



The Bison Innovative Products (Bison) Versadjust (V-Series) adjustable pedestal line reaches heights from 2 ¼ to 36 inches, has a 1250 pound weight bearing capacity (FS:3), and contains built in slope compensation from 0 – ½ inch per foot slope. Precise spacer tabs allow for deck drainage and uniform spacing, while the screw-to-adjust height setting assures a perfectly straight and level deck. Quick Clip Couplers® (patent pending) increase the speed and efficiency installing pedestals at heights over 9 inches. Accessories are available to compensate for additional slope and accommodate heights from 1/8 to 2 ¼ inches. Use Versadjust Pedestals with the Bison Brace System for excess height installations (from 24 to 36 inches in height) or for installations requiring additional stability (seismic conditions). The Bison Versadjust pedestal has a broad footprint that provides stability, is impervious to freeze thaw cycles, and offers a range of heights suited to almost any application. Proudly manufactured in the U.S.A.

Versadjust V-Series Specification  
SECTION 065200 – Plastic Structural Assemblies

**PART 1 GENERAL**

1.1 SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

- Versadjust Adjustable Pedestals
- Fixed Height Pedestals
- Bison Bracing
- Bison Joist Top

1.2 RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

- Section 061500 - Wood Decking
- Section 065300 - Plastic Decking
- Section 067313 – Composite Structural Decking
- Section 075000 – Membrane Roofing
- Section 077246 – Roof Walkways
- Section 077616 – Roof Deck Pavers
- Section 096900 – Access Flooring
- Section 096919 – Stringerless Access Flooring
- Section 096933 – Low-Profile Fixed Height Access Flooring

1.3 REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

- ASTM D 1238-04 – Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer.
- ASTM D 792-00 – Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
- ASTM D 638-03 – Standard Test Method for Tensile Properties of Plastics
- ASTM D 2240-00 – Standard Test Method for Rubber Property-Durometer Hardness
- ASTM D 5420 – Impact Resistance (Gardner Impact)
- ASTM D 1929-10 – Standard Test Method for Determining Ignition Temperatures of Plastics (both FIT and SIT designations)
- ASTM D 2843 – Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics
- ASTM D 635 – Standard Test Method for Rate of Burning and/or Extent and Time of Burning Plastics in a Horizontal Position
- ASTM D 256-06 – Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics
- ASTM D 790-03 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics
- ASTM D 648-06 – Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position
- ASTM D 543 – Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents (NaOH and HCl)
- ASTM G 155-04 – Accelerated Weathering/ Light Exposure using Xenon Arc Light Apparatus for Non-Metallic Materials
- FBC TAS 110-2000 – Testing Requirements for Physical Properties of Roof Membranes, Insulation, Coatings, and Other Roofing Components
- UL 790 – Tests for Fire Resistance of Roof Covering Materials (equivalent to ASTM E 108-04)
- UL 94 – Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances
- LARR 26041– Versadjust™ Adjustable Pedestal System, Bison Ipê Wood Tiles, and Bison 2cm Paver System

1.4 SUBMITTALS

- A. Submit under provisions of Section 013300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C. Shop Drawings: Submit shop drawings detailing the installation methods. Coordinate placement with locations noted on the Contract Drawings.
- D. Fire Resistance Ratings: As required for exterior pedestal supported deck system by the presiding jurisdiction.
- E. Wind Uplift Ratings: As required for exterior air permeable pedestal supported deck systems by the presiding jurisdiction.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten (10) years' experience.
- B. Installer Qualifications: The deck support system installer must have a minimum of two (2) years' proven construction experience, be capable of estimating and building from blueprint plans and details, determine elevations, and properly handle materials. All work must comply with the Bison installation application procedures for deck support work specified herein.

**\*\* NOTE TO SPECIFIER \*\*** Retain section 1.5C if the pedestal system is installed over a roofing or waterproofing membrane. Delete if not required.

