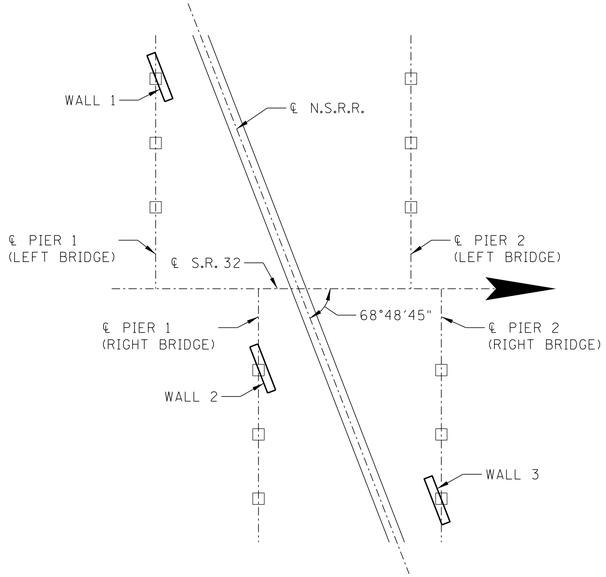
PROJECT NO.	YEAR	SHEET NO.
32003-4221-04	2014	

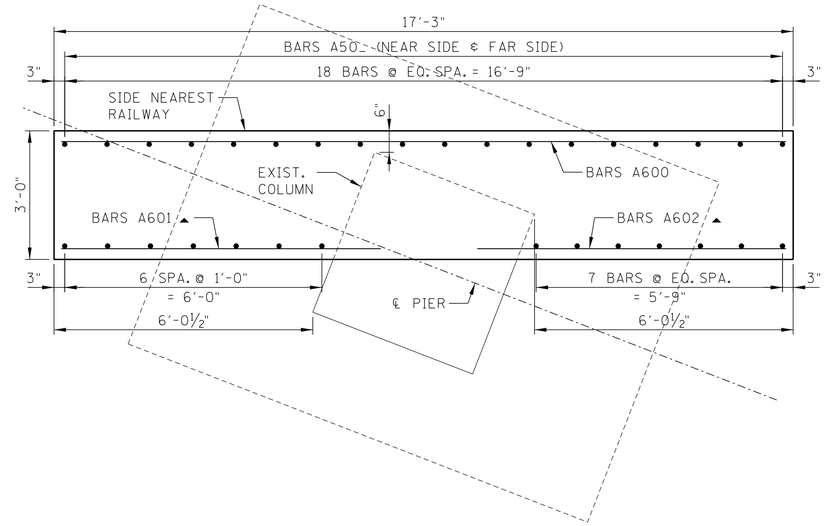
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

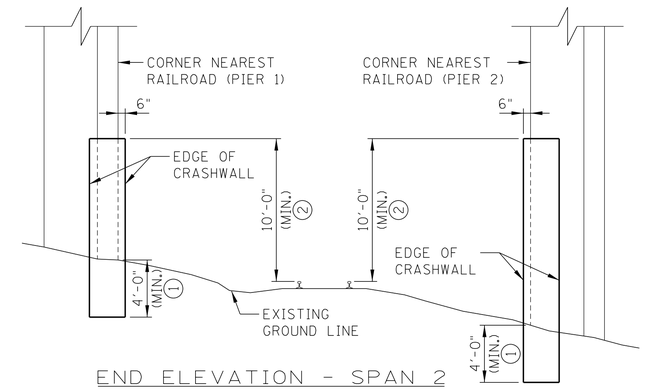


PLAN VIEW

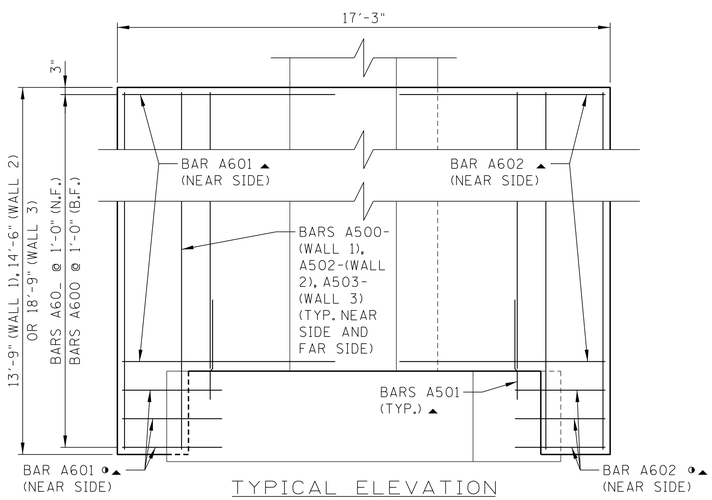
(SHOWING LOCATIONS OF REQUIRED CRASHWALLS)



