



www.adatale.com
800.372.0519

**CAST-IN-PLACE
REPLACEABLE**
Product Submittal

Wherever you go...
There we are®



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Detectable Warning Surface products by ADA Solutions meet the following requirements:

- American Barriers Act (ABA) Accessibility Standards
- ADA Accessibility Guidelines (ADAAG)
- Department of Transportation ADA Standards for Transportation Facilities (2006)
- Department of Justice ADA Standards (2010)
- Public Rights-of-Way Accessibility Guidelines (PROWAG)
- California Building Standards Code, Title 24, California Code of Regulations
- Texas Accessibility Standards (TAS) 2012
- AASHTO M 333 Standard Specification for Detectable Warning Surfaces
- International Code Council (ICC) A117.1 Accessible and Usable Buildings and Facilities

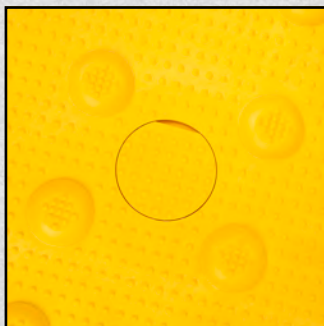


Cast-In-Place Replaceable	Item ID	Dome Spacing	Part Wgt (lb)	Pcs/Box	Box Wgt	Pcs/Pallet	Pallet Wgt
1'x1'	1212REP	2.40" x 2.40"	2.25	-	-	-	-
2'x2'	2424REP	2.40" x 2.40"	11	44	550	132	1,520
2'x3'	2436REP	2.40" x 2.28"	16	32	550	96	1,600
2'x4'	2448REP	2.40" x 2.40"	19.5	25	550	75	1,525
2'x5'	2460REP	2.40" x 2.40"	24.5	25	700	75	2,000
3'x4'	3648REP	2.40" x 2.40"	30	15	575	28	900
3'x5'	3660REP	2.40" x 2.40"	42	15	725	28	1,300
Radius 2' x 2.7'	24RADREP	2.40" x Radial	12.5	32	475	96	1,260

STANDARD COLOR OPTIONS

ADA's lineup of superior quality, heavy-duty fiberglass polymer composite detectable warning surface tiles are UV stable with homogeneous color throughout the entire panel.

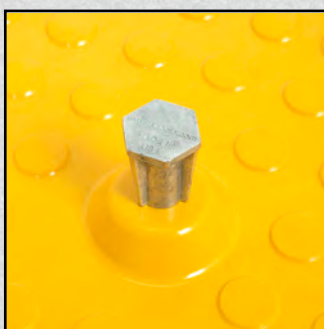
Fully Replaceable



**Removeable
Anchor Cover
Cap**



**Accessible
Anchor Bolts**



**Zinc Alloy
Concrete
Anchors**

WHITE
27925

BRICK
RED
20109

YELLOW
33538

BLUE
15187

SAFETY
RED
31350

SEATTLE
YELLOW
23594

BLACK
37038

DARK
GRAY
36118

CLAY
RED
22144

CAST-IN-PLACE REPLACEABLE

Cast-In-Place Replaceable Detectable Warning Surface Panels are designed to allow for removal and replacement of panels cast into the cured concrete. Fully ADA-compliant, CIP Replaceable panels are manufactured with high-grade homogeneous glass and carbon-reinforced polyester-based composite material.

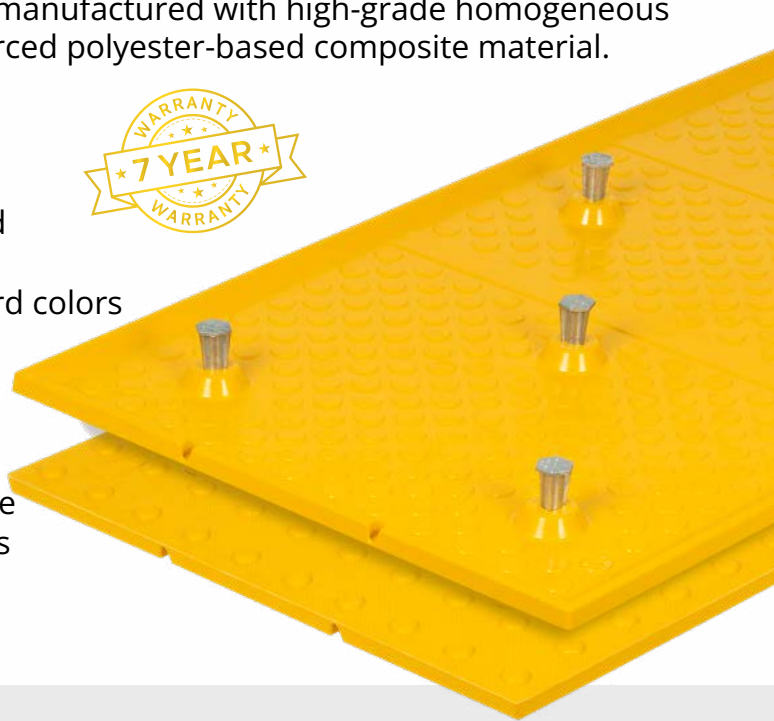
- Wet-set installation with ability to be removed and replaced



- Available in all standard colors

- Wide selection of panel sizes

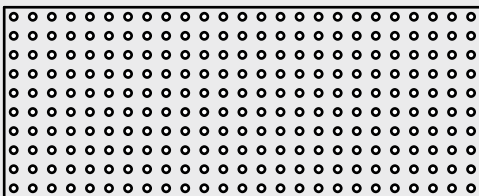
- Radius panels available for curved installations



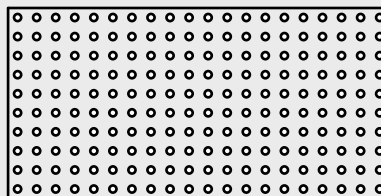
Replaceable panels can be removed by gaining access to anchor bolt. Simply remove matching color cover caps and bolts. Original panel can be removed from cured concrete bed and replaced with new panel.

PANEL SIZES

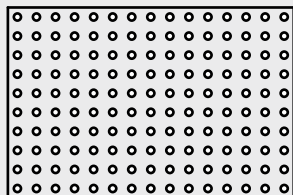
24" x 60"



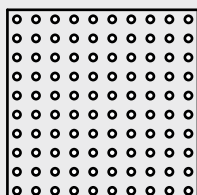
24" x 48"



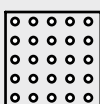
24" x 36"



24" x 24"



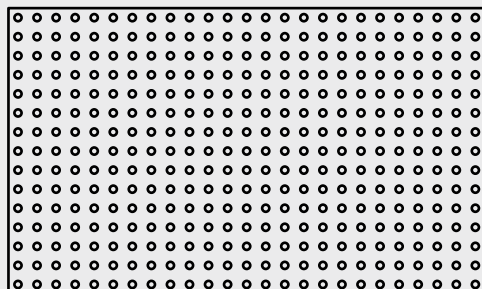
12" x 12"



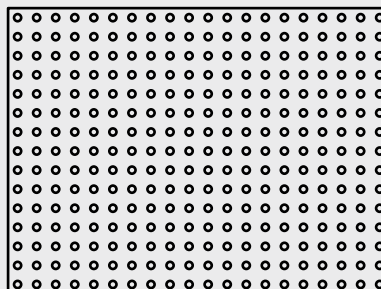
24" width meets minimum ADA requirements

36" width meets minimum California Building Code requirements

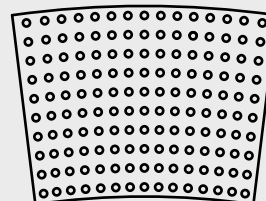
36" x 60"



36" x 48"



24" x 33"



Radius

Radius Replaceable panels are the best option for rounded corner curb ramp (blended transitions) and can be field mitered to fit between 8' and 20' radius.

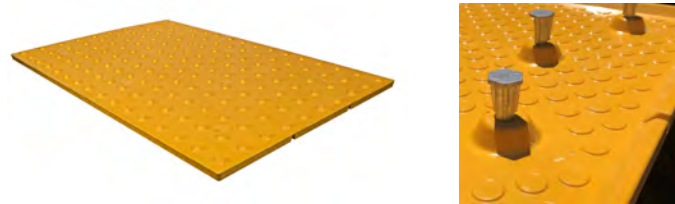


PRODUCT DATA SHEET:

SECTION 32 17 26 – TACTILE WARNING SURFACING
DETECTABLE WARNING SURFACE PANELS
CAST-IN-PLACE REPLACEABLE

Manufacturer:

ADA Solutions, a Division of SureWerx USA Inc.
323 Andover Street, Suite 3
Wilmington, MA 01887
Phone: 800-372-0519
Fax: 978-262-9125
Web: adatile.com



Description: Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) with an in-line truncated dome pattern embedded in concrete at pedestrian crossings, boarding platforms, and rail crossing locations.

Compliance: CIP REP Panels are compliant with the following guidelines and requirements:

- American Barriers Act (ABA) Accessibility Standards
- ADA Accessibility Guidelines (ADAAG)
- Department of Transportation ADA Standards for Transportation Facilities (2006)
- Department of Justice ADA Standards (2010)
- Public Rights-of-Way Accessibility Guidelines (PROWAG)
- California Building Standards Code, Title 24, California Code of Regulations
- Texas Accessibility Standards (TAS) 2012
- AASHTO M 333 Standard Specification for Detectable Warning Surfaces
- International Code Council (ICC) A117.1 Accessible and Usable Buildings and Facilities

Material: CIP REP Panels are manufactured using a matte finish exterior grade homogeneous (uniform color throughout thickness of product) glass and carbon reinforced polyester-based sheet molding compound (SMC) composite material.

Warranty: Guaranteed in writing for a period of seven (7) years from date of Contract's final completion. The guarantee includes manufacturing defects, breakage, and deformation.

Panel Sizes:

24" x 24" (609.6 x 609.6 mm)
24" x 36" (609.6 x 914.4 mm)
24" x 48" (609.6 x 1219.2 mm)
24" x 60" (609.6 x 1524.0 mm)
36" x 48" (914.4 x 1219.2 mm)
36" x 60" (914.4 x 1524.0 mm)

Radius Panels

24" x 33.25" (609.6 x 844.5 mm)

*Radius options between 6 ft (1.82 m) and 21 ft (6.40 m)

Colors: Color shall be single, homogeneous color throughout panel

- Federal Yellow FS No. 33538
- Brick Red FS No. 20109
- Clay Red FS No. 22144
- Safety Red FS No. 31350
- Black FS No. 37038
- Dark Gray FS No. 36118
- Safety Blue FS No. 15187
- White FS No 27925
- Seattle Yellow FS No 23594

Domes: Raised truncated domes of 0.2" (5.0 mm) nominal height, base diameter of 0.9" (22.8 mm) and top diameter of 0.45" (11.4 mm).

Dome Spacing: Standard rectangular panels have 2.35" (59.6 mm) or 2.4" (60.9 mm) dome spacing in square grid pattern. Radius panels have 1.67" to 2.4" (40.6-60.9 mm) dome spacing in radial pattern. ADA Standards and Public Rights-of-Way Accessibility Guidelines require truncated dome spacing range of 1.6"-2.4" (40.6-60.9 mm).

Anchoring: Panels shall feature a minimum of eight (8) corrosion resistant zinc alloy concrete anchor inserts minimum 1.5" (38.1mm) long with 0.5" (12.7 mm) x 1.5" (38.1 mm) long corrosion resistance bolts. Anchor bolt locations are covered with structural water-tight caps.

Installation: CIP REP panels are wet set into a minimum 2 ½" (63.5 mm) depth of concrete (4"-7" slump). Panels are pressed into the wet concrete and tamped or vibrated to ensure that there are no voids or air pockets. Field level of the panel is to be flush to the adjacent concrete surface.

PRODUCT DATA SHEET:

SECTION 32 17 26 – TACTILE WARNING SURFACING DETECTABLE WARNING SURFACE PANELS CAST-IN-PLACE REPLACEABLE

Replacement: CIP REP panels may be replaced by removing the bolts and inserting a new panel it into the existing formed cavity. The original inserts remain in place.

Cutting: Cutting and Setting of CIP REP panels shall be cut into size using a 60-tooth carbide blade on a table saw or equivalent cutting device.

