LOCAL HISTORIC DISTRICT: Dilworth

PROPERTY ADDRESS: 1309 Lexington Avenue

SUMMARY OF REQUEST: Addition

OWNER: David & Jennifer Reed

APPLICANT: John P. Harmon

This application was continued from January for more information on the column material. This revised application does not include changes to the front dormers.

Details of Proposed Request

Existing Conditions
The existing structure is a one story home constructed in 1953 and listed as a non-contributing structure. The home has a stone entrance, front facing gable and twin dormers.

Proposal
The proposal for Commission review is an addition of a porch roof and columns. The columns are 10” squared constructed in ‘Durastone’. See attached design and material specifications.

Policy & Design Guidelines - Additions
Additions to existing structures in Local Historic Districts have a responsibility to complement the original structure. Additions should reflect the design, scale and architectural style of the original structure. The following guidelines are intended to encourage addition designs that are compatible with the existing structure, while not fully mimicking the original design.

1. All additions will be reviewed for compatibility by the following criteria:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Size</td>
<td>the relationship of the project to its site</td>
</tr>
<tr>
<td>b. Scale</td>
<td>the relationship of the building to those around it</td>
</tr>
<tr>
<td>c. Massing</td>
<td>the relationship of the building’s various parts to each other</td>
</tr>
<tr>
<td>d. Fenestration</td>
<td>the placement, style and materials of windows and doors</td>
</tr>
<tr>
<td>e. Rhythm</td>
<td>the relationship of fenestration, recesses and projections</td>
</tr>
<tr>
<td>i. Setback</td>
<td>in relation to setback of immediate surroundings</td>
</tr>
<tr>
<td>g. Materials</td>
<td>proper historic materials or approved substitutes</td>
</tr>
<tr>
<td>h. Context</td>
<td>the overall relationship of the project to its surroundings</td>
</tr>
</tbody>
</table>
2. Additions must respect the original character of the property, but must be distinguishable from the original construction.

3. All additions to the front or side of existing properties must be of a design that is sensitive to the character and massing of the existing structure.

4. Additions to the front or side of existing structures that are substantially visible from a street must go before the full Commission.


Traditional Building Materials
1. The use of historically traditional building materials is strongly encouraged in all renovation, addition and new construction projects in Local Historic Districts.
2. Historic precedents in the visual context of any project indicate appropriate choices for building materials.
3. All building materials must match the character of the existing structure and/or the streetscape in design, texture and other visual qualities.

Non-Traditional Building Materials
1. The Historic District Commission considers substitute siding to be inappropriate for use in a designated Local Historic District, and does not allow its use on an historic structure within a Local Historic District.
2. The use of the following substitute siding materials is considered incongruous with the overall character of local historic districts, and is prohibited.
   - Vinyl
   - Aluminum or other metal sidings
   - Masonite
3. Cementitious board products are rarely considered appropriate for the main structure on a property. The Historic District Commission will consider these products on a case by case basis.
4. All proposals for the use of other non-traditional building materials for projects in Local Historic Districts will be judged on a case-by-case basis by the full Historic District Commission. The Commission will determine how well the proposed material and its proposed use are contextually appropriate in design, texture and other visual qualities.
5. The use of substitute or replacement building materials will not be considered as an alternative to routine maintenance.

Staff Analysis
The Commission shall determine if the proposal meets the applicable guidelines for additions, and if the proposed non-traditional building material is appropriate.
new asphalt shingle to match existing, typ. (at 30 yd)
30-lb. roof felt over 6-5/8" roof sheathing, typ. (45-day nailable roof & backing, typ.)
new 2" x 6" over 1 1/2" x 6" Fypon
new solid wood bedboard equal to Woodmont U6200088-
new pre-finished alum. cond. cornice drip edge, typ.
new felt solid wood V-groove soffit to match existing, typ.
new 4 1/2" x 6" solid plank wood siding from felt exposed equally within gable, typ.
new pitched asphalt shingle return
new pre-finished alum. Fascia guard gutter system to match existing, typ.
new 1 1/2" x 6" finished floor
(End Floor Existing)
new te solid wood gutter board to match existing, inlaid w/ existing, typ.
nue 1 1/2" solid wood bedboard equal to Woodmont U6200088
new te finished floor
Polystyrene particle board
Vuron sq. column w/ copper cap, typ.
new Simpson STR/150 strap system within column the depth, typ.

