ADDENDUM 2

March 10, 2020

ITB AP 35-20

CONSTRUCTION OF SATELLITE CONCOURSE "C" AT VPS
at
DESTIN-FORT WALTON BEACH AIRPORT
OKALOOSA COUNTY, FLORIDA

Please find attached the Documents for the above referenced Addendum No. 2. This Addendum is hereby made a part of the Contract Documents and Specifications of the above referenced project. All other requirements of the original Contract Documents and Specifications shall remain effective in their respective order.

The purpose of Addendum No. 2 is to set forth changes and/or additional information as referenced herein.

Note: The bidder shall acknowledge receipt of this addendum on the Bid Form, Page BF-1 in the space provided. Failure to do so may subject the bidders to disqualification.

Note: <u>The ITB Opening Date & Time remains unchanged.</u>

MLM–MARTIN
ARCHITECTS, INC.

Addendum No 2

Project:	ITB AP 35-20 Construction of Satellite Concourse "C"		
To:	Okaloosa County, Florida Board of County Commissioners Okaloosa County Purchasing Department 5479A Old Bethel Road Crestview, FL 32536	**From:**	MLM-Martin Architects, Inc. 668 N. Orlando Ave, Ste. 107 Maitland, FL 32751
ATTN:	Jessica Darr		Miguel A. Martin
RE:	Addendum No 2 [Δ 2]		
Date:	3/9/2020	**File:**	19672-511-10

ATTACHED IS ADDENDUM NO 2 TO THE SUBJECT CONTRACT DOCUMENTS. THIS ADDENDUM SETS FORTH CHANGES AND/OR ADDITIONAL INFORMATION AS REFERENCED HEREIN AND IS HEREBY MADE PART OF AND SHOULD BE ATTACHED TO THE CONTRACT DOCUMENTS. **ACKNOWLEDGE RECEIPT** OF ALL ADDENDA IN THE SPACE PROVIDED IN THE **BID FORM**. FAILURE TO DO SO MAY SUBJECT THE BIDDERS TO DISQUALIFICATION.

A. Specifications:

Item #1: Section 01 21 00 Allowances
MODIFIED: Paragraph II-A to include alternates 2 and 3.
ADDED: Paragraph II-B for Landscaping
MODIFIED: Paragraph 3.3-A. to include Alternates 2 & 3. Addition of language to indicate prorate and provide ref to updated Bid Schedule /Form BF-8.
ADDED: Paragraph 3.3B. for Landscaping.

Item #2: Section 01 23 00 Alternates
MODIFIED: Alternate 6 and 7 language to indicate prorate and provide ref to updated Bid Schedule /Form BF-8.
DELETED: Alternate 8 from Schedule (Blank Alternate).

Item #3: Section 23 00 10 Basic Mechanical Requirements.
MODIFIED: paragraph 3.2-D. Removed Ref. of Pipe and Fittings.

B. Drawings:

Item #1: G201 -PLAN A1 - **MODIFIED** - WEST SIDE WALKS TO MATCH CIVIL SHEET UPDATES. INCLUDED FENCE "SPUR" TO THE SOUTH WEST.
PLAN A1 - **MODIFIED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED.

Item #2: G211 -PLAN B1 - **MODIFIED** - WEST SIDE WALKS TO MATCH CIVIL SHEET UPDATES. INCLUDED FENCE "SPUR" TO THE SOUTH WEST.
GPLAN B1 - **MODIFIED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED.

Item #3: G212 -PLAN - **MODIFIED** - INCLUDE SIDA FENCE LINE FOR CLARITY.

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PLAN - **MODIFIED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED.

Item #4: G311 -PLAN D1 - **MODIFIED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED.

Item #5: AL001 -**UPDATE** BUILDING AREA INFO.
UPDATE BUILDING OCCUPANT LOAD INFO.

Item #6: AL111 -PLAN D1 - **MODIFIED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED.
UPDATE BUILDING OCCUPANT LOAD INFO.

Item #7: AL211 -PLAN D1 - **MODIFIED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED. REQUIRED THE FLIP OF DOOR SWING.

Item #8: AL641 -LEGEND Q & R - **ADDED** - HEIGHT MODIFIER KEY DEFINITIONS FOR USE AT TSA PODIUM.

Item #9: C1.0 -PLAN - **MODIFIED** - WEST SIDE WALKS TO MATCH CIVIL SHEET UPDATES. INCLUDED FENCE "SPUR" TO THE SOUTH WEST.

Item #10: C2.0 -PLAN - **MODIFIED** - WEST SIDE WALKS TO MATCH CIVIL SHEET UPDATES. INCLUDED FENCE "SPUR" TO THE SOUTH WEST.

Item #11: C3.0 -PLAN - **MODIFIED** - WEST SIDE WALKS TO MATCH CIVIL SHEET UPDATES. INCLUDED FENCE "SPUR" TO THE SOUTH WEST.

Item #12: A110 -PLAN D1 - **MODIFIED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED.

Item #13: A216 -PLAN B1 - **MODIFIED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED.
PLAN B4 - **MODIFIED** - TO INDICATED FULL LENGTH TRENCH DRAIN ALONG ENTRENCE OF BUILDING.

Item #14: A316 -PLAN B4 - **MODIFIED** - TO INDICATED FULL LENGTH TRENCH DRAIN ALONG ENTRENCE OF BUILDING.

Item #15: A500 -ELEVATION E4 - **MODIFIED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED.
ELEVATION B1- **MODIFIED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED.

Item #16: A711 -SCHEDULE W1251B - **ADDED** - PER OWNER DIRECTION; THE AREA OF ALTERNATE 5 WAS ENLARGED. NEW EGREESS ONLY DOOR REQUIRED.

Item #17: A863 -DETAIL D5 - **MODIFIED** - TO INCLUDE CEILING CONTROL JOINT CALLOUT.

Item #18: A865 -DETAIL C3 - **CLARIFIED** - GRAPHICS AT GATE DOOR. HIDE OF CANOPY ABOVE DOOR TO SHOW DOOR AND SWING.

Item #19: AG111 -LEGEND - **ADDED** - FRUTIGER BOLD FONT PROVIDED FOR GRAPHICS.

Item #20: AG112 -SHEET AG112 - **ADDED** - TO INCLUDE MATERIALS, FABRICATION NOTES FOR SIGNAGE.

Item #21: AG512 -DETAIL ALL - **CLARIFIED** - METHOD OF ATTACHMENT.

Item #22: AG513 -DETAIL D3 - **CLARIFIED** - SUBSTRATE MATERIALS FOR EGRESS.
AG513 -DETAIL B1 - CLARIFIED - METHOD OF ATTACHMENT.

Item #23: AG514 -SHEET AG514 - **ADDED** - TO INCLUDE FABRICATION DETAILS, NOTES & ELEVATIONS FOR SIGNAGE.

Item #24: AQ821 -DETAIL ALL - **CLARIFIED** - WITH ADDITIONAL NOTES, MATERIAL TAGS, AND DIMENSIONAL INFORMATION.

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Item #25: AQ851 -DETAIL ALL - **CLARIFIED** - WITH ADDITIONAL NOTES, MATERIAL TAGS, AND DIMENSIONAL INFORMATION.

Item #26: AQ852 -DETAIL ALL - **CLARIFIED** - WITH ADDITIONAL NOTES, MATERIAL TAGS, AND DIMENSIONAL INFORMATION.

Item #27: AQ861 -DETAIL ALL - **CLARIFIED** - WITH ADDITIONAL NOTES, MATERIAL TAGS, AND DIMENSIONAL INFORMATION..

Item #28: S002 - **REMOVED** - STRUCTURAL NOTE "4816 LINTELS."
S002 - **ADDED** - "MASONRY" TO LIST OF REQUIRED SHOP DRAWINGS FOR ENGINEER REVIEW. ***Sheet not reissued narrative of changes only.***

Item #29: S413 - **ADDED** - KEYNOTE 9 TO LOCATION OF BID ALTERNATE EXTENTS AT REFERENCE LINE 13. ***Sheet not reissued narrative of changes only.***

Item #30: S415 - **ADDED** - KEYNOTE 10 TO LOCATION OF WALL AT REFEFRENCE LINE 22. ***Sheet not reissued narrative of changes only.***

C. Questions:

Item #1: Detail D3/AG513 indicates signage for egress. Please advise qty required. Also will this be a digital print applied decal or on a substrate?
A: As indicated in the Ref. Detail "Required at each delayed egress door as indicated on Sheet AL211". "Opaque Vinyl Graphic Film: 3M Scotchcal ElectroCut Film, Series 7725, opaque, or an approved substitution" added to detail.

Item #2: How will the There are multiple signs throughout the interior and exterior of the project. Is there a specific vendor or material that needs to be used?
A: to the greatest extent possible, materials, colors and construction have been called out on details in the "AG" series of documents. Additional Fabrication and Materials notes have been provided on new sheet AG112.

Item #3: What are the limits of Sanitary utilities for this project?
A: the Sanitary Service Line and Traps shown in Drawings are in scope up to and including the tie in to existing manhole shown on C2.0.

Item #4: Can you please advise if sign type X1 and X2 are in our scope or will that display be provided by the owner? No info can be found for type X2.
A: refer to specifications §27 42 16-2.4-B.-1. – X2 Elevation provided A4/AG514.

Item #5: Ref. Spec Section 01-43-39 To save money could you delete this section "Typical Room Mockup", as it seems un-necessary and adds to the cost of construction, is this really necessary?
A: as per paragraph 3.3-A.-1. The typical room mock-up is limited to the restroom module. It is recommended that this mock-up remain as specified prior to fit out of all restrooms. Per paragraph 3.3-A. this can be a mutually agreed upon location and not excluding in-situ mock-up. It is the designer's recommendation that the family restroom to the north of the project (adjacent to the passenger screening checkpoint) be used as mock-up for tile work and integration of fixtures.

Item #6: Specs Section 23 00 10 paragraph D page 22 talks about cleaning of equipment and piping systems and the refers to section 15060 for details. We could not locate this section. Is there one or is it a misprint/typo?
A: Erroneous Reference removed see modified Specification §230010 attached.

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Item #7: Please provide additional information for sign type P. We assume this is the cast plaque in the specs?

A: Assumption correct ref. specification §101416. See also A2/AG514.

Item #8: Please indicate if the owner or the GC is the l responsible for providing the Commissioning agent for this project.

A: Commissioning for HVAC as described in specification §230800 shall be included as a line item cost for owner's evaluation, consideration and acceptance. Value shall be prorated in relation to % of value of Mechanical (Division 23) work for Base Bid, Alternates 1,2,3 &5.

Item #9: Seating allowance: how is this taken into account?

A: The Seating shall be prorated across Base Bid, Alternates 1,2&3; 40%, 20%, 20%, 20% Respectfully. See Revised Bid Schedule/Form replacement Sheet BF-8 Attached.

Item #10: How are the Alternates calculated, by seat, square foot, etc.? Is each additional gate/hold room equally segmented in price?

A: Alternates 1-5 are considered lumpsum for the scope as indicated in Drawings and Specifications.

1. Alternate No 6; a ceiling tile substitution shall be prorated across Base Bid, Alternates 1,2 & 3 with basis of actual square footage of Tile identified for substitution. See Revised Bid Schedule/Form replacement Sheet BF-8 Attached.
2. Alternate No 7; a wall tile substitution at bathroom vestibules shall be prorated across Base Bid & Alternates 2 with basis of actual square footage of Tile identified for substitution. See Revised Bid Schedule/Form replacement Sheet BF-8 Attached.

Item #11: How will the fence length/price change as alternates are added? If the fence will be provided by previous contractor, how much space will be given around this project for working?

A: See revised G211 and G212 indicating SIDA fence locations and 36LF to be included in base bid. Additional costs shall be listed on the revised Bid Schedule/Form BF-8 Attached for consideration. The location of construction/Temporary SIDA fence will require coordination and possible relocation by this contractor dependent on the means and methods / sequence of construction selected. The intent is to have project construction outside of the SIDA area.

Item #12: There are landscaping specifications. How much landscaping is required?

A: Landscaping shall be included in price as an Allowance for Base Bid. Ref. Section §012100 and Revised Bid Schedule/Form replacement Sheet BF-8 Attached.

Item #13: C3.0 Fencing Plan – The fencing plans does not address the individual Bid Alternates. It only shows a plan if all alternates are taken. Please provide information for the fence scope of work for each for the base bid and each Add Alternate.

A: See revised G211 and G212 indicating SIDA fence locations and 36LF to be included in base bid. Additional costs shall be listed on the revised Bid Schedule/Form BF-8 Attached for consideration.

Item #14: Sheet AF712 – Finish Type M1 – Please provide a Color selection or provide and allowance for this block. There is a big variance in cost for color or aggregate used to manufacture these block.

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A: As Pricing Reference: Westbrook Concrete Block – GF-302 (https://www.westbrookblock.com/products/blacks/) FINAL SELECTION OF COLOR TO BE DETERMINED.

Item #15: Section 32 92 00 Turf & Grasses and 32 93 00 Plants are in the specification, but there nothing shown on the drawings for the work. Is it required?

A: Yes. Landscaping shall be included in price as an Allowance for Base Bid. Ref. Section §012100 and Revised Bid Schedule/Form replacement Sheet BF-8 Attached.

Item #16: Since the project construction fence is being provided by others, the masonry subcontractor will 50 feet of clearance down each of the long sides of the building for scaffolding and forklift access. Forklift articulating and power steering will cause damage to asphalt surfaces, which could be expensive to repair. Please take a look at providing access before paving occurs.

A: The location of construction/Temporary SIDA fence will require coordination and possible relocation by this contractor dependent on the means and methods / sequence of construction selected. The intent is to have project construction outside of the SIDA area.

Item #17: please see attached E212 to provide more info on the receptacle within a square – the symbol is not on any legend and not in the specs. If they are floor boxes, please provide the basis of design.

A: See Revised E000 **ISSUED ADDENDUM 001** for definition of Symbol.

Item #18: Please provide more info/schedule for the Main Switchgear and UPS. They are shown on the Single Line Diagram on E501, but have no schedule.

A: See Revised electrical drawings **ISSUED ADDENDUM 001** for clarification on Switchgear and UPS.

Item #19: E604 states A1- fixtures are 8'ft fixtures, A2- fixtures are 4ft. Sheets E311-E316 show A1 fixtures like 4ft fixtures, and A2 fixtures like 8ft fixtures. Please confirm.

A: E604 Shall be revised to indicate A1 Fixtures as 4FT (N2LEDG29LK48) and A2 Fixtures as 8FT (N2LEDG43LK96). Plans E311-E316 unchanged.

Item #20: Electrical Sheets scale- 3/16"? Please confirm this is the correct scale.

A: Confirmed.

Item #21: Are mounting details for all ceiling signs and flag signs available?

A: to the greatest extent possible, materials, colors and construction have been called out on details in the "AG" series of documents. Additional Fabrication and Materials notes have been provided on new sheet AG112 and notations added to revised "AG" drawings attached.

Item #22: Supervisory Tone for Paging Amp monitoring: Is this a non-waiver-able requirement or can this be disregarded as an unnecessary option. It will add significant cost and add no additional benefit other than to know if an amp fails.

A: Contractor shall separate the cost as an add alternate line item for owner review.

Item #23: Microphones on Drawings: The Microphones as specified are for the PageMatrix system. I would like to substitute them with the MediaMatrix PCU-3 Microphone Station.

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A: Contractor shall provide a submittal with the proposed PCU-3 Microphone Station data sheet for review.

Item #24: Page Zones: The current Page Zone divisions do not address a separate and independent Concourse Page zone. This presents several problems among the current Gate Page zones. The only way to address someone on the concourse proper would be to do an 'All Page', and hope no other gate was using their mic.

A: There are currently 6 separate paging zones dedicated for the new Concourse. Drawings will be updated in Addendum #2 to reflect a dedicated Concourse all page.

Item #25: Ambient Sense Mics: There is an excessive number of Ambient Mics in all of the Page Zones. This impacts the input CABs heavily by using up unnecessary inputs. Suggest an alternative 'Sub-Mixing' scheme for the Mics or reduce the number of mics to one in each zone of control.

A: Drawings will be updated in Addendum #2. Contractor shall account for Ambient Mics quantities for the following sheets.

TP212 = (3) Ambient Mics
TP213 = (2) Ambient Mics
TP214 = (1) Ambient Mics
TP215 = (3) Ambient Mics
TP216 = (2) Ambient Mics

Item #26: Zone Paging Amplifiers: The TOA Amplifiers specified for the system are very good amplifiers. I/O count on the Cobra devices can be conserved by switching to a Peavey Brand Cobra ready amplifier. Traffic can be routed directly to them and free up I/O count on the CABs and allow for expansion and items mistakenly left out that would require a precious route back to the head-end. Can an alternative Peavey CobraNet Amp be used in lieu of the TOA amp?

A: Contractor shall provide a submittal with the proposed amplifier data sheet for review.

Item #27: CobraNet and LAN: The CobraNet needs to be on a separate and isolated network from the other LAN systems. The audio traffic on this network is proprietary to the type of information being sent and received on it.

A: Drawings will be updated in Addendum #2 drawings.

Item #28: Section 1.2 Part B states “Shall be part of the MediaMatrix family of products”. Later in the document several IED GlobalCom products are referenced. Both systems have their own proprietary software and can be physically integrated but can only be controlled by its own software package. Please see references as listed below for in question:

Section 1.9 Extra Material Part B-2 has an IED T6472L part number listed as a spare amplifier module. This part will not work in a Peavey (Crest) CI 30x4 Amplifier (listed as no approved equal in Section 2.3 Part E-7) as it is not a modular design. It is designed to work in an IED T9160L digital amplifier frame, but this frame has been discontinued. The current modular digital amplifier frame is the IED Titan T112. This digital amplifier frame meets all specifications but it does not belong to the MediaMatrix family of products.

Section 2.2 System Performance Part-B System Architecture has an alternate listed “the vACS and optional Enterprise and MS SQL may be installed in virtualized environment for high availability architecture. Failed or

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abnormal performance of any active system component shall generate a fault to the fault reporting system". Enterprise software is an IED product that resides on a GlobalCom server that monitors critical system functions and generates a fault to the log. This fault would need to be investigated and then could be suppressed. This function is not available on the MediaMatrix family of products. Section 2.2 System Performance Part-R Automatic Backup Amplifier Switching states "the system shall include backup amplifier switching in the event of the failure of the power amplifier". This function is not available on the Peavey (Crest) CI 30x4 amplifier but is standard on the IED Titan T112 amplifier series. Section 2.2 System Performance Part-S states "provide a dynamic multi-channel VU monitoring screen selectable for each T9160 Mainframe" The IED T9160L is not a MediaMatrix product and has been replaced by the IED Titan T112 Mainframe which is also not a MediaMatrix product. The T112 provides full monitoring capabilities, has a modular amp card design and has standard back up amp capabilities as well as ambient analysis capabilities built in as standard features. Section 2.3 System Performance Part-A-3 states "for each IED 1150 server, provide a backup IED 1150 Lifeline backup server". IED products are not from the MediaMatrix family of products and are the primary controllers for IED GlobalCom systems. If an IED GCK Airport paging system were installed these features and more would be available. Section 2.3 System Performance Part-D mentions the "Bogen ANS501 Ambient Analysis Sensor" . If a fully digital system from controller to amplifier outputs is installed. The Bogen unit, which is analog and unbalanced, would have no place to be inserted in the signal chain. The IED Titan T112 has ambient sensing standard and built into the frame. It requires one CAT-6 connection and can handle (12) sensors per frame.

A: Peavey Media Matrix is an extension of the existing system. Proprietary software and hardware shall be Peavey products. IED amplifiers, software and components shall be excluded from the package. This system is an extension of an existing Peavey paging system and all products shall follow suit.

Item #29: Ref. Spec Section 26-24-13 Switchboard Test Fld Quality Control 3.5 Will the factory testing and U/L Cert qualify for this section or will a 3rd party testing lab be required and to do on site? This seems costly and un-necessary, please advise?

A: The testing listed in the referenced paragraph is not a laboratory test. These items are specific to acceptance of the full installation and are required inclusive of IR Arc Flash testing of the completed install.

Item #30: Ref. Spec Section 26-28-16 1.6 Quality Assurance Is there any need for a testing agency to field supervise and be on site? If so, please provide 3-companies and contacts so we can get quotes for this service.

A: For pricing assume required; may be possible consideration for value engineering evaluation by owner. The specification is ope to any NETA qualified individual- specifically listing 3 would close the ability to have open bid. For more information visit https://www.netaworld.org/about/why-hire-nacs .

Item #31: Ref all Spec. Sections on Electrical Field Quality Control 3.6 All of this seems un-necessary, excessive and costly, are these requirements truly needed?

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A: For pricing assume required; may be possible consideration for value engineering evaluation by owner.

Item #32: Ref Spec Section 26-36-00 Transfer Switches Does this section apply? I've not found any Transfer Switches or Generators on this project, please advise if applicable or not

A: Yes scope clarified in edits to Electrical Drawings per **ADDENDUM 001**

Item #33: Ref Spec Section 27-05-00-55 items 5, 6, and 7 This items seem excessive and un-necessary due to the fact that there is currently no badging requirements, however once the Concourse is open, up and running there will be badging requirements. Also, to do these tests and inspections, these work if required will be disruptive to Airport Operations. Is this section required?

A: All items required. Although the construction is intended to be outside of the SIDA area, upon start-ups, close out and completion of the project the Concourse will act like any other terminal/concourse project with active access to the SIDA as such a fully operational, tested and vetted PACS system is required.

Item #34: Ref Spec Section 27-05-00 3.13 Training This section seems excessive and un-necessary for just a Concourse of this nature. Is this required?

A: For pricing assume required; may be possible consideration for value engineering evaluation by owner. These systems are to be integrated into the existing airport complex; although staff may have familiarity with the system these integrations must be complete and staff have full understanding of them.

Item #35: Ref Spec Section 27-05-00 IPTV Distribution System Is this section required?

A: Required, See updates to T sheets per **ADDENDUM 001.**

Item #36: Ref Spec Section 27-42-16 MUFIDS Is this section required?

A: Required, reference sign types X1 and X2 in AG series drawings. System includes FIDS and GIDS

Item #37: Ref Spec Section 28-05-00 Electronic Safety and Security Is this section required?

A: Required, reference appropriate scope on T and TS sheets.

Item #38: The Fire Alarm is said to be Siemens, please provide a contact phone number, or any ID number and name for us to call and get pricing as Siemens would be the only compatible system to provide on this project. Please advise?

A: Contact information

Paul lehr Paul.lehr_sr@siemens.com
Sr. Systems Specialist
Siemens - Building Technologies
850-206-0686

D. Other Items:

Item #1: BID SCHEDULE/FORM REPLACEMENT SHEET BF-8.

Item #2: Structural DETAIL SK0-1 - ADDED - "TYPICAL STEPPED TIE BEAM DETAIL."

Item #3: Substitution Request received for Sika Single Ply roofing was received after deadline and was not reviewed.

End of Addendum No 2

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SECTION 01 21 00 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Conditions/Provisions of the Contract, including Contractual Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements governing allowances.

B. All applicable allowances are included in the Total Amount Bid.

1.3 SCOPE, SELECTION AND PRICING

A. For each Work item covered by an allowance, the Contractor shall submit a Request for Change Order (RCO) at the earliest practical date after award of the Contract. The RCO shall include the scope of work, the schedule and the amount of allowance to be used for the Work item. The RPR will process a Contract Modification for the Work item in accordance with the terms of the General Conditions/Provisions and the Owner's policies regarding approval authority. Note that the General Conditions/Provisions outlines the various types of Contract Modifications as well as various methods of payment, including Force Account provisions.

B. At the RPR's request, obtain proposals for each applicable allowance item for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by the RPR. Do not begin Work on an item covered by an allowance until a Contract Modification has been authorized by the Owner.

1.4 SUBMITTALS

A. General: Submit proposals for the work included in allowances, in the form specified for Change Orders.

1. Submit invoices or delivery slips to show the actual quantities of materials delivered to the site for use in fulfillment of each allowance.
2. Submit cut sheet, manufacturer's data, shop drawings and samples for products selected per Sec. 01 33 23 Shop Drawings, Product Data and Samples.

1.5 ALLOWANCES

A. Use the allowance only as directed by the RPR or Owner for the Owner's purposes. The inclusion of allowances in the Contract is not a guarantee that payment will be made for the full amount of the allowance unless the Owner has determined there has been full compliance with the Contract Documents for each allowance.
B. Allowances shall only include the Contractor's direct costs and mark-up in accordance with the Changes in the Work Article of the General Conditions/Provisions.

1.6 UNUSED ALLOWANCES

A. At Project close-out, credit all unused allowance monies to the Owner by Change Order.

PART 2 - PART 2 - PRODUCTS

A. $125,000.00 for Hold Room seating as shown on drawing for Base Bid and Alternate No.~~1~~ **1, 2 & 3.** seating manufacturer and seating system type, color and fabric to be selected by Architect from seating manufacturers catalog.

~~A.~~**B. $40,000.00 for Landscaping as provided for in specifications. Base Bid only.**

PART 3 - PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly upon delivery for damage or defects. Report findings and proposed corrective action to the RPR in writing.

3.2 PREPARATION

A. Coordinate all work for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

A. Hold Room seating, Base Bid and Alternate No. 1**,2 & 3** in amount $125,000.00 **to be prorated 40%, 20%, 20% & 20% respectively. See Bid Schedule/Form Sheet BF-8.**

~~A.~~**B. Landscaping, Base Bid Only in amount of $40,000.00**

END OF SECTION 01 21 00

SECTION 01 23 00 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Conditions/Provisions of the Contract, including Contractual Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements governing Alternates.

1.3 DEFINITIONS

A. Definition: An alternate is an amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. The cost or credit for each alternate is the net addition to or deduction from the Contract Price to incorporate the Alternate into the Work. No other adjustments are made to the Contract Price.

1.4 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely and fully integrate that work into the Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

B. Notification: The Owner will notify each party involved, in writing, if alternates have been accepted, rejected, or deferred for later consideration.

C. Schedule: A schedule of alternates is included in the Bid Form. Specification Sections referenced in the Schedule contain requirements for materials necessary to achieve the Work described under each alternate.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

2.1 SCHEDULE OF ALTERNATES:

BASE BID: Construction of:

To the extent shown on drawings and specificaitons, see sheets G-2.1.1 & G-2.1.2.

Alternate #1 : Construction of:
To the extent shown on drawings and specificaitons, see sheets G-2.1.1 & G-2.1.2.

Alternate#2: Construction of :
To the extent shown on drawings and specificaitons, see sheets G-2.1.1 & G-2.1.2.
.

Alternate #3: Construction of :
To the extent shown on drawings and specificaitons, see sheets G-2.1.1 & G-2.1.2.

Alternate #4: Covered Walkway

To the extent shown on drawings and specificaitons, see sheets G-2.1.1 & G-2.1.2.

Alternate #5: Outdoor Seating area :

To the extent shown on drawings and specificaitons, see sheets G-2.1.1 & G-2.1.2.

Alternate #6 : Substitution of ACT1: prorated addition to Base Bid, Alternates 1,2 & 3
To the extent shown on drawings and specificaitons. **"CALLA" HIGH CAC 50 24" X 24" x 1 ¾" Ceiling Tile for ACT1, See AF712 ** Prorate basis on Square Feet of Tile Substituted see BF-8.**

Alternate #7 : Substitution of GT1 & GT2: prorated deduction to Base Bid and Alternate 2
To the extent shown on drawings and specificaitons. **CT2 for GT1 and GT2, See A45X SERIES & AF712 ** Prorate basis on Square Feet of Tile Substituted see BF-8.**

~~**Alternate #8 : Construction of:**~~
~~To the extent shown on drawings and specificaitons.~~

END OF SECTION 01 23 00

SECTION 23 00 10 - BASIC MECHANICAL REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

B. This specification section is applicable to all division 23 specification sections.

1.2 SUMMARY

A. Mechanical systems, equipment, devices and accessories shall be installed, finished, tested and adjusted for continuous and proper operation. Any apparatus, material or device not shown on the Drawings but mentioned in these Specifications, or vice versa, or any incidental accessories necessary to make the project complete and operational in all respects, shall be provided. Include all materials, equipment, supervision, operation, methods and labor for the fabrication, installation, start-up and tests necessary for complete and properly functioning systems.

1.3 MECHANICAL SYSTEMS DESCRIPTIONS

A. Basic Design Criteria
   1. The following publications will be used as a reference for design of the mechanical systems:

      a. Florida Building Code 6th Edition (2017)
      b. Florida Building Code: Mechanical 6th Edition (2017)
      c. Florida Building Code: Energy Conservation 6th Edition (2017)
      d. Florida Building Code: Plumbing 6th Edition (2017)
      e. ASHRAE 62.1-2013
      f. ASHRAE 90.1-2016
      g. ASHRAE 15-2013
      h. SMACNA

B. Climate Design Criteria (ASHRAE Handbook – Fundamentals (2017)

   1. Summer Outside:

      a. 93.9°F DB
      b. 77.5°F WB

   2. Winter Outside:

a. 30°F DB

3. ASHRAE Climate Zone: 2A

C. Envelope Design Criteria:

1. Walls:
   a. Mass Walls: R-5.7 continuous insulation
   b. Metal Framed Walls: R-13 insulation between framing

2. Roof: R-25 continuous insulation

3. Glazing

   a. Windows: U-0.5 SHGC-0.25
   b. Skylights: U-0.65 SHGC-0.35

D. Building Occupancy Schedule:

1. It is understood that this facility will sustain 24/7 operation.

E. Indoor Design Criteria:

1. Offices: Cooling

   a. Occupied: 74°F
   b. Unoccupied: 80°F

2. Offices: Heating

   a. Occupied: 70°F
   b. Unoccupied: 60°F

3. Holdrooms: Cooling

   a. Occupied: 72°F
   b. Unoccupied: 80°F

4. Holdrooms: Heating

   a. Occupied: 72°F
   b. Unoccupied: 60°F

5. Electrical/Mechanical Rooms: Cooling

   a. Occupied: 78°F
   b. Unoccupied: 78°F

6. IDF/MDF Spaces: Cooling

    a. Occupied: 74°F
    b. Unoccupied: 74°F

7. Concession Spaces: Cooling

    a. Occupied: 72°F
    b. Unoccupied: 80°F

8. Concession Spaces: Heating

    a. Occupied: 72°F
    b. Unoccupied: 60°F

9. Corridors: Cooling

    a. Occupied: 72°F
    b. Unoccupied: 80°F

10. Corridors: Heating

    a. Occupied: 72°F
    b. Unoccupied: 60°F

11. TSA/Security Checkpoints: Cooling

    a. Occupied: 72°F
    b. Unoccupied: 80°F

12. TSA/Security Checkpoints: Heating

    a. Occupied: 72°F
    b. Unoccupied: 60°F

F. Ventilation Requirements and Building Air Balance:

1. Ventilation outside Air shall be in accordance with ASHRAE 62.1.
2. The balance between outside air and exhaust air will result in a positively pressurized building when in occupied periods.

G. Filtration:

1. RHU's:

    a. Pre-Filters: 4" 30% ASHRAE efficient filters (MERV 8)
    b. Final Filters: 12" Cartridge 90% ASHRAE efficient filters (MERV 13)

2. FCU's:

   a. Filters: 4" 30% ASHRAE efficient filters (MERV 8)

3. Filters shall be industry standard sizes.
4. Filter frames shall be galvanized sheet metal with spot welds or fully welded.

H. The new is designed as an approximate 42,000 s.f. single story Airport Concourse facility with mechanical mezzanines. Preliminary load calculations have been conducted to determine rough HVAC equipment sizing.

I. Packaged DX Rooftop Units (RTU) shall be provided on the roof and will condition the Office spaces, Hold Rooms, and TSA/Security Checkpoints. The RTUs shall have DX cooling coils and electric re-heat coils. The RTU's will utilize VAV terminal units for zone control will have electric heat within the VAV terminal units.

1. RTUs shall have the following configuration:

   a. Mixing box section
   b. Filter section with 4" pre-filters and 12" final-filters
   c. Access Section
   d. DX coil.
   e. Access Section
   f. Plenum supply fan array (Minimum 2 supply fans in array)
   g. Electric Heat Coil
   h. Discharge Plenum

2. Solid Double wall construction (MFG guaranteed non-condensing thermal performance), set on concrete pad, with internal spring isolated fans (minimum 2" deflection spring isolation, and neoprene pad below.)
3. Coil shall be 12 FPI max.
4. Cooling coils shall be sized for 52 degree LAT.
5. Condensate drains shall be stainless steel.
6. Coil casings shall be stainless steel.
7. Control Dampers will have airfoil blades with blade seals.
8. Motors shall be provided with AEGIS shaft grounding rings, factory installed, for all motors served from VFD's.

J. Building Ventilation air shall be induced directly into the RTU's intake hood. Outside air paths will be monitored by airflow monitoring stations (Ebtron Gold or approved equal) for airflow tracking and proper building pressure control.

K. Building general exhaust shall be provided by roof mounted centrifugal downblast exhaust fans located on the roof.

L. Building Heating will be provided by electric heaters at each RTU. For RTUs with VAV terminal units, electric reheat shall be provided at the terminals (VTUs), with SCR control, sized to meet building heating demands.

M. Temperature critical spaces which require continual cooling such as IT/Data rooms shall be provided with dedicated VAV terminal units and a Split-DX backup system for redundancy.

N. Supply and return air ductwork will be externally insulated galvanized steel when routed above ceilings, and would be double wall round if exposed. All ductwork to be insulated in concealed areas shall be fiber blanket type, all insulated ductwork exposed in mechanical spaces shall be rigid board insulation.

O. All ductwork shall be formed from galvanized steel and shall conform to the requirements of SMACNA's Duct Construction Standards, NFPA Standard 90A. All supply ductwork shall be externally wrapped with 2 inch fiberglass insulation with FSK vapor barrier. Return and exhaust ductwork shall be constructed per low pressure supply ductwork standards, except that they will not be insulated except as required by the International Energy Code. Fire dampers and combination fire/smoke dampers will be installed at all ductwork penetrations of rated fire and smoke walls/partitions and shafts as shown on the architectural floor plans. Seal all ductwork (supply, return and exhaust) in accordance with the International Energy Code. Do not use snap lock construction.

1. Low pressure ductwork will be designed from the terminal units (VTU) to the diffusers/grills, RA ductwork, and exhaust ductwork. Low pressure ductwork will be sized to deliver air at a friction pressure drop not to exceed 0.08"w.c. per 100' of duct. (i.e. Air Duct Calculator)
2. Medium pressure ductwork will be designed from the VAV AHU to the terminal units (VTU). Medium pressure ductwork will be sized to deliver air at a friction pressure drop not to exceed 0.2"w.c. per 100' of duct or no more than 2000 FPM (Max 1500 FPM in acoustic sensitive locations.). (i.e. Air Duct Calculator)

P. Exhaust ductwork shall be un-insulated galvanized steel.

Q. The complete air and water system will be tested, adjusted and balanced by an independent certified testing and balancing firm (NEBB or AABC) as required to ensure system performance in accordance with design criteria.

R. A direct digital control (DDC) building automation system (BAS) shall be provided. All HVAC mechanical devices will be interfaced with the BAS for control, monitoring and alarm. A centrally located operator’s computer workstation will be provided for BAS reference and adjustment. Siemens is the owner preferred controls manufacturer.

1. All air-handling units and other major equipment shall use DDC with stand-alone panels for each unit.
2. Provide Optimized start/stop scheduling, occupied/unoccupied set-points, Night set-back, Schedule control, Static pressure reset schedules, SA reset schedules, OA flow monitoring/control, Relief Airflow monitoring/control, VFD’s on all fans other than small CV general exhaust.
3. All cooling and heating coils shall have Discharge air temperature sensors for monitoring performance.
4. Damper actuators shall be DDC.

5. Control valves shall be pressure independent Characterized ball control valves with stainless steel stems and balls.
6. Control sequences shall comply with ASHRAE 90.1.

S. UL555s Combination Fire Smoke Dampers, UL555 Fire Dampers, and UL555s Smoke Dampers shall be provided in accordance with FBC/FMC.

T. Air distribution shall be supplied through diffusers located in acoustical ceiling tile or drywall ceiling, at ceiling level. Ceiling return grilles shall transfer the supplied air to the return air system. It is anticipated that the following grilles/diffusers will be incorporated in the design.

1. 24x24 Lay-In Architectural Plaque Diffuser
2. 12x12 Surface Mounted Plaque Diffuser
3. 1 to 3 slot diffusers ¾" slot – (High Ceiling Areas / Perimeters)
4. Perforated Return Grilles
5. Louvered Return Grilles (i.e. Sidewall)
6. Louvered Supply Grilles (i.e. Sidewall)
7. Supply Nozzles (High Volume Spaces such as Hold Rooms and TSA/Security Checkpoints)

U. Intake Louvers sized for 500 FPM at free area, and exhaust louvers shall be sized for 750 FPM at free area. Louvers will be specified to be AMCA 540/550.

V. Commissioning:

1. The building will be commissioned to meet the design intent of the drawings. Contractor shall provide all required labor and material to support commissioning process. Contractor shall provide labor to complete testing of systems under the direction of the commissioning authority.
2. Commissioning shall be provided to meet code minimum commissioning requirements.

1.4 QUALITY ASSURANCE

A. Code Compliance: Comply with all rules, laws, statutes, regulations, building codes, and the amendments of local, state and federal governments by the authorities having jurisdiction.

B. ADA: Comply with the requirements of the Americans with Disabilities Act (ADA).

C. HANDICAP ACCESS: Comply with Chapter 553, Part II, Florida Statutes, "ACCESSIBILITY BY HANDICAP PERSONS"; and the accessibility requirements manual from the Florida Board of Building Codes and Standards, Department of Community Affairs, latest Revisions.

D. NFPA: Comply with the National Fire Codes compiled by the National Fire Protection Association.

E. Florida Building Code: Conform in strict compliance to the current editions of Florida Building Code; Florida Mechanical Code; Florida Energy Efficiency Code, Florida Plumbing Code; Florida Fuel Gas Code; and the amendments to these codes which are enforced by the local authority having lawful jurisdiction.

1.5 DRAWINGS AND SPECIFICATIONS

A. Equipment Placement: The drawings are diagrammatic, intended to show general arrangement, capacity and location of various components, equipment and devices. Reasonable changes in locations ordered by the Engineer prior to the installation may be made at no additional cost.

B. Drawing Scale: Due to the small scale of the drawings, and to unforeseen job conditions, all required offsets, transitions and fittings may not be shown but shall be provided at no additional cost.

1.6 DEFINITIONS

A. Concealed: When standing inside a finished room, insulated or non-insulated piping or ductwork not visible after installation, such as inside a chase or above a ceiling.

B. Exposed: When standing inside a finished room, insulated piping or ductwork is visible after installation, such as inside an equipment room or an air handling unit room.

C. Protected: The surface of insulated or non-insulated piping or ductwork on the exterior of the building but protected from direct exposure to the weather by an overhang, eave, in an unconditioned parking garage or building crawl space.

D. Unprotected: The surface of insulated on non-insulated piping or ductwork on the exterior of the building and exposed to the weather.

1.7 SUBMITTALS

A. Shop Drawings: Shop drawings include piping system layouts, ductwork layouts, fabrication and installation drawings of supports and anchorage for mechanical materials and equipment, and coordination drawings. Shop drawings also include proposed equipment layouts, drawn to scale, indicating that proposed equipment will fit into allotted space, including service access, connections, etc.

1. Piping Systems: See Specification 232113 HYDRONIC PIPING. Submit shop drawings for piping systems drawn at a minimum scale of ¼ inch per foot to verify clearances and equipment locations. Show required maintenance and operational clearances. Include the following:

a. Architectural and structural backgrounds with room names and numbers, including but not limited to plans, sections, elevations and details.
b. Fabrication and erection dimensions.
c. Arrangements and sectional views.
d. Details, including complete information for making connections to equipment.
e. Descriptive names of equipment.
f. Modifications and options to standard equipment required by Contract Documents.
g. All in ground: Electrical Boxes, plumbing, mechanical, valve boxes or similar.

2. Ductwork: See Specification 233113 METAL DUCTS. Submit shop drawings for duct systems at a minimum scale of 1/4 inch per foot to verify clearances and equipment locations. Show required maintenance and operational clearances. Include the following:

a. Architectural and structural backgrounds with room names and numbers, etc., including but not limited to plans, sections, elevations, details, etc.
b. Fabrication and erection dimensions.
c. Arrangements and sectional views.
d. Details, including complete information for making connections to equipment.
e. Materials and finishes.
f. Descriptive names of equipment.
g. Modifications and options to standard equipment required by Contract Documents.

