ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 x3456 | Mooresville Office (704) 660-3625

SH

BLDR-2024-52532

PERMIT: OSWP 2024-48271

PIN # 4752-76-0572

SEPTIC: IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

APPLICANT/OWNER: Stephen J Shangle | APPLICANT ADDRESS: 177 Ashton Dr. Mooresville NC 28115

SITE ADDRESS: 591 Shiloh Rd Statesville NC 28677 | PHONE: 704 363 8377 | ALT. PHONE

SITE DIRECTIONS: Hwy 70 E → (R) Shiloh Rd → site on (L) | SAP CONTROLLED: ☐ YES ☒ NO

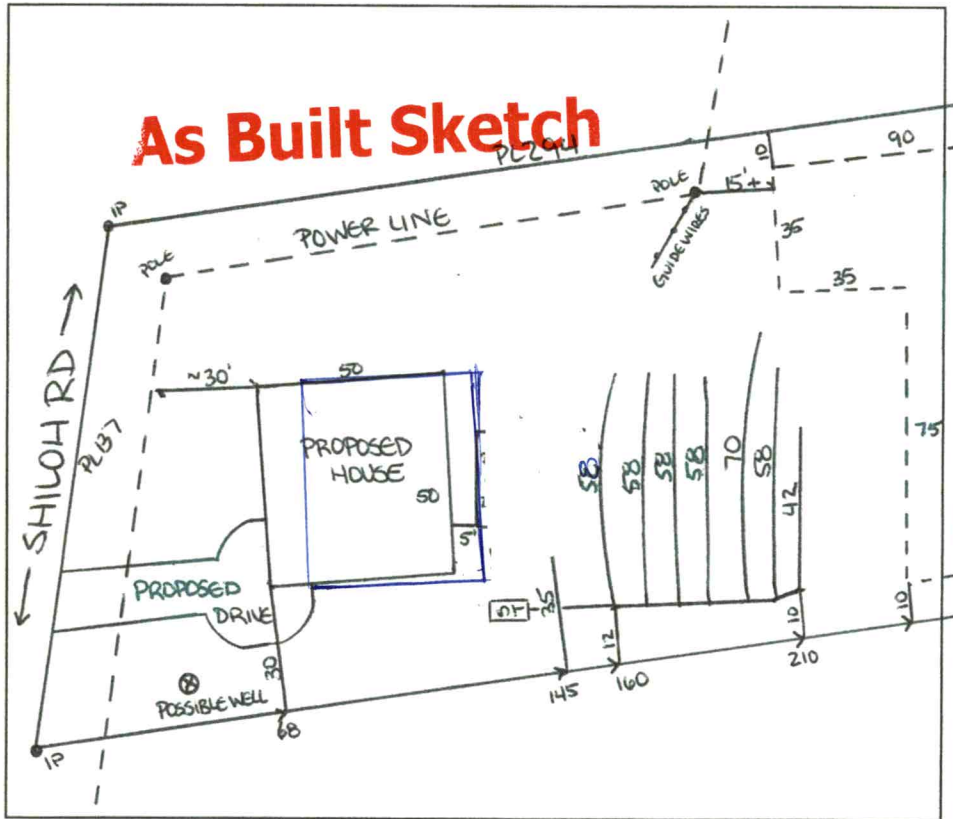
SUBDIVISION: Olde Poplar LLC | SECTION: — | LOT #: 1 | LOT AREA: 1.589 | DESIGN FLOW: 480 | L.T.A.R.(Initial): 0.3 | L.T.A.R (Repair): 0.1

Septic Tank	1000 (gal)	STB	740	Date	7/29/24	☒ New System ☐ Repair ☐ Expansion	System Type: I II (III) IV V VI	☒ Residence	No. Bedrooms 4	Water Supply
Pump Tank	(gal)	PT		Date		System Description:	Gravity 25% Reduction	☐ Business	No. Persons 8	☐ Private
Pump Make		Model		Serial #		Repair System Description:	Drip Irrigation	☐ Other	No. Employees —	☐ Public
# Nitrification Fields	1	# Lines	7	Linear Ft	400	Maintenance Agreement Required:	☐ YES ☒ NO	☐ Slab	☒ Crawl Space	☐ Community
Trench Width	36"	*Max. Trench Depth(Initial)	33"	*Max. Trench Depth(Repair)	—	Gravel Depth	—	☒ GRAVITY ☐ PRESSURE	☐ Basement w/plumbing	☐ Basement w/o plumbing

* Measured on the downhill side of the trench | Effluent Standard: ☒ DSE ☐ HSE ☐ TS-I ☐ TS-II ☐ RCW ☐ NSF/ANSI 40 | Usable Depth to LC (Initial): 48" | Usable Depth to LC (Repair): 19" | *Limiting Condition*

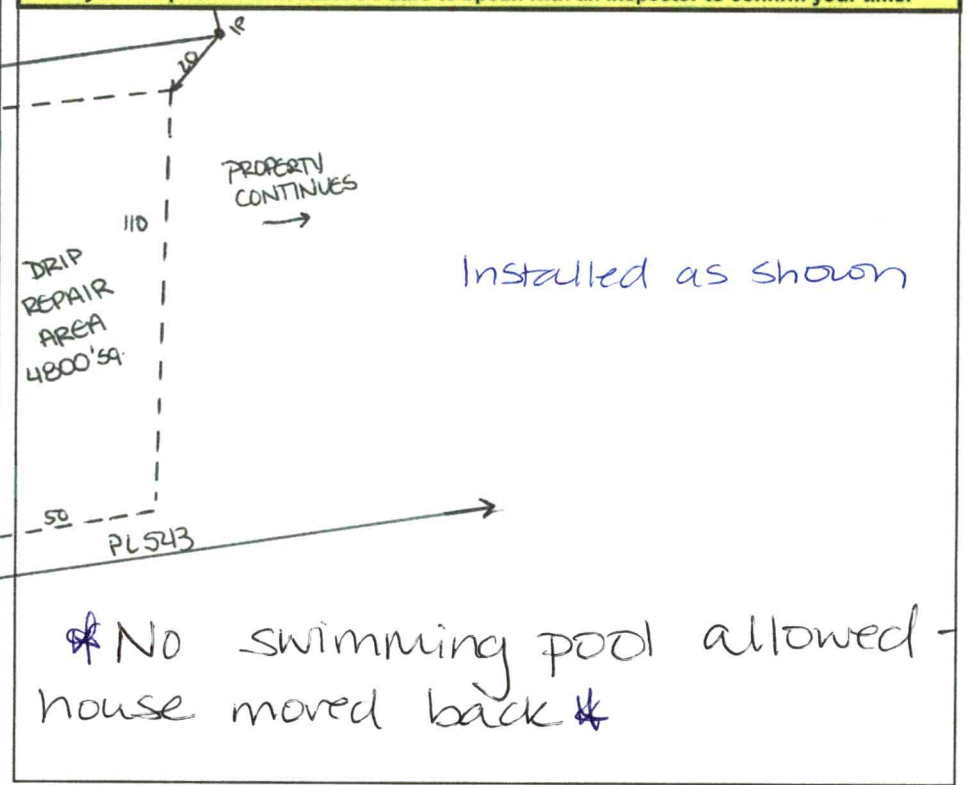
Comments / Conditions: Install on contour 9' on center. Utilize serial distribution. Keep 15' from all parts of power line, including guidewires. Pool must be staked at install

INITIAL SITE SKETCH



AS BUILT SKETCH

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inspector to confirm your time.



Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. **CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION**

☐ **IMPROVEMENT PERMIT** *with plat valid without expiration.* ☒ **IMPROVEMENT PERMIT** *with site plan valid for 60 mos.* ☒ **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: ONLINE | Date: — | Installed by: Ryan Byers

IMPROVEMENT PERMIT by: Sarah Williams ✓ | Date: 3/25/2024 | OPERATION PERMIT by: D. Ivebey ✓ | Date: 10/15/24

AUTHORIZATION TO CONSTRUCT by: Sarah Williams | Date: 4/8/2024 | Existing System Inspected by: | Date:

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PERMIT : OSWP 2024-48271

SEPTIC: IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

PIN # 4752-76-0572

APPLICANT/OWNER: Stephen J Shangle | APPLICANT ADDRESS: 122 Ashton Dr. Mooresville NC 28115

SITE ADDRESS: 591 Shiloh Rd Statesville NC 28677 | PHONE: 704 363 8377 | ALT. PHONE

SITE DIRECTIONS: Hwy 70 E → (R) Shiloh Rd → site on (L) | SAP CONTROLLED: ☐ YES ☒ NO

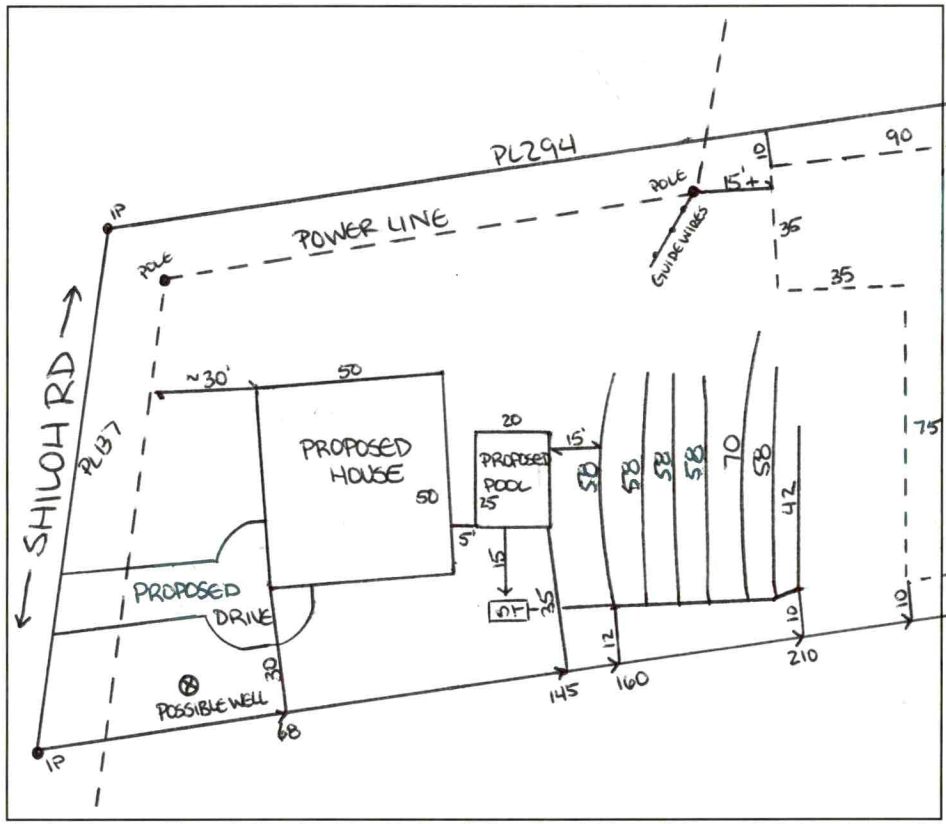
SUBDIVISION: Olde Poplar LLC | SECTION: — | LOT # 1 | LOT AREA: 1.589 | DESIGN FLOW: 480 | L.T.A.R.(Initial): 0.3 | L.T.A.R (Repair): 0.1

Septic Tank 1000 (gal)	STB	Date	☒ New System ☐ Repair ☐ Expansion	System Type: I II (III) IV V VI	☒ Residence	No. Bedrooms 4	Water Supply
Pump Tank (gal)	PT	Date	System Description: Gravity 25% Reduction		☐ Business	No. Persons 8	☐ Private
Pump Make	Model	Serial #	Repair System Description: Drip Irrigation		☐ Other	No. Employees —	☐ Public
# Nitrification Fields 1	# Lines 7	Linear Ft 400	Maintenance Agreement Required: ☐ YES ☒ NO		☐ Slab	☒ Crawl Space	☐ Community
Trench Width 36"	*Max. Trench Depth(Initial) 33"	*Max. Trench Depth(Repair) —	Gravel Depth —	☒ GRAVITY ☐ PRESSURE	☐ Basement w/plumbing	☐ Basement w/o plumbing	

* Measured on the downhill side of the trench | Effluent Standard: ☒ DSE ☐ HSE ☐ TS-I ☐ TS-II ☐ RCW ☐ NSF/ANSI 40 | Usable Depth to LC (Initial): 48" | Usable Depth to LC (Repair): 19" | *Limiting Condition*

