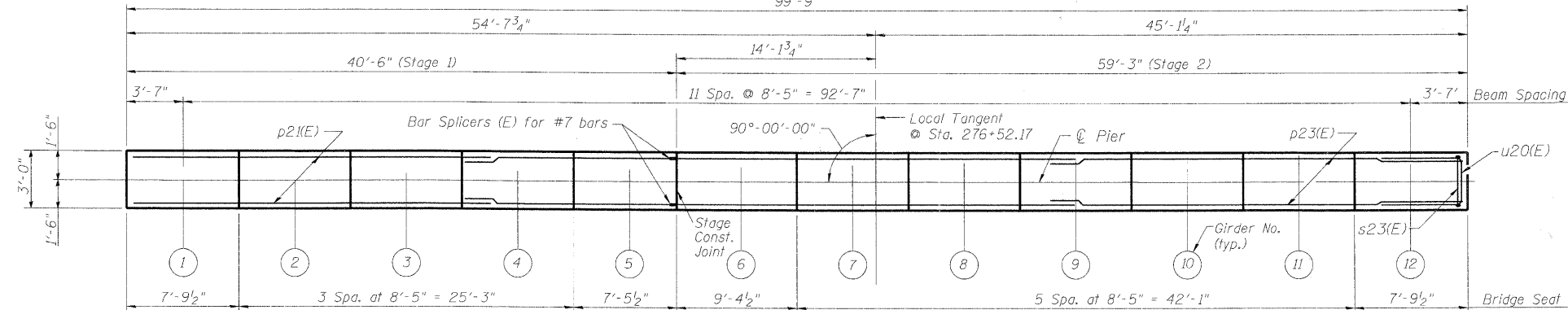


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

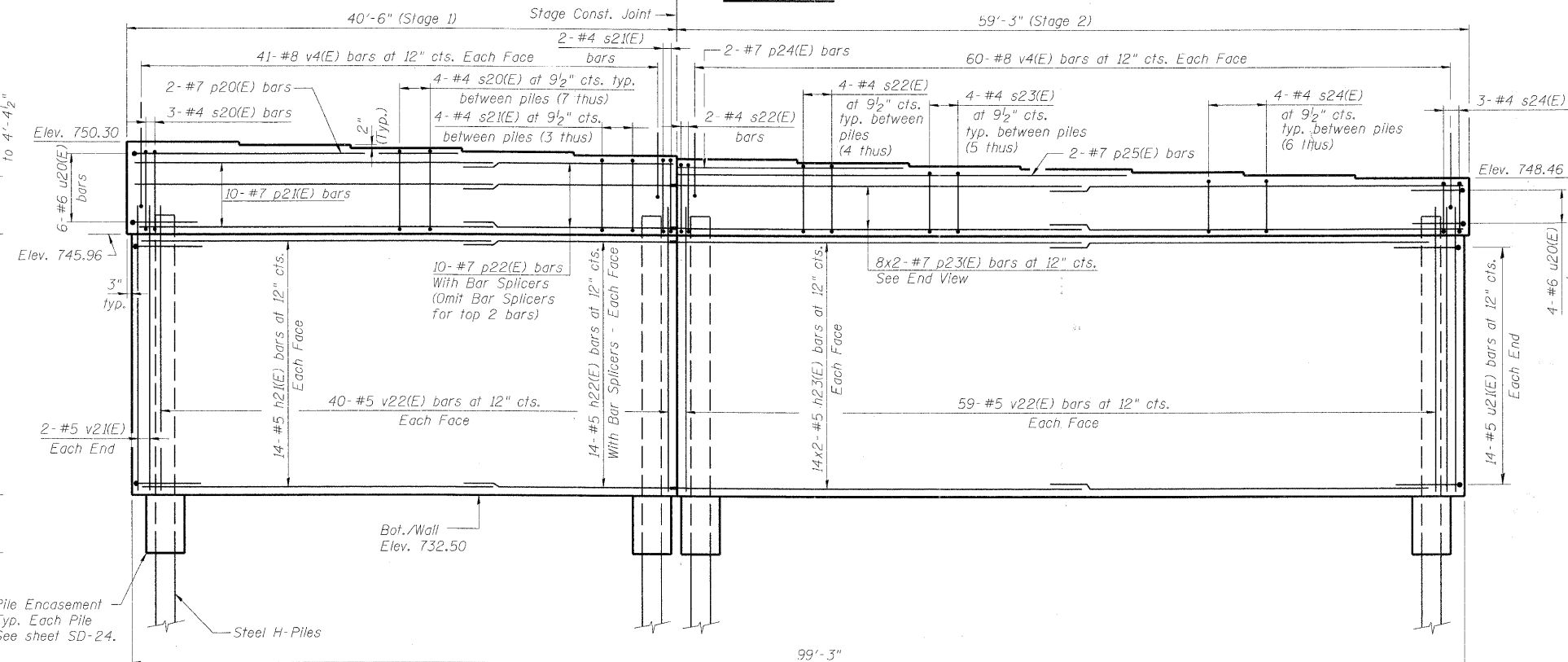
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		KANE	545	338
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET SD-23  
OF 34 SHEETS