3. Coordination Drawings: Submit coordination drawings including detailed drawings showing locations and positions of all Architectural, structural, plumbing, fire protection, electrical and mechanical elements. Drawings shall be minimum ¼ inch per foot for each mechanical equipment room, mechanical riser, or chase. All other areas shall be a minimum 1/8 inch per foot. Including but not limited to the following:

a. Refer to 230010-1.7 below for additional coordination drawing requirements.
b. Architectural and structural backgrounds with room names and numbers, etc., including but not limited to plans, sections, elevations, details, etc.
c. Show all trades coordinated and signed off by all trades prior to submitting.
d. Show all required maintenance and operational clearances.
e. Show all required access doors, proposed door types, door finishes, and sizes for Architect review. (Walls, Floors Ceilings…)
f. All in ground: Electrical Boxes, plumbing, mechanical, valve boxes or similar.

4. All overhead equipment requiring access for maintenance and replacement shall have a clear vertical space from the equipment to the floor, excluding removable ceiling tiles. The clear vertical space shall also include the space required for equipment access from a ladder. This overhead equipment shall include but not be limited to air terminal units, exhaust fans and valves. Contractor shall coordinate with all trades to ensure this clearance is maintained; as this clearance area shall not be infringed upon by any equipment including conduit, wiring, piping or ceiling

grid support wires. (No equipment shall be over 16'AFF, and all equipment shall be accessible with no more than a standard 10' ladder.).

5. All exterior electrical, plumbing, mechanical or other similar equipment shall be shown on the coordination drawings and shop drawings, and shall be easily accessed without disturbing or traversing any landscaping.

B. Product Data: Product data includes the manufacturer's printed literature, and the complete model number for each piece of equipment.

C. Performance Data: Provide performance data, wiring and control diagrams.

D. Installation Instructions: Installation instructions include detailed information, from the manufacturer, indicating specific installation requirements, instructions, and recommendations. Generic installation instructions are not acceptable. Instructions shall be the same as those included with the product when it is shipped from the factory.

E. Written Operating Instructions: Operating instructions shall be the manufacturer's written operating instructions for the specified product. If the instructions cover more than one model or type of product they shall be clearly marked to identify the instructions that cover the product delivered to the project.

F. Maintenance Instructions: Maintenance instructions shall be the manufacturer's printed instructions and parts lists for the equipment furnished. If the instructions cover more than one model or type of equipment they shall be marked to identify the instructions for the furnished product.

G. Operations and Maintenance Manuals:

1. In addition to the comments noted above refer to below CxA requirements and refer to Commissioning Specifications and Commissioning Plan for additional requirements.
2. O&Ms shall be submitted (30) days after the approved equipment submittals.
3. O&M data shall be developed and compiled in accordance with ASHRAE Guideline 4.
4. One (1) bound copy and two (2) copies in PDF format are required. The PDF shall include recognizable text and bookmarks for ease of navigation.
5. The equipment submittals shall be provided by the CM in (1) complete and cohesive PDF package. If PDFs are combined, each submittal section shall be individually bookmarked to aid in navigation and review.
6. Any documentation that requires project completion shall be provided with a detailed placeholder indicating the information needed and the anticipated date or project milestone. All placeholders shall be filled and incorporated into the O&Ms prior to Substantial Completion.
7. A Schedule of Fuses, that lists all equipment which uses fuses, shall be included in the O&M manuals. This schedule shall indicate the quantity and size of fuses for each piece of equipment.

8. The following information shall be included in the O&M submittal for each system:

    a. Manufacturer's installation information
    b. Manufacturer's operational information
    c. Manufacturer's maintenance information
    d. Manufacturer or 3rd party start-up information
    e. Equipment name and full model number for each piece of equipment that is addressed by the O&M section
    f. All options or accessories that have been provided are identified and all items that have not been included are stricken
    g. All requirements to keep warranty in effect
    h. Any service contracts issued.

9. The O&Ms shall be reviewed and approved by the A/E team.

    a. When the A/E team's approval of the O&Ms is imminent, the CxA shall be notified proceed with a commissioning process related review of the documents. The CxA's comments shall be returned to the A/E team. The A/E team shall respond to these comments (where required response is needed by the A/E) and incorporate them into their comments to the contractor as needed to provide resolution.

H. Warranty Manuals:

1. In addition to the comments noted above refer to below CxA requirements and refer to Commissioning Specifications and Commissioning Plan for additional requirements.
2. Each manual shall have a "Table of Contents" page and each section shall be easily identified by a tabbed divider sheet.
3. Each manual shall have a title page that includes the name of the project; name of the manual; name, address and telephone number of the Contractor and Sub-contractor; and the date of expiration of the warranty.
4. All warranties are to be begin from the date of Substantial Completion.

5. The warranty manuals shall include a warranty matrix. Below is a list of information that shall be included in the warranty matrix. This information is intended to augment, but not replace any typical warranty requirements.

    a. This warranty matrix shall be a supplement to other specified warranty document requirements in the project specifications.
    b. The CM shall prepare and manage a warranty matrix (by division) that includes the warranty information for all of the equipment and systems in the project. The purpose of the warranty matrix is so the owner has a single reference document which provides basic information on warrantees.

    c. As a minimum, the warranty matrix shall include the following information:

1) Product Manufacturer
2) Manufacturer Address
3) Manufacturer's Project Order Number or Warranty Number
4) Serial numbers for all major equipment
5) Warranty Department Contact Information (Name, Phone Number, Address)
6) Start Date of Warranty
7) Duration of Warranty
8) Coverage
9) Limitation/Exclusions
10) Any specific maintenance or documentation requirements to maintain warranty
11) Owner of Warranty
12) When the A/E team's approval of the Warranty Manual is imminent, the CxA shall be notified proceed with a commissioning process related review of the documents. The CxA's comments shall be returned to the Owner and A/E team. The A/E team shall respond to these comments (where required response is needed by the A/E) and incorporate them into their comments to the contractor as needed to provide resolution.

I. As-Built Documents:

1. In addition to project specification requirements indicated in other specification sections and/or drawing notes, the following requirements shall be incorporated by the contractor.

2. An accurate set of construction as-builts is critical to the sustainability of the building. The following items shall outline the desired process associated with obtaining accurate as-builts:

   a. As-built documents shall be on the construction site at all times. The documents shall be updated to the current stage of construction, at least weekly.
   b. A field-copy of the completed as-built drawings shall be available for verification during commissioning verification.
   c. Following commissioning verification, any modifications shall be completed by the contractor, scanned and provided to the Owner and A/E team in PDF format (and electronic current AutoCAD or Revit format.). The PDF files shall be combined and bookmarked in the same manner as the original construction documents. All PDF bookmarks shall include the drawing number and description from the original titleblock. (Contractor shall provide their own title block for as-builts.)

   d. The A/E team shall be responsible for using the field-copy of the as-builts, field notes obtained during the construction administration process, and electronic as-builts provided by the contractor, to update the construction documents into an as-built set of documents.

1) The as-built drawings and specifications shall be provided to the Owner in an electronic format. This shall include all files and X-refs in DWG or DXF file format, as well as assembled and bookmarked PDFs. There shall be (1) copies provided by way of individual and labeled DVDs.

e. The contractor shall be responsible for identifying all in-ground boxes and providing as-built GPS coordinates for these locations on the respective as-built documents.

J. Training Plan. Refer to Requirements below

K. Systems Manual. Refer to Requirements below.

L. Spare Parts:

1. Spare materials shall be provided as a part of this project. In addition to any requirements in the drawings and/or specifications, the following minimum list of items shall be provided:

a. 5 of each of temperature sensor
b. 1 of each type of humidity sensor
c. 1 of each type of CO2 or VOC sensor
d. 1 of each type of dry differential pressure sensor and/or switch
e. 1 of each type of wet differential pressure sensor and/or switch
f. 1 of each type of air flow measuring station
g. 1 of each type of CT
h. 1 of each type of actuator
i. 1 of each type of thermometer
j. 1 of each type of pressure gauge
k. 1 of each type of BAS controller
l. 1 of ANY critical of long lead items
m. 2 of each type of BAS controller
n. 1 extra of any BAS interface

1.8 COORDINATION

A. Arrange for pipe spaces, chases, slots, and openings in building structure during progress of construction, to allow for HVAC installations.

B. Coordinate installation of required supporting devices and set sleeves in poured-in-place concrete and other structural components as they are constructed.

C. Coordinate requirements for access panels and doors for HVAC items requiring access that are concealed behind finished surfaces.

D. The Contractor shall coordinate efforts of all trades and shall furnish (in writing, with copies to the Architect and Owner) any information necessary to permit the Work of all trades to be installed satisfactorily and with the least possible interference or delay.

E. The Contractor and all Subcontractors shall prepare a complete set of construction coordination drawings ("Coordination Drawings") indicating the equipment actually purchased and the exact routing and elevations for all lines such as piping, busway, conduit, ductwork , etc., including conduit embedded in concrete and openings, sleeves, etc., required in the structure, walls, partitions, etc. The Coordination Drawings shall be submitted complete for review to the Architect, Engineer and Owner. The Coordination Drawing preparation and completion shall comply with the requirements of the Schedule. Prior to commencing the Work, the Subcontractor shall obtain from the Architect or Engineer a set of AutoCAD compatible format Architectural and Engineering Drawings on compact disks, to be used to produce the Coordination Drawings. The Subcontractor shall give to the Architect and Engineer a written release acceptable to the Architect and Engineer signed by a corporate officer of the Subcontractor, prior to receipt of the compact disks. The sheet metal Drawings, prepared on electronic media (CADD) at a scale not less than 1/4" = 1'-0", shall serve as the base Drawings to which all other Subcontractors will overlay and add their Work. The Division 23 Mechanical Subcontractor shall be designated as the lead contractor in the development of the composite layering process and shall be responsible for electronically restacking the various trade layers into the final composite (CADD) Drawings. Each trade shall draw their Work on separate layers represented by individual colors. Each Coordination Drawing shall be completed and signed off by the other Subcontractors and the Contractor prior to the installation of the Work in the area covered by the specific Coordination Drawing. The Subcontractors Work shall be installed in accordance with the Shop Drawings and the Coordination Drawings and shall include the required maintenance access space and the code clearance space. If the Contractor allows one trade to install their Work before coordinating with the Work of other trades, the Contractor shall make necessary changes to correct the condition without extra cost to the Owner. The Coordination Drawings indicating piping, conduit, busway and equipment support points and loads exceeding 250 lb. imposed on the building structure shall be submitted to the Architect for review and approval. The elevation, location, support points, static, dynamic and expansion forces and loads imposed on the structure at support and anchor points and the size of all lines shall be indicated. All beam penetrations, slab penetrations and sleeves shall be indicated, sized and coordinated with all other Work. All required code clearance space and required maintenance access space shall be indicated and coordinated with all other work. All Work routed underground or embedded in concrete shall be indicated by dimension to column and building lines and shall be coordinated. This requirement for Coordination Drawings shall not be construed as authorization for the Contractor or Subcontractor to make any unauthorized changes to the Drawings. All space allocations shown on the Drawings shall be maintained, such as ceiling height. Prior to final acceptance of the Work, the Contractor shall give the Drawing files in the latest version of AutoCAD or compatible format on CD-RW Recordable Rewrite Compact Discs, containing the Contractor's coordination documentation, to the Owner.

1.9 INSTRUCTION TO THE OWNER

A. General: Instructions to the Owner shall be accomplished by representatives of the manufacturers involved. Allow time for complete coverage of all operating procedures. Provide field training in the design, operation and maintenance of the equipment and troubleshooting procedures. Explain the identification system, operational diagrams, emergency and alarm provisions, sequencing requirements, seasonal provisions, security,

safety, efficiency and similar provisions of the systems. On the date of substantial completion, turn over the prime responsibility for operation of the mechanical equipment and systems to the Owner's operating personnel.

B. Training Period: Training period shall encompass a minimum of 12 hours of hands-on instructions with a maximum period of 4 hours per day.

C. Scheduling: Submit any remaining required items for checking at least one week before final inspection of the work. When submittal items are found acceptable, notify the Owner, in writing, that an "Instruction Conference" may proceed. Conference will be scheduled by the Owner. After the conference, copies of a memo certifying that the "Instruction Conference" and "Completed Demonstration" have been made will be signed by the Owner and the instructors, and one copy will be inserted in each submittal binder.

1. Training shall not be conducted with the owner until after the commissioning activities are complete.

D. Training Plan Content Requirements:

1. In addition to the comments noted above refer to below CxA requirements and refer to Commissioning Specifications and Commissioning Plan for additional requirements.
2. A Training Plan shall be developed by the contractor and provided to the Owner and A/E team for review and approval prior to any training instruction being conducted. When the A/E team’s approval of the Training Plan is imminent, the CxA shall be notified proceed with a commissioning process related review of the documents. The CxA’s comments shall be returned to the Owner and A/E team. The A/E team shall respond to these comments (where required response is needed by the A/E) and incorporate them into their comments to the contractor as needed to provide resolution.

3. The information below includes the typical requirements for the training plan for each building system:

a. Clearly identify the systems, subsystems, equipment, and assemblies for which training will be required.

1) Outline of instructional topics related to the systems, subsystems, equipment, and assemblies. These topics shall address the design, construction, operation, and maintenance of specific systems, assemblies, and equipment
2) Learning objectives and training delivery methods for each instructional topic

b. Clearly identify the number and type of training sessions.

1) The training program should be organized into a series of instructional modules, each covering a portion of the facility's systems, equipment, and assemblies.
2) The planned location of the training sessions (classroom, on site, and off site) and the minimum duration of each training session, in hours, to be completed as required in the OPR, Cx Plan, or construction documents

c. Instructor's qualifications

d. General purpose of system (design intent).

1) Overview and description of the purposes of the system.

e. Use of project documents.

1) Training materials requirements to be employed during the instructional process
2) Training report, records, and recording requirements
3) Upkeep of the Systems Manual and associated maintenance documentation and logs.

f. Review of control drawings and schematics.

1) Review of control drawings and schematics (have copies for attendees)
2) Building automation system (BAS) controls: programming, troubleshooting, alarms, manual operation, interface with integral controls
3) Integral controls (packaged): programming, troubleshooting, alarms, manual operation

g. Startup, normal operation, shutdown, unoccupied operation, seasonal changeover, manual operation, control setup and programming troubleshooting, and alarms.

1) System response to different operating conditions.
2) Startup, loading, normal operation, unloading, shutdown, unoccupied operation, seasonal changeover, etc., as applicable
3) Operation instructions and procedures: the procedures required for normal operation of the facility, including step-by-step instructions for day-to-day operation.
4) Adjustment instructions: information for maintaining operational parameters.
5) System troubleshooting: description of diagnostic step-by-step procedures for determining the source of problems on the system level; review technical service manual in detail.

6) Component troubleshooting: description of diagnostic procedures for determining the source of problems on the component level.
7) Common troubleshooting issues and methods, control system warnings and error messages, including using the control system for diagnostics.
8) Troubleshooting procedures: instructions for diagnosing operating problems and procedures for testing and inspecting.
9) Emergency instructions and procedures: those required for operating the facility during various emergencies, including step-by-step instructions for each type of emergency.

h. Interactions with other systems, including operation during power outage and fire.
i. Adjustments and optimizing methods for energy conservation.
j. Relevant health and safety issues and concerns and special safety features.
k. Demonstrate for the Owner that all floors with floor drains are pitched to the floor drain. Demonstrate all floor drains during training.
l. As a part of training, the contractor shall arrange for the Owner to access each piece of equipment located above finished floor, to confirm that clear vertical spaces have been provided.
m. All equipment located above the ceiling or behind an access door shall have the name of the equipment provided on the ceiling grid or access door that is clearly visible from ground level. This includes, but is not limited to air terminal units, valves, fire dampers and exhaust fans. During training the contractor shall identify each of these labels during a walk-thru style review with the Owner.

n. Component maintenance:

1) Instruction of required procedures for weekly, monthly, and annual preventive checks and timely repairs to preserve system integrity (sources, spare parts inventory, special tools, etc.).
2) Any special issues to maintain warranty.
3) Repair procedures: instructions for diagnosing problems and for disassembly, component removal, replacement, and reassembly.

o. The anticipated capabilities and knowledge of the occupants and operations and maintenance personnel.

1) Measurable learning objectives and teaching outlines should be developed to clearly describe the specific skills and knowledge that the participant is expected to master.

p. Occupant interaction issues.

1) Special requirements of tenants for this equipment's function.

q. Question and Answer Period.

4. Supplemental requirements for the Training have been provided below. These supplemental requirements shall be integrated with the training plan requirements as applicable.

    a. A digital video recording of each training session shall be made and three (3) copies shall be provided to the Owner prior to Substantial Completion.
    b. A minimum of four (4) hours of instruction shall be provided for each system or major piece of equipment.
    c. Classroom training shall be provided for the BAS system in the following quantities; three (3) day basic operator training for four (4) students; four (4) day intermediate training for four (4) students; four (4) day advance training for four (4) students.
    d. One week of factory training for two (2) operators at the general level and one week for two (2) operators at the advanced level shall be provided for the BAS system.
    e. Owner personnel shall receive training in the prevention, recognition and resolution of indoor environmental quality concerns.
    f. The Owner requires at least two (2) weeks reviewing the contractor provided training schedule and responding with availability for training sessions.
    g. The Owner desires more hands on training. Contractor shall indicate hands on sessions vs classroom sessions in the training plan for review by the Owner.
    h. Multiple sessions and shifts shall be coordinated with the Owner.
    i. Multi-lingual training shall be coordinated with the Owner for specific personnel and systems.
    j. All training shall include Standard Operating Procedures and the Procedures indicated above

E. Systems Manual:

1. A Systems Manual shall be developed for the commissioned systems. This document shall be developed to comply with the requirements and recommendations of ASHRAE 202-2013, ASHRAE GL-0-2005, ASHRAE GL-4 and LEED 2009. Refer to the table indicated in the Commissioning specifications, for the general format of the document and the responsible parties.
2. The initial system manual shall be submitted (30) days after the approved equipment.
3. The Final System manual shall be submitted prior to commissioning verification and substantial completion, whichever is first.
4. At the time of the initial and final system manual submission, the CxA shall provide the section covers and table of contents documents as described in the Commissioning plan. The documents will then be sent to the Design (A/E) Team for review and comment. Following approval; the A/E team, Owner, Contractor shall incorporate their portions of the systems manual and the forward it the CxA for verification. The CxA will return any comments to the A/E team and incorporate their portions of the systems manual.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Specified Products: Manufacturer's names and product model numbers indicated on the drawings and in these specifications establish the type, style, quality, performance, and sound rating of the desired product. Listing of other manufacturers indicates that their equivalent products would be acceptable if they meet the specification requirements, the specific use and installation shown on the drawings, including space and clearance requirements, and the energy consumption and efficiency of the specified product.

B. Space Requirements: All manufactured products furnished on this project must have the required space and service areas indicated in the manufacturer's printed literature or shown on their approved shop drawings. When the manufacturer does not indicate the space required for servicing the equipment, the space shown on the drawings or as required by the Engineer must be provided.

2.2 MATERIAL AND EQUIPMENT

A. General: Material and equipment used shall be produced by manufacturers regularly engaged in the production of similar items, and with a history of satisfactory use as judged by the Engineer.

B. Specified Equipment: Equipment shall be the capacity and types indicated. Equipment and material furnished shall be the manufacturer's standard item of production unless specified or required to be modified to suit job conditions. Sizes, material, finish, dimensions and the capacities for the specified application shall be published in catalogs for national distribution. Ratings and capacities shall be certified by a recognized rating bureau. Products shall be complete with accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.

C. A~~C~~ompatibility: Material and equipment of one and the same kind, type or classification and used for identical or similar purposes shall be made by the same manufacturer. Where more than one choice is available, select the options which are compatible with other products already selected. Compatibility is a basic general requirement of product selection.

D. Zero where possible, and Low VOC construction materials shall be utilized for this project to comply with owners OPR and BOD. Product submittals shall clearly indicate compliance with this project requirement.

2.3 PIPE, TUBE, AND FITTINGS

A. Refer to individual Division 23 piping Sections for pipe, tube, and fitting materials and joining methods.

B. Pipe Threads: ASME B1.20.1 for factory-threaded pipe and pipe fittings.

2.4 JOINING MATERIALS

A. Refer to individual Division 23 piping Sections for special joining materials not listed below.

B. Pipe-Flange Gasket Materials: Suitable for chemical and thermal conditions of piping system contents.

1. ASME B16.21, nonmetallic, flat, asbestos-free, 1/8-inch maximum thickness unless thickness or specific material is indicated.

a. Full-Face Type: For flat-face, Class 125, cast-iron and cast-bronze flanges.
b. Narrow-Face Type: For raised-face, Class 250, cast-iron and steel flanges.

2. AWWA C110, rubber, flat face, 1/8 inch thick, unless otherwise indicated; and full-face or ring type, unless otherwise indicated.

C. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.

D. Solder Filler Metals: ASTM B 32, lead-free alloys. Include water-flushable flux according to ASTM B 813.

E. Brazing Filler Metals: AWS A5.8, BCuP Series, copper-phosphorus alloys for general-duty brazing, unless otherwise indicated; and AWS A5.8, BAg1, silver alloy for refrigerant piping, unless otherwise indicated.

F. Welding Filler Metals: Comply with AWS D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.

2.5 DIELECTRIC FITTINGS

A. Description: Combination fitting of copper alloy and ferrous materials with threaded, solderjoint, plain, or weld-neck end connections that match piping system materials.

B. Insulating Material: Suitable for system fluid, pressure, and temperature.

C. Dielectric Unions: Factory-fabricated, union assembly, for 250-psig minimum working pressure at 180 deg F.

D. Dielectric Flanges: Factory-fabricated, companion-flange assembly, for 150- or 300-psig minimum working pressure as required to suit system pressures.

E. Dielectric Couplings: Galvanized-steel coupling with inert and noncorrosive, thermoplastic lining; threaded ends; and 300-psig minimum working pressure at 225 deg F.

F. Dielectric Nipples: Electroplated steel nipple with inert and noncorrosive, thermoplastic lining; plain, threaded, or grooved ends; and 300-psig minimum working pressure at 225 deg F .

2.6 MECHANICAL SLEEVE SEALS

A. Description: Modular sealing element unit, designed for field assembly, to fill annular space between pipe and sleeve.

1. Sealing Elements: EPDM interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
2. Pressure Plates: Stainless steel. Include two for each sealing element.
3. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements. Include one for each sealing element.

2.7 SLEEVES

A. Galvanized-Steel Sheet: 0.0239-inch minimum thickness; round tube closed with welded longitudinal joint.

B. Steel Pipe: ASTM A 53, Type E, Grade B, Schedule 40, galvanized, plain ends.

C. Cast Iron: Cast or fabricated "wall pipe" equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.

D. Stack Sleeve Fittings: Manufactured, cast-iron sleeve with integral clamping flange. Include clamping ring and bolts and nuts for membrane flashing.
1. Underdeck Clamp: Clamping ring with set screws.

E. Molded PVC: Permanent, with nailing flange for attaching to wooden forms.

F. PVC Pipe: ASTM D 1785, Schedule 40.

2.8 ESCUTCHEONS

A. Description: Manufactured wall and ceiling escutcheons and floor plates, with an ID to closely fit around pipe, tube, and insulation of insulated piping and an OD that completely covers opening.

B. One-Piece, Deep-Pattern Type: Deep-drawn, box-shaped brass with polished chrome-plated finish.

C. One-Piece, Cast-Brass Type: With set screw.

1. Finish: Polished chrome-plated.

D. One-Piece, Stamped-Steel Type: With set screw or spring clips and chrome-plated finish.

E. Split-Plate, Stamped-Steel Type: With exposed-rivet hinge, set screw or spring clips, and chrome-plated finish.

F. One-Piece, Floor-Plate Type: Cast-iron floor plate.

2.9 VIBRATION AND SOUND CONTROL

A. Sound is of the utmost critical nature in this facility. The contractor shall comply with Specification Section 230548 Vibration Controls for HVAC Piping & Equipment. Contractor shall provide isolation and support in strict accordance to the specification.

1. Contractor shall provide all necessary vibration isolation and support to install a noise and vibration-free systems.

B. Contractor shall provide hanging and support in compliance with Specification Section 23 0529 Hangers and Supports for HVAC Piping and Equipment.

2.10 EXPOSED DUCTWORK AND EQUIPMENT

A. All exposed ductwork and equipment shall be installed with attention to aesthetic details. System shall be installed in a logical method.

1. Equipment shall be systematically laid out. Exposed piping, ductwork, etc. that is visually undesirable to the architect/engineer shall be reinstalled at the contractor's sole expense.
2. Exposed Ductwork in the space that is visually undesirable to the architect/engineer shall be reinstalled at the contractor's sole expense.

2.11 EQUIPMENT GREASE FITTINGS

A. Provide grease fittings for all equipment requiring grease for maintenance. Grease fittings shall fit a standard grease gun.

B. Access to grease points on all equipment shall be provided without the use of remote grease fittings. If this cannot be provided, the remote grease lines shall be copper, with grease fittings located in an accessible location.

PART 3 - EXECUTION

3.1 WORKMANSHIP

A. General: Personnel who install materials and equipment shall be qualified by training and experience to perform their assigned tasks.

B. Performance: Material and equipment installations not in compliance with the Contract Documents, or installed with substandard workmanship in the opinion of the Engineer, shall be removed and reinstalled.

3.2 CLEANING AND PROTECTION

A. General: Refer to Division 01.

B. Housekeeping: Keep interiors of duct and pipe systems clean and free from dirt, rubbish and foreign matter. Close open ends of piping and ductwork at all times throughout the installation. Install 30% efficient filter media over each return air grille and open return duct opening; change media regularly during construction when dirty to keep duct interiors clean. Prevent dust, debris and foreign material from entering the piping and ductwork.

C. Equipment Protection: Protect fan motors, switches, equipment, fixtures, and other items from dirt, rubbish and foreign matter. Do not operate air handling equipment if the building is not clean or if dust can enter the coils or the fan housings.

D. Equipment Cleaning: Thoroughly clean equipment and entire piping systems internally upon completion of installation and immediately prior to Submittal Completion. Open dirt pockets and strainers, blow down each piping system and clean strainer screens of accumulated debris. Remove accumulated dirt, scale, oil and foreign substances. Thoroughly wipe clean internal surfaces of ductwork and air handling units prior substantial completion. ~~Refer to Section 15060, Pipe and Fittings, for detailed requirements for piping systems' flushing and cleaning.~~

E. Fixture Cleanup: Remove temporary labels, stickers, etc., from fixtures and equipment. Do not remove permanent name plates, equipment model numbers, ratings, etc.

F. Filter Replacement: Provide filters, with the same efficiency rating as required for the final installation, for the protection of the air moving equipment and ductwork continuously throughout the construction phase. Provide a new set of clean filters for the test and balance of the air side equipment.

G. Protection of Finished Installation: Where installation is required in areas previously finished by other trades, protect the area from marring, soiling or other damage.

3.3 CORRECTION OF WORK

A. General: At no additional cost to the Owner, rectify discrepancies between the actual installation and Contract Documents when in the opinion of the Testing and Balancing Agency (T&B Agency) or the Engineer the discrepancies will affect system balance and performance.

B. Drive Changes: Include the cost of all pulley, belt, and drive changes, as well as balancing dampers, valves and fittings, and access panels to achieve proper system balance recommended by the T&B Agency.

3.4 COORDINATION AND ASSISTANCE

A. General: Provide all labor, equipment, tools and material required to operate the equipment and systems necessary for the testing and balancing of the systems and for the adjustment, calibration and repair of all electric or pneumatic automated control devices and components. These services shall be available on each working day during the period of final testing and balancing.

B. Drawings and Specifications: Provide to the T&B Agency a complete set of project record drawings and specifications and an approved copy of all HVAC shop drawings and equipment submittals. The T&B Agency shall be informed of all changes made to the system during construction, including applicable change orders.

C. Coordination: Coordinate the work of all trades and equipment suppliers to complete the modifications recommended by the T&B Agency and accepted by the Engineer. Cut or drill holes for the insertion of air measuring devices as directed for test purposes; repair to as-new condition, inserting plastic caps or covers to prevent air leakage. Repair or replace insulation and re-establish the integrity of the vapor retardant.

3.5 PIPING SYSTEMS - COMMON REQUIREMENTS

A. Install piping according to the following requirements and Division 23 Sections specifying piping systems.

B. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.

C. Install piping in concealed locations, unless otherwise indicated and except in equipment rooms and service areas.

D. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.

E. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.

F. Install piping to permit valve servicing.

G. Install piping at indicated slopes.

H. Install piping free of sags and bends.

I. Install fittings for changes in direction and branch connections.

J. Install piping to allow application of insulation.

K. Select system components with pressure rating equal to or greater than system operating pressure.

L. Install escutcheons for penetrations of walls, ceilings, and floors according to the following:

1. Piping:

a. Piping with Fitting or Sleeve Protruding from Wall: One-piece, deep-pattern type.
b. Insulated Piping: One-piece, stamped-steel type with spring clips.
c. Bare Piping at Wall and Floor Penetrations in Finished Spaces: One-piece, castbrass type with polished chrome-plated finish.
d. Bare Piping at Wall and Floor Penetrations in Finished Spaces: One-piece, stamped-steel type.
e. Bare Piping at Ceiling Penetrations in Finished Spaces: One-piece or split-casting, cast-brass type with polished chrome-plated finish.
f. Bare Piping at Ceiling Penetrations in Finished Spaces: One-piece, stamped-steel type or split-plate, stamped-steel type with concealed hinge and set screw.
g. Bare Piping in Unfinished Service Spaces: One-piece, cast-brass type with polished chrome-plated finish.
h. Bare Piping in Unfinished Service Spaces: One-piece, stamped-steel type with concealed or exposed-rivet hinge and set screw or spring clips.
i. Bare Piping in Equipment Rooms: One-piece, cast-brass type.
j. Bare Piping in Equipment Rooms: One-piece, stamped-steel type with set screw or spring clips.
k. Bare Piping at Floor Penetrations in Equipment Rooms: One-piece, floor-plate type.

3.6 PIPING JOINT CONSTRUCTION

A. Join pipe and fittings according to the following requirements and Division 23 Sections specifying piping systems.

B. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.

C. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.

D. Soldered Joints: Apply ASTM B 813, water-flushable flux, unless otherwise indicated, to tube end. Construct joints according to ASTM B 828 or CDA's "Copper Tube Handbook," using leadfree solder alloy complying with ASTM B 32.

E. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," "Pipe and Tube" Chapter, using copper-phosphorus brazing filler metal complying with AWS A5.8.

F. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:

1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.

G. Welded Joints: Construct joints according to AWS D10.12, using qualified processes and welding operators according to Part 1 "Quality Assurance" Article.

H. Flanged Joints: Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.

3.7 PIPING CONNECTIONS

A. Make connections according to the following, unless otherwise indicated:

1. Install unions, in piping NPS 2 and smaller, adjacent to each valve and at final connection to each piece of equipment.
2. Install flanges, in piping NPS 2-1/2 and larger, adjacent to flanged valves and at final connection to each piece of equipment.
3. Wet Piping Systems: Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals.

3.8 EQUIPMENT INSTALLATION - COMMON REQUIREMENTS

A. Install equipment to allow maximum possible headroom unless specific mounting heights are not indicated.

B. Install equipment level and plumb, parallel and perpendicular to other building systems and components in exposed interior spaces, unless otherwise indicated.

C. Install HVAC equipment to facilitate service, maintenance, and repair or replacement of components. Connect equipment for ease of disconnecting, with minimum interference to other installations. Extend grease fittings to accessible locations.

D. Install equipment to allow right of way for piping installed at required slope.

3.9 PAINTING

A. Painting of HVAC systems, equipment, and components is specified in Division 9 Sections "Interior Painting" and "Exterior Painting."

B. Damage and Touchup: Repair marred and damaged factory-painted finishes with materials and procedures to match original factory finish.

3.10 CONCRETE BASES

A. Concrete Bases: Anchor equipment to concrete base according to equipment manufacturer's written instructions and according to seismic codes at Project.

1. Construct concrete bases of dimensions indicated, but not less than 4 inches larger in both directions than supported unit.

2. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch centers around the full perimeter of the base.
3. Install epoxy-coated anchor bolts for supported equipment that extend through concrete base, and anchor into structural concrete floor.
4. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
5. Install anchor bolts to elevations required for proper attachment to supported equipment.
6. Install anchor bolts according to anchor-bolt manufacturer's written instructions.
7. Use minimum 3000-psi (or higher psi rating if required by the equipment manufacture or structural drawings), 28-day compressive-strength concrete and reinforcement as specified in Division 3 Section "Cast-in-Place Concrete.".

3.11 ERECTION OF METAL SUPPORTS AND ANCHORAGES

A. Refer to Division 5 Section "Metal Fabrications" for structural steel.

B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor HVAC materials and equipment.

C. Field Welding: Comply with AWS D1.1.

3.12 GROUTING

A. Mix and install grout for HVAC equipment base bearing surfaces, pump and other equipment base plates, and anchors.

B. Clean surfaces that will come into contact with grout.

C. Provide forms as required for placement of grout.

D. Avoid air entrapment during placement of grout.

E. Place grout, completely filling equipment bases.

F. Place grout on concrete bases and provide smooth bearing surface for equipment.

G. Place grout around anchors.

H. Cure placed grout.

3.13 ACCESS DOORS AND FRAMES

A. Provide access doors and frames of the appropriate size and locations to allow access to mechanical equipment, valves, dampers, etc. All locations are to be field verified with the Architect prior to installation.

3.14 CEILING GRID / ACCESS DOOR LABELING AND EQUIPMENT LABELS:

A. All equipment located above the ceiling or behind an access door shall have the name of the equipment provided on the ceiling grid or access door that is clearly visible from ground level. This includes, but is not limited to air terminal units, valves, fire dampers and exhaust fans. During training the contractor shall identify each of these labels during a walk-thru style review with the Owner.

B. Equipment shall be clearly labeled (including but not limited to starters, disconnects, VFDs, Equipment…) and shall be consistent with the names used on the design drawings.

C. Refer to individual specification sections for additional labeling requirements.

D. Refer to Specification Section 230553 “Identification for HVAC Piping and Equipment” for additional requirements.

3.15 IN GROUND BOXES:

A. All in-ground electrical boxes, valve boxes or other similar equipment smaller than 24”x24” shall have a concrete pad poured around the perimeter to extend the edges of the location to at least 24”x24”.

3.16 INSTALLATION OF HVAC EQUIPMENT SUPPLIED BY OTHERS DIVISIONS

A. A. Division 23 Contractors shall be responsible provide all necessary labor, materials, and coordination required for successful installation of equipment provide by other divisions but vital for successful operation of HVAC equipment. Equipment and materials vital for successful operation of HVAC equipment include but are not limited to the follow:

1. Control Dampers
2. Control Valves

3. Kitchen Equipment:

    a. Cooler/Freezer Refrigeration Equipment
    b. Cooler/Freezer Refrigerant Piping
    c. Cooler/Freezer Refrigeration Curbing/Support/Wind Restraints

4. Thermowells
5. Pipe Taps
6. Water Sensors and Switches

3.17 PREPARATIONS FOR PERFORMANCE VERIFICATION

A. See Specification Section 230593 TESTING, ADJUSTING, AND BALANCING

B. Verification: Prior to commencement of balancing by the T&B Agency, verify the following in writing:

1. Air filters have been replaced and are clean.
2. Linkages between dampers and their actuators are secure, non-overloading and non-binding.
3. Ductwork specialties are in their normal operating positions.
4. Fans are operating at the correct rotation and specified RPM.
5. Ductwork has been pressure tested and accepted.
6. Strainers have been removed, cleaned and replaced, and that temporary construction strainers have been removed.
7. Compression or expansion tanks have been inspected, are not air-bound or water-logged and are pre-charged, and that the piping systems have been completely vented and filled with water.
8. Air vents at coils and high points of the piping systems have been inspected and installed and operating freely.
9. Automatic valves, hand valves, and balancing valves have been placed in a fixed open position for full flow through all devices.
10. Linkages between valves and their actuators are secure, non-overloading and non-binding.
11. Pressures for hydronic reducing valves have been set.
12. Operating temperatures have been set for chillers and regulating valves.
13. Pumps are operating at the correct rotation and specified horsepower.
14. Piping has been pressure tested and accepted and piping systems have been cleaned, flushed, sterilized and refilled with chemicals and prescribed treated water and vented.
15. Operating safety features (such as thermal overloads, firestats, freezestats, smoke detectors and relief valves), are installed and fully functional.
16. Equipment has been lubricated and can be operated without damage.
17. Systems are operational and complete.
18. No latent residual work remains to be completed.

3.18 PREFUNCTIONAL AND FUNCTIONAL PERFORANCE TESTING

A. Division 23 Contractors shall be responsible to carry out the commissioning requirements specified in the commissioning sections, and all other sections where related to commissioning. Provide all necessary labor, materials, and coordination required for successful completion of the commissioning requirements. Refer to all other individual project specification sections, Commissioning Specifications and Commissioning Plan for additional testing requirements.

B. System verification: HVAC Controls:

1. In addition to any other specified System Verification Requirements, the following minimum system verification shall be performed in addition to other project specifications. (Note: If there is a duplicate of system verification, it is not the intent to specify System Verification twice, but to establish the minimum requirements if not specified otherwise.)

2. Verify all sequences of operation, schedules, alarms and notifications

a. Test method:

1) Sequences, alarms and notifications will be demonstrated by the controls contractor using the functional performance test provided by the CxA.

b. Requirements to facilitate testing:

1) All sequences of operation, schedules, alarms and notifications shall be included on the contractors shop drawings in accordance with the construction documents, and numbered to allow ease of reference.
2) Each sequence, alarm or notification shall include a defined start, stop and response time value.

3. Verify setpoints and time delays:

1) Test method:

a) Setpoints and time delays will be demonstrated by the controls contractor using the functional performance test or construction checklists provided by the CxA

2) Requirements to facilitate testing:

3) All setpoints and time delays shall be included on the contractors shop drawings in accordance with the construction documents, along with the following information:

a) Values that shall be visible on the user graphics.
b) Values adjustable from the user graphics
c) Allowable range for user manipulation from the Values being trended
d) User adjustments being monitored
e) Adjustable range by users in space

4. Verify component calibration:

a. Component Calibration data required below, shall be clearly indicated in the contractors shop drawings, in accordance with contract drawings and specifications, to facilitate Component Calibration.

b. Humidity sensors and temperature sensors (air or water):

1) Test Method:

a) Calibration will be demonstrated by the TAB and controls contractors using a calibrated test instrument and comparing the control system value to the test measurement obtained within 12" of the sensors location.

2) Requirements to facilitate testing: The following values need to be defined in the contractors shop drawings per the contract documents for each sensor type:

a) Intended installation location
b) Device accuracy defined as a set value, percentage of operating range or percentage of measured value
c) Field calibration accuracy defined as a set value, percentage of operating range or percentage of measured value
d) Allowable control system or transducer offset
e) Wet temperature sensors require a pressure/temperature port that will provide an accurate and consistent reading. Provide a P/T test port by each wet sensor.

f) Air sensors require a ductwork location that will provide an accurate and consistent reading, therefore shall be located to provide the specified accuracy in accordance with the manufactures installation guidelines for the actual installation conditions.

c. Carbon Dioxide (CO2) or Volatile Organic Compound (VOC):

1) Test Method:

a) Calibration will be demonstrated by the TAB and controls contractors using an HVAC sequence of operation and test for relative calibration.
b) With building empty, allow O/A to enter the building until the reading for the O/A is within 50ppm of the indoor air, then close the O/A damper and continue to circulate indoor air for approximately 1-hr to confirm all sensors measure within 50ppm of each other.

2) Requirements to facilitate testing: The following values need to be defined in the contractors shop drawings per the contract documents for each sensor type:

a) Intended installation location
b) Device accuracy defined as a set value, percentage of operating range or percentage of measured value
c) Field calibration accuracy defined as a set value, percentage of operating range or percentage of measured value

d) Allowable control system or transducer offset

d. Airflow measuring stations:

1) Test Method:

a) Calibration will be demonstrated by TAB and controls contractor at the top and bottom of the typical operating range by performing a duct traverse up or downstream of device and comparing it to the control system value.
b) Where provided on design drawings, verification of an air filter between the unfiltered outside air and the airflow measuring station will be visually verified with the mechanical contractor.

2) Requirements to facilitate testing: The following values need to be defined on the contractors shop drawings in accordance with the contract documents for each sensor:

a) Intended installation location on ductwork drawing showing manufacturer recommended upstream and downstream straight duct requirements.
b) Intended installation location of the outside air filter.
c) Device accuracy defined as a set value, percentage of operating range or percentage of measured value.
d) Field calibration accuracy defined as a set value, percentage of operating range or percentage of measured value.
e) Allowable control system or transducer offset.

e. Dampers:

1) Test Method:

a) Calibration will be demonstrated by the TAB and controls contractor by conducting a visual verification of the device and comparing it to the control system value.