Product Testing and Physical Properties:

Standard	Standard Description	Value
ASTM D695	Compressive Strength	28,900 psi minimum
ASTM D790	Flexural Strength	29,300 psi minimum
ASTM D 638	Tensile Strength	11,600 psi minimum
ASTM C 1028	Standard Test Method for Determining the Static Coefficient of Friction (Slip Resistance)	1.18 Dry / 1.05 Wet
AS HB198:2014 (AS/NZS 4586)	Pendulum Sustainable Slip Resistance (SSR)	Pendulum Test Value (PTV), with Four S (96) hard rubber slider: 56 Dry / 44 Wet; After 500 cycles of abrasion: 34 Wet
ASTM C501	Abrasion Resistance	Minimum 500
FM 5-594	Abrasion Resistance, Florida Method	Average Volume Loss: no more than 0.03 cm ³
NTPEP TP103 (2015)	High Temperature Thermal Cycling Exposure, (Sect 14) and Resistance to Impact from Falling Tup (Sect 10)	Min. 60 thermal cycles at 200°F (93.33°C) = maximum damage classification of 'C' at 20 ft-lb impact
ASTM G155	Accelerated Weathering	$\Delta E < 5.0$ at 2,000 hours min.
ASTM D570	Water Absorption	0.07%
ASTM C1026	Freeze/Thaw/Heat	No deterioration
ASTM D1037	Freeze/Thaw	No deterioration
ASTM D543	Chemical Stain Resistance	No reaction
ASTM D1308	Chemical Stain Resistance	No reaction
ASTM-B117	Salt and Spray	No change after 200 hours
ASTM E84	Flame Spread Index	20
AASHTO H20	Load Bearing Test	No Damage at 16,000 lbs.

SECTION 32 17 26 – TACTILE WARNING SURFACING

DETECTABLE WARNING SURFACE PANELS CAST-IN-PLACE REPLACEABLE

SECTION 1 – GENERAL

1.1 DESCRIPTION

- A. This Section includes Specifications for furnishing and installing embedded Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) with an in-line truncated dome pattern embedded in concrete at pedestrian crossings, boarding platforms, and rail crossing locations to the dimensions shown on the Drawings, in accordance with the Contract Documents and as directed by the Engineer.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Special Conditions and Division 1 Specifications Section, apply to this Section.
- B. Department of Justice ADA Standards (2010)
- C. Department of Transportation ADA Standards for Transportation Facilities (2006)
- D. Proposed Guidelines for Accessible Public Rights-of-Way (2011)
- E. California Title 24
- F. ISO 23599:2019-01 – Assistive products for blind and vision-impaired persons — Tactile walking surface indicators
- G. ISO 21542:2011 – Building Construction – Accessibility and Usability of the Built Environment
- H. ISO 9001 – Certificate No. 0502011, ISO 1409 and ISO/B 16949 Certified Manufacturing Facility located in Jefferson, Ohio
- I. Accessibility for Ontarians with Disabilities Act - (AODA)
- J. Canadian Standards Association – (CSA)

1.3 SUBMITTALS

- A. Product Data Sheet: Submit ADA Solutions literature describing products, installation procedures and routine maintenance.
- B. Samples for Verification Purposes: Submit two (2) detectable warning surface panel samples. Samples shall be properly labeled and shall contain the following information: Name of Project, Submitted By, Date of Submittal, and Manufacturer's Name.

- C. Shop Drawings: Submit the Standard Manufacturer Shop Drawings showing all pertinent characteristics of the Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) including profile, panel surface profile, plans of panel placement including joints, and material to be used as well as outlining installation materials and procedures.
- D. Material Test Reports: Submit all completed current test results from qualified, accredited independent testing laboratories by ASTM and UL/Canada guidelines and indicating that materials proposed for use follow specification requirements and meet or exceed the properties indicated on these specifications.
- E. Maintenance Instructions: Submit copies of the manufacturer's specified installation and maintenance practices for each type of Detectable Warning Surface panels and accessories as required.

1.4 QUALITY ASSURANCE

- A. Provide Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) and accessories as produced by a single manufacturer with a minimum of five years of experience in manufacturing Cast-In-Place Replaceable Detectable Warning Surface Panels.
- B. Installer's Qualifications: Engage an experienced installer certified in writing by Cast-In-Place Replaceable Detectable Warning Surface Panel (CIP REP) manufacturer as qualified for installation, who has completed installations similar in material, design, and extent to that indicated for the Contract.
- C. Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) must be compliant with the following guidelines and requirements (applicability may be dependent on project location):
 - 1. American Barriers Act (ABA) Accessibility Standards
 - 2. ADA Accessibility Guidelines (ADAAG)
 - 3. Department of Transportation ADA Standards for Transportation Facilities (2006)
 - 4. Department of Justice ADA Standards (2010)
 - 5. Public Rights-of-Way Accessibility Guidelines (PROWAG)
 - 6. California Building Standards Code, Title 24, California Code of Regulations
 - 7. Texas Accessibility Standards (TAS) 2012
 - 8. AASHTO M 333 Standard Specification for Detectable Warning Surfaces
 - 9. International Code Council (ICC) A117.1 Accessible and Usable Buildings and Facilities
- D. Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) shall meet or exceed the following test criteria using the most current test methods:

Standard	Standard Description	Value
ASTM D695	Compressive Strength	28,900 psi minimum
ASTM D790	Flexural Strength	29,300 psi minimum
ASTM D 638	Tensile Strength	11,600 psi minimum
ASTM C 1028	Standard Test Method for Determining the Static Coefficient of Friction (Slip Resistance)	1.18 Dry / 1.05 Wet
AS HB198:2014 (AS/NZS 4586)	Pendulum Sustainable Slip Resistance (SSR)	Pendulum Test Value (PTV), with Four S (96) hard rubber slider: 56 Dry / 44 Wet; After 500 cycles of abrasion: 34 Wet
ASTM C501	Abrasion Resistance	Minimum 500
FM 5-594	Abrasion Resistance, Florida Method	Average Volume Loss: no more than 0.03 cm ³

NTPEP TP103 (2015)	High Temperature Thermal Cycling Exposure, (Sect 14) and Resistance to Impact from Falling Tup (Sect 10)	Min. 60 thermal cycles at 200°F (93.33°C) = maximum damage classification of 'C' at 20 ft-lb impact
ASTM G155	Accelerated Weathering	$\Delta E < 5.0$ at 2,000 hours min.
ASTM D570	Water Absorption	0.07%
ASTM C1026	Freeze/Thaw/Heat	No deterioration
ASTM D1037	Freeze/Thaw	No deterioration
ASTM D543	Chemical Stain Resistance	No reaction
ASTM D1308	Chemical Stain Resistance	No reaction
ASTM-B117	Salt and Spray	No change after 200 hours
ASTM E84	Flame Spread Index	20
AASHTO H20	Load Bearing Test	No Damage at 16,000 lbs.

E. Stamped concrete, polymer concrete, concrete pavers/tile, or brick products are not acceptable for use on this project.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) shall be suitably packaged or crated to prevent damage in shipment and handling. Finished surfaces shall be protected by sturdy plastic wrappings to protect the panel from concrete residue during installation.
- B. Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) shall be delivered to a location at the building site for storage before installation. Store panels in an area that is within an acceptable temperature range 40°F - 90°F (4°C - 32°C) and maintain the storage facility in a clean, dry condition to prevent contamination or damage to the panels.

1.6 SITE CONDITIONS

- A. Environmental Conditions and Protection: Maintain a minimum temperature of 40°F (4°C) in spaces to receive Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) for at least 24 hours before installation, during installation, and for not less than 24 hours after installation.
- B. The use of water for work, cleaning, or dust control, etc. shall be contained and controlled and shall not be allowed to come in to contact with the general public. Provide barricades or screens to protect pedestrians.

1.7 MANUFACTURER'S WARRANTY

- A. Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) shall be guaranteed in writing for a period of seven (7) years from date of Contract's final completion. The guarantee includes manufacturing defects, breakage, and deformation.

1.8 INSTALLATION WARRANTY

- A. Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) installation shall be warranted in writing for two (2) years by the installer. Products must be guaranteed from defective work and loosening of panels.

SECTION 2 – PRODUCTS

2.1 MANUFACTURERS

A. Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) by ADA Solutions, 323 Andover Street, Suite 3, Wilmington, MA 01887. Toll-Free: 800-372-0519, sales@adatile.com, www.adatile.com.

B. Panel Sizes

1. Standard Rectangular Panels

- a. 24" x 24" (609.6 x 609.6 mm)
- b. 24" x 36" (609.6 x 914.4 mm)
- c. 24" x 48" (609.6 x 1219.2 mm)
- d. 24" x 60" (609.6 x 1524.0 mm)

2. Heavy Duty Rectangular Panels, 0.375" (9.5 mm) top thickness

- a. 24" x 24" (609.6 x 609.6 mm)
- b. 24" x 36" (609.6 x 914.4 mm)
- c. 24" x 48" (609.6 x 1219.2 mm)
- d. 24" x 60" (609.6 x 1524.0 mm)
- e. 36" x 48" (914.4 x 1219.2 mm)
- f. 36" x 60" (914.4 x 1524.0 mm)

3. Radius Panels

- a. 24" x 33.25" (609.6 x 844.5 mm)
- b. Radius options between 6 feet (1.82 m) and 21 feet (6.40 m)

C. Existing engineered and field-tested products, which have been in successful service for five (5) years are subject to specification compliance, may be incorporated in the project and shall meet or exceed the specified test criteria and characteristics. Requests for Approved Equal status must be submitted and approved by the Owner before the Tender Phase of the project.

2.2 MATERIALS

A. Composition: Cast-In-Place Replaceable Detectable Warning Surface Panels (CIP REP) shall be manufactured using a matte finish exterior grade homogeneous (uniform color throughout thickness of product) glass and carbon reinforced polyester based Sheet Molding Compound (SMC) composite material. Truncated domes must contain fiberglass reinforcement within the truncated dome for superior structural integrity and impact resistance. A matte finish will be required on the Tactile Warning Surface for superior slip resistance performance superior to that offered by a gloss finish. Use of Tactile Warning Surface Products employing coatings or featuring layers of material with differing composition, performance, or color properties is expressly prohibited under this Section.

B. Color: Color shall be single, homogeneous color throughout panel

- 1. Federal Yellow (Y), Federal Standard Color No. 33538
- 2. Brick Red (R), Federal Standard Color No. 20109
- 3. Clay Red (CR) Federal Standard Color No. 22144
- 4. Safety Red (SR) Federal Standard No. 31350
- 5. Black (B) Federal Standard Color No. 37038
- 6. Dark Gray (G) Federal Standard Color No. 36118
- 7. Safety Blue (B) Federal Standard Color No. 15187
- 8. White (W) Federal Standard Color No 27925

9. Seattle Yellow (SY) Federal Standard Color No. 23594

- C. Domes: Raised truncated domes of 0.2" (5.0 mm) nominal height, base diameter of 0.9" (22.8 mm) and top diameter of 0.45" (11.4 mm). ADA Standards and Public Rights-of-Way Accessibility Guidelines require truncated dome spacing range of 1.6"-2.4" (40.6-60.9 mm).
[Designer Note: For superior wheelchair, walker and shopping cart mobility, the preferred truncated dome spacing shall have a center-to-center (horizontally and vertically) spacing of nominal 2.35" (59.6 mm), measured between the most adjacent domes on square grid.]
- D. Dome Spacing:
1. Standard Rectangular Panels: 2.35" (59.6 mm) or 2.4" (60.9 mm) dome spacing in square grid pattern
 2. Heavy Duty Rectangular Panels: 2.35" (59.6 mm) dome spacing in square grid pattern
 3. Radius Panels: 1.67" to 2.4" (40.6-60.9 mm) dome spacing in radial pattern
- E. CIP REP panels shall feature a minimum of eight (8) corrosion resistant concrete anchor inserts minimum 1.5" (38.1 mm) long with 0.5" (12.7 mm) x 1.5" (38.1 mm) long corrosion resistance bolts. Anchor bolts locations must be covered with structural water-tight caps. Anchor locations shall not be at truncated domes locations.
- F. CIP REP panels shall include a perimeter structural flange minimum 0.70" in depth with gaps to prevent air entrapment.
- G. Truncated Dome Surface of CIP REP panels shall be protected with factory installed plastic sheeting for cleanliness during the installation process. Basic Installation Guidelines shall be printed on the plastic sheeting in both English and Spanish for customer convenience.
- H. Cleaning materials used on site shall have code acceptable low VOC solvent content and low flammability.
- I. The Specifications of the concrete, sealants and related materials shall be in accordance with the Contract Documents and the guidelines set by their respective manufacturers.

