

**Brookview
SEDIMENT BASIN CALCULATIONS
SEDIMENT BASIN #1**

SEDIMENT BASIN CALCULATIONS

Drainage Area OnSite = 11.93 ac.
 Drainage Area OffSite = 3.13 ac.
 Drainage Area Total = 15.06 c.f.
 Disturbed Area (Tree Clearance) = 7.40 ac.
 Volume Required = (Disturbed Area) X (3,600 c.f./ac.) = 26,640 c.f.

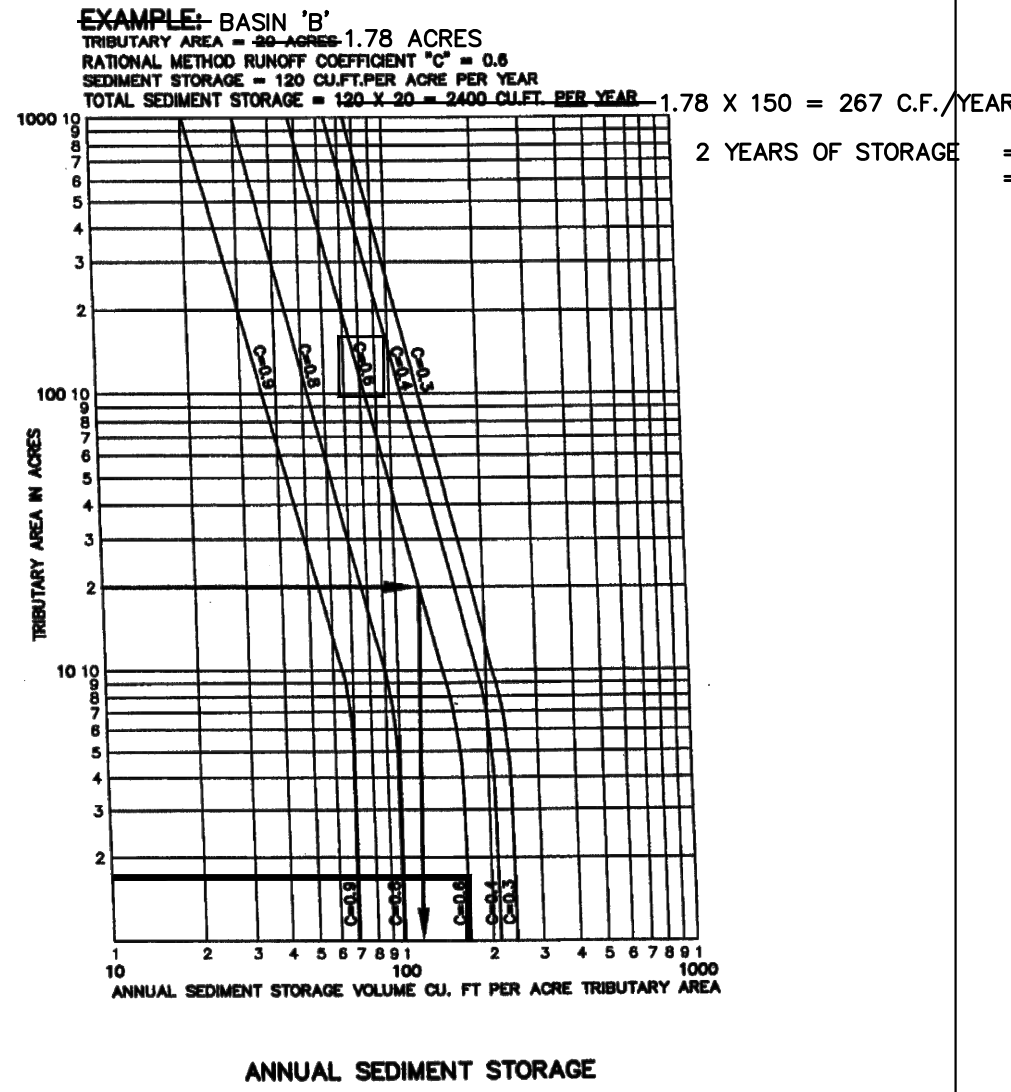
Sediment Basin #3

Elevation	Area	A1+A2+sq(A1xA2)	Volume	Volume Sum
	(s.f.)	(s.f.)	(c.f.)	(c.f.)
516.00	146	0	0	0
518.00	2,733	3,511	2,340	2,340
520.00	6,762	13,794	9,195	11,535
522.00	11,857	27,573	18,380	29,916
522.50	12,731	36,874	6,145	36,061
524.00	17,074	44,548	22,272	58,333

