

SUMMARY OF QUANTITIES

SPECIALTY ITEM	SPECIAL PROVISION	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
						80% FEDERAL		TRAINEEES 0042 NON-URBAN
						20% STATE		
ROADWAY 0004 NON-URBAN	BRIDGE 0011 NON-URBAN							
		44000100	PAVEMENT REMOVAL	SO YD	3,125	3,125		
		48101500	AGGREGATE SHOULDERS, TYPE B 6"	SO YD	20	20		
		48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SO YD	1,222	1,222		
		50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1	
		50105220	PIPE CULVERT REMOVAL	FOOT	66	66		
		50200100	STRUCTURE EXCAVATION	CU YD	88		88	
		50300225	CONCRETE STRUCTURES	CU YD	62.2		62.2	
		50300255	CONCRETE SUPERSTRUCTURE	CU YD	186.7		186.7	
		50300260	BRIDGE DECK GROOVING	SO YD	474		474	
		50300300	PROTECTIVE COAT	SO YD	497.4		497.4	
		50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1	
		50500505	STUD SHEAR CONNECTORS	EACH	1,062		1,062	
		50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	52,600		52,600	
*		50901050	STEEL RAILING, TYPE SM	FOOT	206		206	
		51200958	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	500		500	
		51202305	DRIVING PILES	FOOT	500		500	
		51203200	TEST PILE METAL SHELLS	EACH	2		2	
		51500100	NAME PLATES	EACH	1		1	
		52100520	ANCHOR BOLTS, 1"	EACH	24		24	
	S	54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	4	4		
	S	54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	4	4		
		542A0220	PIPE CULVERTS, CLASS A, TYPE 1 15"	FOOT	48	48		
		542A0223	PIPE CULVERTS, CLASS A, TYPE 1 18"	FOOT	48	48		
		59100100	GEOCOMPOSITE WALL DRAIN	SO YD	60		60	
		60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	2	2		
		60100945	PIPE DRAINS 12"	FOOT	40	40		
	S	60107600	PIPE UNDERDRAINS 4"	FOOT	700	700		
	S	60108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	52	52		
		60235300	INLETS, TYPE A, TYPE 1 FRAME, CLOSED LID	EACH	2	2		
		63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	562.5	562.5		
		63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4		
		63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		

FILE NAME = \\P:\projects\2013\130174_Walker-Phil\road\G:\1\Drawn\Sh\500_02.dgn



USER NAME = nparris	DESIGNED - SBP	REVISED - <i>2/25/15</i>
PLOT SCALE = 1:1	DRAWN - NDP	REVISED -
PLOT DATE = 12/2/2014	CHECKED - SBP	REVISED -
	DATE - 12/15/14	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

