

NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

ROY COOPER • Governor

KODY H. KINSLEY • Secretary

MARK BENTON • Chief Deputy Secretary for Health

SUSAN KANSAGRA • Assistant Secretary for Public Health

Division of Public Health

Submittal Includes: ☒ (a2) Improvement Permit ☒ (a2) Construction Authorization ☐ Fee \$ _____

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)

County: Franklin

PIN/Lot Identifier: _____

Issued To: Mungo Homes

Property Location: 65 Calabria Court

Subdivision (if applicable) Olivet Lot #: 29 Block: _____ Section: _____

LSS Report Provided: Yes ☒ No ☐

If yes, name and license number of LSS: Jason Hall, NC LSS #1248

New ☒

Expansion ☐

System Relocation ☐

Change of Use ☐

Facility Type: Single Family, 4-Bedroom

Number of bedrooms: 4 Number of Occupants: ≤8 Other: _____

Design Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process Wastewater

Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.30 Proposed LTAR (Repair): 0.30

Proposed Wastewater System Type*: II b (D-Box) (Initial) Pump Required: ☐ Yes ☒ No ☐ May be required

Proposed Wastewater System Type*: III bg (Repair) Pump Required: ☐ Yes ☐ No ☒ May be required

**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Effluent Standard: ☒ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Saprolite System (Initial): ☒ Yes ☐ No Saprolite System (Repair): ☒ Yes ☐ No

Fill System (Initial): ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Fill System (Repair): ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Usable Depth to LC (Initial)*: 31 sappgood 48 Usable Depth to LC (Repair)*: 31 sappgood 48 * Limiting Condition

Max. Trench Depth (Initial)*: 20 Max. Trench Depth (Repair)*: 20 * Measured on the downhill side of the trench

Artificial Drainage Required: ☐ Yes ☒ No If yes, please specify details: _____

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ☐ Municipal Supply ☐ Spring ☒ Other: C. Well

Drainfield location meets requirements of Rule .0508: Yes ☒ No ☐ Drainfield location meets requirements of Rule .0601: Yes ☒ No ☐

Permit valid for: ☒ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

Licensed Soil Scientist Print Name: Jason Hall

Licensed Soil Scientist Signature: [Signature] Date: 11/1/24

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

See attached site sketch

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date Initials

G.S. 130A-335(a3) states the following:

When an applicant for an Improvement Permit submits to a local health department an Improvement Permit application, the permit fee charged by the local health department, the common form developed by the Department, and a soil evaluation pursuant to subsection (a2) of this section, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Improvement Permit includes all of the required components. If the local health department determines that the Improvement Permit is incomplete, the local health department shall notify the applicant of the components needed to complete the Improvement Permit. The applicant may submit additional information to the local health department to cure the deficiencies in the Improvement Permit. The local health department shall make a final determination as to whether the Improvement Permit is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The Department shall develop a common form for use as the Improvement Permit.

The review for completeness of this Improvement Permit was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. *This permit is subject to revocation if the site plan, plat, or the intended use changes.*** The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of 15A NCAC 18E and to the conditions of this permit.**

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: _____

See attached site sketch

Re-submittal of Improvement Permit

LHD USE ONLY: This IP resubmittal received: _____ by _____
Date *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a3) for issuance of the Improvement Permit:

I, _____ hereby attest that the information required to be included with this re-submittal
Licensed Soil Scientist (Print Name)
is accurate and complete to the best of my knowledge and that the proposed Improvement Permit meets all applicable federal,
State, and local laws, regulations, rules, and ordinances.

Signature of Licensed Soil Scientist

Date

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Improvement Permit

The review for completeness of this Improvement Permit re-submittal was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____

Date: _____

☐ Complete

State Authorized Agent: _____

Date: _____



Central Carolina Soil Consulting, PLLC

1900 South Main Street, Suite 110, Wake Forest, NC 27587

Office Number: 919-569-6704

November 1, 2024

Job #4703

Mungo Homes

Attention: Naldo Echevarria

2521 Schieffelin Road, Suite

Apex, NC 27502

RE: Preliminary soil/site evaluation for single family wastewater approval at Olivet Subdivision, Lot 29 (4-bedroom) in Franklin County pursuant to and meets the requirements of G.S. 130A-335(a2)."

Dear Mr. Echevarria:

Central Carolina Soil Consulting, PLLC conducted a preliminary soil evaluation on the aforementioned lot to determine the areas of provisionally suitable soils that are suitable for subsurface wastewater disposal systems (conventional, Accepted & Innovative). **"The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2)."** The soil/site evaluation was performed using auger borings in October 2024, under moist soil conditions, based on the criteria found in the State Subsurface Rules, 15A NCAC 18E "Wastewater Treatment and Dispersal Systems". From this evaluation, CCSC laid out and located the septic layout and gps'd for site plan drawing purposes. **Please note that the lot lines must be clearly marked by your surveyor prior to system installation by your installer to verify all setbacks before digging.**

The lot is proposed to have a 4-bedroom system for the house. A septic system field layout was completed based on the house location and property lines surveyed in the field.

The proposed Initial system for the house is a Gravity to D-Box distribution using lines 5-7 totaling 450 feet of accepted status product (EZ-Flow or Chambers). The repair system for the house is a Pressure Manifold distribution using lines 2-4 totaling 415 feet of accepted status product (EZ-Flow or Chambers). The septic tank for the house should be minimum 1,000 gallons with risers. The septic tank should also have pressed in rubber boots on both the inlets and the outlets of the tank, along with having secondary lids on all the openings.

