

SUBSTRUCTURE BILL OF MATERIAL

(West Abutment)

Bar	No.	Size	Length	Shape
h(E)	17	#6	25'-1"	—
h ₁ (E)	22	#5	30'-6"	—
h ₂ (E)	24	#7	30'-6"	—
h ₃ (E)	23	#5	5'-11"	—
h ₄ (E)	23	#5	6'-1"	—
h ₅ (E)	23	#5	4'-7"	—
h ₆ (E)	23	#5	6'-11"	—
h ₇ (E)	80	#5	10'-11"	—
h ₈ (E)	4	#5	18'-4"	—
h ₉ (E)	5	#7	13'-0"	—
h ₁₀ (E)	5	#5	13'-0"	—
h ₁₁ (E)	1	#5	18'-6"	—
h ₁₂ (E)	46	#5	35'-3"	—
h ₁₃ (E)	46	#5	14'-9"	—
n(E)	46	#6	6'-11"	—
n ₁ (E)	18	#10	12'-4"	—
n ₂ (E)	19	#9	10'-8"	—
n ₃ (E)	83	#8	9'-1"	—
n ₄ (E)	22	#9	9'-5"	—
n ₅ (E)	12	#5	11'-0"	—
n ₆ (E)	19	#7	7'-8"	—
n ₈ (E)	36	#5	8'-5"	—
t(E)	53	#9	17'-9"	—
t ₁ (E)	31	#7	17'-9"	—
t ₂ (E)	30	#6	8'-0"	—
t ₃ (E)	40	#8	13'-3"	—
t ₄ (E)	23	#6	13'-3"	—
t ₅ (E)	10	#8	24'-0"	—
t ₆ (E)	9	#6	24'-0"	—
u(E)	26	#6	10'-10"	—
u ₁ (E)	26	#6	10'-8"	—
v(E)	26	#6	12'-6"	—
v ₂ (E)	62	#8	12'-6"	—
v ₄ (E)	9	#6	22'-4"	—
v ₆ (E)	55	#6	12'-5"	—
v ₈ (E)	36	#5	21'-0"	—
v ₉ (E)	18	#10	14'-11"	—
v ₁₀ (E)	19	#9	17'-0"	—
v ₁₁ (E)	21	#8	11'-7"	—
v ₁₂ (E)	9	#7	15'-7"	—
v ₁₃ (E)	11	#6	23'-3"	—
v ₁₄ (E)	6	#5	7'-9"	—
v ₁₆ (E)	20	#6	13'-8"	—
v ₁₉ (E)	9	#6	36'-5"	—
v ₂₁ (E)	18	#5	32'-8"	—
v ₂₃ (E)	8	#5	37'-0"	—
w(E)	18	#6	30'-9"	—
w ₁ (E)	18	#7	30'-9"	—
w ₂ (E)	28	#6	24'-6"	—
w ₃ (E)	28	#6	20'-2"	—
w ₄ (E)	16	#6	15'-6"	—
Reinforcement Bars, Epoxy Coated	Pound	35260		
Concrete Structures	Cu. Yd.	354.0		
Structure Excavation	Cu. Yd.	454		
Porous Granular Embankment (Special)	Cu. Yd.	223		
Geocomposite Wall Drain	Sq. Yd.	171		
Furnishing Steel Piles HP14x73	Foot	4930		
Driving Steel Piles	Foot	4930		
Test Pile Steel HP	Each	1		
Bridge Seat Sealer	Sq. Ft.	101.5		

