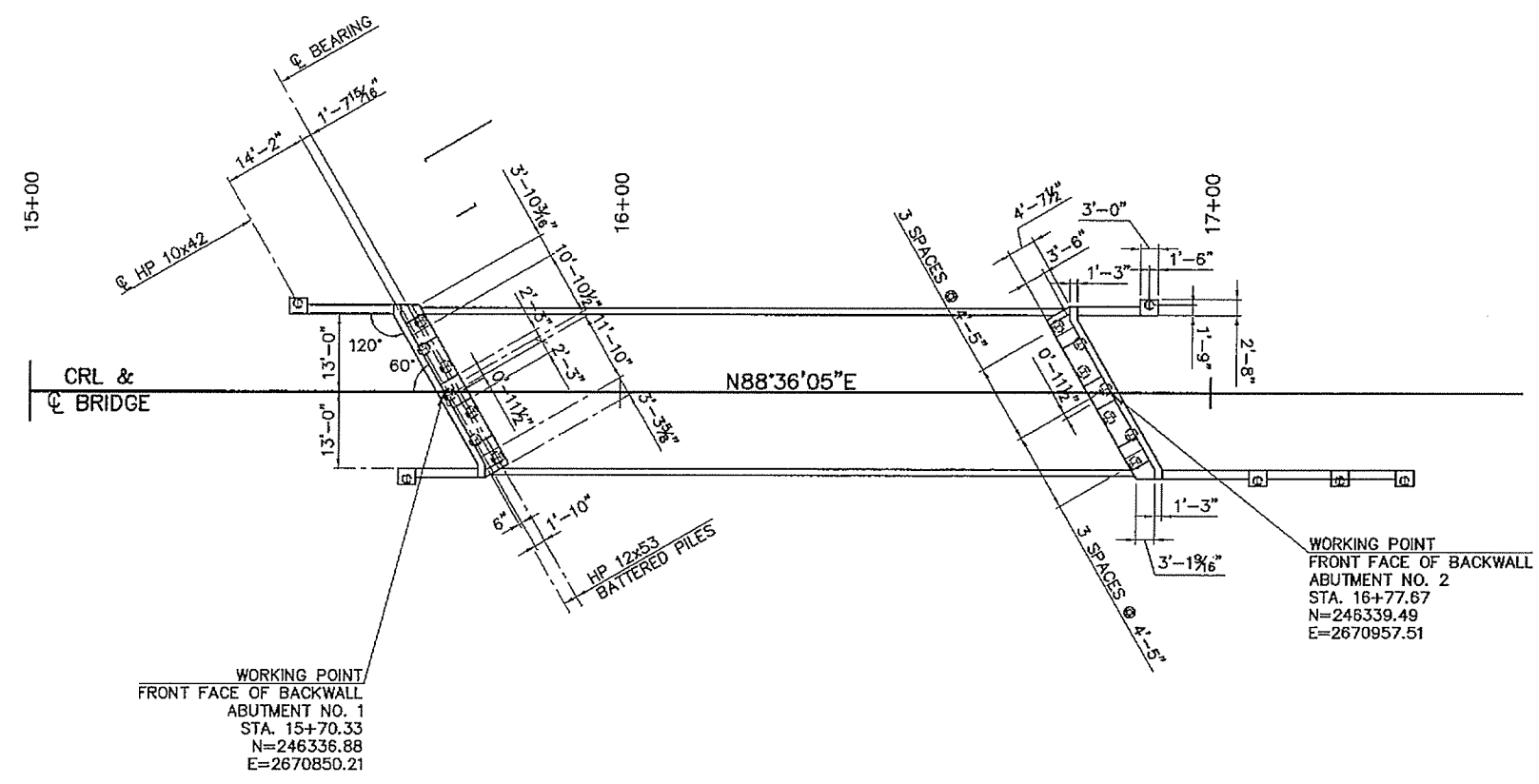


DESCRIPTION	REVISION	DATE



SUBSTRUCTURE LAYOUT

SUMMARY OF QUANTITIES							
ITEM	UNIT	ABUTS	STD. WINGS	SP. WING	WING EXT.	SUPERSTR	TOTAL
SUBSTRUCTURE EXCAVATION, COMMON	C.Y.	140	60	38	54		292
AGGREGATE BASE	C.Y.	102					102
PRESTRESSED CONCRETE BEAM (TYPE IV)	L.F.					314	314
CONCRETE RAIL (TR3)	L.F.		53.1	17.7	25	220.5	316.3
STRUCTURAL STEEL	LBS.					690	690
WEATHERING STEEL FIXED BEARING ASSEMBLY	EA.					3	3
WEATHERING STEEL EXP. BEARING ASSEMBLY	EA.					3	3
CLASS AA CONCRETE	C.Y.					86.1	86.1
CLASS A CONCRETE	C.Y.	51.8	20.7	11.4	16.7		100.6
④ REINFORCING STEEL	LBS.	6,740	3,540	1,700	2,400	22,030	36,410
① PILES, FURNISHED (HP 10x42)	L.F.	60		20	40		120
② PILES, FURNISHED (HP 12x53)	L.F.	231					231
① PILES, DRIVEN (HP 10x42)	L.F.	60		20	40		120
② PILES, DRIVEN (HP 12x53)	L.F.	231					231
PILE SPLICE, H-PILE (NON BIDDABLE)	EA.						1
TYPE 1-A PLAIN RIPRAP	TON	1334					1334
TYPE 1-A FILTER BLANKET	TON	235					235
6" PERFORATED PIPE UNDERDRAIN, ROUND	L.F.	60		17.7	15		92.7
③ 6" NON-PERF. PIPE UNDERDRAIN, ROUND	L.F.	40			25		65
REMOVAL OF EXISTING BRIDGE STRUCTURE	L.SUM						1

BRIDGE DESIGN DATA:

CONCRETE CLASS AA $f'_c = 4$ K.S.I.
 CONCRETE CLASS A $f'_c = 3$ K.S.I.
 REINFORCING STEEL, AASHTO M 31 (GRADE 60) $f_y = 60$ K.S.I.
 STRUCTURAL STEEL, AASHTO M 270 (GRADE 50W) $f_y = 50$ K.S.I.

LOADING:
 HL-93
 20 PSF FUTURE WEARING SURFACE
 5 PSF STAY-IN-PLACE FORMS

DESIGN:
 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5th EDITION, WITH 2010 INTERIMS, EXCEPT MODIFIED BY CURRENT O.D.O.T. BRIDGE DIMENSION DESIGN POLICIES.
 ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE

LRFD OPERATING RATINGS:
 HS 55.0

- ① TOTAL INCLUDES 40 L.F. FOR ABUTMENT NO. 1 AND 20 L.F. FOR LEFT WING ON ABUTMENT NO. 2 AND 60 L.F. FOR RIGHT WING & WING EXTENSION.
- ② TOTAL INCLUDES 112 L.F. FOR ABUTMENT NO. 1 AND 119 L.F. FOR ABUTMENT NO. 2.
- ③ TOTAL INCLUDES 20 L.F. FOR ABUTMENT NO. 1 AND 40 L.F. FOR ABUTMENT NO. 2.
- ④ TOTAL INCLUDES 1582 LBS OF SR-1 BARS IN SUPERSTRUCTURE TRAFFIC RAIL INCLUDED IN COST OF WING RAILS.

FOUNDATION DATA

ABUTMENT (HP 12x53 PILING)
 FACTORED PILE REACTION = 75.2 TON / PILE

FACTORED PILE RESISTANCE:
 DRIVE PILING THROUGH THE COMPACTED FILL AND TO A POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF A FACTORED AXIAL LOAD RESISTANCE EQUAL TO OR GREATER THAN THE FACTORED PILE REACTION IS NOT OBTAINED AT THIS ELEVATION, CONTINUE DRIVING UNTIL SUCH IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

HUB ENGINEERS
 Time of Plot: 6/13/2016 10:40 AM Plot Style: -HUB-HALF.CTB
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CLOUD CREEK	MUSKOGEE COUNTY	Design	TE	08/14
SUBSTRUCTURE LAYOUT & SUMMARY OF QUANTITIES		Detail	IS	08/14
		Check	TE	08/14
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION		HOLLOWAY UPPERY & BELLEN, INC. REGISTERED
		State J/P No. 31162(04)		