# Arizona's State Highway System Standard Aesthetics

Roadside Development Landscape Architecture Guidelines

**July 2021** 



A LAN ARA ARA

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## **Introduction**

Arizona Department Of Transportation - State Highway System

#### **Standard Baseline Aesthetic Guidelines**

Aesthetic baseline guidelines shall apply to all new State Highway system projects and freeway widening projects.

For all new highway segments and freeway expansion projects required aesthetics shall be identified during the development of the Design Concept Report (DCR). For projects where the original DCR may have been developed without consideration for aesthetics or a construction project where a DCR is not required, project aesthetic requirements shall be identified during Stage II (30%) development. Stage II (30%) development is also the time when the IGA/JPA will be developed and negotiated identifying any cost and maintenance responsibilities. Baseline aesthetics design, construction and maintenance shall be funded by ADOT.

These guidelines are intended to provide direction going forward as it relates to roadway aesthetics on new design/construction projects. They will provide common direction for aesthetic goals and standards. They are also intended to provide clarification and design direction for required aesthetic treatments for ADOT Project Management, Technical Design Teams, District Construction and Maintenance Groups, Project Design Consultants and Local Public Agencies.

Structures receiving aesthetic treatments may include, noise walls, retaining and free-standing walls, bridge structure components including piers, abutments, wingwalls, barrier and pedestrian fencing. Materials typically include Cast-In Place concrete structures, pre-cast MSE Panels, pre-cast concrete, concrete masonry Unit (CMU) construction, steel safety railings; pedestrian safety expanded metal fencing with metal/steel graphic panels.

Slope and embankment treatments within urban freeway areas shall include the placement of decorative homogenous 1-1/4"minus granite mulch which provides surface erosion stabilization and aesthetic continuity of the freeway corridor. A single color 3/4" screened or minus decomposed granite will be placed in cross street medians and right-of-way areas in which the local jurisdiction agrees to maintain.

Many existing highway/freeway segments have established aesthetic themes. Established existing freeway themes help guide designers/consultants streamline the development of aesthetic conceptual designs.

For new freeway segments, state highways and other new state road construction projects, aesthetics shall be based on neutral themes, context sensitive, non-distracting to the traveling public, while providing sense of place and continuity to a particular location. Aesthetics should relate culturally, historically or to the natural environment to the specific geographic area. Graphic symbolic designs and concepts shall be neutral themed with no written lettering or signage. Commercial, religious or political themes



are not allowed. No community developer or private entity logos or signage are to be used as aesthetics within ADOT's right-ofway.

For in-house design projects ADOT Roadside Development will develop and prepare concepts, preliminary design plans and final stamped and sealed construction documents for project aesthetics.

For consultant designed projects ADOT Roadside Development will assist and provide direction and consult with the design consultant in the preparation of aesthetic concepts. Based upon the approval of the concepts by the Roadside Development Registered Landscape Architect, Project Management and the District the consultant will prepare the final aesthetic detail plans and stamp and seal the construction documents.

Aesthetic rustication is defined as any change in the pattern or texture of a concrete or masonry structure as compared to a standard smooth finish. For concrete structures, this can be done through the use of form-liners and the controlled placement of concrete. For masonry features-walls, this will be done through the use concrete masonry units (CMU) / Concrete block of various sizes and textures as well as placement. Rustication can protrude out or be recessed into the wall or structure. Rustication can occur on one side or both sides of a particular structure depending on its visibility and orientation to either the traveling public or from the view from the adjacent landowners.

These Guidelines shall become effective July 2021.

