BUILDER: CASTILLO

A CUSTOM DESIGN

CASTILLO RESIDENCE

COUNTY OF LAKE STATE OF FLORIDA

ALL FEDERAL, STATE & LOCAL CODES, ORDINANCES, AND REGULATIONS, ETC. SHALL BE CONSIDERED AS PART OF THE SPECIFICATIONS OF THIS BUILDING; AND ARE TO BE ADHERED TO EVEN IF THEY ARE IN VARIANCE WITH THE PLAN.

DESIGNER AND ENGINEER ASSUME NO RESPONSIBILITY OVER ANY PHASE OF CONSTRUCTION OR COMPLETED BUILDING.

TERMITE SPECIFICATIONS

SECTION R318 PROTECTION AGAINST TERMITES

MFTHODS OF TERMITE PROTECTION LABELED FOR USE A PREVENTIVE TREATMENT TO NEW CONSTRUCTION (SEE SECTION 202, REGISTERED TERMITICIDE). UPON COMPLETION OF THE THE FOLLOWING STATEMENT: "THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES." PREVENTION OF SUBTERRANEAN TERMITES. TREATMENT IS IN ACCORDANCE WITH RULES AND LAWS

- 1. METHOD OF TREATMENT SHALL BE APPROVED BY THE GOVERNING JURISDICTION "LIQUID PRODUCT APPROVAL DATA MUST BE ON FILE WITH THE BUILDING DEPARTMENT. BORATE OR BOR-A-COR" PRODUCT METHODS MUST BE DETERMINED AT PERMIT STAGE AND 2. PRESSURE TREATED LUMBER THAT HAS BEEN CUT OR DRILLED THAT EXPOSES UNTREATED
- PORTIONS OF WOOD ARE REQUIRED TO BE FIELD TREATED TO PREVENT INSECT INFESTATION 3. OPTIONAL BORATE APPLIED TO ALL FRAME MEMBERS WITHIN 24" A.F.F.

- -NOTICE TO BUILDER AND ALL SUBCONTRACTORS- -

IT IS THE INTENT OF THE ENGINEER LISTED IN THE TITLEBLOCK OF THESE DOCUMENTS THAT THESE DOCUMENTS BE ACCURATE, PROVIDING LICENSED PROFESSIONALS CLEAR INFORMATION. EVERY ATTEMPT HAS BEEN MADE TO PREVENT ERROR. THE BUILDER AND ALL SUBCONTRACTORS ARE

- 1. REVIEW ALL THE INFORMATION CONTAINED IN THESE DOCUMENTS, PRIOR TO THE COMMENCEMENT OF ANY WORK. THE ENGINEER ARE NOT RESPONSIBLE FOR ANY PLAN ERRORS.
- 2. SHALL STRICTLY OBSERVE ALL APPLICATION CODES DURING THE COURSE OF CONSTRUCTION INCLUDING ALL STATE, CITY, AND COUNTY BUILDING, ZONING, ELECTRICAL, MECHANICAL, PLUMBING AND FIRE CODES. CONTRACTOR SHALL VERIFY ALL CODE REQUIREMENTS PRIOR TO
- AND METHODS OF CONSTRUCTION. TECHNOLOGIES, OR THE CONTRACTION TO CARRY OUT THE WORK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICTAIONS OR RELATED CODES. THE FRAMING PLAN SHOWN INDICATES THE "TRUSS SYSTEM" AND IS THE RESPONSIBILITY OF THE TRUSS SYSTEM ENGINEER (DESIGN PROFESSIONAL OF RECORD). THE TRUSS DESIGN ENGINEER
- (DELEGATED ENGINEER) HAS FINAL, RESONSIBILITY FOR EACH INDIVIDUAL TRUSS AND TRUSS PROFILE, AND IS TO SUBMIT A FINAL SET OF TRUSS ENGINEERING SIGNED AND SEALED TRUSS DRAWINGS TO DESIGN PROFESSIONAL OF RECORD FOR REVIEW PRIOR TO FABRICATION 5. ANY DISCRPANCY OR ERROR IN DIMENSIONS OR NOTES WITH IN THIS PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN PROFESSIONAL FOR CLARIFICATION PRIOR TO
- 6. ALL CONSTRUCTION MUST BE IN ACCORDANCE TO THE INFORMATION FOUND IN THESE DOCUMENTS. ANY QUESTIONS REGARDING THE INFORMATION FOUND IN THESE PLANS SHOULD BE DIRECTED TO OUR QUALITY ASSURANCE MANAGER AT 321-972-0491 IMMEDIATELY. NO BACK CHARGES WILL BE CONSIDERED FOR REIMBURSEMENT BY THE THE ENGINEER WITHOUT ADVANCED NOTIFICATION AND APPROVAL BY THE ENGINEER. PAYMENTS WILL BE MADE IN ACCORDANCE TO THE TERMS OF THE AGREEMENT.

LATH AND LATH ATTACHMENTS SHALL BE OF CORROSION-RESISTANT MATERIALS. EXPANDED METAL OR WOVEN WIRE LATH SHALL BE ATTACHED TO WOOD SHEATHING WITH 1 1/2" LONG, 11 GAGE NAILS HAVING A 7/16" HEAD, OR 7/8" LONG, 16 GAUGE STAPLES, SPACED NOT MORE THAN 6 INCHES ON CENTER VERTICALLY AND HORIZONTALLY (REF. 2017 FRC R703.7.1).

CONCRETE CURING AND TESTING

CURING: PROTECT CONCRETE FOR 7 DAYS AGAINST MOISTURE LOSS, RAPID TEMPERATURE CHANGE, MECHANICAL INJURY AND INJURY FROM RAIN OR FLOWING WATER. MAINTAIN CONCRETE IN MOIST CONDITION AT TEMPERATURE ABOVE 50 DEGREES F, THROUGHOUT SPECIFIED CURING PERIOD. PROTECT FROM RAPID TEMPERATURE CHANGE AND RAPID DRYING FOR FIRST 24 HOURS FOLLOWING REMOVAL OF TEMPERATURE PROTECTION. START CURING ACTIVITIES AS SOON AS FREE WATER HAS DISAPPEARED FROM SURFACES OF CONCRETE AFTER PLACING AND FINISHING.

TESTING: CONCRETE TESTING FOR THIS PROJECT SHALL BE PAID FOR BY OWNER, AND SHALL CONSIST OF COMPRESSIVE TESTS MADE BY THE LABORATORY IN ACCORDANCE WITH ASTM C-31, FOLLOW ASTM C31 AND MAKE A SET OF SIX (6) STANDARD CYLINDERS FOR EACH 100 CU. YDS. OR FOR EACH DAYS POUR EXCEEDING 5 CU. YDS. TEST PER ASTM C39 AS FOLLOWS: TWO (2) SPECIMENS TESTED AT SEVEN (7) DAYS, ONE (1) AT 14 DAYS. TWO (2) TESTED AT 28 DAYS, AND ONE (1) HELD IN RESERVE. SLUMP TEST SHALL BE MADE IN ACCORDANCE WITH ASTM C-143 FOR EACH DAYS POUR, FOR EACH LOAD, OR AS DIRECTED BY ARCHITECT/ ENGINEER.

REINFORCING STEEL

REINFORCING STEEL SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615-GRADE 60, EXCEPT THAT NEW BILLET STEEL CONFORMING TO ASTM A615-GRADED 40 MAY BE USED FOR COLUMN TIES AND BEAMS STIRRUPS. ALL DETAILING AND ACCESSORIES SHALL CONFORM TO TYPICAL DETAILS SHOWN IN THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES ACI 315, LATEST EDITION".

ALL CONTINUOUS VERTICAL OR HORIZONTAL BARS IN FOOTINGS, FOUNDATIONS WALLS, SLABS AND OTHER CONCRETE SHALL BE LAP-SPLICED, WHERE NECESSARY OR DESIRABLE. BY WIRING TOGETHER IN CONTACT, LENGTH OF ALL #5 LAPS SHALL BE 40-BAR DIAMETERS OR 2'-1" MINIMUM. WHICHEVER IS GREATER (EXCEPT AS NOTED BY DRAWINGS). ALL BARS AT END OF CONTINUOUS FOOTINGS OR BEAMS SHALL BE CONT. TO FAR SIDES OF INTERSECTING ELEMENTS.

ALL SLABS ON GRADE SHALL BE 4" THICK AND REINFORCED WITH 6 X 6 - WI.4 X WI.4 W.W.F. UNLESS OTHERWISE NOTED. LAP FABRIC 8" AT EDGES AND ENDS AND PROVIDE ADDITIONAL REINFORCING WHERE SHOWN ON DRAWINGS. PLACE MESH IN CENTER OF SLAB. MOISTURE BARRIER BENEATH FLOOR SLABS SHALL BE 6 MIL POLYETHYLENE. USE FLAT SHEETS OF WELDED WIRE FABRIC. ROLLS WILL NOT BE PERMITTED.

FOUNDATIONS

GEOTECHNICAL ENGINEERING EVALUATION AND SUBSURFACE EXPLORATION SHALL PERFORM BY OWNER'S GEOTECHNICAL CONSULTANT.

MAXIMUM ALLOWABLE SOIL PRESSURE IS ASSUMED TO BE 2000 POUNDS PER SQUARE

SPREAD FOOTINGS SHALL BEAR ON SOIL COMPACTED TO A DENSITY OF AT LEAST 95 % OF MODIFIED PROCTOR MAXIMUM DENSITY (A.S.T.M. D1557), FOR ALL REQUIRED FILL AND FOR AT LEAST 1'- 0" BELOW FINISHED FLOOR UNLESS MORE STRINGENT REQUIREMENTS ARE RECOMMENDED BY OWNERS GEOTECHNICAL CONSULTANT.

GENERAL STRUCTURAL NOTES

CAST IN PLACE REINFORCED CONCRETE

- 2. HOOKS SHALL BE PROVIDED AT DISCONTINUOUS ENDS OF ALL TOP BARS OF BEAMS. 3. HORIZONTAL FOOTING BARS SHALL BE BENT 25" AROUND CORNERS OR CORNER BARS WITH A 25" LAP PROVIDED EA WAY.

- MUST FIRST CONTACT THE ENGINEER OF RECORD FOR WRITTEN APPROVAL. 3. WHERE PROJECT IS TO BE LOCATED IN KNOWN RADON GAS PREVALENT AREAS, APPENDIX "F" OF THE FLORIDA BUILDING CODE 5TH EDITION (2014) IS TO BE IMPLEMENTED. F303.4 CONCRETE STRENGTH IN THESE AREAS ARE TO BE A MINIMUM OF 3000 P.S.I. THEREFORE, ANY AND ALL NOTES ON THESE PLANS THAT INDICATE 2500 P.S.I. SHALL BE REPLACED WITH 3000 P.S.I. FOR THE CONCRETE STRENGTH.

MASONRY

- 1. HOLLOW LOAD BEARING UNITS SHALL BE NORMAL WEIGHT, GRADE N, TYPE 2, CONFORMING TO ASTM C90-014, WITH A MINIMUM NET COMPRESSIVE STRENGTH OF 1900 PSI (f'm = 1500 PSI)
- 2. MORTAR SHALL BE TYPE "S", CONFORMING TO ASTM C270-12A. 3. COARSE GROUT SHALL CONFORM TO ASTM C476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI SLUMP 8" TO 11". CONTINUOUS MASONRY INSPECTIONS ARE REQUIRED DURING CONSTRUCTION
- . GRADE 40 U.N.O. VERTICAL REINFORCEMENT SHALL BE AS NOTED ON THE DRAWINGS WITH THE CELLS FILLED WITH COARSE GROUT 5. GRADE 40 U.N.O.VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT THE TOP AND BOTTOM AND AT A MAXIMUM SPACING OF 192 DIA OR 10FT
- 7. GROUT STOPS SHALL BE PROVIDED BELOW BOND BEAM. PLASTIC SCREEN, METAL LATH STRIP OR CAVITY CAPS MAY BE USED TO PREVENT THE FLOW OF GROUT INTO CELLS BELOW. THE USE OF FELT PAPER AS A STOP IS PROHIBITED.
- 9. TYPICAL FILLED CELL REINFORCING SIZE AND SPACING SHALL BE ABOVE AND BELOW ALL WALL OPENINGS 10. DO NOT APPLY UNIFORM LOADS TO MASONRY WALLS FOR (3) DAYS AND NO CONCENTRATED LOADS FOR (7) DAYS. PER CODE ACI 318-14 11. CONSOLIDATE POURS EXCEEDING 12" IN HEIGHT BY MECHANICAL VIBRATION. AND RECONSOLIDATE BY MECHANICAL VIBRATION AFTER INITIAL

WOOD

1. ALL EXTERIOR WOOD STUDS WALLS, BEARING WALLS, SHEAR WALLS, AND MISC. STRUCTURAL WOOD FRAMING MEMBERS, (I.E. BLOCKING OR GABLE END BRACING) SHALL BE EITHER AS SPECIFIED IN PLAN OR IN DETAILS. IF CONFLICTS OCCUR BETWEEN PLAN AND DETAILS, THE STRONGEST MATERIAL SHALL BE USED. AT A MINIMUM, ALL WOOD STRUCTURAL FRAMING MEMBERS SHALL BE SPF #2. 2. ALL LUMBER SPECIFIED ON DRAWINGS ARE INTENDED FOR DRY USE ONLY (MOISTURE CONTENT 19% OR LESS), U.N.O. ALL WATERPROOFING AND

- FIRE SAFETY SYSTEMS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE TO BE DESIGNED AND DETAILED BY OTHERS 3. ANY WOOD FRAME INTERIOR BEARING WALL STUDS THAT HAVE HOLES IN THE CENTER OF THE STUD UP TO 1" DIA. SHALL HAVE STUD PROTECTION SHIELDS, ALL HOLES OVER 1" IN DIA. FOR PLUMBING LINES, ETC. SHALL BE REPAIRED WITH SIMPSON HSS2 STUD SHOES, TYP., U.N.O. 4. MANY OF THE NEW PRESSURE TREATED WOODS USE CHEMICALS THAT ARE CORROSIVE TO STEEL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE TYPE OF WOOD TREATMENT AND TO SELECT APPROPRIATE CONNECTORS THAT RESIST CORROSION. FOR EXAMPLE, ACQ-C, ACQ-D, CBA-A OR CA-B REQUIRE HOT-DIPPED GALVANIZED OR STAINLESS STEEL FASTENERS. DOT SODIUM BORATE (SBX) DOES NOT.
- 5. ALL EXPOSED WOOD OR WOOD IN CONTACT WITH EARTH OR CONCRETE TO BE PRESSURE TREATED 6. UNTREATED WOOD SHALL NOT BE IN DIRECT CONTACT WITH CONCRETE OR MASONRY. SEAT PLATES SHALL BE PROVIDED AT BEARING LOCATIONS WITHOUT WOODEN TOP PLATES.
- 7. SEE PLAN FOR STUD PACK AND BEAM NAILING PATTERNS 8. ALL ENGINEERED LUMBER TO HAVE THE FOLLOWING MIN VALUES U.N.O.
- PARALLAM COLUMNS: 1.8E Fb = 2400 PSI MICROLAM (LVL) BEAMS: 2.0E Fb= 2600 PSI

WATER LOSS AND SETTLEMENT HAS OCCURRED, GROUT SHALL BE FLUSH WITH TOP OF WALL.

