Workflow 4: Calculating "Clearing" Quantities

1. *Open the cross section file, project manager, and select the Reports & XS quantities button.*

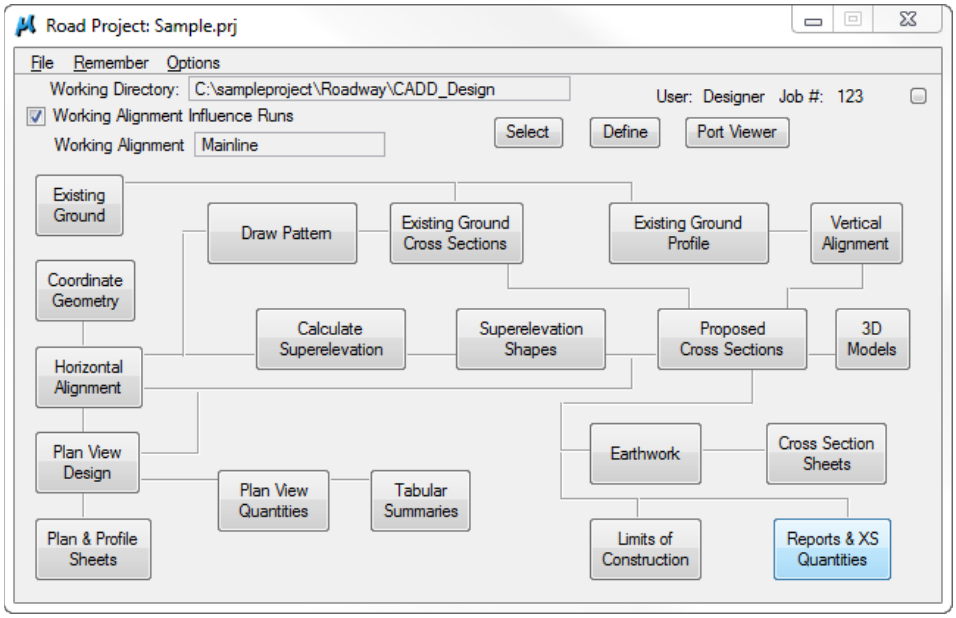

Figure 10.4-1: Accessing Reports & XS Quantities

Or by pressing the XS Reports button from the Road Tools Dialog Box.

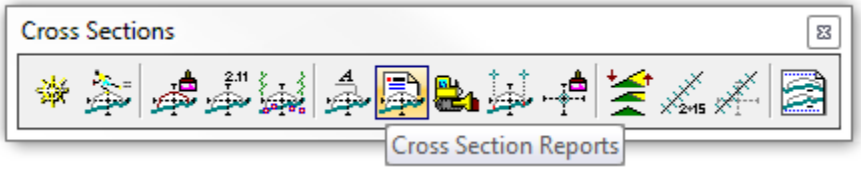

Figure 10.4-2: Accessing Cross Section Reports Icon

2. *Select* ***User>Preferences***.

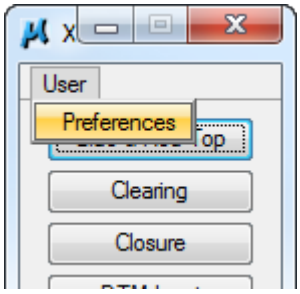

Figure 10.4-3: Reports Dialog Box

3. *Populate the Report headers. Include the Project Number in the Master Header 1 space, and the Road Name in the Master Header 2 space. This information will be put at the top of the quantity report.*

