

**Routing Study and
Environmental Report**

**Asheville – Enka 115 kV
Transmission Line Project**

Supplement for the United States Forest Service

by



**F-I-N-A-L
August 20, 2009**

1. INTRODUCTION.

This report is being presented to the US Forest Service (USFS) as a supplement to the Routing Study and Environmental Report, Asheville – Enka 115kV Transmission Line Project prepared for Progress Energy Carolinas, Inc (PEC) by Burns & McDonnell (B&McD), previously submitted to the USFS in March, 2009. The purpose of this report is to provide additional information to assist the USFS in their screening of PEC's proposal for a Special Use of National Forest System lands. Specifically, PEC is requesting to build and operate a new 115kV transmission line on a short section (approx. 1000ft long) of the Pisgah National Forest, in the vicinity of Gaston Mountain, Buncombe County, North Carolina. The full length of this new Asheville – Enka 115kV Line will extend approximately 7.6 miles from PEC's Asheville Generating Plant to PEC's Enka Substation.

To determine a preferred route for the new line, PEC conducted a routing study during which many possible route segments, and combinations thereof, were evaluated and ranked according to a variety of social, economic, and technical criteria. The details of this process, and associated analysis and results can be found in the B&McD report. The report concluded that, according to the criteria, the top six route alternatives all included a segment that would pass through the Pisgah National Forest; namely, segment 36 (see Appendix A of this report, Figure 4-1 Asheville – Enka Alternative Routes, for an overview map of the segments evaluated).

Under 36 CFR 251.54(e) *Pre-application Actions*, PEC's Special Use proposal is subject to an initial screening. In this regard, as requested by the Pisgah National Forest District Ranger, Randall Burgess, in a letter dated June 22, 2009 and as directed by representatives of the USFS, Ray Johns and Linda Randolph, during a meeting with PEC on July 15, 2009, PEC has been asked to establish that the proposal is consistent with the Nantahala/Pisgah Land and Resource Management Plan. This would be accomplished by reviewing the proposed use against the USFS's key criteria and thus, demonstrating the use cannot be reasonably met on private lands. Accordingly, PEC has re-evaluated each route segment in the study area to determine if there are other route alternatives, avoiding the Pisgah National Forest, which on private lands would

be:

- a. Legally allowable; and
- b. Physically/technically possible.

Moreover, PEC re-visited the original need for the new line to determine if, according to the foregoing criteria, the project requirement could be met via alternative solutions.

Consequently, the remainder of this report is organized to present the results and findings of the re-evaluation/re-assessment of route segments, and alternative solutions. Section 2 re-visits the original purpose and necessity for the new 115 kV line, explains the North American Electric Reliability Corporation (NERC) Reliability Standards that are applied against the planning and execution of all PEC transmission initiatives, and how they relate to options, such as triple-circuiting and/or upgrading existing facilities, considered for satisfying the original purpose and necessity. Section 3 presents and discusses the results of the re-evaluation of the route segments and associated route alternatives. Based on the results, it highlights viable route alternatives, each of which includes a segment that crosses the Pisgah National Forest, and explains the rationale for why specific route segments were eliminated. Section 4 provides a summary and conclusion of the results, while copies of maps, statutes, legal opinions, pertinent e-mails, and NERC standards are provided in the Appendices.

2. RE-ASSESSMENT OF ALTERNATIVE SOLUTIONS.

Construction of the new Asheville - Enka 115 kV Line is driven by the North American Electric Reliability Corporation (NERC) Reliability Standards for Transmission Planning. In accordance with these standards, Progress Energy plans its transmission system such that the transmission network can be operated to reliably supply projected demands and projected firm purchases and sales, at all demand levels over the range of forecasted system demand, under normal and contingency conditions. In 2007, the NERC Reliability Standards process was adopted by the Federal Energy Regulatory Commission (FERC) which added stringent penalties for violations of NERC Reliability Standards of up to \$1,000,000 per day.

NERC is the regulating entity designated by FERC to develop and enforce reliability standards with responsibility to regulate power system users, owners and operators. Reliability standards are the guidelines for planning and operating a reliable transmission system. The NERC Reliability Standards for Transmission Planning can be found at:

<http://www.nerc.com/page.php?cid=2|20>.

The following standards define the required transmission system performance as required by NERC:

[TPL-001-0.1: System Performance Under Normal \(No Contingency\) Conditions \(Category A\)](#)

[TPL-002-0a: System Performance Following Loss of a Single Bulk Electric System Element \(Category B\)](#)

[TPL-003-0a: System Performance Following Loss of Two or More Bulk Electric System Elements \(Category C\)](#)

[TPL-004-0: System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements \(Category D\)](#)

In Appendix B an excerpt from the NERC Reliability Standards, Table I. “Transmission System Standards – Normal and Emergency Conditions: from the Transmission Planning Standards”,

has been provided as a reference. This table explicitly illustrates the system conditions that dictate how Progress Energy must assess its transmission system.

The need for this 115 kV transmission line project was defined in section 2.2.1 Purpose and Necessity of the B&McD Routing Study and Environmental Report. The NERC Reliability Transmission Planning Standards have been defined in the prior paragraphs and are referenced as the basis for the construction of this new transmission line.

Proposed alternatives, as suggested by the USFS, to constructing a new 115 kV transmission line between Asheville and Enka Substations will be discussed in greater detail below. These alternatives include taking no action, triple circuiting with existing transmission lines, and upgrading existing circuits.

Failure to complete this project will cause PEC to fail to comply with the NERC Reliability Standards, which could result in loss of electrical service in PEC's Western Region, as well as a significant financial penalty. The inability of the transmission system to survive a common tower outage, "any two circuits of a multiple circuit towerline", is specifically a Category C event. As such, taking no action is not an option as it would jeopardize the reliability of electrical service in PEC's Western Region and could lead to curtailment of significant amounts of firm customer load (load shedding).

Triple circuiting the new 115 kV Line between Asheville and Enka with the Asheville-Enka 230 kV (future) and the existing Asheville - Enka 115 kV Lines is not a viable option because it would not satisfy NERC planning standard TPL 004 (Category D). It would also not establish what Progress Energy deems adequate transmission reliability for its Western Region. An assessment of extreme events, or in this case the loss of a towerline with three or more circuits, would put at risk the entire customer load in Progress Energy's Western Region and could potentially cause other area utilities to have to curtail customer load as well.

As identified in section 2.2.1 Purpose and Necessity of the Routing Study and Environmental Report, one of the needs for this project is to ensure continued reliability of the transmission system that serves PEC's Western Region. This will be achieved by mitigating the potential

overload of the Oteen - West Asheville 115 kV Line and by maintaining generator stability at the Asheville Generating Plant. Rebuilding the Oteen - West Asheville 115 kV Line is not feasible, due to the transmission constraints in the Western Region, which would not allow for this specific line to be out of service long enough to be rebuilt. Moreover, rebuilding the Oteen-West 115 kV Line would not solve stability issues at the Asheville Generating Plant.

The main driver for the construction of a new Asheville – Enka 115 kV line is that not only will it mitigate the potential overload of the Oteen - West Asheville 115 kV Line, but when one of the existing Asheville - Enka 115 kV lines is converted from 115 kV to 230 kV in 2010, this reduces an already low generation stability margin at Asheville Plant. The stability of the units at Asheville Plant is also governed by the NERC Transmission Reliability Standards. Without the construction of the new 115 kV line, there are events that could cause all of the units at Asheville Plant to go unstable and have to trip offline in order to protect the generation units. If all of the units at Asheville Plant are forced to shut down then there is a high probability that the entire customer load in PEC's Western Region would be curtailed.

In conclusion, the construction of a new Asheville-Enka 115 kV Line enables PEC to address both line overload and generator stability issues in the area with a single solution, making it the most feasible and effective alternative. This will enable PEC to meet all of the NERC Reliability Standards in a safe, efficient, and NERC compliant manner, while maintaining reliability for our customers in Western North Carolina.

3. RE-EVALUATION OF ROUTE SEGMENTS/ALTERNATIVES.

The Burns & McDonnell Routing Study & Environmental Report referenced in the Introduction was prepared in accordance with the requirements of Article 5A, Chapter 62 of the North Carolina Statutes as they pertain to the proposed Asheville – Enka 115kV Transmission Line. While Article 5A does not require a Certificate of Environmental Compatibility and Public Convenience and Necessity for a new line of less than 161kV, to demonstrate due diligence, PEC has chosen to follow those guidelines. An integral component of those guidelines is the development and assessment of route alternatives for the new line based on community values through public involvement. Such input is solicited by way of meetings with public officials and local agencies, and public information workshops.