- GLULAM BEAMS: SP/SP 24F-V5 LAYUP (1.7E FB=2400 PSI) MIN. 9. SEE PLAN NOTE FOR ADDITIONAL ROOF, WALL, SHEAR WALL AND FLOOR SHEATHING REQUIREMENTS ALONG W/ NAILING INFORMATION OTHERWISE: 9.1. ROOF DECK: PLYWOOD C-C/C-D, EXTERIOR OR OSB 9.2. FLOOR SHEATHING: T&G A-C GROUP 1 APA RATED (48/24) SHEATHING SHALL FINISH FLUSH TO EXTERIOR WALL FACE.
- 9.3. WALL SHEATHING: 7 16" STUCTURAL I OSB EXPOSURE 1 OR 152" RATED OSB EXPOSURE 1. A MINIMUM 8" SPACE IS RECOMMENDED BETWEEN PANELS AT EDGE AND END JOINTS TO ALLOW FOR EXPANSION. PER R604.3 SHEATHING SHALL NOT BE USED AS WEATHER RESISTANCE BARRIER

UPLIFT CONNECTORS

1. UPLIFT CONNECTORS SUCH AS HURRICANE CLIPS, TRUSS ANCHORS AND ANCHOR BOLTS ARE ONLY REQUIRED ON MEMBERS IN WALLS THAT ARE EXPOSED TO UPLIFT OR LATERAL FORCES. INTERIOR LOAD BEARING WALLS ARE NOT ALWAYS EXPOSED TO UPLIFT FORCES. THE MEMBERS OF THESE WALLS WOULD NOT NEED TO HAVE CONNECTORS APPLIED. PLEASE COORDINATE THE TRUSS ENGINEER FOR THE LOCATION OF THESE WALLS.AND STRUCTURAL PLANS FOR MORE INFO.

STRUCTURAL STEEL

- 1. MATERIAL SPECIFICATIONS: WIDE FLANGE SECTIONS: ASTM A992, GRADE 50, Fy=50 KSI TUBE STEEL (HSS): ASTM A500, GRADE B, Fy = 46 KSI PIPE STEEL: ASTM A53, TYPE E OR S, Fy = 35 KSI ALL OTHER STRUCTURAL & MISC. STEEL: A36 Fy=36 KSI STRUCTURAL CONNECTIONS: ALL STRUCTURAL BOLTS TO BE A325N U.N.O 2. STRUCTURAL BOLTS SMALLER THAN 5/8" DIA. TO BE A307 THREADED ROD SHALL CONFORM TO A36 OR A307 ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 ALL BOLTS CAST IN CONCRETE: ASTM A36 OR ASTM A-307 SHOP AND FIELD WELDS: E70XX ELECTRODES STEEL REINFORCEMENT SHOP DRAWINGS TO BE PROVIDED
- TO ENGINEER OF RECORD BEFORE FABRICATION FOR REVIEW AND APPROVAL 3. STRUCTURAL CONNECTIONS: ALL STRUCTURAL BOLTS TO BE A325N U.N.O. ALL A325N BOLTS SHALL BE BROUGHT TO A "SNUG-TIGHT" CONDITION , AS DEFINED IN THE SPECIFICATION. SLIP CRITICAL (SC) BOLTS MUST BE FULLY TENSIONED PER SPECIFICATION STRUCTURAL BOLTS SMALLER THAN 5/8" DIA. TO BE A307 THREADED ROD SHALL CONFORM TO A36 OR A307 ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 ALL BOLTS CAST IN CONCRETE: ASTM A36 OR ASTM A-307 SHOP AND FIELD WELDS: E70XX ELECTRODES STEEL REINFORCEMENT SHOP DRAWINGS TO BE PROVIDED TO ENGINEER OF RECORD BEFORE FABRICATION FOR REVIEW AND APPROVAL. WELDED CONNECTIONS: ELECTRODES - E70XX UNO (LOW HYDROGEN). FILLET WELDS SHALL BE 3/16" UNO.
- 4. SUBMIT SHOP DRAWINGS INDICATING ALL SHOP AND ERECTION DETAILS INCLUDING PROFILES, SIZES, SPACING, AND LOCATIONS OF STRUCTURAL MEMBERS, CONNECTION ATTACHMENTS, FASTENERS, LOAD, AND TOLERANCES. 5. STRUCTURAL STEEL SHALL RECEIVE SHOP COAT OF PRIMER (COLOR AS DIRECTED BY ARCHITECT) EXCEPT FOR AREAS WHICH WILL RECEIVE SPRAY-ON FIRE
- 6. A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.

PRE ENGINEERED WOOD TRUSSES

- 1. ALL PREFABRICATED WOOD TRUSSES SHALL BE SECURELY FASTENED TO THEIR SUPPORTING WALLS OR BEAMS WITH HURRICANE CLIPS OR ANCHORS PER STRUCTURAL PLAN
- 2. PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENERS" AS RECOMMENDED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.
- 3. TRUSS MEMBERS AND CONNECTIONS SHALL BE PROPORTIONED (WITH A MAXIMUM ALLOWABLE STRESS INCREASE FOR LOAD DURATION OF 25%) TO WITHSTAND THE LIVE LOADS GIVEN IN THE NOTES AND TOTAL DEAD LOAD.
- 4. BRIDGING FOR PRE-ENGINEERED TRUSSES SHALL BE AS REQUIRED BY THE TRUSS MANUFACTURER UNLESS NOTED ON THE PLANS. 5. TRUSS ELEVATIONS AND SECTIONS ARE FOR GENERAL CONFIGURATION OF TRUSSES ONLY. WEB MEMBERS ARE NOT SHOWN, BUT SHALL BE DESIGNED BY THE
- TRUSS MANUFACTURER IN ACCORDANCE WITH THE FRAMING DESIGN LOADS 6. DESIGN SPECIFICATIONS FOR LIGHT WEIGHT METAL PLATE CONNECTED WOOD TRUSSES PER THE TRUSS PLATE INSTITUTE TPI LATEST EDITION. 7. PRE-ENGINEERED WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH SPECIFIED LOADS AND GOVERNING CODES
- SUBMITTALS SHALL INCLUDE TRUSS FRAMING PLANS AND DETAILS SHOWING MEMBER SIZES, BRACING, ANCHORAGE, CONNECTIONS, TRUSS LOCATIONS, AND PERMANENT BRACING AND/OR BRIDGING AS REQUIRED FOR ERECTION AND FOR THE PERMANENT STRUCTURE. EACH SUBMITTAL SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED STRUCTURAL ENGINEER. SUBMIT 3 COPIES FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- 8. THE TRUSS MANUFACTURER SHALL DETERMINE ALL SPANS WORKING POINTS. BEARING POINTS. AND SIMILAR CONDITIONS. TRUSS SHOP DRAWINGS SHALL SHOW ALL TRUSSES. ALL BRACING MEMBERS. AND ALL TRUSS TO TRUSS HANGERS.

FIELD REPAIR NOTES

1. MISSED "J" BOLTS FOR WOOD BEARING WALLS MAY BE SUBSTITUTED WITH 1/2" DIA. EPOXY ANCHORS WITH 7" EMBEDMENT. SIMPSON "SET" EPOXY ADHESIVE BINDER FOLLOWING ALL MANUFACTURER'S RECOMMENDATIONS OR SIMPSON 1/2" TITEN HD BOLTS WITH MINIMUM 7" EMBEDMENT. SEE PLAN FOR EMBEDMENT 2. FOR MISSED VERT. DOWELS, DRILL A 3/4" DIAMETER HOLE 6" DEEP AT THE LOCATION OF THE OMITTED REBAR AND INSTALL A 32" LONG #5 BAR INTO THE EPOXY FILLED HOLE. USE A TWO PART EMBEDMENT EPOXY (SIMPSON HIGH STRENGTH EPOXY-TIE ANCHORING ADHESIVE) MIXED PER THE MANUFACTURER'S

- INSTRUCTIONS. ASSURE THAT ALL DUST AND DEBRIS FROM DRILLING ARE REMOVED FROM THE HOLE BY BRUSHING AND USING COMPRESSED AIR PRIOR TO APPLYING THE EPOXY. ALLOW THE EPOXY TO CURE TO THE MANUFACTURER'S SPECIFICATIONS, THEN FILL THE CELL IN THE NORMAL WAY DURING BOND BEAM 3. FOR MORTAR JOINTS LESS THAN 1/4", PROVIDE (1) #5 VERT. IN CONC. FILLED CELL EACH SIDE OF THE JOINT (BAR DOES NOT HAVE TO BE CONT. TO FOOTING). 4 MISSED LINTEL STRAPS FOR MASONRY CONSTRUCTION MAY BE SUBSTITUTED WITH (1) SIMPSON MTSM16 TWIST STRAP W/ (4) 1/4" x 21/4" TITENS TO MASONRY AND
- (7)-10d NAILS TO TRUSS FOR UPLIFTS LESS THAN 860 LBS (USE (2) MTSM16 FOR UPLIFTS LESS THAN 1720#), IF CORNER STRAP IS MISSED, CONTRACTOR IS TO INSTALL (2) SIMPSON HGAM10 W/ (4) 1/4" x 1 1/2" SDS SCREWS AND (5) 1/4" x 2 1/4" TITENS ONE EACH SIDE OF TRUSS. 5. NO MORE THAN 10 STRAPS MAY BE SUBSTITUTED OR NO MORE THAN 3 IN A ROW WITHOUT APPROVAL FROM EOR. IF GIRDER TRUSS CONNECTIONS ARE MISSED, CONTACT THE EOR FOR SUBSTITUTION.
- 6, IF MISSED, MSTAM36 OR MSTAM40 STRAP IS MISSED FOR 2ND FLOOR JAMB STUD CONNECTION, CONTRACTOR MAY INSTALL SIMPSON HTT5 W/ (26) 16d x 21/2" NAILS AND 5/8" ANCHOR BOLT SET IN SIMPSON HIGH STRENGTH EPOXY W/ MIN 6" EMBEDMENT AND MIN 3" EDGE DISTANCE. CONTACT EOR IF STRAPS ARE MISSED UNDER GIRDER JAMB STUD LOCATIONS.

STRUCTURAL DESIGN CRITERIA

CODE CRITERIA

- FLORIDA BUILDING CODE 7TH EDITION (2020) RESIDENTIAL.
- · FLORIDA FIRE PREVENTION CODE 7TH EDITION (2020) · FLORIDA BUILDING CODE ACCESSIBILITY 7TH EDITION (2020)
- \cdot NFPA 70-14. NATIONAL ELECTRICAL CODES. (NEC 2017) & 6TH FBCR CH. 34-43 · BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE - (ACI 318-14).
- · SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301-10).
- · BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-13) · NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION - 2015 EDITION.
- · WOOD FRAMED CONSTRUCTION MANUAL 2015 EDITION. · APA PLYWOOD DESIGN SPECIFICATION 2012 EDITION.
- AMERICAN SOCIETY OF CIVIL ENGINEERS: ASCE/SEI 7-16

GENERAL ROOF LOADING

	ROOF (PSF)	ROOF (PSF)	ROOF (PSF) I	ROOF (PSF)
TOP CHORD LL TOP CHORD DL	20 10	20 10	20 15	20 25
BOTTOM CHORD LL* BOTTOM CHORD DL	0 10	0 10	0 10	0 10
TOTAL (PSF)	40	40	45	55
BOTTOM CHORD LL (OPT) ATTICS W/ LIMITED STORAGE ATTICS W/ HEAVY STORAGE * ATTICS W/ NO STORAGE	20 50 10			

SHINGLE METAL TILE

d. A SINGLE CONCENTRATED LOAD

NOTE: LL REDUCTIONS ARE ALLOWED PER CODE BUT ONLY WITH WRITTEN APPROVAL FROM EOR OR INDICATED ON PLAN

GENERAL FLOOR LOADING

(NON-CONCURRENT)

BALCONIES/ DECKS

TOP CHORD LL TOP CHORD DL BOTTOM CHORD LL BOTTOM CHORD DL	40 (PSF) 10 (PSF) 0 (PSF) 5 (PSF)	COMMENTS:					
SPECIAL FLOOR LOADING							

•	DEELECTION CRITERIA								
	GUARDRAILS AND HANDRAILS GUARDRAIL IN-FILL COMPONENTS STAIRS / NON SLEEPING ROOMS SLEEPING ROOMS	125(PSF 200(LBS) 50 (LBS) 40 (PSF 30 (PSF 150(PSF)(d))(f)))	POINT ALONG THE TOP. f. BALUSTERS AND PANELS FILLERS SHALL BE DESIGNED TO WITHSTAND A HORIZONTALLY APPLIED NORMAL LOAD OF 50 POUNDS ON AN AREA EQUAL TO 1 SQ. FT.					
		100(PSF		APPLIED IN ANY DIRECTION AT ANY					

DEFLECTION CRITERIA ROOF RAFTERS (W/O CLG) LOOR TRUSSES/ BEAMS * LOOR I-JOIST***

**TL MAX 1/4" DIFFERENTIAL BETWEEN ADJACENT TRUSSES

- I. COVER SHEET
- 2. SITE PLAN 3. FOUNDATION PLAN
- 4. FLOOR PLAN NOTED 5. FLOOR PLAN - DIMENSIONED
- 6. EXTERIOR ELEVATIONS
- 7. REFERENCE ROOF PLAN
- 7.1. ROOF FRAMING PLAN 8. SECTIONS
- 9. SECTIONS
- 10. DETAILS
- II. ELECTRICAL PLAN 12. WATERPROOFING DETAILS
- 13. STRUCTURAL DETAILS
- 14. STRUCTURAL DETAILS

15. STRUCTURAL DETAILS

INTERNAL PRESSURE COEFFICIENT +/- 0.18 NOTE: MEAN ROOF HEIGHT FOR TYPICAL SINGLE STORY BUILDING IS 15FT, AND FOR 2 STORY IS 30 FEET ASCE 7-16 WALL DESIGN ALLOWABLE COMPONENTS AND CLADDING WIND PRESSURES AND SUCTIONS FOR MEAN ROOF HEIGHT ≤ 60 ft

108.0 MPH

ENCLOSED

	EFFECTIVE WIND AREA (SQ FEET)		ID PRESSURE +) VALUE DEN (-) VALUE DEN	OTE	S PRE	SSURE				
	AREA		4		5					
	10 - 19.99	1	(+) 49.4 (-) 53.5	(2	, ,	(+) 61.3 (-) 82.0				
-LS	20 - 49.99	3	(+) 47.2 (-) 51.4	(2	1 1	(+) 58.5 (-) 76.4				
WALLS	50 - 99.99 5		(+) 44.2 (-) 48.4		: 1	(+) 54.9 (-) 69.1				
_	> 100	7	(+) 42.0 (-) 46.2	(8	, ,	(+) 52.1 (-) 63.7				
	GARA	GΕ	DOORS*		S	OFFIT				
	9'-0" x 7'-0"	16'-0" x 7'-0"								
	(+) 31.1 (-) 35.0	9	(+) 29.8 (-) 33.1	10		·) 35.6) 47.0				

WIND LOADING CRITERIA ASCE 7-16

WIND SPEED (ULTIMATE) WIND SPEED (ALLOWABLE)

ENCLOSURE CLASSIFICATION

EXPOSURE CATEGORY

BUILDING CATEGORY

BUILDING TYPE

	(+) 31.1 (-) 35.0	9	(+) 29.8 (-) 33.1	10	•) 35.6) 47.0			
ЭF	AREA		1	(1')	2		(3
ROOF	10 - 19.99	11	(+) 20.0 (-) 78.7	(16) ' '	20.0 45.2	(+) 2 (-) 10		23)	(+) 20.0 (-) 141.1
BLE REE	20 - 49.99	12	(+) 18.8 (-) 73.5	1761 ') 18.8 45.2	②0 (+) 1 (-) 9	8.8 7.0	24)	(+) 18.8 (-) 128.
IP/GAI DEGR	50 - 99.99	13	(+) 17.2 (-) 66.6) 17.2 45.2	②1) (+) 1 (-) 8		25)	(+) 17.2 (-) 110.5
I/HIF 7 D	> 100	14	(+) 16.0 (-) 61.46) 16.0 45.2	② (+) 1 (-) 8		26)	(+) 16.0 (-) 97.0
FLAT/HIP/GABI 0 TO 7 DEGRE									

