TECHNICAL REVIEW COMMITTEE (TRC) RESPONSES:
Pender County's Technical Review Committee meeting was held on Tuesday May 12, 2015 at 2pm in Board of County Commissioners, in the Pender County Government Administration Building at 805 S. Walker Street, to review the proposal.

Cape Fear Council of Governments RPO
NA

Four County Electric Company
No response

NC DENR Division of Coastal Management
Lanes Ferry Landing project

A CAMA Major permit is required for this project.
Wetland lines will need to be verified.

Recommendations: (Lanes Ferry Landing project)

A scoping meeting with the relevant agencies is highly recommended to discuss CAMA permit requirements and current regulations. Detailed plans including accurate wetland lines and current water depths near the proposed water-dependent development should be available for review.

Comments:
Lanes Ferry Landing project-
The Northeast Cape Fear River is designated as a Primary Nursery Area (PNA) by the NC Division of Marine Fisheries and the NC Wildlife Resources Commission. Under current rules, no new dredging is permittable in Primary Nursery Areas. The property to the north of the Hwy 210 bridge falls within the Public Trust Shoreline Area of Environmental Concern (AEC)- which extends 30' landward of the normal high water line. The Estuarine Shoreline AEC applies lands located within 75' of normal high water south of the Hwy 210 bridge. The 30' Coastal Shorelines buffer applies to both the Public Trust Shoreline and Estuarine Shoreline AECs.
Information Requested (Lanes Ferry Landing project): See recommendation above regarding detailed plans for all water-dependent development as well as proposed development within the AECs.

NC DENR Division of Forestry
No response

NCDENR, Division of Energy, Mineral, and Land Resources - Land Quality Section
No response

NC DENR Division of Waste Management
No response

NC DENR Division of Water Quality
No response

NC DOT Division of Highways
Driveway Permits Will Be required. Must Submit a Preliminary Plan for public roads. TND guilines must have the approval and will take 4-6 weeks.

NC DOT Transportation Planning Branch
No response

NC Office of State Archaeology
Requirements: The developer will need to contract an experienced archaeological firm to perform an archaeological survey of high ground and underwater survey for any construction that will take place within the river. This will be our recommendation to the Corp of Engineers as a condition for any wetland crossing permits and to the Division of Coastal Resources as a condition for any CAMA permits.

NC Wildlife Resources Commission
Recommendations:
Consultation with NCWRC staff is requested. The NE Cape Fear downstream of Hwy 210 is a primary nursery area (PNA) designated by NCDMF and is a PNA designated by NCWRC upstream of Hwy 210. These areas are important for the spawning and juvenile development of several important aquatic species. The nearby wetlands are important to the NE Cape Fear and the excavation of ponds my influence hydrology. The marina should be constructed so as not to adversely influence water quality of the NE Cape Fear. Since a marina will be constructed, a deed restriction of individual lots piering out into the river could minimize cumulative wetland impacts. Lots should be designed to be buildable without the need for wetland fill.
Comments:
The project site is located immediately adjacent to or in close proximity to the Rocky Point Marl Forest and NE Cape Fear Floodplain significant natural areas and to the NCWRC's Holly Shelter Game Lands, NE Cape Fear Mitigation Bank, and lands managed by the NC Coastal Land Trust. These areas are important for wildlife habitats and resources.

NCWRC appreciates the amount of open space and conservation areas the developer has indicated will be a part of the subdivision. Consultation with staff and looking at the NCWRC's Green Growth Toolbox (GGTB) program can further add to the conservation efforts stated in the narrative that is the draw for the community. Information about the GGTB can be accessed from the link below. Suggestions include multi-family housing, decreased lot size, increased open space, shared drives, and cluster development.

Pender County Addressing Coordinator
Road names must be submitted

Pender County Building Inspections
No response

Pender County Emergency Management
No response

Pender County Environmental Health
No response

Pender County Fire Marshal

The Fire Code Official is requiring 80' Diameter on all dead end streets of more than 150'
In phase 2 & 3 where the ponds are next to the roadways have the developer add a dry hydrant into the ponds for fire service.At the time roadways are built and has vehicle access, roads sign will be installed. This maybe temporary signage.

Greater set back of all structures to a space greater than 2 feet from lot lines.
(If all structures are to be built with sprinkler systems there is not a high hazard with 2 foot set backs)
The plan say 45' height limit. The Rocky Point Fire Department has NO access of 35' (Fire Suppression needed if over 35')

Will all homes face the main streets of 20'?
Requesting better street detail maps with sizes of curves, turn rounds, center divides, and fire hydrant locations.
Detail water system plan with sizes and water hammer prevention hardware/thrust blocks. (For Inspection during project)

Pender County Flood Plain Management

Portions of the Property are in the identified Special Flood hazard Areas; designated floodway for the Cape Fear River, the AE zone as well as the shaded X. Any building within the identified floodway will require a No Rise Certification.

Effective Maps:
3720325500J 3255
3720324500J 3245

AE: Areas subject to inundation by the 1-percent –annual flood even determined by the detailed methods BFE's are shown within these zones. The base floodplain where the Base Flood elevation are provided

Shaded X: Area s subject of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods.

Recommendation:
Please use the Preliminary Flood Maps available as "best available data" for the subject property. There is a significant change between the published Firms and the preliminary data. We are going through the adoption period now as a County for new maps. New Maps are available at: fris.nc.gov

Effective maps: AE approximately 8.5 Feet
Preliminary Maps: AE approximately 10 feet

Pender County Parks and Recreation

I see that this project exceeds the required open space. I am not sure if this is a question that I can ask or not but what type of amenities are they planning on constructing in the active open space? Will these facilities be accessible to citizens who do not live within this planned development? If so, would there be interest in forming a partnership with Pender County regarding park facilities?

There is not a recommended park facility in the 2010 Pender County Comprehensive Parks and Recreation Master Plan located in the immediate area of this planned development, however Table 6.4 Pender County Parks and Recreation Facility Surplus/Deficit on page 65 shows that Pender County shows a deficiency for practically every "active" facility, i.e. outdoor basketball courts, playground, picnic shelter, skate park, Recreation Center.