2) Requirements to facilitate testing:

a) Access doors and/or an accessible location within a user serviceable distance from the equipment shall be installed. Doors shall be sized to provide proper service access and accommodate testing/verification.

f. Hydronic valves:

1) Test Method:

a) Calibration will be demonstrated by the TAB and controls contractor by conducting a visual verification of the valve stem position and comparing it to the control system value.
b) The closed position shall be demonstrated by the TAB contractor using a differential pressure or temperature based leak-by test.

2) Requirements to facilitate testing:

a) Pressure/temperature test ports shall be installed immediately before and after the location of the leak-by test.

g. Current (Amp) Transducer or Switch:

1) Test Method:

a) Calibration will be demonstrated by the TAB and controls contractor using a calibrated test instrument and comparing the control system value to the test measurement.

2) Requirements to facilitate testing: The following values need to be defined for each sensor type:

a) Intended installation location
b) Device accuracy defined as a set value, percentage of operating range or percentage of measured value
c) Field calibration accuracy defined as a set value, percentage of operating range or percentage of measured value
d) Allowable control system or transducer offset

h. Hydronic static pressure or differential pressure sensor:

1) Test Method:

a) Calibration will be demonstrated by the TAB and controls contractor at the top and bottom of the typical operating range using a calibrated test instrument and comparing it to the control system value.

2) Requirements to facilitate testing: The following values need to be defined for each sensor type:

a) Intended installation location
b) Device accuracy defined as a set value, percentage of operating range or percentage of measured value.
c) Field calibration accuracy defined as a set value, percentage of operating range or percentage of measured value
d) Allowable control system or transducer offset.

e) Wet pressure sensors require a pressure/temperature port that will provide an accurate and consistent reading. Provide a P/T test port tee'd into each wet sensor input to accommodate calibration and testing.

i. Airflow Switch:

1) Test Method:

a) Calibration will be demonstrated by the TAB and controls contractor conducting a visual verification of the device and comparing it to the control system value.

2) Requirements to facilitate testing: The following values need to be defined for each sensor type:

a) Intended installation location
b) Device accuracy defined as a set value, percentage of operating range or percentage of measured value.
c) Field calibration accuracy defined as a set value, percentage of operating range or percentage of measured value.
d) Allowable control system or transducer offset.

j. Hydronic flow meter:

1) Test Method:

a) Calibration will be demonstrated by the TAB and controls contractor by isolating flow to a single pump or coil, determining the associated flow based on pressure drop and comparing it to the control system value

2) Requirements to facilitate testing: The following values need to be defined for each sensor type:
a) Intended installation location on CHW/HHW piping in accordance with manufacturer recommended upstream and downstream straight piping requirements.
b) Device accuracy defined as a set value, percentage of operating range or percentage of measured value.
c) Field calibration accuracy defined as a set value, percentage of operating range or percentage of measured value.
d) Allowable control system or transducer offset.

5. System verification: Each AHU, FCU, RTU or similar air handling device:

a. Control system components, including but not limited to sequences of operation, setpoints, time delays, dampers and valves shall be verified in accordance with the HVAC Control System information above.

b. Verify minimum / maximum supply, outside air and exhaust air volume.

1) Test method:

a) TAB contractor shall perform a duct traverse and compare it to the design values.

2) Requirements to facilitate testing:

a) Identify the intended test location on ductwork shop drawings and any requirement for straight ductwork.

c. Verify total and external static pressure on equipment

1) Test method:

a) TAB contractor shall perform static pressure profile across all associated dampers, filters, coils, heating elements and similar components at the maximum volume and compare it to the design value.

2) Requirements to facilitate testing:

a) Adequate access to drill or use pre-installed test ports at each pressure drop location along the equipment. (Contractor shall seal and plug all test ports after testing is complete with a removable plug to accommodate re-testing in the future.).

d. Verify hydronic volumes:

1) Test method:

a) TAB contractor shall demonstrate by measuring wet differential pressure across coil and comparing it to the manufacturer’s coil data.
b) Verification shall be conducted (and documented) with system at the minimum differential pressure required to satisfy the building’s most hydraulically remote device.

2) Requirements to facilitate testing:

a) Pressure and temperature test ports of adequate length will be needed immediately before and after CHW coil connection. (Install P/T Test ports to accommodate verification.)

e. Verify static and differential pressure at balancing device.

1) Test method:

a) Static and differential pressure will be verified with TAB contractor at the pressure and temperature ports nearest the balancing device.

2) Requirements to facilitate testing:

a) Pressure and temperature test ports needed to verify coil GPM should facilitate this test as well.

f. Verify heat transfer capacity of hydronic heating or cooling coil.

1) Test method:

a) While inducing the coil's maximum capacity by manipulating air volumes and temperatures, the TAB contractor will measure the water temperature and pressure drop to calculate the coil capacity.

2) Requirements to facilitate testing:

a) Pressure and temperature test ports needed to verify coil GPM should facilitate this test as well.

g. Verify heat transfer capacity of electric or DX heating or cooling coil:

1) Test method:

a) While inducing the coil's maximum capacity by manipulating air volumes and temperatures, temperature before and after the coil will be verified with the TAB contractor and used in conjunction with a known or measured air volume.
b) For electric heating coils, capacity may be determined by measuring voltage and amperage in lieu of air temperatures.

2) Requirements to facilitate testing:

a) Ductwork test location used for verifying air volumes should also facilitate this test

h. Verify coil EAT (DB & WB), LAT (DB & WB), EWT and LWT.

1) Test Method:

a) These values will be verified with the TAB contractor using a calibrated test instrument upstream and downstream of the coil.

2) Requirements to facilitate testing:

a) Sufficient access to ductwork and piping around unit. Testing for the unit's hydronic volumes should facilitate test ports for these measurements as well.

i. Verify motor(s) HP, amps and volts:

1) Test Method:

a) While at maximum design conditions, these values will be verified with the TAB contractor and their previously used calibrated test instruments.
b) Requirements to facilitate testing: No specific requirements.

j. Verify motor and Fan RPM

1) Test Method:

a) While at maximum design conditions, these values will be verified the TAB contractors calibrated tachometer.

2) Requirements to facilitate testing: No specific requirements.

k. Verify VFD operation

1) Test Method:

a) All Programmed settings will be accessed locally at the equipment verified with the TAB and mechanical contractor.
b) Direction of equipment rotation will be verified with the mechanical contractor using the VFD inverter and the mechanical bypass.

2) Requirements to facilitate testing:

a) Programmed settings for the following values need to be defined by the VFD start-up technician and controls contractor for a stable operating system:
b) Acceleration & Deceleration time
c) Minimum & Maximum operation frequency

d) Safeties that must remain in place when in bypass

6. System verification: Each Terminal Unit:

a. Verify control system components including but not limited to sequences of operation, setpoints, time delays, dampers and valves in accordance with the HVAC Control System information above.

b. Verify minimum and maximum air volumes for heating and cooling

1) Test Method:

a) Air volumes for each grille downstream of the unit shall be verified with the TAB contractor using a duct traverse or flow hood measurement.

2) Requirements to facilitate testing:

a) Access to terminal unit and grilles and/or ductwork. (Flow Hood is the preferred method.)

c. Verify heat transfer capacity in accordance with the AHU, FCU, RTU information above.

7. System verification: Each Pump:

a. Verify control system components including but not limited to sequences of operation, setpoints, time delays, dampers and valves in accordance with the HVAC Control System information above.
b. Verify volume, head pressure, impeller diameter

c. Test Method:

1) Differential pressure across the pump shall be verified with the TAB contractor and compared to the manufacturer's performance curve at shut-off and the systems designed differential pressure setpoint.

2) Requirements to facilitate testing:

a) Pressure/temperature ports immediately before and after the pump.
b) Differential pressure setpoint used during the TAB. (Note: This should be the lowest differential pressure that maintain the system balance requirements, and is determined during TAB.)

d. Verify motor HP, amps, volts, RPM

1) Test Method:
a) While at maximum design conditions, these values will be verified with the TAB contractor and their previously used calibrated test instruments.

2) Requirements to facilitate testing: No specific requirements

e. Verify VFDs in accordance with the AHU, FCU, RTU information above.

8. System verification: Each supply fan, exhaust fan or outside air fan:

a. Verify control system components including but not limited to sequences of operation, setpoints, time delays, dampers and valves in accordance with the HVAC Control System information above.
b. Verify minimum / maximum air volume in accordance with the AHU, FCU, RTU information above.
c. Verify motor(s) HP, amps and volts in accordance with the AHU, FCU, RTU information above.
d. Verify motor and fan RPM in accordance with the AHU, FCU, RTU information above.
e. Verify VFDs in accordance with the AHU, FCU, RTU information above.

C. Photo Documentation of Valves:

1. All automatic flow control balancing valves, manual balancing valves and motorized control valves shall be photographed in their installed position prior to insulation installation. The pictures shall include the nameplate of the associated equipment and the nameplate of the valve with the manufacturer, model, volume and flow direction clearly visible. Additional pictures shall be taken as necessary to clearly illustrate the valves position in the piping relative to the surrounding equipment and devices.
2. All valves shall be equipped with a valve tag and match the valve chart.

3.19 PROTECTION OF MATERIALS AND EQUIPMENT

A. Requirements: Do not store fiberglass insulation or any equipment within the building until it has been "dried in". If dry space is unavailable and the insulation and equipment must be installed or stored before the building is "dried in" and completely enclosed, provide polyethylene film cover for protection.

B. Replacement of Damaged Stored Material and Equipment: Any material and equipment that has been wet or otherwise damaged prior to installation shall be replaced with new material regardless of the condition of the material and equipment at the time of installation.

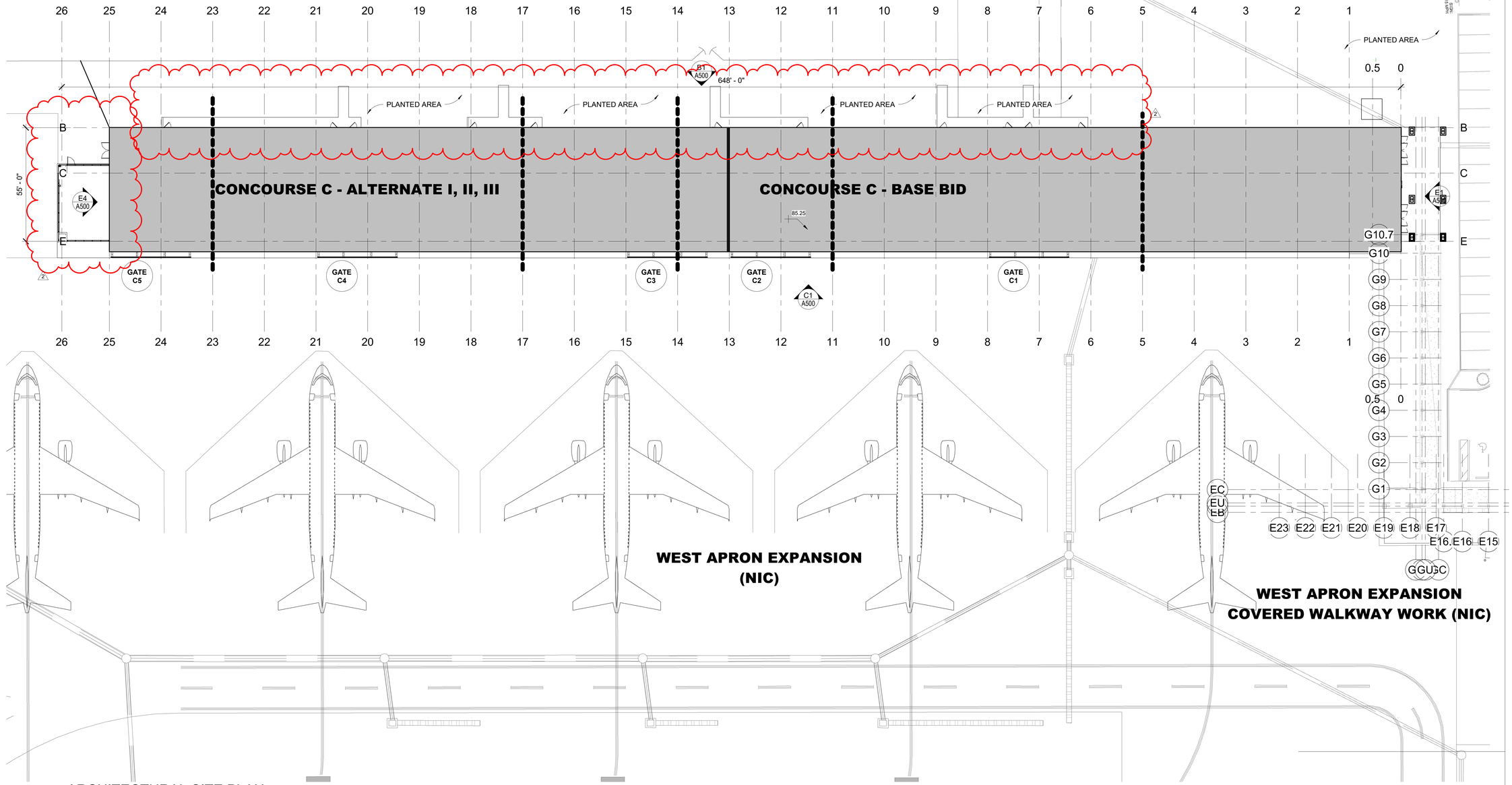
C. Repair of Damaged Installed Material and Equipment: After installation correct or repair dents, scratches and other visible blemishes. At the direction of Engineer replace or repair to "as new" condition equipment which has been damaged during construction.

3.20 COORDINATION OF SERVICES

A. Interruption of services: Provide shutoff valves at points of interconnection to minimize downtime.

END OF SECTION 23 00 10

PARKING LOT B EXPANSION
(NIC)



A1 ARCHITECTURAL SITE PLAN

1" = 20'-0"

SCALE: 1" = 20'-0"

0 5' 10' 20' 40'

TRUE NORTH

NORTH

BIM 360://Design of Satellite Concourse/VPS-MLM_A.rvt

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OKALOOSA COUNTY

FLY VPS

C19-2811- AP
Construction of Satellite Concourse 'C'

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MLM SOLE-TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	1" = 20'-0"

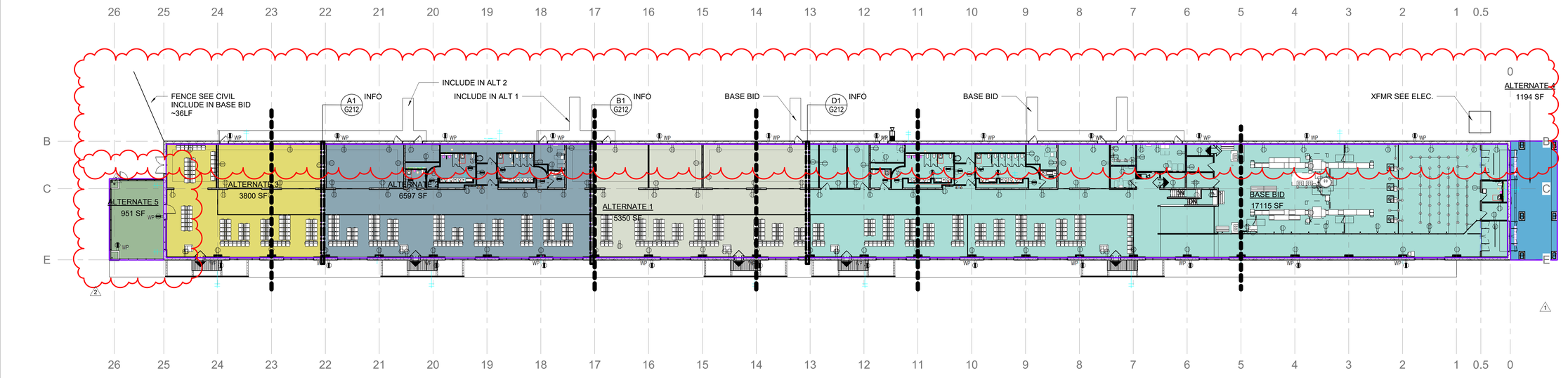
Drawing Title:

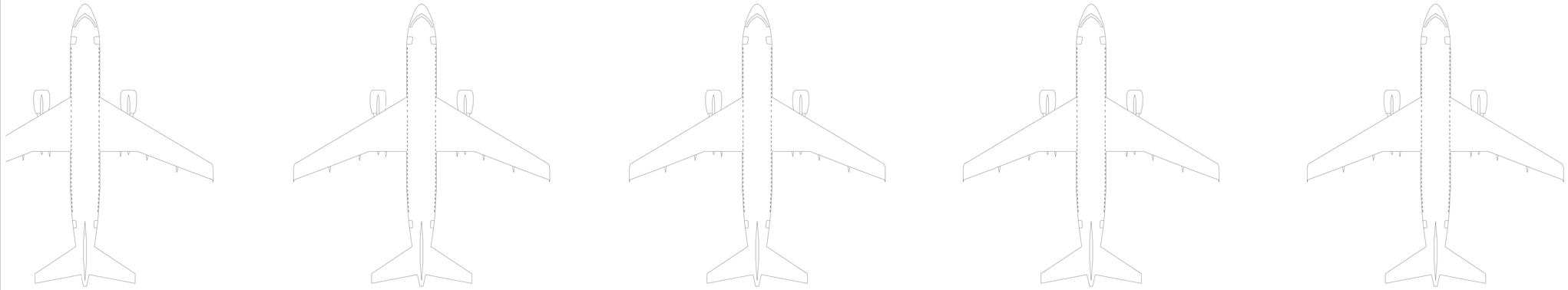
ARCHITECTURAL SITE PLAN

BID DOCUMENTS

Drawing No.:

G201





B1 ALTERNATE IDENTIFICATION PLAN CONCOURSE LEVEL

1" = 20'-0"

NORTH

ALTERNATE LEGEND

- ALTERNATE 1
  Concessions, Holdrooms C3 :
  REF LINES 13-17
- ALTERNATE 2
  Concessions, Restroom Core 2,
  Holdroom C4: REF LINES 17-22
- ALTERNATE 3
  Holdroom C5: REF LINES 22-25
- ALTERNATE 4
  Covered Entry Canopy and Structure
  Only; Slab in Base Bid
- ALTERNATE 5
  Outdoor Seating Area (Concessions)
- BASE BID
  Entry, TSA Support, SSCP,
  Restroom Core 1, Holdroom C1 & C2:
  REF LINES 00-13

ALTERNATE 6
SUBSTITUTE "CALLA" HIGH CAC 50
24" X 24" X 1-3/4" CEILING TILE FOR **ACT1**
SEE **AF712**

ALTERNATE 7
SUBSTITUTE CT2 FOR GT1 AND GT2
SEE **A45X SERIES & AF712**

SCALE: 1" = 20'-0"
0 5' 10' 20' 40'

OKALOOSA COUNTY

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C19-2811- AP Construction of Satellite Concourse 'C'

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SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002
1	18-FEB-2020	ADDENDUM 001

Project No.:	**MLM-19672**
Designed By:	**MLM, MAM**
Drawn By:	**ST, CC, DM, CB**
Checked By:	**MAM**
Issue Date:	**21-JAN-2020**
Drawing Scale:	**1" = 20'-0"**

Drawing Title:

IDENTIFICATION OF ALTERNANTES

BID DOCUMENTS

Drawing No.:

G211

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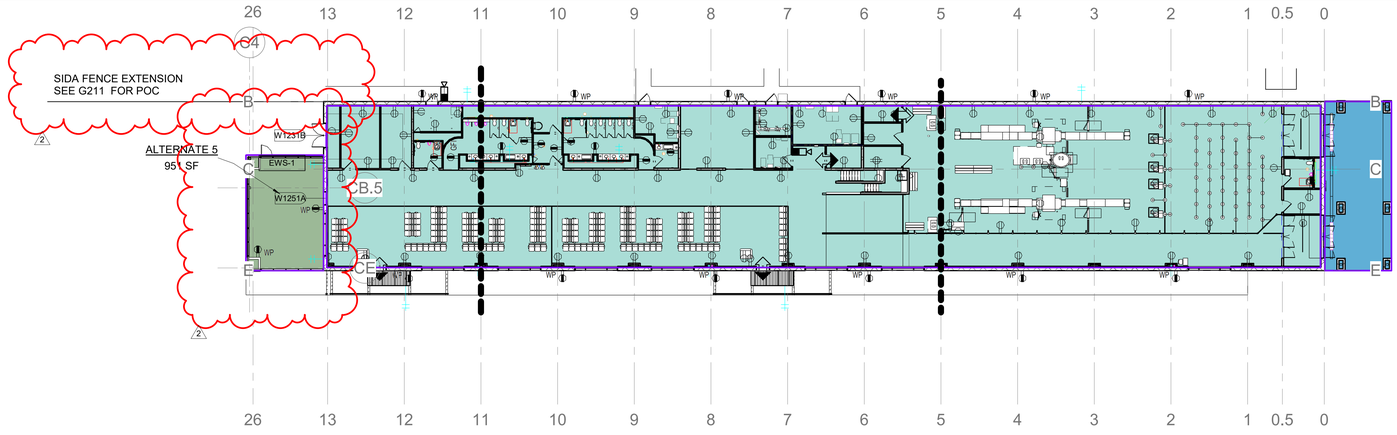
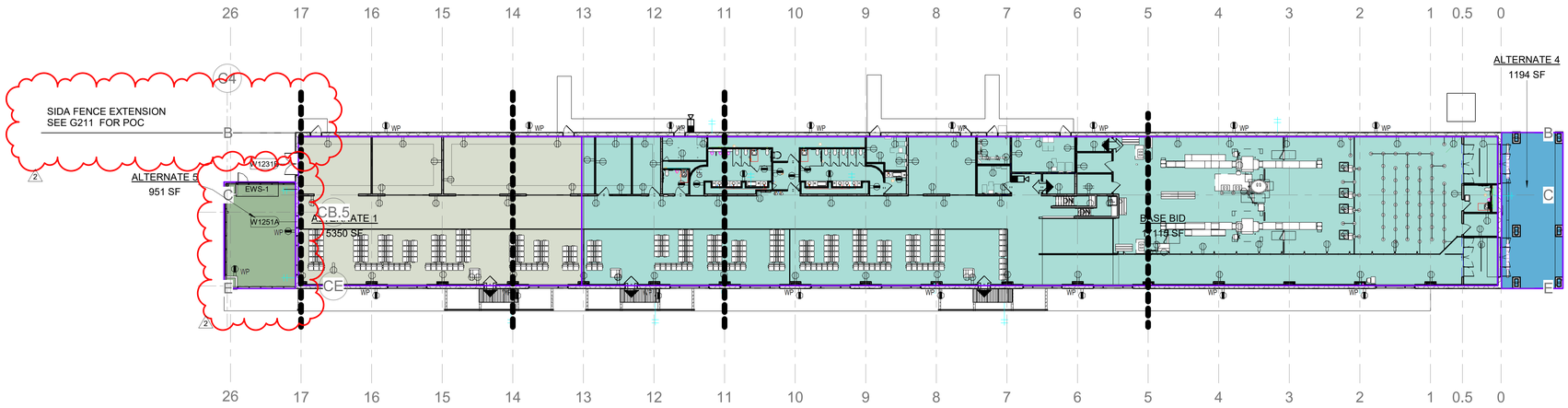


D1 ALTERNATE ILLUSTRATION BASE BID + ALTERNATES 4&5

1" = 20'-0"



B1 ALTERNATE ILLUSTRATION BASE BID + ALTERNATES 1,4&5

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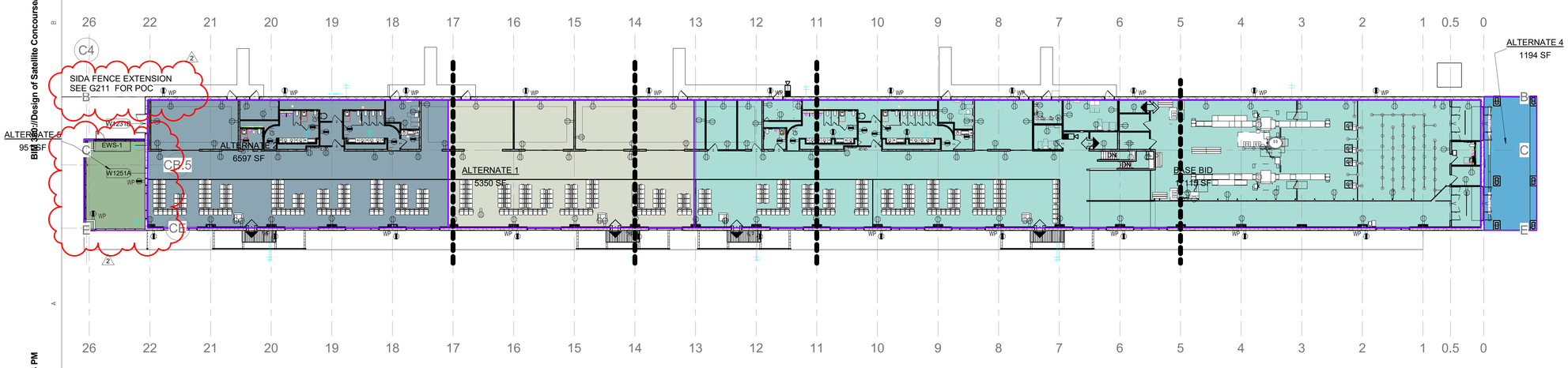

A1 ALTERNATE ILLUSTRATION BASE BID + ALTERNATES 1,2,4&5

1" = 20'-0"

SHEET PROVIDED FOR INFORMATION ONLY

SCALE: 1" = 20'-0"

0 5' 10' 20' 40'

C19-2811- AP
Construction of Satellite Concourse 'C'

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Revisions

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2	09-MAR-2020	ADDENDUM 002

Project No.:	**MLM-19672**
Designed By:	**MLM, MAM**
Drawn By:	**ST, CC, DM, CB**
Checked By:	**MAM**
Issue Date:	**21-JAN-2020**
Drawing Scale:	**1" = 20'-0"**

Drawing Title:

ILLUSTRATED ALTERNATE EXECUTION

BID DOCUMENTS

Drawing No.:

G212

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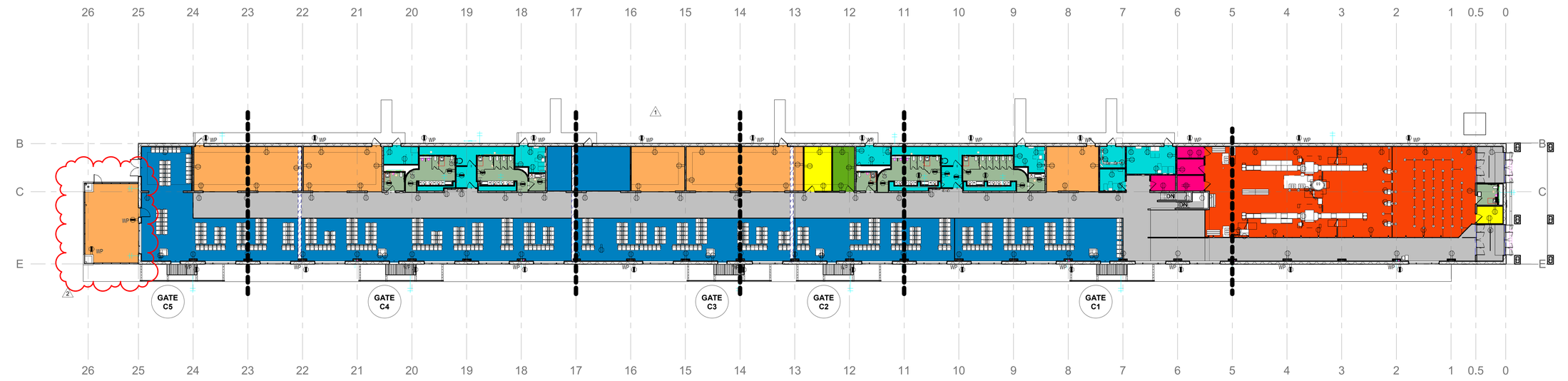

D1 SPACE UTILIZATION PLAN CONCOURSE LEVEL

1" = 20'-0"

NORTH

SPACE LEGEND

- ADMINISTRATION-AIRPORT
- CIRCULATION
- COMMERCIAL AIRLINE OPERATION - GATES
- COMMERCIAL AIRLINE OPERATION - OFFICES
- CONCESSIONAIRES
- RESTROOM
- SECURITY - TSA OFFICES
- SECURITY-PASSENGER SCREENING
- SUPPORT

SHEET PROVIDED FOR INFORMATION ONLY

SCALE: 1" = 20'-0"

0 5' 10' 20' 40'

OKALOOSA COUNTY

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C19-2811- AP Construction of Satellite Concourse 'C'

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Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002
1	18-FEB-2020	ADDENDUM 001

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	1" = 20'-0"

Drawing Title:

SPACE UTILIZATION PLANS

BID DOCUMENTS

Drawing No.:

G311

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PROTECTION OF OPENINGS

PROTECTION OF OPENINGS IN FIRE BARRIER HORIZONTAL ASSEMBLIES

OPENINGS THROUGH A FLOOR/CEILING ASSEMBLIES SHALL BE PROTECTED IN ACCORDANCE WITH FBC SECTION 707 AND FFPC SECTION 8.6.

FIRE RESISTANCE RATINGS AND OPENING PROTECTION REQUIREMENTS
(FBC 707.6 AND TABLE 716.5)

EXIT SHAFTS:	2 HR WITH 90 MIN OPENINGS
ALL OTHER SHAFTS:	2 HR WITH 90 MIN OPENINGS
FIRE BARRIERS/PARTITIONS:	1 HR WITH 45 MIN OPENINGS
EXTERIOR BEARING WALLS:	1 HR WITH 45 MIN OPENINGS

DUCT PENETRATIONS (FBC 716.6)

PENETRATIONS BY DUCTS AND AIR TRANSFER OPENINGS OF A FLOOR, FLOOR/CEILING ASSEMBLY OR THE CEILING MEMBRANE OF A ROOF/CEILING ASSEMBLY SHALL BE PROTECTED BY A SHAFT ENCLOSURE THAT COMPLIES WITH FBC SECTION 707 OR SHALL COMPLY WITH FBC SECTION 716.6.

A DUCT AND AIR TRANSFER OPENING SYSTEM CONSTRUCTED OF APPROVED MATERIALS IN ACCORDANCE WITH THE FBC: MECHANICAL THAT PENETRATES A FIRE-RESISTANCE-RATED FLOOR/CEILING ASSEMBLY THAT CONNECTS NOT MORE THAN TWO STORIES IS PERMITTED WITHOUT SHAFT ENCLOSURE PROTECTION PROVIDED A FIRE DAMPER IS INSTALLED AT THE FLOOR LINE.

PROTECTION OF PENETRATIONS (FBC 714)

PENETRATIONS OF A FLOOR, FLOOR/CEILING ASSEMBLY, OR THE CEILING MEMBRANE OF A ROOF/CEILING ASSEMBLY SHALL BE PROTECTED BY A SHAFT ENCLOSURE IN ACCORDANCE WITH FBC SECTIONS 707 AND 713.4.
PENETRATIONS INTO OR THROUGH FIRE WALLS, FIRE BARRIERS, SMOKE BARRIER WALLS, AND FIRE PARTITIONS SHALL COMPLY WITH FBC SECTIONS 708 & 709 SUCH PENETRATIONS SHALL BE INSTALLED AS TESTED IN AN APPROVED FIRE-RESISTANCE RATED ASSEMBLY AND SHALL BE PROTECTED BY AN APPROVED PENETRATION FIRE-STOP SYSTEM.

WHERE POTENTIAL FUEL SPILL POINTS ARE LOCATED LESS THAN 100 FT HORIZONTALLY FROM GLAZING MATERIAL COVERED OPENINGS IN THE TERMINAL BUILDING WALLS FACING THE AIRPORT RAMP, THEY SHALL BE PROTECTED. (4.1.5.3, NFPA 415, 2008)

HANDRAILS AND GUARDRAILS

HANDRAILS AND GUARDRAILS SHALL BE PROVIDED ON BOTH SIDES OF ALL STAIRS AND RAMPS, IN ACCORDANCE WITH THE FOLLOWING:

A. STAIRS SHALL BE CLEAR OF ALL OBSTRUCTIONS EXCEPT PROJECTIONS NOT EXCEEDING 2 ½ INCHES AT OR BELOW HANDRAIL HEIGHT ON EACH SIDE.
B. NEW HANDRAILS SHALL BE INSTALLED TO PROVIDE A CLEARANCE OF NOT LESS THAN 2 ¼ INCHES BETWEEN THE HANDRAIL AND THE WALL TO WHICH IT IS FASTENED. (FFPC SIXTH ED 7.2.2.4.4.5)
C. HANDRAILS SHALL BE PROVIDED WITHIN 30 INCHES OF ALL PORTIONS OF THE STAIR WIDTH REQUIRED FOR EGRESS CAPACITY. (FFPC SIXTH ED 7.2.2.4.1.2)
D. HANDRAIL HEIGHT SHALL BE ≥ 34 IN. TO ≤ 38 IN. ABOVE THE SURFACE OF THE TREAD, MEASURED VERTICALLY FROM THE TOP OF THE RAIL FROM THE LEADING EDGE OF THE TREAD. (FFPC SIXTH ED 7.2.2.4.4.1)
E. HANDRAIL SHAPE, CIRCULAR CROSS SECTION WITH OUTSIDE DIAMETER ≥ 1-1/4 IN. TO ≤ 2 IN. OR, NON-CIRCULAR CROSS SECTION WITH PERIMETER ≥ 4 IN. TO ≤ 6-1/4 IN. AND LARGEST CROSS SECTION ≤ 2-1/4 IN. WITH ROUNDED EDGE (RADIUS ≥ 1/8 IN.). (FFPC SIXTH ED 7.2.2.4.4.6)
F. HANDRAILS AND GUARDS SHALL CONTINUE FOR THE FULL LENGTH OF EACH FLIGHT OF STAIRS. AT TURNS OF NEW STAIRS, INSIDE HANDRAILS SHALL BE CONTINUOUS BETWEEN FLIGHTS AT LANDINGS. (FFPC SIXTH ED 7.2.2.4.2)
G. HANDRAILS THAT ARE NOT CONTINUOUS BETWEEN FLIGHTS SHALL EXTEND HORIZONTALLY, AT THE REQUIRED HEIGHT, NOT LESS THAN 12 IN. BEYOND THE TOP RISER AND CONTINUE TO SLOPE FOR A DEPTH OF ONE TREAD BEYOND THE BOTTOM RISER. (FFPC SIXTH ED 7.2.2.4.4.10)
H. HANDRAIL ENDS SHALL BE RETURNED TO THE WALL OR FLOOR OR SHALL TERMINATE AT NEWEL POSTS. (FFPC SIXTH ED 7.2.2.4.9)
I. GUARDS ARE REQUIRED TO PREVENT FALLS OVER THE OPEN SIDE WHEN MEANS OF EGRESS IS MORE THAN 30 IN. ABOVE FLOOR OR GRADE BELOW. (FBC 1012)
J. GUARDRAIL HEIGHT MINIMUM: 42 IN. (FFPC 6TH ED 7.2.2.4.5.2)
K. OPEN GUARDS SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL PATTERN TO PREVENT 4 IN. DIAMETER SPHERE FROM PASSING THROUGH ANY OPENING UP TO A HEIGHT OF 34 INCHES.
L. FOR OPEN GUARDS, FROM A HEIGHT OF 34 INCHES TO 42 INCHES ABOVE THE ADJACENT WALKING SURFACES, A SPHERE 8 INCHES IN DIAMETER SHALL NOT PASS. (FBC 1012.3)

PANIC HARDWARE

1. ALL DOORS SERVING REQUIRED EXIT ENCLOSURES SHALL BE PROVIDED WITH PANIC HARDWARE OR FIRE EXIT HARDWARE COMPLYING WITH FFPC SIXTH ED 7.2.1.7, AS FOLLOWS: (FFPC 12.2.2.2.3)
   A. IT SHALL CONSIST OF A CROSS BAR OR PUSH PAD, THE ACTUATING PORTION OF WHICH EXTENDS ACROSS NOT LESS THAN ONE-HALF OF THE WIDTH OF THE DOOR LEAF.
   B. IT SHALL BE CONSTRUCTED SO THAT A HORIZONTAL FORCE NOT TO EXCEED 15 LBF ACTUATES THE CROSS BAR OR PUSH PAD AND LATCHES.
   C. IT SHALL BE MOUNTED BETWEEN 34 INCHES AND 48 INCHES ABOVE THE FLOOR.
   D. IT SHALL NOT BE EQUIPPED WITH ANY LOCKING DEVICE, SET SCREW, OR OTHER ARRANGEMENT THAT PREVENTS THE RELEASE OF THE LATCH WHEN PRESSURE IS APPLIED TO THE RELEASING DEVICE.
   E. DEVICES THAT HOLD THE LATCH IN THE RETRACTED POSITION SHALL BE PROHIBITED ON FIRE EXIT HARDWARE UNLESS LISTED AND APPROVED FOR THAT PURPOSE.
2. ASSEMBLY OCCUPANCUY: ANY DOOR IN A REQUIRED MEANS OF EGRESS FROM AN AREA HAVING AN OCCUPANT LOAD OF 50 OR MORE PERSONS SHALL BE PERMITTED TO BE PROVIDED WITH A LATCH OR LOCK ONLY IF THE LATCH OR LOCK IS PANIC HARDWARE OR FIRE EXIT HARDWARE COMPLYING WITH FFPC SIXTH ED 7.2.1.7, UNLESS PERMITTED BY ONE OF THE FOLLOWING: (1) THIS REQUIREMENT SHALL NOT APPLY TO DELAYED EGRESS LOCKS AS PERMITTED 12.2.2.2.5. (2) THIS REQUIREMENT SHALL NOT APPLY TO ACCESS CONTROLLED EGRESS DOORS AS PERMITTED IN 12.2.2.2.6.
3. ELECTRICAL ROOMS WITH EQUIPMENT RATED 1,200 AMPERES OR MORE AND OVER (6) SIX FEET WIDE THAT CONTAIN OVERCURRENT DEVICES, SWITCHING DEVICES OR CONTROL DEVICES WITH EXIT OR EXIT ACCESS DOORS SHALL BE EQUIPPED WITH PANIC HARDWARE OF FIRE EXIT HARDWARE. THE DOORS SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL. (FBC 1010.110)

PANIC HARDWARE

DELAYED EGRESS LOCKS COMPLYING WITH FFPC 7.2.1.6.1 SHALL BE PERMITTED ON DOORS OTHER THAN MAIN ENTRANCE/EXIT DOORS. THE A/E WILL FILE A DETERMINATION WITH OKALOOSA COUNTY BUILDING AND FIRE PLANS EXAMINER REQUESTING THE USE OF DELAYED EGRESS DEVICES AS A MEANS OF MAINTAINING LIFE SAFETY AND SECURITY OF THE AIRPORT/AIRCRAFT OPERATIONS AREA.
FBC 1010.1.9.7: **Delayed egress locking systems shall be permitted to be installed on doors serving any occupancy except Group A**, E and H in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907. The locking system shall be installed and operated in accordance with all of the following:
1. The delay electronics of the delayed egress locking system shall deactivate upon actuation of the automatic sprinkler system or automatic fire detection system, allowing immediate, free egress.
2. The delay electronics of the delayed egress locking system shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
3. The delayed egress locking system shall have the capability of being deactivated at the fire command center and other approved locations.
4. An attempt to egress shall initiate an irreversible process that shall allow such egress in not more than 15 seconds when a physical effort to exit is applied to the egress side door hardware for not more than 3 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the delay electronics have been deactivated, rearming the delay electronics shall be by manual means only.
   Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.
5. The egress path from any point shall not pass through more than one delayed egress locking system.
   Exception: In Group I-2 or I-3 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds.
6. A sign shall be provided on the door and shall be located above and within 12 inches (305 mm) of the door exit hardware:
   6.1.For doors that swing in the direction of egress, the sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
   6.2.For doors that swing in the opposite direction of egress, the sign shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
   6.3.The sign shall comply with the visual character requirements in ICC A117.1.
   Exception: Where approved, in Group I occupancies, the installation of a sign is not required where care recipients who because of clinical needs require restraint or containment as part of the function of the treatment area.
7. Emergency lighting shall be provided on the egress side of the door.
8. The delayed egress locking system units shall be listed in accordance with UL 294

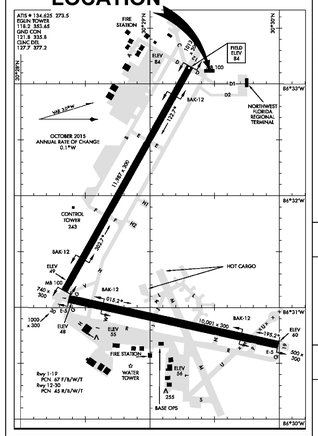
HORIZONTAL SLIDING DOORS

FBC 1010.1.4.3:
In other than Group H occupancies, special purpose horizontal sliding, accordion or folding door assemblies permitted to be a component of a means of egress in accordance with Exception 6 to Section 1010.1.2 shall comply with all of the following criteria:

1. The doors shall be power operated and shall be capable of being operated manually in the event of power failure.
2. The doors shall be openable by a simple method from both sides without special knowledge or effort.
3. The force required to operate the door shall not exceed 30 pounds (133 N) to set the door in motion and 15 pounds (67 N) to close the door or open it to the minimum required width.
4. The door shall be openable with a force not to exceed 15 pounds (67 N) when a force of 250 pounds (1100 N) is applied perpendicular to the door adjacent to the operating device.
5. The door assembly shall comply with the applicable fire protection rating and, where rated, shall be self-closing or automatic closing by smoke detection in accordance with Section 716.5.9.3, shall be installed in accordance with NFPA 80 and shall comply with Section 716.
6. The door assembly shall have an integrated standby power supply.
7. The door assembly power supply shall be electrically supervised.
8. The door shall open to the minimum required width within 10 seconds after activation of the operating device.