### Existing Urban Freeways With Established Aesthetic Themes

Arizona Department Of Transportation - State Highway System

#### Freeway Widening/Expansions - Table 1

STRUCTURE TYPE	BASELINE STANDARD
Structure Aesthetics:	
Existing structures with aesthetics impacted by new construction - Original costs covered by ADOT.	Aesthetics partially disturbed, damaged or removed shall be replaced in-kind - new construction shall be painted to match - Costs covered by ADOT. No new aesthetics or graphic patterns - replacement of what was originally constructed.
Impacted Structures may include but not limited to: Barrier, Abutments, Wing-walls, Retaining walls, noise walls, slope paving, pedestrian fencing and safety railing.	
Landform Graphics	Landform Graphics disturbed/ damaged by new construction shall be repaired if possible or be replaced in-kind if the remaining area is large enough to fit pattern - The graphic pat- tern can be re-sized to fit the remaining area. If the remaining area is too small the landform graphic shall be eliminated.
	Replaced LFGs shall include Sub-surface Drain system.
New Structures	New wall construction necessary to replace walls removed to facilitate freeway widening.
Retaining walls - Noise Walls	Original aesthetics shall be replaced in-kind on the new walls - painted to match original.



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### New Freeway Segments & Other New State Highway Projects

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### Roadway Elements - Table 2a

ROADWAY ELEMENTS	BASELINE STANDARD	EXAMPLES
Bridge Structure Components:		Illustration(s):
Wing Walls	Even / Random Vertical Rustication with cap / Smooth wall with designated baseline Icon Rustication can be placed vertically, hori- zontally or on a diagonal. 2" Max Rustication Reveal	7b, 7c, 8a, 8b, 8d, 8f, 18, 19
	Painted one base color + One Accent color	
Abutments	Even / Random Vertical Rustication with cap / Smooth wall with designated baseline Icon Rustication can be placed vertically, hori- zontally or on a diagonal. 2" Max Rustication Reveal	2, 7a, 8a, 8f
Piers	Vertical /Random Vertical Rustication or smooth concrete and Standard Icon	2, 5, 6, 8c, 8e
Safety Railing	3 -Rail - Painted one color - Base color or an accent color	
Pedestrian Safety Fence	Standard Detail SD1.13- Typically Galva- nized Expanded Metal Mesh with painted metal graphic - Freeway side of fence - Both sides of bridge	21



### Roadway Elements - Table 2b

ROADWAY ELEMENTS	BASELINE STANDARD	EXAMPLES
Bridge Structure Components:		Illustration(s):
Retaining or Sound Walls	Cast-In-Place Concrete Even Vertical/ Ran- dom Vertical Rustication with cap / Smooth wall with designated baseline Icon. Rustica- tion can be placed vertically, horizontally or on a diagonal. 2" Max Reveal	1, 3, 4, 7d, 7e, 7f
	Painted one base color + One Accent color	
	Concrete Masonry Unit Block Construction Standard Block Dimensions Combination of Smooth Face, Fluted or Split Face Textures, Raked or Smooth Flush Joints. Standard patterns	22
	Painted Base Color & One Accent Color	
	MSE Panel - Vertical, Diagonal or Horizontal Rustication	17, 18
	Smooth Panel or Combination	18
	Single Design Pattern/ Graphic per Panel	19
Aesthetic Icons	Standard Repeatable Patterns:	Illustrations: 7-8
Reveal: 2" Max (Recessed) One Accent Color	Hohokam Birds Hohokam Water Bird Saguaro	
	Lizard Coiled Rattle Snake	
	Scorpion	

### New Freeway Segments & Other New State Highway Projects

Arizona Department Of Transportation - State Highway System

### Roadway Elements - Table 2c

ROADWAY ELEMENTS	BASELINE STANDARD	EXAMPLES
Bridge Structure Components:		Illustration(s):
Concrete Barrier	Standard Repeatable Patterns:	8e, 8f, 9-16
Smooth Barrier finish with Rustication Reveal: 2" Max (Extruded or Recessed)	Water Waves Ribbon Pattern	9
One Base Color - One Accent Color	Hohokam Water Waves Pattern	14
	Maze Pattern	8f, 15, 16
	Saguaro Thorn	
	Mountain Pattern	8e, 12
Cross-Street Median Treatments	Decomposed Granite/ Granite Mulch	
Roundabout Traffic Island	Decomposed Granite/ Granite Mulch	
	Single Gradation - One Color	
	Landscape/ Irrigation may be if included as part of a larger project with landscape and irrigation	