Pender County Public Library
No response

Pender County Utilities
Pender County Public Utilities

- *Lane's Ferry Landing Master Development Plan*
  - *Pender County Utilities will provide water service to this proposed development.*
    - *Given the size and location of the development, potential impacts to the water system are anticipated.*
    - *The applicant shall hire a Professional Engineer, acceptable to PCU, to perform a hydraulic evaluation of the existing system and determine any impacts to the existing system hydraulics as a result of this proposed development.*
      - *The evaluation should consider fire flow demands, pressures in the development and system, and any improvements that may be necessary to allow this development to proceed without negatively impacting the existing system (including non-residential fire flows).*
      - *Measures to evaluate include the need for additional storage, booster pump(s), transmission main extensions, and other distribution system improvements.*
      - *Consider Phasing the project to reduce initial impacts that will allow time for system improvements.*
      - *Please provide the name of the NCPE who will perform these evaluations. In the past PCU has worked with Highfill Infrastructure, and McKim & Creed on such issues.*
    - *Please provide the name of the NCPE who will design the water system for the development. We will provide the Engineer with any applicable design information and specifics for water system extensions in the Rocky Point Topsail Water and Sewer District.*
  - *The Applicant's Narrative provides a potential option for sewer service by Pender County Utilities. Currently, the sewer system does not extend to this area, and sewer service is not available to serve residential customers.*
    - *It is possible that sewer treatment service could be extended to service this development in a phased approach.*
    - *PCU is preparing an analysis of the sewer system to determine if we could feasibly provide sewer treatment service to this development.*
    - *Pending the results of this analysis, PCU may prepare a resolution for the Rocky Point Topsail Board to consider allowing residential sewer connections.*
  - *Any utilities owned and maintained by PCU must be installed outside of paved areas in dedicated easements.*
  - *Stubs/Connections to future development/existing mains will be required wherever practical.*

Pender County Schools
Requests 40' diameter cul-de-sacs for buses turning radius and request that plans be sent to Raleigh for site lines to be reviewed by the Municipal and School Transportation Assistance (MSTA) jcranford@ncdot.gov 919-661-4873. If you need anything else, please contact me.

Pender County Sheriff's Department
No response

Pender County Soil and Water Conservation District
More detailed erosion control plan. Volume Calculations for the ponds in reference to placing dry hydrants on the ponds

Duke Energy Corporation
Duke Energy has a 230kV transmission line (BRUNSWICK – JACKSONVILLE 230 KV LINE) that may cross through a portion of this proposed developmental tract. If it does and anything proposed within the development may overlap our easement please ensure that separate plans are submitted by property owner / developer or your firm to formally request plan review and required written approval by Duke Energy (TRANSMISSION) line Asset Protection. The sooner we can discuss any such overlap to our easement the better to ensure it is designed compatible to our ROW restrictions. Written approval from Duke Energy is required for anything that may be done within a transmission line easement.

US Army Corps of Engineers
No response

Wilmington Metropolitan Planning Organization
1. Project has submitted a TIA, which is currently under review. All requirements for the TIA will be implemented in the phase stated and agreed upon in the approved TIA.
2. Project will require NCDOT driveway permits and encroachment agreements.
3. Project will provide street names for internal streets.
4. Provide locations of proposed turn lanes mentioned in the Project narrative on the site plan.
5. Provide a plan sheet with proposed stop signs, traffic signals and road infrastructure.
6. Show ROW for any streets proposed to be dedicated for public use.
7. Show Proposed Access road and parking for the Marina.
8. Project will install traffic signals as warranted by TIA and project phases.
9. Show proposed street cross section for the Cul-de-sacs.
10. Please provide street cross for the Internal Parkway described in the project narrative.
11. Project will implement any internal protective stem lengths required by the TIA and NCDOT, based upon queuing lengths identified in the TIA.
12. Show Classification of street network, to show alleys, local streets, collector streets, boulevard and parkway sections on the site plan.
13. Show one-way streets on the site plan. Recommendations:
1. Provide location of any existing easements on the property, including Utility easements.
2. Show any proposed connections to adjacent lots, such as the Lane's Ferry Park.
3. Provide Internal Bike and Pedestrian Facilities from Residential Areas to Commercial areas and Marina, such as a network of 10' multi-use paths and/or 5' wide on-street bike lanes.
4. Applicant is requested to install a Park and Ride Location within Commercial Section A.
5. Provide conceptual drawings for the proposed Single Family and Multi-family housing types.
6. Show proposed cross sections for the Mixed Commercial Areas and Linear Park and Pedestrian areas shown on the site plan.
7. Widen the entrances on Hwy 210 to accommodate right and left turn lanes from the development to Hwy 210.
8. Implement NCDOT requirements for Street corner curb radius of at least 20' radius and Cul-de-sac Bulb diameter of 80' diameter.
9. Show Crosswalks near parks and amenity areas.
10. Show multi-way stops and regulatory signs on the construction plans.
11. Multiple intersections are spaced less than 200' apart and have multiple approaches that appear to create conflict from opposing left turn movements. Increase the intersection spacing or consider

installing roundabouts at these locations to prevent drivers from having collisions (help drivers feel they are not playing "chicken" due to conflicts with opposing traffic).

AT&T

If service is requested for this development AT&T will bring in fiber optic cable

Technical Review Committee Review and Response

Date: 13 May 2015
Name: Heather Coats
Phone: 910-796-7424

Agency: NC DCM
Email: heather.coats@ncnder.gov

Requirements:

Ashton Rd Telecommuncations Tower- No comments.

Lanes Ferry Landing project

A CAMA Major permit is required for this project.
Wetland lines will need to be verified.

Recommendations: (Lanes Ferry Landing project)

A scoping meeting with the relevant agencies is highly recommended to discuss CAMA permit requirements and current regulations. Detailed plans including accurate wetland lines and current water depths near the proposed water-dependent development should be available for review.

Comments:

Aston Rd Telecommunication Tower- No comments.