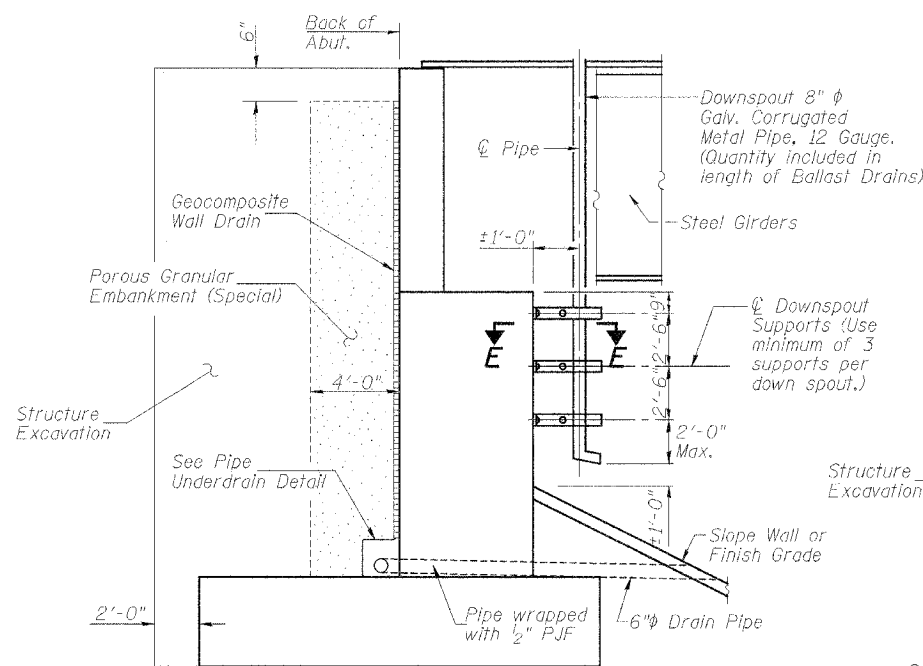
Reinforcement bars designated (E) shall be epoxy coated.

SUBSTRUCTURE BILL OF MATERIAL

(East Abutment)

