

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

PROPOSAL

INCLUDES ADDENDUM No.1 DATED 11-13-2019

DATE AND TIME OF BID OPENING: **NOVEMBER 19, 2019 AT 2:00 PM**

CONTRACT ID C204513

WBS 40.1.4

FEDERAL-AID NO. STATE FUNDED

COUNTY WAKE, DURHAM

T.I.P. NO.

MILES 0.000

ROUTE NO. I 540

LOCATION I-540 AND NC-147 (TRIANGLE EXPRESSWAY) FROM I-40 TO
NC-55 BYPASS IN HOLLY SPRINGS.

TYPE OF WORK STAIN REMOVAL AND ANTI-GRAFFITI PAINTING.

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

**PROPOSAL FOR THE CONSTRUCTION OF
CONTRACT No. C204513 IN WAKE AND DURHAM COUNTIES, NORTH CAROLINA**

Date _____ 20 _____

**DEPARTMENT OF TRANSPORTATION,
RALEIGH, NORTH CAROLINA**

The Bidder has carefully examined the location of the proposed work to be known as Contract No. **C204513** has carefully examined the plans and specifications, which are acknowledged to be part of the proposal, the special provisions, the proposal, the form of contract, and the forms of contract payment bond and contract performance bond; and thoroughly understands the stipulations, requirements and provisions. The undersigned bidder agrees to bound upon his execution of the bid and subsequent award to him by the Board of Transportation in accordance with this proposal to provide the necessary contract payment bond and contract performance bond within fourteen days after the written notice of award is received by him. The undersigned Bidder further agrees to provide all necessary machinery, tools, labor, and other means of construction; and to do all the work and to furnish all materials, except as otherwise noted, necessary to perform and complete the said contract in accordance with *the 2018 Standard Specifications for Roads and Structures* by the dates(s) specified in the Project Special Provisions and in accordance with the requirements of the Engineer, and at the unit or lump sum prices, as the case may be, for the various items given on the sheets contained herein.

The Bidder shall provide and furnish all the materials, machinery, implements, appliances and tools, and perform the work and required labor to construct and complete State Highway Contract No. **C204513** in **Wake and Durham Counties**, for the unit or lump sum prices, as the case may be, bid by the Bidder in his bid and according to the proposal, plans, and specifications prepared by said Department, which proposal, plans, and specifications show the details covering this project, and hereby become a part of this contract.

The published volume entitled *North Carolina Department of Transportation, Raleigh, Standard Specifications for Roads and Structures, January 2018* with all amendments and supplements thereto, is by reference incorporated into and made a part of this contract; that, except as herein modified, all the construction and work included in this contract is to be done in accordance with the specifications contained in said volume, and amendments and supplements thereto, under the direction of the Engineer.

If the proposal is accepted and the award is made, the contract is valid only when signed either by the Contract Officer or such other person as may be designated by the Secretary to sign for the Department of Transportation. The conditions and provisions herein cannot be changed except over the signature of the said Contract Officer.

The quantities shown in the itemized proposal for the project are considered to be approximate only and are given as the basis for comparison of bids. The Department of Transportation may increase or decrease the quantity of any item or portion of the work as may be deemed necessary or expedient.

An increase or decrease in the quantity of an item will not be regarded as sufficient ground for an increase or decrease in the unit prices, nor in the time allowed for the completion of the work, except as provided for the contract.

Accompanying this bid is a bid bond secured by a corporate surety, or certified check payable to the order of the Department of Transportation, for five percent of the total bid price, which deposit is to be forfeited as liquidated damages in case this bid is accepted and the Bidder shall fail to provide the required payment and performance bonds with the Department of Transportation, under the condition of this proposal, within 14 calendar days after the written notice of award is received by him, as provided in the *Standard Specifications*; otherwise said deposit will be returned to the Bidder.



State Contract Officer

DocuSigned by:

Ronald E. Davenport, Jr.

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11/13/2019

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PROJECT SPECIAL PROVISIONS**GENERAL****CONTRACT TIME AND LIQUIDATED DAMAGES:**

(7-1-95) (Rev. 12-18-07)

108

SP1 G10 A

The date of availability for this contract is **January 6, 2020**.

The completion date for this contract is **May 30, 2021**.

Except where otherwise provided by the contract, observation periods required by the contract will not be a part of the work to be completed by the completion date and/or intermediate contract times stated in the contract. The acceptable completion of the observation periods that extend beyond the final completion date shall be a part of the work covered by the performance and payment bonds.

The liquidated damages for this contract are **One Thousand Five Hundred Dollars (\$ 1,500.00)** per calendar day.

INTERMEDIATE CONTRACT TIME NUMBER 1 AND LIQUIDATED DAMAGES:

(2-20-07)

108

SP1 G14 A

The Contractor shall complete the work required for the removal of existing staining and the application of anti-graffiti coating to bridge girders and the backside of concrete barriers on bridge overpasses. The Contractor shall not close or narrow a lane of traffic during the following time restrictions:

DAY AND TIME RESTRICTIONS**Triangle Expressway (including Ramps and/or Loops)****Monday thru Friday****6:00 a.m. to 7:00 p.m.****Any Other Road and/or Facility****Sunday thru Saturday****6:00 a.m. to 7:00 p.m.**

In addition, the Contractor shall not close or narrow a lane of traffic on **Any Road and/or Facility**, detain and/or alter the traffic flow on or during holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules:

HOLIDAY AND HOLIDAY WEEKEND LANE CLOSURE RESTRICTIONS

1. For **unexpected occurrence** that creates unusually high traffic volumes, as directed by the Engineer.
2. For **New Year's Day**, between the hours of **4:00 p.m.** December 31st and **9:00 a.m.** January 2nd. If New Year's Day is on a Friday, Saturday, Sunday or Monday, then until **9:00 a.m.** the following Tuesday.

3. For **Easter**, between the hours of **4:00 p.m.** Thursday and **9:00 a.m.** Monday.
4. For **Memorial Day**, between the hours of **4:00 p.m.** Friday and **9:00 a.m.** Tuesday.
5. For **Independence Day**, between the hours of **4:00 p.m.** the day before Independence Day and **9 a.m.** the day after Independence Day.

If **Independence Day** is on a Friday, Saturday, Sunday or Monday, then between the hours of **4:00 p.m.** the Thursday before Independence Day and **9:00 a.m.** the Tuesday after Independence Day.

6. For **Labor Day**, between the hours of **4:00 p.m.** Friday and **9:00 a.m.** Tuesday.
7. For **Thanksgiving**, between the hours of **4:00 p.m.** Tuesday and **9:00 p.m.** Monday.
8. For **Christmas**, between the hours of **4:00 p.m.** the Friday before the week of Christmas Day and **9:00 a.m.** the following Tuesday after the week of Christmas Day.
9. For events that are significant traffic generators from **one (1) hour** before the event to **one (1) hour** after the end of the event, as directed by the Engineer.

Holidays and holiday weekends shall include New Year's, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. The Contractor shall schedule his work so that lane closures will not be required during these periods, unless otherwise directed by the Engineer.

The time of availability for this intermediate contract work shall be the time the Contractor begins to install all traffic control devices for lane closures according to the time restrictions listed herein.

The completion time for this intermediate contract work shall be the time the Contractor is required to complete the removal of all traffic control devices for lane closures according to the time restrictions stated above and place traffic in the existing traffic pattern.

The liquidated damages are **One Thousand Dollars (\$ 1,000.00)** per fifteen (15) minute time period.

MANDATORY PRE-BID CONFERENCE (Prequalifying To Bid):

(7-18-06) (Rev. 3-25-13)

SPD 01-300

In order for all prospective bidders to have an extensive knowledge of the project, all prospective bidders shall attend a mandatory pre-bid conference on November 4, 2019 at 1:00 p.m.

DOT Structures Management Conference Room C
Century Center (Bldg. A, Column C4)
1000 Birch Ridge Drive
Raleigh, NC 27610

(Contractors please use visitor entrance at front of building for access)

For any questions pertaining to the mandatory pre-bid conference, please contact Alan Shapiro at 919-825-2638. The pre-bid conference will include a thorough discussion of the plans, contract pay items, special provisions, etc.

Only bidders who have attended and properly registered at the above scheduled pre-bid conference and who have met all other prequalification requirements will be considered prequalified to bid on this project. A bid received from a bidder who has not attended and properly registered at the above scheduled pre-bid conference will not be accepted and considered for award.

Attendance at the pre-bid conference will not meet the requirements of proper registration unless the individual attending has registered at the pre-bid conference in accordance with the following:

- (A) The individual has signed his name on the official roster no later than thirty (30) minutes after the above noted time for the beginning of the conference.
- (B) The individual has written in the name and address of the company he or she represents.
- (C) Only one company has been shown as being represented by the individual attending.
- (D) The individual attending is an officer or permanent employee of the company they are representing.

Attendance at any prior pre-bid conference will not meet the requirement of this provision.

CONTRACT PREQUALIFICATION:

The prime contractor and/or subcontractor(s) shall be prequalified in the work code "442" Painting Steel Structures, for which they identify as work items in the prime contractor's construction progress schedule that they will complete themselves. Any contractor identified as working outside their expertise may be considered in default of contract.

TOLL FACILITY REIMBURSEMENT:

The Contractor, as directed by the Engineer, may have to perform concrete and/or joint repair work on toll facilities. **The Contractor will be responsible for paying the applicable tolls. The Department will not reimburse the Contractor for tolls paid during performance of the repair work and the cost shall be considered incidental to the contract bid items.**

TOLL TRAFFIC COORDINATION:

The Contractor shall notify the NCTA and the Traffic Management Center (TMC) at least 24 hours in advance of any traffic control installation. The TMC can be notified by phone at 919-825-2700, or by email at ncta_tmc@ncdot.gov. The Contractor shall also contact the TMC with any updates or changes to traffic control during activities, including completion of work.

HAULING LIMITATIONS:

Excluding hauling operations that are conducted entirely behind a temporary traffic barrier or

guardrail, hauling shall not be allowed ingress and egress from any open travel lane during the lane narrowing, lane closure and holiday time restrictions listed in ICT #1.

DAMAGES FOR TOLL FACILITIES INFRASTRUCTURE AND TOLL COLLECTION EQUIPMENT

If the Contractor damages the toll collection equipment, intelligent transportation system equipment, or toll facilities infrastructure, the Contractor shall immediately contact the Supervisor's Desk at the State Transportation Operations Center at (919) 825-2608.

All repairs will be performed by the NCTA Toll System Integrator or other contractor under the direction of the NCTA.

The actual damages for damages to the toll collection equipment, intelligent transportation system equipment, or toll facilities infrastructure is the actual repair cost, which could include materials, Toll System Integrator costs, and NCTA and consultant administrative costs. These costs shall be reimbursed by the Contractor to the NCTA.

Below is a breakdown of equipment repair costs. Please note that these are estimates and any damage caused by the Contractor will be reimbursed for the actual cost to repair.

Equipment	Equipment Cost	Labor Cost	MOT*	Total
SICK211 Laser	\$ 5,000.00	\$ 2,000.00	\$ 3,000.00	\$ 10,000.00
Kapsch Antenna	\$ 3,000.00	\$ 2,000.00	\$ 3,000.00	\$ 8,000.00
JAI Camera	\$ 10,000.00	\$ 2,000.00	\$ 3,000.00	\$ 15,000.00
Flash Unit	\$ 4,000.00	\$ 2,000.00	\$ 3,000.00	\$ 9,000.00
JAI Light Sensor	\$ 4,000.00	\$ 2,000.00	\$ 3,000.00	\$ 9,000.00
Security Camera	\$ 2,500.00	\$ 2,000.00	\$ 3,000.00	\$ 7,500.00
ROCS Camera	\$ 2,000.00	\$ 2,000.00	\$ 3,000.00	\$ 7,000.00

**Assuming two closures*

DAMAGES FOR TOLL REVENUE LOSS

If the Contractor damages referenced in the previous section result in toll revenue loss, based on toll transaction data or representative traffic data from the lane(s) in question, the NCTA will calculate the actual revenue loss resulting from the damage. The calculated revenue loss shall be reimbursed by the Contractor to the NCTA.

Below is a breakdown of hourly and daily revenue ranges for mainline and ramp toll zones, effective August 2019. The range represents all toll zones on the Triangle Expressway and presents revenue in the event all toll lanes within the zone are inoperable. Please note that these are estimates and any damage caused by the Contractor will be reimbursed to NCTA for the actual lost revenue. Actual revenue loss will be dependent on the location, number of lanes affected, and actual down time.

	Average Hourly Revenue	Maximum Hourly Revenue	Daily Revenue
Mainline Toll Zone	\$250 - \$710	\$970 - \$2800	\$7,300 - \$33,500
Ramp Toll Zone	\$25 - \$415	\$100 - \$2150	\$735 - \$17,240

**** NOTE **** - NCTA's contract with its Toll System Integrator requires a 2-hour response time in the event of failures with the roadside toll collection equipment or intelligent transportation

system equipment. In the event of damage to these systems, it is NCTA’s intent to make repairs and resume normal operations as soon as possible.

Technology Redundancies - If the contractor severs a utility line (fiber/power) or damages a roadside device, it does not necessarily mean that there would be a loss in revenue. Examples include:

- If connection from the toll zone to the facility host is broken (example – broken fiber), transactions are stored locally at the toll zone and then sent to the host when the connection is reestablished.
- If an overhead transponder reading antenna is broken or an antennae cable is cut, transactions can still properly posted using license plate reading cameras and the ITOLL process.
- In the event power is cut, a generator back up is available.
- If the overhead SICK scanner is damaged, the loop arrangements construct transactions.

**** NOTE **** - In the case of a break to a fiber optic communications cable connecting a toll zone and the system host, local storage exists at the individual toll zone. The local storage will allow for the holding of transactions up to 90 days after the break, preventing the loss of revenue.

MAJOR CONTRACT ITEMS:

(2-19-02)

104

SP1 G28

The following listed items are the major contract items for this contract (see Article 104-5 of the 2018 Standard Specifications):

Line #	Description
40 —	Aesthetic Sign Column Anti-Graffiti Coating Application
41 —	Aesthetic Sign Column Stain Removal

SPECIALTY ITEMS:

(7-1-95)(Rev. 1-17-12)

108-6

SP1 G37

Items listed below will be the specialty items for this contract (see Article 108-6 of the 2018 Standard Specifications).

Line #	Description
4-9	Erosion Control

SCHEDULE OF ESTIMATED COMPLETION PROGRESS:

(7-15-08) (Rev. 5-13-19)

108-2

SP1 G58

The Contractor's attention is directed to the Standard Special Provision entitled *Availability of Funds Termination of Contracts* included elsewhere in this proposal. The Department of Transportation's schedule of estimated completion progress for this project as required by that Standard Special Provision is as follows:

<u>Fiscal Year</u>		<u>Progress (% of Dollar Value)</u>
2020	(7/01/19 - 6/30/20)	50% of Total Amount Bid
2021	(7/01/20 - 6/30/21)	50% of Total Amount Bid

The Contractor shall also furnish his own progress schedule in accordance with Article 108-2 of the 2018 Standard Specifications. Any acceleration of the progress as shown by the Contractor's

progress schedule over the progress as shown above shall be subject to the approval of the Engineer.

MINORITY BUSINESS ENTERPRISE AND WOMEN BUSINESS ENTERPRISE:

(10-16-07)(Rev. 2-19-19)

102-15(J)

SP1 G66

Description

The purpose of this Special Provision is to carry out the North Carolina Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts financed in whole or in part with State funds.

Definitions

Additional MBE/WBE Subcontractors - Any MBE/WBE submitted at the time of bid that will not be used to meet the Combined MBE /WBE Goal. No submittal of a Letter of Intent is required.

Combined MBE/WBE Goal: A portion of the total contract, expressed as a percentage that is to be performed by committed MBE/WBE subcontractors.

Committed MBE/WBE Subcontractor - Any MBE/WBE submitted at the time of bid that is being used to meet the Combined MBE /WBE goal by submission of a Letter of Intent. Or any MBE or WBE used as a replacement for a previously committed MBE or WBE firm.

Contract Goal Requirement - The approved participation at time of award, but not greater than the advertised Combined MBE/WBE contract goal.

Goal Confirmation Letter - Written documentation from the Department to the bidder confirming the Contractor's approved, committed participation along with a listing of the committed MBE and WBE firms.

Manufacturer - A firm that operates or maintains a factory or establishment that produces on the premises, the materials or supplies obtained by the Contractor.

MBE Participation (Anticipated) - A portion of the total contract, expressed as a percentage that is anticipated to be performed by committed MBE subcontractor(s).

Minority Business Enterprise (MBE) - A firm certified as a Disadvantaged Minority-Owned Business Enterprise through the North Carolina Unified Certification Program.

Regular Dealer - A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business. A regular dealer engages in, as its principal business and in its own name, the purchase and sale or lease of the products in question. A regular dealer in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock, if it owns and operates distribution equipment for the products. Brokers and packagers are not regarded as manufacturers or regular dealers within the meaning of this section.

Replacement / Substitution – A full or partial reduction in the amount of work subcontracted to a committed (or an approved substitute) MBE/WBE firm.

North Carolina Unified Certification Program (NCUCP) - A program that provides comprehensive services and information to applicants for MBE/WBE certification. The MBE/WBE program follows the same regulations as the federal Disadvantaged Business Enterprise (DBE) program in accordance with 49 CFR Part 26.

United States Department of Transportation (USDOT) - Federal agency responsible for issuing regulations (49 CFR Part 26) and official guidance for the DBE program.

WBE Participation (Anticipated) - A portion of the total contract, expressed as a percentage, that is anticipated to be performed by committed WBE subcontractor(s).

Women Business Enterprise (WBE) - A firm certified as a Disadvantaged Women-Owned Business Enterprise through the North Carolina Unified Certification Program.

Forms and Websites Referenced in this Provision

Payment Tracking System - On-line system in which the Contractor enters the payments made to MBE and WBE subcontractors who have performed work on the project.
<https://apps.dot.state.nc.us/Vendor/PaymentTracking/>

DBE-IS Subcontractor Payment Information - Form for reporting the payments made to all MBE/WBE firms working on the project. This form is for paper bid projects only.
<https://connect.ncdot.gov/business/Turnpike/Documents/Form%20DBE-IS%20Subcontractor%20Payment%20Information.pdf>

RF-1 MBE/WBE Replacement Request Form - Form for replacing a committed MBE or WBE.
<http://connect.ncdot.gov/projects/construction/Construction%20Forms/DBE%20MBE%20WBE%20Replacement%20Request%20Form.pdf>

SAF Subcontract Approval Form - Form required for approval to sublet the contract.
<http://connect.ncdot.gov/projects/construction/Construction%20Forms/Subcontract%20Approval%20Form%20Rev.%202012.zip>

JC-1 Joint Check Notification Form - Form and procedures for joint check notification. The form acts as a written joint check agreement among the parties providing full and prompt disclosure of the expected use of joint checks.

<http://connect.ncdot.gov/projects/construction/Construction%20Forms/Joint%20Check%20Notification%20Form.pdf>

Letter of Intent - Form signed by the Contractor and the MBE/WBE subcontractor, manufacturer or regular dealer that affirms that a portion of said contract is going to be performed by the signed MBE/WBE for the estimated amount (based on quantities and unit prices) listed at the time of bid.
<http://connect.ncdot.gov/letting/LetCentral/Letter%20of%20Intent%20to%20Perform%20as%20a%20Subcontractor.pdf>

Listing of MBE and WBE Subcontractors Form - Form for entering MBE/WBE subcontractors on a project that will meet the Combined MBE/WBE goal. This form is for paper bids only.
[http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/09%20MBE-WBE%20Subcontractors%20\(State\).docx](http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/09%20MBE-WBE%20Subcontractors%20(State).docx)

Subcontractor Quote Comparison Sheet - Spreadsheet for showing all subcontractor quotes in the work areas where MBEs and WBEs quoted on the project. This sheet is submitted with good faith effort packages.
<http://connect.ncdot.gov/business/SmallBusiness/Documents/DBE%20Subcontractor%20Quote%20Comparison%20Example.xls>

Combined MBE/WBE Goal

The Combined MBE/WBE Goal for this project is **0.0 %**

The Combined Goal was established utilizing the following anticipated participation for Minority Business Enterprises and Women Business Enterprises:

(A) Minority Business Enterprises **0.0 %**

- (1) *If the anticipated MBE participation is more than zero*, the Contractor shall exercise all necessary and reasonable steps to ensure that MBEs participate in at least the percent of the contract as set forth above.
- (2) *If the anticipated MBE participation is zero*, the Contractor shall make an effort to recruit and use MBEs during the performance of the contract. Any MBE participation obtained shall be reported to the Department.

(B) Women Business Enterprises **0.0 %**

- (1) *If the anticipated WBE participation is more than zero*, the Contractor shall exercise all necessary and reasonable steps to ensure that WBEs participate in at least the percent of the contract as set forth above.
- (2) *If the anticipated WBE participation is zero*, the Contractor shall make an effort to recruit and use WBEs during the performance of the contract. Any WBE participation obtained shall be reported to the Department.

The Bidder is required to submit only participation to meet the Combined MBE/WBE Goal. The Combined Goal may be met by submitting all MBE participation, all WBE participation, or a combination of MBE and WBE participation.

Directory of Transportation Firms (Directory)

Real-time information is available about firms doing business with the Department and firms that are certified through NCUCP in the Directory of Transportation Firms. Only firms identified in the Directory as MBE and WBE certified shall be used to meet the Combined MBE/WBE Goal. The Directory can be found at the following link.

<https://www.ebs.nc.gov/VendorDirectory/default.html>

The listing of an individual firm in the directory shall not be construed as an endorsement of the firm's capability to perform certain work.

Listing of MBE/WBE Subcontractors

At the time of bid, bidders shall submit all MBE and WBE participation that they anticipate to use during the life of the contract. Only those identified to meet the Combined MBE/WBE Goal will be considered committed, even though the listing shall include both committed MBE/WBE subcontractors and additional MBE/WBE subcontractors. Any additional MBE/WBE subcontractor participation above the goal will follow the banking guidelines found elsewhere in this provision. All other additional MBE/WBE subcontractor participation submitted at the time of bid will be used toward the Department's overall race-neutral goals. Only those firms with current MBE and WBE certification at the time of bid opening will be acceptable for listing in the bidder's submittal of MBE and WBE participation. The Contractor shall indicate the following required information:

(A) Electronic Bids

Bidders shall submit a listing of MBE and WBE participation in the appropriate section of the electronic submittal file.

- (1) Submit the names and addresses of MBE and WBE firms identified to participate in the contract. If the bidder uses the updated listing of MBE and WBE firms shown in the electronic submittal file, the bidder may use the dropdown menu to access the name and address of the firms.
- (2) Submit the contract line numbers of work to be performed by each MBE and WBE firm. When no figures or firms are entered, the bidder will be considered to have no MBE or WBE participation.
- (3) The bidder shall be responsible for ensuring that the MBE and WBE are certified at the time of bid by checking the Directory of Transportation Firms. If the firm is not certified at the time of the bid-letting, that MBE's or WBE's participation will not count towards achieving the Combined MBE/WBE goal.

(B) Paper Bids

- (1) *If the Combined MBE/WBE Goal is more than zero,*
 - (a) Bidders, at the time the bid proposal is submitted, shall submit a listing of MBE/WBE participation, including the names and addresses on *Listing of MBE and WBE Subcontractors* contained elsewhere in the contract documents in order for the bid to be considered responsive. Bidders shall indicate the total dollar value of the MBE and WBE participation for the contract.

- (b) If bidders have no MBE or WBE participation, they shall indicate this on the *Listing of MBE and WBE Subcontractors* by entering the word “None” or the number “0.” This form shall be completed in its entirety. **Blank forms will not be deemed to represent zero participation.** Bids submitted that do not have MBE and WBE participation indicated on the appropriate form will not be read publicly during the opening of bids. The Department will not consider these bids for award and the proposal will be rejected.
- (c) The bidder shall be responsible for ensuring that the MBE/WBE is certified at the time of bid by checking the Directory of Transportation Firms. If the firm is not certified at the time of the bid-letting, that MBE’s or WBE’s participation will not count towards achieving the Combined MBE/WBE Goal.
- (2) *If the Combined MBE/WBE Goal is zero*, entries on the *Listing of MBE and WBE Subcontractors* are not required for the zero goal, however any MBE or WBE participation that is achieved during the project shall be reported in accordance with requirements contained elsewhere in the special provision.

MBE or WBE Prime Contractor

When a certified MBE or WBE firm bids on a contract that contains a Combined MBE/WBE goal, the firm is responsible for meeting the goal or making good faith efforts to meet the goal, just like any other bidder. In most cases, a MBE or WBE bidder on a contract will meet the Combined MBE/WBE Goal by virtue of the work it performs on the contract with its own forces. However, all the work that is performed by the MBE or WBE bidder and any other similarly certified subcontractors will count toward the goal. The MBE or WBE bidder shall list itself along with any MBE or WBE subcontractors, if any, in order to receive credit toward the goal.

MBE/WBE prime contractors shall also follow Sections A and B listed under *Listing of MBE/WBE Subcontractor* just as a non-MBE/WBE bidder would.

Written Documentation – Letter of Intent

The bidder shall submit written documentation for each MBE/WBE that will be used to meet the Combined MBE/WBE Goal of the contract, indicating the bidder’s commitment to use the MBE/WBE in the contract. This documentation shall be submitted on the Department’s form titled *Letter of Intent*.

The documentation shall be received in the office of the State Contractor Utilization Engineer or at DBE@ncdot.gov no later than 10:00 a.m. of the sixth calendar day following opening of bids, unless the sixth day falls on an official state holiday. In that situation, it is due in the office of the State Contractor Utilization Engineer no later than 10:00 a.m. on the next official state business day.

If the bidder fails to submit the Letter of Intent from each committed MBE and WBE to be used toward the Combined MBE/WBE Goal, or if the form is incomplete (i.e. both signatures are not

present), the MBE/WBE participation will not count toward meeting the Combined MBE/WBE Goal. If the lack of this participation drops the commitment below the Combined MBE/WBE Goal, the Contractor shall submit evidence of good faith efforts for the goal, completed in its entirety, to the State Contractor Utilization Engineer or DBE@ncdot.gov no later than 10:00 a.m. on the eighth calendar day following opening of bids, unless the eighth day falls on an official state holiday. In that situation, it is due in the office of the State Contractor Utilization Engineer no later than 10:00 a.m. on the next official state business day.

Banking MBE/WBE Credit

If the bid of the lowest responsive bidder exceeds \$500,000 and if the committed MBE/WBE participation submitted exceeds the algebraic sum of the Combined MBE /WBE Goal by \$1,000 or more, the excess will be placed on deposit by the Department for future use by the bidder. Separate accounts will be maintained for MBE and WBE participation and these may accumulate for a period not to exceed 24 months.

When the apparent lowest responsive bidder fails to submit sufficient participation by MBE and WBE firms to meet the advertised goal, as part of the good faith effort, the Department will consider allowing the bidder to withdraw funds to meet the Combined MBE/WBE Goal as long as there are adequate funds available from the bidder's MBE and WBE bank accounts.

Submission of Good Faith Effort

If the bidder fails to meet or exceed the Combined MBE/WBE Goal, the apparent lowest responsive bidder shall submit to the Department documentation of adequate good faith efforts made to reach that specific goal.

A hard copy and an electronic copy of this information shall be received in the office of the State Contractor Utilization Engineer or at DBE@ncdot.gov no later than 10:00 a.m. on the sixth calendar day following opening of bids unless the sixth day falls on an official state holiday. In that situation, it would be due in the office of the State Contractor Utilization Engineer no later than 10:00 a.m. on the next official state business day. If the contractor cannot send the information electronically, then one complete set and 5 copies of this information shall be received under the same time constraints above.

Note: Where the information submitted includes repetitious solicitation letters, it will be acceptable to submit a representative letter along with a distribution list of the firms that were solicited. Documentation of MBE/WBE quotations shall be a part of the good faith effort submittal. This documentation may include written subcontractor quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

Consideration of Good Faith Effort for Projects with a Combined MBE/WBE Goal More Than Zero

Adequate good faith efforts mean that the bidder took all necessary and reasonable steps to achieve the goal which, by their scope, intensity, and appropriateness, could reasonably be expected to obtain sufficient MBE/WBE participation. Adequate good faith efforts also mean that the bidder actively and aggressively sought MBE/WBE participation. Mere *pro forma* efforts are not considered good faith efforts.

The Department will consider the quality, quantity, and intensity of the different kinds of efforts a bidder has made. Listed below are examples of the types of actions a bidder will take in making a good faith effort to meet the goals and are not intended to be exclusive or exhaustive, nor is it intended to be a mandatory checklist.

- (A) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising, written notices, use of verifiable electronic means through the use of the NCDOT Directory of Transportation Firms) the interest of all certified MBEs/WBEs that are also prequalified subcontractors. The bidder must solicit this interest within at least 10 days prior to bid opening to allow the MBEs/WBEs to respond to the solicitation. Solicitation shall provide the opportunity to MBEs/WBEs within the Division and surrounding Divisions where the project is located. The bidder must determine with certainty if the MBEs/WBEs are interested by taking appropriate steps to follow up initial solicitations.
- (B) Selecting portions of the work to be performed by MBEs/WBEs in order to increase the likelihood that the Combined MBE/WBE Goal will be achieved.
 - (1) Where appropriate, break out contract work items into economically feasible units to facilitate MBE/WBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
 - (2) Negotiate with subcontractors to assume part of the responsibility to meet the advertised goal when the work to be sublet includes potential for MBE/WBE participation (2nd and 3rd tier subcontractors).
- (C) Providing interested certified MBEs/WBEs that are also prequalified subcontractors with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (D)
 - (1) Negotiating in good faith with interested MBEs/WBEs. It is the bidder's responsibility to make a portion of the work available to MBE/WBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available MBE/WBE subcontractors and suppliers, so as to facilitate MBE/WBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of MBEs/WBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for MBEs/WBEs to perform the work.
 - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including MBE/WBE subcontractors, and would take a firm's price and capabilities as well as the advertised goal into consideration. However, the fact that there may be some additional costs involved in finding and using MBEs/WBEs is not in itself sufficient reason for a bidder's failure to meet the contract goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith

efforts. Bidding contractors are not, however, required to accept higher quotes from MBEs/WBEs if the price difference is excessive or unreasonable.

- (E) Not rejecting MBEs/WBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associates and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (F) Making efforts to assist interested MBEs/WBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or bidder.
- (G) Making efforts to assist interested MBEs/WBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (H) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; Federal, State, and local minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of MBEs/WBEs. Contact within 7 days from the bid opening the Business Opportunity and Work Force Development Unit at BOWD@ncdot.gov to give notification of the bidder's inability to get MBE or WBE quotes.
- (I) Any other evidence that the bidder submits which shows that the bidder has made reasonable good faith efforts to meet the advertised goal.

In addition, the Department may take into account the following:

- (1) Whether the bidder's documentation reflects a clear and realistic plan for achieving the Combined MBE/WBE Goal.
- (2) The bidders' past performance in meeting the contract goal.
- (3) The performance of other bidders in meeting the advertised goal. For example, when the apparent successful bidder fails to meet the goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the advertised goal, but meets or exceeds the average MBE and WBE participation obtained by other bidders, the Department may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made a good faith effort.

If the Department does not award the contract to the apparent lowest responsive bidder, the Department reserves the right to award the contract to the next lowest responsive bidder that can satisfy to the Department that the Combined MBE/WBE Goal can be met or that an adequate good faith effort has been made to meet the advertised goal.

Non-Good Faith Appeal

The State Contractual Services Engineer will notify the contractor verbally and in writing of non-good faith. A contractor may appeal a determination of non-good faith made by the Goal Compliance Committee. If a contractor wishes to appeal the determination made by the Committee, they shall provide written notification to the State Contractual Services Engineer or at DBE@ncdot.gov. The appeal shall be made within 2 business days of notification of the determination of non-good faith.

Counting MBE/WBE Participation Toward Meeting the Combined MBE/WBE Goal**(A) Participation**

The total dollar value of the participation by a committed MBE/WBE will be counted toward the contract goal requirements. The total dollar value of participation by a committed MBE/WBE will be based upon the value of work actually performed by the MBE/WBE and the actual payments to MBE/WBE firms by the Contractor.

(B) Joint Checks

Prior notification of joint check use shall be required when counting MBE/WBE participation for services or purchases that involves the use of a joint check. Notification shall be through submission of Form JC-1 (*Joint Check Notification Form*) and the use of joint checks shall be in accordance with the Department's Joint Check Procedures.

(C) Subcontracts (Non-Trucking)

A MBE/WBE may enter into subcontracts. Work that a MBE subcontracts to another MBE firm may be counted toward the anticipated MBE participation. The same holds true for work that a WBE subcontracts to another WBE firm. Work that a MBE/WBE subcontracts to a non-MBE/WBE firm does not count toward the contract goal requirement. It should be noted that every effort shall be made by MBE and WBE contractors to subcontract to the same certification (i.e., MBEs to MBEs and WBEs to WBEs), in order to fulfill the MBE or WBE participation breakdown. This, however, may not always be possible due to the limitation of firms in the area. If the MBE or WBE firm shows a good faith effort has been made to reach out to similarly certified firms and there is no interest or availability, and they can get assistance from other certified firms, the Engineer will not hold the prime responsible for meeting the individual MBE or WBE breakdown. If a MBE or WBE contractor or subcontractor subcontracts a significantly greater portion of the work of the contract than would be expected on the basis of standard industry practices, it shall be presumed that the MBE or WBE is not performing a commercially useful function.

(D) Joint Venture

When a MBE or WBE performs as a participant in a joint venture, the Contractor may count toward its contract goal requirement a portion of the total value of participation with

the MBE or WBE in the joint venture, that portion of the total dollar value being a distinct clearly defined portion of work that the MBE or WBE performs with its forces.

(E) Suppliers

A contractor may count toward its MBE/ WBE requirement 60 percent of its expenditures for materials and supplies required to complete the contract and obtained from a MBE or WBE regular dealer and 100 percent of such expenditures from a MBE or WBE manufacturer.

(F) Manufacturers and Regular Dealers

A contractor may count toward its MBE/ WBE requirement the following expenditures to MBE/WBE firms that are not manufacturers or regular dealers:

- (1) The fees or commissions charged by a MBE/WBE firm for providing a *bona fide* service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, provided the fees or commissions are determined to be reasonable and not excessive as compared with fees and commissions customarily allowed for similar services.
- (2) With respect to materials or supplies purchased from a MBE/WBE, which is neither a manufacturer nor a regular dealer, count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site (but not the cost of the materials and supplies themselves), provided the fees are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services.

Commercially Useful Function

(A) MBE/WBE Utilization

The Contractor may count toward its contract goal requirement only expenditures to MBEs and WBEs that perform a commercially useful function in the work of a contract. A MBE/WBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the MBE/WBE shall also be responsible with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material and installing (where applicable) and paying for the material itself. To determine whether a MBE/WBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the MBE/WBE credit claimed for its performance of the work, and any other relevant factors. If it is determined that a MBE or WBE is not performing a

Commercially Useful Function, the contractor may present evidence to rebut this presumption to the Department.

(B) MBE/WBE Utilization in Trucking

The following factors will be used to determine if a MBE or WBE trucking firm is performing a commercially useful function:

- (1) The MBE/WBE shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there shall not be a contrived arrangement for the purpose of meeting the Combined MBE/WBE Goal.
- (2) The MBE/WBE shall itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
- (3) The MBE/WBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.
- (4) The MBE may subcontract the work to another MBE firm, including an owner-operator who is certified as a MBE. The same holds true that a WBE may subcontract the work to another WBE firm, including an owner-operator who is certified as a WBE. When this occurs, the MBE or WBE who subcontracts work receives credit for the total value of the transportation services the subcontracted MBE or WBE provides on the contract. It should be noted that every effort shall be made by MBE and WBE contractors to subcontract to the same certification (i.e., MBEs to MBEs and WBEs to WBEs), in order to fulfill the participation breakdown. This, however, may not always be possible due to the limitation of firms in the area. If the MBE or WBE firm shows a good faith effort has been made to reach out to similarly certified transportation service providers and there is no interest or availability, and they can get assistance from other certified providers, the Engineer will not hold the prime responsible for meeting the individual MBE or WBE participation breakdown.
- (5) The MBE/WBE may also subcontract the work to a non-MBE/WBE firm, including from an owner-operator. The MBE/WBE who subcontracts the work to a non-MBE/WBE is entitled to credit for the total value of transportation services provided by the non-MBE/WBE subcontractor not to exceed the value of transportation services provided by MBE/WBE-owned trucks on the contract. Additional participation by non-MBE/WBE subcontractors receives credit only for the fee or commission it receives as a result of the subcontract arrangement. The value of services performed under subcontract agreements between the MBE/WBE and the Contractor will not count towards the MBE/WBE contract requirement.
- (6) A MBE/WBE may lease truck(s) from an established equipment leasing business open to the general public. The lease must indicate that the MBE/WBE has

exclusive use of and control over the truck. This requirement does not preclude the leased truck from working for others during the term of the lease with the consent of the MBE/WBE, so long as the lease gives the MBE/WBE absolute priority for use of the leased truck. This type of lease may count toward the MBE/WBE's credit as long as the driver is under the MBE/WBE's payroll.

- (7) Subcontracted/leased trucks shall display clearly on the dashboard the name of the MBE/WBE that they are subcontracted/leased to and their own company name if it is not identified on the truck itself. Magnetic door signs are not permitted.

MBE/WBE Replacement

When a Contractor has relied on a commitment to a MBE or WBE subcontractor (or an approved substitute MBE or WBE subcontractor) to meet all or part of a contract goal requirement, the contractor shall not terminate the MBE/WBE subcontractor for convenience. This includes, but is not limited to, instances in which the Contractor seeks to perform the work of the terminated subcontractor with another MBE/WBE subcontractor, a non-MBE/WBE subcontractor, or with the Contractor's own forces or those of an affiliate.

The Contractor must give notice in writing both by certified mail and email to the MBE/WBE subcontractor, with a copy to the Engineer of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor must give the MBE/WBE subcontractor five (5) business days to respond to the Contractor's Notice of Intent to Request Termination and/or Substitution. If the MBE/WBE subcontractor objects to the intended termination/substitution, the MBE/WBE, within five (5) business days must advise the Contractor and the Department of the reasons why the action should not be approved. The five-day notice period shall begin on the next business day after written notice is provided to the MBE/WBE subcontractor.

A committed MBE/WBE subcontractor may only be terminated after receiving the Department's written approval based upon a finding of good cause for the proposed termination and/or substitution. For purposes of this section, good cause shall include the following circumstances:

- (a) The listed MBE/WBE subcontractor fails or refuses to execute a written contract;
- (b) The listed MBE/WBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the MBE/WBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (c) The listed MBE/WBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
- (d) The listed MBE/WBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (e) The listed MBE/WBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR Parts 180, 215 and 1,200 or applicable state law;
- (f) The listed MBE/WBE subcontractor is not a responsible contractor;
- (g) The listed MBE/WBE voluntarily withdraws from the project and provides written notice of withdrawal;
- (h) The listed MBE/WBE is ineligible to receive MBE/WBE credit for the type of work required;
- (i) A MBE/WBE owner dies or becomes disabled with the result that the listed MBE/WBE contractor is unable to complete its work on the contract;

- (j) Other documented good cause that compels the termination of the MBE/WBE subcontractor. Provided, that good cause does not exist if the prime contractor seeks to terminate a MBE/WBE it relied upon to obtain the contract so that the prime contractor can self-perform the work for which the MBE/WBE contractor was engaged or so that the prime contractor can substitute another MBE/WBE or non-MBE/WBE contractor after contract award.

The Contractor shall comply with the following for replacement of a committed MBE/WBE:

(A) Performance Related Replacement

When a committed MBE/WBE is terminated for good cause as stated above, an additional MBE/WBE that was submitted at the time of bid may be used to fulfill the MBE/WBE commitment to meet the Combined MBE/WBE Goal. A good faith effort will only be required for removing a committed MBE/WBE if there were no additional MBE/WBEs submitted at the time of bid to cover the same amount of work as the MBE/WBE that was terminated.

If a replacement MBE/WBE is not found that can perform at least the same amount of work as the terminated MBE/WBE, the Contractor shall submit a good faith effort documenting the steps taken. Such documentation shall include, but not be limited to, the following:

- (1) Copies of written notification to MBE/WBEs that their interest is solicited in contracting the work defaulted by the previous MBE/WBE or in subcontracting other items of work in the contract.
- (2) Efforts to negotiate with MBE/WBEs for specific subbids including, at a minimum:
 - (a) The names, addresses, and telephone numbers of MBE/WBEs who were contacted.
 - (b) A description of the information provided to MBE/WBEs regarding the plans and specifications for portions of the work to be performed.
- (3) A list of reasons why MBE/WBE quotes were not accepted.
- (4) Efforts made to assist the MBE/WBEs contacted, if needed, in obtaining bonding or insurance required by the Contractor.

(B) Decertification Replacement

- (1) When a committed MBE/WBE is decertified by the Department after the SAF (*Subcontract Approval Form*) has been received by the Department, the Department will not require the Contractor to solicit replacement MBE/WBE participation equal to the remaining work to be performed by the decertified firm. The participation equal to the remaining work performed by the decertified firm will count toward the contract goal requirement.
- (2) When a committed MBE/WBE is decertified prior to the Department receiving the SAF (*Subcontract Approval Form*) for the named MBE/WBE firm, the Contractor shall take all necessary and reasonable steps to replace the MBE/WBE

subcontractor with another MBE/WBE subcontractor to perform at least the same amount of work to meet the Combined MBE/WBE goal requirement. If a MBE/WBE firm is not found to do the same amount of work, a good faith effort must be submitted to NCDOT (see A herein for required documentation).

All requests for replacement of a committed MBE/WBE firm shall be submitted to the Engineer for approval on Form RF-1 (*DBE Replacement Request*). If the Contractor fails to follow this procedure, the Contractor may be disqualified from further bidding for a period of up to 6 months.

Changes in the Work

When the Engineer makes changes that result in the reduction or elimination of work to be performed by a committed MBE/WBE, the Contractor will not be required to seek additional participation. When the Engineer makes changes that result in additional work to be performed by a MBE/WBE based upon the Contractor's commitment, the MBE/WBE shall participate in additional work to the same extent as the MBE/WBE participated in the original contract work.

When the Engineer makes changes that result in extra work, which has more than a minimal impact on the contract amount, the Contractor shall seek additional participation by MBEs/WBEs unless otherwise approved by the Engineer.

When the Engineer makes changes that result in an alteration of plans or details of construction, and a portion or all of the work had been expected to be performed by a committed MBE/WBE, the Contractor shall seek participation by MBEs/WBEs unless otherwise approved by the Engineer.

When the Contractor requests changes in the work that result in the reduction or elimination of work that the Contractor committed to be performed by a MBE/WBE, the Contractor shall seek additional participation by MBEs/WBEs equal to the reduced MBE/WBE participation caused by the changes.

Reports and Documentation

A SAF (*Subcontract Approval Form*) shall be submitted for all work which is to be performed by a MBE/WBE subcontractor. The Department reserves the right to require copies of actual subcontract agreements involving MBE/WBE subcontractors.

When using transportation services to meet the contract commitment, the Contractor shall submit a proposed trucking plan in addition to the SAF. The plan shall be submitted prior to beginning construction on the project. The plan shall include the names of all trucking firms proposed for use, their certification type(s), the number of trucks owned by the firm, as well as the individual truck identification numbers, and the line item(s) being performed.

Within 30 calendar days of entering into an agreement with a MBE/WBE for materials, supplies or services, not otherwise documented by the SAF as specified above, the Contractor shall furnish the Engineer a copy of the agreement. The documentation shall also indicate the percentage (60% or 100%) of expenditures claimed for MBE/WBE credit.

Reporting Minority and Women Business Enterprise Participation

The Contractor shall provide the Engineer with an accounting of payments made to all MBE/WBE firms, including material suppliers and contractors at all levels (prime, subcontractor, or second tier subcontractor). This accounting shall be furnished to the Engineer for any given month by the end of the following month. Failure to submit this information accordingly may result in the following action:

- (A) Withholding of money due in the next partial pay estimate; or
- (B) Removal of an approved contractor from the prequalified bidders' list or the removal of other entities from the approved subcontractors list.

While each contractor (prime, subcontractor, 2nd tier subcontractor) is responsible for accurate accounting of payments to MBEs/WBEs, it shall be the prime contractor's responsibility to report all monthly and final payment information in the correct reporting manner.

Failure on the part of the Contractor to submit the required information in the time frame specified may result in the disqualification of that contractor and any affiliate companies from further bidding until the required information is submitted.

Failure on the part of any subcontractor to submit the required information in the time frame specified may result in the disqualification of that contractor and any affiliate companies from being approved for work on future DOT projects until the required information is submitted.

