



**SAWNEE MOUNTAIN PARK IMPROVEMENTS**  
 3995 WATSON ROAD, CUMMING, GEORGIA 30028  
 FOR  
**FORSYTH COUNTY PARKS & RECREATION**  
 P.O. BOX 2417, CUMMING, GEORGIA 30028

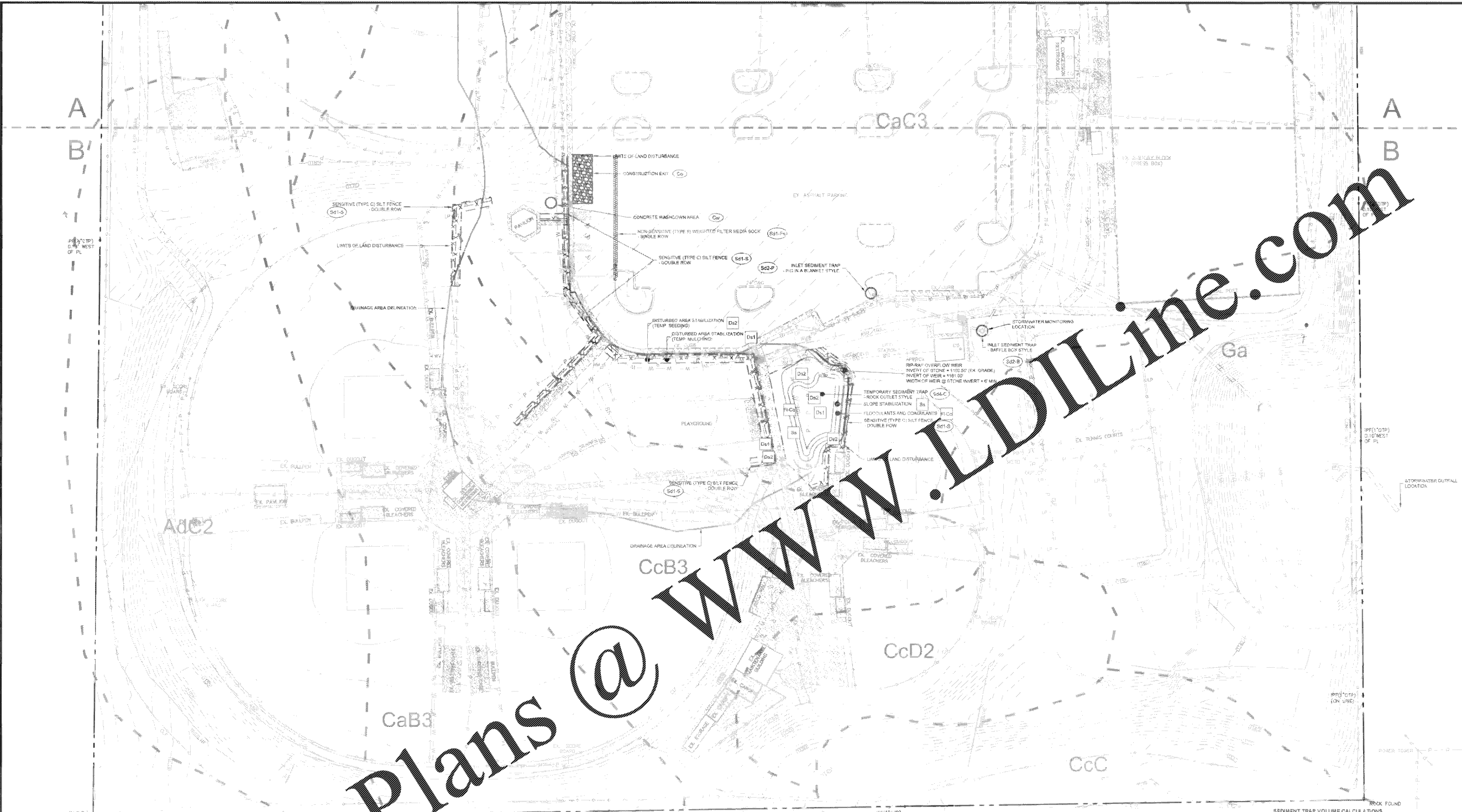
REVISIONS  
 COUNTY COMMENTS  
 10-27-2020

**MATCHLINE 'B' ES&PC PLAN - PHASE I**

DATE: 09/09/2020

PROJECT NUMBER: 19323

SHEET NUMBER: C-4.1B



Order Plans @

NOTIFY FORSYTH COUNTY INSPECTOR 24 HOURS BEFORE THE BEGINNING PHASE OF CONSTRUCTION. (770) 781-2165.

**SEDIMENT TRAP VOLUME CALCULATIONS**

Project Name: Sawnee Mountain Park Improvements  
 Date: 8/12/2020

Drainage Area:	2.32 AC
10yr Intensity:	8.04 in/hr
Rainfall Coefficient:	0.84
10yr Peak Rainfall:	12.0 in
Weir Coefficient (C <sub>w</sub> ):	2.97
Sidesclope of Rip-Rap Weir (Z):	2.0
Top of Basin Elevation:	1162.0 ft
Invert of Weir (By Height of Embankment (5' Max.)):	4.5 ft
Height of Weir (ft):	1.5 ft
Desired Depth of Flow Through Weir (ft):	0.75 ft
Calculated Depth of Flow (ft):	5.3 ft
Actual Weir:	6.0 ft

is weir invert higher than dry debris storage? YES  
 is weir a minimum of 1.5' deep? is weir height less than 5' max.? YES

**TOTAL SEDIMENT TRAP VOLUME CALCULATIONS**

Elevation	Stage	A <sub>1</sub> (ft <sup>2</sup> )	A <sub>2</sub> (ft <sup>2</sup> )	Stage Depth (ft)	Sub Volume (ft <sup>3</sup> )	Cumulative Volume (ft <sup>3</sup> )	Ac-ft
1158.0	0.0	2383	0.0	0	0	0	0.00
1160.0	2.0	2383	2372	2.0	5031	5031	0.12
1162.0	4.0	3972	3854	2.0	7563	12594	0.28
1162.5	4.5	4804	6012	0.5	2659	15254	0.39

Required Weir Pool Volume (6TCY/AC) =	4,197	ft <sup>3</sup>
Required Minimum Weir Pool Elevation =	1159.7	ft
Actual Provided Weir Pool Elevation =	1159.7	ft
Additional Required Dry Sediment Storage Above Weir Pool (6TCY/AC) =	4,197	ft <sup>3</sup>
Dry Storage Elevation =	1180.9	ft
Original Volume (23CY/AC) =	1,376	ft <sup>3</sup>
Desired Elevation =	1158.5	ft

**MATCHLINE 'B' ES&PC PLAN - PHASE I**

SCALE: 1" = 40'  
 40 0 40 80 120 FEET



Small vertical text at the bottom left corner containing project details and dates.