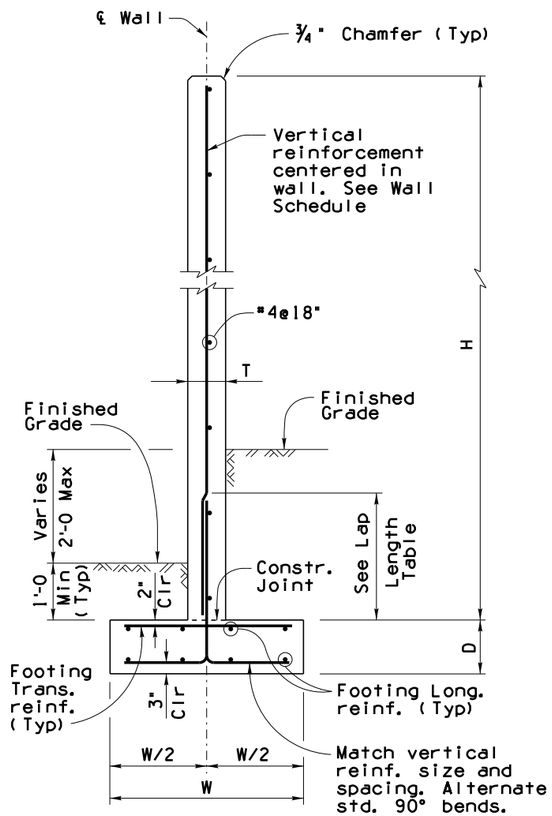
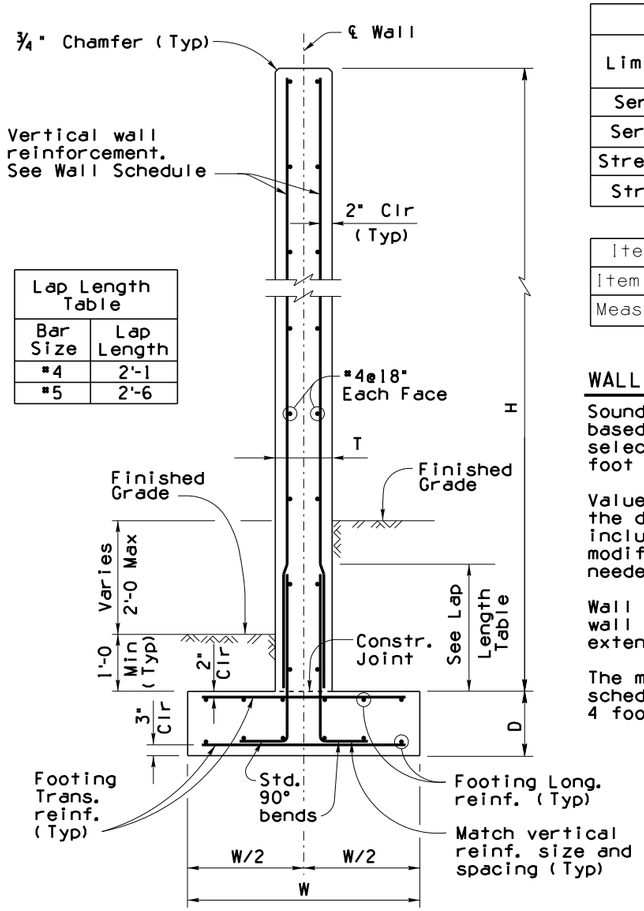


TYPICAL WALL SECTION

(For Wall Height up to 11'-11)



Lap Length Table	
Bar Size	Lap Length
#4	2'-1
#5	2'-6

TYPICAL WALL SECTION

(For Wall Height 12'-0 to 26'-0)

WIND LOADING		
Limit State	Wind Velocity (mph)	Pressure (psf)
Service I	70	12.82
Service IV	86.25	19.46
Strength III	115	34.59
Strength V	80	16.74

Item	SOUND BARRIER WALL (CONCRETE)
Item No.	9140136
Measure	Square Foot

WALL DESIGN NOTES:

Sound barrier walls selection shall be based on the noise analysis. The wall selected shall account for a future 4 foot wall height extension.

Values shown in the wall schedule represent the design values for each wall height including a future 4 foot extension. No modifications to the wall schedule will be needed to extend the wall a maximum of 4 feet.

Wall designer shall note on the plans that the wall has been designed to allow for a 4 foot extension.

The maximum wall height selected from the wall schedule shall not exceed 26'-0 to allow for a 4 foot future wall extension.

GENERAL NOTES:

Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, latest Edition.

Design Specifications - AASHTO LRFD Bridge Design Specifications, 8th Edition 2017 with 2018 interims.

Wind Exposure Category C. For wind design load, see Wind Loading table.