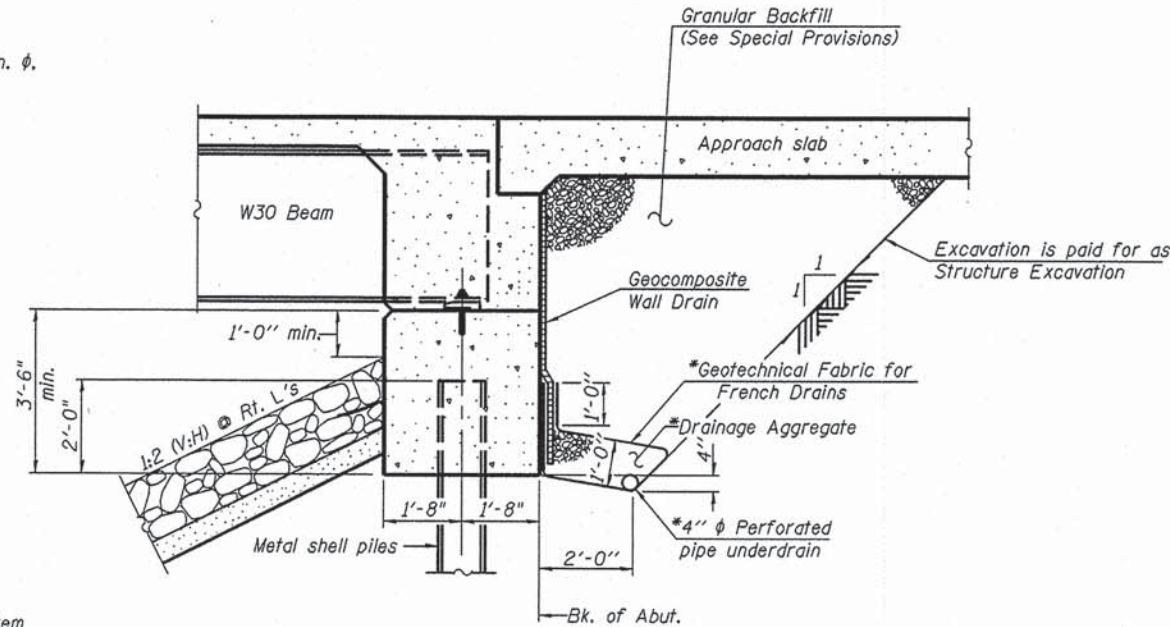
SUMMARY OF QUANTITIES

SCALE: SHEET NO. 2 OF 3 SHEETS STA. TO STA.

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
46	08-00133-01-BR	KANE	88	4
CONTRACT NO. 61A95				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.
- Calculated weight of Structural Steel = 63,350 lbs. (Grade 50W)
- All structural steel shall be AASHTO M 270 Grade 50W.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
- Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- Existing bridge railing to be removed. Cost included in the pay item "Removal of Existing Structures."
- Existing bituminous wearing surface to be removed. Cost included in the pay item "Removal of Existing Structures."
- The Contractor is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the complete or partial removal or replacement of the structure.



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.
(See Special Provisions)

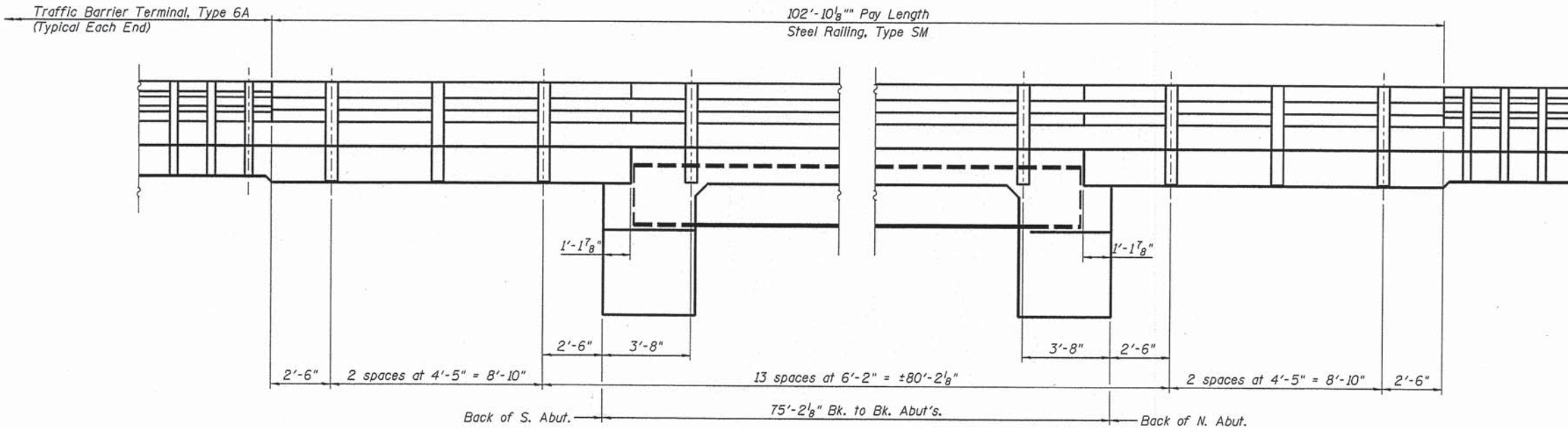
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