SECTION 3 – EXECUTION

3.1 PREPARATION

- A. During all concrete pouring and CIP REP panel installation procedures, ensure adequate safety guidelines are in place and that they are in accordance with the applicable industry and government standards.
- B. The physical characteristics of the concrete shall be consistent with the Contract Specifications while maintaining a slump range of 4 - 7 to permit solid placement of the CIP REP panel. An overly wet mix will cause the panel to float. Under these conditions, suitable weights such as 2 concrete blocks or sandbags (25 pounds) shall be placed on each panel.
- C. The concrete shall be poured and finished, true and smooth to the required dimensions and slope prior to CIP REP panel placement.

3.2 EQUIPMENT

- A. Contractor shall provide all tools, equipment, and services required for satisfactory installation per manufacturer's instruction as Incidental Work. Equipment which may be required include typical mason's tools, a 4-foot level with

electronic slope readout, 25 lb. (11.4 kg) weights, vibrator, rubber mallet with 2" x 4" x 10" (51 mm x 102 mm x 254 mm) wood tamping plate, and a device for cutting the Detectable Warning Surface Panels.

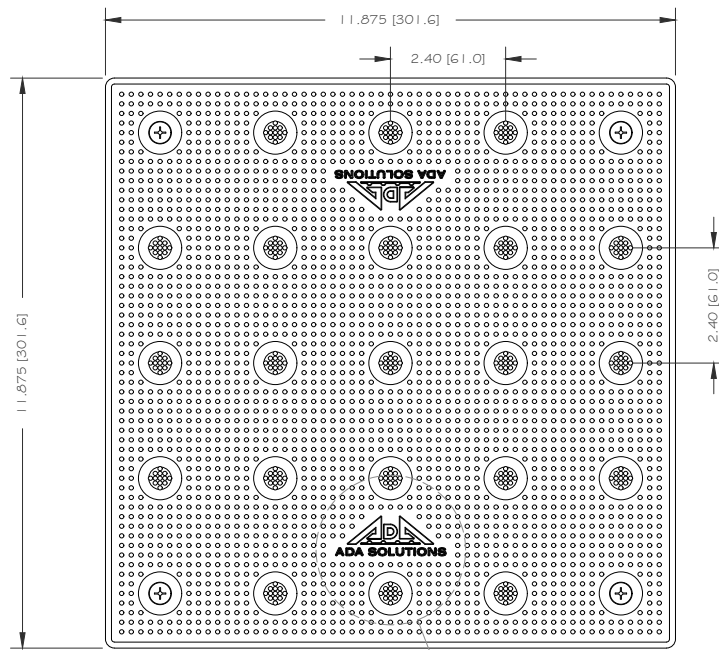
3.3 INSTALLATION

- A. Contractor will not be allowed to install CIP REP panels until all submittals have been reviewed and approved by the Engineer. Panels shall be installed per manufacturer's instructions.
- B. To the maximum extent possible, the CIP REP panels shall be oriented such that the rows of in-line truncated domes are parallel with the direction of the ramp. When multiple panels regardless of size are used, the truncated domes shall be aligned between the panels and throughout the entire tactile warning surface installation.
- C. In accordance with the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Rights of Way 2011, panels shall be located relative to the curb line as shown within Sections 304 and 305 of the Guidelines.
- D. CIP REP panels shall be tamped or vibrated into the fresh concrete to ensure that there are no voids or air pockets, and the field level of the panel is flush to the adjacent concrete surface or as the Drawings indicate to permit proper water drainage and eliminate tripping hazards between adjacent finishes.
- E. Cutting and Setting of CIP REP panels shall be cut into size and configuration indicated on the Drawings using a 60 tooth carbide blade on a table saw or equivalent cutting device. Minimize any cantilever effect (to the maximum extent practicable) when cutting between successive embedment ribs as concrete will tend to flow up and over the panels. The top of the body of the panel shall be fully seated and flush with the adjacent concrete substrate. For specific instructions for cutting and setting refer to Detectable Warning Surface manufacturer's written instructions.

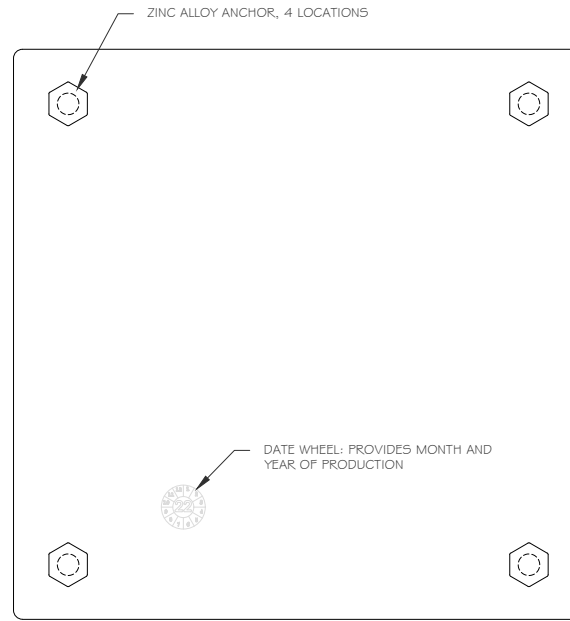
3.4 CLEANING AND PROTECTING

- A. Protect CIP REP panels against damage during construction period to comply with panel manufacturer's Specifications.
- B. During and after the CIP REP panel installation and the concrete curing stage, it is imperative that there are no walking, leaning or external forces placed on the panel to rock the panel, causing a void between the underside of the panel and the concrete.
- C. Remove Protective Plastic Sheeting from CIP REP panel within 24 hours of installation of the panel. Particularly under hot weather conditions (80 degrees or higher), plastic sheeting will adhere strongly (resulting in difficult removal of same) to Detectable Warning Surface panel when not removed quickly.
- D. If requested by the Project Manager, clean CIP REP panels not more than four (4) days prior to date scheduled for inspection intended to establish date of substantial completion in each area of project. Clean panel by method specified by Detectable Warning Surface panel manufacturer.

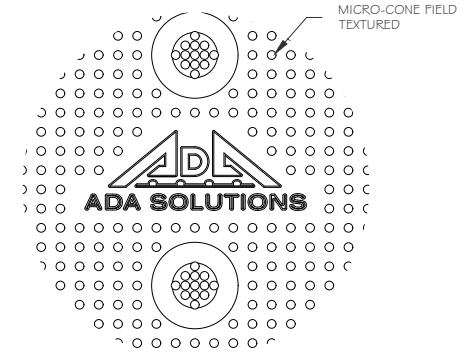
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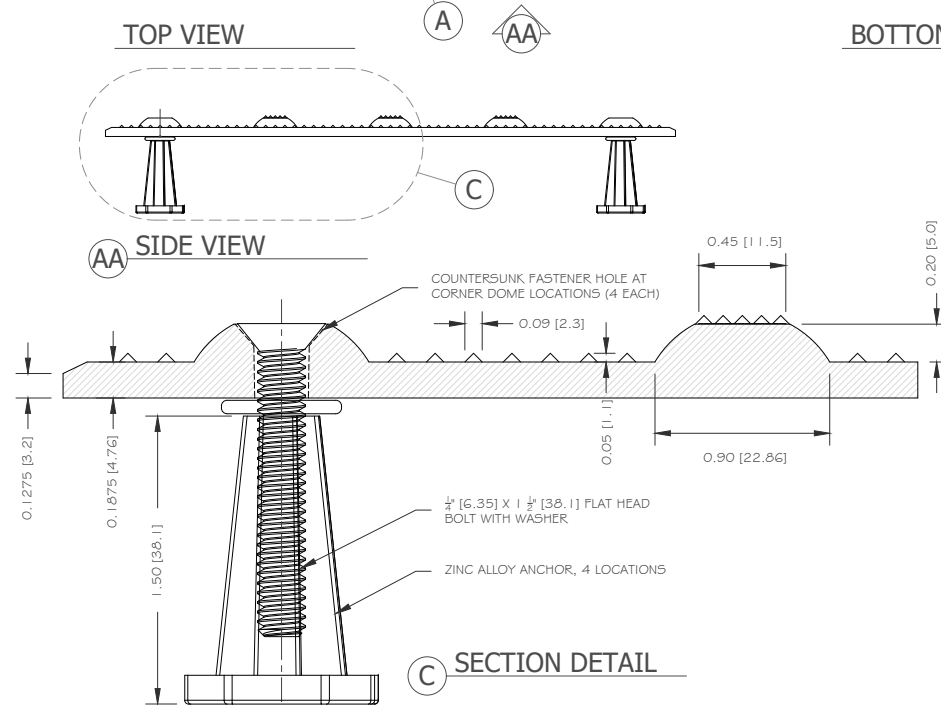
TOP VIEW



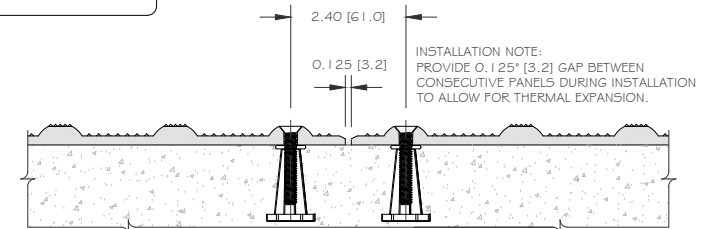
BOTTOM VIEW



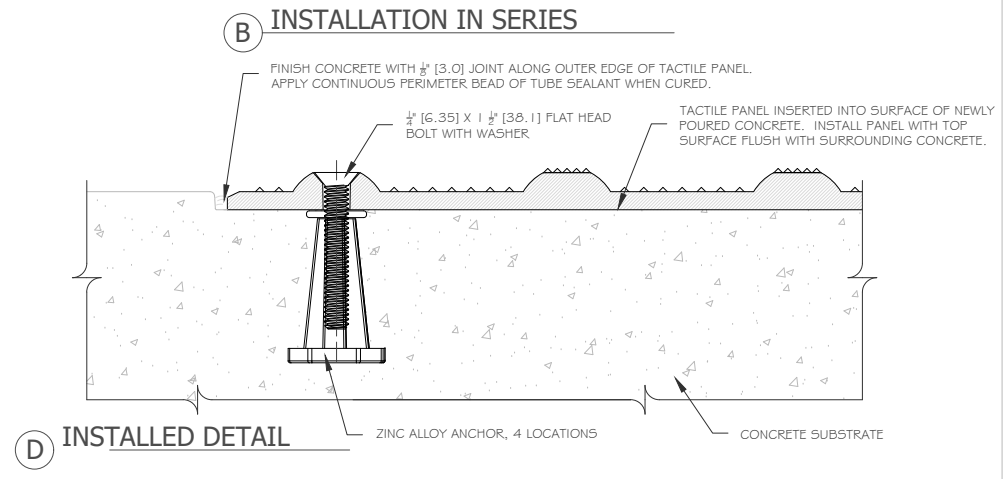
A LOGO DETAIL



C SECTION DETAIL



B INSTALLATION IN SERIES



D INSTALLED DETAIL

DETECTABLE WARNING SURFACE PANEL
12" x 12" Cast-In-Place DWS Tile
 PART SIZE: 11.875" (301.62 MM) X 11.875" (301.62 MM)
 2.40" (60.96 MM) IN-LINE TRUNCATED DOME SPACING

