

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS ABBREVIATIONS AND SYMBOLS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
406201-01	MAILBOX TURNOUT
420001-07	PAVEMENT JOINTS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601001-04	SUB-SURFACE DRAINS
601101-01	CONCRETE HEADWALL FOR PIPE DRAINS
602011-02	CATCH BASIN TYPE C
604091-02	FRAME AND GRATE TYPE 24
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-09	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-06	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 4.5m (15') AWAY
701006-03	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 4.5m (15') TO 6.0m (24") FROM PAVEMENT EDGE
701011-02	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS \geq 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS \geq 45 MPH
701901-01	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS (SIGNS, MARKERS AND DELINEATORS)
729001-01	APPLICATION OF TYPE A AND B METAL POSTS
780001-02	TYPICAL PAVEMENT MARKINGS

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DISTRICT ONE STANDARD DETAILS

BD01	DRIVEWAY DETAIL - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER IS GREATER OR EQUAL TO 15' (4.5 M)
BD34	DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER AND STABILIZATION AT TBT TY1 SPL
BD51	BENCHING DETAIL FOR EMBANKMENT WIDENING
TC10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
TC13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC22	ARTERIAL ROAD INFORMATION SIGN

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MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

INDEX OF SHEETS, HIGHWAY STANDARDS, AND
DISTRICT ONE STANDARD DETAILS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	2
C-91-358-06		CONTRACT NO.	63569	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BR05-00116831				

SCALE: NONE STA. TO STA.

SUMMARY OF QUANTITIES			TOTAL QUANTITY	CONSTRUCTION TYPE CODE BRIDGE 0011
CODE NUMBER	DESCRIPTION	UNITS		
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	235	235
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	126	126
20101000	TEMPORARY FENCE	FOOT	100	100
20101100	TREE TRUNK PROTECTION	EACH	6	6
20101200	TREE ROOT PRUNING	EACH	6	6
20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	5	5
20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	3	3
20200100	EARTH EXCAVATION	CU YD	467	467
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	955	955
20300100	CHANNEL EXCAVATION	CU YD	567	567
20400800	FURNISHED EXCAVATION	CU YD	391	391
20800150	TRENCH BACKFILL	CU YD	28	28
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	1239	1239
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	3491	3491
25000210	SEEDING, CLASS 2A	ACRE	0.7	0.7
25000310	SEEDING, CLASS 4	ACRE	0.4	0.4
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	99	99
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	99	99
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	99	99
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	3491	3491
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	110	110
28000305	TEMPORARY DITCH CHECKS	FOOT	190	190
28000400	PERIMETER EROSION BARRIER	FOOT	1475	1475
28000500	INLET AND PIPE PROTECTION	EACH	4	4
28000510	INLET FILTERS	EACH	4	4
28100107	STONE RIPRAP, CLASS A4	SQ YD	772	772
28200200	FILTER FABRIC	SQ YD	772	772
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	407	407
40600300	AGGREGATE (PRIME COAT)	TON	5	5
40701801	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 6"	SQ YD	811	811

• INDICATES SPECIALTY ITEM

SUMMARY OF QUANTITIES			TOTAL QUANTITY	CONSTRUCTION TYPE CODE BRIDGE 0011
CODE NUMBER	DESCRIPTION	UNITS		
42001300	PROTECTIVE COAT	SQ YD	8	8
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	264	264
44000100	PAVEMENT REMOVAL	SQ YD	1107	1107
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	61	61
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	105	105
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	255	255
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50105220	PIPE CULVERT REMOVAL	FOOT	27	27
50200100	STRUCTURE EXCAVATION	CU YD	174	174
50300225	CONCRETE STRUCTURES	CU YD	87.4	87.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	114.2	114.2
50300260	BRIDGE DECK GROOVING	SQ YD	536	536
50300280	CONCRETE ENCASEMENT	CU YD	5.5	5.5
50300300	PROTECTIVE COAT	SQ YD	628	628
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	3501	3501
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	40610	40610
51200959	FURNISHING METAL SHELL PILES 14" X 0.312"	FOOT	715	715
51202305	DRIVING PILES	FOOT	715	715
51203200	TEST PILE METAL SHELLS	EACH	2	2
51204650	PILE SHOES	EACH	30	30
51500100	NAME PLATES	EACH	1	1
542A1063	PIPE CULVERTS, CLASS A, TYPE 2 18"	FOOT	28	28
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	2	2
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	2	2
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	25	25
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	36	36
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4
60208240	CATCH BASINS, TYPE C, TYPE 24 FRAME AND GRATE	EACH	2	2
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	20	20
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4

• INDICATES SPECIALTY ITEM

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MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

SCALE: NONE

SUMMARY OF QUANTITIES

STA. TO STA.

TR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	4
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-0001683				

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS
HOT-MIX ASPHALT PAVEMENT (FULL DEPTH) , 6"	
HOT-MIX ASPHALT SURFACE COURSE, MIX " C" , N50 (IL 9.5 mm); 2"	4% @ 50 GYR.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50; 4" (IN 2 LIFTS)	4% @ 50 GYR.
DRIVEWAYS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5 mm); 2"	4% @ 50 GYR.
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19 mm) N50; PE - 4", CE - 6" (IN 2 LIFTS)	4% @ 50 GYR.
SHOULDER RECONSTRUCTION	
HOT-MIX ASPHALT SHOULDER, 6" (IN 2 LIFTS)	2% @ 30 GYR.
BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	
HOT-MIX ASPHALT SURFACE COURSE, MIX " C" , N50 (IL 9.5 mm); 2"	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50; 4" (IN 2 LIFTS)	4% @ 50 GYR

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

2. THE "AC TYPE" FOR POLYMERIZED HOT-MIX ASPHALT MIXES SHALL BE "SBS/SBR PG 70-22 AND FOR NON-POLYMERIZED HOT-MIX ASPHALT THE "AC TYPE" SHALL BE "PG 64-28" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS." FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

STRUCTURAL DESIGN DATA

STREET	STRUCTURAL DESIGN TRAFFIC			STREET CLASS	TRAFFIC FACTOR	SSR	TEMP	STRAIN	AC	EAC	REQ'D BIT THICKNESS	MECHANISTIC PAVEMENT DESIGN
	PV	SU	MU									
GRAF ROAD	285	30	10	IV	0.08	POOR	76.1° F	330	PG 64-28	650	6.0 IN	2" HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 12" AGGREGATE SUBGRADE

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**MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK**

PROPOSED TYPICAL SECTION NOTES

SCALE: NONE

STA. TO STA.

TR. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	8
C-91-358-06			CONTRACT NO. 63569	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-00016831				

EARTHWORK SCHEDULE

STATION	AREA BY STATION			VOLUMES, IN CUBIC YARDS			UNDERCUT AND PGE (CU YD)	UNSUITABLE STRUCTURE EXCAVATION (CU YD)	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL (CU YD)	EARTH EXCAVATION (CU YD)	UTILITY EXCAVATION (CU YD)	SUITABLE STRUCTURE EXCAVATION (CU YD)	TOTAL SUITABLE EXCAVATION (CU YD)	EARTH EXCAVATION TO BE USED IN EMBANKMENT (CU YD)	EMBANKMENT (CU YD)	BALANCE WASTE (+) SHORTAGE (-) (CU YD)	
	TOPSOIL REMOVAL (SQ FT)	CUT (SQ FT)	FILL (SQ FT)	TOPSOIL REMOVAL (CU YD)	CUT (CU YD)	FILL (CU YD)											
304+30	10.2	23.6	2.3														
				7.6	17.5	1.7	23.8	-	31.4	17.5	-	-	17.5	14.9	1.7	13.2	
304+50	10.2	23.6	2.3														
				31.0	47.4	15.6	59.5	-	90.5	47.4	-	-	47.4	40.4	15.6	24.8	
305+00	23.2	27.6	14.5														
				50.0	54.5	75.4	59.5	-	109.5	54.5	-	-	54.5	46.3	75.4	-29.1	
305+50	30.8	31.2	66.9														
				61.2	63.6	168.8	59.5	-	120.7	63.6	-	-	63.6	54.1	168.8	-114.7	
306+00	35.3	37.4	115.4														
				57.5	61.0	188.0	52.3	-	109.8	61.0	14.0	90.0	165.0	140.3	188.0	-47.7	
306+44	35.3	37.4	115.4														
BRIDGE PAVEMENT - STA 306+44 TO STA 307+41																	
307+41	30.1	32.6	129.1														
				10.0	10.9	43.0	10.7	45.0	65.7	10.9	-	90.0	100.9	85.8	43.0	42.8	
307+50	30.1	32.6	129.1														
				61.6	58.9	252.6	59.5	-	121.1	58.9	-	-	58.9	50.2	252.6	-202.4	
308+00	36.4	31.1	143.8														
				59.1	50.4	170.1	59.5	-	118.6	50.4	10.0	-	60.4	51.4	170.1	-118.7	
308+50	27.4	23.4	39.9														
				41.6	49.4	40.6	59.5	-	101.1	49.4	-	-	49.4	42.0	40.6	1.4	
309+00	17.5	30.0	3.9														
				20.5	48.8	4.5	59.5	-	80.0	48.8	-	-	48.8	41.5	4.5	37.0	
309+50	4.7	22.8	0.9														
				0.9	4.2	0.2	5.7	-	6.6	4.2	-	-	4.2	3.6	0.2	3.4	
309+55	4.7	22.8	0.9														
				TOTALS	401	467	961	509	45.0	955	467	24	180.0	671	571	961	-391

NOTES:

- 15% SHRINKAGE FACTOR USED
- ASSUMED 6" TOPSOIL REMOVAL
- ASSUMED 12-INCH DEPTH FOR UNDERCUT AREAS
- REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL = TOPSOIL REMOVAL + UNDERCUT

SUMMARY		
20200100	20201200	20400800
EARTH EXCAVATION (CU YD)	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL (CU YD)	FURNISHED EXCAVATION (CU YD)
467	955	391

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 525 E. MONROE ST. CHICAGO, IL 60601
 PROJECT: LAWRENCE CREEK BRIDGE OVER GRAF ROAD
 DRAWING: EARTHWORK SCHEDULE
 DATE: 10/08/10



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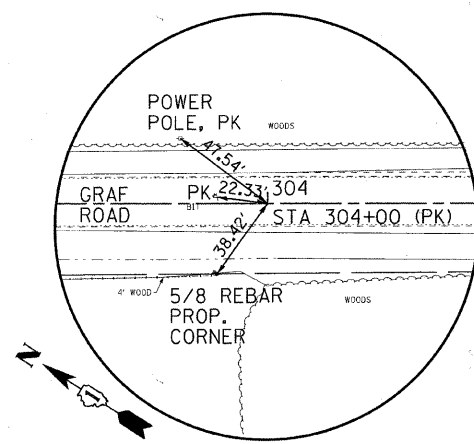
MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

SCALE: NONE

EARTHWORK SCHEDULE

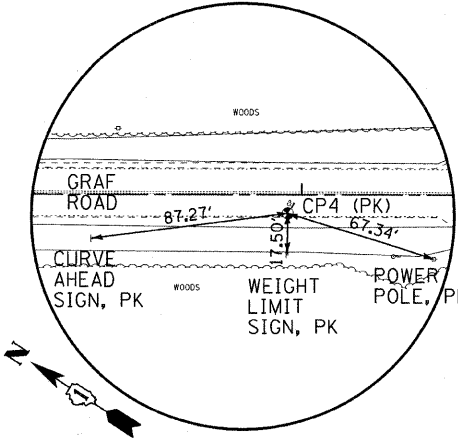
STA. TO STA.

TR. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	9
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-0001(683)				



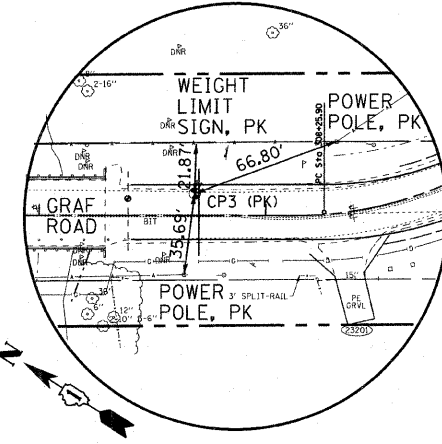
HORIZONTAL CONTROL

P.O.T. #3980 STA 304+00
GRAF ROAD
N 2103770.222, E 898673.114
ELEV 885.33



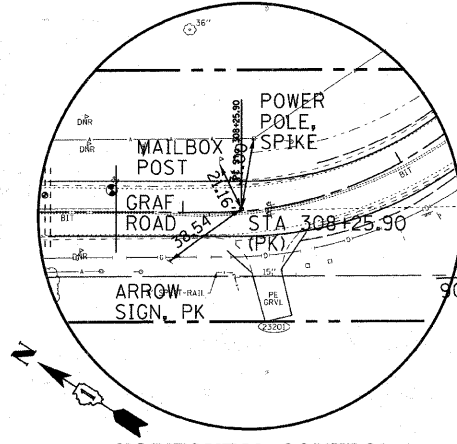
TIE-POINT

CP #4 STA 305+93.82
GRAF ROAD
N 2103602.301, E 898770.406



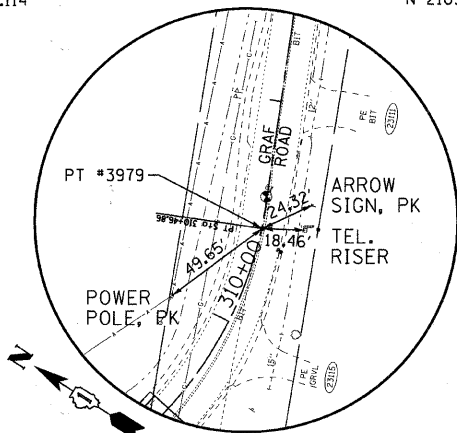
TIE-POINT

CP #3 STA 307+68.61
GRAF ROAD
N 2103464.866, E 898879.847



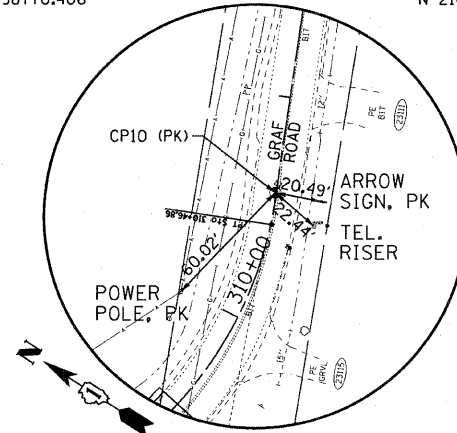
HORIZONTAL CONTROL

PC #3978 STA 308+25.90
GRAF ROAD
N 2103412.365, E 898904.017
ELEV 886.19



HORIZONTAL CONTROL

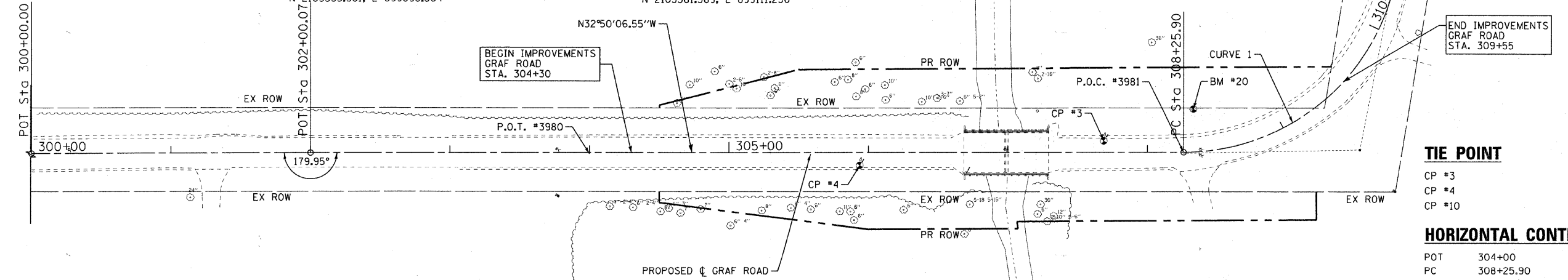
PT #3979 STA 310+46.86
GRAF ROAD
N 2103355.381, E 899098.564



TIE-POINT

CP #10 STA 310+60.98
GRAF ROAD
N 2103361.569, E 899111.256

CURVE 1
PI STA. = 309+59.87
 $\Delta = 81^\circ 40' 43''$ (LT)
D = $36^\circ 57' 54''$
R = 155.00'
T = 133.98'
L = 220.96'
E = 49.88'
 $e = -7.5\%$
T.R. = 64.31'
S.E. RUN = 128.63'
P.C. STA = 308+25.90
P.T. STA = 310+46.86



TIE POINT

CP #3
CP #4
CP #10

HORIZONTAL CONTROL

POT 304+00
PC 308+25.90
PT 310+46.86

BENCHMARKS

CP #3 - ELEV=886.23 PK NAIL SET IN HMA.
CP #4 - ELEV=885.23 PK NAIL SET IN HMA.
CP #10 - ELEV=887.46 PK NAIL SET IN HMA.
BM #20 - ELEV=885.79 SPIKE SET IN PP

DATUM = NAVD 88

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**MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK**

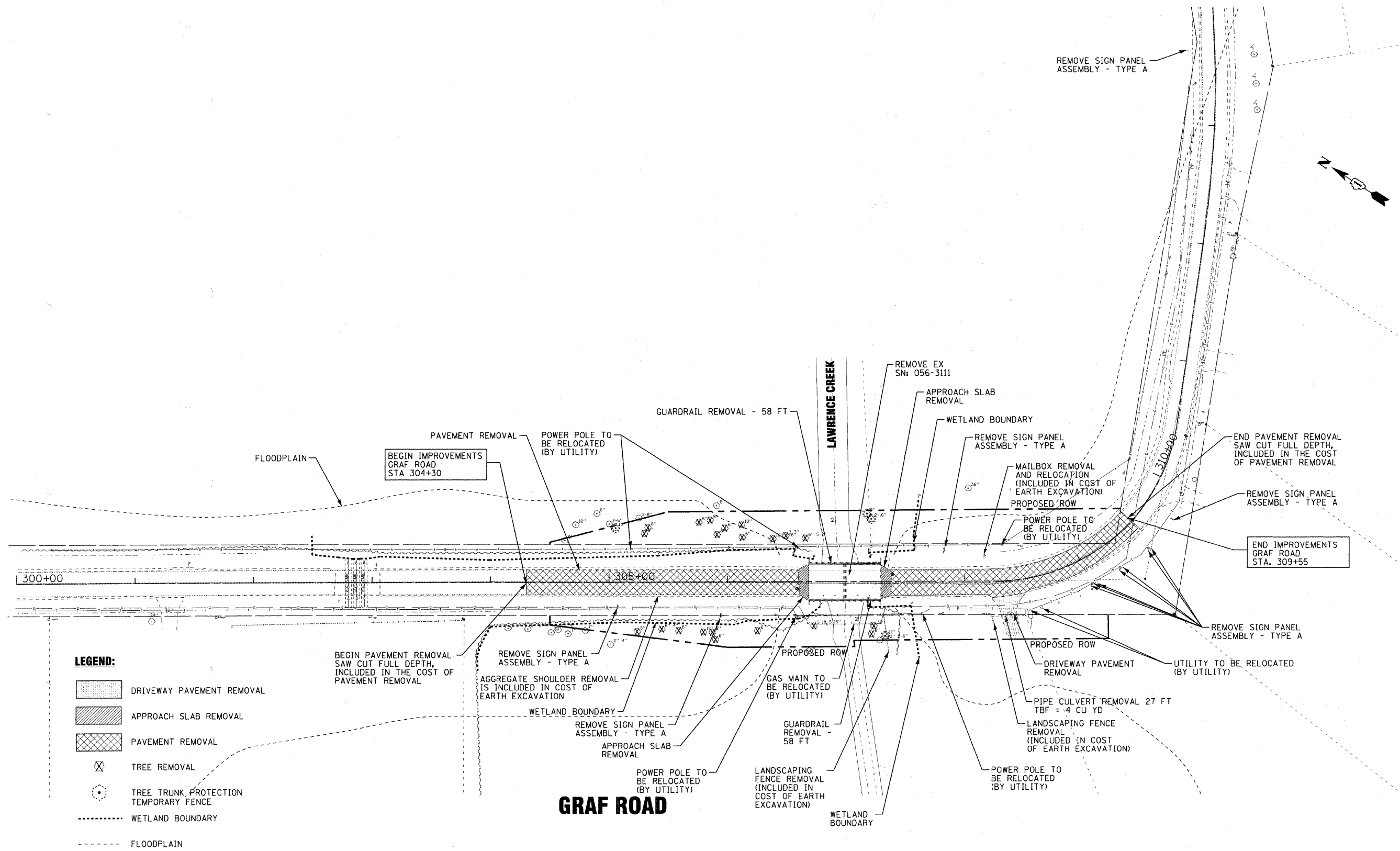
ALIGNMENT, TIES AND BENCHMARKS

SCALE: 1"=40'

STA. TO STA.

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	10
C-91-358-06			CONTRACT NO. 63569	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT BROS-0001683				

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CHECKED - MDW	REVISED - 02/01/11 PER IDOT
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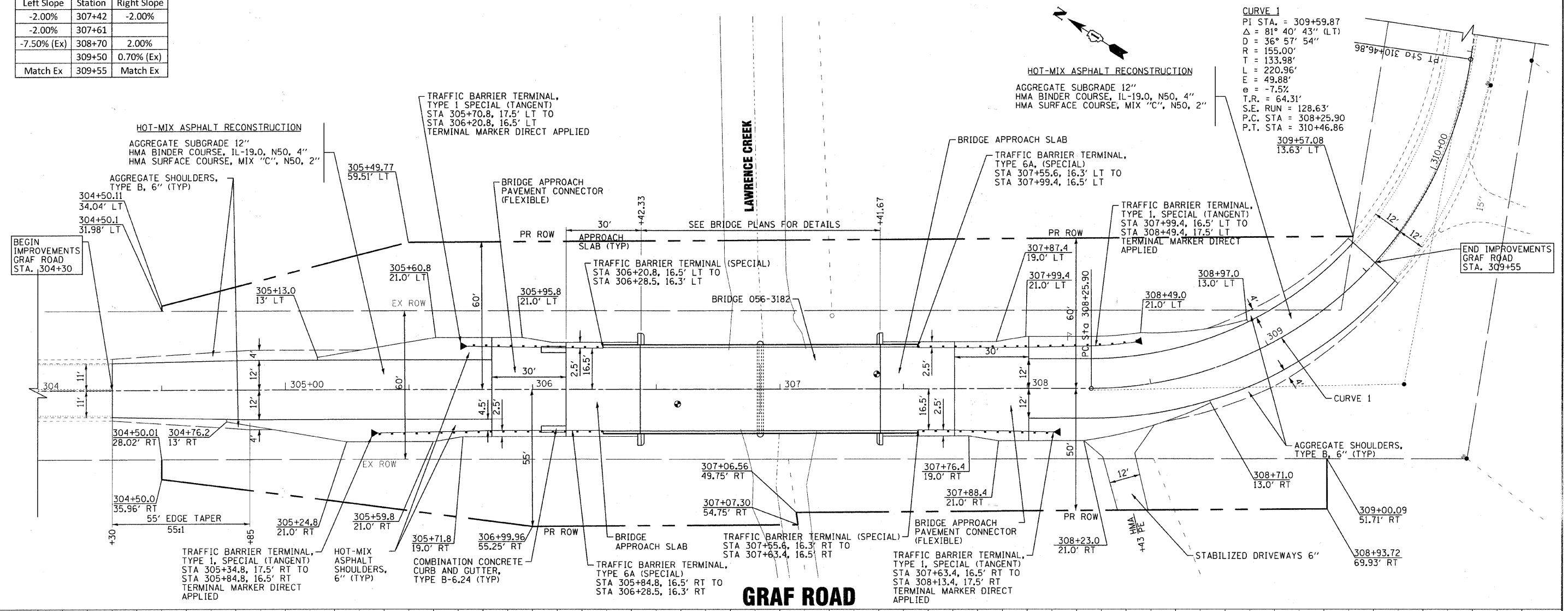
MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

EXISTING CONDITIONS AND REMOVAL PLAN
 SCALE: 1"=40'
 STA. 300+00 TO STA. 314+00

TR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	11
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-00016831				

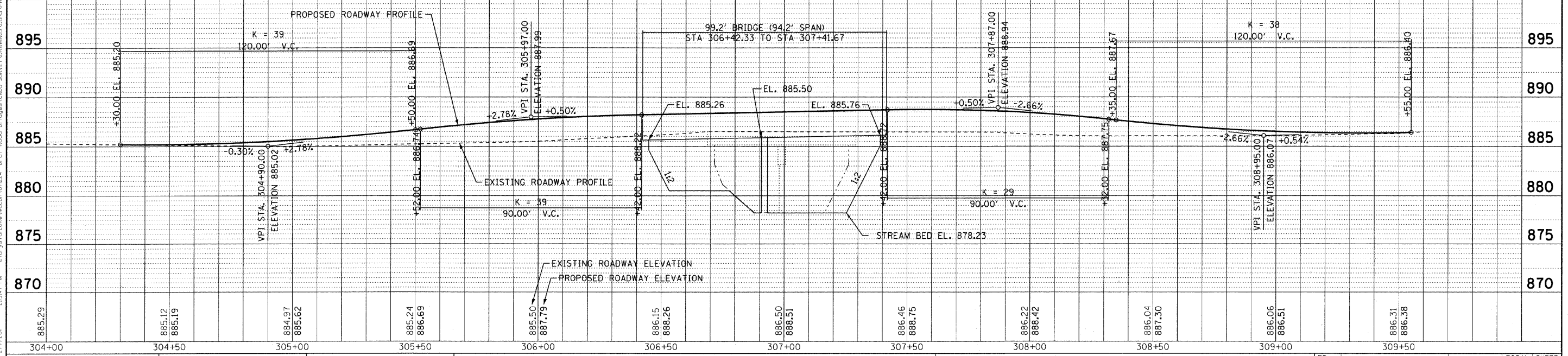
PAVEMENT SUPERELEVATION

Left Slope	Station	Right Slope
-2.00%	307+42	-2.00%
-2.00%	307+61	
-7.50% (Ex)	308+70	2.00%
	309+50	0.70% (Ex)
Match Ex	309+55	Match Ex



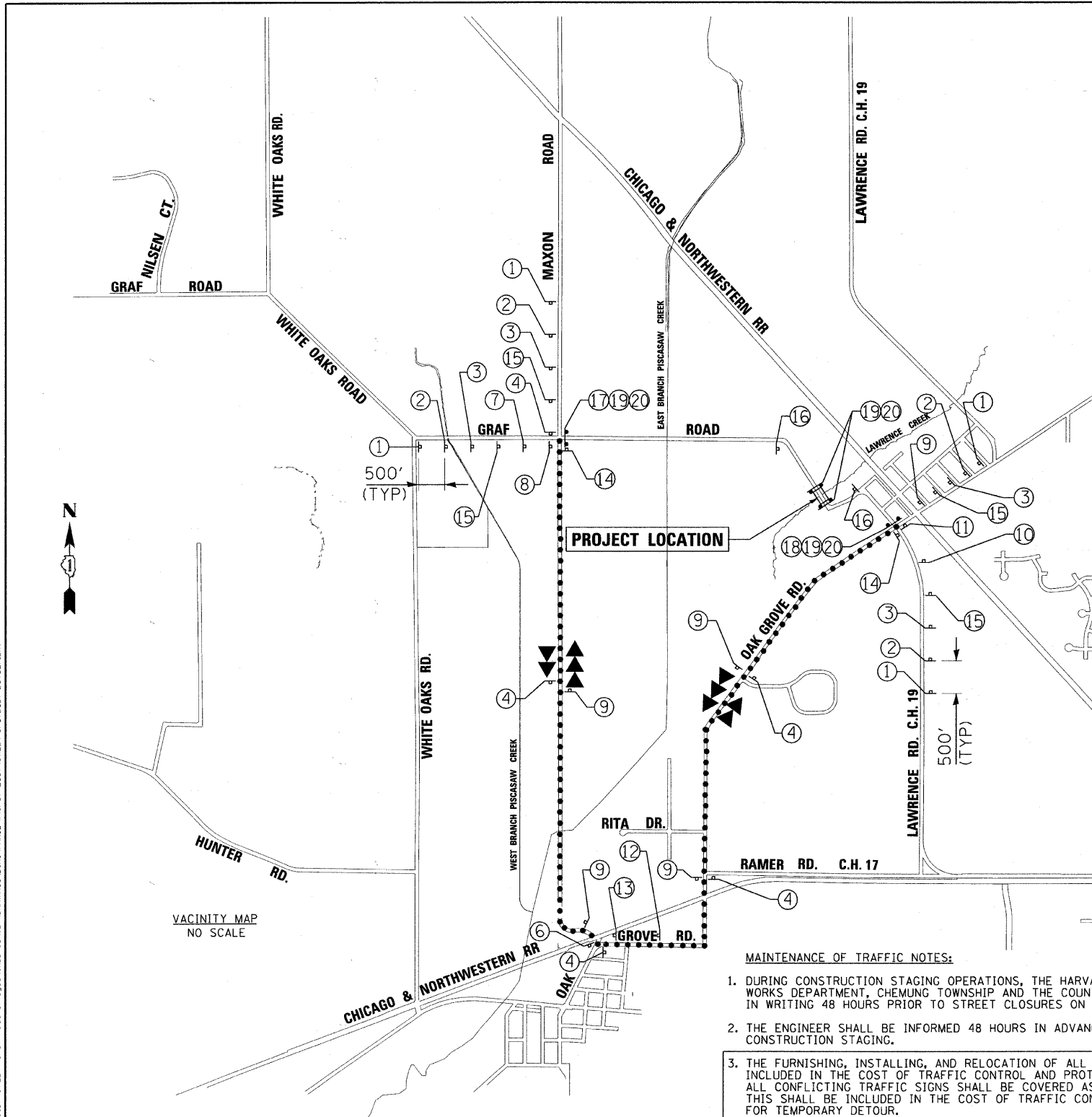
CURVE 1
 PI STA. = 309+59.87
 Δ = 81° 40' 43" (LT)
 D = 36° 57' 54"
 R = 155.00'
 T = 133.98'
 L = 220.96'
 E = 49.88'
 e = -7.5%
 T.R. = 64.31'
 S.E. RUN = 128.63'
 P.C. STA = 308+25.90
 P.T. STA = 310+46.86

GRAF ROAD



DESIGNED - CAC	REVISED - 12/31/10 PER MCDOT	<p>MCHENRY COUNTY DIVISION OF TRANSPORTATION GRAF ROAD BRIDGE OVER LAWRENCE CREEK</p>	TR. RTE. 0037	SECTION 06-00322-00-BR	COUNTY MCHENRY	TOTAL SHEETS 54	SHEET NO. 12	
DRAWN - BCD	REVISED - 02/01/11 PER MCDOT		SCALE: H: 1"=20' V: 1"=5'	C-91-358-06	CONTRACT NO. 63569	FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT	BROS-0001683
CHECKED - MDW	REVISED - 02/01/11 PER IDOT		STA. 304+00 TO STA. 310+00					
DATE - 10/08/10	FILE -							

CONTRACT NO. 06-00322-00-BR
 DRAWN BY: BCD
 CHECKED BY: MDW
 DATE: 10/08/10
 PROJECT: GRAF ROAD BRIDGE OVER LAWRENCE CREEK
 SHEET NO. 12 OF 54
 CONTRACT NO. 63569
 COUNTY: MCHENRY
 STATE: ILLINOIS
 FEDERAL AID PROJECT NO. BROS-0001683



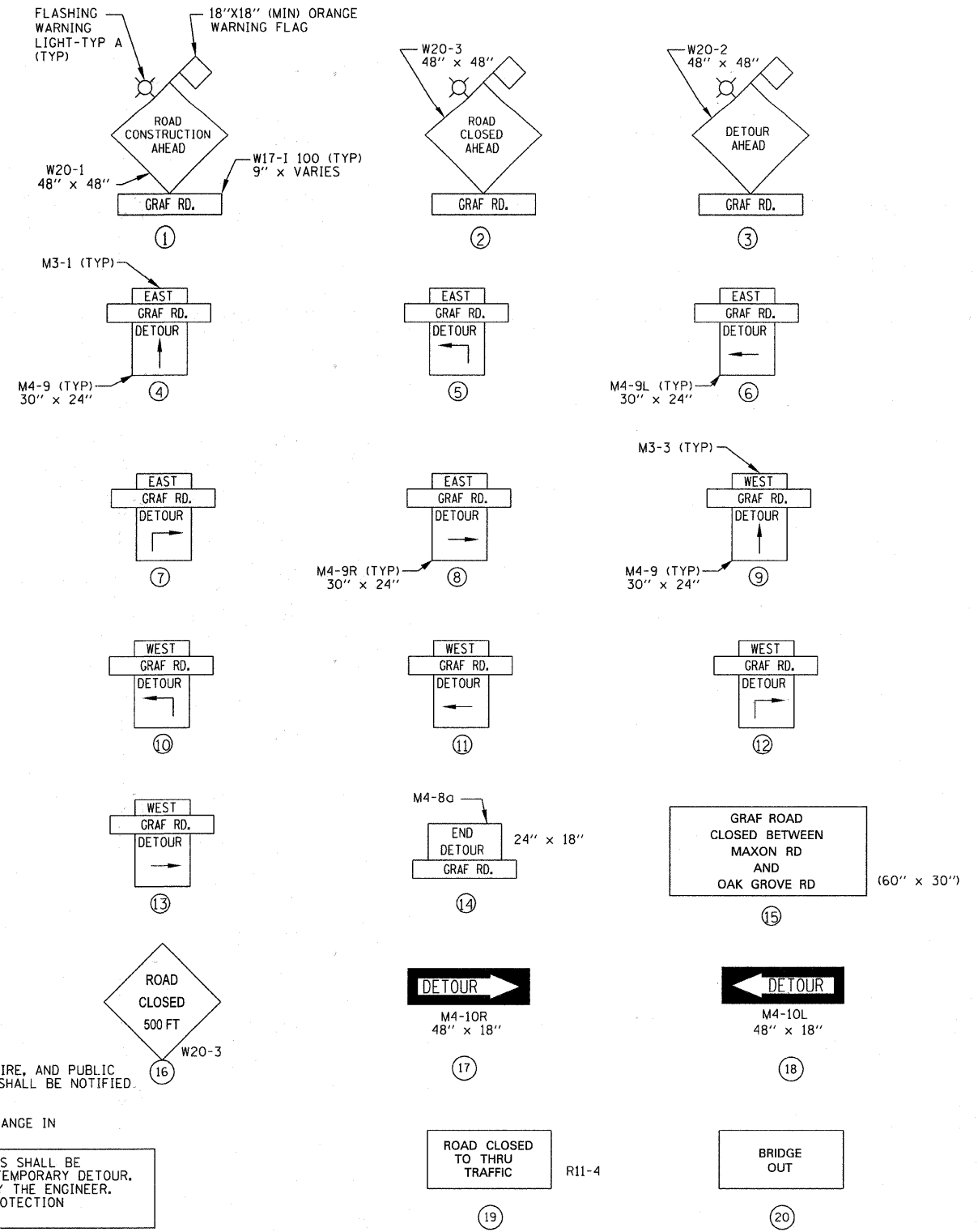
LEGEND

- ◀◀◀ WESTBOUND DETOURED TRAFFIC
- ▶▶▶ EASTBOUND DETOURED TRAFFIC
- DETOUR ROUTE
- ↑ SIGN
- ↓ TYPE III BARRICADES

MAINTENANCE OF TRAFFIC NOTES:

1. DURING CONSTRUCTION STAGING OPERATIONS, THE HARVARD POLICE, FIRE, AND PUBLIC WORKS DEPARTMENT, CHEMUNG TOWNSHIP AND THE COUNTY SHERIFF SHALL BE NOTIFIED IN WRITING 48 HOURS PRIOR TO STREET CLOSURES ON GRAF ROAD.
2. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE IN CONSTRUCTION STAGING.
3. THE FURNISHING, INSTALLING, AND RELOCATION OF ALL TRAFFIC SIGNS SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR. ALL CONFLICTING TRAFFIC SIGNS SHALL BE COVERED AS DIRECTED BY THE ENGINEER. THIS SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.
4. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION WITH CONTINUED MAINTENANCE FOR THE DURATION OF CONSTRUCTION, SEE EROSION CONTROL SHEETS FOR ADDITIONAL INFORMATION.
5. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE AND LOCAL TRAFFIC DURING THE CONSTRUCTION OF GRAF ROAD AND GRAF BRIDGE OVER THE LAWRENCE CREEK. THE COST FOR MAINTAINING ACCESS ON GRAF ROAD SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.
6. THE CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ALL ENTRANCES DURING THE CONSTRUCTION OF GRAF ROAD AND GRAF BRIDGE OVER THE LAWRENCE CREEK. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR TEMPORARY ACCESS (ROAD), TEMPORARY ACCESS (PRIVATE ENTRANCE), TEMPORARY ACCESS (COMMERCIAL ENTRANCE), AND TEMPORARY ACCESS (FIELD ENTRANCE).