Based on the findings during the field evaluation, the area on the attached map has at least 31 sap good 48 inches (initial) and 31 sap good 48 inches (repair) of provisionally suitable soils for a modified conventional septic system. The assigned LTAR for the site is 0.30 gpd/ft² with a maximum depth of 20 inches for the initial system installation of the drain lines due to slope correction. The assigned LTAR for the site is 0.30 gpd/ft² with a maximum depth of 20 inches for the repair system installation of the drain lines due to slope correction.

Septic Installation:

The septic system for the lot should be installed during dry soil conditions (no rain events within 72 hours). The septic system should be installed on contour while maintaining all required setbacks. **Lot lines must be clearly marked by your surveyor prior to system installation so your installer can verify all setbacks before digging.**

Setbacks: (see septic design page for locations)

- **Septic and Pump Tanks** (see septic design)
 - 10' minimum from property lines
 - 5' minimum from house
- **Septic Lines** (see septic design)
 - 10' minimum from property lines
 - 5' minimum from house
- **Manifold's and D-Box's** (see septic design)
 - 10' minimum from property lines
- **Supply Lines** (see septic design)
 - 5' minimum from property lines
- **Utilities**
 - Water (10' minimum for all septic components)
 - Power, cable, internet, etc. (5' minimum setback)

Grading:

No grading should be completed within the initial and repair septic areas that change the natural grade of the area. There should be no cutting or filling within the septic areas as well. When grading the lot, no cuts of 2' or greater should be within 15' of the septic areas. If a cut is required near the septic area, keep the cut around 6-8 inches in depth.

HOUSE:

- Initial System: Gravity to D-Box Distribution, lines 5-7 totaling 450' (see layout)
- Repair System: Pressure Manifold Distribution, lines 2-4 totaling 415' (see layout)
- 480 gal/day flow rate (4-bedroom)
- 1,000 gallon septic tank with risers and pressed in rubber boots on both the inlet and outlet ends and a secondary lid in each tank opening
- 20" max trench depth for Initial System
- 20" max trench depth for Repair System
- 0.30 LTAR for Initial
- 0.30 LTAR for Repair
- No grading/filling septic areas
- No cuts >2' within 15' of septic areas
- Keep tanks and drain lines 10' from property lines
- Keep supply line >5' property lines
- Install in dry soil conditions (No rain events within 72 hours)
- Maintain natural contours when clearing the lot

This letter discusses the location of provisionally suitable soils for subsurface wastewater disposal systems and does not guarantee the future function of any wastewater system on sites. Central Carolina Soil Consulting, PLLC is a professional consulting firm specializing in soil delineations and designs for on-site wastewater disposal systems.

If you have any questions regarding the findings on the attached map or in this report, please feel free to contact me at any time. Thank you for allowing Central Carolina Soil Consulting to perform this site evaluation for you.

Sincerely,

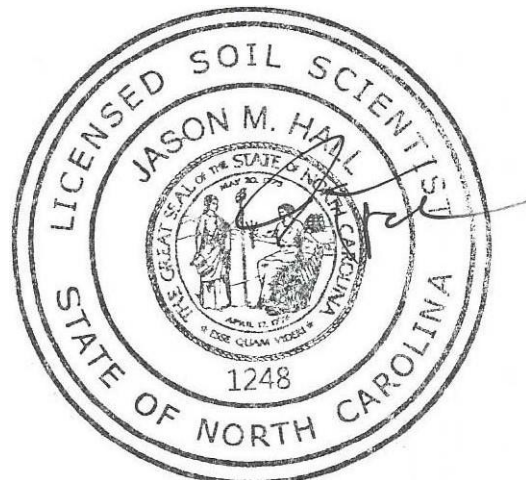


Jason Hall

NC Licensed Soil Scientist #1248

AOWE certification number 10004E

Encl: Soil Map & septic layout



Central Carolina Soil Consulting, PLLC

1900 South Main Street, Suite 110, Wake Forest, NC 27587

PROPERTY ID #: _____

COUNTY: _____ Franklin

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

OWNER: _____ Mungo Homes _____ DATE EVALUATED: _____ 10/23/24
ADDRESS: _____ 65 Calabria Court _____
PROPOSED FACILITY: _____ 4-Bedroom _____ PROPOSED DESIGN FLOW (.0400): _____ 480 GPD _____ PROPERTY SIZE: _____ 1.316 Ac. _____
LOCATION OF SITE: _____ Olivet Lot 29 _____ PROPERTY RECORDED: _____ Yes _____
WATER SUPPLY: ☐ Public ☐ Single Family Well ☐ Shared Well ☒ Spring ☒ Other _____ WATER SUPPLY SETBACK: _____
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut _____ TYPE OF WASTEWATER: ☒ Domestic ☐ High Strength ☐ IPWW _____

P R O F I L E #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRECTION
			.0503 TEXTURE/ STRUCTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZON		
1	L	AE 0-2	SL GR	VFR NS NP SEXP					S	3.6"
	10%	Bt1 2-5	SCL SBK	FR SS SP SEXP					0.30	
		Bt2 5-30	C SBK	FR SS SP SEXP						
		BC 30-36	CL W-SBK	FR SS SP SEXP						
		C 36+				36				
2	L	AE 0-5	SL GR	FR SS SP SEXP					S	3.6"
	10%	Bt 5-25	C SBK	FR SS SP SEXP					0.30	
		BC 25-31	CL W-SBK	FR SS SP SEXP						
		C 31-48				31	L-II			
3	L	AE 0-5	SL GR	VFR NS NP SEXP					S	3.6"
	10%	Bt 5-24	C SBK	FR SS SP SEXP					0.30	
		BC 24-33	SCL W-SBK	FR SS SP SEXP						
		C 33-48				33				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	SITE CLASSIFICATION (.0509): _____ Suitable EVALUATED BY: _____ Michael Seewald OTHER(S) PRESENT: _____
Available Space (.0508)	Yes	Yes	
System Type(s)	II b	III bg	
Site LTAR	0.30	0.30	
Maximum Trench Depth	20"	20"	

