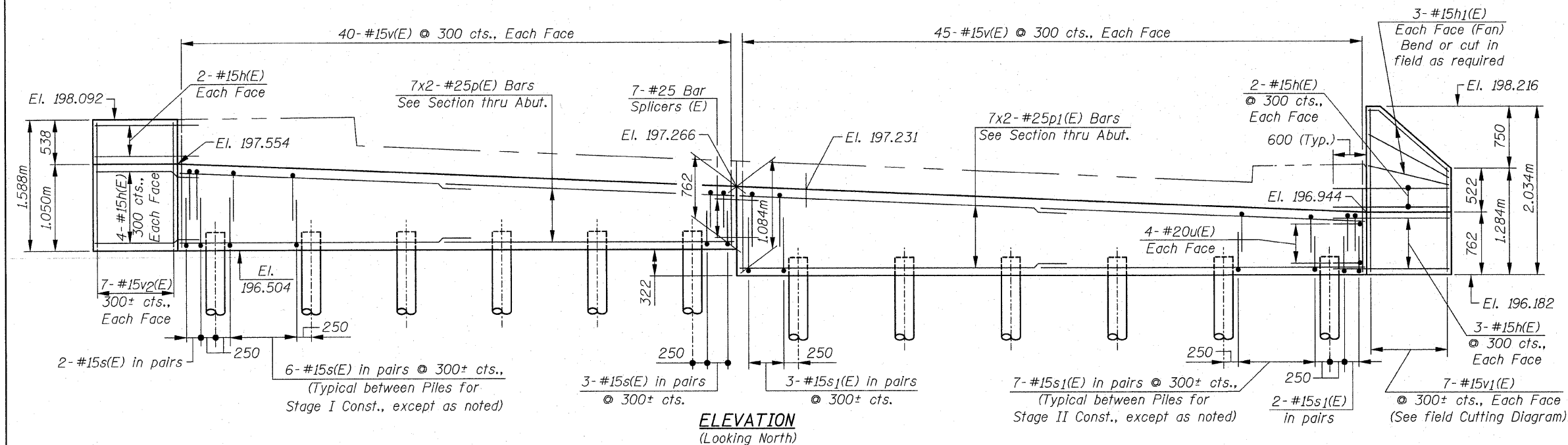


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	1Y-B-R-1	LAKE	21	62
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