Roadway Elements - Table 2d

ROADWAY ELEMENTS	BASELINE STANDARD
Paint Colors:	Base Colors:
	ADOT Tan
	Koala Bear
	Black Walnut
	Chestnut
	Accents:
	Mayan Brick
	Roasted Pepper
	Deuce
	Eggplant
	Black Deco
	Arizona White

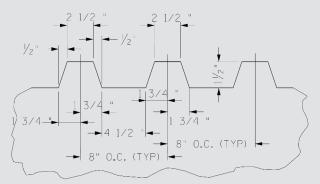
### **Even Vertical Rustication**

Typically used on sound barrier walls, retaining walls, bridge abutment walls, wing walls, piers, and MSE panels.

#### **Treatment Details**

Reveal:	2" max. (extruded or recessed)
Coping:	yes, per design finish (see below)
Paint:	1 base color
DG:	n/a
Terminus:	aesthetics extend to a coordinated end
Other:	none

#### Illustration 1



Section Detail



**Freestanding Wall** 



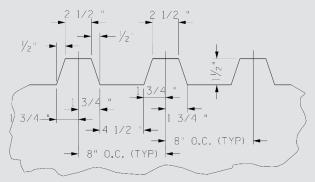
### **Even Vertical Rustication**

Typically used on sound barrier walls, retaining walls, bridge abutment walls, wing walls, piers, and MSE panels.

#### **Treatment Details**

Reveal:	2" max. (extruded or recessed)
Coping:	yes, per design finish (see below)
Paint:	1 base color
DG:	n/a
Terminus:	aesthetics extend to a coordinated end
Other:	none

#### Illustration 2



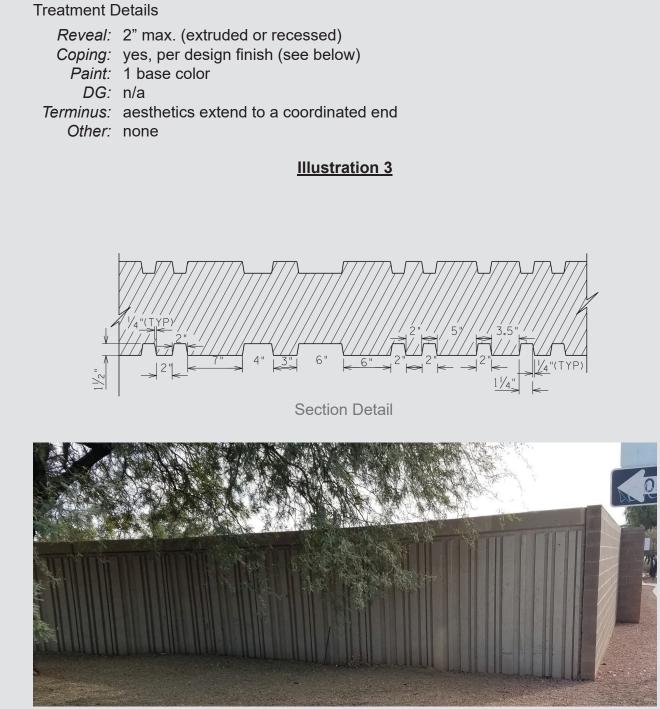
Section Detail



Piers & Abutment

# Random Vertical Rustication

Typically used on sound barrier walls, retaining walls, bridge abutment walls, wing walls, piers, and MSE panels.



Sound Barrier/ Freestanding Wall

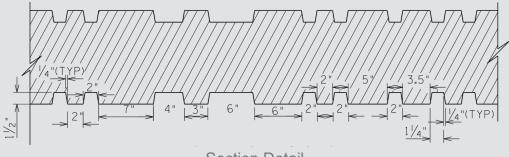


## **Random Vertical Rustication**

Typically used on sound barrier walls, retaining walls, bridge abutment walls, wing walls, piers, and MSE panels.