Required Volume Achieved at Elevation: **521.64**

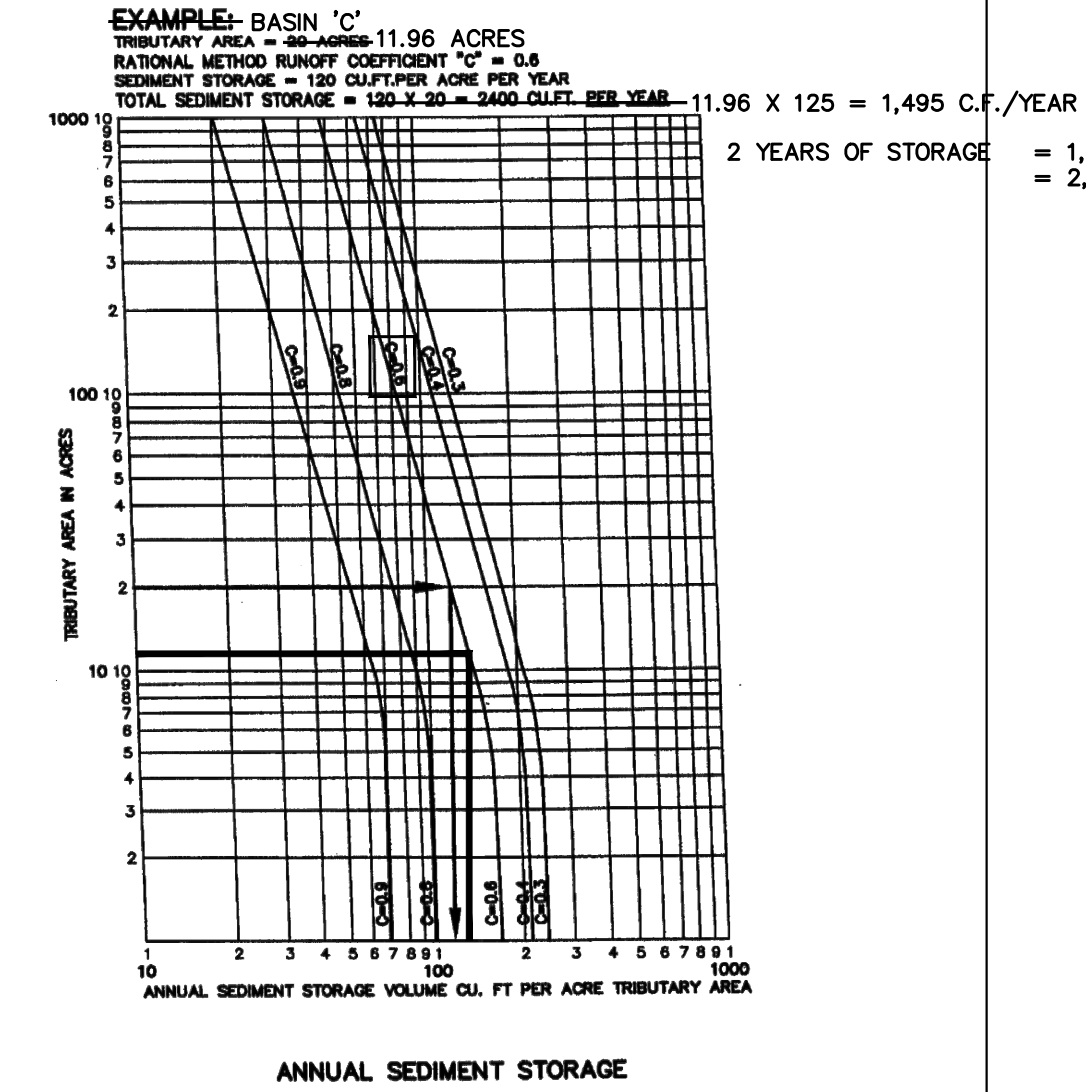
TOP OF STANDPIPE= 521.7
 FL OF STANDPIPE= 514.3
 DOWNSTREAM FL OF CULVERT= 514.0