Contractors reporting transportation services provided by non-MBE/WBE lessees shall evaluate the value of services provided during the month of the reporting period only.

At any time, the Engineer can request written verification of subcontractor payments.

The Contractor shall report the accounting of payments through the Department's Payment Tracking System.

Failure to Meet Contract Requirements

Failure to meet contract requirements in accordance with Subarticle 102-15(J) of the *2018 Standard Specifications* may be cause to disqualify the Contractor.

USE OF UNMANNED AIRCRAFT SYSTEM (UAS):

(8-20-19)

SP1 G092

The Contractor shall adhere to all Federal, State and Local regulations and guidelines for the use of Unmanned Aircraft Systems (UAS). This includes but is not limited to US 14 CFR Part 107 *Small UAS Rule*, NC GS 15A-300.2 *Regulation of launch and recovery sites*, NC GS 63-95 *Training required for the operation of unmanned aircraft systems*, NC GS 63-96 *Permit required for commercial operation of unmanned aircraft system*, and NCDOT UAS Policy. The required operator certifications include possessing a current Federal Aviation Administration (FAA) Remote Pilot Certificate, a NC UAS Operator Permit as well as operating a UAS registered with the FAA.

Prior to beginning operations, the Contractor shall complete the NCDOT UAS – Flight Operation Approval Form and submit it to the Engineer for approval. All UAS operations shall be approved by the Engineer prior to beginning the operations.

All contractors or subcontractors operating UAS shall have UAS specific general liability insurance to cover all operations under this contract.

The use of UAS is at the Contractor’s discretion. No measurement or payment will be made for the use of UAS. In the event that the Department directs the Contractor to utilize UAS, payment will be in accordance with Article 104-7 Extra Work.

ELECTRONIC BIDDING:

(2-19-19)

101, 102, 103

SP1 G140

Revise the *2018 Standard Specifications* as follows:

Page 1-4, Article 101-3, DEFINITIONS, BID (OR PROPOSAL) *Electronic Bid*, line 1, replace “Bid Express®” with “the approved electronic bidding provider”.

Page 1-15, Subarticle 102-8(B), Electronic Bids, lines 39-40, replace “to Bid Express®” with “via the approved electronic bidding provider”.

Page 1-15, Subarticle 102-8(B)(1), Electronic Bids, line 41, delete “from Bid Express®”

Page 1-17, Subarticle 102-9(C)(2), Electronic Bids, line 21, replace “Bid Express® miscellaneous folder within the .ebs” with “electronic submittal”.

Page 1-29, Subarticle 103-4(C)(2), Electronic Bids, line 32, replace “.ebs miscellaneous data file of Expedite” with “electronic submittal file”

TWELVE MONTH GUARANTEE:

(7-15-03)

108

SP1 G145

- (A) The Contractor shall guarantee materials and workmanship against latent and patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve months following the date of final acceptance of the work for maintenance and shall replace such defective materials and workmanship without cost to the Department. The Contractor will not be responsible for damage due to faulty design, normal wear and tear, for negligence on the part of the Department, and/or for use in excess of the design.
- (B) Where items of equipment or material carry a manufacturer’s guarantee for any period in excess of twelve months, then the manufacturer’s guarantee shall apply for that particular piece of equipment or material. The Department’s first remedy shall be through the manufacturer although the Contractor is responsible for invoking the warranted repair work with the manufacturer. The Contractor’s responsibility shall be limited to the term of the manufacturer’s guarantee. NCDOT would be afforded the same warranty as provided by the Manufacturer.

This guarantee provision shall be invoked only for major components of work in which the Contractor would be wholly responsible for under the terms of the contract. Examples would include pavement structures, bridge components, and sign structures. This provision will not be used as a mechanism to force the Contractor to return to the project to make repairs or perform additional work that the Department would normally compensate the Contractor for. In addition, routine maintenance activities (i.e. mowing grass, debris removal, ruts in earth shoulders,) are not parts of this guarantee.

Appropriate provisions of the payment and/or performance bonds shall cover this guarantee for the project.

To ensure uniform application statewide the Division Engineer will forward details regarding the circumstances surrounding any proposed guarantee repairs to the Chief Engineer for review and approval prior to the work being performed.

OUTSOURCING OUTSIDE THE USA:

(9-21-04) (Rev. 5-16-06)

SP1 G150

All work on consultant contracts, services contracts, and construction contracts shall be performed in the United States of America. No work shall be outsourced outside of the United States of America.

Outsourcing for the purpose of this provision is defined as the practice of subcontracting labor, work, services, staffing, or personnel to entities located outside of the United States.

The North Carolina Secretary of Transportation shall approve exceptions to this provision in writing.

COOPERATION BETWEEN CONTRACTORS:

(7-1-95)

105-7

SP1 G133

The Contractor's attention is directed to Article 105-7 of the *2018 Standard Specifications*.

NCTA RESURFACING OF TOLL NC 147 (MAINLINE & RAMPS) AND TOLL NC 540 (RAMPS ONLY).

The Contractor on this project shall cooperate with the Contractor working within or adjacent to the limits of this project to the extent that the work can be carried out to the best advantage of all concerned.

PROJECT SPECIAL PROVISIONS**ROADWAY****BRIDGE SITES:****DESCRIPTION**

Existing staining is to be removed from painted elements at bridge sites located along the Triangle Expressway on Toll NC-540 and Toll NC-147. Anti-graffiti coating is to be applied to all surfaces that have staining removed. Please refer to the supplemental materials provided elsewhere in this Contract for direction on which elements are to have the existing staining removed and anti-graffiti coating applied. This section also covers the work necessary to extend the existing staining at all painted MSE bridge walls two feet (2') below the existing ground line as well as reapplying staining within the MSE wall coping for the embedded road names. The Federal number paint color for the embedded road names will be determined in the field by the Engineer.

CONSTRUCTION METHODS

Refer to the Concrete Coating and Repair Special Provision located elsewhere in this Contract for direction on the proper removal of the existing staining and application of anti-graffiti coating.

MEASUREMENT AND PAYMENT

The work covered by this section will be paid for at the contract lump sum for each *Stain Removal and Anti-Graffiti Coating* @ _____. Such price shall be full compensation for the labor, materials, and incidentals required to complete the work covered by this provision.

Structure #	Bridge Site
1277	NC-540 NB over NC-55 Bypass
1278	Veridea Pkway over NC-540
1279	NC-540 NB over US-1 Flyover
1280	NC-540 SB over US-1 Flyover
1281	NC-540 NB over US-1
1282	NC-540 SB over US-1
1283	US-1 Flyover over US-1
1285	S. Salem St. over NC-540
1286	Apex BBQ over NC-540
1289	Olive Chapel Rd over NC-540
1290	Beaver Creek Commons over NC-540
1291	NC-540 SB over US-64
1292	NC-540 NB over US-64
1294	Jenks Rd over NC-540

1295	Roberts Rd over NC-540
1300	Green Level West Rd over NC-540
1301	Geen Hope School Rd over NC-540
1302	Morrisville Pkwy over NC-540
1305	EB Carpenter Firestation Rd over NC-540
1306	WB Carpenter Firestation Rd over NC-540
1307	WB McCrimmon Pkwy over NC-540
1308	EB McCrimmon Pkwy over NC-540
1311	Kit Creek Rd over NC-147
587	NC-147 SB over Davis Dr
588	NC-147 NB over Davis Dr
589	Hopson Rd over NC-147
300	NC-54 over NC-147

Payment will be made under:

Stain Removal and Anti-Graffiti Coating @ Str #1277	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1278	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1279	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1280	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1281	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1282	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1283	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1285	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1286	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1289	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1290	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1291	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1292	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1294	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1295	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1300	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1301	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1302	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1305	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1306	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1307	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1308	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #1311	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #587	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #588	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #589	Lump Sum
Stain Removal and Anti-Graffiti Coating @ Str #300	Lump Sum

AESTHETIC SIGN COLUMNS:**DESCRIPTION**

Existing staining is to be removed from all aesthetic sign columns located along the Triangle Expressway on Toll NC-540 and Toll NC-147 and on -Y-lines. Aesthetic sign columns include overhead sign columns, DMS sign columns and Toll Zone gantry columns. Anti-graffiti coating is to be applied to all surfaces that have staining removed. Please refer to the supplemental materials provided elsewhere in this Contract for the location of the aesthetic sign columns.

CONSTRUCTION METHODS

Refer to the Concrete Coating and Repair Special Provision located elsewhere in this Contract for direction on the proper removal of the existing staining and application of anti-graffiti coating.

MEASUREMENT AND PAYMENT

The work covered by this section will be paid for at the per each price for stain removal and anti-graffiti coating application. Such price shall be full compensation for the labor, materials, and incidentals required to complete the work covered by this provision.

Payment will be made under:

Aesthetic Sign Column Stain Removal	Each
Aesthetic Sign Column Anti-Graffiti Coating Application	Each

CONCRETE BARRIER:**DESCRIPTION**

Existing staining is to be removed from all painted concrete barrier located along the Triangle Expressway on Toll NC-540 and Toll NC-147. Anti-graffiti coating is to be applied to all surfaces that have staining removed. Please refer to the supplemental materials provided elsewhere in this Contract for the location of the concrete barrier. The work covered by this section **does not** include concrete barrier at bridge sites located in front of MSE walls, around interior bents or on overpasses as they are measured and paid for elsewhere in this Contract.

CONSTRUCTION METHODS

Refer to the Concrete Coating and Repair Special Provision located elsewhere in this Contract for direction on the proper removal of the existing staining and application of anti-graffiti coating.

MEASUREMENT AND PAYMENT

The work covered by this section will be paid for at the per linear foot price for stain removal and anti-graffiti coating application. Such price shall be full compensation for the labor, materials, and incidentals required to complete the work covered by this provision.

Payment will be made under:

Concrete Barrier Stain Removal	Linear Foot
Concrete Barrier Anti-Graffiti Coating Application	Linear Foot

CONCRETE BARRIER DELINEATORS:**DESCRIPTION**

The Contractor will be required to install reflective delineators on all concrete barriers that have existing staining removed and anti-graffiti coating applied.

CONSTRUCTION METHODS

Refer to Section 854 of the 2018 Standard Specifications for Roads and Structures.

MEASUREMENT AND PAYMENT

The work covered by this section shall be incidental to other pay items in the Contract.

BURNING RESTRICTIONS:

(7-1-95)

200, 210, 215

SP2 R05

Open burning is not permitted on any portion of the right-of-way limits established for this project. Do not burn the clearing, grubbing or demolition debris designated for disposal and generated from the project at locations within the project limits, off the project limits or at any waste or borrow sites in this county. Dispose of the clearing, grubbing and demolition debris by means other than burning, according to state or local rules and regulations.

STANDARD SPECIAL PROVISION
AVAILABILITY OF FUNDS – TERMINATION OF CONTRACTS

(5-20-08)

Z-2

General Statute 143C-6-11. (h) Highway Appropriation is hereby incorporated verbatim in this contract as follows:

(h) Amounts Encumbered. – Transportation project appropriations may be encumbered in the amount of allotments made to the Department of Transportation by the Director for the estimated payments for transportation project contract work to be performed in the appropriation fiscal year. The allotments shall be multiyear allotments and shall be based on estimated revenues and shall be subject to the maximum contract authority contained in *General Statute 143C-6-11(c)*. Payment for transportation project work performed pursuant to contract in any fiscal year other than the current fiscal year is subject to appropriations by the General Assembly. Transportation project contracts shall contain a schedule of estimated completion progress, and any acceleration of this progress shall be subject to the approval of the Department of Transportation provided funds are available. The State reserves the right to terminate or suspend any transportation project contract, and any transportation project contract shall be so terminated or suspended if funds will not be available for payment of the work to be performed during that fiscal year pursuant to the contract. In the event of termination of any contract, the contractor shall be given a written notice of termination at least 60 days before completion of scheduled work for which funds are available. In the event of termination, the contractor shall be paid for the work already performed in accordance with the contract specifications.

Payment will be made on any contract terminated pursuant to the special provision in accordance with Subarticle 108-13(D) of the *2018 Standard Specifications*.

STANDARD SPECIAL PROVISION
NCDOT GENERAL SEED SPECIFICATION FOR SEED QUALITY

(5-17-11)

Z-3

Seed shall be sampled and tested by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory. When said samples are collected, the vendor shall supply an independent laboratory report for each lot to be tested. Results from seed so sampled shall be final. Seed not meeting the specifications shall be rejected by the Department of Transportation and shall not be delivered to North Carolina Department of Transportation warehouses. If seed has been delivered it shall be available for pickup and replacement at the supplier's expense.

Any re-labeling required by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory, that would cause the label to reflect as otherwise specified herein shall be rejected by the North Carolina Department of Transportation.

Seed shall be free from seeds of the noxious weeds Johnsongrass, Balloonvine, Jimsonweed, Witchweed, Itchgrass, Serrated Tussock, Showy Crotalaria, Smooth Crotalaria, Sicklepod, Sandbur, Wild Onion, and Wild Garlic. Seed shall not be labeled with the above weed species on the seed analysis label. Tolerances as applied by the Association of Official Seed Analysts will NOT be allowed for the above noxious weeds except for Wild Onion and Wild Garlic.

Tolerances established by the Association of Official Seed Analysts will generally be recognized. However, for the purpose of figuring pure live seed, the found pure seed and found germination percentages as reported by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory will be used. Allowances, as established by the NCDOT, will be recognized for minimum pure live seed as listed on the following pages.

The specifications for restricted noxious weed seed refers to the number per pound as follows:

<u>Restricted Noxious Weed</u>	<u>Limitations per Lb. Of Seed</u>	<u>Restricted Noxious Weed</u>	<u>Limitations per Lb. of Seed</u>
Blessed Thistle	4 seeds	Cornflower (Ragged Robin)	27 seeds
Cocklebur	4 seeds	Texas Panicum	27 seeds
Spurred Anoda	4 seeds	Bracted Plantain	54 seeds
Velvetleaf	4 seeds	Buckhorn Plantain	54 seeds
Morning-glory	8 seeds	Broadleaf Dock	54 seeds
Corn Cockle	10 seeds	Curly Dock	54 seeds
Wild Radish	12 seeds	Dodder	54 seeds
Purple Nutsedge	27 seeds	Giant Foxtail	54 seeds
Yellow Nutsedge	27 seeds	Horsenettle	54 seeds
Canada Thistle	27 seeds	Quackgrass	54 seeds
Field Bindweed	27 seeds	Wild Mustard	54 seeds
Hedge Bindweed	27 seeds		

Seed of Pensacola Bahiagrass shall not contain more than 7% inert matter, Kentucky Bluegrass, Centipede and Fine or Hard Fescue shall not contain more than 5% inert matter whereas a maximum of 2% inert matter will be allowed on all other kinds of seed. In addition, all seed shall

not contain more than 2% other crop seed nor more than 1% total weed seed. The germination rate as tested by the North Carolina Department of Agriculture shall not fall below 70%, which includes both dormant and hard seed. Seed shall be labeled with not more than 7%, 5% or 2% inert matter (according to above specifications), 2% other crop seed and 1% total weed seed.

Exceptions may be made for minimum pure live seed allowances when cases of seed variety shortages are verified. Pure live seed percentages will be applied in a verified shortage situation. Those purchase orders of deficient seed lots will be credited with the percentage that the seed is deficient.

FURTHER SPECIFICATIONS FOR EACH SEED GROUP ARE GIVEN BELOW:

Minimum 85% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 83% pure live seed will not be approved.

Sericea Lespedeza
Oats (seeds)

Minimum 80% pure live seed; maximum 1% total weed seed; maximum 2% total other crop; maximum 144 restricted noxious weed seed per pound. Seed less than 78% pure live seed will not be approved.

Tall Fescue (all approved varieties)	Bermudagrass
Kobe Lespedeza	Browntop Millet
Korean Lespedeza	German Millet – Strain R
Weeping Lovegrass	Clover – Red/White/Crimson
Carpetgrass	

Minimum 78% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 76% pure live seed will not be approved.

Common or Sweet Sundangrass

Minimum 76% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 74% pure live seed will not be approved.

Rye (grain; all varieties)
Kentucky Bluegrass (all approved varieties)
Hard Fescue (all approved varieties)
Shrub (bicolor) Lespedeza

Minimum 70% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 noxious weed seed per pound. Seed less than 70% pure live seed will not be approved.

Centipedegrass	Japanese Millet
Crownvetch	Reed Canary Grass
Pensacola Bahiagrass	Zoysia
Creeping Red Fescue	

Minimum 70% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 5% inert matter; maximum 144 restricted noxious weed seed per pound.

Barnyard Grass
Big Bluestem
Little Bluestem
Bristly Locust
Birdsfoot Trefoil
Indiangrass
Orchardgrass
Switchgrass
Yellow Blossom Sweet Clover

STANDARD SPECIAL PROVISION**ERRATA**

(10-16-18) (Rev.1-15-19)

Z-4

Revise the *2018 Standard Specifications* as follows:

Division 6

Page 6-7, Article 609-1 DESCRIPTION, line 29, replace article number “609-10” with “609-9”.

Division 7

Page 7-27, Article 725-1 MEASUREMENT AND PAYMENT, line 4, replace article number “725-1” with “724-4”.

Page 7-28, Article 725-1 MEASUREMENT AND PAYMENT, line 10, replace article number “725-1” with “725-3”.

Division 10

Page 10-78, Article 1056-4 GEOTEXTILES, TABLE 1056-1, Permittivity, Type 2, replace “Table 6^D” with “Table 7^D” and **Permittivity, Type 3^B,** replace “Table 7^D” with “Table 8^D”.

Page 10-162, Article 1080-50 PAINT FOR VERTICAL MARKERS, line 1, replace article number “1080-50” with “1080-10”.

Page 10-162, Article 1080-61 EPOXY RESIN FOR REINFORCING STEEL, line 5, replace article number “1080-61” with “1080-11”.

Page 10-162, Article 1080-72 ABRASIVE MATERIALS FOR BLAST CLEANING STEEL, line 22, replace article number “1080-72” with “1080-12”.

Page 10-163, Article 1080-83 FIELD PERFORMANCE AND SERVICES, line 25, replace article number “1080-83” with “1080-13”.

Division 17

Page 17-15, Article 1715-4 MEASUREMENT AND PAYMENT, lines 42-44, replace the second sentence with the following:

An example is an installation of a single 1.25 inch HDPE conduit would be paid as:

Directional Drill (1)(1.25”) Linear Foot

STANDARD SPECIAL PROVISION**PLANT AND PEST QUARANTINES****(Imported Fire Ant, Gypsy Moth, Witchweed, Emerald Ash Borer, Guava Root Knot Nematode, And Other Noxious Weeds)**

(3-18-03) (Rev. 5-21-19)

Z-04a

Within Quarantined Area

This project may be within a county regulated for plant and/or pests. If the project or any part of the Contractor's operations is located within a quarantined area, thoroughly clean all equipment prior to moving out of the quarantined area. Comply with federal/state regulations by obtaining a certificate or limited permit for any regulated article moving from the quarantined area.

Originating in a Quarantined County

Obtain a certificate or limited permit issued by the N.C. Department of Agriculture/United States Department of Agriculture. Have the certificate or limited permit accompany the article when it arrives at the project site.

Contact

Contact the N.C. Department of Agriculture/United States Department of Agriculture at 1-800-206-9333, 919-707-3730, or <https://www.ncagr.gov/plantindustry/Plant/quaran/table2.htm> to determine those specific project sites located in the quarantined area or for any regulated article used on this project originating in a quarantined county.

Regulated Articles Include

1. Soil, sand, gravel, compost, peat, humus, muck, and decomposed manure, separately or with other articles. This includes movement of articles listed above that may be associated with cut/waste, ditch pulling, and shoulder cutting.
2. Plants with roots including grass sod.
3. Plant crowns and roots.
4. Bulbs, corms, rhizomes, and tubers of ornamental plants.
5. Hay, straw, fodder, and plant litter of any kind.
6. Clearing and grubbing debris.
7. Used agricultural cultivating and harvesting equipment.
8. Used earth-moving equipment.
9. Any other products, articles, or means of conveyance, of any character, if determined by an inspector to present a hazard of spreading imported fire ant, gypsy moth, witchweed, emerald ash borer, guava root knot nematode, or other noxious weeds.

STANDARD SPECIAL PROVISION

MINIMUM WAGES

(7-21-09)

Z-5

FEDERAL: The Fair Labor Standards Act provides that with certain exceptions every employer shall pay wages at the rate of not less than SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

STATE: The North Carolina Minimum Wage Act provides that every employer shall pay to each of his employees, wages at a rate of not less than SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all skilled labor employed on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all intermediate labor employed on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all unskilled labor on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

This determination of the intent of the application of this act to the contract on this project is the responsibility of the Contractor.

The Contractor shall have no claim against the Department of Transportation for any changes in the minimum wage laws, Federal or State. It is the responsibility of the Contractor to keep fully informed of all Federal and State Laws affecting his contract.

STANDARD SPECIAL PROVISION**TITLE VI AND NONDISCRIMINATION:**

(6-28-77)(Rev 6/19/2018)

Z-6

Revise the *2018 Standard Specifications* as follows:

Replace Article 103-4(B) with the following:

The North Carolina Department of Transportation is committed to carrying out the U.S. Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts.

The provisions of this section related to United States Department of Transportation (US DOT) Order 1050.2A, Title 49 Code of Federal Regulations (CFR) part 21, 23 United States Code (U.S.C.) 140 and 23 CFR part 200 (or 49 CFR 303, 49 U.S.C. 5332 or 49 U.S.C. 47123) are applicable to all North Carolina Department of Transportation (NCDOT) contracts and to all related subcontracts, material supply, engineering, architectural and other service contracts, regardless of dollar amount. Any Federal provision that is specifically required not specifically set forth is hereby incorporated by reference.

(1) **Title VI Assurances (USDOT Order 1050.2A, Appendix A)**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

(a) Compliance with Regulations

The contractor (hereinafter includes consultants) shall comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

(b) Nondiscrimination

The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

(c) Solicitations for Subcontractors, Including Procurements of Materials and Equipment

In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Nondiscrimination on the grounds of race, color, or national origin.

(d) Information and Reports

The contractor shall provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts,

- Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor shall so certify to the Recipient or the FHWA, as appropriate, and shall set forth what efforts it has made to obtain the information.
- (e) Sanctions for Noncompliance:
In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it and/or the FHWA may determine to be appropriate, including, but not limited to:
- (i) Withholding payments to the contractor under the contract until the contractor complies; and/or
 - (ii) Cancelling, terminating, or suspending a contract, in whole or in part.
- (f) Incorporation of Provisions
The contractor shall include the provisions of paragraphs (a) through (f) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor shall take action with respect to any subcontract or procurement as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

(2) **Title VI Nondiscrimination Program (23 CFR 200.5(p))**

The North Carolina Department of Transportation (NCDOT) has assured the USDOT that, as a condition to receiving federal financial assistance, NCDOT will comply with Title VI of the Civil Rights Act of 1964 and all requirements imposed by Title 49 CFR part 21 and related nondiscrimination authorities to ensure that no person shall, on the ground of race, color, national origin, limited English proficiency, sex, age, or disability (including religion/creed or income-level, where applicable), be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any programs, activities, or services conducted or funded by NCDOT. Contractors and other organizations under contract or agreement with NCDOT must also comply with Title VI and related authorities, therefore:

- (a) During the performance of this contract or agreement, contractors (e.g., subcontractors, consultants, vendors, prime contractors) are responsible for complying with NCDOT's Title VI Program. Contractors are not required to prepare or submit Title VI Programs. To comply with this section, the prime contractor shall:
1. Post NCDOT's Notice of Nondiscrimination and the Contractor's own Equal Employment Opportunity (EEO) Policy in conspicuous locations accessible to all employees, applicants and subcontractors on the jobsite.
 2. Physically incorporate the required Title VI clauses into all subcontracts on federally-assisted and state-funded NCDOT projects, and ensure inclusion by subcontractors into all lower-tier subcontracts.
 3. Required Solicitation Language. The Contractor shall include the following notification in all solicitations for bids and requests for work or material, regardless of funding source:

“The North Carolina Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract

entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award. In accordance with other related nondiscrimination authorities, bidders and contractors will also not be discriminated against on the grounds of sex, age, disability, low-income level, creed/religion, or limited English proficiency in consideration for an award.”

4. Physically incorporate the FHWA-1273, in its entirety, into all subcontracts and subsequent lower tier subcontracts on Federal-aid highway construction contracts only.
 5. Provide language assistance services (i.e., written translation and oral interpretation), free of charge, to LEP employees and applicants. Contact NCDOT OCR for further assistance, if needed.
 6. For assistance with these Title VI requirements, contact the NCDOT Title VI Nondiscrimination Program at 1-800-522-0453.
- (b) Subrecipients (e.g. cities, counties, LGAs, planning organizations) may be required to prepare and submit a Title VI Plan to NCDOT, including Title VI Assurances and/or agreements. Subrecipients must also ensure compliance by their contractors and subrecipients with Title VI. (23 CFR 200.9(b)(7))
- (c) If reviewed or investigated by NCDOT, the contractor or subrecipient agrees to take affirmative action to correct any deficiencies found within a reasonable time period, not to exceed 90 calendar days, unless additional time is granted by NCDOT. (23 CFR 200.9(b)(15))
- (d) The Contractor is responsible for notifying subcontractors of NCDOT’s External Discrimination Complaints Process.
1. Applicability
Title VI and related laws protect participants and beneficiaries (e.g., members of the public and contractors) from discrimination by NCDOT employees, subrecipients and contractors, regardless of funding source.
 2. Eligibility
Any person—or class of persons—who believes he/she has been subjected to discrimination based on race, color, national origin, Limited English Proficiency (LEP), sex, age, or disability (and religion in the context of employment, aviation, or transit) may file a written complaint. The law also prohibits intimidation or retaliation of any sort.
 3. Time Limits and Filing Options
Complaints may be filed by the affected individual(s) or a representative and must be filed no later than 180 calendar days after the following:
 - (i) The date of the alleged act of discrimination; or
 - (ii) The date when the person(s) became aware of the alleged discrimination; or
 - (iii) Where there has been a continuing course of conduct, the date on which that conduct was discontinued or the latest instance of the conduct.Title VI and related discrimination complaints may be submitted to the following entities:
 - North Carolina Department of Transportation, Office of Civil Rights, Title VI Program, 1511 Mail Service Center, Raleigh, NC 27699-1511; toll free 1-800-522-0453
 - Federal Highway Administration, North Carolina Division Office, 310 New Bern Avenue, Suite 410, Raleigh, NC 27601, 919-747-7010

- US Department of Transportation, Departmental Office of Civil Rights, External Civil Rights Programs Division, 1200 New Jersey Avenue, SE, Washington, DC 20590; 202-366-4070

4. Format for Complaints

Complaints must be in writing and signed by the complainant(s) or a representative, and include the complainant's name, address, and telephone number. Complaints received by fax or e-mail will be acknowledged and processed. Allegations received by telephone will be reduced to writing and provided to the complainant for confirmation or revision before processing. Complaints will be accepted in other languages, including Braille.

5. Discrimination Complaint Form

Contact NCDOT Civil Rights to receive a full copy of the Discrimination Complaint Form and procedures.

6. Complaint Basis

Allegations must be based on issues involving race, color, national origin (LEP), sex, age, disability, or religion (in the context of employment, aviation or transit). "Basis" refers to the complainant's membership in a protected group category.

**TABLE 103-1
COMPLAINT BASIS**

Protected Categories	Definition	Examples	Applicable Nondiscrimination Authorities
Race and Ethnicity	An individual belonging to one of the accepted racial groups; or the perception, based usually on physical characteristics that a person is a member of a racial group	Black/African American, Hispanic/Latino, Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, White	Title VI of the Civil Rights Act of 1964; 49 CFR Part 21; 23 CFR 200; 49 U.S.C. 5332(b); 49 U.S.C. 47123. (<i>Executive Order 13166</i>)
Color	Color of skin, including shade of skin within a racial group	Black, White, brown, yellow, etc.	
National Origin (<i>Limited English Proficiency</i>)	Place of birth. Citizenship is not a factor. (<i>Discrimination based on language or a person's accent is also covered</i>)	Mexican, Cuban, Japanese, Vietnamese, Chinese	
Sex	Gender. The sex of an individual. <i>Note: Sex under this program does not include sexual orientation.</i>	Women and Men	1973 Federal-Aid Highway Act; 49 U.S.C. 5332(b); 49 U.S.C. 47123.
Age	Persons of any age	21-year-old person	Age Discrimination Act of 1975 49 U.S.C. 5332(b); 49 U.S.C. 47123.
Disability	Physical or mental impairment, permanent or temporary, or perceived.	Blind, alcoholic, para-amputee, epileptic, diabetic, arthritic	Section 504 of the Rehabilitation Act of 1973; Americans with Disabilities Act of 1990

Religion (in the context of employment) <i>(Religion/ Creed in all aspects of any aviation or transit-related construction)</i>	An individual belonging to a religious group; or the perception, based on distinguishable characteristics that a person is a member of a religious group. In practice, actions taken as a result of the moral and ethical beliefs as to what is right and wrong, which are sincerely held with the strength of traditional religious views. Note: Does not have to be associated with a recognized religious group or church; if an individual sincerely holds to the belief, it is a protected religious practice.	Muslim, Christian, Sikh, Hindu, etc.	Title VII of the Civil Rights Act of 1964; 23 CFR 230; FHWA-1273 Required Contract Provisions. <i>(49 U.S.C. 5332(b); 49 U.S.C. 47123)</i>
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(3) Pertinent Nondiscrimination Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest agrees to comply with the following non-discrimination statutes and authorities, including, but not limited to:

- (a) Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- (b) The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- (c) Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- (d) Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability) and 49 CFR Part 27;
- (e) The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- (f) Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- (g) The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- (h) Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- (i) The Federal Aviation Administration's Nondiscrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- (j) Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Nondiscrimination against minority populations by discouraging programs, policies, and activities with

disproportionately high and adverse human health or environmental effects on minority and low-income populations;

- (k) Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
 - (l) Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).
 - (m) Title VII of the Civil Rights Act of 1964 (42 U.S.C. § 2000e et seq., Pub. L. 88-352), (prohibits employment discrimination on the basis of race, color, religion, sex, or national origin).
- (4) **Additional Title VI Assurances**

***The following Title VI Assurances (Appendices B, C and D) shall apply, as applicable*

- (a) Clauses for Deeds Transferring United States Property (1050.2A, Appendix B)
The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4.

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the North Carolina Department of Transportation (NCDOT) will accept title to the lands and maintain the project constructed thereon in accordance with the North Carolina General Assembly, the Regulations for the Administration of the Federal-Aid Highway Program, and the policies and procedures prescribed by the Federal Highway Administration of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the NCDOT all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto the North Carolina Department of Transportation (NCDOT) and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the NCDOT, its successors and assigns.

The NCDOT, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and]* (2) that the NCDOT will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended [, and (3) that in the event of breach of any of the above-mentioned nondiscrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)

(b) Clauses for Transfer of Real Property Acquired or Improved Under the Activity, Facility, or Program (1050.2A, Appendix C)

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the North Carolina Department of Transportation (NCDOT) pursuant to the provisions of Assurance 7(a):

1. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:
 - (i.) In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
2. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued. *
3. With respect to a deed, in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the NCDOT and its assigns. *

- (*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)
- (c) Clauses for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program (1050.2A, Appendix D)

The following clauses will be included in deeds, licenses, permits, or similar instruments/ agreements entered into by the North Carolina Department of Transportation (NCDOT) pursuant to the provisions of Assurance 7(b):

1. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.
2. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, the NCDOT will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued. *
3. With respect to deeds, in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will there upon revert to and vest in and become the absolute property of the NCDOT and its assigns. *

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

STANDARD SPECIAL PROVISION**ON-THE-JOB TRAINING**

(10-16-07) (Rev. 4-21-15)

Z-10

Description

The North Carolina Department of Transportation will administer a custom version of the Federal On-the-Job Training (OJT) Program, commonly referred to as the Alternate OJT Program. All contractors (existing and newcomers) will be automatically placed in the Alternate Program. Standard OJT requirements typically associated with individual projects will no longer be applied at the project level. Instead, these requirements will be applicable on an annual basis for each contractor administered by the OJT Program Manager.

On the Job Training shall meet the requirements of 23 CFR 230.107 (b), 23 USC – Section 140, this provision and the On-the-Job Training Program Manual.

The Alternate OJT Program will allow a contractor to train employees on Federal, State and privately funded projects located in North Carolina. However, priority shall be given to training employees on NCDOT Federal-Aid funded projects.

Minorities and Women

Developing, training and upgrading of minorities and women toward journeyman level status is a primary objective of this special training provision. Accordingly, the Contractor shall make every effort to enroll minority and women as trainees to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

Assigning Training Goals

The Department, through the OJT Program Manager, will assign training goals for a calendar year based on the contractors' past three years' activity and the contractors' anticipated upcoming year's activity with the Department. At the beginning of each year, all contractors eligible will be contacted by the Department to determine the number of trainees that will be assigned for the upcoming calendar year. At that time the Contractor shall enter into an agreement with the Department to provide a self-imposed on-the-job training program for the calendar year. This agreement will include a specific number of annual training goals agreed to by both parties. The number of training assignments may range from 1 to 15 per contractor per calendar year. The Contractor shall sign an agreement to fulfill their annual goal for the year.\

Training Classifications

The Contractor shall provide on-the-job training aimed at developing full journeyman level workers in the construction craft/operator positions. Preference shall be given to providing training in the following skilled work classifications:

Equipment Operators	Office Engineers
Truck Drivers	Estimators
Carpenters	Iron / Reinforcing Steel Workers
Concrete Finishers	Mechanics
Pipe Layers	Welders

The Department has established common training classifications and their respective training requirements that may be used by the contractors. However, the classifications established are not all-inclusive. Where the training is oriented toward construction applications, training will be allowed in lower-level management positions such as office engineers and estimators. Contractors shall submit new classifications for specific job functions that their employees are performing. The Department will review and recommend for acceptance to FHWA the new classifications proposed by contractors, if applicable. New classifications shall meet the following requirements:

Proposed training classifications are reasonable and realistic based on the job skill classification needs, and

The number of training hours specified in the training classification is consistent with common practices and provides enough time for the trainee to obtain journeyman level status.

The Contractor may allow trainees to be trained by a subcontractor provided that the Contractor retains primary responsibility for meeting the training and this provision is made applicable to the subcontract. However, only the Contractor will receive credit towards the annual goal for the trainee.

Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeyman level status or in which they have been employed as a journeyman.

Records and Reports

The Contractor shall maintain enrollment, monthly and completion reports documenting company compliance under these contract documents. These documents and any other information as requested shall be submitted to the OJT Program Manager.

Upon completion and graduation of the program, the Contractor shall provide each trainee with a certification Certificate showing the type and length of training satisfactorily completed.

Trainee Interviews

All trainees enrolled in the program will receive an initial and Trainee/Post graduate interview conducted by the OJT program staff.

Trainee Wages

Contractors shall compensate trainees on a graduating pay scale based upon a percentage of the prevailing minimum journeyman wages (Davis-Bacon Act). Minimum pay shall be as follows:

60 percent	of the journeyman wage for the first half of the training period
75 percent	of the journeyman wage for the third quarter of the training period
90 percent	of the journeyman wage for the last quarter of the training period

In no instance shall a trainee be paid less than the local minimum wage. The Contractor shall adhere to the minimum hourly wage rate that will satisfy both the NC Department of Labor (NCDOL) and the Department.

Achieving or Failing to Meet Training Goals

The Contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and who receives training for at least 50 percent of the specific program requirement. Trainees will be allowed to be transferred between projects if required by the Contractor's scheduled workload to meet training goals.

If a contractor fails to attain their training assignments for the calendar year, they may be taken off the NCDOT's Bidders List.

Measurement and Payment

No compensation will be made for providing required training in accordance with these contract documents.

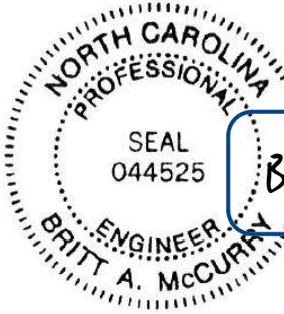
TC-1

40.1.4 NCTA

Wake and Durham Counties

WORK ZONE TRAFFIC CONTROL Project Special Provisions Table of Contents

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DocuSigned by:

Britt McCurry

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TC-2

40.1.4 NCTA

Wake and Durham Counties

LUMP SUM PAYMENT FOR TRAFFIC CONTROL:

(02/06/2013)

The Contractor shall maintain traffic along Toll NC 540, Toll NC 147, US 1, US 64, NC 55 and Davis Drive at various sites during construction and shall provide, install and maintain all traffic control devices as shown in the *Roadway Standard Drawings* or as directed by the Engineer.

The lump sum price bid for traffic control shall include but not be limited to providing Signs (portable, stationary, or barricade), which includes detour signing, Truck Mounted Attenuators (TMA), Changeable Message Signs (CMS), Flashing Arrow Boards (FAB), Pilot Vehicle, Flaggers, Cones, Skinny Drums and Drums and all labor, tools, equipment and incidentals necessary to furnish, install, maintain and remove traffic control devices when no longer required.

Basis of Payment

Partial payments will be made on each payment estimate based on the following: Fifty percent of the contract lump sum price bid will be paid on the first monthly estimate and the remaining 50% of the contract lump sum price bid will be paid on each subsequent estimate based on the percent of the project completed.

Payment will be made under:

Pay Item	Pay Unit
Traffic Control	Lump Sum

**Project Special Provisions
Erosion Control**

STABILIZATION REQUIREMENTS:

(3-11-2016)

Stabilization for this project shall comply with the time frame guidelines as specified by the NCG-010000 general construction permit effective April 1, 2019 issued by the North Carolina Department of Environmental Quality Division of Water Resources. Temporary or permanent ground cover stabilization shall occur within 7 calendar days from the last land-disturbing activity, with the following exceptions in which temporary or permanent ground cover shall be provided in 14 calendar days from the last land-disturbing activity:

- Slopes between 2:1 and 3:1, with a slope length of 10 ft. or less
- Slopes 3:1 or flatter, with a slope of length of 50 ft. or less
- Slopes 4:1 or flatter

The stabilization timeframe for High Quality Water (HQW) Zones shall be 7 calendar days with no exceptions for slope grades or lengths. High Quality Water Zones (HQW) Zones are defined by North Carolina Administrative Code 15A NCAC 04A.0105 (25). Temporary and permanent ground cover stabilization shall be achieved in accordance with the provisions in this contract and as directed.

SEEDING AND MULCHING:

(East)

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

All Roadway Areas

March 1 - August 31		September 1 - February 28	
50#	Tall Fescue	50#	Tall Fescue
10#	Centipede	10#	Centipede
25#	Bermudagrass (hulled)	35#	Bermudagrass (unhulled)
500#	Fertilizer	500#	Fertilizer
4000#	Limestone	4000#	Limestone

Waste and Borrow Locations

March 1 – August 31		September 1 - February 28	
75#	Tall Fescue	75#	Tall Fescue
25#	Bermudagrass (hulled)	35#	Bermudagrass (unhulled)
500#	Fertilizer	500#	Fertilizer
4000#	Limestone	4000#	Limestone

Note: 50# of Bahiagrass may be substituted for either Centipede or Bermudagrass only upon Engineer's request.

Approved Tall Fescue Cultivars

06 Dust	Escalade	Justice	Serengeti
2 nd Millennium	Essential	Kalahari	Shelby
3 rd Millennium	Evergreen 2	Kitty Hawk 2000	Sheridan
Apache III	Falcon IV	Legitimate	Signia
Avenger	Falcon NG	Lexington	Silver Hawk
Barlexas	Falcon V	LSD	Sliverstar
Barlexas II	Faith	Magellan	Shenandoah Elite
Bar Fa	Fat Cat	Matador	Sidewinder
Barrera	Festnova	Millennium SRP	Skyline
Barrington	Fidelity	Monet	Solara
Barrobusto	Finelawn Elite	Mustang 4	Southern Choice II
Barvado	Finelawn Xpress	Ninja 2	Speedway
Biltmore	Finesse II	Ol' Glory	Spyder LS
Bingo	Firebird	Olympic Gold	Sunset Gold
Bizem	Firecracker LS	Padre	Taccoa
Blackwatch	Firenza	Patagonia	Tanzania
Blade Runner II	Five Point	Pedigree	Trio
Bonsai	Focus	Picasso	Tahoe II
Braveheart	Forte	Piedmont	Talladega
Bravo	Garrison	Plantation	Tarheel
Bullseye	Gazelle II	Proseeds 5301	Terrano
Cannavaro	Gold Medallion	Prospect	Titan ltd
Catalyst	Grande 3	Pure Gold	Titanium LS
Cayenne	Greenbrooks	Quest	Tracer
Cessane Rz	Greenkeeper	Raptor II	Traverse SRP
Chipper	Gremlin	Rebel Exeda	Tulsa Time
Cochise IV	Greystone	Rebel Sentry	Turbo
Constitution	Guardian 21	Rebel IV	Turbo RZ
Corgi	Guardian 41	Regiment II	Tuxedo RZ
Corona	Hemi	Regenerate	Ultimate
Coyote	Honky Tonk	Rendition	Venture
Darlington	Hot Rod	Rhambler 2 SRP	Umbrella
Davinci	Hunter	Rembrandt	Van Gogh
Desire	Inferno	Reunion	Watchdog
Dominion	Innovator	Riverside	Wolfpack II
Dynamic	Integrity	RNP	Xtremegreen
Dynasty	Jaguar 3	Rocket	
Endeavor	Jamboree	Scorpion	

On cut and fill slopes 2:1 or steeper Centipede shall be applied at the rate of 5 pounds per acre and add 20# of Sericea Lespedeza from January 1 - December 31.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

TEMPORARY SEEDING:

Fertilizer shall be the same analysis as specified for *Seeding and Mulching* and applied at the rate of 400 pounds and seeded at the rate of 50 pounds per acre. Sweet Sudan Grass, German Millet or Browntop Millet shall be used in summer months and Rye Grain during the remainder of the year. The Engineer will determine the exact dates for using each kind of seed.

FERTILIZER TOPDRESSING:

Fertilizer used for topdressing on all roadway areas except slopes 2:1 and steeper shall be 10-20-20 grade and shall be applied at the rate of 500 pounds per acre. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 10-20-20 analysis and as directed.

Fertilizer used for topdressing on slopes 2:1 and steeper and waste and borrow areas shall be 16-8-8 grade and shall be applied at the rate of 500 pounds per acre. A different analysis of fertilizer may be used provided the 2-1-1 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 16-8-8 analysis and as directed.

SUPPLEMENTAL SEEDING:

The kinds of seed and proportions shall be the same as specified for *Seeding and Mulching*, with the exception that no centipede seed will be used in the seed mix for supplemental seeding. The rate of application for supplemental seeding may vary from 25# to 75# per acre. The actual rate per acre will be determined prior to the time of topdressing and the Contractor will be notified in writing of the rate per acre, total quantity needed, and areas on which to apply the supplemental seed. Minimum tillage equipment, consisting of a sod seeder shall be used for incorporating seed into the soil as to prevent disturbance of existing vegetation. A clodbuster (ball and chain) may be used where degree of slope prevents the use of a sod seeder.

MOWING:

The minimum mowing height on this project shall be 4 inches.

FABRIC INSERT INLET PROTECTION DEVICE (HIGH FLOW)

(6-29-17)

Description

This work shall consist of installing, maintaining, and removing *Fabric Insert Inlet Protection Device*, of the type specified, in inlet structures (catch basins, drop inlets, etc) in areas where asphalt or concrete may prevent the proper installation of a Rock Inlet Sediment Traps Type C, or as directed.

Materials

The product shall be a fabric inlet protection device composed of a fitted woven polypropylene geotextile double sewn with nylon thread suspended sack. The *Fabric Insert Inlet Protection Device* shall be manufactured to fit the opening of the catch basin or drop inlet or shall have a deflector to direct runoff from the curb opening into the fabric sack. The *Fabric Insert Inlet Protection Device* shall have a rigid frame or support system to support the loaded weight of the product. The product shall have lifting loops for removing the device from the basin and will have dump straps attached at the bottom to facilitate the emptying of the device. The *Fabric Insert Inlet Protection Device* shall have an overflow system to allow stormwater to enter the inlet structure and avoid ponding on the roadway when the device reaches capacity

The stitching shall meet the following physical properties:

Physical	Test Method	English
Average Wide Width Strength	ASTM D-4884	165 lb/in

The fitted filter assembly shall have the following physical properties:

Physical	Test Method	English
Grab Tensile	ASTM D-4632	255 x 275 lbs
Minimum Puncture Strength	ASTM D-4833	125 lbs
Mullen Burst	ASTM D-3786	420 PSI
Minimum UV Resistance	ASTM D-4355	70 %.
Flow Rate	ASTM D-4491	200 gal/min/ft ²
Apparent Opening	ASTM D-4751	20 US Sieve
Permittivity	ASTM D-4491	1.5 sec ⁻¹

Construction Methods

Strictly comply with manufacturer's installation instructions and recommendations. Maintenance shall include regular daily inspections and after each qualifying rain event. The *Fabric Insert Inlet Protection Device* shall be emptied, cleaned and placed back into the basin when it reaches 50% capacity or as directed.

