

STRUCTURAL SCOPE OF WORK . THE STRUCTURAL SCOPE OF WORK IS INTENDED TO ADDRESS THE RENOVATION OF THE EXISTING BUILDING

GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE LATEST FLORIDA BUILDING CODE AND ALL OTHER APPLICABLE CODES AND ORDINANCES, OBTAIN ALL REQUIRED PERMITS FOR THE PROPER LEGAL EXECUTION OF THE WORK DESCRIBED IN THESE
- DRAWINGS AND SPECIFICATIONS. 2. PROVIDE A CONTINUOUS LOAD PATH FROM TRUSSES OR RAFTERS TO FOUNDATION FOR ALL NEW CONSTRUCTION. IF ANY DISCREPANCIES, CALL ENGINEER FOR CLARIFICATION BEFORE PROCEEDING. 3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING ANY WORK. HE/SHE SHALL NOTIFY THE
- DESIGNER OF ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND ACTUAL SITE CONDITIONS FOUND DURING OR PRIOR TO DEMOLITION.
- FOUNDATION DESIGN IS BASED ON 1,500 PSF STABLE SOIL CONDITIONS. PROVIDE TESTING ON SOIL COMPACTION PRIOR TO LAYING STEEL OR POURING CONCRETE. COMPACTION SHOULD ACHIEVE 95% MODIFIED PROCTOR DENSITY.
- PROVIDE ADEQUATE BLOCKING BEHIND ALL WALL MOUNTED FIXTURES PROVIDE ALL ACCESSORIES, HARDWARE AND MISC. ITEMS AS PER DRAWINGS AND SPECIFICATIONS. ALL ITEMS SHALL
- BE INSTALLED AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND CUT SHEETS. CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. DO NOT SCALE DRAWINGS. ALL CONCRETE SHALL BE 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR AND WILL NOT HAVE CONTROL OR CHARGE OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, NOR WILL HE BE RESPONSIBLE FOR THE SAFETY
- RECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, OR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR OR HAVE CONTROL OR CHARGE OVER THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB-CONTRACTORS, OR ANY OF THEIR AGENTS OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK.

CODES AND DESIGN CRITERIA

- THE DESIGN IS BASED ON, AND ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE 2023 FLORIDA BUILDING CODE (FBC) WITH AMENDMENTS AND DESIGN OF A DE AMERICAN SOCIETY OF CIVIL ENGINEERS, ASCE 7-22: "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE:
- THE AMERICAN CONCRETE INSTITUTE (ACI 318-19 AND ACI 350-06) MASONRY: "BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES"
- THE MASONRY SOCIETY (TMS 402/602-16) STRUCTURAL STEEL: STEEL CONSTRUCTION MANUAL - FIFTEENTH EDITION BY THE AMERICAN INSTITUTE OF STEEL

125 MPH

+/- 0.55 I G FEET

34.4 PSF

0.85

0.86

PARTIALLY ENCLOSED

SEE TABLE THIS SHEET

- CONSTRUCTION (AICS 360-16)
- WOOD "NATIONAL DESIGN SPECIFICATION" AND SUPPLEMENT (ANSI/AWC NDS-18) 2. <u>LIVE LOADS (REDUCIBLE BY CODE:</u> ROOF 20
- UNINHABITABLE ATTIC I O PSF SLAB ON GRADE I OO PSF
- 3. <u>SUPERIMPOSED DEAD LOADS:</u> CEILING/ROOFING/MEP LO PSF
- <u>WIND LOAD DESIGN DATA:</u> WIND LOADS SHALL BE IN ACCORDANCE WITH THE 2023 FLORIDA BUILDING CODE (REFERENCING ASCE 7-22).
- MAIN WIND FORCE RESISTING SYSTEM WIND DESIGN DATA: A. ULTIMATE DESIGN WIND SPEED, 3 SECOND GUSTS, VULT.
- HURRICANE PRONE REGION WINDBORNE DEBRIS REGION
- BUILDING RISK CATEGORY WIND EXPOSURE CATEGOR
- WIND TOPOGRAPHIC FACTOR (KZT) ENCLOSURE CATEGORY
- INTERNAL PRESSURE COEFFICIENT MEAN ROOF HEIGHT
- WIND DIRECTIONALITY FACTOR, KD VELOCITY PRESSURE COEFFICIENT (KH)
- ULTIMATE VELOCITY PRESSURE (QH[ULT]) COMPONENT & CLADDING WIND PRESSURE
- DIMENSION "a"
- GOUND ELEVATION FACTOR, KE 5. DISTRIBUTE THE MAXIMUM LOAD HUNG FROM ANY STRUCTURAL MEMBERS FOR MEP DUCTWORK, PIPING ETC OVER
- THE MEMBER'S TRIBUTARY AREA IN A WAY THAT THE DESIGN SUPERIMPOSED DEAD LOADS LISTED IN CONTRACT DOCUMENTS ARE NOT EXCEEDED. THE CONTRACTOR SHALL COORDINATE THE LOADS OF ALL TRADES AND PROVIDE ADDITIONAL SUPPORT OR DISTRIBUTION FRAMING AS REQUIRED TO ACHIEVE THE ALLOWABLE LOAD DISTRIBUTION 6. STRUCTURAL COMPONENTS ARE NOT DESIGNED FOR VIBRATING EQUIPMENT. MOUNT VIBRATING EQUIPMENT ON
- <u>MASONRY</u>