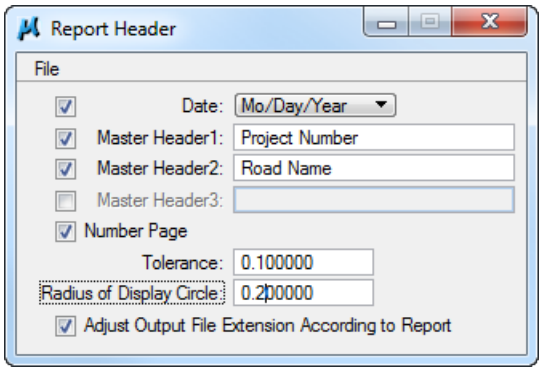

Figure 10.4-4: Report Settings

4. *Select the Clearing button in the XS Report dialog box.*

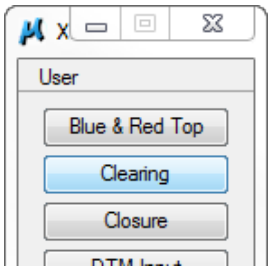

Figure 10.4-5: Clearing Button

5. *Adjust the Beg Station and End Station to ensure that they are the stations you want. For multiple station ranges, the report may need to be run multiple times.*

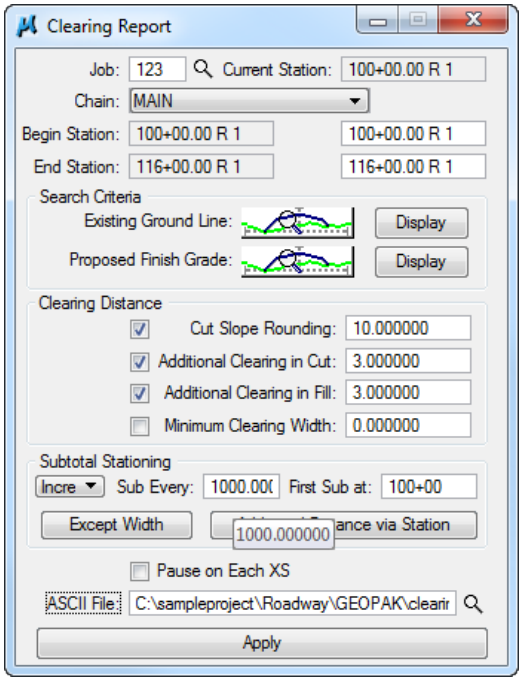

Figure 10.4-6: Clearing Report Dialog

6. *Select the Existing Ground Line symbology and set as shown below.*

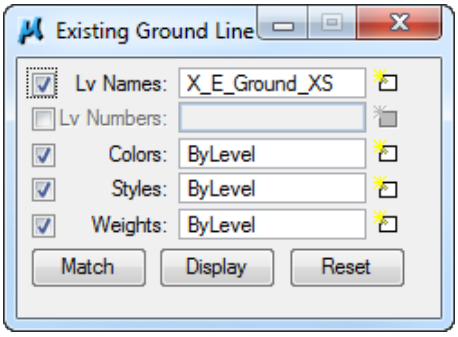

Figure 10.4-7: Existing Ground Symbology

7. *Select the Proposed Finish Grade symbology button and select set to allow GEOPAK to trace completely across from the left catch point, over the top of pavement to the right catch point.*

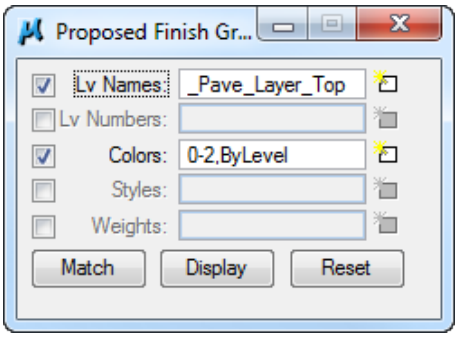

Figure 10.4-8: Proposed Finish Grade Symbology

8. *Set Cut slope rounding, Additional Clearing in Cut, and Additional Clearing in Fill to match what is shown in the typical sections. Each project may have different values. Typical values are 3.0 m or 10 ft. for Cut Slope Rounding and the Additional Clearing in Cut and Fill typically are set at 1.0 m or 3 ft.*