PROJECT LOCATION

PROJECT LOCATION



PLUMBING FIXTURES

PLUMBING FIXTURE COUNT								
FIXTURES	CODE REQUIRED				DESIGNED			
	MEN	WOMEN	COMPANION	COMMON FIXT.	MEN	WOMEN	COMPANION	COMMON FIXT.
W.C.	1	2	-	-	2	8	2	-
URINALS	1	-	-	-	6	-	-	-
LAVATORIES	2	2	-	-	6	6	2	-
ADA GROUP	1	1	-	-	2	2	-	-
ADA STALL	-	-	FAA REQUIRED	-	-	-	PROVIDED	-
WATER FOUNTAINS	-	-	-	1 STD + 1 ADA	-	-	-	2 STD + 2 ADA
JANITOR SINK	-	-	-	-	-	-	-	2

Guide for Airport Terminal Restroom Planning & Design (2015)
Pages 13 & 14

Design Passenger = EQA x 158 x 0.80
5 x 158 x 0.80 = 632

Peak 20 Min Passanger Demand = 632 x 0.50 = 316

Design Factor = 316 x 0.50 = 158.25 ≈ 158
316 x 0.60 = 189.60 ≈190
(Generic utilization rate for passangers)

MAX men fixture = DF x Male %
190 x 0.50 / 13
7.3 ≈ 7

Womens Fixtures = 7.30 x 1.25 - Table 2.2 Assumes Female increase Factor of 1.25
9.125 ≈ 9

Anticipated MAX # of Passengers per aircraft
158 - 80% Load Factor
50% = Peak 20% for Origin and Destination Airports

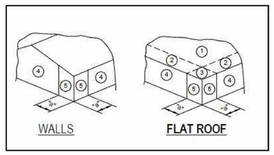
Tables 2.1 Equivalent Aircraft Index
Group III = 1.0 EQA
1.0 EQA x 5 Gates = 5 EQA

Table 2.3 O&D Airports @ 60% utilization Table
Men 6 -7
Women 7.5 ≈ 8 to 8.75 ≈ 9

Restrooms are group for single sided gate concourse
Layout ± 200' from gate MAX.

SEE SHEET A452

COMPONENTS OF CLADDING



ULTIMATE C&C WIND PRESSURES (ASCE 7-10)

BUILDING	a (FT)	Vult (MPH)	Vasd (MPH)	A (SF)	ZONE 1 (PSF)	ZONE 2 (PSF)	ZONE 3 (PSF)	ZONE 4 (PSF)	ZONE 5 (PSF)	ZONE (2H) (PSF)	ZONE (3H) (PSF)
MAIN	5.5	154	119	<10	+222.2 -54.6	+49.9 -91.5	+49.9 -91.5	+49.9 -54.1	+49.9 -66.5	-78.6	-78.6
				20	+209.8 -53.1	+47.7 -91.8	+47.7 -91.8	+47.7 -51.9	+47.7 -62.1	-	-
				50	+19 -51.3	+44.8 -88.9	+44.8 -88.9	+44.8 -46.9	+44.8 -56.3	-	-
				100+	+17.6 -49.9	+42.6 -59.1	+42.6 -59.1	+42.6 -46.7	+42.6 -51.9	-	-

ULTIMATE C&C WIND PRESSURES (ASCE 7-10)

BUILDING	a (FT)	Vult (MPH)	Vasd (MPH)	A (SF)	ZONE 1 (PSF)	ZONE 2 (PSF)	ZONE 3 (PSF)
CANOPY	3.0	154	119	≤9	+47.7 -42.7	+70.6 -86.7	+94.1 -130.2
				9< A ≤96	+47.7 -42.7	+70.6 -86.7	+70.6 -86.7
				>96	+47.7 -42.7	+47.1 -42.7	+47.1 -42.7

ULTIMATE C&C WIND PRESSURE PLAN NOTES:
1. WIND PRESSURE TABLE IS BASED ON FBC 2014/ASCE 7-10 ULTIMATE WIND SPEED, PRESSURES SHOWN ABOVE ARE ULTIMATE COMPONENTS AND CLADDING PRESSURES.

BASIS OF DESIGN: **SEE SHEET AL002**
MORE INFORMATION: **SEE SHEET S003**

ACCESS CONTROLLED EGRESS DOORS

1

ACCESS-CONTROLLED EGRES DOORS (FBC 1010.1.9.8). THE ELECTRIC LOCKS ON SENSOR RELEASED DOORS LOCATED IN A MEANS OF EGRESS IN BUILDINGS WITH OCCUPANCY IN GROUP A, B, & M; AND ENTRACNCE DOORS TO TENANT SPACES IN OCCUPANCY IN GROUP A, B, & M ARE PERMITTED WHERE INSTALLED AND OPERATED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
1. The sensor shall be installed on the egress side, arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
2. Loss of power to the lock or locking system shall automatically unlock the doors.
3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016 mm to 1219 mm) vertically above the floor and within 5 feet (1524 mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of other electronics—and the doors shall remain unlocked for not less than 30 seconds.
4. Activation of the building fire alarm system, where provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
5. Activation of the building automatic sprinkler system or fire detection system, where provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
6. The door locking system units shall be listed in accordance with UL 294.

PROJECT DESCRIPTION

PROJECT ADDRESS:
1701 State Road 85N,
Eglin AFB, FL 32542-1498

Single story concrete masonry bearing wall construction with open webbed steel joist single ply membrane roofing structure. The project consists of a Satellite "Airside" Concourse Building with 2 holdrooms in base bid with alternates totaling a maximum ultimate build of 5 holdrooms, concessions, restrooms and TSA Passenger Security Screening Check Point.

APPLICABLE CODES

Florida Building Code Building -6th Edition (2017)
Florida Building Code Energy Conservation -6th Edition (2017)
Florida Building Code Accessibility -6th Edition (2017)
Florida Fire Prevention Code -6th Edition (2017)
Florida Building Code Plumbing -6th Edition (2017)
Florida Building Code Mechanical -6th Edition (2017)
NFPA 1, Uniform Fire Code, 2012 with Florida modifications
NFPA 13, 2010 Edition, Standard for Installation of Fire Sprinkler System
NFPA 70, 2011 Edition, National Electrical Code
NFPA 90A, 2012 Edition, Standard for Installation of Air-Conditioning Ventilation Systems
NFPA 10, Standard for Portable Fire Extinguishers, 2010
NFPA 72, National Fire Alarm and Signaling Code, 2010
NFPA 101, Life Safety Code, 2012 with Florida Modification
NFPA 419

FL ADMINISTRATIVE CODES & STATUTES

OCCUPANCY CLASIFICATION

USE AND OCCUPANCY CLASSIFICATION FBC Chapter 3
A-3
SECTION 306 Waiting areas in transportation terminals

BUILDING HEIGHTS AND AREAS

GENERAL BUILDING HEIGHTS AND AREAS FBC Chapter 5

ALLOWABLE BUILDING HEIGHTS AND AREAS FBC TABLE 503

TYPE OF CONSTRUCTION TYPE II-A - OCCUPANCY GROUP A-3
ALLOWABLE HEIGHT 85' - 0"
ALLOWABLE NUMBER OF STORIES 4
ALLOWABLE BUILDING AREA 62,000

MEZZANINES AND EQUIPMENT PLATFORMS FBC SECTION 505.2
ALLOWABLE MEZZANINE AND EQUIPMENT PLATFORM AREA 11039 SF

ACTUAL BUILDING HEIGHTS AND AREAS CHECK
ALLOWABLE HEIGHT WITH INCREASE 60' - 0" ≥ 22' - 7" ACTUAL -- OK!
ALLOWABLE NUMBER OF STORIES WITH INCREASE 4 ≥ 1 ACTUAL -- OK!
ALLOWABLE BUILDING AREA WITH INCREASE 62000 SF ≥ 33118 SF ACTUAL -- OK!
ALLOWABLE MEZZANINE AND EQUIPMENT PLATFORM AREA 11039 SF ≥ 0 SF ACTUAL -- OK!

2

TYPE OF CONSTRUCTION

CONSTRUCTION TYPE FBC Chapter 6
TYPE II-B

FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS) FBC TABLE 601
Primary structural frame 0 hr
Bearing walls Exterior 0 hr
Bearing walls Interior 0 hr
Non-Bearing Exterior Walls **SEE TABLE 602**
Non-Bearing Walls Interior 0 hr
Floor construction and associated secondary members (see Section 202) 0 hr
Roof construction and associated secondary members (see Section 202) 0 hr

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE FBC TABLE 602

FIRE SEPARATION DISTANCE = X (Feet)	Values established by type of Construction Type and Occupancy Group
X < 5	1 hr
5 ≤ X < 10	1 hr
10 ≤ X < 30	0 hr
X ≥ 30	0 hr

FIRE AND SMOKE PROTECTION

FIRE AND SMOKE PROTECTION FEATURES FBC Chapter 7
DEGREE OF OPENING PROTECTION Protected (P)

MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE AND DEGREE OF OPENING PROTECTION FBC TABLE 705.8

FIRE SEPERATION DISTANCE (Feet)	ALLOWABLE AREA	0% = NOT PERMITED
0 to less than 3	0%	100% = NO LIMIT
3 to less than 5	15%	
5 to less than 10	25%	
10 to less than 15	45%	
15 to less than 20	75%	
20 to less than 25	100%	
25 to less than 30	100%	
30 or greater	100%	

RESISTANCE RATINGS BASED ON OCCUPANCY GROUP A

FIRE WALL FIRE-RESISTANCE RATINGS FBC TABLE 706.4
FIRE-RESISTANCE RATING 3 HOURS

FIRE-RESISTANCE RATING REQUIREMENTS FOR FIRE BARRIER ASSEMBLIES OR HORIZONTAL ASSEMBLIES BETWEEN FIRE AREAS FBC TABLE 707.3.10
FIRE-RESISTANCE RATING 2 HOURS

INTERIOR FINISHES

INTERIOR FINISHES FBC Chapter 8

INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY	SPRINKLERED
Exit Enclosures and Exit Passage Ways	B
Corridors	B
Rooms and Enclosed spaces	C

MEANS OF EGRESS SIZING

REQUIRED CAPACITY BASED ON OCCUPANT LOADS FBC Section 1005.3
BUILDING OCCUPANT LOAD 1540
§1005.3.1 STAIRWAYS @ 0.3" PER OCCUPANT | 19' - 3 5/8"
§1005.3.2 OTHER EGRESS COMPONENTS @ 0.2" PER OCCUPANT | 12' - 9 3/8"
**ASSUMPTION IS MADE OF BUILDING OCCUPANT LOAD DIVIDED BY 2. INDIVIDUAL COMPONENTS SHALL COMPLY WITH WIDTHS BASED ON THEIR LOAD BUT NO LESS THAN 34" PROVIDED.*

SEE AL211 FOR FOR ADDITONAL REQUIREMENTS

2

NOTE for NFPA 419 Review: This is a ground load facility. Meaning; there are no jet bridges nor are they anticipated to be installed. assumption made in event of emergency passengers onboard aircraft will egress directly to hard stand apron and not into building.

HEADROOM

1. MEANS OF EGRESS SHALL BE DESIGNED AND MAINTAINED TO PROVIDE HEADROOM IN ACCORDANCE WITH OTHER SECTIONS OF THIS CODE, AND SUCH HEADROOM SHALL BE NOT LESS THAN 7 FT 6 IN. (2285 MM), WITH PROJECTIONS FROM THE CEILING NOT LESS THAN 6 FT 8 IN. (2030 MM) WITH A TOLERANCE OF-3/4 IN. (-19 MM), ABOVE THE FINISHED FLOOR, UNLESS OTHERWISE SPECIFIED BY THE FOLLOWING: FFPC SIXTH EDITION.

2. HEADROOM IN INDUSTRIAL EQUIPMENT ACCESS AREAS AS PROVIDED IN FFPC SIXTH EDITION 40.2.5.2 SHALL BE PERMITTED.

WALL DEMARCATION

FFPC SITH EDITION, NFPA1, 12.3
ALL FIRE-RESISTIVE CONSTRUCTION INCLUDING FIRE BARRIERS, FIRE WALLS, AND SMOKE BARRIERS SHALL BE PERMANENTLY STENCEILED WITH LETTERS NO LESS THAN SIX (6) INCHES IN HEIGHT ON THE PARTITION READING SUBSTANTIALLY AS FOLLOWS:

"FIRE AND SMOKE BARRIER -- PROTECT ALL OPENINGS"

TENANT SEPARATIONS

FLORIDA BUILDING CODE SECTION 709.1,
EXCEPTION 4:
OTHER THAN DWELLING UNITS OR SLEEPING UNITS, WALLS USED TO SEPARATE INDIVIDUAL TENANT SPACES SHALL NOT BE REQUIRED TO HAVE A FIRE-RESISTANCE RATING WHEN THE BUILDING IS PROTECTED BY A COMPLETE AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH FBC SECTION 903.3.1.1.

MIXED OCCUPANCY

FLORIDA BUILDING CODE SECTION 508.3
A. THE BUILDING IS CLASSIFIED AS A NON-SEPARATED MIXED OCCUPANCY.
B. NO SEPARATION IS REQUIRED. (FBC 508.3.3)
C. NON-SEPARATED OCCUPANCIES SHALL BE INDIVIDUALLY CLASSIFIED IN ACCORDANCE WITH SECTION 302.1. THE REQUIREMENTS OF THIS CODE SHALL APPLY TO EACH PORTION OF THE BUILDING BASED ON THE OCCUPANCY CLASSIFICATION OF THAT SPACE EXCEPT THAT THE MOST RESTRICTIVE APPLICABLE PROVISIONS OF SECTION 403 AND CHAPTER 9 SHALL APPLY TO THE BUILDING OR PORTION THEREOF IN WHICH THE NON-SEPARATED OCCUPANCIES OCCURRED. (FBC 508.3.1)
D. THE ALLOWABLE BUILDING AREA AND HEIGHT OF THE BUILDING OR PORTION THEREOF SHALL BE BASED ON THE MOST RESTRICTIVE ALLOWANCES FOR THE OCCUPANCY GROUPS UNDER CONSIDERATION FOR THE TYPE OF CONSTRUCTION OF THE BUILDING IN ACCORDANCE WITH SECTION 503.1.

EXIT SIGNAGE

ACCESS TO ALL EXITS SHALL BE PROVIDED THROUGHOUT THE MEANS OF EGRESS BY APPROVED, READILY VISIBLE SIGNS, IN ACCORDANCE WITH FFPC SITH EDITION 7.10. SIGNAGE SHALL COMPLY WITH ICC/ANSI A117.1, AMERICAN NATIONAL STANDARD FOR ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES. SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN THE EXIT ACCESS CORRIDOR IS IN EXCESS OF THE RATED VIEWING DISTANCE OR 100 FT, WHICHEVER IS LESS, FROM THE NEAREST SIGN. **SEE AL211 FOR LOCATIONS**

EMERGENCY LIGHTING

EMERGENCY LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH FFPC 7.9. **SEE ELECTRICAL DRAWINGS FOR PLACEMENT**

OKALOOSA COUNTY

FLY VPS

C19-2811- AP
Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
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WWW.MLM-MARTIN.COM
AA-C002208
MLM SOB-FT TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002
1	18-FEB-2020	ADDENDUM 001

Project No.:	**MLM-19672**
Designed By:	**MLM, MAM**
Drawn By:	**ST, CC, DM, CB**
Checked By:	**MAM**
Issue Date:	**21-JAN-2020**
Drawing Scale:	**12" = 1'-0"**

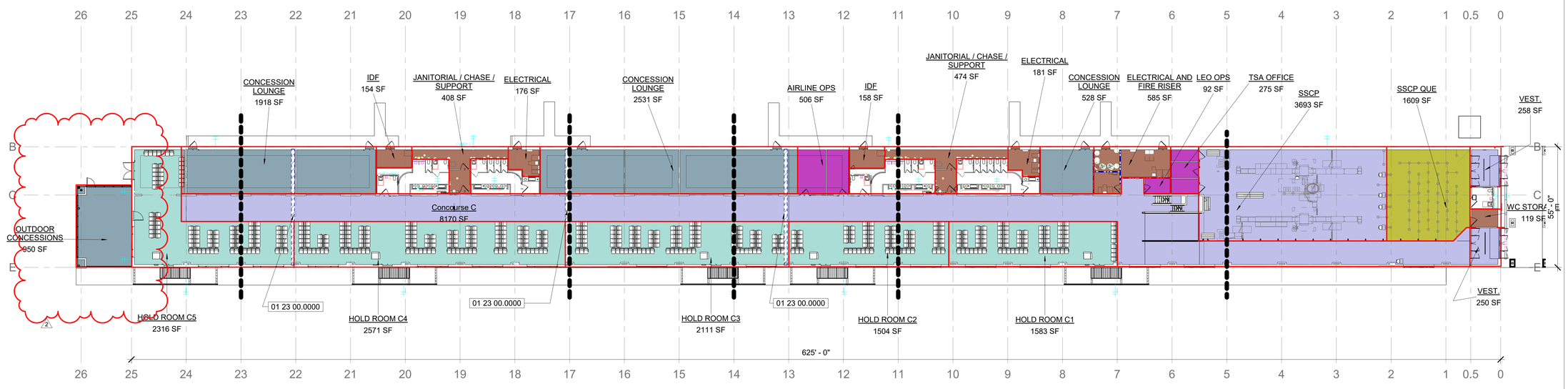
Drawing Title:

BUILDING CODE ANALYSIS

BID DOCUMENTS

Drawing No.:

AL001



D1 OVERALL OCCUPANCY FUNCTION PLAN

1" = 20'-0"

NORTH

FUNCTION LEGEND

300 SF	Accesory storage areas, mechanical equipment room
100 SF	Buisness Areas
100 SF	Concourse
5 SF	Standing Space Concentrated
15 SF	Unconcentrated (tables and chairs)
15 SF	Waiting areas

OCCUPANT LOAD (FBC TABLE 1004.1.2)

Name	Area	Occ Function	Occ Load Factor	Occupant Count
HOLD ROOM C5	2316 SF	Waiting areas	15 SF	155
HOLD ROOM C4	2571 SF	Waiting areas	15 SF	172
HOLD ROOM C3	2111 SF	Waiting areas	15 SF	141
HOLD ROOM C2	1504 SF	Waiting areas	15 SF	101
HOLD ROOM C1	1583 SF	Waiting areas	15 SF	106
AIRLINE OPS	506 SF	Buisness Areas	100 SF	6
LEO OPS	92 SF	Buisness Areas	100 SF	1
CONCESSION LOUNGE	2531 SF	Unconcentrated (tables and chairs)	15 SF	169
CONCESSION LOUNGE	528 SF	Unconcentrated (tables and chairs)	15 SF	36
Concourse C	8170 SF	Concourse	100 SF	82
SSCP QUE	1609 SF	Standing Space Concentrated	5 SF	322
IDF	154 SF	Accesory storage areas, mechanical equipment room	300 SF	1
IDF	158 SF	Accesory storage areas, mechanical equipment room	300 SF	1
SSCP	3693 SF	Concourse	100 SF	37
ELECTRICAL AND FIRE RISER	585 SF	Accesory storage areas, mechanical equipment room	300 SF	2
WC STORAGE	119 SF	Accesory storage areas, mechanical equipment room	300 SF	1
VEST.	258 SF	Concourse	100 SF	3
VEST.	250 SF	Concourse	100 SF	3
TSA OFFICE	275 SF	Buisness Areas	100 SF	3

Name	Area	Occ Function	Occ Load Factor	Occupant Count
ELECTRICAL	181 SF	Accesory storage areas, mechanical equipment room	300 SF	1
JANITORIAL / CHASE / SUPPORT	474 SF	Accesory storage areas, mechanical equipment room	300 SF	2
ELECTRICAL	176 SF	Accesory storage areas, mechanical equipment room	300 SF	1
JANITORIAL / CHASE / SUPPORT	408 SF	Accesory storage areas, mechanical equipment room	300 SF	2
CONCESSION LOUNGE	1918 SF	Unconcentrated (tables and chairs)	15 SF	128
OUTDOOR CONCESSIONS	950 SF	Unconcentrated (tables and chairs)	15 SF	64
	33118 SF			1540

KEYNOTES

NO.	
01 23 00.0000	LIMITS OF ALTERNATE WORK, SEE SPECIFICATIONS FOR MORE INFORMATION.

SCALE: 1" = 20'-0"

0 5' 10' 20' 40'

OKALOOSA COUNTY

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Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	1" = 20'-0"

Drawing Title:

LIFE SAFETY OCCUPANT LOAD PLAN

BID DOCUMENTS

Drawing No.:

AL111

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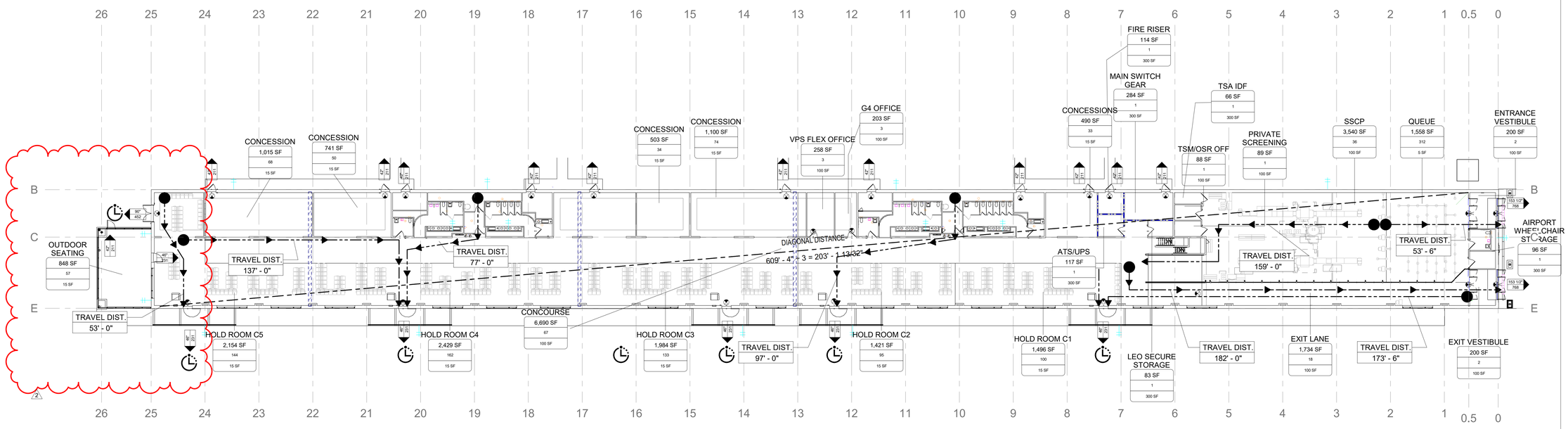

D1 OVERALL EGRESS PLAN

1" = 20'-0"

NORTH

DISTANCE LIMITATIONS

OCCUPANCY	MAXIMUM TRAVEL DISTANCE TO EXIT (FBC TABLE 1017.2)	MAXIMUM DEAD-END CORRIDOR LENGTH (FBC TABLE 1020.4)	MAXIMUM COMMON PATH OF TRAVEL (FBC TABLE 1006.2.1)
ASSEMBLY (A)	250'	20'	75'
BUSINESS (B)	300'	50' (1020.4(2))	100'
MERCENTILE (M)	250'	50' (1020.4(2))	75'

QUANTITY OF MEANS OF EGRESS

FBC 1006.3.1 MINIMUM NUMBER OF EXITS REQUIRED: 4
NUMBER OF EXITS PROVIDED: 8

EGRESS PLAN LEGEND

- **CAPACITY OF EGRESS COMPONENT** (IN / 000): DIRECTION OF TRAVEL; CLEAR WIDTH; CAPACITY PER FBC§1005.3.2
- **ROOM OCCUPANT LOAD FBC§1005.3** (Name / 150 SF / Occ Load / SF): AREA OF ROOM/SPACE; REQ'D OCCUPANT LOAD CAPACITY; OCCUPANT LOAD FACTOR FBC§ 1004.1.2 - SEE SHEET **AL111**
- **EXIT TRAVEL DISTANCE FBC§1017.2** (TRAVEL DIST. 0' - 0"): TRAVEL DISTANCE; POINT OF BEGINING; POINT OF DISCHARGE; PATH OF TRAVEL
- **DOORWAY CONFIG. FBC§1007.1.1** (DIAGONAL DISTANCE 15' - 0" + 3 = 5' - 0"): MEASURABLE DISTANCE; MINIMUM DISTANCE BETWEEN EXITS; FBC§1007.1.1-EXCEPTION 2
- **EXIT SIGN FBC §1013**: LLUMINATED FACE FBC §1013.3; DIRECTIONAL GRAPHICS
- **DELAYED EGRESS INDICATION**

SCALE: 1" = 20'-0"
0 5' 10' 20' 40'

OKALOOSA COUNTY

FLY VPS

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Drawing Scale:	1" = 20'-0"

Drawing Title:

EGRESS PLAN

BID DOCUMENTS

Drawing No.:

AL211

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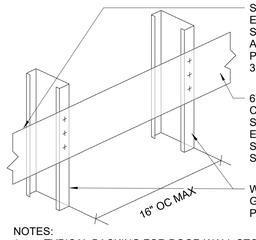
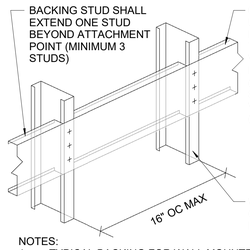
WALL BLOCKING



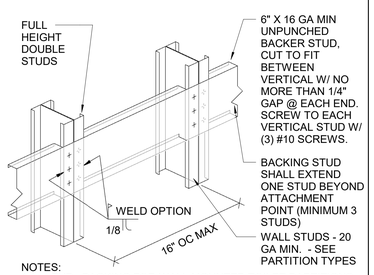
NOTES:
1. TYPICAL BACKING FOR DOOR WALL STOPS, COAT HOOKS, MOP RACKS, & LIGHT WEIGHT ACCESSORIES
2. THIS DETAIL MAY BE USED WHEN THE LENGTH OF THE CABINET OR EQUIPMENT DISTRIBUTES UP TO 30 LBS PER STUD SPACING.
3. 2x6 MIN. FR WOOD BLOCKING MAY BE USED IN PLACE OF METAL BACKING.

WALL BLOCKING - LIGHT (UNDER 30 LBS)



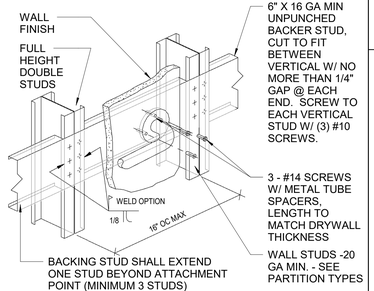
NOTES:
1. TYPICAL BACKING FOR WALL MOUNTED HANDRAILS, LIGHT FIXTURES, AND PATIENT SERVICE MODULES
2. THIS DETAIL MAY BE USED WHEN THE LENGTH OF THE CABINET OR EQUIPMENT DISTRIBUTES UP TO 50 LBS PER STUD SPACING.
3. 2x6 MIN. FR WOOD BLOCKING MAY BE USED IN PLACE OF METAL BACKING.

WALL BLOCKING - MEDIUM (31 LBS - 50 LBS)



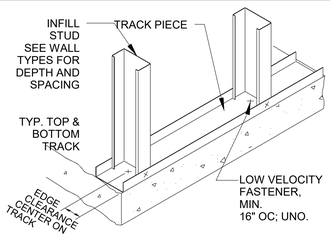
NOTES:
1. TYP. BACKING FOR WALL MOUNTED TOILET PARTITIONS, WALL MOUNTED COUNTERS AND LAVATORIES, AND WALL/FLOOR MOUNTED CASEWORK
2. THIS DETAIL MAY BE USED WHEN THE LENGTH OF THE CABINET OR EQUIPMENT DISTRIBUTES UP TO 150 LBS PER STUD SPACING.
3. DOUBLE STUDS NOT REQUIRED IF WALL IS BRACED AT 9'-0" MAX. A.F.F.
4. 2x6 MIN. FR WOOD BLOCKING MAY BE USED IN PLACE OF METAL BACKING.

WALL BLOCKING - HEAVY (51 LBS - 150 LBS)



NOTES:
1. TYPICAL BACKING FOR GRAB BARS
2. DOUBLE STUDS NOT REQ'D IF WALL IS BRACED @ 9'-0" MAX. A.F.F.
3. 2x6 MIN. FR WOOD BLOCKING MAY BE USED IN PLACE OF METAL BACKING.

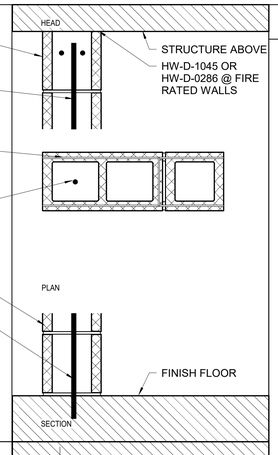
WALL BLOCKING - VERY HEAVY (151 LBS - 250 LBS)



A2 TYP. FASTENER DETAIL

N.T.S.

B



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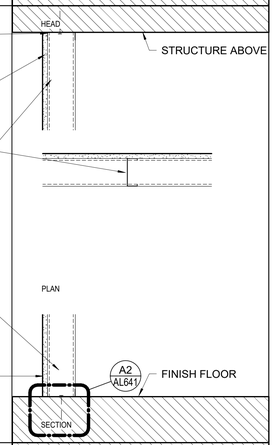

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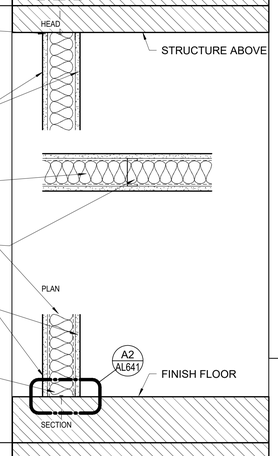

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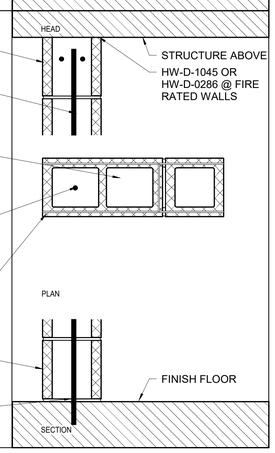
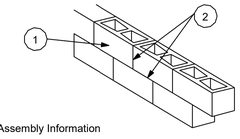


BLOCK CALCULATIONS

WALL RATING - 1 HR.



Assembly Information
1. Preferred product 910635 c.m.u. 8" x 8" x 16" nominal
2. ASTM C-270 Masonry Mortar, Type M or S. Face Shell or full mortar bedding as required.
3. Masonry grout, reinforcing steel, joint reinforcement, anchors, ties and accessories (Not depicted above - optional). Use where specified.

Preferred Materials Inc. accepts no responsibility for proper application of the rated wall assembly above, or responsibility for the construction of such assemblies.

Concrete Masonry Unit
§721.3.2 of the Florida Building Code

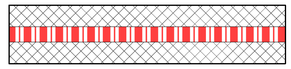
Unit Description:	**910635**
Size W x H x L Nominal:	**8 x 8 x 16**
Equivalent Thickness Inches:	**3.6**
Fire Rating Minutes:	**95.5***

* *Linear interpolation from table 721.3.2 of the Florida Building Code for Exposed Finish Block Mix -- 55% Limestone & 45% Siliceous Aggregates.*

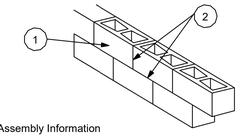
Acoustical Properties

Unit Description:	**910635**
Unit Weight in Pounds (lbs.):	**32**
lbs./SF:	**36.08**
STC Rating:	**47.8****

** *STC Rating based on minimum lbs./SF required to archive Sound Transmission Class as Defined by the National Concrete Masonry Association. Rating Value interpolated from nown weights of STC Ratings.*



WALL RATING - 2 HR.



Assembly Information
1. Preferred product 910505 c.m.u. 8" x 8" x 16" nominal
2. ASTM C-270 Masonry Mortar, Type M or S. Face Shell or full mortar bedding as required.
3. Masonry grout, reinforcing steel, joint reinforcement, anchors, ties and accessories (Not depicted above - optional). Use where specified.

Preferred Materials Inc. accepts no responsibility for proper application of the rated wall assembly above, or responsibility for the construction of such assemblies.

Concrete Masonry Unit
§721.3.2 of the Florida Building Code

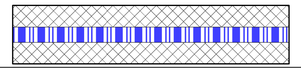
Unit Description:	**910505**
Size W x H x L Nominal:	**8 x 8 x 16**
Equivalent Thickness Inches:	**4.1**
Fire Rating Minutes:	**120.5***

* *Linear interpolation from table 721.3.2 of the Florida Building Code for Exposed Finish Block Mix -- 55% Limestone & 45% Siliceous Aggregates.*

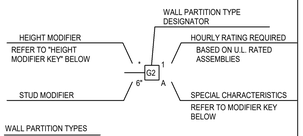
Acoustical Properties

Unit Description:	**910505**
Unit Weight in Pounds (lbs.):	**38**
lbs./SF:	**42.84**
STC Rating:	**49.8****

** *STC Rating based on minimum lbs./SF required to archive Sound Transmission Class as Defined by the National Concrete Masonry Association. Rating Value interpolated from nown weights of STC Ratings.*



PARTITION MARK



WALL PARTITION TYPES

B = BURNISHED (NCA TYPE GRF) ARCHITECTURAL MASONRY UNIT

F# = GYP BD ON FURRING (# DESIGNATES TOTAL LAYERS OF GYP BD)

G# = GYP BD ON METAL STUDS (# DESIGNATES TOTAL LAYERS OF GYP BD)

M = CONCRETE MASONRY UNIT

P = PROJECTILE RESISTANT PARTITIONS

S = GYPSUM BOARD SHAFT WALL

V = "BURNISHED" GROUND FACE ARCHITECTRUAL CMU - "GRF" CMA DESIGNATION

Z = GYPSUM BOARD ON METAL ZEE FURRING

HEIGHT MODIFIER KEY

(NO MODIFIER) = EXTEND ENTIRE WALL ASSEMBLY FROM FLOOR SLAB TO STRUCTURAL DECK ABOVE

P = EXTEND ENTIRE WALL ASSEMBLY FROM FINISH FLOOR TO 5'-8" ABOVE FINISH FLOOR ELEVATION ("HOLDROOM")

Q = EXTEND ENTIRE WALL ASSEMBLY FROM FINISH FLOOR TO 7'-0" ABOVE FINISH FLOOR ELEVATION ("HOLDROOM")

R = EXTEND ENTIRE WALL ASSEMBLY FROM FINISH FLOOR TO 8'-2" ABOVE FINISH FLOOR ELEVATION ("HOLDROOM")

2

V = EXTEND ENTIRE WALL ASSEMBLY FROM **12'-0"** ABOVE FINISH FLOOR TO STRUCTURAL DECK ABOVE (BRACE AS REQUIRED)

W = EXTEND ENTIRE WALL ASSEMBLY FROM FLOOR SLAB TO **12'-0"** ABOVE FINISH FLOOR (BRACE AS REQUIRED)

X = EXTEND ENTIRE WALL ASSEMBLY FROM FLOOR SLAB TO **6"** ABOVE FINISH CEILING (BRACE AS REQUIRED)

Y = EXTEND STRUCTURE TO DECK ABOVE HOLD STUD AND GWB TO **3'-0"** ABOVE FINISH CEILING (BRACE AS REQUIRED)

Z = EXTEND ENTIRE WALL ASSEMBLY FROM FLOOR SLAB TO **1' - 4"** ABOVE FINISH CEILING (BRACE AS REQUIRED)

FIRE RATING MODIFIER KEY

(NO MODIFIER) = NO FIRE RATING

1, 2, 3, ETC. = PARTITION FIRE RATING (IN HOURS)

WALL DEPTH MODIFIER KEY

CAST IN PLACE CONCRETE:
CONCRETE MASONRY UNIT:
NO MODIFIER = 8" CMU
4, 6, 8,12 = CMU DEPTH (NOMINAL DIMENSION IN INCHES)

METAL STUDS:
NO MODIFIER = 3 5/8"
1.6 = 1- 5/8", 2.5 = 2-1/2", 4 = 4", 6 = 6", 8 = 8"

SHAFT WALL STUDS:
NO MODIFIER = 4"
2.5 = 2-1/2"

SPECIAL CHARACTERISTIC MODIFIER KEY

(NO MODIFIER) = NO SPECIAL CHARACTERISTIC

A = ACOUSTICAL

L = LEAD-SHIELDED

M = ABUSE-RESISTANT GYPSUM BOARD ONE-SIDE TO 8' - 0" AFF UNO

N = ABUSE-RESISTANT GYPSUM BOARD EACH SIDE TO 8' - 0" AFF UNO

P = PROJECTILE RESISTANT

R = SECURITY FENCING EXTENDING FROM ACCESS FLOOR TO FLOOR SLAB BELOW & FROM ABOVE CEILING TO STRUCTURAL DECK ABOVE

S = SECURITY FENCING ABOVE PARTITION TO STRUCTURAL DECK ABOVE

T = THERMALLY INSULATED

U = SPILL CONTAINMENT CURB

V = SECURITY FENCING EXTENDING FROM ACCESS FLOOR TO FLOOR SLAB BELOW

PARTITION TYPE NOTES

1. ALL INTERIOR STUDS SHALL WITHSTAND A LATERAL LOAD OF NOT LESS THAN 5 LBS/FT ². DEPTH OF STUDS OR WIDTH OF MASONRY SHALL NOT BE INCREASED OR DECREASED FROM THAT SHOWN ON THE DRAWINGS. IN ORDER TO ACCOMMODATE THE REQUIRED LATERAL LOAD FOR LONG SPAN PARTITIONS THAT DO NOT EXTEND TO STRUCTURE ABOVE, THE CONTRACTOR MAY MODIFY THE PARTITION USING ANY, OR ANY COMBINATION, OF THE FOLLOWING METHODS:

A. BRACE STUDS DIAGONALLY TO STRUCTURAL DECK ABOVE SUSPENDED CEILING;
B. INCREASE THICKNESS (GAGE) OF METAL STUDS;
C. PROVIDE ADDITIONAL REINFORCEMENT; AND/ OR
D. DECREASE SPACING OF METAL STUDS.