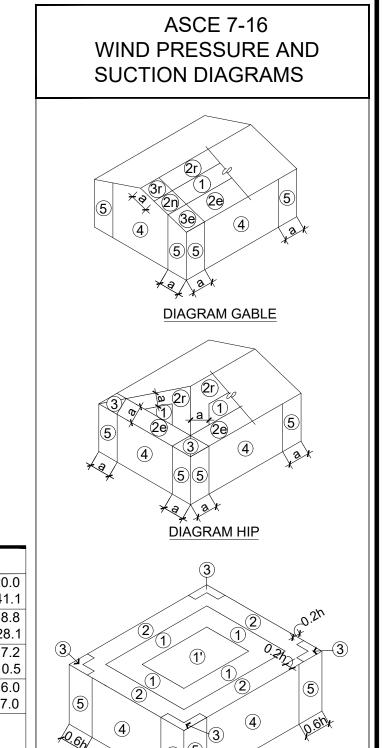


DIAGRAM FLAT/HIP/GABLE

						_	
27	AREA	1	(2e)	2n	2r	3e	3r
20 TO 27	10 - 19.99	②7 (+) 30.0 (-) 70.3	(+) 30.0 (-) 70.3	(+) 30.0 (-) 112.1	(+) 30.0 (-) 112.1	(+) 30.0 (-) 112.1	(+) 30. (-) 144.
Λ	20 - 49.99	②8 (+) 30.0 (-) 70.3	(+) 30.0 (-) 70.3	(+) 30.0 (-) 98.1	(+) 30.0 (-) 98.1	(+) 30.0 (-) 98.1	(+) 30. (-) 117.
ROOF E	50 - 99.99	② (+) 30.0 (-) 59.6	(+) 30.0 (-) 59.6	(+) 30.0 (-) 79.8	(+) 30.0 (-) 79.8	(+) 30.0 (-) 79.8	(+) 30. (-) 82.
E R ZEE	> 100	(+) 30.0 (-) 51.7	(+) 30.0 (-) 51.7	③8 (+) 30.0 (-) 65.9	(+) 30.0 (-) 65.9	(+) 30.0 (-) 65.9	(+) 30. (-) 82.
GABLE DEGRE							
				I	T	I	
45	AREA	1	(2e)	2n	2r	3e	3r

4	AREA	1	(2e)	2n	2r	3e	3r
, то	10 - 19.99	(+) 45.2 (-) 82.9	(+) 45.2 (-) 82.9	60 (+) 45.2 (-) 91.1	64 (+) 45.2 (-) 82.9	(+) 45.2 (-) 128.4	(+) 45.2 (-) 91.1
> 27	20 - 49.99	(+) 40.2 (-) 70.3	(+) 40.2 (-) 70.3	(+) 40.2 (-) 81.5	(+) 40.2 (-) 70.3	(+) 40.2 (-) 113.8	(+) 40.2 (-) 81.5
OOF	50 - 99.99	(+) 33.5 (-) 53.6	(+) 33.5 (-) 53.6	(+) 33.5 (-) 68.7	(+) 33.5 (-) 53.6	(+) 33.5 (-) 94.5	(+) 33.5 (-) 68.7
E R	> 100	(+) 28.4 (-) 41.0	(+) 28.4 (-) 41.0	(+) 28.4 (-) 59.1	(+) 28.4 (-) 41.0	(+) 28.4 (-) 79.8	(+) 28.4 (-) 59.1
GABI DEGF							

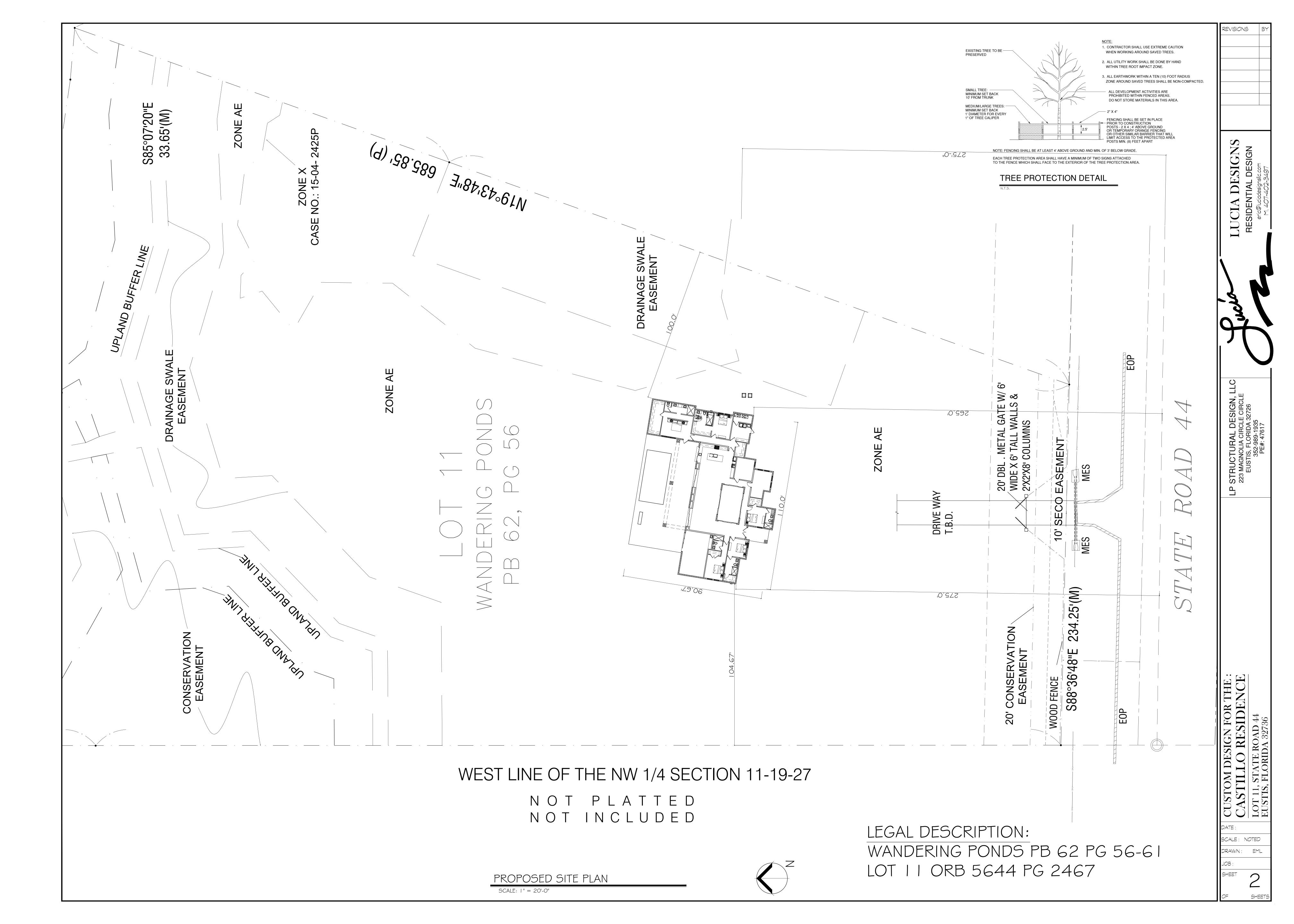
		AREA	1	(2e)	2r	3e	
ı	27	10 - 19.99	76 (+) 36.8 (-) 66.1	(+) 36.8 (-) 91.1	(+) 36.8 (-) 91.1	(+) 36.8 (-) 91.1	
ı	20 TO	20 - 49.99	77 (+) 31.8 (-) 58.5	(+) 31.8 (-) 81.5	(+) 31.8 (-) 81.5	(+) 31.8 (-) 81.5	
ı	F > 2	50 - 99.99	78 (+) 25.1 (-) 48.6	(+) 25.1 (-) 68.7	(+) 25.1 (-) 68.7	(+) 25.1 (-) 68.7	
ı	ROO	> 100	79 (+) 20.0 (-) 41.0	(+) 20.0 (-) 59.1	(+) 20.0 (-) 59.1	(+) 20.0 (-) 59.1	
	HIP F DEGI						
		AREA	1	2e	2r	3e	
	15	10 10 00	(+) 34.9	(+) 34.9	(100) (+) 34.9	(104) (+) 34.9	

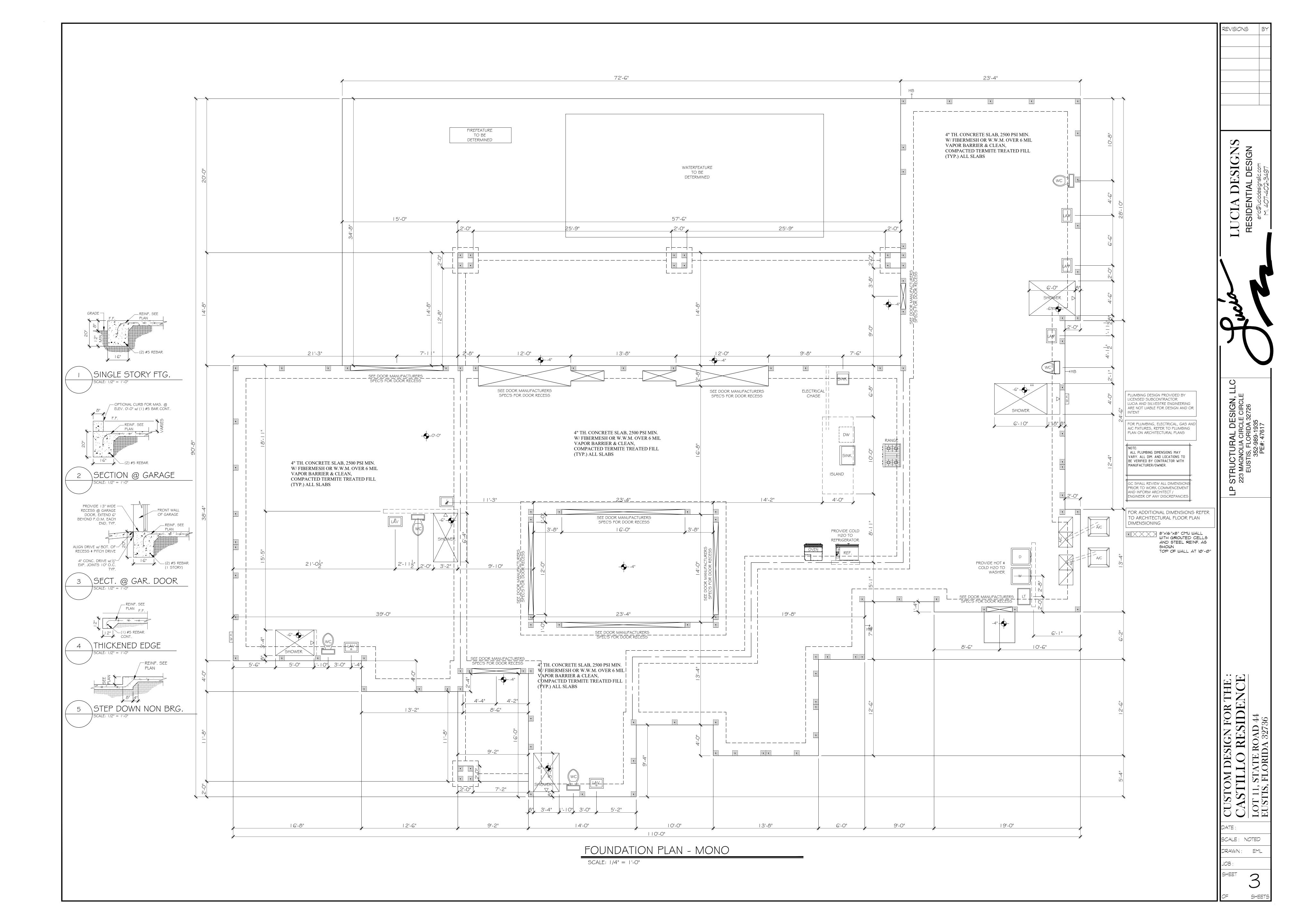
	AREA	1	2e	2r	3e	
) 45	10 - 19.99	92 (+) 34.9 (-) 70.3	96 (+) 34.9 (-) 84.0	(+) 34.9 (-) 114.2	(+) 34.9 (-) 111.6	
27 TO	20 - 49.99	93 (+) 30.4 (-) 62.6	97 (+) 30.4 (-) 66.5	(+) 30.4 (-) 94.6	(+) 30.4 (-) 84.8	
F > 2	50 - 99.99	(+) 24.5 (-) 52.4	(+) 24.5 (-) 43.4	(+) 24.5 (-) 68.9	(+) 24.5 (-) 49.4	
ROOF	> 100	(+) 20.0 (-) 44.5	(+) 20.0 (-) 41.0	(+) 20.0 (-) 49.4	(+) 20.0 (-) 49.4	
IP R EGF		,			,	

