

## Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	U-5968
WBS Element	45982.1.1
Federal Project No.	STBG-0505 (084)

A. Project Description:

This project proposes to upgrade the traffic signal system in Durham. The project includes new fiber optic communications cables, new traffic signal cabinets and controllers, as well as the addition of multiple closed-circuit television (CCTV) cameras.

The Durham Traffic Signal System project includes replacing signal cabinets for over 400 signals and the installation of 101 new CCTV cameras throughout the city in existing NCDOT right-of-way. A total of 111 CCTV camera sites have been investigated to allow for contingency locations. Of the 111 CCTV camera sites, 102 will be on existing poles (or new poles in the same location), five will be on new poles, five will be on 60-foot replacement poles, and four will be placed on poles proposed to be constructed as part of other ongoing transportation projects. In addition, 37 of the signal cabinets will be moved from a pole mounted location to a base mounted location. Six of these cabinets and one existing base mounted signal cabinet will be relocated to a new quadrant at the same intersection. One existing decorated cabinet will be replaced with a standard cabinet. The existing cabinet will be returned to the City of Durham to be re-purposed, and the new cabinet will be decorated within the first year. Any new fiber optic cable will be installed underground in conduit or on existing aerial utility lines. All work is anticipated to be within existing NCDOT right-of-way. The current construction cost estimate is \$22 million.

B. Description of Need and Purpose:

The current traffic signal timing system in the City of Durham is aging and faulty. The purpose of this project is to address facility deficiencies in the City of Durham signal system and improve the traffic signal timing and coordination with new fiber-optic cables and a modern Ethernet-based network.

C. Categorical Exclusion Action Classification:



TYPE I A

D. Proposed Improvements

8. Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.

E. Special Project Information:

An informational flyer was distributed to the public in November 2017 that provided an overview of the purpose, components, and timeline of the project as well as contact information for the project team. No questions or comments were received from the community.

F. Project Impact Criteria Checklists:

<u>Type I &amp; II - Ground Disturbing Actions</u>			
<u>FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA</u>			
If any of questions 1-7 are marked "yes" then the CE will require FHWA approval.		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.			
<u>Other Considerations</u>		Yes	No
8	Does the project result in a finding of "may affect not likely to adversely affect" for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Other Considerations (continued)</u>		Yes	No
15	Does the project involve hazardous materials and/or landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT's Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### G. Additional Documentation as Required from Section F

In a response letter from the NC State Historic Preservation Office dated April 12, 2018, it was stated that the project as proposed will not adversely affect historic properties and that it is unlikely any archaeological resources that may be eligible for inclusion in the National Register of Historic Places will be affected by the project. Additional information regarding proposed movements of signal cabinets and proposed placement and replacement of CCTV poles were provided to NCDOT in July 2018. NCDOT concluded that "there are no historic properties present or affected by this project" in July 2018, and that an archaeological survey is not required in August 2018.

Figure 1 shows the location of new fiber links, signal hubs, and map extents of Figures 2-1 through 2-30. Figures 2-1 through 2-30 illustrate the location of new cameras and relocated signal control cabinets in the vicinity of known historic resources, based on the current NC Historic Preservation Office shapefiles (March 2018), downloaded from the State Historic Preservation Office website. On these figures, each site is labeled as “existing pole” (18 sites), “new pole” (1 site), “proposed pole – other project” (2 sites), or “signal control cabinet moved” (10 sites). This indicates the level of new equipment that will be installed, within NCDOT right-of-way, in that location.



H. Project Commitments

**Durham County  
Durham Traffic Signal System Upgrade  
Federal Project No. STBG-0505 (084)  
WBS No. 45982.1.1  
TIP No. U-5968**

None

I. Categorical Exclusion Approval

STIP Project No.	<u>U-5968</u>
WBS Element	<u>45982.1.1</u>
Federal Project No.	<u>STBG-0505 (084)</u>

**Prepared By:**

8/31/2018

Date

DocuSigned by:

*Teresa Gresham, PE*

E67C04DDE5AA4DC

Teresa Gresham, PE  
Kimley-Horn and Associates

**Prepared For:**

City of Durham

**Reviewed By:**

8/31/2018

Date

DocuSigned by:

*Sherry Yow*

A9FE059C5D8848B

Sherry Yow  
NCDOT ITS & Signals Management Section



**Approved**

If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.



**Certified**

If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.

8/31/2018

Date

DocuSigned by:

*J. R. Hopkins*

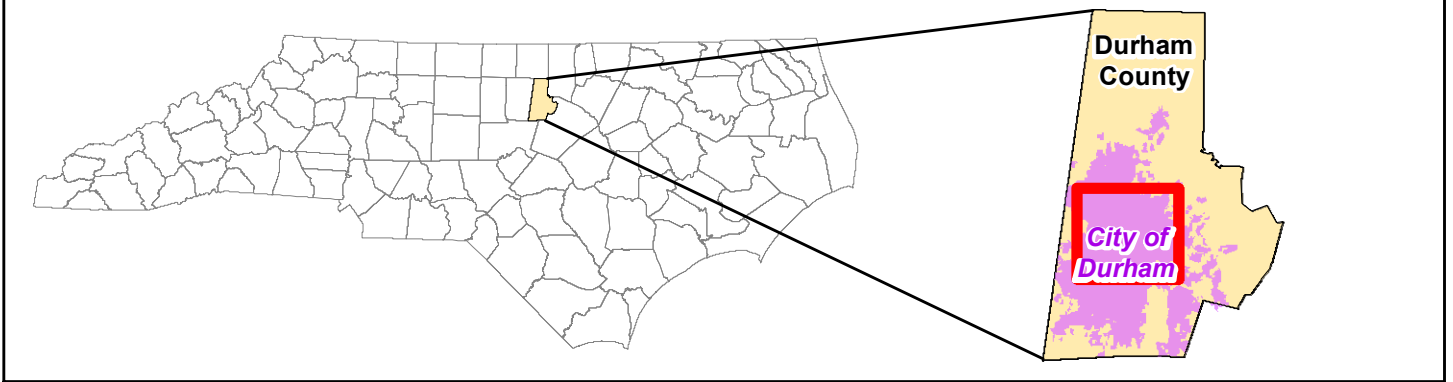
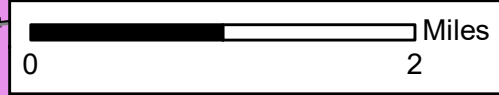
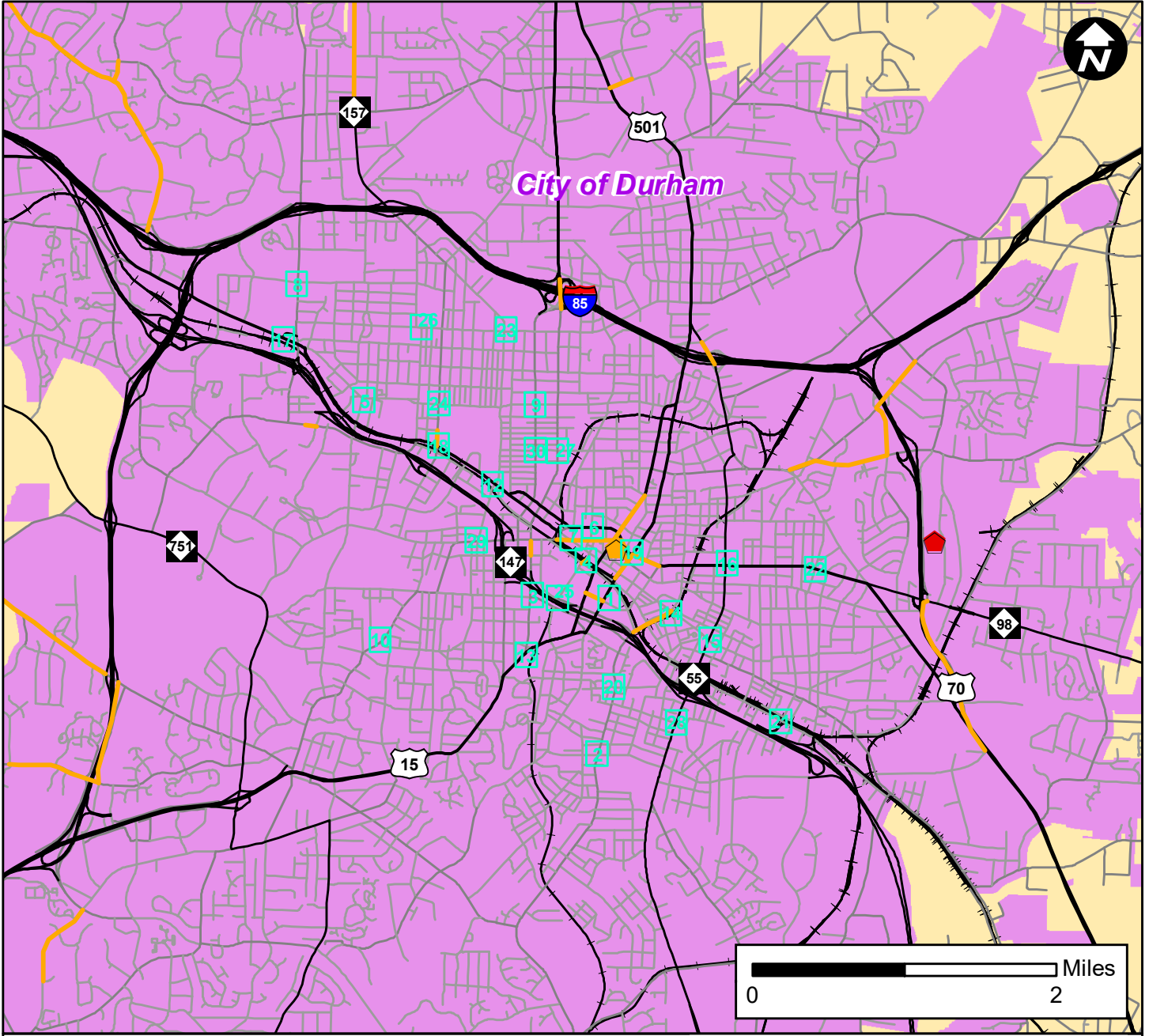
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Joey Hopkins, PE, Highway Division 5 Engineer  
North Carolina Department of Transportation

FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

Date

John F. Sullivan, III, PE, Division Administrator  
Federal Highway Administration