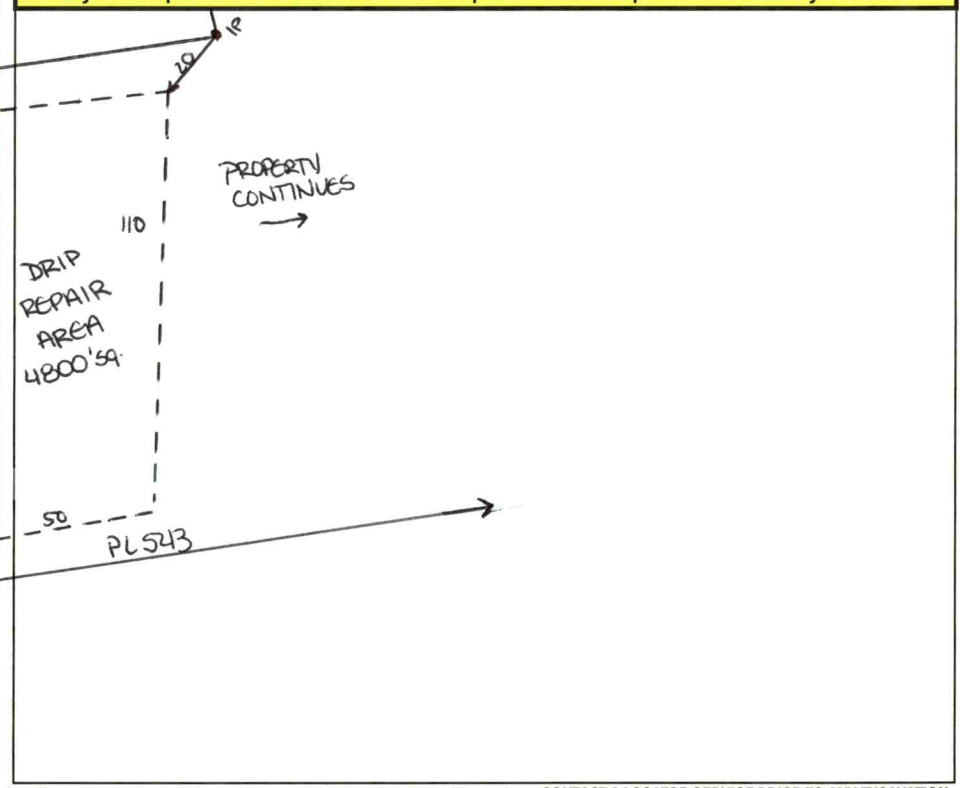
Comments / Conditions: Install on contour 9' on center. Utilize serial distribution. Keep 15' from all parts of power line, including guidewires. Pool must be staked at install.

INITIAL SITE SKETCH



AS BUILT SKETCH

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the day the inspection is needed. Be sure to speak with an inspector to confirm your time.



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Owner / Applicant Signature: ONLINE | Date: — | Installed by:

IMPROVEMENT PERMIT by: Sarah Williams | Date: 3/25/2024 | OPERATION PERMIT by: | Date:

AUTHORIZATION TO CONSTRUCT by: Sarah Williams | Date: 4/8/2024 | Existing System Inspected by: | Date:

Item	Date	Initials
Drain Lines Checked		
Tanks Checked		
Pressure Manifold or Valve Box Checked		
Pressure Head Set		
Electrical Checked		
Floats Set		
Alarm Checked		
Maintenance Contract Needed? Y / N		
Comments:		

Repairs Only	
	State Code
Failing System Code	
Type of Distribution	G or P
Type of Failure/Malfunction	
Primary Cause of Failure/Malfunction	
Age of System? _____	
Initial or Repair? _____	

PERMIT SNAPSHOT REPORT OSWP-2024-48271 FOR IREDELL COUNTY

Permit Type	Environmental Health OSWP	**Project:**		**App Date:**	02/29/2024
Work Class:	EH Septic Permit	**District:**	Iredell County	**Exp Date:**	NOT AVAILABLE
Status:	In Progress	**Square Feet:**	0.00	**Completed:**	NOT COMPLETED
Valuation:	$0.00	**Assigned To:**	Bracken, Sarah	**Approval Expire Date:**	
Description:	New Construction, applying for septic and well				

Parcel: 4752760512.000 Main	**Address:** 591 Shiloh Rd Statesville, NC 28677 Main	**Zone:** RA(Residential Agricultural District)

Applicant/Authorized Agent
Stephen J Shangle
122 Ashton Drive
Mooresville, NC 28115

Property Owner
Jesse Goodwin
Home: (704) 363-8377
Business: (704) 363-8377
Mobile: (704) 363-8377

Permit Custom Fields

How is your site plan being submitted	Survey Plat	Septic Application/Permit Type	Authorization to Construct, Improvement Permit	Does the site contain any jurisdictional wetlands	No
Non-domestic Sewage Generated	No	Other Public Agency	No	All proposed structure dimensions	50' by 50', 80' to 100' from road, ~30' from south side of property
What are the proposed structures	New Single-Family Residence - Stick Built	Type of New Single-Family Residence	Stick Built	Maximum Number of Bedrooms	4
If other Addition/Structure, please explain		Number of Occupants	5	Foundation Type	Crawl Space Foundation
Residential/Business/Other	Residential	Water Supply	New Well	Desired Septic System Type	No Preference
Lot Acreage	1.589	Front Setback	35	Back Setback	35
Left Setback	15	Right Setback	15	Zoning Permit Issued Date	Mar 6 2024 12:00AM
Zoning Permit Expiration Date	Sep 2 2024 12:00AM	Is the structure or development in the floodplain	No	Is the property in a local historic district?	No
Is the property located downtown?	No	Additional Unique Setbacks Apply	No	Watershed	NOT IN A WATERSHED

Attachment File Name	Added On	Added By	Attachment Group	Notes
Signature_Stephen_Shangle_3/1/2024.jpg	02/29/2024 20:12	Shangle, Stephen		Uploaded via CSS
Authorization to Represent_v1.pdf	03/01/2024 9:21	Shangle, Stephen	Available Online	
Site Plan for Septic & Well_v2.pdf	03/05/2024 9:50	Shangle, Stephen	Available Online	

Inspection Number	Status	Inspection Type	Request Date	Scheduled Start Date	Scheduled End Date	Actual Start Date	Actual End Date
2024-197808	Passed - Permit	OSWP Septic/Well Preliminary Site Visit	03/14/2024	03/14/2024 0:00	03/14/2024 0:00	03/14/2024 13:39	03/14/2024 13:39

Inspectors: Moore, Bradley (Primary)

Checklist Item	Description	Passed	Comments
General Comments	Checklist item used to track general comments, not specific to any other checklist item	No	

PERMIT SNAPSHOT REPORT (OSWP-2024-48271)

Invoice No.	Fee	Fee Amount	Amount Paid
INV-00027746	New Gravity System	$500.00	$500.00
	Iredell Zoning Permit Fee	$75.00	$75.00
	Iredell Zoning Tech Fee	$2.25	$2.25
	Total for Invoice INV-00027746	$577.25	$577.25
	Grand Total for Permit	**$577.25**	**$577.25**

Workflow Step / Action Name	Action Type	Start Date	End Date
Application Completeness Check v.1		03/04/2024 11:54	03/04/2024 11:54
Confirm application complete v.1	Generic Action		03/04/2024 11:54
Fees v.1		03/06/2024 7:37	03/06/2024 7:37
Issue Invoice v.1	Generic Action		03/06/2024 7:37
Fees Paid v.1	Generic Action		03/06/2024 7:37
Zoning Review v.1		03/05/2024 9:49	03/06/2024 8:46
~~Floodplain Admin Overview v.1~~	Task		03/05/2024 9:49
Iredell County Zoning Approval v.1	Task	03/05/2024 9:49	03/06/2024 8:46
Issue Invoice v.1	Generic Action		03/05/2024 9:50
Fees Paid v.1	Generic Action		03/06/2024 7:37
Lot Readiness Verification v.1		03/14/2024 13:39	
OSWP Septic Preliminary Site Visit v.1	Inspection	03/14/2024 13:39	03/14/2024 13:39
OSWP Site Evaluation v.1	Inspection		
Issue Improvement Permit v.1			
Issue Invoice v.1	Generic Action		
Fees Paid v.1	Generic Action		
Issue Permit v.1	Generic Action		
Permit Completion Process v.1			
Authorization to Construct Permit v.1	Create Sub Permit		
Issue Authorization to Construct v.1	Generic Action		

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: 4752-76-0512
COUNTY: Iredell

SOIL/SITE EVALUATION *for* ON-SITE WASTEWATER SYSTEM
(Complete all fields in full)

OWNER: 609 Jesse Goodwin / Stephen Shangle DATE EVALUATED: 3/21/2024
ADDRESS: 122 Ashton Dr. Mooresville NC 28115
PROPOSED FACILITY: SFR PROPOSED DESIGN FLOW (.0400): 480 PROPERTY SIZE: 1.589
LOCATION OF SITE: 591 Shiloh Rd Statesville NC 28677 PROPERTY RECORDED: Y
WATER SUPPLY: Public (Single Family Well) Shared Well Spring Other WATER SUPPLY SETBACK: 50'
EVALUATION METHOD: Auger Boring (Pit) Cut TYPE OF WASTEWATER: (Domestic) High Strength IPWW

PROFILE #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY .0503 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY .0503 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ	.0509 PROFILE CLASS & LTAR*	.0503 SLOPE CORRECTION
1	LS 5-7%	0-6	PLOW C	—		(51)		—	S 0.3	3"
		6-31	C ABK	SS SP SE FR						
		31-51	CL WABK	SS SP SE FR						
					SAP incl 30"+					
2	LS 5-7%	0-6	PLOW C			(53)		L	S 0.3	3"
		6-34	C ABK	SS SP SE FR						
		34-53	CL WABK	SS SP SE FR						
					SAP incl heavy 35"+					
3	LS 5-7%	0-8	PLOW C	—	2.5Y 5/4 @ 22"			—	S 0.25 Above 37"	3"
		8-40	C SABK	S P SE FR	2.5Y 6/2 @ 37"-39"					
		40-53	CL ABK	SS SP SE FR	2.5Y 6/3 @ 22"+					
						(53)				
					Few SAP in CL					
4	LS 5-7%	0-37	C SABK	S P SE FR	2.5Y 6/2 @ 19"+36"				S 0.1 DRIP	—
		37-58	CL ABK	SS SP SE FR	YB throughout C					
						(58)				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.0508)	4300'	DRIP 4800'2
System Type(s)	Gravity 25%	DRIP
Site LTAR	0.30	0.1
Maximum Trench Depth	33"	—

SITE CLASSIFICATION (.0509): S 0.3(I) 0.1(R)
EVALUATED BY: S. Williams
OTHER(S) PRESENT:

Comments:

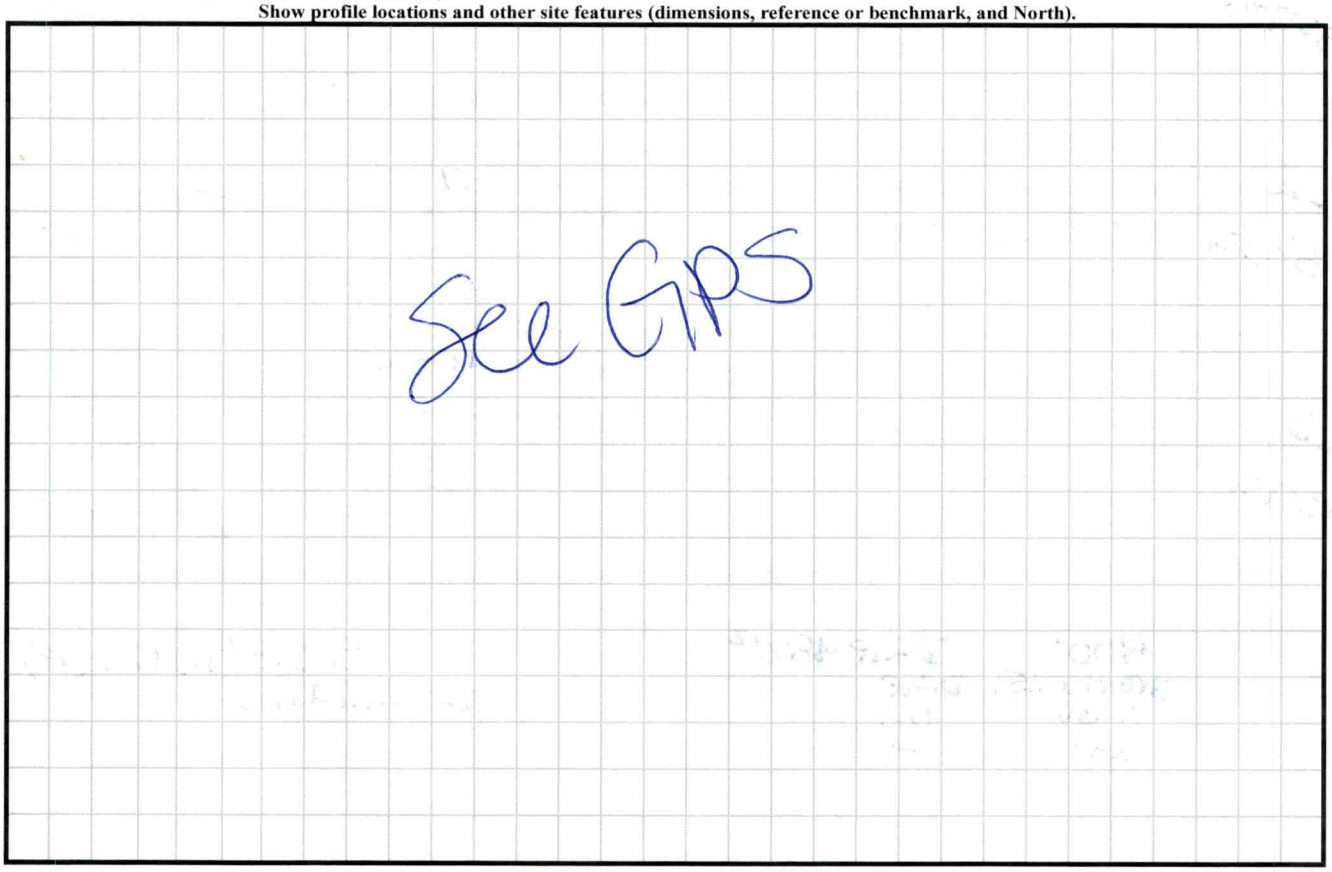
LEGEND

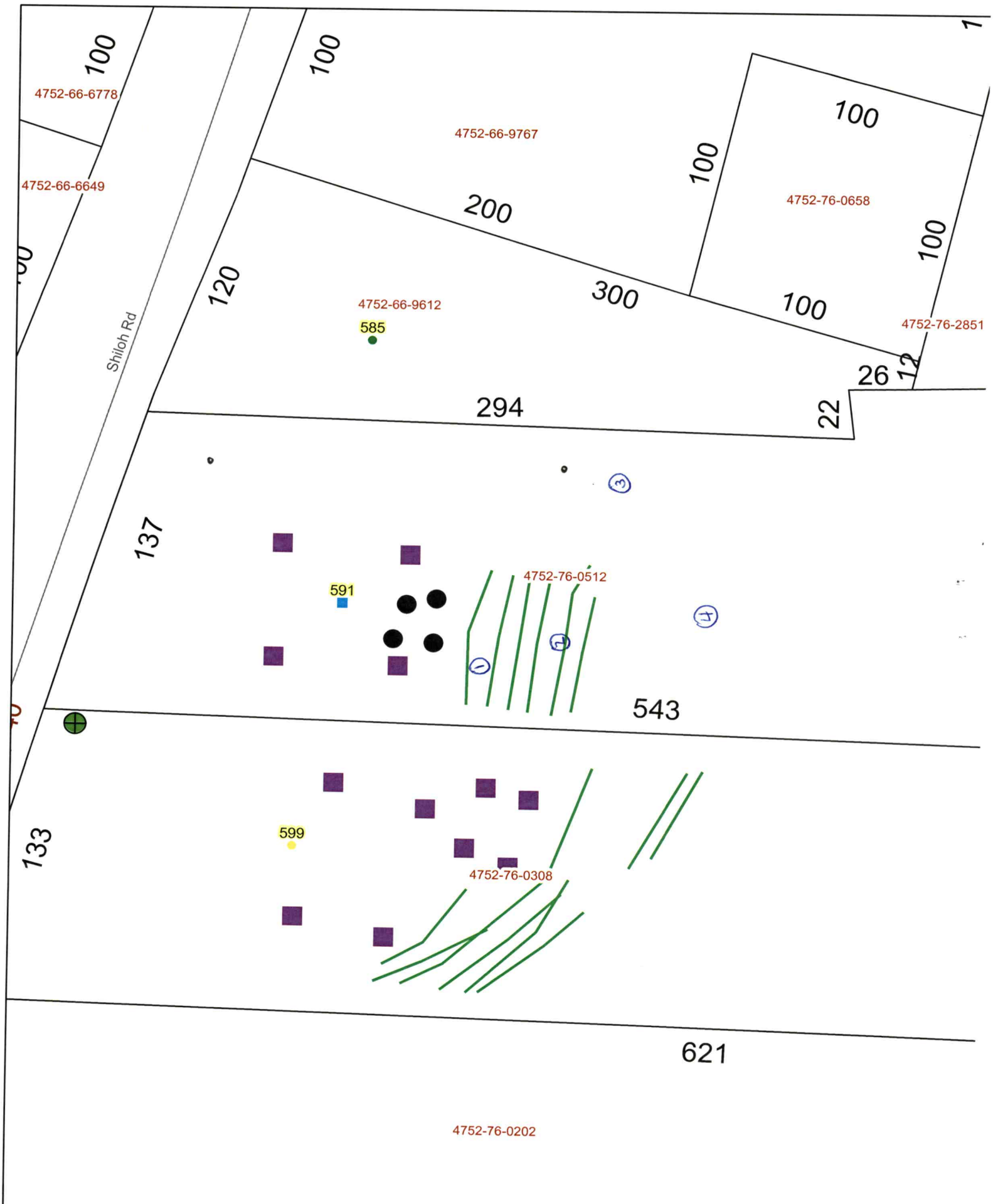
LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft²)	SAPROLITE LTAR (gpd/ft²)	LPP LTAR (gpd/ft²)	MINERALOGY/ CONSISTENCE		STRUCTURE
CC (Concave slope)	I	S (Sand)	0.8 - 1.2	0.6 - 0.8	0.4 -0.6	MOIST	WET	SG (Single grain)
CV (Convex Slope)		LS (Loamy sand)		0.5 -0.7		Lo (Loose)	NS (Non-sticky)	M (Massive)
D (Drainage way)	II	SL (Sandy loam)	0.6 - 0.8	0.4 -0.6	0.3 - 0.4	VFR (Very friable)	SS (Slightly sticky)	GR (Granular)
FP (Flood plain)		L (Loam)		0.2 - 0.4		FR (Friable)	S (Sticky)	SBK (Subangular blocky)
FS (Foot slope)	III	SiL (Silt loam)	0.3 - 0.6	0.1 - 0.3	0.15 - 0.3	FI (Firm)	VS (Very sticky)	ABK (Angular blocky)
H (Head slope)		SCL (Sandy clay loam)		0.05 - 0.15**		VFI (Very firm)	NP (Non-plastic)	PR (Prismatic)
L (Linear Slope)		CL (Clay loam)		None		EFI (Extremely firm)	SP (Slightly plastic)	PL (Platy)
N (Nose slope)		SiCL (Silty clay loam)					P (Plastic)	
R (Ridge/summit)		Si (Silt)					VP (Very plastic)	
S (Shoulder slope)	IV	SC (Sandy clay)	0.1 - 0.4		0.05 - 0.2	SEXP (Slightly expansive)		
T (Terrace)		SiC (Silty clay)				EXP (Expansive)		
TS (Toe Slope)		C (Clay)						
		O (Organic)	None					

* Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.
**Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.

HORIZON DEPTH In inches below natural soil surface
DEPTH OF FILL In inches from land surface
RESTRICTIVE HORIZON Thickness and depth from land surface
SAPROLITE S(suitable) or U(unsuitable); Evaluation of saprolite shall be by pits.
SOIL WETNESS Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation
CLASSIFICATION S (Suitable) or U (Unsuitable)

Show profile locations and other site features (dimensions, reference or benchmark, and North).




100
4752-66-6778
100
4752-66-9767
100
100
4752-76-0658
4752-66-6649
200
100
120
300
4752-66-9612
585
100
4752-76-2851
Shiloh Rd
26
12
294
22
137
591
4752-76-0512
543
133
599
4752-76-0308
621
4752-76-0202

Proposed House
Septic Area
Well
80'
137.18
50
30'
80'+
542.64
394.43
21.63
136.54
410'
163.75

GENERAL PLAN NOTES

1. DRAWINGS ARE NOT TO BE SCALED; DIMENSIONS IN QUESTION SHALL BE CLARIFIED BY ARCHITECT.
2. ALL EXTERIOR DIMENSIONS ARE SHOWN TO THE OUTSIDE FACE OF STUD; UNLESS NOTED OTHERWISE.
3. ALL INTERIOR DIMENSIONS ARE SHOWN TO THE INSIDE FACE OF STUD; UNLESS NOTED OTHERWISE.
4. ALL INTERIOR WALLS ARE ASSUMED TO BE 3-1/2" WOOD STUDS; UNLESS NOTED OTHERWISE.
5. ALL EXTERIOR WALLS ARE ASSUMED TO BE 3-1/2" WOOD STUDS (PLUS 1/2" EXTERIOR WALL SHEATHING) UNLESS NOTED OTHERWISE.
6. ALL DOORS TO BE CENTERED; UNLESS NOTED OTHERWISE.
7. PROVIDE WOOD BLOCKING IN WALLS FOR MOUNTING OF ALL CABINETS, TOILET ACCESSORIES AND OTHER WALL MOUNTED ITEMS.
8. ALL CABINETRY TO BE DESIGNED BY OTHERS AND SHALL MEET ALL APPLICABLE ACCESSIBILITY CODES (IF REQUIRED)
9. ALL FINISH AND COLOR SELECTIONS TO BE APPROVED BY ARCHITECT/G.C.
10. NUMBER OF EXTERIOR RISERS TO BE FIELD VERIFIED; AT LOCATIONS WHERE 4 OR MORE ARE REQUIRED A HANDRAIL WILL ALSO BE REQUIRED.
11. PROVIDE TERMITE CHEMICAL AT FOUNDATION, AS REQUIRED.
12. MINIMUM 22-1/2" (w) x 54-1/2" (l) ATTIC ACCESS DOOR w/ PULL DOWN LADDER TO BE DETERMINED ON SITE AND WEATHERSTRIPPED AND INSULATED WITH MIN. R-5.
13. HVAC RETURN (S) TO BE DETERMINED ON SITE.
14. ALL COUNTERTOPS TO BE 36" A.F.F.; UNLESS NOTED OTHERWISE.
15. ALL DOOR HEIGHTS ARE SHOWN ON PLANS.

FRAMING CONSTRUCTION-OTHER THAN ROOF

1. STEEL BEAMS MUST HAVE (S) 2x4 STUD JACKS UNDER EACH END SUPPORT; UNLESS NOTED OTHERWISE.
2. MICRO-LAM BEAMS, SEE S0.1, CONSTRUCTION OTHER THAN ROOFS, NO'S. 7
3. ALL BRICK OVER LOWER ROOFS MUST HAVE ANGLE WITH STOPS LAG SCREWS TO STUDS ABOVE AND ACCORDANCE WITH DETAIL.
4. ALL WOOD I-JOISTS AND OPEN JOISTS MUST BE BRACED IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS PLUS DETAILS SHOWN ON PLANS.
5. ALL RAFTER BRACES MUST HAVE 2 STUDS FROM PLATE TO FOUNDATION OR BEAM BELOW THEM AT ALL FLOORS. NO BRACES ON CEILING PLATE WITHOUT STUDS DIRECTLY UNDER THEM.
6. WHERE PARTITIONS FALL BETWEEN FLOOR TRUSSES, 2"x4" LADDERS @ 16"o.c. MUST BE PLACED PERPENDICULAR TO THE TRUSSES TO SUPPORT THE PLYWOOD DECKING.
7. ON ALL OPEN WEB FLOOR TRUSSES OVER A 10' SPAN A MIN. SINGLE LINE OF 2"x4" SHALL BE NAILED TO DIAGONAL MEMBERS OR VERTICAL MEMBERS IN THE APPROXIMATE MID-SPAN AS A LOAD DISTRIBUTION MEMBER.
8. WHERE CEILING JOISTS ARE PARALLEL TO EXTERIOR WALLS AND RAFTERS BEAR ON STUD WALL TOP PLATE ADJACENT TO CEILING JOISTS, BRACE RAFTERS AND TOP PLATE TO 2x6 HOGS 8" LONG (MIN.) ON 6' CENTERS ALONG LENGTH OF CEILING JOISTS.
9. ALL 2-STORY OPEN GREAT ROOMS, LIVING ROOMS, WITH 2 OR MORE ADJACENT OPENINGS OF 3' OR LESS MUST USE A 3-1/2"x3-1/2"x1/2" STEEL ANGLE VERTICALLY FROM FLOOR TO TOP PLATE LAGGED TO KING STUDS WITH (3) 6"x3" LAGS @ 24"o.c. VERTICALLY AND LAGGED TO FLOOR AND TOP PLATE WITH (1) 3/16"x3" LAG THROUGH A 1/4" PLATE AT THE TOP AND BOTTOM. MULTIPLE OPENINGS WITH 3' OR LESS SPACE BETWEEN ROUGH OPENINGS SHALL HAVE AT LEAST (1) STEEL ANGLE VERTICALLY IN EACH MULLION SPACE. THE SHEATHING ON THIS STEEL REINFORCED PARTITION SHALL BE 1/2" PLYWOOD, NO OTHER SHEATHING SHALL BE PERMITTED.