Lanes Ferry Landing project-

The Northeast Cape Fear River is designated as a Primary Nursery Area (PNA) by the NC Division of Marine Fisheries and the NC Wildlife Resources Commission. Under current rules, no new dredging is permittable in Primary Nursery Areas. The property to the north of the Hwy 210 bridge falls within the Public Trust Shoreline Area of Environmental Concern (AEC)- which extends 30' landward of the normal high water line. The Estuarine Shoreline AEC applies lands located within 75' of normal high water south of the Hwy 210 bridge. The 30' Coastal Shorelines buffer applies to both the Public Trust Shoreline and Estuarine Shoreline AECs.

Information Requested (Lanes Ferry Landing project): See recommendation above regarding detailed plans for all water-dependent development as well as proposed development within the AECs.

Please Follow Up Prior to Meeting: Yes/No

Pender County Planning and Community Development
TRC Member Response Sheet

May 12, 2015

Nathan Henry
Assistant State Archaeologist
Underwater Archaeology Branch
NC Office of State Archaeology
1528 Fort Fisher Blvd. South
Kure Beach, NC 28449
Phone: 910 458 9042
nathan.henry@ncdcr.gov

Re: **Lanes Ferry Landing (Case 11369)**

Requirements: The developer will need to contract an experienced archaeological firm to perform an archaeological survey of high ground and underwater survey for any construction that will take place within the river. This will be our recommendation to the Corp of Engineers as a condition for any wetland crossing permits and to the Division of Coastal Resources as a condition for any CAMA permits.

Recommendation: The developer should plan for this.

Comments: Lanes Ferry was an historical landing and ferry crossing as early as 1730 as well as a colonial and antebellum plantation.

Information Requested: None

Please Follow Up Prior to Meeting: No

Technical Review Committee Review and Response

Date: 5/12/15

Name: Maria T. Dunn Agency: NCWRC
Phone: (252) 948-3916 Email: maria.dunn@ncwildlife.org

Requirements:

Recommendations:

Consultation with NCWRC staff is requested. The NE Cape Fear downstream of Hwy 210 is a primary nursery area (PNA) designated by NCDMF and is a PNA designated by NCWRC upstream of Hwy 210. These areas are important for the spawning and juvenile development of several important aquatic species. The nearby wetlands are important to the NE Cape Fear and the excavation of ponds my influence hydrology. The marina should be constructed so as not to adversely influence water quality of the NE Cape Fear. Since a marina will be constructed, a deed restriction of individual lots piering out into the river could minimize cumulative wetland impacts. Lots should be designed to be buildable without the need for wetland fill.

Comments:

The project site is located immediately adjacent to or in close proximity to the Rocky Point Marl Forest and NE Cape Fear Floodplain significant natural areas and to the NCWRC's Holly Shelter Game Lands, NE Cape Fear Mitigation Bank, and lands managed by the NC Coastal Land Trust. These areas are important for wildlife habitats and resources.

NCWRC appreciates the amount of open space and conservation areas the developer has indicated will be a part of the subdivision. Consultation with staff and looking at the NCWRC's Green Growth Toolbox (GGTB) program can further add to the conservation efforts stated in the narrative that is the draw for the community. Information about the GGTB can be accessed from the link below. Suggestions include multi-family housing, decreased lot size, increased open space, shared drives, and cluster development.

http://www.ncwildlife.org/Conserving/Programs/GreenGrowthToolbox.aspx

Information Requested

Please Follow Up Prior to Meeting: Yes/No

Pender County Emergency Management

Occupancy: **Lanes Ferry Landing**
Address: **NC Hwy 210**
Rocky Point NC 28457

Inspection Type: **Plan Review**
Inspection Date: **4/29/2015** By: Batson, Tommy (2342)
Time In: **13:00** Time Out: **14:30**
Authorized Date: **Not Authorized** By:

Form: Blank Fire Inspection

Inspection Topics:

Violations

Other Violation-See Notes

Other Violation-See Notes

Status: INFORMATION

Notes: Requirements
The Fire Code Official is requiring 80' Diameter on all dead end streets of more than 150'

In phase 2 & 3 where the ponds are next to the roadways have the developer add a dry hydrant into the ponds for fire service.

At the time roadways are built and has vehicle access, roads sign will be installed. This maybe temporary signage.

Other Violation-See Notes

Other Violation-See Notes

Status: INFORMATION

Notes: Recommendations:
Greater set back of all structures to a space greater than 2 feet from lot lines.
(If all structures are to be built with sprinkler systems there is not a high hazard with 2 foot set backs)

Other Violation-See Notes

Other Violation-See Notes

Status: INFORMATION

Notes: Comments:
The plan say 45' height limit. The Rocky Point Fire Department has NO access of 35' (Fire Suppression needed if over 35')

Other Violation-See Notes

Other Violation-See Notes

Status: INFORMATION

Notes: Information Request:
Will all homes face the main streets of 20'?

Requesting better street detail maps with sizes of curves, turn rounds, center divides, and fire hydrant locations.

Detail water system plan with sizes and water hammer prevention hardware/thrust blocks. (For Inspection during project)

Other Violation-See Notes

Other Violation-See Notes

Status:

Notes:

Other Violation-See Notes

Other Violation-See Notes

Status:

Notes:

Other Violation-See Notes

Other Violation-See Notes

Status:

Notes:

Other Violation-See Notes

Other Violation-See Notes

Status:

Notes:

Additional Time Spent on Inspection:

Category	Start Date / Time	End Date / Time

Notes: No Additional time recorded

Total Additional Time: 0 minutes

Inspection Time: 90 minutes

Total Time: 90 minutes

Summary:

Overall Result: Information Inspection

Inspector Notes:

Inspector:

Name: Batson, Tommy
Rank: Deputy Fire Marshal
Work Phone(s): 910-470-4721
Email(s): tbatson@pendercountync.gov
Batson, Tommy:

Signed on: 04/29/2015 14:19

Signature *Date*

Occupant Signature:

Signature *Date*

Technical Review Committee Review and Response

Date: May 12, 2015
Name: Megan O'Hare
Agency: Pender County Floodplain Manager
Phone: (910) 259 2110
Email: mohare@pendercountync.gov

Requirements:
Portions of the property are in the identified Special Flood Hazard Areas; in the designated floodway for the Cape Fear River, the AE zone as well as the Shaded X.

