

APPENDIX A



UNDERUTILIZED BUSINESS ENTERPRISE (UBE) REQUIREMENTS AND CONSTRUCTION FORMS

CONTRACT: ST-271

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**UNDERUTILIZED BUSINESS ENTERPRISE
REQUIREMENTS**

CITY OF DURHAM, NC

PROJECT GOAL SHEET FOR

2018 Petition Streets

CONTRACT ST-271

GENERAL CONSTRUCTION

MUBE

WUBE

11 %

7 %

Per Section 26-8. (a) of the Ordinance to Promote Equal Business Opportunities in City Contracting: “SDBE’s that are owned by SED persons who are not Blacks or women may be counted by the Bidder towards either SDBE goal.”

MUBE Underutilized Business Enterprise owned by Blacks
WUBE Underutilized Business Enterprise owned by women
UBE Underutilized Business Enterprise

Equal Business Opportunity Program Statement

is the policy of the City to provide equal opportunities for City contracting to underutilized businesses owned by minorities and women doing business in the City's Contracting Marketplace. It is further the policy of the City to prohibit discrimination against any firm in pursuit of these opportunities, to conduct its contracting activities so as to prevent such discrimination, to correct the present effects of past discrimination and to resolve complaints of discrimination. This policy applies to construction contracting. The City's Department of Equal Opportunity / Equity Assurance Department has reviewed this proposed project and established Underutilized Business Enterprise (UBE) participation goals: Minority Business Enterprise (MUBE)-11% and Woman Business Enterprise (WUBE)-7%. A listing of firms from the HUB database is included in this project manual. Bidders may also use firms currently certified as MUBES and WUBES by N.C. D.O.T. and the SBA 8(a) Program to meet the participation requirements.

1. The bids will be evaluated and the contract awarded in accordance with statutory public contract requirements and as supplemented by the City of Durham's Equal Business Opportunity Program Construction Forms included with this bid. **The following forms are mandatory and must be filled out and returned with the bid proposal.**
 - A. **Bid Forms**
 - B. **Non-Collusion Affidavit**
 - C. **Bidder Safety Evaluation Questionnaire**
 - D. ***** BID BOND IF applicable******
 - E. **Equal Business Opportunity Program Construction Forms**
 1. Forms E-101(UBE Participation On Base Bid) and/or E-102(UBE Participation On Bid Alternate)
 2. Form E-104 Employee Breakdown.

Any bids submitted without these completed forms may be deemed as "non-responsive". If there are any questions or problems in filling out the UBE forms, please contact:

City of Durham
Equal Opportunity/Equity Assurance Department
(919) 560-4180



CITY OF DURHAM EQUAL BUSINESS OPPORTUNITY PROGRAM

CONSTRUCTION FORMS Revised 3/2016



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**Phone: 919-560-4180
Facsimile: 919-560-4513**

Street Address:

**101 City Hall Plaza (Annex)
Durham, North Carolina 27701**

The Department of Equal Opportunity/Equity Assurance
Good Things Are Happening In Durham

INSTRUCTIONS ON UBE REQUIREMENTS

FOR USE IN BIDDING ON CONSTRUCTION PROJECTS WITH THE CITY OF DURHAM

These instructions summarize the provisions of the City of Durham’s Equal Business Opportunity Ordinance as it applies to the bid process. Of course, as with any summary, it cannot reflect all of the ordinance.

QUESTIONS AND ANSWERS ON UBE REQUIREMENTS

- 1. What is the purpose of the City’s Equal Business Opportunity (EBO) program?** The City Manager has set UBE goals for certain contract classifications. There will be a goal for UBEs owned by minorities and a goal for UBEs owned by women. For the bid to be fully considered by the City, the bid needs to meet the established goals or the bidder needs to have made good-faith efforts to subcontract with UBEs in order to meet the goals. In order to be given credit for making those good-faith efforts, the bidder must provide written documentation of those good-faith efforts. That written documentation must be submitted to the City within 2 days after the bid opening unless a different time is stated by the City. See the instructions below regarding Form E-107.
- 2. What is an “UBE”?** It means an Underutilized Business Enterprise. An UBE is a business, certified by the N. C. Department of Administration HUB Office, N.C. Department of Transportation or the U.S. Small Business Administration Section 8(a) Business Development Program as a minority or women business enterprise. The qualifying UBE needs to have its certification from one of the above named entities before the bid opening if it is to count toward meeting the goals. Failure to provide evidence of UBE status may disqualify the firm’s participation for the purpose of meeting UBE goals

For purposes of this document and associated forms, any reference to an “UBE,” or similar reference shall include reference to a qualified women or minority owned firm certified and approved in accordance with the above paragraphs.

- 3. What UBE forms must a bidder or contractor turn in to the City, and when?**

<i>Name or description of form</i>	<i>Necessary to submit this form?</i>	<i>When to submit it?</i>
E-101 (UBE PARTICIPATION ON BASE BID)	Always	With the bid
E-102 (UBE PARTICIPATION ON BID ALTERNATE)	Yes, if there are alternates. Use a separate form for each alternate.	With the bid
E-103 reserved for future use)	n/a	n/a
E-104 (EMPLOYEE BREAKDOWN)	Yes or a EEO-1 form if large enough to report employment statistics to the federal government.	With the bid

UBE forms continued

E-105 (STATEMENT OF INTENT TO PERFORM AS SUBCONTRACTOR)	Yes, if the bidder proposes to count any subcontracts with UBEs towards the UBE goals	Within 5 days after bid opening unless a different time is stated by the City.
E-106 (REQUEST TO CHANGE UBE PARTICIPATION AFTER BID OPENING)	Yes, if the bidder or contractor proposes certain changes in its subcontracting	Not with the bid. Once the bidder is identified as the apparent lowest responsible bidder, this form is due before the bidder/contractor can make the proposed change.
E-107 (QUESTIONNAIRE ON BIDDER'S GOOD-FAITH EFFORTS)	Yes, if the bidder fails to meet the UBE goals. Do not turn in if the bidder met the goals.	Within 2 days after bid opening unless a different time is stated by the City
Good-faith documentation	Yes, if the bidder failed to meet the UBE goals.	Within 2 days after bid opening unless a different time is stated by the City

4. **If a bidder fails to meet the UBE goals, can it still be awarded the contract?** Bidders that do not meet the goals but demonstrate good-faith efforts are treated equally to those that meet the goals. Awarding a contract is ultimately the decision of the City Council, which considers compliance with the EBO ordinance along with other matters.
5. **In making good-faith efforts, what UBEs should a potential bidder contact?** The City provides a list of UBEs that have been certified by the N. C. Department of Administration HUB Office, as a minority or women business enterprise for particular trades, services, goods, etc. Potential bidders should contact UBEs listed for the work that can be subcontracted.
6. **Our firm already has employees who can do the work and does not want to subcontract that work. How does this fit in?** The purpose of the EBO ordinance is to change business practices that would otherwise occur, by giving opportunities to under-used segments of the economy. If the bidder does not meet the goals, its good-faith efforts will be examined as with any other bidder that did not meet the goals.
7. **If the bidder contacts an underutilized business enterprise owned by a minority or woman that could become a UBE, will that count toward good-faith efforts?** This contact will not count unless the firm that you contact is certified by the N. C. Department of Administration HUB Office, N.C. Department of Transportation or the U.S. Small Business Administration Section (a) Business Development Program as a minority or women business enterprise before the bids are opened. In making good-faith efforts, let us suppose that a potential bidder contacts firms that could qualify to be UBEs. If those firms have their certification from the previously identified authorities at the time of the bid opening, those contacts will count towards good-faith efforts. But there is a risk, because getting certification takes time.
8. **Do all subcontracts with UBEs count?** The City will count as UBE participation only expenditures to an UBE that performs a commercially-useful function in the relevant work. An UBE performs such a function when the minority or women business owners themselves are actually involved in performing, managing, and supervising a distinct element of the work. To determine whether those requirements are met, the City takes into account the amount of work subcontracted, industry practices, the adequacy of the resources of the UBE for the work, the qualifications, such as possession of licenses, permits, and professional designations of the minority and women owners, and other relevant factors. For example, if an UBE lacks substantially all of the resources equipment and personnel to do the work it shall be presumed not to perform a commercially-useful function. The EBO ordinance includes more points to consider on this issue.
9. **May an UBE enter into subcontracts?** This question arises in two situations: (1) the bidder is an UBE and (2) the bidder is subcontracting with an UBE. Consistent with normal industry practices, an UBE may enter into subcontracts. If an UBE subcontracts a significantly greater portion of the work of the contract than would be expected on the basis of normal industry practices, the UBE shall be presumed not to be performing a commercially-useful function. The UBE may present evidence to rebut this presumption to the City.
10. **What does it mean to say that information must be submitted “with the bid”?** Unless bidders are given other written instructions from the City, it means that the information must be in a sealed envelope, delivered to the same place where a bid can be delivered, and before the time set for the bid opening. Unless bidders are given other written instructions from the City, the information can be either in the same envelope as the bid or in a separate envelope. If it is a separate envelope, the outside of the envelope must state the same information that is required on the bid envelope, and that it contains UBE forms.

11. When the chart in question 3 says that a form can be submitted 2 days or 5 days after the bid opening, exactly when is it due? Where is it to be submitted?

The form must be submitted to the City's EOE Department, located at 101 City Hall Annex or faxed/mailed to (919) 560-4513, so that it is received within 2 days or 5 days (whichever applies according to the chart) after the bid opening. If the form is faxed/mailed, it must be received before midnight on that 2nd or 5th day. If it is delivered by any other means, it must be received before 5:00 PM. In counting these 2 days or 5 days, exclude the following: the day of the bid opening, Saturday, Sunday, and holidays observed by city government of the City of Durham. For instance, for a form due in 2 days, if the bid opening is on a Thursday, the due date for the form would be on the following Monday (midnight if faxed, otherwise 5:00 PM). If the day after the bid opening or that Monday is a City holiday, the form would be due on Tuesday. For a form due in 5 days, if the bid opening were on Tuesday, the due date for the form would be on the following Tuesday (midnight if faxed, otherwise 5:00 PM). If any weekday between those Tuesdays is a City holiday or if the Tuesday on which the form would be due is a City holiday, the form would be due on Wednesday. It is best to place the documents inside an envelope, and to write on the outside of the envelope the same information that is required on the bid envelope, and that it contains UBE forms. Holidays observed by city government are New Years' Day, Dr. Martin Luther King, Jr., Day; Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the day after Thanksgiving Day, Christmas Day; two days (varying from year to year) during the week of Christmas Day; and other times as may be authorized by City Council.

12. When there are bid alternates how is UBE participation counted? The total amount of the award actually made by the City is the key. For instance, assume the following made-up example:

- Base bid is \$200,000
- Alternate A bid is \$50,000
- Alternate B bid is \$22,000
- Minority-owned UBE goal is 11%.
- The bidder proposes Minority-owned UBE participation as follows: \$22,000 on the base bid, \$4,000 on Alternate A, and \$10,000 on Alternate B.

In this fictional example, the bidder may or may not meet the goal, depending on the actual award by Council. This chart illustrates:

AWARD BY CITY COUNCIL

	Only the base bid	Base bid + Alternate A	Base bid + Alternate B	Base bid + Alternates A & B
Bid total	\$200,000	\$250,000 (200,000 + 50,000)	\$220,000 (200,000 + 20,000)	\$270,000 (200,000 + 70,000)
Total UBE participation	\$22,000	\$26,000 (22,000 + 4,000)	\$32,000 (22,000 + 10,000)	\$36,000 (22,000 + 14,000)
Minority-owned UBE percentage	11%	10.4%	14.5%	13.3%
Meet 11% Minority-owned UBE goal?	Yes	No	Yes	Yes

14. How is the lease of equipment by an UBE counted? If the UBE leases equipment for the work of the contract, the value of the lease payments is included as part of the UBE's participation. However, it is not proper to include such lease payments if they are to be made to the prime contractor or the prime contractor's "Affiliate." To understand what an "Affiliate" is, see section 26-3 of the EBO ordinance.

15. How is the purchase of goods from an UBE counted? If the bidder is buying goods from an UBE, the cost of the goods can be considered UBE participation only if (a) the UBE operates or maintains a factory that produces the goods, or (b) the UBE has an establishment where the goods of the general character described by the specifications or required under the Contract are regularly sold or leased to the public in the usual course of business. If (b) applies, the UBE's *principal* business must be selling or leasing those goods and the UBE must operate under its own name

INSTRUCTIONS FOR INDIVIDUAL UBE BID FORMS FOR CONSTRUCTION

Form E-101 (UBE PARTICIPATION) On this form, "participation" is the dollar amount of subcontracts for significant goods and services to be used to perform the contract. For instance, if the bidder would enter into subcontract with UBEs for a total of \$30,000, that would be the UBE participation amount. The sum of UBE participation and non-UBBE participation should equal the amount of the bid. Form E-101 is required for the base bid

Form E-102 (UBE PARTICIPATION ON BID ALTERNATE) This form is essentially the same as Form E-101, except that it is used for the alternate bids instead of the base bid. Use a separate Form E-102 for each alternate bid.

Form E-103 reserved for future use

Form E-104 (EMPLOYEE BREAKDOWN) Complete Part A for the primary location where the goods and services that are the subject of the bid are to be made or provided. If the parent company or other locations of the bidder are providing any substantial portion of the goods or services, then the bidder must also complete Part B, for the consolidated company. If the bidder has an EEO-1 Report that provides the same information as required on the Form E-104, the EEO-1 Report may be used instead. On whether to submit Form E-104, see question 3 above. See questions 3 and 11 above on when and where to turn in this form.

Form E-105 (STATEMENT OF INTENT TO PERFORM AS SUBCONTRACTOR) The bidder must provide a Form E-105 (Statement of Intent) for each UBE firm that the bidder would subcontract with if the City awards the contract to the bidder. See questions 3 and 11 above on when and where to turn in this form.

On Form E-105, what happens if column 2 (dollar amount) disagrees with column 3 (percentage)? If there is a conflict between the dollar amount in Column 2 and the percentage of base bid in Column 3, the percentage stated in Column 3 will control. For instance, if Column 2 is \$10,000, Column 3 is 10%, and the base bid is \$200,000, there is an error, because ten percent of \$200,000 is \$20,000, not \$10,000. In that example, the form will be read as a commitment for \$20,000. If the UBE both (i) is doubtful of its arithmetic *and* (ii) wants Column 2 to control in case of disagreement, it may say that Column 2 will control over Column 3, but to do so, it must write that on Form E-105.

E-106 (REQUEST TO CHANGE UBE PARTICIPATION AFTER BID OPENING) When is this form used? Beginning with the time that the City Manager identifies a bidder as the apparent lowest responsible bidder and continuing as that bidder is awarded the contract and continuing until that bidder/contractor reaches the point of final completion of the work, Form E-106 is to be used when the following occurs: If the bidder/contractor proposes to do any of the following ;

- to replace a subcontractor,
- to perform subcontracted work with the bidder/contractor's own forces, to
- increase the quantity of subcontracted work,
- to decrease the quantity of subcontracted work, or
- to change the allocation of work among subcontractors,

then the bidder/contractor must make good-faith efforts to attain the goals that it has shown on the E-101 and applicable E-102 forms, and the bidder/contractor must fill out Form E-106. Substitutions of subcontractors in these circumstances, both before and after the awarding of a contract, are subject to City approval. Consult the City's EO/EA Department on the procedures to follow in order to comply with City Code 26-10(c).

E-106 (QUESTIONNAIRE ON BIDDER'S GOOD-FAITH EFFORTS) Bidders that do not attain the UBE goals have the responsibility to make good-faith efforts and to demonstrate to the City that they have made such efforts. In determining a bidder's good-faith efforts to engage UBEs, the City Manager shall consider the information supplied by the bidder to answer the questions in Form E-107, along with other criteria that the City Manager deems proper. Form E-107 is an optional tool that bidders may use to show that they have made good-faith efforts. See questions 3 and 11 above on when and where to turn in this form. Even when this form may be submitted after the bid opening, it cannot include information on efforts made after the bid opening. Even if a bidder does not use Form E-107, the City will nevertheless attempt to answer the questions on the E-107 using good-faith documentation supplied by the bidder. Bidders who do not turn in Form E-107 will still find it helpful to know how the City will determine whether good-faith efforts have been made.

For Section 2 of Form E-107 -- To make the best good-faith efforts as described under Section 2 on E-107, your firm should have sent a written letter, email, phone call or fax to all UBEs on the City's list that perform the kind of work to be subcontracted. Your firm needs to keep a record of all of these attempts to reach UBEs. That letter would say, in effect, as follows: (Of course, your firm would need to write appropriate words where *italicized instructions* are used below.)

Our firm is interested in bidding on a contract with the City of Durham for [*describe the project*]. We are interested in subcontracting, to your firm, the following work [*describe specific work, for example, painting of interiors of 5 rooms, including prep work; or supplying 20 circuit breakers of type XJE-R or equivalent*]. You may inspect the applicable plans and specifications and descriptions of items to be purchased at our office located at the address shown above, or at the City of Durham's EO/EA Department, 101 City Hall Plaza Annex , Durham, N.C., 27701 , 919-560- 4180[, or at the AGC plan room in (*specify the locations*)]. You may obtain a copy [*explain how and from whom (the City, architect, engineer, etc.) the potential subs can obtain a copy*].

If applicable, tell the UBEs at which offices of the AGC the plans and specifications may be seen, possibly from the following AGC list.

1100 Euclid Avenue Charlotte, NC 28203-1868 Phone: (704)372-1450	Caswell Bldg., Glenwood Place 3700 National Drive, Ste. 201 Raleigh, NC 27612 Phone: (919)781-3270
2713 Breezewood Avenue Fayetteville, NC 28303 Phone: (910)484-0184	2527 S. 17th St. Wilmington, NC 28401 (McGee CADD Reprographics Bldg.) Phone: (910)791-5533
Other AGC locations if they have the plans and specifications	

GOOD-FAITH DOCUMENTATION. This is not a City form but is documentation to be supplied by the bidder. See the instructions on Form E-107 above. Unless the bidder meets the UBE goals, the bidder must demonstrate that it made good-faith efforts. To do so, it can use a combination of providing answers to Form E-107 and documentation, such as copies of the notices to UBEs that are described in question 1(c) on Form E-107. See questions 3 and 11 above on when and where to turn in this form. Even when this documentation may be submitted after the bid opening, it cannot include information on efforts made after the bid opening.

Form E-101 UBE PARTICIPATION ON BASE BID

Name of Bidder: _____

Total dollar amount of UBE participation in base bid work: _____

or each row, check one column: E or F

Column A	Column B	Column C	Column D	Column E	Column F
Name of proposed subcontractor for base bid work	Goods and services to be provided for base bid work	Subcontract amount, in dollars, for base bid work	Percentage of total base bid (Column C divided by total base bid)	Minority-owned UBE	Women-owned UBE
		\$	%		
		\$	%		
		\$	%		
		\$	%		

Attach extra sheets as needed.

Do the above participation amounts meet the goals on this contract, assuming only the base bid is counted?

Yes **No.** If the answer is No: (1) the bidder must have made good-faith efforts; (2) the bidder must provide, within 2 business days after bid opening, documentation of good-faith efforts; and (3) the bidder must sign below.

As an authorized representative of the Bidder, I swear or affirm under penalty of fraud that the good-faith efforts documentation submitted with this bid, pertaining to the base bid and all alternates, if any, is correct and not intended to defraud or mislead. After the contract between the City and the Bidder is signed, except to the extent that the City gives prior written approval for changes, the Contractor agrees that it shall engage the subcontractors listed on this E-101 and on all applicable E-102 forms, to perform the work for the dollar amounts or percentages described on this E-101 and applicable E-102s.

Signature of Individual authorized to sign for Bidder

Form E-102 UBE PARTICIPATION ON BID ALTERNATE

This form pertains to the following bid alternate:

(Specify the alternate, in the way that it is designated in the bid documents)

Name of Bidder: _____

Total dollar amount of UBE participation in work on this alternate: _____

For each row, check one column: E or F

Column A	Column B	Column C	Column D	Column E	Column F
Name of proposed subcontractor for this alternate	Goods and services to be provided for this alternate	Subcontract amount, in dollars, for this alternate	Percentage of total bid for this alternate (Column C divided by total bid for this alternate)	Minority-owned UBE	Women-owned UBE
		\$	%		
		\$	%		
		\$	%		
		\$	%		

Attach extra sheets as needed.

E-104 EMPLOYEE BREAKDOWN

Part A – Employee statistics for the primary location

Employment category	Total Employees	Total males	Total females	M— a — l — e — s					F — e — m — a — l — e — s				
				White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native
Project Manager													
Professional													
Technical													
Clerical													
Labor													
Totals													

Part B – Employee statistics for the consolidated company. (See instructions for this form on whether this part is required.)

Employment category	Total Employees	Total males	Total females	M— a — l — e — s					F — e — m — a — l — e — s				
				White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native
Project Manager													
Professional													
Technical													
Clerical													
Labor													
Totals													

Form E-105 STATEMENT OF INTENT TO PERFORM AS SUBCONTRACTOR

Name of Bidder: _____

Name of Project: _____

The undersigned firm meets the City of Durham's criteria as a UBE.

The undersigned UBE represents that it will enter into a formal contract with the Bidder to perform the following work in connection with the Project, in the dollar amount or percentage listed below, if the Bidder signs a contract with the City of Durham for the Project.

Describe the work in sufficient detail so that it can be determined whether the UBE's work is a substantial and necessary part of the Project.

Column 1 - description of work to be done by undersigned UBE	Column 2 -dollar amount of the proposed subcontract between the bidder and the undersigned UBE	Column 3 - percentage of Bidder's base bid represented by the proposed subcontract between the Bidder and the undersigned UBE

The undersigned -UBE will be ready to begin work on the subcontract on the following date:

Name of UBE: _____ Telephone No. _____ Fax No. _____

Address: _____

Zip Code: _____

Signature of authorized representative of UBE

Title of the person who signed above: _____

What persons with the UBE should the City contact with questions about this form or the proposed subcontract?

Name of individual: _____ Telephone No. _____

Title of Individual: _____

Email address: _____

By submitting this form to the City of Durham, the Bidder represents that if the Bidder signs the contract with the City of Durham for the Project, the Bidder will enter into the subcontract described above with this UBE.

E-106 REQUEST TO CHANGE UBE PARTICIPATION AFTER BID OPENING

Project: _____

Name of bidder or contractor: _____

Name and title of representative of bidder or contractor: _____

Address : _____ Zip Code: _____

Telephone No.: _____ Fax Number: _____

Email address:

Total amount of original contract, before any change orders or amendments:

Total amount of the contract, including all approved change orders and amendments to date, but not counting the changes proposed in this form: _____

Dollar amount of changes proposed in this form: _____

The proposed change (*check one*) **increases** **decreases** the dollar amount of the bidder's/contractor's contract with the City.

Does the proposed change decrease the UBE participation? (*check one*) **yes** **no**

If the answer is **yes**, complete the following:

This form is used only if the conditions described in the instructions are present.

<p>BOX A</p> <p>For the subcontract proposed to be changed (increased, reduced, or eliminated): Name of subcontractor: _____</p> <p>Goods and services to be provided before the proposed change: _____</p> <p>Is it proposed to eliminate this subcontract? <input type="checkbox"/> yes <input type="checkbox"/> no</p> <p>If the subcontract is to be increased or reduced, describe the nature of the change (<i>such as adding \$5,000 in concrete work and deleting \$7,000 in grading</i>): _____</p> <p>Dollar amount of this subcontract before this proposed change: _____</p> <p>Dollar amount of this subcontract after this proposed change: _____</p> <p>This subcontractor is (check one):</p> <p><input type="checkbox"/> 1. Minority-owned UBE</p> <p><input type="checkbox"/> 2. Women-Owned UBE</p> <p><input type="checkbox"/> 3. Not a UBE</p>
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BOX B. Proposed subcontracts other than the subcontract described in Box A above (continued)

Name of sub-contractor for the new work:

Goods and Services to be provided by this proposed subcontractor:

Dollar amount proposed of this proposed subcontract: This sub-contractor is:

- 1. Minority-owned UBE
- 2. Women-Owned UBE
- 3. Not a UBE

Add additional sheets as necessary.

This form is used only if the conditions described in the instructions are present.

E-107 QUESTIONNAIRE ON BIDDER'S GOOD-FAITHEFFORTS

Name of Bidder: _____

If you find it helpful, feel free to attach pages to explain your answers. How many pages is your Firm attaching to this questionnaire? _____ (Don't count the 2 pages of this questionnaire.)

If a yes or no answer is not appropriate, please explain the facts. All of the answers to these questions relate only to the time before your firm submitted its bid or proposal to the City. In other words, actions that your firm took after it submitted the bid or proposal to the City cannot be mentioned or used in any answers.

