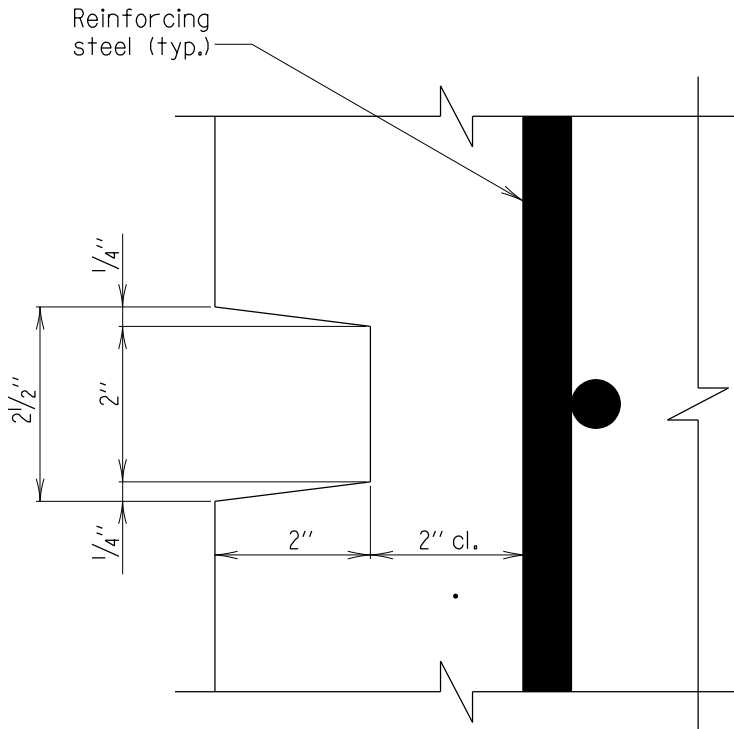


Chapter 08

AESTHETICS
(AES)