2. REFER TO FINISH SCHEDULE FOR WALL BASE, CERAMIC TILE, FRP OR ANY OTHER FINISH TO BE APPLIED TO WALL SURFACE.

LIFE SAFETY LEGEND

RATED FIRE PARTITIONS
1 = 1 HOUR FIRE PARTITION
2 = 2 HOUR FIRE PARTITION

OKALOOSA COUNTY
FLY VPS

C19-2811- AP
Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
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AA-C002208
MLM SOLE-TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	**MLM-19672**
Designed By:	**MLM, MAM**
Drawn By:	**ST, CC, DM, CB**
Checked By:	**MAM**
Issue Date:	**21-JAN-2020**
Drawing Scale:	**NO SCALE**

Drawing Title:

INTERIOR PARTITION TYPES

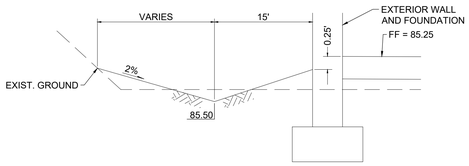
BID DOCUMENTS

Drawing No.:

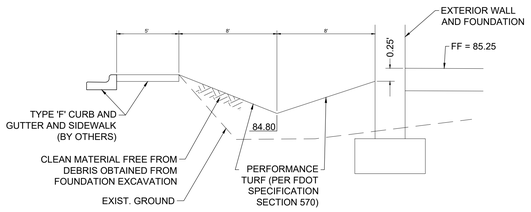
AL641

BIM 360://Design of Satellite Concourse/VPS-MLM_A.rvt

3/10/2020 12:19:48 PM



SECTION C
N.T.S.



SECTION B
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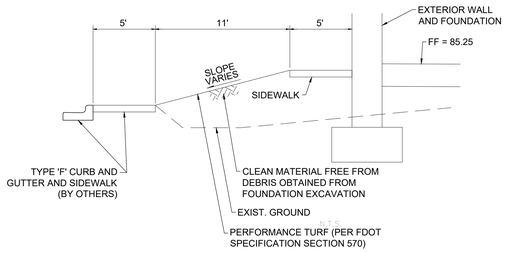
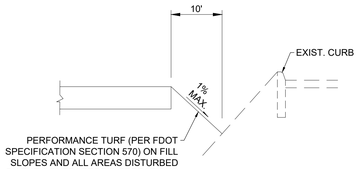


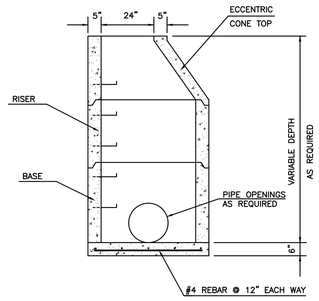
N.T.S.

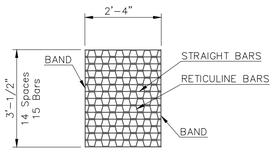
SECTION A

NOTE:
ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE TURFED IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 570.



SECTION D
N.T.S.

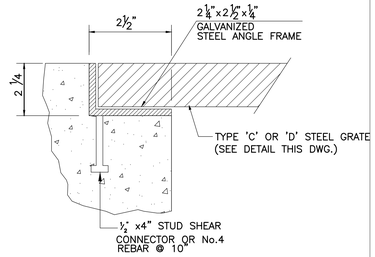




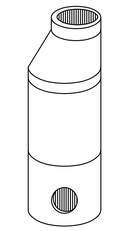
Approx. Weight 145 Lbs.

TYPE 'C' STEEL GRATE
N.T.S.
(U.S, FOUNDRY CAT NO. 6611 OR EQUAL)

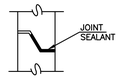
NOTE:
1. GRATES DIFFERING ONLY IN NON-ESSENTIAL DETAILS WILL BE ACCEPTABLE. STEEL GRATES SHALL BE GALVANIZED.



DETAIL 'A'
N.T.S.



ISOMETRIC VIEW

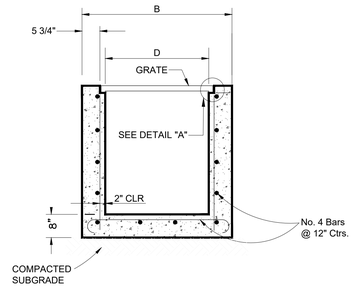


JOINT DETAIL

NOTES:

1) STRUCTURE MAY BE CAST INPLACE OR PRECAST.
2) IF STRUCTURE DEPTH EXCEEDS 4'-6" METAL STEPS ARE TO BE PLACED ON WALL.
3) WALLS SHALL BE REINFORCED WITH WIRE MESH AT 0.2 IN. SQ./FT.
4) BOTTOM SLAB AND CAP SHALL BE REINFORCED WITH #4 REBAR AT 12" O.C. EACH WAY.
5) PROVIDE MANHOLE FRAME AND LID RATED FOR H-20 LOADING.

STANDARD MANHOLE DETA ILS
N.T.S.



SECTION VIEW
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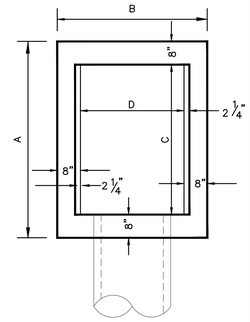
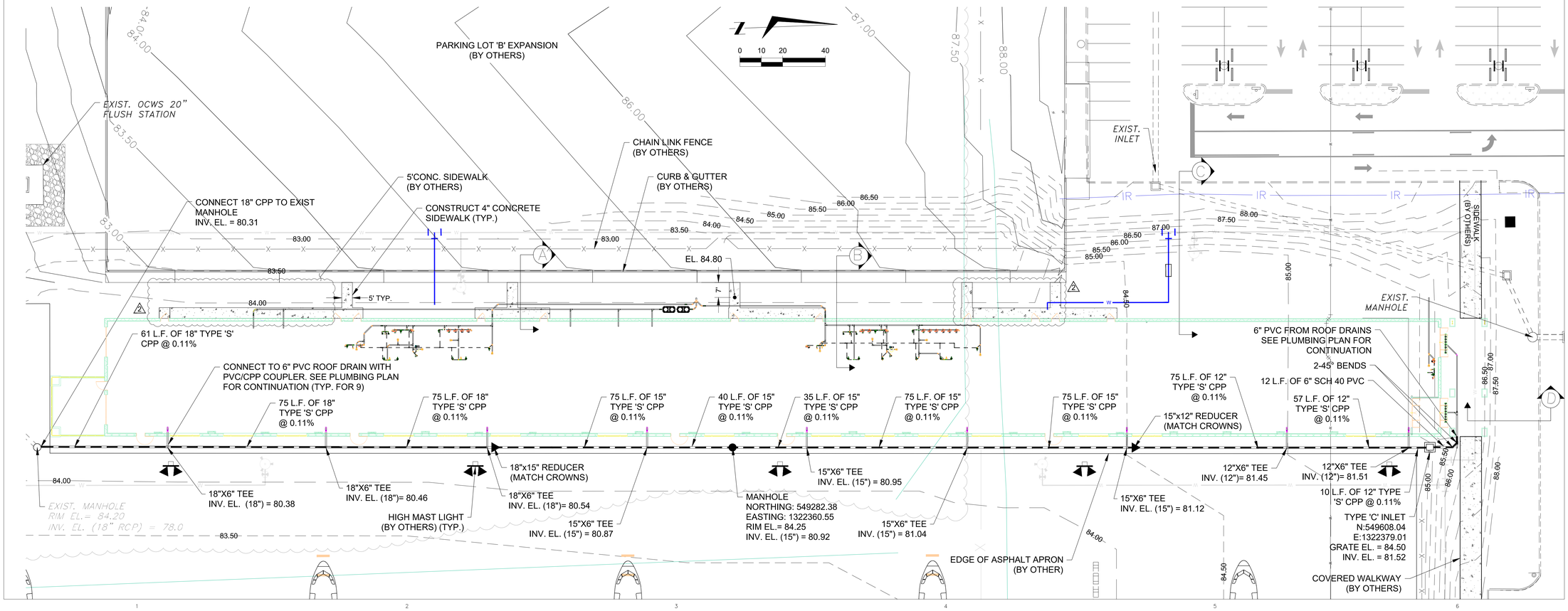


PLAN VIEW
N.T.S.

INLET DIMENSIONS				
	A	B	C	D
TYPE C	4'-5"	3'-4"	3'-1"	2'-0"

NOTE:
1. 8" WALL MAY BE REDUCED TO 6" FOR PRE-CAST UNITS.

TYPE 'C' INLET
N.T.S.



OKALOOSA COUNTY

FLY VPS

C19-2811-AP
Construction of Satellite Concourse 'C'

MLM ENGINEERING
668 N. ORLANDO AVE.
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MAITLAND, FL 32751
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407.894.1338 (FAX)
WWW.MLM-MARTIN.COM
AA-C002208
MLM JOB # TYPE PROPERTY

SEAL

INFRASTRUCTURE CONSULTING & ENGINEERING
5550 WEST IDLEWILD AVE. SUITE 115
TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

Revisions

No.	Date	Description
1	3/09/2020	Addendum No.002

Project No.:	MLM-19672
Designed By:	JG
Drawn By:	MA, AM
Checked By:	DH
Issue Date:	21-JAN-2020
Drawing Scale:	1" = 20'-0"

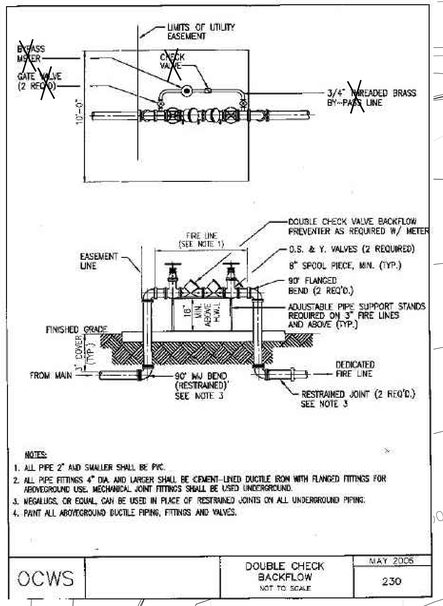
Drawing Title:

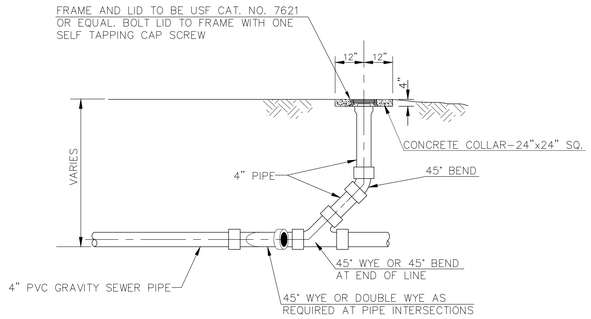
DRAINAGE AND SIDEWALK PLAN

BID DOCUMENTS

Drawing No.:

C1.0





SANITARY SEWER CLEANOUT DETAIL

N.T.S.

OKALOOSA COUNTY

FLY VPS

C19-2811-AP Construction of Satellite Concourse 'C'

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AA-C002208
MLM JOB #: TYPE PROPERTY

SEAL

Revisions

No.	Date	Description
1	3/09/2020	Addendum No.002

INFRASTRUCTURE CONSULTING & ENGINEERING
5550 WEST IDLEWILD AVE. SUITE 115
TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

Project No.:	**MLM-19672**
Designed By:	**JG**
Drawn By:	**MA, AM**
Checked By:	**DH**
Issue Date:	**21-JAN-2020**
Drawing Scale:	**1" = 20'-0"**

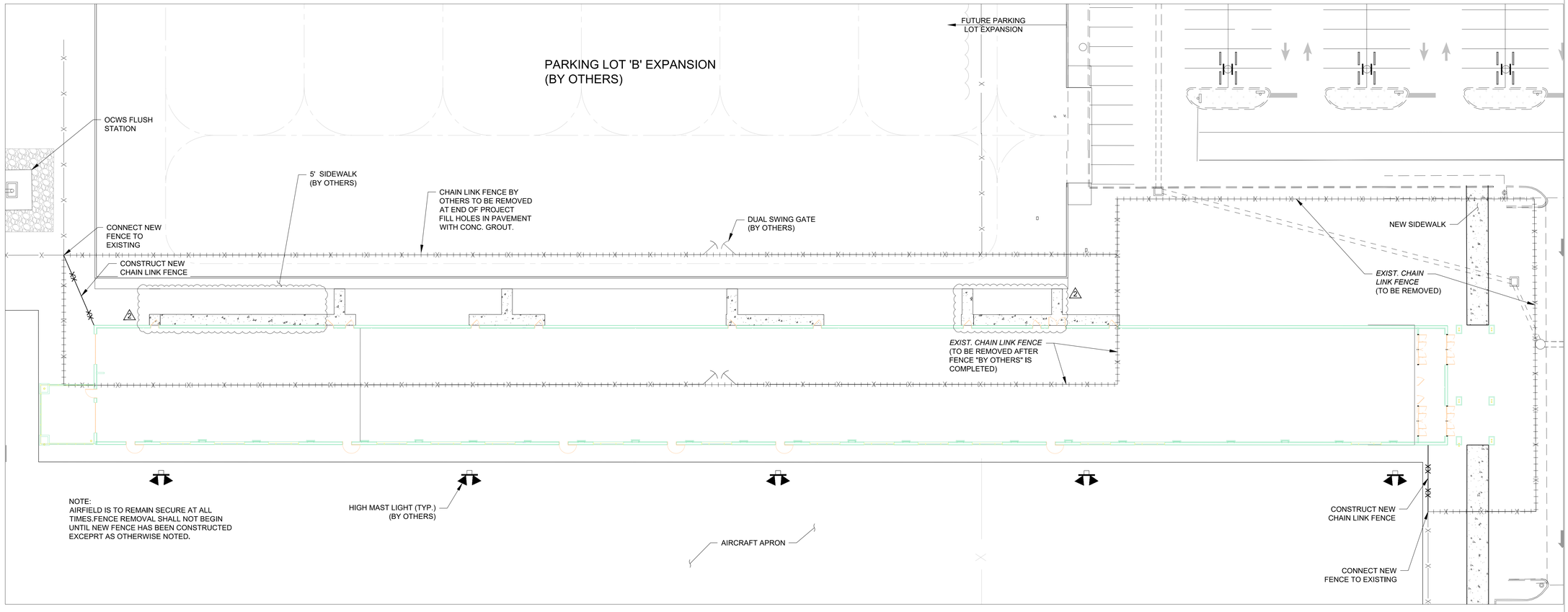
Drawing Title:

SITE UTILITIES PLAN

BID DOCUMENTS

Drawing No.:

C2.0



OKALOOSA COUNTY

FLY VPS

C19-2811-AP Construction of Satellite Concourse 'C'

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MAITLAND, FL 32751

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WWW.MLM-MARTIN.COM

AA-C002208
MLM JOB # TYPE PROPERTY

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SEAL

Revisions

No.	Date	Description
2	3/09/2020	Addendum No.002

INFRASTRUCTURE
CONSULTING & ENGINEERING

5550 WEST IDLEWILD AVE. SUITE 115
TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

Project No.:	**MLM-19672**
Designed By:	**JG**
Drawn By:	**MA, AM**
Checked By:	**DH**
Issue Date:	**21-JAN-2020**
Drawing Scale:	**1" = 20'-0"**

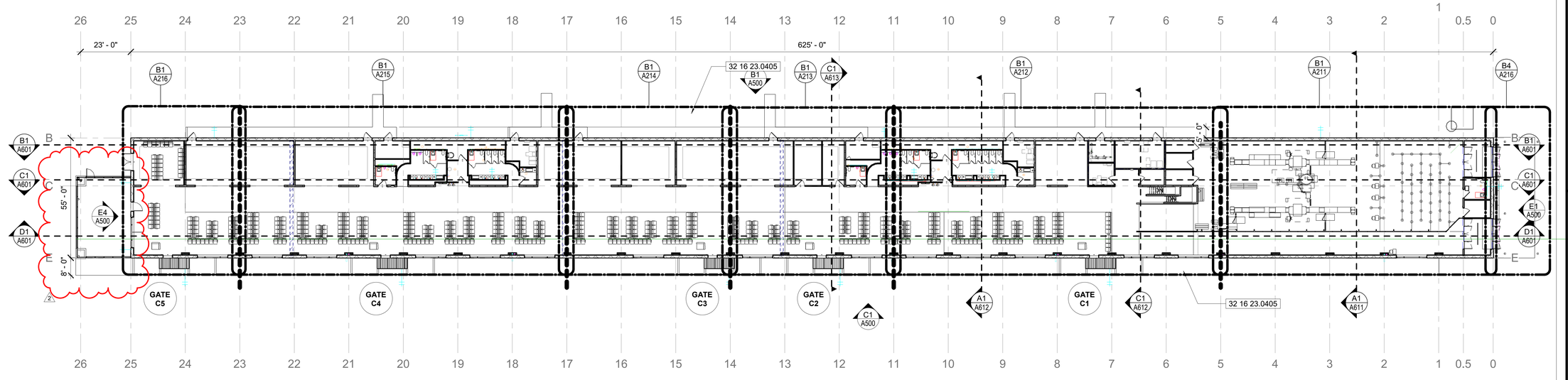
Drawing Title:

FENCING PLAN

BID DOCUMENTS

Drawing No.:

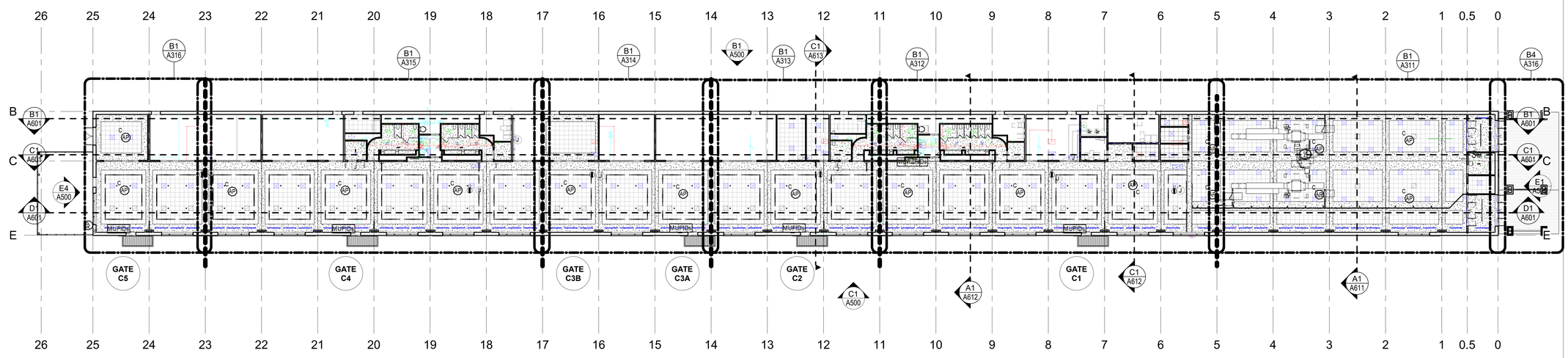
C3.0



D1 OVERALL PLAN CONCOURSE LEVEL

1" = 20'-0"

NORTH



A1 OVERALL CEILING PLAN CONCOURSE LEVEL

1" = 20'-0"

NORTH

KEYNOTES

NO.	
32 16 23.0405	TYP. 4" BROOM FINISHED CONCRETE SIDEWALK.

SCALE: 1" = 20'-0"

0 5' 10' 20' 40'

OKALOOSA COUNTY

FLY VPS

C19-2811- AP
Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
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AA-C002208
MULTI-SERVICE TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	1" = 20'-0"

Drawing Title:

OVERALL CONCOURSE PLANS

BID DOCUMENTS

Drawing No.:

A110

BIM 360://Design of Satellite Concourse/VPS-MLM_A.rvt

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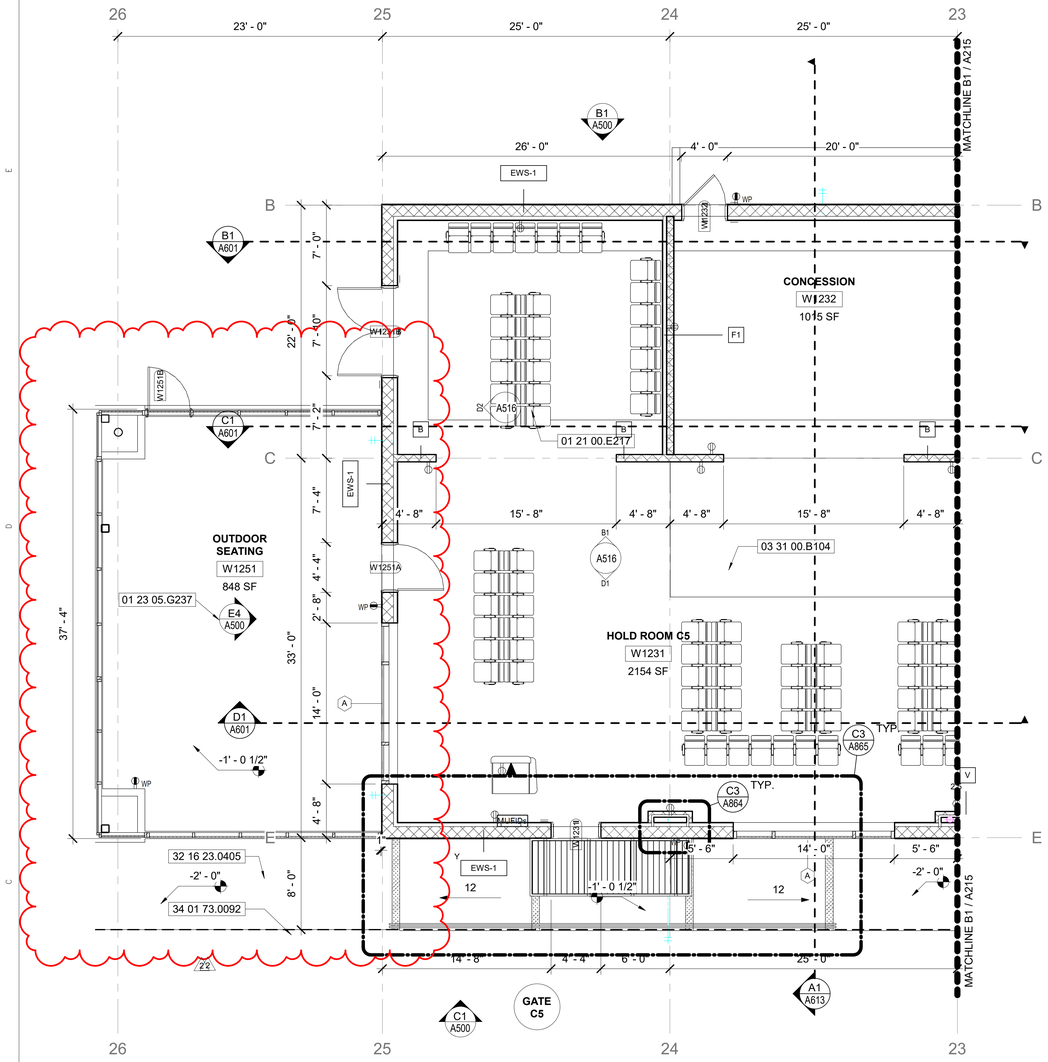
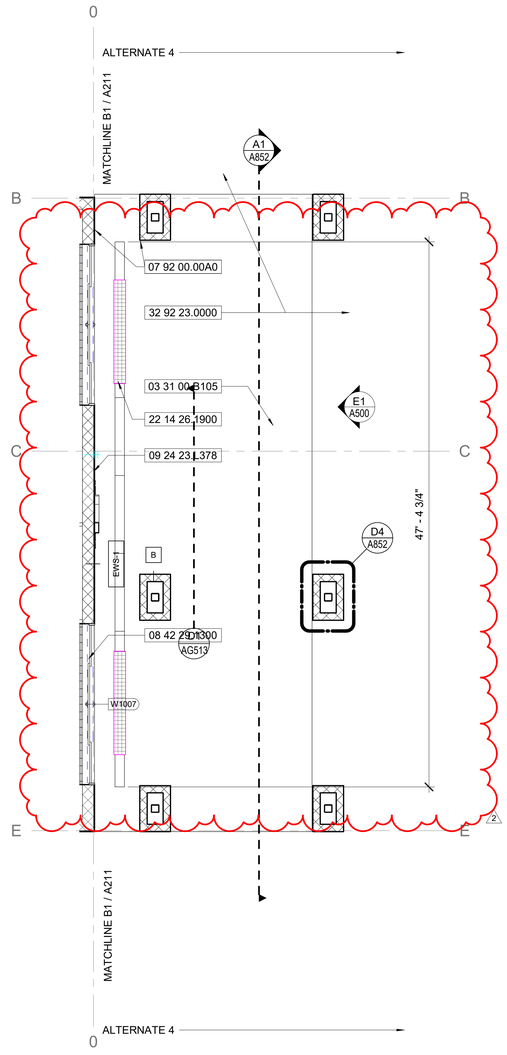


B1 CONCOURSE LEVEL AREA 6 PLAN

3/16" = 1'-0"

NORTH



B4 ALTERNATE 4 PLAN

3/16" = 1'-0"

NORTH

KEYNOTES

NO.	
01 21 00.E217	TYP. ALLOWANCE FOR FIXED MULTIPLE SEATING WORK.
01 23 05.G237	TYP. ALTERNATE 5 EXTERIOR CONCESSIONS PLAZA WORK.
03 31 00.B104	TYP. 4" STRUCTURAL SLAB-ON-GRADE, SEE STRUCTURAL.
03 31 00.B105	TYP. 5" CONCRETE FLOOR SLAB, SEE STRUCTURAL
07 92 00.00A0	TYP. JOINT SEALANT, FULL PERIMETER.
08 42 29.1300	TYP. ALUMINUM FRAMED AUTOMATIC ENTRANCE DOOR.
09 24 23.L378	TYP. SMOOTH 7/8" STUCCO, 3 COAT SYSTEM
22 14 26.1900	TYP. FACILITY STORM TRENCH DRAIN, SEE PLUMBING.
32 16 23.0405	TYP. 4" BROOM FINISHED CONCRETE SIDEWALK.
32 92 23.0000	TYP. SODDING AND PLANTING SEE LANDSCAPE.
34 01 73.0092	TYP. PRESERVE EDGE OF AIRFIELD CONSTRUCTION. COORDINATE PROTECTION OF BUILT ELEMENTS WITH ADJACENT PROJECT.

NOTES

1. REFER TO **AL641** FOR PARTITION TYPES.
2. ALL PARTITIONS ARE DIMENSIONED FROM FACE OF FINISH TO FACE OF FINISH U.O.N.
3. ALL WALL PARTITIONS TO BE FULL HEIGHT U.O.N.
4. REFER TO **AG** SERIES SHEETS FOR WAYFINDING AND SIGNAGE.
5. MAINTAIN 1/16" SLOPE MINIMUM AND 1/4" SLOPE MAXIMUM TO AREA DRAINS.
6. FOR FIRE EXTINGUISHER DETAILS REFER TO **AL710**
7. FOR DOOR TYPES AND SCHEDULES REFER TO SHEET SERIES **A711**
8. HINGE DOORS SIDE OF DOORS TO BE LOCATED PER DETAILS FROM FACE OF ADJACENT PERPENDICULAR PARTITIONS U.O.N.
9. REFER TO ELECTRICAL, TELECOM, AV, AND SIGNAGE DRAWINGS FOR OUTLET INFORMATION.
10. FOR RAILING DETAILS REFER TO SHEET **A865**
11. REFER TO **AF** SERIES SHEETS FOR FINISH INFORMATION.
12. SHOP-APPLIED GALVANIZATION FOR METAL TOUCH UP ALL DAMAGED GALVANIZATION WITHIN 24HRS OF ERECTION
13. CONTRACTOR TO PROVIDE SIGNED AND SEALED DRAWINGS AND LOAD CALCULATIONS IN COMPLIANCE WITH FLORIDA BUILDING CODE WITH SUPPLEMENTS FOR ALL FABRICATED STAIRS, LADDERS, GRAB BARS, GUARDS, HANDRAILS AND/OR PLATFORMS. MINIMUM 50 PLF AND 200 POUND CONCENTRATED DESIGN LOADS.
14. AREA DESIGNATED FOR FUTURE WORK (NIC). CONTRACTOR SHALL KEEP THIS AREA CLEAR OF ANY BUILT ELEMENTS ABOVE AND/OR BELOW GROUND UNLESS OTHERWISE NOTED WITHIN THE SCOPE OF THIS PROJECT.
15. CONCESSION AREAS SHALL BE FIT OUT AS SHELL SPACES WITH CODE MINIMUM SYSTEMS SUPPORT AS INDICATED.

LIFE SAFETY LEGEND

RATED FIRE PARTITIONS
1 = 1 HOUR FIRE PARTITION
2 = 2 HOUR FIRE PARTITION

SCALE: 3/16" = 1'-0"

0 16" 32" 64" 128"

OKALOOSA COUNTY

FLY VPS

C19-2811- AP Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
668 N. ORLANDO AVE.
SUITE 107
MAITLAND, FL 32751
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407.894.1338 (FAX)
WWW.MLM-MARTIN.COM
AA-C002208
MIAMI-DADE CERTIFIED PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	As indicated

Drawing Title:

ENLARGED FLOOR PLAN - AREA 6

BID DOCUMENTS

Drawing No.:

A216

BIM 360://Design of Satellite Concourse/VPS-MLM_A.rvt

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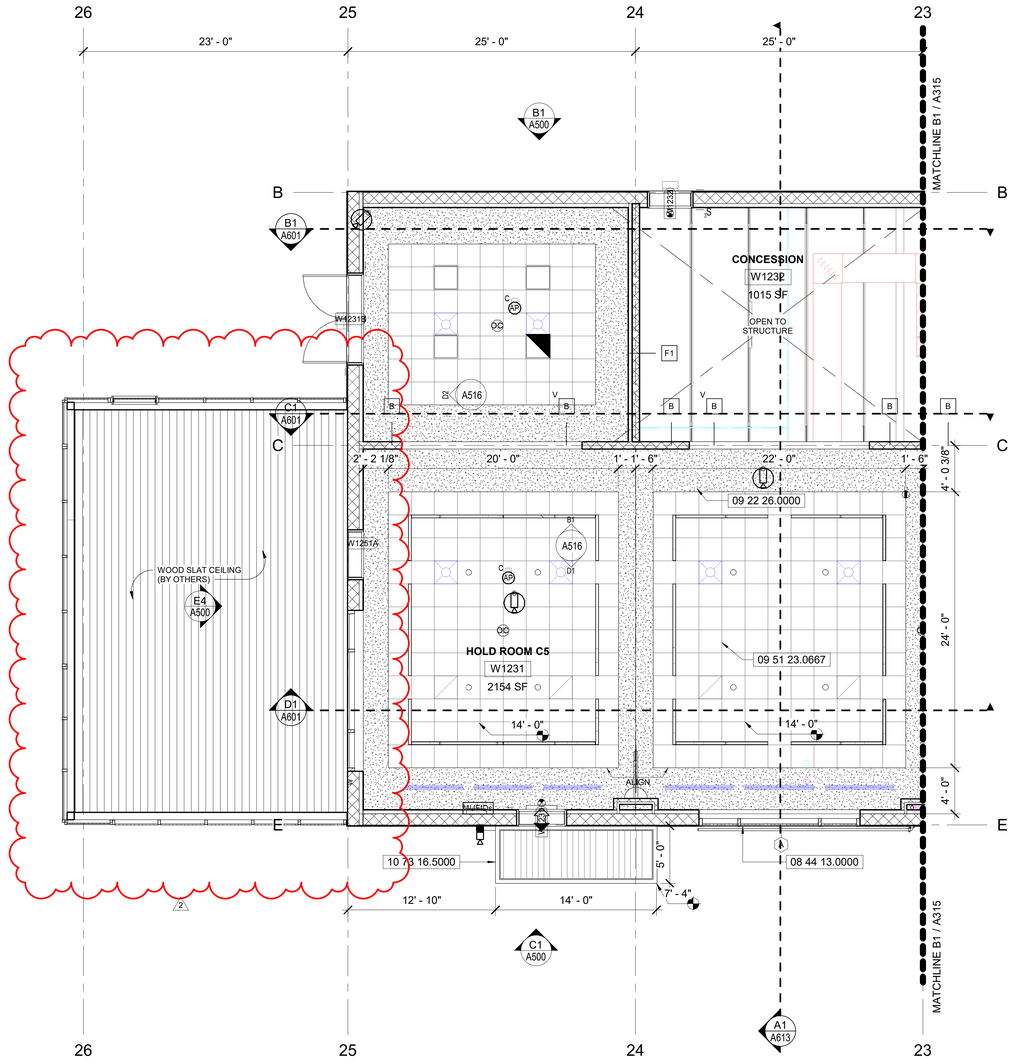
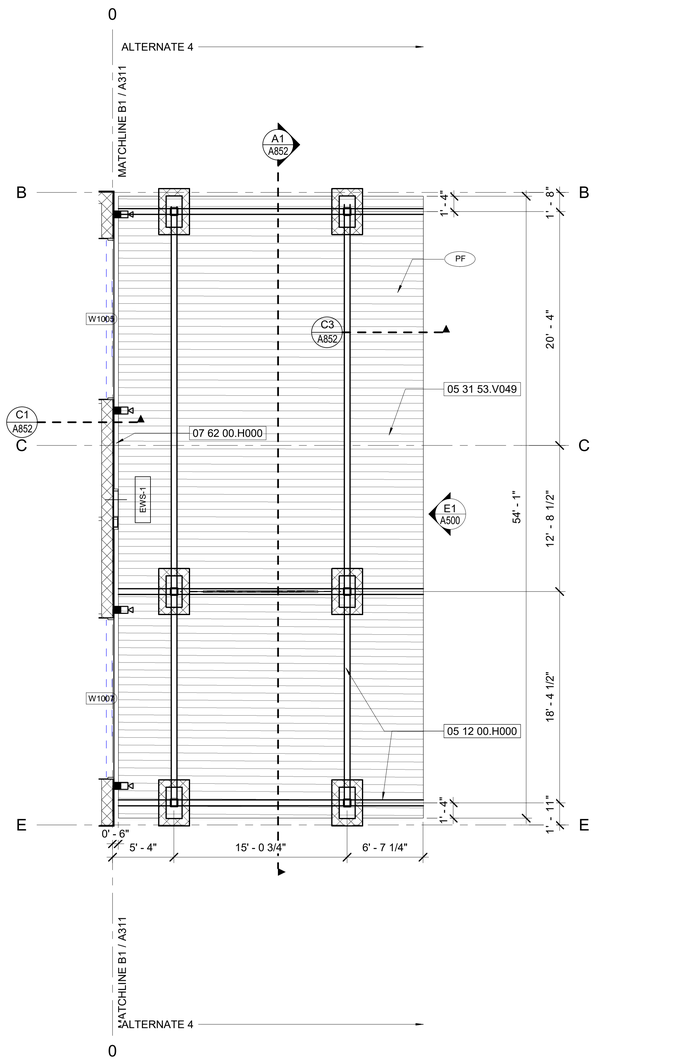


B1 CEILING AREA PLAN

3/16" = 1'-0"



B4 ALTERNATE 4 CEILING PLAN

3/16" = 1'-0"

KEYNOTES

NO.	
05 12 00.H000	TYP. HSS SHAPE STRUCTURAL STEEL FRAMING, SEE STRUCTURAL.
05 31 53.V049	TYP. 4" DOVETAIL G-90 GALV. STEEL ARCHITECTURALLY EXPOSED DECK. BASIS OF DESIGN: EPIC TORIS 4 - CANOPY.
07 62 00.H000	TYP. 8" X 6" BEVELED ALUMINUM GUTTER.
08 44 13.0000	TYP. GLAZED ALUMINUM CUTAIN WALL ASSEMBLY.
09 22 26.0000	TYP. GYPSUM ASSEMBLY SUSPENSION SYSTEM, INSTALL PER MNFR. INSTRUCTIONS.
09 51 23.0667	TYP. STANDARD, 24" X 24" TEGULAR ACOUSITCAL TILE CEILING SYSTEM.
10 73 16.5000	TYP. PREMANUFACTURED ALUMINUM CANOPY SYSTEM. PROVIDE SIGNED & SEALED CALCULATIONS/SHOPDRAWINGS COMPLYING W/ STRUCTURAL DESIGN LOADS.

NOTES

1. REFER TO **AL641** FOR PARTITION TYPES
2. ALL PARTITIONS ARE DIMENSIONED FROM FACE OF FINISH TO FACE OF FINISH U.O.N.
3. ALL WALL PARTITIONS TO BE FULL HEIGHT U.O.N.
4. REFER TO **AG** SERIES SHEETS FOR WAYFINDING AND SIGNAGE.
5. FOR DOOR TYPES AND SCHEDULES REFER TO SHEET SERIES **A711**
6. REFER TO ELECTRICAL, TELECOM, AV, AND SIGNAGE DRAWINGS FOR OUTLET INFORMATION.
7. REFER TO **AF** SERIES SHEETS FOR FINISH INFORMATION.
8. AREA DESIGNATED FOR FUTURE WORK.(NIC). CONTRACTOR SHALL KEEP THIS AREA CLEAR OF ANY BUILT ELEMENTS ABOVE AND/OR BELOW GROUND UNLESS OTHERWISE NOTED WITHIN THE SCOPE OF THIS PROJECT.
9. CONCESSION AREAS SHALL BE FIT OUT AS SHELL SPACES WITH CODE MINIMUM SYSTEMS SUPPORT AS INDICATED.

CEILING LEGEND

- 24" X 24" ACOUSTICAL TILE CEILING SYSTEM
- ALUMINUM COMPOSITE PANEL EXTERIOR SOFFIT
- SUSPENDED GYPSUM WALL BOARD ASSEMBLY
- DIFFUSER / LINEAR, SEE MECH
- SUPPLY / RETURN DIFFUSER, SEE MECH
- LIGHT FIXTURES, SEE ELEC
- ELEVATIONS PROVIDED FROM CONCOURSE LEVEL
- 1 HR RATED ASSEMBLY
- 2 HR RATED ASSEMBLY

SCALE: 3/16" = 1'-0"

0 16" 32" 64" 128"

OKALOOSA COUNTY

FLY VPS

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Construction of Satellite Concourse 'C'

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AA-C002208
MULTI SHEET TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	**MLM-19672**
Designed By:	**MLM, MAM**
Drawn By:	**ST, CC, DM, CB**
Checked By:	**MAM**
Issue Date:	**21-JAN-2020**
Drawing Scale:	**3/16" = 1'-0"**

Drawing Title:

ENLARGED CEILING PLAN - AREA 6

BID DOCUMENTS

Drawing No.:

A316

BIM 360://Design of Satellite Concourse\YPS-MLM_A.rvt

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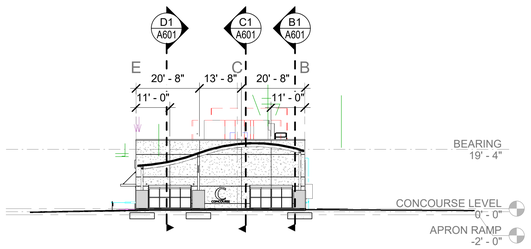
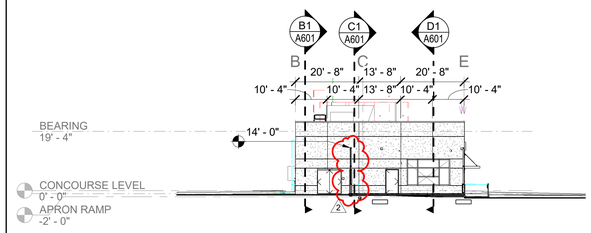


E1 NORTH BUILDING ELEVATION

1" = 20'-0"

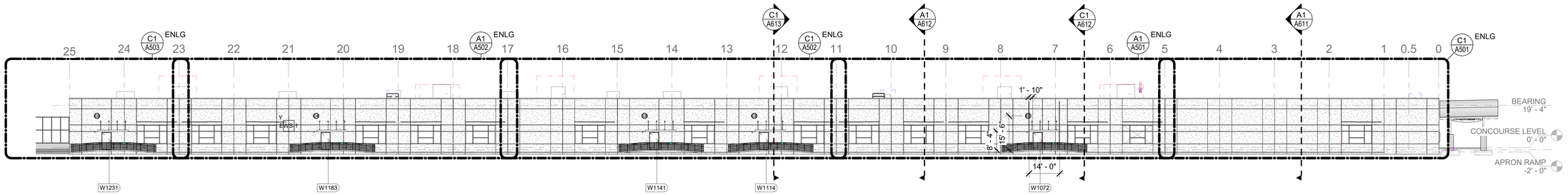


E4 SOUTH BUILDING ELEVATION

1" = 20'-0"

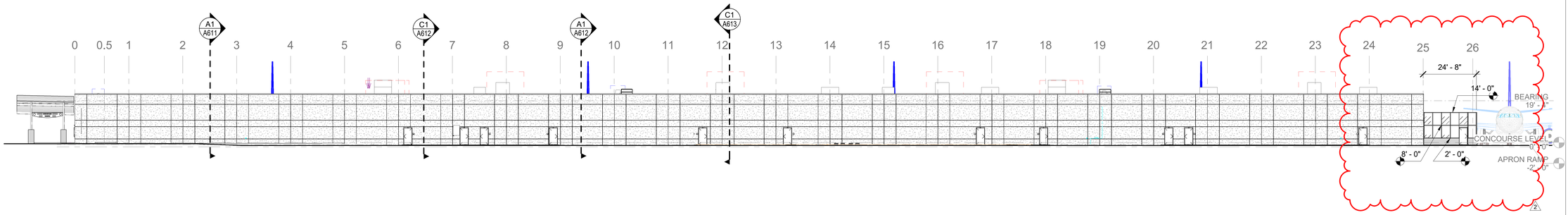
KEYNOTES

NO.