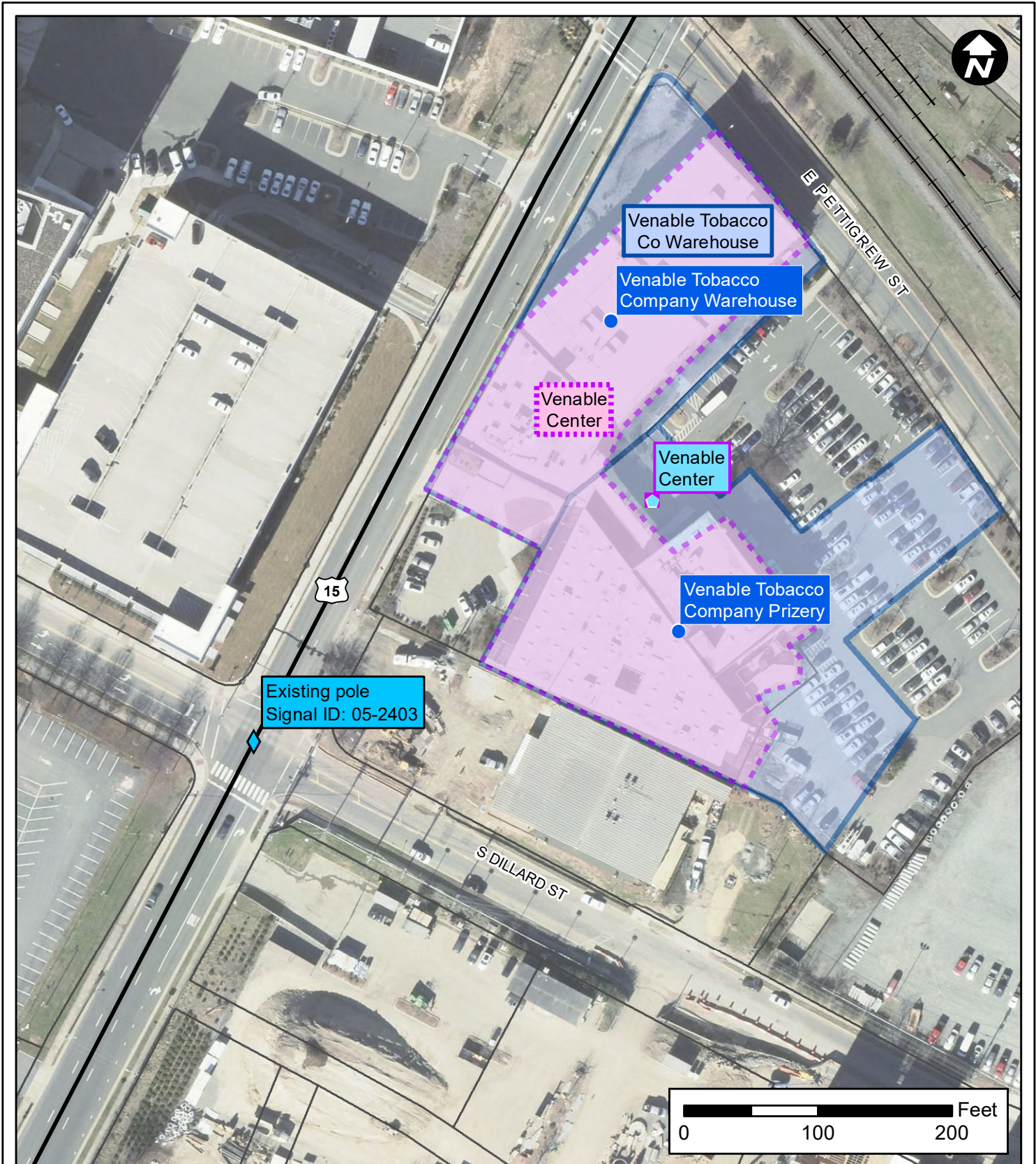


- City Hall Hub
- Signal Shop Hub
- Proposed Hub
- New Fiber Links
- Railroad
- City of Durham
- Durham County
- Figure 2 Locations

**Kimley»Horn**

**Figure 1: Vicinity Map**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
in City of Durham  
Durham County



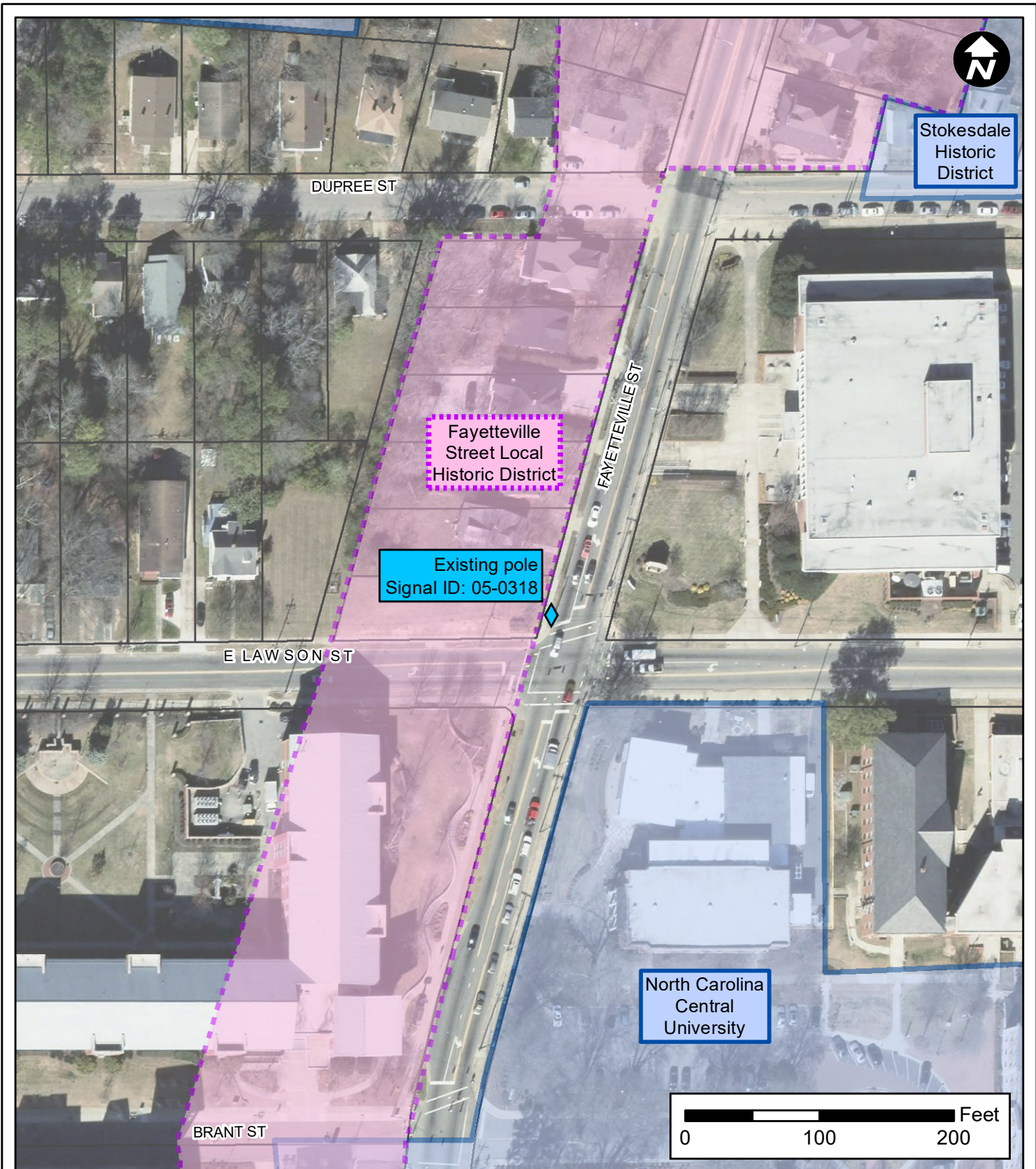


**Kimley»Horn**





- National Register Site
- Surveyed, Landmark, in NRHD
- ◆ Proposed CCTV
- Railroad
- Property Lines
- Local Historic District
- National Register District

**Figure 2-1:**  
**Environmental Features**  
 NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
 in City of Durham  
 Durham County



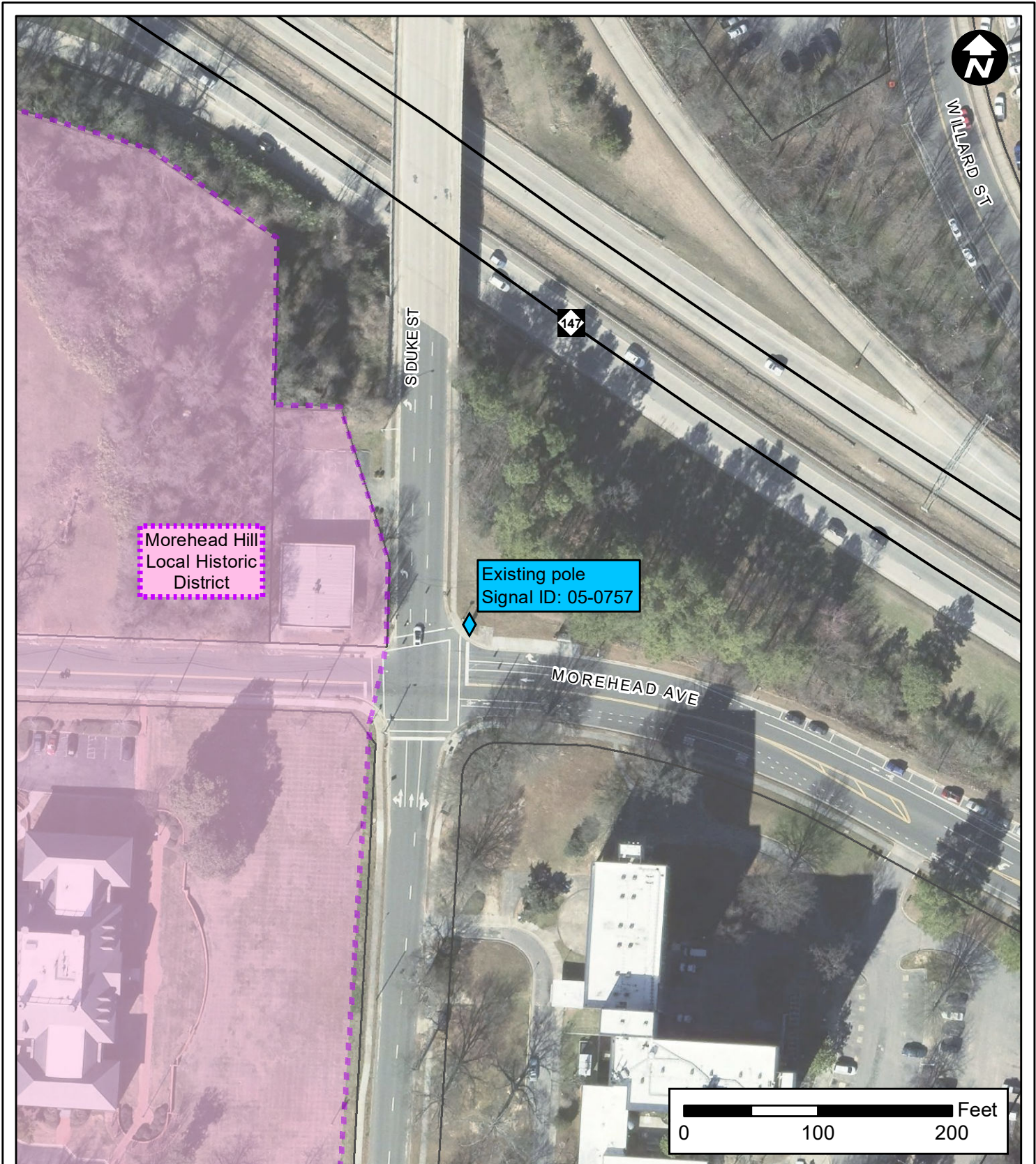





**Kimley»Horn**

-  Proposed CCTV
-  Property Lines
-  Local Historic District
-  National Register District

