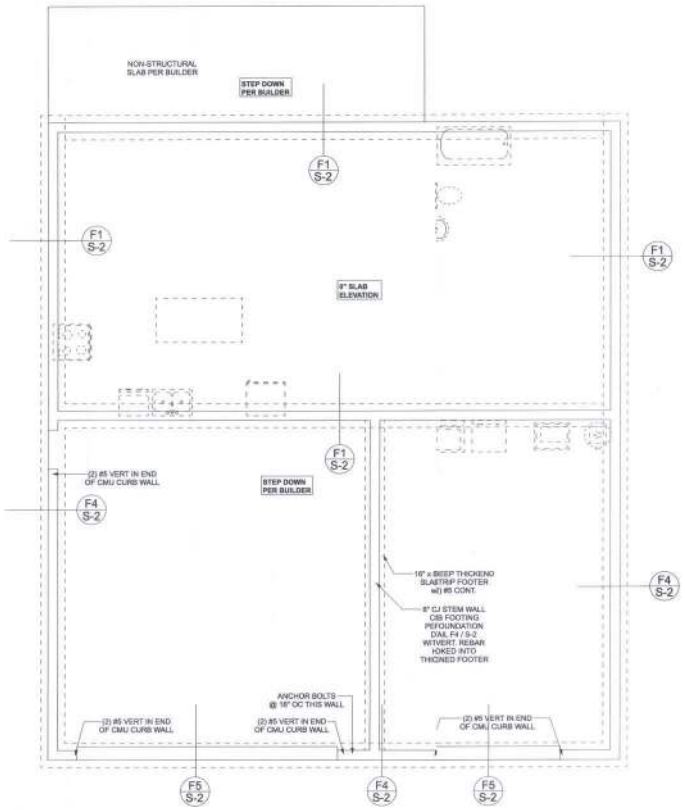


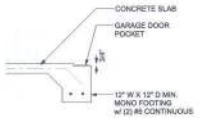
FOUNDATION PLAN

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

BOTTOM OF EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 12" BELOW UNDISTURBED SOIL OR ENGINEERED FILL

FOUNDATION NOTES

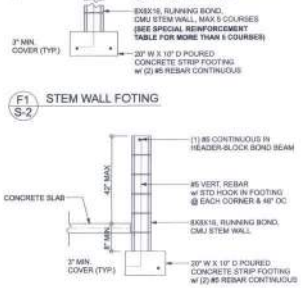
FN - 1	DIMENSIONS ON FOUNDATION & STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL PLANS FOR ACTUAL DIMENSIONS. NECESSARY IN SLAB, BTOP COWNS, ETC. SHOULD THE DESIGN GROUP OR ENGINEER BE NOTIFIED NOT BY DRAWABLE FOR DIMENSION ERRORS ON THIS PLAN
FN - 2	CONTRACTOR SHALL VERIFY SIZES FOR INTERIOR BEARING (IN ALL) AREAS BY REVIEWING THE ROOF TRUSS PLAN (BY THE SUPPLIER) BEFORE FINALIZING FOUNDATION PLAN
FN - 3	THE SLAB SHALL BE 4" CONCRETE SLAB REINFORCED w/ 6X6-1.4/1.4 WELDED WIRE MESH PLACED ON CHAIRS @ 1 1/2" DEPTH OR FIBER MESH CONCRETE. 6 MIL POLY VAPOR BARRIER w/ 6" LAPS SEALED w/ TAPE OVER TERMITE CREATED & COMPACTED FILL (ALSO, ANY OTHER TERMITE APPROVED TERMITE TREATMENT METHOD CAN BE USED INSTEAD)



F5 S-2 GARAGE DOOR POCKET FOOTING

SCALE: 1/2" = 1'-0"

NOTE: R STEM WALL FOUNDATIONS OVER 5 COURSES IN HEIGHT THE SLAB IS REQUIRED TO BE ATTACHED TO THE STEM WALL @ BOND BEAM w/ 2" X 2" #CORNER REBARS (1) LEG EXTENSING INTO SLAB & (1) LEG LAPPED W/ THE HIZONTAL BOND BEAM REBAR SPACED THE SAME AS VERTICAL REBAR



F1 S-2 STEM WALL FOTING

F4 S-2 STEM WAL CURB FOOTING

SCALE: 1/2" = 1'-

REQUIREMENTS FOR BUILDING BELOW BASE FLOOD ELEVATION (BFE)

ATTACHED GARAGES:
A GARAGE ATTACHED TO A RESIDENTIAL STRUCTURE CONSTRUCTED WITH THE GARAGE FLOOR SLAB BELOW THE BFE, MUST BE DESIGNED TO ALLOW FOR THE AUTOMATIC ENTRY OF FLOOR WATERS. OPENINGS ARE REQUIRED IN THE EXTERIOR WALLS OF THE GARAGE OR IN THE GARAGE DOORS. IN ADDITION TO ALLOWING THE AUTOMATIC ENTRY OF FLOOR WATERS, AREAS BELOW THE BFE MUST BE CONSTRUCTED WITH FLOOD RESISTANT MATERIALS.

