Nature of Project: Reconstruct curb ramps to meet ADA requirements
INTRODUCTION TO THE APPLICATION

Historic District: BLOUNT STREET HISTORIC DISTRICT; OAKWOOD HISTORIC DISTRICT
Zoning: GENERAL HOD
Nature of Project: Reconstruct curb ramps to meet ADA requirements

Staff Notes:
- COAs mentioned are available for review.

APPLICABLE SECTIONS OF GUIDELINES and DESCRIPTION OF PROJECT

<table>
<thead>
<tr>
<th>Sections</th>
<th>Topic</th>
<th>Description of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Public Rights-of-Way &amp; Alleys</td>
<td>Reconstruct curb ramps to meet ADA requirements</td>
</tr>
<tr>
<td>2.11</td>
<td>Accessibility, Health, &amp; Safety Considerations</td>
<td>Reconstruct curb ramps to meet ADA requirements</td>
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</table>

STAFF REPORT

Based on the information contained in the application and staff’s evaluation:

A. Reconstructing curb ramps to meet ADA requirements is not incongruous in concept according to Guidelines 1.1.1, 1.4.7, 1.4.8, 2.11.2, 2.11.4; however, the removal of historic patterned brick may be incongruous according to Guidelines 1.1.1, 1.1.2, and the following suggested facts:

1* The “Special Character of Blount Street Historic District” description in the Design Guidelines for Raleigh Historic Districts and Landmarks notes:

- “At the south end of the district are substantial stretches of patterned brick sidewalk laid in running bond, including original patterned bricks on the west side of the street. There is granite street curbing throughout the neighborhood, and frequent instances of low concrete and stone dividers demarcating property lines.”
- “…the Blount Street Historic District has retained a remarkable degree of continuity. This is principally due to the quality of the remaining structures and the presence of
linking landscape elements such as stretches of brick sidewalks, granite curbs, and the numerous great oaks and magnolias.”

2* The application groups each corner where alterations are proposed to occur into one of four different categories: historic brick with granite curbing (2 corners), historic brick without granite curbing (1 corner), non-historic brick with granite curbing (3), and non-historic brick without granite curbing (4). Photographs of each sidewalk corner and existing ramp access were provided.

3* All existing granite curbs are proposed to be reset in place or laid flush.

4* For the intersections with non-historic brick, the application proposes the replacement of the ramp area with concrete and gradually transition to the existing brick. A drawing of the proposed accessible ramp style was included. These materials are compatible with the character of the district, while indicating that the ramp is a new distinct feature.

5* For the intersections with historic brick, the application proposes the use of concrete for the landing strip, a 4’ wide section of concrete that leads to the warning domes, as shown in Photo 20. This proposal would require the removal of at least 32 sq. ft. of historic brick per proposed ramp alteration.

6* A photograph was provided of a brick accessible ramp. It is unclear if this style ramp is an option that could be installed.

7* Some non-historic concrete curbs in the project area were approved to be upgraded in Minor Work COA-0090-2019.

Staff suggests that the Committee discuss the removal of historic brick. Pending the results of that discussion, staff suggests that the Committee approve the application with the following conditions:

1. That the historic brick be retained.

2. That the all-brick style accessible ramp be installed at the intersections with historic brick.

Staff Contact: Collette Kinane, collette.kinane@raleighnc.gov
Major Work Certificate of Appropriateness

COA-0091-2019

Wake Forest Blount Person Complete Street Improvement Project

Submitted by:
Engineering Services
Roadway Design and Construction
Beth Quinn, Ph.D., PE
As part of the above referenced project, existing curb ramps are to be rehabilitated to meet ADA compliance. The project includes areas within the Blount Street, Oakwood and Capital Square historic districts.

An inventory of the curb ramps included in the scope of the project was conducted. A Minor work COA was submitted and approved for the curb ramps that were in non-historic condition. The remaining ramps that could be in historic condition are included in this report and Major Work COA application.

The ramps included in this application are divided into four categories. The ramps are listed by each intersection corner under these categories.

