

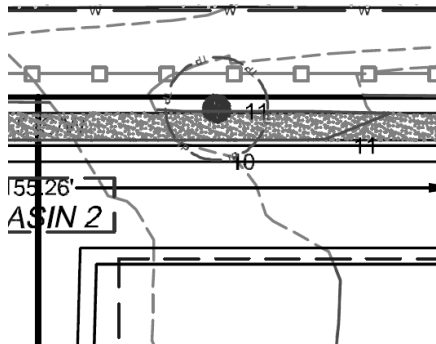
To: Adam Grady, Hanover Design Services
From: Pat O’Mahony, Associate Planner; 910-341-0189
CC: File;
Date: 2/15/2021
Re: Legacy Pointe Minor Sub. TRC Rev. 1

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
Pat O’Mahony	Planning, Plan Review	Comments attached
Mitesh Baxi	Traffic Engineering	Comments attached
Bill McDow	Transportation	Comments attached
Richard Christensen	Engineering	Comments attached
Chris Walker	Fire	Comments attached
Anna Reh-Gingerich	Stormwater Services	Comments attached

Patrick O’Mahony- Planning

- Are any existing structures proposed to be removed? Please label as such.
- Clarify tree removal. Tree protection is shown, but it looks like the tree will have to be removed. See below:



- Provide recreation space calculations to ensure the plan meets the requirements of Sec. 18-383(c)1.

Project Name: **LEGACY POINTE MINOR SUBDIVISION**

Formal TRC Date: **02.18.2021**

Reviewer Name: **Mitesh Baxi**

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

BASE INFORMATION:

- Accurately show and label an existing street name sign and stop sign at the intersection of Shandy Ln and Westport Dr on existing conditions plan.
- Coordinate with Engineering division for any variance to the technical standards.

TECHNICAL STANDARDS:

1. Dimension the width of proposed sidewalk off Shandy Lane.
2. Install wheelchair ramp at corner of Shandy Lane and Westport Dr private ROW, in accordance with City standards. Connect sidewalk with ramp. Show and label an ADA ramps [\[Chapter II \(E\) \(6\) of CofWTSSM\]](#).
3. Install wheelchair ramps at corner of Shandy Lane and proposed private access easement, in accordance with City standards. Connect sidewalk with ramp. Show and label an ADA ramps [\[Chapter II \(E\) \(6\) of CofWTSSM\]](#).
4. Please verify and relocate, if required, the existing Stop sign in advance of an ADA ramp/ potential crosswalk at the corner of Westport Dr. This signage must be relocated outside Shandy Lane ROW.
5. Dimension the radii for the corner of proposed private easement.
6. Dimension the turnaround into proposed private easement.
7. Provide the turning movement analysis for the largest vehicle expected into the proposed private access easement.
8. A stop sign is recommended at the proposed private access easement exit. If installed must be in the advance of potential crosswalk/ADA ramps.

GENERAL NOTES SHALL BE ADDED TO THE PLAN:

- A. Add a note indicating that all proposed vegetation within sight triangles shall not interfere with clear visual sight lines from 30"-10'. [\[Sec.18-556 CofW LDC\]](#)
- B. Please coordinate with City Traffic Signs and Markings Manager prior to installation of any traffic signs or markings in public ROW.
- C. All pavement markings in public rights-of-way and for driveways are to be thermoplastic and meet City and/or NCDOT standards. [\[Detail SD 11-03 and SD 15-13 CofW Tech Stds\]](#)
- D. All signs and pavement markings in areas open to public traffic are to meet MUTCD (Manual on Uniform Traffic Control Devices) standards. [\[Detail SD 15-13 CofW Tech Stds\]](#)
- E. All traffic control signs and markings off the right-of-way are to be maintained by the property owner in accordance with MUTCD standards.
- F. 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.
- G. Contact 811 prior to contacting City of Wilmington, Traffic Engineering regarding the utilities in ROW.
- H. Street trees must be located a minimum of 15 feet from streetlights. [\[CofW SD 15-17\]](#)
- I. Contact Traffic Engineering at (910) 341-7888 to discuss street lighting options.