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	
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

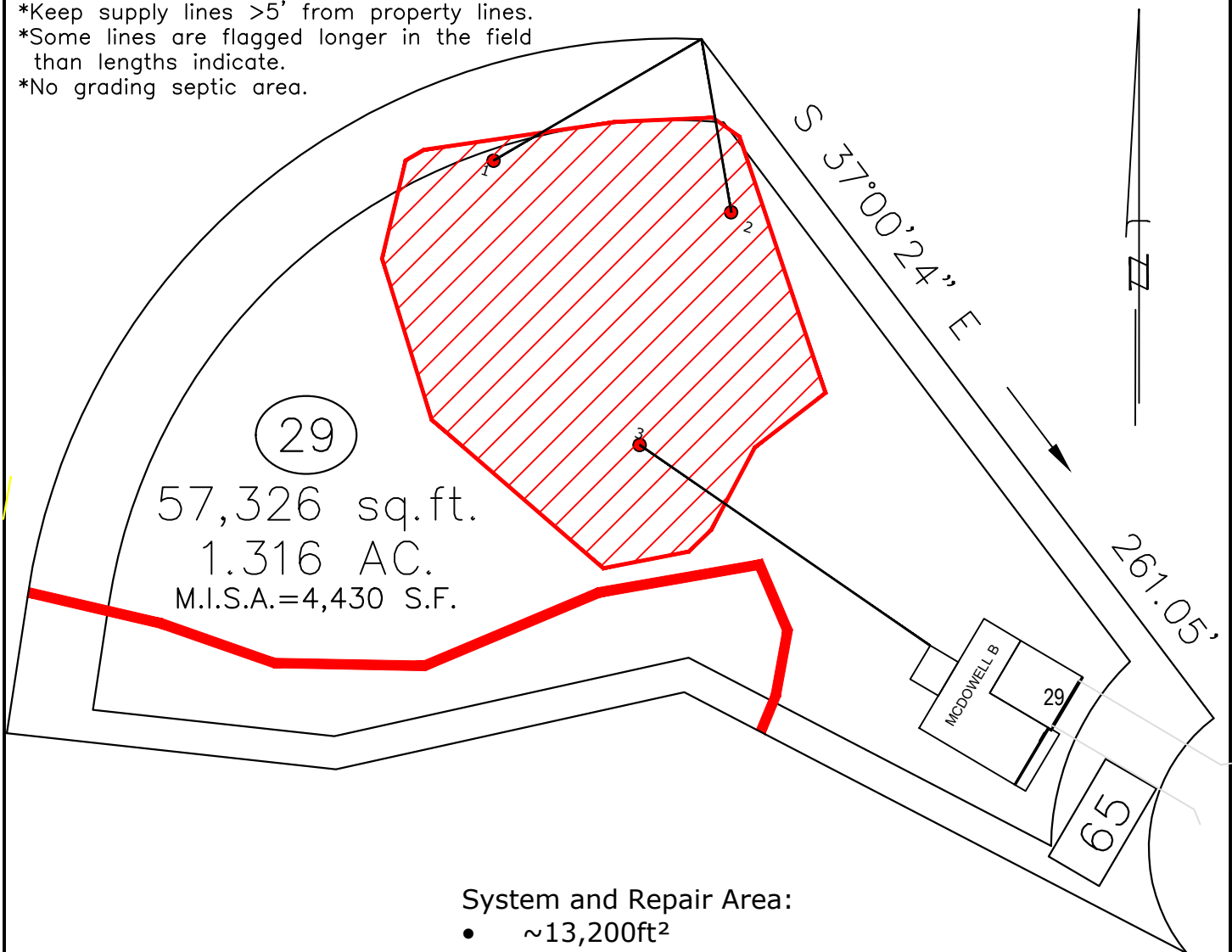
RESTRICTIVE HORIZON Thickness and depth from land surface

SAPROLITE S(suitable) or U(unsuitable); Evaluation of saprolite shall be by pits or auger borings.

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

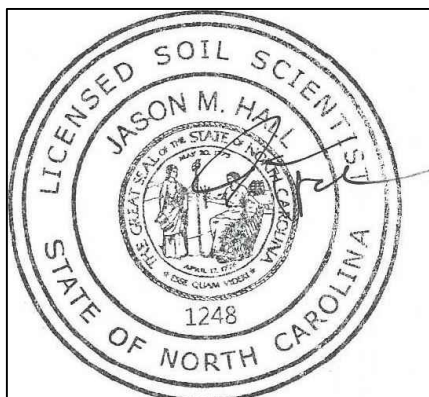
CLASSIFICATION S (Suitable) or U (Unsuitable)

- *Keep tanks and drain lines 10' from property lines.
- *Not a survey.
- *Not a guarantee of a septic permit.
- *Keep supply lines >5' from property lines.
- *Some lines are flagged longer in the field than lengths indicate.
- *No grading septic area.