Measurement and Payment

This work will be paid for at the contract unit price per *Fabric Insert Inlet Protection Device* of the type specified, complete in place and accepted. Such payment shall be full compensation for furnishing and installing the *Fabric Insert Inlet Protection Device* in accordance with this specification and for all required maintenance.

Maintenance of the device, cleanout and disposal of accumulated sediments shall be paid for by *Fabric Insert Inlet Protection Device Cleanout*.

Payment will be made under:

Pay Item	Pay Unit
Fabric Insert Inlet Protection Device	Each
Fabric Insert Inlet Protection Device Cleanout	Each

COIR FIBER WATTLE:

Description

Coir Fiber Wattles are tubular products consisting of coir fibers (coconut fibers) encased in coir fiber netting. Coir Fiber Wattles are used on slopes or channels to intercept runoff and act as a velocity break. Coir Fiber Wattles are to be placed at locations shown on the plans or as directed. Installation shall follow the detail provided in the plans and as directed. Work includes furnishing materials, installation of coir fiber wattles, matting installation, and removing wattles.

Materials

Coir Fiber Wattle shall meet the following specifications:

100% Coir (Coconut) Fibers	
Minimum Diameter	12 in.
Minimum Density	3.5 lb/ft ³ +/- 10%
Net Material	Coir Fiber
Net Openings	2 in. x 2 in.
Net Strength	90 lbs.
Minimum Weight	2.6 lbs./ft. +/- 10%

Anchors: Stakes shall be used as anchors.

Wooden Stakes:

Provide hardwood stakes a minimum of 2-ft. long with a 2 in. x 2 in. nominal square cross section. One end of the stake must be sharpened or beveled to facilitate driving down into the underlying soil.

Matting shall meet the requirements of Article 1060-8 of the *Standard Specifications*, or shall meet specifications provided elsewhere in this contract.

Provide staples made of 0.125" diameter new steel wire formed into a *u* shape not less than 12" in length with a throat of 1" in width.

Construction Methods

Coir Fiber Wattles shall be secured to the soil by wire staples approximately every 1 linear foot and at the end of each section of wattle. A minimum of 4 stakes shall be installed on the downstream side of the wattle with a maximum spacing of 2 linear feet along the wattle, and according to the detail. Install a minimum of 2 stakes on the upstream side of the wattle according to the detail provided in the plans. Stakes shall be driven into the ground a minimum of 10 in. with no more than 2 in. projecting from the top of the wattle. Drive stakes at an angle according to the detail provided in the plans.

Only install coir fiber wattle(s) to a height in ditch so flow will not wash around wattle and scour ditch slopes and according to the detail provided in the plans and as directed. Overlap adjoining sections of wattles a minimum of 6 in.

Installation of matting shall be in accordance with the detail provided in the plans, and in accordance with Article 1631-3 of the *Standard Specifications*, or in accordance with specifications provided elsewhere in this contract.

The Contractor shall maintain the coir fiber wattles until the project is accepted or until the wattles are removed, and shall remove and dispose of silt accumulations at the wattles when so directed in accordance with the requirements of Section 1630 of the *Standard Specifications*.

Measurement and Payment

Coir Fiber Wattles will be measured and paid for by the actual number of linear feet of wattles which are installed and accepted. Such price and payment will be full compensation for all work covered by this section, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to install the *Coir Fiber Wattles*.

Matting will be measured and paid for in accordance with Article 1631-4 of the *Standard Specifications*, or in accordance with specifications provided elsewhere in this contract.

Payment will be made under:

Pay Item	Pay Unit
Coir Fiber Wattle	Linear Foot

RESPONSE FOR EROSION CONTROL:**Description**

Furnish the labor, materials, tools and equipment necessary to move personnel, equipment, and supplies to the project necessary for the pursuit of any or all of the following work as shown herein, by an approved subcontractor.

Section	Erosion Control Item	Unit
1605	Temporary Silt Fence	LF
1606	Special Sediment Control Fence	LF/TON
1615	Temporary Mulching	ACR
1620	Seed - Temporary Seeding	LB
1620	Fertilizer - Temporary Seeding	TN
1631	Matting for Erosion Control	SY
SP	Coir Fiber Mat	SY
1640	Coir Fiber Baffles	LF
SP	Permanent Soil Reinforcement Mat	SY
1660	Seeding and Mulching	ACR
1661	Seed - Repair Seeding	LB
1661	Fertilizer - Repair Seeding	TON
1662	Seed - Supplemental Seeding	LB
1665	Fertilizer Topdressing	TON
SP	Safety/Highly Visible Fencing	LF
SP	Response for Erosion Control	EA

Construction Methods

Provide an approved subcontractor who performs an erosion control action as described in the NPDES Inspection Form SPPP30. Each erosion control action may include one or more of the above work items.

Measurement and Payment

Response for Erosion Control will be measured and paid for by counting the actual number of times the subcontractor moves onto the project, including borrow and waste sites, and satisfactorily completes an erosion control action described in Form 1675. The provisions of Article 104-5 of the *Standard Specifications* will not apply to this item of work.

40.1.4 NCTA

EC-8

Wake County

Payment will be made under:

Pay Item

Response for Erosion Control

Pay Unit

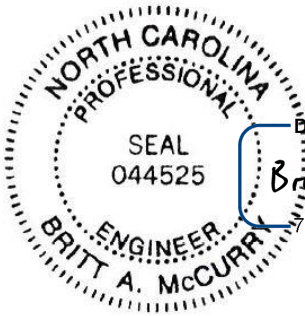
Each

40.1.4 NCTA

CCR-1

Wake County

**Project Special Provision
Concrete Coating and Repair**



DocuSigned by:

Britt McCurry

11/8/2019

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ITEM TREATING CONCRETE

1.01 REFERENCES

The below references are enlisted within specification and shall be referenced:

- Plastic Sheet Test (ASTM D 4263)
- Anhydrous Calcium Chloride Test (ASTM F 1896)
- Standard Test Method for Replication and Measurement of Concrete Surface Profile Using Replica Putty (ASTM D7682-12, Method B)
- International Concrete Repair Institute (CSP 2 – CSP 3)
- Guide for Containing Surface Preparation Debris Generated During Paint Removal Operations (SSPC Guide 6)
- Society of Protective Coatings Solvent Cleaning (SP-1)
- Surface Preparation of Concrete (NACE No. 6/SSPC SP-13)
- Standard Practice for Surface Cleaning Concrete for Coating (ASTM D4258)
- Clean Air Act (42 U.S.C. 1857 et seq., as amended by Publication L. 91-604)
- Water Pollution Control Act (33 U.S.C. 1251 et seq., as amended by Publication L. 92-500)
- Providing for Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans (Executive Order 11738)
- General (40 CFR Subchapter A)
- Solid Waste Landfills and Structural Fill Regulation (61-107.19)
- Permit Program under Clean Water Act (Permit 404)
- United States Federal Law Whistleblower Protection Act (U.S.A. WPA 1989, Publication L. 101-12)

1.02 SEALING CRACKS BY EPOXY RESIN INJECTION

1.02.1 GENERAL

For repairing cracks, an approved applicator is required to perform the epoxy resin injection. The Contractor shall assure the supervisor and craft personnel have completed an instruction program in the methods of restoring concrete structures utilizing epoxy resin injection processes and have a satisfactory record of performance on similar projects.

The Contactor shall furnish all materials, tools, equipment, appliances, labor, and supervision required when repairing cracks with the injection of an epoxy resin adhesive.

1.02.2 SCOPE OF WORK

The Contractor shall obtain the Engineer's written approval for any deviations from the requirements of this specification or specifications, standards and drawings referenced herein or elsewhere in the contract. In case of conflict between documents, the order of precedence given in the contract shall govern.

Using Epoxy Resin Injection, repair all cracks whether (dry, moist, wet, or fractures) that are thirty (30) to one hundred (100) mils in thickness in reinforced concrete members. Repair any cracks not meeting the criteria above as directed by the Engineer.

1.02.3 SUBMITTALS AND APPROVALS

The Contractor shall establish injection procedures, depths, and spacings of holes of epoxy adhesive injection ports or tees and furnish to the Engineer for review and acceptance.

The Contractor shall identify from one (1) manufacturer an epoxy with flow characteristics and injection pressure that ensure no further damage will be done to the member being repaired and furnish to the Engineer for review and acceptance.

The Contractor shall furnish the Engineer a copy of the manufacturers comprehensive preparation, mixing, and application instructions in which have been developed especially for use with the proposed epoxy injection system.

The Contractor shall ensure that any significant changes to these instructions which are recommended by the manufacturer's representative for an unanticipated constraint have been approved by the Engineer prior to the adoption of such changes.

1.02.4 MATERIALS

This system shall consist of a two (2) component modified resin bonding system:

- a. Paste epoxy used to seal the surface cracks and
- b. An injection epoxy used under low pressure equal to or less than 200 psi (1400 kPa) max to penetrate and fill the cracks and bond the cracked surfaces together.

The unmodified resin shall be known and referenced as (Component "A") and the hardener as (Component "B").

1.02.5 PROTECTION OF WORK

The Contractor shall protect all parts of the structure (galvanized gentries, cables, etc.) against disfigurement by operations, splatters, splashes, overspray and smirches of paint or of paint materials. A protection plan shall be submitted to the Engineer for review and approval.

The Contractor assumes responsibility for any damage or disfigurement caused by operations to vehicles, persons or property, including plants and animals; and provide protective measures to prevent such damage.

The Contractor shall perform blast cleaning operations in such a way as no damage is done to partially or entirely completed portions of the work.

The Contractor shall thoroughly clean and restore any surface or surfaces disfigured by splatter, overspray, splashes, smirches or other defects to its original condition at no additional cost.

The Contractor shall restore any damaged structure or surface to its original condition at no additional cost.

The final acceptances of all repairs, to include aesthetics, will be approved at the Engineer's discretion.

1.02.6 COOPERATION

Coordinate and cooperate with the manufacturer's technical representative to attend the project site. The manufacturer's technical representative shall familiarize the Contractor personnel, the Engineer, or Engineer representative with epoxy materials, application procedures and recommended pressure practice. The manufacturer's technical representative shall direct at least one complete crack or injection area and be assured prior to his departure from the project that the Contractor personnel are adequately informed to satisfactorily perform the remaining repairs.

1.02.7 EQUIPMENT

Use portable positive displacement type pumps with interlock to provide positive ratio control of exact proportions of the two (2) components at the nozzle to meter and mix the two (2) injection adhesive components and inject the mixed adhesive into the crack. Use electric or air powered pumps that provide in-line metering and mixing.

Use injection equipment with automatic pressure control capable of discharging the mixed adhesive at any pre-set pressure up to 200 \pm 5 psi and equipped with a manual pressure control override.

Use equipment capable of maintaining the volume ratio for the injection adhesive as prescribed by the manufacturer. A tolerance of \pm 5% by volume at any discharge pressure up to 200 psi is permitted.

Provide injection equipment with sensors on both the Component A and Component B reservoirs that automatically stop the machine when only one (1) component is being pumped to the mixing head.

1.02.8 SURFACE PREPARATIONS

The Contractor shall follow these steps prior to the application of epoxy resin injection:

The Contractor shall remove from cracks and surfaces adjacent to the cracks to be sealed: all dirt, dust, grease, oil, efflorescence, laitance, and other foreign matter detrimental to achieving an adequate bond with the paste epoxy. Removal of contaminants shall only be removed to the extent necessary, and only by procedures which will not cause abrasive medias nor concrete dust too penetrate the cracks. Use of solvents, thinners, acids, nor corrosives in cracks or on bonding surfaces shall not be permitted.

The Contractor shall install injection ports or tees in all cracks which meet criteria described in Section 1.02 Sealing Cracks by Epoxy Resin Injection, Sub-section 1.02.1 General of this specification. Install injection ports or tees at minimum six (6) to maximum twelve (12) inch (150 mm to 300 mm) spacing for vertical applications and minimum six (6) to maximum eighteen (18) inch (105 mm to 450 mm) spacing for horizontal applications. In no event shall the installation of ports or tees be equal to or less than the thickness of the concrete member if full depth penetration is desired unless otherwise specified or directed by the Engineer. Ports or tees shall be installed in dust free holes generated by measures of vacuum drills or chipping hammers. All surface cracks shall be sealed within the area to be repaired.

Post installation of ports or tees the Contractor shall apply paste epoxy material between ports or tees, permit paste epoxy material to cure as per instructed by the manufacturers product data specification to ensure retention of the pressure injected epoxy maintains confinement within the member. The Engineer may permit an alternative procedure of sealing the cracks prior to the injection holes being generated.

1.02.9 APPLICATION AND COVERAGE

The Contractor shall first ensure that the epoxy adhesive will fill the innermost portion of the cracked concrete and that the potential for creating voids within the crack or epoxy adhesive will be minimized.

On vertical applications the Contractor shall begin epoxy adhesive injections at the bottom of the fractured repair area and progress in an elevating direction utilizing a port or tee filling sequence that will ensure the filling of the lowermost injection ports or tees first. Full capacity filling between ports or tees shall be achieved when epoxy adhesive materials visually appears at the next elevated port or tee installed higher than the entry port or tee which epoxy adhesive materials are being pumped.

On horizontal applications the Contractor shall begin epoxy adhesive injections at one (1) end of the crack and continue until the entire crack has be filled. Full

capacity filling between ports or tees shall be achieved when injection equipment meter indicates epoxy adhesive materials is being dispensed or epoxy adhesive materials visually appears at the next port or tee.

When epoxy adhesive materials appears at the next port or tee the Contractor shall stop the current injection and transfer the epoxy injection to the next adjacent port or tee where epoxy adhesive materials appeared.

The Contractor shall repeat above direction continuously until cracks are filled entirely. If entry port or tee to adjacent port or tee epoxy adhesive travel is restricted, the Contractor shall immediately stop the work and notify the Engineer.

1.02.10 LIMITATIONS

1.02.10.1 – Paste Epoxy Material

Below details minimum material and substrate conditions for application of paste epoxy materials. The contractor shall reference this specification and the manufacturers product data specification prior to application. Should there be a discrepancy between specifications the most stringent specification conditions shall be adopted, maintained, and achieved for conformance.

- i. Paste epoxy material application shall be limited to a clean and dry substrate.
- ii. Substrate temperatures shall limit to none less than 45°F (7° C) during paste epoxy material applications.

1.02.11 FINISHING

Allow the epoxy adhesive to cure as instructed per the manufacturer's product data specification for sufficient time to allow the removal of the paste epoxy material surface seal without any draining or runback of the epoxy adhesive material from the cracks.

Remove the injection ports or tees flush with the concrete substrate after the fractured area has been filled and the epoxy has partially cured twenty-four (24) hours at ambient temperatures not to exceed less than 60° F (16° C), otherwise not less than forty-eight (48) hours. Roughen the surfaces of the repaired areas to achieve a uniform surface texture. Remove any and all epoxy adhesive injection runs or spills from concrete substrate.

Finish the face of the crack flush to the adjacent concrete, removing any indentations or protrusions caused by the placement of entry ports or tees.

1.02.12 TESTING AND INSPECTION

Obtain two (2) 4-inch (100 mm) diameter core samples in the first one hundred (100) linear feet (30 m) of the crack repaired and one (1) additional core sample for each one hundred (100) linear feet (30 m) thereafter. The Contractor shall

extract cores samples from locations as per determined by the Engineer for the full crack depth. The Engineer shall examine the core samples to determine the extent of epoxy penetration. The Contractor shall repair the core sample holes in the concrete at no additional cost with materials submitted and approved by the Engineer.

1.02.13 BASIS OF PAYMENT

Payment for epoxy resin injection will be at the contract unit price per linear foot for Line Item: "Epoxy Resin Injection". Such payment will be full compensation for all materials, tools, equipment, labor, and for all incidentals necessary to complete the work.

1.03 COATING OF UNCOATED CONCRETE SURFACES

1.03.1 DESCRIPTION

This scope of work shall consist of furnishing all labor, equipment, and materials necessary for the cleaning, staining and treating of existing and new concrete substrates without previous coating systems. Application of stain and graffiti resistant materials to structures. Work includes preparation of the concrete substrate to be coated, application of the new coating system, and any incidentals necessary to complete the project as specified and shown on the plans or as directed by the Engineer.

1.03.2 SCOPE OF WORK

The Contractor shall obtain the Engineer's written approval for any deviations from the requirements of this specification, special provisions, standards or drawings referenced herein or elsewhere in the contract. In case of conflict between documents, the more stringent shall govern.

Work includes preparation of the concrete substrate to be coated (bug holes 5/8 inch or larger filled, etc.), application of the new coating system, and any incidentals necessary to complete the project as specified and shown on the plans or as directed by the Engineer.

1.03.3 SUBMITTALS AND APPROVALS

The Contractor shall submit all the following to the Engineer for review, acceptance, and approval prior to scheduling the pre-construction meeting. The Contractor shall permit the Engineer 30 days for the review process.

- i. Anticipated work schedule in which shall be kept up to date, with a copy of any revised schedule and furnish to the Engineer in a timely manner,
- ii. Wash water sampling and disposal plan,
- iii. Subcontractor identification,
- iv. Lighting plan for low visibility and night work,
- v. Traffic control plan,

- vi. Health and safety plan,
- vii. Competent person qualifications and summary of experience,
- viii. Environmental compliance plan,
- ix. Quality control plan,
- x. Public, asset, and vegetation protection plan,
- xi. Coating material(s).
 - a. Manufacturer approved test reports.
 - b. Manufacturer product data sheet(s).
 - c. Product specific repair procedure.
 - d. Notice and letters from manufacturer in which addresses product limitations and their conflicts with contract special provisions, this specification, manufactures product data sheets, etc.

1.03.4 MATERIALS

The Contractor shall submit to the Engineer identification of any and all abrasive materials with certifications from product manufacturer.

The Contractor shall submit a minimum of two (2) coating systems. Each coating system shall be composed of one (1) individual coat supplied from only one (1) manufacturer for the entire coating system:

1. A concrete stain application.

The Engineer holds the right to take random samples of the coatings in the field.

1.03.5 PROTECTION OF WORK

The Contractor shall protect all parts of the structure (galvanized gentries, cables, etc.) against disfigurement by operations, splatters, splashes, overspray and smirches of paint or of paint materials. A protection plan shall be submitted to the Engineer for review and approval.

The Contractor assumes responsibility for any damage or disfigurement caused by operations to vehicles, persons or property, including plants and animals; and provide protective measures to prevent such damage.

The Contractor shall perform blast cleaning operations in such a way as no damage is done to partially or entirely completed portions of the work.

The Contractor shall thoroughly clean and restore any surface or surfaces disfigured by splatter, overspray, splashes, smirches or other defects to its original condition at no additional cost.

The Contractor shall restore any damaged structure or surface to its original condition at no additional cost.

The final acceptances of all repairs, to include aesthetics, will be approved at the Engineer's discretion.

1.03.6 CONTAINMENT SYSTEM

The Contractor shall, prior to performing any construction or coating operations on the structure, furnish the Engineer with plans and design calculations for a sufficiently designed containment system, which will provide access for any repairs on members, cleaning and surface preparations for members, and coating operations for members of the structures. The containment system shall not be installed, and no work shall begin, until the Engineer has reviewed and approved, in writing, the submitted containment system plans and design calculations. Containment system plans and design calculations shall be prepared, sealed, and signed by a Professional Engineer licensed by the State of North Carolina. Allow a minimum of two (2) weeks for review of the containment plans and calculations.

The containment system shall meet or exceed the requirements in accordance with SSPC Guide 6 based on the surface preparation method and application method chosen by the Contractor. The Contractor shall determine the required capacity of the containment system, which, at a minimum, shall include loads due to wind, repair materials and repair operations, equipment, and tools; however, the capacity shall not be less than that required by Federal or State regulations. Design steel members to meet the requirements of the American Institute of Steel Construction Manual. Design timber members in accordance with the National Design Specification for Stress-Grade Lumber and Its Fastenings of the National Forest Products Association. The containment system shall be constructed of materials capable of withstanding damage from any of the work required on this project and shall provide a two (2) hour resistance to fire.

In the containment system plans, describe how debris is contained and collected. Describe the type of tarpaulin, bracing materials, and the maximum designed wind load. Describe the dust collection system (if required) and how a negative pressure of 0.03 inches of water column is maintained inside the enclosure, while operations are being conducted. Describe how the airflow inside the containment structure is designed to meet all applicable OSHA Standards. Describe how water run-off from rain will be routed by or through the enclosure. Describe how wash water will be contained and solid waste separated. Describe what physical containment will be provided during coating application to protect the public and areas not to be painted.

Drilling holes in the superstructure for the purpose of attaching the containment system is prohibited.

BASIS OF PAYMENT

Payment for Containment System will be incidental to other line items in this Contract.

1.03.7 EQUIPMENT

The Contractor shall use application equipment recommended by the coating manufacturer. The Contractor shall use spray equipment, tanks, hoses, brooms, rollers, coaters, squeegees, etc., that are clean, free of foreign matter, oil residue and water.

1.03.8 SURFACE PREPARATION

The Contractor shall only utilize chemical agents, cleaning methods, and abrasive products in which have been submitted and accepted by the Engineer.

The Contractor shall ensure the substrate is free of visible contamination, efflorescence, laitance, sealants, debris, oils, fuels, and other similar materials.

The Contractor shall examine and ensure all the prepared substrate conforms with a visual cleanliness as per defined in standard; Standard Practice for Surface Cleaning Concrete for Coating (ASTM D4258) prior to any application of the coating.

If the concrete surface had curing compound applied, the Contractor shall acid test the surface to ensure the curing compound was removed entirely. The Contractor shall perform the acid test for every five hundred (500) square feet (47 square meters). The Contractor shall use a 30%, by weight, solution of 1-part 20° Baume muriatic hydrochloric acid and 2 parts water. The Contractor shall perform testing as defined below:

(NOTE: Muriatic acid and ammonia can be bought in a hardware store. Muriatic acid is used to clean masonry. Only dilute by pouring the acid into the water. DO NOT pour the water into the acid.)

1. The Contractor shall apply 4 to 5 drops of solution to the substrate. Visual identification of foaming/fizzing presents that the curing compound has been removed.
2. The Contractor shall thoroughly rinse the tested location with an ammonia solution (ratio: 1 cup ammonia to 5 gallons water) to neutralize the substrate area tested.

When substrate show intermittent or no foaming, the Contractor shall utilize chemicals or other cleaning agents to remove the curing compounds. The Contractor shall only use products approved by the stain manufacturer. The

Contractor shall furnish the Engineer documentation of the stain manufacturer's approval and method to test if materials are removed.

The Contractor shall not permit nor allow the flow of any traffic on the clean surfaces prior to application and cure of the coating.

1.03.9 MIXING

Mix the stain according to the manufacturer's recommended procedures. Furnish the Engineer with the manufacturer's application instructions. Do not mix or apply the stain until the manufacturer's written recommendations are supplied to the Engineer. Mix and maintain materials at a uniform consistency during application.

1.03.10 STORAGE

Store all staining components in tightly sealed containers, in a dry location, and as recommended by the manufacturer. Deliver unopened drums or containers of the stain to the job site with the manufacturer's numbered seal intact.

1.03.11 APPLICATION AND COVERAGE

Submitted and approved coating system shall not be installed prior to concrete repairs being completed, cured, accepted, and final acceptance of surface cleanliness and preparations. Evaluation to the degree of cure of concrete or concrete repairs shall be in compliance as referenced on coating manufacturers product data sheet. Coating system shall only be applied to locations described in the plans.

The Contractor shall measure and record concrete surface temperature immediately prior to coating application. Application of the coating shall not be permitted if the substrate temperature (TC) is equal to or less than 50° F (10° C). The Contractor shall consult the product manufacturer for special application procedures if the substrate temperature (TC) is equal to or in excess of 100 ° F (38° C). The Contractor shall submit any and all special application procedures recommended by the product manufacturer to the Designer of Record for review prior to application.

The Contractor shall prepare the substrate for coating application in accordance with this specification and the product manufacturers data sheet(s). Should there be any discrepancies between specifications the most stringent specification conditions shall take precedence, be adopted, maintained, and achieved for conformance. The Contractor shall provide protective measures to any and all equipment, structures, vegetation, and general public in close proximity to the coating application area to guard against overspray or product spillage.

The Contractor shall perform a test site composed of stain to measured coverage areas, both on horizontal and vertical surfaces, and on different concrete types, demonstrating:

- a. The project's visual effects for the stain application at the required coverage rate.
 - b. Visually, the absorption necessary to achieve the specified coverage rate for the stain. Use at least 1/2 gallon (2 liter) of stain, following the manufacturer's recommended method of application, for the total of the test surfaces.
1. Stain Coating:
 - a. The Contractor shall use a coverage rate maximum of two hundred fifty (250) square feet per gallon.
 - b. Application of stain shall not be conducted prior to the acceptance of either Anhydrous Calcium Chloride Test (ASTM F 1896) or Plastic Sheet Test (ASTM D 4263) and shall be conducted within twelve (12) hours and not in excess of twenty-four (24) hours post acceptance of approved method of surface preparations.
 - c. Application of stain shall not be conducted if rain or excessive moisture is anticipated within twelve (12) hours after application.
 - d. The Contractor shall provide documentation to the Engineer that the:
 - Ambient, substrate, and material temperature is equal to or greater than 50 °F (10 °C) previous, during, and post stain applications.
 - Conditional spread (TS-TD) between the substrate temperature (TS) and dew point (TD) sum is equal to or greater than 5 °F previous, during, and post stain applications.
 - The relative humidity is equal to or less than 80% during and post the stain application.
 - e. The Contractor shall apply the stain only when temperature is decreasing during the application and curing of the coating unless otherwise instructed by the Engineer.
 - f. The Contractor shall apply stain in accordance with this specification and the product manufacturers data sheet(s). Should there be a discrepancy between specifications the most stringent specification conditions shall be adopted, maintained, and achieved for conformance.
 - g. The Contractor shall utilize application measures in which may be inclusive but not limited to a brush, a squeegee, a roller or airless spraying equipment.
 - h. The Contractor shall achieve the specified coverage regardless of the number of passes required to obtain specified dry film thickness. The Contractor shall utilize a mist coat application method in which shall serve as a "tack coat" to reduce runs, sags,

- and pin holing. The Contractor shall deliver complete coverage of all areas specified to be coated.
- i. The Contractor shall ensure stain is free from non-conformances in which may be inclusive but not limited to sags, voids, runs, skips, holidays, and pin holing.
 - j. The Contractor shall not be permitted to apply the subsequent coat until all the following has been achieved:
 - applied coating has cured as per the temperature reflective interval enlisted in the product manufacturers recommended curing schedule has been obtained.
 - any and all remediation have been performed by the Contractor and accepted by the Engineer or engineer's representative.
 - the dry film thickness has been obtained and the applied coating has a uniform and cosmetically appealing finish.
 - the Engineer or engineer's representative has accepted the applied coating.

1.03.12 LIMITATIONS

Prior to stain application ensure that the surface to be treated is visibly dry with a temperature between 50 °F and 100 °F. Do not apply the resin within 24 hours after a rain, during rain, when rain is forecast within 12 hours or when the ambient air temperature is below 50 °F. Perform all concrete patching prior to application of stain. Perform concrete patching on areas identified by the Engineer. Cure repaired areas for at least seven (7) days. Air dry all concrete surfaces for at least ten (10) days after completion of required curing. For accelerated cure of precast concrete, obtain the required 28-day strength and air dry the surfaces at least ten (10) days after completing accelerated cure.

1.03.13 BASIS OF PAYMENT

Payment for Coating of Uncoated Concrete Surfaces shall be incidental to other line items in this Contract.

1.04 COATING OF PREVIOUSLY COATED CONCRETE SURFACES

1.04.1 DESCRIPTION

This scope of work shall consist of the cleaning and application of an approved coating system to existing and new concrete surfaces in which has previously installed coating systems. Submitted and approved coating system shall not be installed prior to concrete repairs being completed and cured.

1.04.2 SUBMITTALS AND APPROVALS

- i. Anticipated work schedule in which shall be kept up to date, with a copy of any revised schedule and furnish to the Engineer in a timely manner,
- ii. Wash water sampling and disposal plan,

- iii. Subcontractor identification,
- iv. Lighting plan for low visibility and night work,
- v. Traffic control plan,
- vi. Health and safety plan,
- vii. Competent person qualifications and summary of experience,
- viii. Environmental compliance plan,
- ix. Quality control plan,
- x. Public, asset, and vegetation protection plan,
- xi. Abrasive blast media
 - a. Manufacturer product data sheet(s).
 - b. Abrasive media test reports.
- xii. Coating material(s).
 - a. Manufacturer approved test reports.
 - b. Manufacturer product data sheet(s).
 - c. Product specific repair procedure.
 - d. Notice and letters from manufacturer in which addresses product limitations and their conflicts with contract special provisions, this specification, manufactures product data sheets, etc.

1.04.3 MATERIALS

The Contractor shall submit to the Engineer identification of any and all abrasive materials with certifications from product manufacturer.

The Contractor shall submit a minimum of two (2) coating systems. Each coating system shall be composed of one (1) individual coat supplied from only one (1) manufacturer for the entire coating system.

1. An anti-graffiti coating application.

1.04.4 EQUIPMENT

The Contractor shall use application equipment recommended by the sealer manufacturer. The Contractor shall use spray equipment, tanks, hoses, brooms, rollers, coaters, squeegees, etc., that are clean, free of foreign matter, oil residue and water.

1.04.5 PROTECTION OF WORK

The Contractor shall protect all parts of the structure (galvanized gantries, cables, etc.) against disfigurement by operations, splatters, splashes, overspray and smirches of paint or of paint materials. A protection plan shall be submitted to the Engineer for review and approval.

The Contractor assumes responsibility for any damage or disfigurement caused by operations to vehicles, persons or property, including plants and animals; and provide protective measures to prevent such damage.

The Contractor shall perform blast cleaning operations in such a way as no damage is done to partially or entirely completed portions of the work.

The Contractor shall thoroughly clean and restore any surface or surfaces disfigured by splatter, overspray, splashes, smirches or other defects to its original condition at no additional cost.

The Contractor shall restore any damaged structure or surface to its original condition at no additional cost.

The final acceptances of all repairs, to include aesthetics, will be approved at the Engineer's discretion.

1.04.6 CONTAINMENT SYSTEM

The Contractor shall, prior to performing any construction or coating operations on the structure, furnish the Engineer with plans and design calculations for a sufficiently designed containment system, which will provide access for any repairs on members, cleaning and surface preparations for members, and coating operations for members of the structures. The containment system shall not be installed, and no work shall begin, until the Engineer has reviewed and approved, in writing, the submitted containment system plans and design calculations. Containment system plans and design calculations shall be prepared, sealed, and signed by a Professional Engineer licensed by the State of North Carolina. Allow a minimum of two (2) weeks for review of the containment plans and calculations.

The containment system shall meet or exceed the requirements in accordance with SSPC Guide 6 based on the surface preparation method and application method chosen by the Contractor. The Contractor shall determine the required capacity of the containment system, which, at a minimum, shall include loads due to wind, repair materials and repair operations, equipment, and tools; however, the capacity shall not be less than that required by Federal or State regulations. Design steel members to meet the requirements of the American Institute of Steel Construction Manual. Design timber members in accordance with the National Design Specification for Stress-Grade Lumber and Its Fastenings of the National Forest Products Association. The containment system shall be constructed of materials capable of withstanding damage from any of the work required on this project and shall provide a two (2) hour resistance to fire.

In the containment system plans, describe how debris is contained and collected. Describe the type of tarpaulin, bracing materials, and the maximum designed wind load. Describe the dust collection system (if required) and how a negative pressure of 0.03 inches of water column is maintained inside the enclosure, while operations are being conducted. Describe how the airflow inside the containment structure is designed to meet all applicable OSHA Standards. Describe how water

run-off from rain will be routed by or through the enclosure. Describe how wash water will be contained and solid waste separated. Describe what physical containment will be provided during coating application to protect the public and areas not to be painted.

Drilling holes in the superstructure for the purpose of attaching the containment system is prohibited.

1.04.7 SURFACE PREPARATION AND PROFILING

The Contractor shall only utilize cleaning methods and abrasive products in which has been submitted and accepted by the Engineer.

The Contractor shall remove in part or in whole as directed by the Engineer all existing coatings, laitance, contaminants, efflorescence, and any other substances that could interfere with the coating system, and fill bug holes 5/8 inch and larger and cracks. Select removal methods appropriate for the structure and materials to be removed.

The Contractor shall utilize mechanical surface preparations methods as defined in standard; Surface Preparation of Concrete (NACE No. 6/SSPC SP-13) section 4.3.2 and shall ensure the substrate is free of visible contamination, sealants, debris, oils, fuels, and other similar materials.

The Contractor shall perform surface preparation operations which shall produce a profile in comparison with International Concrete Repair Institute Technical Guideline No. 310.2R-2013 (ICRI No. 310.2R-2013 CSP 1 through CSP 3).

The Contractor shall only utilize dry abrasive blasting. No wet blasting will be allowed. For dry abrasive blasting the Contractor shall not utilize nor be permitted the use of metallic abrasives.

The Contractor shall utilize either or both below methods identified to ensure that the specified concrete surface profile has been obtained:

- using a verifying surface profile replica putty to quantify the surface profile of concrete as per defined in standard; Standard Test Method for Replication and Measurement of Concrete Surface Profile Using Replica Putty (ASTM D7682, Method B)
 - the Contractor shall ensure the testing location is flat, and
 - the Contractor shall perform testing on the first date of production and shall perform additional testing as instructed by the Engineer.
 - The Contractor shall measure the coupon obtained with a micrometer, then provide the coupon to the Engineer.

- or the profile can be subjectively compared with molded concrete surface profile replicas defined in International Concrete Repair Institute Technical Guideline (ICRI No. 310.2R-2013 CSP-2 and CSP-3).

The Contractor shall examine and ensure all the prepared substrate conforms with a visual cleanliness as per defined in standard; Standard Practice for Surface Cleaning Concrete for Coating (ASTM D4258) prior to any application of the anti-graffiti coating.

If the concrete surface had curing compound applied, the Contractor shall acid test the surface after blasting to ensure the curing compound was removed entirely. The Contractor shall perform the acid test for every five hundred (500) square feet (47 square meters). The Contractor shall use a 30%, by weight, solution of 1-part 20° Baume muriatic hydrochloric acid and 2 parts water. The Contractor shall perform testing as defined below:

(NOTE: Muriatic acid and ammonia can be bought in a hardware store. Muriatic acid is used to clean masonry. Only dilute by pouring the acid into the water. DO NOT pour the water into the acid.)

1. The Contractor shall apply 4 to 5 drops of solution to the substrate. Visual identification of foaming/fizzing presents that the curing compound has been removed.
2. The Contractor shall thoroughly rinse the tested location with an ammonia solution (ratio: 1 cup ammonia to 5 gallons water) to neutralize the substrate area tested.

When substrate show intermittent or no foaming, the Contractor shall utilize chemicals or other cleaning agents to remove the curing compounds. The Contractor shall only use products approved by the coating manufacturer. The Contractor shall furnish the Engineer documentation of the coating manufacturer's approval and method to test if materials are removed.

The Contractor shall not permit nor allow the flow of any traffic on the clean surfaces prior to application and cure of the anti-graffiti coating.

1.04.8 MIXING

Mix the coating according to the manufacturer's recommended procedures. Furnish the Engineer with the manufacturer's application instructions. Do not mix or apply the coating until the manufacturer's written recommendations are supplied to the Engineer. Mix and maintain materials at a uniform consistency during application.

1.04.9 STORAGE

Store all coating components in tightly sealed containers, in a dry location, and as recommended by the manufacturer. Deliver unopened drums or containers of the coating components to the job site with the manufacturer's numbered seal intact.

1.04.10 APPLICATION AND COVERAGE

Submitted and approved coating system shall not be installed prior to concrete repairs being completed, cured, accepted, and final acceptance of surface preparations and profiling. Evaluation to the degree of cure of concrete or concrete repairs shall be in compliance as referenced on coating manufacturers product data sheet. Coating system shall only be applied to locations described in the plans.

The Contractor shall measure and record concrete surface temperature immediately prior to coating application. Application of the coating shall not be permitted if the substrate temperature (TC) is equal to or less than 50° F. The Contractor shall consult the product manufacturer for special application procedures if the substrate temperature (TC) is equal to or in excess of 100 ° F. The Contractor shall submit any and all special application procedures recommended by the product manufacturer to the Designer of Record for review prior to application.

The Contractor shall prepare the substrate for coating application in accordance with this specification and the product manufacturers data sheet(s). Should there be any discrepancies between specifications the most stringent specification conditions shall take precedence, be adopted, maintained, and achieved for conformance. The Contractor shall provide protective measures to any and all equipment, structures, vegetation, and general public in close proximity to the coating application area to guard against overspray or product spillage.

The Contractor shall perform a test site composed of anti-graffiti to measured coverage areas, both on horizontal and vertical surfaces, and on different concrete types, demonstrating:

- a. The project's visual effects for the anti-graffiti application at the required coverage rate.
- b. Visually, the absorption necessary to achieve the specified coverage rate for the coating. Use at least 1/2 gallon (2 liter) of coating, following the manufacturer's recommended method of application, for the total of the test surfaces.
- c. Apply to the deck, safety curb or sidewalk for the horizontal test surfaces and use an abutment parapet or pier face for the vertical test surface so different textures are tested.

1. Anti-Graffiti Coating:
 - a. Application of coating shall not be conducted prior to the acceptance of either Anhydrous Calcium Chloride Test (ASTM F 1896) or Plastic Sheet Test (ASTM D 4263) and shall be conducted within twelve (12) hours and not in excess of twenty-four (24) hours post acceptance of approved method of surface preparations.
 - b. Application of coating shall not be conducted if rain or excessive moisture is anticipated within twelve (12) hours after application.
 - c. The Contractor shall provide documentation to the Engineer that the:
 - Ambient, substrate, and material temperature is equal to or greater than 50 °F (10 °C) previous, during, and post coating applications.
 - Conditional spread (TS-TD) between the substrate temperature (TS) and dew point (TD) sum is equal to or greater than 5 °F previous, during, and post coating applications.
 - The relative humidity is equal to or less than 80% during and post the coating application.
 - d. The Contractor shall apply the coating only when temperature is decreasing during the application and curing of the coating unless otherwise instructed by the Engineer.
 - e. The Contractor shall apply the anti-graffiti coating and anti-graffiti coating shall only be applied to locations described in the plans. The anti-graffiti coating shall provide complete coverage. No exception shall be granted, unless directed by the Engineer.
 - f. The Contractor shall apply the anti-graffiti coating at the coverage rate recommended by the product manufacturer.
 - g. The anti-graffiti coating shall be a satin finish.
 - h. The Contractor shall ensure anti-graffiti coating is free from non-conformances in which may be inclusive but not limited to sags, voids, runs, skips, holidays, and pin-holing.

1.04.11 LIMITATIONS

Prior to coating application ensure that the surface to be treated is visibly dry with a temperature between 50 °F and 100 °F. Do not apply the coating within 24 hours after a rain, during rain, when rain is forecast within 12 hours or when the ambient air temperature is below 50 °F. Perform all concrete patching prior to surface profiling. Perform concrete patching on areas identified by the Engineer. Cure repaired areas for at least seven (7) days. Air dry all concrete surfaces for at least ten (10) days after completion of required curing. For accelerated cure of

precast concrete, obtain the required 28-day strength and air dry the surfaces at least ten (10) days after completing accelerated cure.

1.04.12 BASIS OF PAYMENT

Payment for Coating of Previously Coated Concrete Surfaces shall be incidental to other line items in this Contract.

1.05 Quality Control Inspector

1.05.1 GENERAL

The Contractor shall provide a quality control inspector to ensure that all process, preparation, blasting, and coating applications are in accordance with specification and contract requirements.

1.05.2 ACCESSIBILITY

The Contractor shall furnish all necessary OSHA approved apparatus such as ladders, scaffolds, and platforms as required for the inspector to have reasonable and safe access to all parts of the work.

1.05.3 LIGHTING AND ILLUMINATION

The Contractor shall ensure the substrate to be inspected has adequate lighting to a minimum of 50-foot candles. All access and egress points shall be illuminated to a minimum of 20-foot candles of light.

1.05.4 ROLE AND RESPONSIBILITIES

The quality control inspector which shall be the Contractor's employee, or a designated representative of the Contractor shall assess deliverable produced by the Contractor, perform and execute inspection testing, document testing results, and report the technical aspects that the Contractor is complying with all the requirements of the contract.

Complete a checklist for each day of work on the structures included in the project. Record, at a minimum, the following information on the daily checklist: concrete surface temperature immediately prior to and after inhibitor application, or every 2 hours if there is a possibility of extreme temperature; concrete surface cleaning and preparation equipment and methods; concrete relative moisture immediately prior to inhibitor application; time of application and application equipment for each component; rate of application of each component; extent of surface treated; application method utilized; tests performed; testing locations; and any other requirements identified in the coatings Selection and Application Plan.

In the event the inspector identifies that the Contractor is found not in compliance, the inspector shall internally relay communication to the Contractor's superiors and onsite personnel. In the event the quality control inspector identifies that the

Contractor is found performing negligent acts not in compliance with industry standards and regulations, the inspector shall execute their assigned authority as defined in Section 1.05.5.3 of this specification.

The presence of the Engineer or inspector at the work site shall in no way relieve nor lessen the Contractor's quality control inspector nor the Contractor's responsibility for conformity with the specification or contract, the Contractor shall be held accountable for a quality deliverable product.

1.05.5 AUTHORITY

1.05.5.1 GENERAL

The inspector shall have written authority to perform quality control duties to include continuous improvement of all quality control internal procedures.

1.05.5.2 NON-CONFORMANCE / NON-COMPLIANCE

The inspector shall have authorization to issue the Contractor a Non-Conformance/Non-Compliance Report.

1.05.5.3 ACTS OF NEGLIGENCE

Should the inspector identify observations in which the Contractor is performing any or all acts of negligence, the inspector shall enforce a "cease work". Work shall be suspended, and the inspector shall communicate, and relay identified observations to the Engineer. The inspector shall not be reprovved nor retaliated against as the inspector shall be protected under the United States federal law; Whistleblower Protection Act of 1989, Publication L. 101-12.

1.06 Quality Assurance Inspector

1.06.1 GENERAL

All testing shall be at the Contractor's expense and inclusive but not limited to as directed by the Engineer, this specification, contract, or product manufacturers data. All testing shall be performed in the presence of the Engineer or the Engineer's representative.

1.06.2 ACCESSIBILITY

The Contractor shall furnish all necessary OSHA approved apparatus such as ladders, scaffolds, and platforms as required for the inspector to have reasonable and safe access to all parts of the work.

1.06.3 LIGHTING AND ILLUMINATION

The Contractor shall ensure the substrate to be inspected has adequate lighting to a minimum of 50-foot candles. All access and egress points shall be illuminated to a minimum of 20-foot candles of light.

1.06.4 ROLE AND RESPONSIBILITIES

The quality assurance inspector which may be a Department employee, or a designated representative of the Department shall observe, witness, document, assess, and report the technical aspects that the Contractor is complying with all the requirements of the contract. In the event the inspector identifies that the Contractor is found not in compliance, the inspector shall execute their assigned authority as defined in Section 1.06.5.2 of this specification. In the event the inspector identifies that the Contractor is found performing negligent acts not in compliance with industry standards and regulations, the inspector shall execute their assigned authority as defined in Section 1.06.5.3 of this specification.

The presence of the Engineer or inspector at the work site shall in no way relieve nor lessen the Contractor's quality control inspector nor the Contractor's responsibility for conformity with the specification or contract, the Contractor shall be held accountable for a quality deliverable product.

1.06.5 AUTHORITY

1.06.5.1 GENERAL

The inspector shall perform as the role assigned per the Engineer. The inspector is not authorized to alter nor waive the requirements of the specification nor contract. The inspector is authorized to inspect all work performed and materials furnished. Such inspection may extend to all or any part of the work and to the preparation, application, or manufacture of the materials to be utilized to execute deliverables.

1.06.5.2 NON-CONFORMANCE / NON-COMPLIANCE

The inspector shall have authorization to issue the Contractor a Non-Conformance/Non-Compliance Report.

1.06.5.3 ACTS OF NEGLIGENCE

Should the inspector identify observations in which the Contractor is performing any or all acts of negligence, the inspector shall enforce a "cease work". Work shall be suspended, and the inspector shall communicate, and relay identified observations to the Engineer. The inspector shall not be reprovred nor retaliated against as the inspector shall be protected under the United States federal law; Whistleblower Protection Act of 1989, Publication L. 101-12.

