

Memo

To: Kathryn Espinoza, McKim & Creed
From: Brian Chambers, Senior Planner; 910.342.2782
CC: File;
Date: 9/6/2022
Re: Riverlights SF 7 & 8 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
James Merritt	Fire	Comments attached
Mitesh Baxi	Traffic Engineering	Comments attached
Bill McDow	Transportation	Comments attached
Anna Reh-Gingerich	Stormwater Services	Comments attached

Planning Review

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

Comments:

- Include DAC approved conditions on plan set.
- Please Provide updated master lot exhibit.
- Provide updated master tree removal exhibit.
- Include all phases and projects in overall residential unit/lot count (e.g. SF 9, Argento, Cottages) and confirm that unit counts remains under the established cap in the Development Agreement.

Project Name: Riverlights Conventional Phases 7 & 8

Formal TRC Date: 09/08/2022

Reviewer: Eric Seidel, PE

Department: Engineering – Plan Review Section

1. Please clarify why SCM's #9 & 10 have not been included with this submittal package? Please include Supplements, O&M's, Updated DA Maps, SCM Detail Sheets, Updated Routing, and Modified Stormwater Application for these two Stormwater Control Measures.
2. Stormwater Application IV. Project Information Line Item 8: Include Future BUA Allocation.
3. Provide Deed Restrictions accompanied by lot summary table.
4. Please tighten up grading behind lots 1296 - 1299 and between lots 1174 & 1175 to provide for additional tree save.
5. Provide additional labeling on Stormwater Detail Sheet Plan Views. Add additional proposed / existing contour labels, emergency spillways, rip rap dissipators, and label all stormwater piping & structures.
6. Identify Public Drainage Easements for all stormwater piping located outside of the Public Right-of-Way.
7. Check Rip-Rap Outlet Protection Tables on all Stormwater Detail Sheets. Provide Rip-Rap Dissipater sizing calculations.
8. Provide Storm Schedule Table on plans with pipe size, type, slope, inverts....rim...ect.
9. Based on HGL pipe calculations please look at increasing pipe sizes at CB-71 – CB-72, CB-143 – CB-147, & CB-166 – CB-167.
10. Check gutter spread. Curb inlets shall be located such that the gutter flow spread does not exceed 8 feet or 1/3 of the street width. Consider adding dual inlets at locations which do not meet the technical standard.
11. CU-704: Show RR1 Pipe Crossing size & invert on Profile.
12. CU-711: Consider adding some labeling to plan view to help declutter profile.

Project Name: **River Lights 7 & 8**

Formal TRC comments

Reviewer Name: James Merritt

Reviewer Department/Division: FIRE

Please address.

- Please call out all FDC locations on the plan.
- FDC's must be located on the front of the buildings unless otherwise approved.

Following notes must be present on the plans.

All required notes are on plan.

TECHNICAL STANDARDS – NEW ROADS:

1. Cul-de-sac on Road D in front of Lot 972, Road C in front of Lot 960, and Road B in front of Lot 1153 will be acceptable without central island. Please revise to remove the central island.
2. Bulb on Road C in front of Lot 1100 should be considered for revision to make a traditional road curve. This would allow continuous sidewalk on both sides of street. It may potentially increase few of the lots size. No central island or ramps are required.

Note: The above comments 1 & 2 are from pre-TRC review & As per the email communication on 01/25/2022. The requirements are not satisfied. Sidewalks are shown continuous as requested but central islands are not removed. Please revise accordingly.

3. Dimension the turnaround stubs at the end of all relevant streets.
4. Dimension the travel lane widths for the multi-lane street section with median at the intersection of Road A and Road I with River Rd.
5. Provide a separate sheet/s for signage and pavement marking plan showing all proposed traffic control signs, street name signs, and related pavement markings locations and types. [\[CofW Sign Specification and Installation Guide\]](#).
6. Provide the turning movements of the largest vehicle maneuvering at all the cul-de-sac/bulbs.

TECHNICAL STANDARDS:

7. City's 46'x46' sight distance triangles are missing at the street corner of Lot 1093 off Road B and corner of Lot 1228 off Road B. [\[Sec. 18-667 CofW Updated LDC\]](#) [\[Sec. 18-693 CofW Updated LDC\]](#).

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

- Streetlights shall be installed within subdivisions in accordance with the Technical Standards and Specifications Manual.
- The standard streetlight shall be a DEP designated LED equivalent fixture installed within the recommended range of mounting heights for the specific fixture. The standard streetlight shall be installed on a wooden pole in areas served from overhead facilities and on a fiberglass pole in areas served from underground facilities.
- Contact Duke Energy and get the streetlighting plan developed for next submittal. Plans must have details like numbers and type of standard or non-standard streetlights. It shall be noted on the plan whether standard or non-standard streetlights will be provided. [\[Sec. 18-498 CofW Updated LDC\]](#) Show the locations on landscaping plans also.
- Standard Streetlighting plan will be developed and provided by City when we will receive site plans with official street names.
- Developers may choose to provide any extra lights or ornamental. Any installations above the criteria of Standard Street lighting, will be considered as non-standard and must conform to the City's non-standard street lighting procedure as per the policy.
- Developers shall bear any installation costs associated with streetlights, if applicable. In areas served from underground facilities, the developers shall pay the one-time underground contribution charge, if applicable.
- All the streetlights shall be installed within the public ROW.

