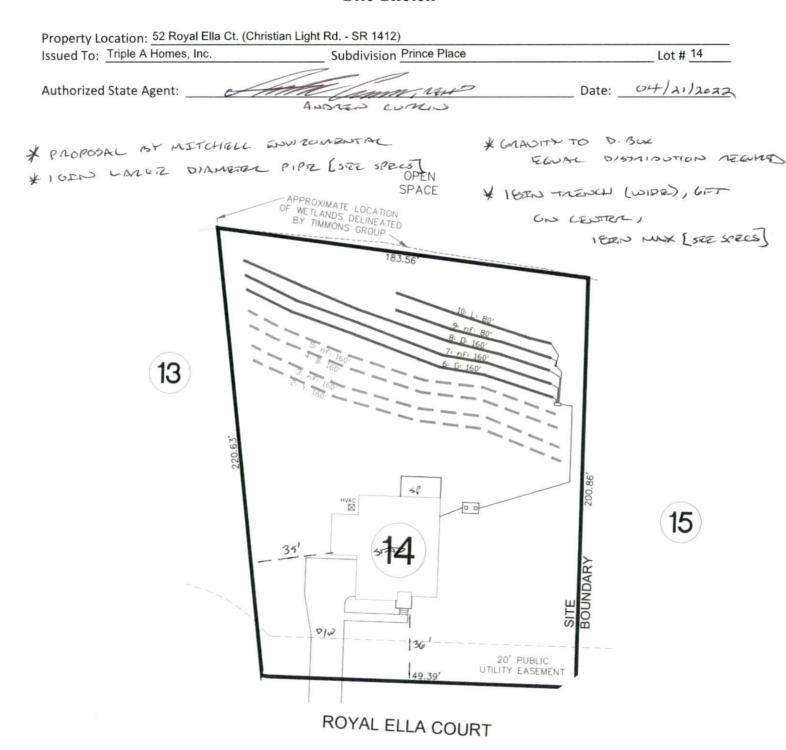
Harnett County Department of Public Health

Improvement Permit

A building permit cannot be issued with only an Improvement Permit PROPERTY LOCATION: 52 Royal Ella Ct. (Christian Light Rd. - SR SUBDIVISION Prince Place ISSUED TO: Triple A Homes, Inc. EXPANSION REPAIR Site Improvements required prior to Construction Authorization Issuance: Type of Structure: 48x53 sfd, 4 beds 4 baths Proposed Wastewater System Type: 10in Large Diameter Pic Projected Daily Flow: 480 Number of Occupants: 8 Number of bedrooms: 4 Basement Yes May be required based on final location and elevations of facilities Pump Required: Yes X No Five years Type of Water Supply: Community Public Well Distance from well NA feet Permit valid for: No expiration Permit conditions: 04/21/2022 The issuance of this permit by the Health Department 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 site 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 the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit. Construction Authorization (Required for Building Permit) The construction and installation requirements of Rules . 1950, . 1952, . 1954, . 1955, . 1956, . 1957, . 1958, and . 1959 are incorporated by references into this permit and shall be met. Systems shall be installed in accordance with the attached system layout PROPERTY LOCATION: 52 Royal Ella Ct. (Christian Light Rd. - S ISSUED TO: Triple A Homes, Inc. SUBDIVISION Prince Place Facility Type: 48x53 sfd, 4 beds 4 baths New Expansion Basement Fixtures? Yes X No 10in Larger Diameter Pipe (Initial) Wastewater Flow: 480 Type of Wastewater System** GPD (See note below, if applicable) 10in Larger Diameter Pipe Number of trenches 4 Installation Requirements/Conditions Exact length of each trench 160 Trench Spacing: 6 Septic Tank Size 1000 Feet on Center gallons Soil Cover: 6 Pump Tank Size Trenches shall be installed on contour at a Maximum Trench Depth of: 18 (Maximum soil cover shall not exceed (Trench bottoms shall be level to +/-1/4" 36" above the trench bottom) in all directions) Pump Requirements: ______ft. TDH vs. _ inches below pipe inches above pipe Conditions: Gravity to D-Box Equal Distribution; Proposal by Mitchell Enviro. inches total WATER LINES (INCLUDING IRRIGATION) MUST BE 10FT. FROM ANY PART OF SEPTIC SYSTEM OR REPAIR AREA. NO UTILITIES ALLOWED IN INITIAL OR REPAIR DRAIN FIELD AREA. **If applicable: I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit. Date: Owner/Legal Representative Signature: This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be transferred when there is a change in ownership of the site. This SEE ATTACHED SITE SKETCH 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. 04/22/2022 Authorized State Agent: Construction Authorization Expiration Date: 04/22/2027 ANDREW COMIN

Harnett County Department of Public Health Site Sketch



This drawing is for illustrative purposes only. System installation must meet all pertinent laws, rules, and regulations.

Mitchell Environmental, P.A.

