

## DATE ASSIGNED\_ **APPLICATION FOR** HISTORIC AREA WORK PERMIT HISTORIC PRESERVATION COMMISSION 301.563.3400

FOR STAFF ONLY:

HAWP#

#### APPLICANT:

Name: Iglesia Vida Nueva, Inc. / Pastor German Pineda E-mail: Ya	nci Pineda@hotmail.com
Address: 13624 Northgate Drive City: Silve	r Spring zip: 20906
Daytime Phone: 301-873-7092 Tax Account	No.: 3637637
AGENT/CONTACT (if applicable):	
Name: Philip Aaron Lacy, Architect E-mail: p	hiliplacy 95@gmail.com Ten zip: 20735
Address: 9615 Geena Nicole Dr. Clinton, Md. City: Clin	Ton zip: 20735
Daytime Phone: 301-873-5093 Contractor F	Registration No.: 6849
LOCATION OF BUILDING/PREMISE: MIHP # of Historic Property	
Is the Property Located within an Historic District?Yes/District N _X_No/Individual Is there an Historic Preservation/Land Trust/Environmental Easeme map of the easement, and documentation from the Easement Holde	Site Name Conley Hovse/Green Ridge nt on the Property? If YES, include a
Are other Planning and/or Hearing Examiner Approvals /Reviews Re (Conditional Use, Variance, Record Plat, etc.?) If YES, include information.	
Building Number: 12450 Street: Old Colur	nbia Pike
Town/City: Silver Spring Nearest Cross Street: C	arters Grove Drive
Lot: Block: Subdivision: Parc	el: <u>355</u>
TYPE OF WORK PROPOSED: See the checklist on Page 4 to verifor proposed work are submitted with this application. Incompte accepted for review. Check all that apply:    New Construction	Shed/Garage/Accessory Structure Solar Tree removal/planting Window/Door Other: ication, that the application is correct wed and approved by all necessary in for the issuance of this permit.
Signature of owner or authorized agent	Date

# HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFING [Owner, Owner's Agent, Adjacent and Confronting Property Owners]

Owner's mailing address  German Pineda  Iglesia Vida Nueva, Inc.  13624 North Gate Drive  Silver Spring, MD, 20906  Adjacent and confronting	Owner's Agent's mailing address  Philip Azron Lacy 9615 Geenz Nicole Drive Clinton, MD. 20735  Property Owners mailing addresses
12501 Old Columbia Pike	1837 Staley Manor Drive
Silver Spring, MD. 20904	Silver Spring, MD. 20904
1924 Carters Grove Drive	1835 Staley Manor Drive
Silver Spring, MD. 20904	Silver Spring, MD. 20904
1922 Carters Grove Drive	1831 Staley Manor Drive
Silver Spring, M.D. 20904	Silver Spring, MDr 20904

Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

The property that the church is proposed is a 3.77 acres lot that includes a significant conservation easement that includes a stream. The surrounding environment is wooded. A parking lot is provided to accommodate the congregation. In addition, a storm water management system is included on site. The building itself is a one story with a basement religious facility totaling 12,487 gross square feet on two levels serving 289 worshipers. The building super structure is a pre-engineered metal building with a concrete and masonry basement level. The building exterior includes a standing seam metal roof with an exterior insulation finish system. The facility contains a sanctuary, fellowship hall, a warming pantry, classrooms, office space, utility areas, stairs and an elevator. Fire and life safety features will also be included.

#### Description of Work Proposed: Please give an overview of the work undertaken:

The work includes the demolition of existing site structures, the excavation for a basement level, and storm water management devices. Protection of existing site features such as the stream and trees in the conservation easement. The work will continue by installing necessary paving and the building structure.

Work Item 1:	
Description of Current Condition:	Proposed Work:
Work Item 2:	
Description of Current Condition:	Proposed Work:
Work Item 3:	
	Duomonad Maylr
Description of Current Condition:	Proposed Work:

# IGLESIA VIDA NUEVA UNIDA INTERNACIONAL

# 12450 OLD COLUMBIA PIKE

# SILVER SPRING, MARYLAND 20904

ARCHITECT:

PHILIP AARON LACY ARCHITECTS, LLC 9615 GEENA NICOLE DRIVE CLINTON, MARYLAND 20735

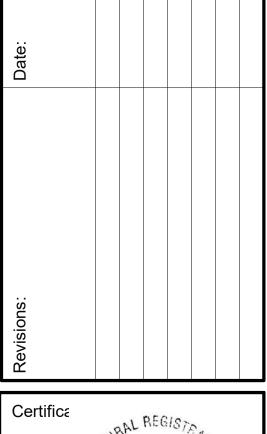
## STRUCTURAL ENGINEER:

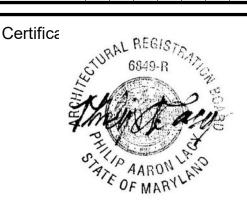
MGV CONSULTING STRUCTURAL ENGINEERS, INC. 6239 EXECUTIVE BOULEVARD NORTH BETHESDA, MARYLAND 20852

## MEP ENGINEER:

CHARLES FORD & ASSOCIATES, LLC 13100 COLLINGWOOD TERRACE SILVER SPRING, MARYLAND 20904

#### **GENERAL NOTES** ABBREVIATIONS & SYMBOLS PROJECT DESCRIPTION LIST OF DRAWINGS The project is a one story with a basement religious facility totaling 12,487 G.S.F. ARCHITECTURAL: on two levels serving 289 worshipers. The building super structure is a pre-engineered 1. All work materials and systems shall be furnished and installed in accordance metal building with a concrete and masonry basement level. The building exterior includes A000 COVER & INFORMATION SHEET OC ON CENTER FINISHED FLOOR with the State of Maryland International Building Code (IBC) latest adopted edition a standing seam metal roof with an insulated exterior finish system. The facility contains BASEMENT FLOOR PLAN OPNG FIREW EXTINGUISHER OPENING 2. The Contractor shall review the drawings and specifications and bring to the a sanctuary, fellowship hall, a warming pantry, classrooms, office space, utility areas, FIRST FLOOR PLAN OD **OUTSIDE DIAMETER** attention of the Architect any discrepencies prior to pricing, fabrication, and installation **ALUMINUM** OVERHEAD stairs and an elevator. Fire and life safety features will also be included. A102 ROOF PLAN & DETAILS FLOOR DRAIN TOILET ROOM & UTILITY PLANS **ELEVATOR & STAIR PLANS PLASTER** FOOTING convenience of the user of the drawings. There is no warranty or guarantee of the **BELOW** PTN BUILDING ELEVATIONS **BLOCKING** PLYWOOD **BUILDING CODE ANALYSIS** GALVANIZED PRECAST CONCRETE BASEMENT CEILING PLAN **PROJECT** the satisfactory completion or permanency of the work. The Contractor assumes all GENERAL CONTRACTOR PROPERTY LINE FIRST FLOOR CEILING PLAN BULKHEAD 6. The Contractor shall coordinate and schedule work with other trades, utility companies DOOR SCHEDULE & DETAILS **BUILDING CODES** GYPSUM government agencies, and any other applicable regulatory agency. FINISH SCHEDULE & PARTITION DETAILS GYPSUM WALL BOARD REINFORCEMEN The Contractor shall coordinate, schedule and provide all related services and pay all CPT A111 PULPIT STAGE & DETAILS CARPET REQUIRED fees as required to perform tests and/or certification of work as required by these documents, 2018 NFPA 101 Life Safety Code CAST IN PLACE CONCRETE HDW **HARDWARE** RES RESILIENT A112 WALL SECTIONS government and egulatory agencies. 2018 International Building Code (IBC) CEILING HEIGHT REV REVISION 8. Prior to starting the work, the Contractor shall provide a detailed construction schedule A113 MISCELLANEOUS DETAILS CENTER **HOLLOW METAL** RISER 2015 International Energy Conservation Code (IECC) to the Owner and Architect for review and approval. Completion date and other related HORZ RD **ROOF DRAIN CERAMIC TILE** HORIZONTAL milestone dates shall comply with the executed contract. The schedule shall be updated as CLOSET ROOM deemed necessary by the progress of the job. COLUMN INSIDE DIAMETER 9. All work shall be coordinated and scheduled with the Owner. Work shall be performed USE GROUP: A-3 ASSEMBLY (CHURCH) STRUCTURAL: CONC SCHD SCHEDULED CONCRETE INSULATION in such a manner as to keep disturbance to the facility to an absolute minimum. The facility CONSTRUCTION TYPE: IIB 9,500 SQ. FT. ALLOWED SEC SIM CONCRETE MASONRY UNIT SECTION facility shall maintain normal living and/or working hours during construction. CONF SIMILAR CONFERENCE BUILDING AREA: 6,243 SQ. FT. PER FLOOR (TOTAL G.S.F. = 12,487) S001 STRUCTURAL NOTES 10. Thes construction documents (Drawings and Specifications) are diagramatic and may SC CONST CONSTRUCTION JANITOR'S CLOSET SOLID CORE JC not show the work in its entirety or true position. This shall not relieve the Contractor from S002 FOUNDATION AND BASEMENT FLOOR PLAN BUILDING IS NON-SPRINKLERED SOUND ATTENUATION BLANKET CONTROL JOINT installing the work or the systems in conformity with conventional and correct principals. OCCUPANT LOAD: 289 WORSHIPERS FIRST FLOOR FRAMING PLAN KICK PLATE CONTINUOUS SOUTH complete and operational with the intent of the drawings and specifications. **SPECIFICATION** BUILDING HEIGHT: 55 FEET ALLOWED (32 FT. AT ROOF RIDGE) S004 NOT USED **CORNER GUARD** KITCHEN 11. Unless noted otherwise, all materials, products and equipment shall be new and as SQUARE FEET specified, installed in strict compliance with maunfacturer's instructions, directions, and FIRE ALARM: YES S005 TYPICAL SECTIONS DAMPPROFFING LAM LAMINATE SS STAINLESS STEEL recommendations. NUMBER OF EXITS: 2 S006 TYPICAL SECTIONS DEGREE LAV LAVATORY STL STEEL 12. The Contractor shall submit shop drawings and manufacture's literature to the Architect EXIT ACCESS TRAVEL DISTANCE: 200 FEET S007 TYPICAL SECTIONS DEMO DEMOLISH LEFT HAND STOR STORAGE DEP DEPRESSED LINEAR FOOT SUSP SUSPENSION S008 SECTIONS PRIMARY STRUCTURAL FRAME: 0 HOURS 13. The Contractor shall collect and place all construction debri in a dumpster at the end of DET each working day. The Contractor shall odserve all appropriate recycling proceedures. BEARING WALLS EXTERIOR: 0 HOURS S009 SECTIONS MACH THK THICK **DRAWING** MACHINE DWG 14. The Contractor shall provide and maintain all necessary barricades, lights, signs, and BEARING WALLS INTERIOR: 0 HOURS THRES DIAMETER MAN HOLE THRESHOLD other safety devices necessary to maintain the job site as safe during construction. The DIMENSION MANUFACTURER TOILET NONBEARING WALLS AND PARTITIONS: 0 HOURS Contractor is solely responsible for all safety aspects of the project. TONGUE & GROOVE DISPENSER MO MASONRY OPENING T&G FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS: 0 HOURS 15. The Contractor shall protect all existing conditions not requiring new work and restore DR DOOR MAXIMUM existing conditions to there original state where damaged during construction operations. ROOF CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS: 0 HOURS TOS MET TOP OF SLAB DN METAL DOWN MECHANICAL, PLUMBING AND ELECTRICAL: 16. The Contractor agrees to assume and does hereby assumes all liability for and shall **DRINKING FOUNTAIN** TYP CORRIDOR RATING: 1 HOUR MECHANICAL **TYPICAL** and does hereby agree to imdemnify and hold harmless the Owner and the Architect against MINIMUM STAIR ENCLOSURES: 1 HOUR and all loss, charge, attorney fees expenses, claims, judgements or damages arising from M000 MECHANICAL NOTES MW EACH UNO **UNLESS NOTED OTHERWISE** MILLWORK injuries or harm sustained but not limited to bodily injury to any persons, mechanics, laborers EXIT WIDTH: 68 INCHES DIVIDED BY .2 = 340 PEOPLE ELEC ELECTRICAL MISC M100 BASEMENT MECHANICAL PLAN MISCELLANEOUS or any person whatsoever or property of any kind arising out or in any way connected with ELECTRIC WATER COOLER VIF VERIFY IN FIELD MUL MULLION M101 FIRST FLOOR MECHANICAL PLAN the performance of the work to be performed under this contract. VERTICAL **ELEVATION VERT** NOMINAL VINYL COMPISITION TILE EDGE OF SLAB EQ P000 PLUMBING NOTES NORTH EQUAL EXIST EXISTING NIC NOT IN CONTRACT WP WATER PROOFING P001 BASEMENT PLUMBING PLAN **EXPANSION JOINT** NUMBER WWF WELDED WIRE FABRIC P002 FIRST FLOOR PLUMBING PLAN NOT TO SCALE W/ WOOD E000 ELECTRICAL NOTES E100 BASEMENT POWER PLAN E101 FIRST FLOOR POWER PLAN E102 BASEMENT LIGHTING PLAN E103 FIRST FLOOR LIGHTING PLAN DETAIL NO. FIRE ALARM: FA100 BASEMENT FIRE ALARM PLAN DWG. WHERE DETAIL FA101 FIRST FLOOR FIRE ALARM PLAN "I hereby certify that these documents were prepared by or





OLD COLUMBIA PIKE PRING, MARYLAND 20904

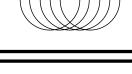
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German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092

Structrual Engineer:
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Mechanical & Electrical Engineer:
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Centreville, Virginia 20121
Phone: 571-220-3239

Architect:
Philip Aaron Lacy, Architects
9615 Geena Nicole Drive
Clinton, Maryland 20735
Phone: 301-873-5093



Date: JULY 5, 2022

Scale: 1/4" = 1'-0"

Drawn: Author

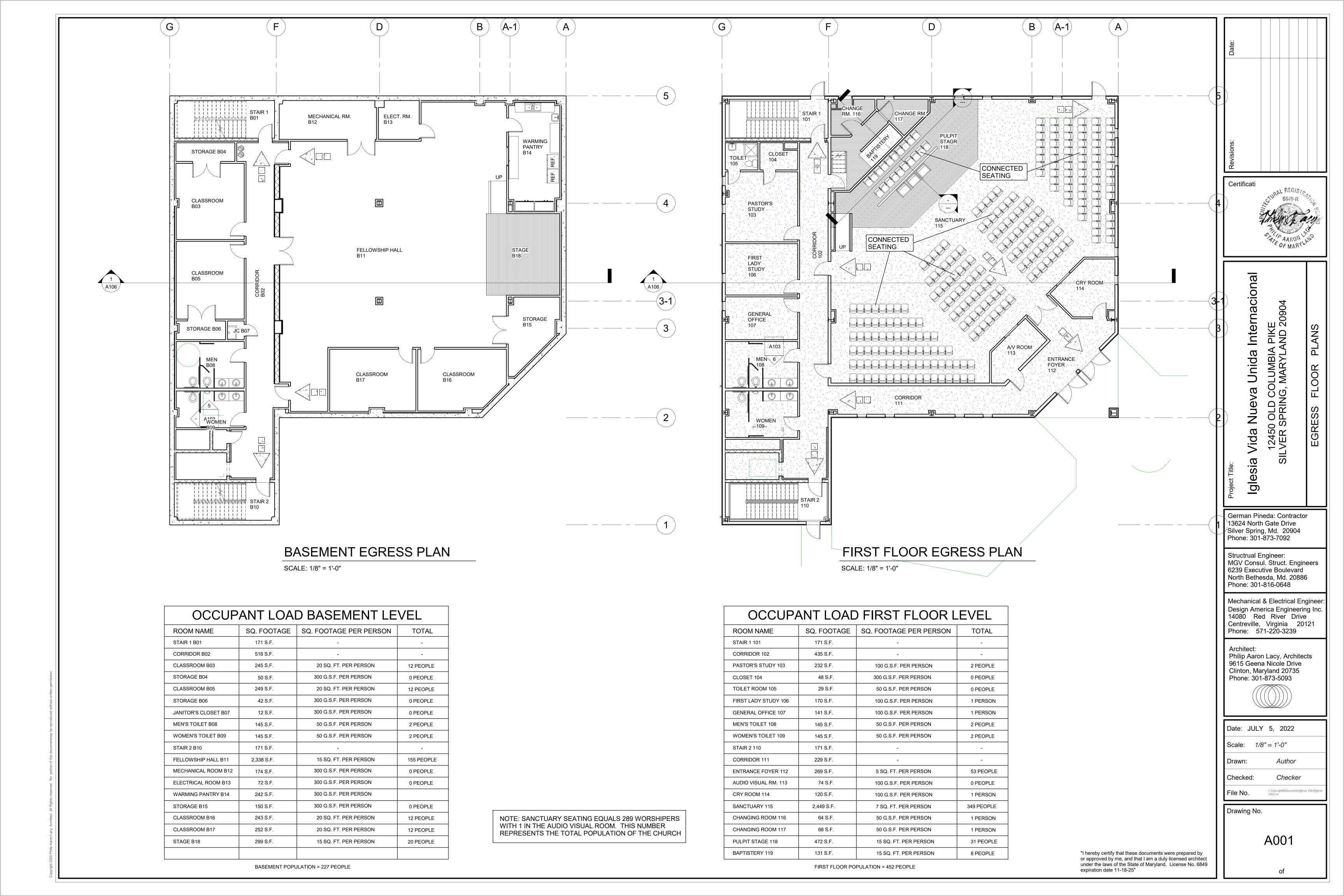
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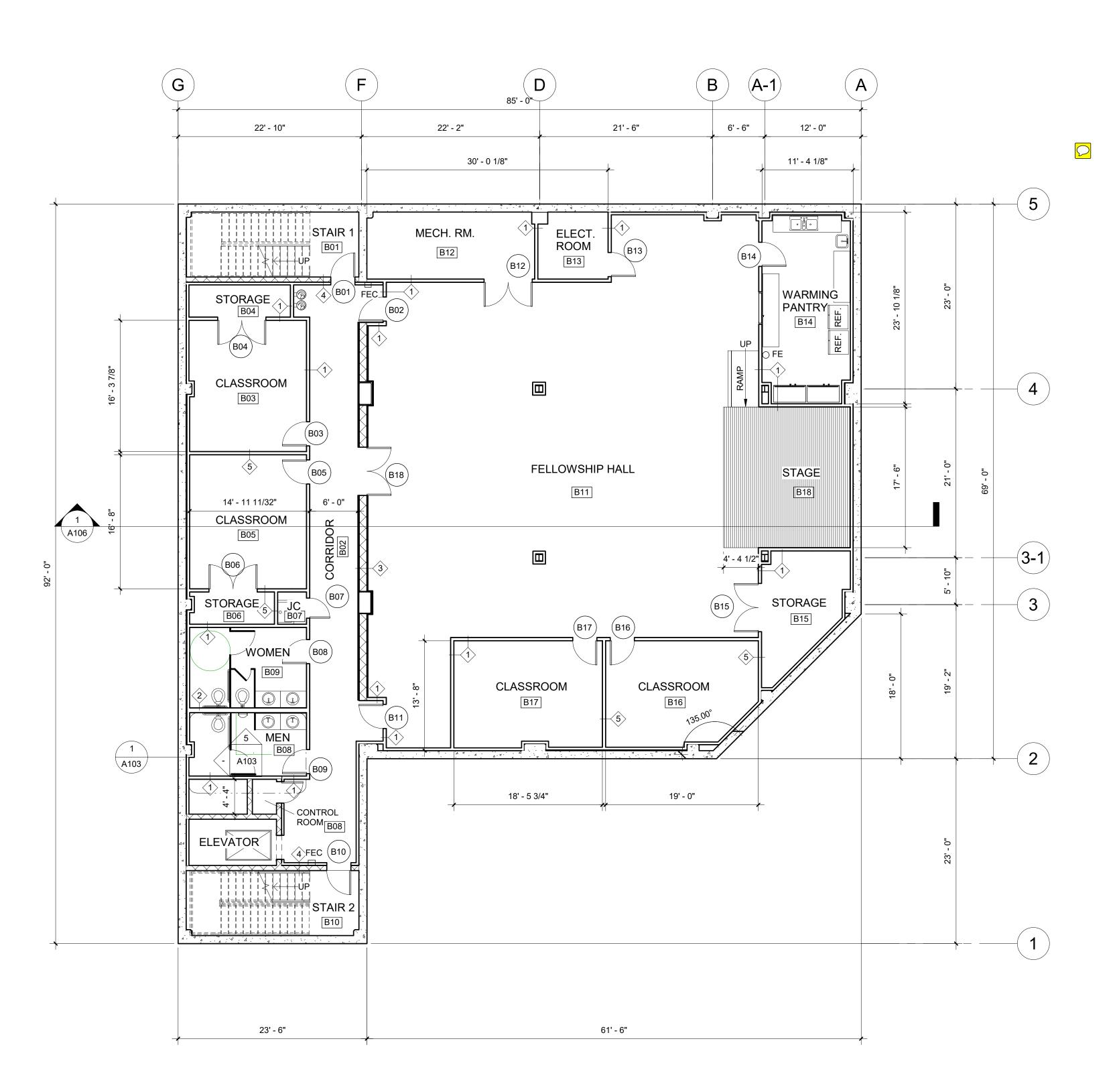
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approved by me, and that I am a duly licensed architect under the laws of the State of Maryland. License No. 6849 expiration A000

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# BASEMENT FLOOR PLAN

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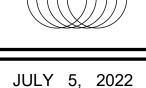
Iglesia Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904

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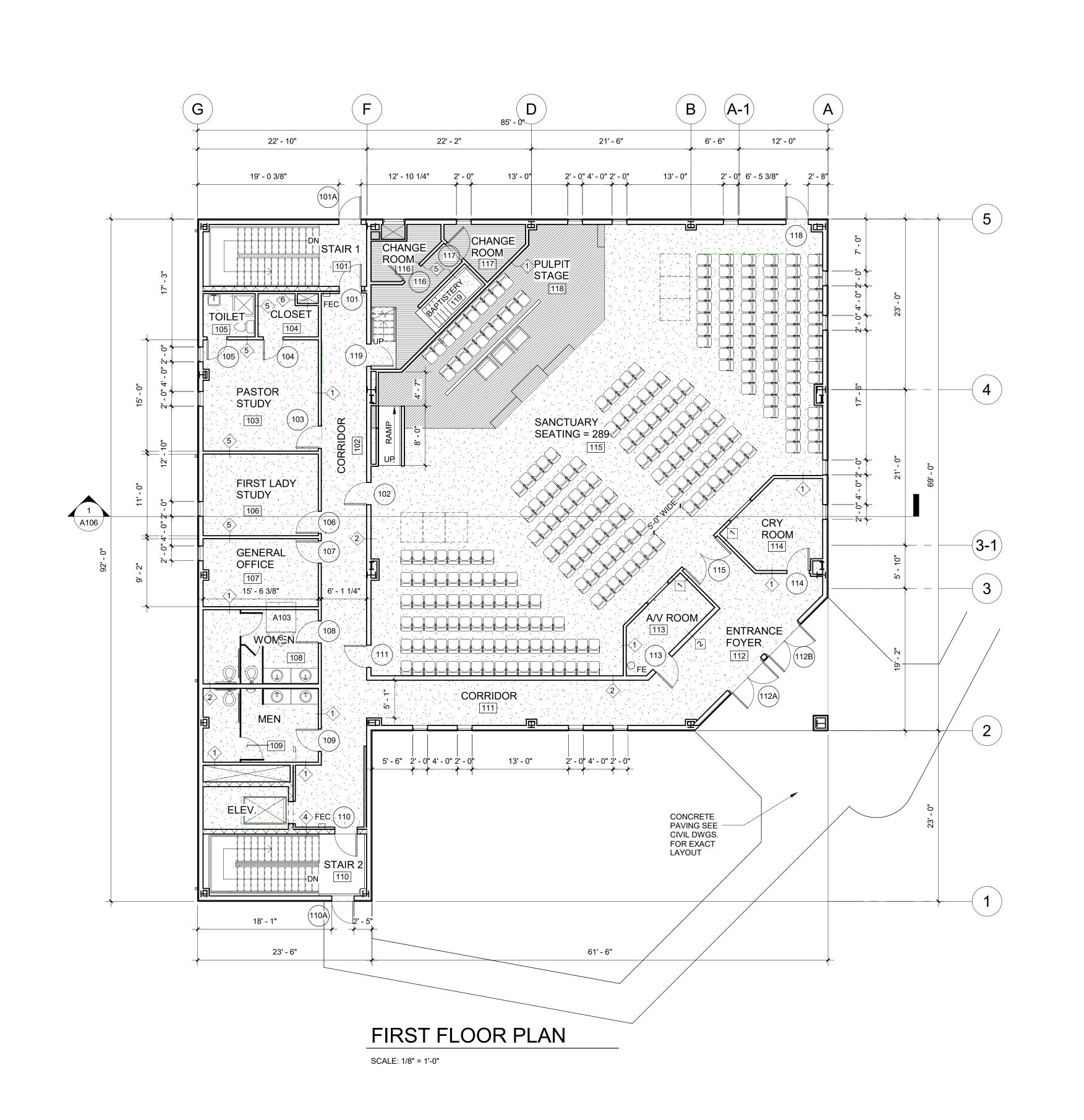
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Date:

Date

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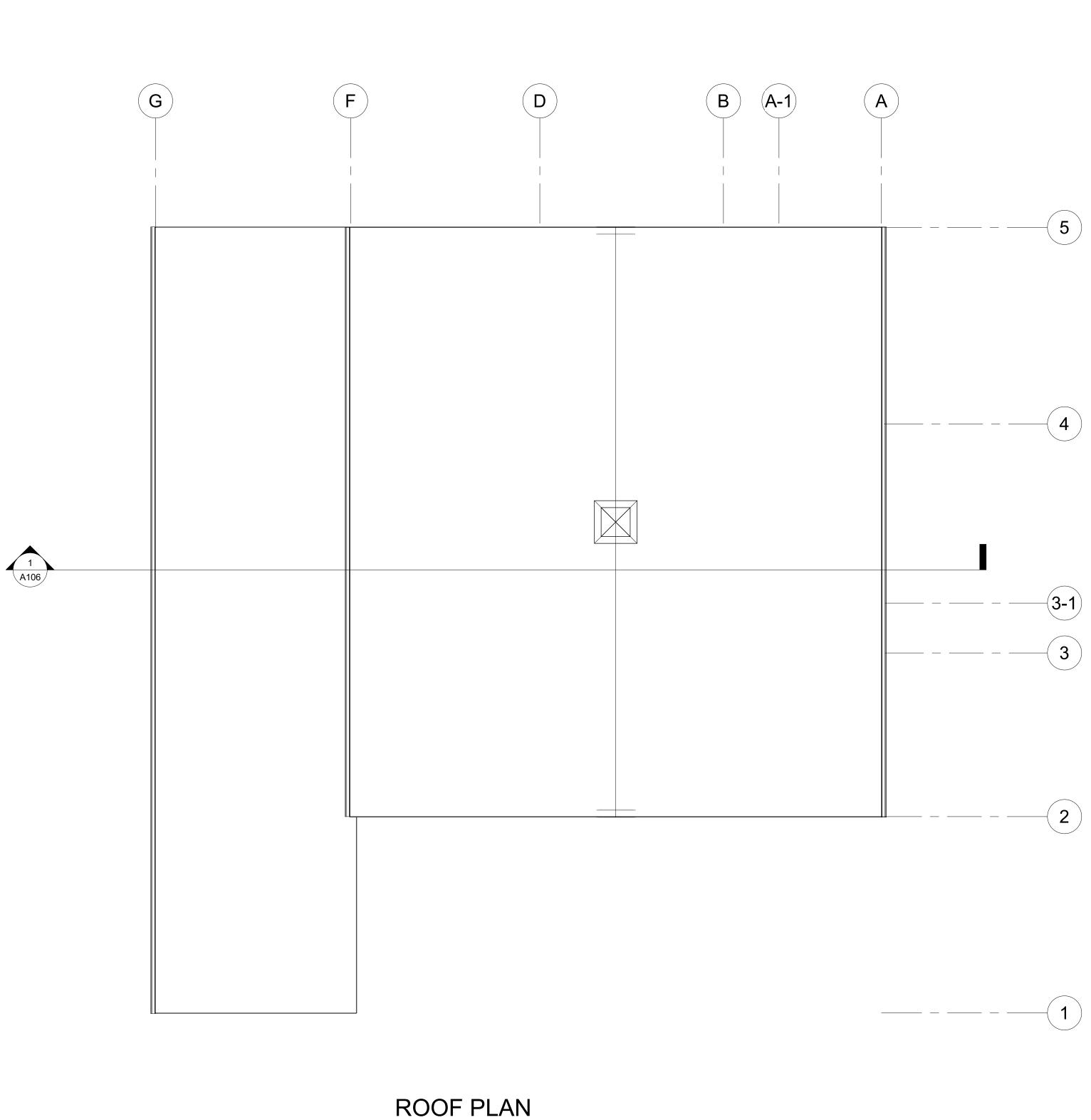
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SCALE: 1/8" = 1'-0"

ia Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904

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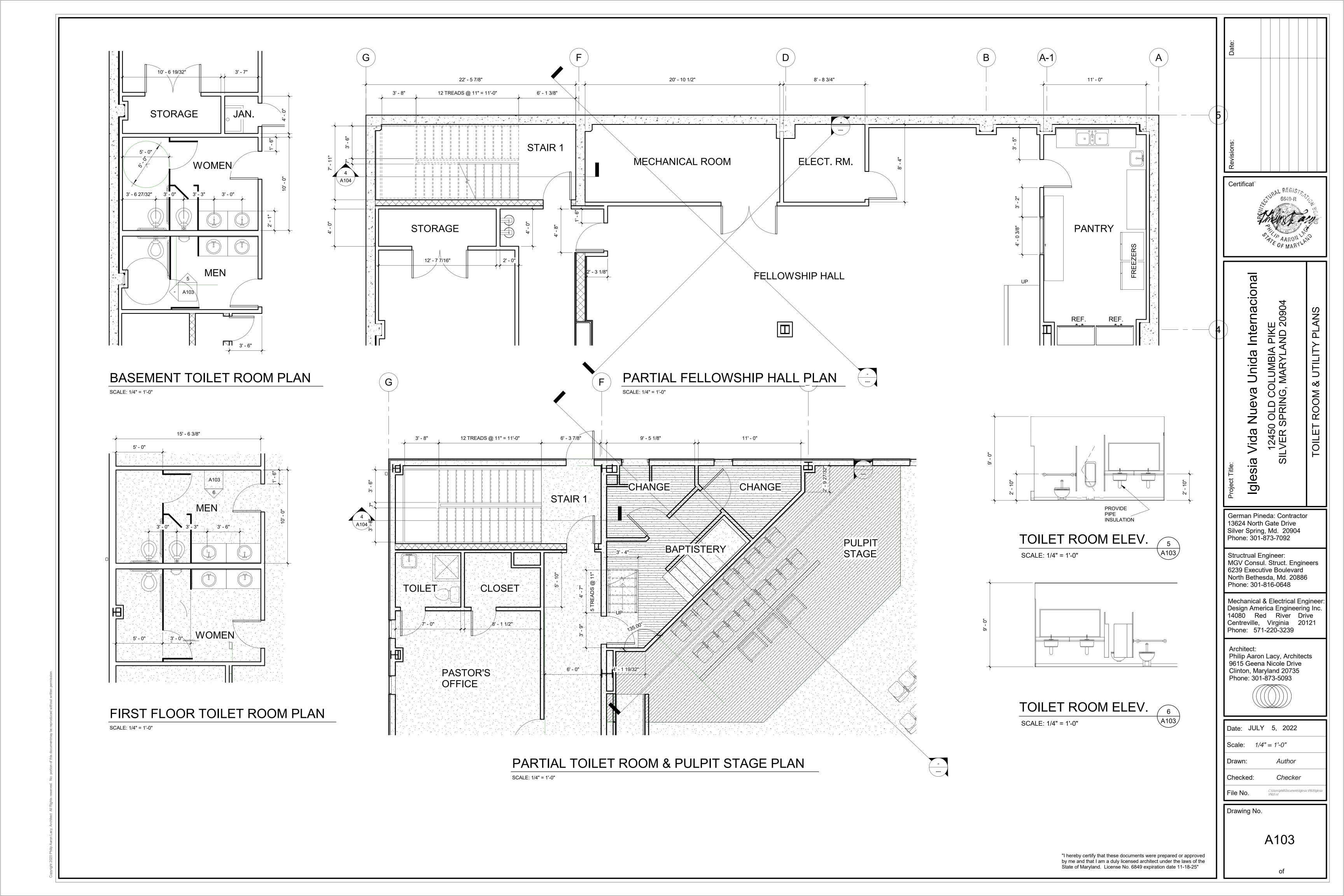
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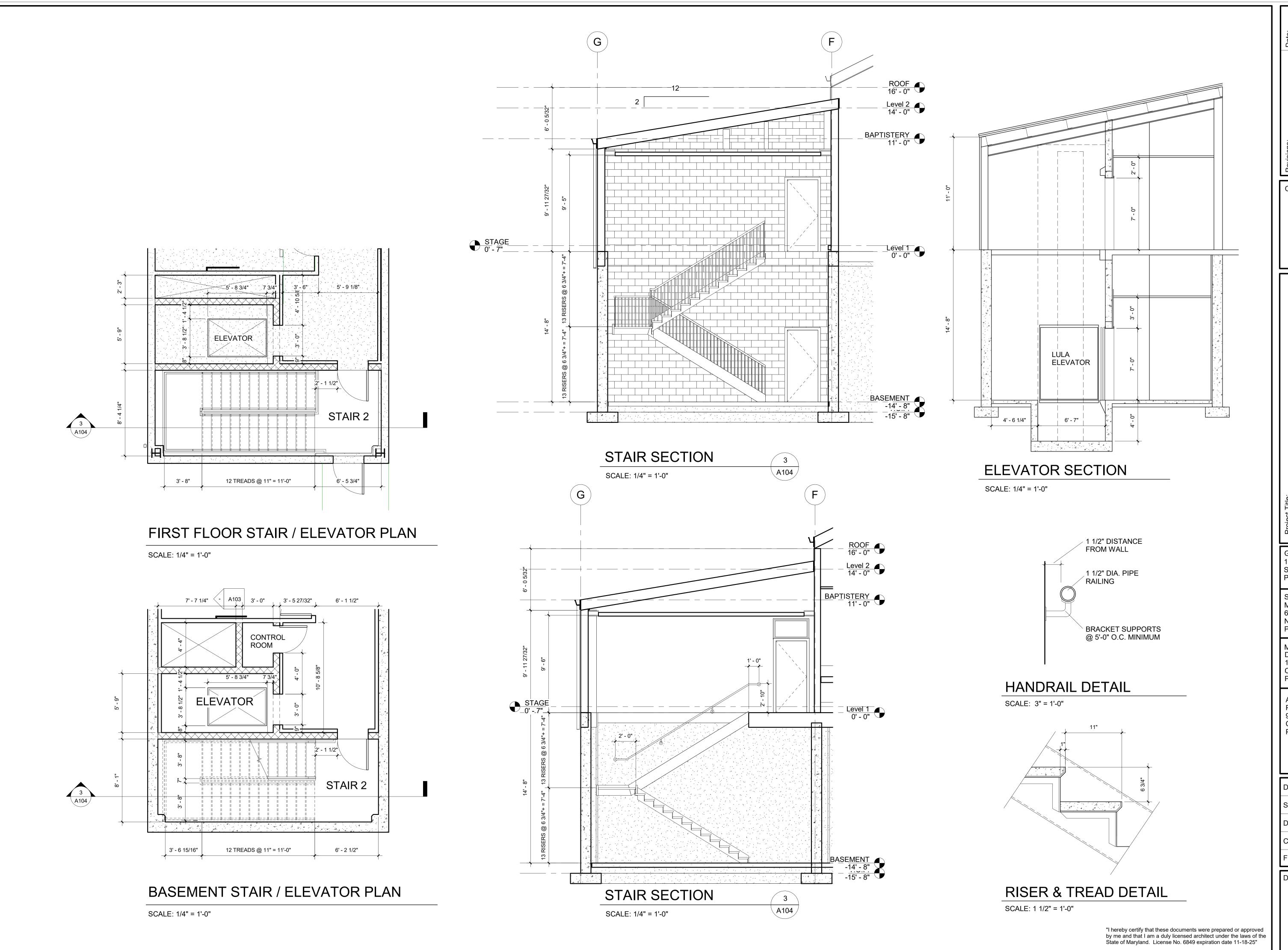
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Certificat

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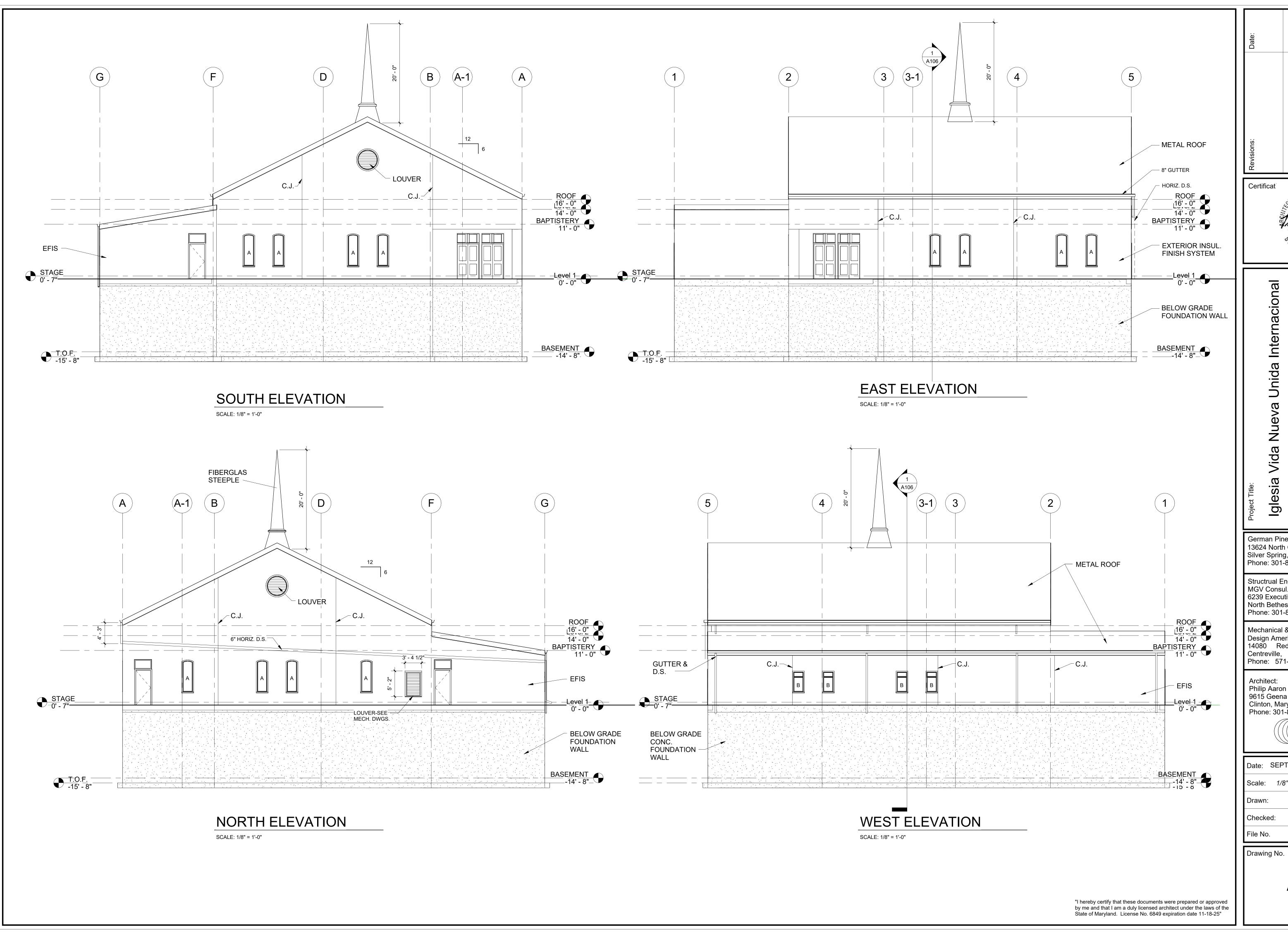
Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093

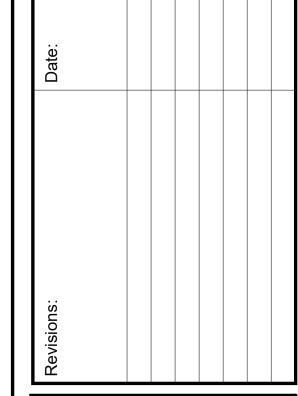
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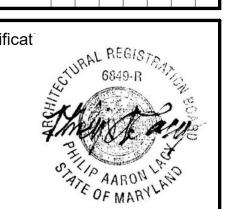
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A104







12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904

BUILDING ELEVATIONS

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Mechanical & Electrical Engineer Design America Engineering Inc. 14080 Red River Drive Centreville, Virginia 20121 Phone: 571-220-3239

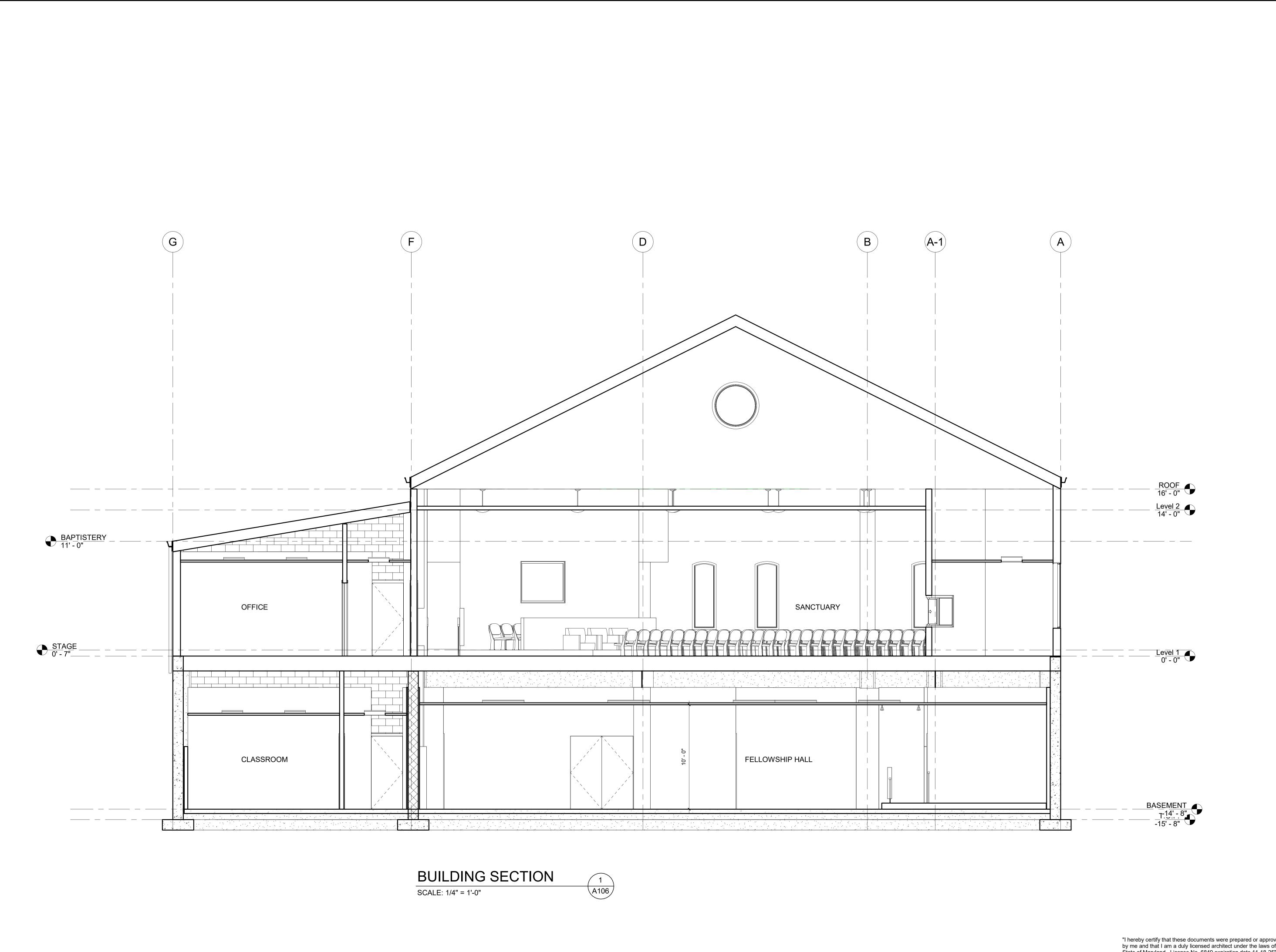
Architect:
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Phone: 301-873-5093