1. SOLICITING UBEs.

(a) Did your firm solicit, through all reasonable and available means, the interest of all UBEs (that is, in the list provided by the City) in the scopes of work of the contract? **yes** **no**

(b) In such soliciting, did your firm advertise? **yes** **no** Are you attaching copies to this questionnaire, indicating the dates and names of newspaper or other publication for each ad if that information is not already on the ads? **yes** **no**

(c) In such soliciting, did your firm send written (including electronic) notices or letters? Are you attaching one or more sample notices or letters? **yes** **no**

(d) Did your firm attend the pre-bid conference? **yes** **no**

(e) Did your firm provide interested UBEs with timely, adequate information about the plans, specifications, and requirements of the contract? **yes** **no**

(f) Did your firm follow up with UBEs that showed interest? **yes** **no**

(g) With reference to the UBEs that your firm notified of the type of work to be subcontracted -- Did your firm tell them?

- (i) the specific work your firm was considering for subcontracting? **yes** **no**
- (ii) that their interest in the contract is being solicited? **yes** **no**
- (iii) how to obtain and inspect the applicable plans and specifications and descriptions of items to be purchased? **yes** **no**

2. BREAKING DOWN THE WORK.

(a) Did your firm select portions of the work to be performed by UBEs in order to increase the likelihood that the goals would be reached? **yes** **no**

(b) If **yes**, please describe the portions selected. **ANSWER:**

3. NEGOTIATION. In your answers to 3, you may omit information regarding UBEs for which you are providing Form E-105.

(a) What are the names, addresses, and telephone numbers of UBEs that you contacted? **ANSWER:**

(b) Describe the information that you provided to the UBEs regarding the plans and specifications for the work selected for potential subcontracting. **ANSWER:**

(c) Why could your firm not reach agreements with the UBEs that your firm made contact with? Be specific. **ANSWER:**

4. ASSISTANCE TO UBEs ON BONDING, CREDIT, AND INSURANCE.

(a) Did your firm or the City require any subcontractors to have bonds, lines of credit, or insurance? **yes** **no** (Note: In most projects, the City has no such requirement for *subcontractors*.)

(b) If the answer to (a) is **yes**, did your firm make efforts to assist UBEs to obtain bonds, lines of credit, or insurance? **yes** **no** If **yes**, describe your firm's efforts. **ANSWER:**

(c) Did your firm provide alternatives to bonding or insurance for potential subcontractors? **yes** **no** If **yes**, describe. **ANSWER:**

5. GOODS AND SERVICES. What efforts did your firm make to help interested UBEs to obtain goods or services relevant to the proposed subcontracting work? **ANSWER:**

6. USING OTHER SERVICES.

(a) Did your firm use the services of the City to help solicit UBEs for the work? **yes** **no**
Please explain. **ANSWER:**

(b) Did your firm use the services of available minority/women community organizations, minority and women contractors' groups, government-sponsored minority/women business assistance agencies, and other appropriate organizations to help solicit UBEs for the work? **yes** **no**
Please explain. **ANSWER:**

APPENDIX B



CERTIFIED UNDERUTILIZED BUSINESS ENTERPRISE (UBE) LISTING

CONTRACT: ST-271

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UBE Listing ST-271 Petition Street Project

Company Name	Contact Name	Address	City, State	Zip	Phone	Email	Hub Certification	Construction License/Limitation
Abbott's Excavation Company, Inc.	Renn, Lori	774 Cheatham Mabry Road	Henderson, NC	27536	252-767-4949	rennlaw@centurylink.net	W	General Trades/Sub Contractor
ABTAK OF DURHAM INC	BROWN, ELI	11 LOGGING TRAIL	DURHAM,, NC	27707	(919)259-0091	abtakofdurham@gmail.com	B	General Contractor 71930 None;General Trades/Sub Contractor 71930
Adequate One Trucking, Inc.	Dunn-EI, Edward	2522 S Wilmington St	Raleigh, NC	27603	919-278-0140	adequateonetrucking@gmail.com	B	
Allis Concrete Construction,LLC	Allis, Rebecca	2070 Farmington Rd.	Mocksville, NC	27028	(336)940-2468	allisconcrete@yahoo.com	W	General Trades/Sub Contractor
Alston Grading & Hauling LLC	Hope-Alston, Jennifer	3206 Lawndale Dr J	Greensboro, NC	27408	336-587-3119	alstongradinghauling@gmail.com	B	
Archon Building Services Corporation	Notifications, IPS	155 Northpoint Ave	High Point, NC	27262	888-309-5557	info@archonservice.com	B	General Trades/Sub Contractor
ARW Concrete	Burns, Wendy	120 Salem Towne Ct	Apex, NC	27502	919-267-5124	wendyburns@arwraleigh.com	W	General Trades/Sub Contractor
Austin Trucking LLC	Austin, Jacob	355 Athletic Club Blvd	Clayton, NC	27527	919-200-1600	jake@austintrucking.com	HA	General Trades/Sub Contractor
C & D McCalls Concrete	MCCALL, CHARLES	Post Office Box 883	Garner, NC	27529	919-661-8586	cdmccallconcrete@cs.com	B	
CAROLINA ENVIRONMENTAL CONTRACTING, INC.	Cheatham, Joanne	P.O. BOX 1905	MOUNT AIRY, NC	27030	336-320-3849	ceci@carolinaenvironmentalcontracting.com	W	General Trades/Sub Contractor
Cortez LLC	Heck, Marinette	3426 Balfour East	Durham, NC	27713	919-248-4444	cortezhandsown@yahoo.com	B	General Contractor None;General Trades/Sub Contractor
Cruz Brothers Concrete,Inc.	Cruz, Maria	1572 Payne Road Lot #75	Graham, NC	27253	(336)376-0787	ines@cruzbro.com	HA	General Trades/Sub Contractor
Cruz Concrete Experts NC, LLC.	Moreno, Julie	8524 Six Forks Road	Raleigh, NC	27615	919-803-3730	julie@morenobookkeeping.com	HA	General Trades/Sub Contractor
d & t utilities, inc.	staley, donna	PO BOX 608	LIBERTY, NC	27298	336-622-1256	donnas@rtelco.net	W	General Contractor 65621 Unlimited;General Trades/Sub Contractor 65621
DK& J Trucking, Inc.	King, Donnie	50 Valleyfield Dr	Clayton, NC	27527	919-324-5801	daking45daddy@gmail.com	B	
Dominate Hauling Inc.	Anglade, Guy	PO BOX 209	Morrisville, NC	27560	919-625-4240	guy@dominatehauling.com	B	
Double R Concrete Finishing	Williams, Randy L.	6917 Windover Drive	Durham, NC	27712	(919)477-3009	btar4@aol.com	B	
f-t trucking llc	oduyoye, carole	6034 old orchard rd	kernersville, NC	27284	336-310-3788	tolafdx@triad.rr.com	B	General Trades/Sub Contractor
Fred Adams Paving Co., Inc.	Adams, Fred	P.O. Box 227	Morrisville, NC	27560	919-468-9101	courtney@fredadampaving.com	W	General Trades/Sub Contractor
Harris Concrete and Construction, Inc	harris, sean	1931 allyson ave	greensboro, NC	27405	(336)362-3178	harrisconcrete@triad.rr.com	B	General Trades/Sub Contractor
Hinton Concrete, LLC	Hinton, Walter	2430 Baileyscrossroad Rd	Coats, NC	27521	919-868-2962	jnj.concrete@yahoo.com	B	General Trades/Sub Contractor
Honducom Concrete, Inc.	Suazo, Ramon	P.O. Box 14968	Raleigh, NC	27620	(919)662-0388	ligia@honducomconcrete.net	HA	General Trades/Sub Contractor
Hunts Tree Removal & Pruning Service Inc	Bolick, Karen	2377 Alamance Church Road	Greensboro, NC	27406	(336)697-1155	hunttreeservice@bellsouth.net	AI	
KHG Hauling, LLC	Deans, Rashawn	2415 Lambton Wood Dr	Apex, NC	27539	919-589-3348	khghauling@gmail.com	B	General Trades/Sub Contractor
Lacayo Concrete Flatwork, Inc	Lacayo, Ernest	246 River Trace Drive	Rougemont, NC	27572	336-364-2252	ernestlacayo@yahoo.com	HA	
Lakeside Utilities, Inc	Hayes, Kristie	770 Webb Mill Road	Four Oaks, NC	27524	919-963-3420	lakesideutilities@gmail.com	W	General Contractor 75645 Limited
Lineberger's Tree Service, Inc	Lineberger, Beverly	5404 Penny Road	Raleigh, NC	27606	919-834-0055	BeverlyLineberger@LinebergerTree.com	W	
LMJ Pavement Marking,LLC	Calton, Kristin	76 oak Fern lane	Willow Spring, NC	27592	910-322-6749	paintipp@gmail.com	W	General Trades/Sub Contractor
Mayer Landscaping & Concrete Inc.	Mayer, Ricky	PO Box 984	Winston Salem, NC	27102	336-682-3845	rickenmayer@mayerlandscaping.com	B	General Contractor 62266 Limited;General Trades/Sub Contractor
Moffat Pipe, Inc.	Pipe, Moffat	4901 Unicon Drive	Wake Forest, NC	27587	919-295-4630	bids@moffatpipe.com	W	General Contractor 54906 Unlimited
Nehrenz Enterprises	Nehrenz, Vivian	7001 CEDRIC DRIVE	RALEIGH, NC	27603	919-291-2727	nehrenz@hotmail.com	AI	
New Shine Concrete	Felisberto, Rigelma	4223 Glen Summit Ct	Apex, NC	27539	919-772-5127	newshineconcrete2606@gmail.com	HA	General Trades/Sub Contractor 96637
Norlina Grading & Excavating	Snyder, Wilma	PO Box 1092	Norlina, NC	27563	(252)456-2933	Wilma_Snyder@yahoo.com	AA	General Contractor None

UBE Listing ST-271 Petition Street Project

NORTH STATE ENVIRONMENTAL, INC.	WESTMORELAND, STEPHANIE	2889 LOWERY ST.	WINSTON SALEM, NC	27101	336-725-2010	stephanie@nsenv.com	W	General Contractor 49529 Unlimited
OcoroEnterprises	Ocoro, Gustavo	800 Taylor St	Durham, NC	27701	919-923-9324	gustavoocoro@yahoo.com	HA	
P&S Grading LLC	Bolick, Karen	4211 Belvoir Drive	Greensboro, NC	27406	336-601-4557	karen@psgrading.com	W	General Contractor 70444 Unlimited
PACIFIC TRUCKING	njoku, chukwuemeka	100 E SIX FORKS ROAD	RALEIGH, NC	27609	919-559-6252	emekanjoku69@yahoo.com	B	General Trades/Sub Contractor
PEARCE'S GRADING & LANDSCAPING,LLC	PEARCE, TONYA	549 STONE SOUTHERLAND ROAD	LOUISBURG, NC	27549	919-497-5025	pearcesgrading@earthlink.net	W	
RDU Paving Inc.	Lundholm, Jeanette	5415 Fayetteville Road	Raleigh, NC	27603	919-329-7300	JLundholm@rdupaving.com	W	General Contractor 62537 Unlimited;General Trades/Sub Contractor 62537
redstreeservice	Price, Yan	23715 NC HWY 902	Bennett, NC	27208-9184	336-581-4241	Redstreeservice@yahoo.com	AA	
Roadrunner Concrete LLC	Vasquez, Ossiris	5223 LLOYD HILL LN	GRAHAM, NC	27253	336-675-6238	contact@roadrunnerconcrete.com	HA	General Trades/Sub Contractor
Rumburg Grading Inc.	Rumburg, David	PO Box 9	Walkertown, NC	27051	336-595-8830	rumburggrading@earthlink.net	W	General Contractor 70763 Limited;General Trades/Sub Contractor 1195
Southern Garden, Inc	Lichtenstein, Russell	P. O. Box 808, Apex, NC 27502	Cary, NC	27519	919-362-1050	estimating@southerngardeninc.com	W	General Trades/Sub Contractor Landsca #CL0740
Stewart Hauling and Backhoe Inc.	Stewart, Wilmoth	5760 Brinkley Road	Belews Creek, NC	27009	336-595-2601	stewarhauling@hotmail.com	W	General Trades/Sub Contractor
Sunshine Tree & Fence, Inc.	Griffin, Charlotte	145 Kenilworth Ave	High Point, NC	27620	336-817-5248	sunshinetree1@aol.com	W	General Contractor None;General Trades/Sub Contractor
SVG Concrete Services Inc.	VERASTEGUI, SERGIO	PO BOX 4308	CARY, NC	27519	(919)567-0044	svg@svgconcrete.com	HA	General Trades/Sub Contractor
TNS TRUCKING, INC.	GREEN, SHANNON	601 Wilkins Rd	Butner, NC	27509	919-529-2343	TNS_TRUCKING@MSN.COM	W	
Triangle Concrete and Contracting, Inc.	Kuley, Barbara	7002 Scarlet Lane	Garner, NC	27529	(919)662-0406	bkuley@yahoo.com	W	General Trades/Sub Contractor
Turner Utilities Inc.	Turner, Melvin	2221 Springhill Avenue	Raleigh, NC	27603	919-427-3401	tbwd41@aol.com	B	
U Nita Stripe, Inc.	Smith, Julie	5428 Davis Mill Road	Greensboro, NC	27406	336-404-5322	juliesmithdd@bellsouth.net	W	General Contractor 71457 Limited;General Trades/Sub Contractor
Vanhook Trucking Inc.	Vanhook, Joe	5202 Old Greensboro Road	Chapel Hill, NC	27516	(919)933-4971	vantruck@bellsouth.net	B	
W Landscaping	Cheek, Wallace	51 Allen Ln	Henderson, NC	27536	252-915-5680	wlandscaping75@gmail.com	B	General Trades/Sub Contractor
W W Trucking & Demolition Serv	Williams, Broderick	3221 Carver School RD.	Winston-Salem, NC	27105	336-462-7696	BWbuckone@aol.com	B	General Trades/Sub Contractor
W.A.Y. Trucking & Hauling	Champion, Robin	1209 Curtiss Drive	Garner, NC	27529	919-669-9681	imatez67@yahoo.com	B	
YADKIN VALLEY PAVING, INC.	Ferguson, Gina	121 Cloverleaf Drive	Winston Salem, NC	27103	336-765-7900	ginaferguson@yadkinvalleypaving.com	W	General Contractor 41878 None

APPENDIX C



CERTIFIED UNDERUTILIZED BUSINESS ENTERPRISE (UBE) REPORTING FORMS

CONTRACT: ST-271

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**CITY OF DURHAM
SUBCONTRACTOR MONTHLY RECORD OF PAYMENT REPORT**

THIS DOCUMENT MUST REFLECT ALL SUBCONTRACTORS & MUST BE SUBMITTED WITH MONTHLY INVOICE FOR PAYMENT	
PROJECT NAME: 2018 PETITON STREETS CONTRACT#: ST-271	DATE FORM SUBMITTED: WORK PERIOD ENDING:
COMPANY NAME:	ADDRESS:
FEDERAL TAX ID#:	CONTACT PERSON:

Subcontractor/Vendor ID (Street Address/Zip/Telephone)	Indicate Ownership Status	Description Of Work	Total Sub- Contract Amount	Amount Paid For The Period	Total Amount Paid To-Date	Percentage Of Work Completed	Scheduled Start Date	Scheduled End Date
Total M/UBE Subcontracts Awarded/%					Total W/UBE Subcontracts Awarded/%			
Total M/UBE Dollars Paid-To-Date/%					Total W/UBE Dollars Paid-To-Date/%			
Total Non-Minority Subcontracts Awarded/%					Total Non-W/UBE Subcontracts Awarded/%			
Total Non-Minority Dollars Paid-To-Date/%					Total Non W/UBE Dollars Paid-To-Date/%			

The undersigned certifies that the information recorded above is correct, and that each of the representations set forth above is true. The undersigned further acknowledges that any misrepresentation hereon may result in termination of contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

Company Representative _____ **Title:** _____ **Date:** _____

APPENDIX D



NON-COLLUSION AFFIDAVIT FORMS FOR BIDDER AND SUBCONTRACTOR

CONTRACT: ST-271

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NON-COLLUSION AFFIDAVIT OF BIDDER

State of _____ County of _____
_____, being first duly sworn, deposes and says that:

- 1. He is _____ of _____, the Bidder that has submitted the attached Bid;
- 2. He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;
- 3. Such Bid is genuine and is not a collusive or sham Bid;
- 4. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from Bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy connivance or unlawful agreement any advantage against the _____ (Local Public Agency) or any person interested in the proposed Contract; and
- 5. The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

Title

Subscribed and sworn to before me this _____ day of _____, _____

Title

My Commission Expires _____

NON-COLLUSION AFFIDAVIT OF SUBCONTRACTOR

State of _____ County of _____
_____, being first duly sworn, deposes and says that:

1. He is _____ of _____, hereinafter referred to as the "Subcontractor";

2. He is fully informed respecting the preparation and contents of the Subcontractor's Proposal submitted by the Subcontractor to _____, the Contractor for certain work in connection with the _____ Contract pertaining to the Project in _____ (City or County and State);

3. Such Subcontractor's Proposal is genuine and is not a collusive or sham proposal;

4. Neither the Subcontractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Proposal in connection with such Contract or to refrain from submitting a Proposal in connection with such Contract, or has in any manner, directly or indirectly, sought by unlawful agreement or connivance with any other Bidder, firm or person to fix the price or prices in said Contractor's Proposal, or to fix any overhead, profit or cost element of the price or prices in said Contractor's Proposal, or to secure through collusion, conspiracy connivance or unlawful agreement any advantage against the _____ (Local Public Agency) or any person interested in the proposed Contract; and

5. The price or prices quoted in the Subcontractor's Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

Title

Subscribed and sworn to before me this _____ day of _____, _____

Title

My Commission Expires _____

APPENDIX E

DURHAM



1869
CITY OF MEDICINE

BID BOND FORMS

CONTRACT: ST-271

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BID BOND for the City of Durham

Contract name and number or other description of the Contract: ST-271 2018 Petition Streets

Name of Bidder:

Name, address, and telephone number of Surety's N. C. Resident Agent:

Telephone number of Surety's home office:

Surety is a corporation organized and existing pursuant to the laws of the State of:

Amount of this bond: *check one:*

(write or type the amount in words and figures) All numbers in this section are in U. S. dollars.

(\$)

five percent of the amount of the proposal

Date of execution of this bond:

Obligee: CITY OF DURHAM, a North Carolina municipal corporation.

* * * * *

KNOW ALL PERSONS BY THESE PRESENTS, that the Surety executing this bond, which Surety is duly licensed to act as surety in North Carolina, is held and firmly bound unto the City of Durham, Obligee, in the penal sum of the amount stated above, for the payment of which sum, well and truly to be made, the Surety binds itself and its successors and assigns, jointly and severally, by these presents. Whereas the Bidder is herewith submitting a proposal for the Contract referred to above, and the Bidder desires to file this Bid Bond in lieu of making the cash deposit pursuant to G.S. 143-129; NOW THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION is such, that if the Bidder shall be awarded the contract for which the bond is submitted, and shall, within ten days after the award is made, execute and deliver to the Obligee the contract and give satisfactory surety as required by G.S. 143-129, then this obligation shall be null and void, otherwise to remain in full force and virtue; and if the Bidder fails or refuses to so execute and deliver said contract or give said satisfactory surety, the Surety shall upon demand forthwith pay to the Obligee the full penal sum of this bond. The Surety waives all extensions of time, and notice of extensions of time, for the opening of proposals and for the modification, award, execution, and delivery of the contract. IN WITNESS WHEREOF, the Surety has executed this instrument under its seal as of the date of execution indicated above, pursuant to authority of its governing body.

(name of Surety)

(signature of Surety's attorney in fact)
(Affix Surety's corporate seal.)

(Instructions to Surety: If you use a raised corporate seal, press hard enough to make it legible)
Bid Bond Page 1 RNW:071301

APPENDIX E

ACKNOWLEDGMENT OF SURETY'S EXECUTION OF BID BOND

State of _____ County of _____

I, _____, a notary public in and for said county and state, certify that
_____ personally appeared before me this day and acknowledged that he
or she is Attorney in Fact for

_____, the Surety named in the
foregoing Bid Bond, in which bond the Obligee is the City of Durham, and that he or she executed said bond, under
the seal of the Surety, on behalf of the Surety.

This the _____ day of _____, 20_____.

My commission expires:

Notary Public

APPENDIX F

DURHAM



1869
CITY OF MEDICINE

NOT USED

CONTRACT: ST-271

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APPENDIX G



PERFORMANCE BOND AND PAYMENT BOND FORMS

CONTRACT: ST-271

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APPENDIX G

PERFORMANCE BOND AND PAYMENT BOND

Date of Contract: _____

Contract Name and Number: ST-271 Petition Streets

Name of Principal (Name of Contractor): _____

Name of Surety: _____

Name and Address of Surety's NC Resident Agent: _____

Contracting Body: CITY OF DURHAM, a North Carolina municipal corporation

Amount of Performance Bond (in words and figures): _____
dollars (\$ _____)

Amount of Payment Bond: same dollar amount as the dollar amount of Performance Bond.

Date of Execution of these Bonds: _____

* * * * *

KNOW ALL PERSONS BY THESE PRESENTS, that we, the PRINCIPAL AND SURETY above named, are held and firmly bound unto the above named Contracting Body, hereinafter called the Contracting Body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, administrators, and successors, jointly and severally, by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered into a certain Contract with the Contracting Body, numbered as shown above and hereto attached:

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term of said Contract and any extensions thereof that may be granted by the Contracting Body, with or without notice to the Surety, and during the life of any guaranty required under the Contract, and

APPENDIX G

shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then this obligation to be void; otherwise to remain in full force and virtue. As used hereinabove, "modifications" shall include, without limitation, changes (including, without limitation, changes granting extensions of time) and additions to with respect to the Work, scope of work, and specifications.

* * * * *

KNOW ALL PERSONS BY THESE PRESENTS, that we, the PRINCIPAL AND SURETY above named, are held and firmly bound unto the above named Contracting Body, hereinafter called the Contracting Body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered into a certain Contract with the Contracting Body, numbered as shown above and hereto attached:

NOW THEREFORE, if the Principal shall promptly make payment to all persons supplying labor and material in the prosecution of the Work provided for in said Contract, and any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then this obligation to be void; otherwise to remain in full force and virtue. As used hereinabove, "modifications" shall include, without limitation, changes (including, without limitation, changes granting extensions of time) and additions to or with respect to the Work, scope of work, and specifications.

* * * * *

The Performance Bond and the Payment Bond are being combined here only for purposes of convenience in signing and acknowledging, and the obligations of the Principal and of the Surety are the same as if the bonds were on separate documents. Each bond is in the dollar amount stated above, and the amounts of these bonds are not combined. The Surety agrees that both of these bonds are fully binding on it whether or not the Principal executes these bonds. These bonds are given pursuant to Article 3 of Chapter 44A of the NC General Statutes.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument (for both the Performance Bond and the Payment Bond) under their several seals on the date of execution indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

APPENDIX G

(name of Principal)

ATTEST:

By: _____

_____ Secretary

_____ President

(Affix corporate seal)

(name of Surety)

(name of attorney in fact)

(Affix corporate seal)

(Note: If you use a raised corporate seal, press hard enough to make it legible.)

APPENDIX G

ACKNOWLEDGEMENT OF CONTRACTOR'S EXECUTION OF CONTRACT,
PERFORMANCE BOND, AND PAYMENT BOND

State of _____ County of _____

I, _____, a notary public for the aforesaid county and state, certify that _____ personally appeared before me this day, and acknowledged that he or she is _____ Secretary of _____, a corporation, and that by authority duly given and as the act of the corporation, the foregoing (1) Contract with the City of Durham and (2) Performance Bond and Payment Bond with respect to the Contract, were signed in its name by its _____ President, whose name is _____, sealed with its corporate seal, and attested by him/herself as its said Secretary or Assistant Secretary.

This the ____ day of _____, _____.

NOTARY PUBLIC

My commission expires: _____

ACKNOWLEDGEMENT OF SURETY'S EXECUTION OF
PERFORMANCE BOND, AND PAYMENT BOND

State of _____ County of _____

I, _____, a Notary Public for said county and state, certify that _____, personally appeared before me this day and acknowledged that he or she is Attorney in Fact for _____, the Surety named in the foregoing Performance Bond and Payment Bond, in both of which bonds the contracting body is the City of Durham, and that he or she executed said bonds, under the seal of said Surety, on behalf of said Surety.

This the ____ day of _____, _____.

NOTARY PUBLIC

My commission expires: _____

APPENDIX H



REIMBURSABLE SALES AND USE TAX STATEMENT FORMS

CONTRACT: ST-271

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APPENDIX H

Reimbursable Sales and Use Tax Statement by Subcontractor

Payment Application No. _____ Estimate No. _____

Name of Contractor: _____

Name of Subcontractor: _____

Project Name: ST-271 2018 Petition Streets

1. Type of property purchased *	2. Date property purchased	3. Name of vendor	4. Invoice number	5. Date of invoice	6. N. C. county in which purchased.**	7. Amount of State sales and use taxes paid	8. Amount of local sales and use taxes paid	9. Total of columns 7 & 8

Grand totals of columns 7, 8, & 9 for all pages of this pay application/estimate.				
---	--	--	--	--

Notes: * If the invoice clearly specifies the property for which tax reimbursement is being requested, you need not list the property on this form.

