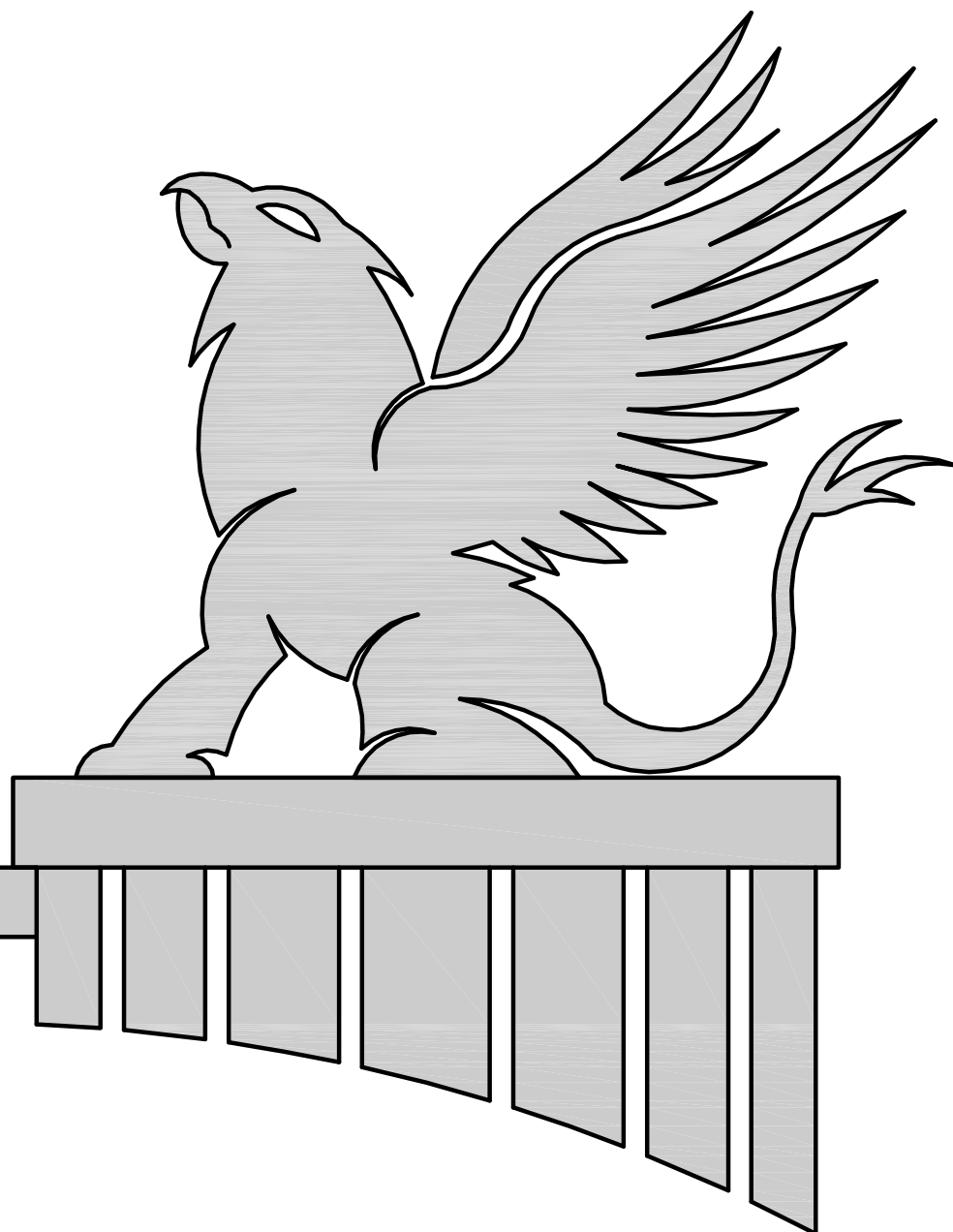


# LAI - DO RESIDENCE

LOT 5, 12133 STATE ST, HILLSBOROUGH FL



PROJECT DETAILS

CODE:	2023 FLORIDA BUILDING CODES-8TH EDITION, NEC 2020
OCCUPANCY CLASSIFICATION:	RESIDENTIAL, GROUP R3 - SINGLE FAMILY
BUILDING TYPE:	TYPE V-B.
NUMBER OF STORIES:	2 STORY
BUILDING AREA (O.A.):	4789 SQFT
BUILDING MAX HEIGHT:	30'-0" AFF
BATHROOMS:	3 TOTAL

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY STEVE GORDILLO, PE USING A DIGITAL SIGNATURE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA AUTHENTICATION CODE MUST BE VERFIED ON ANY ELECTRONIC COPIES

A. THE GENERAL CONTRACTOR SHALL VERIFY ALL DESIGN ELEMENTS, CONDITIONS, DIMENSIONS, AND NOTES FOR ACCURACY, SUITABILITY AND CODE COMPLIANCE. THE GENERAL CONTRACTOR SHALL NOTIFY MORGANCASTLE STUDIO, INC. IN WRITING WITH ANY ADJUSTMENTS NEEDED PRIOR TO PLACING ORDERS FOR MATERIALS OR BEGINNING CONSTRUCTION.

B. THE CONTRACTOR SHALL VERIFY THAT ALL LAYOUTS, SCHEMATICS, DIAGRAMS, ETC. SUBMITTED BY THIRD PARTIES DO NOT CONTRADICT THE CONSTRUCTION DOCUMENTS AS DRAFTED. IF DISCREPANCIES ARE FOUND THE GENERAL CONTRACTOR SHALL NOTIFY ALL PARTIES IN WRITING SO THAT ADJUSTMENTS CAN BE MADE PRIOR TO PLACING ORDERS FOR MATERIALS OR BEGINNING CONSTRUCTION.

C. ALL THIRD PARTIES PROVIDING SERVICES OR MATERIALS FOR THE PURPOSE OF CONSTRUCTING THE STRUCTURE BASED ON THESE DRAWINGS ARE REQUESTED TO CONTACT MORGANCASTLE STUDIO, INC. UPON FINDING ANY DISCREPANCIES SO THAT CONSTRUCTION DOCUMENTS CAN BE UPDATED.

D. DESIGNS AND DRAWINGS PRODUCED BY MORGANCASTLE STUDIO, INC. ARE THE INTELLECTUAL PROPERTY CURTIS R. MORGAN AND ARE PROTECTED UNDER U.S. COPYRIGHT LAW. ANY REPRODUCTION OR UNAUTHORIZED USE IS PROHIBITED WITHOUT EXPRESS WRITTEN PERMISSION. THIS CONSTRUCTION DOCUMENT IS FOR THE CONSTRUCTION OF ONE STRUCTURE AT THE ADDRESS INDICATED AND MAY NOT BE USED FOR ADDITIONAL SITES.

FINAL FOR PERMIT. 10-11-24

STRUCTURAL ENGINEER

Steve Gordillo, PE

PE #50586  
G3X Design, LLC

2237 Climbing Ivy Dr.  
Tampa, FL 33618  
Phone: (813)928-8339

steve@g3xdesign.com

GENERAL CONTRACTOR

David Williams

Covenant Homes, Inc.  
General Contractor

10339 Key Lantern Dr.  
New Port Richey, 34654  
727-243-2726  
CBC1256038

dwilliams@mycovenanthomes.com

DESIGNER

Curtis Morgan

Morgancastle Studio, Inc.  
Residential Design Services

9324 Wildwood Ave.  
Hudson, FL 34669  
Phone: (727)247-8148

morgancastlestudio@gmail.com

SHEET INDEX

- 1. FLOOR PLAN
- 2. FLOOR PLAN
- 3. ELEVATIONS
- 4. ELEVATIONS
- 5. FOUNDATION
- 6. ELECTRICAL - GROUND
- 7. ELECTRICAL - 2ND FLOOR
- 8. FLOOR FRAMING
- 9. ROOF FRAMING
- 10. DETAILS/SECTIONS
- S1-S6: ENGINEERING DETAILS

- A SH3060 WINDOW IS A SINGLE-HUNG STYLE 3'-0" WIDE X 6'-0" HIGH
- A TR8014 IS A TRANSOM 8' WIDE X 1'-4" HIGH.
- A 2480 DOOR LABEL IS READ 2'-4" WIDE X 8'-0" HIGH.

FLOOD\_ZONE: AE BFE=12 / PANEL 12057C0169J / NFIP COMMUNITY ID 120112

NON-CONVERSION AGREEMENT TO BE COMPLETED BY HOMEOWNER REQUIRED BEFORE ISSUANCE OF PERMIT FOR ENCLOSURE BUILT BELOW BFE.

UNDER CONSTRUCTION ELEVATION CERTIFICATE REQUIRED PRIOR TO VERTICAL CONSTRUCTION

FINISHED CONSTRUCTION ELEVATION CERTIFICATE REQUIRED PRIOR TO FINAL INSPECTION.

FLOOD OPENINGS REQUIRED FOR CONSTRUCTION BELOW BFE MUST MEET ALL REQUIREMENTS OF ASCE, FBC 2022, 8TH ED, 44 CFR & FEMA TB 1-20.

ENCLOSURE BELOW BFE LIMITED TO ONLY PARKING, UNFINISHED STORAGE OR BUILDING ACCESS  
SECTION 60.3, 44 CFR & TB 1-20.

ALL UTILITIES SERVICING BUILDING MUST BE ELEVATED ABOVE FLOOD PROTECTION LEVEL (BFE PLUS 1 FT) OR DRY FLOODPROOFED TO THE FLOOD PROTECTION LEVEL. (FEMA P-348).

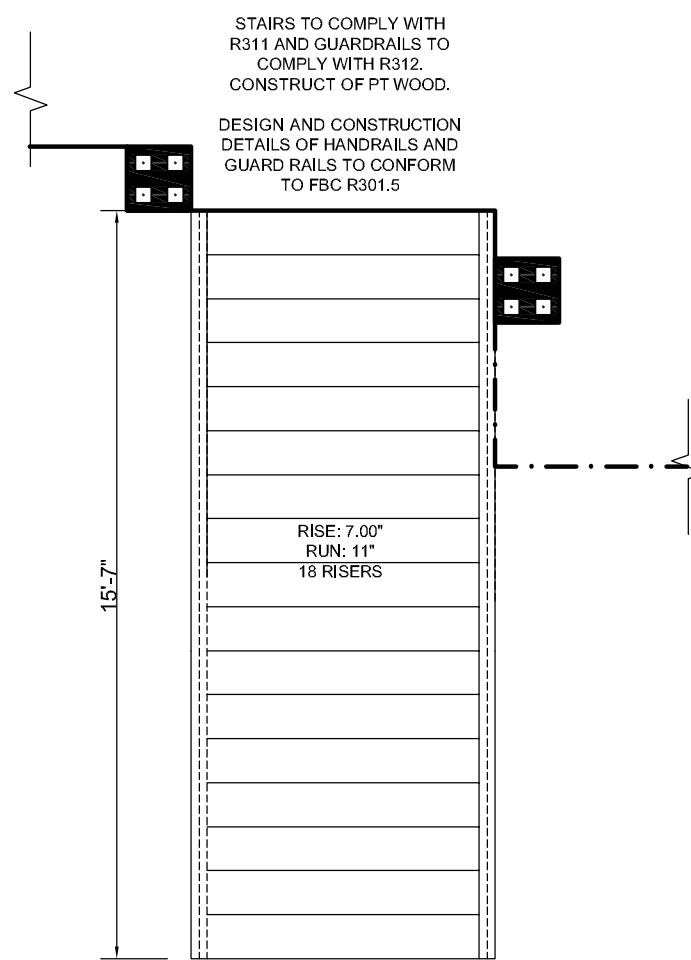
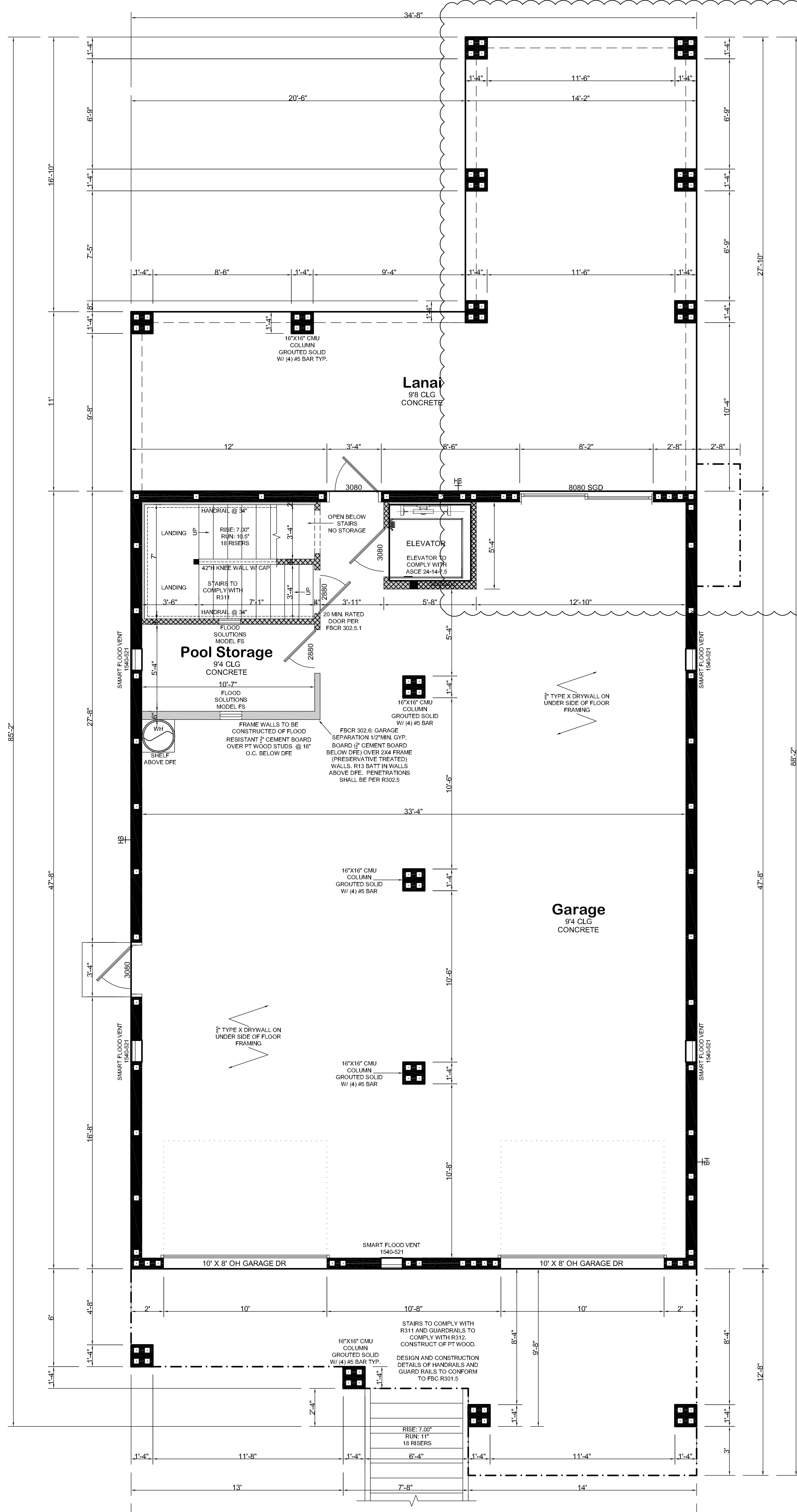
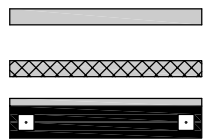
THE PROPERTY LOCATION IS IN A SPECIAL FLOOD HAZARD AREA (SFHA), THE PROPOSED A/C UNIT, GENERATOR, AND OTHER UTILITIES ARE REQUIRED TO BE AT OR ABOVE THE FINISHED FLOOR ELEVATION, MINIMUM 13' NAVD, AS REQUIRED BY THE FEMA & HILLSBOROUGH COUNTY CONSTRUCTION ORDINANCE HCC AND SECTION R322.1.6 OF THE FBC 8TH EDITION 2023.

FLOOD DAMAGE-DAMAGE RESISTANT MATERIALS SHALL BE PROVIDED BELOW THE BFE PLUS REQUIRED 1' FREEBOARD AS REQUIRED BY THE FEMA & HILLSBOROUGH COUNTY CONSTRUCTION CODE AND SECTION 322.1.8 OF THE FBC 8TH EDITION 2023.

(5) SMART VENTS: VENT MODEL 1540-521 FL 5822.4. RATED AT 400 SF EACH  
CALCS: 1652 SF REQUIRED, 2000 SF SUPPLIED

1. ALL EXTERIOR FRAME WALLS AND INTERIOR BEARING WALLS TO BE 2X6 WOOD STUDS AT 16" O.C. SEE "S" SHEETS FOR DETAILS.
2. STRUCTURAL NOTES FOR LINTELS, HEADERS, BEAMS, COLUMNS AND UPLIFT CONNECTION CALL OUTS ARE ON THE STRUCTURAL FRAMING & TRUSS LAYOUT SHEET.
3. OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH A SELF CLOSING, 20 MIN FIRE RATED DOOR PER FBCR 302.5.1.
4. ALL PLUMBING, ELECTRICAL, AND MECHANICAL ROUGH-INS MUST BE COMPLETE, INSPECTED, AND APPROVED BEFORE REQUESTING THE FRAMING INSPECTION. FBCR R109.3.
5. PROVIDE A 20" MIN CLEAR OPENING TO A BATHROOM ON THE FIRST FLOOR FOR HANDICAP ACCESS. FBCR R320.
6. ALL GLASS IN HAZARDOUS LOCATIONS PER R308.4 TO BE TEMPERED GLASS.
7. PROVIDE A MINIMUM OF ONE 36" SIDE HINGED EXIT DOOR ON THE FIRST FLOOR PER R311.2.
8. ALL NON WALK-IN CLOSET CEILINGS TO BE A MAXIMUM OF 8' HIGH.
9. FLOOR AND CEILING DIMENSIONS: 2X4 FRAME WALLS ARE ASSUMED 4", PLUMBING WALLS 6" AND CMU WALLS ARE 8" UNLESS OTHERWISE NOTED. ADD OR SUBTRACT TO GET CENTER LINES.
10. CONFIRM MASONRY AND FRAME EXTERIOR OPENING REQUIREMENTS WITH WINDOW/DOOR SUPPLIER BEFORE CONSTRUCTION. UNIT REQUIREMENTS TAKE PRECEDENCE.
11. ALL EXTERIOR FRAME WALLS HAVE R-13 BATT INSULATION AND VAPOR BARRIER PER FBCR-SECTION R402.1.2.
12. ALL EXTERIOR CEILINGS (I.E. PORCHES, ENTRY) HAVE 1/2" MIN. STUCCO ON WIRE LATHE OVER 30LB FIBER OVER BUILDING WRAP. FINISH MATERIALS TO COMPLY WITH R703, R703.7.
13. PROVIDE CONCRETE STOOPS FOR EXTERIOR DOORS TO GRASSED AREAS.
14. ALL SHELVING TO BE VINYL COATED WIRE SHELVING.
15. G.O. AND SUBS/SUPPLIERS TO VERIFY ALL CONDITIONS PRIOR TO COMMENCEMENT OF PROJECT.
16. CLOSET ORGANIZERS BUILT-IN BY OWNER.

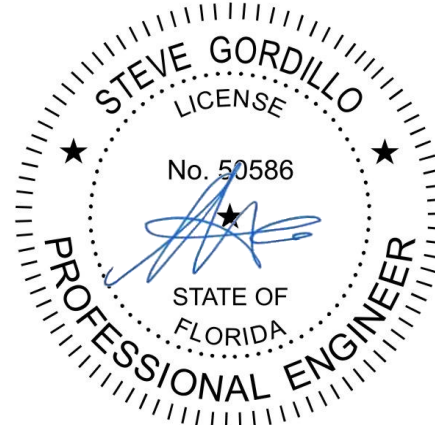
2X NON-BEARING WALL:  
2X BEARING WALL W/ UPLIFT:  
8" CMU EXTERIOR BEARING WALL



SQUARE FOOTAGE	
LIVING AREA:	2157
GARAGE/STOR:	1652
LANAI:	620
REAR PORCH:	226
FRONT PORCH:	134
TOTAL:	4789

# FLOOR PLAN

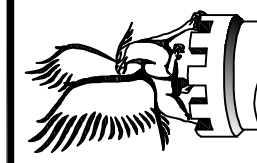
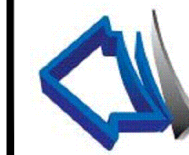
SCALE: 1/4" = 1'



10/22/2024

A permit issued shall be considered to be a license to proceed with the construction of the building, and shall be subject to the provisions of the technical code, not shall issuance of a permit prevent the building official from thereafter requiring a correction of errors in plans, construction or violations of this code. Every permit issued shall be subject to the provisions of the technical code, not shall issuance of a permit prevent the building official from thereafter requiring a correction of errors in plans, construction or violations of this code. Every permit issued shall be subject to the provisions of the technical code, not shall issuance of a permit prevent the building official from thereafter requiring a correction of errors in plans, construction or violations of this code.

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY STEVE GORDON. PLEASE USING A DIGITAL SIGNATURE AND DATE, PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE DIGITAL SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES



**LAI - DO**  
BY  
MORGANCASTLE STUDIOS,

COUNTY: HILLSBOROUGH

TAMPA

<p> <b>FF</b> </p>	<p> <b>OT</b> </p>
--------------------	--------------------

DEV:

LOT:


REVISION	DESIGNER
FINALS FOR PERMIT	GM
SWITCHED INSULATION TYPE	GM
REDESIGNED MASTER BATH	GM

DATE
9-3-24
9-11-24
10-11-24

SHEET  
**1**  
OF 10



- A SH3060 WINDOW IS A SINGLE-HUNG STYLE 3'-0" WIDE X 6'-0" HIGH
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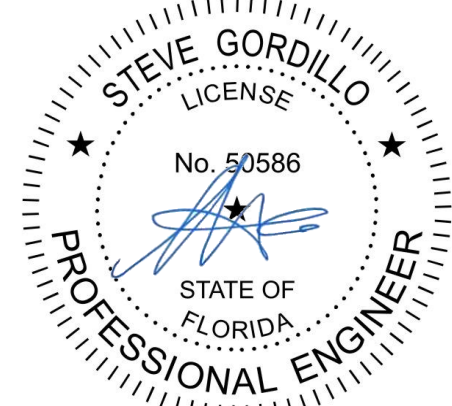
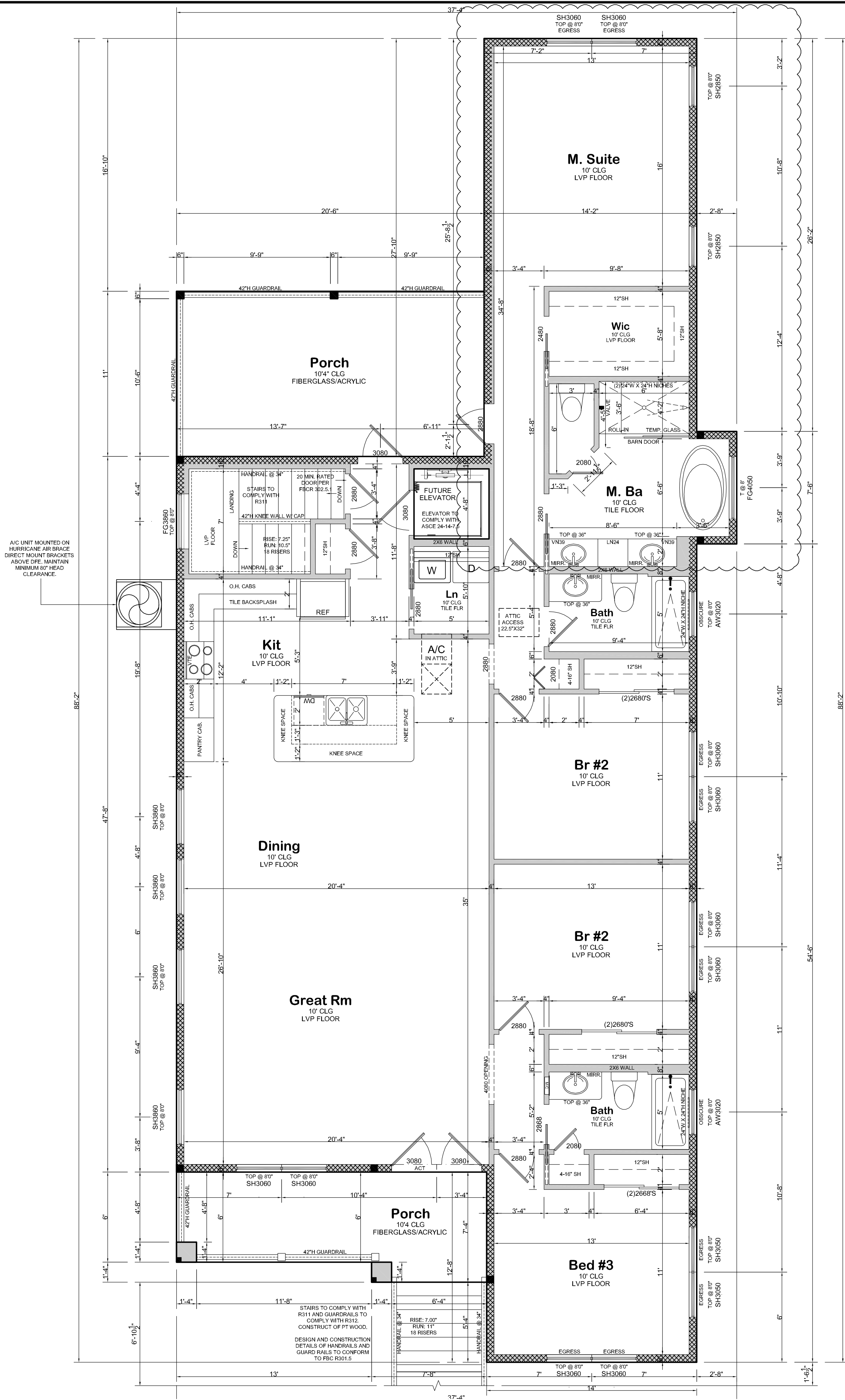
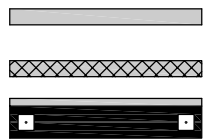
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5. PROVIDE ONE 20" DIA. CLEAR OPENING TO A BATHROOM ON THE FIRST FLOOR FOR HANDICAP ACCESS. FBC.R R320.
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8. ALL NON WALK-IN CLOSET CEILINGS TO BE A MAXIMUM OF 8' HIGH.
9. FLOOR USE MODULAR DIMENSIONS: 16X4 FRAME WALLS ARE ASSUMED 4". PLUMBING WALLS 6" AND CMU WALLS ARE 8" UNLESS OTHERWISE NOTED. ADD OR SUBTRACT TO GET CENTER LINES.
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16. CLOSET ORGANIZERS BUILT-IN BY OWNER.

2X NON-BEARING WALL:  
2X BEARING WALL W/ UPLIFT:  
8" CMU EXTERIOR BEARING WALL:

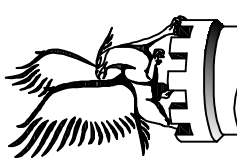


10/22/2024

CERTIFY THAT TO THE BEST OF THE ENGINEER'S KNOWLEDGE AND BELIEF ALL OF THE STRUCTURAL ELEMENTS AND SYSTEMS HAVE BEEN DESIGNED TO BE IN COMPLIANCE WITH THE 8TH EDITION OF THE 2023 RESIDENTIAL FLORIDA BUILDING CODE FOR BASIC WIND SPEED OF 150 MPH, EXPOSURE "C".



G3X DESIGN, LLC  
37 CLIMBING IVY DR  
TAMPA, FL 33618  
(813) 928-8339  
FL C.A. #311107



# **LAI-DO** BY MORGANCASTLE STUDIOS, LLC

REVISION	DESIGNER
FINALS FOR PERMIT	GM
SWITCHED INSULATION TYPE	GM
REDESIGNED MASTER BATH	GM

DATE
9-3-24
9-11-24
10-11-24

SHEET  
**2**  
OF 10

A permit shall be a license to proceed with the work and not an authority to violate, cancel, alter or set aside any of the provisions of the technical code, nor shall issuance of a permit prevent the contractor from being held responsible for any violation of the code, plan, construction or violation of this code. Every permit issued shall become invalid unless the work authorized by such permit is completed within six months after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of six months after the time the work is commenced.

ANY UNAUTHORIZED USE, REPRODUCTION OR DUPLICATION OF THESE DRAWINGS WITHOUT THE EXPRESS WRITTEN CONSENT OF THE BUILDER, DESIGNER AND ENGINEER IS STRICTLY PROHIBITED

DO NOT SCALE DIMENSIONS FOR CONSTRUCTION PURPOSES. IN



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SHEET  
**2**  
OF 10



FALL PREVENTION

R312.2.1.2: OPERABLE WINDOWS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND GREATER THAN 72" ABOVE FINISHED GRADE SHALL BE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F2090

GENERAL NOTES

ALL DIMENSIONS TO BE FIELD VERIFIED.  
DIMENSIONS FOR WINDOWS ARE "GENERIC" AND USED FOR DESIGN PURPOSES ONLY.  
VERIFY ALL WINDOW OPENINGS WITH WINDOW MANUFACTURER FOR EXACT ROUGH OPENING SIZES  
ALL GLAZED OPENINGS SHALL BE IMPACT RESISTANT.  
ALL PERIMETER WALLS ARE TO BE CONSIDERED SHEAR WALLS EXCEPT AT DOOR AND WINDOW OPENINGS AND WALL LENGTHS LESS THAN 2'-8". NAILING PATTERN AND SPACING AT SHEATHING FOR SHEAR APPLY TO ALL EXTERIOR FRAME WALLS

FLASHING NOTES

DUE TO CLARITY NOT ALL REQUIRED FLASHING IS INDICATED ON THE DRAWINGS. FLASHING SHALL BE INSTALLED PER FBC 2023 R703.4. CODE SECTION HAS BEEN PROVIDED BELOW AS REFERENCE ONLY

R703.4 FLASHING. APPROVED CORROSION-RESISTANT FLASHING SHALL BE APPLIED SHINGLE-FASHION IN A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS. SELF-ADHERED MEMBRANES USED AS FLASHING SHALL COMPLY WITH AIAA 114. ALL EXTERIOR FENESTRATION PRODUCTS SHALL BE SEALED AT THE JUNCTURE WITH THE BUILDING WALL WITH A SEALANT COMPLYING WITH AIAA 820 OR ASTM C920 CLASS 25 GRADE 90 OR GREATER FOR PROPER JOINT EXPANSION AND CONTRACTION. ASTM C1281, AIAA 812, OR OTHER APPROVED STANDARDS AS APPROPRIATE FOR THE TYPE OF SEALANT. FLUID-APPLIED MEMBRANES USED AS FLASHING IN EXTERIOR WALLS SHALL COMPLY WITH AIAA 114. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH. APPROVED CORROSION-RESISTANT FLASHINGS SHALL BE INSTALLED AT THE FOLLOWING LOCATIONS:

1. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER-RESISTIVE BARRIER COMPLYING WITH SECTION 703.3 FOR SUBSEQUENT DRAINAGE. MECHANICALLY ATTACHED FLEXIBLE FLASHINGS SHALL COMPLY WITH AIAA 112. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL BE INSTALLED IN ACCORDANCE WITH ONE OR MORE OF THE FOLLOWING:

1.1. THE FENESTRATION MANUFACTURER'S INSTALLATION AND FLASHING INSTRUCTIONS, OR FOR APPLICATIONS NOT ADDRESSED IN THE FENESTRATION MANUFACTURER'S INSTRUCTIONS, IN ACCORDANCE WITH THE FLASHING MANUFACTURER'S INSTRUCTIONS, WHERE FLASHING INSTRUCTIONS OR DETAILS ARE NOT PROVIDED. PAN FLASHING SHALL BE INSTALLED AT THE SILL OF EXTERIOR WINDOW AND DOOR OPENINGS. PAN FLASHING SHALL BE SEALED OR SLOPED IN SUCH A MANNER AS TO DIRECT WATER TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER-RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE. OPENINGS USING PAN FLASHING SHALL INCORPORATE FLASHING OR PROTECTION AT THE HEAD AND SIDES.

