



The following specification refers to the Stepstone, Inc. product known as:

California Architectural Pavers
for Sand-Set Installations

Stepstone, Inc. also manufactures California Architectural Pavers for Mortar-Set Installations that have their own unique three-part specification. If you need any additional information please call Stepstone, Inc. at 800-572-9029 or visit our website www.stepstoneinc.com.

SECTION 32 14 13.16

PRECAST CONCRETE PAVING UNITS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Precast concrete paving units for sand-set pedestrian use installation.

B. Related Sections:

1. Section 32 14 13.13 Interlocking Precast Concrete Unit Paving.
2. Section 32 14 13.19 Porous Precast Concrete Unit Paving.

1.2 REFERENCES

A. ASTM International:

- | | |
|-------|--|
| C 33 | Concrete Aggregates |
| C 144 | Aggregate for Masonry Mortar |
| C 150 | Portland Cement |
| C 979 | Pigments for Integrally Colored Concrete |

B. Paving installations should be designed in consultation with a qualified civil engineer, in accordance with established flexible paving design procedures.

1.3 SUBMITTALS

- A. Samples: Submit two full-sized samples of each type of precast concrete paving units to show the full range of color and texture of unit for selection and approval. If sealer is to be applied to precast concrete paving slab, apply sealer on one sample.

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B. Warranty: Provide certified copies of manufacturer's product warranties.

1.4 Mock-Ups:

A. Install a 4 ft. x 4 ft. paver area as described in Article 3.2. Mock-up area to be used to determine joint sizes, lines, laying pattern, color(s) and texture of the job. Mock-up area to be the standard from which the work will be judged. Consideration will be given with regard to differences in age of materials from time of mock-up construction to the time of actual product delivery and installation.

1.5 SUBSTITUTIONS:

A. Refer to Section 01 62 00 (01630) for procedures.

B. Proposed substitutions, to be considered, shall be manufactured of equivalent materials that meet or exceed specified requirements of this Section.

C. Proposed substitutions shall be identified not less than 10 days prior to bid date.

1.6 QUALITY ASSURANCE

A. Compliance with Regulations: Comply with requirements of state and local building codes and with rules and regulations relating to building accessibility.

B. Qualifications of Manufacturer: Company specializing in manufacture of precast concrete paving units with a minimum of 10 continuous years of documented experience.

C. Precast concrete paving units shall have a minimum compressive strength of 5,000 psi.

1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials to the installation site in the manufacturer's original packaging. Packaging shall contain manufacturer's name, customer name, order, identification number, and other related information.

B. Handle and store precast concrete paving units in accordance with manufacturer's recommendations.

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1.7 WARRANTY

- A. Provide warranty covering precast concrete paving units against defects in material and workmanship for a period of 5 years. Unusual abuse and neglect are excepted.

PART 2 - PRODUCTS

2.1 MANUFACTURER

Stepstone, Inc.
17025 South Main Street
Gardena, CA 90248
(310) 327-7474
(800) 572-9029
FAX (310) 217-1424
www.stepstoneinc.com

2.2 MATERIALS:

- A. Precast concrete paving units shall be California Architectural Pavers, precast concrete, consisting of Portland cement, aggregate, and color admixtures.

- 1. Portland Cement: ASTM C 150, Type III, high early strength.
- 2. Aggregate: ASTM C 33.
- 3. Color Admixture: By Davis Colors, or equal, as required to achieve color as selected.
- 4. Aggregate for exposed aggregate surface: As selected.

- B. Precast concrete paving unit style:

- 1. California Architectural Pavers - 2" inch thick only:
 - a. Radius top edge.

2.3 COLORS AND FINISHES:

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A. Colors: Davis Colors (or equal), integral color admixture.
Note to specifier: Select one or more of the standard colors. Custom colors are available.

<u>Without Slag</u>		<u>With Slag</u>
1801	Granada White	1401 Granada White
1803	Santa Fe Buff	1403 Santa Fe Buff
1804	French Gray	1404 French Gray
1805	Iceberg Green	1405 Iceberg Green
1806	Almond	1406 Almond
1807	Cafe brown	1407 Cafe brown
1808	Espresso brown	1408 Espresso brown
1809	Malibu	1409 Malibu
1810	Caramel	1410 Caramel
1812	Agave Green	1412 Agave Green
1813	Porcelain	1413 Porcelain
1816	Brick Red	1416 Brick Red

Note to specifier: Select one or more of the finishes listed below.

B. Finishes: Walking surfaces of precast concrete paving units shall have minimum coefficient of friction of 0.60, wet and dry.

- | | |
|----------------------|-------------------------------|
| 1. Sandblasted | 2. Slate |
| 3. Exposed aggregate | 4. False Joint Narrow Modular |

Note: Not all sizes are available in all finishes. Refer to size and finish chart in section in 2.4.B to determine which finish is available in each size.

Note to specifier: Factory applied sealer is mandatory for installations in harsh freeze-thaw climates, optional in mild climates.