During the second half of 2008 and the first half of 2009, PEC and representatives of B&McD acting on behalf of PEC, conducted meetings, phone calls, and correspondence with many public officials, and local, State and Federal agencies, in the Asheville and Buncombe County area. Based on their input and following a public information meeting held in November 2008, PEC was able to evaluate and rank possible route alternatives based on the public's ranking of social, economic, and technical factors affecting final route selection. The process, analysis, and results of this evaluation, together with the final ranking of route alternatives are detailed in the B&McD report.

The aforementioned evaluation gave rise to six top-ranked routes, each of which included segments that cross the Blue Ridge Parkway and the Pisgah National Forest. In March, 2009 PEC submitted Standard Form 299, Application for Transportation and Utility Systems and Facilities on Federal Lands, to the National Park Service and USFS to initiate the application process to gain approval of these segment crossings. During a meeting with the USFS on July 15, 2009 USFS representative, Ray Johns, outlined the application process for a Special Use Permit for constructing and maintaining a transmission line on National Forest System lands. The first stage of this process includes an initial screening of PEC's application against nine criteria, as specified in 36 CFR 251 (e)(1)(i)-(ix). Specifically, 36 CFR 251 (e)(1)(ii) ensures:

The proposed use is consistent or can be made consistent with standards and guidelines in the applicable forest land and resource management plan prepared under the National Forest Management Act and 36 CFR part 219.

In this regard, PEC has been asked to demonstrate that the proposal is consistent with the Nantahala/Pisgah Land and Resource Management Plan by showing the proposed use cannot be reasonably met on private lands and thus, avoid crossing the Pisgah National Forest. To assist in making this determination, the USFS has requested PEC to review all segments presented in the B&McD Routing Study & Environmental Report, and evaluate if constructing and operating a transmission line on each segment would be:

- a. Legally allowable; and
- b. Physically/technically possible.

Such an evaluation approach will determine if a specific segment meets or does not meet the criteria. As such, this will serve to eliminate specific segments from further consideration giving rise to a shortlist of viable route alternatives. This contrasts with the evaluation methodology employed during the routing study. Under that methodology, the evaluation criteria are weighted based on public feedback and the segments ranked, as opposed to eliminated, according to this criteria. This allows for a shortlist of preferred alternatives routes to be identified and analyzed in more detail.

3.1. Discussion of Results

Table 3.1 – Segment Evaluation, summarizes the results of the re-evaluation of each segment against the USFS key criteria. It identifies whether or not a segment meets the criteria, and if not, provides the rationale and cites the requisite statutes, legal opinions, and/or pertinent correspondence supporting the rationale. In performing the analysis, some segments may have met the criteria, but were not viable as they could only be reached via segments that had been eliminated. For example, segment 19 can only be reached via segment 14, which fails to meet the criteria.

Table 3.1 – Segment Evaluation.

Segment #	Legally Allowable & Physically / Technically Possible (Y/N)	Viable (Y/N)	Rationale	Document Cited
1	Y	Y	Subject to obtaining permit from the US Army Corps of Engineers to cross the French Broad River.	
2'	Y	Y		
3	Y	Y		
4	N	N	Not Allowable per NCDOT: Installation of power lines parallel to NCDOT's rights of way of full control access highways such as I-26 is not permissible.	See e-mail dated July 21, 2009 from David K. West, Encroachment Agent, NCDOT (Appendix C). See pages 23 and 26-28 of the NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way manual (Appendix D).
5'	Y	Y		
6'	Y	Y		
7	Y	Y		
8	Y	Y	Subject to approval from the National Park Service to cross the Blue Ridge Parkway and subject to obtaining permit from the US Army Corps of Engineers to cross the French Broad River.	
9	Y	Y		
10	Y	Y		
11	N	N	Not Allowable per NCDOT: Installation of power lines parallel to NCDOT's rights of way of full control access highways such as I-26 is not permissible.	See e-mail dated July 21, 2009 from David K. West, Encroachment Agent, NCDOT (Appendix C). See pages 23 and 26-28 of the NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way manual (Appendix D).
12	Y	N	Can only be reached via segment 11 which is not feasible (see segment 11 for explanation).	

Segment #	Legally Allowable & Physically / Technically Possible (Y/N)	Viable (Y/N)	Rationale	Document Cited
13	N	N	Not Allowable per NCDOT: Installation of power lines parallel to NCDOT's rights of way of full control access highways such as I-26 is not permissible.	See e-mail dated July 21, 2009 from David K. West, Encroachment Agent, NCDOT (Appendix C). See pages 23 and 26-28 of the NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way manual (Appendix D).
13	N	N	Not Legally Allowable: To acquire easement and danger tree rights would require condemnation of two (2) owner occupied homes / yards. Violates N.C.G.S. 40A-3.	See N.C.G.S. Chapter 40A-3 (Appendix E). See legal opinion re. Condemnation of Dwellings and Yards Progress Energy Asheville - Enka 115 kV Line, dated July 21, 2009 (Appendix F)
14	N	N	Not Allowable per NCDOT: Installation of power lines parallel to NCDOT's rights of way of full control access highways such as I-26 is not permissible.	See e-mail dated July 21, 2009 from David K. West, Encroachment Agent, NCDOT (Appendix C). See pages 23 and 26-28 of the NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way manual (Appendix D).
15	Y	N	Can only be reached via segment 14 which is not feasible (see segment 14 for explanation).	
16	N	N	Not Allowable per NCDOT: Installation of power lines parallel to NCDOT's rights of way of full control access highways such as I-26 is not permissible.	See e-mail dated July 21, 2009 from David K. West, Encroachment Agent, NCDOT (Appendix C). See pages 23 and 26-28 of the NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way manual (Appendix D).
17	Y	N	Can only be reached via segment 14 which is not feasible (see segment 14 for explanation).	
18	Y	N	Can only be reached via segment 14 which is not feasible (see segment 14 for explanation).	
19	Y	N	Can only be reached via segment 14 which is not feasible (see segment 14 for	

Segment #	Legally Allowable & Physically / Technically Possible (Y/N)	Viable (Y/N)	Rationale	Document Cited
			explanation).	
20	Y	N	Can only be reached via segment 14 which is not feasible (see segment 14 for explanation).	
21	Y	Y		
21'	Y	Y		
22	Y	Y		
23	Y	Y		
24	Y	Y		
25	Y	Y		
26	Y	Y		
27	N	N	Not Legally Allowable: To acquire easement would require condemnation of four (4) owner occupied homes / yards. Violates N.C.G.S. 40A-3.	See N.C.G.S. Chapter 40A-3 (Appendix E). See legal opinion re. Condemnation of Dwellings and Yards Progress Energy Asheville - Enka 115 kV Line, dated July 21, 2009 (Appendix F)
28	Y	N	Can only be reached via segment 14 which is not feasible (see segment 14 for explanation).	
29	Y	Y		
30	Y	Y		
31	Y	Y		
32	Y	Y		
33	Y	Y		
34	Y	Y		
35	N	N	Not Legally Allowable: To acquire easement and danger tree rights would require condemnation of four (4) owner occupied homes / yards. Violates N.C.G.S. 40A-3.	See N.C.G.S. Chapter 40A-3 (Appendix E). See legal opinion re. Condemnation of Dwellings and Yards Progress Energy Asheville - Enka 115 kV Line, dated July 21, 2009 (Appendix F)
36	Y	Y	Subject to approval from the US Forest Service to cross the Pisgah National Forest. See section xx for explanation of need for 75ft buffer.	
37	Y	N	Only accessible via segment 36, as segment 35 not feasible	

