



**Planning, Development
and Transportation**

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DATE: 03.27.2019

TO: ProTrak

FROM: Mitesh Baxi
Traffic Engineering

■ **CARROLL AT THE AVENUE [TRC Plan Review]**

☞ 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:

- Revise all sheets to accurately illustrate the existing conditions on and surrounding this parcel. Show all adjacent traffic signs, lane configurations, traffic control devices and pavement markings on the site inventory plan. Please refer to the Technical Standards and Specifications Manual (link is below) Ch. VII C.1.a.2. for specific information and distance requirements. Contact Traffic Engineering at 341-7888 if you need assistance locating these elements.
<https://www.wilmingtonnc.gov/home/showdocument?id=1910>
- All private streets shall be designed and constructed to meet or exceed the public street standards as specified by the [city's] Technical Standards and Specifications Manual. [[Sec.18-378 \(d\) CofW LDC](#)]
- Please provide traffic signage and pavement markings plan for full review. [[NCDOT/City standards](#)].

NCDOT:

It is the Applicant's responsibility to coordinate directly with NCDOT to determine if any driveway permits/ revisions/ review processes are required. Contact NCDOT at 910-398-9100. Please note additional comments may be forthcoming once coordination occurs.

TECHNICAL STANDARDS – NEW ROADS:

1. Distance between centerlines of intersections of proposed Road A/Road B, Road B/Road C, Road C/existing Lance Dr is less than minimum 400' as per the City's technical standards. [[Page 7-5 Table 2 of CofW Tech Stds](#)]. A variance may be required.
2. A variance may be required for the distance between centerlines of intersections of Road A and Road B with unnamed street. [[Page 7-5 Table 2 of CofW Tech Stds](#)]

3. The minimum street corner radii is 35'. [7-5 CofW Tech Stds]. Please revise where applicable or a *variance* may be required.
4. For local streets: minimum median width - 10' face-to-face. For collector streets: minimum median width - 13' face-to-face, to provide for possible left turns, access cuts, etc. A *variance* may be required. [Page 7-7 CofW Tech Stds]
5. Road A main entrance typ. cross section sheet C-2.10 shows ingress pavement width as 26' excluding gutter and site plan shows it including gutter width. Please verify.
6. Please label the street connecting Road A and Road B, between building 6 and building 8.
7. Tactile warning domes must be installed at the end of multi-use path before entering the pavement at corner of all the street intersection off Military Cut-off Rd, as per NCDOT and/or City standards.
8. Angle of intersection between any two or more streets shall be minimum 75 degrees. [Page 7-5 Table 2 of CofW Tech Stds]. Please verify this condition for the street connecting Road A and Road B, between building 6 and building 8. A *variance* may be required.
9. Any of the required signs shall not be installed in the public right-of-way when the signs being installed are intended to function as traffic control for a private driveway (Figure 1.4, Figure 2.1). [Sec 1 A (18) CofW Sign Specification]
<https://www.wilmingtonnc.gov/home/showdocument?id=3940>
10. A stop sign and stop bar at the intersection of proposed streets, with Military Cut-off Rd, shall be installed outside Military Cut-off Rd ROW. Relocate the crosswalk accordingly so that stop bar and sign are located in advance of the crosswalk. [City, MUTCD standards].
11. A stop sign and stop bar is recommended for all the street type driveways.
12. Traffic regulatory sign would be required to restrict the traffic for one-way street.

ROUNDAABOUT

Roundabout design should be prepared by an engineer experienced with such and should consider geometric controls such as:

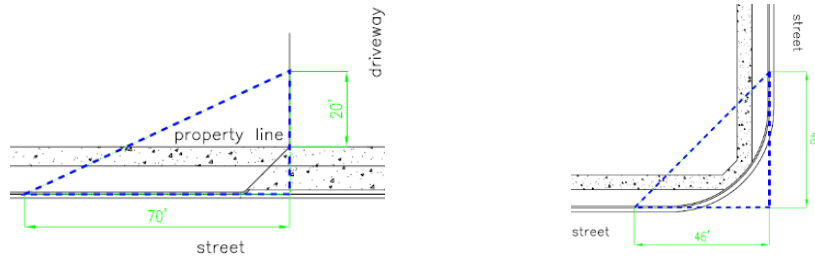
- Entry angle and offset to center as appropriate
- Entry, Circulating and exit speed-radius relationships
- Inscribed diameter/width consistent with design vehicle (Provide auto-turn analysis for the vehicle/s accessing this route).
- Provide Splitter Island where possible.
- Approach and departure sight distances.
- Sight distances across the center island and to the crosswalks.
- Appropriate signing and markings
- Sectional details.

