Nature of Project:
Remove collapsed stone retaining wall; construct new concrete block retaining wall.
Review of Retaining Wall at 519 Florence St
Information submitted by Trish Meeks

Distinguishing Factors:

1. This wall is below the property street grade, unlike any other wall found in the neighborhood.

2. Due to the extreme slope of Florence St and the Rocky Branch creek, the retaining wall is required to maintain the integrity of the house structure.

3. Throughout most of the Boylan Heights neighborhood the Rocky Branch creek is piped (see attached map), but adjacent to the subject property the creek is daylighted. The open creek heightens the grade/elevation drop and extreme elevation change. If the creek were piped and channeled here, a smaller wall and sloped grading would be sufficient.

4. The prior wall was built without footings, had a 25% bulge, and was not visible due to being completely covered with ground cover (English Ivy).

5. An inventory of retaining walls in the Boylan Heights neighborhood was conducted. As a result of this count, it was determined that the predominant wall type is cinder block wall, 18 properties, stone wall, 11 properties and flat concrete and block concrete stone are found on a total 16 properties; the remaining walls are brick: 6, brick and stone: 3, wood: 5. Many walls were covered with groundcover, making this a predominant feature. Clearly, while stone is can be considered desirable, it is not the predominant wall type in the Boylan Heights Historic District.

Remedies:

1. Applicant is willing to replant an appropriate groundcover, as determined by staff, so that the current below grade wall is not visible.

2. Applicant agrees that the gravel installed in the yard alongside the wall is incongruous and applicant agrees to remove it.

3. Applicant will restore a planted area as depicted in accompanying drawing.

4. A 10” masonry cap of genuine fieldstone will be created at ground level will be created on top of the retaining wall. This will cover the grade level top of the wall and making the grade level portion of the wall consistent with historical aspirations.
Proposed Rosenagente Greenway Extension

↑ ← Back Property Line → ↑

N

1. Remove gravel
2. Plant shrubs

#5 P1r

Florence Street

New retaining wall
Wide × height range from 2' - 6'

Plant vines

Closed culvert

Small creek

City of Raleigh

Lenoir Park

632 Lenoir

634 Lenoir

Note: Not to scale
PLAN

RETAINING WALL

3/16 = 1'-0"

WALL 8' MAX HEIGHT

RIGHT FRONT CORNER OF EXISTING FND WALL

KEYSTONE RTN WALL, COMPAC
UNITS, 8" X 12" X 16"
NOTE: REINFORCED SOIL TO BE SOIL WITH A MINIMUM INTERNAL ANGLE OF FRICTION OF 25°, MINIMUM MOIST DENSITY OF 115 PCF. COMPACT PER SECTION 3.05, SHEET SDL. OPTION: REINFORCED SOIL TO BE WASHED STONE OR GRAVEL.
BASE LEVELING PAD NOTES:

1. THE LEVELING PAD IS TO BE CONSTRUCTED OF CRUSHED STONE OR 2,000 P.S.I.
   UNREINFORCED CONCRETE.
2. THE BASE FOUNDATION IS TO BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO
   PLACEMENT OF THE LEVELING PAD.

COMPAC UNIT

- Width: 18'
- Height: 8'
- Weight: 85 LBS

MINI CAP UNIT

- Width: 18'
- Height: 10'
- Weight: 45 LBS

LEVELING PAD DETAIL

- Scale: 1/4" = 1'-0"

TOP OF WALL STEPS

- Scale: 1/4" = 1'-0"

NOTE:

1. CHECK WITH MANUFACTURER SPECIFICATIONS ON CORRECT DIRECTION OF ORIENTATION FOR
   GEOTEXTILE TO OBTAIN PROPER STRENGTH.

GEOTEXTILE INSTALLATION ON CURVES

- Scale: 5/32" = 1'-0"

MINIMUM WALL RADIUS:

- Inside Curve: 4.0' (AT BOTTOM OF WALL)
- Outside Curve: 4.0' (AT TOP OF WALL)
NOTE:
1. FOR PIPES LARGER THAN 24", A CONCRETE COLLAR MAY BE CAST AROUND PIPE FOR EASE OF CONSTRUCTION AND APPEARANCE.
   CONCRETE COLLAR: SAW CUT UNITS TO FIT (IF APPLICABLE) WITHIN 1/2" OF PIPE.
2. SCOUR PROTECTION AS REQUIRED; USE RIP RAP OR CONCRETE SLAB IN OUTLET AREA.

TYPICAL PIPE OUTLET DETAIL
SCALE: 1/4" = 1'-0"

TYPICAL GUARD RAIL DETAIL
SCALE: 1/4" = 1'-0"

NOTE:
1. AUGER THROUGH GEOSTRUC LAYERS.
2. BACKFILL OR CONCRETE GUARD RAIL POST IN PLACE.