#### **Treatment Details**

Reveal:	2" max. (extruded or recessed)
Coping:	yes, per design finish (see below)
Paint:	1 base color
DG:	n/a
Terminus:	aesthetics extend to a coordinated end
Other:	none



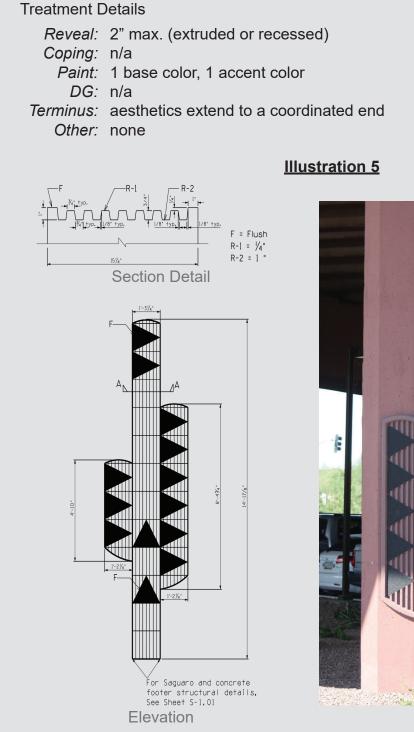
Section Detail



Sound Barrier Wall

### <u>Saguaro Icon</u>

Typically used on piers, sound barrier walls, retaining walls, wing walls, and abutment walls.



<image><image>

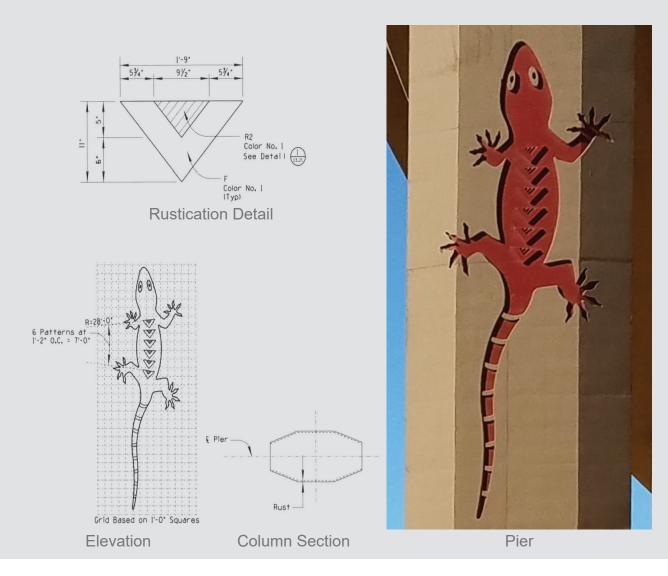


## Lizard Icon

Typically used on piers, sound barrier walls, retaining walls, wing walls, and abutment walls.

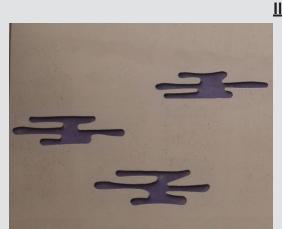
#### **Treatment Details**

Reveal:	2" max. (extruded or recessed)
Coping:	n/a
Paint:	1 base color, 1 accent color
DG:	n/a
Terminus:	aesthetics extend to a coordinated end
Other:	none



## Standard Aesthetic Patterns & Icon Examples

Typically used on sound barrier walls, retaining walls, abutment walls, wing walls, piers, lightweight panel walls, and landforms.



a. Hohokam Birds Icon



c. Hohokam Water Bird Icon



e. Hohokam Kokopelli Icon

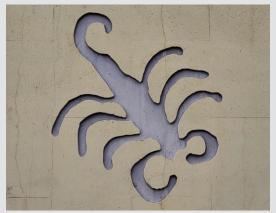
#### Illustration 7



b. Hohokam Horned Lizard Icon



d. Hohokam Tortoise Icon



f. Hohokam Scorpion Icon



### Standard Aesthetic Patterns & Icon Examples

Typically used on sound barrier walls, retaining walls, abutment walls, wing walls, piers, lightweight panel walls, and landforms.



