

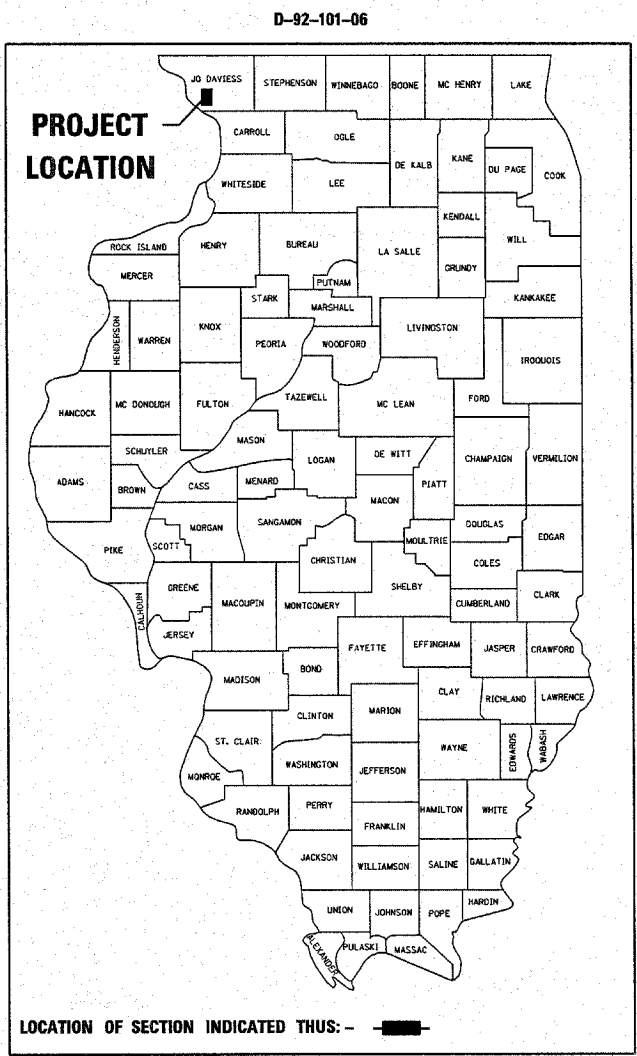
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	29T-1	JO DAVIESS	30	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 64C58		