BURLINGTON CREEK
BUILT 20XX BY
KANE COUNTY
SEC. 08-00133-01-BR
STA. 8+20.00
STR. NO. 045-3065 LOADING HL-93

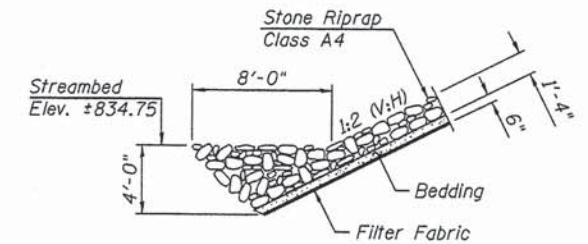
NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

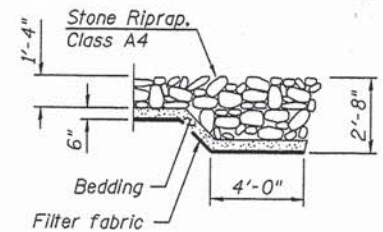
ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		469	469
Filter Fabric	Sq. Yd.		469	469
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		88	88
Concrete Structures	Cu. Yd.		62.2	62.2
Concrete Superstructure	Cu. Yd.	186.7		186.7
Bridge Deck Grooving	Sq. Yd.	474		474
Protective Coat	Sq. Yd.	497		497
Furnishing and Erecting Structural Steel	L Sum		1	1
Stud Shear Connectors	Each	1,062		1,062
Reinforcement Bars, Epoxy Coated	Pound	41,470	11,130	52,600
Steel Railing, Type SM	Foot	206		206
Furnishing Metal Shell Piles 14" x 0.250"	Foot		500	500
Driving Piles	Foot		500	500
Test Pile Metal Shells	Each		2	2
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		60	60
Granular Backfill for Structures	Cu. Yd.		102	102
Pipe Underdrains for Structures, 4"	Foot		124	124



RAIL POST SPACING



SECTION A-A



SECTION B-B

FILE NAME = \\A\Projects\2013\138174 Walker\PH\Acadd\Structural\09m\0453065-082-GenData.dgn

WBK WILLS BURKE KELSEY ASSOCIATES LTD.
116 West Main Street, Suite 201
St. Charles, Illinois 60174

USER NAME = marrison	DESIGNED - JMM	REVISED - 2/25/2015 MCC
PLOT SCALE = #SCALE#	CHECKED - AEU	REVISED -
PLOT DATE = 2/25/2015	DRAWN - JMM	REVISED -
	CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

