

Sound Transit Art Program
East Link Extension, Overlake Village Station
Pedestrian Bridge Artwork Maintenance Information
March 9, 2021

This document describes the pedestrian bridge Artwork at the Overlake Village Station ("Artwork"), its author, its fabrication methods and its maintenance. The Artwork was commissioned by Sound Transit with additional funds contributed by the City of Redmond. The agreement with the artist, Leo Saul Berk ("Artist"), assumed the standard terms and conditions of a Sound Transit public art project, including issues of related to copyrights and the use of the Artwork.

| | | |
|-----------------------------|--|---|
| Artist | Leo Saul Berk 3327 South Morgan Street Seattle WA 98118 (206) 234-4970 leoberk@comcast.net www.leosaulberk.com | |
| Artwork | Berk's Artwork is an environment of pixelated images of natural places from around the region, rendered in shades of the rich greens of early computer monitors. Constructed from regularly-spaced, aluminum louvers, the Artwork will fully enclose both sides of the 500-foot long bridge. Looking straight down the length of the bridge from either end, the walls will appear solid; as one passes over the bridge, the images will seem to break apart as pedestrians or cyclists pass the gaps between the louvers. | |
| Completion | March 2021 | |
| Structural Materials | Extruded 6005 T-6 Aluminum, painted and galvanized structural hardware as shown in the attached engineering and construction drawings. | |
| Finishes | Primer | PPG Amercoat 2 (product information and MSDS attached) |
| | Topcoat | PPG PSX 800 (product information and MSDS attached) |
| | Artwork | PPG PSX One (product information and MSDS attached). Specific color mixes are on file at PPG's Auburn architectural coatings store (https://www.ppgpaints.com/store-locator/us/washington/auburn-paint-stores/ppg-paints-22194) and are included along with the other related documents. |
| Cleaning | All surfaces | The Artwork should be cleaned using the least aggressive processes required to remove dirt or graffiti. Start with clean water and a mild soap. If there is any graffiti, it should be removed with an appropriate solvent as identified in the product data sheet (PPG AMERCOAT 12 Cleaner or AMERCOAT 911 Thinner). |

| | | |
|--|---|--|
| Touch-up Painting | Damage to the Artwork layer | The Artwork was designed to be touched up using a paint brush. The surface should be thoroughly cleaned as noted above. Any touch-up painting should be performed per the manufacturer's product data sheet. |
| | Damage to the Topcoat | The Topcoat was applied with by sprayer, so matching the surface finish will require careful application with a brush or low-nap roller. The surface should be thoroughly cleaned as noted above. Any touch-up painting should be performed per the manufacturer's product data sheet. |
| Structural Damage | Because the Artwork's louvers were custom-extruded, the most expedient method for repairing a louver may be to fabricate sections from plate material. | |
| Attachments | 01 E360 OVS Ped Bridge Artwork Presentation 2017-01-31.pdf 02 E360 OVS Ped Bridge Artwork Redmond PAC Presentation.pdf 03 E360 OVS Ped Bridge Art Louver Properties OTAK 2017-10-11.pdf 04 E360 OVS Ped Bridge Art Louver Deflection Evaluation OTAK 2017-09-11.pdf 05 OVS Pedestrian Bridge Substructure and Superstructure Drawings SPD450.pdf 06 OVS Pedestrian Bridge Substructure and Superstructure Drawings SPD451.pdf 07 OVS Pedestrian Bridge Substructure and Superstructure Drawings SPD452.pdf 08 E360 OVS Ped Bridge Artwork Cut List.pdf 09 E360 OVS Ped Bridge Artwork Extrusion List.xlsx 10 E360 OVS Ped Bridge Artwork Labeling Guide.pdf 11 E360 OVS Ped Bridge Artwork Painting Images Composite Diagram.pdf 12 E360 OVS Ped Bridge Primer Amerlock 2 Product Data.pdf 13 E360 OVS Ped Bridge Primer Amerlock 2 Cure MSDS.pdf 14 E360 OVS Ped Bridge Primer Amerlock 2 Black Resin MSDS.pdf 15 E360 OVS Ped Bridge Topcoat PSX 800 Product Data.pdf 16 E360 OVS Ped Bridge Topcoat PSX 800 Resin MSDS.pdf 17 E360 OVS Ped Bridge Topcoat PSX 800 Cure MSDS.pdf 18 E360 OVS Ped Bridge Artwork Coat PSX One Product Data.pdf 19 E360 OVS Ped Bridge Artwork Coat PSX One MSDS.pdf 20 E360 OVS Ped Bridge Custom Plate Washer.pdf 21 E360-OVS-Berk-Paint-Formulas-01.pdf 22 E360-OVS-Berk-Paint-Formulas-02.pdf 23 E360-OVS-Berk-Paint-Data-Sheet.pdf | |
| Copyright and Related Information from Sound Transit Contract with Artist | I. USE OF ARTWORK <ol style="list-style-type: none"> 1. Sound Transit shall own the original Artwork. Sound Transit shall have sole control over the siting, function, and display of the Artwork. Prior to commencing any substantial change to the siting, function, or display of the Artwork, Sound Transit shall attempt to notify the Artist of the proposed change and shall provide the Artist a reasonable opportunity to consult with Sound Transit, in accordance with terms and conditions as | |

| | |
|--|---|
| | <p>approved by Sound Transit, regarding the change. In the event that the Artist and Sound Transit do not agree, the Artist shall have the right to remove his/her name from the Artwork, and Sound Transit shall no longer use the Artist's name in association with that Artwork. The foregoing shall be the Artist's exclusive remedy regarding Sound Transit's siting, function, or display of the Artwork.</p> <ol style="list-style-type: none">2. The Artist acknowledges and agrees that the Artwork [described in contract's Attachment 2] is intended to be incorporated in a public transit system and Sound Transit has sole authority over the present and future design and use of that transit system. The Artist further acknowledges and agrees that it is inherent in the nature of a public transit system that the Artwork may be subjected to destruction, distortion, mutilation, or other modification (collectively, "damage") due to repair, renovation or other alteration of the transit system. Prior to commencing any work that may subject the Artwork to damage, Sound Transit shall attempt to notify the Artist of the proposed work and shall provide the Artist a reasonable opportunity to consult with Sound Transit, in accordance with terms and conditions as approved by Sound Transit, regarding the avoidance or repair of potential damage to the Artwork. In the event that the Artist and Sound Transit do not agree, the Artist shall have the right to remove his/her name from the Artwork, and Sound Transit shall no longer use the Artist's name in association with that Artwork. The foregoing shall be the Artist's exclusive remedy regarding damage to the Artwork.3. If Sound Transit proposes to do any work that will destroy the Artwork, Sound Transit shall attempt to notify the Artist prior to commencement of that work and the Artist shall have the right to remove the Artwork, at the Artist's sole expense and without unreasonably delaying or interfering with Sound Transit's work. Ownership of any Artwork removed by the Artist pursuant to this provision shall revert to the Artist.4. In the event the Artwork is damaged from any cause; the Artist shall have the right to remove his/her name from the Artwork, and Sound Transit shall no longer use the Artist's name in association with that Artwork.5. With regard to any notices required or permitted by this Section, Sound Transit shall be deemed to have made a diligent, good faith effort to notify the Artist if Sound Transit sends the notice by registered mail to the last address provided to Sound Transit by the Artist. <p>J. PROPRIETARY RIGHTS AND RIGHTS OF REPRODUCTION</p> <ol style="list-style-type: none">1. The Artwork is intended to be incorporated in a public transit system in the United States, and that the funding for the Artwork is intended to be provided from public sources in the United States. Therefore, the parties intend and agree that all rights in the Artwork shall be determined |
|--|---|

| | |
|--|--|
| | <p>exclusively in accordance with this Agreement and the laws of the United States and the State of Washington.</p> <ol style="list-style-type: none">2. If any patentable or copyrightable material or article should result from the work described herein, all rights accruing from such material or article shall be the sole property of the Artist; except for ownership of the physical embodiment of the original Artwork, or as otherwise provided in this Agreement.3. The Artist expressly reserves every right available to him/her to control the making and dissemination of copies or reproductions of the Artwork, except as those rights are limited by this Agreement. The Artist authorizes Sound Transit and its assigns to electronically scan, duplicate, or download images of the Artwork, and to make photographs, drawings, and other two-dimensional reproductions of the Artwork without consent of the Artist for any noncommercial use for the sole use and benefit of the public, including, but not limited to, education, public relations, advertising, brochures, and similar material. The Artist shall not make any exact duplications of the Artwork to full scale or in any manner that could cause confusion as to which is the original and which is the duplicate.4. All reproductions by Sound Transit, including, without limitation, electronic or digital reproduction, shall contain a credit to the Artist and a copyright notice substantially in the following form: "Copyright, Artist's name, all rights reserved, date", and/or any other credit mutually agreed upon by the parties, in such a manner and location as shall comply with the U.S. Copyright Laws. |
|--|--|



GA 0208-20 Overlake Village Station O&M Agreement

**Exhibit B - OVS Ped Bridge Artwork Maintenance
Information Attachments**

Pedestrian Bridge Artwork Maintenance Information Overview

March 4, 2022



This document describes the pedestrian bridge Artwork at the Overlake Village Station (“Artwork”), its author, its fabrication methods and its maintenance. The Artwork was commissioned by Sound Transit with additional funds contributed by the City of Redmond. The agreement with the artist, Leo Saul Berk (“Artist”), assumed the standard terms and conditions of a Sound Transit public art project, including issues of related to copyrights and the use of the Artwork.

| | | |
|-----------------------------|--|---|
| Artist | Leo Saul Berk 3327 South Morgan Street Seattle WA 98118 (206) 234-4970 leoberk@comcast.net www.leosaulberk.com | |
| Artwork | Berk’s Artwork is an environment of pixelated images of natural places from around the region, rendered in shades of the rich greens of early computer monitors. Constructed from regularly-spaced, aluminum louvers, the Artwork will fully enclose both sides of the 500-foot long bridge. Looking straight down the length of the bridge from either end, the walls will appear solid; as one passes over the bridge, the images will seem to break apart as pedestrians or cyclists pass the gaps between the louvers. | |
| Completion | March 2021 | |
| Structural Materials | Extruded 6005 T-6 Aluminum, painted and galvanized structural hardware as shown in the attached engineering and construction drawings. | |
| Finishes | Primer | PPG Amercoat 2 (product information and MSDS attached) |
| | Topcoat | PPG PSX 800 (product information and MSDS attached) |
| | Artwork | PPG PSX One (product information and MSDS attached). Specific color mixes are on file at PPG’s Auburn architectural coatings store (https://www.ppgpaints.com/store-locator/us/washington/auburn-paint-stores/ppg-paints-22194) and are included along with the other related documents. |
| Cleaning | All surfaces | The Artwork should be cleaned using the least aggressive processes required to remove dirt or graffiti. Start with clean water and a mild soap. If there is any graffiti, it should be removed with an appropriate solvent as identified in the product data sheet. |
| Touch-up Painting | Damage to the Artwork layer | The Artwork was designed to be touched up using a paint brush. The surface should be thoroughly cleaned as noted above. Any touch-up painting should be performed per the manufacturer’s product data sheet. |

| | |
|--|--|
| | <p>Damage to the Topcoat</p> <p>The Topcoat was applied with by sprayer, so matching the surface finish will require careful application with a brush or low-nap roller. The surface should be thoroughly cleaned as noted above. Any touch-up painting should be performed per the manufacturer's product data sheet.</p> |
| Structural Damage | <p>Because the Artwork's louvers were custom-extruded, the most expedient method for repairing a louver may be to fabricate sections from plate material.</p> |
| Attachments | <p>Exhibit B – OVS Ped Bridge Artwork Maintenance Information Attachments</p> <ol style="list-style-type: none"> 01. OVS Ped Bridge Artwork Presentation to CoR Design Review Board 02. OVS Ped Bridge Artwork Presentation to CoR Arts and Culture Commission 03. OVS Ped Bridge Art Louver Properties - OTAK 04. OVS Ped Bridge Art Louver Deflection Evaluation - OTAK 05. OVS Ped Bridge Substructure and Superstructure Drawings 06. OVS Ped Bridge Artwork Louver Cut List 07. OVS Ped Bridge Artwork Louver Identification List 08. OVS Ped Bridge Artwork Labeling Guide 09. OVS Ped Bridge Artwork Painting Composite Images Diagram 10. OVS Ped Bridge Primer Amerlock 2 Product Data and MSDS Sheets 11. OVS Ped Bridge Topcoat PSX 800 Product Data and MSDS Sheets 12. OVS Ped Bridge Artwork Coat PSX One Product Data and MSDS Sheets 13. OVS Ped Bridge Color Verification Dot Cards 14. OVS Ped Bridge Custom Plate Washer |
| Copyright and Related Information from Sound Transit Contract with Artist | <p>NOTE: Please refer to <u>Exhibit C Overlake Pedestrian Bridge Artist Agreement Assignment</u> for information on the transfer of these rights and responsibilities to the City of Redmond.</p> <p>I. USE OF ARTWORK</p> <ol style="list-style-type: none"> 1. Sound Transit shall own the original Artwork. Sound Transit shall have sole control over the siting, function, and display of the Artwork. Prior to commencing any substantial change to the siting, function, or display of the Artwork, Sound Transit shall attempt to notify the Artist of the proposed change and shall provide the Artist a reasonable opportunity to consult with Sound Transit, in accordance with terms and conditions as approved by Sound Transit, regarding the change. In the event that the Artist and Sound Transit do not agree, the Artist shall have the right to remove his/her name from the Artwork, and Sound Transit shall no longer use the Artist's name in association with that Artwork. The foregoing shall be the Artist's exclusive remedy regarding Sound Transit's siting, function, or display of the Artwork. 2. The Artist acknowledges and agrees that the Artwork [described in contract's Attachment 2] is intended to be incorporated in a public transit system and Sound Transit has sole authority over the present and future design and use of that transit system. The Artist further acknowledges and agrees that it is inherent in the nature of a public transit system that the Artwork may be subjected to destruction, distortion, mutilation, or other modification (collectively, "damage") due to repair, renovation or other alteration of the transit system. Prior to commencing any work that may subject the Artwork to |

damage, Sound Transit shall attempt to notify the Artist of the proposed work and shall provide the Artist a reasonable opportunity to consult with Sound Transit, in accordance with terms and conditions as approved by Sound Transit, regarding the avoidance or repair of potential damage to the Artwork. In the event that the Artist and Sound Transit do not agree, the Artist shall have the right to remove his/her name from the Artwork, and Sound Transit shall no longer use the Artist's name in association with that Artwork. The foregoing shall be the Artist's exclusive remedy regarding damage to the Artwork.

3. If Sound Transit proposes to do any work that will destroy the Artwork, Sound Transit shall attempt to notify the Artist prior to commencement of that work and the Artist shall have the right to remove the Artwork, at the Artist's sole expense and without unreasonably delaying or interfering with Sound Transit's work. Ownership of any Artwork removed by the Artist pursuant to this provision shall revert to the Artist.
4. In the event the Artwork is damaged from any cause; the Artist shall have the right to remove his/her name from the Artwork, and Sound Transit shall no longer use the Artist's name in association with that Artwork.
5. With regard to any notices required or permitted by this Section, Sound Transit shall be deemed to have made a diligent, good faith effort to notify the Artist if Sound Transit sends the notice by registered mail to the last address provided to Sound Transit by the Artist.

J. PROPRIETARY RIGHTS AND RIGHTS OF REPRODUCTION

1. The Artwork is intended to be incorporated in a public transit system in the United States, and that the funding for the Artwork is intended to be provided from public sources in the United States. Therefore, the parties intend and agree that all rights in the Artwork shall be determined exclusively in accordance with this Agreement and the laws of the United States and the State of Washington.
2. If any patentable or copyrightable material or article should result from the work described herein, all rights accruing from such material or article shall be the sole property of the Artist; except for ownership of the physical embodiment of the original Artwork, or as otherwise provided in this Agreement.
3. The Artist expressly reserves every right available to him/her to control the making and dissemination of copies or reproductions of the Artwork, except as those rights are limited by this Agreement. The Artist authorizes Sound Transit and its assigns to electronically scan, duplicate, or download images of the Artwork, and to make photographs, drawings, and other two-dimensional reproductions of the Artwork without consent of the Artist for any noncommercial use for the sole use and benefit of the public, including, but not limited to, education, public relations, advertising, brochures, and similar material. The Artist shall not make any exact duplications of the Artwork to full scale or in any manner that could cause confusion as to which is the original and which is the duplicate.
4. All reproductions by Sound Transit, including, without limitation, electronic or digital reproduction, shall contain a credit to the Artist and a copyright notice substantially in the following form: "Copyright, Artist's name, all rights reserved, date", and/or any other credit mutually agreed upon by the parties, in such a manner and location as shall comply with the U.S. Copyright Laws.



01

OVS Ped Bridge Artwork Presentation to CoR Design Review Board



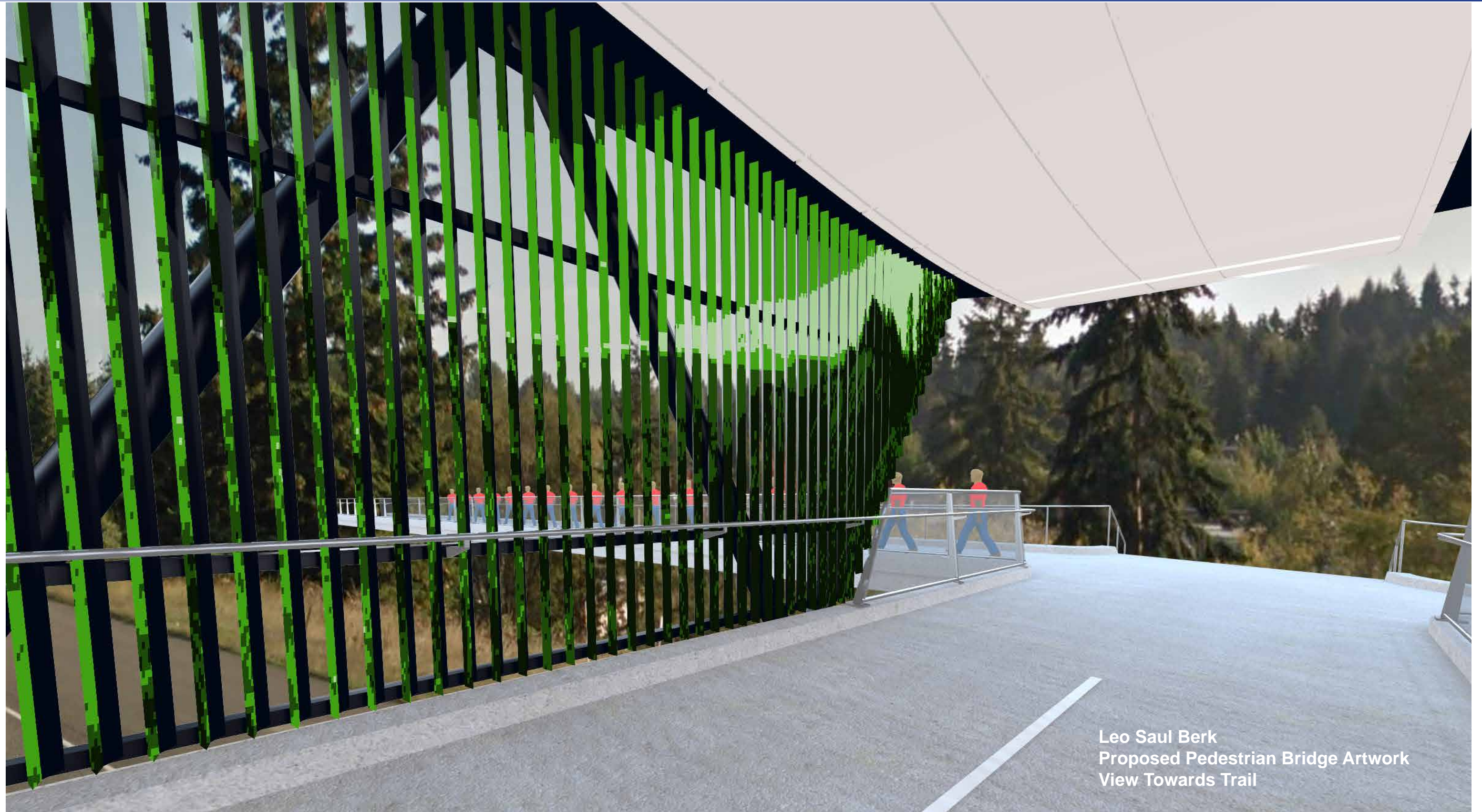
Leo Saul Berk
Proposed Pedestrian Bridge Artwork
View Looking Through Bridge



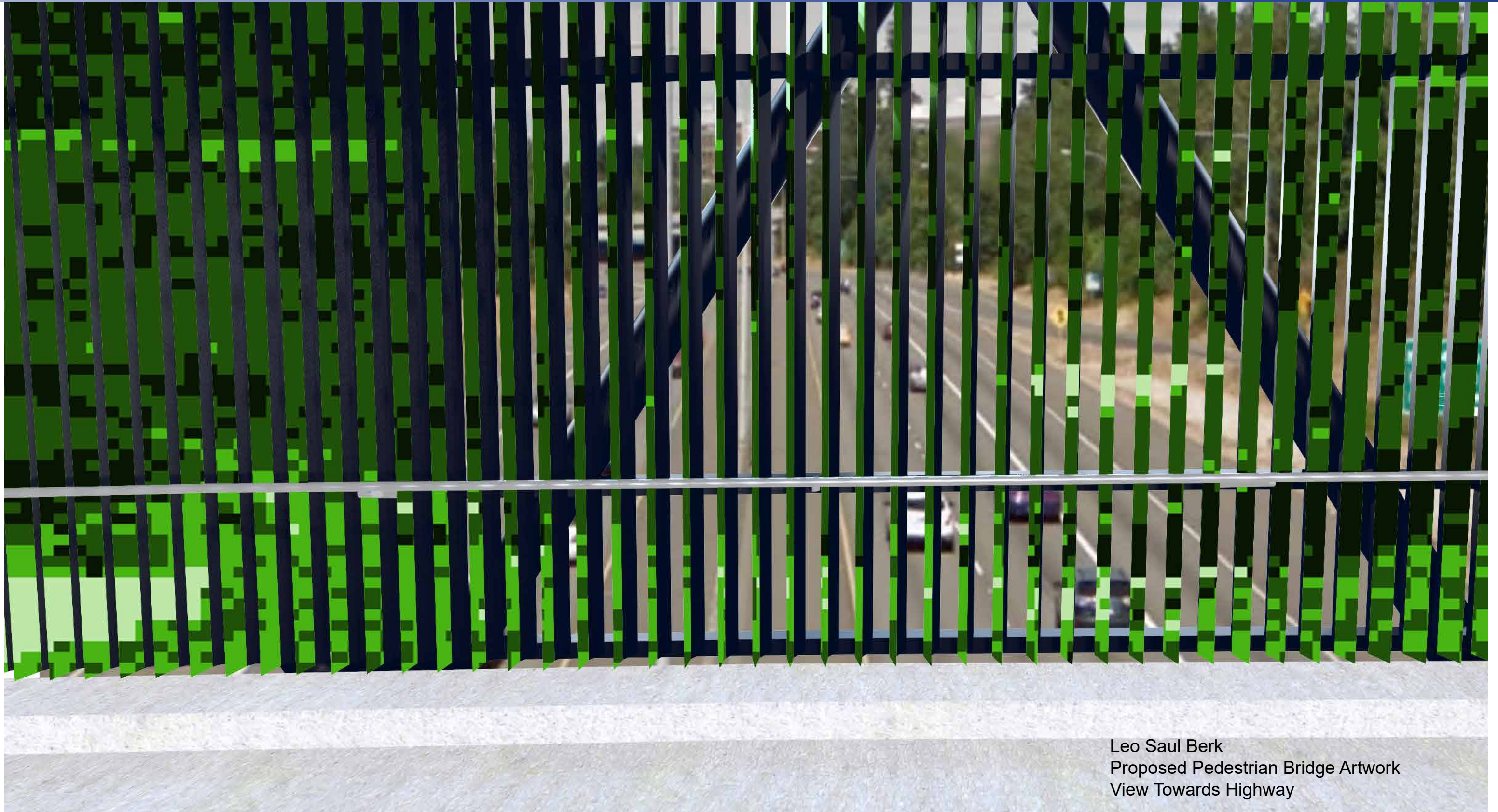
Leo Saul Berk
Proposed Pedestrian Bridge Artwork
Inspiration



Leo Saul Berk
Proposed Pedestrian Bridge Artwork
View From Trail



Leo Saul Berk
Proposed Pedestrian Bridge Artwork
View Towards Trail



Leo Saul Berk
Proposed Pedestrian Bridge Artwork
View Towards Highway



03

OVS Ped Bridge Artwork Presentation to CoR Arts and Culture Commission

Overlake Village Station Pedestrian Bridge Artwork

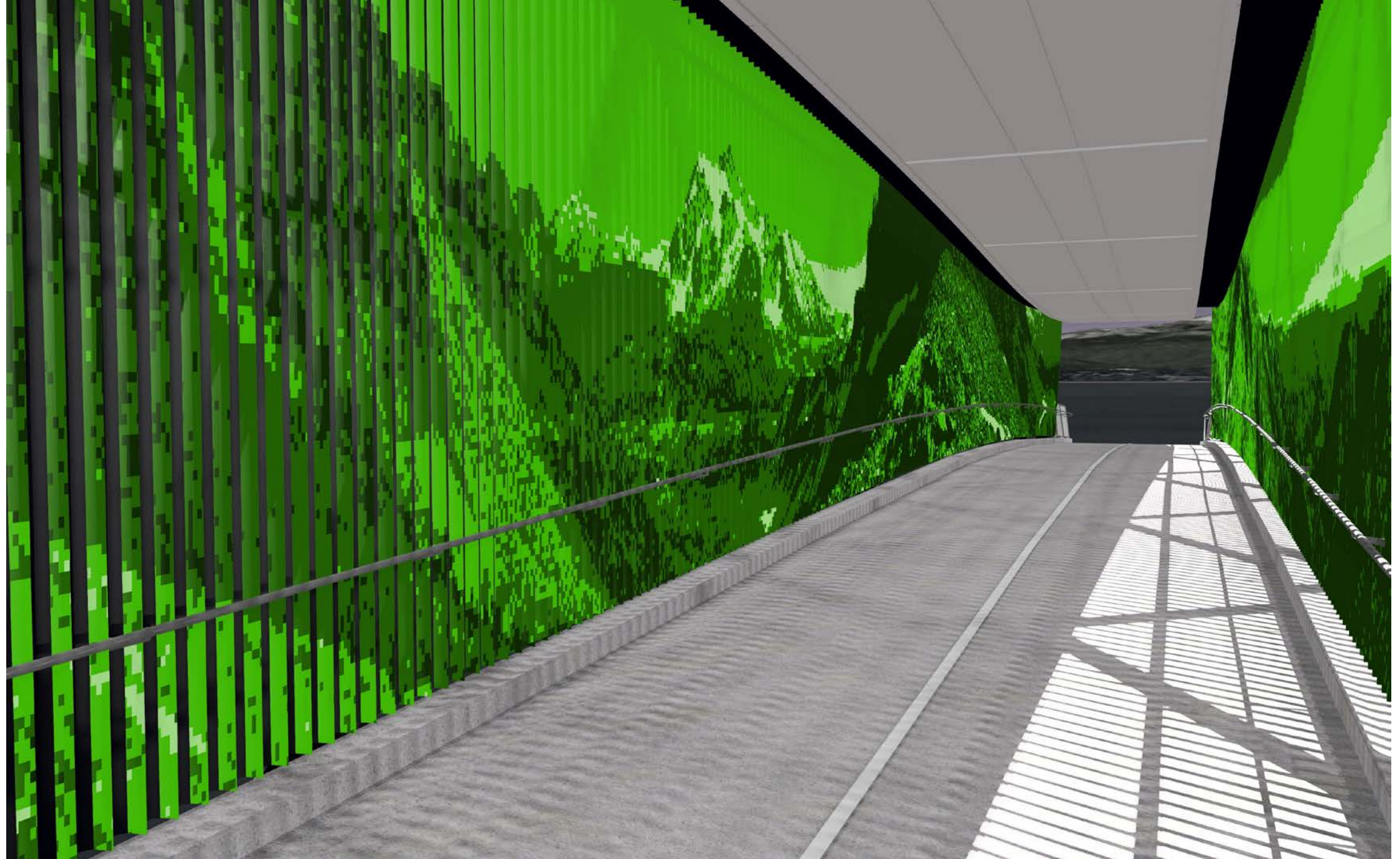
Design Directive: Create a project that contributes a sense of fun and play to OVS and creates a positive experience of crossing the pedestrian bridge.

Design Limitation: WA DOT does not want the artwork to create a distraction for drivers on Highway 520.

Artistic Intentions: Develop an immersive experience that competes with the noise of the highway and matches the scale of the bridge.



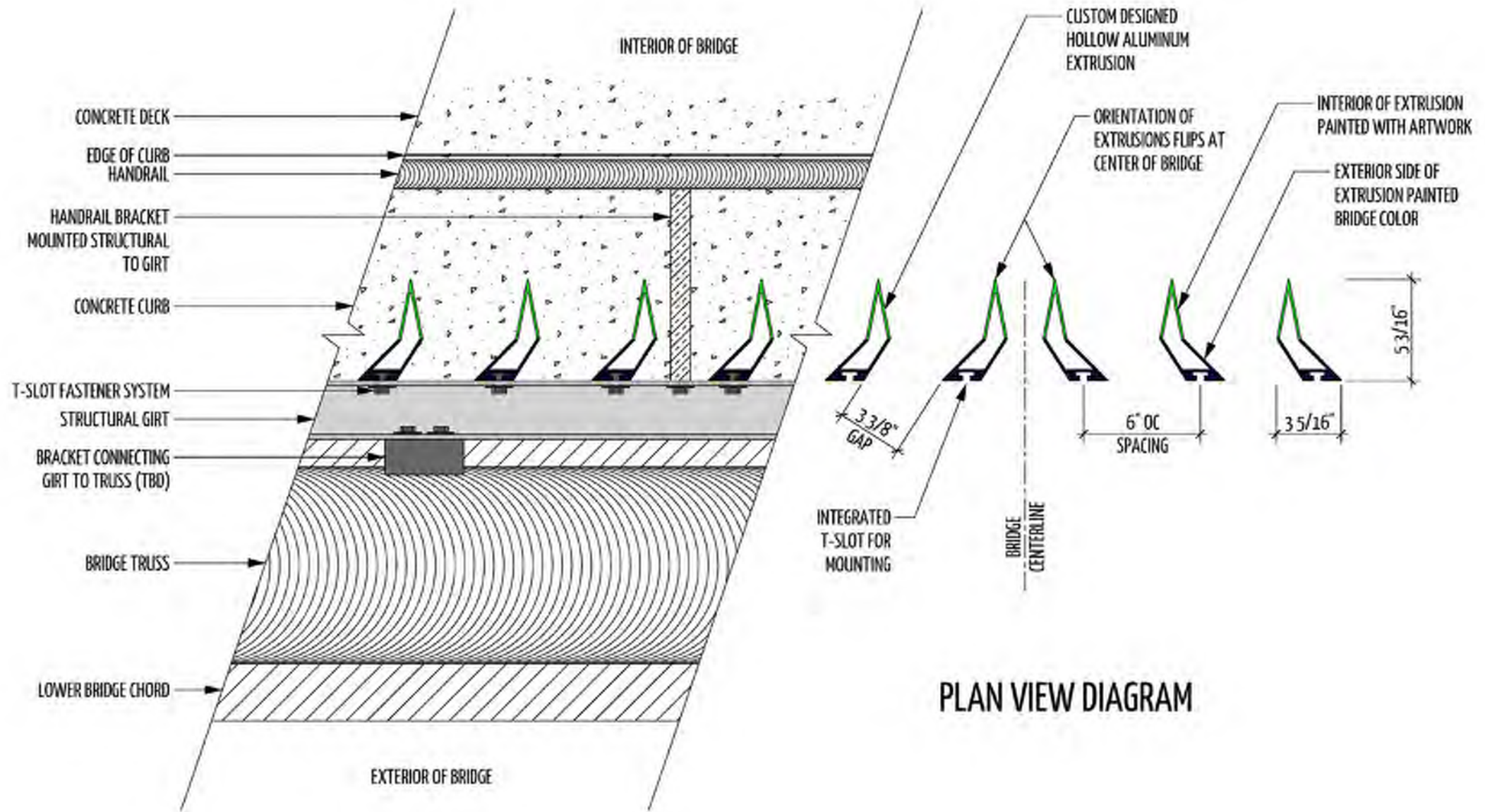
Sound Transit Art Program | Overlake Village Station Pedestrian Bridge Artwork | Leo Saul Berk | January 12, 2017



Sound Transit Art Program | Overlake Village Station Pedestrian Bridge Artwork | Leo Saul Berk | January 12, 2017



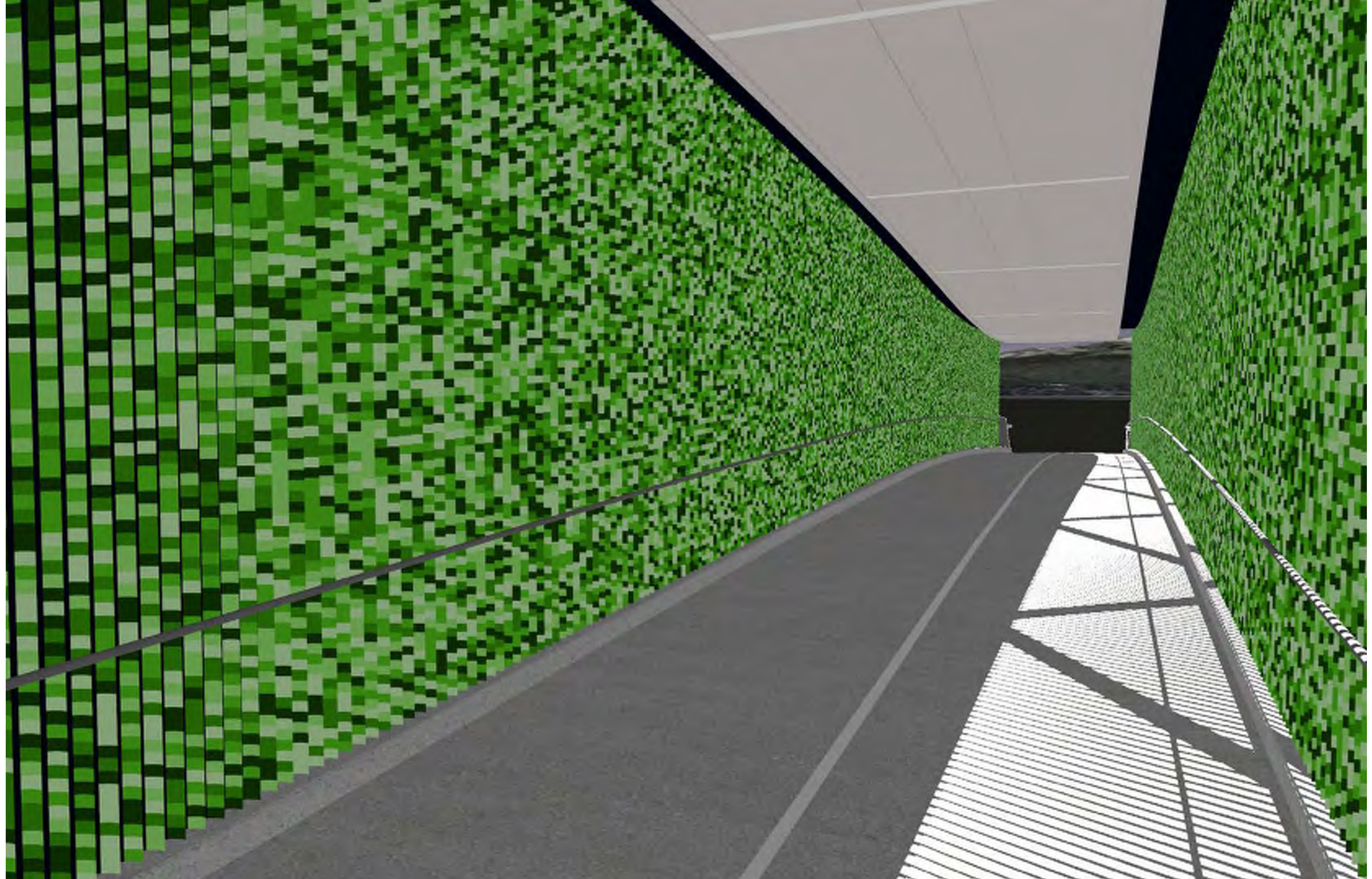






Designed for Ease of Maintenance

- Durable, industrial Themec Fluoronar paint
- Hand brushed in regularly spaced stripes
- Limited palette of 5 colors



PROCESS FOR CREATING BRIDGE ART IMAGERY

STEP 1: SHOOT PANORAMIC PHOTOGRAPHS OF PACIFIC NORTHWEST NATURAL SCENES (THIS IMAGE IS A PLACE HOLDER)



STEP 2: TRANSFORM PHOTOGRAPH INTO FIVE COLOR, PIXELATED IMAGE



STEP 3: EACH COLUMN OF PIXELS IS THEN PAINTED ONTO ONE OF 1032 EXTRUSIONS ON EACH SIDE OF THE BRIDGE
CREATING FOUR DIFFERENT IMAGES—AN IMAGE ON EITHER SIDE, BOTH COMING AND GOING.