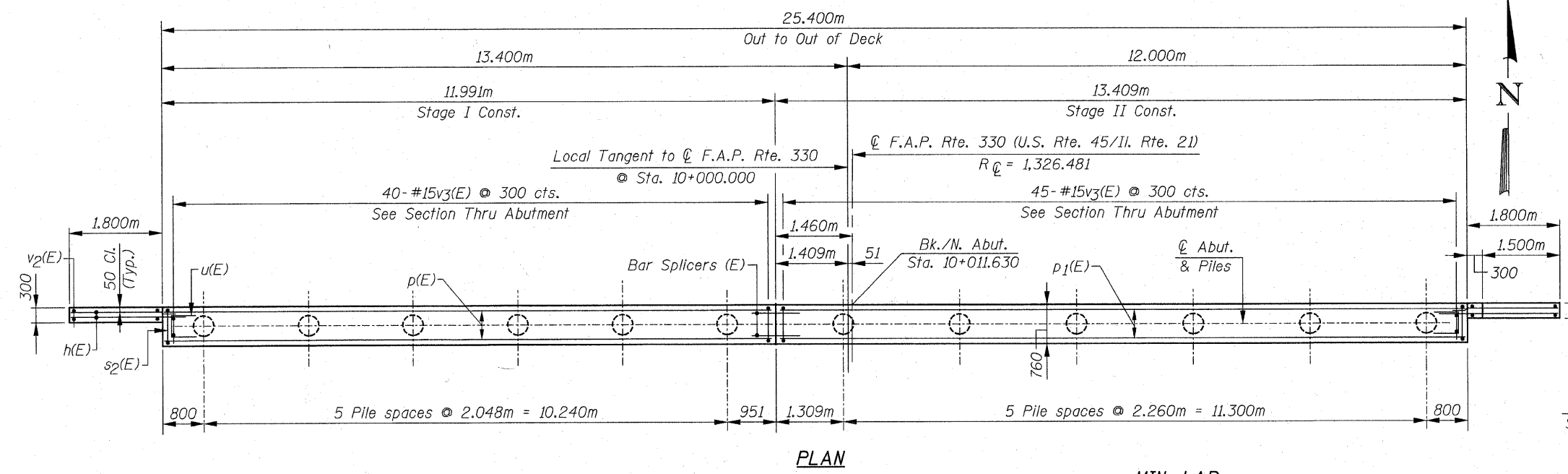
CONTRACT NO. 62032

BILL OF MATERIAL

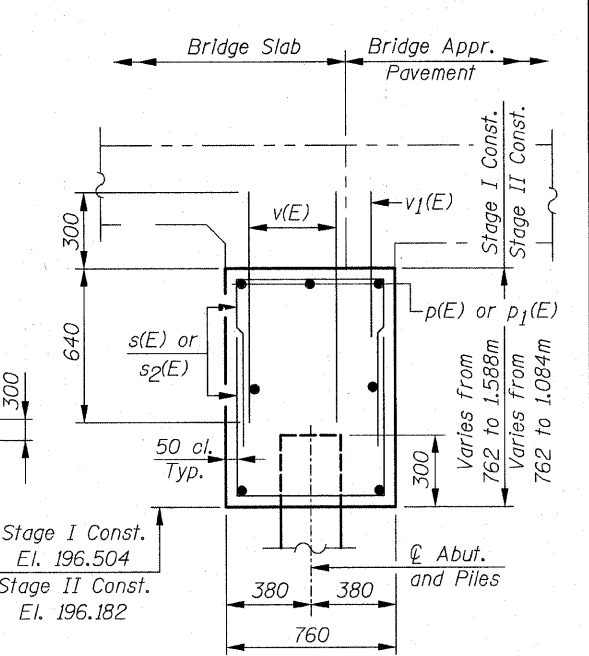
Bar	No.	Size	Length (m)	Shape
h(E)	22	#15	2.35	—
h ₁ (E)	6	#15	1.80	—
p(E)	14	#25	6.48	—
p ₁ (E)	14	#25	7.19	—
s(E)	150	#15	1.98	⊏
u(E)	8	#20	3.65	⊏
v(E)	170	#15	0.94	—
v ₁ (E)	7	#15	3.15	—
v ₂ (E)	14	#15	1.49	—
v ₃ (E)	85	#15	0.60	—
Concrete Structures		Cu. m	19.5	
Reinforcement Bars		kg	1,780	
Epoxy Coated				
Structure Excavation		Cu. m	66	
Furnishing Metal Shell Piles, 305mmx4.55mm		m	191	
Driving Piles		m	191	
Test Pile Metal Shell		Each	1	
Bar Splicers		Each	7	



ELEVATION
(Looking North)



PLAN



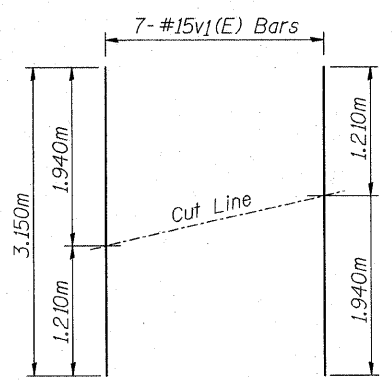
SECTION THRU ABUT.

NOTES:

Piles shall be driven through 305mm dia. holes extending to Elevation 192.200m according to Article 512.09 (c) of the Standard Specifications. Cost is included in Driving Piles.

Excavation behind the existing Abutment Walls shall be performed to balance front and back Soil Pressure before removing the existing Superstructure. The Contractor shall Sawcut the upper portion of the existing Abutments at the Stage Removal Lines before Stage I Removal to ensure the remaining portion will not be prematurely damaged.

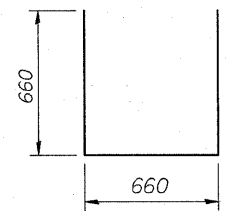
All Dimensions are in millimeters (mm) except as noted.



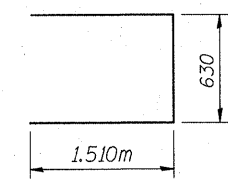
FIELD CUTTING DIAGRAM

Order v₁(E) full length. Cut as shown and use remainder of Bars in opposite face

MIN. LAP:
#15 Bars = 640
#25 Bars = 1.060m



BAR s(E)



BAR u(E)

PILE DATA

Type & Size: Metal Shell-305mmx4.55mm Walls
Nominal Required Bearing: 1,139kN
Allowable Resistance Available: 380kN
Est. Length: 17.400m
No. of Production Piles: 11
No. of Test Piles: 1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
NORTH ABUTMENT
U.S. RTE. 45 / IL. RTE. 21
OVER
APTAKISIC CREEK
F.A.P. RTE. 330 SECTION: 1Y-B-R-1
LAKE COUNTY STATION 10+000.000
STRUCTURE NO. 049-0194
SCALE: NONE DRAWN BY: D.L./F.M.
DATE: OCTOBER 16, 2007 CHECKED BY: B.N.S.
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS