CHATHAM COUNTY PURCHASING DEPARTMENT

ADDENDUM NO. 1 TO BID NO. 17-0005-4

FOR: INDIGENT DEFENSE SUITE AT THE PETE LIAKAKIS GOVERNMENT BUILDING

PLEASE SEE THE FOLLOWING FOR ADDITIONS, CLARIFICATIONS AND/OR CHANGES:

ATTACHED SHEETS:

1. Document Clarifications and Responses to Questions Received (2 pages)

2. *Specification Section 102217* (18 pages)

3. *Specification Section 260517* (7 pages)

4. *Specification Section 275119* (11 pages)

ATTACHED REVISED DRAWING SHEETS:

Sheet A101
Sheet A400
Sheet E100
Sheet E102

BID OPENING REMAINS :
2:00 PM, TUESDAY, FEBRUARY 14, 2017

2/9/17
DATE

ROBERT E. MARSHALL
SENIOR PROCUREMENT SPECIALIST
CHATHAM COUNTY

LOTT BARBER

Addendum No. 01:
Chatham County Indigent Defense Suite
Bid #17-0005-4 (LB Project No. 2016.09)
Addendum Date: February 9, 2017

This addendum is issued as part of the drawings and specifications prepared by Lott + Barber entitled "Chatham County Indigent Defense Suite", dated November 22, 2016.

I. DOCUMENT CLARIFICATIONS

A. Partitions previously identified as movable pre-finished partitions Owner furnished are now to be purchased by Contractor and installed as part of contract scope of work. Modular partitions basis of design is DIRTT Environmental Solutions or pre-approved equal. Modular partitions are pre-wired with electrical receptacles and devices and connected to power modules above ceiling. Contractor is responsible for complete install of partitions and coordination of low-voltage wiring within by others. Contact Heather Lott at National Office Systems, 912-238-0539 for pricing.

B. The following questions were submitted by bidders and are answered as follows:

1. Drawing (E100): Notes 10 and 11 refer to the Pre-Installed Devices, what is the difference between the two notes. Both notes say devices are provided by the Modular Wall Vendor. Can you please clarify these notes? *A: Note 10 identifies device locations shown on design basis modular partition manufacturer's preliminary drawings. Note 11 Identifies items not shown on design basis modular partition manufacturer's preliminary drawings. Provide devices identified by both notes.*
2. Drawing (E100): Note 4 states that Telecommunication Wiring will be done by owner's Vendor, as is the Security and Camera Systems. We are responsible for furnishing and installing the New Fire Alarm Devices. Can you please verify this for us? *A: Contractor shall provide fire alarm devices compatible with existing.*
3. Drawing (E100): It calls for us to rough-in the Dirtt Walls for Power and Telecommunication, do we provide the 3/4" Conduits in the Modular Wall for Telephone and Data? *A: Conduits shall be provided by modular wall vendor.*
4. The plans do not show the existing ceiling plan layout, can one be provided that shows the existing lights and HVAC grilles layout? *A: No such drawing available. Contractor should visit site to obtain such information.*
5. Can more information about the DIRTT Wall system be provided such as a model number or a description of how the walls are to be constructed and colors requested. Are the walls solid or do they have some glass panels? What are the wall finishes? Are there any drawings and specifications available? *A: Addendum #1 drawing revisions and attached specs answer these questions.*
6. Attached are brochures for substituting the DIRTT wall systems. Please review and let us know if this is an acceptable product alternate. *A: Steelcase "Privacy Wall" modular partition system is rejected as a substitution based on the following reasons:*
   a. *Provided information is incomplete to fully evaluate.*
   b. *Double thickness of insulation not available.*
   c. *Steel skins are difficult to remove and replace by County maintenance.*
   d. *Steel skins are susceptible to denting, Owner prefers MDF panels.*
   e. *Panel widths are not available in the sizes specified on drawings.*
7. Who currently monitors the Fire Alarm system? *A: Savannah Systems*
8. Drawing E101 on the plans state "Replace all failed lamps in existing light fixtures". Should we replace ALL of the lamps to make sure they are the same color? *A: No. Match color output of existing operating lamps.*
9. Will badging and/or name tags be required to work inside the Pete Liakakis building? *A: No badges, however daily name tag at the front door will be issued.*
10. Will everyone working on the project have to go through the front entry security entrance before accessing the jobsite on the 4th floor and the freight elevator? *A: Yes*
11. Same question above, different wording: Are we able to enter through the lane entrance (freight elevator) without going through the front door security? *A: No all personnel will have to sign in at the front entry. Once signed in the use of the lane and access to the freight elevator*

LOTT BARBER

Addendum No. 01:
Chatham County Indigent Defense Suite
Bid #17-0005-4 (LB Project No. 2016.09)
Addendum Date: February 9, 2017

will be accommodated. County will have elevator card issued for access to elevator.

12. Are we allowed to use the bathrooms on the 4th floor or will we need to provide our own facilities? *A: Yes, however facilities must be maintained and cleaned to pre-construction condition.*
13. Is Net Planners or other low voltage trade contractor(s) to be included in our proposal or is that being handled by Chatham Co directly? *A: No, low voltage contractor will contract directly with the County. Contractor is expected to coordinate work with this County contractor.*
14. Is the space above the ACT and the structure a plenum? *A: The space above ceiling is not an HVAC return or supply air plenum.*

II. **CHANGES TO THE DRAWINGS:**

A. The following specifications are added to drawing project requirements:
   1. Section 102217 - Modular Partitions
   2. Section 260517 - Electrical Systems for Modular Partitions
   3. Section 275119 - Self-Contained Sound Masking Equipment

B. Delete the following sheets and replaced with attached revised sheet:
   1. Sheet A101
   2. Sheet A400
   3. Sheet E100
   4. Sheet E102

III. **ATTACHMENTS** (Attachments are 8.5 x11 and dated 1/25/17 unless noted otherwise)

A. Specification section 102217, 18 pages
B. Specification section 260517, 7 pages
C. Specification section 275119, 11 pages
D. Sheet A101 Reissued (30"x42")
E. Sheet A400: Reissued (30"x42")
F. Sheet E100: Reissued (30"x42")
G. Sheet E102 Reissued (30"x42")

End of Addendum No. 01

SECTION 102217 - MODULAR PARTITIONS

SECTION 102217- MODULAR PARTITIONS, DIRTT OR PREAPPROVED EQUAL

1. **Must be constructed of frames of recycled Aluminum**
2. **Insulation shall be made of non- toxic 100% non-fiberglass recycled material**
3. **Walls must be Double layers of insulation**
4. **Snap on panels to be made of MDF board with level 5 finish**
5. **Overall width of wall to be 4".**
6. **No gypsum board to be allowed in product**
7. **Project to be completed within 5 weeks of notice to proceed**
8. **Full 3D rendering of the finished space to be submitted with bid, showing all finishes, electrical outlets, doors, windows, door hardware, windows, and elevations**
9. **Offices to have STC of 55.**
10. **Product to be able to integrate with other walls owned by Chatham County**
11. **Successful vendor must keep inventory list of all parts and pieces at no charge to Chatham County**
12. **Price must include Pink Noise System, pre- approved by Architect**
13. **Electrical Outlets must be as shown in elevations and may not be located in the base**

Part 1 General

1.1 SUMMARY

.1 Section includes:

- .1 Modular partitions framing;
- .2 Face tiles;
- .3 Glass and glazing;
- .4 Doors and door hardware;
- .5 Accessories.
- .6 Finishes.

.2 Related Sections:

- .1 064017 - Modular Architectural Woodwork.
- .2 260517 - Electrical Systems for Modular Partitions.
- .3 Base Building Documents:
  - .1 Division 06 Architectural Woodwork.
  - .2 Division 08 Doors and Door Hardware.
  - .3 Division 09 Finishes.
  - .4 Division 22 Plumbing.
  - .5 Division 26 Electrical.
  - .6 Division 27 Communications.
  - .7 Division 28 Electronic Safety and Security

1.2 REFERENCES

.1 American Architectural Manufacturers Association (AAMA):

- .1 AAMA 61198 Voluntary Standards for Anodized Architectural Aluminum.

.2 American Society of Civil Engineers (ASCE):

- .1 ASCE-7 Minimum Design Loads for Buildings and Other Structures.

.3 ASTM International:

.1 ASTM E72 Method for Conducting Strength Tests of Panels for Building Construction.
.2 ASTM E84 Test Method for Surface Burning Characteristics of Building Materials.
.3 ASTM E90 Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
.4 ASTM E413 Classification for Rating Sound Insulation.

.4 CAN/ULC-S102 Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.

1.3 PERFORMANCE REQUIREMENTS

.1 Structural Performance: Modular partitions shall be capable of withstanding the effects of gravity loads, dead loads, and the following loads and stresses within limits and under conditions indicated:

.1 Transverse Load: Lateral deflection of the overall span when tested under a uniformly distributed load of 5 psf (0.24 kN/m2) in accordance with ASTM E72 where L = modular partition wall height:

.1 Solid Walls: not more than L/120;
.2 Glass Walls: not more than L/175 or 3/4 inch (19 mm) which ever is more stringent.

.2 Mechanical Strength: Capable of withstanding static loads in accordance with ANSI/BIFMA X5.6.
.3 Seismic Performance: Provide modular partitions capable of withstanding effects of seismic motions determined according to the currently adopted building codes.

.2 Acoustical Performance: Where STC ratings are indicated, provide partitions with STC rating determined by testing an identical system to ASTM E90 and classified in accordance with ASTM E413.

.1 Sound Transmission Coefficient (STC) range shall be determined in accordance with Sound Transmission Test by Two-Room Method and reported in accordance with ASTM E90 and ASTM E413 for frequency data. Tested assembly shall have been assembled in the same manner the modular partitions to be installed on the project.
.2 Test results vary based on glass or solid wall configuration, and implementation of perimeter enhancements at base building connections.

.1 Solid wall results range up to 50 STC performance.
.2 Glass wall performance is limited by the glass specified. Coordinate requriements with the modular partition manufacturer.

.3 Fire Resistance:

.1 Surface-Burning Characteristics: Tested in accordance with ASTM E84 by a qualified independent testing agency.
.2 National Building Code of Canada, CAN/ULC-S102 Surface Burning Characteristics of Building Materials and Assemblies.

.4 Sustainable Design Requirements: Submit project specific documentation to demonstrate the following:

.1 MRc4.1 and 4.2 Recycled Content, calculated by weight:

.1 MDF Standard Tiles: 100% pre-consumer recycled content.
.2 MDF No Added Formaldehyde Tiles: 90% pre-consumer recycled content.
.3 Solid Door Core Assemblies: 100% pre-consumer recycled content.
.4 Aluminum: Confirm with the manufacturer plant location.

.2 MRc5 Regional Materials:

.1 LEED NC: Minimum 20%.
.2 LEED-CI: Minimum 10%

.3 MRc6 Rapidly Renewable Materials:

.1 MDF and Wood Materials;
.2 Recycled Cotton Insulation;
.3 Decorative Components;
.4 Bio-Based Materials.

.4 MRc7 Certified Wood:

.1 FSC Certification Code: SCS-COC-000848.
.2 FSC License Number: FSC-C006900.

.5 IEQc4 Low Emitting Materials:

.1 IEQc4.1 Adhesives and Sealants and 4.2 Paints and Coatings:

.1 Field Applied: Documented by project contractor.
.2 Factory Applied: MSDS and VOC content available upon request.

.2 IEQc4.4 Composite Wood and Laminate Adhesives:

.1 MDF Tiles: California Air Resources Board (CARB) 2 Certified.

.3 IEQc4.5 Systems Furniture and Seating:

.1 SCS Indoor Advantage Gold Certification:

.1 SCS-IAQ-02433: Chromacoat on NAF MDF.
.2 SCS-IAQ-02433: Glass and aluminum walls.
.3 SCS-IAQ-02873: Thermofoil on standard or NAF MDF.

.6 IEQc8.1 Daylight and Views.
.7 IEQc8.1 Daylight.
.8 Innovation in Design (ID).
.9 Pilot Credits:

.1 Life Cycle Assessment (LCA);
.2 Environmental Product Declaration (EPD);
.3 Health Product Declaration (HPD);
.4 Life Cycle Impact Reduction.
.5 Acoustic Measures.
.6 Lead Free Content including conduit: maximum 40ppm.

.5 Coordination Requirements:

.1 Comply with Division 01 project management and procedures.

.2 Project Scheduling and Lead Times: Manufacturing production time of all standard products and finishes shall not exceed five weeks, inclusive of shipping within US and Canada, from manufacturer's receipt of complete order information (including shop drawing approval, deposit cost, and notice to proceed).

.1 Maximum delivery time on solutions included on GSA contracts shall not exceed 45 days. Coordinate adjacent work, including other work by others to be installed within or next to Work of this section.

.3 Schedule: Coordinate delivery with construction schedule to avoid storage or double handling of the modular partition system.

.4 Install modular partition system after the building is enclosed and conditioned including completion of HVAC equipment, fire suppression system, lighting, adjacent ceilings and base building finishes in a sequence that allows final electrical connection, voice data/communications to be completed during or after installation of the modular partition systems.

.1 Coordinate modular partition installation with ceiling, floor finish, and specified wall base (modular partition standard base, applied base, or integral base installation).

.5 Floor and base finishes may be completed before installation of modular partition system unless coordinated with the manufacturer ahead of time through the Shop Drawing process.

1.4 SUBMITTALS

.1 Product Data:

.1 Provide manufacturers standard product information for each type of product indicated.

.2 Shop Drawings:

.1 Where required by the local building authority, provide structural analysis data and calculations for installed products to demonstrate compliance with design loads, signed and sealed by licensed professional engineer registered in the jurisdiction of the project.

.2 Provide manufacturer's architectural plans, elevations, sections, connection and attachment details, finish schedule, reflected ceiling plans, doors and hardware schedule, electrical and mechanical requirements, schedules, and locations.

.3 Provide manufacturer with product data, fabrication drawings, schematics and similar information for data, security, or communications to be embedded within or supported by modular partitions.

.4 Include field measurements of existing construction, future construction, finished width and height of partitions and associated components.

.1 Manufacturer's authorized representative shall undertake field measurements to show relevant adjacencies in Shop Drawings. Site conditions, base building construction, and required clearances are to be reviewed and approved by the Architect, including exiting, life safety, location of building service devices, and other affected trades through Shop Drawings to identify and prevent potential conflicts.

.2 Where field measurements are not possible, hold-to and control dimensions must be coordinated and agreed upon by all parties through the Shop Drawing process before manufacturing begins.

.3 Coordination Drawings:

.1 Provide shop drawings for coordination between trades upon request.
.2 Provide architectural plans locating modular partitions within the base building, including finishes and construction of surfaces the modular partition system will interface with or connect to.
.3 Provide reflected ceiling plans, drawn to scale, to show penetrations and ceiling mounted items to be coordinated with modular partitions and associated system components.
.4 Structural: coordinate structural connections to base building and generate engineering calculations where required by the local building authority.
.5 Electrical: Coordinate electrical components with final circuited electrical engineering documents.
.6 Plumbing and Piping: Coordinate plumbing [and medical gas] components with final plumbing engineering documents.

.4 Samples: Provide manufactures standard size samples for verification of support system and each type, color, and texture of exposed finish, full thickness and the following minimum sizes:

.1 Extrusion Components.
.2 Tile Finishes.
.3 Linear Trim and Base.
.4 Door Face Finishes.
.5 Glazing.

.5 Provide product data sheets for all types of Hardware and Accessories.

.6 LEED Submittals:

.1 MRc4.1 and MRc4.2 Recycled Content: Product Data and costs indicating percentages by weight of post-consumer and pre-consumer recycled content.
.2 MRc5.1 and MRc5.2 Regional Materials: Product Data and costs indicating percentages by weight of regional materials as defined by LEED for the project type.
.3 MRc6 Rapidly Renewable Materials: Manufacturer certificates.
.4 MRc7 Certified Wood: Manufacturer certificates.
.5 IEQc4.1 Low Emitting Materials - Adhesives and Sealants: Product data for field applied adhesives including printed statement of VOC content.
.6 IEQc4.2 Low Emitting Materials - Paints and Coatings: Product data for field applied paints and coatings, including printed statement of VOC content and chemical components.
.7 IEQc4.4: Product data for each composite wood product and adhesive used indicating bonding agents and adhesives contain no urea formaldehyde.
.8 IEQc4.5 Systems Furniture and Seating: Manufacturer certificates or SCS Indoor Advantage Gold Certification.
.9 IEQc8.1 Daylight and Views: Architectural and modular partition drawings and additional documentation as required by LEED
.10 IEQc8.2 Daylight: Architectural and modular partition drawings, product data, and additional documentation as required by LEED.
.11 Innovation in Design (ID): documentation as required by LEED.
.12 Pilot Credits: Provide documentation as required by LEED for the following:

.1 Life Cycle Assessment (LCA).
.2 Environmental Product Declaration (EPD).
.3 Health Product Declaration (HPD).
.4 Life Cycle Impact Reduction.
.5 Acoustic Measures.
.6 Lead Free Content.

.7 Product Test Reports, Solid Partitions: Based on evaluation of comprehensive tests performed by a independent qualified testing agency:

.1 Evaluation/Certification Reports:

.1 ICC ESR (Evaluation Service Report), ESR1947 (reissued 2007): Provide evidence of compliance with structural performance requirements and relevant building codes.
.2 UL QQXX - Sections and Units for electrical components.
.3 OSHPD Preapproval of Manufacturers Certification.
.4 CCRR-1012 - Intertek (Warnock-Hersey) Solid Wall Code Evaluation Report / Listing.

.8 Maintenance Data: Provide maintenance data for incorporation into operation and maintenance manuals.

1.5 QUALITY ASSURANCE

.1 Qualifications:

.1 Manufacturer Qualifications: Manufacturer shall specialize in designing and manufacturing modular partitions of the quality and complexity required for this project with a minimum of 10 years documented successful experience. Manufacturer shall have production facilities capable of meeting contract requirements for single-source responsibilities and warranty.
.2 Installer Qualifications: Certified by the manufacturer.

.2 Certifications:

.1 Sound Transmission Characteristics: Testing to be performed by a qualified independent testing agency in accordance with performance requirements above.

.3 Pre-Installation Conference:

.1 Meet at the project site minimum 1 week prior to Shop Drawing approval and prior to beginning installation. Meeting shall include authorized representatives of the Owner, Architect, base building contractor and all trades whose work will interface with installed systems.

1.6 DELIVERY, STORAGE AND HANDLING

.1 Do not deliver or install modular partitions until spaces are enclosed and weather-tight, wet work is complete and dry, work above ceilings is complete, and HVAC system is operational and able to maintain ambient temperature and humidity conditions at occupancy levels for the remainder of the construction period.

.2 Ship system components in manufacturer's standard packaging. Maintain air circulation during shipment. Do not allow packaging to get wet or develop condensation.

.3 Deliver materials to project site or offsite warehouse as directed by the Contractor or Owner as applicable, and in accordance with the manufacturer's instructions in original unopened and undamaged packages. Packages shall be labeled with manufacturers name, brand names, size, finishes, and placement locations.

.4 Store in a clean, dry, secure space to protect from damage during construction activities. Minimize or eliminate storage period by coordinating with construction schedule.

.5 Handle in accordance with the manufacturer's instructions.

1.7 PROJECT CONDITIONS

.1 Environmental Limitations: Do not deliver or install system and components until building is enclosed and finishing operations are complete, including adjacent ceiling and floor covering installation and painting.

.2 Temperature and humidity shall be maintained to final occupancy standards. Installation areas shall be climate controlled between 60 and 90 degrees F (15.5 and 32.2 C) with Relative Humidity maintained between 25 and 55 percent.

1.8 WARRANTY

.1 Provide manufacturers standard, limited, transferable warranty executed in the name of the Owner. Guarantee the site assembled modular structure, panel system and components are free from defects in material and workmanship.

.1 Warranty Period, Modular Partition System: 10 year limited warranty.

Part 2 Products

2.1 MANUFACTURERS

.1 DIRTT Environmental Solutions;

.1 Website: www.dirtt.net
.2 GSA Schedule:

.1 Contract: GS 07F 0005T.
.2 CCR#: 73193726.

.2 Substitutions: Not permitted without demonstrating compliance with aesthetic effects shown in the drawings, performance requirements and lead times specified above and with pre approval from the architect

2.2 SYSTEM DESCRIPTION

.1 Factory assembled, site installed, moveable, demountable, reusable interior solid and glazed partitions, including structure, face mounted finished tiles, modular and non-modular metal framing and doors to accept a variety of millwork, finishes, building services components, technology, and accessories.

.2 System is floor-supported, floor-to-ceiling site constructed in configurations shown on the Shop Drawings. Top channels hold modular partitions in place and accommodate height adjustments to suit floor-to-ceiling dimensional variations and similar site specific requirements.

.1 Where modular partitions are not clipped to ceilings or other overhead construction, additional structural review and system engineering will be required by the manufacturer.

.3 Panel Attachment: Unitized aluminum frame assembly to support face mounted tiles in orientation and module increments as shown on the Drawings.

.4 Partially Unitized Solid Wall system shall be comprised of modular components which can be disassembled, relocated / field cut and substantially reused.

.5 Face tiled finishes applied to lightweight frame system, may be monolithic or segmented with the ability to span off-module, or across multiple frames in segments or monoliths, vertically and horizontally.

.6 Manufacturer shall provide integrated strategy for accommodating accessory channels and reveals integrated into the structural frame allowing universal horizontal alignment to support millwork, furniture, storage and accessories without defacing or damaging face tile or structural frame.

.1 Materials manufactured by others shall not exceed the modular partition manufacturer's limitations or tested performance.

.7 Manufacturer shall provide accommodation / provision for the embedding of technology in the wall cavity: structural framing shall allow for universal non standard AV display, sound, and various support equipment to be mounted in the cavity of the wall with all required structural brackets, wire management, access and ventilation equipment to prevent overheating.

.8 Manufacturer shall provide ability for independent configuration / finish. Each side of wall must have the capability for variable aesthetic and function to suit different requirements. This will allow for the one side of the wall to have a totally independent function than the other to meet each organizations requirement.

.9 Manufacturer shall accommodate and provide provisions for additional embedded elements (ie sofas, exam tables, chaises, charting stations, and millwork) in the wall cavity as documented.

.1 Embedded elements and accessories to be provided by others may require additional engineering for structural framing and supports within modular partitions. Submit documentation of all items to be mounted to or embedded in modular partitions for manufacturer review and approval.

.2 Do not proceed with procurement or fabrication without modular partition manufacturer's review and approval.

.10 Electrical and Communications Access: 1 inch (25 mm) to 3 inches (75 mm) clear wall cavity for accessible from either side of partition by removable face tiles.

.11 Provide back boxes, supports, and conduit as required to accommodate data, security and communications indicated on shop drawings. Modular partition manufacturer to provide continuous 1 inch (25 mm) open cavity vertically and horizontally between all frames.

.12 Modular partition manufacture shall allow for adaptability and retrofitting of hardware for future division of partitions, tiles, or supports to the greatest extent practical.

2.3 MODULAR PARTITIONS FRAMING

SECTION 102217 - MODULAR PARTITIONS

.1 Framing for Solid and Face Tiled Partitions:

.1 Material: Aluminum extrusions, 6063T6 aluminum alloy, thickness engineered to meet performance requirements specified above.
.2 Vertical Support Spacing: 6 inch (150 mm) minimum to 48 inch (1219 mm) maximum.
.3 Ceiling Track: Continuous, with intermittent breaks for pass through of building services or structural components.
.4 Floor Track: Modular with wall frames inclusive of carpet grippers or floor tape (non-seismic) or continuous with floor anchor attachment (seismic) stopped at doorways and pass-throughs.
.5 Bracing: as required to meet structural performance.
.6 Fasteners: Zinc Plated Steel Type F Screws unless otherwise indicated on engineered shop drawings.

.2 Framing for Glazed Partitions:

.1 Same as solid panel framing with customized spacing as shown on the Drawings. Maximum spacing 60 inches (1524 mm).

.3 Frame Bases:

.1 Provide frame bases with provisions for 1-1/2 inch (38.1 mm) height adjustment to accommodate floor slab variances.
.2 Provide a leveling mechanism for making fine adjustment in height over adjustment range of the product.

2.4 FACE MOUNTED FINISHED TILES

.1 Panel Construction:

.1 Standard Solid Tile Material: Medium Density Fiber Core (MDF) ½" thick.

.1 Provide with the following premium options. Coordinate with manufacturer as required, all options may not be able to be combined.

.1 No Added Formaldehyde (NAF).
.2 Forest Stewardship Council (FSC) Certification.
.3 Flame Retardant Type (MDF) where required.

.2 Thickness:

.1 Solid Tiles: 1/2 inch (13 mm).
.2 Glass Tiles: 1/4 inch (6 mm) with aluminum mounting rails to maintain alignment with adjacent finishes.

.3 Widths: As shown on shop drawings.
.4 Height: As shown on shop drawings.
.5 Finishes: As specified below and as shown on the Drawings.

.2 Reveals:

.1 Classic: 0.35 inch (9 mm);
.2 Enzo: 0.15 inch (4 mm).

2.5 GLASS AND GLAZING

.1 Typical: Tempered glass minimum thickness 6 mm (1/4 inch) to ASTM C1048, Kind FT (fully tempered), Condition A (uncoated), Type 1, Class 1 (transparent), Quality q3.

.1 Back Painted Glass: As specified with finishes below.

.2 Laminated Glass: To ASTM C1172, Kind LA fabricated from two nominal 3 mm (1/8 inch) pieces of Type 1, Class 1, Quality q3, flat annealed transparent glass conforming to ASTM C1036.

.3 Specialty Glass:

.1 [As specified with finishes below] [To match the Architects Sample.]
.2 Specialty glass materials must be approved by manufacturer prior to procurement or fabrication.

.4 Glass Types:

.1 Glass Type GLS-1: **[__X__]** as specified **[above] [in Division 08 "Glazing"]**.
.2 Glass Type GLS-2: **[____]** as specified **[above] [in Division 08 "Glazing"]**.
.3 Glass Type GLS-3: **[____]** as specified **[above] [in Division 08 "Glazing"]**.

2.6 DOORS AND DOOR HARDWARE

.1 General:

.1 Coordinate security system components to be provided by others with Modular partitions manufacturer through the Shop Drawing process.
.2 Provide uneven leaf doors as documented on Shop Drawings.

.2 Glazed Aluminum Doors: Manufacturer's standard stiles and rail door, [butt hinge] [pivot] [sliding] operation, glazed aluminum doors.

.1 Door Thickness: 1-15/32 inches (43 mm) thick.
.2 Stile Width: [2] [4] [6] inches ([51] [102] [152] mm).
.3 Top Rail Height: [4] [6] inches ([102] [152] mm).
.4 Bottom Rail Height: [7-7/8 inches (200 mm)] [12 inches (305 mm)] AFF.

.1 Provisions for ADA bottom rails as determined by the design professional of record.

.5 Adjustability: Provide door skirt to accommodate varying floor levels.
.6 Door Height: As noted on shop drawings. Maximum height 10 feet (3 meters).
.7 Glazing: **[Tempered]** [Laminated] glass, **[6]** [10] mm ([1/4] [3/8] inch) thick, **[_____]** custom finish.
[OR]
.8 Glazing: **[Type GLS-__1_]**, as specified in Division 08 "Glazing".
.9 Hardware Reinforcement: Factory milled by modular partition manufacturer to suit glass and hardware supplied by others as shown on show drawings.

.3 Flush Wood Doors: As specified in Section Division 08 "Wood Doors".
[OR]
.4 Flush Wood Doors: Manufacturer's standard solid core door, [butt hinge] **[pivot]** [sliding] operation [and glazed].

.1 Door Thickness: 1-15/32 inches (43 mm) thick.
.2 Pressed high density fibreboard on both sides of door on particleboard core.
.3 Edging: Solid edging.
.4 Stile Width for Glazed Door: 6-3/16 inch (157 mm).
.5 Door Height: **[As specified in drawings)] [[Maximum height 10 feet (3 meters)]**.
.6 Glazing: **[Tempered]** [Laminated] glass, **[1/4]** [3/8] inch **([6]** [10] mm) thick, **[_____]** custom finish.

[OR]

.7 Glazing: **[Type GLS-_1__] [as specified in Division 08 "Glazing"]**.
.8 **Finish: [Chromacoat, [___Scout__] colour.] [Stain grade veneer, [__Dogwood___] finish.] [Thermofoil finish, [___Tawney Port AB/0212__] colour.]**

.5 Frameless Glass Pivot Door: Specified glass with top rail and bottom aluminum rails supplied locally by others.

.1 Door Glazing: 1/2 inch (13 mm) tempered glass (supplied locally by others).
.2 Stile Width: None.
.3 Top Rail Height: 2-5/16 inch (59 mm).
.4 Bottom Rail Height: 2-5/16 inch (59 mm).

.1 Provisions for ADA bottom rails as determined by the design professional of record.

.5 Hardware Reinforcement: Factory milled by modular partition manufacturer to suit glass and hardware supplied by others as shown on show drawings.
.6 Security System Components: Coordinate security system requirements and components to be provided by others with modular partitions manufacturer through the shop drawing process.

.5 Frameless Glass Sliding Door: Manufacturer's supplied top rail and bottom aluminum rails (glass supplied locally by others).

.1 Door Glazing: 3/8 inch (10 mm) tempered glass supplied locally by others.
.2 Stile Width: None.
.3 Top Rail Height: 2-3/8 inch (61 mm).
.4 Bottom Rail: 5 inch (127mm) AFF.

.1 Provisions for ADA bottom rails as determined by the design professional of record.

.5 Hardware Reinforcement: Factory milled by modular partition manufacturer to suit glass and hardware supplied by others as shown on show drawings.
.6 Security System Components: Coordinate security system requirements and components to be provided by others with modular partitions manufacturer through the shop drawing process.

2.7 DOOR FRAMES

.1 Pivot Door Frames: Manufacturer's standard aluminum frame **[single door]** [double door], reversible, factory milled to receive hardware, for 1-15/32 inches (43 mm) +/- 1/16inch (1.5mm) doors.

.1 Door Module Size: **[_____.] [As scheduled.]**

.1 Finished door width is equal to module width less 2 inches (51 mm).

.2 Configuration: Header, jambs and pivot hardware. Single door frame width not to exceed 44 inch (1118 mm) wide module.

.3 Hardware Preparation and Reinforcement: Milled, reinforce, drill and tap frames at factory to receive specified hardware in accordance with the contract hardware schedule and templates.

.4 Frame Height: Jambs shipped over length (height) by 2 inches (51 mm), for field cutting to suit opening height for proper alignment with adjacent frames.

.5 Electrical Requirements:

.1 Security System Components: Coordinated hardware requirements and prep work for security system components (supplied by others including but not limited to: electronic strikes, Magnetic locks, electrified locksets, hinges, request to exit buttons, motion sensor rex, door position contacts).

.6 Factory notched and drilled jambs for ceiling track and manufacturer's standard header attachment.

