

Section 05 55 16

STAIR NOSING SPECIFICATIONS

PART 1 — GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions, Supplementary Conditions and Division-1 General Requirements, apply to the work of this section.

1.02 WORK INCLUDED

- A. Furnish and install complete Balco, Inc. Stair Nosings.
 - 1. Two-Component stair nosing systems.
 - 2. Solid Bronze stair nosing systems.
 - 3. Single Component stair nosing systems.
 - 4. Non-slip abrasive strips and bars.
 - 5. Stair nosing systems for special applications.
 - 6. Stair nosing systems for renovations.
 - 7. Cast [aluminum] [iron] stair nosing systems.

1.03 RELATED WORK

- A. Related work which is specified elsewhere.
 - 1. Concrete work: Section 03000.
 - 2. Unit Masonry: Section 04200.

1.04 REFERENCES

- A. Publications listed herein are part of this specification to the extent referenced. The criteria established in the specifications shall take precedence over the standards referenced herein. (Examples of reference standards are given below.)
 - 1. American Society for Testing and Materials (ASTM):
 - a. ASTM B 221 – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes and Tubes
 - 2. State of California Title 24, Stripping code for the visually impaired.

1.05 SYSTEM DESCRIPTION

- A. Stair nosing assemblies shall be [anchored to substrate] [cast-in-place].
- B. Stair nosing treads shall be [solid] [ribbed].
- C. Stair nosing tread surfaces shall be slip resistant.
- D. Stair nosing treads shall be removable and replaceable.
- E. Retrofit stair nosings shall be [bevel back] [square back].
- F. Stair nosing treads shall comply with OSHA and local code requirements for stair design in public buildings.
- G. Stair abrasive bars shall be [1 inch] [2 inch] wide anti-slip bars.

H. Abrasives with cementitious-based resins shall not be acceptable.

1.06 QUALITY ASSURANCE

- A. Manufacturer: Obtain stair nosing assemblies through one source from an approved Manufacturer.
1. Manufacturer shall be ISO 9001 Certified or shall be an Approved Manufacturer for an ISO Certified Supplier.
 - a. ISO 9001:2000 Certified Manufacturer shall have documented management and control of the processes that influence the quality of its products.
 - b. Approved Manufacturer shall be approved by the Approved Supplier and shall have documented specifications that control their processes and influence the quality of its customer service.
 2. Manufacturer shall have a minimum of ten (10) years of experience in the fabrication of stair nosing systems.
- B. Installer: Firm with not less than three (3) years of successful experience in the installation of systems similar to those required by this project and acceptable to the manufacturer of the system.

1.07 SUBMITTALS

- A. Submit manufacturer's specifications and technical data, including Material Safety Data Sheets, installation instructions, as required, and catalog cuts and templates where required to explain construction and to provide for incorporation into the project.
- B. Submit certificates and/or copies of independent test reports or research reports showing compliance with specified performance requirements.
- C. Submit shop drawings showing complete fabrication details for all stair nosings, including required anchorage to surrounding construction.
- D. Submit three (3) 6" samples of the specified system.

1.08 DELIVERY, STORAGE AND HANDLING

- A. The manufacturer shall fill stair nosing sub-channels with a protective material to provide protection during construction. [This does not include cast nosings, treads and thresholds].
- B. Prior to shipment, the manufacturer shall cover the abrasive with heavy-duty tape to eliminate concrete infiltration and staining. [This does not include cast nosings, treads and thresholds]
- C. Deliver [stair nosing assemblies] [abrasive bars] to jobsite in new, clean, unopened crates of sufficient size and strength to protect materials during transit.
- D. Store components in original containers in a clean, dry location.

1.09 WARRANTY

- A. Submit manufacturer's warranty that materials furnished will perform as specified for a period of not less than one (1) year when installed in accordance with manufacturer's recommendations.

PART 2 — PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Furnish and install as noted in specifications and as indicated on drawings, [stair nosing (model and type no.)] [Abrasive bars (type no.)] as manufactured by: Balco, Inc., P.O. Box 17249, 2626 S. Sheridan, Wichita, KS 67217; phone: 800-767-0082 or (316) 945-9328; fax: (316) 945-0789.