SEPTIC SYSTEM DESIGN

for

PRINCE PLACE SUBDIVISION- LOT 14

Fuquay-Varina, Harnett County, North Carolina

Submitted to:

Harnett County Health Department 307 Cornelius Harnett Blvd. Lillington, NC 27546

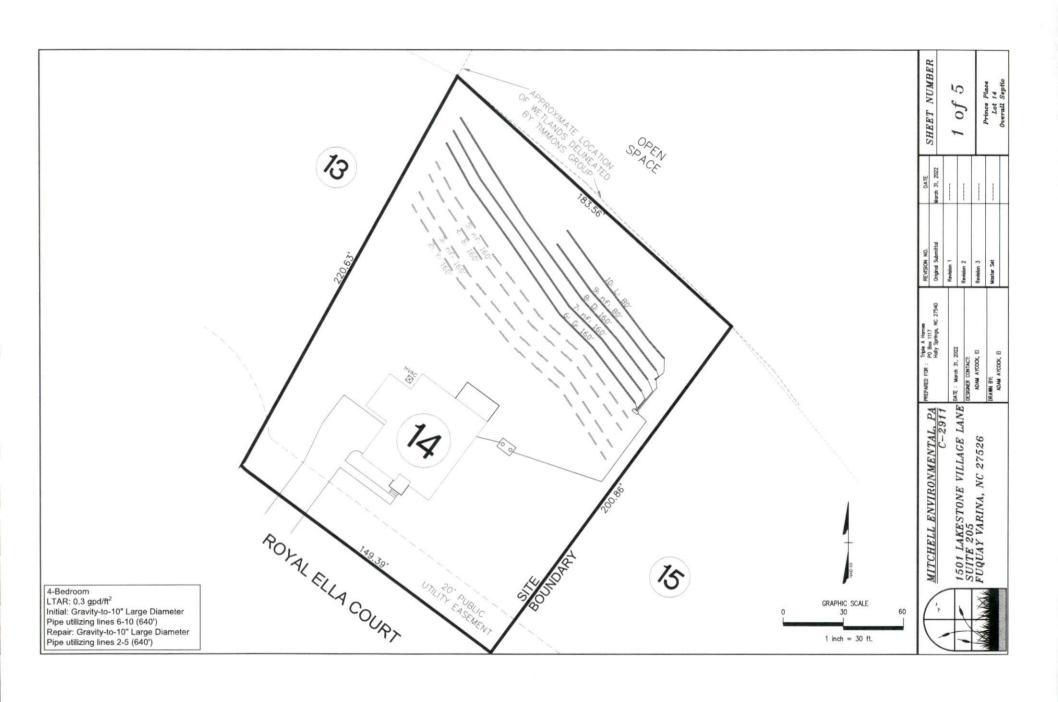
Prepared for:

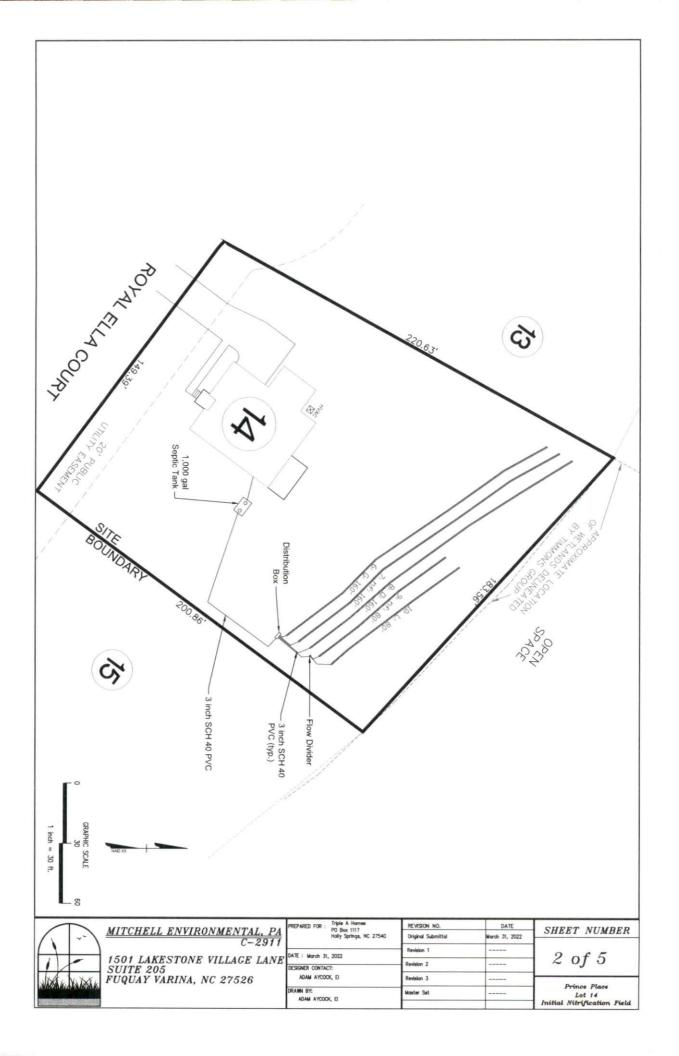
Triple A Homes, Inc.
PO Box 1117
Holly Springs, North Carolina 27540

