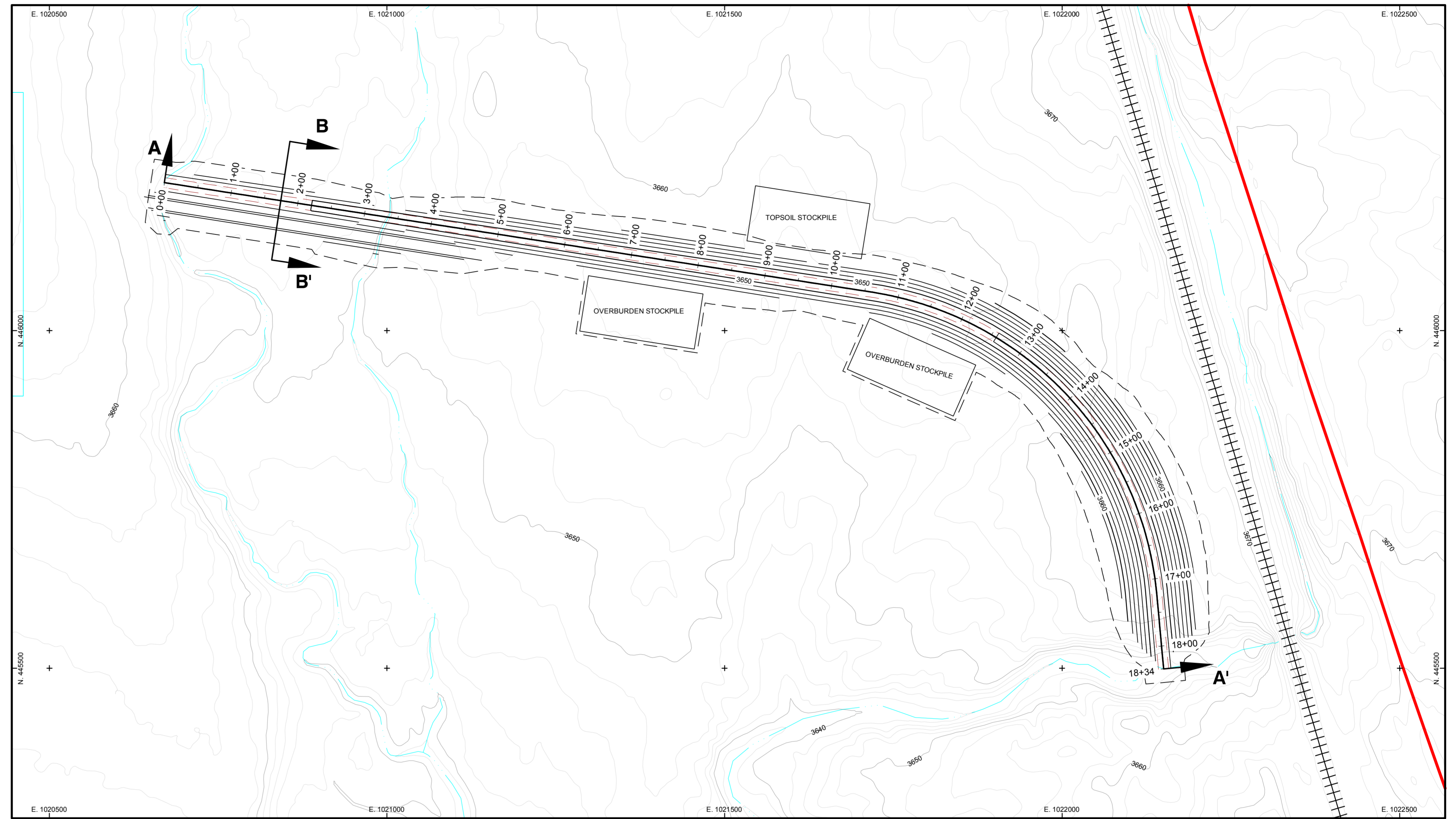
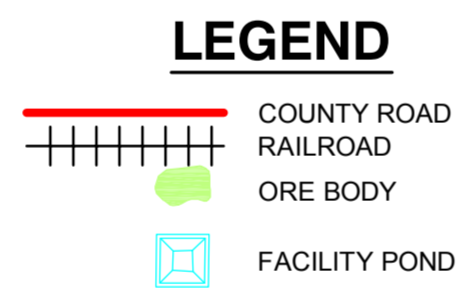


DRAINAGE AREA
SCALE: 1" = 500'



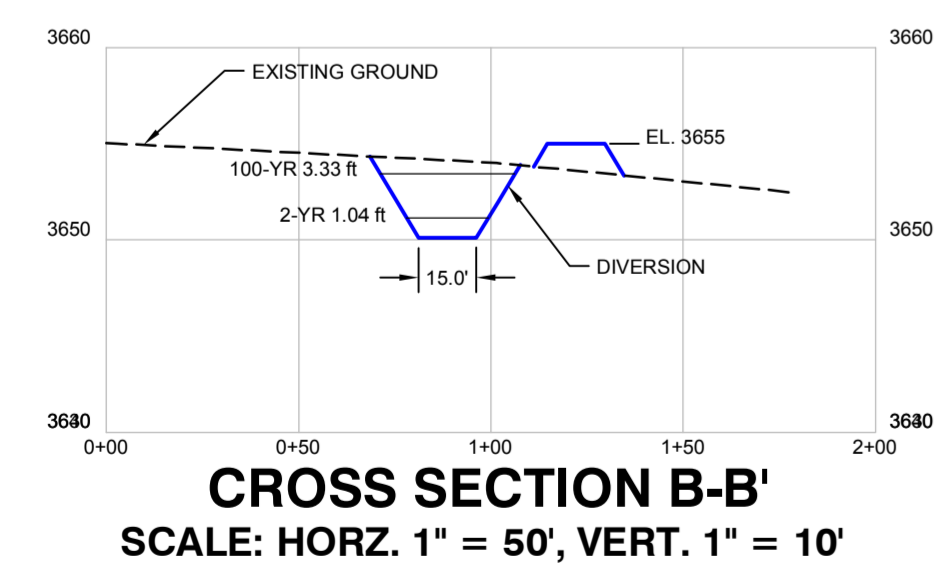
SITE PLAN
SCALE: 1" = 100'