INDEX OF SHEETS

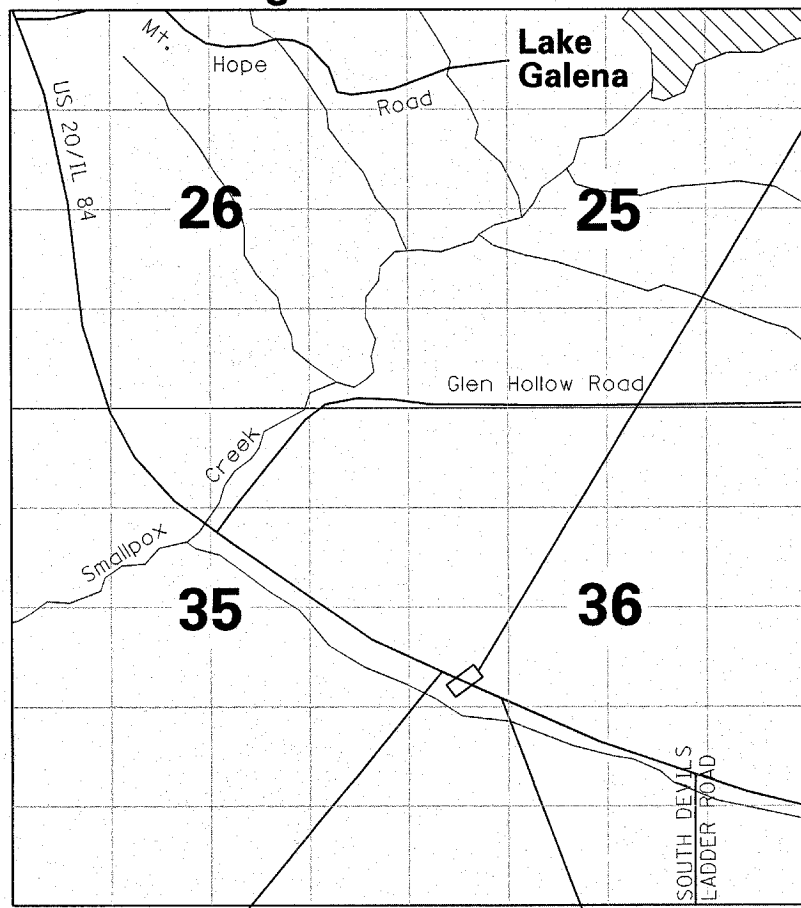
- 1 COVER SHEET
- 2 STATE STANDARDS AND GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 TYPICAL SECTIONS
- 5 SCHEDULE OF QUANTITIES
- 6 ALIGNMENT, TIES, AND BENCHMARKS
- 7 ROADWAY PLAN AND PROFILE
- 8 TRAFFIC STAGING PLANS
- 9 EROSION CONTROL PLAN
- 10 STRUCTURE GENERAL PLAN
- 11 STAGE CONSTRUCTION
- 12 CULVERT PLAN
- 13 CULVERT SECTIONS
- 14 CULVERT DETAILS
- 15 GRATED DROP BOX
- 16 GRATED EXTENSION
- 17 BAR SPLICE ASSEMBLY DETAILS
- 18 BORING LOGS
- 19 STORM WATER POLLUTION PREVENTION PLAN EROSION CONTROL PLAN (DIST STD 2.1)
- 20-21 TYPICAL PAVEMENT MARKINGS (DIST STD 41.1)
- 22 DETAILS OF PLANTING AND BRACING TREES (DIST STD 92.1)
- 23 EROSION CONTROL DETAILS FOR SILT FENCE (DIST STD 29.2)
- 24 INFORMATIONAL WARNING SIGNS (FOR NARROW TRAVEL LANES) (DIST. STD. 39.2)
- 24 WITNESS MARKER & PERMANENT SURVEY MARKERS, TYPE II (DIST STD 66.2)
- 24 DELINEATOR AND POST ORIENTATION (DIST. STD. 37.4)
- 24 TYPICAL BENCHING ON EXISTING EMBANKMENT (DIST STD 50.4)
- 25 LETTERING FOR NAME PLATE (DIST STD 89.4)
- 25 TREE REPLACEMENT SCHEDULE (DIST STD 90.4)
- 25 STOP LINE SIGN FOR TEMPORARY SIGNALS (DIST STD 99.4)
- 26-30 CROSS SECTIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 301 (US. 20 /IL. 84)
SECTION 29T-1
PROJECT NHF-0301(047)
JO DAVIESS COUNTY
C-92-072-08
Range 1E - 4th PM



EAST GALENA TOWNSHIP - SECTION 36



IMPROVEMENT BEGINS STA. 922 + 25 LOCATION MAP 1" = 0.24 MILES IMPROVEMENT ENDS STA. 929 + 25

GROSS LENGTH OF PROJECT: 700 FEET (0.13 MILES)
NET LENGTH OF PROJECT: 700 FEET (0.13 MILES)

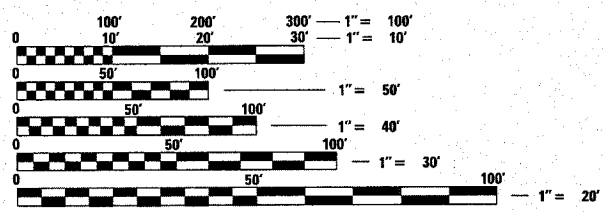
**PROPOSED CULVERT
STA. 924 + 32
S.N. 043-1077**



Deborah A. Zroka
DEBORAH A. ZROKA, S.E.
LIC. NO. 081-005152
EXPIRES 11/30/2008



Steven P. Fessenbecker
STEVEN P. FESSENBECKER, P.E.
LIC. NO. 062-051254
EXPIRES 11/30/2009



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

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

PROJECT ENGINEER: MASOOD AHMAD
PROJECT MANAGER: SAM ABDULLAH
CONSULTANT: KUDRNA & ASSOCIATES (630) 969-3060
CONTRACT NO. 64C58

KUDRNA & ASSOCIATES, LTD.
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000920
EXPIRES 4/30/2009

KUDRNA & ASSOCIATES, LTD.
400 South Green Street - Suite 304
Chicago, Illinois 60607
Phone (312) 738-1522
Fax (312) 738-9792
203 North Cass Avenue
Westmont, Illinois 60559
Phone (630) 969-3060
Fax (630) 969-3122

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: MARCH 26 20 08

George F. Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER

May 9, 20 08
Eric E. Haral
ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 20 08
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

GENERAL NOTES

See cross sections for special ditches and backslopes.