STAIRWAYS

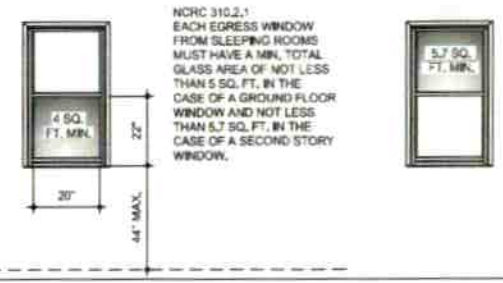
1. TREADS SHALL BE 9" DEEP PLUS A 1" NOSING
2. RISERS SHALL BE FIELD VERIFIED (NOT TO EXCEED 8-1/4")
3. STAIR SHALL BE 36" WIDE CLEAR MINIMUM AND SHALL HAVE A HANDRAIL AT A HEIGHT ABOVE THE NOSING OF 34"-38".
4. GUARD RAIL HEIGHT SHALL BE A MINIMUM OF 36" IN HEIGHT PER R312.1.2
5. REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM WALKING SURFACE TO GUARD RAIL HEIGHT THAT ALLOW PASSAGE OF A 4" SPHERE.
6. GUARDS ON OPEN SIDES OF STAIRS SHALL NOT HAVE OPENINGS ALLOWING PASSAGE OF A 4-3/8" SPHERE
7. TRIANGLE FORMED BY RISER, TREAD AND BOTTOM GUARD RAIL SHALLL NOT ALLOW PASSAGE OF A 6" SPHERE.

EGRESS WINDOW REQUIREMENTS

NCRC 2018 310.2.1
EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE EXTERIOR WINDOW OR EXTERIOR DOOR APPOVED FOR EMERGENCY EGRESS OR RESCUE. THE UNITS MUST BE OPERABLE FROM THE INSIDE TO A FULL CLEAR OPENING WITHOUT THE USE OF A KEY OR TOOL. WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS OR RESCUE, THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR.

NCRC 310.2.1
THE MIN. NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 22". THE MIN. NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20". THE NET CLEAR OPENABLE AREA SHALL NOT BE LESS THAN 4 SQ. FT.

NCRC 310.2.1
EACH EGRESS WINDOW FROM SLEEPING ROOMS MUST HAVE A MIN. TOTAL GLASS AREA OF NOT LESS THAN 5 SQ. FT. IN THE CASE OF A GROUND FLOOR WINDOW AND NOT LESS THAN 5.7 SQ. FT. IN THE CASE OF A SECOND STORY WINDOW.



HEADER SIZE REQUIREMENTS

SIZES	EXTERIOR SPANS	INTERIOR SPANS	JACK STUDS
(2) 2x6's	< 2'-0"	< 2'-6"	1
(2) 2x8's	2'-0" thru 3'-0"	2'-6" thru 3'-6"	2
(2) 2x10's	3'-0" thru 5'-0"	3'-6" thru 6'-6"	2
SEE PLAN	5'-6"<	6'-6"<	SEE PLAN

WALL STUD REQUIREMENTS

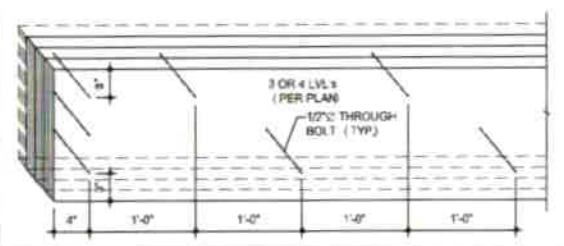
EXTERIOR WALL HEIGHT	STUD SIZE AND SPACING
H < 10'-0"	2x4 @ 16" o.c.
10'-0" < H < 11'-0"	2x4 @ 12" o.c.
10'-0" < H < 11'-0"	2x6 @ 16" o.c.
H > 18'-0"	CONSULT ENGINEER

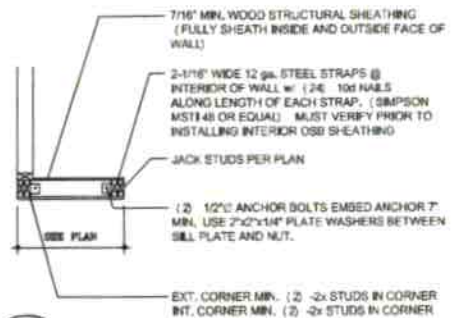
TYP. HANGERS FOR JOIST & BEAMS

NOTE: ALL HANGERS BY SIMPSON STRONG TIE CO. INC.
(BRAND-NAME EQUIVALENTS ACCEPTABLE)

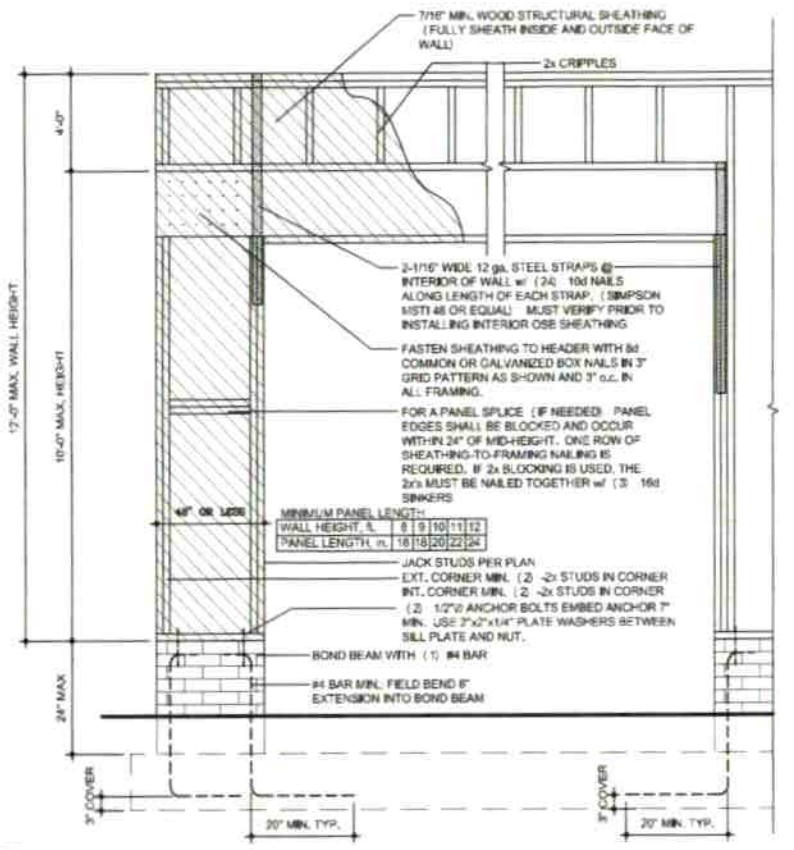
MEMBERS	HANGER
2x8	LUS28
2x10	LUS210
2x12	LUS210
(2) 2x8	HUS28-2
(2) 2x10	HUS210-2
(2) 2x12	HUS212-2
(3) 2x8	LUS28-3
(3) 2x10	LUS210-3
(3) 2x12	HU212-3 MIN.
(2) 1-3/4"x9-1/4" LVL	HGUS410
(2) 1-3/4"x9-1/2" LVL	HGUS410
(2) 1-3/4"x11-1/4" LVL	HGUS412
(2) 1-3/4"x11-7/8" LVL	HGUS412
(2) 1-3/4"x14" LVL	HGUS414
(2) 1-3/4"x16" LVL	HGUS414
(2) 1-3/4"x18" LVL	HGUS414
(3) 1-3/4"x9-1/4" LVL	HGUS5.50/10
(3) 1-3/4"x9-1/2" LVL	HGUS5.50/10
(3) 1-3/4"x11-1/4" LVL	HGUS5.50/12
(3) 1-3/4"x11-7/8" LVL	HGUS5.50/12
(3) 1-3/4"x14" LVL	HGUS5.50/14
(3) 1-3/4"x16" LVL	HGUS5.50/14
(3) 1-3/4"x18" LVL	HGUS5.50/14
(4) 1-3/4"x9-1/4" LVL	HGUS7.25/10
(4) 1-3/4"x9-1/2" LVL	HGUS7.25/10
(4) 1-3/4"x11-1/4" LVL	HGUS7.25/12
(4) 1-3/4"x11-7/8" LVL	HGUS7.25/12
(4) 1-3/4"x14" LVL	HGUS7.25/14
(4) 1-3/4"x16" LVL	HGUS7.25/14
(4) 1-3/4"x18" LVL	HGUS7.25/14

LVL BOLTING PATTERN DETAIL

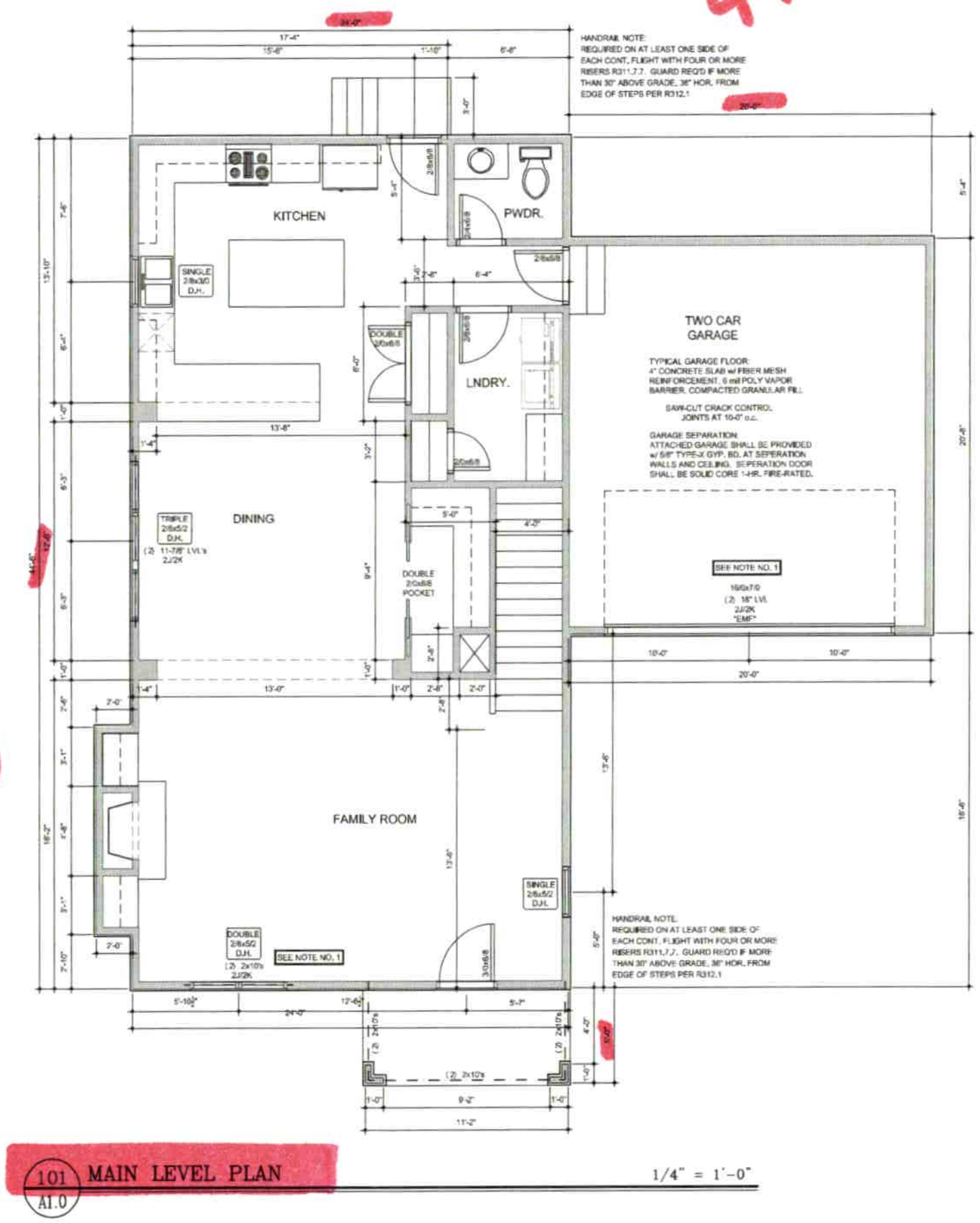




103 A1.0 PORTAL FRAME DTL. NTS



102 A1.0 PORTAL FRAME DTL. NTS



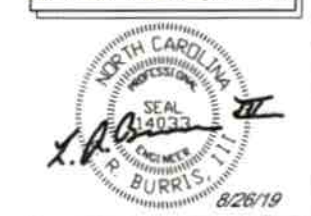
101 A1.0 MAIN LEVEL PLAN 1/4" = 1'-0"

MAIN LEVEL	
HEATED SQUARE FOOT	1,090 SQ. FT.
COVERED FRONT PORCHES	55 SQ. FT.
COVERED REAR PORCHES	N/A SQ. FT.
GARAGE AND STORAGE	413 SQ. FT.
UPPER LEVEL	
HEATED SQUARE FOOT	1,027 SQ. FT.
BONUS SQUARE FOOT	240 SQ. FT.
TOTAL	
HEATED SQUARE FOOT	2,117 SQ. FT.
UNHEATED SQUARE FOOT	468 SQ. FT.
BONUS SQUARE FOOT	240 SQ. FT.