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

Project Name: **RIVERLIGHTS CONVENTIONAL PH 7 and 8**

TRC Date: **09.08.2022**

Reviewer Name: **BILL McDow**

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

TECHNICAL STANDARDS:

1. The site has proposed the expansion of Riverlights Conv. Phase 7 and 8 for a 424 unit residential project.
2. Please show the proposed ITE Estimated Trip Generation Numbers for the project with the AM Peak Hour Total, PM Peak Hour Total and 24 Hour Daily Total for all proposed uses:

Land Use	Type	ITE Code*	24 Hour Volumes	AM Peak Hour Trips		PM Peak Hour Trips		Saturday Peak Hour trips	
				Enter	Exit	Enter	Exit	Enter	Exit
SF Homes, 424 Units	210								

3. Please provide street names for the proposed subdivision streets.

Please let me know if you have any questions regarding the comments.

Project: Riverlights Conventional Phase 7 & 8
TRC Meeting Date: 9/8/2022
Reviewer: Anna Reh-Gingerich
Department: Stormwater Services

To Whom It May Concern:

The Riverlights Conventional Phse 7 & 8 project drains to the Cape Fear River. Any additional stormwater capture on-site would help reduce the amount of stormwater runoff and pollution that could enter the Cape Fear River, which is currently listed by NCDEQ for exceeding the pH standard, having a poor benthic community, high copper levels, and low dissolved oxygen.

My comments:

1. Thank you for incorporating infiltration basins!
2. Although allowed by ordinance, the proposed wet ponds are not recommended for approval. 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 NCDEMLR 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. These could include bio-retention, constructed stormwater wetlands, and infiltration practices, using the NCDEMLR Stormwater MDC Design Manual.
 - a. Stormwater Wetlands MDC: <https://deq.nc.gov/media/17538/download>
3. Please incorporate more tree save into the site plan. Trees are helpful for improving erosion control, stormwater management, the heat island effect, air quality, and energy efficiency.
4. If the soils and water table levels allow, consider incorporating pervious materials. Any replacement of impervious material with pervious material (pavers, pervious concrete, porous asphalt) would help reduce the amount of stormwater runoff being generated:
 - a. <https://deq.nc.gov/media/17539/download>



5. We encourage depressed bioretention areas in landscaping (with curb cuts and overflows) to allow for even more infiltration and pollution treatment where possible. Some examples are available at the following links:
 - a. EPA Green Streets video
<https://www.youtube.com/watch?v=TxqxEqnHIKw&feature=youtu.be>;
 - b. Massachusetts "Green Parking" example: <https://www.mass.gov/service-details/demonstration-3-permeable-paving-materials-and-bioretention-in-a-parking-lot>

- c. NCDEQ Stormwater Manual, Bioretention Cell Chapter:
<https://deq.nc.gov/media/17536/download>
- d. Filterra boxes (adding trees and stormwater management in one practice):
<https://www.conteches.com/stormwater-management/biofiltration-bioretenction/filterra>
- e. ***Below are examples of bioretention, vegetated swales, and curb cuts combined with pervious pavement.***



- 6. Incorporate native plants wherever possible. Native plants require less maintenance (fertilizers, pesticides, water, etc.) than non-native plants to grow successfully since they are already acclimated to local conditions. Many resources are available in the [Learning Library](#).
 - a. Consider native tree alternatives to the proposed non-native trident maple, allee lacebark elm, and sawleaf zelkova. Flowering native dogwoods, redbud, or red maple may provide similar aesthetics.

Flowering dogwood: <https://plants.ces.ncsu.edu/plants/cornus-florida/>

Eastern redbud: <https://plants.ces.ncsu.edu/plants/cercis-canadensis/>

Red maple: <https://plants.ces.ncsu.edu/plants/acer-rubrum/>

A full list of native trees is available here, but keep space and height in mind when selecting: https://plants.ces.ncsu.edu/find_a_plant/?plant_type_id=11

- 7. Properties that go above and beyond to incorporate green infrastructure are eligible to apply to the Lower Cape Fear Stewardship Development Coalition Awards:
<http://www.stewardshipdev.org/>
- 8. Additionally, stormwater fee credits up to 40% may be available to incentivize innovative stormwater management. Contact Fred Royal (Frederic.royal@wilmingtonnc.gov) for more information.

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 incorporate green infrastructure into the project.

Thank you,

Anna Reh-Gingerich

Watershed Coordinator - Heal Our Waterways
Program
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