Effective Maps:
3720325500J 3255
3720324500J 3245

Any building within the identified floodway will require a No Rise Certification.

AE: Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. BFEs are shown within these zones. The base floodplain where Base Flood elevations are provided.

Effective Maps: AE ~8.5 ft
Preliminary Maps: AE ~10 ft.

Shaded X: Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods.

Recommendations:
Please use the Preliminary Flood Maps available as "best available data" for the subject property. There is a significant change between the published FIRMs and the preliminary data. We are going through the adoption period now as a County for the new maps.

New Maps are available at: fris.nc.gov

Comments:

Information Requested:
Please Follow Up Prior to Meeting: **Yes**

Ron,

Sorry I was not able to make the TRC meeting earlier this week regarding this project.

I see that this project exceeds the required open space. I am not sure if this is a question that I can ask or not but what type of amenities are they planning on constructing in the active open space? Will these facilities be accessible to citizens who do not live within this planned development? If so, would there be interest in forming a partnership with Pender County regarding park facilities?

There is not a recommended park facility in the 2010 Pender County Comprehensive Parks and Recreation Master Plan located in the immediate area of this planned development, however Table 6.4 Pender County Parks and Recreation Facility Surplus/Deficit on page 65 shows that Pender County shows a deficiency for practically every "active" facility, i.e. outdoor basketball courts, playground, picnic shelter, skate park, Recreation Center.

Dee

Dee Turner
Pender County Parks and Recreation
P.O. Box 5
Burgaw, NC 28425
910-259-1330 phone
910-259-1477 fax
www.pendercountync.gov

PENDER COUNTY UTILITIES
P.O. BOX 995
605 E. FREMONT STREET
BURGAW, NC 28425

May 12, 2015

RE: **Pender County Planning**
TRC Meeting 5/12/2015
PCU Comments

- **Lane's Ferry Landing Master Development Plan**
  - Pender County Utilities will provide water service to this proposed development.
    - Given the size and location of the development, potential impacts to the water system are anticipated.
    - The applicant shall hire a Professional Engineer, acceptable to PCU, to perform a hydraulic evaluation of the existing system and determine any impacts to the existing system hydraulics as a result of this proposed development.
      - The evaluation should consider fire flow demands, pressures in the development and system, and any improvements that may be necessary to allow this development to proceed without negatively impacting the existing system (including non-residential fire flows).
      - Measures to evaluate include the need for additional storage, booster pump(s), transmission main extensions, and other distribution system improvements.
      - Consider Phasing the project to reduce initial impacts that will allow time for system improvements.
      - Please provide the name of the NCPE who will perform these evaluations. In the past PCU has worked with Highfill Infrastructure, and McKim & Creed on such issues.
    - Please provide the name of the NCPE who will design the water system for the development. We will provide the Engineer with any applicable design information and specifics for water system extensions in the Rocky Point Topsail Water and Sewer District.
  - The Applicant's Narrative provides a potential option for sewer service by Pender County Utilities. Currently, the sewer system does not extend to this area, and sewer service is not available to serve residential customers.
    - It is possible that sewer treatment service could be extended to service this development in a phased approach.
    - PCU is preparing an analysis of the sewer system to determine if we could feasibly provide sewer treatment service to this development.

PENDER COUNTY UTILITIES
PHONE: (910) 259-1570
FAX: (910) 259-1579

PENDER COUNTY UTILITIES
P.O. BOX 995
605 E. FREMONT STREET
BURGAW, NC 28425

- Pending the results of this analysis, PCU may prepare a resolution for the Rocky Point Topsail Board to consider allowing residential sewer connections.
- Any utilities owned and maintained by PCU must be installed outside of paved areas in dedicated easements.
- Stubs/Connections to future development/existing mains will be required wherever practical.

Please let me know if you have any questions or require additional information.

Thank you,

Bryan McCabe, Project Engineer
Pender County Utilities
bmccabe@pendercountync.gov