System and Repair Area:

- ~13,200ft²
- 0.30 soil LTAR (Initial) II b
- 0.30 soil LTAR (repair) III bg
- 4-bedroom: Accepted Product Primary and Repair



GRAPHIC SCALE
1" = 50'



Central Carolina Soil Consulting, PLLC
1900 South Main Street, Suite 110
Wake Forest, North Carolina 27587
Phone (919)569-6704 Fax (919)569-6703

4-Bedroom Septic Layout
Lot 29, Olivet Subdivision
Franklin County, North Carolina

Job# : 4703
Drawn By : AH & MS
Date : 11/1/2024
Revision:



Central Carolina Soil Consulting, PLLC
1900 South Main Street, Suite 110, Wake Forest, NC 27587
Office Number: 919-569-6704

Acknowledgment of Subsurface wastewater evaluation and septic design by Central Carolina Soil Consulting, PLLC. for Olivet Subdivision Lot 29 in Franklin County, for issuance of an IP and CA.

For Improvement Permit (IP) issuance:

“The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3).”

For Construction Authorization (CA) issuance:

“The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335(a2), (a5) and (a6).”

The LSS evaluation attached to this application was used to produce and design a subsurface wastewater septic system for permitting to obtain an IP and CA in accordance G.S. 130A-335(a2), (a3), (a5) and (a6).

Owner: Clayton Properties Group, Inc.

Owner's representative: by: Katherine Lusk, agent

Date: 11/11/2024

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County: Franklin

Pre-Construction Conference Required: Yes ☐ No ☒

PIN/Lot Identifier: _____

Issued To: Mungo Homes

Property Location: 65 Calabria Court Olivet Subdivision Lot 29

AOWE/PE Plans/Evaluations Provided: Yes ☒ No ☐ If yes, name and license number of AOWE/PE: Jason Hall, AOWE #10004E

Facility Type: Single Family, 4-Bedroom

Number of bedrooms: 4 Number of Occupants: ≤8 Other: _____

☒ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ☐ Yes ☒ No Basement Fixtures? ☐ Yes ☒ No

Crawl Space? ☒ Yes ☐ No Slab Foundation? ☐ Yes ☒ No

Type of Wastewater System* II b (D-Box) (Initial) _____ III bg (Repair)

**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Design Daily Flow: 480 GPD Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process WW

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☒ No
(if yes, please provide engineering documentation)

Effluent Standard: ☒ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ☐ Municipal Supply ☐ Spring ☒ Other: C. Well

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 450 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches LTAR: 0.30 gpd/ft² Usable Depth to LC (Initial)*: 31 sapgood 48 **Limiting condition*

Additional Soil Cover: n/a inches Slope Corrected Maximum Trench/Bed Depth*: 20 inches ** Measured on the downhill side of the trench*

Pump Tank Size (if applicable): _____ gallons Requires more than 1 pump? ☐ Yes ☐ No

Pump Requirements: _____ ft. TDH vs. _____ GPM Grease Trap Size (if applicable): _____ gallons

Distribution Method: ☐ Serial ☒ D-Box or Parallel ☐ Pressure Manifold(s) ☐ LPP ☐ Other: _____

Artificial Drainage Required: Yes ☐ No ☒ If yes, please specify details: _____

Legal Agreements (If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)

Multi-party Agreement Required [.0204(g)]: ☐ Yes ☒ No Declaration of Restrictive Covenants: ☐ Yes ☒ No

Easement, Right-of-Way, or Encroachment Agreement Required [.0301(b)]: ☐ Yes ☒ No

Management Entity Required: ☐ Yes ☒ No Minimum O&M Requirements: _____

Permit conditions:

The requirements of 15A NCAC 18E are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached site sketch. ***This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes.*** The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of 15A NCAC 18E, or 15A NCAC 18A .1900, as applicable, and to the conditions of this permit.

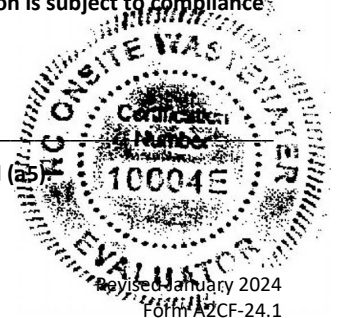
AOWE/PE Print Name: Jason Hall

AOWE/PE Signature: [Signature]

Date: 11/1/24

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5)

See attached site sketch



This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date Initials

G.S. 130A-335(a5) states the following:

When an applicant for a Construction Authorization, or an Improvement Permit and Construction Authorization together, submits a Construction Authorization, or an Improvement Permit and Construction Authorization application together, the permit fee charged by the local health department, the common form developed by the Department, and any necessary signed and sealed plans or evaluations conducted by a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Construction Authorization or Improvement Permit and Construction Authorization includes all of the required components. If the local health department determines that the Construction Authorization or Improvement Permit and Construction Authorization is incomplete, the local health department shall notify the applicant of the components needed to complete the Construction Authorization or Improvement Permit and Construction Authorization. The applicant may submit additional information to the local health department to cure the deficiencies in the Construction Authorization or Improvement Permit and Construction Authorization. The local health department shall make a final determination as to whether the Construction Authorization or Improvement Permit and Construction Authorization is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The applicant may apply for the building permit for the project upon the decision of completeness of the Construction Authorization or Improvement Permit and Construction Authorization by the local health department or if the local health department fails to act within five business days. The Authorized On-Site Wastewater Evaluator or licensed engineer submitting the evaluation pursuant to this subsection may request that the local health department revoke or suspend the Construction Authorization or Improvement Permit and Construction Authorization for cause. Upon written request of the Authorized On-Site Wastewater Evaluator or licensed engineer, the local health department shall suspend or revoke the Construction Authorization or Improvement Permit and Construction Authorization pursuant to G.S. 130A-23. The Department shall develop a common form for use as the Construction Authorization.