SIGN DETAILS



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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
 LICENSE NO. 184-00171 - EXPIRES 4/30/2011
 424 S. PULASKI AVE., SUITE 200, CHICAGO, IL 60607-4242



DESIGNED - CAC	REVISED - 12/31/10 PER MCDOT
DRAWN - BCD	REVISED - 02/01/11 PER MCDOT
CHECKED - MDW	REVISED - 02/01/11 PER IDOT
DATE - 10/08/10	FILE -

**MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK**

TEMPORARY DETOUR PLAN

SCALE: NONE STA. TO STA.

TR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	13
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BR05-0001(683)				

SOIL EROSION AND SEDIMENT CONTROL NOTES:

- ALL AREAS OF BARE GROUND WILL BE TEMPORARILY SEEDED EVERY 7 DAYS UNTIL PERMANENT EROSION CONTROL IS IN PLACE.
- ALL AREAS WITHIN R.O.W. WILL BE RESTORED WITH 6" TOPSOIL, EROSION CONTROL BLANKET AND SEEDING, CLASS 2A.
- DITCH CHECKS SHALL BE EITHER ROLLED EXCELSIOR OR TRIANGULAR SILT DIKES.
- ENGINEER TO STAKE LOCATIONS FOR PROPOSED TREES AS SHOWN IN LANDSCAPING PLANS, AND SHALL BE APPROVED BY MCHENRY COUNTY PRIOR TO INSTALLATION.
- NO WORK SHALL BE PERFORMED IN FLOWING WATER. WORK IN OR NEAR THE CRITICAL AREAS SHOULD BE ISOLATED FROM CONCENTRATED FLOWS OR STREAM FLOW. ONCE WORK IS IN THIS AREA BEGINS, PRIORITY SHALL BE GIVEN TO THE COMPLETION OF THE WORK AND FINAL STABILIZATION OF ALL DISTURBED AREAS.
- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. AREAS OF THE DEVELOPMENT SITE THAT ARE NOT TO BE GRADED SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC OR OTHER DISTURBANCE UNTIL FINAL SEEDING IS PERFORMED.
- PROPERTIES AND CHANNELS ADJOINING THE DEVELOPMENT SITE SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION.
- SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
- DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE.
- ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
- IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AND EFFECTIVE SEDIMENT CONTROL MEASURE (E.G., SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURES).
- ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
- SOIL STOCKPILES SHALL NOT BE LOCATED IN A FLOOD-PRONE AREA OR A DESIGNATED BUFFER PROTECTING WATERS OF THE UNITED STATES OR ISOLATED WATERS OF MCHENRY COUNTY.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE RECEPTACLES FOR THE DEPOSITION OF ALL CONSTRUCTION MATERIAL DEBRIS GENERATED DURING THE DEVELOPMENT PROCESS. THE CONTRACTOR SHALL NOT CAUSE OR PERMIT THE DUMPING, DEPOSITING, DROPPING, THROWING, DISCARDING OR LEAVING OF CONSTRUCTION MATERIAL DEBRIS UPON OR INTO ANY DEVELOPMENT SITE, CHANNEL, WATERS OF THE U.S. OR ISOLATED WATERS OF MCHENRY COUNTY. THE CONTRACTOR SHALL MAINTAIN THE DEVELOPMENT SITE FREE OF CONSTRUCTION MATERIAL DEBRIS.
- ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN AN EFFECTIVE WORKING CONDITION.
- HEAVY DUTY EROSION CONTROL BLANKET SHALL BE USED AND SHALL BE IN ACCORDANCE WITH THE "ILLINOIS URBAN MANUAL", LATEST EDITION, AND "IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION", LATEST EDITION SECTION 251.04.
- ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
- WHERE STREAM BED DISTURBANCE IS NECESSARY, THE STREAM, INCLUDING BED AND BANKS, SHALL BE RESTABILIZED WITHIN FORTY-EIGHT (48) HOURS AFTER DISTURBANCE IS COMPLETE OR INTERRUPTED.

MAINTENANCE SCHEDULE

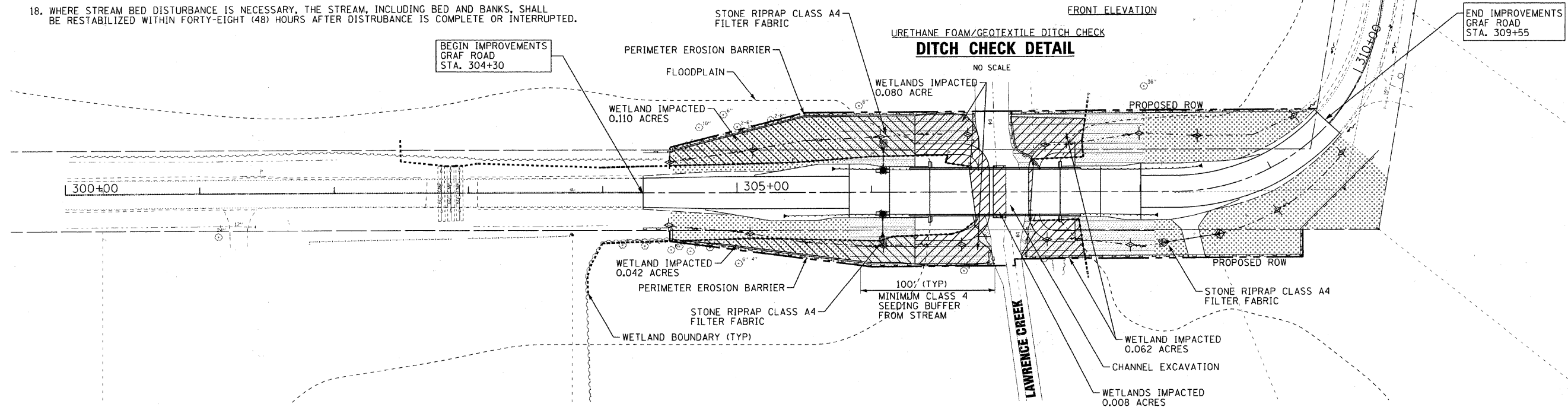
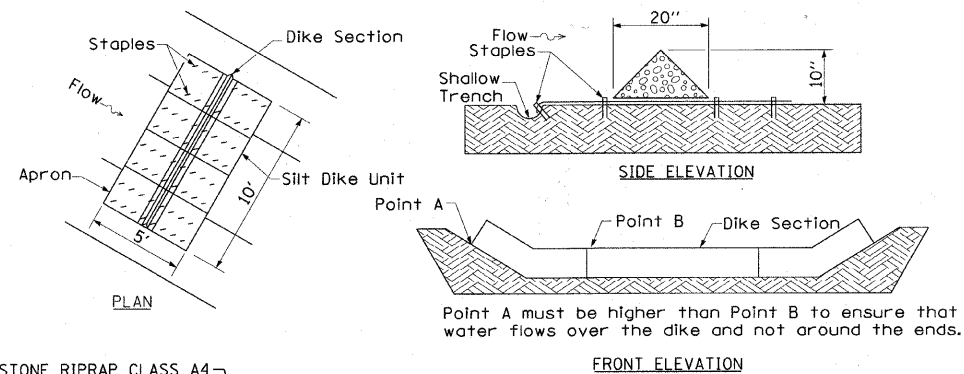
- SILT FENCE - AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL SILT FENCE WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE SILT FENCE FUNCTIONAL AS DESIGNED.
- HEAVY DUTY EROSION BLANKET - AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL EROSION BLANKET WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE EROSION BLANKET FUNCTIONAL AS DESIGNED.
- INLET AND PROTECTION - AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL INLET AND PIPE PROTECTION WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE INLET AND PIPE PROTECTION FUNCTIONAL AS DESIGNED.

CONSTRUCTION SEQUENCING

- INSTALL SEDIMENT AND EROSION CONTROL SYSTEMS
- COMPLETE TREE REMOVAL, CLEARING, AND GRUBBING
- STRIP AND STOCKPILE TOPSOIL AND BEGIN MASS GRADING. TEMPORARY SEED AS REQUIRED.
- DEMOLISH EXISTING STRUCTURE WITHOUT IMPACT OR DEBRIS ENTERING THE EXISTING WATERWAY.
- CONSTRUCT UNDERWATER STRUCTURE EXCAVATION PROTECTION AND INSTALL PILES AND STRUCTURE.
- COMPLETE ROADWAY REPLACEMENT THRU BINDER AND GRADING.
- COMPLETE FINAL SURFACE, PAVEMENT MARKINGS, AND RESTORATION.
- REMOVE EROSION CONTROL MEASURES AND RESTORE.

LEGEND

- PERIMETER HEAVY DUTY EROSION BARRIER
- WETLAND IMPACTS
- WETLAND BOUNDARY
- FLOODPLAIN
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK
- INLET FILTERS SEDIMENT CONTROL, DRAINAGE STRUCTURE INLET FILTER CLEANING
- TEMPORARY EROSION CONTROL SEEDING, HEAVY DUTY EROSION CONTROL BLANKET & SEEDING, CL 2A
- TEMPORARY EROSION CONTROL SEEDING, HEAVY DUTY EROSION CONTROL BLANKET & SEEDING, CL 4



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 1535 S. PULASKI AVENUE, SUITE 100, CHICAGO, IL 60607



DESIGNED - CAC	REVISED - 12/31/10 PER MCDOT
DRAWN - BCD	REVISED - 01/13/10 PER ACOE
CHECKED - MDW	REVISED - 02/01/11 PER MCDOT
DATE - 10/08/10	FILE - 02/01/11 PER IDOT

**MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK**

EROSION CONTROL PLAN

SCALE: 1" = 40'

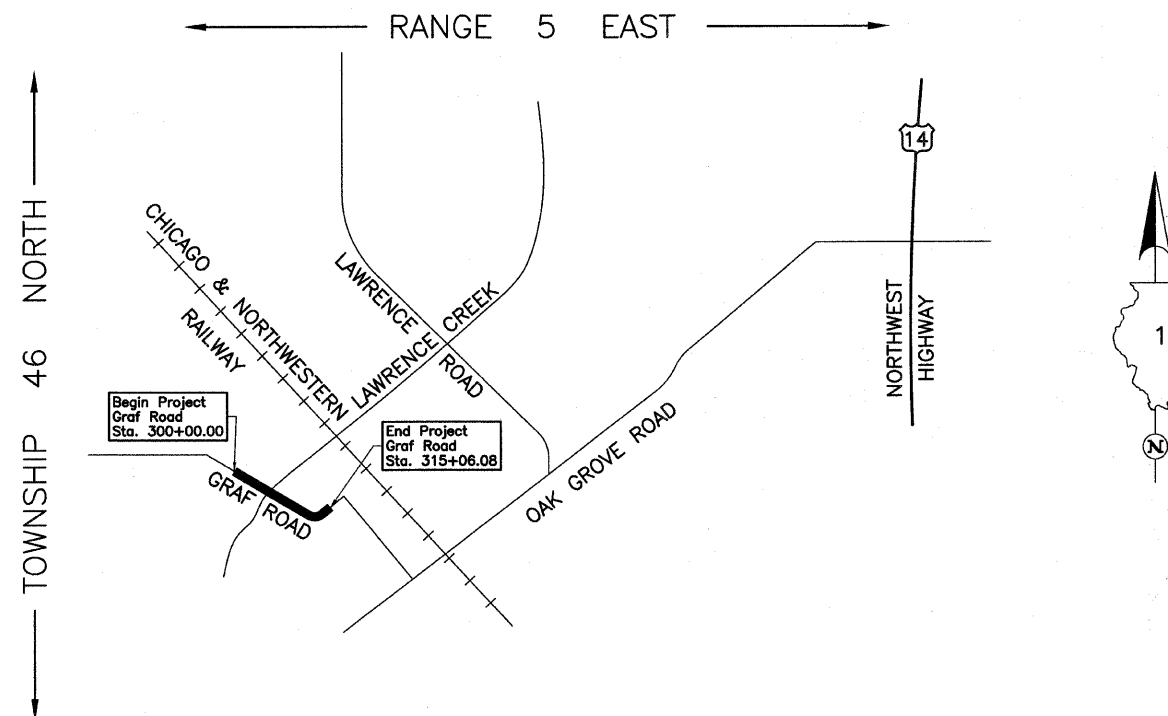
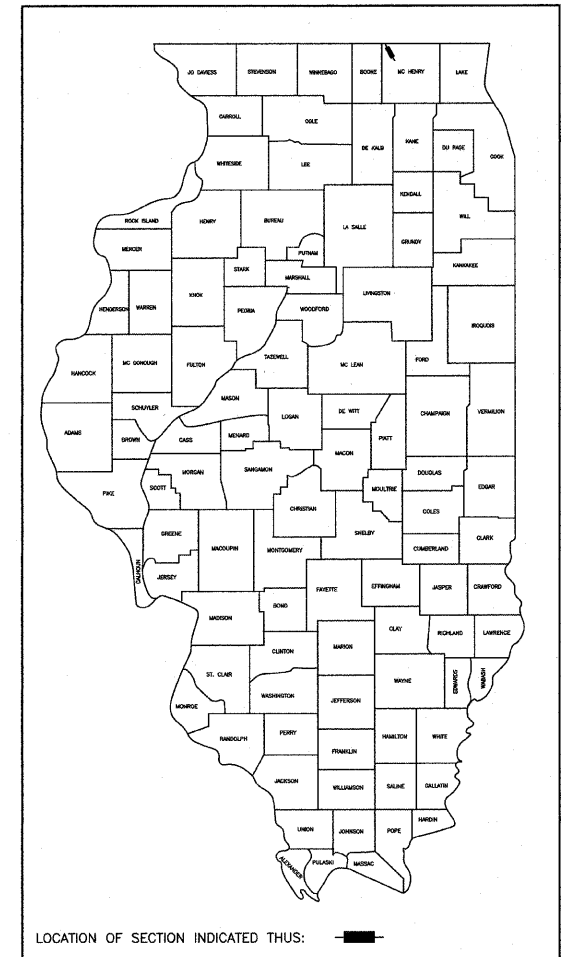
STA. 300+00 TO STA. 315+00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	14
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BR05-0001(683)				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY PLANS
FOR PROPOSED
FEDERAL AID HIGHWAY

ROUTE: T.R. 37 (GRAF ROAD)
SECTION: 06-00322-00-BR
PROJECT NO.:
JOB NO.: R-55-001-97
COUNTY: McHENRY
LIMITS: @ LAWRENCE CREEK

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	McHENRY	54	16
F.H.W.A. REG.		ILLINOIS	PROJECT BROS-00-DT(683)	



PROJECT LENGTH = 1,506.08 LIN. FT. = 0.285 MILE, GRAF ROAD

Begin Project Graf Road Sta. 300+00.00
End Project Graf Road Sta. 315+06.08

APPROVED _____ 20 _____
LOCAL AGENCY OFFICIAL

APPROVED _____ 20 _____
ENGINEER OF LAND ACQUISITION

APPROVED _____ 20 _____
ENGINEER OF LOCAL ROADS & STREETS

APPROVED _____ 20 _____
DISTRICT ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PART OF THE NE 1/4 OF SEC. 28, TWP. 46 N., R. 5 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	McHENRY	54	17
ILLINOIS REG.	ILLINOIS PROJECT	BROS-0001(683)		

LEGEND

- SECTION CORNER
 - QUARTER SECTION CORNER
 - SECTION LINE
 - QUARTER SECTION LINE
 - PLATTED LOT LINE
 - PROPERTY (DEED) LINE
 - APPARENT PROPERTY LINE
 - CENTER LINE
 - EXISTING RIGHT OF WAY LINE
 - PROPOSED RIGHT OF WAY LINE
 - PROPOSED EASEMENT
 - MEASURED DIMENSION
 - COMPUTED DIMENSION
 - RECORD DATA
 - EXISTING BUILDING
- Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83(2007) East Zone.
- IRON PIPE OR ROD FOUND
 - CUT CROSS FOUND OR SET
 - THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
 - THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
 - STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
 - STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
 - PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
 - RIGHT OF WAY STAKING PROPOSED TO BE SET.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
0001	Salvatore P. Divita	5.243	0.298	0.173	4.945	N/A	N/A	01-28-226-006	

Note: Surface Coordinates are Shown.

STATION	OFFSET	NORTH	EAST
303+77.62	27.95' Rt.	2,103,773.869	898,637.467
303+77.77	2.05' Lt.	2,103,790.010	898,662.755
304+50.00	35.96' Rt.	2,103,708.713	898,669.981
304+50.01	28.02' Rt.	2,103,713.006	898,676.660
304+50.04	1.98' Lt.	2,103,729.249	898,701.882
305+99.96	55.25' Rt.	2,103,572.244	898,735.085
306+98.90	1.74' Lt.	2,103,520.017	898,836.618
307+03.36	28.26' Rt.	2,103,499.996	898,813.828
307+07.30	54.75' Rt.	2,103,482.324	898,793.714

Schedule of Ties

Point Number	Tie to point	Tie Distance (feet)
1	T1	17.50
	T2	22.37
	T3	24.75
2	T1	23.03
	T2	19.95
	T3	27.98
3	T1	26.85
	T2	21.95
	T3	40.18
4	T1	32.76
	T2	29.89
	T3	45.88

GARDINER'S BRAE
Recorded January 14, 1972
as Document No. 558968

STATE OF ILLINOIS }
COUNTY OF LAKE }
SS

THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 28, TOWNSHIP 46N., RANGE 5E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT LAKE VILLA, ILLINOIS THIS _____ DAY OF _____ 20__ A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
LICENSE EXPIRATION DATE: NOVEMBER 30, 2010

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

Parcel	Document No.	Date Recorded
0001	558968	January 14, 1972
----	558968	January 14, 1972

JORGENSEN & ASSOCIATES, INC.
120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046
(847) 356-3371

SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
T.R. 37 (GRAF ROAD)
SECTION 06-00322-00-BR McHENRY COUNTY
PROJECT JOB NO. R-55-001-97
STATION 303+00 TO STATION 308+00
SCALE: 1"=40' SHEET 2 OF 6

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

PART OF THE NE 1/4 OF SEC. 28, TWP. 46 N., R. 5 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
0002	Szsh, LLC, Series 6, a Delaware series limited liability company	*18.374	0.331	0.187	*18.043	N/A	N/A	01-28-227-001	
0004	Blaschak Construction Company	3.979	0.320	0.180	3.659	N/A	N/A	01-28-227-002	

*Area based on that part lying in the NE 1/4 of Sec. 28-46-5 Only.

Point Number	Tie to point	Tie Distance (feet)
1	T1	32.94
	T2	39.21
	T3	86.98
2	T1	20.42
	T2	20.19
	T3	24.10
3	T1	37.52
	T2	18.80
	T3	22.72
4	T1	39.11
	T2	20.82
	T3	24.38

GARDINER'S BRAE
Recorded January 14, 1972
as Document No. 558968

SEE SHEET 4

SEE SHEET 4 for Parcel 0005

SEE SHEET 4 for Parcel 0003

SEE SHEET 5 for Total Holdings Parcel 0004

SEE SHEET 5 for Total Holdings Parcel 0002

SEE SHEET 5 for Total Holdings Parcel 0000

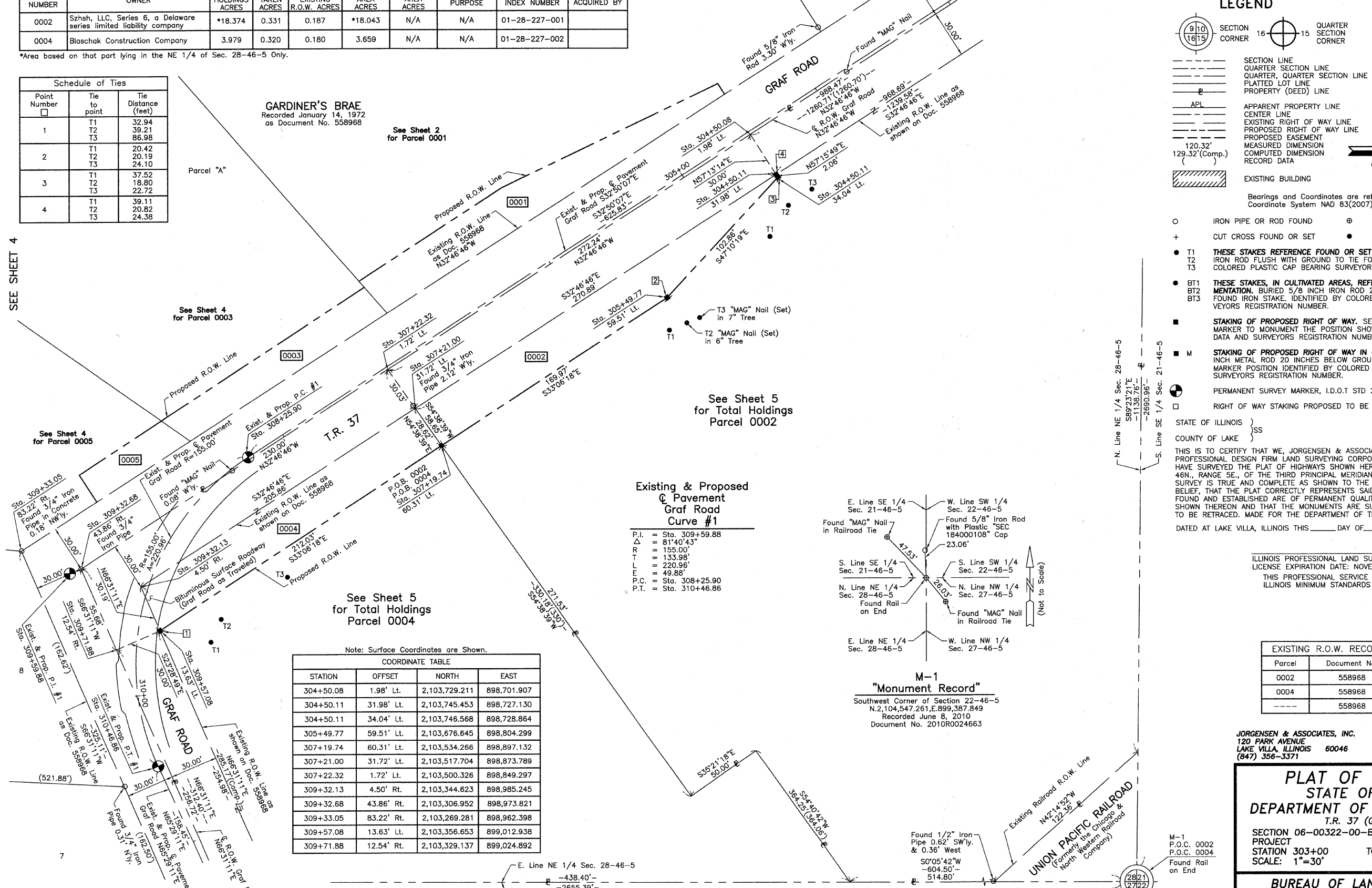
SEE SHEET 2 for Parcel 0001

SEE SHEET 2 for Parcel 0001

SEE SHEET 2 for Parcel 0001

SEE SHEET 2 for Parcel 0001

SEE SHEET 2 for Parcel 0001

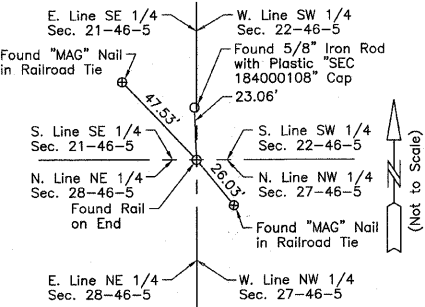


Existing & Proposed
Pavement
Curve #1

P.I. = Sta. 309+59.88
 Δ = 81°40'43"
 R = 155.00'
 T = 133.98'
 L = 220.96'
 E = 49.88'
 P.C. = Sta. 308+25.90
 P.T. = Sta. 310+46.86

Note: Surface Coordinates are Shown.

STATION	OFFSET	NORTH	EAST
304+50.08	1.98' Lt.	2,103,729.211	898,701.907
304+50.11	31.98' Lt.	2,103,745.453	898,727.130
304+50.11	34.04' Lt.	2,103,746.568	898,728.864
305+49.77	59.51' Lt.	2,103,676.645	898,804.299
307+19.74	60.31' Lt.	2,103,534.266	898,897.132
307+21.00	31.72' Lt.	2,103,517.704	898,873.789
307+22.32	1.72' Lt.	2,103,500.326	898,849.297
309+32.13	4.50' Rt.	2,103,344.623	898,985.245
309+32.68	43.86' Rt.	2,103,306.952	898,973.821
309+33.05	83.22' Rt.	2,103,269.281	898,962.398
309+57.08	13.63' Lt.	2,103,356.653	899,012.938
309+71.88	12.54' Rt.	2,103,329.137	899,024.892



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	McHENRY	54	18

LEGEND

- SECTION CORNER 16
- QUARTER SECTION CORNER
- SECTION LINE
- QUARTER SECTION LINE
- PLATTED LOT LINE
- PROPERTY (DEED) LINE
- APL APPARENT PROPERTY LINE
- CENTER LINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- MEASURED DIMENSION
- COMPUTED DIMENSION
- RECORD DATA
- EXISTING BUILDING
- BEARINGS AND COORDINATES ARE REFERENCED TO THE ILLINOIS COORDINATE SYSTEM NAD 83(2007) EAST ZONE.
- IRON PIPE OR ROD FOUND
- "MAG" NAIL SET
- CUT CROSS FOUND OR SET
- 5/8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2
- T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT2
- BT3
- STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS }
 COUNTY OF LAKE }
 THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 28, TOWNSHIP 46N., RANGE 5E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.
 DATED AT LAKE VILLA, ILLINOIS THIS _____ DAY OF _____ 20__ A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2010
 THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

Parcel	Document No.	Date Recorded
0002	558968	January 14, 1972
0004	558968	January 14, 1972
----	558968	January 14, 1972

JORGENSEN & ASSOCIATES, INC.
 120 PARK AVENUE
 LAKE VILLA, ILLINOIS 60046
 (847) 356-3371

PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 T.R. 37 (GRAF ROAD)
 SECTION 06-00322-00-BR McHENRY COUNTY
 PROJECT JOB NO. R-55-001-97
 STATION 303+00 TO STATION 311+00
 SCALE: 1"=30' SHEET 3 OF 6

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196

PART OF THE NE 1/4 OF SEC. 28, TWP. 46 N., R. 5 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	McHENRY	54	19
ILLINOIS REG.	ILLINOIS PROJECT	BROS-0001(883)		

Note: Surface Coordinates are Shown.

STATION	OFFSET	NORTH	EAST
306+98.90	1.74' Lt.	2,103,520.017	898,836.618
307+03.36	28.26' Rt.	2,103,499.996	898,813.828
307+06.56	49.75' Rt.	2,103,485.658	898,797.509
308+39.00	1.06' Lt.	2,103,402.311	898,912.415
308+47.02	30.12' Rt.	2,103,375.830	898,893.785
308+51.12	51.76' Rt.	2,103,357.633	898,880.983
308+93.72	69.93' Rt.	2,103,305.858	898,914.741
309+00.09	51.71' Rt.	2,103,316.926	898,931.716
309+11.98	25.62' Rt.	2,103,333.168	898,956.939
309+32.13	4.50' Rt.	2,103,344.623	898,985.245
309+32.68	43.86' Rt.	2,103,306.952	898,973.821
309+33.05	83.22' Rt.	2,103,289.281	898,962.398

LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINE
- PROPERTY (DEED) LINE
- APL APPARENT PROPERTY LINE
- CENTER LINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- MEASURED DIMENSION
- COMPUTED DIMENSION
- RECORD DATA
- EXISTING BUILDING

Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83(2007) East Zone.

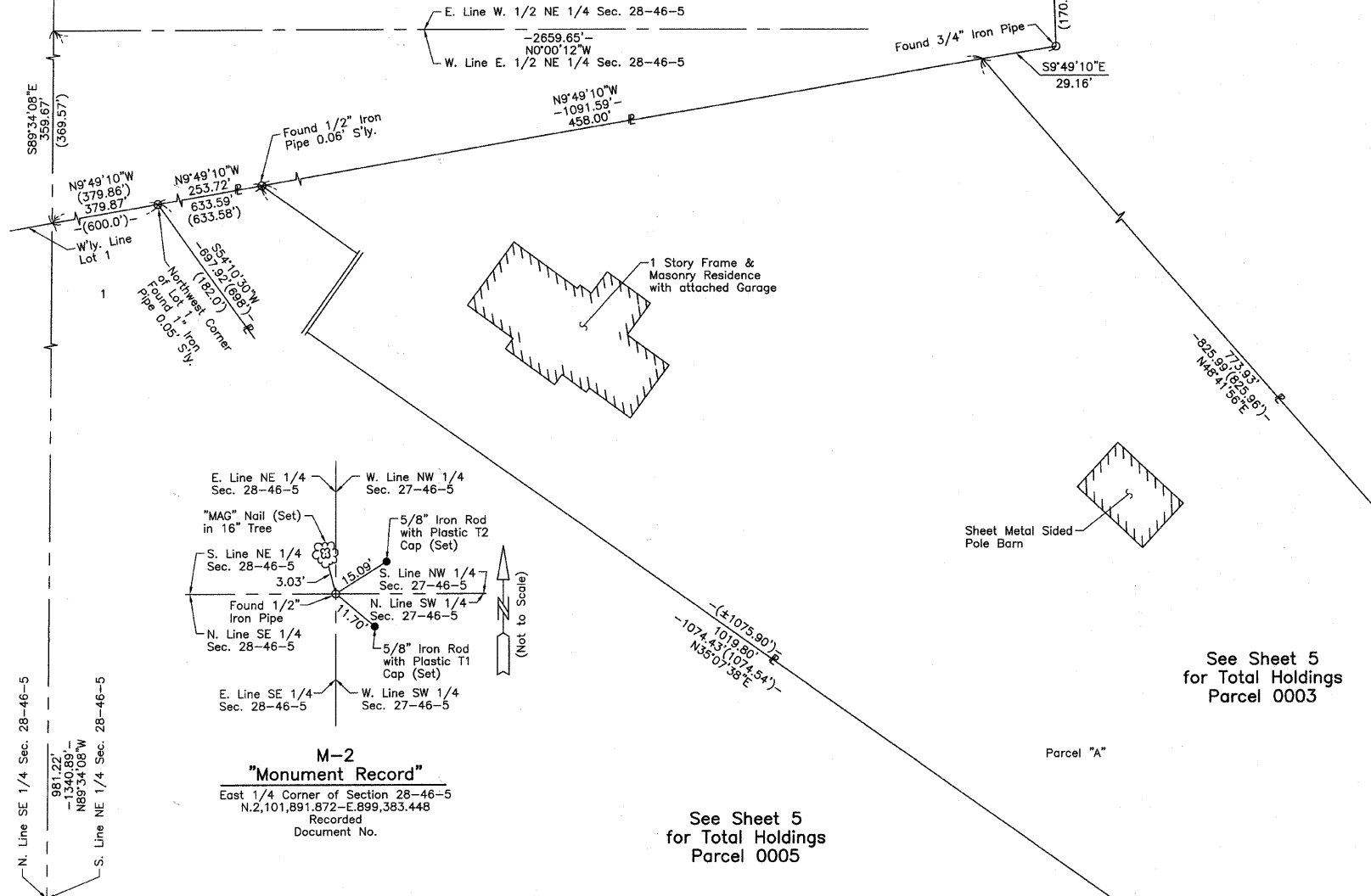
Scale: 1"=30'

Schedule of Ties

Point Number	Tie to point	Tie Distance (feet)
1	T1	51.57
	T2	34.62
	T3	55.27
2	T1	47.21
	T2	16.26
	T3	39.94
3	T1	20.93
	T2	18.53
	T3	18.29

T1 to Point No. 3 is a "MAG" Nail (Set) in 4" Dia. Wood Fence Post.