1.07 Safety and Environmental Compliance**1.07.1 WASTE HANDLING AND POLLUTION CONTROL**

The Contractor shall ensure that all wastes generated by the surface preparation operations are managed in accordance with environmental protection regulations and comply with all federal, state, and local laws for controlling pollution of the environment.

The Contractor shall in all acts avoid polluting streams, lakes, ponds, reservoirs, etc. with fuels, oils bitumen's, chemicals, sediments, or other harmful materials. The Contractor shall in all acts implement advanced measures to avoid polluting the atmosphere with particulates and gaseous matters. By execution of this contract, the Contractor, will be deemed to have stipulated as follows:

- A. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Publication L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Publication L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is 107.19 50 not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.
- B. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.
- C. That the firm shall promptly notify the Department of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
- D. Control the fugitive dust generated by the work according to local ordinances and regulations. Prior to the initiation of abrasive coating removal, pavement cutting or any other construction operation that generates dust, demonstrate to the Engineer that construction related dust will be controlled with appropriate Reasonable Available Control Measures In addition, use dust control measures when fugitive dust creates unsafe conditions as determined by the Engineer. Perform this work without additional compensation
- E. Safety Precautions: follow precautions defined on the manufacturer's SDS. Provide the Engineer a copy of the SDS sheet for information before any work commences.

1.07.2 PUBLIC PROTECTION AND OVERSPRAY

Protect the public during all operations, especially when applying sealer to the fascia or the underside portions of a bridge that spans an area used by the public. During sealing, mask off, or use other means of protection, for surfaces not being sealed. Protect asphalt and mastic type surfaces from spillage and heavy overspray. Do not apply sealers to joint sealants which have not cured according to the manufacturer's instructions. Joint sealants, traffic paints and asphalt overlays may be applied to the treated surfaces 48 hours after the sealer has been applied. Protect nearby steel, aluminum or glass surfaces when non-epoxy overspray could be deposited on those surfaces.

TRIANGLE EXPRESSWAY PAINTED STRUCTURES

↓ AREAS TO BE (RE)PAINTED

BRIDGE WALLS



6335 Fired Brick (Main Brick)

6335 Fired Brick (Main Brick)



Text color to be determined individually by Engineer:

26280 Federal Standard
OR
25630 Federal Standard

6335 Fired Brick (Main Brick)

6335 Fired Brick (Main Brick)

TRIANGLE EXPRESSWAY PAINTED STRUCTURES

↓ PAINT TO BE REMOVED

CONCRETE BARRIER



25630 Federal Standard (Remove)



25630 Federal Standard (Remove)

TRIANGLE EXPRESSWAY PAINTED STRUCTURES

END BENTS



25630 Federal Standard (Remove)

26280 Federal Standard (Remove)

26440 Federal Standard (Remove)

25630 Federal Standard (Remove)

25630 Federal Standard (Remove)

26280 Federal Standard (Remove)

26440 Federal Standard (Remove)

25630 Federal Standard (Remove)



TRIANGLE EXPRESSWAY PAINTED STRUCTURES

INTERIOR BENTS

26440 Federal Standard (Remove)

25630 Federal Standard (Remove)

26440 Federal Standard (Remove)

25630 Federal Standard (Remove)



26440 Federal Standard (Remove)

25630 Federal Standard (Remove)

26440 Federal Standard (Remove)



TRIANGLE EXPRESSWAY PAINTED STRUCTURES

AESTHETIC COLUMNS - SIGNS



26440 Federal Standard (Remove)

25630 Federal Standard (Remove)



26440 Federal Standard (Remove)

25630 Federal Standard (Remove)



TRIANGLE EXPRESSWAY PAINTED STRUCTURES

AESTHETIC COLUMNS – GANTRY



26440 Federal Standard (Remove)

25630 Federal Standard (Remove)



26440 Federal Standard (Remove)

25630 Federal Standard (Remove)



TRIANGLE EXPRESSWAY PAINTED STRUCTURES

PAINT COLOR DETAIL

SHERWIN-WILLIAMS
Sher-Color(tm)

SHD B&H WB HVY STN

STANDALONE

25630 FEDERAL STANDARD

CUSTOM MANUAL MATCH

BAC COLORANT	OZ	32	64	128
B1-Black	-	36	-	-
Y3-Deep Gold	-	31	-	1

FIVE GALLON
B97W0030C

6502796:

SHERWIN-WILLIAMS
Sher-Color(tm)

B&H CONC H STN UDB

STANDALONE

26280 FEDERAL STANDARD

CUSTOM MANUAL MATCH

BAC COLORANT	OZ	32	64	128
W1-White	24	16	1	1
B1-Black	4	29	1	-
G2-New Green	-	16	-	-
N1-Raw Umber	6	48	-	-

FIVE GALLON
B97T00304

601532153

SHERWIN-WILLIAMS
Sher-Color(tm)

B&H CONC H STN UDB

STANDALONE

6335 FIRED BRICK

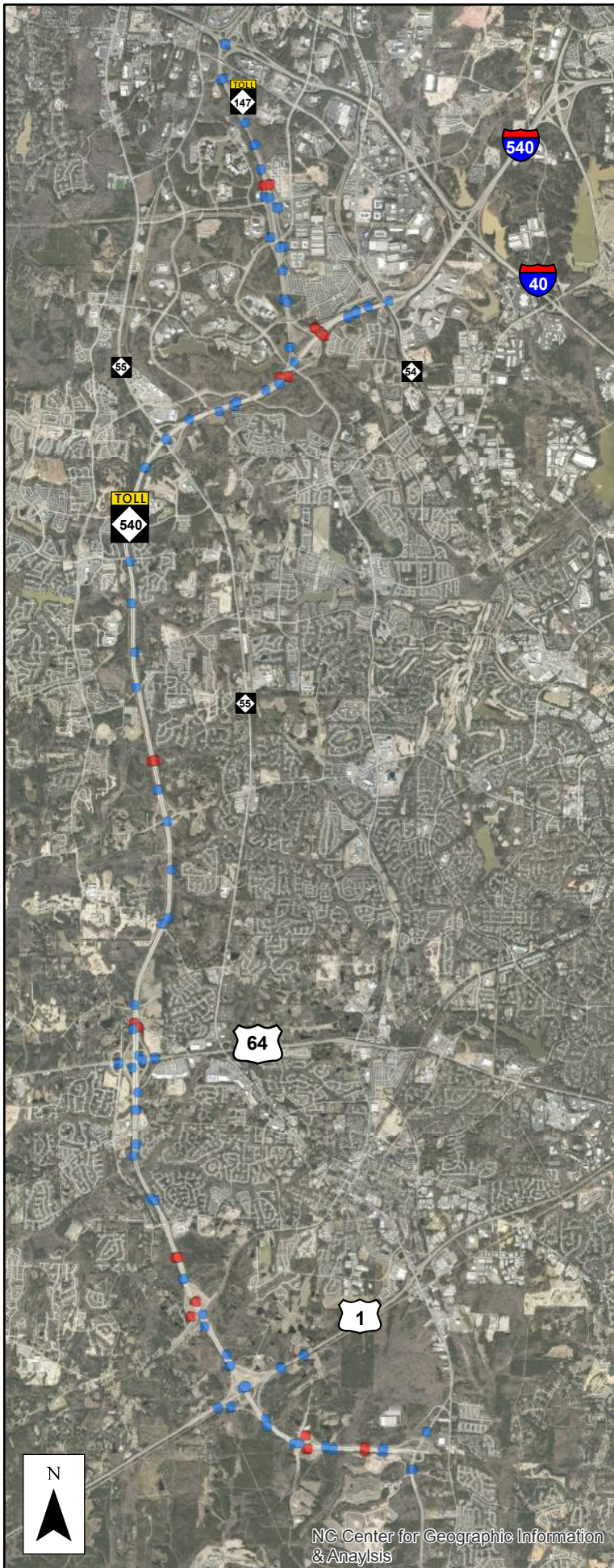
100% OF FORMULA BOOK

BAC COLORANT	OZ	32	64	128
B1-Black	2	1	-	-
R4-New Red	20	-	-	-
R2-Maroon	14	32	-	-
Y3-Deep Gold	2	21	-	-

FIVE GALLON
B97T00304

60153215

Toll NC-540/147 Painted Structures - Columns

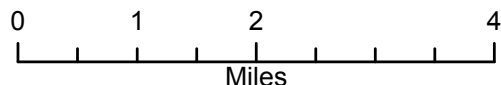


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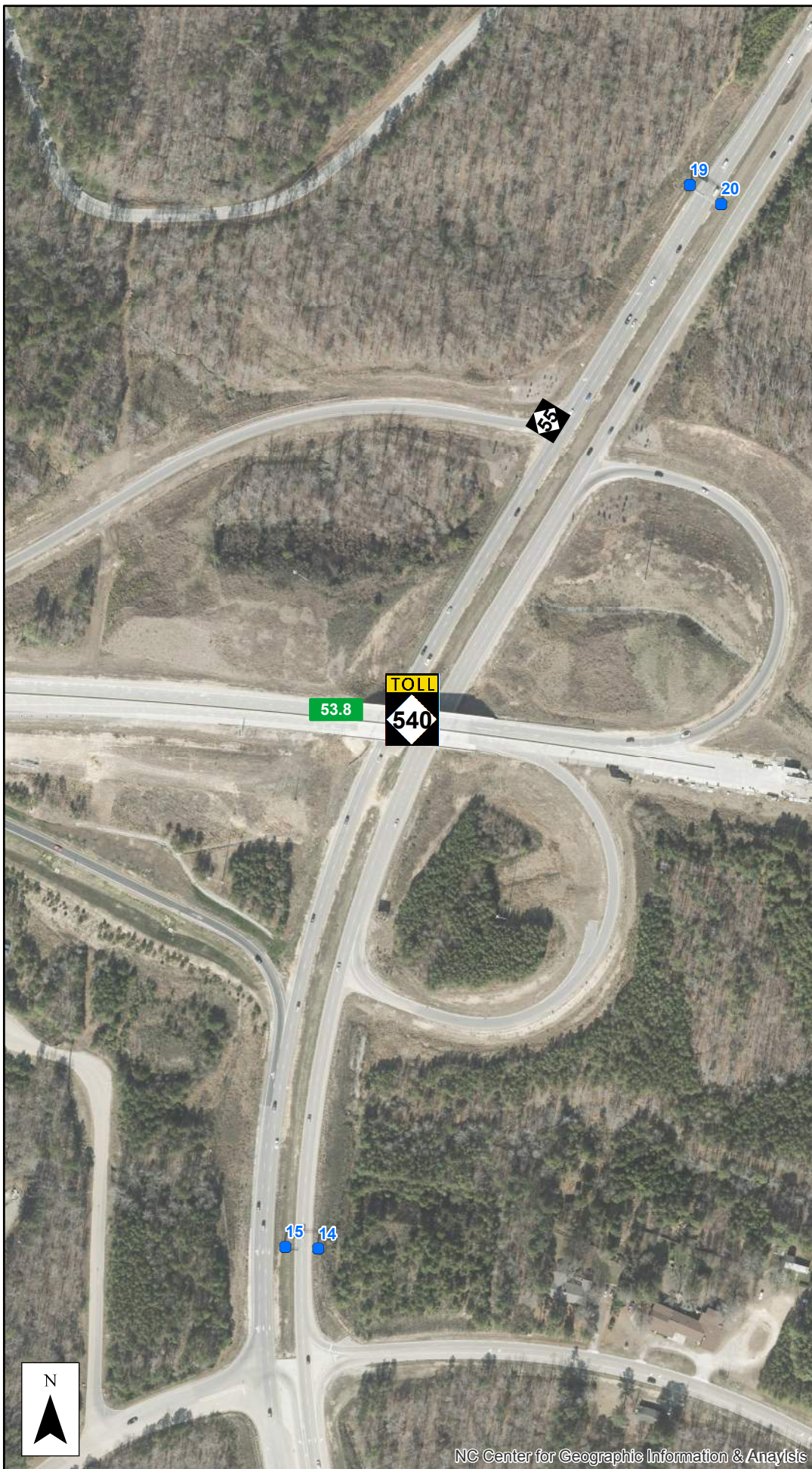
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- Gantry Column (80)
 - Sign Column (110)

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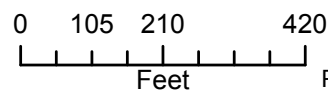
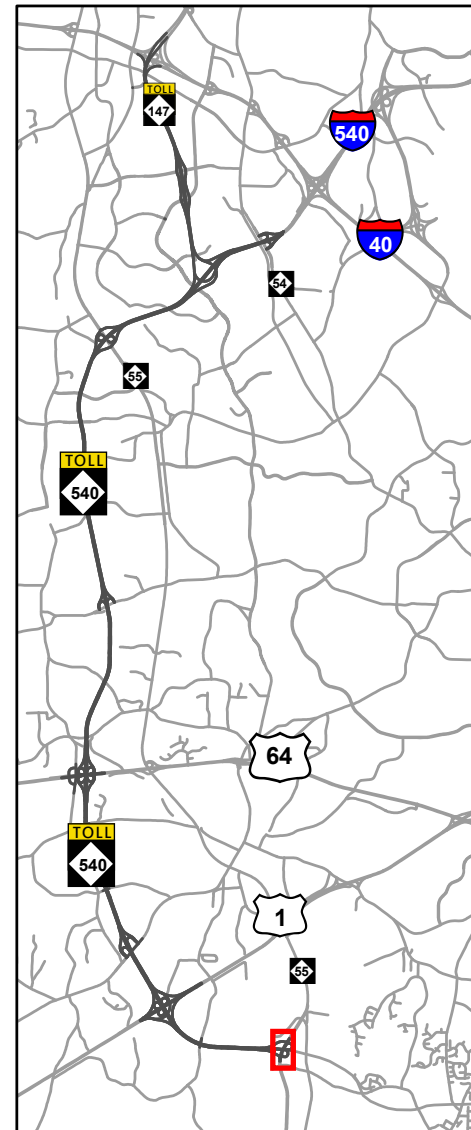


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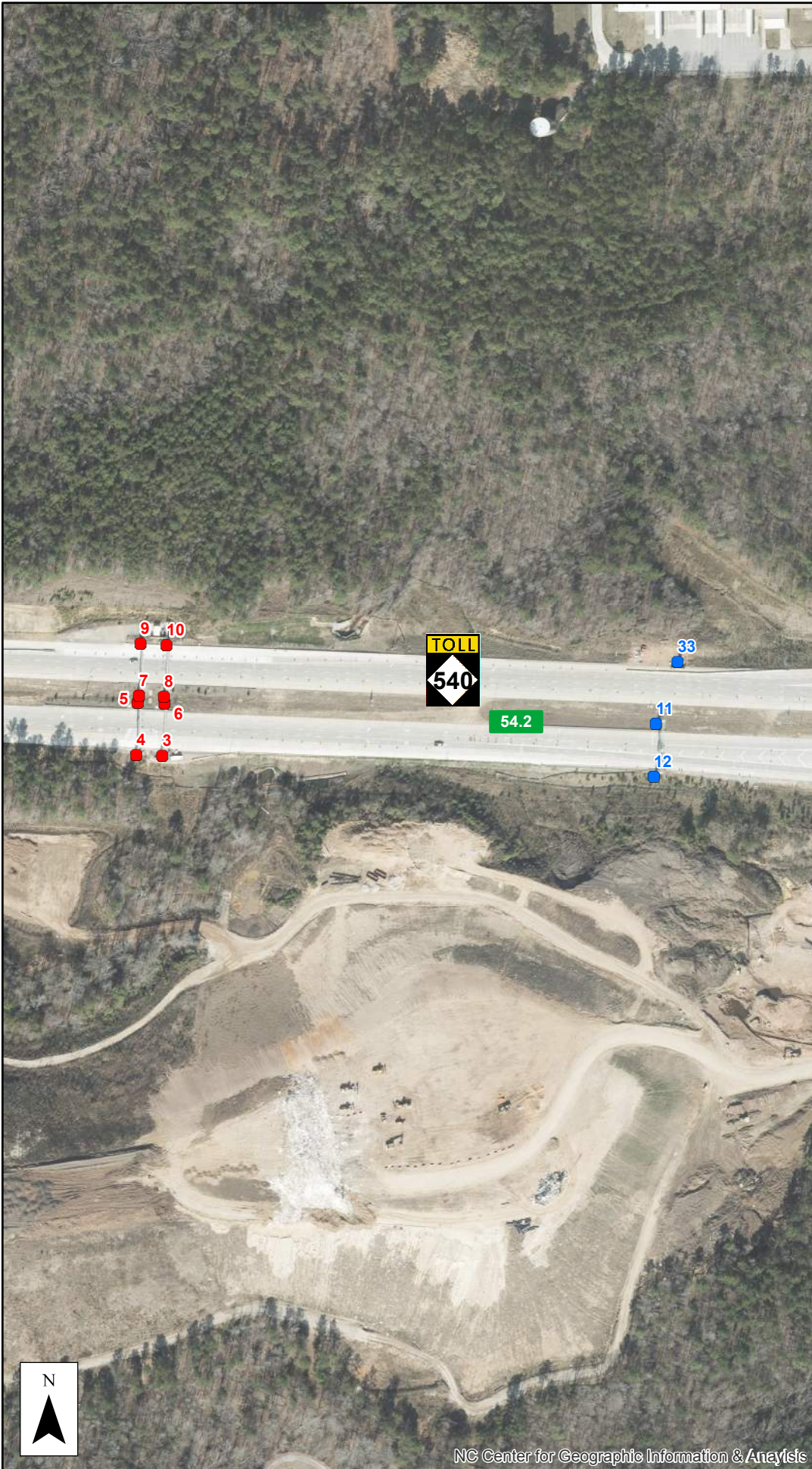


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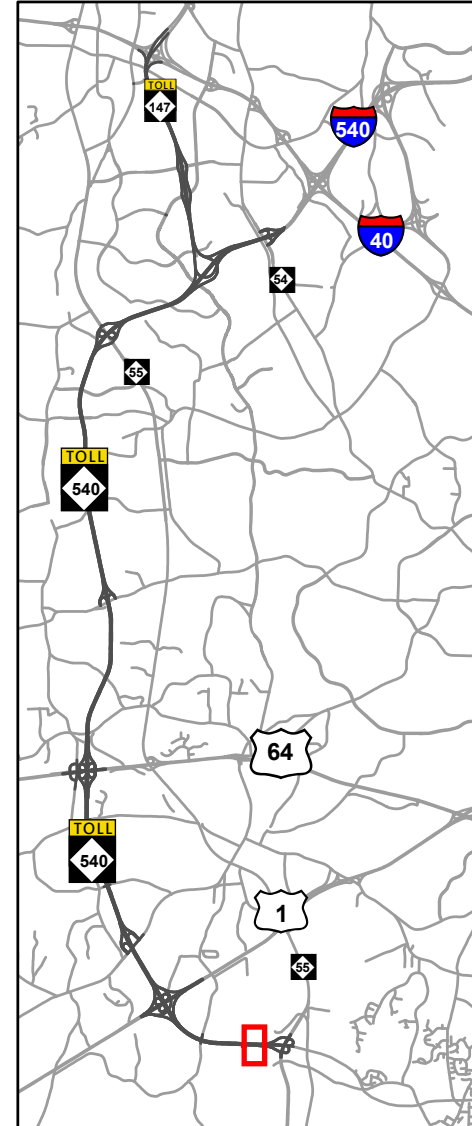
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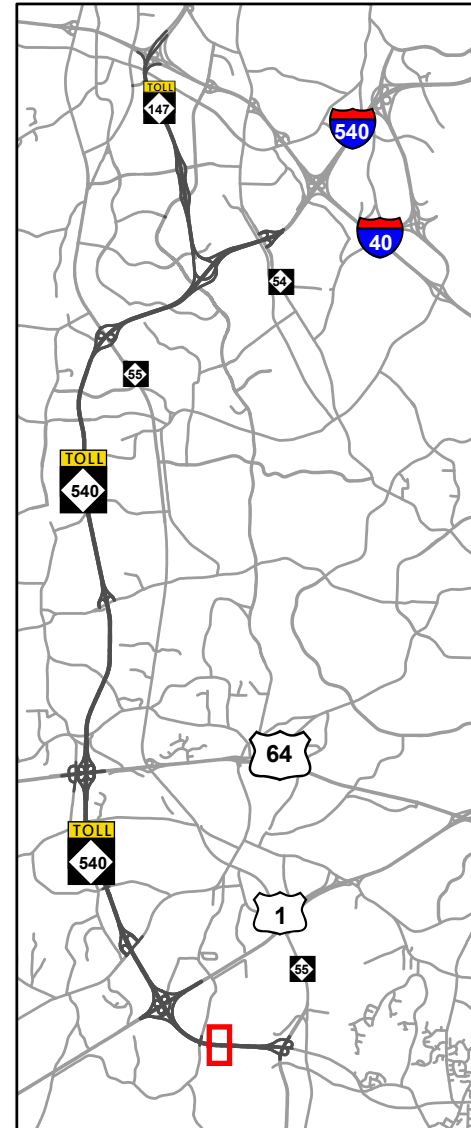
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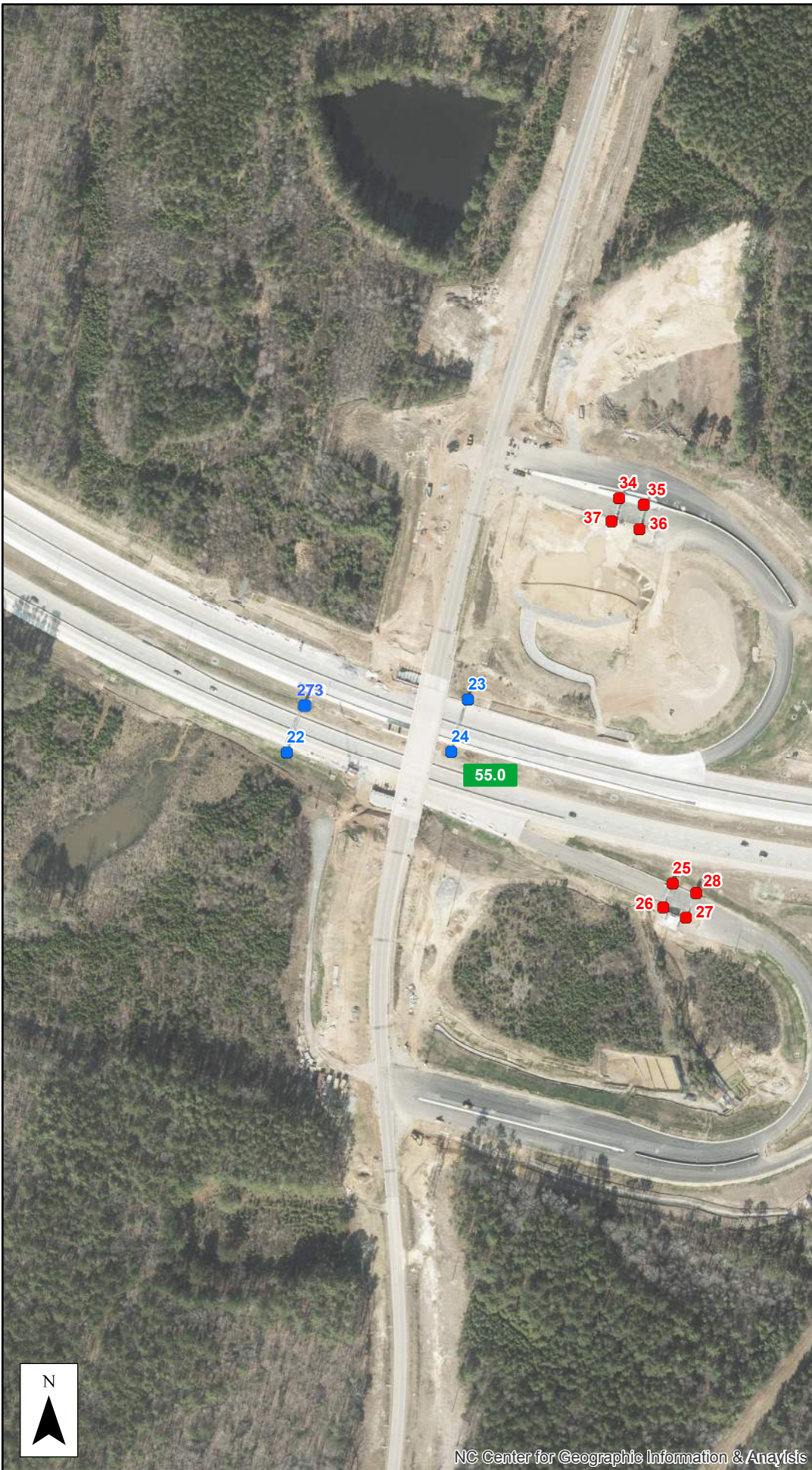
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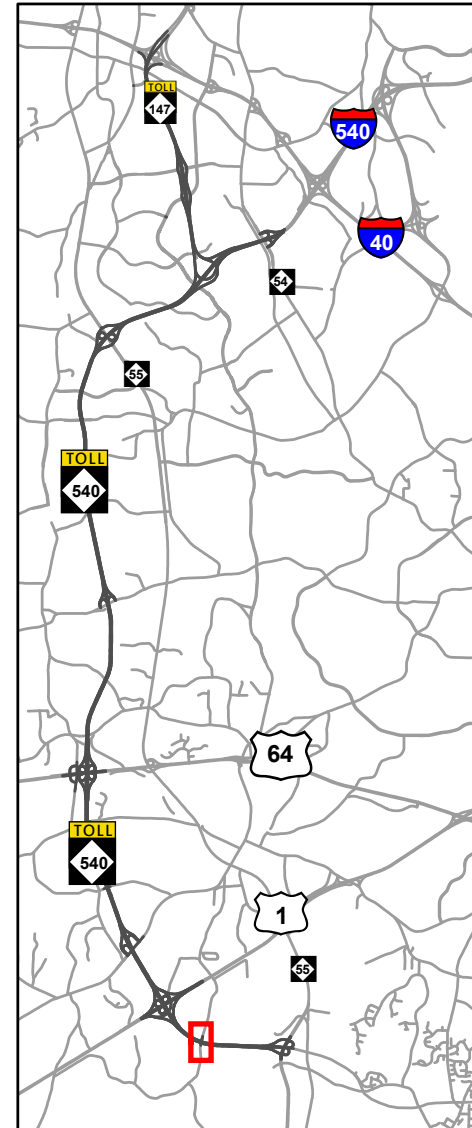
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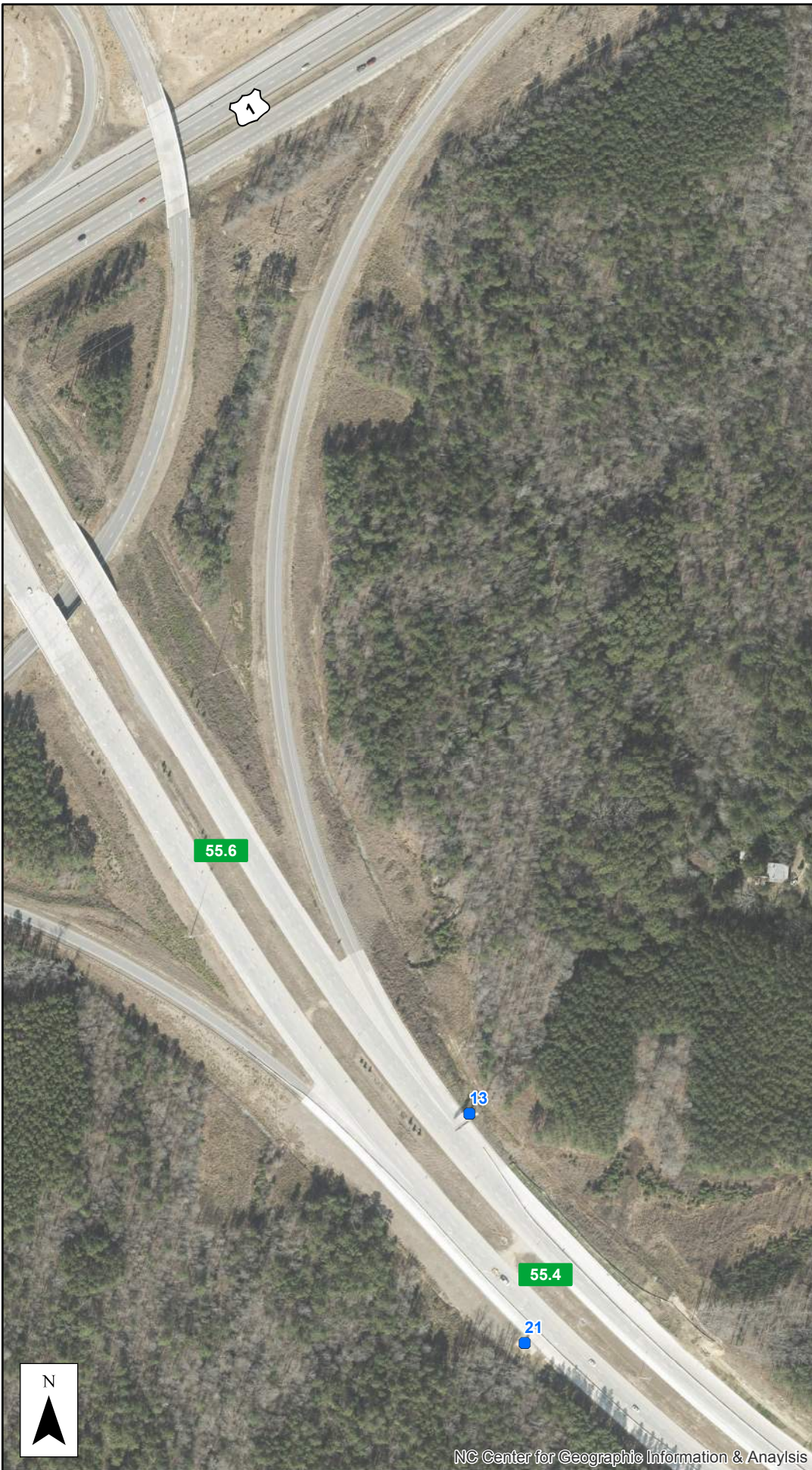
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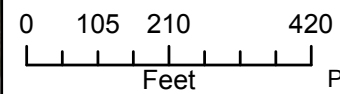
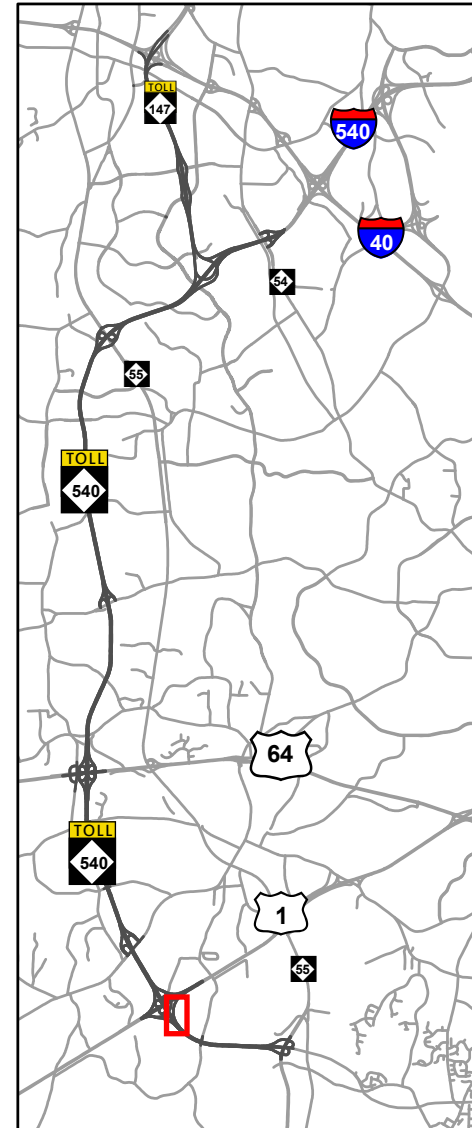
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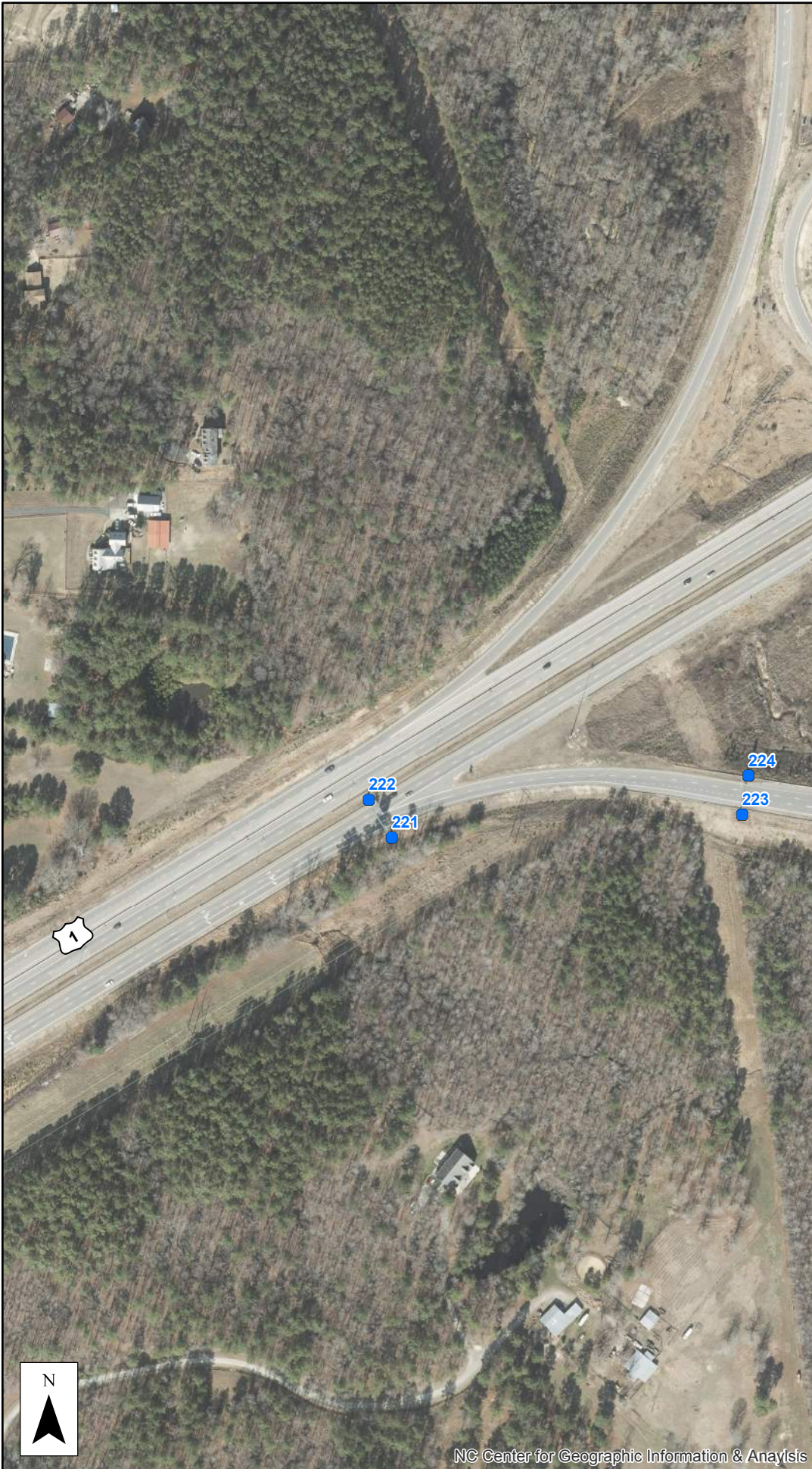
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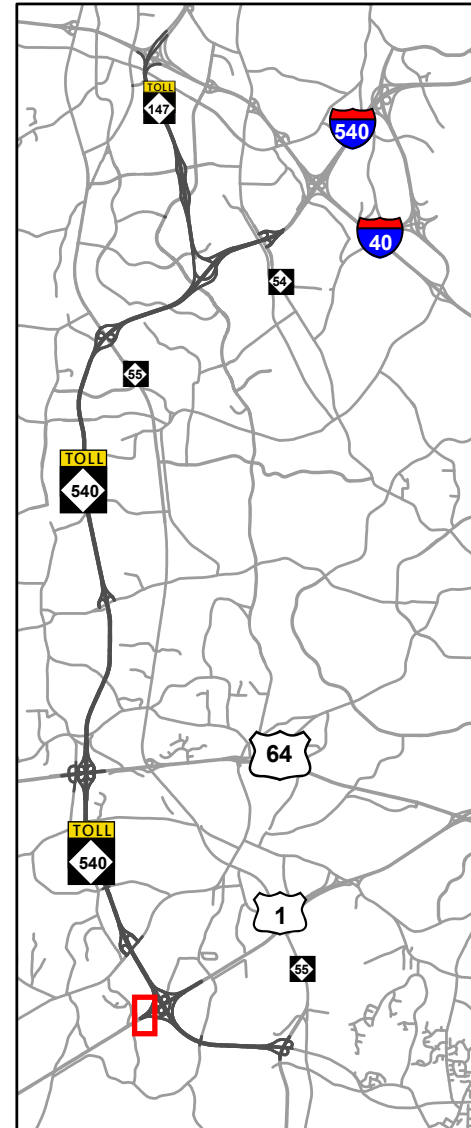
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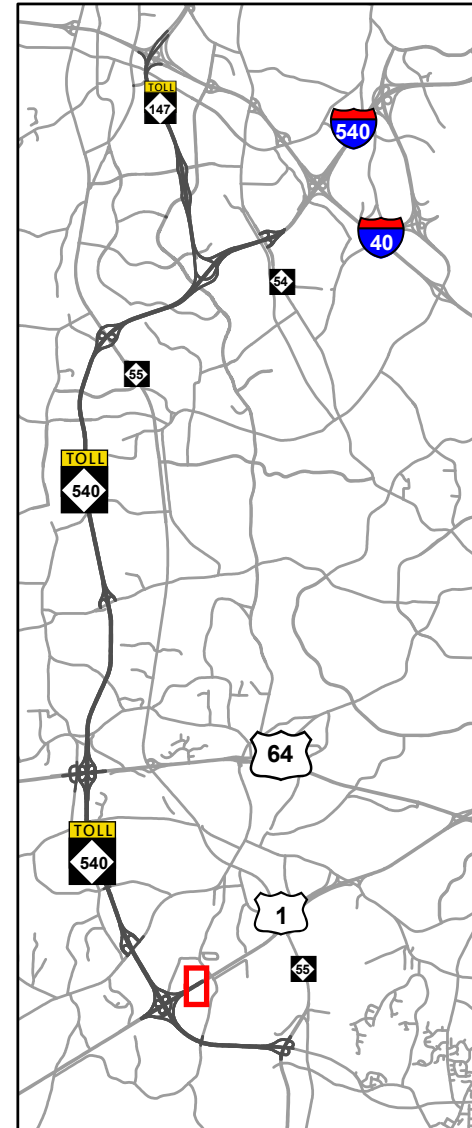
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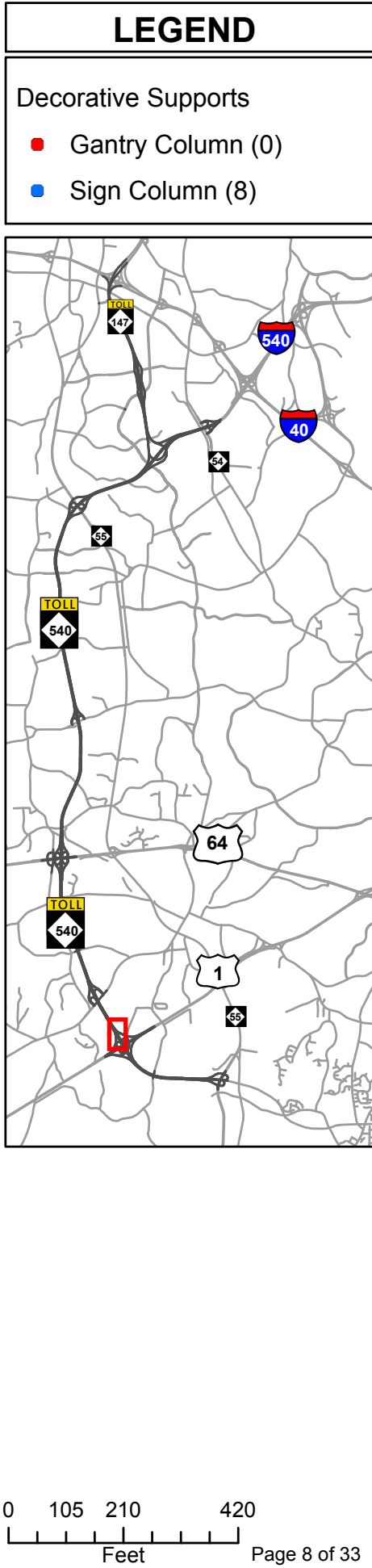
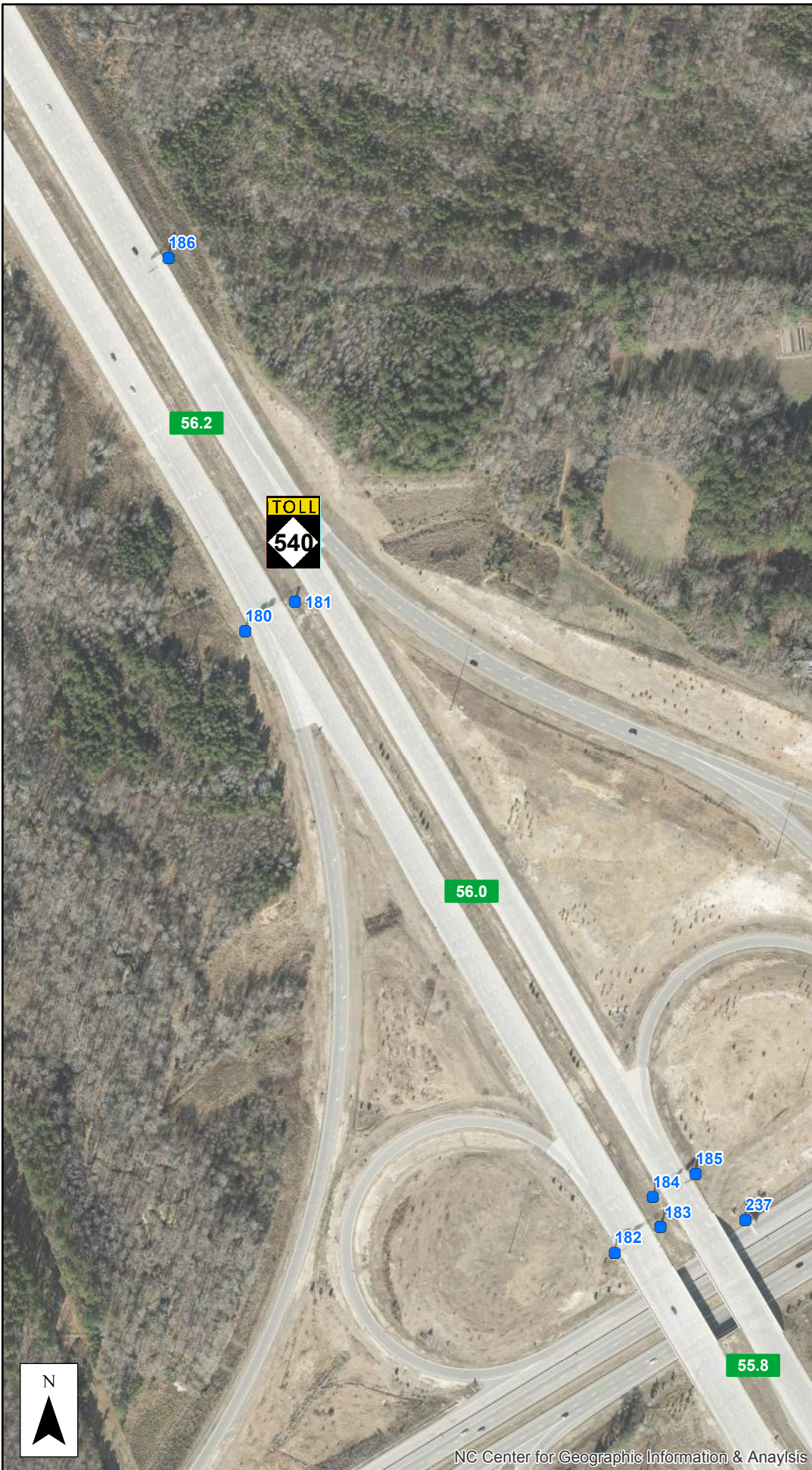
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Decorative Supports