Date: SEPT. 14, 2023 Scale: 1/8" = 1'-0" **Author** 

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ia Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904 Iglesi

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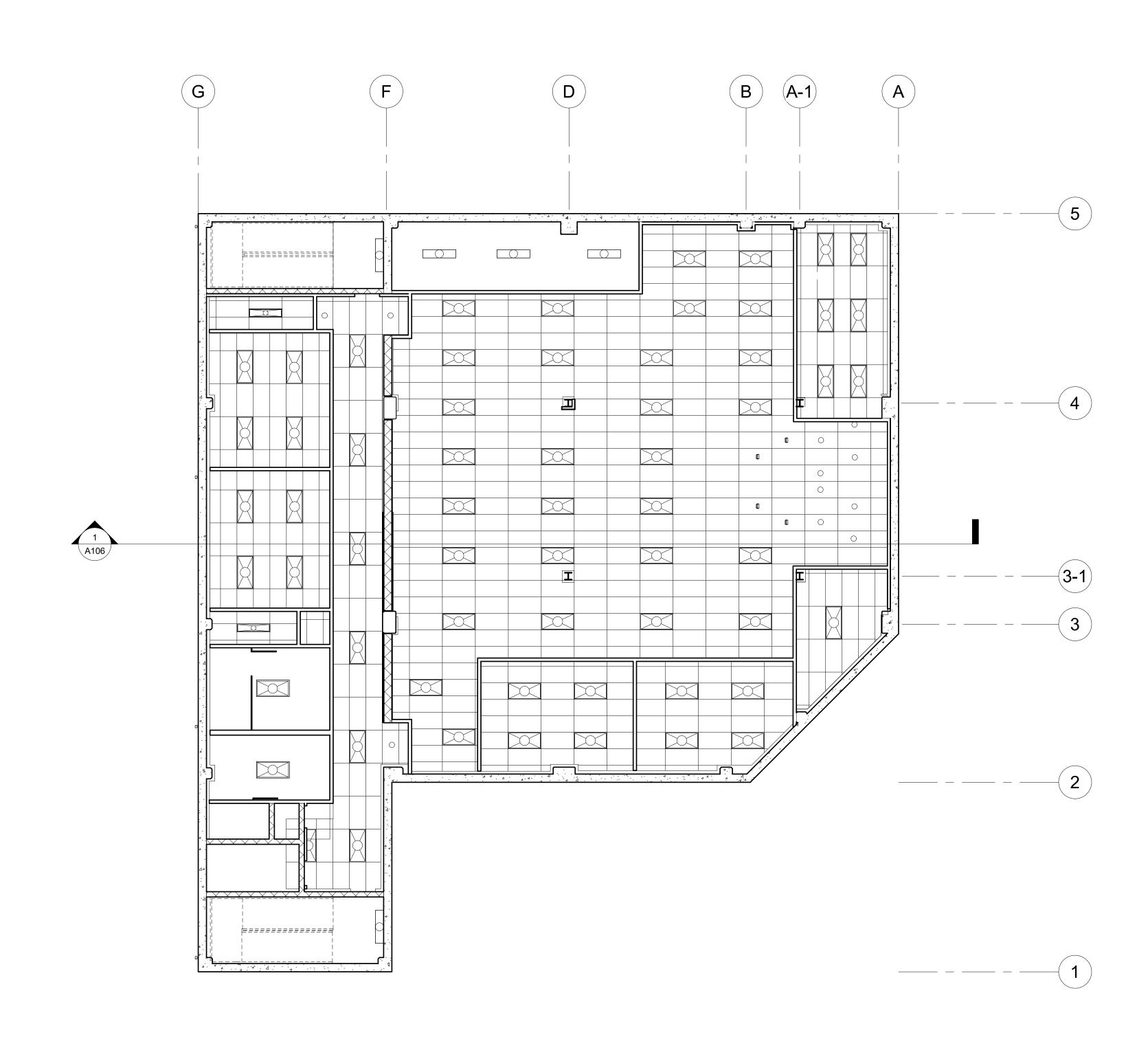
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BASEMENT CEILING PLAN

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

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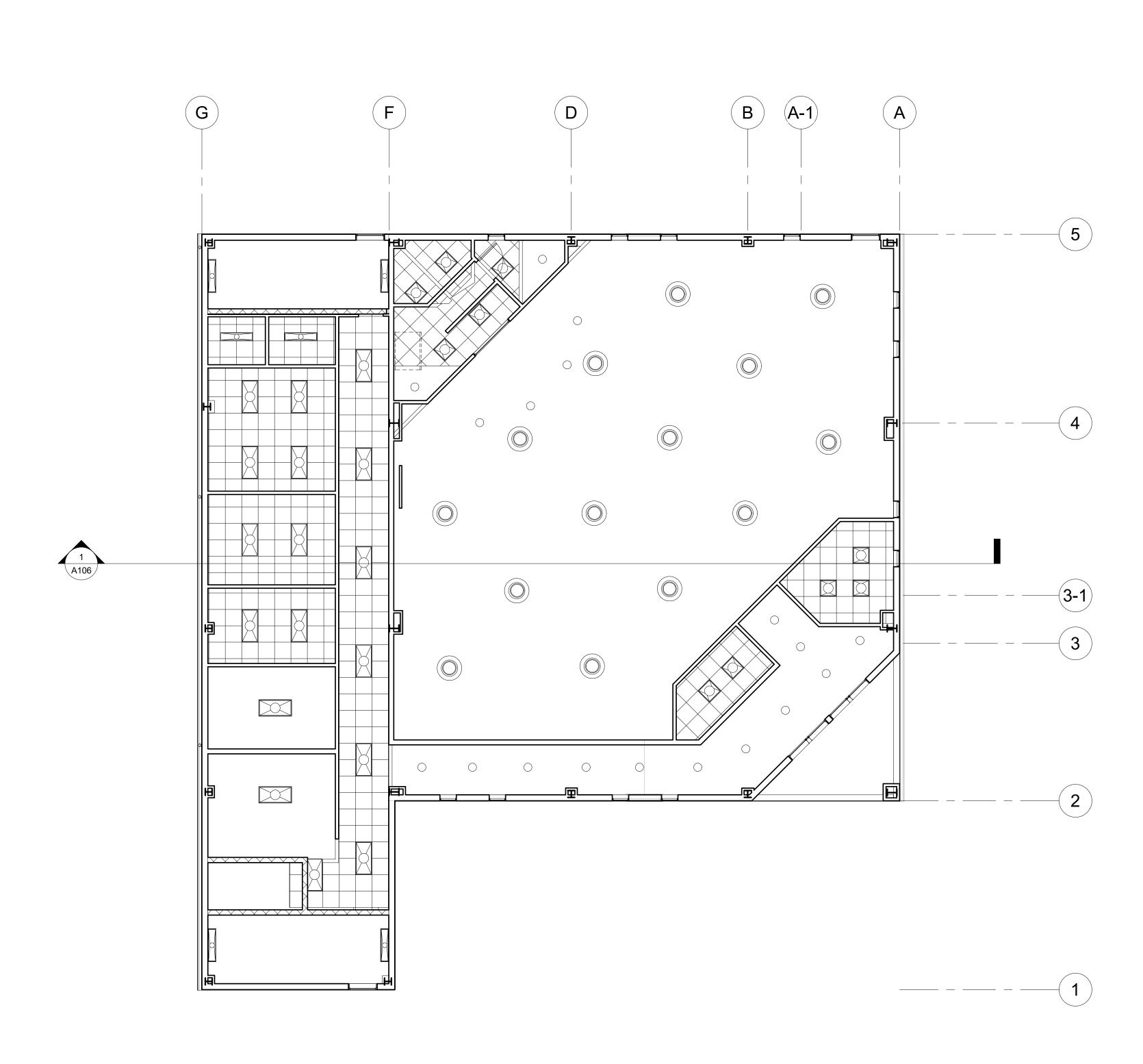
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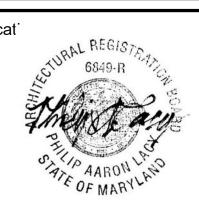
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FIRST FLOOR CEILING PLAN

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



ia Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904

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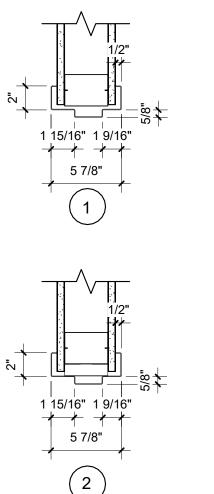
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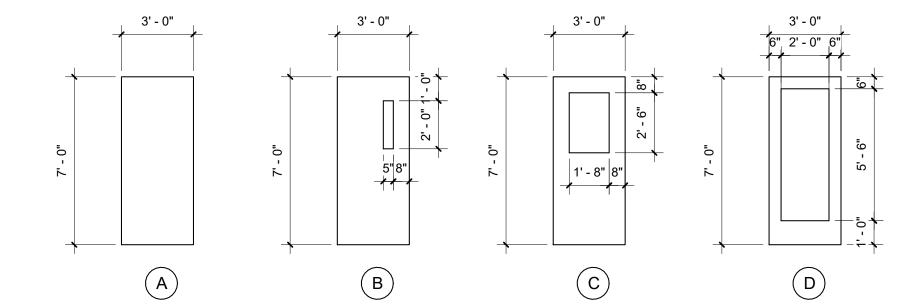
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BASEMEN										
DOOR NO.		MATERIAL	TYPE	HEAD	JAMB	THRESHOLD	FRAME	RATING	HARDWARE	REMARKS
B01	3'-0"x7'-0"x1 3/4"	METAL	В	7	8		1	1 HR. 'B' LABEL	HW-4	
B02	3'-0"x7'-0"x1 3/4"	WOOD	В	1	2		1		HW-4	
B03	3'-0"x7'-0"x1 3/4"	WOOD	С	1	2		1		HW-7	
B04	PR. 3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		2		HW-8	
B05	3'-0"x7'-0"x1 3/4"	WOOD	С	1	2		1		HW-7	
B06	PR. 3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		2		HW-8	
B07	2'x8"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-6	
B08	3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-5	
B09	3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-5	
B10	3'-0"x7'-0"x1 3/4"	METAL	В	7	8		1	1 HR. 'B' LABEL	HW-4	
B11	3'-0"x7'-0"x1 3/4"	WOOD	В	1	2		1		HW-4	
B12	PR. 3'-0"x7'-0"x1 3/4"	METAL	Α	1	2		1		HW-8	
B13	3'-0"x7'-0"x1 3/4"	METAL	А	1	2		1		HW-6	
B14	3'-0"x7'-0"x1 3/4"	WOOD	В	1	2		1		HW-7	
B15	PR. 3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-8	
B16	3'-0"x7'-0"x1 3/4"	WOOD	С	1	2		1		HW-7	
B17	3'-0"x7'-0"x1 3/4"	WOOD	С	1	2		1		HW-7	
B18	PR. 3'-0"x7'-0"x1 3/4"	WOOD	В	5	6		2		HW-9	
FIRST FL	OOR									
101	3'-0"x7'-0"x1 3/4"	METAL	В	7	8		1	1 HR. 'B' LABEL	HW-4	
101A	3'-0"x7'-0"x1 3/4"	METAL	Α	9	10		3		HW-2	
102	3'-0"x7'-0"x1 3/4"	WOOD	В	3	4		1		HW-10	
103	3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-11	
104	2'x8"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-6	
105	2'x8"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-12	
106	3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-11	
107	3'-0"x7'-0"x1 3/4"	WOOD	А	1	2		1		HW-11	
108	3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-5	
109	3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-5	
110	3'-0"x7'-0"x1 3/4"	METAL	В	7	8		1	1 HR. 'B' LABEL	HW-4	
110A	3'-0"x7'-0"x1 3/4"	METAL	Α	9	10		3		HW-2	
111	3'-0"x7'-0"x1 3/4"	WOOD	В	3	4		1		HW-10	
112A	3'-0"x7'-0"x1 3/4"	METAL	D				4		HW-1	
112B	3'-0"x7'-0"x1 3/4"	METAL	D				4		HW-1	
113	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-11	
114	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-7	
115	PR. 3'-0"x7'-0"x1 3/4"		В	1	2		2		HW-3	
116	3'-0"x7'-0"x1 3/4"	WOOD	A	1	2		1		HW-12	
117	3'-0"x7'-0"x1 3/4"	WOOD	Α	1	2		1		HW-12	
118	3'-0"x7'-0"x1 3/4"	METAL	A	9	10		3		HW-2	
119	3'-0"x7'-0"x1 3/4"	WOOD	B	3	4		1		HW-11	
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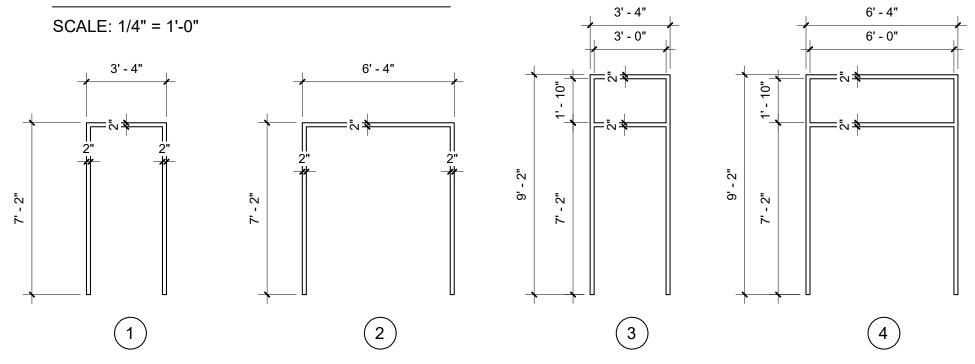




SCALE: 1/4" = 1'-0"



## FRAME TYPES



## HARDWARE SETS

HW-1

OFFSET PIVOTS OVERHEAD CLOSERS EXIT DEVICES CYLINDERS WEATHER SEAL DOOR SWEEPS THRESHOLD FLOOR STOPS

HW-2

HINGES EXIT DEVICE CLOSER-PUSH SIDE MOUNTING KICK PLATE SILENCERS WEATHER SEAL DOOR SWEEPS THRESHOLD

HW-3

FLOOR STOP

HINGES EXIT DEVICES CYLINDER OVERHEAD CLOSERS OVERHEAD STOP **PULL BAR** KICK PLATE SILENCERS WALL STOPS

1 9/16"

1 9/16"

8 1/4"

1 15/16" ++

1 15/16"

8 1/4"

 $\left(4\right)$ 

HW-4

HINGES EXIT DEVICE CLOSER-PUSH SIDE MOUNTING KICK PLATE SILENCERS

HINGES CLOSER-PULL SIDE MOUNTING **PUSH PLATE** PULL PLATE KICK PLATE SILENCERS

HW-6

WALL STOP

1 9/16" 1 15/15 8 1/4"

HINGES LOCKSET-STOREROOM FUNCTION OVERHEAD CLOSER SILENCERS FLOOR STOP

HW-7

HINGES LOCKSET-CLASSROOM FUNCTION CLOSER WALL STOP SILENCERS

8-WH

HINGES LOCKET-STOREROOM FUNCTION FLUSH BOLTS OVERHEAD STOPS DUST-PROOF STRIKE SILENCERS

HW-9

HINGES **OVERHEAD CLOSERS** LOCKSET-CLASSROOM FUNCTION **DUMMY TRIM** FLUSH BOLTS OVERHEAD STOPS SILENCERS FLOOR STOPS

1 15/16"

1 9/16"

1 9/16"

1 15/16"

8 1/4"

HW-10

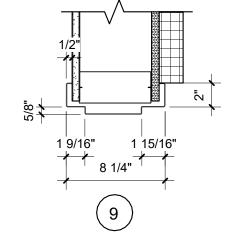
HINGES EXIT DEVICE CLOSER-PUSH SIDE MOUNTING KICK PLATE SILENCERS WALL STOP

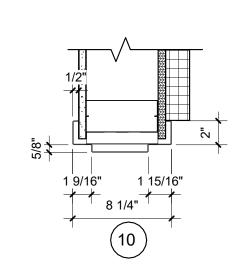
HW-11

HINGES LOCKSET-OFFICE FUNCTION CLOSER-PULL SIDE MOUNTING WALL STOP SILENCERS

HW-12

HINGES LATCHSET-PRIVACY FUNCTION SILENCERS WALL STOP





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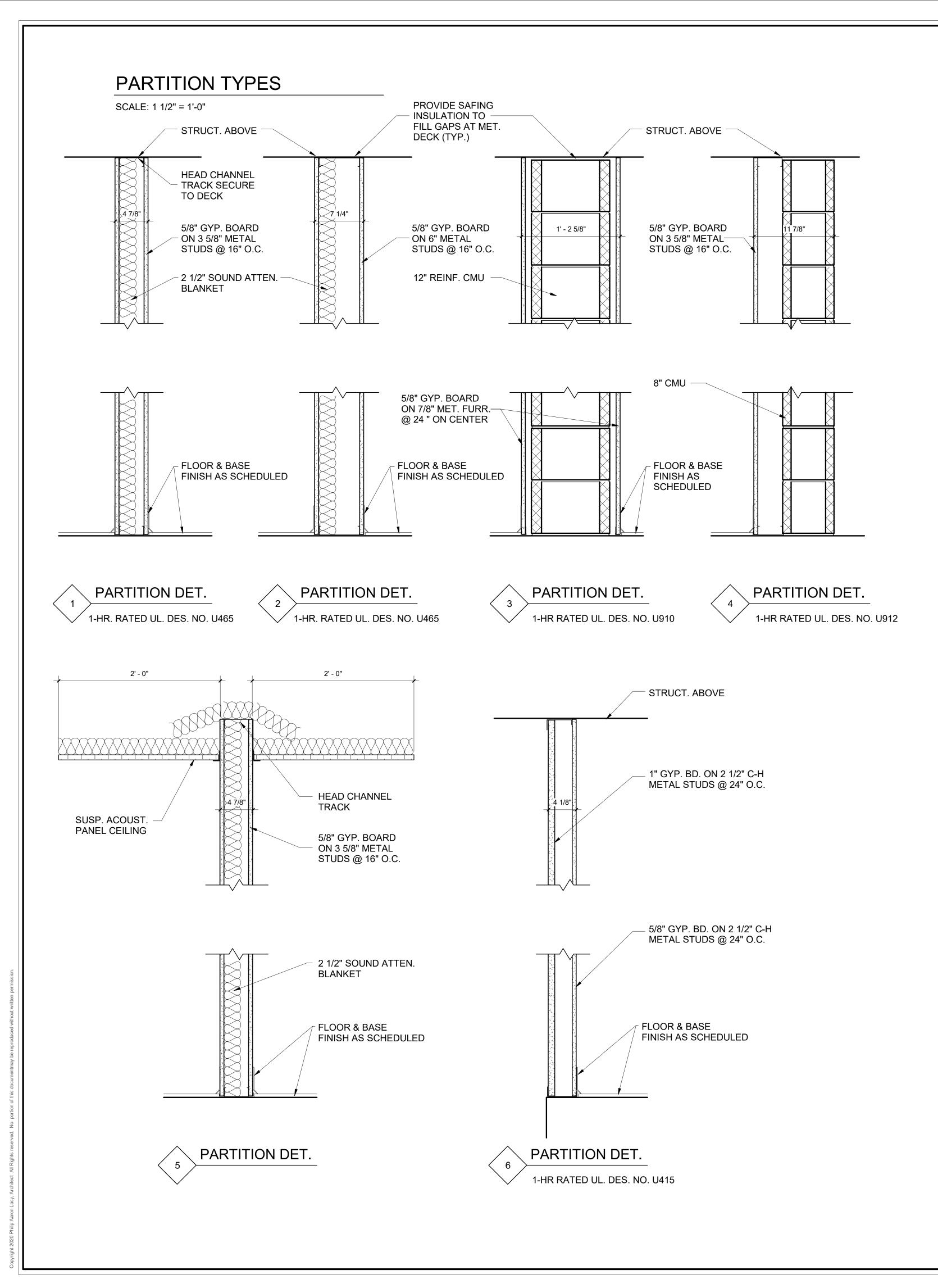
Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093

Date: JULY 5, 2022 Scale: As indicated Drawn: **Author** Checked: Checker File No.

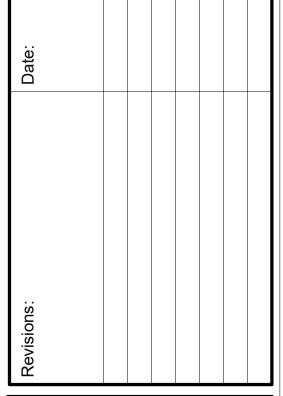
Drawing No.

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DOOMNO	DOOMANAAF	FLOOD		SH SCHE	OFILINIO	OF II IN O LIT	DEMARKO
ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	CEILING HT.	REMARKS
BASEMENT	CTAID 4	CONC	NONE	CONC / MAC	NACTAL	401.011.7	
B01	STAIR 1	CONC.	NONE	CONC. / MAS.	METAL	13'-8" +/-	PROVIDE CONC. HARDNER & SEALER
B02	CORRIDOR	VINYL	VINYL	PTD. GYP. BD.	ACOUST.	10'-0"	
B03	CLASSROOM	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	10'-0"	
B04	STORAGE	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	8'-0"	
B05	CLASSROOM	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	10'-0"	
B06	STORAGE	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	8'-0"	
B07	JANITOR CLOSET	CER. TILE	CER. TILE	PTD. GYP. BD.	ACOUST.	8'-0"	
B08	MEN	CER. TILE	CER. TILE	PTD. GYP. BD.	ACOUST.	8'-0"	
B09	WOMEN	CER. TILE	CER. TILE	PTD. GYP. BD.	ACOUST.	8'-0"	
B10	STAIR 2	CONC.	NONE	CONC/ MAS/PTD	METAL	13'-8" +/-	PROVIDE CONC. HARDNER & SEALER
B11	FELLOWSHIP HALL	VINYL	VINYL	PTD. GYP. BD.	ACOUST.	10'-0"	
B12	MECH. ROOM	CONC.	NONE	PTD. GYP. BD.	NONE	13'-8" +/-	PROVIDE CONC. HARDNER & SEALER
B13	ELECT. ROOM	CONC.	NONE	PTD. GYP. BD.	NONE	13'-8" +/-	PROVIDE CONC. HARDNER & SEALER
B14	WARMING PANTRY	Q. TILE	Q. TILE	PTD. GYP. BD.	ACOUST.	10'-0"	PROVIDE MOIST. RES. ACOUST. TILE
B15	STORAGE	VINYL	VINYL	PTD. GYP. BD.	ACOUST.	10'-0"	
B16	CLASSROOM	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	10'-0"	
B17	CLASSROOM	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	10'-0"	
B18	STAGE	WOOD	NONE	PTD. GYP. BD.	ACOUST.	9'-5"	
B19	CONTROL ROOM	CONC.	NONE	MAS/GYP B/ PTD	PTD.GYP.BD.	9'-6"	PROVIDE CONC. HARDNER & SEALER
FIRST FLOC	DR						
101	STAIR 1	CONC.	NONE	MAS/GYP B/ PTD	PTD.GYP.BD.	9'-6"	PROVIDE CONC. HARDNER & SEALER
102	CORRIDOR	VINYL	VINYL	PTD. GYP. BD.	ACOUST.	9'-0"	
103	PASTOR STUDY	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	8'-0"	
104	CLOSET	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	8'-0"	
105	TOILET	CER. TILE	CER. TILE	PTD. GYP. BD.	ACOUST.	8'-0"	
106	1st. LADY STUDY	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	8'-0"	
107	GENERAL OFFICE	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	8'-0"	
108	MEN	CER. TILE	CER. TILE	PTD. GYP. BD.	ACOUST.	8'-0"	
109	WOMEN	CER. TILE	CER. TILE	PTD. GYP. BD.	ACOUST.	8'-0"	
110	STAIR 2	CONC.	NONE	MAS/GYP B/ PTD	PTD.GYP.BD.	9'-6"	PROVIDE CONC. HARDNER & SEALER
111	CORRIDOR	STN. TILE	STN. TILE	PTD. GYP. BD.	PTD.GYP.BD.	10'-0"	
112	ENTRANCE FOYER	STN. TILE	STN. TILE	PTD. GYP. BD.	PTD.GYP.BD.	10'-0"	
113	A/V ROOM	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	9'-0"	
114	CRY ROOM	CARPET	VINYL	PTD. GYP. BD.	ACOUST.	9'-0"	
115	SANCTUARY	CARPET	VINYL	PTD. GYP. BD.	PTD.GYP.BD.	14'-0"	
116	CHANGE ROOM	CER. TILE	CER. TILE	PTD. GYP. BD.	ACOUST.	8'-0"	PROVIDE NON-SLIP CERAMIC TILE
117	CHANGE ROOM	CER. TILE	CER. TILE	PTD. GYP. BD.	ACOUST.	8'-0"	PROVIDE NON-SLIP CERAMIC TILE
118	PULPIT STAGE	CARPET	VINYL	PTD. GYP. BD.	PTD.GYP.BD.	13'-5"	
119	BAPTISTERY	CER. TILE	CER. TILE	PTD. GYP. BD.	ACOUST.	9'-6"	PROVIDE NON-SLIP CERAMIC TILE



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Date: JULY 5, 2022

Scale: As indicated

Drawn: Author

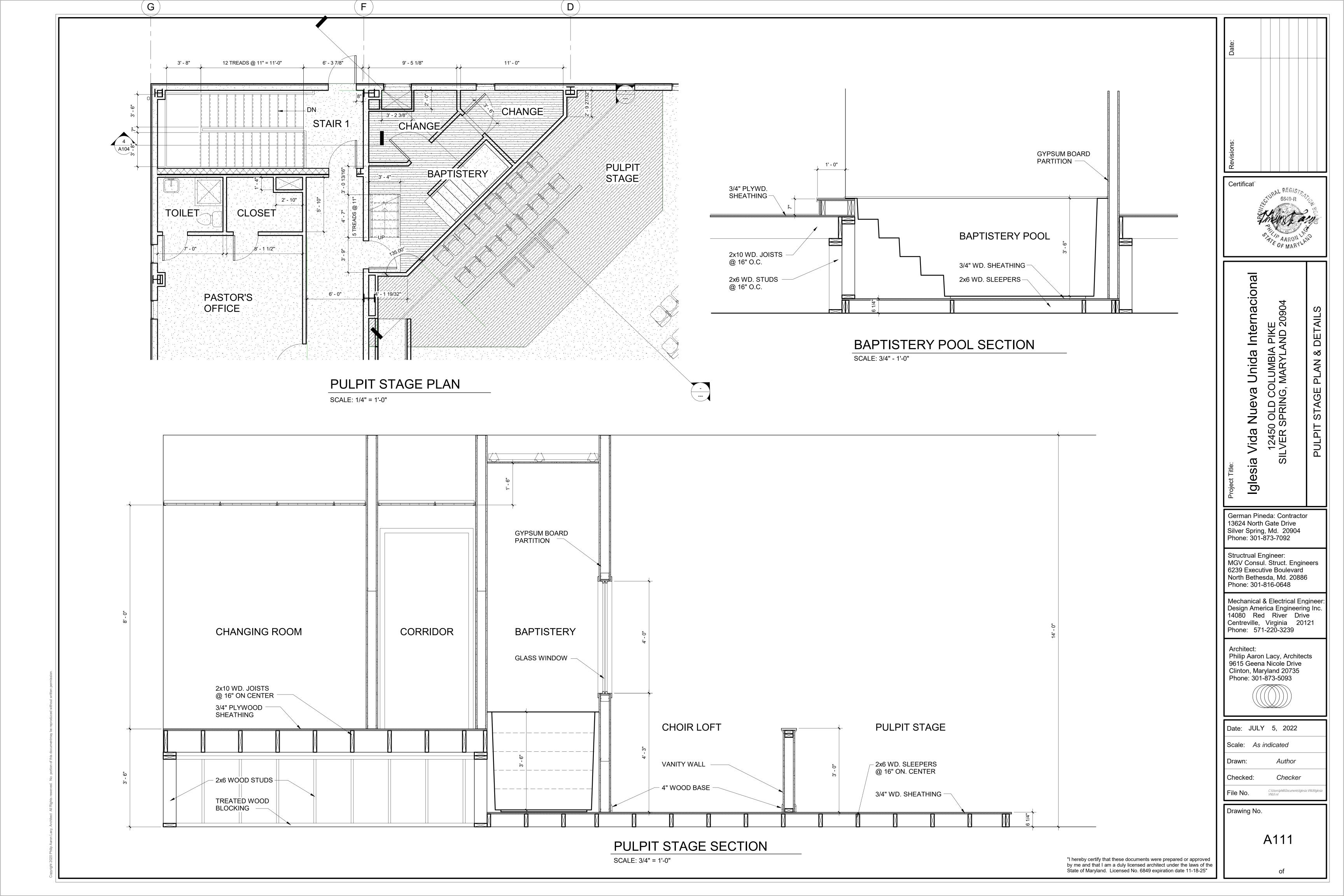
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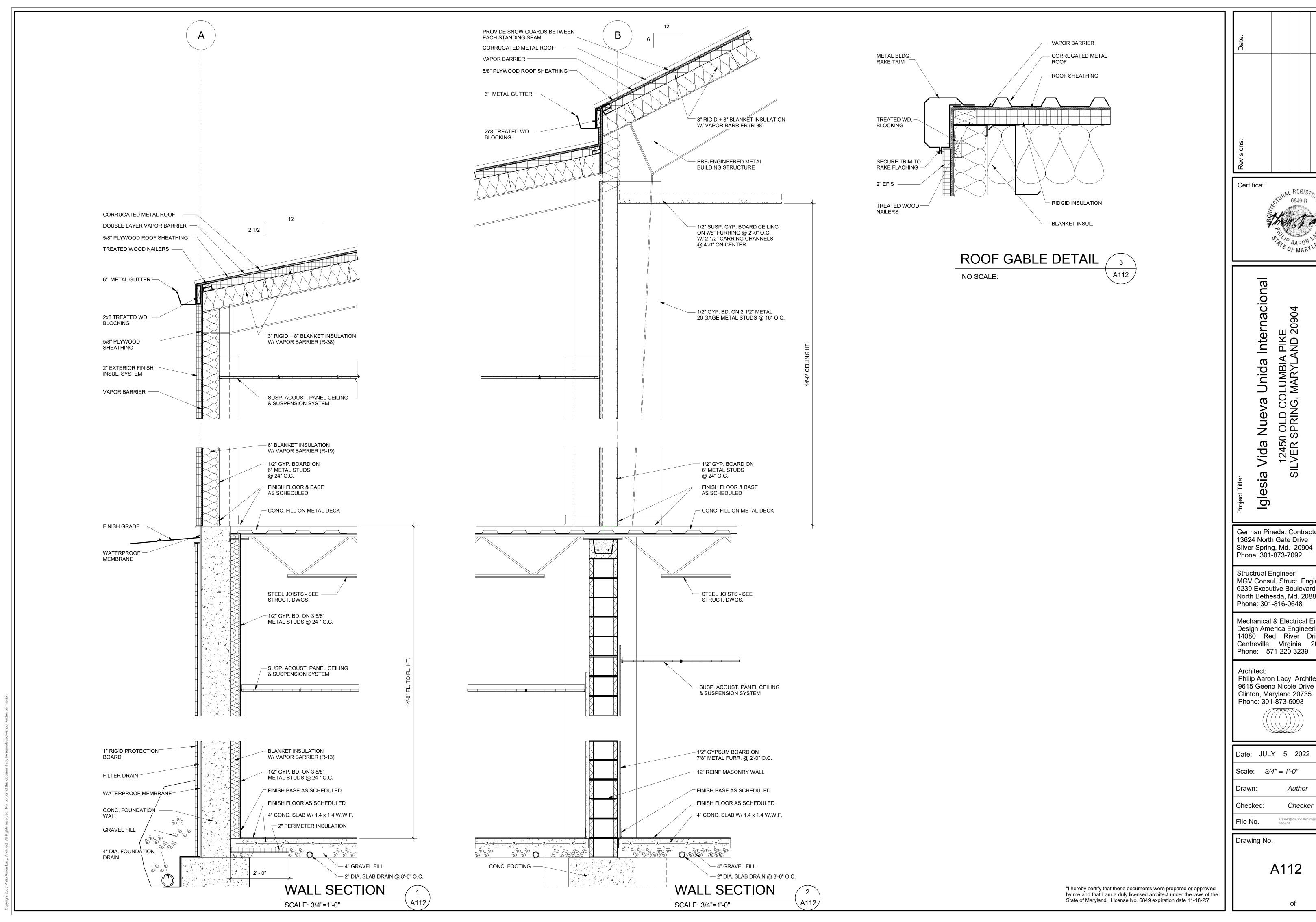
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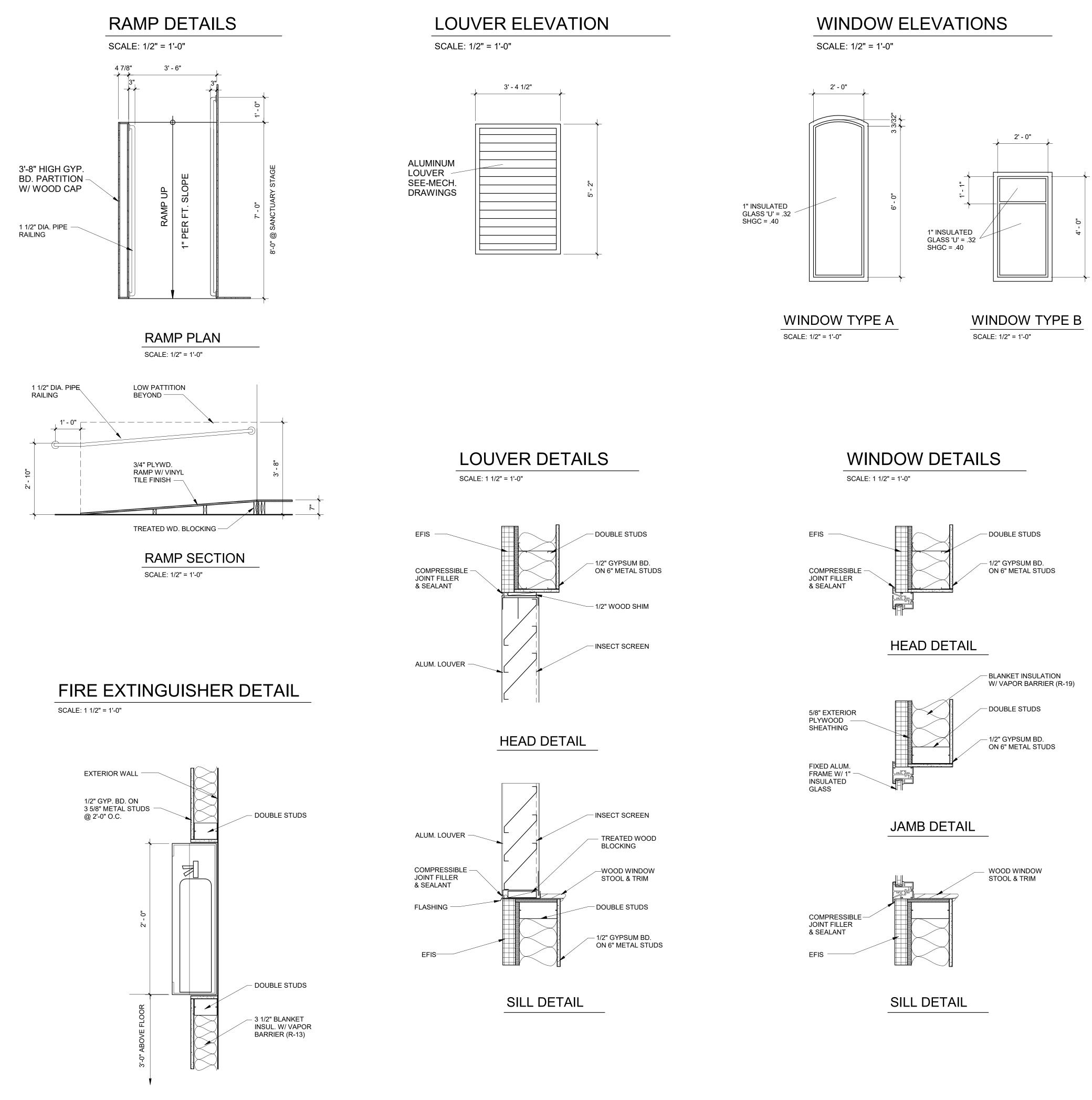
German Pineda: Contractor 13624 North Gate Drive

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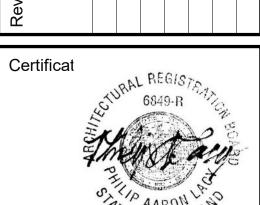
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Date: JULY 5, 2022 Author



"I certify that these documents were prepared by or approved by me and I am a duly licensed architect under the laws of the State of Maryland. License Number 6849 expiration date 11-18-25"



Vida Nueva Unida Internacional 12450 OLD COLUMBIA PIKE VER SPRING, MARYLAND 20904

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Mechanical & Electrical Engineer: Design America Engineering Inc. 14080 Red River Drive Centreville, Virginia 20121 Phone: 571-220-3239

Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093

Date: JULY 5, 2022 Scale: As indicated Drawn: Author

Checked: Checker

File No. Drawing No.

A113

## STRUCTURAL NOTES

#### DESIGN LOADS

1. LIVE LOADS = 30 PSF ROOF = 100 PSF FLOOR

2. SNOW LOADS PG =30 PSF GROUND SNOW LOAD SNOW EXPOSURE FACTOR CE = 1.0SNOW IMPORTANCE FACTOR I = 1.0FLAT ROOF SNOW LOAD PF = 21 PSF

#### 3. LATERAL LOADS

WIND LOADS PER IBC 2018 ULTIMATE DESIGN WIND SPEED 115 MPH 2. NOMINAL DESIGN WIND SPEED 89 MPH WIND LOAD IMPORTANCE FACTOR 1.0 4. RISK CATEGORY WIND EXPOSURE CATEGORY 6. INTERNAL PRESSURE COEFFICIENT ±0·18 MIN. & MAX. DESIGN WIND PRESSURE FOR THE MAIN WIND FORCE-RESISTING SYSTEM 18 PSF & 21 PSF 8. MIN. & MAX. WIND PRESSURE FOR COMPONENTS & CLADDING MATERIALS 26 PSF & 30 PSF

9. LATERAL RESISTING SYSTEM IS INCLUDING THE EXISTING BUILDING

#### SEISMIC LOADS PER IBC 2018

SEISMIC IMPORTANCE FACTOR IE = 1.02. RISK CATEGORY

3. MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss =0.125 & SI =0.055 4. SITE CLASS: MAPPED SPECTRAL RESPONSE COEFFICIENTS: 5ds =0.133 & 5dl = 0.088

SEISMIC DESIGN CATEGORY 7. BASIC SEISMIC-FORCE-RESISTANCE SYSTEM ORDINARY REINFORCED MASONRY SHEAR WALLS

8. DESIGN BASE SHEAR 0.1W 9. SEISMIC RESPONSE COEFFICIENTS Cs = 0.0810. RESPONSE MODIFICATION FACTORS R = 2.511. ANALYSIS PROCEDURE USED EQUIVALENT LATERAL FORCE PROCEDURE

#### SOIL BEARING

1. 2,000 PSF, SHALL BE VERIFIED IN THE FIELD; FOR MORE INFORMATION SEE GEOTECHICAL REPORT BY F&H CONSULTANTS DATED OCTOBER 12, 2020.

#### CONCRETE

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE ACI CODE 318-2011.

- 2· 28-DAY CONCRETE STRENGTH SHALL BE AS FOLLOWS: STONE CONCRETE: COURSE AGGREGATE SHALL CONFORM TO ASTM C33, F'c = 4,500 PSI
- 3. ALL CONCRETE EXPOSED TO THE WEATHER SHALL BE AIR ENTRAINED WITH 6%+ 1%.

#### FOUNDATION

- 1. ALL FOOTING SHALL BE PROJECT AT LEAST 1'- O" INTO UNDISTURBED NATURAL SOIL OR THE COMPACTED CONTROLLED FILL HAVING A BEARING VALUE AT LEAST EQUAL TO THAT SPECIFIED ABOVE.
- 2. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE AT LEAST 2' 6" BELOW FINISHED GRADE.
- 3. WALL FOOTINGS SHALL BE 12" DEEP AND PROJECT 6" BEYOND EACH OF WALL, UNLESS NOTED.
- 4. ELEVATION OF BOTTOMS FOOTING HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND SHALL BE CONSTRUED AS WAIVING ANY OF THE MINIMUM REQUIREMENTS STATED.
- 5. ALL MASONRY WALLS FOOTING IN CONTROLLED FILL ARE TO BE REINFORCED WITH 3 # 5 LONGITUDINAL CONTINUOUS TOP AND BOTTOM BARS, UNLESS NOTED.
- 6. ALL DISTURBED EARTH UNDER FOOTING SHALL BE REPLACED WITH CONCRETE F'C=2000 PSI-
- 7. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED.
- 8. NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (2 HORIZONTAL TO ONE VERTICAL ) TO A FOOTING.
- 9. DO NOT PLACE CONCRETE OVER FROZEN SOIL.
- 10. THE OWNER SHALL RETAIN THE SERVICES OF A SOIL CONSULTANT APPROVED BY THE ARCHITECT TO CHECK AND VERIFY THE REQUIRED SOIL BEARING PRESSURE OF EACH FOOTING

#### REINFORCEMENT STEEL

- 1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM- A615, GRADE 60.
- 2. WELDED WIRE MESH TO CONFORM TO ASTM-A185.
- 3. FABRICATE AND PROVIDE STANDARD SUPPORTING ACCESSORIES IN ACCORDANCE WITH THE ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES ACI 315-LATEST ADDITION.
- 4. ALL CONTINUOUS REINFORCING SHALL BE SPLICED WITH TYPE " B " SPLICE STAGGERED, UNLESS NOTED OTHERWISE.
- 5. IN THE GARAGE SLABS, ALL REINFORCING BARS LOCATED IN THE TOP 2" OF THE SLABS.
- 6. SUBMIT FOR APPROVAL SHOP DRAWING SHOWING ALL REINFORCING STEEL AND LOCATIONS OF COLD JOINTS FOR EXTENT OF THE CONCRETE POUR.

### CONCRETE PROTECTION FOR REINFORCEMENT

- 1. FOOTING AND OTHER CONCRETE POURED AGAINST EARTH 3"
- 2. FORMED CONCRETE EXPOSED TO EARTH 2" FOR BARS LARGER THAN #5, 1 1/2" FOR #5 AND SMALLER BARS.
- 3. BEAMS, COLUMNS AND TOP REINFORCING IN THE GARAGE SLAB 1 1/2".
- 4. INTERIOR SLABS 3/4".
- 5. INTERIOR FACES OF WALLS 1", EXTERIOR FACES EXPOSED TO WEATHER 1 1/2"
- 6. SLABS ON GROUND, UNLESS OTHERWISE NOTED, TO HAVE REINFORCEMENT AT MID-DEPTH.

#### SLAB ON GRADE

1· EXCEPT WHERE OTHERWISE NOTED, SHALL BE 4" OR 6" THICK (SEE PLAN), REINFORCED WITH 4 X 4 - W2·9 X W2·9

- 2. LAP MESH 6" IN EACH DIRECTION.
- 3. FOR ALL EXTERIOR SLABS ON GRADE AIR ENTRAINED CEMENT WITH ENTRAINED AIR OF 6% OR EQUIVALENT, AIR ENTRAINING AGENT SHALL BE USED.
- 4. PROVIDE CONTROL JOINTS AT 20'-O" O·C· EACH WAY IN ALL SLABS ON GRADE.
- 5. INTERIOR SLAB SHALL BE LAID ON A LAYER OF 6 MIL. POLYETHYLENE OVER A 4" LAYER OF WASHED GRAVEL.
- 6. SEE SOIL CONSULTING RECOMMENDATIONS FOR PREPARATION OF SUB-GRADE.