VIBRATION ISOLATORS

- CONCRETE MASONRY WORK SHALL CONFORM TO TMS 402/602-16, BUILDING CODE REQUIREMENTS AND
- SPECIFICATIONS FOR MASONRY STRUCTURES. 2. LOAD BEARING, NON-LOAD BEARING, AND BACKUP WALL CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO THE FOLLOWING MATERIAL STANDARDS: A. CONCRETE BLOCK: ASTM C90, NORMAL WEIGHT (MINIMUM 125 PCF) OR LIGHTWEIGHT (105 PCF) (MINIMUM 28 DAY
- OMPRESSIVE STRENGTH 1900 PSI FOR S OR M OR 2350 PSI FOR N) B. MORTAR: ASTM C270, TYPE S, M OR N PORTLAND CEMENT / LIME ONLY BY PROPORTION C. MORTAR USAGE (UON ON DRAWINGS): USE TYPE S OR MORTAR WHEN MASONRY IS IN DIRECT CONTACT WITH SOIL; USE TYPE S MORTAR
- FOR ALL EXTERIOR AND INTERIOR LOAD-BEARING WALLS; USE TYPE N MORTAR FOR ALL EXTERIOR AND INTERIOR NON-LOAD-BEARING WALLS D. MORTAR ASTM C476 BY PROPORTION (MINIMUM 28 DAY COMPRESSIVE STRENGTH | 500 PSI) ASTM AG 15, GRADE GO ASTM A82, TRUSS OR LADDER TYPE SPACED AT 16" O.C. REINFORCEMENT JOINT REINFORCEMENT
- EXTERIOR JT REINE: GALVANIZE PER ASTM A 153 INTERIOR JT REINF GALVANIZE PER ASTM A153 270 BY HILTE TH 3. MATERIAL SHALL CONFORM TO THE FOLLOWING, HOT-DIPPED GALV, EXCEPT AS NOTED
- PLATE AND BENT BAR ANCHORS: ASTM A36 SHEET METAL ANCHORS AND TIES: ASTM A366/A366M WIRE MESH TIES: ASTM A 185 OR ASTM A 497 WIRE TIES AND ANCHORS: ASTM A 82, AND ASTM A167
- ANCHOR BOLTS: E1554 GR 36 4. HAND MIXING MORTAR IS NOT ALLOWED. PIGMENTS WILL NOT BE ALLOWED IN MORTAR MIX UNLESS OTHERWISE SPECIFIED. PROVIDE HORIZONTAL JOINT REINFORCEMENT WITH NO. 9 GAGE HOT-DIP GALVANIZED LONGITUDINAL WIRES AT 16"
- VERTICALLY, UNLESS NOTED OTHERWISE. PROVIDE SPECIAL ACCESSORIES FOR CORNERS, INTERSECTIONS, ETC. WHERE REQUIRED, REINFORCE JOINTS WITH LADDER-TYPE REINFORCEMENT CONFORMING TO ASTM A95 I AT 16" O.C. MEASURED VERTICALLY, LAP ALL JOINT REINFORCEMENT 6" MIN. THE MINIMUM COMPRESSIVE STRENGTH OF THE MASONRY (fm) SHALL BE 1,500 PSI UON, VERIFIED BY THE UNIT STRENGTH METHOD IN ACCORDANCE WITH THE ABOVE REFERENCED SPECIFICATIONS.
- CALCIUM CHLORIDE SHALL NOT BE USED IN MORTAR OR GROUT. PROVIDE FULL FACE SHELL MORTAR COVERAGE ON MASONRY UNIT HORIZONTAL AND VERTICAL (BED AND HEAD) FACE
- 10. PROVIDE FULL MORTAR COVERAGE ON WEBS AROUND ALL GROUTED CELLS.
- LAY MASONRY UNITS IN RUNNING BOND UON WITH UNITS DESIGNED TO ALIGN WITH WEBS IN EACH COURSE. REFER TO PLANS AND DETAILS FOR BONDED JOINT REQUIREMENTS AT WALL CORNERS AND INTERSECTIONS. 13. IF TEMPERATURE FALLS BELOW 40 DEG F. OR EXCEEDS 100 DEG. F SPECIAL CONSTRUCTION MEASURES SHALL BE
- AKEN AS PER FBC 2104.3 AND 2104.4. 14. GROUT PLACEMENT STOPPED FOR ONE HOUR OR MORE SHALL BE STOPPED 1 1/2" BELOW THE TOP OF THE MASONRY UNIT TO PROVIDE A SHEAR KEY FOR SUBSEQUENT GROUTING 15. SHORE ALL BEAMS AND LINTELS, PREFERABLY FOR NOT LESS THAN ONE WEEK, UNTIL CURED MASONRY STRENGTH REACHES 1,500 PSI.