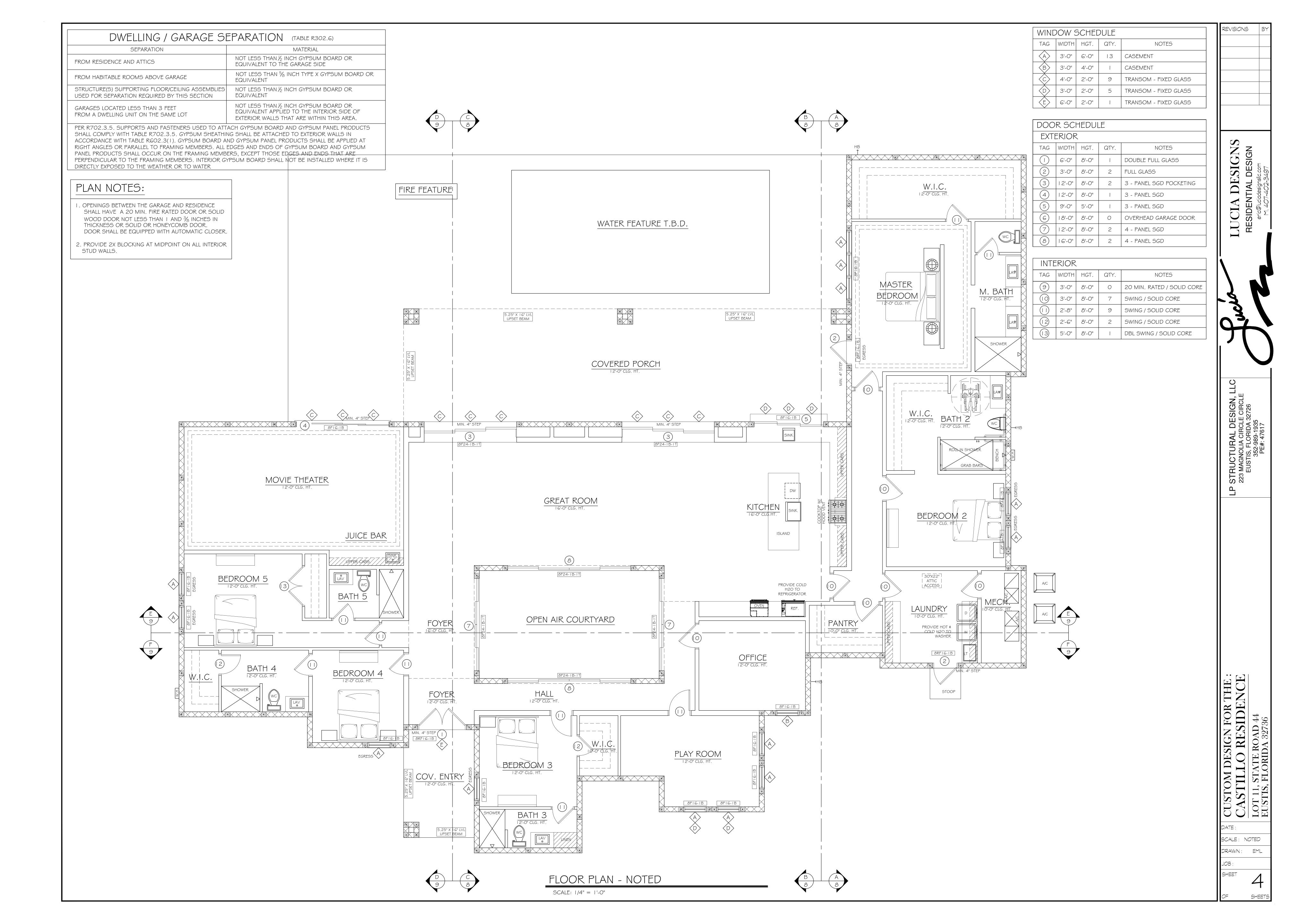
GENERAL PRESSURE NOTES

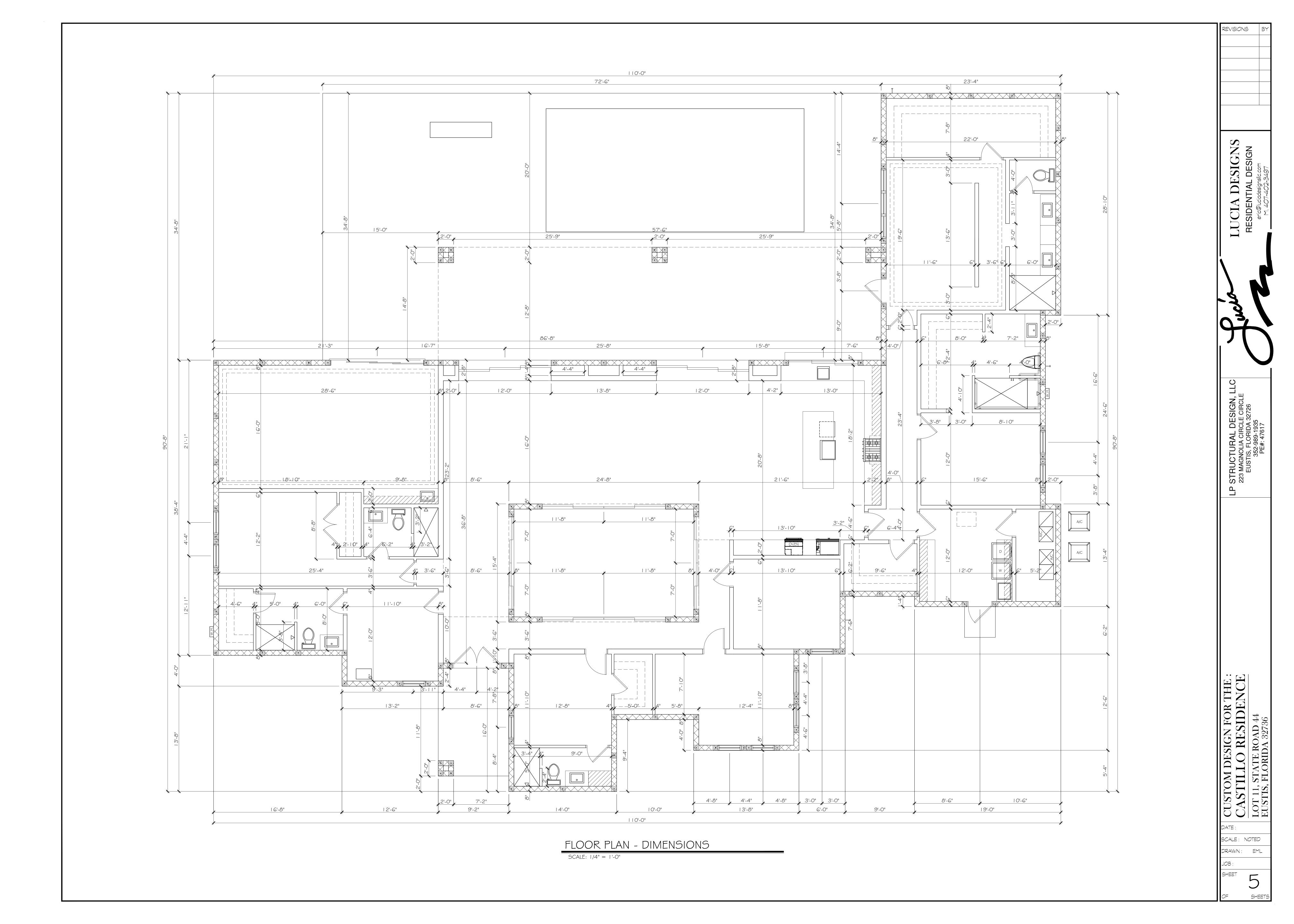
- 1. ABOVE SHOWN PRESSURES ARE ULTIMATE WIND PRESSURES TO BE APPLIED AS REQUIRED.
- 2. "a" = END ZONE IS ONLY WITHIN 6'-0" OF ALL EXTERIOR BUILDING CORNERS. INDICATED PRESSURES CAN BE INTERPOLATED FOR OTHER DOOR SIZES, OTHERWISE USE LOAD ASSOCIATED WITH THE LOWER EFFECTIVE AREAS.
- 3. DESIGNATED AREAS WHERE THE ULTIMATE WIND SPEED IS 140 MPH OR GREATER AND IS CONSIDER TO BE IN THE WIND-BOURNE DEBRIS AREA. CONTRACTOR TO PROVIDED ADDITIONAL INFO AS REQUIRED FOR PERMITTING.