Sound Transit Art Program | Overlake Village Station Pedestrian Bridge Artwork | Leo Saul Berk | January 12, 2017



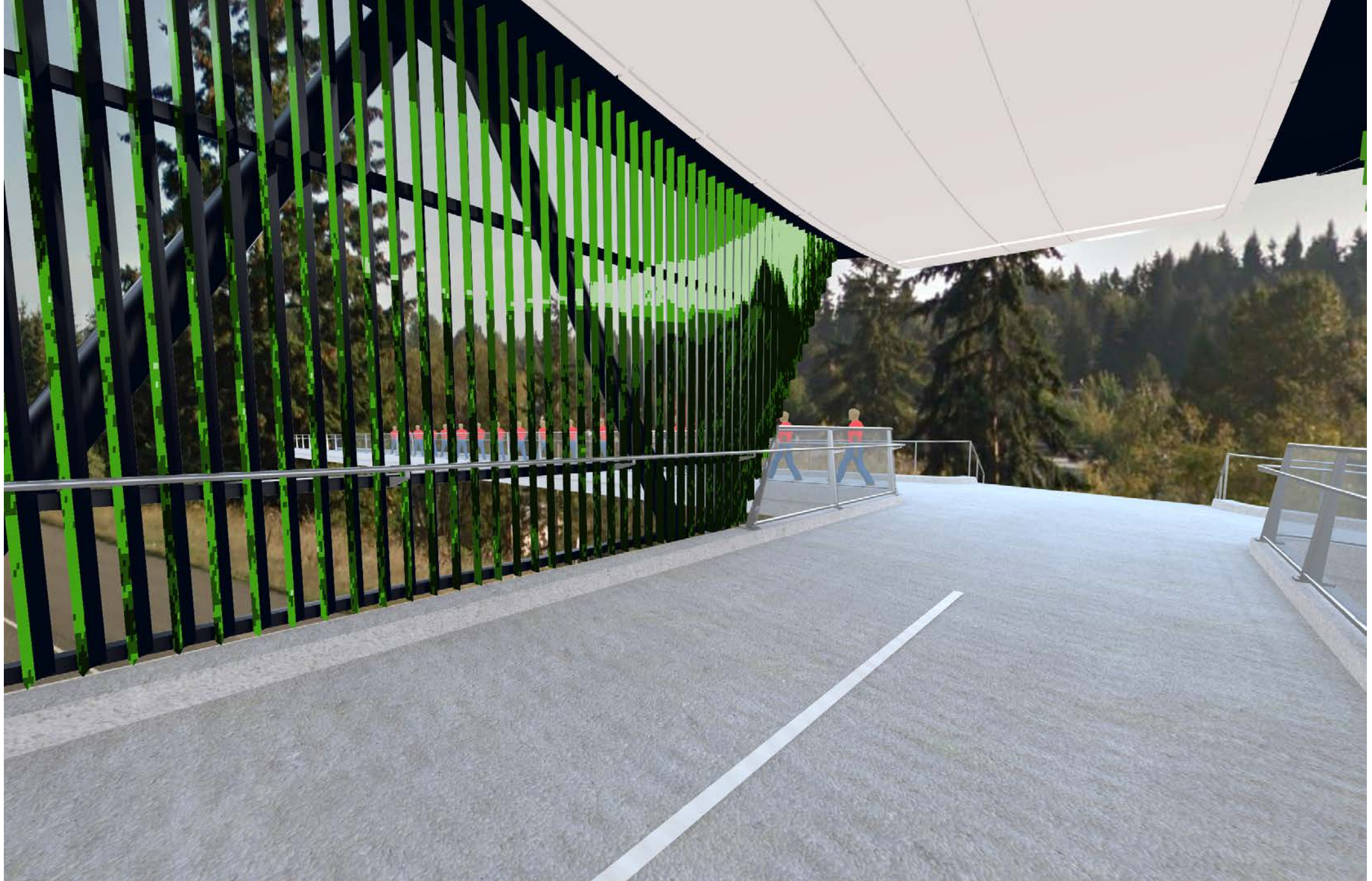
Sound Transit Art Program | Overlake Village Station Pedestrian Bridge Artwork | Leo Saul Berk | January 12, 2017



Sound Transit Art Program | Overlake Village Station Pedestrian Bridge Artwork | Leo Saul Berk | January 12, 2017



Sound Transit Art Program | Overlake Village Station Pedestrian Bridge Artwork | Leo Saul Berk | January 12, 2017



Sound Transit Art Program | Overlake Village Station Pedestrian Bridge Artwork | Leo Saul Berk | January 12, 2017



Sound Transit Art Program | Overlake Village Station Pedestrian Bridge Artwork | Leo Saul Berk | January 12, 2017



03

OVS Ped Bridge Art Louver Properties - OTAK

Technical Memorandum



*700 Washington Street
Suite 300
Vancouver, WA 98660
Phone (360) 737-9613
Fax (360) 737-9651*

To: Leo Berk
From: Scott Nettleton P.E.
Prepared By: Scott Nettleton and Elizabeth Sheehy
Date: October 11, 2017
Subject: Overlake Village Pedestrian Bridge Extrusions
Project No.: 18584

Summary:

The Overlake Village Pedestrian Bridge has been selected by Sound Transit as a site for mounting of a public art installation to enhance user experience on the East Side Light Rail Extension. The bridge is sited to span SR520 within the City of Redmond connecting the Overlake Village Station to the 520 bike/pedestrian multi-use pathway at the top of the embankment parallel to the highway on the north side.

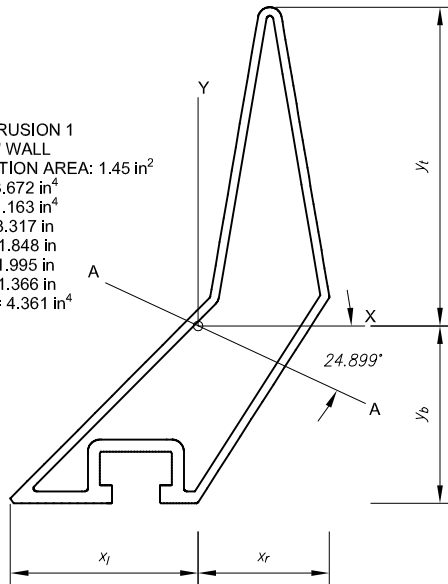
During the course of design development the installation has coalesced on a pixelated image to be applied to elements installed on either side of the structure interior. These elements are proposed to be manufactured of a custom extruded aluminum cross section that will be placed vertically outside of the hand railing. The position of these members will require them to provide the structural function of handrail balusters.

Otak has been requested by Leo Berk, the artist developing these sections for installation, to provide the engineering properties for proposed sections. The purpose of which to supply to the Bridge Engineer in responsible charge for evaluation against code applied loading and to finalize the supporting mechanism for attachment to the structure.

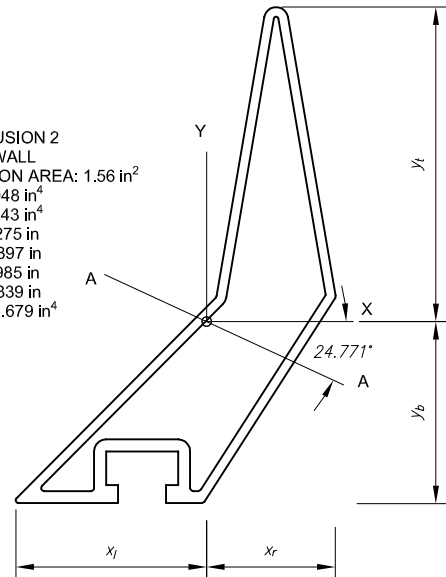
Five different sections, identified as 1, 2, 3, 5 and 6, each identical externally, have been evaluated. The multiple sections enable the evaluation to determine the most economical section that provides sufficient strength for the installation. The section properties are attached in Appendix A.

APPENDIX A

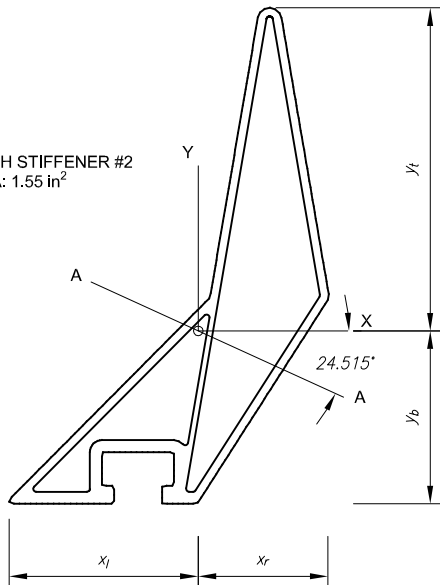
EXTRUSION 1
 .090" WALL
 SECTION AREA: 1.45 in²
 $I_x = 3.672 \text{ in}^4$
 $I_y = 1.163 \text{ in}^4$
 $y_t = 3.317 \text{ in}$
 $y_b = 1.848 \text{ in}$
 $x_l = 1.995 \text{ in}$
 $x_r = 1.366 \text{ in}$
 $I_{A-A} = 4.361 \text{ in}^4$



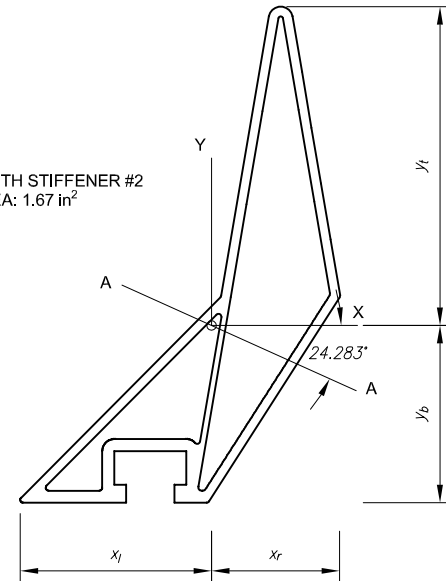
EXTRUSION 2
 .100" WALL
 SECTION AREA: 1.56 in²
 $I_x = 3.948 \text{ in}^4$
 $I_y = 1.243 \text{ in}^4$
 $y_t = 3.275 \text{ in}$
 $y_b = 1.897 \text{ in}$
 $x_l = 1.985 \text{ in}$
 $x_r = 1.339 \text{ in}$
 $I_{A-A} = 4.679 \text{ in}^4$



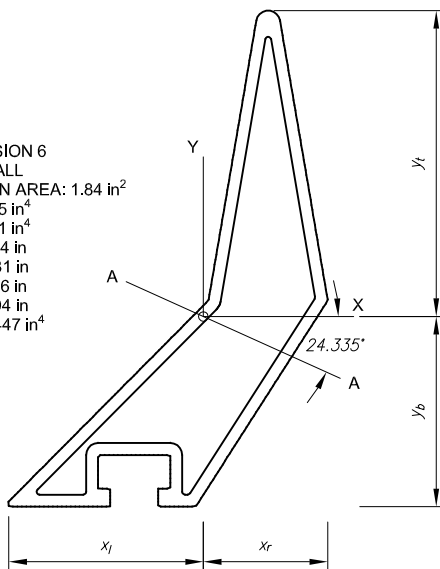
EXTRUSION 3
 .090" WALL WITH STIFFENER #2
 SECTION AREA: 1.55 in²
 $I_x = 3.735 \text{ in}^4$
 $I_y = 1.159 \text{ in}^4$
 $y_t = 3.364 \text{ in}$
 $y_b = 1.801 \text{ in}$
 $x_l = 1.966 \text{ in}$
 $x_r = 1.351 \text{ in}$
 $I_{A-A} = 4.410 \text{ in}^4$



EXTRUSION 5
 .100" WALL WITH STIFFENER #2
 SECTION AREA: 1.67 in²
 $I_x = 4.023 \text{ in}^4$
 $I_y = 1.236 \text{ in}^4$
 $y_t = 3.320 \text{ in}$
 $y_b = 1.846 \text{ in}$
 $x_l = 1.992 \text{ in}$
 $x_r = 1.334 \text{ in}$
 $I_{A-A} = 4.737 \text{ in}^4$



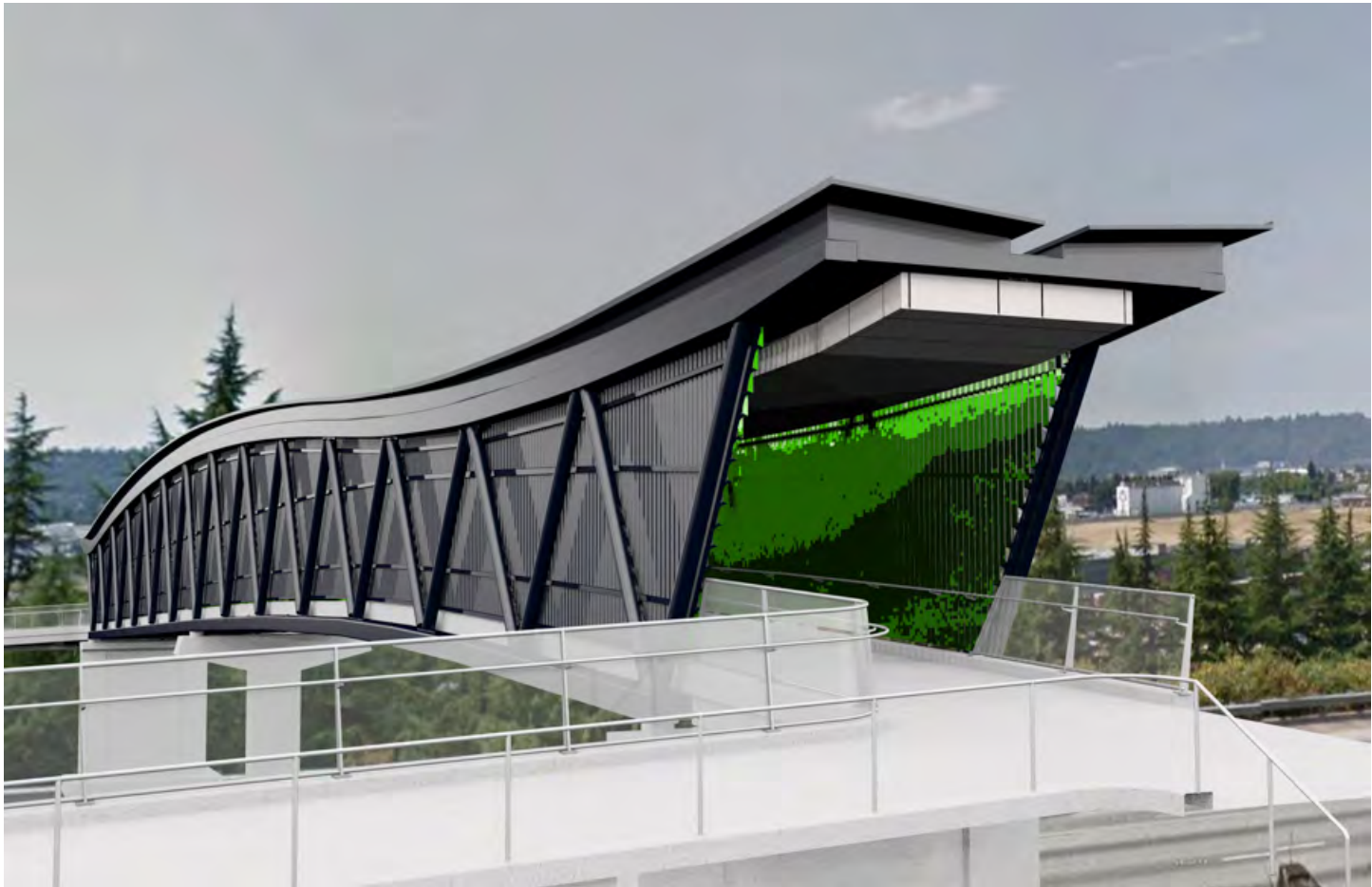
EXTRUSION 6
 .125" WALL
 SECTION AREA: 1.84 in²
 $I_x = 4.625 \text{ in}^4$
 $I_y = 1.421 \text{ in}^4$
 $y_t = 3.184 \text{ in}$
 $y_b = 1.981 \text{ in}$
 $x_l = 2.026 \text{ in}$
 $x_r = 1.294 \text{ in}$
 $I_{A-A} = 5.447 \text{ in}^4$





03

OVS Ped Bridge Art Louver Deflection Evaluation - OTAK



OVERALL ARTWORK
RENDERING LOOKING WEST

SOUND TRANSIT ART PROGRAM

E360 OVERLAKE VILLAGE STATION ARTWORK

REVISIONS

| | MM/DD/YY | REMARKS |
|---|----------|---------|
| 1 | --/--/-- | ... |
| 2 | --/--/-- | ... |
| 3 | --/--/-- | ... |
| 4 | --/--/-- | ... |
| 5 | --/--/-- | ... |

01

A

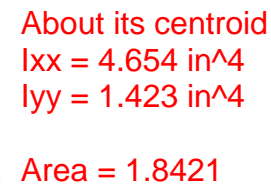
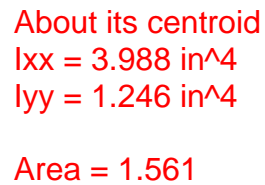


OBLIQUE VIEW RENDERING
INSIDE BRIDGE

SOUND TRANSIT ART PROGRAM

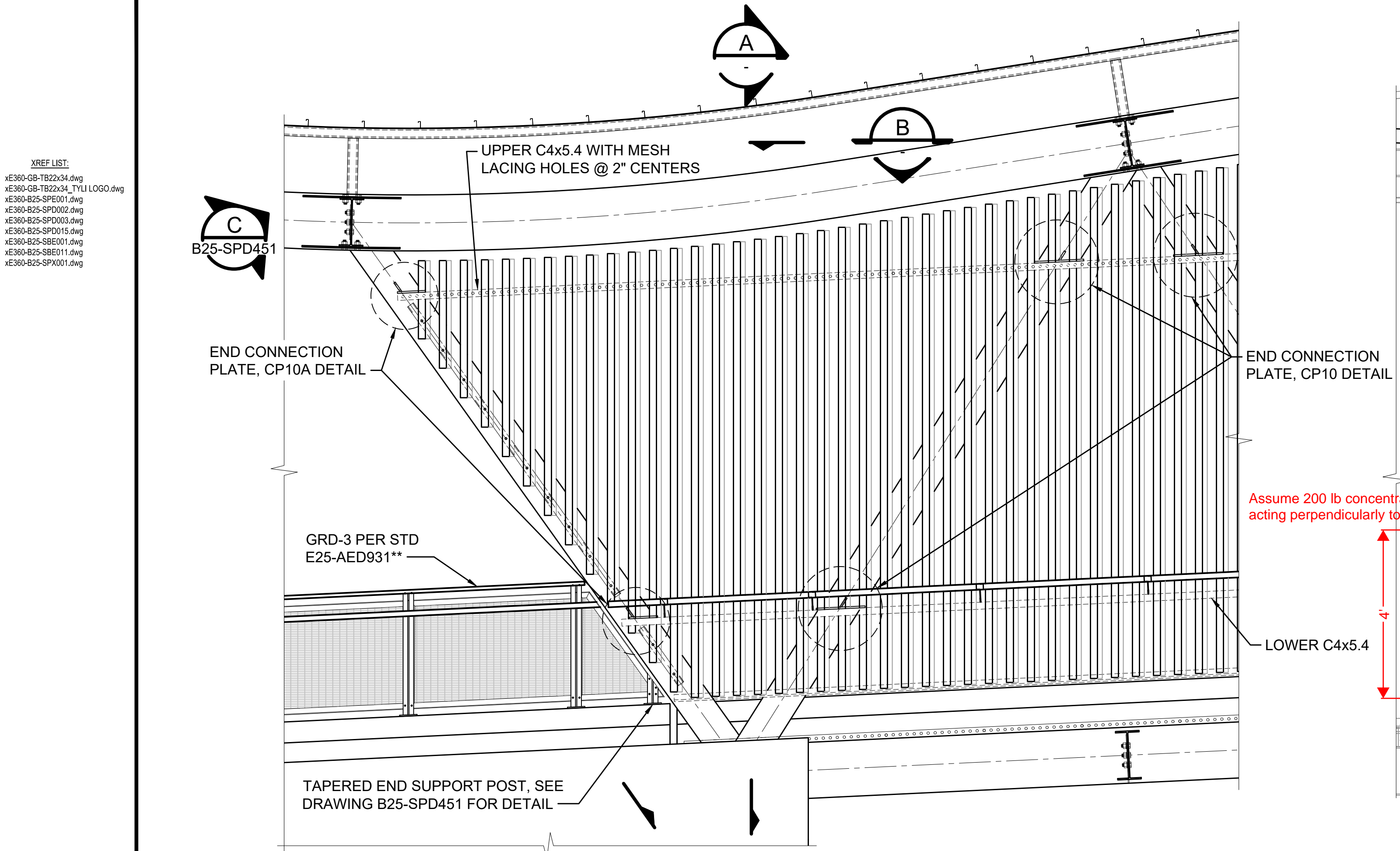
E360 OVERLAKE VILLAGE STATION ARTWORK

| REVISIONS | | |
|-----------|------------|---------|
| | MM/DD/YY | REMARKS |
| 1 | --/--/---- | ... |
| 2 | --/--/---- | ... |
| 3 | --/--/---- | ... |
| 4 | --/--/---- | ... |
| 5 | --/--/---- | ... |



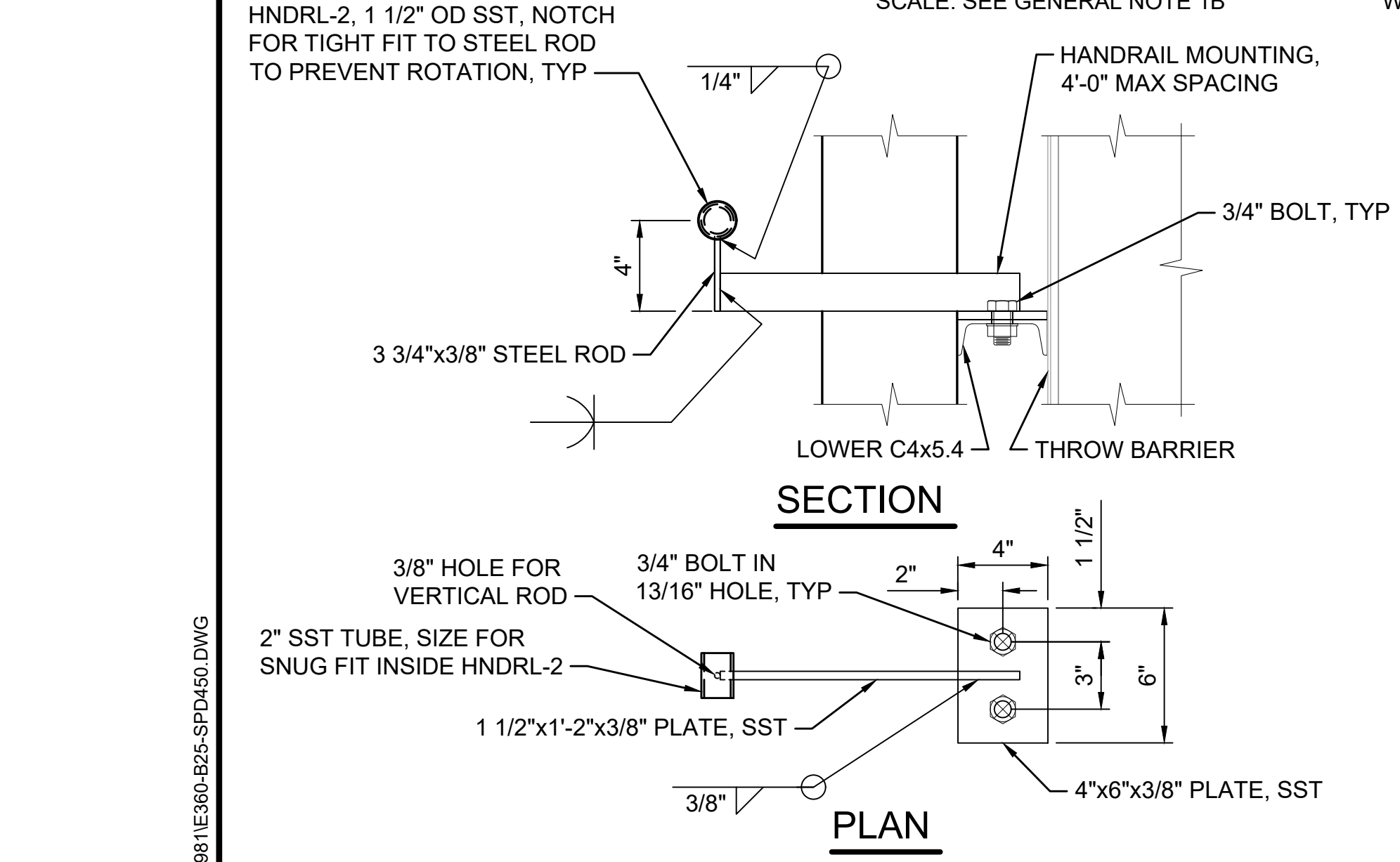
Modified extrusion #7

XREF LIST:
X360-GB-TB22x34.dwg
X360-GB-TB22x34_TYU LOGO.dwg
X360-B25-SPD001.dwg
X360-B25-SPD002.dwg
X360-B25-SPD003.dwg
X360-B25-SPD015.dwg
X360-B25-SBE001.dwg
X360-B25-SBE011.dwg
X360-B25-SPX001.dwg



PARTIAL ELEVATION LOOKING NORTH

SCALE: SEE GENERAL NOTE 1B WIND VANE DETAIL



SECTION

PLAN

HANDRAIL CONNECTION DETAILS

SCALE: SEE GENERAL NOTE 1B

Assume 200 lb concentrated load acting perpendicularly to louver

SECTION

SCALE: SEE GENERAL NOTE 1B

Quick calculation (conservative by ignoring the 3rd support point), assume simple beam supports

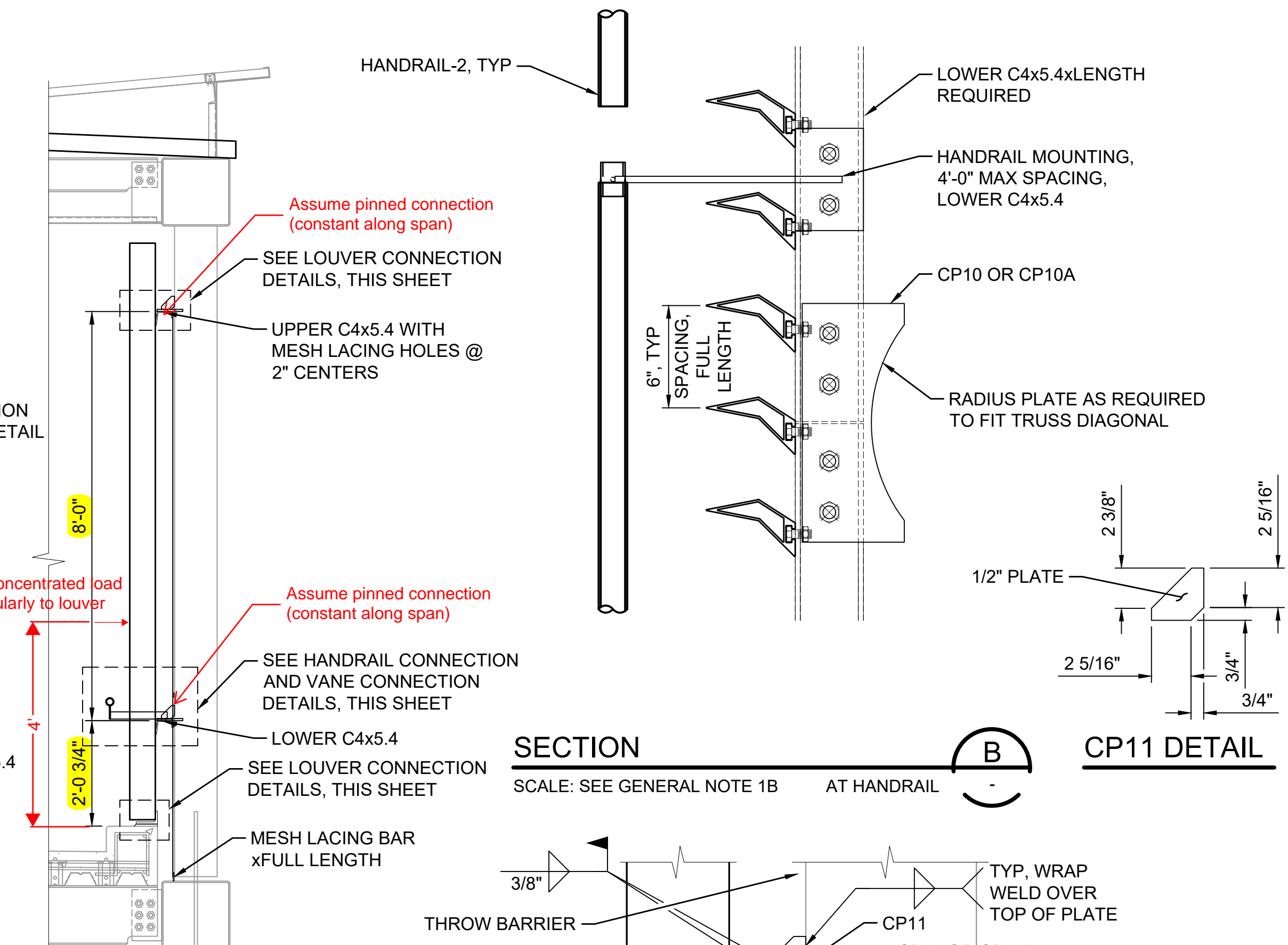
Deflection at point of loading:
 $P \cdot a^2 \cdot b^2 / (3 \cdot E \cdot I \cdot x \cdot L)$

$200 \text{ lb} \times (24")^2 \times (72")^2 / (3 \times 10,000,000 \text{ psi} \times I \times 96")$

for 0.1" thick louver, $I \times x = 3.988 \text{ in}^4$
deflection = 0.052"

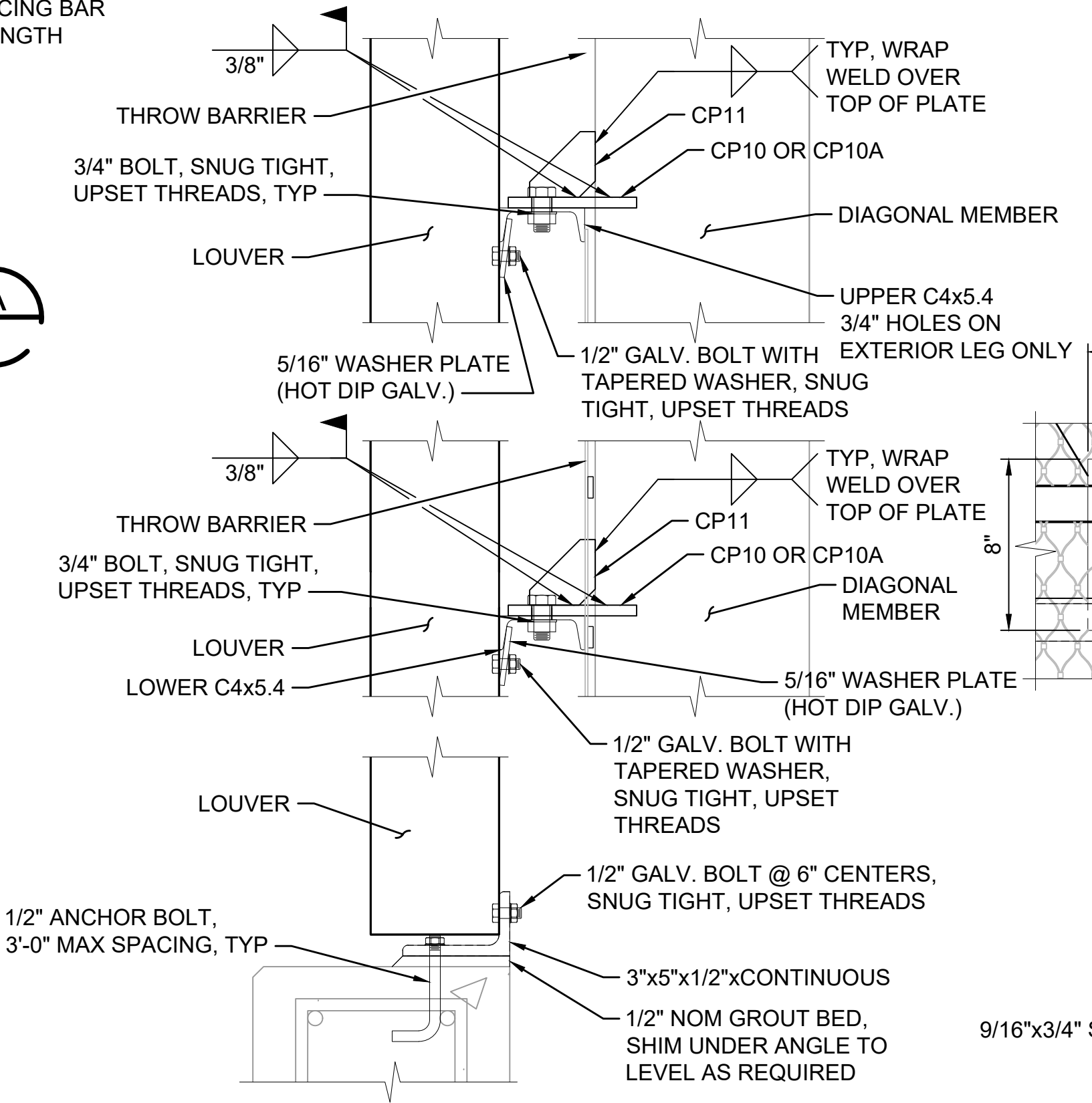
for 0.125" thick louver, $I \times x = 4.654 \text{ in}^4$
deflection = 0.045"