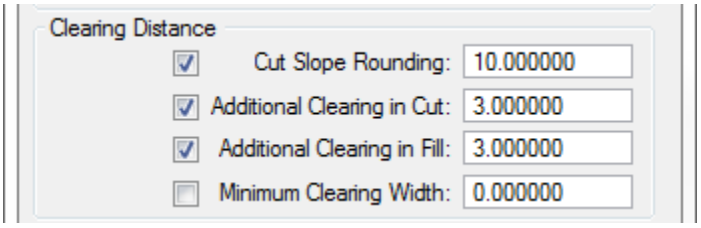

Figure 10.4-9: Clearing Distance Settings

9. *Set the Subtotal Stationing to Increment and the value to 500 m or 1000 ft.*

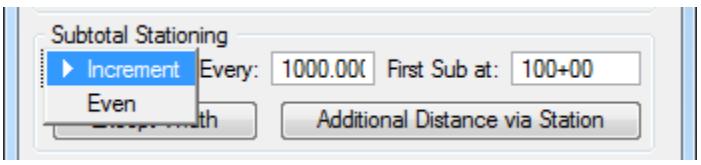

Figure 10.4-10: Subtotal Stationing Settings

The Exception Width can be used to subtract out the existing pavement width. CFLHD typically does not subtract the existing pavement out, but this can be used if needed. Press the Except Width button and fill in the beginning station, ending station, and width, then pick the add button. Close the Exception Width dialog box when complete.