NEW COVERED ENTRY

SECTION THRU COVERED ENTRY
**DuraStone™**

- Never needs paint
- Colored throughout
- Ready to install
- Same load capacities as the FRP columns
- Available in ivory, sand and slate
- Limited lifetime warranty
- Low maintenance
- Custom colors available on large quantity orders

**POLY-CLASSIC®**

DST
POLY-CLASSIC® DURASTONE™ COLUMNS

Get the strength and durability of our popular Poly-Classic® FRP columns in a natural stone finish. Durastone™ columns are designed to simulate natural stone and just like in nature, the color and texture may vary slightly. Durastone™ columns are available in all the same sizes as our paint grade FRP columns with Tuscan caps and bases. (Roman Doric caps are not available). We also have a limited selection of decorative capitals to match the columns. The bases on the larger columns (18” and over) will come in two pieces; when installed the assembly seam will be visible. For specifications and other information please refer to the Poly-Classic® FRP column specifications on pages 13-19.

READY TO INSTALL

Poly-Classic® DuraStone™ Columns do not need to be primed or painted. Simply cut to length and install. Poly-Classic® DuraStone™ Columns have the same load-bearing capacity as our standard Poly-Classic® FRP Columns.

MAINTENANCE-FREE

Poly-Classic® DuraStone™ Columns are colored throughout utilizing UV inhibitors that will minimize color fade over time. (Turncraft warrants that during the first ten years following the date of installation, the degree of color change will not exceed 17 delta.) Because there is no need for primer or paint, there is also no need for touch-ups. The non-porous design makes the columns impervious to moisture damage.

DURASTONE® QUICK-FIT CAPITALS FOR ROUND TAPERED COLUMNS

<table>
<thead>
<tr>
<th>Capital height</th>
<th>Abacus width</th>
<th>Scroll width</th>
<th>Height adjust *</th>
<th>Width adjust *</th>
</tr>
</thead>
<tbody>
<tr>
<td>6”</td>
<td>8 1/8”</td>
<td>11 1/8”</td>
<td>45 1/16”</td>
<td>23 1/16”</td>
</tr>
<tr>
<td>8”</td>
<td>11 1/8”</td>
<td>14 1/16”</td>
<td>79 1/16”</td>
<td>11 1/16”</td>
</tr>
<tr>
<td>10”</td>
<td>14 1/8”</td>
<td>18 1/8”</td>
<td>103 1/16”</td>
<td>14 1/8”</td>
</tr>
<tr>
<td>12”</td>
<td>17”</td>
<td>21 3/4”</td>
<td>137 1/16”</td>
<td>17”</td>
</tr>
</tbody>
</table>

* Height Adjust is based on trimming the shaft at the architecturally correct location.
Poly-Classic Durastone Columns

Poly-Classic Durastone™ Columns are maintenance-free fiberglass columns constructed by combining durable, lightweight fiberglass and color treated with a unique natural stone finish to give them the look and feel of real stone.

DST
NEVER NEEDS PAINT
COLORED THROUGHOUT
READY TO INSTALL
SAME LOAD CAPACITIES AS THE FRP COLUMNS
AVAILABLE IN IVORY, SAND AND SLATE
LIMITED LIFETIME WARRANTY
LOW MAINTENANCE
CUSTOM COLORS AVAILABLE ON LARGE QUANTITY ORDER

Click Column Series for more information
# MATERIAL SAFETY DATA SHEET
## PolyClassic™