- C. Special Considerations: The contractor assumes the responsibility for and must take into consideration the structural capability and adequacy of the structure to carry the dead and live load weight(s) involved, and that the density of any insulation is satisfactory to resist crushing and damaging the waterproofing membrane.

**\*\* NOTE TO SPECIFIER \*\*** Include a mock-up if the project size and/or quality warrant such precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project. Make changes as necessary.

- D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
1. Finish areas designated by Architect.
  2. Do not proceed with remaining work until workmanship is approved by Architect (if applicable).
  3. Refinish mock-up area as required to produce acceptable work.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Inspect all delivered materials to insure they are undamaged and in good condition.
- B. Deliver and store Bison pedestals and system components with labels intact and legible.
- C. Store Bison products in an enclosed or covered area protected from the elements as site conditions allow.
- D. Store and dispose of solvent-based materials such as construction adhesive, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

#### 1.7 PROJECT CONDITIONS

- A. There are no pedestal installation temperature restriction guidelines other than the practical considerations of working in any unsafe condition or inclement weather.
- B. Pedestals specified are for pedestrian traffic only.
- C. Perimeter Walls and Containment:
  1. Decks must be restrained by perimeter blocking or walls on all sides including "on-grade" installations. Lateral movement greater than one-tab set (not to exceed 3/16 inch or 4.5 mm) is unacceptable and will be subject to rejection.
  2. It is recommended that the deck surfacing tiles or pavers sit above the waterproofing, integral flashing, and/or counter flashing. *In situations where the perimeter of the deck comes into contact with the flashing material, protective wall covering should be specified if deemed necessary by the specifier.*

**\*\* NOTE TO SPECIFIER \*\*** Retain 1.7D if the pedestal system is being installed with other large features such as planters, heavy benches, water features, hot tubs, etc.

- D. Heavy Roof Top and Flat Bottom Features require individual support in addition to the deck pedestal system.
1. A minimum of one additional pedestal support must be installed for every 500 lbs. (or portion thereof) of static loading. These additional support pedestals must be installed directly under the decking and evenly spaced immediately below the feature locations. *One additional pedestal must be placed under each corner of any rectangular feature.*
  2. When installing Bison Cubes, additional support may be needed under the center and corners of the cubes depending on the size and anticipated weight loads.
  3. Features supported by legs or feet are not advised or are considered unacceptable because of the dangers of point loading.
  4. Any feature that creates vibration must be provided for in special consultation and written agreement with Bison. Cell phone towers, heavy planters and other similar features require their own separate curb designed by an architect or professional engineer.
- E. All decks shall be designed to not exceed the design capacity of the pedestal.
- F. The substrate immediately below the pedestals shall provide positive drainage.

**\*\* NOTE TO SPECIFIER \*\*** Retain 1.7G-1.7H if the pedestal system is being installed over a roofing or waterproofing membrane. Delete if not required.

Retain either 1.7I (insulation density 20-40 psi) or 1.7J (insulation density >40psi)

- G. Roof systems must meet local building code and be in accordance with the NRCA recommended good construction practices. Only roofing manufacturer approved systems shall be used.
- H. It's recommended that a 12 x 12 inch piece of installed membrane be used as a separate protective slip sheet underneath each pedestal.
- I. Pedestals must be *supported by a surface* that provides 40 psi bearing capacity. Membranes installed over rigid insulation board typically incorporate 20 psi density insulation which requires additional support for adequate load bearing of 40 psi.
  1. Suggested methods to accomplish the noninvasive and required support:
    - a. Incorporate one of the thin *Cap Bearing Protective Layer Insulation* specifications that call for a very thin protective layer to be installed on top of the common 20 psi insulation. Such a cap type insulation product is commonly formed as a thin dense low-foamed polyisocyanurate layer and provides the necessary pedestal support.
    - b. Bison Model FIB Pedestal Base: Install an enlarged base that supports the pedestal to distribute the anticipated loaded weight of a pedestal over an enlarged area. Bison manufactures the Floating Insulation Base (Model FIB) for this purpose. Model FIB is specifically designed to be directly installed over Type 1 roof systems that incorporate 20 psi common insulation boards.
    - c. Insulation above the Membrane: Install a 1 ½ inch thick (min.) layer of dense, closed cell 40 psi (min.) extruded cell polystyrene insulation board *above* the common roofing system that has buried insulation to provide support for the pedestal system.
- J. Bison Pedestals can be installed directly on top of gravel removed 40 psi, or greater, extruded closed cell polystyrene insulation with 1 ½ inch thickness or greater. Install deck system pedestals directly on the insulation prior to the installation of ballast rock. Seek alternative methods of ballasting until deck installation is completed.