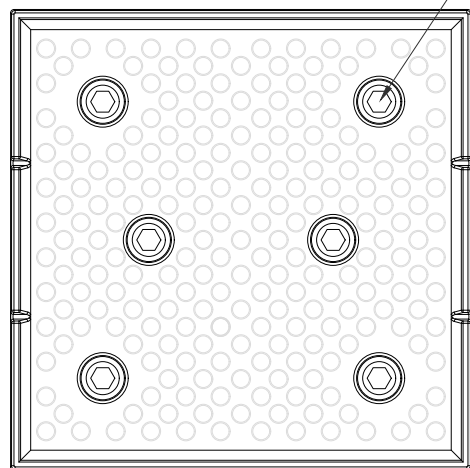
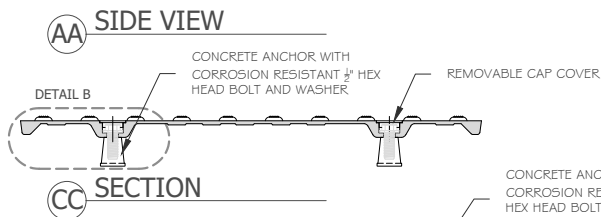
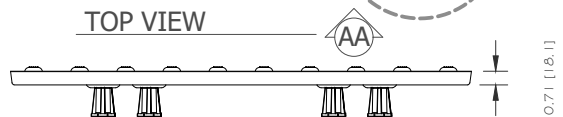
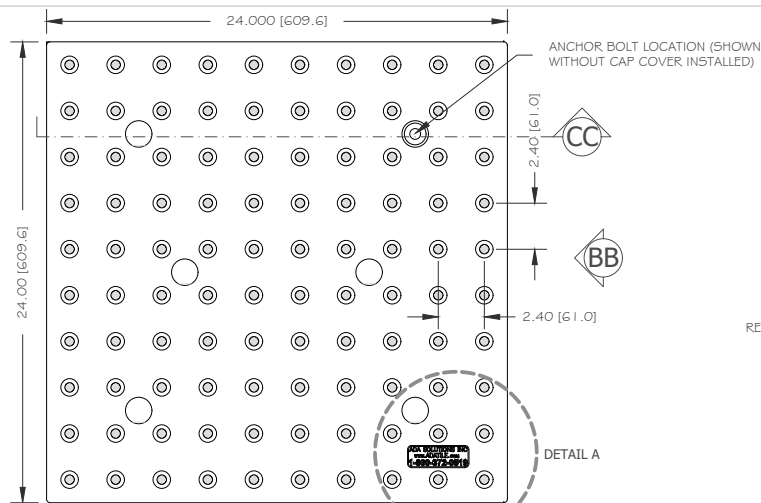
DIVISION
 TACTILE WALKING SURFACE INDICATORS
 MATERIAL
 FIBERGLASS REINFORCED POLYMER COMPOSITE SMC
 DRAWING NUMBER
 ADA-DWS1212 Cast In Place

DATE
 2022-06-10

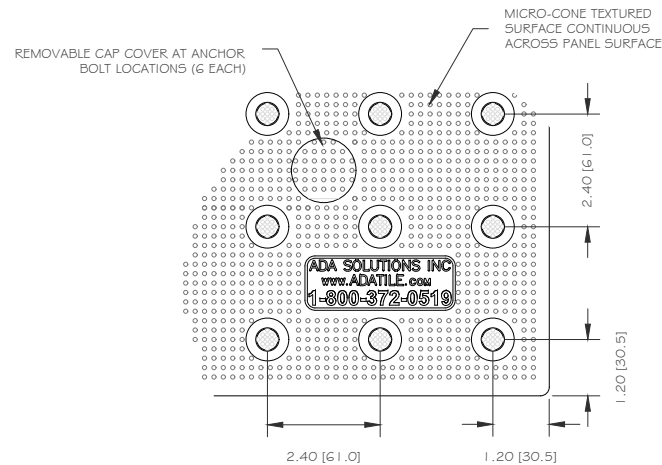
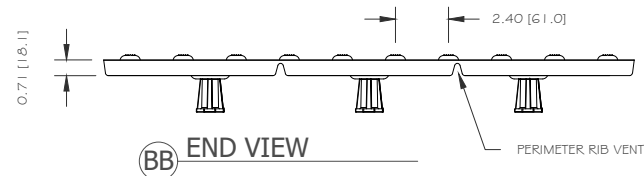
DRAWING UNITS
 INCHES [MM]

WEBSITE
 ADATILE.COM
 PHONE
 1-800-372-0519
 EMAIL
 INFO@ADATILE.COM

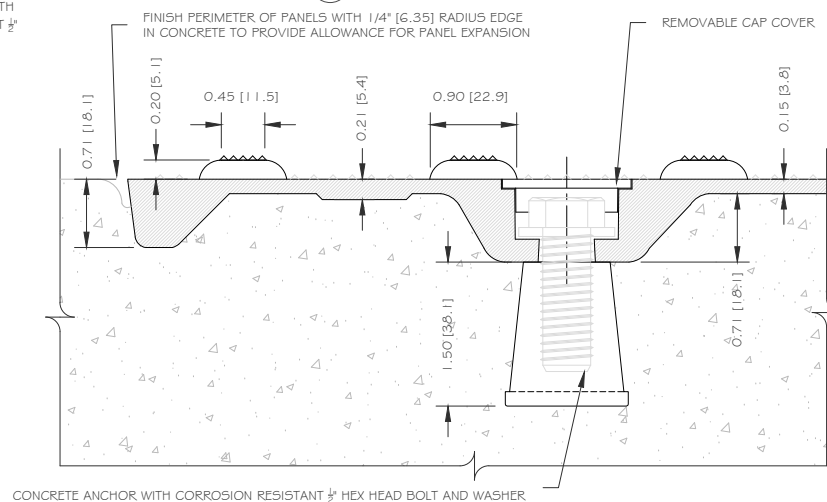




BOTTOM VIEW



A DETAIL



B DETAIL - INSTALLED IN CONCRETE

DETECTABLE WARNING SURFACE PANEL
Cast-In-Place Replaceable 24" x 24"
 PART SIZE: 24" (609.6 MM) X 24" (609.6 MM)
 2.40" (60.96 MM) IN-LINE TRUNCATED DOME SPACING

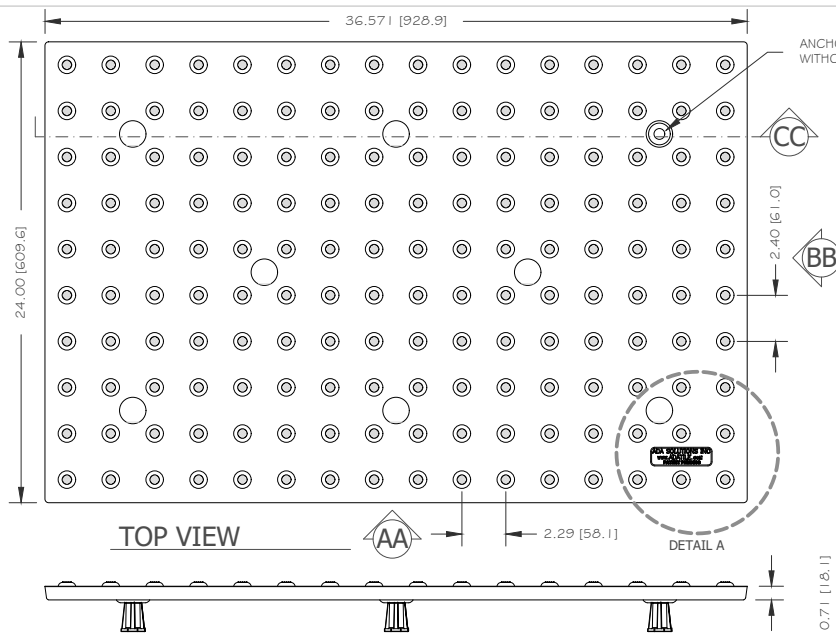
DIVISION
TACTILE WALKING SURFACE INDICATORS
 MATERIAL
FIBERGLASS REINFORCED POLYMER COMPOSITE SMC
 DRAWING NUMBER
ADA-REP2-2424

DATE
2023-08-22

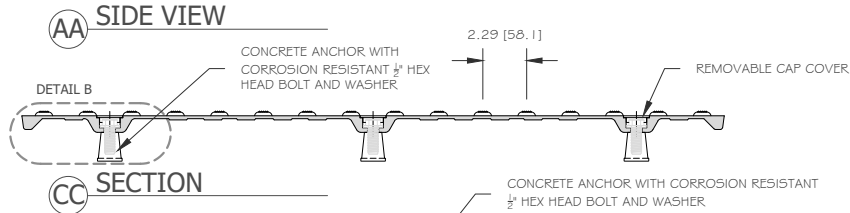
DRAWING UNITS
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1-800-372-0519
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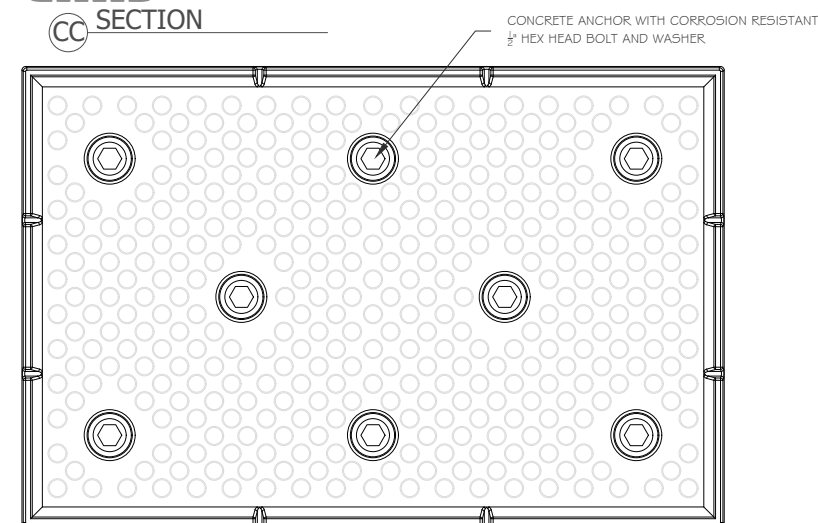


TOP VIEW

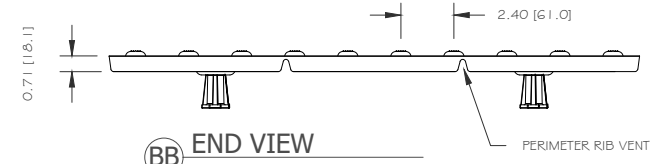


AA SIDE VIEW

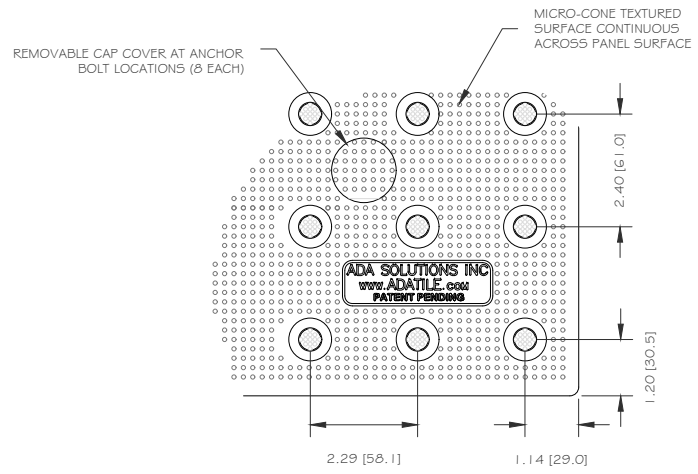
CC SECTION



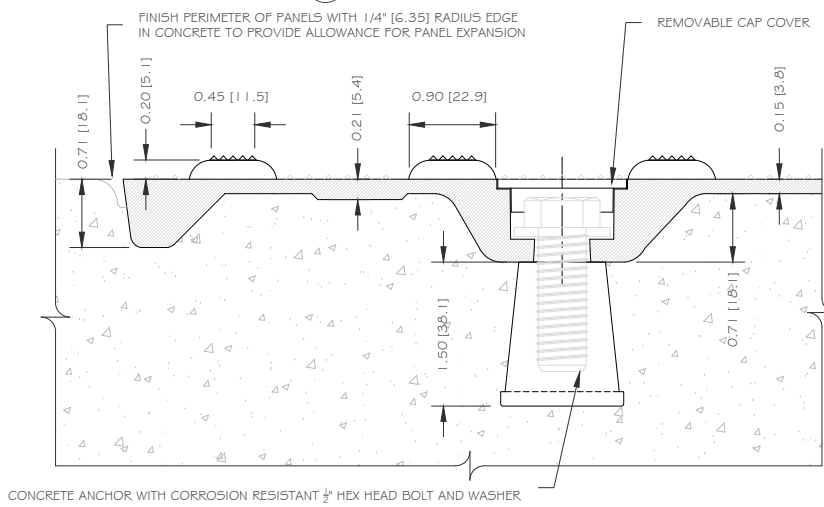
BOTTOM VIEW



BB END VIEW



A DETAIL



B DETAIL - INSTALLED IN CONCRETE

DETECTABLE WARNING SURFACE PANEL
Cast-In-Place Replaceable 24" x 36"
 PART SIZE: 24" (609.6 MM) X 36.57" (928.8 MM)
 2.29" (58.1 MM) x 2.40" (60.96 MM) IN-LINE TRUNCATED DOME SPACING

