I. GENERAL CONSTRUCTION NOTES:

1. All angles are 45 degrees unless otherwise specified
2. 2x4 and 2x6 walls are dimensioned 3 ½" and 5 ½" respectively
3. Provide attic access 22 ½" x 30 ½" x 30" minimum head clearance
4. Dimensions are subject to field verification and adjustment provided the adjustment does not violate code, engineering or industry standards
5. All glazed areas subject to human impact loads at hazardous locations must be safety glazed; provided safety glazing at all sidelights, sliding glass doors, shower enclosures and skylights
6. Provided safety glass when at windows with window sill heights less than 18" AFF
7. The excavation outside the foundation shall be backfilled with soil that is free of organic material, construction debris and large rocks; backfill shall be placed in a manner that does not damage the foundation or applied dampproofing/waterproofing
8. The ground immediately adjacent to the foundation shall be slopped away from the structure; slope of not less that 1:12 for a minimum distance of 8'
9. Pre-fab gas fireplaces shall be installed according to manufacturer's specifications with exterior combustion air intakes and be U.L. listed to U.L #127 standards

II. FIRE PROTECTION:

1. 1/2" type "X" fire code drywall on all common walls and ceilings of attached Garages; (1) hour rated dwelling/Garage wall provided by (1) layer ½" drywall on living side and 1/2" type "X" drywall on Garage side
2. 20 minute fire-rated doors between Garage and living space
3. Provide portable fire extinguisher per VRC code R329.1; installed in easily accessible area in the Kitchen

III. OCCUPANT REQUIREMENTS

1. Windows in bedrooms (means of egress) shall have a minimum clear opening of 5.7 s.f. and a minimum net clear opening 24" wide x 22' high
2. Maximum clear sill height at egress windows 44" above finished floor
3. Handrails shall be located at a height of 34" from nose of tread to the top of the rail when rails are attached to the wall; handrails which are part of guardrails to 36" above nosing of treads, maximum projection of 3 ½ into the stair tread or landing
4. Handrails and/or railings shall be installed at any stair or exterior Porch of (3) risers or more, at all landings and floors (3) risers or more; install guardrails with a minimum height of 36" above finished floor. Balusters shall be installed in such a manner that a 4" diameter sphere cannot pass between any two balusters
5. The maximum riser height at stairs and landings shall be 8 ¼" and the minimum tread depth shall be 10" (to include a 1" nosing) on stairways with solid surfaces

IV. FOUNDATION NOTES:

1. All soils testing shall be in accordance with the VRC or local code being used
2. Building foundations have been designed based on as assumed soil bearing capacity of 2000 psf. Additional engineering is required if soil bearing capacity falls below 2000 psf
3. All plain and reinforced concrete shall comply with requirements in ACI 318
4. Concrete used for footings, Basement slabs and interior slabs on grade shall be 2,500 psi (min); poured foundation walls shall be 3,000 psi (min) air entrained concrete, type 1A ASTM C150
5. All exterior concrete work and Garage slabs shall be nominal 4", 3,500 psi (min) air entrained concrete, type 1A ASTM C150
6. All footings to be 24" minimum below grade to bottom of footing
7. In reinforced concrete footings the thickness above the bottom reinforcement shall not be less that 6"; the clear cover on reinforcement where the concrete is cast against the earth shall not be less than 3"
8. Footings must not be poured through water and be protected from freezing for a period of not less that (5) days
9. Any plumbing pipe passing under a footing or through a foundation wall shall be provided with a relieving arch or sleeve two pipe sizes greater than the pipe passing through
10. The minimum thickness of a foundation wall shall not be less than the wall supported; all walls will be minimum 8" thick and may vary from plan as wall heights and grade requires
11. All foundation walls shall be dampproofed or waterproofed (to grade) with code approved dampproofing or waterproofing system (pending conditions)
12. All holes and recesses resulting from removal of form ties shall be sealed with a bituminous material prior to applying dampproofing or waterproofing
13. All concrete slabs shall have expansion joints for crack control
14. Foundation drains (draintile) shall be installed according to local site conditions and governing code
15. Foundation anchor bolts shall be ½" diameter bolts installed at 6' 0" O.C. (max), or "Simpson" MAB15 galvanized anchor straps at 3' 10" O.C.; either anchor shall be located a maximum of 12" from each corner and splice

V. BUILDING ENVELOPE:

1. All wall and ceiling insulation to comply with the 2012 VRC or IECC
2. Foundation walls and unfinished areas and crawl spaces to receive R-11 VSK insulation from floor to top of wall; R-13 FG batt insulation at finished Basement area perimeter framing
3. Foam sill sealer shall be provided between sill plates and top of concrete foundation walls
4. Perimeter insulation for on grade conditioned slab shall be ridged R-10 to minimum 24" in horizontal depth
4. All sheathing penetrations during construction shall be patched and repaired according to manufacturer's specifications or local governing code
5. All exterior framed walls to be wrapped in "Tyvek" brand House Wrap
7. All exterior wall covering shall be in accordance with 2012 VRC section 703
8. Asphalt shingles to conform to ASTM D225 or D3462
9. Asphalt shingles shall not be installed on roof slopes below 3:12 or per manufacturer's requirements
10. Shingle headlap shall not be less that 2"
11. Flashing shall be installed at wall and roof intersections, all changes in roof slope and/or direction and around all roof openings
13. Weaterhshield (or equal) shall be installed at first row and valleys
14. 30 lb. felt throughout

VI. FRAMING NOTES:

1. All lumber must be grade stamped in accordance with the 2012 VRC
2. All fasteners shall conform to manufacturer's instructions or 2012 VRC fastening schedule(s) or NER 272
3. Posts or studs in load bearing walls will be designed as columns
4. Minimal grade and allowable stresses for structural wood members are:
a. Studs/Jacks/Joists/Rafters/Headers - #2 Hem-fir or better; Fb=850, Ft=500, Hv=75, Fc(perp)=405, Fc(par)=1250, D=1,300,00
b. LVL Beams - G=125,000 psi, E=2.0x10(6) psi, Fb=2925 psi, Fc(perp)=750 psi, Fc(par)=3035 psi, Fv=285 psi
5. Apply size factors, repetitive member factors, duration of load adjustment, horizontal shear adjustment, and adjustments for dimension lumber to base values as required (Western Wood Products Association Use Manuel)
6. All wood framing members which rest on exterior foundation walls shall be 8" above finished grade and shall be pressure treated
7. All partitions shall be 2x4 construction unless otherwise noted; bearing and non-bearing walls shall be framed at 16" O.C.
8. All exterior walls shall be sheathed with 7/16" OSB
9. All wood structural members and sheathing to be fastened per 2012 VRC table R602.3(1) thru R602.3(3)
10. All exterior walls and interior bearing walls, window and door headers shall be (2) 2x10 construction with (2) jack studs unless otherwise noted or span exceeds 5' 8"; refer to the 2012 VRC Section R502.5 for header criteria applicable to conditions not stated
11. All roof sheathing shall be LP "TechShield" reflective coated 7/16" OSB fastened in accordance with manufacturer's specifications, clipped at midspan at 24" truss spacing
12. Roof and floor system engineering, layout, blocking and bracing as designed by roof and floor truss manufacturers
13. All identified flush headers and beams to engineered and provided for by the floor and/or roof truss manufacturer