1.2. IN ACCORDANCE WITH THE FLASHING DESIGN OR METHOD OF A REGISTERED DESIGN PROFESSIONAL.

1.3. IN ACCORDANCE WITH OTHER APPROVED METHODS.

1.4. IN ACCORDANCE WITH FMA/AAMA 100, FMA/AAMA 200, FMA/AAMA 250, FMA/AAMA 300 OR FMA/AAMA 400.

2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO CORNINGS.

3. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.

4. CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM.

5. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION.

6. AT WALL AND ROOF INTERSECTIONS.

7. AT BUILT-IN GUTTERS.

ATTIC VENTILATION CALCULATION

ATTIC VENTILATION - FBC-R SECTION R806  
ATTIC NET FREE VENTILATION CAPACITY SHALL BE A MINIMUM 1/80TH OF ATTIC AREA OR 1/30TH IF 40-50% OF THE VENTILATION IS WITHIN 3' OF UPPER RIDGES.

ATTIC SQFT: 2517 SQFT.

1/80TH NET FREE VENT. CAPACITY REQUIREMENT: 2416 SQIN.

OR  
1/30TH NET FREE VENT. CAPACITY REQUIREMENT: 1208 SQIN.

WITH  
483 MIN. TO 604 MAX SQIN. WITHIN 3' OF UPPER RIDGES.



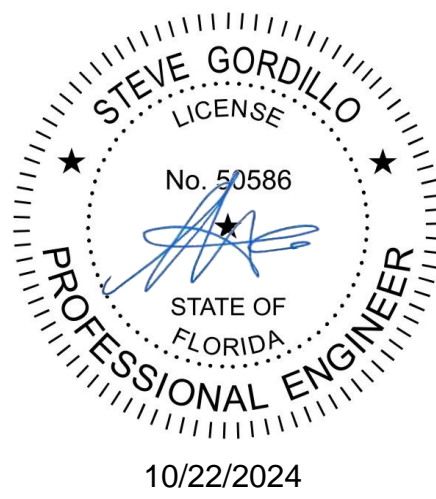
FRONT ELEVATION

SCALE: 1/4" = 1'



REAR ELEVATION

SCALE: 1/4" = 1'



I CERTIFY THAT TO THE BEST OF THE ENGINEER'S KNOWLEDGE AND BELIEF, THE DESIGN AND CONSTRUCTION OF THE SYSTEMS HAVE BEEN DESIGNED TO BE IN COMPLIANCE WITH THE applicable building codes and standards, and that the ENGINEER HAS REVIEWED THE DESIGN AND CONSTRUCTION OF THE SYSTEMS AND HAS FOUND THEM TO BE IN COMPLIANCE WITH THE applicable building codes and standards. THE DRAWING IS SEALED FOR THE STRUCTURAL PORTIONS ONLY. ALL OTHER ELEMENTS, SYSTEMS AND ASSEMBLIES ARE THE RESPONSIBILITY OF THE DESIGNER. THE ITEMS HAVE BEEN ELECTRONICALLY SIGNED AND SEALED BY STEVE GORRILLO, REGISTERED PROFESSIONAL ENGINEER AND ARCHITECT, LICENSE NO. 50586, STATE OF FLORIDA. SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



**LAI - DO** BY **MORGANCASTLE STUDIOS,**

DESIGNER: **HILLSBOROUGH COUNTY, FLORIDA**

LOT: **LOT 5** DEV: **TAMPA** PLAN: **STATUS**

LEGAL: **12133 STATE ST**

DATE	REVISION	DESIGNER
9-3-24	FINALS FOR PERMIT	CM
9-11-24	SWITCHED INSULATION TYPE	GM
10-11-24	REDESIGNED MASTER BATH	GM

MODEL: **SCOTT** C.A.D. #: **LAI-DO**

SHEET **3** OF 10

ELEVATIONS

SCALE: 1/4" = 1'



R312.2.1.2: OPERABLE WINDOWS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND GREATER THAN 72" ABOVE FINISHED GRADE SHALL BE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F2090

ALL DIMENSIONS TO BE FIELD VERIFIED.

DIMENSIONS FOR WINDOWS ARE "GENERIC" AND USED FOR DESIGN PURPOSES ONLY.

VERIFY ALL WINDOW OPENINGS WITH WINDOW MANUFACTURER FOR EXACT ROUGH OPENING SIZES

ALL GLAZED OPENINGS SHALL BE IMPACT RESISTANT.

ALL PERIMETER WALLS ARE TO BE CONSIDERED SHEAR WALLS EXCEPT AT DOOR AND WINDOW OPENINGS AND WALL LENGTHS LESS THAN 2'-8". NAILING PATTERN AND SPACING AT SHEATHING FOR SHEAR APPLY TO ALL EXTERIOR FRAME WALLS

DUE TO CLARITY NOT ALL REQUIRED FLASHING IS INDICATED ON THE DRAWINGS. FLASHING SHALL BE INSTALLED PER FBC 2023 R703.4. CODE SECTION HAS BEEN PROVIDED BELOW AS REFERENCE ONLY

R703.4 FLASHING. APPROVED CORROSION-RESISTANT FLASHING SHALL BE APPLIED SHINGLE-FASHION IN A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVEY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS. SELF-ADHERED MEMBRANES USED AS FLASHING SHALL COMPLY WITH AAMA 711. ALL EXTERIOR PENETRATION PRODUCTS SHALL BE SEALED AT THE JUNCTURE WITH THE BUILDING WALL WITH A PRODUCT COMPLYING WITH AAMA 800 OR ASTM C920 CLASS 25 GRADE NS OR GREATER FOR PROPER JOINT EXPANSION AND CONTRACTION. ASTM C1281, AAMA 812, OR OTHER APPROVED STANDARD AS APPROPRIATE FOR THE TYPE OF SEALANT. FLUID-APPLIED MEMBRANES USED AS FLASHING IN EXTERIOR WALLS SHALL COMPLY WITH AAMA 812. THE FLASHING SHALL BE INSTALLED ON THE EXTERIOR OF THE EXTERIOR WALL FINISH. APPROVED CORROSION-RESISTANT FLASHINGS SHALL BE INSTALLED AT THE FOLLOWING LOCATIONS:

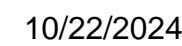
1. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER-RESISTIVE BARRIER COMPLYING WITH SECTION 703.2 FOR SUBSEQUENT DRAINAGE. MECHANICALLY ATTACHED FLEXIBLE FLASHINGS SHALL COMPLY WITH AAMA 712. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL BE INSTALLED IN ACCORDANCE WITH ONE OR MORE OF THE FOLLOWING:

- 1.1. THE PENETRATION MANUFACTURER'S INSTALLATION AND FLASHING INSTRUCTIONS, OR FOR APPLICATIONS NOT ADDRESSED IN THE PENETRATION MANUFACTURER'S INSTRUCTIONS, IN ACCORDANCE WITH THE FLASHING MANUFACTURER'S INSTRUCTIONS, WHERE FLASHING INSTRUCTIONS OR DETAILS ARE NOT PROVIDED, PAN FLASHING SHALL BE INSTALLED AT THE SILL OF EXTERIOR WINDOW AND DOOR OPENINGS. PAN FLASHING SHALL BE SEALED OR SLOPED IN SUCH A MANNER AS TO DIRECT WATER TO THE SURFACE OF THE EXTERIOR WALL OR TO THE WATER RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE. OPENINGS USING PAN FLASHING SHALL INCORPORATE FLASHING OR PROTECTION AT THE HEAD AND SIDES.

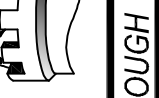
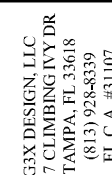
- 1.2. IN ACCORDANCE WITH THE FLASHING DESIGN OR METHOD OF A REGISTERED DESIGN PROFESSIONAL.
- 1.3. IN ACCORDANCE WITH OTHER APPROVED METHODS.
- 1.4. IN ACCORDANCE WITH FMAJWAJMA 100, FMAJWAJA 200, FMAJWAJA 250, FMAJWAJMA WDMA 300 OR FMAJWAJMAWDMA 400.
2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIFE ON BOTH SIDES UNDER STUCCO COPINGS.
3. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.
4. CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM.
5. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION.
6. AT WALL AND ROOF INTERSECTIONS.
7. AT BUILT-UP GUTTERS.


ATTIC VENTILATION - FBC-R SECTION R806  
ATTIC NET FREE VENTILATION CAPACITY SHALL BE A  
MINIMUM  $\frac{1}{100}$ TH OF ATTIC AREA OR  $\frac{1}{300}$ TH IF 40-50% OF THE  
VENTILATION IS WITHIN 3' OF UPPER RIDGES.

**ATTIC SQFT: 2517 SQFT.**  
 $\frac{1}{150}$ TH NET FREE VENT. CAPACITY REQUIREMENT: 2416 SQIN.  
 OR  
 $\frac{1}{300}$ TH NET FREE VENT. CAPACITY REQUIREMENT: 1208 SQIN.  
 WITH  
 483 MIN. TO 604 MAX SQIN. WITHIN 3' OF UPPER RIDGES.



THE DRAWING IS SEALED FOR THE STRUCTURAL PORTIONS ONLY. ALL OTHER ELEMENTS, SYSTEMS AND ASSEMBLIES ARE THE RESPONSIBILITY OF THE BUILDER.





**LAI - DO**

BY

MORGANCASTLE S

LOT: LOT 5 DEV: TAMPA

REVISION	DESIGNER
FINALS FOR PERMIT	CM
SWITCHED INSULATION TYPE	GM
REDESIGNED MASTER BATH	GM

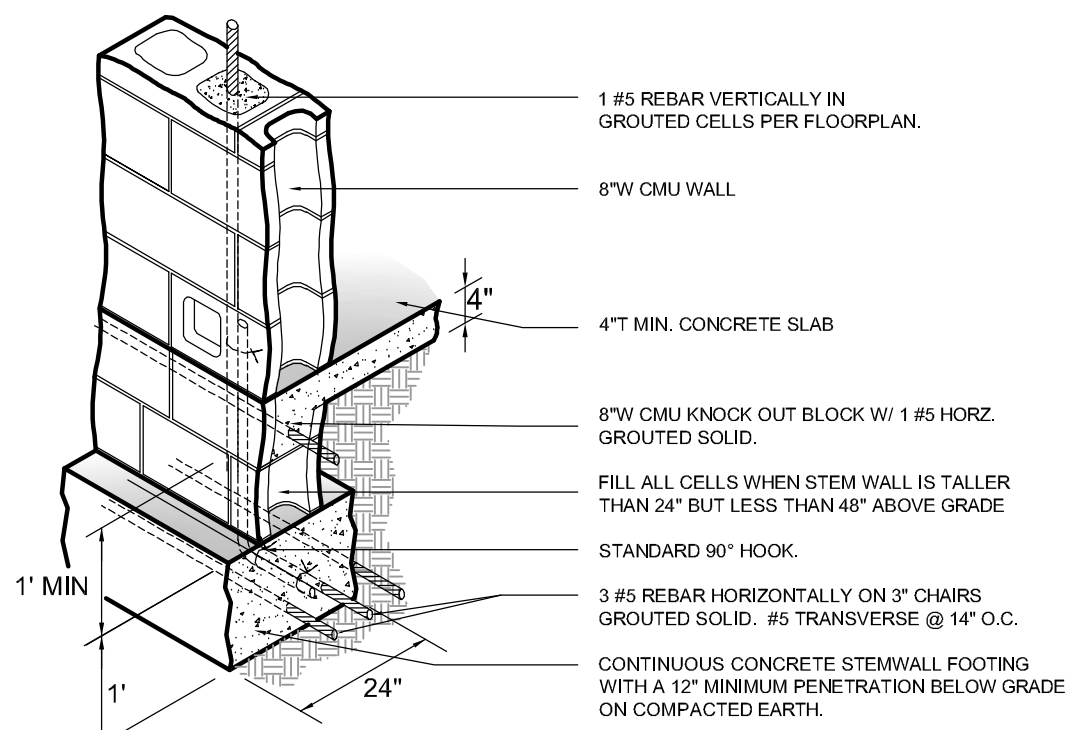
DATE
9-3-24
9-11-24
10-11-24

SHEET  
**4**  
OF 10

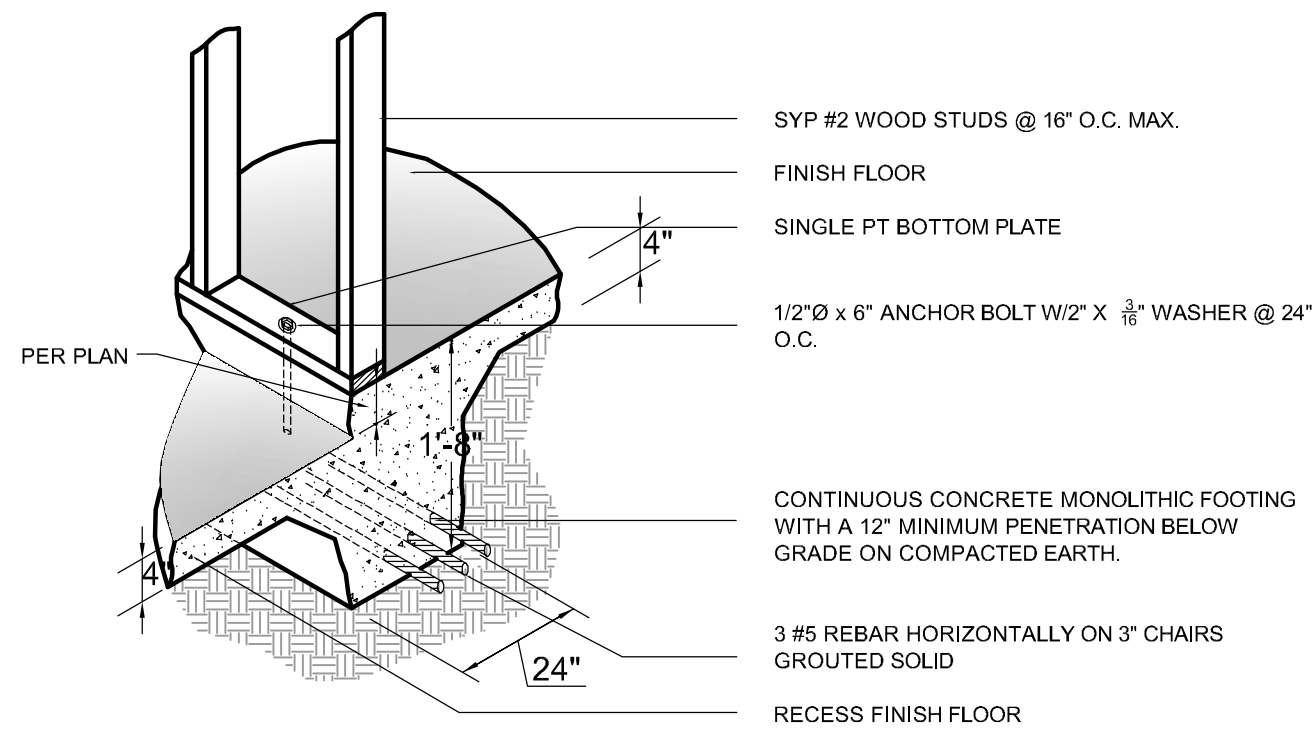
## ELEVATIONS

SCALE: 1/4" = 1'

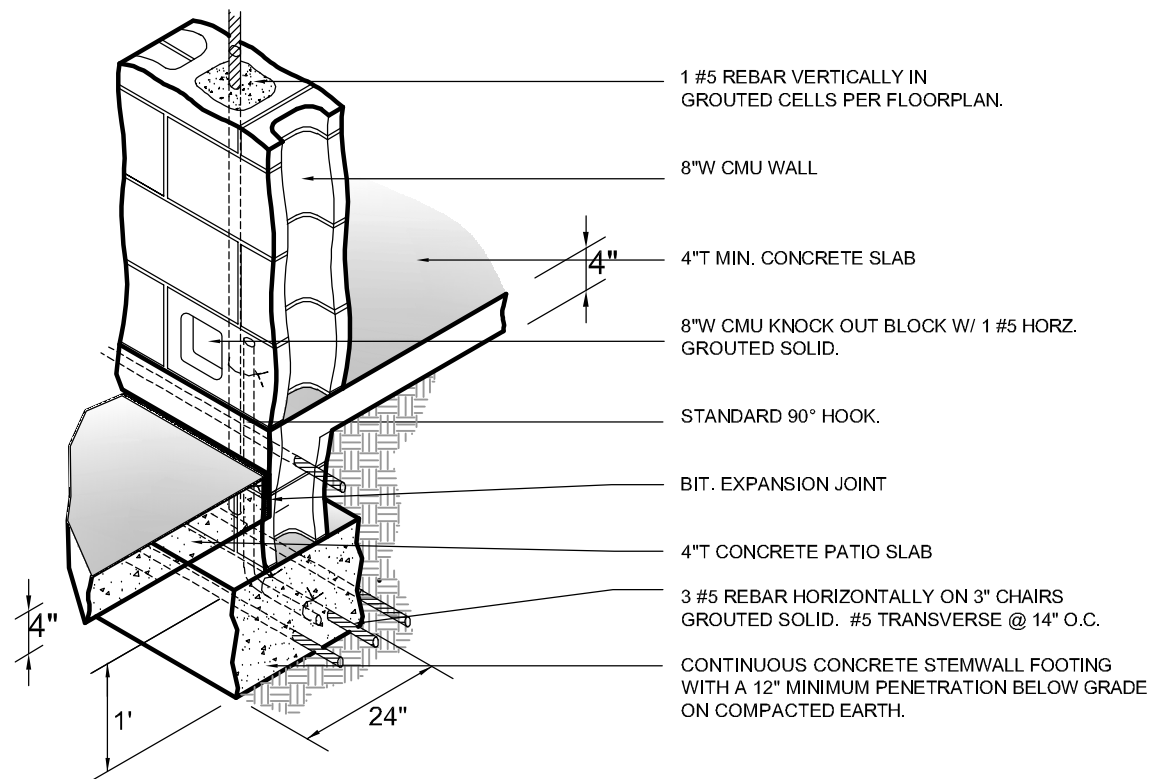




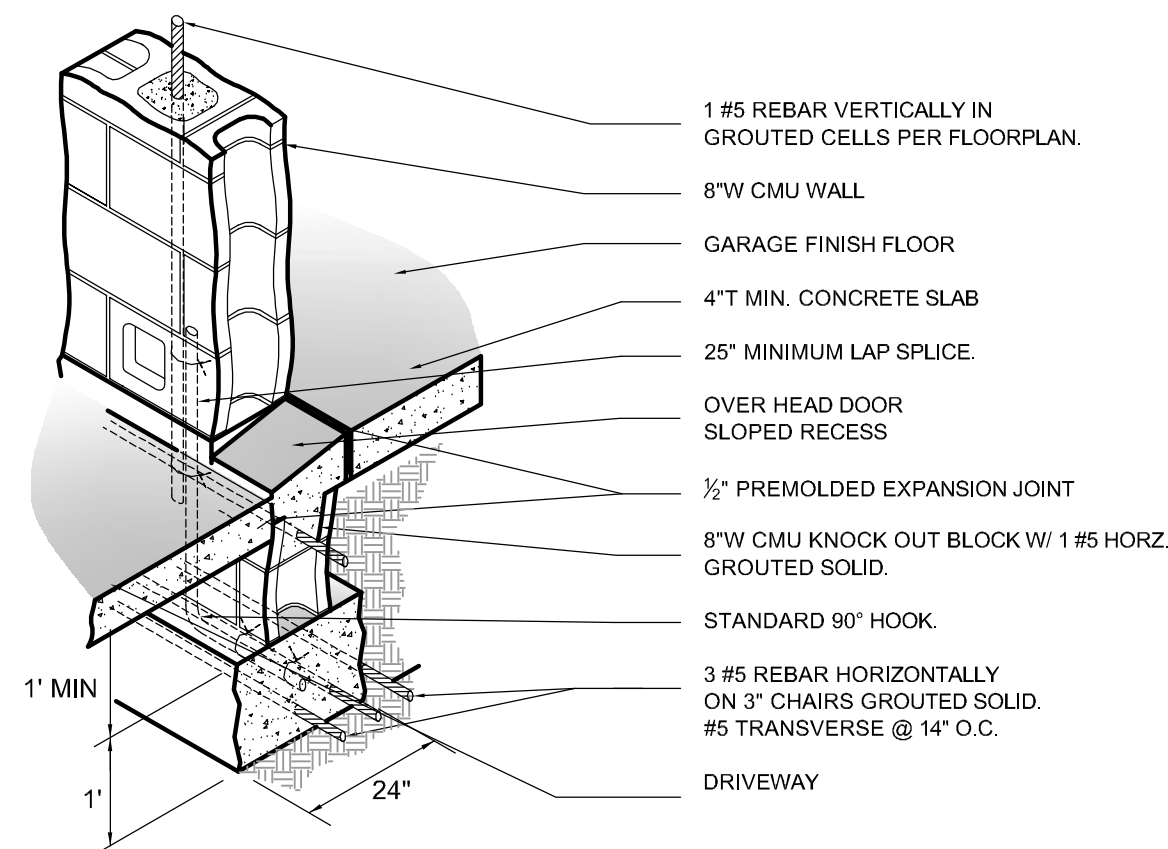
1 STEM FOOTING - TYPICAL  
SCALE: NTS



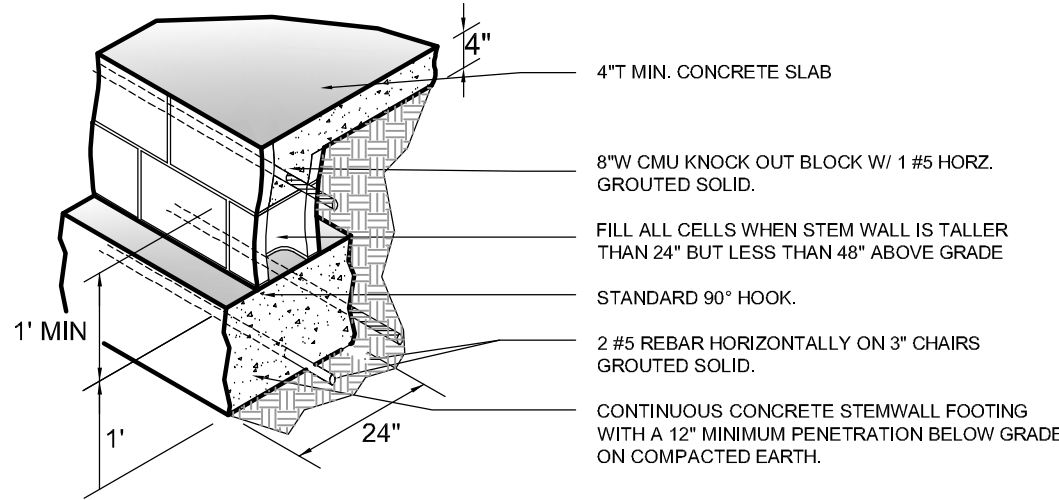
2 INTERIOR BRG WALL SECTION  
ELEVATOR RECESS  
SCALE 1\"/>



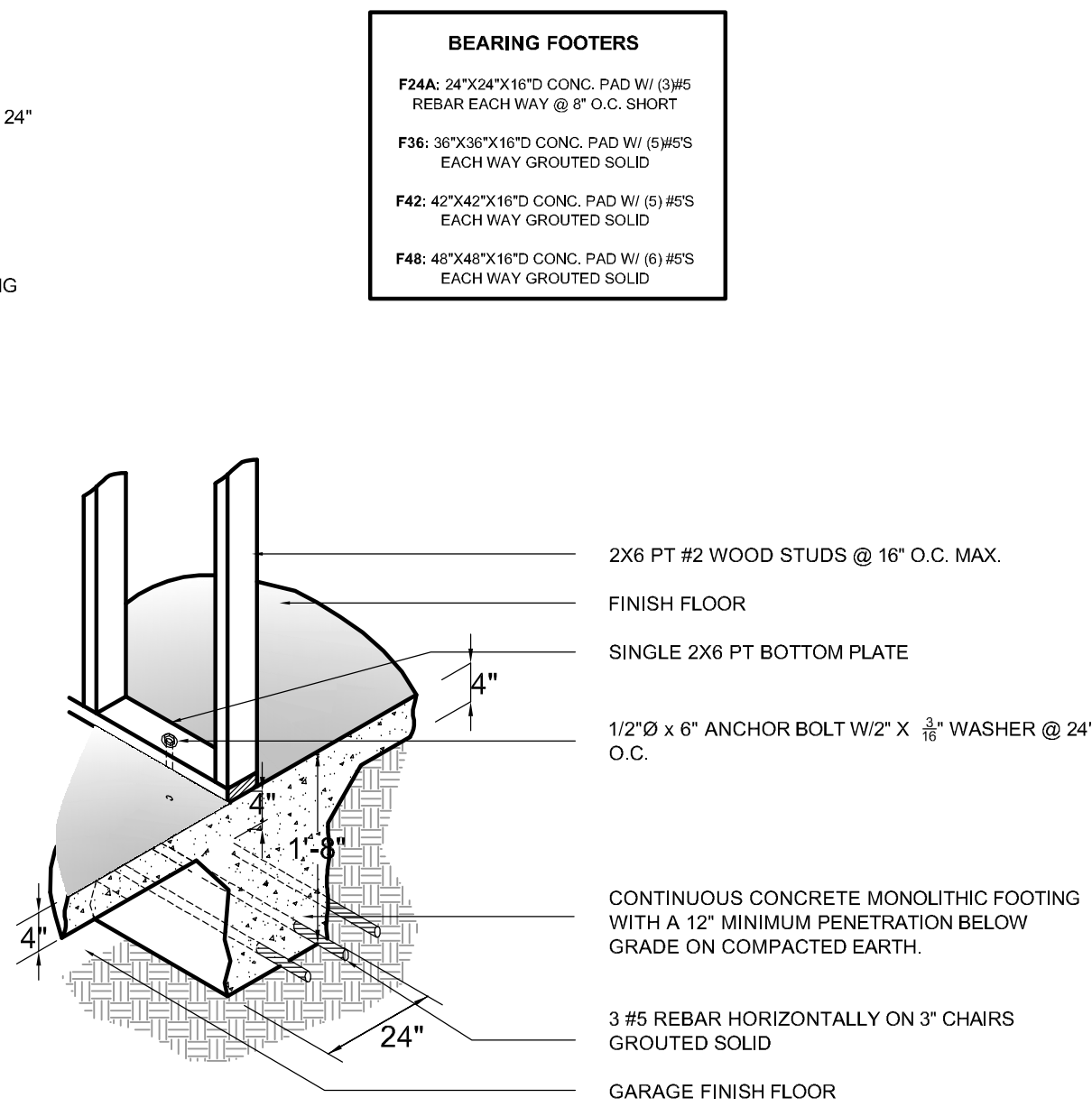
3 MASONRY WALL FTG @ PATIO  
TYPICAL  
SCALE 1\"/>



4 GARAGE DOOR RECESS MASONRY  
TYPICAL  
SCALE 1\"/>



5 PATIO SLAB EDGE SECTION  
TYPICAL  
SCALE 1\"/>



6 INTERIOR BRG WALL SECTION  
SCALE 1\"/>

#### MASONRY OPENINGS

CONTRACTOR TO VERIFY REQUIRED MASONRY OPENINGS WITH DOOR/WINDOW SUPPLIER AND PROVIDE SLAB/MASON SUBS WITH M.O.S. PRIOR TO STARTING FOUNDATION.

#### SETBACK VERIFICATION

A FOUNDATION SURVEY SHALL BE PERFORMED AND A COPY OF THE SURVEY SHALL BE ON SITE FOR THE BUILDING INSPECTORS USE. OR ALL PROPERTY MARKERS SHALL BE EXPOSED AND STRING STRETCHED FROM MARKER TO MARKER TO VERIFY REQUIRED SET BACKS.

#### CONCRETE SLAB

SLAB TO BE 4\"/>

#### GENERAL NOTES

ALL DOOR RECESSES SHALL HAVE 1/8\"/>

FBCR 404.1.6: FINISHED SLAB FLOOR TO BE 4\"/>

ALL DIMENSIONS TO BE FIELD VERIFIED.

DIMENSIONS FOR WINDOWS ARE "GENERIC" AND USED FOR DESIGN PURPOSES ONLY.

VERIFY ALL WINDOW OPENINGS WITH WINDOW MANUFACTURER FOR EXACT ROUGH OPENING SIZES.

ALL PERIMETER WALLS ARE TO BE CONSIDERED SHEAR WALLS EXCEPT AT DOOR AND WINDOW OPENINGS AND WALL LENGTHS LESS THAN 2'-8\"/>

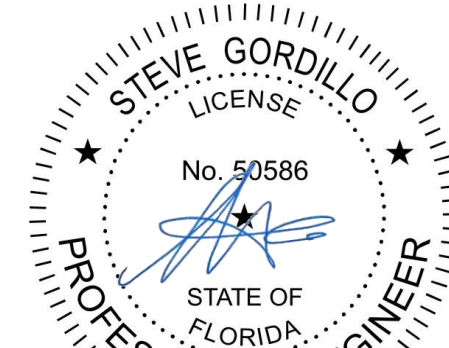
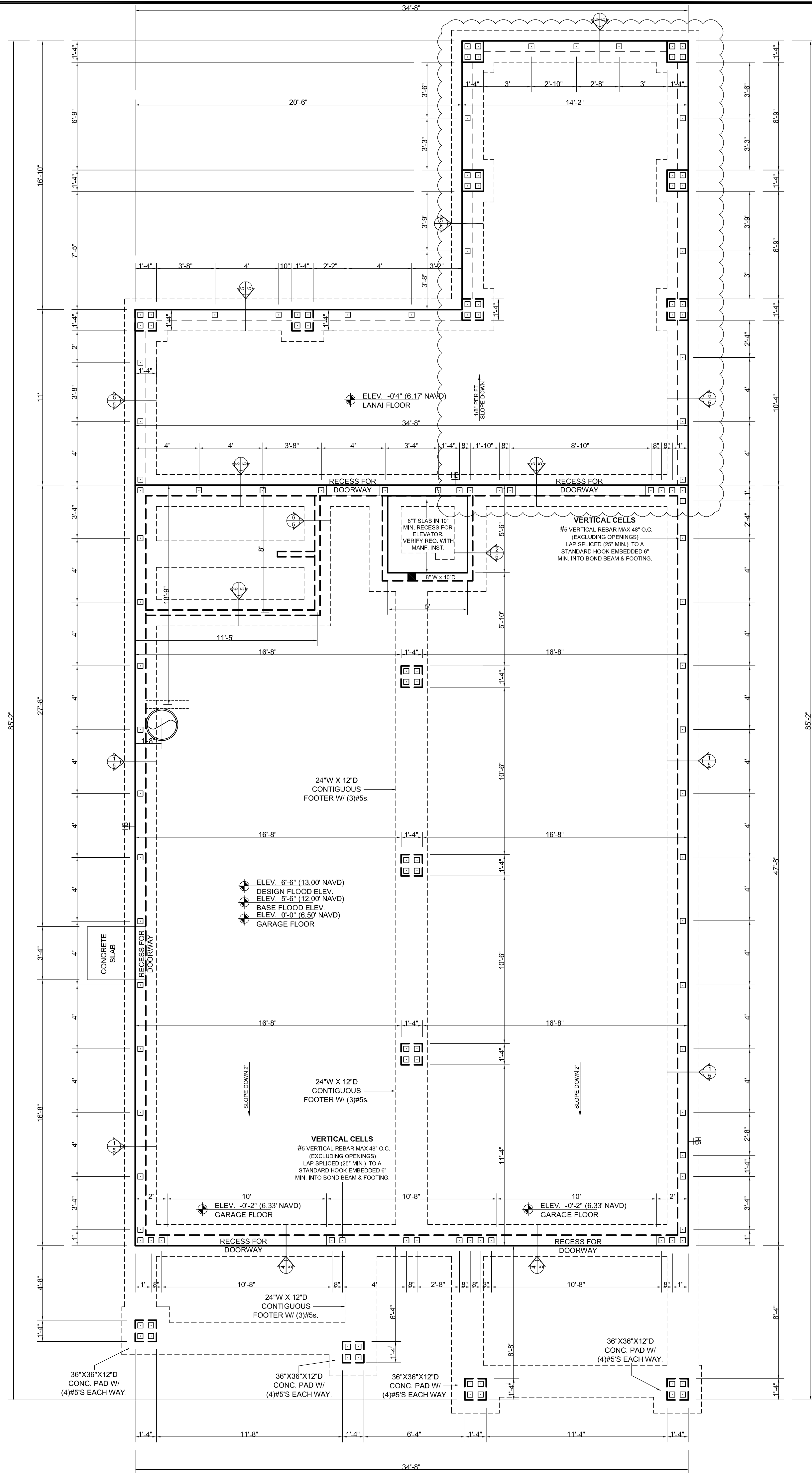
PLEASE REVIEW PLANS CAREFULLY PRIOR TO CONSTRUCTION AND COORDINATE WITH FINAL TRUSS DRAWINGS TO DETERMINE FINAL STRUCTURAL LAYOUT.

