SUPERVISOR/ADMINISTRATIVE PROFESSIONAL CHECKLIST

NEW SEPTIC ☑ NEW WELL ☐ USE EXISTING ☐ MODIFIED PLOT PLAN ☐

New Septic Fees Paid

IP ($250.00) 11/22/21 LE Initial/Date

CA ($200.00) 2/9/22 LE Initial/Date

OP ($200.00) 2/9/22 LE Initial/Date

(CA and OP fees need to be paid before a building permit can be issued)

New Well Fees Paid: $550.00 _____ Initial/Date

Use Existing Fees Paid: $100.00 _____ Initial/Date

Alteration Fees Paid: $300 Total $200 _____ Initial/Date (If use existing was part of payment)

Modified Plot Plan Fees Paid: $100.00 _____ Initial/Date

Generate CA / Approve As Noted

Floor plans need to be submitted and reviewed before CA can be issued ☒ Review ☒ 2/9/22

This site is served by septic and well. Verify each is complete before final hold is released ☐

Septic file complete ☒ 2/14/22 Well complete ☐ _____

Send permit for signature ☒ Signature received ☑ 12/3/21 LE

This septic system requires a certified operation contract before final hold is released ☐

Certified operator contract is on file ☐ _____

Septic file Complete

Groundwater & Wastewater Services: Septic Project File & D

Edit Response | Delete Response | Manage Permissions | Workflows | Alert Me

GWS File #:	76578
WASPS App #:	12678
Primary ES assigned to project:	Bryan
Secondary ES assigned to project:	
Project Type:	New System
Site Evaluation Information: .1939(a)(1) - Topography and Landscape Position Recorded?	Yes
Site Evaluation Information: .1940(a-g) - Slope % Recorded?	Yes
Site Evaluation Information: .1939(a)(2) - Texture Class Recorded?	Yes
Site Evaluation Information: .1939(a)(2) - Structure Type Recorded?	Yes
Site Evaluation Information: .1939 (a)(2) - Consistence Recorded?	Yes
Site Evaluation Information: .1939(a)(2) - Mineralogy Recorded?	Yes
Site Evaluation Information: .1939(a)(3) - Soil Wetness Condition Recorded?	Yes
Site Evaluation Information: .1939(a)(4) - Soil Depth to Rock or Parent Material Recorded when Encountered?	Yes
Site Evaluation Information: .1939(a)(5) - Depth to Restrictive Horizons Recorded when Encountered?	Yes
Site Evaluation Information: .1939(a)(6) - Sufficient Available Space Recorded?	Yes
Site Evaluation Information: .1937(m) - Are the Profile Locations Shown?	Yes
Site Evaluation Information: .1939(a) - Are the S/PS Profiles in system & in repair area?	Yes
Site Evaluation Information: .1939(d), .1955, .1956, .1957 - LTAR	Yes
Improvement Permit/Construction Authorization: .1937(g), 130A-336(a) - Proposed System Type stated - Initial	Yes
Improvement Permit/Construction Authorization: .1945(b) - Proposed System Type stated - Repair	Yes
Improvement Permit/Construction Authorization: 130A-336(a)(3) - System location identifiable by setbacks - Initial	Yes
Improvement Permit/Construction Authorization: .1937(g), .1945(b) - System components shown - Initial	Yes
Information Permit/Construction Authorization: .1945(b) - Repair area shown	Yes
Improvement Permit/Construction Authorization: .1937(f)(g) - Does System design match facility, flow & WW characteristics?	Yes
Improvement Permit/Construction Authorization: .1937(f)(g) - Is System design consistent with soil/site conditions?	Yes
Improvement Permit/Construction Authorization: .1937(f)(g) - Is the System located in the approved area?	Yes
Improvement Permit/Construction Authorization: 130A-336(a) - Number of Bedrooms, employees, seats, etc. indicated?	Yes
Improvement Permit/Construction Authorization: .1937 (g) - Trench depth correct?	Yes
Improvement Permit/Construction Authorization: .1937(g) - Trench width correct?	Yes
Improvement Permit/Construction Authorization: .19379(g) - Trench length correct?	Yes
Improvement Permit/Construction Authorization: 130A-336(a)(1) - Proposed/existing well shown?	Yes

Improvement Permit/Construction Authorization: 130A-336(a)(1) - Property line lengths shown?	Yes
Improvement Permit/Construction Authorization: 130A-336(a) - Facility/appurtenance setbacks shown from fixed points?	Yes
Corrections/modifications needed?	No
Comments:	
IA issued date:	
OP Issued date:	
Review performed by:	Michelone
Date performed:	11/30/2021

Created at 11/30/2021 10:04 AM by Michelone, Jeremy
Last modified at 11/30/2021 10:04 AM by Michelone, Jeremy

Close

7657B # 12678

MECKLENBURG COUNTY
HEALTH DEPARTMENT

22 NOV '21 PM 3:42

APPLICATION FOR A RESIDENTIAL SITE IMPROVEMENT PERMIT/ CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER SYSTEM, NEW WELL INSTALLATION, OR REPAIR OF EXISTING WELL

1. SEPTIC / TYPE APPLICATION: ○ N/A ◉ NEW SYSTEM ○ ALTERATION ○ REPAIR ○ MODIFIED PLOT PLAN

2. WELL / TYPE APPLICATION: ◉ N/A ○ NEW WELL ○ MAJOR REPAIR ○ ABANDONMENT

3. JOB LOCATION INFORMATION:
TAX PARCEL NUMBER: 19505311
STREET ADDRESS: 2501 Bain Farm Road
CITY: Mint Hill
STATE: NC ZIP: 28227
SUBDIVISION NAME: N/A
LOT #: N/A LOT SIZE (acres): 3.08
TOWNSHIP:
○ MECKLENBURG ◉ CORNELIUS ○ HUNTERSVILLE
○ DAVIDSON ○ CHARLOTTE ○ PINEVILLE
○ MATTHEWS ○ MINT HILL

4. BUILDING INFORMATION:
BUILDING TYPE:
○ SINGLE MOBILE HOME ○ MODULAR HOME
○ DOUBLE WIDE ○ MULTIPLE FAMILY
◉ HOUSE ○ OTHER _____
HEATED SQUARE FOOTAGE: 800
NUMBER OF BEDROOMS: 1
NUMBER OF OCCUPANTS: 1
FOUNDATION TYPE:
◉ CONCRETE SLAB ○ BASEMENT WITH PLUMBING
○ CRAWL SPACE ○ BASEMENT WITH NO PLUMBING

5. IF PLANNING TO EXPAND OR ALTER THE EXISTING SEPTIC SYSTEM PLEASE COMPLETE THE FOLLOWING SECTION: ☐ N/A
NUMBER OF BEDROOMS TO BE ADDED: _____ NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE: _____

6. WATER SUPPLY: ○ MUNICIPAL ◉ PRIVATE WELL ○ PUBLIC WELL ○ SHARED WELL ○ OTHER _____

7. PROPOSED USE OF WELL: ○ N/A ○ IRRIGATION ◉ POTABLE (DRINKING WATER) ○ OTHER _____

8. PLEASE INDICATE AND RANK DESIRED SEPTIC SYSTEM TYPE(S) IN ORDER OF PREFERENCE *(1-MOST DESIRED 5-LEAST DESIRED)*:
☐ N/A ☑ ANY TYPE ☐ CONVENTIONAL ☐ ACCEPTED ☐ INNOVATIVE ☐ ALTERNATIVE ☐ OTHER _____

8A. RANK: ____ ____ ____ ____ ____

9. DO ANY OF THE FOLLOWING APPLY TO THE PROPERTY IN QUESTION? IF "YES" PLEASE ATTACH SUPPORTING DOCUMENTATION.

BURIED CABLES, LANDFILLS, STUMPHOLES	◉ YES ○ NO	GRADING/SOIL REMOVAL PERFORMED	○ YES ◉ NO
EXISTING WASTEWATER (SEPTIC) SYSTEMS	◉ YES ○ NO	JURISDICTIONAL WETLANDS	○ YES ◉ NO
WELLS, SPRINGS, OR WATER LINES	◉ YES ○ NO	APPROVAL REQUIRED BY ANY OTHER PUBLIC AGENCY	○ YES ◉ NO
EASEMENTS OR RIGHT-OF-WAYS	○ YES ◉ NO	WASTEWATER OTHER THAN DOMESTIC SEWAGE	○ YES ◉ NO
CHEMICAL/PETROLEUM STORAGE TANKS	○ YES ○ NO	KNOWN UNDERGROUND CONTAMINATION	◉ YES ◉ NO
WASTE STORAGE	○ YES ◉ NO	GROUNDWATER USE RESTRICTIONS/VARIANCES	○ YES ◉ NO

10. WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 1/19/73 ☐ UNKNOWN

11. WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? _____ ☑ N/A

12. PROPERTY OWNER:
NAME: Jack & Debbie Thomas
ADDRESS: 2501 Bain Farm Road
CITY: Mint Hill
STATE: NC ZIP: 28227
WORK PHONE: (704) 622-1708
MOBILE PHONE: (704) 622-1708
FAX: (704) 805-4814
E-MAIL: jthomas@hoppercommunities.com

13. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:
NAME: _____
ADDRESS: _____
CITY: _____
STATE: _____ ZIP: _____
WORK PHONE: _____
MOBILE PHONE: _____
FAX: _____
E-MAIL: _____

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
3205 Freedom Dr. Suite 8000, Charlotte, NC 28208 OFFICE: (980) 314-1680, FAX: 704-336-6894

Revised on: 03/27/19

14. SEPTIC SYSTEM PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Improvement Permit and Authorization to Construct shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for either sixty (60) months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

_____ (Initial here for septic system applications)

15. WELL PERMIT APPLICATION:

If the information in this application is falsified, changed, or the site is altered, then the Well Permit shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for a period of twelve (12) months from the date of issuance.

_____ (Initial here for well applications)

16. APPLICATION SIGNATURE SECTION:

ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. A proper signature is required in order to process your application. Please review the application carefully and sign in the space provided below. A PROPOSED PLOT PLAN is required to be submitted with each application.

_____ 11-22-24

Property Owner's or Owner's Legal Representative Signature — Date

---

OFFICE USE ONLY

O SURVEY PLAT TO SCALE SUBMITTED O SCALED SITE PLAN SUBMITTED O UN-SCALED SITE PLAN SUBMITTED

SEPTIC APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

WELL APPLICATION FEE RECEIVED: $ _____ DATE FEE RECEIVED: _____

APPLICATION PROCESSED BY: _____

GWS FILE NUMBER ASSIGNED: _____

APPLICATION ID NUMBER ASSIGNED: _____

COMMENTS:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
3205 Freedom Dr. Suite 8000, Charlotte, NC 28208 OFFICE: (980) 314-1680, FAX: 704-336-6894

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	11/22/21	**Amount:**	150.00
Receipt #:	131586	**Tendered:**	150.00
Check / Auth #:	MC 08482S	**Returned:**	0.00
Received By:	ELLISLW		

Account Information

Account #: 200000
Contractor: THOMAS, JACK
Attn:
Address:
Address:
City/State/Zip: ,

Item	Description	Permit#	Quantity	Unit Price	Total Price
0701	Improvment Permit App-Residen 2501 BAIN FARM ROAD		1	150.00	150.00

----------Outstanding Balances----------

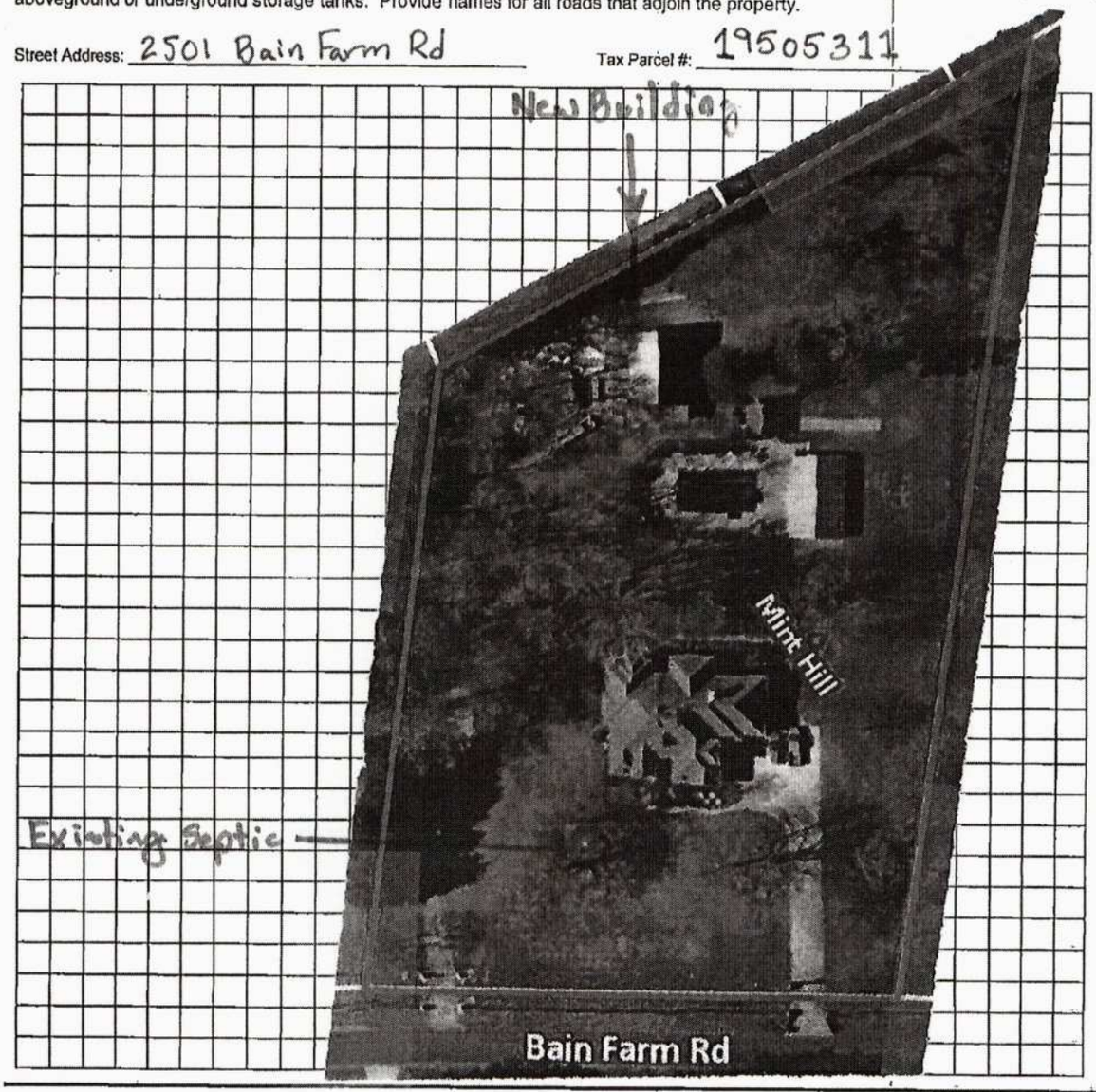
Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance

File #: _____

PROPOSED PLOT PLAN

A drawing showing the locations of the following items is required: existing and proposed property lines with dimensions, easements or right-of-ways, proposed building pad(s) or existing building footprint(s), all appurtenances (garage, driveway, deck, pool, etc.), location of existing or proposed well(s), location of existing or proposed sewer lines and sewage disposal systems, surface water bodies, and any aboveground or underground storage tanks. Provide names for all roads that adjoin the property.

