



# SPECIAL USE PERMIT APPLICATION

File #  
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Rec'd Date  
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Submit required documentation to:  
Wake County Planning Department/Current Planning Section  
PO Box 550 Wake County Office Building  
Raleigh, NC 27602-0550 336 Fayetteville Street Mall, Downtown Raleigh  
Contact Current Planning at (919) 856-6335 for additional information.

Complete with required information (write "n/a" if information is not applicable to proposal).

**Type of Special Use** (be as specific as possible and cite code section listing use as permitted special use)

Electric power substation (static transformer station)

Modification of previously issued Special Use Permit? ( ) Yes (  ) No

If Yes, provide relevant Special Use Permit Number: N/A

### Property

Parcel Identification Number: 0689706017

Address: Carr Pur Drive, Middle Creek Township

Location: North side of Carr Pur Drive, at/between  
(north, east, south, west) (street)

(street)

and

(street)

Total site area in square feet and acres: 485,694 square feet 11.15 acres

Zoning District(s) and Overlay Districts (if any) and land area within each: \_\_\_\_\_

HD

List Conditions of any Conditional Use Zoning Districts: N/A

Present land use(s): Vacant / Undeveloped

How is this proposed use a public necessity? Needed to serve the growing electric power requirements of the area

What is impact on surrounding neighborhood and adjacent properties? Low impact

### Land Owner

Land Owner Name: Carolina Power + Light Co. d/b/a Progress Energy Carolinas, Inc.

Business Operator Name (if different from Land Owner): Progress Energy Carolinas, Inc.

Address: PO Box 1981, TPP 18

City: Raleigh State: NC Zip Code: 27602-1981

E-mail Address: \_\_\_\_\_ Fax: 919-546-7175

Telephone Number: 919-546-3667

**Applicant** (person to whom all correspondence will be sent)

Name: Christina Hearn  
Address: PO Box 1981, TPP 18  
City: Raleigh State: NC Zip Code: 27602-1981  
E-mail Address: christina.hearn@pgnmail.com Fax: 919-546-7175  
Telephone Number: 919-546-7661 Relationship to Owner: Employee

**Proposal**

**Max. allowable floor area ratio** (see applicable zoning district/use regulation): N/A

Proposed total floor area: 391.13 sf Proposed floor area ratio (floor area/site area): N/A

**Max. allowable impervious surface coverage** (see applicable zoning district/use regulation): 30 %

Proposed impervious surfaces area: 73,695 sf

Proposed impervious surface coverage (impervious surfaces area/site area x 100): 15.17 %

**Required transitional bufferyard types and depths (see Article 16):**

Front (30) 30 ft Left (30) 30 ft Right (30) 30 ft Rear (50) 50 ft

Proposed transitional bufferyard types and depths (see Article 16):

Front (30) 30 ft Left (30) 30 ft Right (30) 30 ft Rear (50) 50 ft

**Min. yard depths** (see applicable district/use regulation):

Front 50 ft Corner side 50 ft Side 100 ft Rear 50 ft

Proposed yard depths: Front 190 ft Corner side 150 ft Side 145 ft Rear 550 ft

**Max. building height** (see applicable district/use regulation): 35 ft

Proposed building height: 10'-4" ft max

**Min. parking space standard** (see Article 15): N/A spaces per N/A

Min. no. of parking spaces: N/A Proposed no. of parking spaces N/A

Number of employees: 1 Hours of operation: 1 hour once per month

**Vehicular Access:**

Names of access street(s) and number of access points along each: Carr-Pur Drive, 1

Name of access or adjacent street	Right-of-way width (ft)	Pavement width (ft)	No. of lanes	Paved? (Y or N)	Roadway design capacity <sup>1</sup>	Traffic volume (ADT) <sup>2</sup>	Est. traffic generated (ADT) <sup>3</sup>
<u>Carr Pur Drive</u>	<u>50</u>	<u>24</u>	<u>2</u>	<u>N</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

<sup>1</sup> See NCDOT Highway Capacity Manual or most recent Wake County Thoroughfare Plan Appendix