CALE: NOTED DRAWN: EML

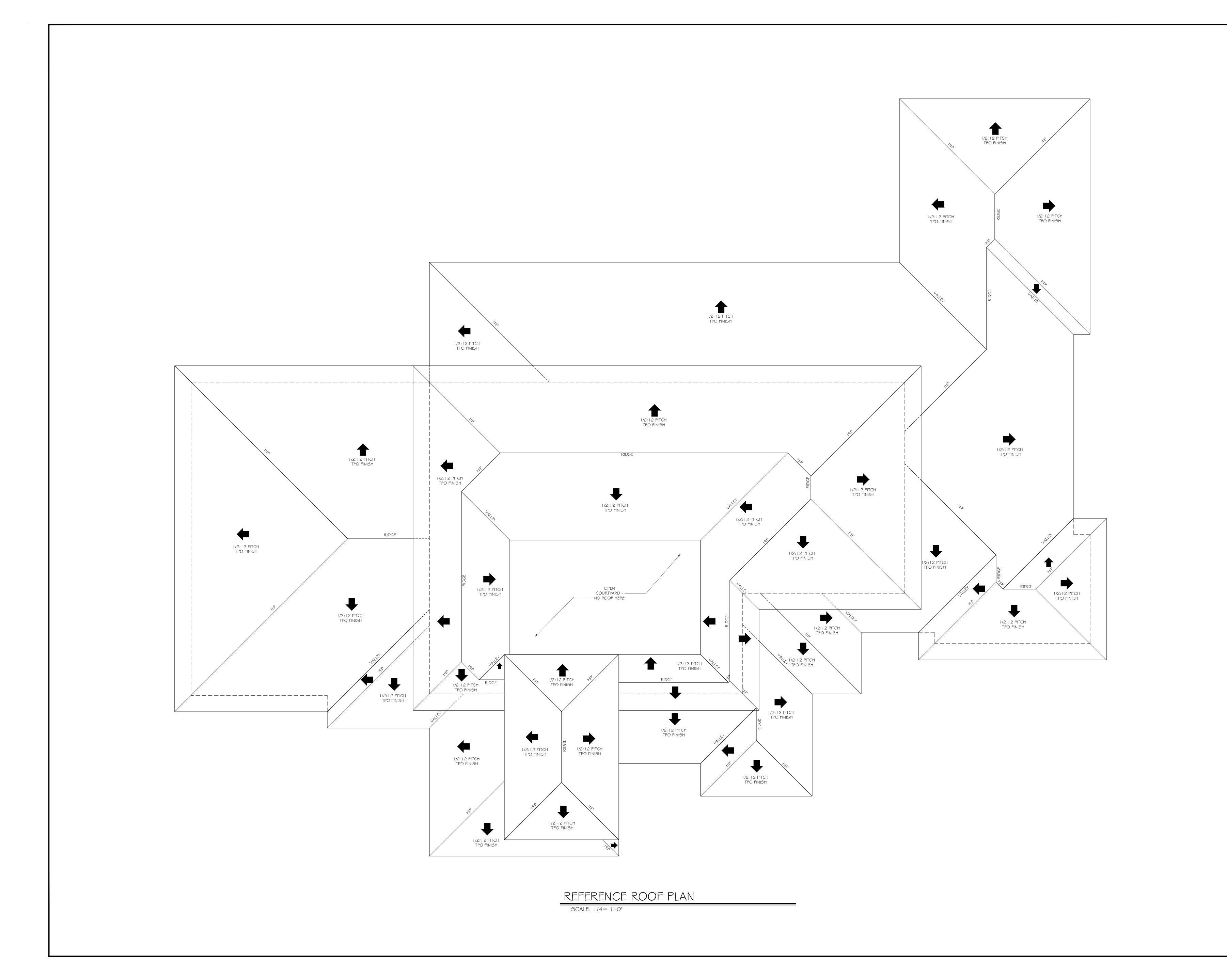








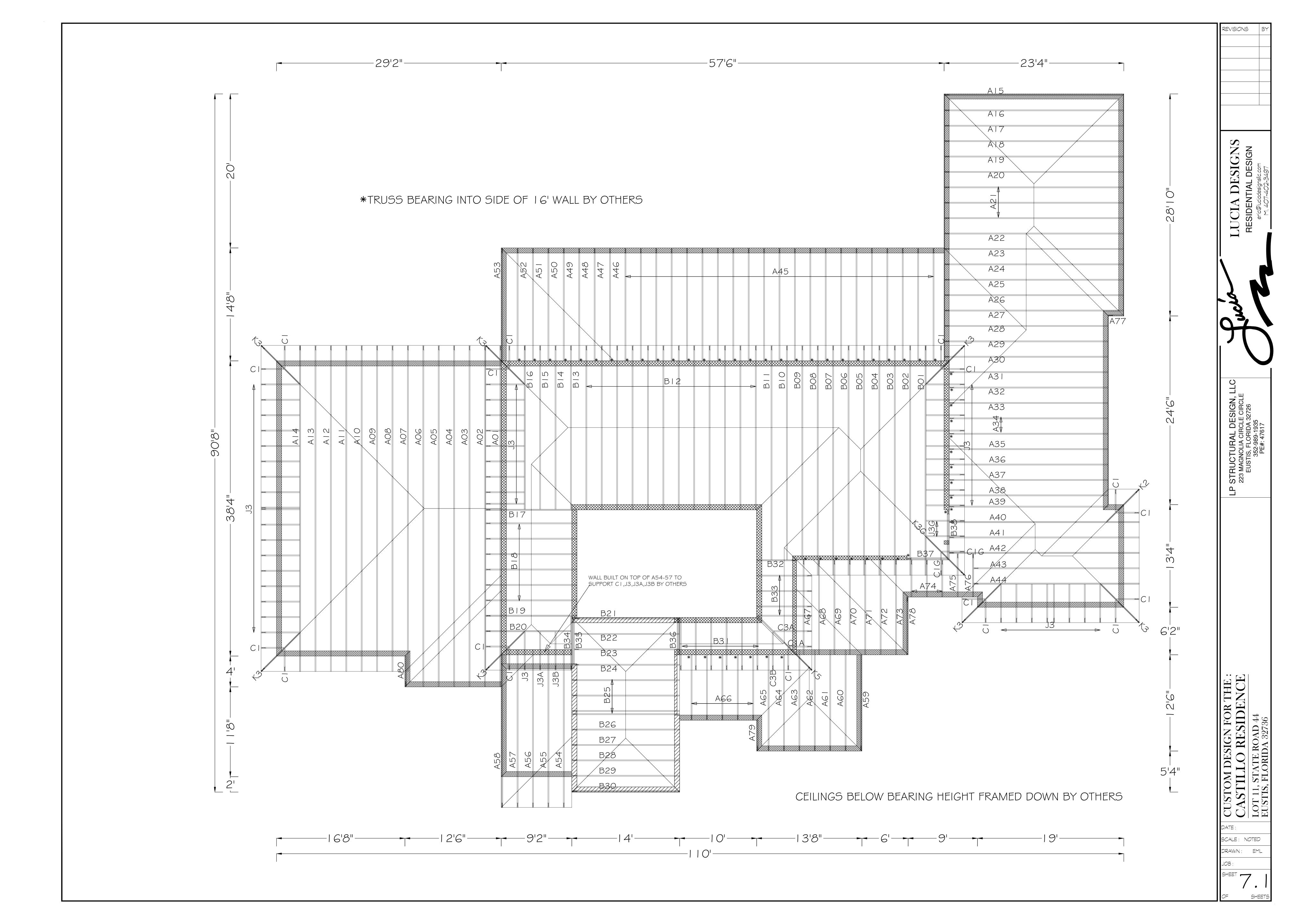




CUSTOM DESIGN FOR THE:
CASTILLO RESIDENCE
LOT 11, STATE ROAD 44
EUSTIS, FLORIDA 32736

SCALE: NOTED

DRAWN: EML





1 DESIGN FOR THE:
LO RESIDENCE

FATE ROAD 44

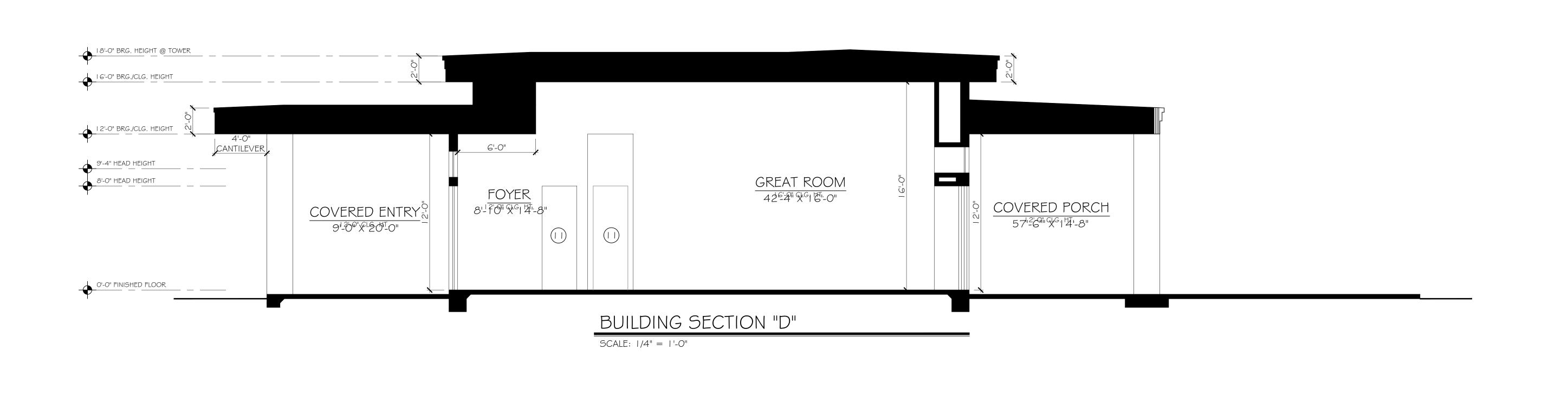
LORIDA 32736

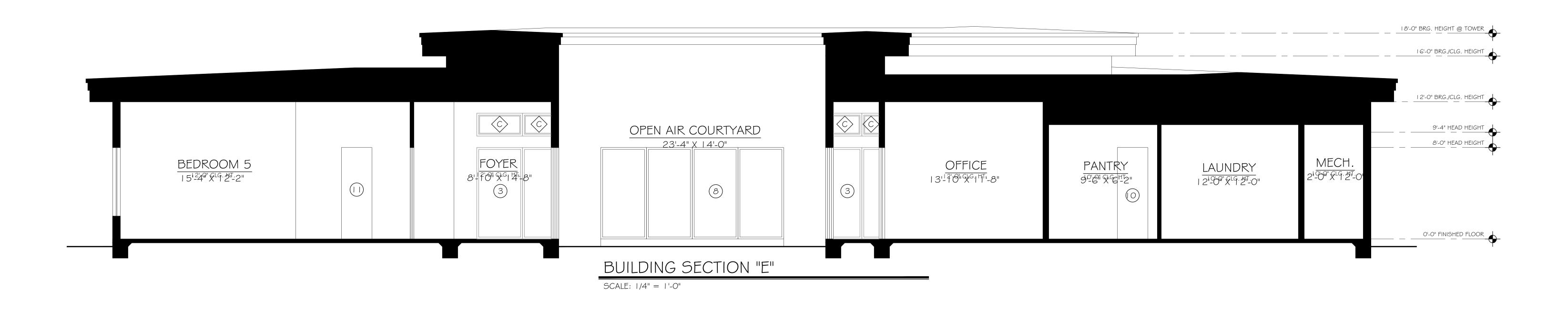
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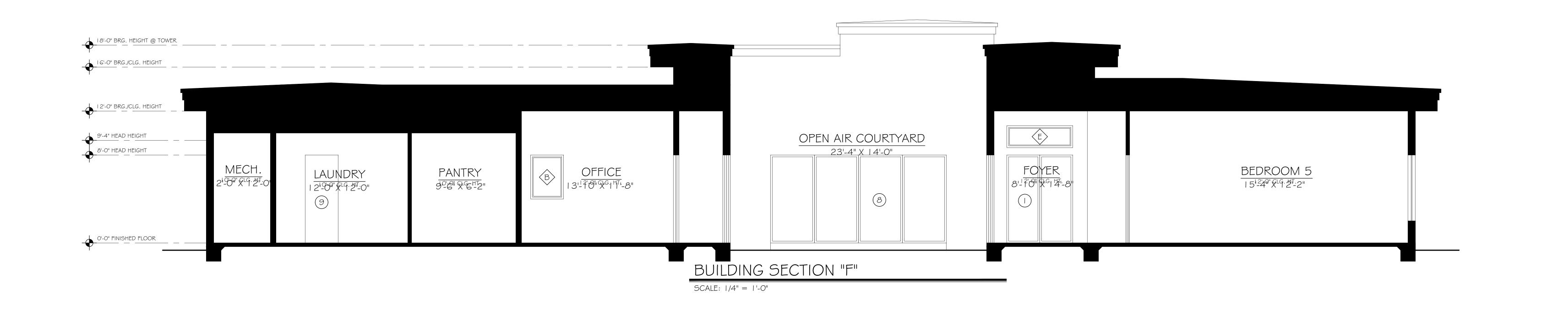
LP STRUCTURAL DESIGN, LLC 223 MAGNOLIA CIRCLE CIRCLE EUSTIS, FLORIDA 32726 352-989-1935 PE#: 47617

LUCIA DESIGNS RESIDENTIAL DESIGN

REVISIONS







LUCIA DESIGN
RESIDENTIAL DESIGN
eric@luciadesignsllc.com

REVISIONS

LP STRUCTURAL DESIGN, LLC
223 MAGNOLIA CIRCLE CIRCLE
EUSTIS, FLORIDA 32726
352-989-1935
PE#: 47617

CASTILLO RESIDENCE

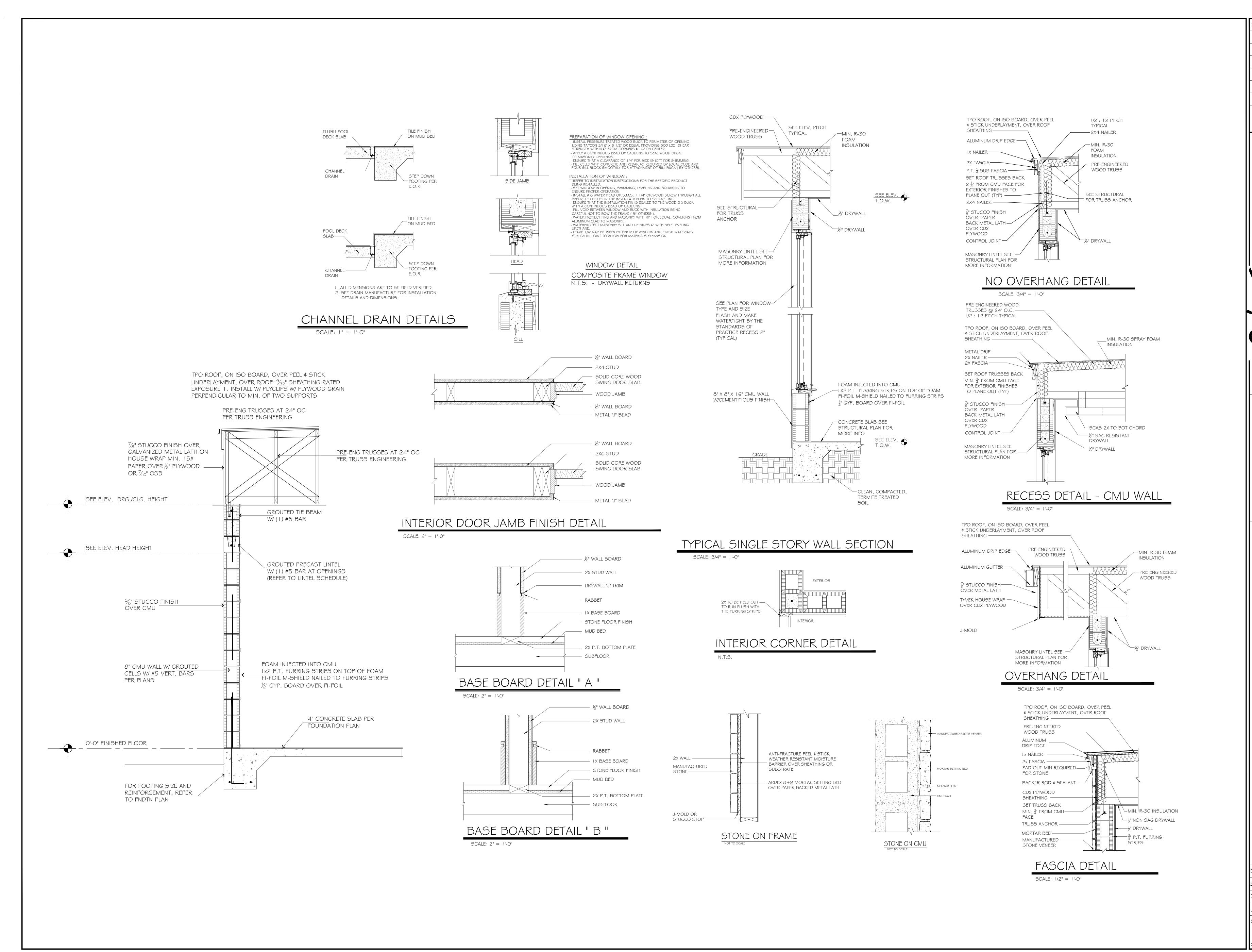
CASTILLO RESIDENCE

LOT 11, STATE ROAD 44

EUSTIS, FLORIDA 32736

SCALE: NOTED

DRAWN: EML



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CUSTOM DESIGN FOR THE:
CASTILLO RESIDENCE
OT 11, STATE ROAD 44

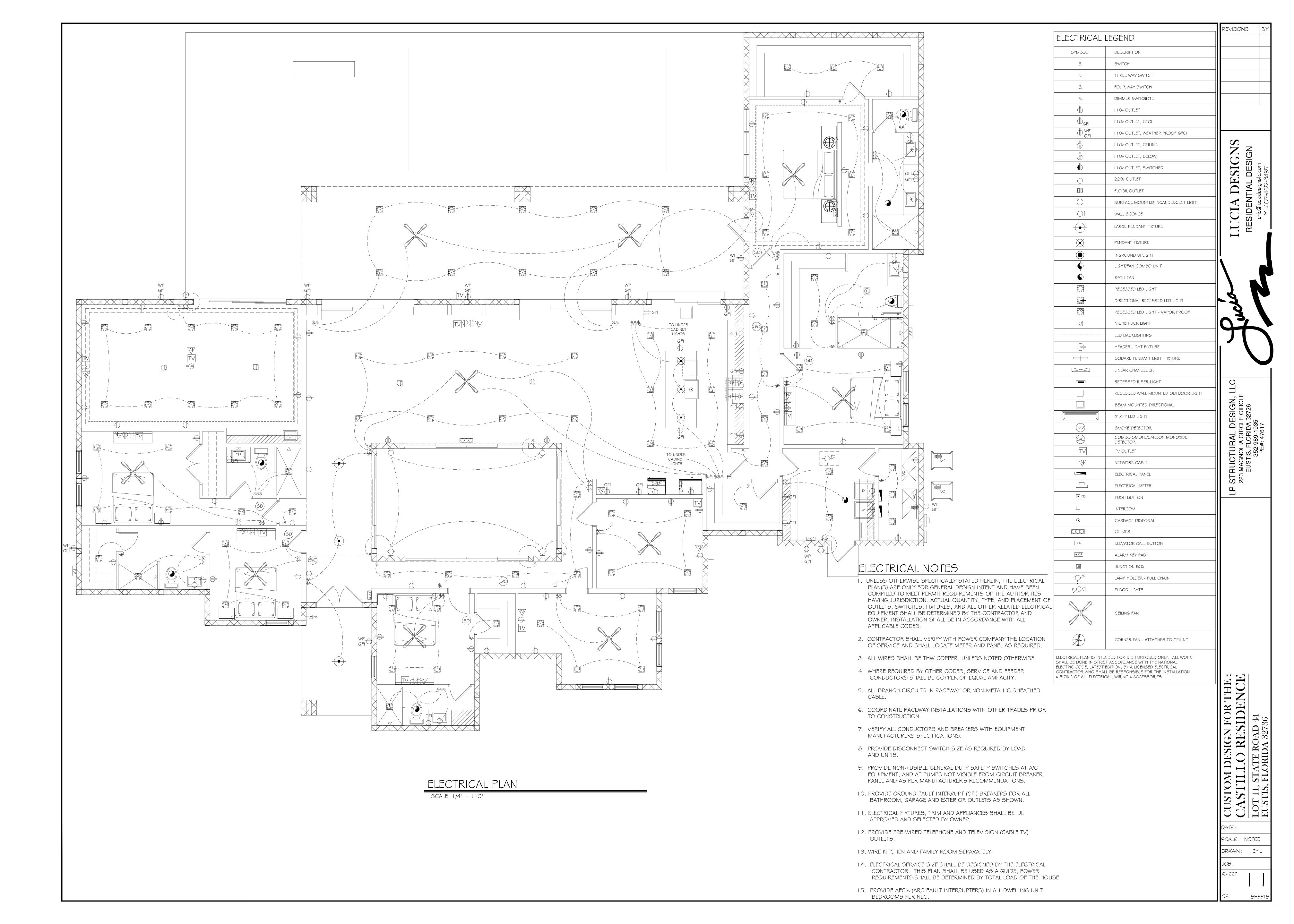
DATE:

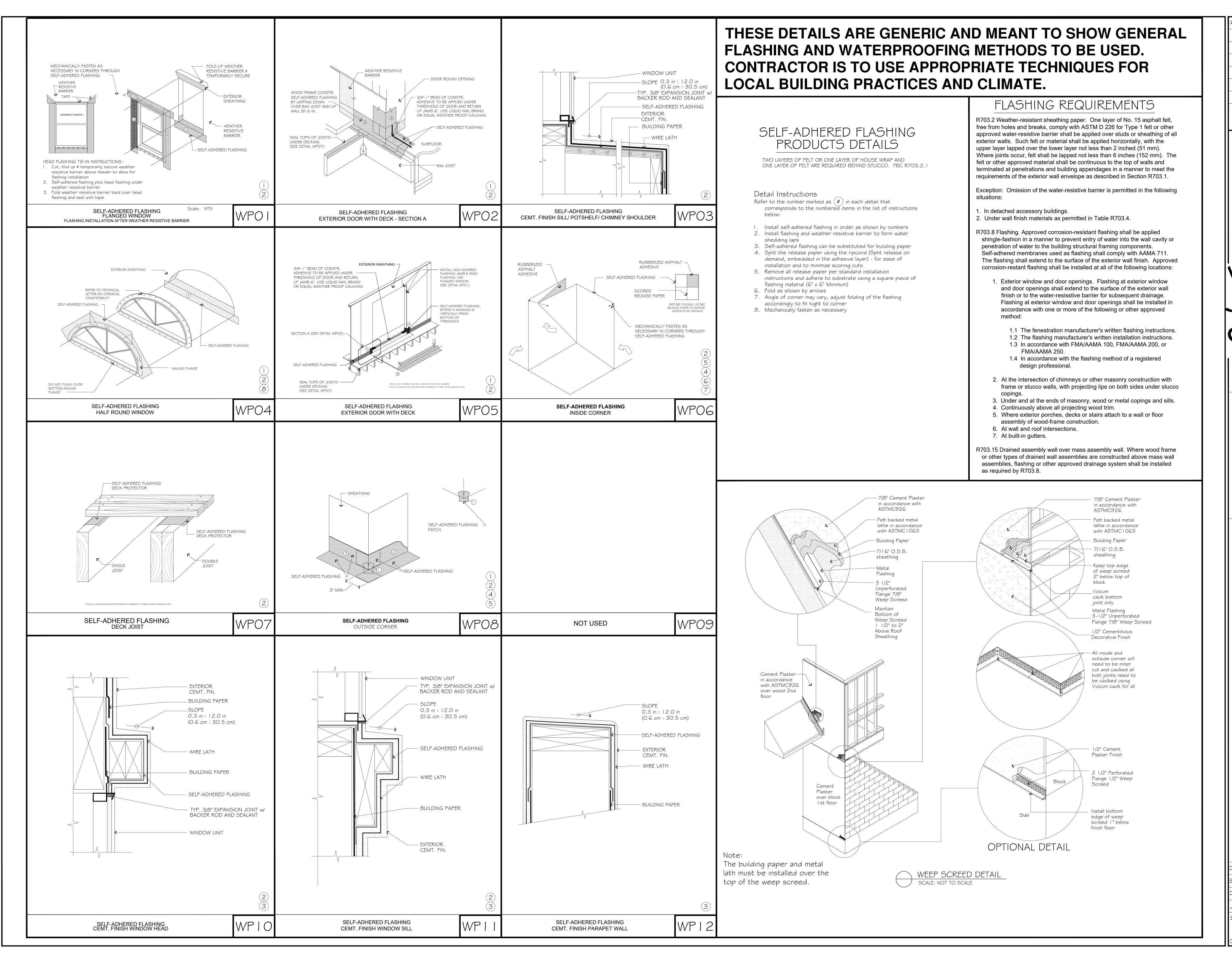
SCALE: NOTED

DRAWN: EML

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EET | O





SCALE: NOTED DRAWN: EML

REVISIONS

CAST-CASETÉ

SAFE LOAD TABLES FOR GRAVITY, UPLIFT & LATERAL LOADS

		8" PI	RECAST	T W/	2" RE	CESS	DOOR	U-LIN	TELS
CAST	-CRETE			GF	RAVI	TY			
	TYPE	anu.c	8RF6-0B	8RF10-0B	8RF14-0B	8RF18-0B	8RF22-0B	8RF26-0B	8RF30-0B
LENGTH	1112	8RU6	8RF6-1B	8RF10-1B	8RF14-1B	8RF18-1B	8RF22-1B	8RF26-1B	8RF30-1B
4'-4" (52")	PRECAST	1.480	1591	3053	2982	3954	4929	5904	6880
4-4 (32)	INLUADI	1489	1827	3412	4982	6472	7947	9416	10878
4'-6" (54")	PRECAST	1357	1449	2782	2714	3600	4487	5375	6264
4-6 (34)	TRECAST	1337	1702	3412	4982	6472	7947	9416	10878
ELQU (CQU)	DDEC A GT	785	832	1602	1550	2058	2566	3075	3585
5'-8" (68")	PRECAST		1153	2162	4074	6472	6516	5814	6839
FL LOW (70W)	DDFC A GT	725	779	1500	1449	1924	2400	2876	3352
5'-10" (70")	PRECAST	735	1103	2051	3811	6472	6516	5450	6411
6'-8" (80")	PRECAST	0.00	907	1677	2933	2576	3223	3872	4522
6-0 (00)	TRECAST	822	907	1677	2933	4100	6730	8177	6707
71 (11 (0011)	PRECAGE	005	761	1377	2252	1958	2451	2944	3439
7'-6" (90")	PRECAST	665	764	1377	2329	3609	5492	6624	5132
	I) DDECACT		420	834	1253	1071	1342	1614	1886