PRE-ENGINEERED WOOD TRUSSES

REVISIONS

NO. DESCRIPTION

DESIGN OF METAL CONNECTED ROOF TRUSSES SHALL COMPLY WITH: 2023 FLORIDA BUILDING CODE.

CONNECTIONS SHALL BE SPECIFIED ON PRE-ENGINEERED TRUSS DESIGN SUBMITTAL.

- TRUSS PLATE INSTITUTE'S DESIGN FOR LIGHT METAL PLATE CONNECTED ROOF TRUSSES. PRE-ENGINEERED PRE-FABRICATED WOOD TRUSSES AND THEIR CONNECTIONS TO EACH OTHER SHALL BE DESIGNED FOR 20 PSF DEAD LOAD AND 20 PSF LIVE LOAD.
- 3. SIGNED AND SEALED SHOP DRAWINGS SHOWING TRUSS CONFIGURATION WITH MEMBER SIZES AND CONNECTIONS, DESIGN LOADS, DURATION FACTORS AND ERECTION DETAILS MUST BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION, IF REQUIRED, SUBMIT COPIES TO THE BUILDING DEPARTMENT AT TIME OF PERMITTING. 4. PRE-FABRICATED WOOD TRUSSES SHALL BE FABRICATED FROM SOUTHERN PINE (SPIB) KILN DRIED #2 OR BETTER FOR
- CHORDS AND #3 GRADE OR BETTER FOR WEBS. 5. NO WANE, SKIPS OR OTHER DEFECTS SHALL OCCUR IN THE PLATE CONTACT AREA OR SCARIFIED AREA OF WEB
- MEMBERS. PLATES SHALL BE CONNECTED WITH ONE REQUIRED EACH SIDE OF TRUSS. TRUSSES SHALL BE DESIGNED FOR MINIMUM LIVE LOADS SHOWN IN THESE NOTES. HANDLING, ERECTION AND BRACING OF WOOD TRUSSES SHALL BE IN ACCORDANCE WITH THE TRUSS PLATE
- NSTITUTE, LATEST EDITION, AND AS NOTED BELOW. 8. AMOUNT AND TYPE OF TRUSS UPLIFT STRAPPING SHALL BE VERIFIED W/ TRUSS ENGINEER'S SHOP DRAWINGS AND
- CALCULATION AND ADJUSTED ACCORDINGLY, AS NEEDED. 9. PROPER ERECTION BRACING SHALL BE INSTALLED TO HOLD THE TRUSSES TRUE AND PLUMB AND IN SAFE CONDITION UNTIL PERMANENT TRUSS BRACING AND BRIDGING CAN BE SOLIDLY NAILED IN PLACE TO FORM A STRUCTURALLY SOUND FRAMING SYSTEM, ALL ERECTION AND PERMANENT BRACING SHALL BE INSTALLED AND ALL COMPONENTS
- PERMANENTLY FASTENED BEFORE THE APPLICATION OF ANY LOADS TO THE TRUSSES. ALL BRACING SHALL BE DESIGNED BY MANUFACTURER AND INDICATED ON SHOP DRAWINGS. CONTRACTOR SHALL COORDINATE WITH TRUSS FABRICATOR TO ENSURE THAT ALL BRACING IS PROVIDED INCLUDING BOTTOM CHORD BRACING BY WAY OF CEILING
- SHEATHING OR SPECIFIC BRACES AT PREDETERMINED LOCATIONS (AT DROPPED SUSPENDED CEILING). ALL PREFABRICATED WOOD TRUSSES ARE TO BE INSTALLED IN ACCORDANCE WITH BRACING WOOD TRUSSES COMMENTARY, "HANDLING AND ERECTING WOOD TRUSSES", AS PUBLISHED BY THE TRUSS PLATE INSTITUTE. PROVIDE STRONG BACK BRACING AT TRUSSES PER REQUIREMENTS FROM TRUSS DESIGNER. COMPONENT-TO COMPONENT

TH FLOS

REINFORCEMENT

- REINFORCING BARS: ASTM AG15, GRADE 60 REINFORCEMENT PLACEMENT (UNO)
- WEI DED PLAIN WIRE MESH: ASTM A 185, MINIMUM YIELD STRESS OF 60 KSI B. CONCRETE REINFORCEMENT COVER BELOW GRADE: UNFORMED 3" CLEAR
- FORMED 2" CLEAR CENTER REBAR IN MASONRY CELLS UON.
- REINFORCEMENT SPLICE A. LAP REINFORCEMENT: 48 BAR DIAMETERS B. LAP WELDED WRE MESH: 8"
 4. DO NOT USE REBAR STAKES AS CHAIRS. CHAIRS SHALL BE MASONRY OR NON-

