cleaning: Just before starting sealer installation, clean out joints as follows:
 - 1. Remove loose materials and foreign matter which might impair adhesion of sealant including, but not limited to, dust, dirt, coatings, paint, oil, and grease.
 - 2. Dry out damp and wet substrates thoroughly.
 - 3. Clean A-type and G-type substrates by chemical or other methods that will not damage the substrate.
 - 4. Remove loose particles by brushing and by blowing with oil-free compressed air.
 - 5. Concrete: Remove laitance and form-release coatings.
 - 6. Use methods which will not leave residues that will impair adhesion.
- B. Prime joint substrates where required by this specification, manufacturer's recommendations, or adhesion tests.
- C. Masking Tape: Use masking tape to keep primers and sealers off of adjacent surfaces which would be damaged by contact or by cleanup. Remove tape at the end of each day.
- D. Protect elements surrounding the work of this section from damage or disfigurement.
- E. Install fillers where needed to provide proper joint depth or support for sealant backers.
- F. Do not begin joint sealer work until unsatisfactory conditions have been corrected.

3.03 INSTALLATION

- A. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- B. Comply with sealer manufacturer's installation instructions and recommendations, except where more restrictive requirements are specified.
- C. Gunnable and Pourable Sealants: Comply with recommendations of ASTM C 1193.
- D. Backers:
 - 1. Install backers at depth required to result in shape and depth of installed sealant which allows the most joint movement without failure.
 - a. Make backers continuous, without gaps, tears, or punctures.
 - b. Do not stretch or twist backers.
 - 2. Use bond-breaker tape wherever it is necessary to keep sealant from adhering to back or third side of joint.
 - 3. If backers become wet or damp before installation of sealant, dry out thoroughly before proceeding.
- E. Shape and Depth: Use methods recommended by manufacturer; completely fill the joint; make full contact with bond surfaces; tool nonsag sealants to smooth surface eliminating air pockets.
 - 1. Use concave joint shape shown in Figure 8 in ASTM C 1193, where not otherwise indicated.
 - 2. Depth of sealant at center of joint, unless otherwise required by the Contract Documents or recommended by manufacturer:
 - a. For joints up to 1/4 inch (6.4 mm) wide: Depth equal to width.
 - b. For joints 1/4 inch to 1/2 inch (13 mm) wide: Depth equal to 1/4 inch.
 - c. For joints over 1/2 inch (13 mm) wide: Depth equal to 1/2 the width but not deeper than 1/2 inch.
 - 3. Contact depth: Twice the depth of sealant at center of joint, unless otherwise required.

3.04 CLEANING

A. Clean adjacent soiled surfaces adjacent to joints as work progresses and before sealants set using methods and materials approved by manufacturers of sealers and of surfaces to be cleaned.

3.05 PROTECTION OF FINISHED WORK

- A. Protect sealants from contamination and damage until cured.
- B. Remove and replace damaged sealers.

3.06 SCHEDULE

A. General:

- 1. Seal joints in exterior envelope to prevent the entry or escape of water or air.
- 2. Seal joints on the interior of the building to prevent the passage of water or air from space to space or between adjacent building materials and assemblies.
- 3. Joints of a nature similar to that of joints indicated shall be sealed with same sealer, whether specifically indicated on the drawings and schedules to be sealed or not.

B. Typical Exterior Joints:

- 1. Including, but not limited to:
 - a. Wall joints.
 - b. Joints around perimeter of frames.
 - c. Joints around pipes, ducts, and conduit penetrating exterior walls.
 - d. Joints between new and existing walls.
 - e. Exterior joints for which no other sealer is indicated.
- 2. Use high movement silicone sealant unless otherwise indicated.
- C. Sealant in contact with Weather-Resistant Membrane, concealed from view and concealed from exposure to UV light:
 - 1. Silicone for low-energy substrates.
- D. Exterior Door Thresholds: Set thresholds in butyl sealant.
- E. Between Roof Curbs and Mechanical Units: Use butyl polyisobutylene tape sealer.
- F. Typical Interior Joints:
 - 1. Including, but not limited to:
 - a. Between walls or partitions and adjacent casework, fixed shelving, fixed equipment, lighting fixtures.
 - b. Between concrete or masonry or other material and the perimeters of frames of doors, windows, access panels, etc. (Note: Sealing of gypsum panel/metal stud construction is specified in Section 09 2116.)
 - c. Between hollow metal jambs and resilient flooring.
 - d. Between concrete or masonry walls or partitions and adjacent columns, pilasters, walls, partitions, floors, ceilings, or other construction.
 - e. Interior joints for which no other sealer is indicated.
 - 2. Use the following sealant:
 - a. One part, nonsag urethane sealant.

SECTION 08 6223 - TUBULAR SKYLIGHTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Tubular skylights, consisting of skylight dome, reflective tube, and diffuser assembly.
- B. Accessories

1.02 REFERENCE STANDARDS

- A. AAMA/WDMA/CSA 101/I.S.2/A440 North American Fenestration Standard/Specification for windows, doors, and skylights; 2011.
- B. ASTM E108 Standard Test Methods for Fire Tests of Roof Coverings; 2011.
- C. ASTM E283 Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 2004 (Reapproved 2012).
- D. ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference; 2000 (Reapproved 2009).
- E. UL 790 Standard for Standard Test Methods for Fire Tests of Roof Coverings; Current Edition, Including All Revisions.

1.03 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Indicate configurations, dimensions, locations, fastening methods, and installation details.
- D. Grade Substantiation: Prior to submitting shop drawings or starting fabrication, submit one of the following showing compliance with specified grade:
 - 1. Evidence of AAMA Certification.
 - 2. Evidence of WDMA Certification.
 - 3. Evidence of CSA Certification.
 - 4. Test report(s) by independent testing agency itemizing compliance and acceptable to authorities having jurisdiction.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with not less than ten years documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years documented experience.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.06 FIELD CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.07 WARRANTY

- A. See Section 01 7800 Closeout Submittals, for additional warranty requirements.
- B. Skylights: Manufacturer's standard warranty for 10 years.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design: Solatube International Inc; SolaMaster Series, Model 750DS-C, Closed Ceiling, 21 inch (530mm) daylighting system.
- B. Other Acceptable Manufacturers:
 - 1. Sunoptics Prismatic Skylights, a Division of Acuity Brands: www.sunoptics.com/#sle.
 - 2. Velux America, Inc: www.veluxusa.com/#sle.
- C. Substitutions: See Section 01 6000 Product Requirements.

2.02 TUBULAR DAYLIGHTING DEVICES

- A. Tubular Skylights: Transparent roof-mounted skylight dome and curb, reflective tube, and ceiling level diffuser assembly, transferring sunlight to interior spaces.
 - 1. Fabrication and assembly of components is by single manufacturer.
 - 2. Non-Metal Parts: Flammability less than the following.
 - a. Roof-Top Components: Class B when tested in accordance with ASTM E108 or UL 790.
- B. SolaMaster Series: Solatube 750 DS, 21 inch (530 mm) Daylighting System:
 - 1. Model:
 - a. Solatube Model 750 DS-C Closed Ceiling. AAMA Type TDDCC.
 - 2. Capture Zone:
 - a. Roof Dome Assembly: Transparent, UV and impact resistant dome with flashing base supporting dome and top of tube.
 - b. Outer Dome Glazing: Type DA, 0.125 inch (3.2 mm) minimum thickness injection molded acrylic classified as CC2 material; UV inhibiting (100 percent UV C, 100 percent UV B and 98.5 percent UV A), impact modified acrylic blend.
 - c. Inner Dome Glazing: Type DAI, 0.115 inch (3 mm) minimum thickness acrylic classified as CC2 material.
 - d. Tube Ring: 0.090 inch (2.3 mm) nominal thickness injection molded high impact PVC. Prevents thermal bridging between base flashing and tubing and channel condensed moisture. Attached to base of dome ring with butyl glazing rope 0.24 inch (6 mm) diameter; to minimize air infiltration.
 - e. Dome Seal: Adhesive backed weatherstrip, 0.63 inch (16 mm) tall by 0.28 inch (7 mm) wide.
 - 3. Flashings:
 - a. Roof Flashing Base:
 - 1) Base Style: Type FC, Curb cap, with inside dimensions of 27 inches by 27 inches (685 mm by 685 mm) to cover curb provided by others.
 - 4. Transfer Zone:
 - a. Extension Tubes: Aluminum sheet, thickness 0.018 inch (0.5 mm) conforming to ASTM B 209.

- 1) Reflective Tubes:
 - (a) Reflective extension tube, 24 inches in length.
- 2) Tube Options
 - (a) Extension Tube Angle Adapter: Provide manufacturer's standard adapters for applications requiring:
 - (b) Type A1 one 0 to 90 degree extension tube angle adapter.

5. Delivery Zone:

- a. Diffuser Assemblies for Tubes Penetrating Ceilings: Solatube Model 750 DS-C. Ceiling mounted box transitioning from round tube to square ceiling assembly, supporting light transmitting surface at bottom termination of tube; 23.8 inches by 23.8 inches (605 mm by 605 mm) square frame to fit standard suspended ceiling grids or hard ceilings.
 - 1) Polymeric Transition Box: Type TP, round-to-square transition box made of opaque polymeric material, classified as CC2, Class C, 0.110 inch (2.8 mm) thick.
 - 2) Lens: Type L1, OptiView Fresnel lens design to maximize light output and diffusion with extruded aluminum frame and EPDM foam seal to minimize condensation and bug, dirt and air infiltration per ASTM E 283. Visible Light Transmission shall be greater than 90 percent at 0.022 inch (0.6 mm) thick. Classified as CC2.

2.03 PERFORMANCE REQUIREMENTS

- A. Grade: AAMA/WDMA/CSA 101/I.S.2/A440 requirements for specific tubular skylight:
 - 1. Product Type: Tubular Daylighting Device, Closed Ceiling (TDDCC).
- B. Design Pressure (DP): In accordance with applicable codes.

2.04 ACCESSORIES

- A. Fasteners: Same material as metals being fastened, non-magnetic steel, non-corrosive metal of type recommended by manufacturer, or injection molded nylon.
- B. Sealant: Elastomeric, silicone or polyurethane; compatible with materials being sealed.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's written instructions.
- B. Set roof assembly flashing in continuous bead of sealant.
- C. Seal joints exposed to weather in accordance with sealant manufacturer's written instructions.
- D. Conduct field test for water tightness; conduct water test in presence of Architect. Correct defective work and re-test until satisfactory.

3.03 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

SECTION 09 9600 - HIGH PERFORMANCE COATINGS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Surface preparation.
 - 2. Application of primers, intermediate coats, and top coats for each coating system.
- B. Coating Systems Include:

09 9600.LUMLow Gloss Urethane Metal Finish

1.02 REFERENCES

A. Steel Structures Painting Manual, Vol. 2; Systems and Specifications; Steel Structures Painting Council (SSPC); 2008 Edition.

1.03 SUBMITTALS

- A. Product Data: Manufacturer's technical data sheets for each coating.
 - 1. Material analysis including vehicle type and percentage by weight and by volume of vehicle, resin, and pigment.
 - 2. Application instructions including mixing, surface preparation, compatible primers and topcoats, recommended wet and dry film thickness, recommended application methods.
- B. Color and Texture Samples:
 - 1. Provide for each coating system, color, and texture and applied to representative substrate samples.
 - 2. Label each sample with coating name and color.
 - 3. Prepare samples to show bare, prepared surface and each successive coat.

1.04 QUALITY ASSURANCE

- A. Installer: A company skilled in the application of special coatings whose installations have performed in a satisfactory manner under comparable conditions.
- B. Coordination with Work Specified in Other Sections: Where primers will be applied in the shop, apply the primers listed in the schedule at the end of this section.
 - 1. Exception: Shop primed steel doors and frames shall receive fabricator's standard shop primer, followed by one full field coat of the primer specified in the schedule at the end of this section.

C. Mock-up:

- 1. Apply coatings to mock-ups in the presence of the coating manufacturer's technical representative.
- 2. Metals: Mock up one element of each coating system and color. Apply to mock up specified in the respective fabrication section, or if no mock up is specified therein, apply to an on-site mock-up as directed by the Architect.
- 3. Apply full coating systems, including required textures and colors, to mock-up. In interior spaces, provide completed lighting, or similar, for viewing of mock-up.
- 4. Remove and reapply coatings until texture, color, and gloss are approved by the Architect.
- 5. Final approval of colors will be based on mock-up; obtain full job quantities of tinted materials only after obtaining final approval.
- 6. Apply coatings to mock-ups in locations as directed by the Architect.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in manufacturer's original containers bearing coating name and color, material composition data, date of manufacture, legal notices if applicable, and mixing, thinning, and application instructions.

B. Storage:

- 1. Store materials in an orderly fashion and in clean, well-closed containers with labels intact
- 2. Maintain above 40 degrees F. Do not allow materials to freeze.

1.06 PROJECT CONDITIONS

- A. Apply coatings only under the following environmental conditions:
 - 1. Air and surface temperatures are between 50 and 120 degrees F, or more restrictive when recommended by coatings manufacturer.
 - 2. Surface temperature is at least 5 degrees F above dew point, or more restrictive when recommended by coatings manufacturer.
 - 3. Relative humidity is less than 85 percent, or more restrictive when recommended by coatings manufacturer.
- B. Do not apply coatings during inclement weather except within enclosed, conditioned spaces.
- C. Provide temporary lighting to achieve a well-lit surface with a level of not less than 80 footcandles measured mid-height.
- D. Provide continuous ventilation and heating to prevent accumulation of hazardous fumes, and maintain surface and ambient temperatures as specified above for 24 hours before, during, and for 48 hours after application of finishes (or longer if required to obtain full cure as indicated by manufacturer's instructions).

1.07 MAINTENANCE STOCK

- A. At time of completing application, deliver stock of maintenance material to the Owner.
- B. Furnish not less than one properly labeled and sealed gallon can of each type of finish coat of each color, taken from batch mix furnished for the work.

PART 2 PRODUCTS

2.01 SUBSTITUTIONS

A. Refer to Section 01 6000 - Product Requirements.

2.02 MANUFACTURERS

- A. Provide all products of this section from a single manufacturer.
- B. The brand-name products listed in the schedule at the end of this section and made by the following are the basis of the contract documents.
 - 1. Tnemec Company, Inc.
 - 2. Carboline.
 - 3. PPG Architectural Finishes.
- C. Provide the products listed.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and conditions are ready for work in accordance with the contract documents and coating manufacturer's recommendations.
- B. Prior to commencement of work, examine surfaces scheduled to be finished.
 - 1. Report any unsatisfactory conditions in writing.

- 2. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to the applicator.
- 3. Beginning work on an area will be deemed acceptance of surfaces in that area.

3.02 PREPARATION

- A. Do not apply coatings to labels that identify equipment, fire-resistance ratings, etc.
- B. Remove hardware, switch and outlet plates, lighting fixtures, etc., before applying coatings. After application of coatings, reinstall removed items. Employ only skilled workmen for removal and replacement of such items.
- C. Provide protection for non-removable items not scheduled for coating.
- D. Protect surfaces not scheduled for coating. Clean, repair, or replace to the satisfaction of the Architect any surfaces inadvertently spattered or coated.

3.03 SURFACE PREPARATION

- A. General: Clean and prepare surfaces as specified. Achieve the surface profile recommended by the coating manufacturer for optimum adhesion and proper appearance.
- B. All Surfaces: Ensure surfaces are clean, dry and free of oil, grease and other contaminants.

C. Ferrous Metal:

- 1. Clean and prepare surface profile in accordance with applicable SSPC specifications:
 - a. Interior metal: SSPC-SP 2 Hand Tool Cleaning, SSPC-SP 3 Power Tool Cleaning.
 - b. Exterior metal: SSPC-SP 6 Commercial Blast Cleaning,
 - c. Exterior metal (field touch-up): SSPC-SP 11 Power Tool Cleaning to Bare Metal.
 - d. Intricate fabricated shapes may be pickled (SSPC-SP 8) in lieu of blast cleaning when approved by the Architect.
- 2. Before hand or power tool cleaning, remove visible oil, grease, soluble welding residue, and salts by SSPC-SP 1 Solvent Cleaning. After hand or power tool cleaning, reclean surfaces if necessary.
- 3. Where commercial, near-white, or white metal abrasive blast cleaning is employed, apply first coat before rust-back occurs. Do not allow prepared surfaces to sit overnight without coating.
- 4. Before touching up coatings damaged by handling or welding, re-prepare damaged surfaces to original specification.
 - a. Where abrasive blast cleaning or pickling was used for original preparation, either blast clean to original specification or prepare surface to SSPC-SP 11 Power Tool Cleaning to Bare Metal.
- D. Nonferrous Metal: Solvent clean new surfaces in accordance with SSPC-SP 1 Solvent Cleaning specifications. If recommended by coating manufacturer to ensure adhesion, brush off blast clean in accordance with SSPC-SP 7. Prepare and prime any rusted existing surfaces in accordance with coating manufacturer's instructions.