DO NOT USE STRUCTURAL DRAWINGS FOR BUILDING LAYOUT. COORDINATE LOCATIONS OF ALL STRUCTURAL ELEMENTS, INCLUDING COLUMNS, BEAMS, WALLS, SLABS, FOOTERS, CONNECTORS, AND BEARING REQUIREMENTS WITH ARCHITECTURAL DRAWINGS.

IT IS THE BUILDERS RESPONSIBILITY TO RESOLVE ANY CONFLICTS BETWEEN STRUCTURAL CONDITIONS AND ARCHITECTURAL DRAWINGS PRIOR TO LAYOUT AND CONSTRUCTION AND NOTIFY BOTH ENGINEER AND ARCHITECT IN WRITING PRIOR TO CONSTRUCTION.

ENGINEER IS NOT RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION OF THE BUILDER. IF ANY DETAIL OR SPECIFICATION IS NOT COMPLETELY CLEAR TO THE BUILDER PRIOR TO CONSTRUCTION, NOTIFY THE ENGINEER IN WRITING PRIOR TO CONSTRUCTION.

ADDITIONAL PLAN REVISIONS MAY NOT HAVE BEEN COMMUNICATED TO ENGINEER SINCE SIGN/SEAL DATE. IT IS THE BUILDERS RESPONSIBILITY TO RESOLVE ANY CONFLICTS BETWEEN STRUCTURAL CONDITIONS AND ARCHITECTURAL DRAWINGS PRIOR TO LAYOUT AND CONSTRUCTION AND NOTIFY BOTH ENGINEER AND ARCHITECT IN WRITING.



10/22/2024

THESE DRAWINGS ARE THE PROPERTY OF THE ENGINEER AND ARE NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

ANY REVISIONS TO THESE DRAWINGS MUST BE APPROVED BY THE ENGINEER AND THE ARCHITECT IN WRITING.

DO NOT SCALE DIMENSIONS FOR CONSTRUCTION PURPOSES. IN THE EVENT THAT A DIMENSION IS UNCLEAR OR MISSING, CONTACT THE ENGINEER IN WRITING.

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FOUNDATION

SCALE: 1/4" = 1'



ELECTRICAL NOTES

ALL ELECTRICAL MUST BE IN COMPLIANCE WITH NFPA 70A, NATIONAL ELECTRICAL CODE REQUIREMENTS FOR NE AND TWO FAMILY DWELLINGS, EXCEPT ARTICLE 80.

PROVIDE ARC-FAULT INTERRUPTERS IN ALL DWELLING UNIT ROOMS REQUIRED BY NEC, SECTION 210-12.

ALL OUTSIDE W.P. OUTLETS TO BE ON THERE OWN 20AMP CIRCUIT.

ALL UTILITIES SERVICING BUILDING MUST BE ELEVATED ABOVE FLOOD PROTECTION LEVEL (BFE PLUS 2 FT) OR DRY FLOODPROOFED TO THE FLOOD PROTECTION LEVEL. (FEMA P-348).

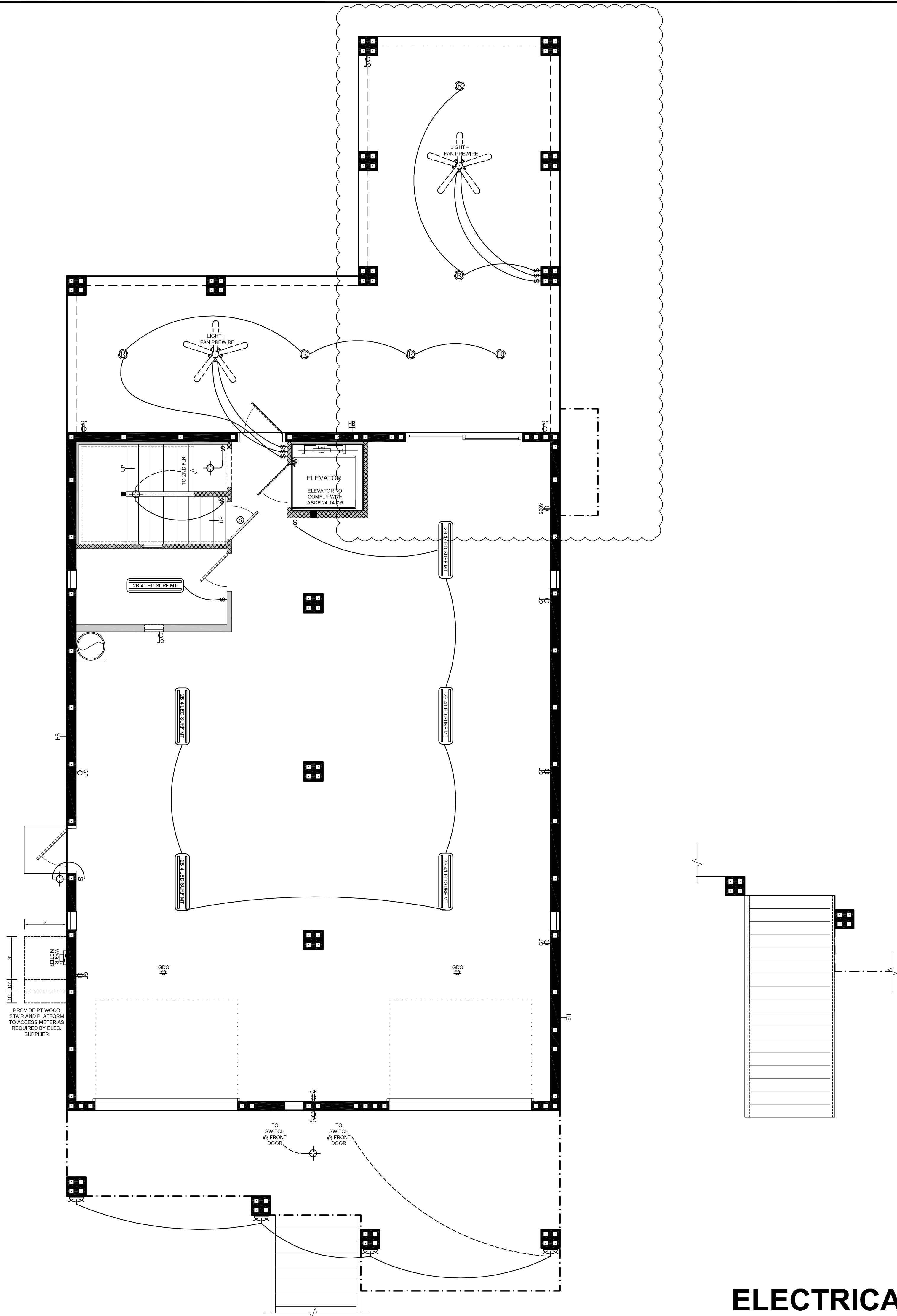
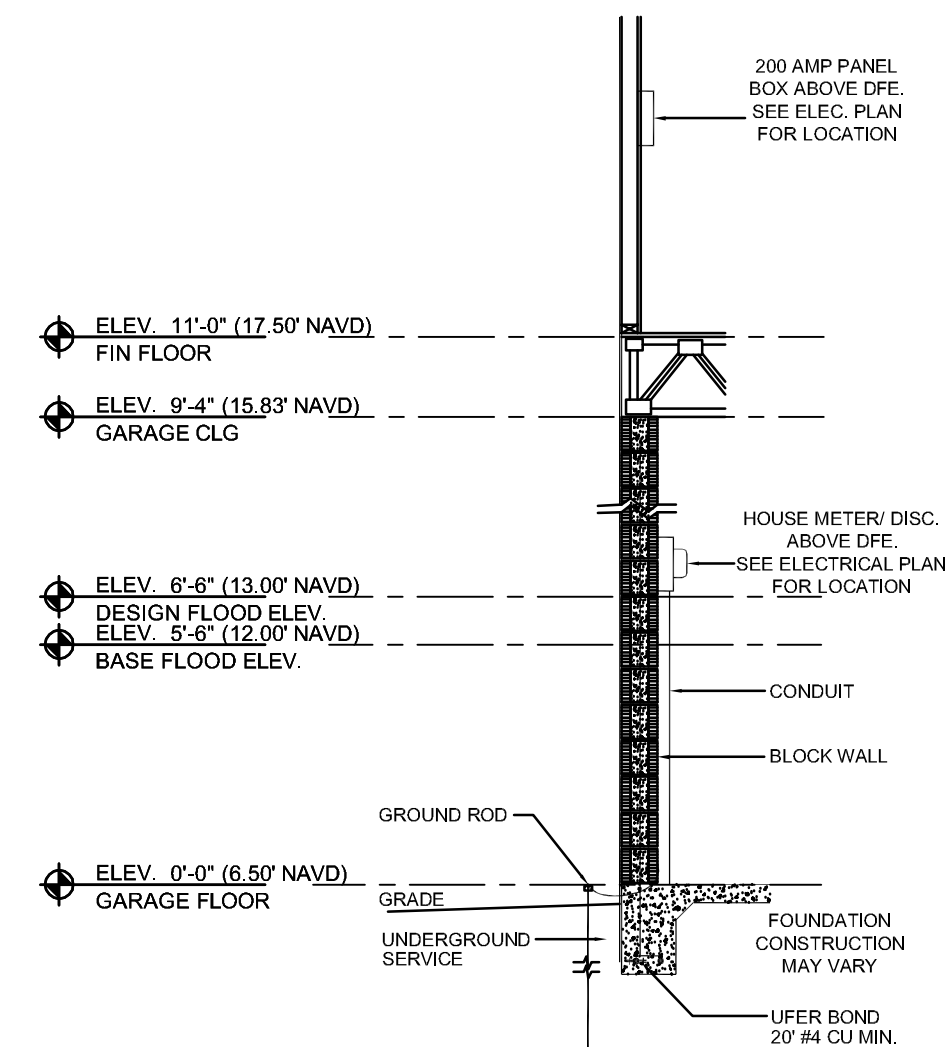
ALL COMPONENTS BELOW THE DFE SHALL BE FLOOD RESISTANT, INCLUDING BUILDING, MECHANICAL, ELECTRICAL, PLUMBING, AND GAS TRADES.

LEGEND

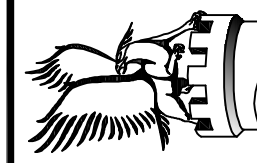
- CEILING OUTLET FIXTURE
- PULL CHAIN FIXTURE
- WALL MOUNT FIXTURE
- FAN PREWIRE FIXTURE
- RECESSED OUTLET FIXTURE
- VENT FAN FIXTURE
- DUAL W.P. FLOOD FIXTURE

- DUPLEX OUTLET
- GROUND FAULT OUTLET
- 1/2 SWITCH OUTLET
- 220V OUTLET
- WATER PROOF OUTLET
- SINGLE POLE SWITCH
- 3-WAY SWITCH
- 4-WAY SWITCH
- DIMMER SWITCH
- LOW VOLTAGE SWITCH
- WATERPROOF SWITCH
- GARBAGE DISPOSAL SWITCH
- TELEPHONE
- SMOKE /CARB. MON. DET.
- TELEVISION OUTLET
- DOORBELL CHIME
- METER W/GROUNDING ROD
- SERVICE PANEL

SERVICE DIAGRAM



THIS SHEET IS NOT COVERED UNDER  
ENGINEER'S SEAL AND IS OUTSIDE  
ENGINEER'S SCOPE OF WORK.



LAI - DO  
BY  
MORGANCASTLE STUDIOS,  
INC.



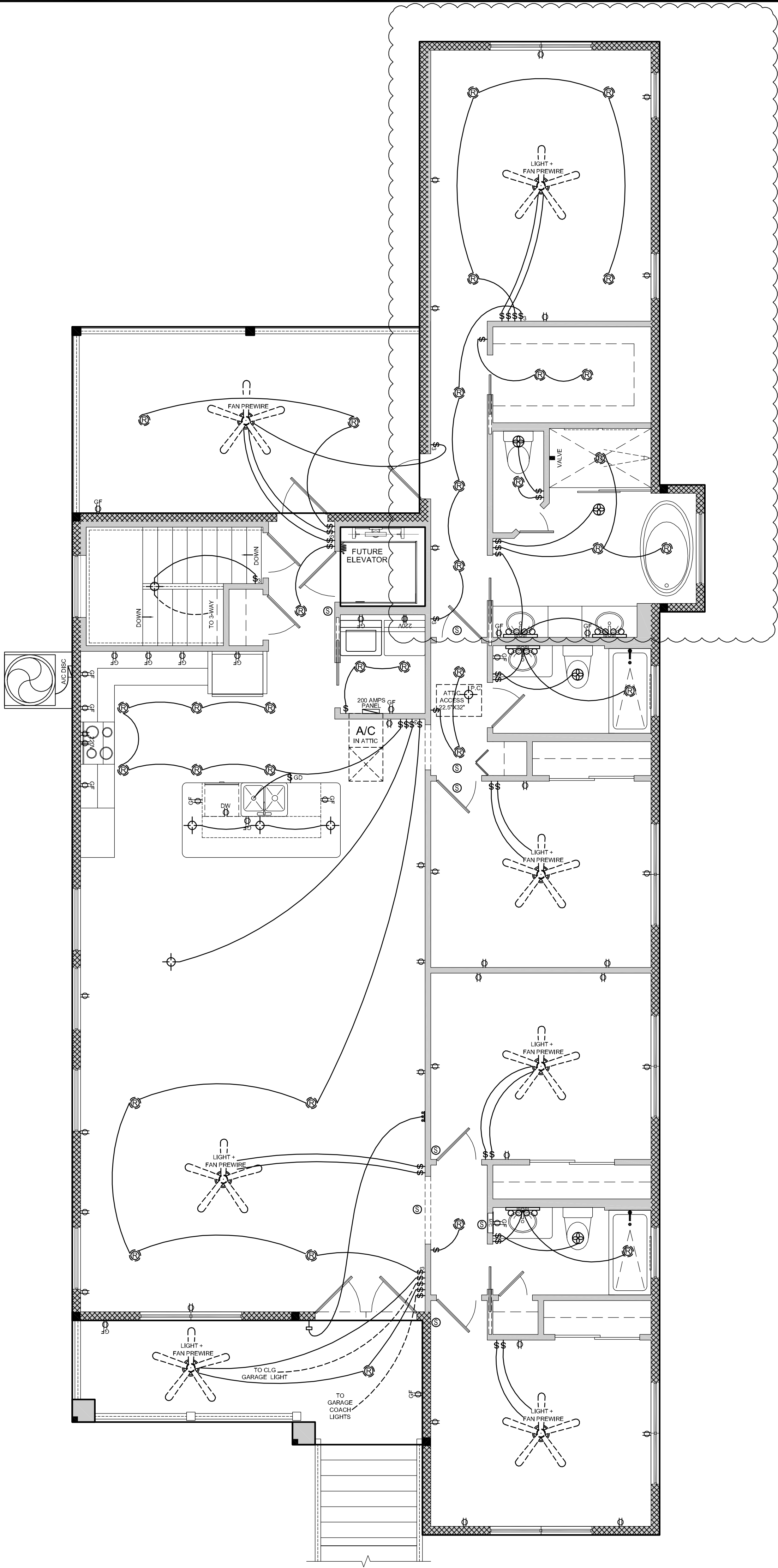
LOT: LOT 5  
DEV: TAMPA  
LEGAL: 12133 STATE ST  
PLAN STATUS: FINALS FOR PERMIT  
COUNTY: HILLSBOROUGH

DATE	REVISION	DESIGNER
9-3-24	FINALS FOR PERMIT	CM
9-11-24	SWITCHED INSULATION TYPE	GM
10-11-24	REDESIGNED MASTER BATH	GM

MODEL:	SCOTT	SHEET
C.A.D. #:	LAI-DO	6
OF	10	

ELECTRICAL

SCALE: 1/4" = 1'



# ELECTRICAL

SCALE: 1/4" = 1'

DATE	REVISION	DESIGNER
9-3-24	PERMITS FOR PERMIT	CM
9-11-24	SWITCHED INSULATION TYPE	GM
10-11-24	REDESIGNED MASTER BATH	GM

MODEL: SCOTT	SHEET
C.A.D. #: LAI-DO	7
	OF 10



LAI - DO

BY

MORGANCASTLE STUDIOS,



LOT: LOT 5

DEV: TAMPA

PLAN STATUS: FINALS FOR PERMIT

COUNTY: HILLSBOROUGH

THIS SHEET IS NOT COVERED UNDER  
ENGINEER'S SEAL AND IS OUTSIDE  
ENGINEER'S SCOPE OF WORK.



UNLESS NOTED OTHERWISE

ALL MASONRY TO GIRDER TRUSSES CONNECTION 2PLY & 3 PLY SHALL BE (2) HETA20 EMBEDDED STRAP -2,365

ALL FRAME WALL TO TRUSS CONNECTIONS SHALL BE HTS20 UPLIFT VALUE -1,310

ALL FRAME WALL TO GIRDER TRUSS CONNECTION 2PLY & 3 PLY SHALL BE (2) HTS20 UP TO -2.610 UPLIFT, IF UPLIFT EXCEEDS THIS VALUE ENGINEER WILL PROVIDE CONNECTOR BASED ON FINAL ENGINEERED TRUSS PROFILES

FLOOR GIRDER TRUSSES TO MASONRY WALL SHALL BE A LGUM/HGUM CONNECTOR. FOR HGUM CONNECTOR HEIGHT SHALL MATCH GIRDER DEPTH. PROVIDE CLEARANCE FOR FLANGES TO ALL LEDGERS FOR CORRECT INSTALLATION

2 PLY GIRDER SHALL BE LGUM210-2-SDS ALLOWABLE LOADS -3575/9575  
3 PLY GIRDER SHALL BE HGUM5.5-SDS ALLOWABLE LOADS -4105/14,000  
4 PLY GIRDER SHALL BE HGUM7.25-SDS ALLOWABLE LOADS -4105/14,000

WHERE GIRDERS OCCUR AT THE END OF WALL CONNECTORS REQUIRE CONCEALED FLANGES AND MUST BE HGUM. 2 PL' GIRDERS WILL REQUIRE CUSTOM SOLUTIONS PROVIDED BY SIMPSON OR USP

CONTRACTOR REQUIRES CLARIFICATION OF ANY ITEM OR COMPONENT THEY SHALL PROVIDE FINAL ENGINEERED TRUSS  
DRAWINGS AND REQUEST CLARIFICATION IN WRITING FROM EOR

**FOLLOW ALL MANUFACTURER INSTALLATION INSTRUCTIONS AND SPECIFICATIONS FOR ALL CONNECTIONS, NO EXCEPTIONS.**

**BUILDER RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS OF INSTALLING CONNECTORS**

- ALL WIND LOAD CALCULATIONS AND DESIGN CRITERIA ARE BASED ON AN ENCLOSED STRUCTURE, ANY BREACH OF PENETRATION OF OPENINGS SUCH AS WINDOW, DOORS, GARAGE DOORS, ETC. DURING A STORM EVENT WILL COMPROMISE THE STRUCTURAL INTEGRITY. THEREFORE EITHER ALL OPENINGS MUST BE PROTECTED DURING THE STORM EVENT OR THE PROTECTIVE MEASURES MUST BE SPECIFIED TO BE EFFECTIVE. PROTECTIVE MEASURES TO LARGE MISSILE TEST REQUIREMENT OF WINDOWS ASTM E 1886 AND ASTM E 1966 OR AIAA 508, DOORS ANSI/ASMA 115 (GLASSING) OR TAP 201.202 AND 203.
- ALL COMPONENTS AND CLADDING SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS AND MUST MEET OR EXCEED THE DESIGN PRESSURE SPECIFIED.
- ALL SHEAR WALLS MUST TRANSFER LOADS TO FLOOR JOIST OR FOUNDATIONS.
- DIAPHRAGM SYSTEMS MUST BE ATTACHED TO END WALLS AND/OR SIDE WALLS.
- TRUSSES MUST BE CAPABLE OF TRANSFERRING LATERAL LOADS TO BEARING WALLS.
- TRUSSES, GIRDERS, AND BEAM THE DOWNS ARE SIZED PER UPLIFT REQUIREMENTS.
- ALL WINDOW WALLS HAVE A VERTICAL RED LINE TO INDICATE THE LOCATION OF THE SUBSTITUTES A SHEAR WALL, SEGMENT.
- ALL PERIMETER WALLS ARE TO BE CONSIDERED SHEAR WALLS EXCEPT AT DOOR AND WINDOW OPENINGS AND WALL LENGTHS LESS THAN 32'. NAILING PATTERN AND SPACING AT SHEATHING FOR SHEAR APPLY TO ALL EXTERIOR WALLS.
- ALL DIMENSIONS TO BE FIELD VERIFIED.
- DIMENSIONS FOR WINDOWS AND DOORS ARE GENERIC AND USED FOR DESIGN PURPOSES ONLY VERIFY ALL DOOR AND OPENINGS EXACT ROUGH OPENING SIZES WITH SPECIFIC MANUFACTURERS.
- ENGINEER ASSUMES NO RESPONSIBILITIES FOR ANY EXISTING CONDITIONS (J.N.O.)

IT IS THE CONTRACTORS RESPONSIBILITY TO REVIEW ALL DRAWINGS BEFORE CONSTRUCTION BEGINS. THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THIS PROJECT ONLY. ANY DISCREPANCY BETWEEN FIELD CONDITIONS, OTHER DESIGN PROFESSIONALS' SHOP DRAWINGS, CONTRACTORS' BUILDING METHODS, AND THESE SIGNED AND SEALED DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

ALL PRE-ENGINEERED WOOD TRUSSES ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER. THE TRUSS ENGINEER, THE DELEGATED ENGINEER FOR THIS PROJECT, AND AS SUCH, IS RESPONSIBLE FOR THE VALIDITY OF THE COMPONENTS PROVIDED. THE DELEGATED ENGINEER IS RESPONSIBLE FOR PROVIDING A FINAL SEALED SET OF ALL CALCULATIONS AND LAYOUTS FOR THE PROJECT TO THE ENGINEER OF RECORD PRIOR TO FABRICATION OF SAID COMPONENTS.

G3XDESIGN, LLC RESERVES THE RIGHT TO MAKE SUBSTITUTIONS TO ANY CONNECTOR SPECIFIED AFTER SUBMITTAL OF FINAL SIGNED AND SEALED TRUSS DRAWINGS HAVE BEEN PROVIDED FOR REVIEW.

BUILDER SHALL COORDINATE WITH G3XDESIGN, LLC PRIOR TO CONSTRUCTION

FINAL APPROVED TRUSS DRAWINGS MAY REQUIRE ADDITIONAL FOUNDATION SUPPORTS, COLUMNS, AND BEAMS NOT SHOWN ON PERMIT PLANS. BUILDER IS RESPONSIBLE FOR ANY REVISIONS PRIOR TO FINAL TRUSS APPROVAL

CONTRACTOR TO COORDINATE ALL VERTICAL AND HORIZONTAL FRAMING MEMBERS PRIOR TO CONSTRUCTION

G3XDESIGN MAY REVISE HANGERS AFTER TRUSS DRAWING SHOP REVIEW

FILLED CELLS WITH A MINIMUM 1-#5 BAR SHALL BE PROVIDED AT ALL LOCATIONS WHERE GIRDER AND GIRDER TRUSSES BEAR ON MASONRY WALLS

ROUGH OPENING	2x4 FRAME WALL	2x6 FRAME WALL
UP TO 4"	MIN (2) 2x12 W/ 1/2" PLYWOOD FLITCH	MIN (3) 2x12 W/ 1/2" PLYWOOD FLITCH
4'-0" TO 6'-0"	MIN (2) 2x12 W/ 1/2" PLYWOOD FLITCH	MIN (3) 2x12 W/ 1/2" PLYWOOD FLITCH
6'-0" TO 8'-0"	MIN (2) 2x12 W/ 1/2" PLYWOOD FLITCH	MIN (3) 2x12 W/ 1/2" PLYWOOD FLITCH
OVER 8'-0"	MIN 2 PCS OF 1 3/4" x 11 1/2" LVL BEAM	MIN 3 PCS OF 1 3/4" x 11 1/2" LVL BEAM

2. ALL WOOD FRAMING EXPOSED TO THE EXTERIOR OR IN CONTACT WITH MASONRY OR CONCRETE IS TO BE PRESSURE TREATED (PT)

3. ALL EXTERIOR FASTENERS INCLUDING NAILS, HANGERS, BOLTS ETC. ARE TO BE STAINLESS STEEL (SS) TYPE 316 OR CORROSION RESISTANT

4. ALL INTERIOR FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER INCLUDING NAILS, HANGERS, BOLTS ETC. ARE TO BE HOT DIPPED GALVANIZED (HDG) G185.

DESCRIPTION	ATTACHMENT	SUPPORT
(2) 2x12 PT BOLTED TO BLOCK	5/8" O.C. TITENES OR J-BOLTS @ 12" O.C. STAGGERED	FLOOR TRUSSES @ MA WALL
(2) 2x8 PT BOLTED TO BLOCK	1/2" TITENES OR J-BOLTS @ 24" O.C.	FLOOR SHEATHING MASONRY WALL
(1) 2 x 10 PT BOLTED TO BLOCK	1/4" x 3 1/2" TAPCON @ 8" O.C. STAGGERED	ROOF TRUSS @ MAS WALL

WALL SHEATHING 1 / 2" CDX OR 1 / 2" OSB BOARD

8d RING SHANK NAILS  
FIRST 36" AND END ZONES (ZONE 5)  
INTERIOR 4" C/C  
EDGES 3" C/C

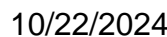
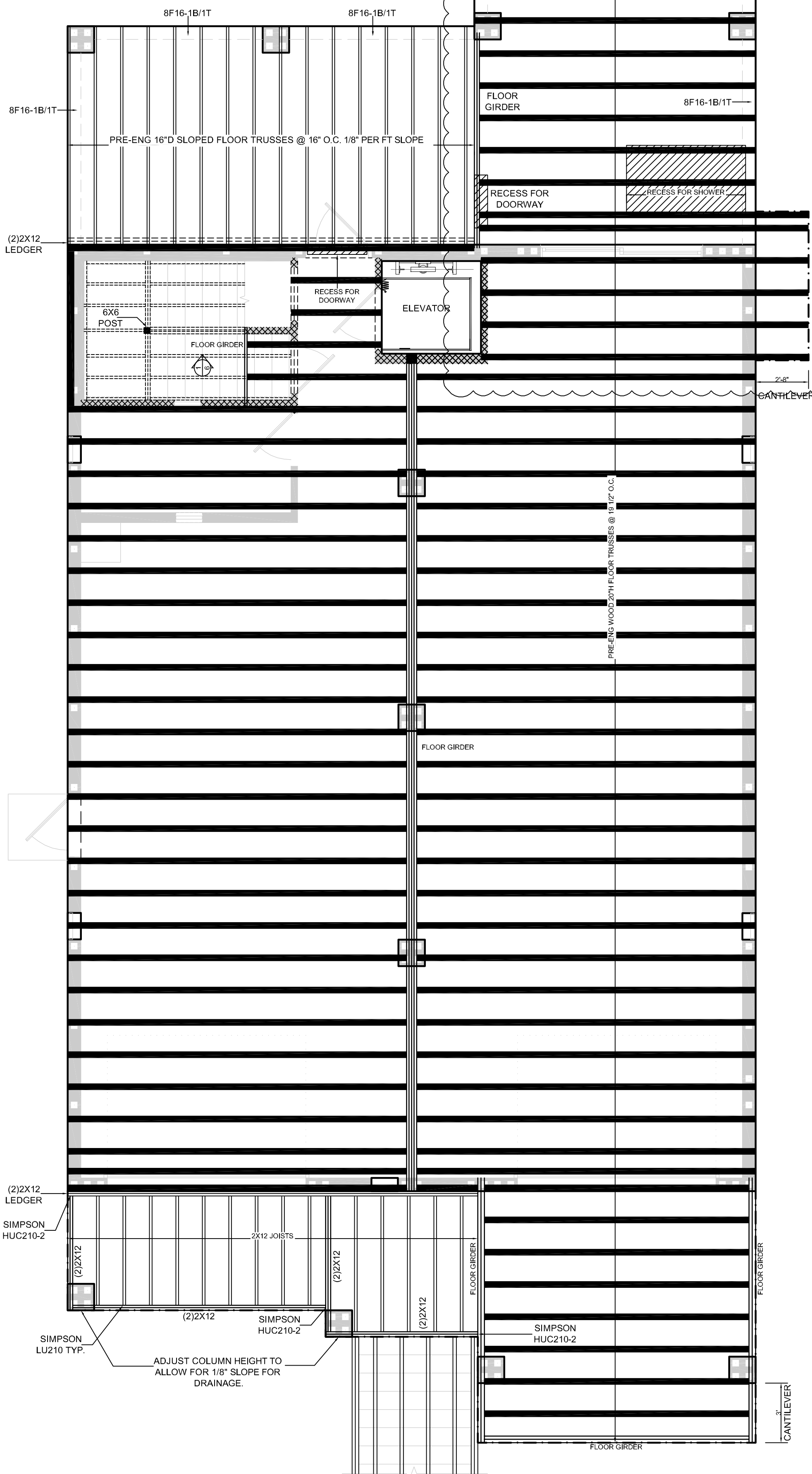
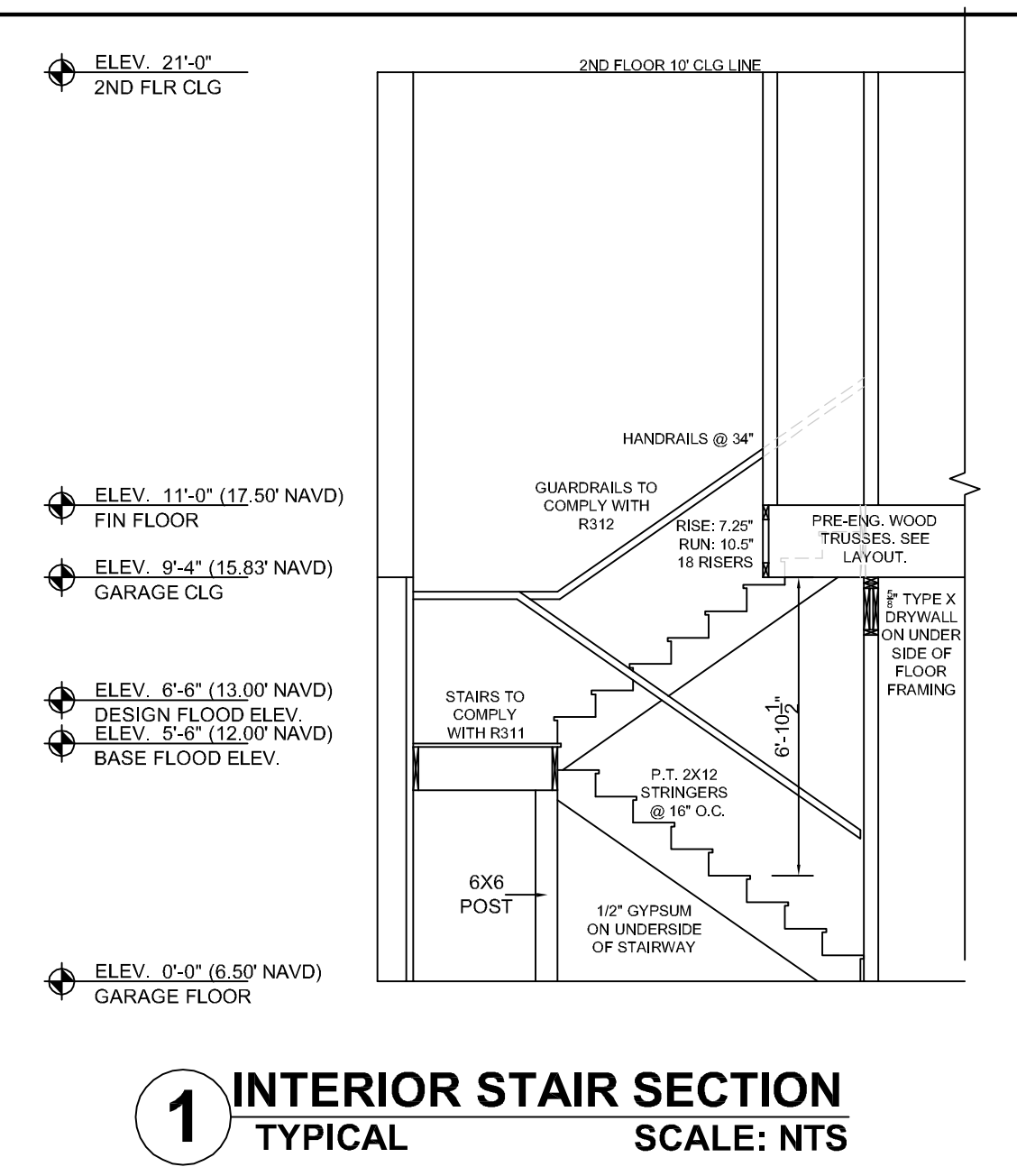
ROOF SHEATHING 5/8" CDX

10d RING SHANK NAILS  
FIRST 36" AND END ZONES (ZONES 2 AND 3)

FIELD	EDGES	3* C/C
	INTERIOR	4* C/C
	EDGES	4* C/C

SP1 @ SOLE PLATE  
SP2 @ DBL TOP PLATE

ANCHOR BOLTS MIN. DIA.  $\frac{5}{8}$ " AND 3"x3"x $\frac{1}{8}$ " WASHERS BE PROVIDED 6 TO 12 INCHES OF EACH END PLATE. BOLTS SHALL HAVE A MIN. 7" EMBEDMENT AND NOT EXCEED 36" O.C.

