

3008 RAWLS CHRUCH ROAD
 FUQUAY VARINA, NC
 GENESIS CONSTRUCTION

DESIGNER: HOME OWNER PLAN: NEW DECK

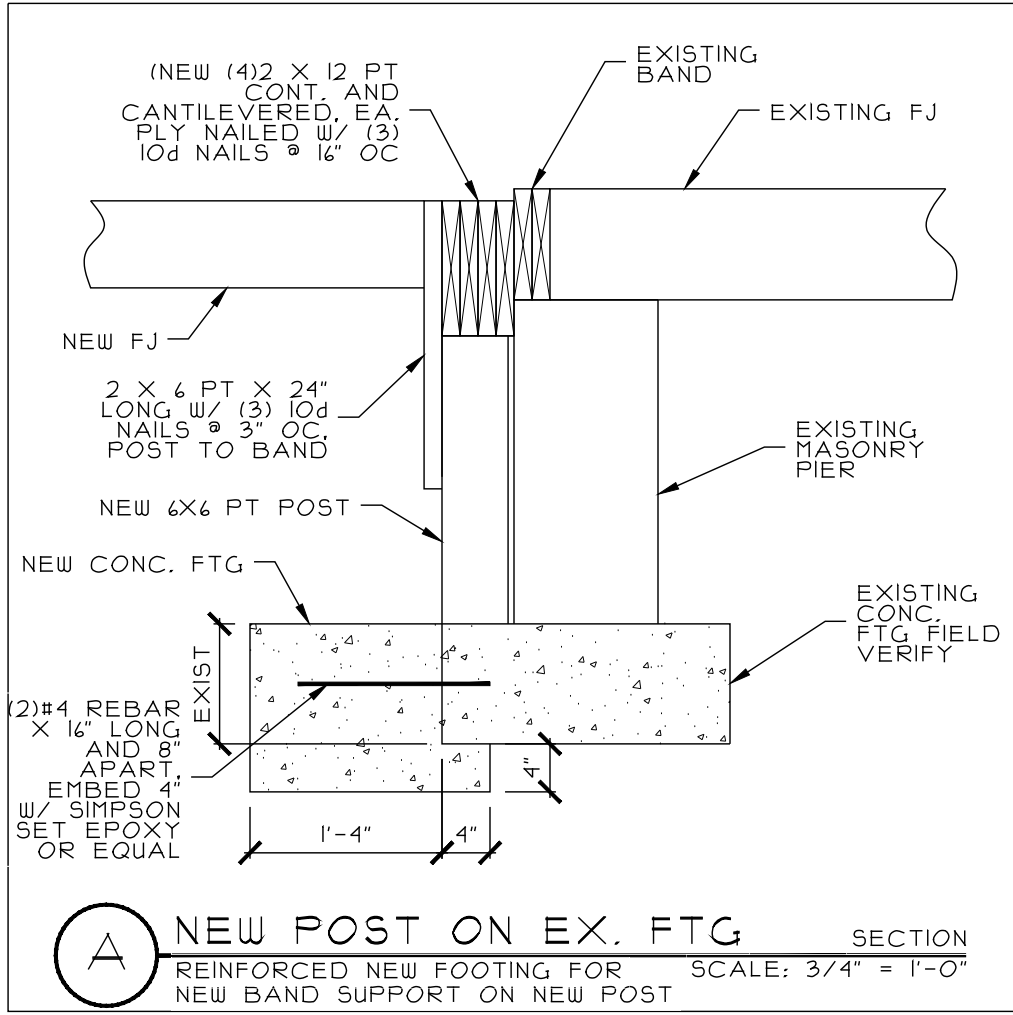
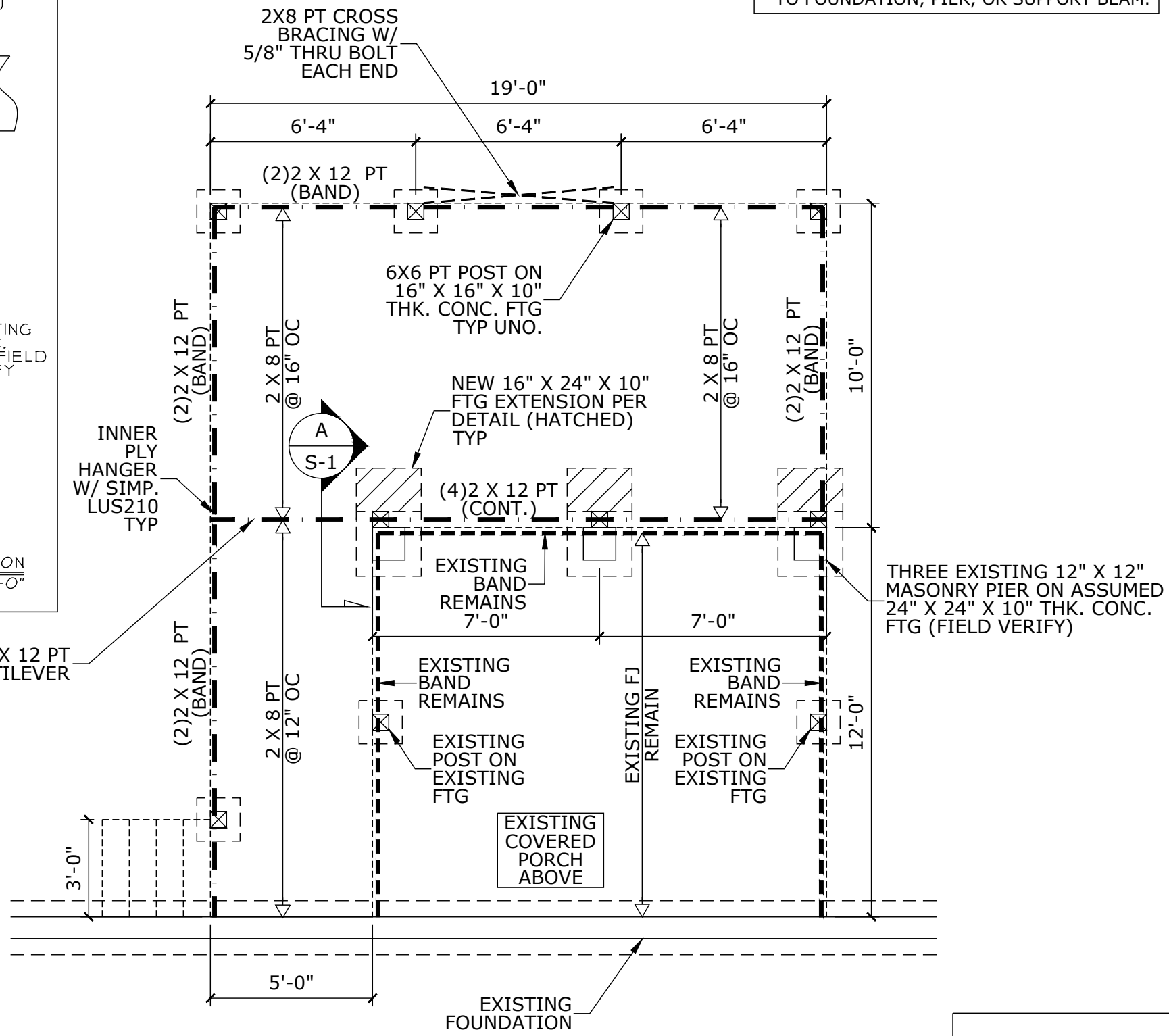
PROJ. #:	20-20-274	DATE:	12/29/20
ENGINEER:	WPS	REV. #:	1
DWN. BY:	WPS	DATE:	--/--
CHKD BY:	BEW	2	--/--
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SCALE: 1/4" = 1'-0"