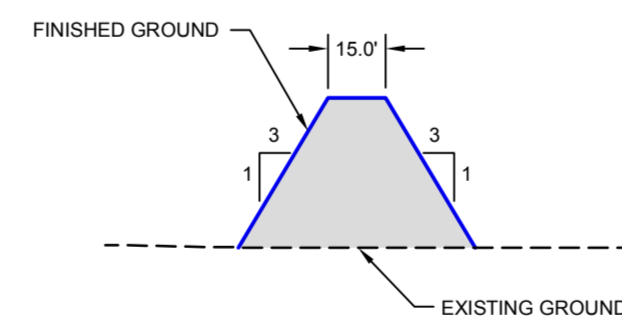
HYDROLOGIC DESIGN STORM CALCULATIONS

SWS NO.	DRAINAGE BASIN PARAMETERS			2-YR, 6-HR STORM			100-YR, 24-HR STORM		
	DRAINAGE AREA (sq-mi)	CURVE NO. (CN)	WATERSHED LAG TIME (Min)	2-YR, 6-HR PRECIP. (in)	PEAK INFLOW (cfs)	RUNOFF VOLUME (ac-ft)	100-YR, 24-HR PRECIP. (in)	PEAK INFLOW (cfs)	RUNOFF VOLUME (ac-ft)
2-1	0.284	79	27.37	1.45	37.2	4.0	4.8	314.6	39.8

NOTE: RUNOFF VOLUMES AND PEAK INFLOWS WERE COMPUTED BY THE HEC-HMS COMPUTER PROGRAM USING THE SCS TYPE II RAINFALL DISTRIBUTION.



CROSS SECTION B-B'
SCALE: HORZ. 1" = 50', VERT. 1" = 10'



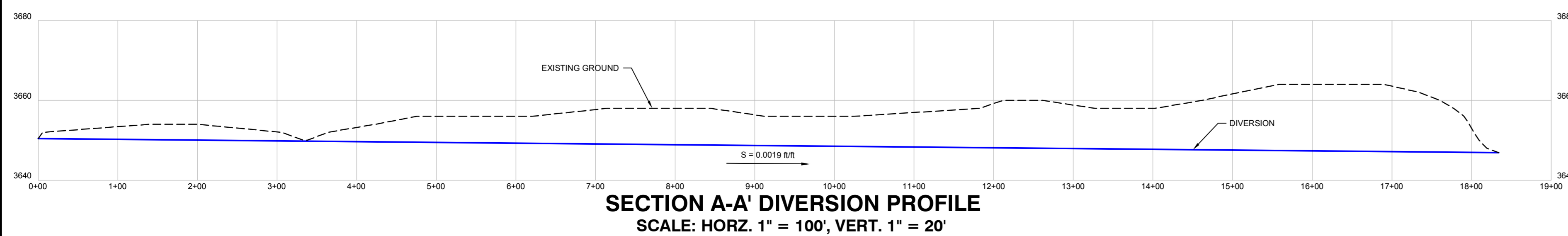
BLOCKING DIKE CROSS SECTION
NOT TO SCALE

DIVERSION CROSS SECTION

$$Q = \frac{1.49}{n} AR^{2/3} S^{1/2}$$

2-yr, 6-hr		100-yr, 24-hr	
Q = 37.20 cfs	A = 18.85 ft ²	Q = 314.60 cfs	A = 83.38 ft ²
n = 0.030	WP = 21.58 ft	n = 0.030	WP = 36.09 ft
S = 0.0019 ft/ft	R = 0.87 ft	S = 0.0019 ft/ft	R = 2.31 ft
b = 15 ft	V = 1.97 fps	b = 15 ft	V = 3.77 fps
Yn = 1.04 ft		Yn = 3.33 ft	

This plate is provided to fulfill the requirements of ARSD 74:28:02:1(18).



SECTION A-A' DIVERSION PROFILE
SCALE: HORZ. 1" = 100', VERT. 1" = 20'



CONSULTANT WVC ENGINEERING	REVISIONS # DRAWN CHECKED APPROVED DATE				 Powertech (USA) Inc. Plate 5.3-10a Diversion No. 2 Deep Disposal Well Option
	SIGNATURE OF PREPARER 				
CHECK SCALES If this bar does not measure 1 inch this map is not at its original scale	PLOT DATE: 27 September 2012 DRAWN: DAVE C. JOHNSON PREPARER: DALE E. BROWN	DATE: 27 September 2012 PDF FILE CAD FILE: K:\Powertech\11270\DWGS\DIV_2_EXHIBIT.dwg			