**NOTE:
OBTAIN WRITTEN SPECIAL NOTICE TO PROCEED PRIOR TO FABRICATION OR CONSTRUCTION OF APPROACH GRD-3 GUARDRAIL.



SECTION

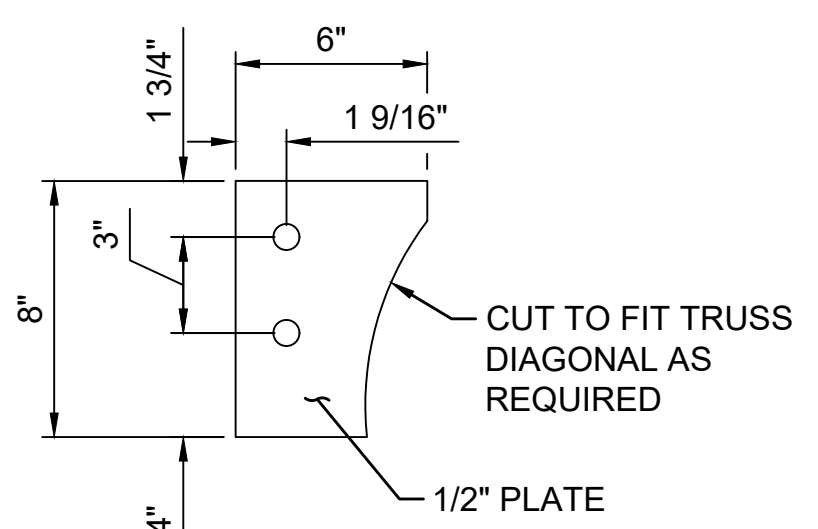
SCALE: SEE GENERAL NOTE 1B AT HANDRAIL



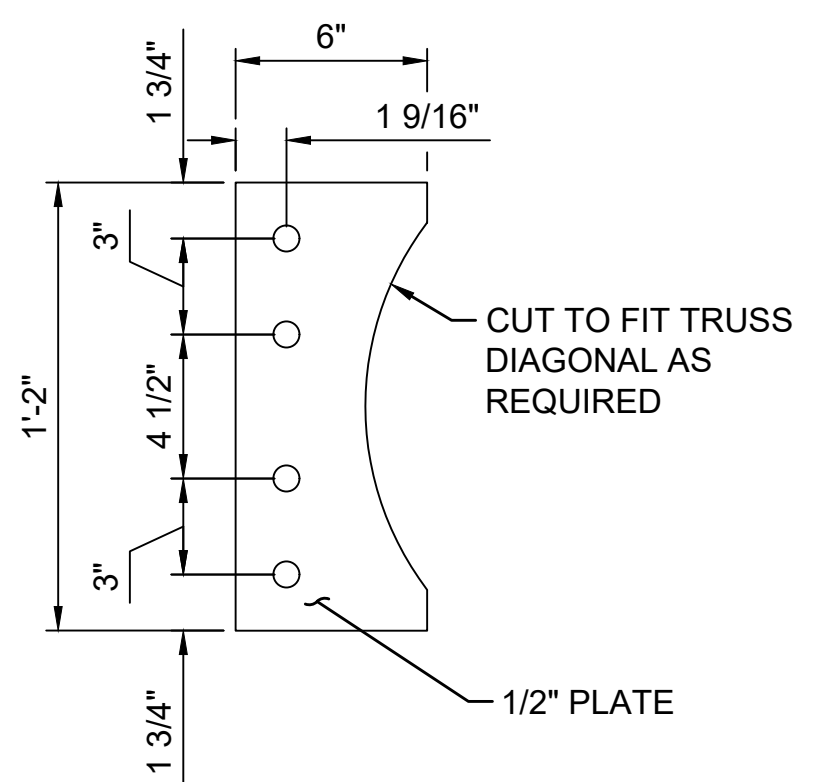
SECTION

LOUVER CONNECTION DETAILS

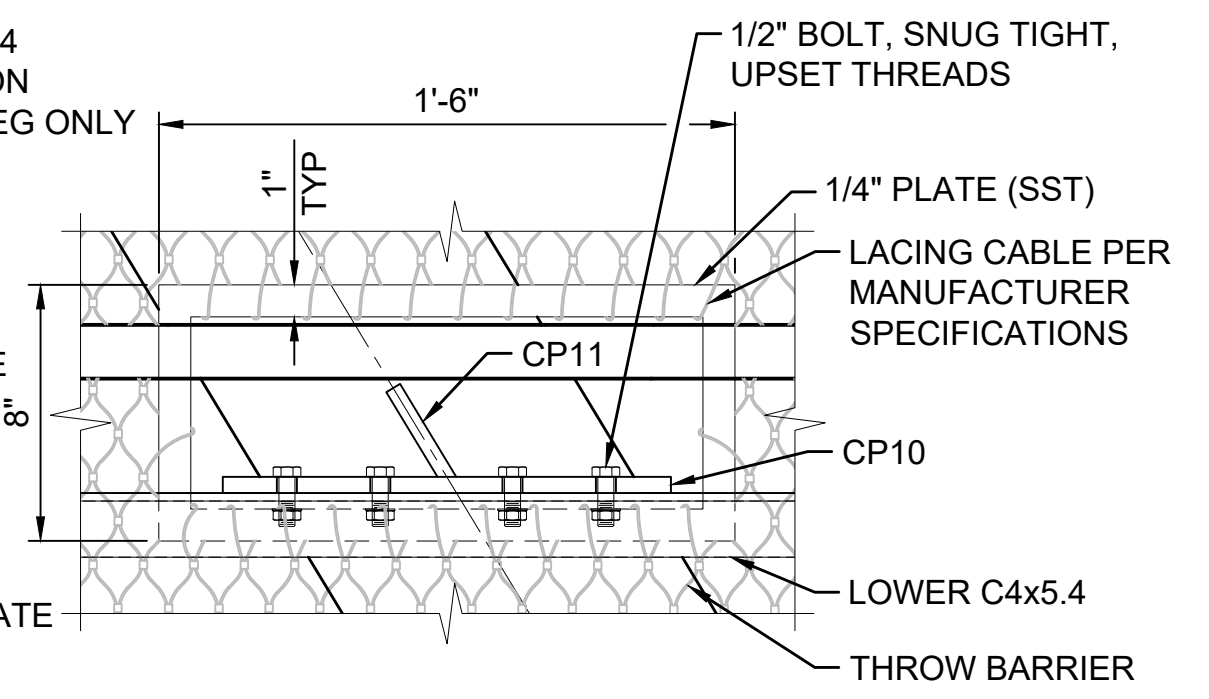
SCALE: SEE GENERAL NOTE 1B



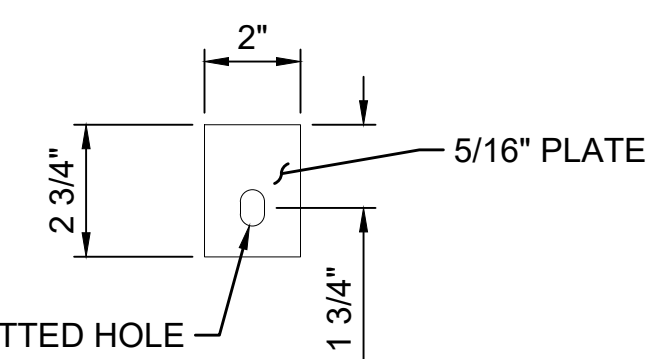
CP10A DETAIL



CP10 DETAIL



ELEVATION



5/16" WASHER PLATE

IN PROGRESS

DESIGNED BY:
B. BOCHSLER/S. NETTLETON
DRAWN BY:
T. KOONS
CHECKED BY:
A. SELLADURAI
APPROVED BY:
S. NETTLETON

PRELIMINARY
ENGINEERING

NOT FOR
CONSTRUCTION

TYLIN INTERNATIONAL
engineers | planners | scientists

SUBMITTED BY:
G. OWEN

KIEWIT-HOFFMAN
EAST LINK CONSTRUCTORS

DATE:
06/16/2017

REVIEWED BY:
A. MENCKE

LINE IS "AT
FULL SCALE

SOUNDTRANSIT

DATE:
06/16/2017

SCALE:
AS NOTED
FILENAME:
E360-B25-SPD450
CONTRACT No.:
RTA/CN 0122-13
SUBMITTAL DATE:
06/16/2017

EAST LINK EXTENSION
CONTRACT E360
SR 520 TO OVERLAKE TRANSIT CENTER
OVERLAKE VILLAGE PEDESTRIAN BRIDGE
SCREEN DETAILS
SHEET 1

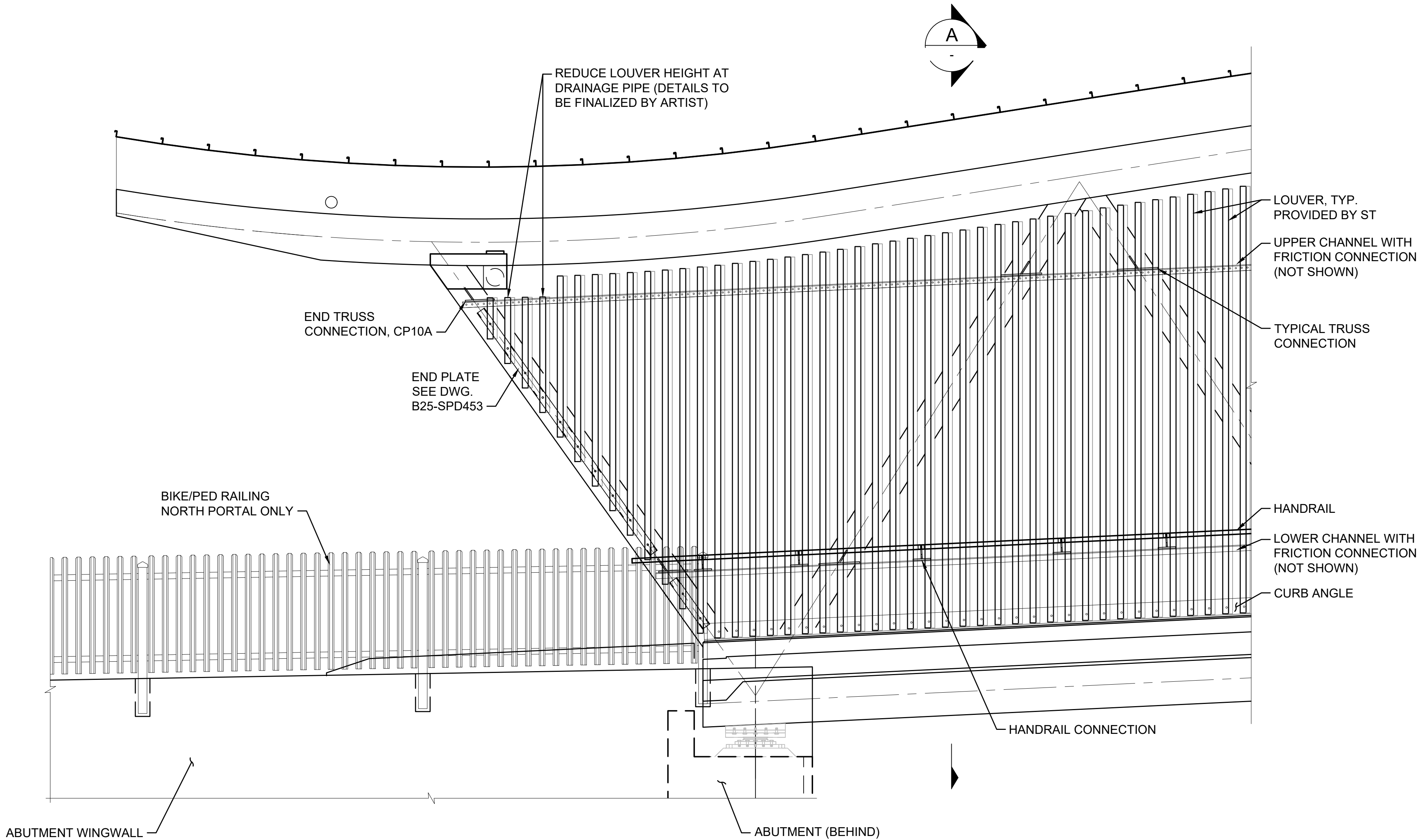
DRAWING No.:
B25-SPD450
FACILITY ID:
B25
SHEET No.:
67
REV:
0



05

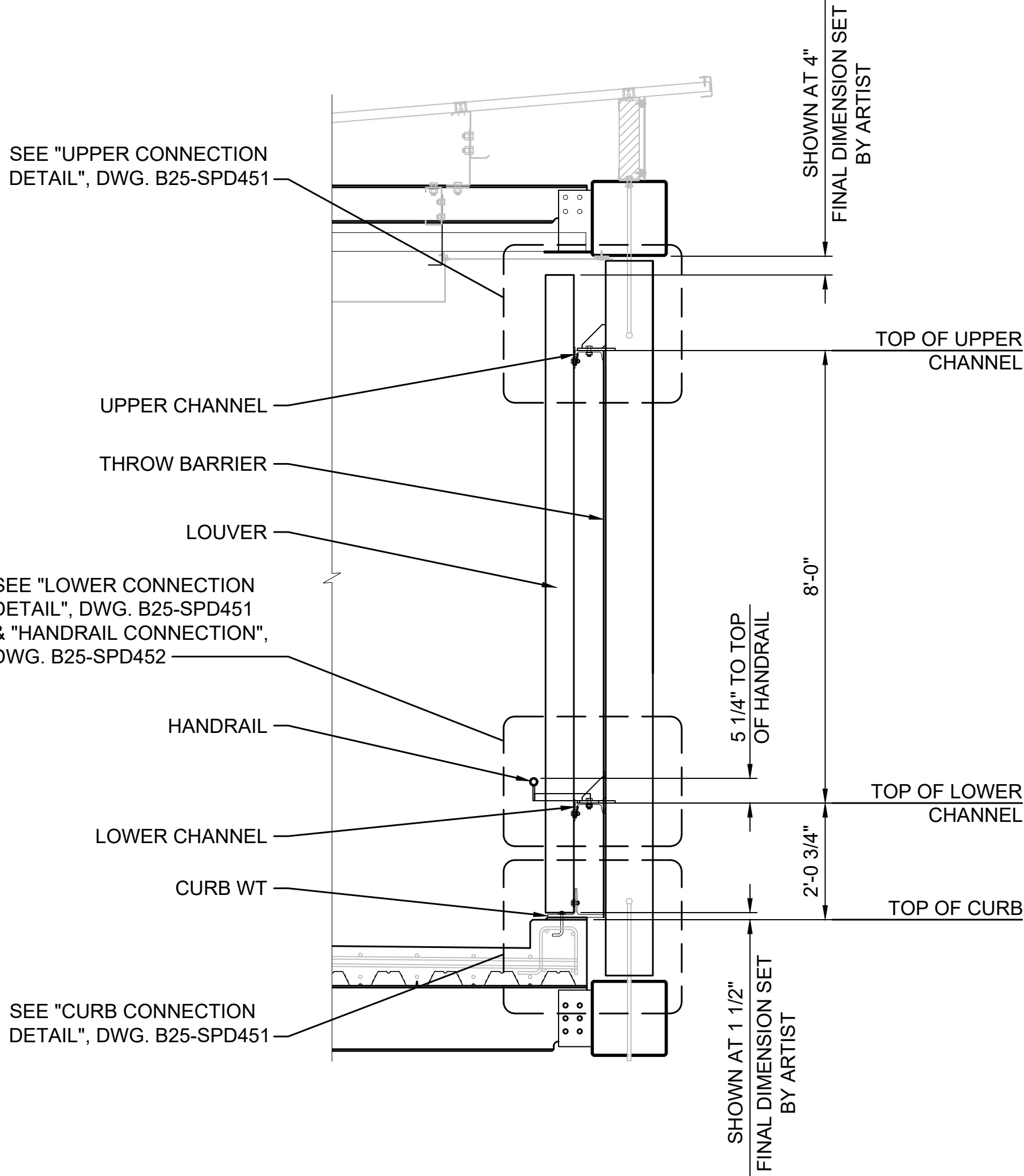
OVS Ped Bridge Substructure and Superstructure Drawings

XREF LIST:
X360-QB-TB22x34.dwg
X360-QB-TB22x34_TYU LOGO.dwg
X360-B25-AWE020.dwg
X360-B25-SPD001.dwg
X360-B25-AWX001.dwg
X360-B25-SPX001.dwg
X360-B25-SBE001.dwg
X360-B25-SBE011.dwg
X360-B25-ARX001.dwg
X360-B25-ARE001.dwg



ELEVATION

SCALE: 1/2" = 1'-0



SECTION

SCALE: 1/2" = 1'-0"

NOTES:

1. PROFILE OF UPPER AND LOWER CHANNELS FOLLOW PGL. SEE DWG. B25-SPP025.
2. LOUVERS ARE TO BE PROVIDED AND INSTALLED BY SOUND TRANSIT.
3. LOUVER CONNECTIONS DESIGNED BASED ON THE FOLLOWING LOUVER PROPERTIES:
 - ASTM B221 ALUMINUM, Ft_u = 38 KSI, Ft_y = 35 KSI, Ft_{uw} = 24 KSI
 - AREA = 1.45 IN²
 - I_x = 3.672 IN⁴
 - I_y = 1.163 IN⁴
 - y_b = 1.848 INLOUVERS WITH ALTERNATE PROPERTIES SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO FABRICATION.
4. SEE DP012, OVS STATION DRAWINGS FOR BARRIER CONNECTION AT SOUTH PORTAL.
5. FOR CONNECTION PLATE DETAILS, SEE DWG. B25-SPD451.

CONSTRUCTION SEQUENCING FOR BARRIERS:

1. FABRICATE TRUSS CONNECTIONS AND CONFIRM VERTICAL ALIGNMENT OF CHANNELS IN SHOP.
2. ALIGN CURB CONNECTION WITH TRUSS CONNECTIONS IN FIELD. PLACE GROUT PAD AND TIGHTEN CURB BOLTS.
3. INSTALL THROW BARRIER, WITH LACING PLATES AT TRUSS CONNECTIONS.
4. ATTACH LOUVERS TO CURB ANGLE.
5. ATTACH LOUVERS TO LOWER AND UPPER FRICTION CONNECTION, CHECKING VERTICAL ALIGNMENT PRIOR TO FINAL TIGHTENING.

100% SUBMITTAL

| | | | | | |
|-----|------|-----|-----|-----|----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| No. | DATE | DSN | CHK | APP | REVISION |

DESIGNED BY:
A. SELLADURAI
DRAWN BY:
T. KOONS
CHECKED BY:
B. FISH
APPROVED BY:
A. SELLADURAI

PRELIMINARY
ENGINEERING

NOT FOR
CONSTRUCTION

TYLININTERNATIONAL
engineers | planners | scientists

SUBMITTED BY:
G. OWEN

KIEWIT-HOFFMAN
EAST LINK CONSTRUCTORS

DATE:
04/02/2018

REVIEWED BY:
A. MENCKE

LINE IS 1" AT
FULL SCALE

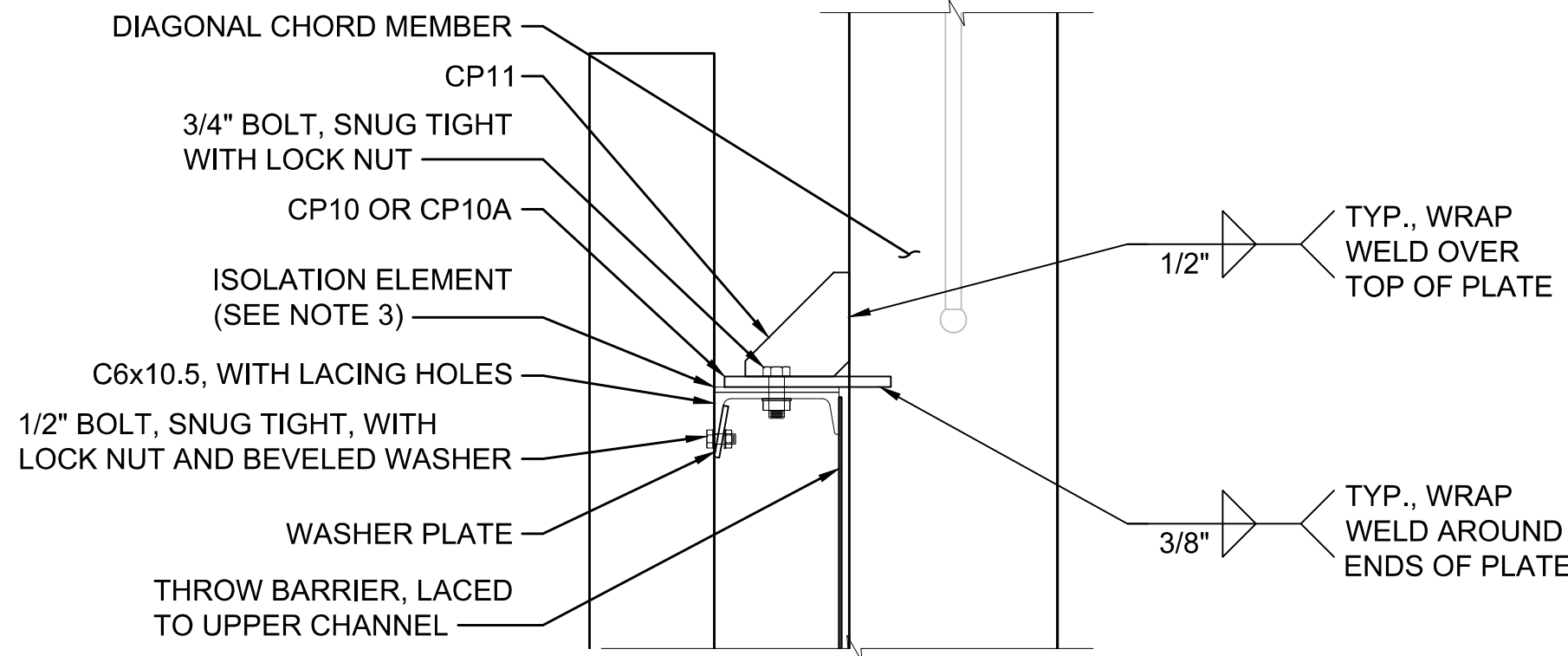


SCALE:
AS NOTED
FILENAME:
E360-B25-SPD450
CONTRACT No.:
RTA/CN 0122-13
SUBMITTAL DATE:
04/02/2018

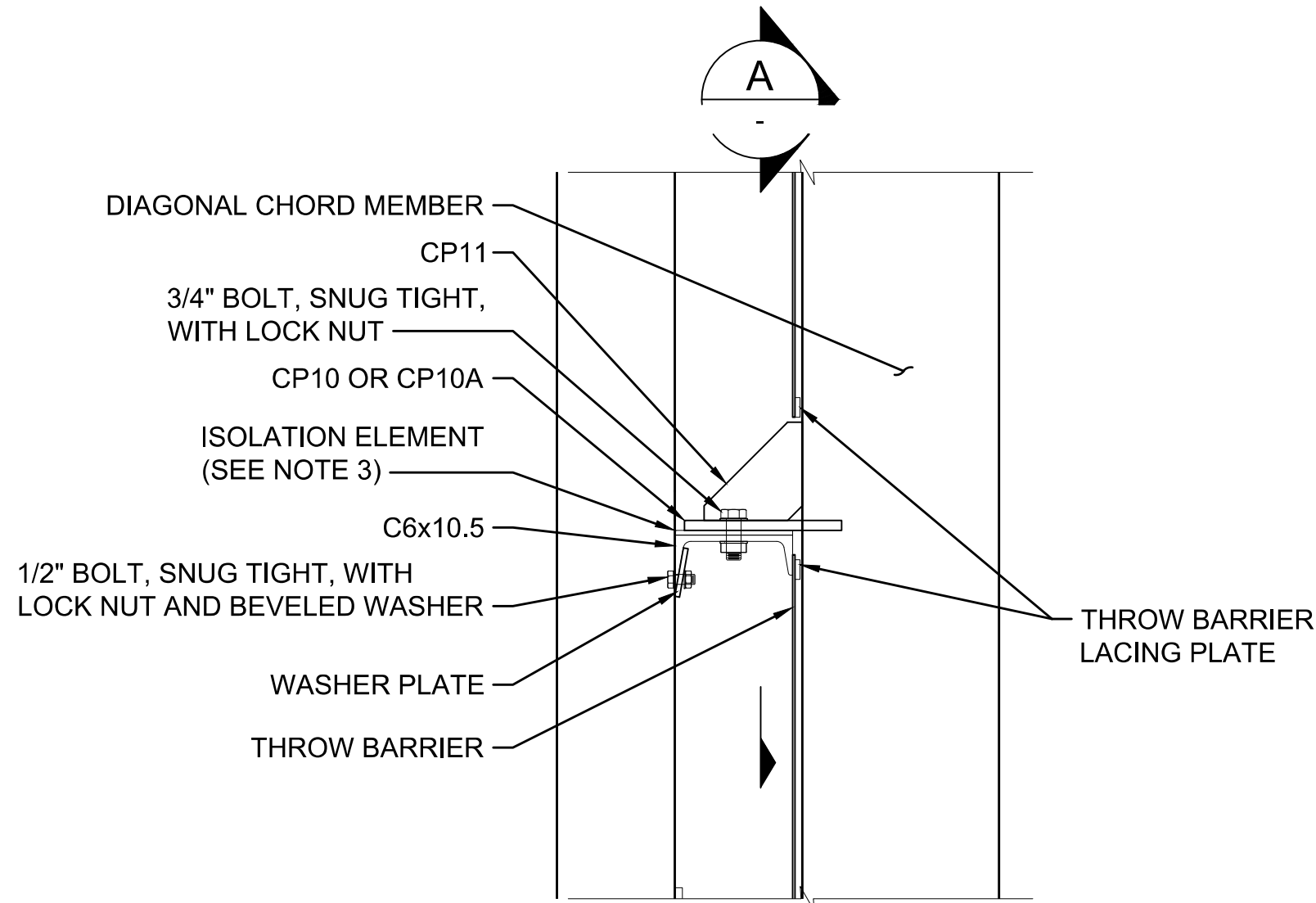
EAST LINK EXTENSION
CONTRACT E360
SR 520 TO OVERLAKE TRANSIT CENTER
OVERLAKE VILLAGE PEDESTRIAN BRIDGE
STRUCTURAL
BARRIER DETAILS - SHEET 1

DRAWING No.:
B25-SPD450
FACILITY ID:
B25
SHEET No.:
101
REV:
0

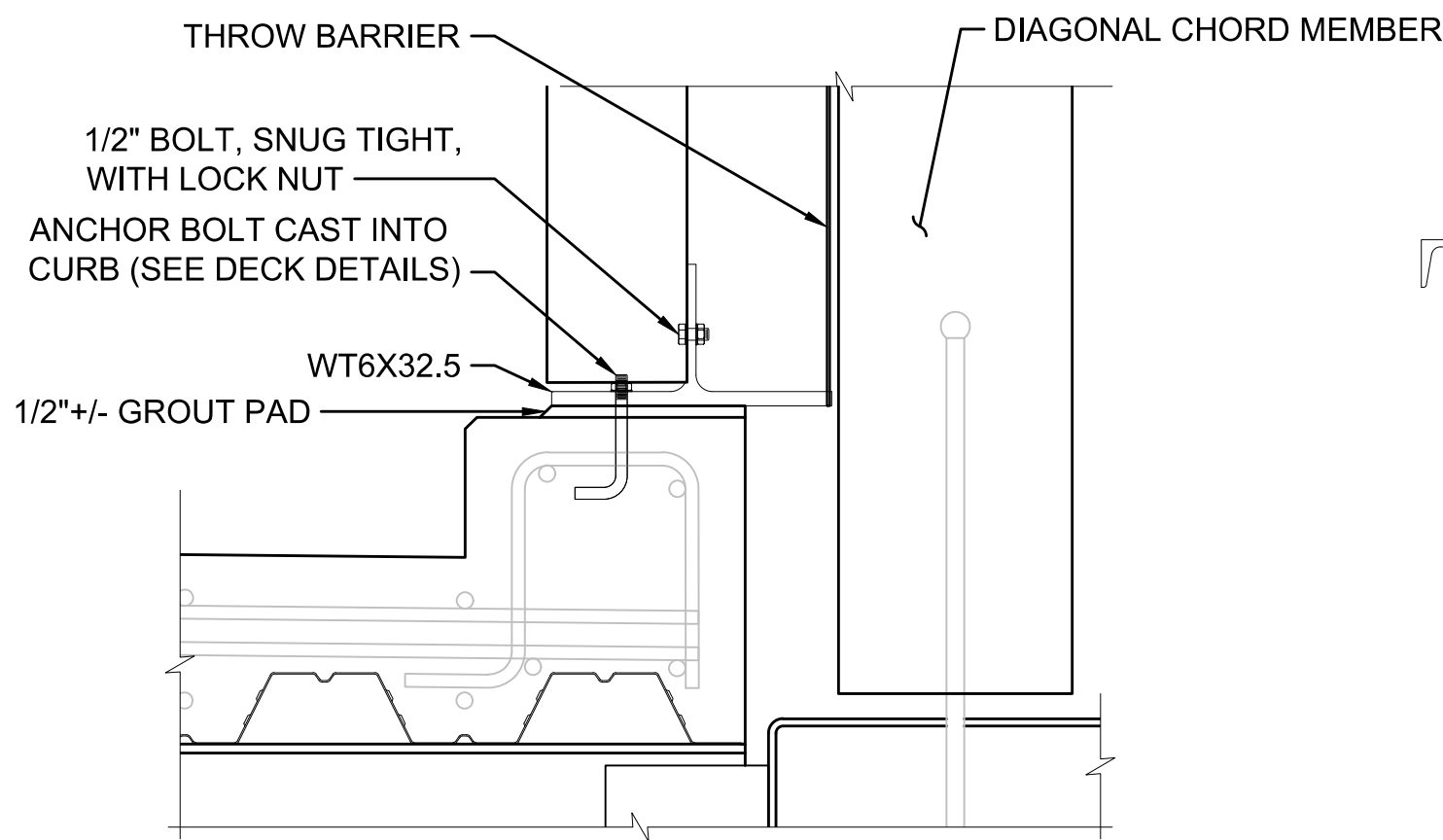
XREF LIST:
X:E360-QB-TB22x34.dwg
X:E360-QB-TB22x34_TYU LOGO.dwg
X:E360-B25-AWE020.dwg
X:E360-B25-SPE001.dwg
X:E360-B25-AWX000.dwg
X:E360-B25-AWX001.dwg
X:E360-B25-SPX001.dwg



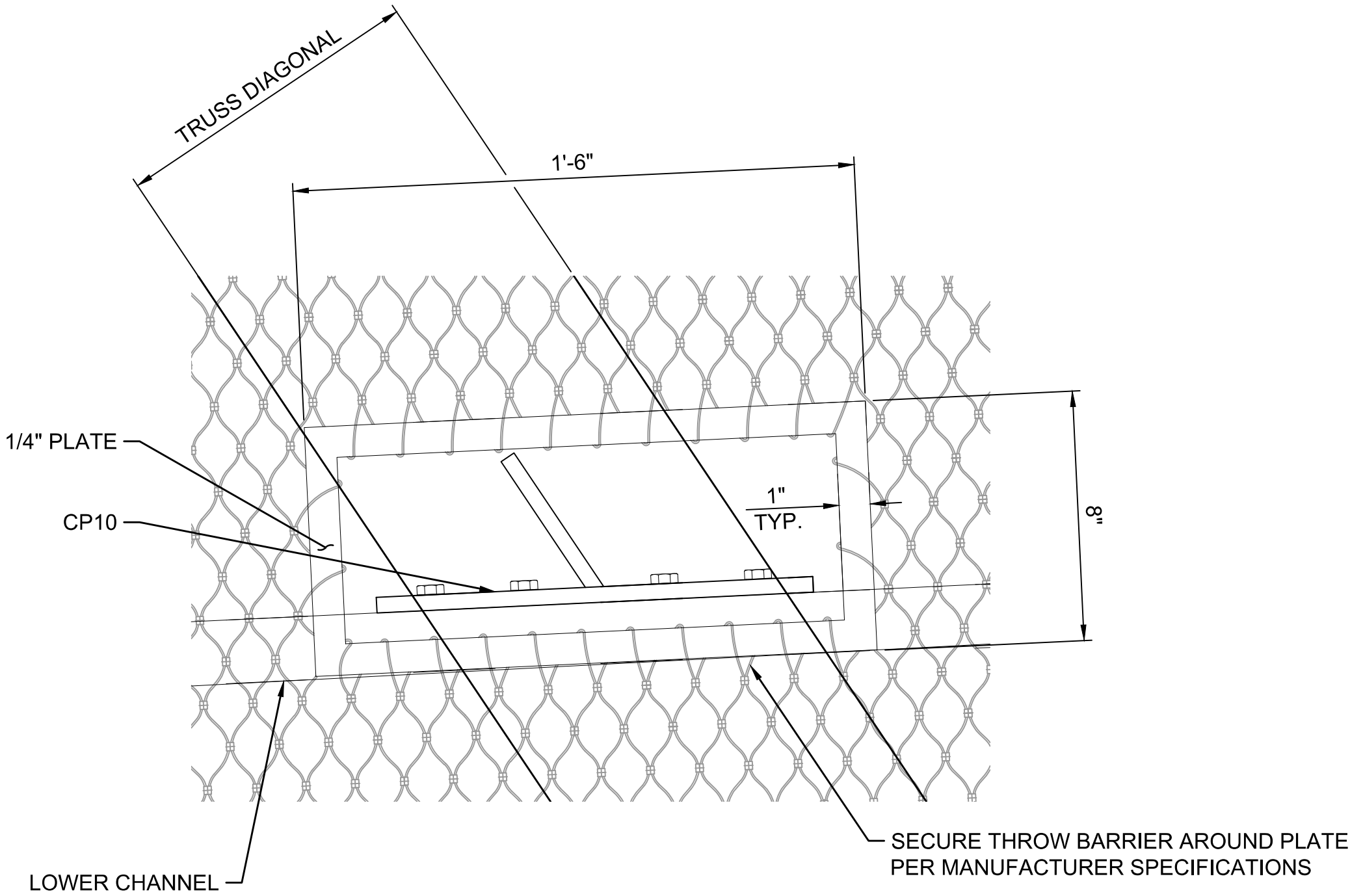
UPPER CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"