.7 Extrusion Profile: [Curvilinear] **[Rectilinear]** [_____] profile to match any adjacent unitized glass frames.

.8 Seals: Manufacturer's standard.

.2 Butt Hinge Frames: Manufacturer's standard aluminum frame [single door] [double door], factory milled to receive hardware, for 43 mm (111/16 inch) [+/ 1.5mm (1/16 inch)] doors. Door frames capable of reconfiguration without part replacement or damage to wall components.

.1 Door Module Size: **[_____.] [As scheduled.]**

.1 Finished door width is equal to module width less 3 inches (76 mm).

.2 Configuration: Header, jambs and pivot hardware. Single door frame width not to exceed 51 inch (1219 mm) wide module.

.3 Hardware Reinforcement: milled, reinforce, drill and tap frames at factory to receive specified hardware in accordance with the contract hardware schedule and templates.

.4 Frame Height: Jambs over length 50 mm (2 inches), for field cutting to suit opening height for proper alignment with adjacent frames.

.5 Frame Preparation: Factory milled frame with hinge locations and sizes as determined and set by manufacturer; including factory installed steel backer plates for four (4) hinges (2 pair):

.1 Hinges: 4-1/2 x 4 Stanley BB1409 fastened with 10-24 flat head machine screws.

.2 For C.O.M. Doors Conform to modular partition manufacturer's standard size, hole pattern and fastener type for hinges, levers or pulls to be supplied by others.

.6 Electrical Requirements:

.1 Security System Components: Coordinated hardware requirements and prep work for security system components (supplied by others including but not limited to: electronic strikes, Magnetic locks, electrified locksets, hinges, request to exit buttons, motion sensor rex, door position

contacts).

.7 Factory notched and drilled jambs for ceiling track and manufacturer's standard header attachment.
.8 Extrusion Profile: [Curvilinear] **[Rectilinear]** profile to match any adjacent unitized glass frames.
.9 Seals: Manufacturer's standard.

.3 Sliding Door Frames: Manufacturer's standard aluminum frame **[single door] [double door]**, single continuous track mounted to demountable wall system and capable of reconfiguration without part replacement or damage to wall components.

.1 Door Module Size: **[_____.] [As scheduled.]**

.1 Finished door width is equal to module width plus 1/4 inch (6 mm).

.2 Configuration: Header, jambs and pivot hardware. Single door frame width not to exceed 1524 mm (60 inch) wide module for Aluminum Doors and 1219mm (48inch) for Wood Doors.
.3 Self supporting header and track, jambs, sliding door, and trackless at floor between jambs.
.4 Frame Height: Jambs shipped over length by 50 mm (2 inches) in height, for field cutting to suit opening height for proper alignment with adjacent frames.
.5 Factory notched and drilled jambs for ceiling track and manufacturer's standard header attachment.
.6 Extrusion Profile: [Curvilinear] **[Rectilinear] [_____]** profile to match any adjacent unitized glass frames.
.7 Frame and Track Construction:

.1 Continuous extruded frame supported or drywall header section with concealed track mechanism.
.2 Guide and alignment hardware for stabilization of door bottom.
.3 Door secured in closed position on strike side of door.
.4 Anti rack / lift hardware included in track assembly.

.8 Operation:

.1 Soft lose mechanism for door weights of 165 pounds (75 kg) or less.
.2 Pneumatic slow down mechanism for door weight of 165 to 200 pounds (75 to 90 kg).

.9 Seals: continuous acoustical seals on strike and guide side. Manufacturer's standard.
.10 Operation and configuration ADA compliant in both clear opening as determined by design professional of record.

.4 Hardware: Manufacturer's standard **[top and bottom pivot]** [butt hinge] [sliding door] hardware, with **[lever]** [passage sets] **[locksets] [_____]** and **[_____]** pulls.

[OR]

.5 Hardware: As specified in Division 08 "Door Hardware".

2.8 ACCESSORIES

.1 Connections and Supports: Manufacturer's standard connections and supports that connect and release from floor and ceiling without damage using carpet grippers and ceiling track clips, with exception of the following conditions: bulkhead (drywall ceiling), seismic conditions, electrical or service feeds, physical connections to base building

(where required).

.2 Panel Joint Closure: Manufacturer's standard, capable of closing up to a 25 mm (1 inch) gap between demountable partitions and base building elements.

.3 Trim: Continuous and modular, factory finished, snap on type; field cuttable for variations in floor and ceiling levels.

.1 Base Trim Profiles: Recessed; removable to access leveling mechanisms.

.2 Ceiling Trim Profile: Recessed; adjustable to accommodate up to a 12 mm (1/2 inch) gap between demountable partitions and base building elements.

.3 Wall Trim Profile: Recessed; adjustable to accommodate up to a 12 mm (1/2 inch) up to 25 mm (1 inch) gap between demountable partitions and base building elements.

.4 Tile to Tile Profile: As detailed.

.5 Colours: As selected by Architect from manufacturer's full range.

.4 Brackets:

.1 Manufacturer's brackets, supports and accessories for complete installation of system's furniture components, architectural millwork, audio visual equipment, and paper accessories.

.2 Provide bracket design to enable other system furniture to mount to modular partitions, on or off module.

.5 Infection Prevention Measures:

.1 Infection Prevention Measures: Provide extrusions and co-extrusions to fill voids between tiles, at ceiling connections, and at base building connections as required. (both horizontal and vertical gaskets). Coordinate final locations of gaskets with manufacturer through the shop drawing process prior to procurement of fabrication.

2.9 FABRICATION

.1 Modular Tiles:

.1 Unless otherwise inducated on shop drawings, factory assembled frames with 1inch (25 mm) insulation, base track and levellers; face mounted tiles installed to frames on site.

.2 Components:

.1 Fabricate components for installation with concealed fastening devices and pressurefit members that will not damage ceiling or floor coverings. Exceptions: Drywall ceiling, seismic applications and doors against base building require screw holes in base building for proper fastening.

.2 Fabricate for installation with manufacturer's standard seals at floor and other locations where partition assemblies abut fixed construction and for installation of sound attenuation insulation in partition cavities.

2.10 FINISHES

.1 Protect finishes on exposed surfaces from damage during shipping.

.2 Appearance of Finished Work:

.1 Finishes shall match approved samples.

.2 Variations in natural finishes such as stone and wood shall be reviewed and accepted in accordance with industry standards.

.3 Frame Finishes:

.1 Clear Anodized Aluminum: AAMA 611, AAM12C22A31, Class I.
.2 Powdercoat Color: Factory applied to match paint finish as follows:

.1 Series: **[Standard.]** [Paint match.]
.2 Color: **[___Scout_DP15__]**.
.3 Paint Match Manufacturer: [_____].
.4 Paint Match Description: [_____].
.5 Paint Match Color number: [_____].

.3 Wood Veneer Wrapped Finish (VEN): Factory applied wood veneer finish as follows:

.1 Series: Standard.
.2 Wood Veneer Species: **[Cherry_____]**.
.3 Wood Veneer Cut: [_____].
.4 Stain Finish: **[_Dogwood_____]**.

.4 Factory Applied Panel Finishes: Make joints only where total length exceeds maximum manufactured length. Joints and reveals as indicated on approved Shop Drawings.

.1 Paint Finish (PNT):

.1 Series: **[Standard]** [Paint match].
.2 Coating Type: UV cured water based paint, Chromacoat or approved equivalent.
.3 Color: [___Scout DC15 ___].
.4 Paint Match Manufacturer: [_____].
.5 Paint Match Description: [_____].
.6 Paint Match Color number: [_____].

.2 Wood Veneer Finish (VEN):

.1 Series: Standard.
.2 Minimum Thickness: [_____].
.3 Wood Veneer Species: **[___Cherry___]**.
.4 Wood Veneer Cut: [_____].
.5 Stain Finish: **[__Dogwood____]**.

.3 Thermofoil Finish (THRM):

.1 Material: **[_Thermofoil_____]**.
.2 Profile: **[__Vertical____]**.
.3 Color: **[___Tawney Port AB/0212___]**.
.4 Sheen: [_____].
.5 Texture: **[___Emboss: A07-BL___]**.

.4 Solid Surface Finish (CRN):

.1 Material: Corian by Dupont or approved equivalent.
.2 Color: [_____].

.5 Upholstered Fabric Finish (FAB): Class A fire rated per ASTM E84 or other testing standard acceptable to the local building authority.

.1 Series**:** **[**As selected from the manufacturer's standard line.] [COM.]
.2 Pattern: [_____].
.3 Color: [_____].
.4 Direction**:** [Standard.] [Railroaded.]
.5 Edges: [_____].

.6 Tackable Fabric Finish (TFAB): Class A fire rated per ASTM E84 or other testing standard acceptable to the local building authority.

.1 Series: [As selected from the manufacturer's standard line.] [COM]
.2 Pattern: [_____].
.3 Color: [_____].
.4 Direction: [Standard.] [Railroaded.]
.5 Edges: [_____].

.5 Frameless Back Painted Glass:

.1 Standard Back Painted Glass (GLS):

.1 Series: [Standard.] [Paint match.]
.2 Paint Match Manufacturer: [_____].
.3 Paint Match Description: [_____].
.4 Paint Match Color number: [_____].

.2 Magnetic Back Painted Glass (MGLS):

.1 Series: [Standard.] [Paint match.]
.2 Color: [_____].
.3 Paint Match Manufacturer: [_____].
.4 Paint Match Description: [_____].
.5 Paint Match Color number: [_____].

.3 Laminated Glass (LGLS): center mount paint finish unless otherwise indicated.

.1 Series: [Standard.] [Paint match.]
.2 Coating Type: [_____]
.3 Color: [_____].
.4 Paint Match Manufacturer: [_____].
.5 Paint Match Description: [_____].
.6 Paint Match Color number: [_____].

.4 Specialty Glass:

.1 (WGLS) Willow Glass by Corning or approved equivalent:
  .1 WGLS_PNT: Willow glass back painted as specified above.
  .2 WGLS_GRA: Willow glass with graphic treatment to match the Architects sample.
.2 [_____].

.5 Write Away Tile (MCF):

.1 Series: **[Standard.]** [Paint match.]
.2 Color: **[_white_____]**.
.3 Paint Match Manufacturer: [_____].

.4 Paint Match Description: [_____].
.5 Paint Match Color number: [_____].

.6 Magnetic Markerboard: Porcelain enamel, balanced, high-pressure laminated, porcelain enamel-faced tiles, of three ply construction consisting of face sheet, core material, and backing.

.1 Porcelain Face Sheet: Prefinished 28 gauge steel adhered to substrate.
.2 Core Material: 1/2 inch (13 mm) thick MDF.
.3 Color: White.

.7 Slat Wall (ANO):

.1 Series: [Anodized] [Powder coat paint match.]
.2 Color: [_____].
.3 Manufacturer: [_____].
.4 Description: [_____].
.5 Size: [6 inch (150 mm)] [_____].
.6 Color Number: [_____].

.6 Door Finishes:

.1 [Clear anodized aluminum; AAMA 611, AAM12C22A31, Class I] [_____].
.2 Door Finish: As selected from manufacturer's full range.

Part 3 Execution

3.1 EXAMINATION

.1 Verify field or hold-to control dimensions before fabrication of modular partitions. Coordinate fabrication schedule with construction schedule and progress to avoid delay in the work.

.2 Examine all adjoining work including work by others. Do not proceed with fabrication or installation until unsatisfactory conditions are corrected.

3.2 PREPARATION

.3 Locations to receive modular partitions shall be inspected for compliance with manufacturer's requirements.

.4 Site floor conditions must be surveyed to determine the nature of floor level and determine where special conditions exist beyond manufacturer's standard leveling capabilities of 1-1/2 inch in 4'-0" (38.1 mm in 1219 mm).

.5 Field conditions and pre-existing installations by others which may adversely affect installation or exceed the manufacturer's limitations shall be corrected before installing modular partitions.

3.3 INSTALLATION (TYPICAL PROCESS)

.1 Installation of modular partitions system shall be completed by a manufacturer certified installer.

.2 Install system level, plumb, and aligned.

.3 All building services shall be installed and connected to the base building systems by licensed subtrades. All building services shall be inspected by authorized trade representatives and Authority Having Jurisdiction in the presence of a manufacturer representative. Coordinate with all affected parties as required.

.4 Installation sequence as determined by the certified installer and coordinated with the General Contractor based on project conditions.

3.4 CLEANING

.1 Upon completion of installation, modular partition components and finishes shall be cleaned in accordance with the finish manufacturer's instructions. Alkaline or abrasive agents shall not be used. Avoid scratching or marring finishes.

3.5 PROTECTION

.1 Protect from damage through the duration of construction activities.

3.6 DEMONSTRATION | TRAINING

.1 Refer to Division 01 "Demonstration and Training".

.2 Manufacturer's Distribution Partner will be responsible to provide general product training to the Owner or their outsourced operations team at time of installation as well as conduct a comprehensive training session(s) to convey the methodology, and assembly of the modular partitions to sustain general operational maintenance by the Owner's personnel with clearance over the facilities lifetime.

.1 Reconfiguration and modifications shall comply with manufacturer's warranty requirements. Extensive or unusual changes will require additional Shop Drawings and manufactured components.

END OF SECTION

SECTION 260517 – ELECTRICAL SYSTEMS FOR MODULAR PARTITIONS

Part 1 General

1.1 SUMMARY

.1 Section includes:

.1 Electrical components for modular partition systems and components.

.2 Related Sections:

.1 064017 - Modular Architectural Woodwork.
.2 096917 - Modular Access Flooring.
.3 102217 - Modular Partitions.
.4 226317 - Medical Gas Systems for Modular Partitions.
.5 275317 - Distributed Communications Systems for Modular Partitions.
.6 Base Building Documents:

.1 Division 06 Architectural Woodwork.
.2 Division 08 Doors and Door Hardware.
.3 Division 22 Plumbing.
.4 Division 26 Electrical.
.5 Division 27 Communications.
.6 Division 28 Electronic Safety and Security

1.2 REFERENCES

.1 National Fire Protection Association (NFPA):

.1 NFPA 70 – National Electrical Code, 2008 Edition.

.2 Underwriters Laboratories (UL):

.1 UL 1286 – Office Furnishings.
.2 UL QQXX - Sections and Units.
.3 UL 183 - Standard for Safety for Manufactured Wiring Systems.
.4 UL 498 - Standard for Safety for Attachment Plugs and Receptacles.
.5 UL 514A - Standard for Safety for Metallic Outlet Boxes.
.6 UL 514C - Standard for Safety for Non-Metallic Outlet Boxes, Flush-Device Boxes, and Covers.
.7 UL 514D - Standard for Safety for Cover Plates for Flush-Mounted Wiring Devices.

.1 Canadian Electric Code C22.2 No. 22.1-12
.2 Canada Standards Association (CAN/CSA):

.1 CAN/CSA - C22.2 NO. 0-10 - General Requirements - Canadian Electrical Code, part II.
.2 CAN/CSA - C22.2 NO. 0.4 - Bonding and Grounding of Electrical Equipment.
.3 CAN/CSA - C22.2 NO. 203-M91 - Modular Wiring Systems for Office Furniture.
.4 CAN/CSA - C22.2 NO. 18 - Outlet Boxes, Conduit Boxes, & Fittings.
.5 CAN/CSA - C22.2 NO. 18.1 - Metallic outlet boxes.
.6 CAN/CSA - C22.2 NO. 42 - General use receptacles, attachment plugs, and similar wiring devices.
.7 CAN/CSA - C22.2 NO. 42.1 - Cover plates for flush-mounted wiring devices.