<sup>2</sup> See CAMPO web site (www.raleigh-nc.org/campo) or NCDOT Traffic Survey Unit

<sup>3</sup> Base on Institute of Transportation Engineers ratios - ratio used for estimate (e.g., x trips per y sf) \_\_\_\_\_

Estimated traffic generated by heavy vehicles (vehicles other than automobiles and light trucks):

Type of vehicle: N/A ADT: \_\_\_\_\_

Type of vehicle: \_\_\_\_\_ ADT: \_\_\_\_\_

**Utilities and Services:**

Water supply provided by: ( ) municipal system: N/A

( ) community system – specify type: N/A ( ) individual well(s)

Est. total water demand: N/A gpd

Wastewater collection/treatment provided by: ( ) municipal system: N/A

( ) community system – specify type: N/A

( ) individual on-site system

Est. total wastewater discharge: N/A gpd

Solid waste collection provided by: N/A

Electrical service provided by: direct tap inside substation Underground ( ) yes ( ) no

Natural gas service provided by: N/A

Telephone service provided by: N/A Underground ( ) yes ( ) no

Cable television service provided by: N/A Underground ( ) yes ( ) no

Fire protection provided by: Wake County

**Miscellaneous:**

Generalized slope of site: 20%

Valuable natural features (rare plant community, wildlife habitat, lake, stream, geology, etc.) on or adjoining site: Stream, small wetlands community on site; industrial, railroad adjoining site

Valuable historic resources (homestead, mill, archeological site) on or adjoining site: None

**Land Use Plan Classifications**

General Classification (note associated municipality and/or watershed):

( ) Short-Range Urban Services Area/Water Supply Watershed \_\_\_\_\_

() Short-Range Urban Services Area Fuquay-Varina

( ) Long-Range Urban Services Area/Water Supply Watershed \_\_\_\_\_

( ) Long-Range Urban Services Area \_\_\_\_\_

( ) Non-Urban Area/Water Supply Watershed \_\_\_\_\_

( ) Non-Urban Area

Land Use Classification(s) (Note Area Land Use Plan, if applicable):

Regional activity Center per Fuquay Varina/Garner Land Use Plan  
Short range urban services area of Fuquay Varina

**Applicant's statement of compliance** with county, municipal and joint Land Use Plans (How is proposal consistent with Land Use Plan objectives for planning area, Land Use classification, activity centers, locational standards and transitional urban development standards?)

Since this property does not front Fayetteville Road and substantial buffers and screening are included in this design, it is not anticipated that this development will have any negative impact on the land use plan for the Wake Tech Regional Activity Center.

**Other information** (additional relevant information about the site or proposal you wish to note or cite)

Due to the critical load growth experienced and ongoing in this immediate area, this project has been identified as a top priority by the Northern Distribution Region. A delay in this project could result in overloading of existing facilities next summer. Your assistance in expediting this approval process is greatly appreciated.

All property owners must sign this application unless one or more individuals are specifically authorized to act as an agent on behalf of the collective interest of some or all of the owners (provide a copy of such authorization).

The undersigned property owner(s) hereby authorize the filing of this application (and any subsequent revisions thereto). The filing of this application authorizes the Wake County staff to enter upon the site to conduct relevant site inspections as deemed necessary to process the application.

Signature: J. F. A. III Date: 9/22/08

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

The undersigned applicant hereby certifies that, to the best of his or her knowledge and belief, all information supplied with this application is true and accurate.

Signature: Christina Kearn Date: 9/22/2008

Notes: All documents and maps submitted as required become the property of Wake County. The Wake County Unified Development Ordinance is on the web at [www.wakegov.com](http://www.wakegov.com).

Project Tracking Form  
Board of Adjustment  
Special Use Permit/Variance/Appeal

Project Name & Request    Progress Energy Transformer station  
\_\_\_\_\_

Initial Submittal Date:    9/23/08  
\_\_\_\_\_

DRS Meeting Date:    11/13/08  
\_\_\_\_\_

DRS Comments Finalized & Distributed:    11/28/08  
\_\_\_\_\_

Revised Application Submittal Date:    12/5/08  
\_\_\_\_\_

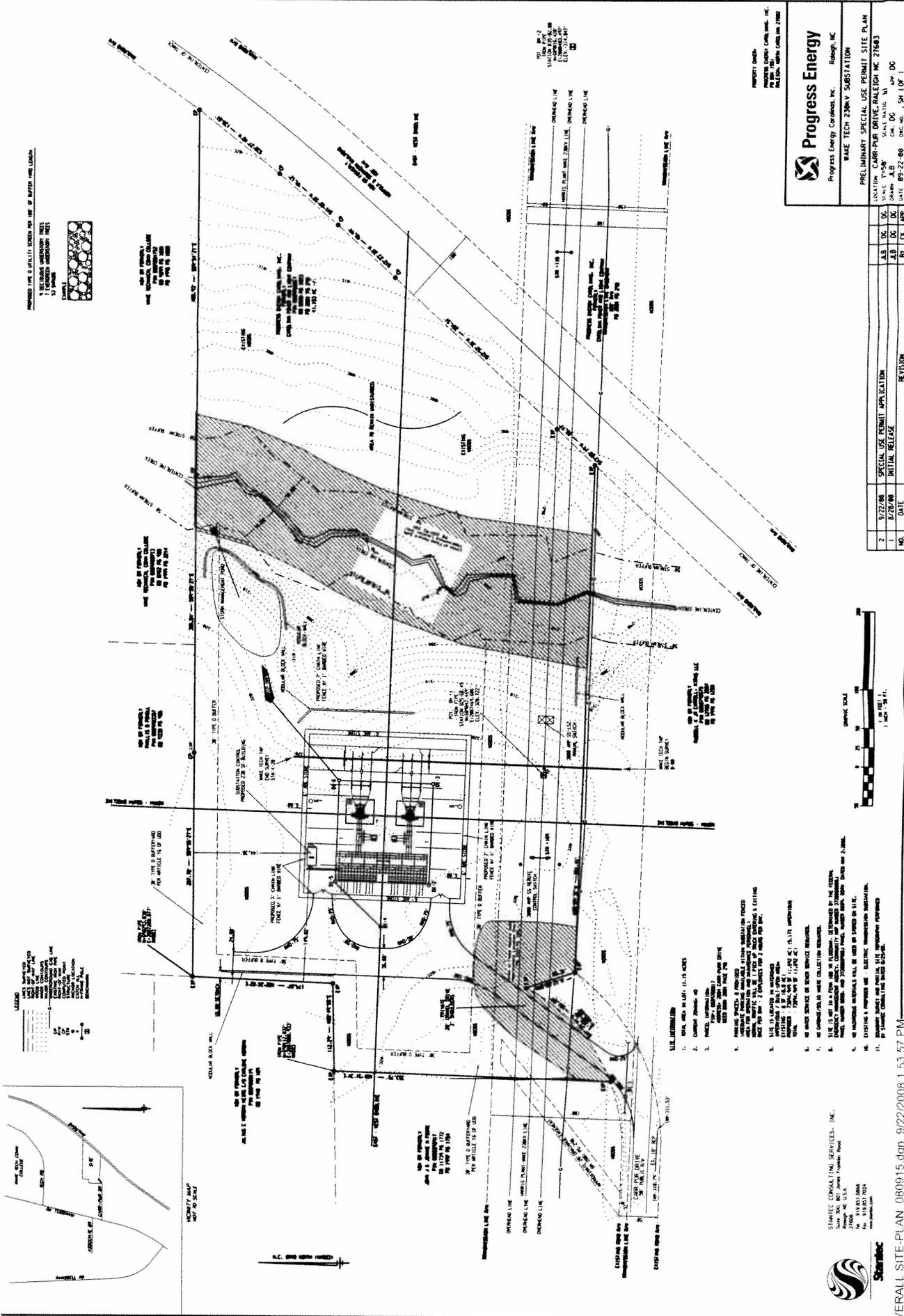
Board of Adjustment Meeting Date(s):    2/10/09  
\_\_\_\_\_

