



Starnet Low-Profile Wire Management System Specifications SLP-40 / SLP-50 (1-1/2" / 2") Low-Profile Access Floor System

NOTE: These specifications conform to CSI MasterFormat 2012 Section 09 69 33, AIA MasterSpec Section 09 69 00 and to CSI MasterFormat 1995 Edition, AIA MasterSpec Section 10270

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specifications Sections, apply to this section.
- B. IBC (International Building Code)
- C. ICC-ES AC151 Acceptance Criteria For Fixed-Height, Low-Profile, Raised Floor Systems

1.2 SUMMARY

- A. This section includes:
 - 1. Low-Profile access flooring system consisting of steel panels and resin bases.
 - 2. Various accessories, including, but not limited to ramps, thresholds and electrical boxes.
- B. 1. CSI Related Sections include the following:
 - Section 01330 Submittal Procedures
 - Section 01430 Quality Assurance
 - Section 01620 Product Options
 - Section 01630 Product Substitution Procedures
 - Section 01659 Product Delivery Requirements
 - Section 01660 Product Storage Requirements
 - Section 01770 Closeout Procedures
 - Section 01780 Closeout Submittals
- 2. Additional AIA related sections
 - a. Division 01, Section “Allowances”
 - Provide the following quantity allowances as specified:
 - 1. Cutouts in floor panels
 - 2. Service outlets
 - b. Division 26 Section “Grounding and Bonding for Electrical Systems” for connection to ground of access flooring understructure.
 - Note: The electrical contractor shall provide the necessary labor and materials to electrically connect the access flooring to the building ground to comply with this section.

1.3 DEFINITION

- A. Access flooring: A complete portable assembly of modular floor panels on an elevated support system, forming an accessible under-floor cavity to accommodate electrical and data service.

1.4 SYSTEM DESCRIPTION

This section includes the following:

- A. Low-profile access floor system consisting of a series of modular, removable, interchangeable steel panels, resin bases, steel filler plates and accessories that form an accessible under floor cavity to accommodate electrical, voice and data services.
- B. System shall be gravity held on a structural subfloor system designed to support all loads required by the IBC or local code requirements, whichever is the more stringent.
- C. All flooring system structural components shall be steel. Support bases shall be of polypropylene resin.
- D. Maximum height from subfloor to top of access flooring system (less carpet) shall not exceed 2 inches.
- E. Floor units shall be removable by one person without the need for tools or special lifting devices.

- F. The low-profile access floor is not part of the grounding system, and is not intended to enclose splices or other types of wiring that are required to be enclosed in raceway as defined in the NEC, Art. 100. All wiring/cablings installed under the floor(s) must conform to the applicable sections of the National Electrical Code (NEC) in effect.
- G. Low-profile access floor system is not intended for use as a duct, plenum or air handling space. As such, non-plenum rated cabling is permitted under the low-profile access floor.
- H. Seismic Requirements: All load carrying storage units and other heavy equipment shall be anchored directly to the existing structure so as to resist design seismic loads. Direct attachments to the access flooring system shall not be permitted.

1.5 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide access flooring system capable of supporting the following loads and stresses within limits and under conditions indicated, as demonstrated by testing manufacturer's current standard products according to referenced procedures in latest revised edition of Ceilings and Interior Systems Construction Associates (CISCA) "Recommended Test Procedures for Access Floors" referenced elsewhere in this section as CISCA/AF or, if not specified, manufacturers standard method
 1. Concentrated Live Load over 6.25 square feet per IBC Table 1607.1:
Provide floor panels capable of withstanding a concentrated design live load of 2,000 lbf. (8.9 kN) over an area of 2-1/2 ft. x 2-1/2 ft., when tested per CISCA/AF, Section 7 "Uniform Load Test".
 2. Concentrated Point Load on area of 1" x 1":
Provide floor panels capable of withstanding a concentrated design load of 500 lbf. (2224 N) placed upon one square inch anywhere on the panel with a top-surface deflection under load not to exceed 0.080 inch (2.0mm) and a permanent set not to exceed 0.010 inch (0.25mm) according to CISCA/AF Section 1, "Concentrated Loads".
 3. Ultimate Load: Provide access flooring system capable of withstanding a minimum ultimate load of two times the concentrated load without failing, according to CISCA/AF, Section 2, "Ultimate Loading".
 4. Uniform Live Load:
Provide floor panels capable of withstanding a uniform live load of 2,000 lbf. (8.9 kN) over a uniform area of 2-1/2 ft. x 2-1/2 ft., with a permanent set not to exceed 0.010 inch (0.25mm) when tested per CISCA/AF, Section 7 "Uniform Load Test".

1.6 SUBMITTALS

- A. Product Data: For each type of product indicated.
 1. Shop Drawings: Include complete layout of access flooring system based of field verified dimensions.
 - a. Details and sections with descriptive notes indicating materials, finishes, fasteners, typical and special edge conditions and accessories.
 - b. Detail Cut Sheets for each type of product indicated, including accessories, to show the information necessary to make a full evaluation of the entire flooring system.
 2. Manufacturer's literature and product data.
 3. Samples for Initial Selection: For each type of flooring material indicated and exposed finish indicated, submit samples in the form of actual units or sections of units.
- B. Product Certificates: For each type of access flooring system indicated, to certify that the flooring system meets the requirements of these written specifications and signed by a qualified employee of the manufacturer.
- C. Product Test Reports: Submit test reports or specification summary Product Data Sheets based on evaluation of comprehensive tests performed by a qualified testing agency, or performed by access flooring manufacturer and/or witnessed by a qualified testing agency, for each type of flooring material.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who is approved by the access flooring manufacturer for installations of the type of access flooring indicated for this project.
- B. Source Limitations: Obtain access flooring system through one source from a single manufacturer.
- C. Regulatory Requirements: Fabricate and install access flooring system to comply with NFPA 75 requirements for raised flooring.
- D. Mockups (if required): Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Build mockup of typical access flooring assembly as shown on Drawing. Size to be an area no less than [six] <Insert number> feet in length by [six] <Insert number> feet in width.
- G. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."
 1. Review connection with mechanical and electrical systems.
 2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