C1 EAST BUILDING ELEVATION (APRON VIEW)

1" = 20'-0"



B1 WEST BUILDING ELEVATION (SERVICE ROAD VIEW)

1" = 20'-0"

EXTERIOR FINISHES

GROUND FACE "BURNISHED" MASONRY SEE PLAN FOR THICKNESS

SMOOTH FINISH STUCCO SYSTEM W/PAINT SEE SPECIFICATIONS

OKALOOSA COUNTY

FLY VPS

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AA-C002208
MLM SOR-E-TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	1" = 20'-0"

Drawing Title:

OVERALL KEY BUILDING ELEVATIONS

BID DOCUMENTS

Drawing No.:

A500

BIM 360://Design of Satellite Concourse/VPS-MLM_A.rvt

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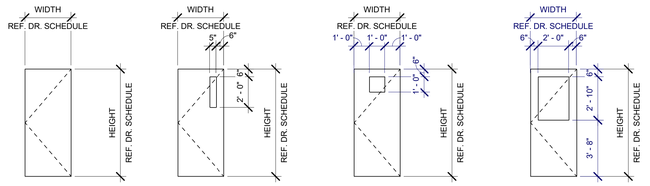
DOOR SCHEDULE

REV	MARK	ROOM NO	DOOR TYPE	DOOR NUMBER OF LEAFS	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICKNESS	DOOR MATERIAL	DOOR FIRE RATING	FRAME TYPE	FRAME DETAIL	FRAME MATERIAL	THRESHOLD DETAIL	THRESHOLD MATERIAL	COMMENTS	HARWARE SET
00_ Base Bid																
No	W1001B	W1001	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		7
No	W1003	W1003	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5 SIM.	HM		ALUM		3
No	W1004	W1004	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		8
No	W1005	W1005	C	4	13' - 8 1/2"	7' - 0"	1 3/4"	ALUM	None	iii	B1/B2	ALUM		ALUM		1
No	W1006	W1006	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5 SIM.	HM		ALUM		6
No	W1007	W1007	C	4	13' - 8 1/2"	7' - 0"	1 3/4"	ALUM	None	iii	B1/B2	ALUM		ALUM		1
No	W1011	W1011	C	4	13' - 8 1/2"	7' - 0"	1 3/4"	ALUM	None	iii	C1/C2	ALUM		ALUM		1
No	W1013	W1013	C	4	13' - 8 1/2"	7' - 0"	1 3/4"	ALUM	None	iii	C1/C2	ALUM		ALUM		1
No	W1018	W1018	F	1	3' - 8"	7' - 10"	1 3/4"	HM	90 min	i	D4/D5 SIM.	HM		ALUM		6
No	W1051	W1051	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		9
No	W1061	W1061	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		6
No	W1062	W1062	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		5
No	W1063	W1063	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		6
No	W1064	W1064	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		4
No	W1072	W1072	F	1	4' - 0"	7' - 10"	1 3/4"	HM	45 min	i	B4/B5	HM		ALUM		10
No	W1081	W1081	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		5
No	W1114	W1114	F	1	4' - 0"	7' - 10"	1 3/4"	HM	45 min	i	B4/B5	HM		ALUM		10
No	W1276	W1276	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	E4/E5	HM		ALUM		5
No	W1277	W1277	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		8
No	W1278	W1278	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		8
No	W1279	W1279	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		6
No	W1282	W1282	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		6
No	W1283	W1283	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	E4/E5	HM		ALUM		3
No	W1285	W1285	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		3
01_ Alternate 1																
No	W1121	W1121	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		9
No	W1141	W1141	F	1	4' - 0"	7' - 10"	1 3/4"	HM	45 min	i	B4/B5	HM		ALUM		10
No	W1151	W1151	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		9
02_ Alternate 2																
No	W1183	W1183	F	1	4' - 0"	7' - 10"	1 3/4"	HM	45 min	i	B4/B5	HM		ALUM		10
No	W1201	W1201	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		9
No	W1266	W1266	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		8
No	W1267	W1267	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		8
No	W1268	W1268	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		6
No	W1270	W1270	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		6
No	W1271	W1271	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	E4/E5	HM		ALUM		3
No	W1273	W1273	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	D4/D5	HM		ALUM		3
03_ Alternate 3																
No	W1231	W1231	F	1	4' - 0"	7' - 10"	1 3/4"	HM	45 min	i	B4/B5	HM		ALUM		10
No	W1231B	W1231	FF	2	3' - 10"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM	ACS For Ramp Side Deliverys Delayed Egress	12
No	W1232	W1232	F	1	3' - 8"	7' - 8"	1 3/4"	HM	NONE	ii	B4/B5	HM		ALUM		9
No	W1251A	W1251	F	1	4' - 0"	7' - 10"	1 3/4"	HM	45 min	i	B4/B5	HM		ALUM	ALWAYES UNLUCKED FROM 1251	11
05_ Alternate 5																
Yes	W1251B	W1251	F	1	3' - 8"	7' - 10"	1 3/4"	HM	NONE	i	B4/B5	HM		ALUM		9

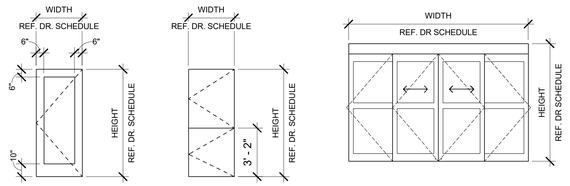
NOTICE:
SCHEDULE(S) REVISED
WHEN THIS AREA IS CLOUDED

2

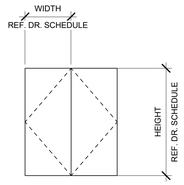
DOOR TYPES



F SOLID | N NARROW GLASS | V VISION PANEL | G HALF GLASS

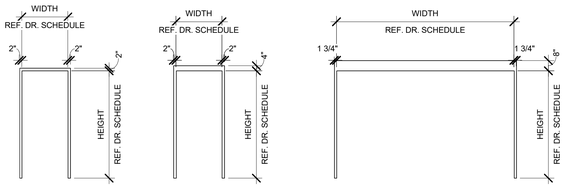


A FULL GLASS | D DUTCH SOLID | C ALUM / GLASS AUTOMATIC SLIDING



FF SOLID

FRAME TYPES



i HM FRAME | ii HM FRAME | iii ENTRANCE FRAME

GENERAL NOTES

1. SEE SPECIFICATION SECTION 08 71 00 FOR HARDWARE GROUPS, SECTION 08 8000 FOR GLASS TYPE OF DOORS & WINDOWS.
2. REFERENCE FINISH SCHEDULE FOR ADDITIONAL DOOR & FRAME FINISH INFORMATION.
3. SEE PARTITION SCHEDULE FOR DEPTH OF ALL DOORS & WINDOWS IN GYP. BOARD WALLS.
4. RIGHT HAND DOOR SHALL BE ACTIVE LEAF FOR DOUBLE DOORS.
5. EXTERIOR DOORS - MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS.
6. INTERIOR DOORS - MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS.
7. MAXIMUM EFFORT TO OPERATE DOOR SHALL NOT EXCEED 15 LBS. FOR INTERIOR AND EXTERIOR FIRE DOORS.
8. TYPICAL JAMB DIMENSIONS TO ADJACENT PARTITIONS ON HINGE SIDE OF DOOR OPENINGS: 8" AT CMU & 4" AT STUD PARTITIONS U.O.N.
9. ALL WOOD DOORS ARE TO BE UNDERCUT AS REQUIRED FOR FLOOR FINISHES & SPECIFICATIONS.
10. WIDTH / HEIGHT DIMENSIONS ARE LEAF OPENING SIZE
11. FOR DOORS IN MASONRY CONDITIONS, PROVIDE DOOR FRAME WITH 4" HEAD WIDTH FOR TOP OF FRAME.
12. FINISH AT MASONRY COURSING, WHERE OCCURS. CONTRACTOR TO VERIFY IN FIELD AND COORDINATE ALL LOCATIONS.

KEYNOTES

NO.

SUBMITTAL

EXTERIOR DOORS--(FOR EACH TYPE AND SIZE INSTALLED)--PROVIDE ONE OF THE FOLLOWING (TO INCLUDE COVER PAGE AND INSTALLATION DETAILS): FLORIDA PRODUCT APPROVAL, MIAMI DADE NOA, OR (ICC-ES) NER. DOCUMENTS ARE TO BE PROVIDED BY THE SAME ROUTING METHOD AS DRAWINGS WERE SUBMITTED TO GROWTH MANAGEMENT. THIS IS TO BE SUBMITTED BEFORE A FRAMING INSPECTION. BUILDER WILL NOT BE ABLE TO SCHEDULE A FRAMING INSPECTION UNTIL A RESPONSE IS APPROVED. 2017 FBC 104.9, 107.2.1; FLORIDA ADMINISTRATIVE CODE 9B-72.005

LEGEND

GLASS TYPES:

1 = 1/4" 20 MIN. RATED CLEAR TEMPERED GLASS
2 = 1/4" CLEAR TEMPERED GLASS
3 = 1 7/16" 90 MIN. RATED LAMINATED GLASS
(NOTE: ALL GLASS IN DOORS, SIDELITES OR TRANSOMS TO BE SAFETY GLASS.)

MATERIALS:
ALUM = ALUMINUM
GL = GLASS
SS = STAINLESS STEEL
WD = WOOD
HM = HOLLOW METAL
WWM = WELDED WIRE MESH
DET = DETENTION DOOR

OKALOOSA COUNTY

FLY VPS

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ALM SOR-E TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	NO SCALE

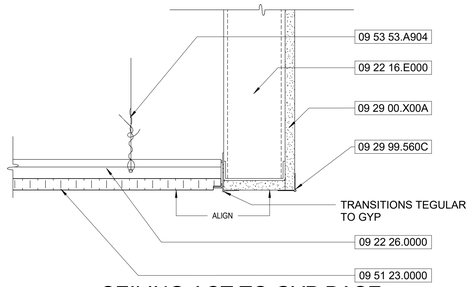
Drawing Title:

DOOR SCHEDULE

BID DOCUMENTS

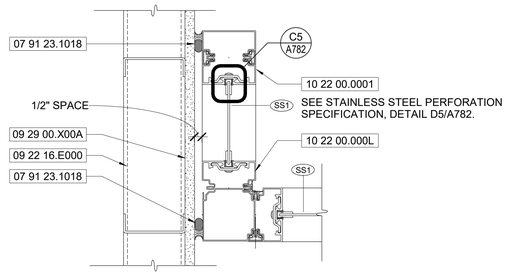
Drawing No.:

A711



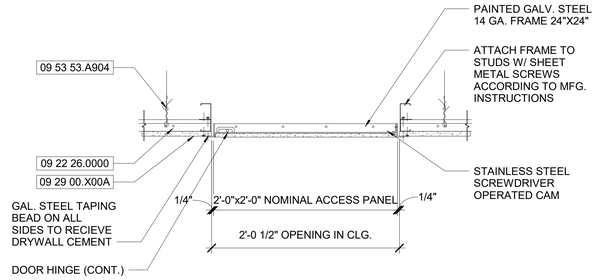
E1 CEILING ACT TO GYP BASE

3" = 1'-0"



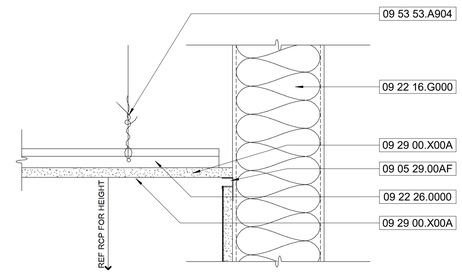
E2 BULKHEAD DETAIL @ TSA PARTITION END WALL

3" = 1'-0"



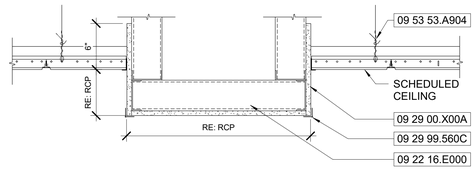
E5 CEILING ACCESS DETAIL

1 1/2" = 1'-0"



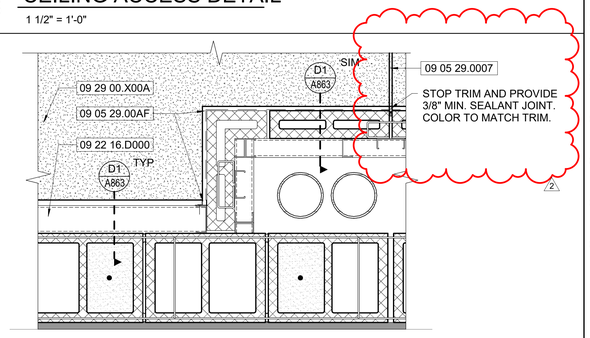
D1 CEILING GYP TO GYP_INSIDE

3" = 1'-0"



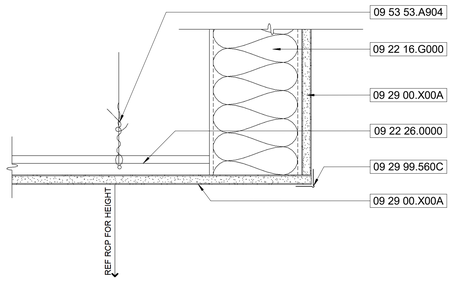
D2 CEILING DETAIL @ GYP BULKHEAD

1 1/2" = 1'-0"



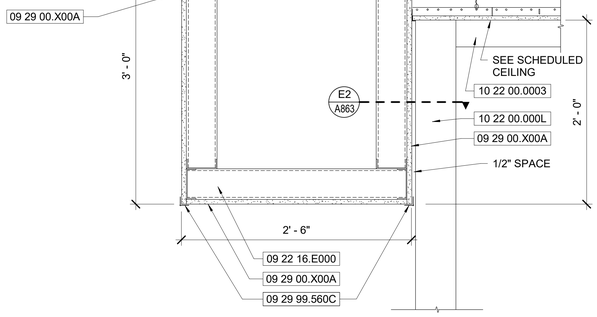
D5 CEILING TRIM AT CMU PILASTER

1 1/2" = 1'-0"



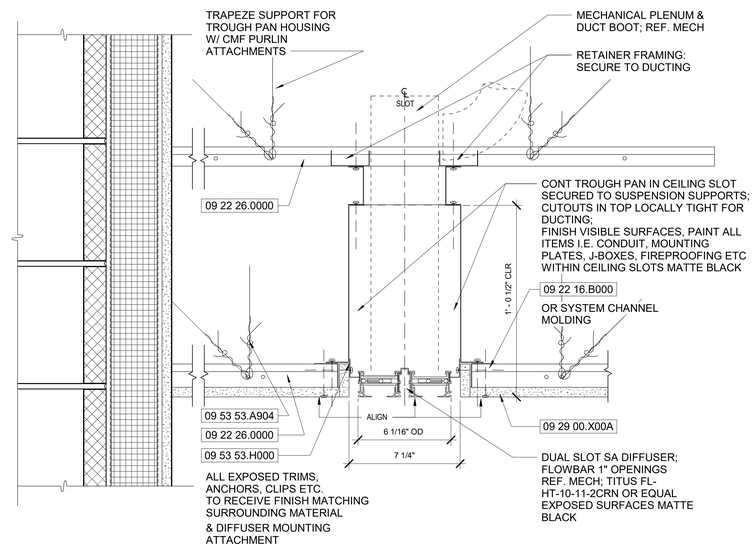
C1 CEILING GYP TO GYP_OUTSIDE

3" = 1'-0"



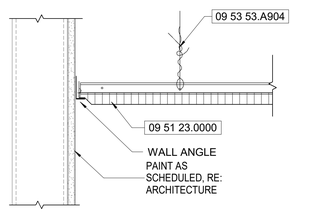
B2 CEILING DETAIL @ TSA BULKHEAD

1 1/2" = 1'-0"



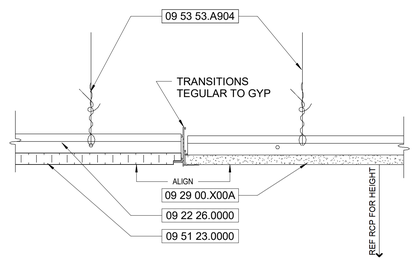
A1 GWB CEILING DEVICE TROUGH SLOT_LINEAR SA -SECT

3" = 1'-0"



A2 CEILING SUSPENDED TRIM

3" = 1'-0"



A3 CEILING ACT TO CEILING GYP

3" = 1'-0"

KEYNOTES

NO.	
07 91 23.1018	TYP. 1/2" BACKER ROD WITH JOINT SEALANT, CONT.
09 05 29.00AF	TYP. ALUMINUM GYPSUM BOARD 'F' REVEAL ACCESSORY.
09 05 29.0007	TYP. GWB ASSEMBLY CONTROL JOINT ACCESSORY.
09 22 16.B000	TYPICAL 2 1/2" GALV. METAL STUD FRAMING @ 24" OC UNO.
09 22 16.D000	TYPICAL 3 5/8" GALV. METAL STUD FRAMING @ 24" OC UNO.
09 22 16.E000	TYP. 4" GALV. METAL STUD FRAMING @ 24" OC UNO.
09 22 16.G000	TYPICAL 6" GALV. METAL STUD FRAMING @16" OC UNO.
09 22 26.0000	TYP. GYPSUM ASSEMBLY SUSPENSION SYSTEM, INSTALL PER MNFR. INSTRUCTIONS.
09 29 00.X00A	TYPICAL 5/8" TYPE 'X' GYPSUM WALL BOARD
09 29 99.560C	TYP. GALV. GWB ASSEMBLY CORNER BEAD TRIM ACCESSORY.
09 51 23.0000	TYP. ACOUSITCAL TILE CEILING SYSTEM, REF. FINISH SCHEDULES.
09 53 53.A904	TYPICAL 9 GAUGE GALV. METAL HANGER WIRE @ 48" O.C. EACH WAY
09 53 53.H000	TYPICAL SUPPORT CLIP FOR MECHANICAL DIFFUSERS/GRILLS.
10 22 00.000L	TYP. GLAZED ALUMINUM DEMOUNTABLE WALL ASSEMBLY - 90 DEGREE CORNER EXTRUSION.
10 22 00.0001	TYP. GLAZED ALUMINUM DEMOUNTABLE WALL ASSEMBLY - END CAP EXTRUSION.
10 22 00.0003	TYP. GLAZED ALUMINUM DEMOUNTABLE WALL ASSEMBLY - HEADER EXTRUSION.

SCALE: 1 1/2" = 1'-0"

0 2" 4" 8" 16"

SCALE: 3" = 1'-0"

0 1" 2" 4" 8"

OKALOOSA COUNTY

FLY VPS

C19-2811- AP
Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
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AA-C002208
MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	As indicated

Drawing Title:

CEILING DETAILS

BID DOCUMENTS

Drawing No.:

A863

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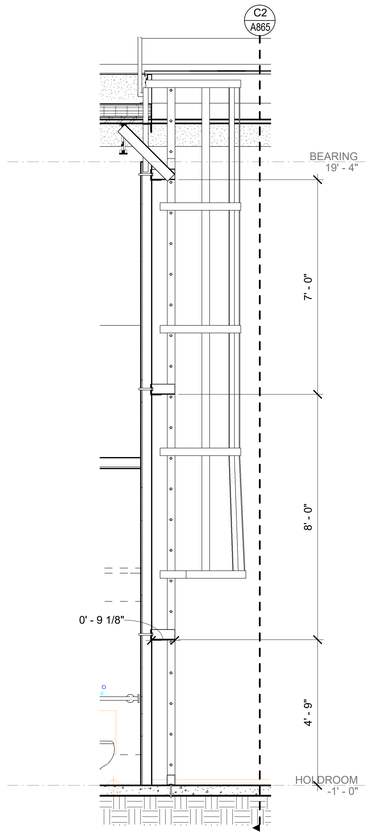
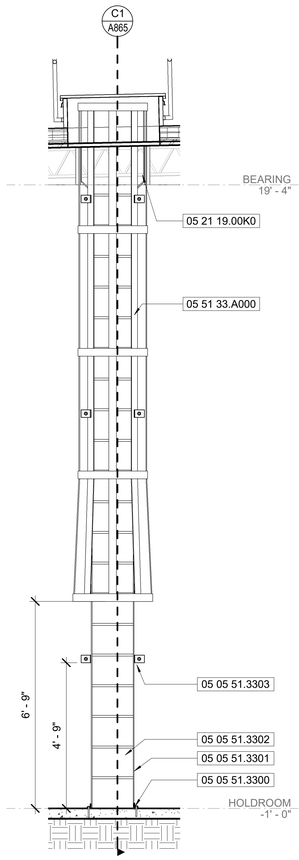


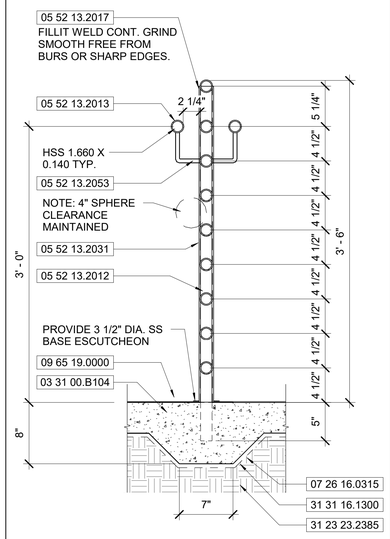
C1 ROOF ACCESS LADDER

1/2" = 1'-0"



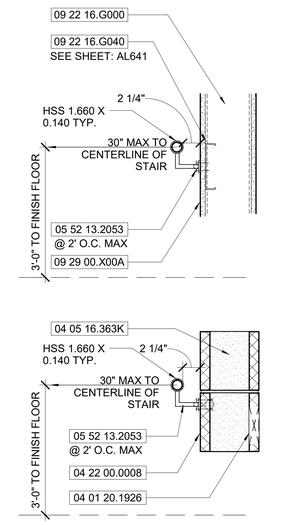
C2 ROOF ACCESS LADDER

1/2" = 1'-0"



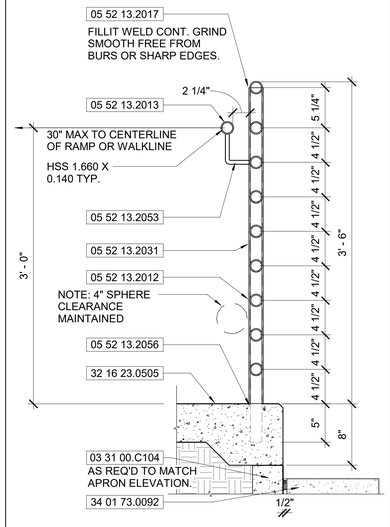
D3 R-03 HAND & GUARDRAIL

1 1/2" = 1'-0"



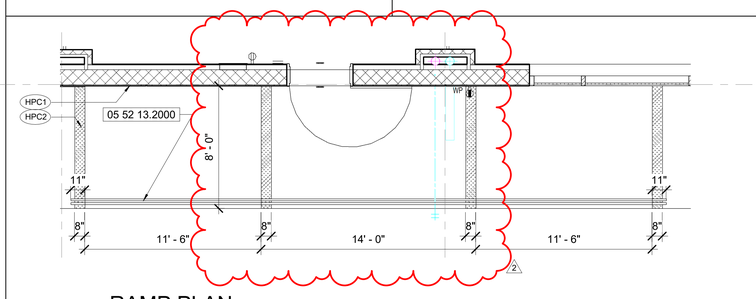
D4 R-02 HANDRAIL

1 1/2" = 1'-0"



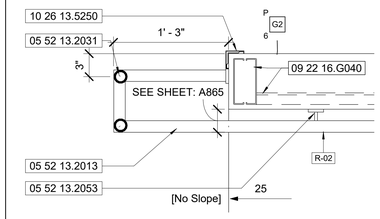
D5 R-01 HAND & GUARDRAIL

1 1/2" = 1'-0"



C3 RAMP PLAN

1/4" = 1'-0"



C5 PODIUM RAIL RETURN

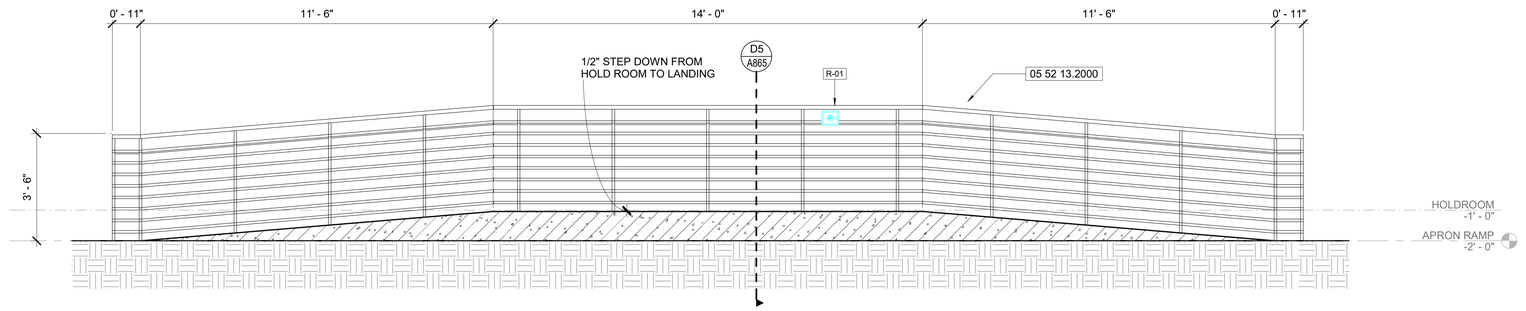
1 1/2" = 1'-0"

KEYNOTES

NO.	
03 31 00.B104	TYP. 4" STRUCTURAL SLAB-ON-GRADE, SEE STRUCTURAL.
03 31 00.C104	TYP. 4" STRUCTURAL CAST-IN-PLACE CONCRETE WALL, SEE STRUCTURAL
04 01 20.1926	TYP. MASONRY REINFORCING INSPECTION OPENING @ EACH FILLED CELL, SEE STRUCTURAL
04 05 16.363K	TYP. FILL CELL MASONRY W/ 3000 PSI GROUT.
04 22 00.0008	TYP. 8" NOMINAL CONCRETE MASONRY UNIT.
05 05 51.3300	TYP. STEEL ANGLE SUPPORT WELD CONT. @ STRINGER AND FLOOR ANCHOR
05 05 51.3301	2-1/2" X 3/8" VERTICAL MTL. STRINGER
05 05 51.3302	TYP. 1" DIA MTL. RUNGS @ 12" O.C. CONT. WELD TO EACH STRINGER
05 05 51.3303	TYP. 12"MIN. X 2" WIDE BENT STEEL 3/8" PLATE SUPPORT CONT. WELD TO STRINGER SO THAT MIN. CLEARANCE FROM CENTERLINE OF RUNG AND NEAREST OBSTRUCTION IS 7" U.O.N.
05 21 19.00K0	TYP. K SERIES OPEN WEB STEEL JOIST, SEE STRUCTURAL.
05 51 33.A000	STEEL ROOF ACCESS LADDER
05 52 13.2000	TYP. STAINLESS STEEL PIPE AND TUBE RAILING.
05 52 13.2012	TYP. STAINLESS STEEL PIPE AND TUBE RAILING, INFILL HORIZONTAL 1-1/4" NOM. HSS 1.660 X 0.140 PIPE.
05 52 13.2013	TYP. STAINLESS STEEL PIPE AND TUBE RAILING, HAND RAIL.
05 52 13.2017	TYP. STAINLESS STEEL PIPE AND TUBE RAILING, GUARD RAIL.
05 52 13.2031	TYP. STAINLESS STEEL PIPE AND TUBE RAILING, POST 1-1/2" NOM. HSS 1.900 X 0.188 PIPE @ 3'-0" OC MAX..
05 52 13.2053	TYP. STAINLESS STEEL PIPE AND TUBE RAILING, HANDRAIL RAIL SUPPORTS AS REQ'D.
05 52 13.2056	TYP. STAINLESS STEEL PIPE AND TUBE RAILING, EMBED POST MIN. OF 5".
07 26 16.0315	TYP. 15 MIL BELOW GRADE VAPOR BARRIER.
09 22 16.G000	TYPICAL 6" GALV. METAL STUD FRAMING @16" OC UNO.
09 22 16.G040	TYP. 16 GA. 6" GALV. METAL STUD BLOCKING.
09 29 00.X00A	TYPICAL 5/8" TYPE 'X' GYPSUM WALL BOARD
09 65 19.0000	TYP. LUXARY VINYL COMPOSITION TILE, SEE SCHEDULE.
10 26 13.5250	TYP. 2" BRUSHED ALUMINUM WALL CORNER GUARD.
31 23 23.2385	TYP. COMPACTED FILL TO A MIN. OF 85% COMPACTION AS PER ASTM D1557.
31 31 16.1300	TYP. SPRAY TERMITE TOXICANT BARRIER.
32 16 23.0505	TYP. 5" BROOM FINISHED CONCRETE SIDEWALK.
34 01 73.0092	TYP. PRESERVE EDGE OF AIRFIELD CONSTRUCTION. COORDINATE PROTECTION OF BUILT ELEMENTS WITH ADJACENT PROJECT.

SUBMITTAL

CONTRACTOR SHALL PROVIDE FABRICATION DRAWINGS/ CALCULATIONS SIGNED & SEALED BY A FLORIDA REGISTERED ENGINEER IN COMPLIANCE WITH FLORIDA BUILDING CODE WITH SUPPLEMENTS FOR ALL FABRICATED STAIRS, HANDRAILS AND/OR PLATFORMS. MINIMUM 50 PLF AND 200 POUND CONCENTRATRATED DESIGN LOADS. DOCUMENTS ARE TO BE PROVIDED BY THE SAME ROUTING METHOD AS DRAWINGS WERE SUBMITTED TO GROWTH MANAGEMENT. THIS IS TO BE SUBMITTED BEFORE A FRAMING INSPECTION. BUILDER WILL NOT BE ABLE TO SCHEDULE A FRAMING INSPECTION UNTIL A RESPONSE IS APPROVED. 2017 FBC 104.9, 107.2.1; FLORIDA ADMINISTRATIVE CODE 9B-72.005



A2 RAILING AT GATE DOOR

1/2" = 1'-0"

SCALE: 1 1/2" = 1'-0"
0 2" 4" 8" 16"

SCALE: 1/2" = 1'-0"
0 6" 12" 24" 48"

SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8'

OKALOOSA COUNTY

FLY VPS

C19-2811- AP Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
668 N. ORLANDO AVE. SUITE 107
MAITLAND, FL 32751
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AA-C002208
MLM SEAL IS TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	AS NOTED

Drawing Title:

METAL FABRICATION DETAILS

BID DOCUMENTS

Drawing No.:

A865

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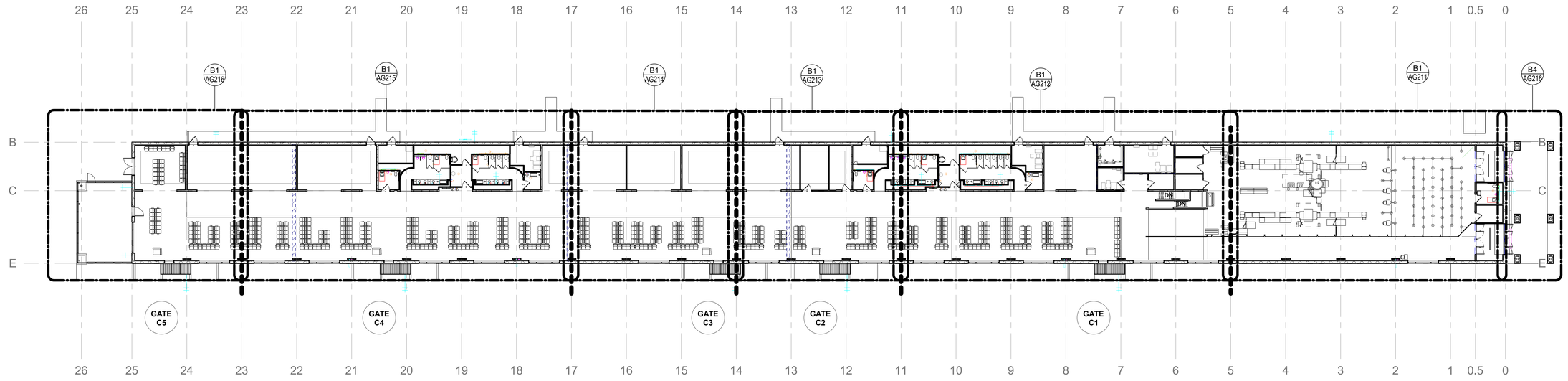

D1 OVERALL CONCOURSE SIGNAGE PLAN

1" = 20'-0"

NORTH

ABCDEFGHIJKLMNOPQR
STUVWXYZ0123456789

FRUTIGER BOLD

ABCDEFGHIJKLMNOPQR
STUVWXYZ0123456789

OTTAWA REGULAR

ABCDEFGHIJKLMNOPQR
STUVWXYZ0123456789

OTTAWA BOLD

SCALE: 1" = 20'-0"
0 5' 10' 20' 40'

C19-2811- AP
Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
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Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	1" = 20'-0"

Drawing Title:

OVERALL SIGNAGE FLOOR PLAN

BID DOCUMENTS

Drawing No.:

AG111

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MATERIALS

A. Aluminum:
1. Provide durable, high-grade aluminum of alloy and temper as best suited to furnish the strength, performance, and finish required. Provide all plate, sheet, castings, hardware, and all other aluminum sign components as required. Indicate the alloys to be used on the Shop Drawings.

B. Aluminum Extrusions:
1. Provide all standard and custom extruded aluminum sign components as required.
2. Prior to the start of fabrication, provide extrusion manufacturer information for review by the Designer and the Owner.
3. Aluminum extrusions shall be durable, high-grade aluminum of alloy and temper as best suited to furnish the strength, performance, and finish required. Indicate the alloys to be used on the Shop Drawings.
4. All extrusions shall be professionally structurally engineered to provide the performance required.
5. Provide profile review drawings and sample sections of all extrusions for review by the Designer and the Owner prior to final production.

C. Steel:
1. Provide durable, high-grade steel of alloy and temper as best suited to furnish the strength, performance, and finish required. Provide all steel sheets, channels, shapes, and other steel sign components as required. Indicate the alloys and types of steel to be used in the Shop Drawings.
2. Stainless steel: Type 316
3. Galvanized steel:
   a. Provide hot-dip galvanized sign supports, hardware, and components as required.
   b. Galvanize steel using the hot-dip process.
   c. Meet all the requirements of all applicable ASTM specifications, standards, guidelines, requirements, and performance criteria for zinc (hot-dip galvanized) coatings on iron and steel sign supports, hardware, and components.
   d. Dissimilar material: Isolate dissimilar materials from direct contact.

D. Unfinished Threaded Fasteners:
1. ASTM A 300 Series Grade A non-magnetic stainless steel.
2. Vandal-resistant and tamper-resistant screws shall be stainless steel drilled spanner drive screws, or equal as reviewed and accepted by the Owner.
3. All hardware shall be non-magnetic stainless steel, or other accepted, non-magnetic, long lasting, corrosion-resistant material.

B. Mounting Hardware:
1. Provide all mounting hardware and materials required to properly, safely, and securely mount the wayfinding signs and the wayfinding sign components. All hardware shall be high quality, long lasting, vandal-resistant, tamper-resistant, and corrosion-resistant.
2. No hardware shall be visible on the wayfinding sign faces unless indicated in the Drawings.

C. Acrylic Sheet:
1. Provide scratch-resistant and UV-resistant clear and translucent acrylic sheets as required.
2. Acceptable acrylic sheeting includes: Plexiglas Acrylic Sheet by Altuglas International/Arkema Inc., 2000 Market Street, Philadelphia, PA 19103, Telephone: 1-800-523-1532, or approved substitution acrylic sheeting accepted by the Designer and the Owner.
3. 1/4" thickness, not less than 1/4" thick.

D. Polycarbonate Sheet:
1. Provide scratch-resistant and UV-resistant clear and translucent polycarbonate sheets as required.
2. Acceptable polycarbonate sheeting includes: Lexan MR10 Sheet with Margard coating by Sabic Innovative Plastics, One Plastics Avenue, Pittsfield, MA 01201, Telephone: 413-448-7110, or approved substitution scratch-resistant and UV-resistant polycarbonate sheeting accepted by the Owner.
3. The thickness of material shall be determined by the Contractor, subject to review by the Designer and the Owner. Thickness not less than 1/4".

E. Styrene Sheeting and Rigid Digital Print Media
1. Provide bright white styrene sheeting suitable for use as a substrate for high-resolution graphics printed using UV-resistant inks.
2. The thickness of material shall be determined by the Contractor, subject to review by the Designer and the Owner. Coordinate media thickness with the construction of the sign cabinets that shall hold the printed panels. Provide in thickness as recommended by the manufacturer for each location.

F. Vinyl Graphic Film/Sheeting:
1. Opaque Vinyl Graphic Film: 3M Scotchcal ElectroCut Film, Series 7725, opaque, or an approved substitution opaque film accepted by the Designer and the Owner.
2. Translucent Vinyl Graphic Film: Orafol/Oracal 8500 Translucent Graphic or an approved substitution translucent film accepted by the Designer and the Owner.

G. Paint:
1. Paint shall be Matthews Acrylic Polyurethane with a non-glare finish, or an approved substitution acrylic polyurethane paint formulated for use on signage. The non-glare finish of the paint shall conform to all applicable ADA guidelines and requirements.
2. Painted surfaces shall receive a compatible UV inhibiting, vandal-resistant, and graffiti-resistant protective clearcoat with a non-glare finish. The non-glare finish of the protective clearcoat shall conform to all applicable ADA guidelines and requirements. The topcoat and the clearcoat shall be supplied by the same manufacturer.

H. Colors:
1. All colors and finishes shall be UV-resistant and vandal-resistant.
2. Exterior surfaces of wayfinding signs, wayfinding sign components, letters, symbols, logos, structural and mounting components, and other wayfinding sign elements shall be finished to match the colors specified.
3. Color numbers refer to the Drawings. Match the colors listed. Indicate the finish materials and reproduction methods to be used on design Submittals and the Shop Drawings. Submit appropriate Samples for review and acceptance in each of the colors; in each of the finishes, films/sheetings, coatings, or materials; and on each of the substrates to be used.

I. Lettering Style:
1. The Contractor shall provide all the required fonts as indicated in the Drawings the Owner shall not provide any fonts.
2. Letter weight (Medium, Black, etc.) and style (Roman, Italic) shall match the Drawings. Legends shall include letters, numbers, arrows, symbols, logos, graphics, borders, characters, typography, and other applications shown for wayfinding sign panels. Enlargement or reduction of artwork applications shall be done photographically or digitally. Hand cut masks or templates will not be accepted.
3. Wayfinding sign lettering shall be executed in such a manner that all the edges and corners of the letterforms and symbols are true, clean, and photographically precise. All letterforms and symbols must be accurately reproduced.

J. Symbols:
1. Symbols shall match the Drawings prepared by the designer.
2. Symbols shown in the Drawings are for reference only and are not for reproduction. Symbol artwork must be precisely formed and must accurately reproduce the symbol graphics. Poor quality, poorly reproduced, or otherwise inaccurate symbols shall not be accepted.
3. Submit samples of all symbols for review and acceptance by the Designer and the Owner prior to fabrication.
4. Symbols, logos, and logotypes shall be executed in such a manner that all edges and corners are true, clean, and photographically precise. All symbols, logos, and logotypes must be accurately reproduced.

K. Adhesives:
1. Provide high quality, high strength, high performance, durable, exterior grade, permanent adhesives as required. Adhesives shall be suitable for the components being adhered and the locations where the components are to be mounted or installed.
2. Adhesives shall not react with surface finishes.

