

<b>CSI®</b> CONSOLIDATED SYSTEMS, INC. Metal Dek Group®	<b>STANDARD OPERATING PROCEDURES</b>	DATE <b>September 23, 2009</b>	PROCEDURE <b>SOP 1.24.MDG</b>
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		APPROVAL Allan Abbata	
<b>SUBJECT: Field Installation of Versa-Dek® Composite 3.5 LS Acoustical Panel (Floor Application)</b>			
<b>Recommended Installation Guidelines</b>			

## 1.0 SCOPE

**Versa-Dek® Composite 3.5 LS Acoustical Floor Panel** profile is an assembly by which a series of metal cap covers are placed in the bottom flutes of an acoustical 3.5" Versa-Dek® LS profile. This SOP describes procedures for field installation of this product. The **Versa-Dek® Composite 3.5 LS Acoustical Floor Panel** contains factory installed acoustical insulation batts, **Versa-Plugs™** (EPDM end plugs) and metal cap covers. The product is used as a metal form to contain and limit the boundaries of a composite concrete floor system. When used as part of a composite floor system described above, the **Versa-Dek® Composite 3.5 LS Acoustical Floor Panels** must be installed so that the ribs of abutting units line up and therefore present a smooth panel/cell transition at the abutted unit ends.

## 2.0 RESPONSIBILITIES

The Metal Dek Group® is responsible for manufacturing the **Versa-Dek® Composite 3.5 LS Acoustical Floor Panel** according to the required deck layout dimensions and installation directives set by the deck manufacturer's Engineering Group. The product will be delivered to the jobsite as a complete floor deck form assembly that includes composite floor deck panel, acoustical insulation batts, **Versa-Plugs™** (EPDM end plugs) and metal cap covers. The Deck Erector will be responsible for installing the **Versa-Dek® Composite 3.5 LS Acoustical Floor Panels** and associated accessories as shown on the Deck Erection (Final Field Use) Drawings. (See Typical Erection Drawings below in Item No. 6 - Forms and Records). The concrete subcontractor will be responsible for installing the concrete fill system as specified in the Contract Documents. (See 7.0 Procedures for additional responsibilities.)

## 3.0 REFERENCES

1. SDI Manual of Construction with Steel Deck
2. Steel Deck Institute Design Manual - Latest Publication
3. Metal Dek Group® Erection (Final Field Use) Drawings
4. Figure 1 - **Versa-Dek® Composite 3.5 LS Acoustical Floor Panel** (Single Span Condition)
5. Figure 2 - **Versa-Dek® Composite 3.5 LS Acoustical Floor Panel** (Multiple Span Condition)(If Required)

## 4.0 REQUIREMENTS

The Deck Erector must be experienced in installing this deck type and be thoroughly knowledgeable with the Steel Deck Institute Code of Recommended Standard Practice and Manual of Construction with Steel Deck. All parties involved, including but not limited to, Architect, Engineer of Record, General Contractor, Steel Fabricator, Steel Erector and any related subcontractors should receive and review documented field installation procedures for the **Versa-Dek® Composite 3.5 LS Acoustical Floor Panel**. The ultimate review and execution of this procedure will be the responsibility of the General Contractor.

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## 5.0 DEFINITIONS

**Versa-Dek® Composite 3.5 LS Acoustical Floor Panel** is a 3-1/2" deep dovetail shaped structural floor deck profile that provides a supporting surface for various types of floor and ceiling systems.

## 6.0 FORMS AND RECORDS

Metal Dek Group® Deck Erection Drawings (Final Field Use Dek Drawings)

## 7.0 PROCEDURES

### (Manufacturer's Recommended Installation Guidelines)

The following procedures reflect the recommended installation guidelines set forth as standards developed by the deck manufacturer. The **Versa-Dek® Composite 3.5 LS Acoustical Floor Panel** is supplied as a custom product and shall not be installed without a total understanding of the composite concrete floor system, the supplied deck erection (Final Field Use) drawings and these recommended installation procedures.

