ORANGE COUNTY CONVENTION CENTER (OCCC)

9899 INTERNATIONAL DRIVE, ORLANDO, FLORIDA 32819 NORTH-SOUTH BUILDING PARCEL ID: 01-24-28-0000-00-007

100% BID DOCUMENTS 3/19/2019

INDEX OF DRAWINGS

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ARCHITECTURAL

G0.101 Location Map & Index of Drawings G0.111 Code Analysis And General Note Legend

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A4.205 Level 200 North/South Building Network Room 2F Life Safety Level 200 North/South Building Network Room 2G Life Safety A4.206

Level 200 North/South Building Network Room 2H Life Safety A4.207 Level 200 North/South Building Network Room 21 Life Safety

UL Assembly Details — Gypsum Board A8.103 UL Assembly Details — Spray Fireproofing A8.109

Level 200 North/South Building Overall Level Floor Plan

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Level 200 North/South Building Network Room 2G Floor Plan, Reflected Ceiling Plan and Elevations Level 200 North/South Building Network Room 2i Floor Plan, Reflected Ceiling Plan and Elevations

Sections and Plan Details

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ELECTRICAL

Electrical General Symbols & Legend E0.001 Electrical Demo Lighting Plan — Level 2 Electrical Lighting Plan — Level 2 Electrical Demo Power Plan — Level 2 ED3.001 Electrical Power Plan — Level 2 Electrical Fixture Schedule

Electrical Details

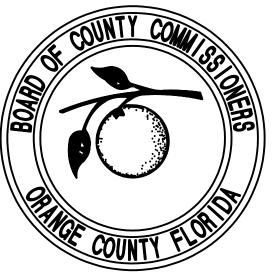
COMMISSIONER BETSY VANDERLEY DISTRICT 1

COMMISSIONER CHRISTINE MOORE DISTRICT 2

COMMISSIONER MAYRA URIBE DISTRICT 3

MAYOR

COMMISSIONER JERRY L. DEMINGS MARIBEL GOMEZ CORDERO DISTRICT 4



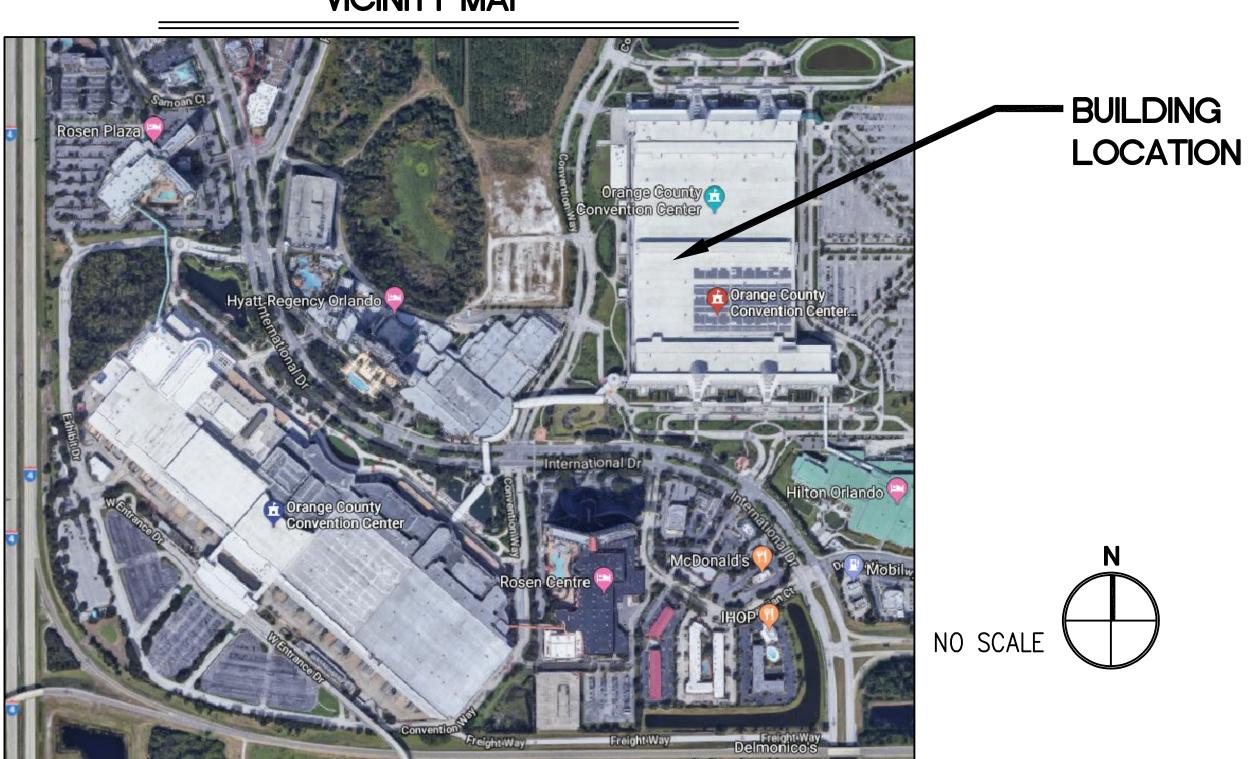
COMMISSIONER EMILY BONILLA DISTRICT 5

COMMISSIONER VICTORIA P. SIPLIN DISTRICT 6

OWNER:

BOARD OF COUNTY COMMISSIONERS ORANGE COUNTY, FLORIDA

VICINITY MAP





Client Name:	
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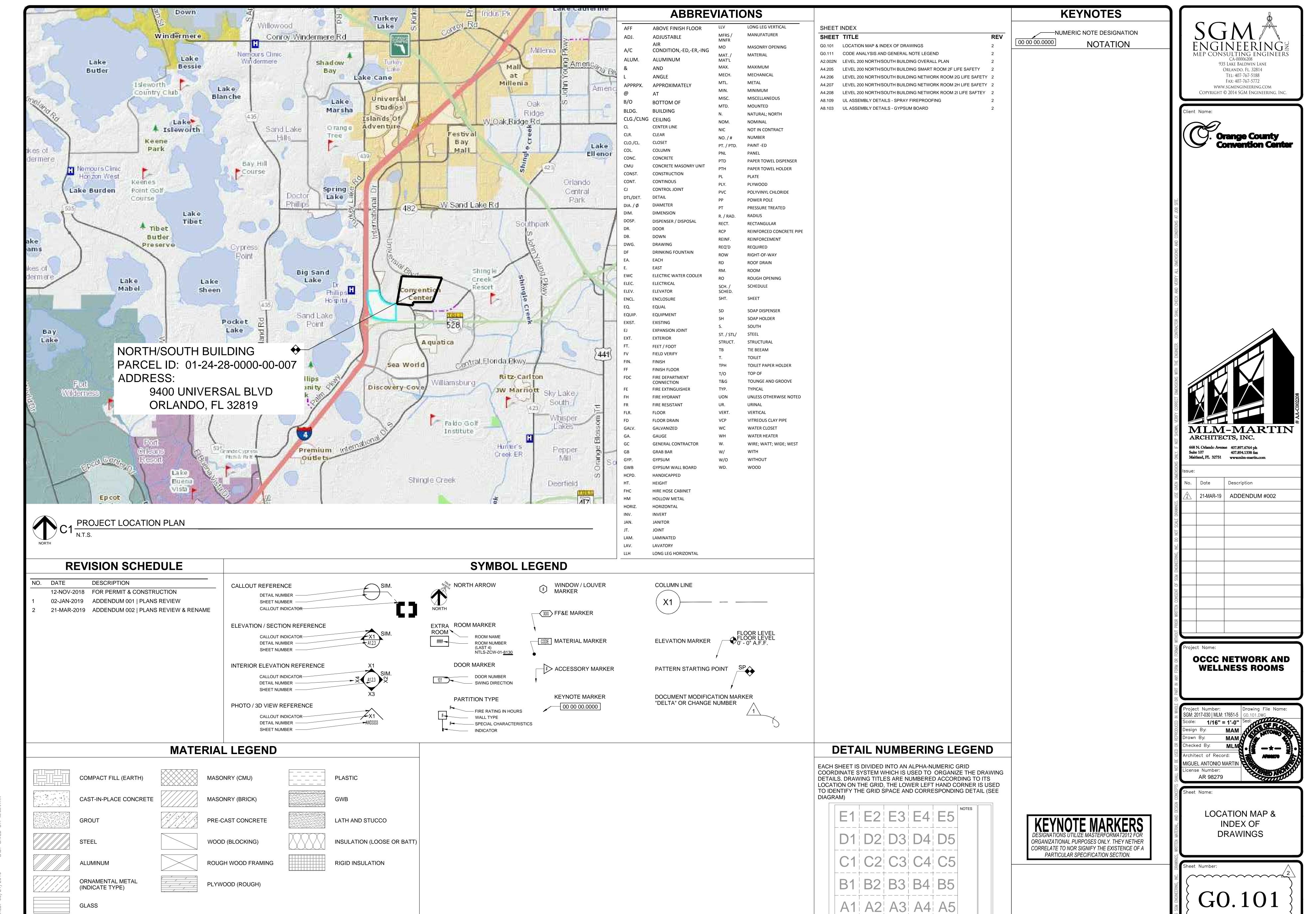
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No.	Date	Description

OCCC NETWORK WELLNESS ROOM BUILDOUTS NORTH-SOUTH BUILDING

O.R		
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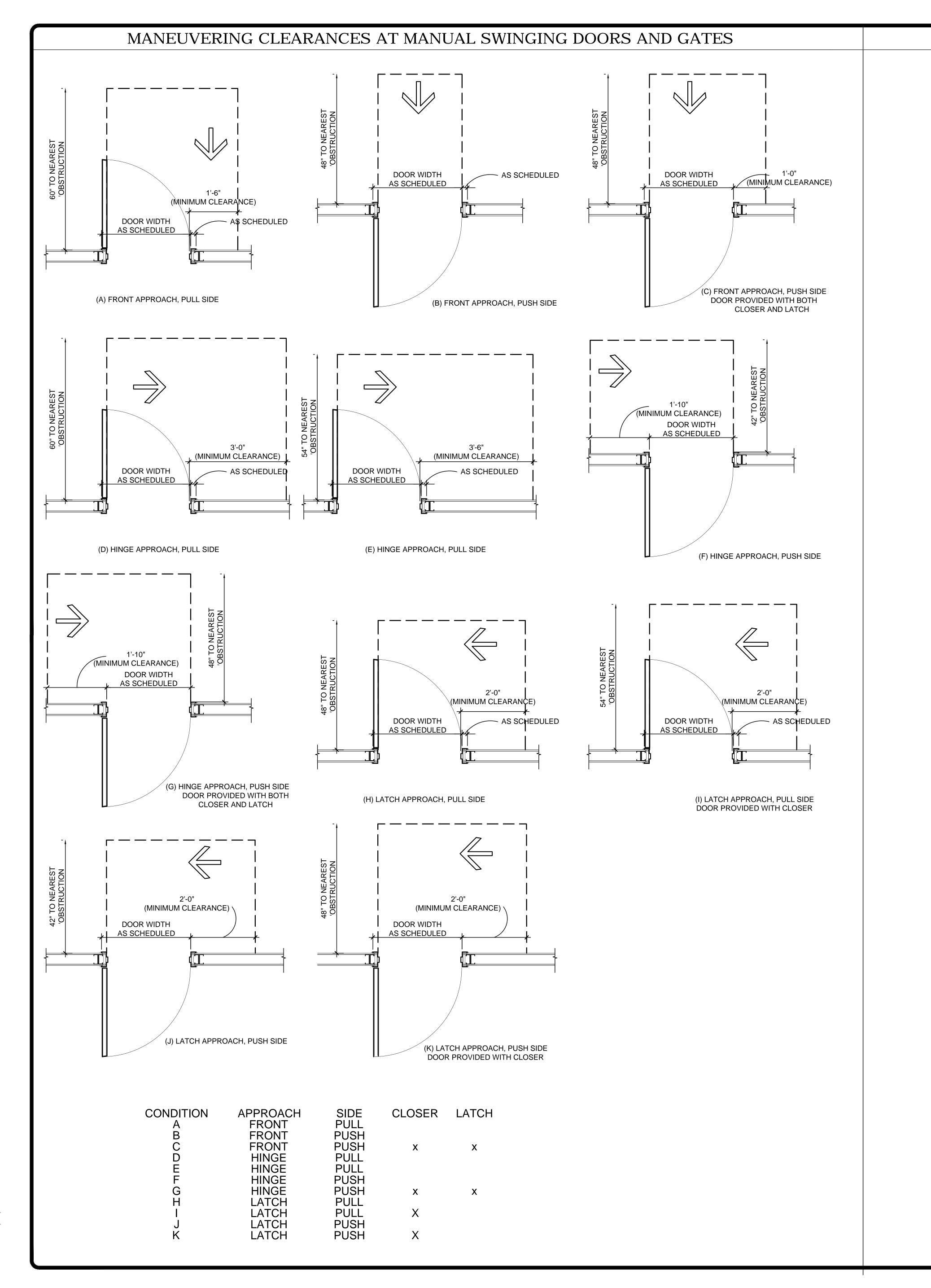
TITLE SHEET

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LIFESAFETY ANALYSIS

Project Name:

OCCC Network and Wellness Room Buildouts

Project Description

Conversion of existing concourse space into "Network" and "Wellness" Rooms. "Network" Rooms are

Open to existing concourse and are utilized as business areas for laptops and smart devices while

"Wellness" rooms are partitioned off for quite areas for reflection or personal use.

Droject Address

NORTH / SOUTH BUILDING 9400 UNIVERSAL BLVD. ORLANDO, FL 32819

PARCEL ID: 01-24-28-0000-00-007

Florida Building Code, 6th Edition (2017) - Building
Florida Building Code, 6th Edition (2017) - Existing Building
Florida Building Code, 6th Edition (2017) - Mechanical
Florida Building Code, 6th Edition (2017) - Accessability
Florida Building Code, 6th Edition (2017) - Energy Conservation
Florida Fire Prevention Code, 5th Edition
2014 NFPA - 70 - National Electric Code

Classification of Work: Chapter 5, FBC 2017 Existing Building:

Alteration - Level 2

Occupancy Classification:

ASSEMBLY 3
NO CHANGE IN OCCUPANCY PROPOSED

2013 NFPA - 72 - National Fire Alarm Code

Construction Type:

Type II-B - Sprinklered (FBC 2017 Paragraph 602.2)

Actual Tabular Building Area, Building Height:

NO CHANGE IN BUILDING AREA PROPOSED

Allowable Building Area, Building Height

NO CHANGE IN BUILDING AREA PROPOSED

Fire Resistance Rating Requirement for Building Elements FBC 2017 Table 601

	TYPE II B
Structural Frame Col - Girder BMS	0 hrs
Bearing Walls	
Structural Frame Col - Girder BMS	0 hrs
Interior	0 hrs
Non Bearing Wall Partitions	See Table 602
Non Bearing Wall and Partitions	0 hrs
Floor Construction incl. Supporting Beams and Joist	0 hrs
Roof Construction Incl. Supporting Beams and Joist	0 hrs

Fire Resistance Rating Requirements for Exterior Wall Based on Fire Separation Distance:

	FBC 2017 Table 602
Fire Separation Distance	Occ. Type B & E
< 5'	1
5≤ X <10	1
10≤ X <30	0
X ≥ 30	0

Maximum Area of Exterior Wall Openings FBC 2017 Table 704.8

NO CHANGE IN EXTERIOR OPENINGS PROPOSED

NO CHANGE IN EXTERIOR OPENINGS PROPOSED

Interior Wall and Ceiling Finish Requirements byOccupancy - FBC Table 803.11

	W	ithout Sprinkler	
Occupancy	Exit Enclosures and Exit Passageways	Corridors	Rooms & Enclosed Spaces
	1	1	
B & E	В	_	

Maximum Floor Area Allowance per Occupant FBC 2017 Table 1004.1.1

Existing occupancy and use Assembly Concentrated

New use as bussiness areas, anticipated reduction of occupant count overall Assumed existing egress systems have adequate capacity for this reduction.