TABLE N1102.1.2 - INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE AND DEPTH	CRAWL SPACE WALL R-VALUE
3	0.35	0.55	0.30	38 OR 30 CONT.	15 13+2.5	5/13 5/10 c.i.	19	5/13	0	5/13
4	0.35	0.55	0.30	38 OR 30 CONT.	15 13+2.5	5/13 5/10 c.i.	19	10/15	10	10/15
5	0.35	0.55	NR	38 OR 30 CONT.	19, 13+5, OR 15+3	13/17 13/12.5 c.i.	30	10/15	10	10/19

ENGINEER: R. BURRIS, P.E.
231 FOREST DR. NE, VALDESE, NC 28690
828-448-6829 LRBURRIS3@GMAIL.COM



NOTE #1
SEAL FOR ENGINEERED STRUCTURAL COMPONENTS ONLY

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1801 POARCH ROAD
LINCOLNTON, NC 28092
(980) 429-4000
SBEAL2040@YAHOO.COM

A1.0

SCALE	1/4" = 1'-0"
DRAWN BY	MSJ DRAFTING
DATE	AUGUST 26, 2019
REVISION	
REVISION	
REVISION	

PLANS AND NOTES
JECO HOMES, LLC
7204 PEAR TREE ROAD, CHARLOTTE, NC 28216

PROJECT NAME: A NEW RESIDENCE FOR: JECO HOMES
PROJECT ADDRESS: XXX XXX
PROJECT 4
A1.0

DESIGN LOADS AND GENERAL:

1. DESIGN LOADS ARE ALL DEAD LOADS PLUS:
   - A) SLEEPING ROOMS.......30 PSF.
   - B) ALL OTHER FLOORS.......40 PSF.
   - C) BALCONIES.......40 PSF.
   - D) ATTIC FLOOR LIVE LOADING WITH THE FOLLOWING:
     - I) UNINHABITABLE ATTICS WITHOUT STORAGE.......10 PSF.
     - II) UNINHABITABLE ATTICS WITH LIM. STORAGE.......20 PSF.
     - III) HABITABLE ATTICS SERVED WITH FIX STAIR.......30 PSF.
   - E) ROOF LIVE LOADS.......20 PSF, OR AS REQ'D BY CODE
   - F) WIND LOAD.......V = 115, TABLE R301.2.1.3
2. ALL DESIGNS ARE IN ACCORDANCE WITH NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION AND THE INTERNATIONAL RESIDENTIAL CODE. REFER TO THE RELEVANT CODE FOR ANY ADDITIONAL INFORMATION NOT COVERED IN THESE NOTES OR THE DESIGNS.
3. ENGINEERING DESIGN IS FOR STRUCTURAL INFORMATION ONLY. THE ENGINEER OF RECORD DOES NOT ACCEPT RESPONSIBILITY FOR DIMENSION ERRORS, ARCHITECTURAL ERRORS, DETAILING OF WATERPROOFING, PLUMBING, ELECTRICAL, MECHANICAL INFORMATION, OR CONSTRUCTION METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR ANY PART OF THE PLAN NOT RELEVANT TO THE STRUCTURAL INFORMATION.
4. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL DRAWINGS AND OTHER CONTRACT DRAWINGS AND REPORT ANY DESCREPANCIES WITH THE PROJECT ENGINEER AND ARCHITECT PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.
5. THE GENERAL CONTRACTOR IS REQUIRED FOR PROVIDING ALL REQUIRED BRACING AND SHORING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PROCESS UNTIL THE STRUCTURE IS TIED TOGETHER AND COMPLETE.

RESIDENTIAL FOUNDATIONS:

1. ALL CONTINUOUS WALL FOOTINGS ARE 8"x16" FOR ONE- AND TWO-STORY HOUSES (10"x20" FOR HOUSES w/ BRICK VENEER) AND FOOTING FOR THREE-STORY WALLS SHALL BE 10"x24" UNLESS OTHERWISE NOTED. REINFORCING IS TO BE AS NOTED ON PLANS. REBAR IS REQUIRED ON ANY COMPACTED FILL REGARDLESS OF COMPACTION.
2. ALL INTERIOR PIERS ARE 8"x16" CMU UP TO A MAXIMUM OF 32". ALL PIERS OVER 32" HIGH MUST BE FILLED SOLID w/ TYPE S MORTAR. MAXIMUM HEIGHT FOR 8"x16" FILLED PIER IS 8'-0". PIERS LARGER THANN 8"x16" ARE NOTED ON PLANS AND MUST BE FILLED WITH TYPE S MORTAR. FOR ONE-STORY STUCTURES, PIER CAPS ARE TO BE 4" SOLID MASONRY. FOR TWO-STORY STRUCTURES, PIERS CAPS ARE TO BE 8" SOLID MASONRY.
3. FOOTINGS FOR 8"x16" PIERS ARE 24"x36"x10" UNLESS NOTED OTHERWISE. REINFORCING IS TO BE AS NOTED ON PLANS.
4. INTERIOR THICKENED SLAB FOOTINGS WHICH OCCUR IN BASEMENTS AND SLAB ON GRADE FLOORS ARE 10" DEEP BY 18" WIDE UNLESS NOTED OTHERWISE. ...

SPECIAL FOUNDATION CONSIDERATIONS:

1. MASONRY CHIMNEY FOOTINGS ARE TO BE 12" THICK WITH 12" PROJECTION AROUND ALL SIDES.
2. FOR UNRESTRAINED RETAINING WALLS SEE SPECIAL DESIGNS ON DRAWINGS.
3. SEE DRAWINGS FOR NOTES REGARDING DEEP FOUNDATIONS SUCH AS CAISSONS OR PILES.
4. ...

BASEMENT/RETAINING WALLS:

1. UNLESS OTHERWISE NOTED ON THE PLANS, RESTRAINED BASEMENT WALLS SHALL BE BUILT IN ACCORDANCE WITH R404.1 OF THE CODE. ...

8. WALL DESIGNS BASED ON A EQUIVALENT FLUID PRESSURE OF 35 PCF AND ALLOWABLE SOIL BEARING CAPACITY OF 2,000 PSF AND A COEFFICIENT OF FRICTION BETWEEN THE FOOTING AND SOIL OF 0.45. A FLUID PRESSURE OF 35 PCF REPRESENTS DRAINABLE FILL SUCH AS CLEAN STONE TO BE PLACED AGAINST THE WALL IF THE ACTUAL FIELD VALUES ARE LESS FAVORABLE THAN THESE ASSUMPTIVE VALUES, CONTACT THE ENGINEER FOR REANALYSIS.

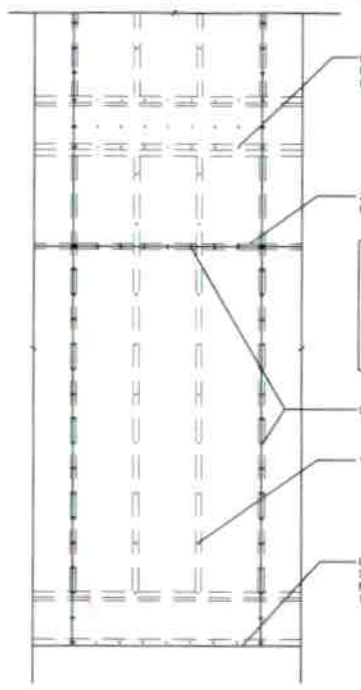
FRAMING CONSTRUCTION-OTHER THAN ROOF:

1. SEE TABLE R602.3 (1) OF THE CODE FOR A FASTENER SCHEDULE FOR STRUCTURAL MEMBERS. ALL LIGHT GAUGE METAL CONNECTORS SPECIFIED ON THE PLAN ARE DESIGNATIONS BY SIMPSON STRONG TIE. REFER TO SIMPSON'S PRODUCT MANUAL FOR SIZES, SPECIFICATIONS, AND INSTALLATION INSTRUCTIONS. OTHER BRANDS MAY BE USED PROVIDED THE CONNECTION IS EQUAL TO OR STRONGER THAN THAT SPECIFIED.
2. WOOD BEAMS SHALL BE SUPPORTED BY METAL HANGERS OF ADEQUARE CAPACITY WHERE FRAMING INTO BEAMS OR LEDGERS. THE FOLLOWING HANGER SCHEDULE MAY BE USED UNLESS NOTED OTHERWISE ON THE PLAN

MEMBER SIZE	SIMPSON HANGERS
(2) 2x8	LUS 28-2
(2) 2X10	LUS 210-2
(2) 2x12	LUS 212-2
(2) 1-3/4"x9-1/4" LVL	HUS 410
(2) 1-3/4"x11-7/8" LVL	HUS 412
(2) 1-3/4"x14" LVL	HUS 412
ALL TRIPLE LVL's	HHUS 5.50/10

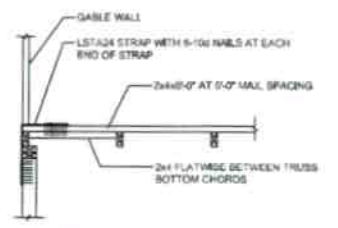
NOTE: FILL ALL OF THE HOLES IN HANGERS WITH 16dx3-1/2" COMMON NAILS UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. DO NOT BEND OR MODIFY THE HANGER OR USE INAPPROPRIATE FASTENERS. DO NOT USE 10dx1-1/2" HANGER NAILS UNLESS OTHERWISE NOTED ON THE PLANS OR IN SITUATIONS WHERE ONLY 1-3/4" OR LESS OF WOOD IS PROVIDED TO NAIL INTO.

3. CRAWLSPACE GIRDERS AND BANDS WITH 4" CURTAIN WALL AND PIER CONSTRUCTION SHALL BE 2-2x10 SYP #2 UNLESS NOTED OTHERWISE. MAXIMUM CLEAR SPANS ARE TO BE 4'-8" (6'-0" o.c. SPACING OF PIERS).
4. TO AVOID OBJECTIONABLE CRACKING IN FINISHED HARDWOOD FLOORS OVER ANY GIRDERS, CONNECT THE JOISTS SECURELY TO THE GIRDERS USING THE NAILING PATTERN PRESCRIBED IN THE CODE SECTION R602.3 (1). AT ALL GIRDERS WHERE THE JOISTS CHANGE DIRECTION, INSTALL BRIDGING AT 6" o.c. FOR A MINIMUM OF SIX JOIST SPACINGS BEYOND ANY JOIST DIRECTION CHANGE. THIS WILL INSURE SHRINKAGE DISTRIBUTION OVER THE FLOOR AND NOT LET IT ACCUMULATE AT THE GIRDER.
5. ALL OTHER FRAMING LUMBER MAY BE SPRUCE #2 OR BETTER UNLESS NOTED OTHERWISE.
   - A) LUMBER BEAMS TO HAVE SAME NUMBER OF SUPPORT STUDS AS THE NUMBER OF PLIES.
   ...



ROOF CONSTRUCTION:

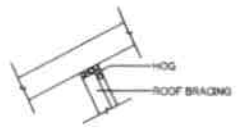
1. ALL ROOF TRUSSES MUST BE INSTALLED IN ACCORDANCE WITH TRUSS MANUFACTURERS' REQUIREMENTS. ...



GABLE WALL ATTACHMENT

ROOF PLAN LEGEND:

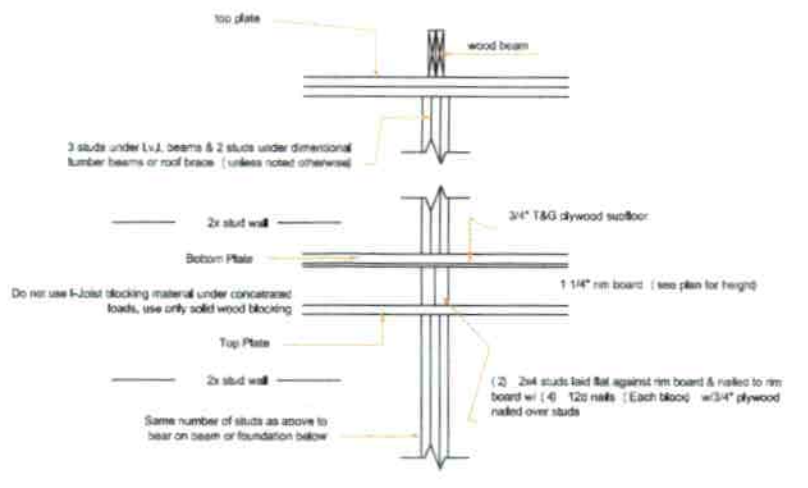
1. ⊗ INDICATES LOCATION OF ROOF BRACE POINT AT RAFTER LEVEL.
2. ...