- IRON PIPE OR ROD FOUND
- ⊕ "MAG" NAIL SET
- + CUT CROSS FOUND OR SET
- 5/8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET.



PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
0003	Regina L. Perkins and Timothy D. Perkins, husband and wife, as joint tenants	5.303	0.172	0.099	5.131	N/A	N/A	01-28-276-012	
0005	Marc Hathaway and Linda Hathaway, husband and wife, in joint tenancy	7.312	0.083	0.052	7.229	N/A	N/A	01-28-276-013	

STATE OF ILLINOIS }
COUNTY OF LAKE }
THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 28, TOWNSHIP 46N., RANGE 5E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS. DATED AT LAKE VILLA, ILLINOIS THIS ____ DAY OF ____ 20__ A.D.

PRESIDENT
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
LICENSE EXPIRATION DATE: NOVEMBER 30, 2010
THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

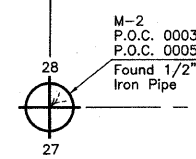
Parcel	Document No.	Date Recorded
0003	558968	January 14, 1972
0005	558968	January 14, 1972
---	558968	January 14, 1972

JORGENSEN & ASSOCIATES, INC.
120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046
(847) 356-3371

60046 SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
T.R. 37 (GRAF ROAD)
SECTION 06-00322-00-BR McHENRY COUNTY
PROJECT JOB NO. R-55-001-97
STATION 307+00 TO STATION 310+00
SCALE: 1"=30' SHEET 4 OF 6

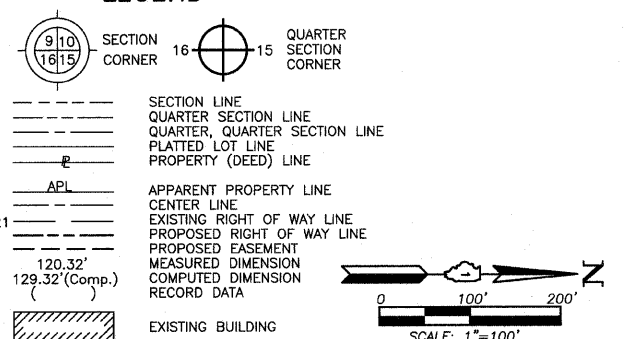
BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196



PART OF THE NE 1/4 OF SEC. 28, TWP. 46 N., R. 5 E. OF THE 3RD. P.M., IN MCHENRY COUNTY, ILLINOIS.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	20
ILLINOIS PROJECT BROS-00D1(683)				

LEGEND



- IRON PIPE OR ROD FOUND
- ⊕ "MAG" NAIL SET
- + CUT CROSS FOUND OR SET
- 5/8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2
- T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT2
- BT3
- STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊕ PERMANENT SURVEY MARKER, I.D.O.T. STD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET.

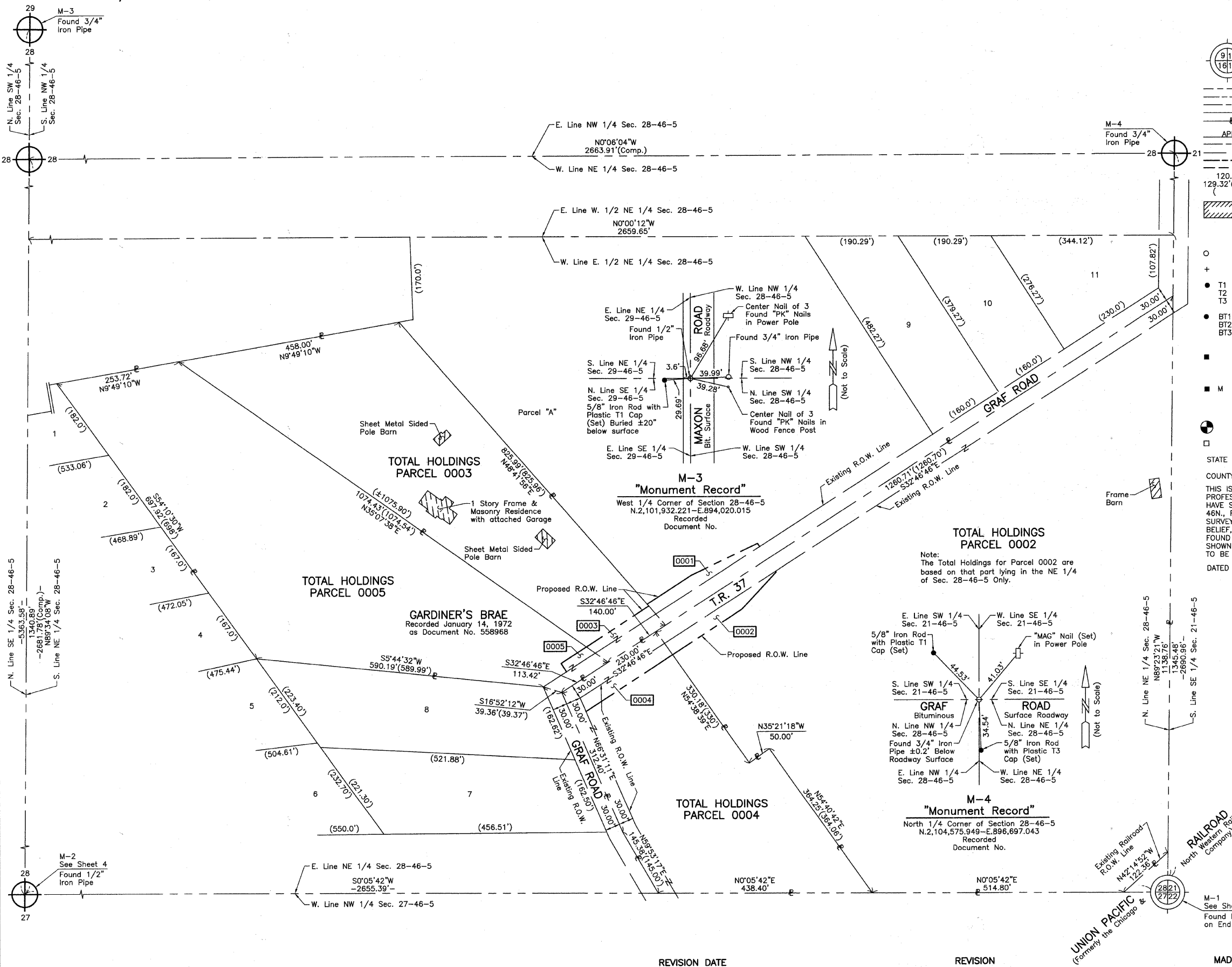
STATE OF ILLINOIS }
 COUNTY OF LAKE }
 THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 28, TOWNSHIP 46N., RANGE 5E., OF THE THIRD PRINCIPAL MERIDIAN, MCHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF. THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.
 DATED AT LAKE VILLA, ILLINOIS THIS _____ DAY OF _____ 20__ A.D.

PRESIDENT
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2010
 THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.
 Note: Surface Coordinates are Shown.

JORGENSEN & ASSOCIATES, INC.
 120 PARK AVENUE
 LAKE VILLA, ILLINOIS 60046
 (847) 356-3371

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 T.R. 37 (GRAF ROAD)
 SECTION 06-00322-00-BR MCHENRY COUNTY
 PROJECT JOB NO. R-55-001-97
 STATION NONE TO STATION
 SCALE: 1"=100'
 SHEET 5 OF 6

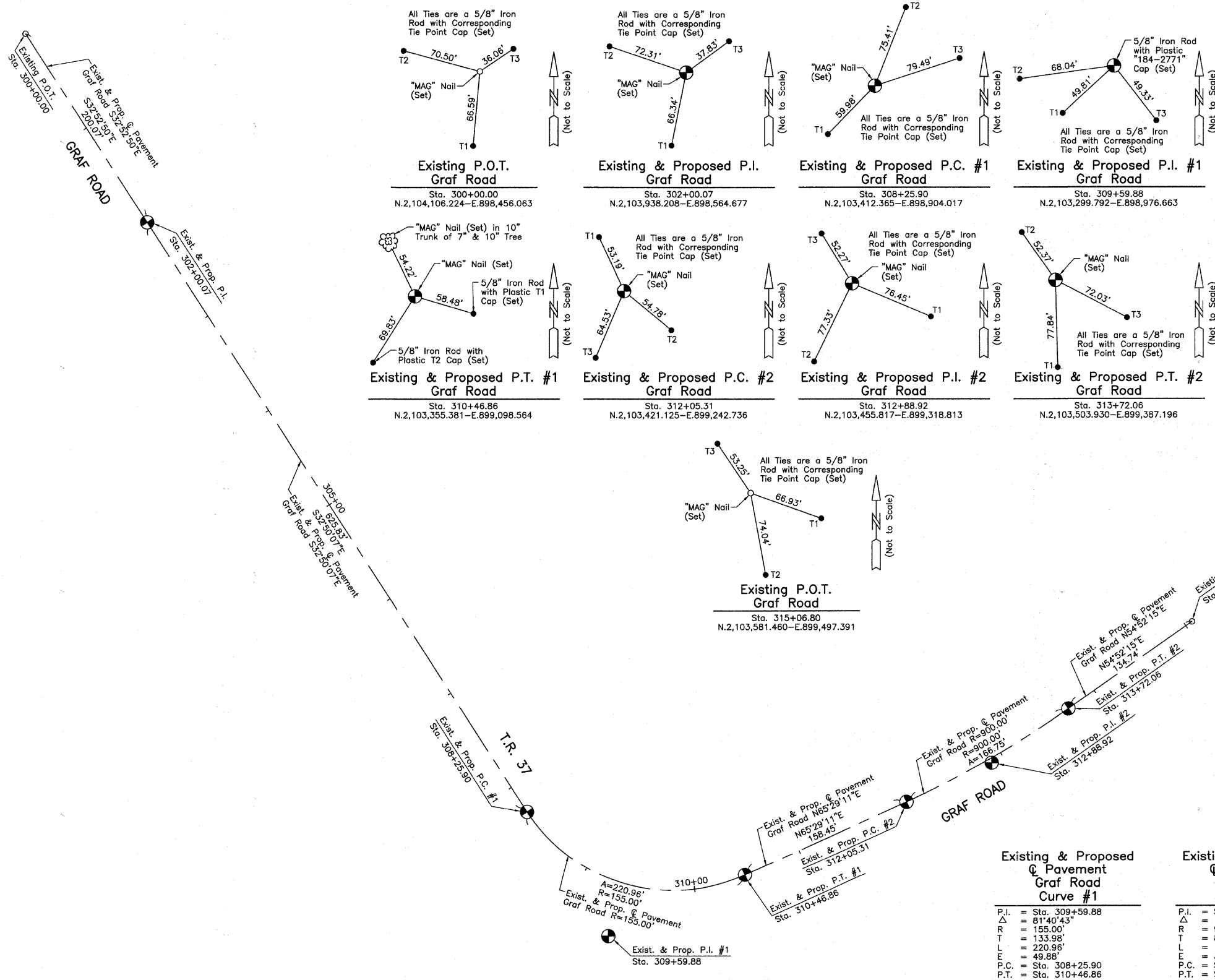
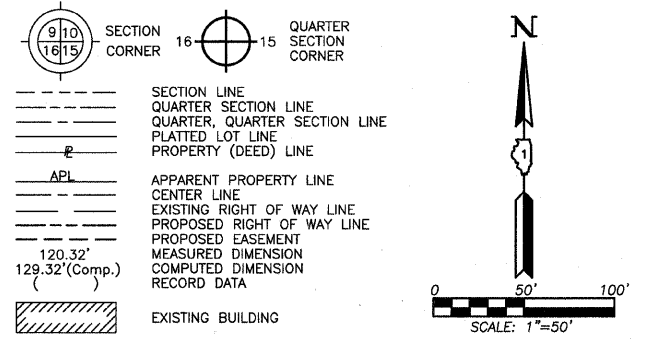
BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196



PART OF THE NW 1/4 OF SEC. 27 AND PART OF THE NE 1/4 OF SEC. 28, TWP. 46 N., R. 5 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	McHENRY	54	21
F.H.W.A. REG.	ILLINOIS	PROJECT	BROS-00D1(683)	

LEGEND



JORGENSEN & ASSOCIATES, INC.
120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046
(847) 356-3371

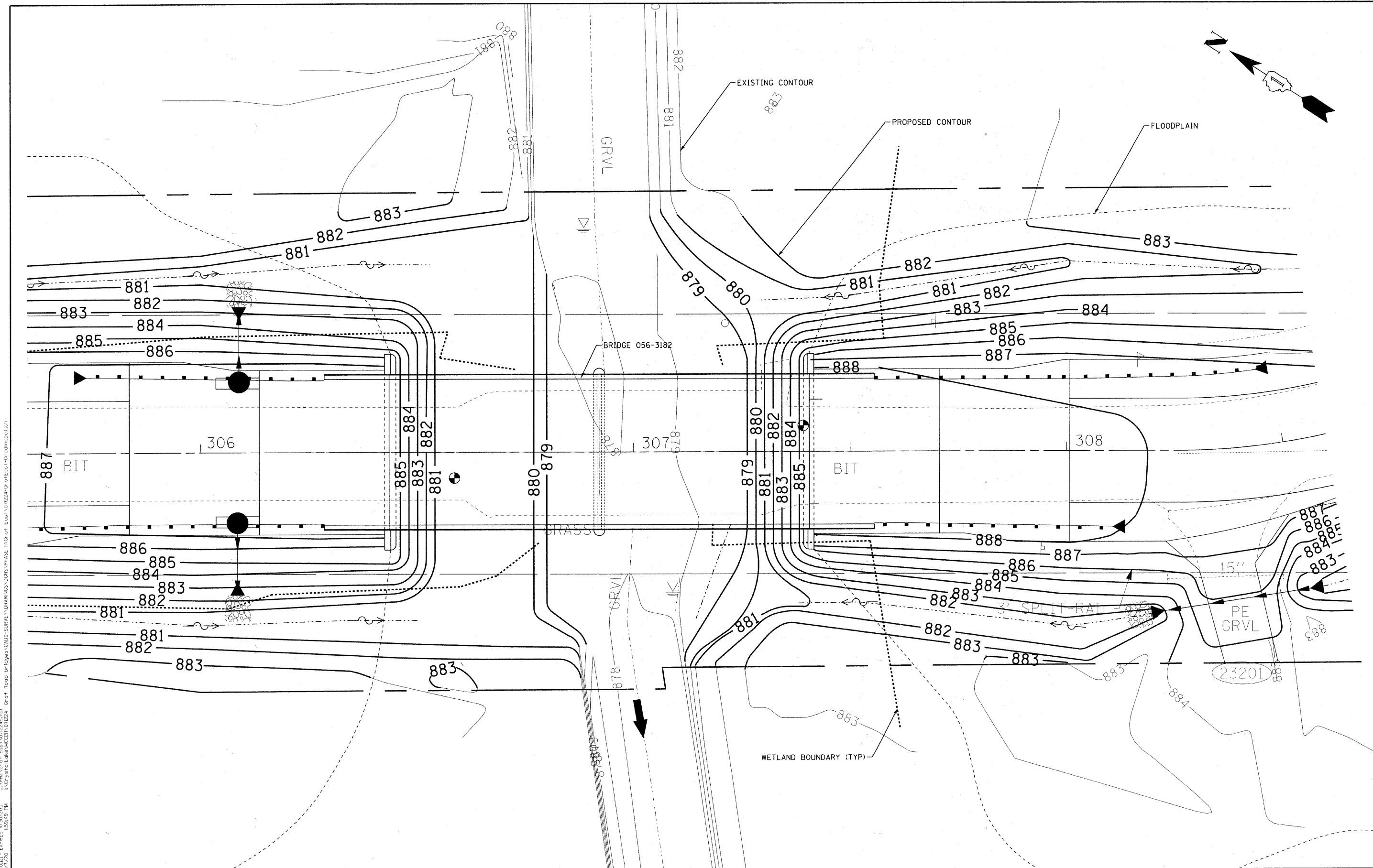
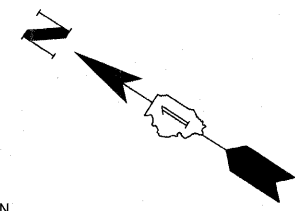
60046 SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
T.R. 37 (GRAF ROAD)
SECTION 06-00322-00-BR McHENRY COUNTY
PROJECT JOB NO. R-55-001-97
STATION 300+00.00 TO STATION 315+06.80
SCALE: 1"=50' SHEET 6 OF 6

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE REVISION MADE BY

ROUTE T.R. 37 (GRAF ROAD) SECTION 06-00322-00-BR COUNTY McHENRY JOB NO. R-55-001-97 RECORDING: RECORDED ON AS DOCUMENT NO.



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STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-00121 - EXPIRES 4/30/2011
2/7/2011 10:59:59 PM



DESIGNED - CAC	REVISED - 12/31/10 PER MCDOT
DRAWN - BCD	REVISED - 02/01/11 PER MCDOT
CHECKED - MDW	REVISED - 02/01/11 PER IDOT
DATE - 10/08/10	FILE -

**MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK**

GRADING DETAIL AT BRIDGE ABUTMENT

SCALE: 1"=10'

STA. 305+60 TO STA. 308+60

TR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	22
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BR05-0001683				

TREES

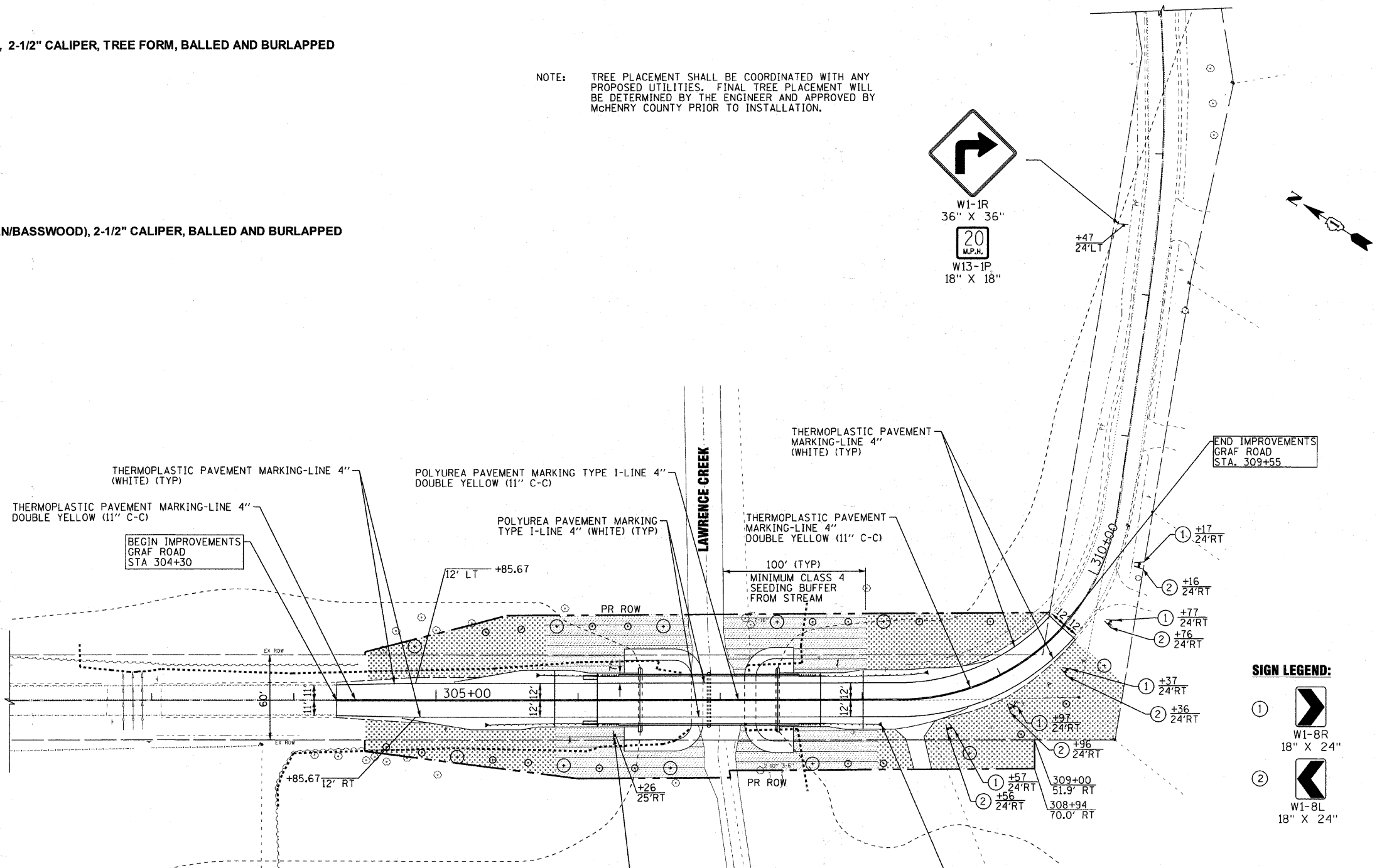
TREE, ACER CAMPESTRE (HEDGE MAPLE), 2-1/2" CALIPER, TREE FORM, BALLED AND BURLAPPED

STA	Offset	Side	Quantity
305+40	42	RT	1
305+65	44	RT	1
306+10	52	LT	1
306+35	52	LT	1
308+48	54	LT	1
308+95	44	RT	1
309+14	36	LT	1
309+25	42	RT	1
TOTAL =			8

TREE, TILIA AMERICANA (AMERICAN LINDEN/BASSWOOD), 2-1/2" CALIPER, BALLED AND BURLAPPED

STA	Offset	Side	Quantity
304+85	38	LT	1
305+15	40	RT	1
305+85	52	LT	1
305+90	46	RT	1
306+60	52	LT	1
306+65	48	RT	1
307+40	55	LT	1
307+65	45	RT	1
308+15	55	LT	1
308+65	44	RT	1
309+55	40	RT	1
TOTAL =			11

NOTE: TREE PLACEMENT SHALL BE COORDINATED WITH ANY PROPOSED UTILITIES. FINAL TREE PLACEMENT WILL BE DETERMINED BY THE ENGINEER AND APPROVED BY MCHENRY COUNTY PRIOR TO INSTALLATION.



TREE, CRATAEGUS CRUGGALLI INERMIS (THORN LESS COCKSPUR HAWTHORN), 2-1/2" CALIPER TREE FORM, BALLED AND BURLAPPED

STA	Offset	Side	Quantity
304+65	33	RT	1
304+90	37	RT	1
305+35	48	LT	1
305+60	50	LT	1
306+15	48	RT	1
306+40	48	RT	1
307+65	55	LT	1
307+90	45	RT	1
307+90	55	LT	1
308+15	45	RT	1
TOTAL =			10

GRAF ROAD



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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
 LICENSE NO. 184-000271 - EXPIRES 4/30/2011
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DESIGNED - CAC	REVISED - 12/31/10 PER MCDOT
DRAWN - BCD	REVISED - 02/01/11 PER MCDOT
CHECKED - MDW	REVISED - 02/01/11 PER IDOT
DATE - 10/08/10	FILE -

**MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK**

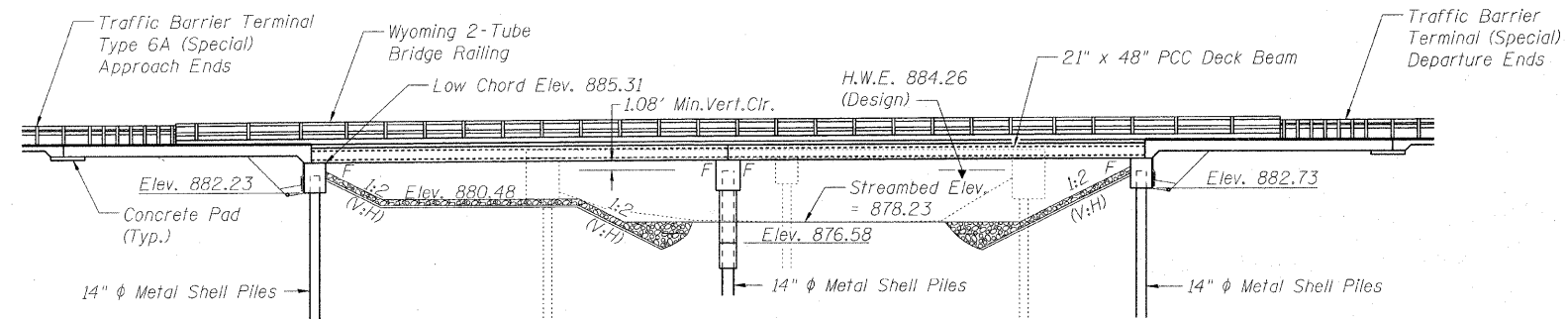
STRIPING, SIGNING AND LANDSCAPING PLAN

SCALE: 1" = 40'

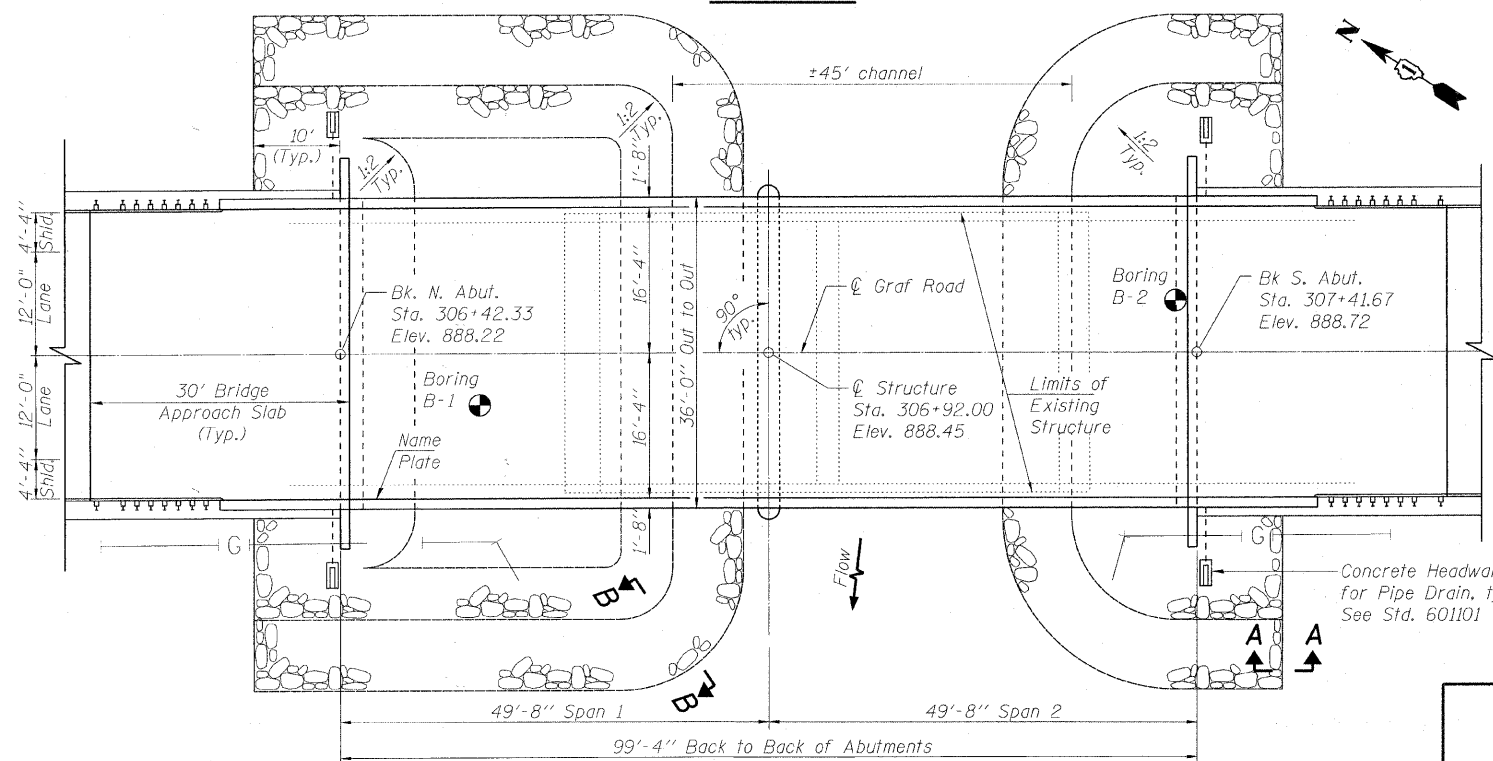
STA. 302+00 TO STA. 310+00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	23
C-91-358-06			CONTRACT NO. 63569	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BR05-0001(683)				

Benchmark: Spike in power pole on northerly side of Graf Road (on curve) approx. 200 ft. east of the south bridge abutment over Lawrence Creek. Elev. 885.79
 Existing Structure: S.N. 056-3111 was built in 1970. (Bridge 105)
 The structure is 30'-4" wide with 1'-0" curbs. The two-span bridge length measures 62'-7" back-to-back of abutments. The superstructure is made up of 11" precast, prestressed concrete deck beams. The substructure consists of 12" metal shell piles at the pier and the abutments. Existing structure to be removed and replaced with proposed structure. Traffic will be detoured during construction.
 Existing Name Plate to be salvaged. See Roadway General Notes.



ELEVATION



PLAN

WATERWAY INFORMATION

Drainage Area = 17.21 sq. mi. Ex. Low Grade Elev. = 884.97 @ Sta. 304+42
 Pr. Low Grade Elev. = 885.18 @ Sta. 304+42

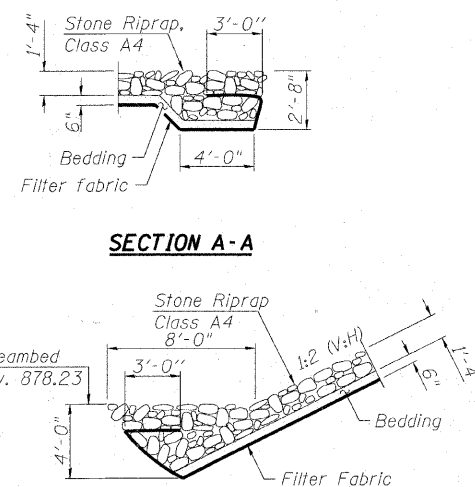
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	1446	260	404	884.01	0.98	0.65	884.99	884.66
	20	1764	282	428	884.26	1.43	0.72	885.69	884.98
	50	2195	322	458	884.55	1.43	1.10	885.98	885.65
Base	100	2498	322	475	884.74	1.47	1.29	886.21	886.03
Max. Calc.	500	3239	322	494	885.13	1.54	1.27	886.67	886.40

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	Pier	S. Abut.
	882.23	873.58	882.73

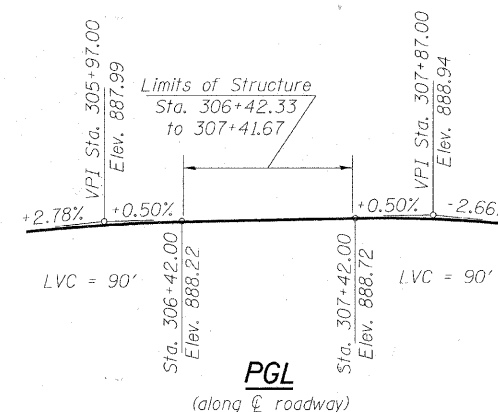
LAWRENCE CREEK
 BUILT 20__ BY
 MCHENRY COUNTY
 DIVISION OF TRANSPORTATION
 SEC. 06-00322-00-BR
 TWP. RT. 37 STA. 306+92.00
 STR. NO. 056-3182 LOADING HL-93

NAME PLATE
 See Std. 515001



SECTION A-A

SECTION B-B



LOADING LRFD HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 and 2009 Interims

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

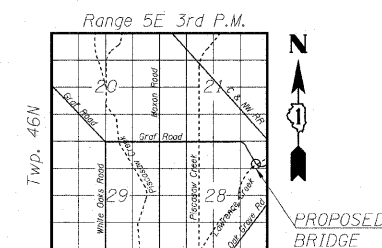
f'_c = 6,000 psi
 f'_ci = 5,000 psi
 f_{pu} = 270,000 psi (1/2" dia. low lax strands)
 f_{pbi} = 201,960 psi (1/2" dia. low lax strands)

SEISMIC DATA

LRFD Seismic Performance Zone (LRFD SPZ) = 1
 Design Spectral Acceleration @ 1.0 sec. (SD1) = 0.15g
 Design Spectral Acceleration @ 2.0 sec. (SDS) = 0.05g
 Soil Site Class = D

CURVE DATA

Δ = 81° 40' 43"
 D = 36° 57' 54"
 R = 155.00'
 T = 133.98'
 L = 220.96'
 E = 49.88'
 $S.E.$ = 7.5% (WB) 2.0% (EB)
 $P.C.$ STA = 308+25.90
 $P.T.$ STA = 310+46.86



LOCATION SKETCH

GENERAL PLAN & ELEVATION
GRAF ROAD OVER LAWRENCE CREEK
SEC. 06-00322-00-BR
MCHENRY COUNTY
STATION 306+92.00
STRUCTURE NO. 056-3182

DATE: 2/7/11
 LICENSE EXPIRES 11/30/12

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 the requirements of the current AASHTO LRFD Bridge Design Specifications.