The review for completeness of this Construction Authorization was conducted in accordance with G.S. 130A-335(a5). This

Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date of Issuance: _____

This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: _____

See attached site sketch

Re-submittal of Construction Authorization

LHD USE ONLY: This CA resubmittal received: _____ by _____
Date Initials

The following items are being resubmitted pursuant to G.S. 130A-335(a5) for issuance of the Construction Authorization:

I, _____ hereby attest that the information required to be included with this re-submittal
Authorized Onsite Wastewater Evaluator (Print Name)
is accurate and complete to the best of my knowledge and that the proposed Construction Authorization meets all applicable
federal, State, and local laws, regulations, rules, and ordinances.

Signature of Authorized On-Site Wastewater Evaluator

Date

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Construction Authorization

The review for completeness of this Construction Authorization re-submittal was conducted in accordance with G.S. 130A-335(a5).
This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____

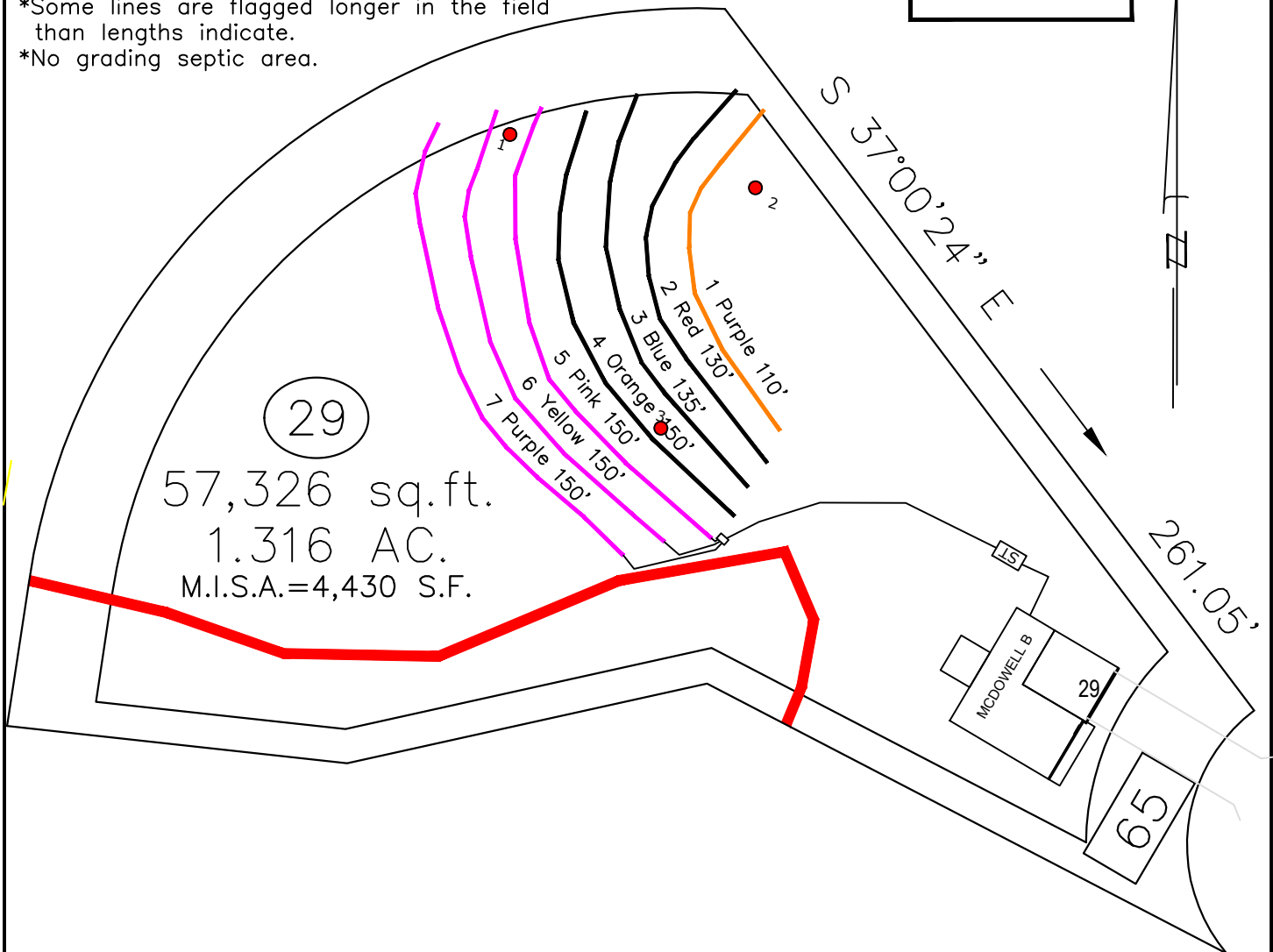
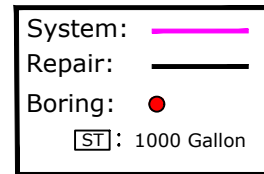
Date: _____

☐ Complete

State Authorized Agent: _____

Date: _____

- *Keep tanks and drain lines 10' from property lines.
- *Not a survey.
- *Not a guarantee of a septic permit.
- *Keep supply lines >5' from property lines.
- *Some lines are flagged longer in the field than lengths indicate.
- *No grading septic area.



