

July 12, 2021

Pembroke Planning Board
Town Hall
100 Center Street
Pembroke, MA 02359

ATTN: Matthew Heins, Planning Board Assistant

**RE: Site Plan Review
Cell Tower – 85 Washington Street
Pembroke, Massachusetts**

Dear Matthew and Board Members:

As requested, Merrill Engineers and Land Surveyors has performed a site inspection and reviewed the most recent submittal for consistency with the Pembroke Zoning Bylaws and the Planning Board Rules and Regulations Governing the Issuance of Site Plan Approval for the above-referenced project. The information submitted to this office and reviewed is as follows:

TITLE: Proposed Cell Tower
85 Washington Street
Pembroke, Massachusetts

APPLICANT: Cellco Partnership, d/b/a Verizon Wireless

OWNERS: Circle Pembroke Retail LLC

PLANS: Site Plan
Proposed Cell Tower
85 Washington Street
Pembroke, Massachusetts
Engineer: Nexius
Dated: October 20, 2020 (5 Sheets)
Revised: May 26, 2021 (9 Sheets)

STORMWATER CALCULATIONS: Stormwater Report
Pembroke 5 MA
85 Washington Street
Pembroke, Massachusetts
Engineer: McMahon Transportation Engineers & Planners
Dated: May, 2021

The site is located on the westerly side of Washington Street (Route 53) just south of the intersection of Washington Street and Schoosett Street behind the Circle Furniture Store. The property is located within the Business B Zoning District, the Residence A Zoning District and the North Pembroke Historic District. It consists of approximately 1.9 acres. Access to the site is provided by a single driveway from

Washington Street. The site is currently occupied by the Circle Furniture Store with associated paved parking and loading areas, septic system, underground utilities and stormwater management system. The project proposes the construction of a 120 foot tall monopole cell tower. The cell tower will be located behind the existing Circle Furniture building within a 50 foot x 50 foot (2,500 square feet) fenced compound area. The compound area will also contain the equipment required for the cell tower and include a transformer, diesel generator and equipment cabinets. Three (3) areas for "Future Carriers" is also proposed. The fenced compound will be treated with 3 inches of crushed stone. Access to the compound will be provided by a 12 foot wide gravel drive from the existing parking lot. No stormwater management system has been proposed as part of the project.

The following report summarizes our review with respect to the Zoning Bylaws and the Planning Board Rules and Regulations Governing the Issuance of Site Plan Approval. The format of this report will follow the format and sections outlined in the Zoning Bylaw and the Planning Board Rules and Regulations Governing the Issuance of Site Plan Approval. The report does not include a review of the proposed septic system design modifications.

Our original comments are presented below in normal text with our updated comments, if any, presented in ***bold and italic text***.

The project now proposes a 110-foot tall monopole cell tower, associated compound and access gravel drive.

ZONING BYLAWS

Section II Definitions

The definition of Accessory Uses which specifies "For the use of elevated water storage tanks, this includes the installation of antenna(s) on water storage tanks and construction of associated wireless telecommunication facilities" may apply.

Section IV Use and Dimensional Regulations

4. A. The construction of a Wireless Communications Facility is not an allowed use in the Business B District.

This was reviewed at the 1/11/21 Planning Board Public Hearing.

4. B. The construction of a Wireless Communications Facility is not use allowed by Special Permit in the Business B District.

This was reviewed at the 1/11/21 Planning Board Public Hearing.

- 4.D.10 The Zoning Bylaw states: "Heights: No building or structure shall be erected or altered to exceed three stories in height. However, chimneys, elevators, poles, spires, tanks, towers and other projections not used for human occupancy may extend a reasonable height above the height limits herein fixed."

This was reviewed at the 1/11/21 Planning Board Public Hearing.

Section V. Special Provisions, Standards and Procedures

- 7.F.9. An approved site plan shall be recorded with the Plymouth County Registry of Deeds and consequently needs to be prepared to Registry standards. There are a number of

instances where this plan is not in compliance with the Registry Plan Regulations and should be revised as necessary.

This comment was not addressed. County requirements to be addressed prior to submittal to County.

RULES AND REGULATIONS GOVERNING SITE PLAN APPROVAL

Summary of Requested Waivers

The following waivers have been requested from the Planning Board Rules & Regulations Governing the Issuance of Site Plan Approval.

