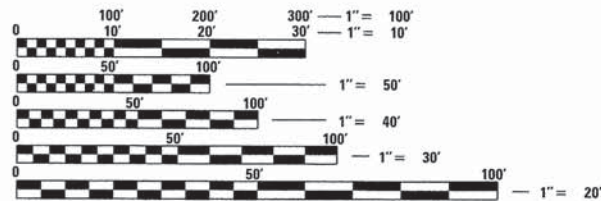


- 1 = COVER SHEET
- 2 = GENERAL NOTES AND SUMMARY OF QUANTITIES
- 3-4 = SCHEDULE OF QUANTITIES
- 5 = TYPICAL SECTIONS AND DETAILS
- 6 = PLAN AND PROFILE
- 7 = EROSION CONTROL PLAN
- 8 = GENERAL PLAN AND ELEVATION
- 9 = RIPRAP AND PILE LAYOUT
- 10 = TOP OF SLAB ELEVATIONS
- 11 = SUPERSTRUCTURE
- 12 = SUPERSTRUCTURE DETAILS
- 13 = WEST ABUTMENT DETAILS
- 14 = EAST ABUTMENT DETAILS
- 15 = PIER #1 DETAILS
- 16 = PIER #2 DETAILS
- 17 = STEEL RAILING, TYPE SM
- 18 = METAL SHELL PILE DETAILS
- 19-20 = BORING LOGS
- 21-24 = CROSS SECTIONS
- 25 = D2 40.1 TYPICAL APPLICATION FOR ROAD CLOSURE

STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-03 NAME PLATE FOR BRIDGES
- 601101-01 CONCRETE HEADWALL FOR PIPE DRAIN
- 630001-10 STEEL PLATE BEAM GUARDRAIL
- 630301-06 SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
- 631011-09 TRAFFIC BARRIER TERMINAL, TYPE 2
- 631032-08 TRAFFIC BARRIER TERMINAL, TYPE 6A
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24' (600 mm) FROM PAVEMENT EDGE
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701901-04 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 720011-01 METAL POSTS FOR SIGNS, MARKERS, AND DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
- 780001-05 TYPICAL PAVEMENT MARKINGS
- BLR 27-1 TRAFFIC BARRIER TERMINAL, TYPE 5A

FOR LIST OF UTILITIES SEE SHEET NO 2



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER – BSK
PROJECT MANAGER – BKC
CONTRACT NO. 85630

PROPOSED STRUCTURE: S.N. 071-3347
A THREE SPAN (26'-3", 33'-0", 26'-3") REINFORCED CONCRETE SLAB BRIDGE ON SPILL THRU ABUTMENTS AND INDIVIDUALLY ENCASED PILE BENTS AT STA 20+00. NO SKEW.

FUNCTIONAL CLASSIFICATION
LOCAL ROAD (NON-URBAN)
DESIGN SPEED 40 MPH
2016 ADT = 378
3R GUIDELINES

STATE OF ILLINOIS

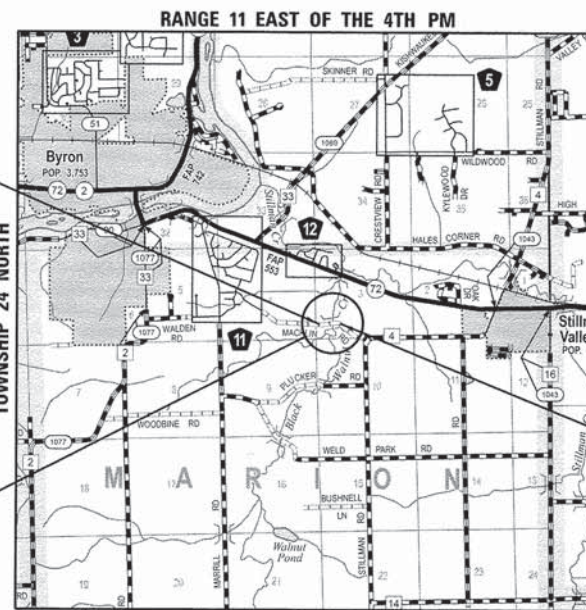
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID PROJECT
SURFACE TRANSPORTATION
RURAL – BRIDGE (FY-16)

TOWNSHIP ROUTE 103 (MACKLIN ROAD)
SECTION 14-13115-00-BR
PROJECT BROS-0141(076)
STRUCTURE REPLACEMENT
MARION TOWNSHIP
OGLE COUNTY

C-92-039-15

LOCATION MAP SCALE 0 1 2 4 MILES



GROSS LENGTH = 420 FT. = 0.080 MILE
NET LENGTH = 420 FT. = 0.080 MILE

TWP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	1
WHA# 1164D15			CONTRACT NO. 85630	
ILLINOIS FED. AID PROJECT BROS-0141(076)				



OGLE COUNTY HIGHWAY DEPARTMENT		
APPROVED	<i>Brian Green</i> 12/23/15 MARION TOWNSHIP HIGHWAY COMMISSIONER	2015
APPROVED	<i>Chris D. Cook</i> OGLE COUNTY ENGINEER	2015
PASSED	1/11/16 <i>Josh M. Beath</i> DISTRICT 2 LOCAL ROADS & STREETS ENGINEER	2015
RELEASING FOR BID BASED ON LIMITED REVIEW	1/11/16 <i>Paul E. Cook</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER	2015



Bradley S. Klenzner
DATE: 12/22/2015
EXPIRES 11/30/2017

WILLETT HOFMANN
& ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-000918

FILE # SA\PROJECTS\2015\1164D15_Macklin_Road\DESIGN\STRUCT\2D_Dr\mropg\1164D15_Cover.dgn

GENERAL NOTES:

EXISTING STRUCTURES (INCLUDING FOUNDATIONS, WALLS, CISTERNS, WELLS, OR OTHER UNDERGROUND STRUCTURES) WITHIN THE RIGHT OF WAY SHALL BE REMOVED IN ACCORDANCE WITH ARTICLE 501.04 AND 501.05 OF THE STANDARD SPECIFICATIONS, WITHOUT ADDITIONAL COMPENSATION, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.

NO OVERHAUL HAS BEEN COMPUTED AND NONE SHALL BE PAID FOR FROM ANY SOURCE.

THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS.

THE FINAL TOP FOUR INCHES OF SOIL IN ANY RIGHT-OF-WAY AREA DISTURBED BY THE CONTRACTOR MUST BE A COHESIVE SOIL CAPABLE OF SUPPORTING VEGETATION AND APPROVED BY THE ENGINEER.

ALL UTILITY POLES, GAS PIPES, ETC. IN THE WAY OF THE IMPROVEMENTS SHALL BE MOVED BY THE UTILITIES PRIOR TO CONSTRUCTION AND SHALL NOT BE INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE RESPECTIVE UTILITIES TO MAKE THE NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION.

THE LOCATION AND ELEVATION OF THE VARIOUS UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT TO BE TAKEN AS EXACT. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN CONDUCTING CONSTRUCTION OPERATIONS NEAR THEM TO PREVENT DAMAGE.

THE LOCATION OF EXISTING FIELD TILES AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN IN THE PLANS ARE NOT TO BE TAKEN AS EXACT. EXACT LOCATION OF ALL FIELD TILES AND UTILITIES IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.

THE UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS INCLUDE:

FRONTIER COMMUNICATIONS ATTN: DONALD BELMORE 2239 NEWBURG ROAD BELVIDERE, IL 61008 PH: (815) 544-6171	COMED - PUBLIC RELOCATION ATTN: MS. NORA FERNANDEZ 123 ENERGY AVENUE ROCKFORD, IL 61109 PH: (815) 490-2335	NICOR GAS ATTN: CONSTANCE LANE 1844 FERRY ROAD NAPERVILLE, IL 60563 PH: (630) 388-3830
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A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK.

A NATIONWIDE 404 PERMIT HAS BEEN ISSUED FOR THIS PROJECT AND THE CONDITIONS OF THAT PERMIT MUST BE ADHERED TO.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS, MONUMENTS, AND RIGHT OF WAY PINS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. ANY PROPERTY MARKERS, SECTION OR SUBSECTION MONUMENTS, UNLESS REFERENCED, DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

EXISTING POST MOUNTED TERMINAL MARKERS THAT ARE WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED BY THE CONTRACTOR. 2 MARKERS SHALL BE RE-ERECTED AS INDICATED ON THE PLAN AND PROFILE AND 2 SHALL BE RETURNED TO MARION TOWNSHIP. COST OF REMOVAL AND RE-ERECTING TO BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL).

ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

THE CONTRACTOR SHALL SUPPLY THE RESIDENT ENGINEER WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR THE TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT OR TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED.

WHERE THE PROPOSED CONSTRUCTION MEETS AN EXISTING BITUMINOUS SURFACE, OR WHERE SAWING IS STATED ON THE PLANS, THE EXISTING SHALL BE SAWED IN A NEAT, STRAIGHT LINE. COST OF SAWING TO BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL).

COMMITMENTS:

NO WORK SHALL BE CONDUCTED ON THE BRIDGE FROM APRIL 1 THROUGH AUGUST 15 OF ANY CONSTRUCTION YEAR IN ORDER TO PROTECT NESTING BIRDS UNDER THE BRIDGE.

IF THE BRIDGE WORK CANNOT BE STARTED UNTIL AFTER APRIL 1 THE LOCAL AGENCY WILL INSTALL NETTING OR OTHER OBSTRUCTIONS UNDER THE BRIDGE PRIOR TO APRIL 1 TO PREVENT BIRDS FROM NESTING UNDER THE BRIDGE.

IF BRIDGE WORK COMMENCES ANY TIME FROM APRIL 1 THROUGH SEPTEMBER 30 A FINAL BRIDGE INSPECTION SHOULD BE PERFORMED FOR BAT PRESENCE NO SOONER THAN SEVEN DAYS PRIOR TO CONSTRUCTION.

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE: 0011

PAY CODE	ITEM	UNIT	QUANTITY
20300100	CHANNEL EXCAVATION	CU YD	185
20400800	FURNISHED EXCAVATION	CU YD	90
25100630	EROSION CONTROL BLANKET	SQ YD	879
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	18
28000305	TEMPORARY DITCH CHECKS	FOOT	10
28000400	PERIMETER EROSION BARRIER	FOOT	578
28000500	INLET AND PIPE PROTECTION	EACH	1
28100211	STONE RIPRAP, CLASS A6	TON	929
28200200	FILTER FABRIC	SQ YD	373
*35100100	AGGREGATE BASE COURSE, TYPE A	TON	146
*40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	14
*40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	525
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	25
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	15
*44000100	PAVEMENT REMOVAL	SQ YD	183
48101200	AGGREGATE SHOULDERS, TYPE B	TON	70
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	26
50200100	STRUCTURE EXCAVATION	CU YD	157
50300225	CONCRETE STRUCTURES	CU YD	55.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	171.9
50300260	BRIDGE DECK GROOVING	SQ YD	309
50300280	CONCRETE ENCASEMENT	CU YD	15.5
50300300	PROTECTIVE COAT	SQ YD	329
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	44,370
Δ 50901050	STEEL RAILING, TYPE SM	FOOT	176
51200957	FURNISHING METAL SHELL PILES 12"x0.250"	FOOT	524
51202305	DRIVING PILES	FOOT	524
51203200	TEST PILE METAL SHELLS	EACH	4
51500100	NAME PLATES	EACH	1
*54200223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	64
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	54
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4
Δ 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	50
Δ 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2
Δ 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2
Δ 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	2
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
67100100	MOBILIZATION	L SUM	1
Δ *78200410	GUARDRAIL MARKERS, TYPE A	EACH	8
Δ *78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2
*Z0013798	CONSTRUCTION LAYOUT	L SUM	1
*Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	136
*X0301852	DEWATERING STRUCTURE NO 1	EACH	1
*X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	62
*X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.2
*X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	84
*X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1

*SEE CONTRACT SPECIAL PROVISIONS.

Δ SPECIALTY ITEMS

FILE: S:\PROJECTS\2015\1164015_Macklin_Rd\DESIGN\STRUCT\20-Dr-quantity\Summary of Quantities.dgn



DESIGNED - BRAD KLEINMAIER
CHECKED - MICHAEL WAGNER
DRAWN - RON ALLEN
CHECKED - BRAD KLEINMAIER

REVISED -
REVISED -
REVISED -
REVISED -

OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20+00

GENERAL NOTES AND SUMMARY OF QUANTITIES
STRUCTURE NO. 071-3347

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	2
WHA* 1164015		CONTRACT NO. 85630		
[ILLINOIS] FED. AID PROJECT BR05-014(076)				

SCHEDULE OF QUANTITIES

EROSION CONTROL BLANKET		
STATION	SQ YD	REMARKS
LT STA 18+03 - 21+70	455	
RT STA 17+50 - 21+10	424	
PROJECT TOTAL	879	
25100630		

TEMPORARY EROSION CONTROL SEEDING		
STATION	POUND	REMARKS
LT STA 18+03 - 21+70	9	100 LBS/ACRE
RT STA 17+50 - 21+10	9	100 LBS/ACRE
PROJECT TOTAL	18	
28000250		

TEMPORARY DITCH CHECKS		
STATION	FOOT	REMARKS
LT STA 21+75	10	
PROJECT TOTAL	10	
28000305		

PERIMETER EROSION BARRIER		
STATION	FOOT	REMARKS
RT STA 17+50 - 17+88	38	
RT STA 18+00 - 19+96	199	
LT STA 19+20 - 19+83	71	
LT STA 20+07 - 21+70	175	
RT STA 20+17 - 21+10	95	
PROJECT TOTAL	578	
28000400		

INLET AND PIPE PROTECTION		
STATION	EACH	REMARKS
RT STA 17+78	1	
PROJECT TOTAL	1	
28000500		

SCHEDULE OF QUANTITIES - CONT.

AGGREGATE BASE COURSE, TYPE A		
STATION	TON	REMARKS
STA 17+87.5 - 18+12	7	6" CA-10 ON 6" CA-2
STA 19+20 - 19+56	70	6" CA-10 ON 6" CA-2
STA 20+44 - 20+80	69	6" CA-10 ON 6" CA-2
PROJECT TOTAL	146	
*35100100		

AGGREGATE SURFACE COURSE, TYPE B		
STATION	TON	REMARKS
FER STA 17+94	14	8"
PROJECT TOTAL	14	
*40200800		

BITUMINOUS MATERIALS (PRIME COAT)		
STATION	POUND	REMARKS
STA 17+87.5 - 18+12	24	0.250 LB/SQ FT ON AGGREGATE
STA 19+20 - 19+56	229	0.250 LB/SQ FT ON AGGREGATE
STA 20+44 - 20+80	228	0.250 LB/SQ FT ON AGGREGATE
STA 17+87.5 - 18+12	2	0.025 LB/SQ FT ON BITUMINOUS
STA 19+20 - 19+56	21	0.025 LB/SQ FT ON BITUMINOUS
STA 20+44 - 20+80	21	0.025 LB/SQ FT ON BITUMINOUS
PROJECT TOTAL	525	
*40600275		

HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50		
STATION	TON	REMARKS
STA 17+87.5 - 18+12	1	2 1/4"
STA 19+20 - 19+56	12	2 1/4"
STA 20+44 - 20+80	12	2 1/4"
PROJECT TOTAL	25	
40603080		

HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50		
STATION	TON	REMARKS
STA 17+87.5 - 18+12	1	1 1/4"
STA 19+20 - 19+56	7	1 1/4"
STA 20+44 - 20+80	7	1 1/4"
PROJECT TOTAL	15	
40603310		

SCHEDULE OF QUANTITIES - CONT.

PAVEMENT REMOVAL		
STATION	SQ YD	REMARKS
STA 17+87.5 - 18+12	10	
STA 19+20 - 19+58.7	87	
STA 20+41.2 - 20+80	86	
PROJECT TOTAL	183	
*44000100		

AGGREGATE SHOULDERS, TYPE B		
STATION	TON	REMARKS
RT STA 18+01.8 - 19+56	31	4"
LT STA 19+20 - 19+56	8	4"
LT STA 20+44 - 21+70	23	4"
RT STA 20+44 - 20+80	8	4"
PROJECT TOTAL	70	
48101200		

PIPE CULVERT REMOVAL		
STATION	FOOT	REMARKS
RT STA 17+80 - 18+07	26	15"
PROJECT TOTAL	26	
50105220		

PIPE CULVERTS, CLASS D, TYPE 1 18"		
STATION	FOOT	REMARKS
RT STA 17+78 - LT STA 18+24	64	
PROJECT TOTAL	64	
*54200223		

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS		
STATION	FOOT	REMARKS
RT STA 18+61.3 - 19+12	50	
PROJECT TOTAL	50	
63000001		

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DESIGNED - BRAD KLEINMAIER REVISIONS -
CHECKED - MICHAEL WAGNER REVISIONS -
DRAWN - RON ALLEN REVISIONS -
CHECKED - BRAD KLEINMAIER REVISIONS -

OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20 + 00

SCHEDULE OF QUANTITIES
STRUCTURE NO. 071-3347

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	3
WHA# 1164D15		CONTRACT NO. 85630		
ILLINOIS FED. AID PROJECT BR05-0141076				

SCHEDULE OF QUANTITIES – CONT.

TRAFFIC BARRIER TERMINAL, TYPE 2		
STATION	EACH	REMARKS
LT STA 19+27 - 19+42.8	1	
RT STA 20+57.3 - 20+73	1	
PROJECT TOTAL	2	
63100045		

TRAFFIC BARRIER TERMINAL, TYPE 5A		
STATION	EACH	REMARKS
LT STA 19+42.8 - 19+56	1	
RT STA 20+44 - 20+57.3	1	
PROJECT TOTAL	2	
63100075		

TRAFFIC BARRIER TERMINAL, TYPE 6A		
STATION	EACH	REMARKS
RT STA 19+12 - 19+57.8	1	
LT STA 20+42.3 - 20+87.7	1	
PROJECT TOTAL	2	
63100087		

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT		
STATION	EACH	REMARKS
RT STA 18+09.1 - 18+61.3	1	
LT STA 20+87.7 - 21+38.1	1	
PROJECT TOTAL	2	
63100167		

GUARDRAIL MARKERS, TYPE A		
STATION	EACH	REMARKS
RT STA 18+09.1 - 20+75	4	
LT STA 19+25 - 21+38.1	4	
PROJECT TOTAL	8	
*78200410		

SCHEDULE OF QUANTITIES – CONT.