The final top 100 mm (four inches) of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils.

All Borrow/Waste/Use sites must be approved by the Department prior to removing any material from the project or initiating any earthmoving activities, including temporary stockpiling outside the limits of construction.

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 2A shall be used, except in front of properties where the grass will be mowed, then use Seeding, Class 1. Class 2A shall be used on front slopes and ditch bottoms. Class 4 shall be used behind Type A gutter, on all backslopes and areas behind the backslope, and beyond the toe of front slope on fill sections without ditches.

Fertilizer Nutrients shall be applied at the rate specified in Sections 250 and 252 of the Standard Specifications. This shall be included in the cost of the SEEDING or SODDING.

Placement and compaction of the backfill for proposed across road culverts and existing across road culverts that are removed shall conform to Section 502.10 of the Standard Specifications, except that the material shall conform to Article 208.02 of the Standard Specifications, and shall be compacted to a minimum of 95% of the standard laboratory density. Any material conforming to the requirements of Article 1003.04 or 1004.05 which has been excavated from the trenches shall be used for backfilling the trenches. The entire excavation, within 2 feet outside of each shoulder, shall be backfilled with trench backfill material to the bottom of the proposed subgrade. This trench backfill material will not be measured for payment, but shall be included in the contract unit price for the class of concrete involved or other unit price item of the work for which it is required.

The following Mixture Requirements are applicable for this project:

Mixture Uses(s):	Surface	Level Binder	Top Shoulder	Bottom Shoulder
PG:	PG 64-22	PG 64-22	PG 58-22	PG 58-22
Design Air Voids	4.0 @ N70	4.0 @ N70	3 @ N50	2 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or 12.5	IL 9.5	IL 9.5 or 12.5	BAM
Friction Aggregate	D	N/A	C	N/A
20 Year ESAL	1.8	1.8	N/A	N/A

The Contractor will be required to furnish 140 mm (5 1/2") high brass stencils as approved by the Engineer and install stationing at 250' intervals. Stationing shall be placed on both lanes of 2-lane highways and on the outside lanes in both directions on 4-lane highways. The stations shall be placed 150 mm (6") inside the pavement marking edge so they can be read from the shoulder. This work will be included in the cost of the final pavement surface.

To help avoid excess drop offs at the edge of pavement, the existing aggregate wedge or shoulder is to be pulled up and rolled to match the edge of pavement before placing any bituminous material. All costs associated with pulling up the shoulders shall be considered included in the contract unit price per TON for HOT MIX ASPHALT SURFACE COURSE of the type specified.

Bituminous and Aggregate prime coat shall be placed in accordance with Section 406 of the Standard Specifications. The cost of the prime coats shall be included in the contract unit price per metric ton (ton) for LEVELING BINDER (MACHINE METHOD) of the type specified.

The new number for this structure will be SN 043-1077.

The contractor shall submit four copies of the required shop drawings for review and approval to the Bureau of Bridges and Structures, 2300 South Dirksen Parkway, Springfield, IL 62764. After approval of initial submittal, the contractor shall submit one set of shop drawings to Dave Lippert, Engineer of Materials, 126 East Ash Street, Springfield, IL 62706, and eight (8) sets of shop drawings to be distributed to:

- District 2 District Engineer (1)
- Fabricator (1)
- Contractor (2)
- Resident Engineer (2)
- District 2 Bureau of Materials (2)

The review and approval of temporary sheet piling will require 4 to 6 weeks. The Contractor shall schedule his work accordingly.

The boring logs for this structure indicate that groundwater levels may encroach on the construction limits of this culvert. It shall be the responsibility of the contractor to control the ground water and divert the stream flow during construction in order to keep the construction area free of water. The method of controlling the water shall be subject to approval of the Engineer and the cost shall be included in the contract unit price for Concrete Box Culverts.

Culvert & bridge flows must be maintained throughout the project. Normal flow shall be allowed to pass at the rate it enters the jobsite. High flows shall be allowed to pass without causing damage to upstream properties.

A Precast Box Culvert is not an option on the project due to soil conditions.