### Section I - General Information

**Date of Issue:** 12/22/94  
**Revised Date:** 3/05/98  
**Revised Date:** 6/25/02  
**Revised Date:** 9/2010  
**Revised Date:** 9/2011  

**Manufacturer's Name & Address:**  
CW Ohio, Inc.  
1209 Maple Avenue  
Conneaut, Ohio 44030

**Emergency Phone Number:** (440) 593-5800

**Chemical Name:**  
Cured Stone Filled Polyester Column

**Trade Name:** PolyClassic™

### Section II - Material Identification

**Chemical Family:**  
Cured Thermoset Polyester Resin  
(FRP Composite)  
Calcium Sulfate  
Hydrated Alumina  
Glass Fiber  
Titanium Dioxide

*NOT HAZARDOUS AS AN ARTICLE*

### Section III - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>N/A Solid</td>
</tr>
<tr>
<td>Vapor Density, Vapor Pressure</td>
<td>N/A Solid</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>~2.03 g/cc</td>
</tr>
<tr>
<td>Appearance</td>
<td>Solid Gray-Beige Color</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
</tbody>
</table>

### Section IV - Fire and Explosion Hazard Data

**Flash Point:** N/A

**Extinguishing Media:** Foam, CO2, Dry Chemical, Water

**Special Firefighting Procedures:** Wear approved self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Dust is combustible when exposed to heat or flame and may form explosive mixtures with air.
Section V - Reactivity Data

Stability: Unstable - NO  
Stable - Yes

Conditions to Avoid: Do not generate airborne dusts in the presence of an ignition source when cutting or grinding.

Hazardous Decomposition Products: CO₂, CO, Monomer Fumes

Hazardous Polymerization: None will occur.

Section VI - Health Hazard Data

Ingestion: If the person is conscious, give 2-3 glasses of water, then see a physician. Never give anything to an unconscious person.

Skin: Wash with soap and water.

Inhalation: Breath fresh air, oxygen if needed.

Threshold Limit: N/A

Effects of Overexposure (Dust): May cause irritation to eyes or skin with prolonged exposure.

Emergency Procedures: Flush irritated or affected area with cold water, especially eyes, or cleanse skin with soap and cold water. Consult physician if irritation continues.

Section VII - Control and Protective Measures

Respiratory Protection: Use protective filter mask when cutting or sanding.

Eye Protection: Use goggles or safety glasses.

Ventilation: Use adequate ventilation when cutting or sanding.

Other Protective Equipment: None

Section VIII - Precautions for Safe Handling and Disposal

Waste Disposal Method: Disposal in accordance with local, state, and federal regulations for disposal of solid waste.

Special Precautions: Avoid dust in eyes and prolonged skin contact. May cause irritation in some individuals.

NFPA Rating
Health - 1 (due to dust from cutting or sanding)  
Flammability - 1 (due to dust from cutting or sanding)  
Reactivity - 0

While this information set forth is believed to be accurate as of date set forth, CW Ohio, Inc. makes no warranty hereto and disclaims liability from reliance therein.

Nick Nierzejewski Noirot
Legacy report on the BOCA® National Building Code/1999

DIVISION: 06—WOOD AND PLASTICS
Section: 06500—Structural Plastics

EVALUATION SUBJECT:

POLY-CLASSIC® FRP COLUMNS

REPORT HOLDER:

CASCADE OHIO, INC. dba CW OHIO, INC.
1209 MAPLE AVENUE
CONNEAUT, OHIO 44030

EVALUATION SCOPE

Compliance with the following code:

BOCA® National Building Code/1999
# Section 1604.1 Safe support required
# Section 2203.1 General

1.0 DESCRIPTION OF EVALUATION

This report evaluates roto cast fiberglass reinforced polymer columns as structural columns supporting vertical concentric and eccentric compression loads.