1.3 PERFORMANCE REQUIREMENTS

.1 Electrical work shall be inspected prior to installation of finishing panels.
.2 Coordination Requirements:

.1 Comply with Division 01 project management and procedures.
.2 Project Scheduling and Lead Times: Comply with Section 102217 - Modular Partitions.

1.4 SUBMITTALS

.1 Product Data:

.1 Provide manufacturers standard product information for each type of product indicated.

.2 Shop Drawings:

.1 Indicate device type and location on Shop Drawing plans and elevations to confirm accurate scope of work has been captured from engineering plans or client. Coordinate as required until scope is confirmed by all affected parties.
.2 Adequate legends shall be provided to confirm electrical device specifications, amperage, trim ring and faceplate colors and styles, cable type, device type, and applicable level.

.3 Coordination Drawings:

.1 Provide shop drawings for coordination between trades upon request.
.2 Electrical: Coordinate electrical components specified herein with final circuited electrical engineering documents.

.4 Product Test Reports, Solid Partitions: Based on evaluation of comprehensive tests performed by a independent qualified testing agency:

.1 Evaluation/Certification Reports:

.1 ICC ESR (Evaluation Service Reports):

.1 [_____].

.2 Intertek Listing Constructional Data Report demonstrating compliance with UL 1286 Office Furnishings.
.3 UL QQXX - Sections and Units for electrical components.

.5 Maintenance Data: Provide maintenance data for incorporation into operation and maintenance manuals.

1.5 QUALITY ASSURANCE

.1 Factory Installed Electrical Components, Devices, and Accessories:

.1 Factory Inspections to support UL, Intertek (ETL), and other specified listings by independent accredited 3rd Party Agency.

.2 Field Installed Electrical Components, Devices, and Accessories:

.1 Connections to the base building electrical system and all field installed electrical components, devices, and accessories shall be performed by an electrical contractor licensed in the jurisdiction of the project in accordance with applicable building / electrical codes and standards.

.2 Such work shall be performed under permit, tested, and inspected to confirm adequacy of final installations and connections to the satisfaction of the Authority Having Jurisdiction.

1.6 DELIVERY, STORAGE AND HANDLING

.1 Ship system components in manufacturers standard packaging. Maintain air circulation during shipment. Do not allow packaging to get wet or develop condensation.

.2 Deliver materials to project site in accordance with the manufacturers instructions in original unopened and undamaged packages. Packages shall be labeled with manufacturers name, brand names, size, finishes, and placement locations.

.3 Store in a clean, dry, secure space to protect from damage during construction activities. Minimize or eliminate storage period by coordinating with construction schedule.

.4 Handle in accordance with the manufacturers instructions.

1.7 PROJECT CONDITIONS

.1 Environmental Limitations: Do not deliver or install system and components until building is enclosed and finishing operations are complete, including adjacent ceiling and floor covering installation and painting.

.2 Temperature and humidity shall be maintained to final occupancy standards. Installation areas shall be climate controlled between 60 and 90 degrees F (15.5 and 32.2 C) with Relative Humidity maintained between 25 and 55 percent.

1.8 WARRANTY

.1 Provide manufacturers standard, limited, transferable warranty executed in the name of the Owner. Guarantee the site assembled electrical components are free from defects in material and workmanship.

.1 Warranty Period: 10 year limited warranty.

Part 2 Products

2.1 SYSTEM DESCRIPTION

.1 System can be provided with electrical and network components mounted at varying heights installed in accordance with Division 26 Electrical and 27 Communications and as indicated.

2.2 ELECTRICAL COMPONENTS - GENERAL

.1 Electrical, Communications, and Security System Requirements: Provide for installation of electrical, communications, and security system items arranged so that wiring can be readily removed and replaced.

.1 Electrical Conduit: Typical, provide Electric Metal Tubing (EMT) conduit pathways **[3/4 inch (21 mm)] [1-1/2 inch (42 mm)]** in cavity of modular partitions, from outlet and device boxes to top or bottom of modular partitions to permit wiring installation and connections as specified in Divisions 26, 27, and 28.

.1 Typical EMT: **[coated steel] [aluminum].**
.2 Data / Communication Only: Option for 1 x 2 inch (25 x 50 mm) rectangular aluminum conduit. Show on Shop Drawings.

.2 Flex Conduit: Provide UL listed per ANSI/UL-1, NEC Type FMC fabricated of lightweight, high-strength aluminum alloy, only permitted in locations shown on Shop Drawings.
.3 Refer to Division 26, 27, and 28 Sections for conduit raceway and pull wire requirements.

.2 All electrical installations must be inspected as part of the electrical contractors scope prior to installation of face mounted finish tiles.

.1 Grounding paths must be verified in patient care areas.

2.3 ELECTRICAL COMPONENTS - LEVEL 1

.1 Level 1 Conventional Electrical:

.1 Panel cut out and mounting brackets.
.2 Conventional back box (factory installed).
.3 Optional frame vertical modification for horizontal frame to frame pass-through. Wall frame verticals on both sides of frame will be modified to provide 2 cutouts and a support bracket for frame to frame power/data pass-through.
.4 Does not include wiring/cabling, conduit, conduit connectors, devices or faceplates. These items are to be supplied and installed by electrical / data contractors and must be coordinated between trades accordingly.
.5 All home runs, connectors and connections are performed by electrical contractor.

.2 Level 1 Modular Electrical:

.1 Panel cut out and mounting brackets.
.2 Modular back box (factory installed).
.3 Modular faceplates (shipped loose, field installed).
.4 Modular trim rings (shipped loose, field installed).
.5 Optional frame vertical modification for horizontal frame to frame pass-through. Wall frame verticals on both sides of frame will be modified to provide 2 cutouts and a support bracket for frame to frame power/data pass-through.
.6 Does not include wiring/cabling, conduit, conduit connectors, devices or faceplates. These items are to be supplied and installed by electrical / data contractors and must be coordinated between trades accordingly.
.7 All home runs, connectors and connections are performed by electrical contractor.

2.4 ELECTRICAL COMPONENTS - LEVEL 2

.1 Level 2 Conventional Electrical:

.1 Panel cut outs.

.2 Conventional back box and mounting brackets (factory installed).
.3 3/4 inch (21 mm) inside diameter EMT for power or data is fed to the top or bottom of the panel (factory installed). EMT will extend 6 to 8 inches (150 to 200 mm) above finished ceiling (after installation) for ceiling fed power or to the bottom of the frame for floor fed power.
.4 Does not include wiring/cabling, conduit, conduit connectors, devices or faceplates. These items are to be supplied and installed by electrical / data contractors and must be coordinated between trades accordingly.

.2 Level 2 Modular Electrical:

.1 Panel cut outs.
.2 Mounting brackets (factory installed).
.3 Modular back box (factory installed).
.4 Trim rings (shipped loose, field installed).
.5 Face plates (shipped loose, field installed).
.6 3/4 inch (21 mm) inside diameter EMT for power or data is fed to the top or bottom of the panel (factory installed). EMT will extend 6 to 8 inches (150 to 200 mm) above finished ceiling (after installation) for ceiling fed power or to the bottom of the frame for floor fed power.
.7 Does not include wiring/cabling, conduit, conduit connectors, devices or faceplates. These items are to be supplied and installed by electrical / data contractors and must be coordinated between trades accordingly.

2.5 ELECTRICAL COMPONENTS - LEVEL 3

.1 Level 3 Modular Electrical:

.1 Panel cut outs.
.2 Modular back box and mounting brackets (factory installed).
.3 Trim Rings (shipped loose field installed).
.4 Face plates (shipped loose field installed).
.5 Armored cable with 12 gauge wire (factory installed) from the device to the top or bottom of the panel frame extending an additional 10 feet from the top or bottom of the frame with a pigtail end (Power Whip) for hard wire connection to the appropriate base building junction box. Refer to manufacturers standard wiring provisions and schematics.
.6 Pre-wired factory installed 15 or 20 amp device.
.7 Healthcare Special Requirements:

.1 Self-grounding hospital devices must be used in patient care areas.
.2 UL/CSA Listed Healthcare rated cables.

.8 3/4 inch (21 mm) inside diameter EMT for data to the top or bottom of the panel (factory installed). EMT will extend 6 to 8 inches (150 to 200 mm) above finished ceiling (after installation) for ceiling fed power or to the bottom of the frame for floor fed power. EMT, when used in concert with a Level 3 or Level 4 electrical solution, is grounded to the electrical back box with a #14 bond wire.
.9 Does not include data cabling which is supplied and installed by electrical / data contractors and must be coordinated between trades accordingly. Hard-wired connection of the manufacturer supplied wiring to base building system at the nearest junction box is the responsibility of the Electrical Contractor by permit.

2.6 ELECTRICAL COMPONENTS - LEVEL 4

.1 Level 4 Modular Electrical:

.1 Panel cut outs.
.2 Mounting brackets (factory installed).
.3 Trim rings (shipped loose for field installation).
.4 Faceplates (shipped loose for field installation).
.5 UL listed modular wiring system includes the device, the box assembly, a modular connector, all wiring and terminations.
.6 The modular connector attached to the box will **[**be extended above the modular partition to the slab above where it will connect to a splitter**]** or **[**run down into a raised access floor to the floor slab where it will connect to a splitter.**]**
.7 Provide the following from the splitter, to the electrical panel:
  .1 Panel Manager: manufactured modular home run-express lines mounted inside or just outside the electrical room hardwired by the Electrical Contractor. All connections from the Panel Manager and throughout the space are modular plug and play connections.
  .2 Zone Distribution: Zone boxes to hold either 12 circuits (independent neutrals) or 16 circuits (shared neutrals) are set up on a grid throughout the space. The Electrical Contractor is responsible for bringing the circuits to the zone boxes. All connections leaving the zone box throughout the space are modular plug and play connections. The zone boxes will be connected to the splitters using modular extender cables with plug and play connectors on both ends.
  .3 Whip Distribution: New or existing junction boxes in the ceiling hardwired by the Electrical Contractor connect to whips with a pigtail on one and modular connector on the other end provided by the modular partition manufacturer.

.8 Final lengths of power components are project specific and will be determined by the base building plenum height and the specific solution chosen. All power solutions can also run down to a raised floor.
.9 Pre-wired device 15 or 20 amp (factory installed).
.10 Healthcare Special Requirements:

  .1 Self-grounding hospital devices must be used in patient care areas.
  .2 UL Listed Healthcare rated cables.
  .3 The Panel Manager Solution cannot be used in a healthcare or patient applications. Only whip distribution or zone box distribution can be used per UL.
  .4 Whips will be made with either a 4 wire healthcare grade cable (1 circuit) or an 8 wire healthcare grade cable (3 circuits – independent neutral).
  .5 Plug and play connectors will be made with an external grounding strap.
  .6 Use healthcare grade splitters that also has an external grounding strap.

.11 3/4 inch (21 mm) inside diameter EMT for data to the top or bottom of the panel (factory installed). EMT will extend 6 to 8 inches (150 to 200 mm) above finished ceiling for ceiling fed data or to the bottom of the frame for floor fed data. EMT, when used in concert with a Level 4 electrical solution, is grounded to the electrical back box with a #14 bond wire.
.12 All home runs and connections to the modular electrical system is performed electrical contractor by permit.

Part 3 Execution

3.1 EXAMINATION

.1 Verify field or hold-to control dimensions before fabrication of modular partitions. Coordinate fabrication schedule with construction schedule and progress to avoid delay in the work.

.2 Examine all adjoining work including work by others. Do not proceed with fabrication or installation until unsatisfactory conditions are corrected.

3.2 INSTALLATION

.1 All building services shall be inspected by authorized trade representatives and the local building authority. Refer to Shop Drawings for location of components incorporated into modular partitions.

.2 In general, installation locations and dimensions are installed a typical distance from modular partition edges, refer to Shop Drawings for more information.

END OF SECTION

SECTION 275119 – SELF-CONTAINED SOUND MASKING EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to this section.

1.2 SUMMARY

A. This section includes electronic noise generators, amplifiers, wiring, loudspeakers, controls and components to generate, amplify, distribute and reproduce digitally synthesized and stabilized background sound masking to improve speech privacy in zones of coverage. Components contained herein this paragraph may be collectively integrated in a printed circuit board as part of a speaker unit.

1.3 DEFINITIONS AND REFERENCES

A. Test and Calibration Conditions: Spaces completely furnished but unoccupied, lights and HVAC systems on, HVAC system testing and balancing completed, ceiling components in place. Additional testing to be provided after space is occupied to adjust for variations in use.

B. Covered spaces: Spaces above which masking speakers are installed.

C. Pink Noise: Random noise signal with equal energy in each octave.

D. Sound Masking: Sound that reduces the intelligibility of intruding speech and the distraction from activity noise. Sound that when measured falls inside the "preferred curve". The masking sound spectrum slopes downward with an increasing frequency. The rate of this slope of sound is 5 dB per octave, having a steeper roll-off above 2 KHz. The low frequency response is determined by the low frequency capabilities of the masking system loudspeakers.

1.3.1 AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI):

a. ANSI S1.4 American National Standard Specification for Sound Level Meters
b. ANSI S1.6 American National Standard Specification for Preferred Frequencies and Band Numbers for Acoustical Measurements

c. ANSI S1.11 American National Standard Specification for Octave-Band and Fractional-Octave-Band Analog and Digital Filters

1.3.2 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):

a. ASTM E 1130-02 Standard Test Method for Objective Measurement of Speech Privacy in Open Offices Using Articulation Index.

b. ASTM E1573-02 Standard Test Method for Evaluating Masking Sound in Open Offices Using A-Weighted and One-Third Octave Band Sound Pressure Levels.

1.2 DESCRIPTION OF SYSTEM

A. All masking/paging units must be UL Listed for use in a ceiling plenum.

B. The system must be manufactured in the USA.

C. All equipment and associated hardware shall be fabricated and installed in accordance with the manufacturer's specified recommendations.

D. All wiring shall be minimum 18 gauge.

E. Location of grounding points shall be determined carefully to insure minimizing of system hum and elimination of ground loops. In addition, all connections of shields and conductors to equipment shall be in accordance with manufacturer's instructions and best professional practices.

F. In open areas and larger enclosed spaces, the overall sound level produced should have spacial uniformity of no more than ±½ dB between any two sound generating units.

G. The sound generating units must have an adjustable sound spectrum shaping control in order to meet the varying spectral requirements of drywall ceilings; various types of ceiling tile, air return grills and openings around lighting fixtures, etc.
   a. The spectrum shaping ability shall be variable within the accepted background sound masking range (acoustical preferred curve).

   b. Units installed over drywall ceilings should be wired for spectrum control adjustment and remote sound level.

   c. Sound-Power Level produced by system: Sound masking system must not exceed NC 40 contour between 400 and 2000Hz, and have smooth roll-off above and below those frequencies when measured 1 meter from speaker.

      i. Final adjusted level: Determine final level for each space individually by measurement as specified.

      ii. Measurements: Made under Calibration conditions.

H. Maximum Average range of sound power level: 1 dB in the 250, 500, 1000, 2000, 4000 and 6000Hz range for 75 percent of the locations covered.

I. Spatial Uniformity (Directional Effect :) People in masked space under normal operating conditions cannot determine source of masking sound.

J. Temporal Uniformity: One minute time-averaged sound pressure level of any octave band of masking sound from 250 to 8000 Hz remains constant in any space to within a standard deviation of 2 dB when measured over a 30-minute period.

K. Sound Quality: No audible hum or noise, other than masking noise, from this system in masked spaces should be detected.

1.3 PERFORMANCE

A. The system shall be capable of producing masking frequencies in the preferred spectrum range.
   1. Each unit shall allow smooth and seamless adjustability of the sound spectrum within the preferred curve, to allow for a variety of ceiling conditions.