**\*\* NOTE TO SPECIFIER \*\*** Retain 1.7K if the pedestal system is installed on-grade (soil). Delete if not required.

- K. Decks on Grade:
1. Any substrate soil receiving pedestals shall be adequately compacted and have positive drainage slope. A "walkway gravel" base (i.e.: ¼ inch minus (breeze)) should be installed and compacted at pedestal locations.
  2. Bison Floating Foundation Bases (FFB) must be used *beneath* all on-grade Bison Pedestal decks. Level the soil surface and install FFB directly on grade as a base for each pedestal.
  3. Install structural perimeter containment which restrains the entire decking system. Spacing in excess of one tab set (not to exceed 3/16 inch or 4.5 mm) at the perimeter is considered unacceptable and installation will be rejected.

## 1.8 WARRANTY

- A. At project closeout and upon request, Bison pedestals can provide to the Owner or Owners Representative, an executed copy of the manufacturer's standard document outlining the terms, conditions and limitations of their limited warranty against manufacturing defect for a period of five (5) years.
- B. The Contractor warrants that his work will remain free from defects of labor and materials used in conjunction with his work in accordance with the General Conditions for this project or a minimum of five (5) years.
- C. It is the responsibility of the Contractor installing the product listed in this section to coordinate warranty requirements with any related sections or adjacent work. Notify the Architect immediately of any potential lapses or limitations in warranty coverage.
- D. For use with pedestrian traffic only – Never use Bison pedestals to support or construct decks that have wheeled, motorized or equipment traffic.
- E. Decks should be restrained on all sides and not have lateral movement in excess of one tab set (not to exceed 3/16 inch or 4.5 mm).
- F. Deck must be installed according to specifications or warranty is voided.

## 1.9 MANUFACTURERS

\*\* NOTE TO SPECIFIER \*\* Retain one of the following paragraphs 1.9A-C; to coordinate with requirements of Division 1 section on product options and substitutions.

- A. Acceptable Pedestal System Manufacturer: Bison Innovative Products; 701 Osage Street, Bldg 2, Unit 120, Denver, CO 80204  
Toll Free: 800-333-4234 Phone: 303-892-0400 Fax: 303-825-5988 Email: info@bisonip.com Web: www.bisonip.com.
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 012500.

## PART 2 PRODUCTS

## 2.1 VERSADJUST ADJUSTABLE PEDESTALS

Typical Height Range 2 ¼ - 24 inches (36 inches with bracing); Weight Bearing 1250 lbs./pedestal (FS:3); Made in the U.S.A.

- A. V-Series Base Model:
  - 1. General Pedestal Details:
    - a. Load Capacity: Maximum 1250 lbs. (567 kg) per pedestal with a Safety Factor of 3 (FS:3).
    - b. Material: Mineral Filled High Density Copolymer Polypropylene. Bison #B-PP-2025.
    - c. Contains 20% post-industrial recycled material.
  - 2. Pedestal Base Details:
    - a. Diameter: 8 inches (203 mm) diameter x 3/16 inch (4.75mm) top wall thickness.
    - b. Bearing Surface Area: 50.3 in<sup>2</sup> (325 cm<sup>2</sup>).
    - c. Six (6) - 1/2 inch (13mm) diameter holes for drainage and/or BB-PEGS.
    - d. Includes a Model VB Integral Base Leveler Disk (not sold separately) that compensates for 0" to 2" per foot slope.
  - 3. Pedestal Top Details:
    - a. Diameter: 6 ¾ inches (172 mm) x 5/32 inch (4mm) thick plate.
    - b. Bearing Surface Area: 35.8 in<sup>2</sup> (231 cm<sup>2</sup>).
  - 4. Spacer Tabs:
    - a. Free spinning insert maintains gapping while allowing for height adjustments under load.
    - b. Two Spacing Configurations (specify selection):
      - 1) VT18 1/8 inch (3.175 mm) tab thickness.
      - 2) VT316 3/16 inch (4.5mm) tab thickness.