SUBDIVISION AND LAND DEVELOPMENT
FIGURE #1



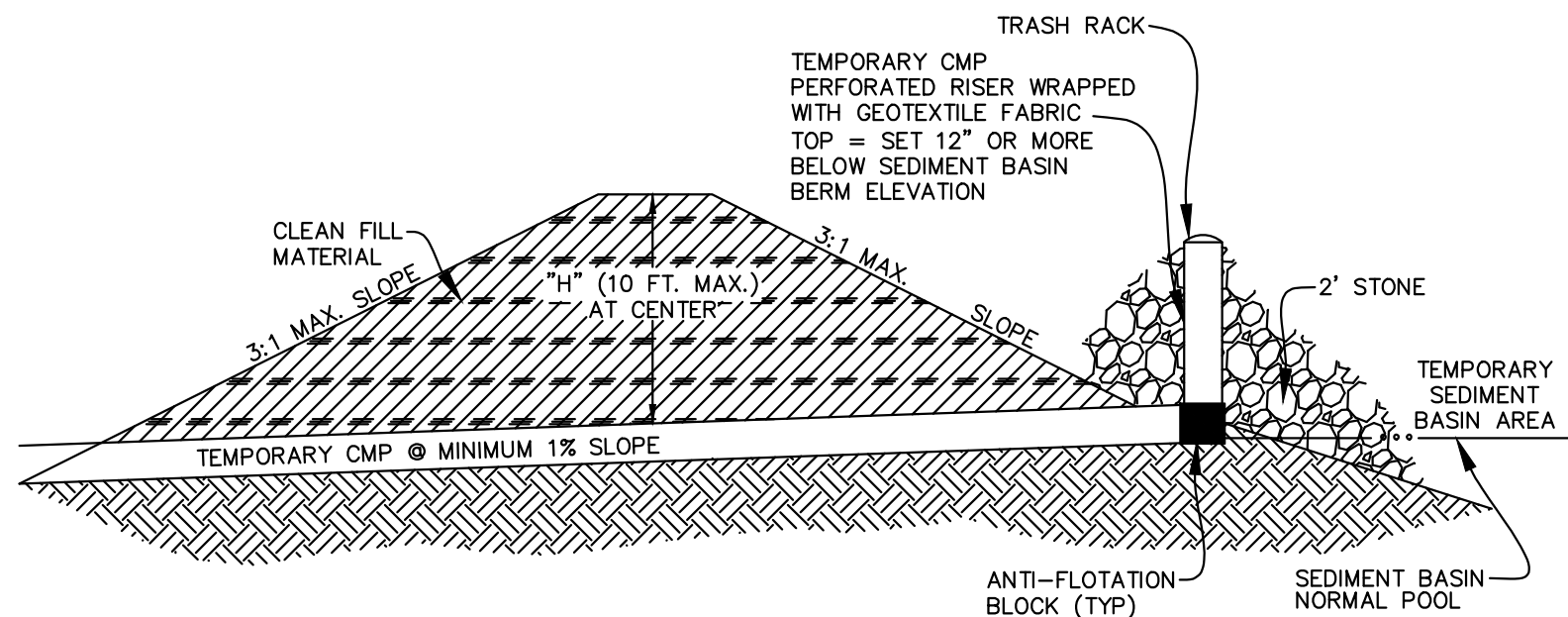
405 Attachment 1:3 Supp. #15, 11/13

SUBDIVISION AND LAND DEVELOPMENT
FIGURE #1



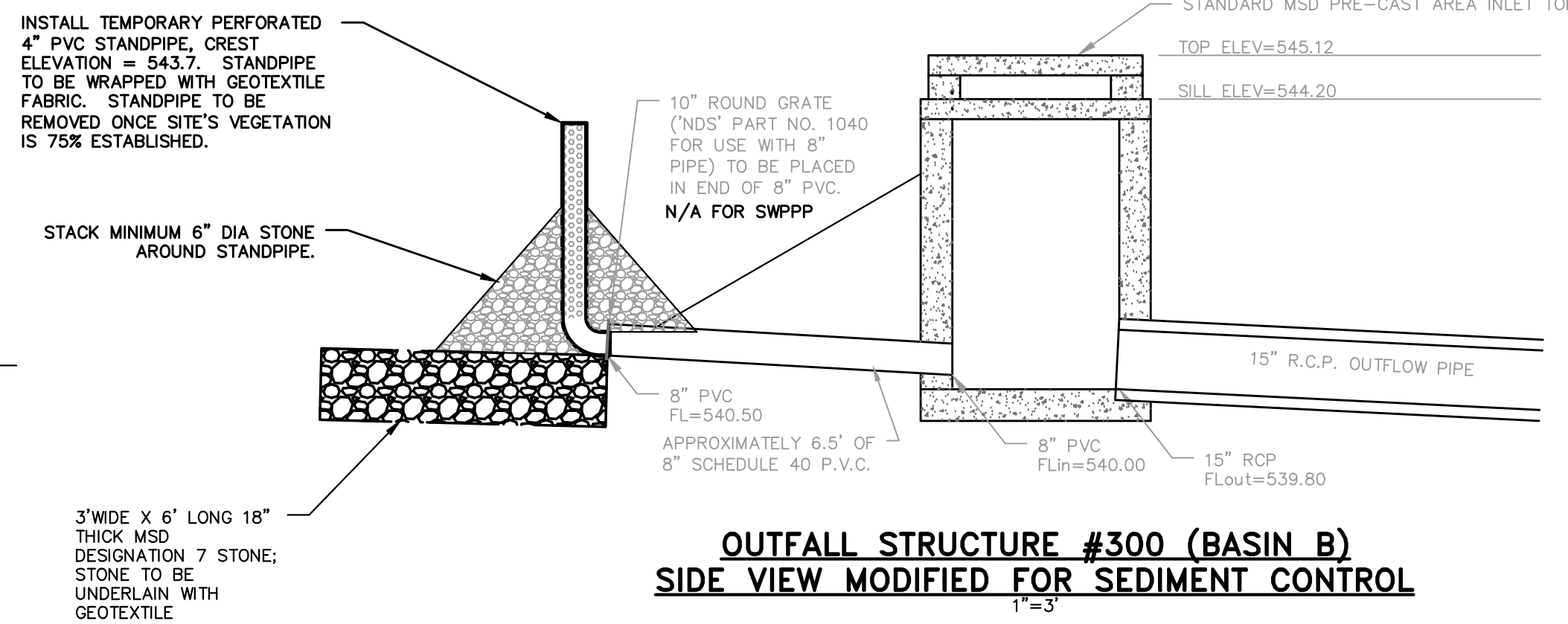
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ISSUE	DATE	REMARKS