2.02 MATERIALS

- A. Stair nosing system: [Manufacturer's model and type number].
1. Aluminum: ASTM B 221, alloy 6063-T5 for extrusions.
 2. Bronze: Alloy 385 for extrusions.
 3. Cast Aluminum: Cast Aluminum alloy 319, tread plate.
 4. Cast Iron: Class 35, tread plate.
- B. Abrasive:
1. Standard Abrasive: Two (2) part Epoxy combined with aluminum oxide grit [standard].
 2. Photoluminescent: Two (2) part Epoxy combined with thermoplastic aggregate and high-grade strontium aluminate photoluminescent pigment, zinc sulfide shall not be allowed.
- C. Fasteners required for complete installation to manufacturer's instructions.
1. Two Component Stair Nosings: Standard and Tread plate securing screws.
 2. Single Component Stair Nosings: [Standard] [Barbed] [Continuous] [Strap] anchors.
 3. Special Applications Stair Nosings: [Standard anchors] [Concrete Screws].
 4. Stair Nosings for Renovations: [Wood Screws] [Strap Anchors] [Concrete Screws].
 5. Cast Stair Nosings: Wing anchors.

2.03 FABRICATION

- A. Fabricate stair nosing assemblies as detailed. Provide anchors and accessories necessary for complete installation.
1. Fabricate solid surface abrasive tread 3/8 inch thick by [_____] wide.
 2. Fabricate heavy-duty abrasive tread ribs 1/4 inch thick by [_____] wide.
 3. Fabricate two- component abrasive tread ribs 3/16 inch thick.
 4. Fabricate stair nosings with the depth of nose to measure underside [_____] inches.
 5. Provide abrasive treads of specified color.
 6. Provide abrasive bars of specified color.
 7. Provide specified anchors and, where required, tread plate securing screws.
 8. Surfaces to be embedded in concrete shall be coated with a clear acrylic lacquer.
- B. Package components with anchors.

2.04 FINISHES

- A. Aluminum subchannels and tread plates shall be:
 - 1. Mill finish.
 - 2. Heat-treated for strength.
 - 3. Clear acrylic lacquer coated for components to be embedded in concrete. [This does not include cast nosings].
 - 4. Anodized [clear] [black] [dark brown] [medium bronze] [light bronze] [gold] [champagne].
- B. Cast abrasive nosings and tread plates shall be:
 - 1. Cast iron or cast aluminum [standard] surface and nose cross-hatched abrasive.
 - 2. Cast iron shall have one coat of black paint.
 - 3. Cast aluminum shall have a natural sand cast finish.
 - 4. Due to casting process, surfaces may have areas of slight discoloration. A wire brush can be used to remove the discoloration. Since this is part of in the cast processing, any labor cost required to remove this discoloration will not be compensated by Balco.
- C. Bronze tread plates shall be:
 - 1. Satin finish.
- D. [Solid abrasive tread] [abrasive ribs] shall be: [Black] [Yellow] [Silver Gray] [Twilight Blue] [Black Rain] [Redstone] [Pineland Green] [Rare Earth] [Gravel Gray] [Canyon Tan] [Brown Bark].

PART 3 — EXECUTION

3.01 EXAMINATION

- A. Installer shall examine conditions under which work is to be performed and shall notify the contractor in writing of unsatisfactory conditions. Installer shall not proceed until unsatisfactory conditions have been corrected in a manner acceptable to the installer.

3.02 INSTALLATION

- A. Install stair nosings in accordance with the governing regulations, the industry standards applicable to the work, and the manufacturer's written installation instructions.
 - 1. Sub-channels of two component stair nosings shall be installed with the pour.
 - 2. Abrasive tread plates of two component stair nosings shall be installed in the final stages of construction.
- B. Work shall be aligned plumb, level, and, where required, flush with adjacent surfaces and rigidly anchored to the substrate.

3.03 CLEANING

- A. Clean exposed surfaces as recommended by the manufacturer.

3.04 PROTECTION

- A. Advise the contractor of procedures required to protect the finished work from damage by work of other Sections during the remainder of the construction period.
- B. Finished units shall be without damage. Units damaged during shipping or construction shall be repaired by the contractor at the expense of the party damaging the material, in accordance with the contract requirements.

3.05 GENERAL RESPONSIBILITY

- A. Any variation from this specification resulting in additional cost to any other contractor or subcontractor on this project shall be the sole financial responsibility of the contractor for the work of this section.

End of Section