#### *MASONRY*

- 1. SOLID CONCRETE MASONRY SHALL BE GRADE NI IN ACCORDANCE WITH ASTM C-145 AND MAY BE 75% SOLID, UNLESS OTHERWISE NOTED.
- 2. HOLLOW CONCRETE MASONRY UNITS SHALL BE GRADE NI CONFORMING TO ASTM C-90.
- 3. CONCRETE MASONRY UNITS SHALL BE WITH LIGHT CONCRETE.
- 4. ALL MORTAR SHALL BE TYPE "S" CONFORMING TO ASTM C-270 FOR ABOVE GRADE CONSTRUCTION. USE TYPE "M" FOR BELOW GRADE.

- 5. PROVIDE A MINIMUM OF 3 COURSES OF SOLID BRICK OR ONE COURSE 100% SOLID BLOCK UNDER WALL BEARINGS ENDS OF ALL JOISTS AND SLABS THE FULL WIDTH OF THE WALL, UNLESS NOTED.
- 6. PROVIDE 100% SOLID MASONRY DOWN TO FOOTINGS UNDER ALL BEAMS AND LINTELS BEARING ON MASONRY, UNLESS NOTED.
- 7. IN BEARING WALLS, PROVIDE SOLID BRICK OR 100% SOLID CONCRETE BLOCK EXTENDING 8" BEYOND WALL OPENINGS THE FULL WALL THICKNESS DOWN TO THE FLOOR, UNLESS NOTED.
- 8. ALL PORTIONS OF BEARING WALLS HAVING A HORIZONTAL CROSS SECTION OF 4 SQ. FT. OR LESS SHALL BE OF
- SOLID MASONRY DOWN TO FOOTINGS.
- 9. PROVIDE HORIZONTAL MASONRY REINFORCING AT 16" O·C· IN ALL MASONRY WALLS UNLESS NOTED.
- 10. PROVIDE VERTICAL CONTROL JOINTS IN ALL MASONRY WALLS @ 30'-0" O.C., UNLESS NOTED.
- 11. ALL MORTAR JOINTS IN MASONRY WALLS (HORIZONTAL & VERTICAL) SHALL BE FILLED 100% WITH MORTAR.
- 12. GROUT SHALL BE SAND AND CEMENT, 8 BAGS OF CEMENT PER CUBIC YARD.
- 13. PROVIDE MASONRY TIES BETWEEN 4" BRICK VENEER WALL AND THE STEEL STUD WALL. SPACE TIES @ 16" VERTICAL AND 24" HORIZONTAL.

#### STRUCTURAL STEEL

CERTIFIED WELDERS ONLY.

- SHALL BE IN ACCORDANCE WITH THE LATEST AISC SPECS. FOR "DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
- 2. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 GRADE 50. STRUCTURAL TUBING SHALL CONFORM TO ASTM ASOO GRADE B AND STEEL PIPE COLUMNS SHALL CONFORM TO ASTM ASOI.
- 3. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARD CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION, LATEST CODE, AND SHALL BE PERFORMED BY
- SHOP AND FIELD CONNECTIONS SHALL BE WELDED OR MADE WITH 3/4" STEEL HIGH STRENGTH BOLTS IN ACCORDANCE WITH ASTM -A325 OR A490.
- ESTABLISH SPECIAL PROCEDURES FOR WELDS LARGER THAN 3/8" TO PREVENT LAMELLAR TEARING.
- 6. NO HOLES SHALL BE LOCATED IN FLANGES OF BEAMS UNLESS APPROVED BY THE ENGINEER.
- 7. THE OWNER SHALL RETAIN THE SERVICES OF A QUALIFIED INSPECTOR TO INSPECT ERECTED STEEL AND CONNECTIONS.
- NO FIELD CUTTING OF THE STEEL MEMBERS SHALL BE PERMITTED WITHOUT PRIOR AUTHORIZATION OF THE STRUCTURAL ENGINEER.
- 9. PROVIDE STEEL SCREEN ANGLES ALONG EDGE OF CONCRETE SLAB WHERE REQUIRED.
- 10. ALL STEEL TO BE PERMANENTLY EXPOSED TO WEATHER OR SOIL SHALL BE HOT DIP GALVANIZED.
- 11. SUBMIT FOR APPROVAL ALL STEEL SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE BUILDING'S JURISDICTION. ALLOW TWO WEEKS FOR THE REVIEW OF STRUCTURAL SHOP DRAWINGS.
- 12. ALL BEAM CONNECTION SHALL BE DESIGNED FOR THE MAXIMUM SHEAR CAPACITY.
- 13. ALL STEEL ERECTION SHALL BE COMPLETED, INCLUDING ALL BRACING BEFORE OTHER TRADES START

#### STEEL JOISTS

1. ALL MATERIALS, DESIGN, FABRICATION AND ERECTION SHALL BE IN CONFORMANCE WITH THE AISC SPECIFICATIONS AND SJI SPECIFICATIONS.

- 2. PROVIDE EXTENSIONS FOR CEILING WHERE REQUIRED.
- SHORT SPAN JOISTS SHALL BEAR 4" ON MASONRY OR CONCRETE AND BE EMBEDDED IN MORTAR AND SHALL BEAR 2 1/2" ON STEEL AND BE SECURED WITH TWO 1/8"WELDS EACH 1" LONG AT EACH BEARING:
- 4. ALL BRIDGING SHALL BE WELDED TO JOIST CHORDS AND WELDED TO BEAMS OR ANCHORED TO WALL AT END OF ROWS.
- WHERE BRIDGING IS INTERRUPTED BY DUCTS, LIGHT FIXTURES, ETC., PROVIDE THE BRIDGING ON EACH SIDE OF THE INTERRUPTION.

6. LONG SPAN JOISTS SHALL BEAR 6" ON MASONRY OR CONCRETE AND BE EMBEDDED IN MORTAR AND SHALL

BEAR 4" ON STEEL AND BE SECURED WITH  $\frac{1}{8}$ " WELDS EACH 2" LONG AT EACH BEARING. 7. "SP" DESIGNATES JOISTS WITH SPECIAL LOADING OR DEFLECTION CRITERIA AND SHALL BE DESIGNED BY JOIST MANUFACTURER. SEE LOADING DESIGNS ON PLANS. SUBMIT CALCULATIONS ALONG WITH SHOP

#### FLOOR SLAB OVER STEEL JOISTS

DRAWINGS FOR APPROVAL.

- 3" NORMAL WEIGHT CONCRETE SLAB SHALL BE POURED OVER GALVANIZED 26 GAGE METAL CENTERING, STANDARD CONFORM, SLABFORM OR EQUAL, REINFORCED WITH 6" X 6"- W2.0 X W2.0 W.W.F.
- TOTAL THICKNESS OF SLAB SHALL BE 3" MINIMUM INCLUDING METAL CENTERING

#### PREFABRICATED BUILDING

- PREFABRICATED BUILDING FRAMES SHALL CONSIST OF RIGID FRAMES WITH PURLINS TO SUPPORT THE ROOF AND WALLS COVERING. THE MANUFACTURER SHALL DESIGN, DETAIL, AND FABRICATE THE COMPLETE STRUCTURAL FRAMING SYSTEM INCLUDING COLUMN BASE, COLUMNS, GIRTS, METAL DECKS AND OTHER STRUCTURAL COMPONENTS. DESIGN LOADS SHALL BE PER THE STANDARD BUILDING CODE 1996 EDITION. DESIGN LOADS SHALL INCLUDE, WIND LOADS AND OTHER APPLICABLE LOADS. THE STRUCTURAL SUPPORT SHALL BE DESIGNED FOR THE MINIMUM LOADS INDICATED ON THE DRAWINGS. THE BUILDING SUPPLIER SHALL VERIFY THE LOADS. SEE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND PLUMBING DRAWINGS. MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND DESIGN ANALYSIS OF ALL STRUCTURAL ELEMENTS TO THE CONTRACTING OFFICER FOR REVIEW BEFORE FABRICATION. SHOP DRAWINGS AND DESIGN ANALYSIS SHALL BE CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MARYLAND. ALL STRUCTURAL MILL SECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF AISC. ALL COLD-FORMED STEEL STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF "AISC" SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS". ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY CODE FOR BUILDING CONSTRUCTION BY CERTIFIED WELDERS ONLY. THE BASE PLATE, ANCHOR BOLTS, REACTIONS AND MOMENTS RESULTING FROM ALL APPLIED LOADS.
- BUILDING SHALL BE DESIGNED TO ACCOMMODATE FEATURES AS DESCRIBE IN ARCHITECTURAL. STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS OF THE CONTRACT DOCUMENTS, AND CONTRACTOR SHALL COORDINATE ALL ROOF OPENING WITH ARCHITECT AND MECHANICAL DRAWINGS.
- FOUNDATIONS HAVE BEEN DESIGNED FOR LOADS SHOWN IN SCHEDULE SHOULD FOUNDATIONS AS SHOWN BE INADEQUATE IN CONSIDERATION OF BUILDING MANUFACTURERS REQUIREMENTS. CONTRACTOR SHALL SUBMIT BUILDING REACTIONS TO THE CONTRACTING OFFICER FOR REDESIGN OF FOOTINGS.

#### STEEL STAIRS AND HANDRAILS

- 1. STEEL STAIRS AND HANDRAILS SHALL BE DESIGNED AND DETAILED BY SUPPLIER.
- 2. SUBMIT SHOP DRAWINGS CALCULATION SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE BUILDING'S JURISDICTION.

#### LINTELS

- PROVIDE, UNLESS NOTED OTHERWISE, PRE-CAST LIGHTWEIGHT CONCRETE LINTELS FOR ALL OPENINGS AND RECESSES IN CONCRETE MASONRY UNIT WALLS:
- A. ONE 4" X 8" LINTEL FOR EACH 4" OF WALL THICKNESS. B. ONE 6" X 8" LINTEL FOR EACH 6" OF WALL THICKNESS.
- REINFORCE EACH LINTEL UNIT WITH ONE # 4 BAR TOP AND ONE # 4 BAR BOTTOM, WITH # 2 TIE BARS SPACED AT 8" O·C· CONCRETE LINTEL UNITS SHALL HAVE 8" MINIMUM BEARING AT ENDS AND MAY BE USED FOR OPENING.
- 2. FOR ALL OPENINGS AND RECESSES IN BRICK WALLS, PROVIDE ONE STEEL ANGLE FOR EACH 4" OF WALL THICKNESS AS FOLLOWS:
  - A. L 3 1/2" X 3 1/2" X 1/4" FOR OPENINGS UP TO 4'-0". B. L 4" X 3 1/2" X 1/4" FOR OPENINGS 4'-1" TO 5'-11".
- W8 X 18 WITH SUSPENDED 1/4" PLATE SAME WIDTH AS WALL FOR OPENINGS GREATER THAN 6'-O". LESS THAN 8'-0", UNLESS NOTED· PROVIDE 6" MINIMUM BEARING AT EACH END·

#### SHEATHING, SHORING AND BRACING

SHALL BE DESIGNED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT JURISDICTION AND SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL. SHOP DRAWINGS AND CALCULATION MUST SHOW INSTALLATION DETAILS AND SEQUENCE OF OPERATION.

#### SHOP DRAWINGS & RFI's

- 1. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED BY THE CONTRACTOR AND REVIEWED BY THE ENGINEER. IF CONTRACTOR OR OWNER FAILS TO SUBMIT THE SHOP DRAWINGS, MGV WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT.
- 2. THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS BEFORE SUBMITTING TO ENGINEER, MAKE ALL
- CORRECTIONS AS HE DEEMS NECESSARY AND SHALL CERTIFY ON EACH DRAWING AS FOLLOWS. 3. REPRODUCTION OF STRUCTURAL DRAWINGS FOR USE AS SHOP DRAWINGS SHALL NOT BE PERMITTED.
- 4. ALLOW TWO WEEKS FOR THE REVIEW OF STRUCTURAL SHOP DRAWINGS.
- 5. ALLOW FIVE WORKING DAYS FOR THE REVIEW OF STRUCTURAL RFI'S AND RESPOND.

#### TESTING AND INSPECTION

1. INSPECTION FOR ALL STRUCTURAL PORTIONS OF THE PROJECT SHALL BE PROVED AS REQUIRED BY THE APPLICABLE BUILDING CODE.

- 2. THE OWNER'S TESTING AGENCY SHALL PERFORM ALL INSPECTIONS AND TESTING.
- 3. ALL CONCRETE WORK SHOWN ON THESE DRAWINGS AND SPECIFIED IN THE SPECIFICATIONS SHALL BE INSPECTED IN ACCORDANCE WITH ACI-318 (LATEST EDITION). COPIES OF FIELD REPORTS, CONCRETE MIXES, CYLINDER TESTS, AND OTHER DATA SHALL BE SENT TO THE ARCHITECT, ENGINEER, AND OWNER.
- 4. ALL FIELD AND LAB TESTING OF CONCRETE SHALL CONFORM TO THE LATEST APPROVED EDITIONS OF ASTM APPLICABLE SPECIFICATIONS.

#### GENERAL

- ALL DETAIL, SECTION, AND NOTES SHOWN ON DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS NOTED.
- 2. DO NOT SCALE DRAWINGS.
- 3. REFER TO ARCHITECTURAL, MECHANICAL DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, SLEEVES, DRIPS, REVEALS, FINISHES, DEPRESSIONS, DOOR AND OTHER SUCH PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.
- 4. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED TO PROPERLY CONSTRUCT THE BUILDING.
- 5. ALL HANGERS FOR MECHANICAL PIPING, DUCTWORK, AND EQUIPMENT SHALL BE CONNECTED TO THE STRUCTURAL MEMBERS. THE HANGERS SHALL BE LOCATED SUCH THAT DO NOT PRODUCE EQUIVALENT UNIFORM LOAD OF MORE THAN 3 PSF. SUBMIT SHOP DRAWINGS FOR HANGER TYPE AND LAYOUT FOR APPROVAL.
- $6\cdot$  PROVIDE ALL CLIPS, INSERTS, TIES, ANCHOR STRAPS, HANGERS, BOLTS AND OTHER FASTENERS AS REQUIRED $\cdot$
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION AND ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- 8. NO PART OF THE BUILDING SHALL BE USED AS A STAGING AREA RESULTING IN A LOAD (UNDER THE LIMITED LOADED AREA) THAT EXCEEDS 75% OF THE DESIGN LIVE LOAD.

NEW CMU WALL

NEW FOOTING

WELD SYMBOL

(WWF)

′ 4"@12"

- SECTION NUMBER

— SHOWN ON SHEET NUMBER

WIRE WELDED FABRIC

SECTION INDICATION

ELEVATION DATUM

DETAIL INDICATION

9. ALL FORMWORK AND SHORING DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR

10. SEE ARCHITECTURAL DRAWINGS FOR INSULATION VALUE AND LOCATION

# **ABBREVIATIONS**

#### ANCHOR BOLT ADD'LADDITIONAL ARCH. ARCHITECTURAL BALANCE -------BEAM F-----BOTT. = BOTTOM

= CONTROL JOINT = CENTER LINE  $C \cdot C \cdot = CENTER TO CENTER$ = CLEAR = COLUMN CONC CONCRETE

 $BAL \cdot$ 

 $CONT \cdot$ 

 $\textit{E-W} \cdot$ 

 $BM \cdot$ 

 $DET \cdot$ DETAIL  $DIA \cdot$ DIAMETER DWG. DRAWING DOWELS DWLS. EA. EACH

CONTINUOUS

EACH FACE EXPANSION JOINT E·J· ELEVATION E.O.S. EDGE OF STRUCTURAL SLAB

EACH WAY

 $EXP \cdot$ EXPANSION  $FIN\cdot$ FINISHED FLOOR = FAR FACE  $F \cdot F \cdot$ 

= HORIZONTAL

 $H \cdot D \cdot G \cdot = HOT DIP GALVANIZED$  $JT\cdot$ = JOINT = LONG LEG HORIZONTAL LLH= LONG LEG VERTICAL LLV

LW = LONG WAY = MAXIMUM MECHANICA MIN MINIMUM  $N \cdot F \cdot$ NEAR FACE

NO· NUMBER NTS. NOT TO SCALE  $O \cdot C \cdot$ = ON CENTER OPNG. = OPENING

PRECAST CONCRETE  $P \cdot C \cdot$ PREMOLDED JOINT FILLER = PLATE = RADIUS

REINE. = REINFORCEMENT  $REQ'D\cdot$ = REQUIRED SCHED. = SCHEDULE SECT. = SECTION

SIM. SIMILAR 5.0.G. SLAB ON GRADE 5.5. STAINLESS STEEL STEEL STD. = STANDARD

STIFF. STIFFENER 5.W. SHORT WAY SYMMETRICAL  $T \cdot \& B \cdot = TOP \text{ AND BOTTOM}$ = TOP OF STEEL DECK

 $T \cdot O \cdot F \cdot = TOP \ OF \ FOOTING$  $T \cdot O \cdot SL \cdot = TOP \ OF \ STRUCTURAL \ SLAB$  $T \cdot O \cdot ST \cdot = TOP \ OF \ STEEL$  $T \cdot O \cdot W \cdot = TOP OF STRUCTURAL WALL$  $TYP \cdot$ = TYPICAL

 $U \cdot O \cdot N \cdot = UNLESS OTHERWISE NOTED$ 

= VERTICAL = VERIFY IN FIELD  $V \cdot I \cdot F \cdot$ = WORKING POINT  $\omega \cdot P \cdot$  $W \cdot W \cdot M \cdot = WELDED WIRE MESH$ 

Certification: by me, & that I am a duly licensed professional engineer under the

License No. 18370, Exp. date: 08-12-2025

<u>.</u> ā Unid

()S

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Structrual Engineer: MGV Consul Struct Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648

Charles Ford & Associates 13100 Collingwood Terrace Silver Spring, Maryland 20904 Phone: 202-436-0812 Architect:

Mechanical & Electrical Engineer:



Date: MARCH 22, 2021

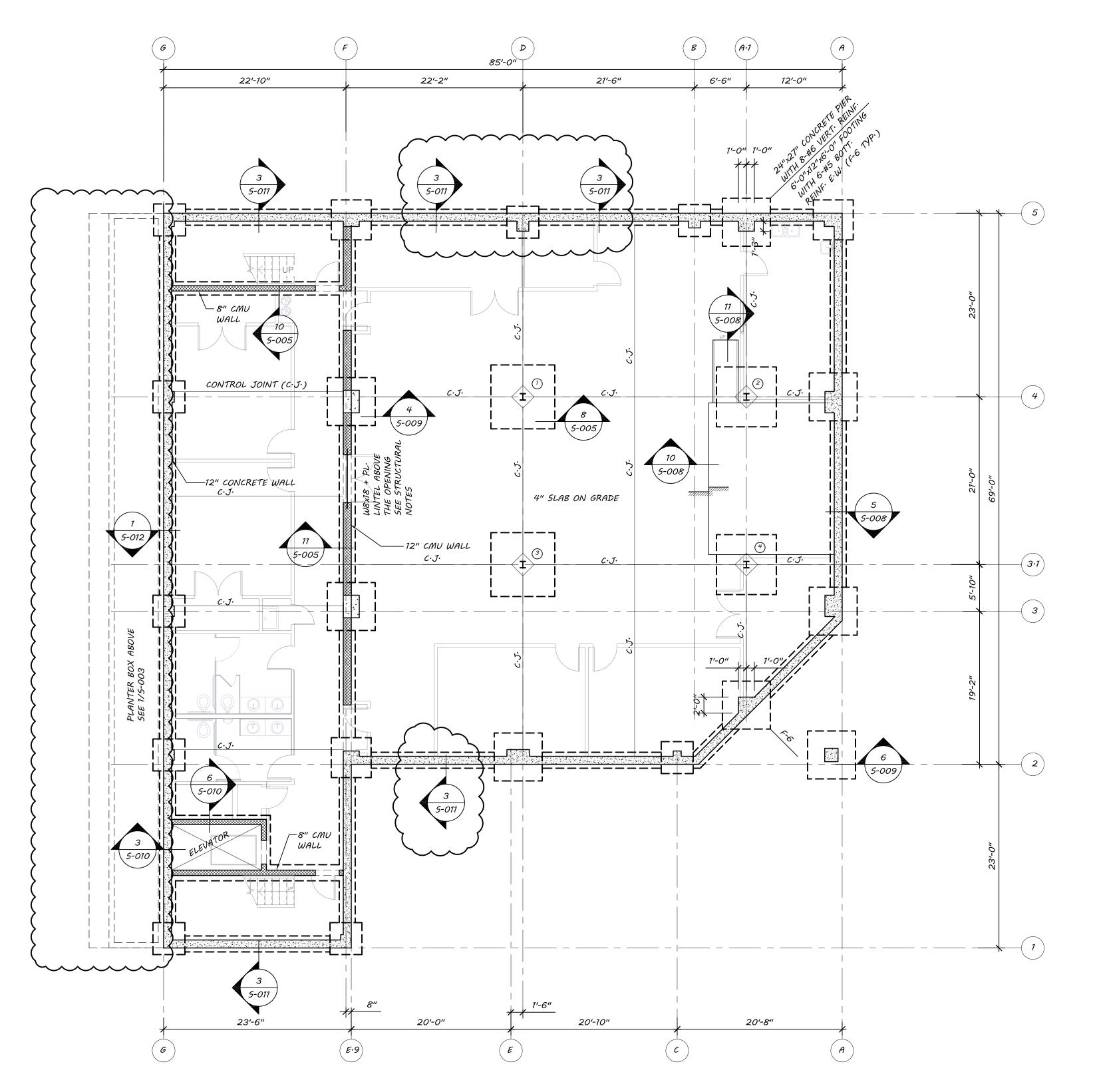
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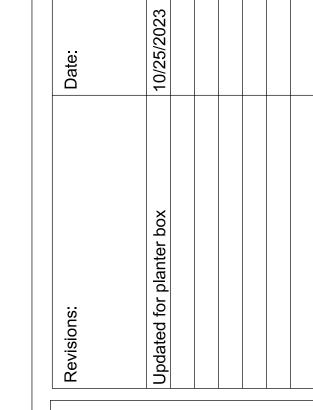
MV





NOTES:

- 1. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ELEVATIONS & INFORMATION NOT SHOWN-
- 2. COLUMN SCHEDULE SEE S-004.
- 3. CENTER OF FOOTING IS THE SAME AS CENTER OF PIER, FOR CONCRETE PIER DIMENSIONS SEE S-007.



Certification:

I hereby certify that these documents were prepared or approved by me, & that I am a duly licensed professional engineer under the Laws of the state of Maryland.

License No. 18370, Exp. date: 08-12-2025

a Unida Internacional SOLUMBIA PIKE 3, MARYLAND 20904

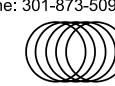
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Philip Aaron Lacy, Architects
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Date: MARCH 22, 2021

Scale: AS SHOWN

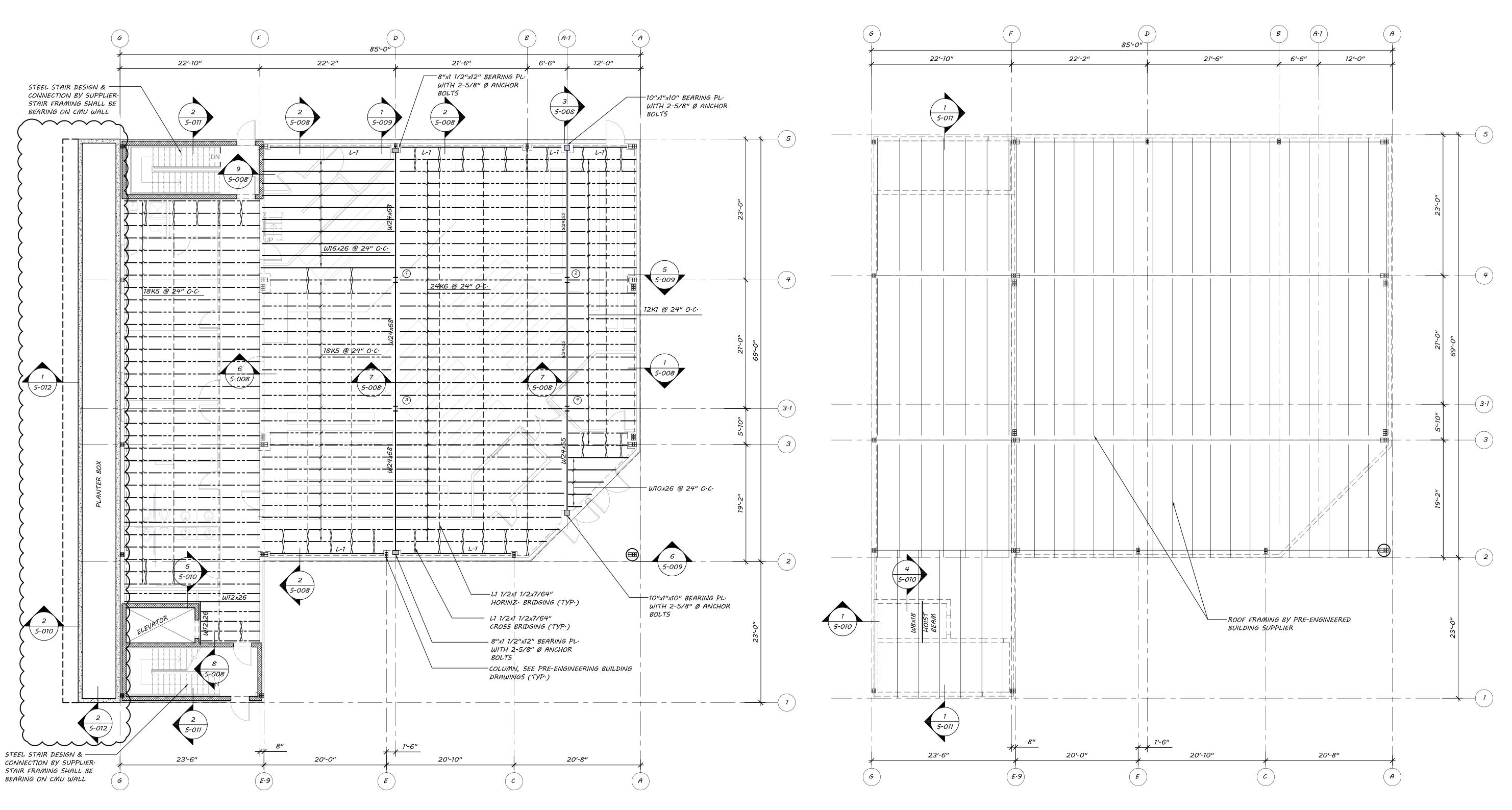
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Drawing No.

S-002



# 1ST FLOOR FRAMING PLAN (1

### NOTES:

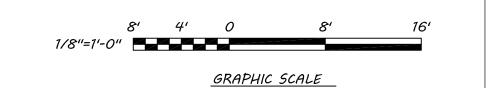
- 1. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ELEVATIONS & INFORMATION NOT SHOWN.
- 2. DESIGN LIVE LOAD OF FLOOR = 125PSF
- 3. ALL STEEL JOISTS @ COLUMN LOCATIONS SHALL HAVE BOTTOM CHORD SAME AS TOP CHORD.
- 4. ALL STEEL BEAMS SHALL HAVE STIFF. PLATE @ 6'-0" O.C. @ EACH SIDE OF BEAM.
- 5. L-1 INDICATES CONT. L4x4x $\frac{5}{16}$ " WITH  $\frac{1}{2}$ "Ø x6" LONG STUDS @ 24" O·C.

- 1. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ELEVATIONS & INFORMATION NOT SHOWN.
- 2. DESIGN LIVE LOAD OF ROOF = 30 PSF





- 3. FOR PRE-ENGINEERED BUILDING NOTE SEE STRUCTURAL NOTES ON S-001



by me, & that I am a duly licensed professional engineer under the

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Drawing No.

S-003

MV

# COLUMN SCHEDULE AT LOCATIONS OF PRE-ENGINEERED BUILDING

	COLUMN	A-2	A-3	A-4	A-5	<i>B</i> -5	D-5	F-5	<i>G</i> -5	F-4	G-4	F-3	G-3	F-2	G-2	E-2	C-2	G-1	E·9-1	COLUMN	DAD
DING	VERT. LOAD, K	21.8	47-2	51·1	25.8	0.5	0.6	30.9	5.3	60.7	10-6	56.3	9.8	31.0	9.5	0.5	0.5	6.2	6.7	VERT. LOAD, K	UILDING
ED RUIL	UPLIFT LOAD, K	-7.5	-12-0	-16·7	-8.3			-10-9	-3.8	-21-6	-5.0	-19·9	-7.7	-13·3	-7·1			-4.9	-5.0	UPLIFT LOAD, K	SED B
FROM	HORIZ· LOAD, K	±12·5	±27·8	±26·4	±14·0	±7·1	±8·4	±14·2	±1·3	±26·5	±2·2	±24·5	±2·0	±16·2	±2·3	±7·8	±7·8	±3·6	±4·2	HORIZ· LOAD, K	SS FROM ENGINEER
LOADS PRE-EN	HORIZ: BRACING LOAD, K	±3·5	±8·1	±8·8	±4·2			±4·2		±8·8		±8·1		±8·6						HORIZ: BRACING LOAD, K	LOADS PRE-EI
	PIER SIZE &	20"x20"	32"x26"	32"x26"	26"x20"	18"x20"	18"x27"	24"x20"	16"x20"	24"x32"	16"x16"	24"x32"	16"x16"	24"x20"	16"x16"	34"x20"	12"x20"	16"x20"	16"x20"	PIER SIZE	
	VERT: REINF:	8-#6	8-#6	8-#6	8-#6	6-#6	6-#6, SEE 1/S-009	8-#6	6-#6	8-#6	4-#6	8-#6	4-#6	8-#6	4-#6	8-#6	6-#6	6-#6	6-#6	VERT: REIN	JF·
l	ERT: LOAD + VEIGHT OF PIER + EAM REACTION, K	27.0	60.0	65.0	35.0	6.0	74-0	39.0	11.0	72.0	17.0	69.0	16.0	39.0	16.0	70.0	13.0	12.0	13.0	VERT: LOAD + WEIGHT OF PIER + BEAM REACTION, K	(
90	SIZE (FT·)	6'-0"x6'-0'	6'-0"x6'-0"	6'-0"x6'-0"	5'-0"x5'-0"	4'-0"x4'-0	" 6'-5"x6'-5"	5'-0"x5'-0"	4'-0"x4'-0"	6'-5"x6'-5"	4'-0"x4'-0'	6'-0"x6'-0"	4'-0"x4'-0"	5'-0"x5'-0"	4'-0"x4'-0"	6'-0"x6'-0	"	4'-0"x4'-0"	4'-0"x4'-0"	SIZE (FT·)	90
FOOTING	THICKNESS (IN·)	16"	14"	14"	12"	12"	16"	12"	12"	16"	12"	14"	12"	12"	12"	14"	12"	12"	12"	THICKNESS (IN·)	FOOTING
	REINF: BOTTOM-E:W:	6-#5	6-#5	6-#5	5-#5	4-#5	7-#5	5-#5	4-#5	7-#5	4-#5	6-#5	4-#5	5-#5	4-#5	6-#5	4-#5	4-#5	4-#5	REINF· BOTTOM-E·W·	

# COLUMN SCHEDULE @ BASEMENT

FLC	COL· NUMBER DORS	7	2	3	4
151	FLOOR				
ва.	SEMENT	115 K	W12x58 89 7	105 K	25 K
			Т	<u></u>	Τ
	OTAL LOAD KIPS)	115 <sup>K</sup>	85 <sup>K</sup>	105 <sup>K</sup>	75 <sup>K</sup>
В	ASE PLATE	16"x1"x16"	16"x1"x16"	16"x1"x16"	16"x1"x16"
PLA	V· BOT· OF BASE TE 7" BELOW SH SLAB U·N·O·				
PIER	SIZE				
P	REINF:				
	SIZE (FT·)	8'-0"x8'-0"	7'-6"x7'-6"	8'-0"x8'-0"	7'-6"x7'-6"
FOOTING	THICKNESS (IN·)	20"	18"	20"	18"
5	REINF: BOTTOM-E:W:	8-#6	8-#6	8-#6	8-#6

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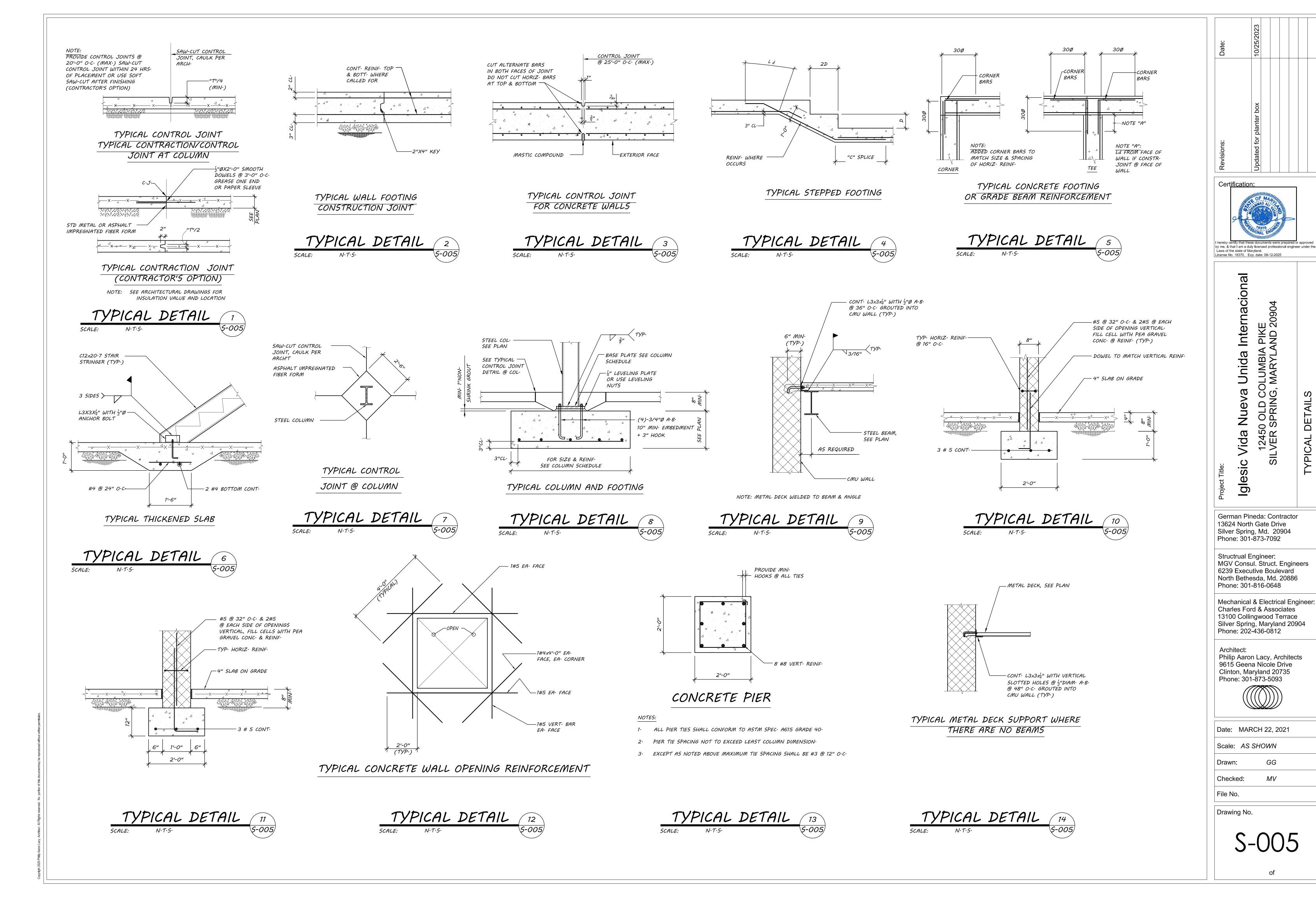


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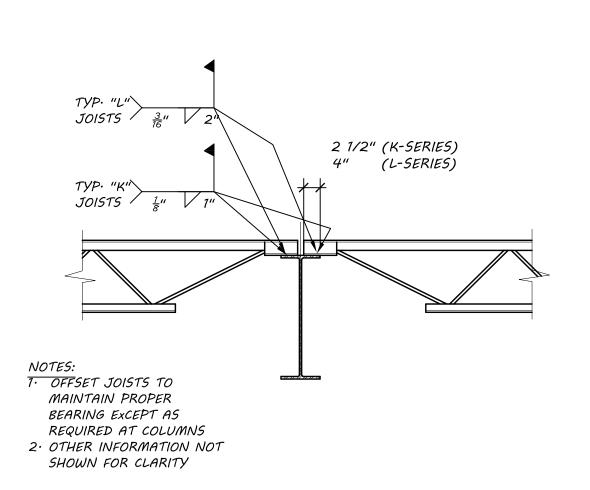
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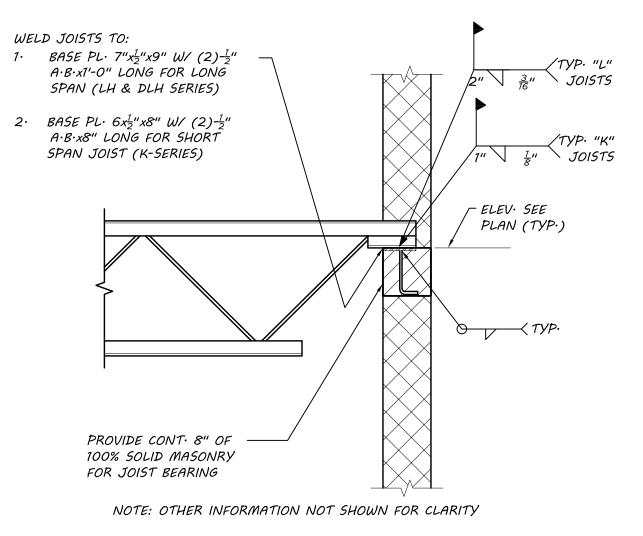
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PICAL DETAILS



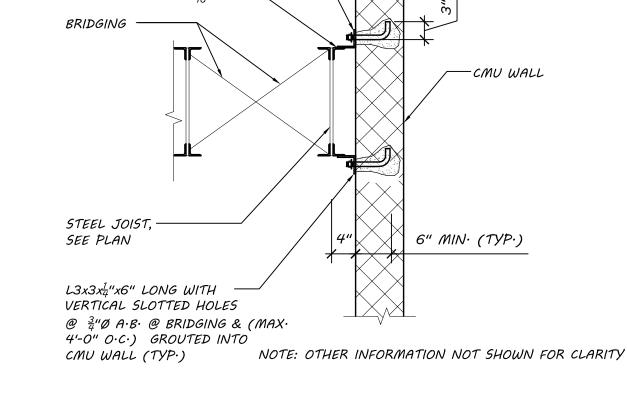
TYPICAL STEEL JOIST BEARING ON STEEL BEAM



TYPICAL STEEL JOIST BEARING ON MASONRY

TYPICAL DETAIL (2)

CONCENTRATED



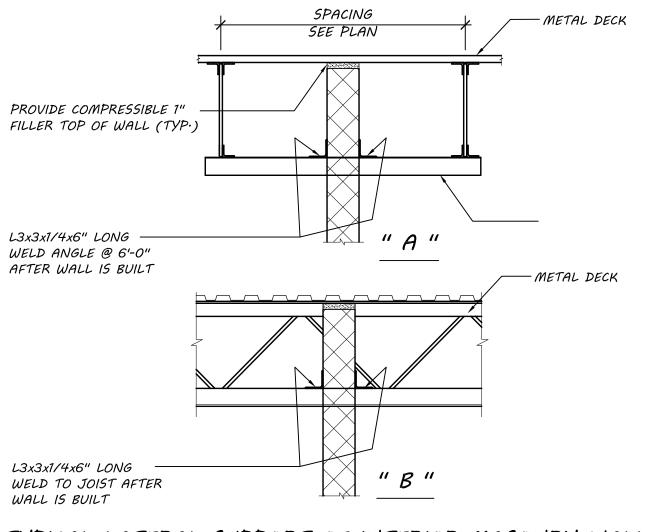
L4x4x<del>1</del>4"x6" LONG WITH VERTICAL SLOTTED HOLES

INTO CMU WALL (TYP.)