Delineators shall be installed as shown in Standard 635001, except that the post shall be rotated 180° and only metal-backed delineators shall be permitted.

Delineators shall be placed at the ends of approach guardrail terminal sections, and at each headwall or end section of AR Culverts. This work will be paid for at the contract unit price each for DELINEATORS.

Pavement Marking shall be done according to Standard 780001, except as follows:

1. All words, such as ONLY, shall be 2.4 m (8 feet) high.
2. All non-freeway arrows shall be the large size.
3. The distance between yellow no-passing lines shall be 200mm (8"), not 180 mm (7") as shown in the detail of Typical Lane and Edge Lines.

PERMANENT SURVEY MARKERS, TYPE II, shall be set at intervals of 1.6 Km (1 mile) or as directed by the Engineer. Bridge or culvert projects shall have one survey marker placed near the structure. Estimated: 1 Each.

Permanent Survey Markers, Type II shall be cast-in-place as shown on Highway Standard 667101.

The Contractor shall submit to the Engineer a description of location, elevation, and coordinates for each permanent survey marker. The Engineer shall submit this information to the Survey Crew.

Tree planting layout shall be performed by the District Landscape Architect. Mulch shall be placed 4D thick in a 5 foot diameter around the tree. The mulch shall be hardwood wood chips placed on weed barrier fabric. This work shall be included in the cost of the tree.

Right-of-way markers will be erected with the back face of the marker on the right-of-way line unless the new right-of-way line has been surveyed and pinned, in which instance the right-of-way markers will be erected 300 mm (12 inches) inside the new right-of-way line.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

AT&T
635 18TH STREET
ROCK ISLAND, IL 61201
MR. DAVE CREEN (309)793-4456

JO-CARROLL ENERGY
P.O. BOX 390 / 793 US 20 WEST
ELIZABETH, IL 61028
MR. ROBERT PELELO (815)858-2207

CADD data will be available to Contractors and Consultants working on this project. This information will be provided upon request as MicroStation CADD files and Geopak coordinate geometry files ONLY. If data is required in other formats it will be your responsibility to make these conversions. If any discrepancy or inconsistency arises between the electronic data and the information on the hard copy, the information on the hard copy should be used. Contact the District's Project Engineer to request these files.

STATE STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
442201-03	CLASS C AND D PATCHES
515001-02	NAME PLATE FOR BRIDGES
635001	DELINEATORS
666001	RIGHT OF WAY MARKERS
667101	PERMANENT SURVEY MARKERS
701006-02	OFF ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-09	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901	TRAFFIC CONTROL DEVICES
704001-04	TEMPORARY CONCRETE BARRIER
720011	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001	TELESCOPING STEEL SIGN SUPPORT
729001	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS AND MARKERS)
780001-01	TYPICAL PAVEMENT MARKINGS
886001	DETECTOR LOOP INSTALLATIONS
886006	TYPICAL LAYOUTS FOR DETECTION LOOPS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STATE STANDARDS AND GENERAL NOTES

FILE NAME =	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\2298-01 - US 20 Box Culvert\microstation	files\00 Sheet Files\212106GN.dgn	DRAWN - JRK	REVISED -	301	29T-1	JO DAVIESS	30	2
	PLOT SCALE = 1:8000 / IN.	CHECKED - JMS	REVISED -	CONTRACT NO. 64C58				
	PLOT DATE = 3/25/2008	DATE - 03-28-08	REVISED -	SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
				FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