VII BUILDING SERVICES MECHANICAL/ELECTRICAL:

1. All exhaust fans shall vent to exterior
2. Kitchen range exhaust 100 cfm minimum; Bathroom and Powder Room exhaust 50 cfm minimum
3. Provide intermittent whole house ventilation system per VRC Section 1507 to meet ASHRAE 62.2-2010 standards for ventilation
4. Smoke detectors shall be located in each story of the dwelling unit, including basements, and in immediate vicinity of the Bedrooms, as well as in each Bedroom. Each smoke detector shall operate on an electric power (primary) with battery back-up. Detectors shall be wired in such a manner that the actuation of one alarm will actuate all of the alarms within the dwelling unit
5. An approved carbon monoxide detector shall be installed at each story of the dwelling unit, in proximity of each sleeping area where applicable, in dwelling units with fuel-fired appliances and dwelling units with attached Garages
6. All Mechanical and Electrical work to be to their respective codes and provided by a Contractor(s) licensed to do work in the jurisdiction of the project

RESIDENCE FOR:

CODE

CODE USED:	**2012 VRC**	
USE GROUP:	**R-5**	
TYPE:	**5B**	

LOADS

	LIVE	DEAD
LIVING:	**40**	**10**
SLEEPING:	**30**	**10**
ROOF:	**30**	**17**
WIND:	**90**	

SQ FTG(S)

FIRST FLOOR:	**2012**
UNFIN. BASEMENT (SLAB):	**1872**
GARAGE (SLAB):	**581**
FRONT PORCH:	**168**

PLAN PAGES:

C1 - COVER SHEET
A1 - ELEVATIONS/ROOF PLAN
A2 - FOUNDATION PLAN
A3 - 1ST FLOOR PLAN/TYP. SECT
S1 - SECTION/DETAILS
S2 - SECTION/DETAILS
S3 - ELEC & BWL DIAGRAMS

COVER SHEET

PLANS BY: D. LOY
PYRAMID DESIGN & DRAFTING
540.547.3040

DATE: 11.30.18

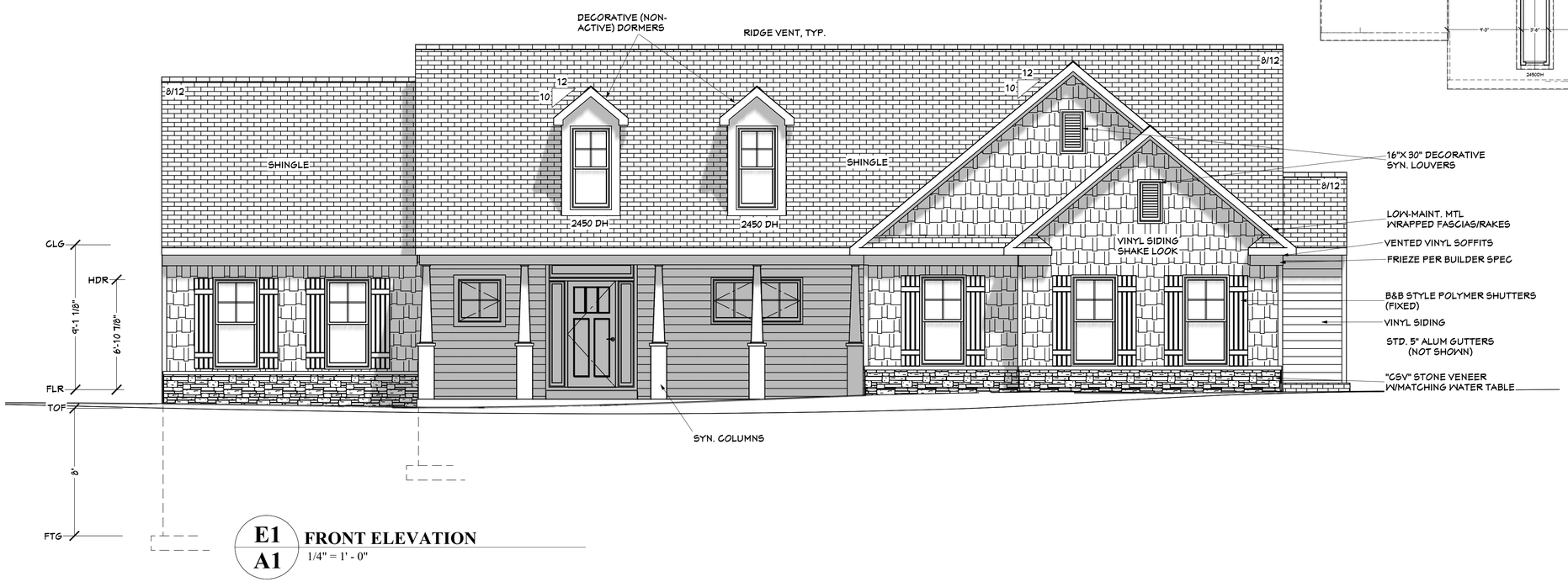
CONTRACTOR:

PROJECT/OWNER:

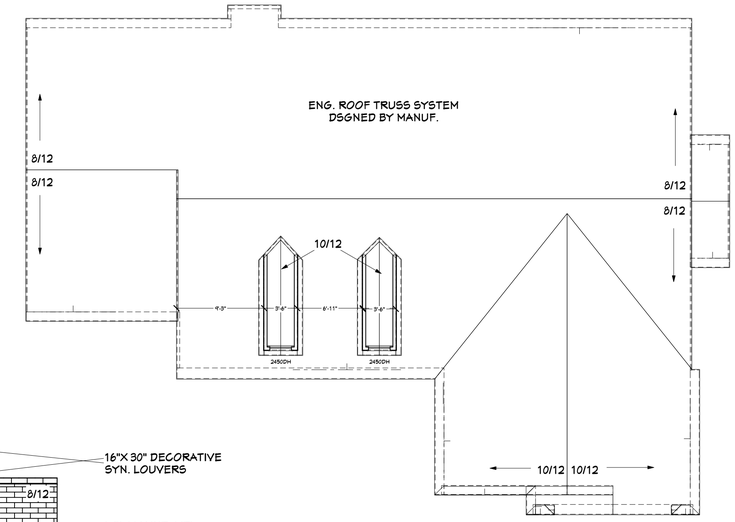
OFH PROJECT
RILLHURST SUBDIVISION, LOT #42
CULPEPER, VIRGINIA 22701

SHEET:

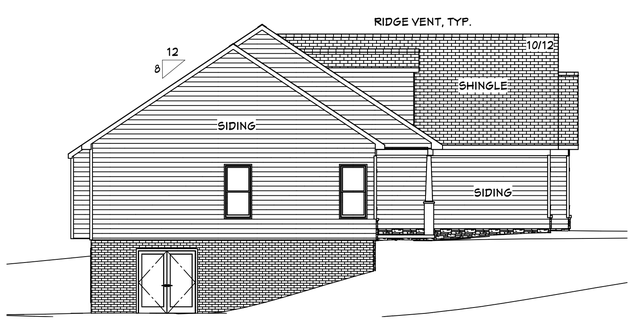
C1



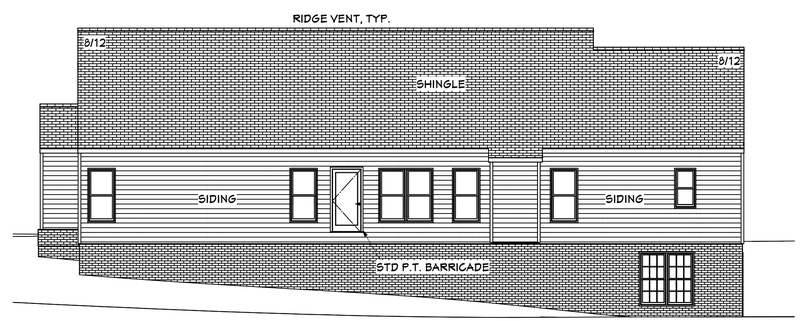
E1 / A1 FRONT ELEVATION
1/4" = 1' - 0"



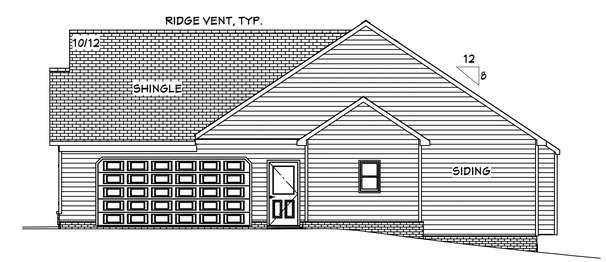
RP / S1 ROOF PLAN
1/8" = 1' - 0"



E2 / A1 LEFT ELEVATION
1/8" = 1' - 0"



E3 / A1 REAR ELEVATION
1/8" = 1' - 0"



E4 / A1 RIGHT ELEVATION
1/8" = 1' - 0"

PLANS BY: D. LOY

PYRAMID DESIGN & DRAFTING
540.547.3040

DATE:
11.30.18

CONTRACTOR:

PROJECT/OWNER:

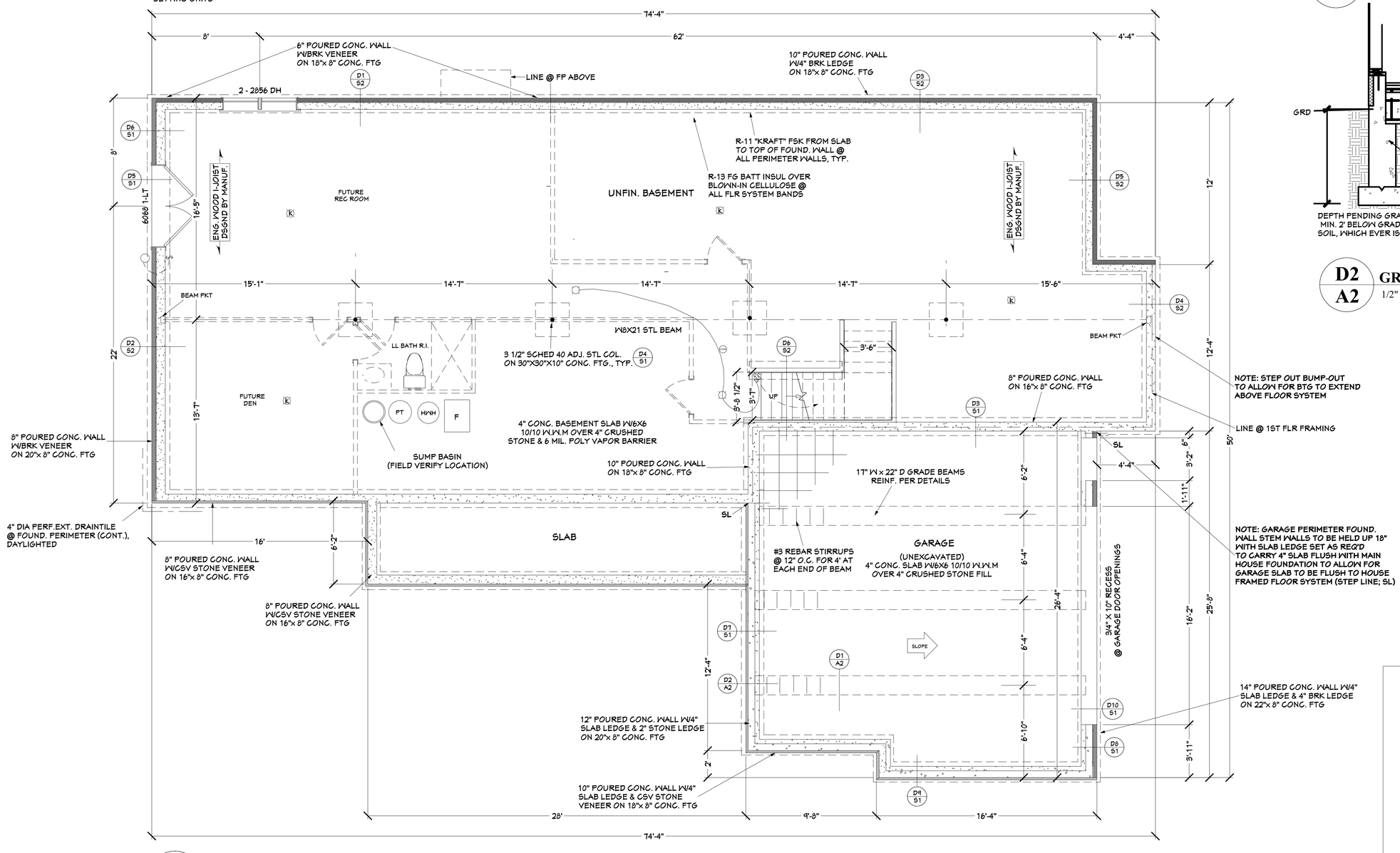
OFH PROJECT
RILLHURST SUBDIVISION, LOT #42
CULPEPER, VIRGINIA 22701