Segment #	Legally Allowable & Physically / Technically Possible (Y/N)	Viable (Y/N)	Rationale	Document Cited
			(see segment 35 for explanation).	
38	N	N	Not Legally Allowable: Due to terrain, danger tree rights would be required from the neighboring property on the high-side of the line. This would require condemnation of one (1) owner occupied homes / yards. Violates N.C.G.S. 40A-3.	See N.C.G.S. Chapter 40A-3 (Appendix E). See legal opinion re. Condemnation of Dwellings and Yards Progress Energy Asheville - Enka 115 kV Line, dated July 21, 2009 (Appendix F)
39	N	N	Not Legally Allowable: To acquire easement and danger tree rights would require condemnation of five (5) owner occupied homes / yards. Violates N.C.G.S. 40A-3.	See N.C.G.S. Chapter 40A-3 (Appendix E). See legal opinion re. Condemnation of Dwellings and Yards Progress Energy Asheville - Enka 115 kV Line, dated July 21, 2009 (Appendix F)
40	N	N	Not Legally Allowable: To acquire easement and danger tree rights would require condemnation of two (2) owner occupied homes / yards. Violates N.C.G.S. 40A-3.	See N.C.G.S. Chapter 40A-3 (Appendix E). See legal opinion re. Condemnation of Dwellings and Yards Progress Energy Asheville - Enka 115 kV Line, dated July 21, 2009 (Appendix F)
41	Y	N	Can only be reached via segment 40 which is not feasible (see segment 40 for explanation).	
42	Y	Y		

Through the analysis described earlier, a list of viable segments was developed and used to determine the viability of route alternatives (previously presented in Table 4-7 of the B&McD Routing Study & Environmental Report) shown in Table 3.2 – Route Alternative Viability on the following page. If a route alternative contained a segment that was not viable, then in turn, the route alternative was eliminated.

Table 3.2 – Route Alternative Viability

Route	Route Segments	Viable (Y/N)
A1	1,2,5',8,9,21',23,26,29,31,36,37,42	Y
A2	1,2,5',8,9,21',23,26,29,32,34,36,37,42	Y
A3	1,2,5',8,9,21',23,26,30,33,34,36,37,42	Y
B1	1,2,5',8,9,22,25,26,29,31,36,37,42	Y
B2	1,2,5',8,9,22,25,26,29,34,36,37,42	Y
B3	1,2,5',8,9,22,25,26,30,33,34,36,37,42	Y
C1	1,2,5',8,9,21',24,27,28	N
C2	1,2,5',8,9,22z,27,28	N
D1	1,2,6',7,8,9,21',23,26,29,31,36,37,42	Y
D2	1,2,6',7,8,9,21',23,26,29,32,34,36,37,42	Y
D3	1,2,6',7,8,9,21',23,26,30,33,34,36,37,42	Y
E1	1,2,6',7,8,9,22,25,26,29,31,36,37,42	Y
E2	1,2,6',7,8,9,22,25,26,29,32z,34,36,37,42	Y
E3	1,2,6',7,8,9,22,25,26,30,33,34,36,37,42	Y
F1	1,2,6',7,8,9,21',24,27,28	N
F2	1,2,6',7,8,9,22z,27,28	N
G1	1,4,10p,9,21',23,26,29,31,36,37,42	N
G2	1,4,10p,9,21',23,26,29,32z,34,36,37,42	N
G3	1,4,10p,9,21',23,26,30,33,34,36,37,42	N
H1	1,4,10p,9,22,25,26,29,31,36,37,42	N
H2	1,4,10p,9,22,25,26,29,32z,34,36,37,42	N
H3	1,4,10p,9,22,25,26,30,33,34,36,37,42	N
I1	1,4,10p,9,21',24,27,28	N
I2	1,4,10p,9,22z,27,28	N
J1	1,2,5',8,10,11,12,14,16,17,19,20,28	N
J2	1,2,5',8,10,11,12,14,16,17,18,20,28	N
J3	1,2,5',8,10,11,12,14,15,17,19,20,28	N
J4	1,2,5',8,10,11,12,14,15,17,18,20,28	N
J5	1,2,5',8,10,11,13,14,16,17,19,20,28	N
J6	1,2,5',8,10,11,13,14,16,17,18,20,28	N
J7	1,2,5',8,10,11,13,14,15,17,19,20,28	N
J8	1,2,5',8,10,11,13,14,15,17,18,20,28	N
K1	1,2,6',7,8,10,11,12,14,16,17,19,20,28	N
K2	1,2,6',7,8,10,11,12,14,16,17,18,20,28	N
K3	1,2,6',7,8,10,11,12,14,15,17,19,20,28	N
K4	1,2,6',7,8,10,11,12,14,15,17,18,20,28	N
K5	1,2,6',7,8,10,11,13,14,16,17,19,20,28	N
K6	1,2,6',7,8,10,11,13,14,16,17,18,20,28	N
K7	1,2,6',7,8,10,11,13,14,15,17,19,20,28	N
K8	1,2,6',7,8,10,11,13,14,15,17,18,20,28	N
L1	1,4,11,12,14,16,17,19,20,28	N
L2	1,4,11,12,14,16,17,18,20,28	N
L3	1,4,11,12,14,15,17,19,20,28	N
L4	1,4,11,12,14,15,17,18,20,28	N
L5	1,4,11,13,14,16,17,19,20,28	N
L6	1,4,11,13,14,16,17,18,20,28	N
L7	1,4,11,13,14,15,17,19,20,28	N
L8	1,4,11,13,14,15,17,18,20,28	N

As shown in Table 3.1 and Table 3.2, several route alternatives were eliminated because they included route segments that ran parallel to the I-26 Controlled Access Right of Way. The route segments in question were 4, 11, 13, 14, and 16. As detailed in an e-mail dated July 21, 2009 from NCDOT Encroachment Agent, David K. West (see Appendix C) PEC's proposal to build and maintain a transmission line parallel to and/or within the I-26 Controlled Access Right of Way would be in violation of NCDOT's policy and procedure on Utilities on Freeways, page 23 of the NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way (see Appendix D).

Exceptions to the foregoing policy and procedure, per Mr. West's e-mail and outlined on pages 26-28 of the same manual (see Appendix D), are predicated on PEC's ability to construct and maintain the new transmission line without access from the through traffic roadways or ramps. However, this requires the ongoing availability of access and/or frontage roads in the vicinity of the transmission line easement. Such roads are unavailable along segments 4, 11, and 14 and thus, eliminated them as possible options. The elimination of segments 11 and 14 rendered segments 15, 17, 18, 19, 20, and 28 unreachable and therefore, not viable. This in turn eliminated route alternatives G1 – G3, H1 – H3, I1 – I2, J1 – J8, K1 – K8, and L1 – L8.

The transmission right of way associated with constructing and maintaining the new line along segments 27, 35, 39, and 40 would require acquiring both an easement and danger tree rights in an owner/occupied dwelling and yard. Additionally, due to the steep side-slopes in the vicinity of Brown Road where it is crossed by segment 38, a danger tree easement would be required from the property on the "high-side" of the new line (see Appendix H for a more detailed view in the vicinity of the segments 27, 35, 38, 39, and 40). Per North Carolina General Statute (NCGS) Chapter 40A-3(a) (see Appendix E):

No such condemnor shall be allowed to have condemned to its use, without the consent of the owner, his burial ground, usual dwelling house and yard, kitchen and garden, unless condemnation of such property is expressly authorized by statute.

At the request of PEC, the law firm of Smith, Anderson, Blount, Dorsett, Mitchell, and Jernigan,

L.L.P., whose experience encompasses the area of transmission easements, has provided an assessment of the acquisition of transmission easements along segments 27, 35, 38, 39, and 40 in the context of NCGS Chapter 40A. The legal opinion (see Appendix F) concludes, pursuant to NCGS Chapter 40A, that PEC would not be allowed to condemn a landowner's dwelling house or yard for the purpose of taking easements including those associated with danger trees. This conclusion eliminated the viability of segments 12, 27, 35, 38, 39, and 40. Segment 41 is also eliminated as it can only be reached via segments 39 and 40. This in turn eliminated route alternatives C1 – C2 and F1 – F2.

In the original routing study, segments 35, 38, 39, 40, and 41 were removed from further consideration (see section 4.3.4 Segment Adjustments of the B&McD Routing Study & Environmental Report). While not explicitly stated in the original report, segments 35, 38, 39, and 40 had been removed from consideration because of the condemnation limitations imposed by NCGS Chapter 40A. For this reason, any route alternatives including these segments have been eliminated from this re-evaluation process.