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

Project Name: **LEGACY POINTE SUBDIVISION**

TRC Date: **02.18.2021**

Reviewer Name: **BILL McDow**

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

TECHNICAL STANDARDS:

1. The site has proposed an 8 lot subdivision and recreation area on Shandy Lane and Westport Drive.
2. Please show the details for the proposed 10' pedestrian access easement, which connects to recreational area. [[Sec.18-383, d \(6\) Recreation Space, \(Standards for park, recreation, and open space areas. \(#6 -Access\) CofW LDC\]](#)]

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

Engineering has reviewed the plans for the Legacy Pointe Minor Subdivision project submitted January 8, 2021 for TRC review and have the following comments:

Stormwater Management Permit Application

1. IV. Project Information; #8 and #12: Are the two 1,225 sf impervious pavements one and the same or two different areas? Just asking for some clarification where these two numbers come from.
2. IV. Project Information; #8: Per our phone discussion on January 26th, the proposed permeable pavement is to receive pervious credit. The entry needs to read as 3,423/0.
3. IV. Project Information; #13: Add the basin information for the permeable pavement since it will be a permitted SCM.

Operation & Maintenance Agreement

4. Submit a fully executed Operation & Maintenance Agreement for the Permeable Pavement since it will be a permitted SCM.

Stormwater Narrative

5. The Stormwater Narrative needs to include the permeable pavement.
6. *INFILTRATION MDC 1: SOIL INVESTIGATION. A site-specific soil investigation shall be performed to establish the hydraulic properties and characteristics of the soil within the proposed footprint and at the proposed elevation of the infiltration system. Boring locations I-4 and I-5 are too far away from the footprint of Basin 5 to be used.*

Supplement

7. The Supplement needs to be revised to include the permeable pavement.
8. Drainage Area Information: Percent BUA: Add the BUA percentage of each basin.
9. Design volume of SCM: Provide calculations for the design volumes. I do not see that they were included in the submittal.
10. Infiltration System:
 - a. #2 & #44: Verify the minimum required treatment volume. It is the greater of the 1.5" or 1-yr pre/post volumes per the city SW ordinance.
 - b. #45: Verify the drawdown time of the provided storage volumes.

Storm Sewer Calculations

11. Provide calculations/documentation demonstrating that the permeable pavement meets all MDCs as outlined in the NCDEQ Stormwater Design Manual chapter for Permeable Pavement.
12. Infiltration Basin Calculations: The water quality volume for design of the stormwater system is the stormwater runoff from all surfaces generated by one and one-half (1½) inches of rainfall or the difference in the stormwater runoff from all surfaces from the predevelopment and post development conditions for a one-year, 24-hour storm, whichever is greater. The 1.5" calculation was provided, the 1-yr pre/post was not. Please include that calculation so it can be demonstrated that storage is provided for the greater water quality volume.
13. Provide the provided storage volume drawdown calcs for each basin.
14. The predevelopment peak discharge rate shall be computed assuming that all land uses in the drainage area of the proposed facility are in a predevelopment state. The city considers predevelopment state to be woods in good condition for the purposes of determining runoff coefficients. For A soils, the city has allowed a CN as high as 39 to be used.
15. Provide the 2-year routing analysis.
16. An emergency outlet or overflow device shall be designed such that in the event of a system failure (i.e. - storm water will not infiltrate) during the 10-year storm, storm water will be conveyed to an existing drainage way or structure and not damage property. Provide the 10-year analysis with the basin no longer infiltrating.