FOUNDATION PLAN

SHEET: **S-1**
 1 OF 2

NOTE: ■ DESIGNATES A SIGNIFICANT POINT LOAD REQUIRING SOLID BLOCKING TO FOUNDATION, PIER, OR SUPPORT BEAM.



- GENERAL NOTES**
1. THESE PLANS ARE DESIGNED TO BE USED BY A LICENSED GENERAL CONTRACTOR.
 2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL PHASES OF CONSTRUCTION COMPLY WITH ALL BUILDING CODE REQUIREMENTS.
 3. PRIOR TO CONSTRUCTION, THE GENERAL CONTRACTOR IS TO REVIEW ALL PLANS AND BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS.
 4. ANY DISCREPANCY IN THE PLANS IS TO BE BROUGHT TO THE ATTENTION OF THE DESIGNER PRIOR TO THE BEGINNING OF CONSTRUCTION.
 5. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS WILL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
 6. PLUMBING AND HVAC PLANS ARE TO BE HANDLED BY THE GENERAL CONTRACTOR UNLESS SPECIFIED OTHERWISE. EACH MUST COMPLY WITH ALL BUILDING CODE REQUIREMENTS.

FOUNDATION PLAN

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

A SITE INSPECTION WAS NOT PERFORMED BY WOODARD SEASE AND ASSOCIATES PC TO INSPECT EXISTING FRAMING PRIOR TO ENGINEERING OF ADDITON. BUILDER/INSTALLER SHOULD CONTACT WOODARD SEASE AND ASSOC. IMMEDIATELY IF ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FRAMING BECOME EVIDENT DURING CONSTRUCTION.

SEAL DATE: 12/29/2020

**PRELIMINARY
 DO NOT USE
 FOR
 CONSTRUCTION**

C. FRAMING

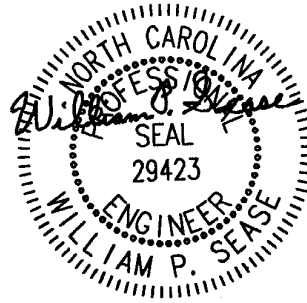
- ALL FRAMING LUMBER SHALL BE SPF #2 (E = 1,400,000 PSI, Fb = 875 PSI). TREATED LUMBER SHALL BE SYP #2 (E = 1,400,000 PSI, Fb = 975 PSI). STUDS SHALL BE MIN #2 OR STUD GRADE.
- LVL SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING PROPERTIES: E = 2,000,000 PSI, Fb = 2900 PSI, Fv = 290 PSI.
- PROVIDE DOUBLE TOP PLATES IN ALL EXTERIOR WALLS. STAGGER JOINTS MIN 24", W/ (4) 16d NAILS.
- WALL BRACING SHALL CONFORM TO R602.10.
- SET ALL JOISTS AND BEAMS WITH NATURAL CAMBER UP. ENDS LAPPED MIN. 6" OVER BEARING SHALL BE SECURELY NAILED TOGETHER. PROVIDE AT MIN. 1-1/2" BEARING FOR ALL JOISTS AND MIN. 3" FOR BEAMS (U.N.O.).
- ALL FRAMING EXPOSED TO MASONRY OR WEATHER TO BE PRESSURE TREATED. SILLS MIN. 2X6.
- STRUCTURAL MEMBER FASTENING TO CONFORM TO TABLE R602.3 (1) AND (2).
- DOUBLE ALL JOISTS: A) UNDER PARALLEL PARTITIONS; B) OPENING HEADERS/TRIMMERS; C) UNDER TUBS W/ 12' OR GREATER SPAN.
- STUDS SHALL NOT BE CUT FOR PLUMBING / ELECTRICAL / MECHANICAL RUNS WITHOUT STRAPPING AT EACH SIDE PER R602.6. ENGINEER IS NOT RESPONSIBLE FOR FAILURES IN CUT MEMBERS. DO NOT CUT BEAMS OR GIRDERS.
- BALLOON FRAME GABLE END VAULTED WALLS AND ALL WALLS HIGHER THAN 10' W/ 2X4 @ 12" O.C. OR (2)2X4 @ 16". MULTIPLE UNIT WINDOWS IN WALLS HIGHER THAN 10' TO HAVE MIN. DOUBLE STUD POCKETS, U.N.O.
- INSTALL I-JOISTS PER MANUFACTURER'S SPECIFICATIONS. MIN. I-JOIST BEARING: 1-3/4" AT ENDS, 3-1/2" AT INTERMEDIATE SUPPORTS.
- TRUSS DRAWINGS MUST BE SEALED BY THE TRUSS MANUFACTURER AND REVIEWED BY WOODARD SEASE & ASSOC. TRUSS DRAWINGS TO DESIGN AND DOCUMENT ALL REQUIRED BEAMS, HANGERS, AND POINT LOAD REACTIONS. TRUSS DESIGN, FABRICATION, AND DOCUMENTATION SHALL MEET ALL REQUIREMENTS OF R502.11.
- MINIMUM HEADER SIZE AND SUPPORTS:

SPAN	BEAM*	# JACK STUD REQUIREMENTS FOR SUPPORTING:
4'-0"	(2) 2X6	(1) 2X4
4'-6"	(2) 2X8	(1) 2X4 (2) 2X4
6'-8"	(2) 2X10	(1) 2X4 (3) 2X4
8'-10"	(2) 2X10	(2) 2X4 (4) 2X4
10'-0"	SEE PLAN	SEE PLAN
- ALL POINT LOADS TO BE COLUMNED/BLOCKED (THOUGH JOISTS) DOWN TO FOUNDATION.
- FIREBLOCK TO CONFORM WITH R302.11.