Street Address: 2501 Bain Farm Rd Tax Parcel #: 19505311



*The undersigned, an authorized agent of the Mecklenburg County Health Department, certifies that the Department has approved the Request for the "Job Location" contained in this document. This approval is granted in accordance with the provisions of Laws and Rules for Sanitary Sewage Collection, Treatment, and Disposal and Water Supply Wells in effect at the time of issuance of the permit and is subject to the following provisions:

- No work shall be conducted on the septic tank system until an installation, construction, alteration and/or repair approval is granted by this Department.
- Addition/Renovation approval valid 1 year from issuance date
- Mobile home exchange approval valid 6 months from issuance date

_____

_____

_____ _____

REHS Signature Date

MECKLENBURG COUNTY – GROUNDWATER & WASTEWATER SERVICES
3205 Freedom Dr. Suite 8000, Charlotte, NC 28208 OFFICE: (980) 314-1680, FAX: 704-336-6894

Revised on: 03/27/19

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 11/05/21
Receipt #: 131365
Check / Auth #: MC 030315
Received By: ELLISLW

Amount: 100.00
Tendered: 100.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: THOMAS, JACK
Attn:
Address:
Address:
City/State/Zip: ,

Item	Description	Permit#	Quantity	Unit Price	Total Price
0705	Use Existing System 2501 BAIN FARM RD		1	100.00	100.00

----------Outstanding Balances----------

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet:
File #:
AppID:

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM
CONTINUED

Property Owner: Jack Thomas
Address: 2501 Bain Farm Rd
Proposed Facility: 1 Bedroom House
Location of Site: 2501 Bain Farm Rd Charlote 28227
Water Supply: [X] Public [X] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [X] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [X] Sewage [ ] Industrial Process [ ] Mixed

Design Flow (.1949): 48 240

Applicant: Jack Thomas
Date Evaluated: 11/26/21
Property Size: 3 Ac
Property Recorded: Unknown

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	SOIL MORPHOLOGY .1941 .1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	General Comments	Profile Class & LTAR	Maximum Trench Bottom Depth for 3' Wide Conventional Trench
Auger 1	LS 2%	0-14 14-48	CL, SS, SP, C,SS,SP,	VFR, FR,SEXP FR,SEXP	>48	NA 48	NA	NA		PS .3	36
Auger 2	LS 2%	0-48	C, SS, SP	FR,SEXP	>48	NA 48	NA	NA		PS .3	36

On-site Wastewater Improvement Permit Diagram



Mecklenburg County Health Department
Environmental Health - Groundwater and Wastewater Services

Permit #:
PID #: Soils
File #:

Authorized Agent: _____ Date: _____

Owner/ Legal Agent: _____ Date: _____

1 inch = 40 fee

Mecklenburg County Groundwater & Wastewater Services
3205 Freedom Dr., Suite 8000 Charlotte, NC 28208
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: 30012678 GWS File #: 7657B Tax Parcel #: 195-053-11

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be NO grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (if Applicable):** 11/29/2026

Type of Installation: Residential - New System Lot Number: 0

Structure Type: HOUSE Size (ft^2): 800 # Bedrooms: 1 Max. Occup.: 2

Building Foundation: Concrete Slab Water Supply: Private Well

II. Initial System Type: Accepted **System Classification:** IIIg

Initial System Specifications:

Design Flow (gpd): 240 LTAR (gpd/ft^2): .3 Septic Tank Size (gal): 1000 Pump Tank Size (gal): N/A

Trench Width (ft): 3 Trench Spacing (ft): 9 Absorption Area (ft^2): 600 Total Trench Length (ft): 200

Maximum Trench Depth (in): 36 Depth of Media (in): 12 Distribution Device: Distribution Box

III. Repair System Type: Accepted **System Classification:** IIIg

Repair System Specifications:

Design Flow (gpd): 240 LTAR (gpd/ft^2): .3 Septic Tank Size (gal): 1000 Pump Tank Size (gal): N/A

Trench Width (ft): 3 Trench Spacing (ft): 9 Absorption Area (ft^2): 600 Total Trench Length (ft): 200

Maximum Trench Depth (in): 36 Depth of Media (in): 12 Distribution Device: Distribution Box

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the STATE OF NORTH CAROLINA, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until a Pre-Construction meeting has been completed by the Department.
- The septic system installer shall be a licensed septic contractor with the North Carolina Wastewater Contractor Inspector Certification Board.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

Authorized Agent: Bryan Davenport Owner/Legal Agent: Jack Thomas
Print Name

Signature: Bryan Davenport Signature: Jack Thomas

Date Issued: 11/29/2021

Mecklenburg County Groundwater & Wastewater Services
5035 Freedom Dr., Suite 8000 Charlotte, NC 28208
Phone: (980) 314-1650 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL
ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: 30012678 GWS File #: 7657B

IV. Permit Conditions/Comments:

- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. (50 ft. minimum) from all private wells.
- All waterlines must be located a minimum of 10 ft. from any part of the septic system.
- All components of the septic system must be located a minimum distance from the normal pool elevation or mean high water mark for the nearby body of water. See plot plan for minimum setback requirements.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
- Foundation drains shall be constructed not to discharge water onto or across any part of the septic system.
- The septic system shall be located at least 10 feet from any foundation drain.

The undersigned, an authorized agent of the STATE OF NORTH CAROLINA, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

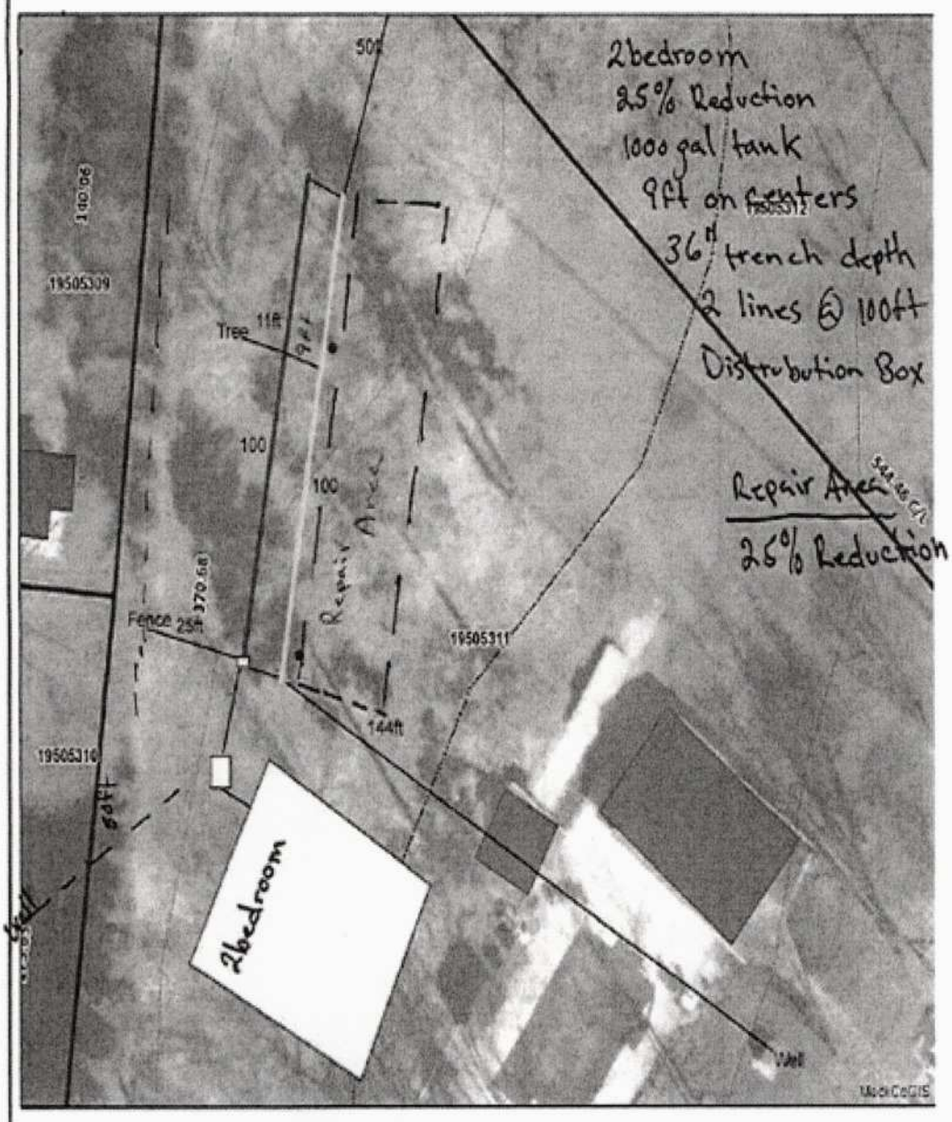
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- This IMPROVEMENT PERMIT is transferable.

Authorized Agent: Bryan Davenport Owner/Legal Agent: Jack Thomas
(Print Name)

Signature: Bryan Davenport Signature: Jack Thomas

Date Issued: 11/29/2021

On-site Wastewater Improvement Permit Diagram



Mecklenburg County Health Department
Environmental Health - Groundwater and Wastewater Services

Permit #:
PID #: 195-053-11
File #: 7657B

Authorized Agent: Bryan Davenport Date: 11/18/21

Owner/ Legal Agent: [signature] Date: 12-1-21

1 inch = 30 fee

Mecklenburg County Groundwater & Wastewater Services
3205 Freedom Dr., Suite 8000 Charlotte, NC 28208
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30012678** GWS File #: **7657B** Tax Parcel #: **195-053-11**

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be **NO** grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
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Initial System Specifications:

Design Flow (gpd):	240	LTAR (gpd/ft^2):	.3	Septic Tank Size (gal):	1000	Pump Tank Size (gal):	N/A
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	600	Total Trench Length (ft):	200
Maximum Trench Depth (in):	36	Depth of Media (in):	12	Distribution Device:	Distribution Box		

III. Repair System Type: Accepted **System Classification:** IIIg

Repair System Specifications:

Design Flow (gpd):	240	LTAR (gpd/ft^2):	.3	Septic Tank Size (gal):	1000	Pump Tank Size (gal):	N/A
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	600	Total Trench Length (ft):	200
Maximum Trench Depth (in):	36	Depth of Media (in):	12	Distribution Device:	Distribution Box		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

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- No work shall be conducted on the septic system until a Pre-Construction meeting has been completed by the Department.
- The septic system installer shall be a licensed septic contractor with the North Carolina Wastewater Contractor Inspector Certification Board.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

Authorized Agent: Bryan Davenport Owner/Legal Agent: _____
Print Name

Signature: Bryan Davenport Signature: _____

Date Issued: 11/29/2021

Mecklenburg County Groundwater & Wastewater Services
3205 Freedom Dr., Suite 8000 Charlotte, NC 28208
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30012678** GWS File #: **7657B**

IV. Permit Conditions/Comments:

- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. (50 ft. minimum) from all private wells.
- All waterlines must be located a minimum of 10 ft. from any part of the septic system.
- All components of the septic system must be located a minimum distance from the normal pool elevation or mean high water mark for the nearby body of water. See plot plan for minimum setback requirements.
- Flow from all gutters and downspouts shall be directed not to discharge water onto or across any part of the septic system.
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- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

Authorized Agent: Bryan Davenport

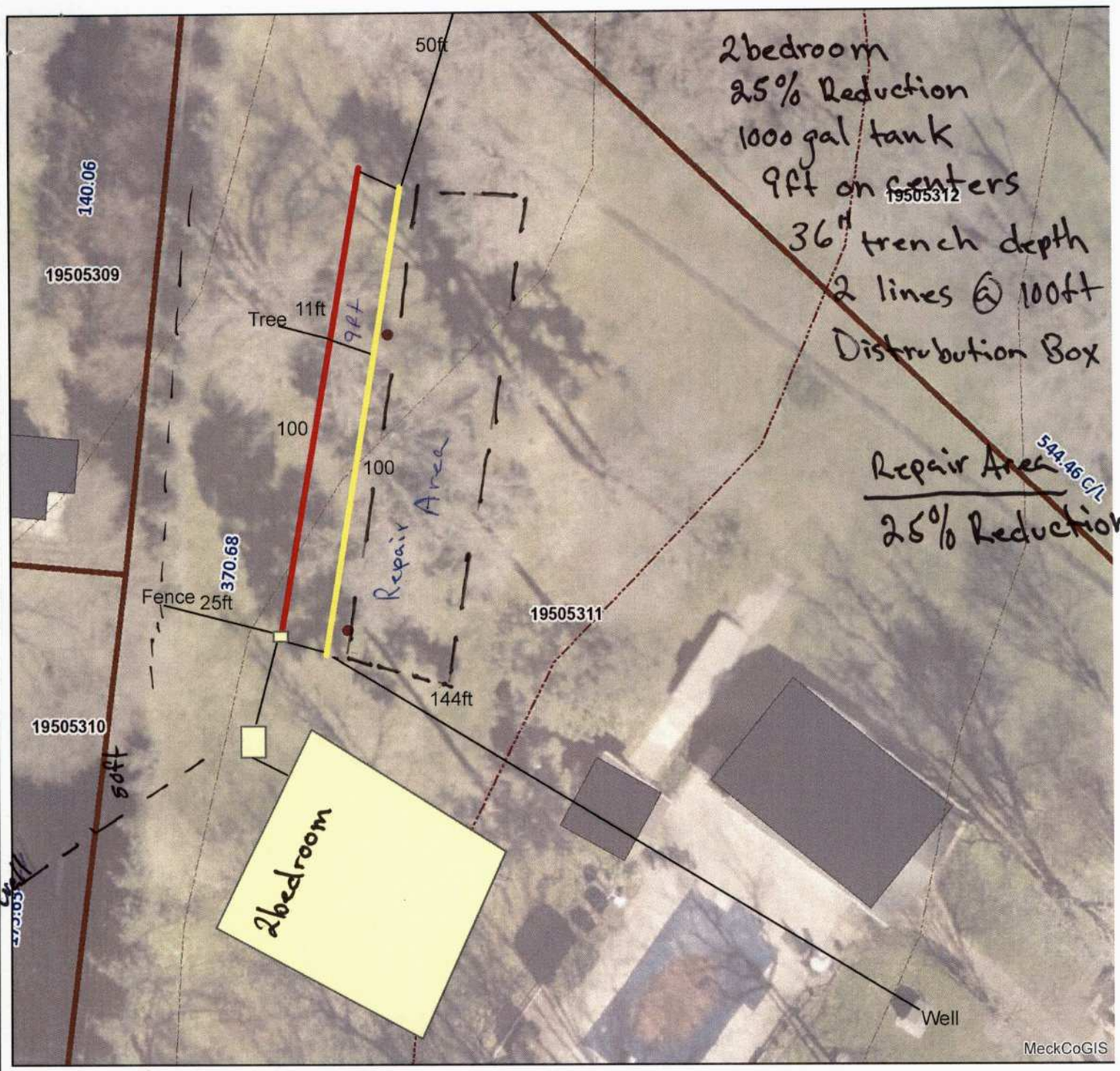
Signature: Bryan Davenport

Date Issued: 11/29/2021

Owner/Legal Agent: _____
Print Name

Signature: _____

On-site Wastewater Improvement Permit Diagram



Mecklenburg County Health Department
Environmental Health - Groundwater and Wastewater Services