10. Type in the output filename for the Clearing Report, and then select Apply.

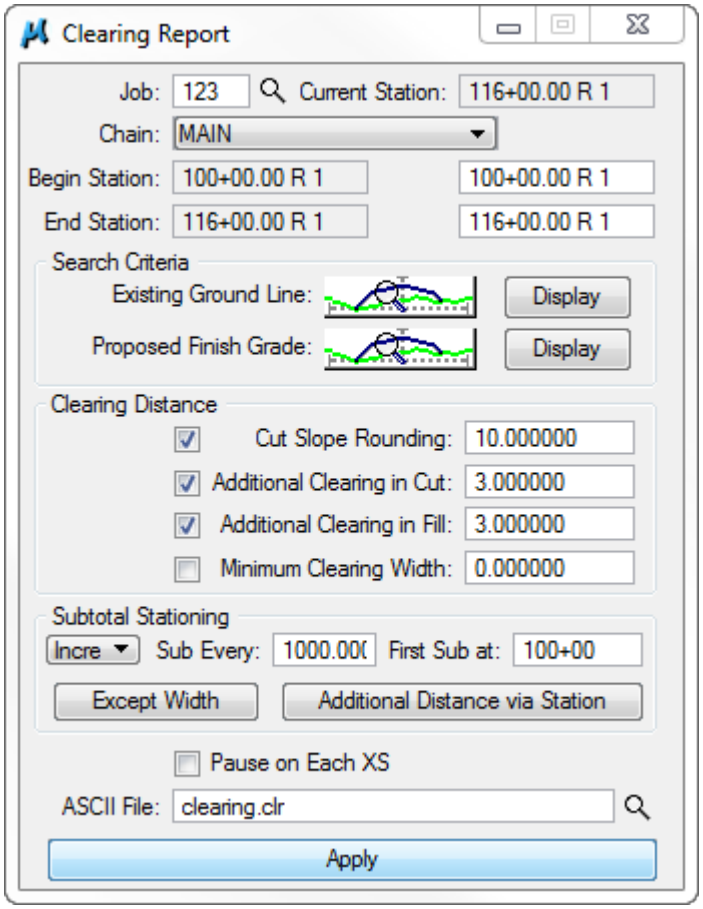

Figure 10.4-11: Subtotal Stationing Settings

11. The following output file is produced.

```
08/31/2015                                        Project Number                    Page# 1
                                                     Road Name
                                                  CLEARING REPORT


CUT SLOPE ROUNDING             =      10.0000 Ft
ADDITIONAL CLEARING IN CUT     =       3.0000 Ft
ADDITIONAL CLEARING IN FILL    =       3.0000 Ft
MINIMUM CLEARING WIDTH         =       0.0000 Ft
SUBTOTALS EVERY    1000.0000 Ft. BEGINNING AT STATION 100+00 METHOD INCR
ADDITIONAL EXCEPT WIDTH                 = 0.00          Ft
ADDITIONAL CLEARING   LEFT   SIDE                    = 0.00          Ft
ADDITIONAL CLEARING   RIGHT  SIDE                    = 0.00          Ft

STATION           CLEARING  DISTANCE     EXCEPTION     AREA      SUBTOTAL  AREAS
                     LT       RT          WIDTH        SF          SF       ACRES


 100+00.00 R 1      44.40     20.56                                    0
                                                  0.00       3678
 100+50.00 R 1      44.65     37.48
                                                  0.00       3877
 101+00.00 R 1      45.38     27.54
                                                  0.00       3248
 101+50.00 R 1      71.97    -15.00
                                                  0.00       2576
 102+00.00 R 1      61.04    -15.00
                                                  0.00       1915
 102+50.00 R 1      45.55    -15.00
                                                  0.00       1741
 103+00.00 R 1      54.07    -15.00
                                                  0.00       4512
 103+50.00 R 1     103.78     37.59
                                                  0.00       6943
 104+00.00 R 1     105.41     30.92
                                                  0.00       5647
 104+50.00 R 1      48.17     41.34
                                                  0.00       4076
 105+00.00 R 1      24.50     49.00
                                                  0.00       3354
 105+50.00 R 1      32.18     28.45
                                                  0.00       4005
 106+00.00 R 1      52.29     47.24


08/31/2015                                        Project Number                    Page# 2
                                                     Road Name
                                                  CLEARING REPORT

STATION           CLEARING  DISTANCE     EXCEPTION     AREA      SUBTOTAL  AREAS
                     LT       RT          WIDTH        SF          SF       ACRES


                                                  0.00       5268
 106+50.00 R 1      60.36     50.80
                                                  0.00       5536
 107+00.00 R 1      55.15     55.12
                                                  0.00       5211
 107+50.00 R 1      51.95     46.20
                                                  0.00       5140
 108+00.00 R 1      58.35     49.09
                                                  0.00       5201
 108+50.00 R 1      52.34     48.26
                                                  0.00       4843
 109+00.00 R 1      46.96     46.16
                                                  0.00       4499
 109+50.00 R 1      42.55     44.28
                                                  0.00       4161
 110+00.00 R 1      39.69     39.90                          85431   1.9612   (ACCUM SF 85431.0000  )
                                                  0.00       3881
 110+50.00 R 1      36.10     39.55
                                                  0.00       3768
 111+00.00 R 1      35.77     39.30
                                                  0.00       3646
 111+50.00 R 1      34.42     36.34
                                                  0.00       3607
 112+00.00 R 1      37.92     35.59
                                                  0.00       3648
 112+50.00 R 1      28.56     43.84
                                                  0.00       3536
 113+00.00 R 1      29.46     39.57
                                                  0.00       3295
 113+50.00 R 1      21.29     41.44
                                                  0.00       2907
 114+00.00 R 1      27.49     26.05
                                                  0.00       5820
 115+00.00 R 1      32.17     30.68
                                                  0.00       6973
 116+00.00 R 1      19.22     57.38                          41081   0.9431   (ACCUM SF 126512.0000 )
DEDUCTED     ACRES  =       0.0000
TOTAL        SF     =  126512.0000
TOTAL         ACRES =       2.9043
```

Figure 10.4-12: Clearing Report Output

After the clearing report has been created the clearing limits should then be added to the plan and profile sheets. The clearing limits are the outside limits of disturbance for the contractor.

