

HORIZONTAL CURVE DATA -CULVERT-

PI = STA. 17+85.98	PI = STA. 19+40.92
$\Delta = 46^\circ 41' 03.0''$ (RT.)	$\Delta = 20^\circ 54' 25.1''$ (LT.)
D = 114° 35' 29.6"	D = 28° 38' 52.4"
L = 40.74'	L = 72.98'
T = 21.58'	T = 36.90'
R = 50.00'	R = 200.00'

HORIZONTAL CURVE DATA -L-

PI = STA. 31+61.00	PI = STA. 11+63.06
$\Delta = 21^\circ 01' 08.6''$ (RT.)	$\Delta = 1^\circ 58' 13.7''$ (RT.)
D = 1° 54' 35.5"	D = 1° 08' 45.3"
L = 1,100.56'	L = 171.96'
T = 556.53'	T = 85.99'
R = 3,000.00'	R = 5,000.00'

P.I. = STA. 15+89.00 EL. = 171.52' P.I. = STA. 17+50.00 EL. = 170.71'

(-) 0.5000%

GRADE DATA -CULVERT-

P.V.I. = STA. 28+00.00
EL. = 188.00'
V.C. = 150.00'

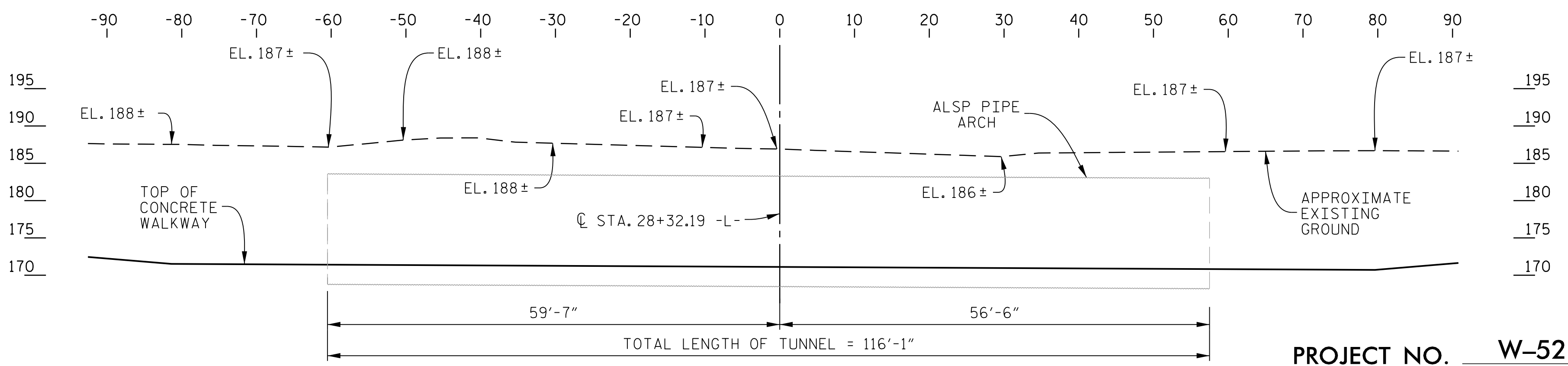
(+) 0.5755% (-) 0.8900%

GRADE DATA -L-

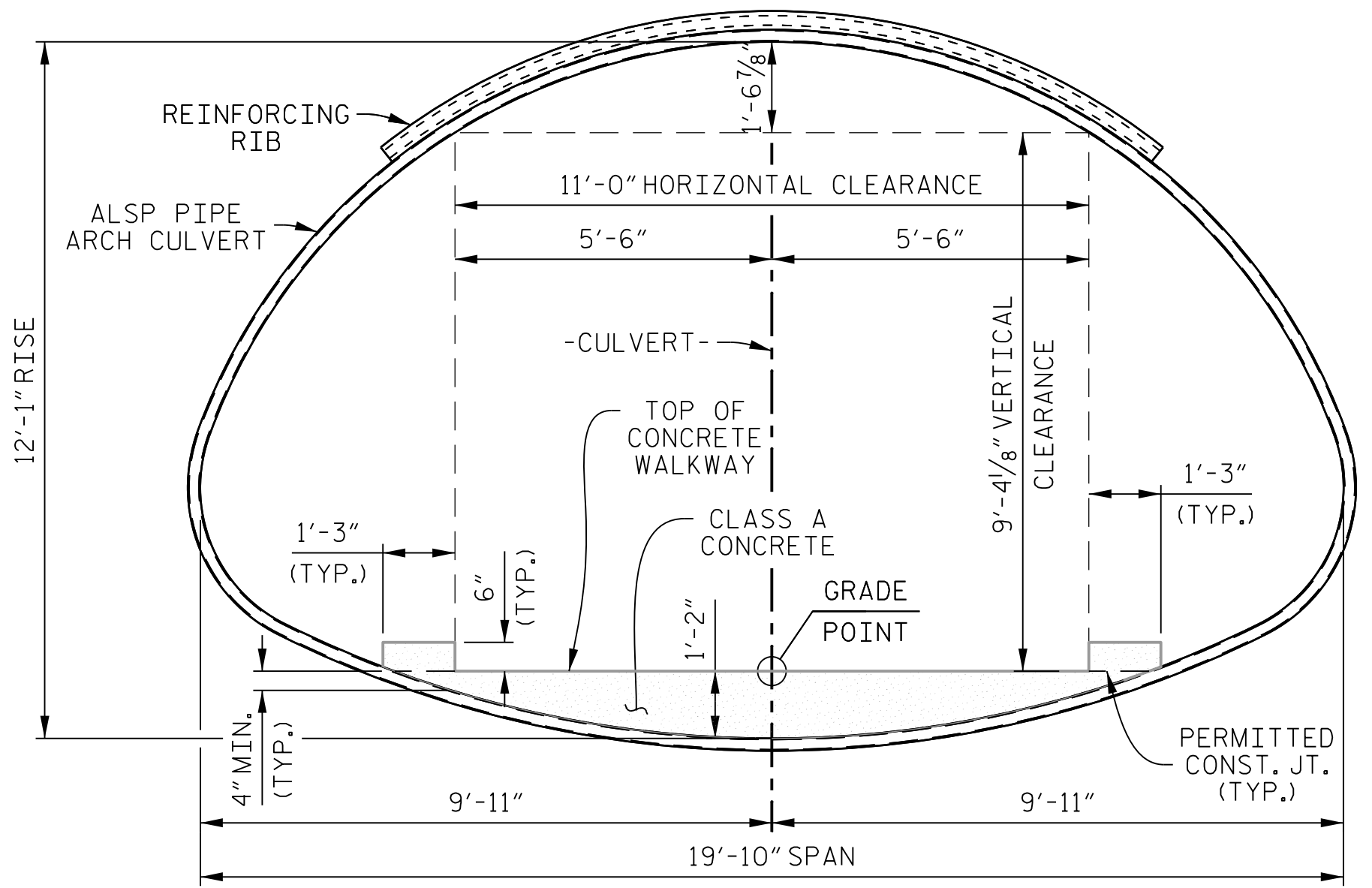
NOTES

- ASSUMED LIVE LOAD.....HL-93 OR ALTERNATE LOADING.
- DESIGN FILL IS MEASURED FROM FINISHED GRADE TO TOP OF ALSP PIPE ARCH AT -CULVERT-.
- MAXIMUM DESIGN FILL..... 7.0 FEET
- MINIMUM DESIGN FILL..... 4.2 FEET
- THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF TUNNEL BEFORE STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE OF THE FILL.
- FOR OTHER DESIGN DATA AND NOTES, SEE STANDARD NOTES SHEET.
- FOR ALUMINUM STRUCTURAL PLATE PIPE ARCH CULVERT, SEE SPECIAL PROVISIONS.
- ALSP DENOTES ALUMINUM STRUCTURAL PLATE.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR #57 STONE, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.
- FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS.
- FOR PIPE CULVERTS, SEE SECTION 300 OF THE STANDARD SPECIFICATIONS.
- MAXIMUM FACTORED VERTICAL STRESS ON FOUNDATION MATERIAL IS 2,000 LBS./SF.