** In column 6, please list same Counties consecutively & if not purchased in N. C., write *Not in N.C.*

ADD Extra Pages as needed. Total number of pages, including this page, in this request: _____.

Do not include invoices in that page count.

In addition to the pages referred to above, invoices that substantiate this statement are attached.

CERTIFICATION: The undersigned individual certifies (1) he or she is an employee or principal of the Subcontractor that is filing this form with the Contractor so that the Contractor may request reimbursement for N. C. State and Local sales & Use taxes that the Subcontractor has paid, (2) all of the properties listed above, and on all pages, if any, added to this page, and designated on the attached invoices, are building materials, supplies, fixtures, and equipment that have become or will become a part of or annexed to a building or structure that is owned or leased by the City of Durham and is being erected, altered, or repaired for use by the City of Durham in the project named above, (3) no tax on scaffolding, tools, equipment repair parts, equipment rentals, forms for concrete, or fuel to operate machinery or equipment is included, and (4) all of the information on this form, and on all pages, if any, added to this page, is true.

Signature of Individual

Printed or Typed Name of Individual

Sworn to and subscribed before me, this _____ day of _____, 20_____.

Notary Public: _____
(Sign & Print)

My Commission Expires: _____

(Seal)

022304RW

APPENDIX I



SUBMITTAL TRANSMITTAL FORM AND SUBMITTAL REGISTER FORM

CONTRACT: ST-271

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APPENDIX I

CONTRACT: ST-271
2018 PETITION STREETS

PLACE CONTRACTOR SUBMITTAL REVIEW
STAMP BELOW

ENGINEERING SERVICES
DEPARTMENT OF PUBLIC WORKS
CITY OF DURHAM, NORTH CAROLINA
PLACE ENGINEER/CITY SUBMITTAL
REVIEW STAMP BELOW

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APPENDIX J

DURHAM



1 8 6 9
CITY OF MEDICINE

PRIMAVERA & PDRX

CONTRACT: ST-271

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CONTRACT AND PROJECT MANAGEMENT SYSTEM - REQUIREMENTS AND WORKFLOW

Software Overview and Computer Requirements

The Contract will make extensive use of the Primavera Contract and Project Management system. The system consists of three software tools, namely; 1) *Contract Manager* for Contract Management, and 2) *P6 Project Management* and 3) *PDRX*. The Contractor is required to utilize all three software tools as described in this section, and other relevant sections of the Contract Specifications. If the Contractor is not familiar with this software he/she is highly encouraged to visit the web site www.primavera.com and gain the understanding necessary prior to bidding.

It will be the Contractor's responsibility to provide the appropriate computers and any and all related and necessary peripherals for this use. The computers shall have Windows XP Service Pack 2, installed as an operating system, along with Windows Internet Explorer Version 7 browser for web access. The Primavera *Contract Manager* and *P6* and *PDRX* software tools are accessed through the web browser using Java run-time plug-in technologies. The Java plug-in is automatically downloaded and installed during initial web browser access to the software. This process requires "Administrative" privileges on the computer, and the Contractor shall be responsible for this entire process. It is suggested that the broadband connection speed be approximately 1.5 Mbps to allow for responsive data transfer to/from the City network. It is suggested that the computer's operating system be maintained with updates throughout the Contract duration.

City staff will be available for technical advice. However, the City staff will not operate, install, or troubleshoot any of the Contractor's hardware or software issues. The Contractor is solely responsible for the functionality of their computer systems. The City will accept no liabilities arising from the Contractor's use of this software.

Project Schedule

Upon award of the Contract, the Contractor will receive a Notice to Proceed to develop a comprehensive *P6* Schedule. Subsequent to completion and City approval of the *P6* Schedule, the Contractor will receive a Notice to Proceed for Construction. No site work shall commence without receiving the Notice to Proceed for Construction from the City.

Prior to preparation of the *P6* Schedule, the Contractor shall provide a proposed Organization Breakdown Structure (OBS) and Work Breakdown Structure (WBS) to the City for review, comment, and approval. The WBS shall reflect the each of the Contract pay items in the bid proposal.

The WBS and overall project schedule in *P6* shall be linked to the Contract as established in Primavera *Contract Manager*. This link will allow for automatic updates of the project schedule as the work is completed and logged into Contract Manager. The Contractor is responsible for periodic updates to the *P6* Schedule as determined by the City at the time of the pre-construction meeting.

APPENDIX J

Contract Manager Setup

A single project shall be established in *Contract Manager* for the Contract. The project shall have as a schedule of values containing the Contractor's quantity estimate for each pay item in the bid proposal along with the Contract unit price. This will establish a budget for the Contract.

The City staff has developed software which will allow the data described in the paragraph above to be batch loaded into *Contract Manager* via Microsoft Excel spreadsheets to streamline data entry into the *Contract Manager* graphical user interface (GUI). The City will provide the Excel Spreadsheet templates to the Contractor. The Contractor will prepare the schedule of values based on the bid items.

The Contractor will submit the completed spreadsheets to the City staff for review and approval. Once the submittal is approved, the City staff will batch load the project data into *Contract Manager*. The Contractor will be responsible to check and verify the data once it is in *Contract Manager*, and perform any cleanup of the data that may be necessary. The Contractor will complete the setup by testing the linkage between *Contract Manager* and P6.

Daily Report Work Flow, Review and Approval Process

Once all of the software setup in the paragraphs above is complete and the Contractor has been issued a Notice to Proceed for Construction, the daily report work flow process can begin. The Contractor is responsible for logging daily reports in *PDRX* on the next business day following the work performed. The daily reports will be logged individually in *PDRX*.

The City Inspector shall review the daily report the following business day and either approve it if satisfactory, or route the report back to the Contractor with notes indicating the areas of disagreement. The Contractor and City Inspector shall work together to come to an agreement on the daily report so that it can be approved prior to the payment process described below.

The Contractor shall use the "Telephone Logs" module in *Contract Manager* to document important phone calls pertaining to project activities. The Contractor shall use the "Attachments" feature in the Daily Report module to electronically attach any pertinent documents, drawings, or photos.

Payment Requisition Process

All payment requisition(s) shall be prepared using the *Contract Manager* software. As each payment requisition is generated, the software will automatically pull-in the quantities from (each of) the daily reports for the period that the requisition is being prepared for. It is important that the daily reports are entered correctly and approved on a timely basis to avoid delay in the payment requisition process. Payment requisitions will not be approved unless they are created using this process.

Once the Contractor has prepared a *Contract Manager* payment requisition, the "ball-in-court" shall be assigned to the City Inspector for review and approval. The City Inspector shall review the payment requisition in the following business days and either approve it if satisfactory or assign the "ball-in-court" status back to the Contractor with notes which indicate the areas of

APPENDIX J

disagreement. The Contractor and City Inspector shall work together to come to an agreement on the contents of the *Contract Manager* payment requisition.

Once the *Contract Manager* payment requisition(s) for the project(s) worked on during a billing period are approved, the Contractor shall print the AIA form(s) from *Contract Manager*. The Contractor shall summarize them into a 702 cover sheet, and incorporate all of the forms into the payment request package which includes other the forms and certificates as described in these contract documents.

Issues, Shop Drawings, Photographs and Project Correspondence

Contract Manager shall serve as the repository and clearing center for all digital correspondence generated during this project. *Contract Manager* has electronic logs for issues, shop drawings, photographs, project correspondence and e-mail. The *Contract Manager* software allows for the “ball-in-court” to be set on items which need to move back and forth for discussion and resolution prior to approval. The Contractor, and City Inspectors and staff, shall use these features for all correspondence generated on this Contract.

APPENDIX J

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APPENDIX K



CONSTRUCTION DETAILS AND SPECIFICATIONS

CONTRACT: ST-271

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GENERAL NOTES FOR ALL CONSTRUCTION:

1. WHERE THE DEMOLITION OF EXISTING SIDEWALK, OR THE EXCAVATION AND PLACEMENT OF FORMS NECESSARY FOR NEW SIDEWALK ENCROACH ON PRIVATE PROPERTY OUTSIDE OF THE RIGHT-OF-WAY, A CONSTRUCTION AGREEMENT NEEDS TO BE OBTAINED FROM THE PROPERTY OWNER PRIOR TO DISTURBANCE OR ENCROACHMENT.
2. WHEN INSTALLING NEW SIDEWALK, THE CONTRACTOR SHALL NOT EXCEED THE MAXIMUM ALLOWED CROSS SLOPE OF 2.00% (1:50).
3. ALL SIDEWALKS ARE TO BE CONSTRUCTED INSIDE AND ADJACENT TO THE RIGHT-OF-WAY.
4. ALL SIDEWALKS AT INTERSECTIONS SHALL HAVE CURB RAMPS INSTALLED PER THE CITY OF DURHAM "CURB RAMP STANDARD DETAILS" WHICH IS AVAILABLE ON THE CITY WEB SITE AT THE FOLLOWING LINK:
<http://durhamnc.gov/ich/op/pwd/eng/Documents/CurbRamp2012.pdf>
5. ALL SIDEWALK CONCRETE SHALL BE A MINIMUM OF 4 INCHES THICK AND 6 INCHES THICK ACROSS DRIVEWAY APRONS.
6. ALL SIDEWALKS SHALL BE A MINIMUM OF 5 FEET WIDE.
7. ALL CURB CUT RAMP CONCRETE SHALL BE 6 INCHES THICK.
8. ALL SIDEWALKS SHALL BE 3000 PSI (POUNDS PER SQUARE INCH) STRENGTH CONCRETE.
9. A STANDARD DETAIL FOR THE TYPE "E" CURB CUT RAMP CONSTRUCTION HAS BEEN SUBSTITUTED WITH FIVE (5) OF THE CITY OF DURHAM'S DEPARTMENT OF PUBLIC WORKS STANDARD DETAILS: CC 2.0, CC 2.1, CC 3.0, CC 3.1, AND CC 4.0.

DURHAM



1 8 6 9
CITY OF MEDICINE

DATE:
11/6/2012

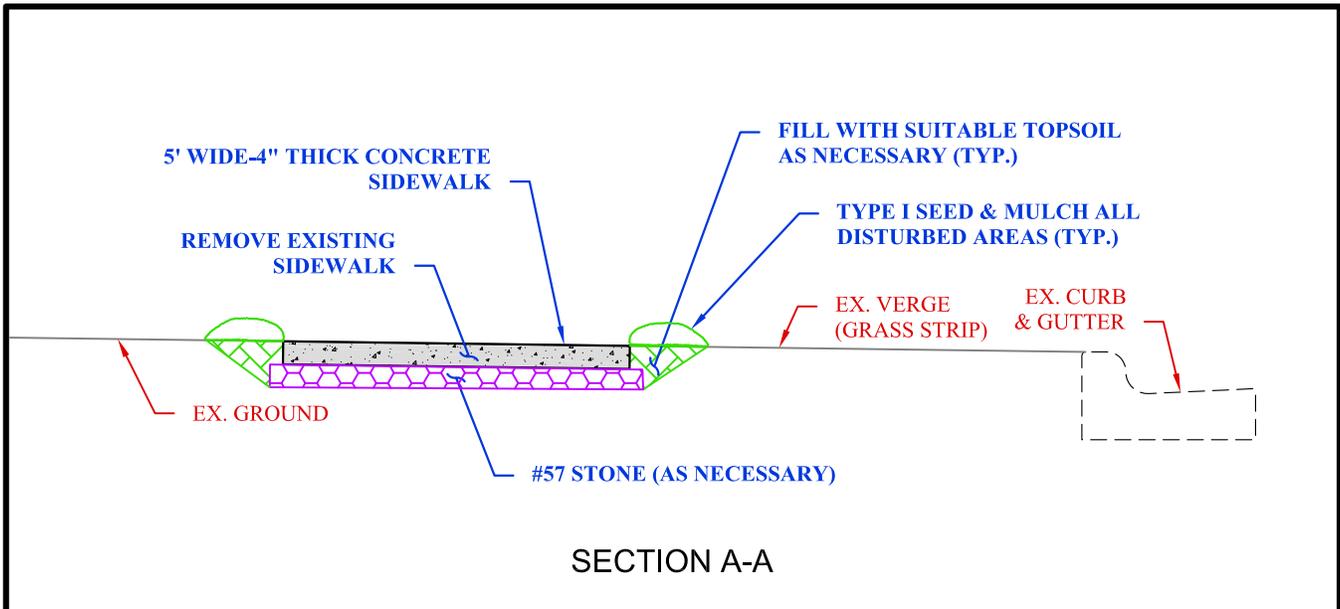
CREATED BY:
SAP

GENERAL SIDEWALK NOTES

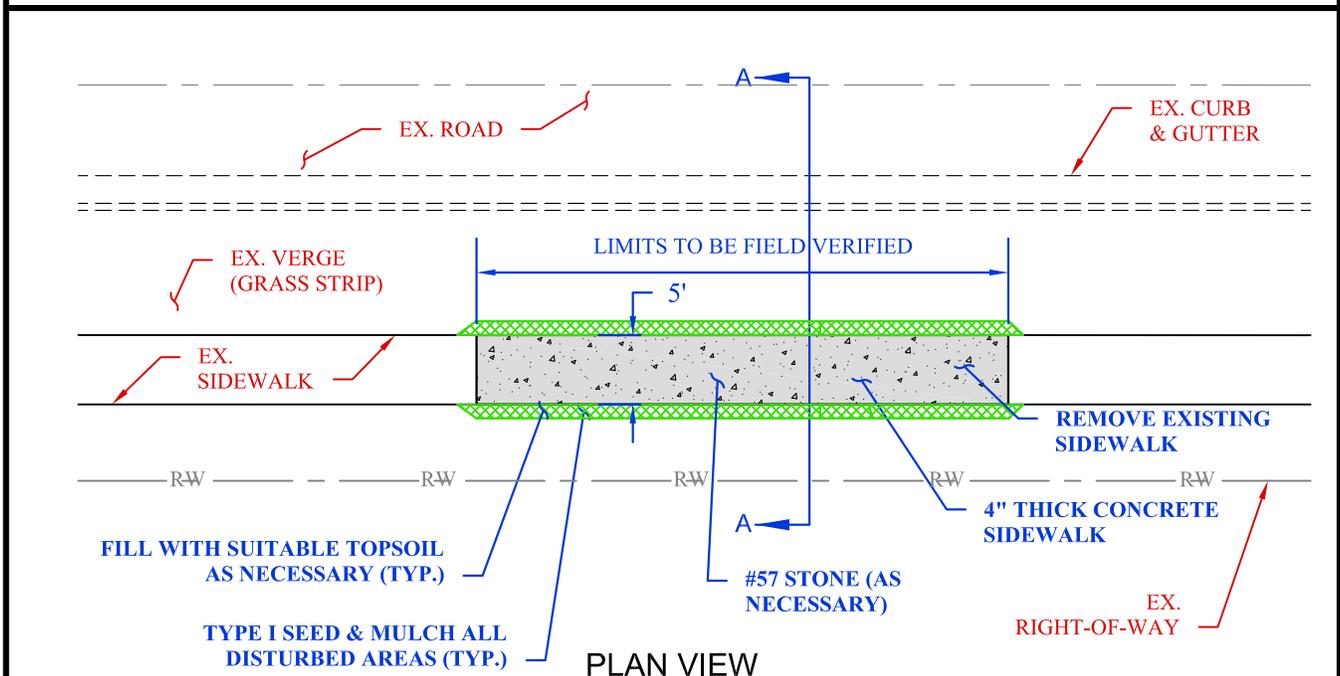
CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE:
NONE

DETAIL TYPE:
NOTES



SECTION A-A



PLAN VIEW

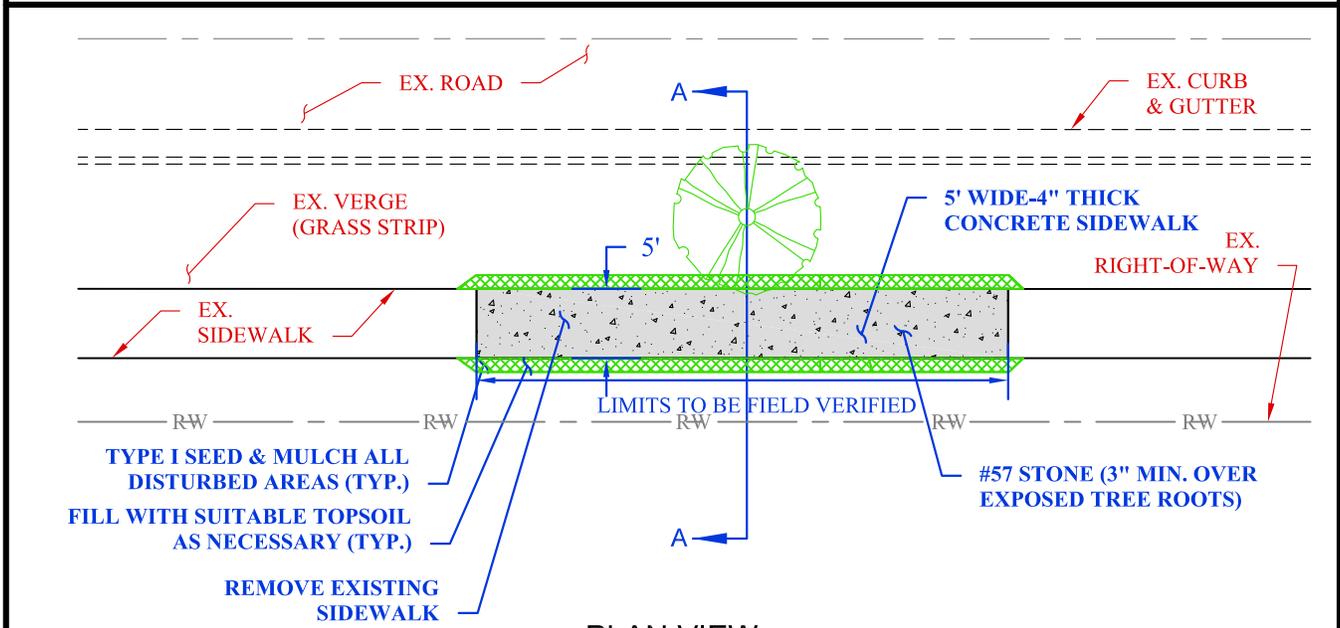
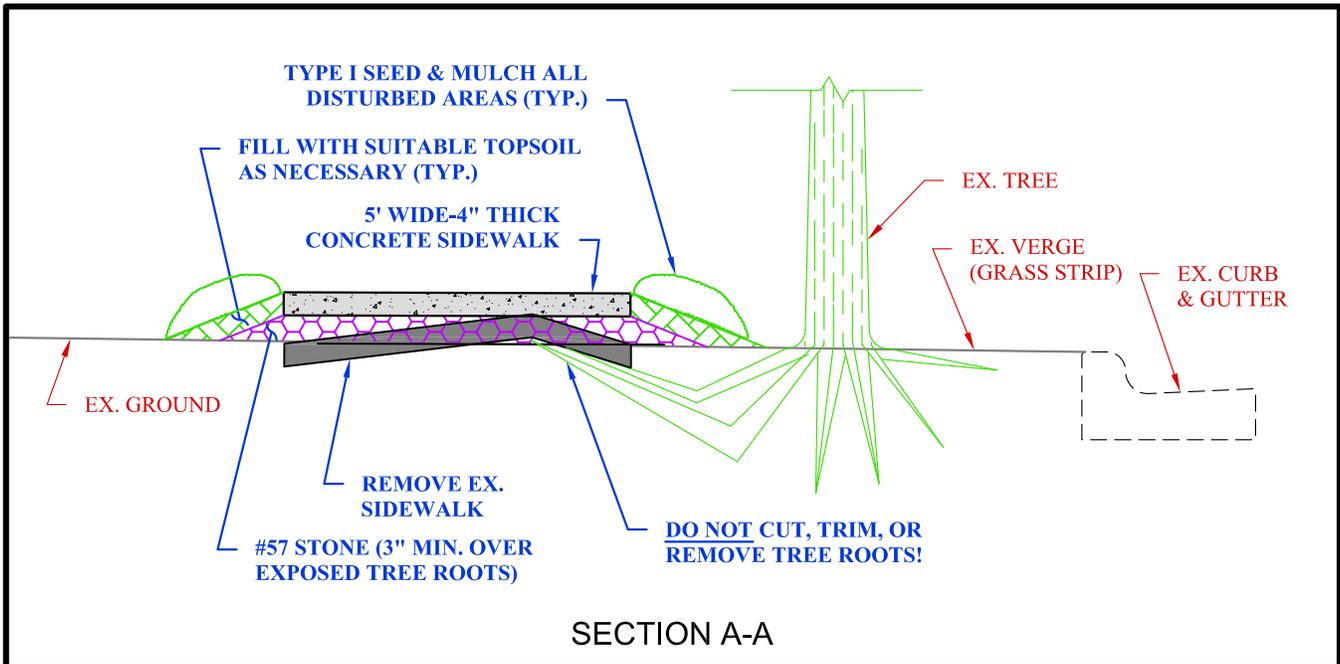
SEQUENCE OF CONSTRUCTION:

1. LOCATE EXISTING SIDEWALK TO BE REMOVED AS DESCRIBED IN CONTRACT DOCUMENT AND TILE MAPS.
2. REMOVE EXISTING SIDEWALK.
3. REPAIR EXISTING SIDEWALK SUBBASE AS NEEDED AND COMPACT AS NECESSARY.
4. INSTALL NEW 4" THICK CONCRETE SIDEWALK. MATCH NEW SIDEWALK TO EXISTING SIDEWALK.
5. PLACE ADDITIONAL FILL AS NECESSARY AND SEED AND MULCH (TYPE I) THE ENTIRE CONSTRUCTION AREA ADJACENT TO THE NEW SIDEWALK.

THIS DETAIL SHALL BE USED TO CONSTRUCT NEW SIDEWALK IN AREAS WHERE THERE THE EXISTING SIDEWALK IS DAMAGED.



DATE: 11/6/2012	TYPE "A" SIDEWALK DETAIL	SCALE: NONE
CREATED BY: SAP		CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS
		DETAIL TYPE: A



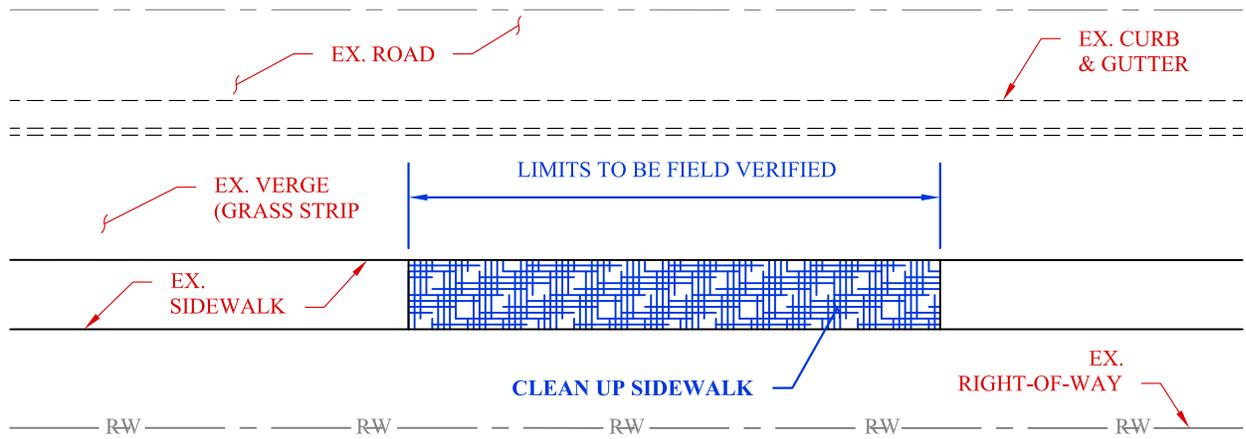
SEQUENCE OF CONSTRUCTION:

1. LOCATE EXISTING SIDEWALK TO BE REMOVED AS DESCRIBED IN CONTRACT DOCUMENT AND TILE MAPS.
2. REMOVE EXISTING SIDEWALK .
3. REPAIR EXISTING SIDEWALK SUBBASE AS NEEDED AROUND EXISTING TREES AND ROOTS. PLACE A MINIMUM OF 3" (0.25') OF #57 STONE ON TOP OF EXPOSED TREE ROOTS.
4. INSTALL NEW 4" THICK SIDEWALK. MATCH NEW SIDEWALK TO EXISTING SIDEWALK.
5. THE CONTRACTOR (WITH THE CITY INSPECTOR'S APPROVAL) MAY REMOVE AND REPLACE ADDITIONAL SIDEWALK TO CREATE A SMOOTHER VERTICAL SIDEWALK TRANSITION OVER THE EXISTING TREE ROOTS.
6. PLACE ADDITIONAL FILL AS NECESSARY AND SEED AND MULCH (TYPE I) THE ENTIRE CONSTRUCTION AREA ADJACENT TO THE NEW SIDEWALK.