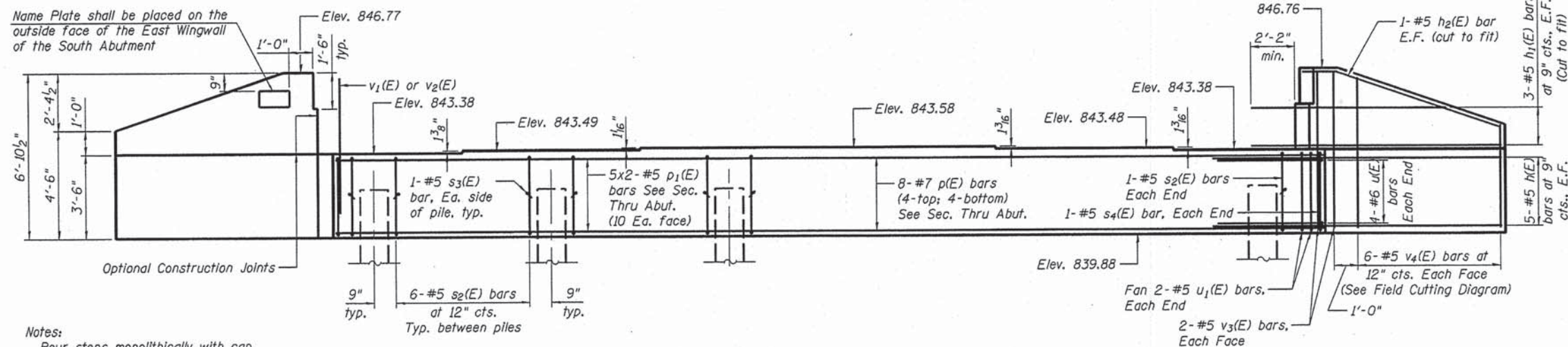
GENERAL DATA
STRUCTURE NO. 045-3065

SHEET NO. 2 OF 22 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
46	08-00133-01-BR	KANE	88	40
			CONTRACT NO. 61A95	

ILLINOIS FED. AID PROJECT

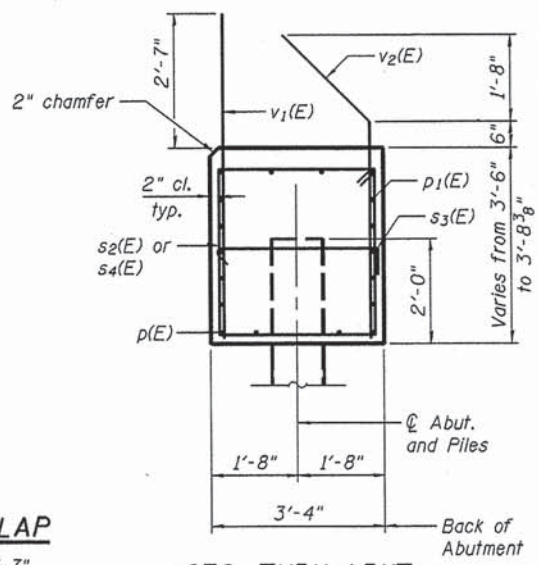
Name Plate shall be placed on the outside face of the East Wingwall of the South Abutment



Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss Anchor Bolts.

ELEVATION

MIN. BAR LAP
#5 Bar = 2'-7"



SEC. THRU ABUT.

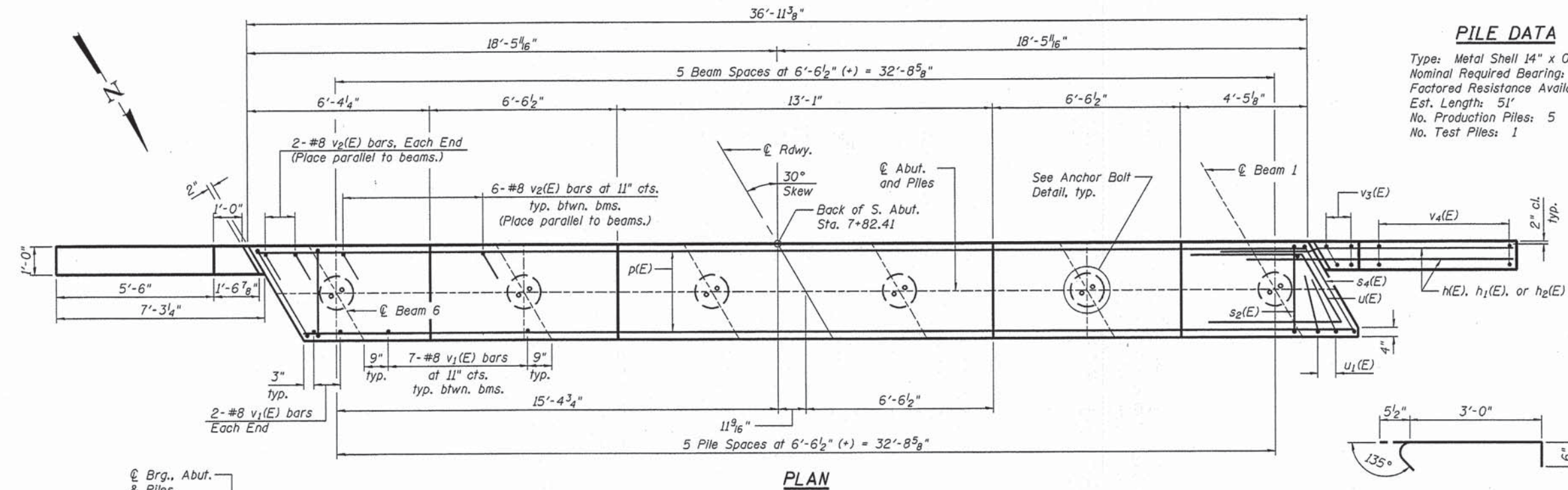
Dimensions at right angles to abutment.