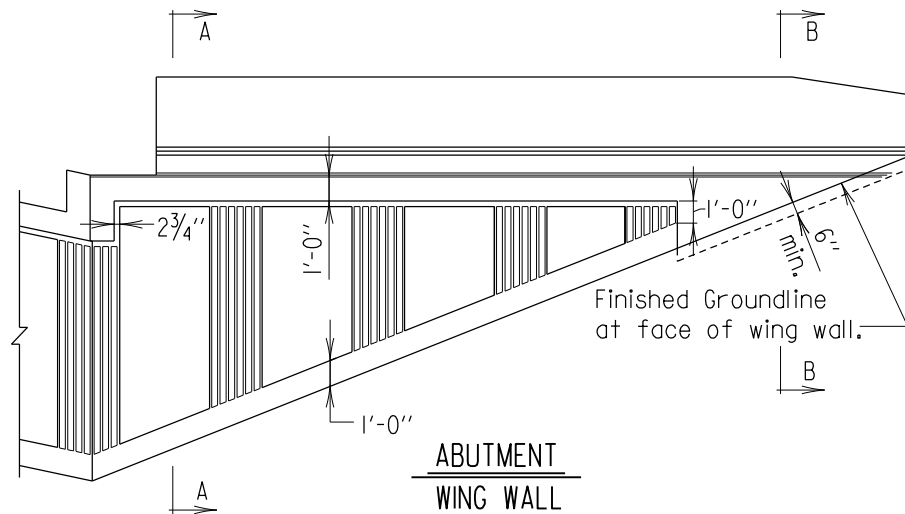


GROOVE DETAIL

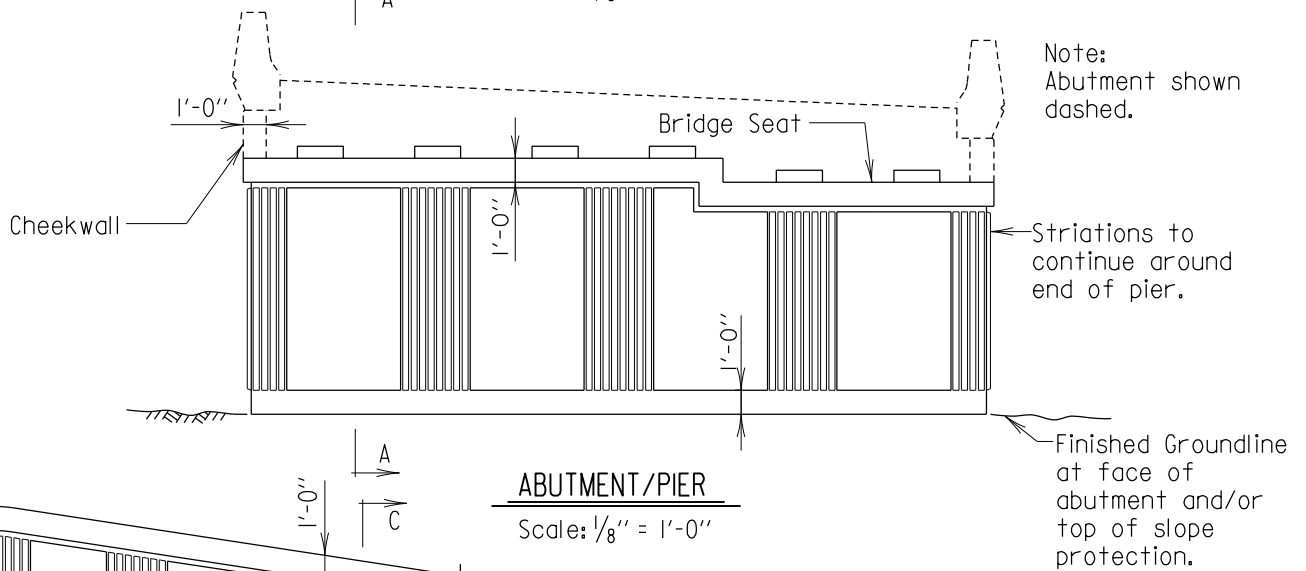
Scale: None

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<i>E.S. Freeman</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 03/14/1994
VERSION
1.0

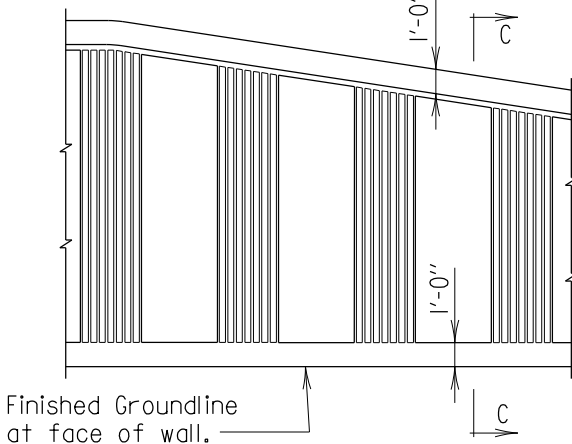
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
GROOVE DETAIL FOR SUBSTRUCTURE ELEMENTS	
DETAIL NO. AES-101	SHEET <u>1</u> OF <u>1</u>



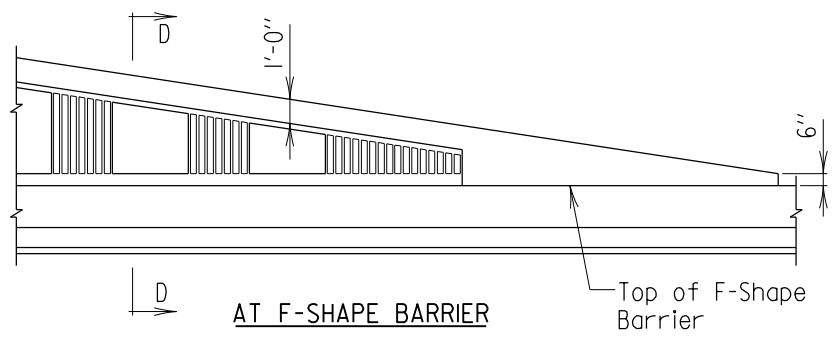
**ABUTMENT
WING WALL**
Scale: 1/8" = 1'-0"



ABUTMENT/PIER
Scale: 1/8" = 1'-0"