**Figure 2-2:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County

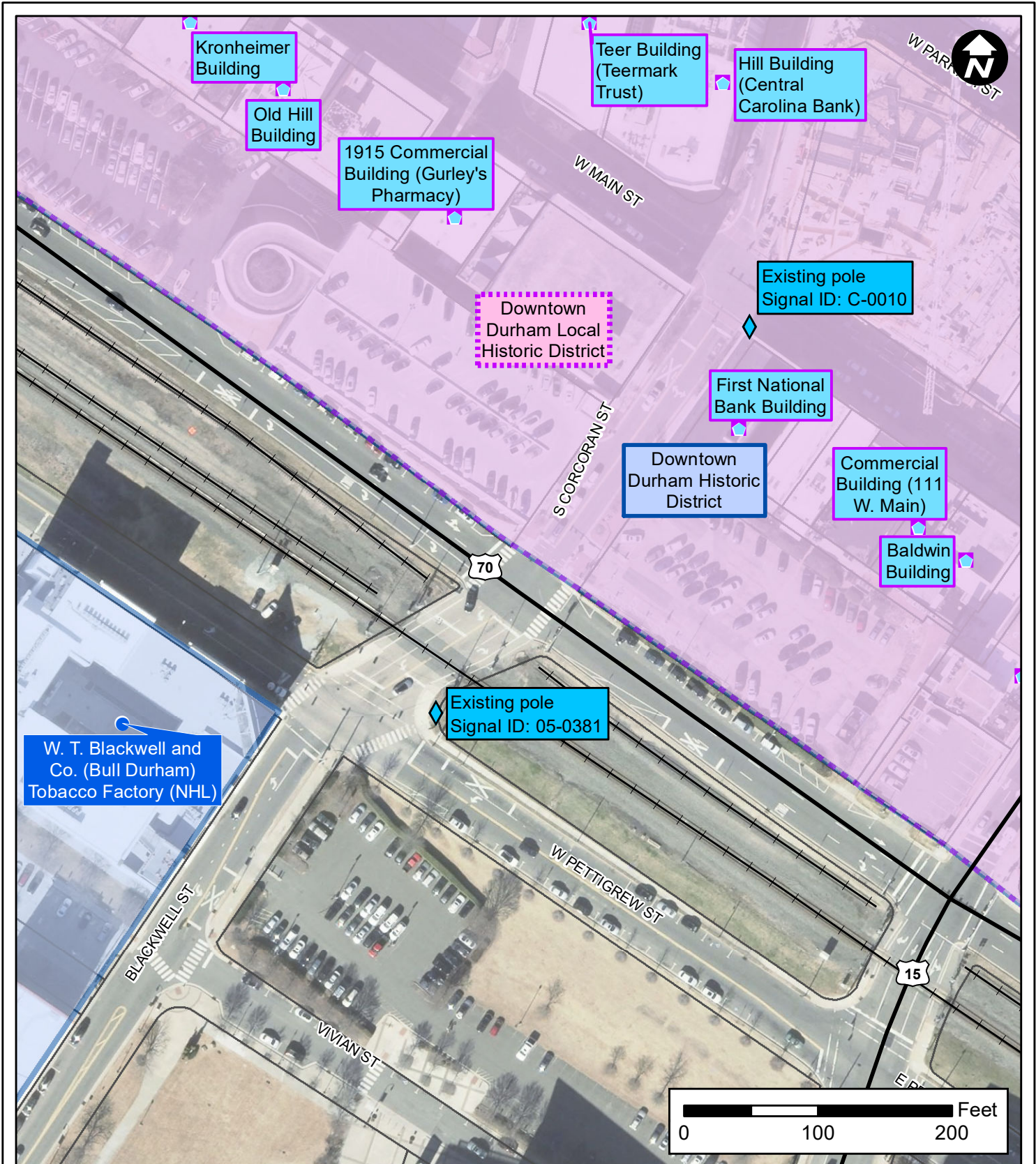




-  Proposed CCTV
-  Property Lines
-  Local Historic District

**Figure 2-3:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County





- National Register Site
- Surveyed, Landmark, in NRHD
- ◆ Proposed CCTV
- Railroad
- Property Lines
- ▨ Local Historic District
- ▭ National Register District

**Figure 2-4:**  
**Environmental Features**  
 NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
 in City of Durham  
 Durham County

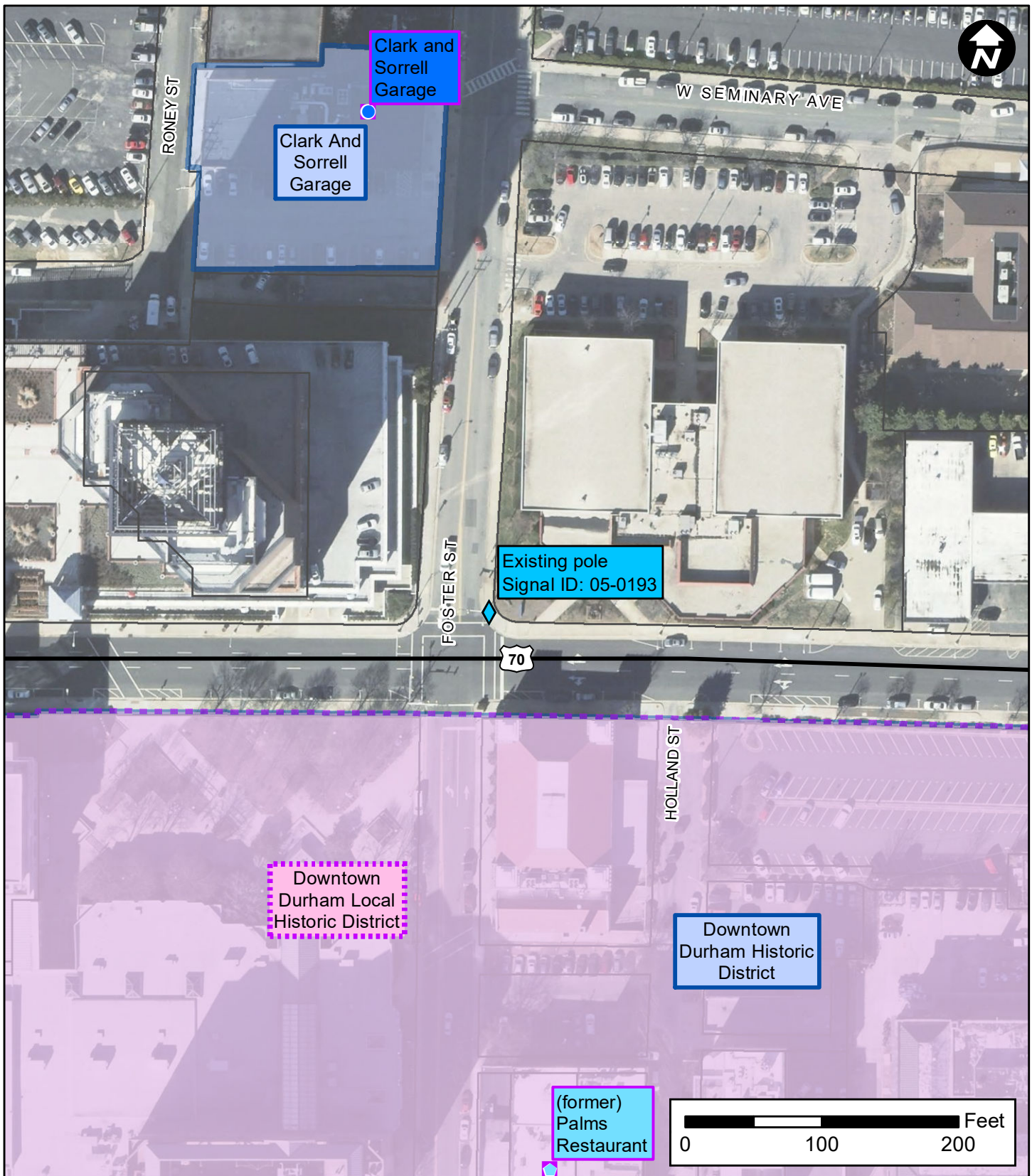




- ◆ Proposed CCTV
- Property Lines
- National Register District

**Figure 2-5:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County

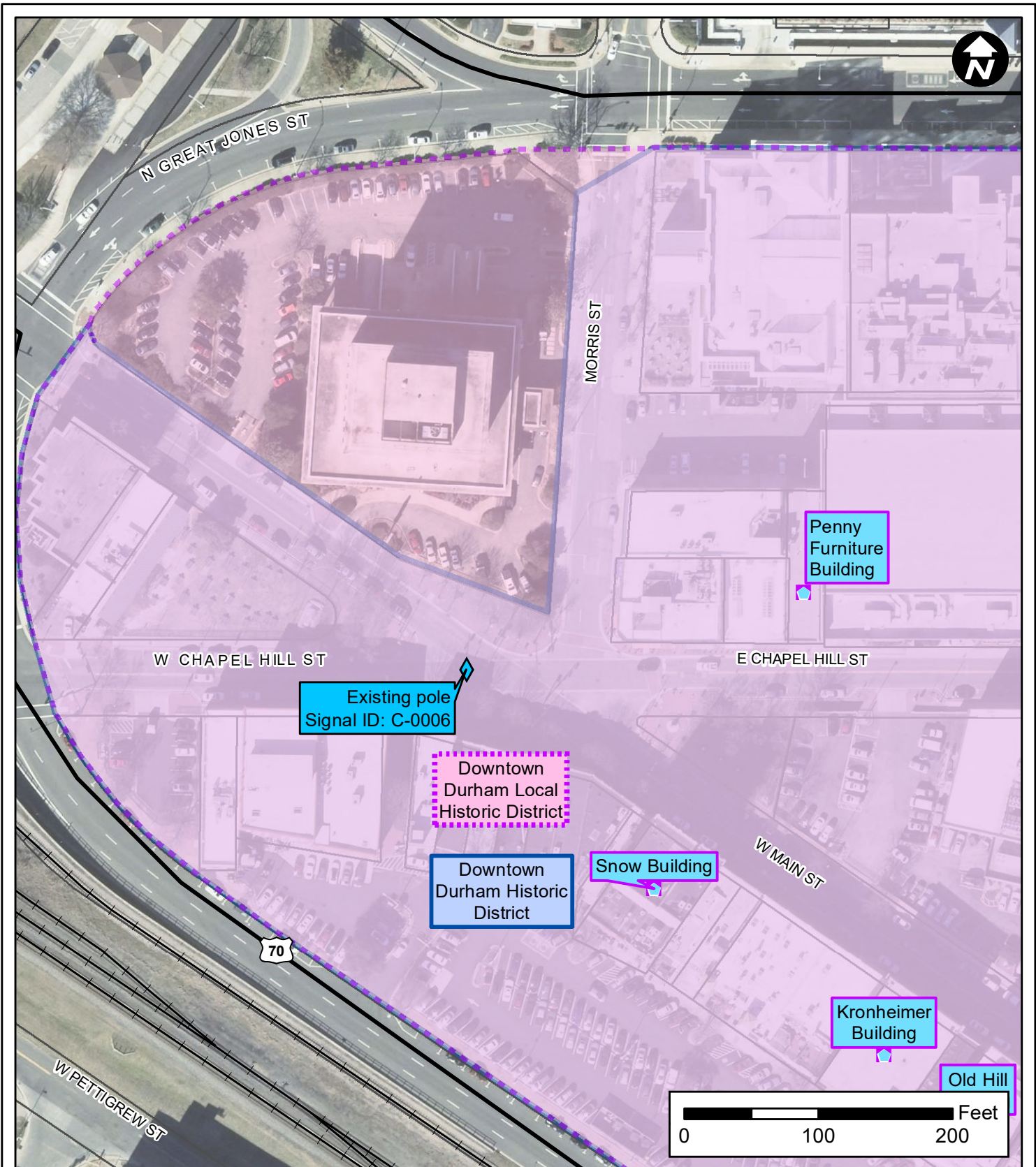




- NR and Local Landmark
- Surveyed, Landmark, in NRHD
- ◆ Proposed CCTV
- Property Lines
- Local Historic District
- National Register District

**Figure 2-6:**  
**Environmental Features**  
 NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
 in City of Durham  
 Durham County





**Kimley»Horn**

- ◆ Surveyed, Landmark, in NRHD
- ◆ Local Historic District
- ◆ Proposed CCTV
- ◆ National Register District
- + Railroad
- Property Lines

**Figure 2-7:**  
**Environmental Features**  
 NCDOT Project No. U-5968  
 Upgrade ITS / Signal System  
 in City of Durham  
 Durham County