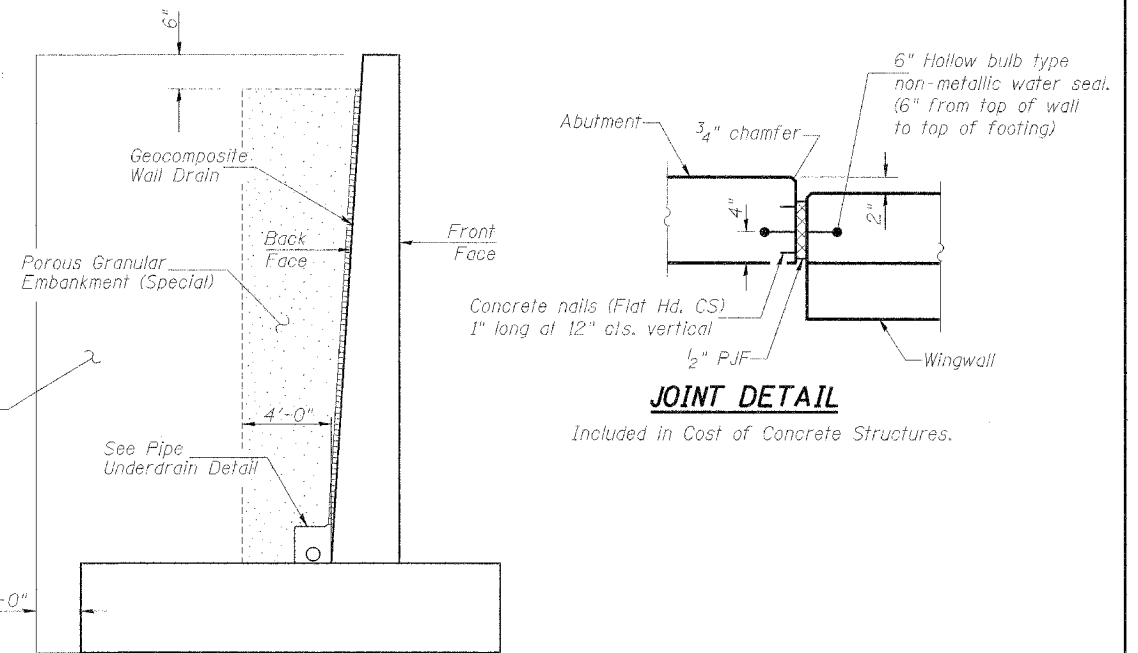
Bar	No.	Size	Length	Shape
h(E)	19	#6	25'-1"	—
h ₁ (E)	24	#5	30'-6"	—
h ₂ (E)	26	#7	30'-6"	—
h ₃ (E)	25	#5	5'-11"	—
h ₄ (E)	25	#5	6'-1"	—
h ₅ (E)	25	#5	4'-7"	—
h ₆ (E)	25	#5	6'-11"	—
h ₇ (E)	88	#5	10'-11"	—
h ₈ (E)	4	#5	18'-4"	—
h ₉ (E)	5	#7	13'-0"	—
h ₁₀ (E)	5	#5	13'-0"	—
h ₁₁ (E)	1	#5	18'-6"	—
h ₁₄ (E)	82	#5	27'-7"	—
h ₁₅ (E)	50	#5	18'-2"	—
n(E)	51	#6	6'-11"	—
n ₁ (E)	26	#10	12'-4"	—
n ₂ (E)	26	#9	10'-8"	—
n ₃ (E)	84	#8	9'-1"	—
n ₄ (E)	22	#9	9'-5"	—
n ₅ (E)	21	#5	11'-0"	—
n ₆ (E)	24	#7	7'-8"	—
n ₈ (E)	36	#5	8'-5"	—
t(E)	53	#9	17'-9"	—
t ₁ (E)	31	#7	17'-9"	—
t ₂ (E)	36	#6	8'-0"	—
t ₃ (E)	40	#8	13'-3"	—
t ₄ (E)	23	#6	13'-3"	—
t ₅ (E)	9	#8	24'-0"	—
t ₆ (E)	8	#6	24'-0"	—
t ₉ (E)	20	#6	18'-4"	—
u(E)	26	#6	10'-10"	—
u ₁ (E)	30	#6	10'-8"	—
v ₁ (E)	26	#6	14'-4"	—
v ₃ (E)	62	#8	14'-4"	—
v ₅ (E)	8	#6	24'-4"	—
v ₆ (E)	55	#6	12'-5"	—
v ₈ (E)	36	#5	21'-0"	—
v ₉ (E)	26	#10	14'-11"	—
v ₁₀ (E)	26	#9	17'-0"	—
v ₁₁ (E)	22	#8	11'-7"	—
v ₁₅ (E)	13	#7	17'-7"	—
v ₁₆ (E)	11	#6	23'-1"	—
v ₁₇ (E)	10	#5	9'-5"	—
v ₁₈ (E)	25	#6	13'-8"	—
v ₂₀ (E)	12	#6	38'-8"	—
v ₂₂ (E)	27	#5	30'-7"	—
v ₂₄ (E)	9	#5	39'-8"	—
w(E)	18	#6	30'-9"	—
w ₁ (E)	18	#7	30'-9"	—
w ₂ (E)	28	#6	24'-6"	—
w ₅ (E)	28	#6	23'-0"	—
w ₆ (E)	22	#6	20'-3"	—
w ₇ (E)	16	#6	15'-0"	—
Reinforcement Bars, Epoxy Coated	Pound	41170		
Concrete Structures	Cu. Yd.	426.6		
Structure Excavation	Cu. Yd.	519		
Porous Granular Embankment (Special)	Cu. Yd.	289		
Geocomposite Wall Drain	Sq. Yd.	217		
Furnishing Steel Piles HP14x73	Foot	6532		
Driving Steel Piles	Foot	6532		
Test Pile Steel HP	Each	1		
Bridge Seat Sealer	Sq. Ft.	101.5		

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



SECTION THRU ABUTMENT

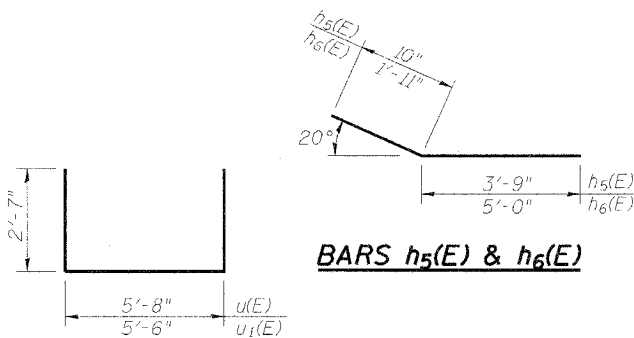
Note: Drainage System shall wrap around back of approach wall.