THIS DETAIL SHALL BE USED TO CONSTRUCT NEW SIDEWALK IN AREAS WHERE THERE IS TREE ROOT DAMAGE TO THE EXISTING SIDEWALK.



DATE: 11/6/2012	TYPE "B" SIDEWALK DETAIL	SCALE: NONE
CREATED BY: SAP		DETAIL TYPE: B
CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS		



PLAN VIEW

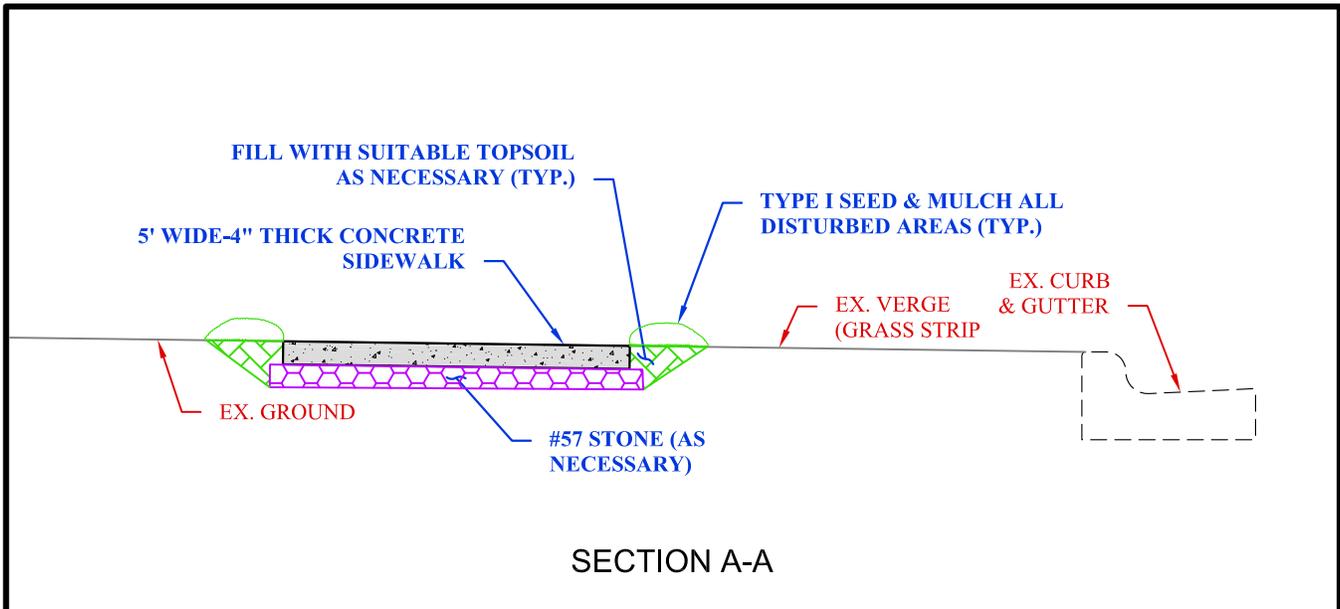
SEQUENCE OF CONSTRUCTION:

1. LOCATE EXISTING SIDEWALK TO BE CLEANED UP AS DESCRIBED IN CONTRACT DOCUMENT AND TILE MAPS.
2. REMOVE DEBRIS AND TREE BRANCHES.
3. SWEEP TO REMOVE ROCKS, MUD, AND DIRT.

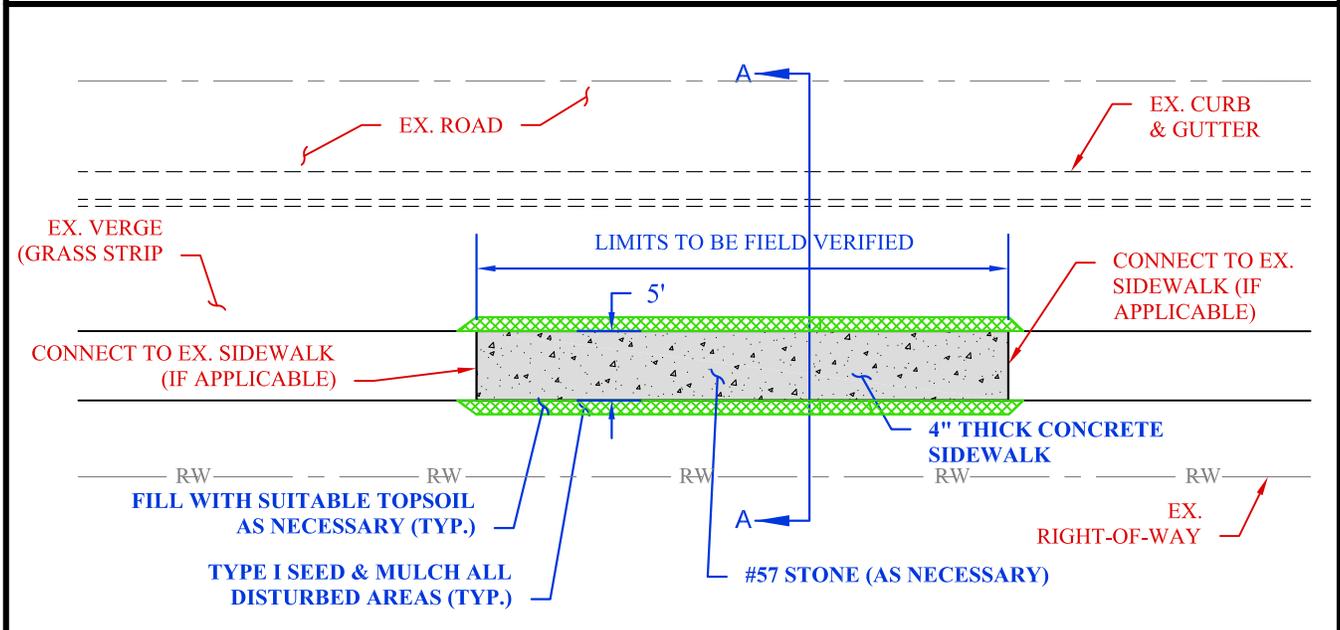
THIS DETAIL SHALL BE USED TO CLEAN UP THE EXISTING SIDEWALK.



DATE: 11/6/2012	TYPE "H" SIDEWALK DETAIL	SCALE: NONE
CREATED BY: SAP		CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS



SECTION A-A



PLAN VIEW

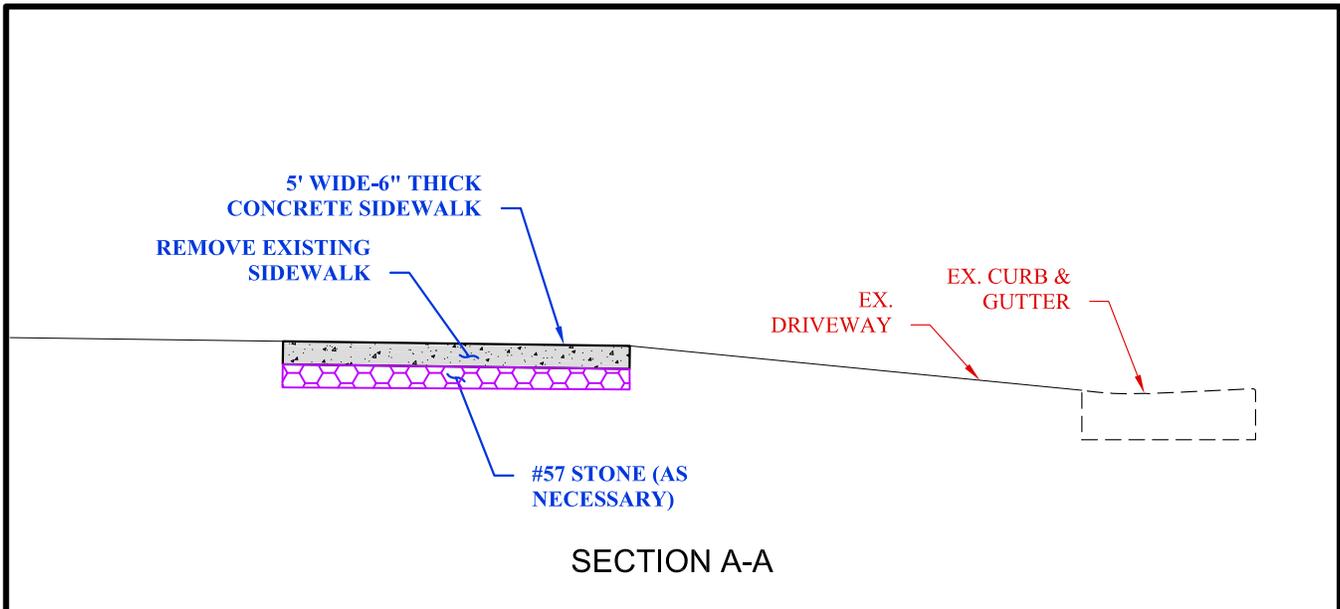
SEQUENCE OF CONSTRUCTION:

1. LOCATE EXISTING SIDEWALK TO BE REMOVED AS DESCRIBED IN CONTRACT DOCUMENT AND TILE MAPS.
2. CONSTRUCT #57 STONE SUBBASE AS NEEDED AND COMPACT AS NECESSARY.
3. INSTALL NEW 4" THICK SIDEWALK. MATCH NEW SIDEWALK TO EXISTING SIDEWALK.
4. PLACE ADDITIONAL FILL AS NECESSARY AND SEED AND MULCH (TYPE I) THE ENTIRE CONSTRUCTION AREA ADJACENT TO THE NEW SIDEWALK.

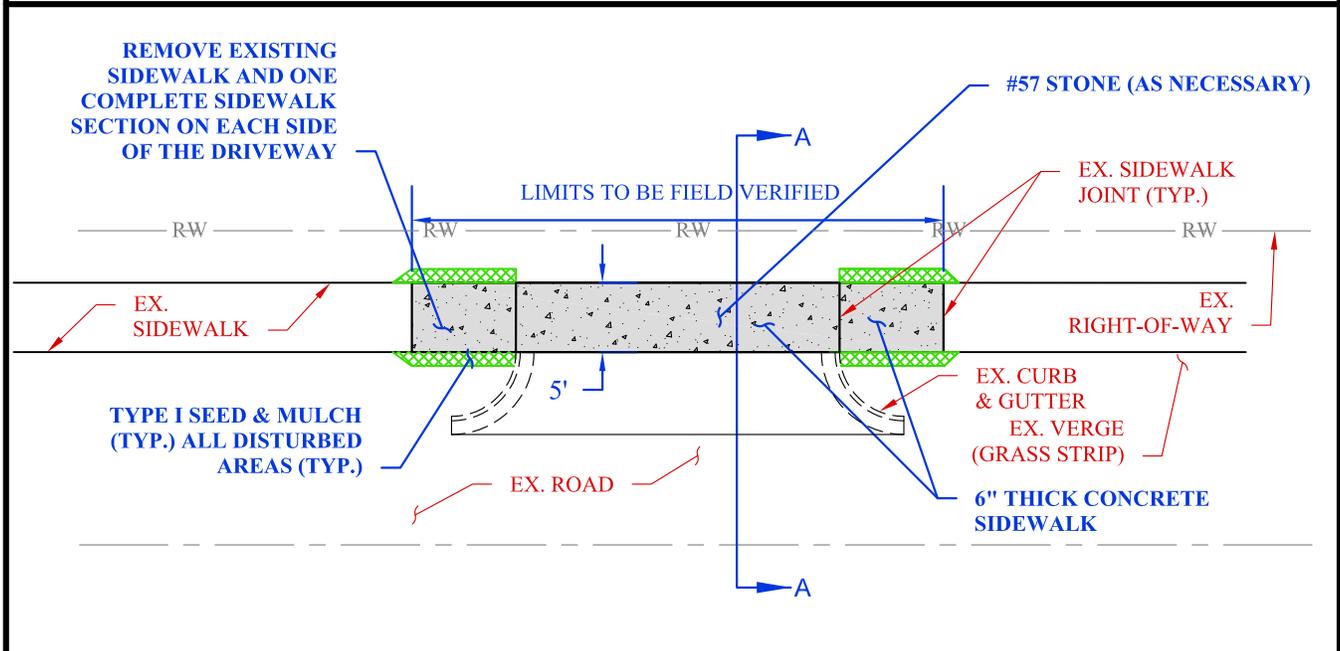
THIS DETAIL SHALL BE USED TO CONSTRUCT NEW SIDEWALK IN AREAS WHERE THERE IS NO EXISTING SIDEWALK.



DATE: 11/6/2012	TYPE "I" SIDEWALK DETAIL	SCALE: NONE
CREATED BY: SAP		DETAIL TYPE: I
CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS		



SECTION A-A



PLAN VIEW

SEQUENCE OF CONSTRUCTION:

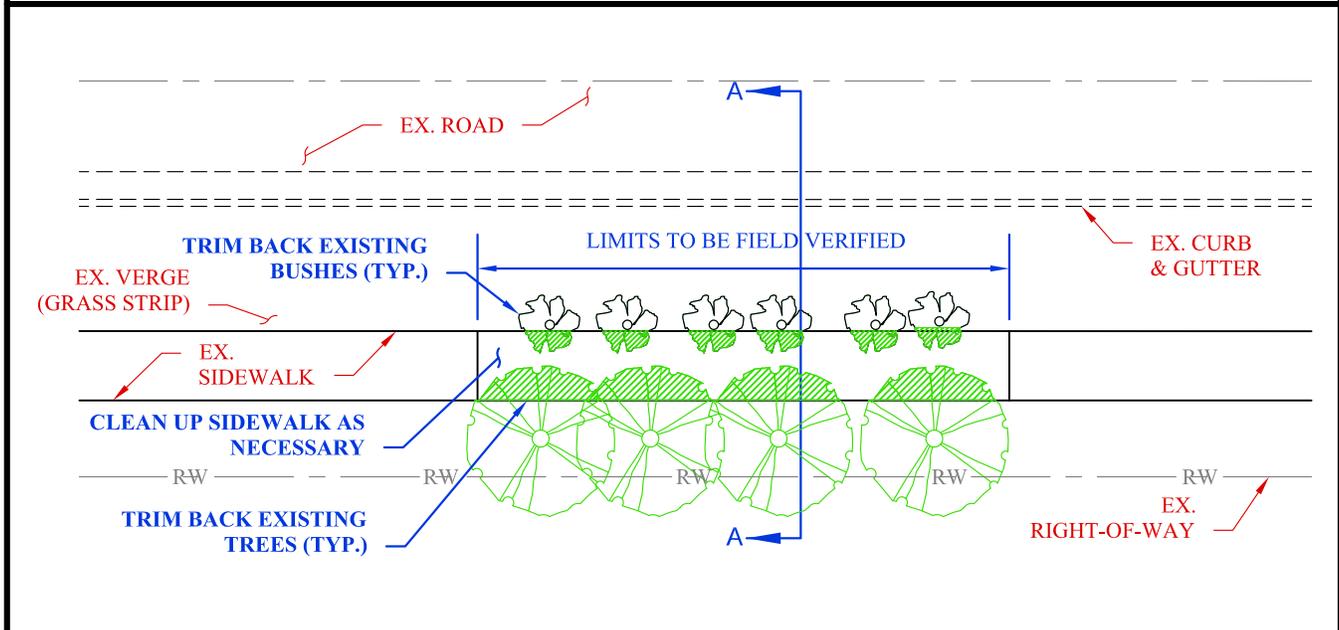
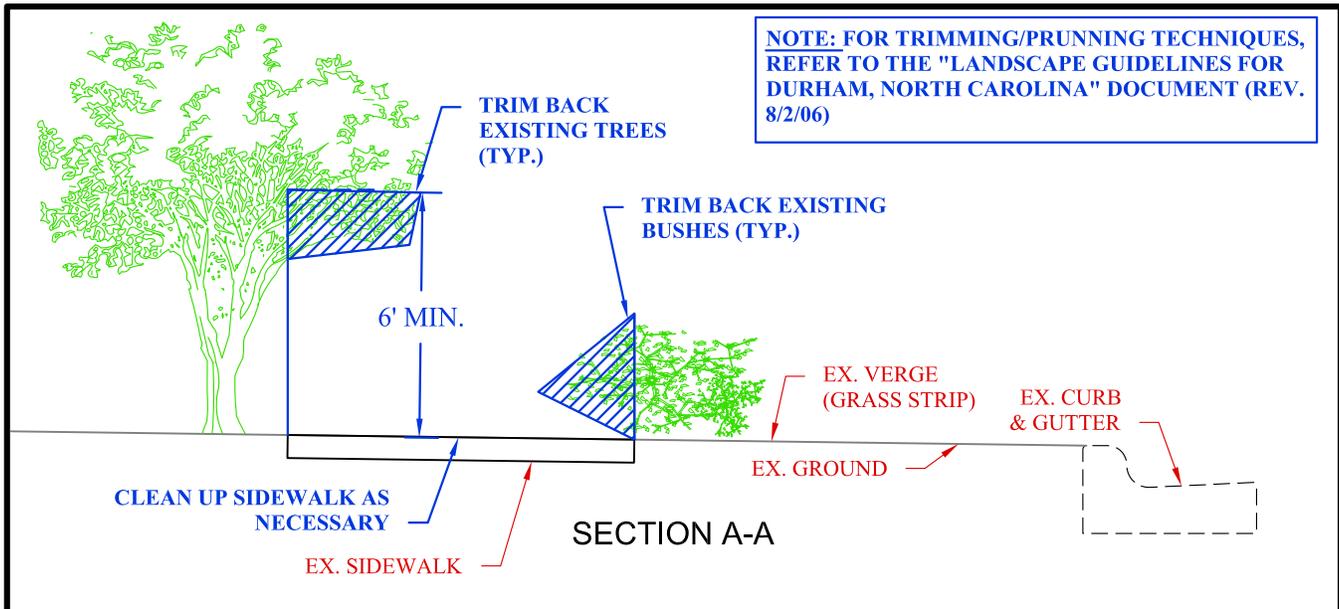
1. LOCATE EXISTING SIDEWALK TO BE REMOVED AS DESCRIBED IN CONTRACT DOCUMENT AND TILE MAPS.
2. REMOVE EXISTING SIDEWALK ACROSS THE DRIVEWAY. REMOVE ONE ADDITIONAL COMPLETE CONCRETE SECTION ON EACH SIDE OF THE DRIVEWAY.
3. REPAIR EXISTING SIDEWALK SUBBASE AS NEEDED AND COMPACT AS NECESSARY.
4. INSTALL NEW 6" THICK SIDEWALK. MATCH NEW SIDEWALK TO EXISTING SIDEWALK EXPANSION JOINTS.
5. PLACE ADDITIONAL FILL AS NECESSARY AND SEED AND MULCH (TYPE I) THE ENTIRE CONSTRUCTION AREA ADJACENT TO THE NEW SIDEWALK AS NECESSARY.

THIS DETAIL SHALL BE USED TO CONSTRUCT NEW SIDEWALK THROUGH EXISTING DRIVEWAYS WHERE THE EXISTING SIDEWALK IS DAMAGED.



DATE: 11/6/2012	<h2>TYPE "J" SIDEWALK DETAIL</h2>	SCALE: NONE
CREATED BY: SAP		CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS

NOTE: FOR TRIMMING/PRUNNING TECHNIQUES, REFER TO THE "LANDSCAPE GUIDELINES FOR DURHAM, NORTH CAROLINA" DOCUMENT (REV. 8/2/06)



PLAN VIEW

SEQUENCE OF CONSTRUCTION:

1. LOCATE EXISTING SIDEWALK TO BE REMOVED AS DESCRIBED IN CONTRACT DOCUMENT AND TILE MAPS.
2. TRIM BACK TREES AND TRIM BACK BUSHES.
3. REMOVE DEBRIS AND CLEAN UP SIDEWALK AS NECESSARY.

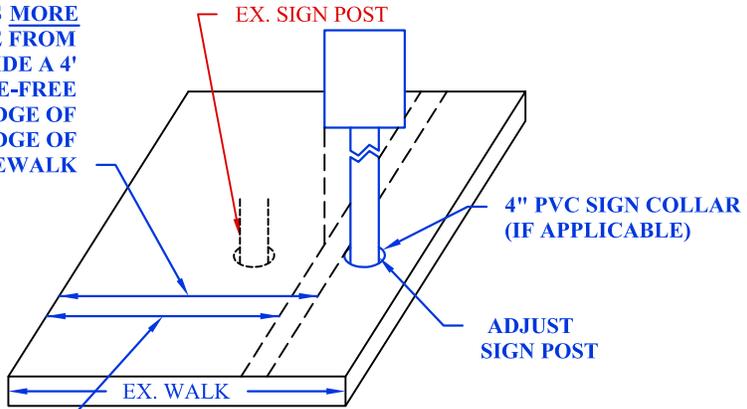
THIS DETAIL SHALL BE USED TO TRIM BACK TREES AND VEGETATION.



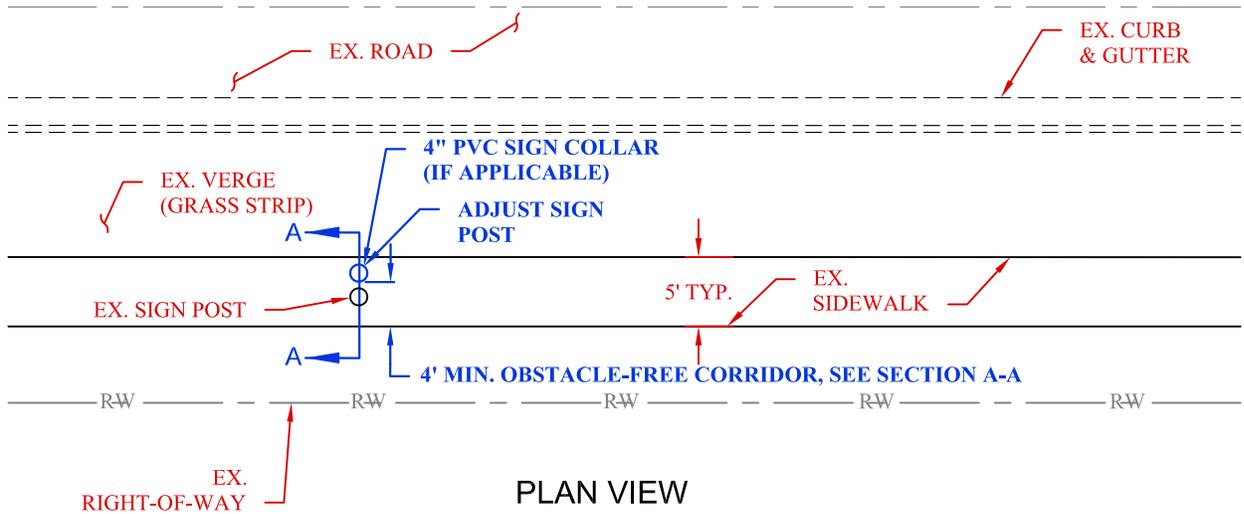
DATE: 11/6/2012	TYPE "K" SIDEWALK DETAIL	SCALE: NONE
CREATED BY: SAP		DETAIL TYPE: K
CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS		

IF THE BOTTOM OF THE SIGN HAS MORE THAN A 6' VERTICAL CLEARANCE FROM THE EXISTING SIDEWALK, PROVIDE A 4' MINIMUM WIDTH OBSTACLE-FREE CORRIDOR FROM THE INSIDE EDGE OF SIGN POST TO OPPOSITE EDGE OF SIDEWALK

IF THE BOTTOM OF THE SIGN HAS LESS THAN 6' A VERTICAL CLEARANCE FROM THE EXISTING SIDEWALK, PROVIDE A 4' MINIMUM WIDTH OBSTACLE-FREE CORRIDOR FROM THE INSIDE EDGE OF SIGN TO OPPOSITE EDGE OF SIDEWALK



SECTION A-A



PLAN VIEW

SEQUENCE OF CONSTRUCTION:

1. LOCATE EXISTING SIGN POST AS DESCRIBED IN CONTRACT DOCUMENT AND TILE MAPS.
2. DELINEATE EXISTING RIGHT-OF-WAY TO DETERMINE NEW SIGN POST POSITION AND NOTE ORIENTATION.
3. ADJUST EXISTING SIGN POST BASED ON THE SIGN HEIGHT CRITERIA SHOWN IN SECTION A-A.
4. THE CONTRACTOR MAY (WITH THE CITY INSPECTOR'S APPROVAL) RELOCATE THE SIGN POST TO A LOCATION OUTSIDE OF THE EXISTING SIDEWALK BUT WITHIN THE EXISTING RIGHT-OF-WAY. THE NEW SIGN POST ANCHOR/BASE SHALL ALSO BE SUBJECT TO APPROVAL FROM THE CITY INSPECTOR PRIOR TO CONSTRUCTION.

THIS DETAIL SHALL BE USED TO MOVE/ADJUST SIGN POSTS IN THE EXISTING SIDEWALK.