\*\* NOTE TO SPECIFIER \*\* Select Required/ specified size(s) from the following options (2.1B-2.1R).

- B. Model: V1 – 18 2¼ to 2 ¾ inches (57mm to 70mm) with 1/8 inch tab
- C. Model: V1 – 316 2¼ to 2 ¾ inches (57mm to 70mm) with 3/16 inch tab
- D. Model: V2 – 18 2¾ to 3¾ inches (70mm to 95mm) with 1/8 inch tab
- E. Model: V2 – 316 2¾ to 3¾ inches (70mm to 95mm) with 3/16 inch tab
- F. Model: V3 – 18 3¾ to 5¾ inches (95mm to 146mm) with 1/8 inch tab
- G. Model: V3 – 316 3¾ to 5¾ inches (95mm to 146mm) with 3/16 inch tab
- H. Model: V4 – 18 5¾ to 9 inches (146mm to 229mm) with 1/8 inch tab
- I. Model: V4 – 316 5¾ to 9 inches (146mm to 229mm) with 3/16 inch tab
- J. Model: VC2 Coupler adds 0 to 4 inches (0mm to 102mm)
- K. Model: V4 + VC2 9 to 13 inches (229mm to 330mm).
- L. Model: V4 + 2 x VC2 13 to 17 inches (330mm to 432mm)
- M. Model: V4 + 3 x VC2 17 to 21 inches (432mm to 533mm)
- N. Model: V4 + 4 x VC2 21 to 24 inches (533mm to 610mm) \*\*Maximum Unbraced Height\*\*
- O. Model: V4 + 4 x VC2 21 to 25 inches (533mm to 635mm)
- P. Model: V4 + 5 x VC2 25 to 29 inches (635mm to 737mm)
- Q. Model: V4 + 6 x VC2 29 to 33 inches (737mm to 838mm)
- R. Model: V4 + 7 x VC2 33 to 36 inches (838mm to 914mm)

\*\*If cavity height is over 24 inches use VC2 Couplers in conjunction with Bison Brace System\*\*

\*\* NOTE TO SPECIFIER \*\* Delete the following options if Low Height Pedestals are not required. Retain only model(s) specified from the available options.

## 2.2 LOW HEIGHT PEDESTALS

- A. Model VT316 or VT18 Fixed Height Pedestals:
  - 1. Diameter: 4 ¾ inches (121 mm) diameter x 1/8 inch (3.175mm) tall.
  - 2. Bearing Surface 17.7 in<sup>2</sup> (114 cm<sup>2</sup>).
  - 3. Integral Spacer Tabs: Specify 1/8 inch or 3/16 inch.
  - 4. Does not accommodate slope compensation.
  - 5. Material: Mineral Filled High Density Copolymer Polypropylene. Bison #B-PP-2025.
  - 6. Contains 20% post-industrial recycled material.

