

2010 Intersection Safety Design-Build Projects
Submittal Review Comments



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| Submittal Date: | 6/09/11 |
| Submittal No: | 01 |
| Intersection: | S-32-34 @ S-32-1848_S-32-1910 Lexington Co. |
| Submittal Description: | ROW Design Review |

| No. | Reference Sheet, Page | COMMENT | RESPONSE | STATUS |
|------------|------------------------------|---|--|---------------|
| 1 | 8 | As noted in RFI#1 minimum comfort is not an acceptable design approach. Revise the vertical provide profile for S-1848 to meet the 35 MPH design speed. | To discuss further at design meeting | 5 |
| 2 | 3A | On both typical sections 2 and 3 the designation for HMA Type A should be 4 not 3. | Have revised | 5 |
| 3 | 3 | Show Swale Right Hand Side Platt Springs Road. Copy the note marker on bottom right. | This is a typical section; details are included in the cross sections. | 5 |
| 4 | 3A | Show Swale Right Hand Side McLee Road. Copy the note marker on bottom right. | This is a typical section; details are included in the cross sections. | 5 |
| 5 | 3A | Provide Description for the item 3 used in typical sections. | Have revised | 5 |
| 6 | 4 | Show remainder for tract 1 in square feet when less than 0.25 acre. | Have revised | 5 |
| 7 | D1 | Provide invert elevations for sideline/driveway pipes. | Not required per SCDOT standards. | 5 |
| 8 | D1 | Check cover driveway pipe Platt Springs Road left side 354+00 through 354+50. DS end appears to go above top of ditch. | No driveway pipe at station. The driveway pipe between 353+00 and 353+50 will be modified to provide cover per STD 714+205+02. | 4 |
| 9 | D1 | Check ditch capacity versus flow accepted from upstream ditches at beginning and ending of construction Platt Springs Road both sides of the road. | Have reviewed. See calculations and methodology report. | 5 |
| 10 | D1 | Check capacity of valley gutter versus flow accepted from upstream both sides of Kyzer road. | Have reviewed. See calculations. | 5 |

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| 11 | D1 | Check capacity of downstream ditches both sides of McLee road leaving project to accept flow from widened roadway section. | Have reviewed. See calculations and methodology report. | 5 |
| 12 | D1 | - Check location of both Type 16 CBs on Kyzer Road. CBs shown at ~Station 1+00 but LP shows as ~Station 0+75. If not intended as LP CBs check CB bypass crossing intersection. - Verify spread of flow at both Type 16 CBs on Kyzer Road. Concern that low gutter slope will increase spread over allowable. Provide spread calculation in drainage report submittal. | Have reviewed. See calculations. CBs are located outside of the radius per SCDOT guidelines and bypass water will spill into the ditch. There will be no valley gutter in the radius. | 4 |
| 12.1 | D1 | Inlet spacing charts used are design for the use of a standard curb and gutter section. As this area uses a valley gutter these charts are not applicable. Suggest review versus HY22 calculator to allow for a gutter slope of .0208 same as road slope rather than a standard gutter slope. | Verified with SCDOT to use spacing charts | 4 |
| 13 | D1/X5 | Check DS Invert for 56'-30" RCP Rt Side Platt Springs Road ~358+00. Inverts shows as lower than DS Ditch invert of 454.26 at 357+50. | Will correct and update invert elevations. | 5 |
| 14 | D1/X1-X4 | Check acceptability of road water release Platt Spring Road Right Hand Side Station 352+00 through Station 356+00. How are these outfall permission documented? Not shown in the "Outfall Ditch Permission" column in the ROW Data Sheet. | Outfall ditch permission not necessary. Will provide infiltration pipe to accommodate additional drainage as stated in the Stormwater Methodology Approach. Will provide details as soon as infiltration testing and design are complete (following Final Right of Way Plan approval). | 3 |
| 14.1 | D1/X1-X4 | Accept that no ROW will be required per meeting 07/14/2011. Additional soils information along with infiltration piping plans and details are required for final plans. | Agree | 3 |