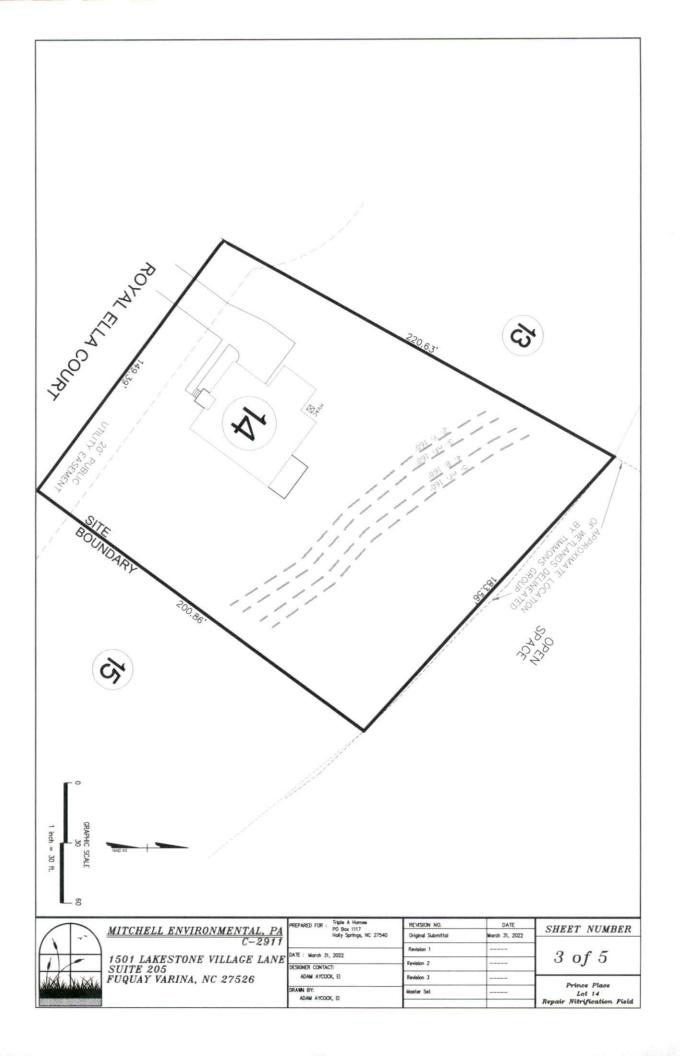
Prepared by:

Scott Mitchell, PE, LSS Adam Aycock, El

DATE: March 31, 2022 PROJECT NO.: 4721









Property Description:

LOT#14 PRINCE PLACE PH 1 MAP#2021-372

Harnett County GIS

PID: 050633 0026 14 PIN: 0633-76-8922,000

REID:

Subdivision:

Taxable Acreage: 0.820 AC ac Caclulated Acreage: 0.82 ac Account Number: 1500038152 Owners: TRIPLE A HOMES INC

Owner Address: PO BOX 1117 HOLLY SPRINGS, NC 27540

Property Address: 52 ROYAL ELLA CT FUQUAY-VARINA, NC 27526

City, State, Zip: FUQUAY-VARINA, NC, 27526

Building Count: 0
Township Code: 08

Fire Tax District: Northwest Harnett

Parcel Building Value: Unavailable
Parcel Outbuilding Value: Unavailable
Parcel Land Value: Unavailable

Parcel Special Land Value : Unavailable

Total Value : Unavailable

Parcel Deferred Value : Unavailable
Total Assessed Value : Unavailable

Neighborhood: 00821

Actual Year Built:

TotalAcutalAreaHeated: Sq/Ft Sale Month and Year: 10 / 2021

Sale Price: \$715000

Deed Book & Page: 4055-0910 Deed Date: 1633392000000 Plat Book & Page: 2021-372 Instrument Type: WD