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 ALL RIGHTS RESERVED.
 LICENSE NO. 081-006358 EXPIRES 11/30/2011
 FILE NAME = C:\Users\blb\Documents\06-00322-00-BR\06-00322-00-BR.dwg
 PLOT SCALE = 1"=100'-0"
 PLOT DATE = 2/24/2011 10:50:00 AM

FILE NAME	USER NAME	DESIGNED	REVISIONS	MCHENRY COUNTY DIVISION OF TRANSPORTATION	GENERAL PLAN	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		BLB	PER MCDOT 12/31/10	GRAF ROAD BRIDGE OVER LAWRENCE CREEK	STATION 306+92.00	0037	06-00322-00-BR	MCHENRY	54	24
		BAB					C-91-358-06			
		BCD								
		BLB								
						SHEET NO. 1 OF 19 SHEETS		CONTRACT NO. 63569		
								FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT BROS-0001(683)		

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		74	74
Stone Riprap, Class A4	Sq. Yd.		750	750
Filter Fabric	Sq. Yd.		750	750
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		174	174
Concrete Structures	Cu. Yd.		87.4	87.4
Concrete Superstructure	Cu. Yd.	114.2		114.2
Bridge Deck Grooving	Sq. Yd.	536		536
Concrete Encasement	Cu. Yd.		5.5	5.5
Protective Coat	Sq. Yd.	628		628
Reinforcement Bars, Epoxy Coated	Pound	29780	10830	40610
Steel Railing (Special)	Foot	255		255
Furnishing Metal Shell Piles 14" x 0.312"	Foot		715	715
Driving Piles	Foot		715	715
Test Pile Metal Shells	Each		2	2
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		36	36
Pipe Underdrains for Structures 4"	Foot		132	132
Underwater Structure Excavation Protection, Location 1	Each		1	1
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	3501		3501
Concrete Wearing Surface (Variable Depth)	Cu. Yd.	73.5		73.5
Pile Shoes	Each		30	30

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

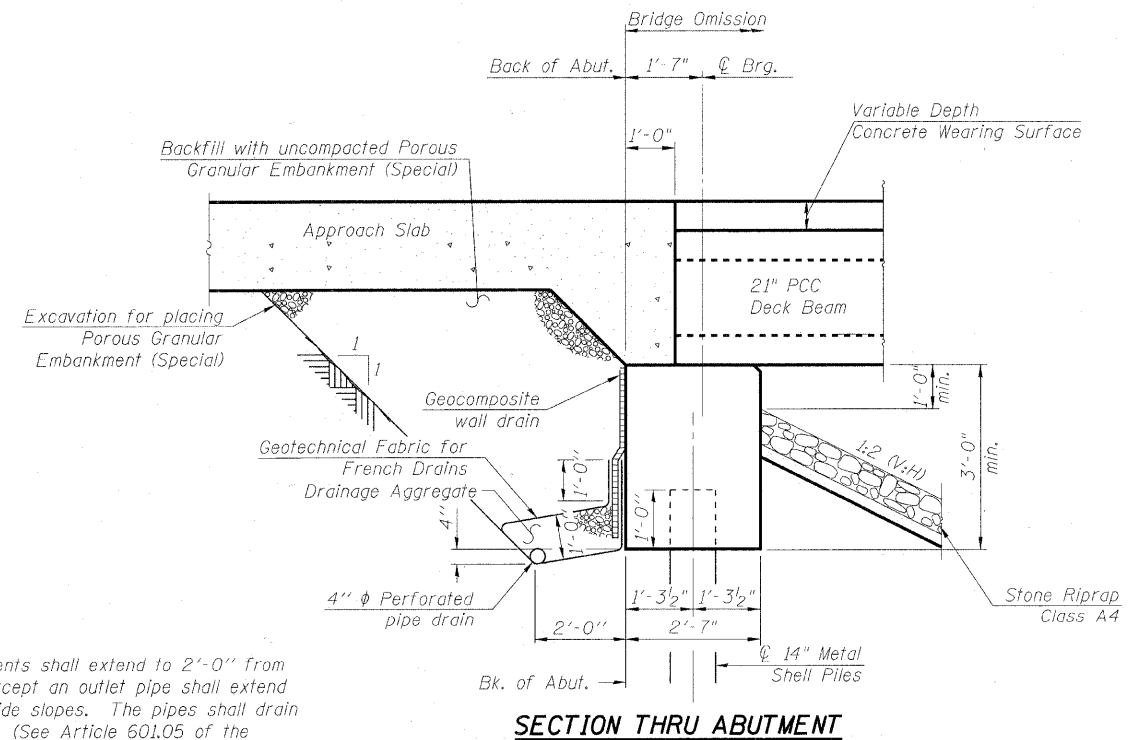
Place Reinforcement bars to provide 2 inch clear cover, unless noted otherwise.

Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The Contractor is advised that the existing structure contains members that are in 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 removal.

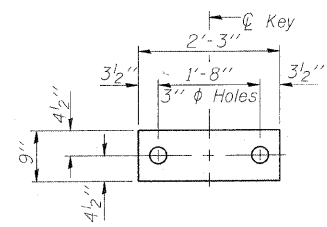
INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Data
- 3 21"x48" PPC Deck Beam
- 4 21"x48" PPC Deck Beam Details
- 5 Superstructure
- 6 Superstructure Details
- 7-8 Bridge Approach Slab Details
- 9 Top of North Approach Slab Elevations
- 10 Top of South Approach Slab Elevations
- 11-12 Wyoming 2-Tube Bridge Railing Details
- 13 Abutments
- 14 Pier
- 15 Metal Shell Pile Details
- 16-19 Soil Borings

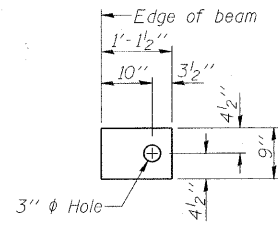


All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain through concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 60110.1.)

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 REVISED -
 MCHENRY COUNTY DIVISION OF TRANSPORTATION
 GRAF ROAD BRIDGE OVER
 LAWRENCE CREEK
 GENERAL DATA
 STRUCTURE NO. 056-3182
 SHEET NO. 2 OF 19 SHEETS
 TR RTE 0037 SECTION 06-00322-00-BR COUNTY MCHENRY TOTAL SHEETS 54 SHEET NO. 25
 C-91-358-06 CONTRACT NO. 63569
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BR05-00016831



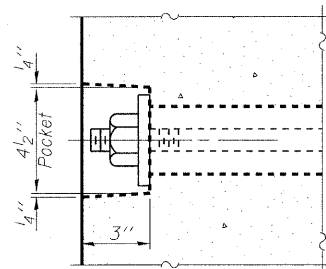
FABRIC BEARING PAD
(Interior - 32 Req'd)



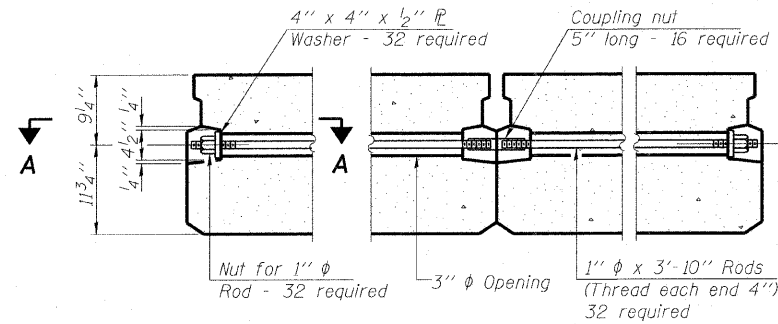
FABRIC BEARING PAD
(Exterior - 8 Req'd)

FIXED

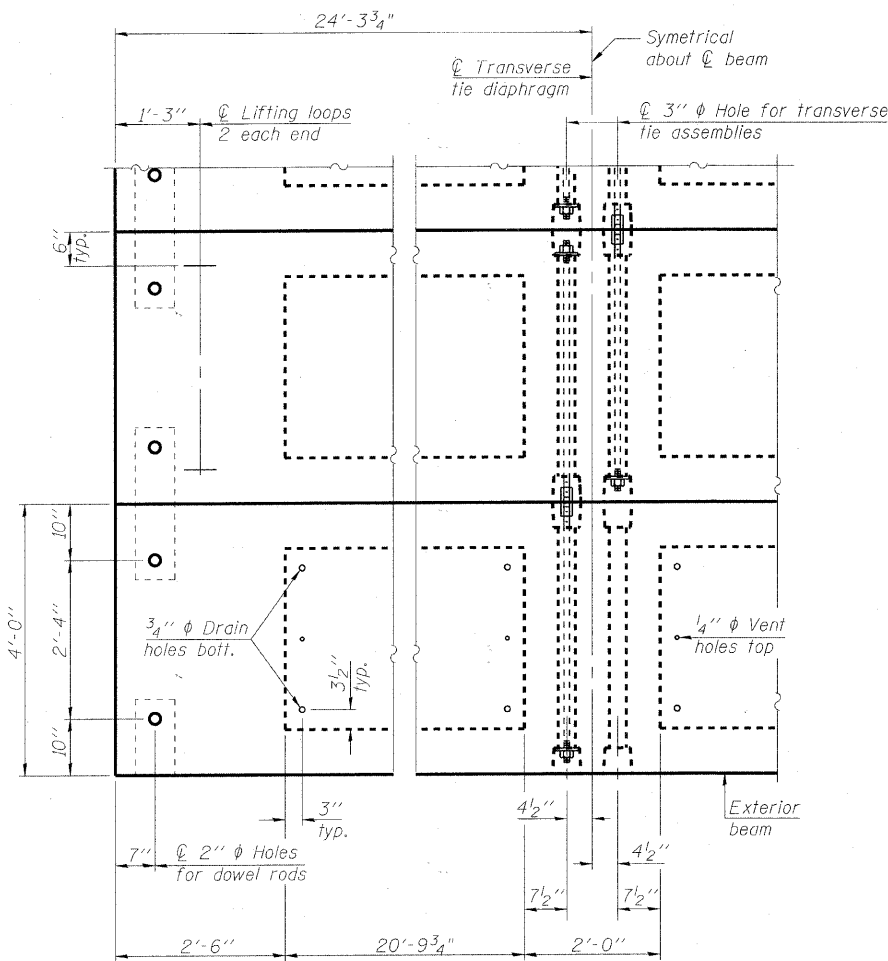
Notes:
All bearing pads shall be 1" thick.



SECTION A-A

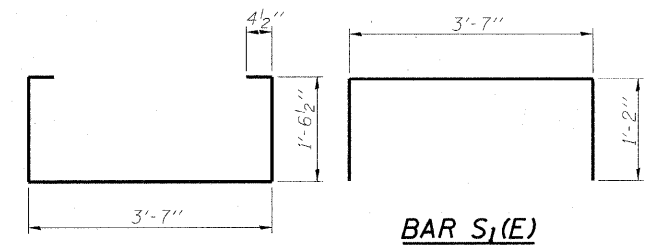


TYPICAL TRANSVERSE TIE ASSEMBLY

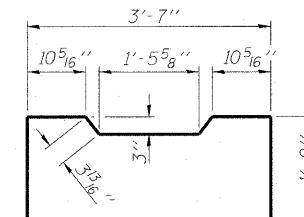


PLAN VIEW

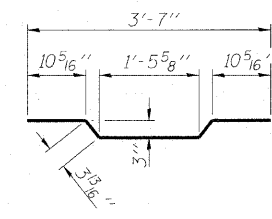
Note: Connect beams in pairs with the transverse tie configuration shown.



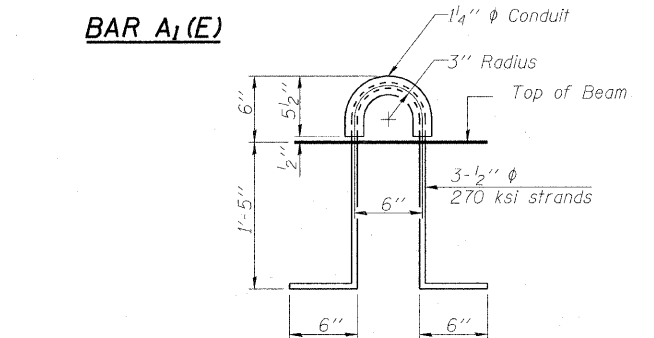
BAR S(E)



BAR S2(E)



BAR U1(E)



BAR A1(E)

LIFTING LOOP DETAIL

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" diameter rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	3,501
---	---------	-------

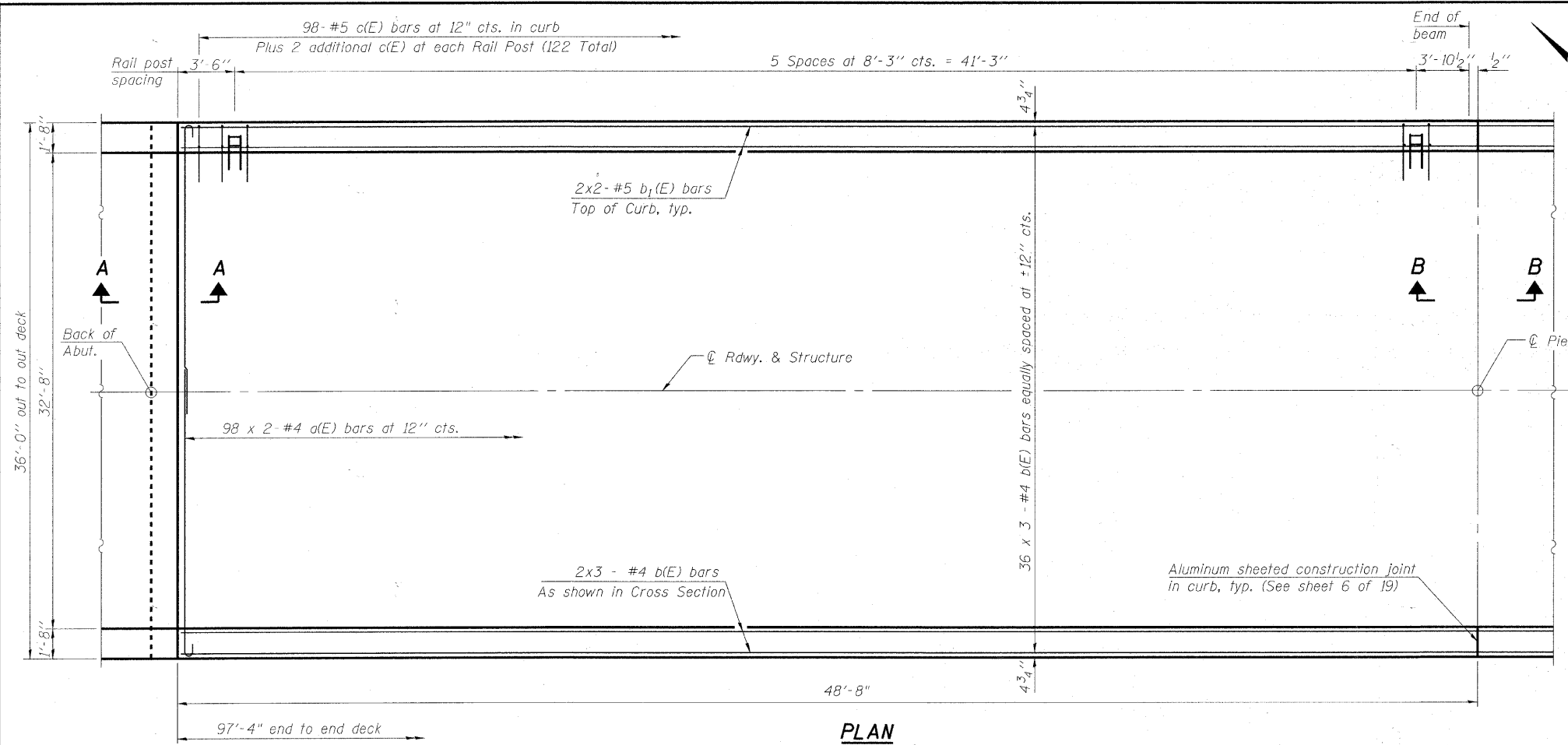
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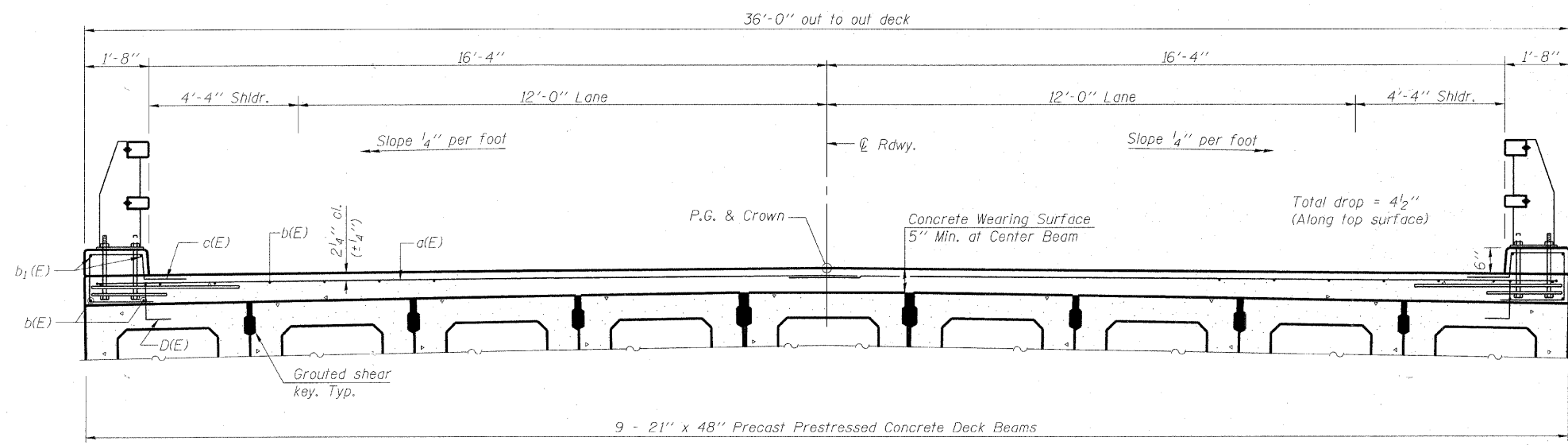
MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

21" x 48" PPC DECK BEAM DETAILS
STRUCTURE NO. 056-3182
SHEET NO. 4 OF 19 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	27
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT BR05-001(683)		

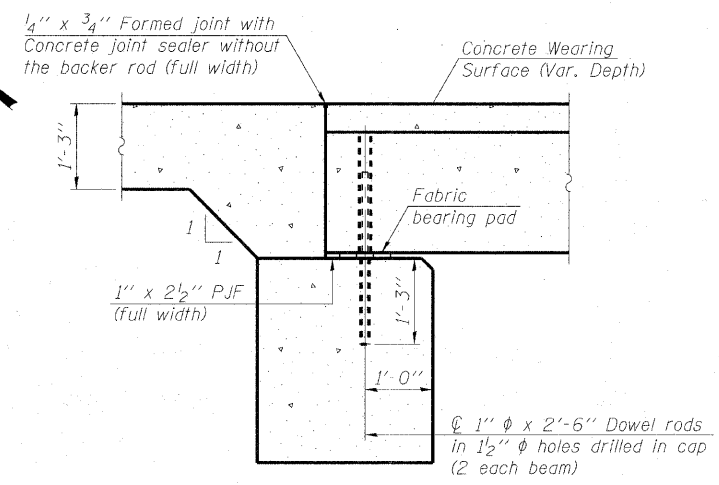


PLAN
(Symmetrical about C Pier)



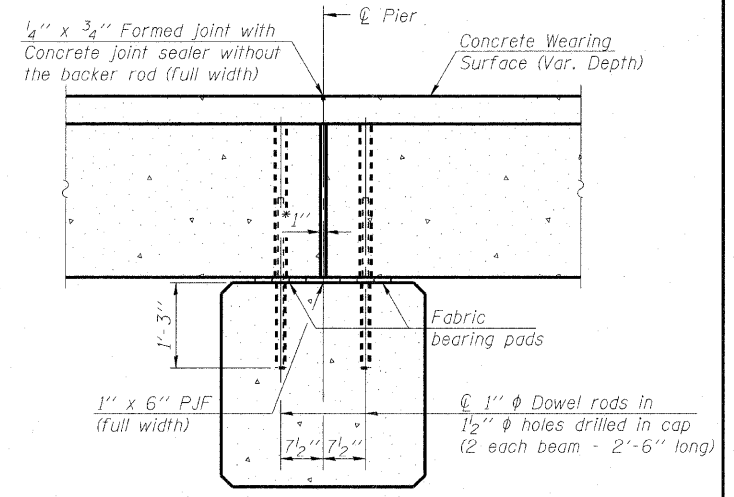
CROSS SECTION
(Looking South)

Notes:
See sheet 6 of 19 for Superstructure Details and Bill of Material.
Bars indicated thus 20 x 2-#4 etc. indicates 20 lines of bars with 2 lengths per line.
Concrete in Curb shall be paid for as Concrete Superstructure.



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

Notes:
All concrete wearing surfaces shall be placed prior to casting approach slab.
See sheet 4 of 19 for fabric bearing pad details.



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

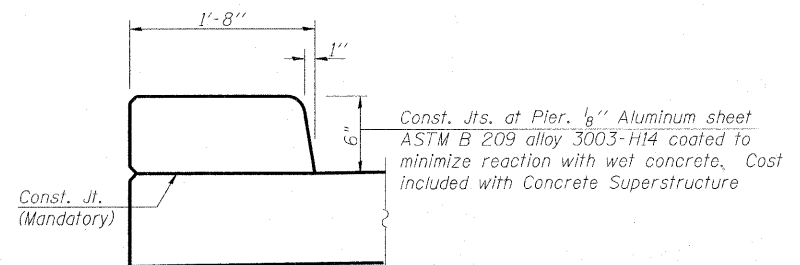
*1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

MINIMUM BAR LAP

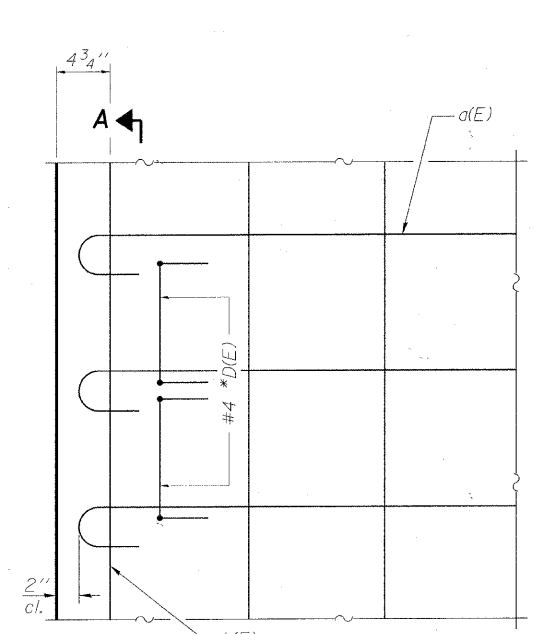
#4 bar = 2'-7"
#5 bar = 3'-3"

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 2777201

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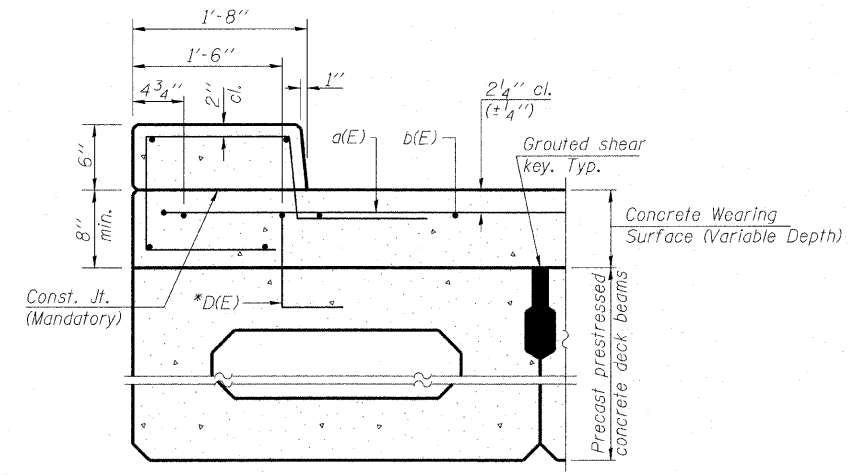


CURB JOINT DETAILS



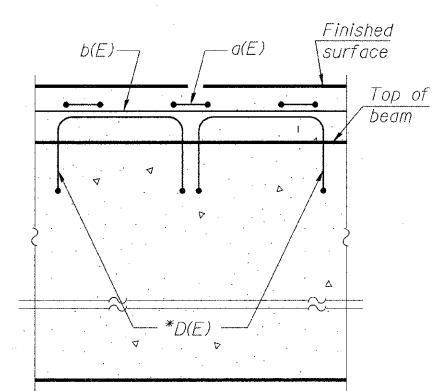
PLAN

Notes:
Formwork necessary for the wearing surface
may be secured utilizing the bottom rail
anchorage inserts and/or additional inserts cast
into the beam.

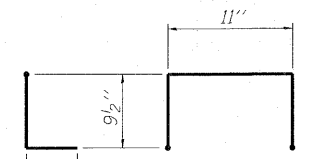


SECTION THRU FASCIA BEAM

Rail Post anchorage not shown

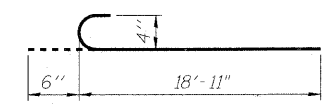


SECTION A-A

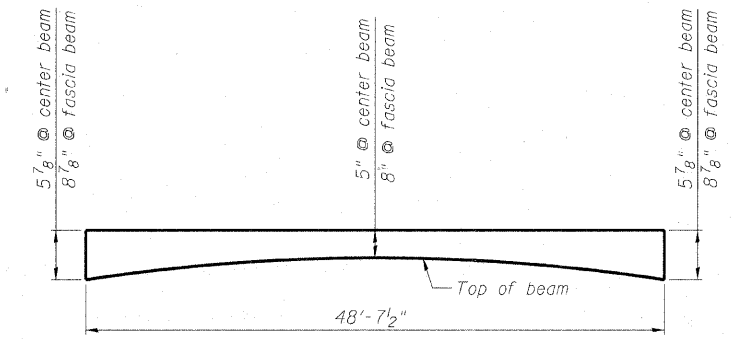


BAR D(E)

* Place 2-#4 D(E) bars in beam at
each post location as shown. D(E)
bar included in cost of beam.



BAR a(E)



ANTICIPATED CONCRETE WEARING SURFACE PROFILE

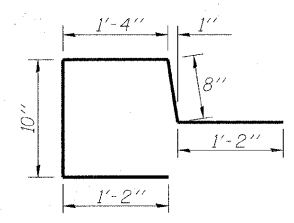
(For information only)

Estimated Final Beam Camber = 7/8"

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
a(E)	196	#4	19'-5"	C	
b(E)	120	#4	34'-1"	—	
b ₁ (E)	16	#5	25'-10"	—	
c(E)	244	#5	5'-2"	C	
Reinforcement Bars, Epoxy Coated				Pound	7030
Concrete Wearing Surface (Variable Depth)				Cu. Yd.	73.5
Concrete Superstructure				Cu. Yd.	6.0
Bridge Deck Grooving				Sq. Yd.	332
Protective Coat				Sq. Yd.	400

Bars indicated thus 20 x 2-#4 etc. indicates
20 lines of bars with 2 lengths per line.



BAR c(E)

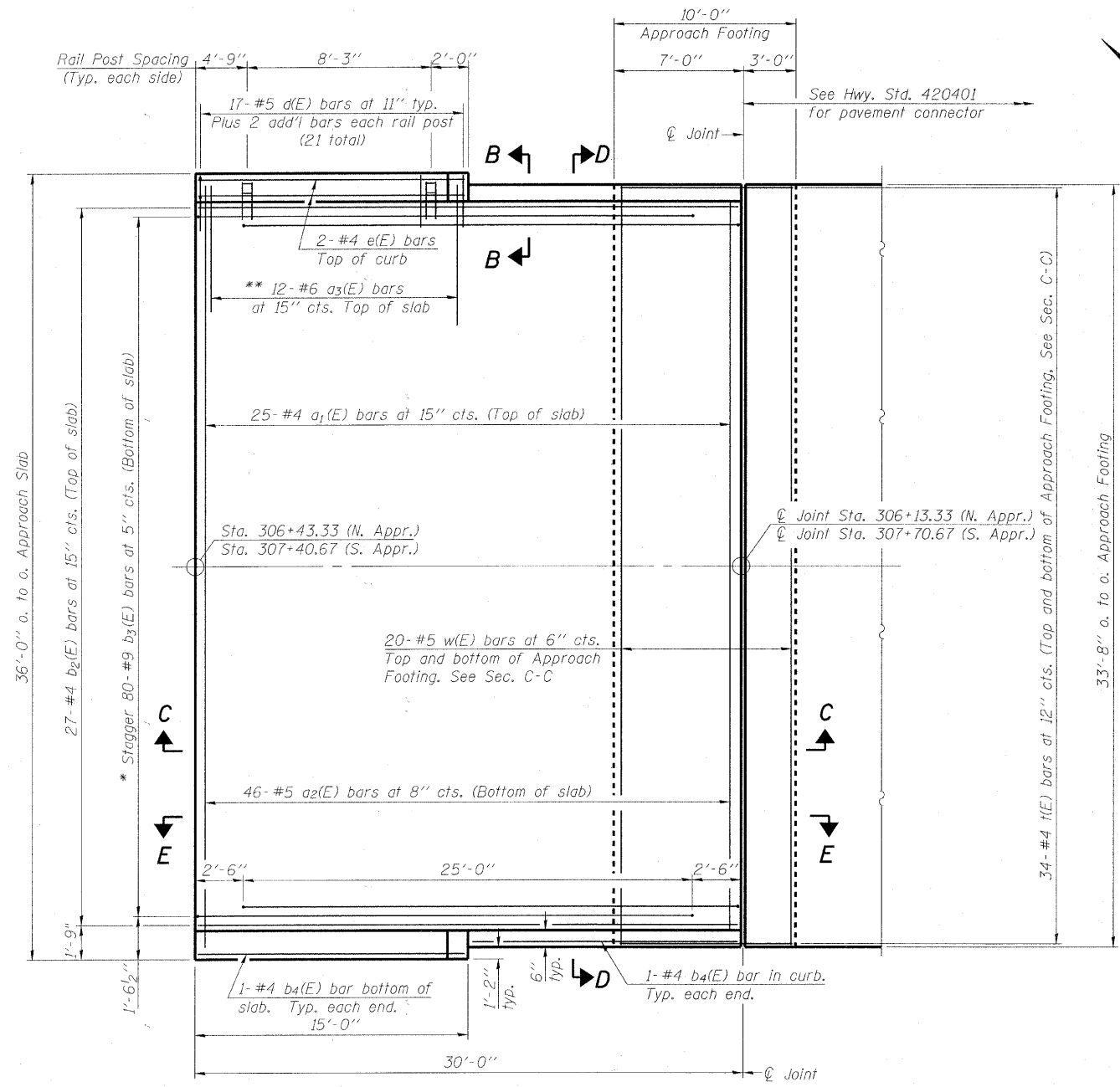
MINIMUM BAR LAP

#4 bar = 2'-7"
#5 bar = 3'-3"

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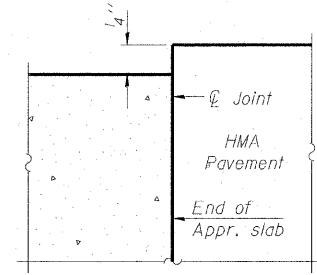
Notes:
 See sheet 8 of 19 for Sections C-C & D-D and View E-E.
 $a_1(E)$ and $a_2(E)$ bar spacings measured along C.Rdwy.
 See sheet 6 of 19 for Curb Details.
 See sheets 11 and 12 of 19 for Railing Details.
 See sheet 8 of 19 for location of Detail A.



PLAN

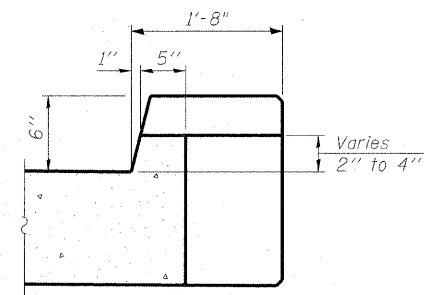
South Approach Slab shown
 North Approach Slab similar

* Tilt #9 $b_3(E)$ bars as required to maintain clearance.
 ** Space between $a_1(E)$ bars, typ. ea. curb.