3.04 MIXING AND THINNING

- A. Remove and discard any skin formed on surface of coatings in containers. Discard any containers where skin comprises 2 percent or more of the remaining material.
- B. Combine multi-component paints in quantities needed for use within the manufacturer's recommended pot life at the anticipated application temperatures. Discard remaining mixed material after pot life has expired.
- C. Do not add thinner except as specifically recommended (not merely permitted) by the coating manufacturer for proper coating application under the circumstances prevailing at the project

- site when application equipment recommended by the coating manufacturer is employed. Use only the quantities and the types of thinner recommended.
- D. Mix materials using mechanical mixers in accordance with coating manufacturer's instructions. Agitate mixed materials during application if recommended by manufacturer.
- E. Strain pigmented coatings after mixing except where mechanical application equipment is provided with effective strainers.

3.05 APPLICATION

A. General:

- 1. Metal Surfaces Exposed to View: Apply coatings using brush or spray, only. Roller application not permitted.
- 2. Full, uniform coverage is required.
- 3. Employ only application equipment that is clean, properly adjusted, in good working order, and of the type recommended by the coating manufacturer.
- 4. Apply successive coats after adequate cure of the preceding coat and within the recommended recoating time.
- B. Film Thickness: Apply each coat to achieve the dry film mil (DFM) thickness per coat indicated in the schedule at the end of this section. Application rates of excess thickness and fewer numbers of coats than specified will not be accepted.
 - 1. The dry film mil thicknesses shown in the schedule are per each coat.
 - 2. Where a thickness range is specified, the dry film thickness actually applied shall fall within the specified range when measured at any point, and the average dry film thickness actually applied to the entire surface shall be equal to the midpoint of the range specified plus or minus 10 percent.
 - 3. Where a single thickness value is specified, the dry film thickness actually applied, when measured at any point, shall be equal to the specified value plus or minus 10 percent.

C. Prime, First, or Bottom Coats:

- 1. Ferrous and Nonferrous Surfaces:
 - a. Unless specifically indicated otherwise (in this section or in the respective metal section of the Specification), the first coat of material may be either shop or field applied.
 - b. Shop or field applied coatings, including primers, intermediate coats, and finish coats, shall be as specified in this section. Unless specifically indicated otherwise, fabricator's standard shop coats will not be accepted, and if applied, shall be removed, the surface prepared anew, and the coatings specified herein applied.
 - c. Where fabricator's standard shop primer is permitted to remain (e.g. steel doors and frames), apply one full field coat of the primer specified in this section.
 - d. Ferrous metals that have not been shop primed shall be field primed promptly after arrival at the site or shall be stored away from the effects of weather.
- 2. Either before or after applying prime coat but before applying successive coats, stripe paint edges, corners, mechanical fasteners, and welds using specified primer.
- 3. Before applying successive coats, touch-up connections, fasteners, and damaged areas using specified primer.
- 4. Where first coat shows signs of suction spots or poorly sealed areas, reapply first coat material to adequately seal surface before proceeding with intermediate and top coats.

D. Miscellaneous:

1. Completed coatings shall be free of defects such as runs, sags, lap or brush marks, holidays, and skips.

- 2. Apply coatings according to the schedule at the end of this section and as otherwise indicated. Coat all similar surfaces not specifically mentioned unless specifically exempted.
- E. Apply coatings to match approved mock-ups.
- F. Remove coatings not in compliance with this specification, reclean and re-prepare surfaces as specified, and apply coatings to comply with the contract documents.

3.06 JOINTS

- A. Control and Expansion Joints in Floors, Walls, and Ceilings: Before installing backer rod and joint sealant specified in Division 7, apply coating to the joint face, approximately 1/2 inch deep, and allow to cure.
- B. Fillet Joints between Hollow Metal Door Frames and Adjacent Walls (and similar locations): Apply coatings and allow to cure before installing joint sealant (and backers) specified in Division 7.

3.07 CLEANING

- A. Clean work area on a daily basis; dispose of spent materials and empty containers. If requested, turn over to the Architect all empty coatings containers used during the course of each day.
- B. Remove all trace of coatings inadvertently applied to adjacent surfaces not scheduled to be coated. Remove by appropriate methods that do not damage surfaces.

3.08 DEMONSTRATION AND INSTRUCTION

A. Instruct Owner's personnel in methods of touch up painting of interior epoxy coatings.

3.09 PROTECTION

- A. Protect work against damage until fully cured. Provide signs identifying wet surfaces until surfaces are adequately cured.
- B. Shortly before final completion of the project, examine surfaces for damage to coatings and restore coatings to new, undamaged condition.
 - 1. Touch-up of minor damage will be acceptable where, in the opinion of the Architect, the result is not visibly different from surrounding surfaces. Recoat entire surface where result is different either in color, sheen, or texture.

3.10 SCHEDULE

A. PRIMER, INTERMEDIATE, AND TOP COAT COLORS

- 1. Except where coating materials cannot be tinted, tint each successive (primer, intermediate, top) coat of paint a sufficiently contrasting color to facilitate identification of complete coating coverage. The preceding coat may be in the same color family, but shall be noticeably different. Provide additional top coats without change in Contract Price if necessary to achieve complete hiding and uniform sheen.
- 2. Top coat colors are indicated on the drawings and schedules. For approval of actual colors, see sample and mock-up requirements specified above.
- 3. Top coat colors of manufacturers listed on the Finish Schedule (or elsewhere) indicate the required color, only, and do not indicate the required brand name product, which shall be as specified below.

B. URETHANE COATINGS ON METALS

- 1. System Description:
 - a. Epoxy primer.
 - b. Epoxy intermediate.
 - c. Urethane top coat.

2. Tnemec:

- a. Wash Primer for Non Ferrous Metals: Oakite 747.
- b. Primer: Series N69 Hi-Build Epoxoline II, DFT 2.0 to 3.0 mils. (285 g/l)
- c. Intermediate Coat: Series N69 Hi-Build Epoxoline II, DFT 2.0 to 3.0 mils. (285 g/l)
- d. Low Gloss (semi-gloss) Finish Coat: LUM material designation on Finish Schedule.
 - 1) Series 1075 Endura-Shield II; DFT 2.0 to 3.0 mils. (220 g/l)
- e. Low Gloss (semi-gloss) Metallic Finish Coat: LUM material designation on Finish Schedule (metallic color as scheduled).
 - 1) Series 1077 Enduralume; DFT 2.0 3.0 mils. (400 g/l)

3. Carboline:

- a. Wash Primer for Non-Ferrous Metals: Galoseal WB Wash Primer, DFT 0.5 to 1.0 mils. (98 g/l)
- b. Primer: Carboguard 893SG; DFT 3.0 to 5.0 mils. (336 g/l)
- c. Intermediate: Carboguard 893SG; DFT 3.0 to 5.0 mils. (336 g/l)
- d. Low Gloss (satin) Finish Coat: LUM material designation on Finish Schedule.
 - 1) Carbothane 133 LH; DFT 3.0 5.0 mils. (324 g/l)

4. PPG:

- a. Wash Primer for Non Ferrous Metals: Poly Clutch Wash Primer 97-687, DFT {___}} mils. (728 g/l)
- b. Primer: Pitt-Guard Rapid Coat Epoxy coating 95-245, DFT 2.0 3.0 mils. (263 g/l)
- c. Intermediate Coat: Pitt-Guard Rapid Coat Epoxy coating 95-245, DFT 2.0 3.0 mils. (263 g/l)
- d. Low Gloss (semi-gloss) Finish Coat: LUM material designation on finish schedule.
 - 1) Pitthane HB Semi-Gloss Urethane 95-8800, DFT 2.0 to 5.0 mils. (291.6 g/l)

SECTION 09 9727 - DRY ERASE COATING OVER MAGNETIC BASE

PART 1 GENERAL

1.01 SECTION INCLUDES:

A. This Section specifies field-applied dry erase coatings over magnetic wall covering.

1.02 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- B. Maintenance Instructions: Provide precautions against cleaning materials and methods that may be detrimental to finish and performance.
- C. Samples: Submit verification sample of specified color on manufacturer's standard sample card.

1.03 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 3 years manufacturing dry erase coatings.
- B. Mock-ups: Prepare mock-ups for Architect's review and to establish requirements for substrate finish and final coating application, texture and color.
 - 1. Install dry erase coatings mock-up in area designated by Architect.
 - 2. Correct areas, modify method of application/installation, or adjust finish texture as directed by Architect to comply with specified requirements.
 - 3. Maintain mock-ups accessible to serve as a standard of quality for this Section.
 - 4. Accepted mock-ups may remain in place.
- C. Sustainable Design:
 - 1. Indoor Air Quality: UL GREENGUARD Gold Certified product.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original factory wrappings and containers, clearly labeled with manufacturer, product name, and fire hazard classification.
- B. Store materials in original undamaged packages and containers inside a well ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity. Store at temperatures above 40 degrees F. Do not allow product to freeze.

1.05 PROJECT CONDITIONS

- A. Maintain ambient temperature not less than 50 deg F minimum and 85 deg F maximum 72 hours prior to beginning of installation.
 - 1. Do not install dry erase coatings unless substrate temperature is above 60 degrees F.
 - 2. Do not install dry erase coatings until the space is enclosed and weatherproof.
 - 3. Do not install dry erase coatings until temperature is stabilized and permanent lighting is in place.

1.06 WARRANTY

A. Warranty: Manufacturer's 10 year limited material warranty.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. Manufacturer: IdeaPaint, 40 Broad Street, 1st Floor, Boston, MA 02109, telephone 617-714-1050, fax 617-714-1080, website www.ideapaint.com.

2.02 PRODUCTS

- A. Dry Erase Coating: CREATE by IdeaPaint, providing a surface suitable for use of dry erase markers.
 - 1. Color: Manufacturer's standard color as follows:
 - a. Color: Clear
 - 2. Fire Rating (ASTM E84): Class A, flame spread index 5, smoke developed index 30.
 - 3. VOC (EPA Method 24): 21 g/L Part A and B mixed, 25 g/L Part A only, 0 g/L Part B only
 - 4. Solids (ASTM D2369): 96 percent Part A, 10 percent Part B.
 - 5. Density (ASTM D1475): 8.82 lbs/gal mixed, 9.39 lbs/gal Part A, 7.88 lbs/gal Part B.
 - 6. Sag Resistance (ASTM D4400 Method 6.5.6): 2mils.
 - 7. Flow and Leveling (ASTM D2801): 2.
 - 8. Crack Resistance (ASTM D522): 1/8 inch.
 - 9. Finish/Gloss (ASTM D523) on Leneta Card White Background:
 - a. 20 degrees: 81.
 - b. 60 degrees: 91.
 - c. 85 degrees: 95.
 - 10. Scrub Resistance (ASTM D2486): Greater than 10,000 scrub cycles
 - 11. Stain Removal/Washability (ASTM D3450): 92%
 - 12. Flashpoint (ASTM D92 Open Cup): Greater than or equal to 200 degrees F as mixed, or each part separately.
 - 13. QUV (following 500 hours of exposure, samples prepared on Kilz primed drywall) Control panel: L=14.14, a=12.84, b=-42.24. Test panel: L=16.71, a=11.32, b=-40.41: Delta E=2.77.
 - 14. Chemistry Type: A non isocyanate based coating.
- B. IdeaPaint PULL Magnetic Wall Covering.
- C. Adhesive: type recommended by Magnetic Wall Covering Manufacturer.
- D. Latex Paint: Use high quality non-flat latex topcoat if a new color surface is preferred prior to applying IdeaPaint CREATE CLEAR.
- E. Roller Covers: Provided by manufacturer. No substitutions.

PART 3 EXECUTION

3.01 EXAMINATION

- A. A. Examine areas and conditions in which dry erase coatings will be installed.
 - 1. Complete finishing operations, including painting and magnetic wall covering before beginning installation of dry erase coatings.
 - 2. Wall surfaces to receive dry erase coatings shall be dry and free from dirt, grease, loose paint, and scale.
 - 3. Do not proceed with installations until unsatisfactory conditions have been corrected.

3.02 SURFACE PREPARATION

- A. Remove hardware, accessories, plates and similar items to allow dry erase coatings to be installed.
- B. Inspect to make certain surface is acceptable and then wipe all dust. Paint product is a high gloss coating; imperfections and visible seams will telegraph.
- C. Apply adhesive and HiTech Magnetic glass fleece in accordance with Instructions
- D. Paint (if applicable): If changing surface color, apply preferred high quality Architectural latex base coat to a dry, clean primed surface. Visit http://learn.ideapaint.com/preferred-products for

- a complete list of preferred base coats and primers. Allow latex top coat to dry for at least 24 hours prior to applying IdeaPaint CREATE Clear.
- E. Clean: Wipe surface with a clean, damp cloth to remove dust and environmental debris. Allow surface to completely dry.
- F. Ventilate area thoroughly to aid in curing process and to dissipate mild odor. Allow a high percentage of outside air into current ventilation.

3.03 APPLICATION

- A. Comply with manufacturers printed installation instructions. Mix components in strict accordance with manufacturer's instructions. Pot life is 1 hour maximum.
- B. Apply dry erase coating with specified roller only. Comply with the following:
 - 1. Apply heavy single coat only, using method as described. Do not recoat or touch up applied coating once 15-minute return time has passed.
 - 2. Divide your entire planned surface into areas up to 50 SQFT.
 - 3. Use a 4-inch foam roller to cut in all edges and light switches within the current area.
 - 4. Visually divide your 50 SQFT section in half, so that you are working in two 25 SQFT sections.
 - 5. Using the included 9 inch roller, apply to the top half of your first 25 SQFT section using up and down strokes until the section is coated.
 - 6. Once this section is complete, roll the full length of the wall to cover the entire 25 SQFT section.
 - 7. Reloading the roller, repeat this process for the next 25 SQFT section.
 - 8. Wet your roller from the paint tray and roll through the entire 50 SQFT area to ensure that the two 25 SQFT sections are blended. Only roll up and down full lengths of the wall.
 - 9. Watch for roller marks, drip marks, debris and missed spots. In order to eliminate these, re-roll these areas as they occur using light pressure.
 - 10. Do not wait more than 15 minutes to perform "touch-ups" or re-roll an area.
 - 11. Repeat this entire process in 50 SQFT sections until your wall is painted. Replace the roller cover after every 200 SQFT of product applied.
 - 12. Remove masking tape within 1 hour of painting.
- C. Dry erase coating may be applied directly onto clean, dry, smooth surfaces which are:
 - 1. A finished drywall surface
 - 2. A high quality non-flat latex paint topcoat
 - 3. Contact IdeaPaint for information on application onto alternative substrates
- D. Coating shall cure for a minimum of 7 days after application before use.
- E. Application Rate: 4 mils wet film thickness as measured with a wet film gauge; maximum 50 square feet per quart or 200 square feet per gallon.

3.04 CLEANING AND MAINTENANCE

A. Regular erasing and cleaning should be done with a standard dry erase eraser or a dry microfiber towel. For more thorough cleaning, a damp microfiber towel may be used or IdeaPaint Cleaner. If damaged, the original surface shall be deglossed by sanding surface and priming before recoating.

3.05 PROTECTION

A. Protect installed product and finished surfaces from damage during construction.

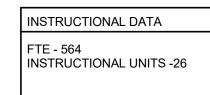
The Museum School of Avondale Estates, Facility Code: 0411 A Dekalb Co. School System Charter

Construction Documents

04/30/2018

LAS Project No.

10130-02



TOTAL SQUARE FOOTAGE (PH 6 TOTAL RENOVATION: 2,056 TOTAL NEW: TOTAL PROJECT:



LordAeckSargent.com

in writing, this document is

Aeck Sargent and is to be information herein is confidential and may not b used nor divulged without the

Add #02

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Covalent Consulting, LLC Mechanical, Electrical & Plumbing

1708 Peachtree Street Suite 210 Atlanta, GA 30309 (404)355-9334

DRAWING INDEX

G001 COVER SHEET KEYNOTE LIST / SYMBOLS / LEGEND / GENERAL NOTES INTERIOR PARTITION TYPES BUILDING 2, 3, & 4 LIFE SAFETY PLAN BUILDLING 1A & 1B LIFE SAFETY PLAN C200 DEMOLITION PLAN C300 LAYOUT & STAKING PLAN PHASE 6 C301 FIRE SITE - ACCESS PLAN I C302 FIRE SITE - ACCESS PLAN II C400 GRADING & DRAINAGE PLAN A122 COURTYARD DETAILS C500 CONSTRUCTION DETAILS C501 CONSTRUCTION DETAILS EC100 INITIAL ES&PC PLAN EC101 INTERMEDIATE ES&PC PLAN EC102 FINAL ES&PC PLAN EC200 ES&PC DETAILS EC201 ES&PC DETAILS EC202 ES&PC DETAILS TP1.0 TREE PROTECTION & REMOVAL PLAN

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A610 INTERIOR DETIALS A700 FINISH LEGEND A702 INTERIOR FINISH PLANS AND SCHEDULE A801 DOOR SCHEDULE AND DETAILS

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M102 MECHANICAL - CONTROLS E001 ELECTRICAL LEGEND, NOTES, AND SCHEDULES E002 ELECTRICAL DETAILS AND SCHEDULES E111 ELECTRICAL FLOOR PLANS – POWER E121 ELECTRICAL FLOOR PLANS – LIGHTING P001 PLUMBING LEGEND, DETAIL, AND PLAN

PROJECT DESCRIPTION FOR PHASE 6:

AD101 BUILDING 2, 3, & 4 DEMOLITION PLAN

AD111 ENLARGED DEMOLITION PLAN

TP2.0 TREE REPLACEMENT PLAN

DEMOLITION

This project is for the Sixth Phase of the adaptive reuse of the existing Forrest Hills Elementary School building (closed in 2009), for the new location of The Museum School - a Charter elementary school operating within the DeKalb County School System.