[illegible]

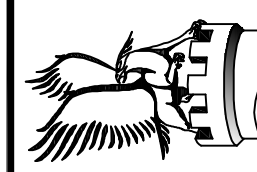
CERTIFY THAT TO THE BEST OF THE ENGINEER'S KNOWLEDGE AND BELIEF ALL OF THE STRUCTURAL ELEMENTS AND SYSTEMS HAVE BEEN DESIGNED TO BE IN COMPLIANCE WITH THE 2001 EDITION OF THE 2001 INTERNATIONAL BUILDING CODE FOR BASIC WIND SPEED OF 130 MPH, EXPOSURE C.

THE DRAWING IS SEALED FOR THE STRUCTURAL PORTIONS ONLY. ALL OTHER ELEMENTS, SYSTEMS AND ASSEMBLIES ARE THE RESPONSIBILITY OF THE ARCHITECT.

THIS DRAWING HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY STEVE GORDILO. PLEASE VERIFY A DIGITAL SIGNATURE AND DATE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE DIGITAL SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



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TAMPA, FL 33618  
(813) 928-8339  
FL C A #31167





# LAI - DO

BY

# MORGANCASTLE STUDIOS,

LOT:	LOT 5	DEV:	TAMPA	COUNTY:	HILLS
LEGAL:	12133 STATE ST		PLAN STATUS:	FIMALS FOR PERM	

DATE	REVISION	DESIGNER
9-3-24	FINALS FOR PERMIT	CM
9-11-24	SWITCHED INSULATION TYPE	GM
10-11-24	REDESIGNED MASTERBATH	GM

SHEET  
**8**  
OF 10

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ANY REPRODUCTION OR UNAUTHORIZED USE IS PROHIBITED.

SCALE: 1/4" = 1'

# TRUSS LAYOUT



UNLESS NOTED OTHERWISE

ALL MASONRY TO GIRDER TRUSSES CONNECTION 2PLY & 3 PLY SHALL BE (2) HETA20 EMBEDDED STRAP -2,365

ALL FRAME WALL TO TRUSS CONNECTIONS SHALL BE HTS20 UPLIFT VALUE -1,310

ALL FRAME WALL TO GIRDER TRUSS CONNECTION 2PLY & 3 PLY SHALL BE (2) HTS20 UP TO -2,610 UPLIFT, IF UPLIFT EXCEEDS THIS VALUE ENGINEER WILL PROVIDE CONNECTOR BASED ON FINAL ENGINEERED TRUSS PROFILES

FLOOR GIRDER TRUSSES TO MASONRY WALL SHALL BE A LGUM/HGUM CONNECTOR. FOR HGUM CONNECTOR HEIGHT SHALL MATCH GIRDER DEPTH. PROVIDE CLEARANCE FOR FLANGES TO ALL LEDGERS FOR CORRECT INSTALLATION

2 PLY GIRDER SHALL BE LGUM210-2-SDS ALLOWABLE LOADS -3575/9575  
3 PLY GIRDER SHALL BE HGUM5.5-SDS ALLOWABLE LOADS -4105/14,000  
4 PLY GIRDER SHALL BE HGUM7.25-SDS ALLOWABLE LOADS -4105/14,000

WHERE GIRDERS OCCUR AT THE END OF WALL CONNECTORS REQUIRE CONCEALED FLANGES AND MUST BE HGUM. 2 PLY  
GIRDERS WILL REQUIRE CUSTOM SOLUTIONS PROVIDED BY SIMPSON OR USP

CONTRACTOR REQUIRES CLARIFICATION OF ANY ITEM OR COMPONENT THEY SHALL PROVIDE FINAL ENGINEERED TRUSS DRAWINGS AND REQUEST CLARIFICATION IN WRITING FROM EOR

FOLLOW ALL MANUFACTURER INSTALLATION INSTRUCTIONS AND SPECIFICATIONS FOR ALL CONNECTIONS, NO EXCEPTIONS.

- ALL WIND LOAD CALCULATIONS AND DESIGN CRITERIA ARE BASED ON AN ENCLOSED STRUCTURE, ANY BREACH OF PENETRATION OF OPENINGS SUCH AS WINDOW, DOORS, GARAGE DOORS, ETC. DURING A STORM EVENT WILL COMPROMISE THE STRUCTURAL INTEGRITY. THEREFORE EITHER ALL OPENINGS MUST BE PROTECTED DURING THE EVENT OR THE DESIGNER MUST PROVIDE PROTECTION FOR THE OPENING. THERE SHALL BE IMPACT RESISTANT COVERING IN COMPLIANCE TO LARGE MISSILE TEST REQUIREMENT OF WINDOWS ASTM E 1886 AND ASTM E 1996 OR AAMA 506, DOORS ANSI/DMA 115 (GARAGE DOORS) OR TAS 201.2022 AND 203.
- ALL COMPONENTS AND CLADDING SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS AND MUST MEET OR EXCEED THE DESIGN PRESSURE SPECIFICATIONS.
- ALL SHEAR WALLS MUST TRANSFER LOADS TO FLOOR JOIST OR FOUNDATIONS.
- DIAPHRAGM SYSTEMS MUST BE ATTACHED TO END WALLS AND/OR SIDE WALLS.
- TRUSSES MUST BE CAPABLE OF TRANSFERRING LATERAL LOADS TO BEARING WALLS.
- TRUSSES, GIRDERS, AND BEAM TIE DOWNS ARE SIZED PER UPLIFT REQUIREMENTS.
- ALL PERIMETER WALLS SHALL BE CONSIDERED SHEAR WALLS EXCEPT AT DOOR AND WINDOW OPENINGS AND WALL LENGTHS LESS THAN 32'. NAILING PATTERN AND SPACING AT SHEATHING FOR SHEAR APPLY TO ALL EXTERIOR WALLS.
- ALL DIMENSIONS TO BE FIELD VERIFIED.
- DIMENSIONS FOR WINDOWS AND DOORS ARE GENERIC AND USED FOR DESIGN PURPOSES ONLY VERIFY ALL DOOR AND OPENINGS EXACT ROUGH OPENING SIZES WITH SPECIFIC MANUFACTURERS.
- ENGINEER ASSUMES NO RESPONSIBILITIES FOR ANY EXISTING CONDITIONS (U.N.O.)

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UP TO 4'	MIN (2) 2x12 W/ 1/2" PLYWOOD FLITCH	MIN (3) 2x12 W/ 1/2" PLYWOOD FLITCH
4'-0" TO 6'-0"	MIN (2) 2x12 W/ 1/2" PLYWOOD FLITCH	MIN (3) 2x12 W/ 1/2" PLYWOOD FLITCH
6'-0" TO 8'-0"	MIN (2) 2x12 W/ 1/2" PLYWOOD FLITCH	MIN (3) 2x12 W/ 1/2" PLYWOOD FLITCH
OVER 8'-0"	MIN 2 PCS OF 1 1/2" x 11 1/4" LVL BEAM	MIN 3 PCS OF 1 1/2" x 11 1/4" LVL BEAM

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2. ALL EXTERIOR FASTENERS INCLUDING NAILS, HANGERS, BOLTS ETC. ARE TO BE STAINLESS STEEL (SS) TYPE 316 OR CORROSION RESISTANT
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DESCRIPTION	ATTACHMENT	SUPPORT
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(1) 2 x 10 PT BOLTED TO BLOCK	1/4" x 3 1/2" TAPCON @ 8" O.C. STAGGERED	ROOF TRUSS @ MASS WALL

WALL SHEATHING 1 / 2" CDX OR 1 / 2" OSB BOARD

8d RING SHANK NAILS  
FIRST 36" AND END ZONES (ZONE 5)  
INTERIOR 4" C/C  
EDGES 3" C/C

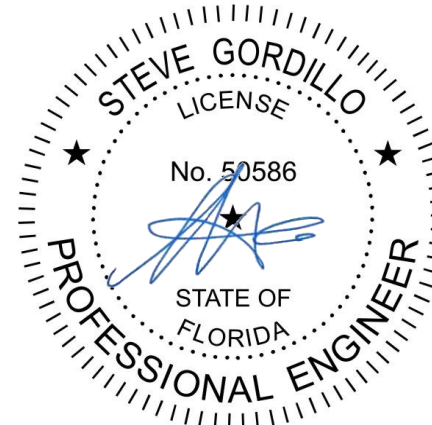
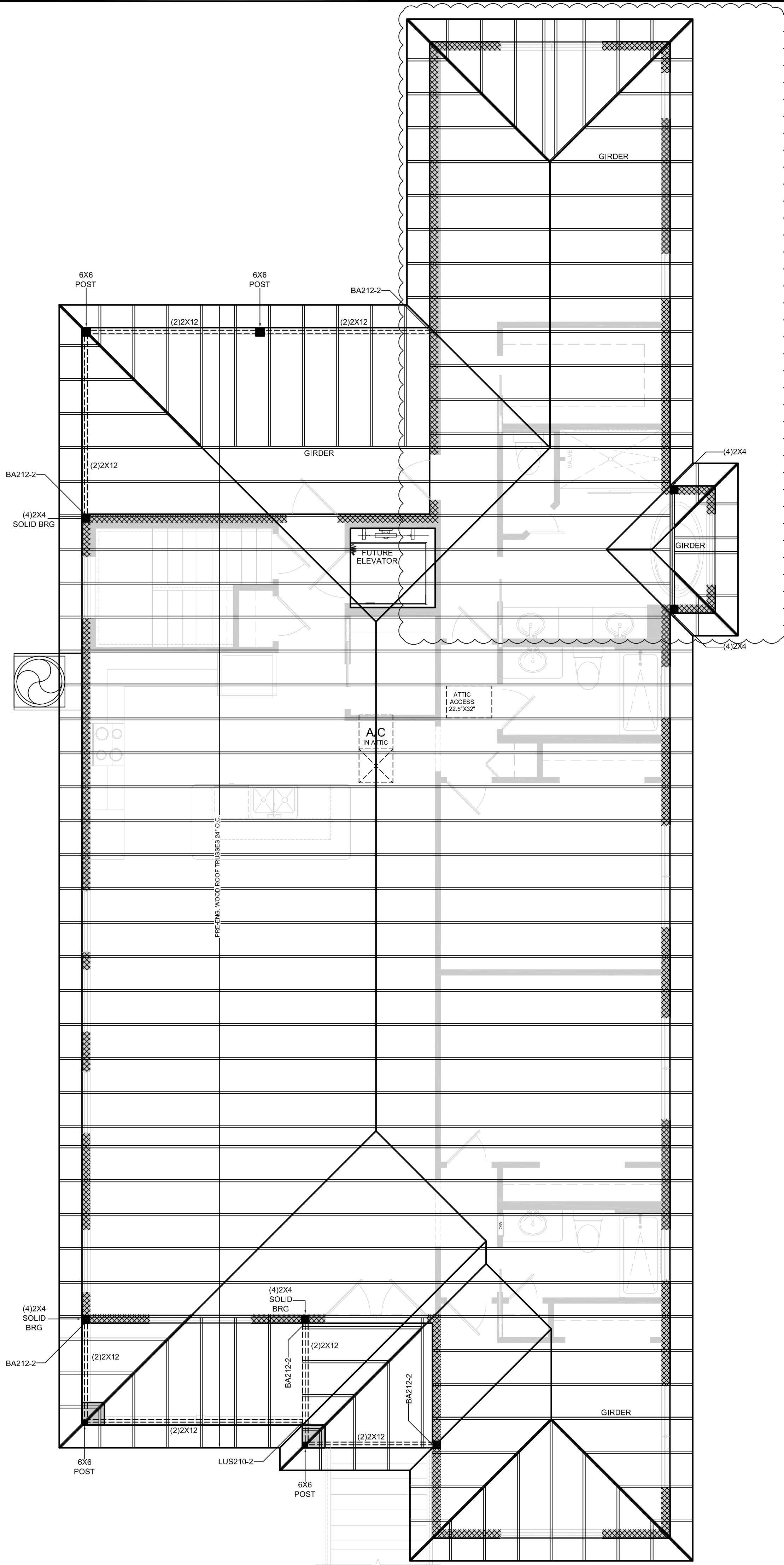
ROOF SHEATHING 5/8" CD

10d RING SHANK NAILS  
FIRST 36" AND END ZONES (ZONES 2 AND 3)  
INTERIOR 3" C/C  
EDGES 3" C/C

FIELD	INTERIOR	4" C/C
	EDGES	4" C/C

SP1 @ SOLE PLATE  
SP2 @ DBL TOP PLATE

SOLE PLATE TO FOUNDATION  
ANCHOR BOLTS MIN. DIA.  $\frac{5}{8}$ " AND 3"x3"x $\frac{1}{8}$ " WASHERS BE PROVIDED 6  
TO 12 INCHES OF EACH END PLATE. BOLTS SHALL HAVE A MIN. 7"  
EMBEDMENT AND NOT EXCEED 36" O.C.

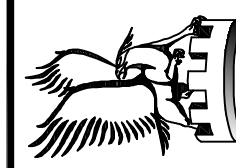


10/22/2024

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33X DESIGN, LLC  
77 CLIMBING IVY DR  
TAMPA, FL 33618  
(813) 928-8339  
FL C.A. #031107



**LAI - DO** BY **MORGANCASTLE STUDIOS,**

DATE	REVISION	DESIGNER
9-3-24	FINALS FOR PERMIT	CM
9-11-24	SWITCHED INSULATION TYPE	GM
10-11-24	REDESIGNED MASTER BATH	GM

MODEL: SCOTT  
 C.A.D. #: LAI-DO  
 SHEET  
 9  
 OF 10

## TRUSS LAYOUT

SCALE: 1/4" = 1'

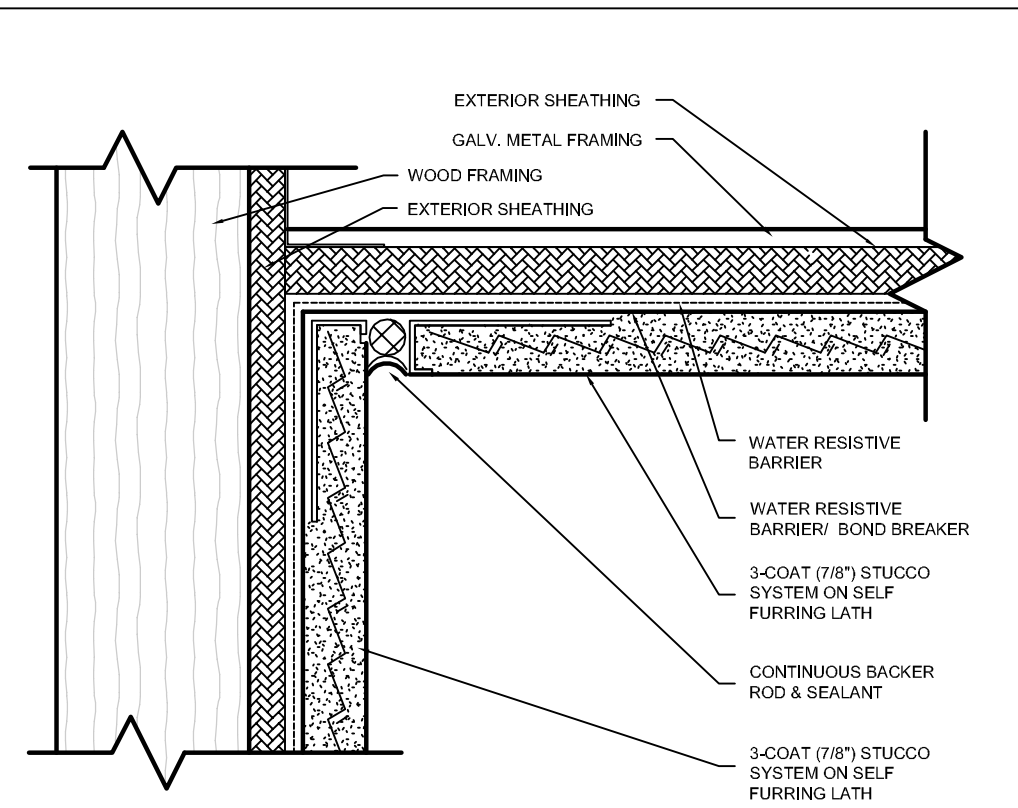


**STUCCO BEAD NAILING PATTERN**  
THE NAIL PATTERN FOR ALL STUCCO CORNER BEADS, 3/4" REVEAL JOINTS, FLOOR LEVEL CONTROL JOINTS, CONTROL JOINTS, INSIDE CORNERS AND OUTSIDE CORNERS SHALL BE NO MORE THAN 10" ON CENTER VERTICALLY AND HORIZONTALLY.

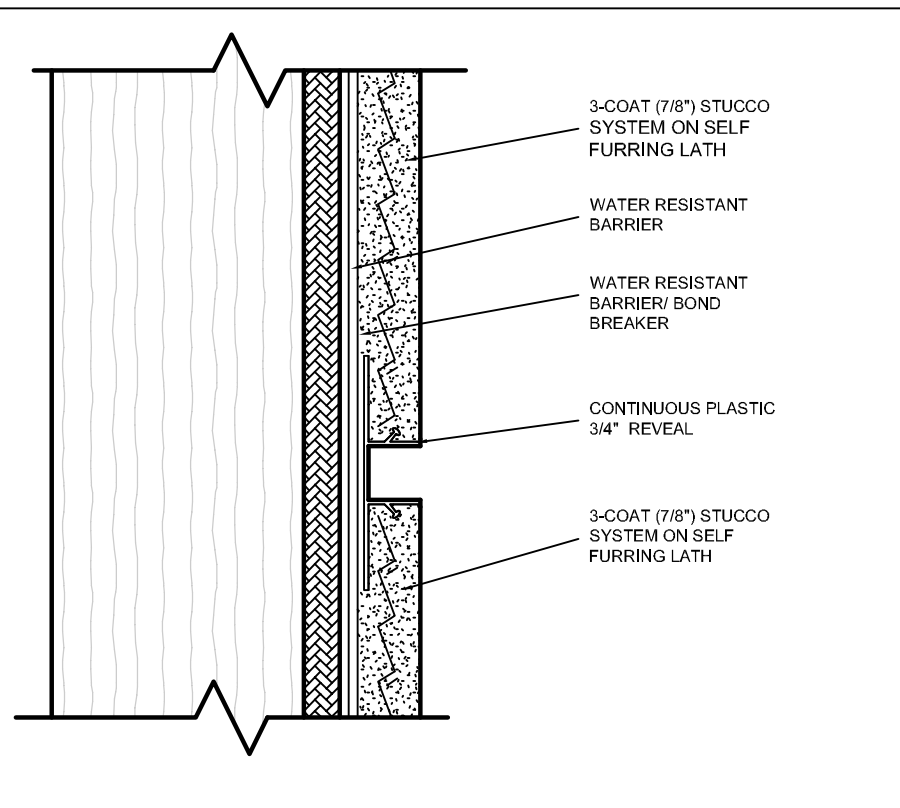
**METAL LATH FASTENERS**

1. INSTALLATION OF LATH TO BE ACCORDING TO ASTM C1063.
2. LATH SHALL BE FASTENED TO WOOD STRUCTURAL PANELS WITH CORROSION RESISTANT 1-3/8" LONG X 3/8" CROWN, 16 GAGE STAPLES DIRECT TO THE SHEATHING PANEL SPACED NOT MORE THAN 6-INCHES ON CENTER VERTICALLY AND HORIZONTALLY.
3. FASTENERS HAVE A WITHDRAWAL CAPACITY OF=90 PSF AND ARE ACCEPTABLE FOR WIND SPEEDS UP TO 170MPH, EXP "C".
4. THE STAPLE PATTERN FOR ALL STUCCO CORNER BEADS, 3/4" REVEAL JOINTS, FLOOR LEVEL CONTROL JOINTS, CONTROL JOINTS, INSIDE CORNERS AND OUTSIDE CORNERS SHALL BE NO MORE THAN 6" ON CENTER VERTICALLY AND HORIZONTALLY.

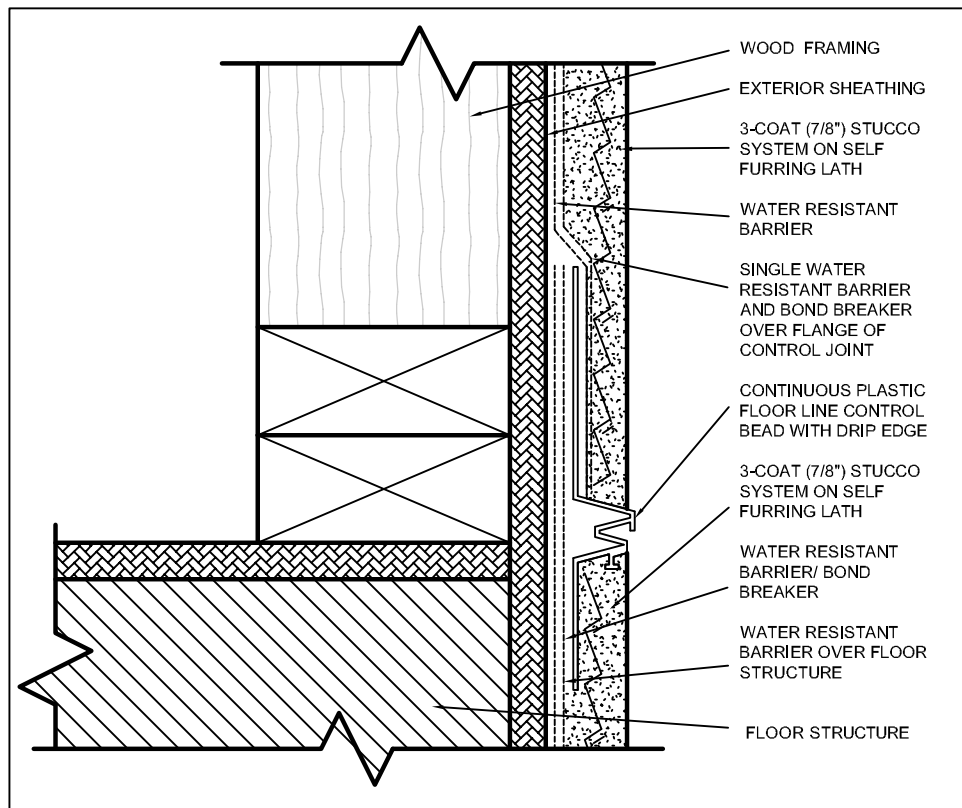
**STUCCO NOTES**



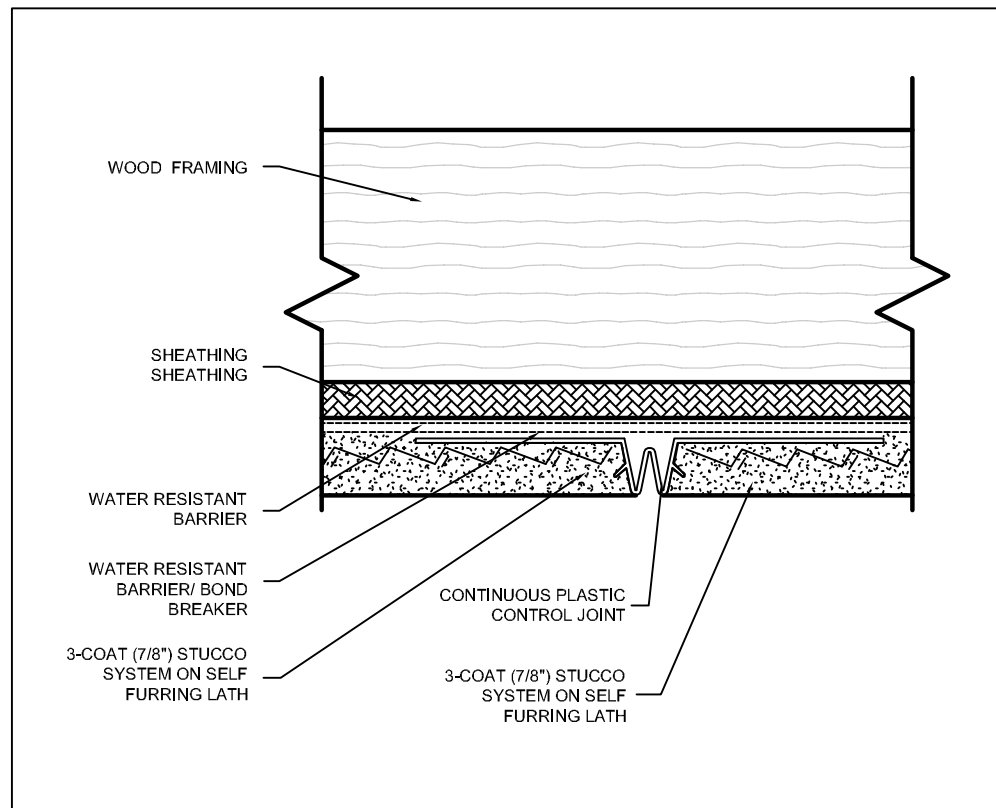
**STUCCO DETAIL - FRAME**  
SOFFIT TO WALL SCALE: NTS



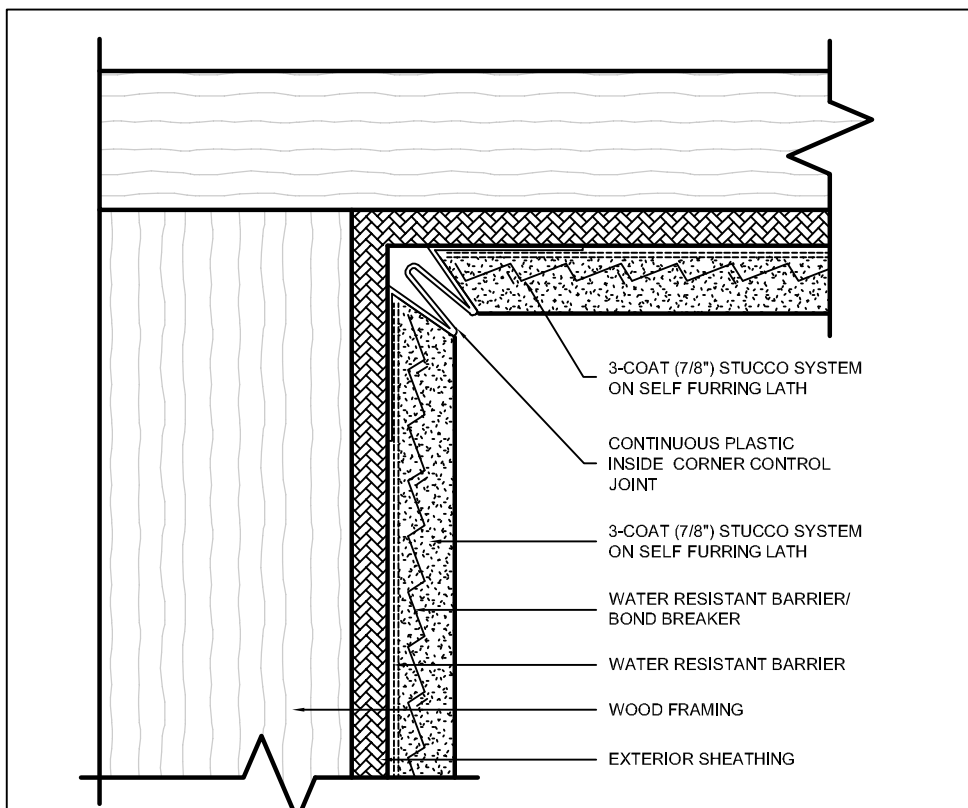
**STUCCO DETAIL - FRAME**  
3/4" REVEAL JOINT SCALE: NTS



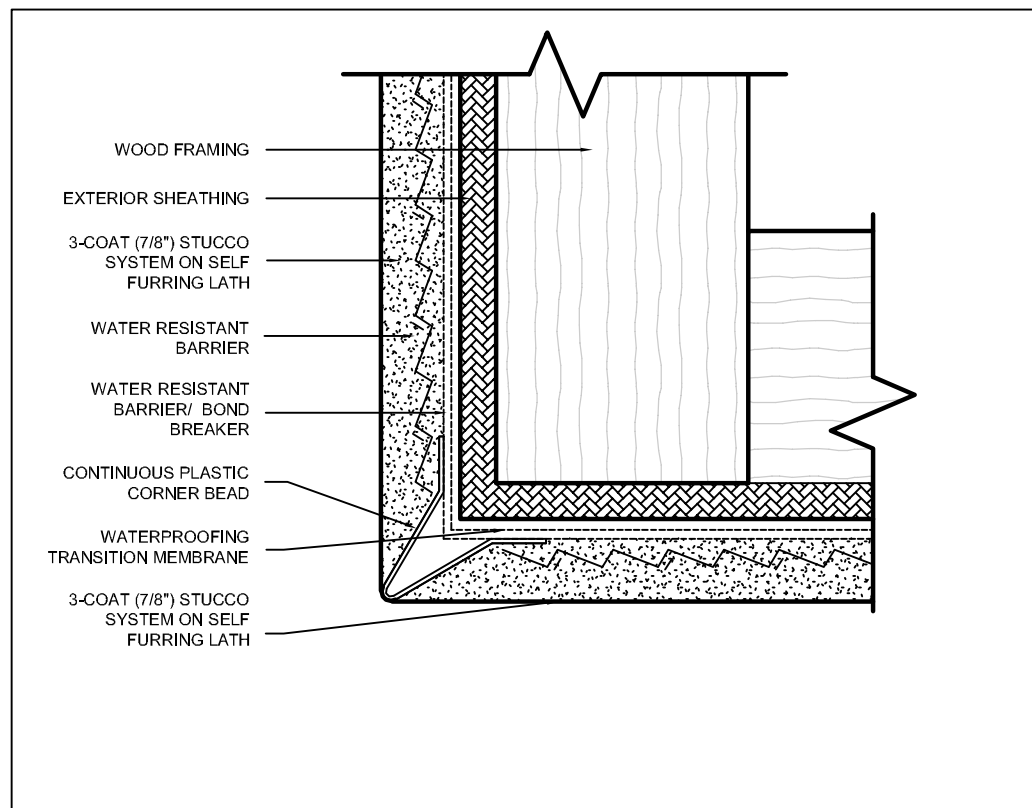
**STUCCO DETAIL - FRAME**  
FLOOR LEVEL CONTROL JOINT SCALE: NTS