B. Speaker housings/enclosures must be damped to avoid undesirable resonance.

C. System shall be designed so that individual speaker or component failure will have no impact on the balance of the system.

D. Design of system must be powered by low voltage.
   1. Use adequately rated step down transformers.
      i. a. Primary: 120 Volt AC 60 Hz.
      ii. b. Secondary: 16-18 Volt AC 60 Hz

   2. Power usage:
      a. Power: Typical consumption, 100 Watts per 18,000 square feet for masking only.
      b. Power: Typical consumption, 200 Watts per 18,000 square feet for masking and paging.

1.4 CODES AND PERMITS

A. Install all work in full accordance with the requirements of all local and governmental departments having jurisdiction over these matters, as well as with any requirements of the NFPA, MEA, BSA, UL, and other applicable Codes.

B. Secure and pay for necessary approvals, permits, inspections, carting, legal dumping, etc., and deliver the official records of the granting of permits to the Owner without additional cost.

C. Provide signs as required by the municipal authorities.

1.5 QUALIFICATIONS

A. Source Limitations: Obtain sound masking equipment components from a single source that assumes responsibility for compatibility of items used.

B. Components, speakers and power transformers must be UL listed for their appropriate use or listed as an equal to UL through another competent agency.

C. Green: Sound masking equipment must be comprised of at least 50% recycled content.

D. Privacy: Perform a speech and privacy evaluation to provide an articulation index (AI) as per ASTM E1130-02. A report of the AI must be provided with each exclusive project.

E. Manufacture Qualifications: Manufacturer must manufacture sound masking equipment and have a minimum of 10 years sound masking experience. Sound masking product provided must be in existence for a minimum of six years with proven performance criteria for providing speech privacy.

F. Warranty: A 10 year full warranty from the manufacturer must be provided for all sound masking equipment.

G. In-Plenum Speakers only.

1.6 SUBMITTALS

A. Product Data: For each component including nationally recognized testing laboratory listing data.

B. Submit manufacturer's data or shop drawings of the following apparatus, giving full information as to dimensions, materials, and all information pertinent to adequacy of submitted equipment:
   i. Masking Sound Speakers
   ii. Additional necessary masking equipment needed
   iii. Wire
   iv. Transformers
   v. Paging Amplifiers (If needed)
   vi. Paging Only Speakers (If needed)
   vii. Programmable Timers (If needed)

C. Shop Drawings: Prepare and submit detailed dimensioned shop drawings for conduit runs (if required) and other distribution services including elevations showing minimum clearances and installed features and devices for system components. Show types and locations of masking speakers and their wiring connections. Channel assignments, and axis orientations. Show ducts, beams. And other significant sound reflecting and absorbing elements in ceiling space and show locations of partitions below ceiling. Include a diagram showing interconnection of major system components for each zone and channel and indicating grounding connections.

D. Each shop drawing shall contain job title and reference(s) to the applicable drawing(s) and/or specification article(s).

E. Product Certificates: Signed by manufacturers of sound masking equipment and components certifying that products furnished comply with requirements.

F. Qualification Data: For firms and persons specified in "Quality Assurance" Article.

G. Record of Final Field Tests and Measurements: Include final adjustment of system.

H. Maintenance Data: For sound masking equipment and components (if needed) to include in maintenance manuals specified in Division 1. Include data for each type of product, including all features and operating sequences. Both automatic and manual.

1.7 COORDINATION

A. Coordinate quantity and arrangement of speaker assemblies with ceiling space configuration and with components occupying ceiling space, including structural members, Pipes air distribution components, raceways, cable trays, recessed lighting fixtures and other items.

1.8 OPERATING AND MAINTENANCE INSTRUCTIONS

SECTION 275119 – SELF-CONTAINED SOUND MASKING EQUIPMENT

A. Furnish a minimum of four complete sets of operating instructions and service maintenance manuals for the equipment employed in the systems. This shall include wiring diagrams. The information in the manuals and on the drawings shall be sufficiently detailed to allow a technician of normal competence to understand, install, operate, maintain, calibrate and repair the equipment.

B. The Owner's designated operating personnel shall be provided instruction. This shall include instruction in the operation, care and maintenance of the installation. Instruction shall be scheduled at the mutual convenience of the Owner and Subcontractor, after demonstrations and acceptance testing.

1.9 GUARANTEES AND CERTIFICATION

A. System shall be warranted to be free from defects in materials, workmanship, and performance for a 10-year from date of installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements. Provide products by the following or pre-approved equal:
   1. Lencore Acoustics Corp.
      1 Crossways Park Drive W
      Woodbury, NY 11797
      PH: 516-682-9292
      FX: 516-682-4785
      Website: www.lencore.com
      Email: drawings@lencore.com

2.2 EQUIPMENT

A. The enclosure for the sound masking speakers shall consist of aluminum or electroplated steel, cylindrical housing.

B. Speakers: 5 ¼ inch units mounted on metal baffles and arranged for optimum, multi-directional, angular sound distribution. Arrange units for suspension from the building structure above the ceiling.

C. The system must be capable of being zoned on both a global and local level for sound. Global zoning must accommodate a minimum of 50,000 square feet and local zoning will be designed in accordance with the space plan for those areas requiring special attention; i.e. patient rooms, exam rooms, reception areas, provider offices, clerical work areas, open areas, patient check in areas, special work areas, executive areas. All zoning must allow both volume and frequency adjustments within each zone measured at 48" A.F.F. within +/- ½ dBA.

D. LOUDSPEAKER

1.	Size:	5 1/4 inch wide dispersion
2.	Power Rating:	10 Watts Root Mean Squared (RMS)
3.	Frequency Response:	50-12,000 Hz
4.	Pressure Sensitivity:	SPL - at 1 Watt/m - 90 dB
5.	Impedance:	16 Ohms
6.	Magnet Weight:	10 oz. (283.5 grams)

E. Noise generator: Octave bands from 50Hz to 8000Hz
   1. Voltage: 16 to 24 Volts AC, 60 Hz
   2. Contour Adjustments
   3. Spectrum adjustment shall meet acoustical preferred curve
   4. OUTPUT ADJUSTMENTS
      i. 10 Position step-volume control @ 1.5 dB per step
      ii. Minimum 15 dB remote central volume control.

F. Wire: The speaker wiring shall be minimum 18 gauge, stranded, non-shielded, UL Listed, Plenum Rated

G. Step Down Transformer:

1.	POWER REQUIREMENT	120v AC, 60 Hz
2.	FUSE	6-Amp Reset Circuit Breaker
3.	POWER RATING	95VA
4.	SIZE	4 ¼ " X 4 ¼ " X 4"
5.	TRANSFORMER SPECIFICATIONS	16V/95VA

H. Remote Central Volume Control:
   1. The Remote Central Volume Control unit must operate as a central volume control from which universal volume adjustments can be made remotely for a minimum 50 main units (150 total speakers) and covering up to 33,000 square feet system-wide.
   2. The unit must consist of an individual self-contained noise generator, audio amplifier, loudspeaker in a damped aluminum enclosure, powered by 16/18 volts AC and is capable of driving one secondary model in addition to the aforementioned.
   3. The central volume remote control unit must allow adjustment to the volume of sound masking system remotely.
   4. Volume adjustment: A rotating switch accompanied by a wall mountable plate and is adjusted by rotating the dial from 0 to 10.
   5. Each remote central volume remote control unit is solid state and consists of a CMOS/MSI digital random sequence noise generator, electronic amplifier, and filter for active spectrum shaping and is equipped with a 10-step volume control, an additional continuous volume control, and the central volume remote adjustment control (as previously described above). Range of sound level: 41-86 dBA. Additionally contained is a continuous and completely separate volume control for paging/music.

I. Programmable Audio-Level Control Unit:
   1. Automatic Sound Power Level Changes: Two system channel changes, capable of different time settings for each day of the week:
   2. ZONES
      i. 2 independent zones (except for acclimate mode)
      ii. Capacity: Minimum of 50,000 square feet per zone
   3. CLOCK ACCURACY + / - 2 seconds per day (Leap year and DST updated automatically)
   4. BATTERY Rechargeable lead sealed, 12 volt, 2.2 Ah provides approximately 24 hours backup power
   5. PROGRAMMING
      i. Programmable attenuation range: 0 to + 9 dB
      ii. Slide control attenuation range: + 5 to – 5 dB
      iii. Minutes per dB change: 1 to 5 minutes

iv. Acclimation attenuation range: – 1 to –9
v. Acclimate days per dB change: 1 to 5 days
vi. Acclimatization length: 1 to 54 days not counting Sat. & Sun.
vii. Maximum overall attenuation range: + 5 to – 18 dB
viii. Programmable events: 24 events per day for each zone

6. Program Memory: Nonvolatile for one year, minimum, without power. When re-energized after a power outage, control starts at zero level and automatically advances system sound level at same rate used for programmed level changes.

J. Paging Equipment (Only if Paging Option is Required)

1. The paging amplifier shall perform to the following requirements:
   i. TYPE 3-channel mixer power amplifier
   ii. OUTPUT POWER 15 or 30 W RMS (as appropriate)
   iii. FREQUENCY RESPONSE 50 – 20,000 Hz (+ / - 3 dB)
   iv. TOTAL HARMONIC DISTORTION
   v. 0.5% or less at 1kHz, rated output
   vi. 0.1% of less at 1kHz, 5 W output
2. PAGING INPUT
3. INPUTS
   i. Mic/Telephone page input
   ii. Program input
   iii. Aux input
4. INPUT SENSITIVITY AND IMPEDANCE
   i. Mic: 1mV (-60 dB), 600 ohms, balanced
   ii. Telephone Page: 100mV (-20 dB), 10 kohms, balanced
   iii. Program: 315 mV (-10 dB), 10 kohms, electrically balanced
   iv. Aux: 315mV (-10 dB), 10 kohms, unbalanced
5. OUTPUTS (Transformer-isolated) Balanced 4 ohms, 25 & 70 volts
6. Music On Hold (MOH) OUTPUT Balanced 1 W (8 ohms)
7. OUTPUT REGULATION Less than 2.0 dB, no load to full load
8. SIGNAL TO NOISE RATIO Mic: 60 dB
   i. (Band pass 20 – 20,000 Hz) Telephone Page: 75 dB
   ii. (Tone controls: set at center) Program: 75 dB, Aux: 75dB
9. TONE CONTROLS
   i. Bass: + / - 10 dB at 100 Hz
   ii. Treble: + / - 10 dB at 100 Hz
   iii. Controls affect only program input and aux input
10. CONTROLS
   i. 1 Mic/Tel gain control
   ii. 1 Program gain control
   iii. 1 Aux gain control1
   iv. Bass tone control
   v. 1 Treble tone control
   vi. 1 MOH control
   vii. 1 Sense control
   viii. 1 Mic/Tel selector control
   ix. 1 Power ON/OFF switch
11. INDICATORS
   i. 1 Power LED
   ii. 1 Signal LED
   iii. 1 Peak LED
12. POWER CONSUMPTION 60 W (15 W RMS) 90 W (30 W RMS)
13. OTHER FEATURES Automatic electronic drive limiter, Electronic

	muting	
14.	DIMENSIONS	210 (w) x 93 (h) x 276 (d) mm

PART 3 - EXECUTION

3.1 MOUNTING OF MASKING SOUND LOUDSPEAKERS

A. Mountings and Loudspeakers shall be concealed above the acoustical ceiling. The loudspeakers shall be suspended from the slab above by chain. The speaker face shall be located at a height equal to one-quarter of the ceiling plenum depth. Where possible, the bottom, of each speaker shall be located a minimum of 6" to 8" (150 to 200mm) above the acoustical ceiling tile. However, it is most important that all units hang at a uniform height throughout to insure a uniformity of sound when the system is turned on.

B. Wiring Method: Install wiring in accordance with all local electrical codes. Conceal cable in accessible ceilings, walls and floors where possible.

C. Pulling Cable: Do not exceed manufacturers' recommended pulling tensions. Do not install bruised, kinked, scored, deformed, or abraded cable. Do not splice cable between normal termination points. Remove and discard cable where damaged during installation and replace it with new cable.

D. Exposed Cable: Install parallel to building lines, follow surface contours, and support as recommended by manufacturer.

E. Grounding: As recommended by manufacturers, unless more stringent requirements are indicated. Ground equipment and conductors to eliminate shock hazard and to minimize ground loops. Common mode returns, noise pickup, cross talk and other impairments. Install 5-Ohm ground at main equipment location. Measure, record and report ground resistance.

F. Impedance Matching: For systems components including connecting cable, provide end-to-end level and impedance matched signal paths. Use matching networks and balancing devices at connections where necessary to avoid mismatches.

G. Splices, taps and terminations: Make splices, taps and terminations on numbered terminal strips in junction, pull and outlet boxes; and equipment closures.

H. The speaker locations shown on the drawings are schematic only and may require field modification to avoid major ductwork, structures and other plenum barriers. Additional speakers may be required to provide uniform sound distribution because of these plenum obstructions.

I. All local hanging codes must be reviewed and observed by the installer/contractor.

J. Identification:
   a. Identify system components, wiring, cabling, and terminals according to Division 16 Section "Electrical Identification" Use color coded conductors and apply wire and cable marking tape to designate wires and cables so media are identified in coordination with system wiring diagrams.
   b. Identify system components, wiring, cabling, and terminals according to Division 16 Section "Basic Electrical Materials and Methods". Use color coded conductors and apply wire and cable marking tape to designate wires and cables so media

are identified in coordination with system wiring diagrams.

K. All equipment and associated hardware shall be fabricated and installed in accordance with the manufacturer's specified recommendations.

3.2 PRELIMINARY TESTS AND ADJUSTMENTS

A. At the completion of installation of speakers, the Subcontractor shall perform initial tests and adjustment. It is suggested that, with the speakers installed in accordance with specified spacing and orientation, tests be conducted in an open area of 35 ft. x 35 ft. minimum size. Tests shall indicate that all acoustical performance requirements described herein are satisfied.

B. All testing and adjusting of the system shall be accomplished in the absence of the eventual occupants whenever possible. These precautions are essential to insure that the attention of the occupants will not be unnecessarily drawn to the noise or to its source.

C. Tests and adjustments shall be performed as described below.
   a. Hum and Noise Level
   b. Loudspeaker Operation
   c. Freedom from Buzzes, Rattles and Objectional Distortion
   d. Gain Control Settings
   e. A written report representing the results of the above tests, including numerical values where applicable, shall be submitted for review

3.3 FINAL TESTS AND ADJUSTMENTS

A. The manufacturers' agent with the support and cooperation of any Subcontractor installer shall perform the acceptance testing of the completed installation. These tests shall be performed to demonstrate that the equipment is fully furnished and installed in compliance with the terms of the Specifications in all Contract Documents. Except as otherwise specified, the Manufacturer or Subcontractor shall provide all instruments, equipment, labor and materials necessary to complete these tests

B. Manufacturers Field Service: Engage a factory authorized service representative to inspect field assembled components and equipment installation and connections. Report results in writing. Include the following.
   i. Operational Test: Start system to confirm proper operation. Remove malfunctioning units, replace with new units and retest. Make initial sound spectrum and level adjustments for each zone.
   ii. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
   iii. Inspection: Verify that units and controls are properly labeled and interconnecting wires and terminals are identified.
   iv. Sound Masking Power Level Adjustments: Adjust independently for each space to minimum level of 47dBA to ensure speech privacy between adjacent workstations while complying with other system requirements.

C. The Subcontractor shall project the completion date of tests and adjustments so that he can give a minimum of one week's notice to the active Project Manager.