CAST-IN-PLACE CONCRETE

CORROSIVE SUPPORTS SUCH AS PLASTIC

- CONCRETE NORMAL WEIGHT STRUCTURAL CONCRETE MINIMUM 28-DAY COMPRESSIVE STRENGTH, fc: 3,000 PSI
- PROVIDE NORMAL WEIGHT CONCRETE WITH CURED DENSITY OF 145 +/- 5 PCF, AND AGGREGATE CONFORMING TO ASTM C33, UON.
- THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED. THE USE OF RECYCLED CONCRETE IS PROHIBITED. PLACEMENT WITHIN AND CONTACT BETWEEN ALUMINUM ITEMS, INCLUDING ALUMINUM
- CONDUIT, AND CONCRETE IS PROHIBITED. ALL CAST-IN-PLACE CONCRETE WILL EXPERIENCE DIFFERING VARIATIONS OF CRACKING, ANY ELEMENT EXPOSED TO DIRECT WEATHER AND/OR TEMPERATURE VARIATIONS DURING CONSTRUCTION OR IN THE FINAL CONDITION IS TO BE TREATED AND REGULARLY MAINTAINED TO PREVENT PROPAGATION OF CRACKS AND WATER PENETRATION. THE
- CONTRACTOR SHALL DEVELOP A REGULAR MAINTENANCE PROGRAM AND SUBMIT IT TO THE OWNER MAXIMUM W/C RATIO OF 0.50 FOR FOOTINGS AND 0.45 FOR OTHER CONCRETE. CMU GROUT SHALL HAVE W/C RATIO OF 0.60 OR HIGHER.
- ALL FORMWORK SHALL BE DESIGNED, ERECTED, SUPPORTED, BRACED, AND MAINTAINED ACCORDING TO ACI 347, RECOMMENDED STANDARD PRACTICE FOR CONCRETE FORMWORK. RESPONSIBILITY: THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF
- HE GENERAL CONTRACTOR. 8. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED UNLESS OTHERWISE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS.
- 9 THE CONTRACTOR SHALL EMPLOY A TESTING LABORATORY TO PREPARE TEST CYLINDERS REPRESENTING CONCRETE POURED EVERY DAY, ONE SET PER DAY OR ONE SET MINIMUM FOR EACH 50 CUBIC YARDS NET RESUMING CONCELLE LABORATORY TECHNICIAN SHALL BE PRESENT AT THE BEGINNING OF EACH POUR. LABORATORY REPORT SHALL BE FURNISHED TO THE STRUCTURALENGINEER SHOWING STRENGTH OF CONCRETE AT 7 AND 28 DAYS

<u>WOOD</u>

- STRUCTURAL FRAMING PLANS DEPICT THE PRIMARY STRUCTURAL FRAMING SYSTEM. CONTRACTOR SHALL PROVIDE SECONDARY AND MISCELLANEOUS FRAMING AS REQUIRED TO COMPLETE THE PROJECT (SEE ARCHITECTURAL DRAWINGS) DRESSED SEASONED LUMBER: S4S, 19% MAXIMUM MOISTURE CONTENT AT TIME OF DRESSING.
- . STUDS AND COLUMNS SOUTHERN PINE #2 OR STRONGER LINTELS, FLOOR JOISTS AND BEAMS: SOUTHERN PINE, NO. 2 GRADE
- WOOD IN CONTACT WITH CONCRETE OR MASONRY OR EXPOSED TO WEATHER: ABOVE GRADE PRESSURE-TREATED (AWPA-UC3A) OR UC3D) OR GROUND CONTACT RATED PRESSURE TREATED (AWPA-UC4A), GROUND CONTACT RATED WOOD IS RECOMMENDED AT THE CRAWLSPACE AND DECK AREAS (IF PRESENT), USE HOT-DIP GALVANIZED NAILS IN PRESSURE TREATED WOOD.
- STRUCTURAL PANELS WALL PANELS: 1/2" APA RATED SHEATHING ROOF PANELS: 1/2" APA RATED SHEATHING.
- WOOD SHEAR WALLS PANELS SHALL BE ORIENTED WITH THE LONG DIMENSION IN THE VERTICAL DIRECTION.
- SOLID 24 BLOCKING SHALL BE PROVIDED AT LINSUPPORTED HORIZONTAL PANEL EDGES NAIL PANELS WITH 8d GALV. RINGSHANK NAILS SPACED AT 6" AT THE PERIMETER OF THE PANELS AND AT 12" AT
- INTERMEDIATE SUPPORTS, UNO. DOUBLE 2x FRAMING STUDS SHALL BE USED AT THE ENDS OF EACH SHEAR WALL, UNO. CONNECTIONS FOR STRUCTURAL TIMBER: GALVANIZED STRONG-TIE CONNECTORS BY THE SIMPSON STRONG TIE
- COMPANY OR APPROVED EQUAL. 5. LAMINATED VENEER LUMBER (LVL) SHALL BE WEYERHAUSE/TRUS JOIST MICROLLAM LVL (OR EQUAL) WITH Fb NOT LESS HAN 2.600 PSI AND MINIMUM 2.0E.
- 6. BOLTED CONNECTIONS SHALL CONSIST OF ASTM A307 BOLTS, FASTENED TO A SNUG-TIGHT CONDITION.