AT OTHER LOCATIONS



AT F-SHAPE BARRIER

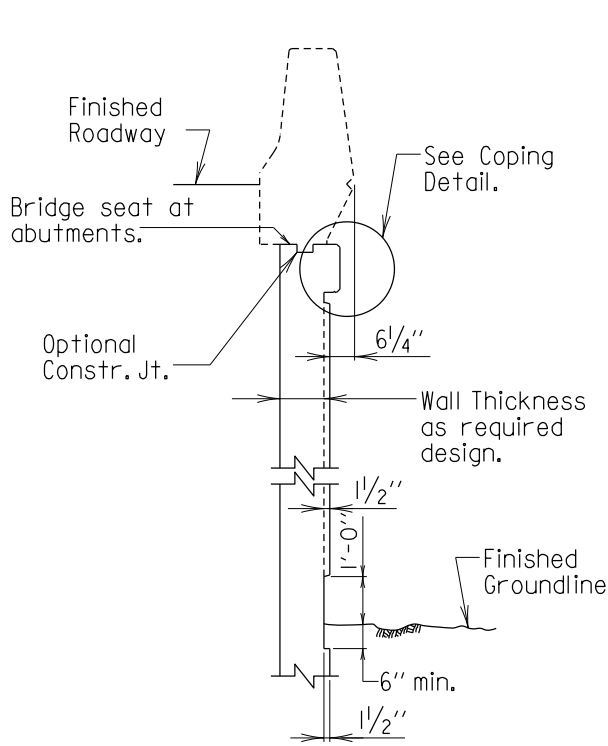
RETAINING WALL
Scale: 1/8" = 1'-0"

- Notes:
1. Special layouts may be necessary at certain locations. If details are shown on other Contract Drawings such limitations will take priority over these details.
 2. These striations shall only be used on bridge substructure elements and retaining walls, where specifically called for on Drawings.
 3. Cost of all striations, complete-in-place, to be included in other pertinent Contract items.
 4. Contraction and expansion joints shall always be located in striated areas.
 5. F-Shape barrier is for illustrative purposes only. See plans for barrier type.

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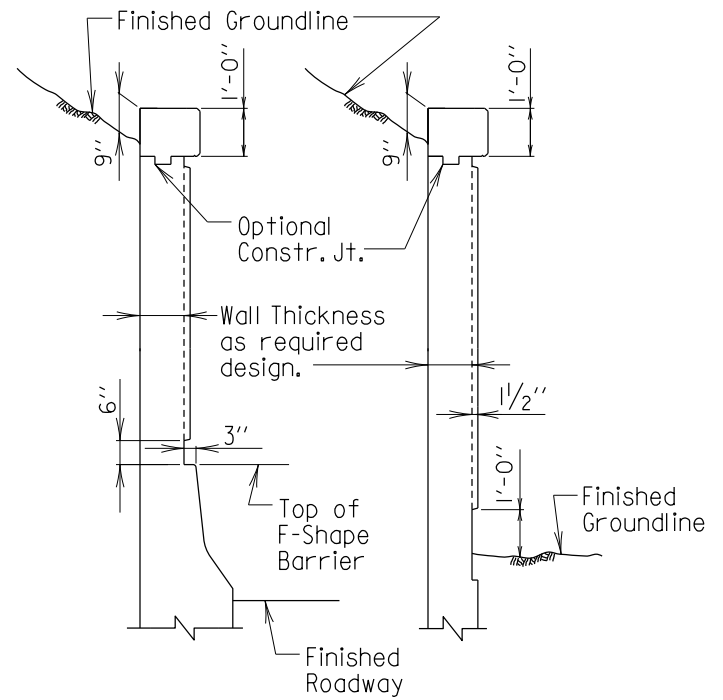
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
TRAPEZOIDAL STRIATION DETAILS FOR BRIDGE SUBSTRUCTURE UNITS AND RETAINING WALLS	
DETAIL NO. AES-201	SHEET <u>1</u> OF <u>2</u>

ESTHETICS



SECTION A-A

Scale: 1/4" = 1'-0"

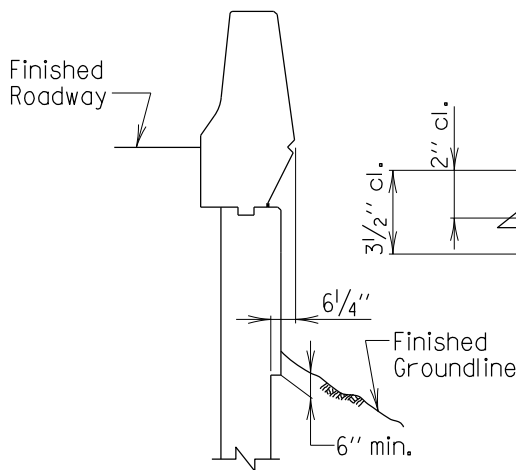


**SECTION D-D
RETAINING WALL
WITH JERSEY BARRIER**

Scale: 1/4" = 1'-0"

