## Harnett County Department of Public Health

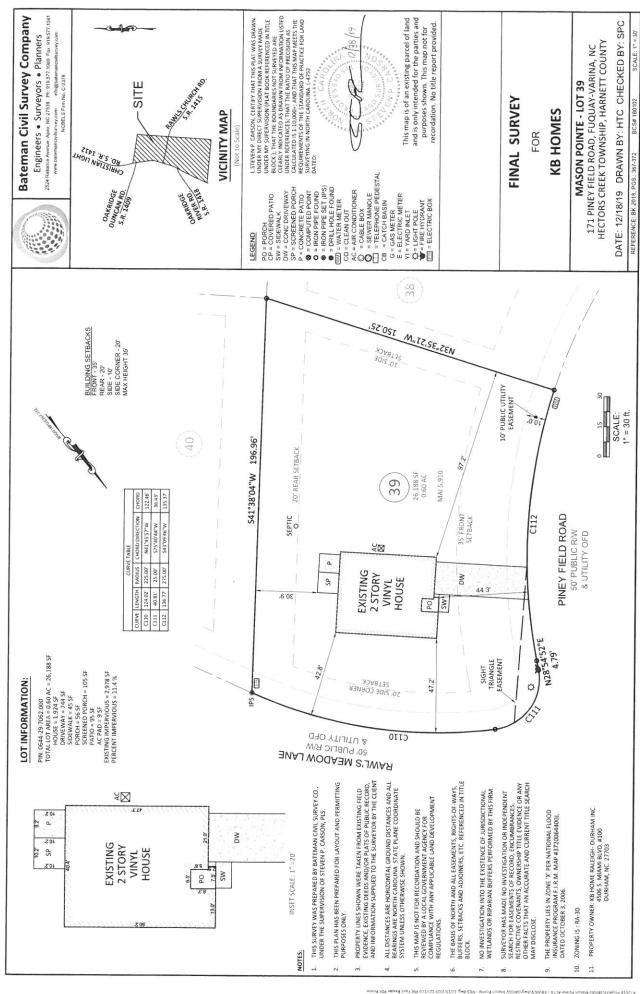
## Improvement Permit

A building permit cannot be issued with only an Improvement Permit

ISSUED TO: KB Homes Raleigh-Durh	PROPERTY LOCATION: 171 Pine nam Inc subdivision Mason Pointe	y Field Rd (Rawls Church Rd Sl
NEW REPAIR EXPANSI		equired prior to Construction Authorization Issuance:
Proposed Wastewater System Type: 25% Reduc	ction System	
Projected Daily Flow: 480 GPD	3 33	
Number of bedrooms: 5 Number of Occu	ıpants: <u>10</u> max	
Basement ☐Yes ☒ No Pump Required: ☒Yes ☐ No ☐ May be req	uired based on final location and elevations of facilities	
Type of Water Supply: Community Public	Well Distance from well NA feet	Permit valid for: Five years
Permit conditions:		No expiration
Session Laws 2013-413 and 20	114-120: Flow reduction - 480gpd to	or 5-bedroom residence
Authorized State Agent::	Date: 16/13/	SEE ATTACHED SITE SKETCH
The issuance of this permit by the Health Department in no way guar.	antees the issuance of other permits. The permit holder is responsible for ch	ecking with appropriate governing bodies in meeting their requirements. This
site is subject to revocation if the site plan, plat, or the intended use the Laws and Rules for Sewage Treatment and Disposal and to condition	changes. The Improvement Permit shall not be affected by a change in own	nership of the site. This permit is subject to compliance with the provisions of
	Construction Authorization	
Th	(Required for Building Permit)	
the construction and installation requirements of Rules (1950, 1952, ) with the attached system layout.	1954, .1955, .1956, .1957, .1958. and .1959 are incorporated by references	into this permit and shall be met. Systems shall be installed in accordance
ISSUED TO: KB Homes Raleigh-Durb	nam Inc. PROPERTY LOCATION: 171   SUBDIVISION Mason Po	Piney Field Rd(Rawls Church Rd inte
Facility Type: Existing SFD	New □ Expansion □ Repair	
	ctures? Yes No	
	ction System	(Initial) Wastewater Flow: 480 GPD
(See note below, if applicable )	ation System	
Installation Requirements/Conditions	Number of trenches NA (Repair)	
Septic Tank Size 1250 (Min gallons	Exact length of each trench NA feet	Trench Spacing: NA Feet on Center
Pump Tank Size Ext. gallons	Trenches shall be installed on contour at a	Soil Cover: NA inches
	Maximum Trench Depth of: NAinches	(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	GPM	NA inches below pipe
Conditions: Session Laws 2013-413	and 2014 120	Aggregate Depth: NA inches above pipe
Flow reduction - 480gpd for 5-be		NA inches total
	BE 10FT. FROM ANY PART OF SEPTIC SYSTEM OR I	DEDAID ADEA
NO UTILITIES ALLOWED IN INITIAL OR REPAIR I		NETAIN ANEA.
**If applicable: 1 understand the system type specified	d is different from the type specified on the application	. I accept the specifications of this permit.
Owner/Legal Representative Signature:		Date:
This Construction Authorization is subject to revocation if the site plan,	plat, or the intended use changes. The Construction Authorization shall not	
Construction Authorization is subject to compliance with the provisions	of the Laws and Rules for Sewage Treatment and Disposal and to the conditi	ions of this permit. SEE ATTACHED SITE SKETCH
- Ilasha	Manage 12 10	1
Authorized State Agent:	Date:	10/13/2020
ANDREW CUM	Construction Authorization Expiration D	ate: 10/13/2025