Permit #:
PID #: 195-053-11
File #: 7657B

Authorized Agent: Bryan Davenport Date: 11/18/21

Owner/ Legal Agent: _____ Date: _____

1 inch = 30 fee

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

Septic System Pre-Construction Meeting Checklist

File # 7657B App # 12678 Tax Parcel # 195-053-11

Property Owner: _____

Job Location Address: 2501 Bain School Rd

City: Charlotte State: NC Zip Code: 28227

1. **Does System design match facility, flow & wastewater characteristics?**

   ☑ YES ☐ NO

   Comments: _____

2. **Is there sufficient available space for the septic systems initial and repair areas?**

   ☑ YES ☐ NO

   Comments: _____

   _____

3. **Can the septic system be installed per the permit conditions and drawing on file?**

   ☑ YES ☐ NO

   Comments: _____

   _____

*** If "NO" is checked for any of the above the existing permit may need to be revoked.**

Permission is hereby given to ☑ install ☐ alter ☐ repair an on-site wastewater treatment & and disposal system, with subsurface soil absorption and effluent discharge meeting all of the construction requirements of 15A NCAC 18A .1900 which are in effect on the date of granting this approval. System shall not be installed while soils are in wet condition.

Bryan Davenport
Authorized Agent

2/9/22
Date

Tim Ammons
Others Present

Mecklenburg County Groundwater & Wastewater Services
3205 Freedom Dr. Suite 8000, Charlotte, NC 28208
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

OPERATION PERMIT for an ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 7657B Permit #: 12678 Tax Parcel #: 195-053-11

Property Owner: Jack/Deborah Thomas

Job Location Address: 2501 Bain ~~School~~ ~~Rd~~ Farm Rd

City: Charlotte State: NC Zip Code: 28227

Operation Permit Issuance Date: 2/10/22 Contractor Name: Tim Ammons

Permitted Design Flow: 240 GPD Liquid Capacity of Dosing Tank: NA gallons

Liquid Capacity of Septic Tank: 1000 gallons Tank Manufacture infiltrator Effluent Pump Model: NA

infiltrator - 1000 gal tank plastic

Drainfield Installation ☐ N/A

Trench Depth: 36 inches

Trench Width: 3 feet

Line Spacing: 9 feet (O.C.)

Total line length: 204 feet

# of Lines: 2 @ 102 feet

Depth of Media: 12 inches (Type) CHM 36

Depth of Cover: 24 inches

Distribution Device: chamber to chamber

Inspection Dates

Tank(s) Inspected: 2/9/22

Excavation Inspected: 2/9/22

Pump & Controls Inspected: NA

Bed Installation *(For Repair Installations ONLY.)* ☑ N/A

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

Water Supply Source

☐ Municipal ☑ Private Well ☐ Community Well

☐ Other _____

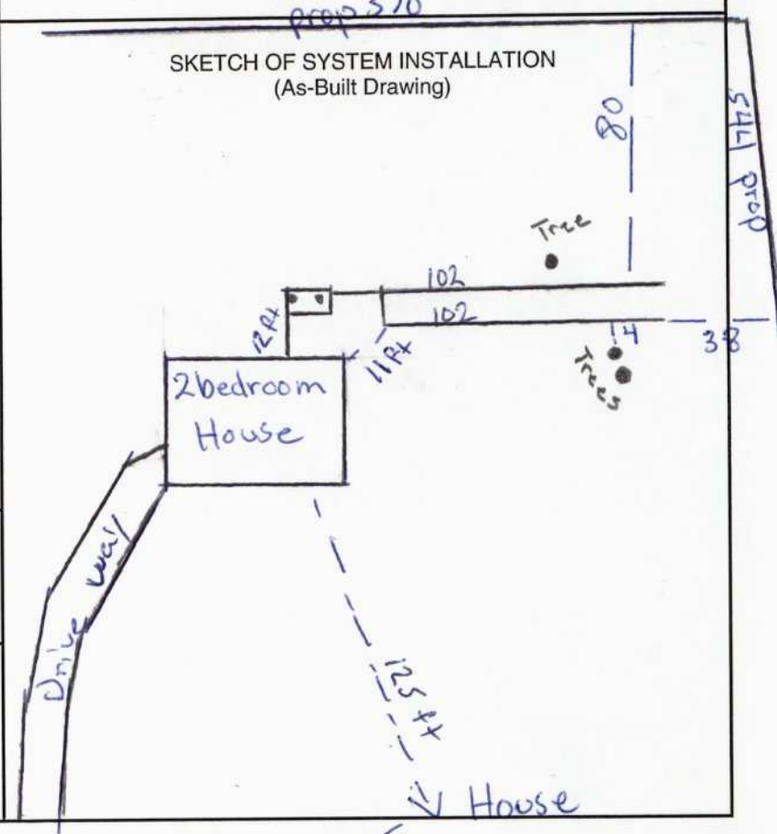
System Installation Setbacks

Distance from Building Foundation: 12 feet

Distance from Property Line: 38 feet

Distance from Water Supply Source: 144 feet

SKETCH OF SYSTEM INSTALLATION
(As-Built Drawing)



The undersigned has inspected the Septic Tank System described above, and certifies it has been ☑ installed ☐ altered ☐ repaired ☐ as detailed in the plot above ☑ in accordance with the permit issued and meets the provisions of 15A NCAC 18A. 1900, "Laws and Rules for Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. The issuance of this Operation Permit does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of 15A NCAC 18A. 1900 in addition to those listed below under "Comments." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

Notice: Disturbance of the designated repair area may result in the Suspension or Revocation of this permit.

Comments: System Classification & Type: III g / G / NA / NA CHM 36 Quick 4 2 bedroom House

DENR Authorized Agent: Bryan Davenport Signature: Bryan Davenport

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3205 Freedom Dr. Suite 8000, Charlotte, NC 28208
Phone: (980) 314-1680 Fax: (704) 336-6894

NC DHHS
Division of Environmental Health
On-Site Wastewater Section

OPERATION PERMIT for an
ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 76573 Permit #: 12678 Tax Parcel #: 195-053-11

Property Owner: _____

Job Location Address: 2501 Bain School Rd

City: Charlotte State: NC Zip Code: 28227

OPERATION PERMIT CONDITIONS:

I. Performance: System shall perform in accordance with 15A NCAC 18A .1961.

II. Monitoring: System shall be monitored as required by 15A NCAC 18A .1961.

III. Maintenance: Ground absorption sewage treatment and disposal systems shall be checked, and the contents of the septic tank removed, periodically from all compartments, to ensure proper operation of the system. The contents shall be pumped whenever the solids level is found to be more than 1/3 of the liquid depth in any compartment.

IV. Operation: System shall be operated in accordance with 15A NCAC 18A .1961.

System Classification: IIIG

*Operation Permits for Type V and VI systems expire five (5) years from the date of issuance (in accordance with Table V(a)). The system owner must contact GWS six (6) months prior to expiration for permit renewal.

Subsurface system operator required: Yes ☐ No ☑

☐ This type of system requires the system owner to maintain a contract with a certified operator to perform system inspection, maintenance, and reporting as required in 15A NCAC 18A .1961. and Table V(a). The system owner is responsible for all fees associated with these services.

☑ System does not require inspection by GWS on a routine frequency.

☐ System requires inspection by GWS once every five (5) years. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every three (3) years. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every twelve (12) months. The system owner is responsible for all fees associated with the inspection.

☐ System requires inspection by GWS once every six (6) months. The system owner is responsible for all fees associated with the inspection.

V. Other: 2 bedroom House

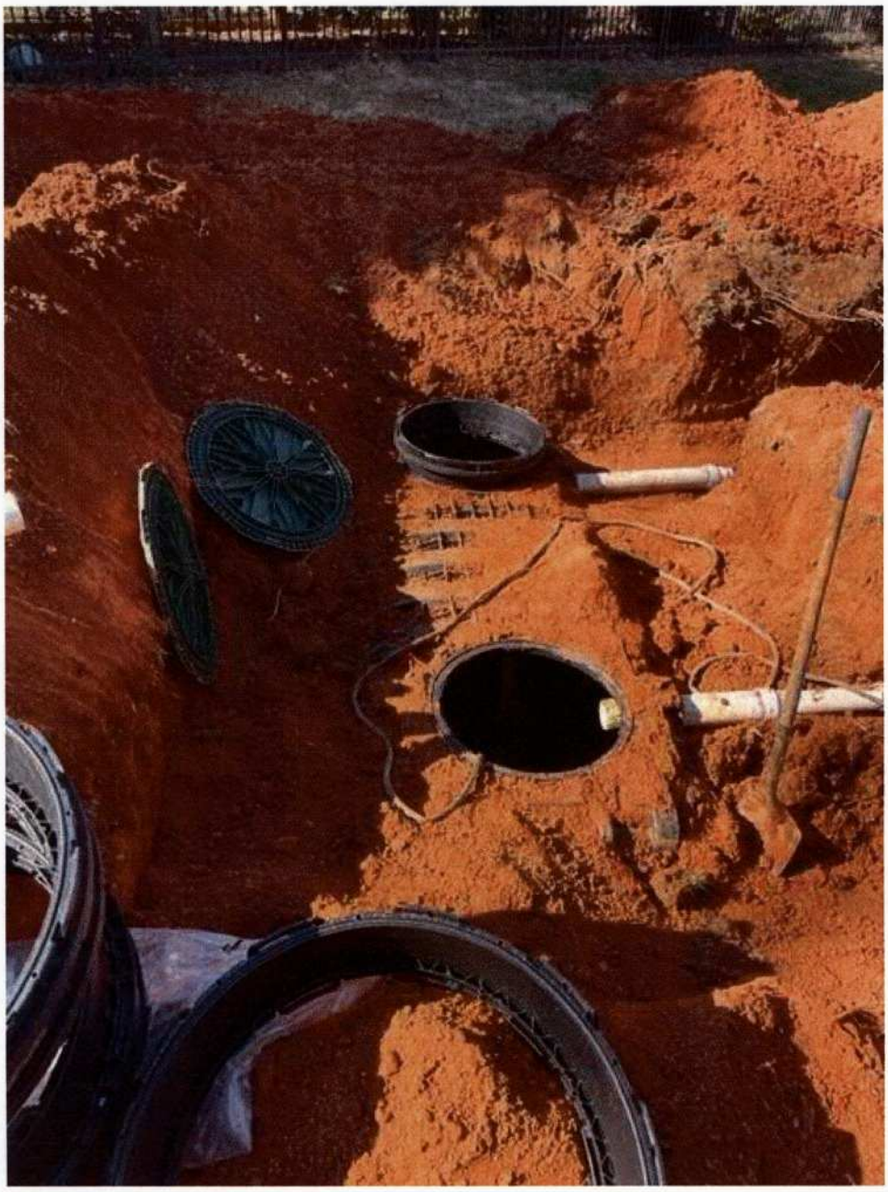
DENR Authorized Agent: Bryan Davenport Date: 2/10/22