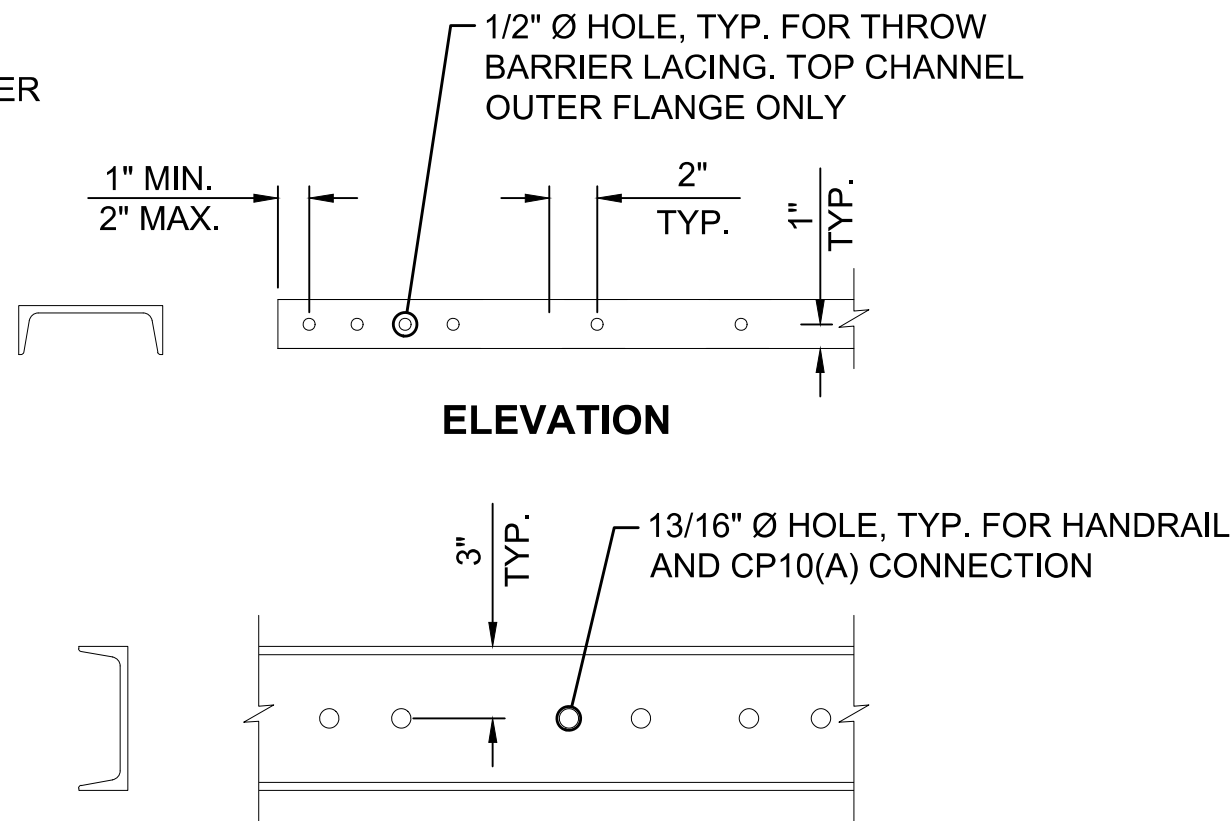
LOWER CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"



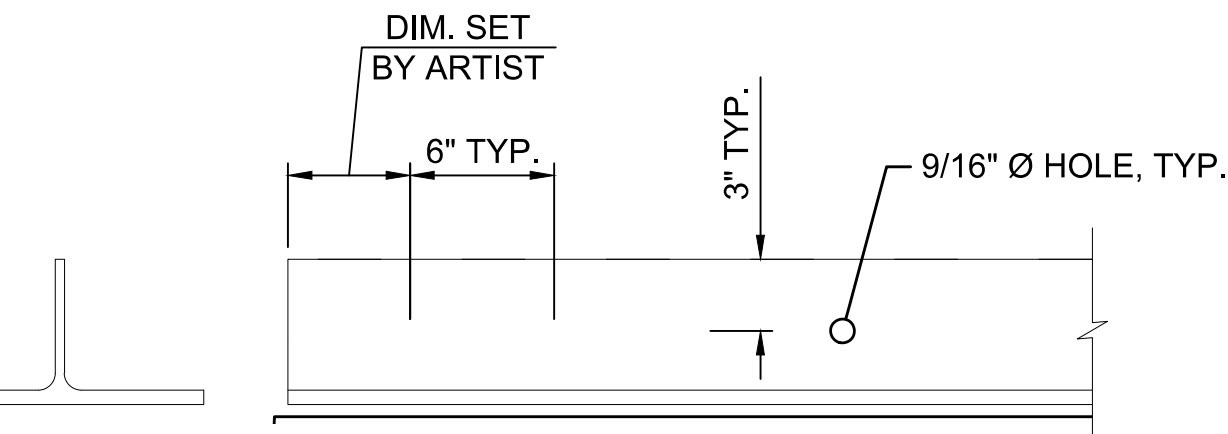
CURB CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"



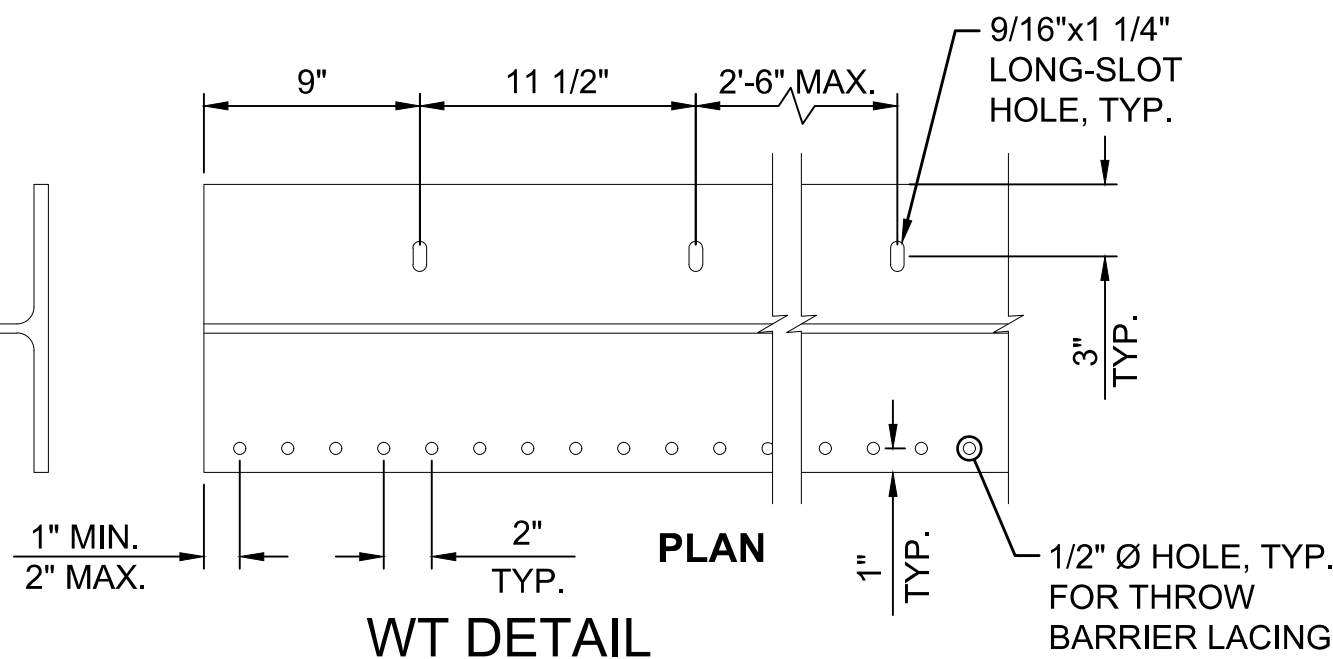
SECTION
SCALE: 3" = 1'-0"
PROVIDE LACING PLATE AT TRUSS CONNECTIONS



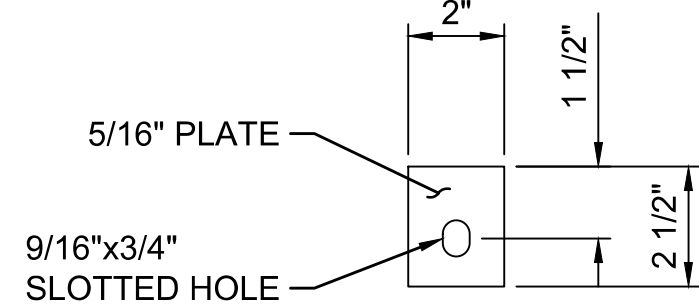
CHANNEL DETAIL
SCALE: 1 1/2" = 1'-0"



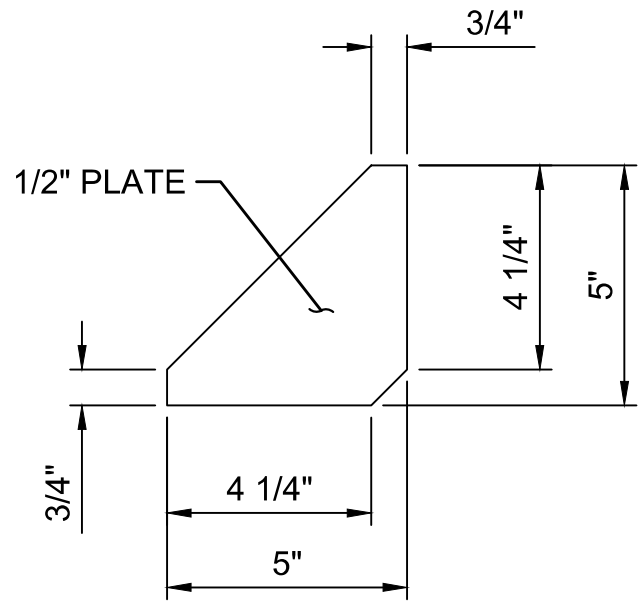
ELEVATION



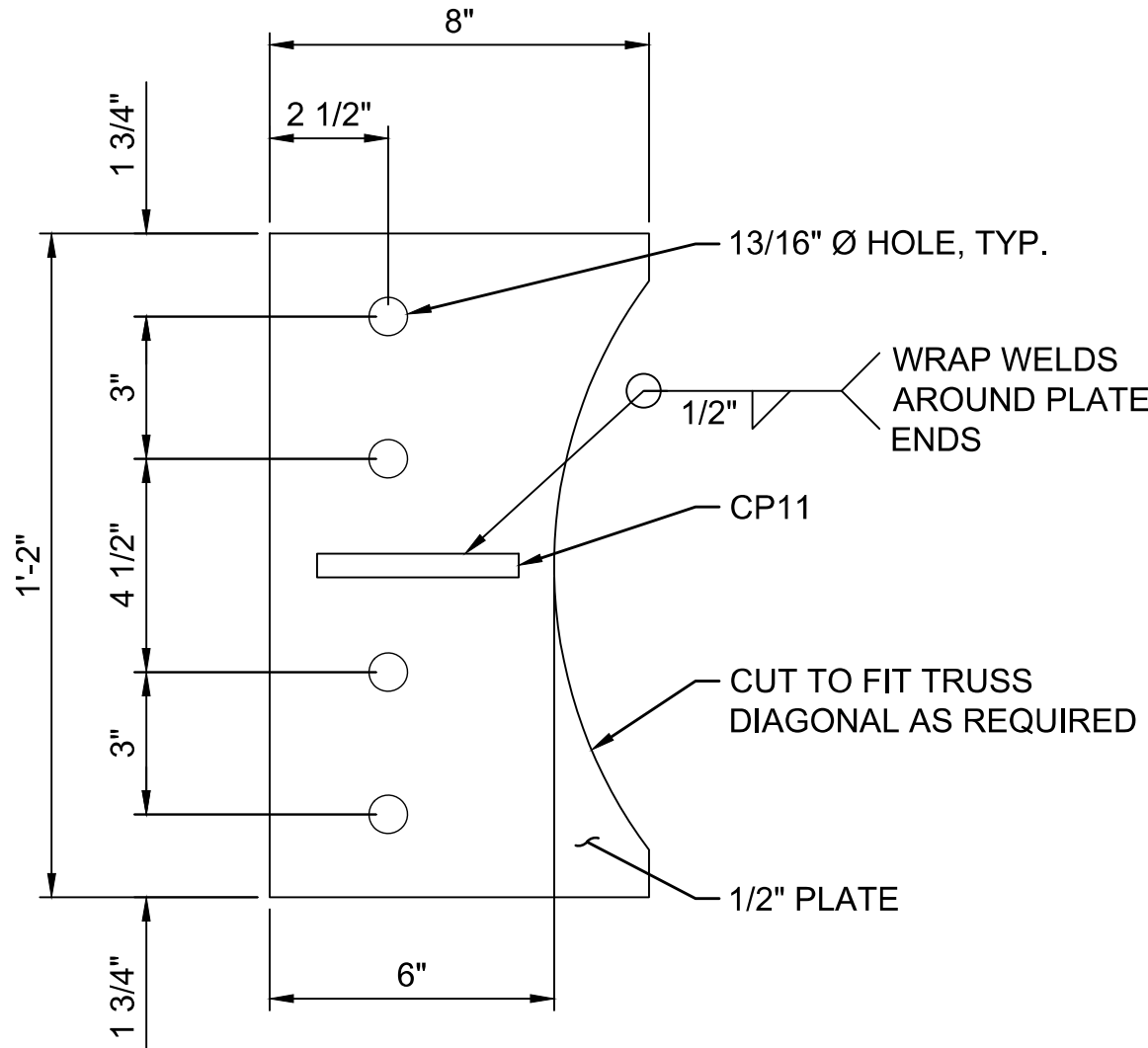
WT DETAIL
SCALE: 1 1/2" = 1'-0"



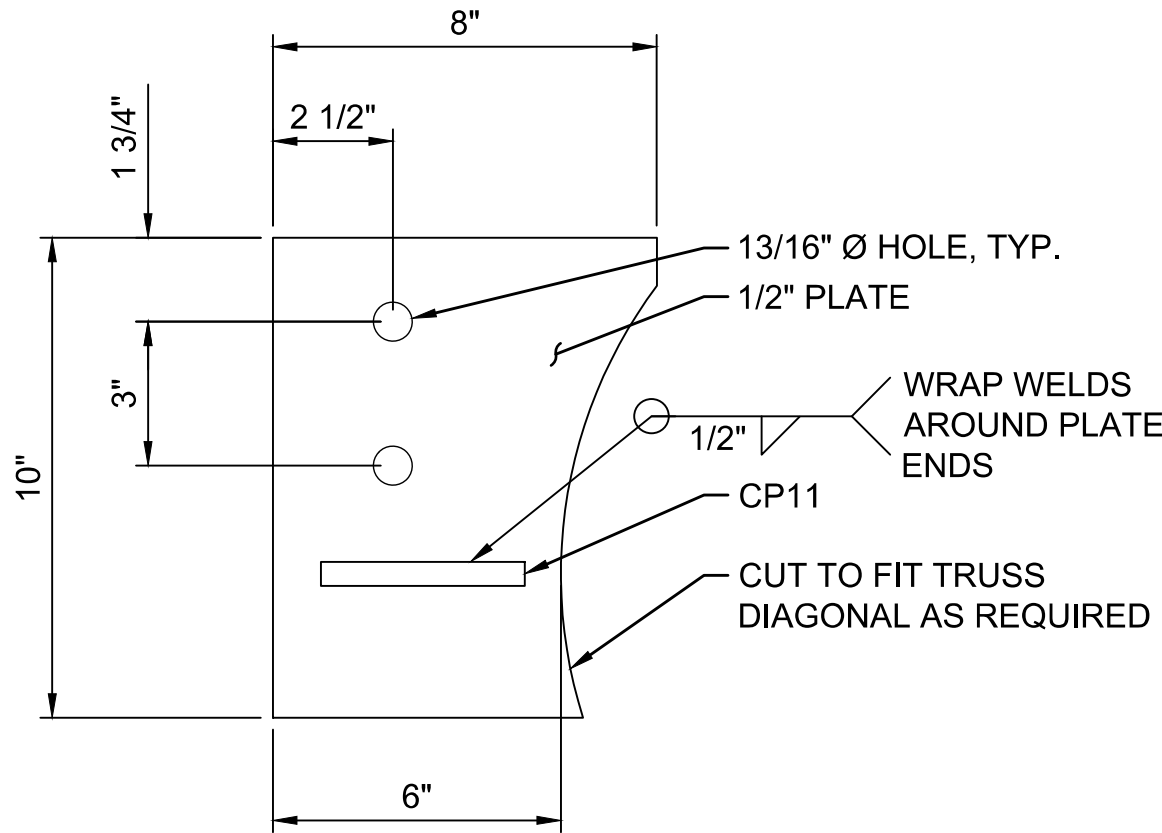
WASHER PLATE DETAIL
SCALE: 3" = 1'-0"



CP11 DETAIL
SCALE: 3" = 1'-0"



CP10 DETAIL
SCALE: 3" = 1'-0"



CP10A DETAIL
SCALE: 3" = 1'-0"
USED AT FINAL DIAGONAL, NORTH AND SOUTH END ONLY

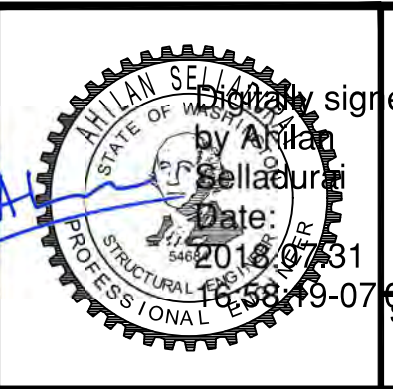
- NOTES:**
- ALL PLATES (CP10, CP10A, CP11, WASHER PLATE) SHALL BE FINISHED AND PAINTED SAME AS MAIN STRUCTURAL TRUSS MEMBERS. UPPER AND LOWER CHANNELS AND CURB WT TO BE HOT DIP GALVANIZED AND THEN PAINTED. SEE GENERAL NOTES, DWG. B25-SZN010.
 - EMBEDDED CURB ANCHOR BOLT SHALL BE GALVANIZED.
 - PROVIDE INSULATING PAD (1/4") AT CHANNEL-TO-PLATE CONNECTION.

06/18/18 | 9:43 AM | CHOVELL

T:\OLYMPIA\PROJECTS\500079\01600_CADD\PDF\2018-06-14_OVPB-15_IFC SUBMITTAL\0_DWG\E360-B25-SPD451.DWG

| | | | | | |
|-----|----------|-----|-----|-----|-------------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 0 | 06/14/18 | AS | BF | AS | ISSUED FOR CONSTRUCTION |
| No. | DATE | DSN | CHK | APP | REVISION |

DESIGNED BY:
A. SELLADURAI
DRAWN BY:
T. KOONS
CHECKED BY:
B. FISH
APPROVED BY:
A. SELLADURAI



Engineer signed
by A. Selladurai
Date: 06/14/2018
Submitted by:
G. OWEN

KIEWIT-HOFFMAN
EAST LINK CONSTRUCTORS
DATE: 06/14/2018
REVIEWED BY: A. MENCKE

LINE IS 1" AT FULL SCALE

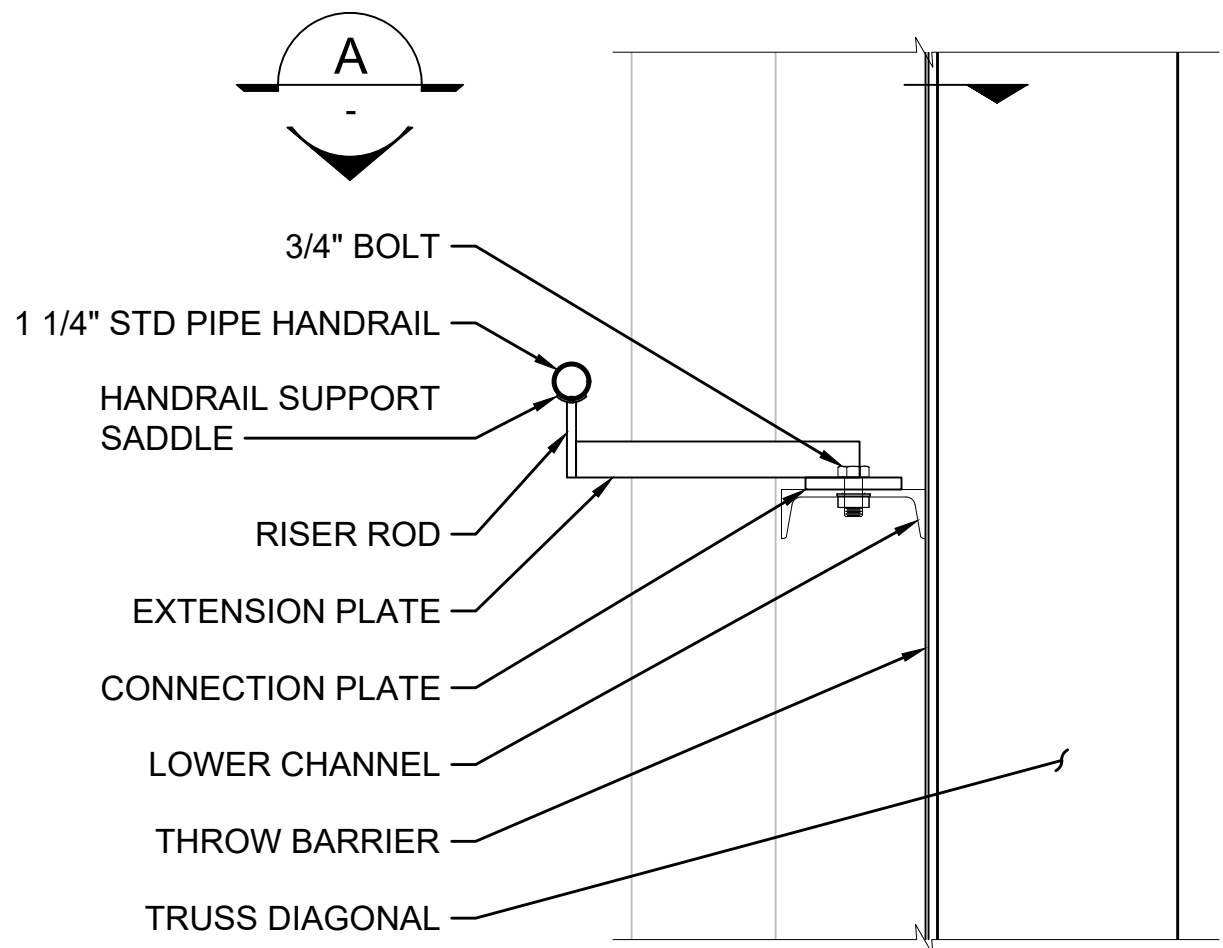


SCALE:
AS NOTED
FILENAME:
E360-B25-SPD451
CONTRACT No.:
RTA/CN 0122-13
SUBMITTAL DATE:
06/14/2018

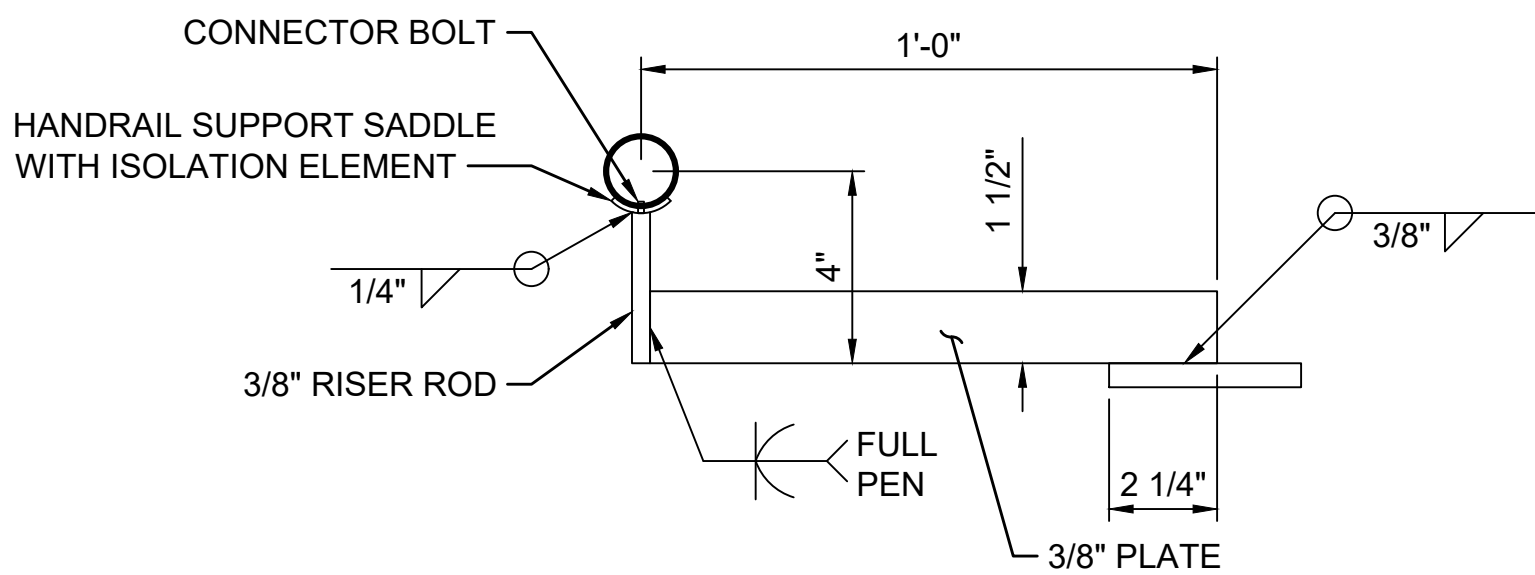
EAST LINK EXTENSION
CONTRACT E360
SR 520 TO OVERLAKE TRANSIT CENTER
OVERLAKE VILLAGE PEDESTRIAN BRIDGE
STRUCTURAL
BARRIER DETAILS - SHEET 2

DRAWING No.:
B25-SPD451
FACILITY ID:
B25
SHEET No.: 102
REV: 0

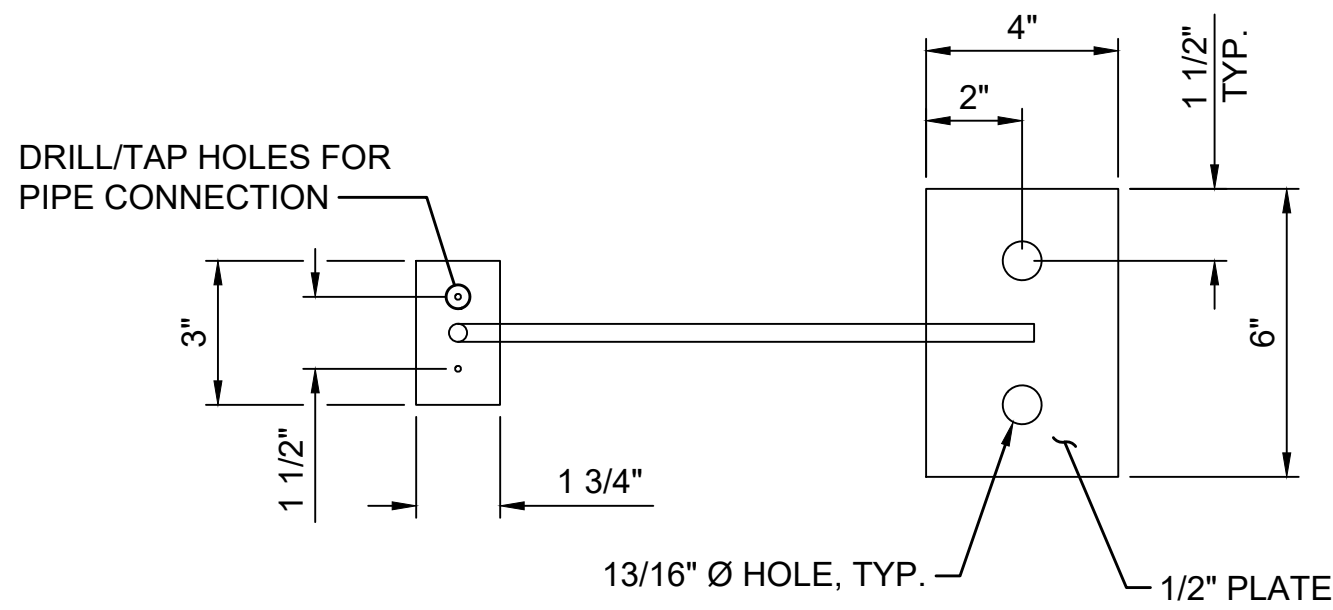
XREF LIST:
x\E360-QB-TB22x34.dwg
x\E360-QB-TB22x34_TYU.LOGO.dwg
x\E360-B25-AWP020.dwg
x\E360-B25-AWX001.dwg
x\E360-B25-SF0001.dwg



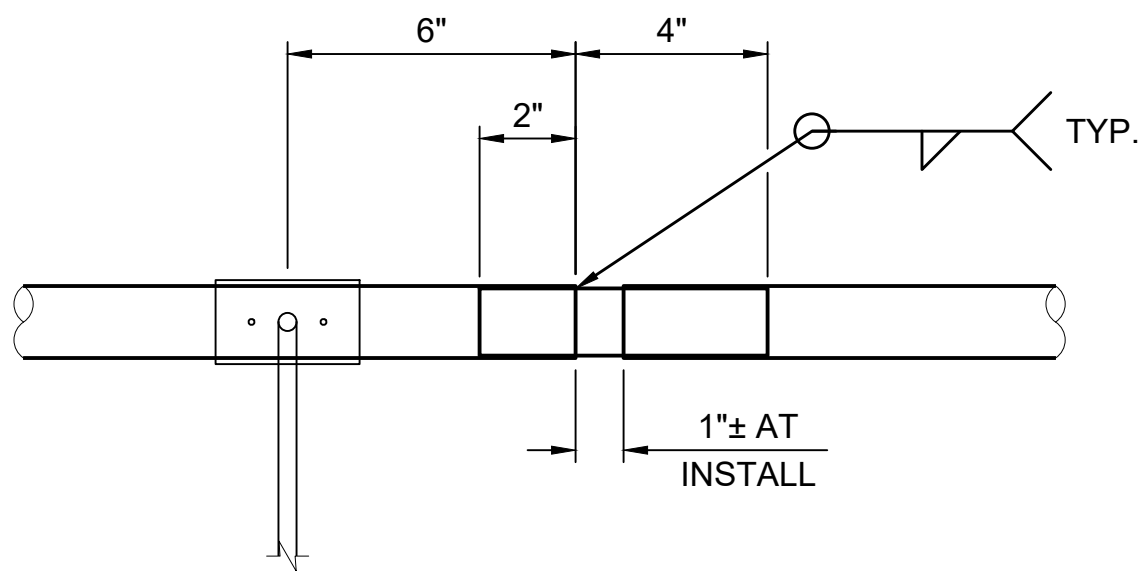
HANDRAIL CONNECTION



HANDRAIL CONNECTION - SECTION



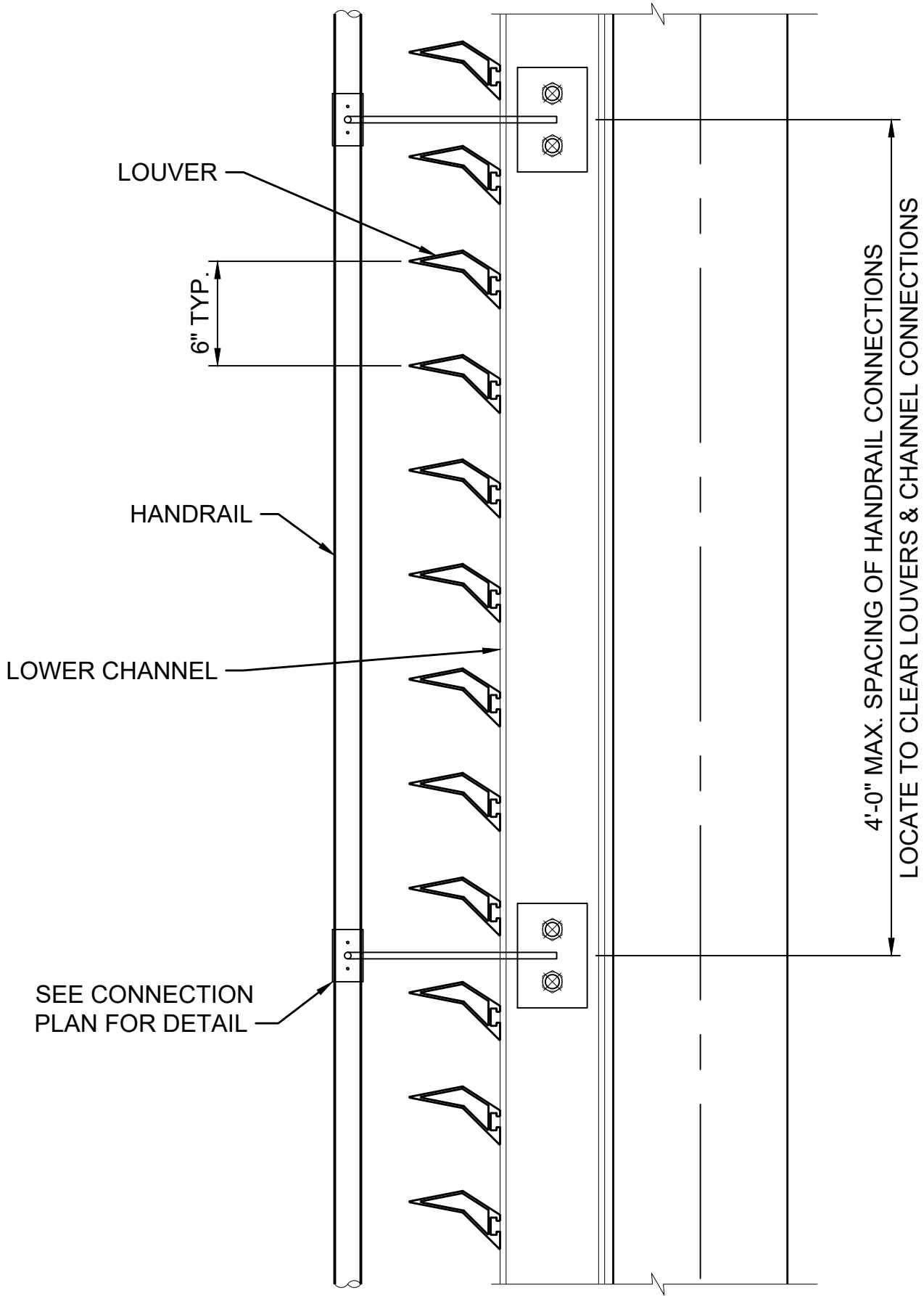
HANDRAIL CONNECTION - PLAN



HANDRAIL EXPANSION JOINT - PLAN

EXPANSION SLEEVE TO BE 1" STD PIPE

- NOTES:**
- HANDRAIL TO BE STAINLESS STEEL, TYPE "HNDRL-2" PER SPECIFICATION 05 73 00, DECORATIVE METAL RAILINGS.
 - ASSUMED INSTALLATION TEMPERATURE IS 64° F. INSTALLATION GAP IN HANDRAIL SHALL BE ADJUSTED FOR ACTUAL TEMPERATURE AT INSTALLATION.
 - HANDRAIL EXPANSION JOINTS SHALL BE LOCATED AT 100 FT MAXIMUM.
 - ALL PLATES TO BE FINISHED AND PAINTED SAME AS MAIN STRUCTURAL TRUSS MEMBERS.