GRID & PIN CONNECTION
SCALE: 1" = 1'-0"
PART 3 - EXECUTION

3.1 Form Levelling Pad

The concrete subgrade shall be placed to the final grade and elevation shown on the construction drawings. A minimum thickness of 3 inches shall be provided in the form and behind the modular wall unit.

3.2 Form Leveling Pad Material

The form leveling pad material shall be compacted to a minimum of 95% Standard Proctor density per ASTM D696.

3.3 Modular Wall Installation

The form leveling pad shall be prepared to receive full contact on the base surface of the concrete units.

3.4.1 Structural Concrete Walls

A. Reinforced from shall be placed and compacted in such a manner that the fullness of the wall in the ground an elevation change is maintained. It shall be placed in an even, compacted layer of at least 3 inches to achieve the required density as specified.

B. Reinforcement shall be embedded within the foundation as determined by ASTM D486 and shall be placed in an even, compacted layer of at least 3 inches to achieve the required density as specified.

3.4.2 Structural Concrete Walls

B. Reinforcement shall be embedded within the foundation as determined by ASTM D486 and shall be placed in an even, compacted layer of at least 3 inches to achieve the required density as specified.

3.4.3 Structural Concrete Walls

B. Reinforcement shall be embedded within the foundation as determined by ASTM D486 and shall be placed in an even, compacted layer of at least 3 inches to achieve the required density as specified.

3.4.4 Structural Concrete Walls

B. Reinforcement shall be embedded within the foundation as determined by ASTM D486 and shall be placed in an even, compacted layer of at least 3 inches to achieve the required density as specified.

3.4.5 Structural Concrete Walls

B. Reinforcement shall be embedded within the foundation as determined by ASTM D486 and shall be placed in an even, compacted layer of at least 3 inches to achieve the required density as specified.
Raleigh Historic Development Commission – Certificate of Appropriateness (COA) Application

For Office Use Only
Transaction #: 496768
File #: 190-16-CA
Fee: $147.00
Amount Paid: $147.00
Received Date: 12/05/2016
Received By: Pamela Best

☐ Minor Work (staff review) – 1 copy
☑ Major Work (COA Committee review) – 10 copies
☐ Additions Greater than 25% of Building Square Footage
☐ New Buildings
☐ Demo of Contributing Historic Resource
☐ All Other

☐ Post Approval Re-review of Conditions of Approval

Property Street Address: 519 Florence St
Historic District: Boylan
Historic Property/Landmark name (if applicable)
Owner's Name: Trish Meeks
Lot size: .19 (width in feet) 69’ (depth in feet) 157’

For applications that require review by the COA Committee (Major Work), provide addressed, stamped envelopes to owners of all properties within 100 feet (i.e. both sides, in front (across the street), and behind the property) not including the width of public streets or alleys (Label Creator).

<table>
<thead>
<tr>
<th>Property Address</th>
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<tbody>
<tr>
<td>515 Florence St</td>
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<tr>
<td>513 Florence St</td>
<td></td>
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<tr>
<td>632 Lenoir St</td>
<td></td>
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<tr>
<td>634 Lenoir St</td>
<td></td>
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<tr>
<td>501 S. Boylan</td>
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2senv
I understand that all applications that require review by the commission’s Certificate of Appropriateness Committee must be submitted by 4:00 p.m. on the application deadline; otherwise, consideration will be delayed until the following committee meeting. An incomplete application will not be accepted.

Type or print the following:

Applicant: Trish Meeks
Mailing Address: 519 Florence St.
City: Raleigh
State: N.C.
Zip Code: 27603
Date: 11/24/2016
Daytime Phone: 919-755-1999
Email Address: trishmeeks48@gmail.com
Applicant Signature: [Signature]

Will you be applying for rehabilitation tax credits for this project? □ Yes □ No
Did you consult with staff prior to filing the application? □ Yes □ No

Design Guidelines - Please cite the applicable sections of the design guidelines (www.rhdc.org).

<table>
<thead>
<tr>
<th>Section/Page</th>
<th>Topic</th>
<th>Brief Description of Work (attach additional sheets as needed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/4</td>
<td>Fences/Walls</td>
<td>Replace retaining wall that collapsed.</td>
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</tbody>
</table>
**Minor Work Approval (office use only)**

Upon being signed and dated below by the Planning Director or designee, this application becomes the Minor Work Certificate of Appropriateness. It is valid until __________________. Please post the enclosed placard form of the certificate as indicated at the bottom of the card. Issuance of a Minor Work Certificate shall not relieve the applicant, contractor, tenant, or property owner from obtaining any other permit required by City Code or any law. Minor Works are subject to an appeals period of 30 days from the date of approval.