		8" PI	RECAST	ΓW/	2" RE	CESS	DOOR	U-LIN	TELS	
CAST-	RETE			U	PLIF	· T			LAT	ERAL
	TYPE	8RFG-IT	8RF10-1T	8RF14-1T	8RF18-1T	8RF22-1T	8RF26-1T	8RF30-1T	8 DUIC	0050
LENGTH	1112	8RF6-2T	8RF10-2T	8RF14-2T	8RF18-2T	8RF22-2T	8RF26-2T	8RF30-2T	8RU6	8RF6
4'-4" (52") P	PRECAST	1244	1573	2413	3260	4112	4967	5825	932	932
4-4 (32) 1	IZ) TRECAST	1244	1519	2339	3170	4008	4850	5696		932
4'-6" (54") P	'RECAST	1192	1507	2311	3121	3937	4756	5577	853	853
-1-0 (3-1) 1	4) TRECAST	1192	1455	2240	3036	3837	4643	5453	033	055
5'-8" (68") P	B" (68") PRECAST	924*	1172	1795	2423	3055	3689	4325	501	501
3-0 (60) 1	RLCAJI	924	1132	1741	2357	2978	3603	4230	301	301
5'-10" (70") P	PRECAST	896*	1138	1742	2352	2965	3581	4198	469	100
3-10 (70) 1	KLCAJI	896	1099	1690	2288	2891	3497	4106	460	469
6'-8" (80") P	'RECAST	778	882	1513	2042	2573	3107	3642	830	1100
8-0 (00) 1	RECAST	778	956	1468	1987	2509	3035	3563	050	1100
7'-6" (90") P	'RECAST	688	697	1325	1810	2280	2753	3227	710	941
7-6 (30) 1	KLCAJI	688	849	1302	1762	2225	2690	3157	710	541
9'-8" (116")F	'RECAST	533*	433	808	1123	1413	1704	1995	516	
	TLUAUT	533	527	1009	1369	1728	2088	2450	016	614
		*REI	DUCE VALL	IE BY 15%	FOR GRAD	DE 40 FIELI	O REBAR			

SPECIFIED COMPOSITE LINTEL DEPTH IS COURSES OF BLOCK ABOVE LINTEL ARE ACCEPTABLE AS LONG AS ALL COURSES ABOVE P.C. LINTEL ARE FILLED W/ GROUT.

PRE-CAST LINTEL ENGINEERING PER CAST-CRETE.

8" PRECAST & PRESTRESSED U-LINTELS

 3166
 4473
 6039
 7526
 9004
 10472
 11936

 3166
 4473
 6039
 7526
 9004
 10472
 11936

 3138
 3377
 4689
 6001
 7315
 8630
 9947

598 935 | 1365 | 1854 | 2441 | 3155 | 4044

 NR
 NR
 NR
 NR
 NR
 NR

 420
 695
 1250
 1855
 2370
 2890
 3410

 NR
 NR
 NR
 NR
 NR
 NR
 NR

 310
 530
 950
 1400
 1800
 2200
 2600

 NR
 NR
 NR
 NR
 NR
 NR

 240
 400
 750
 1090
 1400
 1720
 2030

 NR
 NR
 NR
 NR
 NR
 NR
 NR

 183
 330
 610
 940
 1340
 1780
 2110

3'-6" (42") PRECAST

4'-6" (54") PRECAST

5'-4" (64") PRECAST

5'-10" (70") PRECAST

6'-6" (78") PRECAST

7'-6" (90") PRECAST

9'-4" (112")PRECAST

10'-6" (126") PRECAST

1'-4" (136") PRECAST

12'-0" (144") PRECAST

13'-4" (160") PRECAST

14'-0" (168") PRECAST

14'-8" (176") PRESTRESSED

7'-4" (208") PRESTRESSE

19'-4" (232") PRESTRESSED

21'-4" (256") PRESTRESSED

GENERAL NOTES

2. Shore filled lintels as required.

I. Provide full mortar head and bed joints.

22'-0" (264") PRESTRESSED | 140 | 1

3. Installation of lintel must comply with the architectural and/or structural drawings.

4. Lintels are manufactured with 5-1/2" long notches at the ends to accommodate

7. 7/32" diameter wire stirrups are welded to the bottom steel for mechanical anchorage. 8. Cast-in-place concrete may be provided in composite lintel in lieu of concrete masonry units.

vertical cell reinforcing and grouting.

5. All lintels meet or exceed L/360 vertical deflection, except lintels 17'-4" and

9. Safe load ratings based on rational design analysis per ACI 318 and ACI 530

6. Bottom field added rebar to be located at the bottom of the lintel cavity.

longer with a nominal height of 8" meet or exceed L/180.

24'-0" (288") PRESTRESSED 12

2302 3138 3377 4689 6001 7315 8630 9947 3166 4473 6039 7526 9004 10472 11936 2325 2496 3467 4438 5410 6384 7358 2646 4473 6039 7526 9004 10472 11936 1787 1913 2657 3403 4149 4896 5644 2170 4027 6039 7526 9004 10472 9668 1223 1301 1809 2317 2826 3336 3846 1665 2889 5057 6096 5400 6424 7450 972 1000 1059 1474 1889 2304 2721 3137 972 1459 2464 4144 5458 4437 5280 6122 1255 2101 3263 2746 3358 3971 4585

MATERIALS

- I. f'c precast lintels = 3500 psi. 2. f'c prestressed lintels = 6000 psi.
- 3. f'c grout = 3000 psi w/ maximum 3/8" aggregate. 4. Concrete masonry units (CMU) per ASTM C90 w/

CAST-CAGTE

2'-10" (34") PRECAST

3'-6" (42") PRECAST

4'-0" (48") PRECAST

4'-6" (54") PRECAST

5'-4" (64") PRECAST

5'-10" (70") PRECAST

6'-6" (78") PRECAST

7'-6" (90") PRECAST

9'-4" (112")PRECAST

10'-6" (126") PRECAST

| | | -4" (| 36") PRECAST

12'-0" (144") PRECAST

13'-4" (160") PRECAST

14'-0" (168") PRECAST

14'-8" (176") PRESTRESSEI

17'-4" (208") PRESTRESSED

19'-4" (232") PRESTRESSED

21'-4" (256") PRESTRESSED

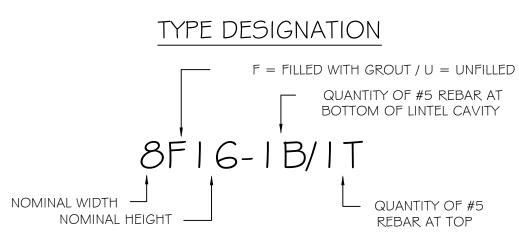
22'-0" (264") PRESTRESSED

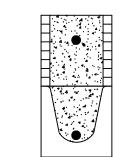
24'-0" (288") PRESTRESSED

- minimum net area compressive strength = 1900 psi. 5. Rebar provided in precast lintel per ASTM A615 GR60.
- Field rebar per ASTM AG 15 GR40 or GR60. 6. Prestressing strand per ASTM A416 grade
- 270 low relaxation. 7. 7/32 wire per ASTM A510. 8. Mortar per ASTM C270 type M or S.

SAFE LOAD TABLE NOTES

- I. All values based on minimum 4" bearing. Exception: Safe loads for unfilled lintels must be reduced by 20% if bearing length is less than 6-1/2". Safe loads for all recessed lintels based on 8" nominal bearing. 2. N.R. = Not Rated.
- 3. Safe loads are total superimposed allowable load on the section specified. 4. Safe loads based on grade 40 or grade 60 field rebar.
- 5. Additional lateral load capacity can be obtained by the designer by providing addional reinforced masonry above the precast lintel.
- 6. One #7 rebar may be substituted for two #5 rebars in 8" lintels only.
- 7. The designer may evaluate concentrated loads from the safe load tables by calculating the maximum resisting moment and shear at d-away from the face of support. 8. For composite lintel heights not shown, use safe load from next lower height.
- 9. All safe loads in units of pounds per linear foot.

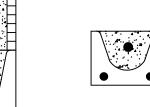




8F16-1B

8" PRECAST & PRESTRESSED U-LINTELS

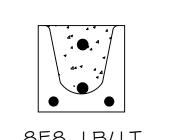
1272 | 1315 | 1875 | 2441 | 3010 | 3583 | 4157



7-5/8"ACTUAL

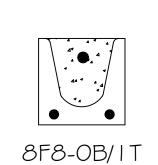
8" NOMINAL WIDTH

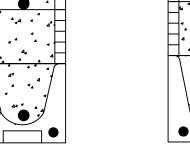
8RF6-0B/1T



NOMINAL WIDTH —

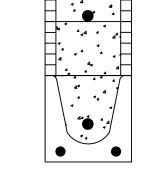
NOMINAL HEIGHT



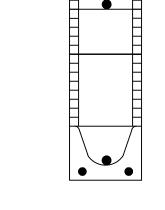


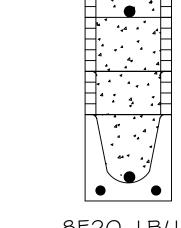
#5 REBAR AT TOP

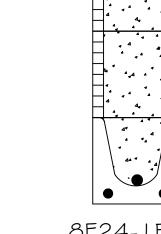
QUANTITY OF #5 REBAR AT TOP

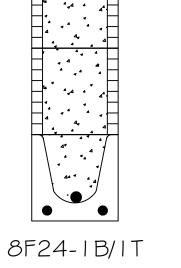


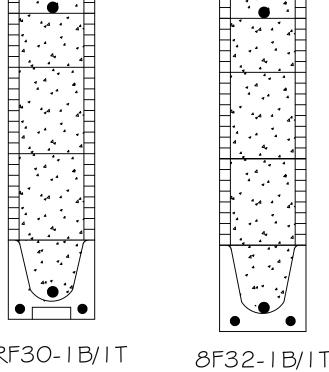
535 | 928 | 1497 | 2179 | 2618 | 3595 | 2875

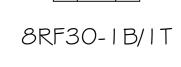


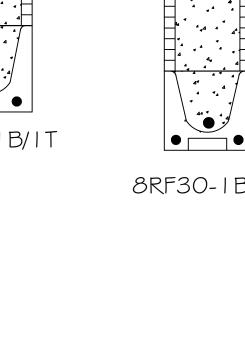


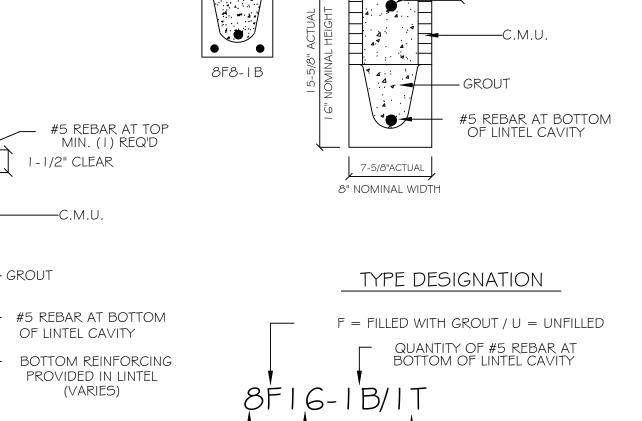










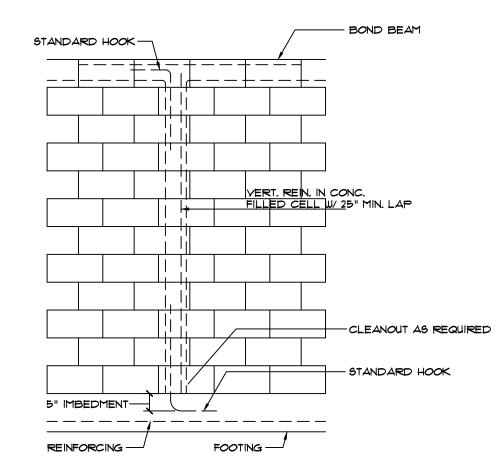


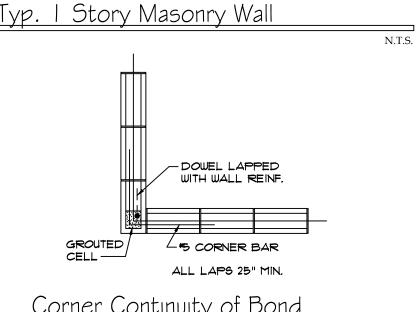




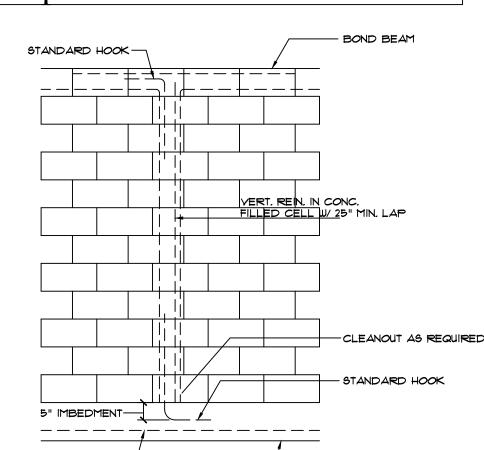
Corner Continuity of Bond Beam and Wall Reinforcement

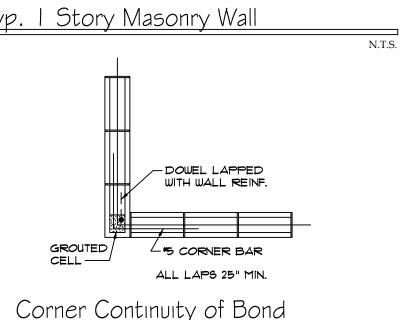
8" D BLOCK TIEBEAM W/1-#5 BAR CONTINUOUS STANDARD - HOOK \neg STANDARD HOOK + 90 DEG. (10" MIN SEE FLOOR





Step Down Tie Beam Detail N.T.S.