PILE DATA

Type: Metal Shell 14" x 0.250"
Nominal Required Bearing: 330 kips
Factored Resistance Available: 180 kips
Est. Length: 51'
No. Production Piles: 5
No. Test Piles: 1

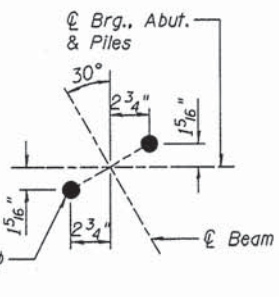
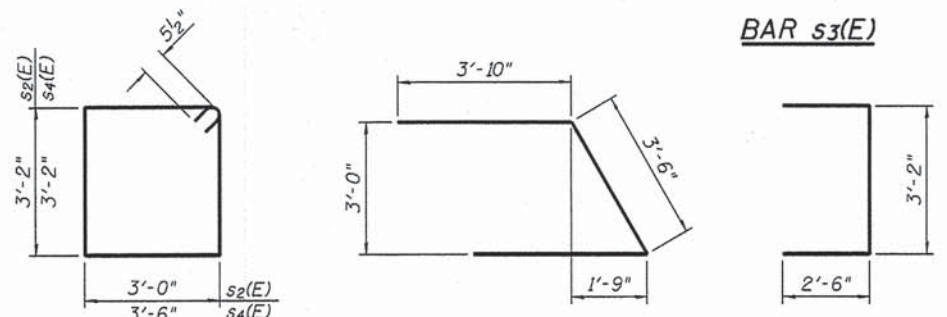
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	20	#5	11'-0"	—
h1(E)	12	#5	9'-3"	—
h2(E)	4	#5	7'-2"	—
p(E)	8	#7	36'-7"	—
p1(E)	20	#5	19'-7"	—
s2(E)	32	#5	13'-3"	□
s3(E)	12	#5	4'-0"	□
s4(E)	2	#5	14'-3"	□
u(E)	8	#6	11'-2"	—
u1(E)	4	#5	8'-2"	—
v1(E)	39	#8	5'-11"	—
v2(E)	34	#8	6'-2"	—
v3(E)	8	#5	6'-6"	—
v4(E)	12	#5	10'-5"	—
Structure Excavation		Cu. Yd.	41.0	
Concrete Structures		Cu. Yd.	19.6	
Reinforcement Bars, Epoxy Coated		Pound	3,430	
Furnishing Metal Shell Piles 14"x0.250"		Foot	255	
Test Pile Metal Shells		Each	1	
Driving Piles		Foot	255	

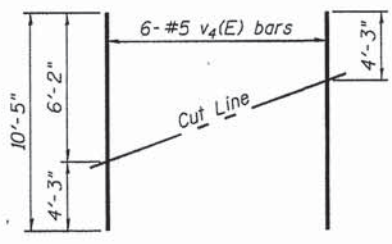


PLAN

BAR s3(E)