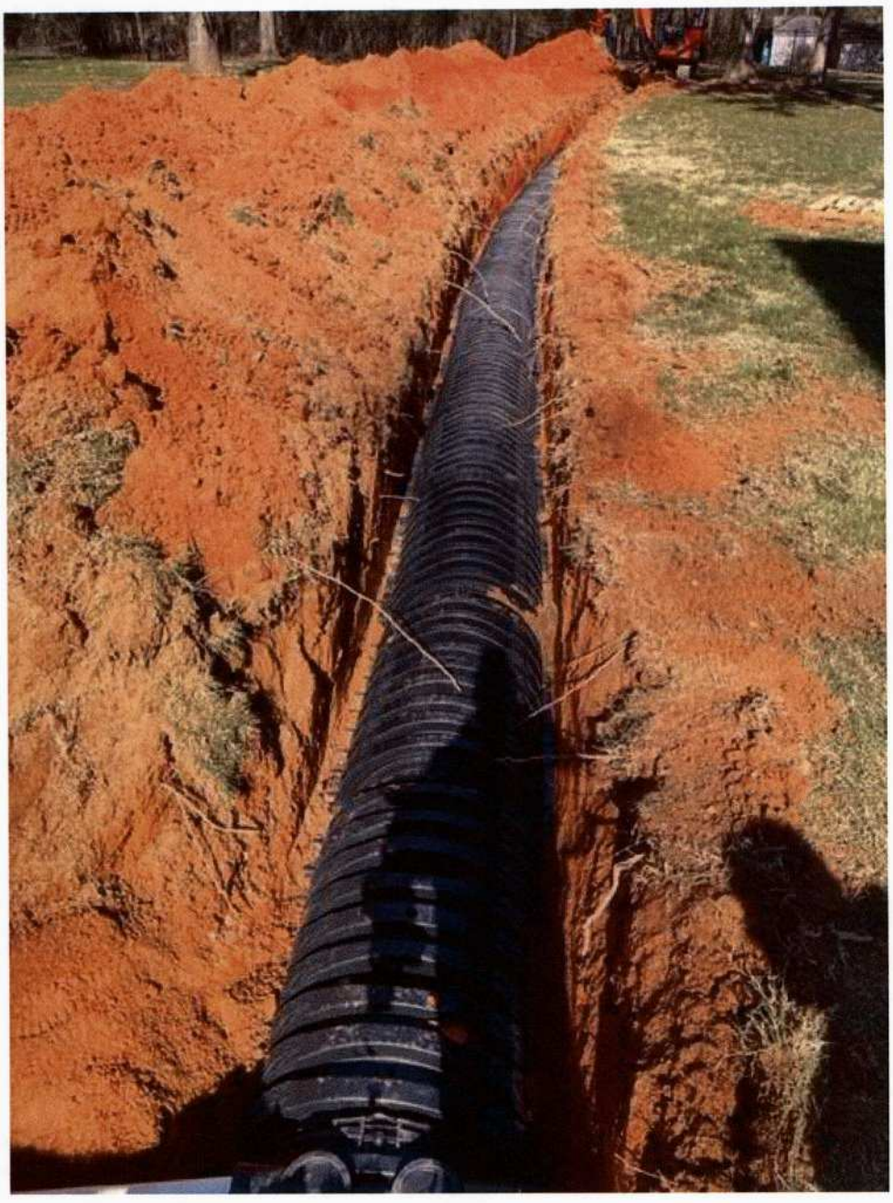
Signature: Bryan Davport

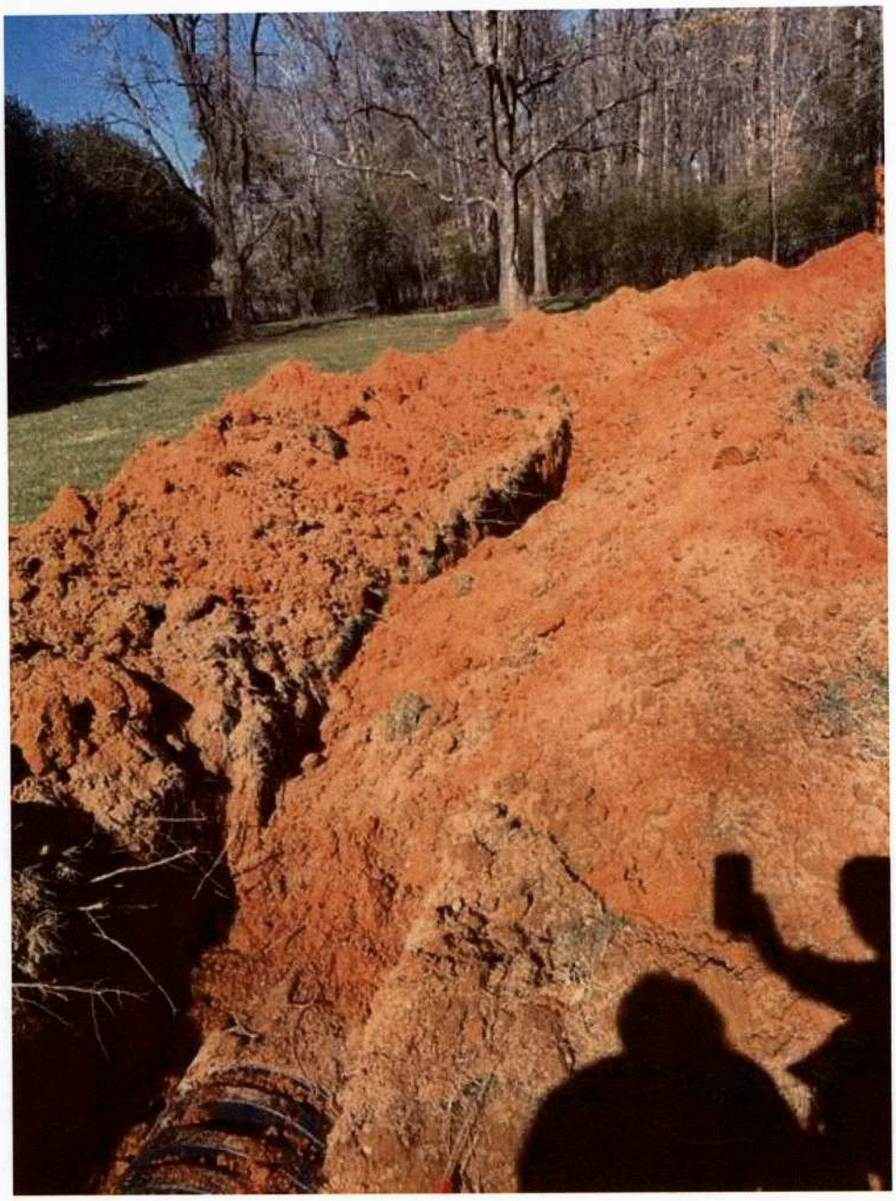
Davenport, Bryan C.

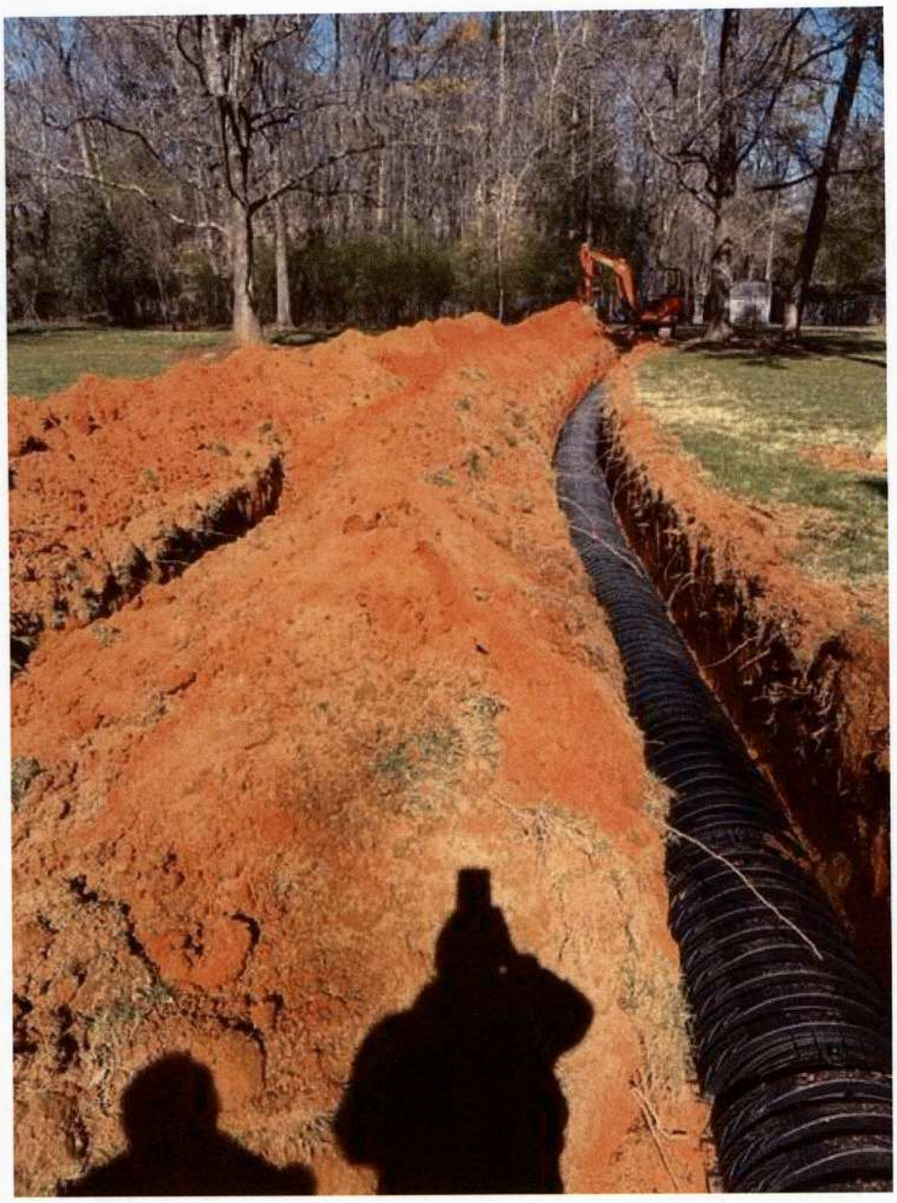
From: Bryan Dav <bdavenp8@outlook.com>
Sent: Thursday, February 10, 2022 12:48 PM
To: Davenport, Bryan C.
Subject: [External]

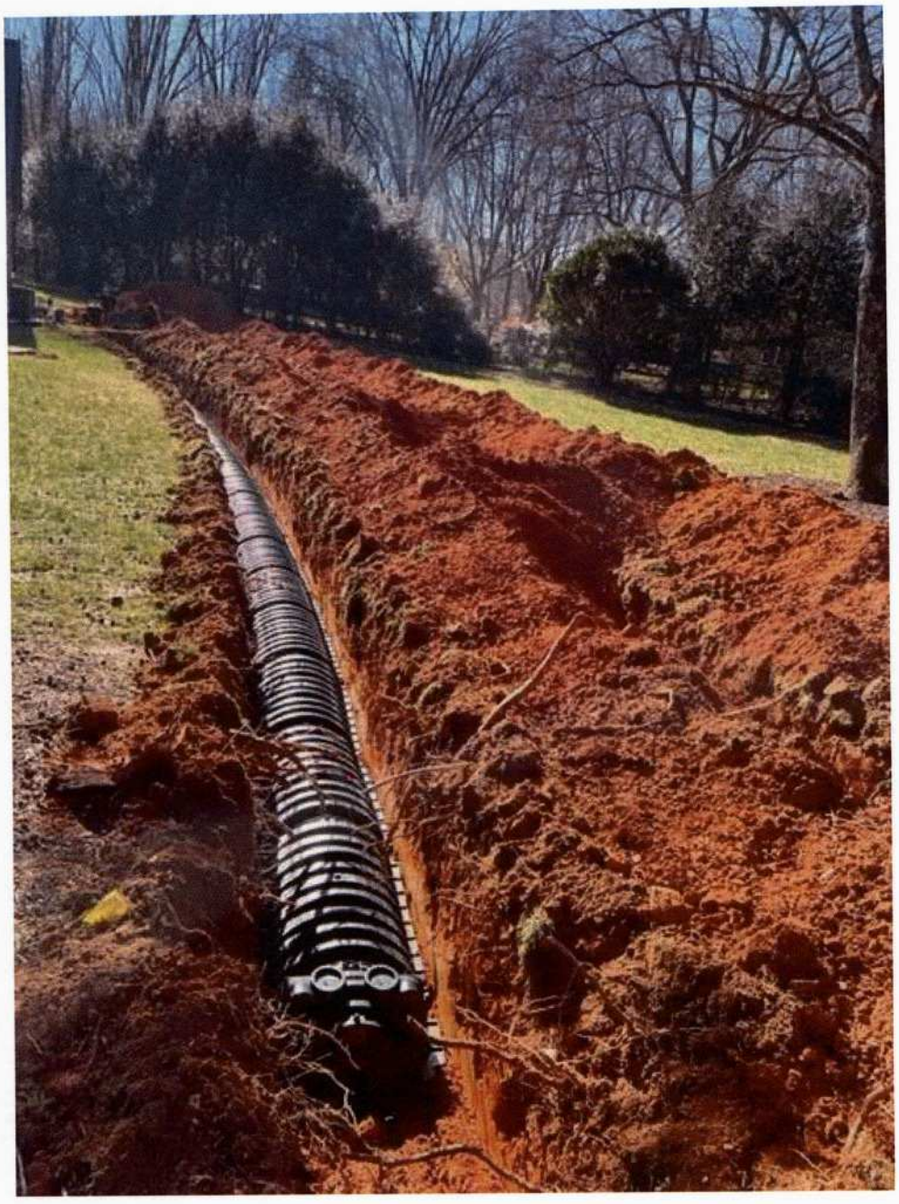
CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

