

SECTION 07 76 00

ROOF PEDESTAL PAVER SYSTEM

Edit entire master to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences within brackets [] reflect a choice to be made regarding inclusion or exclusion of a particular item or statement. This section may include performance, proprietary and descriptive type specifications. Edit to avoid conflicting requirements. Editor notes to guide the specifier are included between lines of asterisks to assist in choices to be made. Remove these notes before final printing of specification.

This guide specification is written around the Construction Specifications Institute (CSI) Section Format standards.

PART 1: GENERAL

1.1 SUMMARY

A. RELATED DOCUMENTS:

1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications, apply to this section.

B. SECTION INCLUDES:

1. Rooftop Pavers/Tiles
2. Adjustable Pedestal Supports

C. RELATED SECTIONS:

1. Section 04 22 00 – Concrete Unit Masonry
2. Section 04 40 00 – Stone Assemblies
3. Section 61 50 00 – Wood Decking
4. Section 07 33 63 – Vegetated Roof System
5. Section 07 55 00 – Membrane Roofing
6. Section 09 69 00 – Access Flooring

1.2 REFERENCES

A. Standards for Pedestal Paver Systems:

1. ASTM C 67 – Freeze Thaw
2. ASTM C 140 – Compressive Strength
3. ASTM C 140 – Water Absorption
4. ASTM C 293 – Flexural Strength

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Convene for installation meeting at least one week before starting work of this section.

1.4 SUBMITTALS

- A. Shop Drawings: Submit scaled shop drawings including plan of installation area, layout of all paver and pedestal areas, starting point and elevations, and construction details at critical terminations of pedestal paver system with adjacent construction. Include manufacturer's literature completely describing all components of the pedestal paver systems and giving detailed installation recommendations and instructions.
- B. Product data for pedestal paver system, including all components with descriptive published data indicating characteristics and limitations.
- C. Samples:
 - a. Architectural Pavers: Submit samples for type, color and texture required.
 - b. Pedestals: Submit samples of each pedestal component.
- D. Delivery, storage and handling requirements and recommendations
- E. Certifications: Written submittal by manufacturer indicating that installer is certified as qualified to perform work of this Section.
- F. Closeout Submittals:
 - 1. Warranty: Submit manufacturer warranty and ensure Owner's name is registered with manufacturer.

1.5 QUALITY ASSURANCE

- A. Single Source Responsibility: Manufacturer shall provide the following:
 - 1. Rooftop Pavers
 - 2. Pedestal Support System
- B. There shall be no deviation from this specification or the drawings. Installer assumes liability for any deviations from specifications and/or drawings.
- C. Installer Qualifications: Certified as pre-approved and qualified by manufacturer to install work of this section.
- D. Preconstruction Testing: Conduct to verify following:
 - 1. Membrane Roofing Manufacturer: Conduct inspection by certified manufacturer's technical representative to verify that the in-place membrane roofing system meets the manufacturer's specifications, is waterproof, and is approved for installation of the pedestal paver system. Verify membrane protection layer (if required) and other requirements to maintain roofing manufacturer's warranty provisions. A copy of the inspection report shall be submitted to the pedestal paver manufacturer prior to installation of the pedestal paver system.

2. Membrane Integrity Test: The roof area or portions thereof shall be leak tested by means of electronic testing or flood testing for a period of 48 hours to check the integrity of the membrane installation. Membrane integrity test shall be conducted by roof membrane contractor and attested in writing to pedestal paver manufacturer by the roofing contractor prior to the pedestal paver system being installed.

1.6 DELIVERY, HANDLING, STORAGE, PROTECTION

- A. Deliver materials to project site in the original packaging with the manufacture's labels intact and legible.
- B. Inspect all materials to ensure they are undamaged and in good condition.
- C. Store materials in a clean, dry and protected location.
- D. Ensure waterproofing membrane is not damaged while delivering, storing or handling material.
- E. Take measures to locate and spread loads in manner to not exceed load capacity of roof deck.
- F. Store paver and pedestal components and materials over plywood panels or protective sheeting. Do not allow products, grit, debris, and pedestrian traffic on unprotected roofing.
- G. During installation, protect the roof deck and membranes with appropriate material such as plywood sheeting. Never scrape or puncture membrane protection layer or membranes. Keep roof surfaces free of soil, grit, or debris at all times.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, precipitation) within limits recommended by manufacturer for optimum results. Do not install products in any unsafe condition, inclement weather or under environmental conditions outside manufacturer's recommended limits.
- B. Deck supports specified are to be used with pedestrian traffic only. All four sides of deck system must restrain and contain the decking panels with perimeter blocking or walls. Decking panels must not be allowed to move laterally.
- C. All membrane waterproofing and protection board surfaces to receive pedestals must be frost/ice free, and free of dirt, oil, debris or any rough foreign matter, which may impair the waterproofing / roofing manufacturers guarantee or protection requirements.
- D. Installation or anticipated installation of additional heavy roof top feature such as, planters, benches, water features, hot tubs, industrial equipment etc. must be supported directly by additional pedestals that are in addition to the main deck paver pedestal system. Failure to adequately support the additional weight of any such features or items may cause significant damage to the deck, underlying structure, or waterproofing.