ZONES (2) AND (3): 4" O.C. EDGE AND 4" O.C. IN FIELD

GABLE SYSTEMS

ZONES (1) AND (2e): 6" O.C. EDGE AND 6" O.C. IN FIELD ZONES (2n) AND (2r): 6" O.C. EDGE AND 6" O.C. IN FIELD ZONES (3e) AND (3r): 4" O.C. EDGE AND 4" O.C. IN FIELD

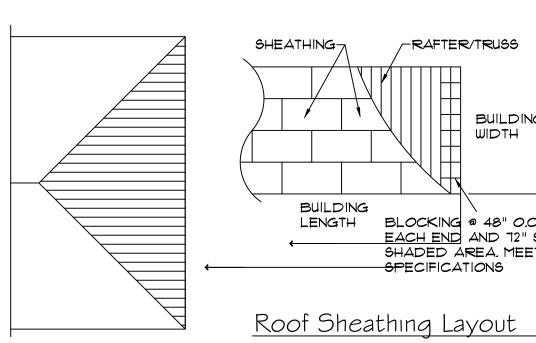
HIP SYSTEMS

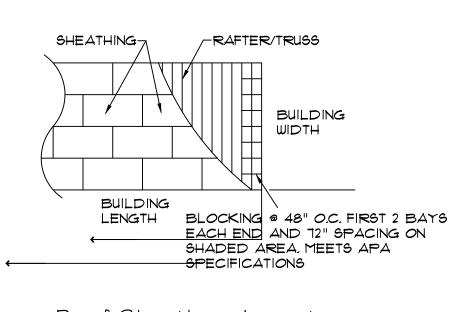
ZONE (1)----- : 6" O.C. EDGE AND 6" O.C. IN FIELD ZONE (2e) ----- : 6" O.C. EDGE AND 6" O.C. IN FIELD ZONES (2r) AND (3e): 4" O.C. EDGE AND 4" O.C. IN FIELD

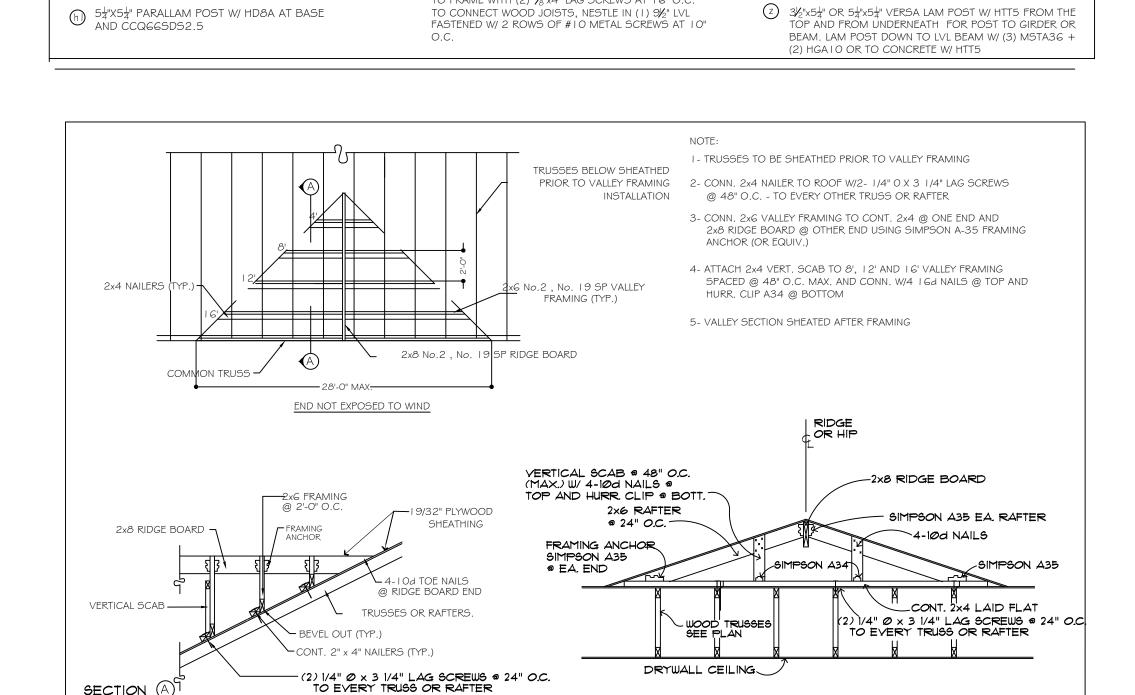
(3) I Od. NAILS PER BOARD EDGES & FIELD ALL ZONES 1x12/1x10 BOARD 1x6 / 1x8 BOARD (2) I Od. NAILS PER BOARD EDGES \$ FIELD ALL ZONES

(I) EDGE SPACING ALSO APPLIES OVER GABLE END WALLS OR TRUSSES (2) PASLODE 3" X .099" DIAMETER POWER DRIVEN COATED SCREW NAILS MAY BE USED IN LIEU OF 10d. RING SHANK NAILS WITH REDUCED SPACING AS NOTED BELOW. 12" SPACE CHANGES TO 8", 6" TO 4", AND 4" OR 3" CHANGES TO 2 1/2".

1/2" GYPSUM CEILING : Use 5d Nails @ 7" on center SECOND FLOOR NAILING : 10d @6" O.C. Edges (glue \$ nail) @ 12" O.C @ Field







CONNECTORS TO EXISTING GROUTED CMU SIMPSON

J MASONRY HANGER 1101/4 0 X 2 1/4*1AFCUND Uplift 1810

HGUM550/11 (8) 5/4 X5" TITEN HD ANCHORS TO GROUTED Grav 14,940

CMU AND 24- ¼"X2½" 9DS SCREWS TO BEAM Uplift 42,300

HUCMG | 2 (max)
MASONRY HANGER

UNLESS NOTED OTHERWISE:

• WHERE CONNECTOR NOT NOTED FOR TRUSS TO FRAME

EXIST. CMU USE 30 • ALL INTERIOR BEAMS USE 6X 2 ON FRAME AND 2X 2

• USE HUS26 AS I PLY HANGER AND HGUS48 AS 2 PLY HANGER

GIRDER TRUSS, ONE FROM EACH SIDE, SHALL BE

WITH MSTA36 AT 32" O.C. OR CS | 6-R 52" LONG AT 32"

WITH MSTA36 AT 32" O.C. AND (2) AT CORNERS, ENDS

2x....BASE PLATE W/ 1/2" BOLTS THROUGH STEEL BEAM

(k) 2x6 OR 2x8 OR 2x10 LEDGER BOARD W/ (3) $\frac{1}{4}$ " x4 $\frac{1}{2}$ " WOOD

(k) 2x12 LEDGER BOARD W/ (4) $\frac{1}{4}$ " x4 $\frac{1}{2}$ " WOOD SCREWS AT 16"

O.C. AT FRAME WALL OR 1/4"x41/2" WOOD SCREWS AT 4" TO ALL TRUSS MEMBERS OR (2) ROWS \(\frac{5}{8}\)"x6" SIMPSON TITEN

ANCHORS AT 18" O.C. TO GROUTED CMU OR CONCRETE

CS | 6-R 52" LONG AT 32" O.C. TO 2nd FLOOR FRAME

24" O.C. AND A35 AT BOTTOM 2x4 RIBBON TO EACH

OPTIONAL 2x4 TOP AND BOTTOM RIBBON W/ HETA20 AT

2 STAGGERED ROWS OF 3/8"~ x8" TITEN ANCHORS AT 24"

CONNECT TO FRAME W/ TWO STAGGERED ROWS OF 5/8"x8"

TO EACH LAPPED GROUTED CELL, (2) -1/8"x7" SIMPSON TITEN ANCHORS

TO FRAME WITH (2) 3/8"x4" LAG SCREWS AT 16" O.C.

SCREWS AT 6" TO ALL TRUSS MEMBERS OR 5"x6" SIMPSON TITEN ANCHORS AT 12" O.C. TO GROUTED CMU

CONT. I 3/4" x FLOOR DEPTH LVL RIMBOARD WITH HETA20 AT 24" O.C. TO GROUTED CMU and MSTA36 OR

(k4) STEEL "C" 10x20 CHANNEL FASTEN AS FOLLOW:

TITEN ANCHORS

LAG BOLTS AT 16" O.C.

SCREWS AT 16" O.C. AT FRAME WALL OR 1/4"x41/2" WOOD

O.C. AND AT CORNERS, ENDS AND TWO AT EACH SIDE OF

2nd FLOOR STUDS TO FLOOR SYSTEM

2nd/3rd FLOOR STUDS TO FLOOR SYSTEM

TOP FLANGE AT 24" O.C. (IF APPLICABLE)

• MINIMUM OF 6" EMBEDMENT FOR ANCHOR BOLTS TO SLAB

USE (13)/ TRUSS TO NEW CMU USE(2) TRUSS TO

12-16d + 5/8"A. Bolt | 2200 | TYPICAL MASONRY (1) EMBEDDED TRUSS

30 - 16d 2790 | TYPICAL MASONRY (2) EMBEDDED TRUSS

HIØA-2 2 PLY 9-lød x 1½" to plates lat. 1000/225 MINIMUM 18 GAUGE W/ FASTENERS 12-10d. NAILS -

TYPICAL CONNECTIONS AND DETAILS

12-16d + 5/8" A. Bolt 2300 ANCHOR HETA20, SHALL BE MINIMUM 18 GAUGE W/

5D\$ 1/4"x2 1/2" to face | grav | 5560 | FASTENERS | 9-100d. x11/2 " NAILS - 1,810 Lbs UPLIFT | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | FASTENERS | 9-100d. x11/2 " NAILS - 1,810 Lbs UPLIFT | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | FASTENERS | 9-100d. x11/2 " NAILS - 1,810 Lbs UPLIFT | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | FASTENERS | 9-100d. x11/2 " NAILS - 1,810 Lbs UPLIFT | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | FASTENERS | 9-100d. x11/2 " NAILS - 1,810 Lbs UPLIFT | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | FASTENERS | 9-100d. x11/2 " NAILS - 1,810 Lbs UPLIFT | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | FASTENERS | 9-100d. x11/2 " NAILS - 1,810 Lbs UPLIFT | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | FASTENERS | 9-100d. x11/2 " NAILS - 1,810 Lbs UPLIFT | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" to joist | Uplift | 3025 | SD\$ 1/4"x2 1/2" | SD\$ 1/4"

4) 1/4" dia,x3" screws per 695 uplift ANCHORS HETA20 APPLIED TO A MULTIPLE PLY

MBHU3.56 CMU 2-3/4"x5" titen hd anchors cmu 2210 less 14"/3345 14"/18"

CONNECTOR SCHEDULE

FASTENERS

(12) 8d x 1 1/2 NAILS

4-1/4"x2**½**" SCREWS

TOTAL OF (10) 10d. NAILS FOR ONE SIDE APPLICATION,

(LTS,

HTS

MIN. OF (3) 2x....STUDS SP#2

51/4"x51/4" PARALLAM OR LAM POST W/ (3) AT BASE AND

G"x6" P.T. POST W/ (7) x 2 OR(6)x 2 POST/EA BEAM OR GIRDER AND ABUGG AT BASE

4"x4" P.T. POST W/ (4) X 2 OR (5) x 2 POST/BEAM OR GIRDER AND (24) @ BASE TO MASONRY OR (4) x 2 TO WOOD (TYP.)

9 3½"x7" PARALLAM OR LAM POST W/ 23 AT BASE AND 23 2 AT TOP TO GIRDER OR BEAM

7"x7" OR 7"x5¼"PARALLAM POST W/5)AT BASE AND (2)
x 2 + (2) x 2 AT TOP TO BEAM

HGA I O AT TOP TO BEAM. IF FLOOR CONNECTION IS REQUIRED, APPLY HTT5 FROM TOP AND BOTTON.

t) 3½"x5½" PARALLAM OR LAM POST W/ (3) AT BASE AND COLUMN CAP CCQ46SDS2.5 WITH STRAPS ROTATED

WITH LGT2 FROM FROM THE FRONT ONE HGA I O FROM

(5) 5 1/4"x5 1/4" PARALLAM POST W/ (3) MSTA36 + (1)

(t) 3/2"x3/2" LAM POST W/ (2) MSTA36 + (1) HGA 10 AT BASE TO GIRDER OR BEAM AND CONNECTION AT TOP

(U) 3½"x3½" OR 3\"x5|" VERSA LAM POST SITS ON CMU W/

MTS20 AT TOP TO BEAM OR GIRDER TRUSS

HANGER FULL NAILING CONNECTION

OR DOUBLE HD8A AT TOP

HTT5 AT BASE AND AC4R (max.) (LCE4Z CORNER) POST

CONNECT TO 2 PLY GIRDER W/ LGT2 AND 3 PLY LGT3

BASE AND 23 🐼 AT TOP TO GIRDER OR BEAM

DBL 2x | 2 BLOCKING IN BETWEEN TRUSSES W/HUC4 | 2 AT

(y) 7"x7" PARALLAM POST W/ HD8A AT BASE AND (3) MSTA36

EACH END. APPLY 3/4" PLYWOOD GUSSET TO TRUSS FOR

⊕ 4"x4" P.T. POST W/ ♠ X 3 POST/BEAM
 ⊕ BASE (TYP.)

P 8"x8" P.T. POST W/ 🕏 x 2 POST/BEAM 5 @ BASE (TYP.)

CONNECTION AT BASE W/ HTT5

CAP TO BEAM

DOUBLE 2x8 OR 2x10 OR 2x12 LEDGER BOARD AS FOLLOW: (V) 4x6 POST WITH ABU46Z AT BASE AND (2) LSTA36 OR (2)

AT EACH LAPPED GROUTED CELL, APPLY 2-5%"~ x8" SIMPSON

51/4"x51/4" OR 54"x7"PARALLAM OR LAM POST W/ 23(A)

STUDS BASE

LGT3-SDS2.5

W/ SIMPSON HTT5 AT

RESTRAINT ROTACION BY BLOC FROM OPPOSITE SIDE

CONNECTOR

LGT2

LGT3

MGT

HGUM5.25/1

CONNECTOR SCHEDULE

(14) 10d

24- | Od x | \$ | /2"

6 - 10d

22 - 10d.

22 I Od

26 - 10d

14 - 16d

%" ANCHOR BOLT

30-led, nails to carrying bm and grav. 6,830 uplift 2,845

%" ANCHOR BOLT 4455

5090

6-10d x 1\$1/2"

9-lød xl½" to rafter/truss uplift 1ø15 9-lød x l½" to plates lat. 5ø5/285

18 - 10d 1295

5-8d and 5-8d. nails uplift 535 lat. III

CONNECTOR

META 18

MTS16 or MTS12

H2.5A

HTS20

HGT-2/3/4

SP-I

SP-4

HIØA I PLY

LSTA24

LSTA30

LSTA36

HUCQ612-SDS2.5 6

HUS26

HHUS5.50/10

HTT5

(2) STUDS / (3) X 2 OR(6) X 2 @ TOP AND (2) @ BASE - TYP. @ I STORY

(3) STUDS / (5) X 2 OR (6) X 2 @ TOP \$ (2)\$ @ BASE - TYP. @ | STORY

(3) STUDS / (3) X 3 OR(6) X 3 @ TOP

(7) X 3 OR(6) X 3 @ OR HTT5 AT LOWER BEAM OR
RIMBOARD OR GROUTED CMU OR SLAB

(2) STUDS / (3) X 2 OR(6) X 2 @ TOP

(4) STUDS / (5) X 3 OR(6) X 3 @ TOP # (2) X 3 - 52" LONG @ FLOOR AND (5) @ BASE

(5) STUDS / (5) X 3 OR(6) X 3 @ TOP # (2) X 3 - 52" LONG @ FLOOR AND

OPTIONAL CONNECTIONS AT BASE:

(3) STUDS / (5) X 3 OR(6) X 3 @ TOP # (6) X 3 @ FLOOR AND(5) @ BASE

(2) STUDS / (5) X 2 OR(6) X 2 @ TOP # (3) X 2 TO GROUTED CMU

(3) STUDS / (5) X 3 OR (6) X 3 @ TOP # (3) X 3 TO GROUTED CMU

(5) @ BASE

SECTION (

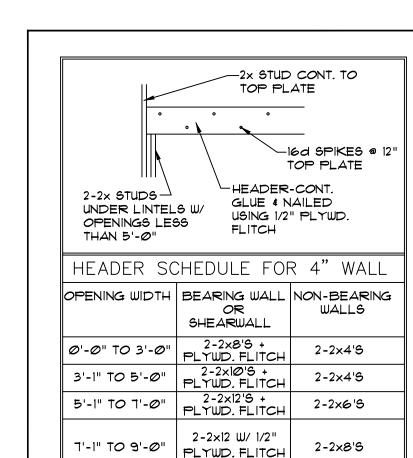
FIELD FRAMED VALLEY DETAIL N.T.S.