 $\binom{7}{8}$ " $\emptyset$ x1  $\frac{1}{2}$ ") @  $\frac{3}{4}$ " $\emptyset$  A·B· @ BRIDGING & (MAX· 4'-0" O·C·) GROUTED

TYPICAL STEEL JOIST PARALLEL TO WALL

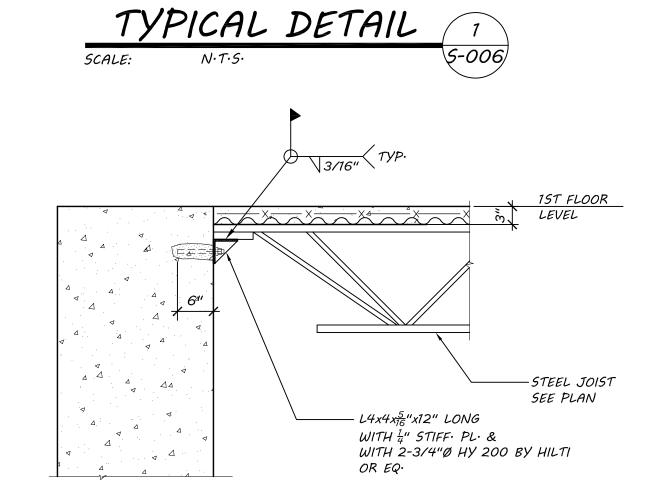
TYPICAL DETAIL 3



TYPICAL LATERAL SUPPORT OF INTERIOR MASONRY WALLS

TYPICAL DETAIL

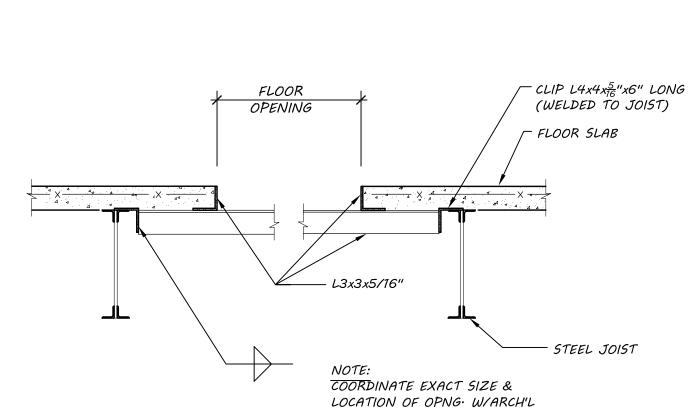
IN PLACE)



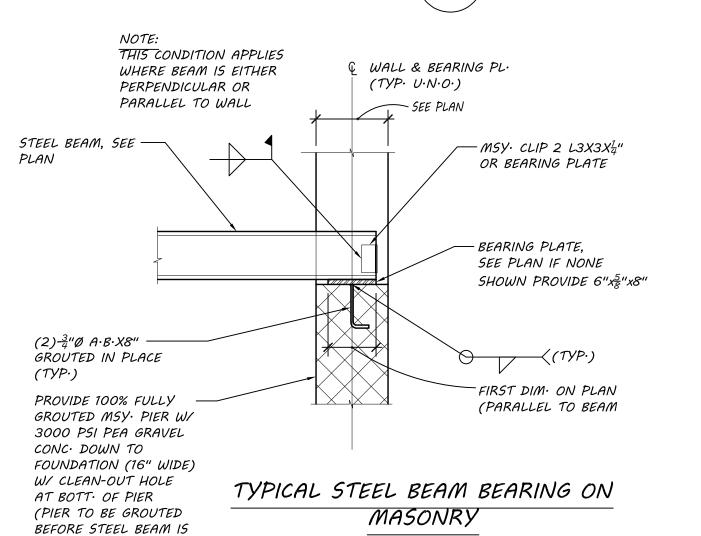
NOTE: OTHER INFORMATION NOT SHOWN FOR CLARITY

TYPICAL STEEL JOIST BEARING ON CONCRETE PIER

A WEB STIFFENER MUST BE 6" OR APPLIED TO ANY JOIST WHEN A GREATER CONCENTRATED LOAD OF 150# ----- PANEL OR MORE IS PLACED ON THE POINT JOIST 6" OR MORE AWAY FROM A PANEL POINT. L2x2x1/4" TYP. WEB STIFFENER POINT GRATER 1 CONCENTRATED HANGING LOAD TYPICAL STEEL JOIST WEB STIFFENER





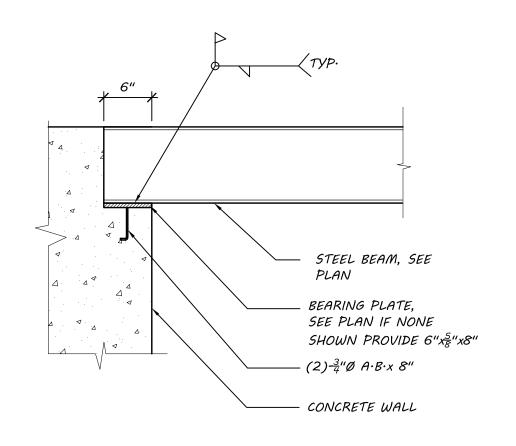


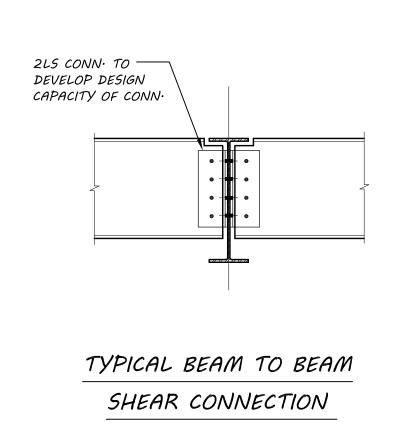
# TYPICAL DETAIL

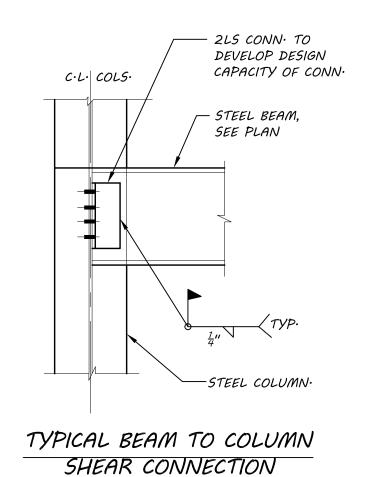


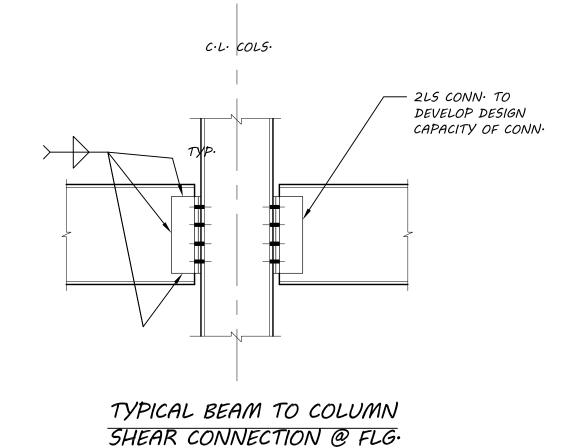


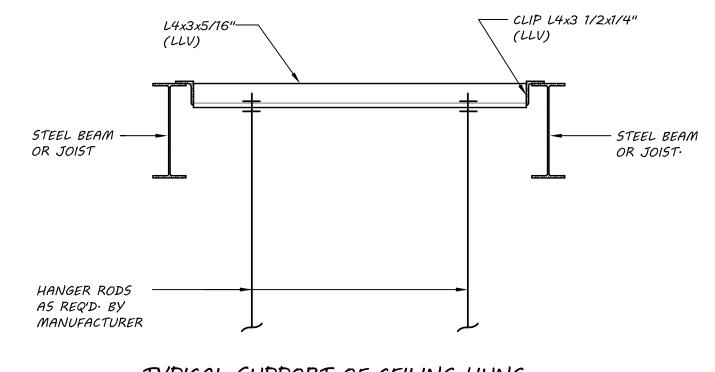












TYPICAL SUPPORT OF CEILING HUNG MECHANICAL EQUIPMENT

TYPICAL STEEL BEAM BEARING ON CONCRETE WALL















Certification:

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Mechanical & Electrical Engineer:

Structrual Engineer: MGV Consul. Struct. Engineers

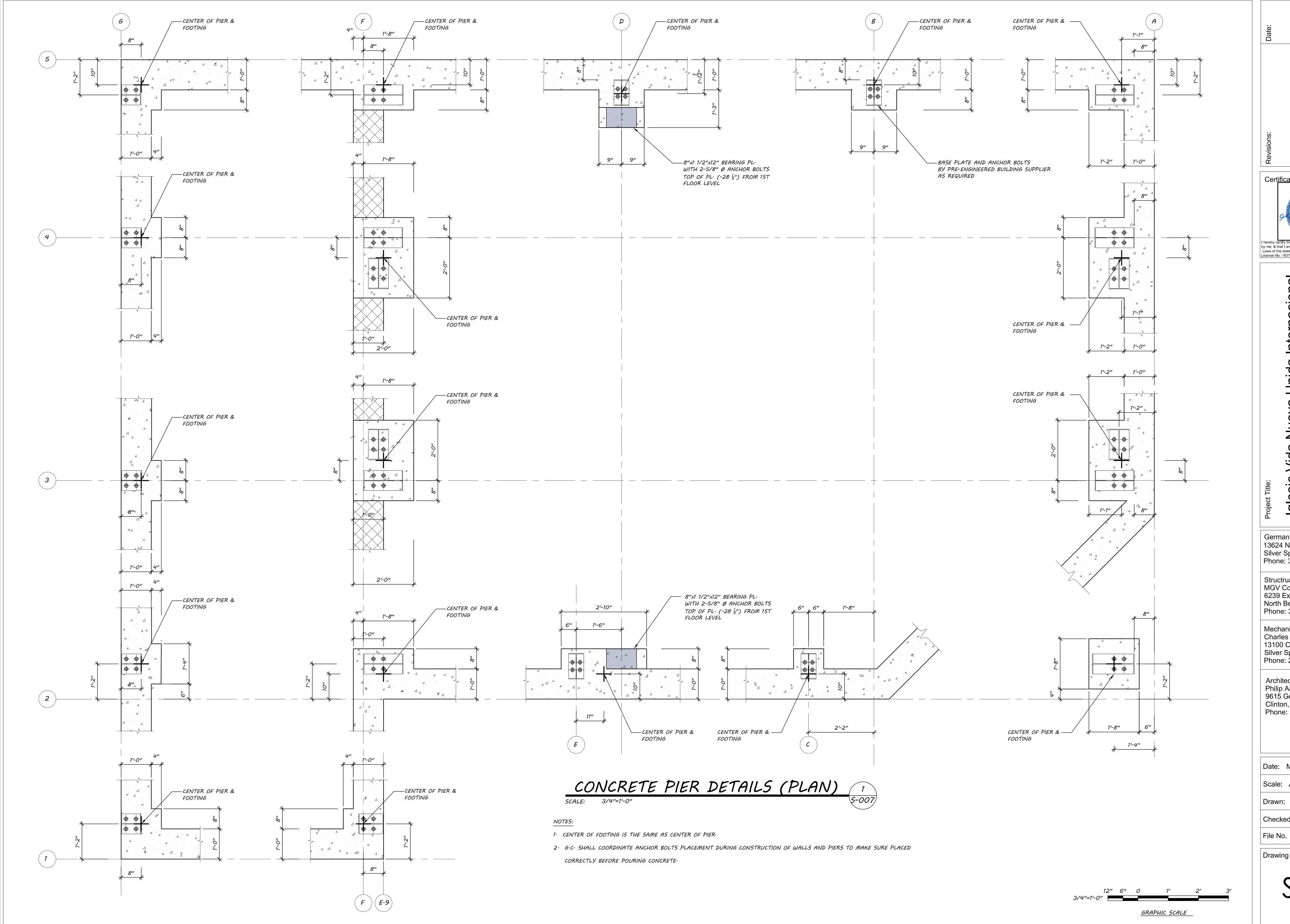
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Phone: 301-816-0648

Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093



Date: MARCH 22, 2021 Scale: AS SHOWN GG Drawn: Checked: MV File No.



Certification: I hereby certify that these documents were prepared or approved by me, & that I am a duly licensed professional engineer under the

Vida Nueva Unida Internacional

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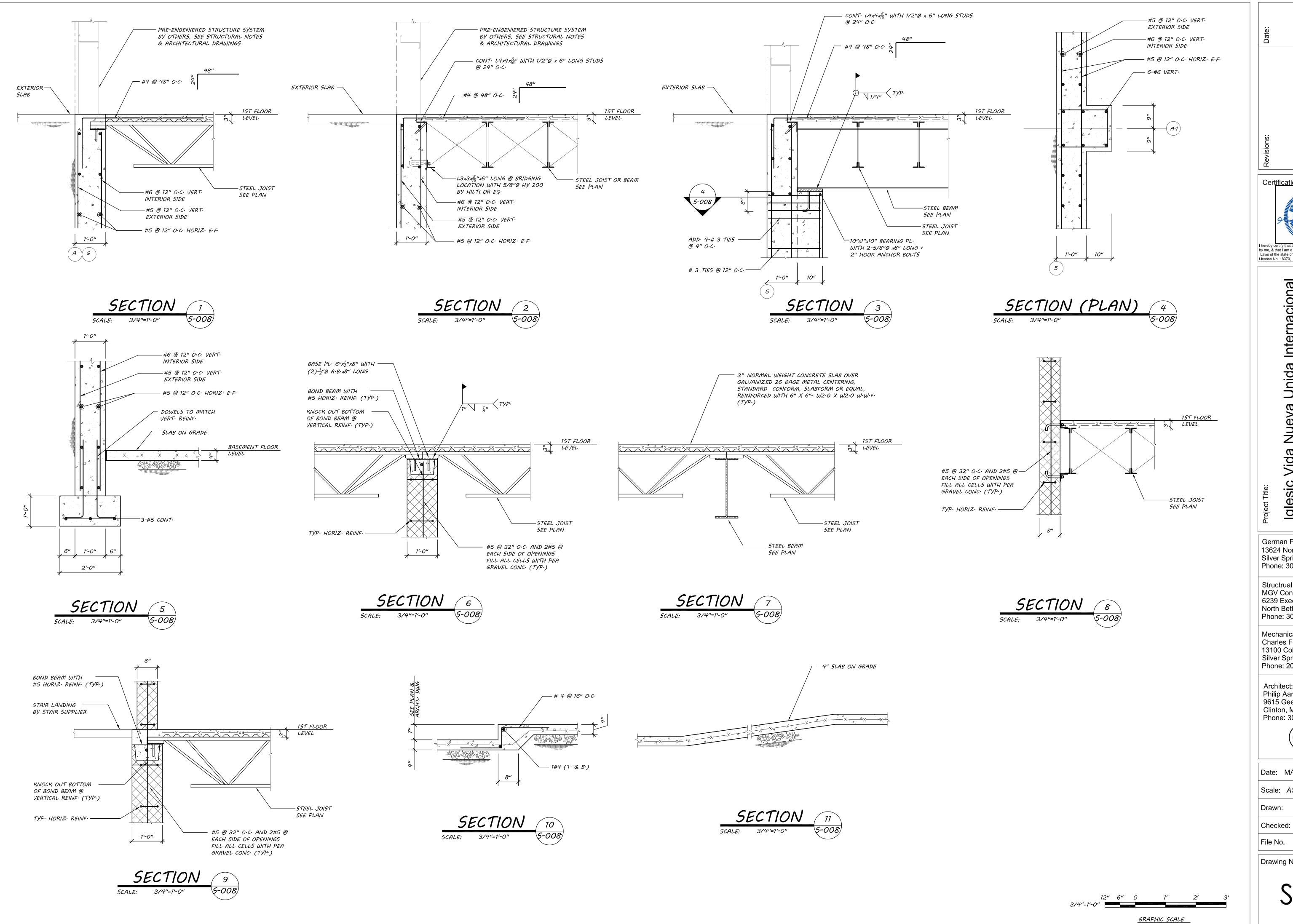


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GG

MV Checked:



Certification:

I hereby certify that these documents were prepared or approved by me, & that I am a duly licensed professional engineer under the License No. 18370, Exp. date: 08-12-2025

> Vida Nueva Unida Internacional Iglesi

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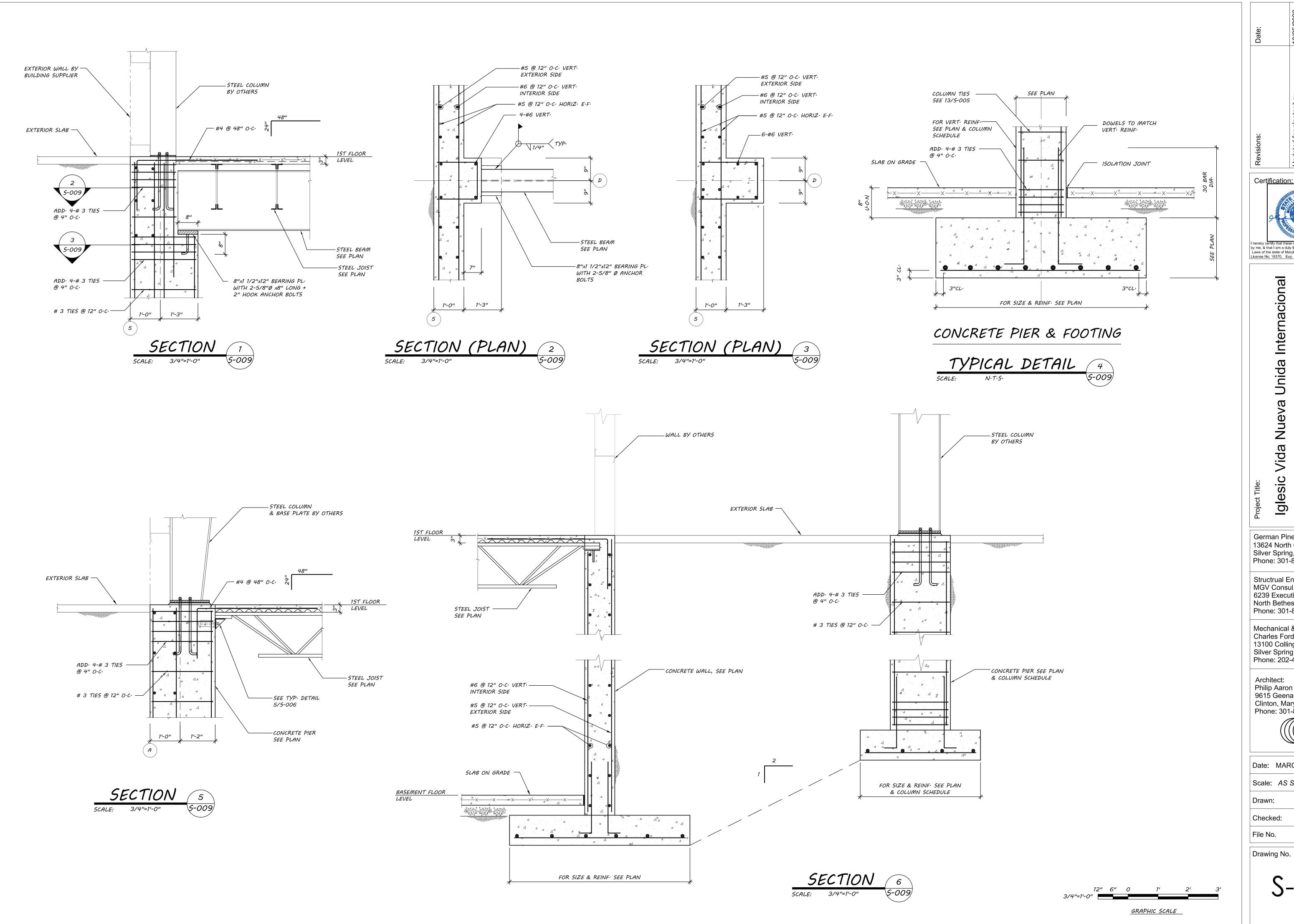


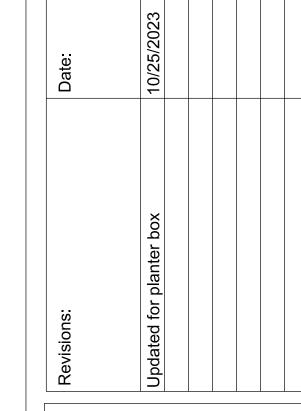
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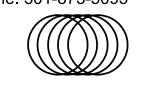
Vida Nueva Unida Internacional

German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092

Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648

Mechanical & Electrical Engineer: Charles Ford & Associates 13100 Collingwood Terrace Silver Spring, Maryland 20904 Phone: 202-436-0812

Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093

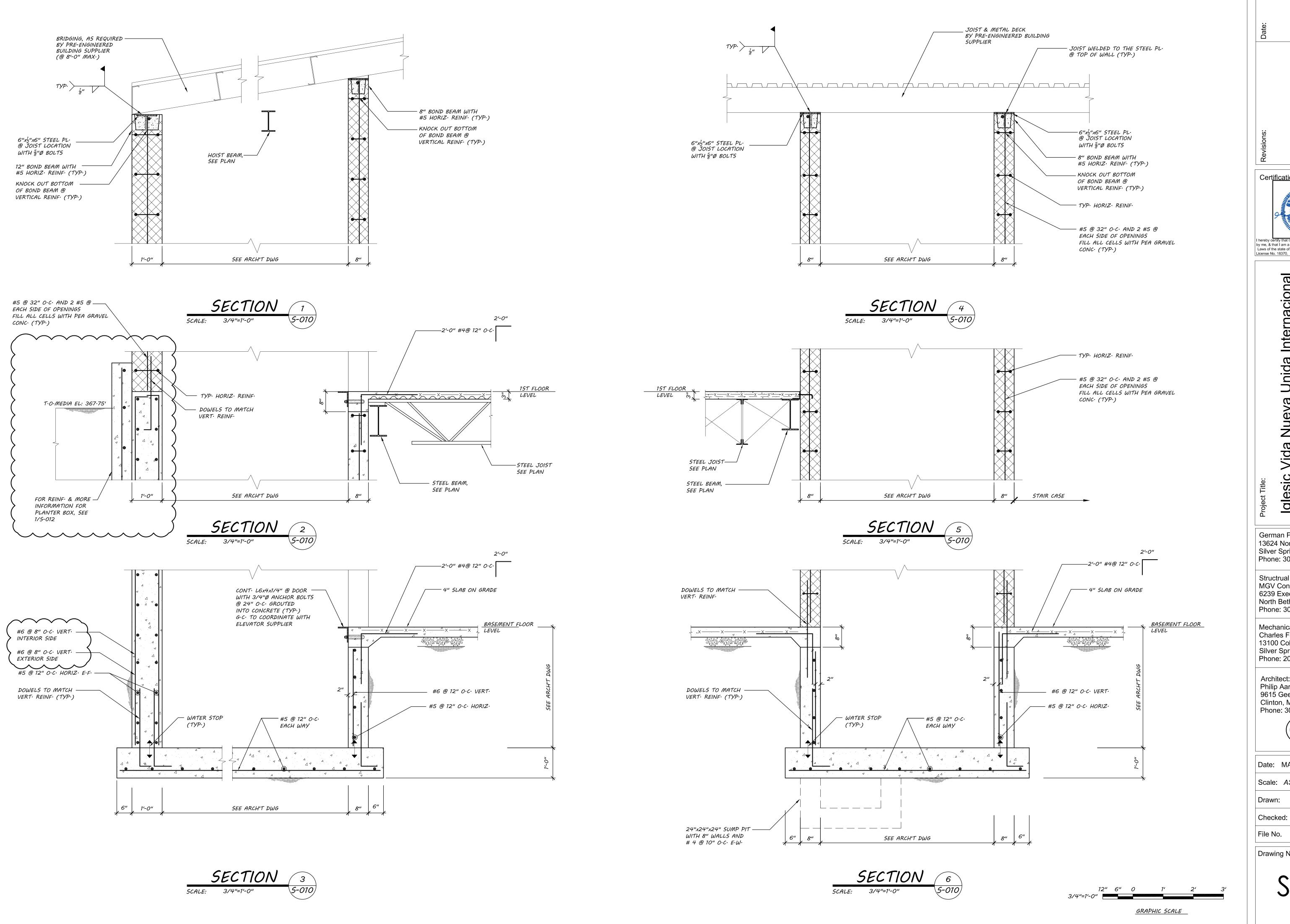


Date: MARCH 22, 2021

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MV Checked:



Certification:

I hereby certify that these documents were prepared or approved by me, & that I am a duly licensed professional engineer under the License No. 18370, Exp. date: 08-12-2025

> Vida Iglesi

ECTIONS

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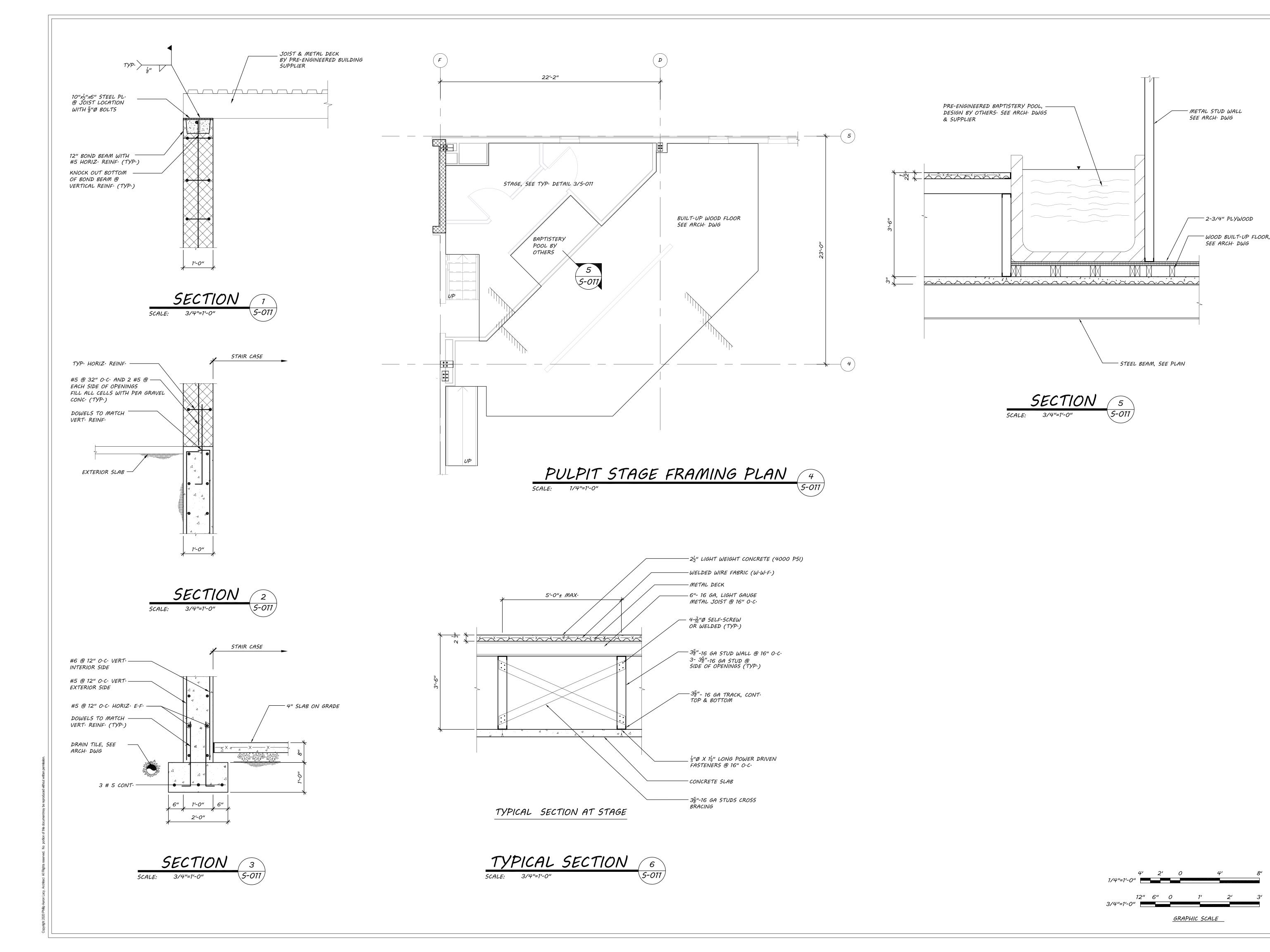


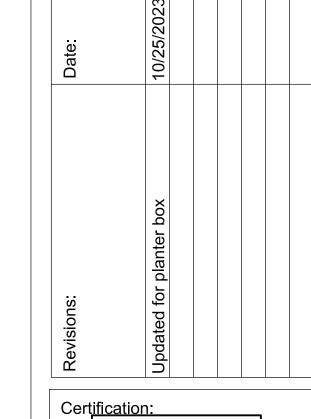
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Drawing No.

MV





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Vida Nueva Unida Internacional

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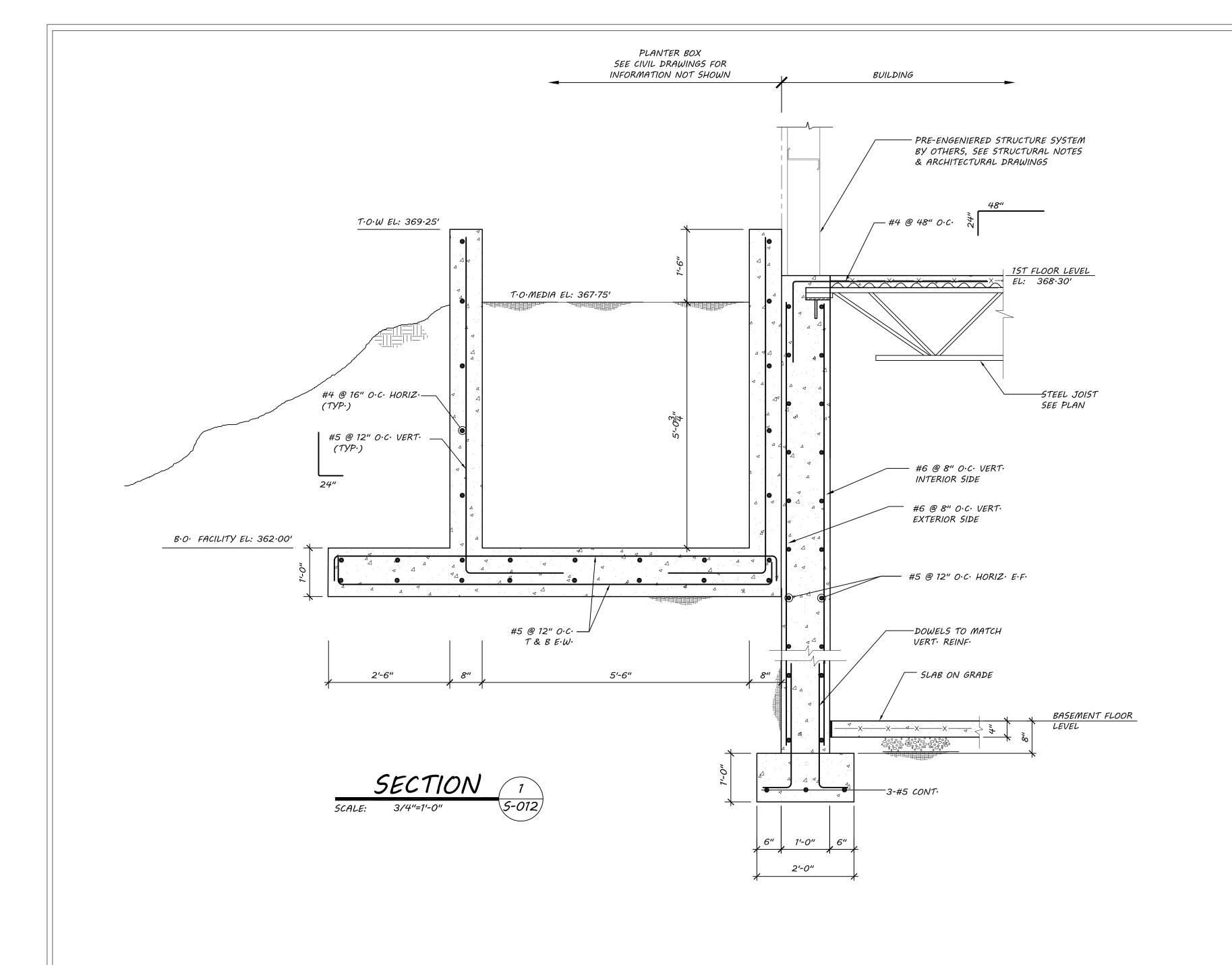
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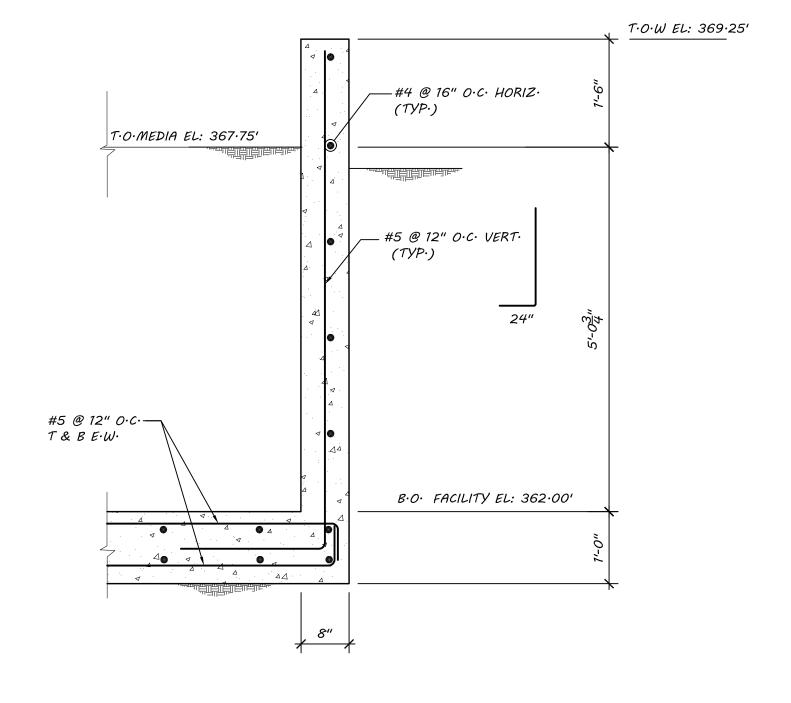
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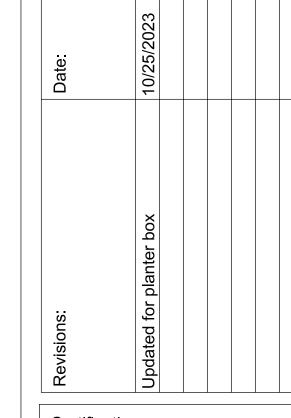
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License No. 18370, Exp. date: 08-12-2025

ic Vida Nueva Unida Internacional
12450 OLD COLUMBIA PIKE
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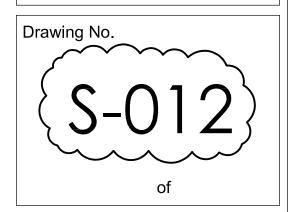
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### MECHANICAL NOTES AND SPECIFICATIONS

- PROVIDE COMPLETE AND PROPERLY FUNCTIONING HVAC SYSTEMS FOR THIS PROJECT, VISIT THE PROJECT SITE, EXAMINE THESE PLANS AND ALL DRAWINGS RELATING TO THE AREA OF WORK, AND REPORT ANY DISCREPANCIES OR OMISSIONS IN THIS PLAN SET TO THE ENGINEER FOR RESOLUTION AND CLARIFICATION PRIOR TO SUBMISSION OF BIDS. BY SUBMITTING A BID ON THIS PROJECT, THE CONTRACTOR ACCEPTS THESE DOCUMENTS AS AN ADEQUATE DEFINITION OF THE SCOPE OF WORK. CLAIMS FOR ADDITIONAL COSTS TO ACHIEVE THE INTENDED SCOPE OF WORK WILL NOT BE ACCEPTED.
- ALL WORK SHOWN ON THESE DOCUMENTS IS NEW UNLESS SPECIFICALLY IDENTIFIED AS EXISTING OR PROVIDED BY OTHERS.
- INSTALL ALL WORK ON THIS PROJECT IN ACCORDANCE WITH MECHANICAL CODE WITH ALL LOCAL REQUIREMENTS AND AMENDMENTS.
- OBTAIN AND PAY FOR ALL PERMITS ASSOCIATED WITH THIS PROJECT AND ARRANGE ALL REQUIRED INSPECTIONS BY THE APPROPRIATE LOCAL
- THE CONTRACTOR MUST NOTIFY THE BUILDING OWNER IMMEDIATELY OF ANY DAMAGE OR THE DISCOVERY OF ANY EXISTING DAMAGE. THE PROTECTION OF ALL DRAINS IS REQUIRED TO PREVENT CLOGGING AND THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANING OF ALL DRAINS WHICH HAVE BECOME CLOGGED DURING CONSTRUCTION.
- HVAC UNITS WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED TO PREVENT DUST, DEBRIS OR ODORS FROM ENTERING, SEAL ALL DUCT AND EQUIPMENT OPENINGS WITH PLASTIC. PROVIDE NEW FILTERS FOR ALL HVAC EQUIPMENT PRIOR TO COMPLETION OF PROJECT.
- THOROUGHLY CLEAN THE WORK AREA DAILY OR AS DIRECTED BY THE GENERAL CONTRACTOR OR OWNER. REMOVE ALL TRASH AND DEBRIS FROM THE PROJECT REMOVED FROM THE WORK AREA WHICH IS NOT REUSED BY THE OWNER UNLESS DIRECTED OTHERWISE BY THE OWNER'S REPRESENTATIVE
- 8. A PRELIMINARY INSPECTION OF THE HVAC WORK IN PROGRESS SHALL BE SCHEDULED THROUGH THE BUILDING OWNER PRIOR TO THE INSTALLATION OR RE-INSTALLATION OF THE CEILING GRID.
- SYMBOLS SHOWN ON SCHEDULES INDICATE THE TYPE OF EQUIPMENT ONLY. REVIEW DRAWINGS TO DETERMINE THE EXACT QUANTITIES REQUIRED FOR EACH EQUIPMENT TYPE.
- 10. THESE DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO DEPICT THE GENERAL LOCATION OF HVAC SYSTEM COMPONENTS. DO NOT SCALE MECHANICAL DRAWINGS. CONSULT ARCHITECTURAL PLANS FOR PROPER DIMENSIONS AND LOCATION OF EQUIPMENT.
- . PROVIDE ALL SUPPORT STEEL, HANGERS, VIBRATION ISOLATION AND ACCESSORIES REQUIRED TO INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DO NOT SUPPORT CEILINGS, LIGHTING FIXTURES, OR ANY OTHER DEVICES FROM DUCTWORK OR PIPING. UNLESS OTHERWISE NOTED, DO NOT ALLOW DUCTS, PIPES, OR CONDUITS TO DIRECTLY CONTACT THE BUILDING STRUCTURE
- 12. CONNECT ALL MECHANICAL EQUIPMENT TO DUCTWORK USING RUBBERIZED-CANVAS FLEXIBLE CONNECTIONS. INSTALL ALL MECHANICAL EQUIPMENT WITH VIBRATION ISOLATION DEVICES.
- 13. ANY EQUIPMENT WHICH WILL REQUIRE PERIODIC INSPECTION OR SERVICE, IF LOCATED ABOVE OR BEHIND INACCESSIBLE CONSTRUCTION SHALL BE PROVIDED WITH AN ACCESS DOOR OF SUFFICIENT SIZE TO PERMIT THE REQUIRED SERVICE. COORDINATE ACCESS PANEL LOCATIONS WITH ASSOCIATED EQUIPMENT LOCATIONS.
- 14. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND/OR RECOMMENDATIONS.
- 15. PROVIDE EQUIPMENT SUITABLE FOR THE INTENDED PURPOSE. ALL MANUFACTURERS SHALL HAVE HAD SIMILAR PRODUCTS IN SATISFACTORY SERVICE FOR A MINIMUM OF 3 YEARS.
- 6. UNOBSTRUCTED ACCESS IS REQUIRED ON ALL SIDES OF ELECTRIC EQUIPMENT. LOCATE ALL SUCH EQUIPMENT WITH ADEQUATE CLEARANCE FOR MAINTENANCE AND TO MEET THE NATIONAL ELECTRICAL CODE'S REQUIRED CLEARANCES.
- 7. PROVIDE ALL NEW EQUIPMENT/MATERIALS WITH A WARRANTY FOR A MINIMUM OF ONE YEAR FROM THE DATE OF LANDLORD/OWNER ACCEPTANCE.

#### **DUCTWORK:**

- 18. FABRICATE DUCTWORK FROM GALVANIZED SHEET STEEL WITH G60 COATING IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS AND THE PRESSURE CLASSES SPECIFIED BELOW: PRESSURE CLASS ("W.G.") /SEAL CLASS EXPOSED ROUND SPIRAL DUCT 2.0 / B DUCTWORK RESTROOM EXHAUST 2.0 / B CONSTANT VOLUME SYSTEM SUPPLY AIR DUCT 2.0 / B CONSTANT VOLUME RETURN AIR DUCT 2.0 / B
- 19. SEAL AND/OR REPAIR ANY DUCTWORK WITH VISUAL OR AUDIBLE SIGNS OF AIR LÉAKAGE.
- 20. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
- 21. USE THERMAFLEX G-KM (U.L. 181 CLASS 1) FACTORY-INSULATED TWO PLY BONDED ALUMINUM FLEXIBLE DUCTWORK. THE INSULATION SHALL INCLUDE A VAPOR BARRIER JACKET. LIMIT FLEXIBLE DUCT TO A MAXIMUM LENGTH OF 14 FEET.
- a. SIZE FLEXIBLE DUCTWORK TO MATCH THE NECK SIZE OF THE DEVICE IT SUPPLIES UNLESS OTHERWISE SCHEDULED b. USE RIGID SPIRAL DUCT TO MAINTAIN FLEXIBLE DUCT LENGTHS UNDER 14 FEET (ROUND DUCT SIZE SHALL MATCH FLEXIBLE DUCT
- c. CONNECT FLEXIBLE, OR RIGID ROUND DUCTWORK, TO THE LOW PRESSURE DUCT USING SPIN-IN COLLARS OR "AIR-TITE" ADHESIVE BACKED FITTINGS SECURED TO THE MAIN DUCT WITH SHEET METAL SCREWS. AT CONNECTIONS TO AIR DEVICES OR RIGID DUCT WORK, MECHANICALLY FASTEN AND SEAL SEASON. FLEXIBLE DUCT AIRTIGHT.
- d. SEAL INSULATION JACKET USING INSULATION TAPE OR CEMENT TO MAINTAIN THE VAPOR BARRIER. e. DO NOT ROUTE FLEXIBLE DUCT THROUGH SLAB TO SLAB PARTITIONS. PROVIDE ROUND RIGID DUCT WHERE FLEXIBLE DUCTS ARE SHOWN TO
- PASS THAN 16 GAGE. THROUGH SLAB TO SLAB PARTITIONS. f. PROVIDE TRANSITIONS AND ACCESSORIES TO CONNECT FLEXIBLE DUCT TO RIGID DUCT.
- 22. INSTALL DUCTWORK TIGHT TO THE UNDERSIDE OF THE BUILDING STRUCTURE. ADJUST THE DUCT ELEVATION TO MAINTAIN DUCT TIGHT TO BOTTOM OF STRUCTURE WHERE STRUCTURE ELEVATIONS CHANGE.

23. PROVIDE ALL NECESSARY TRANSITIONS IN DUCTWORK FOR CONNECTION

TO EQUIPMENT AND ACCESSORIES. REDUCE DUCTWORK SIZES ONLY AT

THE CONNECTION POINT TO EQUIPMENT. 24. SUSPEND DUCTWORK FROM THE BUILDING STRUCTURE IN ACCORDANCE WITH THE SMACNA DUCT CONSTRUCTION STANDARDS. SECURELY ATTACH

DUCTWORK SUPPORTS TO THE BUILDING STRUCTURE.

- 25. COORDINATE THE INSTALLATION OF THE DUCTWORK SYSTEM WITH THE BUILDING STRUCTURE AND THE WORK OF ALL OTHER CONTRACTORS. ADJUST DUCTWORK SIZES, LOCATION AND CONFIGURATION, INCLUDING DIFFUSER PLENUMS, AS REQUIRED TO COORDINATE WITH WORK OF THIS AND ALL OTHER TRADES. WHERE NECESSARY TO AVOID OBSTRUCTIONS, RE-SIZE. OFFSET. RAISE, OR LOWER THE DUCTWORK. DO NOT EXCEED THE DESIGN VELOCITIES IN ANY DUCT SECTIONS REQUIRING SIZING REVISIONS. INDICATE ALL COORDINATION ISSUES ON THE SHOP
- 26. PROVIDE TURNING VANES IN ALL 90° RECTANGULAR ELBOWS AND

- SPLITTER VANES IN ALL 90° RECTANGULAR RADIUS ELBOWS.
- 27. ELBOWS CONSTRUCTED USNG A SHARP 90° ANGLE ON THE INSIDE OF THE ELBOW AND RADIUS BEND ON THE OUTSIDE OF THE ELBOW (HARD RADIUS HEEL OR "SLED-BOOT" FITTING) WILL NOT BE ACCEPTED.
- 28. INSTALL VOLUME DAMPERS IN ALL BRANCH DUCTWORK CONNECTIONS AT TAKE-OFF FROM MAIN TRUNK DUCT LEADING TO DIFFUSERS. INTAKE
- 29. PROVIDE THE AIR DISTRIBUTION DEVICES WITH APPROPRIATE FRAMES FOR INSTALLATION IN THE SELECTED CEILING CONSTRUCTION. COORDINATE COLOR SELECTION WITH THE ARCHITECT AND MAINTAIN A NC LEVEL OF 25 OR LESS IN ALL AIR DISTRIBUTION DEVICE

#### **INSULATION:**

- 30. INSULATE ALL CONCEALED SUPPLY AND RETURN AIR DUCTS WITH MINIMUM R-6 INSULATION WITH INTEGRAL VAPOR BARRIER WRAP.
- 31. INSULATE EXPOSED SPIRAL DUCT WITH 1" INTERNAL SOUND LINING.
- 32. INSTALL ALL INSULATION IN ACCORDANCE WITH ASTM E84. PROVIDE INSULATION WITH A FLAME SPREAD RATING OF LESS THAN 25 AND A SMOKE DEVELOPED RATING OF LESS THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84.
- 33. MAINTAIN VAPOR BARRIER ON ALL INSULATION APPLIED TO ALL EQUIPMENT, PIPING, OR DUCTWORK WHICH CONVEYS LIQUID OR AIR AT A TEMPERATURE OF LESS THAN 70 DEGREES F.
- 34. INSULATE ALL REFRIGERANT PIPING WITH 0.75" THICK CLOSED-CELL ELASTOMERIC PIPE INSULATION.
- 35. INCLUDE THE SERVICES OF A CERTIFIED INDEPENDENT BALANCING CONTRACTOR IN THE SCOPE OF THIS CONTRACT TO PERFORM ALL SYSTEM BALANCING PROCEDURES IN ACCORDANCE WITH NEBB AND AABC REQUIREMENTS.
- 36. PROVIDE ALL NECESSARY ACCESSORIES FOR DUCTWORK TO ALLOW PROPER AIR BALANCING, BALANCE AIR SYSTEMS TO QUANTITIES. INDICATED ON THE PLANS UNDER THE SUPERVISION OF A REGISTERED ENGINEER. SUBMIT BALANCING REPORTS ON NEBB OR AABC FORMS APPROVED AND STAMPED BY THE REGISTERED ENGINEER WHO SUPERVISED THE TESTING.
- 37. PERFORM A PRELIMINARY AIR SYSTEM BALANCE ON ALL DEVICES IN AREAS WHERE FINAL CLOSE-IN WOULD MAKE BALANCING MECHANISMS INACCESSIBLE. PRELIMINARY AIR BALANCING IS REQUIRED TO PREVENT THE GENERATION OF OBJECTIONABLE NOISE AT THE AIR DEVICES. SCHEDULE THE WORK SUCH THAT THE FAN SYSTEMS ARE FULLY OPERATIONAL FOR THE PRELIMINARY AIR BALANCE PRIOR TO APPLICATION OF THE FINAL FINISHES. PERFORM THE FINAL BALANCING AT THE AIR DEVICE WITH AN INTEGRAL OPPOSED BLADE DAMPER OR OTHER APPROVED BALANCING MECHANISM. ELIMINATE ANY OBJECTIONABLE NOISE CREATED BY THE BALANCING MECHANISM.
- 38. PERFORM A FINAL SYSTEM BALANCE ONLY WHEN THE SYSTEM IS COMPLETE AND CAPABLE OF OPERATING IN ACCORDANCE WITH THE DESIGN CONTROL SEQUENCES. COORDINATE THE SCHEDULE FOR THF SYSTEM BALANCE WITH ALL APPROPRIATE TRADES TO IDENTIFY AND CORRECT ANY DEFICIENCIES WHICH COULD RESULT IN AN INCOMPLETE BALANCE REPORT. INCOMPLETE BALANCE REPORTS WILL NOT BE ACCEPTED FOR REVIEW. BALANCING WILL ONLY BE CONSIDERED TO BE COMPLETE UPON RECEIPT OF AN APPROVED BALANCE REPORT FROM THE ENGINEER.

