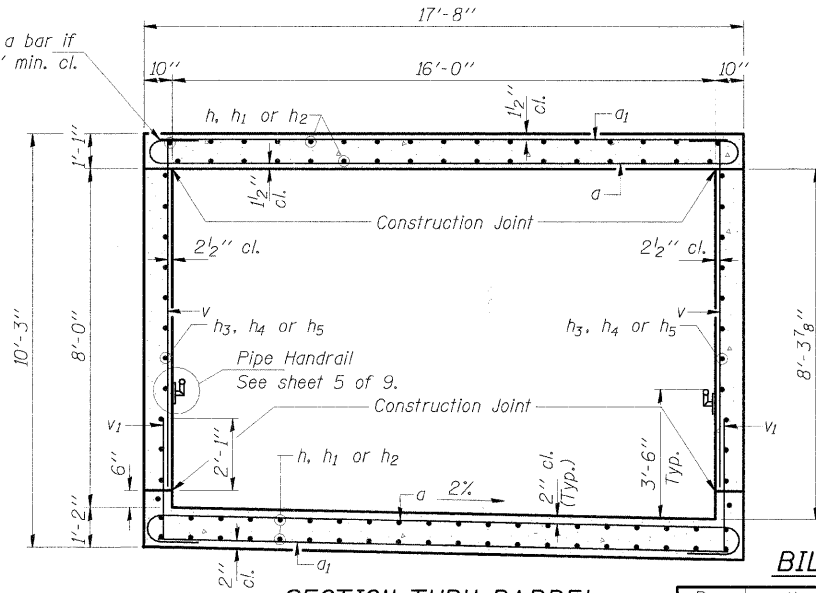


REINF. - BACK FACE

LONGITUDINAL SECTION  
(Looking North)

REINF. - FRONT FACE

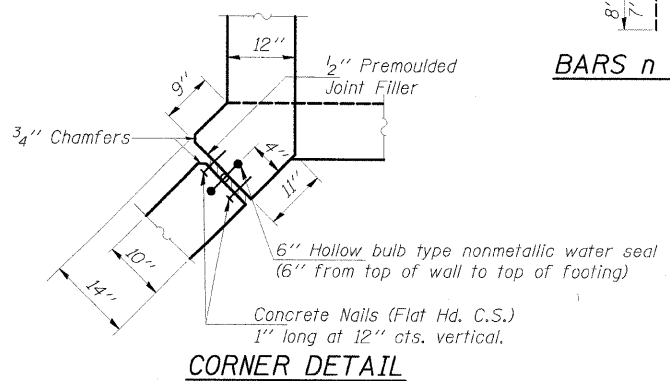
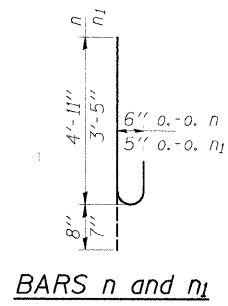
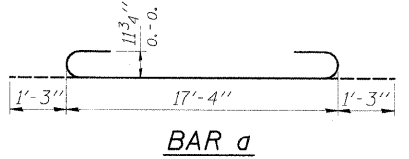
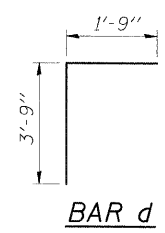


SECTION THRU BARREL  
(Looking East)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	242	#9	19'-10"	U
a1	94	#4	17'-0"	—
d	62	#4	5'-6"	—
h	74	#5	30'-10"	—
h1	74	#5	21'-8"	—
h2	74	#5	36'-2"	—
h3	18	#6	30'-10"	—
h4	18	#6	21'-8"	—
h5	18	#6	36'-2"	—
h6	12	#6	17'-4"	—
h7	48	#4	14'-10"	—
h8	20	#4	15'-9"	—
n	80	#6	5'-7"	U
n1	84	#5	4'-0"	U
t	184	#4	7'-0"	—
v	242	#6	8'-3"	—
v1	242	#6	3'-11"	—
v2	84	#5	6'-6"	—
v3	28	#4	2'-6"	—
v4	28	#4	5'-0"	—
v5	28	#4	7'-3"	—
v6	20	#4	12'-3"	—
v7	8	#4	13'-6"	—
w	48	#5	14'-11"	—
Concrete Box Culverts		Cu. Yds.	254.0	
Clear Protective Coating For Concrete		Sq Ft	4,835	
Reinforcement Bars, Epoxy Coated		Lbs.	35,680	
Porous Granular Backfill, Special		Ton	3,675	
Geocomposite Wall Drain		Sq Yd	265	
Bar Splicers		Each	298	
Pipe Underdrain 6"		Foot	253	
Concrete Headwalls For Pipe Drains		Ea.	1	

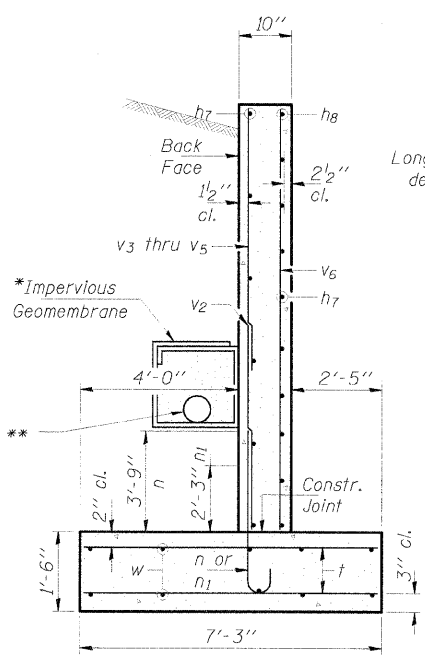
Note: All reinforcement bars shall be epoxy coated.