## Harnett County Department of Public Health Site Sketch

Property Location: 171 Piney Field Road (Rawls Church Roa	
Issued To: KB Home Raleigh-Durham Inc. Subdiv	vision Mason Pointe Lot # 39
Authorized State Agent:	Date: 10/13/2000
5 ESSID LAW 2014-120 SECTED 53%	* SEPTIC PROPOSAL BY CENTRAL CAMO
ETHERTHE GATE NOT ANY LOCAL	SOIL CONSOLTING, PLLC FOR
EALTH DEPARTMENT SHALL BE LIABLE	KBHOME RALEIGH - DURHAM
on ant damages caused by a	* CUTSHEETS OF SECTIC TANKS AND
TOTEM APPROVED ON PERMITTED	PUMP TANKS NEGOINED FROM
UNSUAST TO THIS SECTION	MAINUFACTURES
DUE TO FLOW REDUCTIONS)	OPTIONS:
ECIFIED LOWER-FLOW FIXTURES,	1) ABANDON EXT 1000GAR CONCRETE SEPT TANK, REPLACE W/ 1250CAR CONCRETE
ow FLOW TELMOLOGIES, OIL NEPLICEMENT	SEPTEL TANK [TANK TWEEK NEWS NEWS]
NI EWAL ON LESS ELWO NATES AND	2) ADAMSTON EXT VORGENT CONCRETE SEPTICE TANK, REPLACE US 1250 GAT PLACTIC
TO NEWLIN IN JUSE FOR THE	SEPTIL TANK LOO TAINE
IFE OF THE SEPTIC SISTEM	I AMOBAL CONCRETE ON PLASTIC
	SEPTIC TANK TO TEXT CONCRETE TANK TO METET 1250GAL +
2   ST   ST   T	
3 -43.8	
Ž /	
Z SFB	
3 47 2'	
3 - 472'	
4431 01~	
This drawing is for illustrative purposes only. System ins	stallation must meet all pertinent laws, rules, and regulations.
2, 134	



HTE# 5PD 1902-6037	Harnett County Departi	ment of Public Health	0 5 0 7 5
PERMIT #			
Basement with plumbing: Garage Type of Water Supply: Community	Number of Bedrooms 4  Public Well Distance from well  EZING Themse mixed to	N MASON Pt tion #	LOT # <u>39</u>
This system has been installed in compliance with applicab	le North Carolina General Statutes, Rules for Sewage Treatmer	nt and Disposal, and all conditions of the Improvem	nent Permit and Construction Authorization.
PERMIT CONDITIONS:	Consentity  4Br  587  79 D  Pance	FIELD DZ	12-13
I. Performance: System shall perform in	accordance with Rule .1961.		
III. Maintenance: As required by Rule .190 Subsurface system operat		a and reporting	
IV. Operation:	- To additional operation conditions, maintenance	and reporting.	-
V. Other:			
□ D-Box □	Pump 🗆	Alarm 🗆H20L	ine PWR Line
Following are the specifications for the sewage d Type of system:  Conventional  Oth Subsurface  No. of Drainage Field  ditches  French Drain Required:	exact length  of each ditch  Linear feet	width of ditches 3 feet	depth of
Authorized State Agent	= E Manhant	- <b>C:43</b> Date 12	-23-14



# Central Carolina Soil Consulting, PLLC 1900 South Main Street, Suite 110 Wake Forest, NC 27587 919-569-6704/fax 919-569-6703

September 23, 2020

Harnett County Staff Harnett County Environmental Health Department 900 S 9th St Lillington, NC

Flow Reduction Certification and As-built Mason Pointe Lot 39 171 Piney Field Rd, Fuquay-Varina, Harnett County, North Carolina Project #:2031

Dear Harnett County Staff:

Central Carolina Soil Consulting (CCSC) in conjunction with Bateman Civil Survey Company are proposing wastewater daily flow calculations for a single-family home located at Mason Pointe Lot 39 pursuant to session law 2014-120 and 2013-413. The home has 5 bedrooms and under the current flow calculations provided in the state rules would have a daily flow of 600 gallons per day. That would be based on 120 gallons per bedroom.

Household flow rates from the 15 NCAC 18A section of the state rules relied on fixture flow rates from 1982, and calculated the flows for common fixtures to established average flows for the purpose of calculating household daily flows and septic system based on those flows. The data for the historic fixture flows was taken from the EPA 2002 Onsite Wastewater Treatment Systems Manual.

The attached spreadsheet contains the flow reducing fixtures that KB Homes installed in the home. The table includes flow rates for the existing flow reducing fixtures as well as flow rates from the state rules and the percentage of water savings. On average the proposed fixtures provide a 39% savings.