Minimum Requried Egress Width Section FBC 2017 1005.1

Stairways	Other Egress Components
0.3"	0.2"

Exit Access Travel Distance FBC 2017 Table 1017.2

Occupancy	Without Sprinkler
A3	250FT



Client Name:

Orange County
Convention Center

Orlando, Fl. 32814 Tel: 407-767-5188 Fax: 407-767-5772

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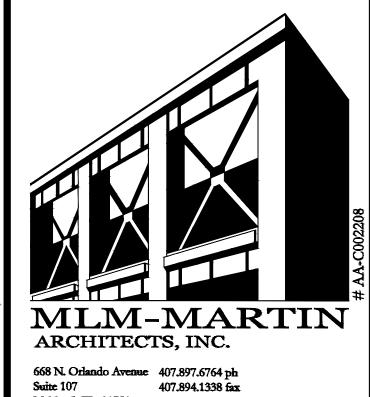
DESIGNATIONS UTILIZE MASTERFORMAT2012 FOR ORGANIZATIONAL PURPOSES ONLY. THEY NETHER CORRELATE TO NOR SIGNIFY THE EXISTENCE OF A PARTICULAR SPECIFICATION SECTION.

GENERAL NOTES

- CONTRACTOR(S) SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES, AND REGULATIONS. ALL CONTRACTORS ARE REQUIRED TO OBTAIN ALL OF THEIR RESPECTIVE PERMITS (GENERAL, ELECTRICAL), FINAL INSPECTIONS, CERTIFICATIONS AND CLOSE-OUT OF PERMITS.
- CONTRACTOR(S) ARE RESPONSIBLE FOR CHECKING ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, AND DIMENSIONS FOR ACCURACY AND CONFIRMING THAT WORK IS BUILDABLE AS SHOWN BEFORE PROCEEDING WITH THE CONSTRUCTION. IF THERE ARE ANY QUESTIONS, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER BEFORE PROCEEDING WITH THE WORK IN QUESTION OR RELATED WORK.
- CONTRACTOR(S) SHALL NOT SCALE DRAWINGS, WRITTEN DIMENSIONS SHALL ALWAYS GOVERN. SCALES SHOWN ARE FOR REFERENCE ONLY, AND CONTRACTOR SHALL FIELD VERIFY ALL SCALES AND DIMENSIONS. CONTRACTOR(S) REQUIRING DIMENSIONS NOT NOTED, SHALL CONTACT THE ARCHITECT/ENGINEER FOR SUCH INFORMATION PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
- 4. LARGE SCALE DRAWINGS TAKE PRECEDENCE OVER SMALL SCALE, DETAILS TAKE PRECEDENCE OVER ALL. CONTRACTOR(S) SHALL NOTIFY ENGINEER OF CONFLICTS IN WRITING, PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
- AT COMPLETION OF THE WORK, CONTRACTOR(S) SHALL REMOVE ALL MARKS, STAINS, FINGERPRINTS, DUST, DIRT, SPLATTERED PAINT, AND BLEMISHES RESULTING FROM THE VARIOUS OPERATIONS THROUGHOUT THE PROJECT.
- DO NOT INTERRUPT SERVICE TO PARTS OF THE BUILDING OUTSIDE CONTRACT LIMITS OF THIS PROJECT.
- 7. DETAILS ARE USUALLY KEYED ONLY ONCE (ON THE PLANS OR ELEVATIONS WHEN THEY FIRST OCCUR) AND ARE TYPICAL FOR SIMILAR CONDITIONS THROUGHOUT UNLESS NOTED
- 8. "TYPICAL" OR "TYP." MEANS FOR ALL SIMILAR CONDITIONS, UNLESS NOTED OTHERWISE.
- NOT ALL SYMBOLS ARE NECESSARILY USED ON THIS PROJECT.
- 10. ALL DIMENSIONS GIVEN AS CLEAR ARE NOT ADJUSTABLE WITHOUT ARCHITECT / ENGINEERS APPROVAL.
- PLANS WORK SHOWN IN LIGHT/GREY LINETYPE ARE EXISTING TO REMAIN. ON DEMOLITION PLANS WORK SHOWN IN DARK DASHED LINETYPE ARE EXISTING TO BE REMOVED. ON NEW WORK PLANS WORK IN DARK LINETYPE ARE NEW, WHETHER LABELED AS NEW OR NOT.

UNLESS OTHERWISE NOTED: ON DEMOLITION AND NEW WORK

- 12. CONTRACTOR SHALL MAINTAIN EXISTING EGRESS PATHWAYS UNOBSTRUCTED AT ALL TIMES OF OPERATION.
- ANY REFERENCE TO DISCARDING OR DISPOSAL OF MATERIALS OR EQUIPMENT SHALL BE CONSTRUED TO MEAN "OFF SITE" DISPOSAL. CONTRACTOR(S) SHALL BE RESPONSIBLE FOR DISPOSING IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS, AND FOR PAYING ALL FEES ASSOCIATED WITH SAME. THE CONTRACTOR SHALL KEEP RECORDS OF THE MATERIAL DISPOSED OFFSITE INCLUDING TIPPING SCALE RECEIPTS, AND SHALL FURNISH THE REPORTS WEEKLY TO THE OAR.
- THESE DRAWINGS DEPICT EXISTING AND COMPLETED CONDITIONS. THEY DO NOT INCLUDE COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY IN AND AROUND THE JOB



Maitland, FL 32751 www.mlm-martin.com

sue:

Description

No.	Date	Description
2	21-MAR-19	ADDENDUM #002

OCCC NETWORK AND

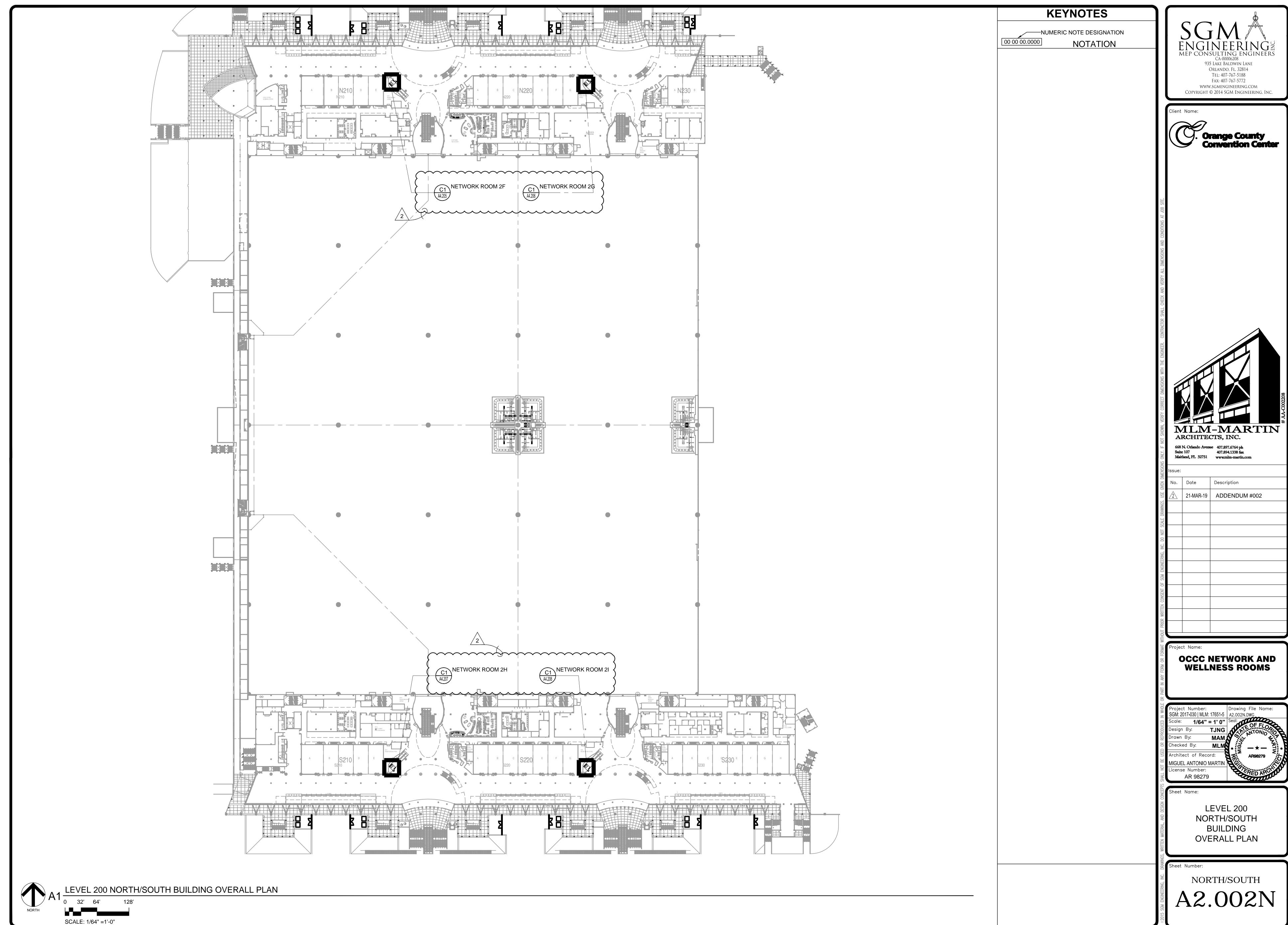
WELLNESS ROOMS

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Architect of Record:	∑ AR98279 ≥
MIGUEL ANTONIO MARTIN	
icense Number:	ERED ARC
AR 98279	Second Property

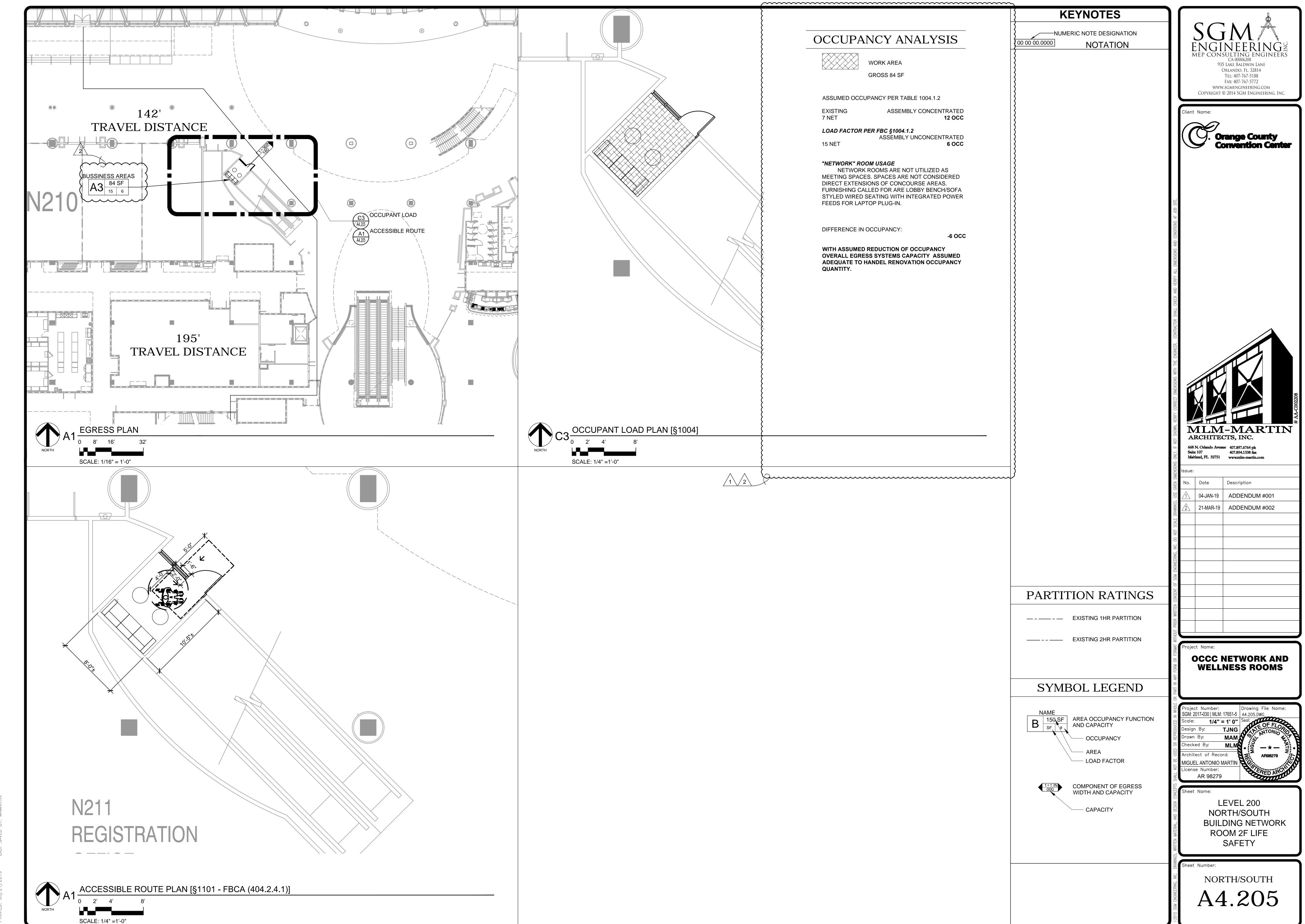
heet Name:

CODE ANALYSIS AND GENERAL NOTE LEGEND

GO. 111

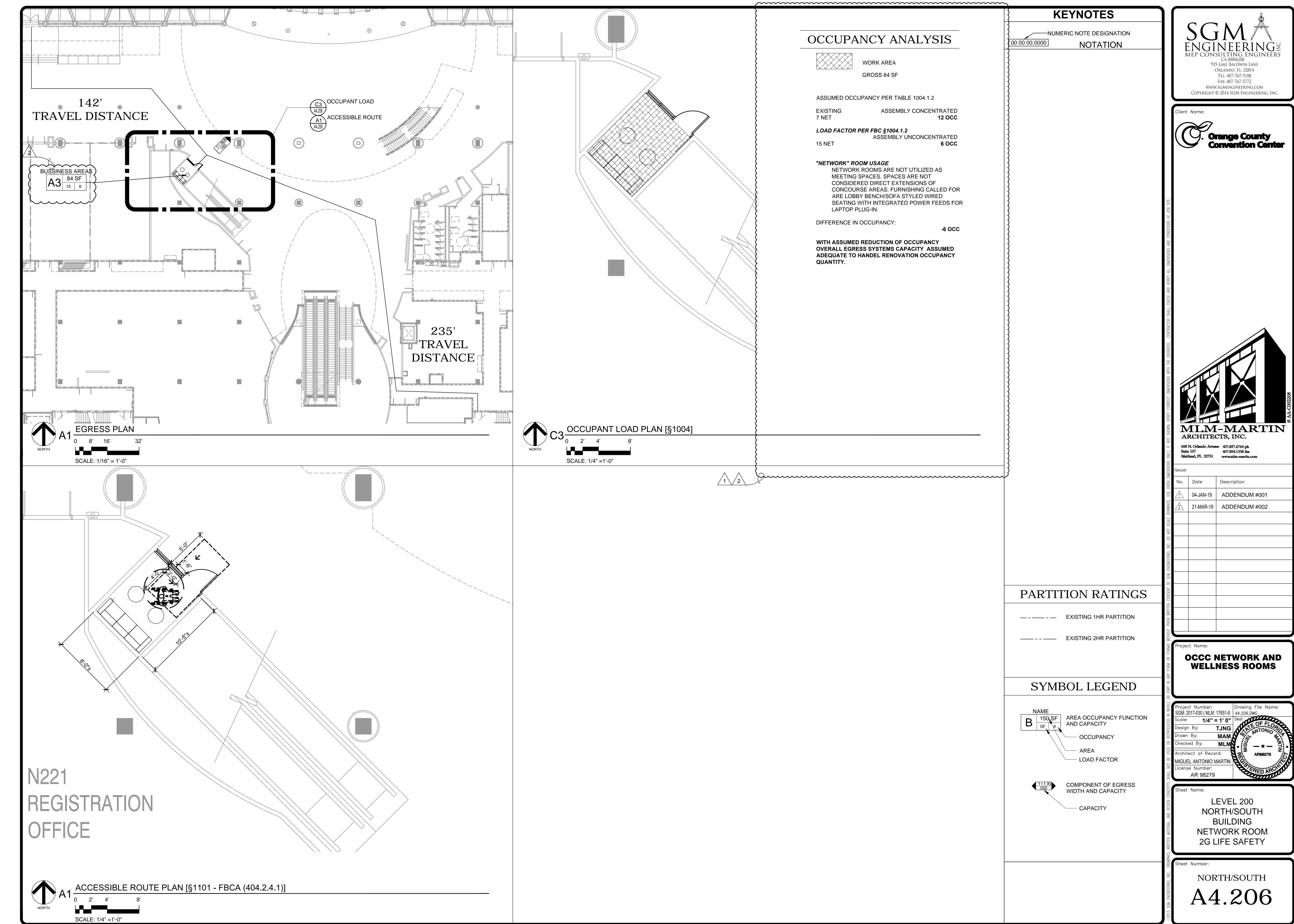


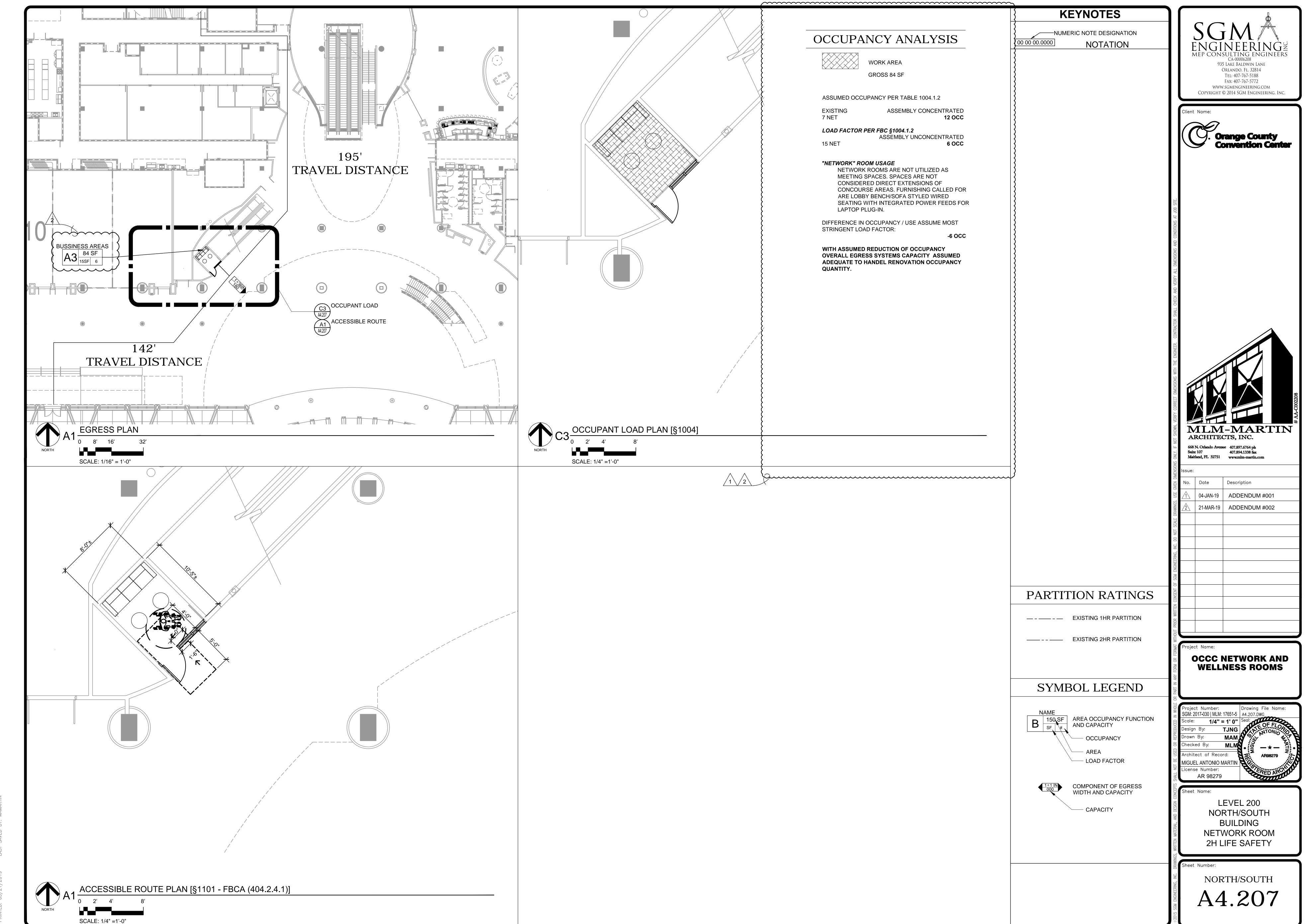
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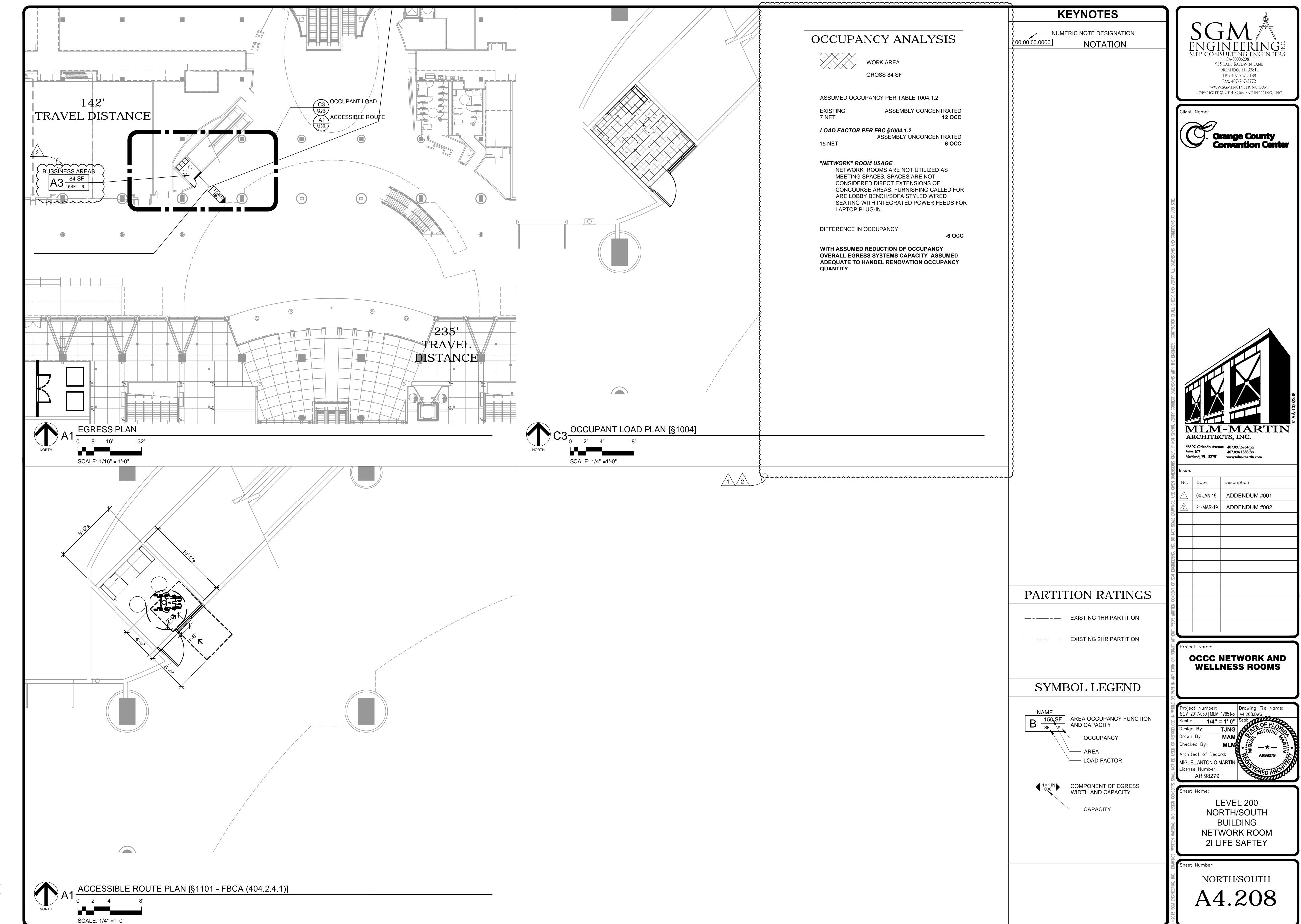
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Design/System/Construction/Assembly Usage Disclaimer

 Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
 Authorities Having Jurisdiction should be consulted before construction.
 Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
 When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction. Only products which bear UL's Mark are considered Certified.

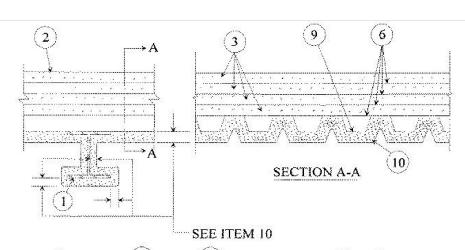
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances

Design No. P732

June 18, 2018 Restrained Assembly Ratings -1, 1-1/2, 2 or 3 Hr (See Item 10) Unrestrained Assembly Ratings — 3/4, 1, 1-1/2, 2 or 3 Hr (See Item 10) Unrestrained Beam Ratings — 1, 1-1/2, 2 or 3 Hr (See Item 10)

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide <u>BXUV</u> or <u>BXUV7</u> * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Restricted Load Condition — See Items 1 and 10C



/ LY3	7.143	

2. **Roof Covering*** — Consisting of hot mopped or cold application bituminous materials compatible with the insulation(s) described herein which provide Class A, B or C coverings. See Roofing Materials and Systems Directory — Roof Covering Materials (TEVT). adhered or mechanically attached as permitted under the respective manufacturer's Classification. See Fire Resistance Directory — Roof Membrane (CHCI). 3. Roof Insulation — Foamed Plastic — Polyisocyanurate foamed plastic insulation boards nom 48 by 48 or 96 in., to be

	Dostusinad au	Min Insulati	on Thkns In.
	Restrained or Unrestrained Assembly Rating Hr	With Gypsum Wallboard	Without Gypsum Wallboard
1		1	2
1-	·1/2	1-1/2	3
2		2	3
		_	_

CARLISLE SYNTEC INCORPORATED — Types HP, HP-H, HP-N, HP-W

ATLAS ROOFING CORP - Type ACFoam II, ACFoam III, ACFoam-II SL, ACFoam IV.

 $\textbf{DOW ROOFING SYSTEMS L L C} - \texttt{"Dow Termico Polyisocyanurate Insulation", "Dow Termico ISO 3000 Insulation", "Dow Termico ISO 300 Insulation", "Dow Termico ISO 300 Insulation", "Dow Termi$

GAF — EnergyGuard RH, Tapered EnergyGuard RH

JOHNS MANVILLE — ENRGY 3 25 psi, ENRGY 3, Tapered ENRGY 3, Tapered ENRGY 3 25 psi, ENRGY 3 AGF, Tapered ENRGY 3 AGF, ENRGY 3 25 psi AGF, Tapered ENRGY 3 25 psi, Tapered SaluTherm, ValuTherm 25 psi, Tapered ValuTherm 25 psi, Tapered ValuTherm AGF, ValuTherm AGF, ValuTherm 25 psi AGF, Tapered ValuTherm 25 psi AGF, ValuTherm 25 psi AGF, ValuTherm 25 psi CGF, Tapered ValuTherm 25 psi CGF.

LOADMASTER SYSTEMS INC — Type Loadmaster polyisocyanurate insulation

MARTIN FIREPROOFING CORP — "Perform-A-Deck I"

RMAX OPERATING L L C — Type Multi-Max-3, Multi-Max FA-3, Ultra-Max, Ultra-Max Plus, Tapered Ultra-Max Plus, Tapered Thermaroof-3, Tapered Thermaroof FA-3, Tapered Ultra-Max.

SIKA SARNAFIL INC — Sarnatherm-R Insulation, Sarnatherm-R CG Insulation, Sarnatherm-R Tapered Insulation,

SOPREMA INC — Sopra-ISO s, Sopra-ISO s Tapered, Sopra-ISO+ s, Sopra-ISO+ s Tapered, Sopra-ISO H+ s, Sopra-ISO

board with an adhered nailing surface, nom 48 by 48 or 96 in. may be used with the following limitations. These composite building units have ventilation slots internal to the panels. The thickness of the panel depends upon the thinnest portion of the polyisocyanurate insulation. The following dimensions apply to the polyisocyanurate insulation, min thickness is as measured in accordance with Item 3. There is no limit on the max insulation thickness. JOHNS MANVILLE — Type ISO-VENT.

3B. **Building Units*** — Polyisocyanurate foamed plastic insulation boards, nom 48 by 48 or 96 in., faced on the top surface with oriented strand board or plywood. Min thickness of the polyisocyanurate core is 1.3 in. No limit on max overall thickness. Boards to be installed with end joints staggered a min of 6 in. in adjacent rows. Adhesive (Item 6) may be applied between the building units and the vapor retarder (or gypsum wallboard if vapor retarder is not used). ATLAS ROOFING CORP — ACFoam Nail Base Insulation, Vented R, ACFoam CrossVent, ACFoam III Nail Base Insulation,

FIRESTONE BUILDING PRODUCTS CO L L C — Nail Base

3C. Roof Insulation-Mineral and Fiber Boards* — (Not Shown) — Optional, Applied in one or more layers over the Foamed Plastic (Item 3) to be applied with adhesive (Item 6), asphalt or coal tar pitch (Item 7) or mechanically fastened (Item 8).