D. Measurements of system performance shall be made using a calibrated ANSI precision sound level meter set for "slow" meter damping and 'A' scale filtering. The measurements shall be made at not less than twenty test positions at 4' height above the floor level, with gain adjusted to provide the system design level. All interior finishes and furnishings shall be in place. Tests shall be for each floor at times not occupied by personnel.

E. Final Acceptance Testing:

i. Instrumentation: Use a professional quality sound level meter in accordance with ANSI S1.4
ii. Record test observations, readings and corrective actions.
iii. System Tests: Include the following for each zone:
iv. Relative Sound Power Level

Band	Open Plan Areas	Enclosed Offices
200	+2.5	-2
250	+3	-2
315	+2	-2.5
400	+1	-3
500	0	-4
630	-1	-5
800	-2	-6
1000	-3	-7
1250	-4	-8.5
1600	-5	-10
2000	-6	-12

- Adjust level of masking sound for each space so one third octave band centered at 500 Hz has final selected sound power level for that space. Measure deviation from listed values in one-third octave bands from 400 to 2000Hz. Measured values must not deviate from those listed by more than 4 dB for open plan areas and 8dB for enclosed offices. The total of individual band deviations in eight bands must not exceed 16 dB for open plan areas and 30 dB for enclosed offices

v. Walk Through Test: People in masked spaces cannot discern speaker locations.
vi. Temporal Stability Test: Check for uniformity of time by measuring sound level in each of 11 octave bands at one-minute intervals over a 30-minute test period. Deviations must not exceed limits specified in "System Description" Article in Part 2

F. Retest: Correct deficiencies identified by tests and observations and retest until meeting specified requirements.

G. Recording Control Settings and System Adjustments: Record final control settings and programming and final tap setting of speaker matching transformers. Record final sound level measurements and observations.

3.4 Adjustment

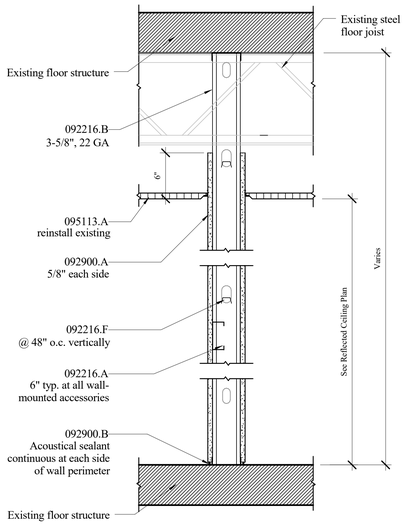
A. Occupancy Adjustments: When requested within 12 months of date of substantial completion manufacturer is to provide on site assistance in adjusting system to suit actual occupied conditions. Provide one visit to site outside normal occupancy hours for this

purpose without additional cost to the owner.

3.5 Demonstration

A. Engage a factory authorized service representative to train Owner's maintenance personnel to adjust, operate and maintain services as specified below:
   i. Train owner's maintenance personnel on procedures and schedules for starting up and shutting down, troubleshooting, servicing, and maintaining equipment and schedules.
   ii. Review data in maintenance manual. Refer to Division 1 Section " Contract Closeout"
   iii. Review data in maintenance manual. Refer to Division 1 Section " Operation and Maintenance Data"
   iv. Schedule training with owner through Architect with at least seven days advance notice.

End of Section 27 51 19 and Section 27 15 13



Wall Type 'A1':
Non-rated, 3-5/8" steel studs @ 16" o.c. with 5/8" gypsum wallboard each side with wallboard stopping 6" above ceiling, bottom plate perimeter caulked continuous

K1	Wall Type 'A'
1 1/2" = 1'-0"	

DOOR HARDWARE:

Set: 1.0
Description: Access Controlled

2	Hinge	TA2714 NRP 4-1/2" x 4-1/2"	US26D	MK
1	Hinge	TA2714 QC-4 4-1/2" x 4-1/2"	US26D	MK
1	Integrated Card Reader Lock	10 H1-82271 LNMD	US26D	SA
1	Door Closer (surface)	351 UO	ENSA	
1	Wall Stop	409	US32D	RO
3	Silencer	608		RO
1	ElectroLynx Harness	QC-C300		MK
1	ElectroLynx Harness	QC-C1500		MK
1	W&D	Wiring and Riser Diagram		SA
1	Power Supply	BPS-24-1		SU

Notes: Presentation of authorized credential thru lock mounted reader to signal electronic lockset to release and allow entry. Egress by lock lever. Access by key at all times. Lockset to remain locked (Fail Safe) if power fails. Contractor to coordinate with Modular Partition mfr to prepare door to received listed hardware and correct operation of door.

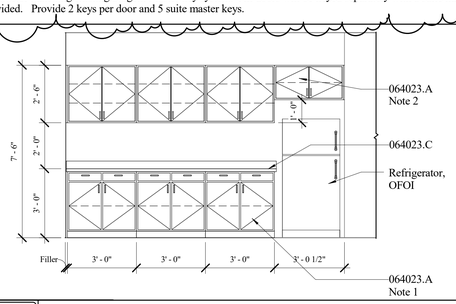
Set: 2.0 Office Doors receive the following:
1 Lockset DG1 21 28-10G05 LB 26D GMK (Office)

Set 3.0 Conference Room door receive the following:
1 Lockset 28-10U15 LB 26D GMK (Passage)

Set 4.0 Storage room door receive the following:
1 Lockset DG1 21 28-10G04 LB 26D GMK (Storeroom)

HARDWARE GENERAL COMMENTS:

1. All other door hardware not listed is furnished by Modular Partition mfr. Lock cylinders to be provided by Contractor matching existing Sargent Master key system. All doors will be keyed separately with a suite master key provided. Provide 2 keys per door and 5 suite master keys.



K5	Work Room Casework
3/8" = 1'-0"	A101

MATERIAL SPECIFICATIONS:

061053 MISCELLANEOUS ROUGH CARPENTRY:
Provide wood in sizes indicated. All interior miscellaneous wood required is to be fire retardant type A unless noted otherwise complying with ASTM E 84.
064023 INTERIOR ARCHITECTURAL WOODWORK:
All interior architectural woodwork is to comply with AWI's "Architectural Woodwork Quality Standards" grade custom, flush overlay construction. Interior of cabinets to be white melamine finish with concealed, european hinges with 130 degree opening and brushed stainless steel wire pulls. Do not install woodwork until building is enclosed and HVAC system is operating and maintaining temperature between 60-90 deg F and relative humidity between 43-70 percent during remainder of construction. Provide shop drawings and samples of finishes for approval.
079200 JOINT SEALANTS:
Sealant to be used around door frames and not wet locations is Latex joint sealant, acrylic or siliconized acrylic based complying with ASTM C 834, Type OP, Grade NF.
092216 NON-STRUCTURAL METAL FRAMING:
Metal framing to comply with ASTM C 754, C 645 and A 653. Provide framing in 22 GA and in sizes indicated on drawings.
092900 GYPSUM BOARD:
All gypsum wall board to be 5/8" thick and Type X and comply with ASTM C 1396. Provide acoustical joint sealant at perimeter of wall complying with ASTM C 834. Sound attenuation blankets are to comply with ASTM C 665 and provided in thickness indicated. All exposed gypsum board to receive level 4 finish and unexposed areas can receive level 1 finish.
095113 ACOUSTICAL PANEL CEILINGS:
Match existing ceiling panel and suspension products within space where new ceilings are required.
096513 RESILIENT BASE AND ACCESSORIES:
See finish schedule for product. Install per manufacturer's instructions.
099123 INTERIOR PAINT:
See finish schedule for product. Install per manufacturer's instructions. All painted surfaces are to receive one primer coat followed by 2 finish coats.
104413 FIRE EXTINGUISHER CABINET:
Larsen rolled edge, semi-recessed fire extinguisher cabinet, clear front with white painted steel finish. Provide the lettering "FIRE EXTINGUISHER" on the cabinet vertically. Size cabinet to fit extinguisher.
104416 FIRE EXTINGUISHER:
Larson MP20 with standard mounting bracket. Provide certification tag on extinguisher prior to occupancy.

FINISH LEGEND:

Material Type	Code	Description
Paint (Perimeter Walls)	PT-1	Sherwin Williams SW6064 Reticence
Carpet Tile (existing)	CPT-1	Shaw Contract Group, Pattern: Veil, Tilt #59594; Color Name: Mist; Color Number 33335
Resilient Base (existing)	RB-1	Roppe P100 Black
Solid Surface	SS-1	Corian Sand Stone
Acoustical Panel Ceiling (existing)	APC-1	Armstrong; Cirrus Beveled Tegular 2'x2'
Plastic Laminate	LAM-1	Nevamar Crown Cherry W8294T

GENERAL COMMENTS:

1. All existing perimeter walls to be repainted PT-1 with eggshell sheen.
2. Replace damaged existing carpet, rubber base or acoustical ceiling tile with matching products described in Finish Legend.

Sheet Notes:

Note 1: 24" deep base cabinet with 1 adjustable shelf within.

Note 2: 12" deep wall cabinet with 2 adjustable shelves within.

Note 3: Repair existing drywall finish along perimeter walls and columns as needed to install required MEP systems. Repaint entire walls where repairs were made matching existing color.

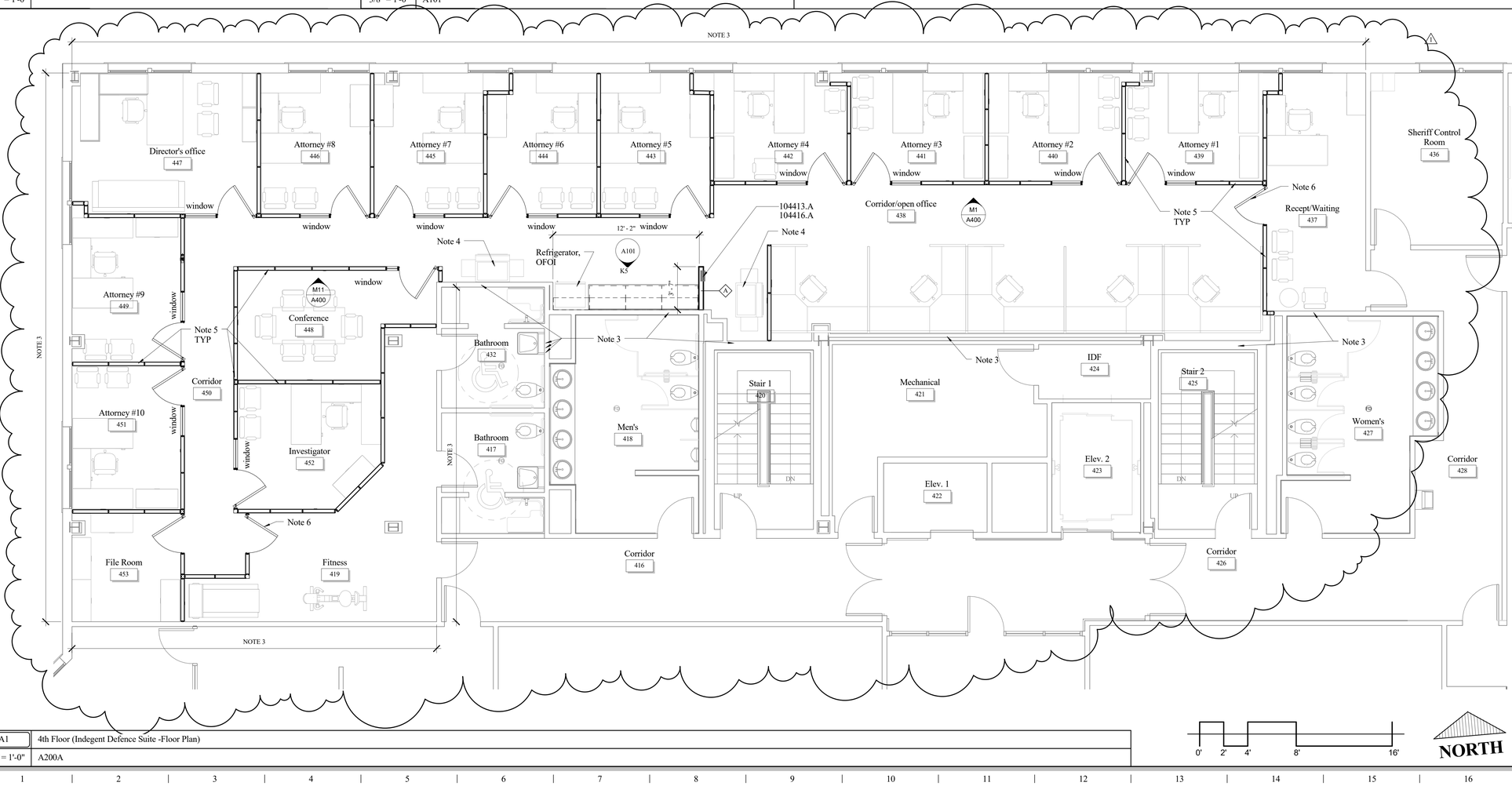
Note 4: Owner furnished, owner installed copier.

Note 5: Partitions not identified as new wall construction are modular partitions furnished by Contractor and installed. Basis of design for modular partitions is DIRTT Environmental Solutions or pre-approved equal. Reference attached specifications 102217 & 260517 for material requirements. Contact Heather Lott at National Office Systems 912-238-0539 for pricing. Contractor to provde shop drawings and samples on partitions for approval and coordinate work to insure electrical connections and connections to existing sructure are coordinated. Reference interior elevations on sheet A400 for unique partition accessories/features.

Note 6: Doors noted are to receive card access lockset and electrified hardware as described in hardware set no. 1 on sheet. All other doors have standard hardware from modular partition manufacturer.

CABINETRY NOTES:

1. Field verify all dimensions prior to fabrication.
2. Provide shop drawings to scale for cabinetry and architectural woodwork for architect's approval prior to to cabinetry manufacture and installation.
3. Field verify dimensions of all owner furnished equipment that is built-in.
4. All wood blocking shall be fire-retardant treated.
5. No particleboard to be used.
6. Contractor shall submit a schedule of proposed cabinetry hardware and hardware samples to Architect for approval prior to manufacturing and installation.



A1	4th Floor (Indegent Defence Suite -Floor Plan)
1/4" = 1'-0"	A200A

Keynote Legend (sheet)

Key Value	Keynote Text
064023.A	Plastic-laminate cabinets
064023.C	Solid-surfacing-material countertop
092216.A	Stud and runner, size
092216.B	Deflection track
092216.F	Bridging channel
092900.A	Gypsum board, size
092900.B	Acoustical sealant
095113.A	Acoustical panel ceiling (see Finish Schedule)
104413.A	Fire protection cabinet
104416.A	Portable, hand carried fire extinguisher

GENERAL CONSTRUCTION NOTES:

1. All dimensions are as follows:
   New walls: To the face of stud
   Existing walls: To the face of existing finish
2. All interior walls are to be constructed according to Wall Type 'A' unless noted otherwise. (See Wall Types on Sheet A000).
3. All furniture illustrated is for information to coordinate work only and not part of the scope of the work/contract.
4. All work is to be limited to Fitness Area Suite and necessary work within electrical and data room this floor.
5. Contractor restricted work hours are from 9 am to 5 pm, Monday thru Friday. Contractor parking will not be provided at site and personnel are to make arrangements for parking as would public. Contractor to coordinate special requests with County Project Manager George Bowen at 912-447-4800.