Section IV – Site Plan Content

- 4.7 Landscape Plan prepared, stamped and signed by a Registered Landscape Architect.
- 4.14 Site Plan Scale
- 4.15 A Development Impact Statement.
- 4.21 A Photometric Plan
- 4.22 Traffic Impact Study

Section VI – Development Impact Statement

We recommend that all waivers that are granted by the Planning Board be specified on the cover sheet of the approved Site Plans.

Section IV. Site Plan Content

- 4.1 A vicinity map is shown on Sheet 1 of the plans. We recommend that a North Arrow and scale be presented on this plan. A locus map has been provided on Sheet 2 at a scale of 1" = 200' as required. The buildings for the property across the street from Circle Furniture are incorrect and should be revised.

The plan has been revised as recommended. Comment satisfactorily addressed. N/A

- 4.2 The location of all driveways and curb cuts within three hundred (300) feet of the site have not been shown on the site plan as required. The plan should be revised to include this information as well as the edge of pavement and pavement width.

The plan has been revised as recommended. Comment satisfactorily addressed. N/A

- 4.3 The property owners for the property across the street from Circle Furniture are incorrect and should be revised as necessary.

The names of the property owners for the property across the street from Circle Furniture have been corrected. Comment satisfactorily addressed. N/A

- 4.4 The location of the existing septic system on the subject parcel as well as on adjacent property should be shown on the plan as required.

The plan has been revised as recommended. Comment satisfactorily addressed. N/A.

- 4.5 The plan should be revised to present the required seven (7) signature lines for Planning Board Approval along with the necessary statements for both the Planning Board and the Town Clerk.

The plan has been revised to present the required seven (7) signature lines for Planning Board Approval. The Planning Board and the Town Clerk statements as presented in the Planning Board Rules and Regulations Governing the Issuance of Site Plan Approval have been added to some of the plan sheets but not all. We recommend that the statements be added to all plan sheets. Addressed In every page.

- 4.6 Proposed grading is shown on Sheet Z-2 of the plan as required. We recommend that the limits of the proposed grading be reviewed and revised if possible since the limit of grading and associated tree removal extends quite a distance from the compound area and access drive.

This comment was not addressed and no proposed grading for the Compound Area is shown on the plan. All proposed grading should be shown on the plan. Grading plan has been finalized and is completed as it is currently shown.

- 4.7 A row of trees is located on the southerly side of the driveway which leads to the rear parking area for Circle Furniture. These trees should be shown on the plan and the impact of the proposed utility trench in this area should be addressed.

The location of the trees along the driveway is now shown on the Existing Conditions Plan and it appears the installation of the utilities will remove most of the trees. Removed trees will be replaced.

No Landscaping Plan prepared by a Registered Landscape Architect has been provided as required by the Regulations. The applicant has requested a waiver of this requirement.

- 4.8 The location, size and material of both the existing and proposed utilities for the property should be shown on the plan including the information on the existing stormwater management system. A catch basin is shown in the rear parking area but no other information is provided. A stone trench is located on the westerly side of the rear parking area which may be part of the existing stormwater management system and more information should be provided. The plan should also show the proposed width, location, pavement saw cut lines and trench details for the proposed underground power and telco utilities.

This comment was not addressed. Existing utilities are shown on sheet C-1 & Z-2.

- 4.9 Some Zoning information is presented on sheet Z-1 of the plans as required; however, the plan should be revised to include all Zoning Requirements including Site Coverage. In addition, the Zoning Information presented in the upper left hand corner of sheet C-1 should be revised to provide the correct information for the Business B Zoning District.

The plan has been revised to show the correct information for the Business B Zoning District with the exception of the Maximum Impervious Coverage which should be 60% not 63%.

The plan has been revised as recommended. Comment satisfactorily addressed. N/A

- 4.12 As previously stated, the percent of building lot coverage, percentage of paved area and percentage of open space should be shown on the Zoning Table.

The Zoning Table which was previously presented on sheet Z-1 has been removed. A Zoning Table should be provided to show all Zoning Requirements; Required, Existing and Proposed.