D. ROOF FRAMING NOTES

- PROVIDE 2X4 ATTIC COLLAR TIES AT 48" O.C. AT UPPER 1/3 OF ATTIC SPACE (U.N.O.).
- ALL RAFTER SPANS ARE CALCULATED ON SPF #2 (U.N.O.).
- MINIMUM ROOF PITCH TO BE NO LESS THAN 3:12 (INCLUDING CRICKETS AND SADDLES).
- ALIGN ALL RAFTERS OVER STUDS BELOW.
- RAFTERS SIZES SHOWN ARE MINIMUMS TO MEET STRUCTURAL REQUIREMENTS. SIZES MAY BE INCREASED TO PROVIDE MINIMUM INSULATION VALUES OR AIR PASSAGES.
- USE 2X10 OR FUR DOWN RAFTERS FOR VAULTED AREAS.
- ATTACH VAULTED RAFTERS WITH HURRICANE CONNECTORS: SIMPSON H2.5A OR EQUAL, TYP.
- DOUBLE HIPS MAY BE SPLICED WITH A MINIMUM 6'-0" OVERLAP AT CENTER.
- DO NOT SPLICE VALLEY BEAMS.
- FUR RIDGE AS REQUIRED FOR FULL RAFTER CONTACT.
- DESIGN DEAD LOAD BASED ON 240 LB FIBERGLASS SHINGLES (U.N.O.).
- BRICK ABV. LOW ROOF TO HAVE L6"X4"X5/16" (LLV) PER SECTION 703.8.2.1 & FIGURE 703.8.2.1 OF 2018 NCR.
- BRICK ABV. LOW ROOF TO HAVE TRIPLE RAFTER AT LOW ROOF W/ L4"X3-1/2"X1/4" (LLH) PER SECTION 703.8.2.2 & FIGURE 703.8.2.2 OF 2018 NCR.

SEAL DATE: 12/29/2020



STRUCTURAL NOTES

- GENERAL NOTES
 - THE ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS THE STRUCTURAL ENGINEER OF RECORD FOR THIS PROJECT. NO OTHER PARTY MAY MODIFY OR REUSE THESE CONSTRUCTION DOCUMENTS WITHOUT WRITTEN PERMISSION FROM WOODARD SEASE & ASSOC. OR STRUCTURAL ENGINEER OF RECORD. ENGINEERS SEAL ONLY APPLIES TO STRUCTURAL COMPONENTS AND SYSTEMS AND DOES NOT CERTIFY DIMENSIONAL ACCURACY OF THE ARCHITECTURAL LAYOUT.
 - THE ENGINEER SHALL HAVE NO LIABILITY TO THE HOMEOWNER OR TO OTHERS FOR ACTS OR OMISSIONS OF THE CONTRACTOR/BUILDER OR ANY OTHERS PERFORMING WORK ON THIS PROJECT. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION SEQUENCES, METHODS, OR TECHNIQUES AND/OR SAFETY REQUIREMENTS IN CONNECTION WITH THE CONSTRUCTION OF THIS STRUCTURE.
 - CONTRACTOR ASSUMES ALL RESPONSIBILITY FROM DEPICTED OR IMPLIED STRUCTURAL INFORMATION. SHOULD ANY DISCREPANCIES BECOME APPARENT, THE STRUCTURAL ENGINEER OF RECORD MUST BE NOTIFIED IMMEDIATELY BEFORE CONSTRUCTION BEGINS.
 - ONLY SEALED DRAWINGS W/LATEST REVISIONS ARE APPLICABLE FOR CONSTRUCTION.
 - ALL CONSTRUCTION, WORKMANSHIP, AND MATERIALS SHALL CONFORM TO THE LATEST REQUIREMENTS OF "2018 NORTH CAROLINA RESIDENTIAL CODE" AND LOCAL REGULATIONS.
 - DESIGN LOADS

