SP- 157037
(New)

SPECIAL PROVISIONS
FOR
PRECAST CONCRETE PAVER COMPASS

Johnson County
RT-C052(105)--9H-52

Effective Date
October 17, 2017

THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

1. GENERAL INFORMATION

1.1 Summary

A. All labor, materials, equipment, and supervision required to furnish and to install Precast Concrete Paver Compass.

B. This Special Provision includes the requirements for: Precast Concrete Paver Compass, sand setting bed, paver joint filler, installation of sand setting bed, paver and joint filler installation.

1.2 Submittals

A. Paver manufacturer's material test data certifying pavers comply with specification. Testing shall be performed by an independent testing agency retained by the paver manufacturer.

B. Setting bed and joint filler sand material sample.

C. Setting bed and joint filler sand gradation reports.

1.3 Site Disturbances

A. Take precautions to insure equipment and vehicles do not disturb or damage existing site grading, walks, drives, utilities, plants, and all site elements.

B. Repair and/or return to original condition any damage caused by Contractor's negligence at no cost to Contracting Authority.

C. Provide temporary barricades and warning lights as required for protection of project work and public safety.

1.4 Delivery, Storage & Handling

A. Deliver materials in manufacturer's original, unopened, undamaged packaging with identification labels intact.

B. Unload pavers at job site in such a manner that no damage occurs to the product.

C. Store materials protected such that they are kept free from mud, dirt, and other foreign materials. Cover bedding sand and joint sand with waterproof covering if needed to prevent exposure to rainfall or removal by wind. Secure the covering in place.

1.5 Environmental Requirements

A. Do not install sand or pavers during heavy rain or snowfall.

B. Do not install frozen sand or saturated sand.

C. Do not install concrete pavers on frozen or saturated sand.

2. PRODUCTS

2.1 Concrete Pavers

A. Concrete Paving Units: UNI-Stone as manufactured by a member of UNI-Group U.S.A., or a member of the Interlocking Concrete Paving Institute (ICPI).

B. Concrete Paving Units shall comply with ASTM C 936.

C. Compressive Strength: Greater than 8000 psi. ASTM C 140.

D. Water Absorption: Maximum of 5% per ASTM C 140.

E. Freeze-thaw and De-icing Salt Durability per ASTM C 1645 (Saline test).

F. Style and Size:

1. Precast Concrete Paver Compass acceptable manufacturers:

a. USA Inlays
P.O. Box 365
Lambertville, NJ 08530
877/664-6529

b. Uni-Group USA
4362 Northlake Blvd.
Palm Beach Gardens, Florida 33410
561/626-4666

c. Paverart LLC
2512 Egg Harbor Road
Lindenwood, NJ 08021
856/783-7000

2. Compass Precast Pavers size and style: as noted in detail 10, Sheet O.01.

2.2 Setting Bed Sand and Joint Filler Sand

A. Clean, non-plastic, free from deleterious or foreign matter, natural or manufactured from crushed rock. Do not use limestone screenings or stone dust that do not conform to the grading requirements in Table 121010-1. When concrete pavers are subject to vehicular traffic, the sands shall be as hard as practically available.

B. Sieve according to ASTM C 136.

C. Setting Bed Sand:

Table 157037-1: Grading Requirements for Setting Bed Sand

Sieve	Percent Passing
3/8 inch	100
No. 4	95 to 100
No. 8	85 to 100
No. 16	50 to 85
No. 30	25 to 60
No. 50	10 to 30
No. 100	2 to 10
No. 200	0 to 1

D. Joint Filler Sand:

Table 157037-2: Grading Requirements for Joint Filler Sand

Sieve Size	Natural Sand Percent Passing	Manufactured Sand Percent Passing
No. 4	100	100
No. 8	95 to 100	95 to 100
No. 16	70 to 100	70 to 100
No. 30	40 to 75	40 to 100
No. 50	10 to 35	20 to 40
No. 100	2 to 15	10 to 25
No. 200	0 to 1	0 to 10

3. EXECUTION

3.1 Preparation of Concrete Subslab

A. Inspect concrete subslab to insure surface is clean and built in conformance with details.

B. Verify elevation difference between concrete subslab and adjacent finish concrete surface to insure concrete pavers can be installed flush with bordering concrete pavement.

3.2 Placing Setting Bed Sand

A. Spread the bedding sand evenly over the subslab and screed to a nominal 1 inch thickness, and not to exceed 1 1/2 inches thick.

B. The screeded sand should not be disturbed.

C. Place sufficient sand to stay ahead of the laid pavers.

D. Screeded area will not substantially exceed that which is covered by pavers in 1 day.

3.3 Installation of PCC Pavers

A. After the sand setting bed has been installed, carefully place the pavers in straight courses with “hand” tight joints and uniform top surface.

B. Paver spacer bars will provide joints between pavers (joints may be between 1/16 inch and 3/16-inch-wide and no more than 5% of the joints shall exceed 1/4-inch-wide to achieve straight bond lines).

C. Paver Joint lines shall not deviate more than +/- 1/2 inch over 50 feet from string lines.

D. Fill gaps at the edges of the paved area with cut pavers or edge units.

E. Keep skid steer and forklift equipment off newly laid pavers that have not received initial compaction and joint sand.

3.4 Joint Treatment

A. Use a low-amplitude plate compactor capable of at least minimum of 4000 pounds at a frequency of 75 to 100 Hz to vibrate the pavers into the sand. Remove any cracked or damaged pavers and replace with new units.

B. Simultaneously spread, sweep and compact dry joint sand into joints continuously until full. This will require at least four to six passes with a plate compactor. Do not compact within 6 feet of unrestrained edges of paving units.

C. All work within 6 feet of the laying face must shall be left fully compacted with sand-filled joints at the end of each day or compacted upon acceptance of the work. Cover the laying face or any incomplete areas with plastic sheets overnight if not closed with cut and compacted pavers with joint sand to prevent exposed bedding sand from becoming saturated from rainfall.

D. Remove excess sand from surface when installation is complete.

E. Allow excess joint sand to remain on surface to protect pavers from damage from other trades. Remove excess sand when directed by the Engineer.

F. Surface shall be broom clean after removal of excess joint sand.

G. Final joints will be from 0 inches to maximum of 1/4 inches for concrete pavers.

3.5 Field Quality Control

A. The final surface tolerance from grade elevations shall not deviate more than +/- 3/8 inch under a 10 foot straightedge.

B. Check final surface elevations for conformance to drawings.

C. The surface elevation of pavers shall be 1/8 inch to 1/4 inch above adjacent drainage inlets, concrete collars or channels.

D. Lippage: No greater than 1/8 inch difference in height between adjacent pavers.

3.6 Cleaning

A. Clean concrete pavers in accordance with the manufacturer’s written recommendations.

B. Sweep excess sand from paved surfaces and remove from site.

C. Remove all excess materials and debris from site.

3.7 Protection

A. Contractor shall be responsible for protecting adjacent pavements and improvements during installation of PCC Pavers in Crosswalks.

B. After work in this section is complete, the Contractor shall be responsible for protecting work from damage due to subsequent construction activity on the site.

4. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

4.1 Method of Measurement: The Engineer will measure each Compass Precast Pavers medallion.

4.2 Basis of Payment: Payment for Compass Precast Pavers medallion will be as a lump sum and includes all labor, materials, freight, equipment, and supervision required to furnish and install concrete pavers.