TERMINAL MARKER – DIRECT APPLIED		
STATION	EACH	REMARKS
RT STA 18+09.1	1	
LT STA 21+38.1	1	
PROJECT TOTAL	2	
*78201000		

SEEDING, CLASS 2 (SPECIAL)		
STATION	ACRE	REMARKS
LT STA 18+03 - 21+70	0.1	
RT STA 17+50 - 21+10	0.1	
PROJECT TOTAL	0.2	
*X2501000		

TR 103 (MACKLIN ROAD) EARTHWORK TOTALS						
LOCATION	EARTH EXCAVATION (SPECIAL)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE 25%	EMBANKMENT	CHANNEL EXCAVATION	CHANNEL EXCAVATION ADJUSTED FOR SHRINKAGE 62.5%	FURNISHED EXCAVATION
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
STA 17+50 - 21+70	62	47	206	185	69	90
PROJECT TOTAL	62	47	206	185	69	90

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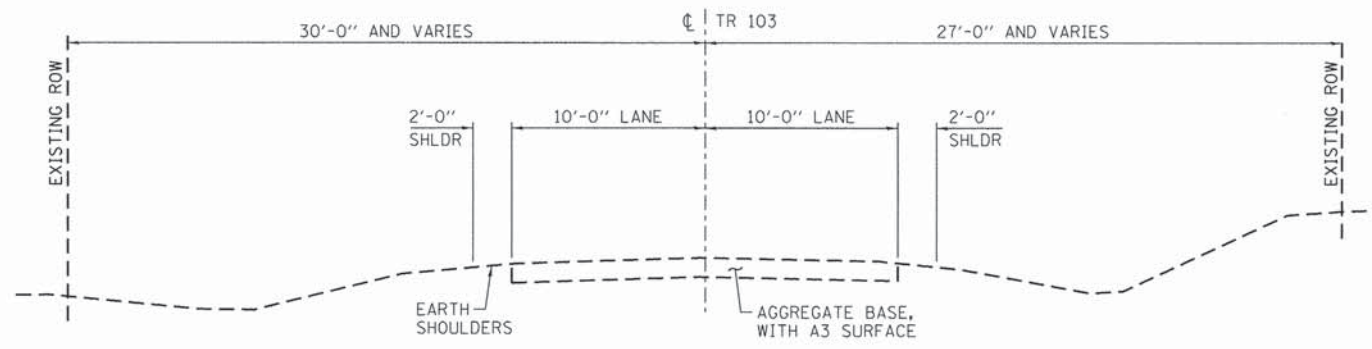
DESIGNED - BRAD KLEINMAIER
 CHECKED - MICHAEL WAGNER
 DRAWN - RON ALLEN
 CHECKED - BRAD KLEINMAIER

REVISED -
 REVISED -
 REVISED -
 REVISED -

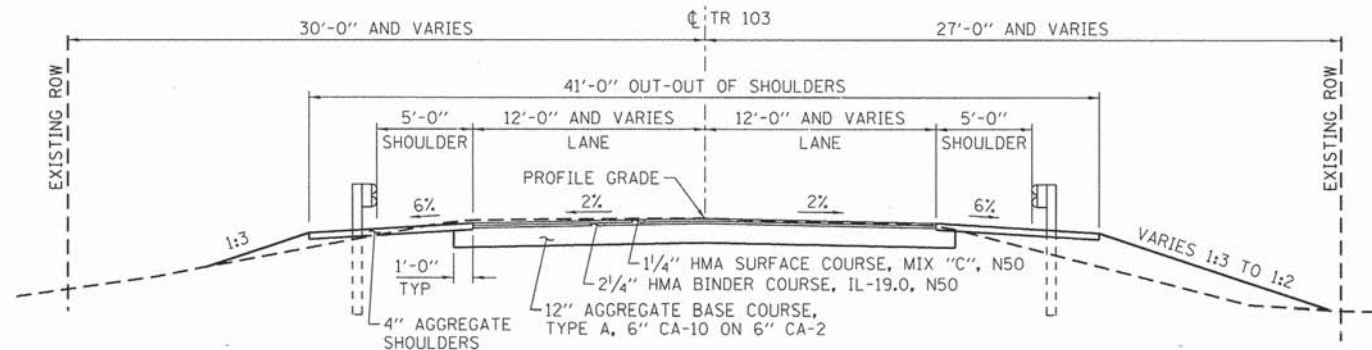
OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20 + 00

SCHEDULE OF QUANTITIES
STRUCTURE NO. 071-3347

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	4
WHA* 1164D15		CONTRACT NO. 85630		
[ILLINOIS] FED. AID PROJECT BR05-0141076J				

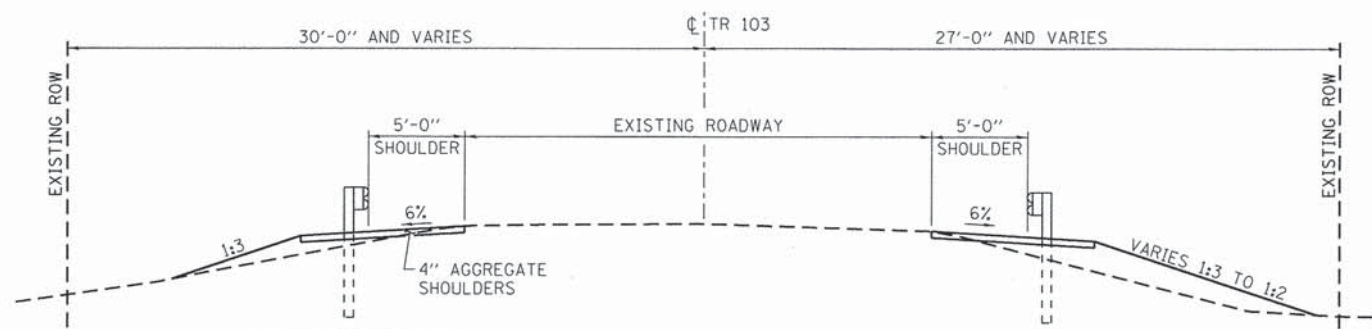


EXISTING ROADWAY TYPICAL SECTION



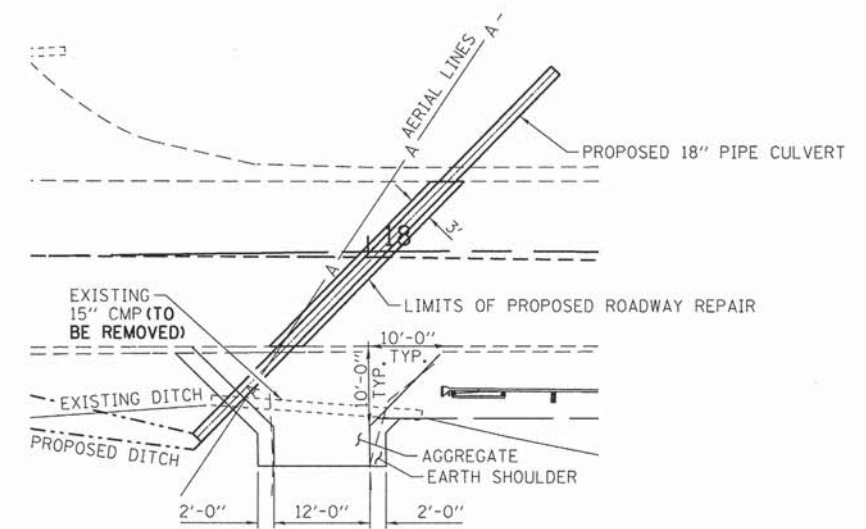
PROPOSED ROADWAY TYPICAL SECTION

(LOOKING EAST)
 (STA 19+20.00 - 19+56.00 &
 STA 20+44.00 - 20+80.00)

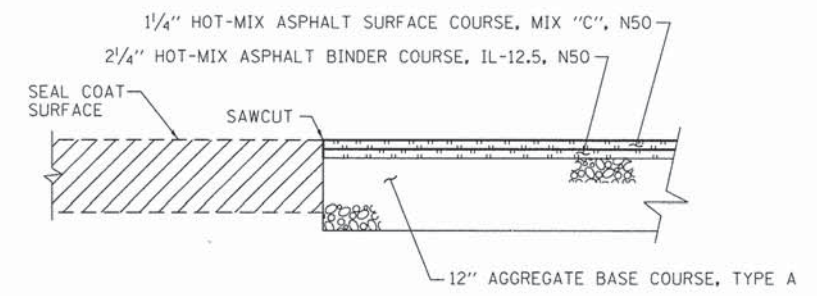


PROPOSED ROADWAY TYPICAL SECTION

(LOOKING EAST)



FER 17+94



TYPICAL CORE JOINT DETAIL

PAVEMENT STRUCTURAL DESIGN

STRUCTURAL DESIGN TRAFFIC (S.D.T.) = YEAR 2026
 CLASS IV ROAD
 80,000* TRUCK DESIGN
 E_{R1} = 2 KSI (POOR SUBGRADE)
 TF = N/A
 HMA MIX TEMP. = N/A
 HMA E_{AC} = N/A
 HMA DESIGN STRAIN = N/A

P.V. 338
 S.U. 34
 M.U. 12 } 384 ADT

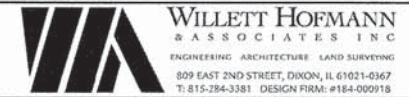
USE:
 1/4" HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50
 2 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50
 12" AGGREGATE BASE COURSE, TYPE A

SEE SECTION 44-3.03(b) OF THE LOCAL ROADS AND STREETS MANUAL

PAVEMENT MIXTURE REQUIREMENTS

MIXTURE USE:	BINDER	SURFACE
PG:	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0 @ N50	4.0 @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL-19.0	IL-9.5
FRICTION AGGREGATE	N/A	MIX "C"
MIXTURE WEIGHT:	112 LBS/SY/IN	112 LBS/SY/IN

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DESIGNED - BRAD KLEINMAIER	REVISED -
CHECKED - MICHAEL WAGNER	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

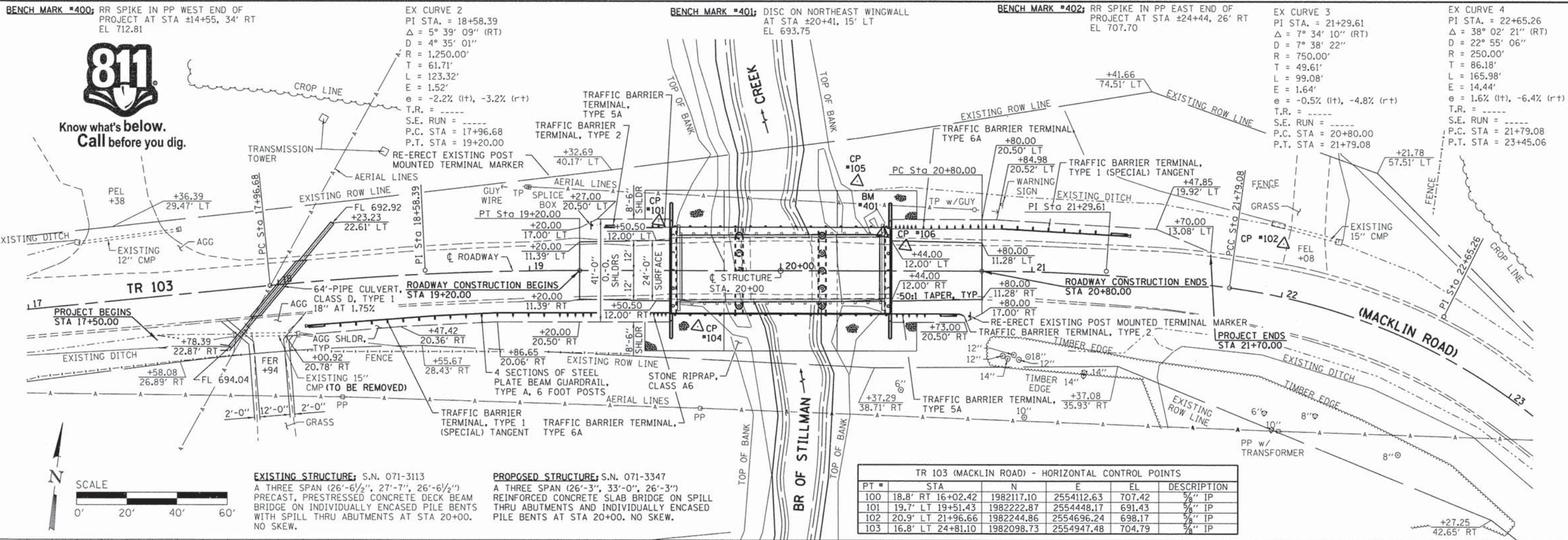
OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20+00

TYPICAL SECTIONS AND DETAILS
STRUCTURE NO. 071-3347

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	5
WHA# 1164015			CONTRACT NO. 85630	
ILLINOIS FED. AID PROJECT BR05-014(1076)				

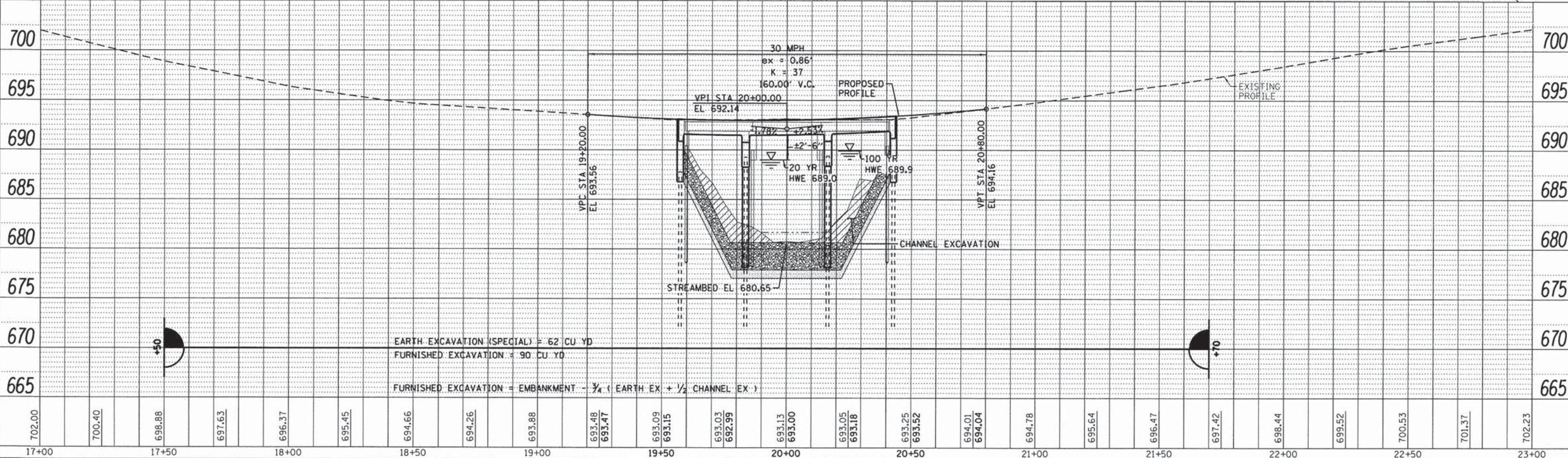


Know what's below. Call before you dig.



TR 103 (MACKLIN ROAD) - HORIZONTAL CONTROL POINTS

PT #	STA	N	E	EL	DESCRIPTION
100	18.8' RT 16+02.42	1982117.10	2554112.63	707.42	5/8" IP
101	19.7' LT 19+51.43	1982222.87	2554448.17	691.43	3/8" IP
102	20.9' LT 21+96.66	1982244.86	2554696.24	698.17	3/8" IP
103	16.8' LT 24+81.10	1982098.73	2554947.48	704.79	5/8" IP



FILE: S:\PROJECTS\2018\1164015_Macklin_Road\DESIGN\STRUCT\20_Drawings\1164015_Plan&Profile_MacklinRoad.dgn

PLAN

DATE	
BY	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	

PROFILE

DATE	
BY	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	



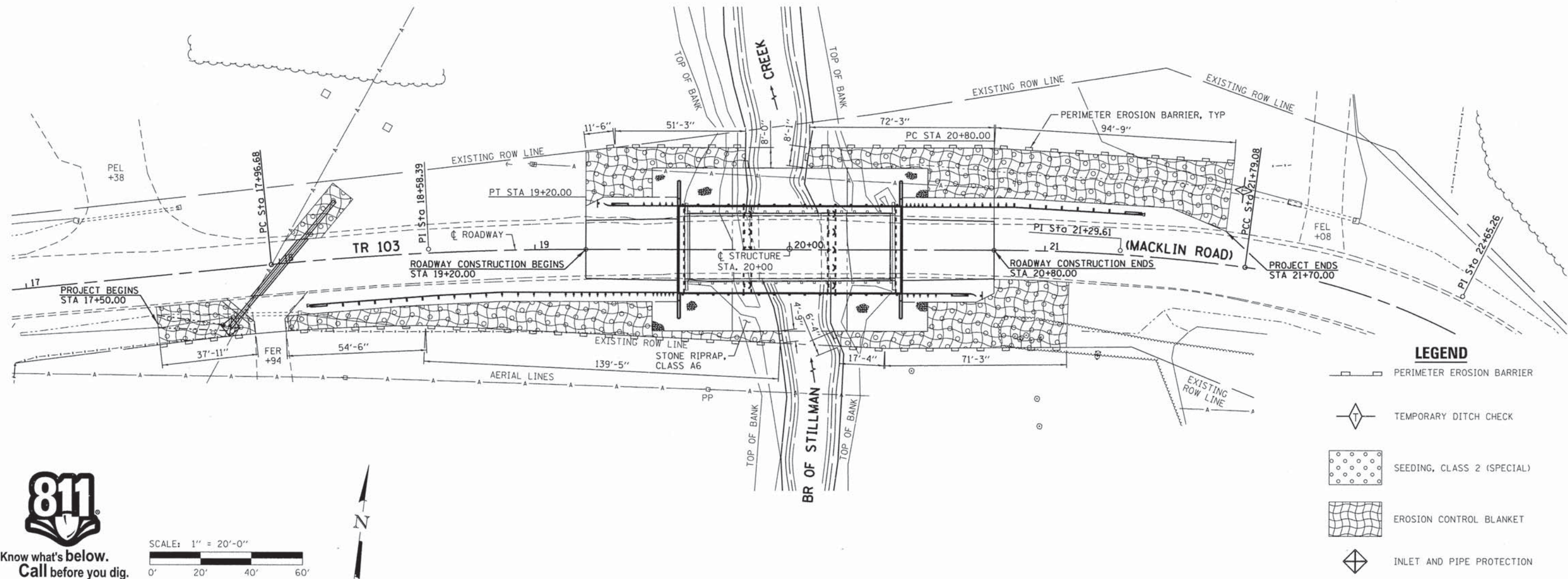
DESIGNED - BRAD KLEINMAIER	REVISED -
CHECKED - MICHAEL WAGNER	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

OGLE COUNTY TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK STATION 20+00






PLAN AND PROFILE STRUCTURE NO. 071-3347

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	6
WHA* 1164015			CONTRACT NO. 85630	
[ILLINOIS] FED. AID PROJECT BR05-014(076)				

SCALE: 1" = 20'-0" SHEET NO. 1 OF 1 SHEETS STA 17+00.00 TO STA 23+00.00

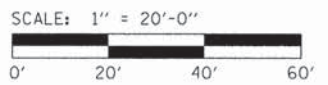


LEGEND

-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECK
-  SEEDING, CLASS 2 (SPECIAL)
-  EROSION CONTROL BLANKET
-  INLET AND PIPE PROTECTION



Know what's below.
Call before you dig.



EROSION CONTROL NOTES

THE SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND AFTER 1/2" OF RAIN OR MORE BY THE INDIVIDUAL ON SITE IN CHARGE OF SOIL EROSION AND SEDIMENT CONTROL DURING THE CONSTRUCTION OF THE PROJECT.

PERIMETER EROSION BARRIER SHALL COMPLY WITH SECTION 280 OF THE STANDARD SPECIFICATIONS AND SHALL BE PLACED AS SHOWN ON THE EROSION CONTROL PLAN AND IN ACCORDANCE WITH STATIONS SHOWN ON THE SCHEDULE OF QUANTITIES SHEET OR AS DIRECTED BY THE ENGINEER.

SILT FENCE SHALL BE INSTALLED FOLLOWING THE COMPLETION AND STABILIZATION OF ALL AREAS ADJACENT TO THE ON-SITE DRAINAGES. THE SILT FENCE WILL REMAIN IN PLACE UNTIL THE CONTRIBUTING AREA IS STABILIZED.

FOR SEEDING, CLASS 2 (SPECIAL) SEE SPECIAL PROVISIONS.

EROSION CONTROL BLANKET SHALL BE PLACED IN DITCHES AND TO ALL DISTURBED AREAS AS SHOWN ON THIS EROSION CONTROL PLAN SHEET AND IN ACCORDANCE WITH SECTION 251 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE USE OF GREEN DYE IN THE EROSION CONTROL BLANKET IS NOT ACCEPTABLE.

DITCH CHECKS SHALL BE PLACED AT STATIONS CALLED OUT IN THE SCHEDULE OF QUANTITIES OR AS DIRECTED BY THE ENGINEER.

TEMPORARY DITCH CHECKS SHALL COMPLY WITH SECTION 280 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STANDARD 280001.

TEMPORARY DITCH CHECKS SHALL BE PLACED AT STATIONS CALLED OUT IN THE SCHEDULE OF QUANTITIES OR AS DIRECTED BY THE ENGINEER.

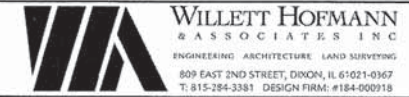
STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCKPILES TO REMAIN IN PLACE FOR 14 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.

ALL ADJACENT STREETS MUST BE KEPT CLEAR OF DEBRIS. INSPECTED DAILY AND CLEANED WHEN NECESSARY.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
EROSION CONTROL BLANKET	SQ YD	879
TEMPORARY EROSION CONTROL SEEDING	POUND	18
TEMPORARY DITCH CHECK	FOOT	10
PERIMETER EROSION BARRIER	FOOT	578
INLET AND PIPE PROTECTION	EACH	1
SEEDING, CLASS 2 (SPECIAL)	ACRE	0.2

FILE: S:\PROJECTS\2015\1164015_Macklin_Rd\DESIGN\STRUCT\20_Drains\1164015_Erosion_Control_Plan.dgn



DESIGNED - BRAD KLEINMAIER	REVISED -
CHECKED - MICHAEL WAGNER	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20+00

EROSION CONTROL PLAN
STRUCTURE NO. 071-3347

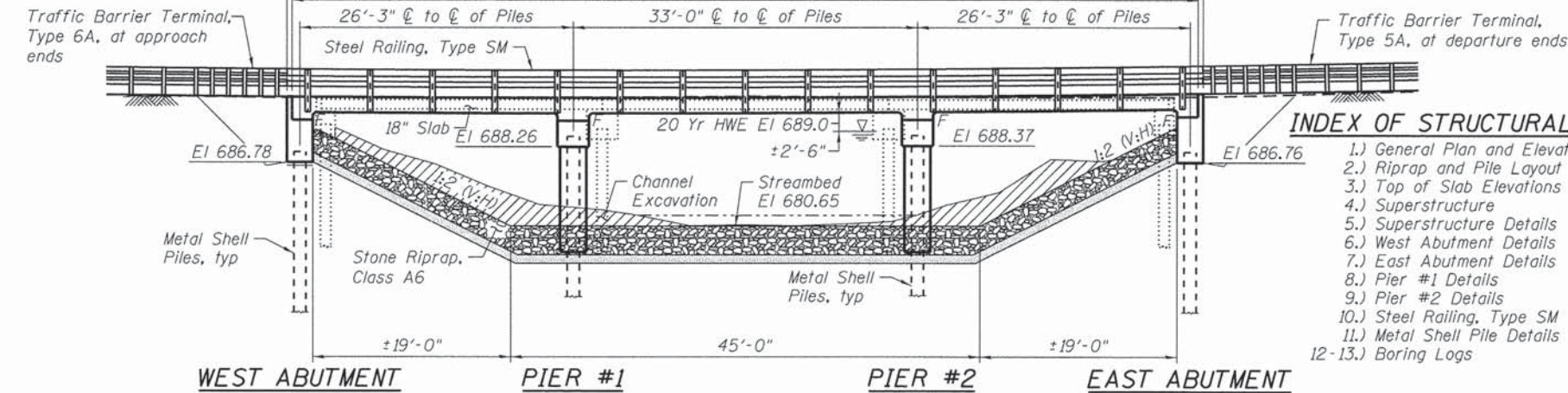
TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	7
WHA# 1164015			CONTRACT NO. 85630	
[ILLINOIS] FED. AID PROJECT BR05-0141(076)				

EXISTING STRUCTURE: S.N. 071-3113

A three span (26'-6 1/2", 27'-7", 26'-6 1/2") precast, prestressed concrete deck beam bridge on individually encased pile bents with spill thru abutments at Sta 20+00. No skew.