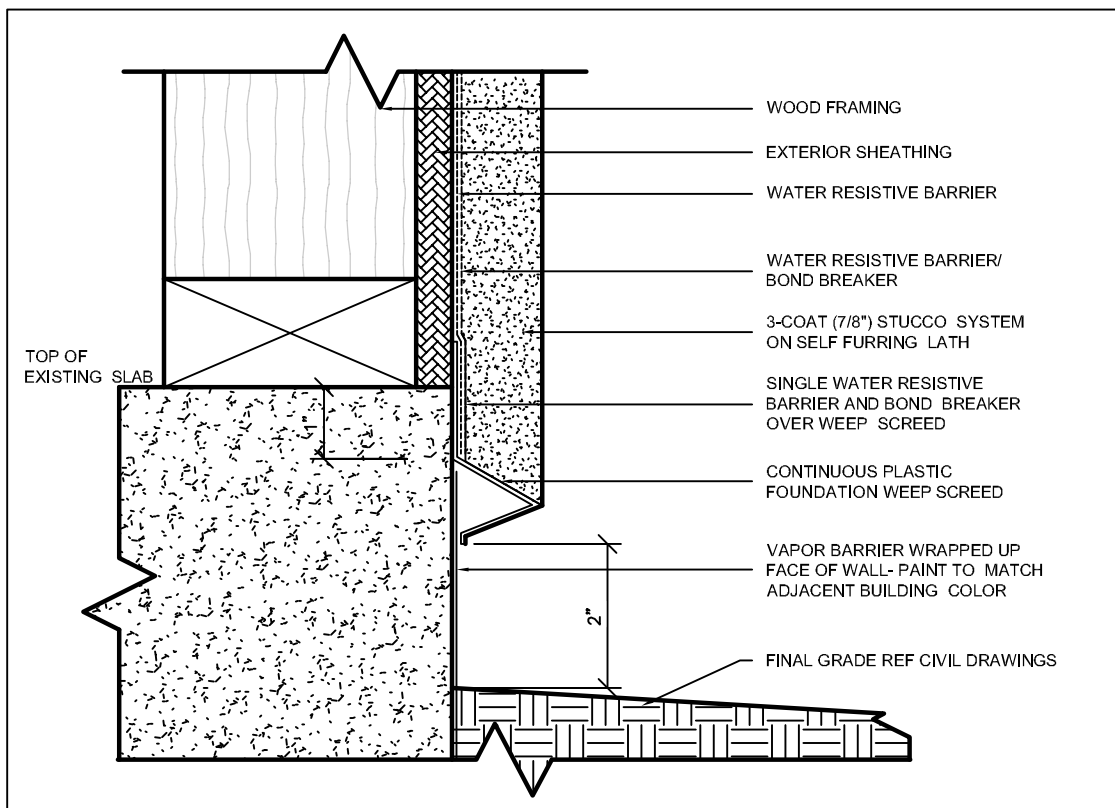
**STUCCO DETAIL - FRAME**  
TYPICAL CONTROL JOINT SCALE: NTS



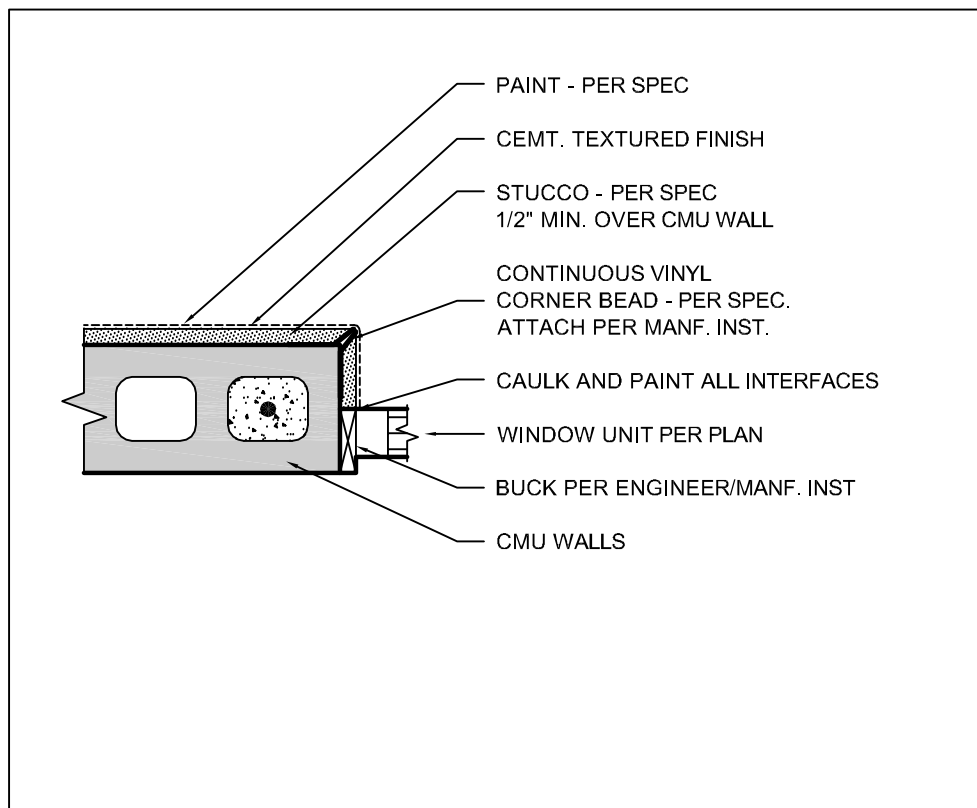
**STUCCO DETAIL - FRAME**  
TYPICAL INSIDE CORNER SCALE: NTS



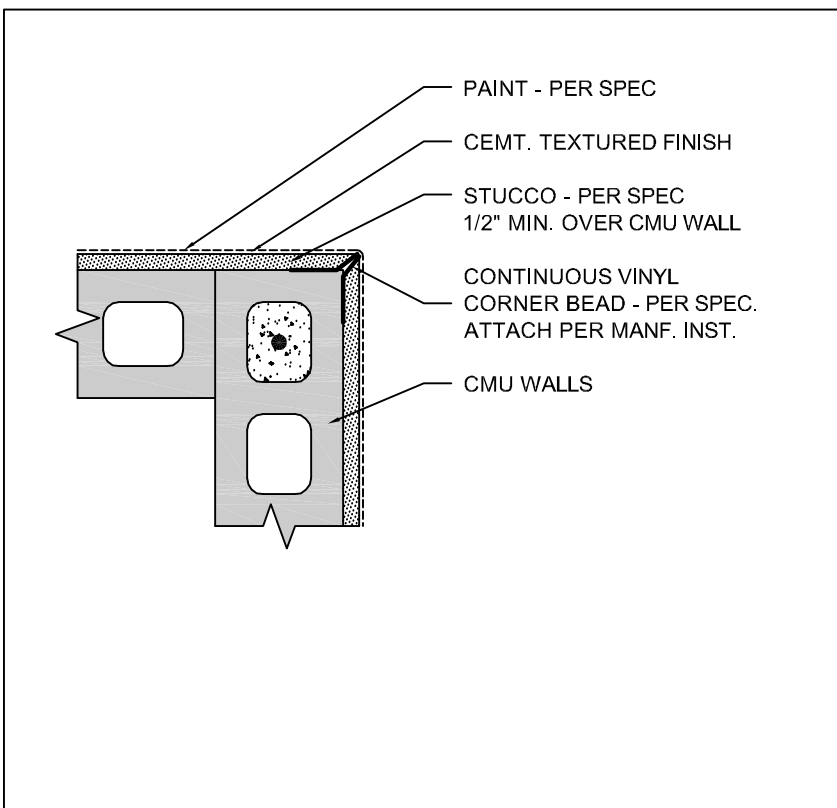
**STUCCO DETAIL - FRAME**  
TYPICAL OUTSIDE CORNER SCALE: NTS



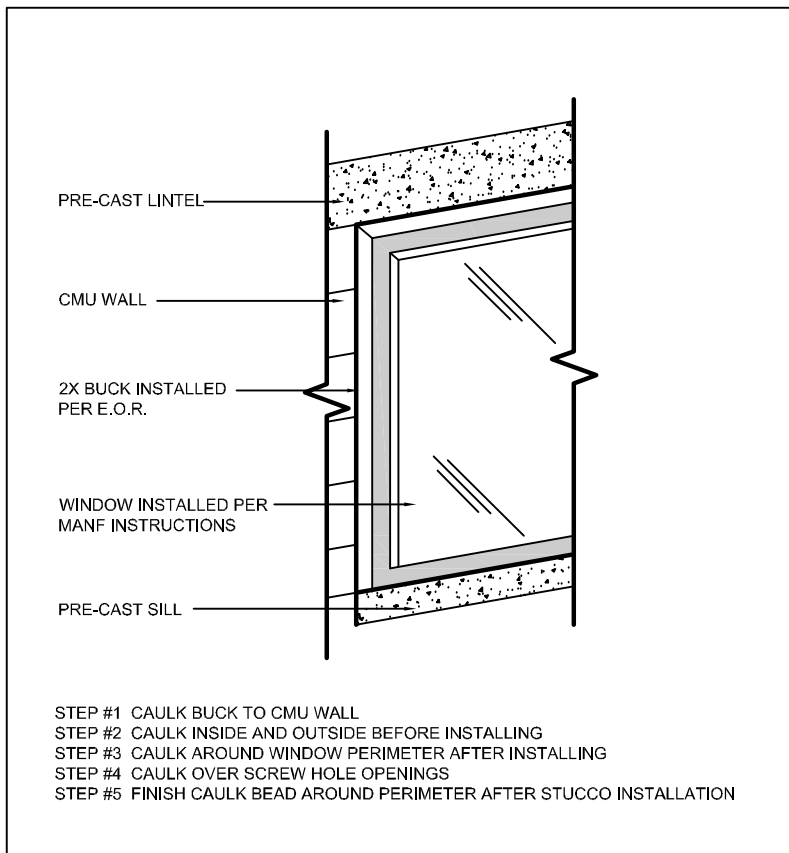
**STUCCO DETAIL - FRAME**  
TYPICAL GRADE DETAIL SCALE: NTS



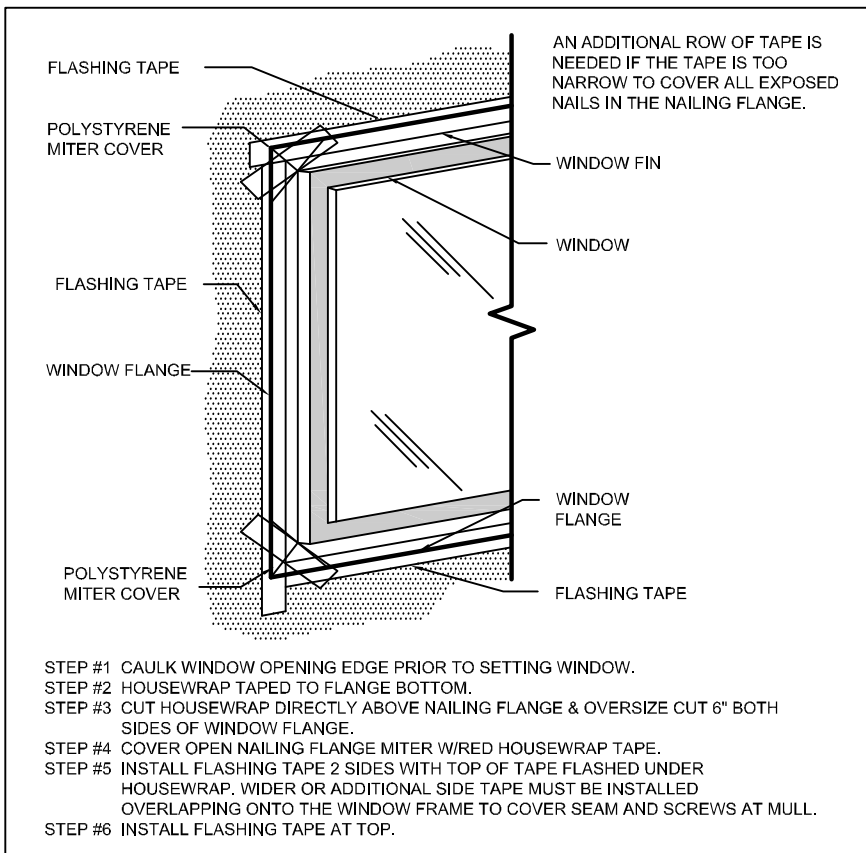
**STUCCO DETAIL - CMU WALLS**  
CORNER BEAD @ WINDOW RECESS SCALE: NTS



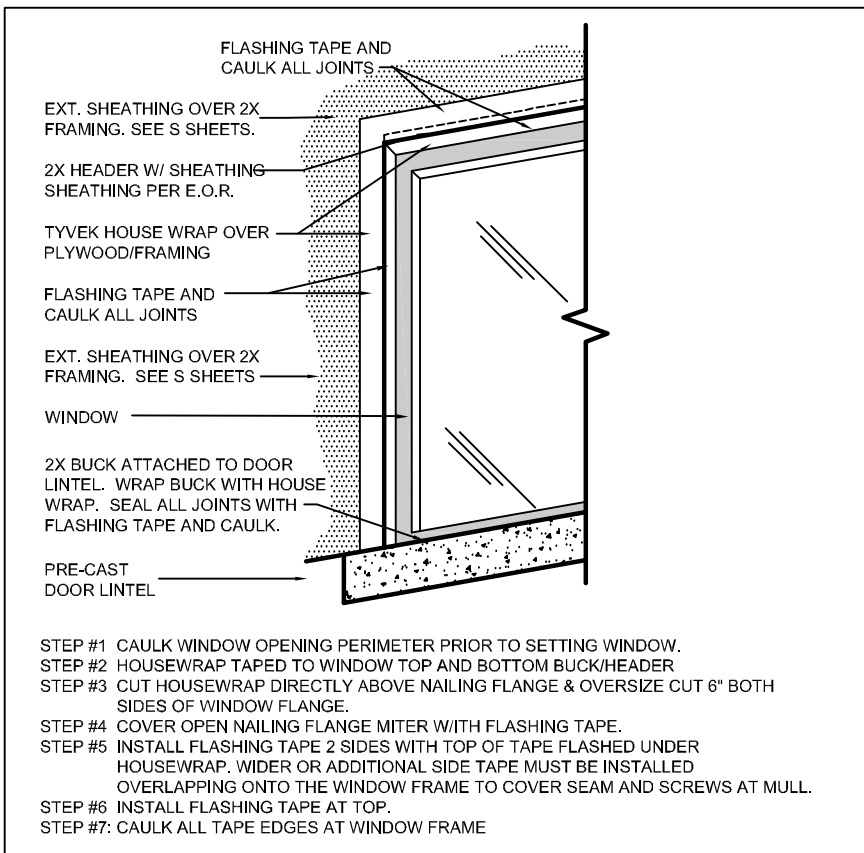
**STUCCO DETAIL - CMU WALLS**  
CORNER BEAD @ OUTSIDE CORNER SCALE: NTS



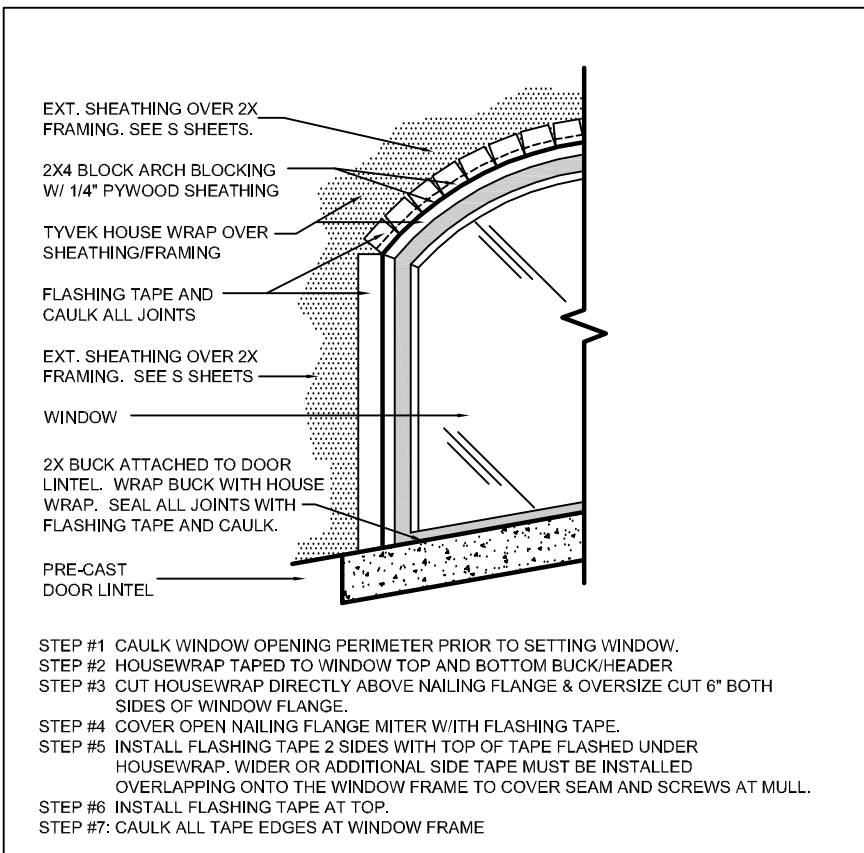
**CAULKING AT WINDOW FRAME**  
CMU BLOCK SCALE: NTS



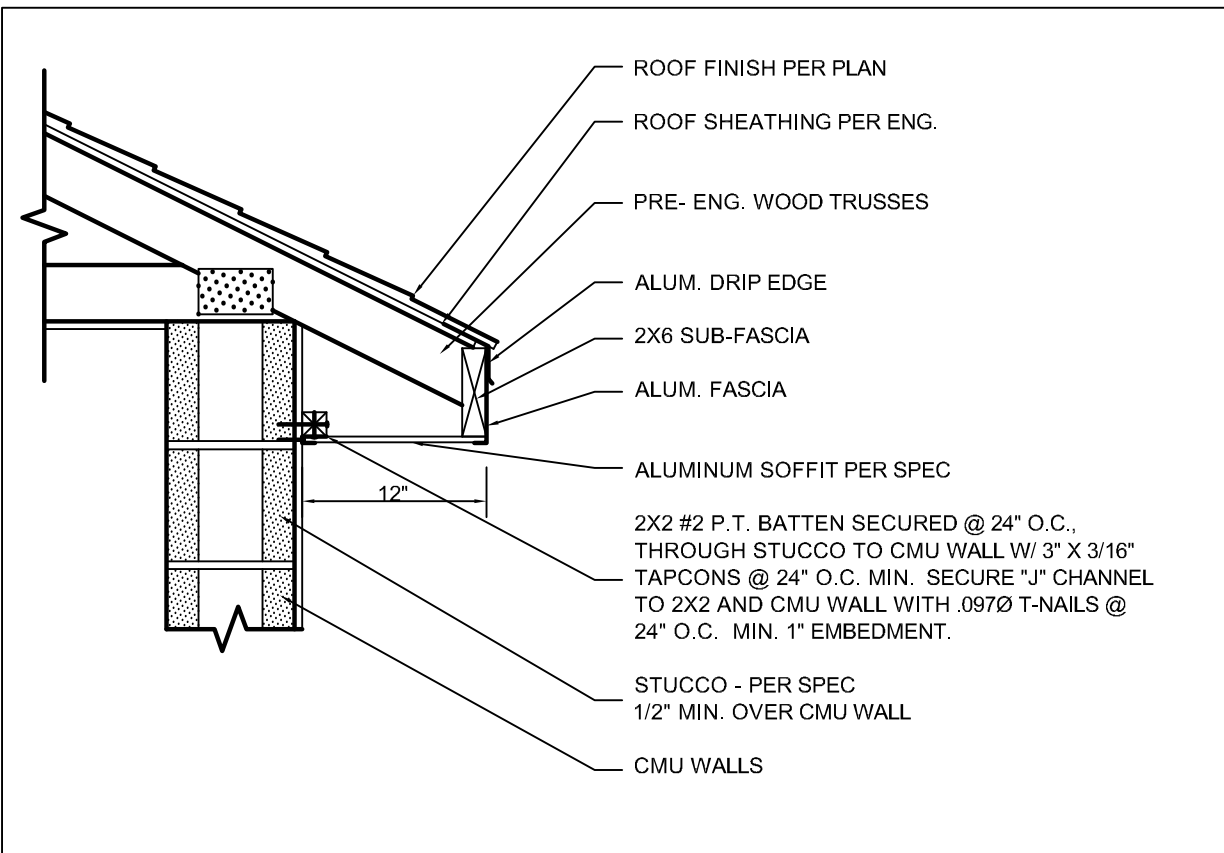
**FLASHING AT WINDOW FRAME**  
TYPICAL WINDOW IN FRAME WALL SCALE: NTS



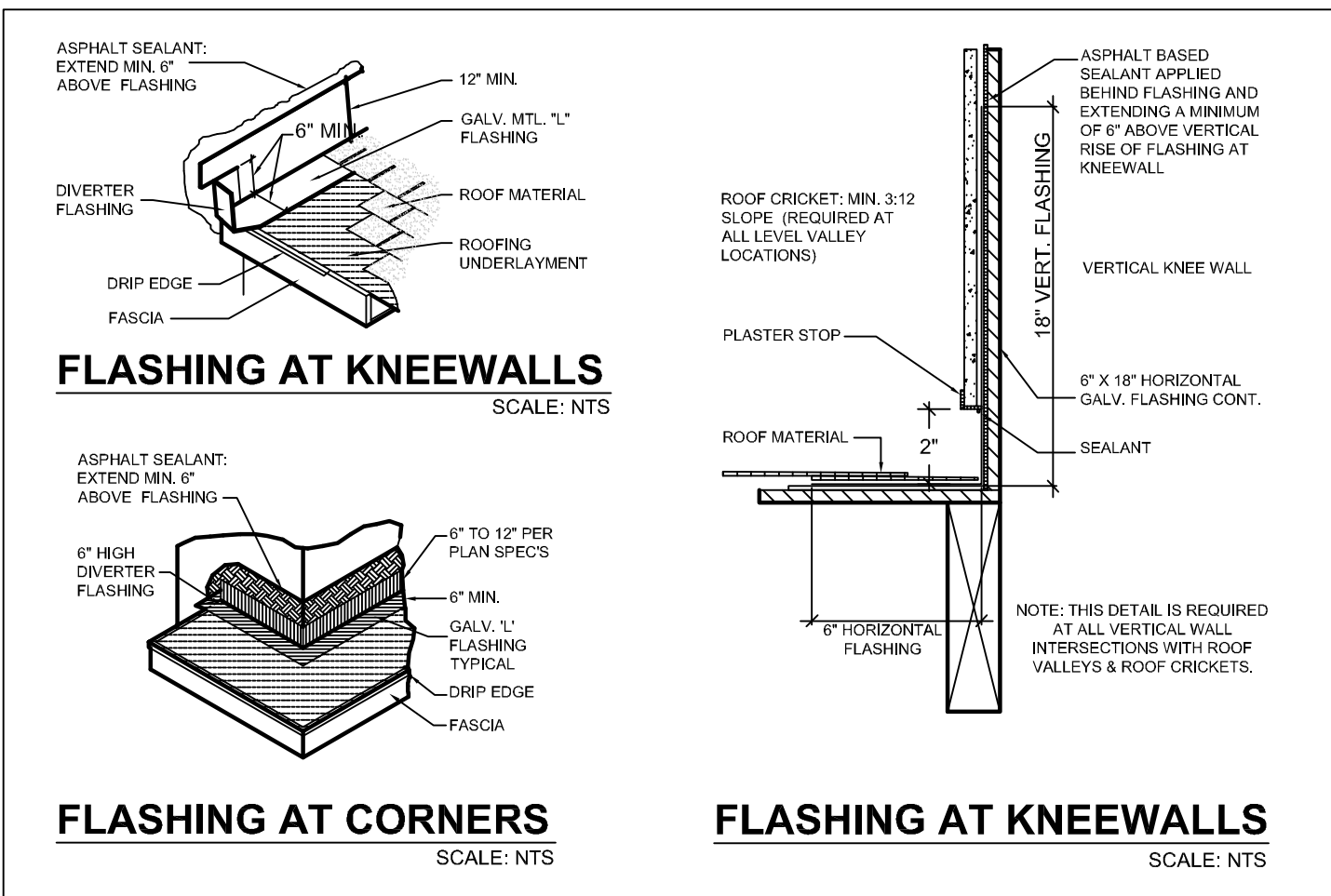
**FLASHING AT SQUARE WINDOW**  
ABOVE ENTRY DOOR SCALE: NTS



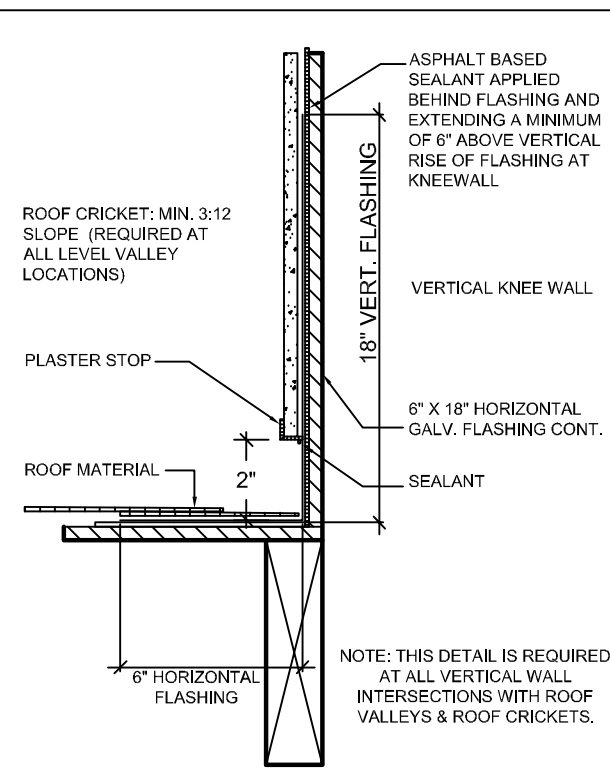
**FLASHING AT ARCHED WINDOW**  
ABOVE ENTRY DOOR SCALE: NTS



**STUCCO DETAIL - CMU WALLS**  
J CHANNEL OVER STUCCO @ SOFFIT SCALE: NTS



**FLASHING AT CORNERS**  
SCALE: NTS



**FLASHING AT KNEEWALLS**  
SCALE: NTS

THIS SHEET IS NOT COVERED UNDER  
ENGINEER'S SEAL AND IS OUTSIDE  
ENGINEER'S SCOPE OF WORK.

**LAI - DO** BY **MORGANCASTLE STUDIO,**

LOT: 5 DEV: TAMPA COUNTY: HILLSBOROUGH  
LEGAL: 12133 STATE ST PLAN STATUS: FINALS FOR PERMIT

DATE	REVISION	DESIGNER
9-3-24	9-11-24	CM
		GM
		GM

MODEL: SCOTT  
C.A.D. #: LAI-DO

SHEET  
**10**  
OF 10

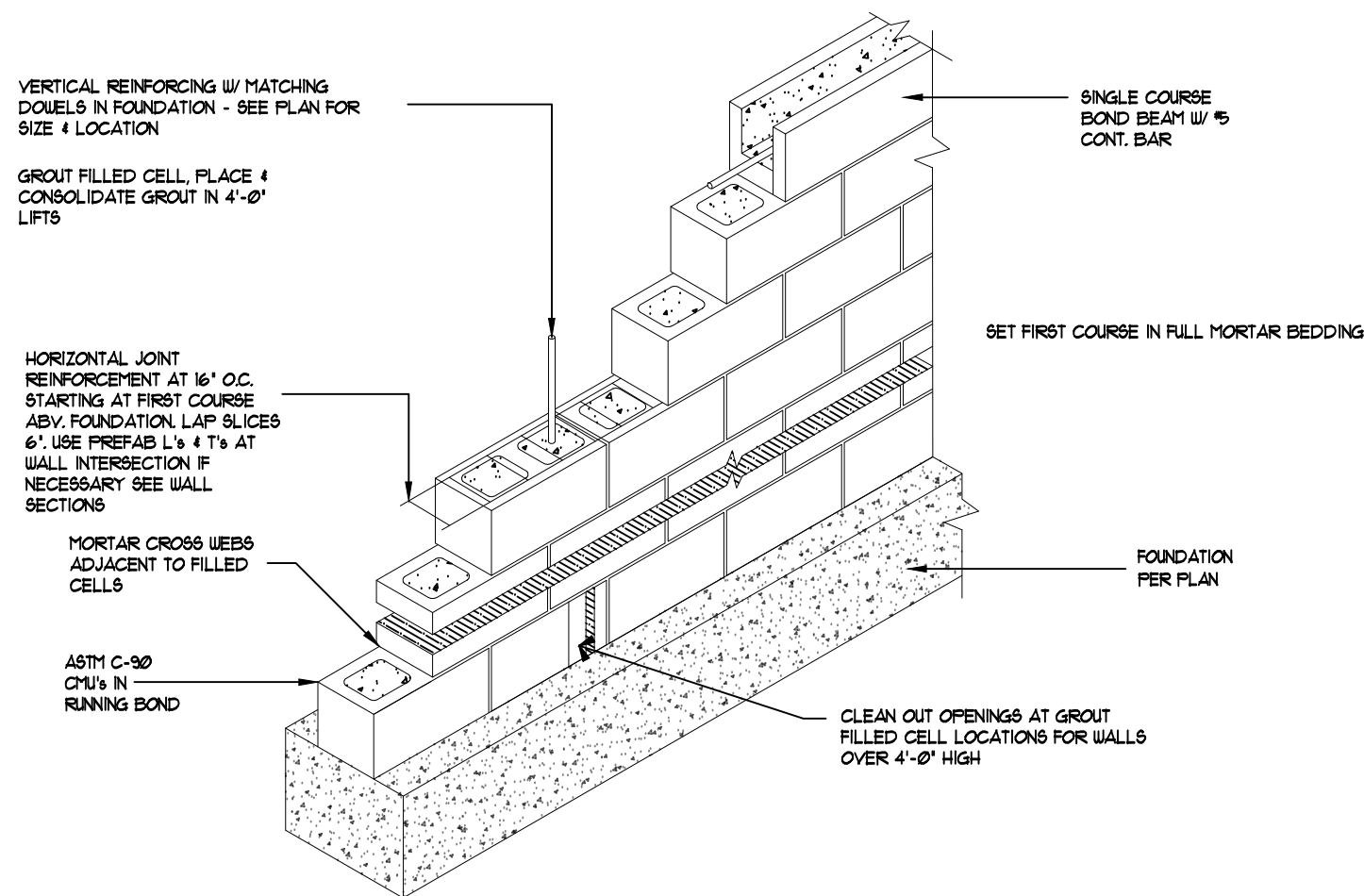
**DETAILS**

SCALE: 1/4" = 1'

