

Summary of Water Quality Treatment														
Zone	Inlet ID	Impervious Area (sf)	Pervious Area (sf)	Total Area (sf)	Total Area (Acres)	Required Water Quality Volume (CF)	Existing Area Mitigation Credits (SF)	Treatment Approach	Filter Size Required	Jellyfish Unit Provided	1 Yr 24-hr Storm Event Peak Flow Rate (cfs)	Required StormTech Isolator Row Chambers (SC-740)	Provided Water Quality Volume (CF)	StormTech Isolator Row Chambers (SC-740) Provided (EA)
Zone D	D-24	8,527.00	600.00	9,127.00	0.21	730.58	-	Filterra	1-(6"x6")	-	0.53	NR	-	N/A
	D-25	13,197.00	2,393.00	15,590.00	0.36	1,179.52	-	Filterra	1-(13"x7")	-	1.19	-	-	-
	Brick South (Partial South Side)	5,812.00	0.00	5,812.00	0.13	484.33	3,487.20	Filterra D25	Included in D-25	-	-	-	-	-
<b>Zone D Totals</b>		<b>27,536.00</b>	<b>7,944.00</b>	<b>35,470.00</b>	<b>0.81</b>	<b>2,394.43</b>	<b>3,487.20</b>							
Zone B Developed Area	401	1,087.00	0.00	1,087.00	0.02	90.58	0.00	None this Phase	-	-	-	-	-	-
	402 (Partial area)	1,087.00	0.00	1,087.00	0.02	90.58	0.00	None this Phase	-	-	-	-	-	-
	Disturbed Perimeter Area	0.00	0.00	0.00	0.00	0.00	0.00	None this Phase	-	-	-	-	-	-
<b>Zone B Developed Area Subtotals</b>		<b>2,174.00</b>	<b>0.00</b>	<b>2,174.00</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>							
<b>Zone F Existing Buildings</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>						<b>1,460.00</b>	
<b>Zone F Existing Building Subtotal</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>						<b>2,920.00</b>	
<b>Zone F Totals</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>							

**\*\*Previously Approved Filterra Box Developed Area Breakdown**

A.) Total New Developed Area Treated (SF)	24,717.00	0.57
B.) Total New Developed Area untreated (SF)	7,123.00	0.16
C.) Total New Developed Area (SF) = A+B	31,840.00	0.73
D.) Existing Developed Area Treated (SF)	5,812.00	0.13
E.) Adjusted Existing Developed Area Treated (SF)	3,487.20	0.08
F.) Total Net Developed Area Treated (SF) = A+E	28,204.20	0.65

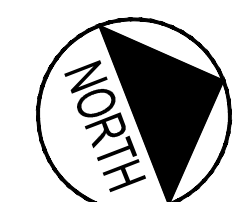
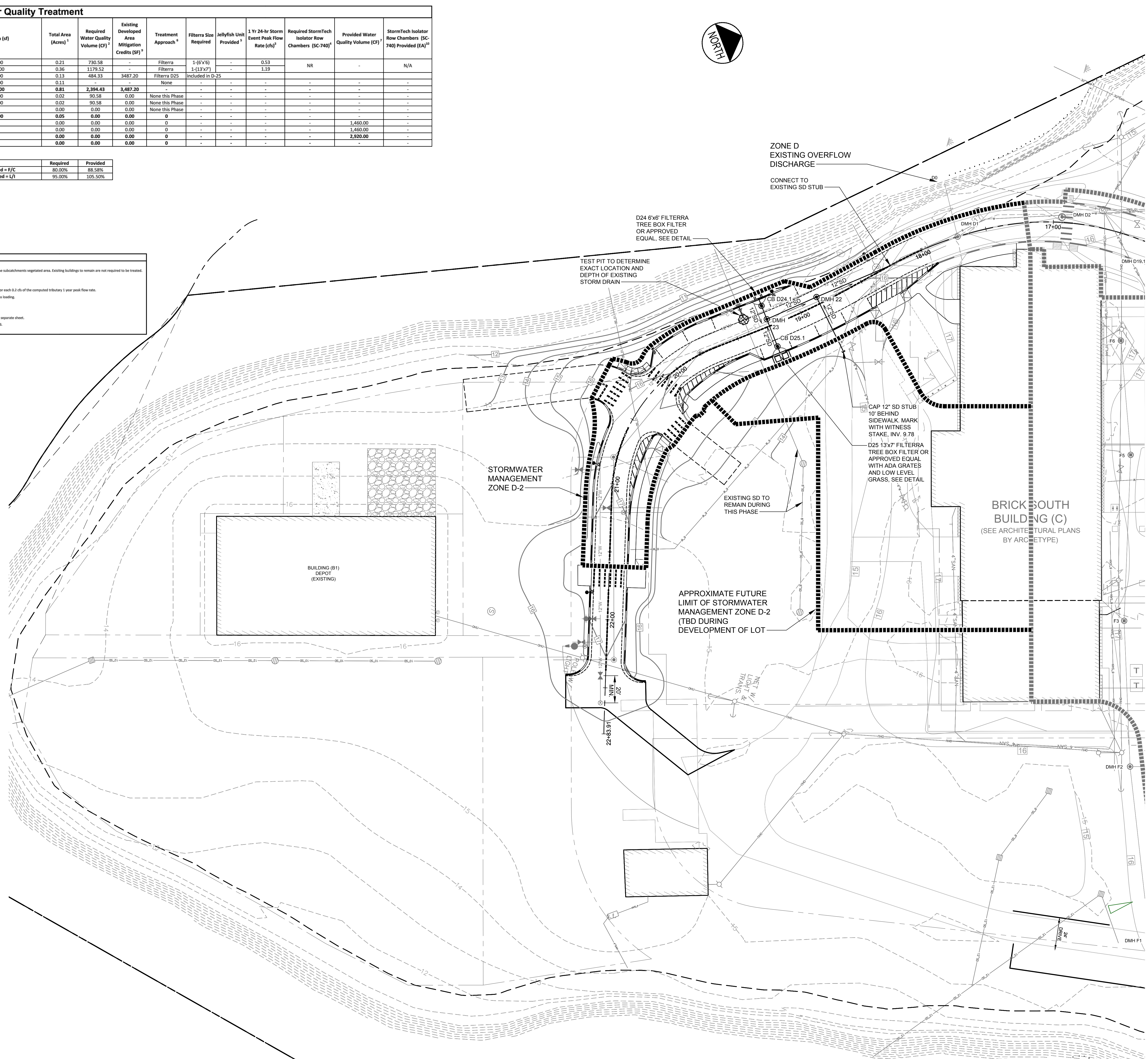
Treatment Breakdown			
	Required	Provided	
% of Net Developed Area Treated = F/C	80.00%	88.58%	
% of Net Impervious Area Treated = F/I	95.00%	105.50%	