BENCH MARK #40: Disc on northeast wingwall at Sta ±20+41, 15' Lt EI 693.75

No salvage.



INDEX OF STRUCTURAL SHEETS

- 1.) General Plan and Elevation
- 2.) Riprap and Pile Layout
- 3.) Top of Slab Elevations
- 4.) Superstructure
- 5.) Superstructure Details
- 6.) West Abutment Details
- 7.) East Abutment Details
- 8.) Pier #1 Details
- 9.) Pier #2 Details
- 10.) Steel Railing, Type SM
- 11.) Metal Shell Pile Details
- 12-13.) Boring Logs

ITEM	UNIT	SUB	SUPER	TOTAL
Channel Excavation	Cu Yd	185	—	185
Stone Riprap, Class A6	Ton	929	—	929
Filter Fabric	Sq Yd	373	—	373
Removal of Existing Structures	Each	—	—	1
Structure Excavation	Cu Yd	157	—	157
Concrete Structures	Cu Yd	55.0	—	55.0
Concrete Superstructure	Cu Yd	—	171.9	171.9
Bridge Deck Grooving	Sq Yd	—	309	309
Concrete Encasement	Cu Yd	15.5	—	15.5
Protective Coat	Sq Yd	—	329	329
Reinforcement Bars, Epoxy Coated	Pound	9,180	35,190	44,370
Steel Railing, Type SM	Foot	—	176	176
Furnishing Metal Shell Piles, 12"x0.250"	Foot	524	—	524
Driving Piles	Foot	524	—	524
Test Pile Metal Shells	Each	4	—	4
Name Plates	Each	1	—	1
Geocomposite Wall Drain	Sq Yd	54	—	54
Concrete Headwalls for Pipe Drains	Each	4	—	4
Pipe Underdrains for Structures, 4"	Foot	136	—	136
Dewatering Structure No 1	Each	1	—	1
Granular Backfill for Structures	Cu Yd	84	—	84

GENERAL NOTES:

- See Structural Sheet 12 and 13 of 13 for boring data.
- Reinforcement bars designated (E) shall be epoxy coated.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The Contractor shall make allowance for the deflection of forms, shrinkage, and settlement of falsework, in addition to allowance for dead load deflection.
- The channel shall be transitioned to fit the proposed structure inside the Right of Way. Cost shall be included in price per Cubic Yard for Channel Excavation.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec (S₀₁) = 0.081 g
 Design Spectral Acceleration at 0.2 sec (S₀₅) = 0.138 g
 Soil Site Class = D

LOADING HL-93

Allow 50#/sq ft for future wearing surface.

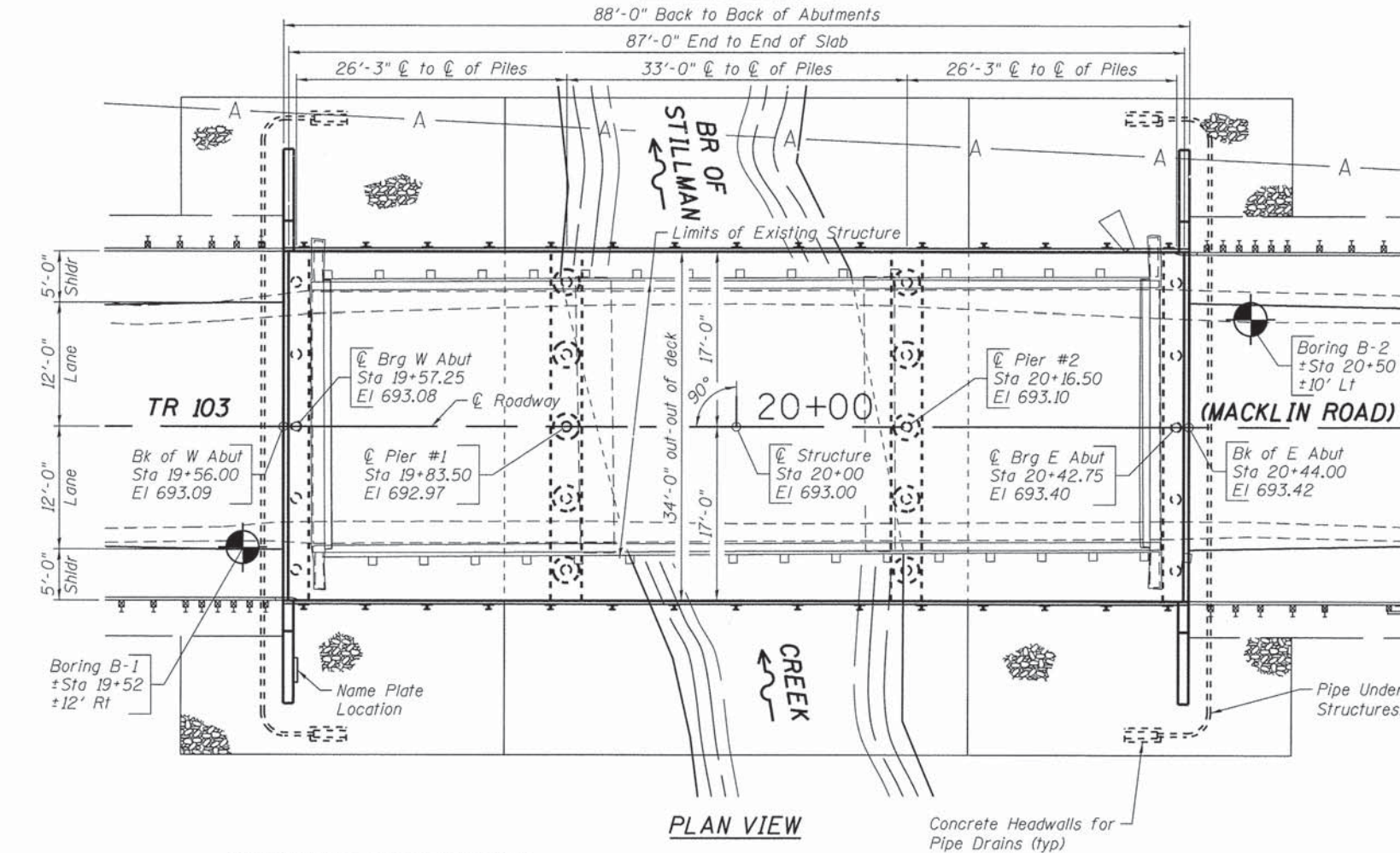
DESIGN SPECIFICATIONS

Design in accordance with 2014 AASHTO LRFD Bridge Design Specifications, 7th Ed.

DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi (Superstructure)
 f'c = 3,500 psi (Substructure)
 fy = 60,000 psi (Reinforcement)



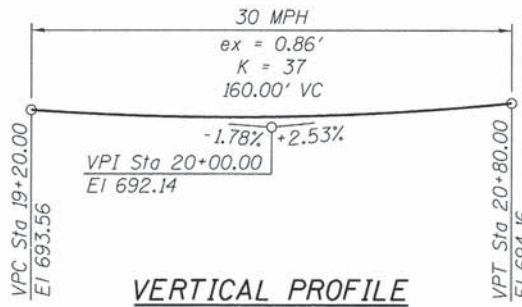
WATERWAY INFORMATION

Drainage Area = 20.2 Sq Mi Low Grade EI 692.97 at Sta 19+86.08

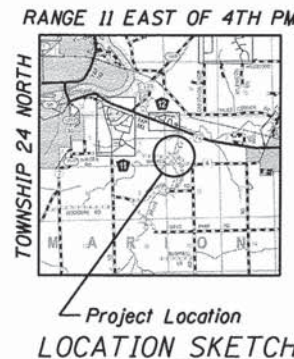
Flood	Freq Yr	Q CFS	Opening	Nat HWE	Head - Ft	Headwater EI		
			Sq Ft		Exist Prop	Exist Prop		
Design	20	2,650	400	470	689.0	0.0	689.0	689.0
Base	100	4,000	463	536	689.9	0.8	690.7	689.9
Scour Check	200	4,700	495	570	690.3	2.8	693.1	690.5
Max Calc	500	5,450	524	600	690.7	2.8	693.5	693.0

BRIDGE DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft)				
	W Abut	W Pier	E Pier	E Abut	Item 113
Q100 (Design)	686.78	674.26	674.26	686.76	5
Q200 (Check)	672.40	672.64	672.64	686.76	



VERTICAL PROFILE



Brian L. Converse
 DATE: 12/29/2015
 EXPIRES 11/30/16

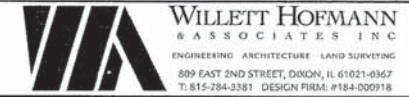
"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans, the design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Bridge Design Specifications.'"

BRANCH OF STILLMAN CREEK
 BUILT 2016 BY
 MARION TOWNSHIP & OGLE COUNTY
 SECTION 14-13115-00-BR
 STATION 20+00
 STR. NO. 071-3347 LOADING HL-93

NAME PLATE LETTERING
 Refer To Std. 515001

GENERAL PLAN AND ELEVATION
TR 103 (MACKLIN RD) OVER
BR OF STILLMAN CRK
SECTION 14-13115-00-BR
OGLE COUNTY
STATION 20+00
STRUCTURE NO. 071-3347

FILE # SA-PROJECTS\2015\1164015-Macklin_Rd\DESIGN\STRUCT\20-Drwings\1164015-General Plan and Elevation.dgn

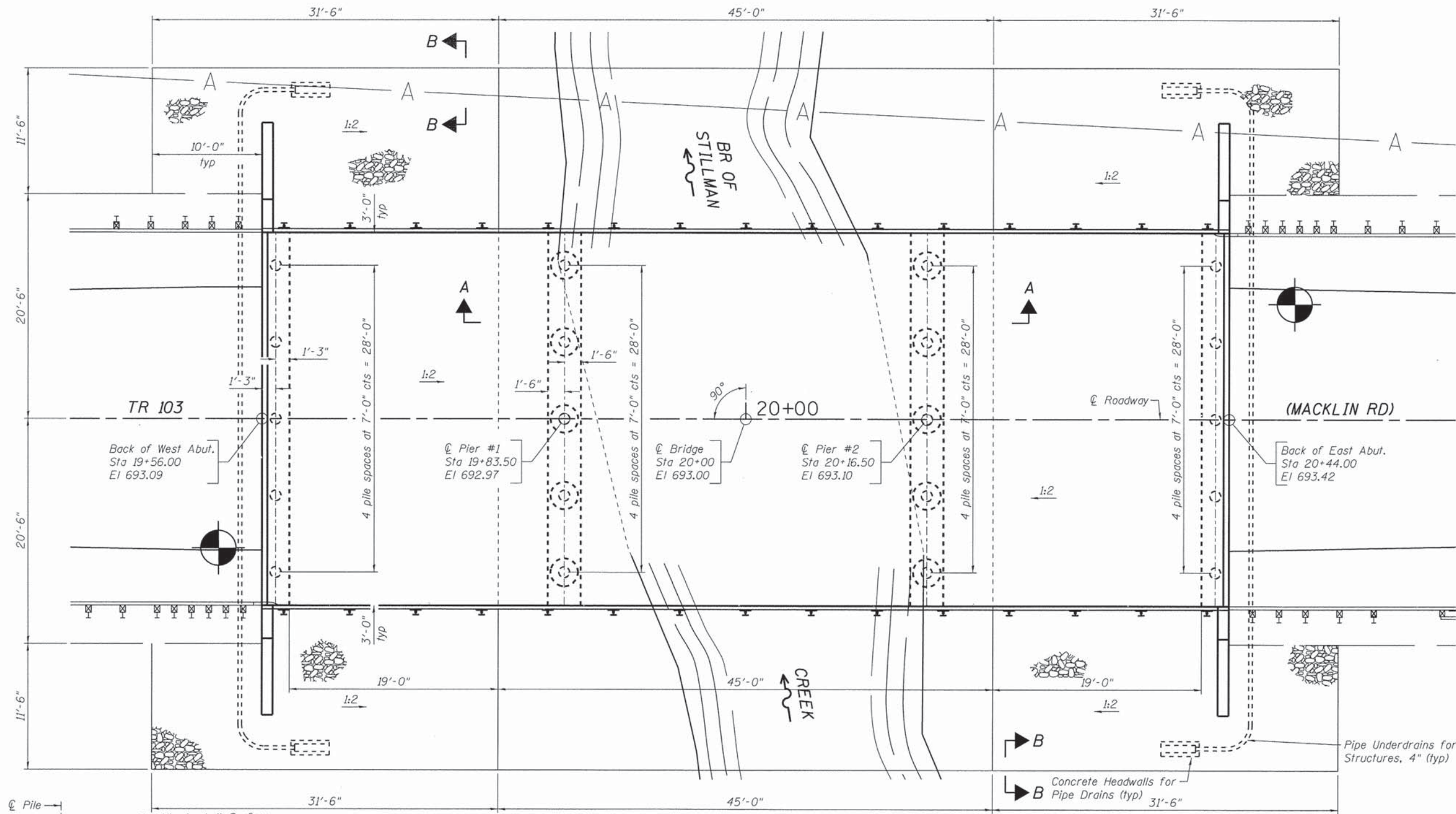


DESIGNED - BRAD KLEINMAIER	REVISED -
CHECKED - BRIAN CONVERSE	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

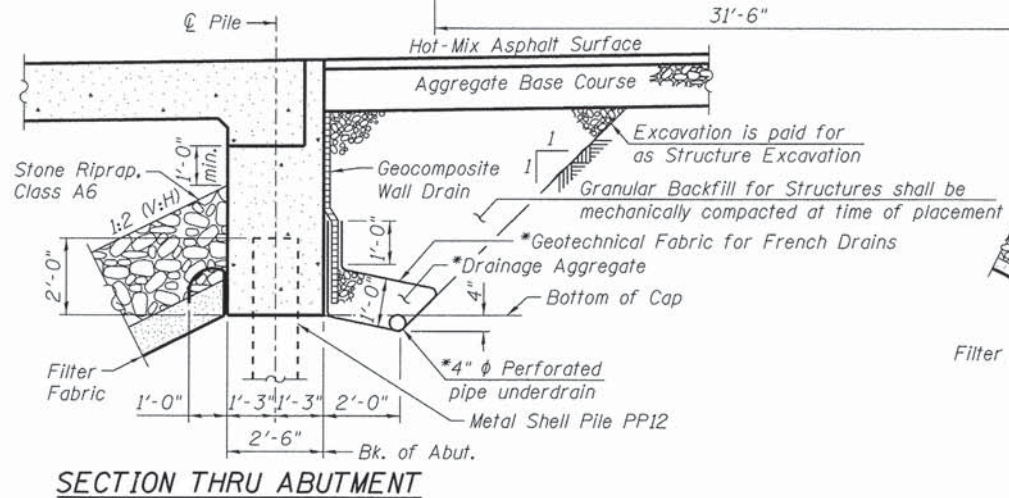
OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20+00

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	8
WHA# 1164015		CONTRACT NO. 85630		

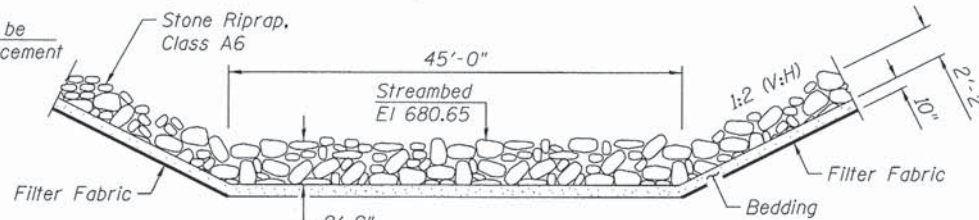
STRUCTURAL SHEET NO. 1 OF 13 SHEETS
 [ILLINOIS] FED. AID PROJECT BR05-01410761



PLAN VIEW

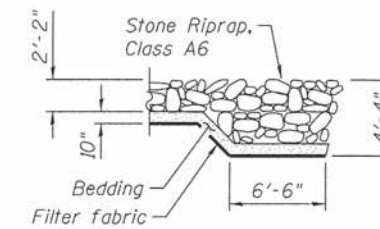


SECTION THRU ABUTMENT



SECTION A-A

STONE RIPRAP ANCHOR DETAILS



SECTION B-B

BILL OF MATERIAL

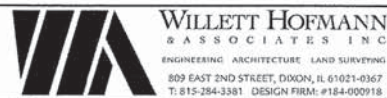
Item	Unit	Quantity
Stone Riprap, Class A6	Ton	929
Filter Fabric	Sq Yd	373
Concrete Headwalls for Pipe Drains	Each	4
Pipe Underdrains for Structures, 4"	Foot	136

NOTE:

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall be placed as shown above. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)

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

FILE # S:\PROJECTS\2015\1164015_Macklin_Rd\DESIGN\STRUCT\20_Pile\Layout.dgn



DESIGNED - BRAD KLEINMAIER	REVISED -
CHECKED - BRIAN CONVERSE	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

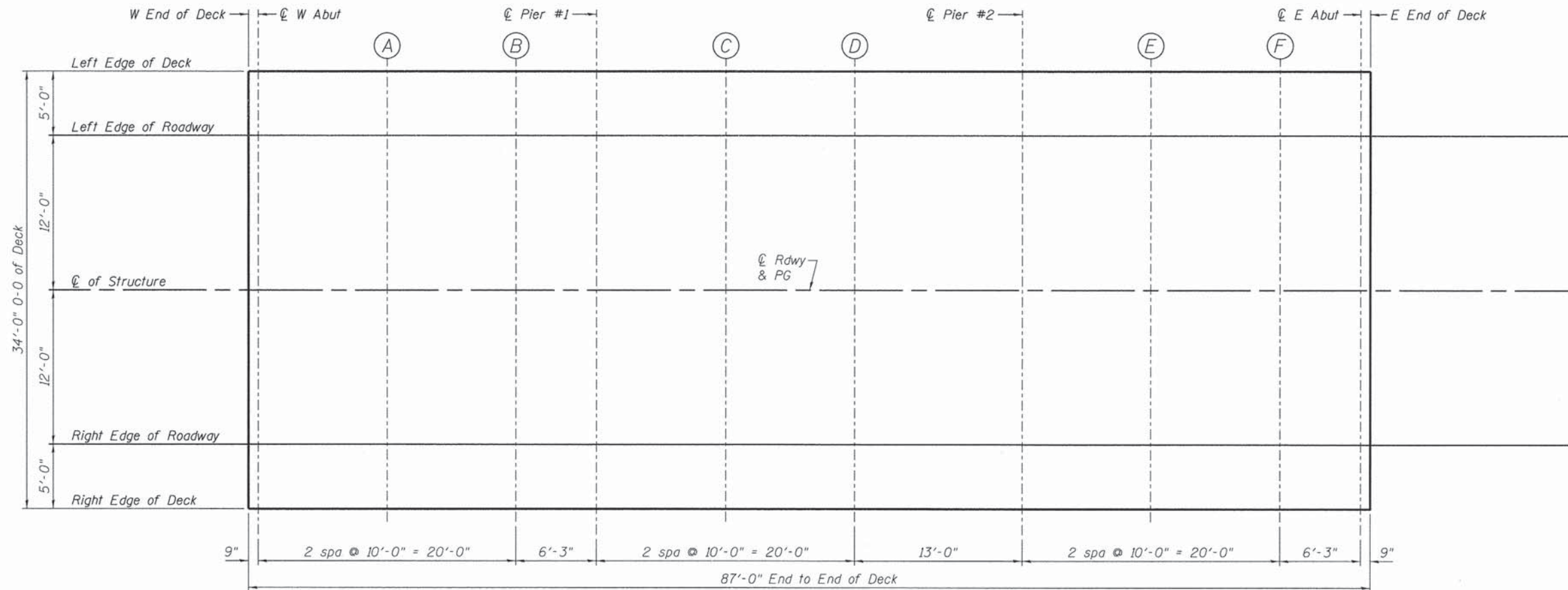
OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20+00