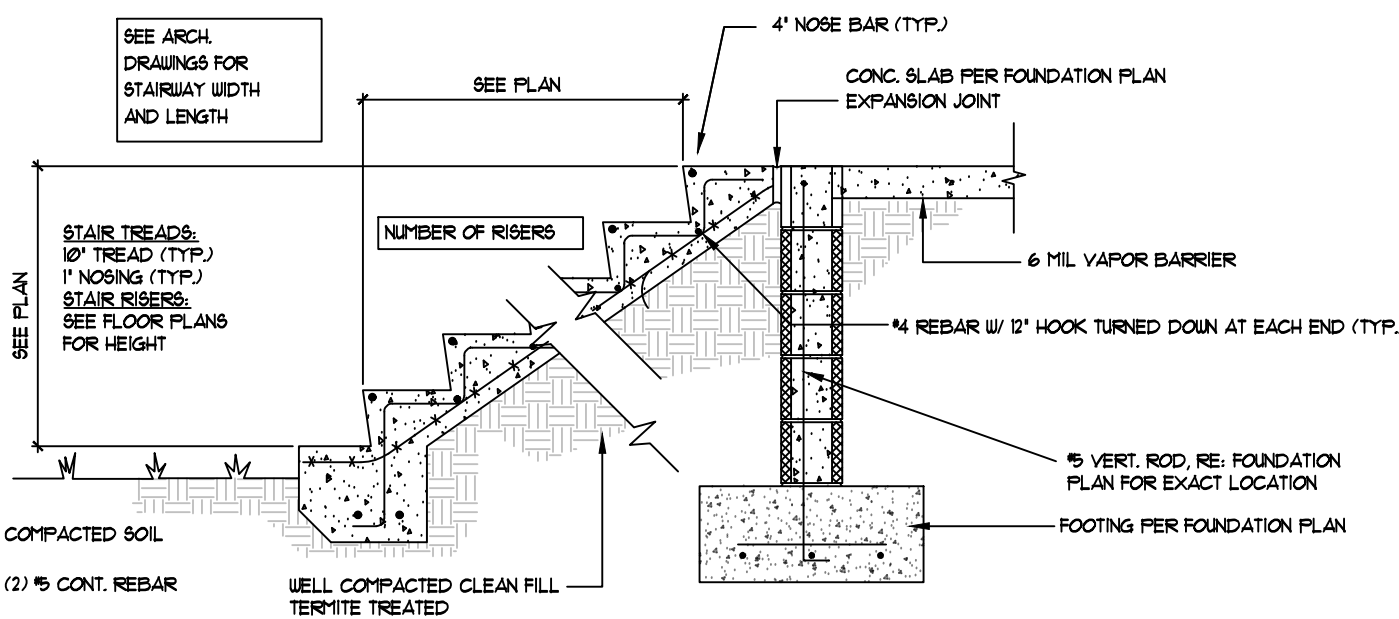




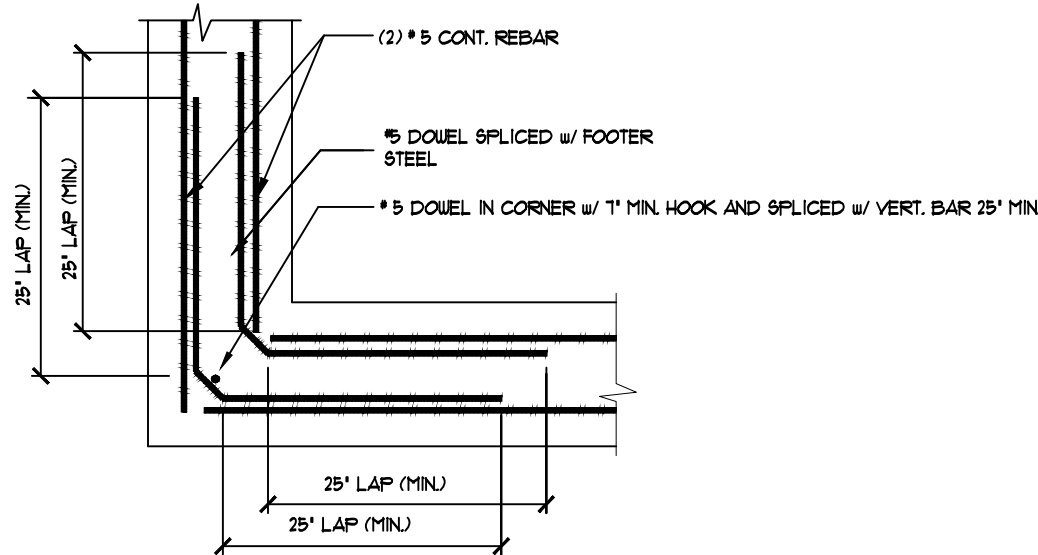




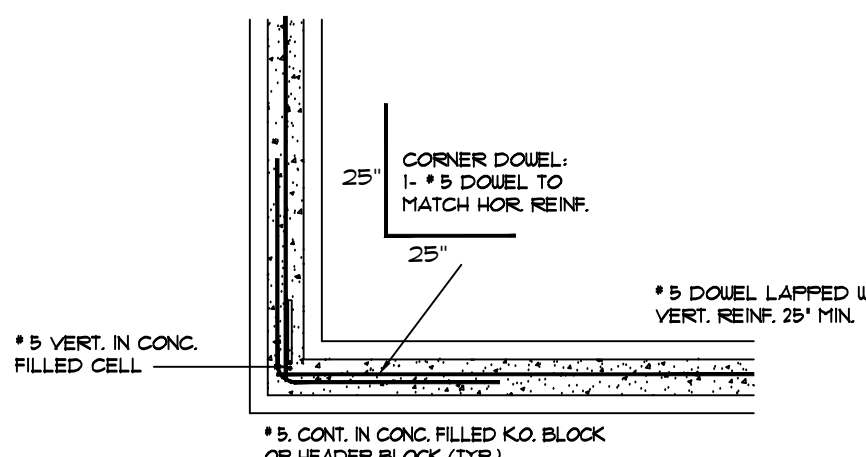
TYPICAL CMU REINFORCEMENT DETAIL



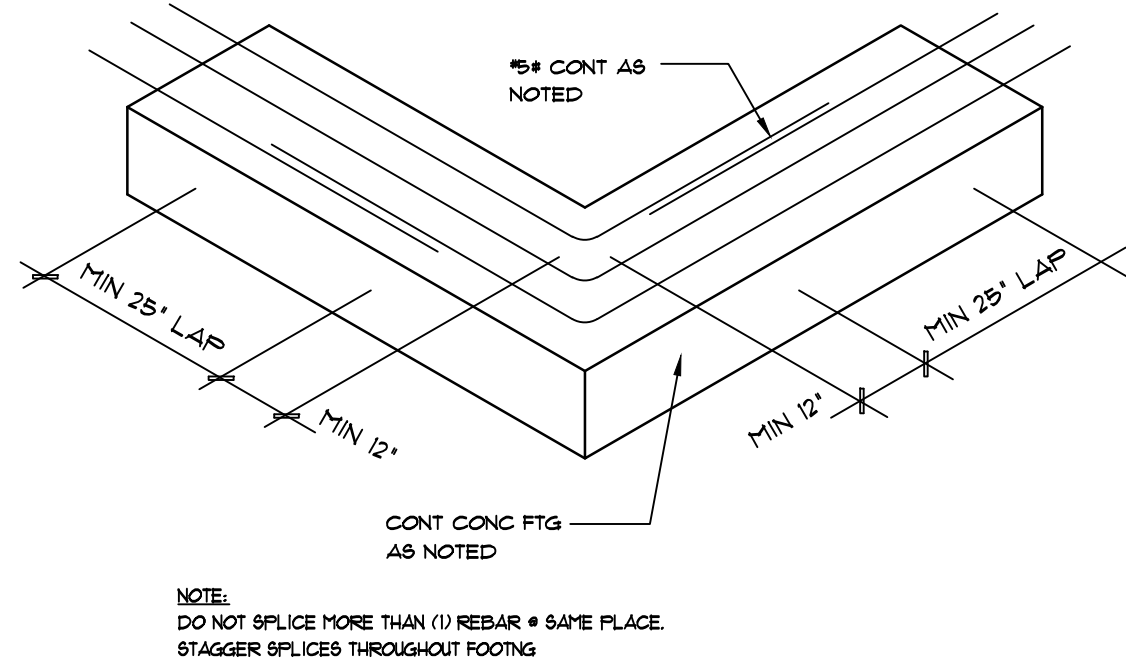
TYPICAL CONCRETE STEPS ON GRADE



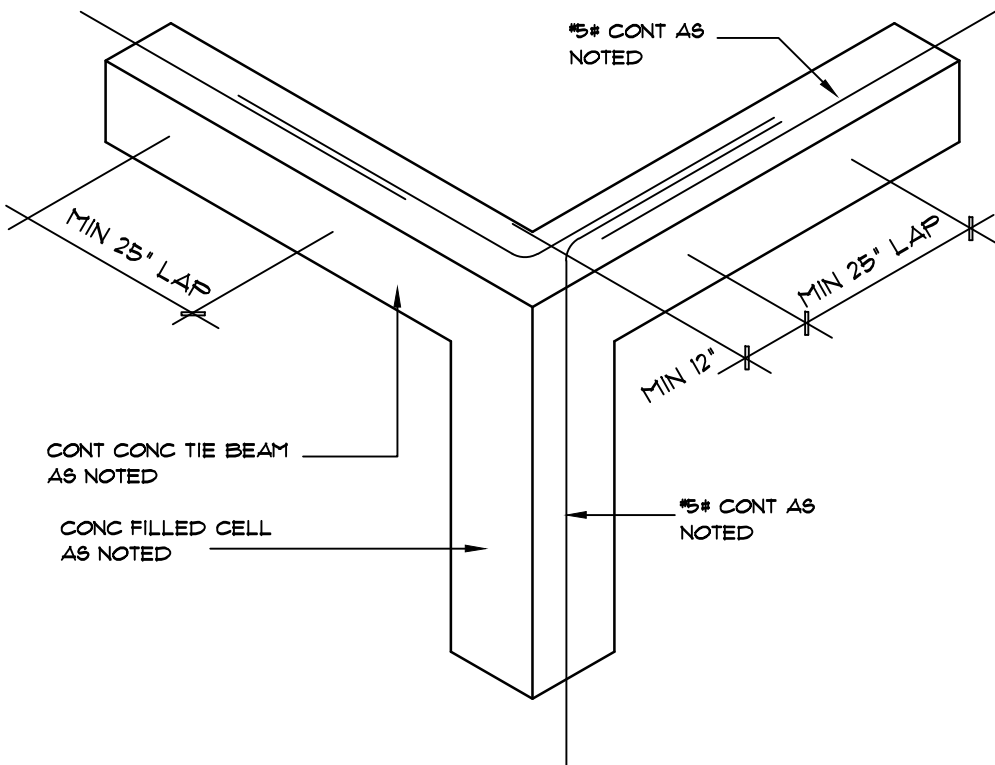
FOOTER CORNER REINFORCEMENT DETAIL



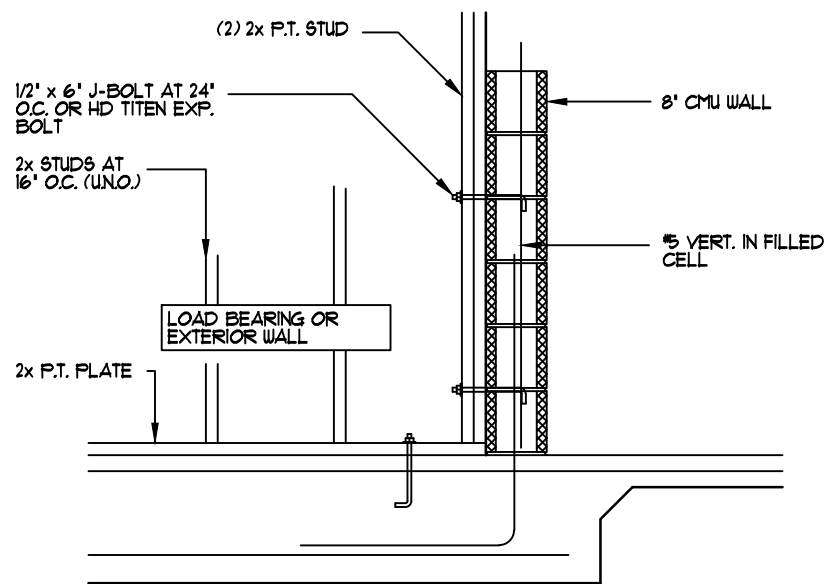
STEMWALL CORNER REINFORCEMENT DETAIL



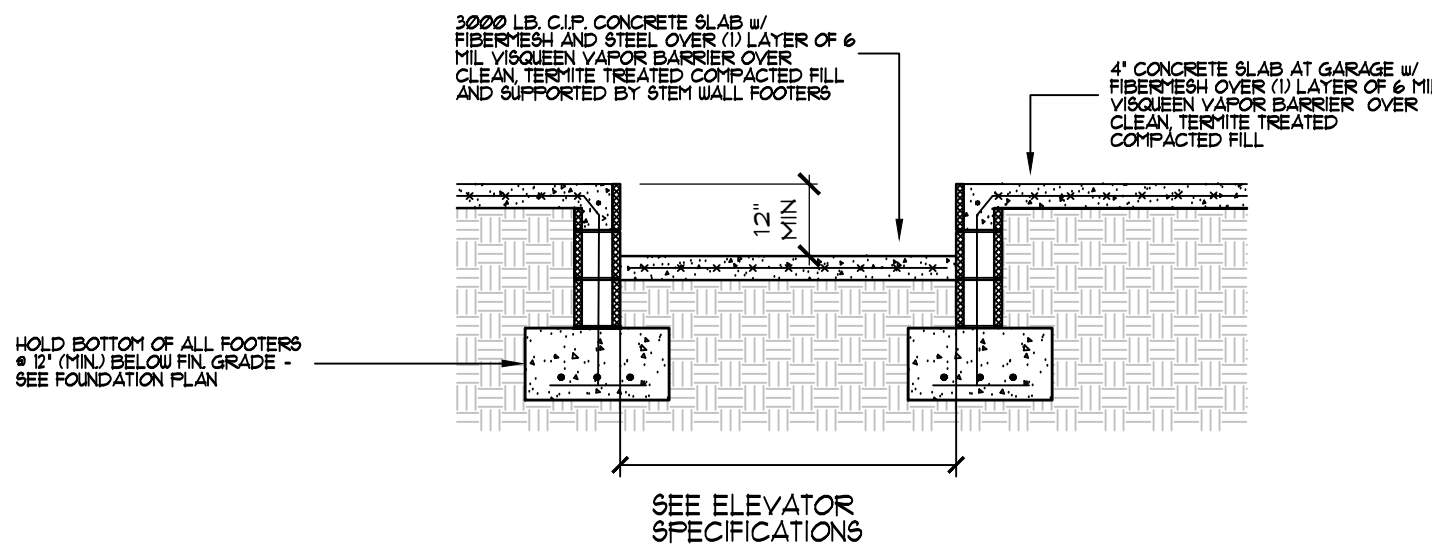
DETAIL (CONTINUITY OF FOOTING STEEL)



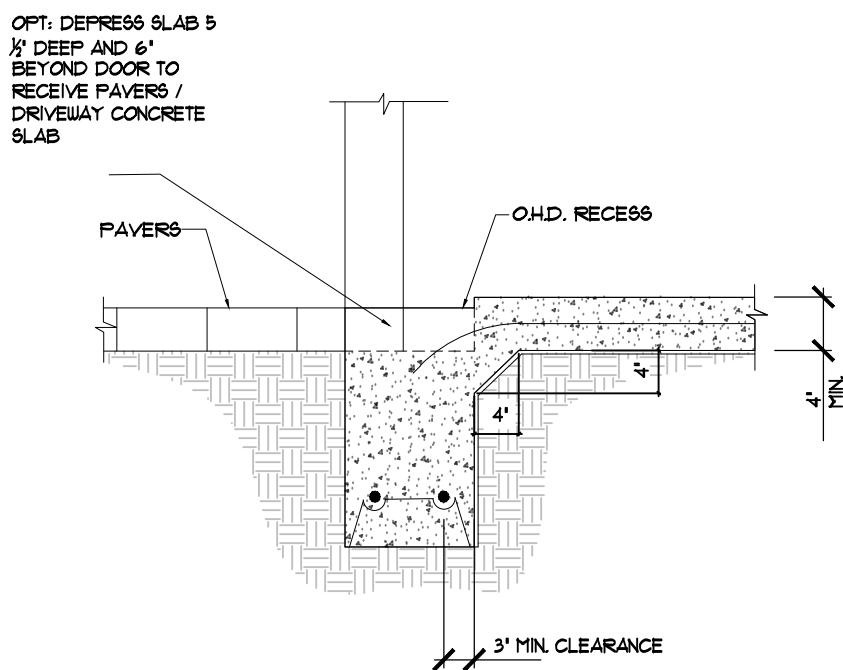
DETAIL (CONTINUITY OF BEAM STEEL)



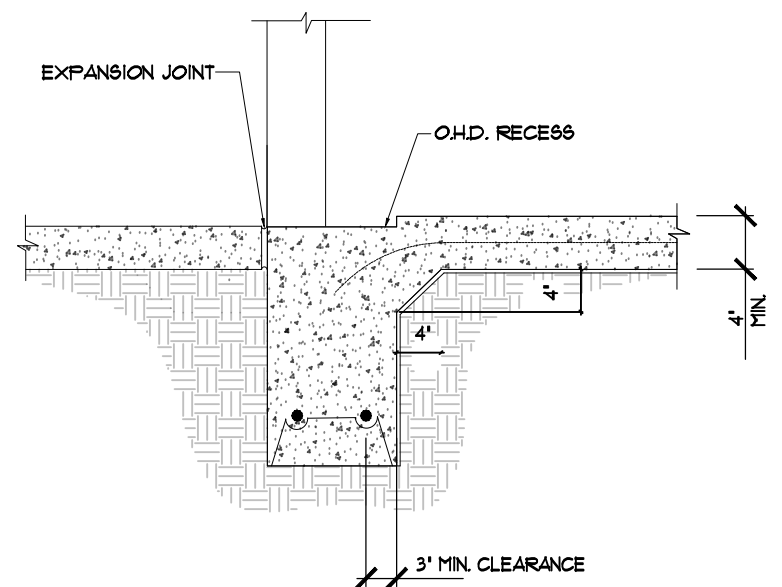
FRAME WALL TO MASONRY WALL DETAIL



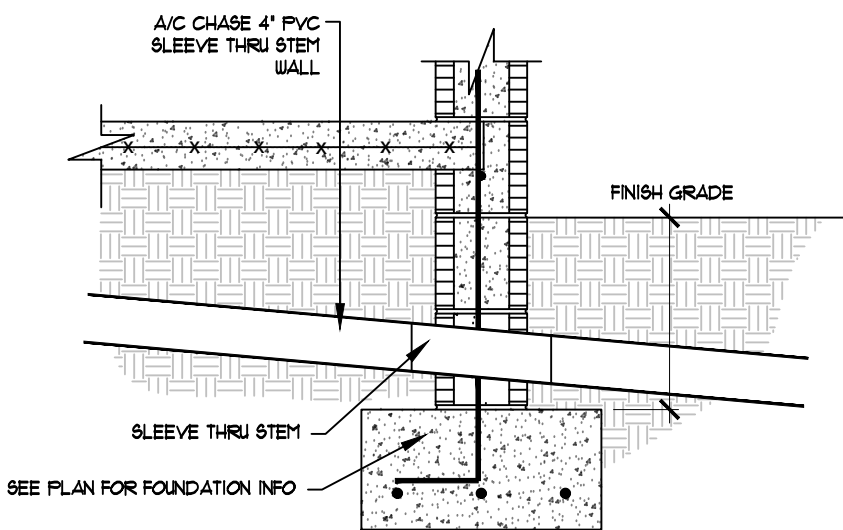
ELEVATOR PIT DETAIL



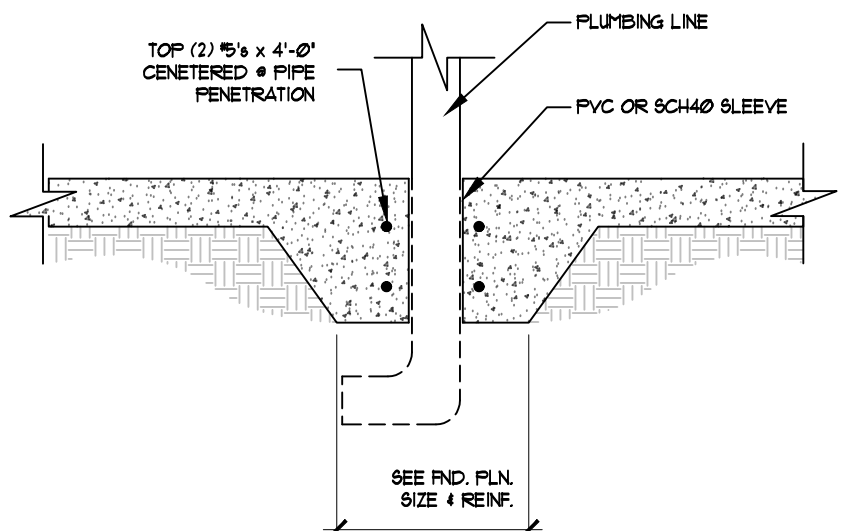
GARAGE DOOR SLAB RECESS



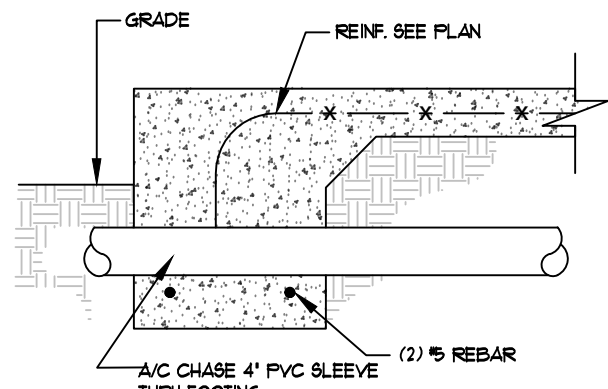
GARAGE DOOR SLAB RECESS



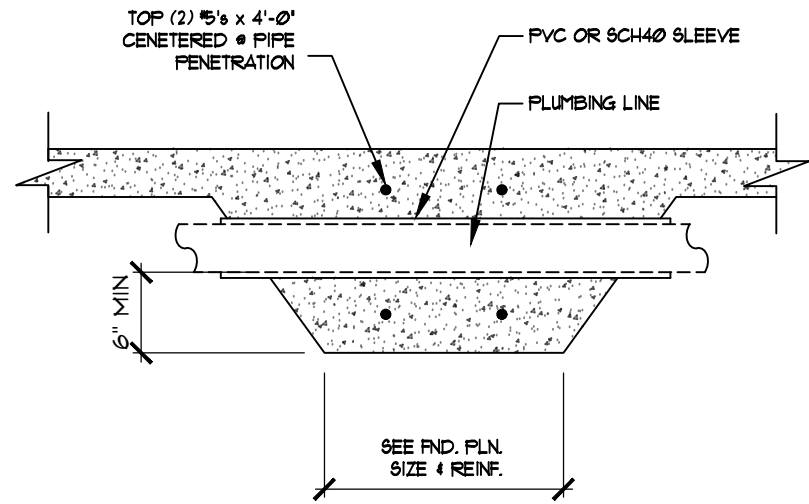
STEM FOUNDATION



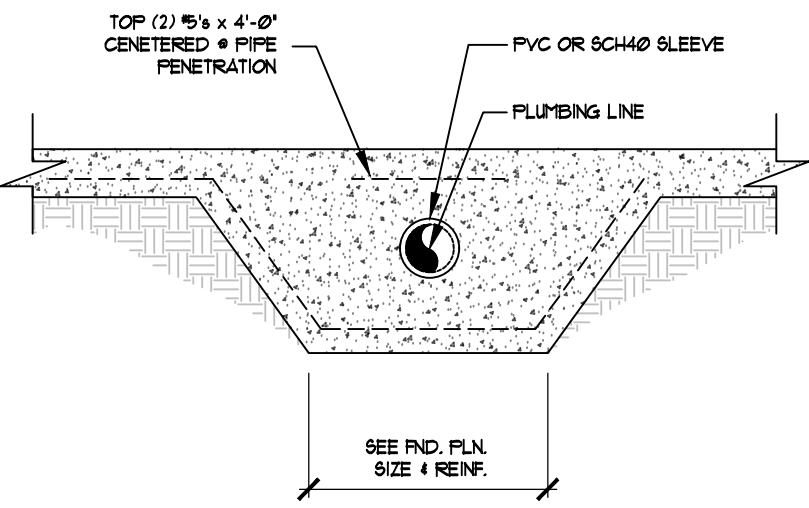
PIPE VERTICAL THRU FOUNDATIONS



MONO FOUNDATION



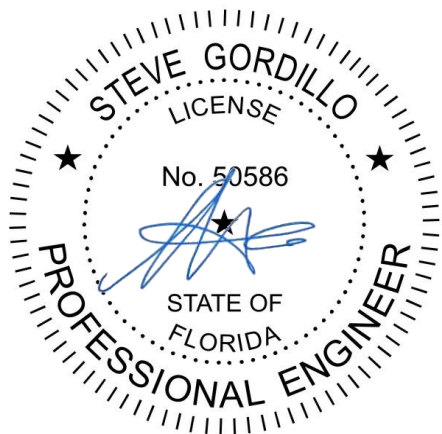
PIPE PERPENDICULAR TO FND.



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DATE

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S-2



STRUCTURAL WIND DESIGN CRITERIA

FLORIDA BUILDING CODE 2023 AND ASCE 7-22

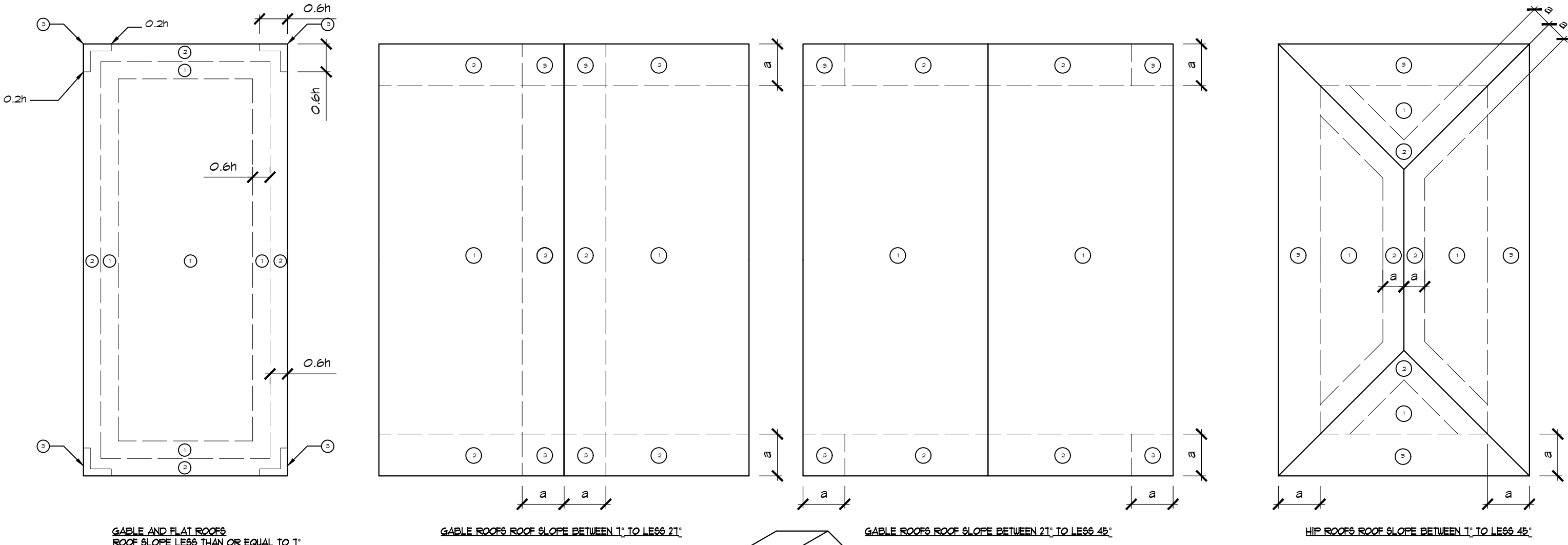
AS DEFINED IN ASCE 7-22 THIS STRUCTURE MEETS THE REQUIREMENTS OF AN ENCLOSED STRUCTURE IN WIND DEBRIS REGION AND HAS BEEN DESIGNED WITH AN INTERNAL PRESSURE COEFFICIENT OF 0.18 AND -0.18.

COMPONENT AND CLADDING DESIGN PRESSURE SHOWN ABOVE ARE VULT MUST BE CONVERTED TO ASD FOR PRODUCT APPROVAL PURPOSES

BASIC WIND SPEED	150 MPH
RISK FACTOR	II
EXPOSURE CATEGORY	C
WIND DIRECTIONALITY FACTOR	0.85
TOPOGRAPHIC FACTOR	1.0
GROUND ELEVATION FACTOR	1.0
VELOCITY PRESSURE EXPOSURE COEFFICIENT	0.575
INTERNAL PRESSURE COEFFICIENT	ENCLOSED +/- 0.18
STRUCTURE HEIGHT	35'
BUILDING HEIGHT ADJUSTMENT FACTOR	1.05

ALL WINDOWS AND DOORS ABOVE DFE MUST BE IMPACT RESISTANT AND MEET A MINIMUM DESIGN PRESSURE OF +35.7/-47.0 PSF (ASD VALUE) EXPOSURE C @ 150 MPH FOR WALL ZONE 4 & 5

GARAGE DOORS SHALL MEET A MINIMUM DESIGN PRESSURE OF +33.5/-35.4 PSF (ASD)



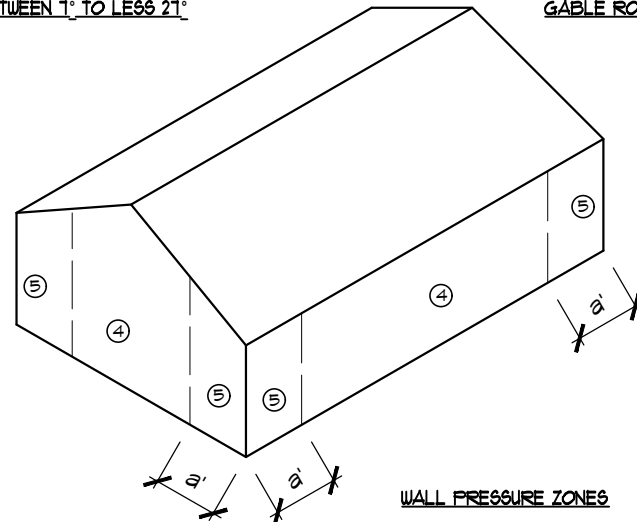
GABLE AND FLAT ROOFS  
ROOF SLOPE LESS THAN OR EQUAL TO 1:12

GABLE ROOFS ROOF SLOPE BETWEEN 1:12 TO LESS 2:12

GABLE ROOFS ROOF SLOPE BETWEEN 2:12 TO LESS 4:12

HIP ROOFS ROOF SLOPE BETWEEN 1:12 TO LESS 4:12

Zone	Effective Wind Area SQ FT	Basic Wind Speed 150 MPH
4	10	35.2
	20	33.6
	50	31.5
	100	30.0
	10	35.2
5	20	33.6
	50	31.5
	100	30.0
	10	35.2
	20	33.6



WALL PRESSURE ZONES

FLAT ROOF TO 1°	GABLE 1° TO 20°	GABLE 20° TO 21°	GABLE 21° TO 45°
DESIGN WIND PRESSURE (PSF)	DESIGN WIND PRESSURE (PSF)	DESIGN WIND PRESSURE (PSF)	DESIGN WIND PRESSURE (PSF)
Zone	Effective Wind Area	Effective Wind Area	Effective Wind Area
1°	10	14.4	22.2
	20	13.5	32.2
	50	12.2	43.9
	100	11.3	56.1
	10	14.4	65.1
2°	20	13.5	52.2
	50	12.2	64.9
	100	11.3	80.0
	10	14.4	94.8
	20	13.5	112.8
3°	50	12.2	128.8
	100	11.3	158.8
	10	14.4	178.8
	20	13.5	214.8
	50	12.2	254.8
4°	100	11.3	314.8
	10	14.4	354.8
	20	13.5	414.8
	50	12.2	494.8
	100	11.3	594.8

NOTES  
DESIGN PRESSURES ABOVE REPRESENT THE NET PRESSURE (SUM OF EXTERNAL AND INTERNAL PRESSURES) APPLIED NORMAL TO ALL SURFACES. COMPONENT MANUFACTURER SHALL USE THE HIGHER OF THE TWO NUMBERS FOR APPLICABLE SQUARE FOOTAGE.