PLAN

SCALE: 1 1/2" = 1'-0"

100% SUBMITTAL

| No. | DATE | DSN | CHK | APP | REVISION |
|-----|------|-----|-----|-----|----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| |
|-------------------------------|
| DESIGNED BY: A. SELLADURAI |
| DRAWN BY: T. KOONS |
| CHECKED BY: B. FISH |
| APPROVED BY: A. SELLADURAI |

| |
|----------------------------|
| PRELIMINARY ENGINEERING |
| NOT FOR CONSTRUCTION |

| |
|---|
| TYLIN INTERNATIONAL engineers planners scientists |
| SUBMITTED BY: G. OWEN |

| |
|---|
| KIEWIT-HOFFMAN EAST LINK CONSTRUCTORS |
| DATE: 04/02/2018 |
| REVIEWED BY: A. MENCKE |

| |
|-----------------------------|
| LINE IS 1" AT FULL SCALE |
|-----------------------------|

| |
|---------------------|
| SOUNDTRANSIT |
|---------------------|

| |
|---------------------------------|
| SCALE: AS NOTED |
| FILENAME: E360-B25-SPD452 |
| CONTRACT No.: RTA/CN 0122-13 |
| SUBMITTAL DATE: 04/02/2018 |

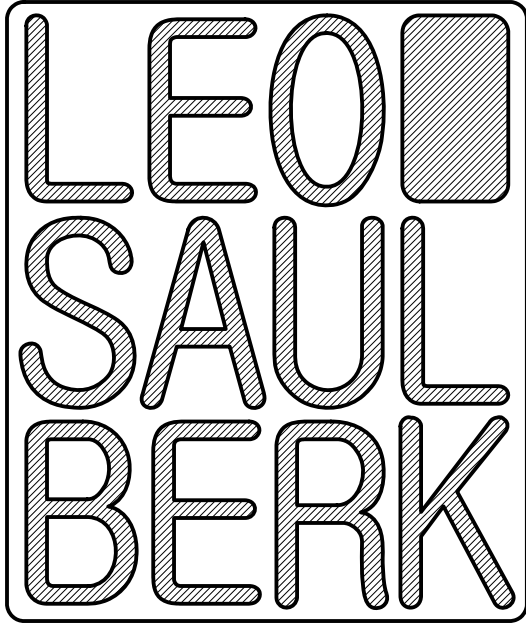
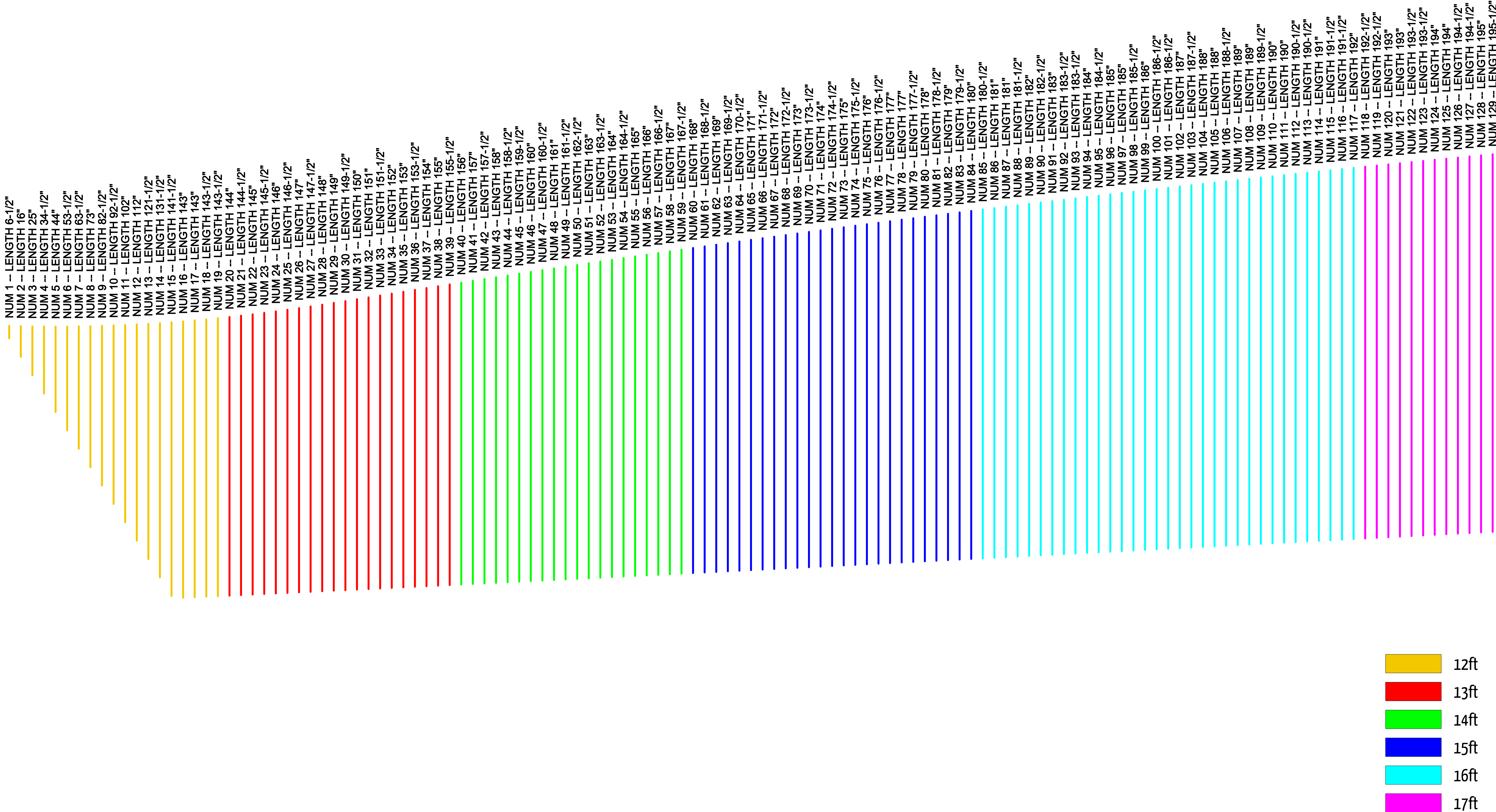
| |
|--|
| EAST LINK EXTENSION CONTRACT E360 |
| SR 520 TO OVERLAKE TRANSIT CENTER |
| OVERLAKE VILLAGE PEDESTRIAN BRIDGE STRUCTURAL |
| BARRIER DETAILS - SHEET 3 |

| |
|-----------------------------------|
| DRAWING No.: B25-SPD452 |
| FACILITY ID: B25 |
| SHEET No.: 103 |
| REV: 0 |



06

OVS Ped Bridge Artwork Louver Cut List



3327 S MORGAN ST
SEATTLE, WA 98118
206 234 4970
leo@leosaulberk.com

OVERLAKE VILLAGE
PEDESTRIAN
BRIDGE ARTWORK

OVERLAKE
TRANSIT
CENTER

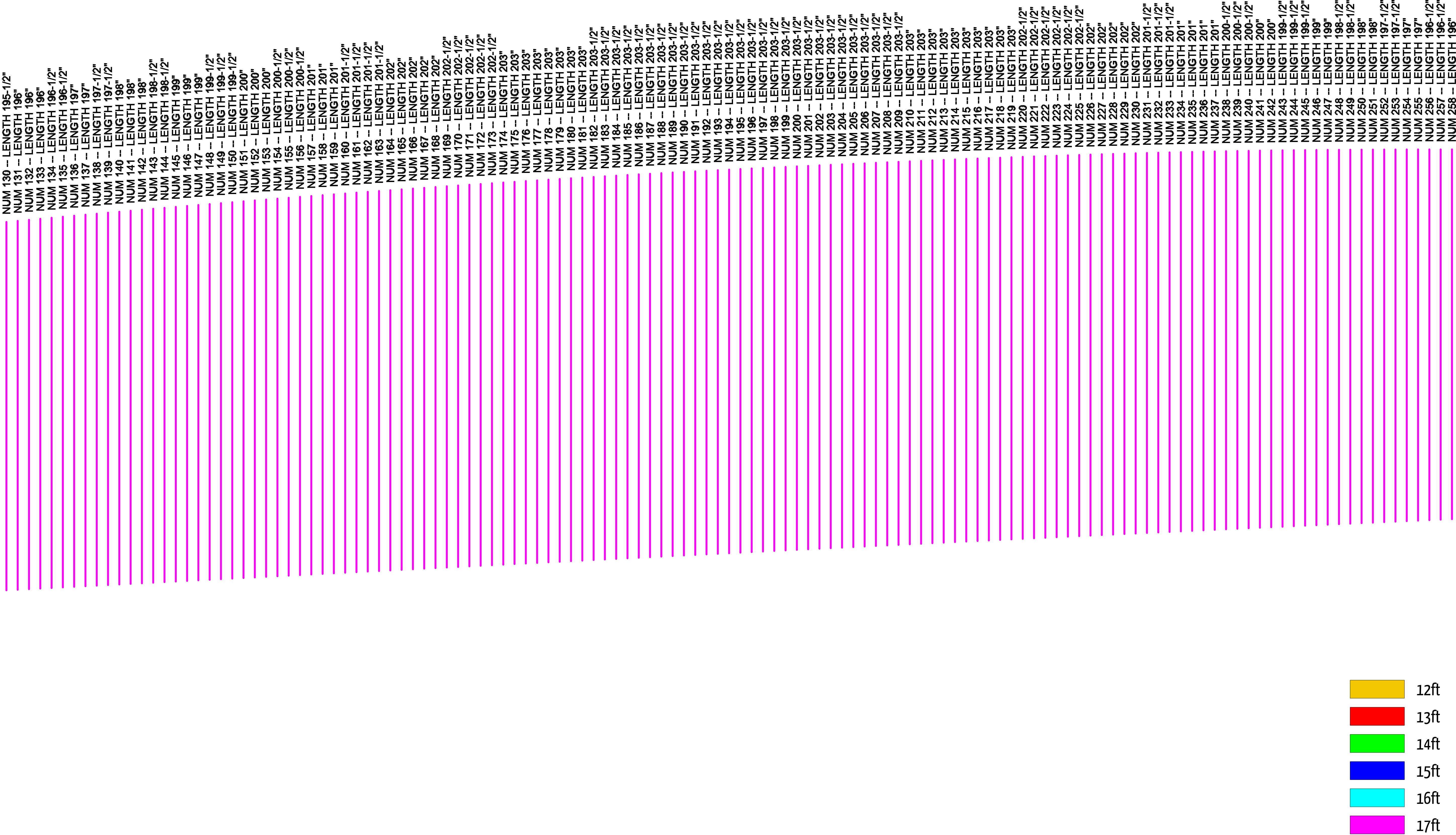
SOUND TRANSIT

FINAL DESIGN

EXTRUSION
NUMBERING AND
LENGTHS WEST

DRAWN BY LSB

A402



LEO SAUL BERK

3327 S MORGAN ST
SEATTLE, WA 98118
206 234 4970
leo@leosaulberk.com

OVERLAKE VILLAGE
PEDESTRIAN
BRIDGE ARTWORK

OVERLAKE
TRANSIT
CENTER

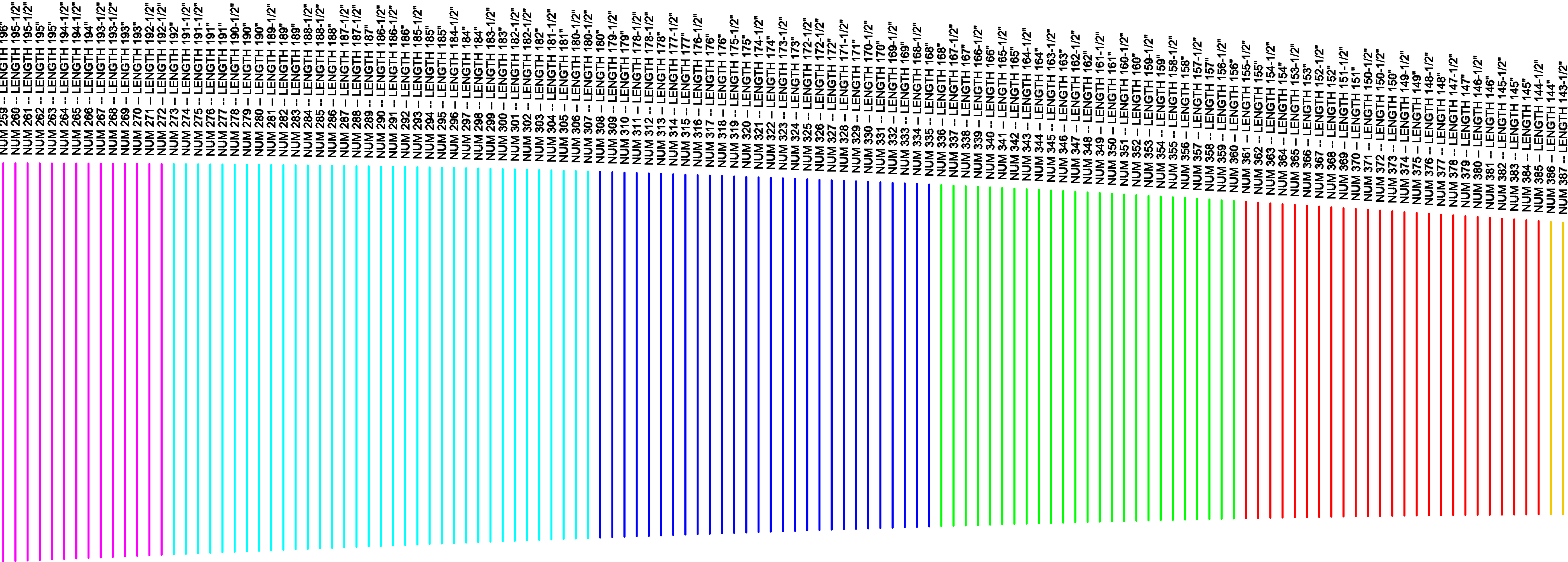
SOUND TRANSIT

FINAL DESIGN

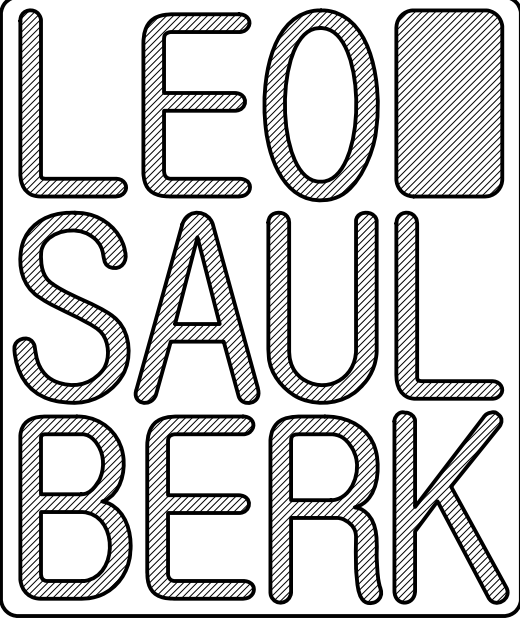
EXTRUSION
NUMBERING AND
LENGTHS
MIDDLE WEST

DRAWN BY LSB

A402



- 12ft
- 13ft
- 14ft
- 15ft
- 16ft
- 17ft



3327 S MORGAN ST
SEATTLE, WA 98118
206 234 4970
leo@leosaulberk.com

OVERLAKE VILLAGE
PEDESTRIAN
BRIDGE ARTWORK

OVERLAKE
TRANSIT
CENTER

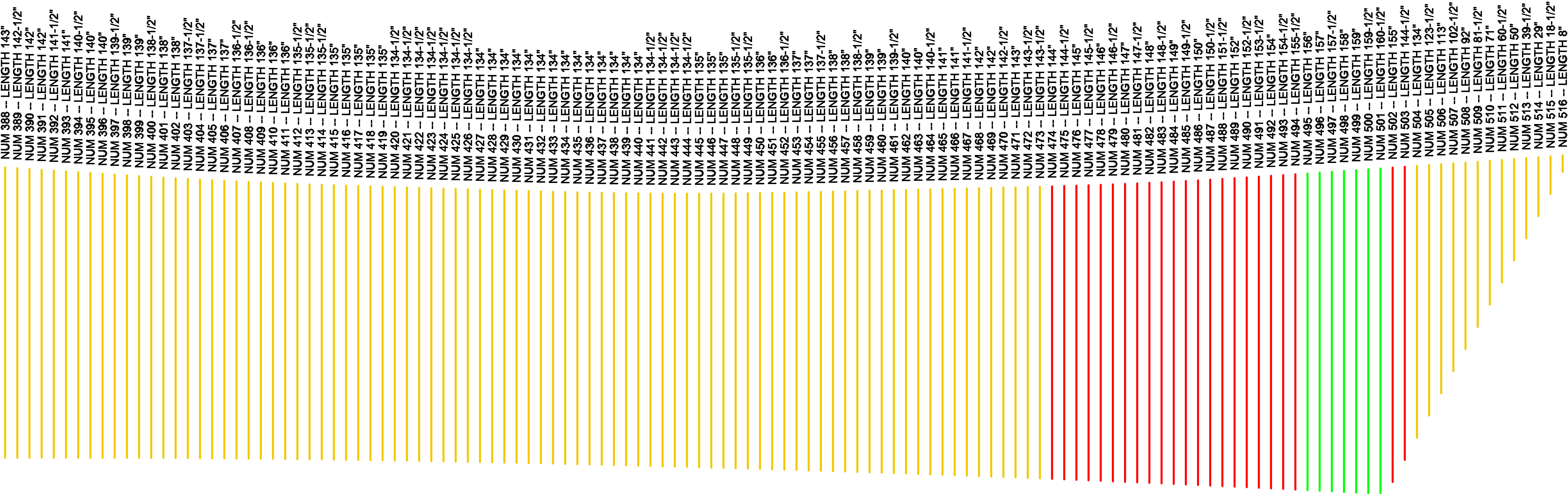
SOUND TRANSIT

FINAL DESIGN

EXTRUSION
NUMBERING AND
LENGTHS
MIDDLE EAST

DRAWN BY LSB

A402



LEO SAUL BERK

3327 S MORGAN ST
SEATTLE, WA 98118
206 234 4970
leo@leosaulberk.com

OVERLAKE VILLAGE
PEDESTRIAN
BRIDGE ARTWORK

OVERLAKE
TRANSIT
CENTER

SOUND TRANSIT

FINAL DESIGN

EXTRUSION
NUMBERING AND
LENGTHS EAST

DRAWN BY LSB

A402



07

OVS Ped Bridge Artwork Louver Identification List

| Extrusion # | Crate # | Delivered | North Inspected | South Inspected | North Installed | South Installed |
|-------------|----------|-----------|-----------------|-----------------|-----------------|-----------------|
| 1 | Crate #1 | | FALSE | FALSE | FALSE | FALSE |
| 2 | | | FALSE | FALSE | FALSE | FALSE |
| 3 | | | FALSE | FALSE | FALSE | FALSE |
| 4 | | | FALSE | FALSE | FALSE | FALSE |
| 5 | | | FALSE | FALSE | FALSE | FALSE |
| 6 | | | FALSE | FALSE | FALSE | FALSE |
| 7 | | | FALSE | FALSE | FALSE | FALSE |
| 8 | | | FALSE | FALSE | FALSE | FALSE |
| 9 | | | FALSE | FALSE | FALSE | FALSE |
| 10 | | | FALSE | FALSE | FALSE | FALSE |
| 11 | | | FALSE | FALSE | FALSE | FALSE |
| 12 | | | FALSE | FALSE | FALSE | FALSE |
| 13 | | | FALSE | FALSE | FALSE | FALSE |
| 14 | | | FALSE | FALSE | FALSE | FALSE |
| 15 | | | FALSE | FALSE | FALSE | FALSE |
| 16 | | | FALSE | FALSE | FALSE | FALSE |
| 17 | | | FALSE | FALSE | FALSE | FALSE |
| 18 | | | FALSE | FALSE | FALSE | FALSE |
| 19 | | | FALSE | FALSE | FALSE | FALSE |
| 20 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 21 | Crate #2 | | FALSE | FALSE | FALSE | FALSE |
| 22 | | | FALSE | FALSE | FALSE | FALSE |
| 23 | | | FALSE | FALSE | FALSE | FALSE |
| 24 | | | FALSE | FALSE | FALSE | FALSE |
| 25 | | | FALSE | FALSE | FALSE | FALSE |
| 26 | | | FALSE | FALSE | FALSE | FALSE |
| 27 | | | FALSE | FALSE | FALSE | FALSE |
| 28 | | | FALSE | FALSE | FALSE | FALSE |
| 29 | | | FALSE | FALSE | FALSE | FALSE |
| 30 | | | FALSE | FALSE | FALSE | FALSE |
| 31 | | | FALSE | FALSE | FALSE | FALSE |
| 32 | | | FALSE | FALSE | FALSE | FALSE |
| 33 | | | FALSE | FALSE | FALSE | FALSE |
| 34 | | | FALSE | FALSE | FALSE | FALSE |
| 35 | | | FALSE | FALSE | FALSE | FALSE |
| 36 | | | FALSE | FALSE | FALSE | FALSE |