ABBREVIATIONS

P.T. PRESSURE TREATED GALV. GALVANIZED A.B. ANCHOR BOLT

F.B.C. FLORIDA BUILDING CODE U.N.O. UNLESS NOTED OTHERWISE

STRUCTURAL STEEL

- I. STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS UNLESS OTHERWISE NOTED ON HE CONTRACT DOCUMENTS: A. ROLLED SHAPES: ASTM A572 OR A992, MIN. YIELD STRENGTH 50 KSI
- MISCELLANEOUS ANGLES: ASTM A36 HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE B, MIN YIELD STRENGTH 42 KSI FOR ROUND AND 46 KSI
- FOR RECTANGULAR HSS PLATES ASTM A3G, MIN YIELD STRENGTH 3G KSI W-SHAPES & WT-SHAPES ASTM A992
- C-SHAPES & MC-SHAPES ASTM A36 ANGLES & PLATES ASTM A36
- HIGH STRENGTH BOLTS ASTM A325 (STEEL-TO-STEEL CONNECTIONS) ASTM A307 (STEEL-TO-WOOD CONNECTIONS) BOLTS THREADED RODS ASTM A36
- WELDED HEADED STUDS ASTM A108 WELDED INADED STODS AND ATOS WELDING ELECTRODES AWS D1.1, E70 SERIES NUTS: ASTM A563
- WASHERS: ASTM F436
- ENGINEER SHALL BE CONTACTED FOR APPROVAL OF ANY FIELD MODIFICATIONS OF ANCHOR BOLTS OR RODS (PER
- 3. ALL WELD OPERATORS SHALL BE CURRENTLY AWS QUALIFIED.
- 4. SHOP CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED. USE 3/1 6" FILLET WELD MINIMUM. 5. FIELD CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED AS DETAILED. ALL BOLTS SHALL BE FASTENED TO
- SNUG-TIGHT CONDITION, USE 3/16" FILLET WELD MINIMUM. 6. SPLICES SHALL BE ALLOWED ONLY AT LOCATIONS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS UNLESS
- PPROVED OTHERWISE BY THE SER IN WRITING. SHOW ALL COPES, HOLES, OPENINGS AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES ON THE SHOP DRAWINGS FOR APPROVAL BY THE ARCHITECT AND
- STRUCTURAL ENGINEER. 8. FIELD MODIFICATION OF STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER.
- ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE STRUCTURAL WELDING CODE, ANSI/AWS D I.I, LATEST EDITION. ALL WELD SIZES SHALL BE THE LARGER OF THE SIZE REQUIRED BY CONNECTION FORCES, THE MINIMUM SIZE PER ANSI/AWS D I. I. OR 3/16 INCH MINIMUM FILLET WELD UON. ANY WELD SIZES SHOWN ON THE DESIGN DRAWINGS FFECTIVE WELD SIZES AND SHALL BE INCREASED IN ACCORDANCE WITH AWS AS REQUIRED BY GAPS OR SKEWS BETWEEN COMPONENTS.

POST-INSTALLED ANCHORS

MANUFACTURER'S RECOMMENDATIONS.

FOUNDATION

P.O. BOX 3823

LAKE CITY, FL 32056

PH. 386-752-4675

LIC NO. LB8356

- ANCHOR PRODUCTS APPROVED FOR USE ON THIS PROJECT ARE LISTED BELOW UNLESS OTHERWISE SPECIFIED IN SECTIONS/DETAILS: ADHESIVE ANCHORS INTO CONCRETE SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED
- a. CONCRETE: USE THE FOLLOWING (UON): HILTI "HIT-HY 200" ADHESIVE (ICC-ES ESR-3187) HILTI "HIT-RE 500-SD" ADHESIVE (ICC-ES ESR2322)

LEAST ONE COURSE ABOVE AND ONE COURSE BELOW THE ANCHOR, UON.

REMOVE FREE WATER FROM EXCAVATIONS BEFORE PLACING CONCRETE.

REPARATION (AFTER CLEARING AND GRUBBING)

THICKNESS SHALL BE G INCHES.

FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.