STRUCTURAL SYSTEM	L.L.	D.L.	T.L.	STRUCTURAL SYSTEM	L.L.	D.L.	T.L.
FLR (PRIMARY DWELL'G.)	40	10	50	ATTICS W/ FIXED STAIRS	40	10	50
FLR (SLEEPING RMS.)	30	10	40	STAIRS	40	5	45
BALCONIES (EXTERIOR)	60	10	70	GUARDRAIL/HANDRAIL	200		200
DECKS	40	10	50	ROOF SYSTEM	20	10	30
ATTICS W/OUT STOR.	10	10	20	CATHEDRAL	20	15	35
ATTICS W/ LIMITED STOR.	20	10	30	INTERIOR PART'N. WALL	9		9

WIND VELOCITY: 115 MPH (ULTIMATE)
EXPOSURE: B

- DEFLECTION: FLOOR: L/360, ATTIC W/ CEILING: L/240, ROOF: L/180 - MORE STRINGENT CRITERIA MAY BE USED AT ENGINEER'S DISCRETION OR AS REQUESTED.
- DO NOT SCALE DRAWINGS. CONTRACTOR SHALL CONTACT ARCHITECT FOR ITEMS NOT DIMENSIONED.

B. FOOTINGS AND FOUNDATION

- OWNER OR BUILDER IS RESPONSIBLE FOR VERIFYING SOIL BEARING CAPACITY, MIN. ASSUMED = 2000 PSF
- MINIMUM SPREAD FOOTING SIZES: (128 DAY STRENGTH: MIN. 3000 PSI)

STORIES	WOOD FRAME			WOOD FRAME + FACE BRICK			8" MASONRY
	MIN. FTG WIDTH	MIN. FTG DEPTH	MIN. FTG WIDTH	MIN. FTG DEPTH	MIN. FTG WIDTH	MIN. FTG DEPTH	
1	1'-0"	0'-8"	1'-0"	0'-8"	1'-4"	0'-8"	
2	1'-3"	0'-8"	1'-3"	0'-8"	1'-9"	0'-10"	
3	1'-5"	0'-10"	2'-0"	0'-10"	2'-8"	1'-0"	

- FOOTINGS SHALL HAVE MIN. 2" PROJECTION EACH SIDE OF FOUNDATION WALLS.
- FOUNDATION WALL TO BE 8" CONC. BLOCK OR 8" BRICK & BLOCK (U.N.O.)
- FOUNDATION WALL TO HAVE A SOLID 8" MASONRY CAP.
- PIERS TO BE 16" X 16" CONC. BLOCK (AND/OR AS REQUIRED PER SECTION R404.1.5.4 OF 2018 NCR) ON 32" X 32" X 10" CONC. FOOTING (U.N.O.).
- TIE ALL HALF PIERS INTO WALLS.
- GIRDERS AND PIERS SHALL BEAR ON CENTER 1/3 OF PIER AND FOOTING, RESPECTIVELY.
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS SHALL BE AS FOLLOWS: 6'-0" FOR 12" CONCRETE MASONRY UNIT (CMU) WALL; 4'-0" FOR 8" CMU WALL; 1'-6" FOR PIER AND CURTAIN WALL.
- ANCHOR BOLTS TO BE MIN. 1/2" DIA. @ MAX. 6'-0" O.C. AND MAX. 12" FROM CORNERS. BOLTS SHALL EXTEND MIN. 7" INTO CONCRETE OR MASONRY.
- MIN. CRAWL SPACE ACCESS IS 36"(W) X 22"(H) AND LOCATED AT BEST LOCATION WITH REFERENCE TO GRADE.
- FOUNDATION VENT REQUIRED 3'-0" (MAX.) FROM Ea. CORNER.
- INSTALL FOUNDATION WATERPROOFING, DRAIN TILE, STONE AND POSITIVE DRAIN AS REQ'D. BY GRADE.
- GARAGE SLABS: 4" CONC. W/ 6X6 WWM OR FIBER MESH, W/ 6 MIL VAPOR BARRIER OVER 4" OF CRUSHED STONE OR GRAVEL ON TAMPED EARTH.
- EXPANSION JOINT REQUIRED WHERE ENCLOSED SLAB MEETS FOUNDATION WALL.
- BASEMENT SLABS SAME AS GARAGE W/ PERIMETER INSULATION AND NO EXPANSION JOINT REQUIRED.

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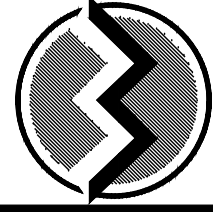
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SCALE: 1/4" = 1'-0"

NOTES & DETAILS

SHEET:

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WOODARD SEASE & ASSOCIATES, PC

STRUCTURAL ENGINEERS

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