We are requesting a reduction of 20% for the use of low flow fixtures. This will provide an adjusted daily flow of 96 gallons per bedroom per day and a total flow of 480 gallons per day for the proposed 5bedroom house. Central Carolina Soil Consulting, PLLC (CCSC) employees in conjunction with Bateman Civil Survey Company, reviewed fixture receipts from Thornton's Plumbing, Inc. that were installed in the house for KB Homes.

These fixtures or equivalent flow fixtures are required for the life of the home. Any change in fixtures that results in a change of the flow rates must be approved by an Engineer and Harnett County Environmental Health Services. In addition, the existing 1000-gallon septic tank shall be replaced with a 1250-gallon septic tank to comply with septic tank sizing for a 5-bedroom home.

With respect to increased effluent strength, we do not believe that the effluent strength will increase with the addition of a bedroom. The fixtures that are currently installed in the home are standard low flow fixtures that are installed in all of the homes built by KB Homes. These fixtures or fixtures with similar flow rates are used in houses all over the country and have been used for several decades. The additional bedroom will increase the volume of effluent, but will not change the strength of the effluent and should be consistent with levels required for residential waste in 15A NCAC 18A .1970 b, table 8.

We have reviewed the design and installation of the system located at 171 Piney Field Rd and are satisfied that the drain field is installed per the original design and are capable of handling the additional bedroom with the installation of the proposed 1250-gallon septic tank. When the new 1250 gallon tank is installed we will certify the installation separately.

Attached are email communications with the home owners and representatives from KB Homes indicating their knowledge of Session Law 2014-120 Section 53.

If you need further information or have any questions please contact Matt Burdette at (919) 422-2827 or Tom Speight at 919-577-1080 2524 Reliance Ave, Apex NC 27539

Sincerely,

Central Carolina Soil Consulting, PLLC

Bateman Civil Survey Company NCBELS# C-2378.

Matt Burdette

Environmental Specialist

min By

Tom Speight, P.E.

(seal)

## **Matt Burdette**

From: Sent:

Cavalear, Rachel <rcavalear@kbhome.com> Wednesday, September 09, 2020 11:16 AM

To:

Matt Burdette

Subject:

FW: Mason Pointe Lot 39 - 171 Piney Field Fuquay Varina, NC 27526 - Septic Tank/Flow Reduction

Hi Matt -

See below acknowledgement from homeowner on Lot 39 - how quickly can we get this turned back into Andrew?

Thank you Rachel

From: Chelsea Sicard <ccouilla@gmail.com>
Sent: Wednesday, September 9, 2020 11:13 AM

To: Customer Service - Raleigh <RalCustomerService@kbhome.com>

Subject: Re: Mason Pointe Lot 39 - 171 Piney Field Fuquay Varina, NC 27526 - Septic Tank/Flow Reduction

EXCERNAL SMAILS for not ellebring de open are binne newlighes; you exceptive the source of the emails

Hello,

Yes I am aware of the update needed for the septic tank to be replaced and the submission of an updated permit to fit the 5 bedroom house that was built.

Thank you Chelsea Sicard

On Wed, Sep 9, 2020 at 11:08 AM Customer Service - Raleigh < RalCustomerService@kbhome.com > wrote:

Hello Chelsea.

Please confirm I have made you aware of the following so that we can proceed with approval from the state for the flow reduction and septic tank size change.

This email is to confirm you have been made aware that KB Home is updating your septic permit from a 4 bedroom to a 5 bedroom to be consistent with how your home was built via a Flow Reduction submitted to the County and the State for review and approval. Per the state please acknowledge you have also been made aware of Session Law 2014-120 Section 53 which states "Neither the State not any local health department shall be liable for any damages caused by a system approved or permitted pursuant to this section".

Once we receive your approval we can proceed with the process.

Let me know if you have any further questions or call 919 768 7995

Thank you Rachel Cavalear

888-KB-HOMES kbhome.com

Consider the environment before printing this email.

		Mason Po	Mason Pointe Lot 39 AS BUILT			
	Item		Gal/min. or flush	Number of	Base Flow From	Percent Water
0	Tub/Shower Trim	Moen 1313350		Fixures	1982	Savings
Optional bath	Lavatory Faucet	Moon 6410	1.8 gal/minute	1	5.5 gal/minute	829
			1.5 gal/minute	1	3.0 gal/minute	20%
	Lavatory Faucet	Moen 6410				
Master Bath	Shower Trim	Moon 121325D	1.5 gal/minute	2	3.0 gal/minute	2005
	Tub	Moen 1943	1.8 gal/minute	1	5.5 gal/minute	%29
			FIII & Release	1	Fill & Release	%0
Kitchen	Kitchen Sink Faucet	Moen 7594				
			1.5 gal/minute	1	3.0 gal/minute	20%
Rath 3	Tub/Shower Trim	Moen T2133FD				
7 1000	Lavatory Faucet	Moen 6410	1.8 gal/minute	1	5.5 gal/minute	%19
			1.3 gal/minute	2	3.0 gal/minute	%05
Laundry	Laundry Sink Faucet	Profit PEWSC1170 CB				
		TO CELLES CA	1.2 gal/minute	1	3.0 gal/minute	%09
Toilets	Optional, Master, Bath 7	Gerher MC 20 010				
		Oct Del W3-20-318	1.28 gal /flush	3	3 5 221/22	