4th Floor Key Plan

JOB #:	2016.09
DATE:	11/22/16
DRAWN BY:	TAN
CHECKED BY:	TAN

Floor Plan

Chatham County
Indigent Defense Suite

Pete Liakakis
Government Building
Savannah, Georgia

SEAL

STATE OF GEORGIA
Todd A. Naugle
CERTIFICATE NO. 3438
REGISTERED ARCHITECT

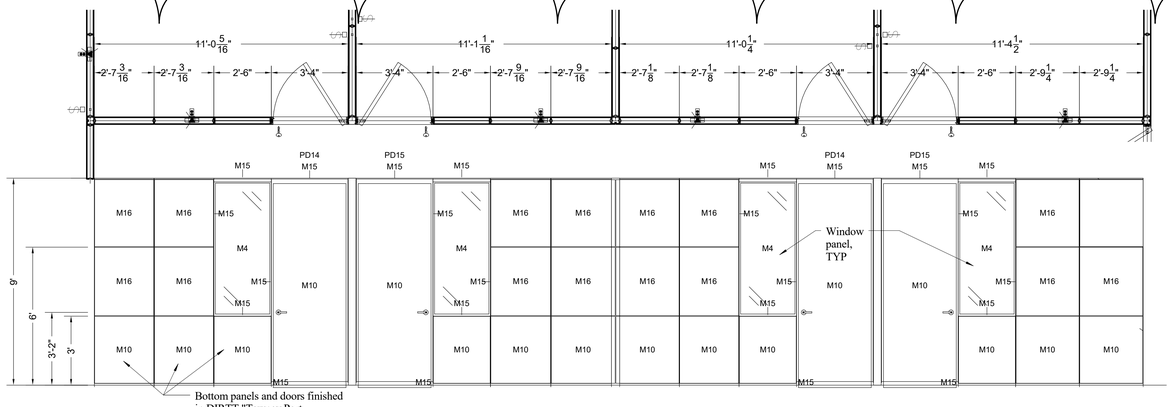
#	Revision Description	Date
1	Addendum #1	1/25/2017

LOTT BARBER
Architecture Community Planning Integrated Project Delivery Visual Communications

A101

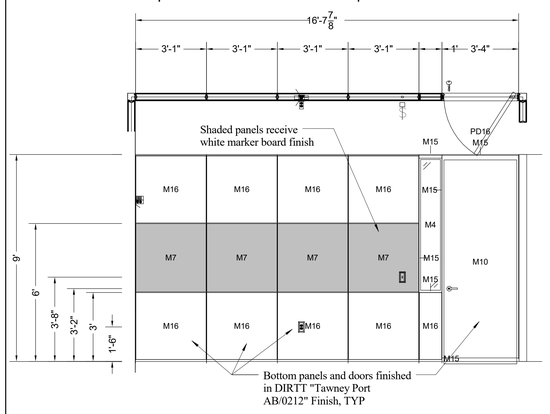
2/9/2017 10:07:15 AM

Z:\2016\2016-09 Chatham County Indigent Defense Suite\Model\2016.09 County Indigent Defense Construction Docs.rvt



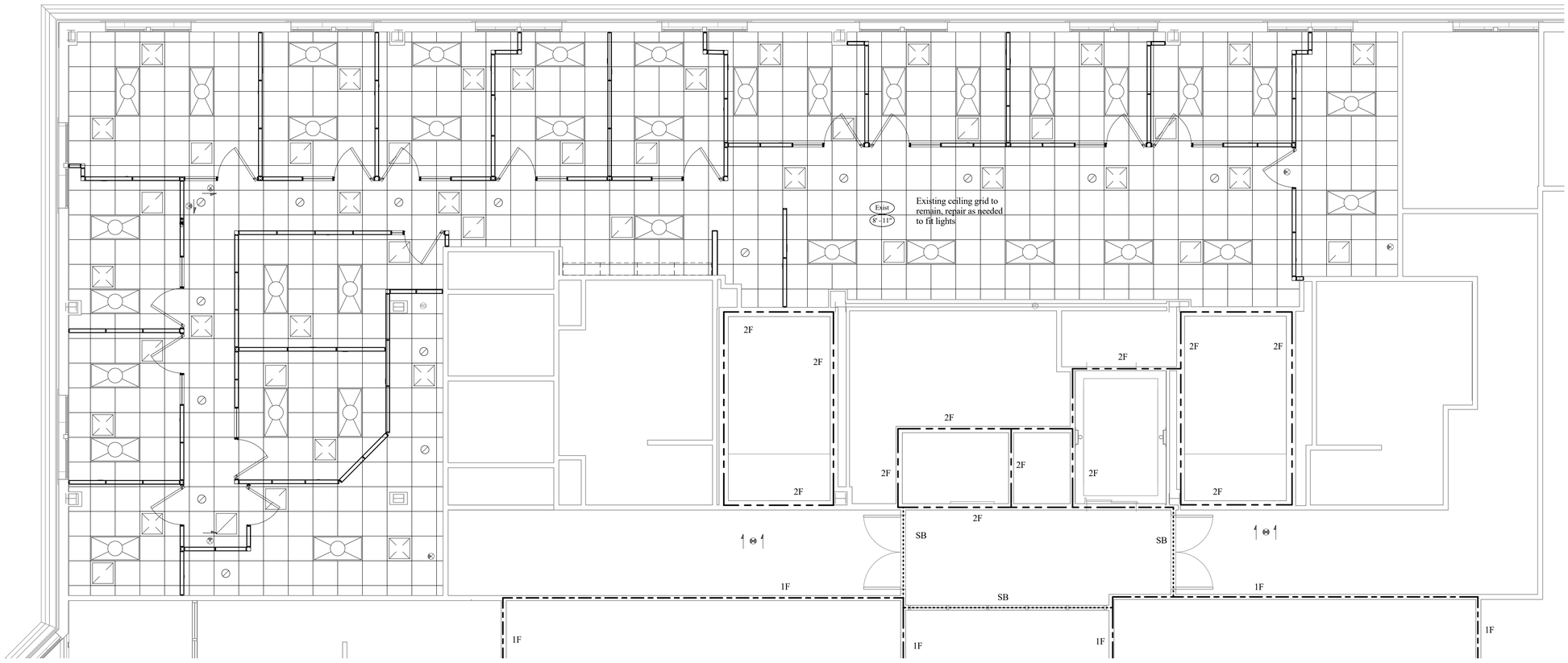
M1 | Panel Elevation #1

3/8" = 1'-0"



M11 | Panel Elevation #2

3/8" = 1'-0"



A1 | 4th Floor RCP (Indigent Defense)

1/4" = 1'-0" | A200A

LIFE SAFETY LEGEND:

1F
1-hour fire-rated wall construction (fire barrier)

2F
2-hour fire-rated wall construction (fire barrier)

SB
Smoke-resistive wall construction

20 — 20-minute fire-rated door / window

C — 45-minute fire-rated door (Label C)

B1 — 60-minute fire-rated door (Label B1)

B2 — 90-minute fire-rated door (Label B2)

Exit sign with emergency backup

REFLECTED CEILING PLAN LEGEND:

Acoustical panel ceiling system (installed at 9'-0" AFF UNO)

GYP / 10'-0" — Height above finished floor

24" x 48" fluorescent light fixture

12" x 48" strip fluorescent light fixture

Recessed light fixture

Supply air diffuser

Return air diffuser

Exhaust air diffuser

Exit light with emergency backup

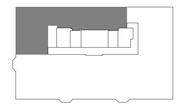
Chatham County Indigent Defense Suite

Pete Liakakis Government Building
Savannah, Georgia

SEAL

STATE OF GEORGIA
Todd A. Naugle
CERTIFICATE NO. 12328
REGISTERED ARCHITECT

#	Revision Description	Date
1	Addendum #1	1/25/2017



4th Floor Key Plan

JOB #:	2016.09
DATE:	11/22/16
DRAWN BY:	TAN
CHECKED BY:	TAN

Reflected Ceiling Plan

A400

2/9/2017 10:08:26 AM

LOTT BARBER

Architecture Community Planning Integrated Project Delivery Visual Communications

Z:\2016\2016-09 Chatham County Indigent Defense Suite\Model\2016.09 County Indigent Defense Construction Docs.rvt

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

R Q P N M L K J H G F E D C B A

FIRE ALARM SPECIFICATIONS

1. ALARM HORN WITH STROBE: MINIMUM 90 dB AT 10' (65 dB AT 150') MINIMUM 15 CANDELA STROBE, FLASH RATE APPROXIMATELY 1/SECOND. WHITE STROBE LENS WITH RED LETTERED 'FIRE'. PAINT HOUSING TO MATCH WALL MOUNT 84" AFF.
2. STROBE: 15 & 30 CANDELA, FLASH RATE APPROXIMATELY 1/SECOND, WHITE LENS, RED LETTERED, 'FIRE'. MOUNT 84" AFF.
3. SYNCHRONIZE FLASHING WHERE MORE THAN ONE STROBE CAN BE VIEWED WITHIN ONE SPACE.

SOUND MASKING SYSTEM

1. SOUND (VOICE) MASKING SYSTEM DESIGN BASIS SHALL BE MODEL #LM6-RCVC SYSTEM AS MANUFACTURED BY LENCORE ACOUSTICS CORPORATION OR PRE-APPROVED EQUAL BY OTHER MANUFACTURER.
2. SYSTEM GENERALLY SHALL CONSIST OF PINK NOISE GENERATOR CONNECTING TO MULTIPLE ABOVE-CEILING INSTALLED SPEAKERS. PAGING & MUSIC DISTRIBUTION FUNCTIONS ARE NOT USED. INSTALLATION SHALL BE DONE ACCORDING TO MANUFACTURER'S INSTRUCTIONS. DETAILED SPECIFICATIONS ARE INCLUDED IN ADDENDUM 1 DATA.

ELECTRICAL SPECIFICATION NOTES

1. ALL WORK SHALL CONFORM TO LOCAL CODES AND ORDINANCES.
2. CONDUCTORS: COPPER WITH THW OR THWN INSULATION UNLESS OTHERWISE NOTED.
3. WIRE METHODS: THW OR THWN IN CONDUIT. TYPE "MC" CABLE MAY BE USED WHERE CONCEALED.
4. RACEWAYS: ABOVE SLAB OR GRADE:
   INTERIOR: EMT WITH STEEL COMPRESSION OR SET SCREW FITTING.
   EXTERIOR: EMT WITH STEEL COMPRESSION FITTINGS AND SEALTITE WITH COMPATIBLE FITTINGS.
5. DEVICES SHALL BE SPECIFICATION GRADE. COLOR TO BE SELECTED.
   DEVICE COVER PLATES SHALL BE SMOOTH PLASTIC TO MATCH DEVICE COLOR.
6. PANELBOARDS: EXISTING
7. LUMINAIRES SHALL BE SUPPLIED COMPLETE WITH LAMPS AND ALL NECESSARY HANGERS, HARDWARE AND TRIM.
8. REPLACE EXISTING CIRCUIT DIRECTORY WITH RETYPED PANEL CIRCUIT DIRECTORY THAT REFLECTS AS-WIRED CONDITION.
9. IF EQUIPMENT SELECTED REQUIRES SPECIAL CIRCUIT BREAKER, FUSE PROTECTION, OR WIRE SIZE OTHER THAN SHOWN, CONTRACTOR SHALL SUPPLY AND INSTALL IT.
10. EQUIPMENT CONNECTIONS SHALL BE MADE WITH SHORT SECTION OF FLEXIBLE CONDUIT (SEALTITE IN EXTERIOR LOCATIONS) USING COMPATIBLE FITTINGS.
11. JUNCTION AND OUTLET BOXES;
    A. INTERIOR: GALVANIZED STEEL.
12. DATA WIRING: CAT5E CABLE.
13. DATA RECEPTACLE, WALL MOUNTED, MATCH EXISTING.

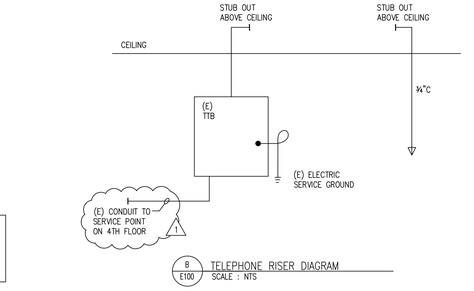
ELECTRICAL LEGEND

- RECEPTACLE, DUPLEX, WALL MTD 16" AFF TO BOTTOM
- RECEPTACLE, DUPLEX, WALL MTD COORD HEIGHT WITH CASEWORK/COUNTER
- RECEPTACLE, QUAD, WALL MTD 16" AFF TO BOTTOM
- TELEPHONE/DATA OUTLET
- S — SWITCH, 125V, 20A, WALL MOUNTED
- S_3 — THREE WAY SWITCH, WALL MOUNTED
- RACEWAY IN WALLS OR CEILING OR EXPOSED
- PANEL BOARD
- HOMERUN TO PANEL BOARD, NUMBER IS CKT. # NUMBER OF MARKS IS NUMBER OF WIRES
- EM — EMERGENCY
- VIDEO CAMERA, CAT5E WIRE ONLY, SUPPLY POWER & DATA TO EACH LOCATION.
- DL — DOOR LOCK POWER SUPPLY (1)
- J — JUNCTION BOX
- CONDUIT DOWN
- CONDUIT UP
- T — THERMOSTAT
- F — FIRE ALARM INITIATOR STATION
- H — FIRE ALARM HORN/STROBE LIGHT
- L — FIRE ALARM STROBE LIGHT
- (E) — EXISTING TO REMAIN
- FLUORESCENT LIGHT FIXTURE
- LIGHT FIXTURE
- EXIT LIGHT, WITH BATTERY PACK. CEILING MOUNTED
- EXIT LIGHT, WITH BATTERY PACK. WALL MOUNTED
- S — SOUND MASKING SYSTEM SPEAKER (1)
- C — SOUND MASKING SYSTEM CONTROLLER

POWER NOTES

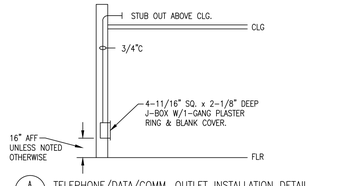
1. CHANGE DUPLEX RECEPTACLE TO BECOME A QUAD RECEPTACLE
2. RAISE RECEPTACLE TO 6" ABV COUNTER
3. PRE-MANUFACTURED WALL SYSTEM (DIRTT). PRE-WIRED POWER WITHIN WALLS, ROUGH-IN FOR TELECOMMUNICATIONS & LIGHT SWITCHES.
4. ABOVE CEILING MOUNTED J-BOX PROVIDED BY WALL SYSTEM (DIRTT) INSTALLER, QUANTITY DETERMINED BY WALL MANUFACTURER. PROVIDE POWER FROM PANEL 4LA & CONNECT POWER TO J-BOX. RECEPTACLES IN WALL SYSTEM ARE COMPLETE & PRE-WIRED WITH DEVICE FROM MANUFACTURER. TELECOMMUNICATIONS & LIGHT SWITCH DEVICES IN SYSTEM WALLS ARE BOXES, DEVICE PLATE & RACEWAY ONLY. WIRING TO LIGHT SWITCHES TO BE COMPLETED BY CONTRACTOR. WIRING OF TELECOMMUNICATIONS ARE BY SEPARATE CONTRACTOR HIRED BY OWNER. J-BOX LOCATION DETERMINED BY WALL MANUFACTURER. CONTRACTOR TO CONNECT DIRTT WALL TO J-BOX.
5. SUPPLY POWER & DATA; CAMERA & WIRING BY OWNER. COORDINATE WITH OWNER. LOW VOLTAGE SECURITY CAMERAS SHALL BE CEILING MOUNTED.
6. CONNECT TO PANEL 4LA, COORDINATE WITH WALL MANUFACTURER.
7. EXISTING DEVICE & CIRCUIT TO REMAIN.
8. NEW FIRE ALARM SIGNAL DEVICE, CEILING MOUNTED IN CENTER OF CEILING GRID. CONNECT TO EXISTING FIRE ALARM CIRCUIT.
9. LOCATION OF EXISTING PANEL 4L.
10. DEVICE PRE-INSTALLED WITHIN SYSTEM WALL, COORDINATE WITH MANUFACTURER. SHOWN FOR REFERENCE ONLY. SEE SHEET E102 FOR DIRTT WALL RECEPTACLE CIRCUITING.
11. ADDITIONAL DEVICE TO BE PRE-INSTALLED WITHIN SYSTEM WALL AND PROVIDED BY WALL SYSTEM MANUFACTURER.
12. PRE-WIRED CUBICLES POWERED THROUGH THIS PRE-MANUFACTURED WALL; COORDINATE WITH WALL SYSTEM MANUFACTURER.
13. INSTALL NEW 50A, 3P CIRCUIT BREAKER IN PANEL 4L. CONNECT TO NEW PANEL 4LA WITH 4#6, 1#10G, 3/4"C SEE SHEET E102 FOR PANEL 4LA CIRCUITS AND SCHEDULE.
14. DISCONNECT & REMOVE FIRE ALARM SIGNAL DEVICE, DELIVER TO BUILDING OWNER. INSTALL BLANK COVER PLATE ON OUTLET BOX WHERE FIRE ALARM DEVICE WAS REMOVED. MAINTAIN CIRCUIT INTEGRITY.
15. COORDINATE LOCATION OF TRANSFORMER FOR WHITE NOISE MACHINE. CONNECT TO EXISTING CIRCUIT; 0.1KW. CONNECT TO PANEL 4LA; CIRCUIT 13.
16. INSTALL DOOR LOCK POWER SUPPLY ABOVE ACCESSIBLE CEILING. CONNECT TO 120V SUPPLY & TO DOOR ELECTRIC HINGE. (1)