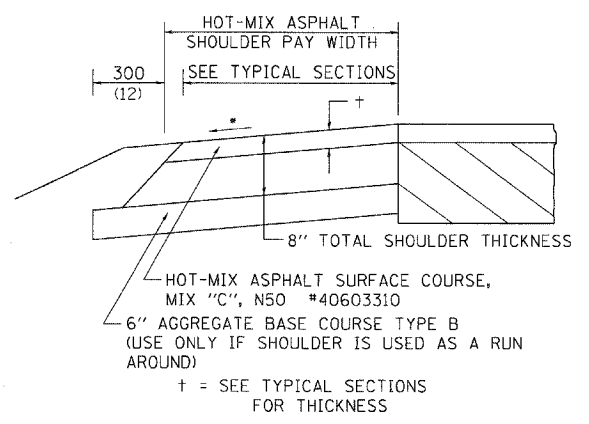
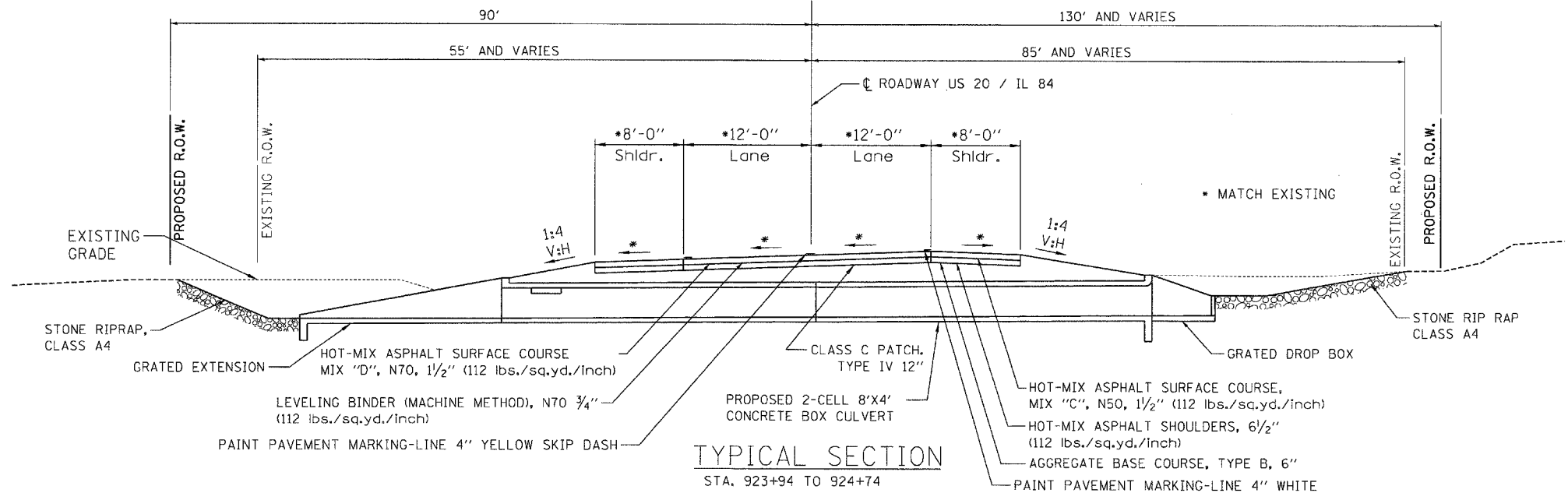
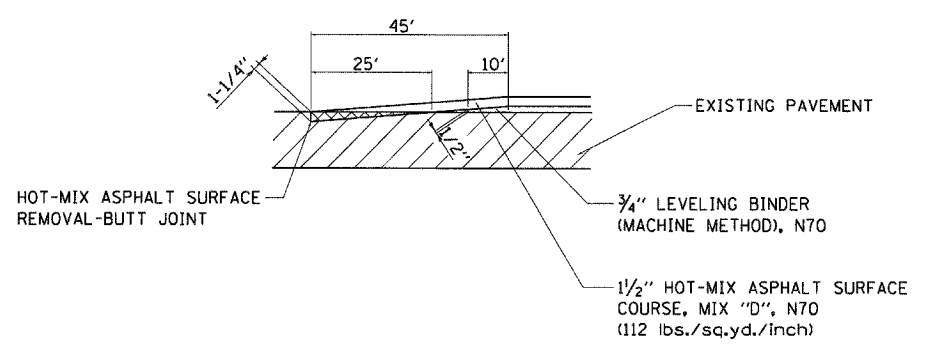
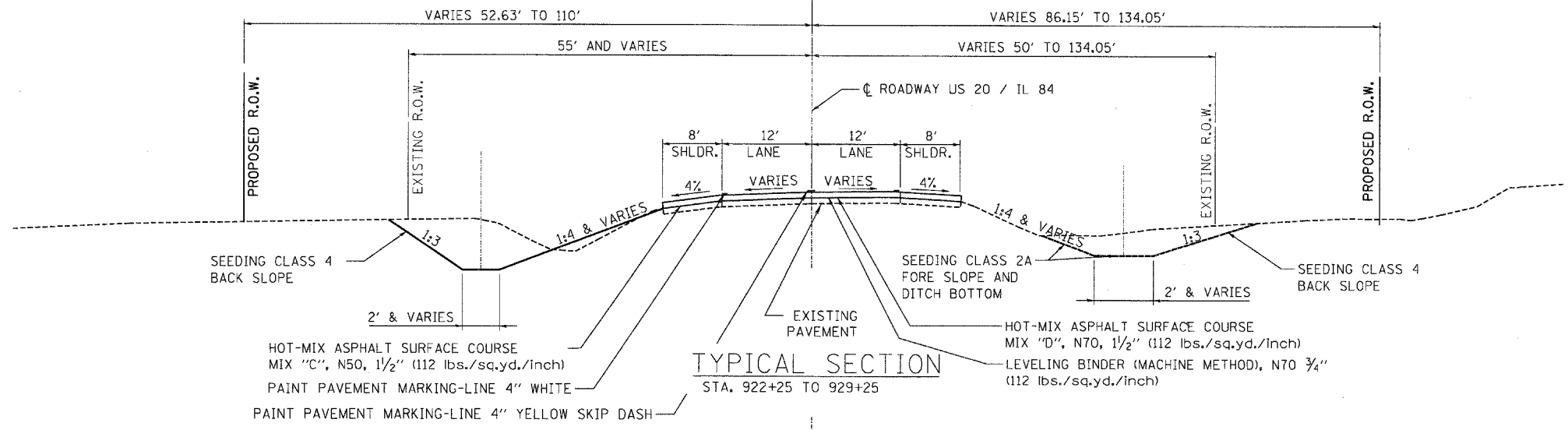
SUMMARY OF QUANTITIES