Vacant or Improved: QualifiedCode: A Transfer or Split: ⊤

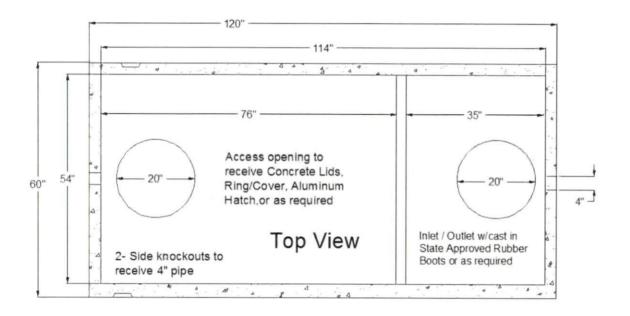
Within 1mi of Agriculture District: Yes

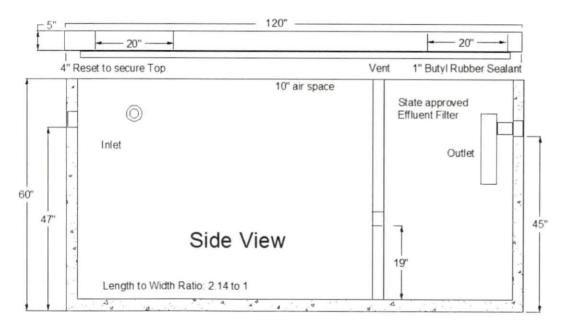
Prior Building Value: Unavailable
Prior Outbuilding Value: Unavailable
Prior Land Value: Unavailable

Prior Special Land Value : Unavailable

Prior Deferred Value : Unavailable
Prior Assessed Value : Unavailable







STB - 345 - Top Seam

Approval Date: 12 - 09 - 99

Liquid Capacity 1007 Gallons

Non Traffic Rated

Reinforcing Schedule: # 3 Grade 60 Rebar 4500 PSI Concrete w/ State Approved Structural Fiber Est. Weight: 8,200 lbs.

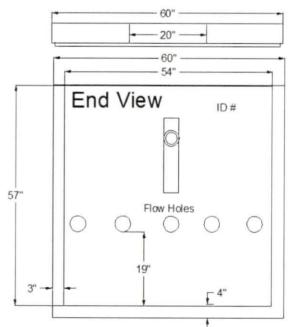
Manufactured By:



Eddie Garner, President 919-718-5181

121 Stanton Hill Road Carthage, NC 28327

ge, NC 28327 Fax 919-775-2229 Eddie@garnersseptictanks.com





PL-68 Filter and Tee

PL-68 is much more than just an effluent filter. The housing can also be used as an inlet baffle (tee) or an outlet baffle. The housing is designed to accept Polylok's snap in gas deflector to deflect gas bubbles away from the tee and to keep the solids in the tank.

Features:

- Offers 68 linear feet of 1/16" filter slots, which significantly extends time between cleaning.
- Accepts 3/4" PVC handle.
- Locks in any 360° position when used with PL-68 Tee.
- PL-68 Housing can be used as an inlet or outlet tee.
- · Gasket prevents bypass.

PL-68 Installation:

Ideal for residential waste flows up to 800 gallons per day (GPD). Easily installs in any new or existing 4" outlet tee.

- 1. Locate the outlet of the septic tank.
- 2. Remove the tank cover and pump tank if necessary.
- 3. Glue the filter housing to the outlet pipe, or use a Polylok Extend & Lok if not enough pipe exists.
- 4. Insert the PL-68 filter into tee.
- 5. Replace and secure the septic tank cover.

PL-68 Maintenance:

The PL-68 Effluent Filter will operate efficiently for several years under normal conditions before requiring cleaning. It is recommended that the filter be cleaned every time the tank is pumped, or at least every three years.

- 1. Do not use plumbing when filter is removed.
- 2. Pull PL-68 out of the tee.
- Hose off filter over the septic tank. Make sure all solids fall back into septic tank.
- 4. Insert filter back into tee/housing.

Related Products:

PL-68 Filter Concrete Baffle

Extend & Lok™



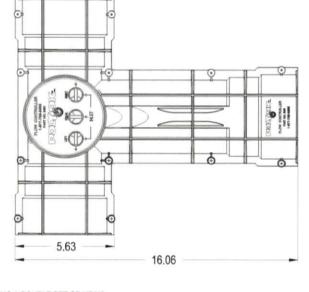
Extend & LokTM
Easily installs
into existing tanks.

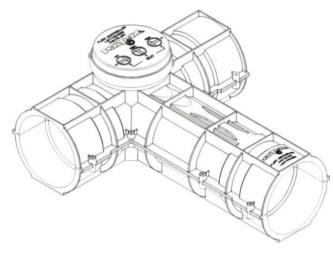


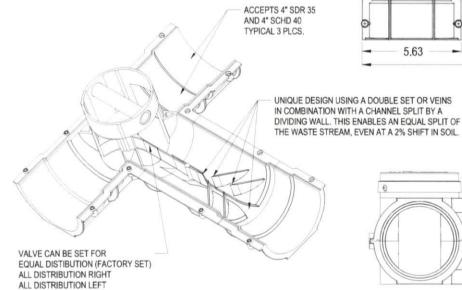
to 110mm Pipe

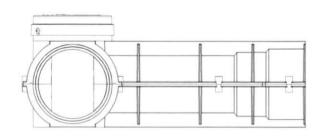
to SDR 35

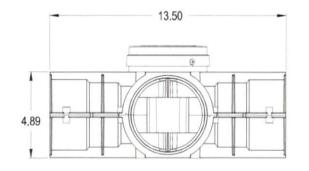
POLYLOK FLOW CONTROLLER PART NO. 3051 MATERIAL - ABS