L. Silkscreen and Silkscreen Ink:
1. Photographic screen. Hand cut screens will not be accepted. Screens shall be fine mesh fabric as required.
2. Silkscreen inks shall be UV-resistant and compatible with the specified substrates and finishes. Do not blend materials from different manufacturers.
3. Acceptable silkscreen ink manufacturers include:
   a. Naz Dar
   b. Akzo Coatings
   c. Spraylat (PPG) Corp.
   d. 3M – for use with 3M graphic sheeting

M. Sign Lighting Components:
1. Provide all required sign lighting fixtures and all related components.
2. Internal sign illumination shall be provided by concealed, white LED. Lamp life 60,000 hours minimum. Acceptable lamp manufacturers that may submit products meeting the specification requirements for review include: US LED, GE Lighting, Hanley LED, Phillips Lighting, Sylvania, Everylite, or other manufacturers accepted by the Owner.
3. Determine the length, quantity, layout, wattage, and spacing of the LED and NEON/LED lamps required to provide bright, even illumination of the wayfinding sign faces.
4. Provide all the required components, hardware, conduit, connections and wiring as necessary.

N. LCD /LED Display Monitors, Custom Mount:
1. Install monitors and mounting brackets as required for each sign type that mounts the LCD/LED video display (i.e. X sign types).
2. See structural drawings related to signage connection/anchor reinforcementdetails. See Divisions 26, 27 and 28 for electrical / data / communications wiring and coordination with electrical / data / security elements.

O. Fabricated Channel Back-lit Illuminated Letters:
1. Design Basis Manufacturer: Gemini Signs, Inc.
2. Product: Fabricated Channel Cut Painted Aluminum with Back-lit LED, and finished back.
3. Attachment: Mechanical Fastening to Interior Wall / Portal.
4. Color: see Drawings.
5. Division 26 re: Power supply by other.

P. Panel Signs, Molded Radius Holders, and Brackets.
1. Attachment: Mechanical Fastening (MF) unless substrate does not allow;
2. Alternate attachment: (VT) Double-faced tape. Alternate attachment at projecting conditions: Projecting Wall Mount.
3. Unframed Panel Signs:
   a. Edge condition: Square cut.
   b. Edge color for plaque: Edge color same as background color
   c. Corner Condition: Radiused.
4. Raised Copy: Provide raised copy/graphics panels suitable for both interior and exterior exposure.
   a. Provide raised copy 0.8mm and domed Grade II Braille dots.
   b. Produce raised copy/graphics using photosensitive plastic fused to a rigid plastic base.
   c. Engraved, Applied, Chemically Welded or surface applied letters and Braille are not allowed.
   d. Raised text/symbol color can be thermo-press or silk-screened and a satin clear polyurethane topcoat added for optimal durability.
5. Wall Mount Bracket: 90-Degree Stand-off Bracket to match sign series; locations as indicated on the Drawings by sign type B (Bracket Mounted).

Q. LCD / LED Display Suspension for Mounting Brackets
1. The new suspension mounting systems shall be as designated in the drawings or approved substitution.

ELECTRICAL FABRICATION

A. Provide all electrical engineering as required for all wayfinding signs and wayfinding sign components that require electric power. Coordinate wayfinding sign electrical and data requirements with the building electrical and data systems as referenced in documents.

B. All electrical and lighting components provided for the wayfinding signs shall be UL listed. Identify on the Shop Drawings the materials and wiring to be used. Internally illuminated signs and signs with video (LCD/LED) displays shall be internally wired with concealed leads for connection to the electric power/data services.

C. All the wayfinding signs that are connected to the electric power service, that are illuminated, or that include powered equipment or video/data displays, shall conform to all applicable electric codes including, but not limited to, the National Electrical Code and all applicable Codes, standards, guidelines, and requirements. All wayfinding signs that are connected to the electric power service, that are illuminated, or that include powered equipment or displays, shall also comply with all applicable UL, ANSI, and NEC safety and performance standards and all other applicable safety and performance standards. Where a UL standard is unavailable, the equipment supplied for the Project shall be UL listed and shall bear the UL label. All wayfinding signs that are connected to the electric power service, that are illuminated, or that include powered equipment or displays, shall be UL approved. The Contractor's and/or manufacturer's name shall not appear on the visible surfaces of the signs except as required by code.

D. The Contractor shall route, furnish, and install all required electrical and data conduit, wiring, cables, fixtures, and components. The Contractor shall furnish and install all sign lighting components required for all new illuminated wayfinding signs. The Contractor shall furnish and install all LCD/LED displays and all related components for all wayfinding signs that include LCD/LED displays (Sign Types 'X').

E. The Contractor shall determine where power and data for the sign locations can be accessed based on the Contract Document requirements. The Contractor shall connect to the power and data to the sign locations. Run power and data conduit and wiring to the sign locations as required and make all the necessary connections. Provide the Designer and the Owner with Shop Drawings for review showing where power and data for the signs will be accessed, and how the power and data conduit will be routed from the source locations to the sign locations.

F. All wayfinding signs and wayfinding sign components with electrical service shall be equipped with an approved external disconnect switch. The switch shall have circuits and capacity to control all primary wiring within the sign. The switch shall comply with all applicable code requirements. The location of switch shall be shown on the Shop Drawings for review by the Designer and the Owner.

G. All wiring shall be routed through the wayfinding sign frames, the sign pendant mounting components, the sign "structure" mounting components (i.e. exterior), and/or the sign enclosures to the electrical and data components housed within, or mounted to, the wayfinding signs. There shall be no visible conduit, transformers, or raceways.

H. Coordinate the placement and routing of conduit and placement of cutoff switches and other electrical components with the wayfinding sign graphics and the wayfinding sign structures and mounting. Cutoff switches shall be consistently placed within sign type groups. Electrical components must not interfere with the functioning or appearance of the wayfinding signs.

PAINTING AND FINISHES

A. All wayfinding sign finishes, coatings, and graphic reproduction methods shall be durable, high quality, UV-resistant, and vandal-resistant. Provide Product Data and information on all the finishes, coatings, and graphic reproduction methods to be used for review by the Designer, and the Owner.

B. Finish all wayfinding sign components to protect them from corrosion with materials and finishes as appropriate for the component, its location, and its visibility. Indicate all finishes to be used in the Shop Drawings.

C. Thoroughly clean and properly prepare all surfaces to be finished in strict accordance with the finish manufacturer's instructions. Follow the paint manufacturer's instructions to properly clean and prepare surfaces to be painted. Remove all dust, dirt, foreign materials, waxes, grease, silicones, and other contaminants from the surfaces to be finished following the manufacturer's recommendations.

D. Properly protect all surfaces and materials from rust and corrosion at all times.

E. Protective paint systems shall be applied in the shop as much as possible. All primer shall be applied in strict accordance with the manufacturers' published technical bulletins, procedures, and instructions. Steel material shall be shop coated with one (1) coat of primer. Surfaces that will be inaccessible for painting after assembly or installation shall be given two (2) shop coats of primer. All primers shall be appropriate for the substrate and the finish, as recommended by the manufacturer.

F. Provisions should be made for proper handling at all stages of the priming, painting, shipping, storing, erection, and installation for protection of primed and/or painted surfaces from damage or soiling.

G. The paint topcoat shall be applied in strict accordance with the manufacturers' published technical bulletins, procedures, and instructions.
1. 1Paint shall be applied in the shop as much as possible.
2. 2Apply paint topcoat over compatible primer. Apply paint topcoat to achieve the minimum dry film thickness recommended by the manufacturer to provide a high quality, durable finish and optimum corrosion protection.

H. Apply a non-glare protective clearcoat containing UV inhibitors to external painted and silkscreen printed wayfinding sign surfaces. The non-glare protective clearcoat shall conform to all applicable ADA guidelines and requirements. Polished aluminum /satin finished aluminum shall also receive a protective gloss clearcoat. The clearcoat and the color topcoat shall be manufactured by the same company. Formulate the clearcoat to be compatible with the finishes and materials to which it will be applied and to provide maximum protection and longevity. Apply the clearcoat to achieve the minimum dry film thickness recommended by the manufacturer to provide a high quality, durable finish and to insure protection of the finish, color, and substrate underneath.

I. Paint surfaces and materials as required to provide proper performance, protection, function, appearance, durability, and longevity. Do not paint surfaces and materials where the paint would in any way interfere with proper assembly, installation, mounting, performance, function, appearance, durability, and longevity. Inform the Designer and the Owner of any conditions where the wayfinding sign finishes would interfere with the function or longevity of the wayfinding signs.

J. After being brushed, ground and polished, or where subject to severe forming operations, stainless steel surfaces shall be cleaned of all extraneous material, thoroughly rinsed with clean water and dried. Lubricants used in fabrication shall be removed before work leaves the shop.

K. Field touch up primer after assembly and installation (all interior surfaces including bolted connections nuts, and washers, etc.) one coat.

L. Protection of metals against galvanic action shall be provided wherever dissimilar metals are in contact. All metals except galvanized steel and stainless steel, which will be in contact with concrete, mortar, plaster, or other masonry, shall also be protected. Indicate the type of protection to be provided in the Shop Drawings.

FABRICATION

A. All wayfinding signs shall be structurally sound and carefully fabricated using high quality materials and quality craftsmanship. All wayfinding signs and sign components shall be carefully, properly, securely, and safely assembled and attached. All wayfinding signs and sign components shall be carefully, securely, properly, and safely mounted and installed.

B. Provide all the required labor, site inspection, testing, professional engineering, parts, hardware, materials, and components required to completely, properly, safely, and securely fabricate and install all the wayfinding signs, all the wayfinding sign structures, and all the wayfinding sign components. Provide all the internal and external framing and components required to safely, securely, and properly support the signs, the sign faces, and any other components that are mounted to or in the wayfinding signs.

C. All wayfinding signs shall be fabricated to have a neat and clean appearance. All wayfinding signs shall be rigid and structurally sound. Wayfinding sign materials, design, sizes, and thickness shall be as shown on the Shop Drawings and herein specified. Methods of fabrication, assembly, erection, mounting, and installation, however, unless otherwise specifically stated, shall be at the discretion of the Contractor, whose responsibility it shall be to guarantee satisfactory performance as herein specified.

D. All wayfinding sign components including, but not limited to, wayfinding sign frames, wayfinding sign structures, wayfinding sign cabinets, wayfinding sign hardware, wayfinding sign pendant mounting components, and all other wayfinding sign mounting systems and components shall be professionally engineered prior to fabrication.

E. Size the wayfinding sign frames and wayfinding sign face panels to allow for expansion and contraction of the wayfinding signs and wayfinding sign components without causing the signs to become damaged or the sign faces to become warped, cracked, or otherwise damaged.

F. Provide mounting hardware and mounting components that are compatible with the conditions at each of the installation locations. The Contractor shall provide sign and sealed Shop Drawings for mounting hardware and other structural components for the sign.
1. Prior to fabrication, verify the as-built conditions at each mounting location on site.
2. Determine the type of mounting hardware and components required for each condition and each location.
3. Indicate the mounting hardware and components in the Shop Drawings.
4. All mounting hardware and mounting components shall be properly sized,compatible with the wayfinding signs and the structures supporting the wayfinding signs, and shall provide the proper strength and durability.
5. Use materials and hardware that will provide long service life and will properly, securely, and safely support the wayfinding signs. All mounting components and mounting hardware shall be durable, high quality, long lasting, vandal-resistant, tamper-resistant, and corrosion-resistant components.
6. Provide all the necessary straps, clips, brackets, and all other hardware and components required to safely, securely, and properly mount the wayfinding signs. There shall be no sharp projections or edges on either the wayfinding signs or the mounting hardware and components.

G. All artwork shall be enlarged digitally to match the contract documents as shown in the Drawings and Message Schedule. Provide all file preparation required. Assemble legends, prepare digital files, and prepare art.

H. Provide access to allow servicing of components housed within the wayfinding signs, wayfinding sign cabinets, or wayfinding sign structures and/or to allow structural connections, electrical and data connections, or access to mounting hardware. The finishes of the removable wayfinding sign surfaces shall match the surrounding areas, unless otherwise noted. Service covers, doors, access panels, and other openings in the wayfinding signs, wayfinding sign cabinets, or wayfinding sign structures shall be weather-tight and gasketed to prevent water, dust, or dirt from entering the wayfinding signs, wayfinding sign cabinets, or wayfinding sign structures. Unless otherwise noted, provide hold open devices for service covers, doors, access panels, and other openings in the wayfinding signs that are adequate for safety and ease of maintenance. Hold open devices shall not be released accidentally, or by the action of the wind, and shall not interfere with the display when the service covers, doors, access panels, and other openings in the wayfinding signs are closed. Service covers, doors, access panels, and other openings in the wayfinding signs, wayfinding sign cabinets, or wayfinding sign structures shall be held securely closed with concealed tamper-resistant and vandal-resistant hardware or locks. Indicate the exact hardware to be used in the Shop Drawings.

I. Wayfinding sign faces and edges shall be flat, rigid, smooth, and free of defects and "oil-canning." Edges and corners shall be precise, smooth, true, and free of saw marks, chips, burrs, discoloration, irregularities, and any other defects. Corners shall be eased. Faces and returns shall be flat, precise, smooth, true, and free of saw marks, chips, burrs, discoloration, irregularities, and any other defects. There shall be no sharp or rough edges, no sharp or rough corners, and no sharp or rough projections anywhere on the wayfinding signs. Seams shall have hairline contact. Wayfinding sign faces shall be of sufficient thickness that hardware or materials mounted to or attached to the backs of the sign faces shall not distort or discolor the fronts of the sign faces or otherwise detract from the smoothness and the appearance of the sign faces in any way. Joints shall be undetectable and completely and permanently sealed. There shall be no visible hardware on any sign faces unless indicated in the Drawings. Any visible hardware shall be finished to match the surrounding material.

J. Provide ventilation of wayfinding sign housings, structures, and cabinets as required to prevent the wayfinding signs from becoming damaged from heat, to prevent internal components from overheating, to prevent any electronic components or displays mounted within the signs from overheating, and to prevent wayfinding sign faces from warping or otherwise becoming damaged from heat, while maintaining a proper weather seal. Wayfinding signs and sign cabinets with light leaks will not be accepted.

K. Place weep holes and openings for ventilation and to allow water accumulated through condensation to drain. Place weep holes and vents so as to not interfere with the display of the graphics and to be as unobtrusive as possible. Indicate the location of weep holes and vents in the Shop Drawings. Provide screening over all weep holes and vents to prevent animals and insects from entering the wayfinding sign structures and wayfinding sign cabinets. Fabricate the weep holes and vents so that the interiors of the wayfinding sign structures and wayfinding sign cabinets are not visible through the holes and vents and so that no light is visible through the holes and vents.

L. Internally illuminated graphics shall be completely, evenly, and adequately lit without thin spots, shadows, halos, or hot spots. Opaque sign faces and components must be completely and evenly opaque without thin spots, shadows, halos, or light leaks.

M. Vinyl Graphic Films and Sheeting for Letter Sign Types:
1. Opaque and translucent vinyl graphic films and sheeting shall be handled and applied in accordance with the material manufacturer's instructions.
2. Graphics produced using opaque and translucent vinyl graphic films and sheeting shall be produced in accordance with the material manufacturer's instructions.
3. Cut-out letterforms, symbols, and logos shall be cut out so that their proportions and details are accurately and precisely reproduced. Vinyl graphic films and sheeting applied to wayfinding sign faces and panels shall be neatly trimmed and properly placed and aligned. The edges of the vinyl graphic films and sheeting shall be smooth and free of any tears, irregularities, and defects.
4. Properly clean and prepare substrates to receive opaque, reflective, and translucent vinyl graphic films and sheeting.
5. All opaque and translucent vinyl graphic films and sheeting shall be carefully installed so that the films and sheeting are properly and completely adhered. There shall be no loose edges or gaps between the applied materials and the substrates to which there are adhered. All vinyl graphic films and sheeting shall be installed so that they are completely smooth, flat, even, and without any surface irregularities, wrinkles, air bubbles, and free from any trapped dirt or dust.

N. Hanger Tubes
1. Provide for all signs, new hanger tubes for pendant mounted overhead wayfinding signs. Provide all hardware, patching and repair required to safely, securely, and properly mount the new tubes in their correct positions. The new hanger tubes shall conceal the pendant mounting components and any electrical and data conduit. The new hanger tubes with the escutcheon component shall also conceal holes drilled into the ceiling for the mounting components. If the existing holes drilled into the ceiling are larger than the new hanger tubes, provide repairs as required to conceal the holes. Verify the correct length for each new hanger tube on site. Installed hanger tubes shall be plumb and straight. Coordinate all new hanger tubes with the sign mounting components and the top cap fabrication.

O. Internally Illuminated Wayfinding Sign Cabinets:
1. New internally illuminated wayfinding sign cabinets shall be fabricated from aluminum. Thickness of the aluminum shall be adequate for the size of sign cabinet. Finishes shall be as shown in the Drawings.
2. The internal illumination shall be provided by concealed white LED lamps.The Contractor shall determine the lamp circuitry, quantity, wattage, and spacing required to provide even and adequate illumination of the entire sign face. The color of the new LED lamps shall be the color of the lamps as specified (6500K natural white). Provide all the required hardware, fittings, fixtures, raceways, and all other components and materials required to properly, safely, and securely install the LED lamps and all the related components.
3. The inside surfaces of the sign cabinets shall be finished with a reflective white coating, specifically formulated for use in internally illuminated sign cabinets, such as Spraylat (PPG) Star-Brite White, or an approved substitution reflective coating.
4. The wayfinding sign cabinets shall be fabricated so that their corners shall be smooth, free from defects, burrs, and discoloration. Faces, edges, and returns shall be flat, smooth, and free from irregularities and defects. Joints shall be undetectable and completely and permanently sealed. The wayfinding sign cabinets shall provide bright, even lighting across the entire sign face.
5. Provide durable, corrosion-resistant internal framing for the wayfinding sign cabinets as required for the cabinets to be rigid and structurally sound and to safely, securely, and properly support the sign faces and any other components mounted to the wayfinding sign cabinets. Provide all internal framing as required for the cabinets to be safely, securely, and properly mounted.
6. Internally illuminated wayfinding sign cabinets shall be safely, securely and permanently mounted. Provide all the appropriate mounting components, hardware, materials, and methods required. There shall be no visible hardware, raceways, or conduit.
7. Provide hanger tubes for pendant mounted overhead wayfinding signs. The hanger tubes shall conceal the pendant mounting components and any electrical and data conduit. The hanger tubes shall also conceal holes drilled into the ceiling for the mounting components. Verify the correct length for each hanger tube on site. Installed hanger tubes shall be plumb and straight. Provide all hardware required to safely, securely, and properly mount the tubes in their correct positions. Coordinate the hanger tubes with the sign mounting components and the top cap fabrication.

P. Provide wayfinding signs and wayfinding sign assemblies that are designed,tested, and installed to withstand positive and negative wind loads appropriate for the install locations, and approved by a qualified professional licensed structural engineer. Furnish engineering calculations to show that maximum stresses and deflections of the wayfinding signage and the wayfinding signage support systems do not exceed specified and required performance requirements under full design loading. Calculations shall be prepared, signed, and sealed by a qualified professional structural engineer, licensed in the State of Florida and submitted with the Shop Drawings.

Q. Insofar as practicable, fitting and assembly of the Work shall be done in the shop. Work that cannot be permanently shop-assembled shall be completely assembled, marked, and disassembled before shipment, to insure proper assembly in the field. Unless otherwise noted, field joints in the face of wayfinding signs shall not be allowed. The Contractor shall coordinate sizes of finished assemblies with access limitations to final locations.

R. Steel and aluminum shall be well formed to shape and size. Fabrication shall leave clean, true lines and surfaces. Carefully match exposed work to produce continuity of line and design. Joints and seams, unless otherwise shown or specified, shall be accurately fitted and rigidly secured with hairline contact.

S. Welding shall be in accordance with appropriate recommendations of the American Welding Society, and shall be done with electrodes and methods recommended by the manufacturers of the alloys being welded. Type, size, and spacing of welds shall be as shown in the Shop Drawings. Welds behind finished surfaces shall be so done as to minimize distortion and discoloration on the finished side. Weld spatter and welding oxides on finished surfaces shall be removed by descaling or grinding. Unless otherwise shown or specified, all weld beads on exposed polished surfaces shall be ground and polished to match and blend with the finish on the adjacent parent metal. Remove paint from existing steel members at contact areas and on surfaces within two inches (2") of field welds, in order to attach signage steel supports. At attachments to exposed steel, grind exposed field welded joints smooth and restore to match factory finishes.

T. Welding shall be executed by experienced, certified operators with proper equipment and training and who have been qualified previously by tests as prescribed in the American Welding Society's "Standard Qualification Procedure" to perform the Work required.

SOURCE AND MANUFACTURES

A. Source Quality Control:
1. Obtain primary materials from a single manufacturer.
2. Provide secondary materials only as recommended by the manufacturer of the primary materials.
3. Do not change source or brands of materials during fabrication

B. Signs shall be designed and manufactured by the following or entity that is approved by Architect and Owner following substitution request procedures. Approvals must be in writing:

Himes Signs Corporation
PO BOX 5324 - #4 Commerce Park
Destin, FL 32540
850-837-1159
Johnny Himes

Architectural Graphics, Inc.
2655 International Parkway
Virginia Beach, VA 23452
800-877-7868
757-427-1900 x 270
Mr. Richard Sumttion

Media One Graphix
150 National Place #100
Longwood, FL 32750
877-972-7844
Mr. Rick Ream

APCO Signs
10012 N. Dale mabry Hwy.
Suite 217
Tampa, FL 33618
813.960.1672
Ms. Gina Leto

A.C. Signs
10201 Rocket Ct.
Orlando, FL 32824
407.857.5564
Mr. Rob Jarvis

Universal Sign Systems
5001 Falcon View SE
Grand Rapids, MI 49512
616.554.9999
Mr. Nate Zevenbergen

Other manufacturers may be considered if they meet Quality Assurance Criteria and are subject to Product substitution review per Section 26 0508 by the Architect/Engineer. Substitutions must be requested in writing, along with documentation per Section 01 2513 Product Substitutions.

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OKALOOSA COUNTY

FLY VPS

C19-2811- AP
Construction
of Satellite
Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
668 N. ORLANDO AVE.
SUITE 107
MAITLAND, FL 32751
407.897.6764 (VOICE)
407.894.1338 (FAX)
WWW.MLM-MARTIN.COM
AA-C002708
ALSO SOFT-TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MAM
Drawn By:	MAM
Checked By:	MAM
Issue Date:	09-MAR-2020
Drawing Scale:	NO SCALE

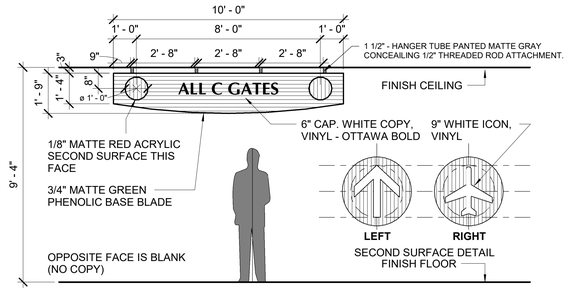
Drawing Title:

SIGN TYPE GENERAL NOTES

BID DOCUMENTS

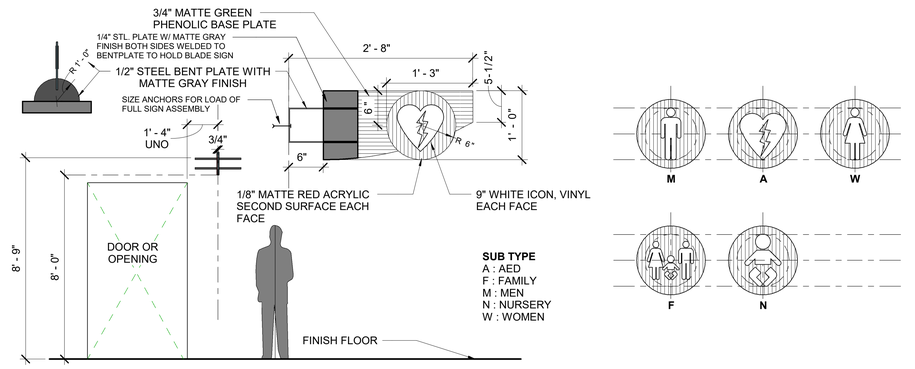
Drawing No.:

AG112



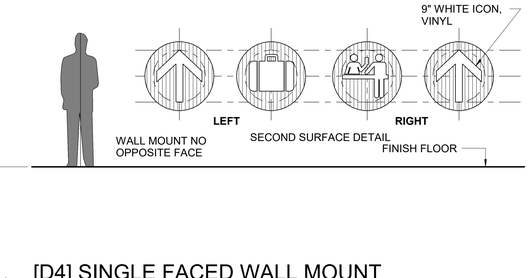
D1 [D1] DOUBLE FACED CEILING MOUNT

3/8" = 1'-0"



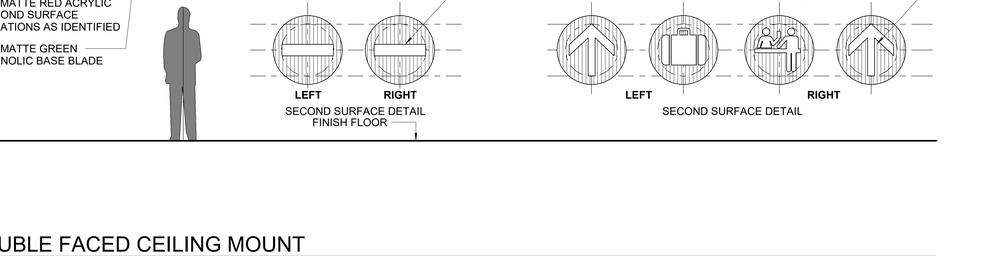
D3 [B2-X] WALL PROJECTION SMALL FORMAT

3/8" = 1'-0"



B1 [D3] SINGLE FACED WALL MOUNT

3/8" = 1'-0"



B3 [B-X] WALL PROJECTION

3/8" = 1'-0"

A1 [D4] SINGLE FACED WALL MOUNT

3/8" = 1'-0"

A3 [D2] DOUBLE FACED CEILING MOUNT

3/8" = 1'-0"

NOTES

1. REFER TO **AL641** FOR PARTITION TYPES
2. FOR DOOR TYPES AND SCHEDULES REFER TO SHEET SERIES **A711**
3. REFER TO ELECTRICAL, TELECOM, AV, AND SIGNAGE DRAWINGS FOR OUTLET INFORMATION.
4. REFER TO **A** SERIES SHEETS FOR DIMENSIONS.
5. AREA DESIGNATED FOR FUTURE WORK (NIC). CONTRACTOR SHALL KEEP THIS AREA CLEAR OF ANY BUILT ELEMENTS ABOVE AND/OR BELOW GROUND UNLESS OTHERWISE NOTED WITHIN THE SCOPE OF THIS PROJECT.
6. ALL GRADE II BRAILLE IS PRESENTED FOR GRAPHIC REPRESENTATION. CONTRACTOR TO COORDINATE WITH FABRICATOR THAT ACTUAL BRAILLE PRODUCED TRANSLATES THE COPY PROVIDED.
7. MESSAGES ILLUSTRATED IN DRAWINGS ARE NOT ACTUAL MESSAGES BUT FOR LAYOUT PURPOSES ONLY. SEE MESSAGE SCHEDULE FOR SPECIFIC MESSAGES. NOTE THAT BID ISSUE OF THE MESSAGE SCHEDULE IS 'DRAFT' LEVEL AND IS TO BE UPDATED BY FABRICATOR THROUGHOUT PROJECT CONSTRUCTION SUBMITTAL PROCESS.
8. SIGN LOCATION PLAN SYMBOLS INDICATE GENERAL SIGN LOCATIONS. THEY ARE NOT REPRESENTATIVE OF ACTUAL SIGN SIZES OR OR LOCATIONS. SEE MOUNTING DETAILS FOR MOUNTING LOCATION INFORMATION. CONDUCT PRE-CONSTRUCTION MEETING IN FIELD WITH AIRPORT, AND ARCHITECT TO ESTABLISH PROTOTYPICAL LOCATIONS AND HEIGHTS FOR EACH SIGN TYPE.
9. FABRICATOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR IMPACT ON FINAL SIGN DIMENSIONS PRIOR TO FABRICATION.
10. SUBSTITUTE TYPEFACES, ARROWS OR SYMBOLS WILL NOT BE ACCEPTED. ALL SYMBOLS TO BE STANDARD F.A.A., AIGA, DOT, ANSI, ADA SYMBOLS. IF NECESSARY, CONTACT ARCHITECT FOR INFORMATION ON AVAILABILITY.
11. ALL FASTENERS TO BE CONCEALED AND VANDAL RESISTANT UNLESS OTHERWISE NOTED.
12. FABRICATOR TO BE RESPONSIBLE FOR PULLING ALL PERMITS AND COORDINATING ALL INSPECTIONS REQUIRED IN CONNECTION WITH THE WORK.
13. SIGN LOCATION SYMBOLS IN PLAN ASSIGNED SHOULD BE CROSS REFRENCED TO ELEVATION FOR INDICATION THAT SIGN IS DOUBLE FACED. PROJECTIONS SIGNS ARE ALSO DOUBLE FACED.
14. FABRICATOR SHALL BE RESPONSIBLE FOR PREPARATION OF ITS SUBMITTALS AND PULLING OF ALL NECESSARY PERMITS AND VARIANCES, (IF APPLICABLE), INCLUDING SUBMITTALS FOR OTHER RELATED REVIEW COMMITTEES FOR THIS PROJECT'S JURISDICTION. TASKS ALSO INCLUDE COORDINATION OF ALL INSPECTIONS REQUIRED IN CONNECTION WITH THE WORK.
15. FABRICATOR SHALL BE RESPONSIBLE FOR LAYOUT AND PRODUCTION OF FULL SIZE TEMPLATES FOR ALL DIMENSIONAL LETTERS AND OTHER SPECIALIZED FORMATS. THESE ALSO REQUIRE THE FIELD REVIEW BY OWNER, ARCHITECT AND OTHER DESIGN PROFESSIONALS.
16. FOR SIGNS IN WHICH THE MOUNTING LOCATION IS REQUIRED TO BE ON GLASS, FABRICATOR SHALL PROVIDE VINYL SHEET PRECISION MEASURED TO SIZE OF SIGN AND APPLIED TO REVERSE SIDE OF GLASS. THE VINYL COLOR SHALL MATCH THE COLOR OF THE SIGN. THE SIGN AND ITS DOUBLE FACED TAPE ARE TO BE APPLIED TO THE VIEWING SIDE OF GLASS. THE "BACKER" VINYL SHALL BE OPTICALLY POSITIONED, SO NO "BACKER" VINYL IS SEEN.

11 INDICATES SIGN TYPE REF. ELEVATIONS **AG51X SERIES**

COLOR LEGEND

- ALUMINUM ANNODIZED
- MATTHEWS "RED" - [7A-2A] PMS-179C
- BRISTOL "BLUE" - [75A-4A] PMS-5483C
- CASTLE KEEP "GREEN" - [62C-4D] PMS-7475C
- WHITE
- WHITE TEXT U.O.N.

ELEVATION INDEX

D1	B2-X
D3	B-X
D4	D2

2

SCALE: 3/8" = 1'-0"

0 8" 16" 32" 64"

OKALOOSA COUNTY

FLY VPS

C19-2811- AP
Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
668 N. ORLANDO AVE. SUITE 107
MAITLAND, FL 32751
407.897.6764 (VOICE)
407.894.1338 (FAX)
WWW.MLM-MARTIN.COM
AA-C002208
MLM SOLE-TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	As indicated

Drawing Title:

SIGN TYPE ELEVATIONS

BID DOCUMENTS

Drawing No.:

AG512

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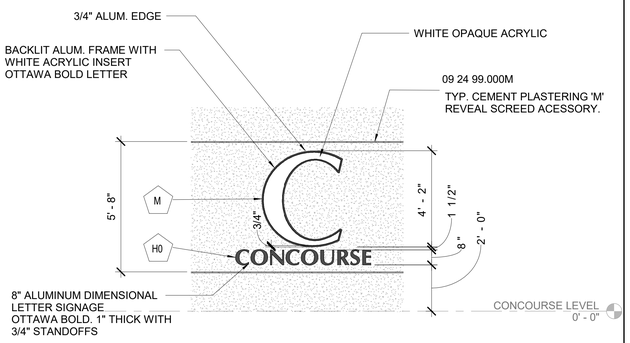
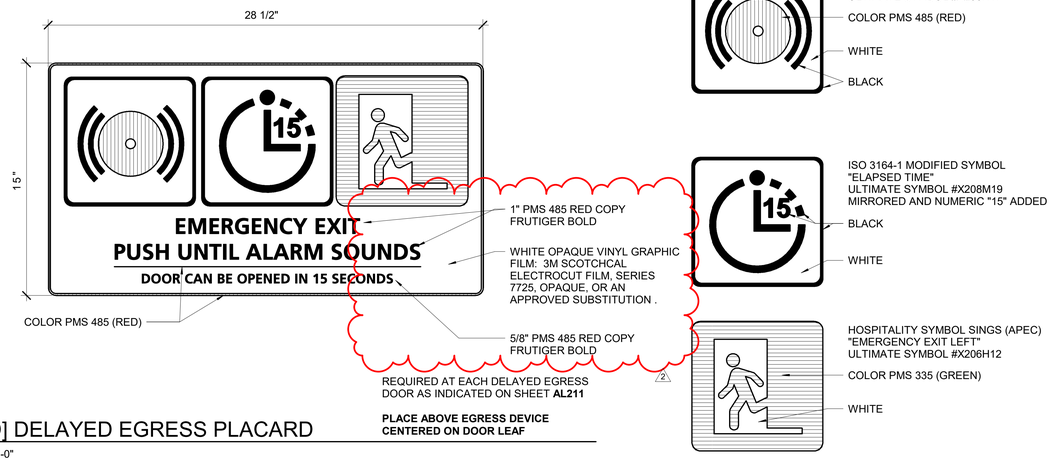


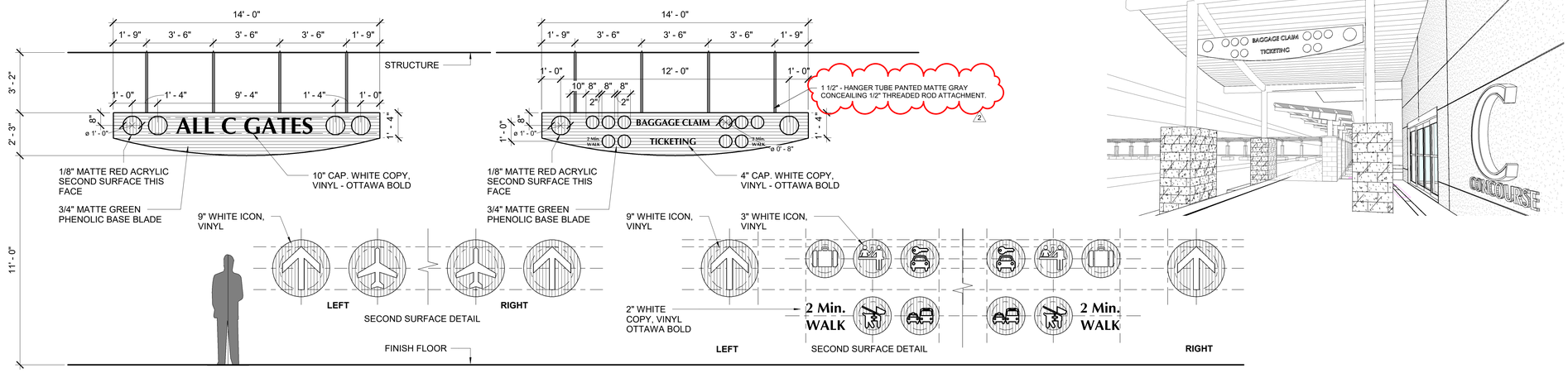
D1 [M][HO] CONCOURSE ENTRY SIGN

3/8" = 1'-0"



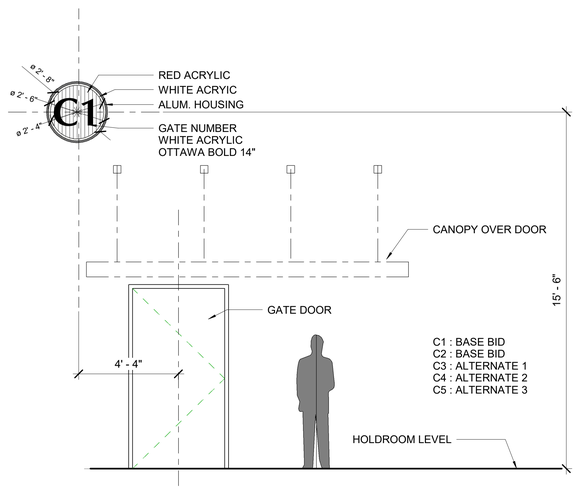
D3 [ZD] DELAYED EGRESS PLACARD

3" = 1'-0"



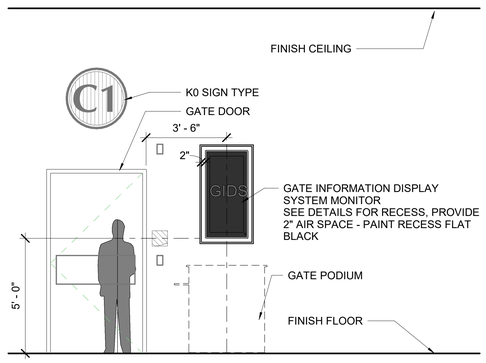
B1 [D14] DOUBLE FACED BLADE

3/8" = 1'-0"



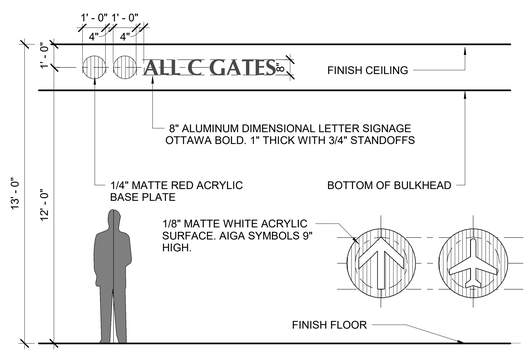
A1 [K1] EXTERIOR GATE IDEN.

3/8" = 1'-0"



A2 [X1] GATE INFO. DISPLAY

3/8" = 1'-0"



A4 [H1] DIM. LETTERS

3/8" = 1'-0"

NOTES

1. REFER TO **AL641** FOR PARTITION TYPES
2. FOR DOOR TYPES AND SCHEDULES REFER TO SHEET SERIES **A711**
3. REFER TO ELECTRICAL, TELECOM, AV, AND SIGNAGE DRAWINGS FOR OUTLET INFORMATION.
4. REFER TO A SERIES SHEETS FOR DIMENSIONS.
5. AREA DESIGNATED FOR FUTURE WORK (NIC). CONTRACTOR SHALL KEEP THIS AREA CLEAR OF ANY BUILT ELEMENTS ABOVE AND/OR BELOW GROUND UNLESS OTHERWISE NOTED WITHIN THE SCOPE OF THIS PROJECT.
6. ALL GRADE II BRAILLE IS PRESENTED FOR GRAPHIC REPRESENTATION. CONTRACTOR TO COORDINATE WITH FABRICATOR THAT ACTUAL BRAILLE PRODUCED TRANSLATES THE COPY PROVIDED.
7. MESSAGES ILLUSTRATED IN DRAWINGS ARE NOT ACTUAL MESSAGES BUT FOR LAYOUT PURPOSES ONLY. SEE MESSAGE SCHEDULE FOR SPECIFIC MESSAGES. NOTE THAT BID ISSUE OF THE MESSAGE SCHEDULE IS 'DRAFT' LEVEL AND IS TO BE UPDATED BY FABRICATOR THROUGHOUT PROJECT CONSTRUCTION SUBMITTAL PROCESS.
8. SIGN LOCATION PLAN SYMBOLS INDICATE GENERAL SIGN LOCATIONS. THEY ARE NOT REPRESENTATIVE OF ACTUAL SIGN SIZES OR OR LOCATIONS. SEE MOUNTING DETAILS FOR MOUNTING LOCATION INFORMATION. CONDUCT PRE-CONSTRUCTION MEETING IN FIELD WITH AIRPORT, AND ARCHITECT TO ESTABLISH PROTOTYPICAL LOCATIONS AND HEIGHTS FOR EACH SIGN TYPE.
9. FABRICATOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR IMPACT ON FINAL SIGN DIMENSIONS PRIOR TO FABRICATION.
10. SUBSTITUTE TYPEFACES, ARROWS OR SYMBOLS WILL NOT BE ACCEPTED. ALL SYMBOLS TO BE STANDARD F.A.A., AIGA, DOT, ANSI, ADA SYMBOLS. IF NECESSARY, CONTACT ARCHITECT FOR INFORMATION ON AVAILABILITY.
11. ALL FASTENERS TO BE CONCEALED AND VANDAL RESISTANT UNLESS OTHERWISE NOTED.
12. FABRICATOR TO BE RESPONSIBLE FOR PULLING ALL PERMITS AND COORDINATING ALL INSPECTIONS REQUIRED IN CONNECTION WITH THE WORK.
13. SIGN LOCATION SYMBOLS IN PLAN ASSIGNED SHOULD BE CROSS REFRENCED TO ELEVATION FOR INDICATION THAT SIGN IS DOUBLE FACED. PROJECTIONS SIGNS ARE ALSO DOUBLE FACED.
14. FABRICATOR SHALL BE RESPONSIBLE FOR PREPARATION OF ITS SUBMITTALS AND PULLING OF ALL NECESSARY PERMITS AND VARIANCES, (IF APPLICABLE), INCLUDING SUBMITTALS FOR OTHER RELATED REVIEW COMMITTEES FOR THIS PROJECT'S JURISDICTION. TASKS ALSO INCLUDE COORDINATION OF ALL INSPECTIONS REQUIRED IN CONNECTION WITH THE WORK.
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16. FOR SIGNS IN WHICH THE MOUNTING LOCATION IS REQUIRED TO BE ON GLASS, FABRICATOR SHALL PROVIDE VINYL SHEET PRECISION MEASURED TO SIZE OF SIGN AND APPLIED TO REVERSE SIDE OF GLASS. THE VINYL COLOR SHALL MATCH THE COLOR OF THE SIGN. THE SIGN AND ITS DOUBLE FACED TAPE ARE TO BE APPLIED TO THE VIEWING SIDE OF GLASS. THE "BACKER" VINYL SHALL BE OPTICALLY POSITIONED, SO NO "BACKER" VINYL IS SEEN.

