

To: Kathryn Espinoza, McKim & Creed
From: Brian Chambers, Senior Planner; 910.342.2782
CC: File;
Date: 10/20/2020
Re: Riverlights MX3 Road Improvements TRC Rev. 1

The following is a list of comments for review from planning regarding the project. Please provide your corrections as listed below. A staff summary of comments:

Staff	Department	Notes
Brian Chambers	Planning, Plan Review	Comments below
Eric Seidel	Engineering	Comments attached
Chris Walker	Fire	No comments
Mitesh Baxi	Traffic Engineering	Comments attached
Bill McDow	Transportation	Comments attached
Anna Reh-Gingerich	Stormwater	Comments attached

Planning Review

Brian Chambers, brian.chambers@wilmingtonnc.gov, 910.342.2782

Comments:

- This project cannot be approved until after the requested MX rezoning has been approved, otherwise SRB review and approval will be required under the current zoning.
- Per Engineering, Traffic Engineering, and Transportation Planning angled parking will not be supported in the public right-of-way.
- Signature blocks are no longer necessary as all site plans are approved electronically.
- Include caliper of all required street trees, minimum caliper is 3 inches (per MX standards)

Project Name: Riverlights Mixed Use – Phase III Road Improvements

Formal TRC Date: 10/22/2020

Reviewer: Eric Seidel, PE

Department: Engineering – Plan Review Section

1. The angled parking along Ledbury Road, Public Right of Way, will not be supported by Engineering due to Public Safety concerns. Please update the Stormwater Application and any Site Data Tables which will be impacted by their removal.
2. Application: Please provide Initials for checklist requirements on page 5 of 6.
3. Please Note: There is a concern Normal Pool will not remain consistent. As far as water quality & pre/post are concerned this is not an issue, however we would like to know if a liner will be used to maintain NP for ascetics. Vegetative shelf plantings may not survive in a dry condition resulting in replacement and/or maintenance issues.
4. Has it been defined anywhere how much BUA will be allocated for individual outparcels? Or do you feel there has been enough Future BUA allocated where dividing it up will not be an issue.
5. Plans: Have pipe stub outs been provided for Future Development Parcels? Parcels 1 & 2 would have to saw cut the road to reach the wetpond unless services have been provided with adequate pipe sizing. Please show on the plans which inlets are proposed to be tied to.
6. Plans: Define Break points to specific inlets, for Future Parcels 1 & 2, to help future designers meet the intent of pipe sizing.
7. Plans: Please illustrate where the Emergency Spillway will be located.
8. Plans: Check Plan View Matchline References on Profiles.
9. Wet Pond: A single 24" outlet pipe seems small compared to dual 60" pipes entering the Forebay with a 6'x6' riser structure. Plans show the 24" outlet pipe at 1.02% (49 lf) while Wet Pond Section shows it at 0.54% (K) (93 lf), please clarify.
10. Calcs: Check the 50yr HGL for CB-1-21 & CB-1-20 it is the same as the 10yr.

Project Name: **RIVERLIGHTS MIXED-USE PHASE 3 ROAD IMPROVEMENTS**

Formal TRC Date: **10.22.2020**

Reviewer Name: **Mitesh Baxi**

Reviewer Department/Division: **PDT/Traffic Engineering**

SIGNAGE AND PAVEMENT MARKING PLAN: Please coordinate with City Traffic Signs and Markings Manager prior to installation of any traffic signs or markings in public ROW.

- a. Show the location of R6-1R and R6-1L one-way signs as per key notes in signage and pavement marking plan.
- b. Crosswalk pavement markings across Ledbury Rd at Quigley Blv is not required and shall not be installed.
- c. Stop sign and stop bar for the west bound traffic at the intersection of Ledbury Rd and Quigley Blv is not required and shall not be installed.
- d. Stop signs and stop bars on Quigley Blv mid-way intersection is not required and shall not be installed.
- e. Pedestrian crossing signs at the intersection of Quigley Blv and Arnold Rd are not required and shall not be installed.
- f. End of roadway object markers/signage must be installed at the end of Quigley Blv [\[MUTCD\]](#).
- g. End of roadway object markers/signage may be installed at the end of all the future connection stubs and shall be installed outside the ROW [\[MUTCD\]](#).
- h. Accurately show and label the type of the pavement markings for the lane configuration of all the proposed streets.

TECHNICAL STANDARDS – NEW ROADS:

1. Crosswalk pavement markings are shown at the intersection of Quigley Blv and Arnold Rd. Show and ADA ramps on the receiving side of Arnold Rd. Connect the ramps to the sidewalk.
2. Provided ADA ramps north of Quigley Blv mid-way intersection must be revised to guide a handicap person appropriately along the crosswalk and not to the center of the intersection. Specify the type to be used and provide the details as per NCDOT and/or City standards.
3. Show all the ramps at the southern corners of intersection Ledbury Rd and Quigley Blv.
4. ADA ramps shall be installed at the corner of all the street type driveway curb-cuts and future street connection stubs.
5. Angled parking spaces are subject to variance.
6. Show and apply the City's 20'x70' sight distance triangle at each driveway stub and 46' x 46' sight distance triangle at each street connection stub on the site plan and landscaping plan. [\[Sec.18-529\(c\) \(3\) CofW LDC\]](#) [\[Sec. 18-812 CofW LDC\]](#).