FLEXIBLE PAVEMENT

DETAIL A



VIEW B-B

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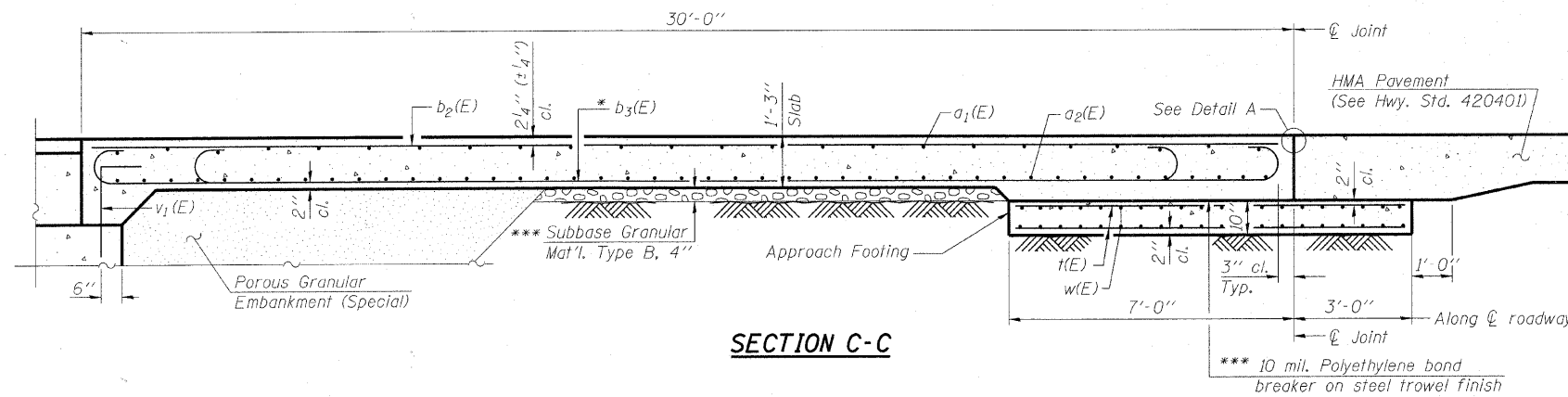
MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 056-3182

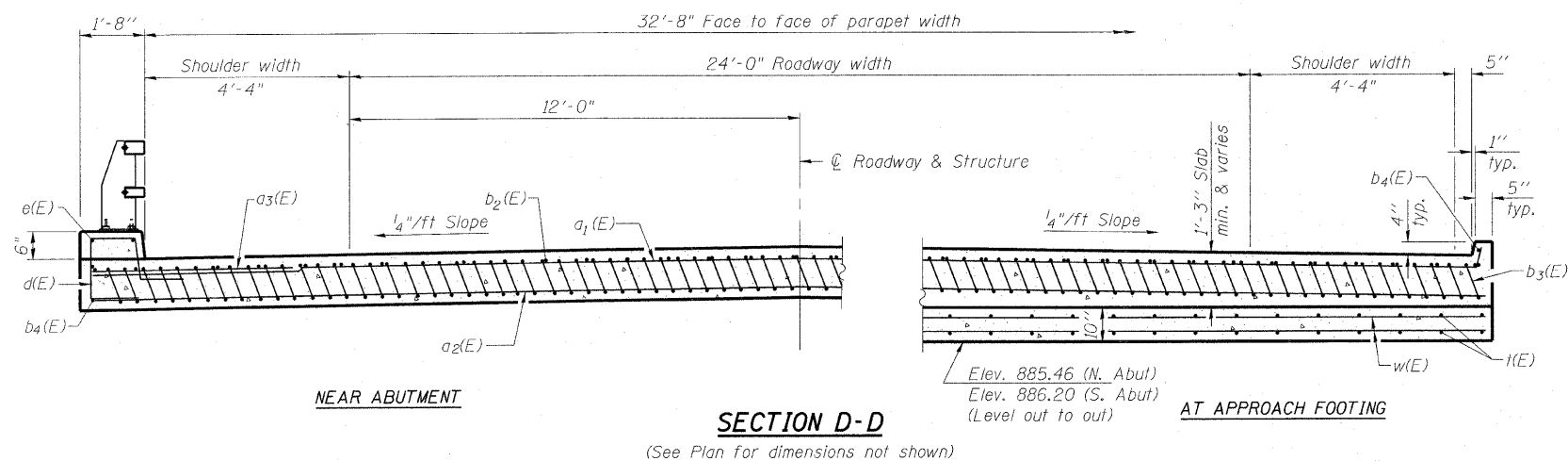
SHEET NO. 7 OF 19 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BR05-00016831				

(Sheet 1 of 2)



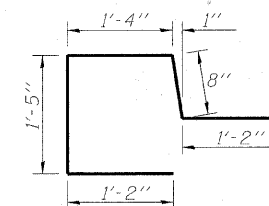
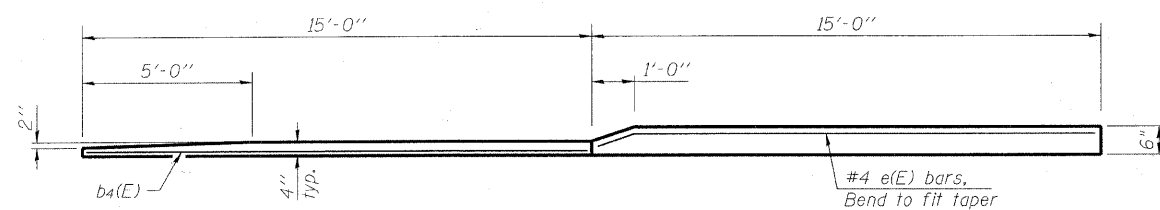
Notes:
 See sheet 7 of 19 for Detail A and View B-B.
 Approach slab and curb concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 For v₁(E) bar details, see sheet 13 of 19.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 19.
 For additional railing details, see sheets 11 and 12 of 19.



* Tilt #9 b₃(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.

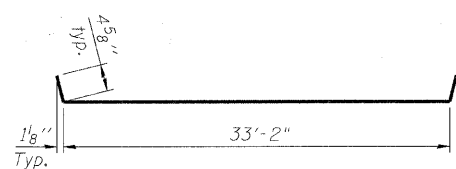
**TWO APPROACHES
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a ₁ (E)	50	#4	34'-0"	—
a ₂ (E)	92	#5	33'-4"	—
a ₃ (E)	48	#6	6'-6"	—
b ₂ (E)	54	#4	29'-8"	—
b ₃ (E)	160	#9	29'-9"	—
b ₄ (E)	8	#4	14'-8"	—
d(E)	84	#5	5'-9"	└
e(E)	8	#4	14'-8"	—
i(E)	136	#4	9'-8"	—
w(E)	80	#5	33'-4"	—
Concrete Superstructure		Cu. Yd.	108.2	
Concrete Structures		Cu. Yd.	20.8	
Reinforcement Bars, Epoxy Coated		Pound	26380	
Bridge Deck Grooving		Sq. Yd.	204	
Protective Coat		Sq. Yd.	228	

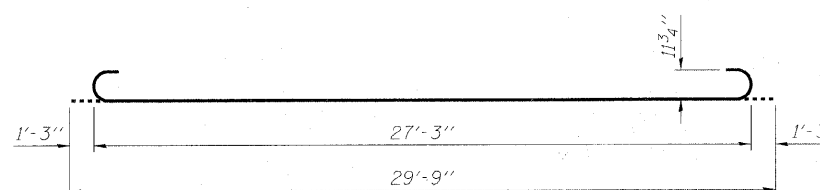


VIEW E-E

BAR d(E)



BAR a₁(E)



BAR b₃(E)

(Sheet 2 of 2)

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PLOT DATE =		CHECKED - BLB	REVISED -					FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT	BROS-0001(683)

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	306+13.33	-16.33	887.63
A1	306+23.33	-16.33	887.74
A2	306+33.33	-16.33	887.82
S. End N. Appr. Slab	306+43.33	-16.33	887.89

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	306+13.33	-12.00	887.72
A1	306+23.33	-12.00	887.83
A2	306+33.33	-12.00	887.91
S. End N. Appr. Slab	306+43.33	-12.00	887.98

Q ROADWAY & PROFILE GRADE

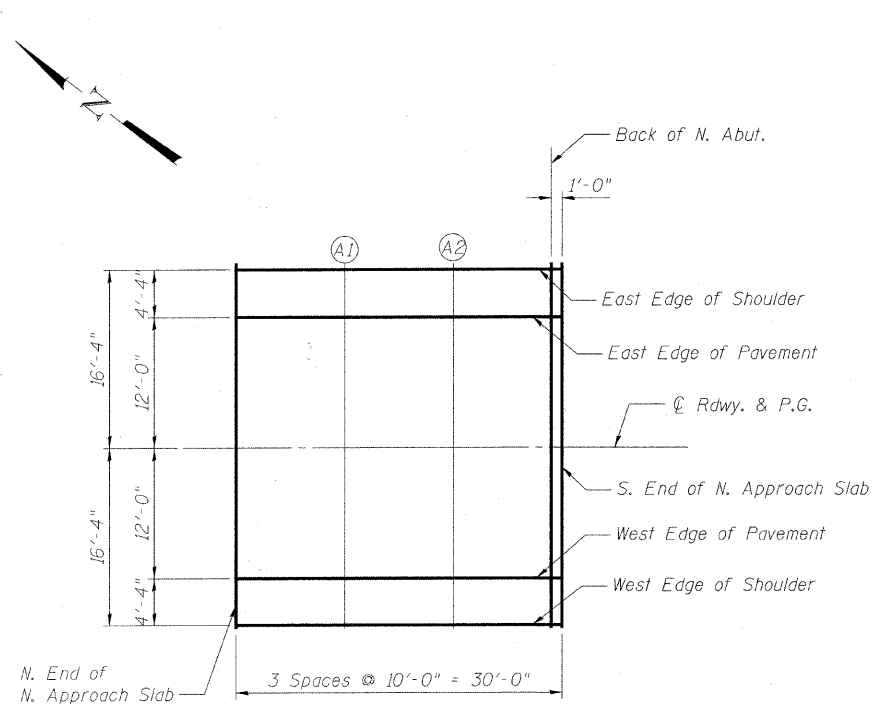
Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	306+13.33	0.00	887.97
A1	306+23.33	0.00	888.08
A2	306+33.33	0.00	888.16
S. End N. Appr. Slab	306+43.33	0.00	888.23

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	306+13.33	12.00	887.72
A1	306+23.33	12.00	887.83
A2	306+33.33	12.00	887.91
S. End N. Appr. Slab	306+43.33	12.00	887.98

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	306+13.33	16.33	887.63
A1	306+23.33	16.33	887.74
A2	306+33.33	16.33	887.82
S. End N. Appr. Slab	306+43.33	16.33	887.89



PLAN
North Approach

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MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 056-3182

SHEET NO. 9 OF 19 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	32
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-0001(683)				

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	307+40.67	-16.33	888.37
A3	307+50.67	-16.33	888.41
A4	307+60.67	-16.33	888.41
S. End S. Appr. Slab	307+70.67	-16.33	888.31

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	307+40.67	-12.00	888.46
A3	307+50.67	-12.00	888.50
A4	307+60.67	-12.00	888.50
S. End S. Appr. Slab	307+70.67	-12.00	888.41

☉ ROADWAY & PROFILE GRADE

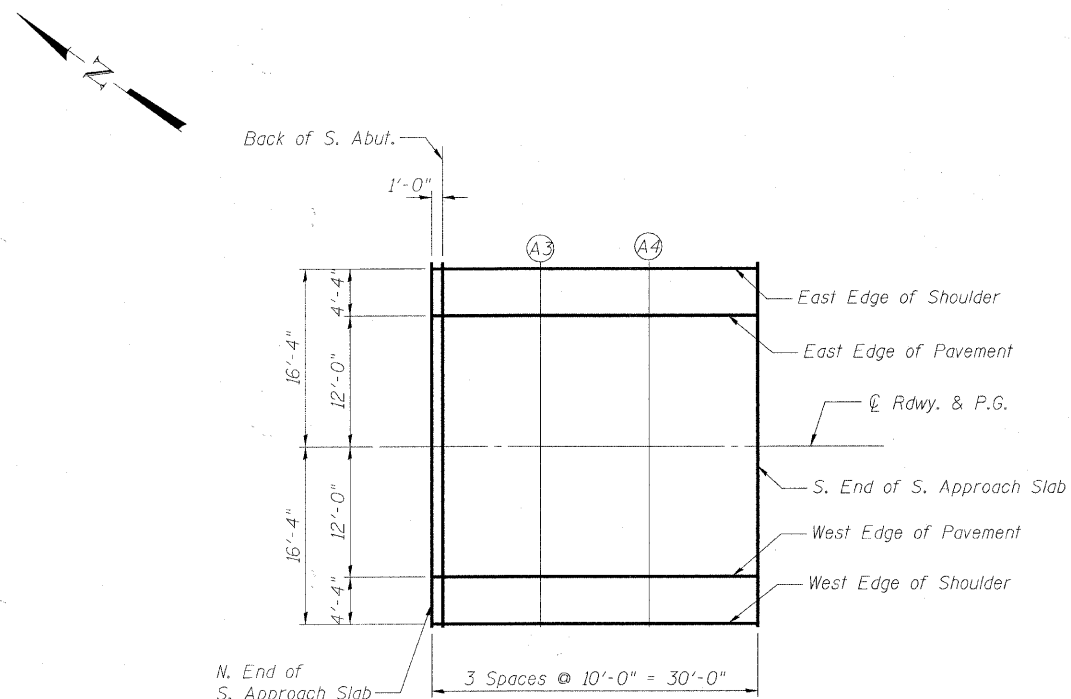
Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	307+40.67	0.00	888.71
A3	307+50.67	0.00	888.75
A4	307+60.67	0.00	888.75
S. End S. Appr. Slab	307+70.67	0.00	888.71

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	307+40.67	12.00	888.46
A3	307+50.67	12.00	888.54
A4	307+60.67	12.00	888.58
S. End S. Appr. Slab	307+70.67	12.00	888.58

WEST EDGE OF SHOULDER

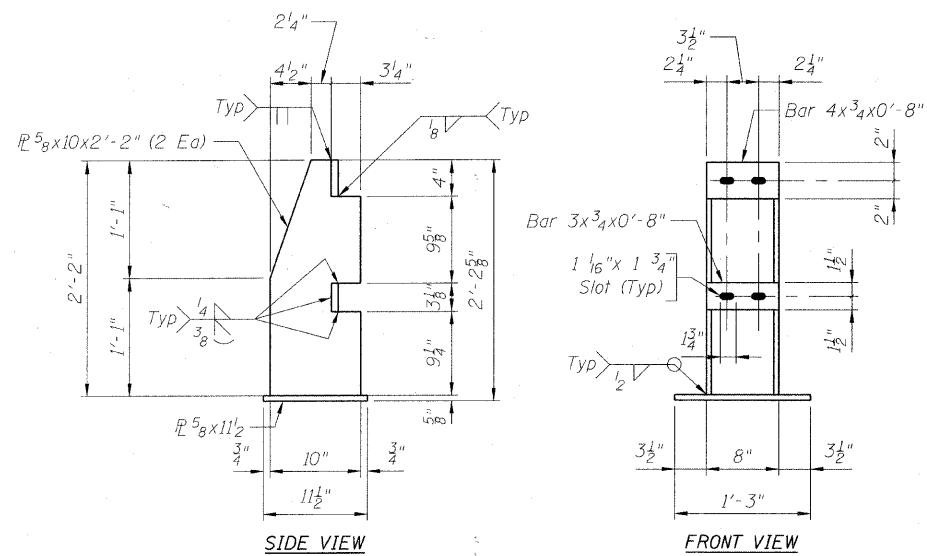
Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	307+40.67	16.33	888.37
A3	307+50.67	16.33	888.47
A4	307+60.67	16.33	888.52
S. End S. Appr. Slab	307+70.67	16.33	888.53



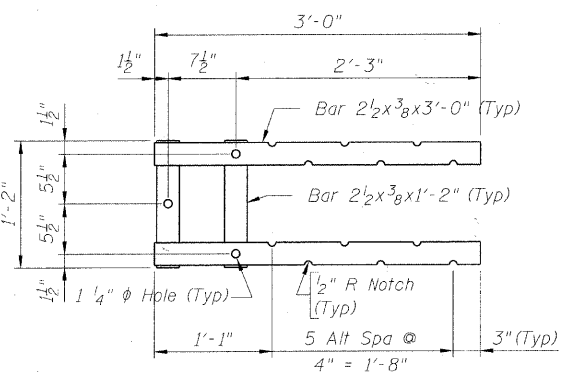
PLAN
South Approach

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 3/27/2008 3:29:47 PM

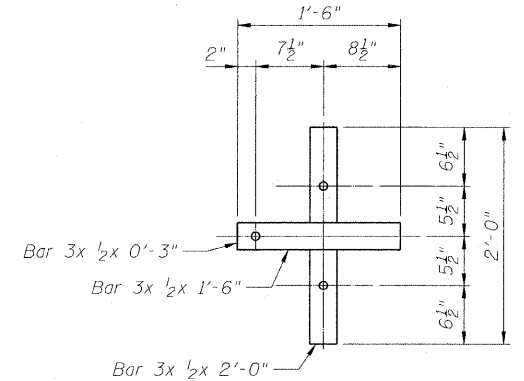
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		CHECKED - BAB	REVISED -		0037	06-00322-00-BR	MCHENRY	54	33		
PLOT SCALE =		DRAWN - BCD	REVISED -		C-91-358-06		CONTRACT NO. 63569				
PLOT DATE =		CHECKED - BLB	REVISED -		SHEET NO. 10 OF 19 SHEETS		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BR05-0001(683)				



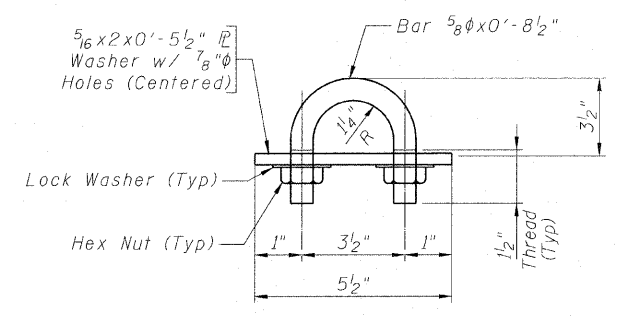
POST DETAILS
(See View A-A for anchor bolt hole spacing)



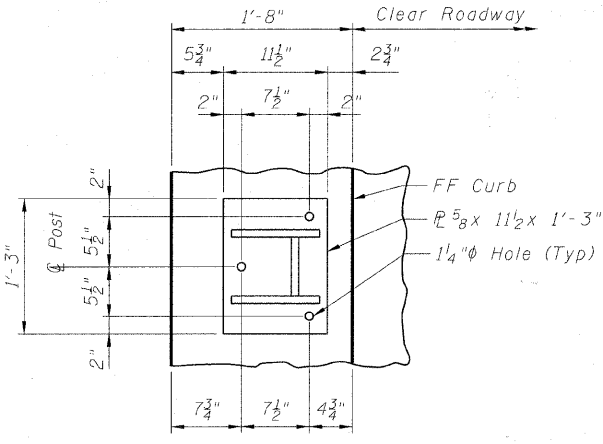
SECTION B-B
(Showing upper anchorage)
(Anchor Bolts and slab not shown)



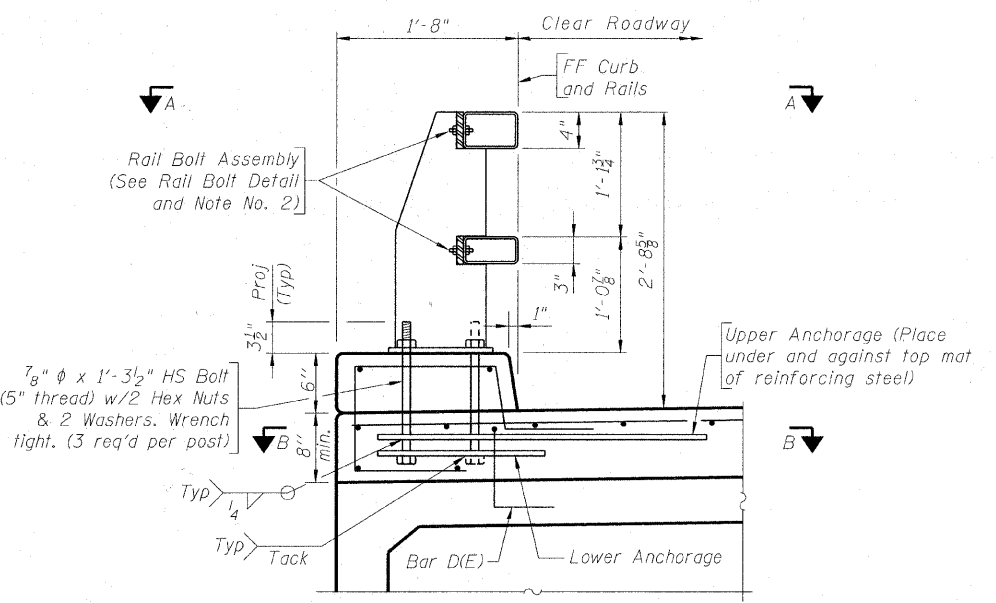
SECTION B-B
(Showing lower anchorage)
(Anchor Bolts and slab not shown)



RAIL BOLT DETAIL



VIEW A-A
(anchor bolts, rails and rail bolts not shown)



ASSEMBLY DETAIL
(Shown near C Post)
(Bridge slab shown, approach slab similar)

- Note:
- 1) Anchor bolts may be tack welded to lower anchorage (Shop or field).
 - 2) At post locations, drill two 1 1/8" ϕ holes in the rails to receive rails bolts (Shop or field). See Post Details for hole spacing.
 - 3) Before installing rails, paint all cut, drilled or otherwise damaged surface areas of the railing components with two coats of zinc rich paint conforming to the requirements of ASTM A 780.
 - 4) After installing the rails, paint all exposed bolt threads with two coats of zinc rich paint conforming to the requirements of ASTM A 780.
 - 5) Steel components shall be galvanized according to AASHTO M111, unless noted otherwise.
 - 6) Shim Plates shall be provided in accordance with Article 509.05(a) of the Standard Specifications.

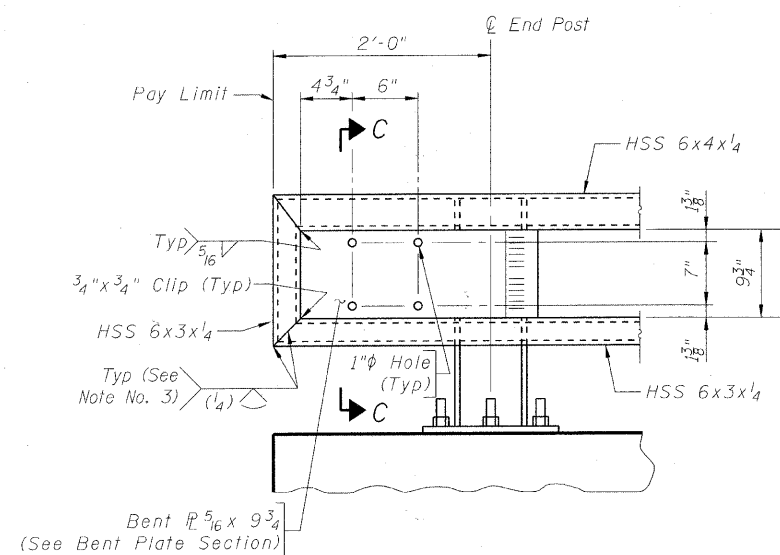
BILL OF MATERIAL

Item	Unit	Total
Steel Railing (Special)	Foot	255

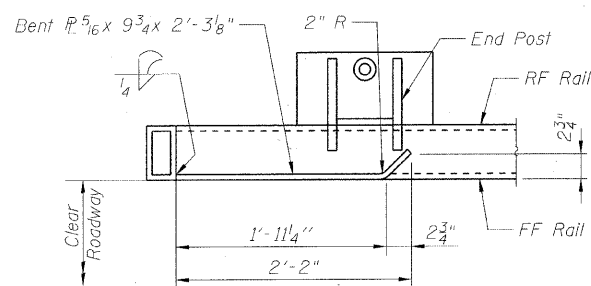
(Sheet 1 of 2)

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 LICENSE NO. 184-00193 - EXPRESS EXPIRES 4/30/2011
 15-McHenry County, MO, USA 64501-2124 - Graf Road Bridge
 2/17/2011

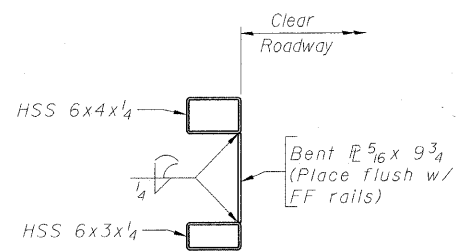
FILE NAME =	USER NAME =	DESIGNED - BLB	REVISED - PER MCDOT 12/31/10	MCHENRY COUNTY DIVISION OF TRANSPORTATION GRAF ROAD BRIDGE OVER LAWRENCE CREEK	WYOMING 2-TUBE BRIDGE RAILING DETAILS STRUCTURE NO. 056-3182	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - BAB	REVISED -			0037	06-00322-00-BR	MCHENRY	54	34
		DRAWN - BCD	REVISED -				C-91-358-06			CONTRACT NO. 63569
		CHECKED - BLB	REVISED -							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BR05-001(683)



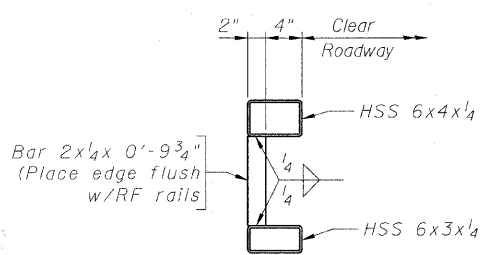
ELEVATION AT TRAFFIC BARRIER TERMINAL (SPECIAL) (DEPARTURE ENDS)



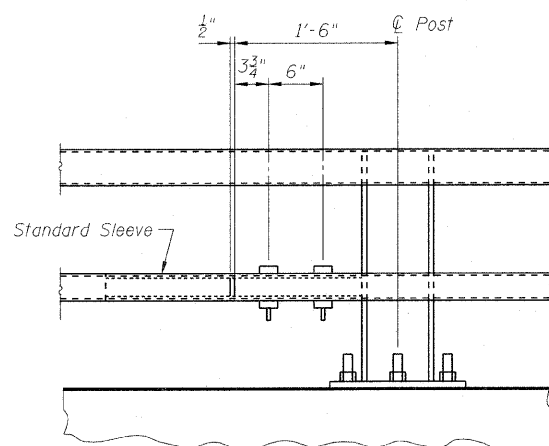
BENT PLATE SECTION (Top rail not shown)



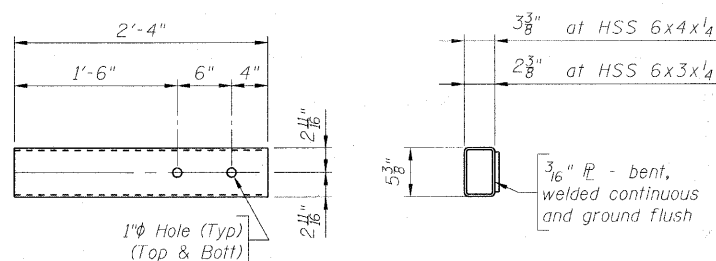
SECTION C-C



BRACE BAR DETAIL (See Note No. 4)

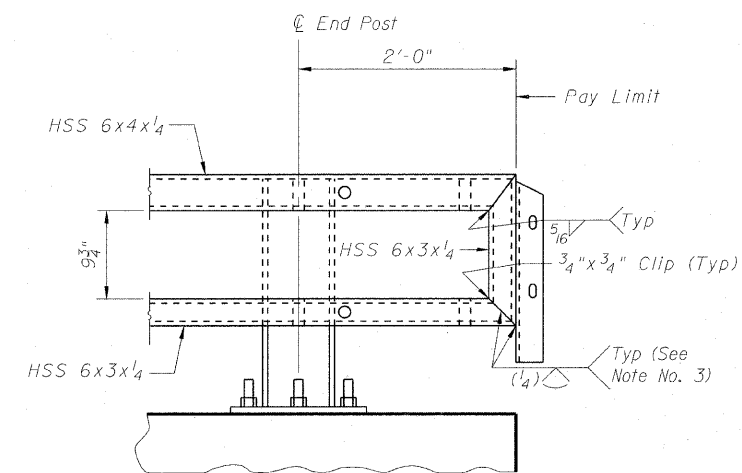


STANDARD SPLICE (Top or bottom rail)

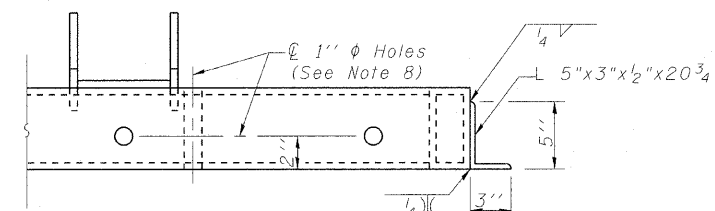


TOP VIEW END VIEW

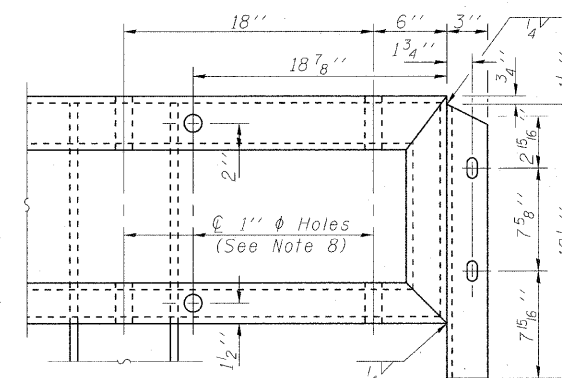
STANDARD SLEEVE DETAILS



ELEVATION AT TERMINAL TYPE 6A (SPECIAL) (APPROACH ENDS)



TOP VIEW



FRONT VIEW

END CONNECTION ANGLES (APPROACH ENDS ONLY)

NOTES

- 1) Either top or bottom rail in terminal section may be the longer rail.
- 2) Ensure each rail length is continuous over a minimum of two posts. Railing that is part of a Traffic Barrier Terminal is continuous if either the top or bottom rail in the terminal is continuous over a minimum of two posts.
- 3) Ensure the fabricator prepares a sample of the indicated joint and it is macroetched to demonstrate that the required effective throat is achieved.
- 4) Ensure a Brace Bar is placed 2'-0" from the splice end of the shorter tube at Traffic Barrier Terminals.
- 5) Splices may be located on either side of post.
- 6) Not more than one splice is permitted per side of post.
- 7) Do not shop splice rails.
- 8) Holes in steel railing may be field drilled for connection to Traffic Barrier Terminals. Any galvanized steel exposed or damaged by drilling operation shall be painted with two coats of a zinc-rich paint conforming to ASTM A 780.

(Sheet 2 of 2)

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FILE NAME =	USER NAME =	DESIGNED - BLB	REVISED - PER MCDOT 12/31/10
		CHECKED - BAB	REVISED -
		DRAWN - BCD	REVISED -
		CHECKED - BLB	REVISED -

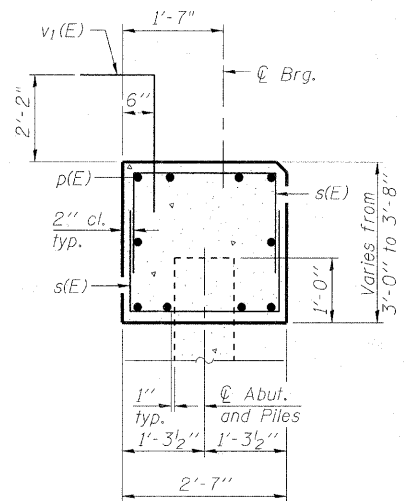
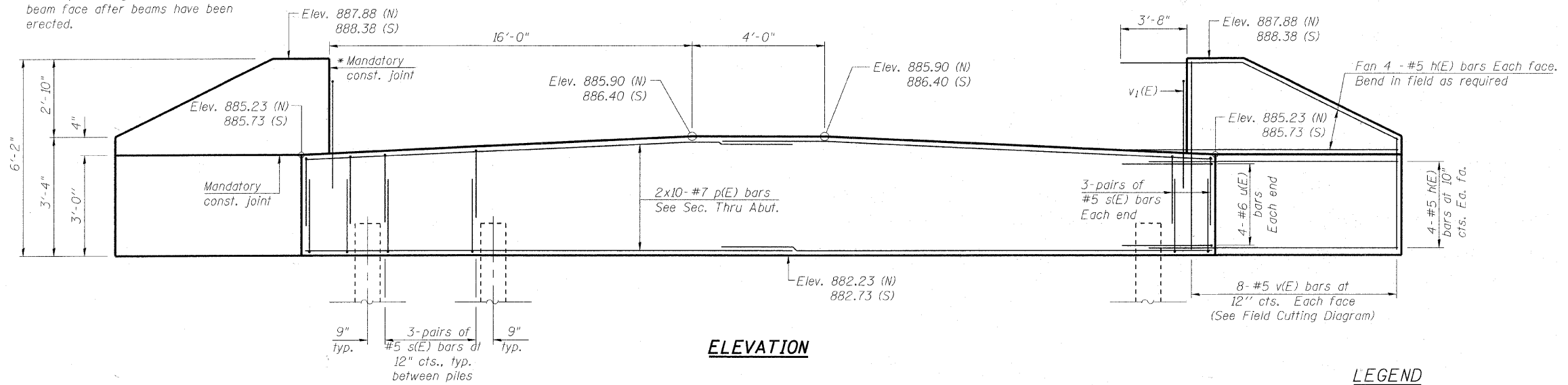
**MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK**

**WYOMING 2-TUBE BRIDGE RAILING DETAILS
STRUCTURE NO. 056-3182**

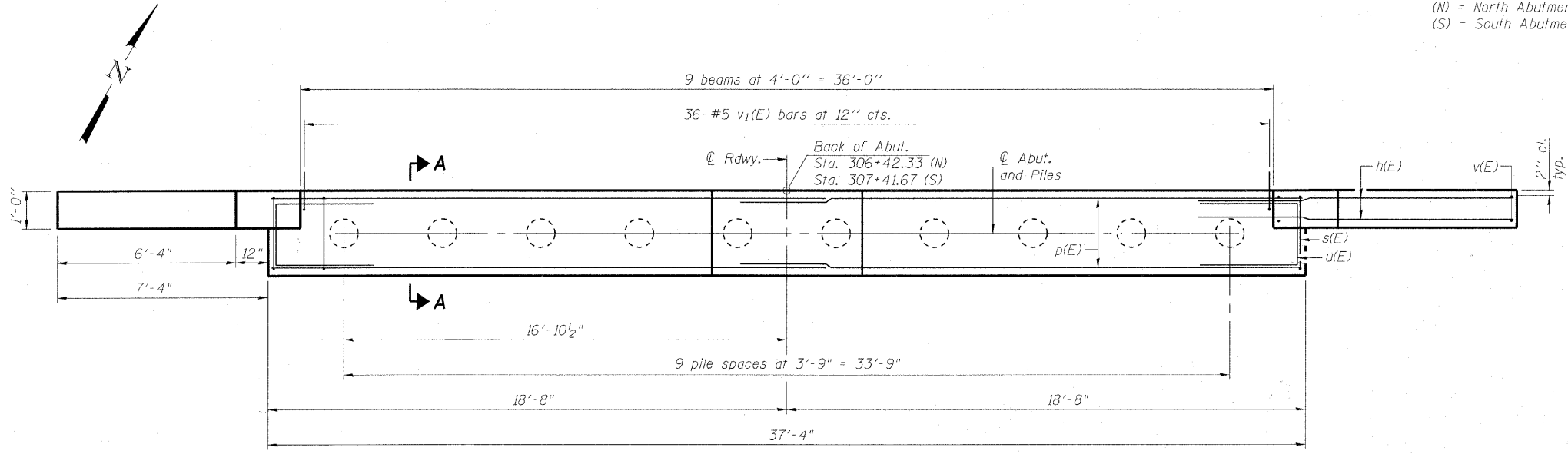
SHEET NO. 12 OF 19 SHEETS

TR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	35
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT	BROS-00116831	

* Cast top of wingwall flush with exterior beam face after beams have been erected.