- E. All decks shall be designed to not exceed the design capacity of the pedestal.
- F. The substrate immediately below the pedestal supports shall provide positive and adequate drainage in accordance with good building practice and applicable building codes.
- G. Do not install Sky Deck Pedestal Paver System over any insulation less than 60psi or with low-density polystyrene (bead board insulation).

1.8 WARRANTY

- A. **Manufacturer's Warranty:** Paver and pedestal system manufacturer shall warrant the materials to remain free from defects for a period of five (3) years.
- B. **Contractor's Warranty:** The contractor shall warrant the work to remain free from defects of labor and materials used in conjunction with their work in accordance with the general conditions for this project for a maximum period of two (2) years.
- C. **WARRANTY**
 - a. SkyTerrace Pavers: Limited 3 year warranty
 - b. SkyJack Pedestal System: Limited 3 year warranty

PART 2: PRODUCTS

2.1 MANUFACTURER

- A. **Basis of Design:** SkyDeck USA Pedestal Paver System and Components. 1197 Hoyt St. SE Grand Rapids, MI 49507. Tel: 616-308-6309 Email: ceagan@skydeckusa.com Web: www.skydeckusa.com
- B. **Substitutions:** Not permitted.
- C. **Requests for substitutions** will be considered in accordance with provisions of Section 01 60 00.

2.2 MATERIALS

- A. **SkyJack Adjustable Height and Slope Compensating Pedestals**
 - 1. Typical Height Range: 0-24 inches.
 - 2. SkyHigh Pedestal Bracing System: For pedestal applications over 24 inches in height.
 - 3. Weight Bearing Design Capacity: 1000lbs/pedestal
 - 4. Spacer Tabs: 3/16 inch
 - 5. Slope Stabilization Head: Compensates for slope up to 7%
- B. **SkyTerrace Concrete Patio Pavers**
 - 1. Type: Architectural Concrete Pavers
 - 2. Color: To be selected from manufacturer's standard colors

3. Size: [12" x 12"] [12" x 36"] [18" x 18"] [24" x 24"] [35.5" x 35.5"]
4. Meet the required technical specifications:
 - a. Compressive Strength: 8,500 psi
 - b. Minimum Flexural Strength: Not less than 800 psi
 - c. Density: 150 lbs per cubic foot
 - d. Water absorption: Not to exceed 5%
 - e. Freeze Thaw: Not to exceed 1% loss of dry weight

C. SkyTerrace IPE Wood Deck Tiles

1. Type: IPE Wood Deck Tiles
2. Color: To be selected from manufacturer's standard colors
3. Size: [18" x 36"] [24" x 24"]

PART 3: EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared and related work penetrating the plane of the roof is completed. Carefully inspect installed work of other trades and verify that such work is complete to the point where work of this section may properly commence. Notify the Architect in writing of the conditions detrimental to the proper and timely completion of work.

B. Verify that substrates, membranes, and protection boards are ready for installation of pedestal and paver system.

C. Verify that the roof deck will sustain the weight of the pedestal paver system.

D. Verify deck dimensions elevations and pedestal heights before commencing work.

3.2 PREPARATION

A. Clean and prepare deck free of all debris in accordance with manufacturer's instructions.

B. Install membrane protection layer under all pedestals if specified by roofing membrane manufacture.

C. Establish accurate lines, levels, and pattern.

3.3 INSTALLATION

A. Determine starting point and layout the paver and pedestal grid layout determining where full and cut pavers will be installed.

B. Mark perpendicular guidelines on substrate surface to ensure square layout.

C. Install initial pavers along guidelines forming a "T" pattern.

D. Install Pavers tightly butted into pedestals. Form even joint width determined by pedestal spacer tabs.

- E. Checks shall be made constantly for correct elevation and spacing of the installed pavers using laser level, automatic leveler, or mason's line.
- F. Slight irregularities in paver thickness and/or deck heights can be compensated for by using one or more regulation shims.
- G. Any section of paver, pedestal or protection course which is not restrained by an abutting wall or parapet must be "boxed in" by some field installed restraint.

3.4 ROUTINE MAINTENANCE AND CARE

- A. Remove and replace pavers, which are loose, chipped, broken, stained or otherwise damaged. Make sure edge restraints stay intact and are structurally sound.
- B. Remove mortar stains and all other types of soiling from exposed paver surfaces, wash and scrub clean.
- C. Efflorescence is a naturally occurring white residue or stain that is on the surface of new concrete. The residue will dissipate naturally with time.
- D. Provide final protection and maintain conditions in a manner acceptable to installation, which ensures paver work being without damage or deterioration at time of substantial completion.
- E. Joints and drains should be kept clean to protect from water back up.

END OF SECTION