RIPRAP AND PILE LAYOUT
STRUCTURE NO. 071-3347

STRUCTURAL SHEET NO. 2 OF 13 SHEETS

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	9

WHA# 1164015 CONTRACT NO. 85630
[ILLINOIS] FED. AID PROJECT BR05-014(1076)



PLAN VIEW

LEFT EDGE OF DECK

Location	Station	Offset Lt	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W End of Deck	19+56.50	17.000'	692.80	692.80
W Abut	19+57.25	17.000'	692.79	692.79
A	19+67.25	17.000'	692.73	692.74
B	19+77.25	17.000'	692.69	692.69
Pier #1	19+83.50	17.000'	692.68	692.68
C	19+93.50	17.000'	692.69	692.70
D	20+03.50	17.000'	692.72	692.73
Pier #2	20+16.50	17.000'	692.81	692.81
E	20+26.50	17.000'	692.90	692.90
F	20+36.50	17.000'	693.02	693.03
E Abut	20+42.75	17.000'	693.11	693.11
E End of Deck	20+43.50	17.000'	693.13	693.13

LEFT EDGE OF ROADWAY

Location	Station	Offset Lt	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W End of Deck	19+56.50	12.000'	692.90	692.90
W Abut	19+57.25	12.000'	692.89	692.89
A	19+67.25	12.000'	692.83	692.85
B	19+77.25	12.000'	692.79	692.80
Pier #1	19+83.50	12.000'	692.78	692.78
C	19+93.50	12.000'	692.79	692.81
D	20+03.50	12.000'	692.82	692.84
Pier #2	20+16.50	12.000'	692.91	692.91
E	20+26.50	12.000'	693.00	693.01
F	20+36.50	12.000'	693.12	693.14
E Abut	20+42.75	12.000'	693.21	693.21
E End of Deck	20+43.50	12.000'	693.23	693.23

CL OF STRUCTURE

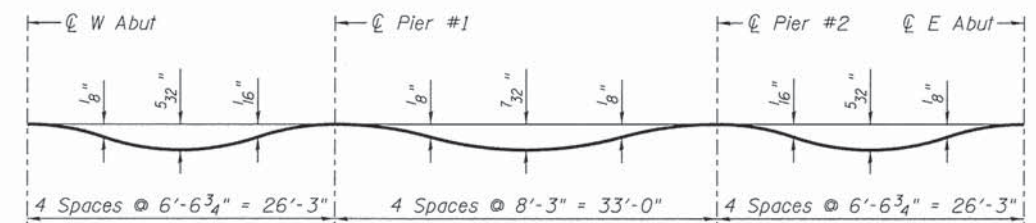
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W End of Deck	19+56.50	0.000'	693.09	693.09
W Abut	19+57.25	0.000'	693.08	693.08
A	19+67.25	0.000'	693.02	693.03
B	19+77.25	0.000'	692.98	692.99
Pier #1	19+83.50	0.000'	692.97	692.97
C	19+93.50	0.000'	692.98	692.99
D	20+03.50	0.000'	693.01	693.03
Pier #2	20+16.50	0.000'	693.10	693.10
E	20+26.50	0.000'	693.19	693.20
F	20+36.50	0.000'	693.31	693.32
E Abut	20+42.75	0.000'	693.40	693.40
E End of Deck	20+43.50	0.000'	693.42	693.42

RIGHT EDGE OF ROADWAY

Location	Station	Offset Rt	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W End of Deck	19+56.50	12.000'	692.90	692.90
W Abut	19+57.25	12.000'	692.89	692.89
A	19+67.25	12.000'	692.83	692.85
B	19+77.25	12.000'	692.79	692.80
Pier #1	19+83.50	12.000'	692.78	692.78
C	19+93.50	12.000'	692.79	692.81
D	20+03.50	12.000'	692.82	692.84
Pier #2	20+16.50	12.000'	692.91	692.91
E	20+26.50	12.000'	693.00	693.01
F	20+36.50	12.000'	693.12	693.14
E Abut	20+42.75	12.000'	693.21	693.21
E End of Deck	20+43.50	12.000'	693.23	693.23

RIGHT EDGE OF DECK

Location	Station	Offset Rt	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W End of Deck	19+56.50	17.000'	692.80	692.80
W Abut	19+57.25	17.000'	692.79	692.79
A	19+67.25	17.000'	692.73	692.74
B	19+77.25	17.000'	692.69	692.69
Pier #1	19+83.50	17.000'	692.68	692.68
C	19+93.50	17.000'	692.69	692.70
D	20+03.50	17.000'	692.72	692.73
Pier #2	20+16.50	17.000'	692.81	692.81
E	20+26.50	17.000'	692.90	692.90
F	20+36.50	17.000'	693.02	693.03
E Abut	20+42.75	17.000'	693.11	693.11
E End of Deck	20+43.50	17.000'	693.13	693.13



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete slab only)

NOTES:

The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown above.

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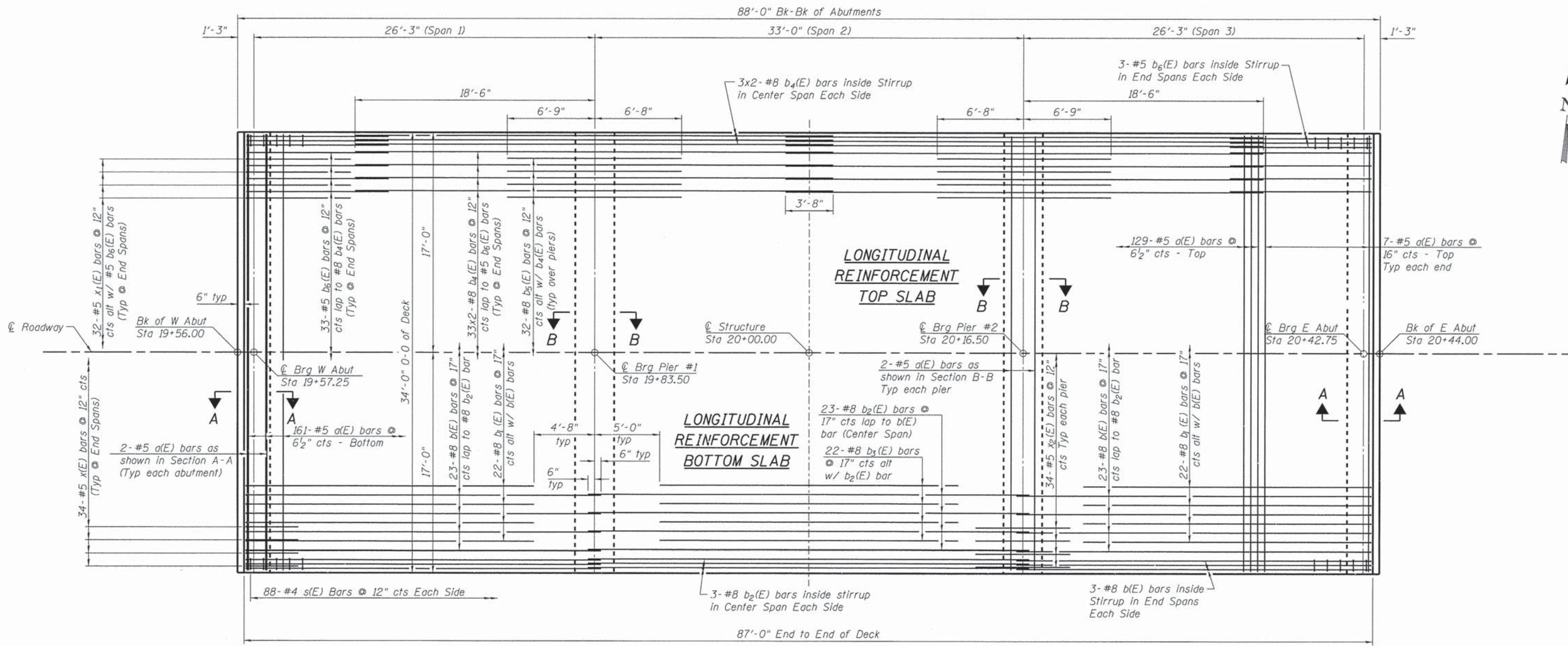
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CHECKED - BRIAN CONVERSE	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20+00

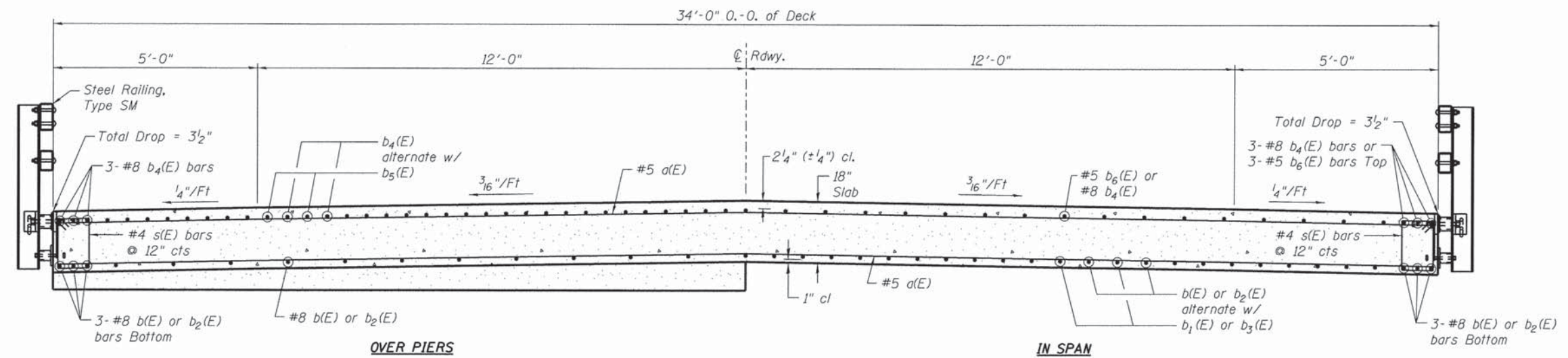
TOP OF SLAB ELEVATIONS
STRUCTURE NO. 071-3347

STRUCTURAL SHEET NO. 3 OF 13 SHEETS

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	10
WHA# 1164015			CONTRACT NO. 85630	
[ILLINOIS] FED. AID PROJECT BR05-0141(076)				



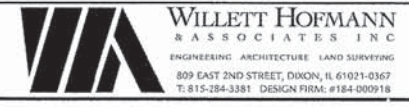
PLAN



PROPOSED BRIDGE CROSS SECTION
(Looking East)

NOTES:
See Structural Sheet 5 of 13 for Bill of Material.

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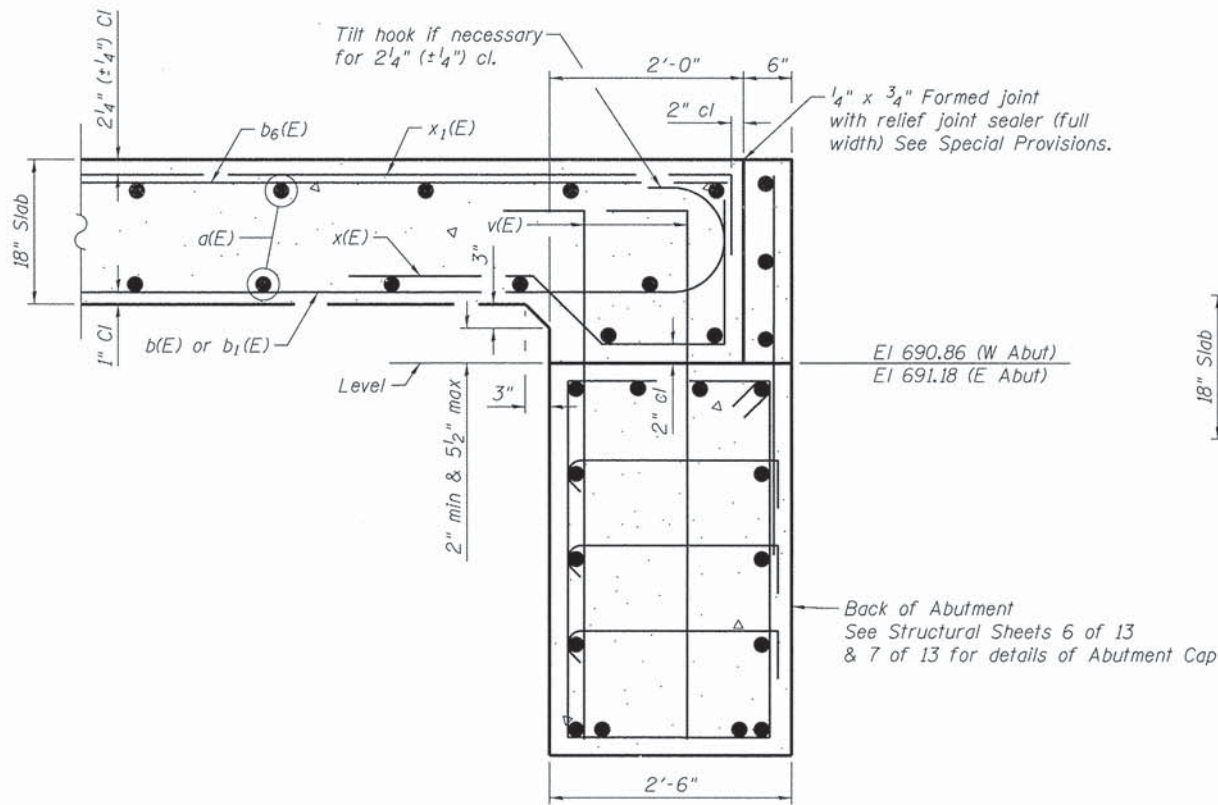


DESIGNED -	BRAD KLEINMAIER	REVISED -	
CHECKED -	BRIAN CONVERSE	REVISED -	
DRAWN -	RON ALLEN	REVISED -	
CHECKED -	BRAD KLEINMAIER	REVISED -	

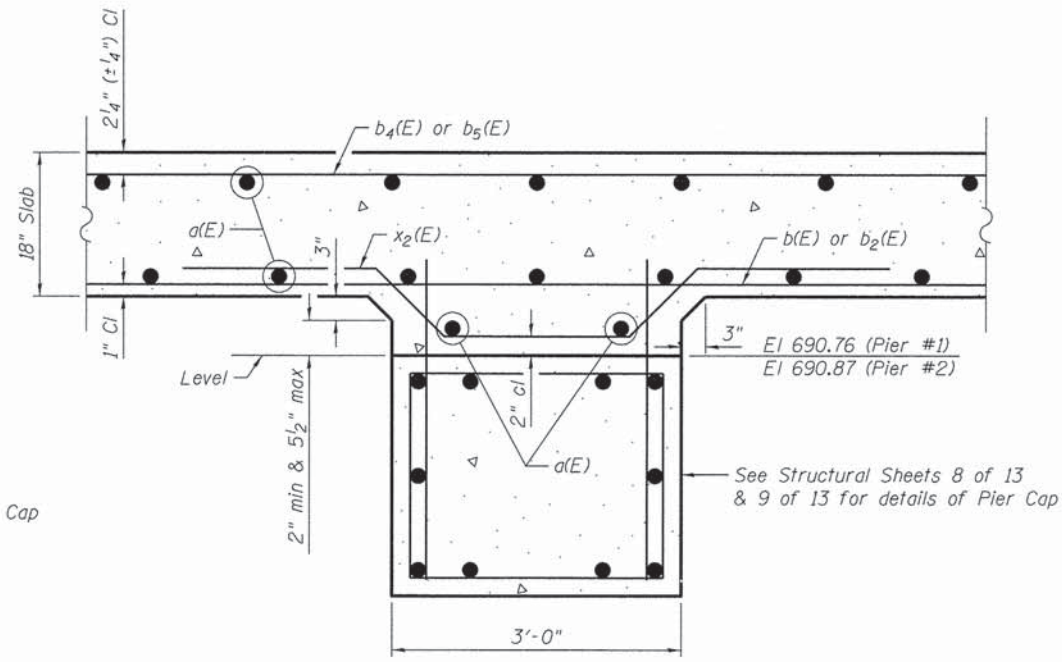
OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20+00

SUPERSTRUCTURE
STRUCTURE NO. 071-3347
STRUCTURAL SHEET NO. 4 OF 13 SHEETS

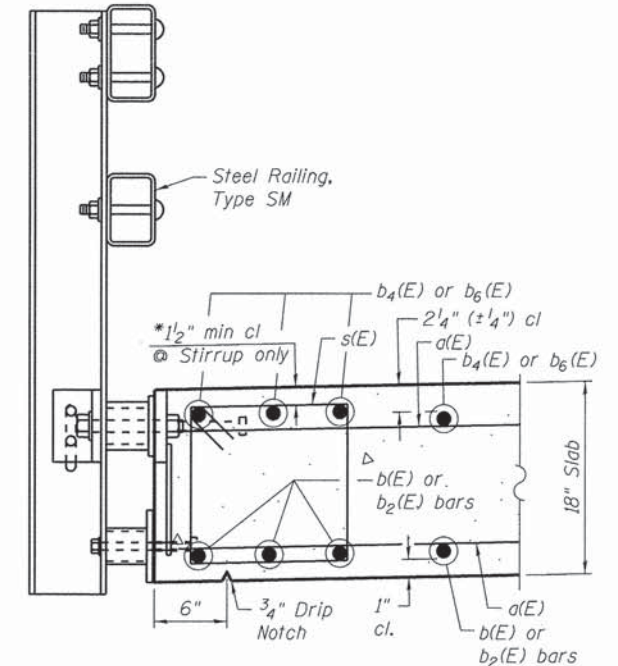
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103	14-13115-00-BR	OGLE	25	11
WHA# 1164015			CONTRACT NO. 85630	
ILLINOIS FED. AID PROJECT BR05-014(1076)				



SECTION A-A



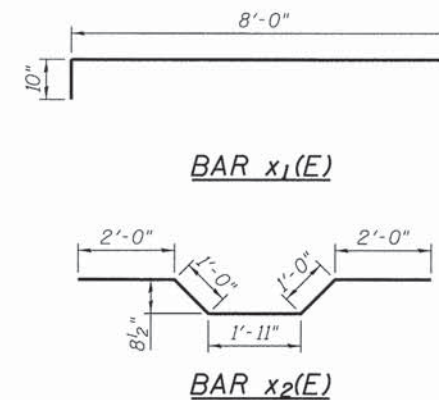
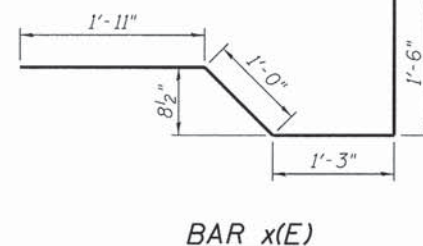
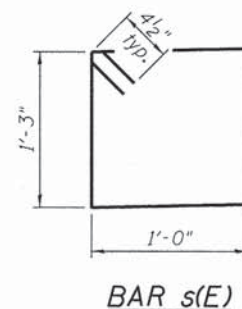
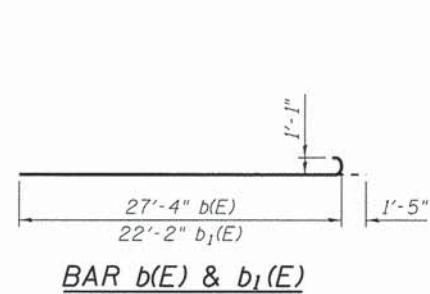
SECTION B-B