ACCESSORY STRUCTURES, USED SOLELY FOR PARKING
(2 CAR DETACHED GARAGES OR SMALLER) OR
LIMITED STORAGE (SMALL, LOW COST SHEDS)

THE FOLLOWING MINIMUMS ARE REQUIRED:
1) IT MUST BE ANCHORED TO RESIST FLOTATION, COLLAPSE AND LATERAL MOVEMENT
2) THE PORTIONS OF THESE STRUCTURES LOCATED BELOW THE BFE MUST BE CONSTRUCTED OF FLOOD-RESISTANT MATERIALS
3) IT MUST BE DESIGNED TO ALLOW THE AUTOMATIC ENTRY OF FLOOD WATERS
4) MECHANICAL AND UTILITY EQUIPMENT MUST BE ELEVATED OR FLOOD-PROOFED TO OR ABOVE THE BFE
5) IT MUST COMPLY WITH THE FLOODWAY ENCROACHMENT PROVISIONS OF THIS REGULATIONS
6) ITS USE MUST BE LIMITED TO PARKING AND/OR LIMITED STORAGE

BUILDER TO VERIFY REQUIREMENTS OF FEMA NFIP TECHNICAL BULLETIN 1-93 AND FBC SECTION R322 w/ BUILDING OFFICIAL BEFORE STARTING CONSTRUCTION

FLORIDA BUILDING CODE REQUIREMENTS:

FBC-R322.2.2 Enclosed area below design flood elevation:

Enclosed areas, including crawl spaces, that are below the design flood elevation shall:
1. Be used solely for parking of vehicles, building access or storage.
2. Be provided with flood openings that meet the following criteria:
   2.1 The total net area of non-engineered flood openings shall be not less than 1 square inch for each square foot of enclosed area where the opening is measured on the exterior of the enclosure walls, or the openings for engineered openings and the construction documents shall include a statement by a registered design professional that the design of the openings will provide for equalization of hydrostatic flood forces on exterior walls in accordance with Section 2.7.2.2 of ASCE 24.
   2.2 Openings shall be not less than 3 inches in any direction in the plane of the wall.
   2.3 The presence of louvers, blades, screens and louvered or other covers and screens shall allow the estimated flow of floodwater into and out of the enclosed areas and shall be accounted for in the determination of the net open area.

FBC-R322.2.2 Installation of openings:
The walls of enclosed areas shall have openings installed such that each enclosed area, subject to flood elevation, shall:
1. There shall be not less than two openings on different sides of each enclosed area.
   If a building has more than one enclosed area below the design flood elevation, each area shall have openings.
2. The bottom of each opening shall be not more than 1 foot above the higher of the final interior grade or floor and the finished exterior grade immediately under each opening.
3. Openings shall be permitted to be installed in doors and windows. Doors and windows without installed openings do not meet the requirements of this section.

ADDITIONAL COMMENTS FROM FEMA NFIP TECHNICAL BULLETIN 1:

To qualify as non-engineered flood openings that permit the automatic entry and exit of floodwater:
- Standard air vents must not have solid covers (shackbolts or screws) that are intended to be manually installed.
- Typical air vent devices that are designed to be opened and closed manually must be installed permanently in the open position.
- Air vent devices that are designed to open and close based on temperature must also be designed to allow the automatic entry and exit of floodwater.

Below is a list of measures that are not acceptable as flood openings:
- Standard foundation air ventilation devices that can be closed manually but actually unless they are permanently disabled in the open position because otherwise, they do not allow for the automatic entry and exit of floodwater.
- Standard foundation air ventilation devices that have detachable covers intended to be manually installed over the vent because they do not allow for the automatic entry and exit of floodwater when the cover is in place.
- Standard foundation air ventilation devices that are designed to open and close based on temperature but are not designed to allow for the automatic entry and exit of floodwater.
- Devices with covers or panels that are intended to displace when only one side of a wall because they do not satisfy the requirements for automatic entry and exit of floodwater in both directions.
- Windows below the BFE because the automatic entry and exit of floodwater cannot be satisfied by the expectation that windows will break under rising floodwater.
- Garage doors without openings because human intervention is required to open garage doors when flooding is expected. Gaps between the garage door and the door jamb or walls do not count toward the net open area requirement.