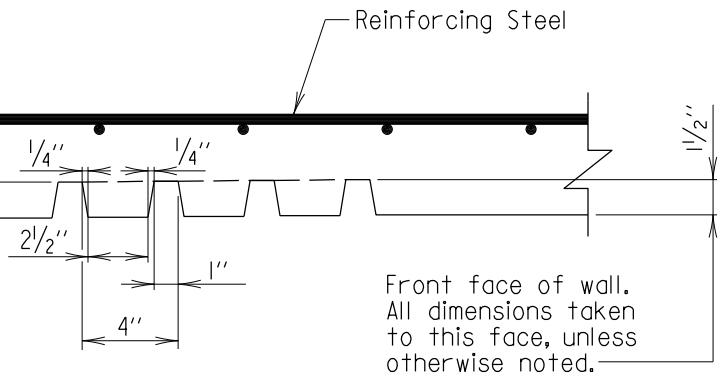
**SECTION C-C
RETAINING WALL
AT OTHER LOCATIONS**

Scale: 1/4" = 1'-0"



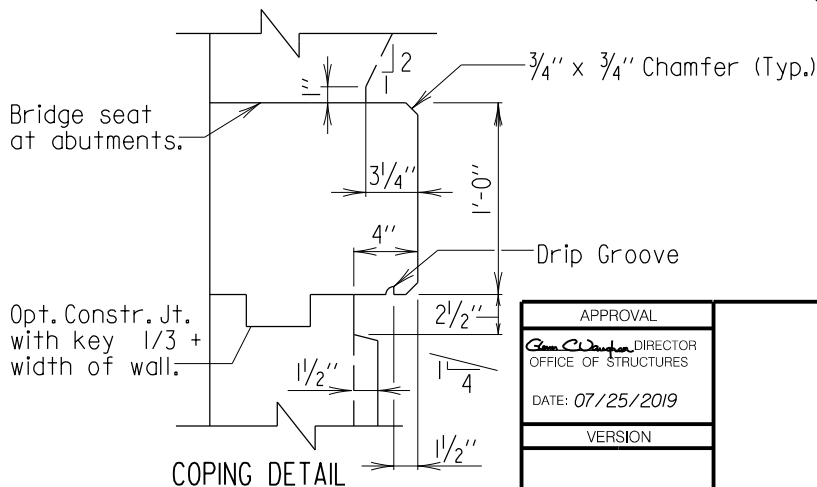
SECTION B-B

Scale: 1/4" = 1'-0"



FORMBOARD PATTERN DETAIL

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



COPING DETAIL

Scale: 1" = 1'-0"

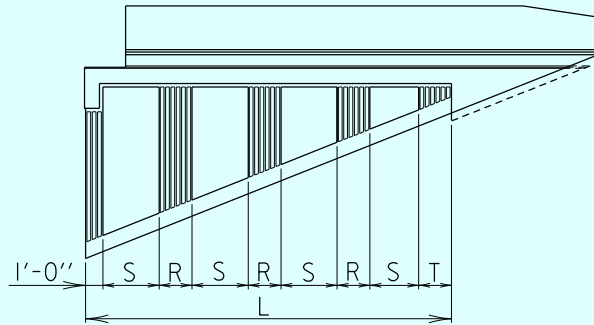
Note:
F-Shape barrier is for illustrative purposes only. See plans for barrier type.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
TRAPEZOIDAL STRIATION DETAILS FOR BRIDGE SUBSTRUCTURE UNITS AND RETAINING WALLS
DETAIL NO. AES-201
SHEET 2 OF 2

STRUCTURE INVENTORY

For wing walls
 $S \approx \frac{4}{3} T \approx 2R$



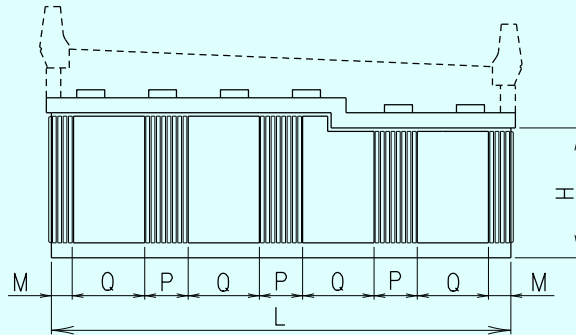
$S = 1/N (L - 1' - 0'' - T - (N - 1)R)$
 N=Number of Plain Panels
 R=Intermediate Striated Panel Dimension
 T=End Striated Panel Dimension
 S=Plain Panel Length
 L=Adjusted Length of Abutment Face (See AES-203)