Phase 6 of the work includes two main components that are identified as following:

o A new, approximately 4,300sf addition, Media Center. Included within the Media Center are several small rooms for group study and project work.

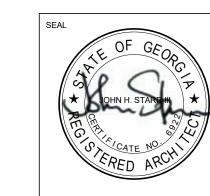
o The existing Media Center in Building 3 will be vacated and renovated to provide two classrooms and a smaller faculty space.

o Some site work is needed to incorporate a new Fire Truck access lane, site drainage and minor sidewalk work with ADA accessible curb cuts/ramps.

o The existing transformer and dumpsters will be relocated and new pads provided.

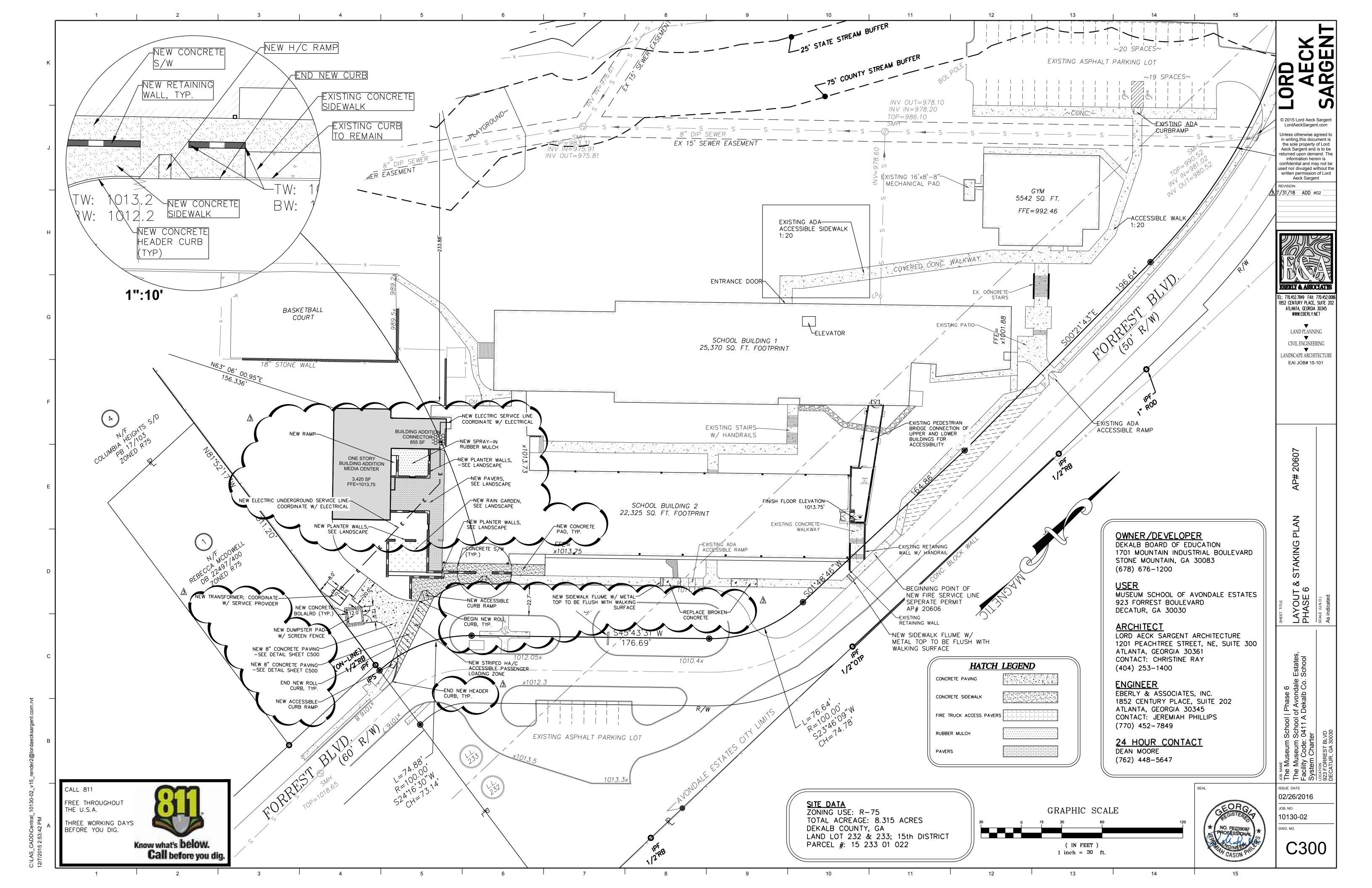
o A new exterior Courtyard between the Media Center addition and the existing Cafetorium to include: Gabion site walls, rainwater garden, several exterior gathering spaces (incorporating: Unit Pavers, Synthetic Playground and Natural Surfacing materials).

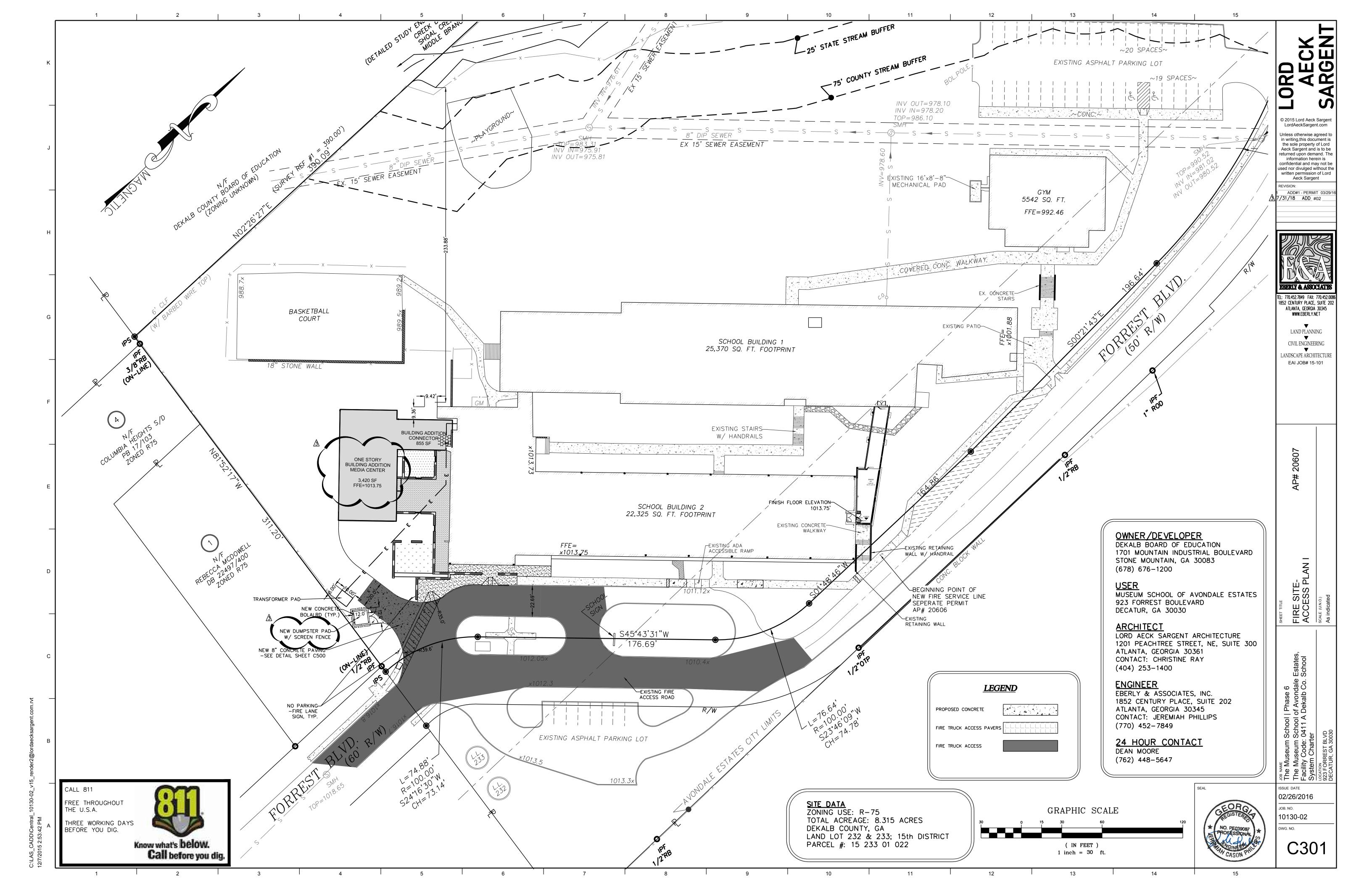
o A new concrete slab at the Main Building entrance with additional connecting walks and ramps

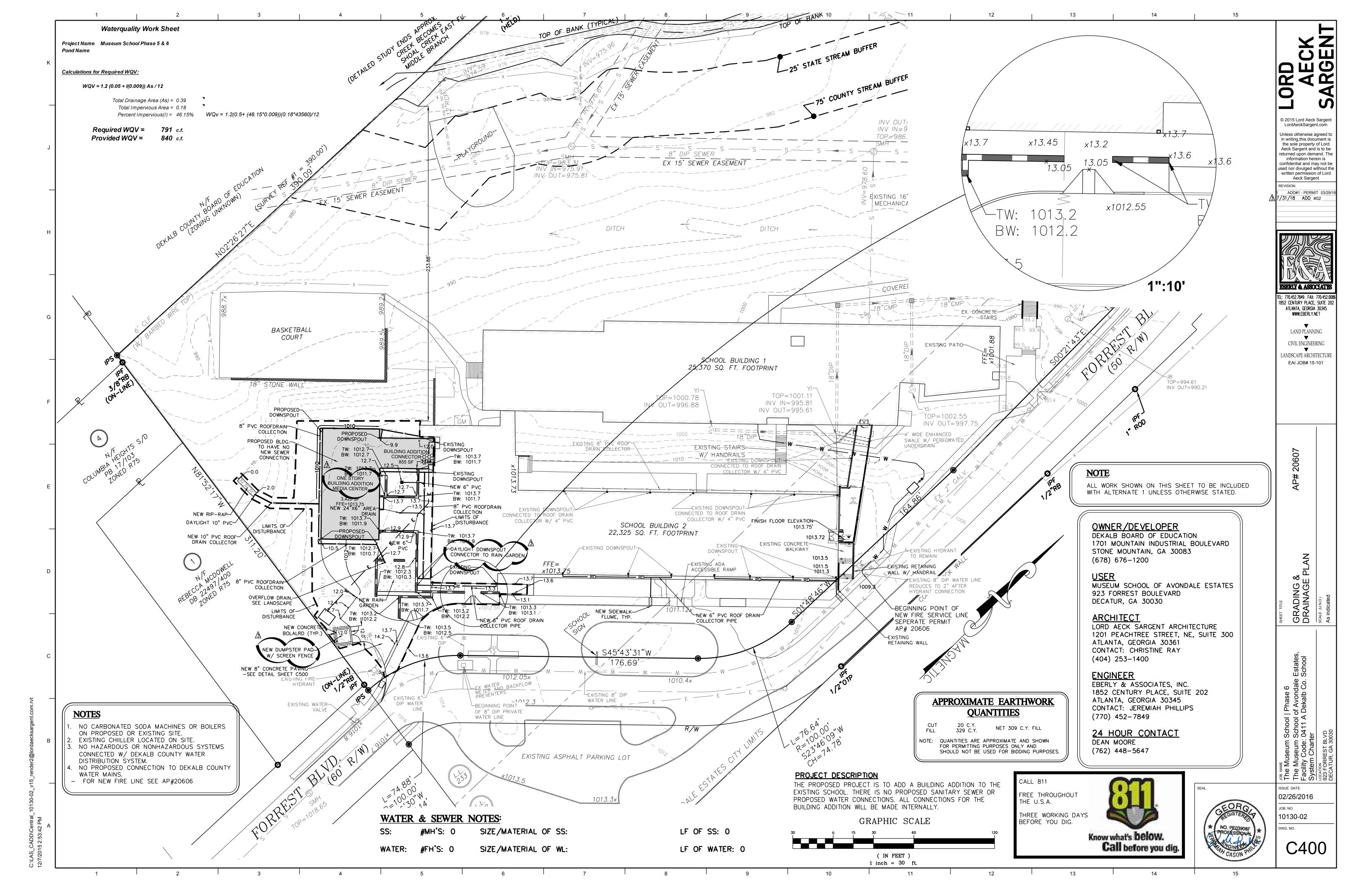


ISSUE DATE 04/30/2018 10130-02

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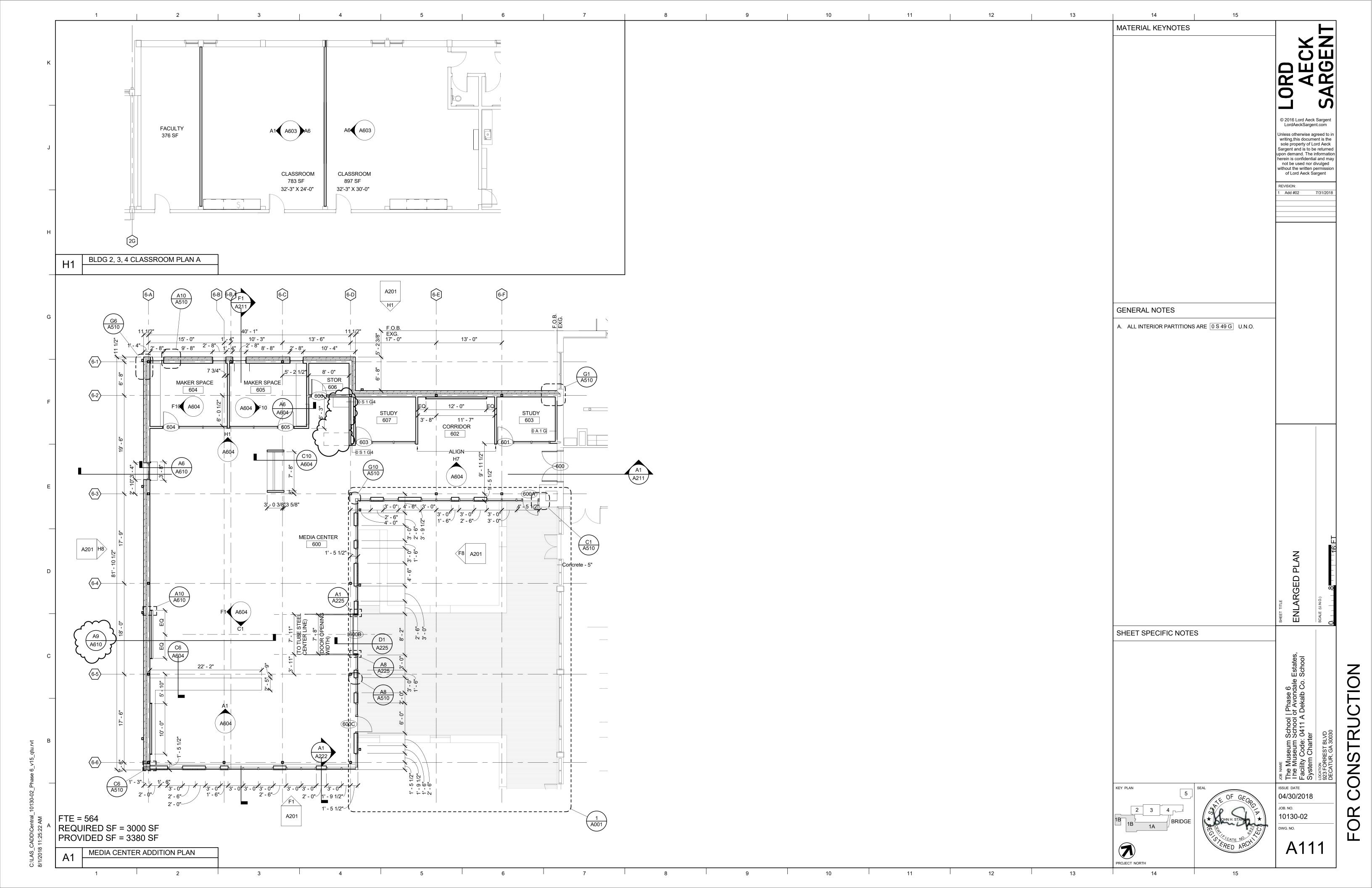