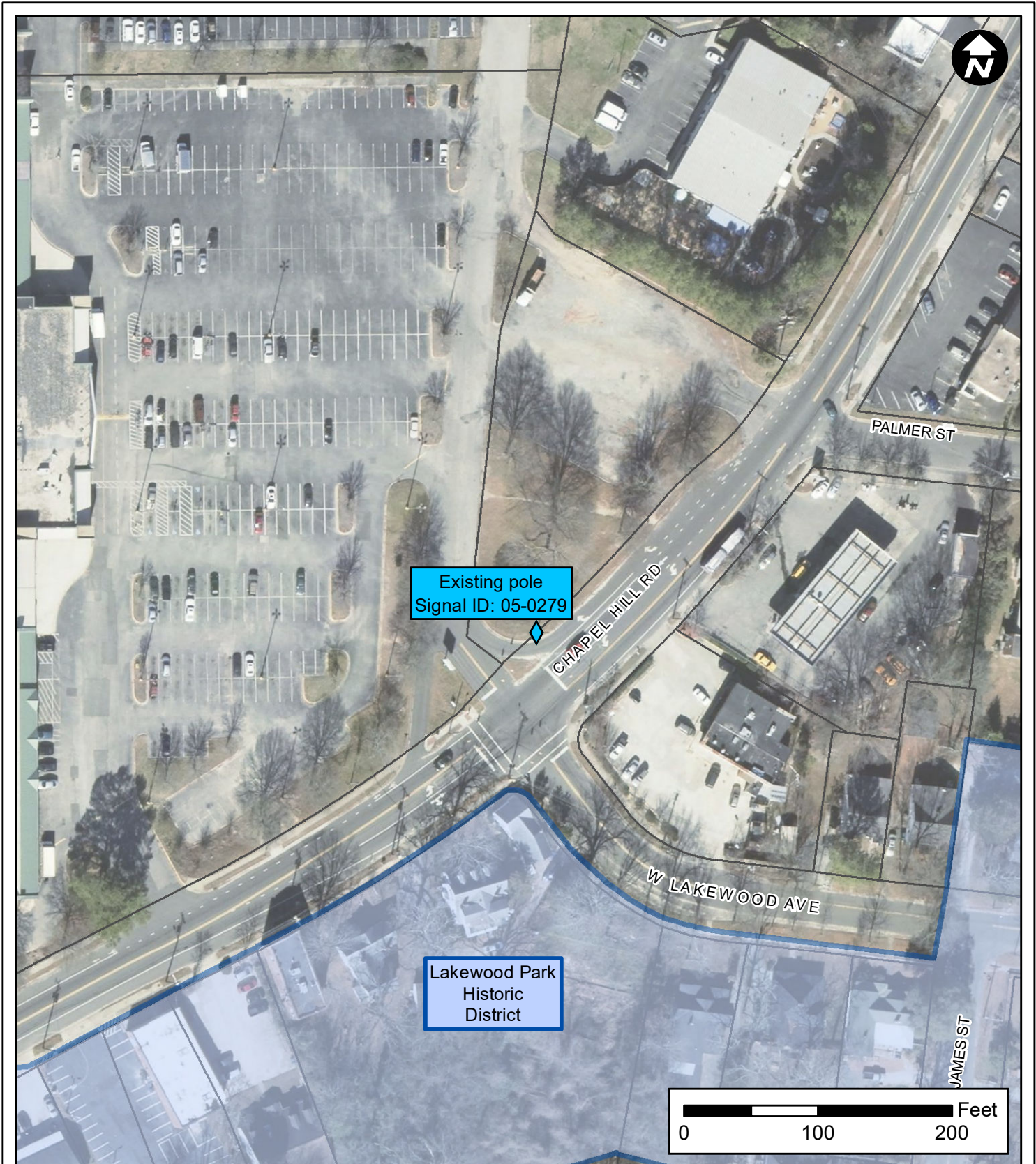
- ◆ Proposed CCTV
- Stream
- Property Lines
- ▨ Local Historic District
- ▨ National Register District

**Figure 2-8:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System  
in City of Durham  
Durham County*





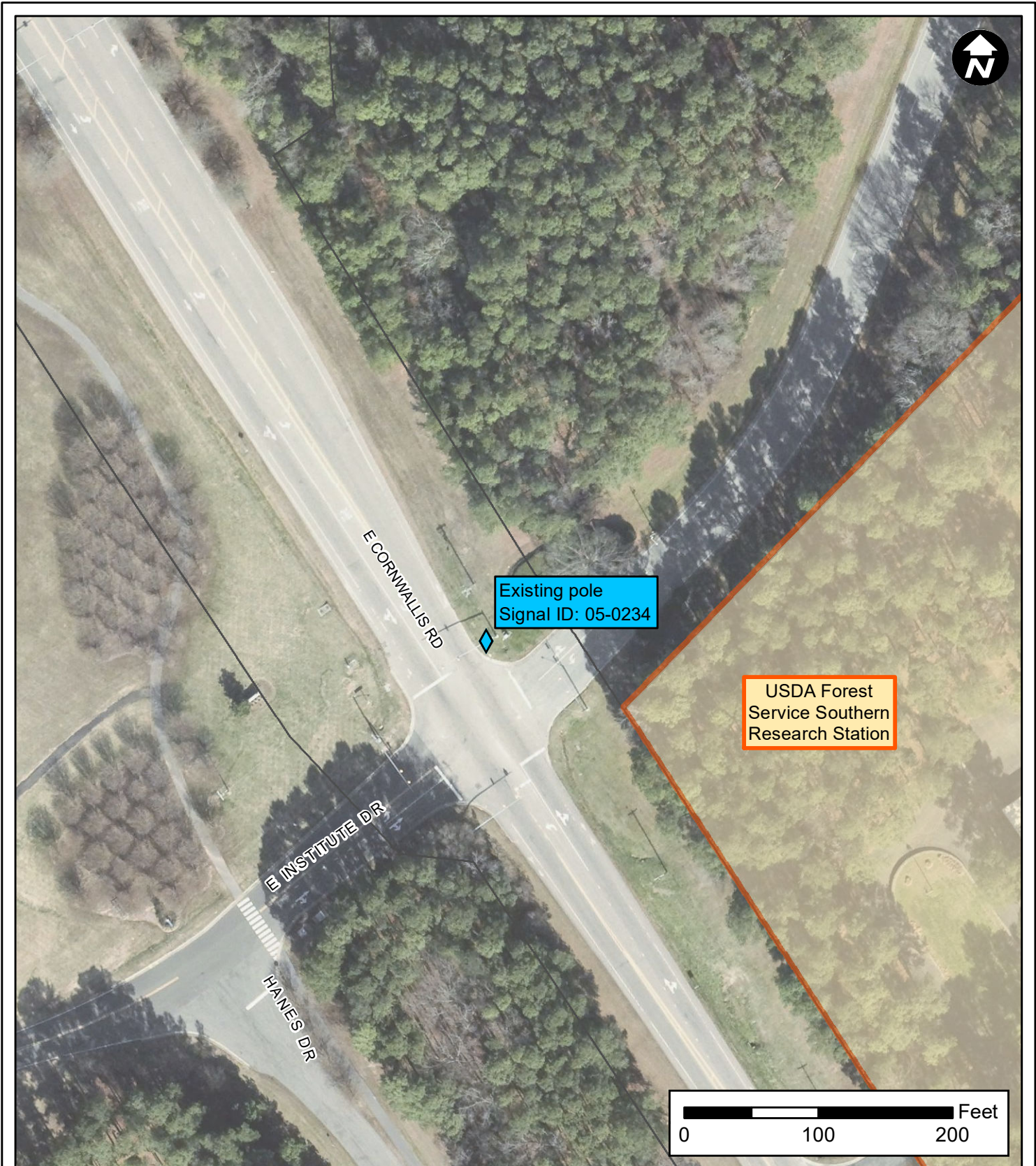







- ◆ Proposed CCTV
- Property Lines
- ▭ National Register District

**Figure 2-10:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County





-  Proposed CCTV
-  Property Lines
-  Determined Eligible District

**Figure 2-11:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County

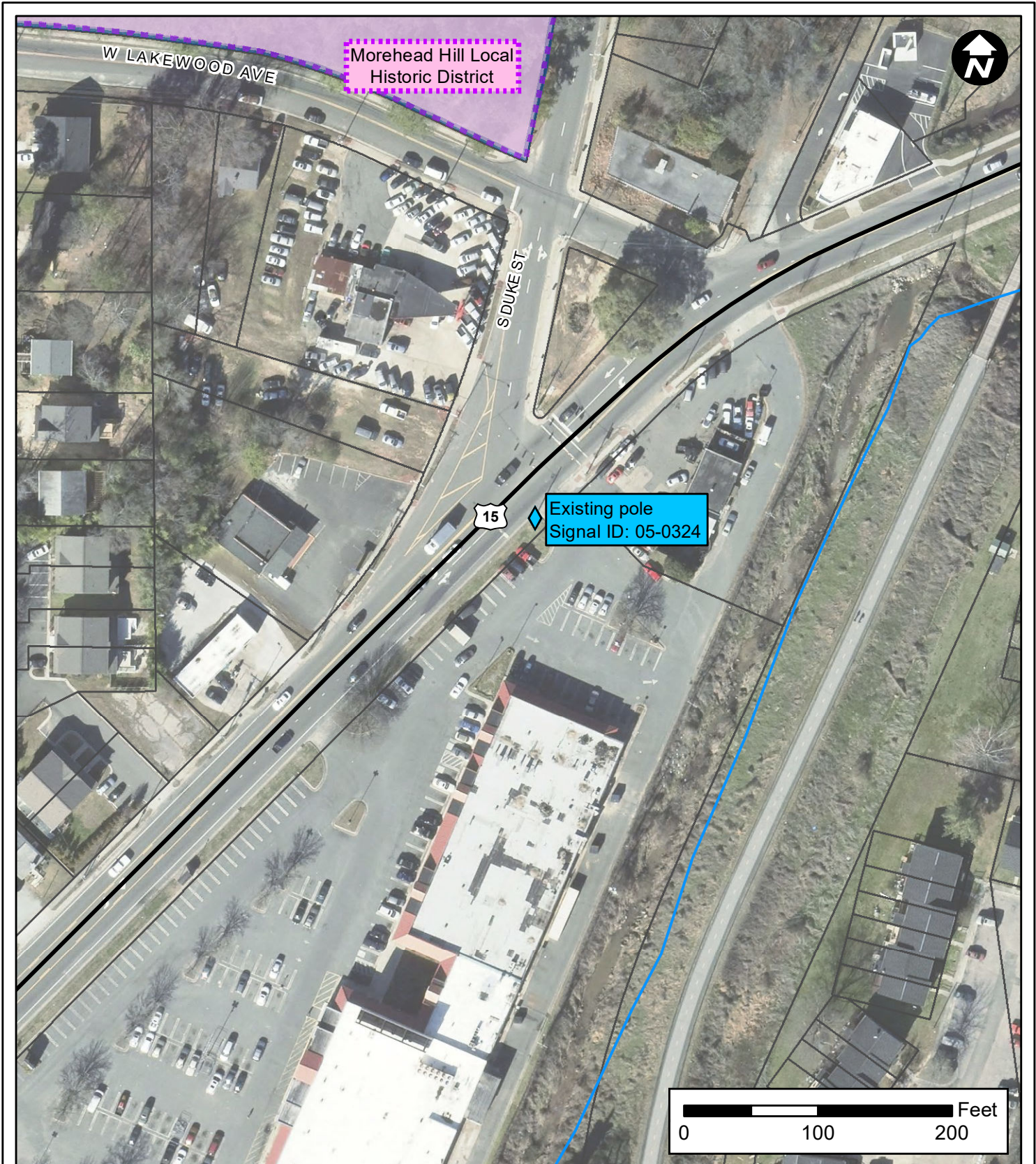









- ◆ Proposed CCTV
- + Railroad
- Property Lines
- National Register District
- Study List and Determined Eligible District