FIXTURES	TOILET	FAUCET	SHOWER	CLOTHES	IFAK	100			
TO THE PARTY OF TH				WASHER	1	BAIH	OTHER	DISHWASHER	TOTALS
HOLD WATER USE	24%	20%	20%	16%	12%	3%	3%	2%	1006
GALLONS PER DAY									8001
(600 BASE)	144	120	120	96	7.2	C.			T
PERCENT OF					77	18	18	12	009
SAVINGS FROM									
WATER SAVING	63%	51% avg	%49	c	è				
FIXURES					8	%0	%0	%0	39%
ADJUSTED FLOW									
(GALLONS)	53	65	40	96	72	0.5			
						01	18	12	368



Buy it for looks. Buy it for life.®

There is more than I version of this model. Page down to identify the version you have.

## DESCRIPTION

- Metal construction with various finishes identified by suffix
- 1/2" IPS connections
- Includes metal pop-up waste assembly

## **OPERATION**

- Lever style handles
- Maximum handle(s) rotation angle is 90° to full on
- Rotate hot side counterclockwise to open (clockwise to close)
- Rotate cold side clockwise to open (counterclockwise to close)

### **FLOW**

- Water usage is limited to these maximum flow rates as indicated by the corresponding product markings o 1.2 gpm max (4.5L/min) at 60 psi
- 1.5 gpm max (5.7L/min) at 60 psi

## CARTRIDGE

- 1234 cartridge design
- Nonmetallic and stainless steel material

## **STANDARDS**

- Third party certified to WaterSense\*, ASME A112.18.1/CSA B125.1 and all applicable requirements referenced therein
- Certified to NSF 61/9 & 372
- Products marked with 1.2 gpm are compliant with California water efficiency regulations
- Complies with California Proposition 65 and with the Federal Safe Drinking Water Act
- ADA ( for lever handles

## WARRANTY

- Lifetime limited warranty against leaks, drips and finish defects to the original consumer purchaser
- 5 year warranty if used in commercial installations

## Specifications



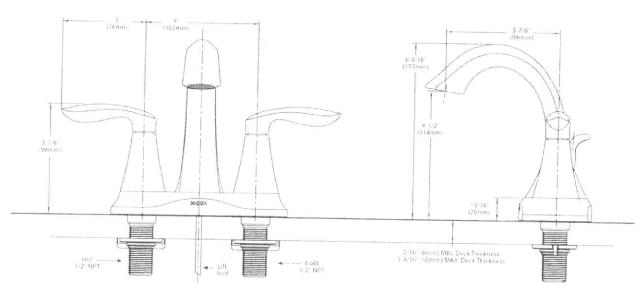
## **EVA**TM 4" Lavatory Faucet with Metal Waste Assembly

Models: 6410 series

Bulk Models: 66410, 66411\* (Bulk packed 6 per carton), 50/50 waste assembly \*Includes hot (red) and cold (blue) indicators.

NOTE: THIS FAUCET IS DESIGNED TO BE INSTALLED THRU 3 HOLES, 1" MIN. DIA.





## CRITICAL DIMENSIONS

(DO NOT SCALE)

FOR MORE INFORMATION CALL: 1-800-BUY-MOEN

www.moen.com



Buy it for looks. Buy it for life.®

## Specifications

## DESCRIPTION

- · Metal construction with various finishes identified by suffix
- · 1/2" IPS connections
- Includes metal pop-up waste assembly

## **OPERATION**

- Lever style handles
- Maximum handle(s) rotation angle is 90° to full on
- Rotate hot side counterclockwise to open (clockwise to close)
- Rotate cold side clockwise to open (counterclockwise to close)

## FLOW

 Flow is limited to 1.5 gpm max (5.7L/min) at 60 psi, for products made before October 2008 flow is limited to 2.2 gpm max (8.3 L/min)

## CARTRIDGE

- 1224 cartridge design
- · Nonmetallic and stainless steel material

## **STANDARDS**

- Third party certified to WaterSense<sup>a</sup>, ASME A112.18.1/CSA B125.1 and all applicable requirements referenced therein
- Certified to NSF 61/9 & 372
- Complies with California Proposition 65 and with the Federal Safe Drinking Water Act
- ADA for lever handles

## WARRANTY

- Lifetime limited warranty against leaks, drips and finish defects to the original consumer purchaser
- 5 year warranty if used in commercial installations



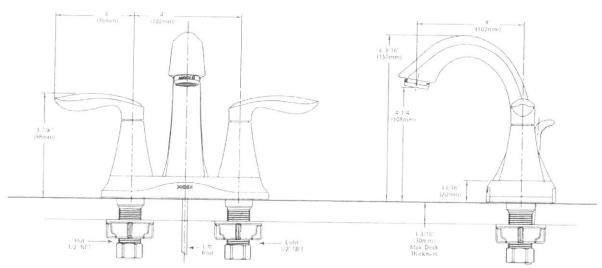
EVA™ 4" Lavatory Faucet with Metal Waste Assembly

Models: 6410 series

Bulk Models: 66410, 66411\*
(Bulk packed 6 per carton),
50/50 waste assembly
\*Includes hot (red) and cold (blue) indicators.