Segment 36 follows the edge of the ridge across the top of Gaston Mountain. At this location, the terrain falls away sharply from the peak of the ridge and would give rise to steep side-slopes along the length of this segment as it passes through the forest. If the easement associated with segment 36 were to be located flush with the neighboring properties on the “high-side” of the line, a danger tree easement would be required from those properties. As previously described, pursuant to NCGS Chapter 40-A, this would not be possible. Thus, the current location of segment 36 (shown in Appendix G, Pisgah National Forest Crossing) includes a minimum 75 ft buffer off the neighboring property lines.

3.2. Conclusion

As result of the foregoing analysis, a shortlist of viable route alternatives was compiled. These are A1 – A3, B1 – B3, D1 – D3, and E1 – E3. The associated route segments for these alternatives are presented in Table 3.3 – Viable Route Alternatives Shortlist on the following page. All viable route alternatives include segment 36 which passes through a section of the

Pisgah National Forest in the vicinity of Gaston Mountain. This shortlist of routes was compiled via an analysis performed against the requisite USFS key criteria thus; leading PEC to respectively conclude that an alternative cannot be reasonably met without including an element of National Forest System lands.

Table 3.3 – Viable Route Alternatives Shortlist

Route	Route Segments	Viable (Y/N)
A1	1,2',5',8,9,21',23,26,29,31,36,37,42	Y
A2	1,2',5',8,9,21',23,26,29,32,34,36,37,42	Y
A3	1,2',5',8,9,21',23,26,30,33,34,36,37,42	Y
B1	1,2',5',8,9,22,25,26,29,31,36,37,42	Y
B2	1,2',5',8,9,22,25,26,29,34,36,37,42	Y
B3	1,2',5',8,9,22,25,26,30,33,34,36,37,42	Y
D1	1,2',6',7,8,9,21',23,26,29,31,36,37,42	Y
D2	1,2',6',7,8,9,21',23,26,29,32,34,36,37,42	Y
D3	1,2',6',7,8,9,21',23,26,30,33,34,36,37,42	Y
E1	1,2',6',7,8,9,22,25,26,29,31,36,37,42	Y
E2	1,2',6',7,8,9,22,25,26,29,32,34,36,37,42	Y
E3	1,2',6',7,8,9,22,25,26,30,33,34,36,37,42	Y

4. SUMMARY AND OVERALL CONCLUSION

As originally described in section 2.2.1 Purpose and Necessity of the B&McD Routing Study & Environmental Report:

Past and expected growth in Buncombe County and the surrounding area, together with the need to ensure continued reliability of the transmission system that serves this area, requires PEC to initiate a regional enhancement to the electrical grid.

When PEC evaluated approaches to satisfy this requirement, it was critical that they be feasible and compliant under NERC Reliability Standards for Transmission Planning. Section 2 explains those standards and demonstrates why alternative options to building a new 115kV line, such as triple-circuiting and/or upgrading existing facilities, would not be compliant with NERC. It concludes that the construction of a new Asheville – Enka 115kV Line is the most feasible option for meeting and complying with NERC standards of safety and reliability. All other options would result in the curtailment of customer load in PEC’s Western region.

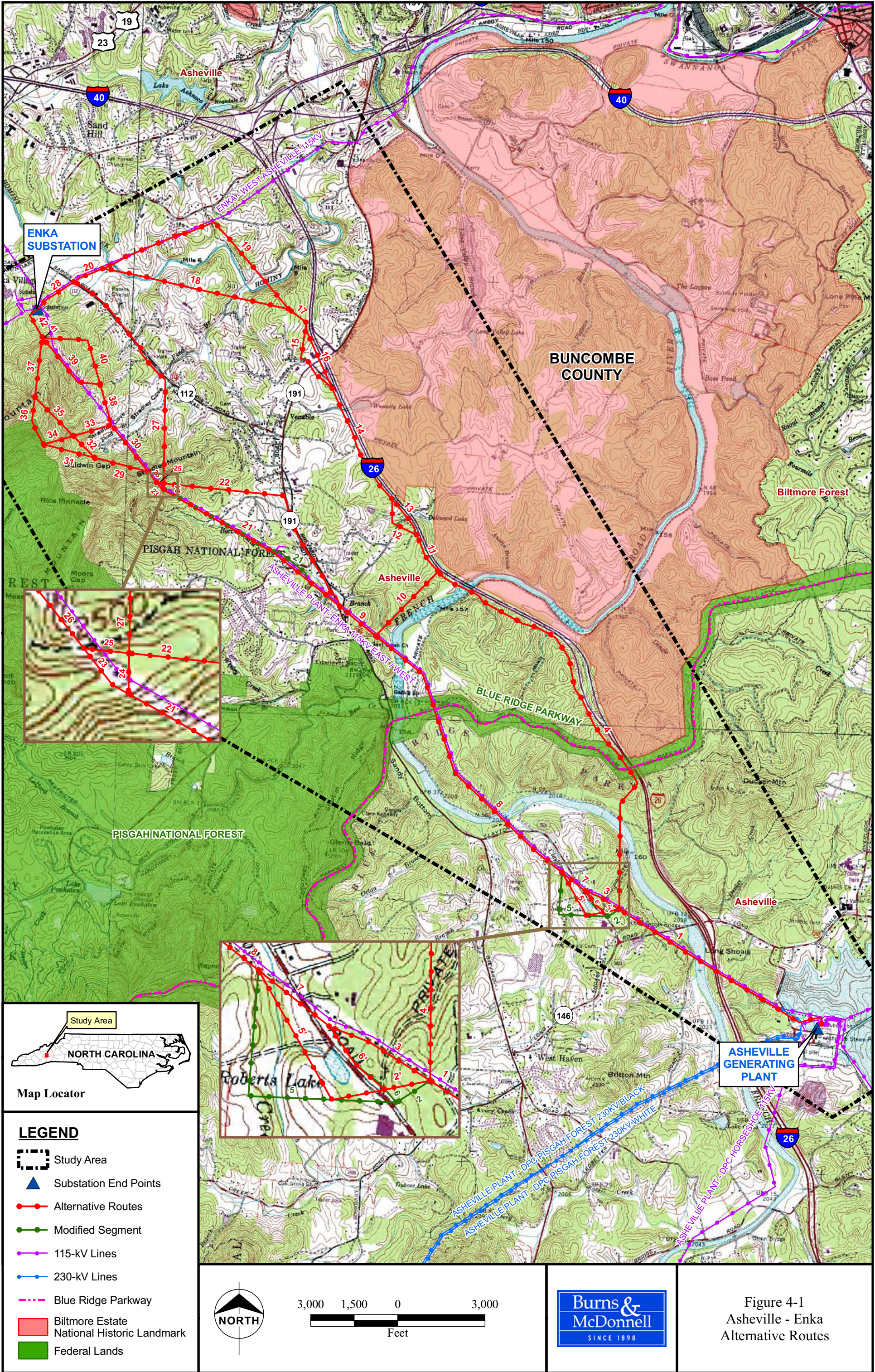
The proposed new 115kV line will extend from PEC’s Asheville Generating Plant to PEC’s Enka Substation, following an approximately 7.6 mile route. The USFS has requested that PEC demonstrate the proposed route could be designed to avoid the Pisgah National Forest. While the original B&McD report describes the process by which a preferred route was determined, this process did not include an evaluation against USFS key criteria. Section 3 presents the results of re-evaluating the possible route alternatives against these key criteria. The re-evaluation results are predicated on NCGS Chapter 40-A and NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way precluding many alternatives from being legally allowable and physically/technically possible. It concludes that the shortlist of viable routes each includes segment 36, which passes through the Pisgah National Forest.

Thus, PEC concludes that the regional enhancement to the electrical grid must be met through construction of a new 115kV line following a route that cannot be reasonably designed without including an element of National Forest System lands.

APPENDICES

APPENDIX A

FIGURE 4-1 ASHEVILLE – ENKA ALTERNATIVE ROUTES.



APPENDIX B

NERC TRANSMISSION PLANNING RELIABILITY STANDARD: TABLE I. “TRANSMISSION SYSTEM STANDARDS – NORMAL AND EMERGENCY CONDITIONS: FROM THE TRANSMISSION PLANNING STANDARDS”.