System: Gravity to D-Box
Lines: 5-7, (450')
Accepted Status System
0.30 Soil LTAR
20" Trench Bottom

Repair: Pressure Manifold
Lines: 2-4, (415')
Accepted Status System
0.30 Soil LTAR
20" Trench Bottom

GRAPHIC SCALE
1" = 50'



Central Carolina Soil Consulting, PLLC
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4-Bedroom Septic Layout
Lot 29, Olivet Subdivision
Franklin County, North Carolina

Job# : 4703
Drawn By : AH & MS
Date : 11/1/2024
Revision:

Olivet, Lot 29 Initial System TAP CHART

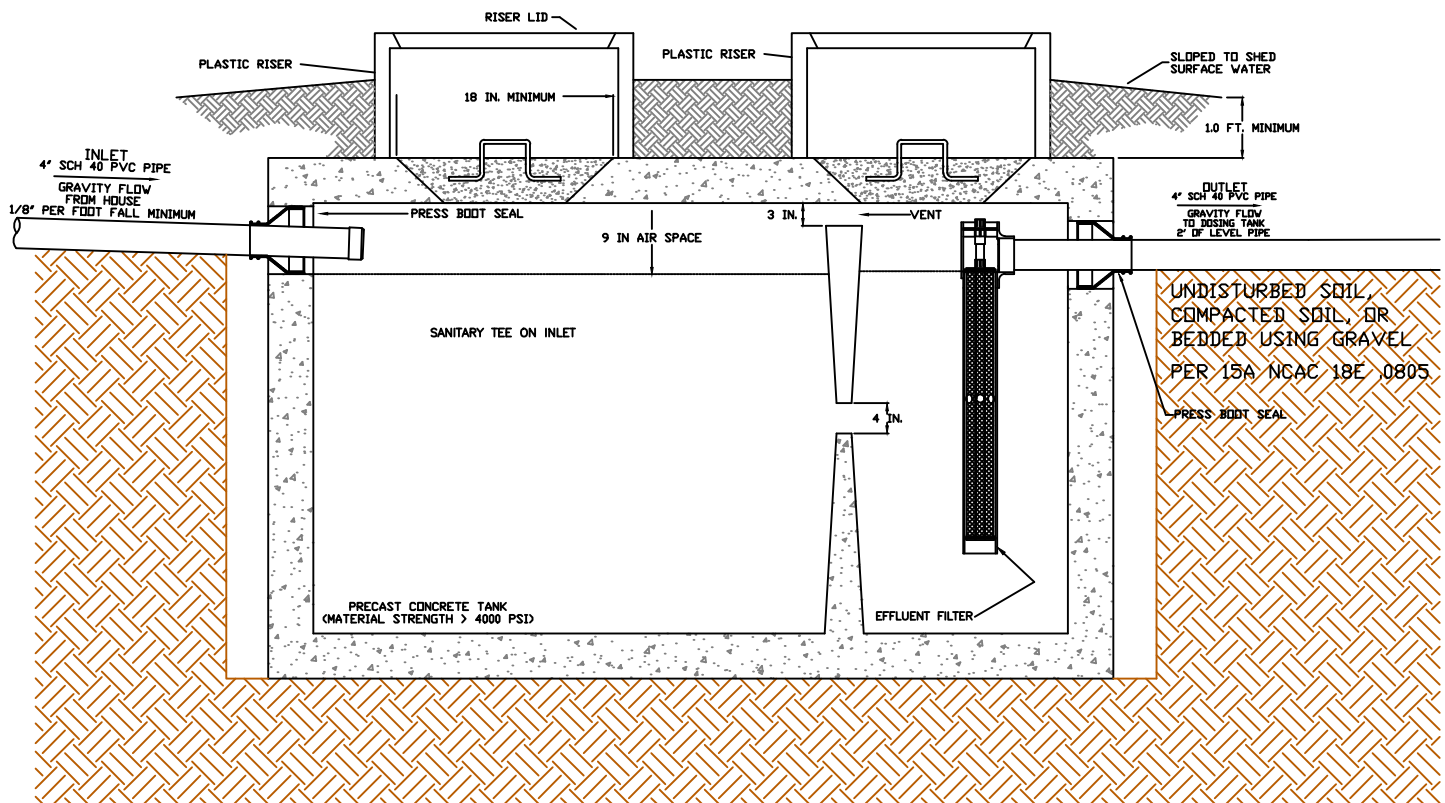
Bench Mark;	is = 100.00	Location of BM:						Elevation Head:	-85.60
Pump tank elev.	8.00	92.00	Pump elev.	86.60				Manifold elevation:	1.00
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR

	total	feet =	0	gal/min =	0			<u>LTAR =</u>	0.3000
								<u>LTAR + %5</u>	0.3150
% of Dose Vol.	75		<u>Des. Flow</u>	480				(ltar W/ INOV)	0.4000
Dose Volume	0.00		Pump Run=	#DIV/0!				(ltar W/ INOV + 5%)	0.4200
Dose Pump Time	#DIV/0!		Tank Gal/IN	19.65					
Drawdown in Inches	0.00								