SECTION THRU RAIL

**SUPERSTRUCTURE
BILL OF MATERIAL**

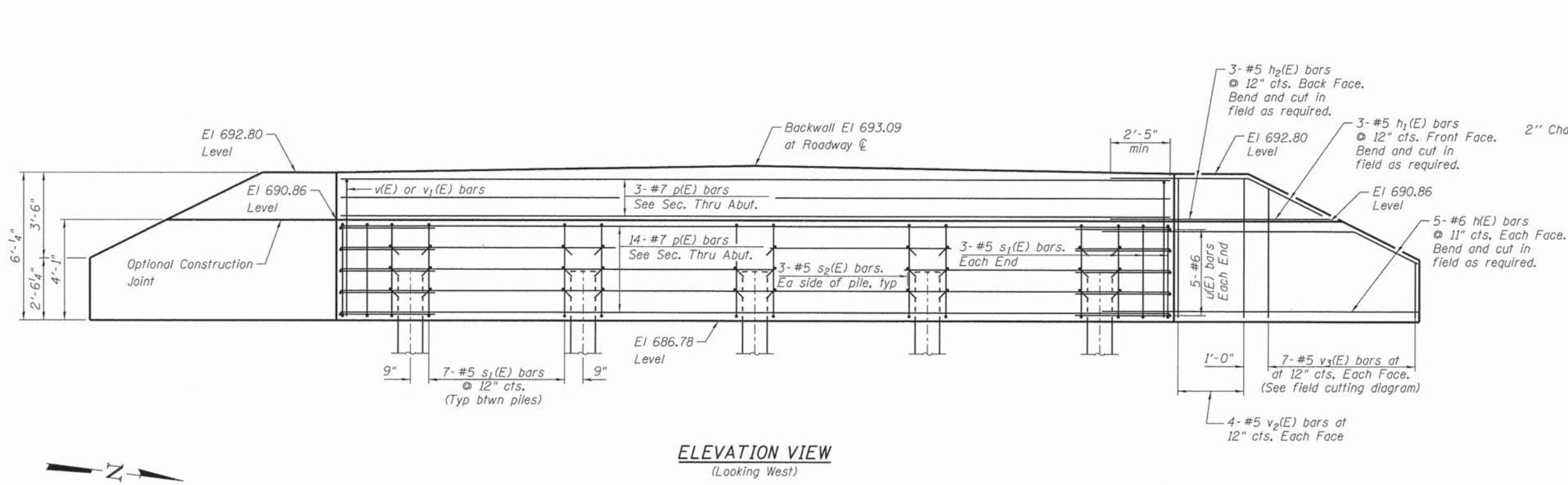
Bar	No.	Size	Length	Shape
a(E)	312	#5	33'-8"	—
b(E)	58	#8	28'-9"	—
b1(E)	44	#8	23'-7"	—
b2(E)	29	#8	34'-0"	—
b3(E)	22	#8	23'-0"	—
b4(E)	78	#8	36'-10"	—
b5(E)	64	#8	13'-5"	—
b6(E)	78	#5	10'-11"	—
s(E)	176	#4	5'-3"	□
x(E)	68	#5	5'-8"	—
x1(E)	64	#5	8'-10"	—
x2(E)	68	#5	7'-11"	—
Concrete Superstructure		Cu Yd	171.9	
Bridge Deck Grooving		Sq Yd	309	
Protective Coat		Sq Yd	329	
Reinforcement Bars, Epoxy Coated		Pound	35,190	



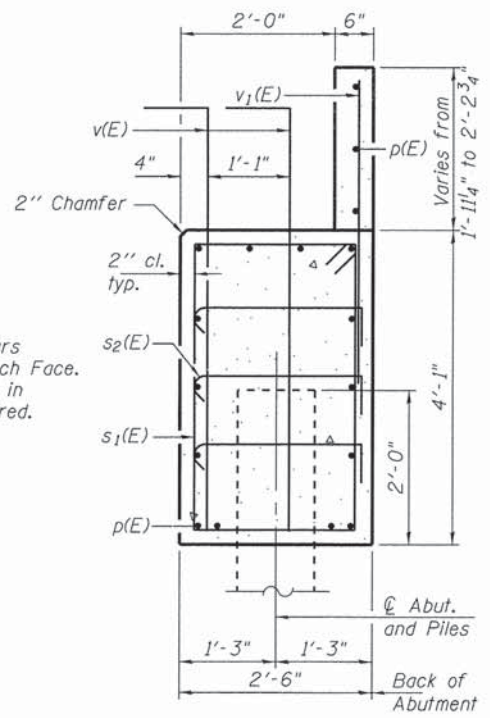
NOTES:

- See Structural Sheet 10 of 13 for Steel Railing Details.
- Bars indicated thus 3x2-#8 etc indicates 3 lines of bars with 2 lengths per line.
- * Reinforcement bars in the top of the deck may be placed with a 1/2" minimum clearance in the area of the rail post anchor devices. The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

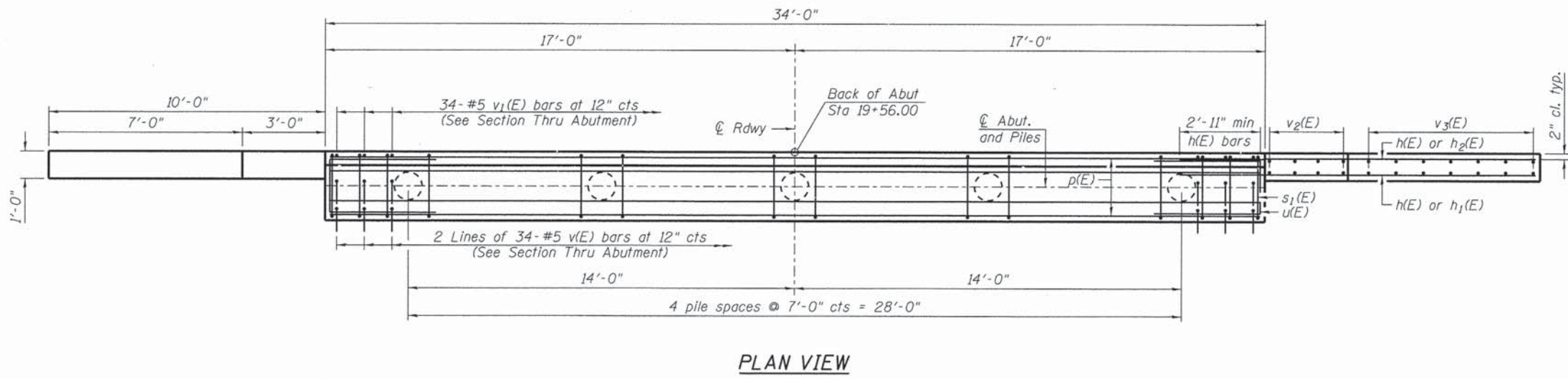
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ELEVATION VIEW
(Looking West)



SEC. THRU ABUT.
(Dimensions are at Rt. L's)



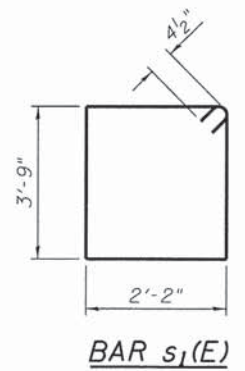
PLAN VIEW

BILL OF MATERIAL

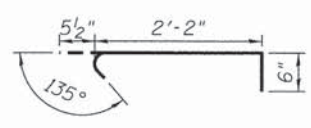
Bar	No.	Size	Length	Shape
h(E)	20	#6	12'-11"	—
h1(E)	6	#5	6'-2"	—
h2(E)	6	#5	8'-11"	—
p(E)	17	#7	33'-8"	—
s1(E)	34	#5	12'-7"	□
s2(E)	30	#5	3'-2"	┌┐
u(E)	10	#6	9'-9"	□
v(E)	68	#5	6'-4"	—
v1(E)	34	#5	4'-1"	—
v2(E)	16	#5	5'-8"	—
v3(E)	14	#5	7'-6"	—
Structure Excavation		Cu Yd	78	
Concrete Structures		Cu Yd	17.5	
Reinforcement Bars, Epoxy Coated		Pound	3,150	
Furnishing Metal Shell Piles 12" x 0.250"		Foot	88	
Driving Piles		Foot	88	
Test Pile Metal Shells		Each	1	
Geocomposite Wall Drain		Sq Yd	26	
* Granular Backfill for Structures		Ton	39	

PILE DATA

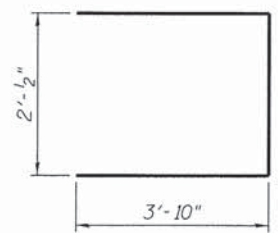
Type: Metal Shell 12" ϕ x 0.250" walls
 Nominal Required Bearing: 345 kips
 Factored Resistance Available: 190 kips
 Est. Length: 22'
 No. Production Piles: 4
 No. Test Piles: 1



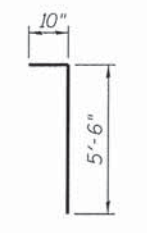
BAR s1(E)



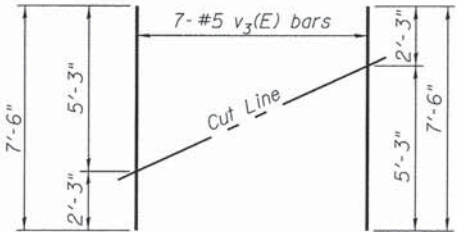
BAR s2(E)



BAR u(E)



BAR v(E)



FIELD CUTTING DIAGRAM

Order v3(E) full length. Cut as shown and use remainder of bars in opposite face.

NOTES:

- Portion of wingwalls above the construction joint to be poured with the backwall.
- All exposed edges shall have standard 3/4" chamfers, except as noted.
- For pile details, see Structural Sheet 11 of 13.
- *For drainage details, see Structural Sheet 2 of 13.

FILE: S:\PROJECTS\2015\1164015_Macklin_Road\DESIGN\STRUCT\20_Dr-wrings\1164015_West_Abutment_Details.dgn

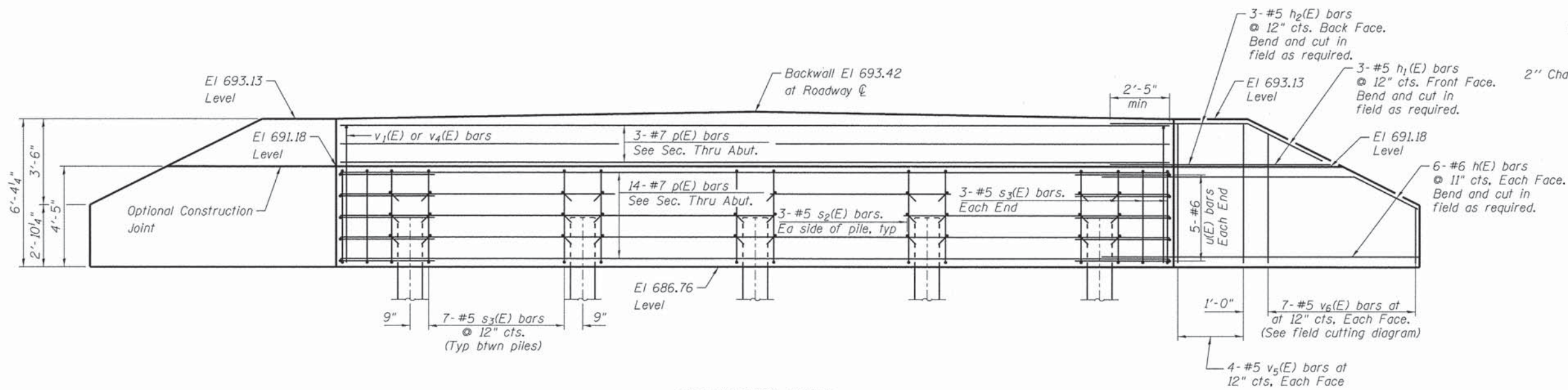
WILETT HOFMANN ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 809 EAST 2ND STREET, DIXON, IL 61021-0367
 T: 815-284-3381 DESIGN FIRM: #184-000118

DESIGNED -	BRAD KLEINMAIER	REVISED -	
CHECKED -	BRIAN CONVERSE	REVISED -	
DRAWN -	RON ALLEN	REVISED -	
CHECKED -	BRAD KLEINMAIER	REVISED -	

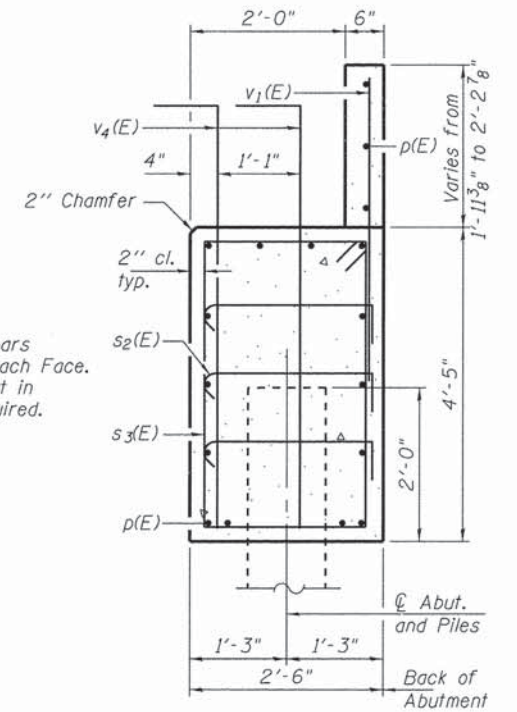
OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20 + 00

WEST ABUTMENT DETAILS
STRUCTURE NO. 071-3347
 STRUCTURAL SHEET NO. 6 OF 13 SHEETS

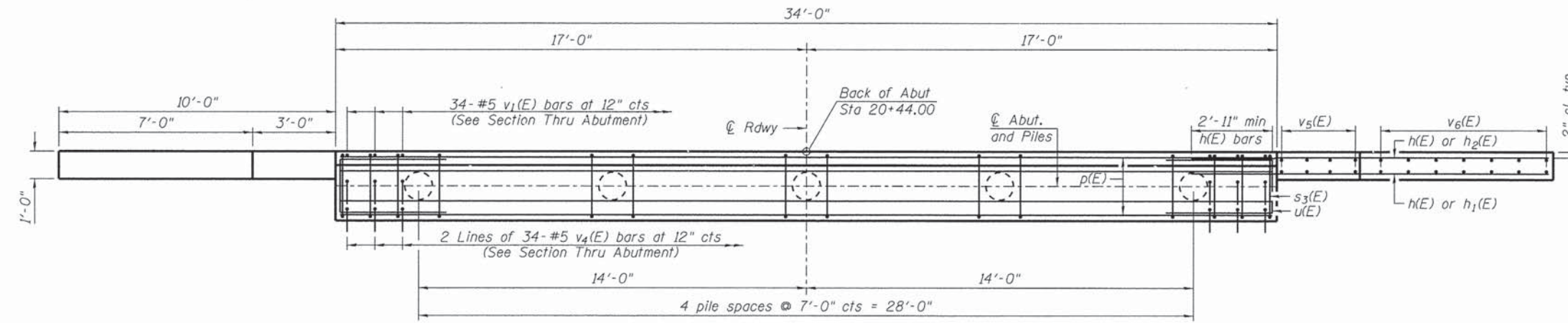
TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	13
WHA# 1164015			CONTRACT NO. 85630	
[ILLINOIS] FED. AID PROJECT BR05-0141076J				



ELEVATION VIEW
(Looking East)



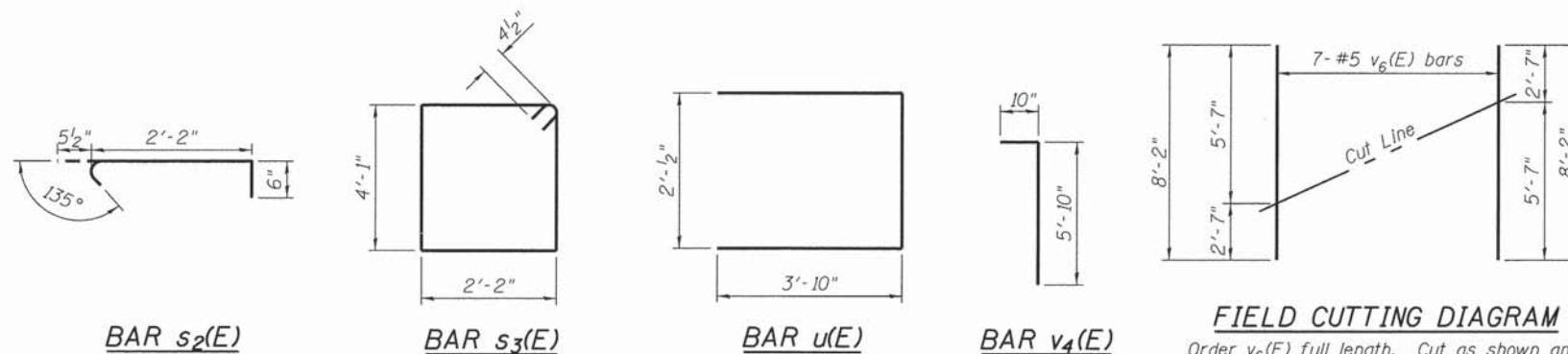
SEC. THRU ABUT.
(Dimensions are at Rt. L's)



PLAN VIEW

PILE DATA

Type: Metal Shell 12" ϕ x 0.250" walls
 Nominal Required Bearing: 345 kips
 Factored Resistance Available: 190 kips
 Est. Length: 38'
 No. Production Piles: 4
 No. Test Piles: 1



FIELD CUTTING DIAGRAM

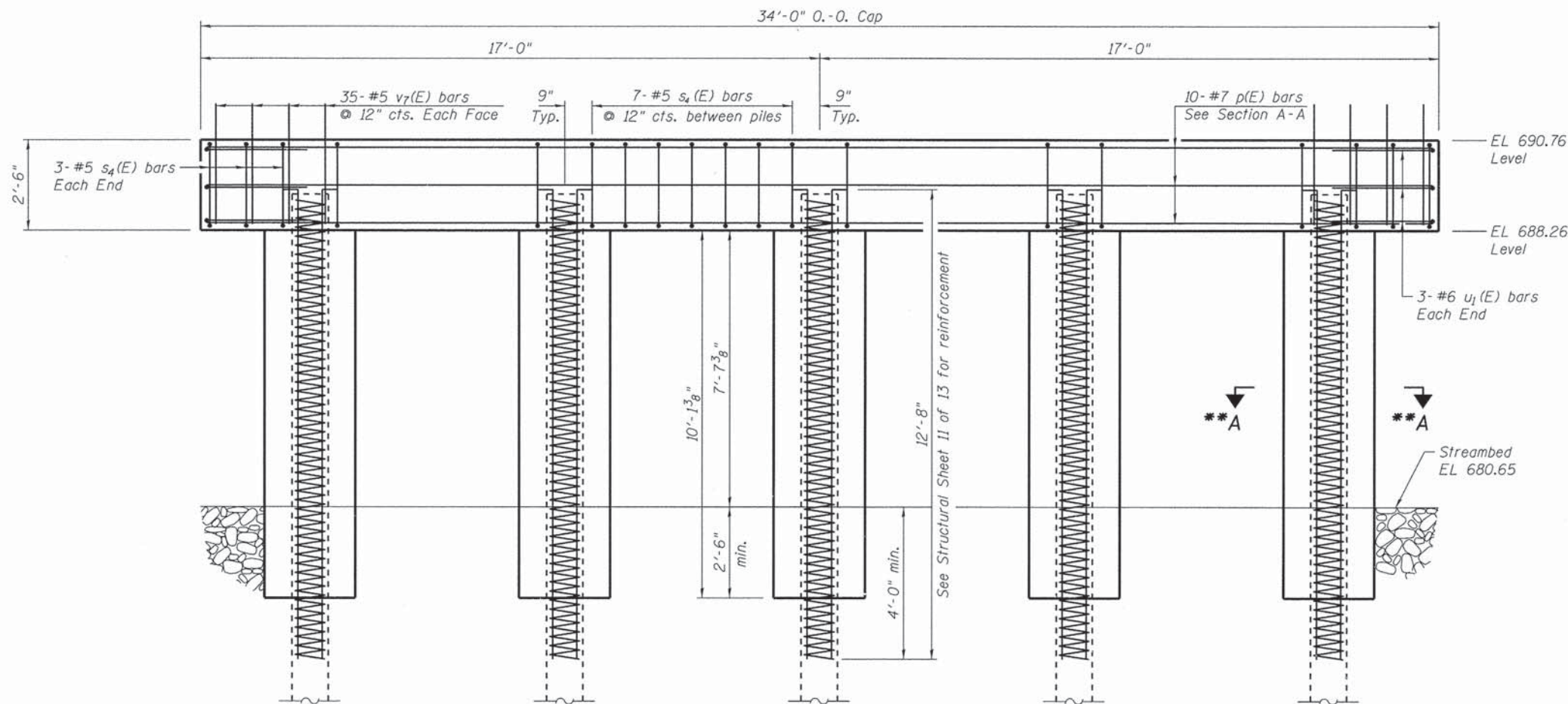
Order $v_6(E)$ full length. Cut as shown and use remainder of bars in opposite face.

