

To: Garry Pape, PE, GSP Consulting Engineers
From: Brian Chambers, Senior Planner, 910.342.2782
CC: File;
Date: 5/25/2021
Re: Crossroads at Independence Outparcel 2 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
Rob Gordon	Engineering	Comments attached
Chris Walker	Fire	Comments attached
Mitesh Baxi	Traffic Engineering	No further comments
Bill McDow	Transportation	Comments attached
Anna Reh-Gingerich	Stormwater Services	Comments attached

Planning Review

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

- Include CD conditions on site plan (CD-3-816).
- Include proposed setbacks and height in store data table.
- Building is identified as retail on plan sheets, add correct use.
- Provide landscape plan for Outparcel 2 only, there are no calculations for this parcel in the overall plan that was submitted.
- Use streetyard from overall plan, compliance with all other landscaping requirements must be included on landscape plan for this project (e.g. shading, foundation plantings, perimeter buffer, etc).
- Provide dumpster screening detail.
- Provide lighting plan.

From: [Rob Gordon](#)
To: [Brian Chambers](#)
Subject: Eng TRC Comments - Crossroads Outparcel 2
Date: Monday, May 24, 2021 1:22:00 PM
Attachments: [image001.png](#)

Engineering comments on Crossroads, Outparcel 2:

1. Note Only – the \$1,000 review fee has been received.
2. The impervious allocation proposed by the most recent modification of the Crossroads master permit is 26,409 sf. The plans and application list the BUA at 23,909. Please coordinate and perhaps any extra allocation can be applied as future. Update forms & calcs accordingly.
3. The outparcel area is listed as 39038 on the master permit documentation (drawings, application), but the area is listed as 35,709 on this submittal. Please coordinate and clarify.
4. Some portion of the drive aisle is being constructed within outparcel #1. Is this area included in the 23,909 sf of project BUA? We will need that broken out and applied to the outparcel 1 allocation. It could perhaps be noted in the second column of the SCM DA sheet (p4 of the application).
5. Just to clarify – the pervious pavement is NOT being proposed for credit, correct?
6. Please make sure the utility taps will not impact the turn lane. Once constructed & paved, no cut will be permitted.
7. Will both sidewalk connections to CB Rd (either side of the lot) be constructed with outparcel 2?

Call or email if there are any questions not resolved at the TRC meeting. Thank you.

Robert Gordon, PE
Plan Review Engineer

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Project Name: **Crossroads at Independence Outparcel 2**

Formal TRC Date: May 27, 2021

Reviewer Name: Chris Walker

Reviewer Department/Division: Fire

Please address the following:

- Hydrant must be within 300' of the building(s), measured as the truck drives (Commercial). It appears the closest hydrant is over 600' as the truck drives.
- The type of Building Construction according to the International Building Code must be present on the plans. (Preferably the site data table)

*Project Name: **CROSSROADS AT INDEPENDENCE OUTPARCEL 2***
*Formal TRC Date: **05.27.2021***
*Reviewer Name: **Mitesh Baxi***
*Reviewer Department/Division: **PDT/Traffic Engineering***

No further comments.

Project Name: **CROSSROADS AT INDEPENDENCE OUTPARCEL 2**

TRC Date: **05.27.2021**

Reviewer Name: **BILL McDow**

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

TRC REVIEW

TECHNICAL STANDARDS:

1. Consider utilizing 20' by 70' Sight Distance Triangles on the Landscaping Plan Sheets. All proposed vegetation should be maintained to provide clear visual sight lines from 30" to 10', within the Sight Distance Triangles.
2. No Further Comments.

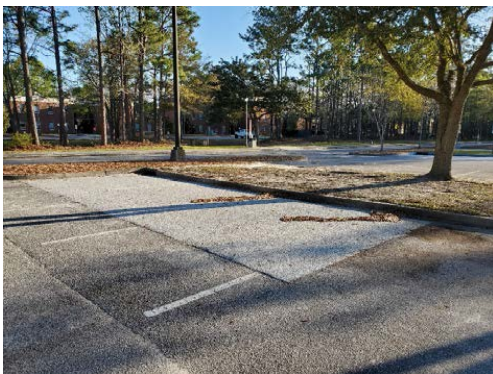
Project: Crossroads at Independence Outparcel #2
TRC Meeting Date: 5/27/21
Reviewer: Anna Reh-Gingerich
Department: Stormwater Services

To Whom It May Concern:

The Crossroads at Independence Outparcel #2 project falls within the Barnards Creek Watershed. Any additional stormwater capture on-site would help reduce the amount of stormwater runoff and pollution that could enter Barnards Creek and, eventually, the Cape Fear River, which is currently listed by the State for exceeding the pH standard, having a poor benthic community, high copper levels, and low dissolved oxygen.