OPTIONAL CONNECTIONS AT BASE:
TO TOP OF CMU W(5)/TO TOP OF FLOOR
BEAM OR GIRDER W/ (5) x 3 OR(6) x 3

TO TOP OF CMU W(5)/ TO TOP OF FLOOR BEAM OR GIRDER W/ (5) x 3 OR(6)x 3

(2) STUDS / (2) + (4) @ TOP \$ HTT5 AT MASONRY OR (4) x 2 OR (6) x 2 @ BASE

HGUS48



	OR SHEARWALL	WALLS
Ø'-Ø" TO 3'-Ø"	2-2×8'S + PLYWD. FLITCH	2-2×4' S
3'-1" TO 5'-0"	2-2×10'5 + PLYWD. FLITCH	2-2×4' S
5'-1" TO 7'-0"	2-2×12'S + PLYWD, FLITCH	2-2×6'S
"@-' <i>8 O</i> T "I-'T	2-2×12 W/ 1/2" PLYWD. FLITCH	2-2×8′ S
2-2× STUDS— UNDER LINTEL OPENINGS LES THAN 5'-0"	HEADER GLUE & N USING 1/2	— 6d SPIKES © 12" FOP PLATE -CONT.
HEADER SC	HEDULE FOR	R 6" WALL
OPENING WIDTH	BEARING WALL OR	NON-BEARING WALLS

OPENING WIDTH	BEARING WALL OR SHEARWALL	NON-BEARING WALLS
Ø'-Ø" TO 3'-Ø"	3-2×10′5 + PLYWD, FLITCH	3-2×4'S
3'-1" TO 5'-0"	3-2×12′5 + PLYWD. FLITCH	3-2×6'S
5'-1" TO 7'-0"	3-14" LVL	3-2×8'S
7'-1" TO 9'-@"	3-14" LVL	3-2×1Ø'5

USE HEADER SIZES ABOVE UNLESS OTHERWISE NOTED ON FRAMING PLAN

- PRIMARY FRAMING (BEAMS,GIRDERS,ETC...) WERE SIZED USING 1800 'FB' EXTREME FIBER IN BENDING(SINGLE) 90 'FV' HORIZONTAL SHEAR 16E 'E' MODULES OF ELASTICITY
- 3. JOIST, RAFTERS, LINTELS, ETC. WERE SIZED 1200 'FB' EXTREME FIBER IN BENDING(SINGLE) 90 'FV' HORIZINTAL SHEAR 16E 'E' MODULES OF ELASTICITY

JPLIFT CONNECTION REQUIREMENT AT POINTS 'A'(TOP AND BOTTOM OF	N	MAXIMUM HEADER SPAN(FEET)						
HEADER STUDS. UPLIFT CONNECTION	3	6	9	12	15	18		
REQUIRED AT EACH END OF HEADER AND AT BOTTOM OF HEADER STUDS IN	*	NUMBER OF HEADER STUDS * SUPPORTING END OF HEADER						
ADDITION TO CONNECTORS AT WALL STUDS	1	2	2	2	2	2		
UNSUPPORTED STUD WALL HEIGHT SPACING		NUMBER OF FULL LENGTH STUDS AT EACH END OF HEADER						
10' 12" OR LESS 16"	2 2	2	3	3 3	3 3	3		
OR LL95 76 24"		2	2	2	2	2		
GREATER 12"	2	2	3	4	5	5		
THAN 10' 16"	2	2	3	3	4	4		
24"	1 1	2	2	2	3	3		

ASCE 7-16

DIAGRAM GABLE

DIAGRAM HIP

DIAGRAM FLAT/HIP/GABLE

WIND PRESSURE AND

SUCTION DIAGRAMS



P STRUCTURAL DESIGN, L 223 MAGNOLIA CIRCLE CIRCLE EUSTIS, FLORIDA 32726 352-989-1935 PE#: 47617

REVISIONS



REVISIONS



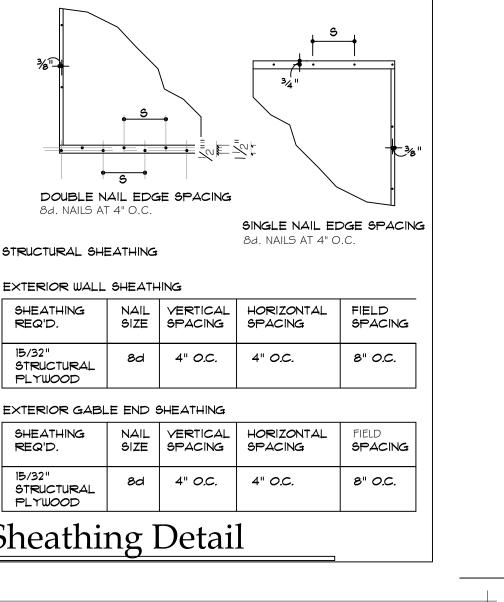


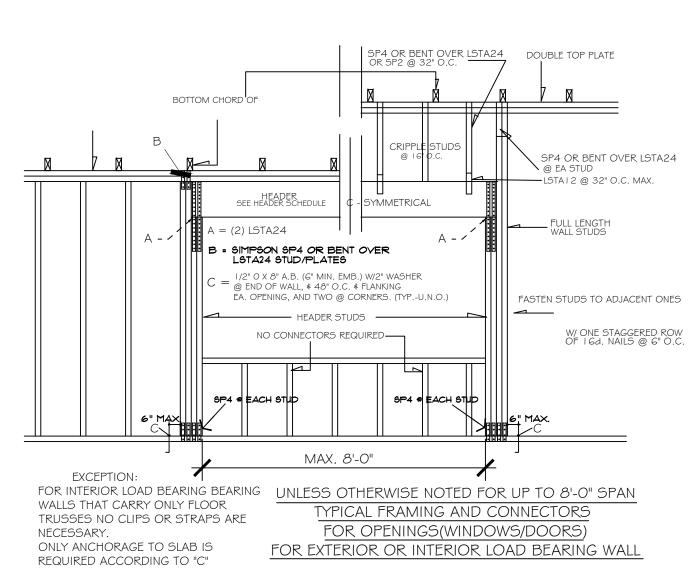


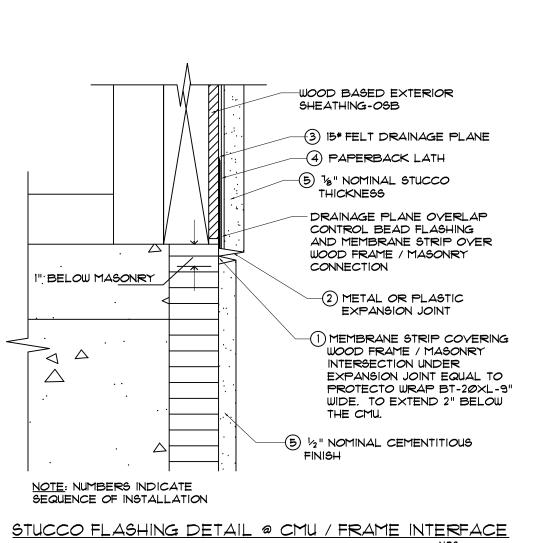
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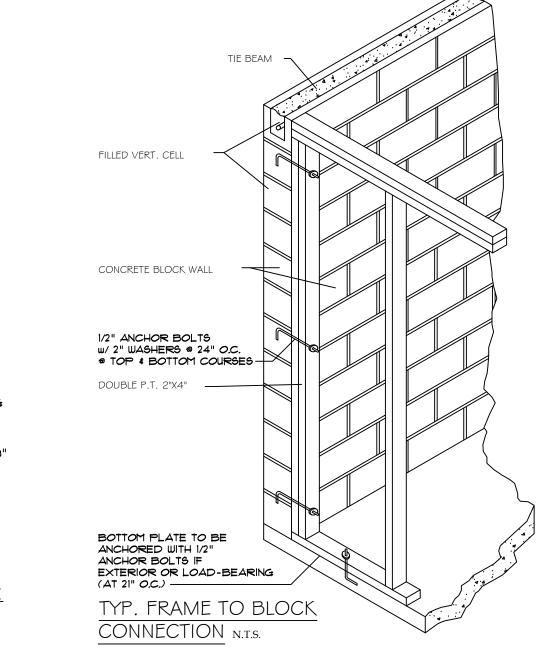


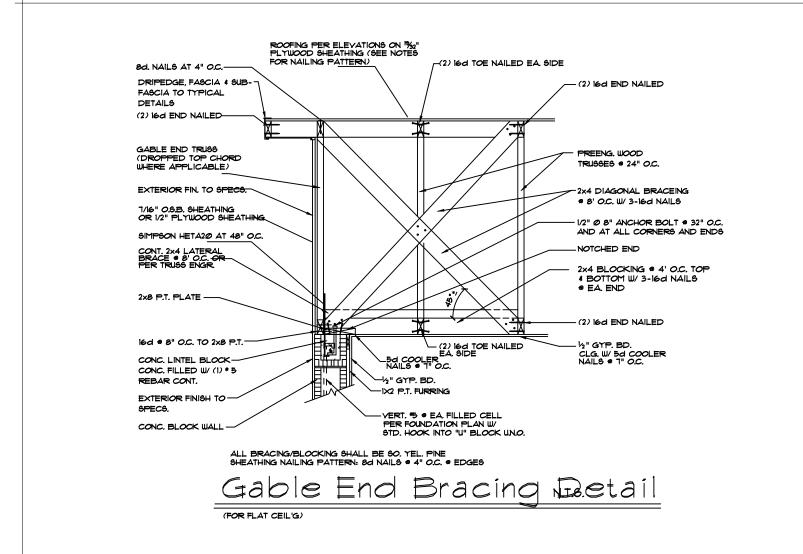
CUSTOM DESIGN FOR	CASTILLO RESIDE	LOT 11, STATE ROAD 44 FIISTIS ELORIDA 39736
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S

STRUCTURAL SHEATHING

15/32" STRUCTURAL PLYWOOD

15/32" STRUCTURAL PLYWOOD

Typical Wall Sheathing Detail

EXTERIOR WALL SHEATHING

EXTERIOR GABLE END SHEATHING

DOUBLE NAIL EDGE SPACING 8d. NAILS AT 4" O.C.

UPLIFT NAIL SPACING

DOUBLE NAIL EDGE SPACING

DOUBLE NAIL EDGE SPACING NAIL SPACING AS SHOWN

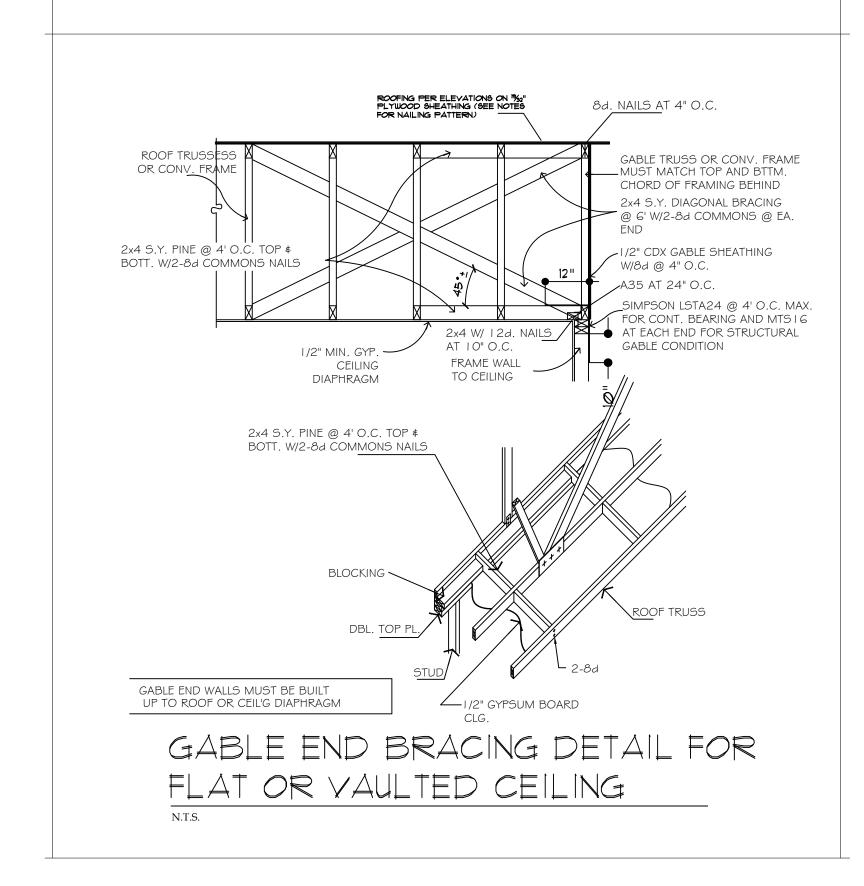
STUD SPACING

16" O.C. U. O.N.

NOTE: 8d. NAILS FOR WALL

PROVIDE BLOCKING

ALL SHEATHING EDGES



LIMITING HEIGHTS OF 2"	STUDS						
FOR HIGH FRAMING CONDITIONS, THE APPLICATION OR CONNECTION OF AN INTERMEDIATE FRAMING SUCH AS FLOOR JOISTS, CEILING JOISTS, ETC., ALLOW TO REDUCE THE ALLOWABLE HEIGHT FOR STUDS							
SIZE STUD MATERIAL AT O.C. SPACING	MAXIMUM HEIGHT						
2"x4" SPRUCE, FIR 24" O.C.	8'-Ø"						
2"x4" SPRUCE, FIR 16" O.C.	9'-Ø"						
2"x4" SPRUCE, FIR 12" O.C.	10'-0"						
2"x4" SOUTHERN PINE, FIR 24" O.C.	3'-Ø"						
2"x4" SOUTHERN PINE, FIR 16" O.C.	10,-3,,						
2"x4" SOUTHERN PINE, FIR 12" O.C.	12'-4"						
2"x6" SPRUCE, FIR 24" O.C.	11'-4"						
2"x6" SPRUCE, FIR 16" O.C.	13'-9"						
2"x6" SPRUCE, FIR 12" O.C.	16'-0"						
2"x6" SOUTHERN PINE, FIR 24" O.C.	13'-9"						
2"x6" SOUTHERN PINE, FIR 16" O.C.	17'-Ø"						
2"x6" SOUTHERN PINE, FIR 12" O.C.	19'-4"						
2"x8" SPRUCE, FIR 24" O.C.	14'-9"						
2"x8" SPRUCE, FIR 16" O.C.	18'-0"						
2"x8" SPRUCE, FIR 12" O.C.	21'-Ø"						
2"x8" SOUTHERN PINE, FIR 24" O.C.	18'-Ø"						
2"x8" SOUTHERN PINE, FIR 16" O.C.	22'-3"						
2"x8" SOUTHERN PINE, FIR 12" O.C.	25'-8"						

	4'-0"													_			
	12d NAILS @ 4" O.C.																
	_		4							\vdash	\blacksquare	\vdash			H		
			_									_			_	UTE ANCE	E
P	P	la	te	2	S	<u> </u>	CE	e [$\mathcal{D}\epsilon$	eta	aıl					7	
														N.T	.s.	-	