SHEET:
A1

ELEVATIONS/ROOF PLAN

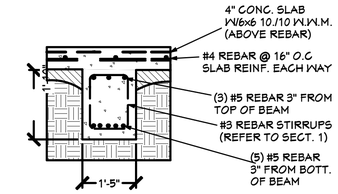
NOTE: WALK-OUT DOOR & LL WINDOW LOCATIONS MAY VARY PER FINAL GRADE

NOTE: STRIP 2X2'S OFF P.T. WINDOW & DOOR JAMBS BEFORE SETTING UNITS



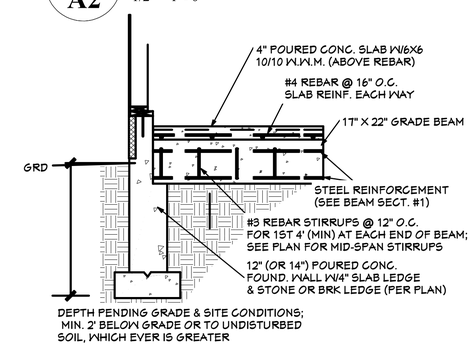
F1/A2 FOUNDATION PLAN

1/4" = 1' - 0"



D1/A2 GRADE BEAM SECT 1

1/2" = 1' - 0"



D2/A2 GRADE BEAM SECT 2

1/2" = 1' - 0"

ENGINEERS SEAL; ENGINEERING ON STEEL & GARAGE GRADE BEAMS (ONLY)

FOUNDATION PLAN

PLANS BY: D. LOY

PYRAMID DESIGN & DRAFTING
540.547.3040

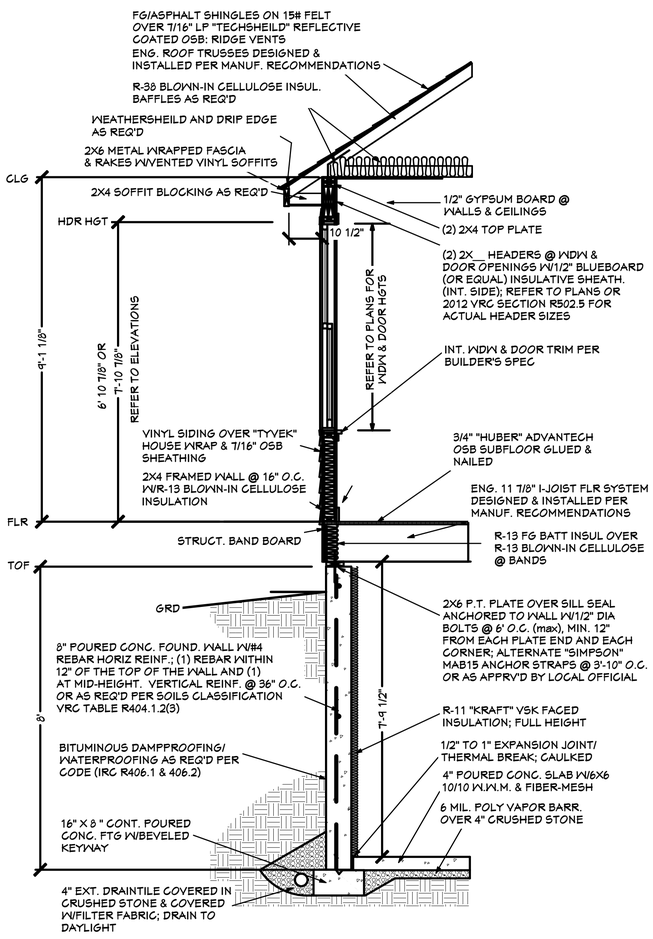
DATE: 11.30.18

CONTRACTOR:

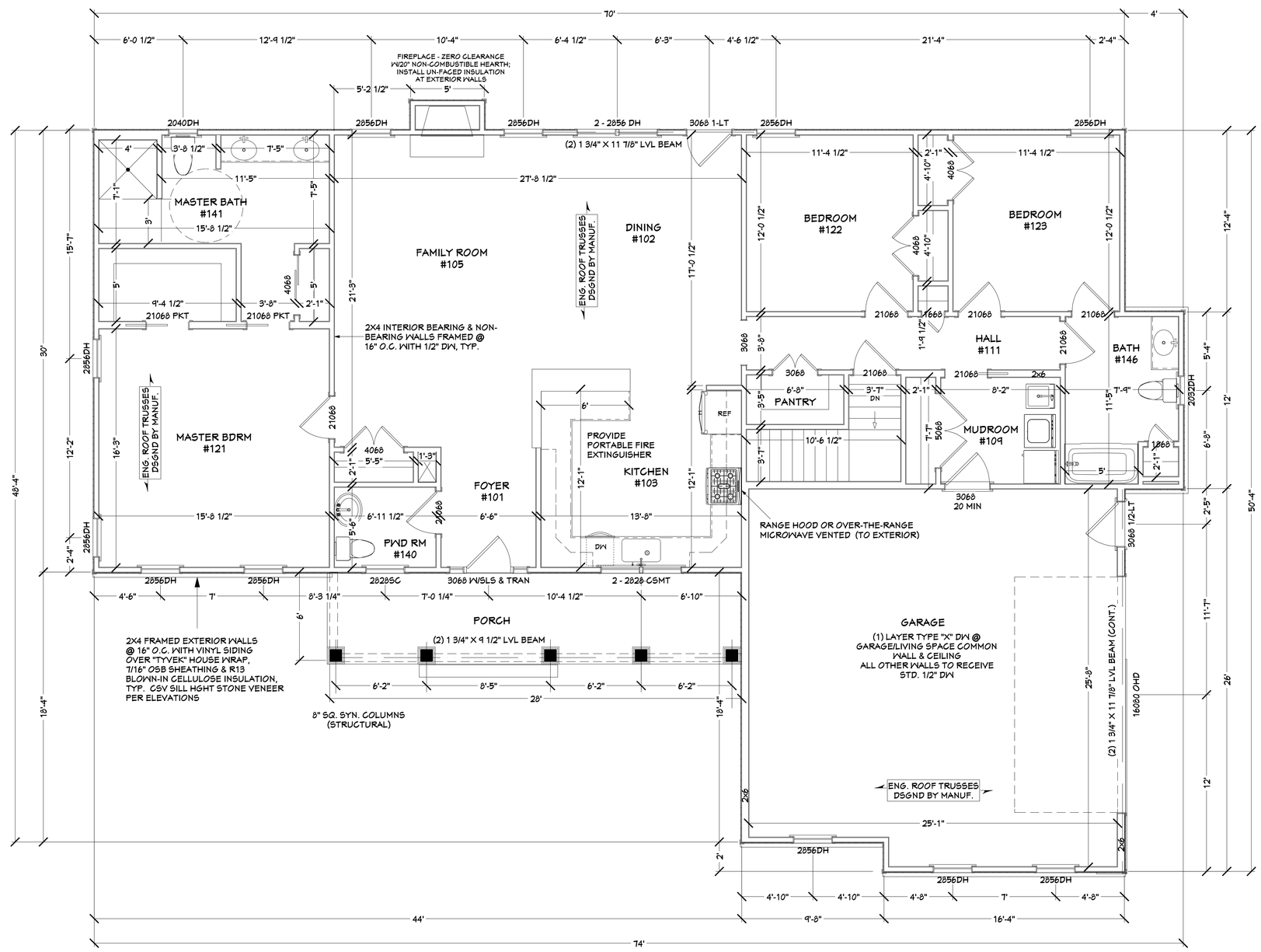
PROJECT/OWNER:

OFH PROJECT
RILLHURST SUBDIVISION, LOT #42
CULPEPER, VIRGINIA 22701

SHEET: **A2**



D1 / A3 TYP. SECTION
1/2" = 1' - 0"



F2 / A3 1ST FLOOR PLAN
1/4" = 1' - 0"

PLANS BY: D. LOY

PYRAMID DESIGN & DRAFTING
540.5413040

DATE:
11.30.18

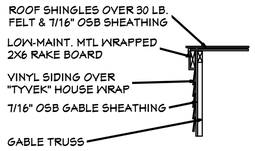
CONTRACTOR:

PROJECT/OWNER:

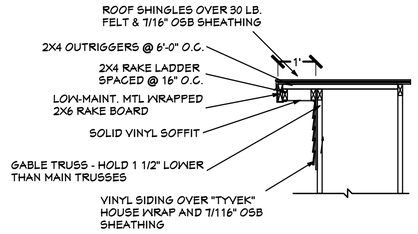
OFH PROJECT
RILLHURST SUBDIVISION, LOT #42
CULPEPER, VIRGINIA 22701

SHEET:
A3

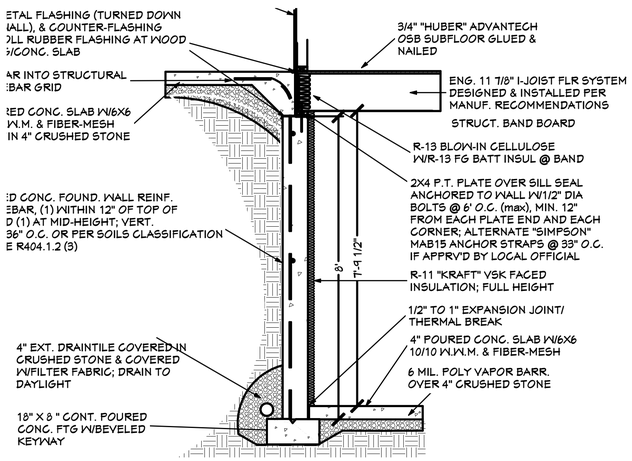
1ST FLOOR PLAN



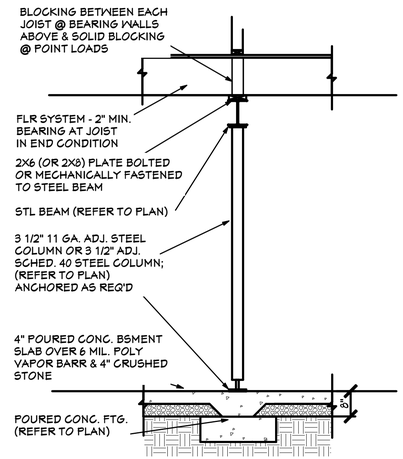
D1 / S1 FLUSH RAKE
1/2" = 1' - 0"



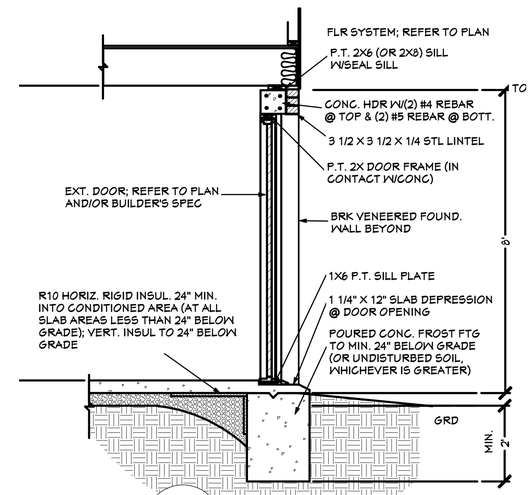
D2 / S1 OVERHANG RAKE
1/2" = 1' - 0"



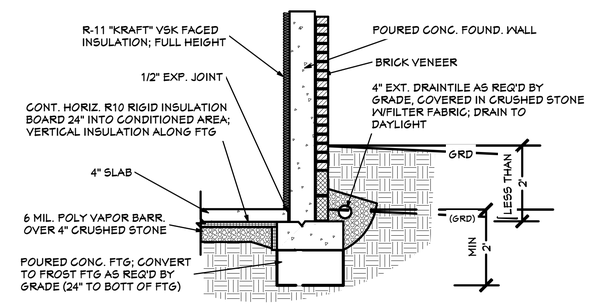
D3 / S1 GARAGE_BASEMENT WALL
1/2" = 1' - 0"