PENDER COUNTY UTILITIES
PHONE: (910) 259-1570
FAX: (910) 259-1579

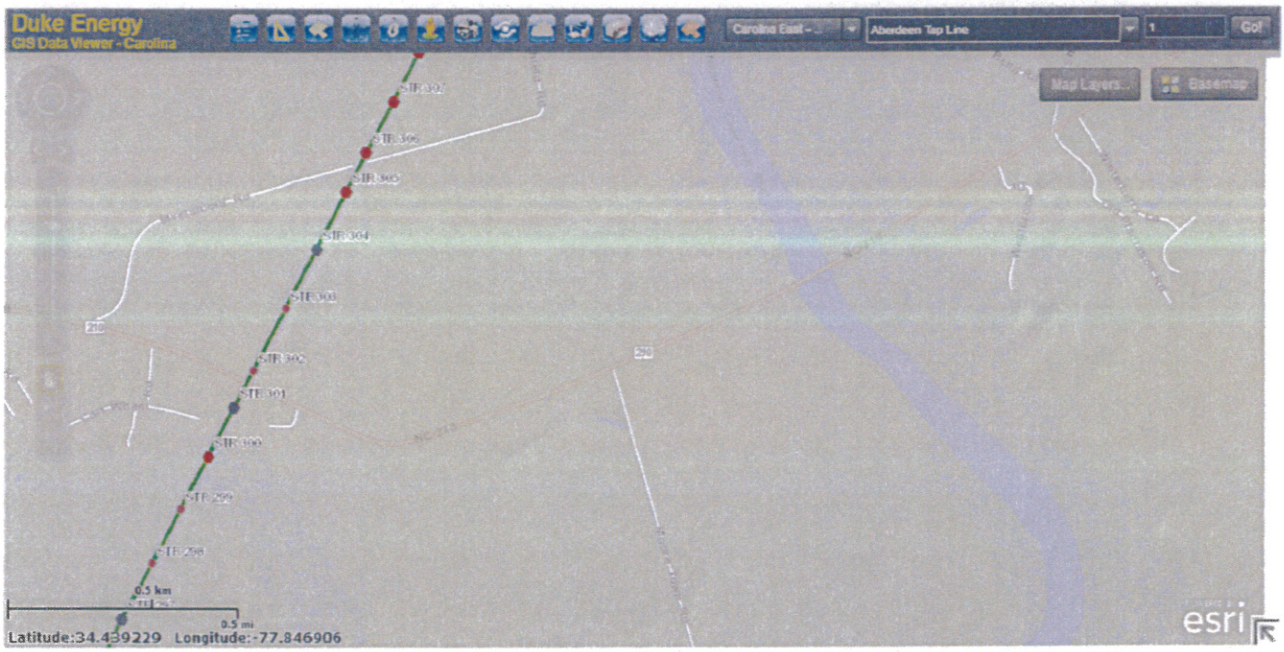
TRC comments

From: Wilder, Bill [mailto:Bill.Wilder@duke-energy.com]
Sent: Thursday, May 14, 2015 9:32 AM
To: Robert Balland (rballand@paramounte-eng.com)
Cc: Megan O'Hare; Wilder, Bill
Subject: FW: Proposed Subdivision off Hwy 210 in Pender County

Robert Balland (Paramounte Engineering, Inc.)

Attached is a screen shot of general area for which your firm Paramounte Engineering, Inc. is working on a proposed new subdivision in Pender County. Duke Energy has a 230kV transmission line (BRUNSWICK – JACKSONVILLE 230 KV LINE) that may cross through a portion of this proposed developmental tract. If it does and anything proposed within the development may overlap our easement please ensure that separate plans are submitted by property owner / developer or your firm to formally request plan review and required written approval by Duke Energy (TRANSMISSION) line Asset Protection. The sooner we can discuss any such overlap to our easement the better to ensure it is designed compatible to our ROW restrictions. Written approval from Duke Energy is required for anything that may be done within a transmission line easement. Attached are our transmission line ROW restrictions. Call me if any questions.

THANKS



Robert P. Balland, P.E., LEED AP
PARAMOUNTE ENGINEERING, INC.

DUKE ENERGY ELECTRIC TRANSMISSION RIGHT-OF-WAY GUIDELINES/RESTRICTIONS VALID FOR NORTH CAROLINA AND SOUTH CAROLINA (Revised 11/20/2014)

This list of right-of-way restrictions has been developed to answer the most frequently asked questions about property owner use of Duke Energy's electric transmission rights of way. This list does not cover all restrictions or all possible situations. You should contact the Asset Protection right-of-way specialist if you have additional concerns about the rights of way. This list of restrictions is subject to change at any time and without notice. Duke Energy reserves all rights conveyed to it by the right-of-way agreement applicable to the subject property. All activity within the rights of way shall be reviewed by an Asset Protection right-of-way specialist to obtain prior written approval. Engineering plans may be required. Compliance with the Duke Energy Right-of-Way Guidelines/Restrictions or approval of any plans by Duke Energy does not mean that the requirements of any local, county, state or federal government or other applicable agency with governing authority have been satisfied.

1. Structures, buildings, manufactured/mobile homes, satellite systems, swimming pools (any associated equipment and decking), graves, billboards, dumpsters, signs, wells, deer stands, retaining walls, septic systems or tanks (whether above or below ground), debris of any type, flammable material, building material, wrecked or disabled vehicles and all other objects (whether above or below ground) which in Duke Energy's opinion interfere with the electric transmission right of way are not allowed within the right-of-way limits. Transformers, telephone/cable pedestals (and associated equipment) and fire hydrants are not allowed. Manholes, water valves, water meters, backflow preventers and irrigation heads are not permitted. Attachments to Duke Energy structures are prohibited.
2. Fences and gates shall not exceed 10 feet in height and shall be installed greater than 25 feet from poles, towers and guy anchors. Fences shall not parallel the centerline within the rights of way but may cross from one side to the other at any angle not less than 30 degrees with the centerline. If a fence crosses the right of way, a gate (16 feet wide at each crossing) shall be installed by the property owner, per Duke Energy's specifications. The property owner is required to install a Duke Energy lock on the gate to ensure access. Duke Energy will supply a lock.
3. Grading (cuts or fill) shall be no closer than 25 feet from poles, towers, guys and anchors (except for parking areas; see paragraph 7) and the slope shall not exceed 4:1. Grading or filling near Duke Energy facilities which will prevent free equipment access or create ground-to-conductor clearance violations will not be permitted. Storage or stockpiling of dirt or any other material is prohibited. Sedimentation control, including re-vegetation, is required per state regulations.
4. Streets, roads, driveways, sewer/water lines, other utility lines or any underground facilities shall not parallel the centerline within the right of way but may cross, from one side to the other, at any angle not less than 30 degrees with the centerline. No portion of such facility or corresponding easement shall be located within 25 feet of Duke Energy's facilities. Roundabouts, cul-de-sacs and intersections (such as roads, driveways and alleyways) are not permitted.
5. Any drainage feature that allows water to pond, causes erosion, directs stormwater toward the right of way or limits access to or around Duke Energy facilities is prohibited.
6. Contact Duke Energy prior to the construction of lakes, ponds, retention or detention facilities, etc.
7. Parking may be permitted within the right of way, provided that:
   a. Prior to grading, concrete barriers shall be installed at a minimum of 9 feet from the Duke Energy facilities. During construction, grading shall be no closer than 10 feet to any Duke Energy facility.
   b. After grading/paving activity is complete, a Duke Energy-approved barrier sufficient to withstand a 15-mph vehicular impact shall be erected 9 feet from any Duke Energy facility.
   c. Any access areas, entrances or exits shall cross (from one side to the other) the right of way at any angle not less than 30 degrees with the centerline and shall not pass within 25 feet of any structure. Parking lot entrances/exits cannot create an intersection within the right of way.
   d. Lighting within the right-of-way limits must be approved by Duke Energy before installing. Due to engineering design standards, lighting <u>is not</u> allowed in the "Wire Zone." Where lighting is approved ("Border Zone"), the total height may not exceed 15 feet in Area A and 12 feet in Area B. See map on back of this page for Areas. Contact your Asset Protection right-of-way specialist as the "Wire Zone" varies for the different voltage lines.
8. Duke Energy will not object to certain vegetation plantings as long as:
   a. They do not interfere with the access to or the safe, reliable operation and maintenance of Duke Energy facilities.
   b. With prior written approval, Duke Energy does not object to low-growing shrubs and grasses within the "Wire Zone." Tree species <u>are not</u> allowed within the "Wire Zone." Trees that are approved in the "Border Zone" may not exceed, at maturity, 15 feet in Area A and 12 feet in Area B. See map on back of page for areas. Contact the Asset Protection right-of-way specialist for "Wire Zone"/"Border Zone" definitions.
   c. For compliant mature height species, refer to plants.ces.ncsu.edu/ for reference.
   d. Engineering drawings must indicate the <u>outermost</u> conductor.
   e. Vegetation that is not in compliance is subject to removal without notice.
   f. Duke Energy may exercise the right to cut "danger trees" outside the right-of-way limits as required to properly maintain and operate the transmission line.