DATE: 11/6/2012	TYPE "OTHER" SIDEWALK DETAIL	SCALE: NONE
CREATED BY: SAP		DETAIL TYPE: OTHER
CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS		

CITY OF DURHAM, NORTH CAROLINA

DURHAM



1 8 6 9
CITY OF MEDICINE

CURB RAMP STANDARD DETAILS

**These details apply to all new construction projects upon approval of
PROWAG by the Federal Access Board**

Federal Access Board Rules:

<http://www.access-board.gov/prowag/nprm.htm>

PUBLIC WORKS DEPARTMENT: 3RD FLOOR OF CITY HALL

ADDRESS: 101 CITY HALL PLAZA DURHAM, NC 27701

TELEPHONE: (919) 560-4326 FAX: (919) 560-4316

HOME PAGE: <http://www.durhamnc.gov/departments/works/engineering.cfm>

City of Durham Curb Ramp Standard Details

ID Number	Description
CC-1.0	Curb Ramp Notes
CC-2.0	Curb Ramps with Proposed Curb & Gutter
CC-2.1	Curb Ramps with Proposed Curb & Gutter
CC-2.2	Curb Ramps with Proposed Sidewalk
CC-3.0	Curb Ramps and Existing Sidewalk with Grass Strip
CC-3.1	Curb Ramps and Existing Sidewalk with Grass Strip
CC-3.2	Curb Ramps Locations with Existing Sidewalk
CC-4.0	Curb Ramps and Existing Sidewalk Adjacent to Curb
CC-4.1	Curb Ramps and Existing Sidewalk Adjacent to Curb
CC-5.0	Retrofitting Detectable Warning Domes onto Existing Curb Ramps
CC-5.1	Retrofitting Detectable Warning Domes onto Existing Curb Ramps
CC-6.0	Curb Ramps - Directional
CC-7.0	Curb Ramps - Parallel
CC-8.0	Curb Ramps – Shared Landings
CC-9.0	Curb Ramps - Islands
CC-10.0	Curb Ramps – Blended Transitions
CC-11.0	Curb Ramps – Acceptable Materials in ROW
CC-12.0	Curb Ramps – Unacceptable Materials in ROW

1. CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM, AND SLIP RESISTANT. CONSTRUCT THE CURB RAMP TYPE AS SHOWN IN THE PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER.
2. LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMPS OR MARKINGS AS SHOWN, CONTACT THE SIGNING AND DELINEATION UNIT OR LOCATE AS DIRECTED BY THE ENGINEER.
3. COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4'x4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
4. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
5. REFER TO THE PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
6. TERMINATE PARKING A MINIMUM OF 20' BACK OF A PEDESTRIAN CROSSWALK.
7. CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
8. CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% (1":12") MAXIMUM.
9. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% (1":50") MAXIMUM.
10. CONSTRUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10% (1":10") MEASURED ALONG THE CURB LINE.
11. CONSTRUCT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% (1":20") AND MAINTAIN A SMOOTH TRANSITION.
12. CONSTRUCT LANDINGS FOR SIDEWALK A MINIMUM OF 4'x4' WITH A MAXIMUM SLOPE OF 2% (1":50") IN ANY DIRECTION. CONSTRUCT LANDINGS FOR MEDIAN ISLANDS A MINIMUM OF 5'x5' WITH A MAXIMUM SLOPE OF 2% (1":50") IN ANY DIRECTION.
13. TO USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA, MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGHOUT THE ISLAND.
14. SMALL CHANNELIZATION ISLANDS THAT CAN NOT PROVIDE A 5'x5' LANDING AT THE TOP OF A RAMPS, WILL BE CUT THROUGH LEVEL WITH THE SURFACE STREET.
15. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
16. PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AS SHOWN IN NCDOT ROADWAY STANDARD DRAWING 848.01
17. PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE MUTCD.
18. CURB RAMPS THROUGH MEDIAN ISLANDS, SINGLE RAMPS AT DUAL CROSSWALKS OR LIMITED R/W SITUATIONS, WILL BE HANDLED BY SPECIAL DETAILS.

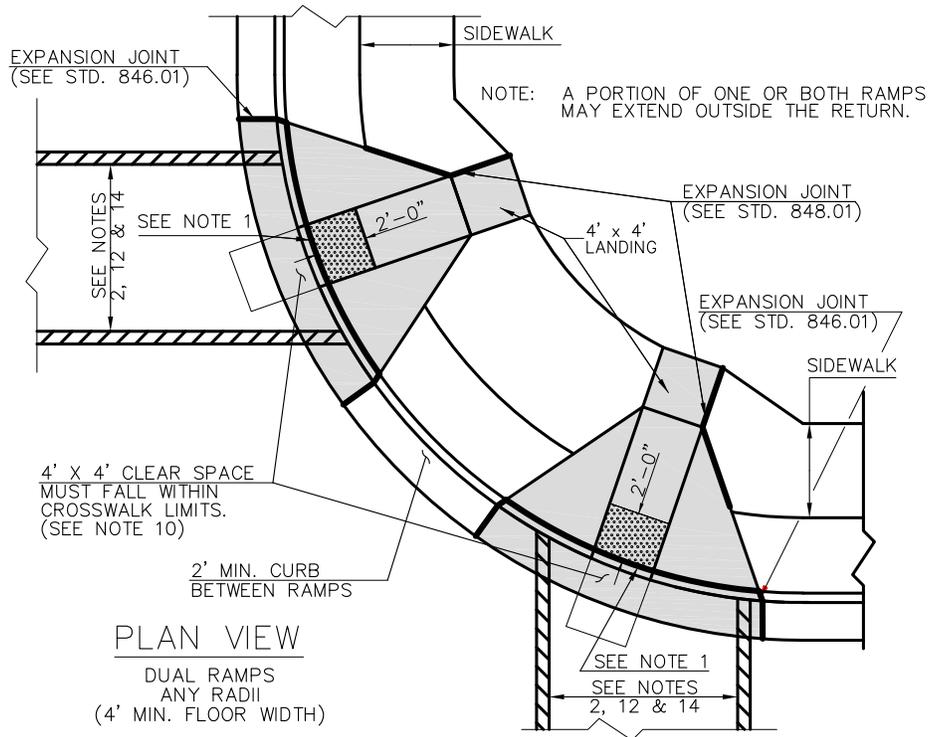
DURHAM



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CITY OF MEDICINE

****Adopted from NCDOT Details 848.05 and 848.06****

DATE: March 1, 2012	<h2>Curb Ramp Notes</h2>	SCALE: NONE
	CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	DETAIL NO. CC-1.0



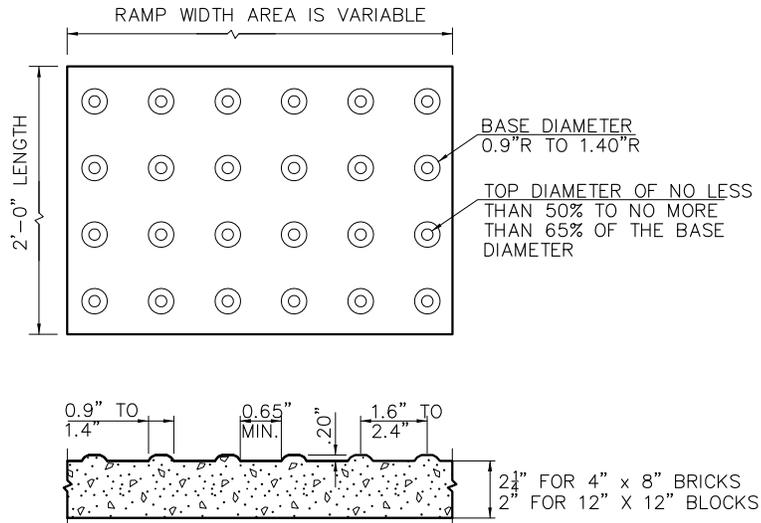
NOTES:

1. DETECTABLE WARNING DOMES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
2. DETECTABLE WARNING DOMES WILL CONTRAST VISIBILITY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.
3. PORTLAND CEMENT/SAND MIX. 50% BY WEIGHT SAND. INSTALL AS DRY MIX, HAND TAMP FOR COMPACTION AND LEVEL BEFORE SETTING BRICKS.
4. BRICKS SHOULD BE BUTTED AS CLOSE TOGETHER AS ALLOWS, SWEEP PORTLAND CEMENT/SAND MIX INTO REMAINING CRACKS.
5. MINIMUM BRICK REQUIREMENTS PER RAMP ARE:

THIRTY SIX (36) BRICKS OF SIZE 4"W x 8"L x 2 1/4"H

OR

EIGHT (8) BLOCKS OF SIZE 12"W x 12"L x 2"H

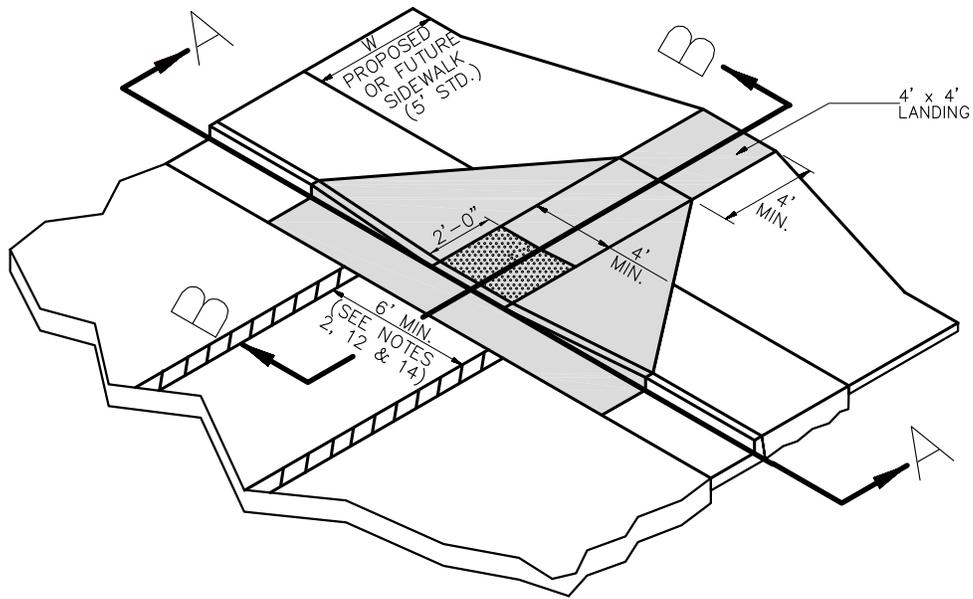


DETECTABLE WARNING DOMES

Adopted from NCDOT Detail 848.05

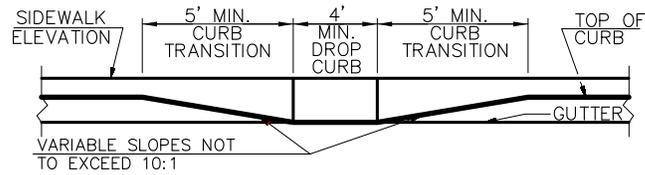


DATE: March 1, 2012	Curb Ramps with Proposed Curb & Gutter CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	SCALE: NONE
		DETAIL NO. CC-2.0

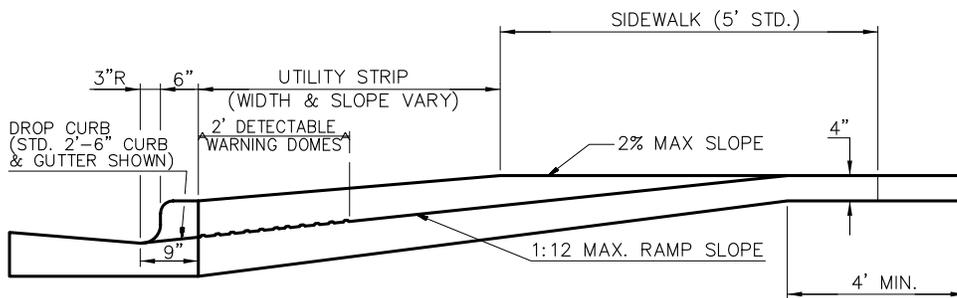


ISOMETRIC VIEW

■ PAY LIMITS FOR CURB RAMP



SECTION A-A



SECTION B-B

Adopted from NCDOT Detail 848.05



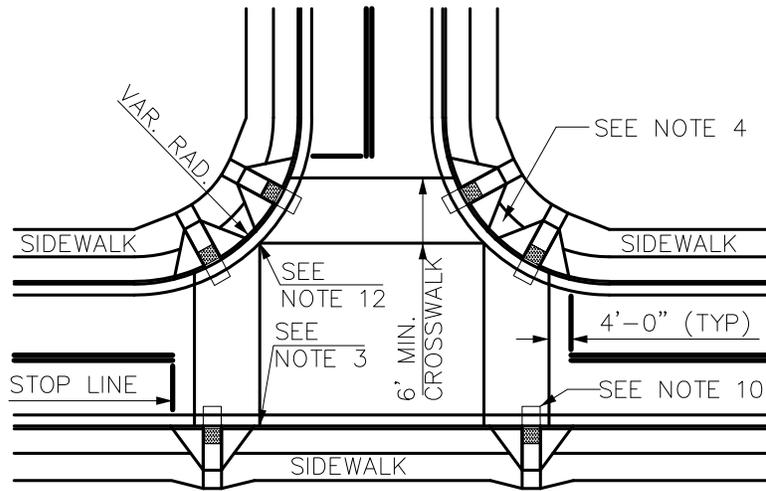
DATE:
March 1, 2012

Curb Ramps
with Proposed Curb & Gutter

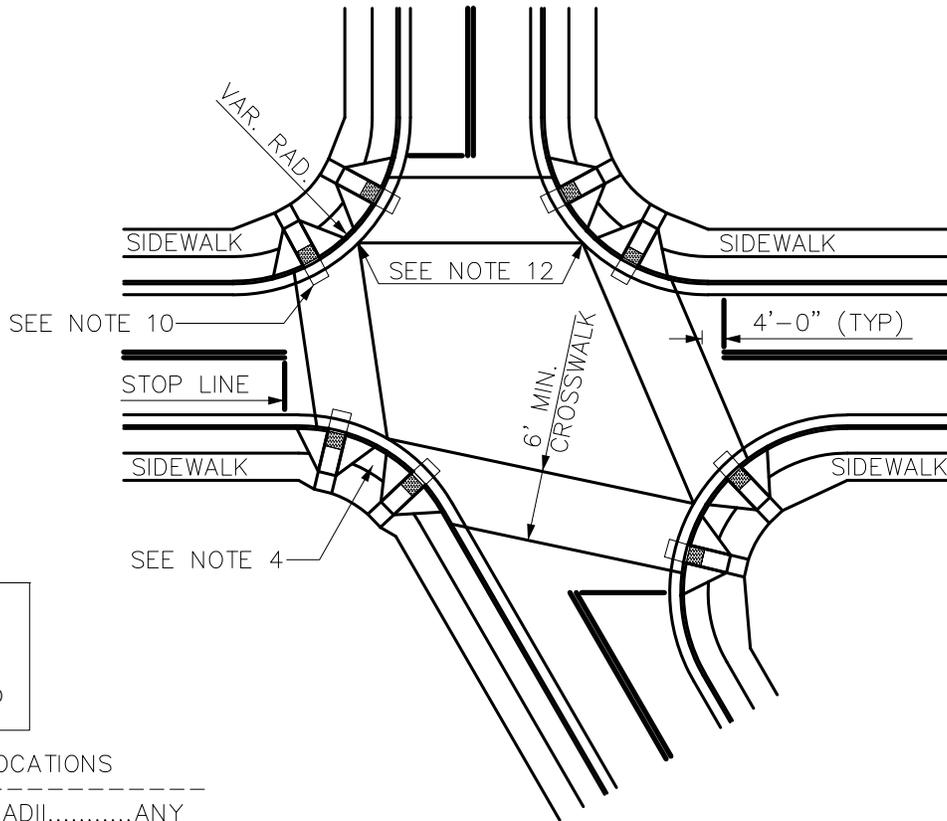
CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE:
NONE

DETAIL NO.
CC-2.1



DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPs, PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS



ROADWAY
PLAN SYMBOL
CR
FOR PROPOSED
CURB RAMP

ALLOWABLE LOCATIONS

DUAL RAMP RADII.....ANY

DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPs, PEDESTRIAN CROSSWALKS AND STOP LINES

 PROPOSED CURB RAMP W/ LANDING
 PROPOSED OR FUTURE SIDEWALK

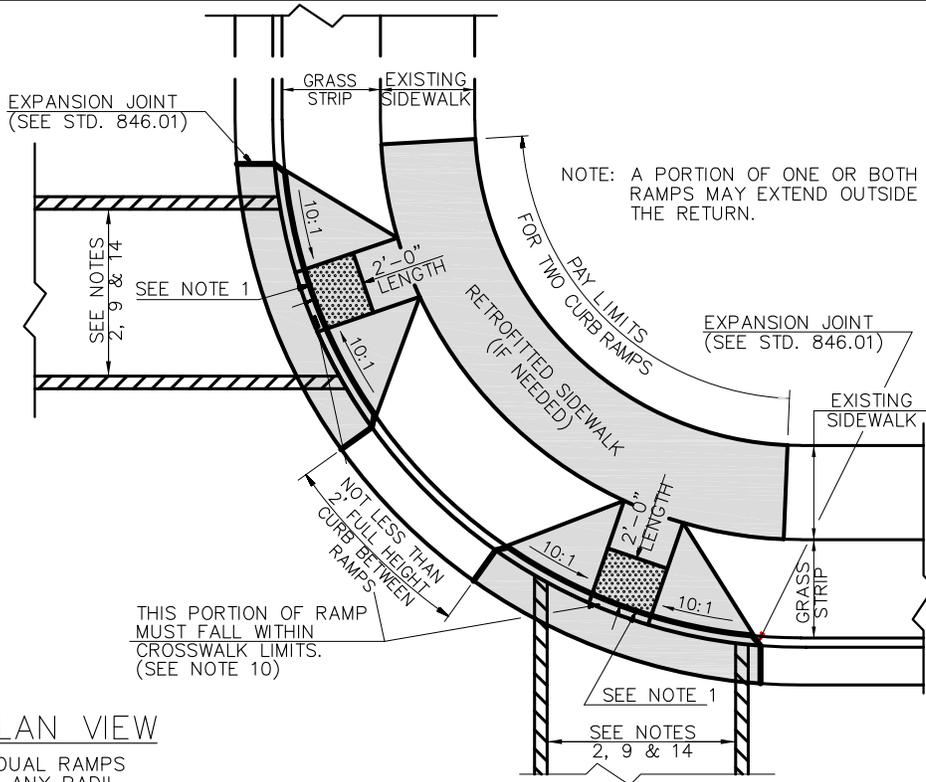
Adopted from NCDOT Detail 848.05



DATE:
March 1, 2012

**Curb Ramp Locations
with Proposed Sidewalk**
CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE:
NONE
DETAIL NO.
CC-2.2



PLAN VIEW
 DUAL RAMPS
 ANY RADII
 (40" MIN. FLOOR WIDTH)

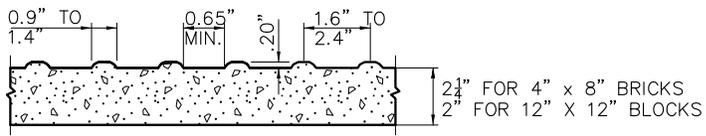
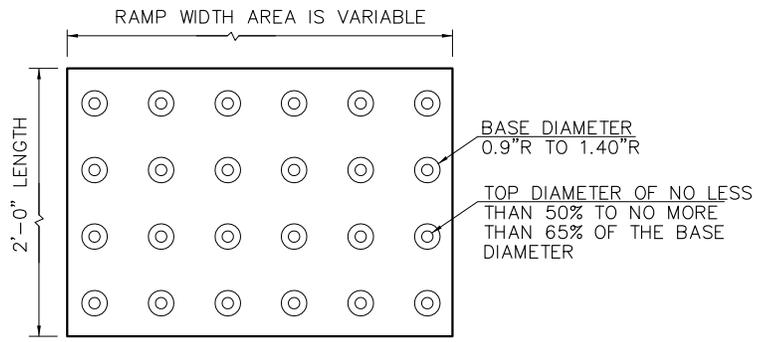
NOTES:

1. DETECTABLE WARNING DOMES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
2. DETECTABLE WARNING DOMES WILL CONTRAST VISIBILITY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.
3. PORTLAND CEMENT/SAND MIX. 50% BY WEIGHT SAND. INSTALL AS DRY MIX, HAND TAMP FOR COMPACTION AND LEVEL BEFORE SETTING BRICKS.
4. BRICKS SHOULD BE BUTTED AS CLOSE TOGETHER AS ALLOWS, SWEEP PORTLAND CEMENT/SAND MIX INTO REMAINING CRACKS.
5. MINIMUM BRICK REQUIREMENTS PER RAMP ARE:

THIRTY SIX (36) BRICKS OF SIZE 4"W x 8"L x 2 1/4"H

OR

EIGHT (8) BLOCKS OF SIZE 12"W X 12"L X 2"H

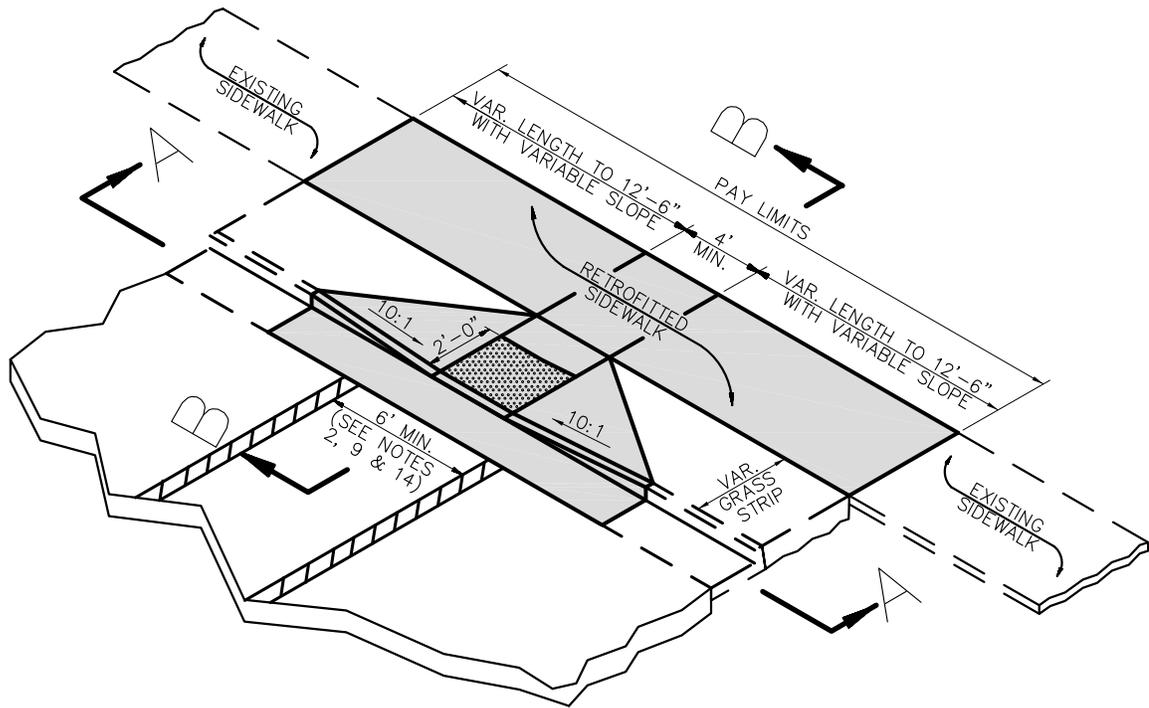


DETECTABLE WARNING DOMES

Adopted from NCDOT Detail 848.06

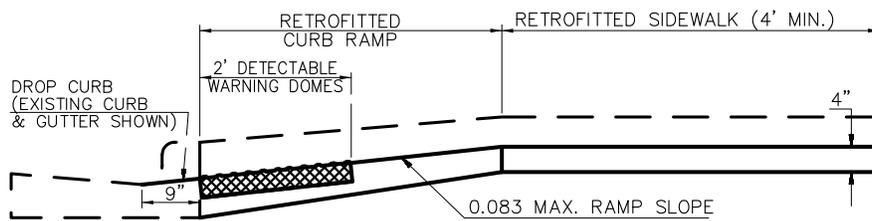


DATE: March 1, 2012	Curb Ramps and Existing Sidewalk with Grass Strip	SCALE: NONE
	CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	DETAIL NO. CC-3.0