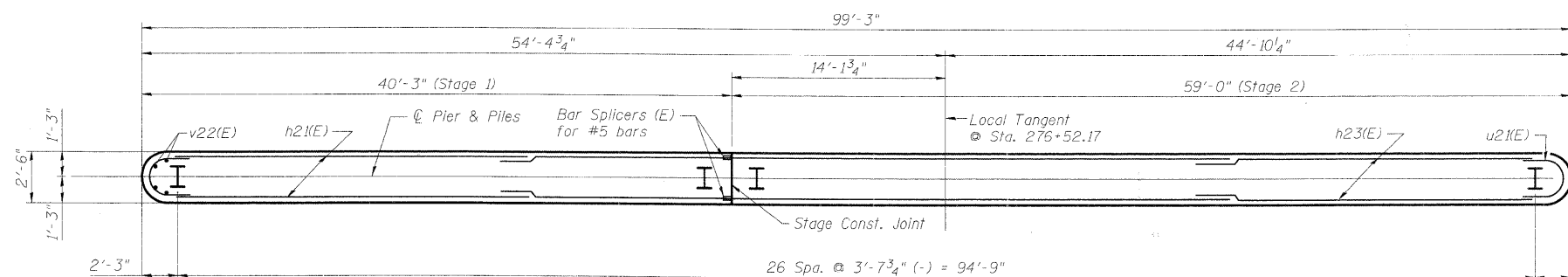
Contract # 63074



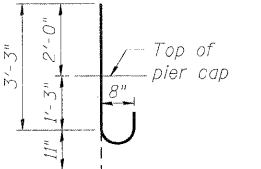
TOP PLAN



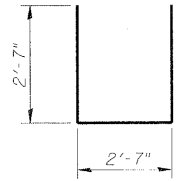
ELEVATION  
(Looking North)



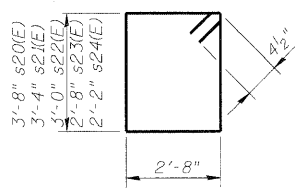
STEM PLAN



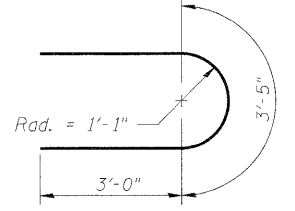
BAR v4(E)



BAR u20(E)



BARS s20(E) Thru s24(E)



BAR u2(E)

BEAM SEAT  
ELEVATION

1	750.30
2	750.14
3	749.97
4	749.80
5	749.63
6	749.47
7	749.30
8	749.13
9	748.97
10	748.80
11	748.63
12	748.46

BILL OF MATERIAL  
(Stage 1)

Bar	No.	Size	Length	Shape
h21(E)	28	#5	32'-4"	—
h22(E)	28	#5	10'-0"	—
p20(E)	2	#7	24'-4"	—
p21(E)	10	#7	33'-9"	—
p22(E)	10	#7	10'-0"	—
s20(E)	31	#4	13'-5"	□
s21(E)	14	#4	12'-9"	□
u20(E)	6	#6	7'-9"	U
u21(E)	14	#5	9'-5"	U
v4(E)	82	#8	4'-2"	—
v22(E)	82	#5	15'-6"	—
Structure Excavation		Cu. Yd.	80	
Concrete Structures		Cu. Yd.	68.2	
Reinforcement Bars, Epoxy Coated		Pound	5,080	
Furnishing Steel Piles, HP12x53		Foot	660	
Driving Piles		Foot	660	
Test Pile Steel, HP12x53		Each	1	
Pile Shoes		Each	11	
Concrete Encasement		Cu. Yd.	3.9	
Bar Splicers		Each	36	

BILL OF MATERIAL  
(Stage 2)

Bar	No.	Size	Length	Shape
h23(E)	56	#5	30'-7"	—
p23(E)	16	#7	31'-3"	—
p24(E)	2	#7	17'-5"	—
p3(E)	2	#7	34'-3"	—
s22(E)	18	#4	12'-1"	□
s23(E)	20	#4	11'-5"	□
s24(E)	27	#4	10'-5"	□
u20(E)	4	#6	7'-9"	U
u21(E)	14	#5	9'-5"	U
v4(E)	120	#8	4'-2"	—
v22(E)	120	#5	15'-6"	—
Structure Excavation		Cu. Yd.	109	
Concrete Structures		Cu. Yd.	93.4	
Reinforcement Bars, Epoxy Coated		Pound	6,970	
Furnishing Steel Piles, HP12x53		Foot	1,056	
Driving Piles		Foot	1,056	
Pile Shoes		Each	16	
Concrete Encasement		Cu. Yd.	5.6	

For details of Bar Splicers, see sheet SD-26.  
For details of piles and Concrete Encasement, see sheet SD-24.

PIER 2 PLAN AND ELEVATION  
IL 25/DUNHAM ROAD OVER THE  
EAST BRANCH OF BREWSTER CREEK  
F.A.P. 360 - SEC. 06-00214-15-BR  
KANE COUNTY  
STATION 276+36.96  
STRUCTURE NO. 045-2032

**benesch**  
Engineers • Surveyors • Planners  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450  
Job # 3944

- Notes:
- Space reinforcement in cap to miss anchor bolts.
  - Pour steps monolithically with cap.
  - For details of piles, see sheet SD-24.
  - Excavation protection shall be paid for as Underwater Structure Excavation Location 2. See sheet SD-3 for location. See Special Provisions.
  - If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed under water into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

DESIGNED	AAY
CHECKED	AJK
DRAWN	VH
CHECKED	DMC

**PILE DATA**  
Type: HP12x53  
Nominal Required Bearing: 288 kips  
Allowable Resistance Available: 96 kips  
Est. Length: 66.0 Feet  
No. Production Piles: 26  
No. Test Piles: 1

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