- 39. FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND DESIGN SERVICES REQUIRED TO PROVIDE A COMPLETE CONTROL SYSTEM. THIS WORK SHALL INCLUDE WORK REQUIRED BY ELECTRICAL CONTRACTOR AS WELL. PROVIDE INITIAL SETUP AND PROGRAMMING OF ALL CONTROLS.
- 40. MOTORIZED DAMPERS/FANS SHALL BE CLOSED/OFF DURING UNOCCUPIED HOURS.

#### COORDINATION

- A. COORDINATE THE WORK OF THIS SECTION WITH THE WORK OF OTHER SECTIONS IN AMPLE TIME FOR PROPER INSTALLATION AND CONNECTION, AND FOR THE PROVISION OF ALL OPENINGS REQUIRED IN FLOORS AND
- B. VERIFY AND BECOME THOROUGHLY FAMILIAR WITH THE BUILDING SYSTEMS IN ORDER TO PROVIDE FOR PROPER DUCTWORK AND CEILING INTERCONNECTIONS WHERE APPLICABLE.
- C. VERIFY THE HEIGHT OF NEW DUCTWORK TO ASCERTAIN THAT IT DOES NOT CONFLICT WITH THE INSTALLATION OF LIGHT FIXTURES, CEILING SYSTEMS OR OTHER NEW TENANT CONSTRUCTION. PROMPTLY NOTIFY THE ARCHITECT, IN WRITING, OF ANY POTENTIAL CONFLICTS.
- D. CAREFULLY CHECK THE DOCUMENTS OF OTHER SECTIONS TO ASCERTAIN THE REQUIREMENTS OF ANY MATERIALS OR EQUIPMENT BEING FURNISHED OR FURNISHED AND INSTALLED BY THAT SECTION AND PROVIDE THE PROPER INSTALLATION OR CONNECTIONS INCLUDING
- E. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF SUPPLY AND RETURN AIR DEVICES AND THERMOSTATS. REFER TO THE ARCHITECTURAL DRAWINGS FOR EQUIPMENT FINISHES AND MATERIALS NOT SPECIFIED HEREIN.
- F. PROVIDE REQUIRED SUPPORTS AND HANGERS FOR DUCTWORK, PIPING AND EQUIPMENT, SUCH THAT LOADING WILL NOT EXCEED ALLOWABLE LOADING OF STRUCTURE. SUBMITTAL OF A BID SHALL BE DEEMED A REPRESENTATION THAT THE CONTRACTOR SUBMITTING SUCH BID HAS ASCERTAINED ALLOWABLE LOADINGS AND HAS INCLUDED IN HIS ESTIMATES, THE COSTS ASSOCIATED IN FURNISHING REQUIRED SUPPORTS. ALL DUCTWORK, PIPING AND EQUIPMENT SUPPORTS SHALL BE INDEPENDENT OF THE CEILING SUPPORT SYSTEM.
- G. SCHEDULE ALL WORK CONNECTING WITH EXISTING SYSTEMS TO ENSURE A MINIMUM OF SERVICE INTERRUPTION. ALL INTERRUPTIONS OF SERVICES (POWER, WATER, HVAC, ETC.) AND ALL WORK IN OCCUPIED TENANT SPACES (E.G. PLUMBING OR ELECTRICAL WORK IN AN OCCUPIED TENANT'S SPACE BELOW A SPACE UNDER CONSTRUCTION) MUST BE SCHEDULED THROUGH THE BUILDING MANAGER.
- H. FURNISH ACCESS DOORS TO THE GENERAL CONTRACTOR, FOR INSTALLATION BY THE APPROPRIATE TRADES, IN LOCATIONS WHERE ACCESS IS REQUIRED TO MECHANICAL AND PLUMBING EQUIPMENT WHICH WOULD BE OTHERWISE INACCESSIBLE. CARE SHOULD BE TAKEN IN LOCATING MECHANICAL AND PLUMBING SYSTEMS TO MINIMIZE THE NUMBER OF ACCESS DOORS REQUIRED. FINAL LOCATIONS OF ACCESS DOORS IN FINISHED AREAS SHALL BE APPROVED BY THE ARCHITECT. ACCESS DOORS SHALL BE AS SPECIFIED BY THE ARCHITECT. WHERE NO ARCHITECTURAL ACCESS DOOR SPECIFICATIONS EXISTS, THEN ACCESS DOORS SHALL BE AS FOLLOWS: DRYWALL PARTITIONS -INRYCO/MILCON STYLE DW; DRYWALL CEILINGS - INRYCO/MILCON STYLE DW OR STYLE WB-PL DIRECTED BY ARCHITECT; PLASTER WALLS OR CEILINGS -INRYCO/MILCON STYLE WB-PL.

#### SUBMITTALS AND APPROVALS

- A. APPROVALS FOR EQUIPMENT WILL NOT BE GIVEN UPON SUBMISSION OF MANUFACTURERS' NAMES. APPROVALS FOR EQUIPMENT WILL BE GIVEN ONLY AFTER RECEIPT OF COMPLETE AND SATISFACTORY SUBMITTALS. APPROVALS FOR EQUIPMENT WILL BE GRANTED IF SUCH EQUIPMENT CONFORMS TO THE PERFORMANCE REQUIREMENTS, SPACE CONDITIONS, WEIGHT REQUIREMENTS AND QUALITY REQUIREMENTS.
- B. NOTIFY THE ARCHITECT, IN WRITING, WITHIN 5 DAYS OF AWARD OF

#### CONTRACT, OF THE PROPOSED DELIVERY SCHEDULE, FOR ANY EQUIPMENT OR MATERIAL, WHICH WILL PREVENT THE INSTALLATION FROM BEING COMPLETED AT THE TIME OF THE SCHEDULED PROJECT

- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE FOLLOWING MATERIALS AND EQUIPMENT:
  - FLEXIBLE DUCT

AIR DEVICES

C.2.

- TEMPERATURE CONTROLS TESTING AND BALANCING REPORTS
- D. DUCTWORK, PIPING AND EQUIPMENT INSTALLED WITHOUT APPROVAL THEREOF SHALL BE DONE AT THE RISK OF THIS CONTRACTOR AND THE COST OF REMOVAL OF SUCH EQUIPMENT OR RELATED WORK WHICH IS JUDGED UNSATISFACTORY FOR ANY REASON SHALL BE AT THE EXPENSE OF THIS CONTRACTOR.

#### VIBRATION ISOLATORS

- PROVIDE DOUBLE DEFLECTION NEOPRENE ISOLATION HANGERS FOR SUSPENDED FANS AND EQUIPMENT LESS THAN 100 LBS.
- B. QUANTITY AND LOCATION OF ISOLATORS SHALL BE AS RECOMMENDED BY THE FQUIPMENT MANUFACTURER.
- AFTER INSTALLATION AND START-UP, CONTRACTOR SHALL THOROUGHLY CHECK EACH ITEM OF EQUIPMENT FOR VIBRATION TRANSMISSION TO THE STRUCTURE OR EXCESSIVE NOISE, AND IF EITHER OCCURS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING THE FAULTY SITUATION IMMEDIATELY.

- A. ALL DUCT JOINTS SHALL BE SEALED WITH HARDCAST 601.
- B. CONTRACTOR SHALL INSPECT ALL DUCTWORK, FITTINGS, INSULATION AND VAPOR BARRIER FOR DEFECTS OR LEAKAGE AND SEAL. CAP. RE-INSULATE, AND TAPE OVER AS REQUIRED TO PROVIDE REASONABLY WELL SEALED DUCT SYSTEM WITH APPROPRIATE INSULATION AND VAPOR
- ALL PRESSURIZED PIPING SHALL BE LEAK TESTED PRIOR TO ENCLOSURE OR COVER-UP. PIPING SHALL BE LEAK TESTED FOR 24 HOURS UNDER A HYDROSTATIC PRESSURE OF 150% OF THE SYSTEM DESIGN WORKING PRESSURE. CARE SHALL BE TAKEN TO PROTECT ANY EQUIPMENT WHICH MAY BE DAMAGED BY HYDROSTATIC TESTTING.
- . LEAKAGE TESTING FOR ALL DUCTWORK SHALL BE BY PHYSICAL SENSATION AND SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.
- PERFORM ALL TESTING AFTER THE SEALS HAVE CURED COMPLETELY AND BEFORE COVERING WITH INSULATION OR CONCEALING IN MASONRY. **AIR DEVICES:**
- ALL AIR DEVICES SHALL BE SELECTED TO PROVIDE A NC OF 25 OR LESS AT INDICATED CFM AND SHALL INCLUDE BALANCING DAMPERS AND OTHER TYPICAL ACCESSORIES AS REQUIRED.
- B. ALL CEILING AND WALL-MOUNTED AIR DEVICES SHALL BE PAINTED WHITE OR OFF WHITE, UNLESS SPECIFIED OTHERWISE, AND ALL AIR DEVICES SHALL BE THE SAME COLOR.

## **MECHANICAL** MANUFACTURER EQUIVALENT

DAIKIN ROOFTOP UNIT TRANE CARRIER |DIFFUSER & GRILLE | - METAL - AIRE TITUS KRUEGER

M500

COORDINATE SPACE AND CLEARANCE REQUIREMENTS WITH SCHEDULED UNIT BEFORE PURCHASING APPROVED SUBSTITUTION UNIT.

# SHEET INDEX:

SHOEMAKER

MECHANICAL COVER SHEET M100 MECHANICAL BASEMENT FLOOR PLAN MECHANICAL FIRST FLOOR PLAN M400

MECHANICAL DETAILS

RETURN

SIDE WALL RETURN GRILLE

#### MECHANICAL SCHEDULES MECHANICAL CALCULATIONS

AIR DISTRIBUTION DEVICE SCHEDULE MAKE/MODEL MARK. SERVICE NECK TYPE  $\overline{A}$ PERFORATED FACE CEILING DIFFUSER-SEE PLAN 24X24 SUPPLY TITUS MODEL TMS ALUMINUM FLUSH FACE  $\overline{B}$ LONG THROW, HIGH CAPACITY GRILLE WITH SUPPLY SEE PLAN 24X8 TITUS MODEL DL ROTATING DRUM ROUND DIFFUSER WITH TOW DISCHARGE SUPPLY SEE PLAN TITUS MODEL TMR **PATTERNS** RETURN SEE PLAN 24X24 TITUS MODEL PAR RETURN AIR GRILLE — ALUMINUM

SEE PLAN

36X34

TITUS MODEL 350FL

#### (N) = NEW

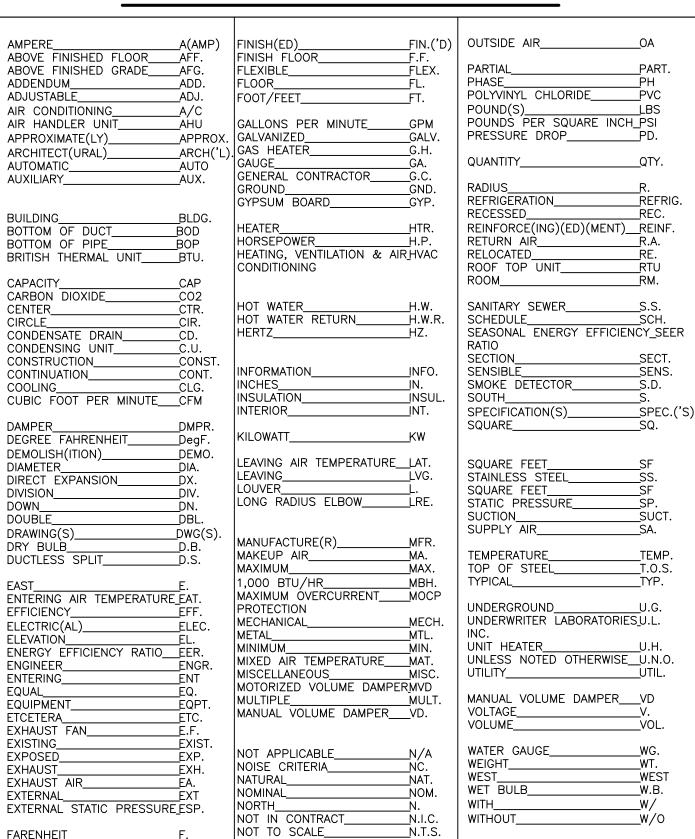
(E) = EXISTING

(ER)= EXISTING RELOCATE

(R) = REMOVE(RR)= REMOVE AND RELOCATE

**FARENHEIT** 

# MECHANICAL ABBREVIATIONS



# **MARYLAND CODES:**

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE MARYLAND STATE CODES (AS STATED BELOW) OR ALL THE APPLICABLE CODES IN FORCE BY

LOCAL AUTHORITIES HAVING JURISDICTION. MARYLAND BUILDING CODE. MARYLAND ENERGY CONSERVATION CODE. - 2018

MECHANICAL SYMBOL LEGEND

MECHANICAL EQUIPMENT WITH

CLEARANCES. SEE SCHEDULES

TURNINGVANE, 90 DEGREE ELBOW

NUMBER INDICATES

VERTICAL DIMENSION

S(U) - UNDER CUT DOOR,'S' DONATE SIZE

NOTE: NOT ALL SYMBOLS ON THIS LIST

MAY BE APPLICABLE TO THIS PROJECT.

##Ø • DIAMETER OF ROUND DUCT

POINT OF REMOVAL

CONNECT TO EXISTING

-cd- • CONDENSATE PIPING

**DRAFTING SYMBOLS** 

DESIGNATION

PLAN NAME/DETAIL TITLE

✓ VIEW NUMBER

- SCALE

• TRANSITION RECTANGULAR TO ROUND DUCT

##/## . SIZE OF RECTANGULAR DUCT WHERE FIRST

WIDTH AND SECOND NUMBER INDICATES

• TOILET EXHAUST FAN (TEF) OR EXHAUST FAN (EF)

SUPPLY AIR GRILLE

RETURN AIR GRILLE

EXHAUST AIR GRILLE

THERMOSTAT

• SMOKE DETECTOR

• MANUAL DAMPER

DUCT TAKE—OFF

• WALL CAP

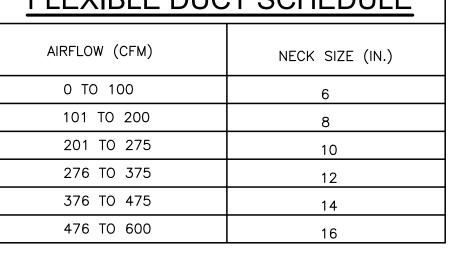
✓ ► RADIUS ELBOW

TYPE/CFM

- MARYLAND PLUMBING CODE. - 2018 MARYLAND PROPERTY MAINTENANCE CODE. - 2012 NATIONAL ELECTRICAL CODE NFPA70. - 2017 - 2012 MARYLAND GREEN CONSTRUCTION CODE. - 2018 MARYLAND MECHANICAL CODE.
- MARYLAND EXISTING BUILDING CODE. - 2015 - 2012 MARYLAND ACCESSIBLY CODE. - 2010 ADA STANDARD.

IUMBER\_\_

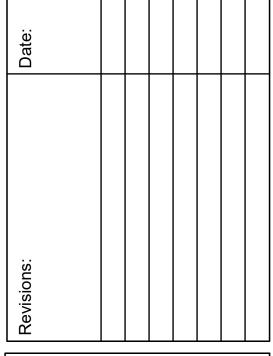
FLEXIBLE DUCT SCHEDULE AIRFLOW (CFM) NECK SIZE (IN.) 0 TO 100 6 101 TO 200 201 TO 275 10 276 TO 375 12 376 TO 475 14



\_NO./#



Sam: 571-220-3239 DAENG2000@GMAIL.COM www.daeng2000.com



PROFESSIONAL CERTIFICATION:

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE# 47084 EXPIRATION DATE 08/06/2025

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<del>|</del>|

German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092

Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648

Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093

Date: MARCH 22, 2021

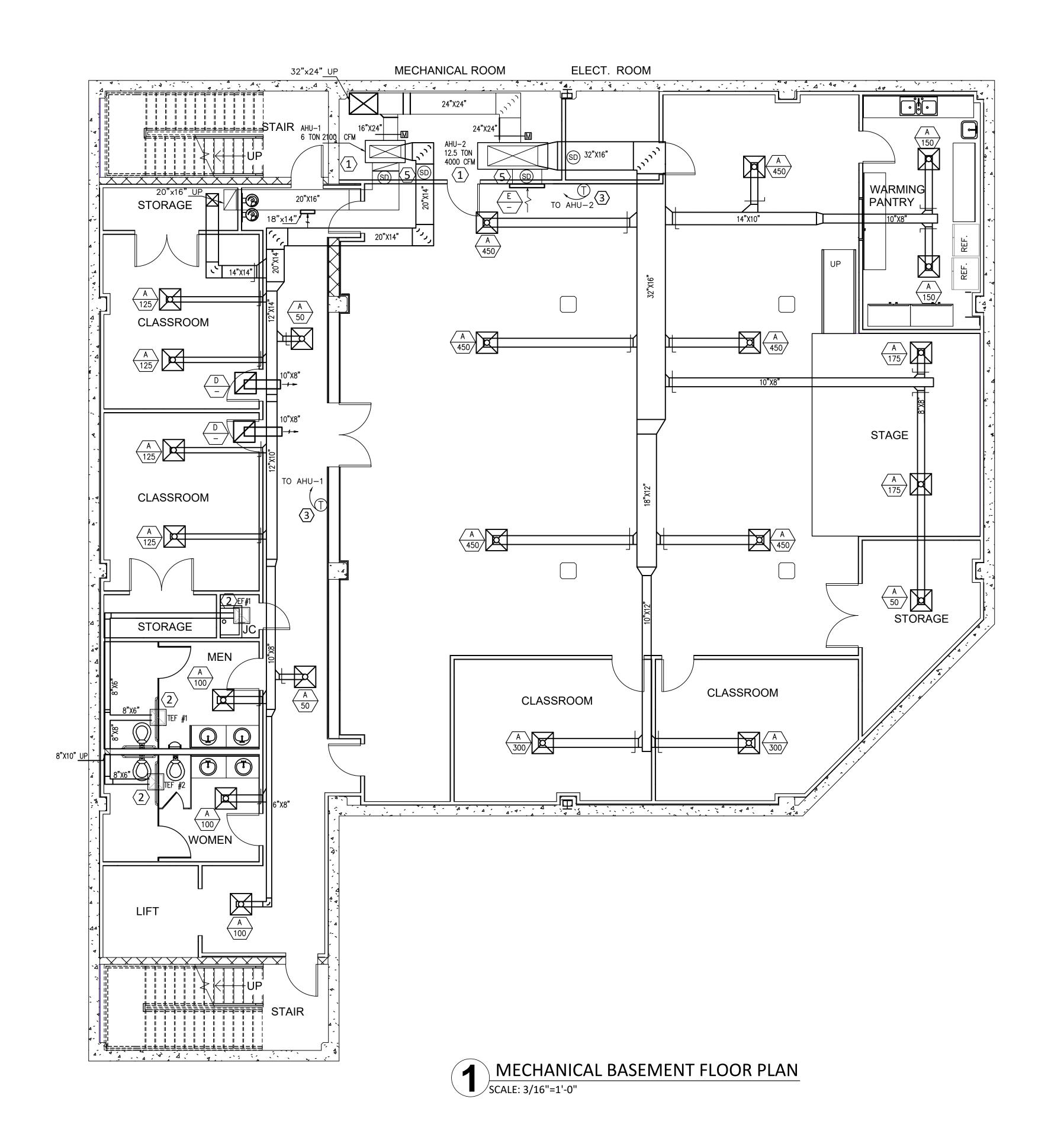
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#### **MECHANICAL GENERAL SHEET NOTES:**

- A. THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATION OF WORK. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND MAKE ADJUSTMENTS AS NECESSARY TO COMPLETE THE WORK.
- B. CONTRACTOR SHALL THOROUGHLY EXAMINE PREMISES AND OBSERVE ALL CONDITIONS AND CIRCUMSTANCES UNDER WHICH THE WORK SHALL BE PERFORMED. NO ALLOWANCES WILL BE MADE FOR ERRORS OR NEGLIGENCE IN THIS RESPECT.
- C. PRIOR TO START MECHANICAL WORK AND ANY DUCT FABRICATION, CONTRACTOR SHALL COORDINATE WITH OWNER/ARCHITECT FOR CEILING HEIGHT AND MAKE SURE HAVE ENOUGH SPACE TO RUN THE DUCTS ABOVE THE CEILING.

#### > MECHANICAL KEYED NOTES:

- 1. PROVIDE AND INSTALL NEW AHU-1,2 AT THIS LOCATION. REFER TO SCHEDULE AND DETAIL FOR MORE INFORMATION. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
- 2. PROVIDE AND INSTALL EXHAUST FAN AT THIS LOCATION. REFER TO SCHEDULE AND DETAILS. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
- PROVIDE AND INSTALL NEW THERMOSTAT WITH CLEAR LOCKABALE COVER TO CONTROL AHU 1,2 AT THIS LOCATION. COORDINATE EXACT LOCATION WITH OWNER/ARCH.

Revisions:

PROFESSIONAL CERTIFICATION:

I CERTIFY THAT THESE
DOCUMENTS WERE PREPARED
OR APPROVED BY ME, THAT I AM
A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF
THE STATE OF MARYLAND
LICENSE# 47084 EXPIRATION
DATE 08/06/2025

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Iglesic Vida Nueva Unida Internation 12450 OLD COLUMBIA PIKE SILVER SPRING, MARYLAND 20904

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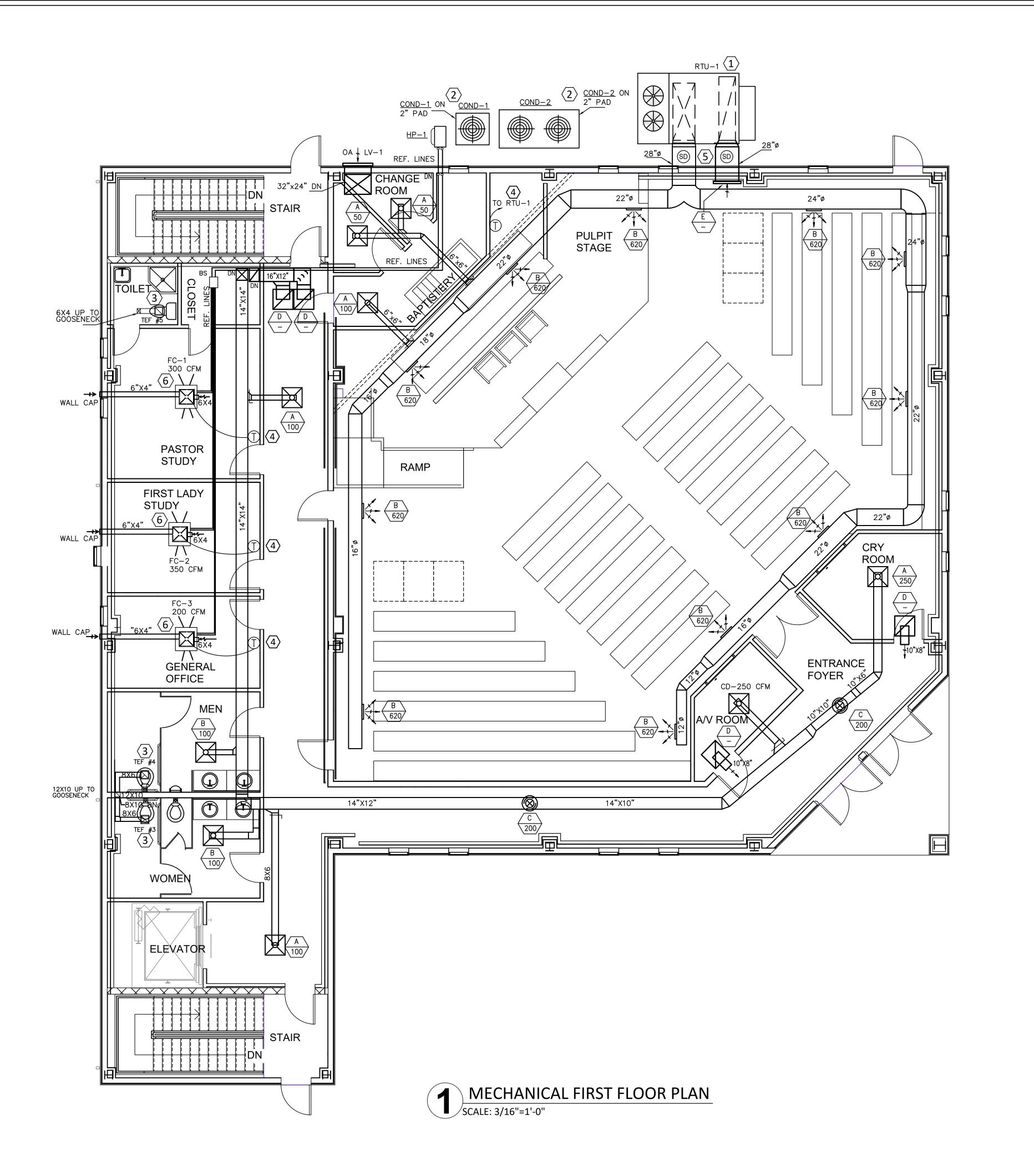
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Design America Engineering, Inc MEP Consulting Engineers

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- C. PRIOR TO START MECHANICAL WORK AND ANY DUCT FABRICATION, CONTRACTOR SHALL COORDINATE WITH OWNER/ARCHITECT FOR CEILING HEIGHT AND MAKE SURE HAVE ENOUGH SPACE TO RUN THE DUCTS ABOVE THE CEILING.

#### (-) MECHANICAL KEYED NOTES:

- I. PROVIDE AND INSTALL NEW ROOF TOP UNIT AT THIS LOCATION. REFER TO SCHEDULE AND DETAIL FOR MORE INFORMATION. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
- 2. PROVIDE NEW CONDENSING UNIT AT THIS LOCATION. REFER TO SCHEDULE AND DETAIL FOR MORE INFORMATION.
- 3. PROVIDE AND INSTALL EXHAUST FAN AT THIS LOCATION. REFER TO SCHEDULE AND DETAILS. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
- 4. PROVIDE AND INSTALL NEW THERMOSTAT TO CONTROL AHU 1,2 AT THIS LOCATION. COORDINATE EXACT LOCATION WITH OWNER/ARCH.
- 5. PROVIDE AND INSTALL SMOKE DETECTORS.
- 5. PROVIDE AND INSTALL NEW CASSETTE UNIT. REFER TO EQUIPMENT SCHEDULE FOR MORE INFORMATION. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.

Revisions: Date:

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ND 20904

DOR PLAN

Iglesic Vida Nueva Unida 12450 OLD COLUMBIA SILVER SPRING, MARYLA

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	EXHAUST FAN SCHEDULE													
UNIT	SERVICE	CFM	SP (IWC)	TYPE	FRPM	VOLTAGE	PHASE	HZ	HP (WATTS)	REMARKS				
TEF-1 TO 5	RESTROOM	140	0.020	CEILING	1400	115	1	60	(47)	GREENHECK SP-A190				
EF-1	JANITORIAL CLOSET	60	0.200	CEILING	900	115	1	60	(54)	GREENHECK SP-B80				

#### NOTES:

. FAN SHALL BE OPERATED FROM LIGHT SWITCH OF THE ROOM OF SERVICE. 4. PROVIDE FAN WITH SPEED CONTROLLER MOUNTED ON FAN HOUSING & GRAVITY BACK-DRAFT DAMPER.

	SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE													
SYSTEM	TONNAGE	SUPPLY AIR	OUTSIDE AIR	SENSIBLE COOLING (MBH) @ 95 AMB	EAT (F) (DB/WB)	LAT (F) (DB/WB)	TOTAL COOLING (MBH)	HEATING TYPE	HEATING CAPACITY MBH(OUTPUT)	REFRIGERANT TYPE	EER	BASIS OF DESIGN INDOOR UNIT	OUTDOOR UNIT	
AHU-1 & COND-1	6.0 TON	2100 CFM	375 CFM	54.96	80/67.0	56.9/56.08	74.29	74.29 HEAT PUMP / ELECTRIC HEAT 25 KW		R-410A	12.7	TWE07243BAA**A1 208V/3PH/60HZ 73 MCA/80 MOCP.	TWA07243DAA**AS01 208V/3PH/60HZ 26 MCA/35 MOCP.	
AHU-2 & COND-2	15.0 TON	4000 CFM	735 CFM	129.76	80/67.0	55.50/55.99	188.56	HEAT PUMP / ELECTRIC HEAT 30 KW	111.09	R-410A	11.9	TWE18043BAA**A1 208V/3PH/60HZ 96 MCA/100 MOCP.	TWA18043DAA**AS01 208V/3PH/60HZ 66.3 MCA/90 MOCP.	

#### NOTES:

- 1. ALL COOLING CAPACITIES ARE BASED ON 80°F DB, 63°F WB INDOOR ENTERING AIR TEMP AND 95°F AMBIENT OUTDOOR ENTERING AIR TEMP. 45°F SUCTION TEMP.
- 2. PROVIDE SYSTEMS WITH PROGRAMMABLE THERMOSTATS. TEMPERATURE SET POINT HEATING AT 70°F AND COOLING AT 78°F. AUX. HEAT TEMP. MUST DISPLAY ON THE SCREEN. WHEN THE TEMPERATURE RANGE FALLS BELOW 35°F (ADJ.) THE AUXILIARY HEAT TURNS ON.
- 3. ESP IS EXCLUSIVE OF FILTERS, WET COIL, AND CASING LOSS.
- 4. HEATING AND COOLING VALVES ARE MINIMUM REQUIRED TO MEET DESIGN.

- 5. FURNISH UNIT WITH LOW AMBIENT CONTROLS.
- 6. AIR HANDLERS SHALL HAVE A MANUFACTURER'S DESIGNATION FOR AN AIR LEAKAGE OF NO MORE THAN 2 PERCENT OF THE DESIGN AIR FLOW RATE WHEN TESTED IN ACCORDANCE WITH ASHRAE 193. REFER TO SUBMITTED DOCUMENT FROM UNIT MANUFACTURER.
- 7. UNITS SHALL MEET ENERGY STAR.
- 8. THE ELECTRIC RESISTANCE SHALL TURN ON, ONLY WHEN THE HEAT PUMP CAN'T HANDLE THE LOAD. THE AUX. HEAT MODE IS NORMAL WHEN: THE TEMPERATURE OUTSIDE IS BELOW FREEZING AND HEAT PUMP IN DEFROST MODE.

						SCHED	ULE C	F ROC	OFTOF	UNIT						
	MANUFACTURE SUPPLY FAN						DX COOLING SECTION			HEATING SECTION		ELECTRICAL			5.00 05 55000	
MARK	SERVICE	NOMINAL TON	SA(CFM)	OA(CFM)	ESP W.G	EAT (DB/WB) LAT (DB/WB)	R) TOTAL SENSIBLE LEEP/EEP OUTPUT CAPACITY	VOLTAGE	MCA	MOCP	BASIS OF DESIGN	NOTES				
RTU-1	FIRST FLOOR	20	6400	575	1.25	80.0/67.0 °F 57.34/55.46 °F	248.02	167.52	11.50/9.70	243.74	70/102.07	208/3/60	257	300	WSH240E3RPD	1, 2, 3

#### NOTES:

- 1. PROVIDE AND INSTALL ADJUSTABLE PROGRAMMABLE THERMOSTAT WITH HEAT/COOL AUTO CHANGEOVER AND NIGHT SETBACK.
- 2. LOW AMBIENT COOLING DOWN TO 0 DEG F WITH SHORT CYCLE PROTECTION AND HIGH HEAD PRESSURE CUTOUT.
- 3. MOTORIZED OUTSIDE AIR DAMPER
- 4. PROVIDE AND INSTALL RETURN AND SUPPLY AIR SMOKE DETECTOR WITH AUTO-SHUTDOWN OF UNIT UPON DETECTION OF FIRE.

	LOUVER SCHEDULE												
DESIGNATION	SERVICE	CFM	SIZE W x H	FREE AREA (SQ.FT.)	PRESSURE DROP (IN W.G.)	FACE VELOCITY (FPM)	MANUFACTURER & MODEL NUMBER OR APPROVED EQUAL	NOTES					
LV-1	AHU-1,2 (AIR INTAKE)	6000	60"x36"	9.41	0.061	568	GREENHECK ESD-635	1,2,3,4					

#### NOTES:

- LOUVER SHALL BE WEATHER PROOF AND DRAINABLE. . LOUVER SHALL BE INSTALLED AS HIGH AS POSSIBLE
- 3. LOUVER COLOR SHALL MATCH THE EXISTING LOUVERS LOCATED ON BUILDING EXTERIOR WALL. 4. PROVIDE LOUVER WITH BIRD OR INSECT SCREEN.

## SEQUENCE OF OPERATION

A. PROVIDE STAND ALONE OR APPLICATION SPECIFIC CONTROLLERS AS REQUIRED TO PERFORM THE FOLLOWING SEQUENCE OF OPERATIONS.

- B. AIR HANDLER UNITS (AHU-1, AHU-2 & RTU-1)
- 1. UNIT SHALL CONSIST OF SUPPLY AIR FAN, FILTERS, DX COOLING COIL, GAS HEAT, AND A 7-DAY PROGRAMMABLE THERMOSTAT.
- 2. PROVIDE AN OVERRIDE SWITCH TO OPERATE THE UNIT DURING UNOCCUPIED HOURS. THE SWITCH SHALL BE PART OF THE PROGRAMMABLE THERMOSTAT. OVERRIDE SWITCH ALLOWS THE UNIT TO OPERATE FOR TWO HOURS (ADJUSTABLE).
- OCCUPIED MODE: BASED ON THE SYSTEMS HOURS OF OCCUPANCY, START THE UNITS AT THE BEGINNING OF OCCUPANCY AND SHUT DOWN THE UNITS AT THE END OF OCCUPANCY (NOTE: OUTSIDE AIR DAMPER WITHIN THE UNIT SHALL OPEN AND THEN THE UNIT SHALL START). THE UNIT SHALL START EARLIER AS DETERMINED BY THE PROGRAM FOR EARLY WARM-UP OR COOL DOWN. ON A SYSTEM STARTUP, THE UNIT FAN SHALL START AND RUN CONTINUOUSLY AND THE INTERNAL FACTORY CONTROLS SHALL BE ENABLED. BASED ON THE SPACE TEMPERATURE SENSOR. THE UNIT SHALL CYCLE THE HEATING /COOLING TO MAINTAIN THE SPACE TEMPERATURE SET POINT.
- 4. UNOCCUPIED MODE: THE UNITS INTERNAL OA DAMPERS SHALL REMAINED CLOSED WHEN THE BUILDING IS NOT OCCUPIED. THE UNITS SHALL STOP HEATING/COOLING AND THE FAN SHALL STOP. IF THE SPACE TEMPERATURE FALLS BELOW 60 DEGREE F (ADJUSTABLE), THE UNIT SHALL START AND HEAT UNIT THE SPACE TEMPERATURE TO 64 DEGREE F (ADJUSTABLE) AND THEN SHUTDOWN. IF THE SPACE TEMPERATURE RISES ABOVE 85 DEGREE F (ADJUSTABLE), THE UNIT SHALL START AND COOL THE SPACE TEMPERATURE TO 80 DEGREE F (ADJUSTABLE) AND THEN SHUTDOWN.
- 5. UPON DETECTION OF SMOKE BY UNIT SMOKE DETECTOR ALL RTU'S SHALL SHUT DOWN AND AN ALARM SHALL BE SENT TO THE LOCAL REMOTE ANNUNCIATORS.

Designer/Contractor:

- C. RESTROOM EXHAUST FAN (TEF-1, 2, 3, 4 & 5 AND EF-1)
- 1. EXHAUST FAN SHALL INTERLOCK WITH LIGHTING SWITCH OR OCCUPANCY SENSOR.

## MECHANICAL COMPLIANCE CERTIFICATE

Project Information

2018 IECC Energy Code: IGLESIA VIDA NUEVA INTERNATIONAL Project Title: Silver Spring, Maryland Location: Climate Zone:

Project Type: **New Construction** 

Construction Site: 12450 OLD CULUMBIA PIKE SLIVER

SLIVER SPRING. MARYLAND 20904 MARYLAND, MD 20904

Additional Efficiency Package(s) Credits: 1.0 Required 1.0 Proposed Enhanced Interior Lighting Controls, 1.0 credit

Mechanical Systems List

Quantity System Type & Description

1 RTU-1 (Single Zone): Heating: 1 each - Central Furnace, Electric, Capacity = 243 kBtu/h

No minimum efficiency requirement applies

Cooling: 1 each - Single Package DX Unit, Capacity = 248 kBtu/h, Air-Cooled Condenser, Air Economizer

Owner/Agent:

Proposed Efficiency = 12.00 EER, Required Efficiency: 10.00 EER + 11.6 IEER Fan System: Unspecified

1 HP-1 (FC-1,2,3) (Multiple-Zone):

Split System Heat Pump Heating Mode: Capacity = 11 kBtu/h,

Proposed Efficiency = 11.00 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 9 kBtu/h, Proposed Efficiency = 0.00 SEER, Required Efficiency: 14.00 SEER

Fan System: Unspecified SYSTEM COMPLIANCE FAILS: PROPOSED EFFICIENCY FAILS TO MEET CODE REQUIREMENTS.

HVAC System 1 (Single Zone):

Split System Heat Pump Heating Mode: Capacity = 36 kBtu/h.

Proposed Efficiency = 0.00 COP, Required Efficiency = 3.30 COP Cooling Mode: Capacity = 74 kBtu/h, , Air Economizer

Proposed Efficiency = 11.90 EER, Required Efficiency: 11.00 EER + 12.0 IEER

Fan System: Unspecified SYSTEM COMPLIANCE FAILS: PROPOSED EFFICIENCY FAILS TO MEET CODE REQUIREMENTS.

1 HVAC System 2 (Single Zone): Split System Heat Pump

Heating Mode: Capacity = 111 kBtu/h, Proposed Efficiency = 0.00 COP, Required Efficiency = 3.20 COP

Cooling Mode: Capacity = 188 kBtu/h, , Air Economizer Proposed Efficiency = 11.90 EER, Required Efficiency: 10.60 EER + 11.6 IEER

Fan System: Unspecified SYSTEM COMPLIANCE FAILS: PROPOSED EFFICIENCY FAILS TO MEET CODE REQUIREMENTS.

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Silver Spring, Md. 20904

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Scale:

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**MEP Consulting Engineers** 

Drawn:

Checked: File No.

Drawing No.

