



# Planning, Development and Transportation

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**DATE:** 11.14.2014

**TO:** ProTrak

FROM: Bill McDow Dave Brent

Transportation Planning Traffic Engineering

## Realigned River Road [Plan Review# 3]

> Initial Review Note >

All comments are based on adopted policy documents, specific City of Wilmington Land Development Code (CofW LDC) and City of Wilmington Technical Standards and Specifications Manual (CofWTSSM) requirements in effect at the time of this review. These have been noted after the comment as appropriate for your ease in further research.

The City Engineer may administratively approve dimensional variance requests per LDC Sec. 18-348. If the Applicant feels further interpretation is in order, please contact Transportation Planning directly to discuss in additional detail. Please apply for all administrative variances in writing, an email is acceptable or this may be included on the plan set. Please see Sec. 18-348 of the Land Development Code for the information required to process a variance request.

#### **BASE INFORMATION:**

#### NCDOT:

• I was unable to locate the June 17<sup>th</sup> River Road abandonment letter.

### **TECHNICAL STANDARDS – NEW ROADS:**

- 1. For the Roundabout Details, sheet CT-101 Drawing 2B, the cross walks for the Northern River Road connections do not appear to be aligned.
- 2. The detail for Splitter Island 2B/2 appears to be driveway 6, please clarify how the detail is labeled on the plan.
- 3. The Wilderness Rd and Driveway 8 intersections drain to the center median; however, there does not appear to be any basins near these intersections. Please verify the design for water flow near these intersections.
- 4. Elevations [sheet CT-101A, drawing 2C]:
  - The elevations and drainage profiles at the major intersections for the project appear to have changed significantly from the last submission to this submission
  - The project must ensure these intersection changes will not result in places along the roadway that will create inadequate drainage areas that will cover the travel lane during heavy rain events.
  - Driveway 1A/1B: The elevations in the vicinity of Driveway 1A (curb line and edge of pavement) were raised by 2-3' and the elevations for driveway 1B were lowered by 3-4'.
  - Driveway 3A/3B: The elevations in the vicinity of Driveway 3A (curb line and edge of pavement) were lowered by 2.38' and the elevations for driveway 1B were raised by 2.4'.

- Driveway 4A/4B: The elevations in the vicinity of Driveway 4A (curb line and edge of pavement) were raised by 4.7'-5.6' and the elevations for driveway 4B were lowered by 2.0'-2.55'.
- o Wilderness Rd pavement in the roadway was lowered by over 1.5'
- o Driveway 7A/7B: The elevations in the vicinity of Driveway 7A (curb line and edge of pavement) were lowered by 2' and the elevations for driveway 7B were raised by 2.64'-3.55'.
- o Driveway 8: The elevations in the vicinity of Driveway 8 (curb line and edge of pavement) were raised by 5.35' at the edge of pavement and the elevations for centerline were lowered by 1.0'-1.5'.
- Driveway 9A/9B: The elevations in the vicinity of Driveway 9A (curb line and edge of pavement) were raised by 2.4-3.37' and the elevations for driveway 9B were lowered by 3.3'.
- Ensure the locations of the catch basins and cross slopes are sufficient to allow proper flow across the roadway.
- 5. Sign R4-4 (Begin Right Turn lane Yield to Bikes) are needed in ALL cases where a right turn lane taper begins and right turning vehicles have to cross the bike lane to exit the through
- 6. Sheet CR-102 Drawing 3B, pavement markings adjacent to Driveway 1A are improperly shown beyond the median ending and within the center of the intersection.
- 7. The lane drop condition at Driveway 1B for North Bound River Road is unsafe (STA. 39+00). Lane drop must adhere to MUTCD Section 3B.09, and compute minimum taper length in accordance with L=WS formula for a 45 mph facility and 12' lane shift.
- 8. Provide dimensions for the Wooden Walkways near Roundabout at Driveway 2. Ensure they are greater than 4' in width.
- 9. With a median lane of less than 30' the ONE WAY signs are optional; KEEP RIGHT (R4-7) signs on the median nose can serve the same purpose. If the KEEP RIGHT is used, install sign OM1-3 under it. Keep Right Signs should be at the end of the concrete medians at DW#1A/1B, DW #3A/3B, DW #4A/4B, DW #5, DW #7A/7B and DW #9A/9B.
- 10. Please show/ detail the plan to get the Multi-use Trail from the Northern side of River Road to the Southern Side of River Road near STA. 75+00. If the path comes back to the Roadway and crosses at grade, a Crosswalk may be required.
- 11. Sheet CR-107 Drawing 3G shows a series of left turn markings leading up to Driveway #8, which are inside the median for the roadway. Also the median opening for Driveway #8 is not shown on the plans.
- 12. As previously stated, verify the location of the Stop Signs and Yield Signs for the full movement access driveways. Many of the stop signs are behind the lane markings and behind the location for a vehicle to stop prior to entering the intersection. DW #3A/3B has them 40' from the intersection, DW #4A/4B has them over 30' from the intersection.
- 13. Verify location for the Keep right signs. For example, DW# 4A/4B has the signs 12-15' from the end of the median.
- 14. The Lorraine Dr Roundabout has 2 roundabout signs on the SB approach, the first located near STA. 120+00 (PM-5) and the second at STA. 125+00 (PM-6). The sign at STA. 120+00 can be removed.
- 15. Due to the Speed change from 55 mph to 45 mph in the project area, speed limit signs will be required at the start and end of the project, to alert motorists of the change in speed limit from 55 mph to 45 mph within the project area.

#### **TECHNICAL STANDARDS – PAVEMENT MARKINGS:**

- 16. Driveway 1A and 1B is missing the traffic control signs, (Yield Sign or Stop Sign) for the Eastbound and Westbound approaches on sheet PM-2.
- 17. The SB Roundabout (circular intersection) signs appear to be too far from the intersection. This sign is located at DW #1 and it is over 800' from the intersection. The NB sign is within 500' of the intersection.
- 18. The 'RE' designation for the second fishhook symbol at the Roundabouts, right turn only does not appear in the table of pavement markings.
- 19. Please address the lack of median opening and access change for the proposed Driveway #8. the TIA and September 2014 Newland Communities River Lights Project Status Summary both require a median opening and ingress and egress lanes at this location.

Please let me know if you have any questions or if I can be of further assistance as this development moves through the review process.