This information is now presented on sheet C-1 of the plans. Comment satisfactorily addressed. N/A

- 4.13 Access to the proposed cell tower will be provided by a 12 foot wide gravel access drive which will extend from the existing rear parking area. It is not clear whether two (2) of the existing parking spaces will be eliminated. This should be addressed by the design engineer. If parking spaces are being eliminated, information should be submitted to demonstrate that a sufficient number of existing parking spaces are provided for the current use. The Pembroke Fire Department should determine if the driveway width and 45 foot x 17 foot turnaround area is sufficient for the fire department apparatus.

This comment was not addressed. Existing parking spaces planned to remained, pending upcoming conversation with fire department.

- 4.14 The site plan has not been prepared at the required 1"=20' or 1"=40'. The applicant has requested a waiver of this requirement.
- 4.15 A Development Impact Statement has not been submitted as required. The applicant has requested a waiver of this requirement.
- 4.16 The design plans have been stamped and signed by a registered Professional Engineer and by a registered Professional Land Surveyor as required. A Professional Land Surveyor's certification as to the accuracy of the location of the buildings, etc. has not been presented on the plans as required and should be provided.

The Professional Land Surveyor's certification as to the accuracy of the location of the buildings, etc. has been added to the Plan. Comment satisfactorily addressed. N/A

- 4.19 No information on erosion control or construction sequencing is shown on the plans. We recommend that an erosion control barrier be provided around the entire limit of construction and that a detailed construction sequence be provided as well as the location and sizing calculations for temporary sedimentation basins. In addition, the location and a detail for a construction entrance should be presented on the plan.

An erosion control plan sheet ES-1 (Soil Erosion & Sedimentation Control & Notes) has been added to the plan set which includes construction sequencing. In addition, erosion control details are provided on sheet ES-2. Comment satisfactorily addressed. N/A

- 4.21 No information on the proposed site lighting has been shown on the plan. The applicant has requested a waiver of this requirement.

- 4.22 A Traffic Impact Study has not been submitted. The applicant has requested a waiver of this requirement.

Section V. Requirements

- 5.1 No Landscaping Plan prepared by a Registered Landscape Architect has been provided as required by the Regulations. The applicant has requested a waiver of this requirement.
- 5.2 No information on the proposed site lighting has been shown on the plan. The applicant has requested a waiver of this requirement.
- 5.3 No stormwater calculations or Stormwater Management Report has been submitted in support of the proposed project as required. We recommend that a stormwater management system design as well as stormwater management calculations be provided for this project to address any increase in stormwater runoff as well as any impact on stormwater quality.

It appears that the project will remove a portion of the existing stormwater management system adjacent to the rear parking area as well as removing a substantial number of trees and changing the ground cover from woods to gravel and grass. In addition, regrading in the proposed project area is also proposed.

A Stormwater Report has been submitted which indicates that the overall stormwater management system will attenuate the post development stormwater flows to a level not exceeding the existing conditions for the 1 year, 2 year, 10 year, 25 year and 50 year – 24 hour storm events. A minimal increase of 0.07 cfs is proposed for the 100 year – 24 hour storm. We offer the following comments regarding the stormwater management system design and analysis:

- It does not appear that soil testing has been performed. We recommend that soil testing be performed in the area of the crushed stone compound to confirm the soil conditions and depth to the Estimated Seasonal High Groundwater Elevation (ESHGW) used for the design and to demonstrate that the design meets the criteria specified in the Mass DEP Stormwater Management Handbook.***
- Pre-Development and Post-Development Watershed Plans have not been included in the submittal. We recommend that all sub-catchment areas be labeled and that the Tc flow path for all sub-catchment areas be presented on the Watershed Area plans.***
- The HydroCAD Analysis utilizes the crushed stone compound to attenuate the stormwater runoff and a 50-foot long broadcasted weir at elevation 73.45 as the outlet device. We recommend that this proposed weir elevation be clearly shown on the plans.***

It is general practice to design sites to comply with Massachusetts DEP Stormwater Management Regulations. The following section describes the 10 Standards for compliance with Stormwater Management Regulations and the status of the submittal relative to each standard.

Standard 1 – Untreated Stormwater

This Standard has not been addressed; additional information required.

Soil testing as stated above should be performed. Additional information required.

Standard 2 – Post Development Peak Discharge Rates

This Standard has not been addressed; additional information required.