ABUTMENT

WING WALL

Scale:None

For abutments/piers
 $Q \approx 2P \approx 4M$

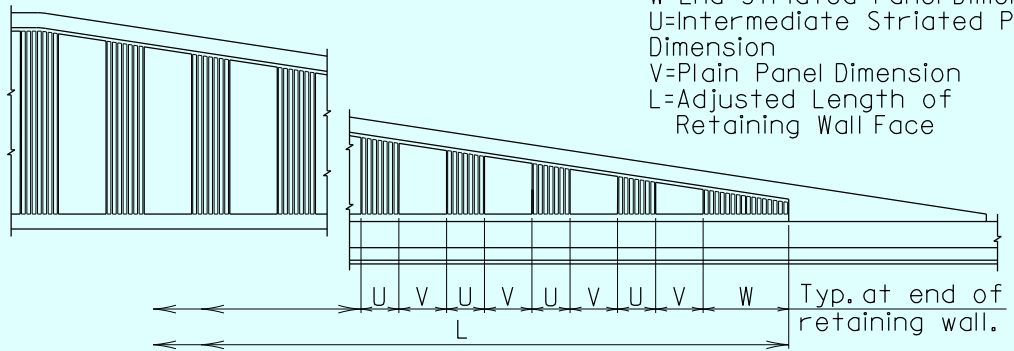


$Q = 1/N (L - 2M - (N - 1)P)$
 N=Number of Plain Panels
 M=End Striated Panel Dimension
 P=Intermediate Striated Panel Dimension
 Q=Plain Panel Dimension
 L=Adjusted Length of Abutment Face (See AES-203)

ABUTMENT/PIER

Scale:None

For retaining walls
 $W \approx \frac{5}{4} V \approx \frac{5}{3} U$



$V = 1/N (L - 2W - (N - 1)U)$
 N=Number of Plain Panels
 W=End Striated Panel Dimension
 U=Intermediate Striated Panel Dimension
 V=Plain Panel Dimension
 L=Adjusted Length of Retaining Wall Face

RETAINING WALL

Scale:None

* FOR OFFICE USE ONLY *

Note:
 F-Shape barrier is for illustrative purposes only.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
TRAPEZOIDAL STRIATION LAYOUT FOR BRIDGE SUBSTRUCTURE UNITS AND RETAINING WALLS
DETAIL NO. AES-202
SHEET <u>1</u> OF <u>1</u>