ROCKWOOL — MonoBoard[™], MonoBoard[™] Plus, "MonoBoard Plus S", TopRock®DD, TopRock® DD Plus or TopRock DD

SOPREMA INC - SopraRock@MD, SopraRock@MD Plus, SopraRock@DD and SopraRock@DD Plus.

3D. **Building Units*** — As an alternate to Item 3, polyisocyanurate foamed plastic insulation boards, nom 48 by 48 or 96 in., faced on the top surface with oriented strand board. Min thickness of the polyisocyanurate core is 1.3 in. for the 1 hr rating without gypsum wallboard (Item 4) and for the 1, 1-1/2 and 2 hr ratings with gypsum wallboard and 2.6 for the 1-1/2 hr ratings without gypsum wallboard. No limit on max overall thickness. Boards to be installed with end joints staggered a min of 6 in. in adjacent rows. JOHNS MANVILLE - Nailboard.

3E. **Building Units*** — As an alternate to Item 3, polyisocyanurate foamed plastic insulation boards faced on the underside (or both sides) with mineral fiber board. Min thickness of the polyisocyanurate core is 1.3 in. for the 1 hr rating without gypsum wallboard (Item 4) and for the 1-1/2 and 2 hr ratings with wallboard and 2.6 in. for the 1-1/2 hr ratings without gypsum wallboard. No limit on max overall thickness. Boards to be installed with end joints staggered a min of 6 in, adjacent rows. Adhesive (Item 6) may be applied between the building units and the vapor retarder (or gypsum wallboard if vapor retarder is not used). FIRESTONE BUILDING PRODUCTS CO L L C — "ISO 95+ Composite"

 ${\bf JOHNS\;MANVILLE}-{\it Fesco-Foam}.$

3F. **Building Units*** — As an alternate to Item 3, polyisocyanurate foamed plastic insulation boards faced on the underside with wood fiber board. Min thickness of the polyisocyanurate core is 1.3 in. for the 1 hr rating without gypsum FIRESTONE BUILDING PRODUCTS CO L L C — "ISO 95+ Composite".

3G. **Building Units*** — As an alternate to Item 3, polyisocyanurate foamed plastic insulation boards, nom 48 by 48 or 96 in., faced on the top surface with gypsum board. Min thickness of the polyisocyanurate core is 1.3 in. for 1 hr rating without gypsum wallboard (Item 4) and for the 1-1/2 and 2 hr ratings with wallboard (Item 4) and 2.6 in. for the 1-1/2 ratings without gypsum wallboard (Item 4). No limit on overall thickness. Boards to be installed with end joints staggered a min of 6 in. in adjacent rows. Adhesive (Item 6) may be applied between the building units and the vapor retarder (or one of the control JOHNS MANVILLE - ENRGY 2 Gypsum Composite.

3H. Roof Insulation — Mineral and Fiber Boards* — As an alternate to Item 3, to be applied in one or more layers GAF — GARTEMP Perlite.

31. Roof Insulation - Foamed Plastic* — (Not Shown) As an alternate to Item 3 through 3H, polystyrene foamed plastic insulation boards, applied in one or more layers over gypsum wallboard. Min. thickness is 1.0 in. with no max overall thickness max density 2.5 pcf. When applied in more than one layer, each layer to be offset in both directions from layer below a min. of 6 in. in order to lap all joints. Boards secured to gypsum wallboard (Item 4) with asphalt glaze coat or adhesive (Item 6). Adhesive and/or asphalt glaze coat may be omitted when Item 2A is used. See Foamed Plastic (BRYX) category in the Building Materials Directory or Foamed Plastic (CCVW) category in the Fire Resistance Directory of for paging of manufacturers.

3J. **Fiber, Sprayed*** — (Not Shown) — For 1 hr rating only — As an alternate to Items 3 through 3I, Spray applied cellulose insulation material. The fiber is applied with water to a min. thickness of 10 in. as measured from the top plane of the roof deck in accordance with the application instructions supplied with the product. Minimum density of 2.6 pcf. Gypsum board not required over steel roof deck. Min. 1 in. thickness of Spray-Applied Fire Resistive Material* (Items 10 10A, 10B) required on underside of steel deck. When Item 3J is used, Roof Covering (Items 2, 2A and 2B) shall not be ${f U}$ ${f S}$ ${f GREENFIBER}$ ${f L}$ ${f C}$ — Cocoon stabilized cellulose insulation.

3Kb. Foamed Plastic* — Optional - (Not Shown) - Maximum 1 in. thick polyisocyanurate foamed plastic insulation boards, nom 48 by 48 or 96 in. Boards may be applied as the top layer in addition to the specified minimum thickness of any roofing system described herein, as long as the roofing system states that there is no limit on maximum thickness. Joints offset in both directions from layer below.

3Kc. **Foamed Plastic*** — Optional — (Not Shown) — Maximum 5/8 inch thick polyisocyanurate foamed plastic insulation boards, nom 48 by 48 or 96 in. Boards may be applied as the top layer in addition to the specified minimum thickness of any roofing system described herein, as long as the roofing system states that there is no limit on maximum thickness. Joints offset in both directions from layer below.

3L. Foamed Plastic* — As an alternate to Items 3 - 3J, polyurethane foamed plastic roof insulation. When used, gypsum

BASF CORP — Elastospray 5100-2.0, Elastospray 5100-2.5, Elastospray 81302, Elastospray 81272, Elastospray Alpha

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (View Classification) — CKNX.R19374

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L C (View Classification) — CKNX.R18482

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (View Classification) — CKNX.R7094

5. **Vapor Retarder — Sheathing Material* —** (Optional) — (Not shown) — Vinyl film or paper scrim vapor barrier, applied to steel roof deck or gypsum wallboard with adhesive (Item 6), hot asphalt (Item 7) or laid loosely, overlapped approx 2 in. on adjacent sheets. See **Sheathing Material** (CHIZ) category for names of manufacturers.

5A. **Sheathing Material*** — (Optional) — In lieu of Item 5, a self-adhered rubberized asphalt roofing underlayment membrane which may be placed on top of steel roof deck, gypsum wallboard or on the roof insulation.

GCP APPLIED TECHNOLOGIES INC — Grace Ice and Water Shield, Grace Ice and Water Shield-HT®, Grace Select, Grace Ultra, and Grace Basik.

6. **Adhesive* — (Optional) —** The vapor retarder, the gypsum wallboard or the first layer of roof insulation may be secured with adhesive to the steel crest surfaces. Also used to attach the vapor retarder to gypsum wallboard, the first layer of insulation to vapor retarder or gypsum wallboard and each additional layer of insulation. Applied in 1/2 in. wide ribbons 6 in. OC at 0.4 gal/100 sq ft. See **Adhesives** (BYWR) category for names of manufacturers.

6A. **Adhesive* -(Optional) —** - (Bearing the UL Classification Marking for Roof Systems (TGFU)) - When FAST 100 adhesive is used, the Unrestrained Assembly Ratings are limited to 1, 1-1/2 and 2 hr. The vapor retarder, the gypsum wallboard or the first layer of roof insulation may be secured with adhesive to the steel crest surfaces. Also used to attach the vapor retarder to gypsum wallboard, the first layer of insulation to vapor retarder to grypsum wallboard and each

additional layer of insulation. Applied at a max rate of 19.8 g/ft². When FAST 100 adhesive is used, additional **Spray-Applied Fire Resistance Materials* (CHPX)** is required on the deck for the 1-1/2 and 2 hr Unrestrained Assembly Ratings. The thickness specified for the deck shall be increased by 1/16 in. for 1-1/2 hr Unrestrained Assembly Rating and 1/4 in. for 2 hr Unrestrained Assembly Rating.

7. **Asphalt or Coal Tar Pitch*** — (Optional) — (Not shown) — The vapor retarder, the gypsum wallboard of the first layer of roof insulation may be secured with asphalt or coal tar pitch to the steel crest surfaces at a max rate of 15 lb/100 sq ft. Also used to attach the vapor retarder to gypsum wallboard, the first layer of insulation to vapor retarder or gypsum wallboard and each additional layer of roof insulation, applied at a max rate of 25 lb/100 sq ft.

8. **Mechanical Fasteners** — **(Optional)** — (Not shown) — Mechanical screw-type fastener with metal or plastic washer designed for the purpose may be used to attach one or more layers of insulation to steel roof deck.

9. **Steel Roof Deck —** (Unclassified) — Min 1-1/2 in. deep and 36 in. wide galv fluted steel deck. Min gauge is No. 22

9. Steel Root Deck — (Unclassified) — Min 1-1/2 in. deep and 36 in. wide galv fluted steel deck. Min gauge is No. 22 MSG. Ends overlapped at supports a min 1-1/2 in. and welded to supports 12 in. Oc and at side laps. Side laps fastened with 1/2 in. long hex head, self-drilling, self-tapping steel screws spaced a max of 36 in. OC. Classified Steel Floor and Form Units* — Noncomposite 1-1/2 to 3 in. deep, 24 to 36 in. wide, min 22 MSG galvanized steel fluted units. Ends overlapped at supports a min 1-1/2 in. and welded to supports 12 in. OC and at side laps. Side laps fastened with 3/4 in. long No. 12 self-drilling, self-tapping steel screws at 36 in. OC. As alternate to screw fasteners adjacent units may be button-punched or welded together 36 in. OC along side joints.

ASC STEEL DECK, DIV OF ASC PROFILES L L C — Types BH-36, BHN-36, BHN-35-1/4, DGB-36, B-36, BN-36, BN-35-1/4, NH-32, NHN-32, DGN-32, N-32 and NN-32. All units may be galvanized or Prime Shield $^{\text{TM}}$. Non-cellular decks may be vented designated with a "V" suffix to the product name.

NEW MILLENNIUM BUILDING SYSTEMS L L C - Types B, BI, F, N. Units may be phos/painted, ptd/ptd, or galvanized.

VULCRAFT, DIV OF NUCOR CORP — Types BW, F, High Strength B, High Strength BW, N, ptd/ptd units may be used for

VULCRAFT, DIV OF NUCOR CORP — Galv Types 1.5B, 1.5BI, 1.5PLB, 1.5F, 3N, 3NI, and 3.0PLN, ptd/ptd units may be

10. Spray-Applied Resistive Material* — Applied by mixing with water and spraying in more than one coat to final thicknesses as shown in the illustration above and in the table below to steel surfaces which must be clean and free of thicknesses as shown in the illustration above and in the table below to steel surfaces which must be clean and free of dirt, loose scale and oil. Steel deck surface must be "spatter" coated with Type SK-3 Spray-Applied Fire Resistive Materials prior to application of spray-applied resistive material. Type SK-3 spray-applied resistive material applied in accordance with the manufacturer's application instructions. When steel deck is used the area between the steel deck and the beams top flange shall be filled. Min average and min individual density of 15/14 per proceeds the steel deck and the beams top flange.

Design Information Section. Thickness of the spatter coat is included in the total final thickness of the protection material.

Unrestrained Assembly Rating Rating Hr Wallboard Wallboard Full flange flange## Wallboard Wallboard Full flange flange## W8x28 W8x28

Steel deck thickness # Beam Thickness

VERCO DECKING INC - A NUCOR CO — Deck types PLB, HSB, PLN3, HSN3, PLN, N; FORMLOK™ deck types PLB, B,

CANAM STEEL CORP — Type P-3606, P-3615, P-2436, P-2404, P-2403, and P-2438 noncomposite.

NEW MILLENNIUM BUILDING SYSTEMS L L C — Types B, BI, F, N and NI. Units may be ptd/ptd.

Note: Type Z-106 Spray-Applied Fire Resistive Materials to be used with galv steel roof units only.

CANAM STEEL CORP - Types B, F, N. Units may be phos./ptd or ptd/ptd.

 $\textbf{CERTAINTEED GYPSUM INC } \underline{(\textit{View Classification})} - \textit{CKNX.R3660}$

GEORGIA-PACIFIC GYPSUM L L C (View Classification) — CKNX.R2717

LOADMASTER SYSTEMS INC (View Classification) — CKNX.R11809

THAI GYPSUM PRODUCTS PCL (View Classification) — CKNX.R27517

UNITED STATES GYPSUM CO (View Classification) — CKNX.R1319

 $\textbf{USG BORAL DRYWALL SFZ LLC}~\underline{(\textit{View Classification})} - \textit{CKNX.R38438}$

USG MEXICO S A DE C V (View Classification) — CKNX.R16089

 ${\bf CARLISLE\ SYNTEC\ INCORPORATED}-{\it FAST\ 100}$

NATIONAL GYPSUM CO (View Classification) — CKNX.R3501

CGC INC (View Classification) — CKNX.R19751

BASF CORP — Types FE348-2.5, FE348-2.7, FE348-2.8, FE348-3.0, ELASTOSPRAY 81255, ELASTOSPRAY 81285, ELASTOSPRAY 81305, SKYTITE 2.5, SKYTITE 2.8 or SKYTITE 3.0.

3Ka. Foamed Plastic* — Optional — (Not Shown) A minimum of 1/4 in. thick - Placed over minimum 1-1/2 in. thick polyisocyanurate Foamed Plastic (Item 3) to be applied with adhesive (Item 6), asphalt or coat tar pitch ((tem 7) or mechanically fastened (Item 8). Boards to be installed with end joints to be offset in both directions from layer below a

FIRESTONE BUILDING PRODUCTS CO L L C — "ISOGARD HD"

RMAX OPERATING L L C — "Ultra-Max HD"

SIKA SARNAFIL INC — Sarnatherm Roof Board-R

			Steel deck thickness #		Beam 1	Thickness
Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	with Gypsum Wallboard	Without Gypsum Wallboard	full flange W8x28 Beam	1/2 flange## W8x28 Beam
1	0@	1	N/A	1	7/16	1/2
1	1	1	9/16 ***	1	7/16	1/2
1	1	1	5/8	1	7/16	1/2
1	1	1	1 *	1-5/8 *	7/16	1/2
1 1/2	1	1	3/4	1 1/4	9/16	13/16
1 1/2	1 1/2	1 1/2	13/16	1 3/8	5/8	13/16
1 1/2	1 1/2	1 1/2	1 1/2 *	2 1/8 *	5/8	13/16
2	1	1	1	1 1/2	3/4	1 1/16
2	1 1/2	1 1/2	1	1 1/2	3/4	1 1/16
2	2	2	1 1/8	1 11/16	7/8	1 1/16
2	2	2	2 *	2 5/8 *	7/8	1 1/16
3	1 1/2	1 1/2	1 1/2	2 1/8	1 3/16	1 5/8
3	2	2	1 1/2	2 1/8	1 3/16	1 5/8
3	3	3	1 5/8	2 3/8	1 3/8	1 5/8

GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY, MK-6/HY Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-1000/HB Extended Set, RG, SK-3.