1.8 DELIVERY, STORAGE AND HANDLING

- A. Deliver access flooring components in original, unopened packages, clearly labeled with manufacturer's name and item description.
- B. Handle and store packages containing access flooring in a manner which avoids overloading building structure.

1.9 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install access flooring until installation area is enclosed and has an ambient temperature of between 50 degrees Fahrenheit and 85 degrees Fahrenheit (10⁰ C to 29⁰ C) and a relative humidity of not less than 20 percent and not more than 80 percent.

1.10 COORDINATION

- A. Coordinate locations of any mechanical and electrical work in under-floor cavity to prevent interferences with access flooring bases
- B. Do not proceed with installation of access flooring until after substantial completion of other performable construction within affected spaces.

1.11 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed, are packaged with protective covering for storage and identified with labels clearly describing contents.
 1. Standard field panels – 2%
 2. Resin Bases – 2%

PART 2 - PRODUCTS

2.1 FLOOR PANELS AND UNDERSTRUCTURE

- A. Manufacturers: Subject to compliance with requirements, provide access flooring by ASM Modular Systems, Inc., consisting of SLP-40 (1-1/2" FFH) and/or SLP-50 (2" FFH) Low-Profile Access Floor System.
- B. Floor Panels General: Provide modular hot dip galvanized steel panels complying with the following requirements, that are interchangeable with other standard field panels, and can be easily relocated by one person without the need for any type of tools.
 1. Nominal Panel Size:
 - Square panel = 6.497" (165.0mm) x 6.497" (165.0mm)
 - Rectangular panel = 6.497" (165.0) x 13.058" (331.7)
 2. Fabrication Tolerances: Fabricate panels to the following tolerances with squareness tolerances expressed as the difference between diagonal measurements from corner to corner.
 - a. Size and Squareness: Plus or minus 0.010" (0.25mm) of required size, with squareness tolerance of plus or minus 0.015" (0.38 mm).
 - b. Flatness: Plus or minus 0.020" (0.50 mm), measured on a diagonal on top of the panel.
- C. Formed-Steel Panels: Fabricate panels of die formed steel with hot dip galvanized zinc finish.
 - b. Finish: Provide grate panels with manufacturer's standard finish.
- D. Bases: Provide manufactures standard polypropylene resin bases of proper height for required finished floor height.

2.2 ACCESSORIES

- A. Vertical Closures at perimeters: Where under floor cavity is not enclosed by abutting walls or other construction, provide manufacturer's standard metal closure feature with manufacturer's standard finish.

- B. Ramps: Manufacturer's standard ramp construction of width indicated, with slope of 1 : 12 and with top surface to receive carpet application to match access floor.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine sub-floor for any problems that would prevent a satisfactory installation of access floor, such as moisture an unevenness of top surface. Do not proceed with installation until sub-floor is clean, dry and level as completed by other trades.
- B. Verify field dimensions to contract drawings for size of area of installation, height and level of recessed slabs, door openings, ledges, etc.
- C. Access To Installation Area: General Contractor shall provide clear access to installation area throughout entire duration of installation of access floor that is free of construction debris and other trades.
- D. Storage Of Materials: Area to receive and store access floor materials shall be enclosed and dry. Storage area shall be maintained at a temperature of not less than 40⁰ F and not more than 95⁰ F (4⁰ C to 35⁰ C), with a relative humidity level between 20% min. to 80% max.
- E. Area Of Installation: Shall be maintained throughout entire duration of installation of access floor at a temperature of 50⁰ F min. to 85⁰ F max. (10⁰ C to 29⁰ C) and at 20% min. to 80 % max. relative humidity.

Prior to installation, all floor panels shall be stored for at least 24 hours in a dry enclosed area at no less than 40⁰ F and no more than 95⁰ F (4⁰ C to 35⁰ C).

3.2 INSTALLATION

- A. Install access floor system and accessories under supervision of the access flooring manufactures authorized representative to ensure rigid, firm installation that complies with performance requirements.
- B. Layout floor panel installation to keep the number of cut panels at the floor perimeter to a minimum.
- C. Install floor panels securely in place and properly seated with panel edges flush.
- D. Scribe panels at perimeter to provide a close fit with adjoining construction with no voids greater than 1/8" (3 mm) where panels abut vertical surfaces.
- E. Install accessories according Manufacturer's instructions.
- F. Clean up dust, dirt and construction debris caused by floor installation as the installation progresses.

3.3 ADJUSTING, CLEANING AND PROTECTION

- A. During installation, all traffic on access floor shall be directed by access floor installer.
- B. After completing installation, vacuum clean access flooring.
- C. General contractor and/or owner shall provide and maintain suitable protection to prevent damage to completed access floor throughout entire duration of installation.

END OF SECTION 096900

All specifications are subject to change without notice or obligation.