CORNER DETAIL

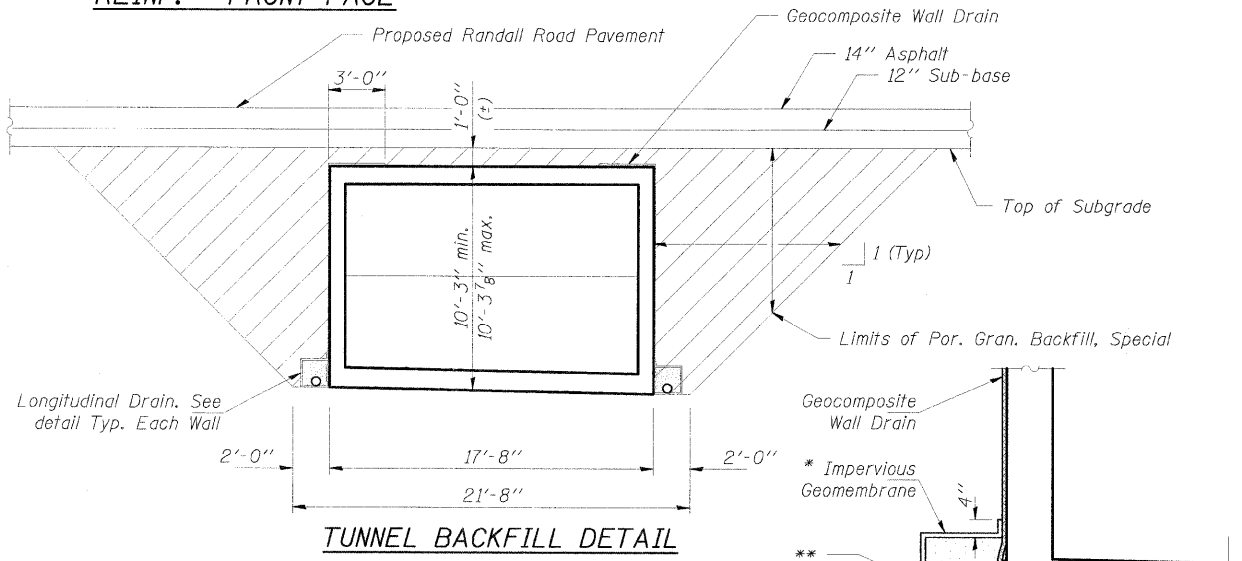
MIN. BAR LAPS  
#5 Bars = 1'-8"  
#6 Bars = 2'-0"

\* Cost included with Geocomposite Wall Drain.



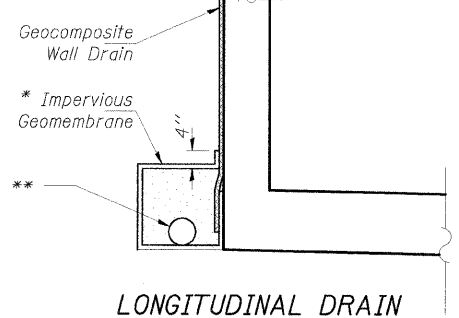
SECTION B-B

Max. Soil Pressure under Footing = 2850 psf.



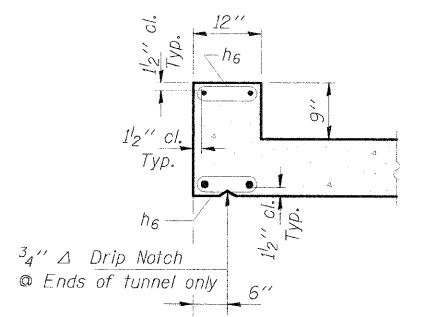
TUNNEL BACKFILL DETAIL

Construct backfill ±54" wide across Randall Road and Taper at 1:1 slope.



LONGITUDINAL DRAIN

\* Cost included with Geocomposite Wall Drain.  
\*\* Pipe Underdrain 6" according to section 601 of the Standard Specifications encased in 18" of CA-5 or CA-7 course aggregate. Aggregate is to be incidental to Pipe Underdrains. Pipes shall drain into concrete headwalls or directly into drainage structure see sheet 1 of 9 (Article 601.05 of the Std. Specifications).



SECTION THRU HEADWALL

**HLR**  
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Account Number 03-05-0181-1  
Date: 6-09-04  
DESIGNED: P.S.L. CHECKED: J.L.B. DRAWN: D.S.S.

TUNNEL DETAILS I  
SECTION 99-00243-00-PV  
BIKE PATH UNDER RANDALL ROAD  
KANE COUNTY  
STATION 11+25