- DEWATERING WILL BE REQUIRED DURING CONSTRUCTION.
- NO WORK SHALL BE DONE ON THE PIPE CULVERT AT STA. 28+32.19 -L- UNTIL THE AREA OF THE PIPE CULVERT HAS BEEN UNDERCUT AND UNSUITABLE MATERIAL REPLACED WITH SUITABLE MATERIAL, PROPERLY COMPACTED TO THE ELEVATION OF THE BOTTOM OF THE PROPOSED FLOOR SLAB. THE LIMITS OF THIS UNDERCUT EXCAVATION SHALL BE AT LEAST 2'-0" OUTSIDE THE PIPE CULVERT. NO SEPARATE PAYMENT WILL BE MADE FOR ANY TEMPORARY SHEETING, UNDERCUT, OR UNSUITABLE MATERIAL REPLACEMENT AS REQUIRED TO CONSTRUCT THE PROPOSED CULVERT. PAYMENT IS INCLUDED IN THE LUMP SUM PRICE FOR CULVERT EXCAVATION.
- FOR MSE RETAINING WALL DETAILS, SEE SHEETS C-3 TO C-6.

LOCATION SKETCH



PROFILE ALONG -CULVERT-



RIGHT ANGLE SECTION OF TUNNEL
(WALKWAY REINFORCING NOT SHOWN)

STRUCTURE QUANTITIES

FOUNDATION CONDITIONING MATERIAL	550 TONS
CULVERT EXCAVATION	LUMP SUM
CLASS A CONCRETE	54.3 CU. YDS.
ALSP PIPE ARCH CULVERT (19'-10" x 12'-1")	LUMP SUM
#57 STONE	2000 TONS

FOR MSE RETAINING WALL QUANTITIES, SEE SHEETS C-3 TO C-6.

DRAWN BY : K. E. LOFTON DATE : 12-14
CHECKED BY : T. M. HARRIS DATE : 1-15
DESIGN ENGINEER : T. M. HARRIS DATE : 1-15

PLANS PREPARED BY :
PARSONS
5540 Centerview Drive, Suite 217
Raleigh, NC 27606-3386
NC LICENSE No. F-0246

NORTH CAROLINA PROFESSIONAL SEAL 19299
THOMAS M. HARRIS
3/00/2015

PROJECT NO. **W-5206AG**
HARNETT COUNTY
STATION: **28+32.19 -L-**

SHEET 1 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PEDESTRIAN TUNNEL UNDER US 421/NC 27 (-L-) BETWEEN SR 2000 (WADE STEWART ROAD) AND SR 2057 (HATCHER STREET)

REVISIONS						SHEET No. C-1
No.	BY:	DATE:	No.	BY:	DATE:	
1			3			TOTAL SHEETS 6
2			4			