**1. Install the Versa-Dek® Composite 3.5 LS Acoustical Floor Panel in accordance with the Metal Dek Group® Erection Drawings with General Notes and SDI Manual of Construction with Steel Deck. The specific location and orientation of Versa-Dek® Composite 3.5 LS Acoustical Floor Panel is depicted on the Metal Dek Group® Erection Drawings designated as "Final Field Use Dek Drawings".**

### **2. Recommended Procedures for Proper Installation of Versa-Dek® Composite 3.5 LS Acoustical Floor Panel:**

- Installation of the initial **Versa-Dek® Composite 3.5 LS Acoustical Floor Panel** is critical for maintaining proper bearing and straight alignment of the entire acoustical composite floor deck system. Refer to the Recommended Installation Procedures and General Notes - Deck Placement on the Final Field Use Dek Drawings.
- For proper installation, begin deck @ **"Start Point"** as noted on deck drawings.
- Maintain the proper cover width by stretching the deck to the cover width dimension.
- **For Single Span Conditions**, attach each deck panel end to supporting members as shown on the Final Field Use Dek Drawings.
- **For Multiple Span Conditions**, attach each deck panel at the ends and intermediate supporting member as shown on the Final Field Use Dek Drawings.
- The deck panel side lap connection is achieved by lifting the leading edge (female leg) of the next deck panel over the trailing edge (male leg) of the previous deck panel to allow for proper alignment and attachment of the panels. See Fastening Detail on Final Field Use Dek Drawings.
- After each deck panel is in place and permanently attached, make any necessary adjustments to align the metal cap covers with end plugs as shown on the deck drawings. Refer to Typical End Gap Detail on the Final Field Use Dek Drawings.

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- It will be required that all metal cap cover joints be manually taped to minimize infiltration of concrete or moisture.
- Repeat the above procedures until all deck panels are installed.

3. After the floor deck panels have been installed as shown on the deck erection plans, it will be necessary to make sure all deck ribs and rib openings are lined up with the specified dimensions. It is the deck manufacturer's recommendation that a gauge block be used to measure the rib gaps to insure proper alignment and appearance.

4. Subcontractors are to adhere to all OSHA standards for maintaining field construction practices. Versa-Dek<sup>®</sup> Composite 3.5 LS Acoustical Floor Panel components may contain sharp edges and proper field precautions should be taken and implemented.

5. Extreme care shall be used to protect the Versa-Dek<sup>®</sup> Composite 3.5 LS Acoustical Floor Panels, acoustical insulation batts, plastic lath, neoprene end plugs and metal cap covers from being damaged prior to, during and after deck installation.

6. Locations of openings in the Versa-Dek<sup>®</sup> Composite 3.5 LS Acoustical Floor Panels shall be the responsibility of the trades requiring them. These openings shall be field cut and reinforced as required by the Engineer of Record. Holes shall be cut prior to installation of the above deck materials. The penetrations shall be cut in such a manner as to present a neat appearance without burrs or sharp edges and in accordance with the SDI Manual of Construction for Steel Decks.

7. Suspended ceilings, light fixtures, duct works and/or other utilities are permitted and can be suspended from the Versa-Dek<sup>®</sup> Composite 3.5 LS Acoustical Floor Panel. The EOR is responsible for the design and location of all hanging loads from the deck. The Metal Dek Group<sup>®</sup> has developed hanger systems to suspend point loads up to 800 lbs/hanger. Hangers can be acquired by calling 803.251.5029. (Phone Number Project Services Group).

8. For any instances in which a situation arises that is not covered by this SOP, contact is to be established with the Metal Dek Group<sup>®</sup>, Project Services Group, to provide guidance in resolving the issue(s) before proceeding.

This SOP is offered as the Metal Dek Group's recommendation for product installation. It is not intended as a guarantee or as a requirement. Successful installation can be achieved by following this procedure. The responsibility for appropriate quality installation procedures and safety practices ultimately lies with the General Contractor and the subcontractors involved. The Metal Dek Group<sup>®</sup> is available to answer questions or concerns associated with this SOP.