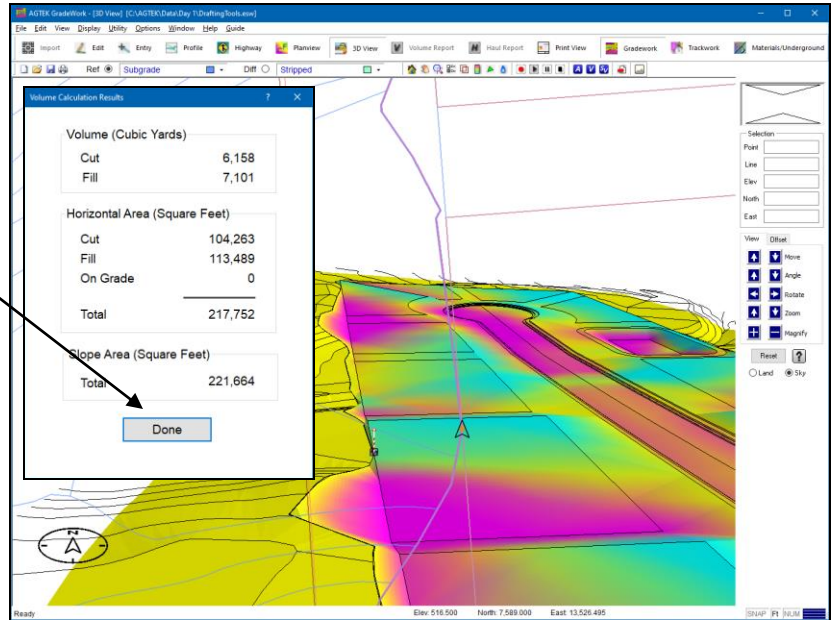


## Appendix J Conceptual Modeling Exercise (Cont.)

Let's re-run the volume calculations for a final updated *Volume Report* ...

Step 88-A: **(a)** If *Point Plus Marks* are still on, press **F2** to hide them; **(b)** switch to **3D View** mode, set **Ref Surface** to **Subgrade** and **Diff Surface** to **Stripped**; **(c)** click the **Calc Volume** toolbar button; **(d)** when the *Results* dialog displays, click **Done** to view the updated *Volume Report*.



Step 88-B: After the *Volume Report* displays, select **Options > Report Sectionals** from menu (adds *Sectional Qtys* to the report) then select **Options > Sub-totals Only > Report Regions** from menu (shortens the report by listing *Report Region* sub-totals only). The *annotated* report below documents that we're now net long by just 17 BCY (2,025 BCY *Topsoil* - 2,008 BCY *Import* = 17 BCY net).

**Tip:** *Gradework 4D's Group and Code* report columns are hidden via the *Options* menu—see related video at <https://bit.ly/3yQbDnO>

<b>Volume Report Subgrade vs Stripped</b>												
	Total	Cut	Area Fill	OnGrade	Volume		Comp/Ratio		Compact		Export -Import	Change Per 0.1 ft
					Cut	Fill	Cut	Fill	Cut	Fill		
Level Sub:	97,563	40,057	57,507	0	2,222	4,054	1.00	1.15	2,222	4,661	-2,439	414
<b>Other Lot Areas</b>	78,379	27,988	50,392	0	1,515	2,726	1.00	1.15	1,515	<b>3,135</b>	-1,620	334
Storm Basin	8,385	6,020	2,366	0	534	243	1.00	1.15	534	279	255	36
Street Sub:	33,425	30,190	3,235	0	1,888	80	1.00	1.15	1,888	92	1,796	142
<b>Regions Total</b>	<b>217,752</b>	<b>104,255</b>	<b>113,500</b>	<b>0</b>	<b>6,159</b>	<b>7,103</b>			<b>6,159</b>	<b>8,167</b>	<b>-2,008</b>	<b>926</b>
					(BCY)	(CCY)						
<b>Stripping Qtys</b>	<b>Plane Area</b>	<b>Slope Area</b>	<b>Depth</b>	<b>Volume</b>								
Strip Topsoil	217,752	218,697	0.250	2,025	← BCY Stripped (to Green Area Fills)							
<b>Sectional Qtys</b>	<b>Plane Area</b>	<b>Slope Area</b>	<b>Depth</b>	<b>Volume</b>								
Street Asphalt	24,931	24,958	1.330	1,229	← Paving Materials above Subgrade							
Street C&G	3,166	3,168	0.830	97	← (CCY Volumes)							
Street Walk	5,328	5,332	0.670	132								
<b>Street Sub:</b>	<b>33,425</b>	<b>33,458</b>		<b>1,458</b>								
<b>Sectional Total</b>	<b>33,425</b>	<b>33,458</b>		<b>1,458</b>								

**Net Volume Recap**

2,025 BCY Stripped Topsoil  
-2,008 BCY Import  
-----  
17 BCY Long

**Reminder:** The final balanced volumes reported above are subject to the assumptions discussed throughout this conceptual modeling exercise (topsoil stripping depth, applicable design standards, BCY cut to CCY fill shrinkage, etc.) and other volumes may need to be factored into the balancing calculations (spoil volumes from trenching/structural excavation and specified removal volumes for unsuitable materials—see the prior volume report discussion on page 394).

Okay, let's wrap this exercise by generating some contours for the finished conceptual design surface (see next page).