**Figure 2-12:**  
**Environmental Features**  
 NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
 Durham County

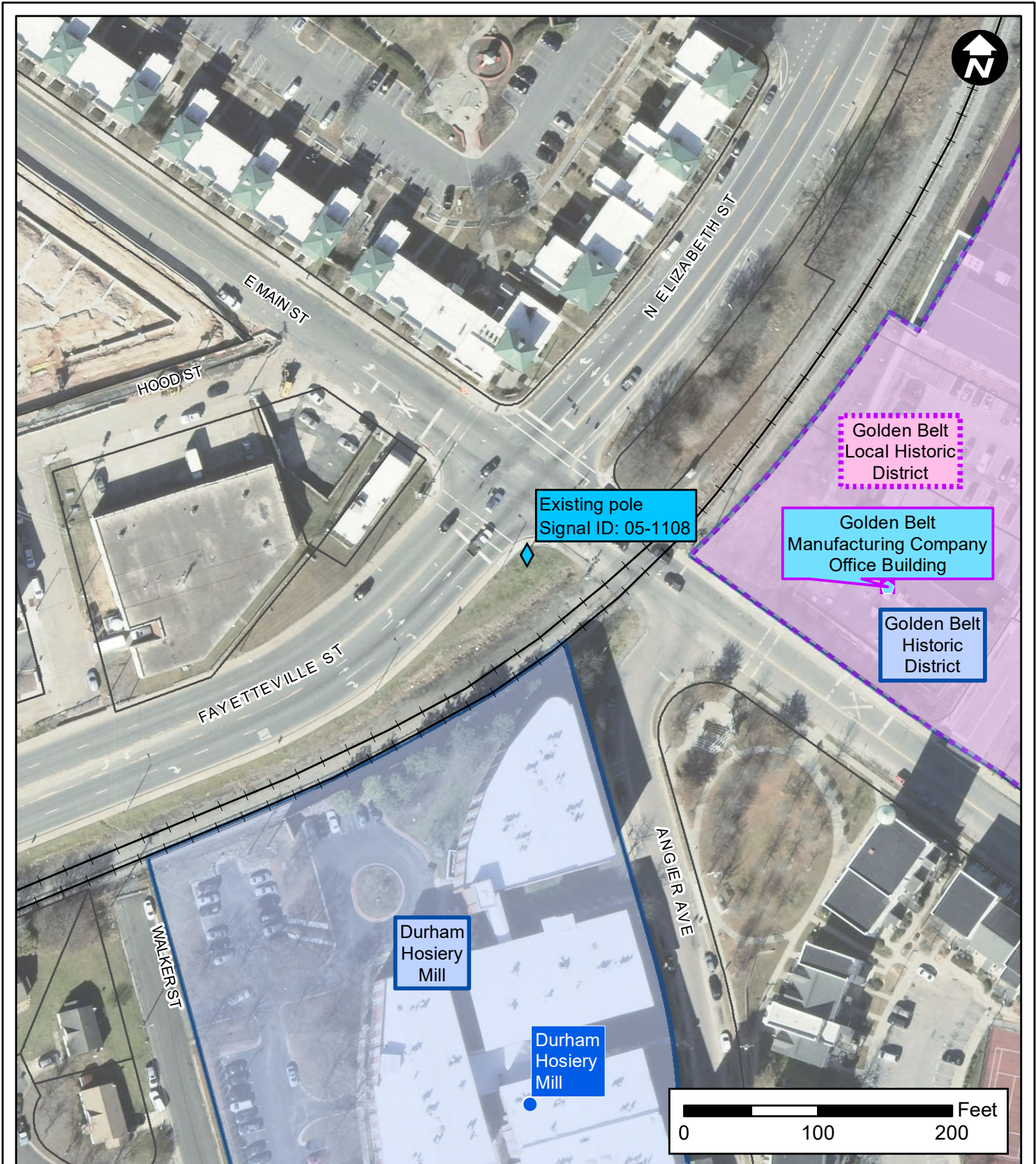




-  Proposed CCTV
-  Cape Fear Stream
-  Property Lines
-  Local Historic District
-  National Register District

**Figure 2-13:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County



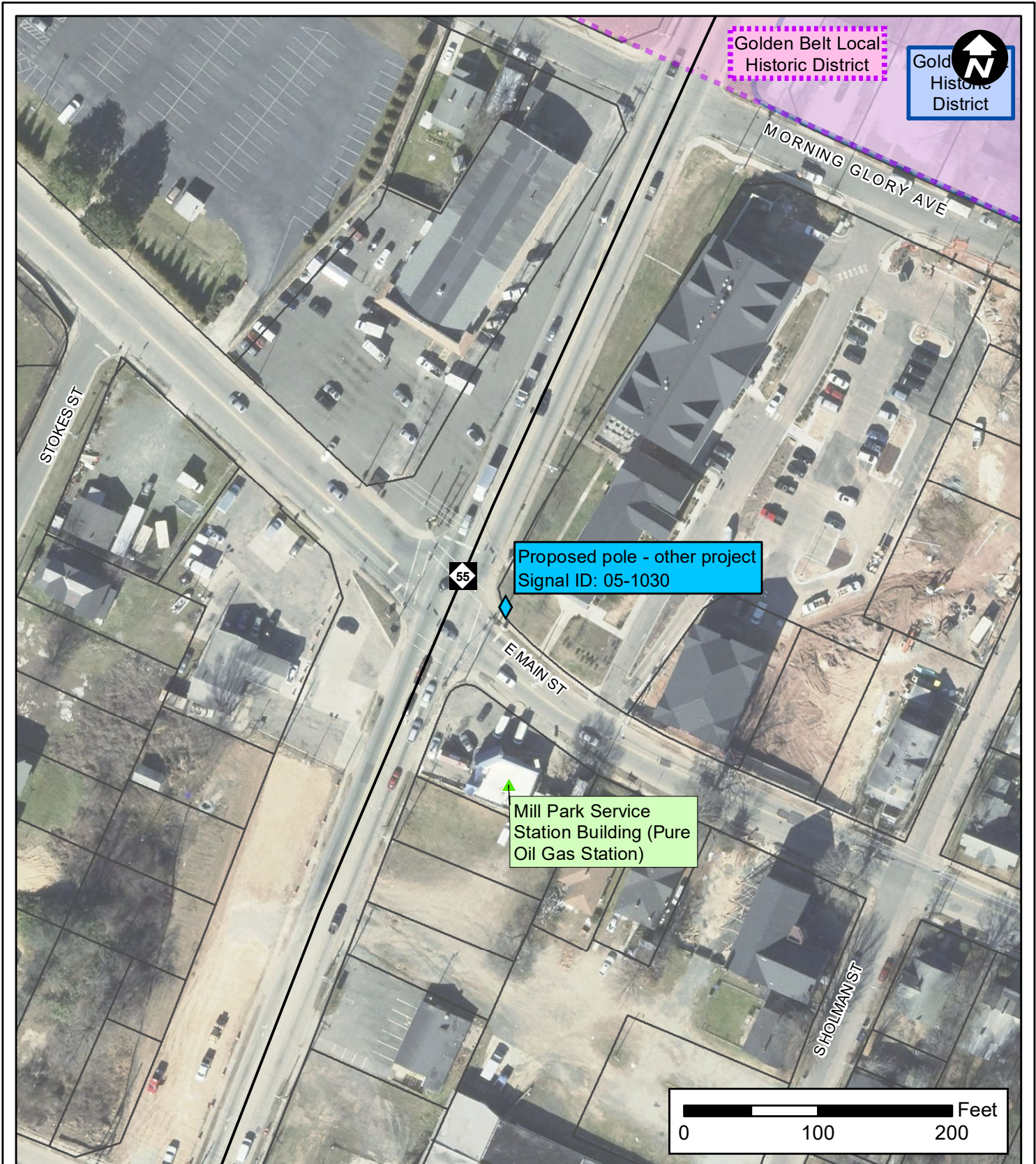


**Kimley»Horn**

- National Register Site
- ◻ Property Lines
- ◻ Surveyed, Landmark, in NRHD
- ◻ Local Historic District
- ◻ Proposed CCTV
- ◻ National Register District
- Railroad

**Figure 2-14:**  
**Environmental Features**  
 NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
 in City of Durham  
 Durham County



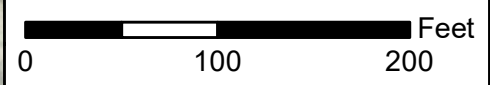


Golden Belt Local Historic District



Proposed pole - other project  
Signal ID: 05-1030

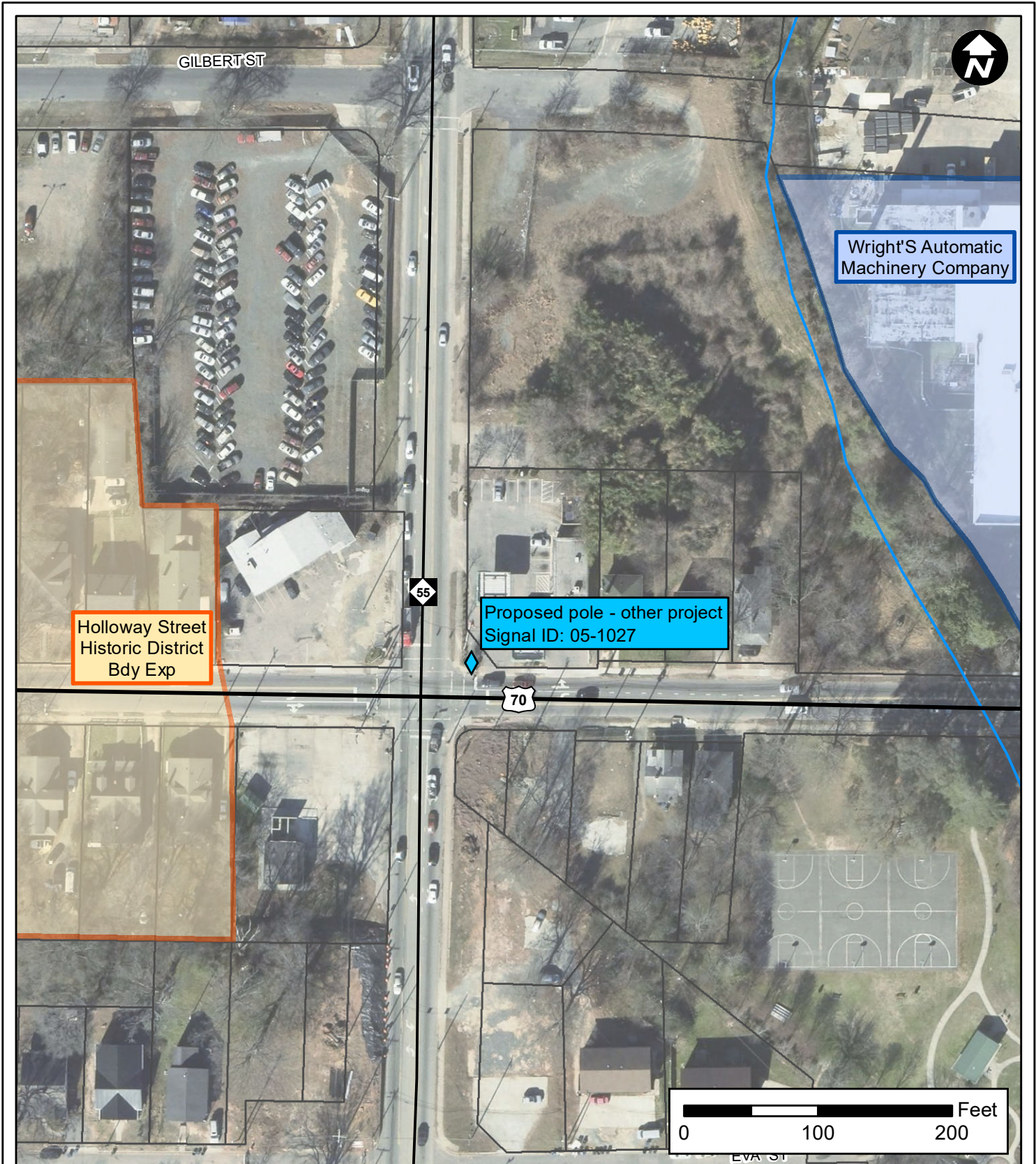
Mill Park Service  
Station Building (Pure  
Oil Gas Station)



- ▲ SL and DOE
- ◆ Proposed CCTV
- ▭ Property Lines
- Local Historic District
- National Register District