- EPCON "55" ADHESIVE (ICC-E5 ESR 1137) SIMPSON STRONG-TIE "SET-XP" ADHESIVE (ICC-E5 ESR2508) SIMPSON STRONG-TIE "AT-XP" ADHESIVE (IAPMO-ES ER263)
- EPCON "S7" ADHESIVE (ICC-ES ESR2308) ADHESIVE ANCHORS INTO MASONRY LINTELS OR GROUT FILLED CELLS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC58:

USE THE FOLLOWING (UNO): HILTI HIT HY 270 ADHESIVE (ICC-ES ESR4 I 43) SIMPSON STRONG-TIE "SET" (ICC-ES ESR3342) 3. SIMPSON STRONG TIE "SET-XP" (ICC PENDING) OVERHEAD AND/OR CONSTANT TENSION EPOXY ANCHOR INSTALLATIONS NOT SHOWN ON THE DRAWINGS SHALL NOT

BE PERMITTED UNLESS EACH CONDITION IS REVIEWED AND APPROVED IN WRITING BY THE SER

INSTALL ANCHORS TO MEET THE REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS AND THE

LOCATE, BY NON-DESTRUCTIVE MEANS, AND AVOID ALL EXISTING REINFORCEMENT PRIOR TO INSTALLATION OF ANCHORS. IF EXISTING REINFORCING LAYOUT PROHIBITS THE INSTALLATION OF ANCHORS AS INDICATED IN THE

DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONALS IMMEDIATELY. INSTALL MASONRY ANCHORS IN SOLID MASONRY OR IN HOLLOW MASONRY THAT HAS BEEN GROUTED SOLID AT

OBTAIN APPROVAL FROM STRUCTURAL ENGINEER OF RECORD (SER) PRIOR TO USING POST-INSTALLED ANCHORS

CARE SHALL BE EXERCISED TO AVOID CONFLICTS WITH EXISTING REINFORCING WHEN DRILLING HOLES. PILOT HOLES SHALL BE INSTALLED AS REQUIRED, HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S

INSTRUCTIONS, ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCES AND/OR SPACINGS INDICATED IN THE MANUFACTURER'S LITERATURE OR ON

BEARING SOILS SHALL BE FREE OF ORGANIC MATERIAL AND MEET THE FBC REQUIREMENTS TO PROVIDE A MINIMUM OF 1,500 PSF SOIL BEARING DESIGN PRESSURES, PER TABLE R401.4.1 OF THE FLORIDA RESIDENTIAL BUILDING CODE. IT IS THE HOMEOWNER'S RESPONSIBILITY TO VERIPY THAT THE SOIL CONDITIONS ARE SUITABLE FOR THESE ASSUMPTIONS, IT IS SUGGESTED THAT PRIOR TO CONSTRUCTION A GEOTECHNICAL INVESTIGATION BE MADE TO VERIFY THE BEARING PRESSURE AND SUBSURFACE CONDITIONS. STRUCTURAL INGINERY IS NOT RESPONSIBLE FOR SUBSURFACE CONDITIONS ENCOUNTERED IN THE FIELD DIFFERENT FROM THOSE ASSUMED FOR DESIGN. PROVIDE TESTING ON SOIL COMPACTION PRIOR TO LAYING STEEL OR POURING CONCRETE. COMPACTION SHOULD ACHIEVE AT LEAST 95% MODIFIED PROCTOR DENSITY.

FOUNDATIONS SHALL BE ALLOWED TO SETTLE PRIOR TO COMMENCEMENT OF WOOD FRAMED CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY IF CLAY SOILS OR ORGANIC MATERIALS ARE ENCOUNTERED DURING BUILDING PAD

 FILL, IF NEDEDED, SHOULD BE PLACED IN 12-INCH MAXIMUM LOOSE LIFTS, WITH EACH LIFT COMPACTED TO AT LEAST 95% OF THE MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST METHOD (ASTM D-1557) MAXIMUM DRY DENSITY VALUE. IF HAND HELD COMPACTION EQUIPMENT IS USED, THE MAXIMUM LOOSE LIFT

FILL SHALL BE FREE OF ORGANIC MATERIALS, SUCH AS ROOTS AND/OR VEGETATION. USE SAND FILL (UNLESS APPROVED OTHERWISE) WITH BETWEEN 3 TO 12 PERCENT BY DRY WEIGHT PASSING THE U.S. STANDARD NO. 200 SIEVE. ALL FILL SHALL BE PREQUALIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO IMPORTING AND PLACING.

NORTH FLORIDA PROFESSIONAL SERVICES, INC.

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THE STRUCTURAL DRAWINGS. EMBEDMENT SHALL BE THE MINIMUM SPECIFIED ON THE STRUCTURAL DRAWINGS.

POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. CONTRACTOR SHALL

ANCHOR INSTALLER SHALL BE TRAINED BY THE MANUFACTURER ON PROPER INSTALLATION METHODS.