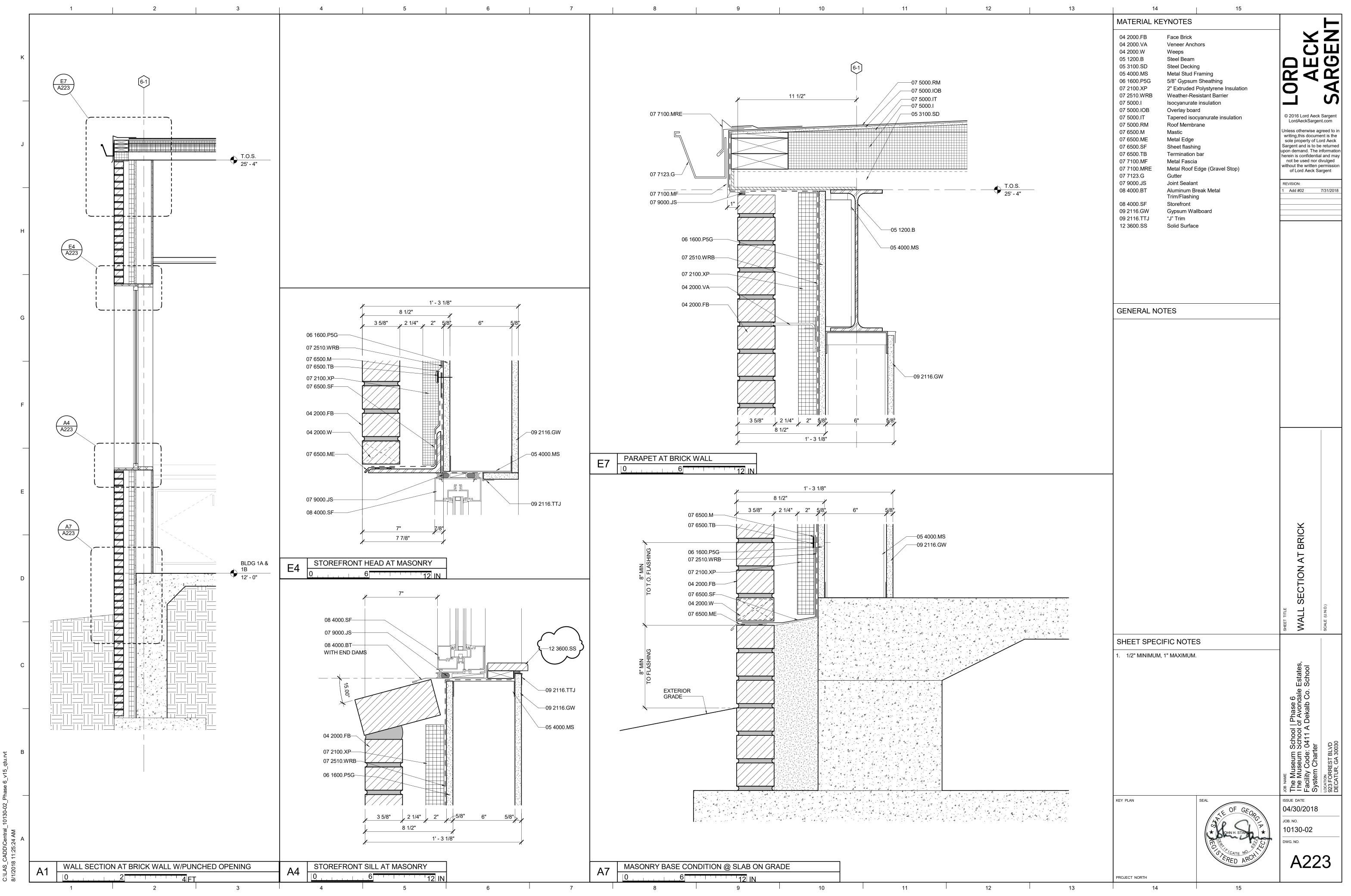
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02/26/2016 JOB. NO. 10130-02

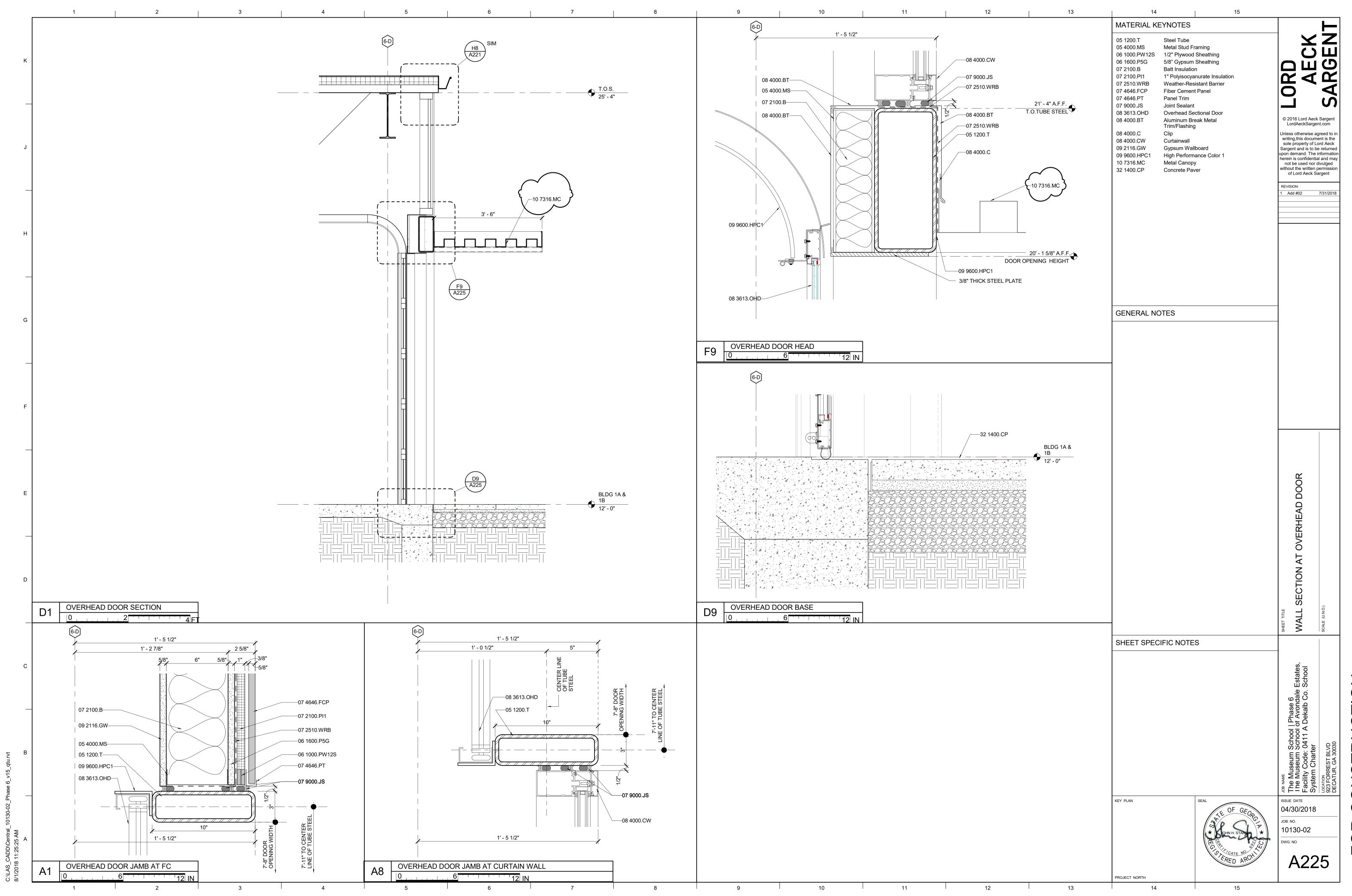
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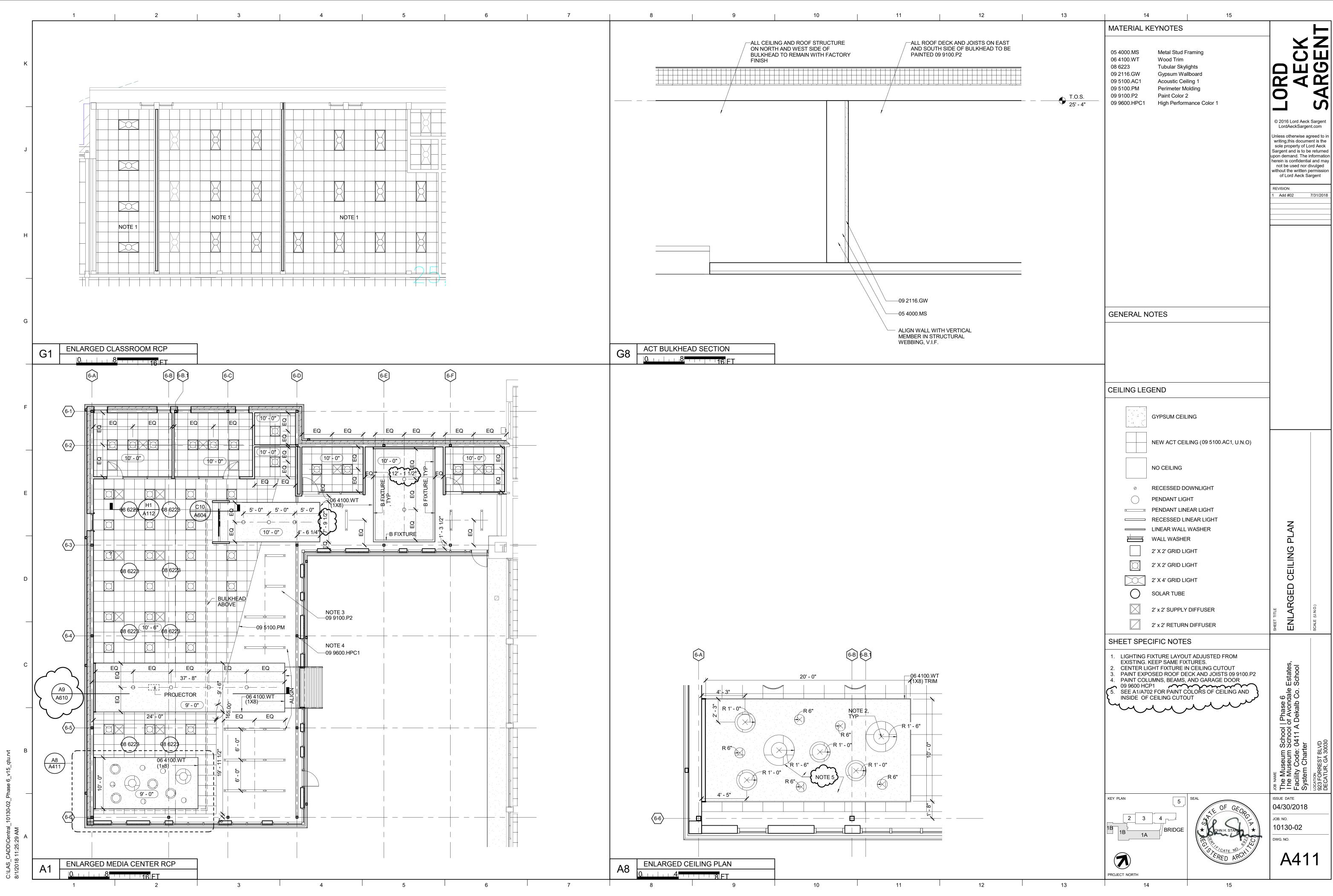