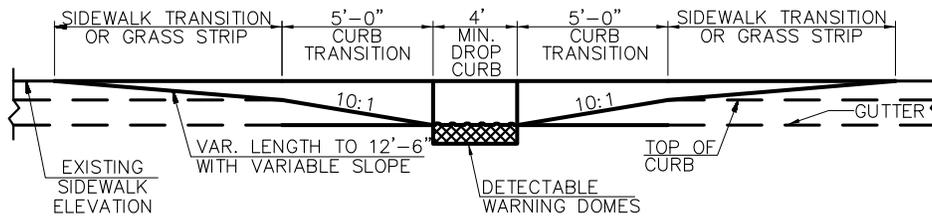


ISOMETRIC VIEW

 PAY LIMITS OF CURB RAMP



SECTION B-B



SECTION A-A

Adopted from NCDOT Detail 848.06



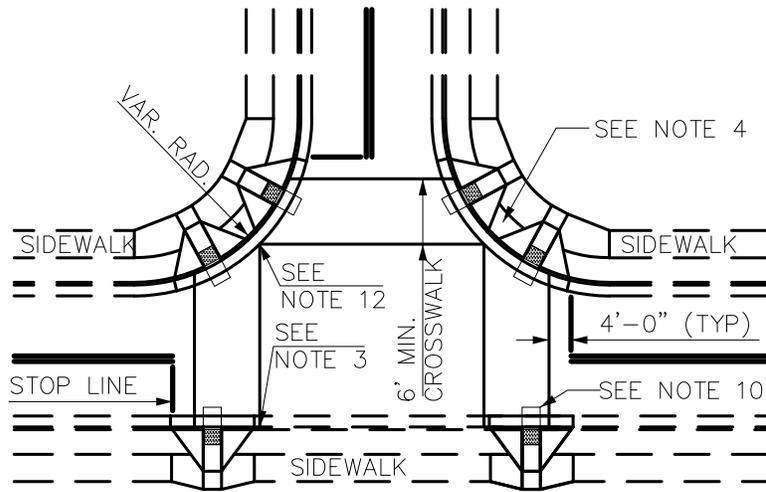
DATE:
March 1, 2012

Curb Ramps and Existing Sidewalk with Grass Strip

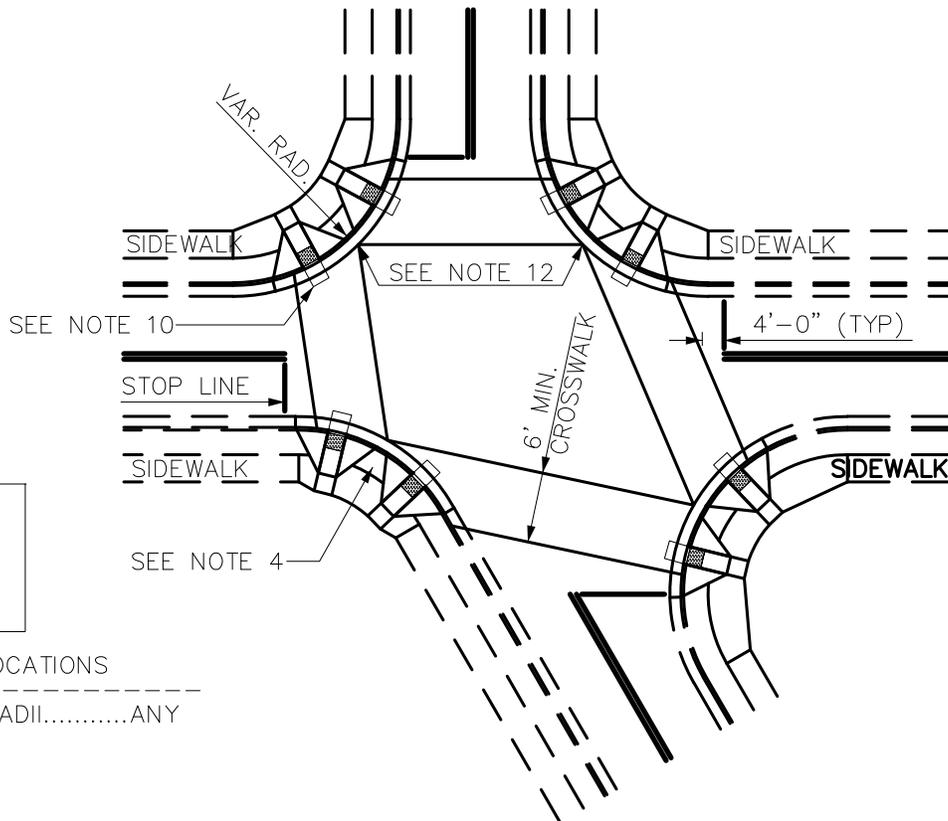
CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE:
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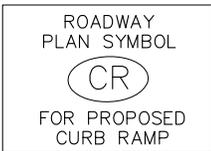
DETAIL NO.
CC-3.1



DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPS, PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS



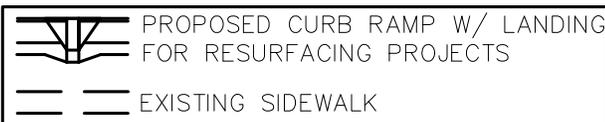
DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPS, PEDESTRIAN CROSSWALKS AND STOP LINES



ALLOWABLE LOCATIONS

 DUAL RAMP RADII.....ANY

RESURFACING PROJECTS



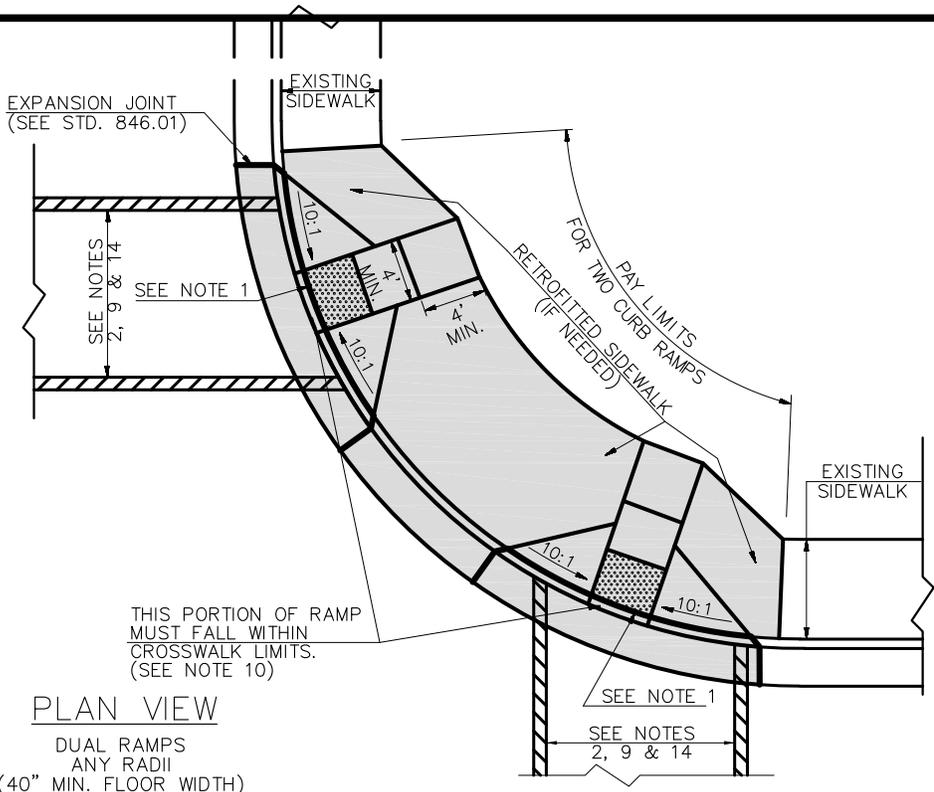
Adopted from NCDOT Detail 848.05



DATE:
 March 1, 2012

**Curb Ramp Locations
 with Existing Sidewalk**
 CITY OF DURHAM, NORTH CAROLINA
 DEPARTMENT OF PUBLIC WORKS

SCALE:
 NONE
 DETAIL NO.
 CC-3.2



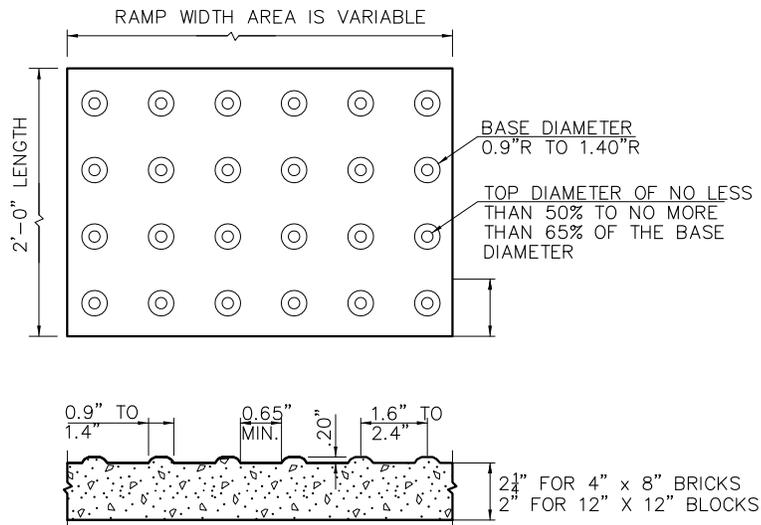
NOTES:

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OR

EIGHT (8) BLOCKS OF SIZE 12"W X 12"L X 2"H



DETECTABLE WARNING DOMES

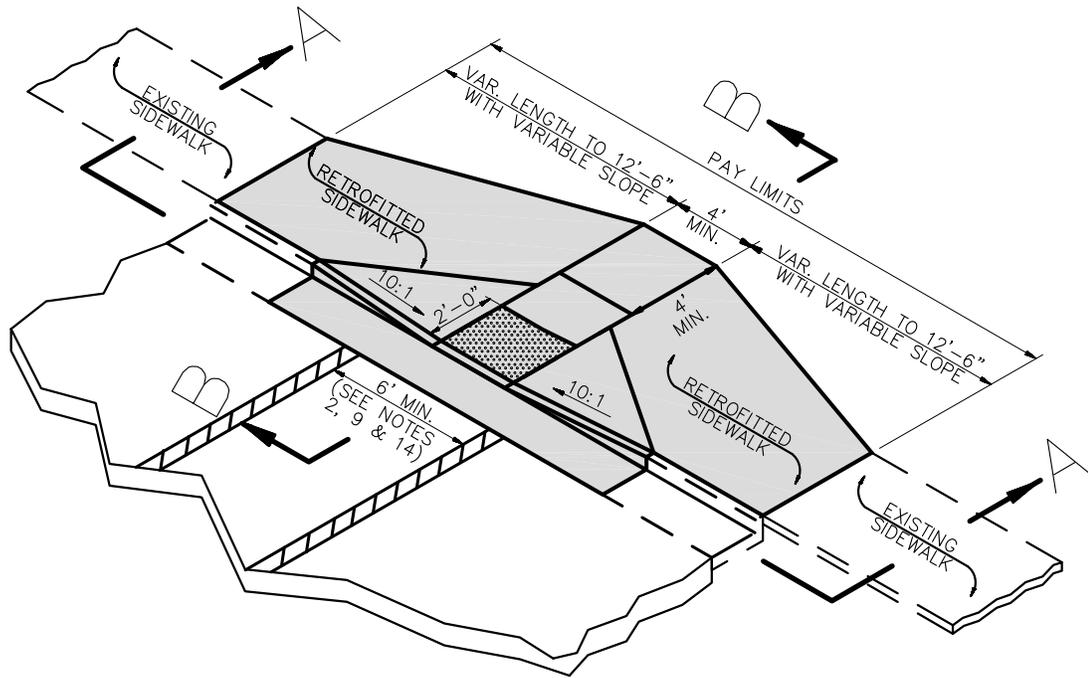
Adopted from NCDOT Detail 848.06



DATE: March 1, 2012

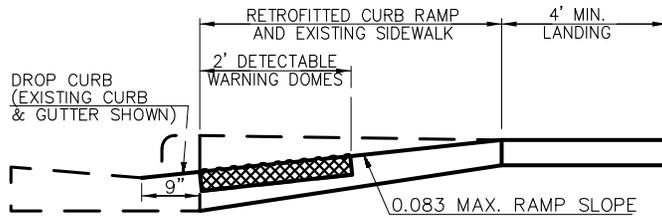
<p>Curb Ramps and Existing Sidewalk Adjacent to Curb</p> <p>CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS</p>
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SCALE: NONE
DETAIL NO. CC-4.0

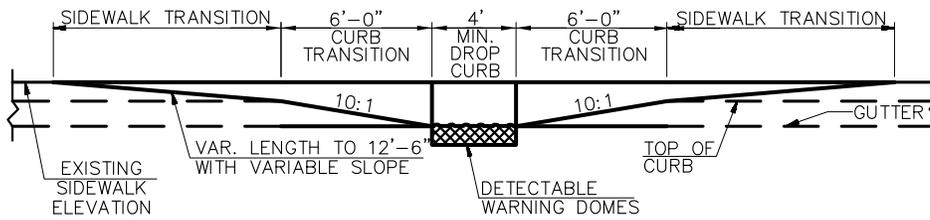


ISOMETRIC VIEW

 PAY LIMITS OF CURB RAMP



SECTION B-B



SECTION A-A

Adopted from NCDOT Detail 848.06



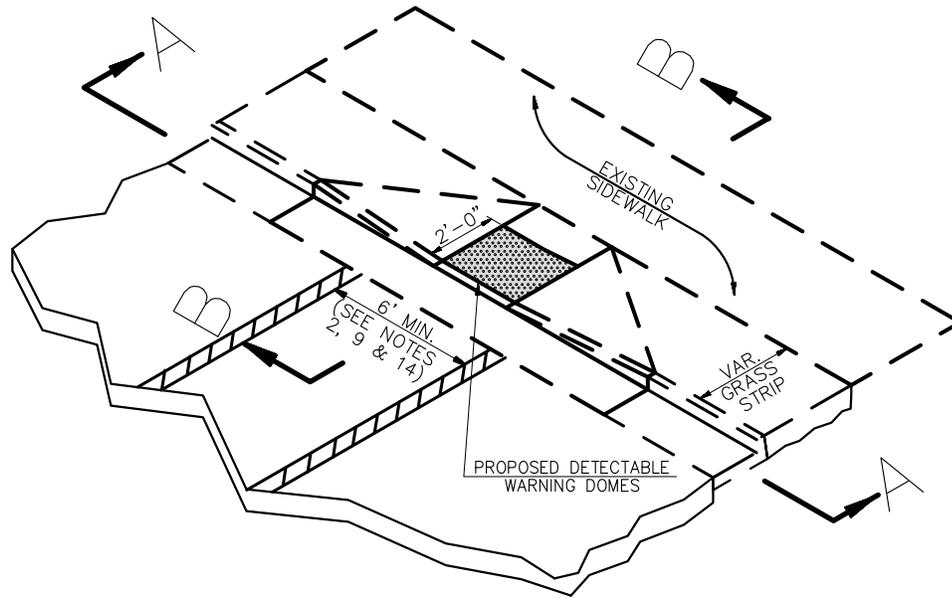
DATE:
March 1, 2012

Curb Ramps and Existing Sidewalk Adjacent to Curb

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE:
NONE

DETAIL NO.
CC-4.1



ISOMETRIC VIEW

 PAY LIMITS OF RETROFIT CURB RAMP

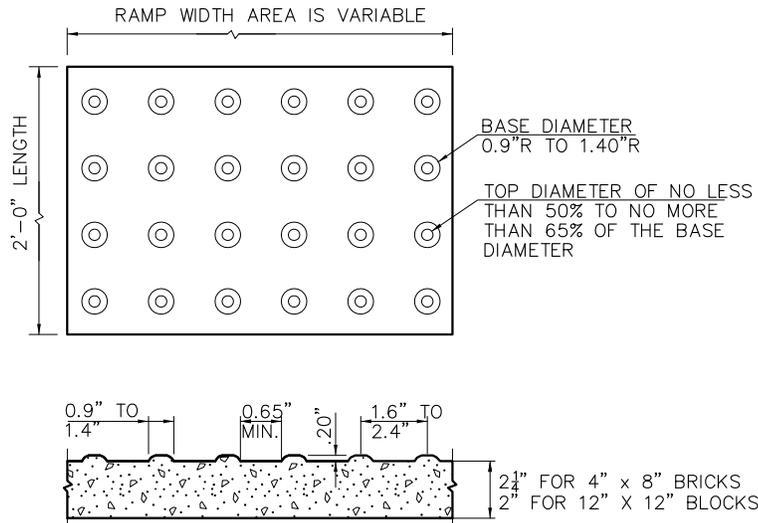
NOTES:

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DETECTABLE WARNING DOMES

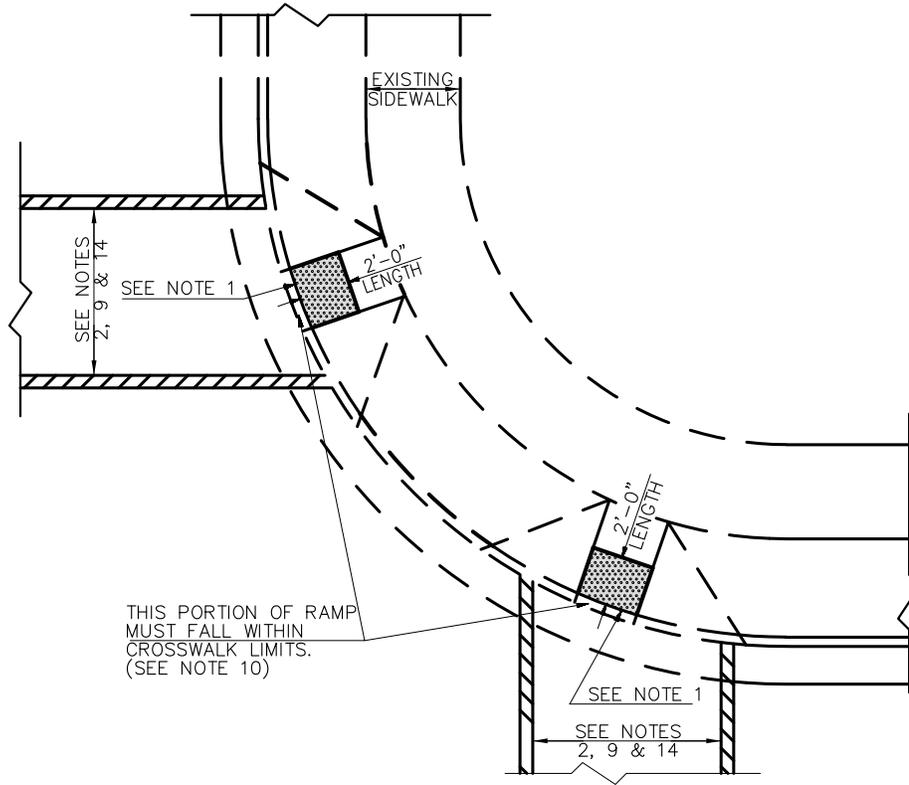
Adopted from NCDOT Detail 848.06



DATE: March 1, 2012

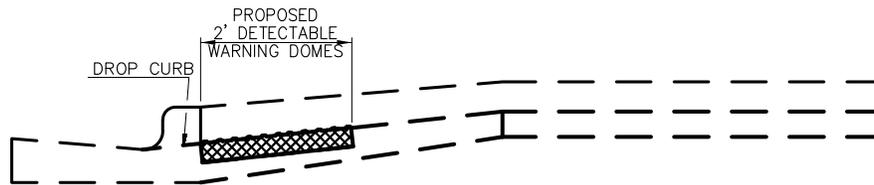
<p>Retrofitting Detectable Warning Domes onto Existing Curb Ramps</p> <p>CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS</p>

SCALE: NONE
DETAIL NO. CC-5.0

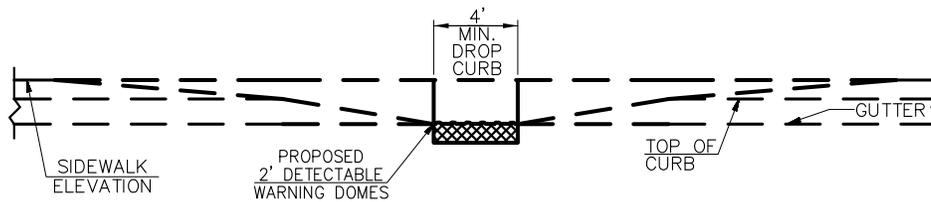


PLAN VIEW

DUAL RAMPS
 ANY RADII
 (40" MIN. FLOOR WIDTH)



SECTION B-B



SECTION A-A

Adopted from NCDOT Detail 848.06



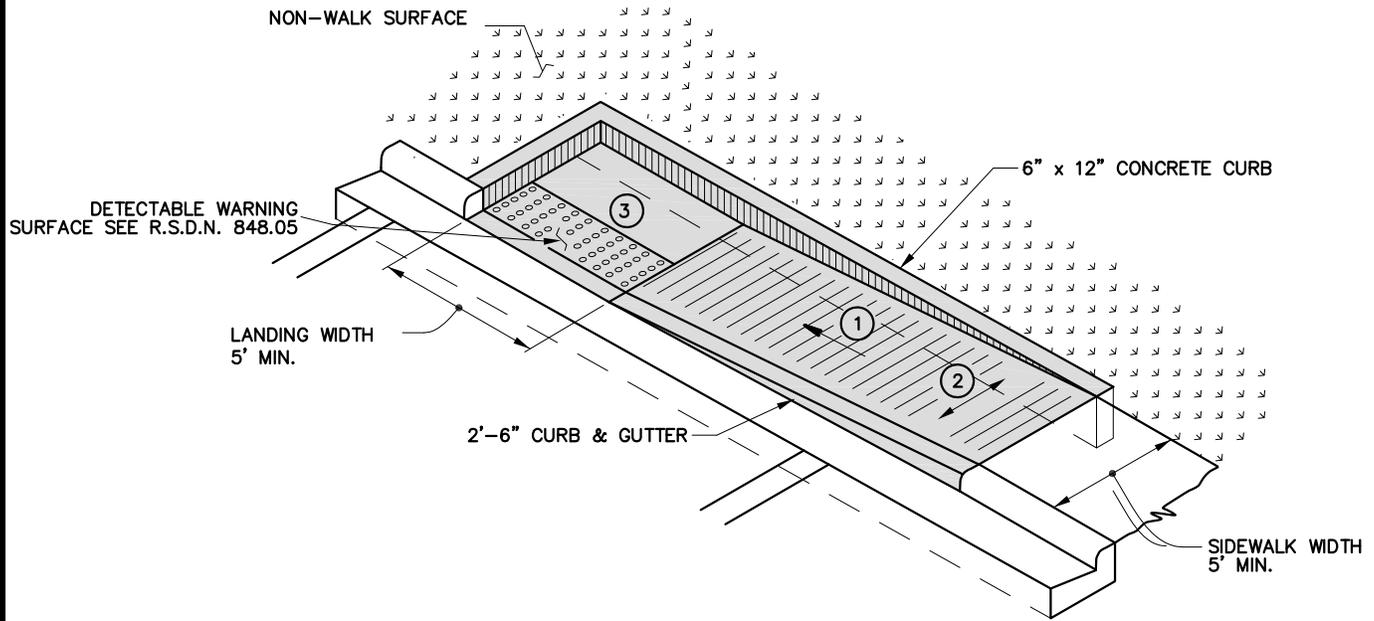
DATE:
 March 1, 2012

**Retrofitting Detectable Warning
 Domes onto Existing Curb Ramps**

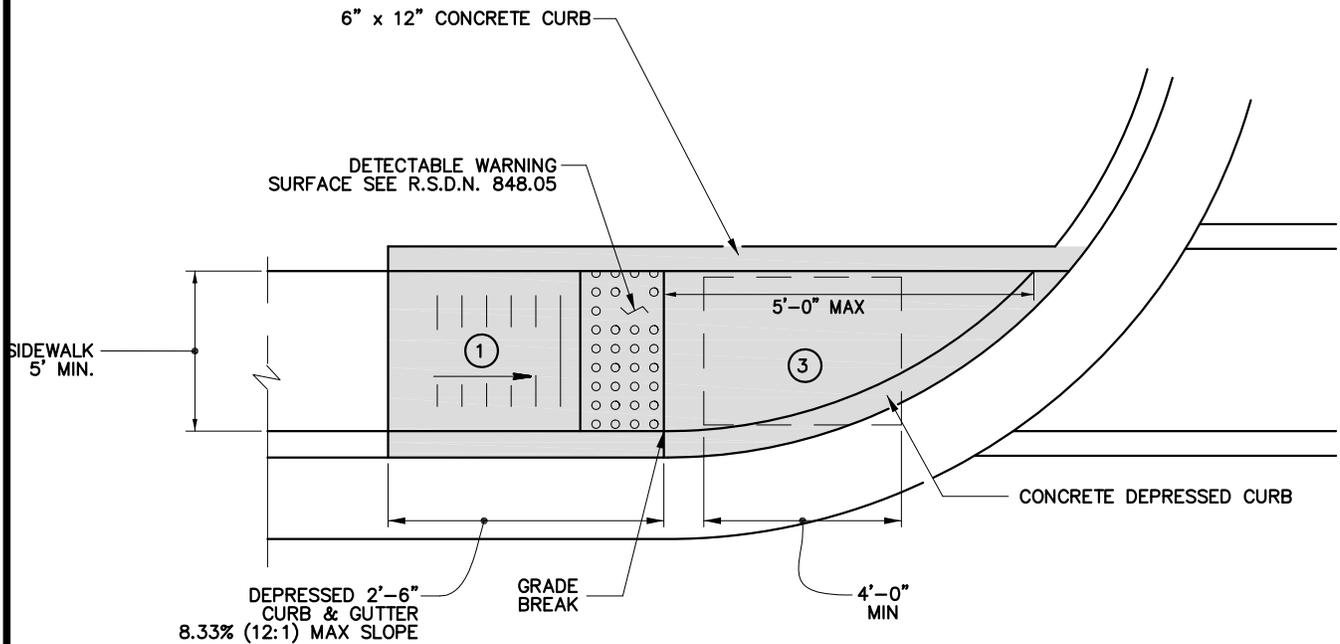
CITY OF DURHAM, NORTH CAROLINA
 DEPARTMENT OF PUBLIC WORKS