SECTION THRU WINGWALL

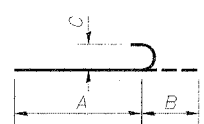
JOINT DETAIL

Included in Cost of Concrete Structures.



BARS h₅(E) & h₆(E)

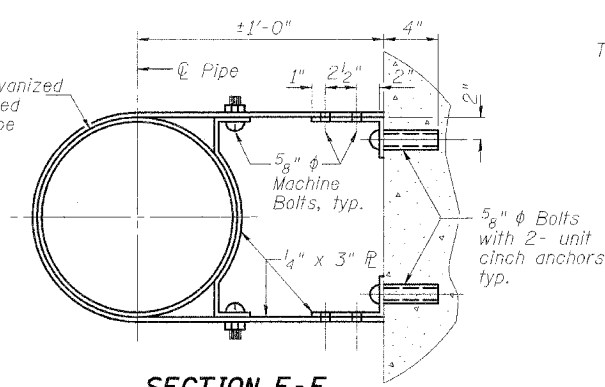
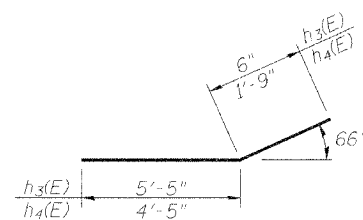
BARS u(E) & u₁(E)



BARS n(E) thru n₈(E)

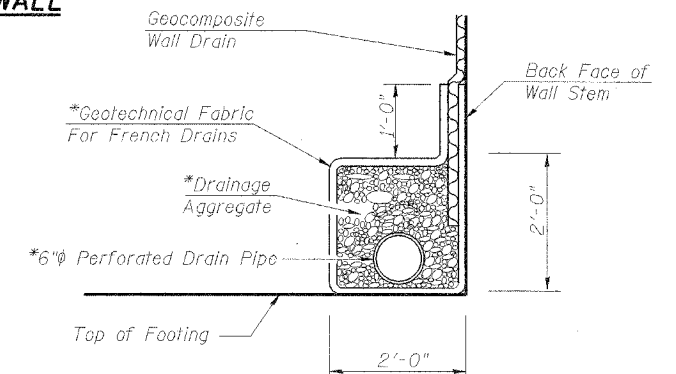
Bar	A	B	C
n(E)	6'-3"	8"	6"
n ₁ (E)	10'-11"	1'-5"	1'-1/4"
n ₂ (E)	9'-5"	1'-3"	11 3/4"
n ₃ (E)	8'-2"	11"	8"
n ₄ (E)	8'-2"	1'-3"	11 3/4"
n ₅ (E)	10'-5"	7"	5"
n ₆ (E)	5'-10"	10"	7"
n ₈ (E)	7'-10"	7"	5"

BARS h₃(E) & h₄(E)



SECTION E-E

Cost of Downspout Supports to be included in Ballast Drains.



PIPE UNDERDRAIN DETAIL

* Included in cost Pipe Underdrains for Structures, 6"

ILLINOIS DEPARTMENT OF TRANSPORTATION
ABUTMENT DETAILS
BURLINGTON NORTHERN
SANTA FE RAILROAD OVER RAMP J
F.A.P. ROUTE 315 SECT. 55-2
MCDONOUGH COUNTY
STATION 162+14.00
STRUCTURE NO. 055-9903
B.N.S.F. LINE SEGMENT 0011
B.N.S.F. BRIDGE NO. 206.00

LIN ENGINEERING, LTD.

200 W. Chestnut St. Chatham, Illinois 62629
 (314) 453-1623 FAX (314) 453-7006
 Designed By: DLS Checked By: MTH Drawn By: JAE
 Date: 01/86 File: 0559903.DWG

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