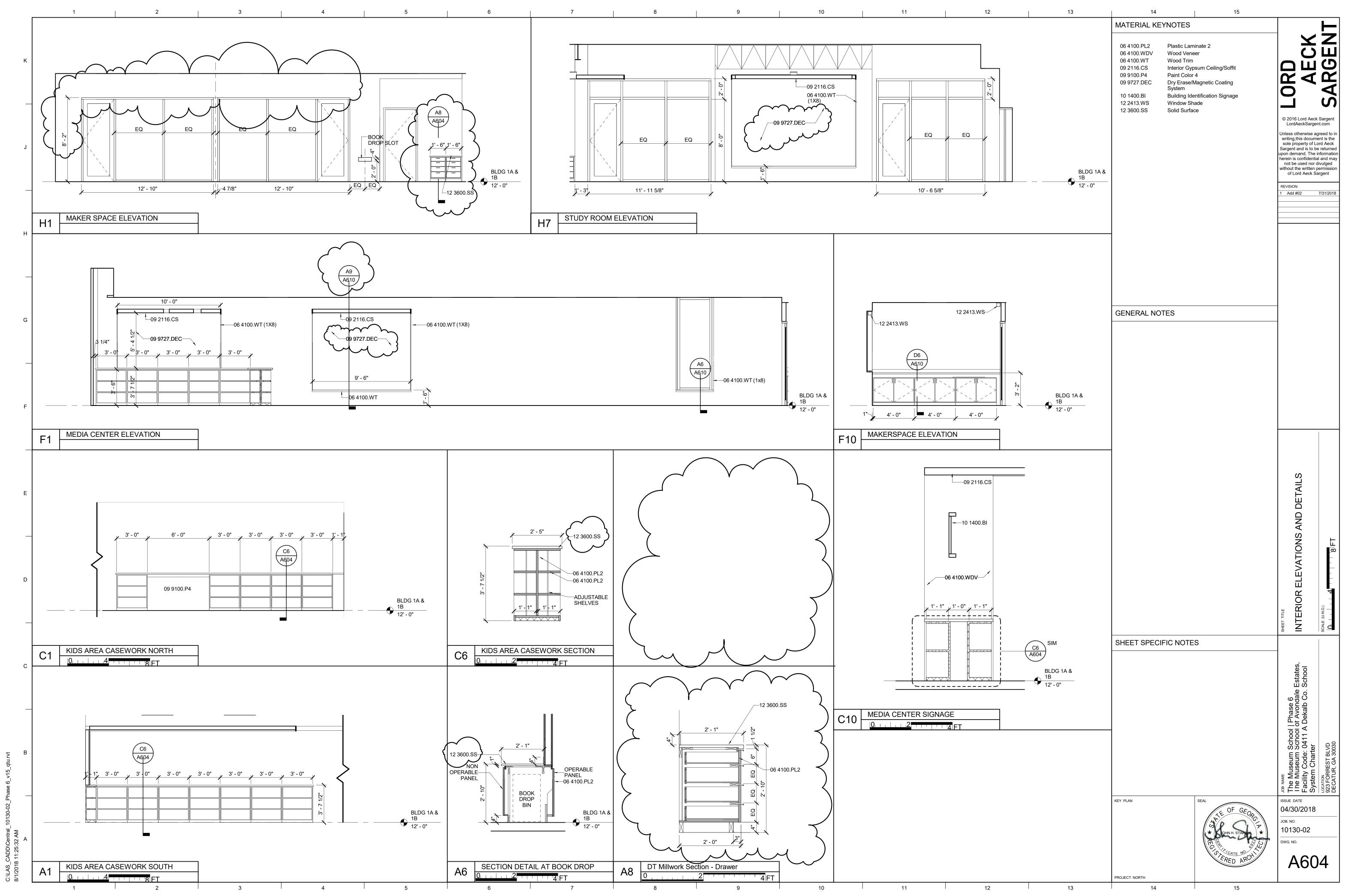
FOR CONSTRUCTION



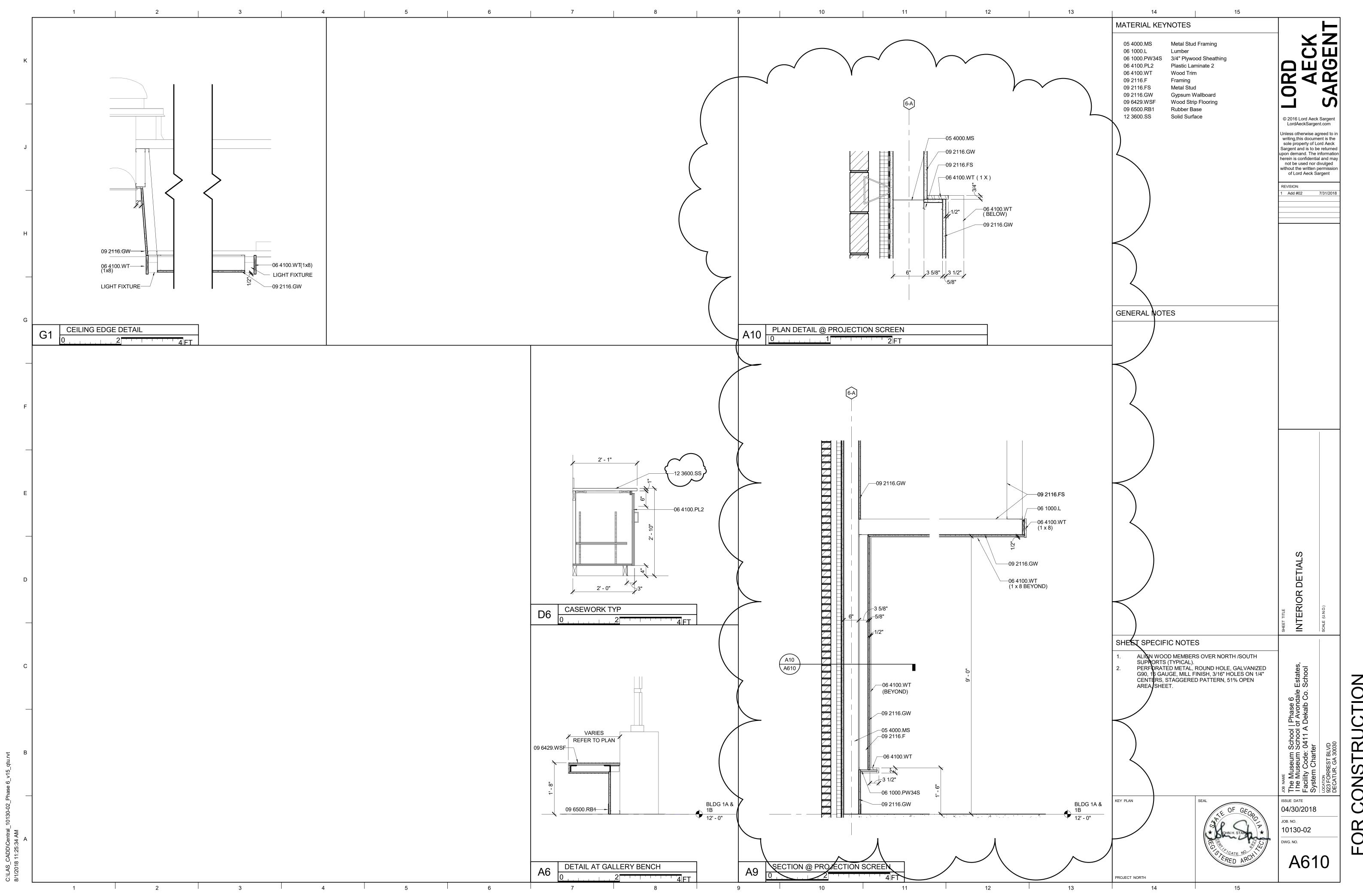
FOR CONSTRUCTION



FOR CONSTRUCTION



FOR CONSTRUCTION



CONSTRUCTION

0941000- Custom Cabinets and Woodwork 094000- Custom Cabinets and Woodwork 094000- Title Manuf. Product Name & Color Number 1090000-Title Manuf. Panel Name 1090000-Title Manuf. Panel Name 1090000-Title Manuf. Product Name & Color Number 1090000-Title Manuf. Product Name & Color Number 1090000-Title Manuf. Product Name & Color Number 1090000-Title Number 1090000-Title Number 1090000-Title Number 109000-Title Number 100000000000000000000000000000000000	2					
Manufacturer & Product	033550- Stained Concrete		Product	Color	Finish	Remarks
Woodwork Laminate Product Prod	0 00550.0F1 Opnerate Stain	To match oxiding	To match existing	To match existing	100000000000000000000000000000000000000	
094100 PL2 Plastic Laminate 2 Formica 927-SP Folkstone Sculpted Classroom Cabin Plastic Laminate 2 Formica 927-SP Folkstone Sculpted Classroom Cabin Plastic Laminate 2 Formica 927-SP Folkstone Sculpted Classroom Cabin Plastic Laminate 2 Formica 169-58		and the second s	Product	Color	Finish	Remarks
064100 PL2 Plastic Laminate 2 Formica 927-SP Folkstone Sculpted Classroom Gabin 24400-DL3 Disease Laminate 2 Formica 927-SP Folkstone Sculpted Classroom Gabin 4600-B Folkstone Sculpted Sculpted Scul	oo i looii 2 i i laoilo 2ai ililato i		200 50	Eberry Onida	Matte	Clasersom Countertop
Species Grade Cut Finish Remarks		1000 1000	927-SP	Folkstone	Sculpted	Classroom Cabinetry
Species Grade Cut Finish Remarks	064100.PL3 Plastic Laminate 3	Fermice	450.58	Drito White	Mette	
Product Name & Number Prod		Species	Grade	Cut	Finish	Remarks
Description	0 C1100.WDV Wood Vencer	Red Oals	Crade A	Plain Clissed	Catin.	To match Doors
Description	093000- Tile	Manuf.		Color	Size	Remarks
995100-Suspended Acoustical Ceilings Manuf. Panel Name Panel Size/Color Grid Name Remarks 995100-AC1 Acoustical Ceiling 1 Armstrong Georgian 1752 24" x 24" white Prelude Prelude Product Name & Color Size Remarks 99500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Wood Strip and Plank Flooring Species Grade Size Finish Remarks 996429-Wood Strip and Plank Flooring Species Grade Size Finish Remarks 996429-Wise Red Oak Select 5" Wide Satin To match Doors 996813-Carpet Manuf. Product Name & Color Size Remarks 996813-Carpet Ille 1 Interface Rags to Riches 237 123240250H Socra x 50cm Socra Ashlar Installation Ashlar Installation Socra x 50cm Shalar Installation Socra x 50cm Size Remarks 996813-CPT 3 Carpet Tile 2 Interface Size Size Size Remarks 996813-CPT 3 Carpet Tile 3 Interface Size Size Size Remarks 996813-CPT 3 Carpet Tile 3 Interface Size Size Size Remarks 996813-CPT 3 Carpet Tile 3 Interface Size Size Remarks 996813-CPT 3 Carpet Tile 3 Interface Size Size Remarks 997200-Tackable Wall Covering Manuf. Product Color Size Remarks 997200-Tackable Wall Covering Manuf. Product Color Size Remarks 997200-Tackable Wall Covering Manuf. Product Color Size Remarks 997200-Tackable Wall Covering Manuf. Color Name Color Number Color Remarks 997200-Tackable Wall Covering Manuf. Color Name Color Number Color Remarks 997200-Tackable Wall Covering Manuf. Color Name Color Number Color Remarks 997200-Tackable Wall Covering Manuf. Color Name Color Number Color Remarks	0 03000.T1 Floor Tile	DalTile	Kayatana Magaja	Castleresk D619	2" * 2"	Epony Crout
995100-Suspended Acoustical Ceilings Manuf. Panel Name Panel Size/Color Grid Name Remarks 995100-AC1 Acoustical Ceiling 1 Armstrong Georgian 1752 24" x 24" white Prelude Prelude Product Name & Color Size Remarks 99500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Resilient Flooring Manuf. Product Name & Color Size Remarks 996500-Wood Strip and Plank Flooring Species Grade Size Finish Remarks 996429-Wood Strip and Plank Flooring Species Grade Size Finish Remarks 996429-Wise Red Oak Select 5" Wide Satin To match Doors 996813-Carpet Manuf. Product Name & Color Size Remarks 996813-Carpet Ille 1 Interface Rags to Riches 237 123240250H Socra x 50cm Socra Ashlar Installation Ashlar Installation Socra x 50cm Shalar Installation Socra x 50cm Size Remarks 996813-CPT 3 Carpet Tile 2 Interface Size Size Size Remarks 996813-CPT 3 Carpet Tile 3 Interface Size Size Size Remarks 996813-CPT 3 Carpet Tile 3 Interface Size Size Size Remarks 996813-CPT 3 Carpet Tile 3 Interface Size Size Remarks 996813-CPT 3 Carpet Tile 3 Interface Size Size Remarks 997200-Tackable Wall Covering Manuf. Product Color Size Remarks 997200-Tackable Wall Covering Manuf. Product Color Size Remarks 997200-Tackable Wall Covering Manuf. Product Color Size Remarks 997200-Tackable Wall Covering Manuf. Color Name Color Number Color Remarks 997200-Tackable Wall Covering Manuf. Color Name Color Number Color Remarks 997200-Tackable Wall Covering Manuf. Color Name Color Number Color Remarks 997200-Tackable Wall Covering Manuf. Color Name Color Number Color Remarks	002000 T2 Well Tile	DalTila	Dittophouse	Aratia Mhita	2" v 6"	Seldier searce install wit
Description				7.11.011.0		bullnose top cap 48" AE
Operation Act Acoustical Ceiling 1	093000.T9 Tile Base	DalTile	Ritterihouse	Arctic White	D	
Decision Color Decision Celling Decision Cell	095100- Suspended Acoustical Ceilings	Manuf.	Panel Name	Panel Size/Color	Grid Name	Remarks
Description	095100.AC1 Acoustical Ceiling 1	Armstrong	10.70	24" x 24" / white	Prelude	
Open Content Color Size Remarks Open Color Size Remarks Open Color Size Remarks Open Color Open Colo	QQ5100 AC2 Acquetical Cailing 2	Armstrong	Coorgian 704 lay in	24" v 24" / white	Droludo	Corubboble
996500.VCT1 Vinyl Composite Tile 1 Azrock Textile VCT	096500 - Resilient Flooring	Manuf.		Color	Size	Remarks
Select V-280 Raw Slik 12" x 12" Monolithic Installation Mono	096500.RB1 Rubber Base 1	Johnsonite	Cove Base	20 Charcoal	4"/ 120" coils	Without pre-formed corners
O96429 - Wood Strip and Plank Flooring Species Grade Size Finish Remarks	096500.VCT1 Vinyl Composite Tile 1	Azrock	HILD DESCRIPTION CONTRACTOR	V-280 Raw Silk	12" x 12"	Monolithic Installation
Op6429.WSF Red Oak Select 5" Wide Satin To match Doors	006500.VCT2 Vinyl Composite Tile 2	Mannington	Eccentials	102 Stone Cray	10" v 10"	Monolithic Installation
Manuf. Product Name & Number Rags to Riches 23Z 123240250H Formation Product Name & Number Product Name Pr	096429 - Wood Strip and Plank Flooring	Species	Grade	Size	Finish	Remarks
Number Color Size Remarks	096429.WSF	Red Oak	Select	5" Wide	Satin	To match Doors
Interface Rags to Riches 23Z 123240250H 7057 Cinder 50cm x 50cm Carpet / to be re Ashlar Installation Ashlar Installation Ashlar Installation Ashlar Installation Ashlar Installation Ashlar Installation Reference plan direction 7057 Cinder 7	096813 - Carpet	Manuf.		Color	Size	Remarks
Interface Interface Rags to Riches 23Z 123240250H 7057 Cinder 50cm x 50cm Reference plan direction	096813.CPT 1 Carpet Tile 1	Interface		7057 Cinder	50cm x 50cm	Existing Admin Suite carpet / to be reused. Ashlar Installation
Interface	096813.CPT 2 Carpet Tile 2	Interface		7057 Cinder	50cm x 50cm	
997200 - Tackable Wall Covering Manuf. Product Color Size Remarks Walltallen/ Tack/dell Claracial Characial Characial Door frames an metal painted si	096813.CPT 3 Carpet Tile 3	Interface	Theme/	103981 Onyx	50cm x 50cm	THE STATE OF THE PROPERTY OF T
Wellteller/ Tackeble Wallowering Wellteller/ Ta	000010.OPT 1 Carpet Tile 1	Interface	Dece Rib 62001	602071	50	Walk off Matto
TooWell TooW	*			Anthracito	000111 X 000111	
Companies Comp	097200 - Tackable Wall Covering	Manuf.	Product	2. 527	Size	Remarks
Walltalker/ Tackble Wallcovering Walltalker/ Ta	#####################################	Manuf.	Walltallton/	2. 527	4' wide x 99'	Remarks
Wellteller Peteries Peterie	997299.TWG1 Tackable Wallsevering	Kereceal	Walltallter/ Too\Voll Walltallter/	Color 92 Quarr y	4' wide x 00' roll_1/4" thick	Croy-
099000 - Painting Manuf. Color Name Color Number Color Remarks 099100.P1 Paint Color 1 ICI Obsidian Glass A2014/00NN 13/000 Charcoal metal painted sometal painted someta	907299.TWC1 Tackable Wallsevering 907299.TWC2 Tackable Wallsevering 2	-Koroscal-	Walltallton/ TacWall Walltallton/ TacWall Walltallton/	Color 82 Quarry 87 Candalwood	4' wide x 00' roll_1/4" thick	Orey- Deige
099100.P1 Paint Color 1 ICI Obsidian Glass 13/000 Charcoal metal painted si	007200.TWG1 Tackable Wallsevering 007200.TWG2 Tackable Wallsevering 007200.TWG2 Tackable Wallsevering 007200.TWG2 Tackable Wallsevering 2	-Koroscal-	Walltallter/ TacWall Walltallter/ TacWall Walltallter/ TacWall	Color 02 Quarr y 07 Candalwood <u>04 Stone</u>	Hwide x 00' roll 1/4" thick Reference Elevations Reference Elevations	Orey- Deige
000100 P3 Point Color 3 Poniamin Moore Timber Welf 1600 Light Crow Interior Accent/	907299.TWC1 Tackable Wallsevering 907299.TWC2 Tackable Wallsevering 907299.TWC9 Tackable Wallsevering 907299.TWC4 Tackable Wallsevering 4	Korossal Korossal Korossal	Walltallter/ TacWall Walltallter/ TacWall Walltallter/ TacWall	Color 82 Quarry 07 Candalwood 04 Stone 12 Detenical	4'-wide x 00' roll_1/4"-thick Reference Elevations Reference Elevations Reference Elevations	Characal Creen
Decking and Ste	007200.TWC1 Tackable Wallsevering 007200.TWC2 Tackable Wallsevering 007200.TWC3 Tackable Wallsevering 007200.TWC4 Tackable Wallsevering 4 099000 - Painting	Koroscal Koroscal Koroscal Koroscal Manuf.	Walltallter/ TacWall Walltallter/ TacWall Walltallter/ TacWall Walltallter/ TacWall Color Name	Color 82 Quarry 87 Gandalwood A4 Stone 12 Detenied Color Number A2014/00NN	1'wide x 00' roll_1/4" thick Reference Elevations Reference Elevations Color	Characal Creen Remarks Door frames and all
099100.P3 Paint Color 3 ICI Shaded Ice L0161/30GG 72/008 White Standard Wall p	007200.TWC1 Tackable Wallsevering 007200.TWC2 Tackable Wallsevering 007200.TWC3 Tackable Wallsevering 007200.TWC4 Tackable Wallsevering 4 099000 - Painting	Koroscal Koroscal Koroscal Koroscal Manuf.	Walltallter/ TacWall Walltallter/ TacWall Walltallter/ TacWall Walltallter/ TacWall Color Name	Color 82 Quarry 87 Candalwood 04 Stone 12 Detenied Color Number A2014/00NN 13/000	1'wide x 00' roll_1/4" thick Reference Elevations Reference Elevations Color	Charges Charges Charges Charges Remarks Door frames and all metal painted surfaces Interior Accent/ Metal Decking and Steel Jois

099100.P4 Paint Color 4	ICI	Blue Chip	A1302/60BG 17/341	Blue	Accent
099100.P5 Paint Color 5	ICI	Apple Green	A0959/90YY/48/ 650	Green	Accent
099100.P6 Paint Color 6	ICI	Omega Yellow	A0775/37YY/61/ 867	Yellow	Accent
099100.P7 Paint Color 7	TBD	To Match Ceiling Tile	Custom	Ceiling White	Ceilings and Soffits
000100 P8 Paint Calor 8	TBD	**************************************		Britto White	
099600 - High Performance Coating	Manuf.	Color Name	Color Number	Color	Remarks
099600.HPC1 High Performance Color 1	To Match ICI	Obsidian Glass	L2014/00NN 13/000	Charcoal	Railings & AESS (Columns and Beams
099737 - Dry Erase Coating	Manuf.	Color Name	Color Number	Color	Remarks
099737.DEC Dry Erase coating	IdeaPaint	Create Clear	NA	Clear	
122113 Horizontal Blinds	Manuf.	Product	Size	Finish	Remarks
122113.HB1.HB1 Horizontal Blinds 1	To match existing	To match existing	To match existing	To match existing	