NOTE: THIS FAUCET IS DESIGNED TO BE INSTALLED THRU 3 HOLES, 1" MIN. DIA.





## **CRITICAL DIMENSIONS**

(DO NOT SCALE)

FOR MORE INFORMATION CALL: 1-800-BUY-MOEN

www.moen.com



Buy it for looks. Buy it for life.

## DESCRIPTION

- Metal construction with various finishes identified by suffix
- Includes showerhead, arm, flange and diverter spout

- Handle operates counterclockwise through a 270° arc with off at 6 o'clock and maximum hot at the 9 o'clock position. Shut off in clockwise direction
- Adjustable temperature limit stop to control maximum hot water temperature
- Pressure balancing mechanism maintains selected discharge temperature to ± 3

### FLOW

- Showerhead is limited to 2.5 gpm (9.5 L/min) at 80 psi EP suffix models are limited to 1.75 gpm (6.6 L/min) at 80 psi
- NH suffix models contain no showerhead

### CARTRIDGE

- 1222 cartridge design
- Nonmetallic/nonferrous and stainless steel materials
- Accommodates back to back installations

### **STANDARDS**

- Third party certified to meet ASME A112.18.1/CSA B125.1 and all applicable requirements referenced therein
- EP suffix models are third party certified to WaterSense®
- ADA ( for lever handle

## WARRANTY

- Lifetime limited warranty against leaks, drips and finish defects to the original homeowner
- 10 year limited warranty when used in a multifamily installation
- 5 year limited warranty when used in a commercial installation

Visit www.moen.com/support for complete details and limitations

## Specifications



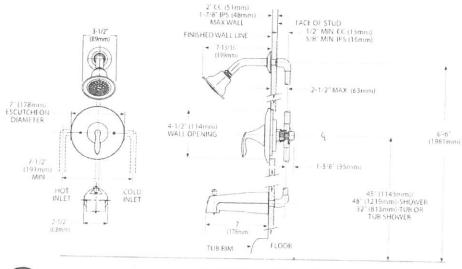
## EVA™ POSI-TEMP Single-Handle Tub/Shower Trim Kit

Models: T2131 series - valve trim only

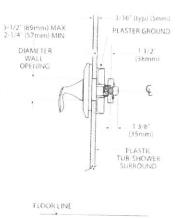
T62131 (Bulk Packed 12 per carton) T2132 series - shower trim only T62132 (Bulk Packed 12 per carton) T2133 series - tub/shower trim T62133 (Bulk Packed 12 per carton)

Valves: 62300 series 2500 series









THIN WALL APPLICATION

M•Pact™ System

CRITICAL DIMENSIONS

There is more than one version of this model. Page down to identify the version you have.

## **FAUCET DESCRIPTION**

- Reflex™ pulldown system offers smooth operation, easy movement and secure docking
- Metal construction with various finishes identified by suffix
- Duralock™ quick connect system
- · Pullout spray with 68" braided hose
- Flexible supply lines with 3/8" compression fittings
- · High arc spout provides height and reach to fill or clean large
- pots while pull out wand provides the maneuverability for cleaning or rinsing
- 360° rotating spout Power Boost™ Spray Technology

## **OPERATION**

- · Lever style handle
- Temperature controlled by 100° arc of handle travel
- Operates with less than 5 lbs. of force
- Operates in stream or spray mode in the pullout or retracted position

### FLOW

Flow is limited to 1.5 gpm (5.7 L/min) at 60 psi

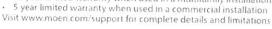
## CARTRIDGE

1255<sup>th</sup> Duralast<sup>th</sup> cartridge for Single-Handle Faucets STANDARDS

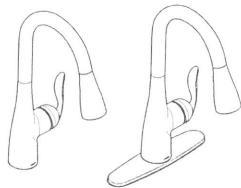
- Third party certified to IAPMO Green, ASME A112.18.1/CSA B125.1 and all applicable requirements referenced therein
- Certified to NSF 61/9 & 372
- · Meets CalGreen and Georgia SB370 requirements
- · Complies with California Proposition 65 and with the Federal Safe Drinking
- The backflow protection system in the device consists of two independently operating check valves, a primary and a secondary which prevent backflow
- ADA for lever handle

## WARRANTY

- Lifetime limited warranty against leaks, drips and finish defects to the original homeowner
- 10 year limited warranty when used in a multifamily installation





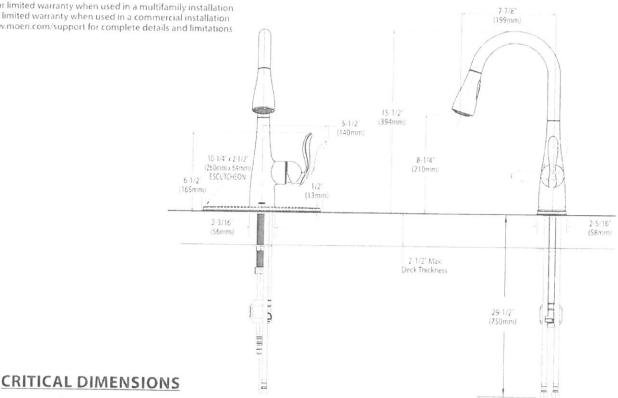


ARBOR™ Single Handle High Arc **Pulldown Kitchen Faucet** 

Models: 7594 series

NOTE: THIS FAUCET IS DESIGNED TO BE INSTALLED THROUGH 1 OR 3 HOLES, 1-1/2" (38mm) MIN. DIA.