LEGEND
 (N) = North Abutment
 (S) = South Abutment



PILE DATA

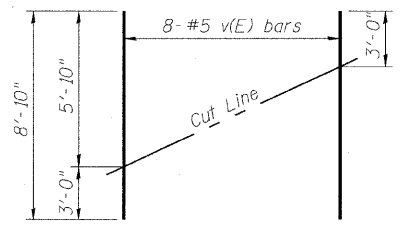
NORTH ABUTMENT

Type: 14" ϕ Metal Shells w/ 0.312" walls with Pile Shoes
 Nominal Required Bearing: 300 kips
 Factored Resistance Available: 150 kips
 Est. Length: 20'
 No. Production Piles: 9
 No. Test Piles: 1

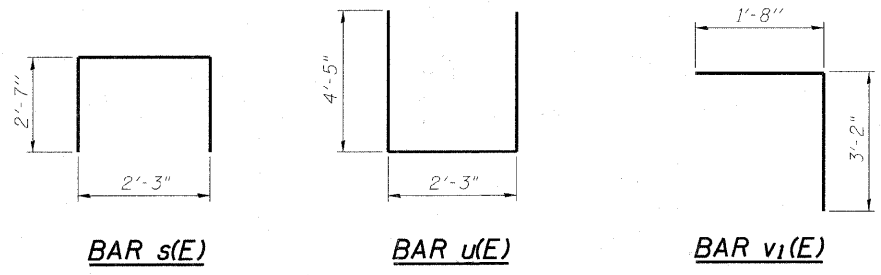
SOUTH ABUTMENT

Type: 14" ϕ Metal Shells w/ 0.312" walls with Pile Shoes
 Nominal Required Bearing: 300 kips
 Factored Resistance Available: 150 kips
 Est. Length: 25'
 No. Production Piles: 9
 No. Test Piles: 1

NOTE:
 Contractor shall drive a total of two (2) Test Piles in a permanent location, one at each abutment as directed by the Engineer, before ordering the remainder of piles.



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



BILL OF MATERIAL TWO ABUTMENTS

Bar	No.	Size	Length	Shape
h(E)	64	#5	10'-8"	—
p(E)	40	#7	21'-5"	—
s(E)	132	#5	7'-5"	□
u(E)	16	#6	11'-1"	□
v(E)	32	#5	8'-10"	—
v ₁ (E)	72	#5	4'-10"	┌
Structure Excavation		Cu. Yd.	154	
Concrete Structures		Cu. Yd.	27.9	
Reinforcement Bars, Epoxy Coated		Pound	4410	
Furnishing Metal Shell Piles, 14" x 0.312"		Foot	405	
Driving Piles		Foot	405	
Test Pile, Metal Shell		Each	2	
Pile Shoes		Each	20	

For details of piles see sheet 15 of 19.

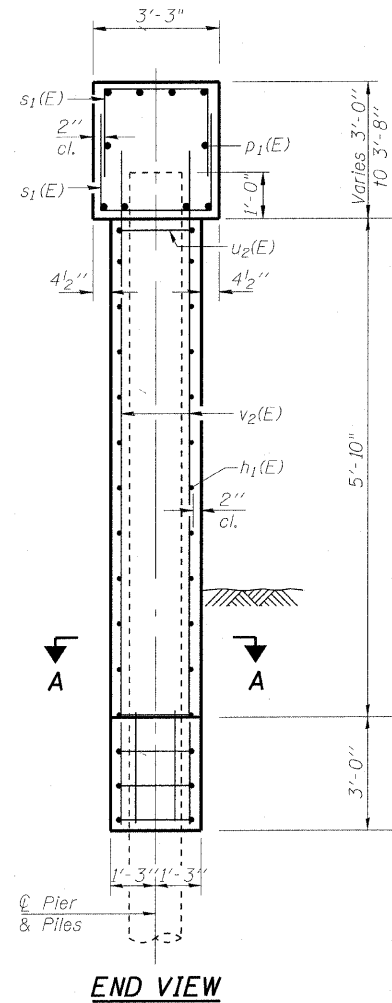
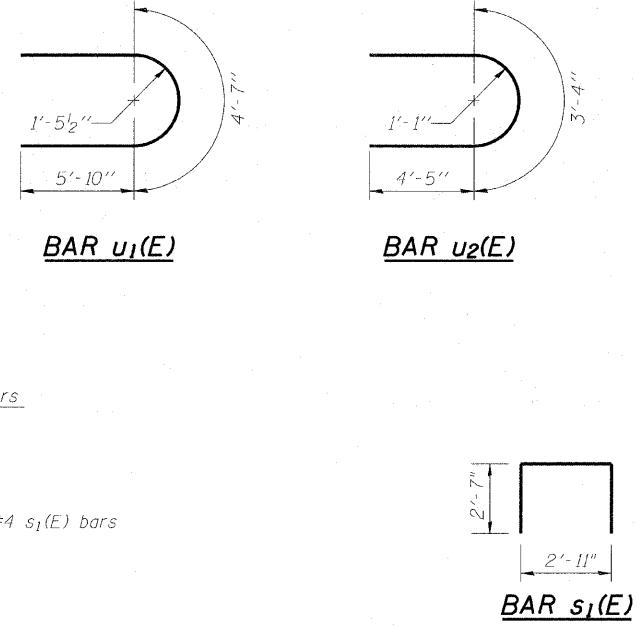
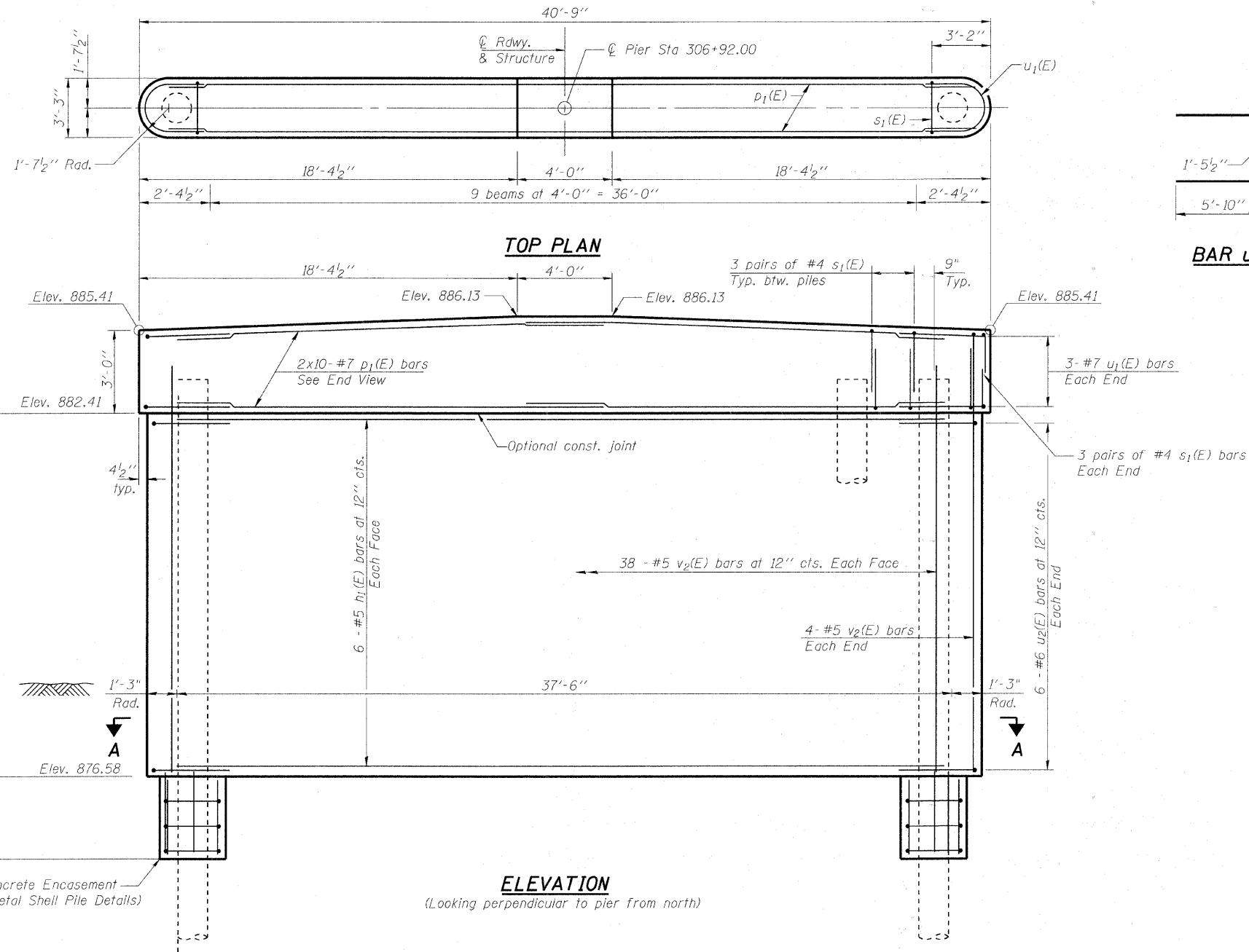
Lap Length for #7 Bars = 5'-10"

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 2/7/2010

FILE NAME =	USER NAME =	DESIGNED - BLB	REVISED - PER MCDOT 12/31/10	MCHENRY COUNTY DIVISION OF TRANSPORTATION GRAF ROAD BRIDGE OVER LAWRENCE CREEK	ABUTMENTS STRUCTURE NO. 056-3182	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - BAB	REVISED -			0037	06-00322-00-BR	MCHENRY	54	36
		DRAWN - BCD	REVISED -				C-91-358-06			CONTRACT NO. 63569
		CHECKED - BLB	REVISED -					FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT	BROS-0001(683)

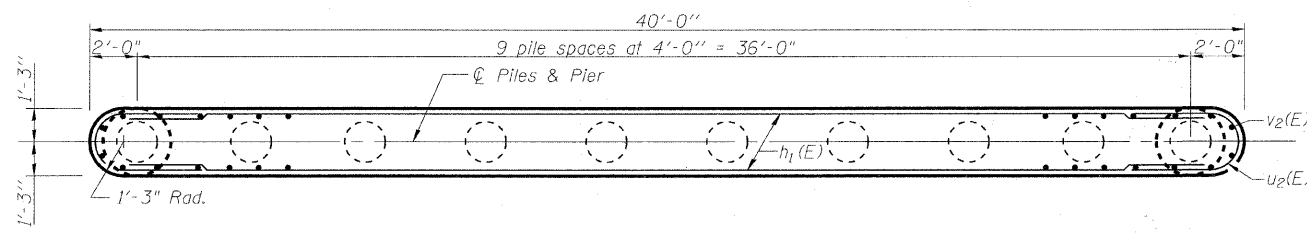
Notes:

Space reinforcement in cap to miss anchor bolts.
 For details of piles, see sheet 15 of 19.
 If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater 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.
 Lap Length for #7 bars = 5'-10"



PILE DATA

Type: 14" ϕ Metal Shell w/ 0.312" walls with Pile Shoes
 Nominal Required Bearing: 360 Kips
 Factored Resistance Available: 180 Kips
 Est. Length: 31'
 No. Production Piles: 10
 No. Test Piles: 0



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_1(E)$	12	#5	37'-6"	—
$p_1(E)$	20	#7	21'-8"	—
$s_1(E)$	66	#4	8'-1"	┌
$u_1(E)$	6	#7	16'-3"	U
$u_2(E)$	12	#6	12'-2"	U
$v_2(E)$	84	#5	7'-2"	—
Structure Excavation			Cu. Yd.	18
Concrete Structures			Cu. Yd.	36.8
Reinforcement Bars, Epoxy Coated			Pound	2760
Furnishing Metal Shell Piles 14" x 0.312"			Foot	310
Driving Piles			Foot	310
Underwater Structure Excavation Protection, Location 1			Each	1
Concrete Encasement			Cu. Yd.	5.5
Pile Shoes			Each	10

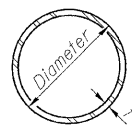
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 No. 44-45-100-2224-04
 LICENSE NO. 184-00121-EXPIRES 7/30/2011
 2/27/2011

FILE NAME =	USER NAME =	DESIGNED - BLB	REVISED - PER MCDOT 12/31/10
		CHECKED - BAB	REVISED -
		DRAWN - BCD	REVISED -
		CHECKED - BLB	REVISED -

MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

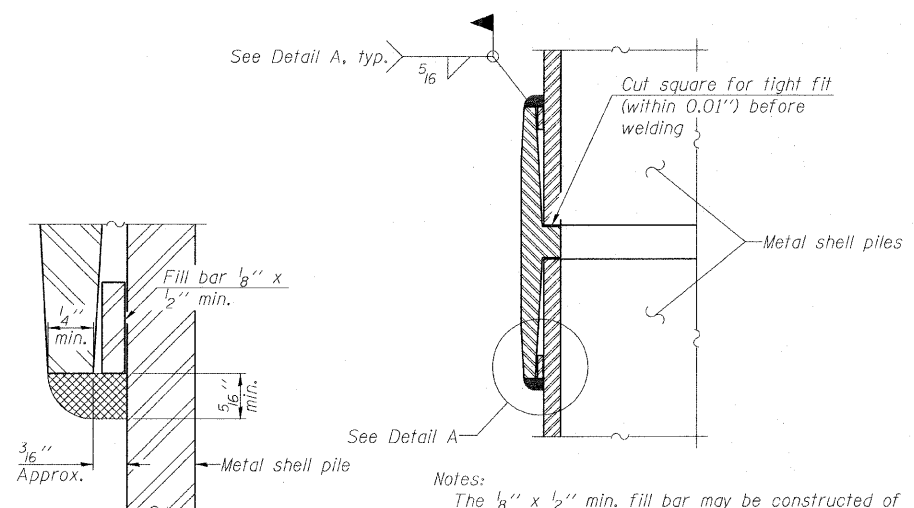
PIER
STRUCTURE NO. 056-3182
 SHEET NO. 14 OF 19 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	37
	C-91-358-06		CONTRACT NO.	63569
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	BROS-0001(683)



METAL SHELL PILE TABLE

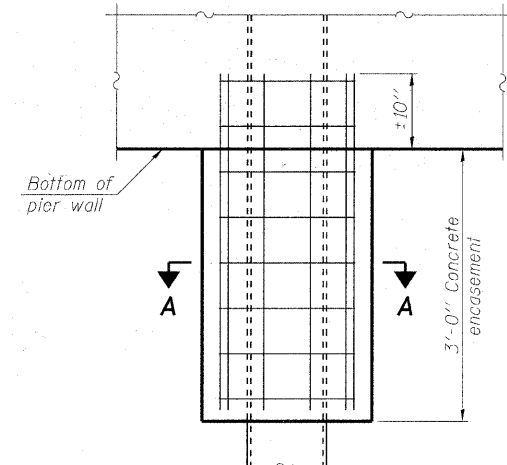
Designation and outside diameter	Wall thickness t	Weight per Foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



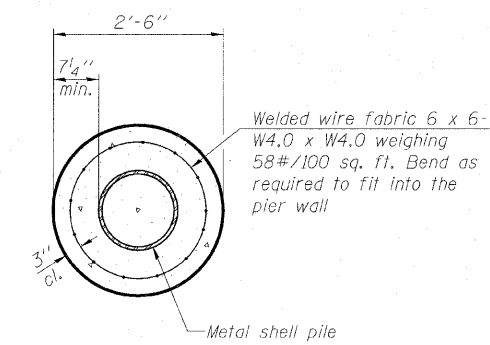
DETAIL A

WELDED COMMERCIAL SPLICE

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.



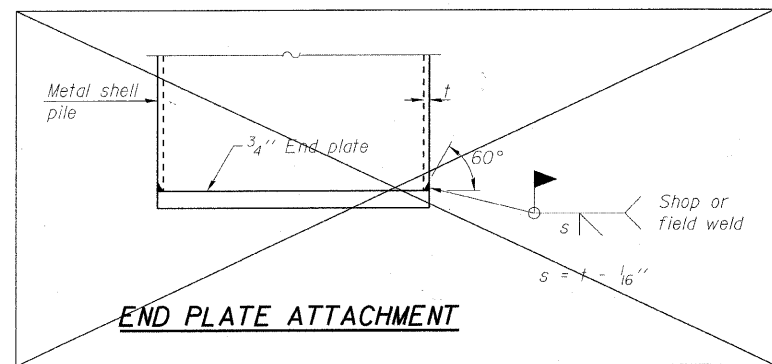
ELEVATION



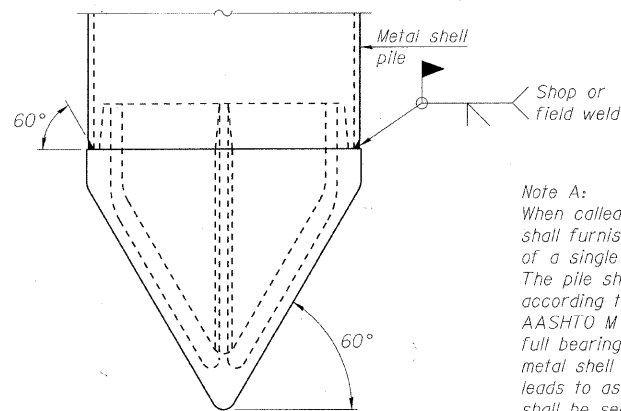
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS



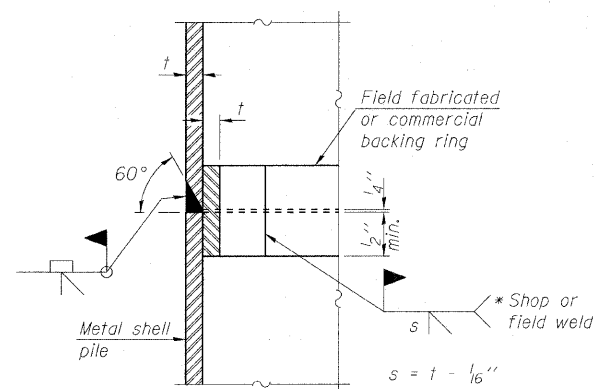
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

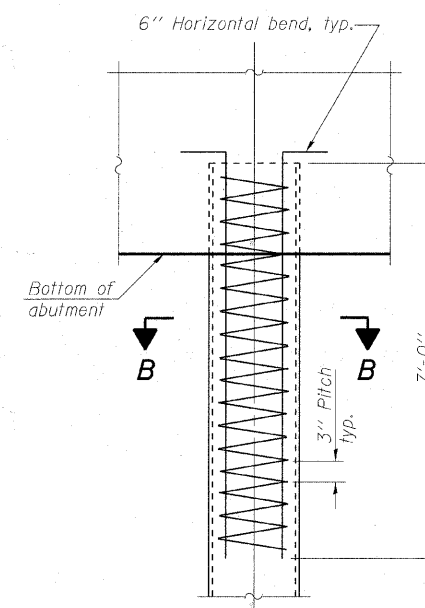
(See Note A)

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.

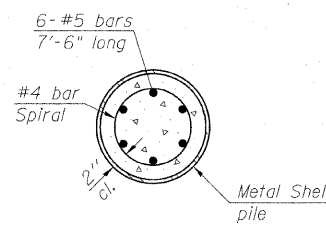


COMPLETE PENETRATION WELD SPLICE

* 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.



ELEVATION



SECTION B-B

Welded Wire Fabric shall be included with the cost of Concrete Encasement.

Metal Shell reinforcement at abutments shall be included with the cost of Furnishing Metal Shell Piles.

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

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FILE NAME =	USER NAME =	DESIGNED - BLB	REVISED - PER MCDOT 12/31/10	MCHENRY COUNTY DIVISION OF TRANSPORTATION GRAF ROAD BRIDGE OVER LAWRENCE CREEK	METAL SHELL PILE DETAILS STRUCTURE NO. 056-3182	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - BAB	REVISED -			0037	06-00322-00-BR	MCHENRY	54	38	
		DRAWN - BCD	REVISED -				C-91-358-06				CONTRACT NO. 63569
		CHECKED - BLB	REVISED -					FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT		BROS-0001(683)



File No. 19460 BORING LOG 1

Client Baxter & Woodman, Inc. Sheet 1 of 4

Comments Project Graf Rd. over Lawrence Creek Date 9/10/08

Structural #056-3111

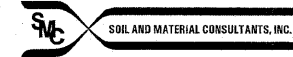
Location McHenry County, IL Drilled By AC

Equipment CME 45B H.A. Other Logged By DA

Elev., ft.	Description	Depth, ft.	0	S	T	R	B	N	Pen.	W	Uw	Qu
	Bituminous concrete - 5.0"											
	Base - brown sand & gravel, damp, medium dense						7					
							6					
883.3'			1	SS	13"	5	11			3.1		
	Dark brown-brown sand & gravel, trace silt & concrete, damp, dense						7					
	Fill						28					
880.8'			5	2	SS	9"	12	40		7.2		
	Black-gray clay & silt, trace sand & gravel, damp, medium dense						4					
							4					
878.3'			3	SS	12"	7	11			18.4		
	Gray fine-medium sand, some coarse sand & gravel, very damp-saturated medium dense to dense						9					
							10					
			10	4	SS	18"	12	22		10.1		
							16					
							18					
			5	SS	18"	18	36			5.0		
872.8'							10					
	Gray fine-medium sand, some coarse sand & gravel, very damp-saturated medium dense						14					
							13					
870.8'			6	SS	16"	13	27			7.2		
	Gray fine sand, trace medium-coarse sand, very damp-saturated, medium dense						6					
							7					
			7	SS	15"	8	15			17.4		
							7					
							6					
			8	SS	18"	6	12			9.4		

Water Level - depth, ft. elev., ft. while drilling: 8.0 after drilling: hrs. after drilling: S - sample T - type: J(Jar), SS(spl-spoon), ST(splby tube) R - recovery length, in. B - Standard Penetration Test (SPT), blows/6" interval. W - water content, %. N - SPT, blows/foot to drive 2" O.D. spl-spoon sampler with 140 lb. hammer falling 30". Pen. - pocket penetrometer reading, tons/sq. ft. Uw - dry unit weight of soil, lbs/cu.ft. Qu - unconfined compressive strength, tons/sq. ft.

F-111b



File No. 19460 BORING LOG 1

Client Baxter & Woodman, Inc. Sheet 2 of 4

Comments Project Graf Rd. over Lawrence Creek Date 9/10/08

Structural #056-3111

Location McHenry County, IL Drilled By AC

Equipment CME 45B H.A. Other Logged By DA

Elev., ft.	Description	Depth, ft.	20	S	T	R	B	N	Pen.	W	Uw	Qu
	Gray fine-medium sand, some coarse sand & gravel, very damp-saturated medium dense to very dense						7					
							8					
			9	SS	18"	10	18			7.5		
							7					
							10					
			26	10	SS	18"	12	22		8.6		
							8					
							12					
			11	SS	18"	14	26			13.5		
							9					
							19					
			30	12	SS	18"	21	40		8.1		
							11					
							14					
			13	SS	18"	22	36			8.3		
							9					
							15					
			35	14	SS	18"	22	37		5.5		
							13					
							22					
			15	SS	18"	32	54			11.2		
847.8'							13					
	Gray fine-medium sand, some coarse sand & gravel, very damp-saturated dense						17					
							17					
			40	16	SS	18"	22	39		8.7		

Water Level - depth, ft. elev., ft. while drilling: after drilling: hrs. after drilling: S - sample T - type: J(Jar), SS(spl-spoon), ST(splby tube) R - recovery length, in. B - Standard Penetration Test (SPT), blows/6" interval. W - water content, %. N - SPT, blows/foot to drive 2" O.D. spl-spoon sampler with 140 lb. hammer falling 30". Pen. - pocket penetrometer reading, tons/sq. ft. Uw - dry unit weight of soil, lbs/cu.ft. Qu - unconfined compressive strength, tons/sq. ft.

F-111b

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FILE NAME =	USER NAME =	DESIGNED - BLB	REVISED - PER MCDOT 12/31/10
		CHECKED - BAB	REVISED -
		DRAWN - BCD	REVISED -
		CHECKED - BLB	REVISED -

MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

SOIL BORINGS
STRUCTURE NO. 056-3182
 SHEET NO. 16 OF 19 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	39
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BR05-0001(683)				



File No. 19460 **BORING LOG 1**
 Client Baxter & Woodman, Inc. Sheet 3 of 4
 Project Graf Rd. over Lawrence Creek Date 9/10/08
 Structural #056-3111
 Location McHenry County, IL Drilled By AC
 Equipment CME 45B H.A. Other Logged By DA

Elev., ft.	Description	Depth, ft.	40	S	T	R	B	N	Pen.	W	Uw	Qu
	Gray fine-medium sand, some coarse sand & gravel, very damp-saturated dense						16 20					
		17	SS	18"		27	47		8.5			
842.8'							14 21					
	Gray silt, some clay, trace sand & gravel, damp, dense	46	SS	18"		25	46		7.6			
							12 14					
838.3'		19	SS	18"		18	32		7.0			
	Gray clay & silt, trace sand & gravel, damp, hard						9 11					
		50	SS	18"		15	26	4.5+	7.4	148.5	7.7	
833.8'							6 7					
	Gray clay & silt, trace sand & gravel, damp, very tough	55	SS	18"		8	15	2.25	9.0	139.0	2.0	
							6 10					
826.3'		60	SS	18"		11	21	2.5	8.7	139.7	2.0	

Water Level — depth, ft. elev., ft.
 - while drilling: _____
 - after drilling: _____
 - hrs. after drilling: _____

S - sample T - type: J (jar), SS (split-spoon), ST (shell by tube) R - recovery length, in.
 B - Standard Penetration Test (SPT), blows/6" interval. W - water content, %
 N - SPT, blows/foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
 Pen. - pocket penetrometer reading, tons/sq. ft. Uw - dry unit weight of soil, lbs./cu. ft.
 Qu - unconfined compressive strength, tons/eq. ft.

F-111b



File No. 19460 **BORING LOG 1**
 Client Baxter & Woodman, Inc. Sheet 4 of 4
 Project Graf Rd. over Lawrence Creek Date 9/10/08
 Structural #056-3111
 Location McHenry County, IL Drilled By AC
 Equipment CME 45B H.A. Other Logged By DA

Elev., ft.	Description	Depth, ft.	60	S	T	R	B	N	Pen.	W	Uw	Qu
	Gray clay & silt, trace sand & gravel, damp, hard						14 16					
		65	SS	16"		22	38	4.5+	7.4	153.4	5.9	
							16 18					
		70	SS	18"		23	41	4.5+	7.7	143.7	5.5	
							10 13					
		75	SS	18"		20	33	4.5+	9.1	138.4	6.8	
							13 17					
806.3'		80	SS	18"		25	42		8.9	148.9	5.7	

Water Level — depth, ft. elev., ft.
 - while drilling: _____
 - after drilling: _____
 - hrs. after drilling: _____

S - sample T - type: J (jar), SS (split-spoon), ST (shell by tube) R - recovery length, in.
 B - Standard Penetration Test (SPT), blows/6" interval. W - water content, %
 N - SPT, blows/foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
 Pen. - pocket penetrometer reading, tons/sq. ft. Uw - dry unit weight of soil, lbs./cu. ft.
 Qu - unconfined compressive strength, tons/eq. ft.

F-111b

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 277/2011 3248/PN

FILE NAME =	USER NAME =	DESIGNED - BLB	REVISED - PER MCDOT 12/31/10	MCHENRY COUNTY DIVISION OF TRANSPORTATION GRAF ROAD BRIDGE OVER LAWRENCE CREEK	SOIL BORINGS STRUCTURE NO. 056-3182	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - BAB	REVISED -			0037	06-00322-00-BR	MCHENRY	54	40
		DRAWN - BCD	REVISED -			C-91-358-06		CONTRACT NO. 63569		
		CHECKED - BLB	REVISED -			SHEET NO. 17 OF 19 SHEETS		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		BROS-00016831



File No. 19460 BORING LOG 2

Client Baxter & Woodman, Inc. Sheet 1 of 4

Comments _____ Project Graf Rd. over Lawrence Creek Date 9/10/08

Location McHenry County, IL Drilled By AC

Equipment CME 45B H.A. Other Logged By DA

Elev., ft.	Description	Depth, ft.	0	S	T	R	B	N	Pen.	W	Uw	Qu
	885.5'											
	883.0'	1	SS	15"		4	14		2.9			
	879.5'	5	2	SS	14"	3	5		33.1			
	878.0'	3	SS	10"		6	10		10.5			
		10	4	SS	18"	7	17		8.1			
		5	SS	15"		9	16		8.5			
		15	6	SS	14"	11	23		6.2			
		7	SS	12"		9	17		7.8			
		20	8	SS	15"	8	14		7.5			

Water Level — depth, ft. elev., ft.
 - while drilling: 8.0
 - after drilling: 16.0
 hrs. after drilling: _____

S - sample T - type: J(Jar), SS(split-spoon), ST(shell by tube) R - recovery length, in.
 B - Standard Penetration Test (SPT), blows/6" interval. W - water content, %
 N - SPT, blows/foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
 Pen. - pocket penetrometer reading, tons/sq. ft. Uw - dry unit weight of soil, lbs./cu. ft.
 Qu - unconfined compressive strength, tons/sq. ft.

F-111b



File No. 19460 BORING LOG 2

Client Baxter & Woodman, Inc. Sheet 2 of 4

Comments _____ Project Graf Rd. over Lawrence Creek Date 9/10/08

Location McHenry County, IL Drilled By AC

Equipment CME 45B H.A. Other Logged By DA

Elev., ft.	Description	Depth, ft.	20	S	T	R	B	N	Pen.	W	Uw	Qu
	859.0'	9	SS	13"		9	16		7.7			
		25	10	SS	18"	10	21		8.1			
	854.5'	11	SS	18"		18	33	4.5+	7.6	142.0	7.8	
		30	12	SS	18"	16	31	4.5+	6.9	140.9	8.6	
	849.5'	13	SS	18"		26	46	4.5+	7.8	136.9	6.8	
		35	14	SS	18"	32	58	4.5+	6.5	139.5	7.7	
	847.5'	15	SS	18"		30	48		6.3			
	845.5'	40	16	SS	18"	23	49		6.3	139.9	7.2	

Water Level — depth, ft. elev., ft.
 - while drilling: _____
 - after drilling: _____
 hrs. after drilling: _____

S - sample T - type: J(Jar), SS(split-spoon), ST(shell by tube) R - recovery length, in.
 B - Standard Penetration Test (SPT), blows/6" interval. W - water content, %
 N - SPT, blows/foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
 Pen. - pocket penetrometer reading, tons/sq. ft. Uw - dry unit weight of soil, lbs./cu. ft.
 Qu - unconfined compressive strength, tons/sq. ft.

F-111b


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FILE NAME =	USER NAME =	DESIGNED - BLB	REVISED - PER MCDOT 12/31/10
		CHECKED - BAB	REVISED -
		DRAWN - BCD	REVISED -
		CHECKED - BLB	REVISED -

MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

SOIL BORINGS
STRUCTURE NO. 056-3182
 SHEET NO. 18 OF 19 SHEETS


TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	41
C-91-358-06		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-00016831				

 SOIL AND MATERIAL CONSULTANTS, INC. File No. 19460 **BORING LOG 2**
 Client Baxter & Woodman, Inc. Sheet 3 of 4
 Comments _____ Project Graf Rd. over Lawrence Creek Date 9/10/08
 Structural #056-3111
 Location McHenry County, IL Drilled By AC
 Equipment CME 45B H.A. Other Logged By DA

Elev. ft.	Description	Depth, ft.	40	S	T	R	B	N	Pen.	W	Uw	Qu			
	Gray clay & silt, trace sand & gravel, damp, very hard						15								
							17	SS	18"	37	4.5+	7.3	142.8	8.6	
842.0'															
	Gray clay & silt, trace sand & gravel, damp, hard						11								
							15								
							17	SS	18"	21	36	4.5+	7.2	137.0	5.3
842.0'															
							9								
							15								
							19	SS	18"	19	34	4.5+	8.2	137.6	4.0
837.5'															
	Gray silt, some clay, trace sand & gravel, damp, dense						17								
							19								
							20	SS	18"	28	47		6.2		
837.5'															
							18								
							21								
							55	SS	18"	19	40		6.9		
828.5'															
	Gray clay & silt, trace sand & gravel, damp, hard						7								
							12								
							60	SS	18"	16	28	4.0	7.3	136.6	4.5

Water Level — depth, ft. elev., ft.
 - while drilling: _____
 - after drilling: _____
 hrs. after drilling: _____
 F-111b

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
 B - Standard Penetration Test (SPT), blows/6" interval. W - water content, %
 N - SPT, blows/foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
 Pen. - pocket penetrometer reading, tons/sq. ft. Uw - dry unit weight of soil, lbs./cu. ft.
 Qu - unconfined compressive strength, tons/sq. ft.