KEYNOTES													
8		Accent	Blue	A1302/60BG 17/341	Blue Chip	ICI	099100.P4 Paint Color 4	Remarks	Finish	Color	Product	Manufacturer & Product	550- Stained Concrete
6		Accent	Green	A0959/90YY/48/	Apple Green	ICI	099100.P5 Paint Color 5		To match	To match existing	To match oxiding	To match existing	550.OF1 Ocnorete Otain
© 2016 I LordA		Accent	Yellow	650 A0775/37YY/61/ 867	200	ICI	099100.P6 Paint Color 6	Remarks	Finish	Color	Product	Manufacturer & Product	1000- Custom Cabinets and odwork Laminate
Unless oth writing,th	ts	Ceilings and Soffits	Ceiling White	Custom	To Match Ceiling	TBD	099100.P7 Paint Color 7			Florida	200.50	~~~	400 Pl 4 Plantia Laminata 4
sole pro Sargent a upon dem herein is c			Pritto White	Cuotom -	10 Water	TBD	(000100.P8 Paint Calor 8	Classroom Cabinetry	Sculpted	Folkstone	927-SP	Formica	100.PL2 Plastic Laminate 2
not be to without the		Remarks	Color	Color Number	Color Name	Manuf.	099600 - High Performance Coating	Classicom Cabinetry	Mette	Drite White	450.59	Formica	100.PL2 Plastic Laminate 2
REVISION: 1 Add #0	ams)	Railings & AESS (Columns and Bear	Charcoal	L2014/00NN 13/000	Obsidian Glass	To Match ICI	099600.HPC1 High Performance Color 1	Remarks	Finish	Cut	Grade	Species	1000- Custom Cabinets and
		Remarks	Color	Color Number	Color Name	Manuf.	099737 - Dry Erase Coating	Towardsh Danson	C-th-	Diain Olived	Condo A	Ded Oak	100 M/D// Mand Manner
			Clear	NA	Create Clear	IdeaPaint	099737.DEC Dry Erase coating	December 1	Oi		Product Name &	2	100.11.51 11.004 10.1001
		Remarks	Finish	Size	Product	Manuf.	122113 Horizontal Blinds	Remarks		Cootloreek D619	Number	Manuf.	000 T1 Floor Tile
			To match	To match	To match existing	To match existing	122113.HB1.HB1 Horizontal Blinds 1	Coldinary Cold		Castistask Dis 18	r.eyetene ##eeeile	12011110	POULT THE SET THE
		<u>.</u>	existing	existing		7	(0	bullnose top cap 48" AEF	2" x 6"	Aretic White	Rittenheuse	DalTile	000.T2 Wall Tile
NOTES									O" x 0" Cove	Arctic White	Ritterificuse	DalTile	000.T3 Tile Dase
								Remarks	Grid Name	Panel Size/Color	Panel Name	Manuf.	100- Suspended Acoustical Ceilings
									Prelude	24" x 24" / white	Georgian 1752 tegular	Armstrong	00.AC1 Acoustical Ceiling 1
								<u>Carubbabla</u>	Droludo	24" v 24" / white	Coorgion 704 lay in	Armetrong	00 AC2 Acquetical Cailing 2
								Remarks	THE CHESCA AND CONTROL	Color	Product Name & Number	Manuf.	00 - Resilient Flooring
								Without pre-formed corners	1 4 / 1/U COIIS	20 Charcoal	Cove Base	Johnsonite	500.RB1 Rubber Base 1
								Monolithic Installation	12" x 12"	V-280 Raw Silk	Textile VCT "Select"	Azrock	500.VCT1 Vinyl Composite Tile 1
								Manalithia Installation	12" v 12"	102 Stone Cray	Eccenticle	Mannington	500 VCT2 Vinyl Composite Tile 2
								Remarks	Finish	Size	Grade	Species	129 - Wood Strip and Plank Flooring
								To match Doors	Satin	5" Wide	Select	Red Oak	429.WSF
								Remarks	Size	Color	Product Name & Number	Manuf.	313 - Carpet
								Existing Admin Suite carpet / to be reused. Ashlar Installation	50cm x 50cm	7057 Cinder	Rags to Riches 23Z 123240250H	Interface	813.CPT 1 Carpet Tile 1
								Ashlar Installation. Reference plan for direction	50cm x 50cm	7057 Cinder	Rags to Riches 23Z 123240250H	Interface	813.CPT 2 Carpet Tile 2
								Ashlar Installation. Reference plan for direction	50cm x 50cm	103981 Onyx	CT102 Common Theme/ 142570250H	Interface	813.CPT 3 Carpet Tile 3
SHEET 1								Walk off Matto	50cm x 50cm	C02071	Dece Rib 02001	Interface	919.OPT 1 Carpet Tile 1
ECIFIC NOTES								Remarks	Size	Color	Product	Manuf.	200 - Tackable Wall Covering
ate So								Crey-	4' wide x 90'	82 Quarr y	Walltallter/	Koreceal	200.TWC1 Tackable Wallesvering
то при								Deige	Deference	97 Candalwood	Walltallter/	-Koroscal-	200.TWC2 Tackable Wallosvering
ase 6								Characal	Reference	04 Stone	Walltallter/	Korocool	200.TWO0 Tackable Walloovering
ol Phase								Croon	Reference	12 Betanical	Walltalker/	Keressal	200.TWC4 Tackable Wallsevering
School								Remarks		Color Number	Color Name	Manuf.	000 - Painting
JOB NAME The Museum								Door frames and all metal painted surfaces		A2014/00NN 13/000	Obsidian Glass	ICI	100.P1 Paint Color 1
SEAL ISSUE DA								Interior Accent/ Metal Decking and Steel Joist	Light Grey	1600	Timber Wolf	Benjamin Moore	100.P2 Paint Color 2
OF GEO 04/30								Standard Wall paint	White	L0161/30GG	Shaded Ice	ICI	100.P3 Paint Color 3

NOTE: THESE ARE STANDARD ABBREVIATIONS, ALL ABBREVIATIONS SHOWN ABOVE MAY NOT APPEAR ON DRAWINGS.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CEILING	0	THERMOSTAT OR TEMERATURE SENSOR
	DUCT	Θ	HUMIDISTAT OR HUMIDITY SENSOR
	EXISTING	S	WALL MOUNTED SWITCH
	PIPING		FLEXIBLE DUCTWORK
EQ #	EQUIPMENT DESIGNATION	<u> </u>	MANUAL DAMPER
#		>	FIRE DAMPER
✓ B	AIR DISTRIBUTION TAG	E }	DUCT WITH LINER
A C	A. TYPE B. SIZE C. CFM		DUCT TRANSITION
#×#	DUCT SIZE - RECTANGULAR (INCHES)		SQUARE TO ROUND DUCT TRANSITION
# " ø	DUCT SIZE - ROUND (INCHES)	SPS	DUCT MOUNTED STATIC PRESSURE SENSOR
\square	DIFFUSER	₹SD	DUCT MOUNTED SMOKE DETECTOR
\boxtimes			WALL OPENING
	RETURN AIR DISTRIBUTION DEVICE	•••••	SECURITY BARS
			WALL LOUVER
	EXHAUST AIR DISTRIBUTION DEVICE	<u>s</u> ——	SMOKE DAMPER
	DUCTWORK (POSITIVE PRESSURE)	M	MOTOR OPERATED DAMPER
		-	SPLITTER DAMPER
	DUCTWORK (NEGATIVE PRESSURE)		SUPPLY AIR ARROW
		-√ -	RETURN AIR ARROW
•	CONNECT TO EXISTING		
<u> </u>	DUCTWORK - EXISTING TO REMAIN	7///2	REMOVE EXISTING DUCTWORK

NOTE: THIS IS A STANDARD LEGEND. ALL ITEMS SHOWN MAY NOT APPEAR ON DRAWINGS.

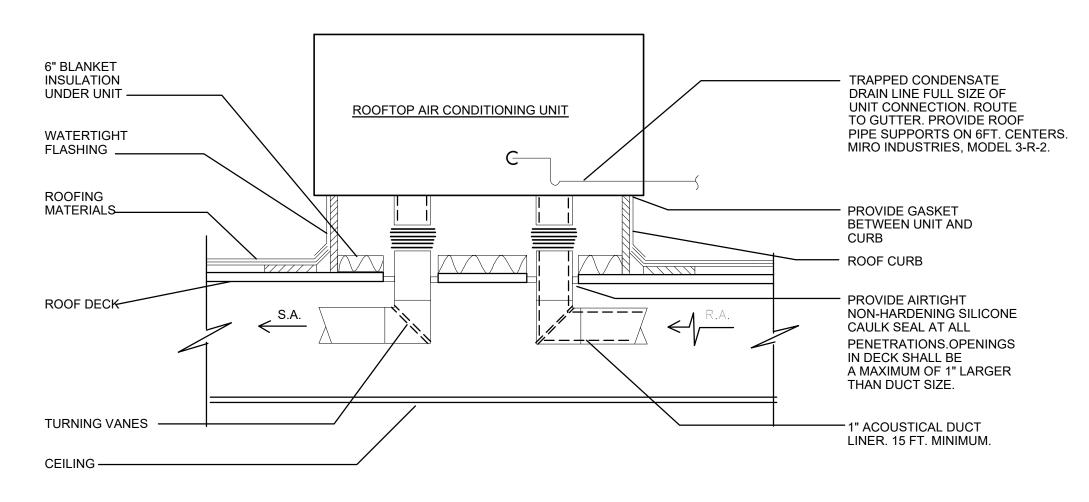
	AIR DIST	RIBUTION DEVICE										
MARK	BASIS OF	DESCRIPTION	NOTES									
	DESIGN											
	(MAKE & MODEL)											
		PHASE 6										
D	TITUS	DIFFUSER, CONE FACE	1									
	TMS	24x24 FACE, LAY IN										
L	TITUS	LINEAR SLOT	2, 3									
	ML-38	(2) 3/4" SLOTS										
S	TITUS	SIDEWALL SUPPLY	1									
	300-RS	REGISTER										
R	TITUS	RETURN AIR										
	50F	GRILLE										
Т	TITUS	TRANSFER										
	50F	GRILLE										

NOTES:

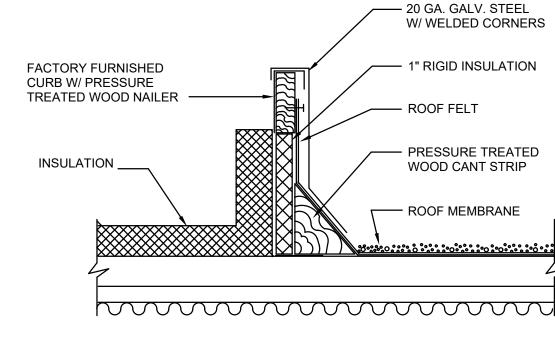
- 1. PROVIDE WITH OPPOSED BLADE BALANCING DAMPER.
- 2. PROVIDE WITH CABLE CONTROL DAMPER. YOUNG REGULATOR MODEL 800 AWO.
- 3. PROVIDE WITH INSULATED PLENUM.

GENERAL NOTES

- 1. COORDINATE WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
- 2. INSTALL SPACE THERMOSTATS AND SENSORS 48" ABOVE FINISHED FLOOR.
- 3. DUCT SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
- 4. PROVIDE DUCT ACCESS DOORS FOR ACCESS TO FIRE DAMPERS, DUCT MOUNTED SMOKE DETECTORS, AND CONTROL DEVICES. PROVIDE CEILING ACCESS DOORS DIRECTLY BELOW DUCT ACCESS DOORS WHERE DEVICES ARE LOCATED ABOVE INACCESSIBLE CEILINGS.
- 5. CEILING DIFFUSERS SHALL BE 4-WAY BLOW UNLESS NOTED OTHERWISE.
- 6. CONDENSATE FROM RTU SHALL BE TRAPPED AND ROUTED TO GUTTER.



DETAIL - ROOF MOUNTED HVAC UNIT Scale: NONE



	V	ARIA	BLE	VOL	UME	TERM	INAL	UNITS	
		PRIM	IARY	HEAT		HEATING		VALVE	\ <u></u>
MARK	TERMINAL	MAX	MIN	LOSS		COIL		INLET	REMARKS
	TYPE	CFM	CFM	MBH	MBH	KW	STEPS	SIZE	>
VAV-1	WR	155	50	2.8	3.9	1.5	1	4	1, 2, 3, 4
VAV-2	WR	155	50	2.8	3.9	1.5	1	4	1, 2, 3, 4
VAV-3	WR	100	30	1.1	1.7	1.0	1	4	1, 2, 3, 4
VAV-4	WR	100	30	1.1	1.7	1.0	1	4	1, 2, 3, 4
VAV-5	WR	470	140	4.4	7.4	2.5	1	8	1, 2, 3, 4
VAV-6	WR	470	140	4.7	7.7	2.5	1	8	1, 2, 3, 4
VAV-7	WR	470	140	4.7	7.7	2.5	1	8	1, 2, 3, 4
VAV-8	WR	470	140	4.7	7.7	2.5	1	8	1, 2, 3, 4
VAV-9	WR	820	240	9.1	14.2	4.5	1	10	1, 2, 3, 4
VAV-10	WR	820	240	9.1	14.2	4.5	1	10	1, 2, 3, 4
VAV-11	WR	470	140	4.2	7.2	2.5	1	8	1, 2, 3, 4
VAV-12	WR	450	135	4.2	7.1	2.5	1	8	1, 2, 3, 4

VVR = VARIABLE VOLUME WITH REHEAT.

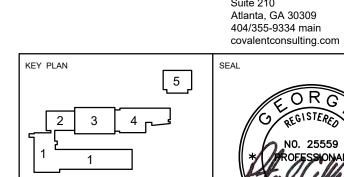
REMARKS:

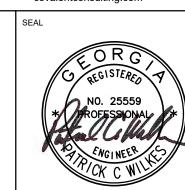
- 1. COIL AIR PRESSURE DROP SHALL NOT EXCEED 0.3 INCHES WATER GAUGE.
- 2. AIR VALVE PRESSURE DROP SHALL NOT EXCEED 0.3 INCHES WATER GAUGE.
- 3. SEE SPECIFICATIONS FOR CONTROLS REQUIREMENTS. CONTROLS ARE TO BE PROVIDED BY CCI. 4. COORDINATE WITH CCI ON FACTORY OR FIELD INSTALLED COMPONENTS FOR TERMINAL UNITS.

					PA	CKAGED ROO	FTOP U	NITS	3					
MARK	TYPE			FAN			COOLIN	G				HEA	TING	REMARKS
		CFM	O.A.	ESP	MAX	TOTAL	SENS	EAT	EAT	AMB. AIR	MIN.	INPUT	OUTPUT	
			CFM	(IN W.C.)	MOTOR	CAPACITY	CAPACITY	DB	WB	TEMP DB	ARI	(BTU/HR)	(BTU/HR)	
					HP	(MBTU/HR)	(MBTU/HR)	(°F)	(°F)	(°F)	EER			
RTU-1	ELEC/GAS	4,950	1,075	0.8	5.75	165.5	131.4	81.2	65.6	95	12.1	180	144	1, 2, 3, 4, 5, 6

REMARKS:

- 1. BASIS OF DESIGN: JCI. MODEL: ZJ
- 2. PROVIDE WITH VARIABLE SPEED DRIVES FOR VAV OPERATION, ECONOMIZER, AND DEMAND CONTROL VENTILATION.
- 3. PROVIDE MATCHING ROOF CURB WITH DOWN DISCHARGE DUCT CONNECTIONS.
- 4. SEE SPECIFICATIONS FOR CONTROLS REQUIREMENTS. CONTROLS ARE TO BE PROVIDED BY CCI.
- 6. PROVIDE UNIT WITH BAROMETRIC RELIEF HOOD.





Covalent

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ISSUE DATE 04/30/2018 10130-02

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5. SEE ELECTRICAL DRAWINGS FOR EQUIPMENT VOLTAGE AND LOAD CHARACTERISTICS.

- A. General: The control system shall consist of a high-speed, peer-to-peer network of DDC controllers.
- B. System shall be by CCI, the current system provider for the Owner, under this
- C. Coordinate installation of mechanical systems with controls interface, including integrated control boards and components within RTU and Terminal Units.
- D. CCI shall provide a complete system of controls to enact the sequence of operation, and interface to the Owner's existing control system.

3.1 Smoke Damper Installation

- A. The contractor shall coordinate all smoke and smoke/fire damper installation, wiring, and checkout to ensure that these dampers function properly and that they respond to the proper fire alarm system general, zone, and/or detector trips. The contractor shall immediately report any discrepancies to the engineer no less than two weeks prior to inspection by the code authority having jurisdiction.
- B. Provide complete submittal data to controls system subcontractor for coordination of duct smoke detector interface to HVAC systems.

3.2 Duct Smoke Detection

- A. Submit data for coordination of duct smoke detector interface to HVAC systems
- B. This Contractor shall provide a dry-contact alarm output in the same room as the HVAC equipment to be controlled.

3.3 Variable Air Volume – RTU-1

Run Conditions - Requested:

The unit shall run whenever:

- Any zone is occupied.
- OR a definable number of unoccupied zones need heating or cooling.

Freeze Protection:

The unit shall shut down and generate an alarm upon receiving a freezestat status.

High Static Shutdown:

The unit shall shut down and generate an alarm upon receiving an high static shutdown signal.

Supply Air Smoke Detection:

The unit shall shut down and generate an alarm upon receiving a supply air smoke detector

Supply Fan:

The supply fan shall run anytime the unit is commanded to run, unless shutdown on safeties. To prevent short cycling, the supply fan shall have a user definable (adj.) minimum runtime.

Alarms shall be provided as follows:

- Supply Fan Failure: Commanded on. but the status is off
- Supply Fan in Hand: Commanded off, but the status is on.
- Supply Fan Runtime Exceeded: Status runtime exceeds a user definable limit (adj.).

Supply Air Duct Static Pressure Control:

The controller shall measure duct static pressure and modulate the supply fan VFD speed to maintain a duct static pressure setpoint. The speed shall not drop below 30% (adj.). The static pressure setpoint shall be reset based upon the position of the zone dampers, with a goal of reducing the static pressure until at least one zone damper is nearly wide open.

- The initial duct static pressure setpoint shall be 1.5in H2O (adj.).
- If no zone damper is nearly wide open, the setpoint shall incrementally reset down to a minimum of 1.3in H2O (adj.)
- As one or more dampers nears the wide open position, the setpoint shall incrementally reset up to a maximum of 1.8in H2O (adj.).

Alarms shall be provided as follows:

- High Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) greater than setpoint.
- Low Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) less than setpoint.
- Supply Fan VFD Fault.

Supply Air Temperature Setpoint - Optimized:

The controller shall monitor the supply air temperature and shall maintain a supply air temperature setpoint reset based on zone cooling and heating requirements

The supply air temperature setpoint shall be reset for cooling based on zone cooling requirements as follows:

- The initial supply air temperature setpoint shall be 55°F (adj.).
- As cooling demand increases, the setpoint shall incrementally reset down to a minimum of 53°F (adj.).
- As cooling demand decreases, the setpoint shall incrementally reset up to a maximum of 72°F (adj.)