Wake County Special Use Permit  
Statement of Justification  
Progress Energy Carolinas Wake Tech 230kV Substation

To serve the growing electric power requirements of the area, Progress Energy Carolinas proposes to construct the new Wake Tech 230kV Substation. The proposed substation will be fenced using 7' chain link fence topped with three strands of barbed wire to restrict access by the public. This construction will be in full compliance with all NESC and NEC code requirements and construction activity will follow all applicable OSHA guidelines. The site improvements will be developed to meet all NC DENR requirements for erosion and sedimentation control and NC DWQ requirements for NPDES Phase II Stormwater, in addition to Wake County Planning requirements. Design guidelines set forth in the Wake County Unified Development Ordinance will be followed to ensure compliance with all applicable regulations and standards.

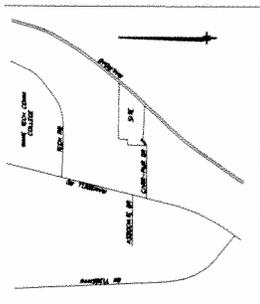
The proposed substation will be similar in size and use to other Progress Energy facilities in the area, such as the Fuquay Bells Lake 230kV Substation located on Bells Lake Road between Optimist Farm Road and Johnson Pond Road. The actual substation will be located to maximize screening and distance from adjacent properties, with a minimum of 145 feet of buffer between any property line and the fenced substation area. There will be no impact to the traffic flow in the area, since the substation will only be visited by maintenance personnel during monthly inspections. Therefore, it is not anticipated that the proposed facility will have any impact on adjacent property values or uses. Since this property does not front Fayetteville Road, and substantial buffers and screening are included in this design, it is not anticipated that this development will have any negative impact on the Land Use Plan for a Wake Tech Regional Activity Center.

Due to the critical load growth experienced and ongoing in this immediate area, this project has been identified as a top priority by the Northern Distribution Region. A delay in this project could result in overloading of existing facilities next summer. Your assistance in expediting this approval process is greatly appreciated.



PROPOSED LINE & STRUCTURE SCREEN FOR LINE OF BUFFER ZONE LOCATION  
 1. EXISTING UNDERGROUND LINE  
 2. PROPOSED UNDERGROUND LINE  
 3. EXISTING OVERHEAD LINE  
 4. PROPOSED OVERHEAD LINE  
 5. EXISTING STRUCTURE  
 6. PROPOSED STRUCTURE  
 7. EXISTING VEGETATION  
 8. PROPOSED VEGETATION

LEGEND  
 1. EXISTING UNDERGROUND LINE  
 2. PROPOSED UNDERGROUND LINE  
 3. EXISTING OVERHEAD LINE  
 4. PROPOSED OVERHEAD LINE  
 5. EXISTING STRUCTURE  
 6. PROPOSED STRUCTURE  
 7. EXISTING VEGETATION  
 8. PROPOSED VEGETATION



- NOTES:
1. ALL DIMENSIONS ARE IN FEET - (11.73 METERS)
  2. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED
  3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED
  4. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED
  5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED
  6. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED
  7. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED
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  9. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED
  10. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED
  11. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED
  12. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED

**Progress Energy**  
 Progress Energy Corporation, Inc. Raleigh, NC

WME TEDI 230KV SUBSTATION  
 PRELIMINARY SPECIAL USE PERMIT SITE PLAN  
 LOCATION: CARRIAGE DRIVE, WAKE COUNTY, NC 27683  
 SCALE: 1"=50'  
 DATE: 09-22-08  
 DRAWN BY: J.B. D.C.  
 CHECKED BY: J.B. D.C.  
 APPROVED BY: J.B. D.C.

NO.	DATE	REVISION
1	8/20/08	INITIAL RELEASE
2	9/22/08	SPECIAL USE PERMIT APPLICATION
		A.B. D.C.
		J.B. D.C.
		B.T. D.C.

**Stantec**  
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