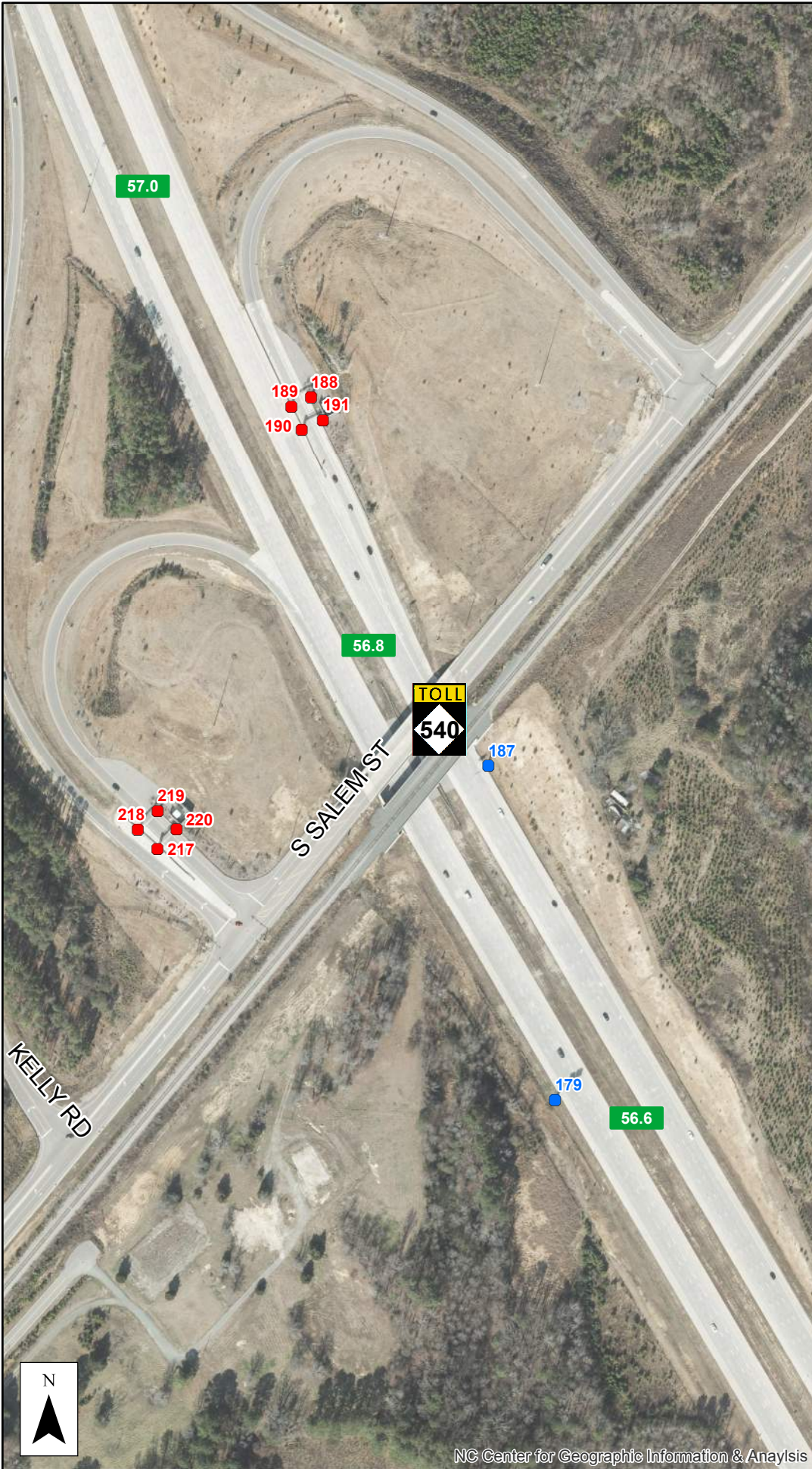
- Gantry Column (0)
- Sign Column (4)



Toll NC-540/147 Painted Structures - Columns

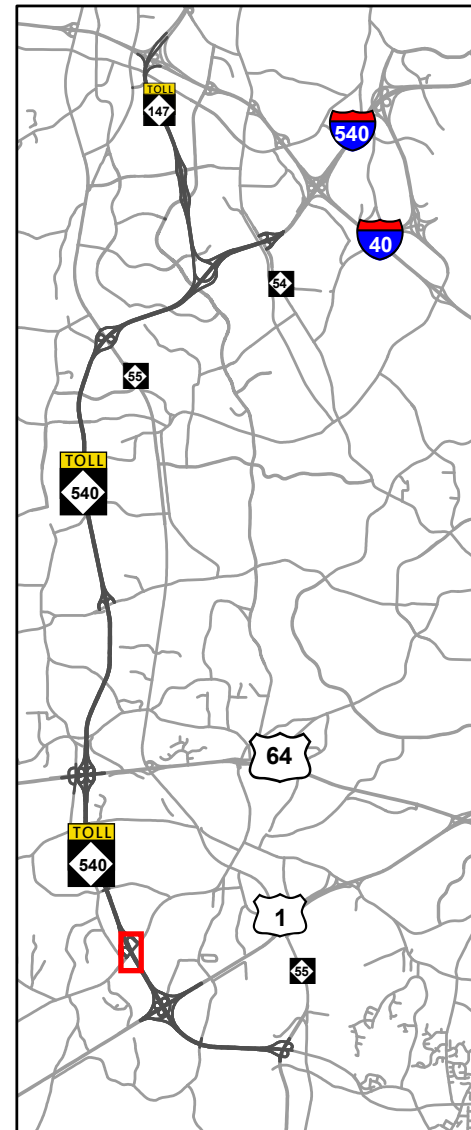


Toll NC-540/147 Painted Structures - Columns

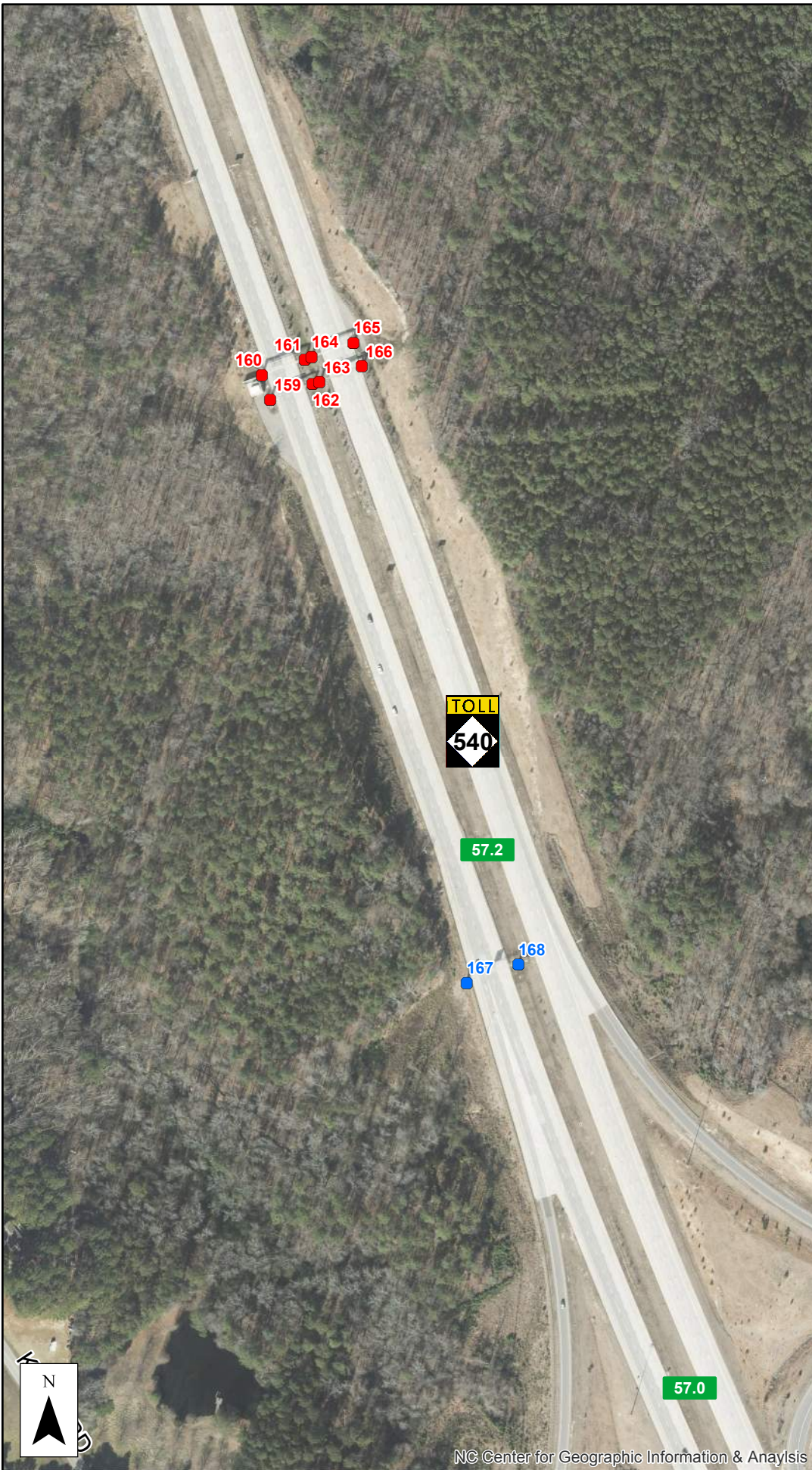


LEGEND

- Decorative Supports
- Gantry Column (8)
 - Sign Column (2)



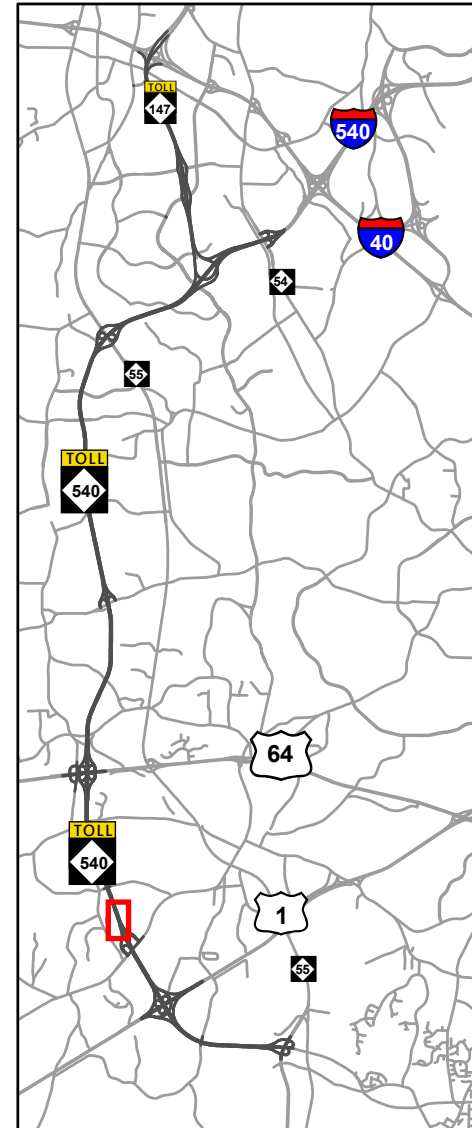
Toll NC-540/147 Painted Structures - Columns



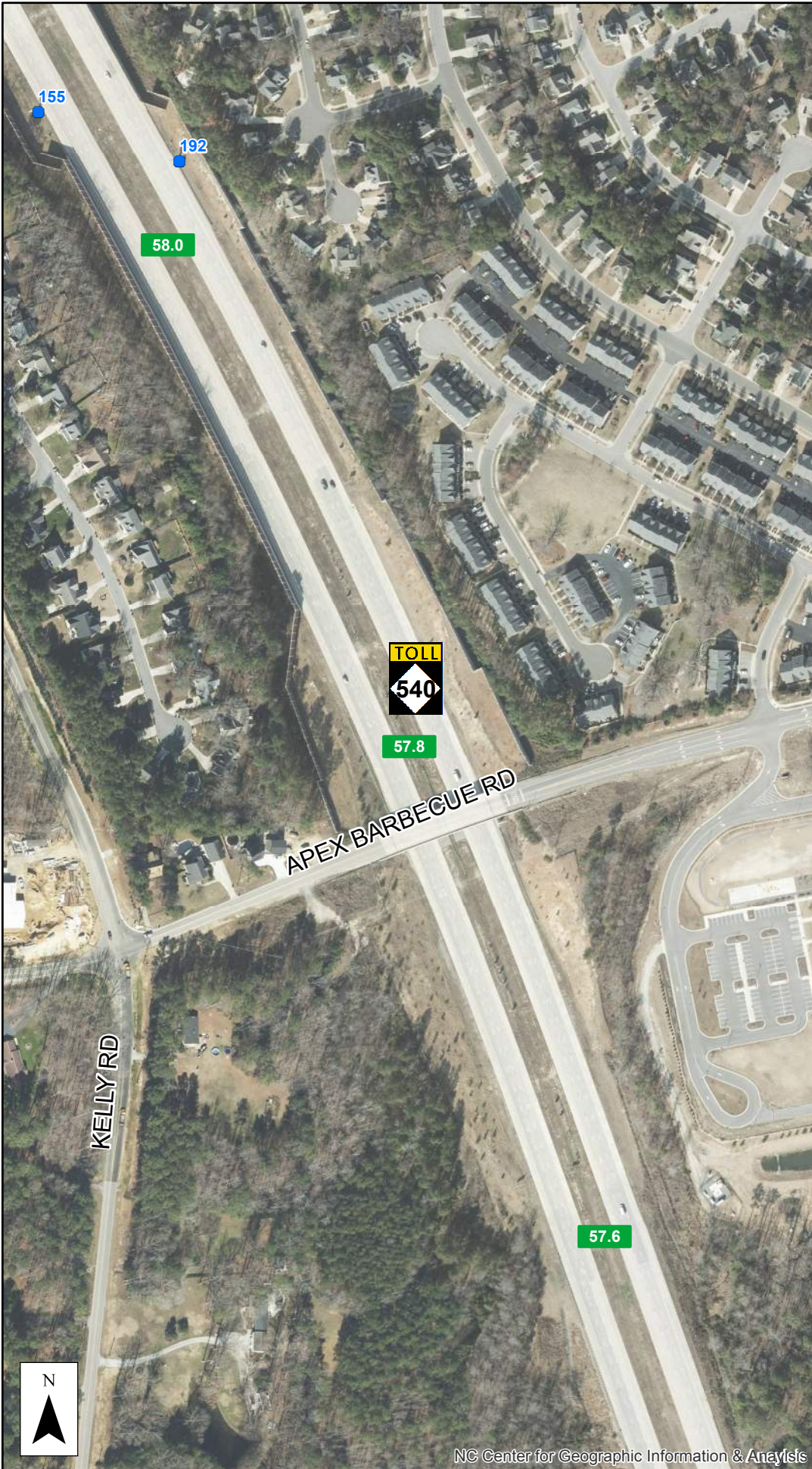
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Decorative Supports

- Gantry Column (8)
- Sign Column (2)

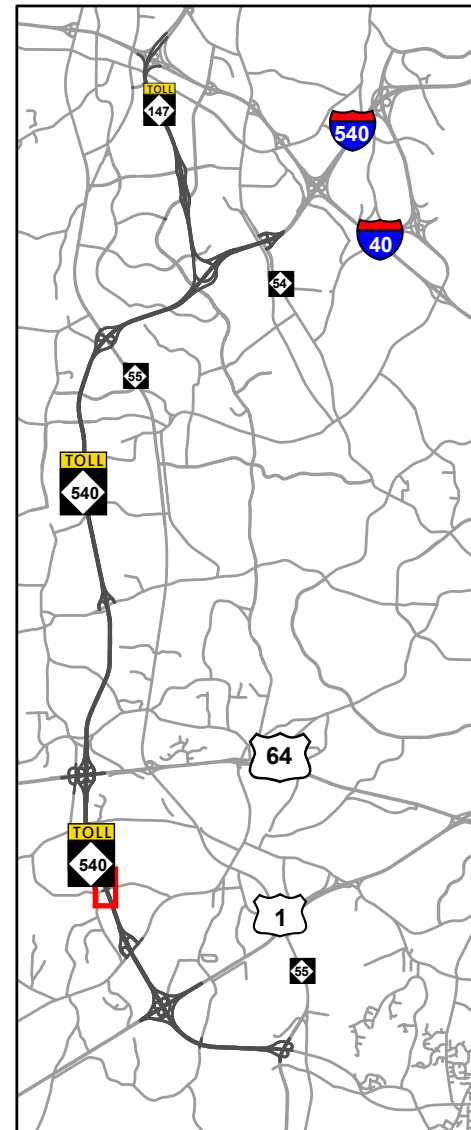


Toll NC-540/147 Painted Structures - Columns

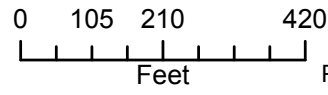
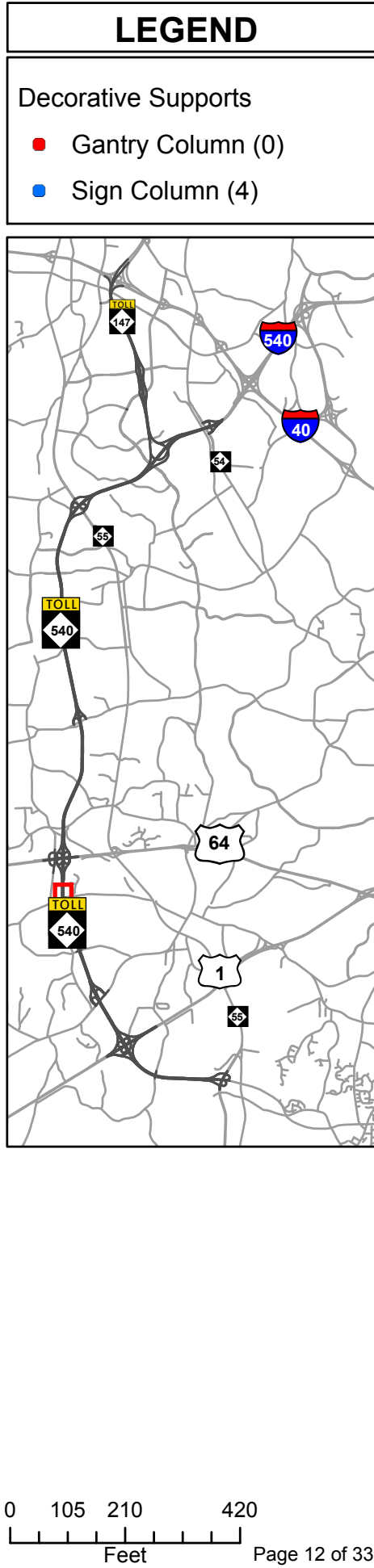
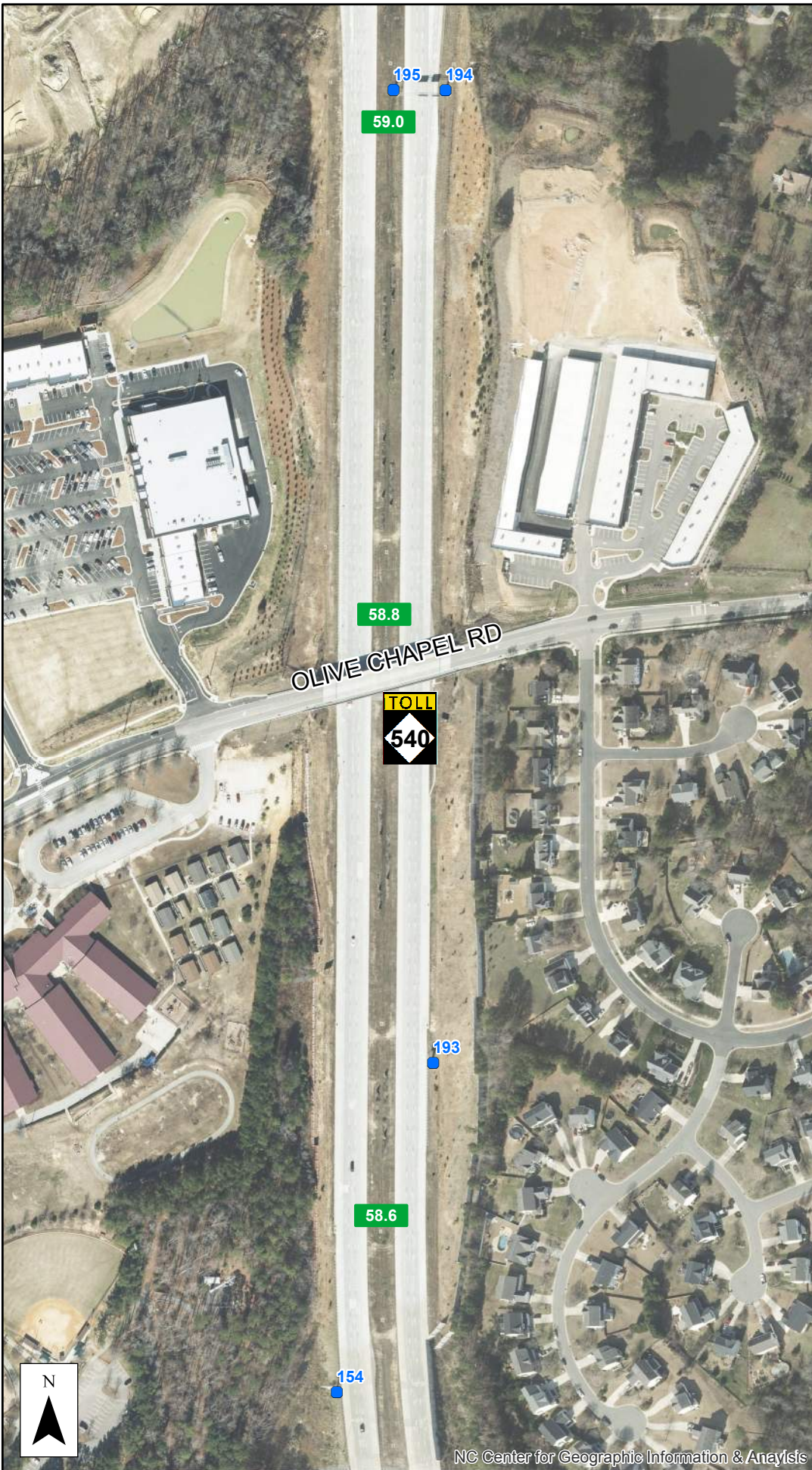


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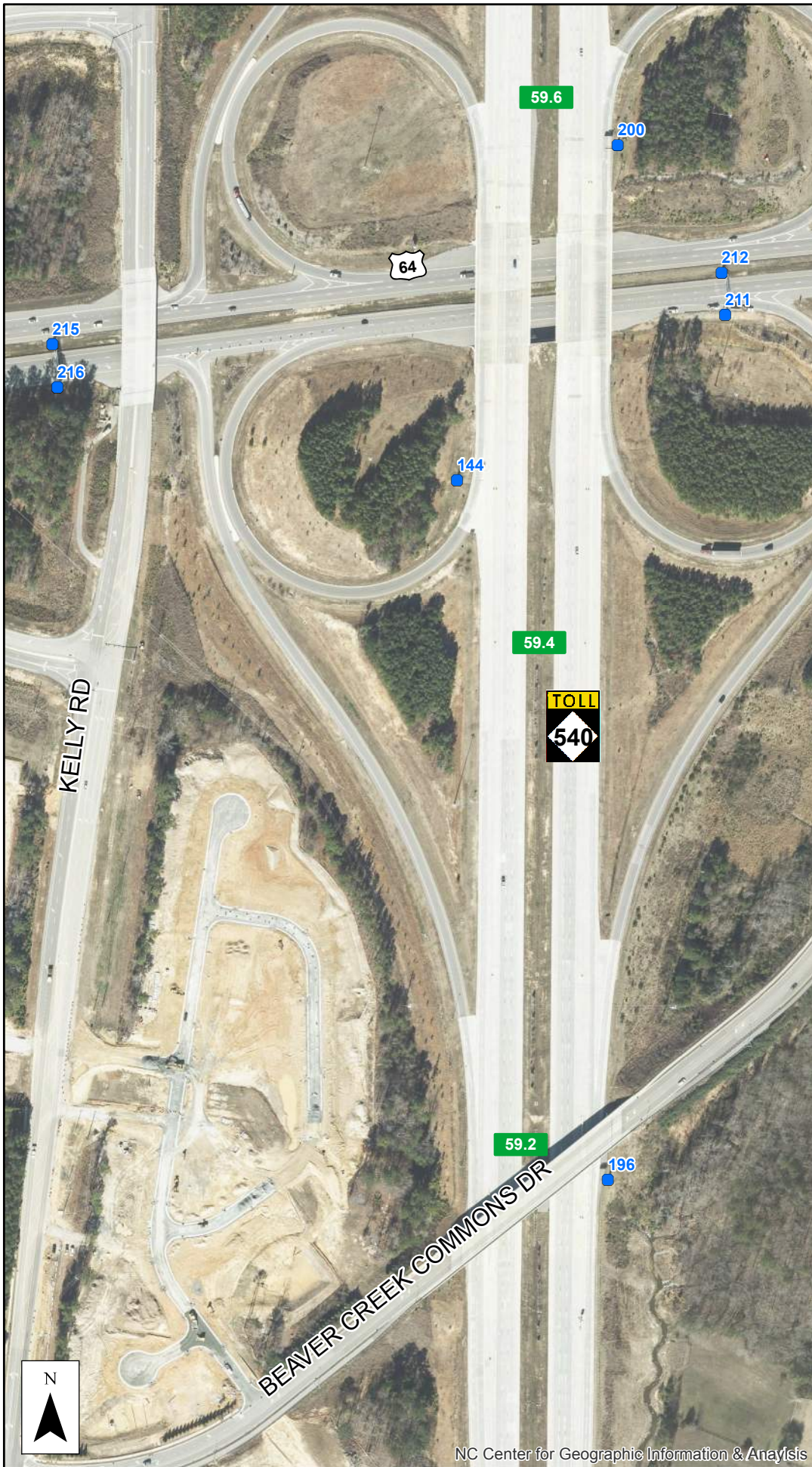
- Decorative Supports
- Gantry Column (0)
 - Sign Column (2)



Toll NC-540/147 Painted Structures - Columns

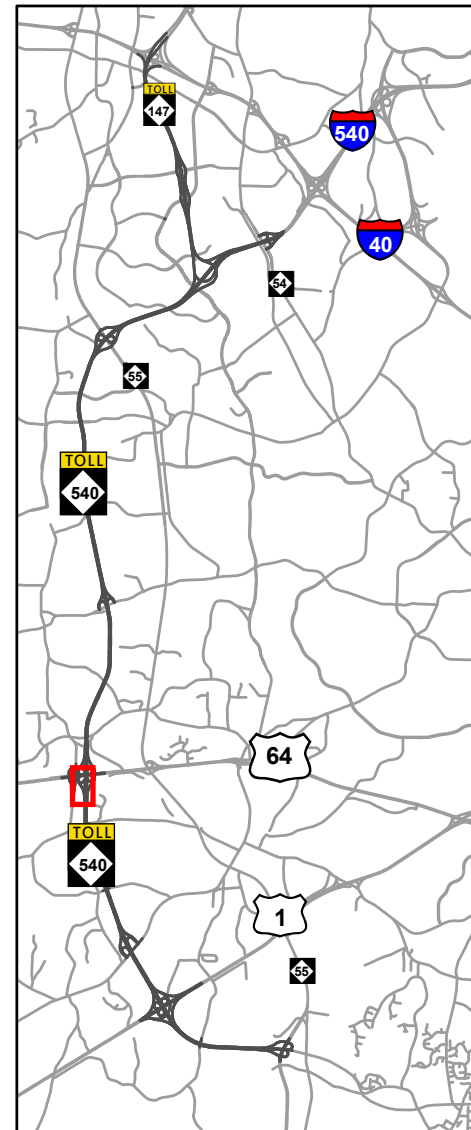


Toll NC-540/147 Painted Structures - Columns

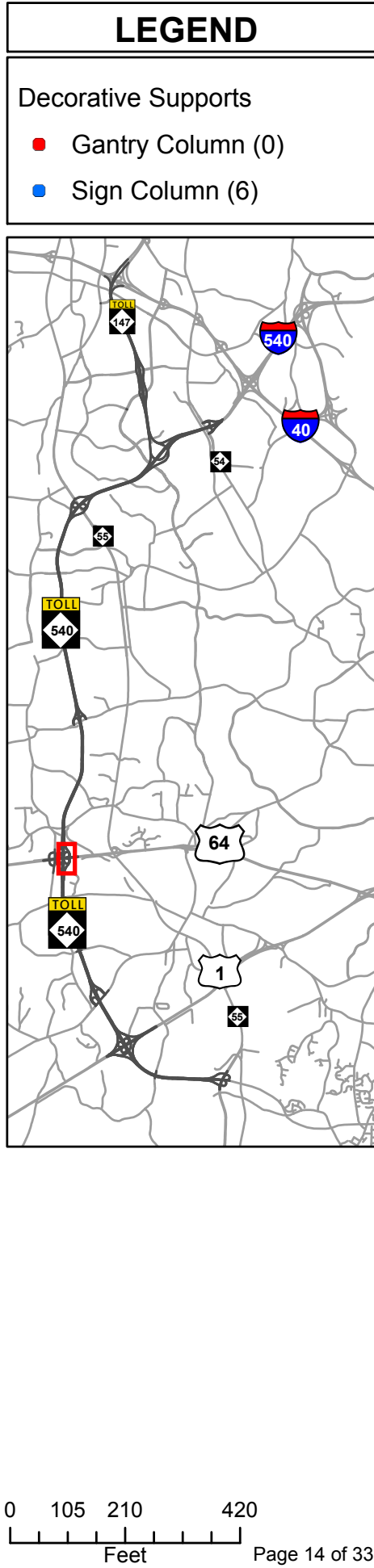
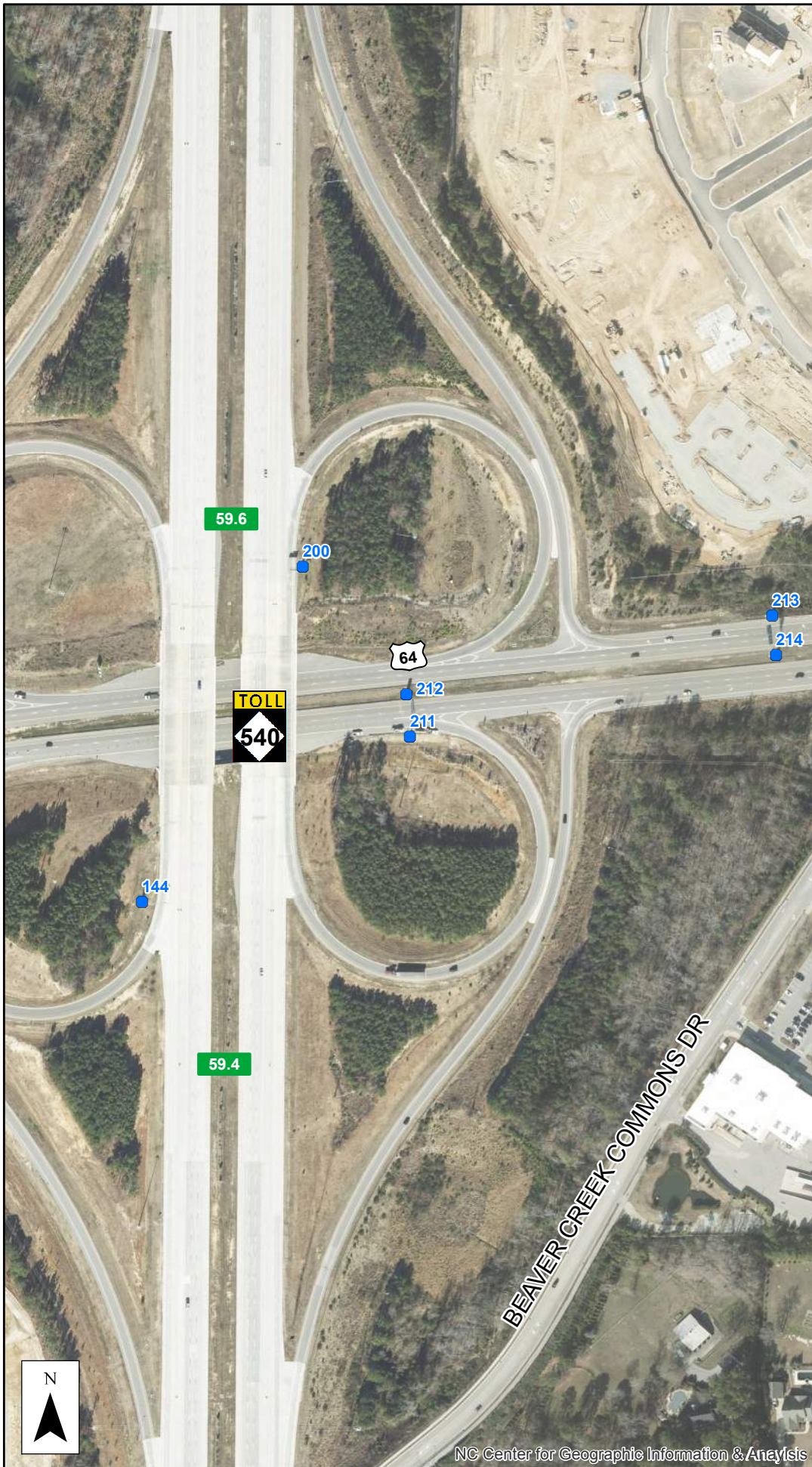


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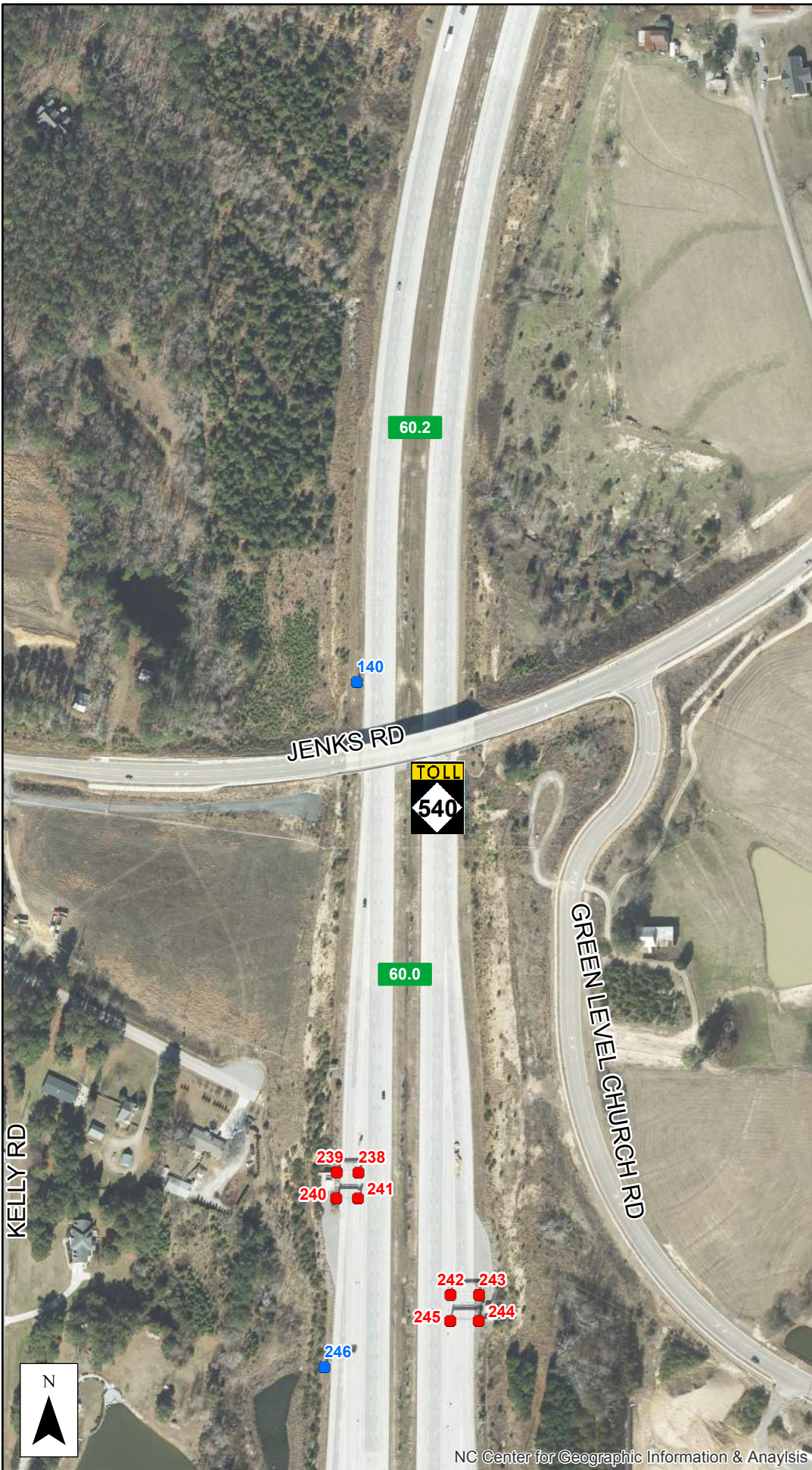
- Decorative Supports
- Gantry Column (0)
 - Sign Column (7)



Toll NC-540/147 Painted Structures - Columns

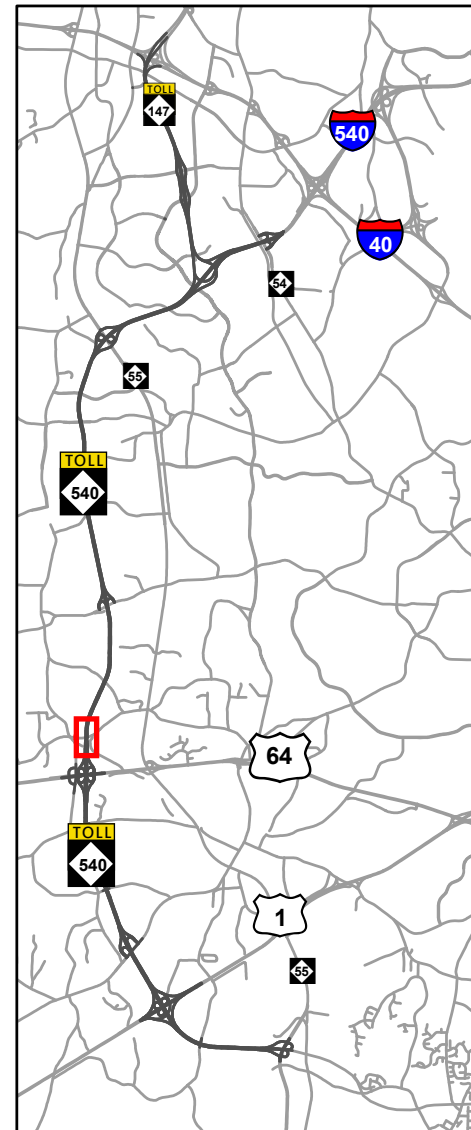


Toll NC-540/147 Painted Structures - Columns

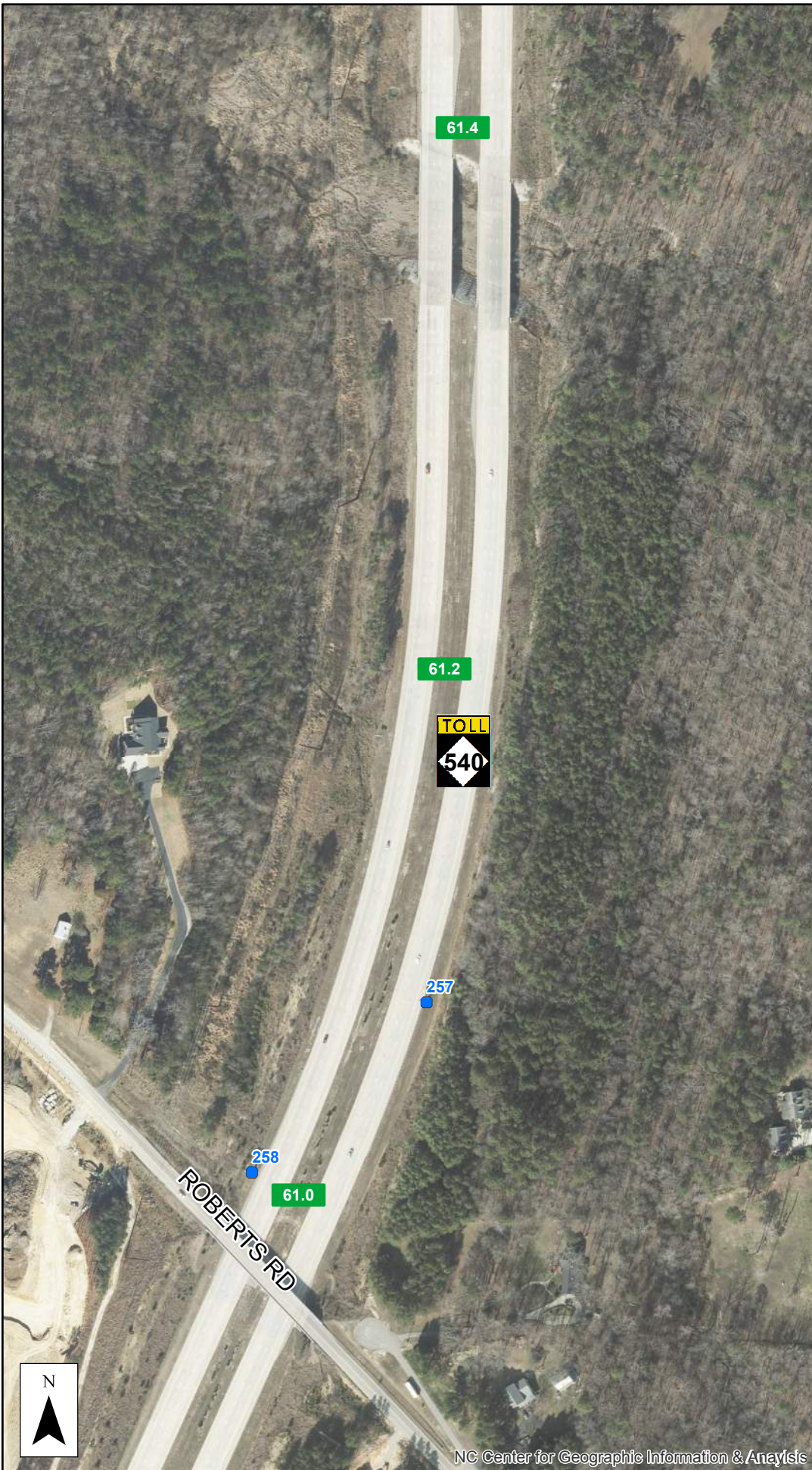


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- Decorative Supports
- Gantry Column (8)
 - Sign Column (2)



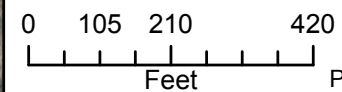
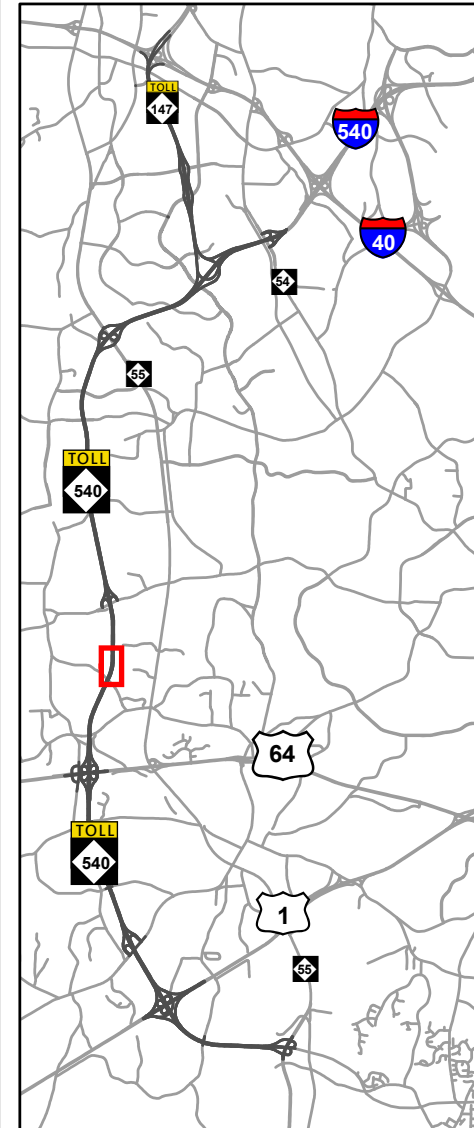
Toll NC-540/147 Painted Structures - Columns