10A. Alternate Spray-Applied Fire Resistive Materials* — Applied by mixing with water and spraying in one or more coats to final thicknesses as shown in the table below to steel beam surfaces which must be clean and free of dirt, loose scale and oil. When Type Z-106/G is used, the steel deck surface must be "spatter" coated with Type SK-3 Spray-Applied Fire Resistive Materials prior to application of spray-applied resistive material. Type SK-3 spray-applied resistive material

pplied in accordance with the manufacturer's application instructions. When steel deck is used the area between the stee eck and the beams top flange shall be filled. Min avg and min ind density of 22/19 pcf, respectively. For method of

The required minimum thickness of Spray-Applied Fire Resistive Materials on the steel deck is increased by 1/16 inch for 1-1/2 hr Un-restrained assembly rating and 1/4 inch for 2 hr Unrestrained Assembly rating when Item 6A is used. ## When the thickness applied to the lower flange edges is reduced by one half, the 1/2 flange thickness is applicable.

	NO IIIIIIII	ann msulation ti	iickiiess requireu					
3M. Building Units* — Not Shown — As an alternate to Items 3-3J, 3L - For restrained assembly rating 1, 1-1/2 hr a unrestrained assembly rating 3/4, 1 hr and unrestrained beam rating, 1 hr only - As an alternate to Items 3 - 3M, composite polyisocyanurate foamed plastic insulation board with an adhered nailing surface, nom 48 by 48 or 96 in. ne used with the following limitations. These composite building units have ventilation slots internal to the panels. The thickness of the panel depends upon the thinnest portion of the polyisocyanurate insulation. The following dimensions	nay @ When the		ckness (Item 3)	2 inches. el decking is 5 ft.	2 in. or less	, the Unrest	rained Assem	nbly Rating
apply to the polyisocyanurate insulation, min thickness is 2.0 in. There is no limit on the max insulation thickness.						Joist th	ickness	
GAF — "ThermaCal® 1" and "ThermaCal® 2" 3N. Building Units* — Not Shown - As an alternate to Items 3-3J, 3L-M - For restrained assembly rating 1, 1-1/2 hr		Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	10K1 more than 4 ft OC	10K1 less than 4 ft OC	16K2 more than 4 ft OC	16K2 less than 4 ft OC
unrestrained assembly rating 3/4, 1 hr and unrestrained beam rating, 1 hr only - As an alternate to Items 3 - 3N,		1	0@	1	1 1/8	1	15/16	15/16
Polyisocyanurate foamed plastic insulation boards, nom 48 by 48 or 96 in., faced on the top surface with oriented stra board or plywood. Min thickness of the polyisocyanurate core is 2.0 in. No limit on max overall thickness. Boards to be	9	1	1	1	1 1/8	1	15/16	15/16
installed with end joints staggered a min of 6 in. in adjacent rows. Adhesive (Item 6) may be applied between the bui units and the vapor retarder (or gypsum wallboard if vapor retarder is not used).	iding	1 1/2	1	1	1 5/16	1 5/16	1 1/4	1 3/16
GAF — "ThermaCal®"		1 1/2	1 1/2	1 1/2	1 7/16	1 7/16	1 1/4	1 3/16
		2	1	1	1 7/16	1 7/16	1 9/16	1 1/2
 Gypsum Board — (Not shown) — (Classified or Unclassified) — May be used to obtain various Restrained or Unrestrained Assembly Ratings as described in Item 10. Supplied in sheets nom 4 by 8 or 12 ft by 5/8 in. thick. Min w 	reight	2	1 1/2	1 1/2	1 7/16	1 7/16	1 9/16	1 1/2
2.2 psf. Applied perpendicular to steel roof deck direction with end joints staggered 2 ft in adjacent rows. End joints to occur over crests of steel roof units.)	2	2	2	2 3/16	2 3/16	1 9/16	1 1/2
ACADIA DRYWALL SUPPLIES LTD (View Classification) — CKNX.R25370		3	1 1/2	1 1/2	3 1/4	2 13/16	2 1/4	2 1/8
		3	2	2	3 1/4	2 13/16	2 1/4	2 1/8
AMERICAN GYPSUM CO (View Classification) — CKNX.R14196		3	3	3	3 1/4	2 13/16	2 1/4	2 1/8

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	W6x16 Beam Thickness
1	1	1	9/16
1 1/2	1	1	5/8
1 1/2	1 1/2	1 1/2	13/16
2	1	1	7/8
2	1 1/2	1 1/2	7/8
2	2	2	1 1/16
3	1 1/2	1 1/2	1 1/4
3	2	2	1 1/4
3	3	3	1 1/2

PANEL REY S A (View Classification) — CKNX.R21796 GCP APPLIED TECHNOLOGIES INC — Types Z-106, Z-106G, Z106/HY. $\textbf{SIAM GYPSUM INDUSTRY (SARABURI) CO LTD}~\underbrace{(View~Classification)} - \texttt{CKNX.R19262}$

Restrained	Unrestrained Assembly	Unrestrained Beam	Steel deck	thickness #	Beam 1	hickness
Assembly Rating Hr	Rating Hr	Rating Hr	with Gypsum Wallboard	Without Gypsum Wallboard	full flange W8x28 Beam	1/2 flange#: W8x28 Beam
1	0@	1	N/A	1-1/16	7/16	1/2
1	1	1	9/16 ***	1	7/16	1/2
1	1	1	5/8	1	7/16	1/2
1	1	1	1 *	1-7/16*	7/16	1/2
1 1/2	1	1	3/4	1 1/4	9/16	13/16
1 1/2	1 1/2	1 1/2	13/16	1 3/8	5/8	13/16
1 1/2	1 1/2	1 1/2	1 1/2 *	1-7/8*	5/8	13/16
2	1	1	1	1 1/2	3/4	1 1/16
2	1 1/2	1 1/2	1	1 1/2	3/4	1 1/16
2	2	2	1 1/8	1 11/16	7/8	1 1/16
2	2	2	2 *	2-5/16*	7/8	1 1/16
3	1 1/2	1 1/2	1 1/2	2 1/8	1 3/16	1 5/8
3	2	2	1 1/2	2 1/8	1 3/16	1 5/8
3	3	3	1 5/8	2 3/8	1 3/8	1 5/8

The required minimum thickness of Spray-Applied Fire Resistive Materials on the steel deck is increased by 1/16 inch for 1-1/2 hr Un-restrained assembly rating and 1/4 inch for 2 hr Unrestrained Assembly rating when Item 6A is used.

When the thickness applied to the lower flange edges is reduced by one half, the 1/2 flange thickness is applicable. * No minimum insulation thickness required *** Minimum insulation thickness (Item 3) 2 inches.

				Joist thickness			
Restraine Assembly Rating H	d Asse	trained mbly ting Ir	Unrestrained Beam Rating Hr	10K1 more than 4 ft OC	10K1 less than 4 ft OC	16K2 more than 4 ft OC	16K2 less than 4 ft OC
1	0@		1	1 1/8	1	15/16	15/16
1	1		1	1 1/8	1	15/16	15/16
1 1/2	1		1	1 5/16	1 5/16		1 3/16
1 1/2	1 1/2		1 1/2	1 7/16	1 7/16	1 1/4	1 3/16
2	1		1	1 7/16	1 7/16		1 1/2
2	1 1/2		1 1/2	1 7/16	1 7/16		1 1/2
2	2		2	2 3/16	2 3/16	1 9/16	1 1/2
3	1 1/2		1 1/2	3 1/4	2 13/16		2 1/8
3	2		2	3 1/4	2 13/16		2 1/8
3	3		3	3 1/4	2 13/16	2 1/4	2 1/8
ne maximum o	lear span o	of the ste	el decking is 5 ft.	2 in. or less	, the Unrest	rained Asse	embly Rating
Restra Asser Ratin	nbly		nrestrained Assembly Rating Hr	E	strained Beam ting Hr		W6x16 Beam nickness
1		1		1		9/16	
1 1/2		1		1		5/8	
1 1/2		1 1/2		1 1/2		13/16	
2		1		1		7/8	

ARABIAN VERMICULITE INDUSTRIES — Type Z-146 investigated for exterior use.

GCP KOREA INC — Type Z-146 investigated for exterior use.

GCP APPLIED TECHNOLOGIES INC — Type Z-146, Z-146T, Z146PC, Z-156, Z-156T and Z-156PC investigated for

10C. **Alternate Spray-Applied Fire Resistive Materials*** — Applied by mixing with water and spraying in more than one coat to final thicknesses as shown in the illustration above and in the table below to steel surfaces which must be clean and free of dirt, loose scale and oil. When steel deck is used the area between the steel deck and the beams top flange shall be filled. For minimum and maximum density of: Types MK-6/HY, MK-6/HY Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended, MK-10 HB, MK-10 HB Extended Set, MK-1000/HB, MK-1000/HB Extended Set, SK-3, RG, SK 3 see Item 10; Types Z-106, Z-106/G, Z-106/HY, Z-106/G see Item 10A; Type Z-146 see Item 10B. Restrained Assembly Rating Hr Hr Unrestrained Restrained Hr Hr Unrestrained Beam Rating Hr Hr Hr Unrestrained Beam Rating Hr Hr Unrestrained Beam Rating Hr 12K3 more than 4 ft OC OC

** Design load shall stress the 12K3 joist to a maximum tensile strength of 24,000 psi, which represents 80% of the maximum allowable design loading. Based on the Steel Joist Institute (SJI) Publication, "Catalog of Standard Specifications and Load Tables for Steel Joists and Joist Girders" for guidance on how to increase the design loading accordingly. @ When the maximum clear span of the steel decking is 5 ft. 2 in. or less, the Unrestrained Assembly Rating is 1-hour. **ARABIAN VERMICULITE INDUSTRIES** — Types MK-6/HY, MK-6/HY Extended Set , MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended, MK-10 HB, MK-10 HB Extended Set, MK-1000/HB, MK-1000/HB Extended Set, SK-3, Z-106, Z-106/G, Z-106/HY, Type Z-146 investigated for exterior use.

GCP KOREA INC — Types MK-6/HY, MK-6/HY Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended, MK-10 HB, MK-10 HB Extended Set, MK-1000/HB, MK-1000/HB Extended Set, SK-3, Types Z-106, Z-106/G, Z-106/HY, Type Z-146

GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY, MK-6/HY Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended, MK-10 HB, MK-10 HB Extended Set, MK-1000/HB, MK-1000/HB Extended Set, RG, SK-3, Types Z-106, Z-106/G, Z106/HY, Type Z-146 investigated for exterior use.

11. Nonmetallic Fabric Mesh — (Optional) — As an alternate to the optional use of metal lath, glass fiber fabric mesh. 11. Nonmetallic Fabric Mesh — (Optional) — As an alternate to the optional use of metal lath, glass fiber fabric mesh, weighing approx 1.25 oz/sq yd, polypropylene fabric mesh, weighing approx 1.25 oz/sq yd or equivalent, may be used to facilitate the spray application. The mesh is secured to one side of each joist web member. The method of attaching the mesh must be sufficient to hold the mesh and the spray applied Spray-Applied Fire Resistive Materials material in place during application until it has cured. An acceptable method to attach the mesh is by embedding the mesh in min 1/4 in. long beads of hot melted glue. The beads of glue shall be spaced a max of 12 in. OC along the top chord of the bar joist. Another method to secure the mesh is by 1-1/4 in. long by 1/2 in. wide hairpin clips formed from No. 18 SWG or heavier steel wire. The method of attaching the mesh must be sufficient to hold the mesh and the spray applied Spray-Applied Fire Resistive Materials material in place during application until it has cured. An acceptable method to attach the mesh is by embedding the mesh in min 1/4 in. long beads of hot melted glue. The beads of glue shall be spaced a max of 12 in. OC along the top chord of the bar joist Another method to secure the mesh is by 1-1/4 in. long by 1/2 in. wide hairpin clips formed from No. 18 SWG or heavier steel wire. 11A. **Metal Lath** — (Not Shown) — (Required with Item 10B, otherwise optional) — Metal lath shall be 3/8 in. expanded diamond mesh, weighing 2.5 lb per sq yd. Secured to underside of steel deck with No. 12 by 3/8 in. pan head self-drilling self-tapping screws and steel washers with an outside diam of 1/2 in. screws spaced 12 in. OC in both directions with lattedges overlapped approx 3 in. 11B. **Metal Lath** — (Not Shown) — (Required on both sides of joists with Z-146, Z-146T, Z146PC, Z-156, Z-156T and Z-156PC, otherwise optional) — Metal lath may be used to facilitate the spray application of Spray-Applied Fire Resistive Materials on steel bar joists and trusses. The diamond mesh, 3/8 in. expanded steel lath, 1.7 to 3.4 lb/sq yd is secured to one side of each steel joist with No. 18 SWG galv steel wire at joist web and bottom chord members spaced 15 in. OC max. When used, the metal lath is to be fully covered with Spray-Applied Fire Resistive Materials with no min thickness * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2018-06-18

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gcp applied technologies FIREPROOFING PRODUCTS

MONOKOTE® Patching Compound Fireproofing Patching Material for Repairing Monokote MK-5, MK-6 and MK-10 Products

Monokote® Patching Compound is ideal for patching

damages resulting from typical jobsite installation or

As IBC requirements for increased SFRM inspections for

a. All material to be used for fireproofing should be

Laboratories Inc. labels for fire hazard and fire

b. The material should be kept unopened until ready for

a. Surfaces to which fireproofing is applied must be

thoughly cleaned of all foreign material which might

impair adhesion. All loose material, including dirt,

loose rust, mill scale and any other foreign material,

that would impair adhesion of the patching material

must be removed prior to patching. Where damaged

removal should be to the steel or concrete substrate.

. Where well-bonded material exists below the damaged

material extends to the steel or concrete substrate,

material, removal of the damaged material should

extend to the well-bonded firm material. There is no

requirement to remove well-bonded material that lies

immediately beneath loosely bonded or poorly adhered

delered in original unopened pails bearing the name of

the manufacturer, the brand and proper Underwriters

occupied buildings are implemented, Monokote®

Patching Compound will be an ideal product for

renovation activities:

Electrical pipes

Duct hangers

Drywall

Heating

Sprinklers

Ventilation

maintenance repairs.

Delivery & Storage

resistance classifications

Surface Preparation

Monokote® Patching Compound is the **only** UL approved patching material for patching Monokote MK-5, MK-6 and MK-10 products that when applied as directed, will maintain the original fire rating of the steel membe. It has been developed by GCP Applied Technologies to meet specialty, commercial and industrial fireproofing patching requirements. Monokote® Patching Compound is a millmixed plaster, (cementitious) fireproofing material that can be hand mixed and trowel applied as required for patching and repairs to surfaces. Monokote® Patch Compound is hand-applied directly to the steel and/or well-bonded material using standard plastering tools and techniques. It has excellent bonding characteristics; it can

be applied up to one inch per pass. Monokote® Patching Compound is classified for use in all UL designs associated with Monokote MK-5, MK-6 and MK-10 products. References to Monokote® Patching Compound can be found at Database.UL.com by searching for UL File number R4339. Per UL patching guidelines, Monokote® Patching Compound can only be used to patch individual areas of 144 square inches or less. It will provide the same hourly fire resistance of the material being replaced as long as the thickness of the Monokote® Patching Compound is equivalent to or greater than the required thickness of the material being replaced.

Features & Benefits

Monokote® Patching Compound offers the following advantages to applicators:

• UL Classified – Monokote® Patching Compound is the only UL approved patching material for patching Monokote MK-5, MK-6 and MK-10 products that will maintain the original fire rating of the steel member • **Convenient** – Conveniently packaged in 5 gallon pail.