C. Factory Application of Sealer:

1. Factory apply one coat of penetrating sealer to all surfaces of California Architectural Pavers.
2. Sealer shall be non-staining, penetrating material, suitable for exterior or interior use, type which does not discolor or darken the surface.

3. Conform to sealer manufacturer's recommendations for application of sealer.

2.4 PHYSICAL PROPERTIES:

- A. Compressive strength: Minimum 5,000 psi.

Note to specifier: Select one or more of the sizes and finishes listed below.

- B. Size and Finish Schedule:

SIZE	SAND BLAST	EXPOSED AGG.	SLATE	FALSE JOINT NMP
7-7/8" x 2" x 15-7/8"	X	X		
11-7/8" x 2" x 11-7/8"	X	X	X	
11-7/8" x 2" x 23-7/8"	X	X	X	
15-7/8" x 2" x 15-7/8"	X	X		
17-7/8" x 2" x 17-7/8"	X	X	X	
17-7/8" x 2" x 23-7/8"	X	X	X	
17-7/8" x 2" x 35-7/8"	X	X	X	
23-7/8" x 2" x 23-7/8"	X	X	X	X
29-7/8" x 2" x 29-7/8"	X	X		
35-7/8" x 2" x 35-7/8"	X	X		

- C. Unit size: Within 3/16 inch of designated length, width and thickness.
- D. Weight:
California Architectural Paver: 22 pounds per square foot.
- E. Water absorption: Not more than 8.8 percent average, not more than 9.8 percent for any individual unit.
- F. Resistance to Freeze-Thaw: California Architectural Pavers will resist 50 freeze thaw cycles in accordance with ASTM C1645 Standard Test Method for Freeze-Thaw and De-icing Salt

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Durability of Solid Concrete Interlocking Paving Units.

2.6 FABRICATION:

- A. California Architectural Pavers shall be fabricated of cement conforming to ASTM C 150, Type III, aggregates conforming to ASTM C 33, and pigments for integrally colored concrete conforming to ASTM C979.

2.7 SOURCE QUALITY CONTROL

- A. Concrete for California Architectural Pavers shall be tested frequently to assure that mixes provide units having not less than 5,000 psi compressive strength at 28 days (average test strength not less than 4,500 psi).

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Contractor and/or Architect/Engineer must certify that sub-grade preparation, compacted density and elevations conform to the specifications. Compaction of the soil sub-grade to at least 98% Standard Proctor Density per ASTM D 698 is recommended. Stabilization of the sub-grade and/or base may be necessary with weak or saturated sub-grade soils. The Contractor and/or Architect/Engineer should inspect sub-grade preparation, elevations and conduct density tests for conformance to specifications.
- B. Contractor and/or Architect/Engineer must verify that geotextiles, if applicable, have been placed according to specifications.
- C. Contractor and/or Architect/Engineer must verify that aggregate base materials, thickness, compaction, surface tolerances, and elevations conform to the specifications.
- D. Contractor and/or Architect/Engineer must verify location, type, installation and elevations of edge restraints around perimeter of area to be paved. Perimeter containment must surround the entire paving area.
- E. Contractor and/or Architect/Engineer must verify base is dry, uniform, even and ready to support sand, precast concrete paving units, and imposed loads.
- F. Installing the bedding sand and precast concrete paving unit installation constitutes acceptance of base and edge restraint installation.

3.2 INSTALLATION - GENERAL

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- A. Installation shall comply with requirements of applicable building codes and state and local jurisdictions.
- B. Spread the bedding sand evenly over the base course and screed to a nominal 1 in. thickness. Do not exceed 1" thickness.
- C. Use low amplitude, high frequency plate vibrator to compact the sand bed.
- D. Lay the precast concrete paving units on top of compacted sand in the pattern as defined on the drawings. Maintain straight pattern lines.
- E. Joints between the pavers shall be between 1/8 in. and 5/16 in. wide.
- F. Fill gaps at edges of the paved area with cut precast concrete paving units
- G. Fill joints with sand. **Note to specifier: Select one of the following joint sand options:**
 - a. Joint sand to meet specifications ASTM C 33 or ASTM C 144 mixed with joint sand stabilizer per manufacturer's recommendations.
 - b. Polymeric sand per manufacturer's recommendations.

3.5 CLEANING:

- A. Clean exposed surfaces of precast concrete paving units. Use cleaners appropriate for precast concrete finishes and colors. Acid based cleaners will alter finish and color.

3.6 SEALING:

- A. If precast concrete paving units are factory sealed, generally do not apply additional sealer. Verify with Stepstone and sealer manufacturer if it is desired to apply additional sealer. If precast concrete paving units are not sealed in the factory, sealer may be applied at specifier's discretion.

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3.7 COMPLETION:

- A. Protect precast concrete paving units from damage due to subsequent building operations.
- B. After installation and before completion, inspect precast concrete paving units for construction damage and obtain new precast concrete paving units if required.
- C. Immediately prior to final acceptance of project, clean precast concrete paving units.

END OF SECTION

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