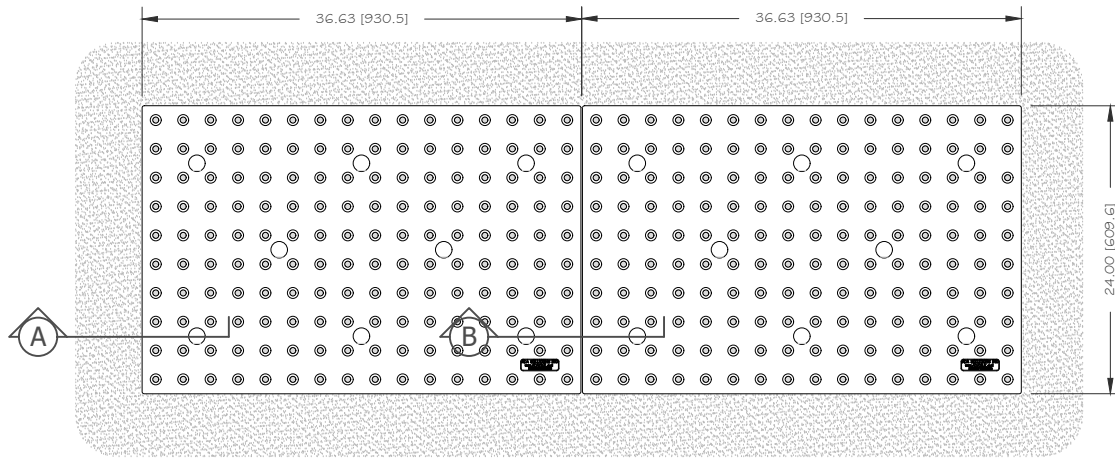
DIVISION
 TACTILE WALKING SURFACE INDICATORS
 MATERIAL
 FIBERGLASS REINFORCED POLYMER COMPOSITE SMC
 DRAWING NUMBER
 ADA-REP2-2436 Page 1 of 2

DATE
 2023-08-18

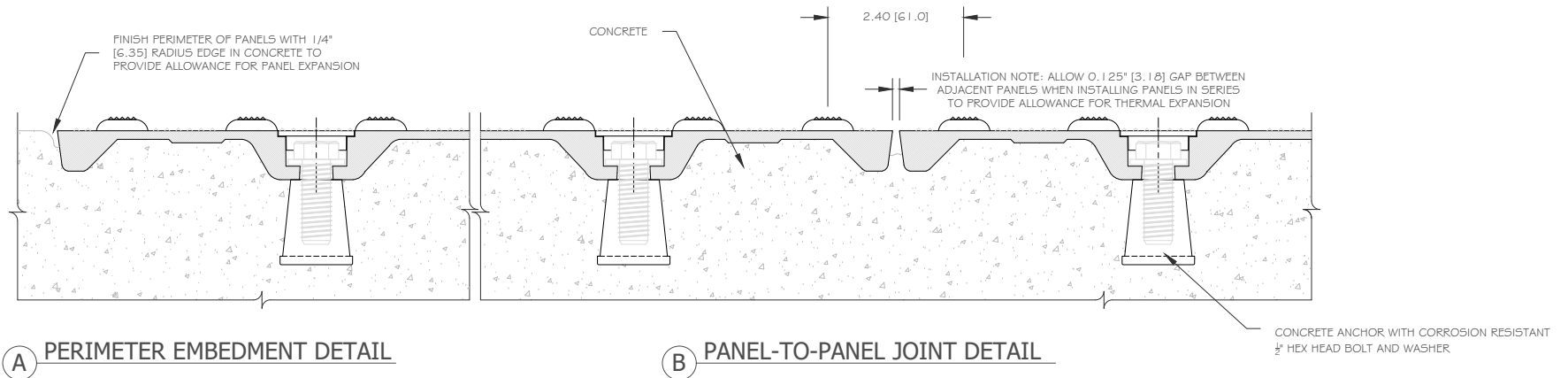
DRAWING UNITS
 INCHES [MM]

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TOP VIEW - MULTIPLE PANEL INSTALLATION



DETECTABLE WARNING SURFACE PANEL

Cast-In-Place Replaceable 24" x 36"

PART SIZE: 24" (609.6 MM) X 36.57" (928.8 MM)

2.29" (58.1 MM) X 2.40" (60.96 MM) IN-LINE TRUNCATED DOME SPACING

DIVISION

TACTILE WALKING SURFACE INDICATORS

MATERIAL

FIBERGLASS REINFORCED POLYMER COMPOSITE SMC

DRAWING NUMBER

ADA-REP2-2436 Page 2 of 2

DATE

2023-08-18

DRAWING UNITS

INCHES [MM]

WEBSITE

ADATILE.COM

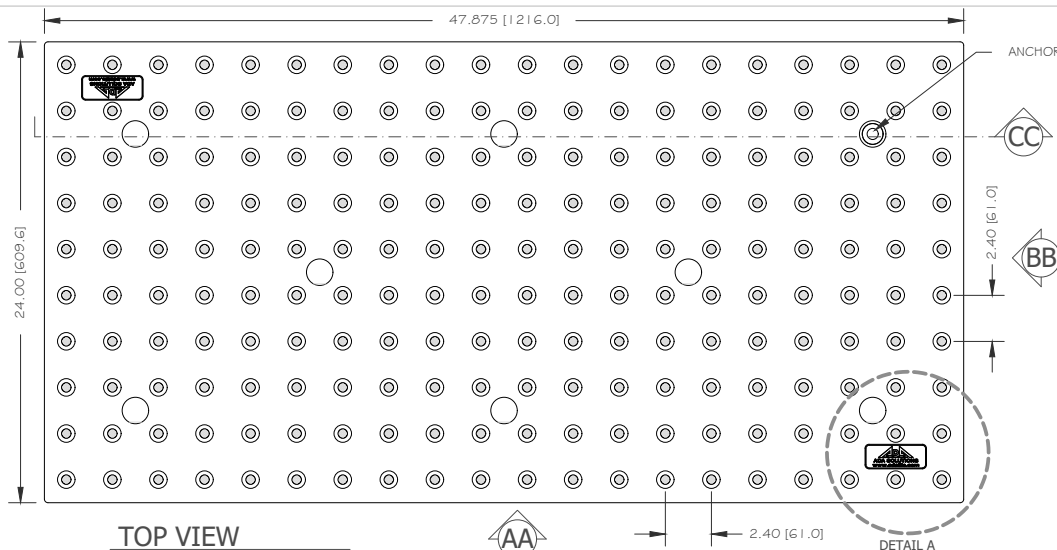
PHONE

1-800-372-0519

EMAIL

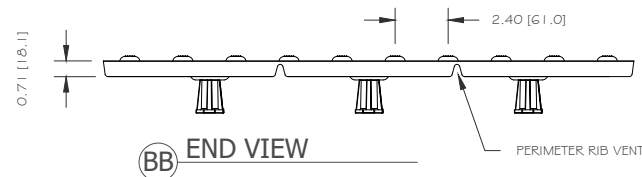
INFO@ADATILE.COM





TOP VIEW

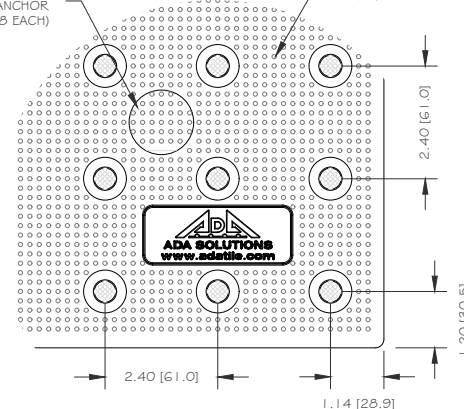
ANCHOR BOLT LOCATION (SHOWN WITHOUT CAP COVER INSTALLED)



END VIEW

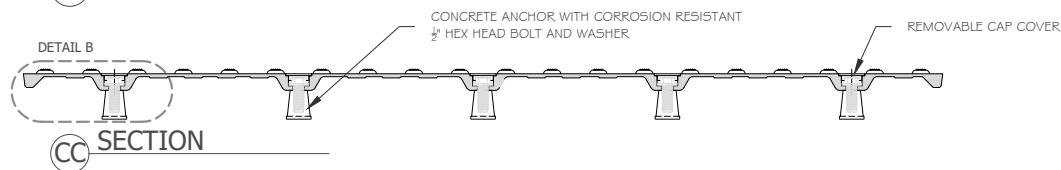
REMOVABLE CAP COVER AT ANCHOR BOLT LOCATIONS (2 EACH)

MICRO-CONE TEXTURED SURFACE CONTINUOUS ACROSS PANEL SURFACE

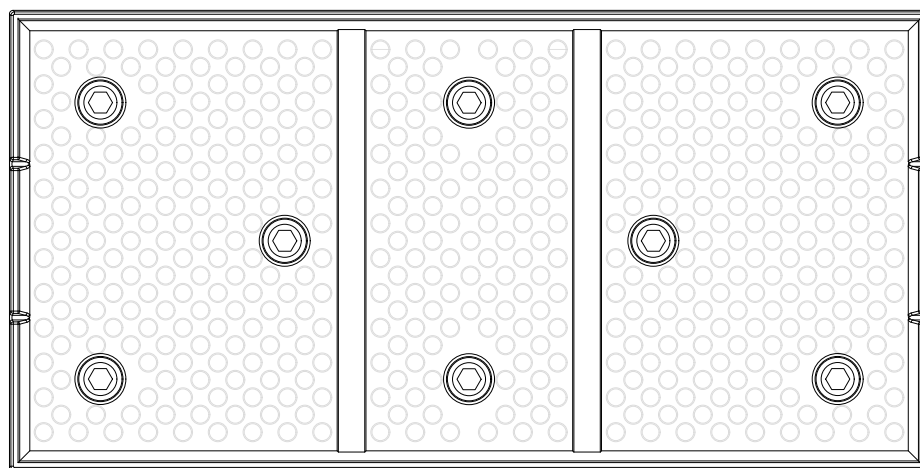


DETAIL

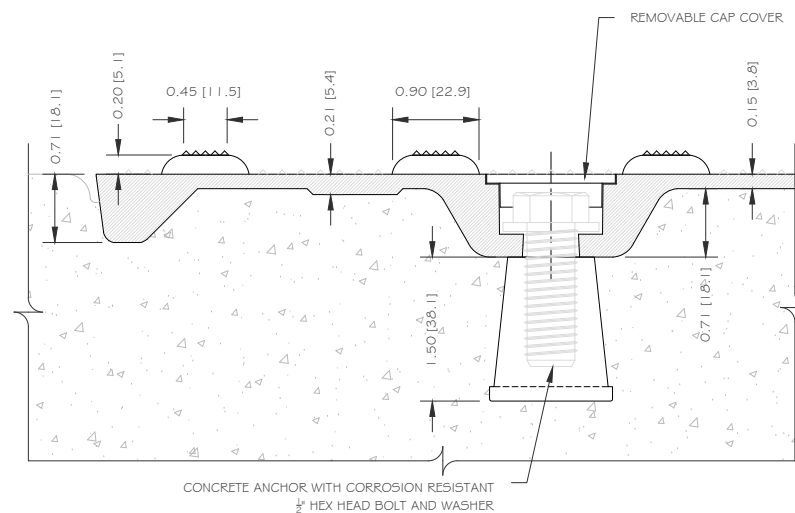
SIDE VIEW



SECTION



BOTTOM VIEW



DETAIL - INSTALLED IN CONCRETE

DETECTABLE WARNING SURFACE PANEL

Cast-In-Place Replaceable 24" x 48"

PART SIZE: 24" (609.6 MM) X 47.875" (1,216.0 MM)