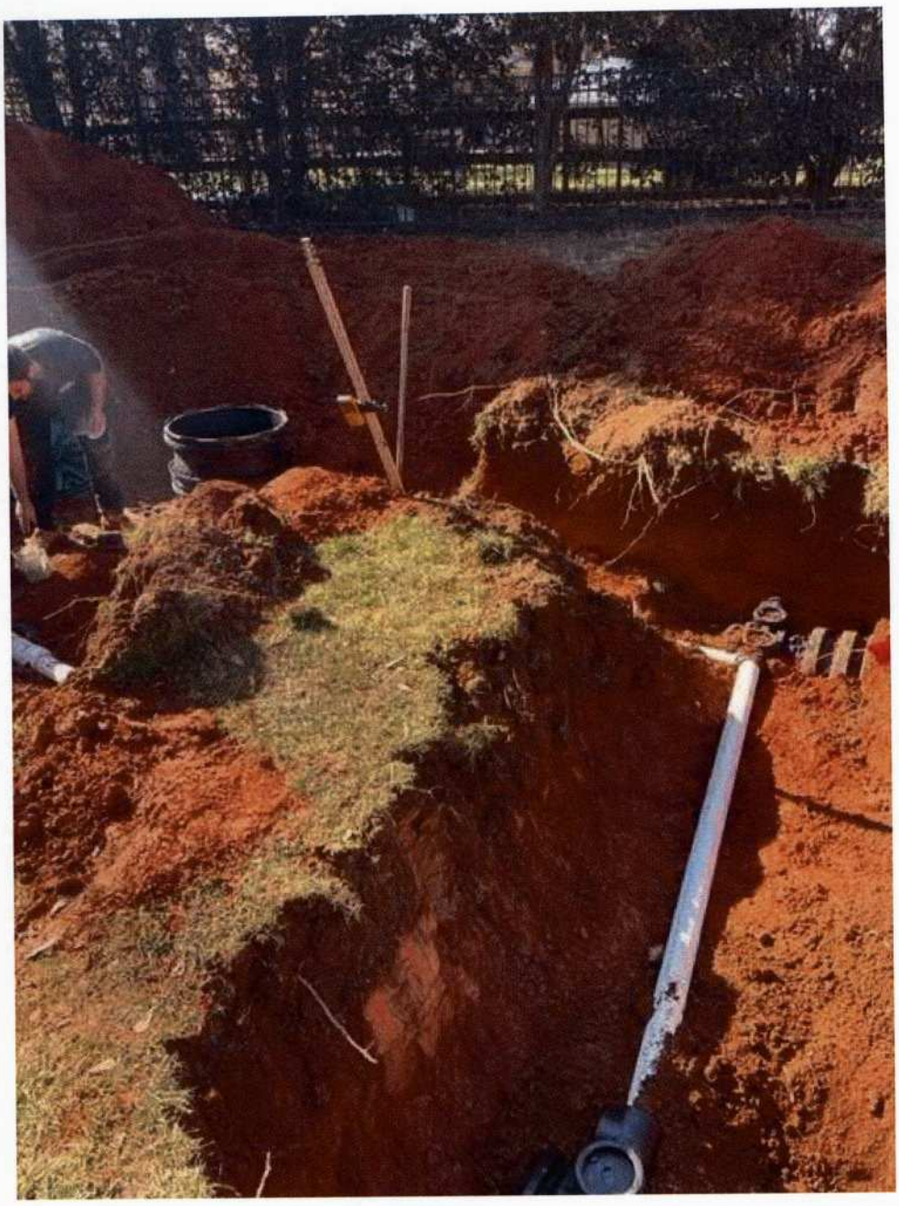


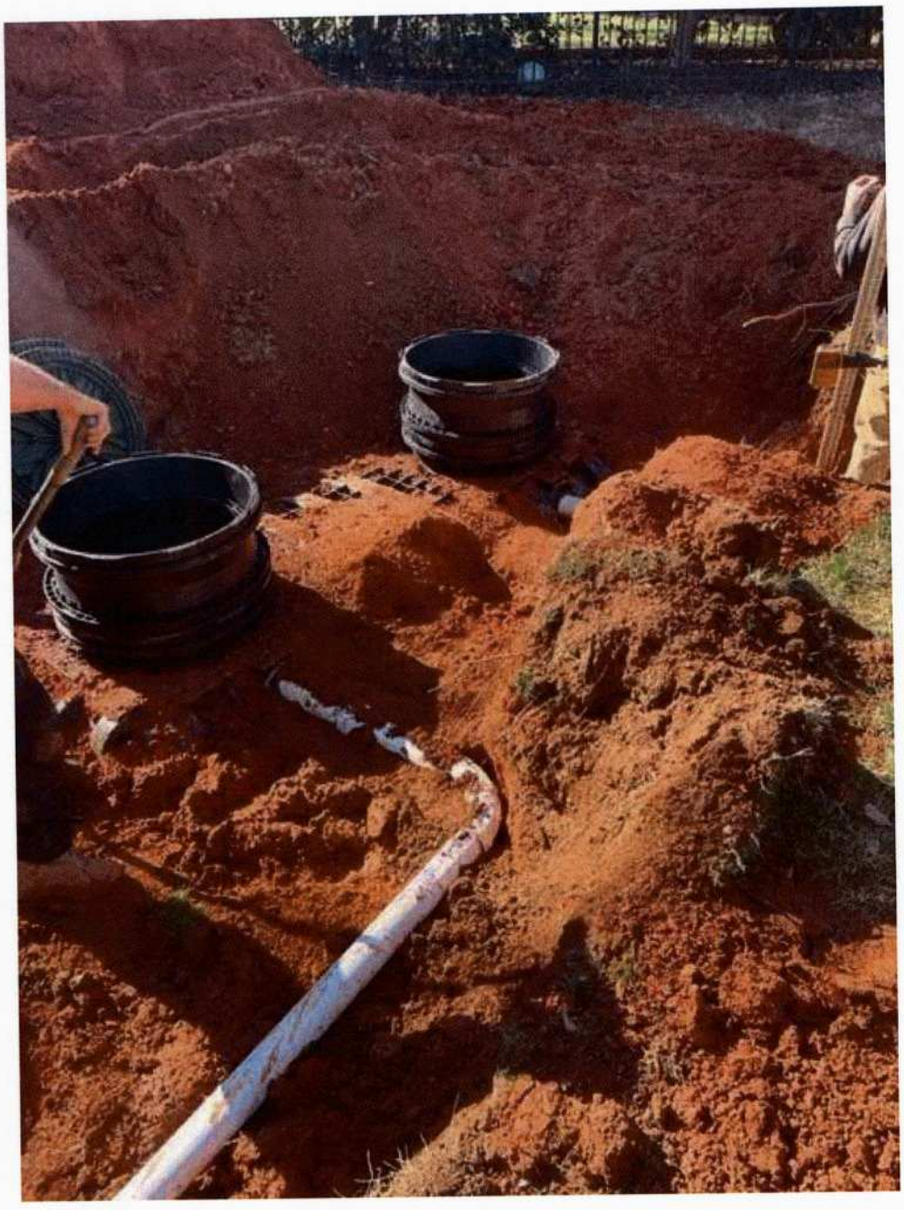












FEE: 200.00

DATE: 2/9/2022

CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

MECKLENBURG COUNTY

GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 7657B

PERMIT NUMBER: 30012678

PARCEL NUMBER: 19505311

JOB LOCATION INFORMATION

ADDRESS: 2501 BAIN FARM RD

CITY: CHARLOTTE **STATE: NC** **ZIP:** 28227

ISSUED TO: JACK & DEBBIE THOMAS

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 2/9/2022

CONSTRUCTION AUTHORIZATION CONDITIONS

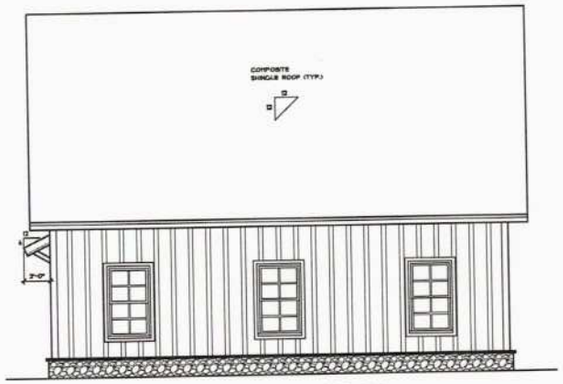
1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 30012678, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. A PRE-CONSTRUCTION MEETING MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A LICENSED SEPTIC TANK CONTRACTOR WITH THE NORTH CAROLINA ONSITE WASTEWATER CONTRACTOR INSPECTOR CERTIFICATION BOARD.

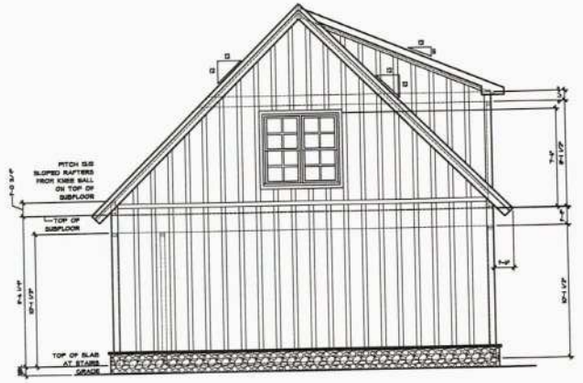
3. ANY ALTERATION IN SITE OR SOIL CONDITIONS (INCLUDING LOCATION OF STRUCTURES AND APPURTENANCES) OR MODIFICATION IN USE, DESIGN WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS AS SPECIFIED IN THE ASSOCIATED IMPROVEMENT PERMIT AND APPLICATION, MAY SUBJECT THIS CONSTRUCTION AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

4. THIS CONSTRUCTION AUTHORIZATION AS PROVIDED IN G.S. 130A-335(f) AND G.S. 130A-336(b) SHALL BE VALID FOR A PERIOD EQUAL TO THE VALIDITY OF THE IMPROVEMENT PERMIT, AND MAY BE ISSUED AT THE SAME TIME THE IMPROVEMENT PERMIT IS ISSUED.

Authorized Agent Signature Bryan Davenport



RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



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

APPROVED AS NOTED
01/22/2020

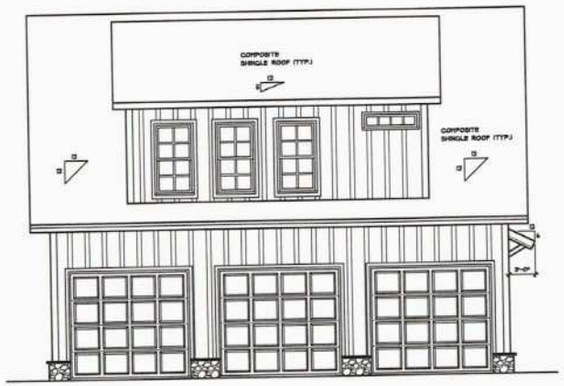
UNDER A LIMITED REVIEW FOR COMPLIANCE WITH THE 2018 NC RESIDENTIAL CODE. THIS APPROVAL SHALL NOT BE CONSTRUED TO PERMIT ANY VIOLATIONS OF LOCAL, STATE, OR FEDERAL LAWS.

PLANS REVIEWED BY:

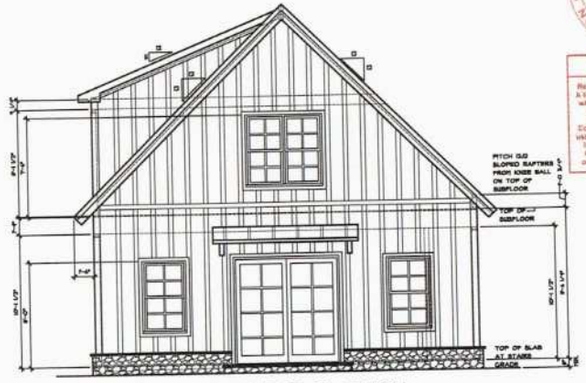
Dillon Atwell

Project# 405408

This plans has been reviewed and approved for nonhabitable space.



LEFT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



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

MECKLENBURG COUNTY
NORTH CAROLINA

MECKLENBURG COUNTY
CODE ENFORCEMENT

Residential Plan Review Disclaimer: A limited plan review for compliance with the NC State Residential Code was performed on these plans. It is the Responsibility Of The Contractor to construct this project using good engineering practice and in full compliance with the North Carolina Residential Code, local ordinances, and State regulations.

SEAL FOR STRUCTURAL ONLY

PROJECT:

Jack Thomas Garage
2501 Bain Farm Road
Mint Hill, NC 28227

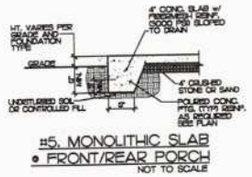
Southern dynamic
Engineering and Design, PLLC
P.O. BOX 87, Waxhaw, NC 28173
Ph: (704) 900-4599 Fax: (704) 749-9439
Email: Scott@SouthernDynamic.com
Website: SouthernDynamic.com

DRAWN BY: SCOTT BROCKS

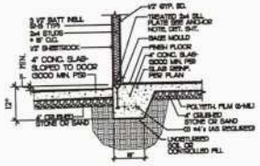
DATE: October 28, 2019

REVISIONS:

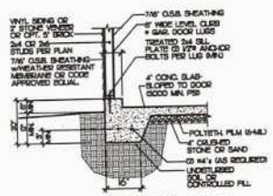
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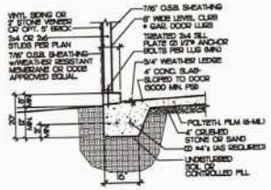
#5. MONOLITHIC SLAB
• FRONT/REAR PORCH
NOT TO SCALE



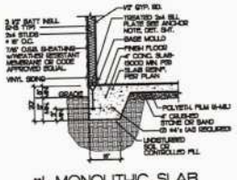
#4. MONOLITHIC SLAB
AT SLAB STEP DOWN
1 & 2 STORIES ONLY NOT TO SCALE



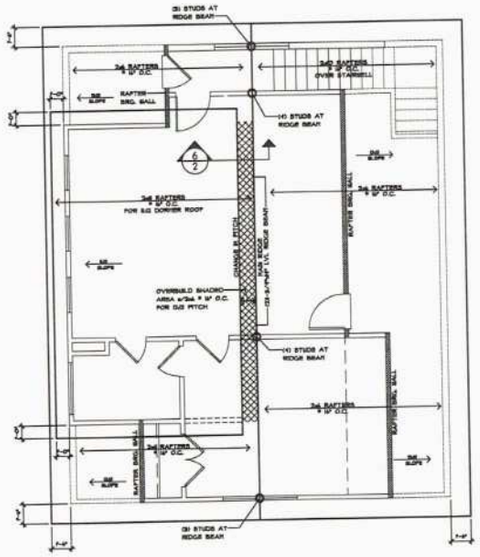
#3. MONOLITHIC SLAB
• 8" LEVEL CURB
1 & 2 STORIES ONLY NOT TO SCALE



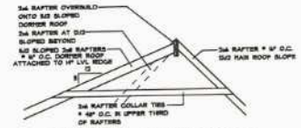
#2. MONOLITHIC SLAB
• GARAGE DOOR
1 & 2 STORIES ONLY NOT TO SCALE



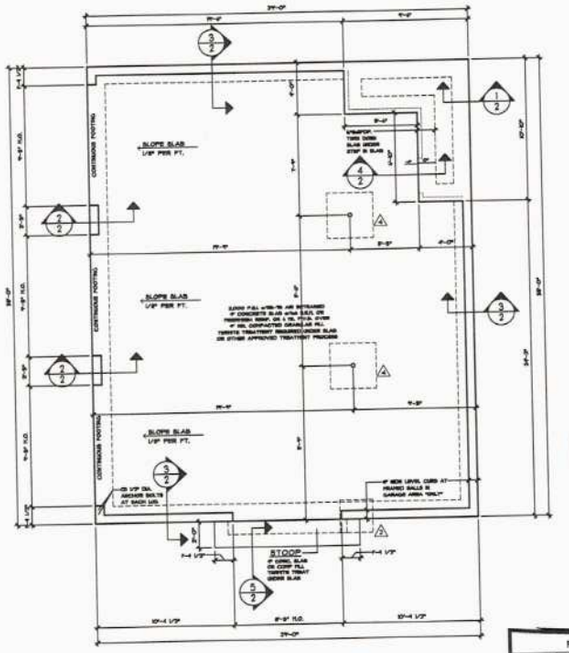
#1. MONOLITHIC SLAB
W/ SIDING EXTERIOR
1 & 2 STORIES ONLY NOT TO SCALE



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



#6. SECTION AT 5:12 SLOPE
DORMER ROOF AT 14" LVL RIDGE
NOT TO SCALE



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

FOOTING KEY	
1	24"x24"x8" CONC. FTG.
2	36"x36"x12" CONC. FTG. w/ #4 REBAR @ 8" O.C. E.W.
3	36"x36"x12" CONC. FTG. w/ #4 REBAR @ 8" O.C. E.W.
4	42"x42"x12" CONC. FTG. w/ #5 REBAR @ 8" O.C. E.W.
5	48"x48"x12" CONC. FTG. w/ #5 REBAR @ 8" O.C. E.W.

APPROVED AS NOTED
01/22/2020

UNDER A LIMITED REVIEW FOR COMPLIANCE WITH THE 2018 NC RESIDENTIAL CODE. THIS APPROVAL SHALL NOT BE CONSTRUED TO PERMIT ANY VIOLATIONS OF LOCAL, STATE, OR FEDERAL LAWS.