If more zones need heating than cooling, then the supply air temperature setpoint shall be reset for heating as follows:

- The initial supply air temperature setpoint shall be 82°F (adj.).
- As heating demand increases, the setpoint shall incrementally reset up to a maximum of 85°F (adj.).
- As heating demand decreases, the setpoint shall incrementally reset down to a minimum of 72°F (adj.).

Cooling Stages:

The controller shall measure the supply air temperature and stage the cooling to maintain its cooling setpoint. To prevent short cycling, there shall be a user definable (adj.) delay between stages, and each stage shall have a user definable (adj.) minimum runtime.

The cooling shall be enabled whenever:

- Outside air temperature is greater than 60°F (adj.)
- AND the economizer (if present) is disabled or fully open.
- AND the supply fan status is on.
- AND the heating (if present) is not active.

Alarms shall be provided as follows:

• High Supply Air Temp: If the supply air temperature is 5°F (adj.) greater than setpoint

Gas Heating Stages:

The controller shall measure the supply air temperature and stage the heating to maintain its heating setpoint. To prevent short cycling, there shall be a user definable (adj.) delay between stages, and each stage shall have a user definable (adj.) minimum runtime.

The heating shall be enabled whenever:

- Outside air temperature is less than 65°F (adj.).
- AND the supply fan status is on.
- AND the cooling (if present) is not active.

The heating stages shall run for freeze protection whenever:

- Supply air temperature drops from 40°F to 35°F (adj.).
- AND the supply fan status is on.

Alarms shall be provided as follows:

Low Supply Air Temp: If the supply air temperature is 5°F (adj.) less than setpoint.

Economizer:

The controller shall measure the mixed air temperature and modulate the economizer dampers in sequence to maintain a setpoint 2°F (adj.) less than the supply air temperature setpoint. The outside air dampers shall maintain a minimum adjustable position of 20% (adj.) open whenever occupied.

The economizer shall be enabled whenever:

- Outside air temperature is less than 65°F (adj.).
- AND the outside air enthalpy is less than 22Btu/lb (adj.)
- AND the outside air temperature is less than the return air temperature.
- AND the outside air enthalpy is less than the return air enthalpy.
- AND the supply fan status is on.

The economizer shall close whenever:

- Mixed air temperature drops from 40°F to 35°F (adj.)
- OR the freezestat (if present) is on.
- OR on loss of supply fan status.

The outside and exhaust air dampers shall close and the return air damper shall open when the unit is off. If Optimal Start Up is available the mixed air damper shall operate as described in the occupied mode except that the outside air damper shall modulate to fully closed.

Minimum Outside Air Ventilation - Carbon Dioxide (CO2) Control:

When in the occupied mode, the controller shall measure the return air CO2 concentration and modulate the outside air dampers open on rising CO2 concentrations, overriding normal damper operation to maintain a CO2 setpoint of 750 ppm (adj.).

Mixed Air Temperature:

The controller shall monitor the mixed air temperature and use as required for economizer control (if present) or preheating control (if present)

Alarms shall be provided as follows:

- High Mixed Air Temp: If the mixed air temperature is greater than 90°F (adj.).
- Low Mixed Air Temp: If the mixed air temperature is less than 45°F (adj.).

Return Air Carbon Dioxide (CO2) Concentration Monitoring:

The controller shall measure the return air CO2 concentration

Alarms shall be provided as follows:

 High Return Air Carbon Dioxide Concentration: If the return air CO2 concentration is greater than 1000ppm (adj.) when in the unit is running.

Return Air Humidity:

The controller shall monitor the return air humidity and use as required for economizer control (if present) or humidity control (if present).

Alarms shall be provided as follows:

- High Return Air Humidity: If the return air humidity is greater than 70% (adj.).
- Low Return Air Humidity: If the return air humidity is less than 35% (adj.).

Return Air Temperature:

The controller shall monitor the return air temperature and use as required for setpoint control or economizer control (if present).

Alarms shall be provided as follows:

- High Return Air Temp: If the return air temperature is greater than 90°F (adj.).
- Low Return Air Temp: If the return air temperature is less than 45°F (adj.).

Supply Air Temperature:

The controller shall monitor the supply air temperature.

Alarms shall be provided as follows:

- High Supply Air Temp: If the supply air temperature is greater than 120°F (adj.)
- Low Supply Air Temp: If the supply air temperature is less than 45°F (adj.)

NEW SHEET - ADD. 2

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10130-02 M101 S

CONTROLS

MECHANICAL

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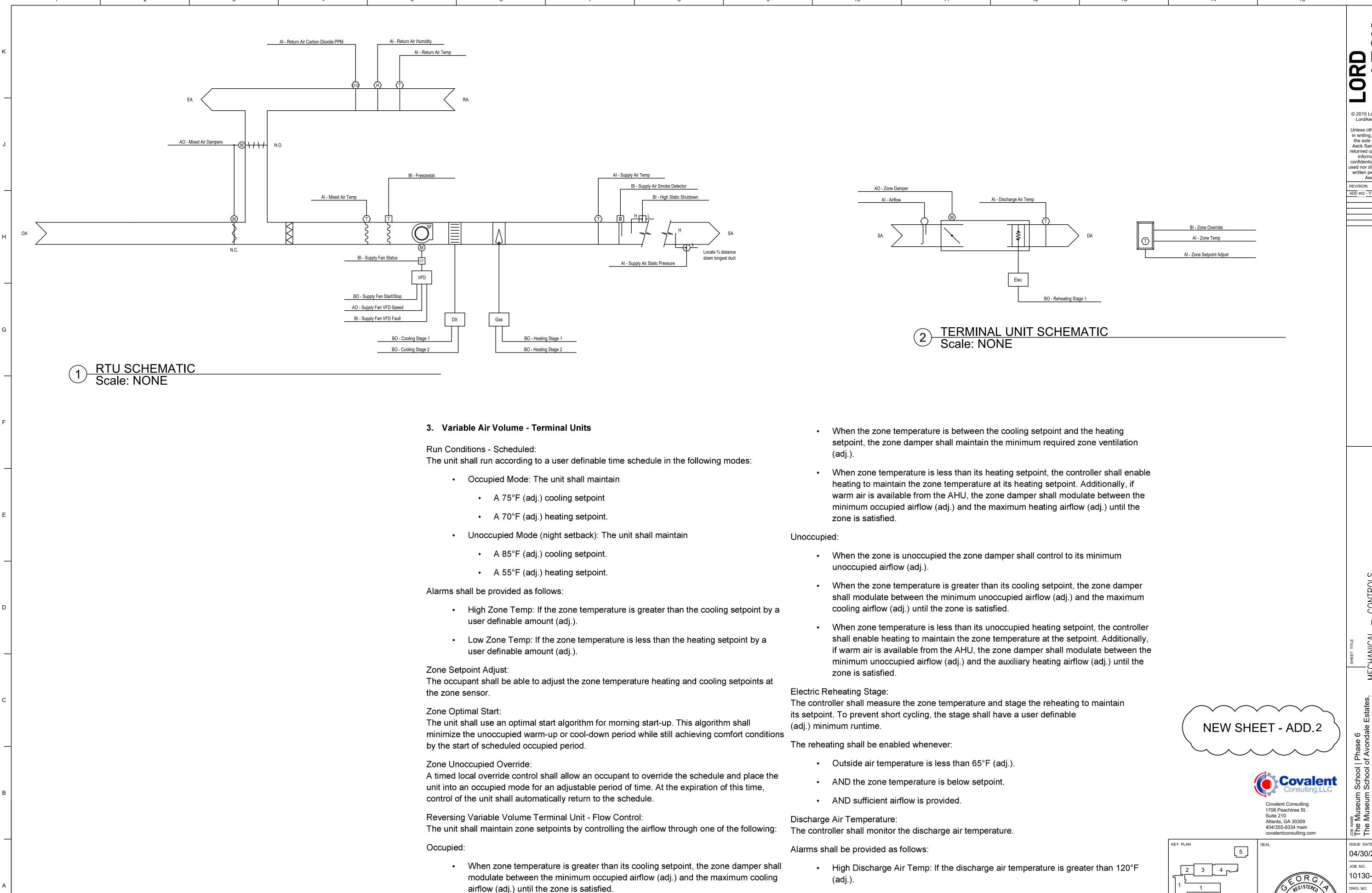
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OR



• Low Discharge Air Temp: If the discharge air temperature is less than 40°F (adj.).

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UNIT	LOCATION	VOLTS	PHASE	HP	HEAT (KW)	CKT BREAKER	DISCONNECT	LOAD (KVA)	COND./WIRE	CIRCUIT	NOTE
RTU-1	AS SHOWN	208	3	_	_	35/3	60/3/3R/35A	9.6	3#8,#10(G),3/4"C	K-2,4,6	1,2
VAV-1	AS SHOWN	277	1			15/1	MTR. RATED SWITCH	1.9	2#12,#12(G),1/2°C	HC-	1,2
VAV-1	AS SHOWN	277	1		<u> </u>	15/1	MTR. RATED SWITCH	1.9	2#12,#12(G),1/2°C	HC-	1,2
VAV-3	AS SHOWN	277	1	_	_	15/1	MTR. RATED SWITCH	1.2	2#12,#12(G),1/2"C	HC-	1,2
VAV-4	AS SHOWN	277	1	_	-	15/1	MTR. RATED SWITCH	1.2	2#12,#12(G),1/2"C	HC-	1,2
VAV-5	AS SHOWN	277	1	_	_	15/1	MTR. RATED SWITCH	3.1	2#12,#12(G),1/2"C	HC-	1,2
VAV-6	AS SHOWN	277	1	_	_	15/1	MTR. RATED SWITCH	3.1	2#12,#12(G),1/2"C	HC-	1,2
VAV-7	AS SHOWN	277	1	_	-	15/1	MTR. RATED SWITCH	3.1	2#12,#12(G),1/2"C	HC-	1,2
VAV-8	AS SHOWN	277	1	_	-	15/1	MTR. RATED SWITCH	3.1	2#12,#12(G),1/2"C	HC-	1,2
VAV-9	AS SHOWN	277	1	_	-	25/1	MTR. RATED SWITCH	5.6	2#10,#10(G),3/4"C	HC-	1,2
VAV-10	AS SHOWN	277	1	_	_	25/1	MTR. RATED SWITCH	5.6	2#10,#10(G),3/4"C	HC-	1,2
VAV-11	AS SHOWN	277	1	_	_	15/1	MTR. RATED SWITCH	3.1	2#12,#12(G),1/2"C	HC-	1,2
VAV-12	AS SHOWN	277	1	_	_	15/1	MTR. RATED SWITCH	3.1	2#12,#12(G),1/2"C	HC-	1,2

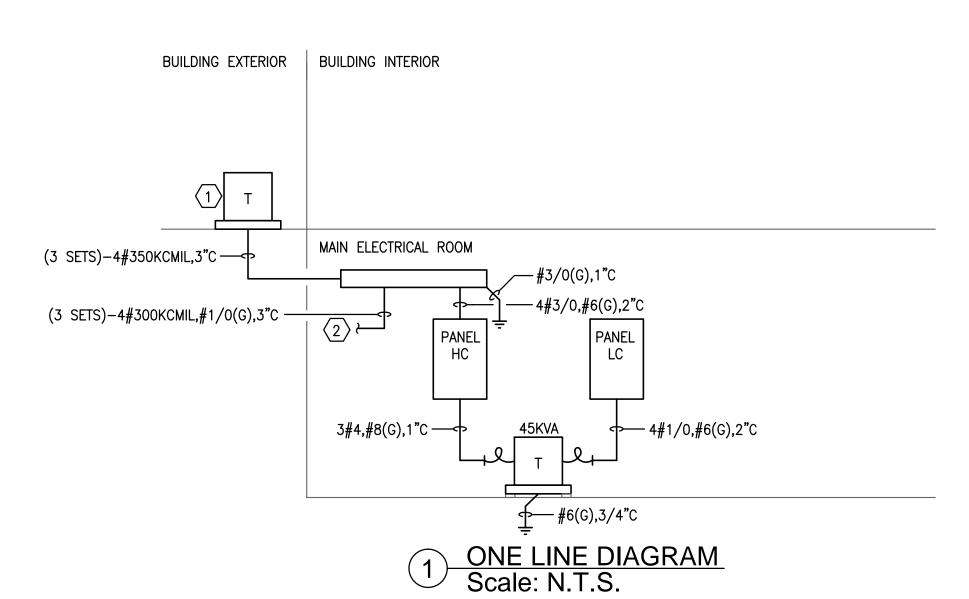
REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION OF EQUIPMENT DESCRIBED. REFER TO PANELBOARD SCHEDULES FOR CIRCUIT CONNECTIONS. WHERE FUSIBLE DISCONNECT SWITCHES ARE SPECIFIED, PROVIDE FUSING PER EQUIPMENT MANUFACTURER RECOMMENDATIONS OR U.L. LISTING REQUIREMENTS. 2. COORDINATE DISCONNECT AND/OR STARTER REQUIREMENTS WITH MECHANICAL CONTRACTOR.

CKT								20	HEL	JUL	L	Ü۲	Р	ANE	EL H	HC			(NEV	V)				
1 T	BUSS	M.L.O.: -	ı	M.B.: 2	:00A		VOI	LTAGE	& PHAS	SE: 277	7/48	30, 3ø	, 4W	1			МІ	N. A.I.(C.: 42,0	000		MOUN	ITING: SURFACE	
1 T		'				LO	AD (KV	/A)								LO	AD (KV	/A)				•		
		SERVES		LTS	REC	HTG	A/C	MTR	MISC	BKR	Ą	В	ن	BKR	MISC	MTR	A/C	HTG	REC	LTS		SE	RVES	CKT
3	[RANSFO	RMER		3.2	6.4	_	_	_	_	70/	┢		\pm	50/	_	_	32.5		_	_	RTU-1			2
											H	•									ļ			4
5		•								/ 3	H		•	/ 3							<u> </u>		<u> </u>	6
7 V.	/AV-1					1.9				15	H			20							SPARE			8
9 V	/AV-2					1.2				15	H	•		20							SPARE			10
11 V	/AV-3					1.2				15	H		•	20							SPARE			12
13 V	/AV-4					1.2				15	┢		\pm	20							SPARE			14
15 V	/AV-5					3.1				15	H	•	\pm	20							SPARE			16
17 V	/AV-6					3.1				15	H		•	20							SPARE			18
19 V	/AV-7					3.1				15	┢		\pm	20							SPARE			20
21 V	/AV-8					3.1				15	H	•	\pm	20							SPARE			22
23 V	/AV-9					5.6				25	H		•	20							SPARE			24
25 V	/AV-10					5.6				25	<u> </u>			20							SPARE			26
27 V	/AV-11					3.1				15	$oxed{+}$	<u></u>		20							SPARE			28
29 V	/AV-12					3.1				15	${\mathbb H}$		•	20							SPARE			30
31 S	SPARE									20	igoplus			20							SPARE			32
33 S	SPARE									20	H	•	+	20							SPARE			34
35 S	SPARE									20	H		•	20							SPARE			36
37 S	SPARE									20	H		\blacksquare	20							SPARE			38
39 S	SPARE									20	H	•	\blacksquare	20							SPARE			40
41 S	SPARE									20	H		•	20							SPARE			42
TOTALS	S			3.2	6.4	35.3	1	_	_						-	-	32.5		_	_				TOTALS

TOTAL CONNECTED: 77.4KVA TOTAL DEMAND: 78.2KVA (94.1AMPS)

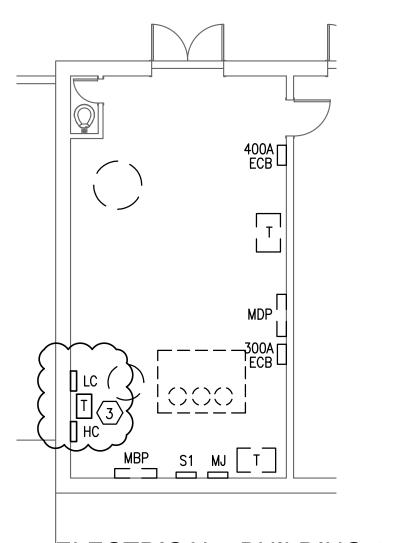
						SC	CHEI	DUL	E ()F	Ρ	AN	EL I	LC			(NEV	V)		
MAI	IN BUSS M.L.O.: –	M.B.:	150A		VO	LTAGE	& PHA	SE: 120	/208,	Зø,	4W				М	N. A.I.	C.: 10,0	00	MOUNTING: SURFAC	E
	•			LC	AD (K)	/A)						LOAD (KVA)								
CKT	SERVES	LTS	REC	HTG	A/C	MTR	MISC	BKR	Ą	В	ç	BKR	MISC	MTR	A/C	HTG	REC	LTS	SERVES	СКТ
1	MAKER SPACE REC.	_	0.72	_	_	_	_	20	•		\mathbb{H}	20	-	_	_	_	0.2	_	ROOF TOP REC.	2
3	MAKER SPACE REC.		0.72					20		•	Н	20					0.72		GENERAL REC.	4
5	STUDY REC.		0.72					20		+	lack	20						1.0	GENERAL LTG.	6
7	STUDY REC.		0.72					20	•		H	20						1.0	GENERAL LTG.	8
9	GENERAL REC.		0.36					20		•	H	20						1.0	GENERAL LTG.	10
11	GENERAL REC.		0.36					20		\vdash	lack	20						0.2	EXTERIOR LTG.	12
13	GENERAL REC.		0.36					20	•	+	H	20							SPARE	14
15	FLOOR REC.		1.1					20		•	H	20							SPARE	16
17	FLOOR REC.		1.1					20		\vdash	lack	20							SPARE	18
19								20	•		H	20							SPARE	20
21								20		•	H	20							SPARE	22
23								20		\vdash	lack	20							SPARE	24
25								20	•		H	20							SPARE	26
27								20		•	Π	20							SPARE	28
29								20		-	lack	20							SPARE	30
31								20	•		H	20							SPARE	32
33								20		•	\forall	20							SPARE	34
35								20		+	lack	20							SPARE	36
37	-							20	•	+	\forall	20							SPARE	38
39	-							20		•	Ħ	20							SPARE	40
41	_							20		\vdash	lack	20							SPARE	42
TOTA	LS	_	6.2	_	_	_	_			•			_	_	_	_	0.2	3.2		TOTALS

TOTAL CONNECTED: 9.6KVA
TOTAL DEMAND: 10.4KVA (28.9AMPS)





- NEW TRANSFORMER. COORDINATE NEW ELECTRICAL SERVICE AND METERING REQUIREMENTS WITH UTILITY COMPANY. COORDINATE FINAL LOCATION WITH THE UTILITY AND CIVIL. ESTIMATED AVAILABLE FAULT CURRENT AT THE SECONDARY OF THE TRANSFORMER 26,000A. COORDINATE FINAL AIC RATINGS OF ALL EQUIPMENT WITH TRANSFORMER PROVIDED.
- (2) EXTEND TO EXISTING 800A MAIN DISTRIBUTION PANEL IN BOILER ROOM.
- REMOVE EXISTING ABANDONED EQUIPMENT AS NEEDED IN ORDER TO PROVIDE SPACE FOR NEW ELECTRICAL EQUIPMENT. MAINTAIN REQUIRED NEC CLEARANCES FOR NEW AND EXISTING ELECTRICAL EQUIPMENT.