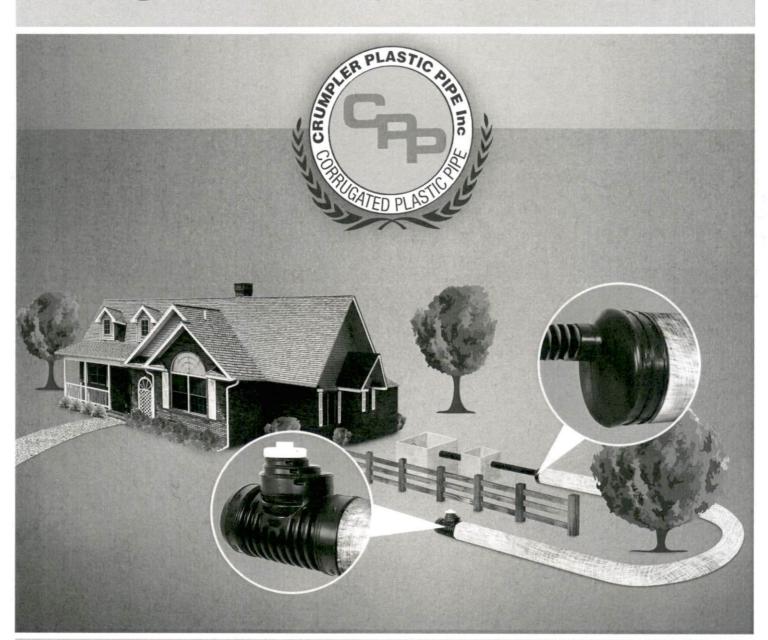








Crumpler's No-Rock™ Fabric Wrapped Large Diameter (LDP) Septic Pipe



Crumpler Plastic Pipe, Inc.

Manufacturers of Corrugated Plastic Drainage Pipe

Phone 910-525-4046 / (800) 334-5071

Post Office Box 2068

Roseboro, North Carolina 28382

Web Site: www.cpp-pipe.com



CPP-NR Rev. 9/18



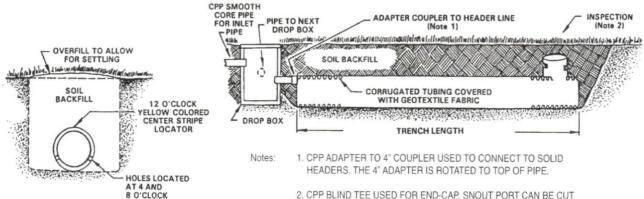
Crumpler's No-Rock™ Fabric Wrapped Large Diameter (LDP) Septic Pipe



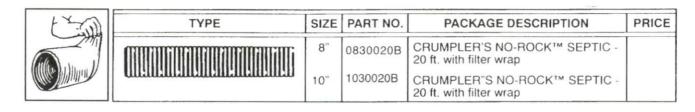


Snap Combo End Cap/4"
Reducer/Adapter

CPP Gravelless LDP Trench Construction Details



CPP BLIND TEE USED FOR END-CAP. SNOUT PORT CAN BE CUT OUT FOR INSTALLING A CLEAN OUT ADAPTER THAT ALLOWS FOR POST INSTALLATION INSPECTION.



Large diameter (LDP) CPP GRAVELLESS septic tank trench systems use a filter wrap that allows for the installation of septic treatment pipes without gravel. The advantage in using CPP NO-ROCK is evident in areas where there is a shortage of inexpensive quality rock or where the shape and topography of a lot hinder the access of heavy construction equipment. Less equipment use means more trees can be saved,

less lot grading is needed, and thus fuel and labor are saved. Additionally, narrow trenches for 8" and 10" CPP pipes create a reduced OC (On-Center) Spacing between parallel septic trenches. An 8" CPP pipe can fit in a 10" wide trench and a 10" CPP pipe in a 12" wide trench. Thus Lot space is saved for other uses.

- · Eliminates Rock
- · Saves On Lot Grading
- · Saves Trees On Lot
- · Saves on Installation Labor
- · Saves Fuel
- · Increases Lot Value



Crumpler's No-Rock™ Fabric Wrapped Large Diameter (LDP) Septic Pipe





TYPE	SIZE	PART NO.	PACKAGE DESCRIPTION	PRICE
	8" 10"	0830020B 1030020B	CRUMPLER'S NO-ROCK™ SEPTIC - 20 ft. with filter wrap CRUMPLER"S NO-ROCK™ SEPTIC - 20 ft. with filter wrap	

Large diameter GRAVELLESS septic tank trench systems were developed as an alternative to 4" pipe systems in gravel-filled trenches for use in soils that most conventional 4" gravel would be allowed in. Organic Iron Ochre soils, however, are unsuitable For Filter Enclosed Gravelless Septic Pipes. The advantage in using the large diameter systems is evident in areas where there is a shortage of inexpensive quality rock, or where the shape and topography of a lot hinder the access of heavy construction equipment. The use of small trenchers for digging narrow trenches means more trees can be saved, less grading is needed, and thus fuel and labor are saved.