2.40" (60.96 MM) IN-LINE TRUNCATED DOME SPACING

DIVISION

TACTILE WALKING SURFACE INDICATORS

MATERIAL

FIBERGLASS REINFORCED POLYMER COMPOSITE SMC

DRAWING NUMBER

ADA-REP2-2448 Page 1 of 2

DATE

2023-08-25

DRAWING UNITS

INCHES [MM]

WEBSITE

ADATILE.COM

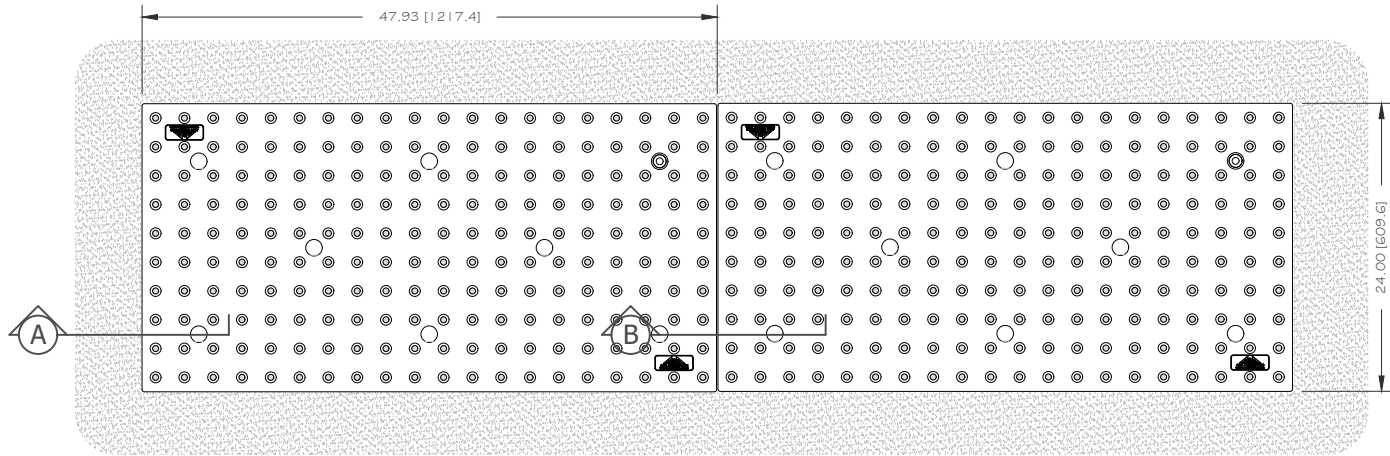
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1-800-372-0519

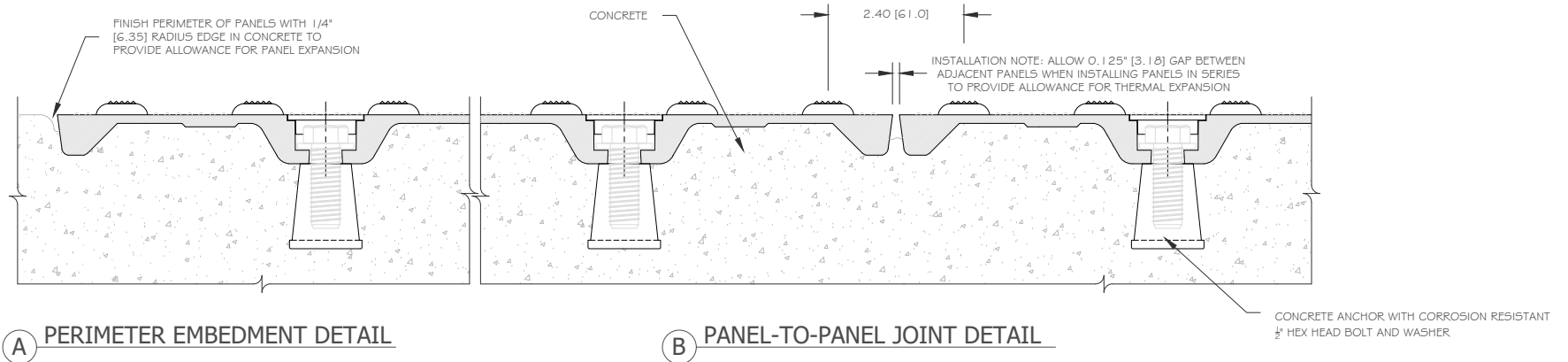
EMAIL

INFO@ADATILE.COM





TOP VIEW - MULTIPLE PANEL INSTALLATION



DETECTABLE WARNING SURFACE PANEL

Cast-In-Place Replaceable 24" x 48"

PART SIZE: 24" (609.6 MM) X 47.875" (1,216.0 MM)

2.40" (60.96 MM) IN-LINE TRUNCATED DOME SPACING

DIVISION

TACTILE WALKING SURFACE INDICATORS

MATERIAL

FIBERGLASS REINFORCED POLYMER COMPOSITE SMC

DRAWING NUMBER

ADA-REP2-2448 Page 2 of 2

DATE

2023-08-25

DRAWING UNITS

INCHES [MM]

WEBSITE

ADATILE.COM

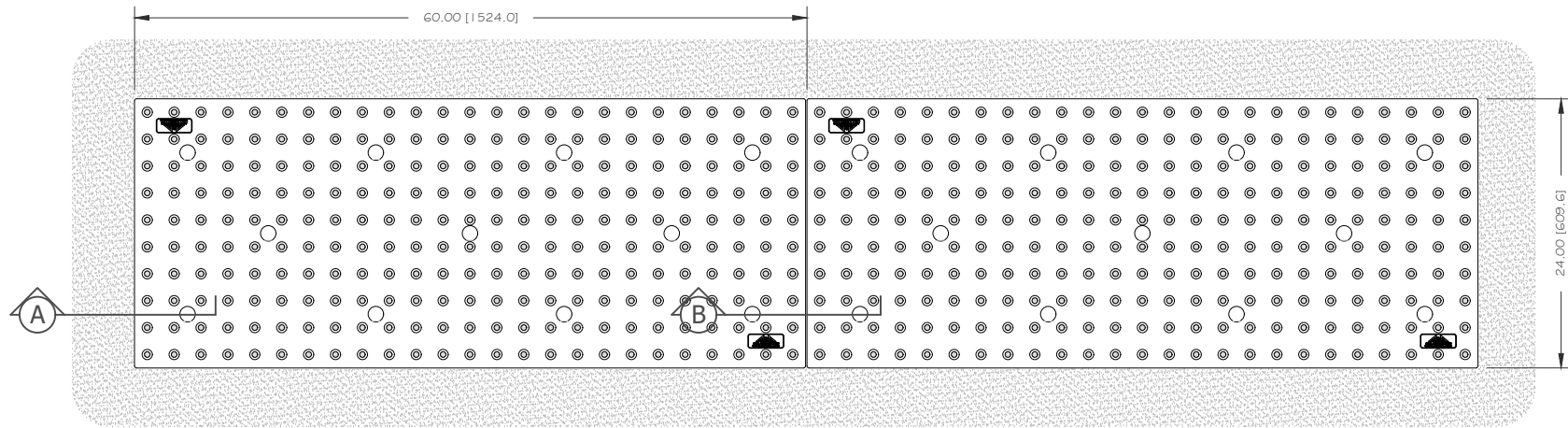
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1-800-372-0519

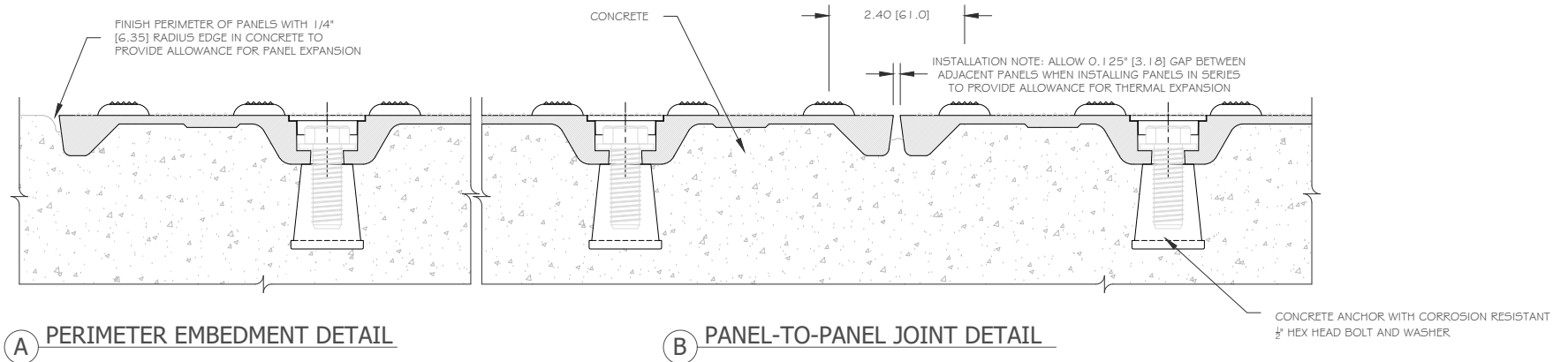
EMAIL

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TOP VIEW - MULTIPLE PANEL INSTALLATION



DETECTABLE WARNING SURFACE PANEL

Cast-In-Place Replaceable 24" x 60"

PART SIZE: 24" (609.6 MM) X 59.875" (1,520.8 MM)

2.40" (60.96 MM) IN-LINE TRUNCATED DOME SPACING

DIVISION

TACTILE WALKING SURFACE INDICATORS

MATERIAL

FIBERGLASS REINFORCED POLYMER COMPOSITE SMC

DRAWING NUMBER

ADA-REP2-2460 Page 2 of 2

DATE

2023-05-19

DRAWING UNITS

INCHES [MM]

WEBSITE

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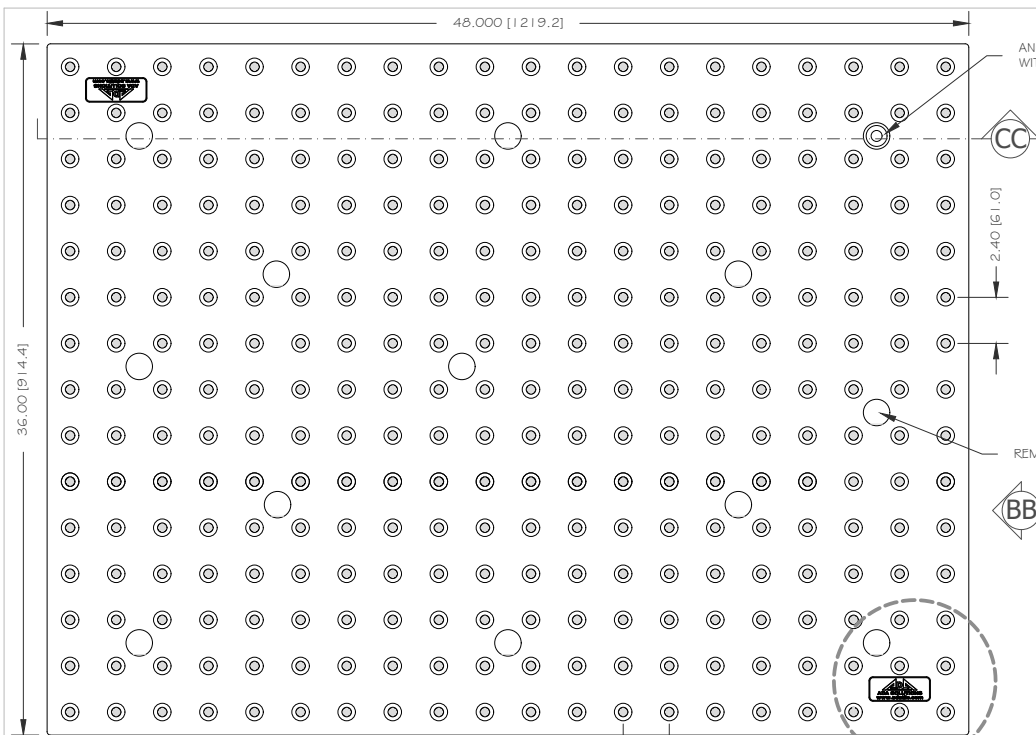
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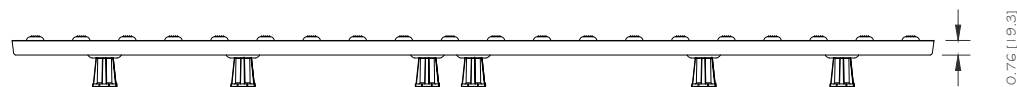
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INFO@ADATILE.COM