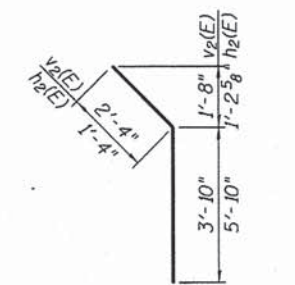


ANCHOR BOLT DETAIL

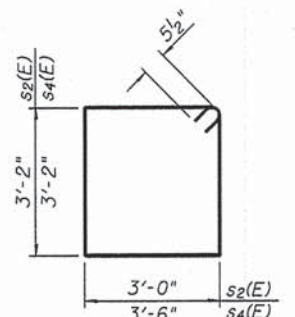


FIELD CUTTING DIAGRAM

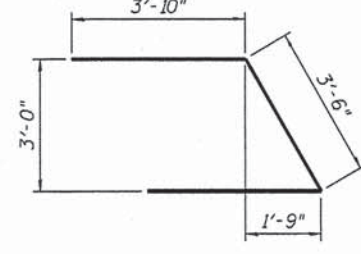
Order v4(E) full length. Cut as shown and use remainder of bars in opposite face.



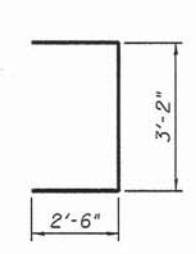
BARS v2(E) & h2(E)



BARS s2(E) & s4(E)



BAR u(E)



BAR u1(E)

Bars indicated thus 5x2-#5 etc. indicates 5 lines of bars with 2 lengths per line.
For details of piles see sheet 16 of 22.
For details of Integral Abutment Bearing, see sheet 13 of 22.
For drainage details, see Section Thru Integral Abutment on sheet 2 of 22.

FILE NAME = M:\Projects\28131\3074 WalkerPHI\Road\Structural\Draw\050505-014-SouthAbutment.dgn

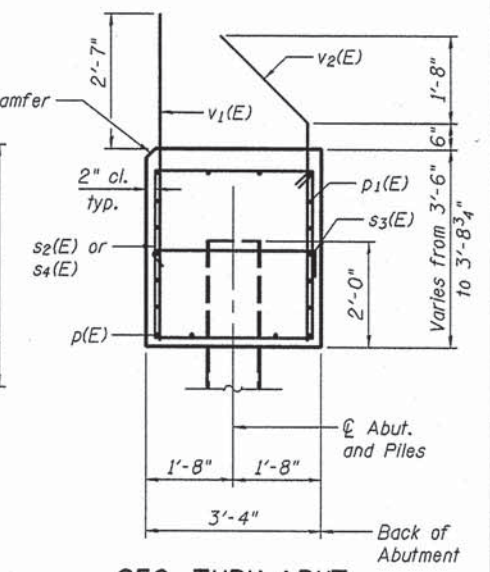
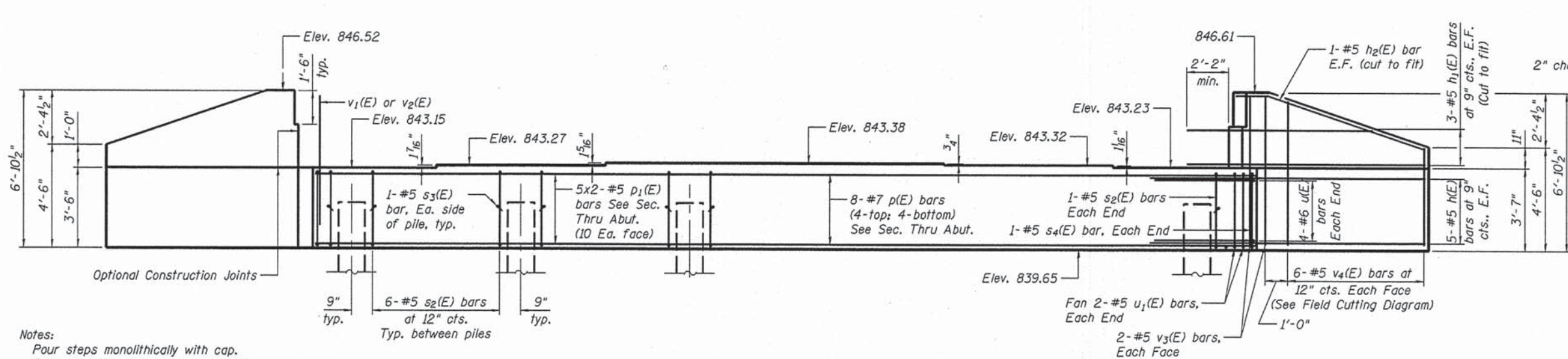
WILLS BURKE KELSEY ASSOCIATES LTD.
116 West Main Street, Suite 201
St. Charles, Illinois 60174