Recommendations for slope rounding can be found in Chapter 9 of the Project Development Design Manual (PDDM)

12. *Open the plan view dgn.*

13. *Open the D&C Manager and select the Draw Clearing Limits in Plan View from the 3PC folder.*

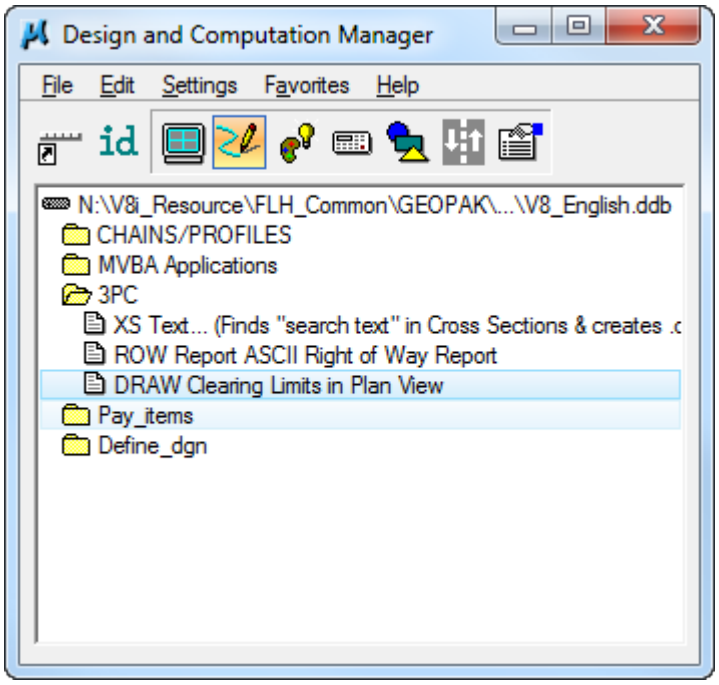

Figure 10.4-13: D&C Manager

Make sure the C:\temp directory exists on the computer and make sure there are no spaces in the file name. They are both necessary to run the 3PC.