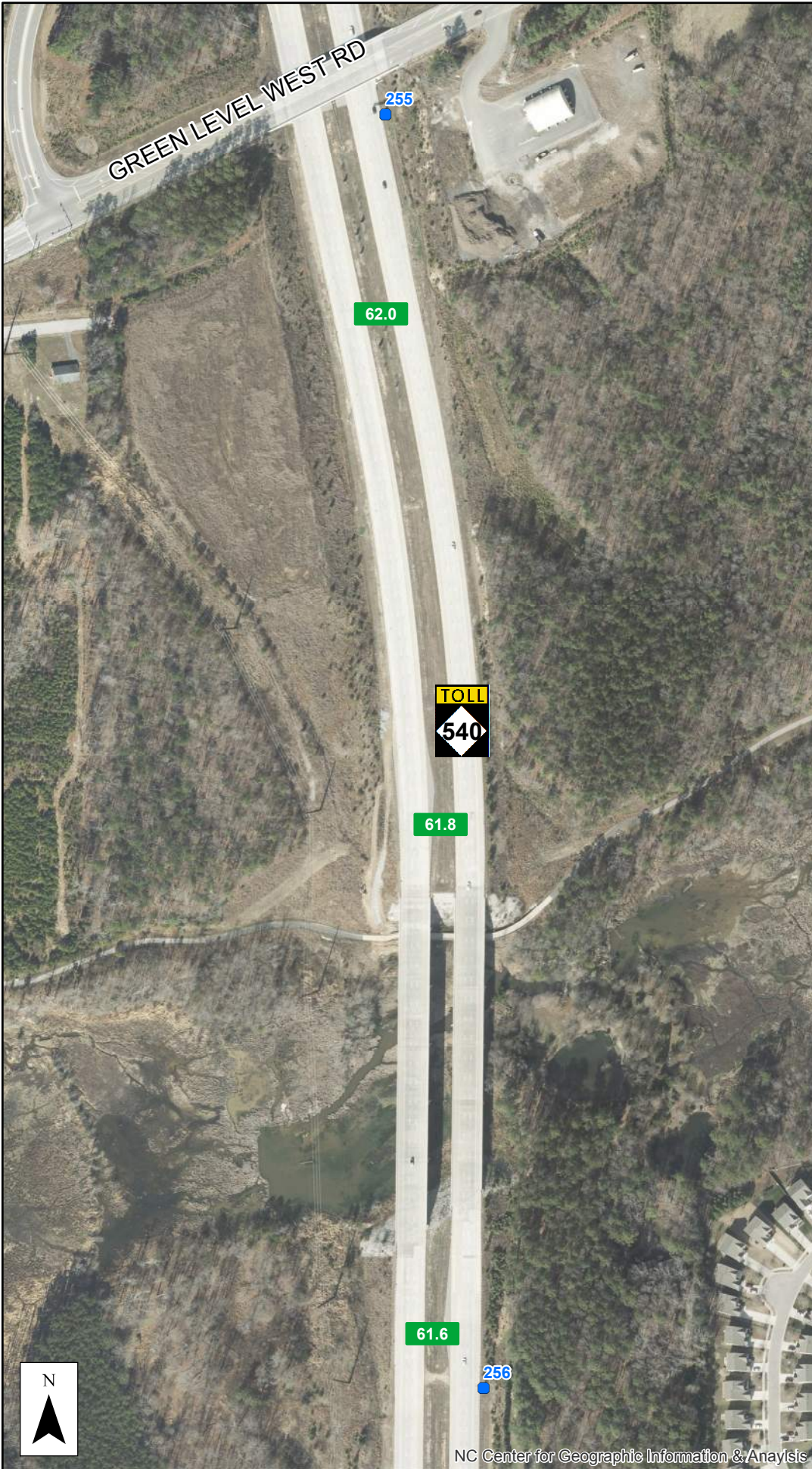
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Decorative Supports

- Gantry Column (0)
- Sign Column (2)

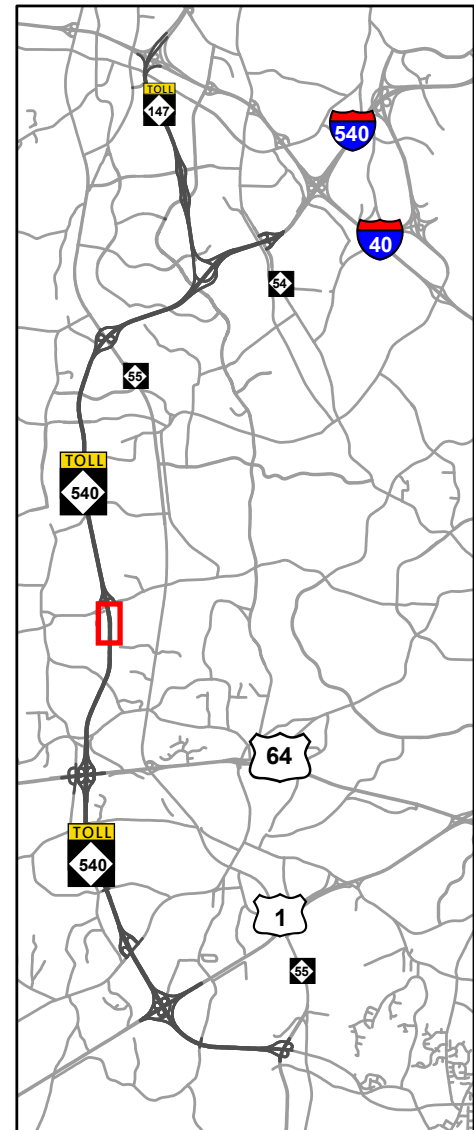


Toll NC-540/147 Painted Structures - Columns

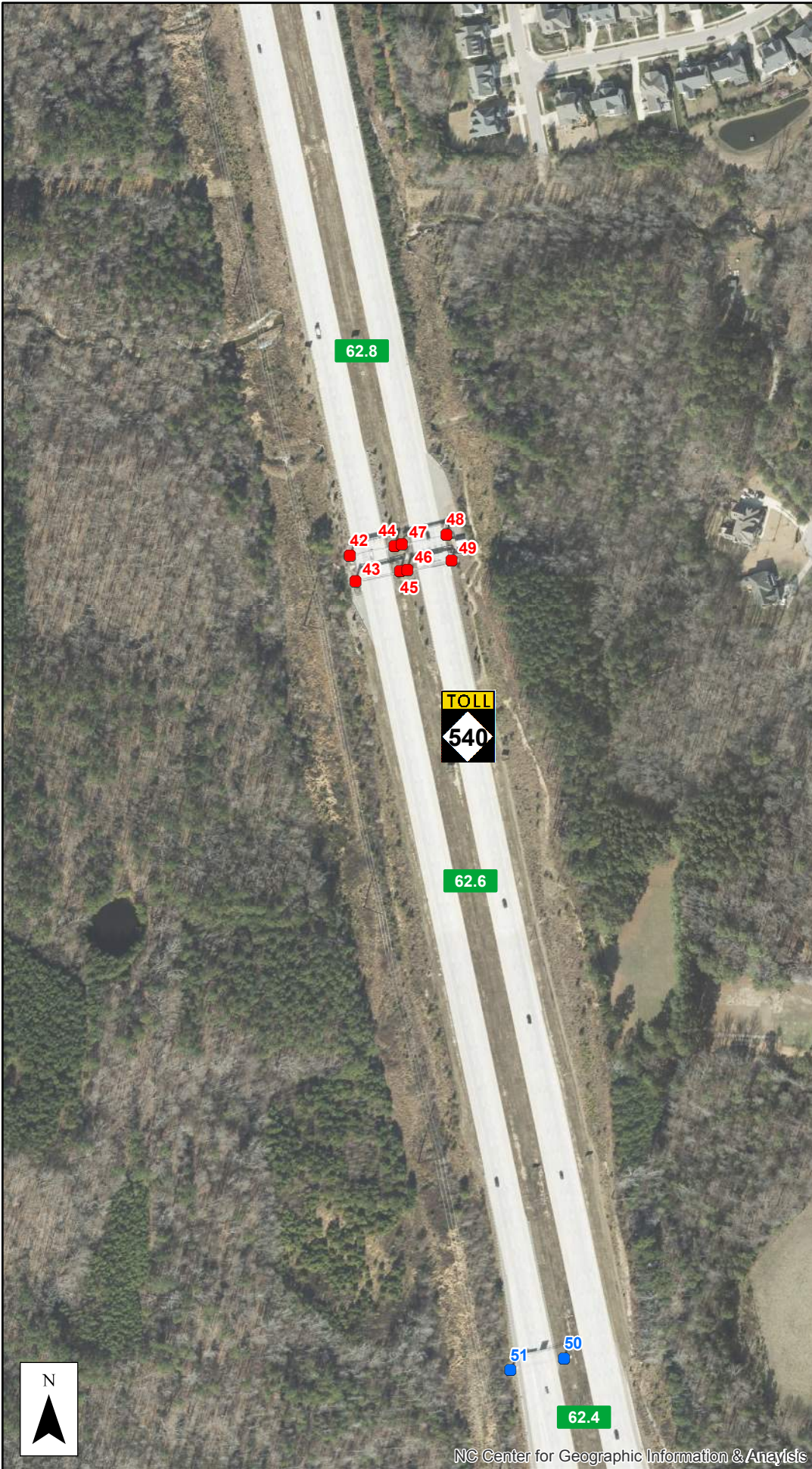


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- Decorative Supports
- Gantry Column (0)
 - Sign Column (2)

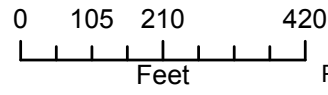
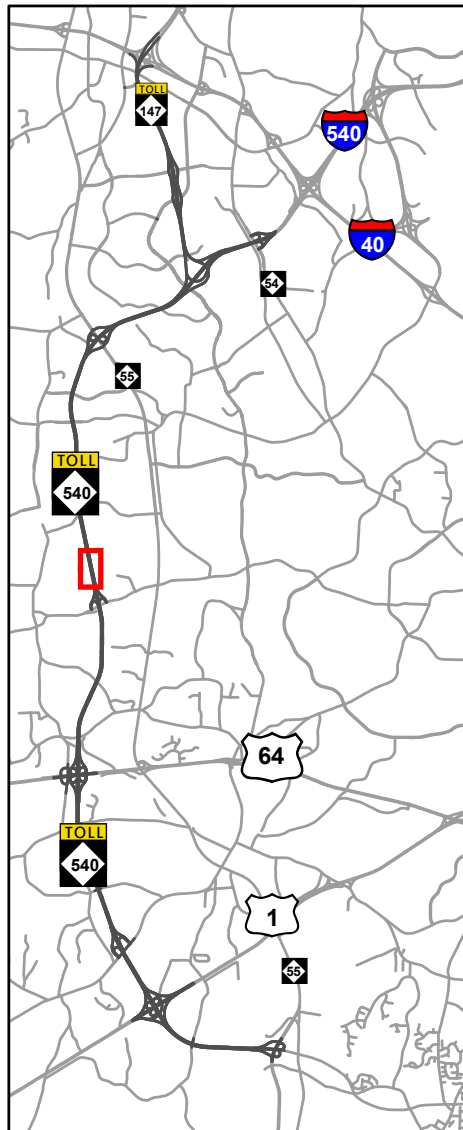


Toll NC-540/147 Painted Structures - Columns

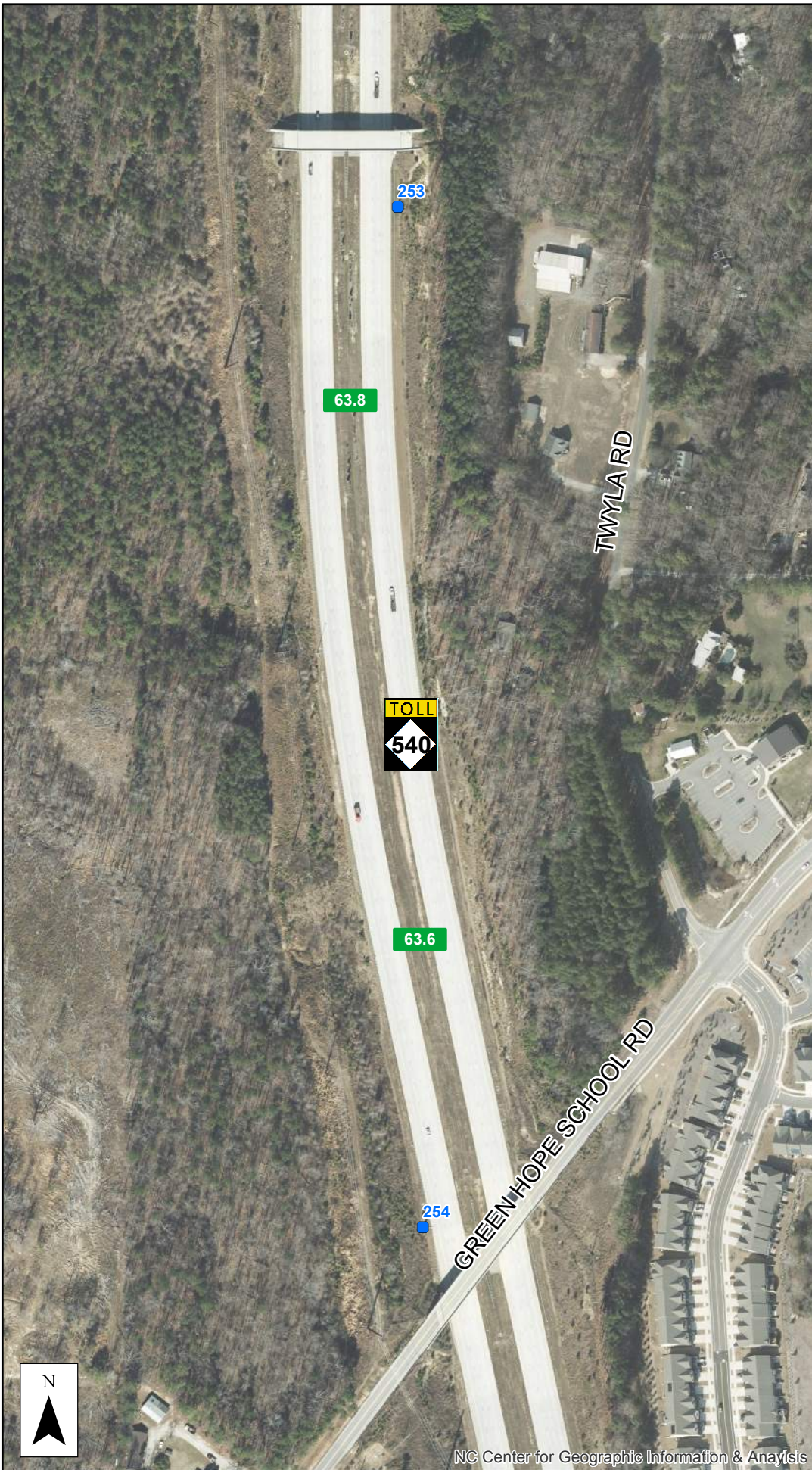


LEGEND

- Decorative Supports
- Gantry Column (8)
 - Sign Column (2)



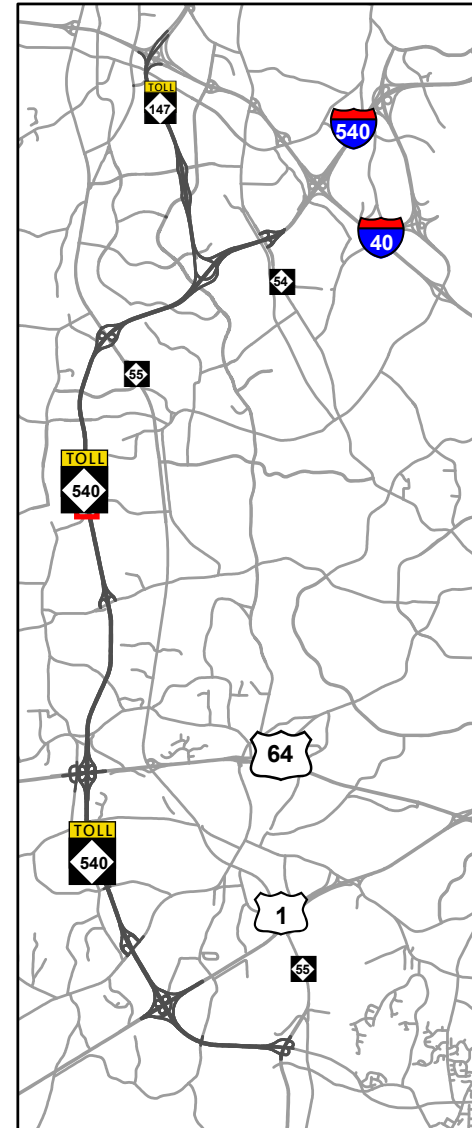
Toll NC-540/147 Painted Structures - Columns



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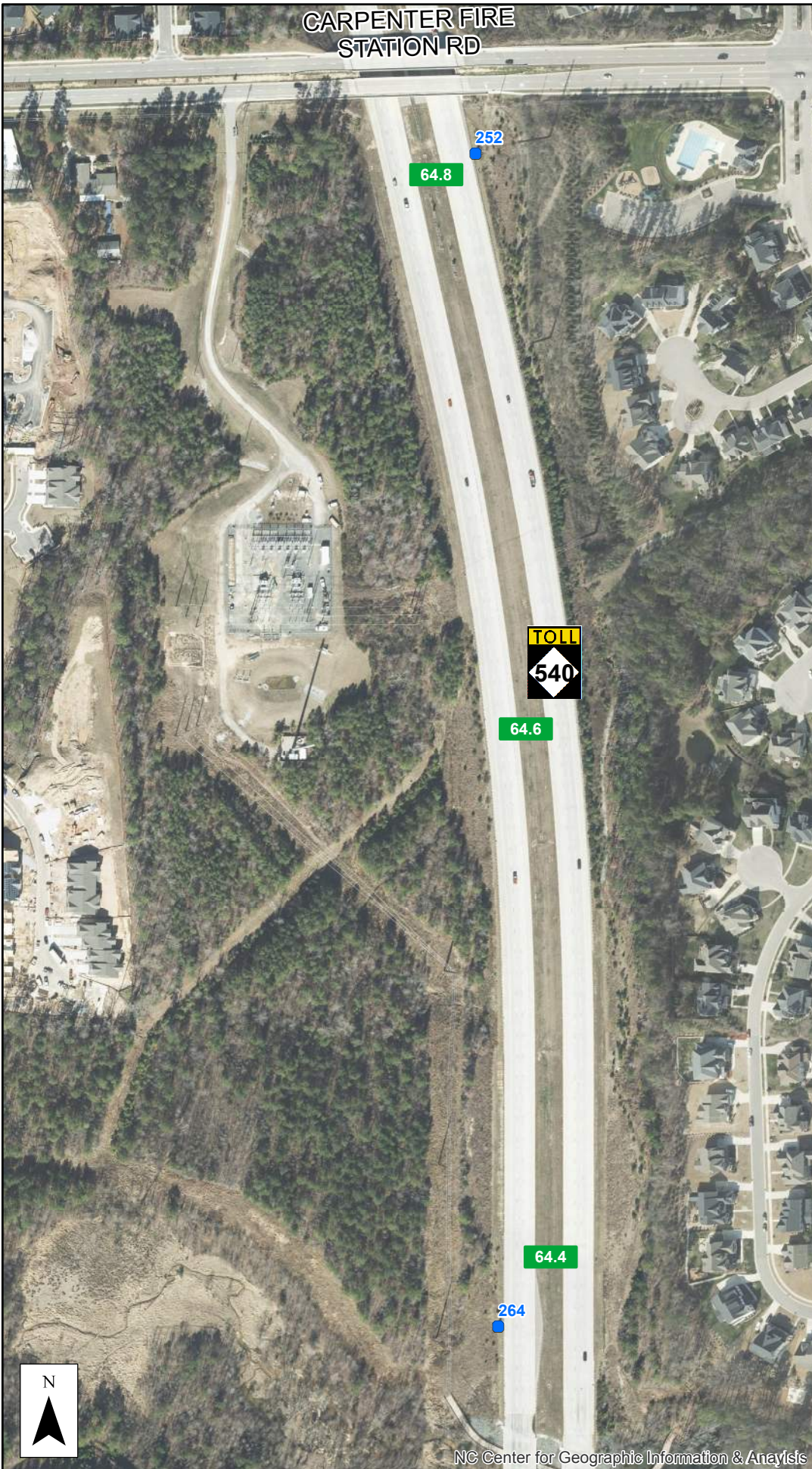
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- Gantry Column (0)
- Sign Column (2)



Toll NC-540/147 Painted Structures - Columns

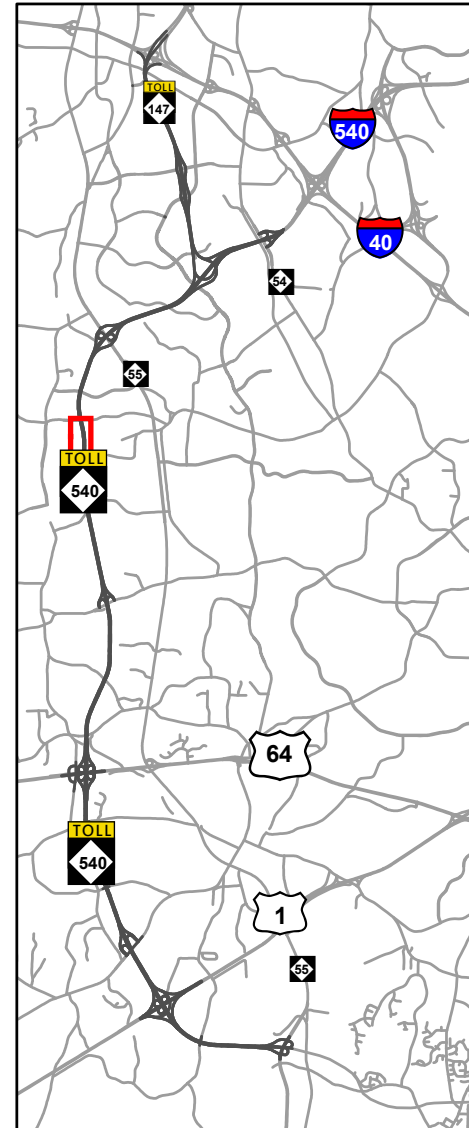
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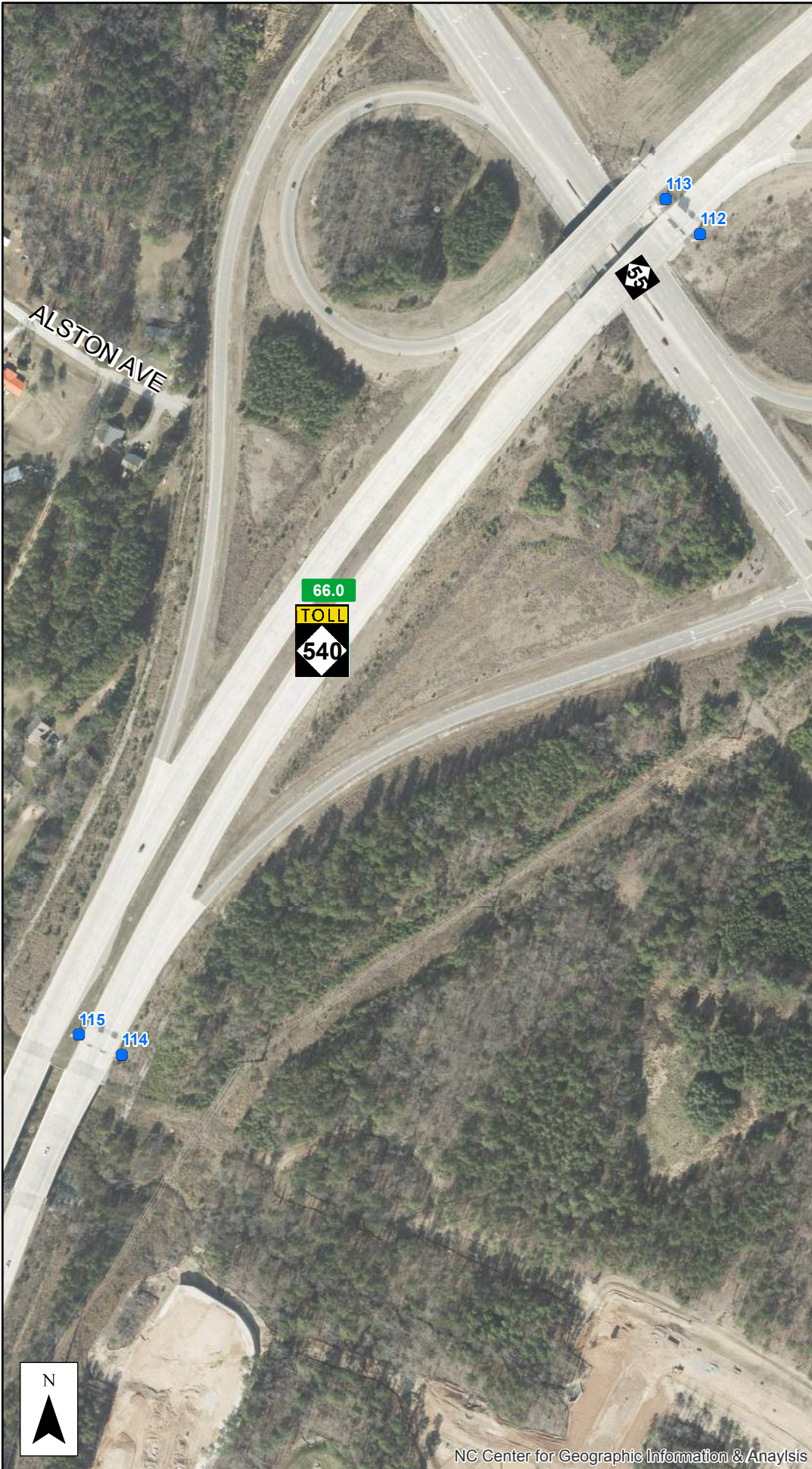
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Decorative Supports

- Gantry Column (0)
- Sign Column (2)

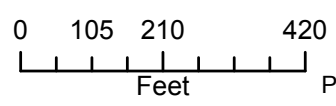
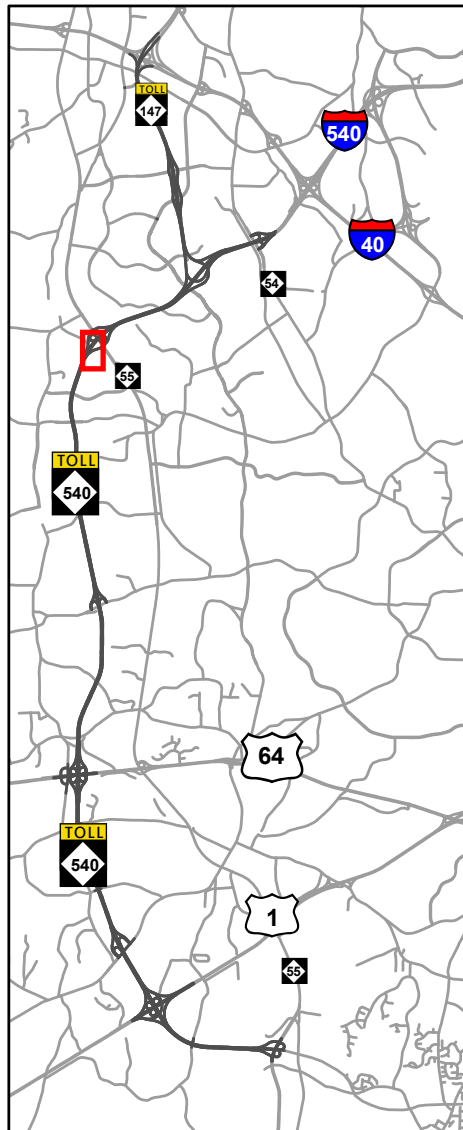


Toll NC-540/147 Painted Structures - Columns

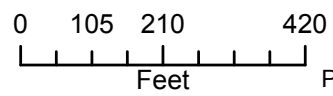
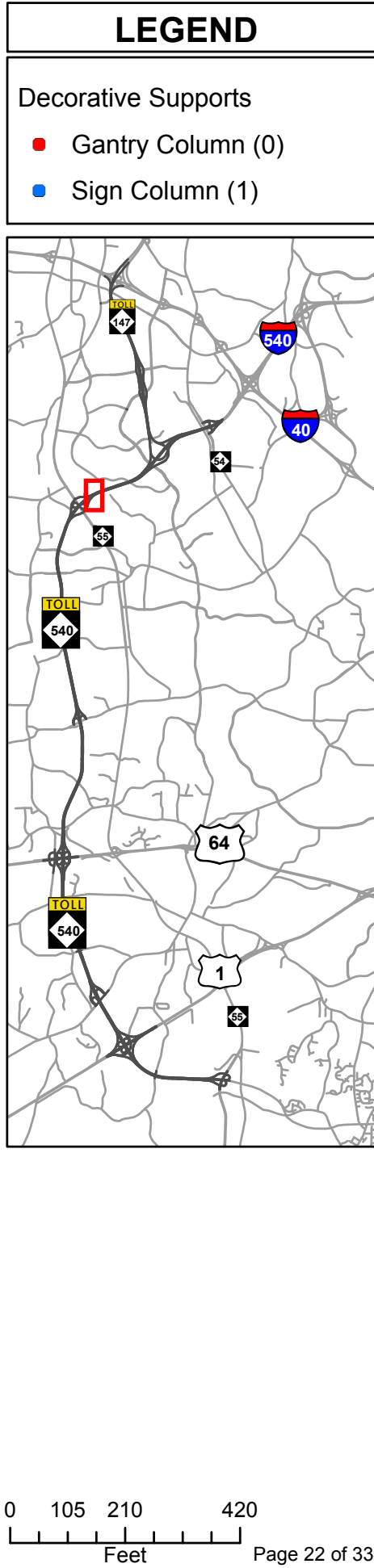
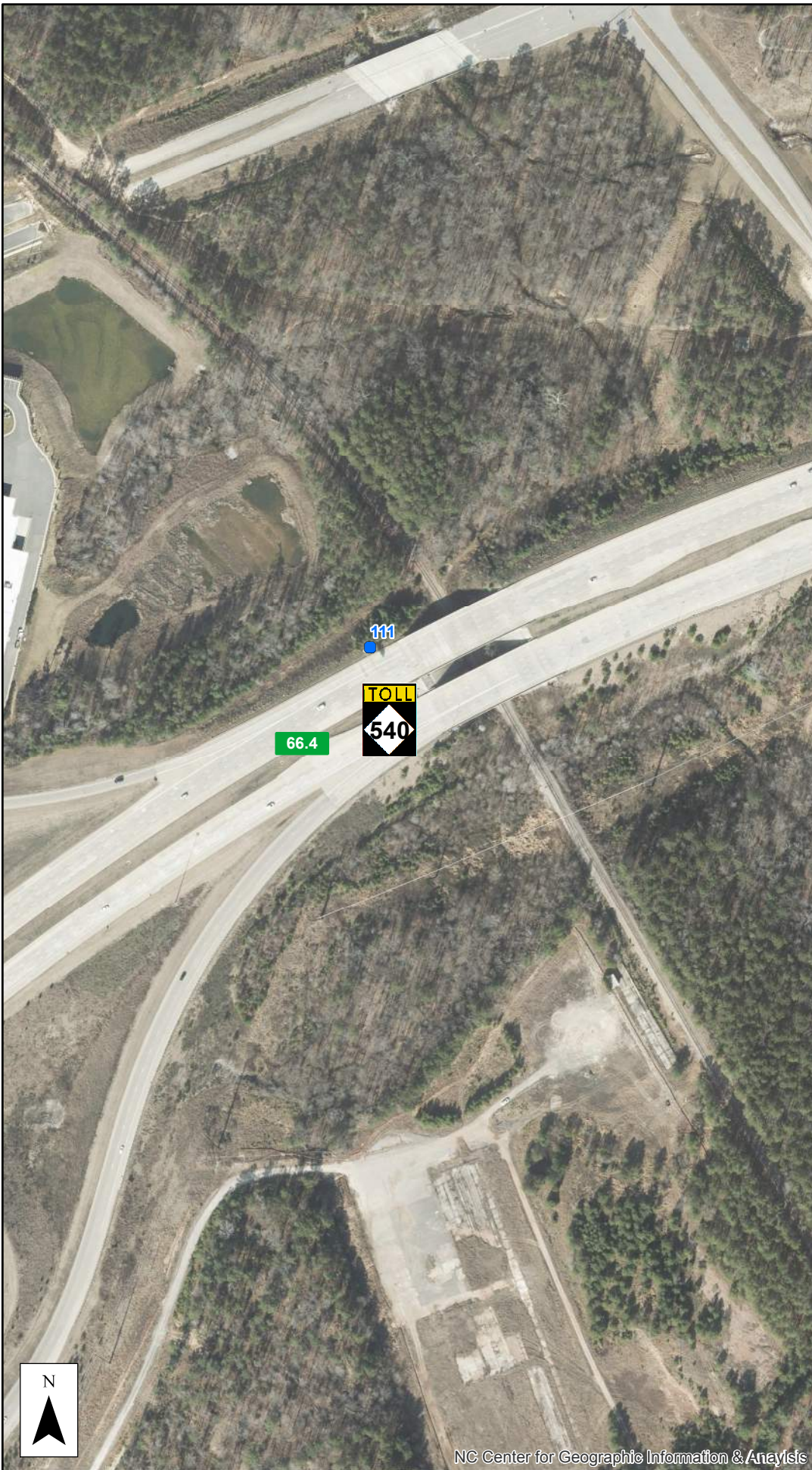


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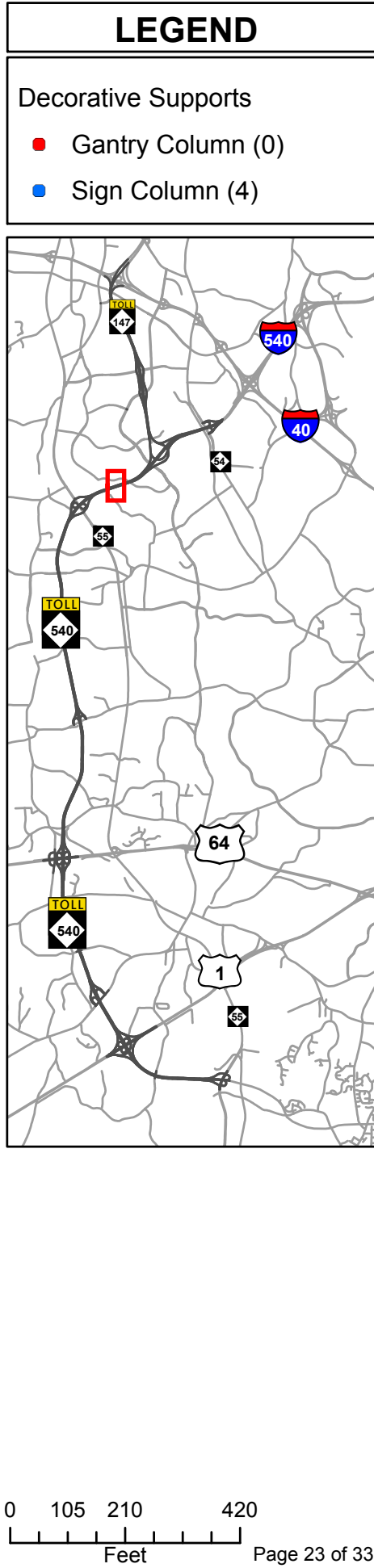
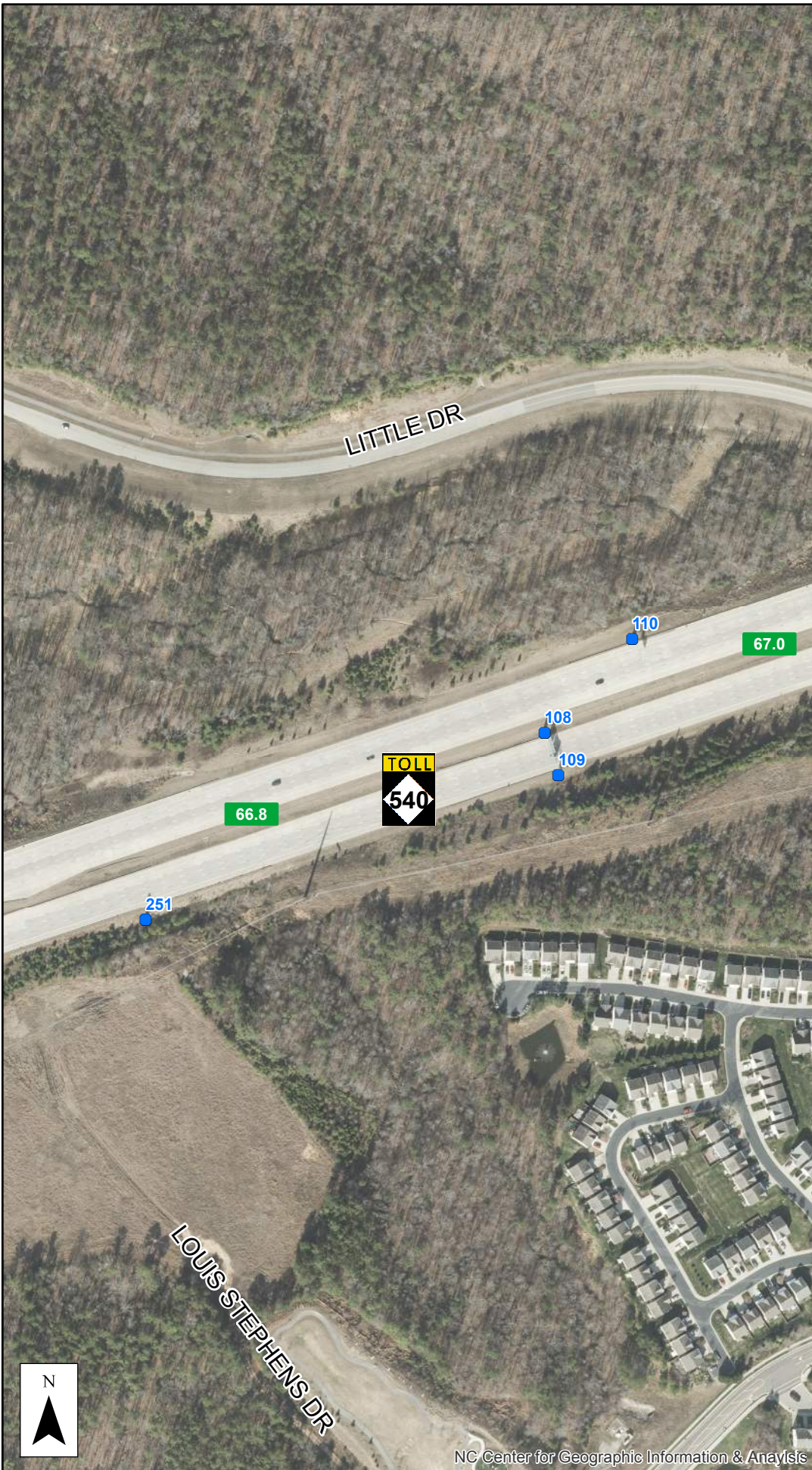
- Decorative Supports
- Gantry Column (0)
 - Sign Column (4)



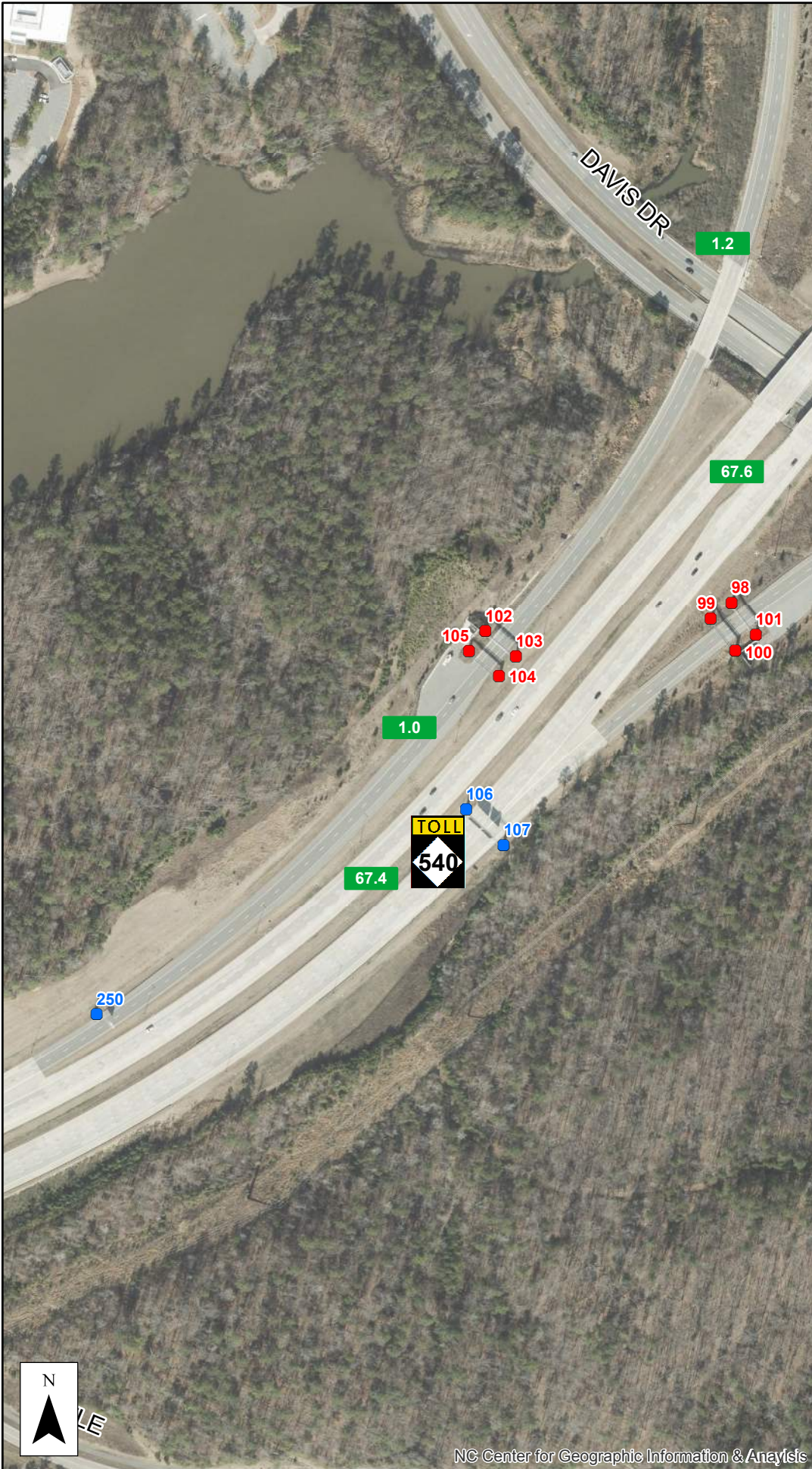
Toll NC-540/147 Painted Structures - Columns



Toll NC-540/147 Painted Structures - Columns



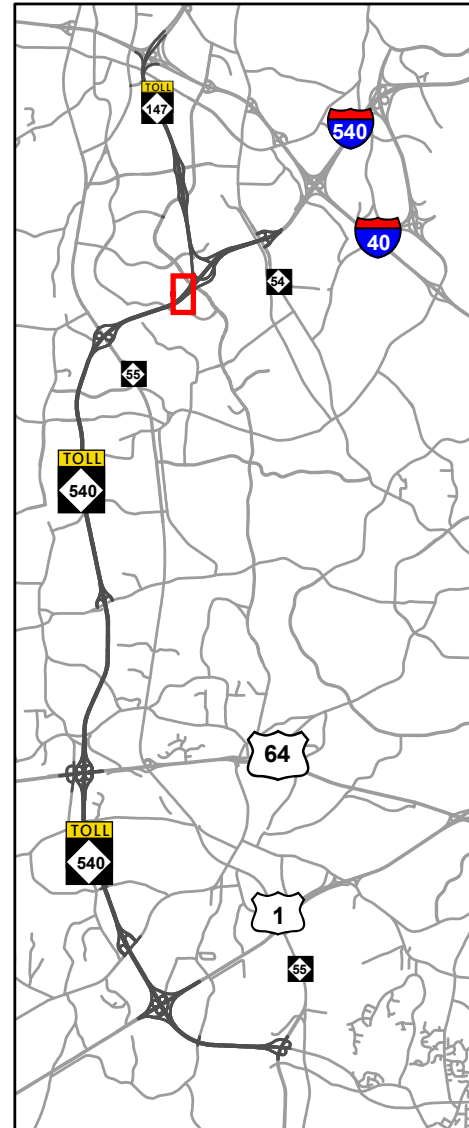
Toll NC-540/147 Painted Structures - Columns