a. Hohokam Snakes Icon

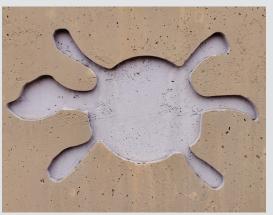


c. Abstract Horse Pattern

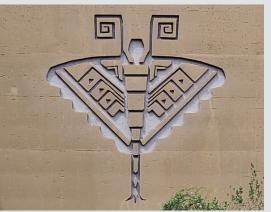


e. Mountain Barrier Pattern & Saguaro Icon

#### Illustration 8



b. Hohokam Turtle Icon

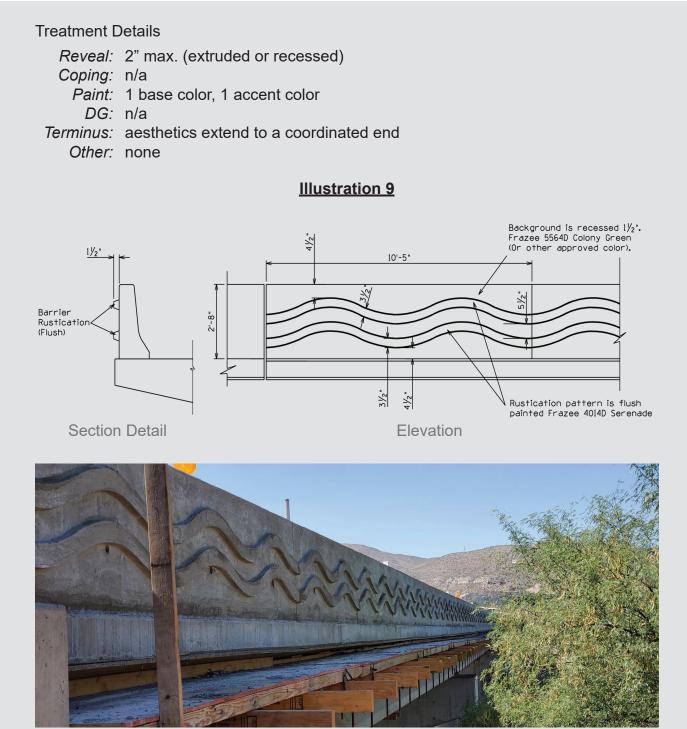


d. Hohokam Butterfly Icon



f. Maze Barrier Pattern & Kokopellies Icon

Typically used on bridge barriers and piers.



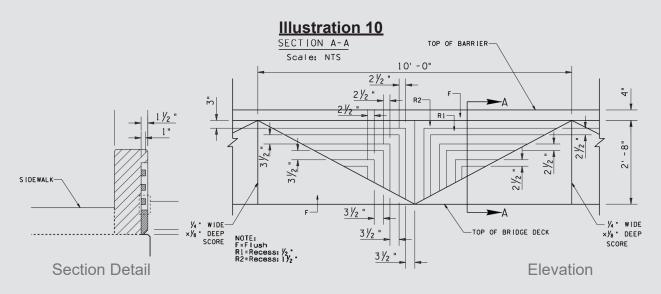
Water Waves Ribbon Pattern



Typically used on bridge barriers, wing walls, and piers.