Vehicular collision forces are not included in the design of the sound walls.

All Concrete shall be Class "S" (f'c = 3,000 psi).

Reinforcing steel shall conform to ASTM A615. All reinforcing shall be furnished as Grade 60.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcing steel shall have 2 inch clear cover unless noted otherwise.

Chamfer all exposed corners ¾" unless noted otherwise.

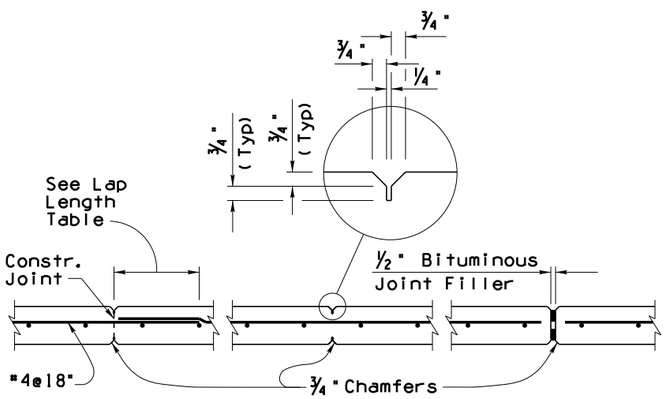
Compact backfill for footing and wall base minimum 100 percent of ASTM D698 maximum dry density.

See Project Plans for wall layout, top of footing and finished grade elevations, footing step and wall joint locations. Construction Joints shall match the locations of weakened plane joints.

See Project Plans for wall surface treatment. Increase the wall thickness for any treatment depth greater than ¾".

Pay item measure of square foot of wall constructed will be measured along the front face of the wall from top of footing to top of wall cap.

Dimensions shall not be scaled from drawings.

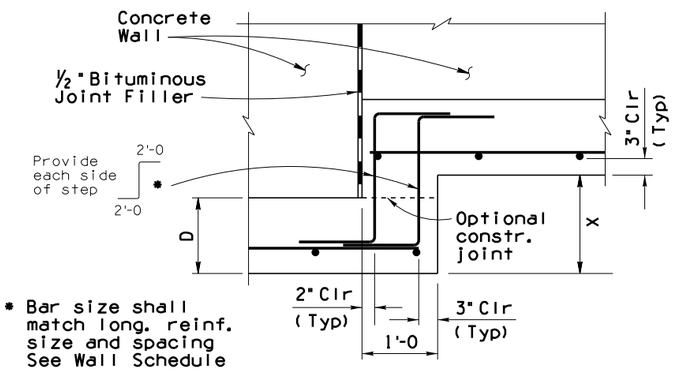


Construction Joint (Optional) | Weakened Planes (Max. Spacing 30') | Expansion Joint (Max. Spacing 90')

TYPICAL JOINT DETAILS

(Detail shown for 8" thick wall)

WALL SCHEDULE							
Wall Design Height H	Wall Thick T	Footing Depth D	Footing Width W	Reinforcing Steel			Factored Average Soil Bearing Pressure (psf)
				Wall	Footing		
				Vertical Reinf.	Trans. Reinf.	Long. Reinf.	
4'-0 to 5'-11	6"	1'-0	3'-6	#4@9"	#4@9"	#4@16"	1,400
6'-0 to 7'-11	8"	1'-0	4'-0	#5@12"	#5@12"	#5@16"	1,500
8'-0 to 9'-11	8"	1'-3	4'-6	#5@12"	#5@12"	#5@16"	1,600
10'-0 to 11'-11	8"	1'-6	5'-0	#5@10"	#5@10"	#5@16"	1,700
12'-0 to 13'-11	10"	1'-6	5'-6	#5@12" E.F.	#5@12"	#5@16"	1,800
14'-0 to 15'-11	10"	1'-9	6'-0	#5@12" E.F.	#5@12"	#5@16"	1,900
16'-0 to 17'-11	12"	2'-0	6'-3	#5@12" E.F.	#5@12"	#5@16"	2,100
18'-0 to 19'-11	13"	2'-3	6'-6	#5@12" E.F.	#5@12"	#5@16"	2,300
20'-0 to 21'-11	14"	2'-6	6'-9	#5@12" E.F.	#5@12"	#5@16"	2,600
22'-0 to 23'-11	14"	2'-9	7'-0	#5@12" E.F.	#5@12"	#5@16"	2,800
24'-0 to 26'-0	14"	3'-0	7'-3	#5@10" E.F.	#5@10"	#5@16"	3,000



* Bar size shall match long. reinf. size and spacing See Wall Schedule

FOOTING STEP DETAIL

See Project Plans for location of footing steps and Dim. X

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PRIOR DISTRIBUTION DATE 01/16