ESTHETICS

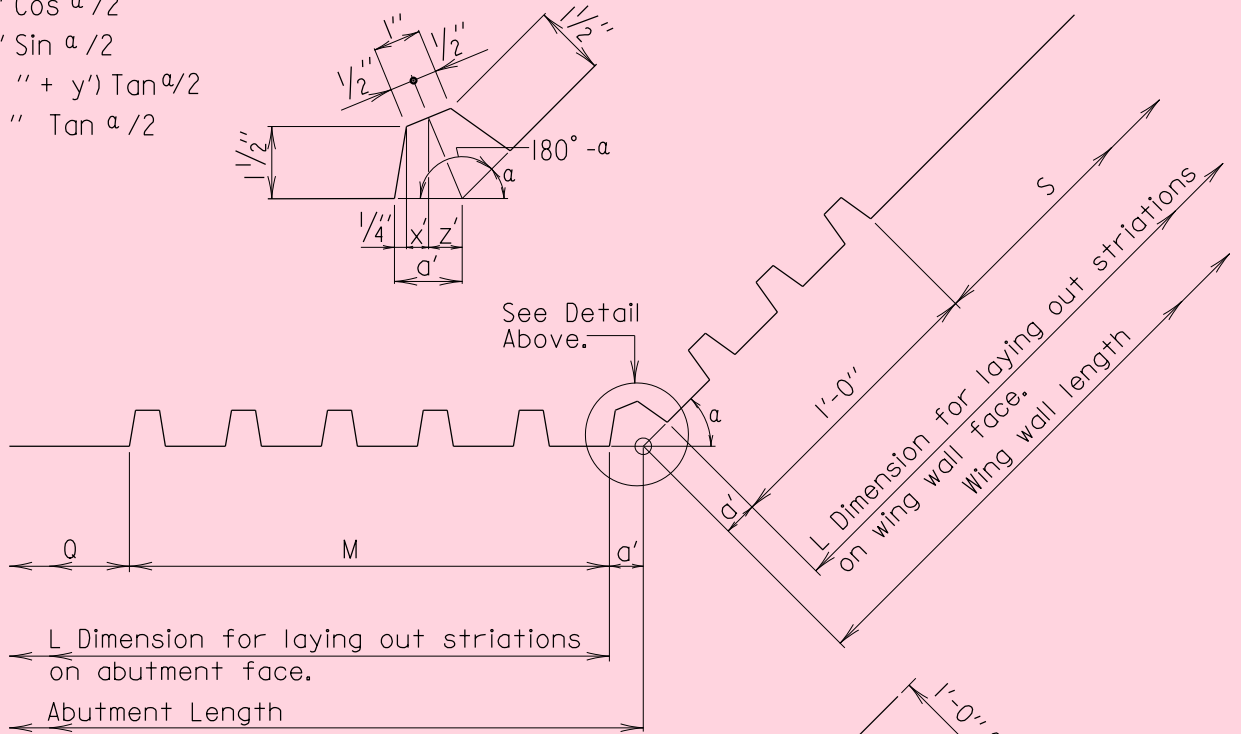
$$d' = x' + z' + \frac{1}{4}''$$

$$x' = \frac{1}{2}'' \cos \alpha / 2$$

$$y' = \frac{1}{2}'' \sin \alpha / 2$$

$$z' = (\frac{1}{2}'' + y') \tan \alpha / 2$$

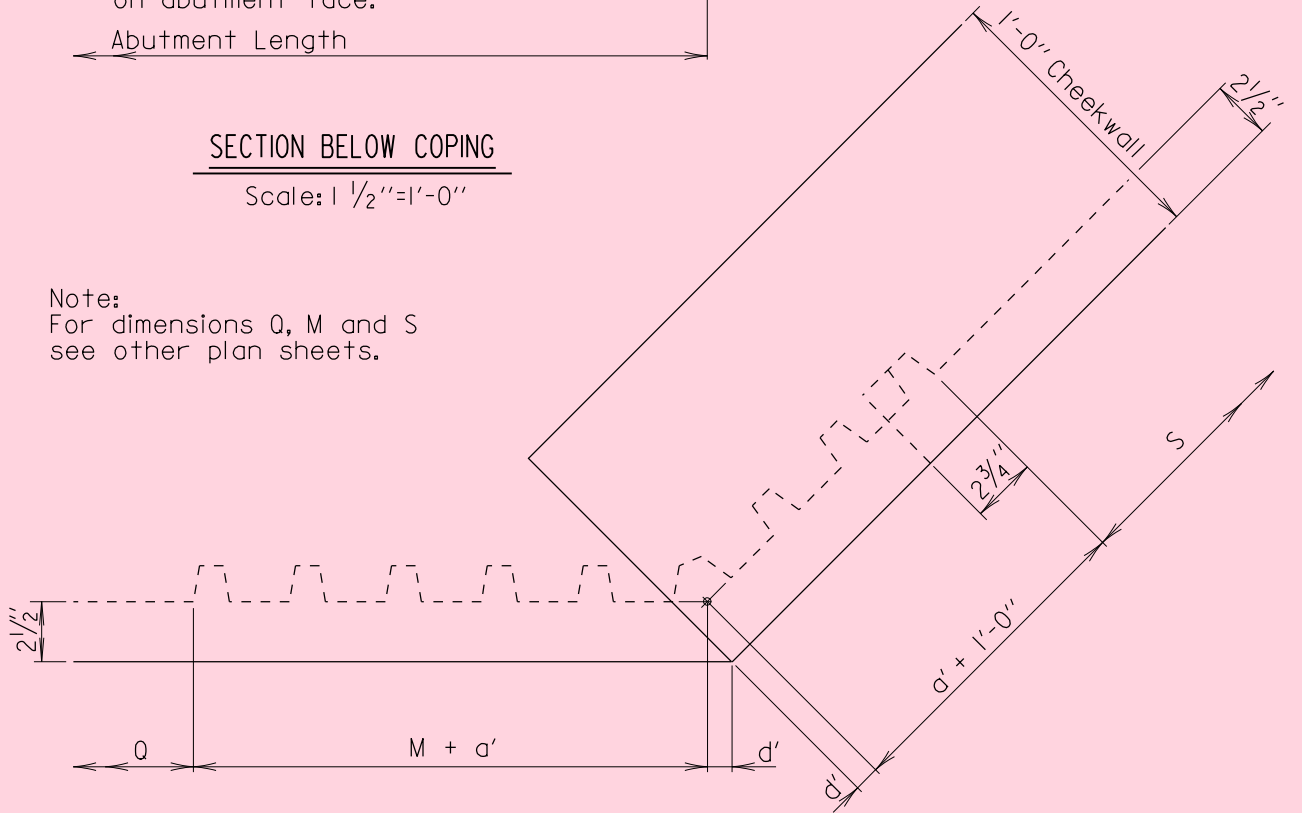
$$d' = 2 \frac{1}{2}'' \tan \alpha / 2$$