(DO NOT SCALE)

## MOEN

## **FAUCET DESCRIPTION**

- Reflex<sup>™</sup> pulldown system offers smooth operation, easy movement and secure docking
- Metal construction with various finishes identified by suffix
- Quick connect system
- Pullout spray with 68" braided hose
- Flexible supply lines with 3/8" compression fittings
- High arc spout provides height and reach to fill or clean large pots while pull out wand provides the maneuverability for cleaning or rinsing
- 360' rotating spout

### Power clean spray **OPERATION**

- Lever style handle
- Temperature controlled by 100° arc of handle travel
- · Operates with less than 5 lbs. of force
- · Operates in stream or spray mode in the pullout or retracted position
- · When filling a vessel outside the sink, the pause feature conveniently stops the flow of water as the wand passes over the counter top

## FLOW

Flow is limited to 1.5 gpm (5.7 L/min) at 60 psi

## CARTRIDGE

1255™ Duralast™ cartridge for Single-Handle Faucets

## STANDARDS

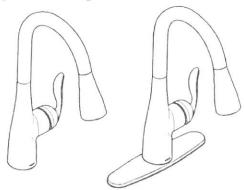
- Third party certified to IAPMO Green, ASME A112.18.1/CSA B125.1 and all applicable requirements referenced therein
- Certified to NSF 61/9 & 372
- Meets CalGreen and Georgia SB370 requirements
- Complies with California Proposition 65 and with the Federal Safe Drinking
- The backflow protection system in the device consists of two independently operating check valves, a primary and a secondary which prevent backflow
- · ADA ( for lever handle

## WARRANTY

- Lifetime limited warranty against leaks, drips and finish defects to the original homeowner
- · 10 year limited warranty when used in a multifamily installation



## Specifications

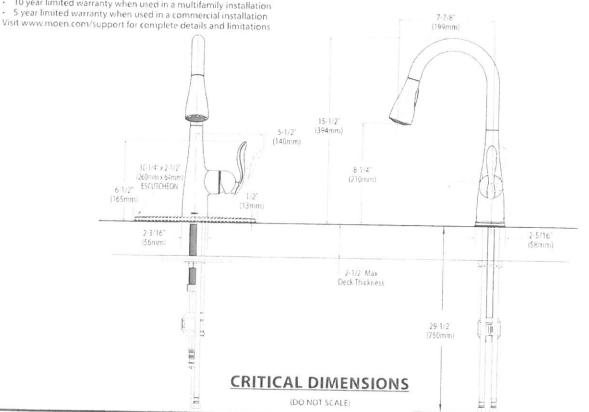


ARBOR™ Single Handle High Arc Pulldown Kitchen Faucet

Models: 7594 series

NOTE: THIS FAUCET IS DESIGNED TO BE INSTALLED THROUGH 1 OR 3 HOLES, 1-1/2" (38mm) MIN. DIA.





TO ORDER PARTS CALL: 1-800-BUY-MOEN www.moen.com

8/18

## PFWSC1120 Series

## Two Handle Laundry Faucet

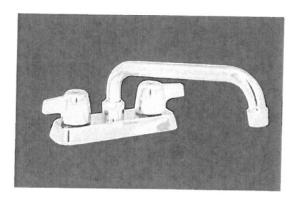


## **Product Features**

- · Ceramic Cartridges
- Metal Lever Handles
- Flow Rate (with hose thread adapter): Min. 4.0 GPM
- · Flow Rate (with optional aerator): Max. 1.2 GPM
- Meets ANSI: A112.18.1M
- · ADA Compliant

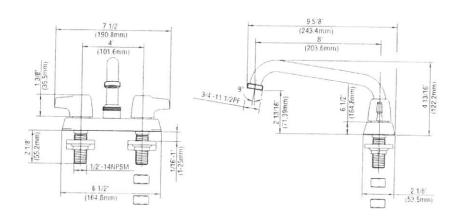


PFWSC1120CP Polished chrome



PFWSC1120CP

## **Product Specifications**



## Warranty and Codes

This product comes complete with installation, operating, care and maintenance instructions. This PROFLO faucet carries a limited lifetime warranty when installed in residential applications.

The warranty is five years in commercial applications.

This product meets ANSI: A112.18.1M.

Compliant with lead content requirements of California AB 1953.







\* All measurements are nominal. Please verify before actual installation.