Table I. Transmission System Standards – Normal and Emergency Conditions

Category	Contingencies	System Limits or Impacts		
	Initiating Event(s) and Contingency Element(s)	System Stable and both Thermal and Voltage Limits within Applicable Rating ^a	Loss of Demand or Curtailed Firm Transfers	Cascading ^c Outages
A No Contingencies	All Facilities in Service	Yes	No	No
B Event resulting in the loss of a single element.	Single Line Ground (SLG) or 3-Phase (3Ø) Fault, with Normal Clearing: 1. Generator 2. Transmission Circuit 3. Transformer Loss of an Element without a Fault.	Yes Yes Yes Yes	No ^b No ^b No ^b No ^b	No No No No
	Single Pole Block, Normal Clearing ^e : 4. Single Pole (dc) Line	Yes	No ^b	No
C Event(s) resulting in the loss of two or more (multiple) elements.	SLG Fault, with Normal Clearing ^e : 1. Bus Section	Yes	Planned/ Controlled ^c	No
	2. Breaker (failure or internal Fault)	Yes	Planned/ Controlled ^c	No
	SLG or 3Ø Fault, with Normal Clearing ^e , Manual System Adjustments, followed by another SLG or 3Ø Fault, with Normal Clearing ^e : 3. Category B (B1, B2, B3, or B4) contingency, manual system adjustments, followed by another Category B (B1, B2, B3, or B4) contingency	Yes	Planned/ Controlled ^c	No
	Bipolar Block, with Normal Clearing ^e : 4. Bipolar (dc) Line Fault (non 3Ø), with Normal Clearing ^e :	Yes	Planned/ Controlled ^c	No
	5. Any two circuits of a multiple circuit towerline ^f	Yes	Planned/ Controlled ^c	No
	SLG Fault, with Delayed Clearing ^e (stuck breaker or protection system failure): 6. Generator	Yes	Planned/ Controlled ^c	No
	7. Transformer	Yes	Planned/ Controlled ^c	No
	8. Transmission Circuit	Yes	Planned/ Controlled ^c	No
	9. Bus Section	Yes	Planned/ Controlled ^c	No

Standard TPL-003-0a — System Performance Following Loss of Two or More BES Elements

D^d Extreme event resulting in two or more (multiple) elements removed or Cascading out of service	<p>3Ø Fault, with Delayed Clearing^e (stuck breaker or protection system failure):</p> <table><tr><td>1. Generator</td><td>3. Transformer</td></tr><tr><td>2. Transmission Circuit</td><td>4. Bus Section</td></tr></table> <hr/> <p>3Ø Fault, with Normal Clearing^e:</p> <hr/> <p>5. Breaker (failure or internal Fault)</p> <hr/> <p>6. Loss of towerline with three or more circuits</p> <p>7. All transmission lines on a common right-of way</p> <p>8. Loss of a substation (one voltage level plus transformers)</p> <p>9. Loss of a switching station (one voltage level plus transformers)</p> <p>10. Loss of all generating units at a station</p> <p>11. Loss of a large Load or major Load center</p> <p>12. Failure of a fully redundant Special Protection System (or remedial action scheme) to operate when required</p> <p>13. Operation, partial operation, or misoperation of a fully redundant Special Protection System (or Remedial Action Scheme) in response to an event or abnormal system condition for which it was not intended to operate</p> <p>14. Impact of severe power swings or oscillations from Disturbances in another Regional Reliability Organization.</p>	1. Generator	3. Transformer	2. Transmission Circuit	4. Bus Section	<p>Evaluate for risks and consequences.</p> <ul style="list-style-type: none">▪ May involve substantial loss of customer Demand and generation in a widespread area or areas.▪ Portions or all of the interconnected systems may or may not achieve a new, stable operating point.▪ Evaluation of these events may require joint studies with neighboring systems.
1. Generator	3. Transformer					
2. Transmission Circuit	4. Bus Section					

- a) Applicable rating refers to the applicable Normal and Emergency facility thermal Rating or system voltage limit as determined and consistently applied by the system or facility owner. Applicable Ratings may include Emergency Ratings applicable for short durations as required to permit operating steps necessary to maintain system control. All Ratings must be established consistent with applicable NERC Reliability Standards addressing Facility Ratings.
- b) Planned or controlled interruption of electric supply to radial customers or some local Network customers, connected to or supplied by the Faulted element or by the affected area, may occur in certain areas without impacting the overall reliability of the interconnected transmission systems. To prepare for the next contingency, system adjustments are permitted, including curtailments of contracted Firm (non-recallable reserved) electric power Transfers.
- c) Depending on system design and expected system impacts, the controlled interruption of electric supply to customers (load shedding), the planned removal from service of certain generators, and/or the curtailment of contracted Firm (non-recallable reserved) electric power transfers may be necessary to maintain the overall reliability of the interconnected transmission systems.
- d) A number of extreme contingencies that are listed under Category D and judged to be critical by the transmission planning entity(ies) will be selected for evaluation. It is not expected that all possible facility outages under each listed contingency of Category D will be evaluated.
- e) Normal clearing is when the protection system operates as designed and the Fault is cleared in the time normally expected with proper functioning of the installed protection systems. Delayed clearing of a Fault is due to failure of any protection system component such as a relay, circuit breaker, or current transformer, and not because of an intentional design delay.
- f) System assessments may exclude these events where multiple circuit towers are used over short distances (e.g., station entrance, river crossings) in accordance with Regional exemption criteria.

APPENDIX C

E-MAIL FROM DAVID K. WEST, ENCROACHMENT AGENT, NCDOT.

F-I-N-A-L

Parker, Joe

From: West, David K [dkwest@ncdot.gov]
Sent: Tuesday, July 21, 2009 2:39 PM
To: Shelia.talton@pgnmail.com
Cc: Parker, Joe; Memory, John R
Subject: Asheville Enka 115KV Line

Ms. Talton,

I understand that Progress Energy is exploring different possible routes for the installation of the subject power line, one being parallel and within the Controlled Access Right of Way of I-26. NCDOT does not allow parallel installations within the rights of way of full control of access highways such as I-26. This is specified on page 23 of the Policies and Procedures for Accommodating Utilities on Highway Rights of Way manual.

NCDOT will consider exceptions to this policy when other alternatives are extremely difficult and unreasonably costly.

(Page 26 of the Policy and Procedures manual). However, one of the conditions required to be considered for an exception is that the utility can be serviced without access from the through traffic roadways or ramps. I understand that this is not the case for an installation along I-26 due to the lack of frontage roads or access roads. I suggest Progress Energy seek another route other than the R/W of I-26.

David West

Encroachment Agent

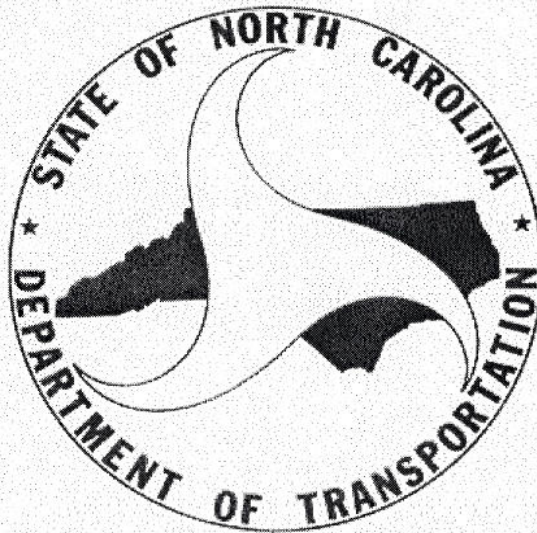
Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

APPENDIX D

**PAGES 23 AND 26-28 OF THE NCDOT POLICIES AND PROCEDURES FOR ACCOMMODATING
UTILITIES ON HIGHWAY RIGHTS OF WAY MANUAL.**



POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS OF WAY



DIVISION OF HIGHWAYS

JANUARY 1, 1975

REVISED APRIL 1, 1993

UTILITIES ON FREEWAYS
(See "Traffic Control Procedure")

1. Application

The following policy applies to all utility installations on, over, or under freeway rights-of-way with one exception. Utilities for servicing facilities required solely for the purpose of operating the freeway are exempt from the provisions of this policy provided such utilities do not traverse scenic, historic, or recreational areas as described in GENERAL CONSIDERATIONS Location - Par. 7, Page 11.

2. Utilities Along Freeways On New Location

Where a freeway is on new location, a utility will not be permitted to be installed longitudinally within the control of access lines of such freeway, and any utilities located outside the control of access lines cannot be serviced by access from the through-traffic roadways or ramps. Where frontage roads are provided, utilities may be located along the frontage roads, outside the control of access lines, from which they can be serviced without access from through-traffic roadways or ramps.