SCALE:
 NONE

DETAIL NO.
 CC-5.1



TYPE 1A



TYPE 1

PAY LIMITS FOR CURB RAMP

- ① 8.33% (12:1) MAX RAMP SLOPE
- ② CROSS SLOPE: 2.00%
- ③ CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

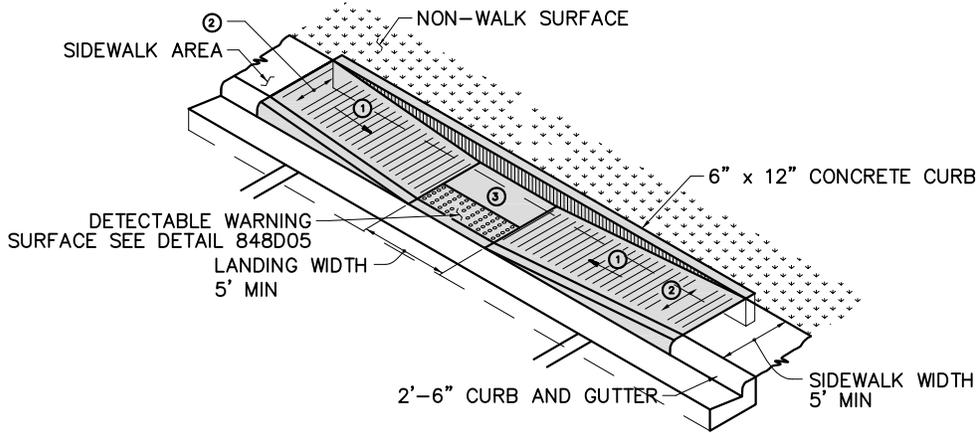
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES
 Adopted from NCDOT "Alternate Curb Ramp Details"*



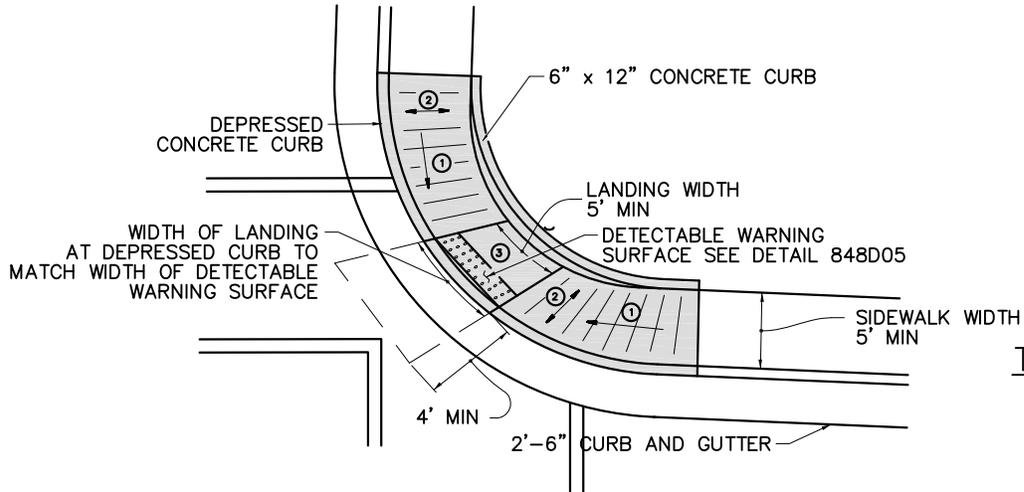
DATE: March 1, 2012

Curb Ramps - Directional
CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS

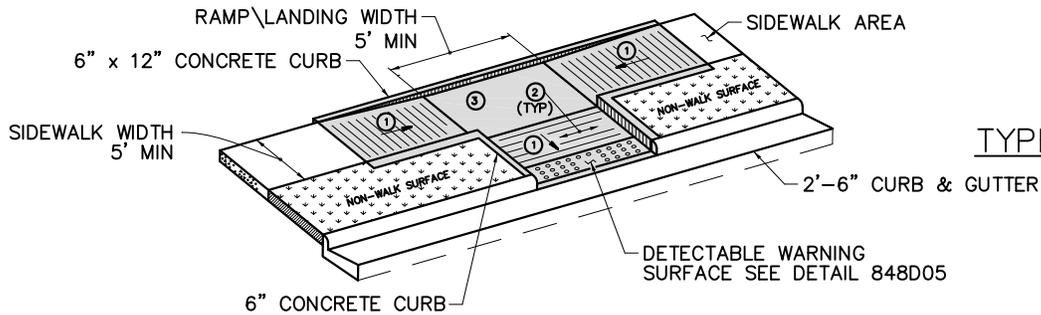
SCALE: NONE
DETAIL NO. CC-6.0



TYPE 2



TYPE 2A



TYPE 3

PAY LIMITS FOR CURB RAMP

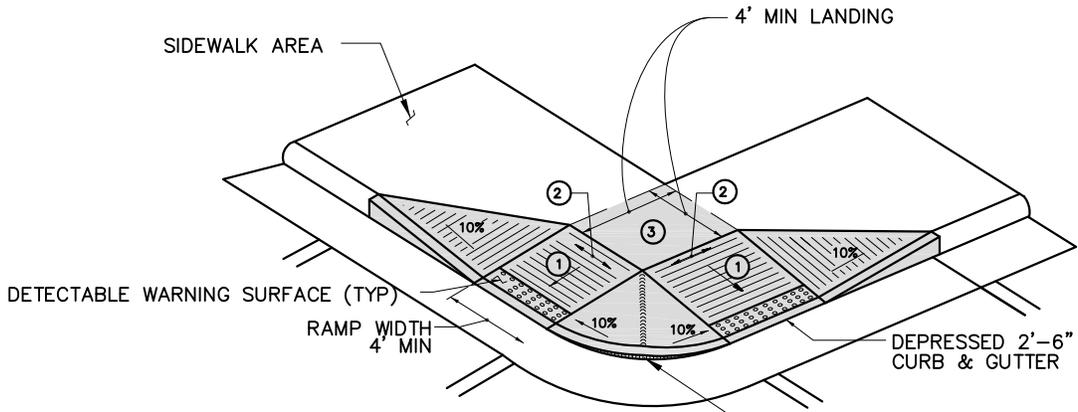
- ① 8.33% (12:1) MAX RAMP SLOPE
- ② CROSS SLOPE: 2.00%
- ③ CURB RAMPs REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

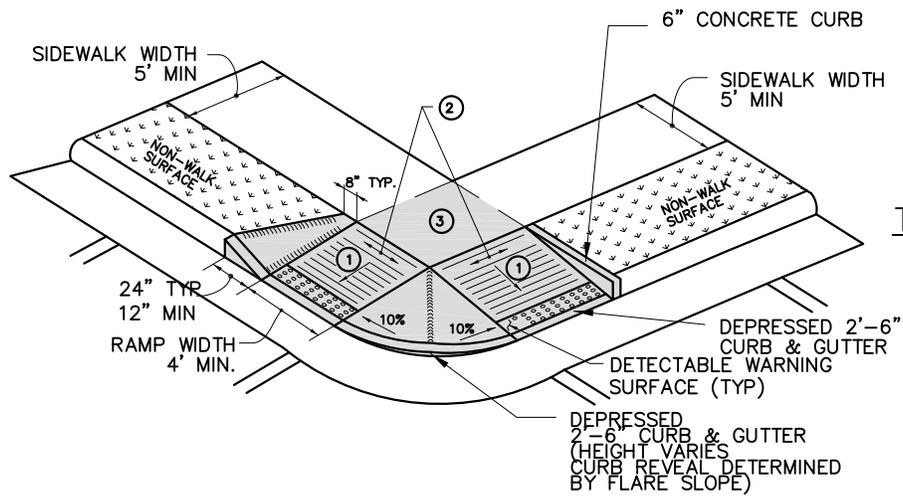
Adopted from NCDOT "Alternate Curb Ramp Details"*



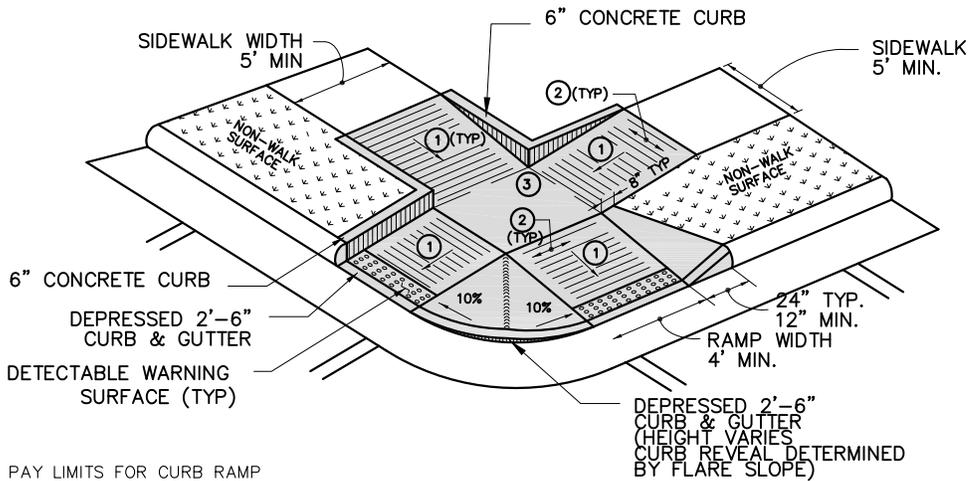
DATE: March 1, 2012	<h2>Curb Ramps - Parallel</h2>	SCALE: NONE
	CITY OF DURHAM, NORTH CAROLINA DEPARTMENT OF PUBLIC WORKS	DETAIL NO. CC-7.0



TYPE 4



TYPE 4A



TYPE 5

PAY LIMITS FOR CURB RAMP

① 8.33% (12:1) MAX RAMP SLOPE

② CROSS SLOPE: 2.00%

③ CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

Adopted from NCDOT "Alternate Curb Ramp Details"*

DURHAM



1 8 6 9
CITY OF MEDICINE

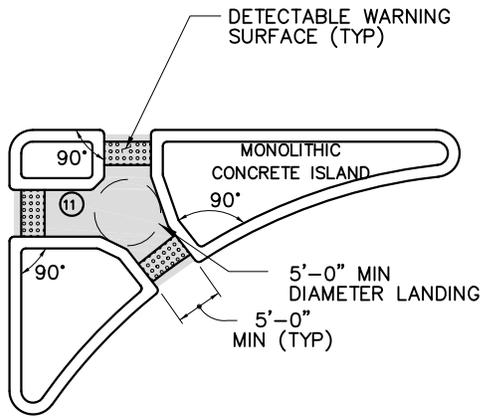
DATE:
March 1, 2012

Curb Ramps - Shared Landings

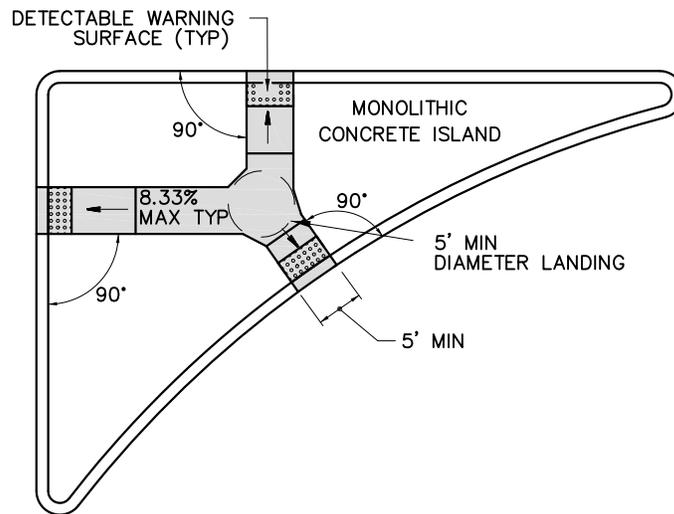
SCALE:
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CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

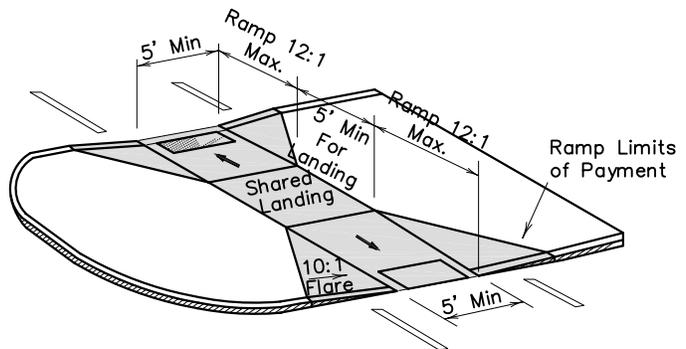
DETAIL NO.
CC-8.0



SMALL ISLAND
WITH CUT THROUGH



LARGE ISLAND
CURB RAMPS



MEDIAN ISLAND
CURB RAMPS

 PAY LIMITS FOR 1 CURB RAMP

-SEE ROADWAY DETAIL DRAWING 848D05 FOR DETECTABLE WARNING SURFACE AND FOR RAMP NOTES.

-SEE ROADWAY STANDARD DRAWING 852.01 FOR CONCRETE ISLAND DIMENSIONS.

Adopted from NCDOT "Alternate Curb Ramp Details"*



DATE:
March 1, 2012

Curb Ramps - Islands

SCALE:
NONE

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

DETAIL NO.
CC-9.0

(Detail Not Yet Published By NCDOT)

Adopted from NCDOT "Alternate Curb Ramp Details"*



DATE:
March 1, 2012

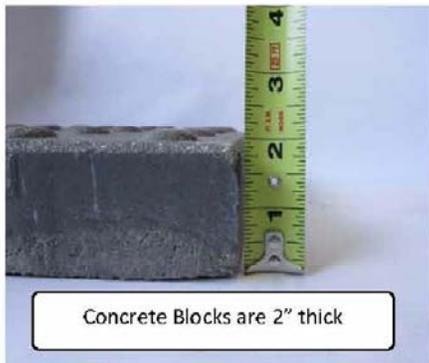
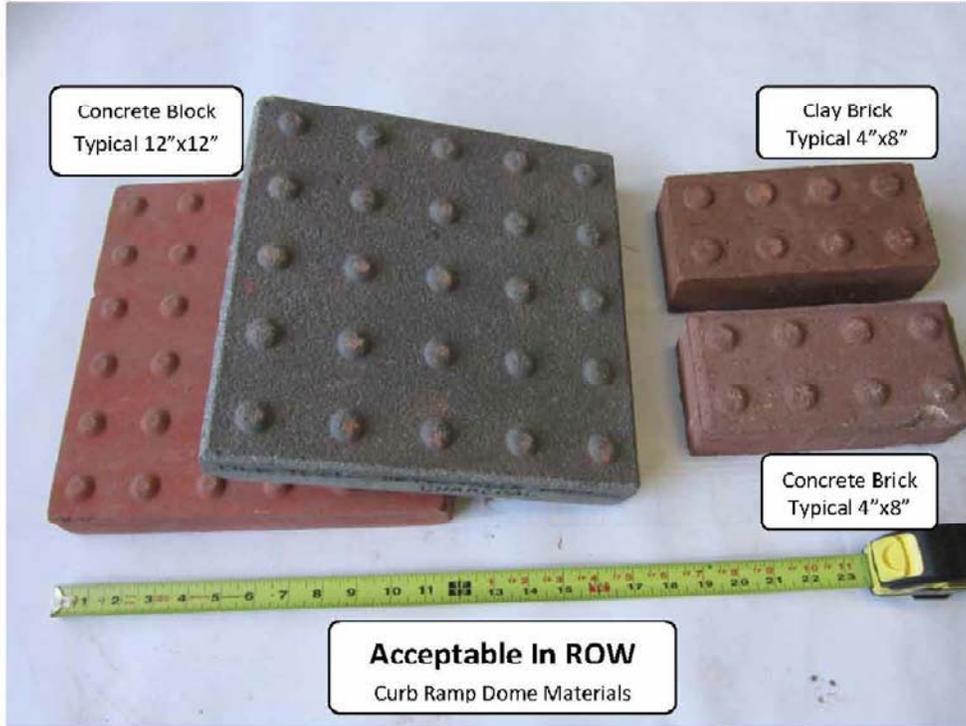
Curb Ramps - Blended Transitions

SCALE:
NONE

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

DETAIL NO.
CC-10.0

City of Durham ROW Curb Ramp Dome Materials



Unacceptable In ROW

Curb Ramp Dome Materials (typical)



DATE:
March 1, 2012

**Curb Ramps -
Unacceptable Materials in ROW**

CITY OF DURHAM, NORTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE:
NONE

DETAIL NO.
CC-12.0

MICROSURFACING

PART 1 – GENERAL

1.1 SUMMARY

1.1 SUMMARY

A. Section Includes:

1. Price adjustment for asphalt binder
2. Asphalt concrete plant mix type.
3. Quality control and quality assurance.
4. Revisions to NCDOT specifications.

B. Related Sections:

1. Section 01 20 00 – Price and Payment Procedures.
2. Section 01 33 00 – Submittal Procedures.
3. Section 01 40 00 – Quality Requirements.
4. Section 01 60 00 – Product Requirements.
5. Section 01 70 00 – Execution and Closeout Requirements.
6. Section 32 11 23 – Aggregate Base Course.
7. Section 32 12 16 – Asphalt Paving
8. Section 32 13 13 – Concrete Paving.
9. Section 32 92 91 – Seeding and Mulching.
10. Section 33 01 31 – Manhole, Valve and Meter Box Adjustments.

1.2 DESCRIPTION

This provision covers the materials, equipment, construction and application procedures for rut filling and/or surfacing of existing paved surfaces in accordance with the contract. The microsurfacing system shall be a mixture of cationic latex modified asphalt emulsion, mineral aggregate, mineral filler, water and other additives, properly proportioned, mixed and spread on the paved surface in accordance with this provision and as directed by the Engineer.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Latex Modified Emulsified Asphalt

The emulsified asphalt shall be a cationic type CSS-1h or CQS-1h and shall conform to AASHTO M 208 or ASTM D2397. In general a 3% polymer solids, based on asphalt weight, is considered minimum. The ring and ball softening point of the residue shall be a minimum of 140°F. It shall show no separation after mixing. The cement mixing test is waived for the latex modified CSS-1h and CQS-1h.

B. Mineral Aggregate

The mineral aggregate used shall be compatible with the latex modified emulsified asphalt and can produce a good skid resistant surface. The aggregate shall meet requirements in Article 1012-1 of the *2012 Standard Specifications*.

C. Mineral Filler

Mineral filler shall be any recognized brand of non-air entrained Portland cement that is free of lumps or hydrated lime meeting the requirements of ASTM D242. It may be accepted upon visual inspection.

D. Water

The water shall be potable and shall be free of harmful soluble salts in accordance with Article 1024-4 of the *2012 Standard Specifications*.

E. Latex Modifier

A latex based modifier, certified from an approved source, along with special emulsifiers shall be milled into the asphalt emulsion by an approved emulsion manufacturer. The latex modified emulsified asphalt shall be so formulated that when the paving mixture is applied at a thickness of ¼ inch it will cure sufficiently so that rolling traffic can be allowed back on the pavement in one hour with no damage to the surface.

F. Other Additives

The additives are any other materials that are added to the emulsion mix or to any of the component materials to provide the specified properties. The additives shall be supplied by the emulsion manufacturer to provide control of the set time in the field.

2.2 MIX DESIGN

The Contractor shall submit a mix design certified by the latex modified emulsion manufacturer and present certified test results for the Engineer's approval. Compatibility of the aggregate and latex modified CSS-1h or CQS-1h shall be certified. The job mix formula shall provide a minimum Marshall stability of 1,800 pounds and a flow of 6 to 16 units when tested according to modified ASTM procedures. Aggregate used in the job mix formula shall be of the material proposed by the Contractor for use on the project.

Submit mix design to the Materials and Tests Unit for approval. The mix design shall conform to the International Slurry Surfacing Association's ISSA A143, Section 5.2.

The gradation of the aggregate shall be in accordance with the following:

Screen Size	Type II (% passing)	Type III (% passing)	Stockpile Tolerance
3/8"	100	100	
#4	90 - 100	70 - 90	± 5
#8	65 - 90	45 - 70	± 5
#16	45 - 70	28 - 50	± 5
#30	30 - 50	19 - 34	± 5
#50	18 - 30	12 - 25	± 4
#100	10 - 21	7 - 18	± 3
#200	5 - 15	5 - 15	± 2

The gradation of the aggregate stockpile shall not vary by more than the stockpile tolerance from the mix design gradation (indicated in the table above) while also remaining within the specification gradation band. The percentage of aggregate passing any 2 successive sieves shall not change from one end of the specified range to the other end.

The aggregate will be accepted at the job location or stockpile based on 5 gradation tests sampled according to AASHTO T 2. If the average of the 5 tests is within the stockpile tolerance from the mix design gradation, the material will be accepted. If the average of those test results is out of specification or tolerance, the Contractor will be given the choice to either remove the material or blend additional aggregate with the stockpile material to bring it into compliance. Materials used in blending shall meet the required aggregate quality test specifications in Section 1012 of the NCDOT 2012 Standard Specifications before blending and shall be blended in a manner to produce a consistent gradation.

Aggregate blending may require a new mix design. Screening shall be required at the stockpile if there are any problems created by oversized materials in the mix.

Type II aggregate gradation is used to fill surface voids, address surface distresses, seal and provide a durable wearing surface.

Type III aggregate gradation provides maximum skid resistance and an improved wearing surface. This type of microsurfacing is appropriate for heavily traveled pavements or for placement on highly textured surfaces requiring larger size aggregate to fill voids. Type III microsurfacing shall be used for rut filling.

The mineral aggregate shall be weighed by means of scale approved by the Engineer before delivery to the job site. Emulsified asphalt shall be weighed by means of approved scales or be measured by volume.

Precautions shall be taken to insure that stockpiles do not become contaminated.

Samples for gradation will be taken from aggregate stockpiles designated by the Contractor for use. Samples for asphalt content shall be taken from the completed mix. Samples of aggregate and filler will be taken at the job site. The frequency of sampling and testing will be established by the Engineer. The asphalt content will be determined by AASHTO T 308 modified.

2.3 EQUIPMENT

Use equipment that meets ISSA A143 Section 6.

Each mixing unit to be used in performance of the work shall be calibrated in the presence of the Engineer before beginning the work. Submit calibration documentation to the Engineer. Any equipment replacement affecting material proportioning requires that the machine be recalibrated. No machine will be allowed to work on the project until the calibration has been accepted.

PART 3 – EXECUTION

3.1 CONSTRUCTION METHODS

A. Weather Limitations

The material shall be placed only when the surface is dry and the atmospheric and surface temperature is at least 45°F and rising and there is no chance of temperatures below 32°F within 24 hours from the time the material is applied.

B. Surface Preparation

Immediately prior to applying the paving mixture the surface shall be thoroughly cleaned of all vegetation, loose materials, dirt, mud, leaves, and other deleterious materials. If water is used, cracks shall be allowed to dry thoroughly before applying microsurfacing. Manholes, valve boxes, drop inlets and other service entrances shall be protected from the microsurfacing by a suitable method. Remove all thermoplastic and plastic tape traffic markings, symbols, and characters. Any milling of existing pavement is incidental to this contract.

C. Tack Coat for Microsurfacing

The emulsified asphalt used for tack coat shall be CSS, CQS, CRS or the microsurfacing emulsion diluted to one part emulsified asphalt to two (2) or three (3) parts water, as approved by the Engineer. Consult with the microsurfacing emulsion supplier to determine dilution stability. The distributor shall be capable of applying the diluted tack coat evenly at a rate of 0.08 to 0.15 gallons per square yard as required by the Engineer. The tack coat shall be allowed to cure sufficiently before the application of microsurfacing.