Mix in $1\frac{1}{2}$ gallons of water and begin patching. • Easy to Mix – Simply add water and mix with a handheld drill mixer. • Easy to Apply – Apply using a trowel. No spray

equipment is needed. • Excellent Bond Characteristics – Up to one inch thickness per pass

surrounding the patch. It should be understood that

been impaired. If the surrounding material has been

rial that has dried, it may be necessary to dampen or

premature drying of the newly applied patching mate-

pre-wet the in place material sufficiently to prevent

a. Monokote® Patching Compound can be hand mixed or

material being mixed. When mixing full pail quanti-

ties, mechanical hand-held mixers, such as a drill with

mechanically mixed depending on the amount of

portable mixing blade, are recommended.

damaged it should be removed prior to patching.

d. When applying new material over in place mate-

the integrity of the surrounding material shall not have

c. The patching material is keyed into the material b. Maximum 1 inch thickness can be applied in a single

pass. Anything above 1 inch requires multiple coats.

Allow material to become stiff but not completely dry

before applying the next coat. c. When patching over in-place material that has dried, immediately before application it may be necessary to pre-wet the in-place material sufficiently to prevent premature drying of the newly applied patching mate-

d. One pail of Monokote® Patching Compound can cover

e. Monokote® Patching Compound should not be used if it contains partially set, frozen or caked material.

Environmen An air and substrate temperature of 40°F (4.5°C) minimum should be maintained for 8 hours prior to application,

b. When mixing full pails of Monokote® Patching Compound, add 1 ½ gallons of potable water to the pail of Monokote® Patching Compound Mixture. When mixing less than full pails of material, add 1 Monokote® Patching Compound. quart cup of water to 4 quart cups of Monokote® Patching Compound. c. Mix for 1-3 minutes until the mix is a lump-free,

substantially dry cohesive uniform slurry. All material is to be

thoroughly wet. d. When properly mixed, Monokote® Patch Compound has a potlife between 2 to 4 hours.

Application

a. Monokote® Patching Compound is hand-applied directly to the steel and/or well-bonded material using standard plastering tools and techniques. An individual patched area should not exceed 144 square inches.

7³/₄ sq ft of area at a thickness of one inch. f. Monokote® Patching Compound should not be retempered if the material has started to stiffen or set.

during application and 24 hours after application of Provide ventilation to achieve a minimum fresh air exchange rate of 4 times per hour until the material is

A Material Safety Data Sheet for Monokote® Patching Compound is available on our web site at www.gcpat.com or call toll free at 866-333-3SBM.

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right. Monokote is a trademarks, which may be registered in the United States and/or other countries, of GCP Applied Technologies Inc. This trademark list has been compiled using available published

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FIREPROOFING SCOPE

THE PROJECT IS A LEVEL 1 ALTERATION AS DEFINED BY THE 6th EDITION FLORIDA EXISTING BUILDING CODE CONSISTING OF MINOR INTERIOR ALTERATIONS TO EXISTING SPACES BASED ON OWNER PROVIDED DRAWINGS AND LIMITED FIELD OBSERVATIONS.

FIREPROOFING IS LIMITED TO REPAIR AND REPLACEMENT OF EXISTING FIREPROOFING TO MATCH EXISTING ADJACENT DEPTHS. FIREPROOFING DAMAGED DURING DEMOLITION OR

VOIDS LEFT BY REMOVAL OF CONDUIT SUPPORTS

AND CLIPS SHALL BE REPLACED ACCORDING TO

MANUFACTURE'S PATCHING PROCEDURES. FOR EXISTING AREAS DISTURBED BY NEW WORK; IE SUPPORTS OR CLAPS FOR NEW CONDUIT SHALL BE REPAIRED ACCORDING TO MANUFACTURE'S PATCHING PROCEDURES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE

FOR WORKERS FOLLOWING PROPER SAFETY AND PROTECTION PROCEDURES FOR APPLICATORS.

MEP CONSULTING ENGINEERS CA-00006208

935 Lake Baldwin Lane Orlando, Fl. 32814 TEL: 407-767-5188 FAX: 407-767-5772 WWW.SGMENGINEERING.COM Copyright © 2014 SGM Engineering, Inc.

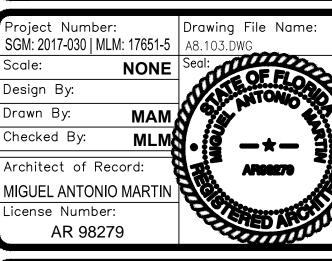




Maitland, FL 32751 www.mlm-martin.com

ssue:		
No.	Date	Description
<u>^2</u>	21-MAR-19	ADDENDUM #002

OCCC NETWORK AND WELLNESS ROOMS



Sheet Name:

UL ASSEMBLY DETAILS -**GYPSUM BOARD**

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VED VED

GCP KOREA INC — Types MK-6/HY, MK-6/HY Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-1000/HB, MK-1000/HB Extended Set, SK-3.

# The required minimum thickness of Spray-Applied Fire Resistive Materials on the steel deck is increased by 1/16 inch for 1-1/2 hr Un-restrained assembly rating and 1/4 inch for 2 hr Unrestrained Assembly rating when Item 6A is used. ## When the thickness applied to the lower flange edges is reduced by one half, the 1/2 flange thickness is applicable. \* No minimum insulation thickness required \*\*\* Minimum insulation thickness (Item 3) 2 inches. @ When the maximum clear span of the steel decking is 5 ft. 2 in. or less, the Unrestrained Assembly Rating is 1-hour. 

|         |                                     |           |           |                                      | ,                  |                                   |           |                    |
|---------|-------------------------------------|-----------|-----------|--------------------------------------|--------------------|-----------------------------------|-----------|--------------------|
|         | 3                                   | 1 1/2     |           | 1 1/2                                | 3 1/4 2 13/16      |                                   | 2 1/4     | 2 1/8              |
|         | 3                                   | 2         |           | 2                                    | 3 1/4              | 2 13/16                           | 2 1/4     | 2 1/8              |
|         | 3                                   | 3         |           | 3                                    | 3 1/4              | 2 13/16                           | 2 1/4     | 2 1/8              |
| hen the | maximum clea                        | ar span o | f the ste | el decking is 5 ft.                  | 2 in. or less, the | Unrestrain                        | ed Assemb | ly Rating is       |
|         | Restrained<br>Assembly<br>Rating Hr |           |           | nrestrained<br>Assembly<br>Rating Hr | Beam               | Unrestrained<br>Beam<br>Rating Hr |           | k16<br>am<br>kness |
|         | 1                                   |           | 1         |                                      | 1                  |                                   | 9/16      |                    |
|         | 1 1/2                               |           | 1         |                                      | 1                  |                                   | 5/8       |                    |
|         | 1 1/2                               |           | 1 1/2     |                                      | 1 1/2              | 1 1/2                             |           |                    |
|         | 2                                   |           | 1         |                                      | 1                  |                                   | 7/8       |                    |
|         | 2                                   |           | 1 1/2     |                                      | 1 1/2              |                                   | 7/8       |                    |
|         | 2                                   |           | 2         |                                      | 2                  |                                   | 1 1/16    |                    |
|         | 2                                   | 1.10      |           | 4.470                                |                    | 2.272                             |           |                    |

1 1/2 1 1/2 1 7/16 1 7/16 1 9/16 1 1/2

ARABIAN VERMICULITE INDUSTRIES — Types MK-6/HY, MK-6/HY Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, MK-1000/HB, MK-1000/HB Extended Set, SK-3.

tem 4) in accordance with the manufacturer's instructions. Min thickness shall be selected from the table above. No limit

|                                                                                                         | ickness (Item 3)                         |                                   |                                 |                                 |                                 |                                 |  |  |  |  |
|---------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--|--|--|--|
| e maximum clear span of the steel decking is 5 ft. 2 in. or less, the Unrestrained Assembly Rating is 1 |                                          |                                   |                                 |                                 |                                 |                                 |  |  |  |  |
|                                                                                                         |                                          |                                   |                                 | Joist th                        | ickness                         | ,                               |  |  |  |  |
| Restrained<br>Assembly<br>Rating Hr                                                                     | Unrestrained<br>Assembly<br>Rating<br>Hr | Unrestrained<br>Beam<br>Rating Hr | 10K1<br>more<br>than 4 ft<br>OC | 10K1<br>less<br>than 4<br>ft OC | 16K2<br>more<br>than 4 ft<br>OC | 16K2<br>less<br>than 4 ft<br>OC |  |  |  |  |
| 1                                                                                                       | 0@                                       | 1                                 | 1 1/8                           | 1                               | 15/16                           | 15/16                           |  |  |  |  |
| 1                                                                                                       | 1                                        | 1                                 | 1 1/8                           | 1                               | 15/16                           | 15/16                           |  |  |  |  |
| 1 1/2                                                                                                   | 1                                        | 1                                 | 1 5/16                          | 1 5/16                          | 1 1/4                           | 1 3/16                          |  |  |  |  |
| 1 1/2                                                                                                   | 1 1/2                                    | 1 1/2                             | 1 7/16                          | 1 7/16                          | 1 1/4                           | 1 3/16                          |  |  |  |  |
| 2                                                                                                       | 1                                        | 1                                 | 1 7/16                          | 1 7/16                          | 1 9/16                          | 1 1/2                           |  |  |  |  |
| 2                                                                                                       | 1 1/2                                    | 1 1/2                             | 1 7/16                          | 1 7/16                          | 1 9/16                          | 1 1/2                           |  |  |  |  |
| 2                                                                                                       | 2                                        | 2                                 | 2 3/16                          | 2 3/16                          | 1 9/16                          | 1 1/2                           |  |  |  |  |
| 3                                                                                                       | 1 1/2                                    | 1 1/2                             | 3 1/4                           | 2 13/16                         | 2 1/4                           | 2 1/8                           |  |  |  |  |
| 2                                                                                                       | 3                                        | 3                                 | 2.1/4                           | 2.12/16                         | 2.1/4                           | 2.1/0                           |  |  |  |  |

|     | 3                                   | 3         |                   | 3                   | 3 1/4         | 2 13/16                           | 2 1   | ./4        | 2 1/8                 |       |
|-----|-------------------------------------|-----------|-------------------|---------------------|---------------|-----------------------------------|-------|------------|-----------------------|-------|
| the | maximum clea                        | ar span o | of the ste        | el decking is 5 ft. | 2 in. or less | , the Unrest                      | raine | ed Assen   | nbly Rating is        | s 1-h |
|     | Restrained<br>Assembly<br>Rating Hr |           | Assembly Assembly |                     | E             | Unrestrained<br>Beam<br>Rating Hr |       |            | 6x16<br>eam<br>ckness |       |
|     | 1                                   |           | 1                 |                     | 1             |                                   |       | 9/16       |                       |       |
|     | 1 1/2                               |           | 1                 |                     | 1             | 1                                 |       | 5/8        |                       |       |
|     | 1 1/2                               |           | 1 1/2             |                     | 1 1/2         | 1 1/2                             |       | 13/16      |                       |       |
|     | 2                                   |           | 1 1/2             |                     | 1             | 1 1/2                             |       | 7/8<br>7/8 |                       |       |
|     |                                     |           |                   |                     | 1 1/2         |                                   |       |            |                       |       |
|     | 2                                   |           | 2                 |                     | 2             |                                   |       | 1 1/16     |                       |       |
|     | 3                                   |           | 1 1/2             |                     | 1 1/2         |                                   |       | 1 1/4      |                       |       |
|     | 3                                   |           | 2                 |                     | 2             |                                   |       | 1 1/4      |                       |       |
|     | 2                                   |           | 2                 |                     | 2             |                                   | ヿ     | 1 1/2      |                       | i     |

ARABIAN VERMICULITE INDUSTRIES — Types Z-106, Z-106/G, Z-106/HY. **GCP KOREA INC** — Types Z-106, Z-106G, Z-106/HY.

10B. Alternate Spray-Applied Fire Resistive Materials\* — Applied by mixing with water and spraying in one or more

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gcp applied technologies

- FULL PERIMETER FRAMING TO BRIDGE OPENING

IF MECHANICALLY OR ENVIRONMENTALLY CAUSED DAMAGE COVERS MORE THAN 100 IN2 IN 100 FT2 OF WALL OR CEILING AREA, ALL MATERIALS IN THE DAMAGED AREA BACK TO THE ORIGINAL FRAMING MUST BE REMOVED TO MAKE THE REPAIR. FRAMING IN THE AREA TO BE REPAIRED SHOULD BE INSPECTED AND REPLACED IF NECESSARY WITHOUT INCREASING ORIGINAL FRAMING SPACING.

- MATCH NUMBER OF EXISTING LAYERS

GWB PARTTITION REPAIR SCALE: 3" = 1'-0"

SEE GA-255-15 FOR LIMITATIONS OF DIMENSION

#### 6525 BELCREST ROAD, #480 HYATTSVILLE, MD 20782 REPAIR OF FIRE-RATED **GYPSUM PANEL PRODUCT SYSTEMS**

Fire-rated gypsum panel product systems may be damaged during the life cycle of buildings. To maintain the required fire-rated separation between occupancies or areas, damaged systems must be repaired so that they are re-

**GYPSUM ASSOCIATION** 

If mechanically or environmentally caused stored to their original fire-resistive condition. damage covers more than 100 in<sup>2</sup> (700 cm<sup>2</sup>) in The repair must follow procedures dictated by 100 ft<sup>2</sup> (10 m<sup>2</sup>) of wall or ceiling area, all matethe severity of the damage. rials in the damaged area back to the original Small holes (such as those caused by a doorframing must be removed to make the repair. knob) can be repaired by patching. To maintain Framing in the area to be repaired should be inthe integrity of the surface membrane, a gypsum spected and replaced if necessary without inpanel product patch must be mechanically secreasing original framing spacing. Replacement material should be cut to fill the opening and cured in the diaphragm; attachment with joint compound material only is not acceptable. The mechanically attached to the framing. Ends and edges of the board that are not backed by frampatching material should be cut from type X or proprietary type X gypsum panel product of a ing materials should be supported with metal thickness equal to the original materials so that runner track. The repaired area should be finished with tape and joint treatment compound as the patching material is in the same geometric

shape as, but slightly larger than, the damaged area. The damaged area is then further enlarged to match exactly the size of the patching material. Use caution when cutting or fastening into stud cavities to avoid electrical shock or water ers of board be removed beyond the base layer leaks. Thermal insulation, if present, must be joint so as to retain the staggered joint feature. restored. Metal runner track is secured to the inside edges of the damaged area. The patching are in structurally sound, but aesthetically unacmaterial is screw attached to the exposed face of ceptable condition, a new layer of regular or the runner track with fasteners a maximum of 8 type X gypsum board may be attached to the in. (200 mm) apart. The patch should be treated existing surface with adhesive or mechanical with tape and joint compound to restore appearfasteners without adversely affecting the fire ance, fire resistance qualities, and acoustical resistance rating or acoustical performance. performance.