TYPICAL PLAN

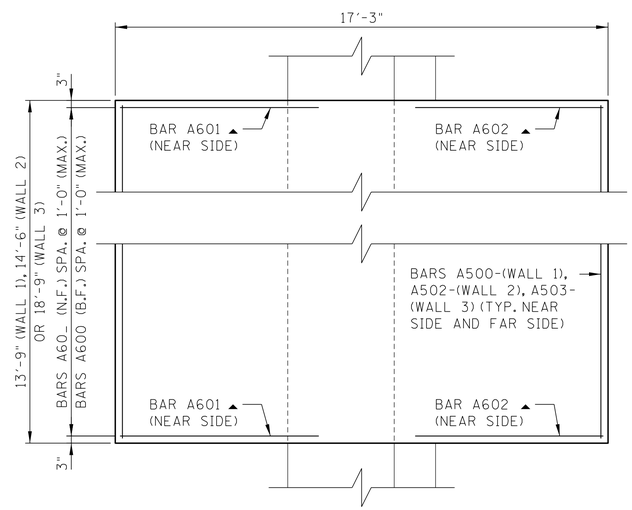


END ELEVATION - SPAN 2



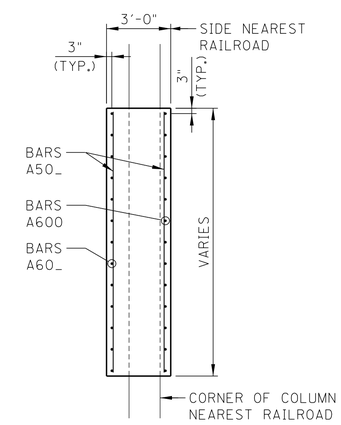
TYPICAL ELEVATION

(ASSUMING FOOTING IS LESS THAN 4'-0" BELOW GRADE)



TYPICAL ELEVATION

(ASSUMING FOOTING IS MORE THAN 4'-0" BELOW GRADE)



TYPICAL SECTION THRU CRASHWALL

BILL OF STEEL

	BAR	SIZE	NUMBER REQUIRED			LENGTH
			WALL 1	WALL 2	WALL 3	
◑	A500	5	32	-	-	13'-5"
◙	A501	5	18	18	18	3'-7"
◑	A502	5	-	32	-	14'-2"
◑	A503	5	-	-	32	18'-5"
◑	A600	6	15	15	20	16'-11"
◑	A601	6	15	15	20	7'-6"
◑	A602	6	15	15	20	7'-3"

◙ BARS ONLY REQUIRED IF FOOTINGS ARE LESS THAN 4'-0" BELOW GROUND LINE. QUANTITY NOT INCLUDED IN TOTAL ESTIMATED WEIGHT OF REINFORCING STEEL.

◑ SOME BARS MAY BE FIELD CUT TO ACCOMODATE FOOTINGS THAT ARE LESS THAN 4'-0" BELOW GROUND LINE.

▲ DRILL & GROUT BARS WITH 12" MINIMUM EMBEDMENT.

① FROM TOP OF GROUND TO BOTTOM OF CRASHWALL.

② FROM TOP OF RAIL TO TOP OF CRASHWALL.

ESTIMATED QUANTITIES

ITEM	CLASS "A" CONCRETE (C.Y.)	REINFORCING STEEL (LBS.)
WALL 1	22.5	1161.2
WALL 2	23.7	1186.3
WALL 3	30.6	1565.9

LENGTH

BARS A

BAR SPLICE TABLE	
BAR SIZE	MINIMUM SPLICE LENGTH
#5	2'-5"

NOTES:

CONTRACTOR SHALL ENSURE THAT TOP OF CRASHWALL IS 10'-0" (MIN.) ABOVE TOP OF RAIL FOR ADJACENT RAILROAD TRACK AND THAT BOTTOM OF CRASHWALL IS 4'-0" (MIN.) BELOW SURROUNDING GRADE. CRASHWALLS ARE TO BE PARALLEL WITH TRACK.

REINFORCEMENT SHOWN IS FOR EACH CRASHWALL, UNLESS OTHERWISE NOTED.

CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND ELEVATIONS PRIOR TO ORDERING ANY MATERIALS OR BEGINNING ANY WORK FOR NEW CRASHWALLS.

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ANY EXISTING STORM DRAINAGE NEAR BENTS DURING CONSTRUCTION AND FOR REPAIRING ANY DAMAGE TO THE EXISTING STORM DRAINAGE TO THE SATISFACTION OF THE ENGINEER. COST TO BE INCLUDED IN ITEMS BID ON.

ALL COSTS ASSOCIATED WITH PLACEMENT OF CRASHWALLS AND ON NECESSARY REPAIRS TO CONCRETE SLOPE PAVEMENT DUE TO CONSTRUCTION OF CRASHWALLS ARE TO BE INCLUDED IN ITEM NO. 604-03.01, CLASS A CONCRETE (BRIDGES), C.Y. AND 604-03.02, STEEL BAR REINFORCEMENT (BRIDGES), LB.

G. SCOTT WILSON REGISTERED ENGINEER NO. 106537 — 09/28/2014 — COMMERCE — TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CRASHWALL DETAILS
BRIDGE NO. BR-32-SR32-06.97 (LEFT) ℄
BRIDGE NO. BR-32-SR32-06.98 (RIGHT)
S.R. 32 OVER S.R. 34 ℄
NORFOLK SOUTHERN RAILWAY
HAMBLEN COUNTY
2014

Palmer ENGINEERING

DESIGNED BY G.S. WILSON DATE 11/2011
DRAWN BY C.D. VICTORY DATE 11/2011
SUPERVISED BY G.S. WILSON DATE 11/2011
CHECKED BY G.S. WILSON DATE 11/2011

J:\STRUCTURES\10705-09_HAMBLENCO.SR32\DRAWINGS\FINAL\10705-09-CRASHWALL.DGN

4/22/2014

BR-110-145