Olivet, Lot 29 Repair System TAP CHART

Bench Mark:	is = 100.00	Location of BM:						Elevation Head:	9.40
Pump tank elev.	8.00	92.00	Pump elev.	86.60				Manifold elevation:	96.00
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
2	Red	5.00	95.00	130	3/4in SCH 80	10.1	160.00	390	0.4103
3	Blue	5.80	94.20	135	3/4in SCH 80	10.1	160.00	405	0.3951
4	Orange	6.40	93.60	150	3/4in SCH 80	10.1	160.00	450	0.3556

	total	feet =	415	gal/min =	30.3			<u>LTAR =</u>	0.3000
								<u>LTAR + %5</u>	0.3150
% of Dose Vol.	75		<u>Des. Flow</u>	480				(ltar W/ INOV)	0.4000
Dose Volume	202.31		Pump Run=	15.84				(ltar W/ INOV + 5%)	0.4200
Dose Pump Time	6.68		Tank Gal/IN	19.65					
Drawdown in Inches	10.30								



1000 GAL SEPTIC TANK SCHEMATIC
NOT TO SCALE

NOTES:

- ALL TANKS SHALL BE LEAK TESTED (IN OCCURANCE TO RULE 15A NCAC 18E .0805) WHEN INSTALLED UNDER THE FOLLOWING CONDITIONS
 - when a Soil Wetness Condition (SWC) is present within four feet of the elevation of the top of a mid-seam pump tank;
 - with advanced pretreatment when required in the RWTS or PIA Approval;
 - when required in the approved plans and specifications for a wastewater system designed by a PE;
 - when the tank is constructed in place; or
 - as required by the authorized agent based upon site or system specific conditions, such as misaligned seams, exposed reinforcement, or damage observed that may have occurred during transport or installation.
- ALL TANKS MUST BE APPROVED FOR USE BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL HEALTH (DEH).
- INVERTS SHOWN ARE APPROXIMATE. THE INSTALLER SHALL FIELD CONFIRM PRIOR TO CONSTRUCTION.
- ALL HARDWARE INSTALLED INSIDE OF TANKS SHALL BE OF STAINLESS STEEL.
- TANK DIMENSIONS VARY BY MANUFACTURER.
- DRAWDOWN WILL VARY WITH TANK DIMENSIONS.
- NO ELECTRICAL SPLICES SHALL BE MADE INSIDE THE PUMP TANK.

ALL tank openings (2 for septic tank) shall have a secondary lid or safety net installed



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Septic Tank Details

Job#:
Drawn By: MS
Date:

CAST-A-SEAL 402/402F

PIPE TO MANHOLE & TANK CONNECTOR

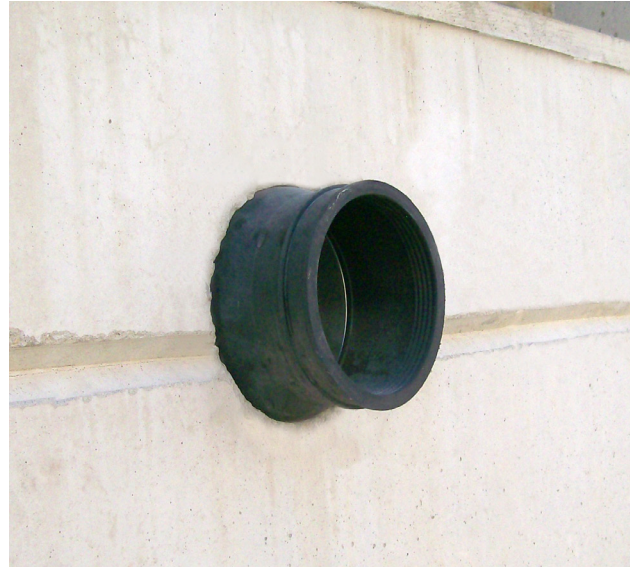
What It Is

The Cast-A-Seal 402/402F is a simple cast-in pipe-to-manhole connector that offers a watertight flexible connector that is cast into the structure when the concrete is poured.

The key lock is integrally cast-in during the production process providing a secure seal for storm water and sanitary collection systems.

How It Works

- The connector is folded into the casting position.
- It is placed on the reusable mandrel and then placed on the form.
- After curing, the mandrel is removed.
- The connector is then simply unfolded at the jobsite.
- Take-up clamps made from series 304 stainless steel with quick adjusting screws secure the connector to the pipe.



Why It's Better

- Durable and reusable mandrel forms.
- Integrally cast into the structure at time of casting.
- Contractor can backfill immediately after pipe insertion.
- The 4" connector is available in either open or closed end face.
- Contractor can save time and money by backfilling immediately.

Where To Use

- Manholes
- Wet wells
- Square pump and lift stations
- Stormwater structures
- On-site treatment structures
- Junction chambers
- Grease interceptors



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Protecting Our Planet's Clean Water Supply
ISO 9001: Registered • Version 02.16.22.11.17

Email: sales@press-seal.com
Web: www.press-seal.com

CAST-A-SEAL 402/402F

SUBMITTAL SPECIFICATIONS

A flexible pipe-to-structure connector shall be employed in the connection of the sanitary sewer pipe to precast structures. The connector shall be Cast-A-Seal® 402/402F as manufactured by Press-Seal Corporation, Fort Wayne, Indiana, or approved equal. The connector shall be the sole element relied on to assure a flexible, watertight seal of the pipe to the precast structure. The connector shall consist of a rubber gasket and an external take-up clamp.

The rubber gasket element shall be constructed solely of synthetic or natural rubber, and shall meet or exceed the physical property requirements of ASTM C 923.

The external take-up clamp shall be constructed of Series 300 non-magnetic stainless steel and shall utilize no welds in its construction. The clamp shall be installed by torquing the adjusting screw using a torque-setting wrench available from the connector manufacturer.