1	06/28/2017	Initial Submittal
2	10/06/2017	City Comments
3	11/10/2017	City Comments
4	12/16/2017	City Comments
5	01/11/2018	City Resubmittal



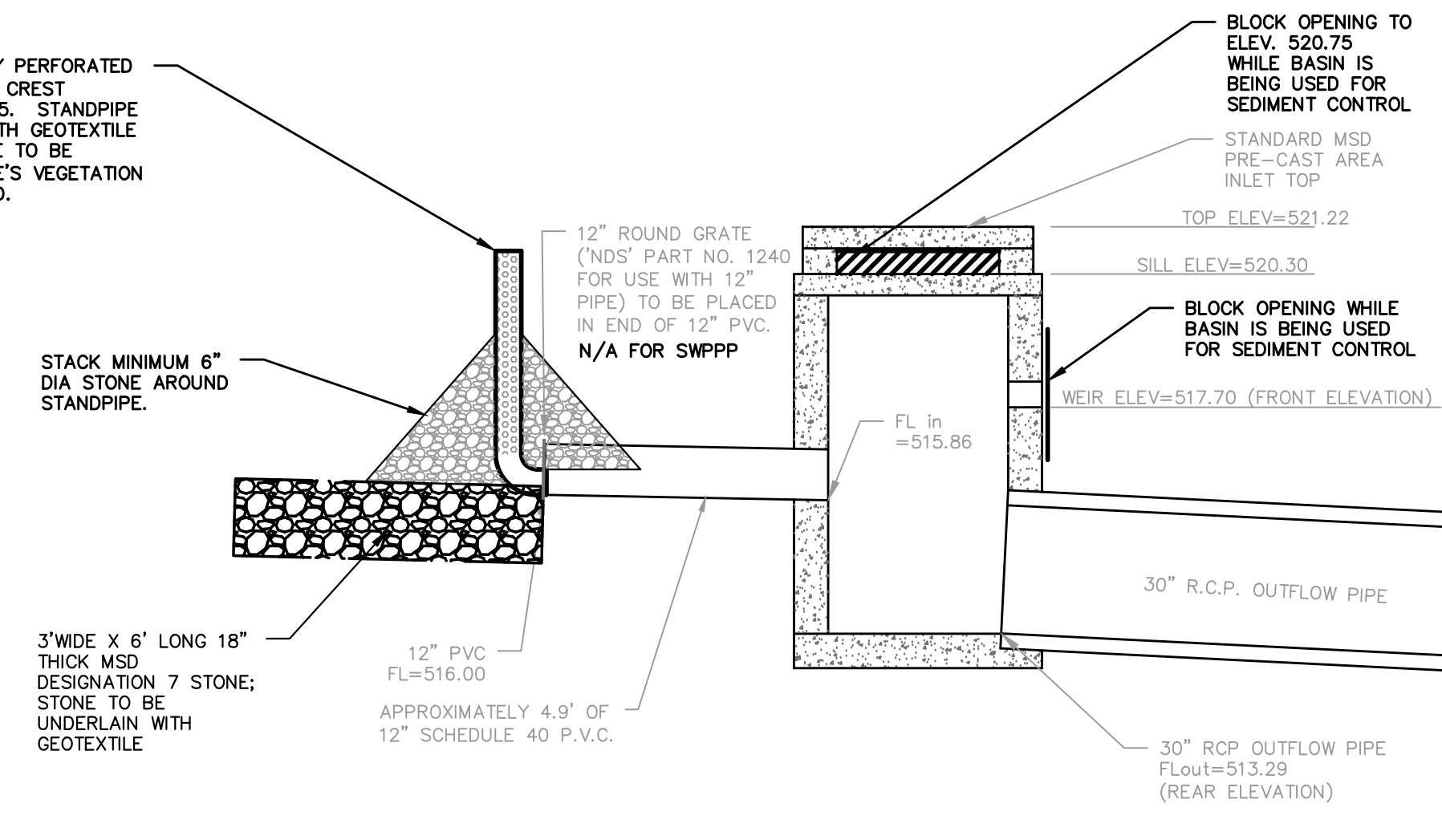
**TEMPORARY SEDIMENT BASIN
FOR "INITIAL SWPPP" CONDITIONS**
N.T.S.