Comments

| | | | | | | |
|----|----------|-------|-------|-------|-------|-------|
| 37 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 38 | | | FALSE | FALSE | FALSE | FALSE |
| 39 | | | FALSE | FALSE | FALSE | FALSE |
| 40 | | | FALSE | FALSE | FALSE | FALSE |
| 41 | Crate #3 | | FALSE | FALSE | FALSE | FALSE |
| 42 | | | FALSE | FALSE | FALSE | FALSE |
| 43 | | | FALSE | FALSE | FALSE | FALSE |
| 44 | | | FALSE | FALSE | FALSE | FALSE |
| 45 | | | FALSE | FALSE | FALSE | FALSE |
| 46 | | | FALSE | FALSE | FALSE | FALSE |
| 47 | | | FALSE | FALSE | FALSE | FALSE |
| 48 | | | FALSE | FALSE | FALSE | FALSE |
| 49 | | | FALSE | FALSE | FALSE | FALSE |
| 50 | | | FALSE | FALSE | FALSE | FALSE |
| 51 | | | FALSE | FALSE | FALSE | FALSE |
| 52 | | | FALSE | FALSE | FALSE | FALSE |
| 53 | | | FALSE | FALSE | FALSE | FALSE |
| 54 | | | FALSE | FALSE | FALSE | FALSE |
| 55 | | | FALSE | FALSE | FALSE | FALSE |
| 56 | | | FALSE | FALSE | FALSE | FALSE |
| 57 | | | FALSE | FALSE | FALSE | FALSE |
| 58 | | | FALSE | FALSE | FALSE | FALSE |
| 59 | | | FALSE | FALSE | FALSE | FALSE |
| 60 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 61 | Crate #4 | | FALSE | FALSE | FALSE | FALSE |
| 62 | | | FALSE | FALSE | FALSE | FALSE |
| 63 | | | FALSE | FALSE | FALSE | FALSE |
| 64 | | | FALSE | FALSE | FALSE | FALSE |
| 65 | | | FALSE | FALSE | FALSE | FALSE |
| 66 | | | FALSE | FALSE | FALSE | FALSE |
| 67 | | | FALSE | FALSE | FALSE | FALSE |
| 68 | | | FALSE | FALSE | FALSE | FALSE |
| 69 | | | FALSE | FALSE | FALSE | FALSE |
| 70 | | | FALSE | FALSE | FALSE | FALSE |
| 71 | | | FALSE | FALSE | FALSE | FALSE |
| 72 | | | FALSE | FALSE | FALSE | FALSE |
| 73 | | | FALSE | FALSE | FALSE | FALSE |
| 74 | | | FALSE | FALSE | FALSE | FALSE |
| 75 | | | FALSE | FALSE | FALSE | FALSE |
| 76 | | | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|----------|-------|-------|-------|-------|-------|
| 77 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 78 | | | FALSE | FALSE | FALSE | FALSE |
| 79 | | | FALSE | FALSE | FALSE | FALSE |
| 80 | | | FALSE | FALSE | FALSE | FALSE |
| 81 | Crate #5 | | FALSE | FALSE | FALSE | FALSE |
| 82 | | | FALSE | FALSE | FALSE | FALSE |
| 83 | | | FALSE | FALSE | FALSE | FALSE |
| 84 | | | FALSE | FALSE | FALSE | FALSE |
| 85 | | | FALSE | FALSE | FALSE | FALSE |
| 86 | | | FALSE | FALSE | FALSE | FALSE |
| 87 | | | FALSE | FALSE | FALSE | FALSE |
| 88 | | | FALSE | FALSE | FALSE | FALSE |
| 89 | | | FALSE | FALSE | FALSE | FALSE |
| 90 | | | FALSE | FALSE | FALSE | FALSE |
| 91 | | | FALSE | FALSE | FALSE | FALSE |
| 92 | | | FALSE | FALSE | FALSE | FALSE |
| 93 | | | FALSE | FALSE | FALSE | FALSE |
| 94 | | | FALSE | FALSE | FALSE | FALSE |
| 95 | | | FALSE | FALSE | FALSE | FALSE |
| 96 | | | FALSE | FALSE | FALSE | FALSE |
| 97 | | | FALSE | FALSE | FALSE | FALSE |
| 98 | | | FALSE | FALSE | FALSE | FALSE |
| 99 | | | FALSE | FALSE | FALSE | FALSE |
| 100 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 101 | Crate #6 | | FALSE | FALSE | FALSE | FALSE |
| 102 | | | FALSE | FALSE | FALSE | FALSE |
| 103 | | | FALSE | FALSE | FALSE | FALSE |
| 104 | | | FALSE | FALSE | FALSE | FALSE |
| 105 | | | FALSE | FALSE | FALSE | FALSE |
| 106 | | | FALSE | FALSE | FALSE | FALSE |
| 107 | | | FALSE | FALSE | FALSE | FALSE |
| 108 | | | FALSE | FALSE | FALSE | FALSE |
| 109 | | | FALSE | FALSE | FALSE | FALSE |
| 110 | | | FALSE | FALSE | FALSE | FALSE |
| 111 | | | FALSE | FALSE | FALSE | FALSE |
| 112 | | | FALSE | FALSE | FALSE | FALSE |
| 113 | | | FALSE | FALSE | FALSE | FALSE |
| 114 | | | FALSE | FALSE | FALSE | FALSE |
| 115 | | | FALSE | FALSE | FALSE | FALSE |
| 116 | | | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|----------|-------|-------|-------|-------|-------|
| 117 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 118 | | | FALSE | FALSE | FALSE | FALSE |
| 119 | | | FALSE | FALSE | FALSE | FALSE |
| 120 | | | FALSE | FALSE | FALSE | FALSE |
| 121 | Crate #7 | | FALSE | FALSE | FALSE | FALSE |
| 122 | | | FALSE | FALSE | FALSE | FALSE |
| 123 | | | FALSE | FALSE | FALSE | FALSE |
| 124 | | | FALSE | FALSE | FALSE | FALSE |
| 125 | | | FALSE | FALSE | FALSE | FALSE |
| 126 | | | FALSE | FALSE | FALSE | FALSE |
| 127 | | | FALSE | FALSE | FALSE | FALSE |
| 128 | | | FALSE | FALSE | FALSE | FALSE |
| 129 | | | FALSE | FALSE | FALSE | FALSE |
| 130 | | | FALSE | FALSE | FALSE | FALSE |
| 131 | | | FALSE | FALSE | FALSE | FALSE |
| 132 | | | FALSE | FALSE | FALSE | FALSE |
| 133 | | | FALSE | FALSE | FALSE | FALSE |
| 134 | | | FALSE | FALSE | FALSE | FALSE |
| 135 | | | FALSE | FALSE | FALSE | FALSE |
| 136 | | | FALSE | FALSE | FALSE | FALSE |
| 137 | | | FALSE | FALSE | FALSE | FALSE |
| 138 | | | FALSE | FALSE | FALSE | FALSE |
| 139 | | | FALSE | FALSE | FALSE | FALSE |
| 140 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 141 | Crate #8 | | FALSE | FALSE | FALSE | FALSE |
| 142 | | | FALSE | FALSE | FALSE | FALSE |
| 143 | | | FALSE | FALSE | FALSE | FALSE |
| 144 | | | FALSE | FALSE | FALSE | FALSE |
| 145 | | | FALSE | FALSE | FALSE | FALSE |
| 146 | | | FALSE | FALSE | FALSE | FALSE |
| 147 | | | FALSE | FALSE | FALSE | FALSE |
| 148 | | | FALSE | FALSE | FALSE | FALSE |
| 149 | | | FALSE | FALSE | FALSE | FALSE |
| 150 | | | FALSE | FALSE | FALSE | FALSE |
| 151 | | | FALSE | FALSE | FALSE | FALSE |
| 152 | | | FALSE | FALSE | FALSE | FALSE |
| 153 | | | FALSE | FALSE | FALSE | FALSE |
| 154 | | | FALSE | FALSE | FALSE | FALSE |
| 155 | | | FALSE | FALSE | FALSE | FALSE |
| 156 | | | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|-----------|-------|-------|-------|-------|-------|
| 157 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 158 | | | FALSE | FALSE | FALSE | FALSE |
| 159 | | | FALSE | FALSE | FALSE | FALSE |
| 160 | | | FALSE | FALSE | FALSE | FALSE |
| 161 | Crate #9 | | FALSE | FALSE | FALSE | FALSE |
| 162 | | | FALSE | FALSE | FALSE | FALSE |
| 163 | | | FALSE | FALSE | FALSE | FALSE |
| 164 | | | FALSE | FALSE | FALSE | FALSE |
| 165 | | | FALSE | FALSE | FALSE | FALSE |
| 166 | | | FALSE | FALSE | FALSE | FALSE |
| 167 | | | FALSE | FALSE | FALSE | FALSE |
| 168 | | | FALSE | FALSE | FALSE | FALSE |
| 169 | | | FALSE | FALSE | FALSE | FALSE |
| 170 | | | FALSE | FALSE | FALSE | FALSE |
| 171 | | | FALSE | FALSE | FALSE | FALSE |
| 172 | | | FALSE | FALSE | FALSE | FALSE |
| 173 | | | FALSE | FALSE | FALSE | FALSE |
| 174 | | | FALSE | FALSE | FALSE | FALSE |
| 175 | | | FALSE | FALSE | FALSE | FALSE |
| 176 | | | FALSE | FALSE | FALSE | FALSE |
| 177 | | | FALSE | FALSE | FALSE | FALSE |
| 178 | | | FALSE | FALSE | FALSE | FALSE |
| 179 | | | FALSE | FALSE | FALSE | FALSE |
| 180 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 181 | Crate #10 | | FALSE | FALSE | FALSE | FALSE |
| 182 | | | FALSE | FALSE | FALSE | FALSE |
| 183 | | | FALSE | FALSE | FALSE | FALSE |
| 184 | | | FALSE | FALSE | FALSE | FALSE |
| 185 | | | FALSE | FALSE | FALSE | FALSE |
| 186 | | | FALSE | FALSE | FALSE | FALSE |
| 187 | | | FALSE | FALSE | FALSE | FALSE |
| 188 | | | FALSE | FALSE | FALSE | FALSE |
| 189 | | | FALSE | FALSE | FALSE | FALSE |
| 190 | | | FALSE | FALSE | FALSE | FALSE |
| 191 | | | FALSE | FALSE | FALSE | FALSE |
| 192 | | | FALSE | FALSE | FALSE | FALSE |
| 193 | | | FALSE | FALSE | FALSE | FALSE |
| 194 | | | FALSE | FALSE | FALSE | FALSE |
| 195 | | | FALSE | FALSE | FALSE | FALSE |
| 196 | | | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|-----------|-------|-------|-------|-------|-------|
| 197 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 198 | | | FALSE | FALSE | FALSE | FALSE |
| 199 | | | FALSE | FALSE | FALSE | FALSE |
| 200 | | | FALSE | FALSE | FALSE | FALSE |
| 201 | Crate #11 | | FALSE | FALSE | FALSE | FALSE |
| 202 | | | FALSE | FALSE | FALSE | FALSE |
| 203 | | | FALSE | FALSE | FALSE | FALSE |
| 204 | | | FALSE | FALSE | FALSE | FALSE |
| 205 | | | FALSE | FALSE | FALSE | FALSE |
| 206 | | | FALSE | FALSE | FALSE | FALSE |
| 207 | | | FALSE | FALSE | FALSE | FALSE |
| 208 | | | FALSE | FALSE | FALSE | FALSE |
| 209 | | | FALSE | FALSE | FALSE | FALSE |
| 210 | | | FALSE | FALSE | FALSE | FALSE |
| 211 | | | FALSE | FALSE | FALSE | FALSE |
| 212 | | | FALSE | FALSE | FALSE | FALSE |
| 213 | | | FALSE | FALSE | FALSE | FALSE |
| 214 | | | FALSE | FALSE | FALSE | FALSE |
| 215 | | | FALSE | FALSE | FALSE | FALSE |
| 216 | | | FALSE | FALSE | FALSE | FALSE |
| 217 | | | FALSE | FALSE | FALSE | FALSE |
| 218 | | | FALSE | FALSE | FALSE | FALSE |
| 219 | | | FALSE | FALSE | FALSE | FALSE |
| 220 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 221 | Crate #12 | | FALSE | FALSE | FALSE | FALSE |
| 222 | | | FALSE | FALSE | FALSE | FALSE |
| 223 | | | FALSE | FALSE | FALSE | FALSE |
| 224 | | | FALSE | FALSE | FALSE | FALSE |
| 225 | | | FALSE | FALSE | FALSE | FALSE |
| 226 | | | FALSE | FALSE | FALSE | FALSE |
| 227 | | | FALSE | FALSE | FALSE | FALSE |
| 228 | | | FALSE | FALSE | FALSE | FALSE |
| 229 | | | FALSE | FALSE | FALSE | FALSE |
| 230 | | | FALSE | FALSE | FALSE | FALSE |
| 231 | | | FALSE | FALSE | FALSE | FALSE |
| 232 | | | FALSE | FALSE | FALSE | FALSE |
| 233 | | | FALSE | FALSE | FALSE | FALSE |
| 234 | | | FALSE | FALSE | FALSE | FALSE |
| 235 | | | FALSE | FALSE | FALSE | FALSE |
| 236 | | | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|-----------|-------|-------|-------|-------|-------|
| 237 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 238 | | | FALSE | FALSE | FALSE | FALSE |
| 239 | | | FALSE | FALSE | FALSE | FALSE |
| 240 | | | FALSE | FALSE | FALSE | FALSE |
| 241 | Crate #13 | | FALSE | FALSE | FALSE | FALSE |
| 242 | | | FALSE | FALSE | FALSE | FALSE |
| 243 | | | FALSE | FALSE | FALSE | FALSE |
| 244 | | | FALSE | FALSE | FALSE | FALSE |
| 245 | | | FALSE | FALSE | FALSE | FALSE |
| 246 | | | FALSE | FALSE | FALSE | FALSE |
| 247 | | | FALSE | FALSE | FALSE | FALSE |
| 248 | | | FALSE | FALSE | FALSE | FALSE |
| 249 | | | FALSE | FALSE | FALSE | FALSE |
| 250 | | | FALSE | FALSE | FALSE | FALSE |
| 251 | | | FALSE | FALSE | FALSE | FALSE |
| 252 | | | FALSE | FALSE | FALSE | FALSE |
| 253 | | | FALSE | FALSE | FALSE | FALSE |
| 254 | | | FALSE | FALSE | FALSE | FALSE |
| 255 | | | FALSE | FALSE | FALSE | FALSE |
| 256 | | | FALSE | FALSE | FALSE | FALSE |
| 257 | | | FALSE | FALSE | FALSE | FALSE |
| 258 | | | FALSE | FALSE | FALSE | FALSE |
| 259 | | | FALSE | FALSE | FALSE | FALSE |
| 260 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 261 | Crate #14 | | FALSE | FALSE | FALSE | FALSE |
| 262 | | | FALSE | FALSE | FALSE | FALSE |
| 263 | | | FALSE | FALSE | FALSE | FALSE |
| 264 | | | FALSE | FALSE | FALSE | FALSE |
| 265 | | | FALSE | FALSE | FALSE | FALSE |
| 266 | | | FALSE | FALSE | FALSE | FALSE |
| 267 | | | FALSE | FALSE | FALSE | FALSE |
| 268 | | | FALSE | FALSE | FALSE | FALSE |
| 269 | | | FALSE | FALSE | FALSE | FALSE |
| 270 | | | FALSE | FALSE | FALSE | FALSE |
| 271 | | | FALSE | FALSE | FALSE | FALSE |
| 272 | | | FALSE | FALSE | FALSE | FALSE |
| 273 | | | FALSE | FALSE | FALSE | FALSE |
| 274 | | | FALSE | FALSE | FALSE | FALSE |
| 275 | | | FALSE | FALSE | FALSE | FALSE |
| 276 | | | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|-----------|-------|-------|-------|-------|-------|
| 277 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 278 | | | FALSE | FALSE | FALSE | FALSE |
| 279 | | | FALSE | FALSE | FALSE | FALSE |
| 280 | | | FALSE | FALSE | FALSE | FALSE |
| 281 | Crate #15 | | FALSE | FALSE | FALSE | FALSE |
| 282 | | | FALSE | FALSE | FALSE | FALSE |
| 283 | | | FALSE | FALSE | FALSE | FALSE |
| 284 | | | FALSE | FALSE | FALSE | FALSE |
| 285 | | | FALSE | FALSE | FALSE | FALSE |
| 286 | | | FALSE | FALSE | FALSE | FALSE |
| 287 | | | FALSE | FALSE | FALSE | FALSE |
| 288 | | | FALSE | FALSE | FALSE | FALSE |
| 289 | | | FALSE | FALSE | FALSE | FALSE |
| 290 | | | FALSE | FALSE | FALSE | FALSE |
| 291 | | | FALSE | FALSE | FALSE | FALSE |
| 292 | | | FALSE | FALSE | FALSE | FALSE |
| 293 | | | FALSE | FALSE | FALSE | FALSE |
| 294 | | | FALSE | FALSE | FALSE | FALSE |
| 295 | | | FALSE | FALSE | FALSE | FALSE |
| 296 | | | FALSE | FALSE | FALSE | FALSE |
| 297 | | | FALSE | FALSE | FALSE | FALSE |
| 298 | | | FALSE | FALSE | FALSE | FALSE |
| 299 | | | FALSE | FALSE | FALSE | FALSE |
| 300 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 301 | Crate #16 | | FALSE | FALSE | FALSE | FALSE |
| 302 | | | FALSE | FALSE | FALSE | FALSE |
| 303 | | | FALSE | FALSE | FALSE | FALSE |
| 304 | | | FALSE | FALSE | FALSE | FALSE |
| 305 | | | FALSE | FALSE | FALSE | FALSE |
| 306 | | | FALSE | FALSE | FALSE | FALSE |
| 307 | | | FALSE | FALSE | FALSE | FALSE |
| 308 | | | FALSE | FALSE | FALSE | FALSE |
| 309 | | | FALSE | FALSE | FALSE | FALSE |
| 310 | | | FALSE | FALSE | FALSE | FALSE |
| 311 | | | FALSE | FALSE | FALSE | FALSE |
| 312 | | | FALSE | FALSE | FALSE | FALSE |
| 313 | | | FALSE | FALSE | FALSE | FALSE |
| 314 | | | FALSE | FALSE | FALSE | FALSE |
| 315 | | | FALSE | FALSE | FALSE | FALSE |
| 316 | | | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|-----------|-------|-------|-------|-------|-------|
| 317 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 318 | | | FALSE | FALSE | FALSE | FALSE |
| 319 | | | FALSE | FALSE | FALSE | FALSE |
| 320 | | | FALSE | FALSE | FALSE | FALSE |
| 321 | Crate #17 | | FALSE | FALSE | FALSE | FALSE |
| 322 | | | FALSE | FALSE | FALSE | FALSE |
| 323 | | | FALSE | FALSE | FALSE | FALSE |
| 324 | | | FALSE | FALSE | FALSE | FALSE |
| 325 | | | FALSE | FALSE | FALSE | FALSE |
| 326 | | | FALSE | FALSE | FALSE | FALSE |
| 327 | | | FALSE | FALSE | FALSE | FALSE |
| 328 | | | FALSE | FALSE | FALSE | FALSE |
| 329 | | | FALSE | FALSE | FALSE | FALSE |
| 330 | | | FALSE | FALSE | FALSE | FALSE |
| 331 | | | FALSE | FALSE | FALSE | FALSE |
| 332 | | | FALSE | FALSE | FALSE | FALSE |
| 333 | | | FALSE | FALSE | FALSE | FALSE |
| 334 | | | FALSE | FALSE | FALSE | FALSE |
| 335 | | | FALSE | FALSE | FALSE | FALSE |
| 336 | | | FALSE | FALSE | FALSE | FALSE |
| 337 | | | FALSE | FALSE | FALSE | FALSE |
| 338 | | | FALSE | FALSE | FALSE | FALSE |
| 339 | | | FALSE | FALSE | FALSE | FALSE |
| 340 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 341 | Crate #18 | | FALSE | FALSE | FALSE | FALSE |
| 342 | | | FALSE | FALSE | FALSE | FALSE |
| 343 | | | FALSE | FALSE | FALSE | FALSE |
| 344 | | | FALSE | FALSE | FALSE | FALSE |
| 345 | | | FALSE | FALSE | FALSE | FALSE |
| 346 | | | FALSE | FALSE | FALSE | FALSE |
| 347 | | | FALSE | FALSE | FALSE | FALSE |
| 348 | | | FALSE | FALSE | FALSE | FALSE |
| 349 | | | FALSE | FALSE | FALSE | FALSE |
| 350 | | | FALSE | FALSE | FALSE | FALSE |
| 351 | | | FALSE | FALSE | FALSE | FALSE |
| 352 | | | FALSE | FALSE | FALSE | FALSE |
| 353 | | | FALSE | FALSE | FALSE | FALSE |
| 354 | | | FALSE | FALSE | FALSE | FALSE |
| 355 | | | FALSE | FALSE | FALSE | FALSE |
| 356 | | | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|-----------|-------|-------|-------|-------|-------|
| 357 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 358 | | | FALSE | FALSE | FALSE | FALSE |
| 359 | | | FALSE | FALSE | FALSE | FALSE |
| 360 | | | FALSE | FALSE | FALSE | FALSE |
| 361 | Crate #19 | | FALSE | FALSE | FALSE | FALSE |
| 362 | | | FALSE | FALSE | FALSE | FALSE |
| 363 | | | FALSE | FALSE | FALSE | FALSE |
| 364 | | | FALSE | FALSE | FALSE | FALSE |
| 365 | | | FALSE | FALSE | FALSE | FALSE |
| 366 | | | FALSE | FALSE | FALSE | FALSE |
| 367 | | | FALSE | FALSE | FALSE | FALSE |
| 368 | | | FALSE | FALSE | FALSE | FALSE |
| 369 | | | FALSE | FALSE | FALSE | FALSE |
| 370 | | | FALSE | FALSE | FALSE | FALSE |
| 371 | | | FALSE | FALSE | FALSE | FALSE |
| 372 | | | FALSE | FALSE | FALSE | FALSE |
| 373 | | | FALSE | FALSE | FALSE | FALSE |
| 374 | | | FALSE | FALSE | FALSE | FALSE |
| 375 | | | FALSE | FALSE | FALSE | FALSE |
| 376 | | | FALSE | FALSE | FALSE | FALSE |
| 377 | | | FALSE | FALSE | FALSE | FALSE |
| 378 | | | FALSE | FALSE | FALSE | FALSE |
| 379 | | | FALSE | FALSE | FALSE | FALSE |
| 380 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 381 | Crate #20 | | FALSE | FALSE | FALSE | FALSE |
| 382 | | | FALSE | FALSE | FALSE | FALSE |
| 383 | | | FALSE | FALSE | FALSE | FALSE |
| 384 | | | FALSE | FALSE | FALSE | FALSE |
| 385 | | | FALSE | FALSE | FALSE | FALSE |
| 386 | | | FALSE | FALSE | FALSE | FALSE |
| 387 | | | FALSE | FALSE | FALSE | FALSE |
| 388 | | | FALSE | FALSE | FALSE | FALSE |
| 389 | | | FALSE | FALSE | FALSE | FALSE |
| 390 | | | FALSE | FALSE | FALSE | FALSE |
| 391 | | | FALSE | FALSE | FALSE | FALSE |
| 392 | | | FALSE | FALSE | FALSE | FALSE |
| 393 | | | FALSE | FALSE | FALSE | FALSE |
| 394 | | | FALSE | FALSE | FALSE | FALSE |
| 395 | | | FALSE | FALSE | FALSE | FALSE |
| 396 | | | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|--|-------|-------|-------|-------|-------|
| 397 | | | FALSE | FALSE | FALSE | FALSE |
| 398 | | | FALSE | FALSE | FALSE | FALSE |
| 399 | | | FALSE | FALSE | FALSE | FALSE |
| 400 | | FALSE | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|-----------|-------|-------|-------|-------|-------|
| 401 | Crate #21 | FALSE | FALSE | FALSE | FALSE | FALSE |
| 402 | | | FALSE | FALSE | FALSE | FALSE |
| 403 | | | FALSE | FALSE | FALSE | FALSE |
| 404 | | | FALSE | FALSE | FALSE | FALSE |
| 405 | | | FALSE | FALSE | FALSE | FALSE |
| 406 | | | FALSE | FALSE | FALSE | FALSE |
| 407 | | | FALSE | FALSE | FALSE | FALSE |
| 408 | | | FALSE | FALSE | FALSE | FALSE |
| 409 | | | FALSE | FALSE | FALSE | FALSE |
| 410 | | | FALSE | FALSE | FALSE | FALSE |
| 411 | | | FALSE | FALSE | FALSE | FALSE |
| 412 | | | FALSE | FALSE | FALSE | FALSE |
| 413 | | | FALSE | FALSE | FALSE | FALSE |
| 414 | | | FALSE | FALSE | FALSE | FALSE |
| 415 | | | FALSE | FALSE | FALSE | FALSE |
| 416 | | | FALSE | FALSE | FALSE | FALSE |
| 417 | | | FALSE | FALSE | FALSE | FALSE |
| 418 | | | FALSE | FALSE | FALSE | FALSE |
| 419 | | | FALSE | FALSE | FALSE | FALSE |
| 420 | | | FALSE | FALSE | FALSE | FALSE |
| 421 | Crate #22 | FALSE | FALSE | FALSE | FALSE | FALSE |
| 422 | | | FALSE | FALSE | FALSE | FALSE |
| 423 | | | FALSE | FALSE | FALSE | FALSE |
| 424 | | | FALSE | FALSE | FALSE | FALSE |
| 425 | | | FALSE | FALSE | FALSE | FALSE |
| 426 | | | FALSE | FALSE | FALSE | FALSE |
| 427 | | | FALSE | FALSE | FALSE | FALSE |
| 428 | | | FALSE | FALSE | FALSE | FALSE |
| 429 | | | FALSE | FALSE | FALSE | FALSE |
| 430 | | | FALSE | FALSE | FALSE | FALSE |
| 431 | | | FALSE | FALSE | FALSE | FALSE |
| 432 | | | FALSE | FALSE | FALSE | FALSE |
| 433 | | | FALSE | FALSE | FALSE | FALSE |
| 434 | | | FALSE | FALSE | FALSE | FALSE |
| 435 | | | FALSE | FALSE | FALSE | FALSE |
| 436 | | | FALSE | FALSE | FALSE | FALSE |
| 437 | | | FALSE | FALSE | FALSE | FALSE |
| 438 | | | FALSE | FALSE | FALSE | FALSE |
| 439 | | | FALSE | FALSE | FALSE | FALSE |
| 440 | | | FALSE | FALSE | FALSE | FALSE |

| | | | | | | |
|-----|----|--|-------|-------|-------|-------|
| 441 | 23 | | FALSE | FALSE | FALSE | FALSE |
| 442 | | | FALSE | FALSE | FALSE | FALSE |
| 443 | | | FALSE | FALSE | FALSE | FALSE |
| 444 | | | FALSE | FALSE | FALSE | FALSE |
| 445 | | | FALSE | FALSE | FALSE | FALSE |
| 446 | | | FALSE | FALSE | FALSE | FALSE |
| 447 | | | FALSE | FALSE | FALSE | FALSE |
| 448 | | | FALSE | FALSE | FALSE | FALSE |
| 449 | | | FALSE | FALSE | FALSE | FALSE |

| |
|-----|
| 490 |
| 491 |
| 492 |
| 493 |
| 494 |
| 495 |
| 496 |
| 497 |
| 498 |
| 499 |

| |
|-----|
| 490 |
| 491 |
| 492 |
| 493 |
| 494 |
| 495 |
| 496 |
| 497 |
| 498 |
| 499 |

| |
|-----|
| 490 |
| 491 |
| 492 |
| 493 |
| 494 |
| 495 |
| 496 |
| 497 |
| 498 |
| 499 |

| |
|-----|
| 490 |
| 491 |
| 492 |
| 493 |
| 494 |
| 495 |
| 496 |
| 497 |
| 498 |
| 499 |

| |
|-----|
| 490 |
| 491 |
| 492 |
| 493 |
| 494 |
| 495 |
| 496 |
| 497 |
| 498 |
| 499 |

| |
|-----|
| 490 |
| 491 |
| 492 |
| 493 |
| 494 |
| 495 |
| 496 |
| 497 |
| 498 |
| 499 |

| |
|-----|
| 490 |
| 491 |
| 492 |
| 493 |
| 494 |
| 495 |
| 496 |
| 497 |
| 498 |
| 499 |

| |
|-----|
| 490 |
| 491 |
| 492 |
| 493 |
| 494 |
| 495 |
| 496 |
| 497 |
| 498 |
| 499 |

| |
|-----|
| 490 |
| 491 |
| 492 |
| 493 |
| 494 |
| 495 |
| 496 |
| 497 |
| 498 |
| 499 |

| |
|-----|
| 490 |
| 491 |
| 492 |
| 493 |
| 494 |
| 495 |
| 496 |
| 497 |
| 498 |
| 499 |

Crate #2

[illegible]

| | | | | | | |
|-------|-----------|-------|-------|-------|-------|-------|
| 500 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| 501 | Crate #26 | | FALSE | FALSE | FALSE | FALSE |
| 502 | | | FALSE | FALSE | FALSE | FALSE |
| 503 | | | FALSE | FALSE | FALSE | FALSE |
| 504 | | | FALSE | FALSE | FALSE | FALSE |
| 505 | | | FALSE | FALSE | FALSE | FALSE |
| 506 | | | FALSE | FALSE | FALSE | FALSE |
| 507 | | | FALSE | FALSE | FALSE | FALSE |
| 508 | | | FALSE | FALSE | FALSE | FALSE |
| 509 | | | FALSE | FALSE | FALSE | FALSE |
| 510 | | | FALSE | FALSE | FALSE | FALSE |
| 511 | | | FALSE | FALSE | FALSE | FALSE |
| 512 | | | FALSE | FALSE | FALSE | FALSE |
| 513 | | | FALSE | FALSE | FALSE | FALSE |
| 514 | | | FALSE | FALSE | FALSE | FALSE |
| 515 | | FALSE | FALSE | FALSE | FALSE | FALSE |
| TOTAL | | | | | | |



08

OVS Ped Bridge Artwork Labeling Guide



09

OVS Ped Bridge Artwork Painting Composite Images Diagram



BRIDGE EXTERIOR WITH ARTWORK

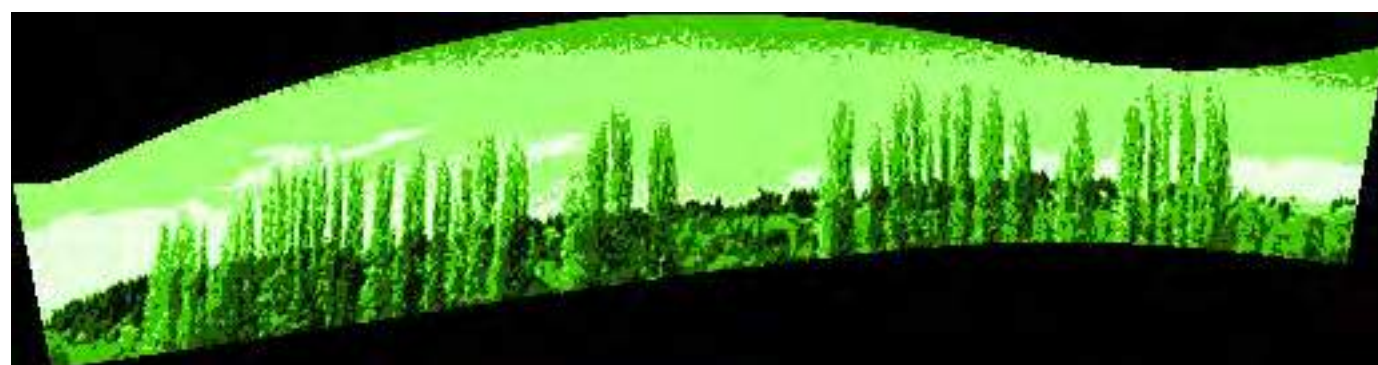


IMAGE ON EAST INTERIOR OF BRIDGE (LINE OF TRAVEL TO EAST)

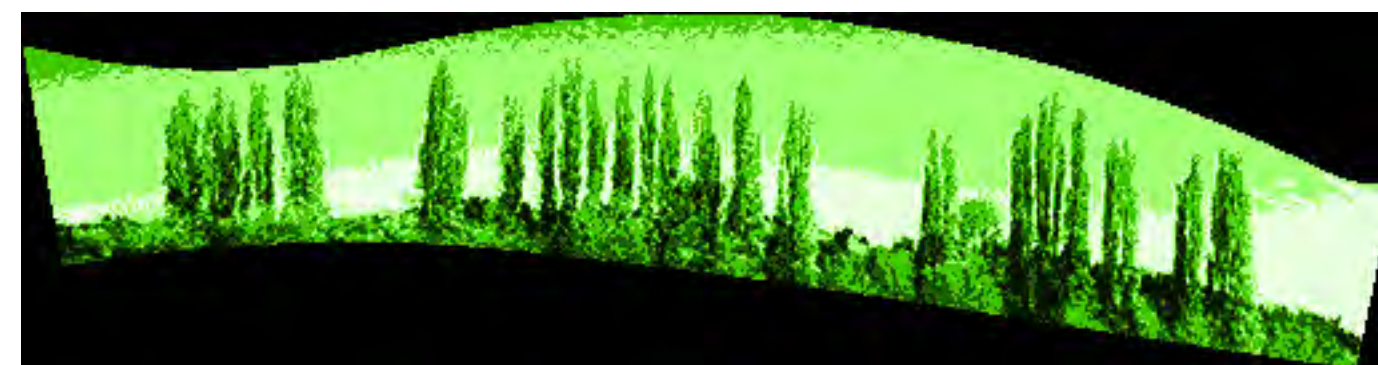


IMAGE ON EAST INTERIOR OF BRIDGE (LINE OF TRAVEL TO WEST)

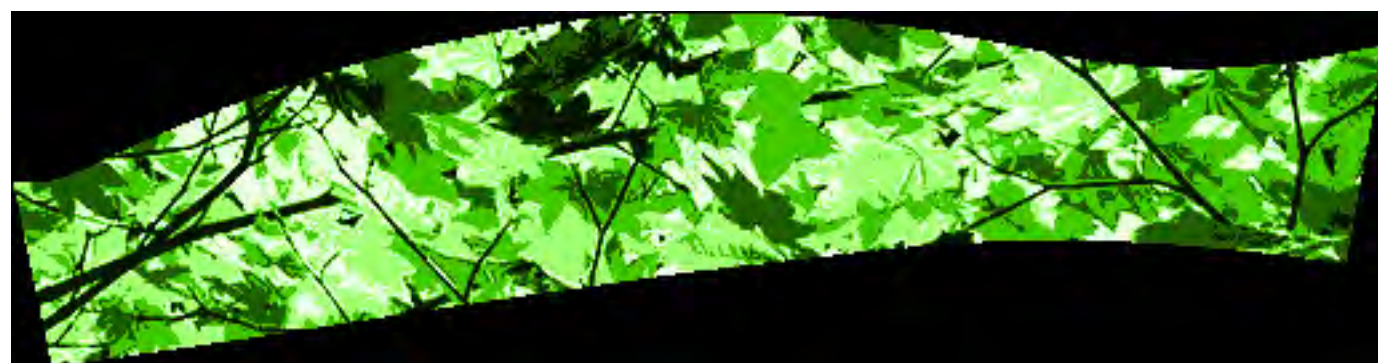


IMAGE ON WEST INTERIOR OF BRIDGE (LINE OF TRAVEL TO EAST)



IMAGE ON WEST INTERIOR OF BRIDGE (LINE OF TRAVEL TO WEST)



10

OVS Ped Bridge Primer Amerlock 2 Product Data and MSDS Sheets

AMERLOCK® 2 / SIGMACOVER™ 2

DESCRIPTION

Two-component, high solids epoxy coating

PRINCIPAL CHARACTERISTICS

- Low-temperature curing down to 0°C (32°F)
- High performance self priming universal epoxy
- High solids, low VOC
- Surface tolerant and abrasion resistant
- Compatible with prepared, damp surfaces
- Good adhesion on most existing coatings
- Good resistance to splash and spillage of chemicals
- Meets NSF Standard 61 for tanks, pipes, valves and fittings (US manufacturing only)
- Proven coating as a bulk rail lining and DTM exterior coating

COLOR AND GLOSS LEVEL

- Standard primer colors and custom colors
- Semi-gloss

Note: Epoxy coatings will chalk and fade with exposure to sunlight. Light colors are prone to ambering to some extent. Note that product tinted to custom colors are not recommended for immersion service. Only use factory grind batches for immersion

BASIC DATA AT 10°C (50°F)

| Data for mixed product | |
|---------------------------------------|--|
| Number of components | Two |
| Mass density | 1.4 kg/l (11.7 lb/US gal) |
| Volume solids | 85 ± 2% |
| VOC (Supplied) | Directive 1999/13/EC, SED: max. 114.0 g/kg max. 163.0 g/l (approx. 1.4 lb/US gal) EPA Method 24: 1.5 lb/US gal (180.0 g/l) |
| Temperature resistance (Continuous) | To 120°C (250°F) |
| Temperature resistance (Intermittent) | To 175°C (350°F) |
| Recommended dry film thickness | 100 - 200 µm (4.0 - 8.0 mils) |
| Theoretical spreading rate | 8.5 m²/l for 100 µm (341 ft²/US gal for 4.0 mils) |
| Dry to touch | 6 hours |
| Overcoating interval | See overcoating tables |



AMERLOCK® 2 / SIGMACOVER™ 2

Data for mixed product

| | |
|------------|--|
| Shelf life | Base: at least 36 months when stored cool and dry Hardener: at least 24 months when stored cool and dry |
|------------|--|

Notes:

- See ADDITIONAL DATA - Spreading rate and film thickness
- See ADDITIONAL DATA - Overcoating intervals
- See ADDITIONAL DATA - Curing time
- For compliance with regulations which require VOC less than 100 g/L, AMERLOCK 2 VOC can be specified interchangeably
- AMERLOCK 2 VOC is available only in US and Canada
- Intermittent temperature resistance should be less than 5% of the time, and maximum 24 hours
- Temperature resistance is in atmospheric condition. Please contact your PPG representative for immersion condition.

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is proportional to the degree of surface preparation. Remove all loose paint, mill scale, and rust. The surface to be coated must be dimensionally stable, dry, clean and free of grease, oil, and other foreign materials. When proper abrasive blast surface preparation is not practical, surfaces should be chipped clean and wire brushed to bare, clean material

Carbon steel

- For immersion service: steel; blast cleaned to ISO-Sa2½ (SSPC SP-10)
- For atmospheric service, abrasive blast to ISO-Sa2½ or minimum SSPC SP-6, power tool cleaned to ISO-St3 (SSPC SP-3) or hand tool cleaned to ISO-St2 (SSPC SP-2) or ultra high pressure water jet to SSPC SP WJ-2(L) / NACE WJ-2(L)

Concrete / Masonry

- Remove grease, oil and other penetrating contaminants according to ASTM D4258
- Abrade the surface per ASTM D4259 to remove all chalk and surface glaze or laitance. Achieve surface profile - ICRI CSP 3 to 5
- Fill voids as necessary with AMERCOAT 114 A epoxy filler
- Maximum recommended moisture transmission rate is 3 lbs / 1,000 ft² / 24 hours by moisture transmission test (ASTM F1869, calcium chloride test or by ASTM D4263, plastic sheet test)
- Alternatively, ASTM D4944 (Calcium Carbide Gas method) can be used, moisture content should not exceed 4%

Galvanized steel

- Remove oil or soap film with detergent or emulsion cleaner
- Lightly abrasive blast with a fine abrasive in accordance with SSPC SP-16 guidelines to achieve a profile of 40 - 75 µm (1.5 - 3.0 mils). When light abrasive blasting is not possible, galvanizing can be treated with a suitable zinc phosphate conversion coating
- Galvanizing that has had at least 12 months of exterior weathering may be coated after power washing to remove all contaminants and white rust



AMERLOCK® 2 / SIGMACOVER™ 2

Non-ferrous metals and stainless steel

- Remove all rust, dirt, moisture, grease or other contaminants from the surface
- Lightly abrasive blast with a fine abrasive in accordance with SSPC SP-16 guidelines to achieve a profile of 40 - 100 µm (1.5 - 4.0 mils)

Aged coatings and repairs

- Aged suitable coating must be dry and free from any contamination
- For single-pack coatings, extra precautions are necessary

Substrate temperature

- Substrate temperature during application and curing should be between 0°C (32°F) and 50°C (122°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point

SYSTEM SPECIFICATION

- Primers: Direct to substrate; DIMETCOTE Series, AMERCOAT 68 Series, AMERLOCK 2 / 400 Series, SIGMAZINC Series, AMERCOAT Epoxies and SIGMA Epoxies
- Topcoats: AMERCOAT 450 Series, SIGMADUR Series, SIGMACOVER Epoxies, AMERCOAT Epoxies, AMERSHIELD and PSX 700

Note: Please contact your PPG representative if using an alternate primer

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 50:50 (1:1)

- The paint should be stirred well before use, preferably by means of a mechanical mixer, to ensure homogeneity
- Add hardener to base and continue stirring until homogeneous

Induction time

| Mixed product induction time | |
|------------------------------|----------------|
| Mixed product temperature | Induction time |
| 0°C (32°F) | 45 minutes |
| 10°C (50°F) | 30 minutes |
| 15°C (59°F) | 20 minutes |
| 20°C (68°F) | 10 minutes |
| Above 23°C (73°F) | None |

Pot life

2 hours at 10°C (50°F)

Note: See ADDITIONAL DATA - Pot life



AMERLOCK® 2 / SIGMACOVER™ 2

Air spray

Recommended thinner

THINNER 91-92 FOR GLOBAL, THINNER 21-06 (AMERCOAT 65) FOR NSF/ANSI 61, THINNER 91-82 (AMERCOAT T10) for NON NSF/ANSI 61 and $< 90^{\circ}\text{F}$ (32°C), THINNER 21-25 (AMERCOAT 101) for NON NSF/ANSI 61 and $> 90^{\circ}\text{F}$ (32°C)

Volume of thinner

0 - 10%, depending on required thickness and application conditions

Airless spray

Recommended thinner

THINNER 91-92 FOR GLOBAL, THINNER 21-06 (AMERCOAT 65) FOR NSF/ANSI 61, THINNER 91-82 (AMERCOAT T10) for NON NSF/ANSI 61 and $< 90^{\circ}\text{F}$ (32°C), THINNER 21-25 (AMERCOAT 101) for NON NSF/ANSI 61 and $> 90^{\circ}\text{F}$ (32°C)

Volume of thinner

0 - 5%, depending on required thickness and application conditions

Nozzle orifice

Approx. 0.48 mm (0.019 in)

Nozzle pressure

15.0 - 18.0 MPa (approx. 150 - 180 bar; 2176 - 2611 p.s.i.)

Brush/roller

- Apply evenly using a well-loaded brush or roller
- Application by brush or roller will provide approximately 80 μm (3.1 mils) DFT in a single-coat application

Cleaning solvent

THINNER 90-53, THINNER 90-58 (AMERCOAT 12) OR THINNER 21-06 (AMERCOAT 65)

ADDITIONAL DATA

| Spreading rate and film thickness | |
|-----------------------------------|--|
| DFT | Theoretical spreading rate |
| 100 μm (4.0 mils) | 8.5 m^2/l (341 $\text{ft}^2/\text{US gal}$) |
| 125 μm (5.0 mils) | 6.8 m^2/l (273 $\text{ft}^2/\text{US gal}$) |
| 200 μm (8.0 mils) | 4.3 m^2/l (170 $\text{ft}^2/\text{US gal}$) |

AMERLOCK® 2 / SIGMACOVER™ 2

| Overcoating interval for DFT up to 200 µm (8.0 mils) | | | | | |
|--|----------|------------|-------------|-------------|-------------|
| Overcoating with... | Interval | 5°C (41°F) | 10°C (50°F) | 20°C (68°F) | 30°C (86°F) |
| itself and various two-pack epoxy coatings | Minimum | 24 hours | 12 hours | 6 hours | 3 hours |
| | Maximum | 1 month | 1 month | 1 month | 1 month |
| urethane and PSX | Minimum | 24 hours | 12 hours | 6 hours | 3 hours |
| | Maximum | 14 days | 14 days | 7 days | 4 days |

Notes:

- Surface should be dry and free from any contamination
- A detergent wash with PREP 88, SIGMARITE 88 or equivalent is required prior to application of topcoats after 30 days of exposure
- If maximum recoat time has been exceeded, roughen surfaces
- Alkyd coatings and waterborne acrylic coatings should be applied after the film is dry to handle and not greater than three times dry to handle time
- Maximum recoating time is highly dependent upon actual surface temperature - not simply air temperatures. Sun-exposed or otherwise heated surface will shorten the maximum recoat window

| Curing time for DFT up to 200 µm (8.0 mils) | | |
|---|---------------|-----------|
| Substrate temperature | Dry to handle | Full cure |
| 0°C (32°F) | 38 hours | 21 days |
| 10°C (50°F) | 14 hours | 7 days |
| 20°C (68°F) | 5 hours | 4 days |
| 30°C (86°F) | 3 hours | 3 days |

Note: Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

| Pot life (at application viscosity) | |
|-------------------------------------|------------|
| Mixed product temperature | Pot life |
| 0°C (32°F) | 4 hours |
| 10°C (50°F) | 2 hours |
| 20°C (68°F) | 1 hour |
| 30°C (86°F) | 30 minutes |

Product Qualifications

- NORSOK M501 Rev. 5, System 7 Subsea surfaces
- Compliant with USDA Incidental Food Contact Requirements
- NFPA Class A for Flame Spread and Smoke Development
- Qualified for ANSI/NSF Standard 61 (potable water). For NSF application instructions, please visit the following website:
<http://www.nsf.org/certified-products-systems/>
- AWWA D102-06 ICS #1, #2, #3, #5
- Nuclear Service Level 2 (ANSI N 5.12, ANSI N 101.2)
- LEED's compliant for Anti-corrosive Paint category



AMERLOCK® 2 / SIGMACOVER™ 2

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES

| | | |
|--|-------------------|------|
| • CONVERSION TABLES | INFORMATION SHEET | 1410 |
| • EXPLANATION TO PRODUCT DATA SHEETS | INFORMATION SHEET | 1411 |
| • SAFETY INDICATIONS | INFORMATION SHEET | 1430 |
| • SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD | INFORMATION SHEET | 1431 |
| • SAFE WORKING IN CONFINED SPACES | INFORMATION SHEET | 1433 |
| • DIRECTIVES FOR VENTILATION PRACTICE | INFORMATION SHEET | 1434 |
| • CLEANING OF STEEL AND REMOVAL OF RUST | INFORMATION SHEET | 1490 |
| • SPECIFICATION FOR MINERAL ABRASIVES | INFORMATION SHEET | 1491 |
| • SURFACE PREPARATION OF CONCRETE (FLOORS) | INFORMATION SHEET | 1496 |
| • RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE | INFORMATION SHEET | 1650 |

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgpmc.com. The English text of this sheet shall prevail over any translation thereof.

The PPG logo, and all other PPG marks are property of the PPG group of companies. All other third-party marks are property of their respective owners.



SAFETY DATA SHEET



Date of issue/Date of revision 20 November 2020

Version 31.01

Section 1. Identification

Product name : AMERLOCK 2 CURE

Product code : 00333621

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications, Used by spraying.