Selection of the proper size connector for the structure and pipe requirement, and installation thereof, shall be in strict conformance with the recommendations of the connector manufacturer. Any dead end pipe stubs installed in connectors shall be restrained from movement per ASTM C 923.

The finished connection shall provide sealing to 13 psi (minimum) and shall accommodate deflection of the pipe to 7 degrees (minimum) without loss of seal.

Vacuum testing shall be conducted in strict conformance with ASTM C 1244 prior to backfill. Other testing shall be conducted in strict conformance with the requirements of the connector manufacturer.

Product Performance

Cast-A-Seal 402/402F meets and/or exceeds all requirements of ASTM C 923, including physical properties of materials and performance testing, including:

- 13 PSI minimum in straight alignment
- 10 PSI at minimum 7° angle
- 10 PSI minimum under shear load of 150 lbs/in. pipe diameter

Cast-A-Seal 402/402F meets and/or exceeds the requirements of the following Standards, Specifications, Codes, and Test Methods:

- IAPMO/ANSI Z1000 Standard for Prefabricated Septic Tanks
- IAPMO/ANSI Z1001 Standard for Prefabricated Gravity Grease Interceptors
- NPCA Best Practices Manual for Precast Concrete On-Site Wastewater Tanks
- NOWRA Model Code Framework
- ASTM C 1227 Standard Specification for Precast Concrete Septic Tanks
- ASTM C 1644 Standard Specification for Resilient Connectors Between Reinforced Concrete On-Site Wastewater Tanks and Pipes (CAS 402)
- ASTM C 1613 Standard Specification for Precast Concrete Grease Interceptor Tanks
- ASTM C 923 - Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals
- ASTM C 1244 Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test
- ASTM C 1478 - Standard Specification for Storm Drain Resilient Connectors Between Reinforced Concrete Storm Sewer Structures, Pipes, and Laterals

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CAST-A-SEAL 402/402F

SELECTION GUIDE

PIPE SIZE	CAST-A-SEAL 402	PIPE O.D. RANGE	WALL THICKNESS*	APPLICATION
1.25" - 2" 31 - 51 mm	452.0250	1.5" - 2.75" 38 - 70 mm	2.5" - 6" 64 - 150 mm	STANDARD
4" 100 mm	452.0450	4.2" - 4.7" 107 - 119 mm	2.5" - 6" 64 - 150 mm	STANDARD
4" 100 mm	452.0402F1	4.2" - 4.7" 107 - 119 mm	2.5" - 4.0" 64 - 102 mm	Closed Face
6" 150 mm	452.0650	6.2" - 6.7" 157 - 170 mm	2.5" - 6" 64 - 150 mm	STANDARD
3" 75 mm	CAS ADAPTER	3.2" - 3.6" 81 - 91 mm	---	Use with 4" CAST-A-SEAL



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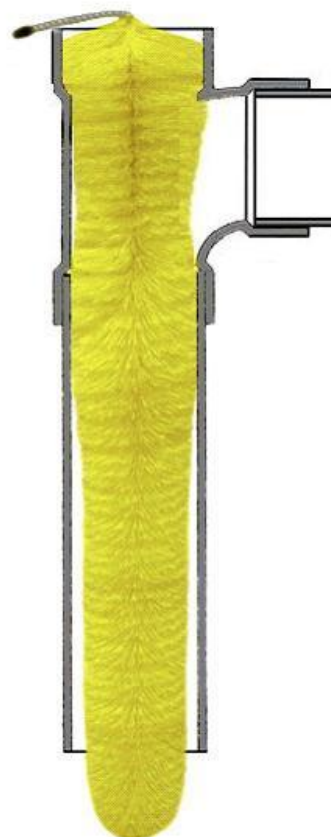
Email: sales@press-seal.com
Web: www.press-seal.com

Sim/Tech Filter's Unique Gravity Filtration

The STF-110 series Bristle Filter

Main Features

- Keep out hair, lint, tissue, seeds and more that can clog a drain field
- Excellent filtration - visit our website or call us to see our 3rd party test results.
- Multi-directional flow combined with the contoured design that pre-filters effluent greatly reduces filter clogging
- Over 1/2 mile of filtration media
- Over 319 cubic inches of open area to reduce clogging
- Flexible filters can be used in tees, square baffles, hard to reach baffles etc.
- Multiple Sizes available - Yellow 4", White 6", Red 7", Blue 8"
- Maintenance sleeve (optional) available for servicing between tank pumping. Prevents flow out of tank during service.



Maintenance
Sleeve



7" Filter in a 5" square
concrete baffle

Patent# 6,811,692

Solutions

For the protection and performance of wastewater systems by

SIM/TECH
FILTER



Central Carolina Soil Consulting, PLLC
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Office Number: 919-569-6704

Acknowledgment of Subsurface wastewater evaluation and septic design by Central Carolina Soil Consulting, PLLC. for Olivet Subdivision Lot 29 in Franklin County, for issuance of an IP and CA.

For Improvement Permit (IP) issuance:

"The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3)."

For Construction Authorization (CA) issuance:

"The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335(a2), (a5) and (a6)."

The LSS evaluation attached to this application was used to produce and design a subsurface wastewater septic system for permitting to obtain an IP and CA in accordance G.S. 130A-335(a2), (a3), (a5) and (a6).

Owner: Clayton Properties Group, Inc.

Owner's representative: by: Katherine Lusk, agent

Date: 11/11/2024