**Impervious Area Breakdown**

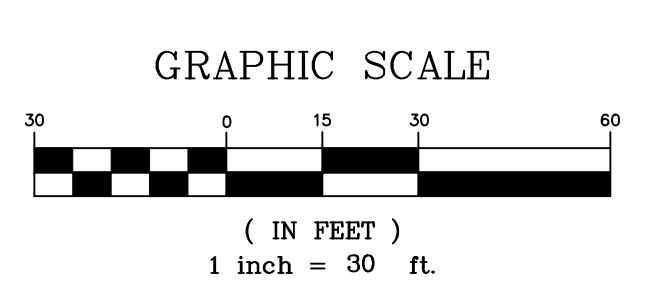
G.) Total New Impervious Area Treated (SF)	21,724.00	0.50
H.) Total New Impervious Area untreated (SF)	2,174.00	0.05
I.) Total New Impervious Area (SF) = G+H	23,898.00	0.55
J.) Existing Impervious Area Treated (SF)	5,812.00	0.13
K.) Adjusted Existing Impervious Area Treated (SF)	3,487.20	0.08
L.) Total Net Impervious Area Treated (SF) = G+K	25,211.20	0.58

**NOTES AND ASSUMPTIONS:**

- All areas are based on the F37 Permit drawings dated June 2014.
- The required water quality volumes have been computed based on Sections 7.4, 7.5 and 7.6 of the Maine DEP Volume III BMP's Technical Design Manual. The volume is computed to be 1" times the subcatchment impervious area and 0.4" times the subcatchment vegetated area. Existing buildings to remain are not required to be treated.
- The 1 year peak flow rates have been computed using the rational method. The rainfall intensities are derived from the Cumberland County IDF curve.
- Surface storage system sizing is based on a StormTech SC-740 chamber system. All isolator rows have been computed per section 3.3.3 Pretreatment Isolator Row of the Maine DEP Volume III BMP's Technical Manual. One chamber is required for each 0.2 cfs of the computed tributary 1 year peak flow rate.
- The required number of jellyfish treatment units have been computed based on CorTech Sizing requirements. The water quality volume for each unit is storage up stream and the amount of treatment cartridges are computed based on unit flow loading.
- The owner reserves the right to use an alternate tree box filter device provided it has been approved by the Maine DEP Chapter 500 delegated review authority of the City of Portland.
- Provided Water Quality Volume for stormwater storage system computed using 61.38 CF of storage per chamber based on Storm Tech Chamber Design Manual.
- The Storm Drain Edge was based on section 7.6 of the Maine DEP Volume III BMP's Technical Design Manual. The width of stone is derived from a required WQV based off 2" of runoff and a desired stone reservoir depth. See sizing computations on separate sheet.
- According to Chapter 500 Maine DEP stormwater rules, the department allows applicants to take credit for the treatment of existing impervious areas on site. For existing credit the credit can be calculated by multiplying the total treated area by 0.4.
- The MEDEP will now accept a Filterra tree box filter as a stand alone treatment unit and does not require an isolator row for eligible projects. This project meets the eligibility criteria noted in a letter dated June 29th, 2014 from the MEDEP.



PRELIMINARY – NOT FOR CONSTRUCTION



REV	DATE	DESCRIPTION
1	2017.03.20	LEVEL II SITE PLAN APPLICATION
		DESCRIPTION

PROJECT  
THE FOREFRONT AT THOMPSON'S POINT  
SECTIONAL 2 ROADWAY EXTENSION

SHEET TITLE  
**STORMWATER  
MANAGEMENT PLAN**

CLIENT  
**FOREFRONT BRICK SOUTH, LLC**

**PLACEMAKER PARTNERS, LLC**  
501 DANFORTH STREET  
PORTLAND, ME 04102  
bo@placemakerpartners.com

DRAWN: DB DATE: FEB. 2017  
DESIGNED: BEK SCALE: 1" = 30'  
FILE NAME: OE-ROAD-SMP.dwg  
SHEET **C-5.1**