The minimal increase in discharge for the 100 year – 24 hour storm is acceptable; however, soil testing as stated above should be performed. Additional information required.

Standard 3 – Recharge to Groundwater

This Standard has not been addressed; additional information required.

Soil testing as stated above should be performed. Additional information required.

Standard 4 – 80% Total Suspended Solids (TSS) Removal

This Standard has not been addressed; additional information required.

Since the surface treatment is gravel and crushed stone and the only vehicular use will be for periodic maintenance purposes, this Standard has been met to the maximum extent practical. For all stormwater report comments please see response from Mark McClusky, PE.

Standard 5 – Higher Potential Pollutant Loads

This Standard has not been addressed; additional information required.

Standard 6 – Protection of Critical Areas

Based on information presented on MassGIS and the Town of Pembroke GIS web page, the project site is not in a Critical Area. This Standard is not applicable.

Standard 7 – Redevelopment Projects

This project is not considered a redevelopment project and consequently this Standard is not applicable.

Standard 8 – Erosion/Sediment Control

This Standard has not been addressed; additional information required.

The plan has been revised to include an acceptable Soil Erosion & Sedimentation Control plan and details. This Standard has been met. N/A

Standard 9 – Operation and Maintenance Plan

This Standard has not been addressed; additional information required.

A Stormwater Management System Operations and Maintenance Plan (O&M) and Long Term Pollution Prevention Plan (LTPPP) has been submitted. This Standard has been met.

Standard 10 – Illicit Discharges

This Standard has not been addressed; additional information required.

An “Illicit Discharge Compliance Statement” meeting the requirements specified in the Stormwater Management Regulations has been submitted. This Statement needs to be signed.

- 5.6.1 The Regulations state that “All access drives and parking areas shall be graded, paved...” The surface treatment for the proposed compound area is crushed stone and the surface treatment for the proposed access drive is gravel. The Planning Board should determine if this is acceptable.
- 5.6.2 Curbing has not been placed at the edges of all paved areas as required. The Regulations require that the type of curbing shall not be bituminous concrete. See Item 5.6.1.

Section VI. Development Impact Statement

A Development Impact Statement has not been submitted as required. The applicant has requested a waiver of this requirement.

ADDITIONAL COMMENTS

1. The Access Road Detail shown on Sheet Z-3 of the plan should be revised to show the proposed side slopes of the proposed Drainage Swale.

The Access Road Detail shown on Sheet Z-3 of the plan should be revised to show the proposed side slopes of 1:1. We believe that grass side slopes of 1:1 are difficult to stabilize and maintain and should be revised to provide a flatter side slope.

The Access Road Detail has been revised to provide a flatter side slope. Comment satisfactorily addressed.*N/A*

2. We recommend that the proposed tree line be shown on the plan to take into account the limit of work. The surface treatment of the area impacted by the proposed grading should be specified.

A proposed tree line is now shown on sheet ES -1 of the plans. We recommend that the proposed tree line be shown on all applicable sheets and that the surface treatment of the areas disturbed by the construction and grading should be clearly specified on the plans. *Addressed on sheets Z-1, Z-2, Z-3 & Z-4.*

3. The Enlarged Site and Grading Plan (Sheet Z-2) shows that three (3) areas for “Future Carriers” is also proposed. Additional information should be provided for these areas.

Additional information has been provided. Comment satisfactorily addressed.*N/A*

4. Regarding the diesel generator, we recommend that additional information be submitted addressing any potential noise impacts from the generator and spill prevention controls for the diesel fuel.

This comment was not addressed.*Generator specs are sent.*

5. The plans should be reviewed by the Pembroke Fire Department relative to access and fire protection.
6. Since the proposed utility trench will require excavation within the State Highway Layout, a permit from MassDOT will be required.
7. ***We recommend that additional revised project submittals include a Response Letter to address the review comments presented above.***

We would be happy to discuss these comments with the design engineer and or the applicant at their earliest convenience. Should you have any questions or need additional information, please do not hesitate to contact this office.

Very truly yours,

MERRILL ENGINEERS AND LAND SURVEYORS



Peter G. Palmieri, P.E.
Director of Engineering

cc: Michael S. Giaimo, Esq.
Kristen E. Elia
Nexius

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