**Use of the substance/
mixture** : Coating.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

**Emergency telephone
number** : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : 888-977-4762

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the
substance or mixture** : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION - Category 1
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 6.4% (oral), 31.7% (dermal), 71.4% (inhalation)

GHS label elements

Section 2. Hazards identification

Hazard pictograms

:

**Signal word**

: Danger

Hazard statements

: Flammable liquid and vapor.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Harmful if inhaled.
May cause respiratory irritation.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure. (hearing organs)

Precautionary statements**Prevention**

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage

: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Sanding and grinding dusts may be harmful if inhaled. Do not taste or swallow. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Product name : AMERLOCK 2 CURE

| Ingredient name | % | CAS number |
|---|--------------|---------------------|
| Talc , not containing asbestiform fibres | ≥20 - ≤50 | 14807-96-6 |
| barium sulfate | ≥20 - ≤27 | 7727-43-7 |
| xylene | ≥5.0 - ≤11 | 1330-20-7 |
| 4-nonylphenol, branched | ≥5.0 - ≤8.8 | 84852-15-3 |
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil | ≥5.0 - ≤10 | 68082-29-1 |
| fatty acids and triethylenetetramine | | |
| m-phenylenebis(methylamine) | ≥1.0 - ≤4.1 | 1477-55-0 |
| 4-tert-butylphenol | ≥1.0 - ≤4.1 | 98-54-4 |
| benzyl alcohol | ≥1.0 - ≤3.8 | 100-51-6 |
| Poly[oxy(methyl-1,2-ethanediyl)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)-ethylbenzene | ≥0.10 - ≤2.9 | 9046-10-0 (n = 2-6) |
| Phenol, 2-nonyl-, branched | ≤2.0 | 100-41-4 |
| | <1.0 | 91672-41-2 |

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Skin contact** : Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Section 5. Fire-fighting measures

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
sulfur oxides
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 6. Accidental release measures

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

| Ingredient name | Exposure limits |
|--|--|
| <p>Talc , not containing asbestiform fibres</p> <p>barium sulfate</p> <p>xylene</p> <p>4-nonylphenol, branched Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine m-phenylenebis(methylamine)</p> <p>4-tert-butylphenol benzyl alcohol</p> <p>Poly[oxy(methyl-1,2-ethanediyl)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)-ethylbenzene</p> <p>Phenol, 2-nonyl-, branched</p> | <p>ACGIH TLV (United States, 3/2019). TWA: 2 mg/m³ 8 hours. Form: Respirable</p> <p>OSHA PEL Z3 (United States). TWA: 2 mg/m³</p> <p>ACGIH TLV (United States, 3/2019). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction</p> <p>OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</p> <p>TWA: 15 mg/m³ 8 hours. Form: Total dust</p> <p>ACGIH TLV (United States, 3/2019). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</p> <p>None. None.</p> <p>ACGIH TLV (United States, 3/2019). Absorbed through skin. C: 0.018 ppm</p> <p>None.</p> <p>IPEL (PPG). TWA: 5 ppm STEL: 10 ppm</p> <p>None.</p> <p>ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</p> <p>None.</p> |

Key to abbreviations

A = Acceptable Maximum Peak
 ACGIH = American Conference of Governmental Industrial Hygienists.
 C = Ceiling Limit
 F = Fume
 IPEL = Internal Permissible Exposure Limit
 OSHA = Occupational Safety and Health Administration.
 R = Respirable
 Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

S = Potential skin absorption
 SR = Respiratory sensitization
 SS = Skin sensitization
 STEL = Short term Exposure limit values
 TD = Total dust
 TLV = Threshold Limit Value
 TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

Section 8. Exposure controls/personal protection

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Chemical splash goggles and face shield.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : butyl rubber
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

| | |
|--|--|
| Physical state | : Liquid. |
| Color | : White to yellowish. |
| Odor | : Characteristic. |
| Odor threshold | : Not available. |
| pH | : Not available. |
| Melting point | : Not available. |
| Boiling point | : >37.78°C (>100°F) |
| Flash point | : Closed cup: 33.33°C (92°F) |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Flammability (solid, gas) | : Not available. |
| Lower and upper explosive (flammable) limits | : Not available. |
| Evaporation rate | : 0.71 (butyl acetate = 1) |
| Vapor pressure | : 1.3 kPa (9.6 mm Hg) [room temperature] |
| Vapor density | : Not available. |
| Relative density | : 1.42 |
| Density (lbs / gal) | : 11.85 |
| Solubility | : Insoluble in the following materials: cold water. |
| Partition coefficient: n-octanol/water | : Not available. |
| Viscosity | : Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt) |
| Volatility | : 29% (v/v), 17.939% (w/w) |
| % Solid. (w/w) | : 82.061 |

Section 10. Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8. |
| Incompatible materials | : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids. |
| Hazardous decomposition products | : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|---------------------------------|--------------------|-------------------------|----------|
| barium sulfate | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| | LD50 Oral | Rat | 4.3 g/kg | - |
| 4-nonylphenol, branched | LD50 Dermal | Rabbit | 2.14 g/kg | - |
| | LD50 Oral | Rat | 1300 mg/kg | - |
| m-phenylenebis (methylamine) | LC50 Inhalation Gas. | Rat | 700 ppm | 1 hours |
| | LD50 Dermal | Rat - Male, Female | >3100 mg/kg | - |
| 4-tert-butylphenol | LD50 Oral | Rat | 930 mg/kg | - |
| | LD50 Dermal | Rabbit | 2.29 g/kg | - |
| | LD50 Oral | Rat | 2.95 g/kg | - |
| benzyl alcohol | LC50 Inhalation Dusts and mists | Rat | >4178 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | 2000 mg/kg | - |
| | LD50 Oral | Rat | 1.23 g/kg | - |
| Poly[oxy(methyl-1,2-ethanediyl)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)- | LD50 Dermal | Rat | 2980 mg/kg | - |
| ethylbenzene | LD50 Oral | Rat | 2885 mg/kg | - |
| | LC50 Inhalation Vapor | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|---------|-------|-----------------|-------------|
| xylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| 4-nonylphenol, branched | Skin - Erythema/Eschar | Rabbit | 4 | - | - |
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | Skin - Irritant | Human | - | - | - |
| | Eyes - Severe irritant | Rabbit | - | - | - |
| m-phenylenebis (methylamine) | Skin - Severe irritant | Rat | - | 4 hours | 4 hours |

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Section 11. Toxicological information

| Product/ingredient name | Route of exposure | Species | Result |
|---|-------------------|---------|-------------|
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | skin | Mouse | Sensitizing |
| m-phenylenebis (methyamine) | skin | Mouse | Sensitizing |

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| xylene | - | 3 | - |
| ethylbenzene | - | 2B | - |

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|------------------------------|
| Talc , not containing asbestiform fibres | Category 3 | - | Respiratory tract irritation |
| xylene | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|--------------|------------|-------------------|----------------|
| ethylbenzene | Category 2 | - | hearing organs |

Section 11. Toxicological information

Target organs : Contains material which causes damage to the following organs: blood, kidneys, liver, heart, brain, skin, central nervous system (CNS).
Contains material which may cause damage to the following organs: lungs, the nervous system, the reproductive system, gastrointestinal tract, cardiovascular system, upper respiratory tract, ears, eye, lens or cornea.

Aspiration hazard

| Name | Result |
|--------------|--------------------------------|
| xylene | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Harmful if inhaled. May cause respiratory irritation.
Skin contact : Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.
Ingestion : Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
 pain
 watering
 redness

Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Skin contact : Adverse symptoms may include the following:
 pain or irritation
 redness
 dryness
 cracking
 blistering may occur
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Ingestion : Adverse symptoms may include the following:
 stomach pains
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent

Section 11. Toxicological information

vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| AMERLOCK 2 CURE | 5002.8 | 2698.7 | 30864.8 | 25.4 | 2.5 |
| barium sulfate | N/A | 2500 | N/A | N/A | N/A |
| xylene | 4300 | 1700 | N/A | 11 | 1.5 |
| 4-nonylphenol, branched | 1300 | 2140 | N/A | N/A | N/A |
| m-phenylenebis(methylamine) | 930 | 2500 | 4500 | N/A | N/A |
| 4-tert-butylphenol | 2950 | 2290 | N/A | N/A | N/A |
| benzyl alcohol | 1230 | 2000 | N/A | N/A | 1.5 |
| Poly[oxy(methyl-1,2-ethanediyl)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)-ethylbenzene | 2885 | 2980 | N/A | N/A | N/A |
| Phenol, 2-nonyl-, branched | 3500 | 17800 | N/A | 17.8 | 1.5 |
| | 500 | N/A | N/A | N/A | N/A |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|--|--------------------------------------|
| 4-nonylphenol, branched Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine Poly[oxy(methyl-1,2-ethanediyl)], α - (2-aminomethylethyl)- ω -(2-aminomethylethoxy)- | Acute LC50 0.221 mg/l EC10 1.78 mg/l EC50 15 mg/l | Fish Algae Algae | 96 hours 72 hours 72 hours |
| ethylbenzene Phenol, 2-nonyl-, branched | Acute LC50 150 to 200 mg/l Fresh water Acute LC50 0.017 mg/l | Fish Fish - Pleuronectes americanus | 96 hours 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|--|----------------------|----------------------|--|
| xylene Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine benzyl alcohol Poly[oxy(methyl-1,2-ethanediyl)], α - (2-aminomethylethyl)- ω -(2-aminomethylethoxy)- | - - - - | - - - - | Readily Not readily Readily Not readily |
| ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-----------------------------|--------------------|-------------|-----------|
| xylene | 3.16 | 7.4 to 18.5 | low |
| 4-nonylphenol, branched | - | 251.19 | low |
| m-phenylenebis(methylamine) | 0.18 | 2.69 | low |
| 4-tert-butylphenol | 3.31 | 67.61 | low |
| benzyl alcohol | 1.1 | - | low |
| ethylbenzene | 3.15 | 79.43 | low |

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

| | DOT | IMDG | IATA |
|-----------------------------|------------------------|---------------------------|--|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 3 | 3 | 3 |
| Packing group | III | III | III |
| Environmental hazards | No. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
| Marine pollutant substances | Not applicable. | (4-nonylphenol, branched) | Not applicable. |
| Product RQ (lbs) | 898.46 | Not applicable. | Not applicable. |
| RQ substances | (xylene, ethylbenzene) | Not applicable. | Not applicable. |

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Product code 00333621

Date of issue 20 November 2020 **Version** 31.01

Product name AMERLOCK 2 CURE

14. Transport information

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

United States - TSCA 12(b) - Chemical export notification:

4-nonylphenol, branched

One time notification

United States - TSCA 5(a)2 - Final significant new use rules:

4-nonylphenol, branched

Listed 76 FR 59186, Oct 1, 2014

Phenol, 2-nonyl-, branched

Listed 78 FR 59186, Oct 1, 2014

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION - Category 1
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
HNOC - Corrosive to digestive tract
HNOC - Defatting irritant

Composition/information on ingredients

| Name | % | Classification |
|--|-------------|--|
| Talc , not containing asbestiform fibres | ≥20 - ≤50 | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |
| xylene | ≥5.0 - ≤11 | FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1 |
| 4-nonylphenol, branched | ≥5.0 - ≤8.8 | ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1 TOXIC TO REPRODUCTION - Category 2 HNOC - Corrosive to digestive tract |

Section 15. Regulatory information

| | | |
|---|--------------|--|
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine m-phenylenebis(methylamine) | ≥5.0 - ≤10 | SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1A |
| | ≥1.0 - ≤4.1 | ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B |
| 4-tert-butylphenol | ≥1.0 - ≤4.1 | SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 TOXIC TO REPRODUCTION - Category 2 |
| benzyl alcohol | ≥1.0 - ≤3.8 | ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A |
| Poly[oxy(methyl-1,2-ethanediyl)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)- | ≥0.10 - ≤2.9 | SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 |
| ethylbenzene | ≤2.0 | FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant |
| Phenol, 2-nonyl-, branched | <1.0 | ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1 TOXIC TO REPRODUCTION - Category 2 HNOC - Corrosive to digestive tract |

SARA 313

| Supplier notification | Chemical name | CAS number | Concentration |
|-----------------------|-------------------------|------------|---------------|
| | xylene | 1330-20-7 | 7 - 13 |
| | 4-nonylphenol, branched | 84852-15-3 | 5 - 10 |
| | ethylbenzene | 100-41-4 | 1 - 5 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Product code 00333621

Date of issue 20 November 2020 **Version** 31.01

Product name AMERLOCK 2 CURE

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability** : 3 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3 **Flammability** : 3 **Instability** : 0

Date of previous issue : 10/28/2020

Organization that prepared the MSDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

✓ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 12 June 2020

Version 14

Section 1. Identification

Product name : AMERLOCK 2/400 RESIN BLACK

Product code : 00288943

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Professional applications, Used by spraying.

**Use of the substance/
mixture** : Coating.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : 888-977-4762

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 32.6% (Dermal), 94.5% (Inhalation)

GHS label elements

Section 2. Hazards identification

Hazard pictograms



Signal word

: Warning

Hazard statements

: **F** Flammable liquid and vapor.
 Causes skin irritation.
 May cause an allergic skin reaction.
 Causes serious eye irritation.
 Harmful if inhaled.
 May cause respiratory irritation.
 Suspected of causing cancer.

Precautionary statements

Prevention

: **P** Obtain special instructions before use. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing vapor. Wash thoroughly after handling.

Response

: **R** If exposed or concerned: Get medical advice or attention. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage

: **S** Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: AMERLOCK 2/400 RESIN BLACK

| Ingredient name | % | CAS number |
|---|--------------|------------|
| Epoxy resin (MW ≤ 700) | ≥50 - ≤75 | 25068-38-6 |
| Talc , not containing asbestiform fibres | ≥20 - ≤50 | 14807-96-6 |
| Solvent naphtha (petroleum), light aromatic | ≥1.0 - ≤4.7 | 64742-95-6 |
| 1,2,4-trimethylbenzene | ≥1.0 - ≤4.3 | 95-63-6 |
| carbon black, respirable powder | ≥0.10 - ≤2.1 | 1333-86-4 |
| ethylbenzene | <1.0 | 100-41-4 |

Section 3. Composition/information on ingredients

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- | | |
|---------------------|--|
| Eye contact | : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. |
| Inhalation | : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. |
| Skin contact | : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. |
| Ingestion | : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

- | | |
|---------------------|---|
| Eye contact | : Causes serious eye irritation. |
| Inhalation | : Harmful if inhaled. May cause respiratory irritation. |
| Skin contact | : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. |
| Ingestion | : No known significant effects or critical hazards. |

Over-exposure signs/symptoms

- | | |
|---------------------|---|
| Eye contact | : Adverse symptoms may include the following: pain or irritation watering redness |
| Inhalation | : Adverse symptoms may include the following: respiratory tract irritation coughing |
| Skin contact | : Adverse symptoms may include the following: irritation redness dryness cracking |
| Ingestion | : No specific data. |

Indication of immediate medical attention and special treatment needed, if necessary

- | | |
|----------------------------|---|
| Notes to physician | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : No specific treatment. |

Section 4. First aid measures


- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** :  Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
halogenated compounds
metal oxide/oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|---|--|
| Epoxy resin (MW ≤ 700) Talc , not containing asbestiform fibres | None. ACGIH TLV (United States, 3/2019). TWA: 2 mg/m ³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m ³ |
| Solvent naphtha (petroleum), light aromatic 1,2,4-trimethylbenzene | None. ACGIH TLV (United States, 3/2019). TWA: 123 mg/m ³ 8 hours. TWA: 25 ppm 8 hours. |
| carbon black, respirable powder | ACGIH TLV (United States, 3/2019). TWA: 3 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 5/2018). TWA: 3.5 mg/m ³ 8 hours. |
| ethylbenzene | ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. |

Key to abbreviations

| | |
|---|--|
| A = Acceptable Maximum Peak ACGIH = American Conference of Governmental Industrial Hygienists. C = Ceiling Limit F = Fume IPEL = Internal Permissible Exposure Limit OSHA = Occupational Safety and Health Administration. R = Respirable Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances | S = Potential skin absorption SR = Respiratory sensitization SS = Skin sensitization STEL = Short term Exposure limit values TD = Total dust TLV = Threshold Limit Value TWA = Time Weighted Average |
|---|--|

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

| | |
|------------------------|--|
| Hygiene measures | : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| Eye/face protection | : Chemical splash goggles. |
| Skin protection | |
| Hand protection | : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. |
| Gloves | : butyl rubber |
| Body protection | : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. |
| Other skin protection | : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Respiratory protection | : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. |

Section 9. Physical and chemical properties

Appearance

| | |
|--|------------------------------|
| Physical state | : Liquid. |
| Color | : Black. |
| Odor | : Characteristic. |
| Odor threshold | : Not available. |
| pH | : Not available. |
| Melting point | : Not available. |
| Boiling point | : >37.78°C (>100°F) |
| Flash point | : Closed cup: 56°C (132.8°F) |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Flammability (solid, gas) | : Not available. |
| Lower and upper explosive (flammable) limits | : Not available. |
| Evaporation rate | : Not available. |
| Vapor pressure | : Not available. |

Section 9. Physical and chemical properties

| | |
|--|--|
| Vapor density | : Not available. |
| Relative density | : 1.37 |
| Density (lbs / gal) | : 11.43 |
| Solubility | : Insoluble in the following materials: cold water. |
| Partition coefficient: n-octanol/water | : Not available. |
| Viscosity | : Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt) |
| Volatility | : 11% (v/v), 7.18% (w/w) |
| % Solid. (w/w) | : 92.82 |

Section 10. Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8. |
| Incompatible materials | : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids. |
| Hazardous decomposition products | : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-----------------------|---------|-------------------------|----------|
| Epoxy resin (MW ≤ 700) | LD50 Dermal | Rabbit | >2 g/kg | - |
| | LD50 Oral | Rat | >2 g/kg | - |
| Solvent naphtha (petroleum), light aromatic | LD50 Dermal | Rabbit | 3.48 g/kg | - |
| | LD50 Oral | Rat | 8400 mg/kg | - |
| 1,2,4-trimethylbenzene | LC50 Inhalation Vapor | Rat | 18000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5 g/kg | - |
| carbon black, respirable powder | LD50 Dermal | Rabbit | >3 g/kg | - |
| | LD50 Oral | Rat | >15400 mg/kg | - |
| ethylbenzene | LC50 Inhalation Vapor | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |

Section 11. Toxicological information

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--|------------------|--------|----------|-------------|
| Epoxy resin (MW ≤ 700) | Skin - Mild irritant Eyes - Mild irritant | Rabbit Rabbit | - - | - - | - - |

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

| Product/ingredient name | Route of exposure | Species | Result |
|-------------------------|-------------------|---------|-------------|
| Epoxy resin (MW ≤ 700) | skin | Mouse | Sensitizing |

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|---------------------------------|------|------|-----|
| carbon black, respirable powder | - | 2B | - |
| ethylbenzene | - | 2B | - |

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

| Name | Category | Route of exposure | Target organs |
|---|--------------------------|-------------------|--|
| Alc , not containing asbestiform fibres | Category 3 | - | Respiratory tract irritation |
| Solvent naphtha (petroleum), light aromatic | Category 3 | - | Respiratory tract irritation |
| 1,2,4-trimethylbenzene | Category 3 Category 3 | - | Narcotic effects Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|--------------|------------|-------------------|----------------|
| ethylbenzene | Category 2 | - | hearing organs |

Target organs : Contains material which causes damage to the following organs: brain, central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, lungs, cardiovascular system, upper respiratory tract, skin, eyes.

Aspiration hazard

| Name | Result |
|---|--|
| Solvent naphtha (petroleum), light aromatic ethylbenzene | ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : Harmful if inhaled. May cause respiratory irritation.
Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness
Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Section 11. Toxicological information

Conclusion/Summary : There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| AMERLOCK 2/400 RESIN BLACK | 4511.6 | 2886.9 | N/A | 52.1 | 4.3 |
| Epoxy resin (MW ≤ 700) | 2500 | 2500 | N/A | N/A | N/A |
| Solvent naphtha (petroleum), light aromatic | 8400 | 3480 | N/A | N/A | N/A |
| 1,2,4-trimethylbenzene | 5000 | N/A | N/A | 18 | 1.5 |
| carbon black, respirable powder | N/A | 2500 | N/A | N/A | N/A |
| ethylbenzene | 3500 | 17800 | N/A | 17.8 | 1.5 |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|---|--------------------|----------------------|
| Epoxy resin (MW ≤ 700) | Acute LC50 1.8 mg/l Chronic NOEC 0.3 mg/l | Daphnia Daphnia | 48 hours 21 days |
| Solvent naphtha (petroleum), light aromatic ethylbenzene | Acute LC50 8.2 mg/l Acute LC50 150 to 200 mg/l Fresh water | Fish Fish | 96 hours 96 hours |

Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|-------------------------|-----------|---------------|------|----------|
| Epoxy resin (MW ≤ 700) | OECD 301F | 5 % - 28 days | - | - |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Epoxy resin (MW ≤ 700) | - | - | Not readily |
| ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|--------|-----------|
| Epoxy resin (MW ≤ 700) | 3 | 31 | low |
| 1,2,4-trimethylbenzene | 3.63 | 120.23 | low |
| ethylbenzene | 3.15 | 79.43 | low |

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

| | | |
|--|-----------------------------------|-------------------|
| Product code 00288943 | Date of issue 12 June 2020 | Version 14 |
| Product name AMERLOCK 2/400 RESIN BLACK | | |

14. Transport information

| | DOT | IMDG | IATA |
|------------------------------------|-----------------|---|--|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT |
| Transport hazard class (es) | 3 | 3 | 3 |
| Packing group | III | III | III |
| Environmental hazards | No. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
| Marine pollutant substances | Not applicable. | (Epoxy resin (MW ≤ 700), Solvent naphtha (petroleum), light aromatic) | Not applicable. |
| Product RQ (lbs) | 14078.4 | Not applicable. | Not applicable. |
| RQ substances | (xylene) | Not applicable. | Not applicable. |

Additional information

- DOT** : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : ☒ All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Section 15. Regulatory information

Classification : FLAMMABLE LIQUIDS - Category 3
 ACUTE TOXICITY (inhalation) - Category 4
 SKIN IRRITATION - Category 2
 EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1
 CARCINOGENICITY - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 HNOC - Defatting irritant

Composition/information on ingredients

| Name | % | Classification |
|---|--------------|---|
| Epoxy resin (MW ≤ 700) | ≥50 - ≤75 | SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |
| Talc , not containing asbestiform fibres | ≥20 - ≤50 | FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |
| Solvent naphtha (petroleum), light aromatic | ≥1.0 - ≤4.7 | ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant |
| 1,2,4-trimethylbenzene | ≥1.0 - ≤4.3 | FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Defatting irritant |
| carbon black, respirable powder | ≥0.10 - ≤2.1 | COMBUSTIBLE DUSTS CARCINOGENICITY - Category 2 |
| ethylbenzene | <1.0 | FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant |

SARA 313

| Supplier notification | Chemical name | CAS number | Concentration |
|-----------------------|------------------------|------------|---------------|
| | 1,2,4-trimethylbenzene | 95-63-6 | 1 - 5 |
| | ethylbenzene | 100-41-4 | 0.1 - 1 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65


Product code 00288943

Date of issue 12 June 2020

Version 14

Product name AMERLOCK 2/400 RESIN BLACK

Section 15. Regulatory information

 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * **Flammability** : 2 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 2 **Flammability** : 2 **Instability** : 0

Date of previous issue : 2/7/2020

Organization that prepared the MSDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

 Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.



11

OVS Ped Bridge Topcoat PSX 800 Product Data and MSDS Sheets

PSX® 800

DESCRIPTION

Two-component, engineered siloxane coating

PRINCIPAL CHARACTERISTICS

- Unique, high gloss, engineered siloxane
- Virtually HAPs free, low VOC
- High durability in challenging environments
- Tough and abrasion resistant
- Resists dirt pickup, easily cleaned
- Can be applied directly to zinc primers as a 2-coat system

COLOR AND GLOSS LEVEL

- Standard Color Offering, Custom Colors
- High gloss

BASIC DATA AT 68°F (20°C)

| Data for product | |
|--------------------------------|--|
| Number of components | Two |
| Volume solids | 97 ± 3% |
| VOC (Supplied) | max. 75.0 g/l (approx. 0.6 lb/US gal) |
| Recommended dry film thickness | 3.0 - 7.0 mils (75 - 175 µm) depending on system |
| Theoretical spreading rate | 311 ft²/US gal for 5.0 mils (7.6 m²/l for 125 µm) |
| Shelf life | Base: at least 24 months when stored cool and dry Hardener: at least 24 months when stored cool and dry |

Notes:

- * The mixed and applied coating cure reaction will produce VOC of mixed alcohols. For 100 g/L VOC requirements, a VOC-exempt thinner such as 97-739 may be used as needed.
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is proportional to the degree of surface preparation



PSX® 800

Steel

- Abrasive Blast to SSPC SP-6 or higher with a 1.0-3.0 mil surface profile
- Keep moisture, oil, grease and other organic matter off surface before coating
- Apply this product as soon as possible to avoid rusting of blasted surfaces
- For touch up and repair, power tool cleaning in accordance with SSPC SP-11 is acceptable
- Use a suitable primer for corrosive environments

Concrete

- See specific primer

Aged coatings

- Contact your PPG representative. A test patch of the product over in-tact clean coating and observation for film defects and adhesion over a period of time may be required, dependent upon the type of coating
- This product is compatible over Amercoat 450 Series polyurethane.

Atmospheric exposure conditions

- Ambient temperature during application and curing should be between 40 °F (4°C) and 120 °F (49 °C).
- Material temperature should be between 50 °F (10 °C) and 90 °F (32 °C)
- Relative humidity should be above 40%

Substrate temperature

- Surface temperature during application should be between 40°F (4°C) and 120°F (49°C)
- Surface temperature during application should be at least 5°F (3°C) above dew point

SYSTEM SPECIFICATION

- Primers: DIMETCOTE 9-series, DIMETCOTE 21-5, DIMETCOTE 302H, AMERCOAT 68HS, AMERLOCK 2/400, AMERCOAT 370, AMERCOAT 385, AMERCOAT 240, AMERCOAT 235

Note: Other primers would be acceptable. Please contact your PPG PMC representative for confirmation of alternate primers.

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener (4:1)

- Only mix full kits. Pre-mix base component with a pneumatic air mixing at moderate speeds to homogenize the container. Pour in the hardener component and power agitate until thoroughly mixed

Pot life

4 hours at 70°F (21°C)



PSX® 800

Application

- Area should be sheltered from airborne particulates and pollutants
- Ensure good ventilation during application and curing
- Provide shelter to prevent wind from affecting spray patterns

Air spray

- Separate air and fluid regulators are essential
- Ensure there is a moisture and oil trap in the main air line
- An agitated pressure pot is recommended

Recommended thinner

THINNER 60-12 (AMERCOAT 911), THINNER 21-06 (AMERCOAT 65) (xylene)), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C))

Volume of thinner

0 - 10%

Nozzle orifice

Approx. 0.070 in (1.8 mm)

Airless spray

- 30:1 pump or larger

Recommended thinner

THINNER 60-12 (AMERCOAT 911), THINNER 21-06 (AMERCOAT 65) (xylene)), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C))

Nozzle orifice

0.015 – 0.017 in (approx. 0.38 – 0.43 mm)

Brush/roller

- Use a high quality natural bristle brush and/or solvent resistant, 1/4" or 3/8" nap roller. Ensure brush/roller is well loaded to avoid air entrainment. Multiple coats may be necessary to achieve adequate film-build
- AMERCOAT 851 flow control additive can be used to for enhanced flow and leveling with brush and roll application
- Be aware that multiple coats may be required to achieve uniform and sufficient film thickness to provide proper hiding performance when applying by brush or roller

Recommended thinner

THINNER 60-12 (AMERCOAT 911), THINNER 21-06 (AMERCOAT 65 (xylene)), or 97-739 (where exempt thinner is required for VOC regulations)



PSX® 800

Cleaning solvent

AMERCOAT 12 Cleaner or AMERCOAT 911 thinner

ADDITIONAL DATA

| Overcoating interval for DFT up to 4.0 mils (100 µm) | | | | | |
|--|----------|------------|-------------|-------------|-------------|
| Overcoating with... | Interval | 32°F (0°C) | 50°F (10°C) | 70°F (21°C) | 90°F (32°C) |
| itself | Minimum | 20 hours | 9 hours | 4.5 hours | 3 hours |
| | Maximum | Unlimited | Unlimited | Unlimited | Unlimited |

Note: Surface must be power washed to remove contaminants. Surface must be clean and dry. When re-coating within 72 hours, solvent wipe the surface with any of the PSX 800 thinners prior to application of the second coat.

| Curing time using standard hardener for up to 4 mils dft and 50% relative humidity | | |
|--|--------------|---------------|
| Substrate temperature | Dry to touch | Dry to handle |
| 40°F (4°C) | 14 hours | 36 hours |
| 50°F (10°C) | 8 hours | 13 hours |
| 70°F (21°C) | 3.5 hours | 9 hours |
| 90°F (32°C) | 2 hours | 5 hours |

| Pot life (at application viscosity) | |
|-------------------------------------|-----------|
| Mixed product temperature | Pot life |
| 50°F (10°C) | 6.5 hours |
| 70°F (21°C) | 4 hours |
| 90°F (32°C) | 1.5 hours |

Product Qualifications

- SSPC Paint 36 Level 3 Performance

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.



PSX® 800

REFERENCES

| | | |
|--|-------------------|------|
| • CONVERSION TABLES | INFORMATION SHEET | 1410 |
| • EXPLANATION TO PRODUCT DATA SHEETS | INFORMATION SHEET | 1411 |
| • SAFETY INDICATIONS | INFORMATION SHEET | 1430 |
| • SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD | INFORMATION SHEET | 1431 |

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgpmc.com. The English text of this sheet shall prevail over any translation thereof.

Packaging: Available in 1-gallon and 5-gallon kits



SAFETY DATA SHEET



Date of issue/Date of revision 13 June 2020

Version 18

Section 1. Identification

Product name : PSX 800 NEUTRAL TINT RESIN

Product code : 00353605

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Professional applications, Used by spraying.

**Use of the substance/
mixture** : Coating.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : 412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : 888-977-4762

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the
substance or mixture** : EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 58.1% (Oral), 63.1% (Dermal), 91.8% (Inhalation)

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : May cause an allergic skin reaction.
Causes serious eye irritation.

Precautionary statements

Section 2. Hazards identification

| | |
|---|---|
| Prevention | : Wear eye or face protection. Avoid breathing vapor. |
| Response | : Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. |
| Storage | : Not applicable. |
| Disposal | : Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Supplemental label elements | : Sanding and grinding dusts may be harmful if inhaled. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. Emits toxic fumes when heated. |
| Hazards not otherwise classified | : None known. |

Section 3. Composition/information on ingredients

| | |
|--------------------------|------------------------------|
| Substance/mixture | : Mixture |
| Product name | : PSX 800 NEUTRAL TINT RESIN |

| Ingredient name | % | CAS number |
|--|-------------|----------------|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | ≥20 - ≤50 | 30583-72-3 |
| barium sulfate | ≥20 - ≤46 | 7727-43-7 |
| 9-Octadecenoic acid, 12-(2-oxiranylmethoxy)-, 1,2,3-propanetriyl ester, homopolymer | ≥5.0 - ≤8.0 | 74398-71-3 |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | ≥1.0 - ≤5.0 | 41556-26-7 |
| Wollastonite | ≥1.0 - ≤5.0 | 13983-17-0 |
| Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy-, branched, phosphates | ≤1.9 | 68412-53-3 |
| Alpha, Alpha"-(1,3-Xylenediyl)Bis(12-Hydroxy-Octadecanamide) | ≥1.0 - ≤5.0 | Not available. |

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

| | |
|--------------------|--|
| Eye contact | : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. |
| Inhalation | : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. |

Section 4. First aid measures

- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary


- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** :  In a fire or if heated, a pressure increase will occur and the container may burst. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products

- : Decomposition products may include the following materials:
- carbon oxides
 - nitrogen oxides
 - sulfur oxides
 - phosphorus oxides
 - halogenated compounds
 - metal oxide/oxides

Special protective actions for fire-fighters

- : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

- : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

- : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

- : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

- : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

- : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|--|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane barium sulfate | None. |
| 9-Octadecenoic acid, 12-(2-oxiranylmethoxy)-, 1,2,3-propanetriyl ester, homopolymer bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate Wollastonite | None. ACGIH TLV (United States, 3/2019). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust None. |
| Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy-, branched, phosphates | None. ACGIH TLV (United States, 3/2019). TWA: 1 mg/m ³ 8 hours. Form: Inhalable fraction None. |
| Alpha, Alpha"-(1,3-Xylenediyl)Bis(12-Hydroxy-Octadecanamide) | None. |

Key to abbreviations

Section 8. Exposure controls/personal protection

| | | | |
|-------|--|------|------------------------------------|
| A | = Acceptable Maximum Peak | S | = Potential skin absorption |
| ACGIH | = American Conference of Governmental Industrial Hygienists. | SR | = Respiratory sensitization |
| C | = Ceiling Limit | SS | = Skin sensitization |
| F | = Fume | STEL | = Short term Exposure limit values |
| IPEL | = Internal Permissible Exposure Limit | TD | = Total dust |
| OSHA | = Occupational Safety and Health Administration. | TLV | = Threshold Limit Value |
| R | = Respirable | TWA | = Time Weighted Average |
| Z | = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances | | |

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves : butyl rubber

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

| | |
|--|--|
| Physical state | : Liquid. |
| Color | : White to yellowish. |
| Odor | : Characteristic. |
| Odor threshold | : Not available. |
| pH | : Not available. |
| Melting point | : Not available. |
| Boiling point | : >37.78°C (>100°F) |
| Flash point | : Closed cup: 97.22°C (207°F) |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Flammability (solid, gas) | : Not available. |
| Lower and upper explosive (flammable) limits | : Not available. |
| Evaporation rate | : Not available. |
| Vapor pressure | : Not available. |
| Vapor density | : Not available. |
| Relative density | : 1.41 |
| Density (lbs / gal) | : 11.77 |
| Solubility | : Insoluble in the following materials: cold water. |
| Partition coefficient: n-octanol/water | : Not available. |
| Viscosity | : Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt) |
| Volatility | : 0% (v/v), 0.218% (w/w) |
| % Solid. (w/w) | : 99.782 |

Section 10. Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8. |
| Incompatible materials | : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids. |
| Hazardous decomposition products | : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-------------|---------|-------------|----------|
| Barium sulfate | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| 9-Octadecenoic acid, 12-(2-oxiranylmethoxy)-, 1,2,3-propanetriyl ester, homopolymer | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | >5 g/kg | - |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | LD50 Oral | Rat | 3.125 g/kg | - |
| | | Rat | | - |

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Wollastonite | - | 3 | - |

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|------------------------------|
| Alpha, Alpha"-(1,3-Xylenediyl)Bis(12-Hydroxy-Octadecanamide) | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Not available.