BILL OF MATERIAL

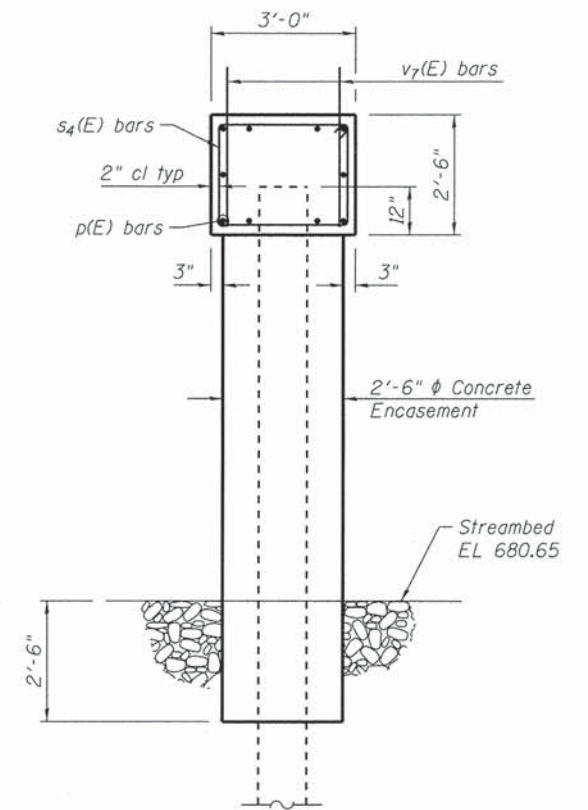
Bar	No.	Size	Length	Shape
$h(E)$	24	#6	12'-11"	—
$h_1(E)$	6	#5	6'-2"	—
$h_2(E)$	6	#5	8'-11"	—
$p(E)$	17	#7	33'-8"	—
$s_2(E)$	30	#5	3'-2"	⌋
$s_3(E)$	34	#5	13'-3"	⌋
$u(E)$	10	#6	9'-9"	⌋
$v_1(E)$	34	#5	4'-1"	—
$v_4(E)$	68	#5	6'-8"	—
$v_5(E)$	16	#5	6'-0"	—
$v_6(E)$	14	#5	8'-2"	—
Structure Excavation		Cu Yd	79	
Concrete Structures		Cu Yd	18.7	
Reinforcement Bars, Epoxy Coated		Pound	3,290	
Furnishing Metal Shell Piles 12" x 0.250"		Foot	152	
Driving Piles		Foot	152	
Test Pile Metal Shells		Each	1	
Geocomposite Wall Drain		Sq Yd	28	
* Granular Backfill for Structures		Ton	45	

NOTES:

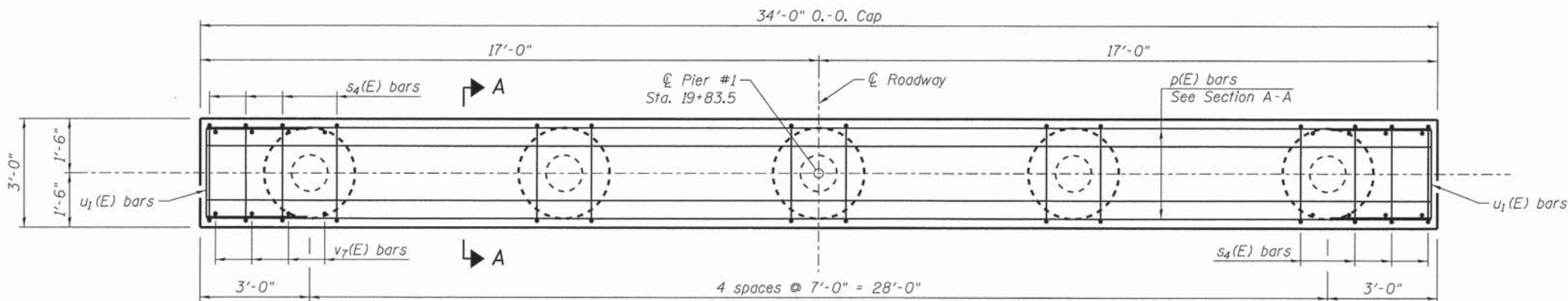
- Portion of wingwalls above the construction joint to be poured with the backwall.
- All exposed edges shall have standard $\frac{3}{4}$ " chamfers, except as noted.
- For pile details, see Structural Sheet 11 of 13.
- * For drainage details, see Structural Sheet 2 of 13.



ELEVATION VIEW
(Looking East)



SECTION A-A
(Dimensions are at Rt. L's)



PLAN VIEW

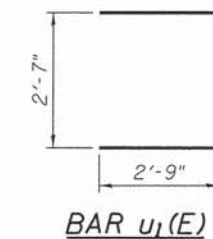
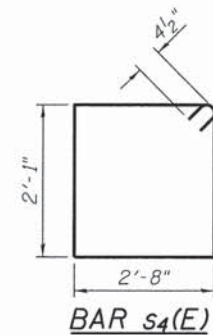
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p(E)	10	#7	33'-8"	—
s4(E)	34	#5	10'-3"	□
u1(E)	6	#6	8'-1"	┌
v7(E)	70	#5	3'-4"	—
Concrete Structures		Cu Yd		9.4
Concrete Encasement		Cu Yd		7.7
Reinforcement Bars, Epoxy Coated		Pound		1,370
Furnishing Metal Shell Piles 12" x 0.250"		Foot		128
Driving Piles		Foot		128
Test Pile Metal Shells		Each		1

PILE DATA

Type: Metal Shell 12" ϕ x 0.250" Walls
 Nominal Required Bearing: 345 kips
 *Factored Resistance Available: 190 kips
 Est. Length: 32'
 No. Production Piles: 4
 No. Test Piles: 1

*Factored Resistance Available accounts for loss of capacity based on calculated scour.



NOTES:

All exposed edges shall have standard 3/4" chamfers, except as noted.

**For pile, pile reinforcement, and concrete encasement details, see Section A-A on Structural Sheet 11 of 13.

FILE = S:\PROJECTS\2015\1164015_Macklin_Rd\DESIGN\STRUCT\20.Dr\ewmpg\1164015_Pier #1 Detail.dgn



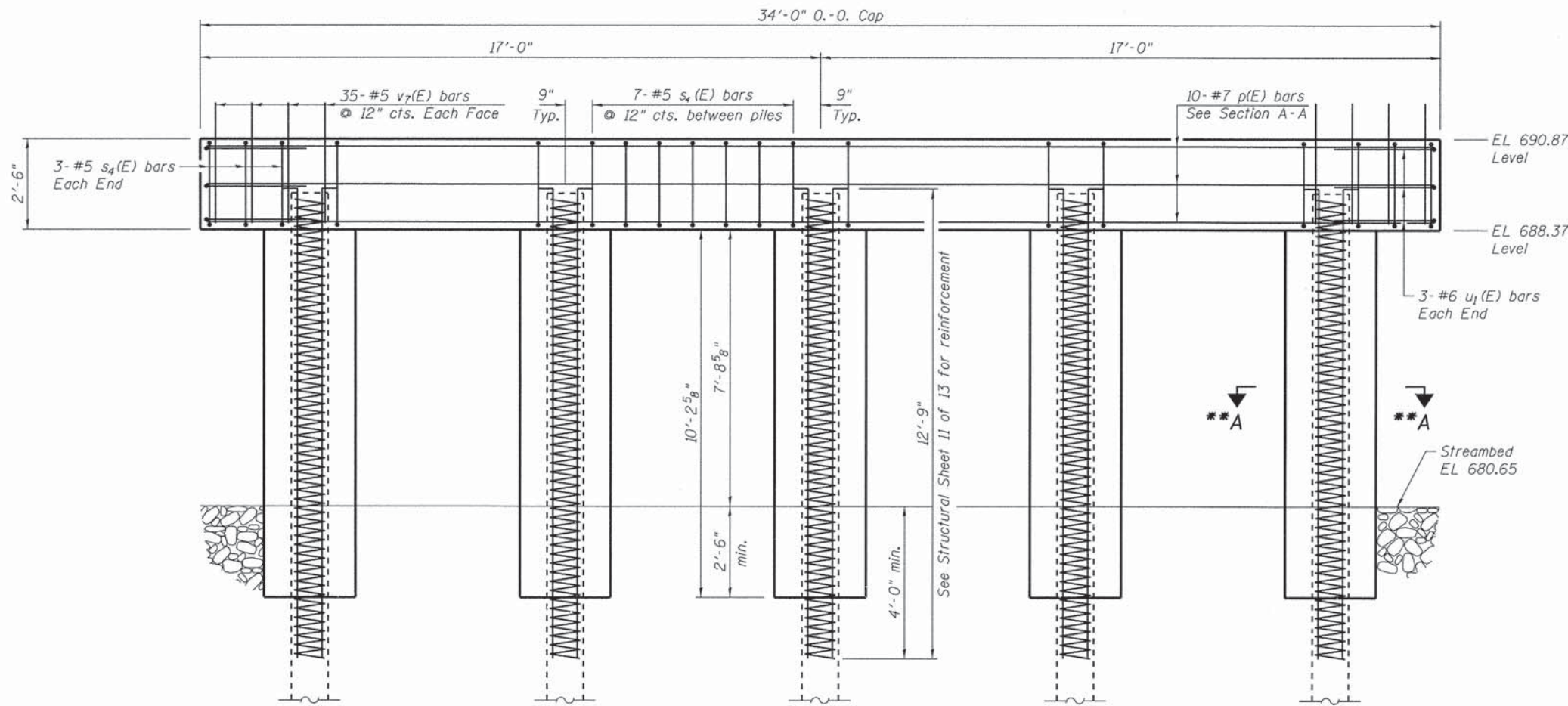
DESIGNED -	BRAD KLEINMAIER	REVISED -	
CHECKED -	BRIAN CONVERSE	REVISED -	
DRAWN -	RON ALLEN	REVISED -	
CHECKED -	BRAD KLEINMAIER	REVISED -	

OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20+00

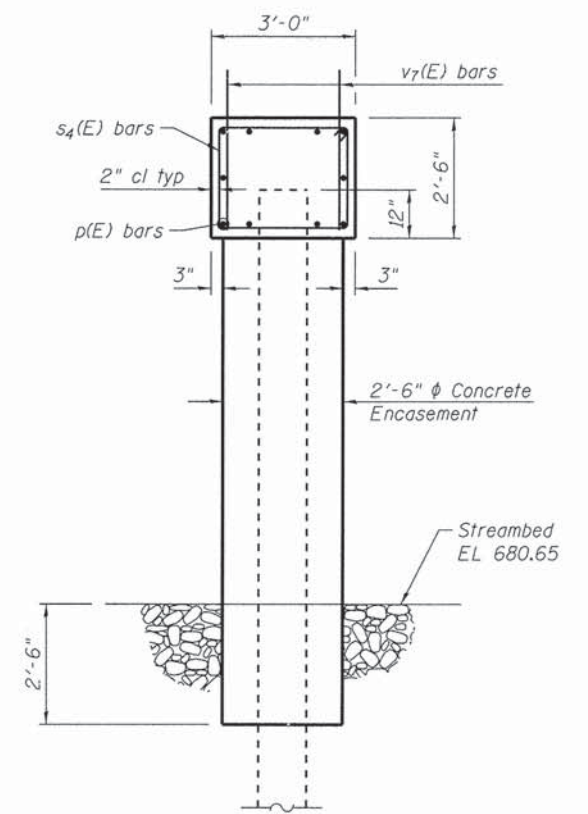
PIER #1 DETAILS
STRUCTURE NO. 071-3347

STRUCTURAL SHEET NO. 8 OF 13 SHEETS

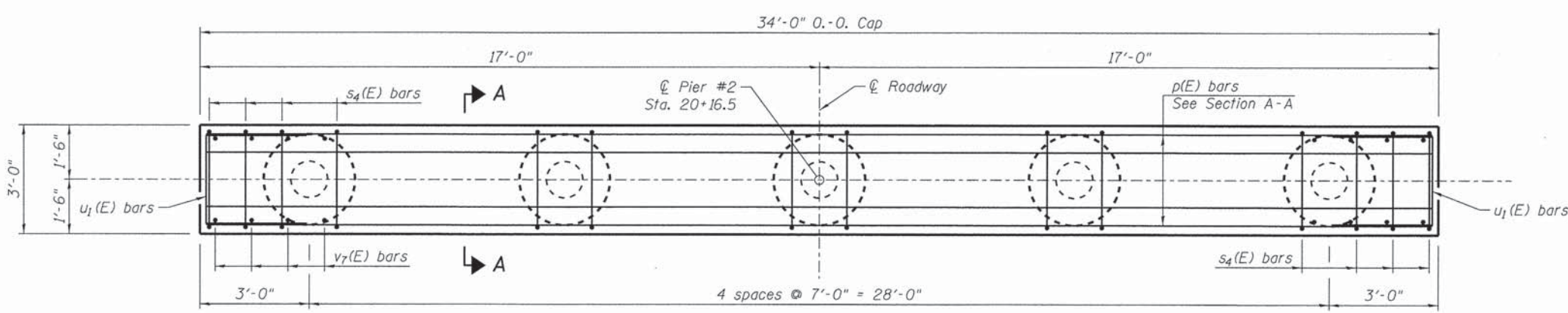
TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-1315-00-BR	OGLE	25	15
WHA# 1164015			CONTRACT NO. 85630	
ILLINOIS FED. AID PROJECT			BR05-014(1076)	



ELEVATION VIEW
(Looking East)

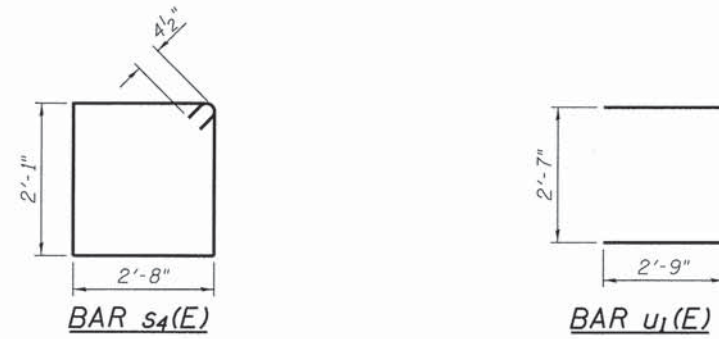


SECTION A-A
(Dimensions are at Rt. L's)



PLAN VIEW

PILE DATA
 Type: Metal Shell 12" ϕ x 0.250" Walls
 Nominal Required Bearing: 345 kips
 *Factored Resistance Available: 190 kips
 Est. Length: 39'
 No. Production Piles: 4
 No. Test Piles: 1
 *Factored Resistance Available accounts for loss of capacity based on calculated scour.



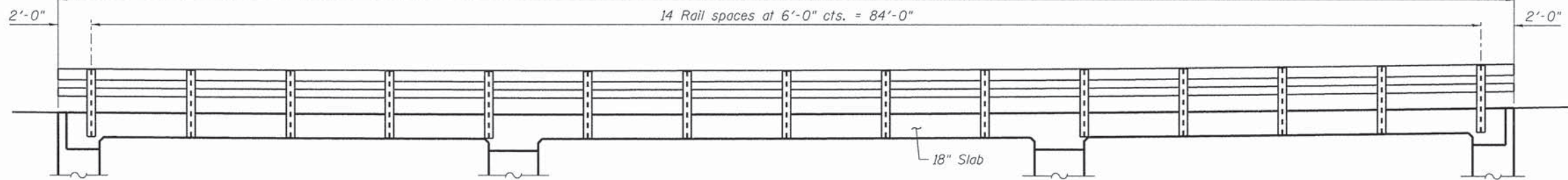
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p(E)	10	#7	33'-8"	—
s4(E)	34	#5	10'-3"	□
u1(E)	6	#6	8'-1"	┌
v7(E)	70	#5	3'-4"	—
Concrete Structures		Cu Yd		9.4
Concrete Encasement		Cu Yd		7.8
Reinforcement Bars, Epoxy Coated		Pound		1,370
Furnishing Metal Shell Piles 12" x 0.250"		Foot		156
Driving Piles		Foot		156
Test Pile Metal Shells		Each		1

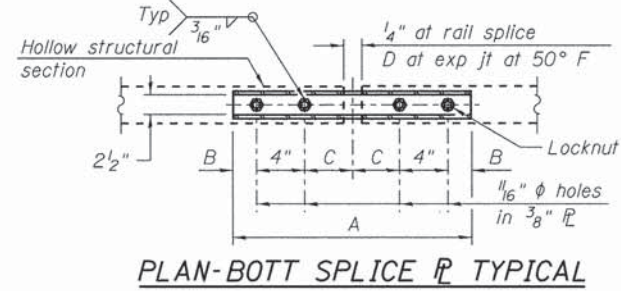
NOTES:
 All exposed edges shall have standard 3/4" chamfers, except as noted.
 ** For pile, pile reinforcement, and concrete encasement details, see Section A-A on Structural Sheet 11 of 13.

FILE = S:\PROJECTS\2015\1164015_Macklin_Rd\DESIGN\STRUCT\20-D-ewropg\1164015_Pier #2_Details.dwg

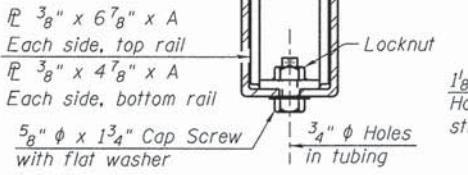
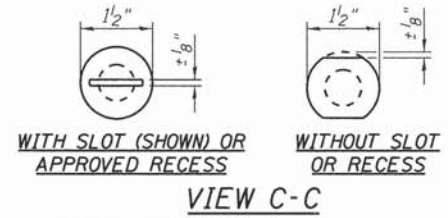
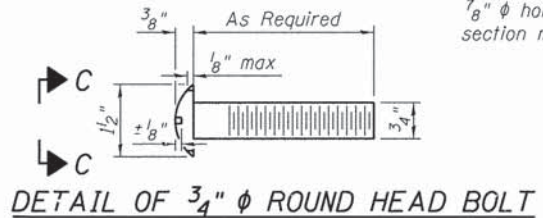
88'-0" End to End of Rail
14 Rail spaces at 6'-0" cts. = 84'-0"



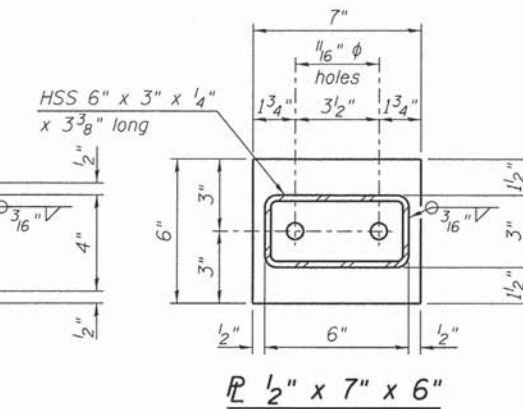
ELEVATION VIEW



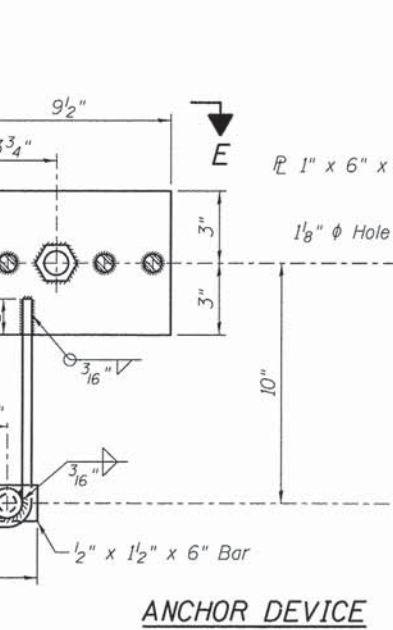
4-3/4" φ x 6" Round Head Bolts with locknut and flat washer.
7/8" φ holes in hollow structural section may be drilled in the field.