Where a utility already exists within the proposed right-of-way of a freeway on new location and it can be serviced only by access from the through-traffic roadways or ramps of the completed freeway, the utility shall be relocated or other provisions made so that it can be serviced without access from the through-traffic roadways or ramps.

There may be extreme cases where a utility may be permitted along a freeway on new location under strictly controlled conditions as covered by Item 8.

3. Utilities Along Freeways on Existing Location

A utility presently located on the right-of-way of an existing highway that is reconstructed as a freeway may be permitted to remain thereon without relocation provided it can be serviced without access from the through-traffic roadways or ramps. Where such utility in its original location can be serviced only by access from the through-traffic roadways or ramps, it shall be relocated or other provisions made so that it can be serviced without access from the through-traffic roadways or ramps. No new or additional utility installation shall be made along the freeway except along a frontage road, outside the control of access lines. Exceptions may be made for extreme cases as covered in Item 8.

4. Major Valley Crossings

Where a freeway crosses a major valley or river on an existing high value structure, any utility carried by said structure at the time

e. Provision for Expansion of Utilities

When existing utilities are relocated or adjusted in conjunction with construction of a freeway, provision may be made for known and planned expansion of the utility facilities, particularly underground. They should be planned to avoid interference with traffic at some future date when additional or new overhead or underground lines are installed.

6. Utilities in Vehicular Tunnels

As a general rule, utilities will not be permitted to occupy vehicular tunnels on freeways on new location, except in extreme cases as covered by Item 8. Utilities which transport a hazardous material shall not be allowed in a vehicular tunnel under any circumstances. Where a utility occupies space in an existing vehicular tunnel that is converted to a freeway, relocation of the utility may not be required. Utilities which have not previously occupied an existing vehicular tunnel that is incorporated in a freeway will not be permitted therein, except in extreme cases as covered by Item 8.

7. Access for Servicing Utilities

Access for servicing a utility along or across a freeway normally should be limited to access via (a) frontage roads where provided, (b) nearby or adjacent public roads and streets, or (c) trails along or near the highway right-of-way lines, connecting only to an intersecting road, from any one or all of which entry may be made to the outer portion of the freeway right-of-way. Where utility supports, manholes, or other appurtenances are located in medians or interchange areas, access to them from through-traffic roadways or ramps may be permitted but only by permits issued by the Department to the utility owner setting forth the conditions for policing and other controls to protect highway users.

8. Multiple Use of Freeway Rights-of-Way in Extreme Cases

The Department will preserve the access control feature of all freeways but recognizes the merit and need for accommodating utility facilities under strictly controlled conditions, especially at locations within and approaching municipal areas where land is scarce and right-of-way is expensive. Approval may be given in extreme cases for installing utility facilities within an area on and along the outer border of freeway rights-of-way when the following conditions have been satisfied:

- a. The utility satisfactorily demonstrates to the Manager of Right-of-Way that any other utility location is extremely difficult and unreasonably costly to the utility; that the installation on the freeway right-of-way will not adversely affect the design, construction, maintenance, stability, traffic safety, or operation

of the freeway; and that the utility can be serviced without access from the through-traffic roadways or ramps.

- b. The utility satisfactorily demonstrates that the direct and indirect environmental and economic effects of any loss of productive agricultural land or any productivity of any agricultural land would result from the disapproval of the use of such right-of-way for accommodation of the utility facility.
- c. These environmental and economic effects together with any interference with or impairment of the use of the highway in such right-of-way, which would result from the use of such right-of-way for accommodation of such utility facility will be considered.
- d. When longitudinal installations are proposed within existing access control lines, a utility strip shall be established by locating a utility access control line between the proposed utility facility and the through roadway and ramps. Existing fences should be retained and, except along sections of freeways having frontage roads, planned fences should be located at the freeway right-of-way line.
- e. The area may be established only where the freeway rights-of-way are of ample width to accommodate utility facilities without adverse effect to the design, construction, integrity, and operational characteristics of the freeway; only where such rights-of-way will not be needed for the foreseeable expansion of the freeway; and only where there can be satisfactory provision for any needed highway and/or utility maintenance without the designated area.
- f. Normally, this area is not to be established at locations where it is feasible to accommodate utilities on frontage roads or adjacent public roads or streets.
- g. The Department will control and regulate the use and occupancy of the rights-of-way being used by the utility.
- h. The lateral location of underground installations shall be suitably offset from the slope, ditch, and/or curb line. For poles or other ground-mounted utility facilities, the lateral location shall comply with the clearances set forth in Item 5(b).
- i. Aerial installations are to be limited to self supporting single pole construction, preferably with vertical configuration of conductors and cables. Not more than one line of support poles for aerial facilities will be permitted within the area. Joint-use facilities will be allowed.

- j. Suitable advance arrangements are to be made for servicing the utility facilities without access from through-traffic roadways or ramps, in accordance with Item 7. At interchanges, access to utility supports, manholes, or other appurtenances may be permitted from the through-traffic roadways or ramps in accordance with Item 7, but only by permits issued by the Board to the utility owner setting forth the conditions for policing and other controls to protect highway users.
- k. Where a freeway passes through or along area of scenic enhancement and natural beauty, as described in Paragraph 7 of GENERAL CONSIDERATIONS - Location, Page 11 and in OVERHEAD POWER AND COMMUNICATION LINES - Location, Page 40 utility installations shall be limited as provided therein.
- 1. On submission involving extreme case exceptions, the following minimum information shall be provided on utility plans or in other materials accompanying each agreement:
 - (1) The proposed horizontal and vertical placement of the utility within the highway cross-section.
 - (2) Lateral clearances from the edge of pavement or shoulder to the utility.
 - (3) Location of points of access for installation and servicing of the utility.
 - (4) Proposed revisions to the access control lines.
 - (5) Sufficient typical details to show:
 - (a) The configuration of conductors, spacing of poles, line materials and nominal voltage for aerial installations.
 - (b) Trench details, operating pressures, pipe thickness and type for pipelines.
 - (c) Trench details, conduit type, and location of manholes for underground telephone, telegraph or electric cable.
 - (6) Where applicable, comments on problems encountered on alternates in addition to estimates of cost for alternates.

The provisions of the before mentioned are for application to freeways that are open to traffic or under construction. They have application to proposed freeway projects as necessary to accommodate the longitudinal relocation of existing facilities which fall in the path of the proposed highway construction. However, establishing a utility area shall not be the basis for expending funds for acquiring rights-of-way

APPENDIX E

NORTH CAROLINA GENERAL STATUTE CHAPTER 40A-3.

§ 40A-3. By whom right may be exercised.

(a) Private Condemnors. – For the public use or benefit, the persons or organizations listed below shall have the power of eminent domain and may acquire by purchase or condemnation property for the stated purposes and other works which are authorized by law.

- (1) Corporations, bodies politic or persons have the power of eminent domain for the construction of railroads, power generating facilities, substations, switching stations, microwave towers, roads, alleys, access railroads, turnpikes, street railroads, plank roads, tramroads, canals, telegraphs, telephones, electric power lines, electric lights, public water supplies, public sewerage systems, flumes, bridges, and pipelines or mains originating in North Carolina for the transportation of petroleum products, coal, gas, limestone or minerals. Land condemned for any liquid pipelines shall:

- a. Not be less than 50 feet nor more than 100 feet in width; and

- b. Comply with the provisions of G.S. 62-190(b).

The width of land condemned for any natural gas pipelines shall not be more than 100 feet.

- (2) School committees or boards of trustees or of directors of any corporation holding title to real estate upon which any private educational institution is situated, have the power of eminent domain in order to obtain a pure and adequate water supply for such institution.
- (3) Franchised motor vehicle carriers or union bus station companies organized by authority of the Utilities Commission, have the power of eminent domain for the purpose of constructing and operating union bus stations: Provided, that this subdivision shall not apply to any city or town having a population of less than 60,000.
- (4) Any railroad company has the power of eminent domain for the purposes of: constructing union depots; maintaining, operating, improving or straightening lines or of altering its location; constructing double tracks; constructing and maintaining new yards and terminal facilities or enlarging its yard or terminal facilities; connecting two of its lines already in operation not more than six miles apart; or constructing an industrial siding.
- (5) A condemnation in fee simple by a State-owned railroad company for the purposes specified in subdivision (4) of this subsection and as provided under G.S. 124-12(2).