Plans

17. Site Plan (2 of 4):

- a. Label the "Proposed 10' S/W and Utilities Easement" as "10' Non-Municipal Utility and Public Pedestrian Access Easement".
- b. Basin 1 does not appear to be placed in a S/W Easement. All 5 basins need to be placed in private easements. Label the easements as private.
- c. The pervious pavement drive in the access easement must connect to Shandy Lane with a city standard residential driveway apron, not a street style entrance.
- d. Remove the CFPUA details. The city does not sign off on CFPUA details.
- e. Driveway locations do not need to be shown, just a note specifying that residential driveways, once the locations are determined, are to be built per city standard detail SD 3-03.1/3-03.2, which you have included in the plan set.

18. Grading (3 of 4):

- a. Provide a 12-18-inch wide shoulder between the rear edge of the public sidewalk and the top of bank for Basins 1-4. Immediate 3:1 sloping at the rear edge of the sidewalk creates a unsafe condition for a pedestrian should they leave the sidewalk.
- b. The construction of the basins will be the responsibility of the permit holder to ensure the basins are constructed according to the approved plans. The homeowner(s) are not to construct the basin(s). The timing of the basin(s) construction will be left up to the permit holder, either before the lots are sold or before the Certificate of Occupancy for a particular lot is needed.
- c. The existing 18" pipe under Shandy Lane must also be cleaned out and fully functional, not just uncovered. This pipe is the outfall for Lots 1, 2 and 3.
- d. Existing topo shows a low point on lot line 5/6 on Shandy Lane. Is there a way to keep runoff from settling there? Will this become a bigger problem once the subdivision is fully developed?
- e. Pervious Concrete: See Recommendations 2 in the Permeable Pavement section of the design manual to aid in selection of filter fabric placed under the washed stone. Also consider placing a barrier between the washed stone and the adjacent soils to prevent soil migration into the stone layer.
- f. Pervious Concrete: Runoff from adjacent pervious areas shall be prevented from reaching the permeable pavement except for incidental, unavoidable runoff from stable vegetated areas. Revise the grading plan to eliminate pervious areas reaching the pervious concrete as much as is possible.

19. Infiltration Basins (4 of 4):

- a. Minor revision: The word 'infiltration' is misspelled in the basin sections.
- b. Basin 5 is missing the infiltration bottom elevation label.
- c. Add the SHWT elevation to each basin section.
- d. Add a note that basin side slopes cannot be steeper than 3:1 without proper slope stabilization.

20. EC-1: Note only: GENERAL MDC 7: CLEAN OUT AFTER CONSTRUCTION: Every SCM impacted by sedimentation and erosion control during the construction phase shall be cleaned out and converted to its approved design state. Add the note so that the basins, if used for erosion control, will be returned to its designed state.

Please call or email if there are any questions. Thank you.

Project Name: **Legacy Pointe Minor Subdivision**

Formal TRC Date: Feb 18, 2021

Reviewer Name: Chris Walker

Reviewer Department/Division: FIRE

Please add the following Fire & Life Safety note to the plan:

- Additional fire protection and/or accessibility requirements may be required due to any special circumstances concerning the project.

Project: Legacy Pointe Minor
Subdivision **TRC Meeting Date:** 2/18/21
Reviewers: Anna Reh-Gingerich
Department: Stormwater Services

To Whom It May Concern:

The Legacy Pointe Minor Subdivision project falls within the Bradley Creek Watershed, which has high levels of fecal coliform bacteria and contributes to swimming advisories and shellfish closures in the area. This watershed has a voluntary watershed restoration plan in place to encourage practices that will reduce the volume of stormwater that can transport bacteria and other pollutants into Bradley Creek.

Link to the plan: [Bradley and Hewletts Creeks Watershed Restoration Plan](#)

Stormwater Services Comments:

1. This property has Watershed Resource Protection and Conservation Area overlapping boundaries according to the CAMA Land Class 2006 map, making this site eligible for Exceptional Design elements. Please keep this in mind moving forward.
2. This is still early in the process, but I would like to encourage green infrastructure be incorporated into any future development plans for the subdivided properties. This could include pervious driveways, vegetated swales, rain gardens, constructed wetlands, etc.

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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