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Several alternative proprietary clip products

are available which provide mechanical support

for patching. Manufacturers of these products

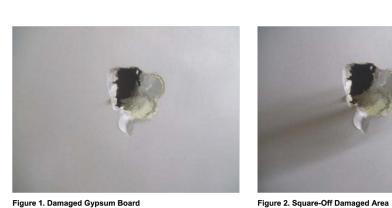
Multiple-layer systems typically require that

To improve the appearance of large areas that

joints be staggered between layers. Proper repair

of multiple-layer systems requires that face lay-

should be contacted for information.



NOTE: Overlapping of joint tape can result in

finishing problems.

GA-225-15

Figure 1. Damaged Gypsum Board





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## CEILING OPENINGS

MANY FIRE-RESISTANCE RATED FLOOR-CEILING SYSTEMS HAVE BEEN TESTED WITH OPENINGS THROUGH THE CEILING MEMBRANE FOR AIR DUCTS, ELECTRICAL OUTLETS, AND LIGHTING FIXTURES. BUILDING CODES PERMIT AIR DUCT OPENINGS IN MOST CEILING SYSTEMS WHEN THE AIR DUCT OPENINGS ARE PROTECTED WITH

APPROVED CEILING DAMPERS. BUILDING CODES ALSO PERMIT MEMBRANE PENETRATIONS IN MAXIMUM TWO-HOUR FIRE-RESISTANCE-RATED HORIZONTAL SYSTEMS BY STEEL OUTLET BOXES THAT DO NOT EXCEED 16 SQUARE INCHES IN AREA PROVIDED THE AGGREGATE AREA OF SUCH PENETRATIONS DOES NOT EXCEED 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF CEILING AREA AND THE ANNULAR SPACE BETWEEN THE CEILING MEMBRANE AND THE BOX DOES NOT EXCEED 1/8 INCH.

MANY APPROVED RECESSED LIGHTING FIXTURES REQUIRE SPECIAL PROTECTION. CONSULT THE FIRE TEST REPORT OR LISTING FOR THE SPECIFIC SYSTEM FOR PROTECTION DETAILS AND THE OPENING AREA LIMITATION.

#### **FASTENERS**

FASTENERS INSTALLED ALONG THE EDGES OF GYPSUM BOARD SHALL BE PLACED ALONG THE PAPER BOUND EDGES ON THE LONG DIMENSION OF THE BOARD. FASTENERS AT THE END SHALL BE PLACED ALONG MILL OR FIELD CUT ENDS ON THE SHORT DIMENSION. FASTENERS ON THE PERIMETER OF THE BOARD SHALL BE PLACED ALONG BOTH EDGES AND ENDS. INDICATED FASTENER SPACINGS ARE MAXIMUMS. SCREWS MEETING ASTM C 1002 SHALL BE PERMITTED TO BE SUBSTITUTED FOR THE PRESCRIBED NAILS, ONE FOR ONE, WHEN THE LENGTH AND HEAD DIAMETER OF THE SCREWS EQUAL OR EXCEED THOSE OF THE NAILS SPECIFIED IN THE TESTED SYSTEM AND THE SCREW SPACING DOES NOT EXCEED THE SPACING SPECIFIED FOR THE NAILS IN THE TESTED SYSTEM.

VERTICALLY APPLIED GYPSUM BOARD SHALL HAVE THE EDGES PARALLEL TO FRAMING MEMBERS. HORIZONTALLY APPLIED GYPSUM BOARD SHALL HAVE THE EDGES AT RIGHT ANGLES TO THE FRAMING MEMBERS. INTERMEDIATE VERTICAL FRAMING MEMBERS ARE THOSE BETWEEN THE VERTICAL EDGES OR ENDS OF THE BOARD.

#### JOINT TREATMENT

JOINTS BETWEEN ADJACENT SHEETS OF GYPSUM BOARD SHALL BE TREATED WITH TAPE AND ONE LAYER OF COMPOUND UNLESS OTHERWISE INDICATED. BASE LAYER(S) IN MULTI-LAYERED DESIGNS NEED NOT BE TREATED. 2 INCH OVERLAP REQUIRED IN MULTIOLAYERED DESIGNS.

## **UL DESIGN NO.**

Nonbearing Wall Ratings — 2 Hr

Channel Track — "J" -shaped channel, 2-1/2 in. deep with unequal legs of 1 in. and 2 in., fabricated from No. 25 MSG galv steel. Channel positioned with short leg toward finished side of wall. Channel attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.

2. Steel Studs — "I" -shaped studs, min 2-1/2 in. deep by 1-1/2 in. wide, fabricated from min 25 MSG galv steel. Cut to lengths 1/2 in. less than floor to ceiling height and spaced 24

2A. Steel Studs — (Not Shown) — "C-H" -shaped studs, min 2-1/2 in, deep by 1-1/2 in, wide. fabricated from min 25 MSG galv steel. Cut to lengths 1/2 in. less than floor to ceiling height

2B. Steel Studs — (Not Shown) — "C-T" - shaped studs, min 2-1/2 in. deep by 1-1/2 in. wide,

fabricated from min 25 MSG galv steel. Cut to lengths 1/2 in. less than floor to ceiling height

and spaced 24 in. OC. 2C. Furring Channels — (Optional, not shown) - Resilient furring channels fabricated from min. 25 MSG corrosion protected steel, installed horizontally, and spaced vertically a max. 24 in. OC. Flange portion of channel attached to each intersecting stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws. When

furring channels are used, wallboard to be installed vertically.

3. Gypsum Board\* — 1 in. thick gypsum wallboard liner panels, supplied in nom 24 in. widths. Panels cut 1 in. less in length than floor to ceiling heights. Vertical edges inserted in "I" studs. Free edge of end panels attached to long leg of channel track with 1-5/16 in. long Type S self-drilling, self-tapping bugle head steel screws spaced 1 in. in from both edges. NATIONAL GYPSUM CO — Types FSW, FSW-B, FSW-7, FSW-9

4. Gypsum Board\* — 1/2 in. thick, 4 ft wide wallboard applied vertically in two layers. Inner or base layer attached to studs with 1 in. long Type S self-drilling, self-tapping bugle head steel screws spaced 24 in. OC along the edges and in the field of the boards. Outer or face layer attached to studs and channel track with 1-5/8 in. long Type S self-drilling, self-tapping bugle head steel screws spaced 12 in. along the edges and in the field of the boards, staggered from screws in inner layer. When Furring Channels (Item 2C) are used, inner or base layer attached to furring channels with 1 in. long Type S self-drilling, self-tapping bugle head steel screws. Outer or face layer attached to furring channels with 1-5/8 in. long Type S self-drilling, self-tapping bugle head steel screws spaced 12 in. OC and staggered 12 in. from base layer screws. Joints between inner and outer layers staggered. Outer layer joints covered with paper tape and joint compound. Exposed screw heads covered with joint compound.

CERTAINTEED GYPSUM INC — Type C.

AMERICAN GYPSUM CO — Type AG-C

CGC INC — Types C, IP-X2, IPC-AR

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C — Types DAPC, TG-C

NATIONAL GYPSUM CO — Types eXP-C, FSK-C, FSW-G, FSW-C, FSMR-C.

PANEL REY S A — Type PRC

THAI GYPSUM PRODUCTS PCL — Type C.

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR.

USG BORAL ZAWAWI DRYWALL L L C SFZ — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR.

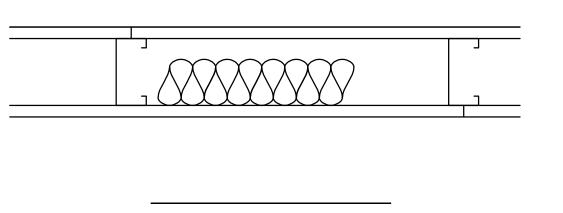
4A. Gypsum Board\* — (As an alternate to Item 4) — 5/8 in. thick. Two layers installed as NATIONAL GYPSUM CO — Types eXP-C, FSMR-C, FSK, FSK-C, FSK-G, FSL, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, and FSW-8

4B. Gypsum Board\* — (As an alternate to Items 4 and 4A) — Nominal 5/8 in. thick, 4 ft wide panels, two layers applied vertically only and secured as described in Item 4. NATIONAL GYPSUM CO — SoundBreak XP Type X Gypsum Board

5. Batts and Blankets\* — (Optional, not shown)-Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt bearing the UL Classification Marking as to Fire Resistance. See Batts and Blankets (BZJZ) category for names of Classified companies.

#### **UL DESIGN NO.** U419

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5)



Assembly Information

(Not shown) — For use with Item 2 - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

**Wood Structural Panel Sheathing** 

(Optional, For use with Item 5 Only.) - (Not Shown) - 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, fastener lengths for gypsum panels increased by min. 1/2 in.

Batts and Blankets\* (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

Gypsum Board\* Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers ered a min of 12 in. The thickness and number of layers for

the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

| Rating,<br>Hr | Min<br>Stud<br>Depth, in.<br>Items 2 | No. of<br>Layers<br>& Thkns<br>of Panel | Min<br>Thkns o<br>Insulatio<br>(Item 4) |
|---------------|--------------------------------------|-----------------------------------------|-----------------------------------------|
| 1             | 3 1/2                                | 1 layer, 5/8 in. thick                  | Optona                                  |
| 1             | 2 1/2                                | 1 layer, 1/2 in. thick                  | 1-1/2 in                                |
| 1             | 1 5/8                                | 1 layer, 3/4 in. thick                  | Optona                                  |
| 2             | 1 5/8                                | 2 layers, 1/2 in. thick                 | Optona                                  |
| 2             | 1 5/8                                | 2 layers, 5/8 in. thick                 | Optona                                  |
| 2             | 3 1/2                                | 1 layer, 3/4 in. thick                  | 3 in                                    |
| 3             | 1 5/8                                | 3 layers, 1/2 in. thick                 | Optona                                  |
| 3             | 1 5/8                                | 2 layers, 3/4 in. thick                 | Optona                                  |
| 3             | 1 5/8                                | 3 layers, 5/8 in. thick                 | Optona                                  |
| 4             | 1 5/8                                | 4 layers, 5/8 in. thick                 | Optona                                  |
| 4             | 1 5/8                                | 4 layers, 1/2 in. thick                 | Optona                                  |
| 4             | 2 1/2                                | 2 layers, 3/4 in. thick                 | 2 in                                    |

— (Not shown) — For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. Two layer systems: First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. Three-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. Four-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer

(Optional, not shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12

steel screws. Not for use with Item 5A and 5E. **Joint Tape and Compound** Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be

(Optional, not shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

Caulking and Sealants\* (Optional, not shown) — A bead of acoustical sealant applied around the partition perimeter for sound control. \*Bearing the UL Classification Mark

Last Updated on 2018-03-06

omitted when gypsum panels are supplied with a square edge.

#### **KEYNOTES**

-NUMERIC NOTE DESIGNATION 00 00 00.0000 NOTATION

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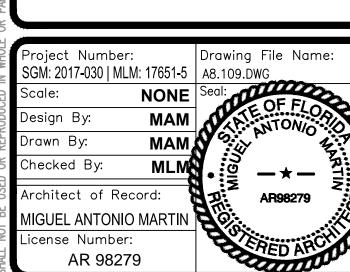


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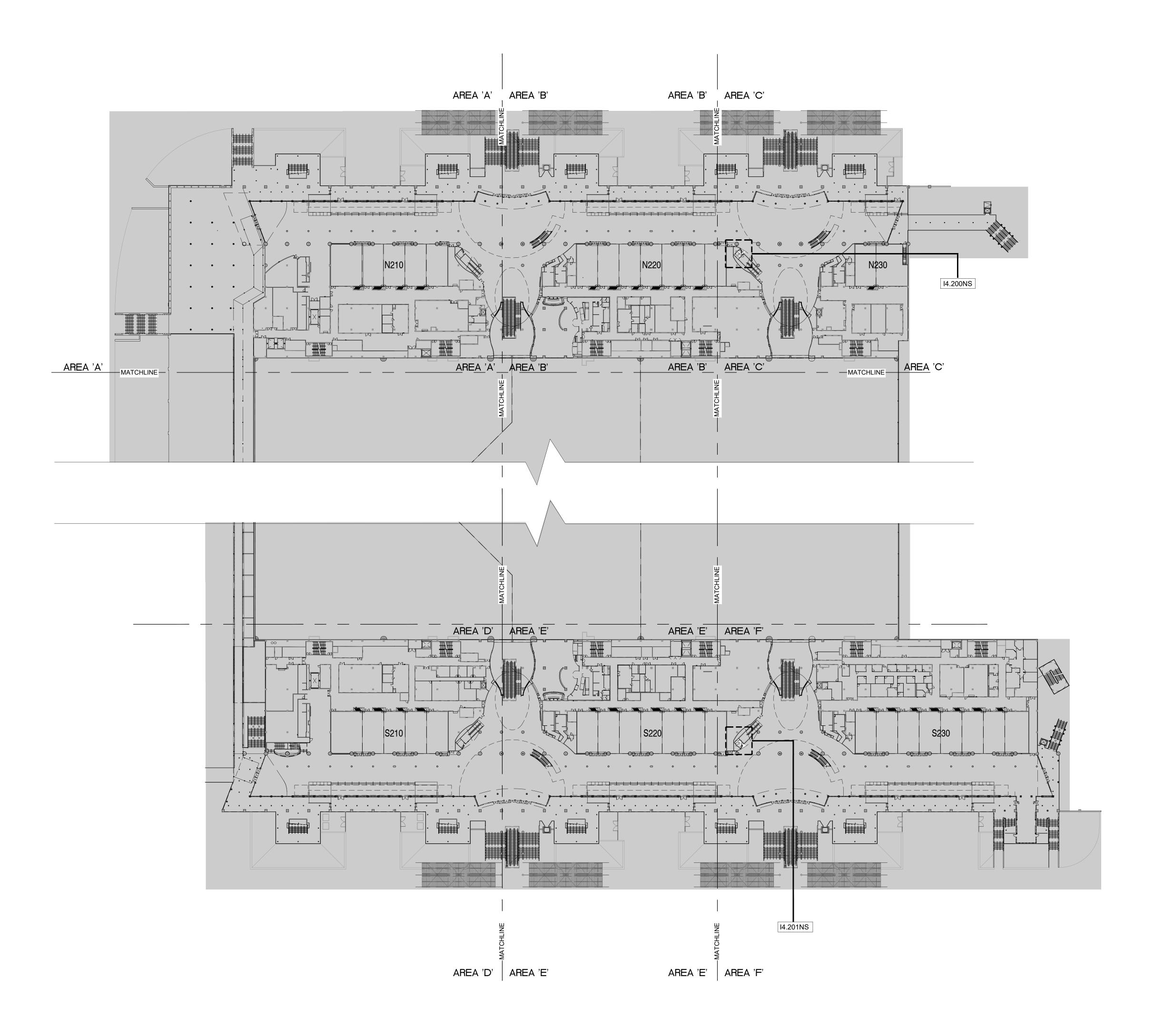
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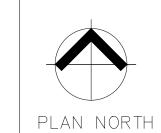
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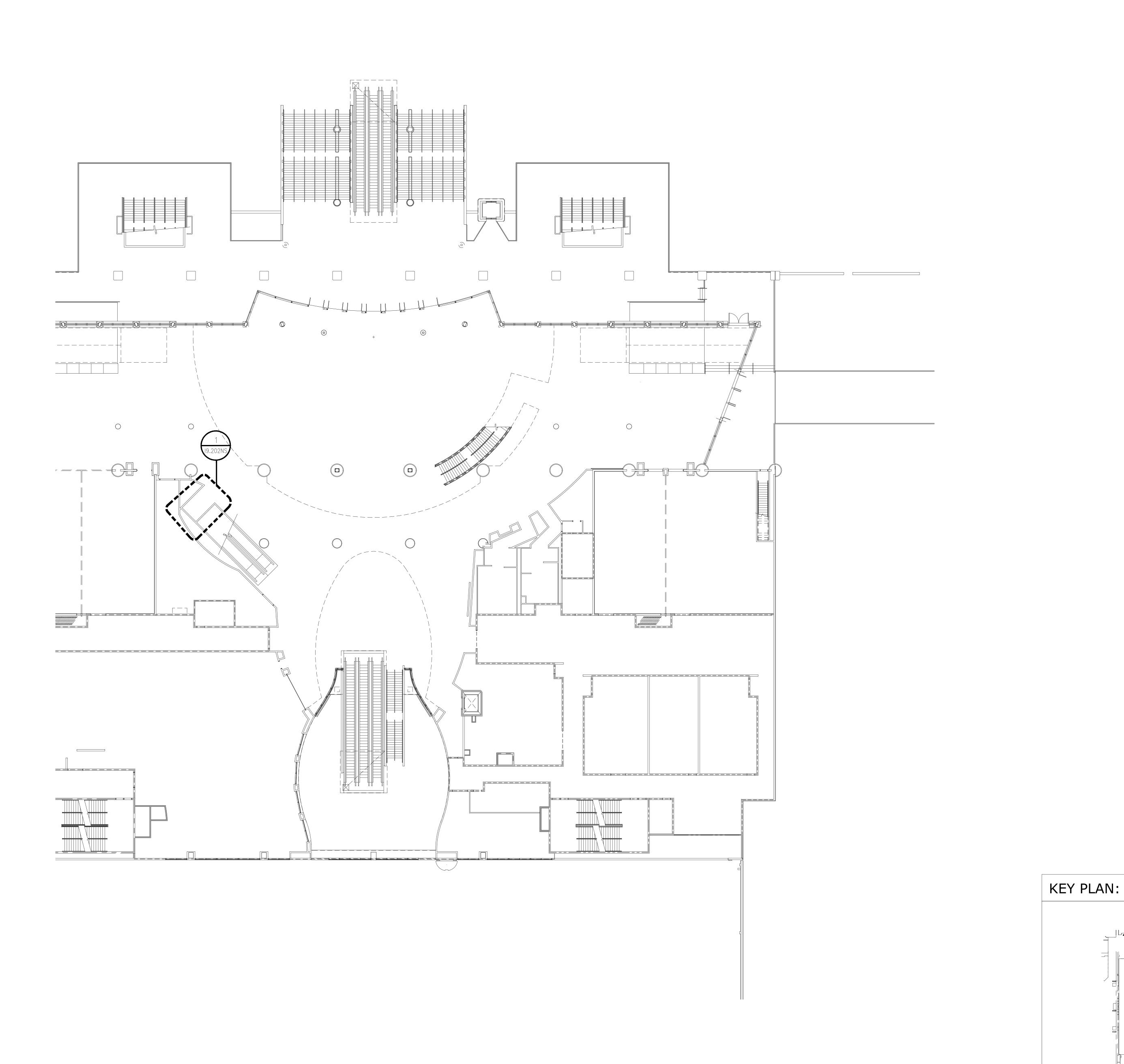
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NORTH-SOUTH BUILDING NORTH CONVENTION CENTER 9800 INTERNATIONAL DRIVE Orlando, FL, 32819