Crumpler's NO-ROCK™ septic systems include using either an 8" or a 10" corrugated HDPE pipe enclosed in a polypropylene filter wrap. ASTM-F-481 septic installation specification should be reviewed prior to installation. Most states allow GRAVELLESS large diameter systems to be substituted for conventional systems in ANY SOIL TYPE deemed acceptable for a

conventional system. One should check with local septic inspectors for locally approved soils.

Crumpler's NO-ROCK™ septic system may be substituted for any conventional 4" pipe gravel trench system utilizing distribution devices, serial distribution, hillside or stepdowns. However, it should not be substituted for bed systems. It should also be limited to domestic sewage, and not used where there will be large amounts of grease or oil such as in restaurants unless designed by an engineer.

The 8" size pipe will equal to 2-foot wide conventional trench; and the 10" size will equal a 2.5 foot wide trench. To determine the required linear footage of either pipe size, first determine the square footage by dividing the design sewage flow by the appropriate soil's long term application rate. Then divide this total square footage area figure by either 2 feet (for 8") or 2.5 feet (for 10") to establish the linear footage amount. Per chart below, on center (oc) spacing will be determined by actual trench width.

Example:

A 3-bedroom house on a loam soil

0.6 gpd/ft² = loam soil's long term application rate.

3BR x 120 gpd = 360 gpd 360 gpd \div 0.6 gpd/ft² = 600 ft.

600 ft² \div 2ft = 300 linear ft of 8" or 600 ft² \div 2.5 ft = 240 linear ft of 10"

 $600 \text{ ft}^2 \div 3 \text{ ft} = 200 \text{ ft for conventional 4" gravel}$

SUGGESTED INSTALLATION OF STANDARDS

Nitrification trench bottom minimum width for 8"	
Nitrification trench bottom minimum width for 10"	
Nitrification line center spacing on 8"5' oc	
Nitrification line center spacing on 10"6' oc	
Nitrification trench bottom minimum depth	
Nitrification trench bottom maximum depth (24" preferred)36"	
Nitrification trench bottom slopelevel to 1" per 100 ft	
Nitrification line minimum cover6"	
Nitrification line maximum cover (12" preferred)24"	

To eliminate voids and clods under pipes 15" - 18" trenches is recommended unless sand backfill is used.

The corrugated pipe used shall comply with ASTM-F-667. Also the installer should be careful to note that the filter wrap is light

sensitive, and should not be exposed to sunlight for extended periods of time. The installer should also take care during installation to avoid tearing of the filter material. The protective plastic wrap that protects the filter should be disposed of off site.

WEB SITE: www.cpp-pipe.com / E-Mail: cppsales@cpp-pipe.com

(800) 334-5071

OUR PIPE IS LABORATORY TESTED

(910) 525-5801



Slope Correction Table



NOTE: Add the inches from Slope Table to the MSD1 to determine the RSD2

PERCENT SLOPE	10" Trench	12" Trench	18" Trench	24" Trench	36" Trench
6	0.6	0.7	1.1	1.4	2.2
12	1.2	1.4	2.2	2.9	4.3
18	1.8	2.2	3.2	4.3	6.5
24	2.4	2.9	4.3	5.8	8.6
30	3	3.6	5.4	7.2	10.8
36	3.6	4.3	6.5	8.6	13.0
42	4.2	5.0	7.6	10.1	15.1
48	4.8	5.8	8.6	11.5	17.3
54	5.4	6.5	9.7	13.0	19.4
60	6	7.2	10.8	14.4	21.6

NOTE: For sloping sites a calcuation of the <u>additional</u> required soil depth is necessary using the table above or the following formula: $RSD = MSD + (TW \times S)$

Where; RSD = Required Soil Depth (inches),

MSD - Min. Soil Depth (Min. Soil Cover + Ht. of Sys. + Min. Separation) (in)

TW = Trench Width (inches), &

.S = Percent Slope (.00)

Example: Assume site for septic system dispersal field has a slope of 28% and the trench bottom is required to be 12 inches above a site limitation, such as, weathered rock or perched water table. Also, assume that the proposed site has a usable or acceptable soil depth of 38 inches. Further, a minimum soil cover of 6 inches is required over the dispersal system.