#### **Treatment Details**

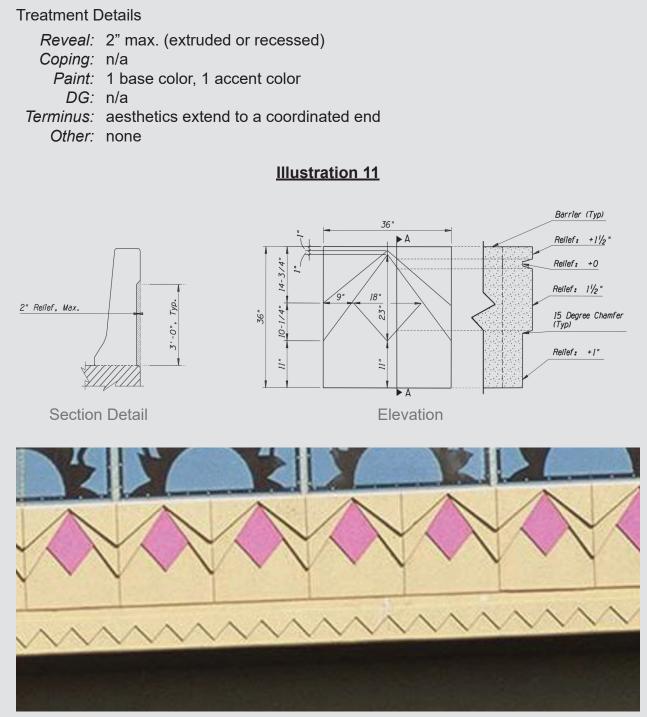
Reveal: 2" max. (extruded or recessed)
Coping: n/a
Paint: 1 base color, 1 accent color
DG: n/a
Terminus: aesthetics extend to a coordinated end
Other: none





Abstract Horse Pattern

Typically used on bridge barriers and piers.



Pueblo Deco Pattern

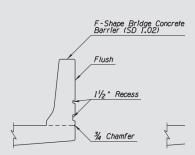


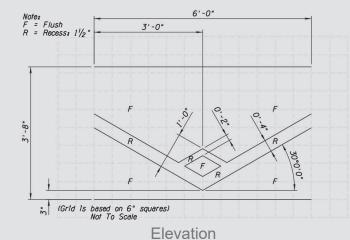
Typically used on bridge barriers and piers.

**Treatment Details** 

Reveal: 2" max. (extruded or recessed)
Coping: n/a
Paint: 1 base color, 1 accent color
DG: n/a
Terminus: aesthetics extend to a coordinated end
Other: none

#### Illustration 12



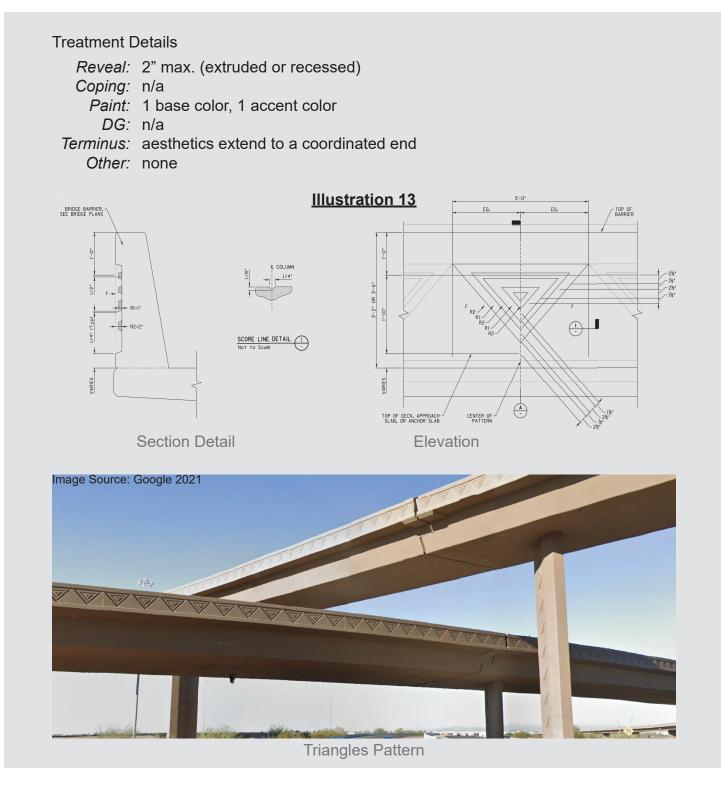


Section Detail



Mountains Pattern

Typically used on bridge barriers and piers.