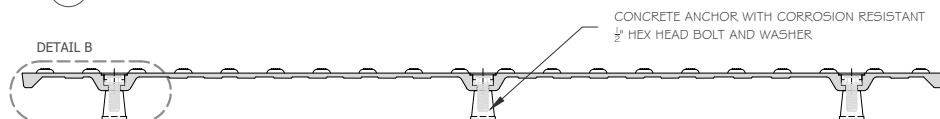




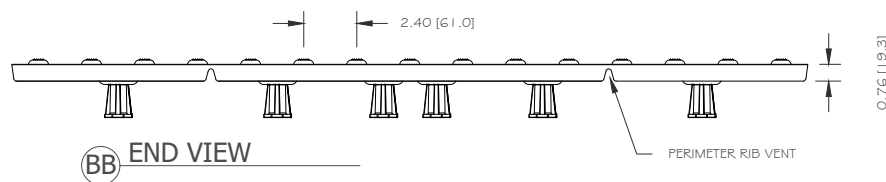
TOP VIEW



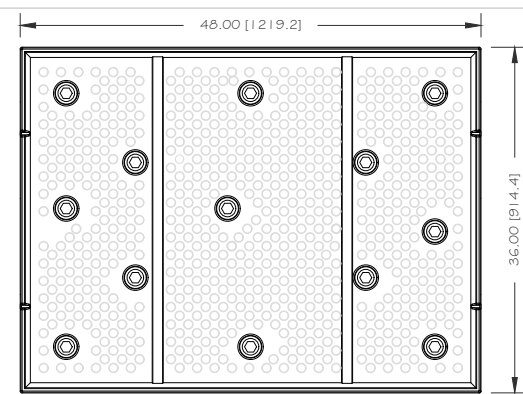
AA SIDE VIEW



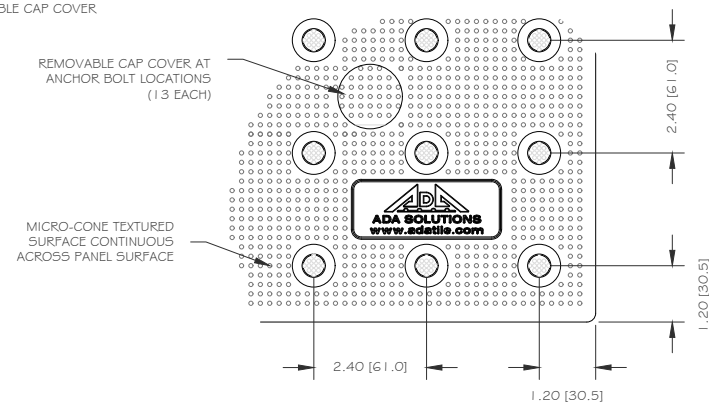
CC SECTION



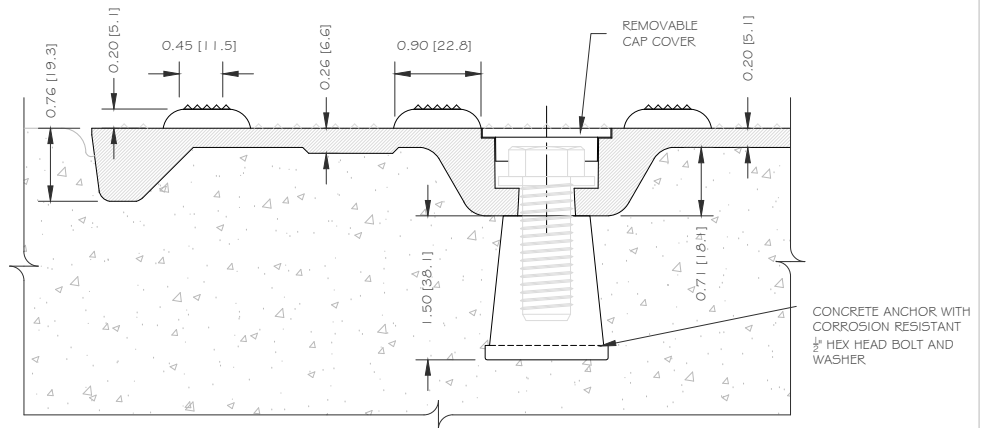
BB END VIEW



BOTTOM VIEW



A DETAIL



B DETAIL - INSTALLED IN CONCRETE

DETECTABLE WARNING SURFACE PANEL

Cast-In-Place Replaceable 36" x 48"

PART SIZE: 36" (914.4 MM) X 48" (1,219.2 MM)

2.40" (60.96 MM) IN-LINE TRUNCATED DOME SPACING

DIVISION

TACTILE WALKING SURFACE INDICATORS

MATERIAL

FIBERGLASS REINFORCED POLYMER COMPOSITE SMC

DRAWING NUMBER

ADA-REP2-3648 Page 1 of 2

DATE

2023-08-24

DRAWING UNITS

INCHES [MM]

WEBSITE

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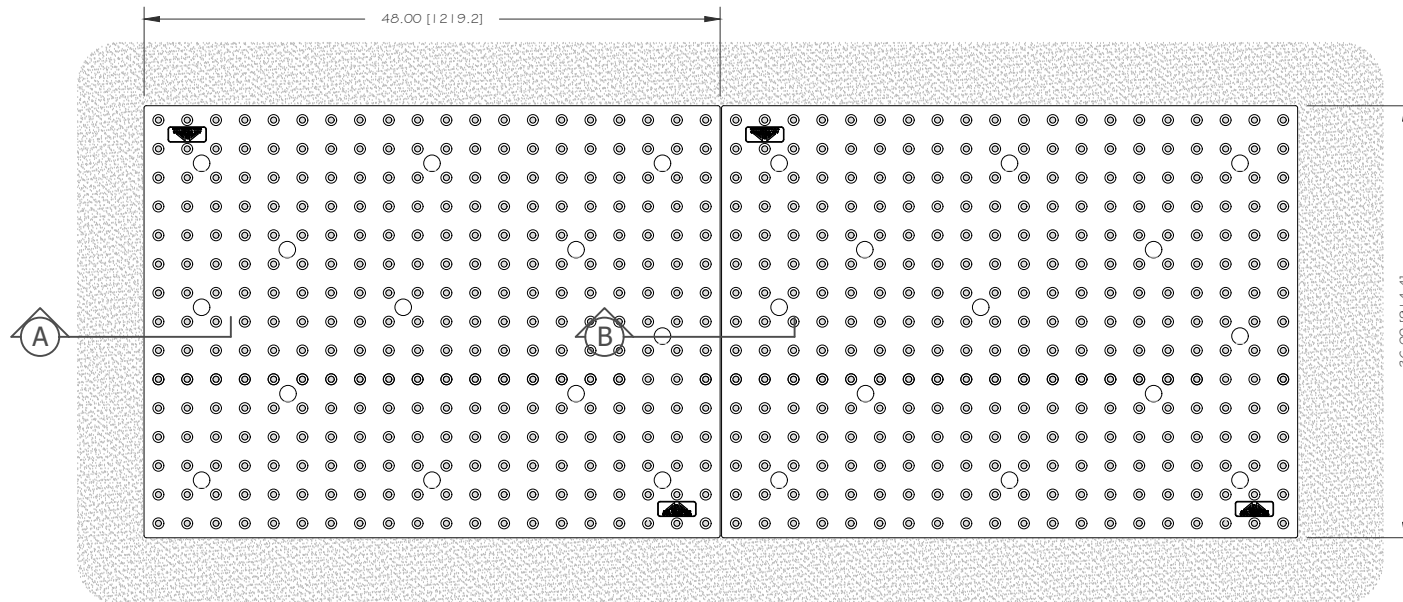
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1-800-372-0519

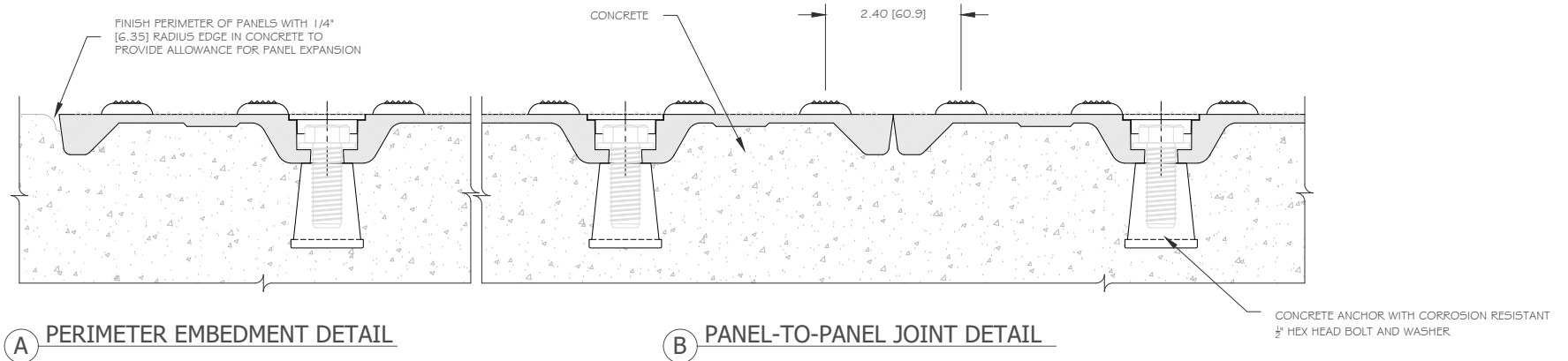
EMAIL

INFO@ADATILE.COM





TOP VIEW - MULTIPLE PANEL INSTALLATION



PERIMETER EMBEDMENT DETAIL

PANEL-TO-PANEL JOINT DETAIL

DETECTABLE WARNING SURFACE PANEL
Cast-In-Place Replaceable 36" x 48"
 PART SIZE: 36" (914.4 MM) X 48" (1,219.2 MM)
 2.40" (60.96 MM) IN-LINE TRUNCATED DOME SPACING