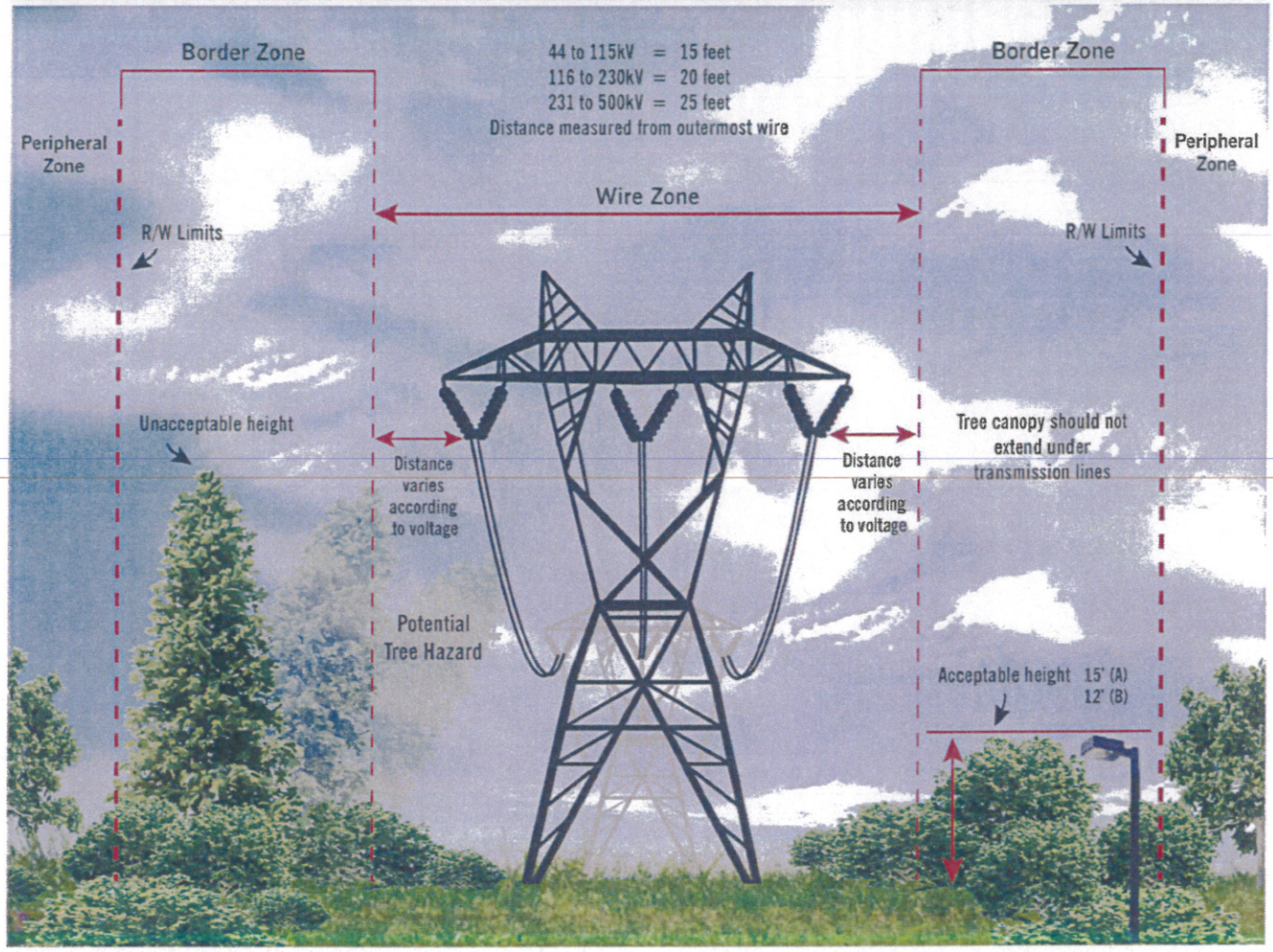
We hope this is useful information. If you have additional questions or plan any activity not mentioned above, please contact the Asset Protection right-of-way specialist for your area (see map).

Keywords: form; customer services; transmission - asset management; 02191
Applies to: Transmission - Carolinas (East and West)

AUTHORIZED COPY
Duke Energy Proprietary Business Information

DUKE ENERGY.

Transmission Right-of-way Zones - Carolinas



Wire Zone: Extends beyond the outermost conductor on both sides. (See diagram above.)

Permitted within the Wire Zone: Low-growing plants, shrubs and grasses.

Not permitted within the Wire Zone: Tree species of any kind.

Border Zone: Extends from the edge of the Wire Zone to the outside edge of the Right of Way.

Permitted within the Border Zone: Lighting structures and plantings within the Right of Way that do not exceed a vertical height of 15 feet in Area A and 12 feet in Area B. (See Asset Protection Map for location of geographic areas) For compliant mature height species, refer to **plants/ces.ncsu.edu/**.

Not permitted within the Border Zone: Any object that exceeds vertical height restrictions. These restrictions are based on flat ground elevations. If the ground elevations differ, no object at any time may exceed the outermost conductor's ground elevation.

Peripheral Zone: Outside the Right of Way and adjacent to Border Zones.