- **Trial 1:** Conventional trench (36 inches wide, 12 inches gravel, 6 inches over) would require a usable soil depth of 40 inches. [40 inches RSD 30 inches MSD + (36 inches TW x .28 S)] Thus, a conventional or 36 inch wide trench is unsuitable at this site.
- Trial 2: Crumpler NO ROCK™ 8 inch ID (10 in. OD) installed in a 12 inch wide trench would require a usable soil depth of 31.4 inches. [31.4 RSD = 28 inches MSD + (12 inches TW x .28 S)] Therefore, site is acceptable for Crumpler 8 in. NO ROCK™.
- Trial 3: Crumpler NO ROCK™ 10 inch ID (12 in. OD) installed in an 18 inch wide trench would require a usable soil depth of 35 inches. [35 inches RSD = 30 inches MSD + (18 inches TW x .28 S)] Therefore, site is acceptable for Crumpler 10 inch NO ROCK™.

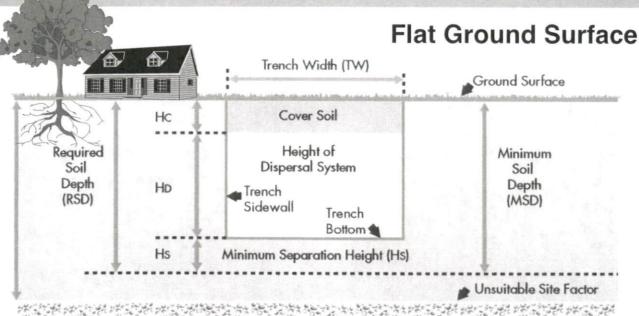
¹ MSD is the minimum soil depth at 0% slope and is the sum of the min. separation distance between trench bottom and limiting horizon (typ. 12 in), plus the system height, plus the min. soil cover (typ. 6 in.).

² **RSD** is the required soil depth to install a trench on a sloping site with the added inches to meet the minimum separation distance on the uphill side of the trench.

Septic Effluent Disposal Trenches on Sloping Sites

(Cross Section View)





MSD = Hc + Hp + HsMSD = RSD on Flat Sites

Usable

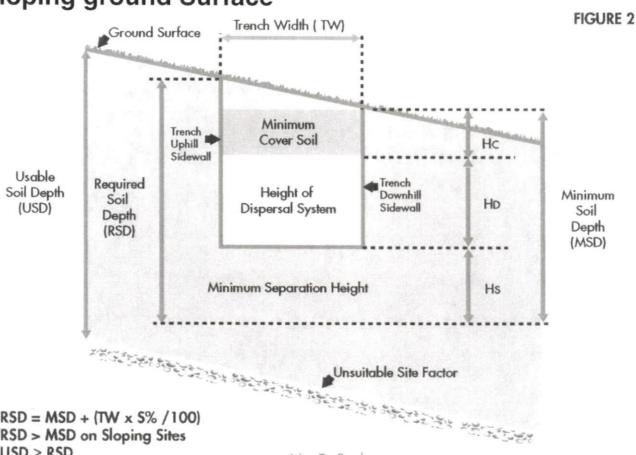
Soil Depth

(USD)

Not To Scale

FIGURE 1

Sloping ground Surface



 $RSD = MSD + (TW \times S\% / 100)$

RSD > MSD on Sloping Sites

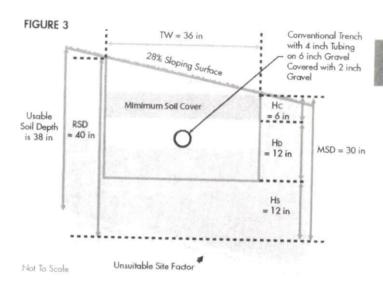
 $USD \ge RSD$

Not To Scale



Septic Effluent Disposal Trenches on Sloping Sites (Cross Section View)





Septic Effluent Disposal Trenches on Sloping Sites (Cross Section) Trial No. 1

Site has 28% slope and soil is 38 inches deep

Trial No. 1: Use 36 inch wide conventional

trench system

MSD = 6 in + 12 in + 12 in

= 30 inches

 $RSD = 30 \text{ in } (36 \text{ in } \times 28\%/100)$

= 40 inches

RSD (40 in) > USD (38 in)

Proposed System **Unsuitable** for Slope

Septic Effluent Disposal Trenches on Sloping Sites (Cross Section) Trial No. 2

Site has 28% slope and soil is 38 inches deep

Trial No. 2: Use CPP 8 inch NO-ROCKTM with 12 inch wide trench

MSD = 6 in + 10 in + 12 in= 28 inches

RSD = 30 in (12 in \times 28%/100) = 31.4 inches

USD (38 in) > RSD (31.4 in)

Proposed CPP 8 inch NO-ROCKTM
Suitable for Slope

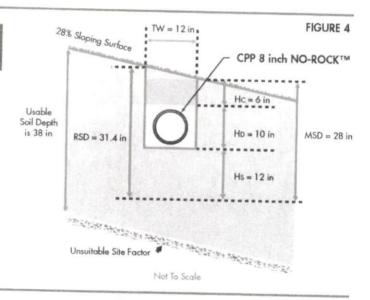
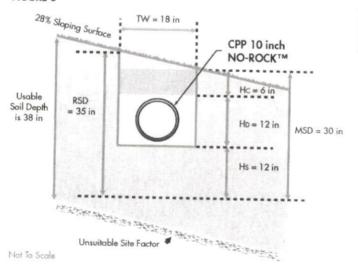


