(W)ILMINGTON
HES 010-1(38)

BR. 20 PRECAST CONCRETE CATCH BASIN

√1 EA

DOL. 20615 18" CPEP (SL)

√72 LF

DOL. 70115 18" CPEP

√1 EA

202.31 SPUR BORROW

E.M. BY C.GREENWOOD
USED FOR UNDERCUT & BACKFILL DUE TO POOR MATERIAL

1'x 4.5'x 60' = √270 CF
1.5'x 3.0'x 71' = √319.5 CF
1'x 4.5'x 72' = √324 CF

√913 CF ÷ 27
= √34 CY

613.12 STONE FILL, TYPE B

E.M. BY C.GREENWOOD

1'x 9'x 12' = √108 CF
÷ 27
= √4 CY

649.31 GEOTEXTILE UNDER STONE FILL

9 x 12 = 108 SY

= √12 SY

2010 ROUTE RELOCATION OF CRETTS

8" PIPE (ABOVE ⊥)			18" PIPE (BELOW ⊥)		
30	1377.1	±	30	1372.7	±
30.5	1372.9	±	19.4	1372.6	±
19.4	1372.6	±	30.5	1372.9	±
0	1372.6	±	19.4	1372.6	±
-19.4	1372.9	±	30	1372.7	±
-30.5	1372.6	±			
-30.1	1372.4	±			
-46.1	1372.4	±			
-46.5	1372.4	±			
-46.5	1372.3	±			
-46.5	1372.1	±			
-49.0	1372.3	±			
-50	1372.6	±			
-32	1377.2	±			
-30	1378.4	±			
-19.4	1377.1	±			
-19.4	1372.5	±			
0	1377.1	±			
19.4	1372.5	±			
19.4	1377.1	±			
30.5	1372.9	±			
30	1372.7	±			
30	1377.1	±			

A = 1440.5 SF V_B = 1382.9 CF

-19.4 1372.9 ±
-30.5 1372.7 ±
-31 1378.4 ±
-19.4 1372.5 ±

A_S = 409.33 SF

19.4 x 18.4 ÷ 19.4 = 18.4 (FROM)

V_S = 18.4 CF ÷ 4.5 CF = 4.1 CY
86 87 CF

CATCH BASIN (ABOVE ⊥)

37	1382.1	±	
37	1377.1	±	
30	1377.1	±	
30	1382.1	±	
37	1382.1	±	

A_F = 1439.0 SF x 7.0 FT
V_F = 1049 CF

E.M. BY C.GREENWOOD
FOR BULK CLEARING TO NEW CLOSING OF 12 SPACE
24 x 33' x 6.5' = √5150 CF

STONE FILL
1' x 9' x 12' = √108 CF

TOTAL REMOVAL EQ:
√1382.9 + 1049 + 34.7 + 108.1 + 5150 = 7724 CF
÷ 27
= 286 CY

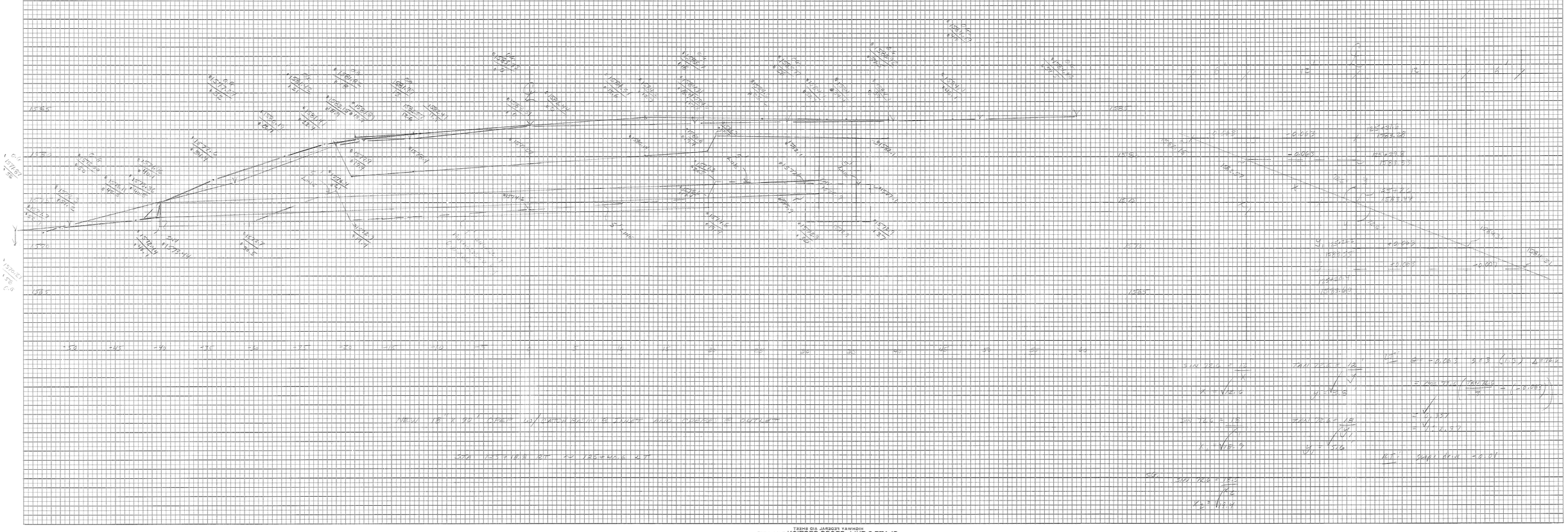
CATCH BASIN (BELOW ⊥)

37	1377.1	±	
37	1382.1	±	
30	1382.1	±	
30	1377.1	±	
37	1377.1	±	

A_S = 1439.1 SF x 1.5'
= 1439.1 SF x 0.08 FT
V_S = 108.7 CF (FROM)

Req. 98.7 CY

NOTE
5/11/10



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