2.0 DESCRIPTION AND USE OF PRODUCT

2.1 GENERAL DESCRIPTION

Poly-Classic® FRP Columns are available in fluted and non-fluted round, tapered shafts in sizes ranging from 6 inches (152 mm) to 24 inches (600 mm) in diameter with lengths ranging from 8 feet (2.44 m) to 24 feet (7.32 m), in round non-tapered columns from 8 inches (203 mm) to 14 inches (356 mm) in diameter ranging from 10 feet (3.05 m) to 14 feet (4.27 m) long, and in square, non-tapered columns from 6 inches (152 mm) to 12 inches (305 mm) square ranging from 8 feet (2.44 m) to 16 feet (4.88 m) long. The columns are of a single piece construction and are trimmed with either a Tuscan Cap and Base or with an optional Attic Base installed around the column (see manufacturer’s literature for examples of cap and optional base). Structural load bearing columns are limited to the size and dimensions shown in Tables 1. Non-load-bearing columns are permitted in any size and length produced.

2.2 USE AND APPLICATION

Poly-Classic® FRP Columns are used as exterior and interior columns, both load-bearing and non-load-bearing, in buildings of combustible construction.

2.2.1 Structural

The Poly-Classic® FRP Columns are capable of supporting the respective concentric and eccentric axial loads provided in Table 1 of this report. Allowable design capacities for the structural columns are based upon proper installation as described in the manufacturer’s published installation instructions and this report. For the concentric loads shown in Table 1 of this report, the column shall be installed with a bearing top plate that symmetrically distributes the load across the entire cross-section of the column. Where the eccentric loading values shown in Table 1 of this report are utilized, the beam shall bear directly on both walls of the column with a maximum offset of "e" as shown in the table. The base of the column shall bear entirely on a flat surface that provides suitable anchorage for the column and is capable of transferring all loads to the foundation. Where the installation instructions differ from this report, the performance of the structural column is outside the scope of this report. Non-structural columns shall be installed in accordance with the manufacturer’s published installation instructions.

2.2.2 Surface-Burning Characteristics

The Poly-Classic® FRP Columns with a minimum thickness of 3/4 inch (9.5 mm) have a flame spread index of less than 25 and a smoke-developed index of less than 450.

3.0 CONDITIONS OF USE

This report is limited to the applications and products as stated in this report. The ICC-ES Subcommittee on National Codes Intends that the report be used by the code official to determine that the report subject complies with the code requirements specifically addressed, provided that this product is installed in accordance with the following conditions:

3.1 Allowable design capacities for the Poly-Classic® FRP Columns are based upon installation as described in the manufacturer’s published installation instructions and this report. Where the installation instructions differ from this report, the performance of the structural column is outside the scope of this report. Non-structural columns shall be installed in accordance with the manufacturer’s published installation instructions.

3.2 Permit applications specifying the Poly-Classic® FRP Columns shall be accompanied by structural calculations which indicate that the concentric or eccentric axial applied load exerted on the columns is less than or equal to the allowable axial capacity specified in Table 1 of this report. The individual preparing such...
documents shall be competent and qualified in the application of the structural design principles involved, and shall possess the registration or license in accordance with the professional registration laws of the state in which the project is constructed.

3.3 Poly-Classic® FRP Columns have not been evaluated for decay resistance. The ability of this product to resist decay is outside the scope of this report.

3.4 Design loads shall be determined using Chapter 16 of BOCA® National Building Code/1999. The columns have been evaluated for gravity loads only. Other loads, such as lateral loads, applied in shear to the column are outside the scope of this evaluation report.

3.5 Loads for a given column length shall not exceed the allowable design loads given in Table 1 of this report.

3.6 The maximum amount of eccentricity for an axial applied load is limited to the values shown in Table 1 of this report. Eccentricities larger than this are outside the scope of this report.

3.7 Installations of Poly-Classic® FRP Columns, which will be directly exposed to the weather, shall receive an additional coat of paint, enamel or other approved protective coatings.

3.8 The Poly-Classic® FRP Columns shall be limited to use with buildings of Type 5 construction which do not exceed three stories or 40 feet in height.