 SOIL AND MATERIAL CONSULTANTS, INC. File No. 19460 **BORING LOG 2**
 Client Baxter & Woodman, Inc. Sheet 4 of 4
 Comments _____ Project Graf Rd. over Lawrence Creek Date 9/10/08
 Structural #056-3111
 Location McHenry County, IL Drilled By AC
 Equipment CME 45B H.A. Other Logged By DA

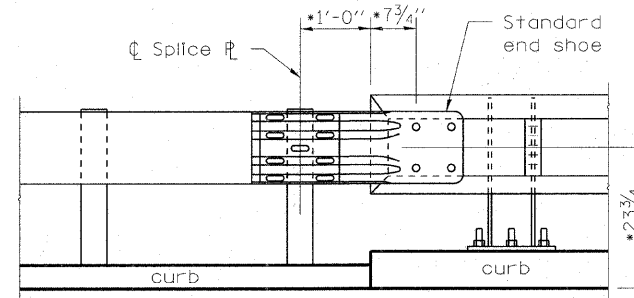
Elev. ft.	Description	Depth, ft.	60	S	T	R	B	N	Pen.	W	Uw	Qu			
	Gray clay & silt, trace sand & gravel, damp, very tough						5								
							9								
							23	SS	18"	11	20	3.5	8.3	143.8	3.8
842.0'															
							6								
							8								
							24	SS	18"	9	17	2.5	8.7	140.6	3.0
842.0'															
							6								
							8								
							75	SS	18"	11	19	2.75	8.4	141.6	3.4
842.0'															
							5								
							7								
							80	SS	18"	10	17	3.0	8.4	135.5	2.9

Water Level — depth, ft. elev., ft.
 - while drilling: _____
 - after drilling: _____
 hrs. after drilling: _____
 F-111b

End of Boring
 S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
 B - Standard Penetration Test (SPT), blows/6" interval. W - water content, %
 N - SPT, blows/foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
 Pen. - pocket penetrometer reading, tons/sq. ft. Uw - dry unit weight of soil, lbs./cu. ft.
 Qu - unconfined compressive strength, tons/sq. ft.

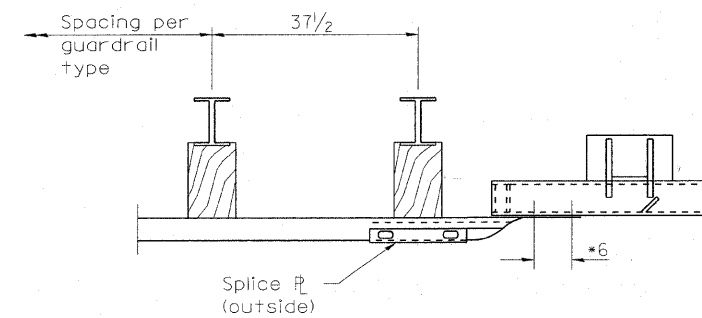
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FILE NAME =	USER NAME =	DESIGNED - BLB	REVISED - PER MCDOT 12/31/10	MCHENRY COUNTY DIVISION OF TRANSPORTATION GRAF ROAD BRIDGE OVER LAWRENCE CREEK	SOIL BORINGS STRUCTURE NO. 056-3182	TR	SECTION	COUNTY	TOTAL	SHEET	
		CHECKED - BAB	REVISED -			0037	06-00322-00-BR	MCHENRY	54	42	
		DRAWN - BCD	REVISED -			C-91-358-06		CONTRACT NO. 63569			
		CHECKED -	REVISED -			SHEET NO. 19 OF 19, SHEETS		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		BROS-0001(683)	



ELEVATION

* Align end shoe with holes in Steel Railing on bridge



PLAN

GENERAL NOTES

- This detail for use at departure ends only.
- See standard 630001 for details of guardrail not shown.
- After tightening, cut the bolts flush with nuts, and damage the bolt head to prevent it from loosening.
- See Special Provision for additional requirements.
- See Bridge Plans for details of Steel Railing, Special.

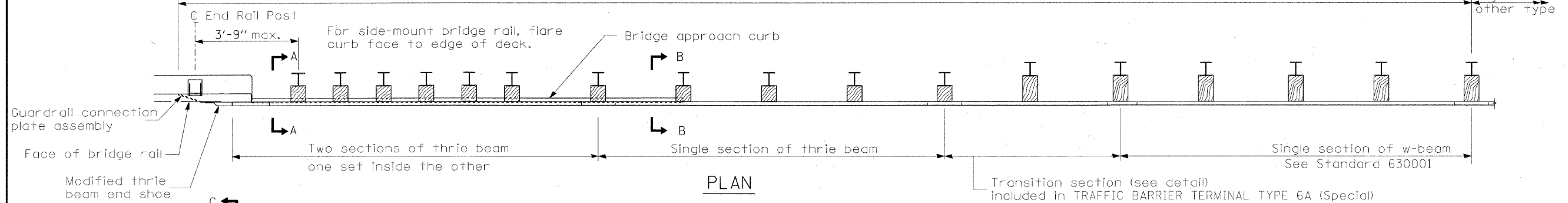
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FILE NAME =	USER NAME =	DESIGNED - BLB	REVISED - PER MCDOT 12/31/10	MCHENRY COUNTY DIVISION OF TRANSPORTATION GRAF ROAD BRIDGE OVER LAWRENCE CREEK	TRAFFIC BARRIER TERMINAL (SPECIAL) STRUCTURE NO. 056-3182	TR	SECTION	COUNTY	TOTAL	SHEET
		CHECKED - BAB	REVISED -			0037	06-00322-00-BR	MCHENRY	54	43
PLOT SCALE =		DRAWN - BCD	REVISED -			C-91-358-06		CONTRACT NO. 63569		
PLOT DATE =		CHECKED - BLB	REVISED -			SHEET NO. 1 OF 1 SHEETS		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		BROS-00016831

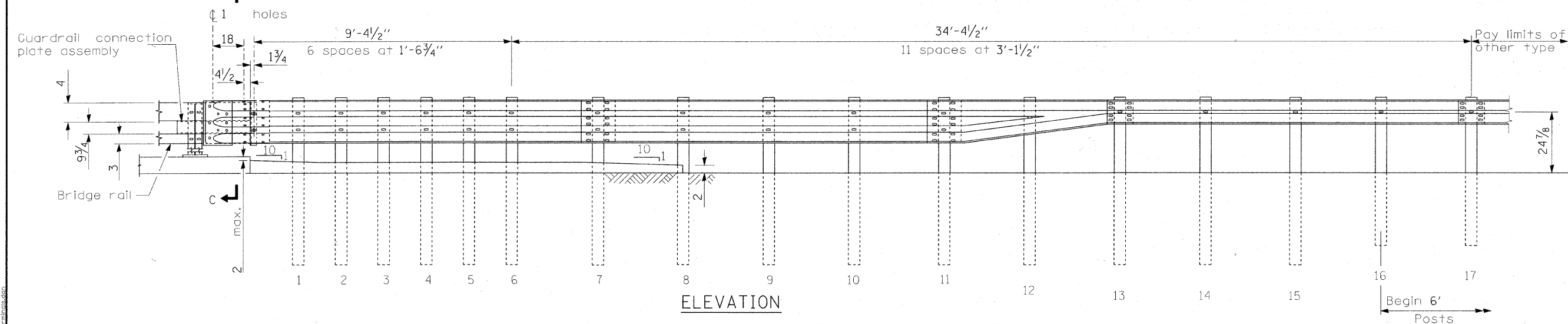
MCHENRY COUNTY
DIVISION OF TRANSPORTATION

Pay limits of TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL) (1 each)

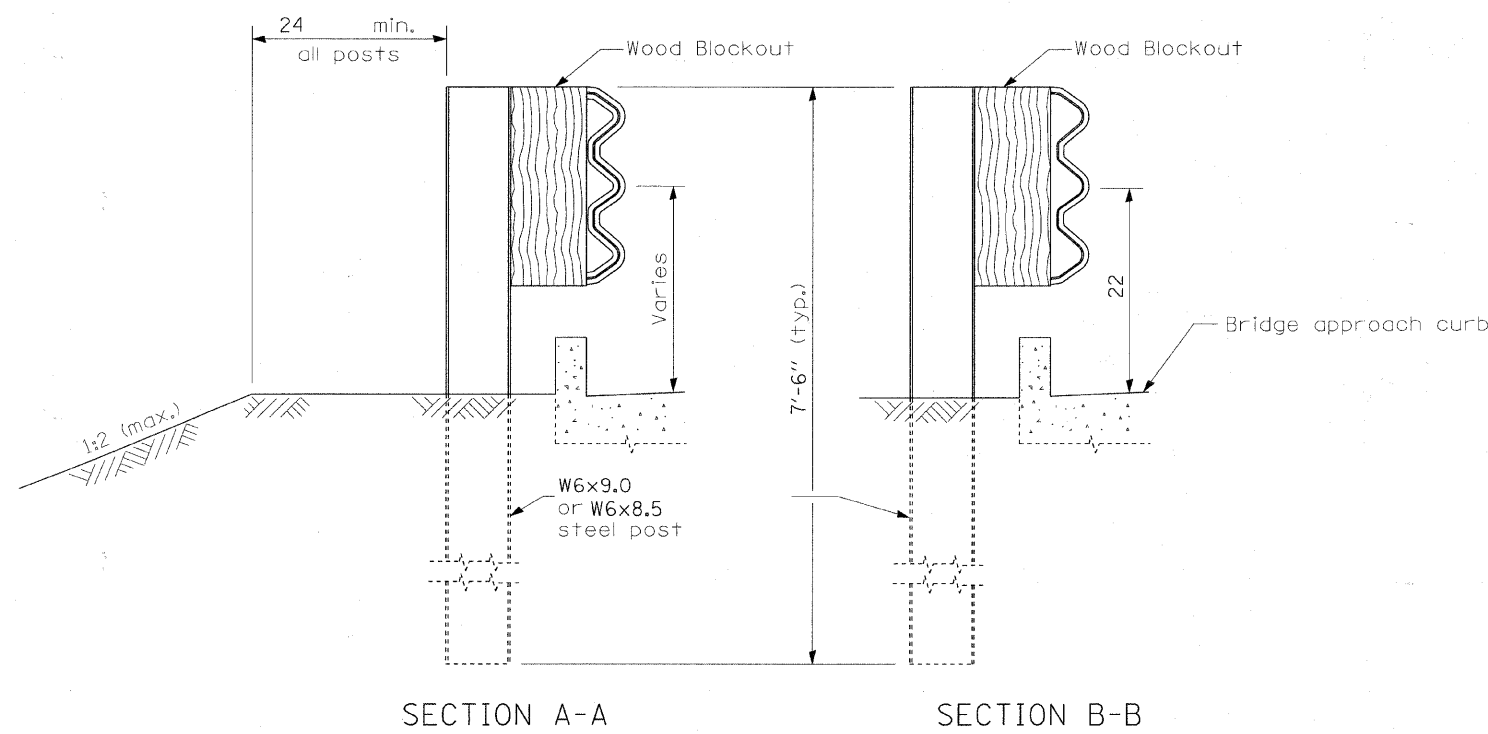
Pay limits of other type



PLAN



ELEVATION



SECTION A-A

SECTION B-B

GENERAL NOTES

See Standard 630001 for details of guardrail not shown.

Thrie beam rail shall be bolted to block-out at all posts.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches unless otherwise shown.

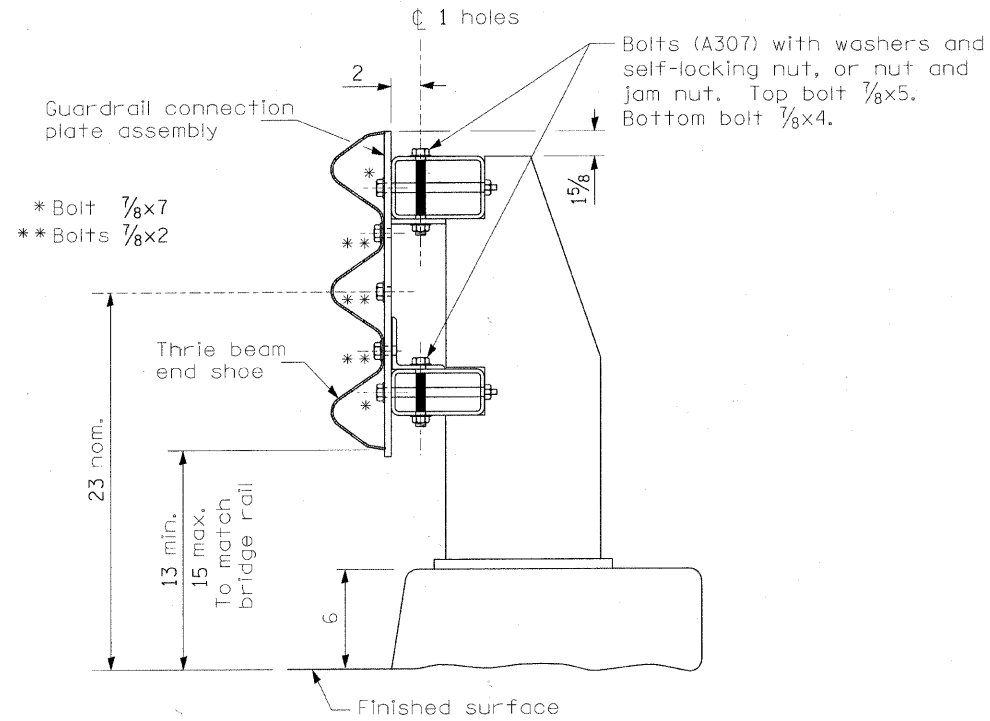
**TRAFFIC BARRIER TERMINAL
TYPE 6A (SPECIAL)
STRUCTURE NO. 056-3182**

DESIGNED	BLB
CHECKED	AS
DRAWN	BCD
CHECKED	BLB

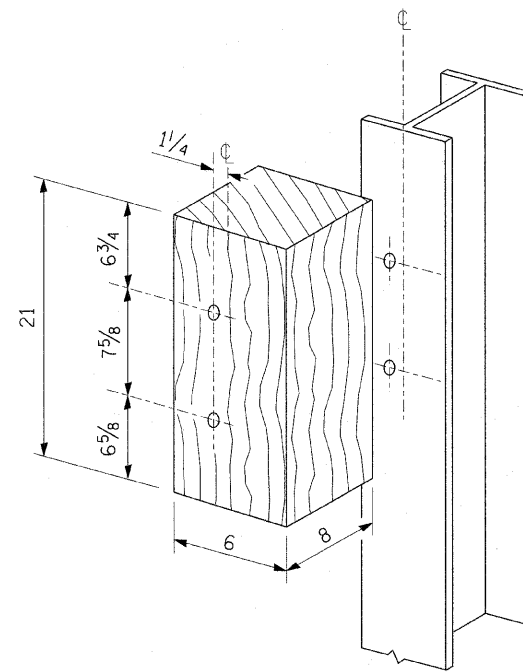
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C-91-358-06			CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT BROS-00D(1683)		

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 LICENSE NO. 184-00121 EXP. 07/30/2011
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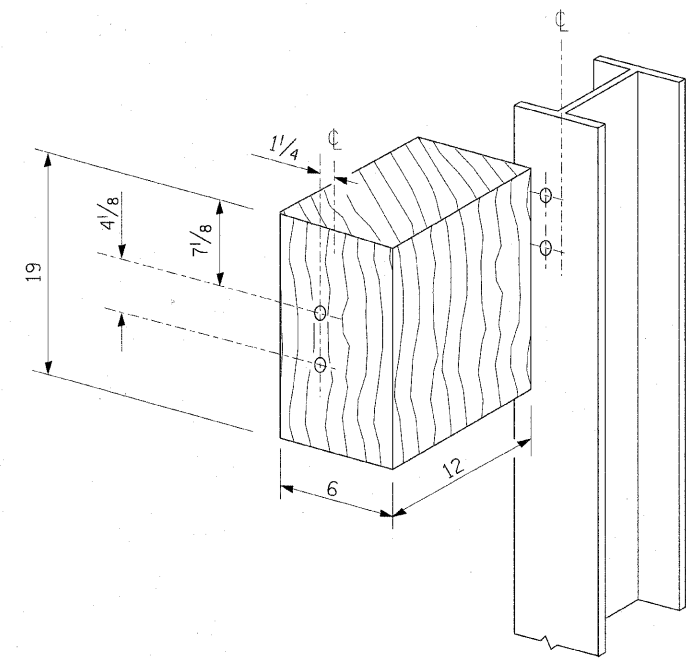
MCHENRY COUNTY
DIVISION OF TRANSPORTATION



SECTION C-C

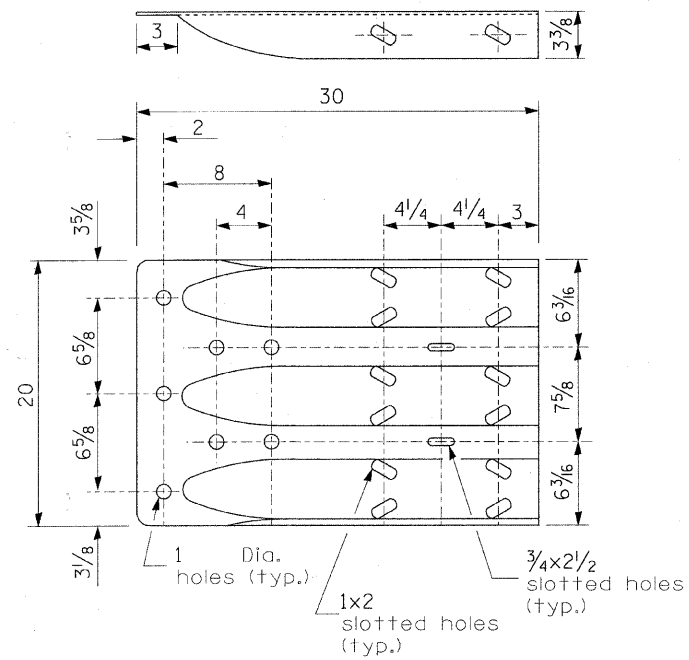


POSTS 1-11 WOOD BLOCKOUT DETAIL

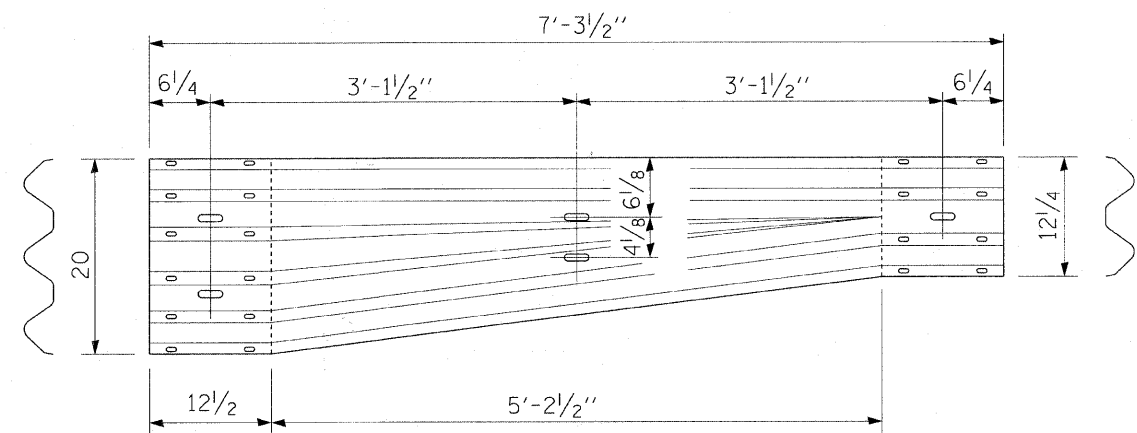


POST 12 WOOD BLOCKOUT DETAIL

(See Standard 630001 for post 13-17 blockouts.)



MODIFIED THRIE BEAM END SHOE DETAIL

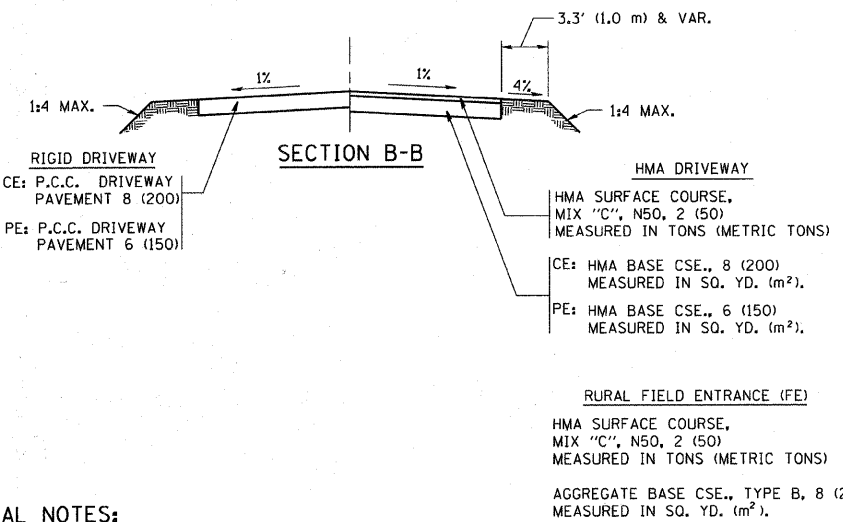
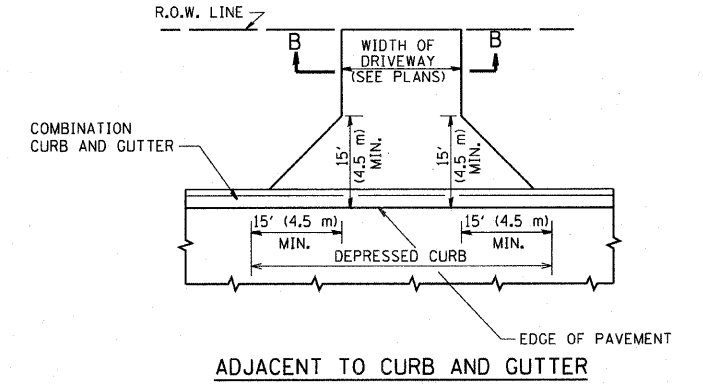
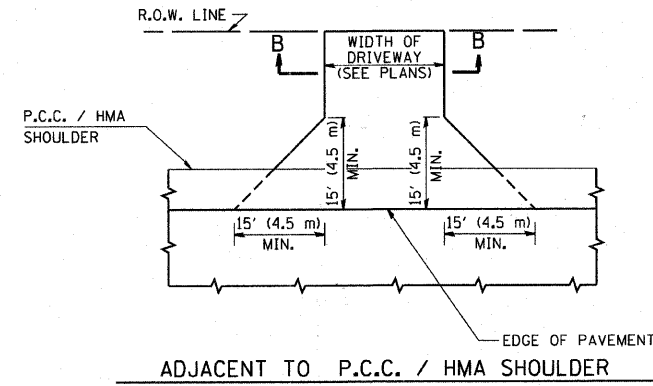
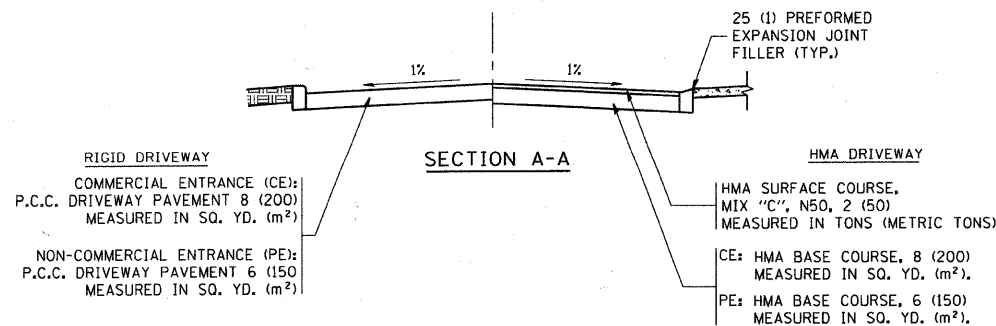
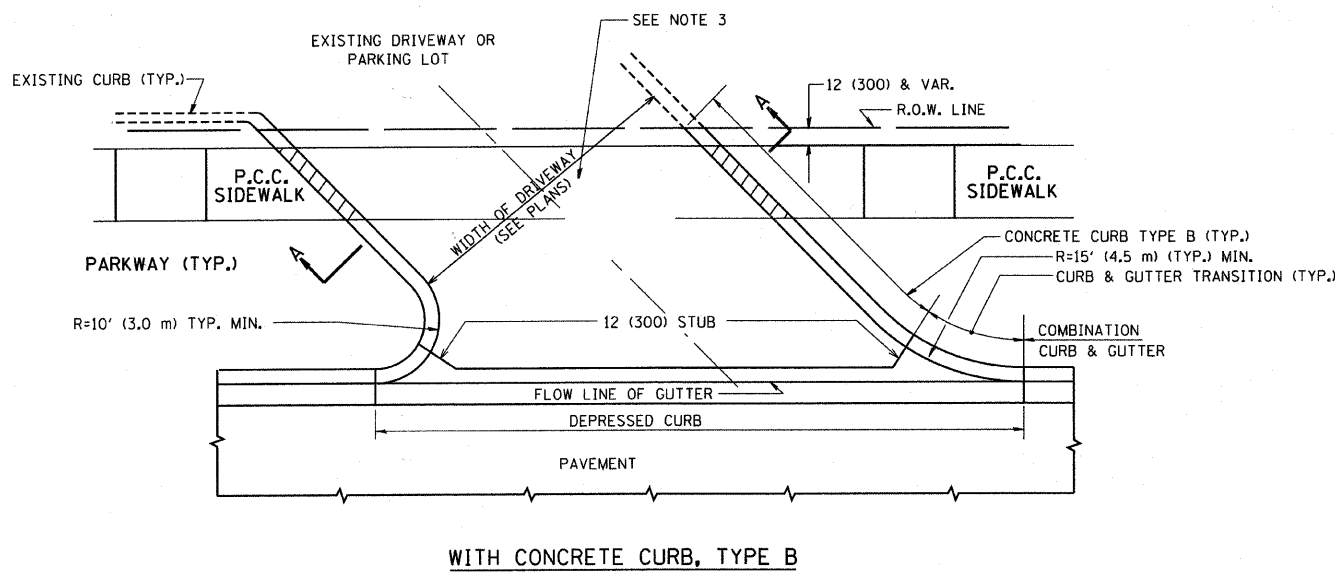
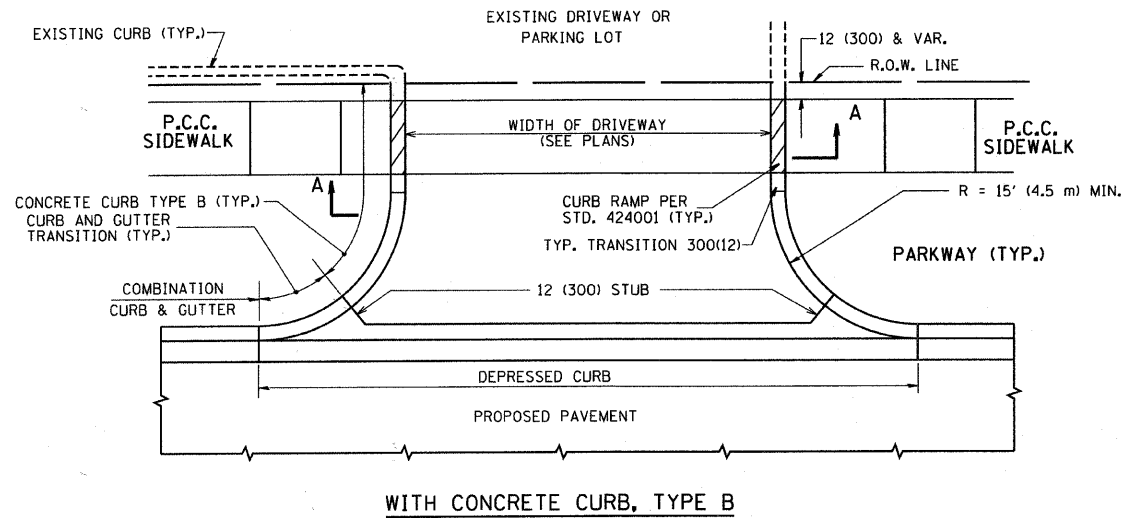


TRANSITION SECTION
(10 gauge rail element)

TRAFFIC BARRIER TERMINA;
TYPE 6A (SPECIAL)
STRUCTURE NO. 056-3182

DESIGNED	BLB
CHECKED	AS
DRAWN	BCD
CHECKED	BLB

SHEET NO. 2 3 SHEETS	TR RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0037	06-00322-00-BR	MCHENRY	54	45
C-91-358-06			CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-00D1(683)					



GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

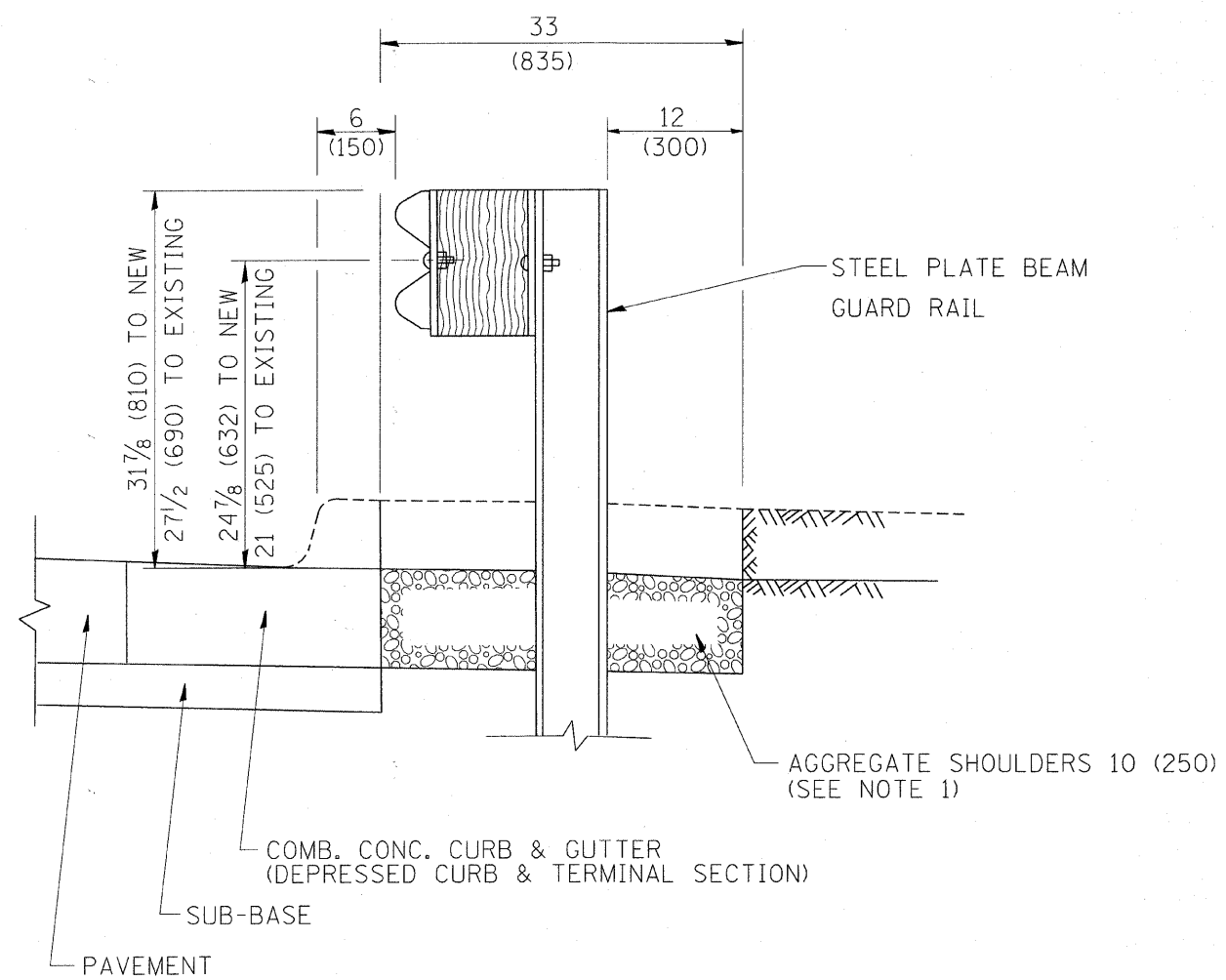
WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

FILE NAME = cr\projects\diststd22x34\bd81.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - M. GOMEZ 04-06-01
		DRAWN -	REVISED - P. LAFUER 04-15-03
	PLOT SCALE = 49,9999 1/ IN.	CHECKED -	REVISED - R. BORO 01-01-07
	PLOT DATE = 6/12/2008	DATE - 11-04-95	REVISED - R. BORO 06-11-08