**Figure 2-15:**  
**Environmental Features**  
 NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
 Durham County

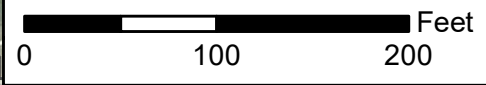









Holloway Street  
Historic District  
Bdy Exp

Proposed pole - other project  
Signal ID: 05-1027

Wright's Automatic  
Machinery Company

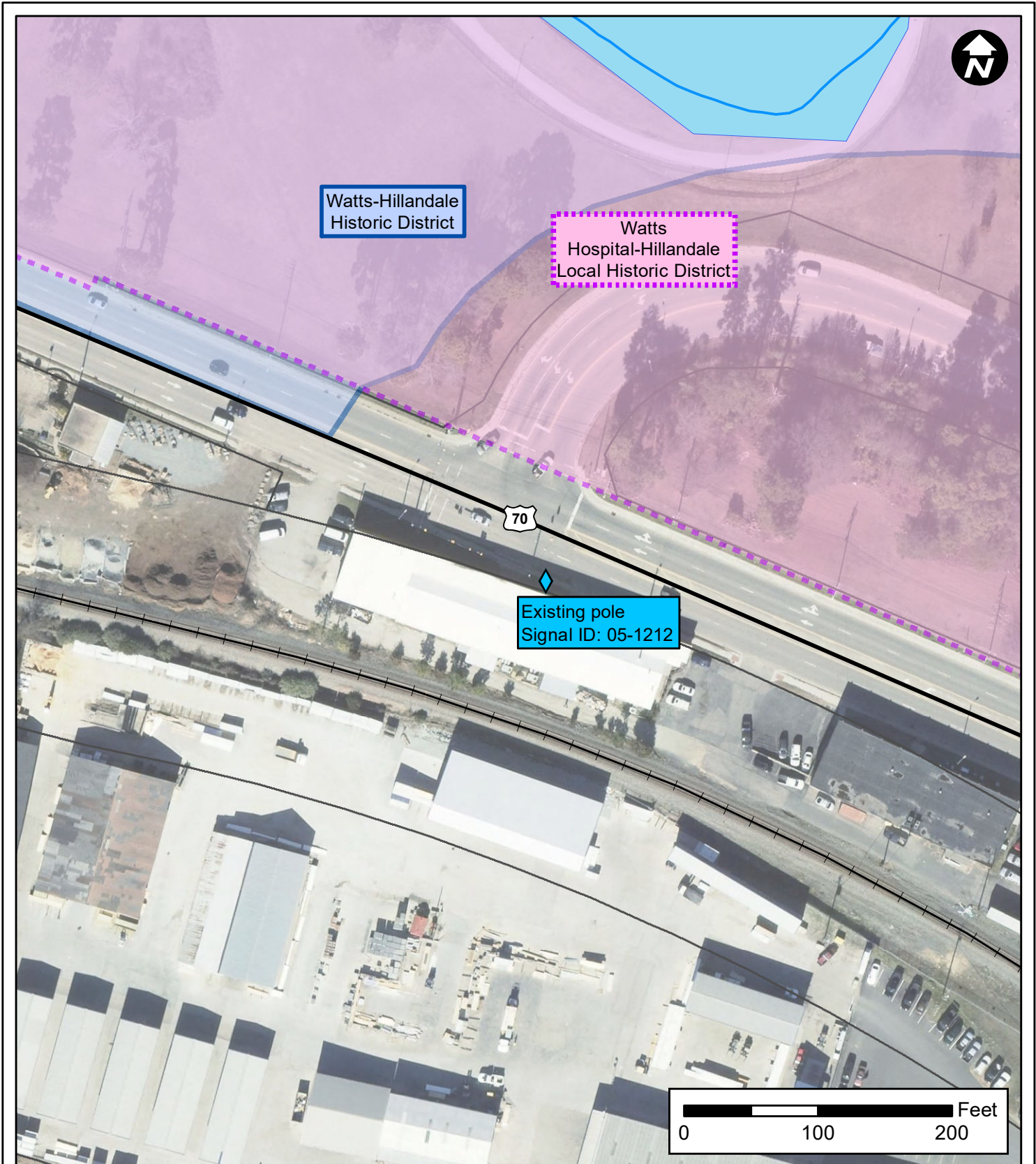


**Kimley»Horn**

-  Proposed CCTV
-  Stream
-  Property Lines
-  National Register District
-  Determined Eligible District

**Figure 2-16:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County

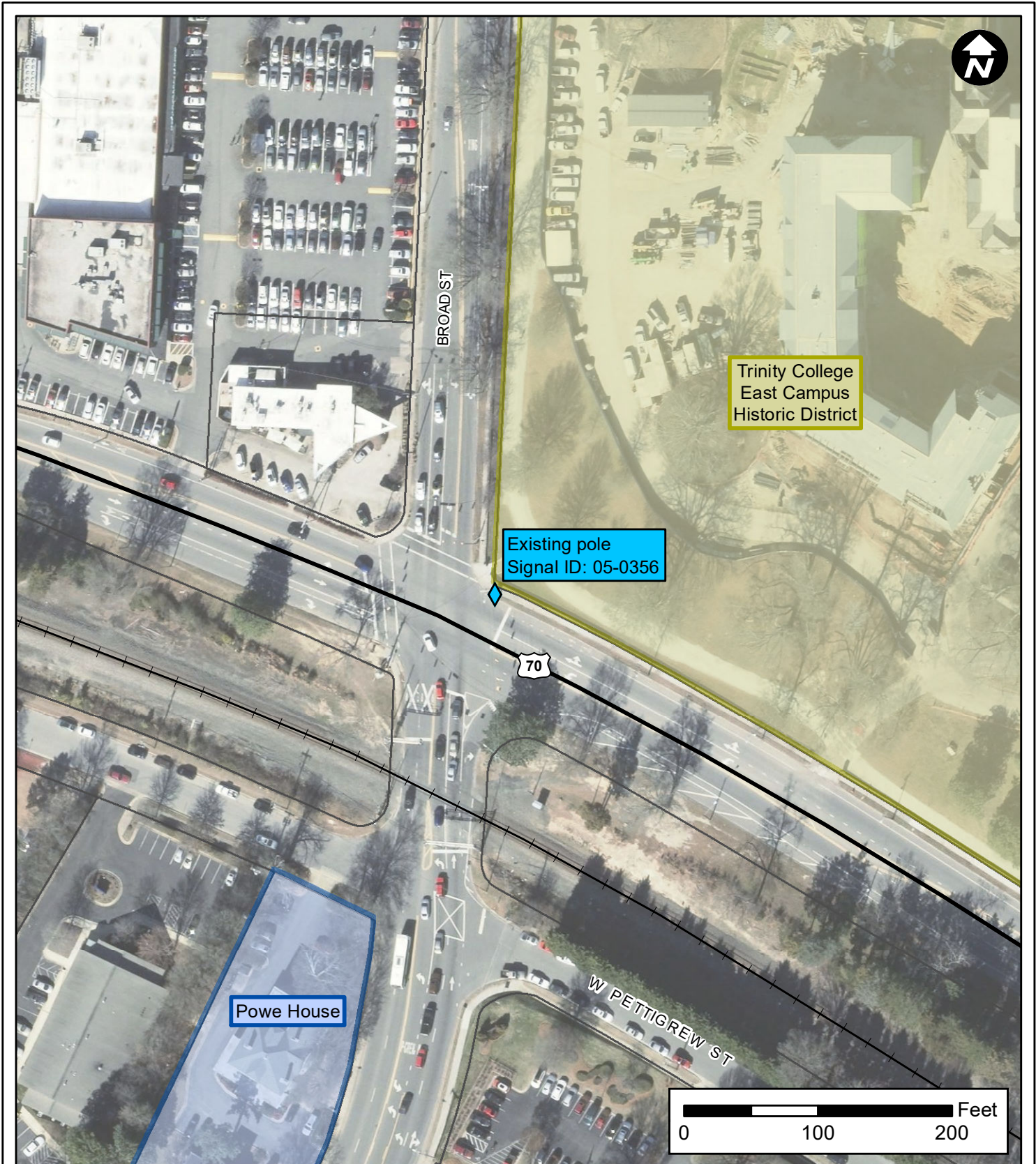









- ◆ Proposed CCTV
- Railroad
- Stream
- Freshwater Pond (NW1)
- Property Lines
- Local Historic District
- National Register District

**Figure 2-17:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
in City of Durham  
Durham County

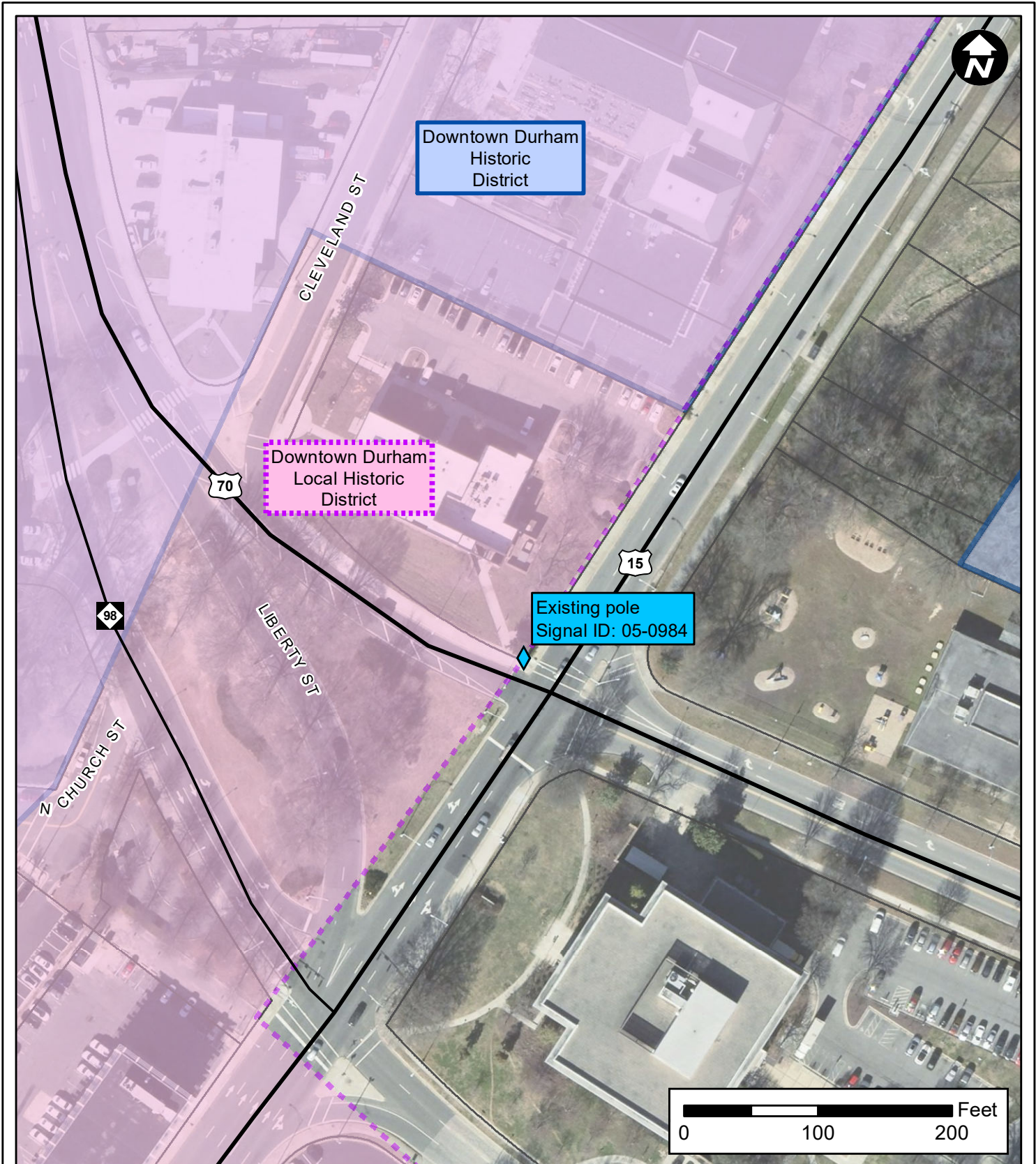








-  Proposed CCTV
-  Railroad
-  Property Lines
-  National Register District
-  Study List and Determined Eligible District