3.9 Special Inspections of the structural column installation shall be provided for columns used other than in Use Group R-3 buildings. The inspections shall be conducted by a special inspector provided by the owner of the building under construction. The special inspector shall be qualified to perform the inspections and approved by the code official. The inspections shall be of a nature, and conducted at such frequency, as is necessary to ensure the Poly-Classic® FRP Columns compliance with the requirements of Code Section 1705.1.2 of the BOCA® National Building Code/1999.

3.10 This report is subject to periodic re-examination. For information on the current status of this report, contact the ICC-ES.

4.0 INFORMATION SUBMITTED

4.1 A Southwest Research Institute report titled, Investigation of the Surface Burning Characteristics of a 0.375 Inch Thick Polyester Resin Column Castings, Tested over 1.0 inch wide Flat Metal Bars Every 24 Inches, Report No. 01.04913.01.154a, dated March 4, 2002.

4.2 Architectural Testing, Inc. Report No. 01-43277.02, dated November 10, 2003, titled Performance Test Report, and contains test results establishing the effects on the flexural strength of the columns as a result of extreme temperature ranges and 2000 hours of accelerated weathering.


5.0 INFORMATION REQUIRED ON CONSTRUCTION DOCUMENTS

To aid in the use of this report, the following represents the minimum level of information to be reflected on construction documents in order to determine compliance with this report.

5.1 The language, “See ICC-ES Legacy Report No. 22-26.”

5.2 All permit applications utilizing Poly-Classic® FRP Columns shall be accompanied by structural calculations performed by a registered design professional. The calculations shall include, but not be limited to, the following:

5.2.1 The applied loads imposed upon the column by the components it supports.

5.2.2 The ability of the Poly-Classic® FRP Columns to sustain the applied loads consistent with Table 1 of this report.

5.2.3 The ability of all connections between the column and the components framing into it to properly bear on the Poly-Classic® FRP Columns and transfer all the imposed applied loads from the components supported by the column to the column, and from the column to its supporting footing.

5.2.4 The design of the footing which will support the Poly-Classic® FRP Columns.

5.3 Satisfactory evidence that the Poly-Classic® FRP Columns have been installed with the appropriate special inspection described in Section 3.9 of this report.

5.4 The manufacturer shall provide the user of this report with complete instructions on the proper installation of Poly-Classic® FRP Columns.