My comments:

1. Thank you for incorporating pervious pavement! I would encourage you to consider opportunities to replace more sections with pervious or landscaping if possible. More landscaping would help to reduce the heat island effect and the amount of stormwater runoff being generated at this property. It could even be incorporated as vegetated swales or bioretention areas.
 - a. <https://files.nc.gov/ncdeq/Energy%20Mineral%20and%20Land%20Resources/Stormwater/BMP%20Manual/C-5--Permeable-Pavement-11-20-2020.pdf>
 - 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://files.nc.gov/ncdeq/Energy%20Mineral%20and%20Land%20Resources/Stormwater/BMP%20Manual/C-2--Bioretention---11-20-020.pdf>



2. Thank you for incorporating some native plants! I would encourage more where possible. Native plants require less maintenance than non-native plants to grow successfully since they are already acclimated to local conditions. Wetland plants would be a good fit for the site and would also help improve the existing wetland habitat.
- a. **Native sedges would work in place of liriopse, which is a species of concern in Georgia and South Carolina for invasive tendencies** (please avoid non-native sedges, indicated by an asterix*):
[http://hoffmannursery.com/assets/files/files/Hoffman Nursery Green Infrastructure Chart.pdf](http://hoffmannursery.com/assets/files/files/Hoffman_Nursery_Green_Infrastructure_Chart.pdf)
 - b. Consider native tree alternatives to the proposed Crape Myrtles (crape myrtles provide no nectar for pollinators), Allee elm, Spartan juniper, and Yoshino cherry. Alternatives include native species such as serviceberry, American persimmon, American hophornbeam, redbuds, dogwoods, Carolina cherry laurel, varieties of Magnolia grandiflora, red maple (Acer rubrum), or cherrybark oak (Quercus pagoda), to name a few. A full list is available here, but keep space and height in mind:
https://plants.ces.ncsu.edu/find_a_plant/?plant_type_id=11&plant_type_id=18&nc_region_id=1
 - c. The North Carolina Extension Gardener Plant Toolbox is also a great resource. This link leads to a search of native, flowering, coastal shrubs:
https://plants.ces.ncsu.edu/find_a_plant/?plant_type_id=17&nc_region_id=1&flower_value_to_gardener_id=1&landscape_theme_id=7
 - d. Muhly grass would be a showy, native grass alternative to the proposed breeze grass:
[https://brunswick.ces.ncsu.edu/wp-content/uploads/2017/11/ORNAMENTAL GRASSES 2017.pdf?fwd=no](https://brunswick.ces.ncsu.edu/wp-content/uploads/2017/11/ORNAMENTAL_GRASSES_2017.pdf?fwd=no)
 - e. **Japanese privet is an invasive species in North Carolina and native alternatives are recommended:** <https://plants.ces.ncsu.edu/plants/ligustrum-japonicum/>
 - American Beautyberry: <https://plants.ces.ncsu.edu/plants/callicarpa-americana/>
 - Oak Leaf Hydrangea: <https://plants.ces.ncsu.edu/plants/hydrangea-quercifolia/>
 - Sweet Pepperbush: <https://plants.ces.ncsu.edu/plants/clethra-alnifolia/>
 - Arrowwood Viburnum: <https://plants.ces.ncsu.edu/plants/viburnum-dentatum/>
 - And others:
https://plants.ces.ncsu.edu/find_a_plant/?plant_type_id=11&plant_type_id=17&flower_value_to_gardener_id=1&nc_region_id=1
 - f. There are more great options in this booklet, including trees, flowers, shrubs, and groundcovers: <https://ncwildflower.org/handouts/Coastal-Landscaping-Guide-Book.pdf>
 - g. Native Azalea species: <https://www.trianglegardener.com/wp-content/uploads/2018/12/Native-Azalea-Chart.pdf>

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

Interim Watershed Coordinator - Heal Our Waterways Program City of
Wilmington Stormwater Services

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