INSECT SCREENS:
Insect screens that do not block the entry and exit of floodwater are allowed and do not affect the determination of the net open area.

Areas likely to have debris and sediment:
Section C2.1.2.1 of the ASCE 24 commentary suggests using caution in selecting or specifying openings with covers, blades, screens, or louvers that may be blocked by debris and sediment. In areas where experience indicates that debris and sediment are likely, ASCE 24 recommends avoiding the use of vertical louvers, louvrboarrd debris and sediment, or other openings with components that have been shown to become blocked or clogged.

REQUIRED FLOOD VENT AREA FOR GARAGE PER FBC-R322.2.2:
1 IN2 OF VENT AREA PER 1 FT2 FLOOR AREA
USE 8x16 VENT w/ 80% NET AREA = 0.75 FT2 PER VENT

LEFT GARAGE AREA = 625 FT2 = 3.85 FT2 NET VENT AREA
3.85 / .75 = 5 VENTS REQUIRED IN LEFT GARAGE

RIGHT GARAGE AREA = 423 FT2 = 2.94 FT2 NET VENT AREA
2.94 / .75 = 3 VENTS REQUIRED IN LEFT GARAGE

VENTS ARE TO BE SPACED OUT ON ALL WALLS AT LESS THAN 12" FROM FLOOR

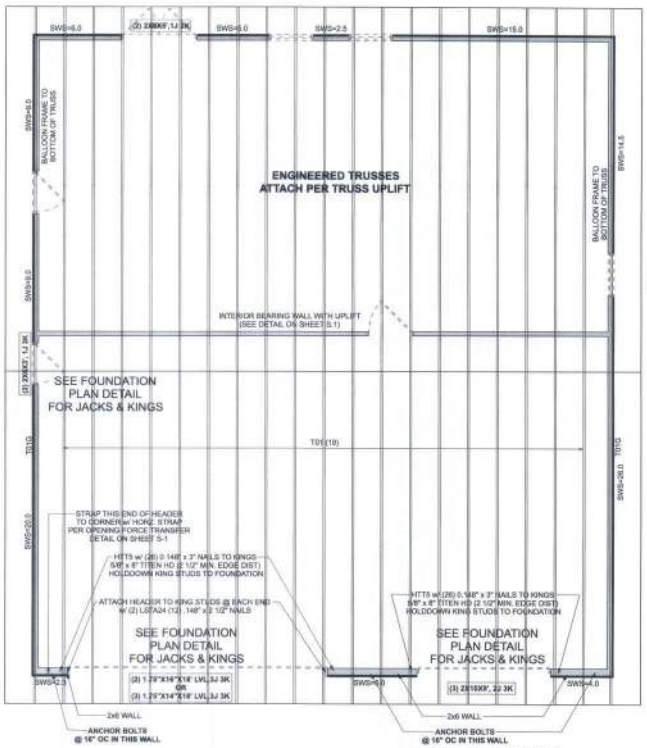
VENTS IN CMU CURB WALL ARE TO BE PLACED TO SO THAT THEY AVOID FILLED CELL.

Flood Vent Needed

Permit 419952

TAB ALL STEM WALL TABLE:
The table assumes 40 lbs/ft for #5 rebar and 60 lbs/ft for #7 & #8 rebar with 6" hook in the footing and bend 24" into the reinforced slab at the toe. The vertical steel is to be placed toward the tension side of the CMU wall (away from the soil pressure, within 2" of the exterior side of the wall). If the wall is over 8' high, add Dur0wall ladder reinforcement at 16"OC vertically or a horizontal bond beam with 1#5 continuous at mid height. For higher parts of a wall 12" CMU may be used with reinforcement as shown in the table below.

STEMWALL HEIGHT (FEET)	UNBALANCED BACKFILL HEIGHT	VERTICAL REINFORCEMENT FOR 8" CMU STEMWALL (INCHES O.C.)			VERTICAL REINFORCEMENT FOR 12" CMU STEMWALL (INCHES O.C.)		
		#5	#7	#8	#5	#7	#8
3.3	3.0	96	96	96	96	96	96
4.0	3.7	96	96	96	96	96	96
4.7	4.3	96	96	96	96	96	96
5.3	5.0	96	96	96	96	96	96
6.0	5.7	40	80	96	80	96	96
6.7	6.3	32	56	80	56	96	96
7.3	7.0	24	40	56	40	80	96
8.0	7.7	16	32	48	32	64	80
8.7	8.3	8	24	32	24	48	64
9.3	9.0	8	16	24	16	40	48



STRUCTURAL PLAN

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

MASONRY NOTE:
MASONRY CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATION FOR MASONRY STRUCTURES" (ACI 530.1/ASCE 6/TMS 602). THE CONTRACTOR AND MASON MUST IMMEDIATELY, BEFORE PROCEEDING, NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN ACI 530.1-02 AND THESE DESIGN DRAWINGS. ANY EXCEPTIONS TO ACI 530.1-02 MUST BE APPROVED BY THE ENGINEER IN WRITING.