	AHU-1 - Total Load S	Summary	
Air Handler Description: Supply Air Fan: Fan Input: Sensible Heat Ratio:	AHU-1 Constant Volume - Sum of Draw-Thru with program estimated 0% motor and fan efficiency with 0 0.90	Peaks I horsepower of 0.20 HP In water across the fan	eurs 1 time(s) in the building
Air System Peak Time: Outdoor Conditions: Indoor Conditions:	2pm in August. Clg: 93° DB, 75° WB, 101.95 grain Clg: 75° DB, 50% RH, Htg: 75° DB	ns, Htg: 10° DB	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Summer: Ventilation contro	ols outside air, Winter: Ventilatio		
Zone Space sensible loss: Infiltration sensible loss: Outside Air sensible loss: Supply Duct sensible loss:	19,641 Btuh 0 Btuh 26,185 Btuh 0 Btuh	0 CFM 375 CFM	
Return Duct sensible loss: Return Plenum sensible los Total System sensible loss	0 Btuh ss: 0 Btuh		45,826 Btuh
Heating Supply Air: 19,641 Winter Vent Outside Air (17		2,100 CFM 375 CFM	
Zone space sensible gain: Infiltration sensible gain: Draw-thru fan sensible gair Supply duct sensible gain: Reserve sensible gain: Total sensible gain on supp	0 Btuh 18,282 Btuh		45,946 Btuh
Cooling Supply Air: 45,946 Summer Vent Outside Air (		2,100 CFM 375 CFM	
Return duct sensible gain: Return plenum sensible ga Outside air sensible gain: Blow-thru fan sensible gain Total sensible gain on retu Total sensible gain on air h	7,385 Btuh n: 0 Btuh rn side of coil:	375 CFM	7,385 Btuh 53,332 Btuh
Zone space latent gain: Infiltration latent gain: Outside air latent gain: Total latent gain on air han Total system sensible and	5,175 Btuh 0 Btuh 9,514 Btuh dling system:		14,689 Btuh 68,021 Btuh
Check Figures			
Total Air Handler Supply A Total Air Handler Vent. Air		2,100 CFM 375 CFM	
Total Conditioned Air Spac Supply Air Per Unit Area: Area Per Cooling Capacity Cooling Capacity Per Area	: :	2,777 Sq.ft 0.7561 CFM/Sq.ft 489.9 Sq.ft/Ton 0.0020 Tons/Sq.ft 16.50 Btuh/Sq.ft	
Heating Capacity Per Area	th Outside Air:	45,826 Btuh	

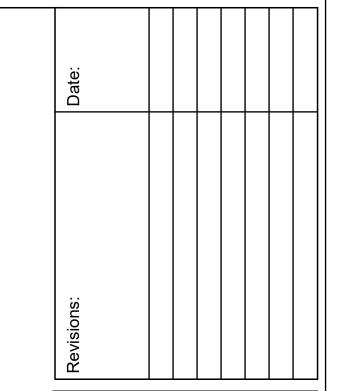
Air Handler Description: Supply Air Fan: Fan Input: Sensible Heat Ratio:	AHU-2 Constant Volume - Prop Draw-Thru with program estima 0% motor and fan efficiency wit 0.76	nted horsepower of 0.38 HP h 0 in. water across the fan	curs 1 time(s) in the building
Air System Peak Time: Outdoor Conditions: Indoor Conditions:	5pm in August. Clg: 92° DB, 75° WB, 104.46 gr Clg: 75° DB, 50% RH, Htg: 75°		
		ds, the zone sensible peak time in Aug computed using a zone sensible load o	
Summer: Ventilation contro	ols outside air, Winter: Ventila	ation controls outside air.	
Zone Space sensible loss: Infiltration sensible loss: Outside Air sensible loss: Supply Duct sensible loss: Return Duct sensible loss: Return Plenum sensible los Total System sensible los	0 Btuh 51,322 Btuh 0 Btuh 0 Btuh ss: 0 Btuh	0 CFM 735 CFM	58,973 Btuh
Heating Supply Air: 7,652 Winter Vent Outside Air (1	/ (.995 X 1.08 X 2) = 8.4% of supply) =	4,000 CFM 735 CFM	
Zone space sensible gain: Infiltration sensible gain: Draw-thru fan sensible gain: Supply duct sensible gain: Reserve sensible gain: Total sensible gain on sup	0 Btuh n: 953 Btuh 0 Btuh 35,871 Btuh		87,297 Btuh
Cooling Supply Air: 87,517 Summer Vent Outside Air		3,999 CFM 735 CFM	
Return duct sensible gain: Return plenum sensible ga Outside air sensible gain: Blow-thru fan sensible gair Total sensible gain on retu Total sensible gain on air h	13,671 Btuh n: 0 Btuh Irn side of coil:	735 CFM	13,671 Btuh 100,968 Btuh
Zone space latent gain: Infiltration latent gain: Outside air latent gain: Total latent gain on air har	27,675 Btuh 0 Btuh 19,457 Btuh ndling system:		47,132 Btuh
Total system sensible and	latent gain:		148,100 Btuh
Check Figures Total Air Handler Supply A Total Air Handler Vent. Air		3,999 CFM 735 CFM	
Total Conditioned Air Spac Supply Air Per Unit Area: Area Per Cooling Capacity Cooling Capacity Per Area Heating Capacity Per Area	n u	3,505 Sq.ft 1.1410 CFM/Sq.ft 284.0 Sq.ft/Ton 0.0035 Tons/Sq.ft 16.83 Btuh/Sq.ft	
Total Heating Required Wi Total Cooling Required Wi		58,973 Btuh 12.34 Tons	

<u> Air Handler #4</u>	- FC-1 - Total Load	l Summary	
Air Handler Description: Supply Air Fan: Fan Input: Sensible Heat Ratio:		timated horsepower of 0.03 HP with 0 in. water across the fan	urs 1 time(s) in the building
Air System Peak Time: Outdoor Conditions: ndoor Conditions:	2pm in August. Clg: 93° DB, 75° WB, 101.9 Clg: 75° DB, 50% RH, Htg:		
Summer: Ventilation cont	rols outside air, Winter: Ve	ntilation controls outside air.	
Zone Space sensible loss	: 2.101 Btuh		
Infiltration sensible loss: Outside Air sensible loss: Supply Duct sensible loss Return Duct sensible loss Return Plenum sensible l	0 Btuh 2,095 Btuh 0 Btuh 0 Btuh	0 CFM 30 CFM	
Total System sensible los			4,196 Btuh
Heating Supply Air: 2,101 Winter Vent Outside Air (		300 CFM 30 CFM	
Zone space sensible gair Infiltration sensible gain: Draw-thru fan sensible ga Supply duct sensible gair Reserve sensible gain: Total sensible gain on su	0 Btuh in: 71 Btuh : 0 Btuh 3,657 Btuh		6,224 Btuh
Cooling Supply Air: 6,224 Summer Vent Outside Air	/ (.995 X 1.1 X 19) =	299 CFM 30 CFM	O,ZZ i Btdii
Return duct sensible gain Return plenum sensible g Outside air sensible gain: Blow-thru fan sensible ga Total sensible gain on ret Total sensible gain on air	ain: 0 Btuh 591 Btuh in: 0 Btuh urn side of coil:	30 CFM	591 Btuh 6,815 Btuh
Zone space latent gain: Infiltration latent gain: Outside air latent gain: Total latent gain on air ha	0 Btuh 0 Btuh 761 Btuh ndling system:		761 Btuh
Total system sensible and			7,576 Btuh
Check Figures Total Air Handler Supply	Air (based on a 19° TD):	299 CFM	
Total Air Handler Vent. A		30 CFM	
Total Conditioned Air Spa Supply Air Per Unit Area: Area Per Cooling Capacit Cooling Capacity Per Are Heating Capacity Per Are	y: a:	231 Sq.ft 1.2959 CFM/Sq.ft 365.9 Sq.ft/Ton 0.0027 Tons/Sq.ft 18.16 Btuh/Sq.ft	
Total Heating Required W Total Cooling Required W		4,196 Btuh 0.63 Tons	

Air Handler #5 - FC	-2 - Total Load Sun	nmary	
Air Handler Description: FC- Supply Air Fan: Dra	2 Constant Volume - Proportion w-Thru with program estimated h motor and fan efficiency with 0 ir	norsepower of 0.03 HP n. water across the fan	rs 1 time(s) in the building
Outdoor Conditions: Clg	n in August. : 93° DB, 75° WB, 101.95 grains, : 75° DB, 50% RH, Htg: 75° DB	Htg: 10° DB	
Summer: Ventilation controls ou	tside air, Winter: Ventilation	controls outside air.	
Zone Space sensible loss: Infiltration sensible loss: Outside Air sensible loss: Supply Duct sensible loss: Return Duct sensible loss: Return Plenum sensible loss: Total System sensible loss:	1,437 Btuh 0 Btuh 1,397 Btuh 0 Btuh 0 Btuh 0 Btuh	0 CFM 20 CFM	2,833 Btuh
Heating Supply Air: 1,437 / (.995 Winter Vent Outside Air (5.7% o		350 CFM 20 CFM	
Zone space sensible gain: Infiltration sensible gain: Draw-thru fan sensible gain: Supply duct sensible gain: Reserve sensible gain: Total sensible gain on supply sid	2,145 Btuh 0 Btuh 83 Btuh 0 Btuh 5,412 Btuh de of coil:		7,640 Btuh
Cooling Supply Air: 7,640 / (.995 Summer Vent Outside Air (5.7%		349 CFM 20 CFM	
Return duct sensible gain: Return plenum sensible gain: Outside air sensible gain: Blow-thru fan sensible gain: Total sensible gain on return sid Total sensible gain on air handlii		20 CFM	394 Btuh 8,033 Btuh
Zone space latent gain: Infiltration latent gain: Outside air latent gain: Total latent gain on air handling Total system sensible and latent			957 Btuh 8,991 Btuh
Check Figures			
Total Air Handler Supply Air (bas Total Air Handler Vent. Air (5.73		349 CFM 20 CFM	
Total Conditioned Air Space: Supply Air Per Unit Area: Area Per Cooling Capacity: Cooling Capacity Per Area: Heating Capacity Per Area:		170 Sq.ft 2.0534 CFM/Sq.ft 226.9 Sq.ft/Ton 0.0044 Tons/Sq.ft 16.66 Btuh/Sq.ft	
Total Heating Required With Ou Total Cooling Required With Out		2,833 Btuh 0.75 Tons	

Air Handler Description: Supply Air Fan:	AHU-3 Constant Volume - Propo Draw-Thru with program estimate		
Supply Air Fan: Fan Input:	0% motor and fan efficiency with		
Sensible Heat Ratio:	0.69		curs 1 time(s) in the building
		This system out	curs i time(s) in the building
Air System Peak Time:	4pm in August.		
Outdoor Conditions:	Clg: 93° DB, 75° WB, 101.95 gra		
Indoor Conditions:	Clg: 75° DB, 50% RH, Htg: 75° D	)B	
Summer: Ventilation contro	s outside air, Winter: Ventilati	ion controls outside air.	
Zone Space sensible loss:	16,454 Btuh		
Infiltration sensible loss:	0 Btuh 40,150 Btuh 0 Btuh	0 CFM	
Outside Air sensible loss:	40,150 Btuh	575 CFM	
Supply Duct sensible loss:	0 Btuh		
Return Duct sensible loss:	0 Btuh		
Return Plenum sensible los	s: 0 Btuh		
Total System sensible loss:			56,604 Btuh
Heating Supply Air: 16,454	/ ( 995 X 1 08 X 2) =	6,400 CFM	
Winter Vent Outside Air (9.0		575 CFM	
•	,	070 OI W	
Zone space sensible gain: Infiltration sensible gain: Draw-thru fan sensible gain Supply duct sensible gain: Reserve sensible gain:	100,382 Btuh		
Infiltration sensible gain:	0 Btuh		
Draw-thru fan sensible gain	: 1,525 Btuh		
Supply duct sensible gain:	0 Btuh		
Reserve sensible gain:	38,127 Btuh		
Total sensible gain on supp	ly side of coil:		140,034 Btuh
Cooling Supply Air: 140,034	I / ( 995 X 1 1 X 20) =	6,399 CFM	
Summer Vent Outside Air (9		575 CFM	
Return duct sensible gain:	0 Btuh		
Detum alexans sensible galli.	O Diuli		
Outside singensible gai	11. U DIUIT	EZE OEM	
Return duct serisible gair. Return plenum sensible gai Outside air sensible gain: Blow-thru fan sensible gain:	11,324 Blun	575 CFM	
Blow-thru fan sensible gain:	0 Btuh		44 004 Ptvl
Total sensible gain on retur			11,324 Btuh
Total sensible gain on air ha	andling system:		151,359 Btuh
Zone space latent gain:	63,000 Btuh		
Infiltration latent gain:	0 Btuh		
Outside air latent gain:	14,589 Btuh		
Total latent gain on air hand	lling system:		77,589 Btuh
Total system sensible and I	atent gain:		228,947 Btuh
Check Figures			
Total Air Handler Supply Air		6,399 CFM	
Total Air Handler Vent. Air (	8.99% of Supply):	575 CFM	
Total Conditioned Air Space	e:	3,428 Sq.ft	
Supply Air Per Unit Area:		1.8668 CFM/Sq.ft	
Area Per Cooling Capacity:		179.7 Sq.ft/Ton	
Cooling Capacity Per Area:		0.0056 Tons/Sq.ft	
Heating Capacity Per Area:		16.51 Btuh/Sq.ft	
Total Heating Required With	n Outside Air:	56,604 Btuh	
Total Cooling Required With		19.08 Tons	
		.0.00 .00	

Supply Air Fan: Draw	B Constant Volume - Proportion v-Thru with program estimated h motor and fan efficiency with 0 ir	orsepower of 0.02 HP n. water across the fan	rs 1 time(s) in the building
Outdoor Conditions: Clg:	in August. 93° DB, 75° WB, 101.95 grains, 75° DB, 50% RH, Htg: 75° DB	Htg: 10° DB	
Summer: Ventilation controls out	side air, Winter: Ventilation	controls outside air.	
Zone Space sensible loss: Infiltration sensible loss: Outside Air sensible loss: Supply Duct sensible loss: Return Duct sensible loss: Return Plenum sensible loss:	1,234 Btuh 0 Btuh 1,397 Btuh 0 Btuh 0 Btuh 0 Btuh	0 CFM 20 CFM	2 C24 Phyl
Total System sensible loss: Heating Supply Air: 1,234 / (.995 Winter Vent Outside Air (10.0% o		200 CFM 20 CFM	2,631 Btuh
Zone space sensible gain: Infiltration sensible gain: Draw-thru fan sensible gain: Supply duct sensible gain: Reserve sensible gain: Total sensible gain on supply sid	1,956 Btuh 0 Btuh 48 Btuh 0 Btuh 2,365 Btuh e of coil:		4,368 Btuh
Cooling Supply Air: 4,368 / (.995 Summer Vent Outside Air (10.0%		200 CFM 20 CFM	
Return duct sensible gain: Return plenum sensible gain: Outside air sensible gain: Blow-thru fan sensible gain: Total sensible gain on return side Total sensible gain on air handlin		20 CFM	394 Btuh 4,762 Btuh
Zone space latent gain: Infiltration latent gain: Outside air latent gain: Total latent gain on air handling s Total system sensible and latent			957 Btuh 5,720 Btuh
Check Figures Total Air Handler Supply Air (bas Total Air Handler Vent. Air (10.02		200 CFM 20 CFM	
Total Conditioned Air Space: Supply Air Per Unit Area: Area Per Cooling Capacity: Cooling Capacity Per Area: Heating Capacity Per Area:		140 Sq.ft 1.4257 CFM/Sq.ft 293.7 Sq.ft/Ton 0.0034 Tons/Sq.ft 18.79 Btuh/Sq.ft	
Total Heating Required With Out Total Cooling Required With Out		2,631 Btuh 0.48 Tons	



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12450 OLD COLUMBIA PIKI SILVER SPRING, MARYLAND

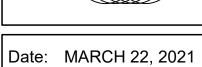
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German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904 Phone: 301-873-7092

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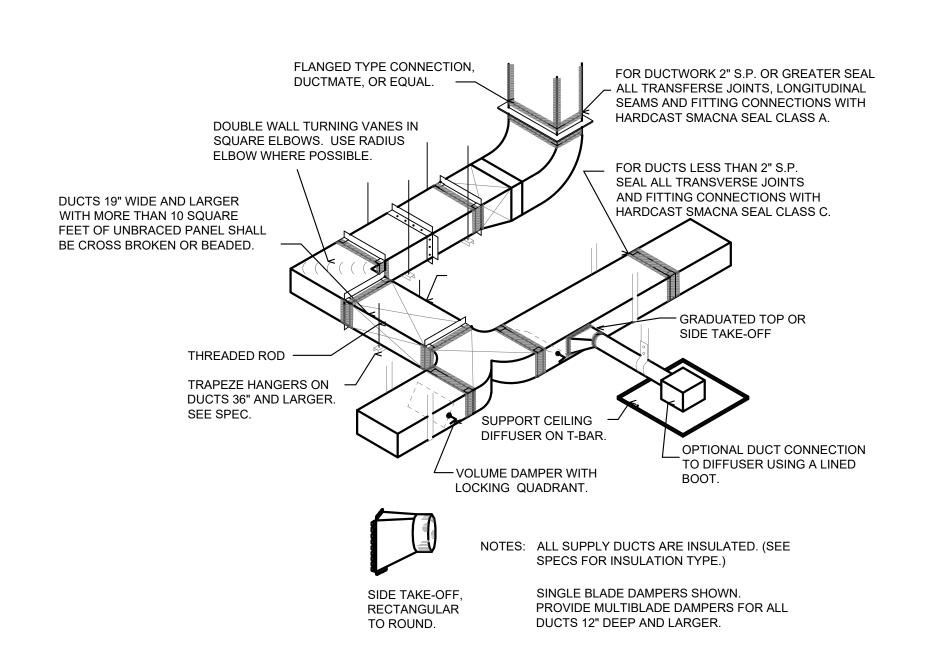
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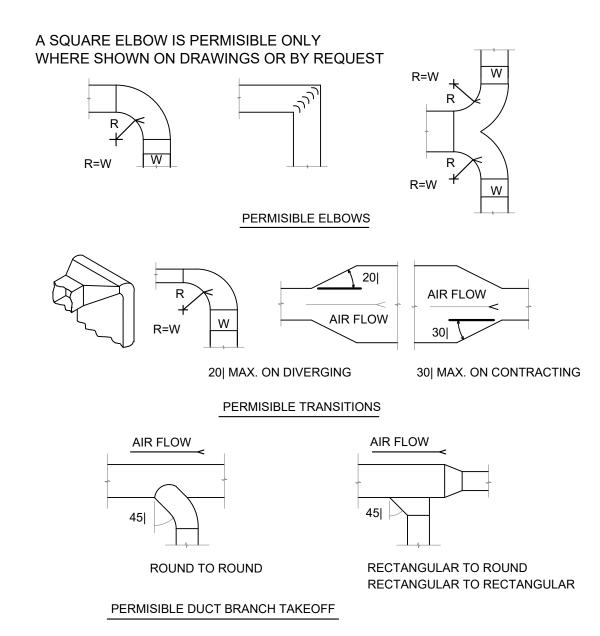
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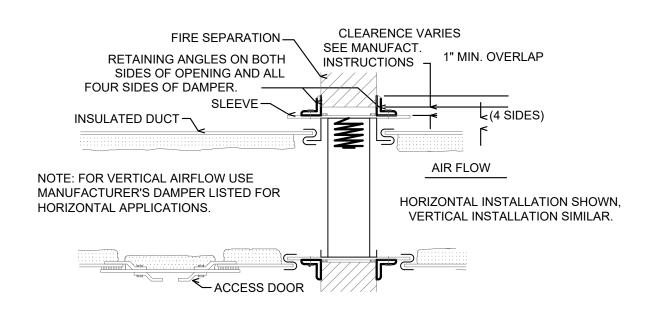




TYPICAL DUCT INSTALLATION

N.T.S.





1. INSTALL PER MANUFACTURER'S INSTRUCTIONS AND MUST COMPLY WITH UL555.

2. FASTEN RETAINING ANGLES AND SLEEVE PER MANUFACTURER'S INSTRUCTIONS.

3. PROVIDE REMOVABLE ACCESS DOOR (16" X DUCT WIDTH-2") W/ CAM TYPE LATCHES.

OR SMOKE DAMPERS AND FUSIBLE LINKS PROVIDED BY HVAC CONTRACTOR.

6. MANUFACTURER'S INSTRUCTIONS SHALL TAKE PRECEDENCE OVER THIS DETAIL IN

**FIRE OR SMOKE DAMPER** 

4. INSTALL DAMPERS SO THAT LATCHING DEVICE, IF PRESENT, IS ACCESSIBLE

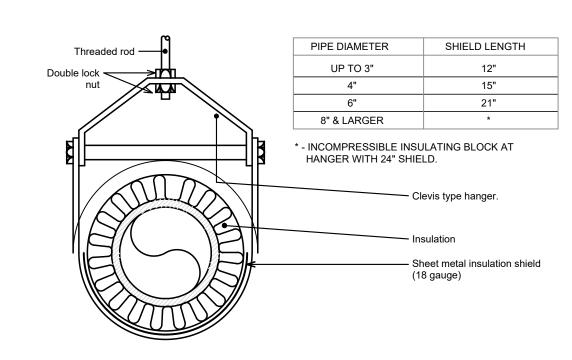
5. ALL DUCTWORK, LATCHING DEVICES, ANGLES, GASKETS, SLEEVES, FIRE

CASE OF CONFLICT.

SIDE WHEN NOT INDICATED.

FROM ACCESS DOOR.

SEE PLANS FOR ACCESS DOOR/DAMPER ORIENTATIONS OR INSTALL ON UPSTREAM

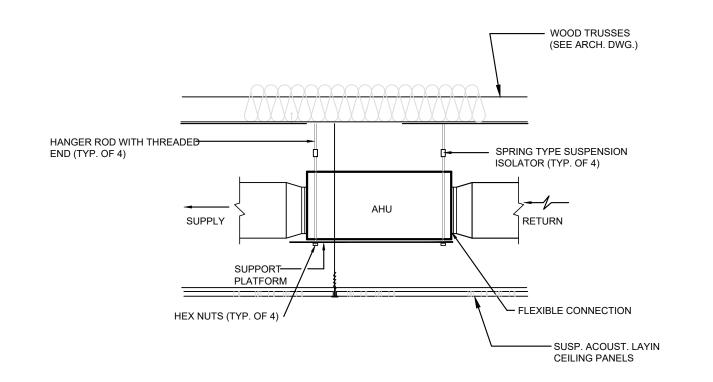


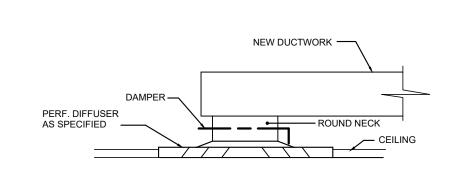
#### INSULATED PIPE SUPPORT

Nominal steel pipe size (In.)	Rod Diameter	Maximum Spacing (Steel)	Copper tube O.D. (Inches)	Maximum Spacing (Copper)
Up to 1-1/4"	3/8"	8'	5/8	6'
1-1/2" to 2-1/2"	3/8"	10'	7/8 to 1-1/8	8'
3" to 3-1/2"	1/2"	12'	1-3/8 to 2-1/8	10'
4" to 6"	5/8"	14'	2-5/8 to 5-1/8	12'
8" to 12"	3/4"	16'	6-1/8 to 8-1/8	14'
14" to 24'	3/4"	20'		

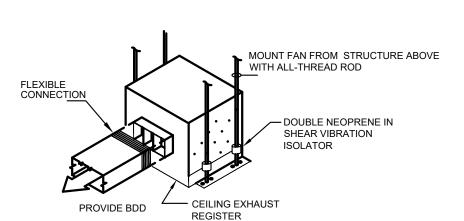








(TYP.) DIFFUSER CONNECTION DETAIL







Landing

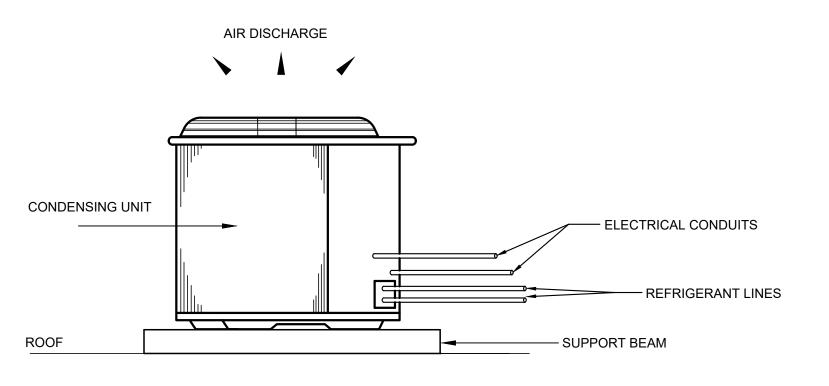
— FILL WITH SEALANT

CONTINUOUS AND WATERTIGHT

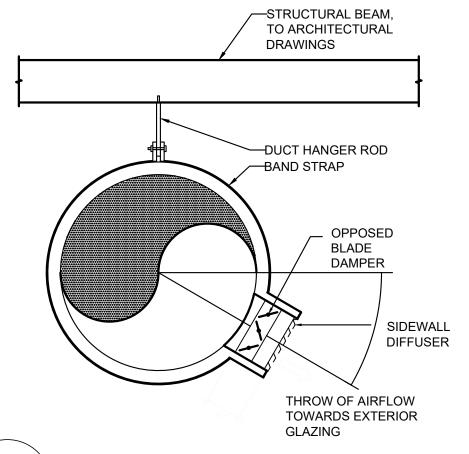
SCHEDULE 40 GALVANIZED PIPE

SLEEVE - 2" MIN. ABOVE CONCRETE

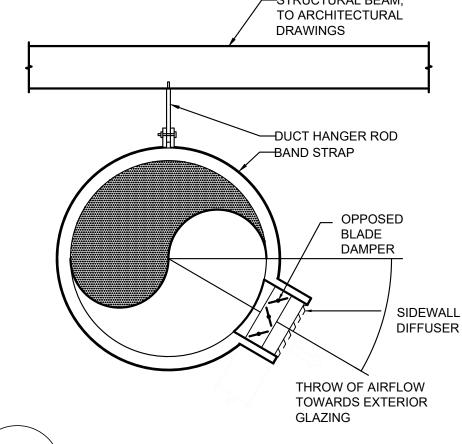




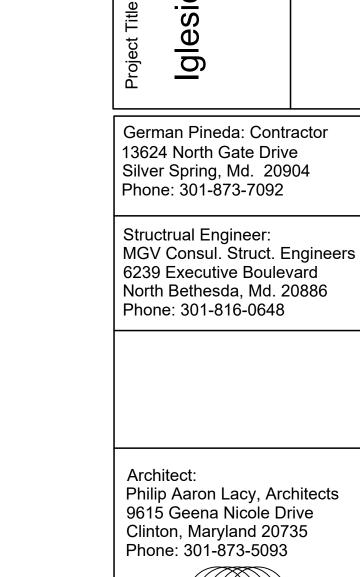




ANGLE SIDEWALL DIFFUSER DETAIL **10** 



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Date: MARCH 22, 2021

File No.

Scale:

Drawing No.

**M600** 

#### PLUMBING SPECIFICATIONS

- A. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL CODES, ORDINANCES AND STANDARDS OF THE LOCAL JURISDICTION.IN CASE OF A CONFLICT BETWEEN DRAWINGS OR SPECIFICATIONS AND THE REQUIREMENTS OF THE LOCAL JURISDICTION, THE MORE STRINGENT
- B. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTS, LEAKS, LACK OF PROPER SYSTEM PERFORMANCE OR NON-OPERATION FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE.
- C. ALL WORK SHALL BE COORDINATED WITH ALL TRADES, PRIOR TO INSTALLATION.
- D. IN GENERAL, DRAWINGS FOR THE WORK ARE DIAGRAMMATIC AND SHOW THE LOCATION, TYPE AND SIZE OF PIPING, EQUIPMENT, AND ACCESSORY EQUIPMENT. THE CONTRACTOR SHALL FURNISH ALL ITEMS NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE WORK, WHETHER CALLED FOR OR NOT. THE CONTRACTOR SHALL VERIFY ALL NECESSARY DIMENSIONS BEFORE INSTALLING ANY OF THE WORK AND SHALL CHECK HIS LAYOUTS TO ALLOW CLEARANCE REQUIRED FOR OTHER WORK. THE SCOPE OF WORK CONSISTS GENERALLY OF PROVIDING AND INSTALLING COMPLETE PLUMBING AND GAS SYSTEMS AND FINAL TESTING OF ALL SYSTEMS AND EQUIPMENT AS REQUIRED.

#### PRODUCTS

- A. PLUMBING FIXTURES: ALL FIXTURES SHALL BE SELECTED BY OWNER. PROVIDE ALL FIXTURES WITH TRIM, CARRIER SUPPLIES, AND TRAPS AS REQUIRED FOR COMPLETE INSTALLATION.
- B. PIPING AND FITTING:

REQUIREMENTS SHALL APPLY.

- DOMESTIC WATER:
- ABOVE GRADE SHALL BE TYPE "L" HARD DRAWN COPPER TUBING WITH 125 PSI WROUGHT COPPER SWEAT FITTINGS, AND ALL JOINT SOLDERED WITH 95/5 OR SILVER SOLDER. BELOW GRADE SHALL BE TYPE "K" SOFT DRAWN COPPER TUBING WITH 125 PSI WROUGHT COPPER SWEAT FITTINGS SOLDERED WITH SILVER SOLDER.
- 2. SOIL, WASTE AND VENT: ABOVE GRADE SHALL BE: SERVICE WEIGHT CAST IRON BELL AND SPIGOT.SCHEDULE 40 GALVANIZED STEEL PIPE WITH SWEAT. CAST IRON DRAINAGE PATTERN FITTINGS. CAST IRON NO-HUB PIPING AND FITTINGS.DWV COPPER TUBING AND COPPER DRAINAGE PATTERN FITTINGS.SCHEDULE 40 PVC PLASTIC PIPE AND PVC-DWV FITTING. (SHALL NOT BE USED IN PLENUM SPACES.) BELOW GRADE SHALL BE: SERVICE WEIGHT CAST IRON BELL AND SPIGOT. SOIL, WASTE AND VENT STACKS SHALL BE SERVICE WEIGHT CAST IRON BELL AND SPIGOT.

#### C. INSULATION:

- DOMESTIC WATER PIPING:
- COVER ALL WITH 1/2" FIBERGLASS INSULATION (R3 SECURED WITH ALL PURPOSE JACKET. PIPING IN EXTERIOR WALLS AND PLUMBING CHASES SHALL BE COVERED WITH 1" THICK INSULATION.
- 2. STORM WATER PIPING: THE HORIZONTAL SECTION OF THE RAIN LEADERS, RISER TO AND INCLUDING THE INTERIOR PART OF THE ROOF DRAIN SHALL BE COVERED WITH 1" THICK INSULATION.
- D. VALVES:
- 1. DOMESTIC WATER:
- ALL VALVES SHALL BE SWEATED BRONZE GATE VALVE WITH SCREW-IN BONNET, RISING STEM MINIMUM RATING OF 125 PSI. TWO PIECES BALI VALVES WITH EXTENDED HANDLE MAY BE USED IN LIEU OF THE GATE
- E. HANGERS: SHALL BE ADJUSTABLE CLEVIS HANGERS, PROPERLY SIZED AND SPACED FOR PIPING, INCLUDING INSULATION.

#### EXECUTION

- A. INSTALL FIXTURES LEVEL, PLUMB AND PARALLEL TO WALLS. ALL EXPOSED METAL PARTS SHALL BE CHROME PLATED AND SHOW NO TOOL MARKS. GROUT BETWEEN WALL HUNG FIXTURES AND WALL. PROVIDE ACCESS PANELS TO ALL CONCEALED SUPPLY STOPS AND
- B. FIXTURES DESIGNATED FOR USE B PHYSICALLY HANDICAPPED PEOPLE SHALL BE IN ACCORDANCE WITH ANSI A 117.1.
- C. INSTALL DIELECTRIC CONNECTION BETWEEN DISSIMILAR METALS. PIPE TO PIPE, PIPE TO EQUIPMENT, PIPE TO SUPPORT.
- FURNISH AND INSTALL JOSAM 75000 SERIES SHOCK ARRESTERS AT THE ENDS OF ALL HOT AND COLD WATER BRANCHES TO FIXTURES. SIZES SHALL BE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.1

#### PLUMBING NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STATE BUILDING CODE, LOCAL REQUIREMENTS AND THE PROJECT SPECIFICATIONS.
- ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES.
- ALL DRAINAGE PIPING SHALL BE RUN AT A SLOPE OF 1/4" PER FOOT UNLESS SPECIFICALLY SHOWN OTHERWISE ON
- CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMISSION OF BID TO BECOME FAMILIAR WITH EXISTING CONDITIONS.
- 5. ALL HOT AND COLD WATER SUPPLY PIPING SHALL BE
- PROVIDE AND INSTALL CLEAN-OUTS IN DRAINAGE PIPING AT EACH CHANGE IN DIRECTION OF PIPING GREATER THAN 45 DEGREES, EVERY 50 FEET, AND AS SHOWN.
- EXPOSED UTILITY SERVICE LINES AND PIPES SHALL BE INSTALLED SO THAT THEY DO NOT OBSTRUCT OR PREVENT CLEANING OF THE FLOORS, WALLS, OR CEILINGS. EXPOSED HORIZONTAL UTILITY SERVICE LINES AND PIPES SHALL NOT BE INSTALLED ON THE FLOOR.
- 8. CONTRACTOR TO VERIFY SIZE AND LOCATION OF SANITARY. AND COLD/HOT WATER AND GAS PIPES PRIOR TO STARTING
- 9. EXISTING UTILITIES AND EQUIPMENT NOT SHOWN OR NOT SHOWN TO BE REPLACED SHALL REMAIN IN SERVICE DURING
- 10. CONTRACTOR SHALL REMOVE AND DISPOSE ALL PLUMBING MATERIAL, FIXTURES AND EQUIPMENT FROM TENANT SPACE AS SHOWN ON DRAWING. COORDINATE DEMOLITION WITH NEW CONSTRUCTION PLAN.

## PLUMBING LEGEND

SANITARY PIPE

DOMESTIC COLD WATER PIPE DOMESTIC HOT WATER PIPE

VALVE IN VERTICAL

OSD

SAN

VTR

# FLOOR DRAIN

# PLUMBING ABBREVIATIONS

CO	CLEANOUT
CW	COLD WATER
DN	DOWN
FD	FLOOR DRAIN
FL	FIRE LINE
GAL	GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
НВ	HOSE BIBB

LAVATORY

SANITARY

TYPICAL

VENT

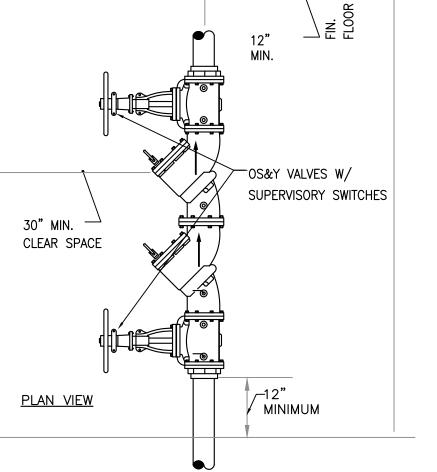
POUND PER SQUARE INCH

OPEN SITE DRAIN

VENT THRU ROOF

WATER CLOSET

TYPICAL PIPE ROOF PENETRATION DETAIL
N.T.S. HOT WATER



UNIT MAKE AND MODEL SHALL BE FROM THE AHJ LIST OF APPROVED DEVICES. UNIT SHALL BE INSTALLED BY A LICENSED PLUMBER PER AHJ REQUIREMENTS. CONTRACTOR SHALL PROVIDE TESTING BY CERTIFIED BACKFLOW PREVENTION ASSEMBLY TESTER, WHO IS ALSO A LICENSED PLUMBER, UPON INSTALLATION, PER AHJ REQUIREMENTS. DOUBLE DETECTOR CHECK VALVE ASSEMBLY ON SPRINKLER SERVICE

DOUBLE CHECK VALVE ASSEMBLY ON DOMESTIC SERVICE BACKFLOW PREVENTER INSTALLATION DETAIL

# MARYLAND CODES:

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE MARYLAND STATE CODES (AS STATED BELOW) OR ALL THE APPLICABLE CODES IN FORCE BY LOCAL AUTHORITIES HAVING JURISDICTION.

MARYLAND BUILDING CODE. MARYLAND ENERGY CONSERVATION CODE. 2018 MARYLAND PLUMBING CODE. 2012 2017 MARYLAND PROPERTY MAINTENANCE CODE. NATIONAL ELECTRICAL CODE NFPA70. MARYLAND GREEN CONSTRUCTION CODE. 2012 MARYLAND MECHANICAL CODE. MARYLAND EXISTING BUILDING CODE.

ADA STANDARD.

MARYLAND ACCESSIBLY CODE.

	<u>water heater schedule — (ewh)</u>									
	AREA SERVED	F	RECOVERY	,	CAPACITY	ELECTRIC	DATA			
MARK	ANEA SERVED	GPH	EWT	LWT	(GALLONS)	VOLT/PH/HZ	KW	REMARKS		
EWH	SEE PLAN	18	40	120	55	208/01/60	8 KW	BRADFORD, MODEL: LE255T3-3		

#### NOTE: INSTALL HEATER AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

	SHEET INDEX:
P100	PLUMBING COVER SHEET
P200	PLUMBING FLOOR PLAN — BASEMENT
P300	PLUMBING FLOOR PLAN - FIRST FLOOR
P400	PLUMBING RISER DIAGRAMS

#### PLUMBING FIXTURE SCHEDULE

BAND

-PIPE

SLEEVE

-CAULKING

FLASHING

METAL COUNTER

METAL FLASHING

				DRAI	Ŋ		
ITEM:	DESCRIPTION:	C.W.	H.W.	DIR.	IND.	VENT	REMARK
L	LAVATORY	1/2"	1/2″	1 1/2"	-	1 1/2"	PROVIDE BY OWNER
WC	WATER CLOSET	3/4"	_	3″	-	2"	PROVIDE BY OWNER
HWC	WATER CLOSET(HANDICAP)	3/4"	_	3″	-	2"	PROVIDE BY OWNER
UR	URINAL	3/4"	_	2"	-	2″	PROVIDE BY OWNER
F.D.	FLOOR DRAIN	_ [	_	3″	_	2″	PROVIDE BY OWNER
HL	HANDICAP LAVATORY	1/2"	1/2"	1 1/2"	-	1 1/2"	PROVIDE BY OWNER
JS	JANITOR SINK	1/2"	1/2"	3″	-	2″	PROVIDE BY OWNER
KS	KITCHEN SINK	1/2"	1/2"	1 1/2"	-	1 1/2"	PROVIDE BY OWNER
DF	DRINKING FOUNTAIN	1/2"	-	1 1/2"	_	1 1/2"	PROVIDE BY OWNER
HWH	HOT WATER HEATER	1"	1"	_	-	_	PROVIDE BY OWNER
C.□.	CLEAN DUT	_	-	4"	-	_	PROVIDE BY OWNER
H.B.	HOSEBIB	1/2"	_	_	-	_	PROVIDE BY OWNER

2015

2012 2010

1. COORDINATE WITH ARCH./OWNER PRIOR TO PURCHASE.

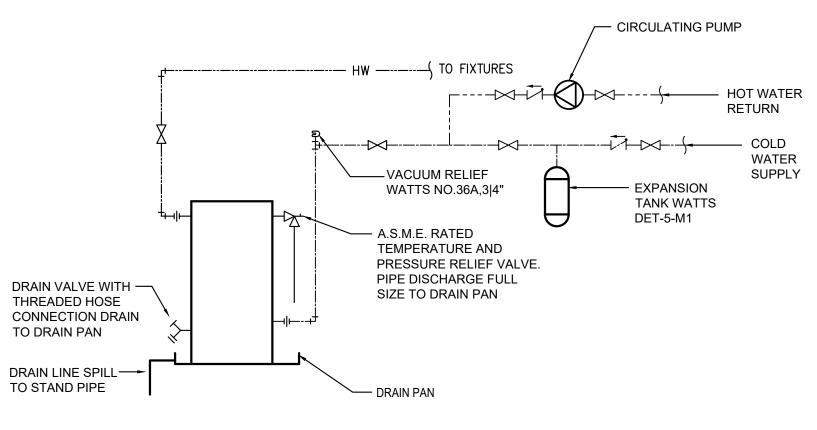
2-PLY FABRIC

MULTI-PLY BITUMINOUS-

WATERPROOFING (TYP.)

MEMBRANE

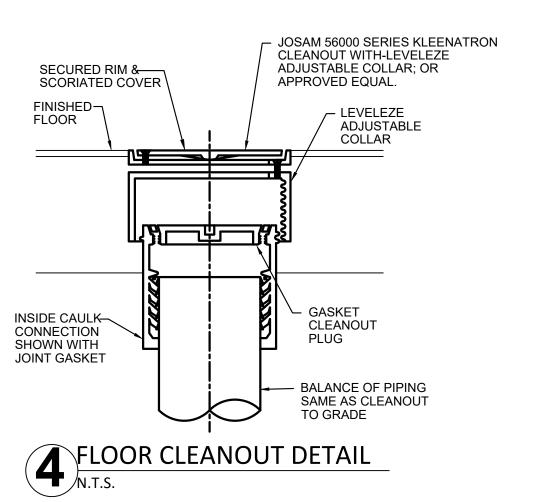
- 2. SET TEMPERING VALVE AT 105° F. VALVES SHALL MEET ASSE 1070.
- 3. WATER CLOSET SHALL BE TANK TYPE WITH HINGED OPEN FRONT SEAT, SIZED FOR BOWL TYPE.
- 4. PROVIDE CARRIER AND FITTINGS AS RECOMMENDED BY MANUFACTURER.
- 5. COMPLY WITH ANSI A117,1 FOR ACCESSIBLE FIXTURE'S MOUNTING HEIGHTS.



#### NOTES:

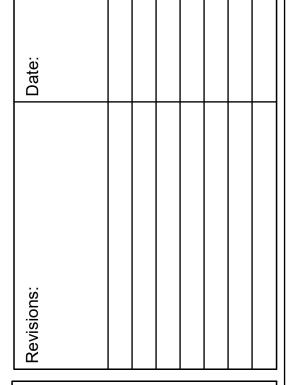
- PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL HOT WATER CIRCULATION SYSTEM COMPLETE WITH ALL NECESSARY PUMPS, VALVES, CONTROLS AND INSULATION.
- PROVIDE 0.5" MINIMUM INSULATION FOR DOMESTIC COLD WATER PIPES.
- PROVIDE 1" MINIMUM INSULATION FOR DOMESTIC HOT WATER PIPES.