Target organs

- : Contains material which causes damage to the following organs: upper respiratory tract, skin, eyes.
- Contains material which may cause damage to the following organs: lungs.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

- Conclusion/Summary** : There are no data available on the mixture itself. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

- Potential immediate effects** : There are no data available on the mixture itself.
- Potential delayed effects** : There are no data available on the mixture itself.

Long term exposure

- Potential immediate effects** : There are no data available on the mixture itself.
- Potential delayed effects** : There are no data available on the mixture itself.

Potential chronic health effects

Section 11. Toxicological information

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| PSX 800 NEUTRAL TINT RESIN | 50190.7 | 3890.6 | N/A | N/A | N/A |
| barium sulfate | N/A | 2500 | N/A | N/A | N/A |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | 3125 | N/A | N/A | N/A | N/A |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|----------------|---------|----------|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | LC50 11.5 mg/l | Fish | 96 hours |

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

| | DOT | IMDG | IATA |
|-----------------------------|-----------------|--|---|
| UN number | Not regulated. | UN3082 | UN3082 |
| UN proper shipping name | - | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, trizinc bis (orthophosphate)) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, trizinc bis(orthophosphate)) |
| Transport hazard class (es) | - | 9 | 9 |
| Packing group | - | III | III |
| Environmental hazards | No. | Yes. | Yes. |
| Marine pollutant substances | Not applicable. | (bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, trizinc bis (orthophosphate)) | Not applicable. |

Additional information

DOT : None identified.

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Product code 00353605**Date of issue** 13 June 2020**Version** 18**Product name** PSX 800 NEUTRAL TINT RESIN

14. Transport information

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1

Composition/information on ingredients

| Name | % | Classification |
|--|-------------|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | ≥20 - ≤50 | SKIN SENSITIZATION - Category 1B |
| 9-Octadecenoic acid, 12-(2-oxiranylmethoxy)-, 1,2,3-propanetriyl ester, homopolymer | ≥5.0 - ≤8.0 | SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | ≥1.0 - ≤5.0 | SKIN SENSITIZATION - Category 1B |
| Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy-, branched, phosphates | ≤1.9 | SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 |
| Alpha, Alpha"-(1,3-Xylenediyl)Bis (12-Hydroxy-Octadecanamide) | ≥1.0 - ≤5.0 | COMBUSTIBLE DUSTS EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |

SARA 313

| Supplier notification | Chemical name | CAS number | Concentration |
|-----------------------|--|------------|---------------|
| | trizinc bis(orthophosphate) | 7779-90-0 | 1 - 5 |
| | Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy-, branched, phosphates | 68412-53-3 | 1 - 5 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 Flammability : 1 Physical hazards : 1

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3 Flammability : 1 Instability : 1

Date of previous issue : 2/17/2020

Organization that prepared the MSDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 19 August 2020

Version 12

Section 1. Identification

Product name : PSX 800 CURE

Product code : 00353411

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Professional applications, Used by spraying.

Use of the substance/
mixture : Coating.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : 412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : 888-977-4762

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : ☒ SKIN CORROSION - Category 1
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
GERM CELL MUTAGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
☒ Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 69.7% (Oral), 63% (Dermal), 99.1% (Inhalation)


GHS label elements

Hazard pictograms :





Section 2. Hazards identification

Signal word : Danger

Hazard statements :  Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of causing genetic defects.
May damage fertility or the unborn child.
Causes damage to organs. (thymus)
Causes damage to organs through prolonged or repeated exposure. (thymus)

Precautionary statements

Prevention :  Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response :  If exposed: Call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.


Supplemental label elements : Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Emits toxic fumes when heated.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product name : PSX 800 CURE

| Ingredient name | % | CAS number |
|--|-------------------------|--------------------------|
|  Proprietary silane dibutyltin di(acetate) | ≥20 - ≤45 ≥5.0 - ≤10 | Proprietary 1067-33-0 |

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. Causes damage to organs following a single exposure in contact with skin. May cause an allergic skin reaction.
- Ingestion** : Causes damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
metal oxide/oxides
Formaldehyde.

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Storage temperature: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|--|--|
| Proprietary silane dibutyltin di(acetate) | None. ACGIH TLV (United States, 3/2019). Absorbed through skin. STEL: 0.2 mg/m ³ , (as Sn) 15 minutes. TWA: 0.1 mg/m ³ , (as Sn) 8 hours. OSHA PEL (United States, 5/2018). TWA: 0.1 mg/m ³ , (as Sn) 8 hours. OSHA PEL (United States). TWA: 0.1 mg/m ³ , (as Sn) |

Key to abbreviations

| | |
|--|---|
| A = Acceptable Maximum Peak | S = Potential skin absorption |
| ACGIH = American Conference of Governmental Industrial Hygienists. | SR = Respiratory sensitization |
| C = Ceiling Limit | SS = Skin sensitization |
| F = Fume | STEL = Short term Exposure limit values |
| IPEL = Internal Permissible Exposure Limit | TD = Total dust |
| OSHA = Occupational Safety and Health Administration. | TLV = Threshold Limit Value |
| R = Respirable | TWA = Time Weighted Average |
| Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances | |

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles and face shield.

Skin protection

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : butyl rubber
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Clear.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 96.11°C (205°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Evaporation rate** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.1
- Density (lbs / gal)** : 9.18
- Solubility** : Insoluble in the following materials: cold water.
- Partition coefficient: n-octanol/water** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
- Volatility** : 0% (v/v), 0% (w/w)

Section 9. Physical and chemical properties

% Solid. (w/w) : 100

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-------------|---------|-------------|----------|
| Proprietary silane | LD50 Dermal | Rabbit | 11460 mg/kg | - |
| | LD50 Oral | Rat | 3010 mg/kg | - |
| dibutyltin di(acetate) | LD50 Dermal | Rabbit | 2318 mg/kg | - |

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Reproductive toxicity


Conclusion/Summary : There are no data available on the mixture itself.

Section 11. Toxicological information


Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|---------------|
|  dibutyltin di(acetate) | Category 1 | oral | thymus |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|---------------|
|  dibutyltin di(acetate) | Category 1 | oral | thymus |



Target organs : Contains material which may cause damage to the following organs: blood, kidneys, liver, bladder, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Aspiration hazard

 Not available.

Information on the likely routes of exposure

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** :  Causes severe burns. Causes damage to organs following a single exposure in contact with skin. May cause an allergic skin reaction.
- Ingestion** :  Causes damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Section 11. Toxicological information

Conclusion/Summary : There are no data available on the mixture itself. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.


Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : Suspected of causing genetic defects.

Reproductive toxicity :  May damage fertility or the unborn child.


Numerical measures of toxicity

Acute toxicity estimates


| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
|  PSX 800 CURE | 3097.5 | 12849.6 | N/A | N/A | N/A |
| Proprietary silane | 3010 | 11460 | N/A | N/A | N/A |
| dibutyltin di(acetate) | N/A | 2318 | N/A | N/A | N/A |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|--|---------------|----------------------|
|  dibutyltin di(acetate) | Acute EC10 3.1 mg/l Acute EC50 0.5 mg/l | Fish Algae | 72 hours 72 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------|
|  dibutyltin di(acetate) | - | - | Not readily |

Section 12. Ecological information

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

| | DOT | IMDG | IATA |
|-----------------------------|---|---|--|
| UN number | UN3066 | UN3066 | UN3066 |
| UN proper shipping name | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 8 | 8 | 8 |
| Packing group | II | II | II |
| Environmental hazards | Yes. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
| Marine pollutant substances | (amino-functional phenyl methyl silicone resin) | (amino-functional phenyl methyl silicone resin, dibutyltin di(acetate)) | Not applicable. |

Additional information

14. Transport information

- DOT** : This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : SKIN CORROSION - Category 1
 SERIOUS EYE DAMAGE - Category 1
 SKIN SENSITIZATION - Category 1
 GERM CELL MUTAGENICITY - Category 2
 TOXIC TO REPRODUCTION - Category 1B
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Composition/information on ingredients

| Name | % | Classification |
|------------------------|-------------|--|
| Proprietary silane | Proprietary | FLAMMABLE LIQUIDS - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 |
| dibutyltin di(acetate) | ≥5.0 - ≤10 | SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B GERM CELL MUTAGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 |

Product code 00353411

Date of issue 19 August 2020

Version 12

Product name PSX 800 CURE

Section 15. Regulatory information

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

 **WARNING:** Reproductive Harm - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability** : 1 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3 **Flammability** : 1 **Instability** : 0

Date of previous issue : 3/26/2019

Organization that prepared the MSDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

 Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.



12

OVS Ped Bridge Artwork Coat PSX One Product Data and MSDS Sheets

PSX® ONE

DESCRIPTION

High Solids, Single Pack Acrylic Polysiloxane

PRINCIPAL CHARACTERISTICS

- High gloss topcoat
- High solids, low VOC
- Ease of application, brush, roll, or spray
- Isocyanate free
- Excellent gloss retention
- Meets SSPC Paint 36 Level 3

COLOR AND GLOSS LEVEL

- Standard Color Offering, Safety Colors, Custom Colors
- Gloss

Note: Certain colors, especially red, orange, and yellow may require additional coats for adequate hiding, especially if applied over primers with a significant color contrast

BASIC DATA AT 68°F (20°C)

| Data for product | |
|---------------------------------------|---|
| Number of components | One |
| Volume solids | 75 ± 2% |
| VOC (Supplied) | max. 1.8 lb/US gal (approx. 210 g/l) |
| Temperature resistance (Continuous) | To 200°F (93°C) |
| Temperature resistance (Intermittent) | To 250°F (121°C) |
| Recommended dry film thickness | 2.0 - 3.0 mils (50 - 75 µm) depending on system |
| Theoretical spreading rate | 401 ft²/US gal for 3.0 mils (10.0 m²/l for 75 µm) |
| Shelf life | At least 12 months when stored cool and dry |

Notes:

- Intermittent temperature resistance should be less than 5% of the time, and maximum 24 hours
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

PSX® ONE

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is proportional to the degree of surface preparation. Refer to the application instructions for specific primers and intermediate coats for application and curing procedures. Ensure epoxies are free from amine blush prior to overcoating. All previous coats must be dry and free of contaminants. Adhere to all minimum and maximum topcoat times for specific primers and intermediate coats. Aged coatings require abrading prior to applying the product. A test patch over unknown coatings is recommended.

Atmospheric exposure conditions

- Ambient temperature should be between 40 °F (5 °C) and 120 °F (49 °C)
- Relative Humidity should be between 20% and 90%

Substrate temperature

- Substrate temperature during application should be between 40°F (4°C) and 120°F (49°C)
- Substrate temperature during application should be at least 5°F (3°C) above dew point

SYSTEM SPECIFICATION

- Primers: Amercoat One, Amercoat 185H, Amercoat 370, Amercoat 385, Amercoat 399, Amerlock 2/400

INSTRUCTIONS FOR USE

- Agitate with a power mixer for 1 – 2 minutes until completely dispersed. Ensure good off-bottom mixing
- If partial containers are to be used, return the lid to the container immediately after the required amount is poured off. Float a few drops of thinner to cover the top surface of the paint and re-seal the lid prior to storage. Avoid exposing the open container to rain or other direct sources of water. Handling the product in this manner will typically allow for shelf stability of 3-6 months after opening.

Application

- Area should be sheltered from airborne particulates and pollutants
- Ensure good ventilation during application and curing
- Provide shelter to prevent wind from affecting spray patterns

Material temperature

Material temperature during application should be between 50°F (10°C) and 90°F (32°C)

PSX® ONE

Air spray

- A moisture and oil trap in the main line is essential. Product is sensitive to moisture contamination

Recommended thinner

THINNER 60-12 (AMERCOAT 911)

Volume of thinner

0 - 20%

Nozzle orifice

Approx. 0.070 in (1.8 mm)

Airless spray

- 30:1 pump or larger

Recommended thinner

THINNER 60-12 (AMERCOAT 911)

Nozzle orifice

0.013 – 0.015 in (approx. 0.33 – 0.38 mm)

Brush/roller

- Use a high quality natural bristle brush and/or solvent resistant, 1/4" or 3/8" nap roller. Ensure brush/roller is well loaded to avoid air entrainment. Multiple coats may be necessary to achieve adequate film-build
- AMERCOAT 851 flow control additive can be used to for enhanced flow and leveling with brush and roll application

Recommended thinner

AMERCOAT 911

Cleaning solvent

AMERCOAT 12 Cleaner or AMERCOAT 911 thinner

ADDITIONAL DATA

| Overcoating interval for DFT up to 2.0 mils (51 µm) | | | | |
|--|----------|-------------|-------------|-------------|
| Overcoating with... | Interval | 50°F (10°C) | 70°F (21°C) | 90°F (32°C) |
| itself | Minimum | 5 hours | 2 hours | 1 hour |
| | Maximum | Unlimited | Unlimited | Unlimited |

PSX® ONE

| Curing time for DFT up to 2.0 mils (51 µm) | | |
|---|--------------|-----------|
| Substrate temperature | Dry to touch | Full cure |
| 50°F (10°C) | 3 hours | 16 hours |
| 70°F (21°C) | 2 hours | 9 hours |
| 90°F (32°C) | 1 hour | 5 hours |

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES

| | | |
|--|-------------------|------|
| • CONVERSION TABLES | INFORMATION SHEET | 1410 |
| • EXPLANATION TO PRODUCT DATA SHEETS | INFORMATION SHEET | 1411 |
| • SAFETY INDICATIONS | INFORMATION SHEET | 1430 |
| • SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD | INFORMATION SHEET | 1431 |

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, at its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgpmc.com. The English text of this sheet shall prevail over any translation thereof.



**PPG Protective &
Marine Coatings**

Bringing innovation to the surface.™

PSX® ONE

Packaging: Available in 1 and 5 gallon containers

| Product code | Description |
|--------------|--------------------------------|
| PXONE3 | White Base |
| PXONET2 | Light Tint Base * |
| PXONET3 | Neutral Tint Base * |
| PXONET4 | Red Tint Base * |
| PXONET5 | High Hiding Yellow Tint Base * |

Note: * Tintable with UCD PS line tints only

The PPG Logo, Bringing Innovation to the Surface, and all other trademarks herein are property of the PPG group of companies.

SAFETY DATA SHEET



Date of issue/Date of revision 13 June 2020

Version 5

Section 1. Identification

Product name : PSX ONE
Product code : 336198.01
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications, Used by spraying.
Use of the substance/ mixture : Coating.
Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : 888-977-4762

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

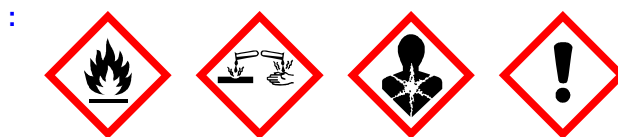
Classification of the substance or mixture : **FLAMMABLE LIQUIDS** - Category 2
SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 42.3% (Oral), 43.4% (Dermal), 43.7% (Inhalation)
This product contains TiO₂ which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO₂ is utilized as a raw material in a liquid coating formulation. In this case, the TiO₂ particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO₂ when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or

Section 2. Hazards identification

engineering controls (see Section 8).

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: ☒ Highly flammable liquid and vapor.
 Causes skin irritation.
 May cause an allergic skin reaction.
 Causes serious eye damage.
 Suspected of causing cancer.
 May cause damage to organs through prolonged or repeated exposure. (hearing organs)

Precautionary statements

Prevention

: ☒ Obtain special instructions before use. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Do not breathe vapor. Wash thoroughly after handling.

Response

: ☒ Immediately call a POISON CENTER or doctor. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

: ☒ Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Do not taste or swallow. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: PSX ONE

Section 3. Composition/information on ingredients

| Ingredient name | % | CAS number |
|---|--------------|-------------|
| Titanium dioxide | ≥20 - ≤50 | 13463-67-7 |
| xylene | ≥5.0 - ≤8.2 | 1330-20-7 |
| trimethoxy(methyl)silane | ≥1.0 - ≤5.0 | 1185-55-3 |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | ≥1.0 - ≤3.6 | 2530-83-8 |
| ethylbenzene | ≥1.0 - ≤4.0 | 100-41-4 |
| trimethoxyvinylsilane | ≥0.10 - ≤2.2 | 2768-02-7 |
| Proprietary silane | ≤2.0 | Proprietary |
| triethoxyoctylsilane | ≥1.0 - ≤5.0 | 2943-75-1 |
| 2-ethylaminoethanol | ≤1.5 | 110-73-6 |
| α-[3-[3-(2H-benzotriazol-2-yl) derivatives | ≥0.10 - ≤2.4 | 104810-48-2 |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | ≥0.10 - ≤2.1 | 41556-26-7 |

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
metal oxide/oxides
Formaldehyde.

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Section 7. Handling and storage

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|--|---|
| titanium dioxide | OSHA PEL (United States, 5/2018). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 3/2019). |
| xylene | ACGIH TLV (United States, 3/2019). TWA: 10 mg/m ³ 8 hours. STEL: 651 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. |
| trimethoxy(methyl)silane [3-(2,3-epoxypropoxy)propyl]trimethoxysilane ethylbenzene | None. None. ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. |
| trimethoxyvinylsilane | None. |
| Proprietary silane | None. |
| triethoxyoctylsilane | None. |
| 2-ethylaminoethanol | None. |
| α-[3-[3-(2H-benzotriazol-2-yl) derivatives | None. |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | None. |

Key to abbreviations

A = Acceptable Maximum Peak
ACGIH = American Conference of Governmental Industrial Hygienists.
C = Ceiling Limit
F = Fume
IPEL = Internal Permissible Exposure Limit

S = Potential skin absorption
SR = Respiratory sensitization
SS = Skin sensitization
STEL = Short term Exposure limit values
TD = Total dust

Section 8. Exposure controls/personal protection

OSHA = Occupational Safety and Health Administration.

TLV = Threshold Limit Value

R = Respirable

TWA = Time Weighted Average

Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles and face shield.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves : butyl rubber

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.
Color : White.
Odor : Characteristic.
Odor threshold : Not available.
pH : Not available.
Melting point : Not available.
Boiling point : >37.78°C (>100°F)
Flash point : Closed cup: 18.89°C (66°F)
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
Flammability (solid, gas) : Not available.
Lower and upper explosive (flammable) limits : Not available.
Evaporation rate : Not available.
Vapor pressure : Not available.
Vapor density : Not available.
Relative density : 1.31
Density (lbs / gal) : 10.93
Solubility : Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water : Not available.
Viscosity : Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
Volatility : 22% (v/v), 14.809% (w/w)
% Solid. (w/w) : 85.191

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Section 10. Stability and reactivity

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---------------------------------|---------|--------------------------|----------|
| titanium dioxide | LC50 Inhalation Dusts and mists | Rat | >6.82 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| | LD50 Oral | Rat | 4.3 g/kg | - |
| trimethoxy(methyl)silane | LC50 Inhalation Vapor | Rat | >42.1 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >9500 mg/kg | - |
| | LD50 Oral | Rat | 11685 mg/kg | - |
| [3-(2,3-epoxypropoxy)propyl] trimethoxysilane | LC50 Inhalation Dusts and mists | Rat | >5300 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | 4.3 g/kg | - |
| ethylbenzene | LD50 Oral | Rat | 7.01 g/kg | - |
| | LC50 Inhalation Vapor | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| trimethoxyvinylsilane | LD50 Oral | Rat | 3.5 g/kg | - |
| | LC50 Inhalation Vapor | Rat | >16790 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | >3.4 g/kg | - |
| Proprietary silane | LD50 Oral | Rat | >7.3 g/kg | - |
| | LC50 Inhalation Dusts and mists | Rat | >7.35 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 4 g/kg | - |
| 2-ethylaminoethanol | LD50 Oral | Rat | 1.57 g/kg | - |
| | LD50 Dermal | Rabbit | 0.36 g/kg | - |
| | LD50 Oral | Rat | 1 g/kg | - |
| α-[3-[3-(2H-benzotriazol-2-yl) derivatives | LC50 Inhalation Vapor | Rat | 5800 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 3.125 g/kg | - |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | LD50 Oral | Rat | 3.125 g/kg | - |

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|---------|-------|-----------------|-------------|
| xylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| [3-(2,3-epoxypropoxy)propyl] trimethoxysilane | Eyes - Cornea opacity | Rabbit | 11.8 | 1 minutes | 24 hours |

Conclusion/Summary

Skin

: There are no data available on the mixture itself.

Section 11. Toxicological information

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

| Product/ingredient name | Route of exposure | Species | Result |
|--------------------------|-------------------|------------|-------------|
| trimethoxy(methyl)silane | skin | Guinea pig | Sensitizing |
| Proprietary silane | skin | Guinea pig | Sensitizing |

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Titanium dioxide | - | 2B | - |
| xylene | - | 3 | - |
| ethylbenzene | - | 2B | - |

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|--------|------------|-------------------|------------------------------|
| xylene | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|--------------|------------|-------------------|----------------|
| ethylbenzene | Category 2 | - | hearing organs |

Target organs

: Contains material which causes damage to the following organs: brain, upper respiratory tract, skin.

Contains material which may cause damage to the following organs: kidneys, lungs, the nervous system, liver, bladder, gastrointestinal tract, central nervous system (CNS), ears, eye, lens or cornea, thyroid.

Section 11. Toxicological information

Aspiration hazard

| Name | Result |
|--------------|--------------------------------|
| xylene | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure

Potential acute health effects

- Eye contact** : Causes serious eye damage.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion : Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
 pain
 watering
 redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 pain or irritation
 redness
 dryness
 cracking
 blistering may occur
Ingestion : Adverse symptoms may include the following:
 stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

- Conclusion/Summary** : There are no data available on the mixture itself. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. This product contains TiO₂ which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO₂ is utilized as a raw material in a liquid coating formulation. In this case, the TiO₂ particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO₂ when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and

Section 11. Toxicological information

dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| PSX ONE | 10113.6 | 5270.7 | N/A | 44.3 | 6.4 |
| xylene | 4300 | 1700 | N/A | 11 | 1.5 |
| trimethoxy(methyl)silane | 11685 | N/A | N/A | N/A | N/A |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 7010 | 4300 | N/A | N/A | N/A |
| ethylbenzene | 3500 | 17800 | N/A | 17.8 | 1.5 |
| trimethoxyvinylsilane | N/A | 2500 | N/A | 11 | 1.5 |
| Proprietary silane | 1570 | 4000 | N/A | N/A | N/A |
| 2-ethylaminoethanol | 1000 | 360 | N/A | N/A | N/A |
| α-[3-[3-(2H-benzotriazol-2-yl) derivatives | N/A | N/A | N/A | 5.8 | N/A |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | 3125 | N/A | N/A | N/A | N/A |

Section 12. Ecological information

Toxicity

Section 12. Ecological information

| Product/ingredient name | Result | Species | Exposure |
|--|--|-------------------------|----------|
| Titanium dioxide trimethoxy(methyl)silane [3-(2,3-epoxypropoxy)propyl] trimethoxysilane ethylbenzene Proprietary silane | Acute LC50 >100 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 >110 mg/l | Fish | 96 hours |
| | Acute LC50 324 mg/l | Daphnia | 48 hours |
| | Acute LC50 150 to 200 mg/l Fresh water | Fish | 96 hours |
| | Acute LC50 >934 mg/l | Fish | 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| xylene | - | - | Readily |
| ethylbenzene | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| xylene | 3.16 | 7.4 to 18.5 | low |
| ethylbenzene | 3.15 | 79.43 | low |
| Proprietary silane | 1.7 | 3.4 | low |

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

| | | |
|-------------------------------|-----------------------------------|------------------|
| Product code 336198.01 | Date of issue 13 June 2020 | Version 5 |
| Product name PSX ONE | | |

14. Transport information

| | DOT | IMDG | IATA |
|------------------------------------|------------------------|-----------------|-----------------|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT |
| Transport hazard class (es) | 3 | 3 | 3 |
| Packing group | II | II | II |
| Environmental hazards | No. | No. | No. |
| Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. |
| Product RQ (lbs) | 1279.9 | Not applicable. | Not applicable. |
| RQ substances | (xylene, ethylbenzene) | Not applicable. | Not applicable. |

Additional information

- DOT** : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
- IMDG** : None identified.
- IATA** : None identified.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : ☒ All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : ☒ FLAMMABLE LIQUIDS - Category 2
 SKIN IRRITATION - Category 2
 SERIOUS EYE DAMAGE - Category 1
 SKIN SENSITIZATION - Category 1
 CARCINOGENICITY - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 HNOC - Defatting irritant
 HNOC - Corrosive to digestive tract

Section 15. Regulatory information

Composition/information on ingredients

| Name | % | Classification |
|---|--------------|---|
| titanium dioxide | ≥20 - ≤50 | CARCINOGENICITY - Category 2 |
| xylene | ≥5.0 - ≤8.2 | FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1 |
| trimethoxy(methyl)silane | ≥1.0 - ≤5.0 | FLAMMABLE LIQUIDS - Category 2 SKIN SENSITIZATION - Category 1B |
| [3-(2,3-epoxypropoxy)propyl] trimethoxysilane | ≥1.0 - ≤3.6 | SERIOUS EYE DAMAGE - Category 1 |
| ethylbenzene | ≥1.0 - ≤4.0 | FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant |
| trimethoxyvinylsilane | ≥0.10 - ≤2.2 | FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A |
| Proprietary silane | Proprietary | FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B HNOC - Corrosive to digestive tract |
| triethoxyoctylsilane | ≥1.0 - ≤5.0 | SKIN IRRITATION - Category 2 |
| 2-ethylaminoethanol | ≤1.5 | ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 3 SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1 |
| α-[3-[3-(2H-benzotriazol-2-yl) derivatives | ≥0.10 - ≤2.4 | ACUTE TOXICITY (inhalation) - Category 3 SKIN SENSITIZATION - Category 1B |
| bis(1,2,2,6,6-pentamethyl- 4-piperidyl) sebacate | ≥0.10 - ≤2.1 | SKIN SENSITIZATION - Category 1B |

SARA 313

| Supplier notification | Chemical name | CAS number | Concentration |
|-----------------------|---------------|------------|---------------|
| | xylene | 1330-20-7 | 5 - 10 |
| | ethylbenzene | 100-41-4 | 1 - 5 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

Product code 336198.01

Date of issue 13 June 2020

Version 5

Product name PSX ONE

Section 15. Regulatory information

California Prop. 65

 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability** : 3 **Physical hazards** : 1

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3 **Flammability** : 3 **Instability** : 1

Date of previous issue : 2/19/2020

Organization that prepared the MSDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

 Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.



13


OVS Ped Bridge Color Verification Dot Cards

COLOR VERIFICATION DOT CARD




Customer Name: Leo Saul Berk Date: _____

Job#/Name: _____ PT#: _____

| | | | | | | |
|--|----|----|----|----|----|----|
| Original Color Sample  | 1 | 2 | 3 | 4 | 5 | 6 |
| | 7 | 8 | 9 | 10 | 11 | 12 |
| | 13 | 14 | 15 | 16 | 17 | 18 |


Color Name/Number: _____ Area: _____

Product Number: _____ Batch Code: _____

| | | | | | | |
|---|----|----|----|----|----|----|
| Original Color Sample  | 1 | 2 | 3 | 4 | 5 | 6 |
| | 7 | 8 | 9 | 10 | 11 | 12 |
| | 13 | 14 | 15 | 16 | 17 | 18 |

Color Name/Number: _____ Area: _____

Product Number: _____ Batch Code: _____

| | | | | | | |
|--|----|----|----|----|----|----|
| Original Color Sample  | 1 | 2 | 3 | 4 | 5 | 6 |
| | 7 | 8 | 9 | 10 | 11 | 12 |
| | 13 | 14 | 15 | 16 | 17 | 18 |

Color Name/Number: _____ Area: _____

Product Number: _____ Batch Code: _____

Formula Sticker

9991 - AUBURN WA

(253)804-4350

Product: PXONET3/01

Invoice : 999103030921041316 03/09/202

Employee: 262923 10:30 AM

Color Name: Vertigo Green

Color #: 999102000000384

Version: 0

Customer: LEO SAUL BERK

BPX-1

GPX-9

NYX-20

WTX-12Y+43

YBX-2Y+23

F

9991 - AUBURN WA

(253)804-4350

Product: PXONET5/01

Invoice : 999103030921041316 03/09/202

Employee: 262923 10:30 AM

Color Name: Funky Frog

Color #: PPG1221-7

Version: 0

Customer: LEO SAUL BERK

BLX-4

GPX-1Y+36

NYX-1Y+22

WTX-3Y+8

YBX-2Y+36

Fc

9991 - AUBURN WA

(253)804-4350

Product: PXONET3/01

Invoice : 999103030921041316 03/09/202

Employee: 262923 10:30 AM

Color Name: Pine Forest

Color #: 999102000000373

Version: 0

Customer: LEO SAUL BERK

BLX-2Y+39

GPX-6Y+40+1/2

NYX-4Y+30

WTX-1Y+12

YBX-9

USE ONE SIDE ONLY

Employee Signature: _____

Customer Initials: _____


COLOR VERIFICATION DOT CARD




Customer Name: Leo Saul Berk Date: _____
 Job#/Name: _____ PT#: _____

| | | | | | | |
|---|----|----|----|----|----|----|
| Original Color Sample  | 1 | 2 | 3 | 4 | 5 | 6 |
| | 7 | 8 | 9 | 10 | 11 | 12 |
| | 13 | 14 | 15 | 16 | 17 | 18 |

Color Name/Number: _____ Area: _____
 Product Number: _____ Batch Code: _____

| | | | | | | |
|--|----|----|----|----|----|----|
| Original Color Sample  | 1 | 2 | 3 | 4 | 5 | 6 |
| | 7 | 8 | 9 | 10 | 11 | 12 |
| | 13 | 14 | 15 | 16 | 17 | 18 |

Color Name/Number: _____ Area: _____
 Product Number: _____ Batch Code: _____

| | | | | | | |
|--|----|----|----|----|----|----|
| Original Color Sample  | 1 | 2 | 3 | 4 | 5 | 6 |
| | 7 | 8 | 9 | 10 | 11 | 12 |
| | 13 | 14 | 15 | 16 | 17 | 18 |

Color Name/Number: _____ Area: _____
 Product Number: _____ Batch Code: _____

For _____
9991 - AUBURN WA
 (253)804-4350
Product: PXONET2/01
Invoice : 999103030921041316 03/09/202
Employee: 262923 10:30 AM
Color Name: Honeydew Melon
Color #: Final Version
Version: 0
Customer: LEO SAUL BERK
 BGX-1+1/2
 GPX-1/2
 NYX-4
 YBX-5

For _____
9991 - AUBURN WA
 (253)804-4350
Product: PXONET3/01
Invoice : 999103030921041316 03/09/202
Employee: 262923 10:30 AM
Color Name: Antique Green
Color #: PPG1223-7
Version: 0
Customer: LEO SAUL BERK
 BLX-32
 GPX-1Y+16
 OOX-8
 WTX-20
 YBX-4Y+20
 YOX-40

For _____
9991 - AUBURN WA
 (253)804-4350
Product: PXONET3/01
Invoice : 999103030921041316 03/09/202
Employee: 262923 10:30 AM
Color Name: ST Blue #5
Color #: AUB19-121
Version: 0
Customer: LEO SAUL BERK
 BLX-37+1/2
 BPX-4Y+16
 RQX-1Y+10
 WTX-6
 YOX-1Y+9+1/2

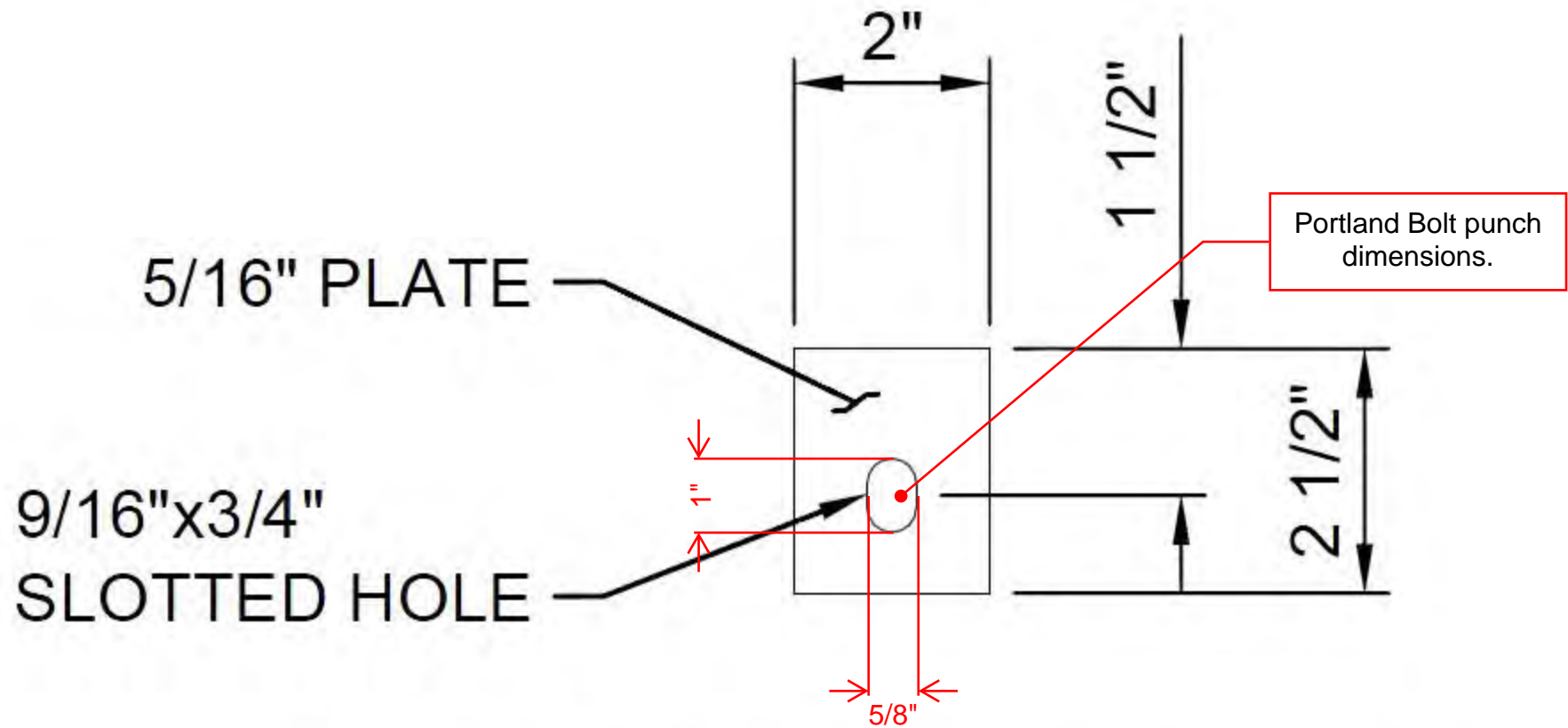
USE ONE SIDE ONLY

Employee Signature: _____
 Customer Initials: _____



14

OVS Ped Bridge Custom Plate Washer



WASHER PLATE DETAIL

SCALE: 3" = 1'-0"