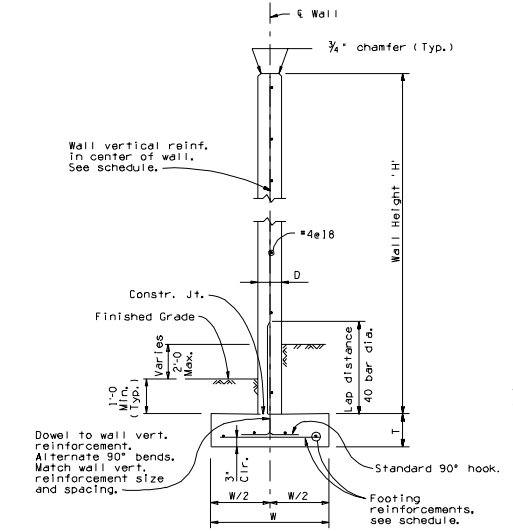
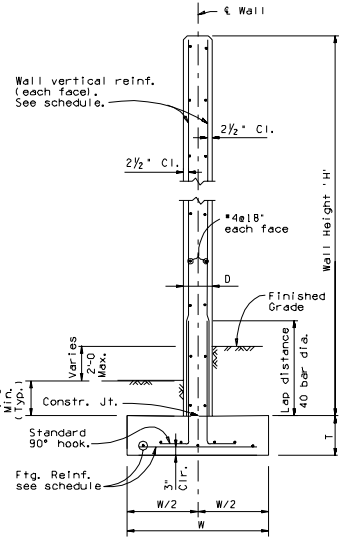
FHWA REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				



H < 18'-0



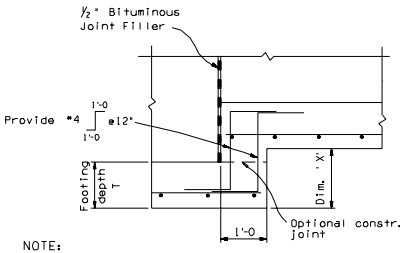
H >= 18'-0

TYPICAL WALL SECTIONS

GENERAL NOTES

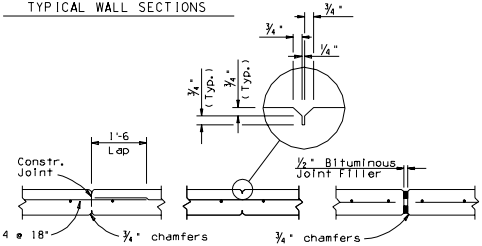
Construction - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, Current Edition.
Design - AASHTO Standard Specifications for Highway Bridges, 1996 Edition and 1997, 1998 Interim Specifications. Load Factor Design Method.
All concrete shall be Class 'S' unless noted otherwise.
Reinforcing Steel shall conform to ASTM Specification A615. All bar sizes shall designed and furnished as Grade 60.
Concrete ..... f'c = 3,000 psi.
Reinforcing Steel ..... fy = 60,000 psi.
Wind Load as per 1996 Uniform Building Code.
Wind Velocity 80 MPH, Exposure C.
Wind pressure 18.5 psf for heights under 12'-0
Wind pressure 24.5 psf for heights between 12'-0 and 20'-0
Wind pressure 26.5 psf for heights over 20'-0.
Do not scale dimensions from drawings.
See Project plans for wall layout, top of footing and finished grade elevations, footing step and wall joint locations.
Location of Construction Joint shall match the location of a weakened plane joint.
For wall surface treatment see Project Plans. Increase thickness of wall for any treatment with a depth greater than ½".
Compact backfill for footing and wall base minimum 95 percent of ASTM D698 maximum dry density.
Pay item includes all labor and materials for excavation, backfill, concrete footing and wall with reinforcements. Pay item is measured as wall height (H) times length of wall. Footing is included in the wall pay item.
Item No. 9140136
SOUND BARRIER WALL (CONCRETE)
Measure: Square Foot

WALL SCHEDULE							
Wall Height H	Wall Thick D	Ftg. Depth T	Ftg. Width W	Reinforcing			Minimum Req. Soil Pressure psf
				Wall	Footing		
				Vert.	Trans.	Long.	
0'-0 to 3'-11	6"	10"	1'-6	#4@12"	#4@12"	2-#4	1,000
4'-0 to 5'-11	6"	10"	2'-0	#4@12"	#4@12"	3-#4	1,300
6'-0 to 7'-11	6"	10"	2'-6	#4@12"	#4@12"	3-#4	1,500
8'-0 to 9'-11	6"	10"	3'-0	#4@12"	#4@12"	3-#5	1,600
10'-0 to 11'-11	6"	1'-0	3'-6	#4@12"	#4@12"	4-#5	1,700
12'-0 to 13'-11	6"	1'-3	4'-6	#4@9"	#4@9"	5-#5	1,900
14'-0 to 15'-11	8"	1'-6	5'-0	#4@9"	#5@9"	5-#5	2,000
16'-0 to 17'-11	8"	1'-6	5'-6	#5@9"	#5@9"	5-#5	2,100
18'-0 to 19'-11	10"	1'-9	6'-0	#5@12" E.F.	#5@12"	6-#5	2,300
20'-0 to 21'-11	12"	2'-0	6'-3	#5@12" E.F.	#5@12"	6-#6	2,500
22'-0 to 25'-0	12"	2'-6	7'-3	#5@12" E.F.	#5@12"	7-#6	2,300



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

FOOTING STEP DETAIL



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

TYPICAL JOINT DETAILS
Detail drawn for 8' thick wall

DESIGN APPROVED
Sharif M. Hassan
STRUCTURE ENGINEER
J. Daniel Dorn

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP STRUCTURE DETAIL

SOUND BARRIER WALL (CONCRETE)

ROUTE | LOCATION | DRAWING NO. SD 8.01

TRACS NO. | ___ OF ___