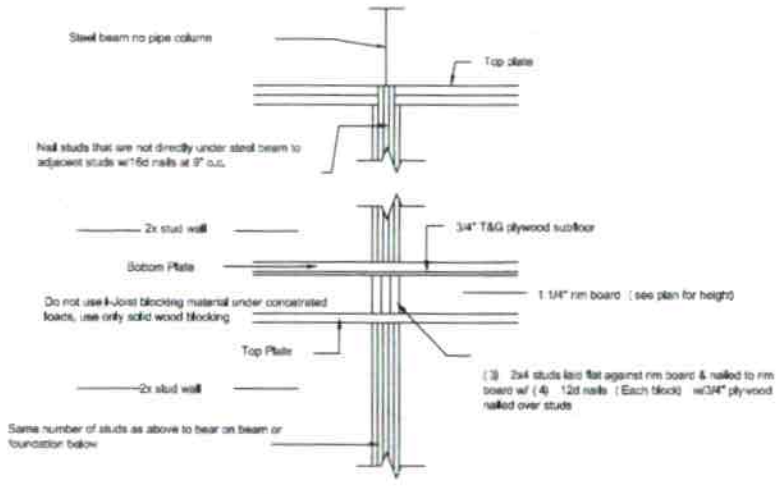
RAFTER HOG DETAIL



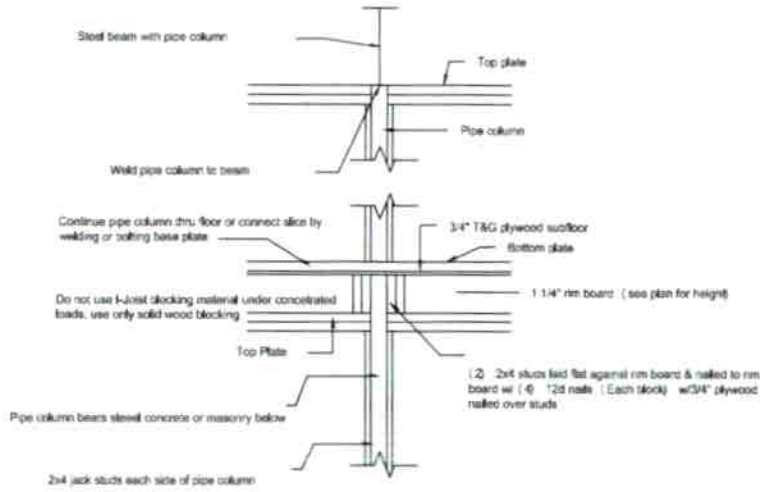
A. Joints are necessary at the following locations:
   - A.1. Horizontally at each floor locations
   - A.2. No areas larger than 144 sq. ft. exposed
   - A.3. No dimensions longer than 18'-0"
   - A.4. No dimensions shorter than 2 ½ times the shortest dimensions
B. Drip screed required at the bottom of all walls 2" above paved areas and 4" above grade
C. See ASTM 926 and 1063 for further information



NUMBER OF STUDS / BLOCKING TRANSFER LOAD DETAIL AT ENGINEERED FLOOR SYSTEM



NUMBER OF STUDS / BLOCKING TRANSFER LOAD DETAIL AT ENGINEERED FLOOR SYSTEM



PIPE COLUMN / BLOCKING TRANSFER LOAD DETAIL AT ENGINEERED FLOOR SYSTEM

MATERIALS SPECIFICATIONS:
CONCRETE GENERAL NOTES:

1. EXCEPT WHERE OTHERWISE NOTED, FOR ALL CONCRETE, THE PROPORTIONS OF CEMENT, AGGREGATE, AND WATER TO ATTAIN REQUIRED PLASTICITY AND COMPRESSIVE STRENGTH SHALL BE IN ACCORDANCE WITH ACI 318 CODE. ...

MASONRY GENERAL NOTES:

9. MASONRY WALLS ARE TO BE OF THE SIZES AND IN THE LOCATIONS SHOWN ON THE PLANS AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF ACI 530. ...

LUMBER GENERAL NOTES:

18. ALL COMMON FRAMING LUMBER IS TO MEET THE FOLLOWING MINIMUM SPECIFICATIONS AT 19% MOISTURE CONTENT:

MATERIAL	#2 SOUTHERN PINE	#2 SPRUCE
Fb (psi)	1500	875
Ft (psi)	575	450
Fc PERP. (psi)	565	425
E (ksi)	1600	1400

19. ALL STRUCTURAL COMPOSITE LUMBER (LVL, LSL, PSL) IS TO MEET THE FOLLOWING MINIMUM SPECIFICATIONS:

MATERIAL	GIRDERS AND BEAMS (LVL, PSL)	COLUMNS (LSL) & TIMBOARDS
Fb (psi)	2600	1700
Ft (psi)	2510	1400
Fc PERP. (psi)	750	400
E (ksi)	1900	1300

20. ALL GLUE LAMINATED TIMBER (GLULAM) IS TO MEET THE FOLLOWING MINIMUM SPECIFICATIONS:

MATERIAL	GIRDERS & BEAMS	COLUMNS
Fb (psi)	2400	1800
Ft (psi)	1700	1500
Fc PERP. (psi)	740	560
E (ksi)	1800	1500

STEEL GENERAL NOTES:

23. ALL STEEL WIDE FLANGE BEAMS SHALL CONFORM TO ASTM A572 HAVING A MINIMUM YIELD STRESS OF 50,000 PSI. ...

COLD-FORM STEEL NOTES:

30. ALL STRUCTURAL FRAMING TO CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) AND THE AMERICAN IRON AND STEEL INSTITUTE (AISI).

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 014033 R. BURRIS, III
8/26/19

NOTE #1
SEAL FOR ENGINEERED STRUCTURAL COMPONENTS ONLY

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MSJ DRAFTING

S0.1

DRAWN BY: MSJ DRAFTING
DATE: AUGUST 26, 2019

GENERAL NOTES

JECO HOMES, LLC
7204 PEAR TREE ROAD, CHARLOTTE, NC 28216

A NEW RESIDENCE FOR: JECO HOMES
XXX
XXX

PROJECT 4

S0.1

GENERAL PLAN NOTES

1. DRAWINGS ARE NOT TO BE SCALED. DIMENSIONS IN QUESTION SHALL BE CLARIFIED BY ARCHITECT.
2. ALL EXTERIOR DIMENSIONS ARE SHOWN TO THE OUTSIDE FACE OF STUD, UNLESS NOTED OTHERWISE.
3. ALL INTERIOR DIMENSIONS ARE SHOWN TO THE INSIDE FACE OF STUD UNLESS NOTED OTHERWISE.
4. ALL INTERIOR WALLS ARE ASSUMED TO BE 3-1/2" WOOD STUDS, UNLESS NOTED OTHERWISE.
5. ALL EXTERIOR WALLS ARE ASSUMED TO BE 5-1/2" WOOD STUDS (PLUS 1/2" EXTERIOR WALL SHEATHING) UNLESS NOTED OTHERWISE.
6. ALL DOORS TO BE CENTERED, UNLESS NOTED OTHERWISE.
7. PROVIDE WOOD BLOCKING IN WALLS FOR MOUNTING OF ALL CABINETS, TOILET ACCESSORIES AND OTHER WALL MOUNTED ITEMS.
8. ALL CABINETRY TO BE DESIGNED BY OTHERS AND SHALL MEET ALL APPLICABLE ACCESSIBILITY CODES (IF REQUIRED.
9. ALL FINISH AND COLOR SELECTIONS TO BE APPROVED BY ARCHITECT/OLC.
10. NUMBER OF EXTERIOR RISERS TO BE FIELD VERIFIED. AT LOCATIONS WHERE 4 OR MORE ARE REQUIRED A HANDRAIL WILL ALSO BE REQUIRED.
11. PROVIDE TERMITE CHEMICAL AT FOUNDATION, AS REQUIRED.
12. MINIMUM 23-1/2" (wi. x 54-1/2" (ll. ATTIC ACCESS DOOR w/ PULL DOWN LADDER TO BE DETERMINED ON SITE AND WEATHERSTRIPPED AND INSULATED WITH MIN. R-5.
13. HVAC RETURN (S) TO BE DETERMINED ON SITE.
14. ALL COUNTERTOPS TO BE 36" A.F.F., UNLESS NOTED OTHERWISE.
15. ALL DOOR HEIGHTS ARE SHOWN ON PLANS.

FRAMING CONSTRUCTION-OTHER THAN ROOF

1. STEEL BEAMS MUST HAVE (S 2x4 STUD JACKS UNDER EACH END SUPPORT, UNLESS NOTED OTHERWISE.
2. MICRO-LAM BEAMS, SEE SEL. CONSTRUCTION OTHER THAN ROOFS, NOTE 7
3. ALL BRICK OVER LOWER ROOFS MUST HAVE ANGLE WITH STOPS LAG SCREWS TO STUDS ABOVE AND ACCORDANCE WITH DETAIL.
4. ALL WOOD I-JOISTS AND OPEN JOISTS MUST BE BRACED IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS PLUS DETAILS SHOWN ON PLANS.
5. ALL RAFTER BRACES MUST HAVE 2 STUDS FROM PLATE TO FOUNDATION OR BEAM BELOW THEM AT ALL FLOORS. NO BRACES ON CEILING PLATE WITHOUT STUDS DIRECTLY UNDER THEM.
6. WHERE PARTITIONS FALL BETWEEN FLOOR "RUSSES, 2"x4" (ADDERS @ 16"o.c. MUST BE PLACED PERPENDICULAR TO THE TRUSSES TO SUPPORT THE PLYWOOD DECKING.
7. ON ALL OPEN WEB FLOOR "RUSSES OVER A 15' SPAN A MIN. SINGLE LINE OF 2"x4" SHALL BE NAILED TO DIAGONAL MEMBERS OR VERTICAL MEMBERS IN THE APPROXIMATE MID-SPAN AS A LOAD DISTRIBUTION MEMBER.
8. WHERE CEILING JOISTS ARE PARALLEL TO EXTERIOR WALLS AND RAFTERS SEAM ON STUD WALL TOP PLATE ADJACENT TO CEILING JOISTS, BRACE RAFTERS AND TOP PLATE TO 2x6 HOGS 8" LONG (MIN.) ON 8" CENTERS ALONG LENGTH OF CEILING JOISTS.
9. ALL 2-STORY OPEN GREAT ROOMS, LIVING ROOMS, WITH 2 OR MORE ADJACENT OPENINGS OF 3' OR LESS MUST USE A 3-1/2"x3-1/2"x1/2" STEEL ANGLE VERTICALLY FROM FLOOR TO TOP PLATE LAGGED TO KING STUDS WITH (S 5"x5" LAGS @ 24"o.c. VERTICALLY AND LAGGED TO FLOOR AND TOP PLATE WITH (S) 3/16"x3", AG THROUGH A 1/4" PLATE AT THE TOP AND BOTTOM. MULTIPLE OPENINGS WITH 3' OR LESS SPACE BETWEEN ROUGH OPENINGS SHALL HAVE AT LEAST (1) STEEL ANGLE VERTICALLY IN EACH MULLION SPACE. THE SHEATHING ON THIS STEEL REINFORCED PARTITION SHALL BE 1/2" PLYWOOD, NO OTHER SHEATHING SHALL BE PERMITTED.

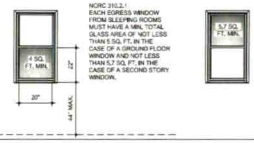
STAIRWAYS

1. TREADS SHALL BE 9" DEEP PLUS A 1" NOSING.
2. RISERS SHALL BE FIELD VERIFIED (NOT TO EXCEED 8-1/4").
3. STAIR SHALL BE 36" WIDE CLEAR MINIMUM AND SHALL HAVE A HANDRAIL AT A HEIGHT ABOVE THE NOSING OF 34"-38".
4. GUARD RAIL HEIGHT SHALL BE A MINIMUM OF 36"IN HEIGHT PER R312.1.2
5. REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM WALKING SURFACE TO GUARD RAIL HEIGHT THAT ALLOW PASSAGE OF A 4" SPHERE.
6. GUARDS ON OPEN SIDES OF STAIRS SHALL NOT HAVE OPENINGS ALLOWING PASSAGE OF A A 3/8" SPHERE
7. TRIANGLE FORMED BY RISER, TREAD AND BOTTOM GUARD RAIL SHALL NOT ALLOW PASSAGE OF A 6" SPHERE.

EGRESS WINDOW REQUIREMENTS

NCRC 3918 310.2.1
EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE EXTERIOR WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY EGRESS OR RESCUE. THE UNITS MUST BE OPERABLE FROM THE INSIDE TO A FULL CLEAR OPENING WITHOUT THE USE OF A KEY OR TOOL. WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS OR RESCUE, THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR.