# ELECTRIC WATER HEATER PIPING DETAIL





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<u>g</u>

Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648

Architect: Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093

Date: MARCH 22, 2021

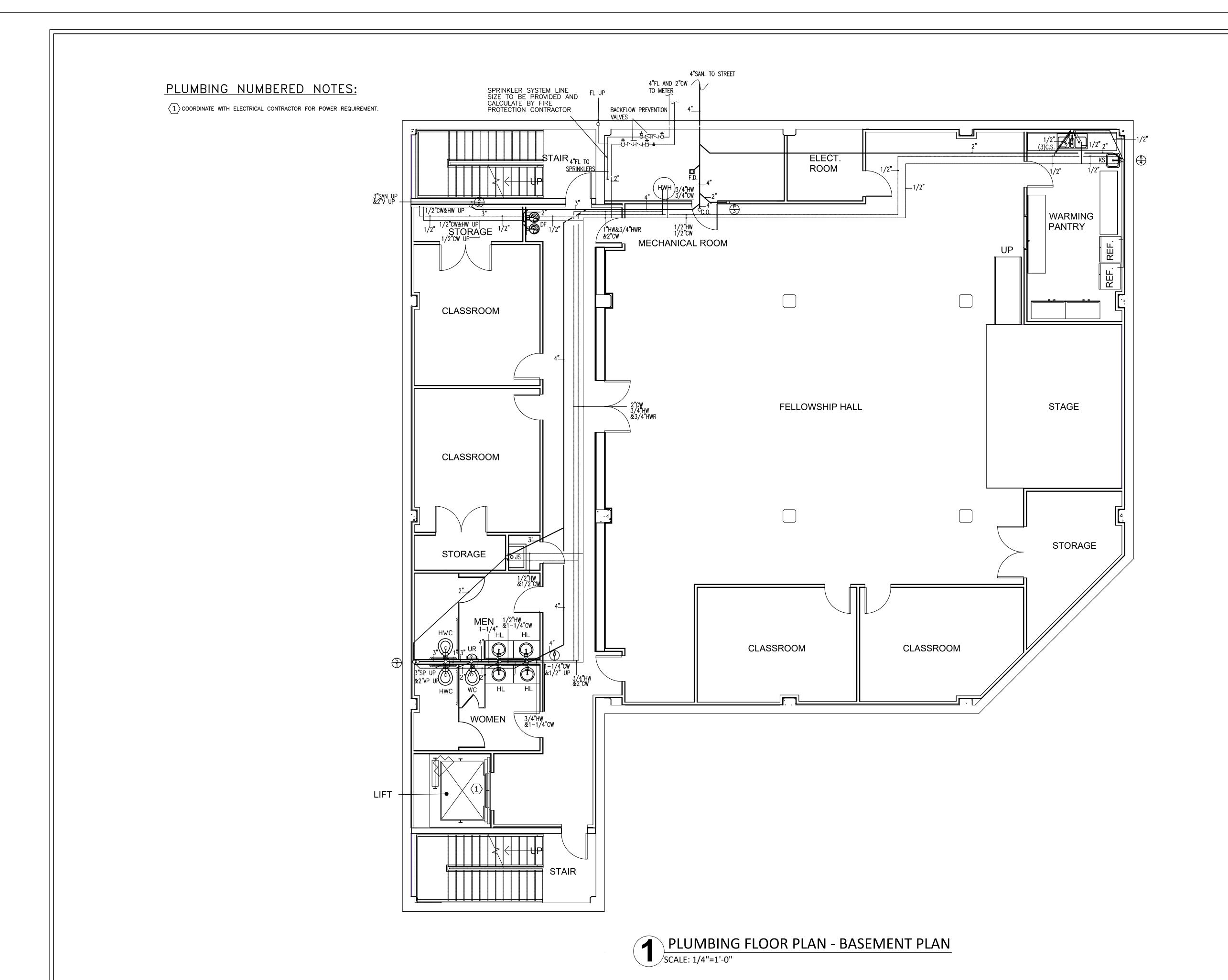
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IA PIKE
LAND 20904

sic Vida Nueva Unida 12450 OLD COLUMBIA SILVER SPRING, MARYLA

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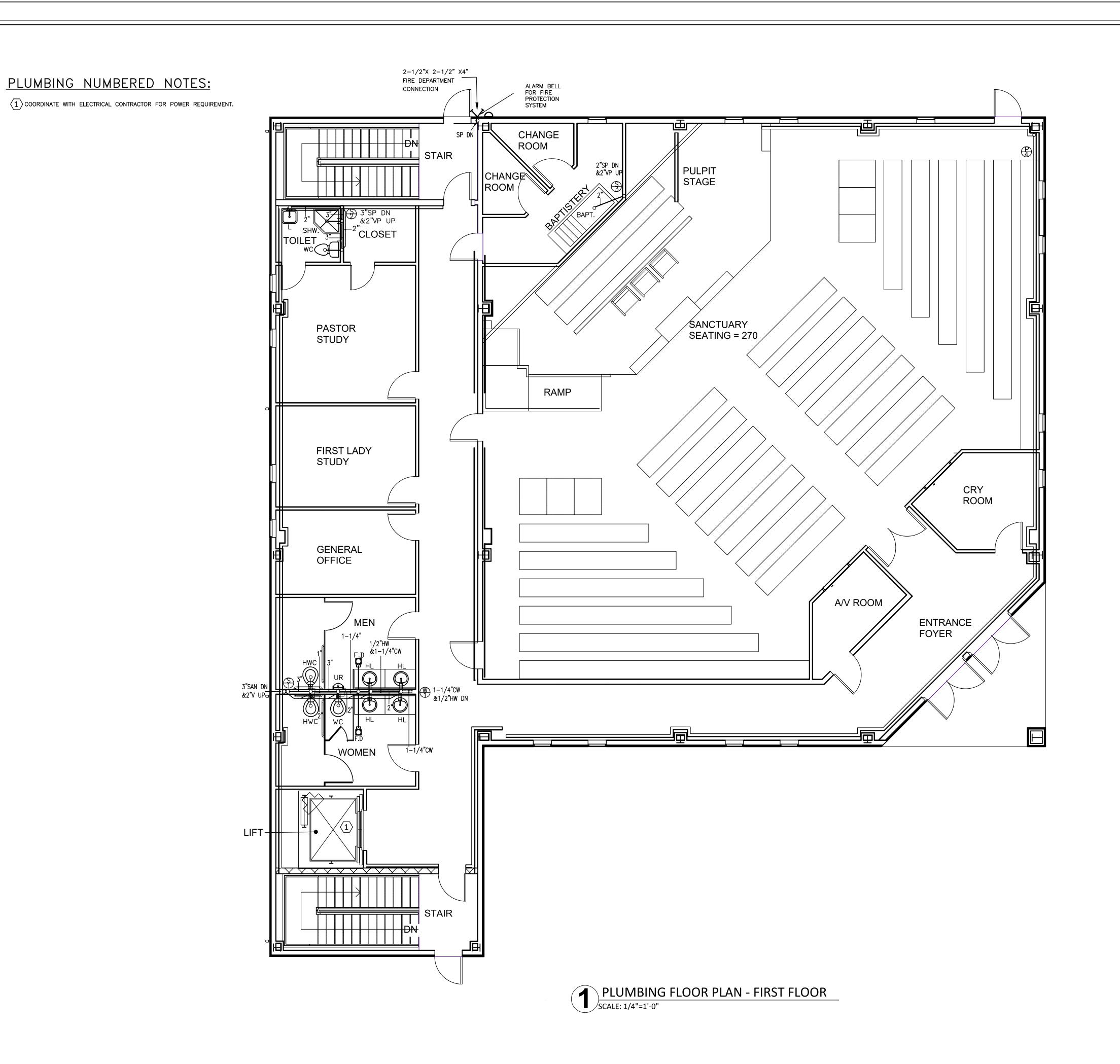
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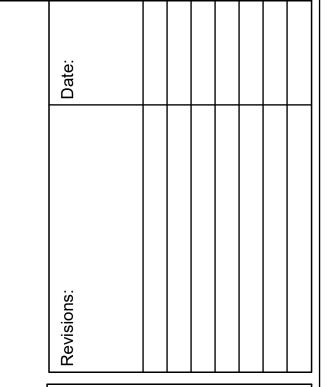
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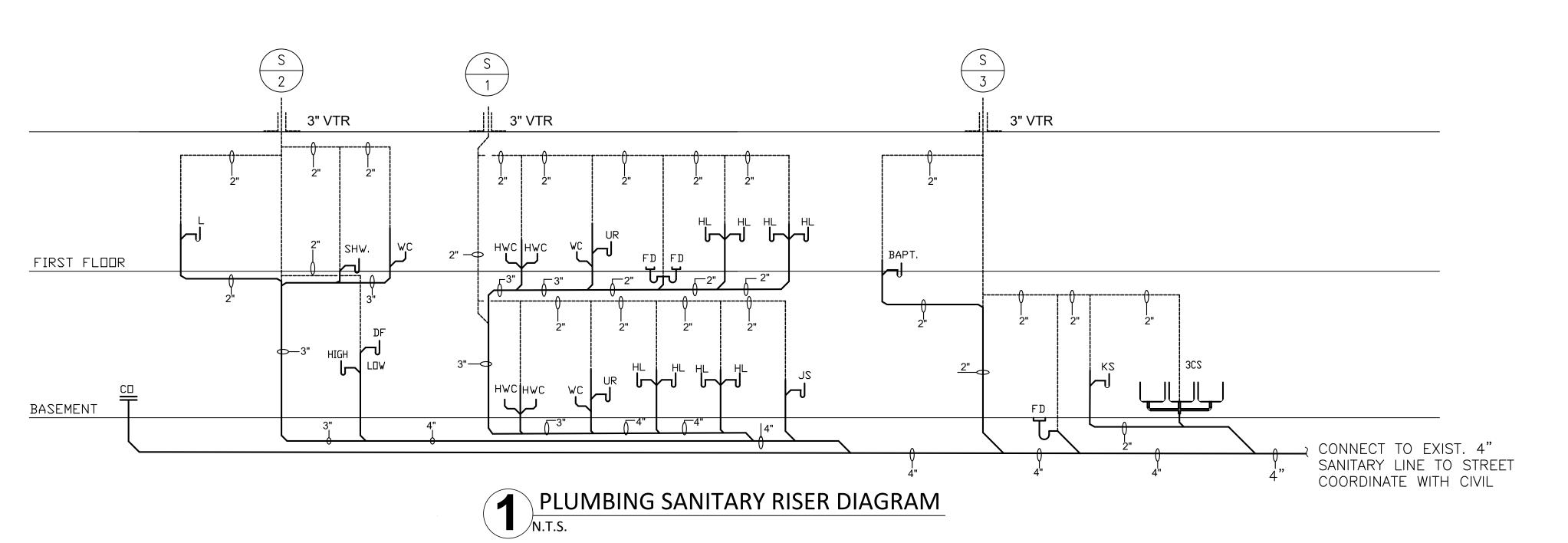
Sam: 571-220-3239

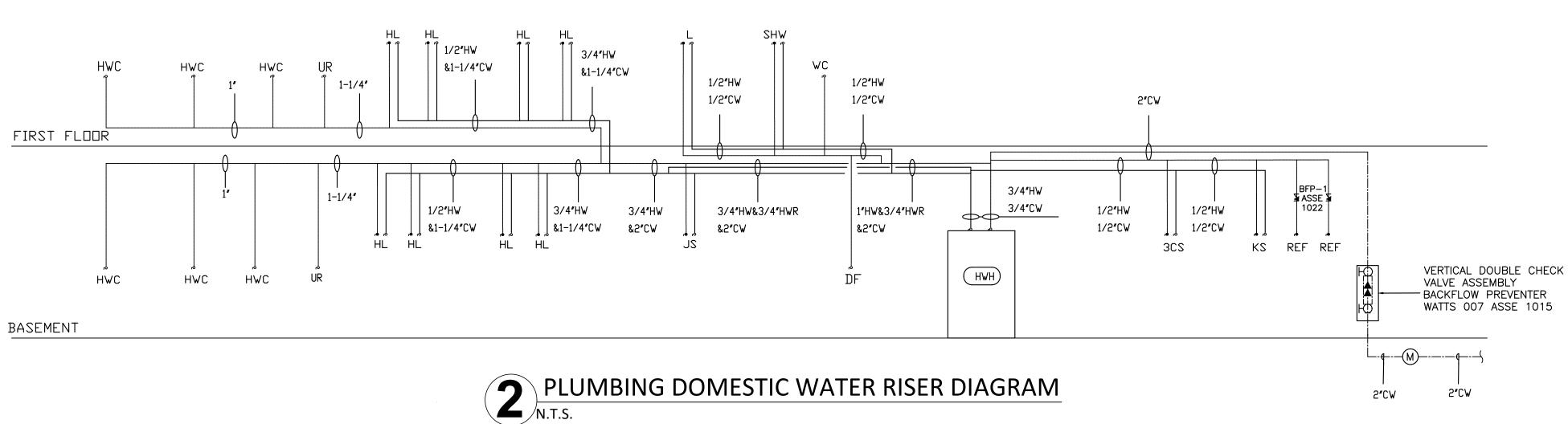
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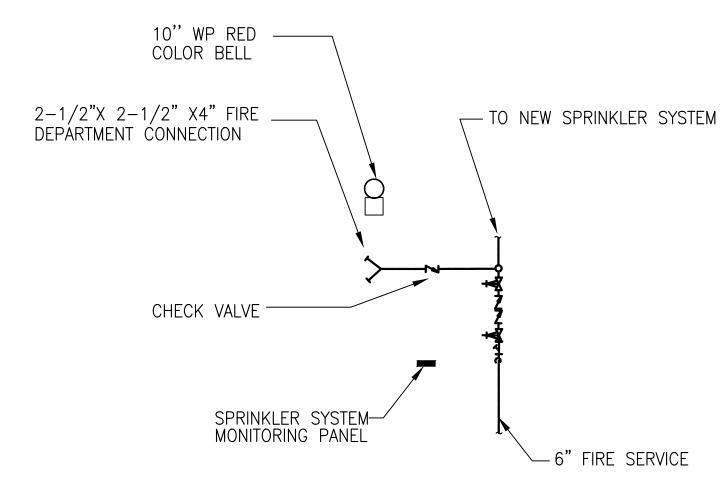
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P300







FIRE SPRINKLER RISER DIAGRAM
N.T.S.

## SPRINKLER SYSTEM SPECIFICATIONS

PART 1.00 GENERAL

1.02 WORK INCLUDED

A. FURNISH ALL PLANT, LABOR, EQUIPMENT, APPLIANCES, AND MATERIALS, AND PERFORM ALL OPERATIONS IN CONNECTION WITH THE INSTALLATION OF THE FIRE SUPPRESSION SYSTEM WHICH INCLUDES FIRE WATER SUPPLY, AND SPRINKLER, AS INDICATED, COMPLETE, AND IN STRICT ACCORDANCE WITH THIS SECTION OF THE SPECIFICATIONS AND APPLICABLE DRAWINGS AND REGULATIONS OF NFPA PAMPHLETS NO. 13, 14, AND 20.

B. THE SYSTEM SHALL BE INSTALLED BY AN EXPERIENCED FIRM REGULARLY ENGAGED IN THE INSTALLATION OF AUTOMATIC FIRE DETECTION AND EXTINGUISHING SYSTEMS IN ACCORDANCE WITH NFPA STANDARDS. THE ARCHITECT MAY REJECT ANY PROPOSED INSTALLER WHO CANNOT SHOW EVIDENCE OF

C. SPRINKLER SYSTEM SHALL BE A WET PIPE, HYDRAULICALLY CALCULATED SYSTEM THE ENTIRE BUILDING SHALL BE SPRINKLERED.

#### 1.03 SHOP DRAWINGS

A. CONTRACTOR SHALL PROVIDE SIX SETS OF SHOP DRAWINGS AND HYDRAULIC CALCULATIONS TO SUPPORT THE DESIGN AND CUTS OR SECTIONS OF ALL DEVICES AND EQUIPMENT TO BE USED WITH THE SPRINKLER SYSTEM INSTALLATION AND SUBMIT TO THE FIRE MARSHAL FOR APPROVAL BEFORE SUBMITTING TO THE ARCHITCT-ENGINEER AND PRIOR TO FABRICATION. CONTRACTOR SHALL THEN SUBMIT THE APPROVED DRAWINGS WITH HYDRAULIC CALCULATIONS TO THE ARCHITECT-ENGINEER FOR APPROVAL, WHO WILL RETAIN ONE SET OF DRAWINGS AND CALCULATIONS FOR HIS RECORD AND RETURN THE OTHER COPIES TO THE CONTRACTOR.

B. PARTICULAR ATTENTION SHALL BE PAID TO THE COORDINATING OF SPRINKLER PLANS WITH MECHANICAL TRADES AND STRUCTURAL CONDITIONS. DRAINS SHALL BE INSTALLED WHEREVER REQUIRED TO PERMIT ELEVATION OF PIPE TO GAIN HEADROOM.

C. SUBMIT COMLETE SETS OF WORKING DRAWINGS OF EACH SPRINKLER SYSTEM, HYDRAULIC CALCULATIONS TO SHOW THE BASIS FOR THE DESIGN, GRAPHS, OR TABLES SHOWING THE PRESSURE-DISCHARGE RELATIONSHIP FOR THE SPRINKLER HEADS AND FULL DESCRIPTIVE DATA FOR PIPE, FITTINGS, GATE VALVES, BUTTERFLY VALVES, CHECK VALVES, SPRINKLER HEADS, HANGERS, DEVICES, MATÉRIALS AND ASSOCIATED EQUIPMENT FOR APPROVAL. PARTIAL SUBMISSIONS WILL NOT BE ACCEPTABLE. DESCRIPTIVE DATA SHALL BE ANNOTATED TO SHOW THE SPECIFIC MODEL, TYPE, AND SIZE OF EACH ITEM THE CONTRACTOR PROPOSES TO FURNISH. THE DRAWINGS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE "WORKING PLANS" AS SPECIFIED IN NFPA 13, 1-9.2. NO WORK SHALL BEGIN UNTIL THE DESIGN OF THE SYSTEM AND VARIOUS COMPONENTS HAVE BEEN APPROVED.

PART 2.00 PRODUCTS 2.01 MATERIALS AND EQUIPMENT

A. ALL MATERIALS AND EQUIPMENT USED IN INSTALLATION OF SPRINKLER SYSTEM SHALL BE U.L.-LISTED AND APPROVED AND/OR FACTORY MUTUAL LABORATORIES LIST OF APPROVED

EQUIPMENT-LISTED AND APPROVED. ALL MATERIALS AND EQUIPMENT SHALL BE THE LATEST DESIGN OF THE MANUFACTURER. FOLLOWING MATERIALS SHALL CONFORM TO THE RESPECTIVE SPECIFICATIONS AND OTHER REQUIREMENTS AS STATED THROUGHOUT THIS SECTION.

A. ALL VALVES IN FIRE PROTECTION SYSTEM SHALL BE FM APPROVED. PROVIDE TAMPER SWITCHES

WIRED TO FIRE ANNUNCIATOR PANEL ON THE OS&Y BUTTERFLY VALVES. 2.03 PIPING ACCESSORIES

A. ALL HANGERS MUST BE AN APPROVED TYPE BY NFPA PAMPHLET NO. 13. NO SPRINKLER PIPING IS TO BE SUPPORTED FROM ANY MECHANICAL OR ELECTRICAL DEVICES.

1. NO CHAIN, WIRE OR PERFORATED BAND IRON WILL BE PERMITTED FOR HANGERS.

1. SEE SECTION 15060 "PIPING" FOR TYPE AND INSTALLATION OF SLEEVES.

C. UNIONS IN IRON OR STEEL PIPING SHALL BE FERROUS METAL GROUND JOINT TYPE, HAVING BRASS SEATS. 2-1/2" CONNECTIONS AND LARGER SHALL BE FLANGED. NO WELDING WILL BE PERMITTED IN PIPING SYSTEM SERVING SPRINKLER.

D. FLOOR, WALL, AND CEILING PLATES SHALL BE PRESSED STEEL OR CAST IRON SPLIT PLATES, CHROME-PLATED. INSTALL ESCUTCHEONS THROUGHOUT.

E. WHERE REQUIRED FOR ACCESS TO EQUIPMENT, VALVES AND COCKS, AND WHERE NOT OTHERWISE SPECIFIED, METAL ACCESS DOORS AND FRAMES SHALL BE FURNISHED. PANELS SHALL BE MILCOR, SUITABLE FOR SURFACE IN WHICH INSTALLED AND FIRE-RATED EQUAL TO THE CONSTRUCTION IN WHICH INSTALLED, WHERE APPLICABLE.

F. DIELECTRIC UNIONS SHALL BE USED WHEN JOINING DISSIMILAR METALS.

G. CONTRACTOR SHALL FURNISH AND INSTALL IDENTIFICATION TAGS ON ALL CONTROL VALVES; TAGS SHALL BE BRASS WITH BLACK ENAMELNUMBERS.

H. PROVIDE VALVE CHART SHOWING LOCATION AND USE OF EACH VALVE.

#### 2.04 SPRINKLER HEADS - GENERAL

A. SHALL BE REGULAR AUTOMATIC CLOSED-TYPE HEADS OF ORDINARY DEGREE TEMPERATURE RATING EXCEPT THAT SPRINKLER HEADS TO BE INSTALLED IN THE VICINITY OF HEATING EQUIPMENT SHALL BE OF THE TEMPERATURE RATINGS REQUIRED BY NFPA PAMPHLET NO. 13, AND HEADS INSTALLED IN LOCATIONS WHERE SPECIAL OCCUPANCIES INDICATE NEED FOR HIGH TEMPERATURE OR CORROSION-RESISTANT HEADS, THE PROPER HEADS SHALL BE DETERMINED AND PROVIDED BY

B. ALL HEADS SHALL BE CHROME-PLATED WITH CHROME-PLATE ESCUTCHEON PLATES EXCEPT AS OTHERWISE SPECIFIED.

C. ALL HEADS TO ROOMS WITHOUT CEILING SHALL BE OF STANDARD FACTORY BRASS FINISH WITH APPROPRIATE TEMPERATURE RATINGS TO FIT LOCATIONS.

D. CABINET: SPRINKLER HEADS AND SPRINKLER HEAD WRENCH SHALL BE PROVIDED IN A CABINET AT AN ACCESSIBLE LOCATION ADJACENT TO EACH VALVE. THE NUMBER AND TYPES OF EXTRA SPRINKLER HEADS SHALL BE AS SPECIFIED IN NFPA 13.

#### 2.05 SPRINKLER HEADS

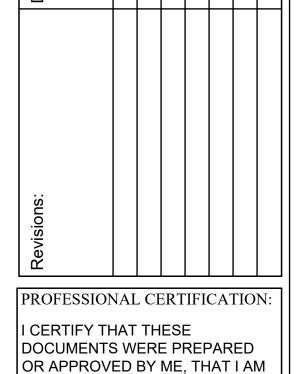
A. HEADS SHALL BE "STAR," "CENTRAL," "VIKING," "GRINNELL" AND/OR APPROVED EQUAL MANUFACTURER. ALL SPRINKLER HEADS SHALL BE U.L. APRPOVED AND CUTS SHALL BE REQUIRED TO ASSURE PROPER SPACING AND COVERAGE IN ACCORDANCE WITH THE APPROVAL LISTING. HEADS SHALL BE THE TYPE SHOWN BY THE DETAILS ON THE DRAWINGS.

A. SPRINKLER CONTRACTOR SHALL PROVIDE A HYDRAULICALLY DESIGNED SPRINKLER SYSTEM AND SHALL CONFORM TO NFPA 13.

B. LOCATION OF SPRINKLER HEADS: HEADS IN RELATION TO CEILING AND THE SPACING OF SPRINKLER HEADS SHALL NOT EXCEED THAT PERMITTED BY NFPA 13 FOR HAZARD OCCUPANCY. THE SPACING OF SPRINKLERS ON THE BRANCH LINES SHALL BE ESSENTIALLY UNIFORM.

### **SPRINKLER NOTES:**

- . THE ENTIRE BUILDING IS TO BE SPRINKLED. ALL WORK SHALL COMPLY STRICTLY TO NFPA 13.
- FLOW AND RESIDUAL/STATIC PRESSURE TESTS SHALL BE PERFORMED BY CONTRACTOR AND RESULTS SUBMITTED FOR EVALUATION. POSSIBLE USE OF FIRE PUMP SUBJECT TO FINAL
- CONTRACTOR SHALL PREPARE WORKING DRAWINGS AT A SCALE OF 1/8 INCHES SHOWING SIZE AND LOCATION OF THE SPRINKLER PIPING AND CEILING BEAM, OTHER PIPING, DUCTWORK AND EQUIPMENT FOR SUBMITTAL TO THE FIRE AUTHORITIES OF THE JURISDICTION.
  - PLANS SHALL BE SENT TO THE INSURANCE SERVICE ORGANIZATION OF THE JURISDICTION FOR THEIR RATING REVIEW.
- PROVIDE SUPERVISORY SERVICE FROM AN APPROVED CENTRAL STATION. SYSTEM TO COMPLY WITH NFPA 13. FINAL LOCATION SHALL BE APPROVED BY THE ARCHITECT AND THE OWNER.
- THE ENTIRE SYSTEM SHALL BE HYDRAULICALLY DESIGNED. THE SYSTEM SHALL BE A "WET PIPE" SYSTEM THROUGHOUT CONDITIONED SPACES. WHERE UNHEATED SPACES ARE TO BE REQUIRED TO BE SPRINKLERED, COVERAGE SHALL BE THROUGH DRY HEAD.
- CALCULATIONS AND SHOP DRAWINGS PREVIOUSLY APPROVED BY THE FIRE PROTECTION OF THE JURISDICTION SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR THEIR INSPECTION AND APPROVAL.
- LOCATION OF FIRE DEPARTMENT CONNECTION, DISTANCE TO PUBLIC FIRE HYDRANT AND IDENTIFICATION PLATES SHALL BE IN AGREEMENT WITH ALL CORRESPONDING CODES AND REGULATIONS. FINAL APPROVAL OF FIRE AUTHORITY HAVING JURISDICTION IS REQUIRED.



A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE# 47084 EXPIRATION DATE 08/06/2025

International DIAGRAM

Unida

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Vida S Ф

German Pineda: Contractor 13624 North Gate Drive Silver Spring, Md. 20904

Phone: 301-873-7092

Structrual Engineer: MGV Consul. Struct. Engineers 6239 Executive Boulevard North Bethesda, Md. 20886 Phone: 301-816-0648

Philip Aaron Lacy, Architects 9615 Geena Nicole Drive Clinton, Maryland 20735 Phone: 301-873-5093



Date: MARCH 22, 2021

Scale:

Drawn:

File No.

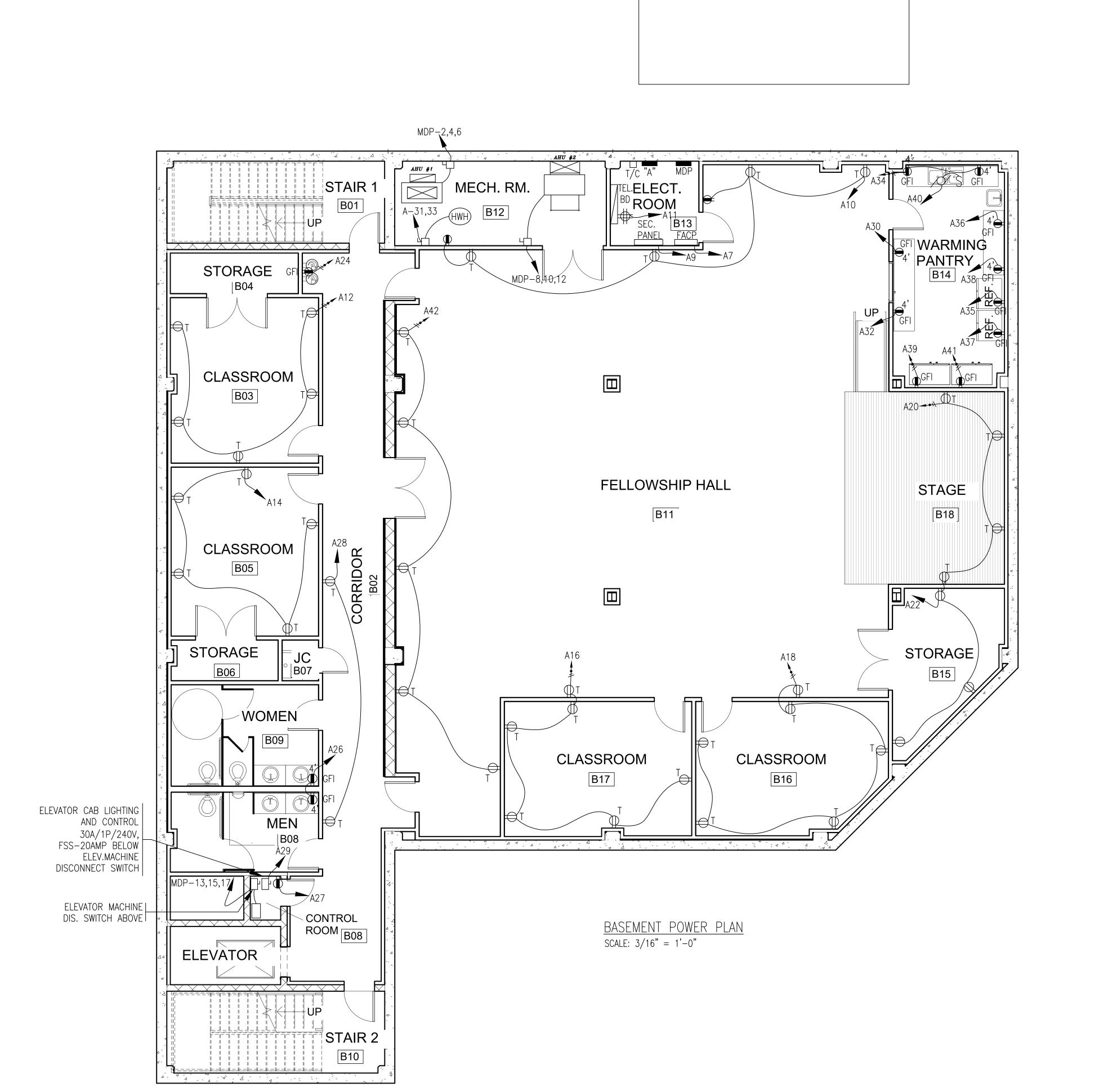
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Drawing No.

P400

Design America Engineering, Inc **MEP Consulting Engineers** 14080 Red River Drive

> Centerville, VA 20121 Sam: 571-220-3239 DAENG2000@GMAIL.COM www.daeng2000.com



KEYED NOTES

1 LIFT DISCONNECT SWITCH/STARTER 100A/3P/240V, FSS-100AMP. COORDINATE WITH EQUIPMENT SUPPLIER FOR EXACT REQUIREMENTS.

MECHANICAL EQUIPMENT LOADS

 
 V
 PH
 FLA
 MCA

 208
 1
 38
 48

 208
 3
 58
 73

 208
 3
 77
 96
 <u>FUSE</u> 50 80 100 MOCP 50 80 100 NOTES 8KW DISC.SWITCH 60 3R 3R 100 100

ELEVATOR VPHHPFLAMOTOR STARTINGFUSEDISC.SWITCHNEMA208331218A30301

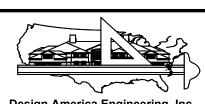
Certification:

PROFESSIONAL CERTIFICATION: I hereby certify that these documents were PREPARED or APPROVED by me, and that I am a duly licensed professional Engineer under the laws of the state of Maryland.
License No. 47084, expiration date 08/06/2025

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Architect:
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9615 Geena Nicole Drive
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Phone: 301-873-5093

Date: APRIL 21, 2022

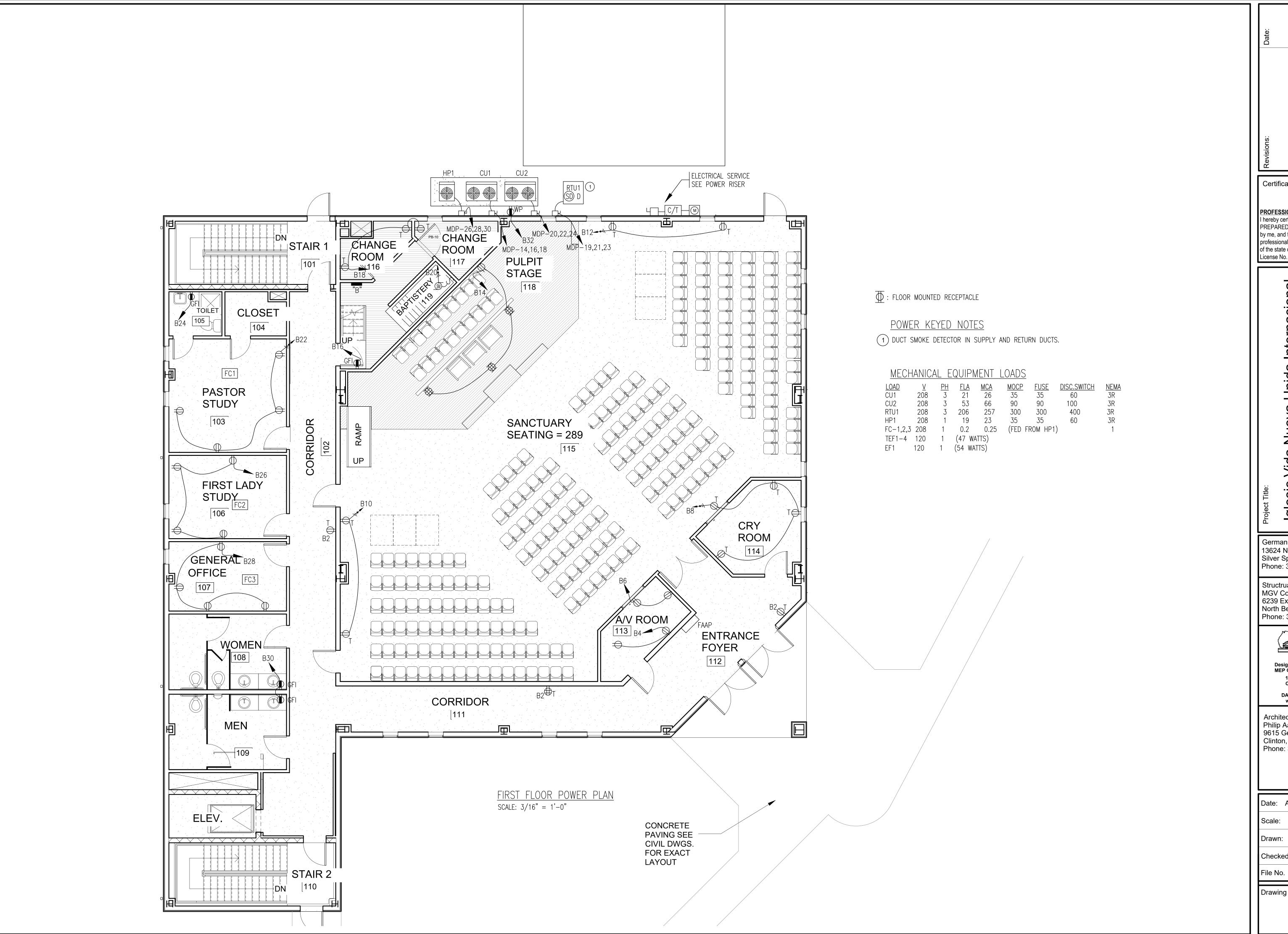
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File No.

Checked: Checker SO

Drawing No.



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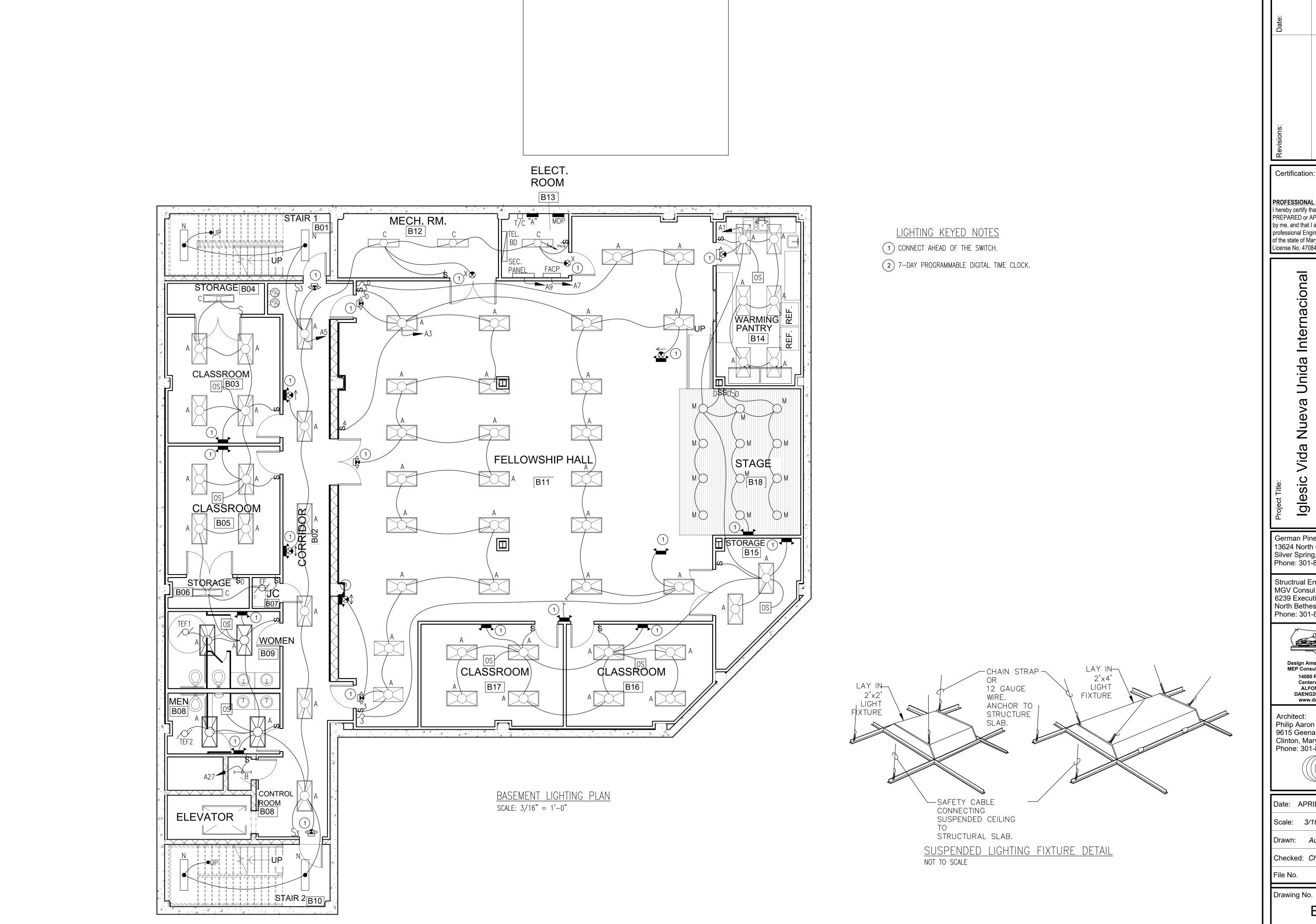
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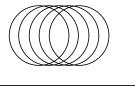
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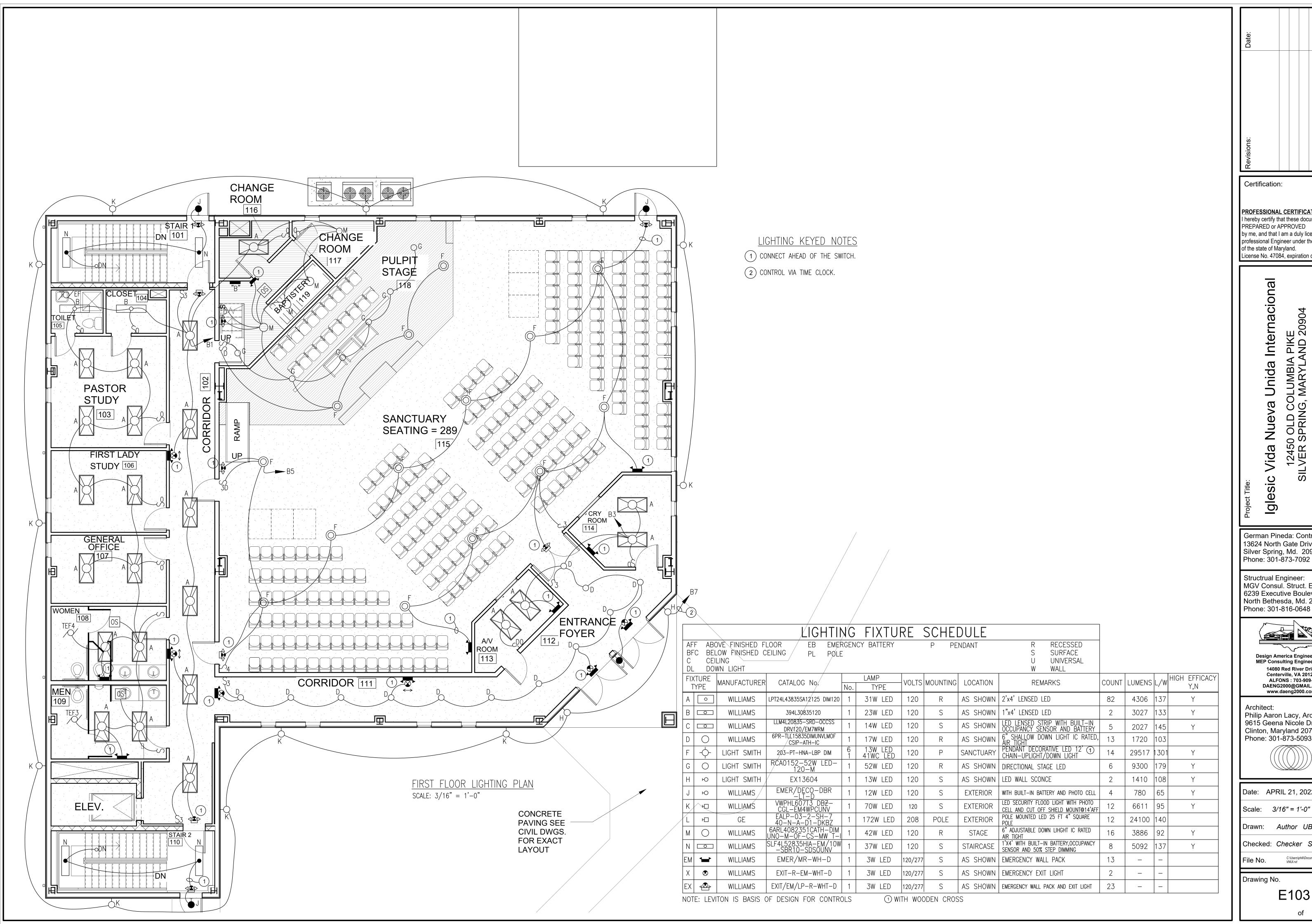
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Date: APRIL 21, 2022 Scale: 3/16" = 1'-0"

Drawn: *Author UB* 

Checked: Checker SO File No.

Drawing No.

## MAIN DISTRIBUTION PANELBOARD SCHEDULE

MAIN BUS: 800A,208Y/120V,3P

MAIN CKT. BRK.: 800A MCB

NEUTRAL: SOLID

AIC SYM: 42 KAIC

LUGS: STANDARD

'MDP'

LOCATION: ELECT. ROOM

STATUS: NEW ENCLOSURE NEMA TYPE: 1 MOUNTING: FLOOR

FED FROM: NEW UTILITY

#		KT. RK.	LOAD (KVA)	LOAD DESCRIPTION		FEEDER		RIPTION FEEDER		CKT. #	CK' BR		LOAD (KVA)	LOAD DES	CRIPTION	FEEC	ER
1	3/	200	42	PANE	EL 'A'	2	80/3			20.9	АН	U1	3#4, 1#8GND., 1 1/4"C				
3								4			-						
5				<b>1</b>			V	6	<b>,</b>		-		V	,	,		
7	3/	200	19	PANE	L 'B'	4#3/0+6G	IN 2-1/2" C	8	100/	/3	28	AH	U2	3#3, 1#6GN	D., 1 1/4"C		
9								10			-						
11							<b>V</b>	12			=			,	,		
13	3/	30	4	ELEV	ATOR	3#10, 1#10,	GROUND, 1"C	14	35/3	3	7.6	Cl	J1	3#8, 1#10GND., 1"C			
15								16			-			<u> </u>	<u> </u>		
17								18			-						
19	3/	300	74	RTU	#1	3#350 MCM, 1#2GND., 3"C		20	90/3	3	19	CU2		3#3, 1#6GND., 1 1/4"C			
21			-					22			=						
23			-				1	24			-						
25		<b>v</b>		SPA	CE		<b>!</b>	26	35/3	3	7	HF	Y P1	3#10, 1#10,	GND, 1"C		
27								28			-		1				
29								30			=						
31			-					32	V			SPA	ACE	<u>'</u>	<u>V</u>		
33			-					34			-						
35								36			-						
37			-					38	-		-						
39			-					40									
41		_	_	+ +		-		42									
				Ψ									V				
			150								82,500						

MAXIMUM DEMAND LOAD = 222 KVA OR 617 AMPS @ 208Y/120V, 3Ø, 4W

				FI	LO	OR	P/	<b>1</b> 1	1E	L S	SCH	ΙΕΙ	DU	JLE	<u> </u>				
BUS: 225A,208Y/120V,3Ø,4W  CKT. BKR.: M.L.O.  NEUTRAL: 100% RATED  AIC SYM: 22 KAIC							TUS:	NE'		ТҮРЕ	:: <u>1</u>								LOCATION: ELECT. ROOM  MOUNTING: SURFACE  FED FROM: MDP PANEL
LOAD DESCRIPTION	CONDT	. WIRE	LOAD (VA)	C.B.(A	MPS)	POLE	CKT.	P	HASE ABC	CK1	r. Pole	C.E	B.(AM R.   T	PS)	LOAD (VA)	WIRE	СО	NDT.	LOAD DESCRIPTION
LIGHTS - CLASSROOM 1,2,STORAGE,STAGE,KITCHEN	3/4"	#12	1000	20	100	1	1	•	<del>∳</del>   ∙ϭ	아 2	1	100	)	20	1080	#12	3	/4"	RECEPTS CHOIR RM./MECH. RM./TOILET/TRUSTEES RM.
LIGHTS - FELLOWSHIP			750	20		1	3	•	<del>     </del>	<b>১</b> 4	1			20	720				RECEPTS SANCTUARY/OUTDOOR GFI/WP
LIGHTS - CLASSROOM 3,4,TOILETS,CORR.,STAIRCASES			950	20		1	5	•	<del>  </del>  •	ბ 6	1		2	20	1080				RECEPTS OUTDOOR GFI/WP
FACP			200	20		1	7	00	<del>∳</del>   -∕o	8	1			20	900				RECEPTS PULPIT/PIANO
SECURITY PANEL			200	20		1	9	~	<del>     </del> 6	اه	1			20	1260				RECEPTS FELLOWSHIP HALL/ELEC. RM./MECH. RM.
TEL. BD.	\ \	₩	500	20		1	11	~	<del>∐∳</del> ɗ					20	900				RECEPTS CLASSR00M 4
SPACE	*	<b>'</b>		20		1	13	~	<b>∳</b> ∭ϭ	১ 14	1		2	20	900				RECEPTS CLASSR00M 3
				20		1	15	~	<del>     </del>	o 16	1			20	1080				RECEPTS CLASSR00M 1, FELLOW SHIP
			-	20		1	17	~	<del>       </del>	১ 18	1			20	1260				RECEPTS CLASSR00M 2, FELLOW SHIP
				20		1	19	6	<b>∳</b> ∭₫	১ 20	1		1	20	1260				RECEPTACLE - STAGE
				20		1	21	~	<del>     </del> 6	১ 22	1			20	1260				RECEPTACLES STORAGE BASEMENT
				20		1	23	00	<del>       </del> 6	<u>24</u>	1			20	1200				EWC
▼				20		1	25	~	<b>♦</b> ₩6	<u>کو</u>	1			20	1800				RECEPTACLES - TOILETS BASE
ELEV. MACHINE ROOM LTG, RECEPTACLE	1/2"	#12	1	20		1	27	~	<del>     </del> 6	<u>28</u>	1			20	1500				RECEPTACLES - CORRIDOR-BASE
ELEV.CAB LTS DIS.	1/2"	#12	.5	20		1	29	•	<del>       </del>	<u>30</u>	1			20	1500				RECEPTACLE - KITCHEN
HWH	3/4"	8	4000	50		2	_	1	1 1 1	⊳ 32				20	1800				RECEPTACLE - KITCHEN
▼		-	4000	-		-	33	•	<del>     </del> 6	১ 34				20	1200				RECEPTACLE - KITCHEN
REFRIGERATOR - KITCHEN		12	1000	20		1	_	1	<del>  </del>  •					20	1200				RECEPTACLE - KITCHEN
REFRIGERATOR - KITCHEN			1000	20		1	37	<b>₽</b>	<del> </del>	ک <del>ا 38</del>				20	1200				RECEPTACLE - KITCHEN
REFRIGERATOR - KITCHEN			1000	20		1	_	1		40				20	800				DISPOSAL
REFRIGERATOR - KITCHEN	₩	<b>│                                    </b>	1000	20	▼	1		1	111	٥ <del>- 42</del>		\ \		20	1000	<b>V</b>	1	V	RECEPTACLE FELLOWSHIP
	, <del>,</del>	, <u>, , , , , , , , , , , , , , , , , , </u>	15500			CON					· · · · ·				25,840	<b>,</b>			
											41,340 20V, 3Ø, 4								

41.7 KVA 42.4 KVA TOTAL 116 AMP 118 AMP FLOOR PANEL SCHEDULE **'B'** BUS: 225A,208Y/120V,3Ø,4W LOCATION: BAPTISTERY CKT. BKR.: M.L.O. MOUNTING: RECESSED STATUS: NEW NEUTRAL: 100% RATED FED FROM: MDP PANEL AIC SYM: 22 KAIC ENCLOSURE NEMA TYPE: 1