D. Application

When rutting or deformation is less than 0.5 inch, a full width scratch course of at least ¼ inch may be applied with the spreader box using a metal or stiff rubber strike-off. Apply at a sufficient rate to level the pavement surface. The mixture shall be spread to fill minor cracks, minor surface irregularities, and shallow potholes and leave a uniform high-skid resistant application of aggregate and asphalt on the surface. Approved squeegees shall be used to spread the mixture in areas inaccessible to the spreader box and other areas hand spreading may be required. Ruts that are greater than 0.5 inch depth shall be filled independently by means of a box specifically designed for that purpose. The box shall be 5 to 6 feet in width and have a dual chamber with an inner “V” configuration of augers to channel the large aggregate to the center of the rut and the fines to the edges of the rut fill pass. The box shall be equipped with dual steel

strike-off to control both the width and depth of the rut fill. All rut-filling and leveling material should cure under traffic for at least 24 hours before additional material is placed.

A sufficient amount of surface sealer shall be carried to all parts of the spreader box at all times so that complete coverage is obtained. Water in very limited quantity may be sprayed into the spreader box to prevent build-up on the blades to facilitate spreading without harming the mix. No lumping, balling, or unmixed aggregate shall be permitted in the finished surface. Any oversized aggregate or foreign materials shall be screened from the aggregate prior to delivery to the mixing machine. Microsurfacing for the final surface course shall be placed at an application rate of 18 to 22 pounds per square yard for Type II and 22 to 26 pounds per square yard for Type III.

In restricted areas where hand spreading is necessary, slight adjustments to the mix formula may be required to slow setting time. The paving mixture shall be poured into a small windrow along one edge of the surface to be covered. The mixture then shall be spread uniformly by a hand squeegee or lute.

The seam where two passes join shall be neat in appearance and uniform.

All excess material shall be removed from ends of each run immediately on surface course.

E. Curing

Adequate means shall be provided to protect the microsurfacing from damage by traffic until the mixture has cured sufficiently so that it will not adhere to or be picked up by the tire of vehicles. Normally, microsurfacing accepts straight rolling traffic on a ¼ inch thick surface within one hour after placement. Stopping and starting traffic may require additional curing time. All rut-filling and level-up material and first lift in two lift areas should cure under traffic for at least 24 hours before additional material is placed. During the curing time, the temperature cannot drop below 32°F. If temperatures drop below 32°F, this time does not count towards the curing requirements.

Any damage done by traffic to the microsurfacing shall be repaired by the Contractor.

F. Test Strip

A test strip shall be placed with job site materials and approved by the Engineer. The weather and time of day, day or night, during the test strip shall be similar to expected conditions during construction. Upon completion of the test strip the Engineer will approve the mixture for proper curing and placement.

ASPHALT SURFACE PRESERVATION

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Description
 - 2. Unit Price – Measurement and Payment
 - 3. Submittals
 - 4. Quality Control and Quality Assurance
 - 5. Materials
 - 6. Equipment
 - 7. Construction Methods

- B. Related Sections:
 - 1. Section 01 20 00 – Price and Payment Procedures.
 - 2. Section 01 33 00 – Submittal Procedures.
 - 3. Section 01 40 00 – Quality Requirements.
 - 4. Section 01 60 00 – Product Requirements.
 - 5. Section 01 70 00 – Execution and Closeout Requirements.
 - 6. Section 32 11 23 – Aggregate Base Course.
 - 7. Section 32 12 16 – Asphalt Paving
 - 8. Section 32 13 13 – Concrete Paving.
 - 9. Section 32 92 91 – Seeding and Mulching.
 - 10. Section 33 01 31 – Manhole, Valve and Meter Box Adjustments.

1.2 DESCRIPTION

This provision covers the materials, equipment, construction and application procedures for the application of an asphalt-rejuvenating agent to asphaltic concrete surfaces. The rejuvenation of surface courses shall be by spray application of a cationic rejuvenating agent composed of petroleum oils and resins emulsified with water in accordance with this provision and as directed by the Engineer.

1.3 UNIT PRICE – MEASUREMENT AND PAYMENT

- A. Asphalt Surface Preservation:
 - 1. Basis of Measurement: By Square Yard.
 - 2. Basis of Payment: Includes preparing base, furnishing all materials, equipment, labor and incidentals to complete the work as specified and required.

1.2 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Product Data: Submit product information and mix design.

1.3 QUALITY CONTROL AND QUALITY ASSURANCE

- A. Contractor will conduct a quality control program in accordance with Article 609-5 and specifications in Section 609 of the North Carolina Department of Transportation Standard Specification for Roads and Structures, current edition.
- B. The Department will conduct a quality assurance program in accordance with Article 609-6 and specifications in Section 609 of the North Carolina Department of Transportation Standard Specification for Roads and Structures, current edition, and/or as directed by the Engineer.
- C. Maintain one copy of Contractor’s approved Quality Control Plan on work site with Project Superintendent.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. The asphalt-rejuvenating agent shall be an emulsion composed of a petroleum resin oil base uniformly emulsified with water. Each bidder must submit with their bid a certified statement from the asphalt rejuvenator manufacturer showing that the asphalt rejuvenating emulsion conforms to the required physical and chemical requirements.

	<u>Test Method</u>	<u>AASHTO min.</u>	<u>Requirements</u>	
			Min	Max
<u>Tests on Emulsion</u>				
Viscosity @ 25°C, SFS	D-244	T-59	15	40
Residue, %W	D-244 mod.	T-59 mod	60	65
Miscibility Test	D-244 mod.	T-59 mod	No Coagulation	
Sieve Test, %W	D-244 mod.	T-59 mod	-	0.1
Particle Charge Test	D-244	T-59	Positive	
Percent Light	D-244 mod.	T-59 mod		
Transmittance	GB	GB	-	30

Tests on Residue from Distillation

Flash Point, COC O deg	D-92	T-48	196	
Viscosity @ 60°C, cSt	D-445	-	100	200
Asphaltenes, %W	D-2006-70	-	-	1.00
Maltene Dist. Ratio	D-2006-70	-	0.3	0.6
PC/S Ratio	D-2006-70	-	0.5	-
Saturated Hydrocarbons	D-2006-70	-	21	28

- B. For Residue, ASTM D--244 Modified Evaporation Test for percent of residue is made by heating 50 gram sample to 149 C (300 F) until foaming ceases, then cool immediately and calculate results.

- C. For Miscibility Test, the test procedure is identical with ASTM D-244-60 except that .02 Normal Calcium Chloride solutions shall be used in place of distilled water.
- D. For Sieve Test, the test procedure is identical with ASTM 0-244 except that distilled water shall be used in place of two percent sodium oleate solution.
- E. The rejuvenating agent shall have a record of at least five years of satisfactory service as asphalt rejuvenating agent and in-depth sealer. Satisfactory service shall be based on the capability of the material to decrease the viscosity and increase the penetration value of the asphalt binder as follows. The viscosity shall be reduced by a minimum of 45 percent and the penetration value shall be increased by a minimum of 25 percent. Test data shall be performed on extracted asphalt cement from a pavement to a depth of three eighths of an inch (3/8"). In addition, the pavement shall be in-depth sealed to the intrusion of air and water.
- F. RECLAMITE®, manufactured by Golden Bear Oil Specialties, is a product of known quality and accepted performance. Contractor may use another product that has been proven to be functionally equivalent.

2.3 EQUIPMENT

- A. The distributor for spreading the emulsion shall be self-propelled, and shall have pneumatic tires. The distributor shall be designed and equipped to distribute the asphalt rejuvenating agent uniformly on variable widths of surface at readily determined and controlled rates from 0.05 to 0.5 gallons per square yard of surface, and with an allowable variation from any specified rate not to exceed 5 percent of the specified rate.
- B. Distributor equipment shall include full circulation spray bars; pump tachometer, volume measuring device and a hand hose attachment suitable for application of the emulsion manually to cover areas inaccessible to the distributor. The distributor shall be equipped to circulate and agitate the emulsion within the tank.
- C. A check of distributor equipment as well as application rate accuracy and uniformity of distribution shall be made when directed by the Engineer.
- D. The truck used for sanding shall be equipped with a spreader that allows the sand to be uniformly distributed onto the pavement. The spreader shall be able to apply 1/2 pound to 3 pounds of sand per square yard in a single pass. The spreader shall be adjustable so as not to broadcast sand onto driveways or tree lawns.
- E. The sand to be used shall be free flowing, without any leaves, dirt, stones, etc. Any wet sand shall be rejected from the job site.

PART 3 – EXECUTION

3.1 CONSTRUCTION METHODS

A. Weather Limitations

The temperature of the asphalt rejuvenating emulsion, at the time of application shall be as recommended by the manufacturer. The asphalt-rejuvenating agent shall be applied only when

the existing surface to be treated is thoroughly dry and when it is not threatening to rain. The asphalt-rejuvenating agent shall not be applied when the ambient temperature is below 40°F.

B. Surface Preparation

Immediately prior to applying the paving mixture the surface shall be thoroughly cleaned of all vegetation, loose materials, dirt, mud, leaves, and other deleterious materials. If water is used, cracks shall be allowed to dry thoroughly before applying microsurfacing. Manholes, valve boxes, drop inlets and other service entrances shall be protected from the microsurfacing by a suitable method. Remove all thermoplastic and plastic tape traffic markings, symbols, and characters. Any milling of existing pavement is incidental to this contract.

C. Handling of Asphalt Rejuvenating Agent

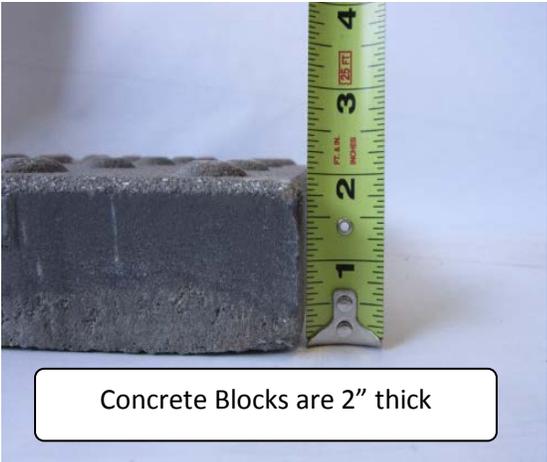
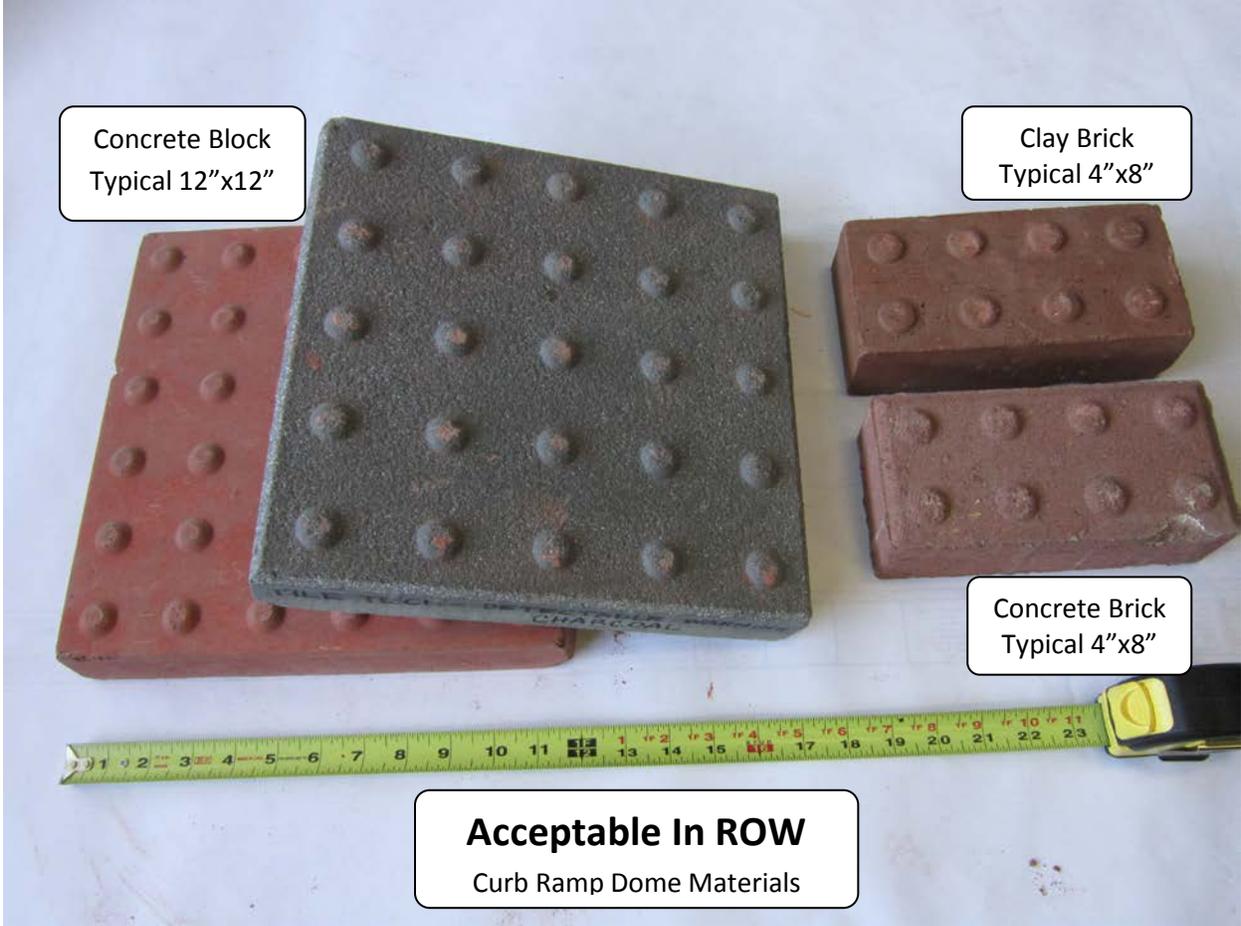
Contents in tank cars or storage tanks shall be circulated at least forty-five minutes before withdrawing any material for application. When loading the distributor, the asphalt rejuvenating agent concentrate shall be loaded first and then the required amount of water shall be added. The water shall be added into the distributor with enough force to cause agitation and thorough mixing of the two materials. To prevent foaming, the discharge end of the water hose or pipe shall be kept below the surface of the material in the distributor, which shall be used as a spreader. The distributor truck will be cleaned of all of its asphalt materials, and washed out to the extent that no discoloration of the emulsion may be perceptible. Cleanliness of the spreading equipment shall be subject to the approval and satisfaction of the Engineer.

D. Application

1. The asphalt-rejuvenating agent shall be applied by a distributor truck at the temperature recommended by the manufacturer and at the pressure required for the proper distribution. The emulsion shall be so applied that uniform distribution is obtained at all points of the areas to be treated. Distribution shall be commenced with a running start to insure full rate of spread over the entire area to be treated. Areas inadvertently missed shall receive additional treatment as may be required by hand sprayer application.
2. Application of asphalt rejuvenating agent shall be on one-half width of the pavement at a time. When the second half of the surface is treated, the distributor nozzle nearest the center of the road shall overlap the previous application by at least one-half the width of the nozzle spray. In any event the centerline construction joint of the pavement shall be treated in both application passes of the distributor truck.
3. Before spreading, the asphalt-rejuvenating agent shall be blended with water at the rate of two (2) parts rejuvenating agent to one (1) part water, by volume or as specified by the manufacturer. The combined mixture of asphalt rejuvenating agent and water shall be spread at the rate of 0.05 to 0.10 gallons per square yard, or as approved by the Engineer following field-testing.
4. Where more than one application is to be made, succeeding applications shall be made as soon as penetration of the preceding application has been completed and approval is granted for additional applications by the Engineer.

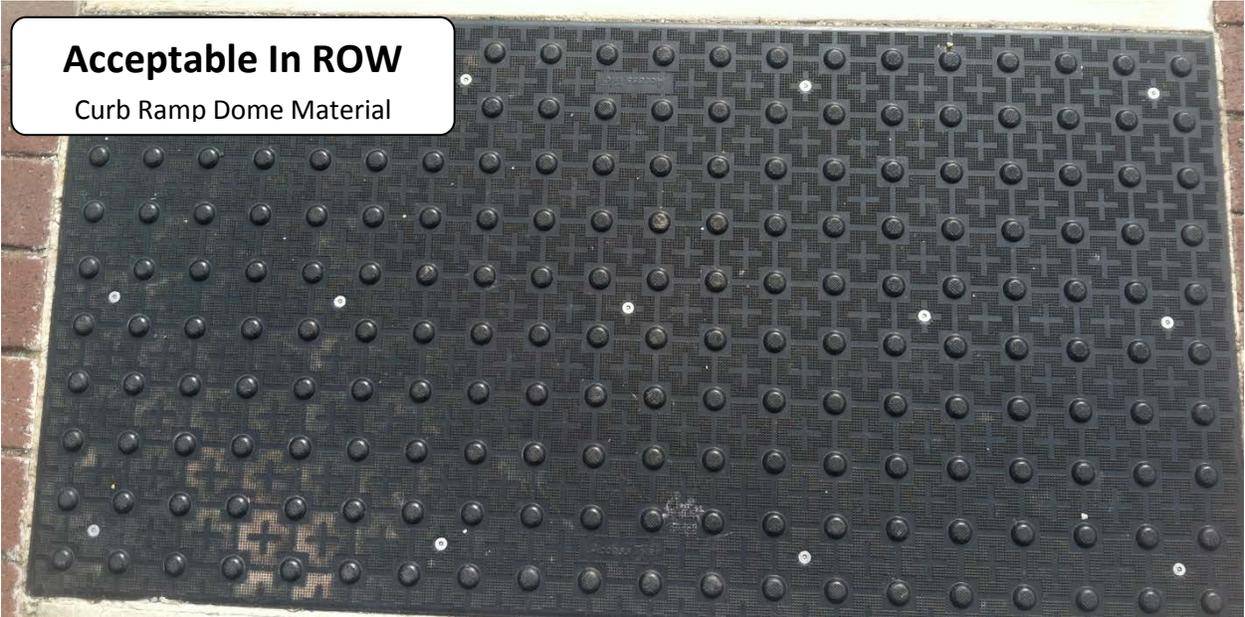
5. Grades or super elevations of surfaces that may cause excessive runoff, in the opinion of the Engineer, shall have the required amounts applied in two or more applications as directed.
 6. After the street has been treated, the area within one foot of the curb line on both sides of the road shall receive an additional treatment of the asphalt rejuvenating emulsion. Said treatment shall be uniformly applied by a method acceptable to the Engineer.
 7. After the rejuvenating emulsion has penetrated, a coating of dry sand shall be applied to the surface in sufficient amount to protect the traveling public as required by the Engineer.
 8. The Contractor shall furnish a quality inspection report showing the source, manufacturer, and the date shipped, for each load of asphalt rejuvenating agent.
- E. Street Sweeping
1. The Contractor shall be responsible for sweeping and cleaning of the streets prior to, and after treatment. Prior to treatment, the street will be cleaned of all standing water, dirt, leaves, foreign materials, etc. This work shall be accomplished by hand brooming, power blowing or other approved methods. If in the opinion of the Engineer the hand cleaning is not sufficient than a self-propelled street sweeper shall be used.
 2. All sand used during the treatment must be removed no later than 48 hours after treatment of the street. This shall be accomplished by a combination of hand and mechanical sweeping. All turnouts, cul-de-sacs, etc. must be cleaned of any material to the satisfaction of the Engineer. Street sweeping will be included in the price bid per square yard for asphalt rejuvenating agent.
 3. If, after sand is swept and in the opinion of the Engineer a hazardous condition exists on the roadway, the contractor must apply additional sand and sweep same no later than 24 hours following reapplication. No additional compensation will be allowed for re-applications and removal of sand.

City of Durham ROW Curb Ramp Dome Materials



City of Durham ROW Curb Ramp Dome Materials

Acceptable In ROW
Curb Ramp Dome Material



Nylon composite, corrosion resistant with counter-sunk stainless steel fastner anchors and set flush with tile surface.

Unacceptable In ROW
Curb Ramp Dome Materials (typical)



APPENDIX L



**City of Durham
Finance Policy 603
Bidder Safety Record Review**

CONTRACT: ST-271

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City of Durham Finance Policy 603

Bidder Safety Record Review Form

A. Bidder Safety Qualifications

The following safety information shall be requested of all contractors submitting bids to the City as part of the solicitation and advertising for construction and repair work with the City when the total construction and repair contract amount is expected to equal or exceed the minimum contract amount requiring compliance with State bidding laws.

The City requires that all bidders provide the following information regarding their safety history:

1. OSHA DART Incident Rate

Provide the bidder's DART Incident Rate calculated from OSHA's Form 300A for the last three years and the other required information in the table below. The bidder must attach all supporting documentation and calculations including certified OSHA forms.

YEAR	CONTRACTOR DART INCIDENT RATE	INDUSTRY DART INCIDENT RATE	INDUSTRY FIELD AND CODE

2. Experience Modification Rate (EMR)

Provide the Bidder's most recent Experience Modification Rate (EMR) based on insurance claims history. The bidder must provide the source of the EMR information and contact information of insurer entity providing the EMR.

YEAR	CONTRACTOR EMR	INDUSTRY FIELD AND CODE	NAME AND CONTACT INFO FOR EMR INFORMATION

3. Answer the following OSHA Specific Questions:

(a) Within the last 2 years, has the bidder received any citations classified by OSHA as being (1) serious, (2) willful and/or (3) repeat violations where your company operates?

Yes _____ No _____

If yes, attach a copy of each such citation and violation.

(b) Has the Bidder experienced any work-related fatalities within the last five years?

Yes _____ No _____

(c) Has the Bidder had any citations issued by OSHA as a result of work related fatalities within the past 5 years?

Yes _____ No _____

(d) Is the Bidder under investigation for any work-related fatalities?

Yes _____ No _____

(e) If your answer is “yes” to 3(b), (c) or (d), please provide a copy of the citation(s), list of number(s) of fatalities and documented explanation of the fatality.

4. Safety Plan:

(a) Does the company have a written safety program that includes responsibility for all aspects of safety management?

Yes _____ No _____

(b) Does the company have a written plan for safety training of new employees and ongoing training of existing employees?

Yes _____ No _____

(c) Does the company have documented evidence of safety training that they have conducted?

Yes _____ No _____

(d) If the company has employees with limited English ability, does the company have a written plan for ensuring that their employees understand the training they are being given?

Yes _____ No _____

(e) Do all supervisors have an appropriate documented level of OSHA training (e.g., a minimum of 30 hour OSHA construction safety training)?

Yes _____ No _____

(f) Do employees have documented basic OSHA 10 hour construction safety training?

Yes _____ No _____

(g) Does the company have a documented Hazard Communication Program?

Yes _____ No _____

5. Required Written Explanation of Safety Record

If the bidder has any of the following:

- (a) DART Incident Rate greater than its industry average,
- (b) an EMR greater than 1.0,
- (c) answered “yes” to any of the OSHA Specific Question above, or
- (d) answered “no” to any of the Safety Plan questions, the bidder shall provide the City, in its bid, a detailed written explanation of its safety record and the reasons why such safety history is NOT representative of its future performance and what specific actions it has taken to improve its overall safety record. Failure to provide a written explanation of its safety record pursuant to this paragraph may be deemed as non-responsive by the City.

B. Evaluation of Safety Information

- 1. No Further Evaluation is required of the lowest bidder if the following responses are provided:
 - (a) Bidder has a 3-year average DART Incident Rate equal to or better than the industry average;
 - (b) Bidder has an EMR rating equal to or less than 1.0;
 - (c) Bidder response is “no” for all OSHA Specific Questions; and
 - (d) Bidder answers “yes” to all of the Safety Plan questions.
- 2. If any of the following applies to the lowest bidder:
 - (a) it has a 3-year average DART Incident Rate worse than the industry average;
 - (b) an EMR greater than 1.0;
 - (c) the bidder responds “yes” to any or all of the OSHA Specific Questions, or,
 - (d) the bidder response “no” to any or all of the Safety Plan questions,

then the bidder’s documentation shall be referred to the City’s Risk Management Division together with the bidder’s written explanation of its safety record. If, after reviewing the bidder’s documentation, the City’s Risk Management Division and the department issuing the bid believes the lowest bidder’s safety record is sufficiently poor such that it is reflective of the bidder’s overall performance and quality of work, the bid shall be considered non-responsive and staff shall recommend rejection of the bid to the City Manager or City Council as appropriate according to their contract approval and award authority. If, however, after reviewing the bidder’s documentation, the City’s Risk Management Division and the department issuing the bid believes the past safety record of the lowest bidder is not representative of the work that it can perform and/or it would be in the best interest of the City to enter into such contract, staff shall recommend award of the contract by either the City Manager or City Council as appropriate according to their contract approval and award authority.

CONTRACT: ST-271
2018 PETITION STREETS

ENGINEERING SERVICES
DEPARTMENT OF PUBLIC WORKS
CITY OF DURHAM, NORTH CAROLINA

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APPENDIX M



PROJECT VICINITY MPA

CONTRACT: ST-271

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PROJECT SPECIFIC INFORMATION

I. LOCATION

The project is located in various locations throughout the City of Durham. Please see the project vicinity map on the project design plans.