

Genna Porter

From: Rob Gordon
Sent: Wednesday, April 08, 2015 5:31 PM
To: Phil Tripp (ptripp@trippengineering.com)
Cc: Jeff Walton; Genna Porter
Subject: Eng TRC Review - Wilmington Tire & Auto

Engineering has reviewed the plans for the Wilmington Tire & Auto project and has the following TRC comments:

1. The project is proposing in excess of 10,000 sf of impervious area and will require a stormwater management permit. Please submit a complete stormwater permit application to Engineering, including all required calculations and a \$1,000 review fee.
2. The stormwater management system shall attenuate the peak run-off produced by the two (2)-year, ten (10)-year, and twenty-five (25)-year frequency design storms to predeveloped conditions (woods in good condition).
3. All stormwater control systems must be designed to treat the stormwater runoff from all surfaces generated by one and one-half (1 ½) inches of rainfall for water quality purposes. All structural stormwater treatment systems used to meet these requirements shall be designed to the standards outlined in the State BMP manual and shall provide eighty-five percent (85%) average annual removal for total suspended solids (TSS).
4. All conveyance systems shall be designed at a minimum to convey the ten (10)-year storm event. The 50-yr event shall be evaluated for impacts to flooding and emergency access. Please be sure to include appropriate tailwater condition on the storm drainage analysis.
5. The pipe system carrying drainage in Bagley will require evaluation. The City Stormwater inventory shows a 24" pipe outlet from the mini-storage facility toward Bagley. If that is true, the 15/18" pipe system within Bagley may need to be enlarged. I will not require storm drainage analysis of the system in the Oleander r/w as long as the pipe proposed maintains equivalent capacity (slope) as the existing system. This will likely be reviewed by NCDOT hydraulics. We can discuss this at TRC, it is not clear why this system is being modified.
6. The driveway on Bagley will have to be brought up to City Standards. There is a conflict between the sidewalk and the curb inlets on either side of the driveway and there appears to be a proposed pipe under the existing apron.
7. Please include inlet, BMP and offsite drainage area maps with the analysis or within the plan set.
8. If pervious credit is desired, please make sure the pervious concrete meets all the design criteria in the BMP manual, including construction specifications and signage.
9. Please provide a construction detail on the transition from the asphalt section to the pervious concrete section.
10. Please provide a copy of the soils report indicating the SHWT in the vicinity of the pond area as well as SHWT and infiltration rate in the vicinity of the pervious concrete.
11. Please show the location of the emergency spillway on the plans and make sure it is graded to drain.

These comments will be uploaded to protrak. Please call or email if there are any questions. Thank you.

Robert Gordon, PE
Project Engineer

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