SMITH and VANDENBULCK ENGINEERING and LANDSCAPE ARCHITECTURE
A DIVISION OF SAV ENGINEERING, INC.
5 OGLETHORPE PROFESSIONAL BOULEVARD, SUITE 130
SAVANNAH, GEORGIA 31406
PHONE: 912-354-5249 FACSIMILE: 912-352-8429
PROJECT #2016-049 KS/LMW

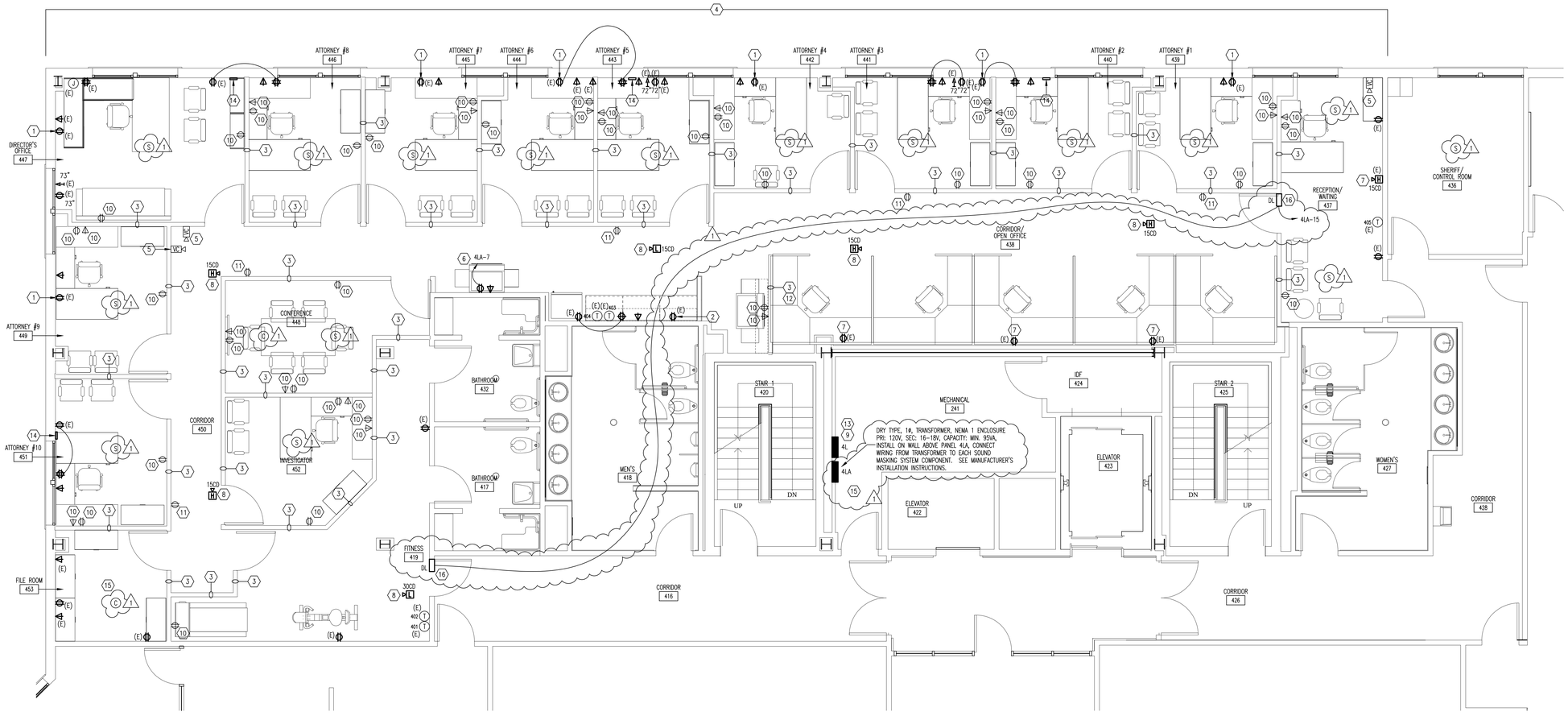


B E100 TELEPHONE RISER DIAGRAM
SCALE : NTS

SUPPORT DATA/TELEPHONE/ COMMUNICATIONS WIRING THAT IS ABOVE CEILING WITH J-HOOKS



A E100 TELEPHONE/DATA/COMM. OUTLET INSTALLATION DETAIL
SCALE : NTS



CHATHAM COUNTY GEORGIA 1777

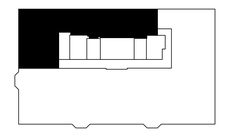
Chatham County
Indigent Defense Suite

Pete Liakakis
Government Building
Savannah, Georgia

SEAL

GEORGIA REGISTERED No. 8752 11-22-16 KEVIN SMITH, JR. ARCHITECT

#	Revision Description	Date
1	ADDENDUM 1	1/25/17



4th Floor Key Plan

0 2' 4' 8'

GENERAL NOTE:

DRAWINGS ARE SCHEMATIC. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL DEVICE LOCATIONS AND INTERCONNECT ROUTING WITH ARCHITECTURAL AND STRUCTURAL CONFIGURATIONS AND REQUIREMENTS.

JOB #: 2016.09
DATE: 11/22/16
DRAWN BY:
CHECKED BY:

FLOOR PLAN POWER

E100

LOTT BARBER
Architecture Community Planning Integrated Project Delivery Visual Communications

A1 4th Floor (Indigent Defense Suite - Floor Plan) - POWER
1/4" = 1'-0" E100

S:\2016\16-049\Drawing Files\03-Rev-01\16049-1.dwg, 1/25/2017 12:04:05 PM, LMW

POWER NOTES

1. CUBICLES PRE-WIRED TO DIRTT WALL BEHIND COPIER. ROUTE CIRCUITS 4LA-2, 4LA-4, & 4LA-6 TO J-BOX ASSIGNED TO THIS DIRTT WALL ZONE FOR CUBICLES. DIRTT WALL ZONES DETERMINED BY WALL MANUFACTURER. COORDINATE WITH WALL MANUFACTURER.

SMITH and VANDENBULCK
ENGINEERING and LANDSCAPE ARCHITECTURE
A DIVISION OF SAV ENGINEERING, INC.
5 OGLETHORPE PROFESSIONAL BOULEVARD, SUITE 130
SAVANNAH, GEORGIA 31406
PHONE: 912-354-5249 FACSIMILE: 912-352-8429
PROJECT #2016-049 KS/LMW

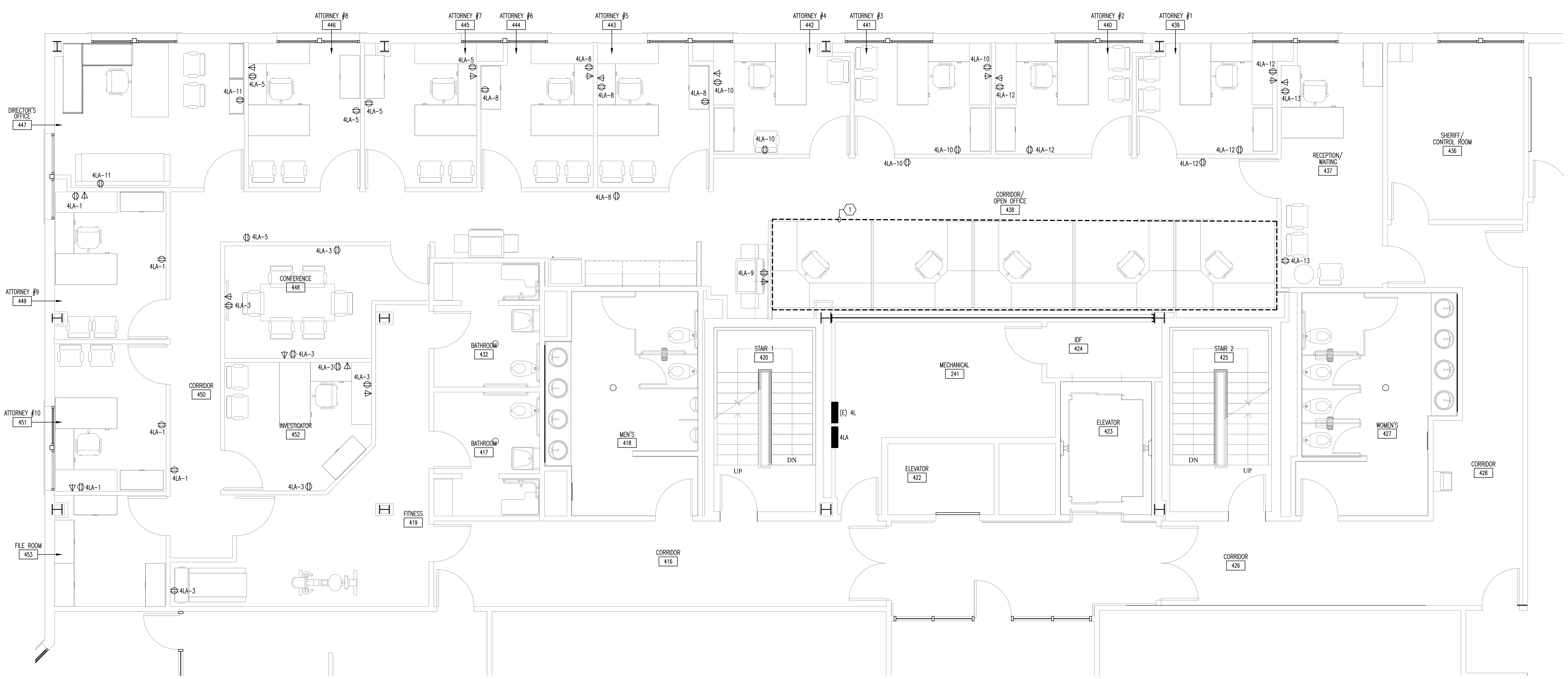
PANEL 4LA

120/208 V, 3 P, 4 W, S/N, 100 A MLO
SURFACE MOUNTING, 30 TOTAL SPACES, 1 SECTIONS

MCB A.I.C. - MINIMUM UL LISTED
BRANCH CB A.I.C. 10,000 MINIMUM SERIES-RATED
WITH GROUND BAR -

C.B. NO.	POLES	TRIP AMPS	LOAD KVA	DESCRIPTION	C.B. NO.	POLES	TRIP AMPS	LOAD KVA	DESCRIPTION
1	1	20	1.0	RECEPTACLES - 450, 449, 451	2	1	20	0.8	RECEPTACLES - 438
3	1	20	1.2	RECEPTACLES - 419, 448, 452	4	1	20	0.8	RECEPTACLES - 438
5	1	20	1.3	RECEPTACLES - 450, 445, 446	6	1	20	0.8	RECEPTACLES - 438
7	1	20	1.2	RECEPTACLE - COPIER, 450	8	1	20	1.0	RECEPTACLES - 442, 443, 444
9	1	20	1.2	RECEPTACLE - COPIER, 438	10	1	20	1.0	RECEPTACLES - 441, 442, 430
11	1	20	0.5	RECEPTACLES - 447	12	1	20	1.2	RECEPTACLES - 439, 440, 438
13	1	20	0.1	PINK NOISE GENERATOR 1	14	1	20	–	SPARE
15	1	20	0.1	DOOR LOCK POWER SUPPLY	16	1	20	–	SPARE
17	1	20	–	SPARE	18	1	20	–	SPARE
19	1	20	–	SPARE	20	1	20	–	SPARE
21	1	20	–	SPARE	22	1	20	–	SPARE
23	1	20	–	SPARE	24	1	20	–	SPARE
25	1	20	–	SPARE	26	1	20	–	SPARE
27	1	20	–	SPARE	28	1	20	–	SPARE
29	1	20	–	SPARE	30	1	20	–	SPARE

DEVICES SHOWN ON THIS PLAN ARE PRE-INSTALLED WITHIN SYSTEM WALL, COORDINATE WITH DIRTT WALL MANUFACTURER. SHOWN FOR REFERENCE & CIRCUITING ONLY.

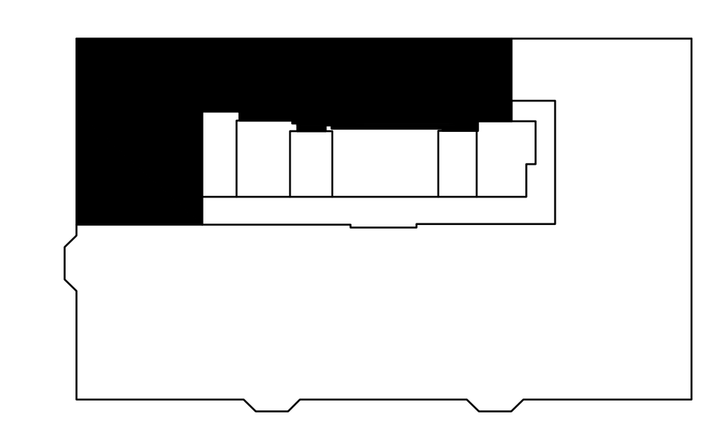


A1 4th Floor (Indigent Defense Suite - Floor Plan) - DIRTT WALL POWER
1/4" = 1'-0" E102

Chatham County
Indigent Defense Suite
Pete Liakakis
Government Building
Savannah, Georgia

SEAL

#	Revision Description	Date
1	ADDENDUM 1	1/25/17



4th Floor Key Plan

0 2' 4' 8'

GENERAL NOTE:

DRAWINGS ARE SCHEMATIC. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL DEVICE LOCATIONS AND INTERCONNECT ROUTING WITH ARCHITECTURAL AND STRUCTURAL CONFIGURATIONS AND REQUIREMENTS.

JOB #: 2016.09
DATE: 11/22/16
DRAWN BY:
CHECKED BY:

FLOOR PLAN DIRTT WALL POWER

E102

LOTT BARBER
Architecture Community Planning Integrated Project Delivery Visual Communications