NCRC 310.2.1
THE MIN. NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 22". THE MIN. NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20". THE NET CLEAR OPENABLE AREA SHALL NOT BE LESS THAN 4 SQ. FT.



NCRC 310.2.1
EACH EGRESS WINDOW FROM SLEEPING ROOMS MUST HAVE A MIN. TOTAL GLASS AREA OF NOT LESS THAN 5 SQ. FT., IN THE CASE OF A GROUND FLOOR WINDOW AND NOT LESS THAN 5.7 SQ. FT. IN THE CASE OF A SECOND STORY WINDOW.

HEADER SIZE REQUIREMENTS

SIZES	EXTERIOR SPANS	INTERIOR SPANS	JACK STUDS
(2) 2x8's	< 2'-0"	< 2'-6"	1
(2) 2x8's	2'-0" thru 3'-0"	2'-0" thru 3'-6"	2
(2) 2x10's	2'-0" thru 3'-0"	2'-0" thru 6'-6"	2
SEE PLAN	6'-0"<	6'-6"<	SEE PLAN

WALL STUD REQUIREMENTS

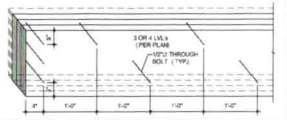
EXTERIOR WALL HEIGHT	STUD SIZE AND SPACING
H < 10'-0"	2x4 @ 16" o.c.
10'-0" < H < 11'-0"	2x4 @ 12" o.c.
10'-0" < H < 11'-0"	2x6 @ 16" o.c.
H > 18'-0"	CONSULT ENGINEER

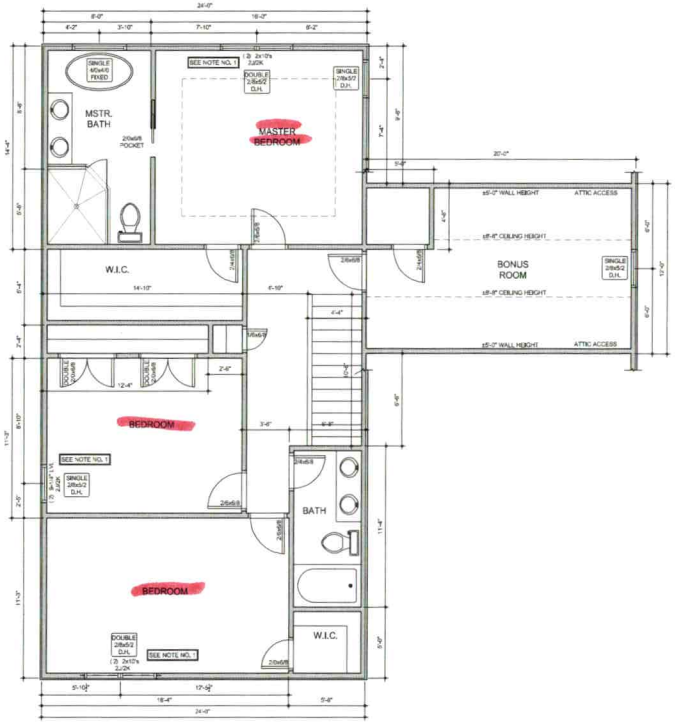
TYP. HANGERS FOR JOIST & BEAMS

NOTE: ALL HANGERS BY SIMPSON STRONG TIE CO., INC.
(BRAND-NAME EQUIVALENTS ACCEPTABLE)

MEMBERS	HANGER
2x6	LUS26
2x10	LUS210
2x12	LUS210
(2) 2x8	HUS28-2
(3) 2x10	HUS210-2
(2) 2x12	HUS212-2
(3) 2x8	LUS28-3
(3) 2x10	LUS210-3
(3) 2x12	HU212-3 MIN.
(2) 1-3/4"x9-1/4" LVL	HGUS410
(2) 1-3/4"x9-1/2" LVL	HGUS410
(2) 1-3/4"x11-1/4" LVL	HGUS412
(2) 1-3/4"x11-7/8" LVL	HGUS412
(2) 1-3/4"x14" LVL	HGUS414
(2) 1-3/4"x16" LVL	HGUS414
(2) 1-3/4"x18" LVL	HGUS414
(3) 1-3/4"x9-1/4" LVL	HGUS5.50/10
(3) 1-3/4"x9-1/2" LVL	HGUS5.50/10
(3) 1-3/4"x11-1/4" LVL	HGUS5.50/12
(3) 1-3/4"x11-7/8" LVL	HGUS5.50/12
(3) 1-3/4"x14" LVL	HGUS5.50/14
(3) 1-3/4"x16" LVL	HGUS5.50/14
(3) 1-3/4"x18" LVL	HGUS5.50/14
(4) 1-3/4"x9-1/4" LVL	HGUST.25/10
(4) 1-3/4"x9-1/2" LVL	HGUST.25/10
(4) 1-3/4"x11-1/4" LVL	HGUST.25/12
(4) 1-3/4"x11-7/8" LVL	HGUST.25/12
(4) 1-3/4"x14" LVL	HGUST.25/14
(4) 1-3/4"x16" LVL	HGUST.25/14
(4) 1-3/4"x18" LVL	HGUST.25/14

LVL BOLTING PATTERN DETAIL





101 / A1.1 UPPER LEVEL PLAN 1/4" = 1'-0"

MAIN LEVEL	
HEATED SQUARE FOOT	1,090 SQ. FT.
COVERED FRONT PORCHES	55 SQ. FT.
COVERED REAR PORCHES	N/A SQ. FT.
GARAGE AND STORAGE	413 SQ. FT.
UPPER LEVEL	
HEATED SQUARE FOOT	1,027 SQ. FT.
BONUS SQUARE FOOT	240 SQ. FT.
TOTAL	
HEATED SQUARE FOOT	2,117 SQ. FT.
UNHEATED SQUARE FOOT	468 SQ. FT.
BONUS SQUARE FOOT	240 SQ. FT.

TABLE N1102.1.2 - INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE AND DEPTH	CRAWL SPACE WALL R-VALUE
3	0.35	0.55	0.30	38 OR 30 CONT.	15 13+2.5	5/13 5/10 c.i.	19	5/13	0	5/13
4	0.35	0.55	0.30	38 OR 30 CONT.	15 13+2.5	5/13 5/10 c.i.	19	10/15	10	10/15
5	0.35	0.55	NR	38 OR 30 CONT.	20, 13+5, OR 15+3	13/17 13+2.5 c.i.	30	10/15	10	10/19

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NORTH CAROLINA PROFESSIONAL SEAL 34033 ENGINEER R. BURRIS, II
8/26/19

NOTE #1
SEAL FOR ENGINEERED STRUCTURAL COMPONENTS ONLY

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SBEALD04@YAHOO.COM

MSJ DRAFTING

A1.1

DATE	DRAWN BY	REVISIONS
8/26/19	MSJ DRAFTING	RE-ISSUED
AUGUST 26, 2019		RE-ISSUED
		RE-ISSUED

PLANS AND NOTES

JECO HOMES, LLC
7204 PEAR TREE ROAD, CHARLOTTE, NC 28216

PROJECT OWNER
A NEW RESIDENCE FOR:
JECO HOMES
PROJECT ADDRESS
XX
XXX

PROJECT 4

A1.1

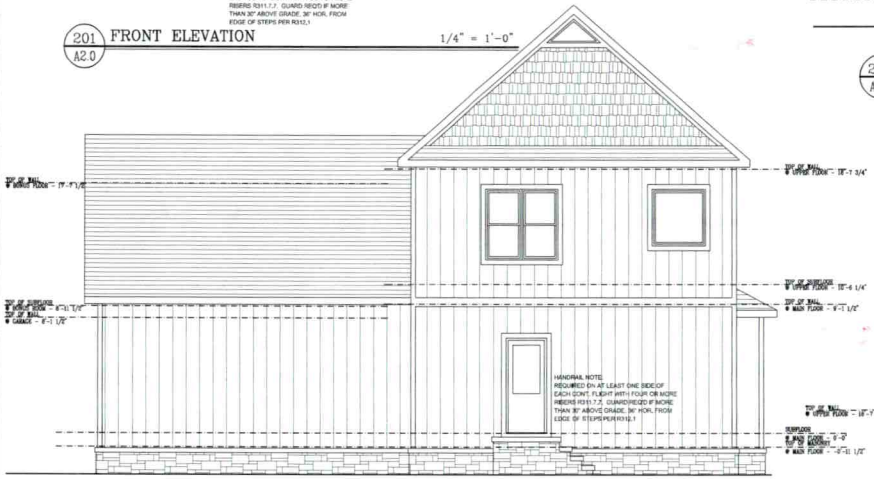
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201 A2.0 FRONT ELEVATION 1/4" = 1'-0"



202 A2.0 LEFT SIDE ELEVATION 1/4" = 1'-0"



203 A2.0 REAR ELEVATION 1/4" = 1'-0"



204 A2.0 RIGHT SIDE ELEVATION 1/4" = 1'-0"

ELEVATION NOTES:

1. ALL SHINGLES ARE TO BE SELECTED BY OWNER
2. ALL STONE VENEER IS TO BE SELECTED BY OWNER
3. ALL SIDING IS TO BE SELECTED BY OWNER
4. ALL DOOR AND WINDOW STYLES ARE TO BE SELECTED BY OWNER
5. ALL GRADE SHOWN IS PROPOSED AND IS TO BE FEILD VERIFIED BY C.C.
6. ALL OVERHANGS ARE TO BE 1'-0" TYPICAL
7. ALL STEPS SHOWN ARE TO ADJUST TO GRADE AS NEEDED

ENGINEER: R. BURRIS, P.E.
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NORTH CAROLINA SEAL 41034 ENGINEER L. R. BURRIS, III

8/25/19

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SBEAL2940@YAHOO.COM

MSJ DRAFTING

A2.0

ELEVATIONS AND DETAILS

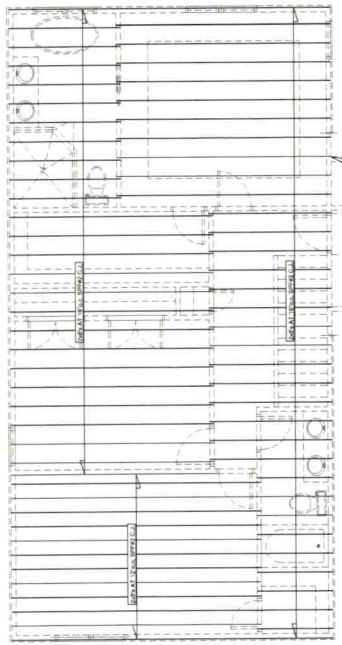
JECO HOMES, LLC
7204 PEAR TREE ROAD, CHARLOTTE, NC 28216

A NEW RESIDENCE FOR:
JECO HOMES

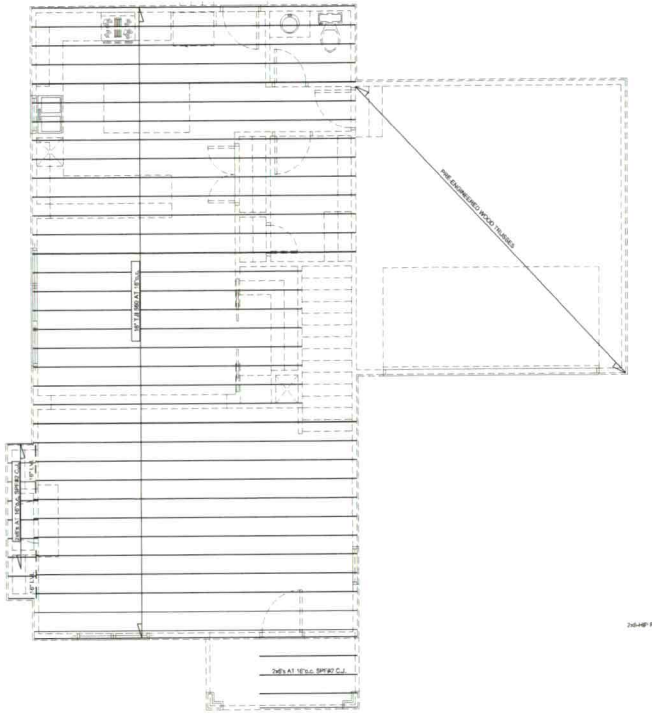
PROJECT ADDRESS
XXX
XXX

PROJECT 4

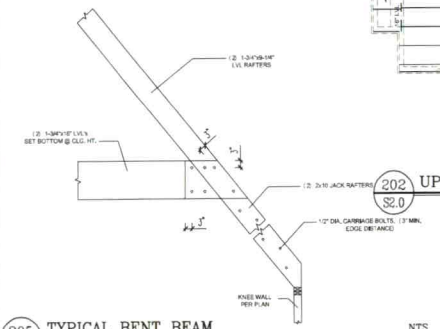
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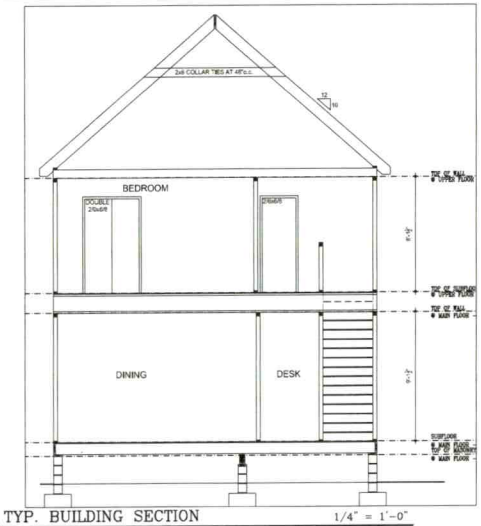
201 S2.0 UPPER LEVEL CEILING PLAN 1/4" = 1'-0"