DESIGN WIND PRESSURE (PSF)	DESIGN WIND PRESSURE (PSF)	DESIGN WIND PRESSURE (PSF)	DESIGN WIND PRESSURE (PSF)
Zone	Effective Wind Area	Effective Wind Area	Effective Wind Area
1	10	26.2	59.2
	20	22.6	82.2
	50	18.0	105.2
	100	14.4	128.2
	10	26.2	151.2
2	20	22.6	174.2
	50	18.0	207.2
	100	14.4	240.2
	10	26.2	263.2
	20	22.6	286.2
3	50	18.0	319.2
	100	14.4	352.2
	10	26.2	375.2
	20	22.6	398.2
	50	18.0	431.2

UPLIFTS ARE NOT ANTICIPATED TO EXCEED 1,810 FOR TRUSSES AND 4,750 FOR GIRDER TRUSSES, UPON REVIEW OF FINAL TRUSS DRAWINGS PROVIDED BY THE TRUSS COMPANY. IF ANY VALUES EXCEED THESE STATED VALUES, PLEASE NOTIFY ENGINEER IN WRITING PRIOR TO CONSTRUCTION

UPLIFT STRAPS FOR COMMON TRUSSES SHALL BE HETA20 UPLIFT VALUE 1,810

UPLIFT STRAPS FOR GIRDER TRUSSES SHALL BE 2 PLY GIRDER TRUSS (2) HETA20 STRAPS = 3,620 OR MGT IF UPLIFT EXCEEDS 3,620  
3 PLY GIRDER TRUSS MGT = 4,365 OR HGT-3 IF UPLIFT EXCEEDS 4,365

IF UPLIFT VALUES EXCEEDS THESE VALUES PLEASE NOTIFY ENGINEER IN WRITING PRIOR TO CONSTRUCTION

CONNECTOR NOTES:  
UNLESS NOTED OTHERWISE

ALL MASONRY TO TRUSS CONNECTIONS SHALL BE HETA20 EMBEDDED STRAP UPLIFT VALUE -1,810

ALL MASONRY TO GIRDER TRUSSES CONNECTION 2PLY # 3 PLY SHALL BE (2) HETA20 EMBEDDED STRAP -1,810

ALL FRAME WALL TO TRUSS CONNECTIONS SHALL BE HTS20 UPLIFT VALUE -1,310

ALL FRAME WALL TO GIRDER TRUSS CONNECTION 2PLY # 3 PLY SHALL BE (2) HTS20 UP TO -2,610 UPLIFT, IF UPLIFT EXCEEDS THIS VALUE ENGINEER WILL PROVIDE CONNECTOR BASED ON FINAL ENGINEERED TRUSS PROFILES

CONTRACTOR REQUIRES CLARIFICATION OF ANY ITEM OR COMPONENT THEY SHALL PROVIDE FINAL ENGINEERED TRUSS DRAWINGS AND REQUEST CLARIFICATION IN WRITING FROM EOR

FOLLOW ALL MANUFACTURER INSTALLATION INSTRUCTIONS AND SPECIFICATIONS FOR ALL CONNECTIONS, NO EXCEPTIONS.

BUILDER RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS OF INSTALLING CONNECTORS

PEEL AND STICK REQUIREMENT (R905.2.7)

ENTIRE ROOF DECK SHALL BE COVERED WITH AN APPROVED SELF-ADHERING POLYMER MODIFIED BITUMEN SHEET MEETING ASTM D 1970 OR AN APPROVED SELF-ADHERING SYNTHETIC UNDERLAYMENT INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTION

MAINTAIN CONTINUITY OF ATTIC INSULATION AT SOFFIT PER CODE REQUIREMENT.

PRE-ENGINEERED WOOD ROOF TRUSSES @ 24" O.C.  
SEE ENGINEERING IV SIMPSON HTS20 CONNECTOR.

DIMENSIONAL F.G. SHINGLES  
(SEE MANUFACTURER'S INSTALLATION INSTRUCTION & TEST DATA)  
OVER 5/8" CDX PLYWOOD SHEATHING.

SEE ARCHITECTURAL DETAILS FOR SPECIFIC OVERHANGS AND SOFFIT DETAILS. CONDITION DEPICTED IS A GENERAL STRUCTURAL CONDITION

2x6 STUDS @ 16" O.C. W/ R-19 MIN F.G. INSULATION WITH 1/2" ZIP SYSTEM WALL SHEATHING PER NAILING SCHEDULE TYPICAL @ ALL EXTERIOR FRAME WALLS.

DECORATIVE CEMENTITIOUS FINISH 3 COATS 5/8" FINISHED THICKNESS STUCCO SHALL BE IN COMPLIANCE WITH ASTM C426, ASTM C1063 AND PROVISIONS R102.1.1 THRU R103.1.5 SEE ELEVATIONS FOR EXACT FINISH

F.F.E. = 17.5' NAVD

MSTAM36 STRAP @ 32" O.C.

D.F.E. 13.00' NAVD

B.F.E. 12.00' NAVD. AE-12

DECORATIVE CEMENTITIOUS FINISH 3 COATS 5/8" FINISHED THICKNESS STUCCO SHALL BE IN COMPLIANCE WITH ASTM C426, ASTM C1063 AND PROVISIONS R102.1.1 THRU R103.1.5 SEE ELEVATIONS FOR EXACT FINISH

4"x4" INSPECTION PORT AT FILLED CELL

12" DEEP x 24" WIDE 3000 PSI CONC FOOTER W/ 3-#5s

ALL BUILDING MATERIALS BELOW THE DESIGN FLOOD ELEVATION MUST BE FLOOD DAMAGE-RESISTANT PER FEMA 782-AUGUST 2008 ONLY CLASS 4 AND CLASS 5 MATERIALS ARE ACCEPTABLE FOR AREAS BELOW THE DESIGN FLOOD ELEVATION (DFE).

MATERIALS THAT ARE NOT FLOOD DAMAGE-RESISTANT MATERIALS, SUCH AS WIRING FOR FIRE ALARMS AND EMERGENCY LIGHTING, ARE ALLOWED BELOW THE DFE IF SPECIFICALLY REQUIRED TO ADDRESS LIFE SAFETY AND ELECTRIC CODE REQUIREMENTS FOR BUILDING ACCESS AND STORAGE AREAS.

FRAMING NOTES:  
1. ALL WOOD FRAMING EXPOSED TO THE EXTERIOR OR IN CONTACT WITH MASONRY OR CONCRETE IS TO BE PRESSURE TREATED (PT).  
2. ALL EXTERIOR FASTENERS INCLUDING NAILS, HANGERS, BOLTS ETC. ARE TO BE STAINLESS STEEL (SS) TYPE 316.  
3. ALL INTERIOR FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER INCLUDING NAILS, HANGERS, BOLTS ETC. ARE TO BE HOT DIPPED GALVANIZED (HDG) G105.

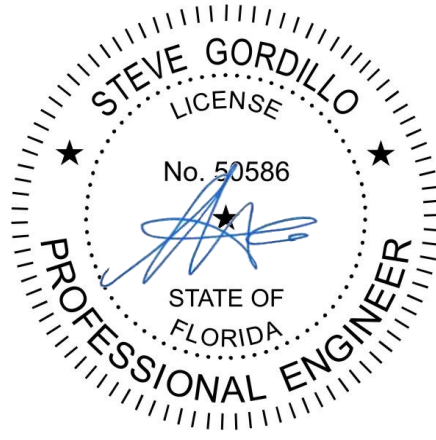
ALL DIMENSIONS TO BE FIELD VERIFIED.  
DIMENSIONS FOR WINDOWS ARE "GENERIC" AND USED FOR DESIGN PURPOSES ONLY. VERIFY ALL WINDOW OPENINGS WITH WINDOW MANUFACTURER FOR EXACT ROUGH OPENING SIZES  
ALL PERIMETER WALLS ARE TO BE CONSIDERED SHEAR WALLS EXCEPT AT DOOR AND WINDOW OPENINGS AND WALL LENGTHS LESS THAN 2'-8". NAILING PATTERN AND SPACING AT SHEATHING FOR SHEAR APPLY TO ALL EXTERIOR WALLS

SHEATHING NAILING SCHEDULE
WALL SHEATHING 1/2" ZIP SYSTEM
10d RING SHANK NAILS
FIRST 36" AND END ZONES (ZONE 3)
INTERIOR 4" C/C
EDGES 3" C/C
FIELD INTERIOR 6" C/C
EDGES 6" C/C
ROOF SHEATHING 15/32" 10d RING SHANK NAILS
FIRST 36" AND END ZONES (ZONES 2 AND 3)
INTERIOR 3" C/C
EDGES 3" C/C
FIELD INTERIOR 6" C/C
EDGES 6" C/C

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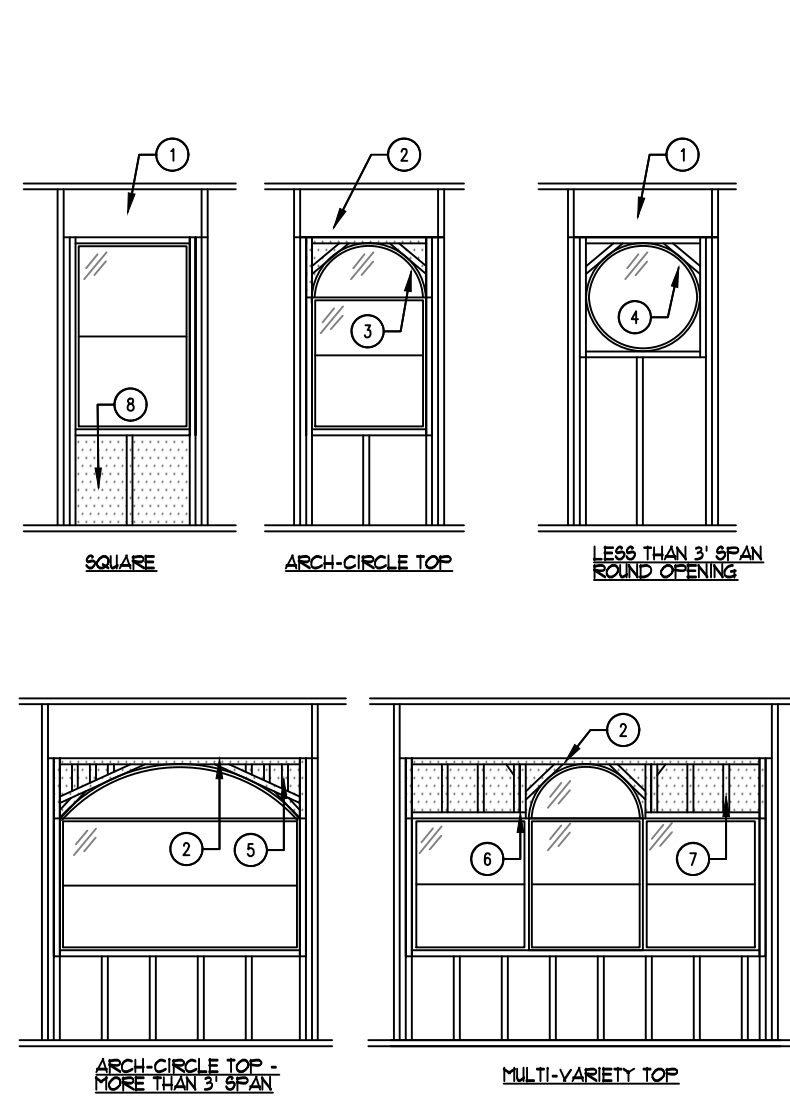
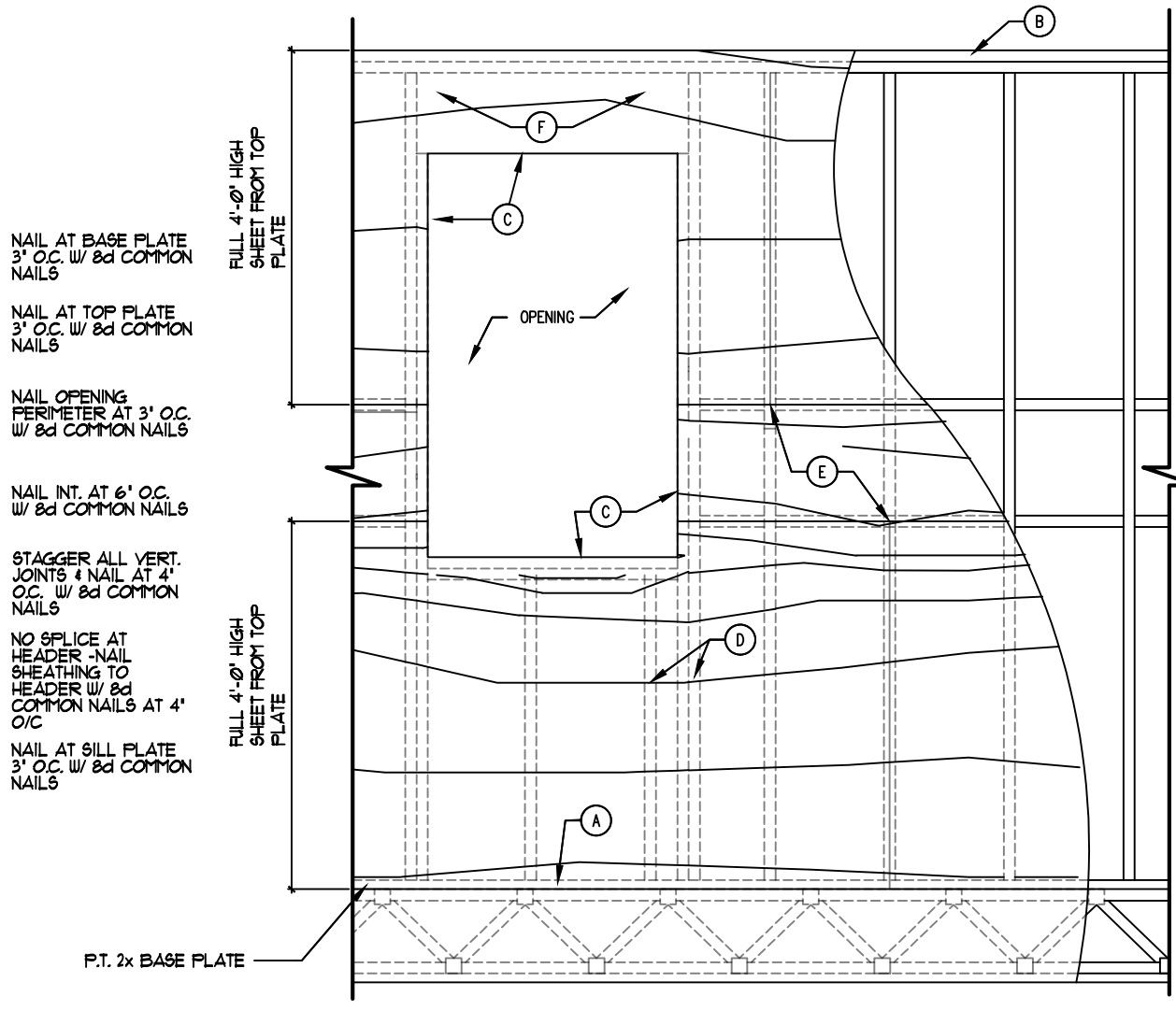
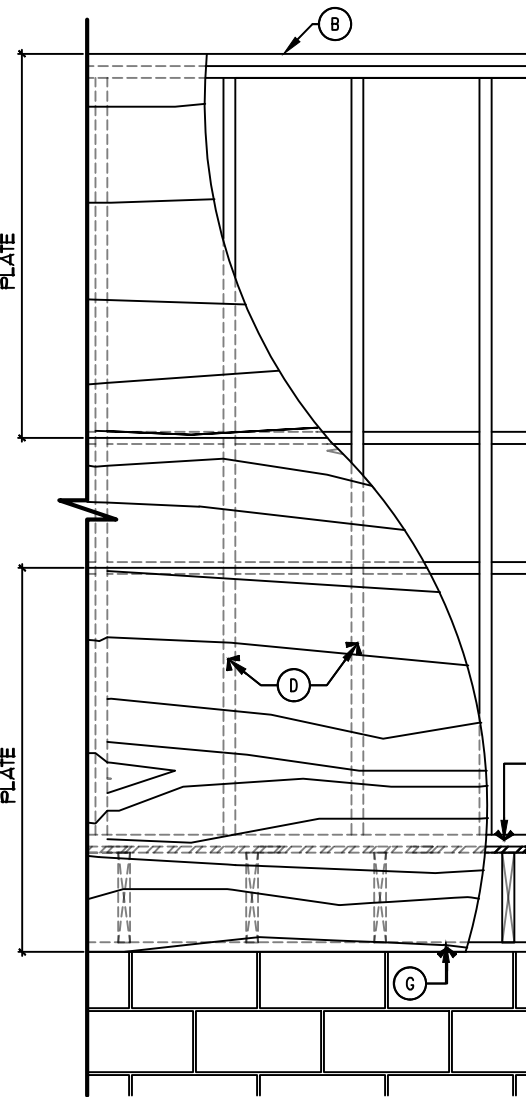
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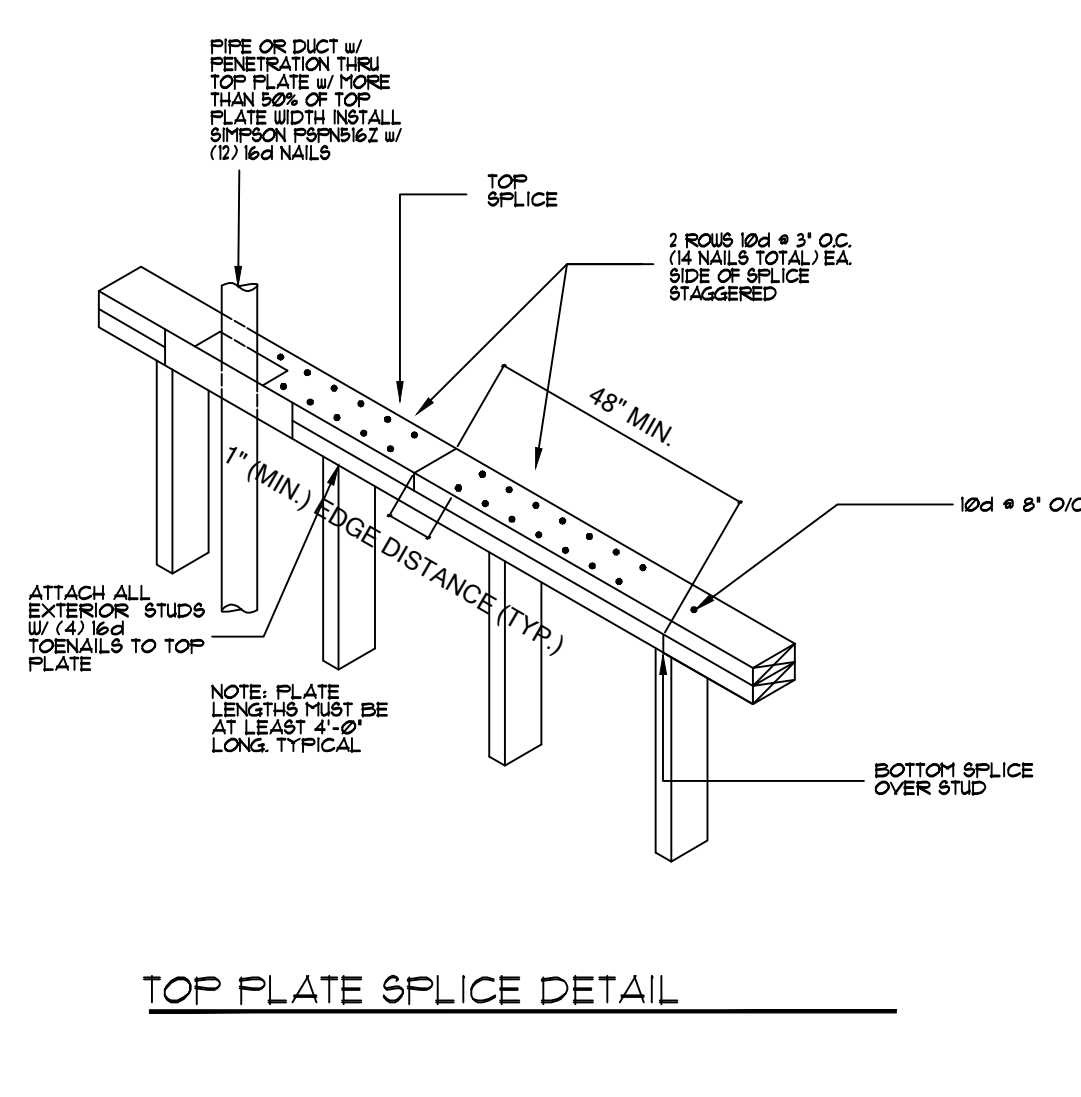
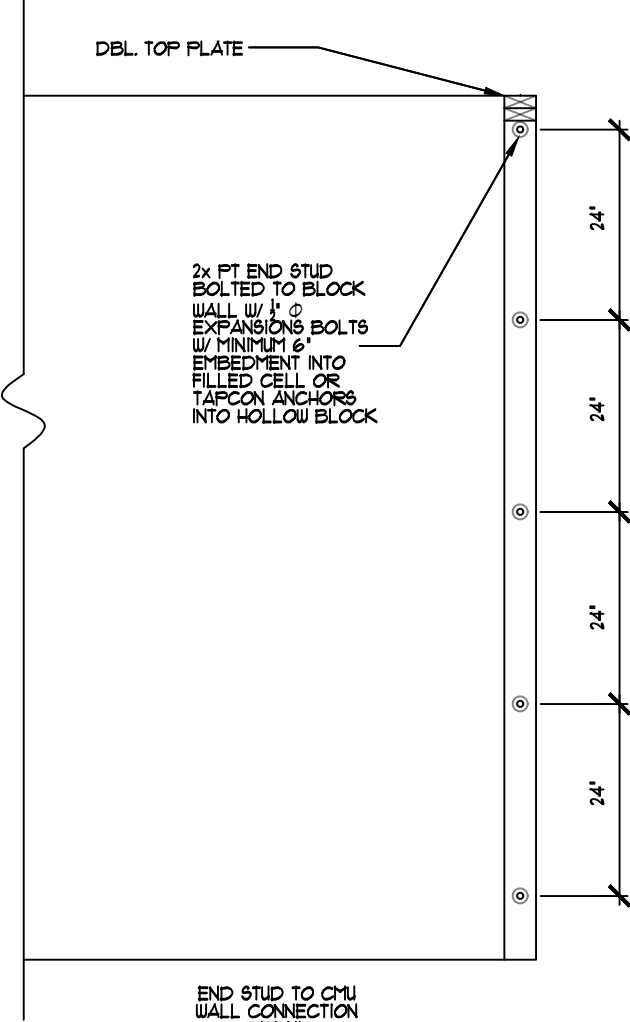
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S-3





NOTES:  
SEE MANUFACTURER'S SPECIFICATIONS & INSTALLATION INSTRUCTIONS FOR WINDOW/DOOR ATTACHMENT TO FRAME.  
1/4\"

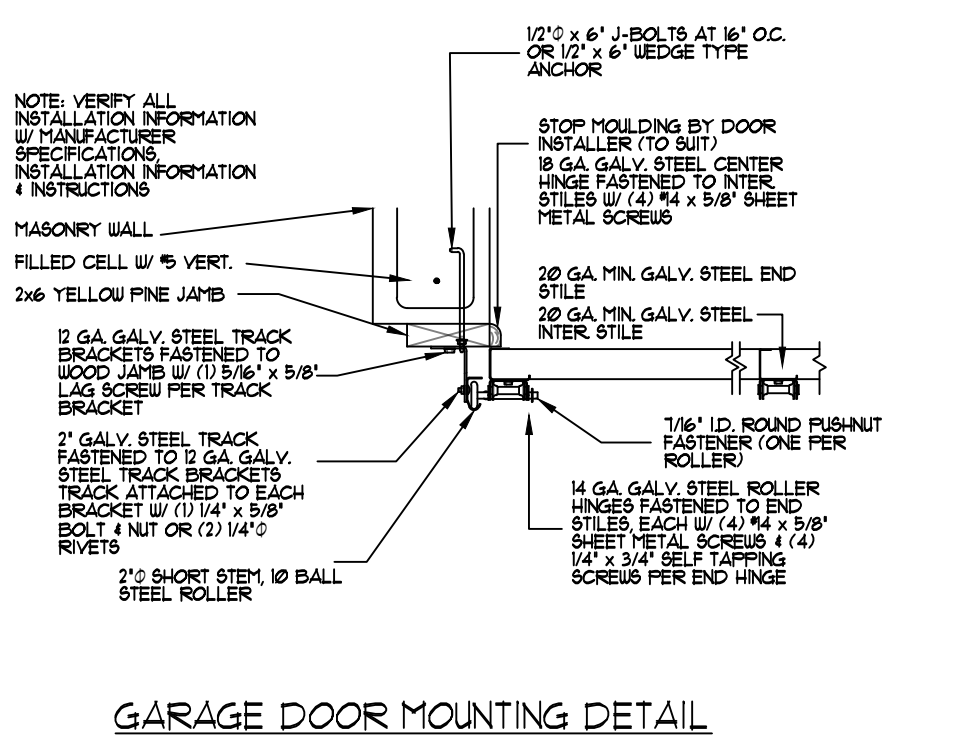
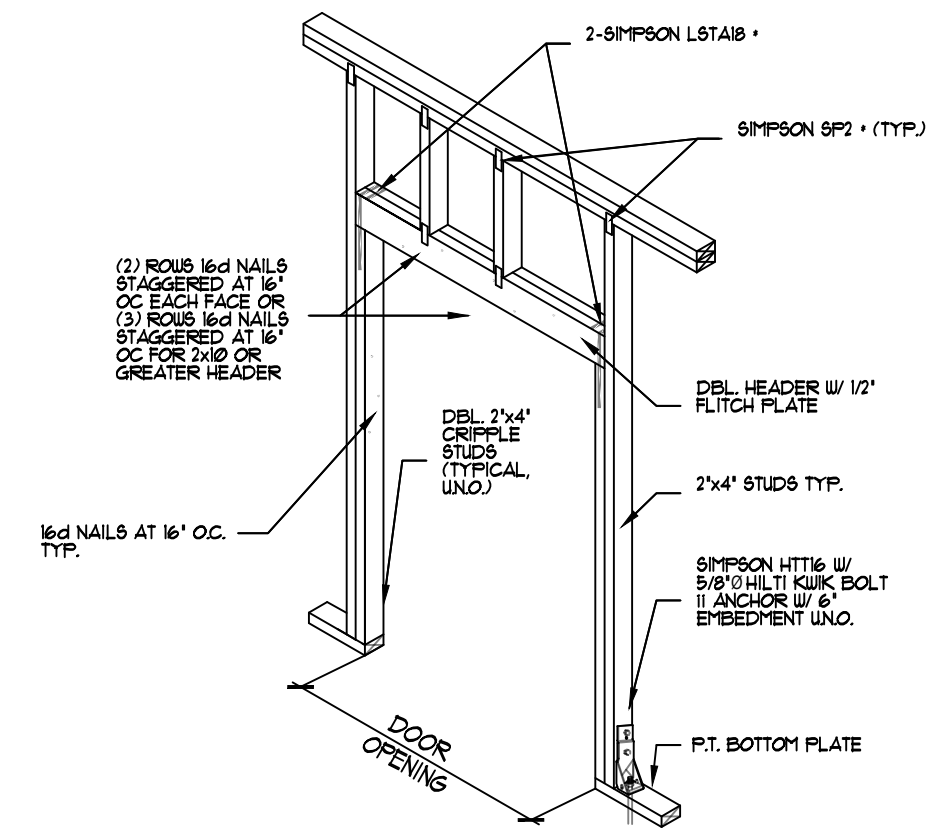


TOP PLATE SPLICE DETAIL

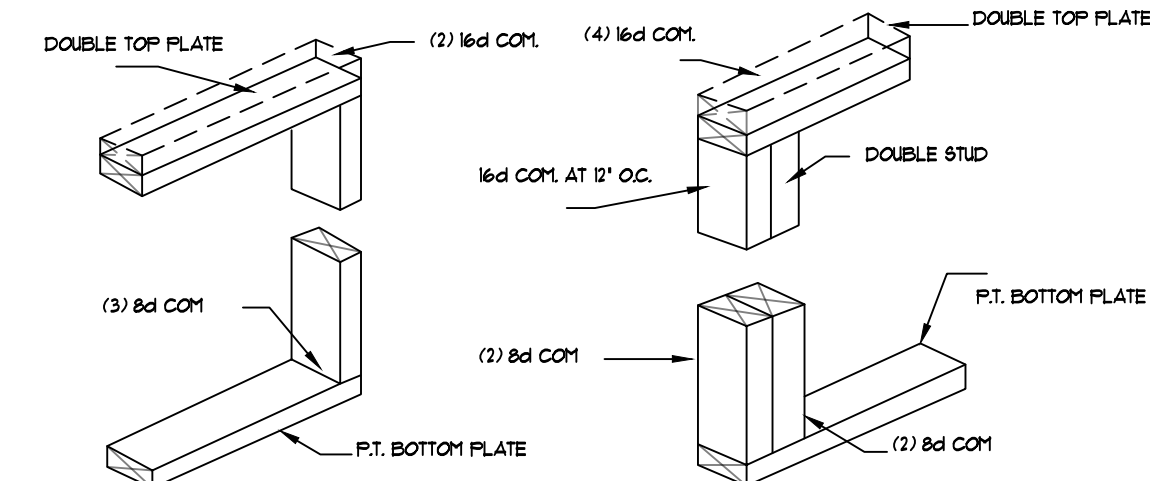
WALL SHEATHING INSTALLATION & NAILING SCHEDULE

WINDOW & DOOR MOUNTING

FRAME WALL TO CMU WALL DETAIL

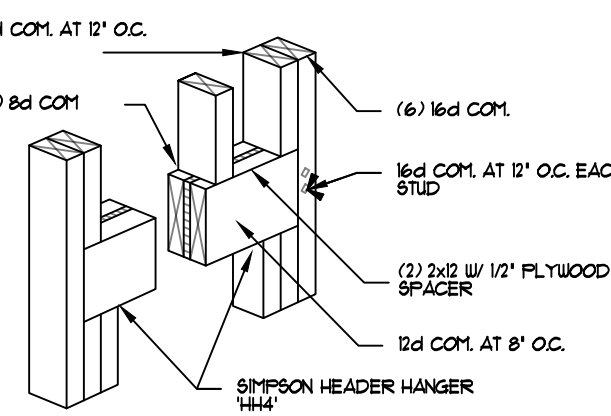


GARAGE DOOR MOUNTING DETAIL

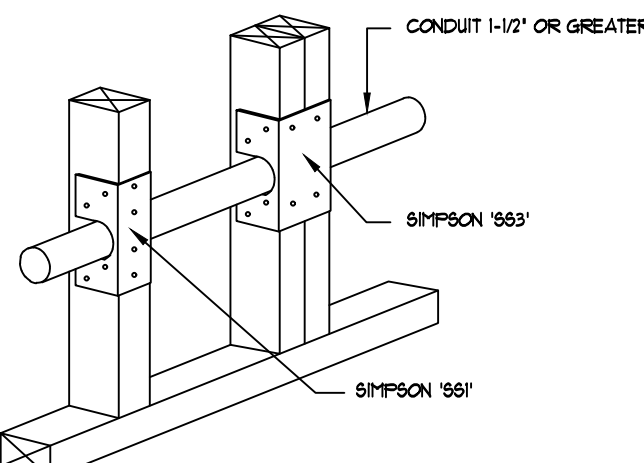


END STUD INT.