1.4A	ACI530.1-02 Section	Specific Requirements
2.1	Compressive strength	8" block basing walls f'm = 1500 psi
2.1	Mortar	ASTM C 270, Type M, UNO
2.2	Grout	ASTM C 476, admixtures require approval
2.3	CMU standard	ASTM C 90-02, Normal weight, Hollow, medium surface finish, 8"x8"x16" running bond over 12"x12" or 16"x16" column block
2.3	Clay brick standard	ASTM C 216-02, Grade SW, Type FBS, 5.3"x2.75"x11.5"
2.4	Reinforcing bars, #3 - #11	ASTM 615, Grade 40, Fy = 40 ksi, Lap splices min 48 bar dia. (20" for #6)
2.4F	Coating for corrosion protection	Anchors, sheet metal ties completely embedded in mortar or grout, ASTM A525, Class G60, 0.60 oz/ft2 or 384/50
2.4F	Coating for corrosion protection	Joint reinforcement in walls exposed to moisture or wire ties, anchors, sheet metal ties not completely embedded in mortar or grout, ASTM A153, Class B2, 1.50 oz/ft2 or 384/50
3.3.E.2	Pipes, conduits, and accessories	Any not shown on the project drawings require engineering approval.
3.3.G.7	Movement joints	Contractor assumes responsibility for type and location of movement joints if not detailed on project drawings.

STRUCTURAL PLAN NOTES

SN-1 ALL LOAD BEARING FRAME WALL & PORCH HEADERS SHALL BE A MINIMUM OF (2) 2x6 SP #2 (U.N.O.)

SN-2 ALL LOAD BEARING FRAME WALL HEADERS SHALL HAVE (1) JACK STUD & (1) KING STUD EACH SIDE (U.N.O.)

SN-3 ALL HEADERS w/ UPLIFT TO BE STRAPPED DOWN @ EACH SIDE WITH (1) LSTA24, 14-10d @ TOP & BOTTOM OF WALL. WRAP UNDER BOTTOM PLATE & OVER TOP PLATE. 1/2" X 12" ANCHOR BOLT w/ 3" X 3" X 1/4" WASHERS MUST BE LOCATED WITHIN 8" OF KING STUD @ ALL DOOR LOCATIONS (U.N.O.)

SN-4 USE ONE JACK STUD GIRDER SUPPORT PER 2600 LB LOAD

SN-5 DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

SN-6 PERMANENT TRUSS BRACING IS TO BE INSTALLED AT LOCATIONS AS SHOWN ON THE SEALED TRUSS DRAWINGS. LATERAL BRACING IS TO BE RESTRAINED PER BCSI-03, BCSI-B1, BCSI-B2, & BCSI-B3. BCSI-B1, BCSI-B2, & BCSI-B3 ARE FURNISHED BY THE TRUSS SUPPLIER, WITH THE SEALED TRUSS PACKAGE

HEADER LEGEND

ACTUAL vs REQUIRED SHEARWALL

	TRANSVERSE	LONGITUDINAL
ACTUAL	31096 LBF	17190 LBF
REQUIRED	14563 LBF	11562 LBF

CONNECTIONS, WALL & HEADER DESIGN IS BASED ON REACTIONS & UPLIFTS FROM TRUSS ENGINEERING FURNISHED BY BUILDER, BUILDERS FIRST SOURCE JOB #2918891

Woodman Park Builders, Inc.

Mark Haddox - Arden

PROJECT ADDRESS:
377 Sw 9th Ct
Lake City, FL 32024

DIMENSIONS:
Stated dimensions override scaled dimensions. Refer to questions to Mark Dicosway, P.E for resolution. Do not proceed without clarification.

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CERTIFICATION: I hereby certify that I have examined this plan, full find the applicable portions of the plan, existing to wind engineering comply with the 7th Edition Florida Building Code Residential (2020) to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOSWAY P.E. 53915

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Friday, October 15, 2021

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JOB NUMBER:
211245

S-2
OF 3SHEETS