PLANS REVIEWED BY:

Dillon Atwell

MECKLENBURG COUNTY
CODE ENFORCEMENT

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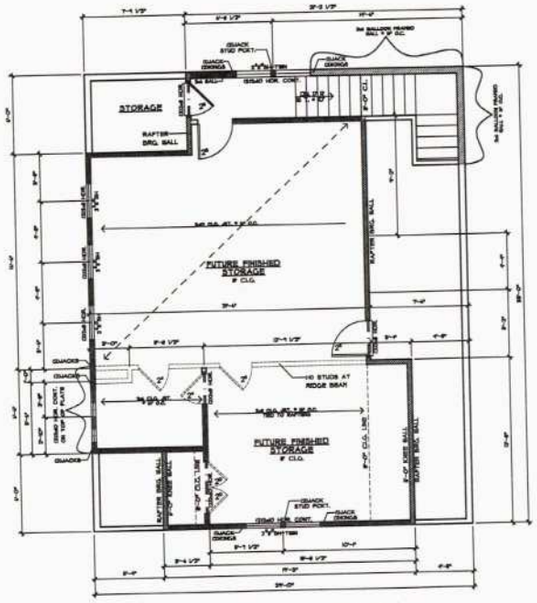
SEAL FOR STRUCTURAL ONLY

PROJECT:
Jack Thomas Garage
2501 Bain Farm Road
Mint Hill, NC 28227

Southern dynamic
Engineering and Design, PLLC
P.O. BOX 87, Waxhaw, NC 28173
Ph: (704) 900-4596 Fax: (704) 749-9439
Email: Scott@SouthernDynamic.com
Website: SouthernDynamic.com

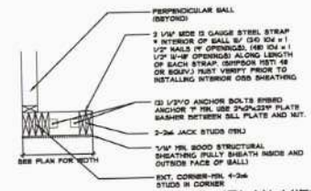
DRAWN BY: SCOTT BROOKS
DATE: October 28, 2019
REVISIONS:

SHEET
2



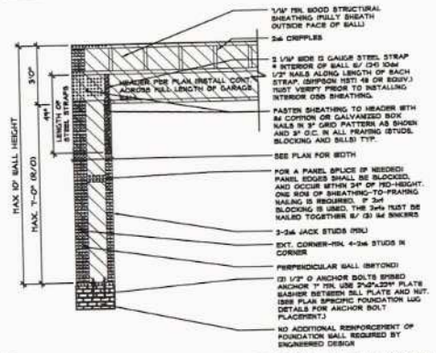
SECOND FLOOR PLAN

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



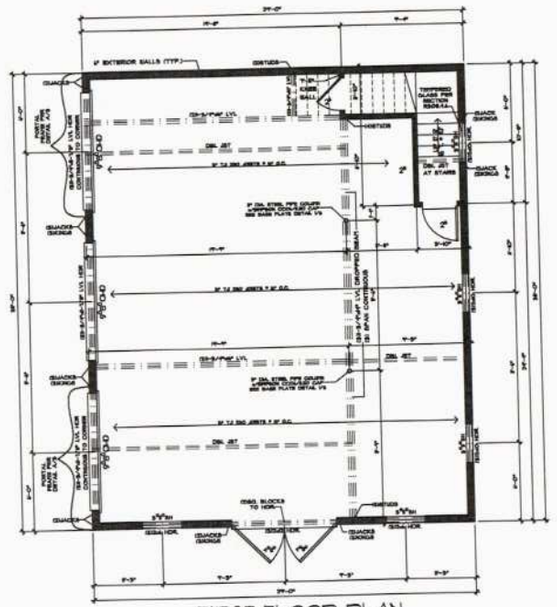
GARAGE PORTAL FRAME DETAIL (PLAN VIEW)

SCALE: 1" = 1'-0"



A GARAGE PORTAL FRAME DETAIL (ELEV. VIEW)

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



FIRST FLOOR PLAN

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

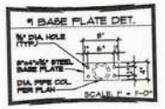
TYPICAL HANGERS FOR JOIST & BEAMS

MEMBERS	APPROX. HANGER	APPROX. HANGER
2x6	LUS26	LUS26
2x8	LUS28	LUS28
2x10	LUS210	LUS210
2-2x6	HUS26-2	HUS26-2
2-2x8	HUS26-2	HUS26-2
2-2x10	HUS210-2	HUS210-2
2-2x12	HUS212-2	HUS212-2
3-2x6	HUS26-3	HUS26-3
3-2x8	HUS26-3	HUS26-3
3-2x10	HUS210-3 TYP.	HUS210-3 TYP.
3-2x12	HUS212-3 TYP.	HUS212-3 TYP.
2-1¾"x9¼" LVL	HGUS5.46/9	THD14.46/9
2-1¾"x11⅞" LVL	HGUS5.46/12	THD14.46/12
2-1¾"x14" LVL	HGUS5.46/12	THD14.46/12
2-1¾"x16" LVL	HGUS5.46/12	THD14.46/12
2-1¾"x18" LVL	HGUS5.46/14	THD14.46/14
2-1¾"x20" LVL	HGUS5.46/14	THD14.46/14
2-1¾"x24" LVL	HGUS5.46/14	THD14.46/14
3-1¾"x9¼" LVL	HGUS5.56/9	THD14.56/9
3-1¾"x11⅞" LVL	HGUS5.56/12	THD14.56/12
3-1¾"x14" LVL	HGUS5.56/12	THD14.56/12
3-1¾"x16" LVL	HGUS5.56/14	THD14.56/14
3-1¾"x18" LVL	HGUS5.56/14	THD14.56/14
3-1¾"x20" LVL	HGUS5.56/14	THD14.56/14
3-1¾"x24" LVL	HGUS5.56/14	THD14.56/14
4-1¾"x9¼" LVL	HGUS5.25/10	THDH14.25/10
4-1¾"x11⅞" LVL	HGUS5.25/12	THDH14.25/12
4-1¾"x14" LVL	HGUS5.25/12	THDH14.25/12
4-1¾"x16" LVL	HGUS5.25/12	THDH14.25/12
4-1¾"x18" LVL	HGUS5.25/14	THDH14.25/14
4-1¾"x20" LVL	HGUS5.25/14	THDH14.25/14
4-1¾"x24" LVL	HGUS5.25/14	THDH14.25/14

NOTE: ALL HANGERS BY SIMPSON STRONG TIE CO., INC. (SKN2ND - 1404"R EQUIVALENTS ACCEPTABLE)

SHEATHING NOTES:

1. THE LATERAL BRACING REQUIREMENTS FOR THIS PLAN HAVE BEEN ACCOUNTED FOR UTILIZING AN ENGINEERED DESIGN AS PERMITTED IN SECTION R602.10.3 OF THE 2018 NCRC.
2. ALL PERIMETER WALLS ARE TO BE FULLY SHEATHED WITH A MINIMUM 7/16" OSB AND ATTACHED TO THE SILL PLATING STUDS WITH 8d (2½"x0.131") NAILS @ 4" O/C SPACING AT PANEL EDGES AND 12" O/C SPACING AT INTERMEDIATE SUPPORTS.
3. INSTALL BLOCKING ALONG OSB PANEL EDGES. FASTEN PANEL EDGES AT BLOCKING @ 3" O/C AND @ 6" O/C AT INTERMEDIATE FRAMING WHEN LESS THAN 24" BUT GREATER THAN 12" OR WALL IS SHEATHED.
4. SHEATH ALL GABLE END WALLS WITH 7/16" OSB.



MECKLENBURG COUNTY CODE ENFORCEMENT

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APPROVED AS NOTED
01/22/2020

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PLANS REVIEWED BY:

Dillon Atwell

SEAL FOR STRUCTURAL ONLY

PROJECT:

Jack Thomas Garage
2501 Bain Farm Road
Mint Hill, NC 28227

Southern dynamic
Engineering and Design, PLLC
P.O. BOX 87, Waxhaw, NC 28173
Ph: (704) 900-4596 Fax: (704) 749-9439
Email: Scott@SouthernDynamic.com
Website: SouthernDynamic.com

DRAWN BY: SCOTT BROOKS

DATE: October 28, 2019

REVISIONS:

SHEET
3

RESIDENTIAL STANDARD NOTES

REVISED 10/22/18

DESIGN LOADS:

1. DESIGN LOADS ARE ALL DEAD LOADS PLUS
   A. YEAR FLOOR LIVE LOADS (KITCHEN LEVEL)..... 40 PSF
   B. ALL OTHER FLOOR LIVE LOADS..... 40 PSF
   C. BALCONIES..... 40 PSF
   D. DECKS..... 40 PSF
   E. SHINGLED GARAGES..... 50 PSF
      OR 3000 POUND POINT LOAD AT ANY LOCATION
   F. ATTIC FLOOR LIVE LOADING WITH THE FOLLOWING
      a) HABITABLE ATTICS & ATTICS W/ FIXED STAIRS..... 30 PSF
      b) UNINHABITABLE ATTICS W/ LIMITED STORAGE..... 20 PSF
      c) UNINHABITABLE ATTICS W/O STORAGE..... 10 PSF
   G. ROOF LIVE LOAD..... 30 PSF
   H. WIND LOAD..... 90 PSF
   I. SNOW LOAD..... 30 PSF
2. BEARING FOR FOOTINGS ON ORIGINAL SOLID GROUND IS ASSUMED TO BE 3000 PSF UNLESS NOTED OTHERWISE.
3. ALL DESIGNS ARE IN ACCORDANCE WITH THE 2018 NORTH CAROLINA RESIDENTIAL CODE.
4. ENGINEERING DESIGN IS FOR STRUCTURAL INFORMATION ONLY. THE ENGINEER OF RECORD DOES NOT ACCEPT RESPONSIBILITY FOR DIMENSION ERRORS, ARCHITECTURAL ERRORS, DETAILING, OR ANY PART OF THE PLAN NOT RELEVANT TO THE STRUCTURAL INFORMATION.

LUMBER GENERAL NOTES:

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

MATERIAL	Fb(psi)	Fv(psi)	Fc(perp)(psi)	E(psi)
NO SPRUCE PINE PIR	875	135	565	1,500,000
SOUTHERN YELLOW PINE	1000	175	565	1,600,000

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

APPLICATION	Fb(psi)	Fv(psi)(Parallel)	Fc(perp)(Psi)	E(psi)
GIRDERS & BEAMS (LVL, PSL)	2600	285	750	2,000,000
COLUMNS (LSL) = BEECHWOOD	1700	550	750	1,300,000

3. ALL GLUE LAMINATED TIMBER (GLU-LAM) IS TO MEET THE FOLLOWING MINIMUM SPECIFICATIONS.

APPLICATION	Fb(psi)	Fv(psi)(Parallel)	Fc(perp)(Psi)	E(psi)
GIRDERS & BEAMS (LVL, PSL)	2400	240	650	1,800,000

4. GIRDER TRUSS (S) 36" OR DEEPER AND ALL FOUR (4) PLY 1½" BEAMS ARE SIDE LOADED LIGHTS FRAME INTO THE SIDE AT THE OUTSIDE PLIES. FASTEN PLIES TOGETHER WITH TWO (2) ROWS OF 1/2" DIAMETER BOLTS @ 24" O.C. THE BOLTS SHALL BE LOCATED A MINIMUM OF 3-1/2" AND A MAXIMUM OF 5-1/2" FROM THE TOP OR BOTTOM OF THE BEAM.
5. BUILT-UP WOOD COLUMNS CONSISTING OF MULTIPLE STUDS SHALL HAVE EACH LAMINATION NAILED WITH 8d NAILS @ 8" O.C.

RESIDENTIAL FOUNDATIONS:

1. ALL CONTINUOUS BALL FOOTINGS ARE 8" WIDE x 8" DP FOR TWO (2) STORY HOUSES AND FOOTINGS FOR THREE (3) STORY BALLS SHALL BE 24" WIDE x 12" DP UNLESS OTHERWISE NOTED. RESPONDING IS TO BE AS NOTED ON PLANS. FOOTINGS ON ORIGINAL SOIL DO NOT NEED REMOLDING. REMAR IS RECOMMENDED ON ANY COMPACTED FILL REGARDLESS OF COMPACTION.
2. ALL INTERIOR PIERS ARE 8" x 8" CMU UP TO A MAXIMUM HEIGHT OF 32". ALL PIERS OVER 32" HIGH MUST BE FILLED WITH TYPE S MORTAR. MAXIMUM HEIGHT FOR 8" x 8" FILLED PIER IS 8'-0". PIERS LARGER THAN 8" x 8" ARE NOTED ON PLANS AND MUST BE FILLED WITH TYPE S MORTAR. THE CAP IS TO BE 8" OF SOLID MASONRY.
3. FOOTINGS FOR 8" x 8" PIERS ARE 2'-0" x 2'-0" x 8" UNLESS NOTED OTHERWISE. REINFORCING TO BE AS NOTED ON PLANS.
4. CONCRETE SHALL BE 2500 PSI IN 28 DAYS UNLESS NOTED OTHERWISE. NO CONCRETE SHALL BE POURED IN TEMPERATURES BELOW 40 DEGREES FAHRENHEIT UNLESS HEAT TO BE PROVIDED DURING THE CURING FOR TWO DAYS. THE BOTTOM OF ALL FOOTINGS MUST BE A MINIMUM OF 8" BELOW GRADE.
5. BASPLE SLABS SHALL BE A MINIMUM OF 3½" GALVANIZED REINFORCING UNLESS NOTED OTHERWISE.
6. BASPLE SLABS ARE SELF-SUPPORTING SLABS REINFORCED ACCORDING TO DETAILS AND DO NOT REQUIRE THEM BOIL FOR SUPPORT. SOIL MUST ONLY BE COMPACTED BEFORE PLACING CONCRETE UNTIL IT HARDENS AND DEVELOPS STRENGTH.
7. CAISSON FOUNDATIONS SHALL BE A MINIMUM OF 30" DIAMETER DRILLED UNREINFORCED CONCRETE CAISSONS. CAISSONS SHALL EXTEND TO A MINIMUM DEPTH PROVIDING 2'-0" PENETRATION INTO GOOD ORIGINAL CAISSONS SHALL EXTEND TO A MINIMUM DEPTH PROVIDING 2'-0" PENETRATION INTO GOOD ORIGINAL GROUND AND CAPABLE OF SUPPORT (S) TONS SUPPORT CAPACITY BASED ON THE SOILS AND FOOTPRINT OF THE CAISSON SIZE USED. DEPTH OF DRILLING IS LISTED TO BE APPROXIMATE. CAISSONS CANNOT BE USED IF GREATER THAN 8'-0" OF DEPTH IS SUITABLE FOR A CAISSON FOUNDATION. CAISSONS CANNOT BE USED IF WATER RISES TYPICALLY INTO A DRILLED HOLE. PILES BELL HAVE TO BE USED IN SUCH CASES.
8. 8" TIMBER DIAMETER TREATED WOOD PILES WITH A MINIMUM DESIGN LOAD OF EIGHT (8) TONS ARE USED FOR ALL FOUNDATIONS WITH UNSUITABLE SOIL DEEPER THAN 20'-0" OR THE WATER IN DRILLED CAISSON HOLES. DRIVE PER NORTH CAROLINA OR SOUTH CAROLINA CODE.
9. SOIL AND REINFORCING FOR FOOTING CAPS OVER CAISSONS OR PILES SHALL BE AS SHOWN ON PLANS.
10. CHIMNEY FOOTINGS HAVE A MINIMUM DP OF PROJECTION LARGER THAN FOOTPRINT BY 12" THICK.
11. FOUNDATION BALL BACKFILLED WITH DIRT EACH SUPPORTS STRUCTURE. TRENCHING SHALL BE CONSTRUCTED AS FOLLOWS:
   A. FOR EARTH FILL UP TO 4'-0" MAXIMUM HEIGHT. USE 8" CMU OR 8" BRICK WITH INTUTHENE OR EQUAL WATERPROOFING ON EXTERIOR. FOOTING TO BE 8" x 24" OR AS NOTED ON PLAN.
   B. FOR EARTH FILL 4'-0" TO A MAXIMUM OF 8'-0". USE 8" x 30" MINIMUM FOOTING WITH 24" x 8" DOWELS HOOKED IN FOOTING AND PROJECTING 24" ABOVE FOOTING. USE 12" CMU BALLS WITH #4 BARS @ 48" CENTERS. VERTICAL BARS ARE TO BE LOCATED 8" FROM NON-DIRT FILL FACE. LAP SPLICES 24" AND USE DURABRIK HORIZONTAL REINFORCEMENT @ 16 CMU JOINTS. INSTALL ONE (1) #3 L-BAR WITH 24" LEGS IN EVERY OTHER JOINT HORIZONTALLY AT ALL CORNERS, LIL #3 BARS CORNER (L-BAR) 8" O.C. VERTICALLY. FILL ALL CMU CELLS OF CMU WITH 3000 PSI 3/4 GRAVEL. CONCRETE FILL. INSTALL WATERPROOF SYNTHETIC MEMBRANE OR EQUAL.
   C. IN LIEU OF THE PRECEDING DESIGN, BASEMENT BALLS MAY BE CONSTRUCTED IN ACCORDANCE WITH WHICH OF THE CODE. HOWEVER, 24" x 24", #5 CORNER BARS SHALL BE INSTALLED 4" 8" O.C. VERTICALLY REGARDLESS OF THE BALL HEIGHT. DIRECT ALL FRAMING BEFORE BACKFILLING.
12. WHERE FULL-HEIGHT MASONRY FOUNDATION OR BASEMENT BALLS RUN PARALLEL TO FLOOR FRAMING, BLOCKING MUST BE PROVIDED BETWEEN JOIST 9 8'-0" O.C. FOR NOT LESS THAN 8DK (4) JOIST SPACES OUT FROM BALL.
13. FOR RETAINING BALLS WITHOUT READING SEE SPECIAL DESIGNS ON DRAWINGS.
14. ALL GARAGE DOOR SIDE PANELS (LIGID) LESS THAN THE MINIMUM ALLOWED BY CURRENT CODE STANDARDS SHALL BE CONSTRUCTED PER DETAIL ON PLANS.
15. INTERIOR THICKENED SLAB FOOTINGS WHICH OCCUR IN BASEMENTS TO BE 30" WIDE X 10" DP AND "SLAB ON GRADE" FOOTINGS ARE 16" WIDE x 10" DP UNLESS NOTED OTHERWISE. THICKENED SLAB FOOTINGS ARE REQUIRED UNDER ALL BEARING BALLS.
16. BASPLE FOUNDATIONS ARE DESIGNED FOR AN ASSUMED SOIL BEARING CAPACITY OF 3000 PSF. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF RECORD IF ANY SOILS ARE FOUND TO BE UNSUITABLE FOR THIS BEARING CAPACITY. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE ENGINEER OF RECORD IF THE BEARING CAPACITY OF THE SOIL RESTS OR EXCEEDS THIS VALUE. ALL FILL IS TO BE COMPACTED TO 95% DENSITY AS MEASURED BY THE STANDARD PROCTOR TEST (ASTM D697).
17. ALL SOILS AND FILL UNDER FLOORS AND/OR WITHIN OR UNDER BUILDINGS SHALL HAVE PRECONSTRUCTION SOIL TREATMENT FOR PROTECTION AGAINST TERMITES. CERTIFICATION OF COMPLIANCE SHALL BE ISSUED TO THE BUILDING DEPARTMENT BY A LICENSED PEST CONTROL COMPANY.
18. ALL FOOTING EXCAVATIONS SHALL BE NEAT, STRAIGHT, AND LEVEL IN THE PROPER ELEVATIONS TO RECEIVE THE CONCRETE. EXCESSIVE VARIATIONS IN THE DIMENSIONS OF FOOTINGS OR SLABS WILL NOT BE PERMITTED. REINFORCING STEEL AND TRENCH SHALL BE ACCURATELY PLACED AND SUPPORTED TO MAINTAIN THEIR POSITION DURING CONCRETE POURING. EDGE FORMS SHALL BE USED FOR CONCRETE THAT WILL BE EXPOSED.
19. ALL SLAB PENETRATIONS ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR. PENETRATIONS INTERFERING WITH REINFORCING SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THE PLACEMENT OF CONCRETE.
20. ELEVATION DIFFERENCES BETWEEN THE BOTTOM OF ADJACENT FOOTINGS SHALL BE NO MORE THAN 1/3 THEIR HORIZONTAL DISTANCE LESS ONE FOOT. DIFFERENTIAL HEIGHTS BETWEEN FOOTINGS CAN BECOME EXCESSIVE WHERE A PIER FOOTING OR GARAGE FOOTING IS NEXT TO A BASEMENT BALL FOOTING.

MATERIALS SPECIFICATIONS:

CONCRETE GENERAL NOTES:

1. EXCEPT WHERE OTHERWISE NOTED, FOR ALL CONCRETE, THE PROPORTION OF CEMENT AGGREGATE, AND WATER TO ATTAIN REQUIRED PLASTICITY AND COMPRESSIVE STRENGTH SHALL BE IN ACCORDANCE WITH ACI 506 CODE. CONCRETE SHALL BE 3000 PSI IN 28 DAYS FOR FOOTINGS AND 5000 PSI FOR BALLS, BEAMS, AND COLUMNS, UNLESS NOTED OTHERWISE.
2. BEFORE PLACING CONCRETE, ALL DEBRIS, MATER AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE PLACES TO BE OCCUPIED BY THE CONCRETE. THE PLACING OF ALL CONCRETE SHALL BE IN ACCORDANCE WITH ACI 506 AND ASTM CN MANUFACTURE. CONCRETE SHALL BE RAPIDLY HANDLED FROM THE MIXER TO FORMS AND DEPOSITED AS NEARLY AS POSSIBLE TO ITS FINAL POSITION TO AVOID SEGREGATION DUE TO REHANDLING. CONCRETE SHALL BE COMPACTED BY HAND AND VIBRATED TO ASSURE CLOSE CONTACT WITH ALL SURFACES OF FORMS AND REINFORCING STEEL AND LEVELED OFF AT PROPER GRADE TO RECEIVE FINISH. ALL CONCRETE SHALL BE PLACED UPON CLEAN, DAMP SURFACES. VIBRATION SHALL BE APPLIED DIRECTLY TO THE CONCRETE AND SHALL BE SUFFICIENT TO CAUSE FLOW OF SETTLEMENT BUT NOT LONG ENOUGH TO CAUSE SEGREGATION OF THE MIX.
3. CONSTRUCTION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH ACI 501. ALL REINFORCING STEEL SHALL BE CONTINUOUS ACROSS JOINTS. IN SLABS ON GRADE, SAW CONTRACTION JOINTS SHALL NOT BE OVER 30'-0" CENTER TO CENTER EACH WAY. JOINTS SHALL BE SAW A DEPTH OF ONE-FOURTH OF THE SLAB THICKNESS. SAWING OF THE JOINTS SHALL COMMENCE AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT RAVELING WITHOUT EXCESSIVE RAVELING.
4. CONCRETE, WHEN DEPOSITED, SHALL HAVE A TEMPERATURE NOT BELOW 50° F. AND NOT ABOVE 90° F. THE METHODS AND RECOMMENDED PRACTICES AS DESCRIBED IN ACI 306 SHALL BE FOLLOWED FOR COLD WEATHER CONCRETING AND ACI 305 FOR HOT WEATHER CONCRETING.
5. REINFORCING STEEL BARS SHALL BE DEFORMED IN ACCORDANCE WITH ASTM A305 AND/OR A615 AND FORMED OF ASTM A49-"A GRADE 60 STEEL. WELDED WIRE FABRIC REINFORCING TO BE AS ASTM A185, WIRE ACCESSORIES SHALL CONFORM TO THE CRSI "MANUAL OF STANDARD PRACTICE". THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED OVER REINFORCING BARS.
   A. DEPOSITED TO EARTH 3"
   B. EXPOSED TO WEATHER 1-1/2"
   C. SLABS NOT EXPOSED TO WEATHER 3/4"
   D. BEAMS AND COLUMNS 1-1/2"

MASONRY GENERAL NOTES:

1. MASONRY BALLS ARE TO BE THE SIZES AND IN THE LOCATIONS SHOWN ON THE PLANS AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF ACI 530.
2. HOLLOW LOAD BEARING UNITS: ASTM CN MADE WITH LIGHTWEIGHT OR NORMAL WEIGHT AGGREGATES. GRADE N-I UNITS SHALL BE PROVIDED FOR EXTERIOR AND FOUNDATION BALLS. GRADE N-I OR S-I UNITS SHALL BE PROVIDED FOR OTHER LOAD BEARING BALLS OR PARTITIONS.
3. CONCRETE BUILDING BRICK: ASTM C55 GRADE WITH LIGHTWEIGHT OF NORMAL AGGREGATES, GRADE N-I OR S-I EXCEPT THAT BRICK EXPOSED TO WEATHER SHALL BE N-I.
4. MORTAR: ASTM C270-"M, TYPE S PREPACKAGED MORTAR TO BE MIXED IN MORE PARALLEL LONGITUDINAL BIRDS (LW'S" IN DIAMETER WITH WELD CONNECTED CROSS WIRE (LW55" IN DIAMETER AT A MINIMUM OF 9" O.C. JOINT REINFORCEMENT IS TO BE INSTALLED IN EVERY OTHER COURSE AND IN THE FIRST TWO (2) COURSES AT THE BOTTOM AND TOP OF BALL OPENINGS AND SHALL EXTEND NOT LESS THAN 24" PAST THE OPENING. SPLICES SHALL OVERLAP NOT LESS THAN 9".
5. EXPOSITION: MASONRY UNITS SHALL BE LAID IN A RUNNING BAND PATTERN UNLESS NOTED OTHERWISE. THE BALLS SHALL BE CARRIED UP LEVEL AND PLUMB WITH THE TOLERANCES SPECIFIED IN ACI 530/530-98. WHERE UNFAVORABLE CONDITIONS ARE ENCOUNTERED, BLOCK SHALL BE CUT WITH A MASONRY SAW TO FIT, NOT BY STRETCHING OR SHRINKING JOINTS. UNFINISHED WORK SHALL BE STEPPED BACK FOR BONDING. TOOTHING WILL NOT BE PERMITTED EXCEPT WHERE SPECIFICALLY APPROVED. DAMAGED UNITS ARE TO BE CUT OUT AND NEW UNITS SET IN PLACE.
6. THE FILLING OF MASONRY CORES WITH CONCRETE GROUT IN MASONRY BALLS ARE TO BE FILLED WITH ASTM C476-"A GROUT OR PEA GRAVEL 15K FOR MASONRY WITH MINIMUM COMPRESSIVE STRESS OF 3000 PSI (20.7 MPA).

FRAMING CONSTRUCTION - OTHER THAN ROOF:

1. CRAWL GIRDERS AND BAND BTH 4" CURTAIN BALL AND PIER CONSTRUCTION SHALL BE THREE (3) 3x6 #3 SPF GIRDERS AND TWO (2) 2x6 #3 SPF BAND UNLESS NOTED OTHERWISE. MAXIMUM CRAWL SPAN IS TO BE 8'-0" O.C. SPACING OF PIERS. ALL PIERS ARE 8" x 8" CMU FILLED SOLID WITH GROUT.
2. TO AVOID OBJECTIONABLE CRACKING IN FINISHED HARDWOOD FLOORS OVER ANY GIRDERS, USE THE FOLLOWING:
   A. NAILING
      a) ALL FLOOR JOIST SHALL BE TOENAILED TO THEIR SUPPORT GIRDERS WITH A MINIMUM OF THREE (3) 8d NAILS AT EACH END. LARGER NAILS WILL SPLIT AND SHALL NOT BE USED. MINIMUM NAIL PENETRATION IS TO BE 1½" THROUGH THE GIRDER OR BAND IS PENETTED.
      b) IF CROPPED GIRDERS ARE USED, END LAP ALL JOISTS AND SIDE NAIL EACH WITH A MINIMUM OF THREE (3) 8d NAILS AT EACH END OF EACH JOIST. LEDGER STRIPS SHALL BE NOT LESS THAN 1" THICK BY 3" WIDE AT ANY END.
      c) SPACED 9" APART.
      d) WALL RIM/FLUE-HYPHEN BUILT UP GIRDERS WITH TWO (2) ROWS OF 16d NAILS STAGGERED 9" O.C., 9" DOWN FROM THE TOP AND 3" UP FROM BOTTOM WITH THREE 3/4 NAILS AT EACH END OF PIECES IN THE JOIST THROUGH THE MEMBERS RAISING UP THE MULTI-PLY GIRDER.
      e) THE FLOOR JOISTS SHALL BE NAILED TO THE EXTERIOR FLOOR FRAME OF THE HOUSE TO OUTSIDE SO THAT WHEN THE FRAMING SHRINKS DURING THE DRYING OF THE HOUSE THE SUBFLOOR WILL BE UNIFORMLY DISTRIBUTED OVER THE ENTIRE FLOOR. IF THE GIRDER NAILING PATTERN IS OMITTED, THEN THE BANDED GIRDER SHALL ALTERNATE OVER GIRDERS AND AN UNEVEN SURFACE SHALL DEVELOP IN THE FINISHED HARDWOOD FLOOR OVER THE GIRDER LINE.
   B. AT ALL GIRDERS WHERE THE JOISTS CHANGE DIRECTION, INSTALL BRIDGING 9" o.c. FOR A MINIMUM OF 60" IN JOIST SPACES BEYOND ANY JOINT DIRECTION CHANGE. THIS WILL INSURE DISTRIBUTION OF LOADS FROM ONE FLOOR AND NOT LET IT ACCUMULATE AT THE GIRDER.
   C. HERE MUST BE WOOD BLOCKING THROUGH BOLTED TO THE STEEL BEAM AT ALL JOISTS PARALLEL OR PERPENDICULAR TO THE STEEL BEAM ON ALL UNCONFINED FLOORS THAT PASS OVER A STEEL BEAM SUPPORTING FLOOR JOISTS. THIS CONDITION OFTEN EXISTS OVER BASEMENT AREAS.
3. ALL OTHER GIRDERS MAY BE SPLICED OVER SUPPORTING CONCRETE UNITS IF HARDWARE AND DEVELOPS STRENGTH.
4. STEEL BANDS THAT HAVE TWO (2) 3x4 STUD JACKS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE. INCROLLED STEEL BEAMS THAT HAVE THREE (3) 3x4 STUD JACKS UNDER BAND END SUPPORT UNLESS NOTED OTHERWISE. ROOF TRUSS GIRDERS MUST HAVE THREE (3) 3x4 STUD JACKS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE. ALL STUDS SHALL BE NAILED TOGETHER WITH TWO (2) ROWS OF 10d NAILS AT 9" O.C. UNLESS NOTED OTHERWISE.
5. HANGING LEDGER STRIPS OF 2"x6" #2 SPF AND HOME, ANCHOR ANGLE TO HEADER WITH 1 ROWS OF 1/4"x3½" x 4" LONG LAG BOLTS AT 9" O.C.
   A. WHERE STRUCTURAL STEEL BEAMS WITH BOTTOM PLATES ARE USED TO SUPPORT MASONRY, THE BOTTOM PLATE MUST EXTEND THE FULL LENGTH OF STEEL BEAM. THIS PROVIDES SUPPORT TO THE ENDS OF THE PLATE BY BEARING ON THE ADJACENT MASONRY JAMBS. THE BEAM SHOULD BE SUFFICIENTLY SHORED PRIOR TO LAYING THE MASONRY. THE SHORES MAY BE REMOVED FIVE (5) DAYS AFTER LAYING THE MASONRY.
6. ALL BRICK VENEER UNDER GABLE ENDS AND CURVED GABLE MUST HAVE A 3"x3"x5/16" STEEL ANGLE LAG SCREWED TO ADJACENT STUD EACH WITH 3/16"x4½" STEEL SHOCK STOPS TO PREVENT SLIDING OF BRICK. ATTACH ANGLE TO STUDS WITH TWO (2) 1/4"x4" LAG SCREWS * 9" O.C. INTO DOUBLE 3x4 STUDS OR DOUBLE 3x6 BLOCKING BETWEEN STUDS w/3x4 JACK UNDER EACH END OF BLOCK. PLACE DOUBLE 2x6 RAFTERS UNDER THE ROOF SHEATHING AT THE TOP OF THE STUDS WITH 8d NAILS AT 6" SPACING. PLACE 2x6 STUDS WITH 8d NAILS AT 9" SPACING STAGGERED BETWEEN BOND ONE (I RAFTER TO THE NEXT TWO (2) STUDS SHALL BE NAILED TOGETHER WITH TWO (2) ROWS OF 10d NAILS AT 9" O.C. IF AN ENGINEERED TRUSS ROOF IS USED, PLACE MAXIMUM UNBRACED LENGTH OF DOUBLE STUDS IS 8'-0". IF AN ENGINEERED TRUSS ROOF IS USED, PLACE DOUBLE STUDS AT EACH END OF CURVED WITH A MAXIMUM DEFLECTION OF L/400. BRACE BRICK TIE DOUBLE STUDS WITH 1"x6" DIAGONAL CURVED WITH A MAXIMUM DEFLECTION OF L/400. BRACE BRICK TIE SPACING FOR 8" BRICK VENEER ON WOOD STRUCTURES. ALL VENEER INSTALLATION IS TO BE IN ACCORDANCE WITH GUIDELINES PREPARED BY THE BRICK INDUSTRY ASSOCIATION.
7. ALL RAFTER AND CEILING JOIST PLATES THROUGH ALL FLOORS TO FOUNDATION OR SUPPORTING BEAM BELOW. NO BRACES SHALL BE ATTACHED TO TOP BALL PLATE WITHOUT STUDS DIRECTLY UNDER.
8. PROVIDE DOUBLE JOISTS IN FLOOR UNDER PARALLEL PARTITIONS. ALTERNATIVE TO DOUBLE JOISTS IS TO INSTALL 3x6 LADDER BLOCKS 4'-0" O.C. BETWEEN ADJACENT JOISTS UNDER NON-LOAD BEARING PARTITIONS TO SUPPORT THE TONGUE AND GROOVE ENDS DECKING. THE LADDERS SHALL BE SUPPORTED WITH A SIMPSON "D" CLIP OR SIMILAR DEVICE.
9. ALL WOOD I-JOISTS AND OPEN JOISTS MUST BE BRACED IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS FOR DETAILS SHOWN ON PLANS. LOAD BEARING PARTITIONS, JACKS, BEAMS AND COLUMN SUPPORTS MUST BE SOLID BLOCKED THROUGH FLOOR TO A BEAM OR FOUNDATION BELOW. JOISTS, TRUSSES, PLYWOOD AND TAG (SIM) GUIDANCE MUST BE FOLLOWED FOR CONSTRUCTION AND POINT LOADS. ALL POINT LOADS MUST BE CARRIED TO FOUNDATION WITH BLOCKING AND/OR BEAMS. SHOTS, ALL BEAMS AND DOUBLE JOISTS, ETC., HAVE BEEN SHOWN FOR A LOAD BEARING PURPOSE. PLACEMENT OF THE LOAD CARRYING MEMBERS SHOWN IN THE PLANS IN LOCATIONS OTHER THAN UNDER THE STRUCTURAL ELEMENT THEY ARE INTENDED TO CARRY IS THE RESPONSIBILITY OF THE CONTRACTOR. EXACT MAN LOCATIONS ARE NOT TO BE SCALED FROM THE BEARING PLANS.
10. CONTINUOUS 2x6 BRIDGING SHALL BE NAILED TO DIAGONAL OR VERTICAL WEB MEMBERS OF ALL OPEN WEB FLOOR TRUSSES OVER 10'-0" LONG. THEY SHALL BE INSTALLED NEAR MID-SPAN AS A LOAD DISTRIBUTION MEMBER. IF THE BRIDGING IS NOT CONTINUOUS, LAP ENDS OF BRIDGING ONE (I TRUSS SPACE.
11. UNLESS NOTED OTHERWISE ON THE PLANS, ALL EXTERIOR FACING STUD WALLS TALLER THAN 10'-0" SHALL BE CONSTRUCTED AS FOLLOWS:
   A. BALLS 10'-0" TO 9'-0" HIGH. BALLOON FRAME 3x4 STUDS * 12" O.C. WITH 1/2" OSB SHEATHING AND THREE (3) 10d STUDS FOR EACH BAND AND CEILING JOIST. OPENING WALED SECURELY TO THE HEADER.
   B. BALLS 9'-0" TO 9'-0" HIGH. BALLOON FRAME 3x4 STUDS * 9" O.C. 1/2" OSB SHEATHING REQUIRED FOR BALL HEIGHTS). PROVIDE TWO (2) 3x6 KING STUDS FOR OPENINGS LESS THAN 6'-0" WIDE. PANTHI STUDS SECURELY TO ALL HEADERS WITH A MINIMUM OF TWELVE (12) 94 NAILS OR FOUR (4) 1/4" DIAMETER LAG SCREWS STAGGERED A MINIMUM OF 4" INTO THE HEADER.
   C. GABLE END BALLS OF ROOFS WITH VAULTED CEILING JOISTS. BALLOON FRAME BALL ACCORDING TO ABOVE SPECIFICATIONS AND PROVIDE KING STUDS ON EACH SIDE OF OPENINGS PER FINAL WALED ABOVE SPECIFICATIONS AND PROVIDE KING STUDS ON EACH SIDE OF OPENINGS PER FINAL WALED HEADERS.
   D. TWO (2) STORY HIGH FOYER BALLS LESS THAN 9'-0" WIDE. EXTEND 2-1/2" x 11-1/8" PSL TIMBERS WITH THREE 3/4 FLAT PLATES ACROSS THE ENTIRE OPENING. LOCATE THE BEAM NEAR MIDHEIGHT OF THE BALL AT OR NEAR FIRST FLOOR TOP PLATE.
12. NOTE: SEE SPECIAL DESIGN OR ENGINEER FOR BALLS TALLER THAN 9'-0", HEIGHTS OPENINGS IN HIGH BALLS EXCEED 6'-0" IN WIDTH, OR IF THE BALL CANNOT BE CONSTRUCTED USING ANY OF THE METHODS MENTIONED.
13. LOWER STUD BALLS FOR SUPPORTING TWO (2) FLOORS, ROOF AND CEILING:
   A. INTERIOR BALLS 00'-00" BALL HEIGHT, MAX.)
      a) LOAD BEARING..... 3x4 * 0" O.C. OR 3x6 * 9" O.C.
      b) NON-LOAD BEARING..... 3x4 * 9" O.C.
   B. EXTERIOR BALLS
      USE 3x4 * 9" O.C. OR 2x6 * 12" O.C. WITH 1/16" x 4' x 9' OSB SHEATHING ON EXTERIOR FACE OF ALL STUD BALLS.
      C. END LOAD REQUIREMENTS ARE PLAN SPECIFIC UNLESS NOTED OTHERWISE.
14. HEADERS IN LOAD BEARING BALLS SHALL BE AS SHOWN UNLESS NOTED OTHERWISE ON PLANS.
   A. INTERIOR
      a) SPANS UP TO 2'-0"..... (2) 2x8
      b) SPANS 2'-1" TO 3'-6"..... (2) 2x10
      c) SPANS 3'-7" TO 5'-0"..... (2) 2x12
      d) SPANS 5'-0" OR MORE..... SEE PLAN
   B. EXTERIOR
      a) SPANS UP TO 2'-0"..... (2) 2x8
      b) SPANS 2'-1" TO 3'-0"..... (2) 2x10
      c) SPANS 3'-0" TO 5'-0"..... (2) 2x12
      d) SPANS 5'-0" OR MORE..... SEE PLAN
15. WHEN CEILING JOISTS ARE PARALLEL TO AN EXTERIOR BALL AND RAFTERS BEAR ON THE EXTERIOR STUD BALL TOP PLATE, TIE THE RAFTERS NEAR THE TOP OF PLATE TO CEILING JOISTS WITH 3x4 BRACES 4'-0" O.C.
16. AT ALL BAY WINDOWS, BOTH FRAME SHALL BE NAILED TO EACH ADJACENT PANEL WITH FIVE (5) 8d NAILS OR TWO TOGETHER WITH METAL STRAPPING NAILED AT FOUR (4) LOCATIONS BETWEEN FLOORS WITH A MINIMUM OF TWO (2) 8d NAILS INTO EACH PANEL AT EACH STRAP.
16. AT ALL STAIRS, EVERY STUD AT EACH STRINGER MUST BE NAILED TO EACH STRINGER WITH A MINIMUM OF TWO (2) 8d NAILS. THIS WILL AVOID CRACKING BETWEEN BALLBOARD AND TOP OF BASE HOLDING DUE TO VERTICAL OSCILLATION OF STAIR STRINGERS. MINIMUM DEPTH OF STRINGERS NOT LESS THE 9-1/2" AT NOTCHES.
17. ROOF TRUSSES THAT HAVE NON-BRAKING PARTITIONS PARALLEL UNDER THEM SHOULD BE SHIMMED AND NAILED TO THE PARTITION PLATES TO AVOID CEILING-WALL CRACKING.
18. ROOF TRUSSES CLOSE TO SIDE WALL FRAMING AND USED AS CHASE MOOD FOR SHEETROCK BOARDS SHOULD BE NAILED TO THE WALL FRAMING TO PREVENT CEILING-WALL CRACKING.
19. GARAGE DOOR SIDE PANELS (LIGID) THAT EXTEND 4'-0" OR MORE IN FRONT OF THE FRONT HOUSE WALL AND ARE LESS THAN MINIMUM ALLOWED BY CURRENT CODE STANDARDS SHALL BE CONSTRUCTED PER DETAIL ON PLANS.
20. ALL STEEL COLUMNS SHALL BEAR ON CONCRETE, MASONRY, OR STEEL ONLY. BEAMS THAT BEAR ON TOP OF STEEL COLUMNS SHALL BE WELDED TO THE COLUMN. BEAMS THAT BEAR ON TOP OF CONCRETE OR MASONRY, UNLESS OTHERWISE NOTED, A 5/8" STEEL COLUMN BEAR ON CONCRETE OR MASONRY, UNLESS OTHERWISE NOTED, A 5/8" x 8"x8" BASE PLATE SHALL BE USED TO SPREAD THE COLUMN LOAD ACROSS THE BEARING SURFACE. BASE PLATES SHALL BE BOLTED WITH FOUR (4) 1/2" DIAMETER ANCHOR BOLTS OR EXPANSION BOLTS TO CONCRETE OR MASONRY.
21. ALL EXTERIOR BALLS TO BE BALL BRACED 1/2" OSB.
22. TILE SHALL BE INSTALLED ON A FLOOR STRUCTURE PREPARED IN ACCORDANCE WITH THE LATEST INFORMATION AVAILABLE BY THE TILE COUNCIL OF AMERICA. SPECIFIC DEFLECTION REQUIREMENTS APPLY. SOUTHERN DYNAMIC ENGINEERING + DESIGN, PLLC HAS ONLY BEEN THE STRUCTURE FOR NORMAL FLOOR LOAD DESIGN UNLESS SPECIFICALLY STATED.
23. SEE TABLE R602.6D OF THE CODE FOR A FASTENER SCHEDULE FOR STRUCTURAL MEMBERS.
24. WOOD BEAMS SHALL BE SUPPORTED BY METAL HANGERS OF ADEQUATE CAPACITY WHERE FRAMING INTO BEAMS OR LEDGERS. THE ALLOWABLE LOAD CAPACITY OF THE HANGER SHALL BE EQUAL TO OR GREATER THAN THE LOAD SPECIFIED ON THE PLAN. WHERE NO LOAD IS SPECIFIED, THE "LIGHTEST" AVAILABLE HANGER FOR THE APPLICATION IS ACCEPTABLE.
25. ALL STRUCTURAL FRAMING LUMBER EXPOSED DIRECTLY TO THE WEATHER OR BEARING DIRECTLY ON EXTERIOR MASONRY PIERS OR CONCRETE SHALL BE TREATED. ALL WOOD IN CONTACT WITH THE GROUND IS TO BE GROUND CONTACT APPROVED. ALL WOOD EXPOSED DIRECTLY TO THE WEATHER SHALL BE PROTECTED TO PREVENT THE OCCURRENCE OF ROT.
26. UNLESS OTHERWISE DETAILED, ALL STICK BUILT "FALSE CHIMNEYS" SHALL BE CONSTRUCTED WITH 3x4 STUDS * 12" O.C. BALLOON FRAMED FROM THE ATTIC CEILING OR FLOOR. FASTEN 1/4" O.S.B. PLYWOOD ON ALL EXTERIOR SIDES OF THE CHIMNEY ALONG THE FULL LENGTH OF THE STUDS. FASTEN BACH STUD TO THE SUPPORTING BEAM OR CEILING JOIST WITH A 16" x 16" x 1/4" GAUGE STEEL STRAP OR A SIMILAR CONNECTION.
27. GUARDS SHALL BE LOCATED ALONG OPEN SIDED WALKING SURFACES, INCLUDING FLOORED ATTIC AREAS PER R301 AND R312.3.
28. ALL STRUCTURAL MEMBERS ARE TO BE ATTACHED PER TABLE R602.3(1).

ROOF CONSTRUCTION:

1. ALL ROOF TRUSSES MUST BE BUILT IN ACCORDANCE WITH TRUSS MANUFACTURERS REQUI