The width of land condemned for any single or double track railroad purpose shall be not less than 80 feet nor more than 100 feet, except where the road may run through a town, where it may be of less width, or where there may be deep cuts or high embankments, where it may be of greater width.

No rights granted or acquired under this subsection shall in any way destroy or abridge the rights of the State to regulate or control any railroad company or to regulate foreign corporations doing business in this State. Whenever it is necessary for any railroad company doing business in this State to cross the street or streets in a town or city in order to carry out the orders of the Utilities Commission, to construct an industrial siding, the power is hereby conferred upon such railroad company to occupy such street or streets of any such town or city within the State. Provided, license so to do be first obtained from the board of aldermen, board of commissioners,

or other governing authorities of such town or city.

No such condemnor shall be allowed to have condemned to its use, without the consent of the owner, his burial ground, usual dwelling house and yard, kitchen and garden, unless condemnation of such property is expressly authorized by statute.

The power of eminent domain shall be exercised by private condemnors under the procedures of Article 2 of this Chapter.

(b) Local Public Condemnors – Standard Provision. – For the public use or benefit, the governing body of each municipality or county shall possess the power of eminent domain and may acquire by purchase, gift or condemnation any property, either inside or outside its boundaries, for the following purposes.

- (1) Opening, widening, extending, or improving roads, streets, alleys, and sidewalks. The authority contained in this subsection is in addition to the authority to acquire rights-of-way for streets, sidewalks and highways under Article 9 of Chapter 136. The provisions of this subdivision (1) shall not apply to counties.
- (2) Establishing, extending, enlarging, or improving any of the public enterprises listed in G.S. 160A-311 for cities, or G.S. 153A-274 for counties.
- (3) Establishing, enlarging, or improving parks, playgrounds, and other recreational facilities.
- (4) Establishing, extending, enlarging, or improving storm sewer and drainage systems and works, or sewer and septic tank lines and systems.
- (5) Establishing, enlarging, or improving hospital facilities, cemeteries, or library facilities.
- (6) Constructing, enlarging, or improving city halls, fire stations, office buildings, courthouse jails and other buildings for use by any department, board, commission or agency.
- (7) Establishing drainage programs and programs to prevent obstructions to the natural flow of streams, creeks and natural water channels or improving drainage facilities. The authority contained in this subdivision is in addition to any authority contained in Chapter 156.
- (8) Acquiring designated historic properties, designated as such before October 1, 1989, or acquiring a designated landmark designated as such on or after October 1, 1989, for which an application has been made for a certificate of appropriateness for demolition, in pursuance of the purposes of G.S. 160A-399.3, Chapter 160A, Article 19, Part 3B, effective until October 1, 1989, or G.S. 160A-400.14, whichever is appropriate.
- (9) Opening, widening, extending, or improving public wharves.

The board of education of any municipality or county or a combined board may exercise the power of eminent domain under this Chapter for purposes authorized by Chapter 115C of the General Statutes.

The power of eminent domain shall be exercised by local public condemnors under the procedures of Article 3 of this Chapter.

(b1) Local Public Condemnors – Modified Provision for Certain Localities. – For the public use or benefit, the governing body of each municipality or county shall possess the power of eminent domain and may acquire by purchase, gift or condemnation any property or interest

therein, either inside or outside its boundaries, for the following purposes.

- (1) Opening, widening, extending, or improving roads, streets, alleys, and sidewalks. The authority contained in this subsection is in addition to the authority to acquire rights-of-way for streets, sidewalks and highways under Article 9 of Chapter 136. The provisions of this subdivision (1) shall not apply to counties.
- (2) Establishing, extending, enlarging, or improving any of the public enterprises listed in G.S. 160A-311 for cities, or G.S. 153A-274 for counties.
- (3) Establishing, enlarging, or improving parks, playgrounds, and other recreational facilities.
- (4) Establishing, extending, enlarging, or improving storm sewer and drainage systems and works, or sewer and septic tank lines and systems.
- (5) Establishing, enlarging, or improving hospital facilities, cemeteries, or library facilities.
- (6) Constructing, enlarging, or improving city halls, fire stations, office buildings, courthouse jails and other buildings for use by any department, board, commission or agency.
- (7) Establishing drainage programs and programs to prevent obstructions to the natural flow of streams, creeks and natural water channels or improving drainage facilities. The authority contained in this subdivision is in addition to any authority contained in Chapter 156.
- (8) Acquiring designated historic properties, designated as such before October 1, 1989, or acquiring a designated landmark designated as such on or after October 1, 1989, for which an application has been made for a certificate of appropriateness for demolition, in pursuance of the purposes of G.S. 160A-399.3, Chapter 160A, Article 19, Part 3, effective until October 1, 1989, or G.S. 160A-400.14, whichever is appropriate.
- (9) Opening, widening, extending, or improving public wharves.
- (10) Engaging in or participating with other governmental entities in acquiring, constructing, reconstructing, extending, or otherwise building or improving beach erosion control or flood and hurricane protection works, including, but not limited to, the acquisition of any property that may be required as a source for beach renourishment.
- (11) Establishing access for the public to public trust beaches and appurtenant parking areas.

The board of education of any municipality or county or a combined board may exercise the power of eminent domain under this Chapter for purposes authorized by Chapter 115C of the General Statutes.

The power of eminent domain shall be exercised by local public condemnors under the procedures of Article 3 of this chapter.

This subsection applies only to Carteret and Dare Counties, the Towns of Atlantic Beach, Carolina Beach, Caswell Beach, Emerald Isle, Holden Beach, Indian Beach, Kill Devil Hills, Kitty Hawk, Kure Beach, Nags Head, North Topsail Beach, Oak Island, Ocean Isle Beach, Pine Knoll Shores, Sunset Beach, Surf City, Topsail Beach, and Wrightsville Beach, and the Village of Bald Head Island.

(c) Other Public Condemnors. – For the public use or benefit, the following political entities shall possess the power of eminent domain and may acquire property by purchase, gift, or condemnation for the stated purposes.

- (1) A sanitary district board established under the provisions of Part 2 of Article 2 of Chapter 130A for the purposes stated in that Part.
- (2) The board of commissioners of a mosquito control district established under the provisions of Part 2 of Article 12 of Chapter 130A for the purposes stated in that Part.
- (3) A hospital authority established under the provisions of Part B of Article 2 of Chapter 131E for the purposes stated in that Part, provided, however, that the provisions of G.S. 131E-24(c) shall continue to apply.
- (4) A watershed improvement district established under the provisions of Article 2 of Chapter 139 for the purposes stated in that Article, provided, however, that the provisions of G.S. 139-38 shall continue to apply.
- (5) A housing authority established under the provisions of Article 1 of Chapter 157 for the purposes of that Article, provided, however, that the provisions of G.S. 157-11 shall continue to apply.
- (6) A corporation as defined in G.S. 157-50 for the purposes of Article 3 of Chapter 157, provided, however, the provisions of G.S. 157-50 shall continue to apply.
- (7) A commission established under the provisions of Article 22 of Chapter 160A for the purposes of that Article.
- (8) An authority created under the provisions of Article 1 of Chapter 162A for the purposes of that Article.
- (9) A district established under the provisions of Article 4 of Chapter 162A for the purposes of that Article.
- (10) A district established under the provisions of Article 5 of Chapter 162A for purposes of that Article.
- (11) The board of trustees of a community college established under the provisions of Article 2 of Chapter 115D for the purposes of that Article.
- (12) A district established under the provisions of Article 6 of Chapter 162A for the purposes of that Article.
- (13) A regional public transportation authority established under Article 26 of Chapter 160A of the General Statutes for the purposes of that Article.