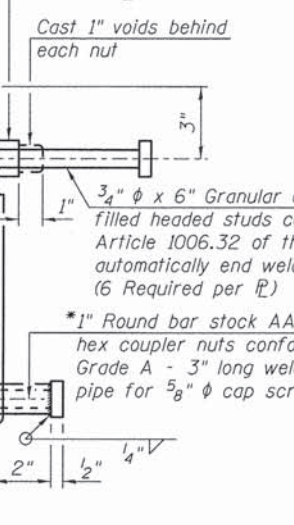
RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTION A-A



SECTION B-B



SPLICE DIMENSIONS

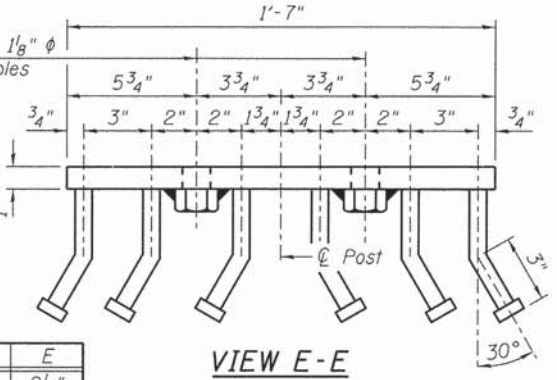
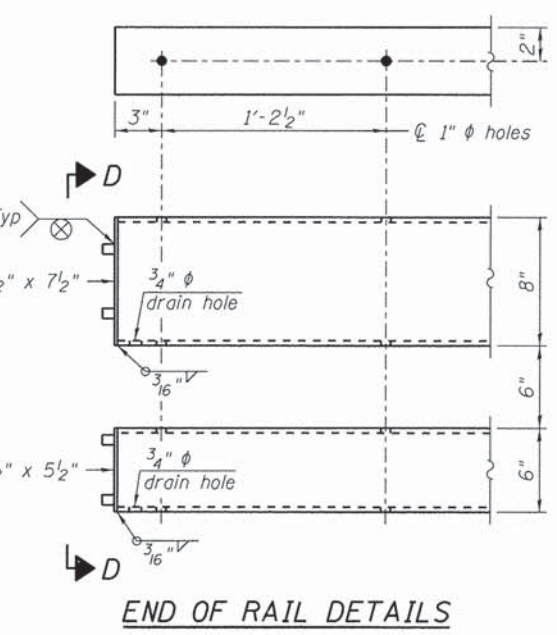
T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	

T = Total movement at expansion joint as shown on the design plans.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	176

NOTES:
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

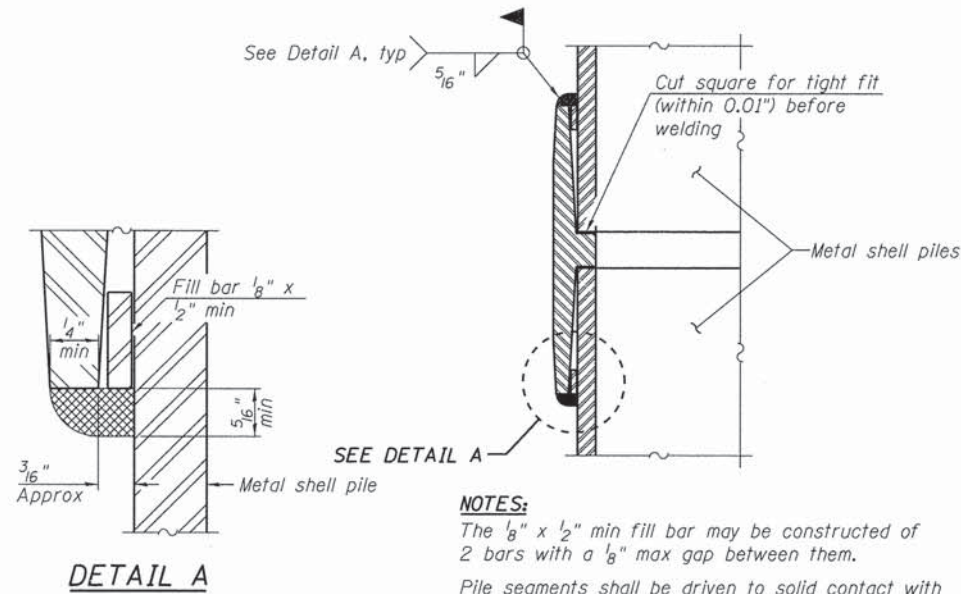


FILE # SA-PROJECTS\2018\1164015_Macklin_Railing_Type_SM.dgn



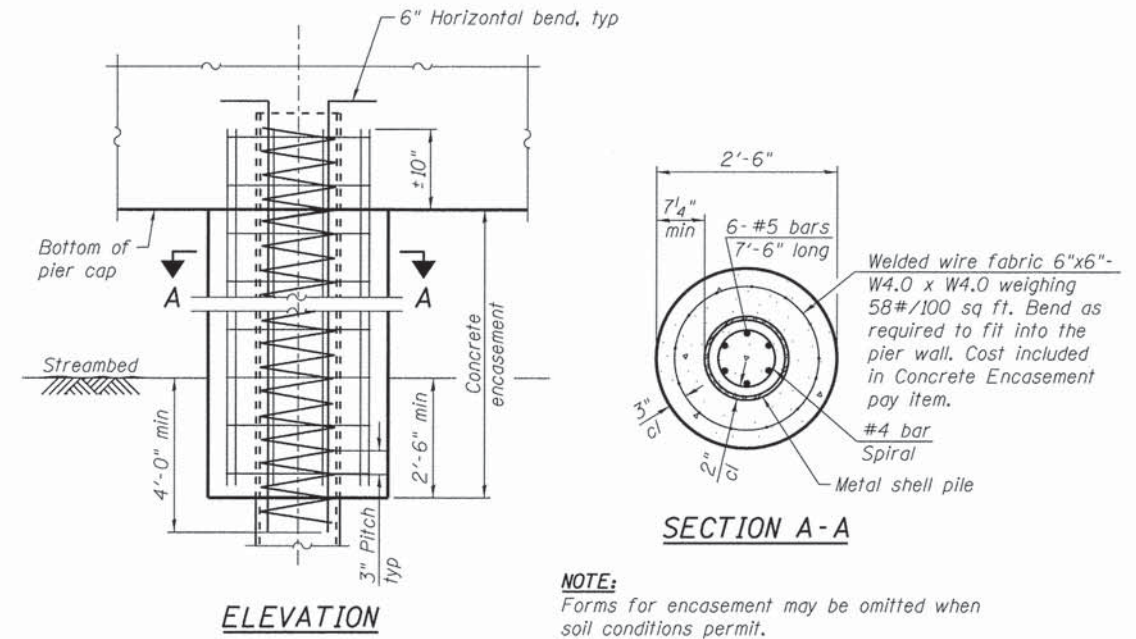
METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs/ft)	Inside volume (yd ³ /ft)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



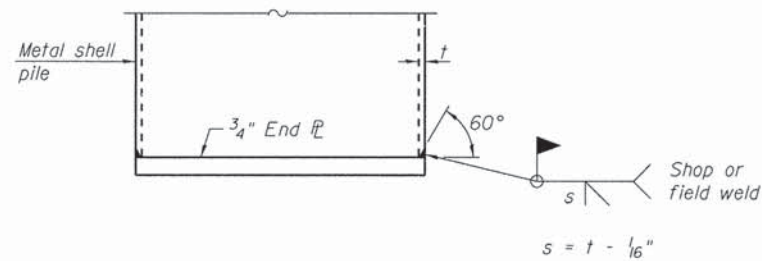
NOTES:
 The 1/8" x 1/2" min fill bar may be constructed of 2 bars with a 1/8" max gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE

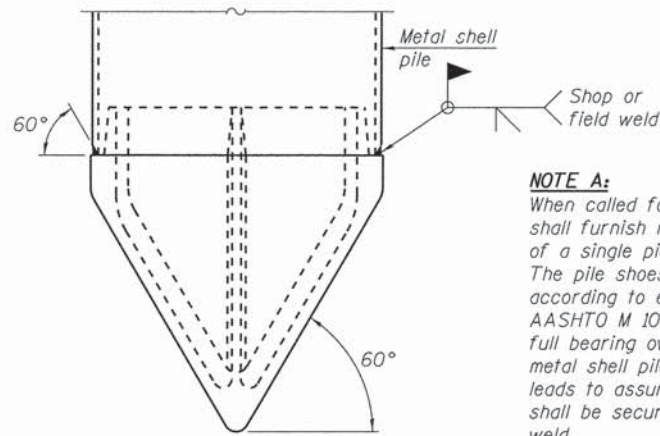


NOTE:
 Forms for encasement may be omitted when soil conditions permit.

CONCRETE ENCASMENT AT PIERS

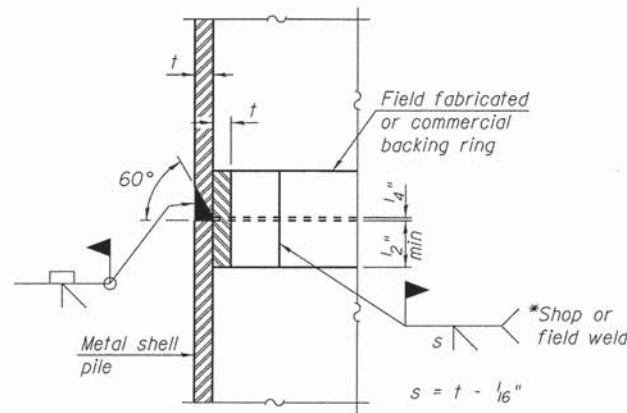


END PLATE ATTACHMENT



NOTE A:
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

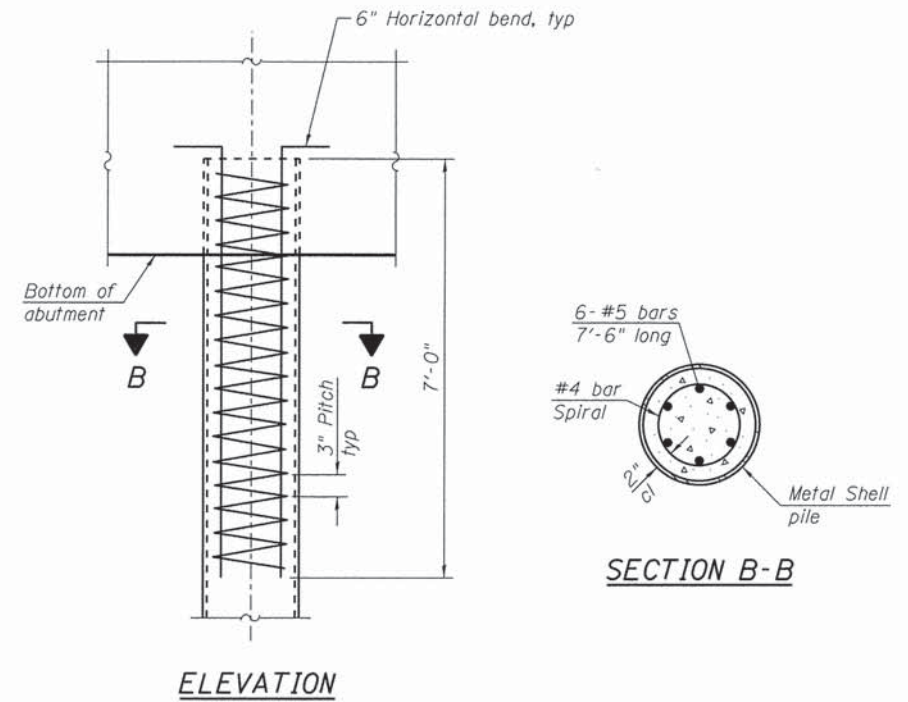
METAL SHELL PILE SHOE ATTACHMENT
 (See Note A)



COMPLETE PENETRATION WELD SPLICE

*Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

NOTE:
 The metal shell piles shall be according to ASTM A 252 Grade 3.



METAL SHELL REINFORCEMENT AT ABUTMENTS

FILE # SA\PROJECTS\2015\1164015\Macklin_Rd\DESIGN\STRUCT\2D_Dr\enrg\pp\1164015_Metal_Shell_Pile_Details.rvt

PROJECT **Bridge Replacement, Macklin Road over Black Walnut Creek, Marion Township, IL**

CLIENT **Willett Hofmann and Associates, Dixon, Illinois**



BORING **1** DATE STARTED **7-28-15** DATE COMPLETED **7-28-15** JOB **L-83,357**

ELEVATIONS

GROUND SURFACE **693.0**

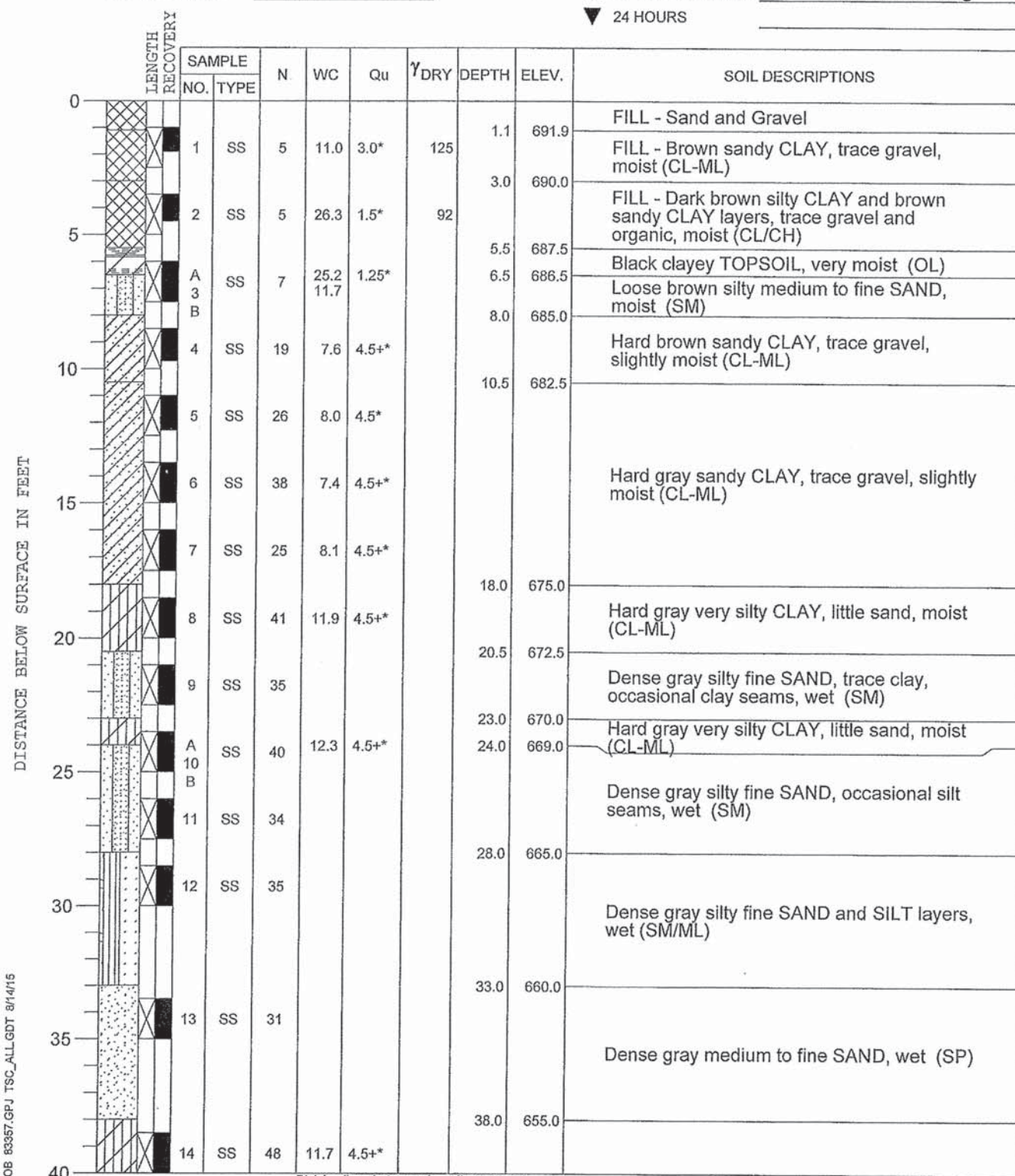
END OF BORING **619.5**

WATER LEVEL OBSERVATIONS

▼ WHILE DRILLING **Dry to 10'**

▽ AT END OF BORING **N/A - wash boring**

▼ 24 HOURS



DRILL RIG NO. **334**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 73.5'

PROJECT **Bridge Replacement, Macklin Road over Black Walnut Creek, Marion Township, IL**

CLIENT **Willett Hofmann and Associates, Dixon, Illinois**



BORING **1** DATE STARTED **7-28-15** DATE COMPLETED **7-28-15** JOB **L-83,357**

ELEVATIONS

GROUND SURFACE **693.0**

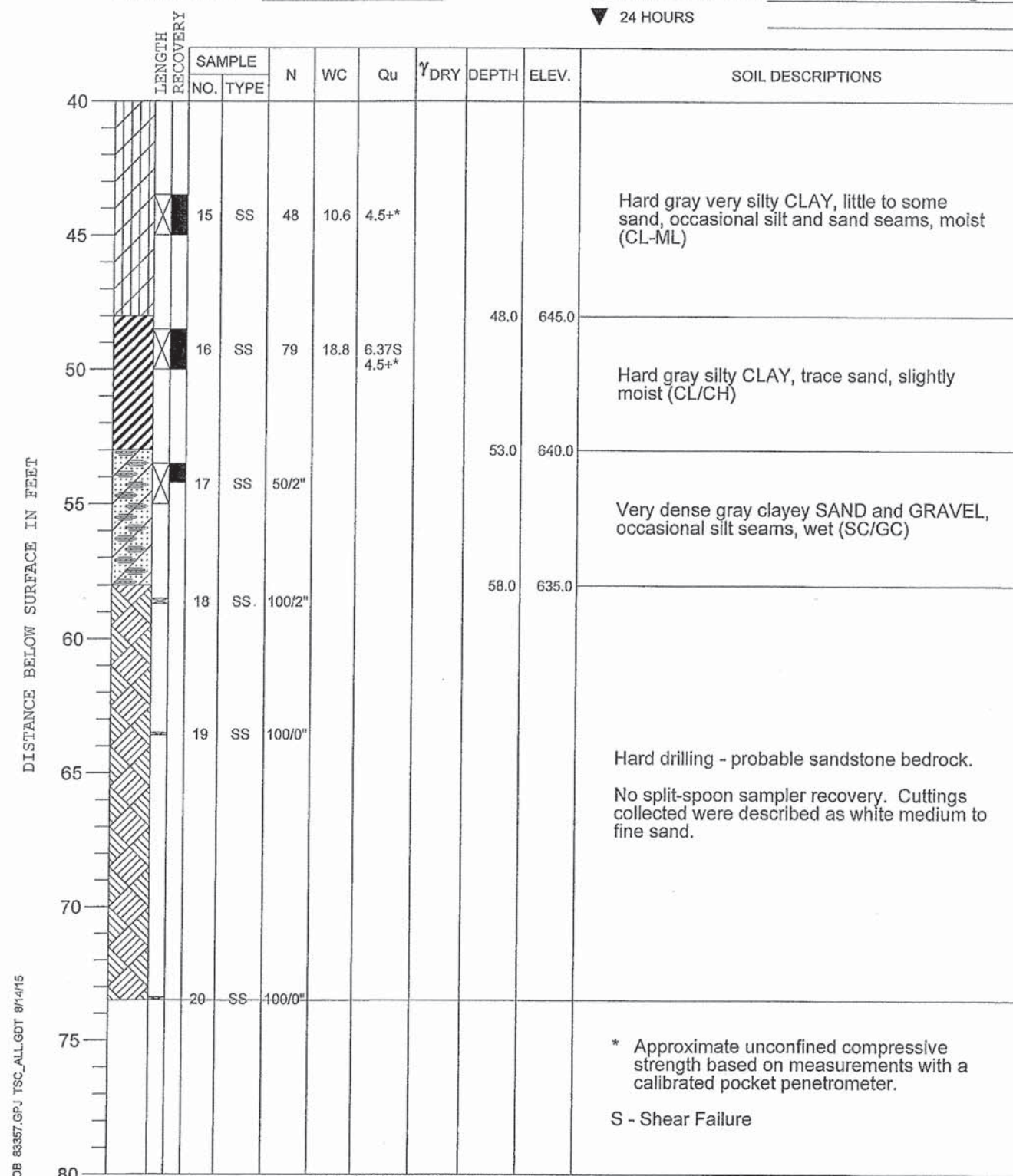
END OF BORING **619.5**

WATER LEVEL OBSERVATIONS

▼ WHILE DRILLING **Dry to 10'**

▽ AT END OF BORING **N/A - wash boring**

▼ 24 HOURS

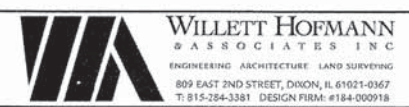


DRILL RIG NO. **334**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 73.5'

FILE # SA\PROJECTS\2015\1164015_Macklin_Road\DESIGN\STRUCT\20_Dr-wrings\1164015_Boring_Log.dgn



DESIGNED - BRAD KLEINMAIER	REVISED -
CHECKED - BRIAN CONVERSE	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20 + 00

BORING LOGS
STRUCTURE NO. 071-3347
 STRUCTURAL SHEET NO. 12 OF 13 SHEETS

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	19
WHA* 1164015			CONTRACT NO. 85630	
[ILLINOIS] FED. AID PROJECT BR05-01410761				

PROJECT **Bridge Replacement, Macklin Road over Black Walnut Creek, Marion Township, IL**

CLIENT **Willett Hofmann and Associates, Dixon, Illinois**

BORING **2** DATE STARTED **7-29-15** DATE COMPLETED **7-29-15** JOB **L-83,357**



ELEVATIONS

GROUND SURFACE **693.3**

END OF BORING **618.3**

▼ WHILE DRILLING **Dry to 10'**

▽ AT END OF BORING **N/A - wash boring**

▼ 24 HOURS

WATER LEVEL OBSERVATIONS

LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Qu	γ _{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	5	15.8	1.75*	118	1.1	692.2	FILL - Sand and Gravel
	2	SS	16	11.8	2.5*	118			FILL - Brown and dark brown sandy CLAY, trace gravel and organic, moist (CL)
	3	SS	6	24.8	1.5*		7.0	686.3	Black clayey TOPSOIL, moist (OL)
	4	SS	4	35.4	1.5*		8.0	685.3	Black ORGANIC CLAY, very moist (OH)
	5	SS	1	23.4	0.25*		10.5	682.8	Black ORGANIC SANDY CLAY, very moist (OL)
	6	SS	3	28.1	0.5*		13.0	680.3	Black and gray varved ORGANIC CLAY and silty fine SAND layers, very moist to wet (OH/SM)
	7	SS	3	44.2	0.5*		15.5	677.8	Black ORGANIC CLAY, very moist (OH)
	8	SS	41	8.9	4.5+*		18.0	675.3	Hard gray sandy CLAY, trace gravel, occasional Cobbles, slightly moist (CL-ML) Cobble noted within Sample 11A.
	9	SS	44	7.6	4.5+*				
	10	SS	35	8.0	4.53S 4.5+*				
	A	SS	56	8.5	4.5+*		27.0	666.3	Hard orange-brown sandy CLAY, trace gravel, moist (CL-ML)
	B			8.2	4.5+*		28.0	665.3	
	12	SS	18						Firm brown fine SAND, wet (SP-SM)
	13	SS	20	14.5	4.25*		33.0	660.3	Hard gray very silty CLAY and clayey SILT layers, trace sand, moist (CL/ML)
	14	SS	23	17.5	3.91B		38.0	655.3	Very tough to hard gray silty CLAY, trace sand, moist (CL)