Typically used on bridge barriers, wing walls, and piers.

#### **Treatment Details**

Reveal:	2" max. (extruded or recessed)
Coping:	n/a
Paint:	1 base color, 1 accent color
DG:	n/a
Terminus:	aesthetics extend to a coordinated end
Other:	none



Hohokam Water Waves Pattern

Typically used on sound barrier walls, retaining walls, and wing walls.

#### **Treatment Details**

Reveal:	2" max. (extruded or recessed)
Coping:	yes, per design finish (see below)
Paint:	1 base color, 1 accent color
DG:	n/a
Terminus:	aesthetics extend to a coordinated end
Other:	none



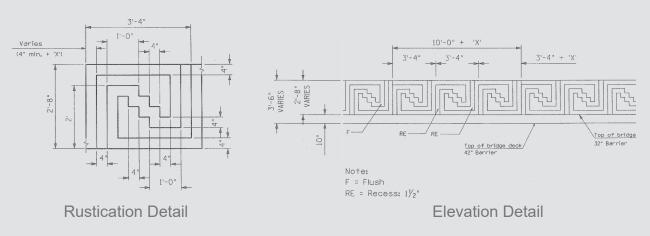
Hohokam Maze Pattern



Typically used on bridge barriers, wing walls, and piers.

#### **Treatment Details**

Reveal:	2" max. (extruded or recessed)
Coping:	n/a
Paint:	1 base color, 1 accent color
DG:	n/a
Terminus:	aesthetics extend to a coordinated end
Other:	none

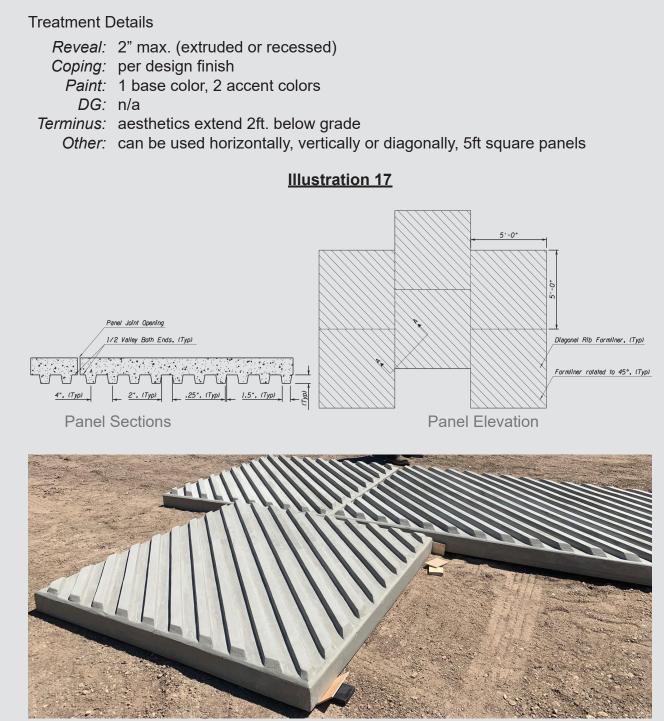




Hohokam Maze Pattern

### **MSE Wall Panel**

Typically used on wing walls, abutment walls, and retaining walls.



Panels with Diagonal Rustication Pattern



### **MSE Wall Panel**

Typically used on wing walls, abutment walls, and retaining walls.

#### **Treatment Details**

Reveal:	2" max. (extruded or recessed)
Coping:	per design finish
Paint:	1 base color, 2 accent colors
DG:	n/a
Terminus:	aesthetics extend 2ft. below grade
Other:	5ft square panels



Panels on Wing Wall with Random Vertical Rustication Pattern

### **MSE Wall Panel**

Typically used on wing walls, abutment walls, and retaining walls.