SECTION BELOW COPING

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

Note:
For dimensions Q, M and S
see other plan sheets.



SECTION THRU COPING

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

Location				
a'				
d'				

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1.0

STATE OF MARYLAND
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STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**TRAPEZOIDAL STRIATION CORNER DETAILS
SQUARE AND OBTUSE CORNER**

DETAIL NO. AES-203

SHEET 1 OF 2

$$\beta = (90 + a) \div 2$$

$$a = z + x + \frac{1}{4}''$$

$$b = (9'' + a) \div \tan a$$

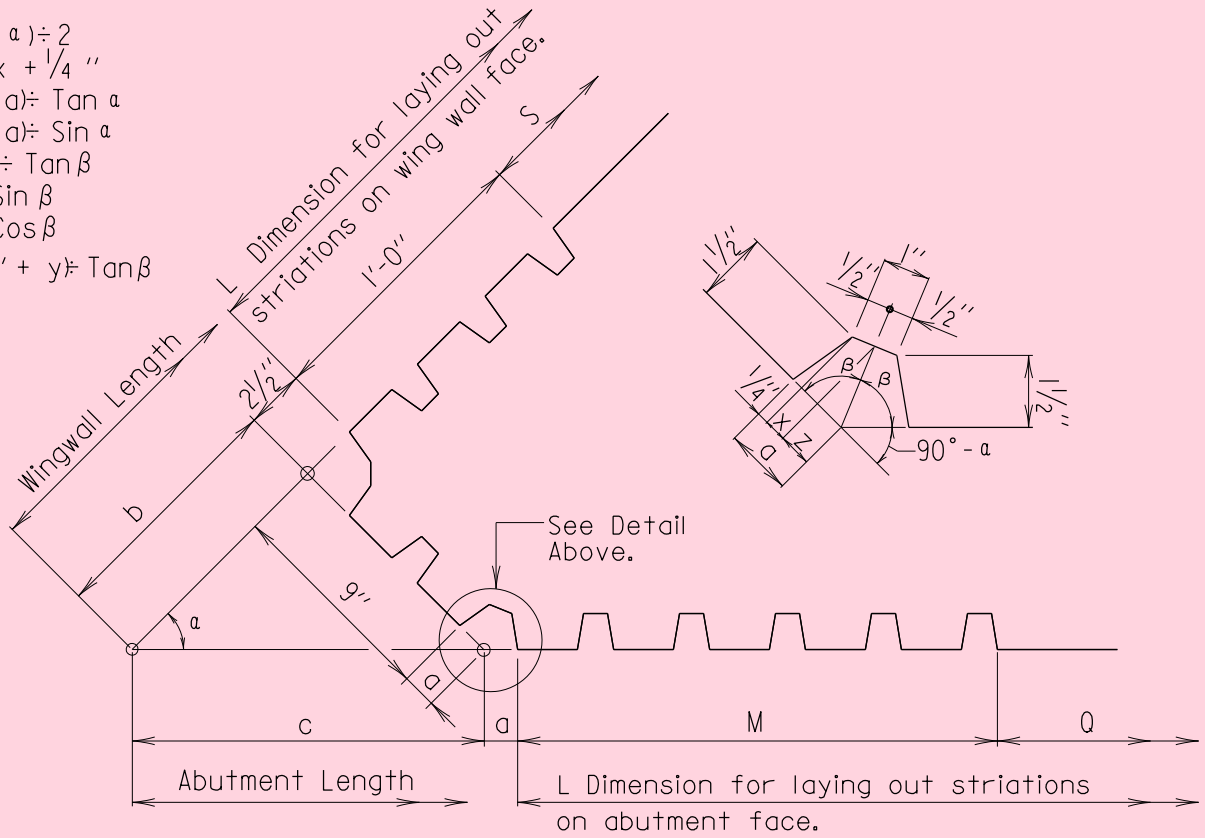