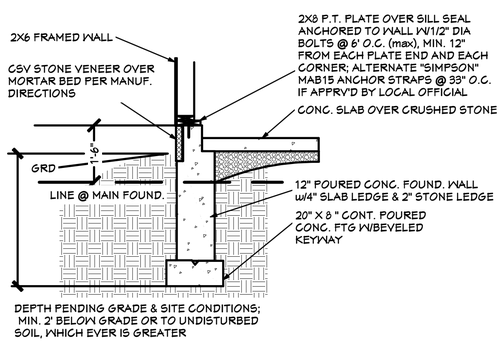
D4 / S1 STEEL COLUMN
1/2" = 1' - 0"



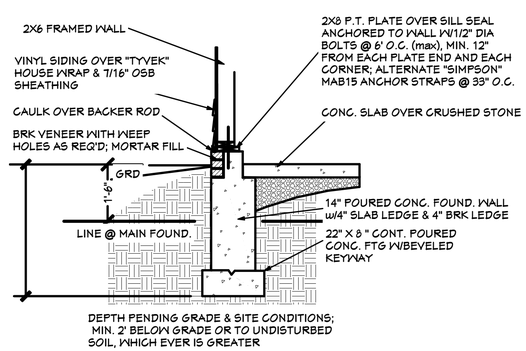
D5 / S1 WALKOUT DOOR
1/2" = 1' - 0"



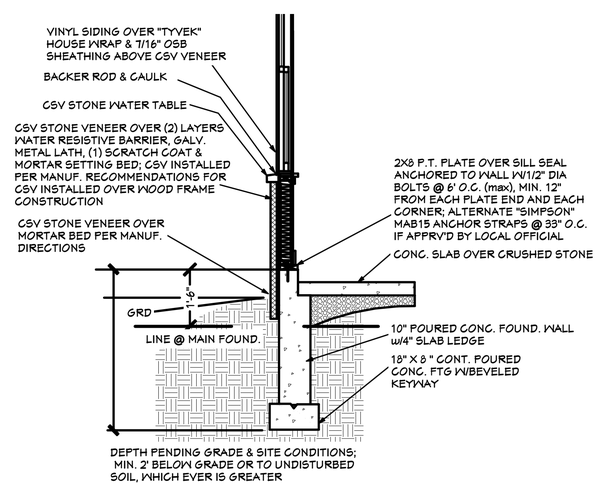
D6 / S1 FOUND. WALL <24" BELOW GRD
1/2" = 1' - 0"



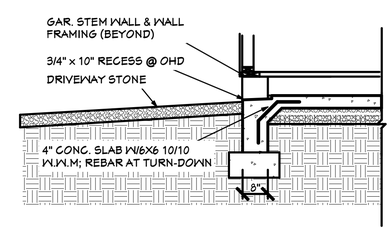
D7 / S1 GAR FOUND._STONE LEDGE
1/2" = 1' - 0"



D8 / S1 GAR FOUND._BRICK LEDGE
1/2" = 1' - 0"



D9 / S1 GAR EXT. WALL_SILL HGT STONE
1/2" = 1' - 0"



D10 / S1 GARAGE RECESS
1/2" = 1' - 0"

SECTIONS/DETAILS

PLANS BY: D. LOY

PYRAMID DESIGN & DRAFTING
540.5413040

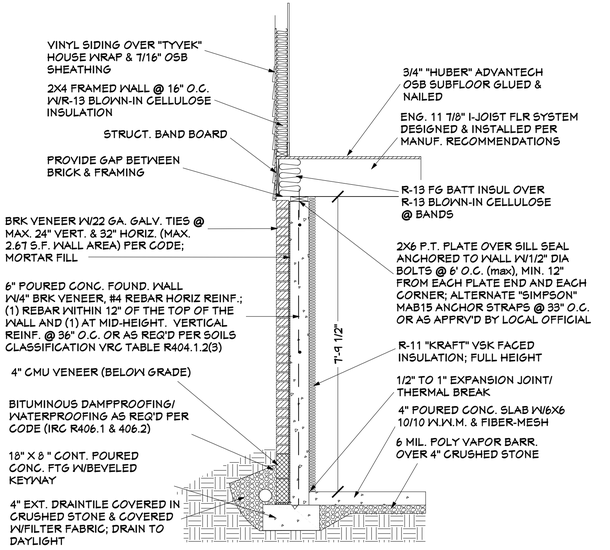
DATE:
11.30.18

CONTRACTOR:

PROJECT/OWNER:

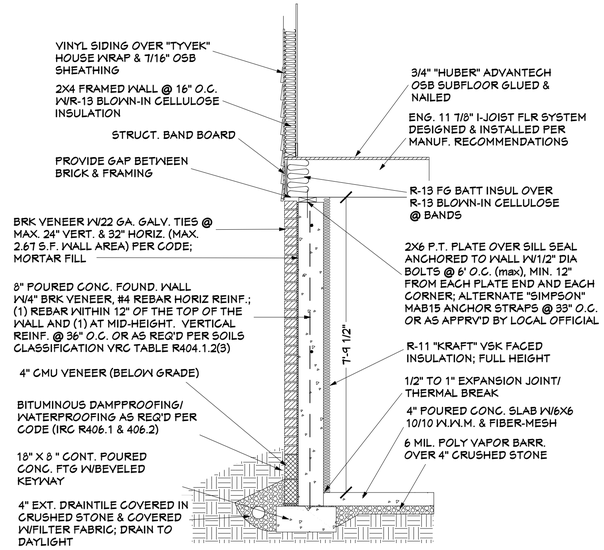
OFH PROJECT
RILLHURST SUBDIVISION, LOT #42
CULPEPPER, VIRGINIA 22701