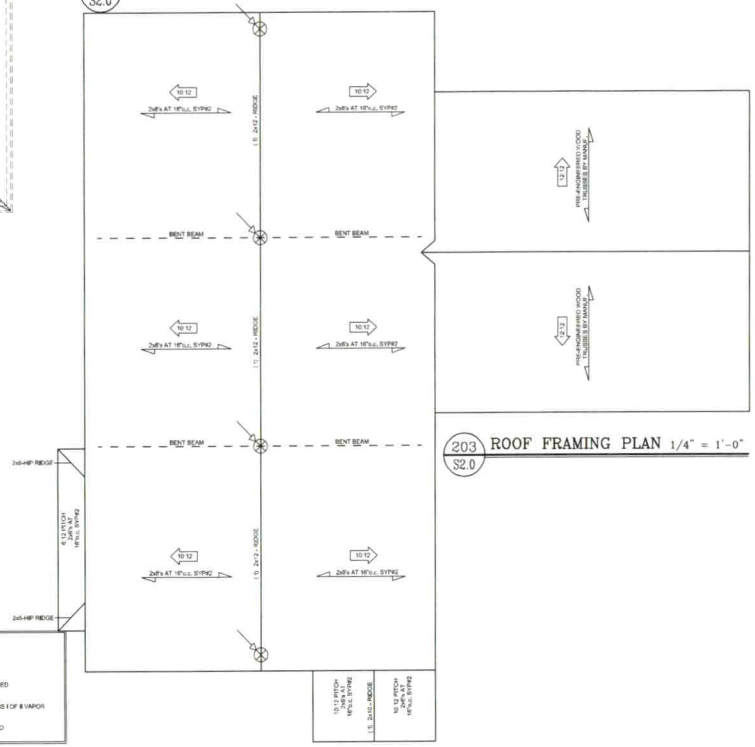
202 S2.0 UPPER LEVEL FLOOR/LOWER LEVEL CEILING 1/4" = 1'-0"



205 S2.0 TYPICAL BENT BEAM NTS



204 S2.0 TYP. BUILDING SECTION 1/4" = 1'-0"



203 S2.0 ROOF FRAMING PLAN 1/4" = 1'-0"

ROOF VENTILATION CALCULATIONS

3" CONT. ALUM. SOFFIT VENT = 12 SQ. IN./FT. OF VENT AREA

MAIN BUILDING : (AS PER SECTION R806.2 OF 2018 NCRC)

ATTIC VENTILATED AREA: 1,559 S.F. x 144 SQ. IN. x 1/150 = 1,611 SQ. IN. VENT REQUIRED
1,611 SQ. IN. OF SOFFIT VENTILATION (134.25')

THE NET FREE CROSS VENTILATION AREA MAY BE REDUCED TO 1/300 WHEN A CLASS I OF II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.

ATTIC VENTILATED AREA: 1,559 S.F. x 144 SQ. IN. x 1/300 = 748 SQ. IN. VENT REQUIRED
748 SQ. IN. OF SOFFIT VENTILATION (62.33')

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NORTH CAROLINA PROFESSIONAL SEAL 039273 ENGINEER L. R. BURRIS 8/26/19

NOTE #1
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MSJ DRAFTING

S2.0

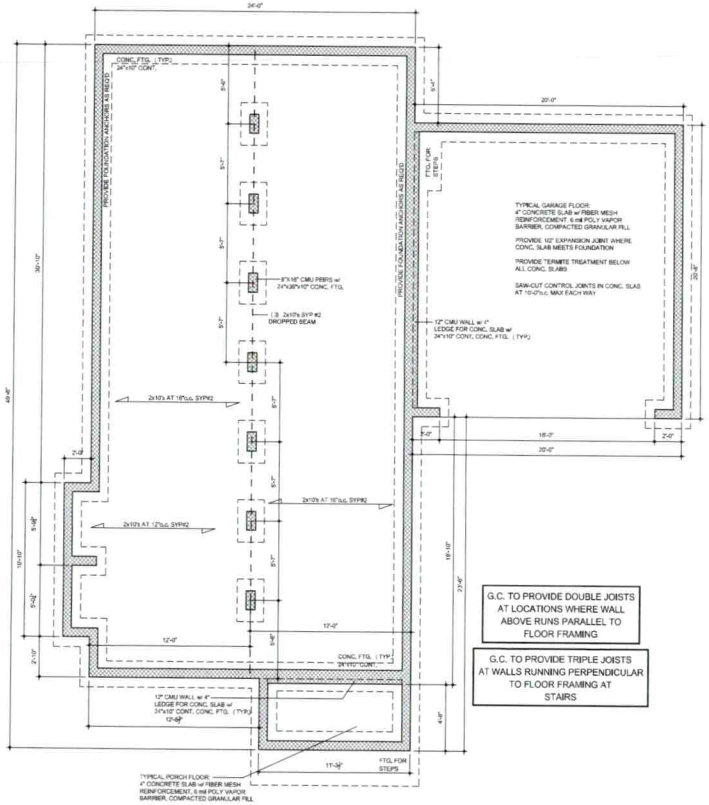
FRAMING PLANS

JECO HOMES, LLC
7204 PEAR TREE ROAD, CHARLOTTE, NC 28216

PROJECT NAME
A NEW RESIDENCE FOR:
JECO HOMES
PROJECT ADDRESS
XXX
XXX

PROJECT 4

S2.0



101 S1.0 **FOUNDATION PLAN** 1/4" = 1'-0"

G.C. TO PROVIDE DOUBLE JOISTS AT LOCATIONS WHERE WALL ABOVE RUNS PARALLEL TO FLOOR FRAMING

G.C. TO PROVIDE TRIPLE JOISTS AT WALLS RUNNING PERPENDICULAR TO FLOOR FRAMING AT STAIRS

CRAWL SPACE VENTILATION NOTES

THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL BE NOT LESS THAN 1 SQ. FT. FOR EACH 150 SQ. FT. OF CRAWL SPACE GROUND AREA.
1,648 SQ. FT. / 150 SQ. FT. = 10.98 - 11 VENTS REQUIRED
IF GROUND SURFACE IS TREATED WITH AN APPROVED VAPOR RETARDER MATERIAL IN ACCORDANCE WITH SECTION R408.2 AND THE REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS-VENTING OF CRAWL SPACE,
1,648 SQ. FT. / 1 500 SQ. FT. = 1.10 - 2 VENTS REQUIRED

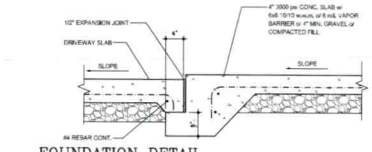
ONE VENT SHALL BE LOCATED WITH IN 3'-0" OF EACH CORNER.

A MINIMUM ACCESS OPENING OF 18"x24" SHALL BE PROVIDED TO THE CRAWL SPACE. PROVIDE A TIGHT FITTING ACCESS DOOR/PANEL WITH A LATCH AND BE INSULATED TO A MINIMUM OF R-2.

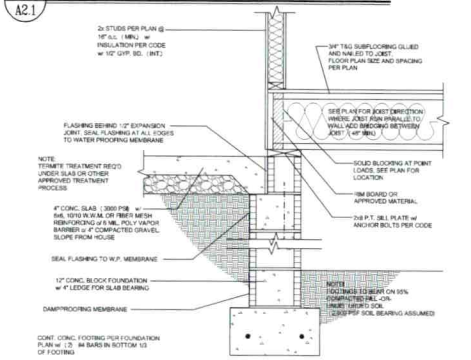
IF MECHANICAL EQUIPMENT IS LOCATED IN CRAWL SPACE, PASSAGEWAY TO BE NO LESS THAN 22"x30" OR LARGE ENOUGH TO REMOVE LARGEST PIECE OF EQUIPMENT AND NO MORE THAN 20'-0" IN LENGTH TO THE APPLIANCE.

TABLE N1102.1.2 - INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

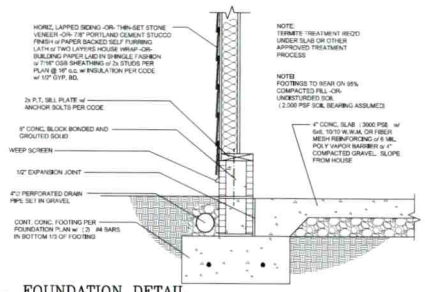
CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE AND DEPTH	CRAWL SPACE WALL R-VALUE
3	0.35	0.55	0.30	38 OR 30 CONT.	15 13+2.5	5/13 5/10 c.i.	19	5/13	0	5/13
4	0.35	0.55	0.30	38 OR 30 CONT.	15 13+2.5	5/13 5/10 c.i.	19	10/15	10	10/15
5	0.35	0.55	N/R	38 OR 30 CONT.	19, 13+5, OR 15+3	13/17 13/12.5 c.i.	30	10/15	10	10/15



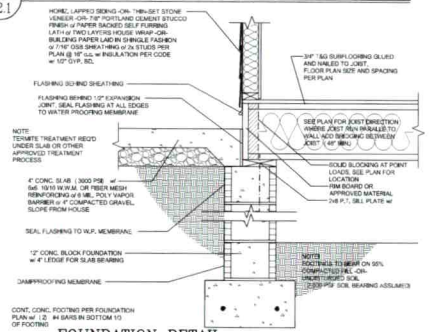
201 A2.1 **FOUNDATION DETAIL @ GARAGE DOOR** 1" = 1'-0"



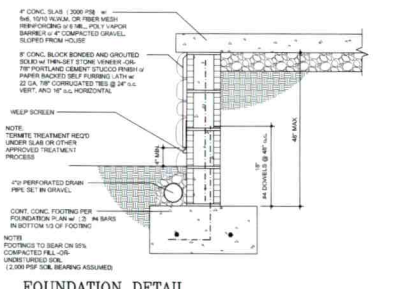
202 A2.1 **FOUNDATION DETAIL @ HOUSE TO GARAGE** 1" = 1'-0"



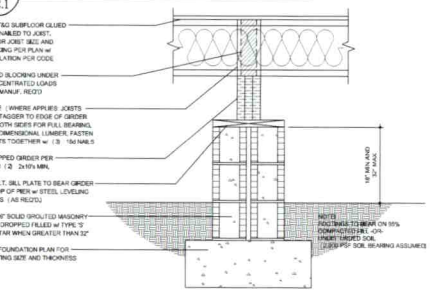
203 A2.1 **FOUNDATION DETAIL @ GARAGE** 1" = 1'-0"



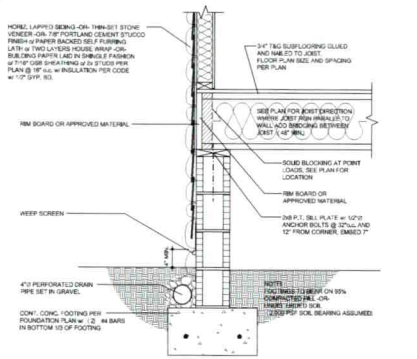
204 A2.1 **FOUNDATION DETAIL @ HOUSE TO COVERED ENTRY** 1" = 1'-0"



205 A2.1 **FOUNDATION DETAIL @ COVERED ENTRY END** 1" = 1'-0"



206 A2.1 **FOUNDATION DETAIL @ DROPPED GIRDER** 1" = 1'-0"



207 A2.1 **FOUNDATION DETAIL @ TYP. EXTERIOR WALL** 1" = 1'-0"

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NORTH CAROLINA PROFESSIONAL SEAL 29233 ENGINEER L. R. BURRIS, II

8/26/19

NOTE #1
SEAL FOR ENGINEERED STRUCTURAL COMPONENTS ONLY

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S1.0 MSJ DRAFTING

SCALE: 1/4" = 1'-0"
DRAWN BY: MSJ
CHECKED BY: LRB
REVISIONS
#1 7/30/19
#2 8/26/19
#3 9/6/19
#4 9/18/19

FOUNDATION PLAN AND NOTES

JECO HOMES, LLC
7204 PEAR TREE ROAD, CHARLOTTE, NC 28216

A NEW RESIDENCE FOR:
JECO HOMES
PROJECT ADDRESS
XXX
XXX

PROJECT 4

S1.0