DETAIL- 13: WINDLOAD PLAN DIAGRAM MONOPITCH ROOF |2" = |'-0"

COMPONENTS AND CLADDING WIND PRESSURES ON MONOSLOPED ROOF AND WALLS (PSF)										
ZONE	ALL ROOF ZONES	I	2	2'	3	3'	4		5	
TRIB AREA	(+)	(-)	(-)	(-)	(-)	(-)	(+)	(-)	(+)	(-)
10	25	-48	-54	-63	-69	-92	41	-43	41	-51
20	24	-48	-53	-62	-64	-84	40	-42	40	-49
50	23	-48	-52	-61	-56	-72	38	-40	38	-45
100	22	-48	-51	-60	-51	-63	36	-39	36	-43
200	22	-48	-51	-60	-51	-63	35	-38	35	-39
500	22	-48	-51	-60	-51	-63	33	-36	33	-36

FOR THE SELECTION OF WINDOW AND DOOR PRODUCTS, TABULATED VALUES SHOWN ARE NORMALLY MULTIPLIED BY 0.6 PRIOR TO COMPARISON WITH THE POSITIVE AND NEGATIVE PRESSURE RATINGS PROVIDED IN EACH FLORIDA PRODUCT APPROVAL. IT IS RECOMMENDED THAT THE MANUFACTURER'S REPRESENTATIVE REVIEW THESE DRAWINGS FOR VERIFICATION.



DETAIL-14: WINDLOAD PLAN DIAGRAM HIP ROOF |2" = |'-O"

СОМІ	COMPONENTS AND CLADDING WIND PRESSURES ON HIPPED ROOF AND WALLS (PSF)									
ZONE	1,2,3	1	2	3	4		5			
TRIB AREA	(+)	(-)	(-)	(-)	(+)	(-)	(+)	(-)		
10	37	-69	-86	-92	45	-48	45	-57		
20	34	-62	-79	-85	44	-46	44	-54		
50	29	-54	-69	-75	42	-44	42	-50		
100	25	-47	-62	-66	40	-43	40	-46		
200	25	-39	-54	-57	39	-42	39	-44		
500	25	-39	-54	-57	37	-39	37	-39		

FOR THE SELECTION OF WINDOW AND DOOR PRODUCTS, TABULATED VALUES SHOWN ARE NORMALLY MULTIPLIED BY 0.6 PRIOR TO COMPARISON WITH THE POSITIVE AND NEGATIVE PRESSURE RATINGS PROVIDED IN EACH FLORIDA PRODUCT APPROVAL. IT IS RECOMMENDED THAT THE MANUFACTURER'S REPRESENTATIVE REVIEW THESE DRAWINGS FOR VERIFICATION.



JOB NUMBER: 1525 EOR: D. CRAPPS - P.E. # 60989 P.E. NO.:

B. HARRIS

9/4/2024 2:03:26 PM





D:\00 Projects CAD\Nordenstam Renovation\Nordenstam Structural.rvt NFPS BORDEF

NO.



- I. LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION FOR NEW FOOTINGS.
- 2. DO NOT UNDERMINE EXISTING FOOTINGS.
- 3. NEW FOUNDATIONS SHALL BE ALLOWED TO SETTLE PRIOR TO COMMENCEMENT OF WOOD-FRAMED AND STEEL CONSTRUCTION.
- 4. MAINTAIN POSITIVE SLOPE FOR FINISHED GRADE AWAY FROM NEW FOUNDATIONS PER
- 5. FIELD VERIFY DIMENSIONS AS REQUIRED.
- 6. REFER TO ARCHITECTURAL FOR TERMITE TREATMENT OF SUB-GRADE
- 7. SLAB ELEVATIONS SHOWN ARE RELATIVE TO AN ARBITRARY SET REFERENCE DATUM OF O'-O" ACTUAL ELEVATIONS CAN BE PROVIDED BY A LICENSED SURVEYOR.
- 8. MAXIMUM SPACING OF SAWCUT CONTROL JOINTS IN SLAB SHALL BE APPROXIMATELY 15 FEET IN EACH DIRECTION, WITH LENGTH-TO-WIDTH RATIO OF 1.5 OR LESS AT EACH INDIVIDUAL RECTANGULAR AREA. SAWCUT DEPTH SHALL BE 25 PERCENT OF THE SLAB DEPTH. SAWCUT WORK SHALL BE PERFORMED THE SAME DAY AS THE SLAB PLACEMENT, BUT AFTER THE CONCRETE HAS CURED SUFFICIENTLY TO PREVENT RAVELING. EXTERIOR JOINTS SHALL BE FILLED WITH SILICONE SEALANT AND BACKER ROD (OR EQUAL). CONTRACTOR TO COORDINATE SEALING OF INTERIOR JOINTS WITH FLOOR FINISHES.
- 9. THE SIZE OF THE WELDED WIRE MESH INDICATED IS RECOMMENDED BY THE STRUCTURAL ENGINEER. HOWEVER, AT THE OWNER AND CONTRACTOR'S RISK, OF INCREASED CRACK DEVELOPMENT, 6X6-W1.4XW1.4 WELDED WIRE MESH MAY BE SUBSTITUTED IN ACCORDANCE WITH THE FLORIDA RESIDENTIAL CODE R506.2.4.2.
- IO. FIBER REINFORCED CONCRETE, IF SELECTED, SHALL BE CONCRETE MANUFACTURER'S FIBER MIX THAT COMPLIES WITH THE FLORIDA RESIDENTIAL CODE SECTION R506.2.4.2. MIX SHALL CONTAIN MICRO- OR MACRO-SYNTHETIC FIBER REINFORCEMENT, WITH FIBER LENGTHS OF 1/2" TO 2-1/4". DOSAGE AMOUNTS SHALL BE FROM 1.5 TO 3.0 POUNDS PER CUBIC YARD, AND SYNTHETIC FIBERS SHALL COMPLY WITH ASTM CI II6.