DOUBLE END STUD

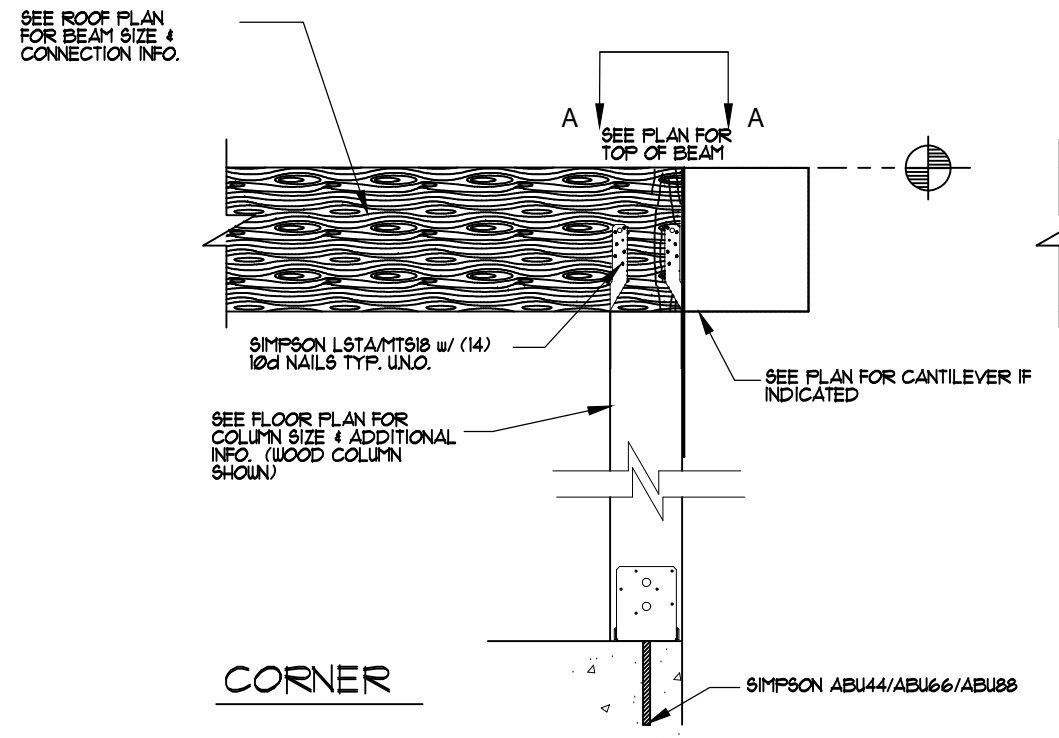


EXT/BEARING WALL HEADER



STUD SHOE

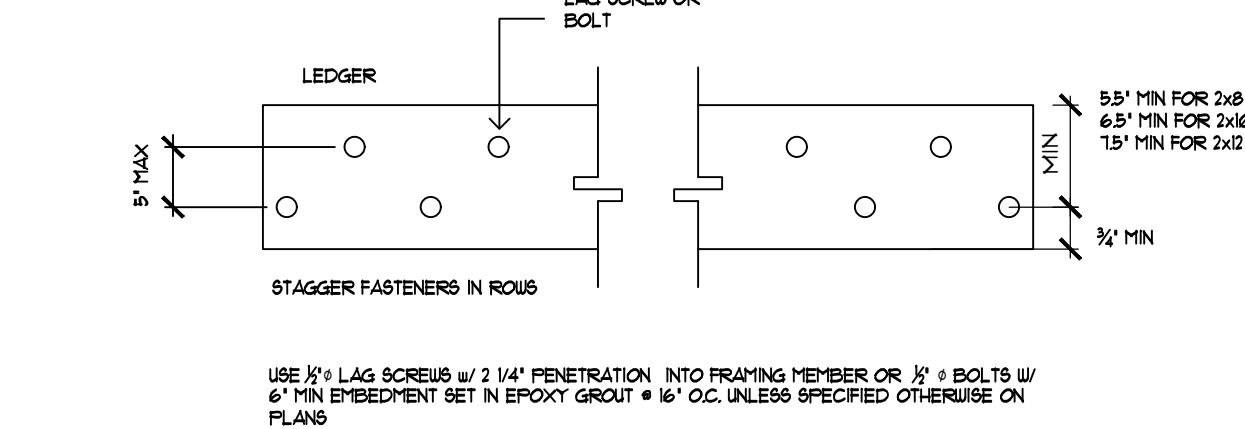
COMMON POST TO BEAM ATTACHMENT DETAILS



FASTENERS AND TIE DOWNS SHALL CONSIST OF BUT ARE NOT LIMITED TO:  
HIGH STRENGTH BOLTS - ASTM A325  
MACHINE BOLTS - GALVANIZED ASTM A561  
SHEET METAL ACCESSORIES SHALL CONFORM TO: ASTM A444 OR ASTM A516 PL 55  
NAILS SHALL CONSIST OF: COMMON WIRE NAILS WITH MINIMUM DIAMETER AS FOLLOWS: 8d x 5 1/2\"

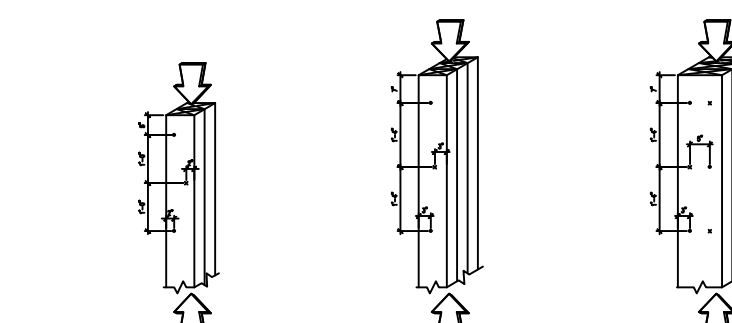
MODEL	COLUMN	ANCHOR	LOAD CAPACITY
ABU44	4x4 POST	5/8" x 8" BOLT	2140 UP/6665 DOWN
ABU66	6x6 POST	5/8" x 8" BOLT	2300 UP/10,000 DOWN
ABU88	8x8 POST	(2) 5/8" x 8" BOLT	2300 UP/14,335 DOWN

TYPICAL LEDGER BOARD ATTACHMENT



OPENING SIZE	2\"	2\"	2\"	2\"	2\"	STRAPS
	JACKS	STUDS	JACKS	STUDS	JACKS	SIMPSON
1'-4"	(1)	(2)	(1)	(2)	(1)	LSTA30
4'-8"	(2)	(3)	(2)	(3)	(1)	LSTA30
8'-16"	(3)	(3)	(2)	(3)	(2)	LSTA30

HEADER DETAIL (UPLIFT CONNECTIONS)



(2) 2\"

- NOTES:  
1. ADJACENT NAILS ARE DRIVEN FROM OPPOSITE SIDES OF THE COLUMN.  
2. ALL NAILS PENETRATE AT LEAST 3/4 OF THE THICKNESS OF THE LAST LAMINATION.  
3. EACH 30d COMMON NAIL MAY BE REPLACED W/ (2) 16d COMMON NAILS. (ONE INTO EACH OUTSIDE FACE OF BUILT, SAME NUMBER OF ROWS, SAME SPACING).  
4. FOR 4-PLY, PROVIDE 1/4\"

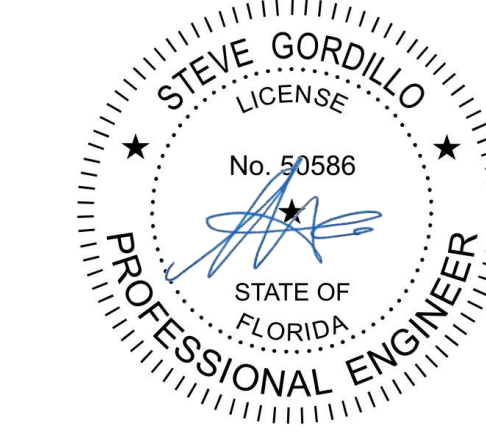
TYPICAL FRAME HEADER (LOAD BEARING WALL)		
ROUGH OPENING	2x4 FRAME WALL	2x6 FRAME WALL
UP TO 4'	MIN (2) 2x12 W/ 1/2\"	MIN (3) 2x12 W/ 1/2\"
4'-0\"	MIN (2) 2x12 W/ 1/2\"	MIN (3) 2x12 W/ 1/2\"
6'-0\"	MIN (2) 2x12 W/ 1/2\"	MIN (3) 2x12 W/ 1/2\"
OVER 8'-0"	MIN 2 PCS OF 1 3/4\"	MIN 3 PCS OF 1 3/4\"

TOP PLATE FASTENERS

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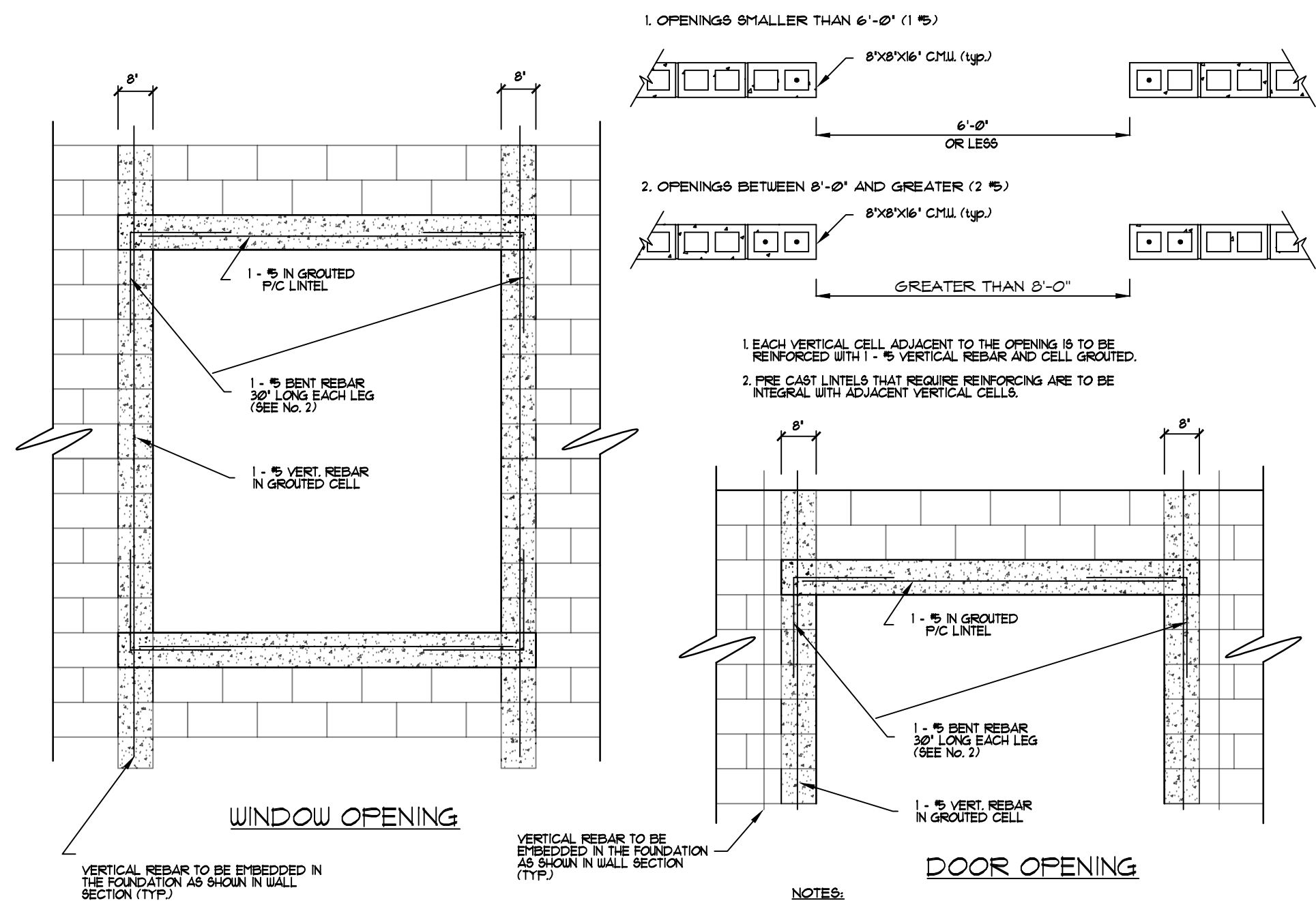
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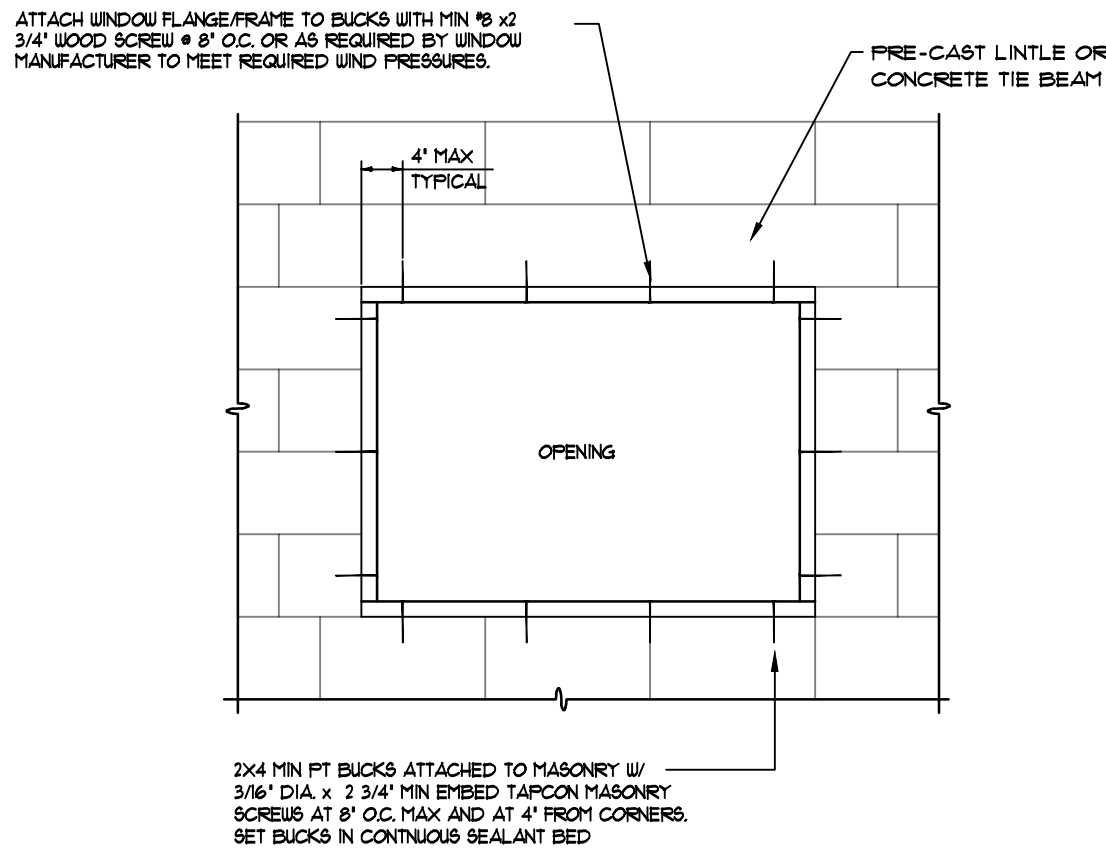
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S-4

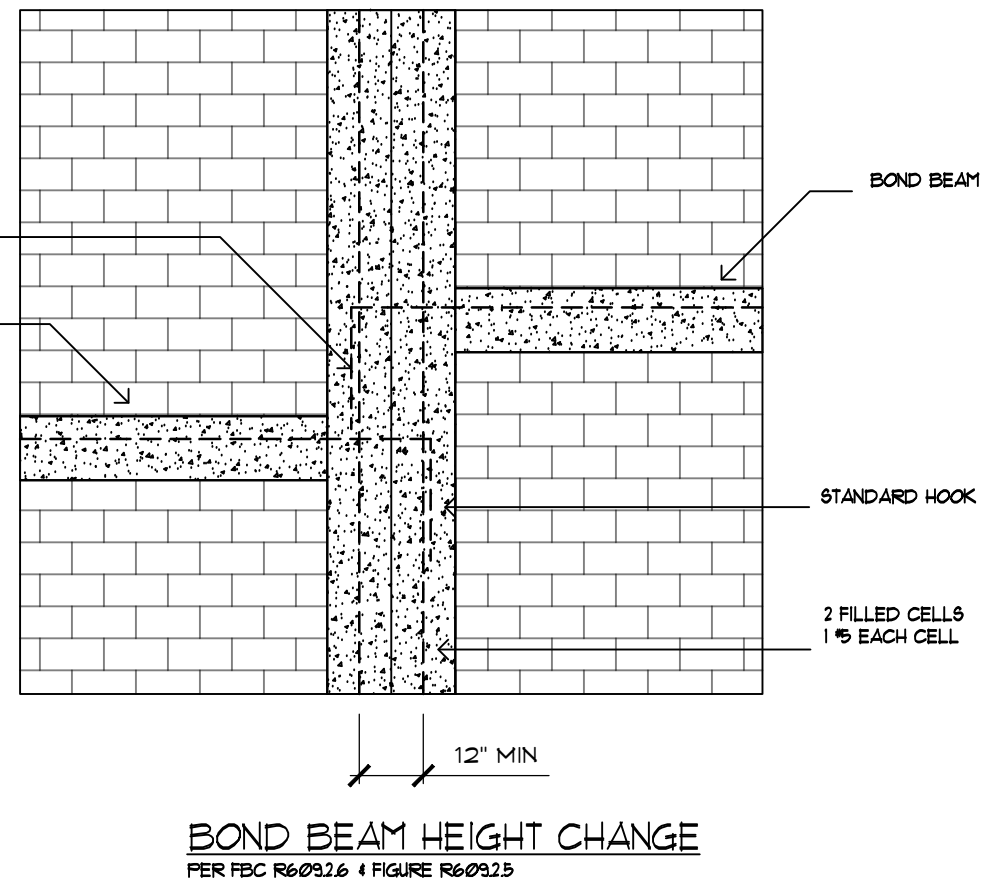
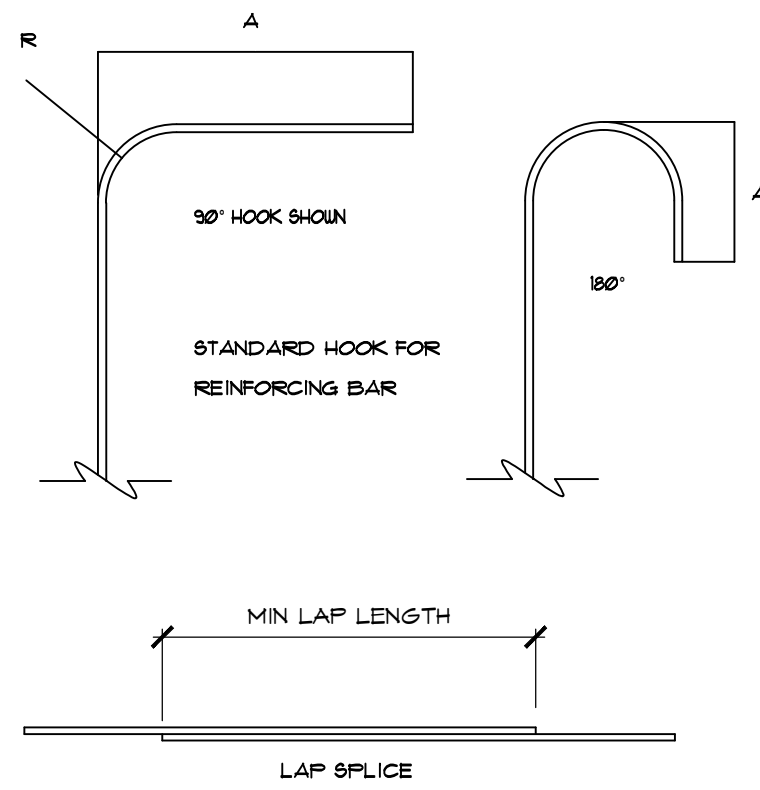
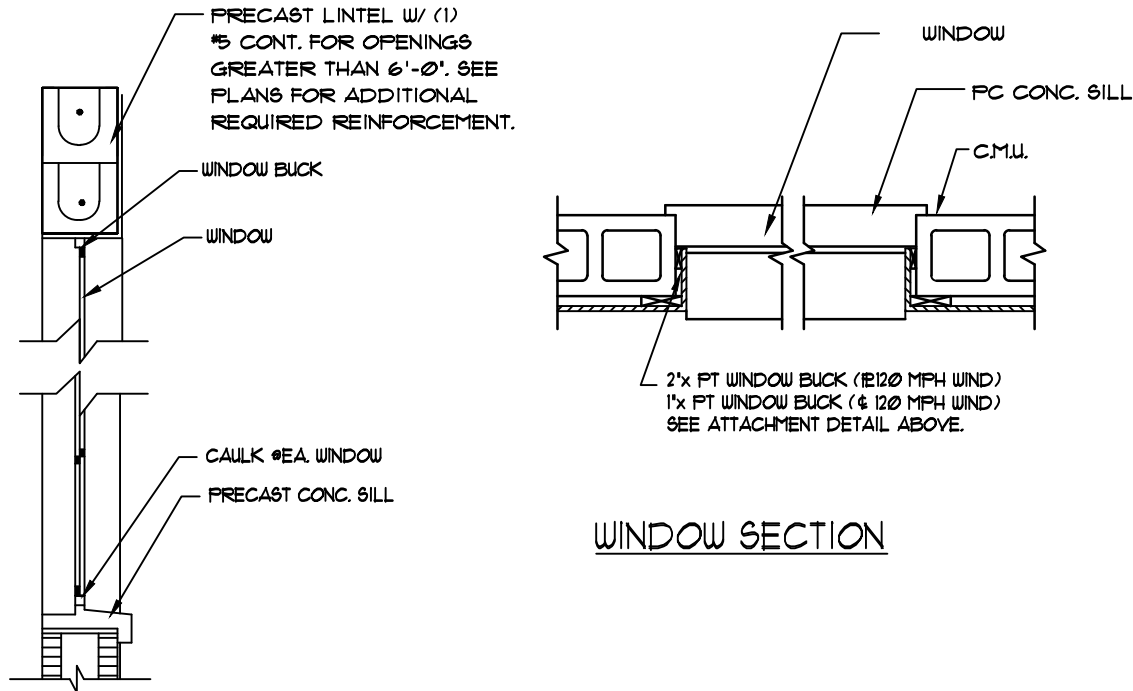




MASONRY OPENING DETAILS



WINDOW ATTACHMENT TO CMU



## ENGINEERING SPECIFICATIONS

### PRODUCT DESCRIPTION

High strength precast concrete lintels designed to be unfilled or filled to form a composite reinforced beam using concrete masonry units.

### MATERIALS

- Fc 8' precast. Intels = 3500 psi
- Fc 8' prestressed, 6' and 12' precast. Intels = 6000 psi
- Fc 4' precast. Intels = 3000 psi
- GROUT per ASTM C416 (fg = 3000 psi at minimum 1/2 inch aggregate and 8 to 1 inch slump.

### GENERAL NOTES

- Provide full mortar head and bed joints.
- Shore filled Intels as required.
- Installation of Intel must comply with architectural and/or structural drawings.
- U-Intels are manufactured with 5-1/2 inch long notches at ends to accommodate vertical cell reinforcing and grouting.
- Reference the CAST-CRETE Load Deflection Graph Procedure for Intel Deflection Information.
- Bottom field added rebar to be located at the bottom of Intel cavity.
- 1/2 inch diameter wire clips are welded to the bottom steel for mechanical anchorage.

### SAFE LOAD TABLE NOTES

- All values based on minimum 4 inch nominal bearing. Exception: Safe loads for unfilled Intels must be reduced by 25 % if bearing length is less than 6-1/2 inches.
- NR = Not Rated.
- Safe loads are superimposed allowable load.
- Safe loads based on Grade 40 or Grade 60 field rebar.
- Additional Intel load capacity can be obtained by the designer by providing additional reinforced masonry above the precast Intel. See Reinforced CMU on Page 4.
- One 11' Intel may be substituted for two 6' Intels in 8' Intels only.
- The designer may evaluate concentrated loads from the safe load tables by calculating the maximum resulting moment and shear at all bays.

- Concrete masonry units (CMU) per ASTM C90 with minimum net area compressive strength = 3500 psi
- Rebar per ASTM A63 Grade 60
- Prestressing strand per ASTM A416 Grade 270 low relaxation
- 1/2 inch wire per ASTM A408
- Mortar per ASTM C270 Type M or S

- Cast-in-place concrete may be provided in composite Intel in lieu of concrete masonry units.
- Safe load ratings based on national design analysis per ACI 308 and ACI 308.8/Provisions, Florida Department of Transportation, Florida Dept. of Transportation and 85-0645/84 Florida Certificate of Product Approval number FL88.
- The exterior surface of Intels installed in exterior concrete masonry walls shall have a coating of mastic applied in accordance with ASTM C206 or other approved coating.
- Intels loaded simultaneously with vertical (gravity or uplift) and horizontal (lateral) loads should be checked for the combined loading with the following equation:

$$\frac{\text{Applied vertical load}}{\text{Safe vertical load}} + \frac{\text{Applied horizontal load}}{\text{Safe horizontal load}} \leq 1.0$$

- For composite Intel heights not shown, use safe load from next lower height.
- For Intel lengths not shown, use safe load from next longest length.
- All safe loads in units of pounds per linear foot.
- All safe loads based on simply supported span.
- The number in the parentheses indicates the percent reduction for grade 40 field added rebar.
- Example: 11' Intel Type 8F32-1B safe gravity load = 64T (6) w/ 25% reduction = 48T (6) = 3500 lb

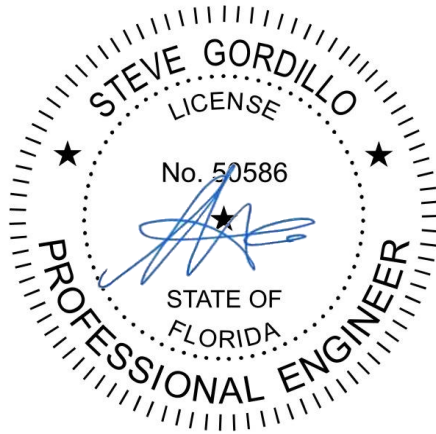
RECOMMENDED END HOOKS AND LAP LENGTHS				
BAR SIZE	180° HOOK	90° HOOK	HOOK	LAP
	A	A	R	L <sub>b</sub>
#3	5"	6"	1-1/4"	18"
#4	6"	8"	1-1/2"	24"
#5	7"	10"	2"	30"
#6	8"	12"	2-1/4"	36"
#7	10"	14"	2-3/4"	48"
#8	11"	16"	3"	55"
#9	15"	18"	4-3/4"	62"
#10	17"	22"	5-1/2"	69"

STEEL LAP AND BEND

A permit issued shall be construed to be a license to proceed with the work and not as authority to violate, cancel, alter or set aside any of the provisions of the technical codes, nor shall issuance of a permit prevent the building official from thereafter requiring a correction of errors in plans, construction or violations of this code. Every permit issued shall become invalid unless the work authorized by such permit is commenced within six months after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of six months after the time the work is commenced.

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DO NOT SCALE DIMENSIONS FOR CONSTRUCTION PURPOSES. IN THE EVENT THAT A DIMENSION IS UNCLEAR OR MISSING CONTACT THE ENGINEER IN WRITING.



OCTOBER 22, 2024

I CERTIFY THAT TO THE BEST OF THE ENGINEER'S KNOWLEDGE AND BELIEF ALL OF THE STRUCTURAL ELEMENTS AND SYSTEMS HAVE BEEN DESIGNED TO BE IN COMPLIANCE WITH THE 8TH EDITION OF THE 2023 RESIDENTIAL FLORIDA BUILDING CODE FOR BASIC WIND SPEED OF 150 MPH, EXPOSURE "C".

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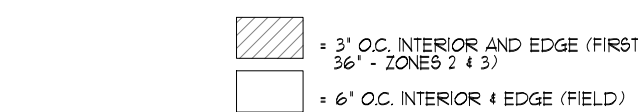
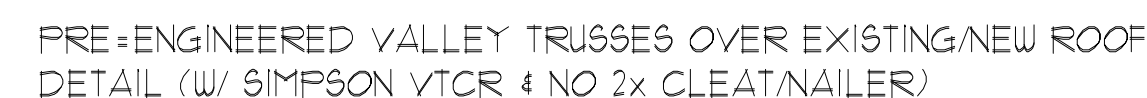
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08-30-2024

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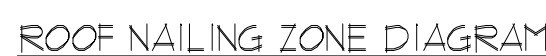
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SHEATHING MAY BE INSTALLED VERTICALLY OR HORIZONTALLY, ATTACH PER NAILING SCHEDULE. PANEL EDGES WILL NEED TO BE ATTACHED TO STUD AND OR BLOCKING AT ALL EDGES.

A MINIMUM 1/8" SPACE IS RECOMMENDED BETWEEN PANELS AT EDGES AND END JOINTS TO ALLOW FOR EXPANSIONS. FASTENERS SHALL NOT PENETRATE SURFACE MORE THAN 1/8"



### COMMON SIMPSON UPLIFT CONNECTORS



CONVENTIONAL VALLEY FRAME

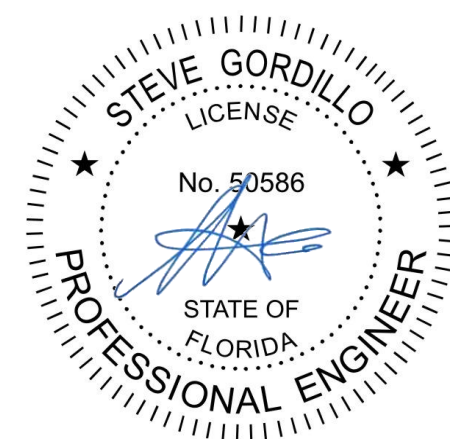


- ALL RAFTERS SHALL BE #2 SOUTHERN YELLOW PINE. SECTION SIZE SHALL BE DETERMINED ACCORDING TO THE LENGTH OF SPAN AS FOLLOWS:
- |                  |      |
|------------------|------|
| UP TO 8'-0"      | 2x6  |
| 8'-0" TO 12'-0"  | 2x8  |
| 12'-0" TO 15'-0" | 2x10 |
| 15'-0" TO 18'-0" | 2x12 |
2. RIDGE BEAM SHALL BE #2 SOUTHERN YELLOW PINE. SECTION SIZE SHALL BE 2" (NOMINAL) LARGER THAN RAFTERS W/ A MAXIMUM RIDGE SIZE OF 2x12 FOR 2x12 RAFTERS.
3. CLEAT SHALL BE A #2 SOUTHERN YELLOW PINE 2x10. IT SHALL BE FASTENED AS SHOWN W/ SIMPSON MST424 TENSION STRAPS @ EACH TRUSS HANGING (1/4") 10d NAILS. INSTALL THE STRAP BY CUTTING A HOLE INTO THE SHEATHING @ EACH SIDE OF TRUSS AND THREADING THE U-SHAPED STRAP FROM BOTTOM OF TRUSS TOP CHORD TO TOP OF CLEAT.
4. SECURE RAFTERS TO RIDGE BEAM USING SIMPSON L88102 DOWEL NAILS INTO 2x12 RAFTERS USE (8) 10d x (6) 10d RESPECTIVELY FOR HT510 W/ (20) 10d NAILS FOR 2x12 RAFTERS, (16) 10d NAILS FOR 2x10 RAFTERS, (14) 10d NAILS FOR 2x8 RAFTERS WITH SPANS OF 4'-0" OR GREATER. 2x6 RAFTERS W/ SPANS LESS THAN 4'-0" MAY BE TOE-NAILED TO RIDGE BEAM SHALL BE TOE-NAILED TO CLEAT W/ (8) 10d NAIL.
5. WHERE NEEDED, PROVIDE FLAT 2x6 BLOCKING BETWEEN TRUSSES AT HANGER W/ (10) 10d NAILS INTO RIDGE BEAM AND (7) 10d x 1 1/2" SECURE BLOCKING W/ (3) 10d TOENAILS AT EACH END INTO TOP CHORD. 2x10 RAFTERS USE L88102 W/ 10d x (4) 10d x 1 1/2" FOR 2x6 RAFTERS USE L88102 W/ (6) 10d x (5) 10d x 1 1/2" FOR 2x6 RAFTERS WITH SPANS OF 4'-0" OR GREATER. 2x6 RAFTERS W/ (8) 10d NAILS.
6. TOP CHORD FOR INSTALLATION SUPPORTS OF MST424 STRAPS



## BUILT-UP COLUMNS AT GIRDER TRUSS

CONNECTOR SCHEDULE		
SIMPSON STRONG TIE		
CONNECTOR	UPLIFT LOAD	FASTENERS
MG1	3965	22-10d-1/8"
MG1	3965	1-5/8"
HETA2Q-1-PLY	2035	10-10d-1/1"
HETA2Q-2-PLY	2035	12-1d
HT500	1175	10-10d TRUSS
HT500	1175	4-1/4d-2-1/4 TITEN-QU
MS1AM24	5000	9-10d
MS1AM24	5000	5-1/4d-2-1/4 TITEN-QU
MS1AM36	810	13-10d
MS1AM36	810	8-1/4d-2-1/4 TITEN-QU



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## REVISIONS

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