STREET LIGHTING [\[City of Wilmington Street Lighting Policy\]](#):

Proposed layout has been provided with Pre-TRC comments.

GENERAL NOTES TO ADD TO THE PLAN:

- A. Provide the updated detail of SD 15-03 on sheet CS-501.
- B. It shall be the responsibility of the subdivider to erect official street name signs at all intersections associated with the subdivision in accordance with the Technical Standards and Specifications Manual. The subdivider may acquire and erect official street name signs or may choose to contract with the city to install the street signs and the subdivider shall pay the cost of such installation. Contact Traffic Engineering at 341-7888 to discuss installation of traffic and street name signs. Proposed street names must be approved prior to installation of street name signs.
- C. Contact 811 prior to contacting City of Wilmington, Traffic Engineering regarding the utilities in ROW.

Please let me know if you have any questions or if I can be of further assistance.

Project Name: **RIVERLIGHTS MIXED USE PHASE 3 ROAD IMPROVEMENTS**

TRC Date: **10.22.2020**

Reviewer Name: **BILL McDow**

Reviewer Department/Division: **PDT/Transportation Planning**

TECHNICAL STANDARDS:

1. The proposed Riverlights MX project appears to be proposing Land uses and intensities that do not appear to be part of the Riverlights TIA. These proposed changes may require an update to the project TIA.
2. Please contact the WMPO, Kayla Grubb, EI at (910) 772-4170, Kayla.grubb@wilmingtonnc.gov to discuss the TIA and begin the proposed changes to the current scope and TIA.
3. The proposed future street connection along Arnold Road and Ledbury Road do not meet technical standards for minimum distance between centerlines of intersections of 400'. A variance may be requested. [\[Chapter VII, Table 2, page 7-5 CofW TSSM\]](#).
4. The proposed 52' Ledbury Road and 52' Arnold Road ROW cross section does not meet the minimum technical standards for a Collector Street. Collector streets require 60' ROW, 33' pavement width and 6' plaza width. A variance may be requested for the ROW cross section. [\[Chapter VII, Table 1, page 7-4 CofW TSSM\]](#).
5. The proposed angled parking spaces on Ledbury Road do not meet minimum technical standards for a collector street. Angled parking is not permitted on collector streets without an approved ordinance. [\[Chapter VII, D, page 7-16 CofW TSSM\]](#).
6. The proposed street corner radius does not meet minimum technical standard of R35'. Some of the street corner radius dimensions are 25'. [\[Chapter VII, Table 2, page 7-5 CofW TSSM\]](#).
7. The proposed cross walks at the intersection for Arnold Road and Quigley Street do not provide refuge islands at the median crossings. Please revise.
8. The proposed mid-block crosswalks and cross walks at the intersection for Ledbury Road and Quigley Street do not provide refuge islands at the median crossings. Please revise.
9. The proposed mid-block crosswalks on Quigley Street do not provide refuge islands at the median crossings. Please revise.
10. Please verify safe movements for the largest delivery vehicle, Fire and Rescue vehicles for the median divided intersections. If the vehicles cannot safely make turning movements and U-turns, the corner radius and median design must be modified.

Please let me know if you have any questions regarding the comments, or if I can be of assistance during the review process.

Project: Riverlights Mixed-Use Phase 3 Road Improvements

TRC Meeting Date: 10/22/20

Reviewer: Anna Reh-Gingerich

Department: Stormwater Services

To Whom It May Concern:

The Riverlights Mixed-Use Phase 3 Road Improvements project drains to the Cape Fear River. The Cape Fear River is currently listed by the State for exceeding the pH standard, having a poor benthic community, high copper levels, and low dissolved oxygen. Any additional infiltration on-site would help reduce the amount of stormwater runoff and pollution that could enter the Cape Fear River.

My comments:

1. Can some of the trees within the median be retained? Many citizens have voiced concerns over tree loss within the past year and the Mayor recently kicked off the Wilmington Tree Initiative to promote tree retention and planting within City limits to improve the overall tree canopy. Trees are helpful for erosion control, stormwater management, and reduced energy costs.
2. Please consider incorporating more pervious materials into sidewalks and/or sections of road to reduce the amount of stormwater being generated in the areas with good drainage. These can be pervious concrete, pervious asphalt, or pervious pavers.
3. Although allowed by ordinance, it is still recommended to pursue an alternative SCM to a wet pond. With recent incidents of anatoxin-A and other bacteria associated with blue-green algae in wet ponds, as well as recent and on-going research by NC State University, UNC-Wilmington and NCDENR concerning the efficacy and overall public health and safety and water quality performance of wet ponds, we recommend alternative stormwater control measures, depending on the soils and ground water conditions. The best fit for the location with Le soils would be a stormwater wetland, since infiltration would not be likely. Stormwater wetlands have more vegetation interacting with the water which would help nutrient uptake, reducing the chances for toxic algal blooms. They also add additional habitat and aesthetics to the site. If the wet pond still proceeds, incorporating floating wetland islands is the next recommendation.

Thank you for the opportunity to review! Please do not hesitate to reach out to me if you have any other questions or would like to explore other ways to improve infiltration on-site.

Thank you,

Anna Reh-Gingerich

Interim Watershed Coordinator - Heal Our Waterways Program

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