11 INDICATES SIGN TYPE REF. ELEVATIONS **AG51X SERIES**

COLOR LEGEND

- ALUMINUM ANNODIZED
- MATTHEWS "RED" - [7A-2A] PMS-179C
- BRISTOL "BLUE" - [75A-4A] PMS-5483C
- CASTLE KEEP "GREEN" - [62C-4D] PMS-7475C
- WHITE
- WHITE TEXT U.O.N.

ELEVATION INDEX

M H0 ZD D14 K1 X1 H1

SCALE: 3/8" = 1'-0"

0 8" 16" 32" 64"

OKALOOSA COUNTY

FLY VPS

C19-2811- AP
Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
668 N. ORLANDO AVE. SUITE 107
MAITLAND, FL 32751
407.897.6764 (VOICE)
407.894.1338 (FAX)
WWW.MLM-MARTIN.COM
AA-C002208
MLM MARTIN PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	**MLM-19672**
Designed By:	**MLM, MAM**
Drawn By:	**ST, CC, DM, CB**
Checked By:	**MAM**
Issue Date:	**21-JAN-2020**
Drawing Scale:	**As indicated**

Drawing Title:

SIGN TYPE ELEVATIONS

BID DOCUMENTS

Drawing No.:

AG513

BIM 360://Design of Satellite Concourse/VPS-MLM_A.rvt

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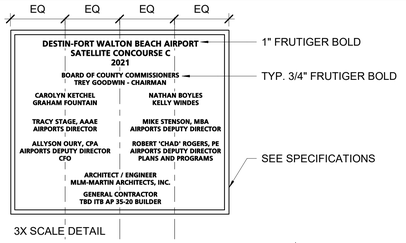
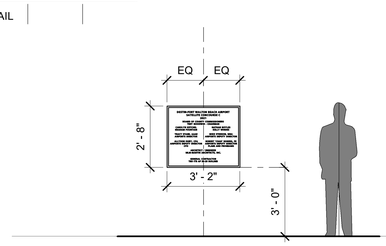
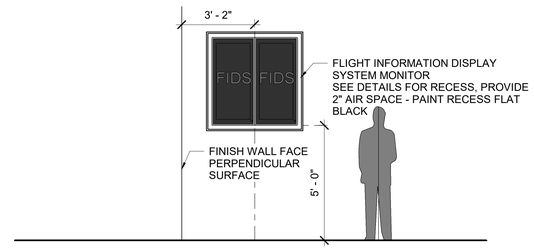


3X SCALE DETAIL



A2 [P] DEDICATION PLAQUE

3/8" = 1'-0"



A4 [X2] FIDS DISPLAY

3/8" = 1'-0"

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- WHITE
- WHITE TEXT U.O.N.

ELEVATION INDEX

--

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P X2

SCALE: 3/8" = 1'-0"

0 8" 16" 32" 64"

OKALOOSA COUNTY

FLY VPS

C19-2811- AP
Construction of Satellite Concourse 'C'

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668 N. ORLANDO AVE.
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WWW.MLM-MARTIN.COM
AA-C002208
MLM SOLE-TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	**MLM-19672**
Designed By:	**MAM**
Drawn By:	**MAM ST CC**
Checked By:	**MAM MLM**
Issue Date:	**09-MAR-2020**
Drawing Scale:	**As indicated**

Drawing Title:

SIGN TYPE ELEVATIONS & DETAILS

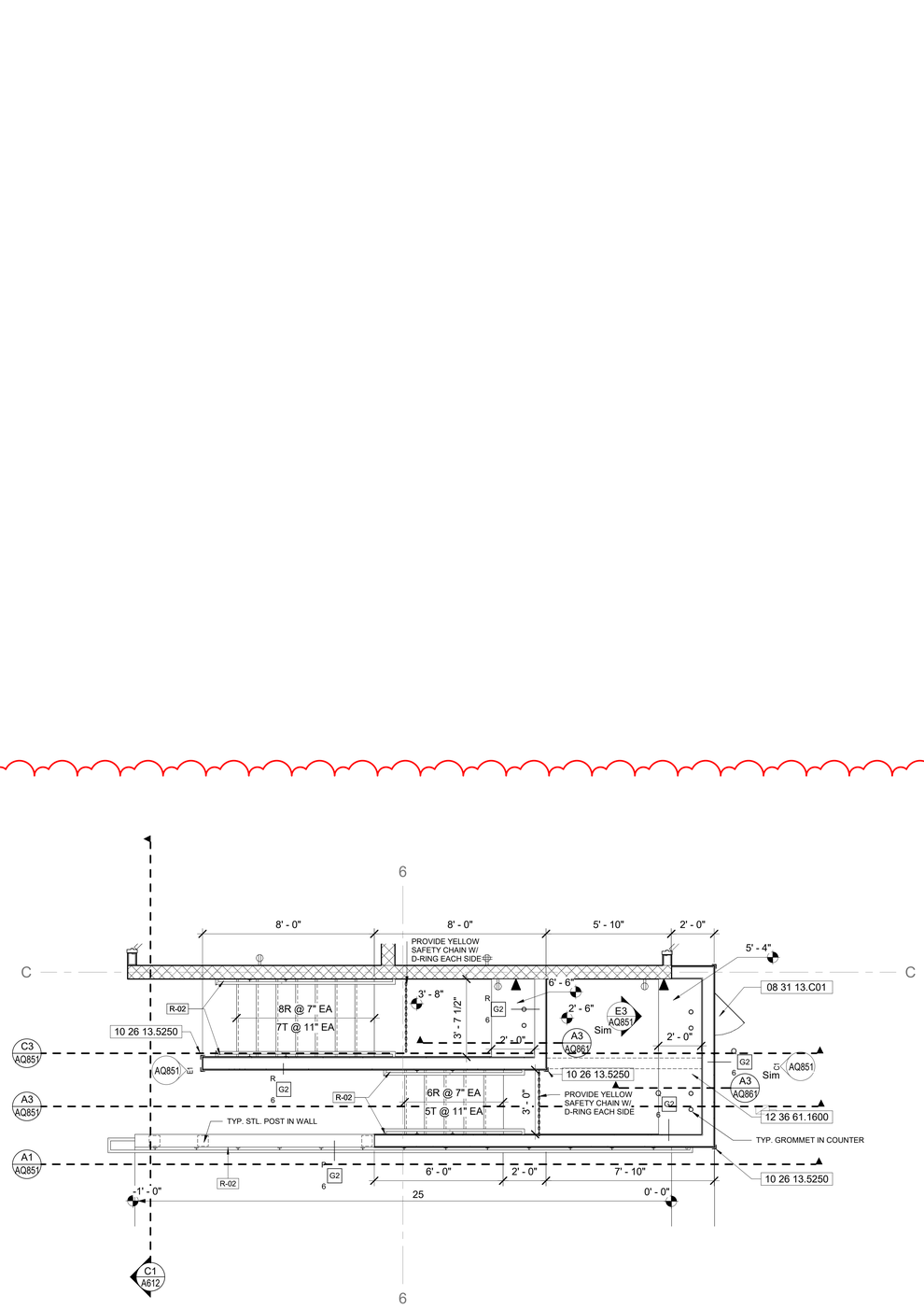
BID DOCUMENTS

Drawing No.:

AG514

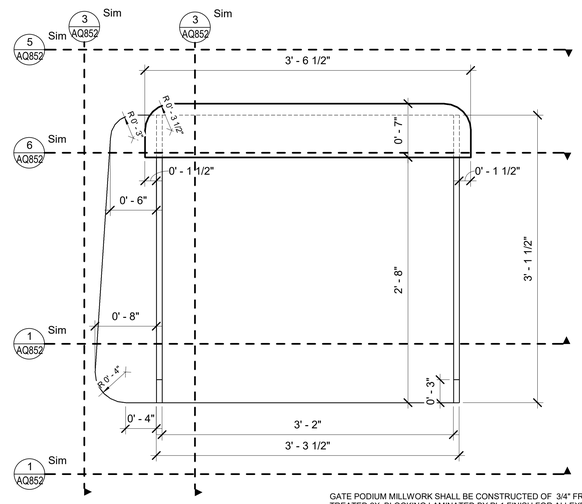
KEYNOTES

NO.	
08 31 13.C01	TYPICAL GALV. MTL. CEILING ACCESS DOOR, PAINT TO MATCH SURROUNDING
10 26 13.5250	TYP. 2" BRUSHED ALUMINUM WALL CORNER GUARD.
12 36 61.1600	TYP. SOLID SURFACING COUNTERTOPS.



A1 ENLARGED PLAN - TSA PODIUM

3/8" = 1'-0"



GATE PODIUM MILLWORK SHALL BE CONSTRUCTED OF 3/4" FR MDF BOARDNOM. FR TREATED 2X, BLOCKING LAMINATED BY PL1 FINISH FOR ALLEXPOSED FACES W/ PL2 FINISH FOR ALL EXPOSED SURFACE ON INTERIOR OF DRAWERS AND CABINENTS. ALL HORIZONTAL SURFACES (EXCEPT FOR DRAW/ CAB. INTERIORS OR ADJUSTABLE SHELVES) SHALL BE SL1 SOLID SURFACE.

A3 HOLDING ROOM PODIUM PLAN

1 1/2" = 1'-0"

C19-2811- AP
Construction of Satellite Concourse 'C'

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MLM SOR-F TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

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2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	As indicated

Drawing Title:

MILLWORK PLAN DETAILS

BID DOCUMENTS

Drawing No.:

AQ821

BIM 360://Design of Satellite Concourse/VPS-MLM_A.rvt

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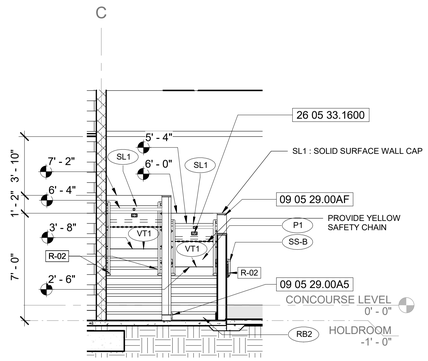
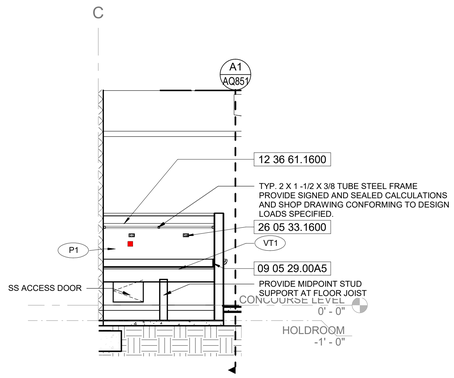


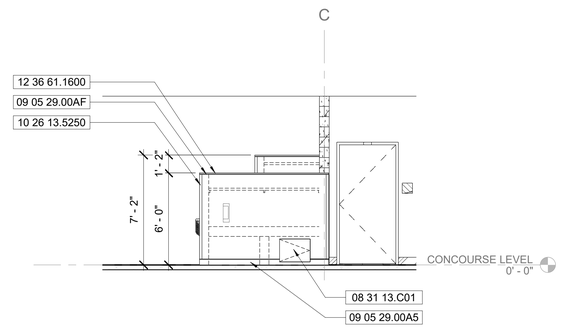
E1 ELEVATION WEST 1 - TSA PODIUM

1/4" = 1'-0"



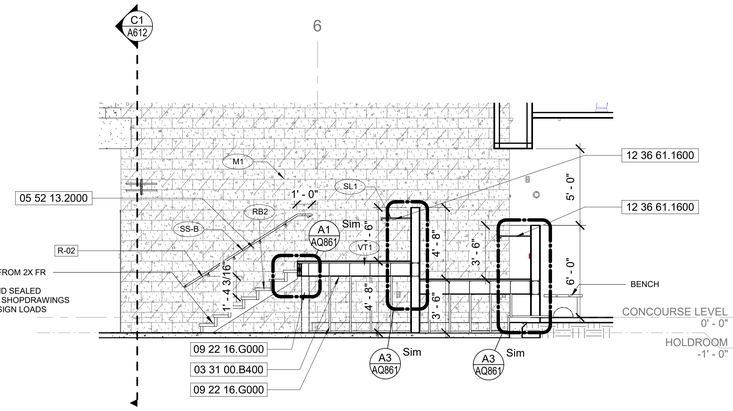
E3 ELEVATION WEST 2 -TSA PODIUM

1/4" = 1'-0"



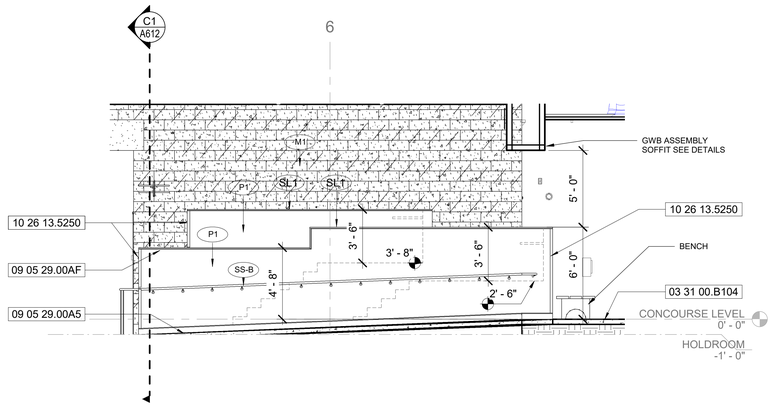
C1 ELEVATION EAST - TSA PODIUM

1/4" = 1'-0"



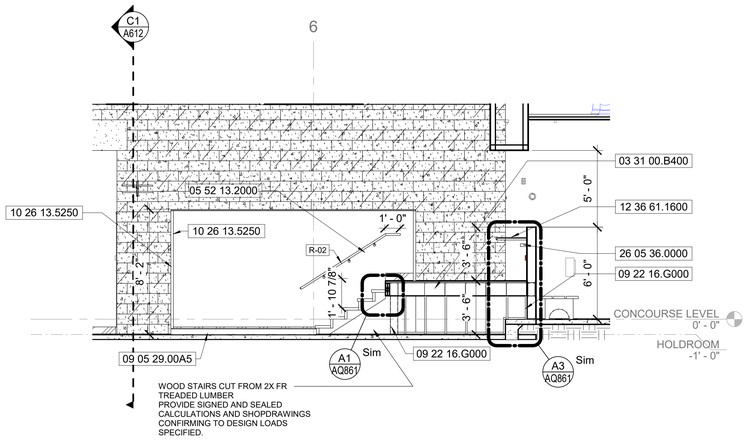
C3 SECTION 2 - TSA PODIUM

1/4" = 1'-0"



A1 ELEVATION SOUTH - TSA PODIUM

1/4" = 1'-0"



A3 SECTION 1 - TSA PODIUM

1/4" = 1'-0"

KEYNOTES

NO.	
03 31 00.B104	TYP. 4" STRUCTURAL SLAB-ON-GRADE, SEE STRUCTURAL.
03 31 00.B400	TYP. ELEVATED STRUCTURAL CONCRETE MEZZANINE FLOOR SLAB, SEE STRUCTURAL
05 52 13.2000	TYP. STAINLESS STEEL PIPE AND TUBE RAILING.
08 31 13.C01	TYPICAL GALV. MTL. CEILING ACCESS DOOR, PAINT TO MATCH SURROUNDING
09 05 29.00A5	TYP. ALUMINUM GYPSUM BOARD REVEAL BASE ACCESSORY.
09 05 29.00AF	TYP. ALUMINUM GYPSUM BOARD 'F' REVEAL ACCESSORY.
09 22 16.G000	TYPICAL 6" GALV. METAL STUD FRAMING @16" OC UNO.
10 26 13.5250	TYP. 2" BRUSHED ALUMINUM WALL CORNER GUARD.
12 36 61.1600	TYP. SOLID SURFACING COUNTERTOPS.
26 05 33.1600	TYP. ELECTRICAL BOX WITH FACEPLATE, COORDINATE FACEPLATE WITH DIV. 26, 27 AND 28.
26 05 36.0000	TYP. CONCEALED S.S. WIRE TRAY SUSPEND FROM COUNTER.

OKALOOSA COUNTY

FLY VPS

C19-2811- AP
Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
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MAITLAND, FL 32751
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MLM SOLE TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	1/4" = 1'-0"

Drawing Title:

MILLWORK ELEVATION DETAILS

BID DOCUMENTS

Drawing No.:

AQ851

BIM 360://Design of Satellite Concourse\YPS-MLM_A.rvt

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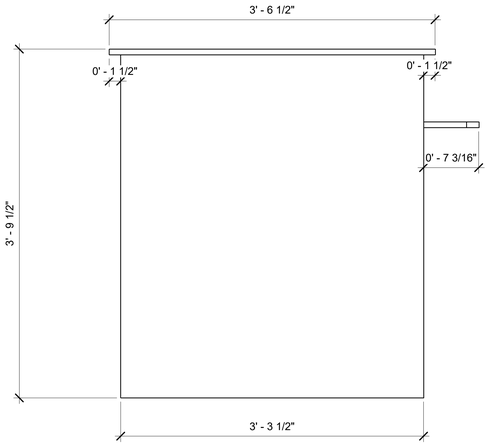
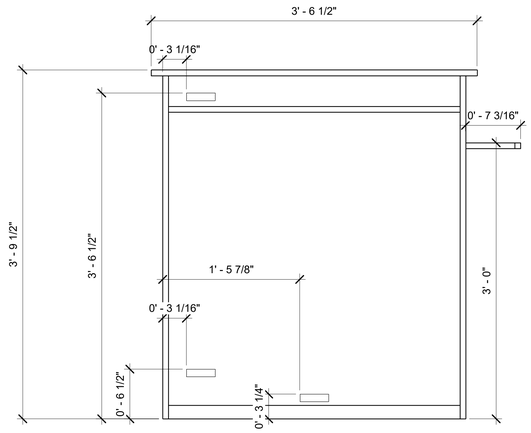


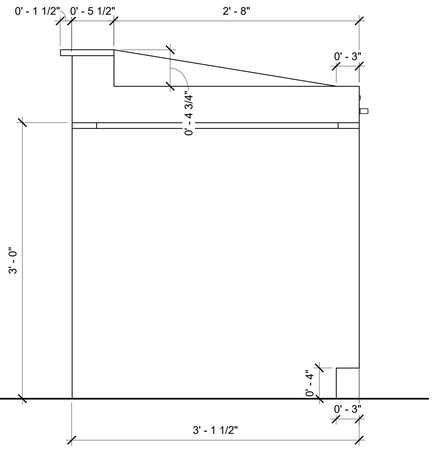
5 Holding Room Podium Elevation Back

1 1/2" = 1'-0"



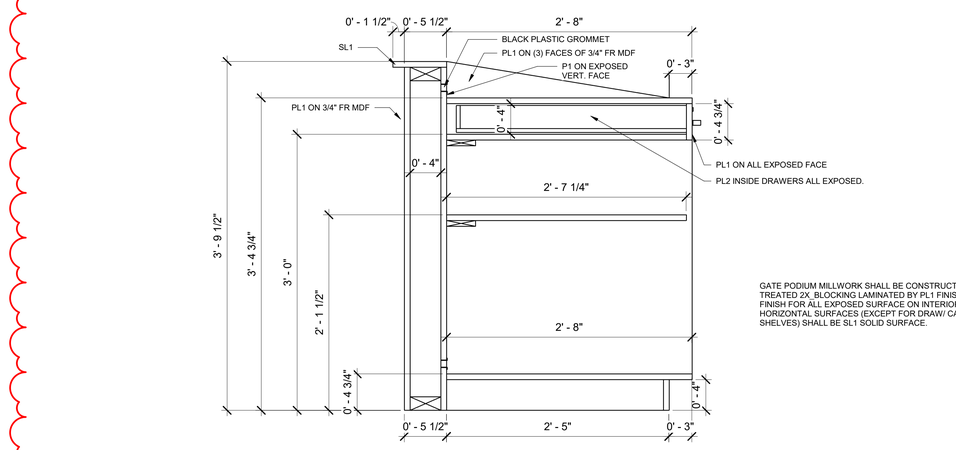
6 Holding Room Podium Section Back

1 1/2" = 1'-0"



3 Holding Room Podium Elevation Left

1 1/2" = 1'-0"



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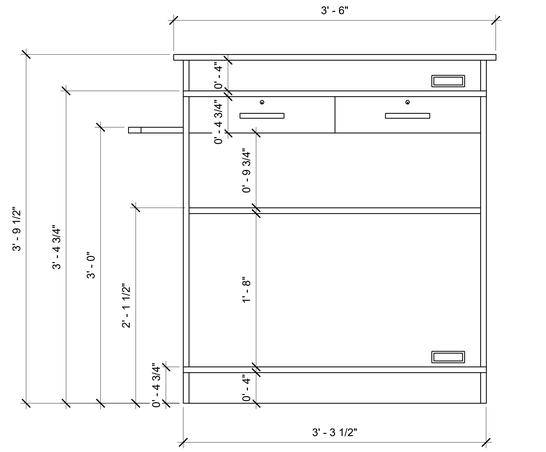
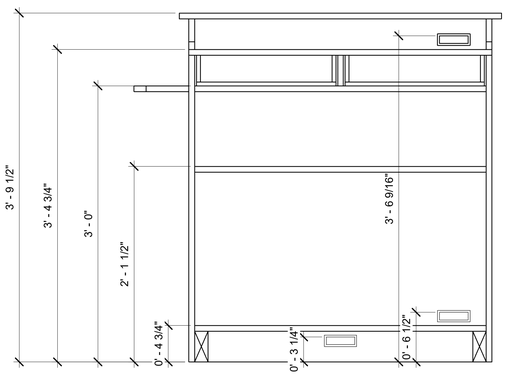
4 Holding Room Podium Section Left

1 1/2" = 1'-0"



1 Holding Room Podium Elevation Front

1 1/2" = 1'-0"



2 Holding Room Podium Section Front

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Project No.:	MLM-19672
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Drawing Scale:	1 1/2" = 1'-0"

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BID DOCUMENTS

Drawing No.:

AQ852

C19-2811- AP
Construction of Satellite Concourse 'C'

BIM 360://Design of Satellite Concourse/VPS-MLM_A.rvt

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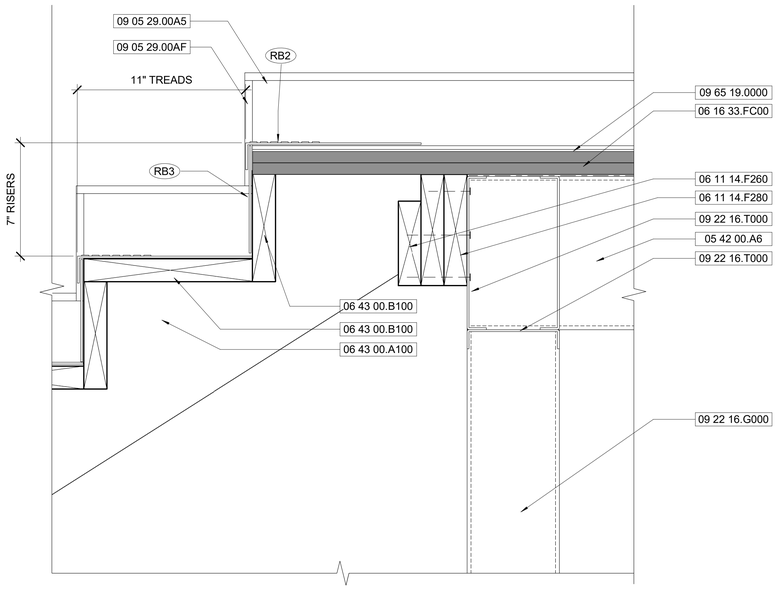
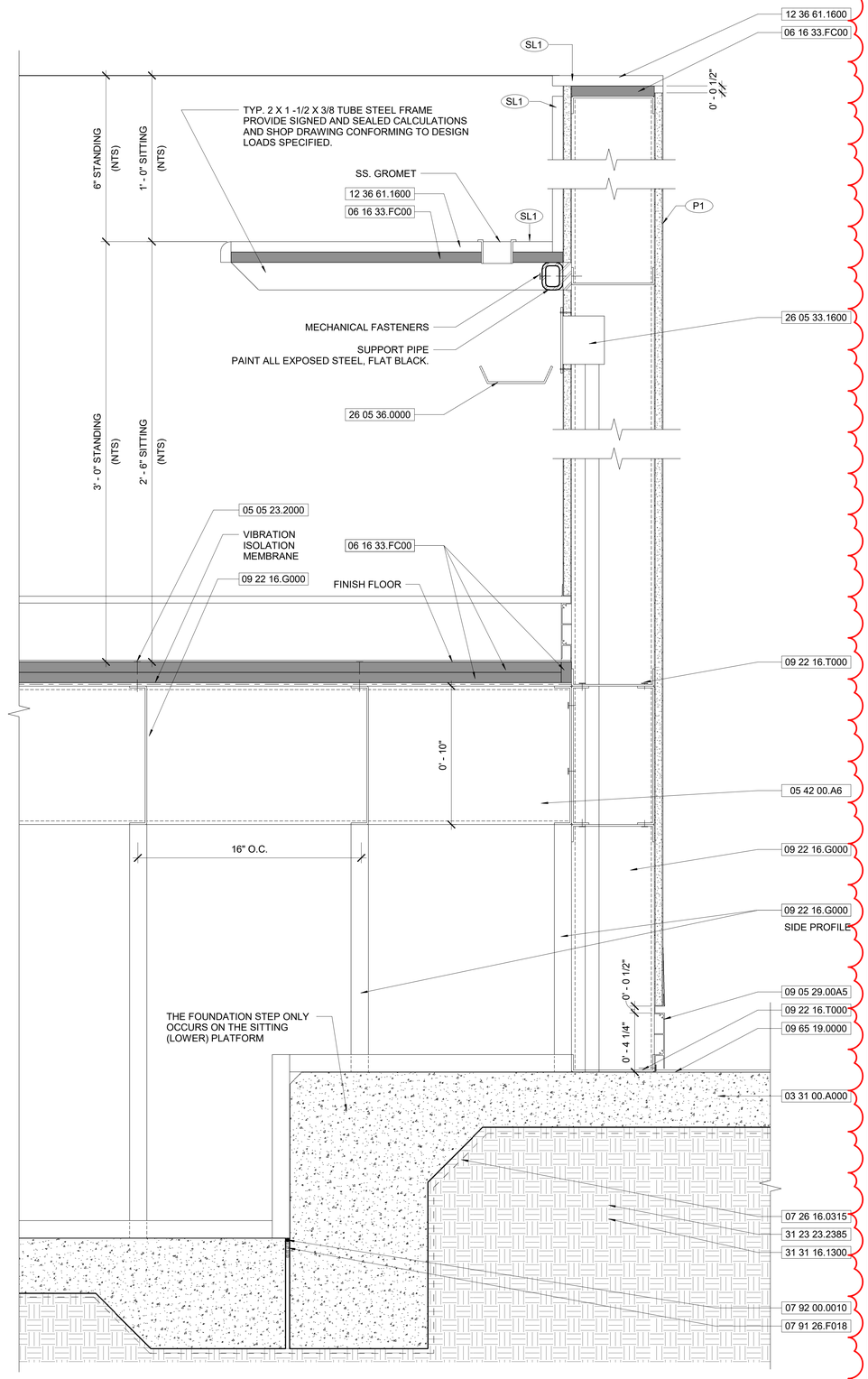


A1 PODIUM STAIR DETAIL

3" = 1'-0"



A3 PODIUM SECTION ELEVATION

3" = 1'-0"

KEYNOTES

NO.	
03 31 00.A000	TYP. CONCRETE SLABS-ON-GRADE, SEE STRUCTURAL
05 05 23.2000	TYP. STAINLESS STEEL FASTENER(S).
05 42 00.A6	10" "C" JOIST
06 11 14.F260	TYP. 2X6 NOMINAL FIRE RETARDINT WOOD BLOCKING, CONT.
06 11 14.F280	TYP. 2X8 NOMINAL FIRE RETARDINT WOOD BLOCKING, CONT.
06 16 33.FC00	TYP. 3/4" FR PLYWOOD.
06 43 00.A100	TYP. 2X_ NOMINAL FR TREATED WOOD STRINGER CUT.
06 43 00.B100	TYP. 2X_ NOMINAL FR TREATED WOOD TREADS AND RISERS.
07 26 16.0315	TYP. 15 MIL BELOW GRADE VAPOR BARRIER.
07 91 26.F018	TYP. 1/2" MINIERAL FIBER JOINT FILLER CONT.
07 92 00.0010	TYP. JOINT SEALANT, CONT.
09 05 29.00A5	TYP. ALUMINUM GYPSUM BOARD REVEAL BASE ACCESSORY.
09 05 29.00AF	TYP. ALUMINUM GYPSUM BOARD 'F' REVEAL ACCESSORY.
09 22 16.G000	TYPICAL 6" GALV. METAL STUD FRAMING @16" OC UNO.
09 22 16.T000	TYPICAL GALV. METAL TRACK RUNNER CONT.
09 65 19.0000	TYP. LUXARY VINYL COMPOSITION TILE, SEE SCHEDULE.
12 36 61.1600	TYP. SOLID SURFACING COUNTERTOPS.
26 05 33.1600	TYP. ELECTRICAL BOX WITH FACEPLATE, COORDINATE FACEPLATE WITH DIV. 26, 27 AND 28.
26 05 36.0000	TYP. CONCEALED S.S. WIRE TRAY SUSPEND FROM COUNTER.
31 23 23.2385	TYP. COMPACTED FILL TO A MIN. OF 85% COMPACTION AS PER ASTM D1557.
31 31 16.1300	TYP. SPRAY TERMITE TOXICANT BARRIER.

OKALOOSA COUNTY

FLY VPS

C19-2811- AP
Construction of Satellite Concourse 'C'

MLM-MARTIN ARCHITECTS, INC.
668 N. ORLANDO AVE.
SUITE 107
MAITLAND, FL 32751
407.897.6764 (VOICE)
407.894.1338 (FAX)
WWW.MLM-MARTIN.COM
AA-C002208
MLM SOLE-TYPE PROPERTY

MIGUEL A MARTIN
FL AR-98279

SEAL

Revisions

No.	Date	Description
2	09-MAR-2020	ADDENDUM 002

Project No.:	MLM-19672
Designed By:	MLM, MAM
Drawn By:	ST, CC, DM, CB
Checked By:	MAM
Issue Date:	21-JAN-2020
Drawing Scale:	3" = 1'-0"

Drawing Title:

MILLWORK SECTION DETAILS

BID DOCUMENTS

Drawing No.:

AQ861

BIM 360://Design of Satellite Concourse/VPS-MLM_A.rvt

3/10/2020 12:21:04 PM

Bid Schedule
ITB AP 35-20 CONSTRUCTION OF SATTELLITE CONCOURSE "C" at
VPS Destin – Fort Walton Beach Airport

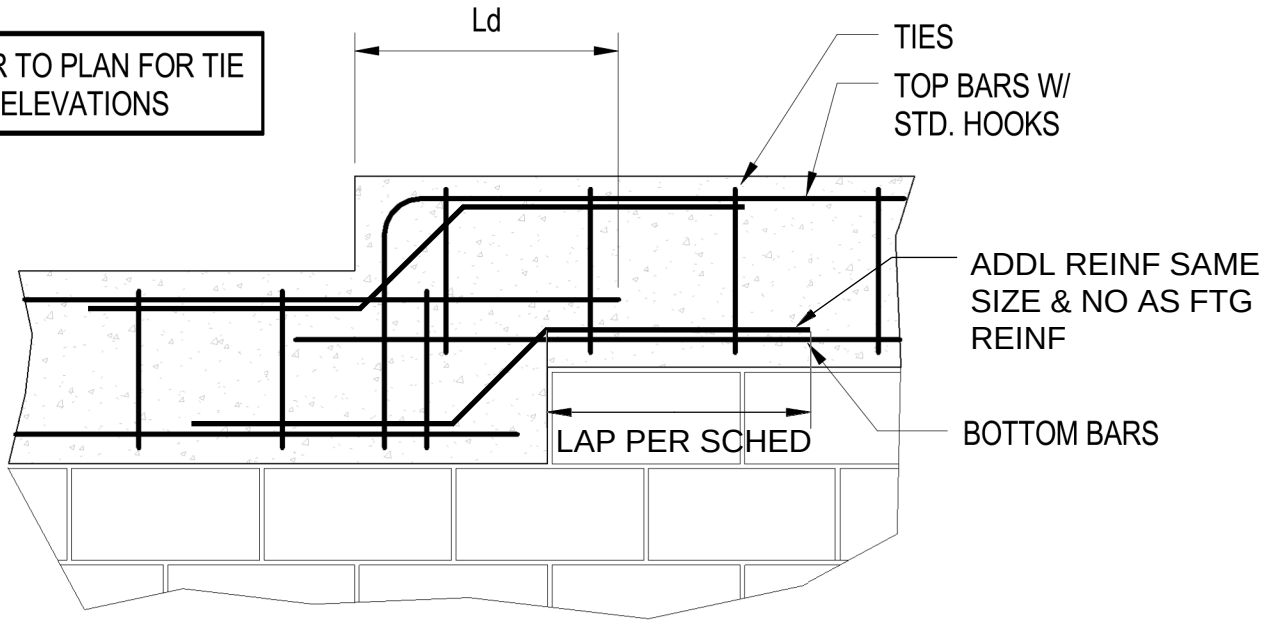
Item No.	Item Description	Quantity	Unit	Unit Price	Base Amount	CxA of HVAC (230800) Additional Amount	Add Alternate NO 6 Substitute Ceiling Tile	Deductive Alternate NO 7 Substitute Wall Tile	Seating Allowance	Landscape Allowance	TOTALS
BB	BASE BID: Entry, TSA Support, (SSCP) Security Screening Check Point, Restroom Core 1, Holdroom C1 & C2, Reference Line 0-13	1	1		$	$	$	$	$ 50,000.00	$ 40,000.00	$
1	ADD ALTERNATE NO 1: Concessions, Holdroom C3, Reference Line 13-17	1	1		$	$	$	N/A	$ 25,000.00	N/A	$
2	ADD ALTERNATE NO 2: Concessions, Restroom Core 2. Holdroom C4, Reference Line 17-22	1	1		$	$	$	$	$ 25,000.00	N/A	$
3	ADD ALTERNATE NO 3: Holdroom C5, Reference Line 22-25	1	1		$	$	$	N/A	$ 25,000.00	N/A	$
4	ADD ALTERNATE NO 4: Covered Entry Canopy and Structure Only; SLAB IS IN BASE BID	1	1		$	$	N/A	N/A	N/A	N/A	$
5	ADD ALTERNATE NO 5: Outdoor Seating Area (Concessions)	1	1		$	$	N/A	N/A	N/A	N/A	$
				TOTALS	**$**	**$**	**$**	**$**	**$**	**$**	

	TOTAL AMOUNT BID:	**$**

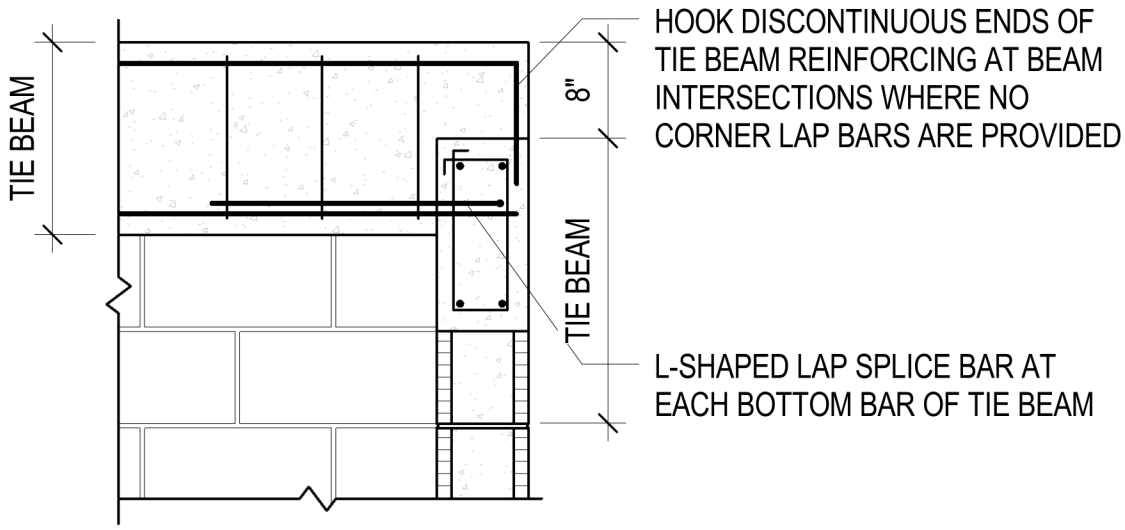
SIDA FENCE (see Civil)	$	Cost / LF
SIDA FENCE FOR FULL BUILD SEE B1/G211	$	~36 LF
SIDA FENCE FOR BASE BID + 2 ALTS SEE A1/G212	$	~109 LF
SIDA FENCE FOR BASE BID + 1 ALT SEE B1/G212	$	~234 LF
SIDA FENCE FOR BASE BID SEE D1/G213	$	~334 LF

****If a contactor would like to have a copy of this bid sheet in Excel format, please email jdarr@myokaloosa.com or dmason@myokaloosa.com to request a copy.****

REFER TO PLAN FOR TIE BEAM ELEVATIONS



IN-LINE STEP



STEP AT BEAM INTERSECTION

TYPICAL STEPPED TIE BEAM DETAIL

3/4" = 1'-0"

Revision:	Project: Construction of Satellite Concourse 'C'	
Supplement to Drawing No.:	TLC Job No.: 719055	Scale: NTS
Date: 03/02/2020 Design: Check:	TLC ENGINEERING SOLUTIONS Think. Listen. Create. 	4890 W Kennedy Blvd Suite 250 Tampa, FL 33609 P 813.637.0110 tlc-engineers.com COA 15	Sketch No.: **SK0-1**

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ITB AP 35-20 CONSTRUCTION OF SATTELLITE CONCOURSE "C" at
VPS Destin – Fort Walton Beach Airport

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1	ADD ALTERNATE NO 1: Concessions, Holdroom C3, Reference Line 13-17	1	1		$	$	$	N/A	$ 25,000.00	N/A	$
2	ADD ALTERNATE NO 2: Concessions, Restroom Core 2. Holdroom C4, Reference Line 17-22	1	1		$	$	$	$	$ 25,000.00	N/A	$
3	ADD ALTERNATE NO 3: Holdroom C5, Reference Line 22-25	1	1		$	$	$	N/A	$ 25,000.00	N/A	$
4	ADD ALTERNATE NO 4: Covered Entry Canopy and Structure Only; SLAB IS IN BASE BID	1	1		$	$	N/A	N/A	N/A	N/A	$
5	ADD ALTERNATE NO 5: Outdoor Seating Area (Concessions)	1	1		$	$	N/A	N/A	N/A	N/A	$
				TOTALS	$	$	$	$	$	$	

TOTAL AMOUNT BID:	$

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