LOAD DESCRIPTION	CONDT	WIDE	LOAD (VA)	C.B.(A	MPS)	P0LE	СКТ		HAS ABO		СКТ.	P0LE	C.B.(	(AMPS)	LOAD	WIDE	CONDT	LOAD DESCRIPTION
LOAD DESCRIPTION	COND1.	CONDT. WIRE		TRIP FR.	PULE	#		  B(	نـ	#	PULE	FR.	TRIP	- /\/A\	WIRE	CONDI	EOAD DESCRIPTION	
HTS - OFFICES,TOILETS,CORR.	3/4"	#12	1111	20	100	1	1	~	┥┤	<i>∞</i>	2	1	100	20	1000	#12	3/4"	RECEPTS CORR 1ST FLOOR
GHTS - CORR.,A/V,CRY STAGE			330	20		1	3	~	╁	<i>∞</i>	4	1		20	1440			RECEPTS A/V ROOM
LIGHTS - SANCTUARY	₩	<b>V</b>	1309	20		1	5	~	₩	<b>∞</b>	6	1		20	1440			RECEPTS A/V ROOM
LIGHTS EXTERIOR (1)	1	6	866	20		1				<b>∞</b>		1		20	900			RECEPTS CRY ROOM, SANCTUARY
SPACE				20		1	9	~	+	<i>∞</i>	10	1		20	800			RECEPTS SANCTUARY
				20		1	11	~	₩	<b>∞</b>	12	1		20	800			RECEPTS SANCTUARY
				20		1	13	-00	┿┼	-M	14	1		20	1440			RECEPTS PULPIT
				20		1	15	~	╅	-M	16	1		20	600			RECEPTS BAPTISTERY
				20		1	17	~	╫	<b>∞</b>	18	1		20	500			RECEPTS CHANGE ROOM
				20		1	19	~	┿┼	<b>∞</b>	20	1		20	500			BAPTISTERY WATER PUMP
				20		1	21	~	╫	~	22	1		20	800			RECEPTS PASTOR
							23	~	┼┼┥	6	24				1000			RECEPTS PASTOR TOILET
							25	~	+	<b>∞</b>	26				800			RECEPTS FIRST LADY
							27	~	╅	~	28				800			RECEPTS GENERAL OFFICE
							29	~	╫	<b>∞</b>	30				1000			RECEPTS TOILETS
							31	~	+	-M	32				500	▼	<b>V</b>	RECEPTS EXTERIOR
							33	~	╅	-M	34							SPACE
							35	~	₩	<b>M</b>	36							
							37	~	$\blacklozenge$	~	38							
							39	~	╁	<b>∞</b>	40							
<b>T</b>				<b>V</b>	<b>V</b>	\ \ \	41	~	₩	<b>∞</b>	42	<b>V</b>	<b>V</b>	\ \				<b>*</b>
	·		3616	, ,	,	CON	INE					AD	•	, <b>,</b>	14320			•
						тот	AL CO	MPU	TED	LOA	D =	17936 V	\		1			

3.6 \* 1.25 = 4.5 KVALIGHTING RECEPTACLES 14.32 \* 1 = 14.32 KVA17.93 KVA 18.82 KVA 50 AMP 52 AMP

LIGHTING

2.7 \* 1.25 = 3.37 KVA

8 \* 1 = 8.0 KVA

RECEPTACLES 31 \* 1 = 31 KVA

Certification:

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License No. 47084, expiration date 08/06/2025

Vida Nueva Unida Internacional Iglesi

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Date: APRIL 21, 2022

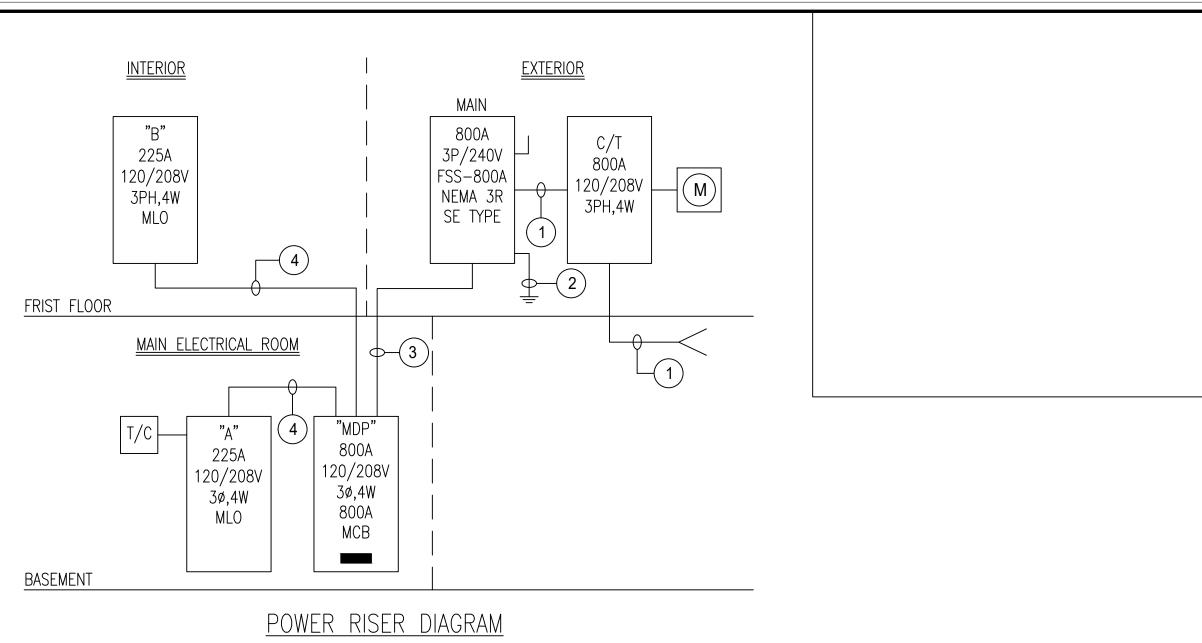
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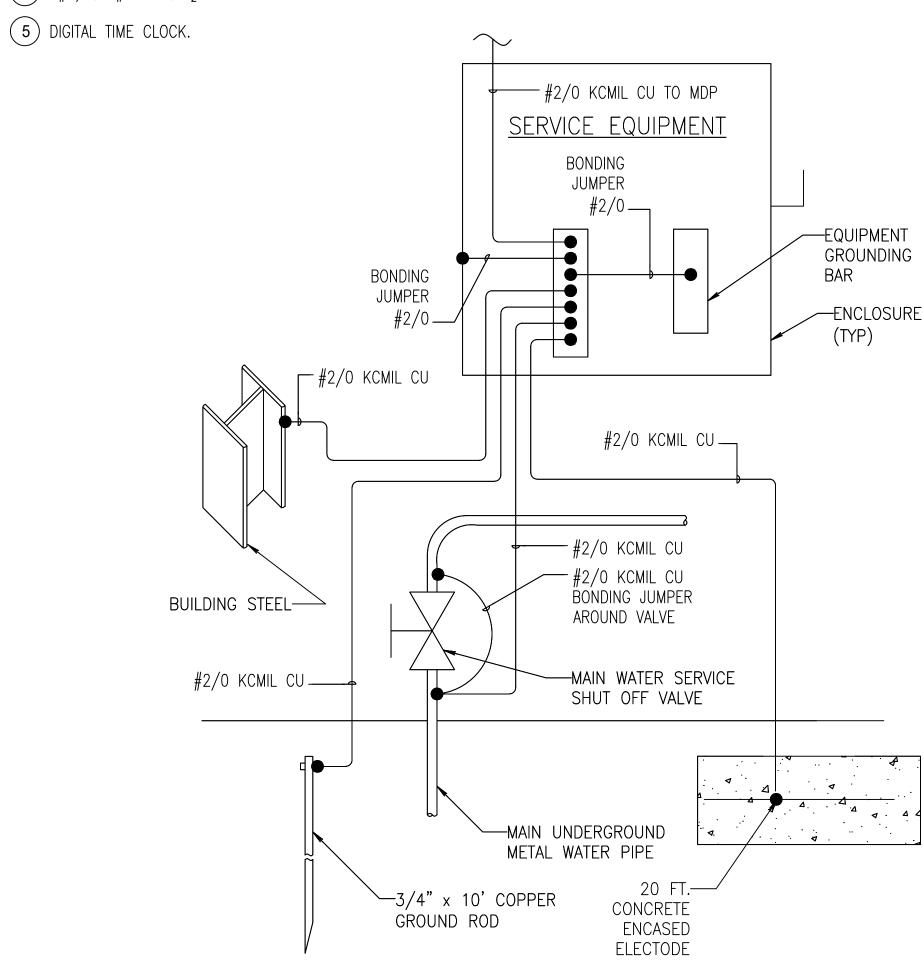
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### POWER RISER NOTES

- 1) 2 SETS OF 4#600 MCM IN 4" CONDUIT EACH.
- 2) NO. 2/0 GROUND PER NEC-250. SEE GROUNDING DETAIL.
- (3) 2 SETS OF 4#600 MCM, 1#2/0 GND. IN 4" CONDUIT EACH.
- 4 4#3/0, 1#4 GND;  $2\frac{1}{2}$ °C.



# GROUNDING ELECTRODE SYSTEM DETAIL NO SCALE

NOMINAL AMPERE RATING	FEEDER 1 & MODI		LOAD DESCRIPTION	MINIMUM RACEWAY SIZE (INCHES)
		_	3-12 AWG; 1-12 AWG GND.	3/4"
20	20*	Y	3-12 AWG; 1-12 AWG N; 1-12 AWG GND.	-, .
		K	CHANGE NEUTRAL TO 1-8 AWG	3/4"
		G	ADD 1-12 AWG IG 3-10 AWG; 1-10 AWG GND.	
		- Y	3-10 AWG; 1-10 AWG GND.  3-10 AWG; 1-10 AWG N; 1-10 AWG GND.	3/4"
30	30*	K	CHANGE NEUTRAL TO 1-4 AWG	
		G	ADD 1–10 AWG IG	1"
		-	3-8 AWG; 1-10 AWG GND.	. 22
40	40*	Υ	3-8 AWG; 1-8 AWG N; 1-10 AWG GND.	1"
40	(40*)	K	CHANGE NEUTRAL TO 1-4 AWG	1"
		G	ADD 1-10 AWG IG	'
		_	3-6 AWG; 1-10 AWG GND.	1"
55	(55*)	Y	3-6 AWG; 1-6 AWG N; 1-10 AWG GND.	
		K	CHANGE NEUTRAL TO 1-4 AWG	1.25"
		G	ADD 1-10 AWG IG	
		Y	3-4 AWG; 1-8 AWG GND.  3-4 AWG; 1-4 AWG N; 1-8 AWG GND.	1.25"
70	70*	K	CHANGE NEUTRAL TO 1-1/0 AWG	
		G	ADD 1-8 AWG IG	1.5"
		_	3-2 AWG; 1-6 AWG GND.	19
100	100+	Υ	3-2 AWG; 1-2 AWG N; 1-6 AWG GND.	1.5"
100	(100*)	К	CHANGE NEUTRAL TO 1-3/0 AWG	2"
		G	ADD 1-6 AWG IG	Ζ
		_	3-1 AWG; 1-6 AWG GND.	2"
130	30 (130*)		3-1 AWG; 1-1 AWG N; 1-6 AWG GND.	
	(100)	K	CHANGE NEUTRAL TO 250 KCM	2.5"
		G	ADD 1-6 AWG IG	
		_	3-1/0 AWG; 1-6 AWG GND.	2"
150	150 150*	Y	3-1/0 AWG; 1-1/0 AWG N; 1-6 AWG GND.	
		K G	CHANGE NEUTRAL TO 2-1/0 AWG  ADD 1-6 AWG IG	2.5"
		_	3-2/0 AWG; 1-4 AWG GND.	
		Y	3-2/0 AWG; 1-2/0 AWG N; 1-4 AWG GND.	2"
175	(175*)	K	CHANGE NEUTRAL TO 2-2/0 AWG	
		G	ADD 1-4 AWG IG	2.5"
		_	3-3/0 AWG; 1-4 AWG GND.	2"
200	(200*)	Υ	3-3/0 AWG; 1-3/0 AWG N; 1-4 AWG GND.	2
200	(2001)	K	CHANGE NEUTRAL TO 2-3/0 AWG	2.5"
		G	ADD 1-4 AWG IG	2.0
		_	3-4/0 AWG; 1-2 AWG GND.	2.5"
225	225*	Υ	3-4/0 AWG; 1-4/0 AWG N; 1-2 AWG GND.	
		K	CHANGE NEUTRAL TO 2-4/0 AWG	2.5"
		G _	ADD 1-4 AWG IG  3-250 KCMIL; 1-2 AWG GND.	
		- Y	3-250 KCMIL; 1-2 AWG GND.  3-250 KCMIL; 1-250 KCMIL N; 1-2 AWG GND.	2"
250	250*	K	CHANGE NEUTRAL TO 2-250 KCMIL	-
		G	ADD 1-2 AWG IG	2.5"
		_	3-350 KCMIL; 1-1 AWG GND.	7"
300	(Z00*)	Υ	3-350 KCMIL; 1-350 KCMIL N; 1-1 AWG GND.	3"
300	(300*)	К	CHANGE NEUTRAL TO 2-350 KCMIL	3"
		G	ADD 1-1 AWG IG	J
		_	3-500 KCMIL; 1-1/0 AWG GND.	4"
380	380*	Y	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND.	
		K	CHANGE NEUTRAL TO 2-500 KCMIL	4"
		G	ADD 1-1/0 AWG IG	
		- Y	3-600 KCMIL; 1-1/0 AWG GND.  3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND.	4"
420	420*	K	CHANGE NEUTRAL TO 2-600 KCMIL	
		G	ADD 1-1/0 AWG IG	4"
500	(500*)	Y	(2 SETS OF) 3-250 KCMIL; 1-250 KCMIL N; 1-2 AWG GND.	(2)-3"
600	(600*)	Y	(2 SETS OF) 3-350 KCMIL; 1-350 KCMIL N; 1-1 AWG GND.	(2)-3.5"
800	800*	Y	(2 SETS OF) 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND.	(2)-4"
		+ +		* *
1000	1000*	Y	(3 SETS OF) $3-500$ KCMIL; $1-500$ KCMIL N; $1-2/0$ AWG GND.	(3)-3.5"

#### FEEDER SCHEDULE DESIGNATIONS

THE ASTERISK ABOVE IS FILLED IN WITH ONE OR MORE OF THE FOLLOWING DESIGNATIONS ON THE RISER.

Y - THREE PHASE FOUR WIRE FEEDER.

K - THREE PHASE FEEDER WITH OVERSIZED NEUTRAL - DOUBLE 200% NEUTRAL.

G - THREE PHASE FEEDER WITH ISOLATED GROUND. VD - FEEDER SIZED FOR VOLTAGE DROP.

## NOTES:

1. ALL AMPACITIES ARE BASED ON 75° C TEMPERATURE RATING OF COPPER CONDUCTOR AS LISTED IN THE NATIONAL ELECTRIC CODE.

2. FEEDERS MAY HAVE A COMBINATION OF OVERSIZED NEUTRAL AND ISOLATED GROUND (DESIGNATION K AND G). REFER TO RISER FOR FEEDER DESIGNATIONS.

Date:		
<i>ii</i>		
Revisions:		

Certification:

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RISER DIAGRAM AND

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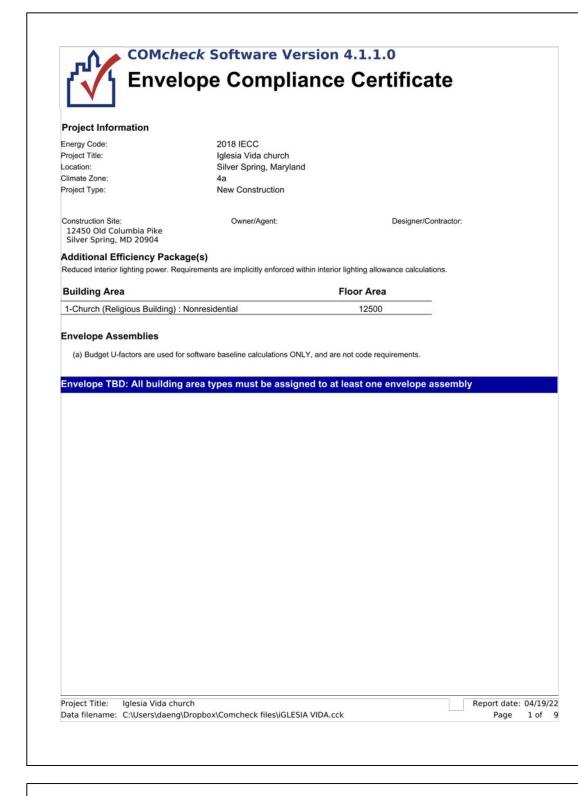
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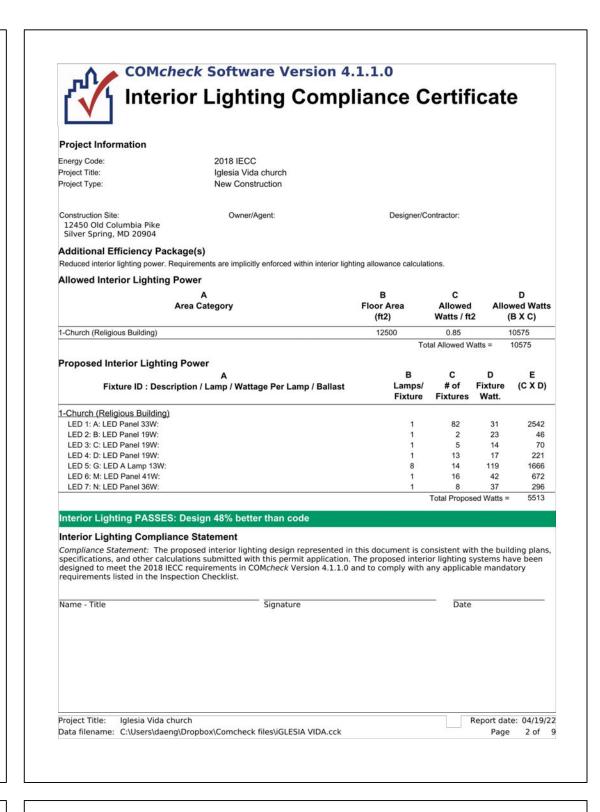
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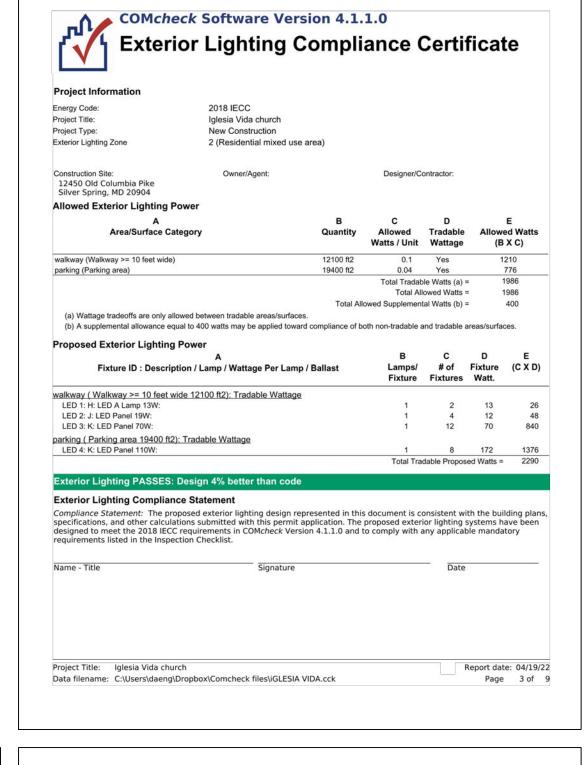
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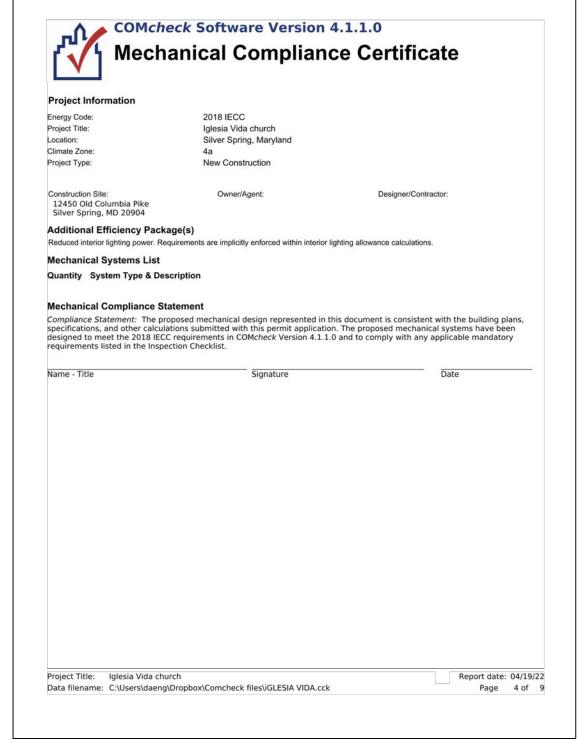
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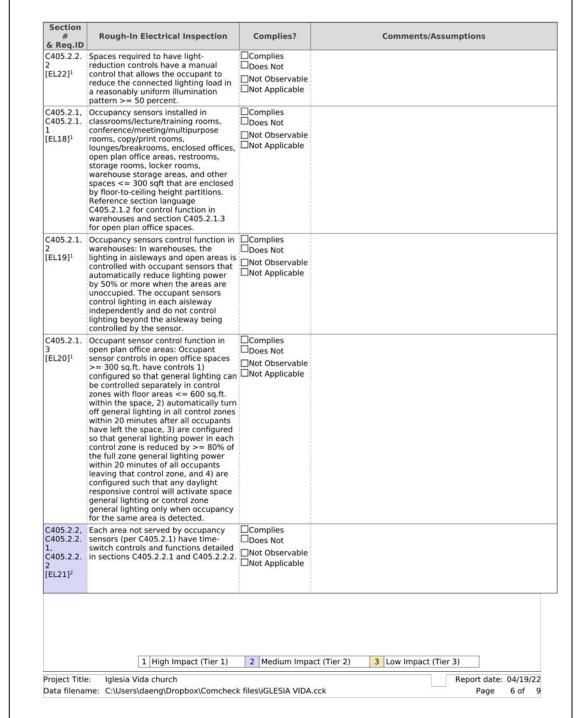


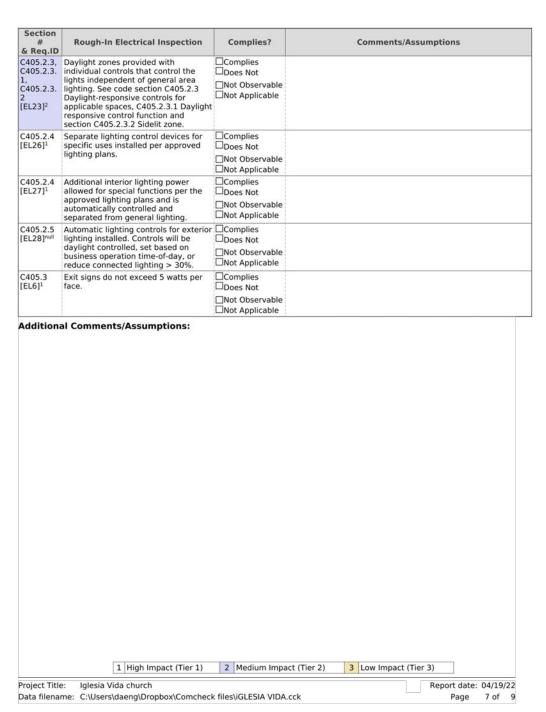






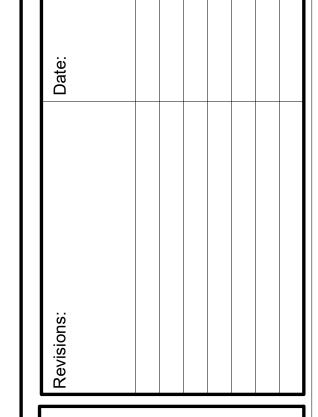
IV	Inspection		-
Poquiror	Energy Code: 2018 IEG		coftware
Text in the requirem	e "Comments/Assumptions" columnent, the user certifies that a code re	is provided by the user quirement will be met a	r in the COMcheck Requirements screen. For ea and how that is documented, or that an exception a reference to that table is provided.
Section #	Plan Review	Complies?	Comments/Assumptions
& Req.ID	Plan Review		Comments/Assumptions
C103.2 [PR4] <sup>1</sup>	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	□Complies □Does Not □Not Observable □Not Applicable	
C103.2 [PR8] <sup>1</sup>	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting	□Complies □Does Not □Not Observable □Not Applicable	
Addition	al Comments/Assumptions:		
Addition		i i	
Addition			
Addition			
Addition			





Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5. 2 [FI17] <sup>3</sup>	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	□Complies □Does Not □Not Observable □Not Applicable	
C405.4.1 [FI18] <sup>1</sup>	Interior installed lamp and fixture lighting power is consistent with who is shown on the approved lighting plans, demonstrating proposed wattare less than or equal to allowed watts.	□Not Observable	See the Interior Lighting fixture schedule for values.
C405.5.1 [FI19] <sup>1</sup>	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equito allowed watts.	□Complies □Does Not □Not Observable □Not Applicable	See the Exterior Lighting fixture schedule for values.
C408.2.5. 1 [FI16] <sup>3</sup>	Furnished as-built drawings for electric power systems within 90 day of system acceptance.	□Complies S □Does Not □Not Observable □Not Applicable	
C408.3 [FI33] <sup>1</sup>	Lighting systems have been tested t ensure proper calibration, adjustmen programming, and operation.	D □Complies t, □Does Not □Not Observable □Not Applicable	
Additiona	al Comments/Assumptions:		i
Additiona	al Comments/Assumptions:		
Additiona	al Comments/Assumptions:		
Additiona	al Comments/Assumptions:		

Project Title:	Iglesia Vida church	Report date: 04/19/22



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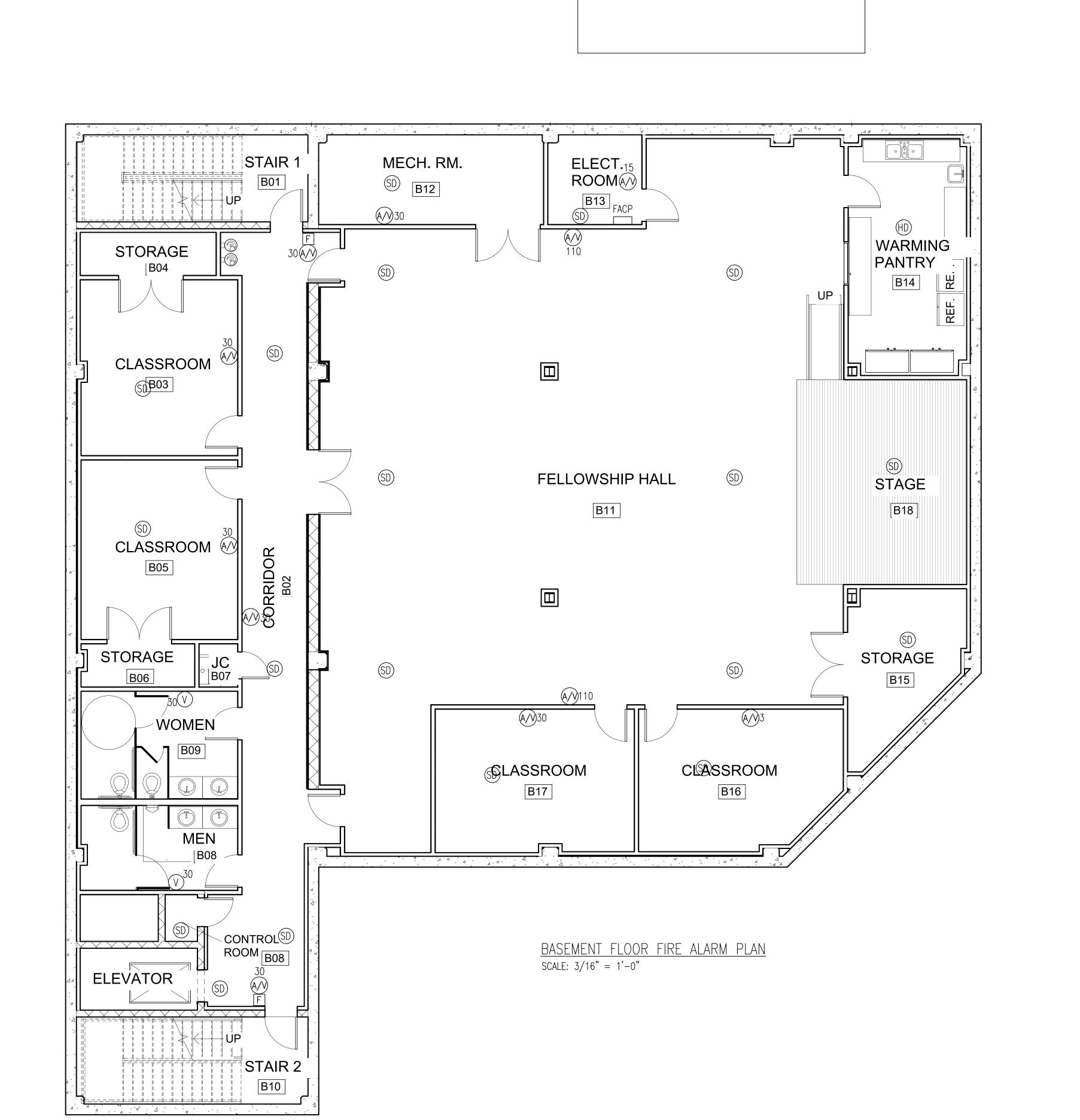
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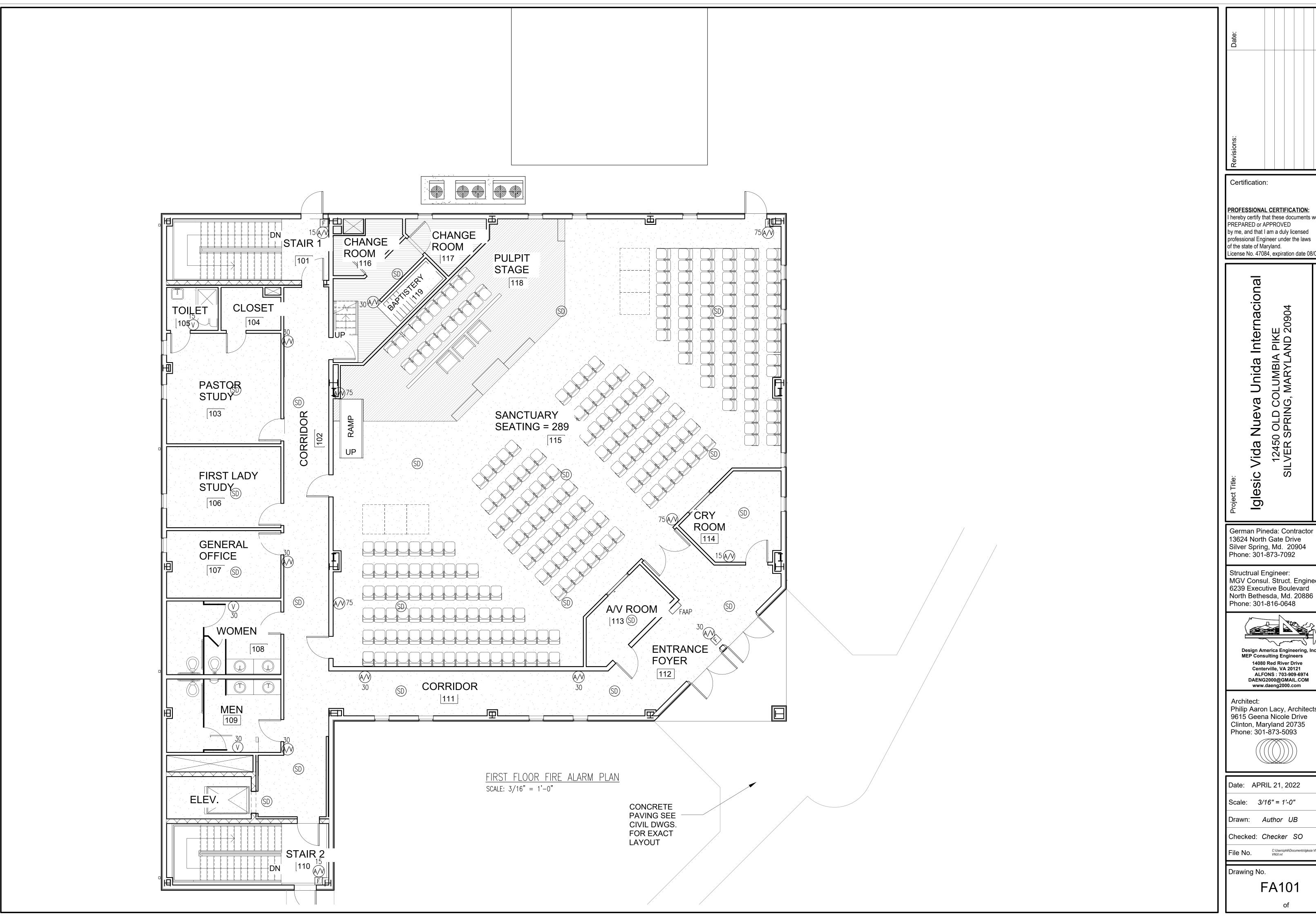
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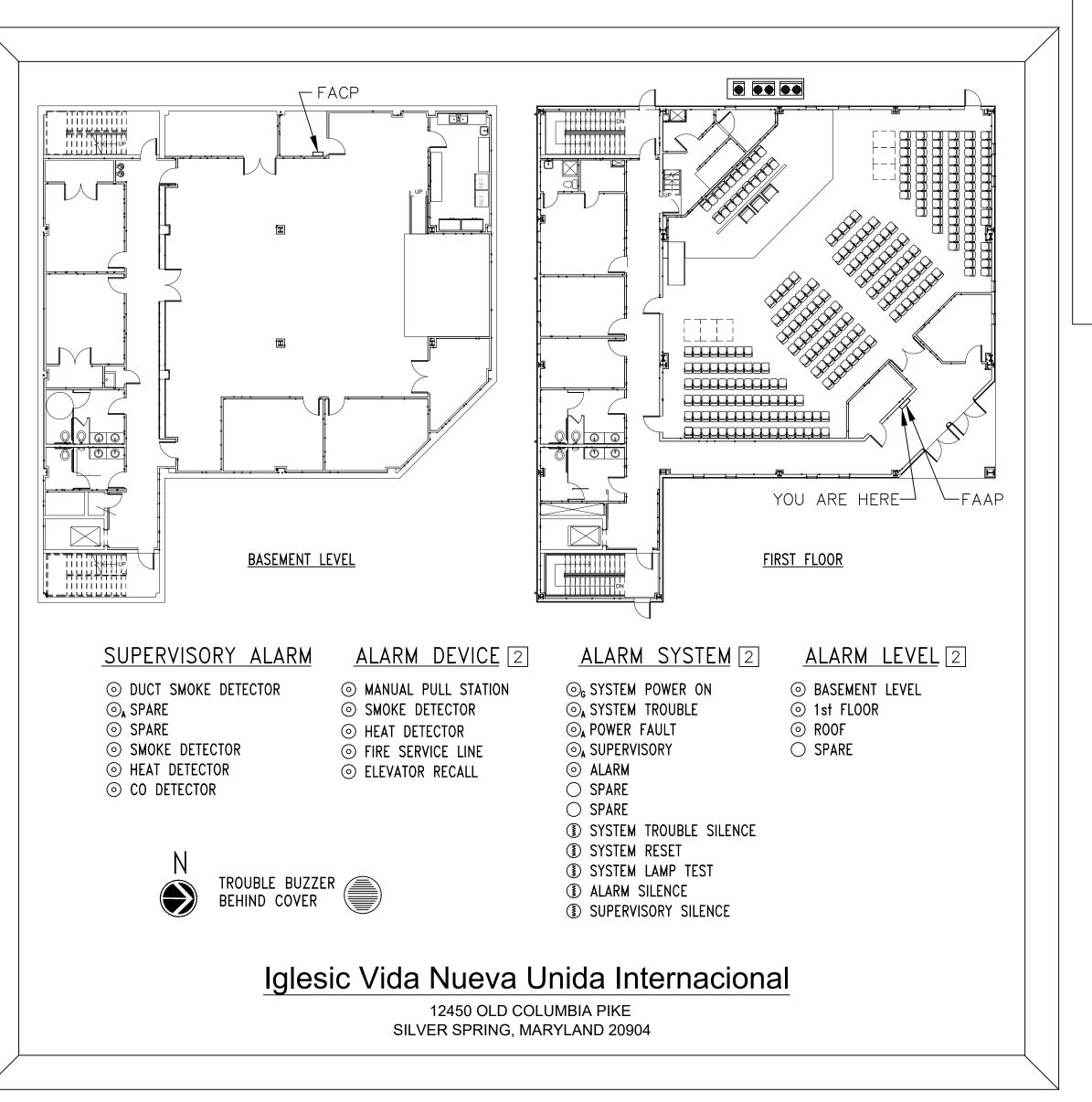


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FA101



# FIRE ALARM ANNUNCIATOR PANEL 114

# FIRE ALARM ANNUNCIATOR KEYED NOTES:

- PROVIDE U.L. LISTED FOR USE ANNUNCIATOR.
- ENGRAVE AND GROUP ANNUNCIATION LIGHTS BY FUNCTION AS SHOWN. PROVIDE SEPARATE "DEVICE" AND "SYSTEM" HEADERS FOR EACH GROUP AS SHOWN.
- PROVIDE BRUSHED STAINLESS STEEL TRIM AT ANNUNCIATOR. SUBMIT SAMPLE TO ARCHITECT FOR APPROVAL PRIOR TO PURCHASE OF ANNUNCIATOR.
- IN NECESSARY, THE CONTRACTOR SHALL OBTAIN FLOOR PLAN FROM THE ARCHITECT FOR USE IN ENGRAVING PANEL.

# FIRE ALARM SYSTEM GENERAL NOTES:

- 1. WHERE CONDUIT AND CABLE PENETRATE FIRE RATED FLOORS AND WALLS, PROVIDE U.L. LISTED FIRE STOPPING SYSTEM FOR EACH PENETRATION. GROUP CABLES/CONDUITS TOGETHER TO REDUCE QUANTITY OF PENETRATIONS WHEREVER POSSIBLE.
- 2. ALL EQUIPMENT SHALL BE NEW AND BEAR THE APPROPRIATE U.L. LISTING OR CLASSIFICATION MARK. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH THE U.L. LISTING OR CLASSIFICATION.

COORDINATE EXACT LOCATION OF DUCT SMOKE DETECTORS WITH DIVISION 15000 CONTRACTOR.

- 4. EACH DUCT SMOKE DETECTOR SHALL HAVE A U.L. LISTED FIRE ALARM RELAY PROVIDED AND INSTALLED WITHIN THREE (3) FEET OF ASSOCIATED AFD/STARTER. FIRE ALARM RELAY SHALL BE INTERLOCKED WITH ASSOCIATED AFD/STARTER. TYPICAL FOR ALL DUCT SMOKE DETECTORS.
- 5. THE CONTRACTORS PERFORMANCE INCLUDES FULL COORDINATION WITH ALL ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS. SUCH COORDINATION SHALL OCCUR PRIOR TO ANY ROUGH-IN AND PRIOR TO PROCUREMENT OF NAY MATERIAL(S).
- VERIFY EXACT ADDRESS AND NORTH ARROW DIRECTION BEFORE ORDERING FAAP.
- 7. COORDINATE DUCT SMOKE DETECTORS AND FIRE ALARM INTERFACE DEVICES FOR MECHANICAL UNITS.
- 8. FIRE ALARM VENDOR TO DETERMINE OPTIMUM DESIGN AND NECESSARY QUANTITY OF FIRE ALARM TERMINAL CABINETS. SEE FLOOR PLANS FOR PROPOSED LOCATIONS.
- COORDINATE ELEVATOR INTERFACE.
- 10. PROVIDE ALL NECESSARY CONNECTIONS, DEVICES, SIGNALING LINE CIRCUITS, NOTIFICATION CIRCUITS, INITIATION DEVICE CIRCUITS AND FIRE PHONE CIRCUITS NEEDED FOR A COMPLETE FIRE ALARM SYSTEM INSTALLATION.
- 11. SMOKE DETECTORS UTILIZED SOLELY FOR CLOSING DAMPERS OR FOR HEATING, VENTILATION AND AIR CONDITIONING SYSTEM SHUT DOWN SHALL BE MONITORED FOR ACTIVATION THROUGH THE FIRE ALARM SYSTEM, BUT SHALL NOT ACTIVATE THE MAIN FIRE ALARM EVACUATION SIGNAL (NFPA 90A).



RED LED INDICATOR

KEY SWITCH

GREEN LED INDICATOR

### FIRE ALARM ANNUNCIATOR GRAPHIC KEY

YELLOW (AMBER) LED INDICATOR

MOMENTARY CONTACT PUSHBUTTON (N.O.)

HANDLE ADDITIONAL DEVICES HEREIN DESCRIBED. ADDITIONAL DEVICES SHALL BE CALCULATED AS PART OF THE 150% BATTERY CAPACITY REQUIREMENTS. \_\_\_\_ ZONE SEPARATION

#### FIRE ALARM RISER NOTES:

ELEVATOR

RECALL SYSTEM

COUNTY FIRE MARSHAL'S OFFICE, TEST IN ACCORDANCE WITH NFPA 72, CHAPTER 10 1. FIRE ALARM CONTRACTOR TO PROVIDE AND INSTALL DUCT SMOKE DETECTORS, AND AUTO DIALER AND FIRE ALARM CONTRACTOR TO INSTALL IT.

**BASEMENT** 

- THIS INFORMATION IS FOR GUIDANCE ONLY. FIRE ALARM CONTRACTOR TO PROVIDE COMPLETE DESIGN AND SHOP ANY AND ALL PUBLICLY ACCESSIBLE/OCCUPIABLE AREAS SHALL BE VOID OF EXPOSED DRAWINGS FOR SPRINKLER AND FIRE ALARM SYSTEM AND SUBMIT TO FIRE MARSHAL.
  - 3. THE ENTIRE FIRE ALARM SYSTEM IS ADDRESSABLE.

**EXTERIOR** 

FIRST FLOOR

FIRE ALARM NOTIFICATION MUST BE VIA EMERGENCY VOICE ALARM. THE ANNOUNCEMENT MUST BE PRE RECORDED.

FIRE ALARM SYSTEM MATRIX CENTRAL COMM BUILDING SYSTEM OUTPUTS MANUAL FIRE ALARM PULL BOXES BUILDING SMOKE DETECTOR SPRINKLER WATERFLOW SPRINKLER TAMPER SPRINKLER TAMPER FIRE ALARM AC POWER FAILURE FIRE ALARM SYSTEM LOW BATTERY

FIRE ALARM
BELL-EXTERIOR

ABOVE SIAMESE

FAAP

POWER -

TOTAL 18 SD

NOT TO SCALE

PRIOR TO SCHEDULING FIRE MARSHAL. ENSURE NO WORKER TOUCHES OR INTERFERES

WITH ANY PART OF THE FIRE ALARM SYSTEM, DEVICE OR WIRING DURING ANY TEST

CABLES, OPEN BOXES, INCOMPLETE FIRE ALARM WORK OR OTHERWISE INCOMPLETE

INSTALLATION. FIRE ALARM SYSTEM(S) WITH PUBLIC OCCUPIABLE AREAS SHALL BE

ADDITIONAL STROBES AND 5 ADDITIONAL STROBE HORN DEVICES AND 5 ADDITIONAL

SMOKE DETECTORS AS MAY BE REQUIRED BY THE FIRE MARSHAL INSPECTOR DURING

TESTING AND FINAL ACCEPTANCE. THE FIRE ALARM PANEL SHALL BE SIZED TO

2. FOR EACH INSTALLATION AND SYSTEM TO BE TESTED BY THE PRINCE GEORGES

OF "RING-OUT" OR DURING ANY TESTING IN PRESENCE OF FIRE MARSHAL.

4. THE CONTRACTORS BASE BID INCLUDES UP TO 2 ADDITIONAL PULL STATIONS, 10

FULLY FINISHED, TESTED AND OPERATIONALLY MAINTAINED.

TO 24-HOUR SUPERVISED

MONITORING STATION VIA

AUTO DIALER AND (2) TELEPHONE LINES

FIRF ALARM TESTING AND OPERATION NOTES:

OPEN CIRCUIT

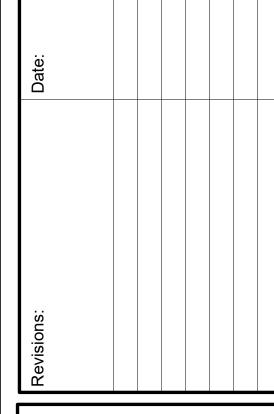
GROUND VAULT

NOTIFICATION APPLIANCE CIRCUIT SHORT

1. COMPLY WITH ALL REQUIREMENTS OF NFPA 72.

FACP

FIRE ALARM RISER DIAGRAM



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RISER

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