6.0 PRODUCT IDENTIFICATION

All Poly-Classic® FRP Columns manufactured in accordance with this report or the column packaging shall be labeled at the plant with the manufacturer's name and/or trademark, the product identification, the and the identifying language "See ICC-ES Legacy Report No. 22-26.” Additionally, each Poly-Classic® FRP Column or column packaging shall have a permanent label containing the mark of the third-party inspection agency, Intertek Testing Services NA, Ltd (Warnock Hersey).
<table>
<thead>
<tr>
<th>Columns Type and Nominal Size (in)</th>
<th>Maximum Length (ft-in)</th>
<th>Allowable Load (lbf)</th>
<th>Eccentric Loadings</th>
<th>Maximum &quot;e&quot; (in)²</th>
<th>Allowable Load (lbf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 - Round</td>
<td>8 - 0</td>
<td>6000</td>
<td></td>
<td>³/₈</td>
<td>6000</td>
</tr>
<tr>
<td>8 - Round</td>
<td>10 - 0</td>
<td>10000</td>
<td></td>
<td>¹³/₁₆</td>
<td>6600</td>
</tr>
<tr>
<td>10 - Round</td>
<td>12 - 0</td>
<td>14000</td>
<td></td>
<td>²⁹/₁₆</td>
<td>10720</td>
</tr>
<tr>
<td>12 - Round</td>
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<td>18000</td>
<td></td>
<td>³⁻³/₈</td>
<td>13200</td>
</tr>
<tr>
<td>14 - Round</td>
<td>16 - 0</td>
<td>20000</td>
<td></td>
<td>4</td>
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</tr>
<tr>
<td>16 - Round</td>
<td>20 - 0</td>
<td>20000</td>
<td></td>
<td>⁴¹/₄</td>
<td>13200</td>
</tr>
<tr>
<td>18 - Round</td>
<td>24 - 0</td>
<td>20000</td>
<td></td>
<td>⁴¹/₄</td>
<td>9040</td>
</tr>
<tr>
<td>20 - Round</td>
<td>20 - 0</td>
<td>20000</td>
<td></td>
<td>⁴¹/₄</td>
<td>18960</td>
</tr>
<tr>
<td>24 - Round</td>
<td>20 - 0</td>
<td>20000</td>
<td></td>
<td>⁴¹/₄</td>
<td>13200</td>
</tr>
<tr>
<td>8 - Round non-tapered</td>
<td>10 - 0</td>
<td>10000</td>
<td></td>
<td>²⁻¹/₈</td>
<td>8240</td>
</tr>
<tr>
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<td>10 - 0</td>
<td>14000</td>
<td></td>
<td>3</td>
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</tr>
<tr>
<td>12 - Round non-tapered</td>
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<td>18000</td>
<td></td>
<td>⁴¹/₄</td>
<td>11520</td>
</tr>
<tr>
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<td>20000</td>
<td></td>
<td>5</td>
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</tr>
<tr>
<td>6 x 6 Square</td>
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<td>¹³/₈</td>
<td>6000</td>
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<td>8 x 8 Square</td>
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<td>10000</td>
<td></td>
<td>²¹/₄</td>
<td>10000</td>
</tr>
<tr>
<td>10 x 10 Square</td>
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<td>12000</td>
<td></td>
<td>³¹/₄</td>
<td>12800</td>
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<tr>
<td>12 x 12 Square</td>
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<td>18000</td>
<td></td>
<td>⁴¹/₄</td>
<td>17320</td>
</tr>
</tbody>
</table>

SI Units: 1 inch = 25mm; 1 lbf = 4.45 N

**Notes to Table 1:**
1. Round columns include plain and fluted.
2. For the concentric loads, the column shall be installed with a bearing top plate which symmetrically distributes the load across the entire cross-section of the column.
3. Maximum "e" (in) is eccentricity measured from the centerline of the top of the column. The eccentric load simulated a nominal 4-inch (102 mm) wide wood beam (3¹/₂-inch (89 mm) actual width) bearing on a top plate offset at the top end.
**ADDENDUM: TABLE 2—ALLOWABLE LOADS POLY-CLASSIC COLUMNS**

<table>
<thead>
<tr>
<th>Columns Type and Nominal Size (in)</th>
<th>Maximum Length (ft-in)</th>
<th>Allowable Load (lbf)</th>
<th>Eccentric Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 - Round non-tapered</td>
<td>10 - 0</td>
<td>20000</td>
<td>4 1/4</td>
</tr>
<tr>
<td>18 - Round non-tapered</td>
<td>11 - 0</td>
<td>20000</td>
<td>4 1/4</td>
</tr>
<tr>
<td>20 - Round non-tapered</td>
<td>11 - 0</td>
<td>20000</td>
<td>4 1/4</td>
</tr>
<tr>
<td>24 - Round non-tapered</td>
<td>15 - 0</td>
<td>20000</td>
<td>4 1/4</td>
</tr>
<tr>
<td>14 × 14 Square</td>
<td>16 - 0</td>
<td>18000</td>
<td>4 1/4</td>
</tr>
</tbody>
</table>

*ICC-ES Legacy Report data not available for these sizes.

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**Example of Concentric Loading**
(8" tapered column, 8x beam):

Example of eccentric loading:
(8" tapered column, 4x beam):

Install columns with concentric loading to achieve maximum load bearing capacity. This means the overhead beam or surface must completely cover the top of the column shaft.

Load capacity values are only valid if there is uniform contact between the full area of the column shaft bottom and the surface it is installed on. If the surface is sloped (often done to provide runoff), then the bottom of the shaft must be trimmed to match the slope.

Column Shaft
Trim bottom to match slope of deck