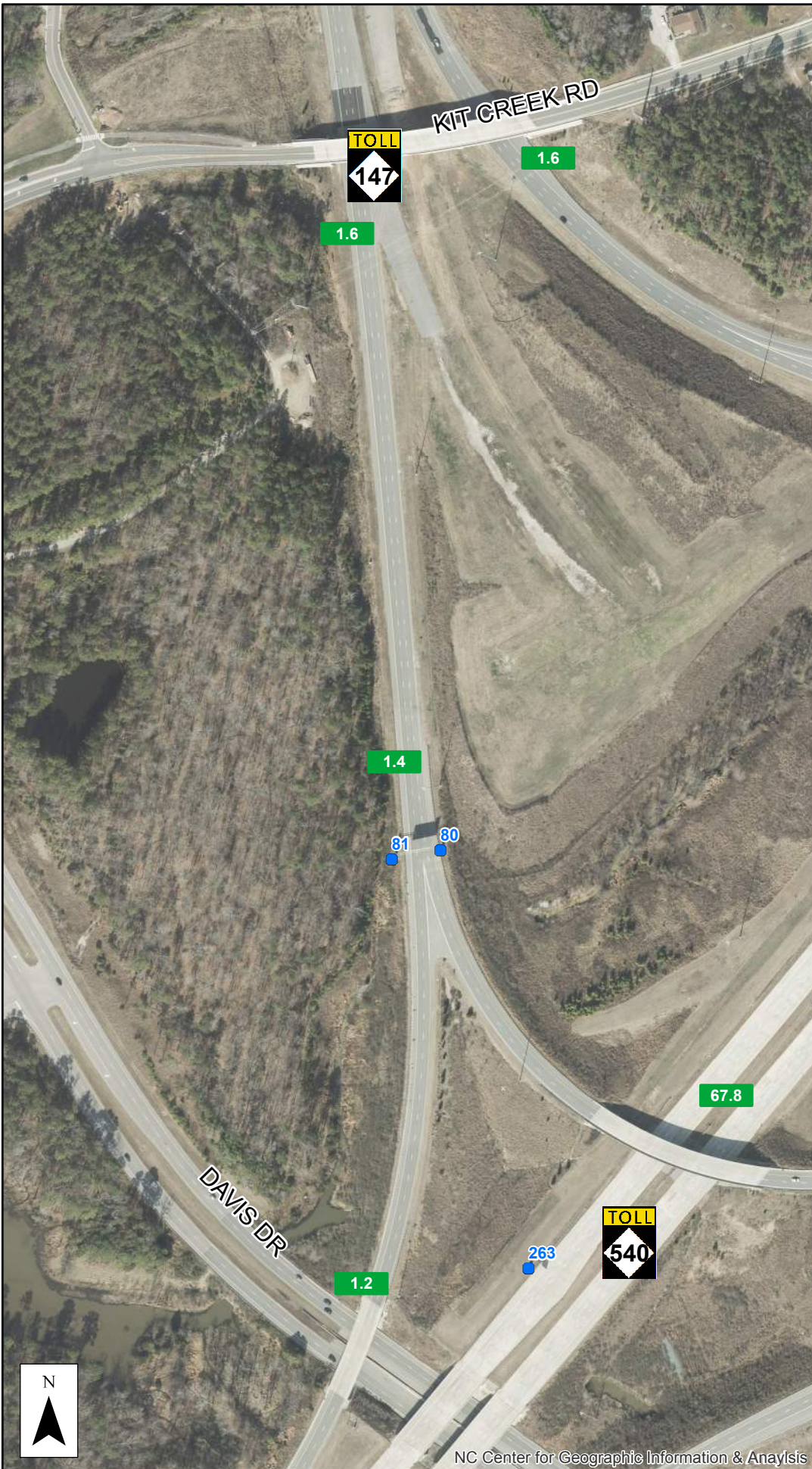
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Decorative Supports

- Gantry Column (8)
- Sign Column (3)



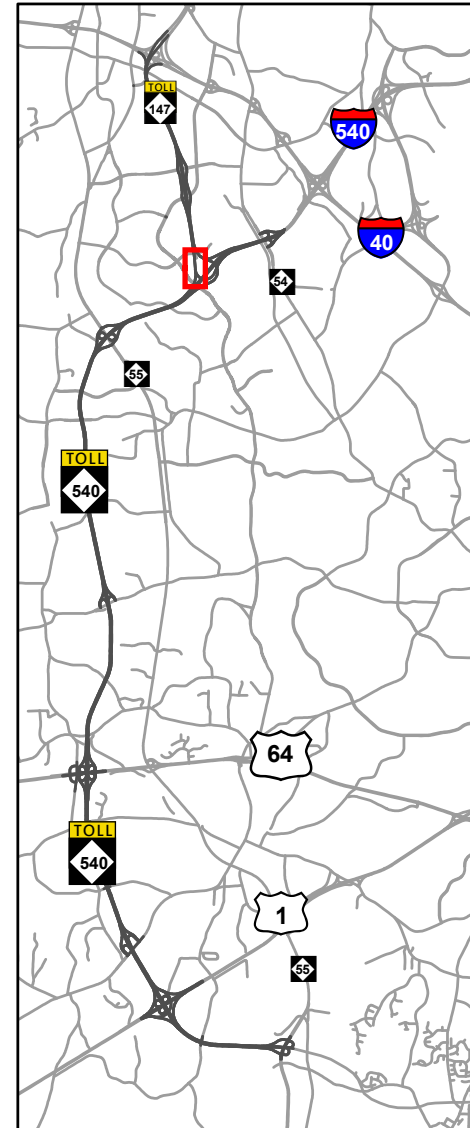
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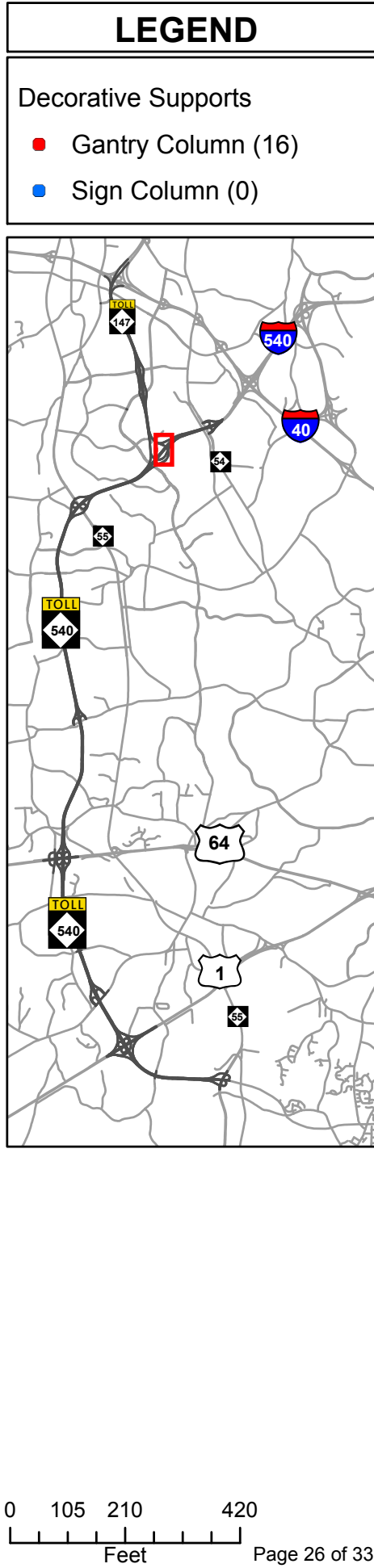
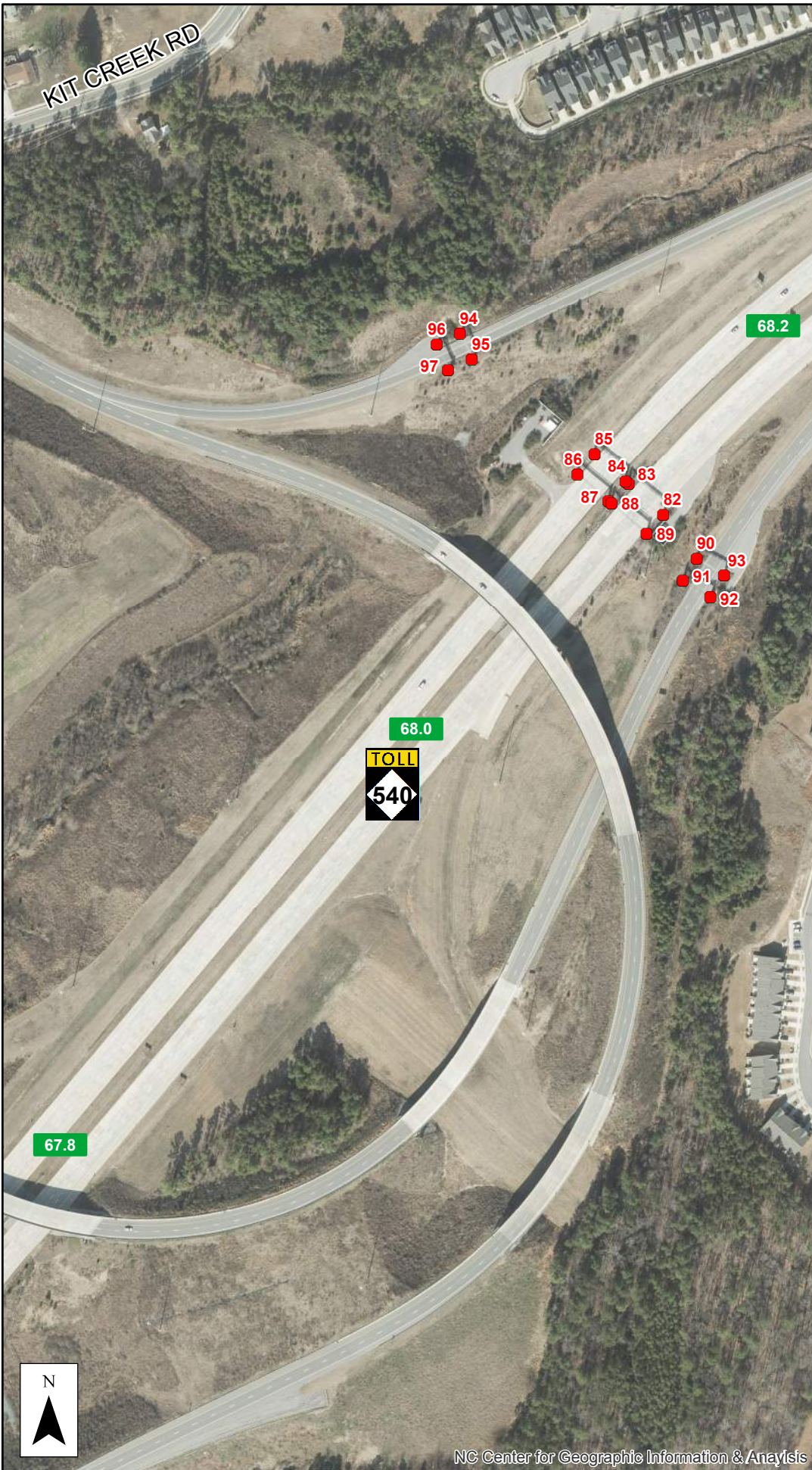
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Decorative Supports

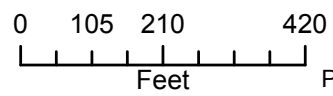
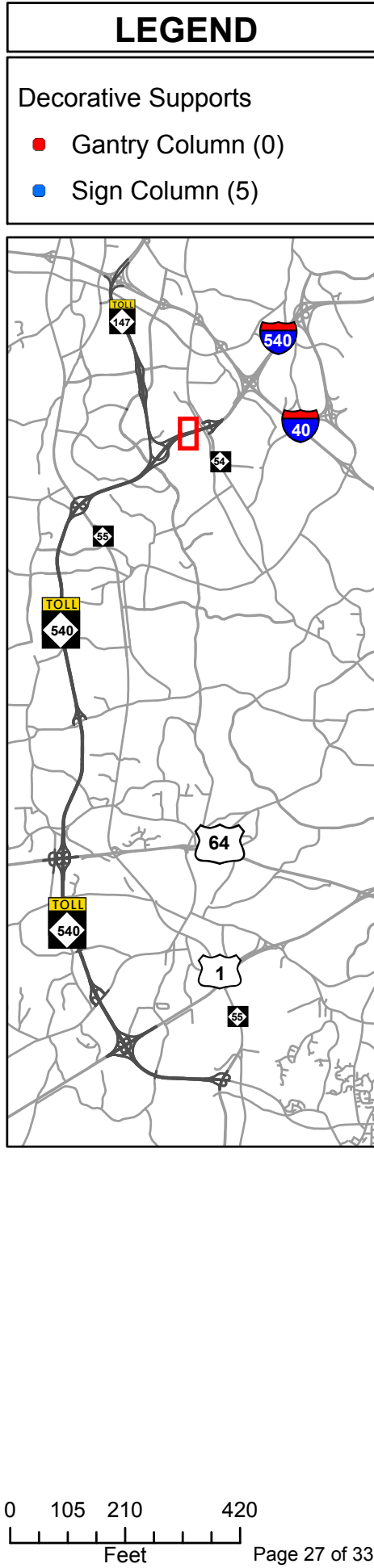
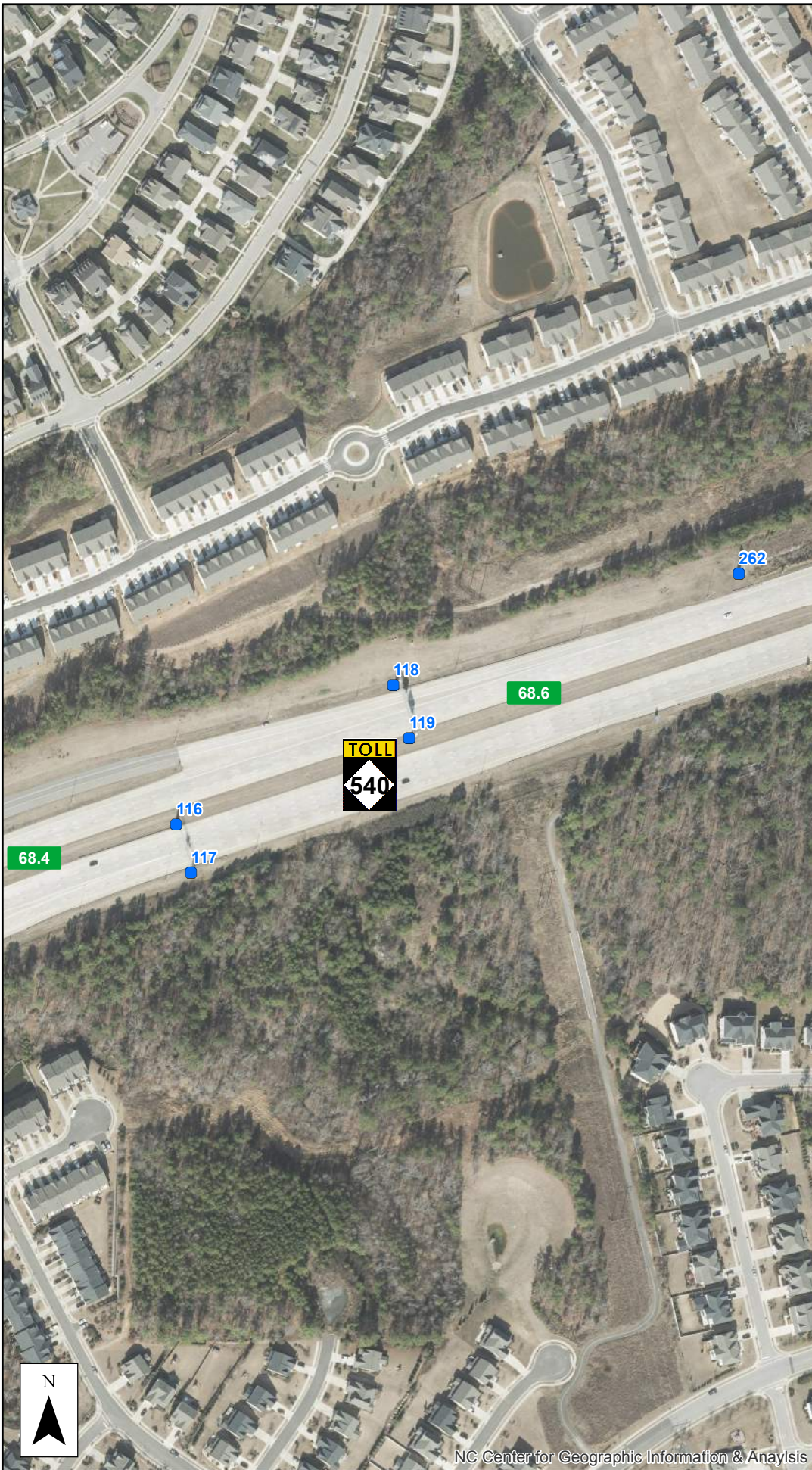
- Gantry Column (0)
- Sign Column (3)



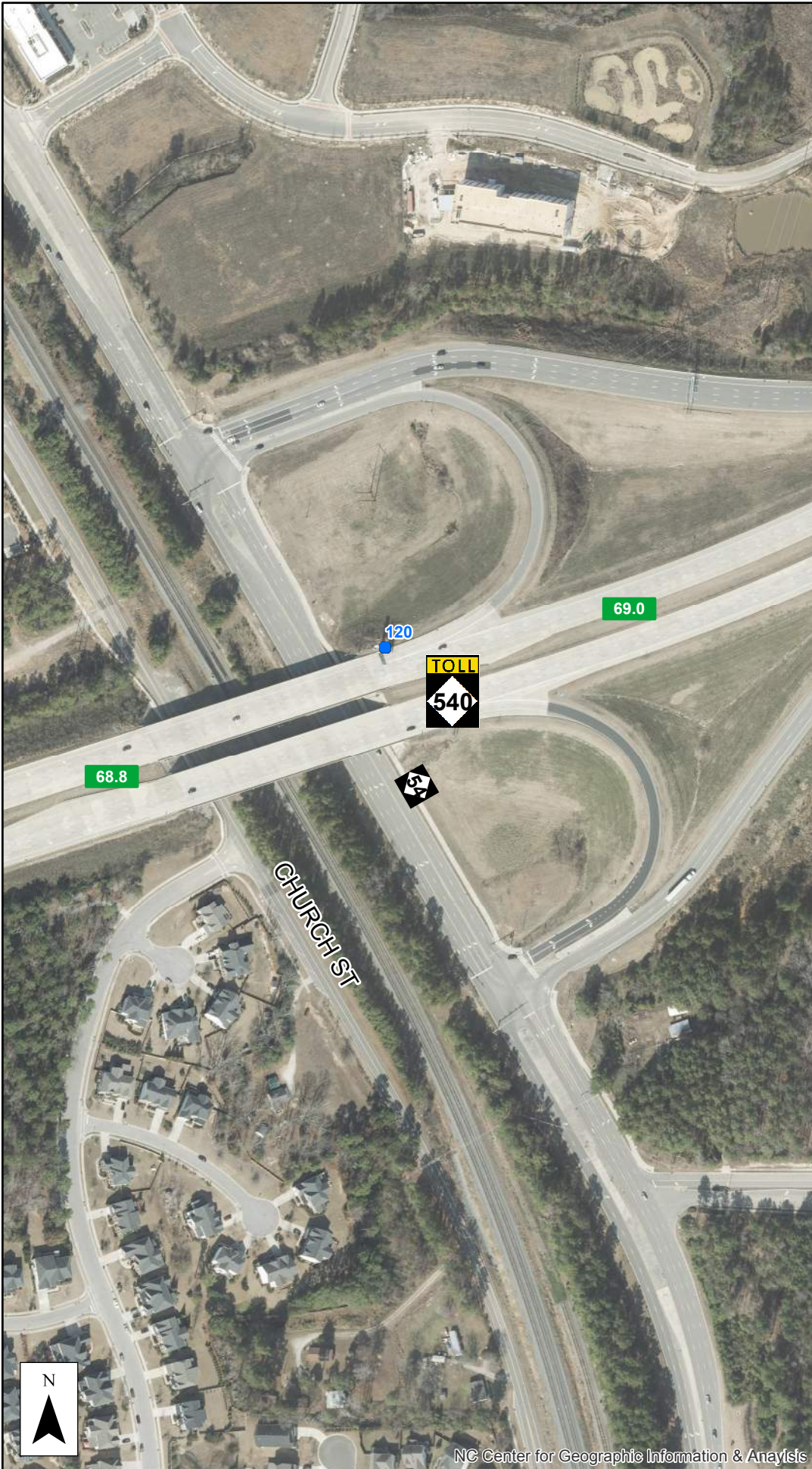
Toll NC-540/147 Painted Structures - Columns



Toll NC-540/147 Painted Structures - Columns

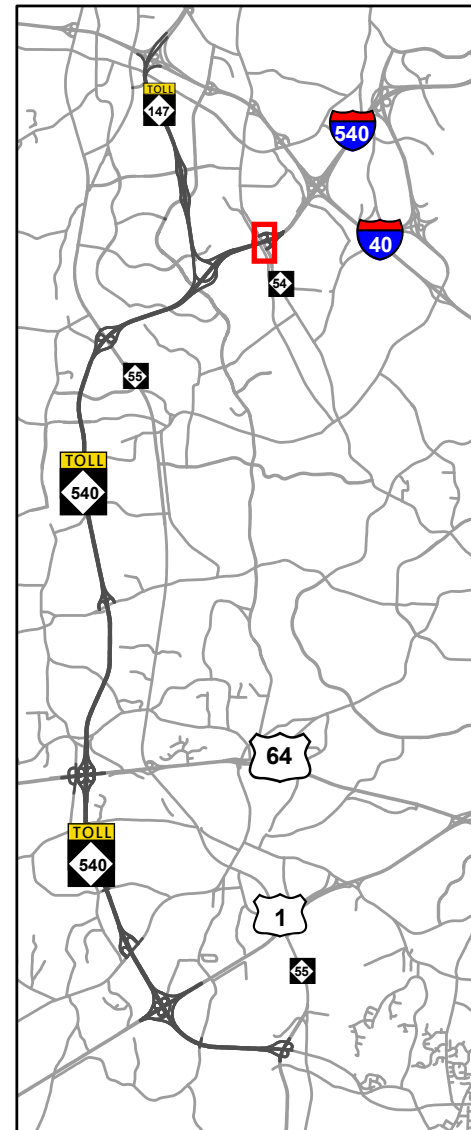


Toll NC-540/147 Painted Structures - Columns

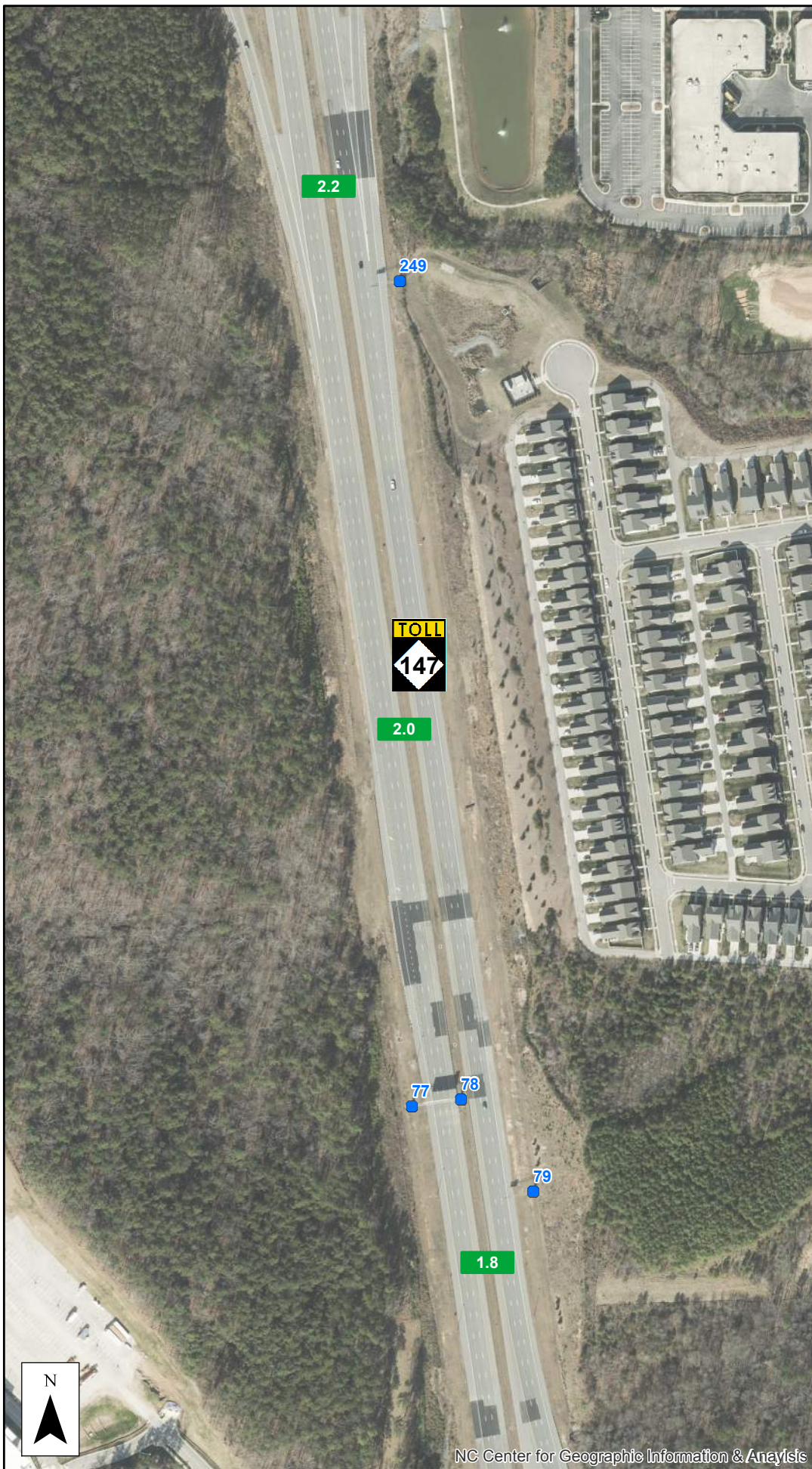


LEGEND

- Decorative Supports
- Gantry Column (0)
 - Sign Column (1)

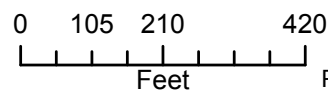
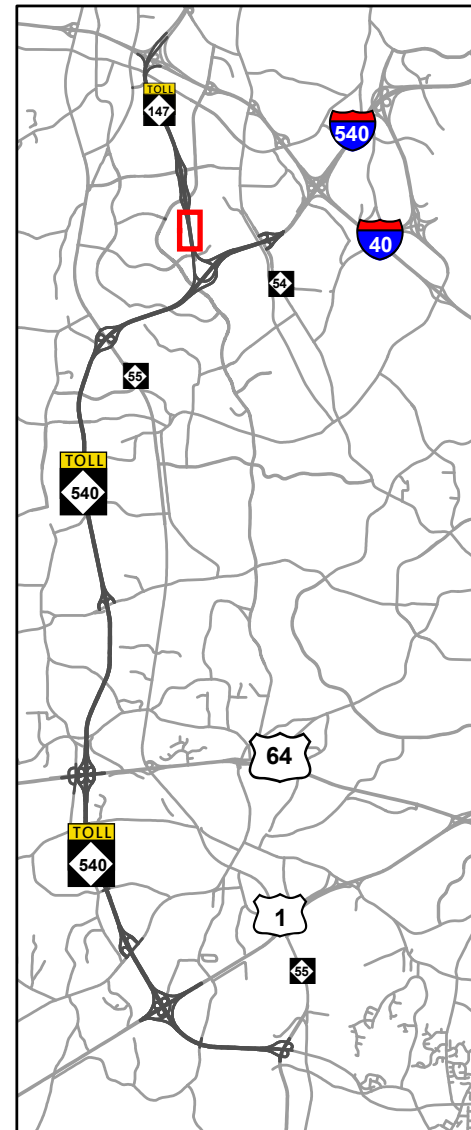


Toll NC-540/147 Painted Structures - Columns

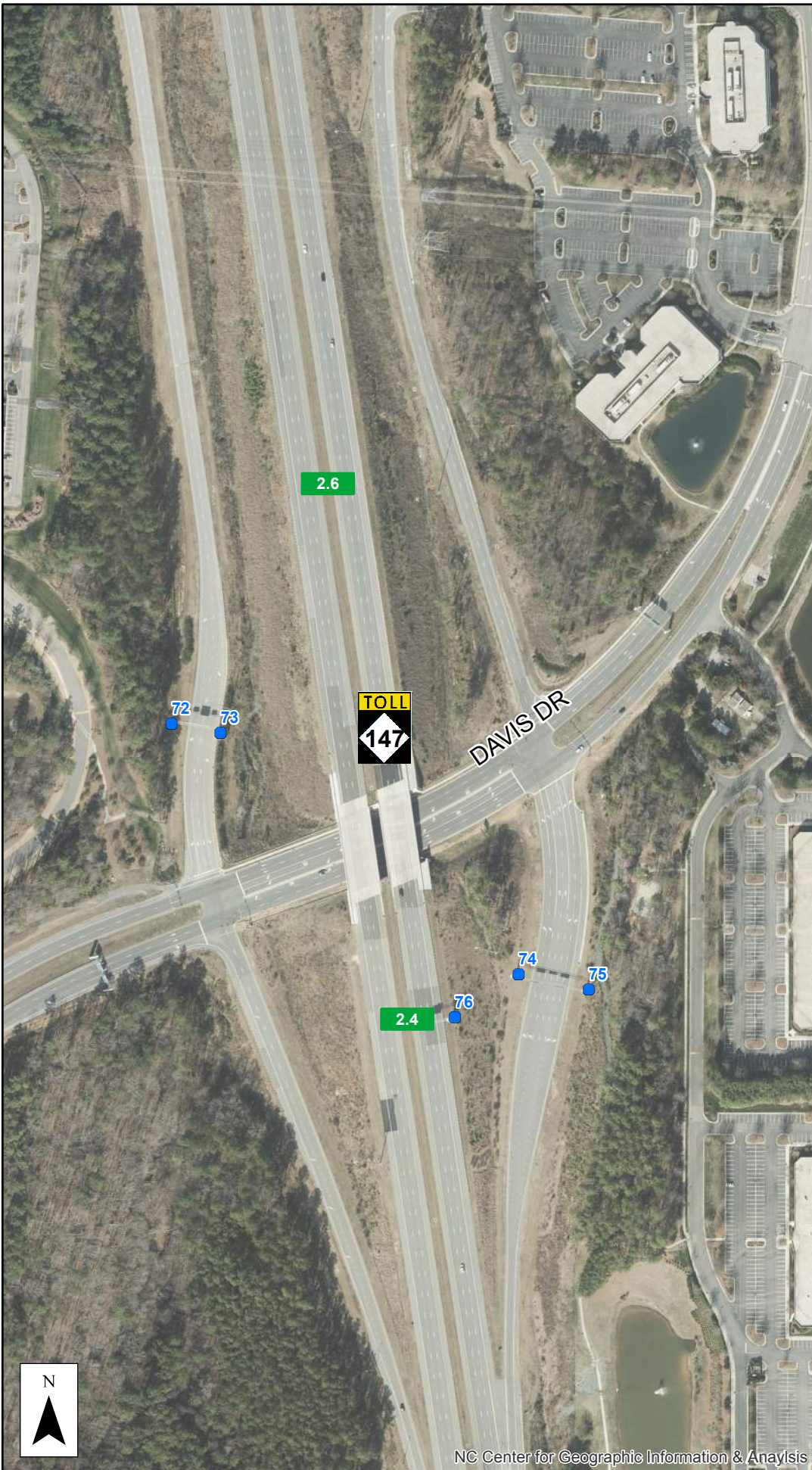


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- Decorative Supports
- Gantry Column (0)
 - Sign Column (4)



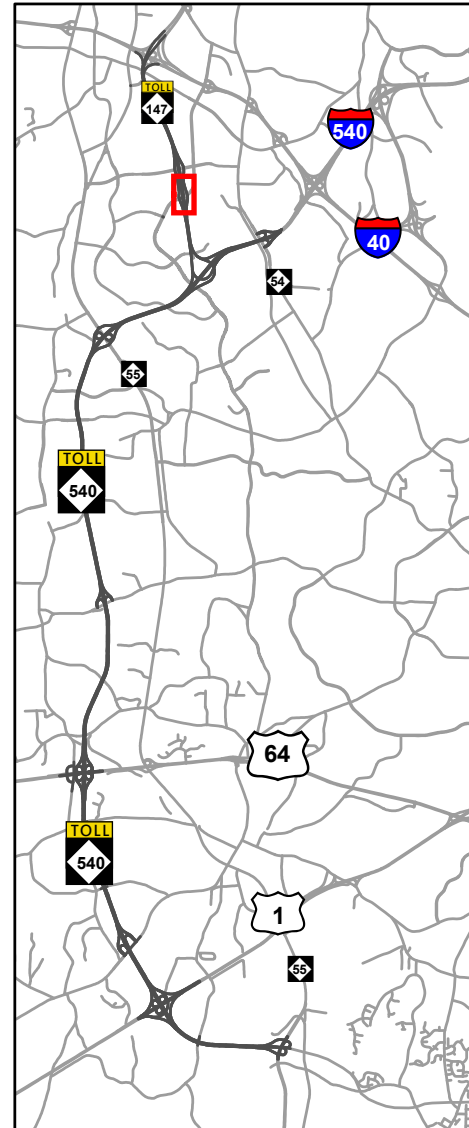
Toll NC-540/147 Painted Structures - Columns



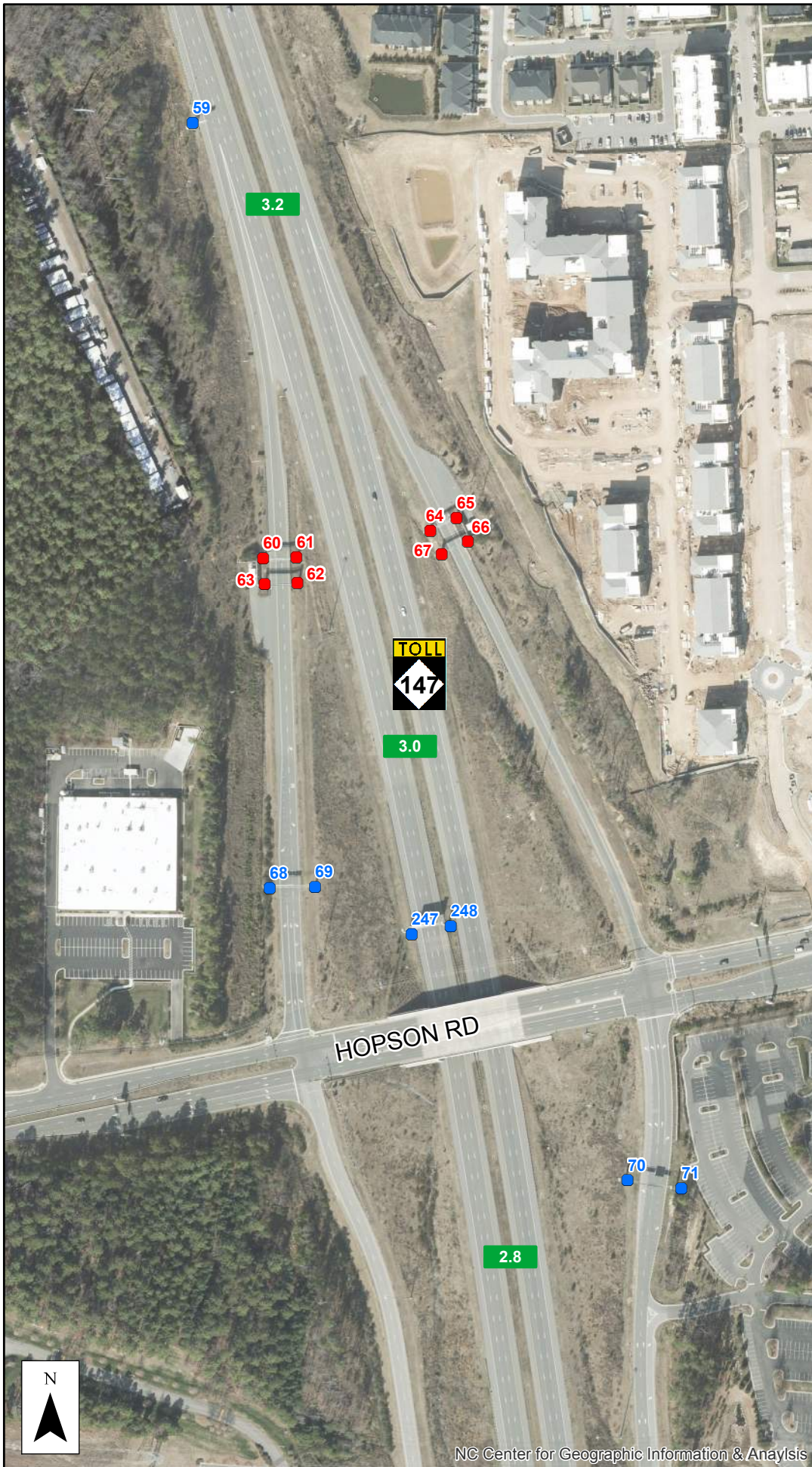
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Decorative Supports

- Gantry Column (0)
- Sign Column (5)

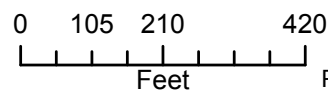
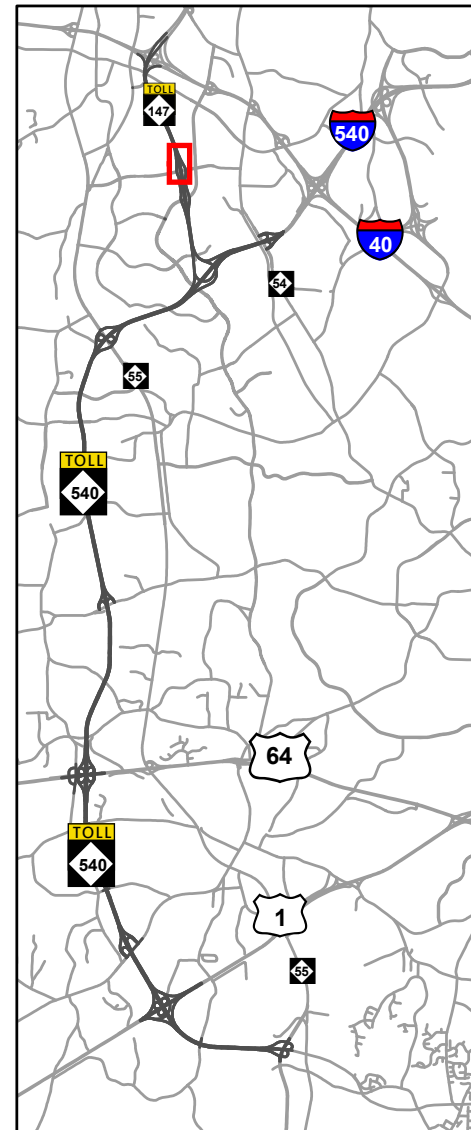


Toll NC-540/147 Painted Structures - Columns

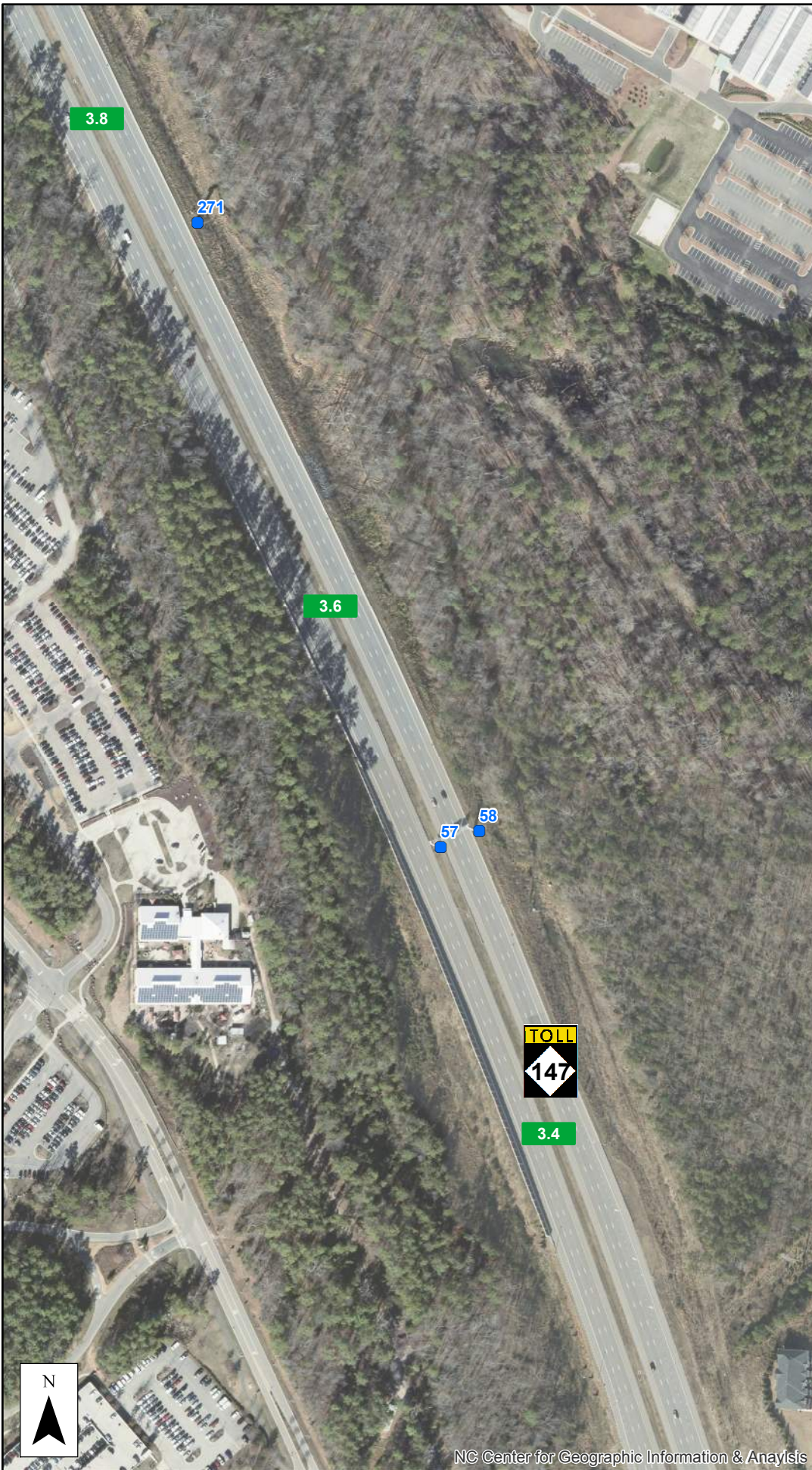


LEGEND

- Decorative Supports
- Gantry Column (8)
 - Sign Column (7)



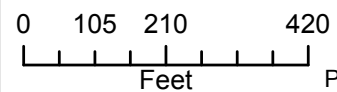
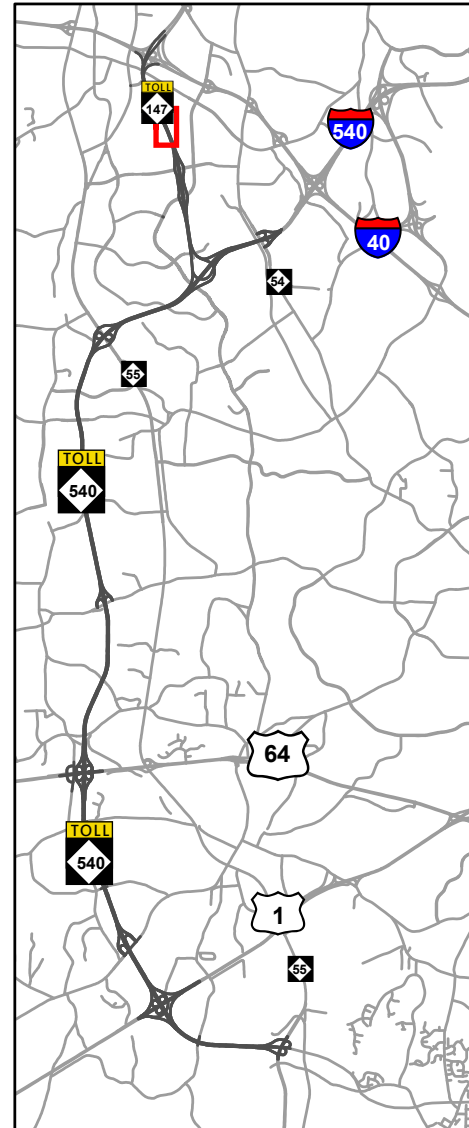
Toll NC-540/147 Painted Structures - Columns