- B. Model HD Fixed Height Pedestals:
  1. Diameter: 6 inches (152 mm) diameter x 3/32 inch wall thickness.
  2. Bearing Surface Area: 27.7 in<sup>2</sup> (179 cm<sup>2</sup>).
  3. Does not include slope compensation. Can accommodate Model LD4 for ¼ inch per foot slope compensation.
  4. Material: Model HD25 Thermoplastic Elastomer; HD50 and HD75 Mineral Filled High Density Copolymer Polypropylene. Bison #B-PP-2025.
- C. Model HD25-18: Stackable (4 Max) 1/4 inch (6.4mm) tall, with integral 1/8 inch integral Spacer Tabs
- D. Model HD25-316: Stackable (4 Max) 1/4 inch (6.4mm) tall, with integral 3/16 inch integral Spacer Tabs
- E. Model HD50-18: Stackable (4 Max) 1/2 inch (13mm) tall, with 1/8 inch integral Spacer Tabs
- F. Model HD50-316: Stackable (4 Max) 1/2 inch (13mm) tall, with 3/16 inch integral Spacer Tabs
- G. Model HD75-18: Stackable (4 Max) 3/4 inch (19mm) tall, with 1/8 inch integral Spacer Tabs
- H. Model HD75-316: Stackable (4 Max) 3/4 inch (19mm) tall, with 3/16 inch integral Spacer Tabs
- I. Model LO: 1 ¼ to 2 inches (32mm to 51mm), select 3/16 inch or 1/8 inch Spacer Tabs
  1. General Pedestal Details:
    - a. Height Range: 1 ¼ to 2 inches (32mm-51mm)
    - b. Load Capacity: 750 lbs. (340 kg) per pedestal with a Safety Factor of 3 (FS:3)
    - c. Material: Mineral Filled High Density Copolymer Polypropylene. Bison #B-PP-2025.
    - d. Contains 20% post-industrial recycled material.
  2. Pedestal Base Details:
    - a. Size: 7 7/8 inches (200mm) diameter x 3/16 inch (4.75mm) top wall thickness.
    - b. Bearing Surface Area: 48.7 in<sup>2</sup> (314 cm<sup>2</sup>).
    - c. Four (4) ¾ inch (19mm) diameter holes for drainage.
    - d. Eight (8) ½ inch (13mm) diameter holes for BB-PEGS.
    - e. Compatible with LD4 slope compensation (sold separately).
  3. Pedestal Top Details:
    - a. Diameter: 6 inches (152 mm) x 5/32 inch (4 mm) thick plate.
    - b. Bearing Surface Area: 28.3 in<sup>2</sup> (183 cm<sup>2</sup>).
    - c. Eight (8) 3/8 inch (9.5mm) diameter holes for drainage and/or mechanical attachment.

### 2.3 FASTENING KITS

- A. Model: FS-1 Fastening Kit – Secures Bison Wood Tiles or Paver Trays to Bison Pedestals without penetrating or damaging the Wood Tile, Paver Tray, or selected paver:
  1. Components: Washer (US Patent #8,302,356), long screw, and short screw.
  2. FS-1 with Bison Wood Tiles: Use long screw with Bison Adjustable Pedestals, HD50 Fixed Height Pedestals, and HD75 Fixed Height Pedestals.
  3. FS-1 with Bison Paver Trays: Use long screw with Bison Adjustable Pedestals; short screw with Bison HD50 and HD75 Fixed Height Pedestals.
  4. Weight: 0.192 oz. (5.4 g)
  5. Material: Nylon
- B. Model: FS-12 Spline – Secures Bison Wood Tiles or Paver Trays to Bison Pedestals without penetrating or damaging the Wood Tile, Paver Tray, or selected paver when greater lock-down force is required:
  1. Components: Spline, long screw, and short screw.
  2. FS-12 with Bison Wood Tiles: Use long screw with Bison Adjustable Pedestals, HD50 Fixed Height Pedestals, and HD75 Fixed Height Pedestals.
  3. FS-12 with Bison Paver Trays: Use long screw with Bison Adjustable Pedestals; short screw with Bison HD50 and HD75 Fixed Height Pedestals.
  4. Weight: 1.41 oz. (40 g)
  5. Material: Mineral Filled High Density Copolymer Polypropylene (Bison #B-PP-2025)

\*\* NOTE TO SPECIFIER \*\* Delete 2.4A if Leveler Disks are not required.