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ADD #02 - 7/31/18

CHEDULES

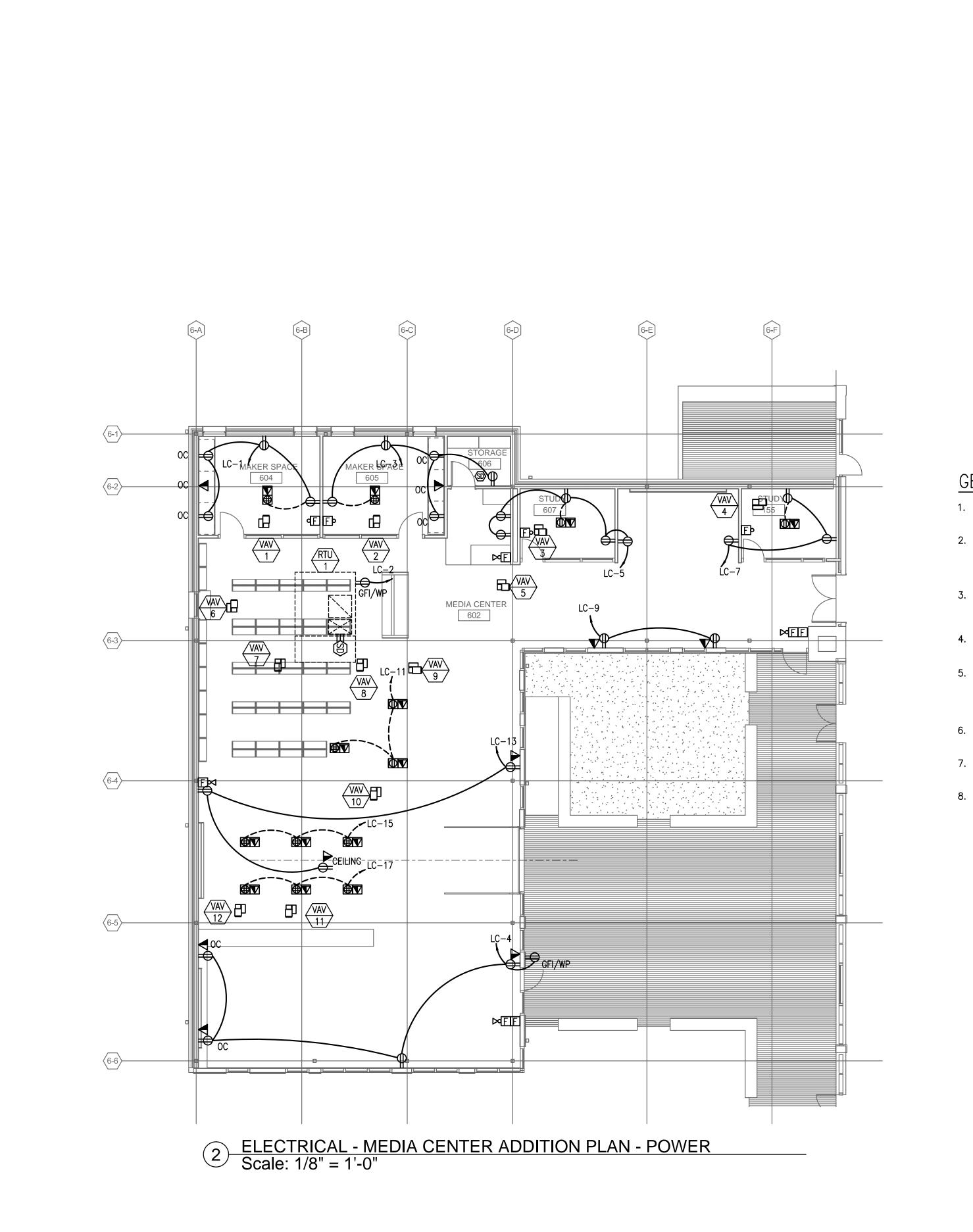
ELECTRICAL - BUILDING 1 LOWER LEVEL
Scale: 1/4" = 1'-0"

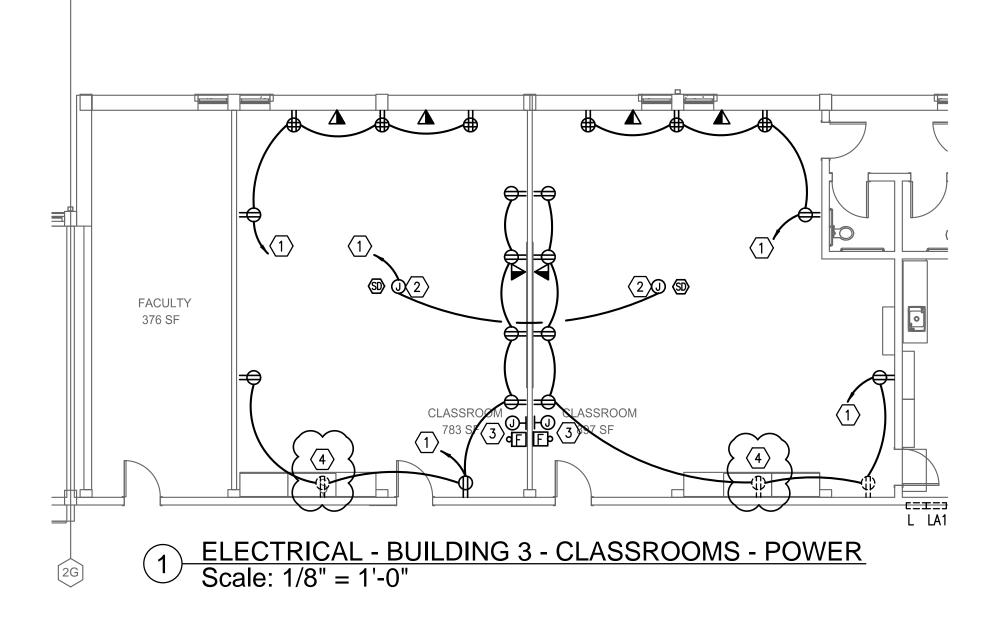
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PROJECT NORTH





GENERAL NOTES:

- 1. REFER TO ARCHITECTURAL AND CASEWORK DRAWINGS FOR EXACT DEVICE LOCATIONS AND HEIGHTS.
- 2. FIELD VERIFY EQUIPMENT ELECTRICAL REQUIREMENTS WITH EXACT EQUIPMENT PROVIDED AND COORDINATE WITH EQUIPMENT SPECIFICATIONS PRIOR TO INSTALLATION. ADJUST DEVICES AND FEEDER SIZES AS REQUIRED.
- 3. COORDINATE WITH MECHANICAL AND PLUMBING FOR MECHANICAL EQUIPMENT LOCATION. COORDINATE WITH ARCHITECTURAL FOR ALL OTHER EQUIPMENT LOCATIONS.
- 4. MAKE FINAL CONNECTION TO ALL EQUIPMENT. CONTRACTOR SHALL PROVIDE CORD/PLUG WHERE EQUIPMENT NOT PROVIDED BY VENDOR.
- 5. COORDINATE ALL ROOF PENETRATIONS WITH OWNER PRIOR TO INSTALLATION. ROOF PENETRATIONS SHALL BE IN ACCORDANCE WITH ROOF MANUFACTURERS SPECIFICATIONS FOR PENETRATIONS TO MAINTAIN ROOF INTEGRITY AND/OR WARRANTIES.
- 6. COORDINATE WITH OWNER/ARCHITECTURAL FOR ACTUAL PROJECTOR & DATA LOCATIONS AND MOUNTING HEIGHTS IN AREAS PRIOR TO INSTALL DEVICE.
- 7. CONDUITS SHALL BE SURFACE MOUNTED ON EXISTING WALLS IN CLASSROOMS.
- 8. DEVICES AND COVERPLATES SHALL MATCH BASE BUILDING STANDARD TYPE.

KEY NOTES

- CONNECT TO SPARE CIRCUIT FROM PANELS L AND LA1 PREVIOUSLY SERVING THE AREA.
- PROVISIONS FOR CEILING MOUNTED PROJECTOR, CIRCUIT AS SHOWN. PROVIDE CORRECT NEMA DESIGNATED OUTLET TO MATCH EQUIPMENT PROVIDED, COORDINATE WITH OWNER.
- 3 PROVIDE WALL MOUNTED JUNCTION BOX FOR VGA DEVICE USE BY PROJECTION SYSTEM. EXTEND 1"C FROM JUNCTION BOX TO ACCESSIBLE CEILING AREA.
- $\langle 4
 angle$ relocate existing device to counter height.

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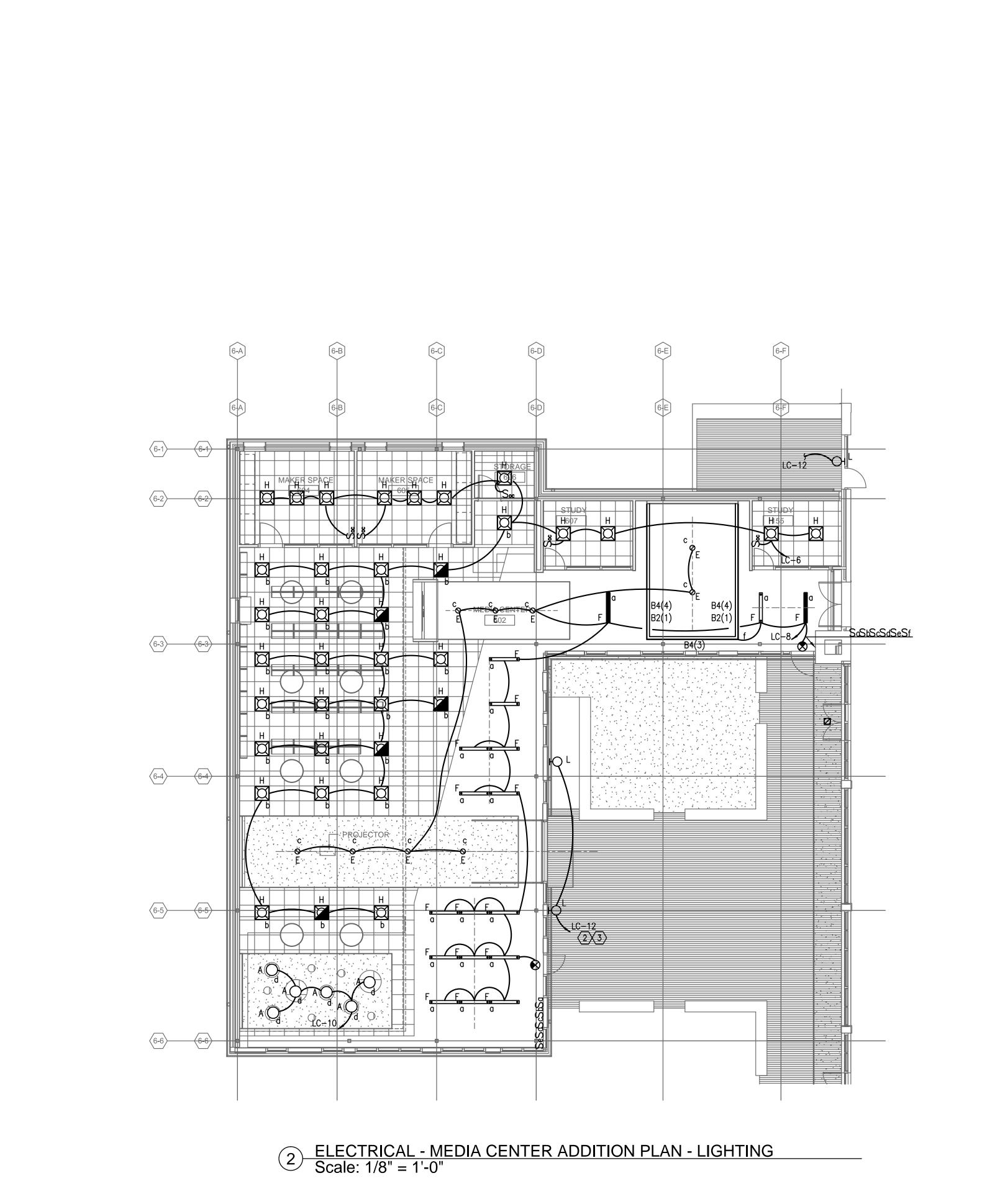
PROJECT NORTH

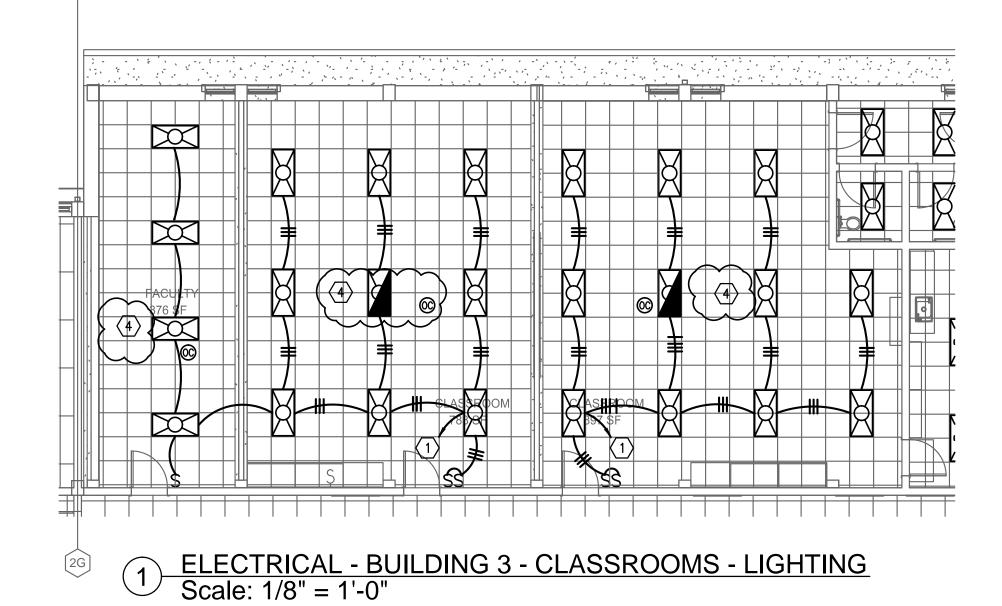




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GENERAL NOTES:

- 1. PROVIDE UNSWITCHED CONDUCTORS TO EMERGENCY/EXIT FIXTURES.
- 2. ALL EXIT SIGNS SHALL BE TYPE X UNLESS NOTED OTHERWISE.
- 3. DEVICES AND COVERPLATES SHALL MATCH BASE BUILDING STANDARD TYPE.

KEY NOTES

- CONNECT TO SPARE CIRCUIT FROM PANELS L AND LA1 PREVIOUSLY SERVING THE AREA.
- PROVIDE INVERTER FOR CIRCUIT: DUALLITE LG-1-S-I. INSTALL INDOORS IN ACCESSIBLE AREA ABOVE THE CEILING. PROVIDE UNSWITCHED CONDUCTOR TO INVERTER.
- 3 PROVIDE PHOTOCELL FOR CONTROL OF CIRCUIT. 4 LIGHTING FIXTURES SHOWN ARE EXISTING TO BE RELOCATED AS SHOWN

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