Permitted within the Peripheral Zone: Trees may be planted in the Peripheral Zone. Duke Energy recommends customers exercise caution selecting and planning trees in this zone.

Not permitted in the Peripheral Zone: Trees with canopies are subject to routine trimming and possible removal.

In all zones:

When an outage risk is identified, Duke Energy will attempt to notify the affected customer. However, the company may need to take immediate action if trees cannot be pruned to appropriate levels. This may include trees and shrubs that are within 20 feet of the power line at the maximum peak load or during weather conditions that create line sag and sway.

Written approvals by Duke Energy are required for all plans.

We hope this is useful information. If you have additional questions on line voltages or plan any activity not mentioned above, please contact the Asset Protection Specialist for your area. (See Map)

*Right of Way is intended to reference the easement rights granted to Duke Energy. Actual zone size may vary based upon the particular Right of Way.

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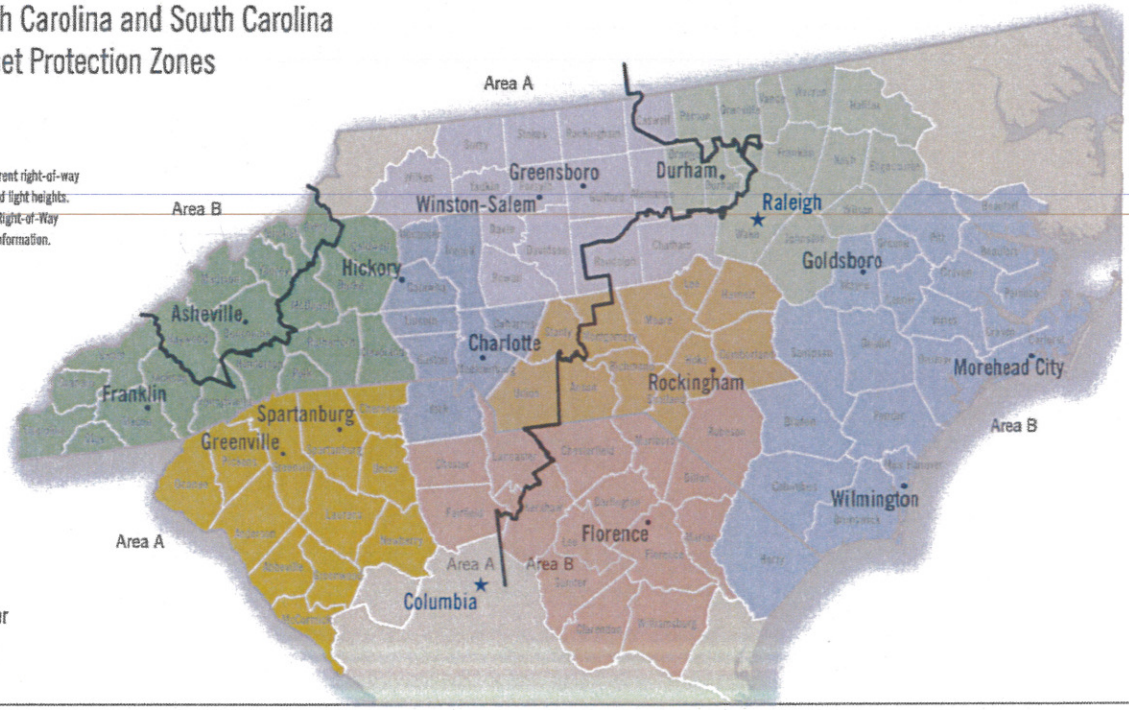
Duke Energy North Carolina and South Carolina Transmission Asset Protection Zones

Area A and Area B have different right-of-way restrictions related to tree and light heights. Please refer to the attached Right-of-Way Restrictions Guide for more information.



Asset Protection Right-of-Way Specialist Zones

- Zone 1 – Craig Garrett 828.258.5018
- Zone 2 – Steven Pryor 864.948.5610
- Zone 3 – Stephen Lord 704.812.2316
- Zone 4 – Ervin Summers 336.634.4633
- Zone 5 – Norwood West 910.296.4061
- Zone 6 – Norwood West 910.296.4061
- Zone 7 – Bruce Pait 919.329.5928
- Zone 8 – Bill Wilder 910.772.4903

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Technical Review Committee Review and Response

Date: May 11, 2015

Name: Bill McDow Agency: WMPO

Phone: (910) 341-7819 Email: bill.mcdow@wilmingtonnc.gov

Lane's Ferry Landing
Requirements:

1. Project has submitted a TIA, which is currently under review. All requirements for the TIA will be implemented in the phase stated and agreed upon in the approved TIA.
2. Project will require NCDOT driveway permits and encroachment agreements.
3. Project will provide street names for internal streets.
4. Provide locations of proposed turn lanes mentioned in the Project narrative on the site plan.
5. Provide a plan sheet with proposed stop signs, traffic signals and road infrastructure.
6. Show ROW for any streets proposed to be dedicated for public use.
7. Show Proposed Access road and parking for the Marina.
8. Project will install traffic signals as warranted by TIA and project phases.
9. Show proposed street cross section for the Cul-de-sacs.
10. Please provide street cross for the Internal Parkway described in the project narrative.
11. Project will implement any internal protective stem lengths required by the TIA and NCDOT, based upon queuing lengths identified in the TIA.
12. Show Classification of street network, to show alleys, local streets, collector streets, boulevard and parkway sections on the site plan.
13. Show one-way streets on the site plan.

Recommendations:

1. Provide location of any existing easements on the property, including Utility easements.
2. Show any proposed connections to adjacent lots, such as the Lane's Ferry Park.
3. Provide Internal Bike and Pedestrian Facilities from Residential Areas to Commercial areas and Marina, such as a network of 10' multi-use paths and/or 5' wide on-street bike lanes.
4. Applicant is requested to install a Park and Ride Location within Commercial Section A.
5. Provide conceptual drawings for the proposed Single Family and Multi-family housing types.
6. Show proposed cross sections for the Mixed Commercial Areas and Linear Park and Pedestrian areas shown on the site plan.
7. Widen the entrances on Hwy 210 to accommodate right and left turn lanes from the development to Hwy 210.
8. Implement NCDOT requirements for Street corner curb radius of at least 20' radius and Cul-de-sac Bulb diameter of 80' diameter.