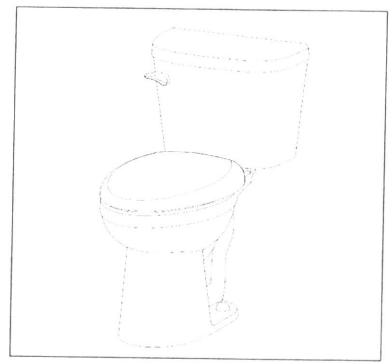
## MAXWELL® 1.28 ErgoHeight™, Elongated Toilet

12" Rough-in

## Features:

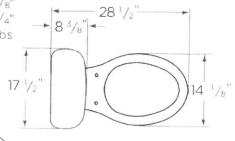
- 1.28 gpf/4.8 Lpf high efficiency two-piece toilet
- Elongated ErgoHeight™ bowl
- · Dual-fed siphon jet
- · Pilot fill valve
- · 3" flush valve
- · 2" glazed trapway
- · Color matched front tank lever
- Optional insulated non-sweating tank (28-992)
- Optional right-handed trip lever (28-990-97)
- Available in White, Bone and Biscuit
- · 2 bolt caps
- · ADA Compliant
- · Seat not included

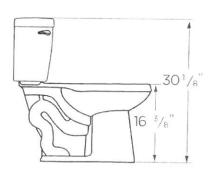
## **Dimensions:**



Specifications: Bowl-#MX-21-928 Front Bowl

Tank-#28-990





THIS FIXTURE QUALIFIES
ACCORDING TO ASME TEST
PROCEDURES AS A HIGH
EFFICIENCY WATER CLOSET WITH
AN AVERAGE CONSUMPTION OF
128 gpf (4.8 Lpf) OR LESS.









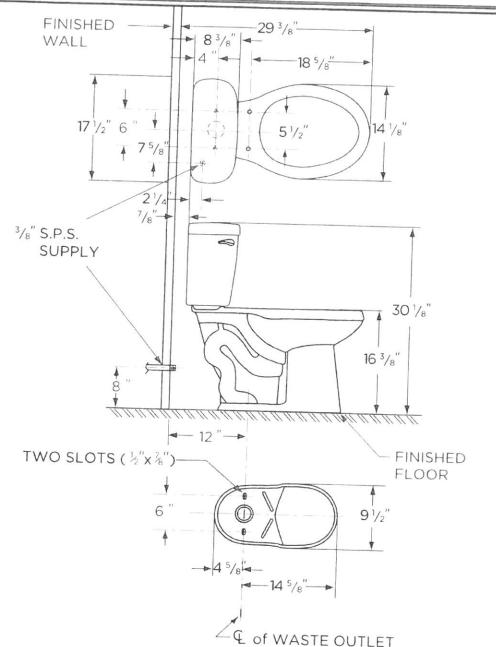
Job Name
Date
Model Specified
Quantity
Customer
Contractor
Architect/engineer
d y er

www.gerberonline.com



1.28 gpf (4.8 Lpf) MAXWELL\* 1.28 TOILET WS-20-918

17" High Elongated, 12" Rough-in (Bowl MX-21-928 with Tank 28-990)



## NOTES:

All dimensions are in inches.

Illustrations may not be drawn to scale.

## IMPORTANT:

Dimensions of fixtures are nominal and may vary within the range of tolerances established by ASME Standard A 112.19.2.

THIS FIXTURE QUALIFIES ACCORDING TO ASME TEST PROCEDURES AS A HIGH EFFICIENCY WATER CLOSET WITH AN AVERAGE CONSUMPTION OF 1.28 gpf (4.8 Lpf) OR LESS.



ROY COOPER • Governor

MANDY COHEN, MD, MPH • Secretary

MARK T. BENTON • Assistant Secretary for Public Health

Division of Public Health

August 28, 2020

Andrew Currin, REHS Harnett County Health Dept 307 Cornelius Harnett Blvd Lillington, NC 27546

Subject: 171 Piney Field Road, Mason Pointe Subdivision Lot 39

LHD Request for Review - Session Laws 2013-413 and 2014-120

Project Number: 2020-36

## Mr. Currin:

A submittal was received from you on August 20, 2020 requesting review of a proposed flow reduction for 171 Piney Field Road, Mason Pointe Subdivision Lot 39 in Fuquay-Varina, North Carolina. The Harnett County Department of Public Health Improvement Permit/ Construction Authorization application indicates the design daily flow adjustment requested is for a single-family residence with an initial Construction Authorization permit issue date of March 8, 2019 for a four-bedroom residence with a design daily flow (DDF) of 480 gallons per day (gpd) and a pump to 25% reduction system. The type of review requested indicated "Local Health Department Request for Project Review" form completed by you is a proposed flow reduction based on Session Laws 2013-413 and 2014-120. It is our understanding that:

- Central Carolina Soil Consulting, PLLC employees in conjunction with Bateman Civil Survey Company
  reviewed fixture receipts for fixtures installed in the single-family residence constructed at the site. The
  request included information on the flow reducing fixtures installed in the residence.
- 2. The adjusted design daily flow proposal is for a 5-bedroom residence (DDF=600 gpd) to discharge to a subsurface wastewater system designed for a 4-bedroom residence (DDF=480 gpd).
- In addition to this proposal, there have been four previous instances of similar flow reductions proposals by the same parties that were submitted months after Harnett County had issued an Operation Permit (December 23, 2019).
  - a. 88 Old Barn Way, Mason Pointe Subdivision Lot 42
  - b. 141 Old Barn Way, Mason Pointe Subdivision Lot 46
  - c. 99 Rawls Meadow Lane, Mason Pointe Subdivision Lot 62
  - d. 186 Rawls Meadow Lane, Mason Point Subdivision Lot 57
- 4. An undated, digitally signed copy of a "County of Harnett Residential Land Use Application" was submitted indicating a 5-bedroom, 3-bath single family dwelling with a finished bonus room having no closet.