### 2.4 BASE LEVELER DISKS

- A. Model LD4: Placed beneath pedestals, adds approximately 5/16 to ½ inches to pedestal height, increases base bearing surface area to 50.3 in<sup>2</sup> (325 cm<sup>2</sup>), and allows for ¼ to 1 inch per foot slope compensation.
  1. Slope: 1/4 inch per foot each. A total of four (4) LD4s may be used under models V1-V4, as well as HD-25's-HD-75's for up to 1 inch of slope compensation; LD4s are *not recommended* for use under VT Fixed Height Pedestals.
  2. V-Series Pedestals include a Model VB Integral Base Leveler Disk (not sold separately) that compensates for 0 to 2 inch per foot slope.
  3. Diameter: 8 inches (203 mm); Center point thickness 3/8 inch (9.5mm).
  4. Material: Mineral Filled High Density Copolymer Polypropylene. Bison #B-PP-2025.
  5. Contains 20% post-industrial recycled material.

\*\* NOTE TO SPECIFIER \*\* Delete Sections 2.5A-2.5C if Shims are not required. Retain only model(s) specified.

### 2.5 SHIMS

- A. Model B11: Flexible Shim 1/16 inch (1.5mm)
  1. Use no more than 4 shims per pedestal. If using a segment, adhere it to the pedestal with construction adhesive. Ensure the adhesive does not contact the roofing membrane.
  2. Material: Thermoplastic Elastomer.
- B. Model PS1: Rigid Poly Shims 1/8 inch (3.175mm)
  1. Use no more than 2 shims. If using a segment, adhere it to the pedestal with construction adhesive. Ensure the adhesive does not contact the roofing membrane.
  2. Material: Mineral Filled High Density Copolymer Polypropylene. Bison #B-PP-2025.
  3. Contains 20% Post-industrial recycled material.
- C. Model: BB-Wedge

1. Spacing Wedge.
2. Material: Mineral Filled High Density Copolymer Polypropylene. Bison #B-PP-2025.
3. Contains 20% post-industrial recycled material.

**\*\* NOTE TO SPECIFIER \*\*** Delete 2.6A-2.6B if Base Pads are not required. Retain only model(s) specified.

#### 2.6 BASE PADS

- A. Model FFB: Pedestal base pad for on-grade installations.
  1. Provides a large 12 x 12 x ¼ inch (305mm x 305mm x 6 mm) base bearing surface.
  2. Material: Mineral Filled High Density Copolymer Polypropylene. Bison #B-PP-2025.
  3. Contains 20% Post-industrial recycled material.
- B. Model FIB: Pedestal base pad for use on roofing and waterproofing installations over low density insulation.
  1. Provides a large 12 x 12 x 11/16 inch (305mm x 305mm x 17.5mm) base bearing surface.
  2. Material:
    - a. Base Pad: Mineral Filled High Density Copolymer Polypropylene. Bison #B-PP-2025. Contains 20% post-industrial recycled material.
    - b. Base Plate: Galvanized Metal. Contains 37.2% post-consumer recycled material – 55.2% total scrap steel content.

**\*\* NOTE TO SPECIFIER \*\*** Delete 2.7A if Joist Top accessory is not specified.

#### 2.7 JOIST TOP

- A. Model JT: Pedestal accessory to construct joist and plank decks. Accommodates 2 x and 4 x joists.
  1. Adds 3/16 inch (4.5mm) in height. Creates a base bearing surface for joist installation.
  2. Material: Polypropylene. Bison #B-PP-2025.

**\*\* NOTE TO SPECIFIER \*\*** Delete the following if Bison Bracing is not required. Retain only model(s) specified from the available options.