FIGURE 5



Septic Effluent Disposal Trenches on Sloping Sites (Cross Section) Trial No. 3

Site has 28% slope and soil is 38 inches deep

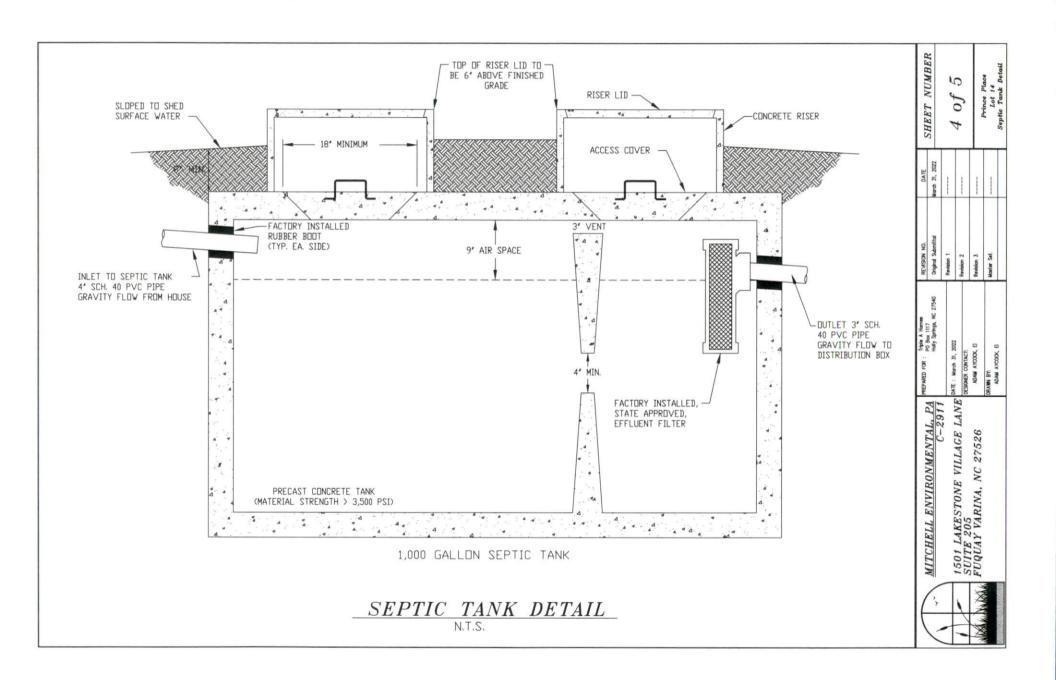
Trial No. 3: Use CPP 10 inch NO-ROCKTM with 18 inch wide trench.

MSD = 6 in + 12 in + 12 in= 30 inches

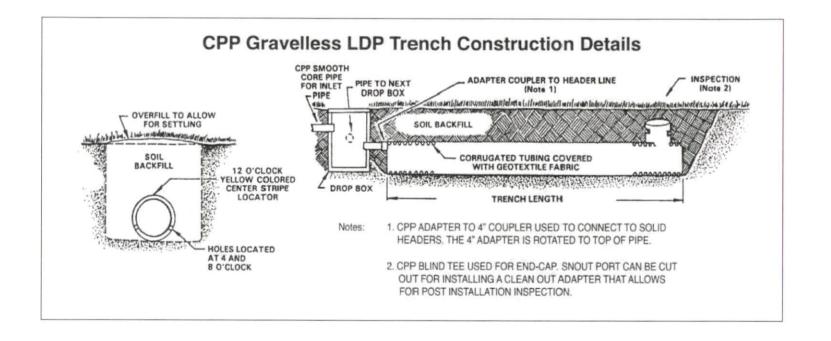
 $RSD = 30 \text{ in } (18 \text{ in } \times 28\%/100)$ = 35 inches

USD (38 in) > RSD (35 in)

Proposed CPP 10 inch NO-ROCKTM
Suitable for Slope



Trench Width = 12 Inches Trench Depth = See Harnett County permit



PREPARED FOR: Triple A Homes	PREPARED FOR: Triple A Homes	REVISION NO.	DATE	dadmin maans
MILCHELL ENVIRONMENIAL, PA	Holly Springs, NC 27540	Original Submittal	Morch 31, 2022	SHEET NUMBER
C-2911				
The state of the s	DATE: Morch 31, 2022	Revision 1		1 40 1
SOI LAKESTONE VILLAGE LANE		Designer 2		0 10 0
STITTE 205	DESIGNER CONTACT:	Agreem 2		
FUQUAY VARINA, NC 27526	Crumpler Plostic Pipe	Revision 3	-	
	DRAWN BY:	Moster Set	-	Prince Place Lot 14
	ad printing the			Large Diameter Pipe Detail