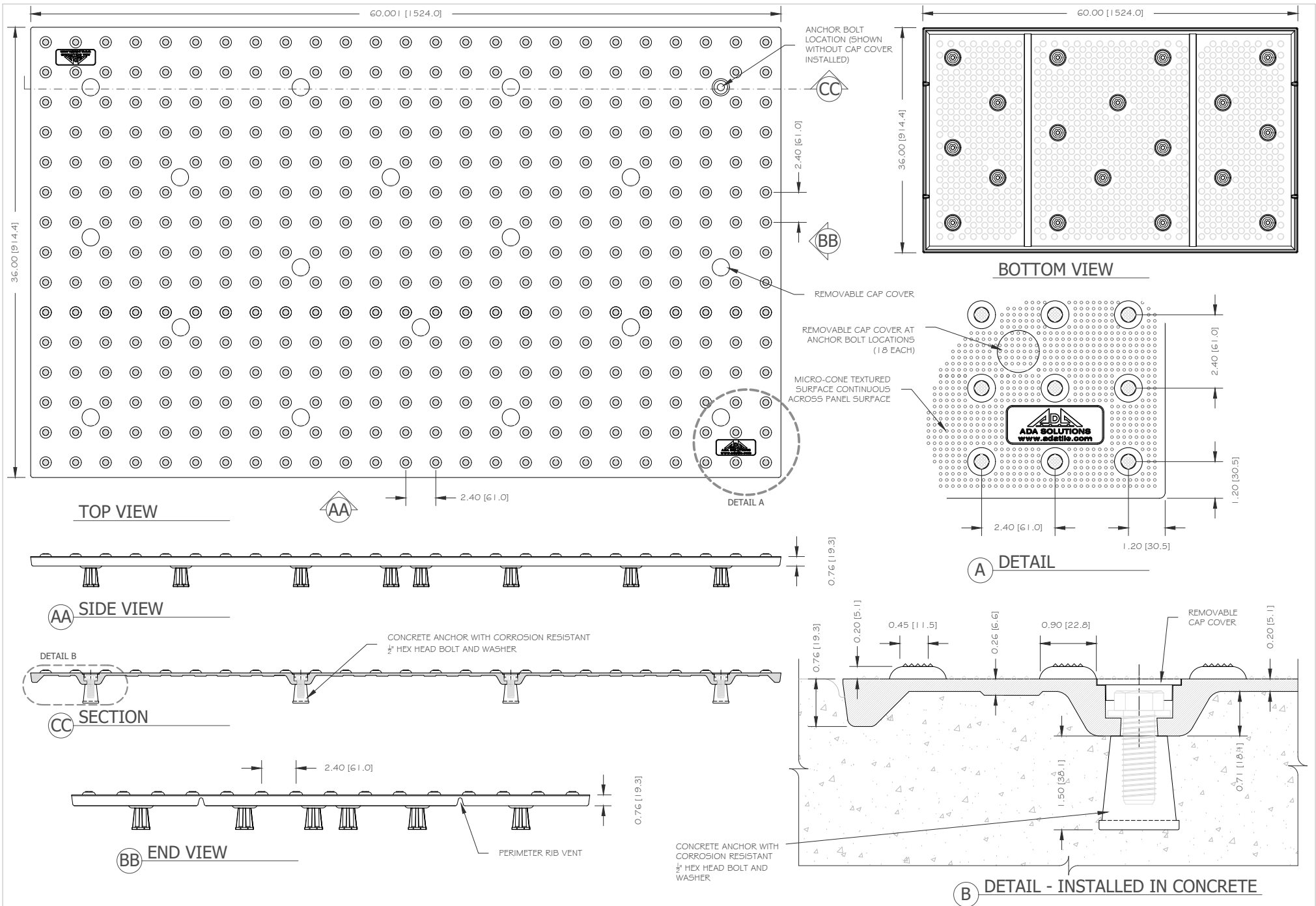
DIVISION
 TACTILE WALKING SURFACE INDICATORS
 MATERIAL
 FIBERGLASS REINFORCED POLYMER COMPOSITE SMC
 DRAWING NUMBER
 ADA-REP2-3648 Page 2 of 2

DATE
 2023-08-24

DRAWING UNITS
 INCHES [MM]

WEBSITE
 ADATILE.COM
 PHONE
 1-800-372-0519
 EMAIL
 INFO@ADATILE.COM





DETECTABLE WARNING SURFACE PANEL

Cast-In-Place Replaceable 36" x 60"

PART SIZE: 36" (914.4 MM) X 60" (1,524 MM)

2.40" (60.96 MM) IN-LINE TRUNCATED DOME SPACING

DIVISION

TACTILE WALKING SURFACE INDICATORS

MATERIAL

FIBERGLASS REINFORCED POLYMER COMPOSITE SMC

DRAWING NUMBER

ADA-REP2-3660 Page 1 of 2

DATE

2023-09-05

DRAWING UNITS

INCHES [MM]

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CAST-IN-PLACE REPLACEABLE TACTILE

Installation Procedure

(WET-SET)

Be sure to read and understand all of these instructions before you begin.

A. The physical characteristics of the concrete shall be as specified in the contract documents while maintaining a slump range of 4-7 inches to permit the solid placement of the ADA Cast-In-Place Replaceable Tactile Unit (ADAREP) in the wet cement.

B. The concrete shall be poured and finished level, true and smooth to the required dimensions prior to the placement of the ADAREP unit.

C. Place the ADAREP unit 6-8 inches from the curb line. Working in a grid pattern, tamp the ADAREP unit into the wet concrete using a rubber mallet and a piece of wood. Continue this process until all of the air has been released, and the ADAREP unit surface is flush with the surrounding area.
IMPORTANT: Avoid striking the surface of the ADAREP unit directly.

D. Following the placement, the ADAREP unit elevation should be checked to the adjacent surface with a straight edge. The ADAREP unit elevation should be consistent with the Contract Drawings and Specifications. Any required adjustments must be made prior to the time when the concrete begins to set.

E. **IMPORTANT NOTICE TO INSTALLER:** *To allow for expansion and contraction, after panel is installed, use a 1/4" finish edge trowel around entire perimeter. On a continuous run, be sure to space each unit 1/8" apart.*

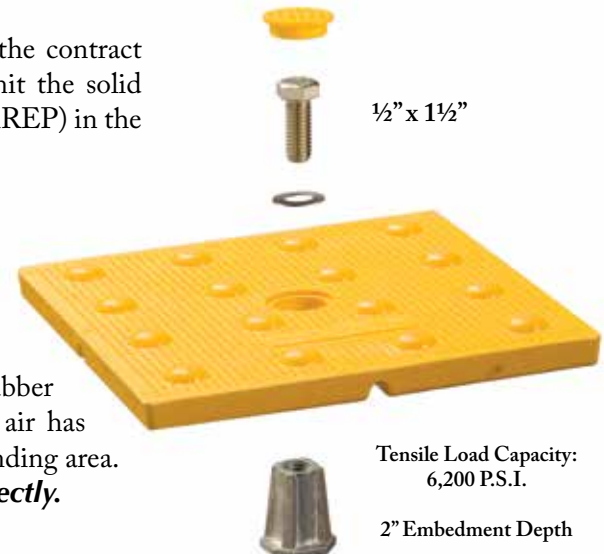
F. When you are confident that the ADAREP unit is in place and no further adjustments are needed, place a cinder block on both ends to hold the ADAREP unit in place while the concrete sets.

G. During and after the ADAREP unit installation, as well as the concrete curing stage, no walking or external forces can be placed on the ADAREP unit. The area must be protected from pedestrian traffic until concrete is cured. The ADAREP Warning Surface will be ready for pedestrian traffic within 2-4 hours.

H. Be sure to remove plastic protective covering from the face of the ADAREP Unit once the concrete is cured.

***Not recommended or warrantied for asphalt installation.**

*Use an appropriate sized Tactile or Radius Tactile to fit the requirement.
If cutting is required, contact manufacturer for more details.*



PRODUCT SIZES
2'x2' 2'x3' 2'x4'
2'x5' 3'x4' 3'x5'

APPLICATION
Fresh Pour
Concrete Ramps
& Replacement



7 Year Product Warranty

Tactile Walking Surface Indicators Fiberglass Reinforced Polymer Composite

ADA SOLUTIONS warrants to the Project Owner and Project Purchaser that the Tactile Walking Surface Indicators (TWSI) product supplied by ADA Solutions is free from defects in workmanship and material including deformation, discoloration, severe fading, and breakage for a period of Seven (7) Years from the date of acceptance of the Project. The warranty is valid only upon completion of the installation, proper maintenance of the TWSI product, and payment in full to ADA Solutions. Warranty becomes effective 24 hours after the date of installation

EXCLUSIVE REMEDIES: ADA Solutions, at its cost, will repair or replace any defective material promptly reported during the warranty period to ADA Solutions. This warranty includes labor costs and the cost of removal of the TWSI product(s). Repair or replacements will be done on site.

All TWSI products manufactured by ADA Solutions are hereby warranted to comply fully with all applicable American with Disabilities Act of 1992 and the Public Rights of Way Accessibility Guidelines (PROWAG), and California Title 24.

WARRANTY LIMITATIONS: ADA Solutions warranty does not apply to conditions resulting from improper use, improper installation, external causes, acts of God, intentional misuse or abuse, neglected or improper annual maintenance, vandalism, modifications to the TWSI product, with the exception of the Owner's right to immediately eliminate an unsafe condition.

DISCLAIMER OF WARRANTY: The above warranty is the Owner's and Purchaser's exclusive warranty. No other warranty expressed or implied shall apply. ADA Solutions specifically makes no warranty of merchantability and/or fitness for a particular purpose. (In no event will ADA Solutions be liable for any damages, lost profit, consequential or economic damages).

Issued Date: **01/01/2023**

Issued to: **Concrete Company
124 Main Street
Salt Lake City, UT 84111**

Project: **Washington School
Salt Lake City, UT 84119**

Owner: **Washington School District
Salt Lake City, UT 84111**

Manufacturer: **ADA SOLUTIONS, a Division of SureWerx USA, Inc.**

Product: **Cast-In-Place Paver Detectable Warning Panels, Brick Red**

Description: **Fiberglass reinforced polymer composite material, UV stable with homogeneous color**

Issued by:

John Stieby

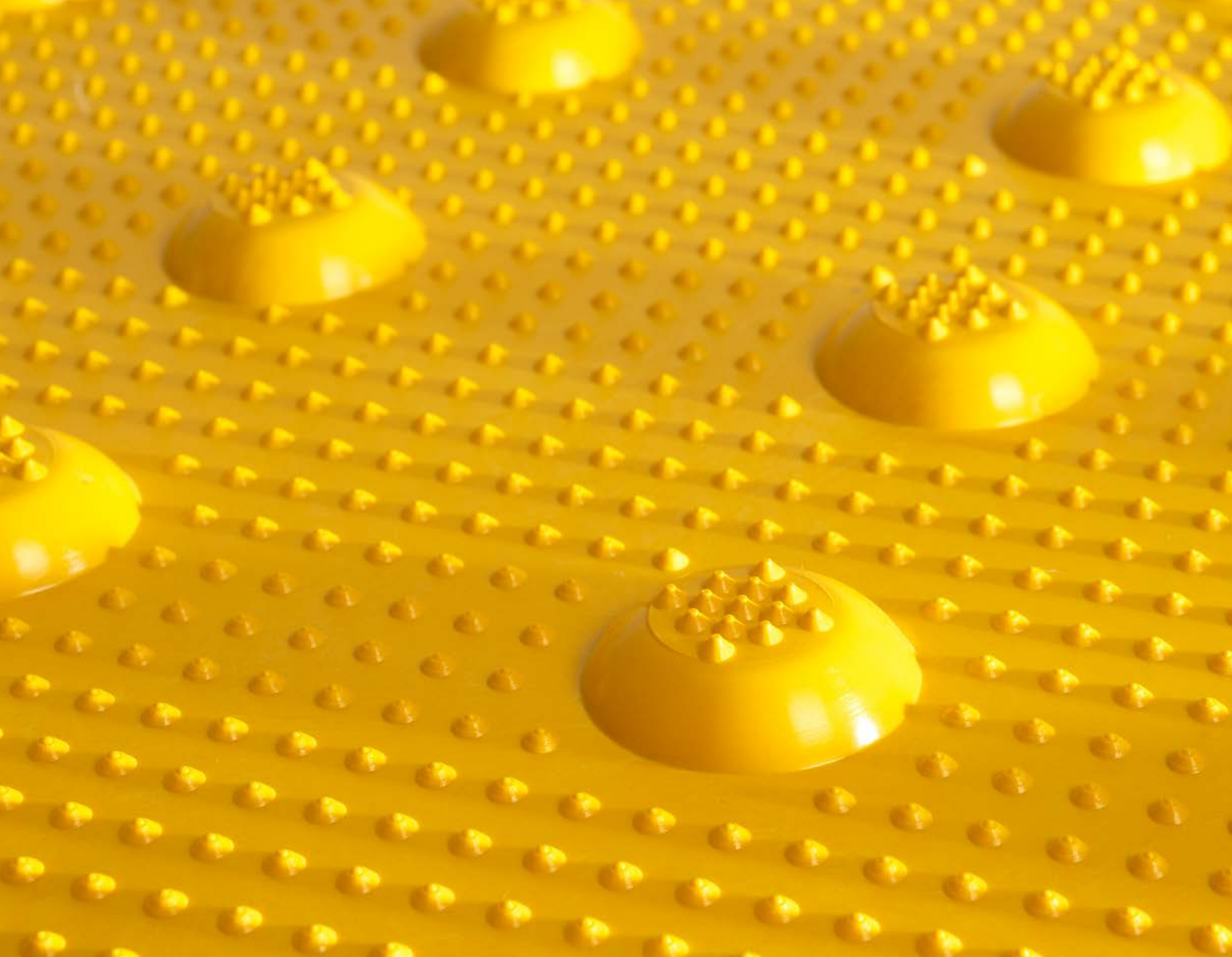
Name

Director of Business Development

Title

01/01/2023

Date



Wherever you go...
There we are®



ADA Office
800.372.0519

323 Andover Street, Suite 3
Wilmington, MA 01887



www.adatile.com
www.surewerx.com