14. *Select the clearing report created above.*

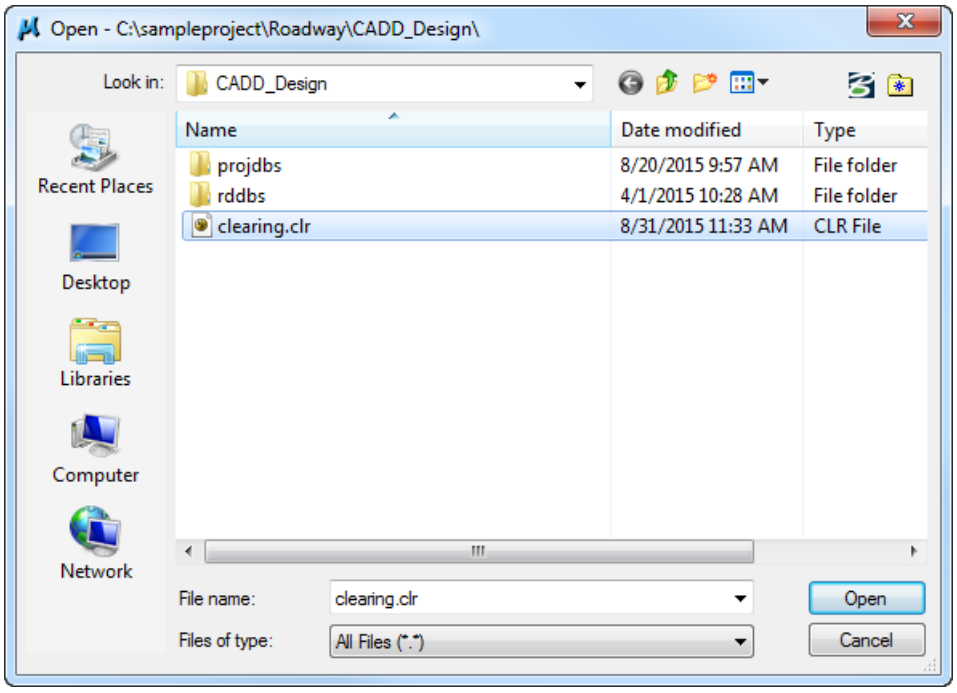

Figure 10.4-14: Clearing Report Selection

15. *Type in the Chain, Job number, level symbology.*

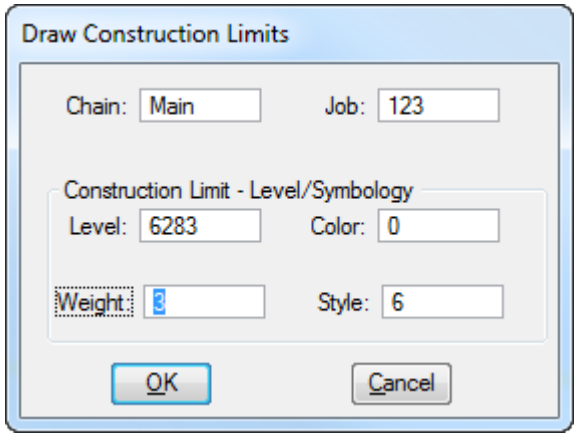

Figure 10.4-15: Construction Limits Symbology

16. *Verify that the chain name is correct. Change if incorrect. Select OK.*

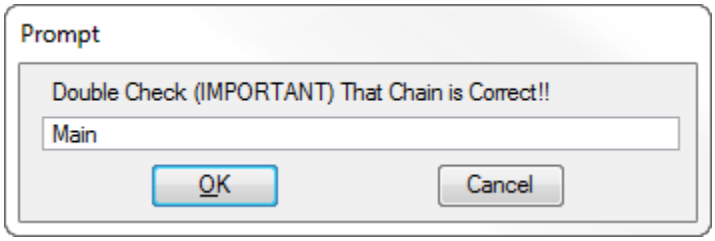

Figure 10.4-16: Chain Name Prompt

17. *Verify that construction limits were drawn into the plan view file.*

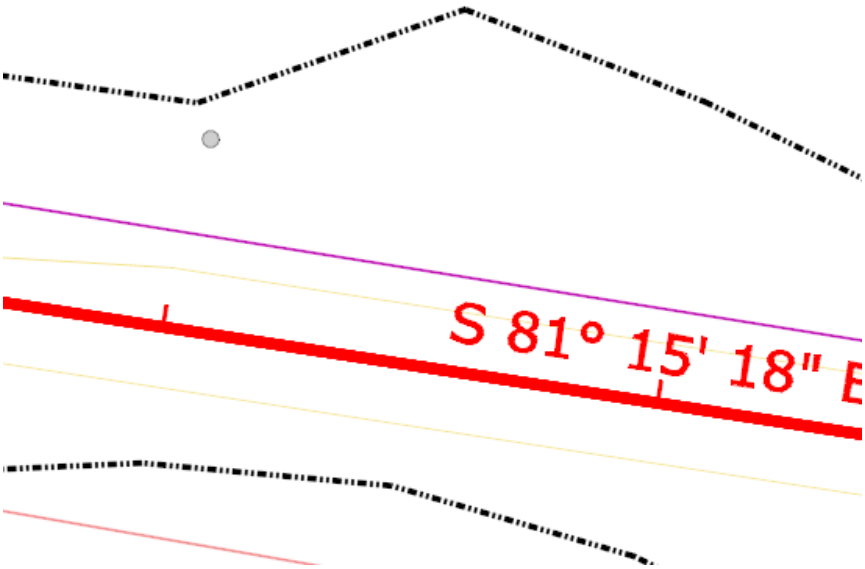

Figure 10.4-17: Construction Limits