#### **Treatment Details**

Reveal:	2" max. (extruded or recessed)
Coping:	per design finish
Paint:	1 base color, 2 accent colors
DG:	n/a
Terminus:	aesthetics extend 2ft. below grade
Other:	5ft high by 10ft long panels

#### Illustration 19



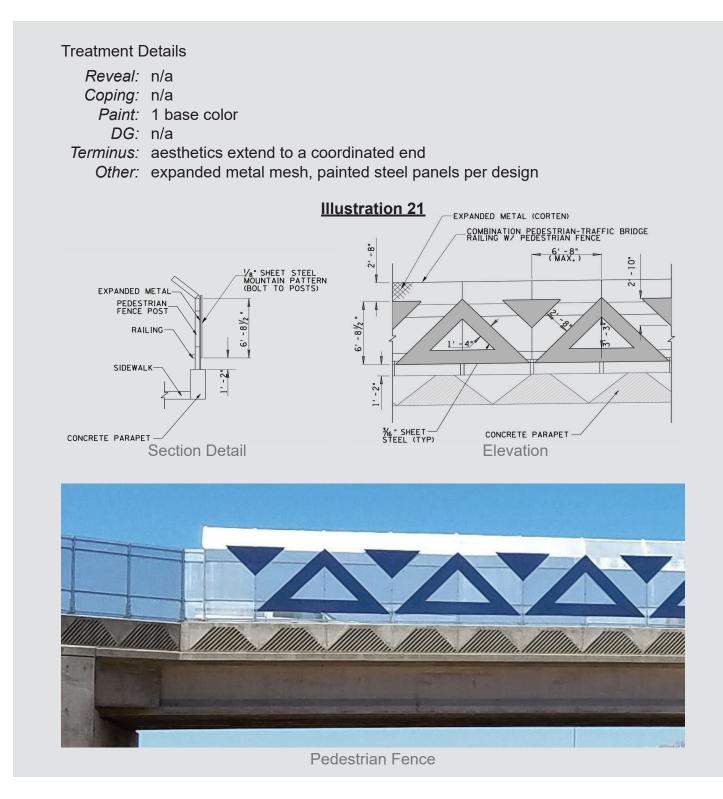
Panels on Retaining Wall & Wing Wall with Maze Rustication Pattern



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## Pedestrian Fence Aesthetic Example

Typically used on pedestrian fencing at overhead bridges.





# Concrete Masonry Unit Wall Typically used on sound barrier walls, freestanding walls, and mechanical facilities.

#### **Treatment Details**

Reveal:	2" max. (extruded or recessed)
Coping:	per design finish
Paint:	1 base color
Terminus:	aesthetics extend 2ft. below grade and to a coordinated end
Other:	standard block dimensions, combination of smooth face, fluted or split face
	textures, raked or smooth flush joints



**Even Vertical Flutted Pattern** 

## **Baseline Aesthetic Example**

Combination of baseline rustication aesthetics.

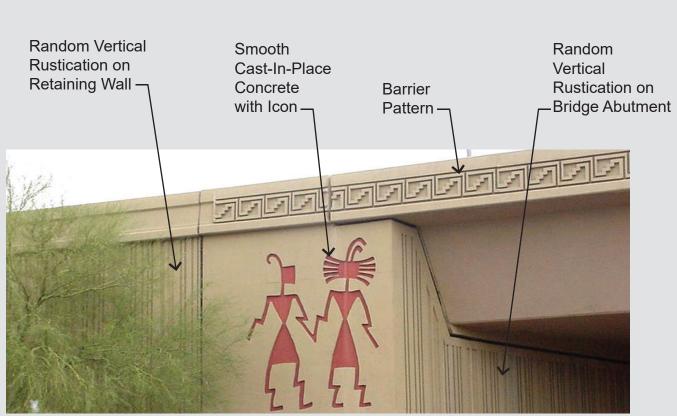


Random Vertical Rustication with Coiled Rattle Snake Icon & Maze Barrier Pattern



### Baseline Aesthetic Example

Combination of baseline rustication aesthetics.



Random Vertical Rustication with Kokopelli Icon & Maze Barrier Pattern