Jennifer Nichols Kennedy

Florida Registered Interior Designer FL ID #3031

ISSUED FOR

100% BID DOCUMENTS

03/20/2019 SCALE: 1/16"=1'-0" DRAWN BY: CHECKED BY:

DRAWING NUMBER

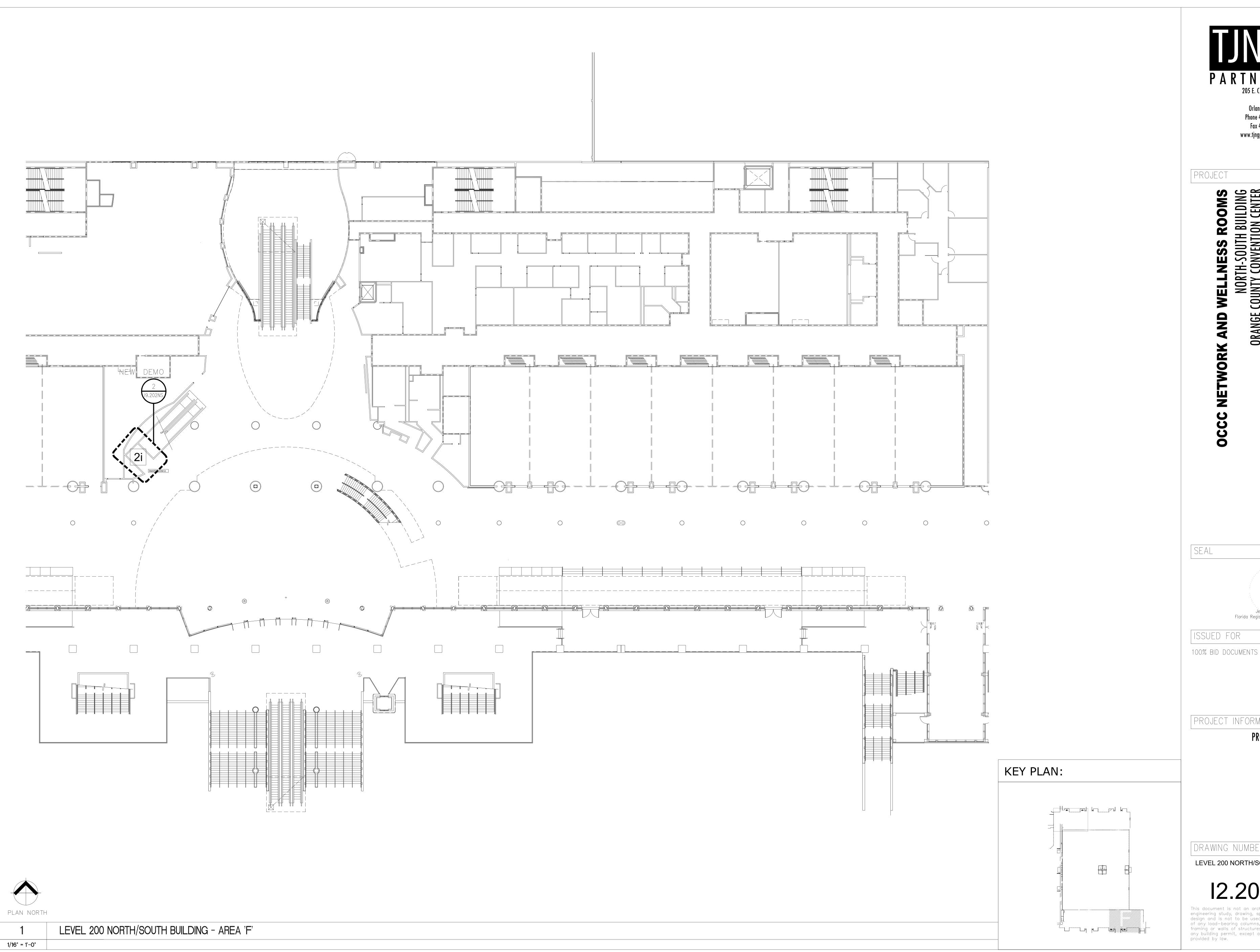
LEVEL 200 NORTH/SOUTH BUILDING

design and is not to be used for construction of any load-bearing columns, load-bearing framing or walls of structures, or issuance of any building permit, except as otherwise provided by law.

PLAN NORTH

LEVEL 200 NORTH/SOUTH BUILDING - AREA 'C'

1/16" = 1'-0"



NORTH-SOUTH BUILDING COUNTY CONVENTION CENTER

ORANGE

Jennifer Nichols Kennedy Florida Registered Interior Designer FL ID #3031

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PROJECT INFORMATION

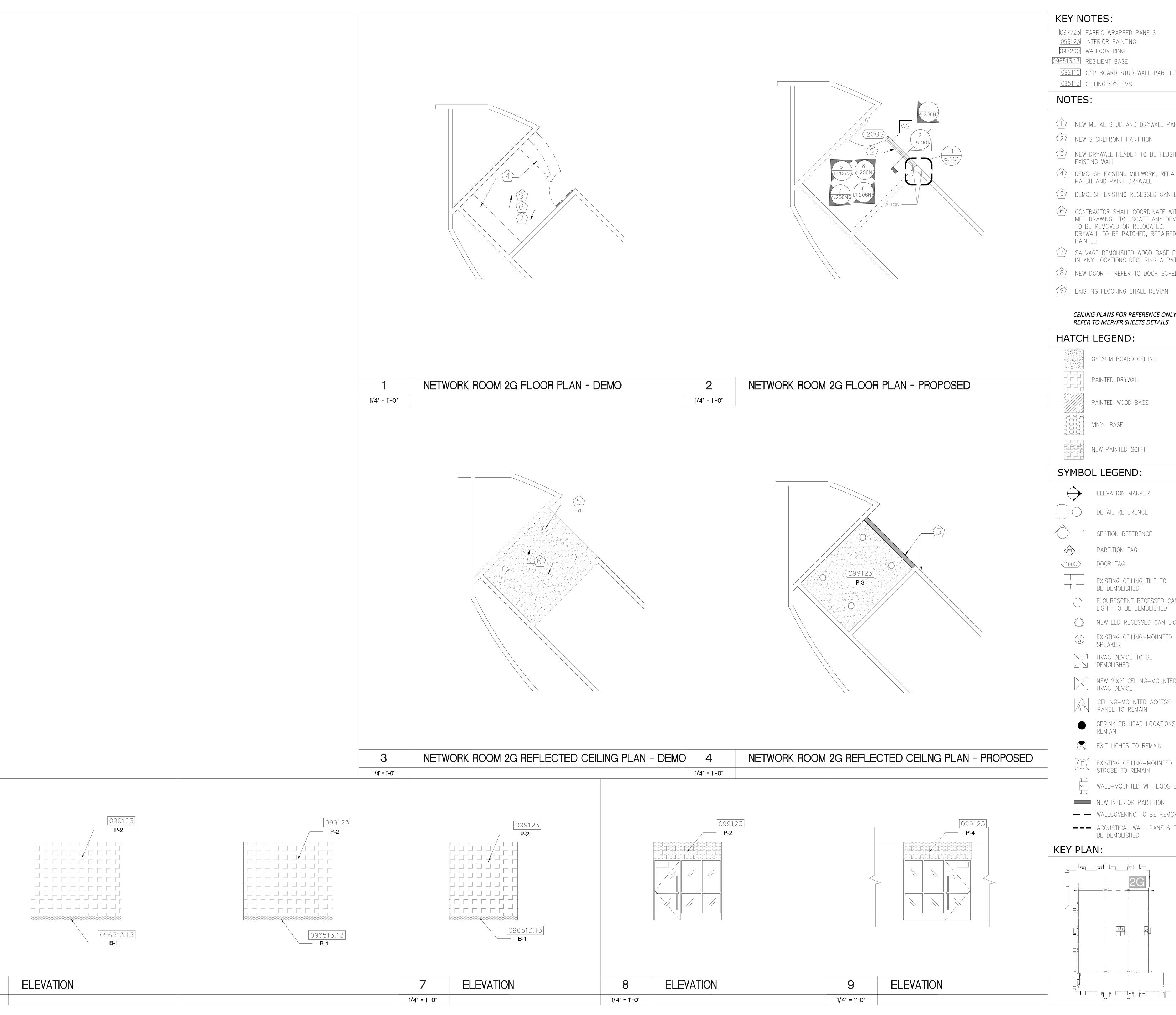
PROJECT NUMBER: DATE: 03/20/2019 SCALE: 1/16"=1'-0" DRAWN BY: CHECKED BY:

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LEVEL 200 NORTH/SOUTH BUILDING

12.201NS

design and is not to be used for construction of any load—bearing columns, load—bearing framing or walls of structures, or issuance of any building permit, except as otherwise



1/4" = 1'-0"

097723 FABRIC WRAPPED PANELS 099123 INTERIOR PAINTING 097200 WALLCOVERING

096513.13 RESILIENT BASE

092116 GYP BOARD STUD WALL PARTITION

1) NEW METAL STUD AND DRYWALL PARTITION

2) NEW STOREFRONT PARTITION

NEW DRYWALL HEADER TO BE FLUSH WITH EXISTING WALL

DEMOLISH EXISTING MILLWORK, REPAIR, PATCH AND PAINT DRYWALL

(5) DEMOLISH EXISTING RECESSED CAN LIGHTS

6) CONTRACTOR SHALL COORDINATE WITH MEP DRAWINGS TO LOCATE ANY DEVICES TO BE REMOVED OR RELOCATED. DRYWALL TO BE PATCHED, REPAIRED AND

7 SALVAGE DEMOLISHED WOOD BASE FOR USE IN ANY LOCATIONS REQUIRING A PATCH.

8 NEW DOOR - REFER TO DOOR SCHEDULE.

9) EXISTING FLOORING SHALL REMIAN

CEILING PLANS FOR REFERENCE ONLY.

GYPSUM BOARD CEILING PAINTED DRYWALL

ELEVATION MARKER

SECTION REFERENCE

PARTITION TAG

EXISTING CEILING TILE TO

FLOURESCENT RECESSED CAN LIGHT TO BE DEMOLISHED

NEW LED RECESSED CAN LIGHT

S EXISTING CEILING-MOUNTED SPEAKER

∠ ≽ DEMOLISHED

NEW 2'X2' CEILING-MOUNTED HVAC DEVICE

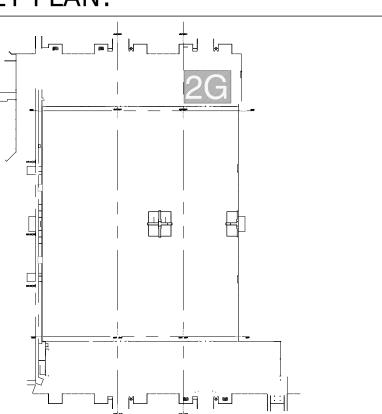
SPRINKLER HEAD LOCATIONS TO REMIAN

EXIT LIGHTS TO REMAIN

EXISTING CEILING-MOUNTED FIRE STROBE TO REMAIN

WALL-MOUNTED WIFI BOOSTER NEW INTERIOR PARTITION

- - WALLCOVERING TO BE REMOVED == ACOUSTICAL WALL PANELS TO
BE DEMOLISHED



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PROJECT

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E COUNTY CONVENTION CENTER
9800 INTERNATIONAL DRIVE

ORANGE

AND

WORK

SEAL

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PROJECT INFORMATION

PROJECT NUMBER: 76916 03/20/2019 1/4"=1'-0" DRAWN BY: CHECKED BY:

DRAWING NUMBER LEVEL 200 NORTH/SOUTH BLDG

**NETWORK ROOM** 

2G FLOOR PLAN, REFLECTED CEILING PLAN AND ELEVATIONS

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