FOUNDATION PLAN KEYNOTE LEGEND

- A SIMPSON HTT4 HOLDOWN WITH 5/8" DIAMETER HOT-DIPPED GALV. THREADED ROD. DRILL AND EPOXY (6" EMBEDMENT). PROVIDE DOUBLE STUD PACK, UNLESS NOTED OTHERWISE ON PLAN,
- LOADBEARING HEADER SCHEDULE, OR OTHER DETAILS. B SUGGESTED SLAB-ON-GRADE CONTROL JOINT LOCATION. SEE
- C 4" CONCRETE SLAB-ON-GRADE OVER 6-MIL POLYETHYLENE VAPOR RETARDER OVER COMPACTED AND TERMITE TREATED SUGRADE. REINFORCE SLAB WITH ONE OR MORE OF THE FOLLOWING: I. W2.9XW2.9-6"X6" WELDED WIRE MESH (SEE NOTE 9)
- 2. #3 @ 18" O.C. EACH WAY
- 3. FIBER REINFORCED CONCRETE. (SEE NOTE 10) D (2) #4X5'-O" LONG RE-ENTRANT CORNER BARS
- E MASONRY COLUMN WITH STEEL TUBE SEE DETAIL(S) AS
- INDICATED ON PLAN
- F SLIDING DOOR JAMB SEE DETAIL 1/58 G (2) 2X I O KING STUDS AND (1) 2X I O JACK STUD AT DOOR JAMB.
- SEE DETAIL 1/S9 FOR METAL CONNECTOR REQUIREMENTS.
- H (1) 2XG JACK STUD FOR EACH WINDOW JAMB, WITH (3) 2XG KING STUDS IN BETWEEN. SEE DETAIL 1/S9 FOR METAL CONNECTOR REQUIREMENTS.
- I (2) 2X6 KING STUDS AND (1) 2X6 JACK STUD AT WINDOW JAMB.
- SEE DETAIL 1/59 FOR METAL CONNECTOR REQUIREMENTS.
- J FENCE POST SEE ARCHITECTURAL
- K STEEL COLUMN SEE DETAIL 2/SG

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NOTE: SEE PLAN FOR BEAM RAFTER BELOW LOCATIONS WHERE THE DOUBLE PURLIN CONTINUES I'-6" BEYOND P.T. 2X THE THIRD SUPPORT FASCIA | | 🔪 SINGLE 2X PURLIN — (2) SIMPSON H2.5A DETAIL-4: TYPICAL DOUBLE PURLIN DETAIL (PLAN VIEW) 1/2" = 1'-0" - #4 DOWEL @ 16" O.C. #4 CONTINUOUS SLAB REINFORCING -SEE <u>T.O. SLAB</u> 0' - 0" _ PLAN_____ GROUT ALL CELLS SOLID - COMPACTED FILL - SEE FOUNDATION NOTES, SHEET SI EX SUNKEN SLAB -1' - 3" - EXISTING SLAB T.O. EX. FOOTING -2' - 0" #4 DOWEL WITH STANDARD HOOK @ D - I 6" O.C. 3 #4 BOTTOM - #4 @ |8" O.C. 1'-6" DETAIL-5: STEMWALL @ PORCH | " = | -0"EMBEDMENT) 2 1/2" CLEAR @ SIDES <u>_</u> S5 TYPICAL <u>T.O. SLAB</u> 0' - 0" #4 DOWEL @ 18" O.C. DRILL AND EPOXY (4" EMBEDMENT) -#4 NOSING BAR @ EACH STAIR RISER EX SUNKEN SLAB G MIL POLYETHYLENE #4 DOWEL @ 16" O.C. T.O. EX. FOOTING -2' - 0" WITH STANDARD HOOK 3 #4 BOTTOM #4 BOTTOM COMPACTED FILL -SEE FOUNDATION #4 @18" O.C. 2'-0" 1'-6" SQUARE NOTES, SHEET SI

1'-6"

- WALL (OR)

/ DOUBLE PURLIN TYPICALLY

STOPS HERE

DETAIL-G: STEP-LANDING-PIER SECTION |" = |'-O"

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SIMPSON

H2.5AZ -

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BETWEEN RAFTERS), TYPICAL _____

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NO. IOX4" LONG HOT DIPPED GALV. SCREW @ 16" O.C., TYPICAL

2X4 STUD AND CEILING JOIST

HUC28-2 AT EACH END, TYPICAL

O.C. MAXIMUM (LOCATED APPROXIMATELY HALFWAY

(2) 2X8 WITH SIMPSON

- SIMPSON LSTA I 8 STRAP @ 5'-2"

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