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| 15 | D1/X2-X5 | Check acceptability of road water release Platt Spring Road Left Hand Side Station 354+00 through Station 357+50. How are these outfall permission documented? Not shown in the "Outfall Ditch Permission" column in the ROW Data Sheet. | Will check and finalize infiltration design as stated in Stormwater Methodology Approach. Will provide infiltration pipe to accommodate additional drainage as stated in the Stormwater Methodology Approach. Will provide details as soon as infiltration testing and design are complete (following Final Right of Way Plan approval). | 3 |
| 15.1 | D1/X2-X5 | Accept that no ROW will be required per meeting 07/14/2011. Additional soils information along with infiltration piping plans and details are required for final plans. | Agree | 3 |
| 16 | X6-X7 | Check Tie Lines shown right hand side of Platt Springs Road Station 358+00 through Station 359+50. | Will review. Profile for Kyzer Road ties to pavement for Platt Springs Road. | 5 |
| 17 | X12-X15 | Provide pavement widths Kyzer Road. | Not required | 5 |
| 18 | X16 | Fix X-Sect McLee Road Station 33+50 to fit in sheet. | Will add "tie to radius" note | 5 |
| 19 | EC1 | Check spacing callouts for sediment tubes versus localized ditch slopes. Many do not appear to be up to date. Update totals as needed. | Will review for final plans | 5 |
| 20 | EC1 | Provide Rip Rap and Geotextile Fabric Quantities. | Not shown on erosion control data sheet | 4 |
| 20.1 | EC1 | Remove an unneeded item, such as Sedement Dams, to allow space to show rip-rap and geotextile fabric on final plan set. | Shown on drainage sheets | 4 |
| 21 | EC1 | Consider ditch lining to protect high slope ditches. Will check versus velocities in drainage report submittal. | Will review for final plans | 5 |
| 22 | EC1 | Check ditch segment called out in sediment tube plans as S34 Station 356+40 through Sta 356+50 and update stations. | Will review for final plans | 5 |

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| 23 | General | Per SCDOT Hydraulic Design Manual 2007 the design high water level for roadside ditches must be 1' below the road subgrade. | 1' cover is recommended per 2009 manual. At a minimum, water surface elevation will be below the subgrade. | 5 |
| 24 | General | For all water leaving the project site, including existing outfalls and ditches, a pre-versus-post analysis will be required to be submitted with the drainage report. | Provided in Stormwater Methodology Approach and will include in final report. | 5 |
| 25 | 6 | Tract 19 driveway along McLee Road is within the corner radius of McLee and Platt Springs. ARMS manual section 3C-2 states that beginning radius of driveway shall be at least 10 feet from the point of tangency of the intersecting roadway. Possibly relocate driveway to allow 10 foot spacing. | Will review and coordinate with right of way agent as necessary | 3 |
| 26 | 6 | Tract 33 driveway along Platt Springs Sta. 359+60+/- is within the corner radius of Kyzer and Platt Springs. ARMS manual section 3C-2 states that beginning radius of driveway shall be at least 10 feet from the point of tangency of the intersecting roadway. Possibly relocate driveway to allow 10 foot spacing. | Will review and coordinate with right of way agent as necessary | 3 |
| 27 | 6 | It is recommended to realign the intersection to at least 20 degrees from perpendicular per SCHDM Section 15.2.6.2. Under restricted conditions where obtaining the right of way to straighten the angle of intersection would be impractical, an intersection angle up to 30 degrees from the perpendicular may be used. If 20 degrees is not practical, then provide sufficient documentation justifying the use of 30 degrees. | Existing McLee Road intersects Platt Springs Road at 63 degrees. Realignment to 70 degrees would be difficult due to close proximity of an existing horizontal curve and would likely result in the displacement of a telephone digital coop carrier site (estimated SCDOT cost = \$300k). | 5 |
| 28 | X3 | Fill slopes shall not be steeper than 2:1. | Shown at 1.9:1 to keep slopes inside of a 50' Right of Way, will revise to 2:1 and request slope permission. | 5 |

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| 29 | Drainage Calculations | Per SCDOT Hydraulic Design Studies Manual 2009 Cross Line Pipes below secondary roads should be designed to the 25 year storm. | Will conform with SCDOT design guidelines | 3 |
| 30 | Drainage Calculations | Calculations do not show an increase in flow for the left side ditch along SC34 from the end of project 366+27 through the intersection 360+00. Correct calculation to show roadway flows into ditch. | Will verify calculations | 3 |
| 31 | Drainage Calculations | Ditch Calculations for the right hand side of SC34 toward Kyzer road show a flow of 18.9 however the flow out of this ditch into DN-103 is shown as 25.80 cfs. Please verify. | Downstream ditch picks up Kyzer Road runoff | 4 |
| 32 | Drainage Calculations | S34 LT Sta 35+750-35+800 check channel depth. Depth shows as 0.6' at 35+750, not 1.72' as shown in calculation. | Will verify depth of ditch | 3 |

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