#### 2.8 BISON BRACE SYSTEM

- A. Required for Installations 24 to 36 inches in height or for applications requiring additional stability.
- B. Material: All Bison Bracing components are manufactured using Mineral Filled High Density Copolymer Polypropylene. Bison #B-PP-2025.
- C. Contains 20% post-industrial material.
- D. Model BB-C: Bison Brace Collar
  1. Fits Model V3 and V4 only.
  2. Allows for braced connections away from the pedestal base.
  3. *Required* for additional stability installations (i.e. Seismic Conditions).
  4. *Optional* for Excessive Cavity Height, Wind Uplift, On-Grade installations.
- E. Model BB-BRACE: Bison Brace Kit
  1. For 11 ¾ to 36 inch wide pavers (center of pedestal to center of pedestal measurement).
  2. BB-BRACES can be trimmed in order to accommodate listed range as required.
  3. Kit contains two (2) each 17 inch long brace pieces and BB-LATCHES.
- F. Model BB-FH: Bison Fixed Height Brace Kit
  1. For 8 ½ to 25 ½ inch wide pavers (center of pedestal to center of pedestal measurement)
  2. BB-FH can be trimmed in order to accommodate listed range as required.
  3. Kit contains two (2) each 12 inch long brace pieces and BB-SCREWS.
- G. Model BB-CONNECT: Bison Fixed Height Brace Connector
  1. Allows for a braced transition between BB-FH and adjustable pedestal base with BB-PEGS.
  2. For use when transitioning from fixed height pedestals and fixed height bracing to adjustable pedestals and bracing; while ensuring a fully interconnected decking system.
- H. Model BB-PEGS
  1. Individual pegs to be inserted into Versadjust Pedestal Base which allow for secure BB-BRACE attachment via quick clip locking-mechanism.
  2. Six (6) Model BB-PEGS are required for each Versadjust pedestal receiving bracing, and Eight (8) Model BB-PEGS are required for each Model LO Pedestal receiving bracing.
- I. Model: V1-316 BB-PEGS / V2-316 BB-PEGS / V3-316 BB-PEGS / V4-316 BB-PEGS or V1-18 BB-PEGS / V2-18 BB-PEGS / V3-18 BB-PEGS / V4-18 BB-PEGS
  1. Versadjust and BB-PEGS pre-inserted into Pedestal Base at the factory.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Verify all elevations, required pedestal heights, insulation density, and deck dimensions before commencing work.
- B. Do not begin installation until substrates have been properly prepared.
  1. The substrate surface that will receive the pedestals must be well compacted (on grade) and structurally capable of carrying the dead and live loads anticipated.
  2. The substrate must be clean and free of projections and debris that could impair the performance of the pedestals or the total deck system.
- C. If substrate preparation is the responsibility of another installer, notify Architect (or other appropriate party: Engineer, General Contractor, or Project Manager) of unsatisfactory preparation before proceeding.

#### 3.2 PREPARATION

- A. Reference Installation Details documentation for recommended preparations.
- B. Establish accurate lines, levels and pattern as per installation instructions.

**\*\* NOTE TO SPECIFIER \*\*** Retain 3.2C only if an IRMA (PRMA) configuration is specified.

- C. Decks on Grade: Verify that installation conforms to section 1.7I of this specification.

- D. Installation requirements vary for each individual project site. Deck materials used, pattern, grid layout, starting point, and finished elevation should be shown on plan view shop drawings which have been prepared and approved by the designer, installing contractor and/or owner.

### 3.3 INSTALLATION

- A. Reference manufacturer Installation Details documentation for recommended installation procedures (details can be found online on the Bison website).
- B. If you encounter a situation during installation which is not covered in the installation details, please contact Bison at 303-892-0400 or Toll-Free at 800-333-4234.

### 3.4 PEDESTAL ADJUSTMENT

- A. Ensure pedestals have been shimmed/adjusted for rocking, uneven, or un-level pavers prior to substantial completion.
- B. Reference manufacturer Installation Details documentation for adjustment procedures such as shimming a pedestal or adjusting the slope compensation on the pedestal.