9. Show Crosswalks near parks and amenity areas.
10. Show multi-way stops and regulatory signs on the construction plans.
11. Multiple intersections are spaced less than 200' apart and have multiple approaches that appear to create conflict from opposing left turn movements. Increase the intersection spacing or consider installing roundabouts at these locations to prevent drivers from having collisions (help drivers feel they are not playing "chicken" due to conflicts with opposing traffic).

Comments:
Project survey showed what appeared to be Headstones. Please confirm access (vehicular and pedestrian access) to these Archeological elements are shown on the site plans.

Information Requested:

Please Follow Up Prior to Meeting: Yes/ **No**

INFORMAL CODE INTERPRETATION

NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
1202 Mail Service Center, Raleigh, NC 27699-1202
919-661-5880

Location on Lot Related to Zoning, Deed Restrictions and Covenants

Code: 2012 Residential Code
Section: R302, Table 302.1

Date: September 18, 2012
Rev 1: October 25, 2013

Question:
Can zoning, deed restrictions, and covenants be used to supersede the 3 feet fire separation distance requirements of Section R302 for two houses?

Answer:
Zoning and covenants are subject to change and are not recognized by the Department of Insurance. They would not qualify to supersede the code requirements of Section R302.

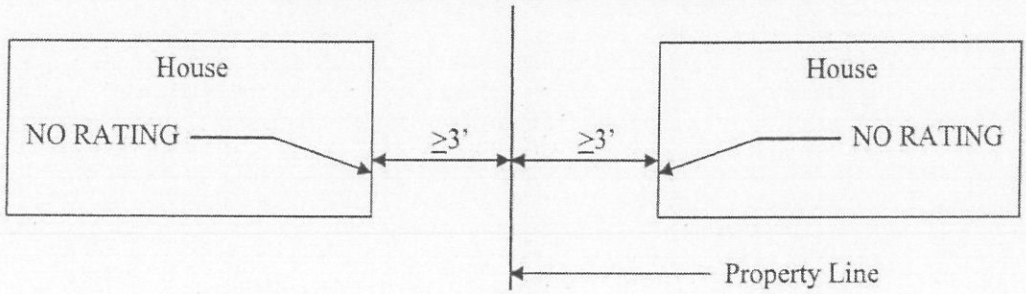
Deed restrictions may be accepted to reduce the distance of a structure to the property line but the two structures are still subject to the intent of the separation requirements listed in Section R302. If the deed restrictions maintains a 6 feet or greater separation between the two houses then no requirements for fire-resistive construction is necessary. If the separation is less than 6 feet, then the fire-resistive construction requirements of Section R302 are required. See below for examples.

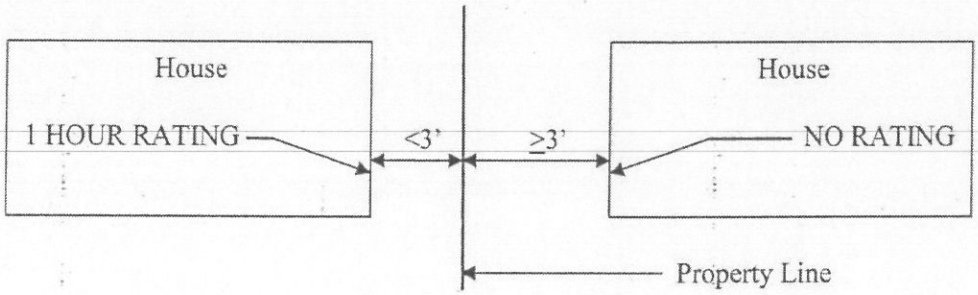
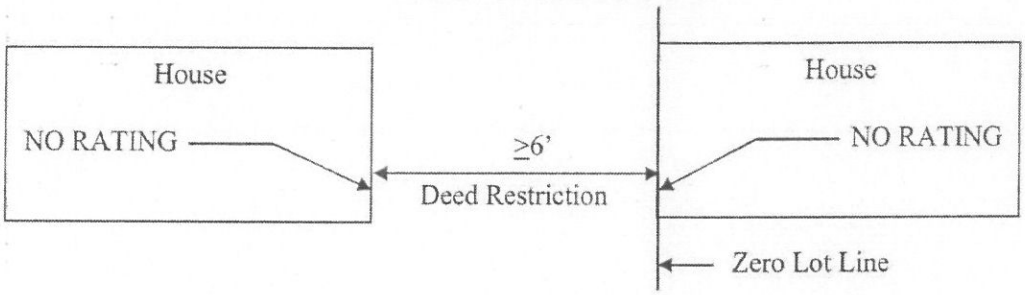
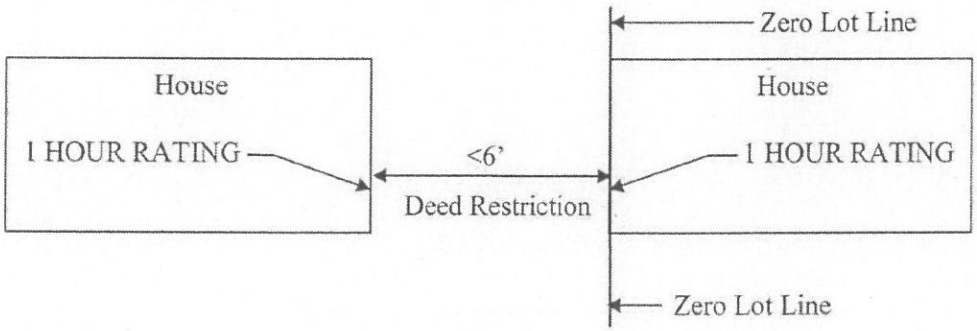
Townhouses and duplexes are subject to the requirements of Section 302.2.

See page 2 for examples.

Revision Note:
Revised the separation distance references to reflect a change in the code that was approved by the NC Building Code Council on June 1, 2013.

STANDARD, ZONED, and COVENANT LOTS





DEED RESTRICTED LOTS