BASIN	STANDPIPE	TOP OF STANDPIPE	FLOWLINE OF STANDPIPE	CULVERT	CULVERT LENGTH	FLOWLINE OF CULVERT
1	24" CMP	521.7	514.7	24" CMP	62 LF	514.0



**OUTFALL STRUCTURE #300 (BASIN B)
SIDE VIEW MODIFIED FOR SEDIMENT CONTROL**
1"=3'

INSTALL TEMPORARY PERFORATED 4" PVC STANDPIPE, CREST ELEVATION = 520.75. STANDPIPE TO BE WRAPPED WITH GEOTEXTILE FABRIC. STANDPIPE TO BE REMOVED ONCE SITE'S VEGETATION IS 75% ESTABLISHED.



**OUTFALL STRUCTURE #202 (BASIN C)
SIDE VIEW MODIFIED FOR SEDIMENT CONTROL**
1"=3'

DETENTION RUN WITH 2 YEARS OF SEDIMENT STORAGE IN BASINS

ROUTED Q'S

Basin/Drainage Area	2 Year Q Outflow			
	(cfs)	15 Year Q Outflow (cfs)	25 Year Q Outflow (cfs)	100 Year Q Outflow (cfs)
A	5.15	8.34	10.30	13.18
B	0.55	0.89	1.09	1.4
C	5.4	7.02	11.71	25.42
D	0.65	1.06	1.31	1.67
E	5.58	9.07	11.20	14.31
F	0.63	1.02	1.25	1.60
G	3.14	5.11	6.31	8.05
TOTAL	21.10	32.50	43.17	65.63
EXISTING Q=	is less than 28.83	is less than 46.88	is less than 57.91	is less than 73.96

HIGHWATER ELEVATIONS & FREEBOARD

Basin	Top of Berm Elevation (Minimum)	2 Year Storm HW ELEV. (from PondPack)	2 Year Storm Freeboard	15 Year Storm HW ELEV. (from PondPack)	15 Year Storm Freeboard	25 Year Storm HW ELEV. (from PondPack)	25 Year Storm Freeboard	100 Year Storm HW ELEV. (from PondPack)	100 Year Storm Freeboard
B	546.00	544.23	1.77	544.25	1.75	544.26	1.74	544.27	1.73
C	522.50	519.22	3.28	520.08	2.42	520.52	1.98	520.9	1.60

PROJECT TITLE

Brookview

OFFALLON, MISSOURI

THE STERLING CO.
ENGINEERS & SURVEYORS

5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph 314-487-0440 Fax 314-487-8944
www.sterling-eng-sur.com
Corporate Certificate of Authority #001348



Date: 01/11/18
SEAN ACKLEY
LICENSE # PE-2009018679
Civil Engineer

SEDIMENT BASIN CALCULATIONS & DETAILS

McBride Guthrie, LLC
16091 Swingley Ridge Road, Suite 300
Chesterfield, Missouri 63017
Ph. (636) 537-2000
Fax (636) 537-2546

P+Z No. 17-005894
City No. 17-008288
Date: 01/11/18
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