USER NAME = morison	DESIGNED - JMM	REVISED - 2/25/2015 MCC
PLOT SCALE = #SCALE#	CHECKED - AEU	REVISED -
PLOT DATE = 2/24/2015	DRAWN - JMM	REVISED -
	CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 045-3065
SHEET NO. 14 OF 22 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
46	08-00133-01-BR	KANE	88	52
				CONTRACT NO. 61A95
ILLINOIS FED. AID PROJECT				



Notes:
 Pour steps monolithically with cap.
 Space reinforcement in cap to miss Anchor Bolts.

ELEVATION

MIN. BAR LAP
 #5 Bar = 2'-7"

SEC. THRU ABUT.

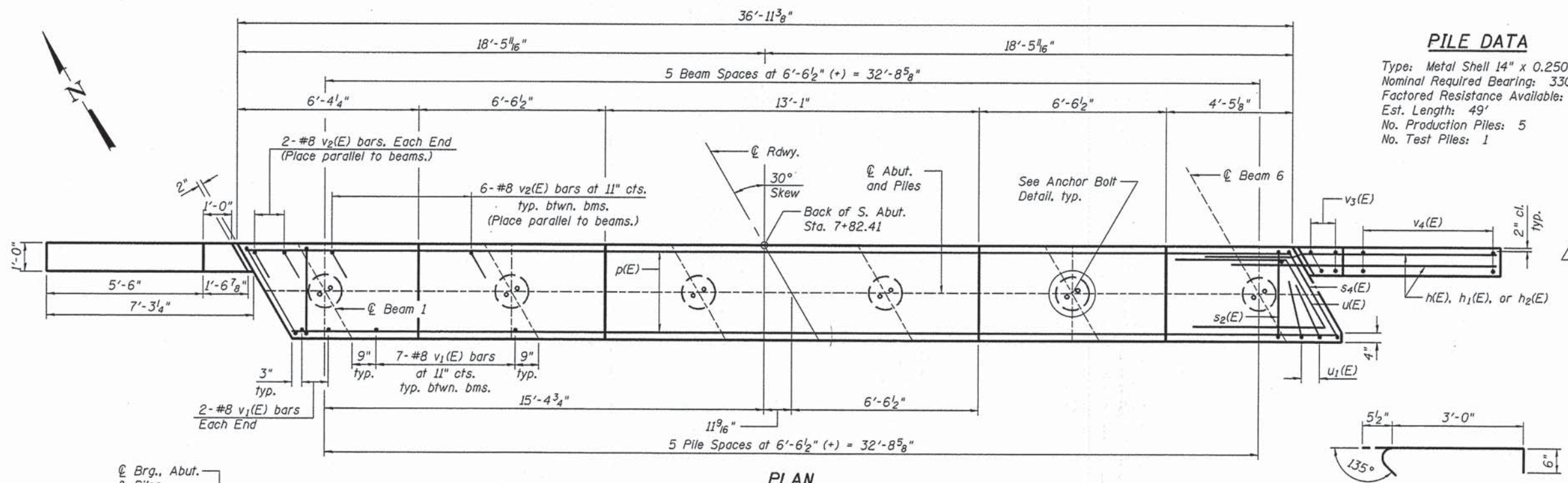
Dimensions at right angles to abutment.