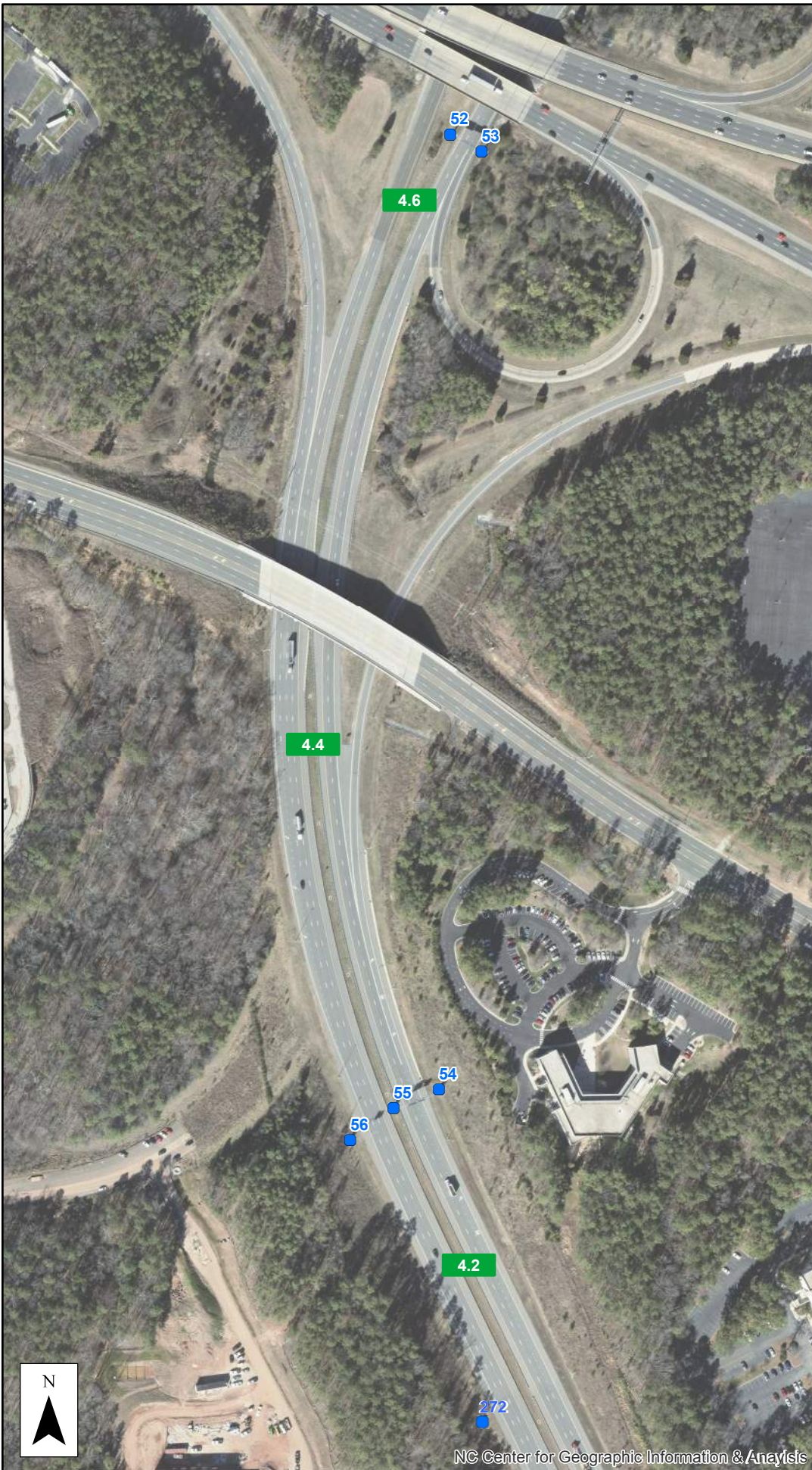
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Decorative Supports

- Gantry Column (0)
- Sign Column (3)



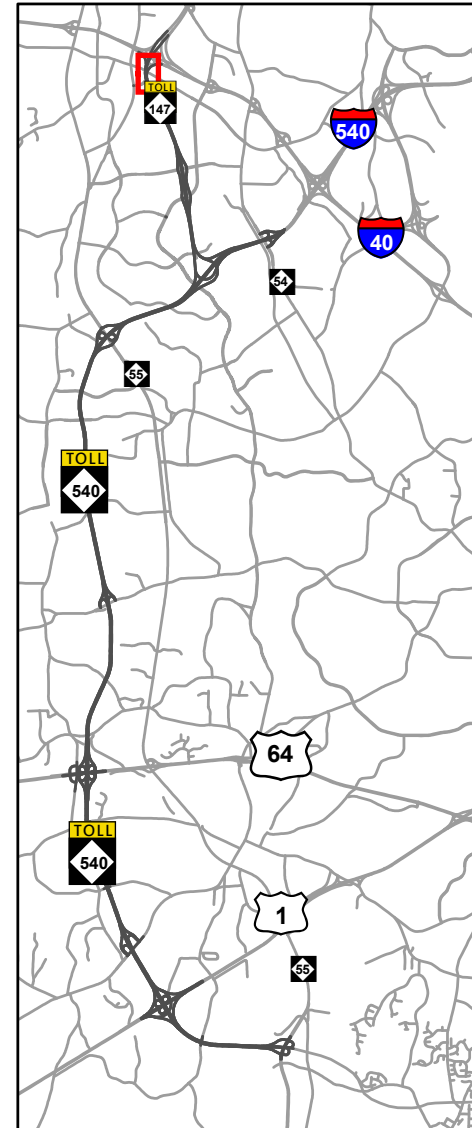
Toll NC-540/147 Painted Structures - Columns



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Decorative Supports

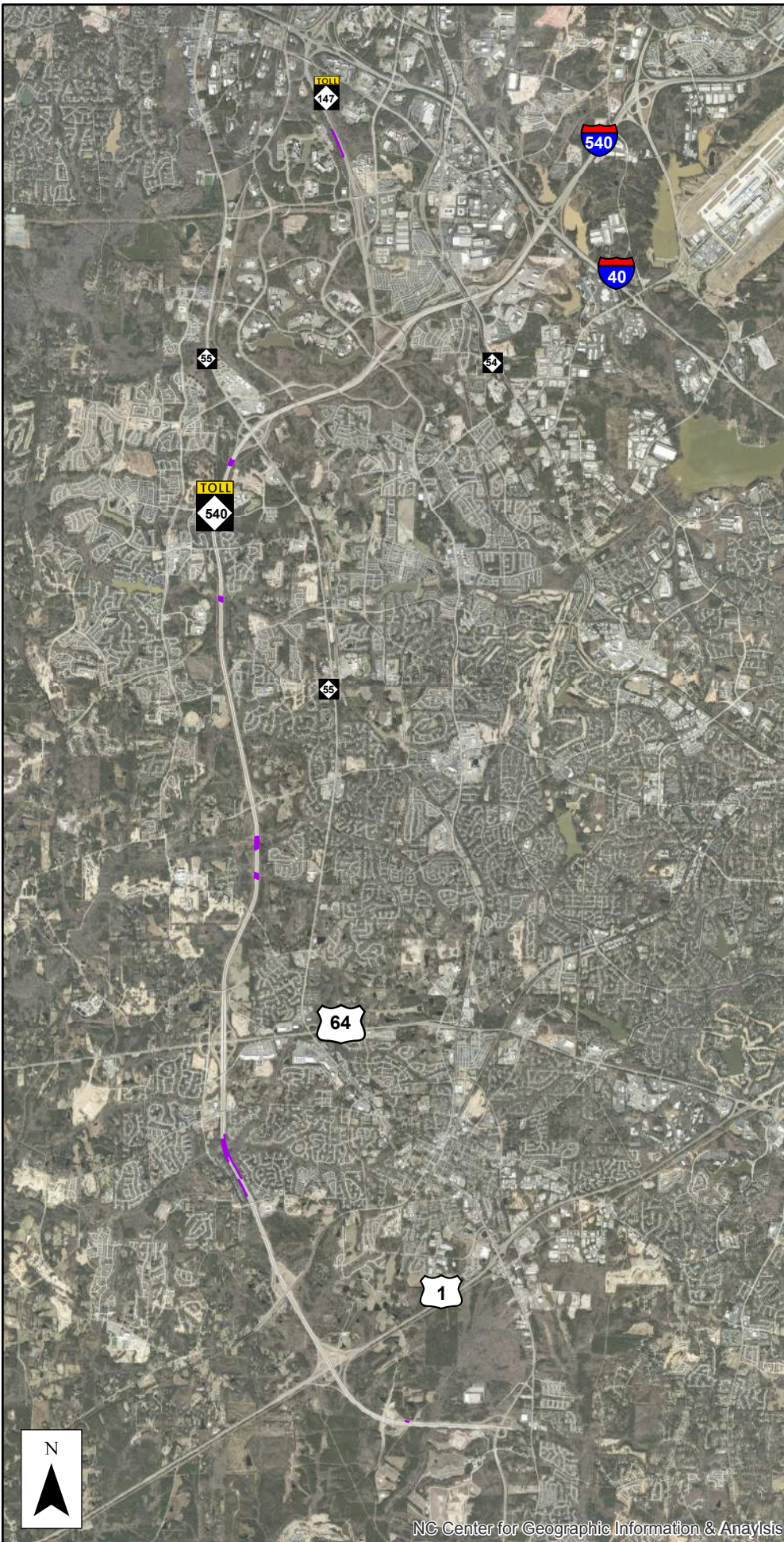
- Gantry Column (0)
- Sign Column (6)



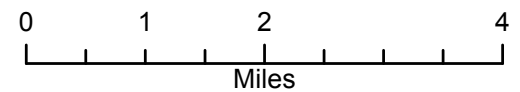
Toll NC-540/147 Painted Structures - Barrier

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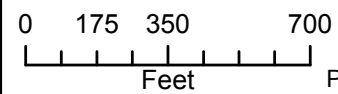
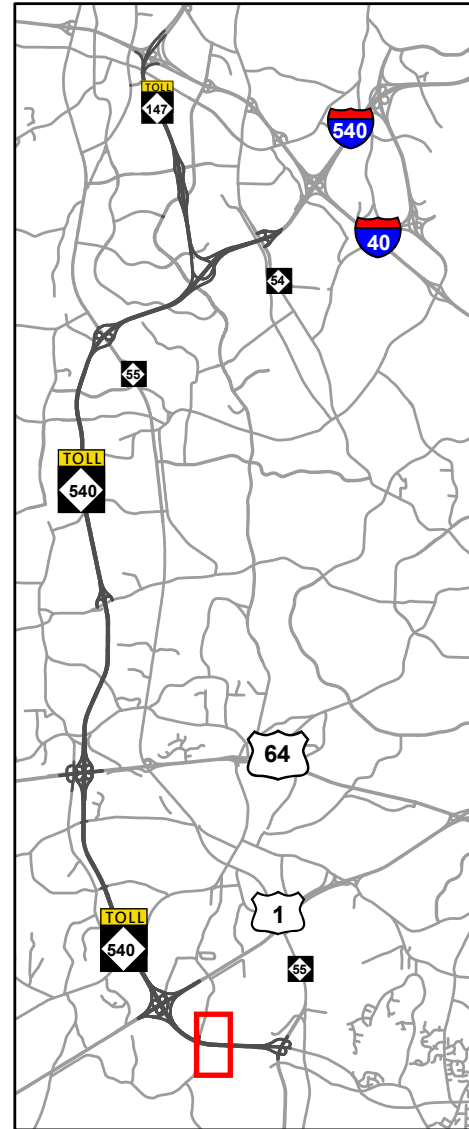
Toll NC-540/147 Painted Structures - Barrier



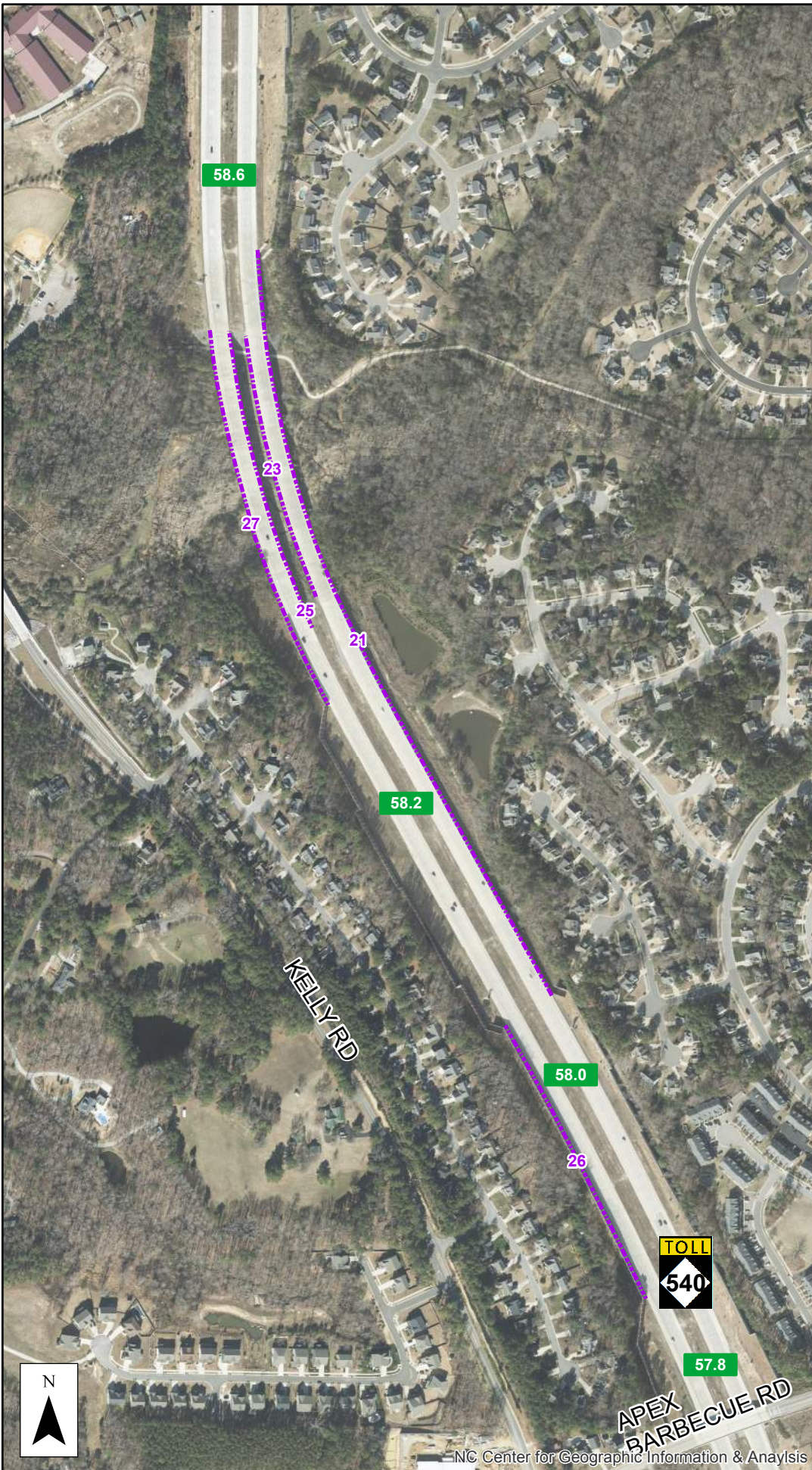
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Current Page Total Length: 171 FT



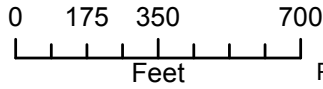
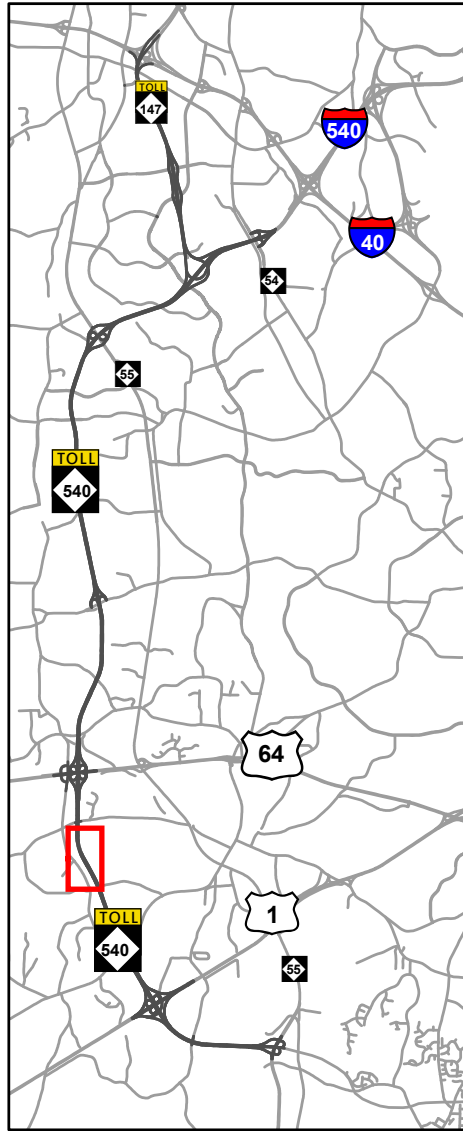
Toll NC-540/147 Painted Structures - Barrier



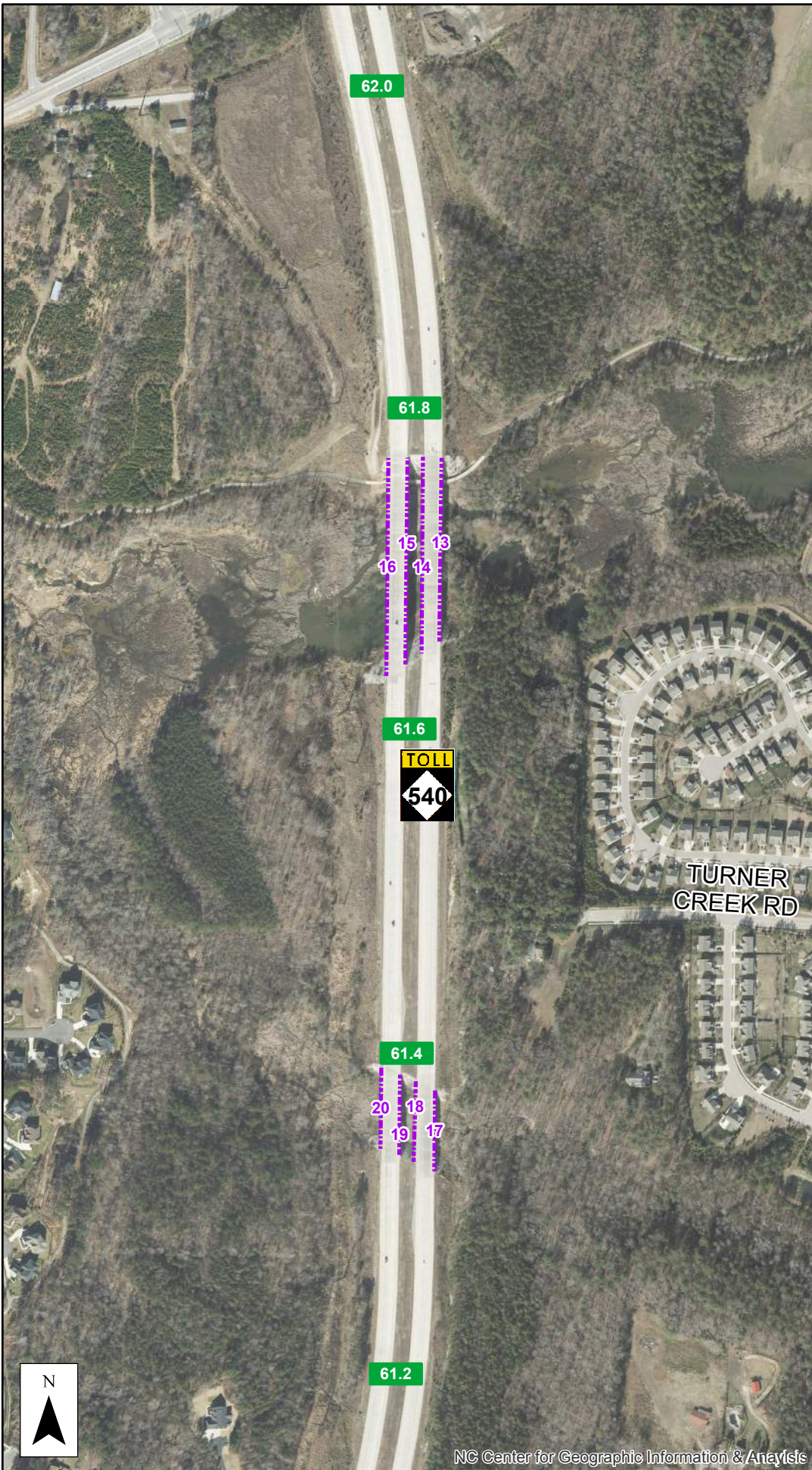
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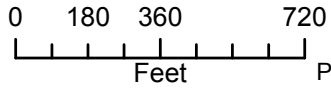
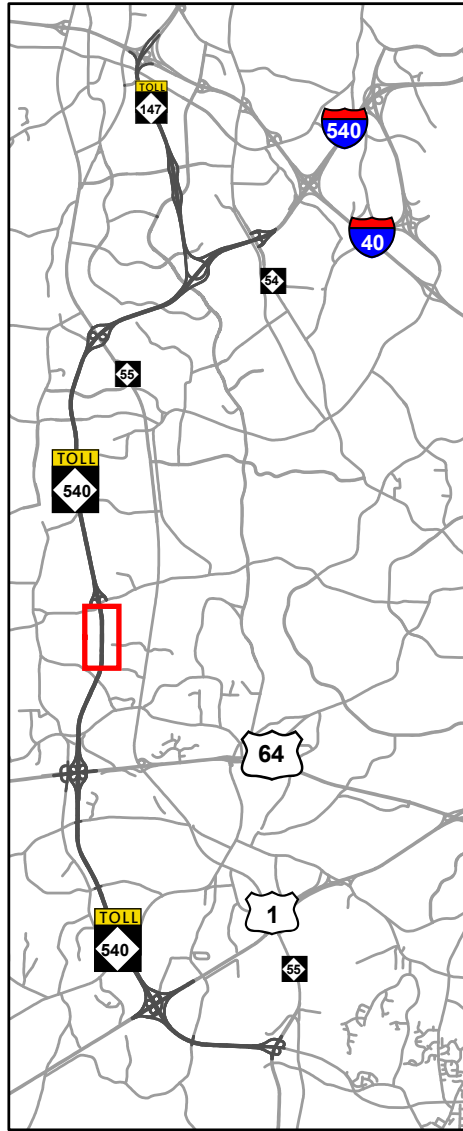
Toll NC-540/147 Painted Structures - Barrier



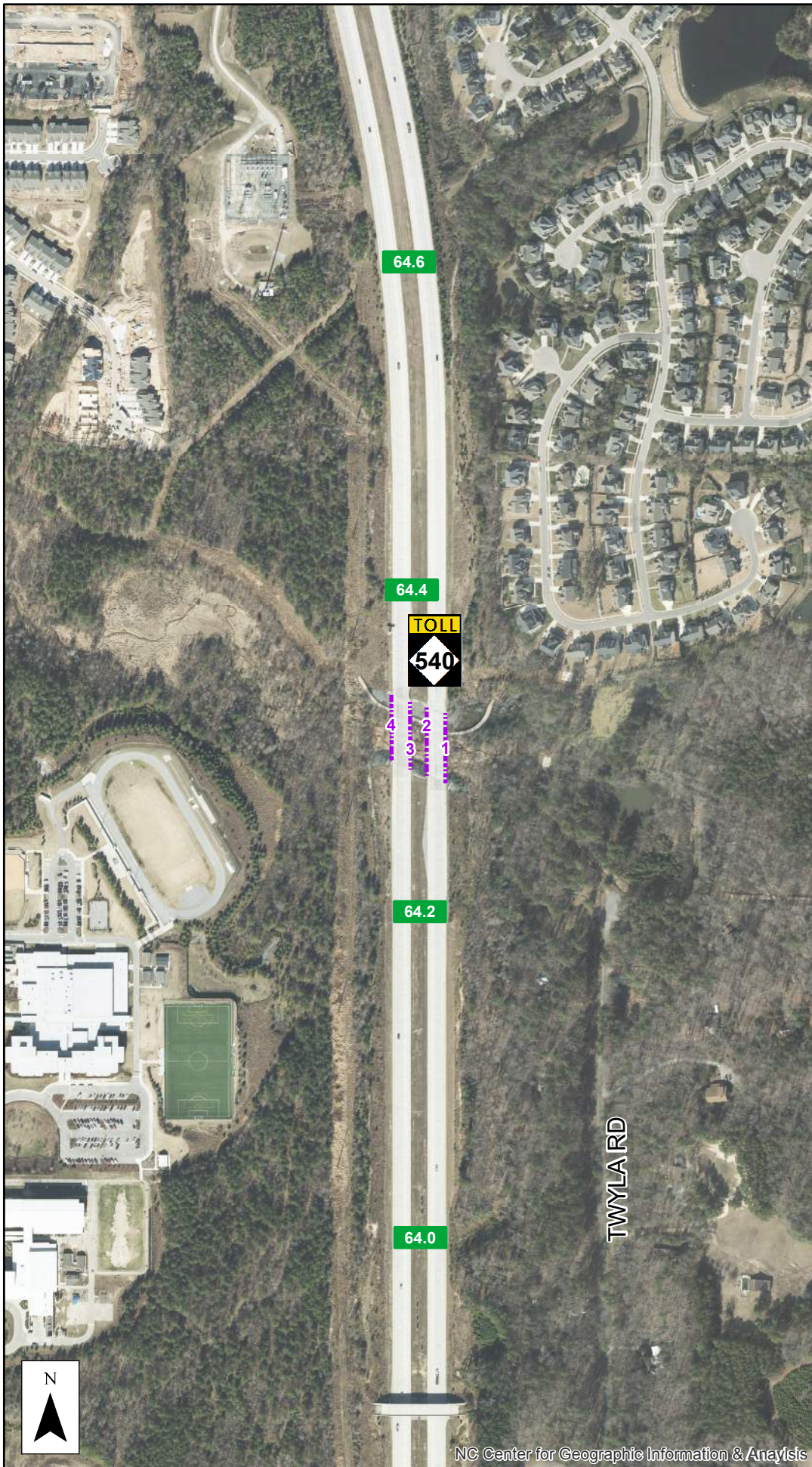
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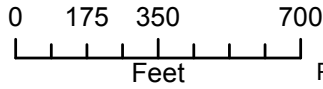
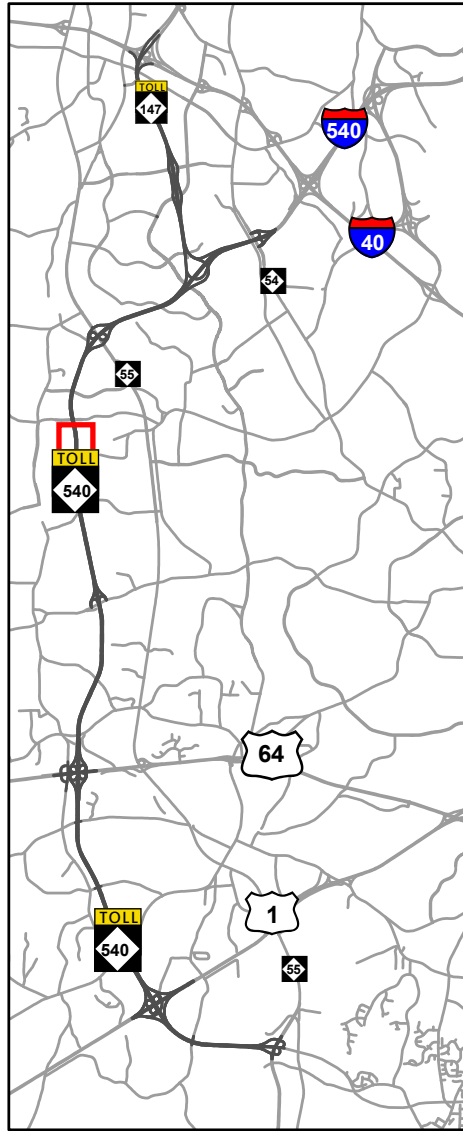
Toll NC-540/147 Painted Structures - Barrier



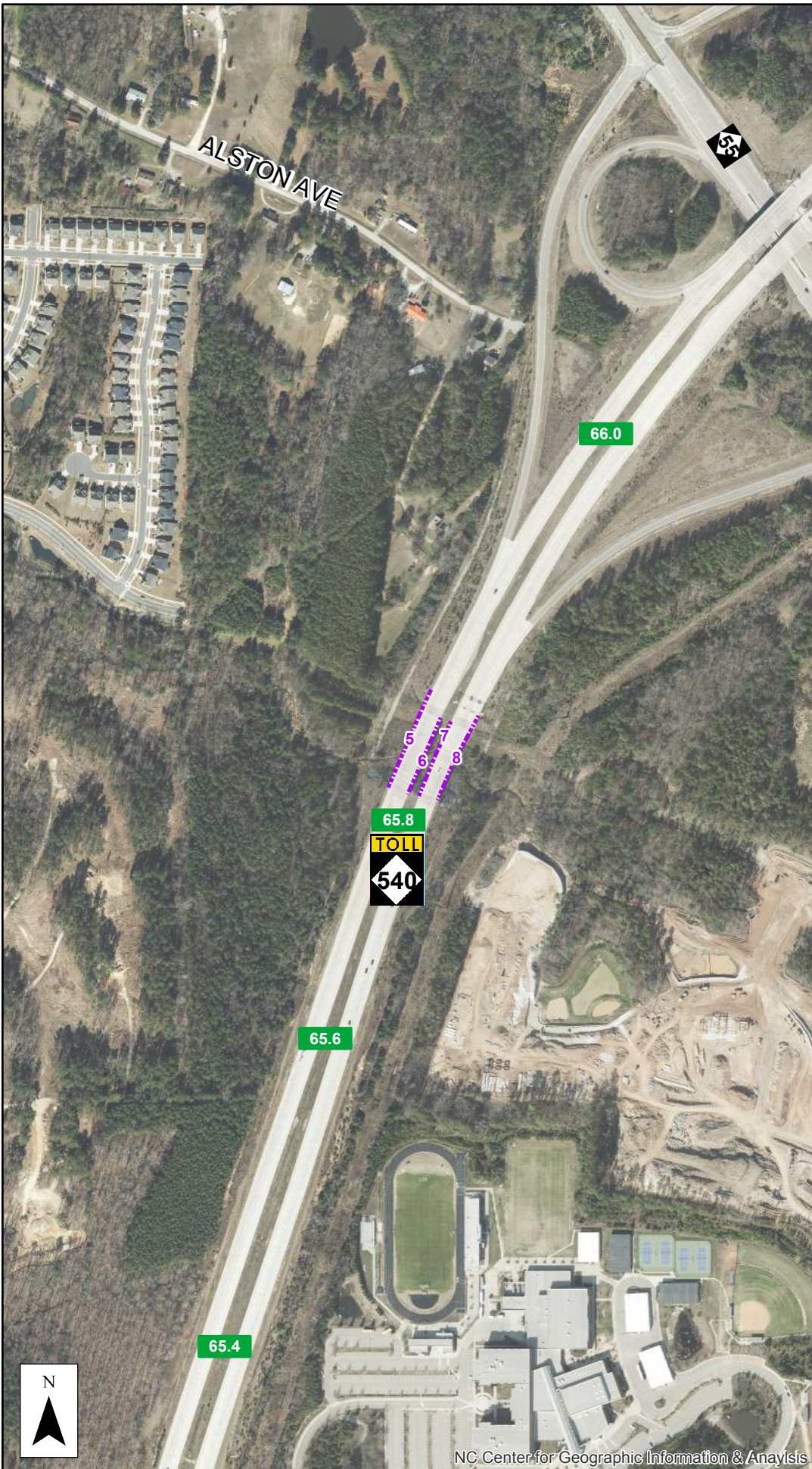
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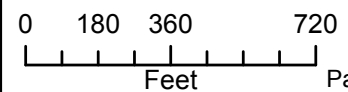
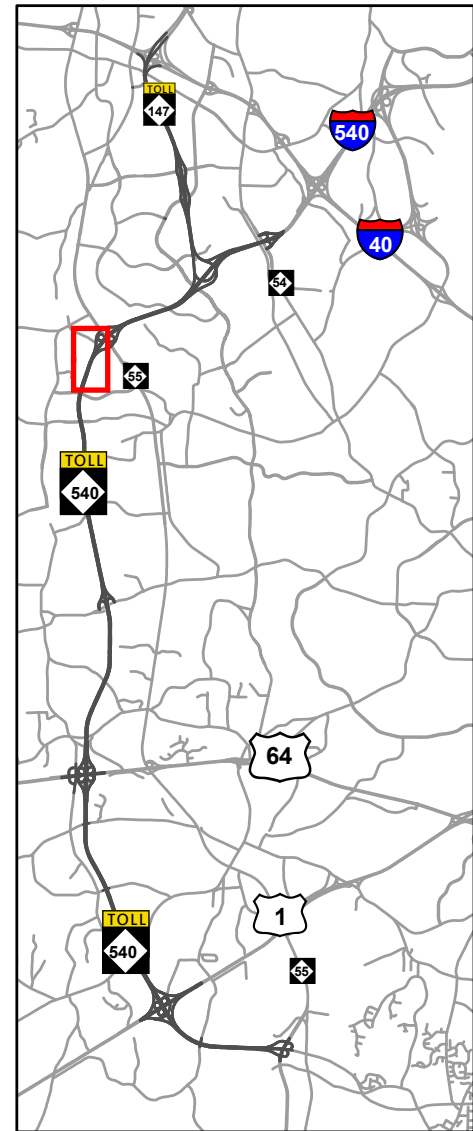


Toll NC-540/147 Painted Structures - Barrier

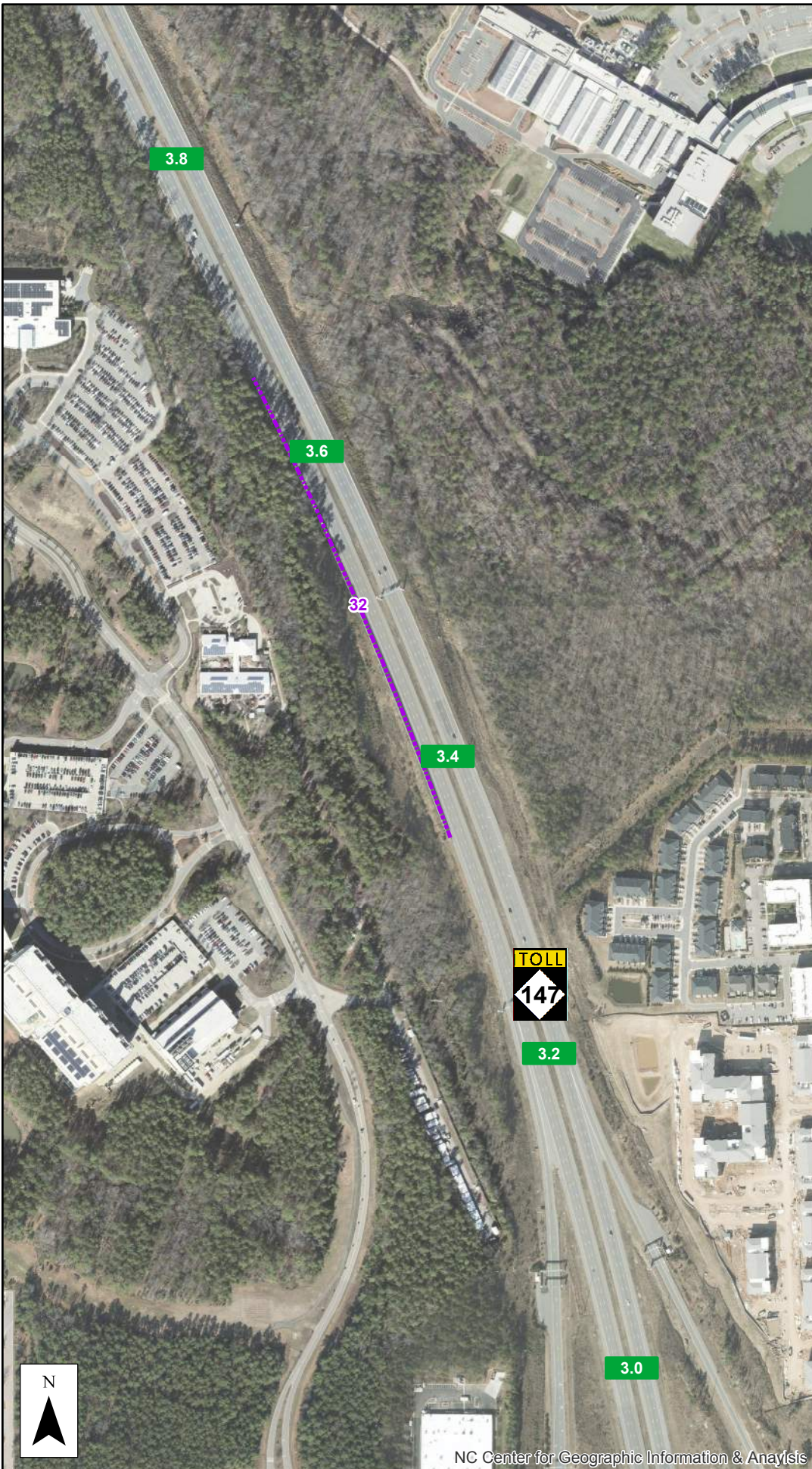


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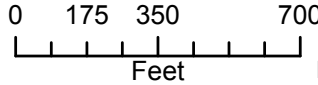
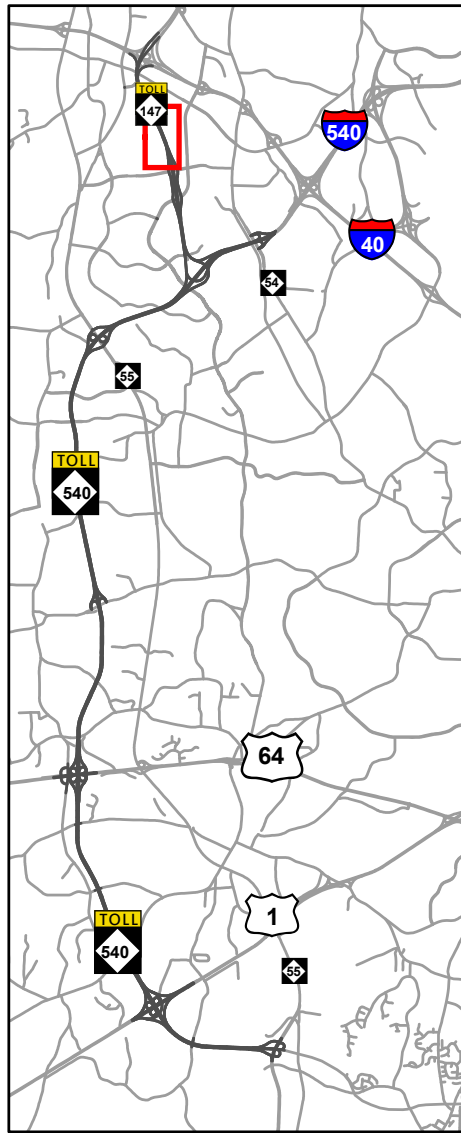
Toll NC-540/147 Painted Structures - Barrier



LEGEND

----- Concrete Barrier

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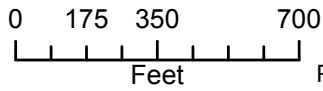
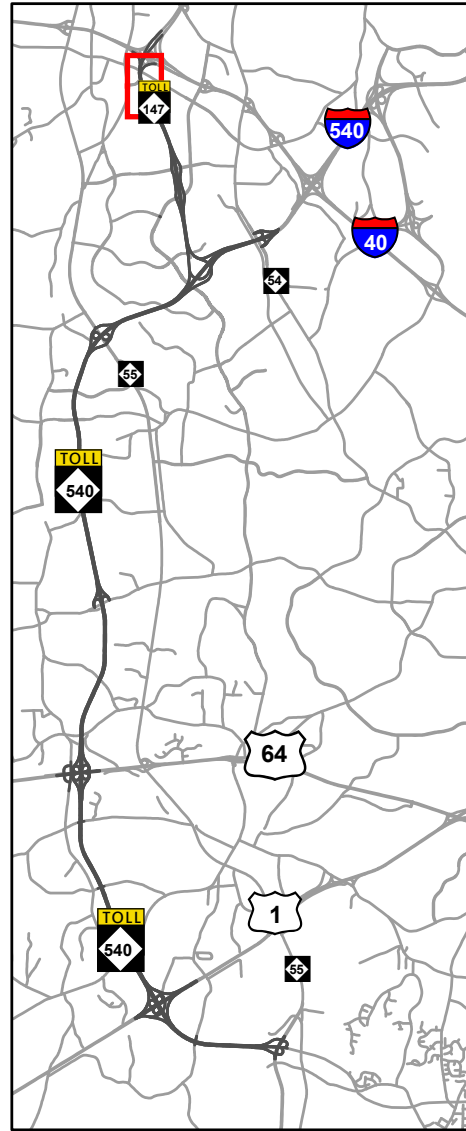
Toll NC-540/147 Painted Structures - Barrier



LEGEND

----- Concrete Barrier

Current Page Total Length: 1354 FT



County : Wake, Durham

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
ROADWAY ITEMS						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	4589000000-N	SP	GENERIC TRAFFIC CONTROL ITEM TRAFFIC CONTROL	Lump Sum	L.S.	
0003	5255000000-N	1413	PORTABLE LIGHTING	Lump Sum	L.S.	
0004	6036000000-E	1631	MATTING FOR EROSION CONTROL	1,000 SY		
0005	6071012000-E	SP	COIR FIBER WATTLE	200 LF		
0006	6084000000-E	1660	SEEDING & MULCHING	2 ACR		
0007	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	30 EA		
0008	6132000000-N	SP	GENERIC EROSION CONTROL ITEM FABRIC INSERT INLET PROTECTION DEVICE	50 EA		
0009	6132000000-N	SP	GENERIC EROSION CONTROL ITEM FABRIC INSERT INLET PROTECTION DEVICE CLEANOUT	50 EA		
0010	8678000000-E	SP	EPOXY RESIN INJECTION	1,783 LF		
0011	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1277	Lump Sum	L.S.	
0012	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1278	Lump Sum	L.S.	
0013	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1279	Lump Sum	L.S.	
0014	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1280	Lump Sum	L.S.	
0015	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1281	Lump Sum	L.S.	
0016	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1282	Lump Sum	L.S.	

County : Wake, Durham

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0017	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1283	Lump Sum	L.S.	
0018	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1285	Lump Sum	L.S.	
0019	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1286	Lump Sum	L.S.	
0020	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1289	Lump Sum	L.S.	
0021	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1290	Lump Sum	L.S.	
0022	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1291	Lump Sum	L.S.	
0023	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1292	Lump Sum	L.S.	
0024	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1294	Lump Sum	L.S.	
0025	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1295	Lump Sum	L.S.	
0026	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1300	Lump Sum	L.S.	
0027	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1301	Lump Sum	L.S.	
0028	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1302	Lump Sum	L.S.	
0029	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1305	Lump Sum	L.S.	

County : Wake, Durham

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0030	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1306	Lump Sum	L.S.	
0031	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1307	Lump Sum	L.S.	
0032	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1308	Lump Sum	L.S.	
0033	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 1311	Lump Sum	L.S.	
0034	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 300	Lump Sum	L.S.	
0035	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 587	Lump Sum	L.S.	
0036	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 588	Lump Sum	L.S.	
0037	8860000000-N	SP	GENERIC STRUCTURE ITEM STAIN REMOVAL AND ANTI- GRAFFITI COATING @ STR 589	Lump Sum	L.S.	
0038	8867000000-E	SP	GENERIC STRUCTURE ITEM CONCRETE BARRIER ANTI-GRAFFITI COATING APPLICATION	15,466 LF		
0039	8867000000-E	SP	GENERIC STRUCTURE ITEM CONCRETE BARRIER STAIN REMOVAL	15,466 LF		
0040	8897000000-N	SP	GENERIC STRUCTURE ITEM AESTHETIC SIGN COLUMN ANTI- GRAFFITI COATING APPLICATION	190 EA		
0041	8897000000-N	SP	GENERIC STRUCTURE ITEM AESTHETIC SIGN COLUMN STAIN REMOVAL	190 EA		