This list is not inclusive and submittals should provide reasoning used for each parameter.

TECHNICAL STANDARDS – ACCESS (driveway, sidewalk, and sight distance):

13. Driveways shall be City-standard ramp-type driveways. Show City standard detail(s) on plan. [SD 3-03.3 & 3-03.4 (Vertical curb) CofWTSSM]. Where no curb exists in the vicinity, a flat slab type or a street type entrance may be allowed or required by the City Engineer. [page 7-9 CofWTSSM]
14. All off street parking areas shall be arranged so that ingress and egress is by forward motion of vehicles. [Sec.18-526 CofW LDC]. This is applicable for the parking facility north of parking garage off Road B. A reverse movement of a vehicle may be in conflict with a crosswalk/Road B ROW.
15. Provide sidewalk detail SD 3-10 on the plan. [Sec. 18-529(b)(2) CofW LDC]
16. Provide curbing detail SD 3-11 on the plan. [Sec. 18-529(b)(2) CofW LDC]

17. Show and apply the City's 20'x70' sight distance triangle at each driveway and the City's 46'x46' sight distance triangle at each street corner intersection on the site plan and landscaping plan. [Sec.18-529(c)(3)CofW LDC] [Sec.18-556 CofW LDC]



SIGHT DISTANCE TRIANGLE FOR ANY STREET INTERSECTIONS WITH SAID THOROUGHFARES

Military Cutoff Rd is a major thoroughfare [Chap VII (C) (2) (a) of CofW Tech Stds]. The required triangular sight distance for any street intersections with said thoroughfares shall be provided in compliance with the AASHTO sight distance standards. [Sec.18-556 CofW LDC]. Please show this on the site and landscape plans for applicable intersections.

TECHNICAL STANDARDS – PARKING:

18. All off street parking areas shall be arranged so that ingress and egress is by forward motion of vehicles. [Sec.18-526 CofW LDC]
19. The minimum radius is 25' for any portion of a parking lot adjacent to a travel way (i.e. islands at the end of a parking bay) for parking that is open to the public. If the travel way will not be used for emergency service vehicles or truck traffic, you may request a tighter radius, the minimum is 15'. This request must be made in writing (an email message is acceptable). [Chapter VII, Detail SD 15-13 CofWTSSM]. Please contact Engineering division for this request.
20. Portions of the proposed development around 'Building 10', do not appear to be in compliance with the 500'/800' rule pertaining to the maximum length of a private drive/parking lot. [Chapter VII, C (4), pg 7-15 to 7-16 CofWTSSM]. A *variance* may be required.

TECHNICAL STANDARDS – Barrier Free Design:

21. Show the typical handicap sign detail on the plan as per ADA and City standards. [Sheets A1 of 5 and A2 of 5, CofW Sign Specification] <https://www.wilmingtonnc.gov/home/showdocument?id=3940>
22. A pedestrian refuge island is shown at the proposed roundabout. If pedestrian refuge island is less than 6 Ft. in length detectable warning domes are not required and pedestrians are allowed to cross in single stage. Provide a level cut-through considering a narrow island that will not accommodate opposing curb ramps with a 48" separation. Please verify.
23. Provide a City's standard detail (SD) for the curb ramps.

MISCELLANEOUS:

- ❖ Contact Traffic Engineering at (910) 341-7888 to discuss street lighting options.
- ❖ We will reserve comments on the parking lot, driveway geometry and other technical issues until a full construction drawing is submitted.

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.