**Non-historic brick and no granite curb**

- Southwest Blount Street and Edenton Street
- Southeast Blount Street and Polk Street
- Northeast Blount Street and Polk Street
- Southeast Blount Street and Edenton Street

**Non-historic brick and granite curb**

- Southeast Blount Street and North Street
- Northeast Blount Street and North Street
- Northeast Blount Street and Lane Street

**Historic brick and no granite curb**

- Southwest Blount Street and Polk Street

**Historic Brick and granite curb**

- Southwest Blount Street and North Street
- Northwest Blount Street and North Street

This report includes a map with photo key, photos of the above intersections and ramps, curb ramp standard detail, map of curb ramp locations, specifications for handling granite curb, and examples of the proposed transitions between the ramps and the brick.

Our recommendation is to rehabilitate the non-historic brick ramps completely with concrete and transition back to the brick as shown in the “4.0 Curb Ramp Detail.” For the ramps with historic brick, we recommend using concrete for the landing strip, the four-foot wide section leading to the detectable warning domes as shown in picture 20. The granite curb will be reset according to the granite curb specifications included in this report.
1. Ramp shall be perpendicular to curb. Note: if the ramp is installed in line with crossing (non-perpendicular), a triangular level landing will be required to prevent an uneven surface for wheel chair users. See section 4.11 for landing details.
2. 4'-0” landing required due to turning maneuver.
3. If landing is indicated to be less than 4'-0”, construct side flares 8.33% max slope.
Disclaimer

iMaps makes every effort to produce and publish the most current and accurate information possible. However, the maps are produced for information purposes, and are NOT surveys. No warranties, expressed or implied, are provided for the data therein, its use, or its interpretation.
1. Blount Street and Edenton Street Intersection (Southbound)

2. Blount Street and Edenton Street – Southeast corner (non-historic brick; no granite curb)
3. Blount Street and Edenton Street – Southeast corner (non-historic brick; no granite curb)

4. Blount Street and Lane Street Intersection (Southbound)
5. Blount Street and Lane Street – Northeast corner (non-historic brick; granite curb)

6. Blount Street and North Street intersection (southbound)
7. Blount Street and North Street – Northeast corner (non-historic brick; granite curb)

8. Blount Street and North Street – Northwest corner (historic brick; granite curb)
9. Blount Street and North Street – Northwest corner (historic brick; granite curb)

10. Blount Street and North Street – Southeast corner (non-historic brick; granite curb)
11. Blount Street and North Street – Southwest corner (historic brick; granite curb)

12. Blount Street and North Street – Southwest corner (historic brick; granite curb)
13. Blount Street and Polk Street Intersection (Southbound)

14. Blount Street and Polk Street – Northeast corner (non-historic brick; no granite curb)
15. Blount Street and Polk Street – Southeast corner (non-historic brick; no granite curb)

16. Blount Street and Polk Street – Southwest corner (historic brick; no granite curb)
17. Person Street and Edenton Street Intersection (Northbound)

18. Person Street and Edenton Street – Southwest corner (non-historic brick; no granite curb)
19. Person Street and Edenton Street – Southwest corner (non-historic brick; no granite curb)

20. Example of concrete landing ramp
Example of complete brick ramp
NOTE: EACH NUMBER AT INTERSECTION CORNER REFERS TO STANDARD NCDOT ALTERNATIVE CURB RAMP TYPES (SEE PROJECT BD MANUAL, pgs. 99-100). FOR EXAMPLE, NUMBER 4A IS TYPE 4A SHARED LANDING WITH PLANTING STRIP. NO NOTATION INDICATES NO IMPROVEMENTS ARE NEEDED.
WITH CITY MAINTENANCE STAFF FOR BRICK COLLECTION.
OTHER DAMAGED LOCATIONS ON THE SIDEWALKS ALONG BLOUNT. COORDINATE

*REPLACE BRICK RAMPS WITH CONCRETE CURB RAMPS. KEEP BRICKS TO USE IN EXISTING CURB RAMPS
DETECTABLE WARNINGS TO RETROFIT EXISTING CURB RAMPS