**Figure 2-18:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County

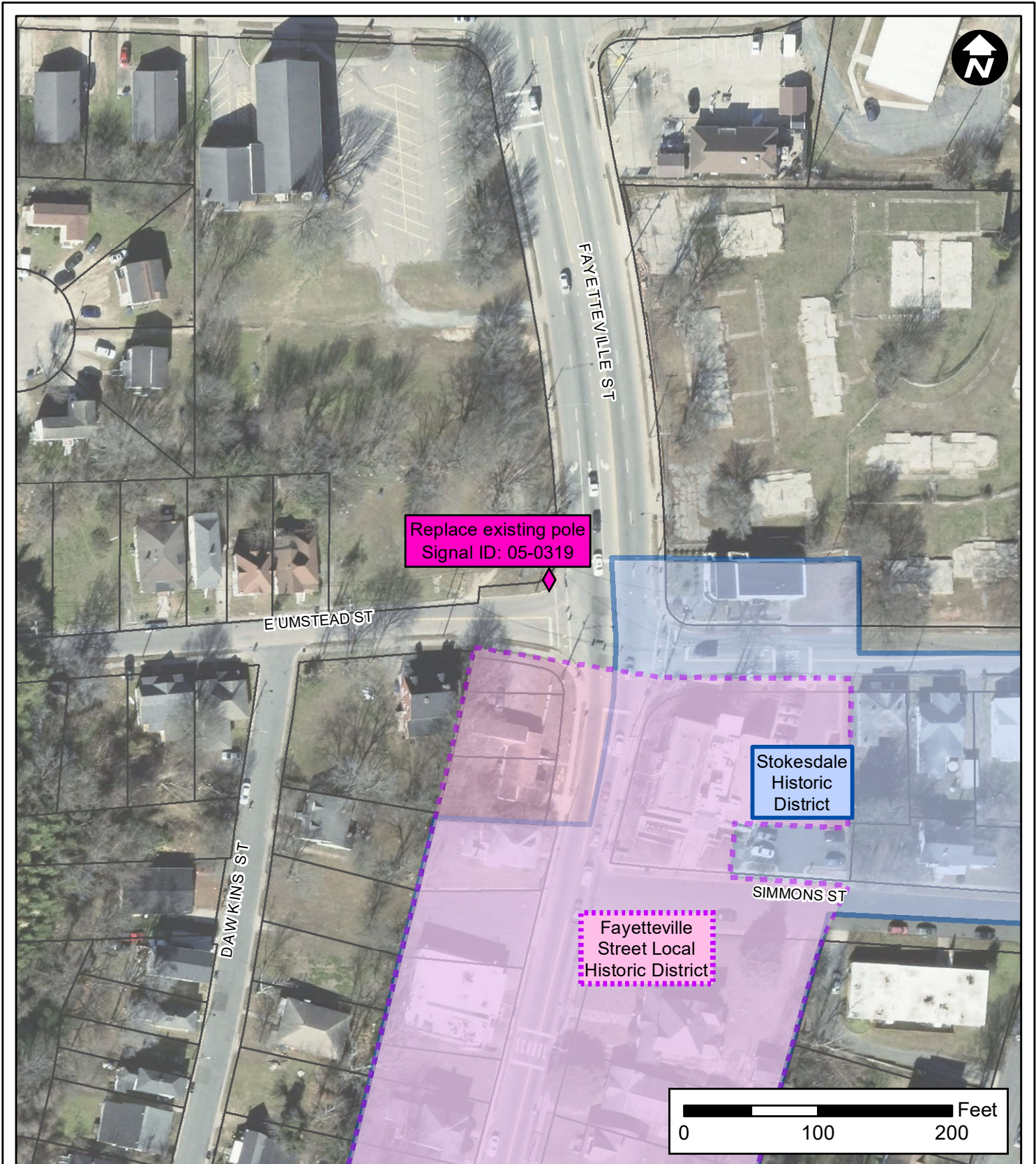








-  Proposed CCTV
-  Property Lines
-  Local Historic District
-  National Register District

**Figure 2-19:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County









-  Contingency CCTV
-  Property Lines
-  Local Historic District
-  National Register District

**Figure 2-20:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County





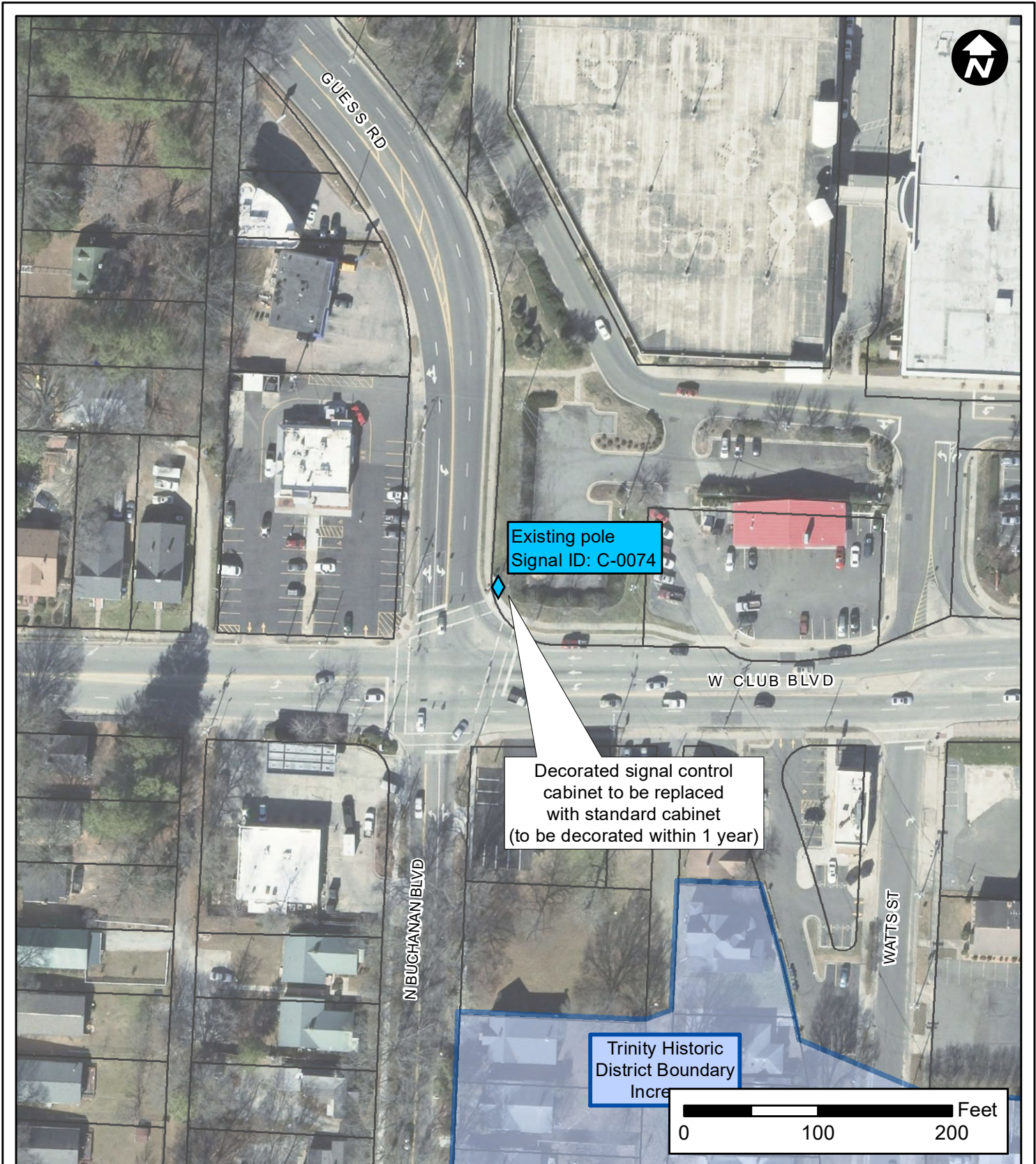
-  Contingency CCTV
-  Railroad
-  Property Lines
-  National Register District

**Figure 2-21:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County





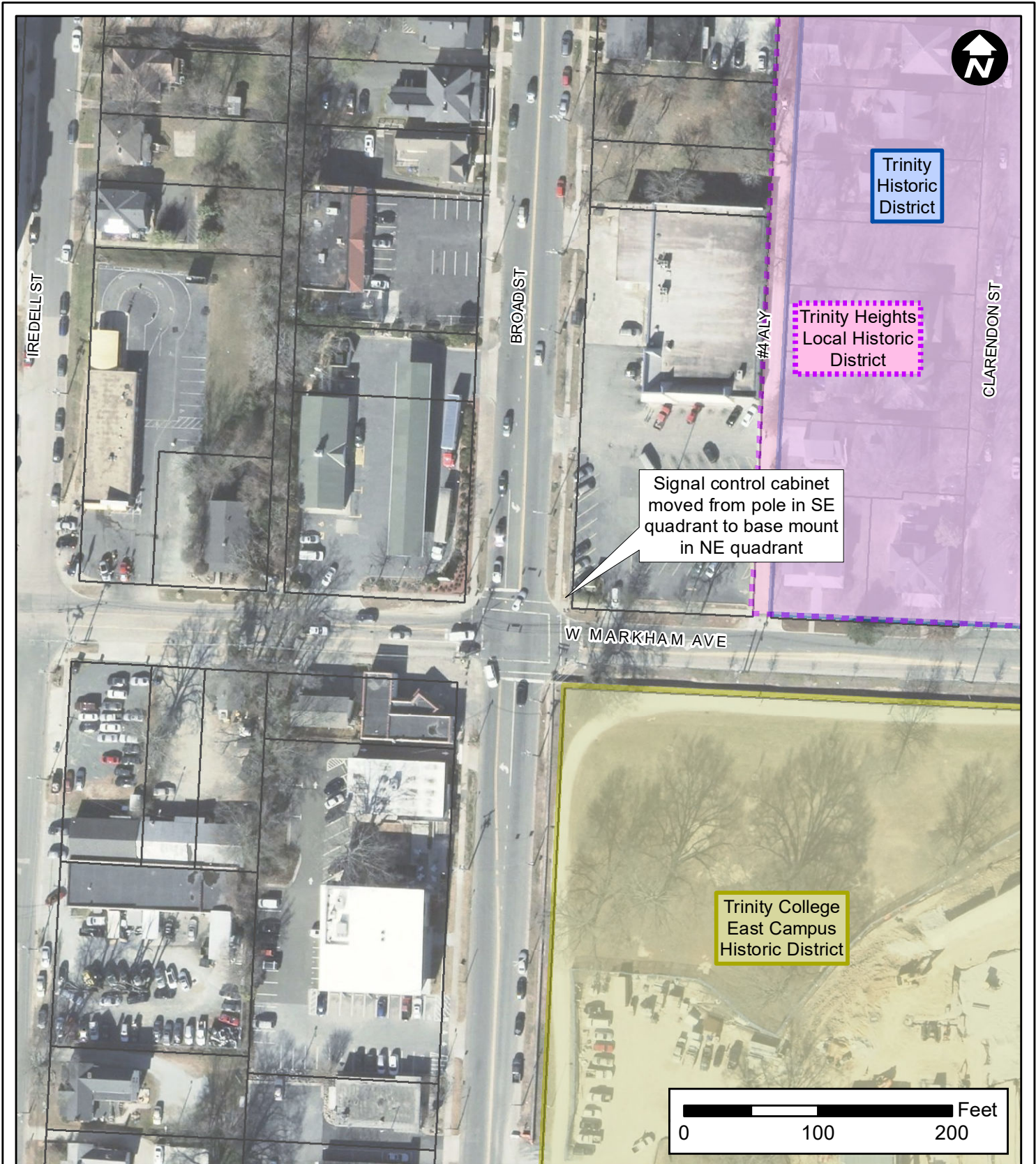




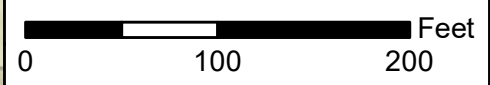
- ◆ Proposed CCTV
- Property Lines
- National Register District




**Figure 2-23:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County





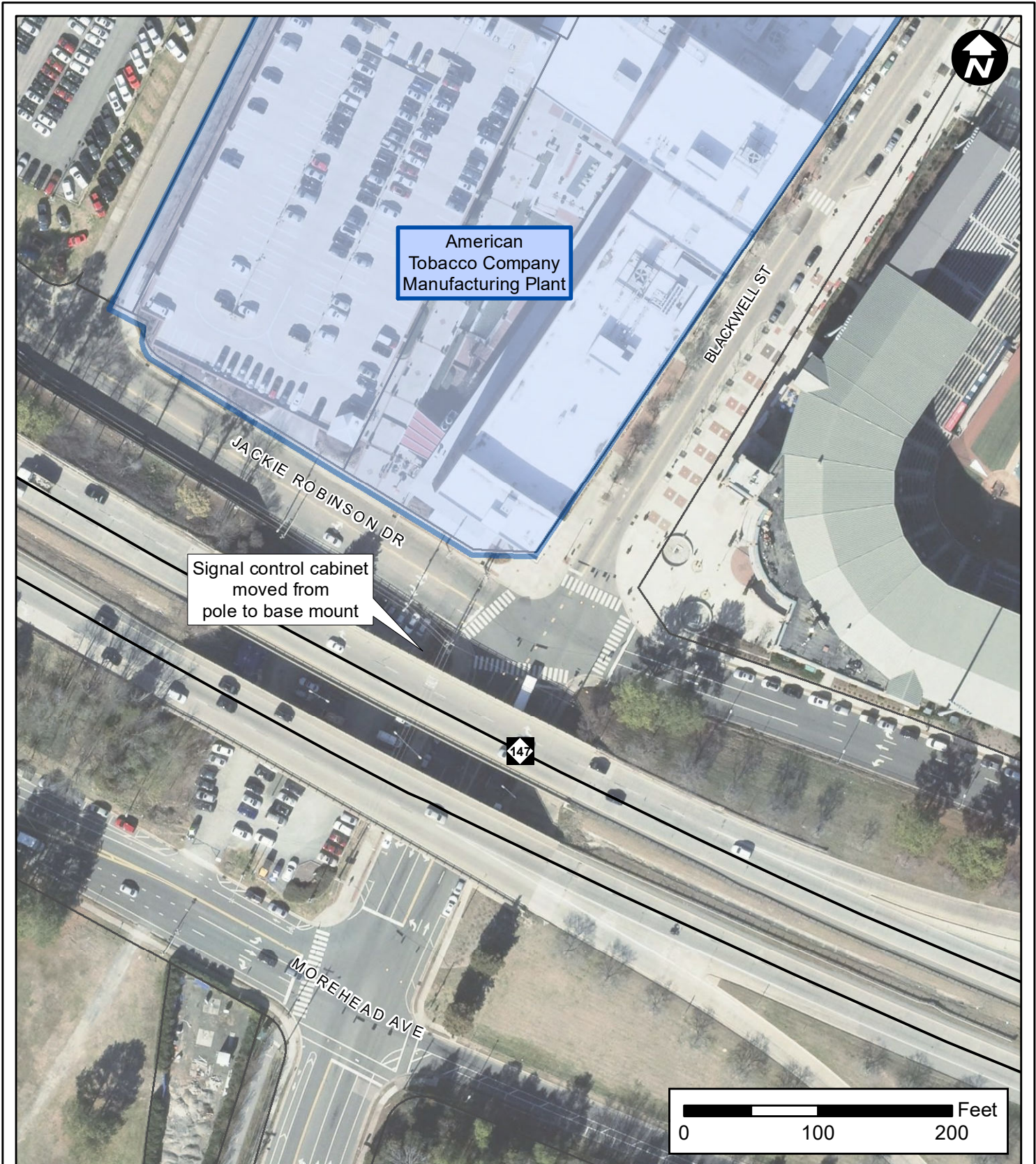
Signal control cabinet moved from pole in SE quadrant to base mount in NE quadrant



-  Property Lines
-  Local Historic District
-  National Register District
-  Study List and Determined Eligible District

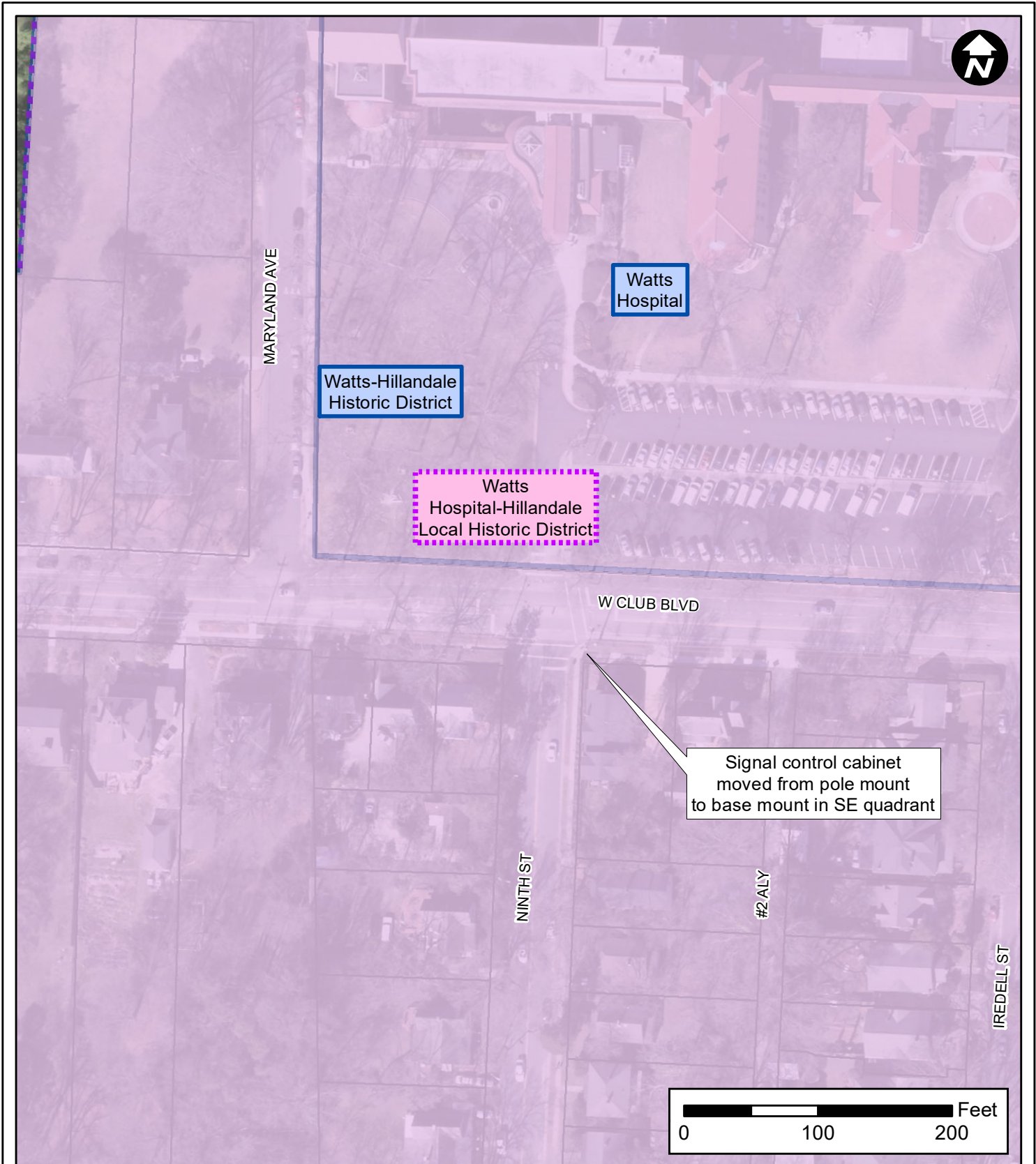
**Figure 2-24:**  
**Environmental Features**  
 NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
 Durham County





**Figure 2-25:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County





- Property Lines
- Local Historic District
- National Register District

**Figure 2-26:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County



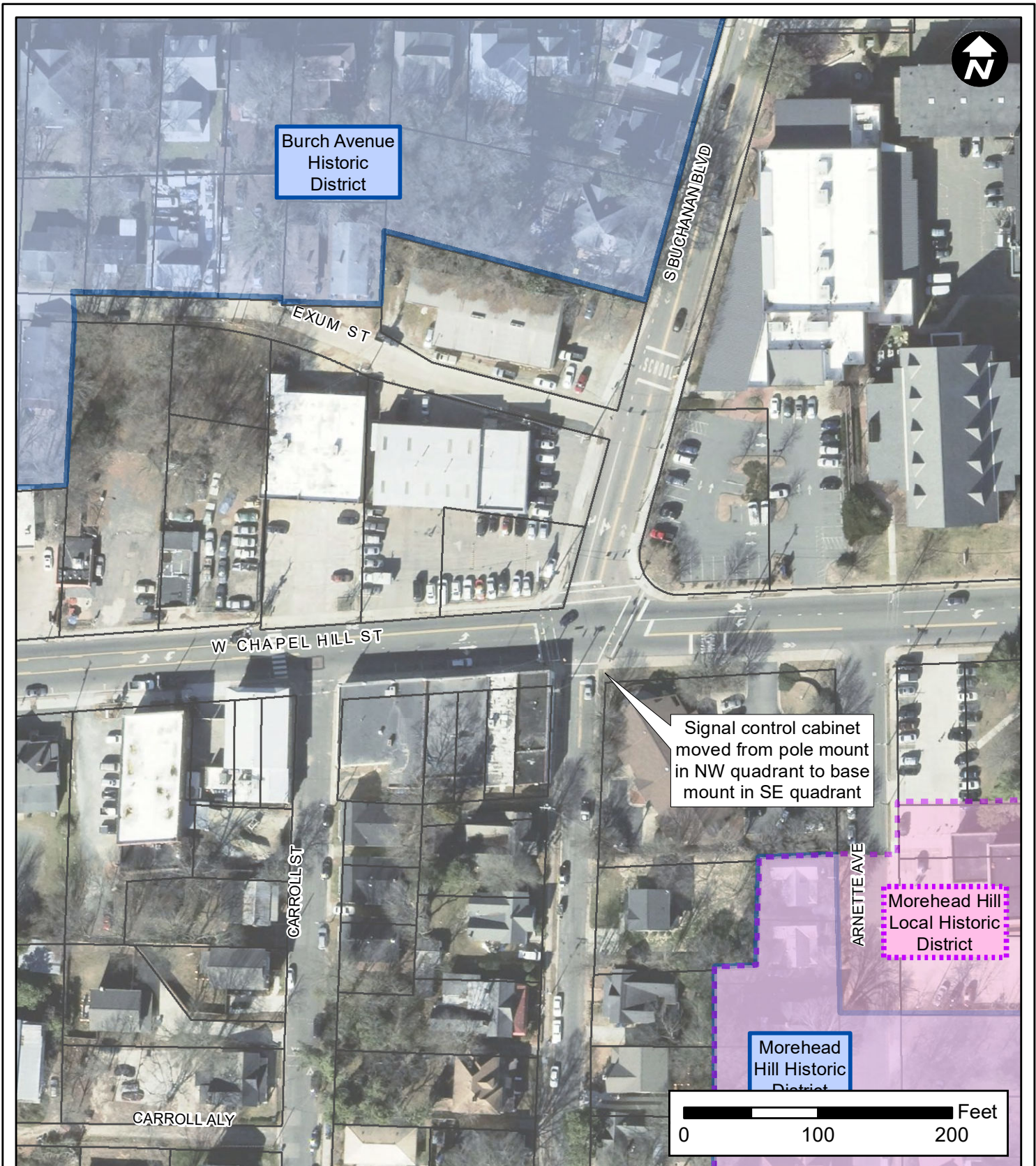


**Figure 2-27:**  
**Environmental Features**  
 NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
 Durham County









- Property Lines
- Local Historic District
- National Register District

**Figure 2-29:**  
**Environmental Features**  
NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
Durham County





**Figure 2-30:**  
**Environmental Features**  
 NCDOT Project No. U-5968  
*Upgrade ITS / Signal System*  
*in City of Durham*  
 Durham County