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

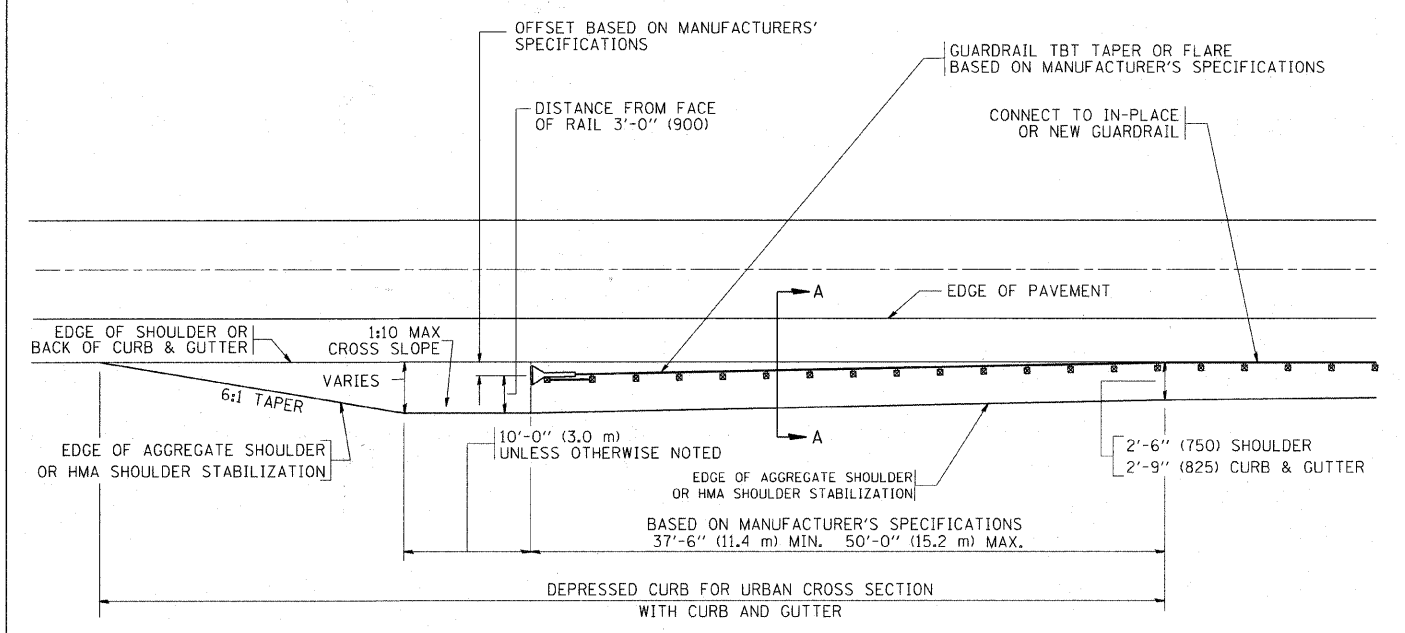
F.A. RTE. 0037	SECTION 06-00322-00-BR	COUNTY MCHENRY	TOTAL SHEETS 54	SHEET NO. 47
BD0156-07 (BD-01)		CONTRACT NO. 63569		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-00D1(683)				



SECTION A-A

- NOTES:
1. THE AGGREGATE SHOULDER, 10" OR HMA SHOULDER, 6" (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
 2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
 3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

DETAILS FOR STEEL PLATE BEAM
 GUARD RAIL ADJACENT TO CURB AND GUTTER
 [FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



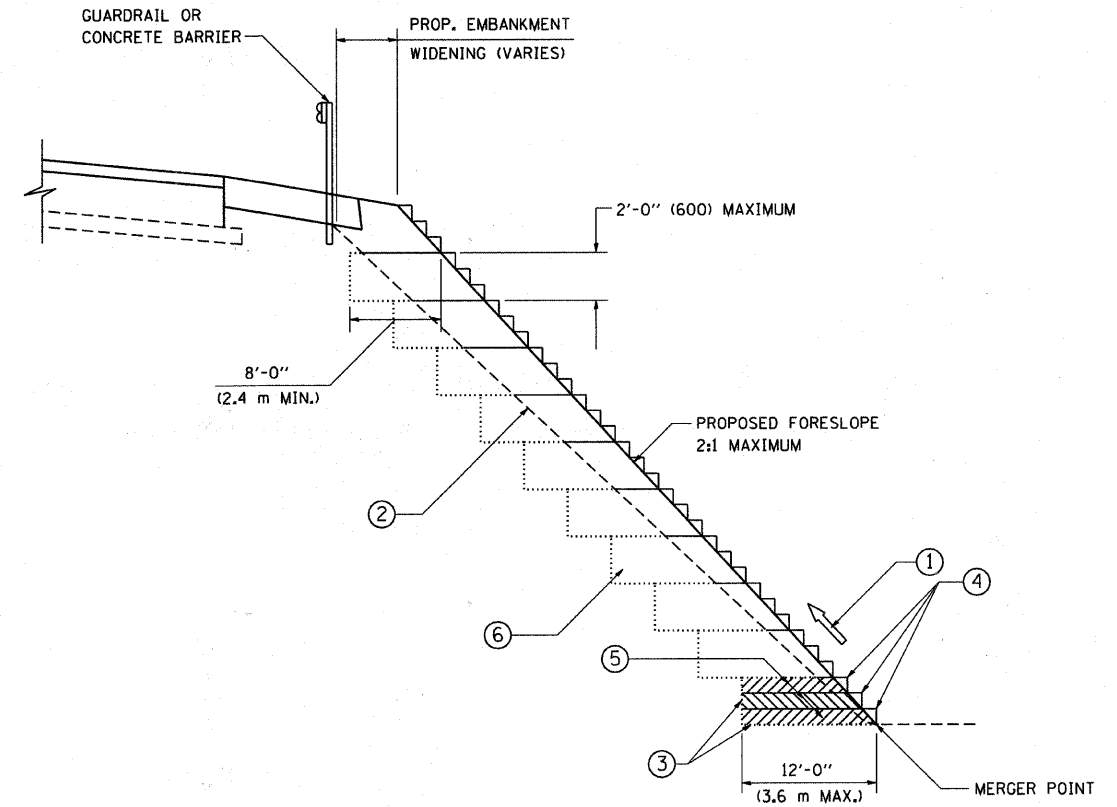
DEPRESSED CURB AND GUTTER AND
 SHOULDER TREATMENT AT TBT TY. 1 SPL.

BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDERS 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL
 ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = drivakosgn	DESIGNED - M. DE YONG	REVISED - E. GOMEZ 08-28-00	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pwwork\p\w\dot\DRIVAKOSGN\d108315\bd34.dgn	DRAWN -	REVISED - R. BORO 01-01-07	0037			06-00322-00-BR	MCHENRY	54	48	
PLOT SCALE = 49.9999" / IN.	CHECKED -	REVISED - R. BORO 12-08-2008	BD600-10 (BD 34)			CONTRACT NO.	63569			
PLOT DATE = 9/21/2009	DATE - 09-22-90	REVISED - R. BORO 09-14-2009	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-00D(683)							



TYPICAL BENCHING DETAIL
FOR EMBANKMENT

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

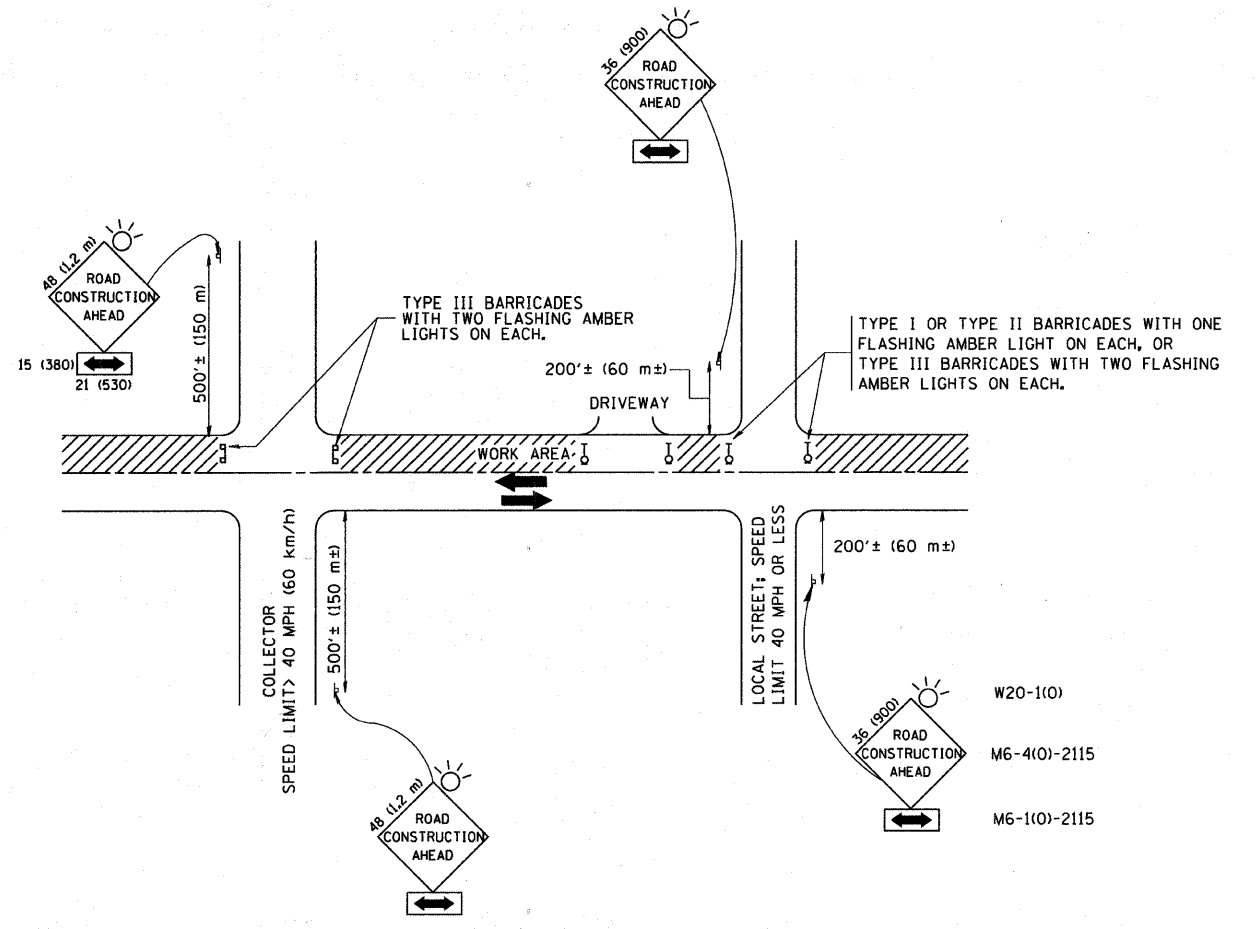
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

FILE NAME = W:\distd\22x34\bd51.dgn	USER NAME = geglrenobt	DESIGNED -	REVISED -
		DRAWN - CADD	REVISED -
		CHECKED - S.E.B.	REVISED -
		DATE - 06-16-04	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL			
FOR EMBANKMENT WIDENING			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	49
BD-51			CONTRACT NO. 63569	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-001(883)				



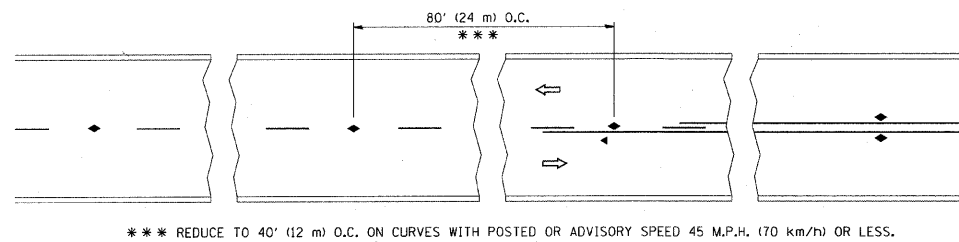
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

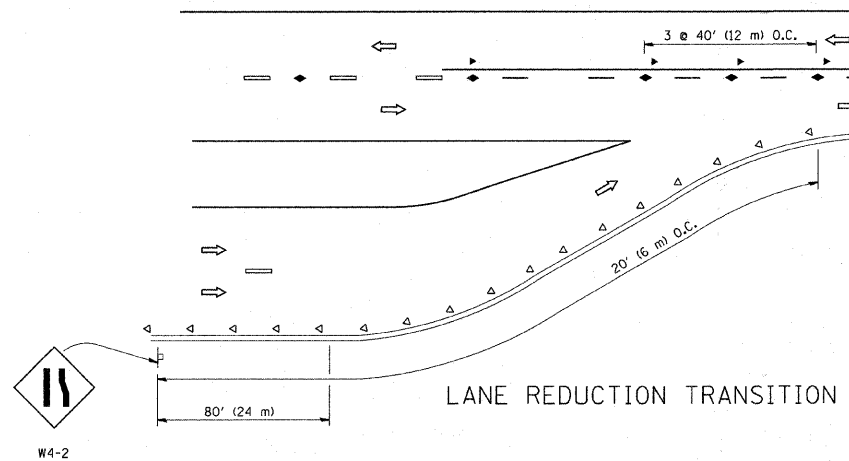
- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:**
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.**
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.**

All dimensions are in millimeters (inches) unless otherwise shown.

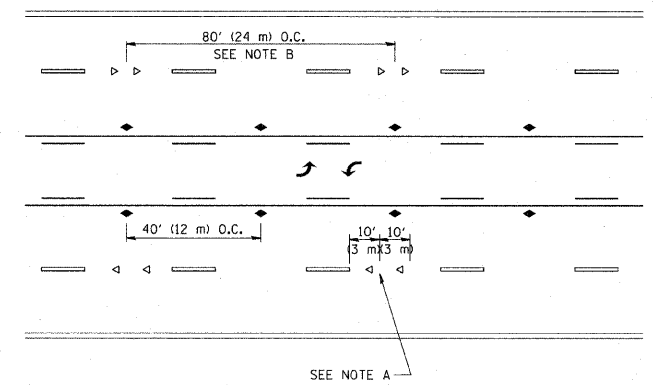
FILE NAME = M:\diststd\22x34\to18.dgn	USER NAME = gaglionobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			F.A. RTE. 0037	SECTION 06-00322-00-BR	COUNTY MCHENRY	TOTAL SHEETS 54	SHEET NO. 50
	PLOT SCALE = 50,000 / IN.	CHECKED -	REVISED - A. HOUSEH 03-06-96		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	TC-10		CONTRACT NO. 63569		
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - A. HOUSEH 10-15-96					FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT BROS-0001(683)				
			REVISED - T. RAMMACHER 01-06-00									



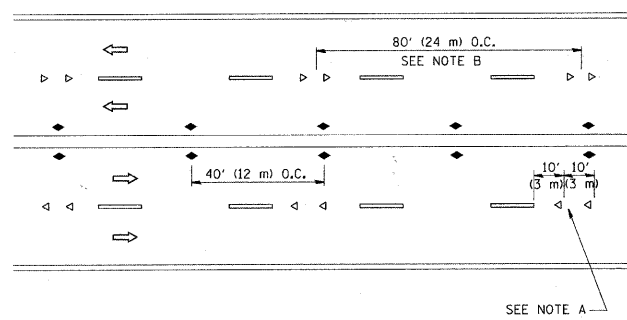
TWO-LANE/TWO-WAY



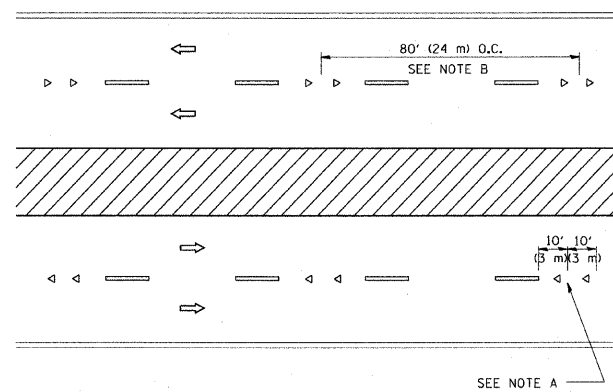
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

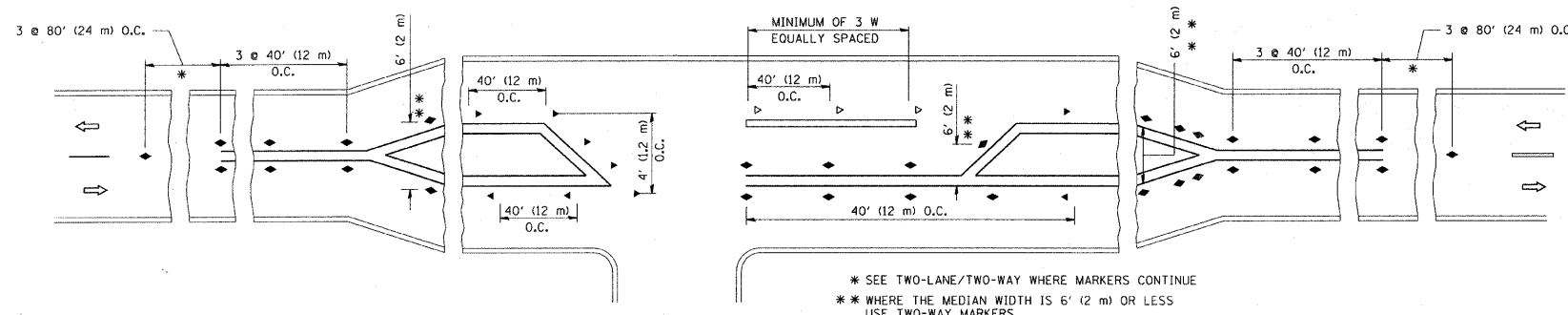
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

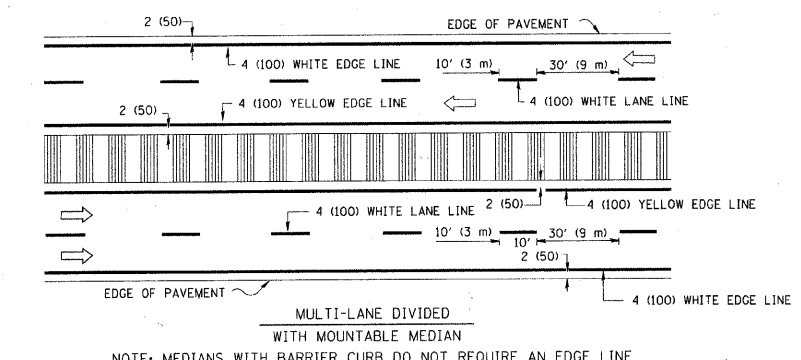
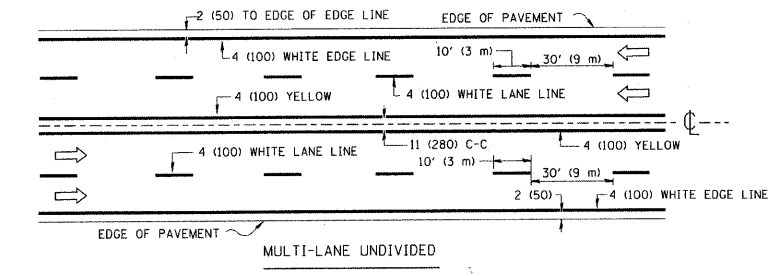
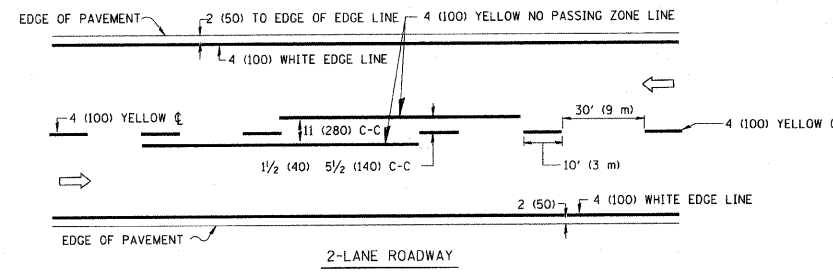
1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

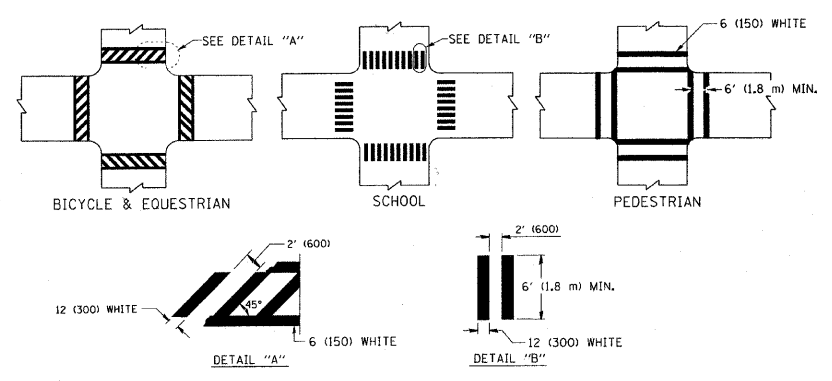
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\pwork\drivakosgn\d0128315\td01.dgn	DRAWN -	REVISED - T. RAMMACHER 03-12-99	0037			06-00322-00-BR	MCHENRY	54	50A		
PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00	TC-11			CONTRACT NO. 63569					
PLOT DATE = 9/9/2009	DATE -	REVISED - C. JUCIUS 09-09-09	FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT BROS-00D1(683)								
SCALE: NONE						SHEET NO. 1 OF 1 SHEETS		STA.		TO STA.	

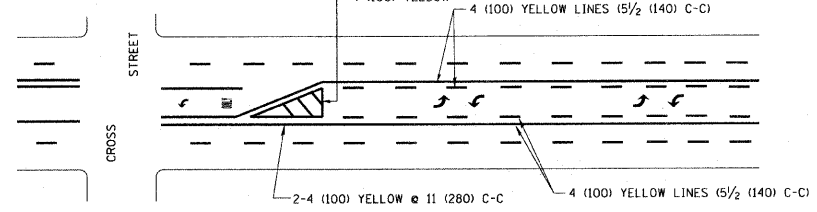
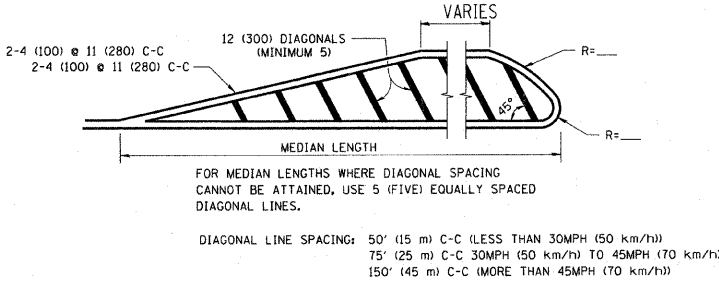
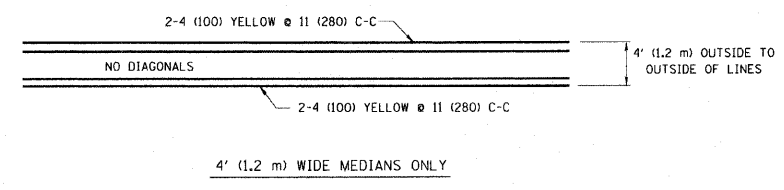


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

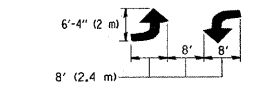
TYPICAL LANE AND EDGE LINE MARKING



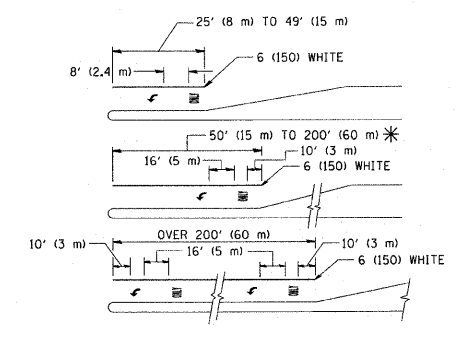
TYPICAL CROSSWALK MARKING



A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



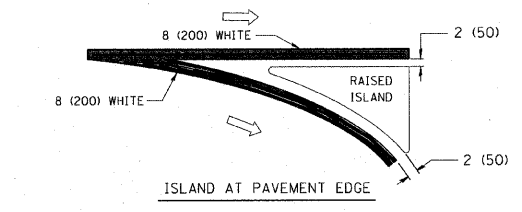
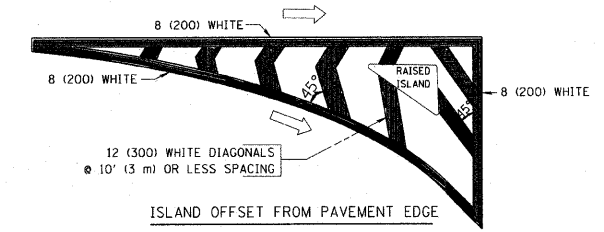
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY. AREA = 20.8 SQ. FT. (1.9 m²). * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW. EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = drivakosgn	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
ct:\pwork\pavdot\drivakosgn\ad0108315\to3.dgn		DRAWN -	REVISED - C. JUCIUS 09-09-09
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

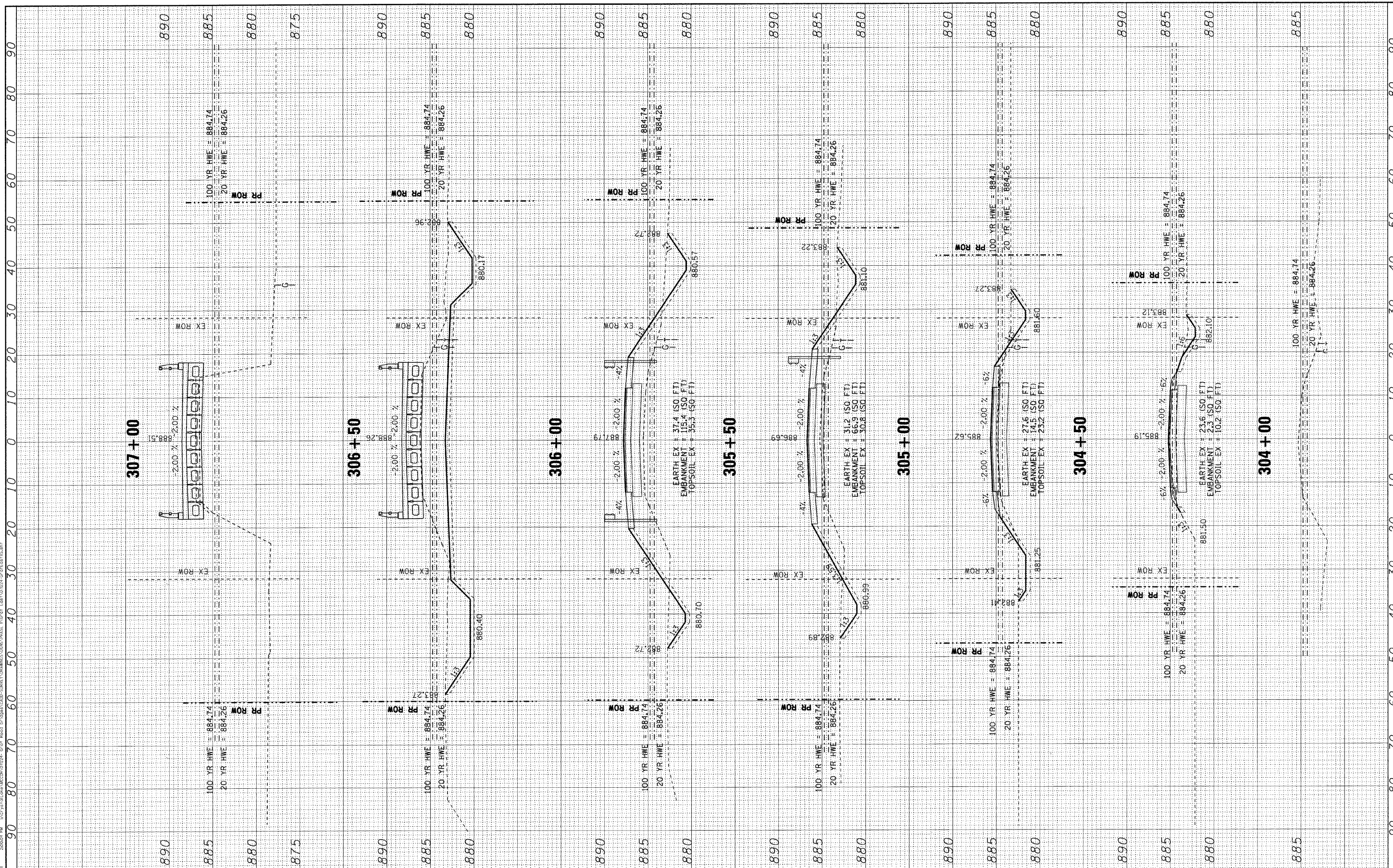
DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE. 0037	SECTION 06-00322-00-BR	COUNTY MCHENRY	TOTAL SHEETS 54	SHEET NO. 51
TC-13			CONTRACT NO. 63569	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-00D1683				

FINAL SURVEY	BY	DATE
SURVEYED		
NOTE BOOK		
TEMPLATE		
AREAS CHECKED		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
NOTE BOOK		
TEMPLATE		
AREAS CHECKED		
AREAS CHECKED		

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 PROJECT NO. BR 00312-00-01
 SHEET NO. 54 OF 53
 DATE: 2/7/2011



USER NAME = #USER#	DESIGNED - DSH	REVISED - 12/31/10 PER MCDOT
	CHECKED - MDW	REVISED - 02/01/11 PER MCDOT
PLOT SCALE = 1" = 50'	DRAWN - KAR	REVISED - 02/01/11 PER IDOT
PLOT DATE = 2/7/2011	DATE - 10/08/10	REVISED -

MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

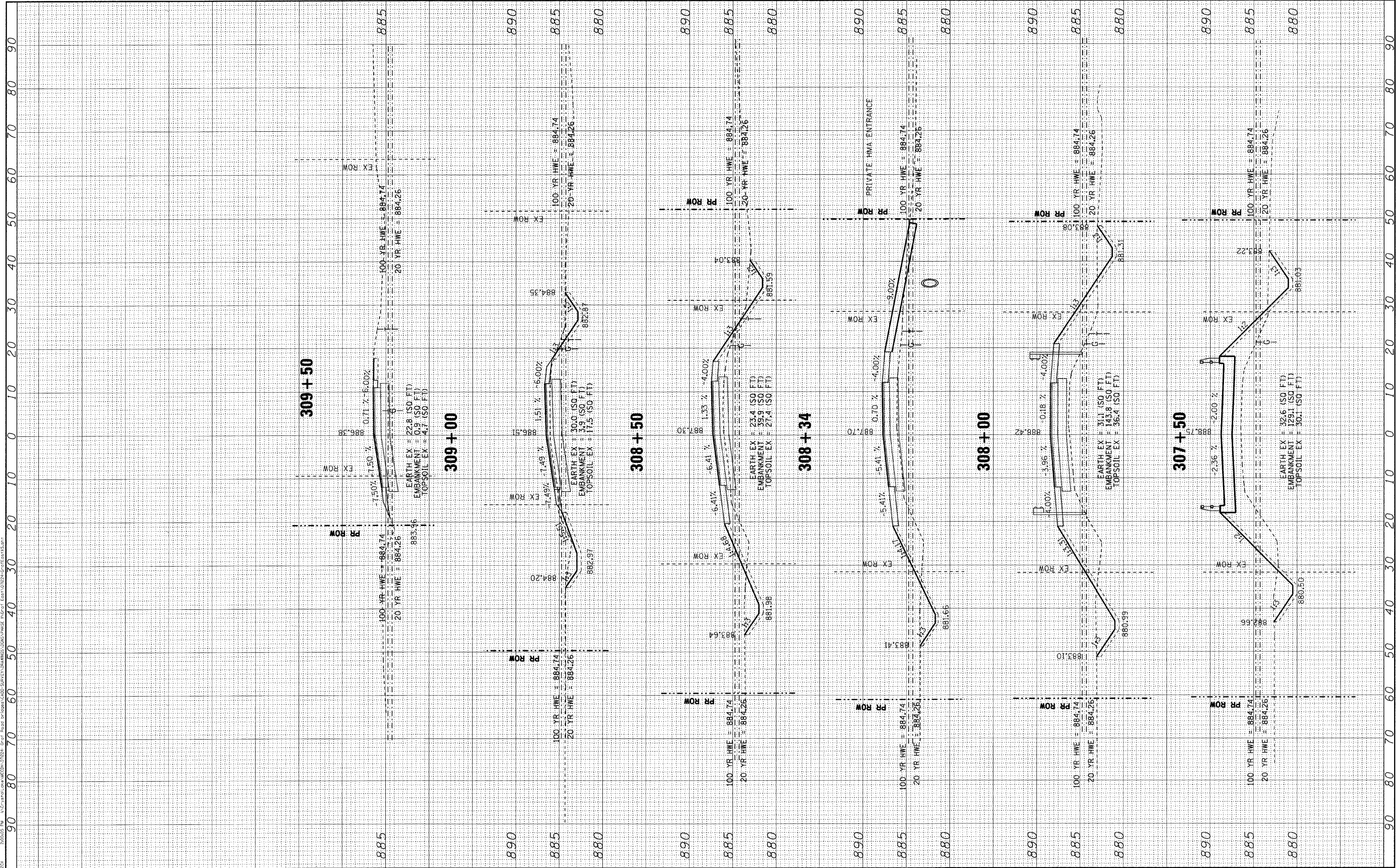
CROSS SECTIONS		
SCALE: 1" = 10'	SHEET NO. OF SHEETS	STA. 304+00 TO STA. 307+00

TR. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	53
	C-91-358-06		CONTRACT NO. 63569	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT BROS-00D16831				

FINAL SURVEY	BY	DATE
SURVEYED		
TEMPLATE		
NOTE BOOK		
AREAS CHECKED		
NO.		

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

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USER NAME = #USER#	DESIGNED - DSH	REVISED - 12/31/10 PER MCDOT
PLOT SCALE = 1" = 50'	CHECKED - MDW	REVISED - 02/01/11 PER MCDOT
PLOT DATE = 2/7/2011	DRAWN - KAR	REVISED - 02/01/11 PER IDOT
		REVISED -

MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
LAWRENCE CREEK

SCALE: 1" = 10'	SHEET NO.	OF	SHEETS	STA. 307+50	TO STA. 309+50
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TR. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-00-BR	MCHENRY	54	54
C-91-358-06		CONTRACT NO. 63369		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BROS-001(683)				