DRILL RIG NO. **334**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 75.0'

PROJECT **Bridge Replacement, Macklin Road over Black Walnut Creek, Marion Township, IL**

CLIENT **Willett Hofmann and Associates, Dixon, Illinois**

BORING **2** DATE STARTED **7-29-15** DATE COMPLETED **7-29-15** JOB **L-83,357**



ELEVATIONS

GROUND SURFACE **693.3**

END OF BORING **618.3**

▼ WHILE DRILLING **Dry to 10'**

▽ AT END OF BORING **N/A - wash boring**

▼ 24 HOURS

WATER LEVEL OBSERVATIONS

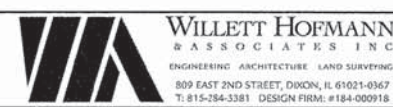
LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Qu	γ _{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
					4.25*				Very tough to hard gray silty CLAY, trace sand, moist (CL)
	A	SS	43	10.2	4.0*		43.0	650.3	Dense gray silty fine SAND, wet (SM)
	B						44.0	649.3	
	16	SS	43	12.6			48.0	645.3	Hard gray very silty CLAY, some sand, moist (CL-ML)
	17	SS	47	15.5			53.0	640.3	Dense gray clayey SILT and silty fine SAND layers, moist to wet (ML/SM)
	18	SS	37	18.6	5.73B 4.5+*		58.0	635.3	Dense gray clayey SILT, little sand, occasional sand and gravel layers, moist (ML)
	19	SS	62	10.4	4.5+*		63.0	630.3	Hard gray silty CLAY, trace sand, slightly moist (CL)
	20	SS	56	16.3	12.6B 4.5+*		68.0	625.3	Hard gray very silty CLAY, little sand, slightly moist (CL-ML)
	21	SS	29				71.5	621.8	Hard gray silty CLAY, trace sand, slightly moist (CL/CH)
									Firm brown and gray clayey SAND and GRAVEL, occasional Cobbles, wet (SC/GC)

DRILL RIG NO. **334**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 75.0'

FILE = S:\PROJECTS\2815\1164015_Mecklin_Rd\DESIGN\STRUCT\20_Dr-wrings\1164015_Boring_Logs.dgn

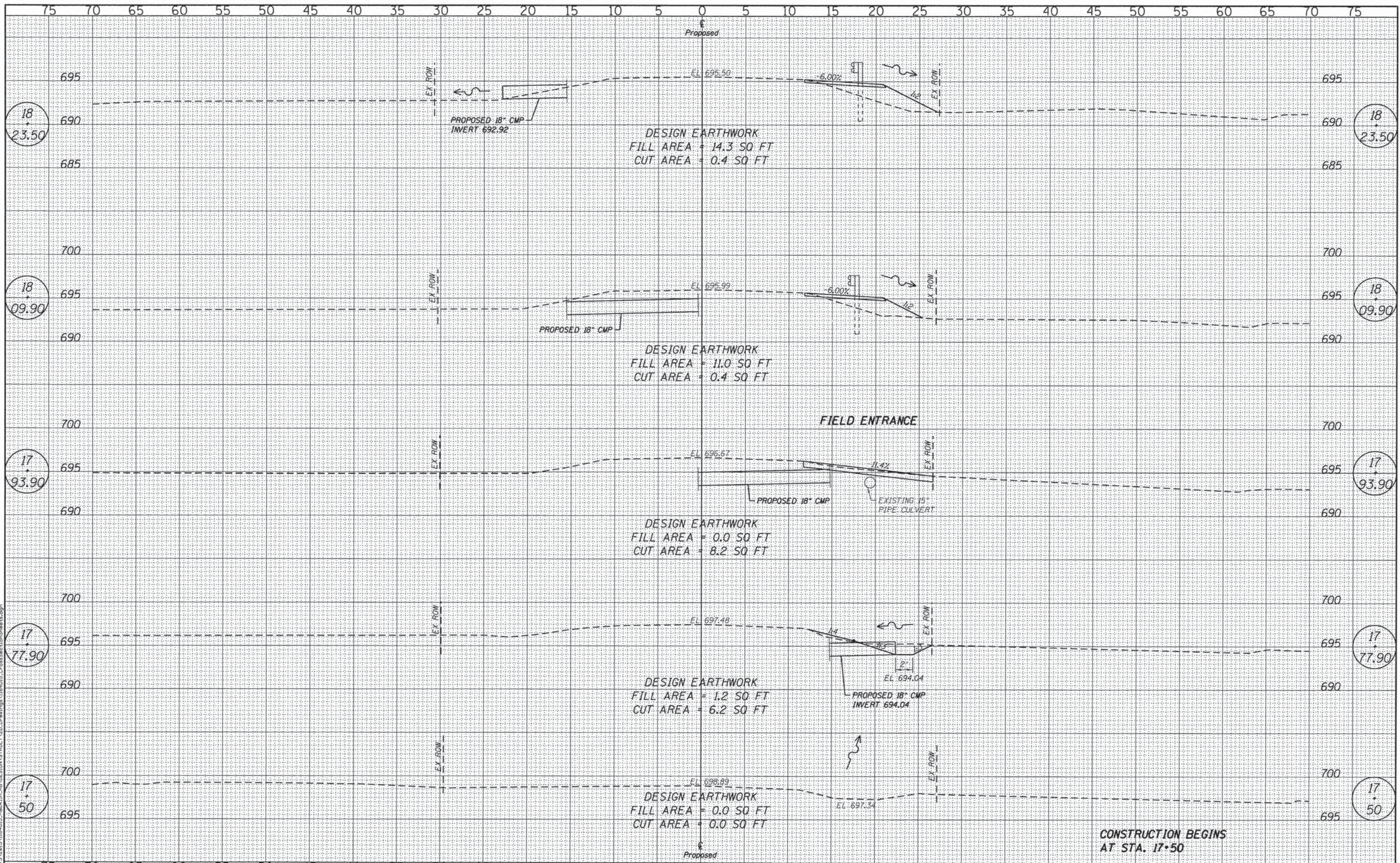


DESIGNED - BRAD KLEINMAIER	REVISED -
CHECKED - BRIAN CONVERSE	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20 + 00

BORING LOGS
STRUCTURE NO. 071-3347
 STRUCTURAL SHEET NO. 13 OF 13 SHEETS

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	20
WHA# 1164015			CONTRACT NO. 85630	
[ILLINOIS] FED. AID PROJECT BR05-01410763				



DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

FILE: S:\PROJECTS\2015\1164015_Macklin_Rd\DESIGN\STRUCT\20_Dr\wrg\1164015_CrossSectionSheet.sxdg



DESIGNED - BRAD KLEINMAIER	REVISED -
CHECKED - MICHAEL WAGNER	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20+00

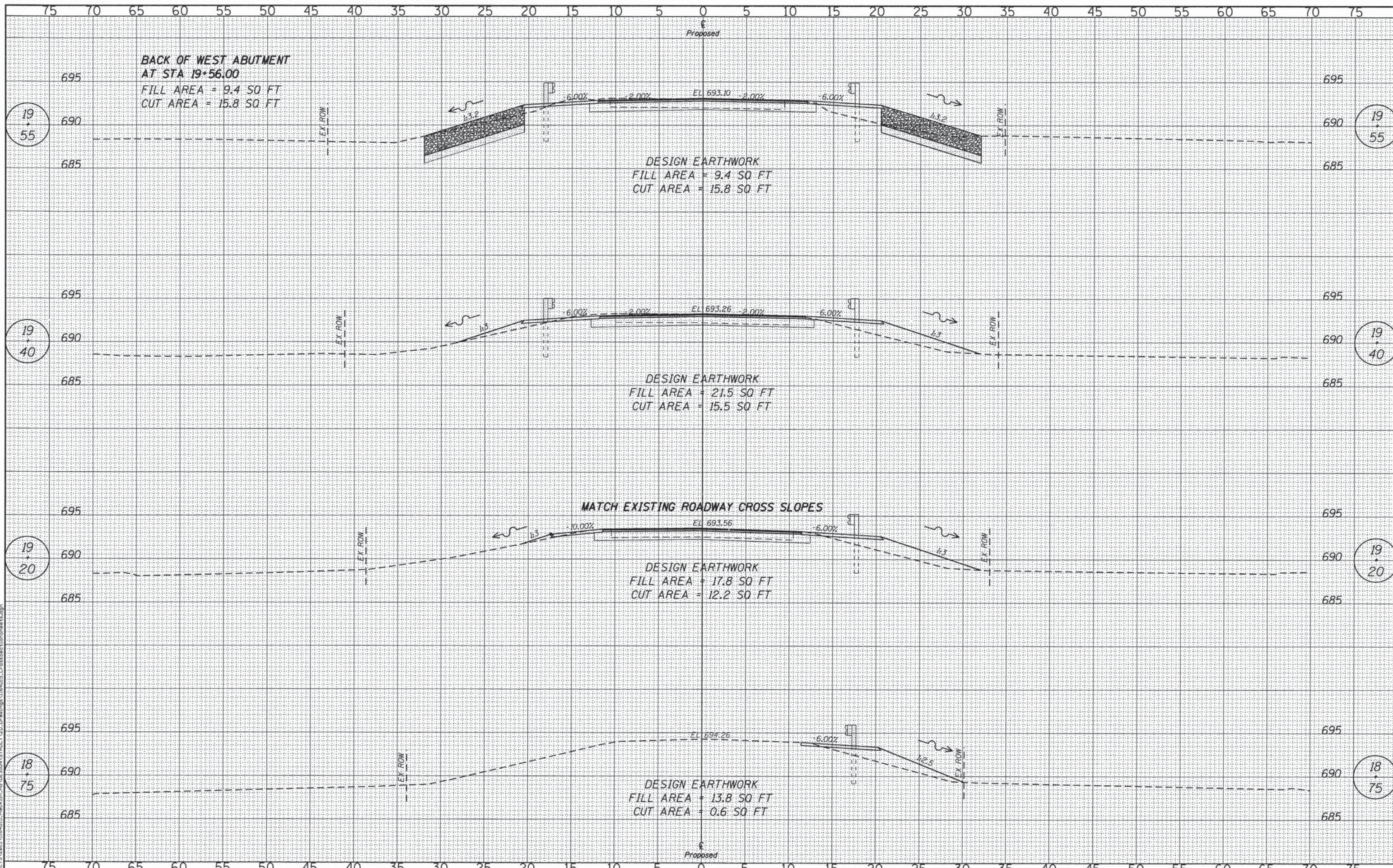
CROSS SECTIONS
STRUCTURE NO. 071-3347
SCALE: 1" = 5'-0" SHEET NO. 1 OF 4 SHEETS STA 17+50.00 TO STA 18+23.50

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	21
WHA* 1164015		CONTRACT NO. 85630		
[ILLINOIS] FED. AID PROJECT BR05-014(076)				

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
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SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

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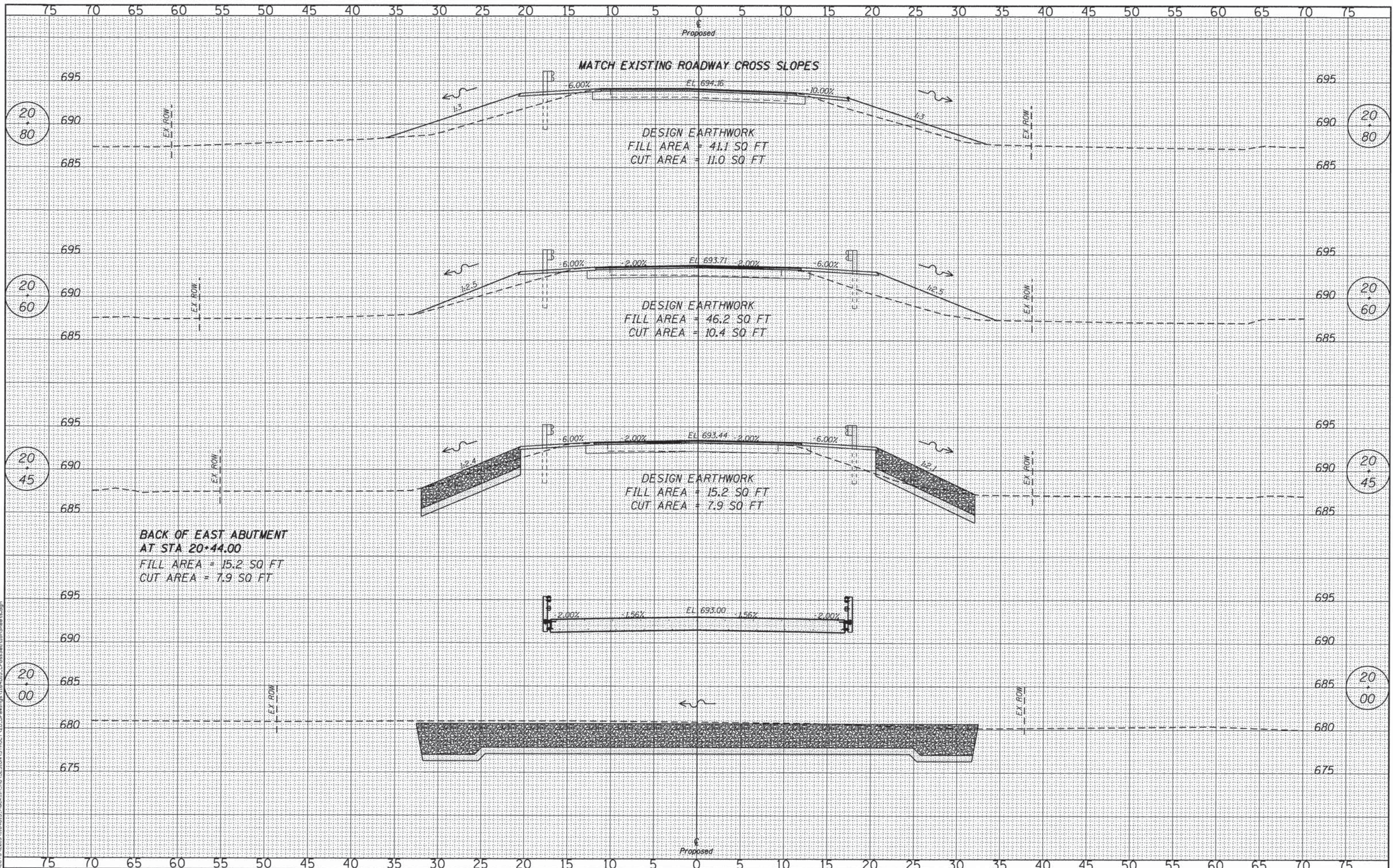


DESIGNED - BRAD KLEINMAIER	REVISED -
CHECKED - MICHAEL WAGNER	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20 + 00

CROSS SECTIONS
STRUCTURE NO. 071-3347
 SCALE: 1" = 5'-0" SHEET NO. 2 OF 4 SHEETS STA 18+75.00 TO STA 19+55.00

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	22
WHA# 1164D15			CONTRACT NO. 85630	
[ILLINOIS] FED. AID PROJECT BR05-0141076				



MATCH EXISTING ROADWAY CROSS SLOPES

DESIGN EARTHWORK
 FILL AREA = 41.1 SQ FT
 CUT AREA = 11.0 SQ FT

DESIGN EARTHWORK
 FILL AREA = 46.2 SQ FT
 CUT AREA = 10.4 SQ FT

DESIGN EARTHWORK
 FILL AREA = 15.2 SQ FT
 CUT AREA = 7.9 SQ FT

BACK OF EAST ABUTMENT
 AT STA 20+44.00
 FILL AREA = 15.2 SQ FT
 CUT AREA = 7.9 SQ FT

OGLE COUNTY
 TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
 STATION 20+00

CROSS SECTIONS
 STRUCTURE NO. 071-3347

SCALE: 1" = 5'-0" SHEET NO. 3 OF 4 SHEETS STA 20+00.00 TO STA 20+80.00

TWP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	23
WHA* 1164D15			CONTRACT NO. 85630	
ILLINOIS FED. AID PROJECT BR05-014(1076)				

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PLOTTED	
NOTE BOOK	
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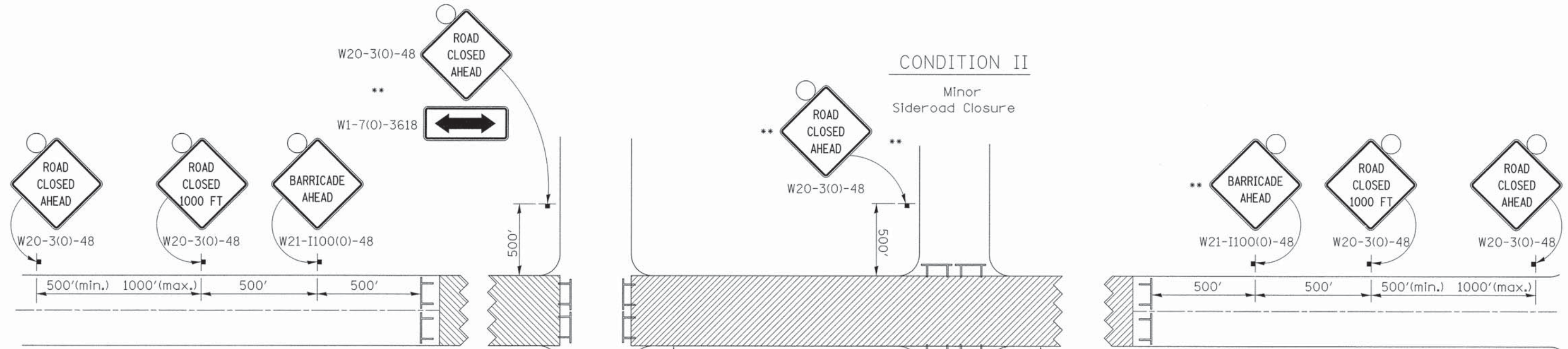
DATE	
BY	
ORIGINAL	
SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



DESIGNED - BRAD KLEINMAIER	REVISED -
CHECKED - MICHAEL WAGNER	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - BRAD KLEINMAIER	REVISED -

FILE: S:\PROJECTS\2015\1164D15_Macklin_Rd\DESIGN\STRUCT\20_00\wmpa\1164D15_CrossSectionSheet3.dgn

TRAFFIC CONTROL FOR ROAD CLOSURE



GENERAL NOTES

Longitudinal dimensions may be adjusted to fit field conditions.

When speed limit is less than 45mph, change sign spacing to 250' and change ROAD CLOSED 1000 FT to ROAD CLOSED 500 FT.

Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.




** Where local access is to be maintained, barricades are to be set up as shown in Road Closed to thru traffic. Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.

All dimensions are in inches unless otherwise shown.

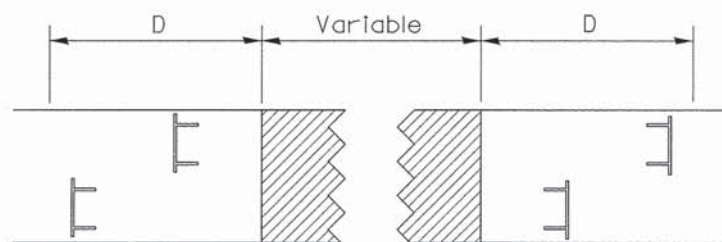
TYPICAL APPLICATION FOR ROAD CLOSURE

REVISED 8-27-2013

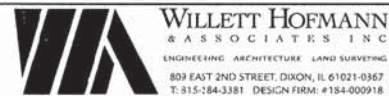
SYMBOLS

-  Work area
-  Type III Barricade with Flashers
-  Sign with flashing light

ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP



Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To All Thru Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 2000' an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.



DESIGNED -	BRAD KLEINMAIER	REVISED -	
CHECKED -	MICHAEL WAGNER	REVISED -	
DRAWN -	RON ALLEN	REVISED -	
CHECKED -	BRAD KLEINMAIER	REVISED -	

OGLE COUNTY
TR 103 (MACKLIN RD) OVER BR OF STILLMAN CRK
STATION 20 + 00

D2 40.1 TYPICAL APPLICATION FOR ROAD CLOSURE
STRUCTURE NO. 071-3347

SHEET NO. 1 OF 1 SHEETS

TWP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	14-13115-00-BR	OGLE	25	25
WHA* 1164D15		CONTRACT NO. 85630		
ILLINOIS FED. AID PROJECT BROS-0141076				

FILE = S:\PROJECTS\2015\1164D15-Macklin_Rd\DESIGN\STRUCT\20-Drawing\1164D15.D2 481_Typical Application For Road Closure.dgn