Signature (City of Raleigh) ___________________________ Date ___________________________

<table>
<thead>
<tr>
<th>TO BE COMPLETED BY APPLICANT</th>
<th>TO BE COMPLETED BY CITY STAFF</th>
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<tbody>
<tr>
<td>8-1/2&quot; x 11&quot; or 11&quot; x 17&quot; sheets with written descriptions and drawings, photographs, and other graphic information necessary to completely describe the project. Use the checklist below to be sure your application is complete. <strong>Minor Work (staff review) – 1 copy</strong></td>
<td></td>
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<tr>
<td><strong>Major Work (COA Committee review) – 10 copies</strong></td>
<td></td>
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<tr>
<td>1. <strong>Written description.</strong> Describe clearly and in detail the nature of your project. Include exact dimensions for materials to be used (e.g. width of siding, window trim, etc.)</td>
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<td>2. <strong>Description of materials</strong> (Provide samples, if appropriate)</td>
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<td>3. <strong>Photographs</strong> of existing conditions are required. Minimum image size 4&quot; x 6&quot; as printed. Maximum 2 images per page.</td>
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<td>4. <strong>Paint Schedule</strong> (if applicable)</td>
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<td>5. <strong>Plot plan</strong> (if applicable). A plot plan showing relationship of buildings, additions, sidewalks, drives, trees, property lines, etc., must be provided if your project includes any addition, demolition, fences/walls, or other landscape work. Show accurate measurements. You may also use a copy of the survey you received when you bought your property. Revise the copy as needed to show existing conditions and your proposed work.</td>
<td>![ ]</td>
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<td>6. <strong>Drawings</strong> showing existing and proposed work</td>
<td>![ ]</td>
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<tr>
<td>□ Plan drawings</td>
<td>![ ]</td>
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<tr>
<td>□ Elevation drawings showing the façade(s)</td>
<td>![ ]</td>
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<tr>
<td>□ Dimensions shown on drawings and/or graphic scale (required)</td>
<td>![ ]</td>
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<tr>
<td>□ 11&quot; x 17&quot; or 8-1/2&quot; x 11&quot; reductions of full-size drawings. If reduced size is so small as to be illegible, make 11&quot; x 17&quot; or 8-1/2&quot; x 11&quot; snap shots of individual drawings from the big sheet.</td>
<td>![ ]</td>
</tr>
<tr>
<td>7. Stamped envelopes addressed to all property owners within 100 feet of property not counting the width of public streets and alleys (required for Major Work). Use the Label Creator to determine the addresses.</td>
<td>![ ]</td>
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<tr>
<td>8. <strong>Fee (See Development Fee Schedule)</strong></td>
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1. **Description of work:**

My property, 519 Florence St, is located on a lot that has a substantial grade change, and is adjacent to a small creek; there is a very sharp decline in the grade at the southern property line. The amount of foundation exposed on the north side is 1'8" and on the southern side of my house the foundation is 6'3" out of the ground. In addition to this foundation variation, there was a stone retaining wall along the front southern edge of the property. The stone was barely visible due to heavy ivy growth. In May 2016, a 12' portion of the wall collapsed.

The nature of this project is the replacement of this old retaining wall. A stone mason examined the stone wall in hopes that it could be repaired; however, he determined that the remaining portion wall had too much lean and was not properly built with any sort of footings or other necessary support. Additionally, due to the proximity of the creek, creating a simple slope was not possible; a retaining wall was necessary to protect the integrity of my foundation.

The project wall is 46' long with a 6' 90 degree turn, and runs along the southern edge of my property line. Due to the strong slope of the property towards the creek, it is important to note that the top of this 6’ wall is actually at ground level. See Picture #

2. **Materials:**

The materials used to build the replacement wall are grey 8" keystone curved concrete faced block. Appropriate drainage and engineered grid assured the integrity of the structure. This same material was used in the Project Enlightenment parking lot, as seen in picture #_1_ and Lenior Street Park as seen in picture #_2_. Both of these walls are within the 100' radius of my property.

The disturbed area was seeded and straw applied.

I am open to suggestions with regard to planting any sort of non-invasive vines along the wall.

3. **Photographs:**

   #3 Picture of collapsed wall, indicates proximity of creek
   #4 Picture of up close collapse and proximity of house foundation
   #5 View of collapsed wall from neighbors yard
   #6 finished wall
   #7 top view of finished wall
SUMMARY
A site inspection was performed for the purpose of evaluating an existing stone masonry retaining wall. The wall was found to be in a failing state, with evidence of the wall cracking and leaning. Replacement of the wall is recommended.

PLAN
RETAINING WALL
3/16" = 1'-0"
#5 Plot Plan

NOT TO SCALE