SHEET:
S1



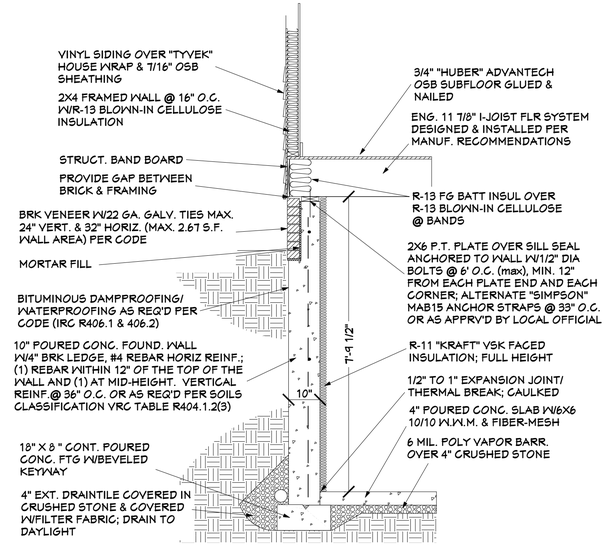
D1 / S2 6" FOUND. WALL W/BRK VENEER

1/2" = 1' - 0"



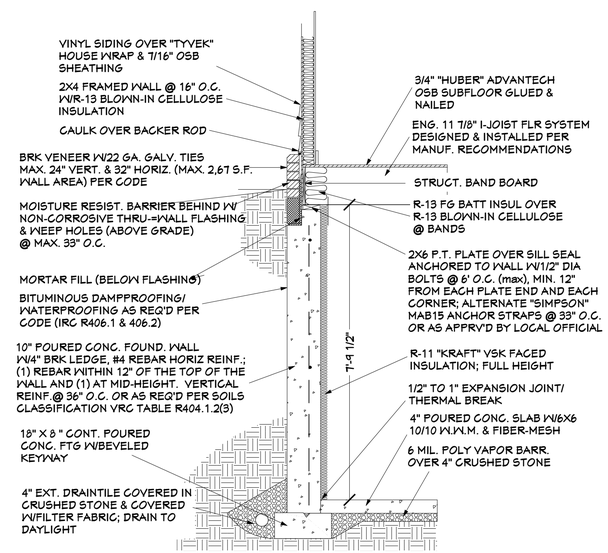
D2 / S2 8" FOUND. WALL W/BRK VENEER

1/2" = 1' - 0"



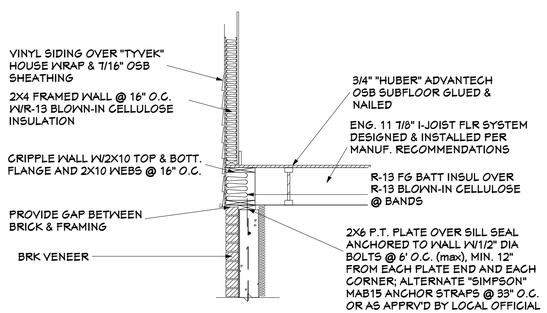
D3 / S2 10" FOUND. WALL W/BRK-TO-GRD

1/2" = 1' - 0"



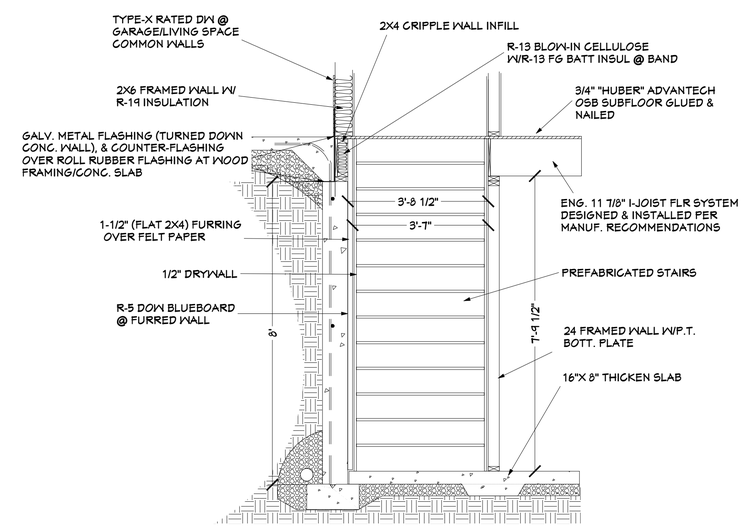
D4 / S2 10" FOUND. WALL W/BRK LEDGE

1/2" = 1' - 0"



D5 / S2 PARALLEL FLR FRAMING @ BRK-TO-GRD

1/2" = 1' - 0"



D6 / S2 BSMNT STEPS @ FOUND. WALL

1/2" = 1' - 0"

SECTIONS/DETAILS

PLANS BY: D. LOY

PYRAMID DESIGN & DRAFTING
540.541.3040

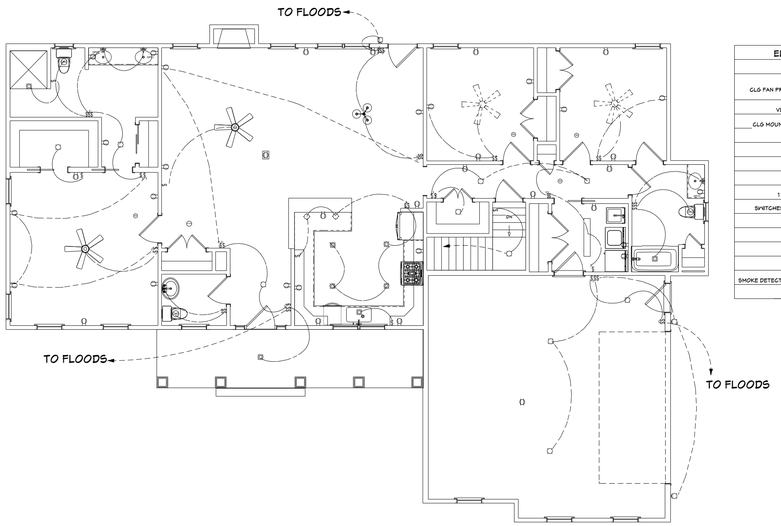
DATE:
11.30.18

CONTRACTOR:

PROJECT/OWNER:

OFH PROJECT
RILLHURST SUBDIVISION, LOT #42
CULPEPER, VIRGINIA 22701

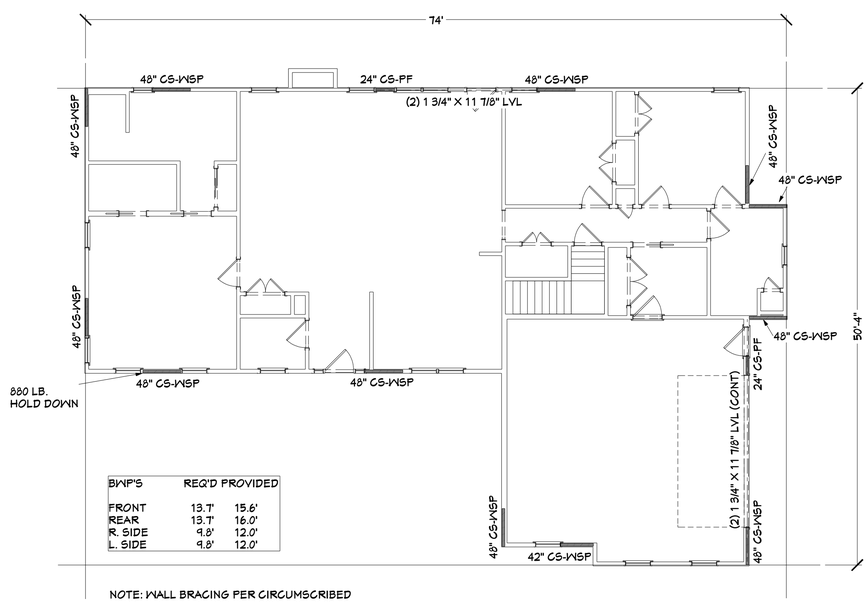
SHEET:
S2



ELECTRICAL LEGEND	
DESCRIPTION	SYMBOL
CLG FAN PREWIRE (ONLY) / CLG FAN	
VENTILATION FANS: CLG MOUNT, WALL MOUNT	
CLG MOUNT LIGHT FIX., SURFACE/PENDANT/RECESSED	
WALL MOUNT LIGHT FIX.	
CHANDELIER	
FLORESCENT	
220V RECEPTACLE	
110V RECEPTACLES, WEATHER PROOF, GFCI	
SWITCHES: SINGLE, WEATHER PROOF, 3-WAY, 4-WAY	
SWITCHES: DIMMER, TIMER	
WALL JACKS: CAT5, CAT5/TV, TV/CABLE	
TELEPHONE JACK	
THERMOSTAT	
SMOKE DETECTOR, SMOKE/CARBON MONOXIDE DETECTOR	
BREAKER PANEL	

EL S3 ELECTRICAL DIAGRAMS

1/8" = 1' - 0"



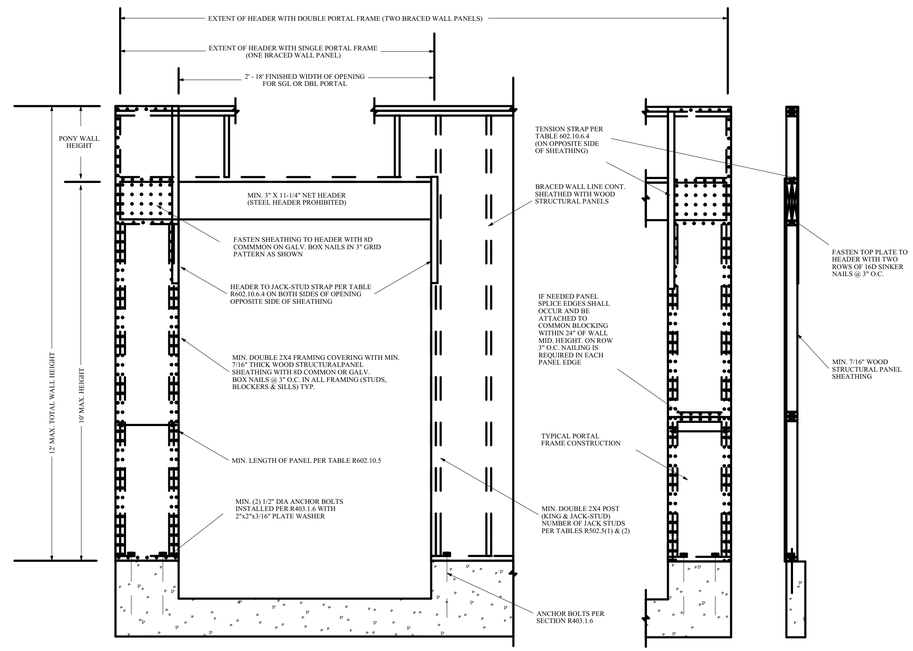
BWP'S	REQ'D	PROVIDED
FRONT	13.7'	15.6'
REAR	13.7'	16.0'
R. SIDE	9.8'	12.0'
L. SIDE	9.8'	12.0'

NOTE: WALL BRACING PER CIRCUMSCRIBED RECTANGLE METHOD PER 2012 IRC R602.12

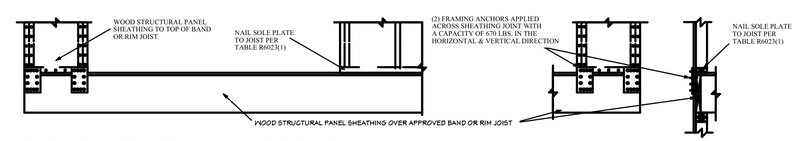
CS-WSP - CONT. SHEATHED WOOD STRUCTURAL PANEL
CS-PF - CONT. SHEATHED PORTAL FRAME (DETAIL D11/S2)

BWL S3 BRACED WALL DIAGRAMS

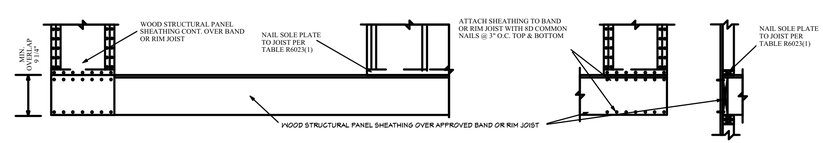
1/8" = 1' - 0"



OVER CONCRETE OR MASONRY BLOCK FOUND.



OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION
(WHEN PORTAL SHEATHING DOES NOT OVERLAP BAND OR RIM JOIST)



OVER RAISED WOOD FLOOR - OVERLAP OPTION
(WHEN PORTAL SHEATHING LAPS OVER BAND OR RIM JOIST)

NOTE: DETAIL ADOPTED FROM THE 2012 VRC R602.10.6.4

D10 S3 CS-PF DETAIL

1/2" = 1' - 0"

ELEC & BWL DIAGRAMS

PLANS BY: D. LOY

PYRAMID DESIGN & DRAFTING
540.547.3040

DATE:
11.30.18

CONTRACTOR:

PROJECT/OWNER:

OFH PROJECT
RILLHURST SUBDIVISION, LOT #42
CULPEPER, VIRGINIA 22701

SHEET:
S3