BIKE LANES
RESTRIPING PROJECT
WAKE FOREST ROAD,
BLOUNT STREET, PERSON STREET

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8/17/2018
Curb Ramps

TYPE 4

- 6% MIN LANDING
- 8.33% MAX RAMP SLOPE (Typ)
- DEPRESSED 2'-6" CURB & GUTTER
- SIDEWALK AREA
- DETECTABLE WARNING SURFACE (Typ)
- DEPRESSED 2'-6" CURB & GUTTER (HEIGHT VARIES, CURB REVEAL DETERMINED BY FLARE SLOPE)
- RAMP WIDTH 4' MIN
- 4" CONCRETE CURB

TYPE 4A

- DEPRESSED 2'-6" CURB & GUTTER (HEIGHT VARIES, CURB REVEAL DETERMINED BY FLARE SLOPE)
- 24" TYP 12" MIN
- RAMP WIDTH 4' MIN
- 8.33% (22.5) MAX RAMP SLOPE
- CROSS SLOPE: 0%
- CURB RAMPS REQUIRE A (4'-4") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 10% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

TYPE 5

- 6" CONCRETE CURB
- DEPRESSED 2'-6" CURB & GUTTER
- SIDEWALK WIDTH 5' MIN.
- DEPRESSED 2'-6" CURB & GUTTER (HEIGHT VARIES, CURB REVEAL DETERMINED BY FLARE SLOPE)
- DETECTABLE WARNING
- RAMP WIDTH 4' MIN.

Refer to Roadway Standard Drawing Number 44.085 Sheet 3 of 3 for all ramp notes.
**PAVEMENT SCHEDULE**

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>7.5&quot; Portland Cement Concrete Pavement</td>
</tr>
<tr>
<td>B1</td>
<td>6&quot; Portland Cement Concrete Pavement</td>
</tr>
<tr>
<td>C1</td>
<td>Proposed Approx. 1.3(\frac{1}{4})&quot; Asphalt Concrete Surface Course, Type S9.5B at an Average Rate of 140 Lbs. per Sq. Yd.</td>
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<td>C2</td>
<td>Proposed Approx. 3&quot; Asphalt Concrete Surface Course, Type S9.5B at an Average Rate of 168 Lbs. per Sq. Yd. in Each of Two Layers</td>
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<tr>
<td>C3</td>
<td>Proposed Vail Depth Asphalt Concrete Surface Course, Type S9.5B at an Average Rate of 112 Lbs. per Sq. Yd. per 1&quot; Depth to be Placed in Layers Not to Exceed 1.16&quot; in Depth</td>
</tr>
<tr>
<td>D1</td>
<td>Proposed Approx. 7.5&quot; Asphalt Concrete Intermediate Course, Type T9.2B at an Average Rate of 427.5 Lbs. per Sq. Yd. in Each of Two Layers</td>
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<td>D2</td>
<td>Proposed Vail Depth Asphalt Concrete Intermediate Course, Type T9.0B at an Average Rate of 314 Lbs. per Sq. Yd. per 1&quot; Depth to be Placed in Layers Not to Exceed 4.16&quot; in Depth</td>
</tr>
<tr>
<td>X1</td>
<td>Proposed 4&quot; Aggregate Base Course</td>
</tr>
<tr>
<td>R1</td>
<td>Proposed 6&quot; x 16&quot; Granite Curb</td>
</tr>
<tr>
<td>R2</td>
<td>Existing 2&quot; - 6&quot; Concrete Curb and Gutter</td>
</tr>
<tr>
<td>R3</td>
<td>Existing 6&quot; x 16&quot; Granite Curb</td>
</tr>
<tr>
<td>S</td>
<td>Existing sidewalk</td>
</tr>
<tr>
<td>T</td>
<td>Earth material</td>
</tr>
<tr>
<td>U</td>
<td>Existing pavement</td>
</tr>
<tr>
<td>W</td>
<td>Wedging (see details)</td>
</tr>
<tr>
<td>Y</td>
<td>Mill existing pavement</td>
</tr>
</tbody>
</table>

Note: All pavement edge slopes are 1:1 unless otherwise shown.