PILE DATA

Type: Metal Shell 14" x 0.250"
 Nominal Required Bearing: 330 kips
 Factored Resistance Available: 180 kips
 Est. Length: 49'
 No. Production Piles: 5
 No. Test Piles: 1

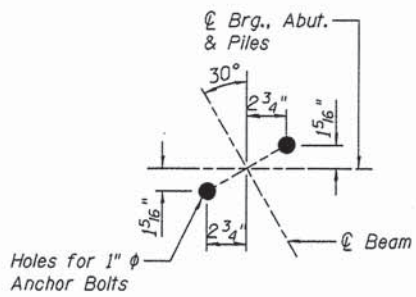
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	20	#5	11'-0"	
h1(E)	12	#5	9'-3"	
h2(E)	4	#5	7'-2"	
p(E)	8	#7	36'-7"	
p1(E)	20	#5	19'-7"	
s2(E)	32	#5	13'-3"	
s3(E)	12	#5	4'-0"	
s4(E)	2	#5	14'-3"	
u(E)	8	#6	11'-2"	
u1(E)	4	#5	8'-2"	
v1(E)	39	#8	5'-11"	
v2(E)	34	#8	6'-2"	
v3(E)	8	#5	6'-6"	
v4(E)	12	#5	10'-5"	
Structure Excavation	Cu. Yd.		47.0	
Concrete Structures	Cu. Yd.		19.7	
Reinforcement Bars, Epoxy Coated	Pound		3,430	
Furnishing Metal Shell Piles 14"x0.250"	Foot		245	
Test Pile Metal Shells	Each		1	
Driving Piles	Foot		245	

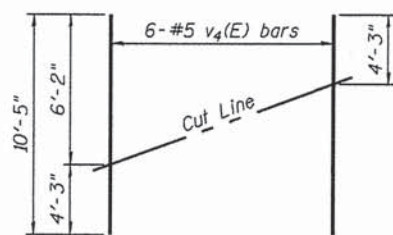


PLAN

BAR s3(E)

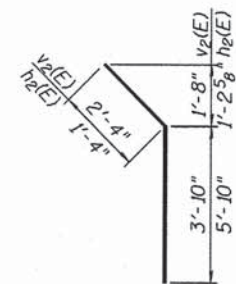


ANCHOR BOLT DETAIL

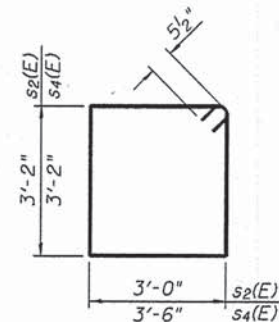


FIELD CUTTING DIAGRAM

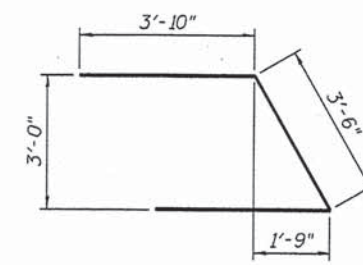
Order v4(E) full length. Cut as shown and use remainder of bars in opposite face.



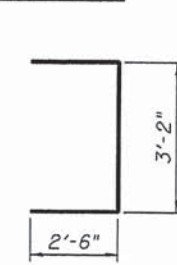
BARS v2(E) & h2(E)



BARS s2(E) & s4(E)



BAR u(E)



BAR u1(E)

Bars indicated thus 5x2-#5 etc. Indicates 5 lines of bars with 2 lengths per line.
 For details of piles see sheet 16 of 22.
 For details of Integral Abutment Bearing, see sheet 13 of 22.
 For drainage details, see Section Thru Integral Abutment on sheet 2 of 22.

FILE NAME = \\NA\Projects\2015\11\30\174 - Walker\PH1\cadd\Structure\1\Draw\1453855-015-Nor-14\Abutment.dgn

WILLS BURKE KELSEY ASSOCIATES LTD.
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174

USER NAME = morison	DESIGNED - JMM	REVISED - 2/25/2015 MCC
PLOT SCALE = #SCALE#	CHECKED - AEU	REVISED -
PLOT DATE = 2/24/2015	DRAWN - JMM	REVISED -
	CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 045-3065

SHEET NO. 15 OF 22 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
46	08-00133-01-BR	KANE	88	53
				CONTRACT NO. 61A95

ILLINOIS FED. AID PROJECT