### 3.5 FIELD QUALITY CONTROL

- A. During Installation:
  - 1. Inspect construction progress regularly to ensure grid line spacing is being maintained in a straight and consistent manner and deck panels or pavers are level and not rocking, shim as required. Particular attention should be paid to pedestrian entrance or access points to eliminate potential trip hazards.
  - 2. Confirm that deck pedestal height does not exceed specified height (24 inches for no bracing; 36 inches with bracing).
  - 3. Unless otherwise specified in writing to allow for expansion, inspect to ensure that all paver spacing between tiles and at the perimeter is no greater than one tab set (not to exceed 3/16 inch or 4.5 mm). Install/Adhere partial tab sets as required to maintain proper gapping.
- B. Immediately Following Installation: The Owner, or the Owner's Agent, shall carefully inspect the deck system to verify:
  - 1. The new deck is blocked on all sides to contain the surface decking and related components.
  - 2. There is no more than one tab set (not to exceed 3/16 inch or 4.5 mm) gapping between any deck panels and at all sides of the deck perimeter.
  - 3. There is no ballasting rock used to fill in any perimeter voids.
  - 4. Deck panels do not rock when you walk across the decking surface.
  - 5. All spacer tabs are in place, visible and secure.
- C. Other: Installer and/or Architect has the responsibility of informing the Owner about performing routine maintenance on the deck, this includes:
  - 1. Checking for rocking pavers or surface tiles and properly applying shims as the substrate can settle and require pedestal adjustment.
  - 2. Periodically checking for broken, damaged, or missing tab sets and replacing them to limit deck movement.
  - 3. Maintaining intact and structurally sound perimeter containment.
  - 4. Replacing damaged surface tiles, pavers, or pedestals.

**\*\*NOTE TO SPECIFIER\*\*** Add any additional maintenance which might be required by the Owner including specified deck treatments.

END OF SECTION

BISON VERSADJUST PEDESTAL PRODUCT LINE

	Model No.	Description	Range	Notes
	 V1-18 V1-316	Adjustable Pedestal	2 1/4" - 2 3/4" (57.15 - 69.85 mm)	--
	 V2-18 V2-316	Adjustable Pedestal	2 3/4" - 3 3/4" (69.85 - 95.25 mm)	--
	 V3-18 V3-316	Adjustable Pedestal	3 3/4" - 5 3/4" (95.25 - 146.05 mm)	--
	 V4-18 V4-316	Adjustable Pedestal	5 3/4" - 9" (146.05 - 228.6 mm)	--
	 VC2	Quick Clip Extender	Adds up to 4" (101.6 mm) each	Insert VC2 into V4 base or another VC2 to reach up to 36" (914.4 mm)
Tabs	 VT18 VT316	Spacer Tab	1/8" (3.175 mm) wide 3/16" (4.5 mm) wide	Select 1/8" (3.175 mm) or 3/16" (4.5 mm) Tab Size
	 VT18 VT316	Ultra Low Height Pedestal	1/8" (3.175 mm)	--
	 HD25-18 HD25-316 HD50-18 HD50-316 HD75-18 HD75-316	Fixed Height Stackable Pedestals	1/4" (6.35 mm) 1/2" (12.7 mm) 3/4" (19.05 mm)	Stack up to 4
	 LO-18 LO-316	Low Height Adjustable Pedestal	1 1/4" - 2" (31.75 - 51 mm)	Supports 750 lbf (3.34 kN) FS:3 per Pedestal
Accessories	 B11	Rubber Flexible Shim	1/16" (1.588 mm)	--
	 PS1	Plastic Rigid Shim	1/8" (3.175 mm)	--
	 LD4	Base Leveler	Adds 1/4" (6.35 mm) to Pedestal height Stack up to 4 total to base of Pedestals	Maximum of 1" per foot slope (8%)
	 FS-1	Fastening Kit*	Secures Bison Wood Tiles and Paver Trays to Bison Pedestals	
	 JT	Joist Top	Adds 3/16" (4.5 mm) in height	Works with 2x and 4x lumber on Adjustable Pedestals
	 FIB	Floating Insulation Base	12" x 12" x 11/16" (304.8 x 304.8 x 17.463 mm) For use over roofing systems with 20-40 psi (137.895 - 275.79 kPa) bearing capacity	
	 FFB	Floating Foundation Base	12" x 12" x 1/4" (304.8 x 304.8 x 6.35 mm) For use under Pedestals on grade (soil)	