$$c = (9'' + a) \div \sin a$$

$$d = 2\frac{1}{2}'' \div \tan \beta$$

$$x = \frac{1}{2}'' \sin \beta$$

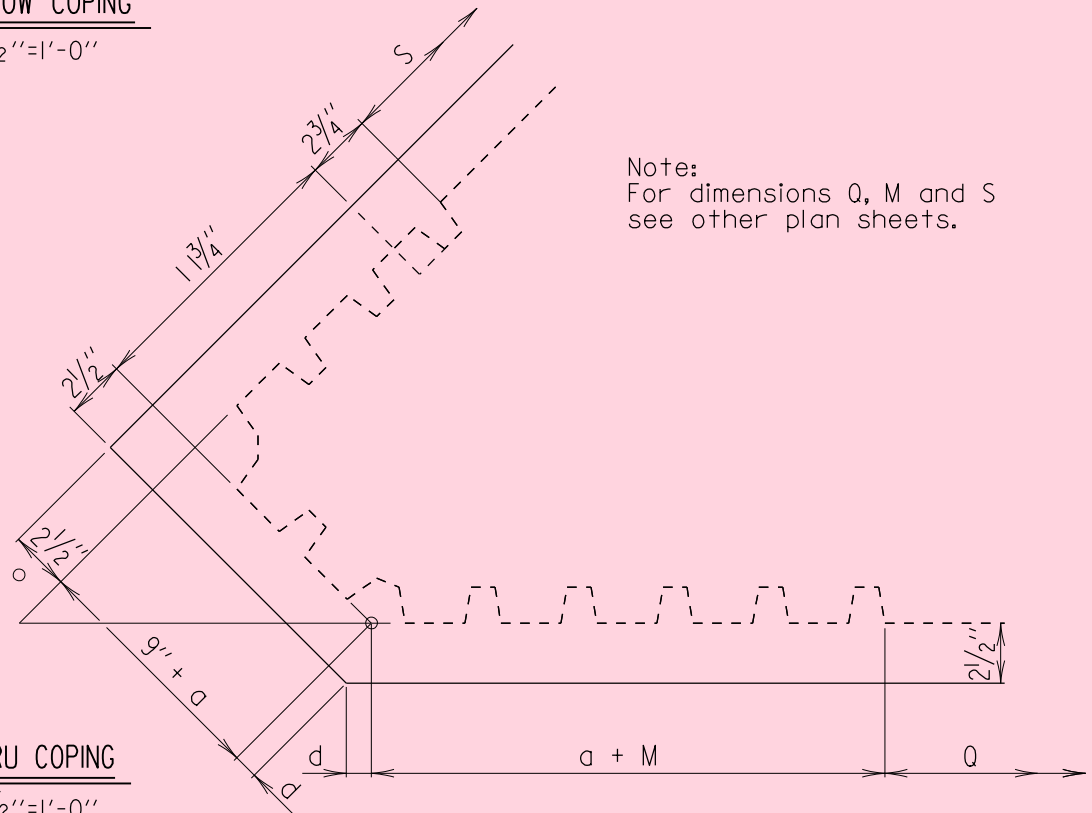
$$y = \frac{1}{2}'' \cos \beta$$

$$z = (1\frac{1}{2}'' + y) \div \tan \beta$$



SECTION BELOW COPING

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



SECTION THRU COPING

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

Location				
a				
b				
c				
d				

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VERSION
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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
TRAPEZOIDAL STRIATION CORNER DETAILS ACUTE CORNER
DETAIL NO. AES-203
SHEET 2 OF 2