The power of eminent domain shall be exercised by a public condemnor listed in this subsection under the procedures of Article 3 of this Chapter. (1852, c. 92, s. 1; R.C., c. 61, s. 9; 1874-5, c. 83; Code, s. 1698; Rev., s. 2575; 1907, cc. 39, 458, 783; 1911, c. 62, ss. 25, 26, 27; 1917, cc. 51, 132; C.S., s. 1706; 1923, c. 205; Ex. Sess. 1924, c. 118; 1937, c. 108, s. 1; 1939, c. 228, s. 4; 1941, c. 254; 1947, c. 806; 1951, c. 1002, ss. 1, 2; 1953, c. 1211; 1957, c. 65, s. 11; c. 1045, s. 1; 1961, c. 247; 1973, c. 507, s. 5; c. 1262, s. 86; 1977, c. 771, s. 4; 1981, c. 919, s. 1; 1983, c. 378, s. 2; 1983 (Reg. Sess., 1984), c. 1084; 1985, c. 689, s. 10; c. 696, s. 2; 1987, c. 2, s. 1; c. 564, s. 13; c. 783, s. 6; 1989, c. 706, s. 3; c. 740, s. 1.1; 2000-146, s. 8; 2001-36, ss. 1, 3; 2001-478, s. 2; 2001-487, s. 58; 2002-172, s. 4.1; 2003-282, ss. 1, 2; 2004-203, s. 32(a), (b); 2006-224, s. 2; 2006-259, s. 47.)

APPENDIX F

**LEGAL OPINION RE. CONDEMNATION OF DWELLINGS AND YARDS PROGRESS ENERGY
ASHEVILLE - ENKA 115 KV LINE.**

F-I-N-A-L

OFFICES
2500 Wachovia Capitol Center
Raleigh, North Carolina 27601

MATTHEW D. RHOAD
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July __, 2009

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TELEPHONE: (919) 821-1220
FACSIMILE: (919) 821-6800

**Re: Condemnation of Dwellings and Yards
Progress Energy Asheville-Enka 115kV Line
Our File: 8035.168**

Dear _____:

You have asked us to consider whether Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. ("PEC") has the ability to condemn transmission easements along Segments 27, 35, 38, 39, 40 and/or 41 of the new transmission line being installed between the Asheville _____ and the Enka 115kV Switching Station. As you know, PEC condemns property pursuant to N.C. Gen. Stat. Chapter 40A. The statutes specifically directs that PEC is not allowed to condemn a landowner's "burial ground, usual dwelling house and yard, kitchen and garden, unless condemnation of such property is expressly authorized by statute." N.C. Gen. Stat. § 40A-3(a). To my knowledge, the only situation when such a condemnation is authorized by statute is when PEC is impounding water for construction of a power plant.

Based on the aerial photographs that you have provided, it appears that utilizing Segments 27, 35, 39, and/or 40 would require the taking of easements across several houses and/or yards. To the extent that Segments 27, 35, 38, 39, 40 and/or 41 (or any other Segments, for that matter) would require the taking of easements over a landowner's dwelling house or yard, PEC does not have the ability to take such easements. This would include the taking of danger tree easements affecting an owner's yard, as the statute does not differentiate between different types of easements.

Please let me know if you have any further questions.

Sincerely,

SMITH, ANDERSON, BLOUNT, DORSETT,
MITCHELL & JERNIGAN, L.L.P.

By:
Matthew D. Rhoad

APPENDIX G

PISGAH NATIONAL FOREST CROSSING.

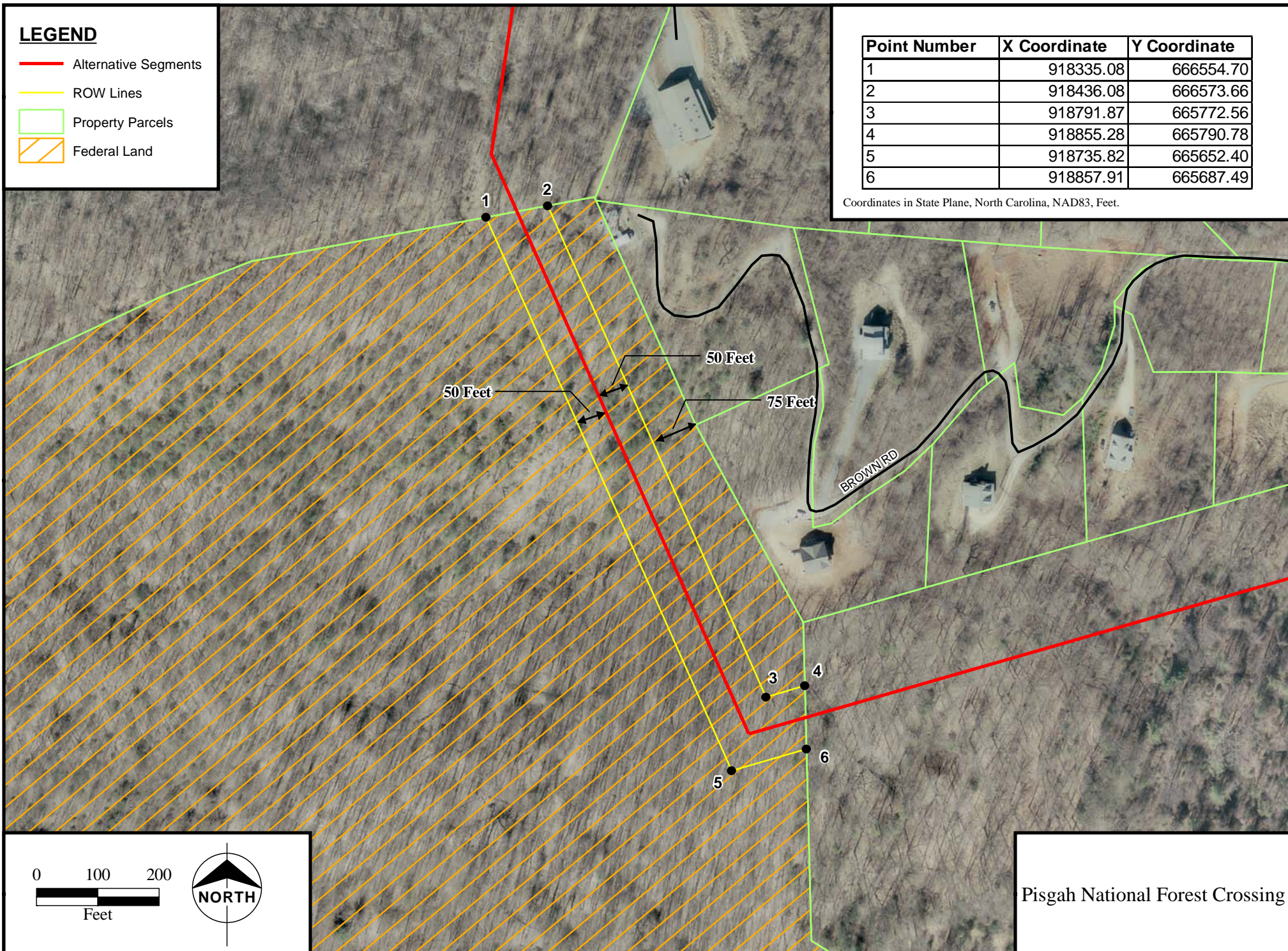
\\EPSPRV\Data\Projects\CPL\49163_Ashville\GIS\DataFiles\ArcDocs\Pisgah_National_Forest_Crossing_Aerial_Lettersize.mxd Revised June 4, 2009

LEGEND

- Alternative Segments
- ROW Lines
- Property Parcels
- Federal Land

Point Number	X Coordinate	Y Coordinate
1	918335.08	666554.70
2	918436.08	666573.66
3	918791.87	665772.56
4	918855.28	665790.78
5	918735.82	665652.40
6	918857.91	665687.49

Coordinates in State Plane, North Carolina, NAD83, Feet.



Pisgah National Forest Crossing

APPENDIX H

DETAILED VIEW IN THE VICINITY OF THE SEGMENTS 27, 35, 38, 39, AND 40.



ENKA SOUTHEASTERN
CONTAINER 115KV

SW. STA.

BILTMORE LAKE BLOCK C-1

GASTON MOUNTAIN RD

WINDWIND TER

WATER ROCK TER

WEBARK CT

SCOTT MOUNTAIN DR

SUMMERSHORE CT

BUCKHORN BRANCH CIR

OAK RIDGE RD

LINDA VATA DR

SAITY DR

COUNTRY MEADOWS DR

BRANDI DR

SARDIS DR

THOMPSON RD

PIEDMONT LN

BROWN RD

BERRY HILL RD

FORDBROOK RD

112

112

27

25

26

30

29

32

31

34

35

33

38

39

40

37

37

20

28