*This detail meant to show granite curb detail for resetting existing or setting new as needed. Not all elements shown in detail may exist on this project.*

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**GRANITE CURB DETAIL**

**SECTION A-A**

**GRANITE CURB SETTING METHOD**
GRANITE CURB (NEW)

PART 1 – SCOPE OF WORK

Furnish and install Granite Curbs accordance with lines, grades and dimensions as directed by the engineer.

Streets, parking areas, thresholds, or sidewalk pavements damaged or disturbed by the Contractor's operations shall be repaired, replaced or restored in accordance with the requirements specified herein and as directed for the respective type of pavement replacement and in a manner satisfactory to the Owner.

PART 2 - PRODUCTS

2.1 GRANITE CURB

New granite curb shall be free from wind, shall be pointed, peen hammered or sawed to an approximately true plane and shall have no projections or depressions greater than 1/4-in. The front and back arris lines shall be pitched straight and true. Front faces shall be at right angles to the top and shall be smooth quarry split, free from drill holes and with no projection of more than 1-1/2-in and no depression greater than 1-in measured from the vertical plane of the face through the arris or pitch lines for the full depth of the face. The ends of stones shall be square with the planes of the top and face so that when stones are placed end to end, no space shall show in the joint in the top face of more than 3/8-in for the full width of the top. The arris formed by the intersection of the plane of the joint with the planes of the top and exposed faces shall have no variation from the plane of the top and exposed faces greater than 1/8-in.

New granite curb shall be manufactured with squared ends and in a manner to be set vertically. General length shall be minimum 6-ft long, 6” (six inches) wide at the top and 5” (five inches) minimum width at bottom for 2/3 of length. Ends may break back a maximum of 6” (six inches) after first 8” (eight inches) from top of finished curb. Front and back faces shall have a split face texture. Top and end faces shall be sawn with a thermal finish to provide slip resistance.

Granite curb corners shall match 6-in wide types.

All new granite for curbing shall be obtained from one quarry.

The Contractor shall submit shop drawings for review and approval prior to fabrication. These drawings shall include sections, tolerances for all faces, radii, lengths, and finishes for each face.
PART 3 – EXECUTION

3.1 GRANITE CURBS

A. Granite curb shall typically be furnished in 6” x 18” x 6’ minimum sections and be installed within the project limits. Granite shall be a White Mount Airy color or approved equal and shall have a split-face finish on the face and the top.

B. Granite curb shall be installed according to proposed grade with 18-in wide trench and continuous concrete puddle footing over compacted aggregate base at the locations mentioned above. The curb shall have a 6-in reveal and concrete curb lock except on ties to existing where reveal shall match existing feature.

C. All curb joints shall be 3/8-in wide and mortar raked out to 3/8-in depth as approved by the Engineer.
   a. Mortar for pointing joints shall conform to ASTM C-91 and C-144.

D. Granite shall be cut or cored to accept downspouts where required. The downspout penetrations shall be mortared in place.

E. Repair any defects in granite curbing, including uneven splits and cracks caused by installation operations or other Contractor’s operations by complete replacement of broken sections with new sections.

F. If adjacent bituminous concrete pavement is finished and in place prior to granite installation, saw cut the limit of bituminous concrete pavement to create a smooth, straight edge against which granite can be placed evenly and in a continuous line.

GRANITE CURB (EXISTING)

Contractor shall carefully excavate and handle existing granite curb and reset as detailed in the new granite curb section.
MEASUREMENT AND PAYMENT

Granite Curb will be measured and paid for by the linear foot, accepted in place, along the surface of the top of the curb. Work includes providing all materials, placing all concrete, excavating and backfilling, constructing and sealing joints, and all incidentals necessary to complete the work.

Payment will be made under:

6"x18" Granite Curb...(New).......................................................... Linear Foot

6"x18" Granite Curb...(Existing - Reset)............................................. Linear Foot

END SECTION