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES . DIVISION OF PUBLIC HEALTH

LOCATION: 5605 Six Forks Road, Building 3, Raleigh, NC 27609
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Only information regarding the requested flow reduction submitted with the request was reviewed. A review was not conducted of the site information, project design/calculations and project specifications. Review has been completed of the submittal and the review comments are as follows:

- Although the "Local Health Department Request for Project Review" form completed and submitted by Harnett County indicates the proposed flow reduction is based on Session Laws 2013-413 and 2014-120, the parties proposing the flow reduction did not cite the session laws in the proposal cover letter.
  - a. If it appears the PE is proposing the flow reductions under Session Laws 2014-120 and 2013-413, the session laws are to be cited in the proposal cover letter.
  - b. It is suggested that the LHD have the PE provide written verification that the owner is aware of the disclaimer: "Neither the State nor local health department shall be liable for any damages caused by an engineered system approved or permitted pursuant to Session Law 2014-120 Section 53."
- 2. The septic tank capacity of 1,000 gallons indicated in the submittal does not meet the 1,250-gallon minimum liquid capacity requirement. The pump tank minimum capacity shall meet the requirements of Rule .1952(c). The design and capacity of any pretreatment system components shall be based on unreduced flows in accordance with Rules .1949(c)(1) and (2) or otherwise designed to account for increased constituent concentrations (wastewater strength) expected due to use of low-flow fixtures.
- 3. Due to the potential for wastewater effluent strength to increase with the proposed additional bedroom, have the PE conduct an evaluation of the proposed flow reduction/residence expansion to determine whether the reduction/expansion exceeds limits (e.g., wastewater strength, volume, organic loading) necessary to ensure wastewater system integrity and protect public health, safety, and welfare based on site specific conditions and provide a written determination to the Harnett County Health Department.
- 4. I was unable to determine if the owner has been made aware of Session Law 2014-120 Section 53 which states, "Neither the State nor any local health department shall be liable for any damages caused by a system approved or permitted pursuant to this section." We recommend that you receive verification, preferably in writing, that the owner has been made aware of this disclaimer.
- 5. Observations: Floor Plan Sheets and Fixtures Table
  - a. The scale of the floor plan sheets 1.1 and 1.2 included in the submittal was so small (1" ≈ 12.9') that a magnifying glass was required during attempts to ascertain fixtures information on those pages. Floor plans including in future submittals are to be at a scale no smaller than 1" = 5'.
  - b. The fixtures table indicates a tub/shower fixture in the Optional Bath (Bath 5), but I was unable to visually identify a location of this fixture on plan sheet 1.1. Is there such a fixture in Bath 5?
  - c. Are there any water-using fixtures in the mud room?
- 6. Prior to issuing a revised IP/CA, it is strongly recommended that you have all the following information:
  - i. The additional information identified under the conditions above; and
  - ii. Written verification or concurrence from the PE in regard to any modifications to the original system design. For the permitted system and for any system modifications being proposed, (1) written verification is provided that the design is prepared, sealed, and signed by a PE and (2) written concurrence with a design prepared by an authorized designer or LHD is provided by a PE.

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- 7. Prior to issuing a revised OP, it is strongly recommended that you have all the following information:
  - i. Manufacturer's cutsheet for the septic tank with a 1,250-gallon minimum capacity to be installed to meet the requirements of Rule .1952(b)
  - ii. Manufacturer's cutsheet for the pump tank with a minimum capacity to be installed to meet the requirements of Rule .1952(c)
  - iii. Written confirmation by the PE that they approve the system installation for the adjusted design daily flow; and
  - A statement signed by the PE verifying construction is complete and in accordance with approved plans and specifications.
- 8. All Permits: All permits issued for adjusted design daily flow rates based on Session Laws 2013-413 and 2014-120 should include a disclaimer in keeping with Session Law 2014-120 Section 53 which states, "Neither the State nor any local health department shall be liable for any damages caused by a system approved or permitted pursuant to this section."
- 9. Operation Permits: Also include as a condition that the specified lower-flow fixtures, low-flow technologies, or replacements with equal or less flow rates are to remain in use for the life of the applicable system.

If you have any questions concerning these comments, you may contact me by phone at (919) 715-3270, by fax at (919) 715-3227, or by e-mail at Lorna. Withrow@dhhs.nc.gov.

Sincerely,

Lorna C. Withrow, PE On-Site Wastewater Engineering

cc: Scott Greene, LSS - On-Site Water Protection