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	ROADWAY-YOOR 80% FED. 20% STATE
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	310	310
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	270	270
20200100	EARTH EXCAVATION	CU YD	3166	3166
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	201	201
25000210	SEEDING, CLASS 2A	ACRE	1	1
25000310	SEEDING, CLASS 4	ACRE	1.25	1.25
25000750	MOWING	ACRE	1	1
25100115	MULCH, METHOD 2	ACRE	1.75	1.75
25100630	EROSION CONTROL BLANKET	SQ YD	1177	1177
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	900	900
28000300	TEMPORARY DITCH CHECKS	EACH	24	24
28000400	PERIMETER EROSION BARRIER	FOOT	1502	1502
28000500	INLET AND PIPE PROTECTION	EACH	1	1
28100107	STONE RIPRAP, CLASS A4	SQ YD	428	428
28200200	FILTER FABRIC	SQ YD	428	428
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	270	270
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	105	105
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	133	133
40600990	TEMPORARY RAMP	SQ YD	40	40
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	105	105
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	157	157
44201383	CLASS C PATCHES, TYPE IV, 12 INCH	SQ YD	360	360
48203023	HOT-MIX ASPHALT SHOULDERS, 6 1/2"	SQ YD	240	240
50105200	REMOVE EXISTING CULVERTS	EACH	1	1
50800105	REINFORCEMENT BARS	POUND	40170	40170

* SPECIALTY ITEM ● 100% STATE

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	ROADWAY-YOOR 80% FED. 20% STATE
50800515	BAR SPLICERS	EACH	129	129
51500100	NAME PLATES	EACH	1	1
54003000	CONCRETE BOX CULVERTS	CU YD	129	129
63500105	DELINEATORS	EACH	2	2
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	9	9
66700305	PERMANENT SURVEY MARKERS, TYPE II	EACH	1	1
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5
67100100	MOBILIZATION	L SUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106700	TEMPORARY RUMBLE STRIP	EACH	6	6
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	256	256
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	2956	2956
70300570	PAVEMENT MARKING TAPE, TYPE III 24"	FOOT	24	24
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1024	1024
70400100	TEMPORARY CONCRETE BARRIER	FOOT	637.5	637.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	637.5	637.5
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	4128	4128
78300100	PAVEMENT MARKING REMOVAL	SQ FT	688	688
A2006714	TREE, QUERCUS MACROCARPA (BUR OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	45	45
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	836	836
Z0005400	BREAKER-RUN CRUSHED STONE	TON	244	244
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1
Z0014800	CULVERT TO BE CLEANED	FOOT	50	50
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2

* SPECIALTY ITEM ● 100% STATE



GENERAL NOTES

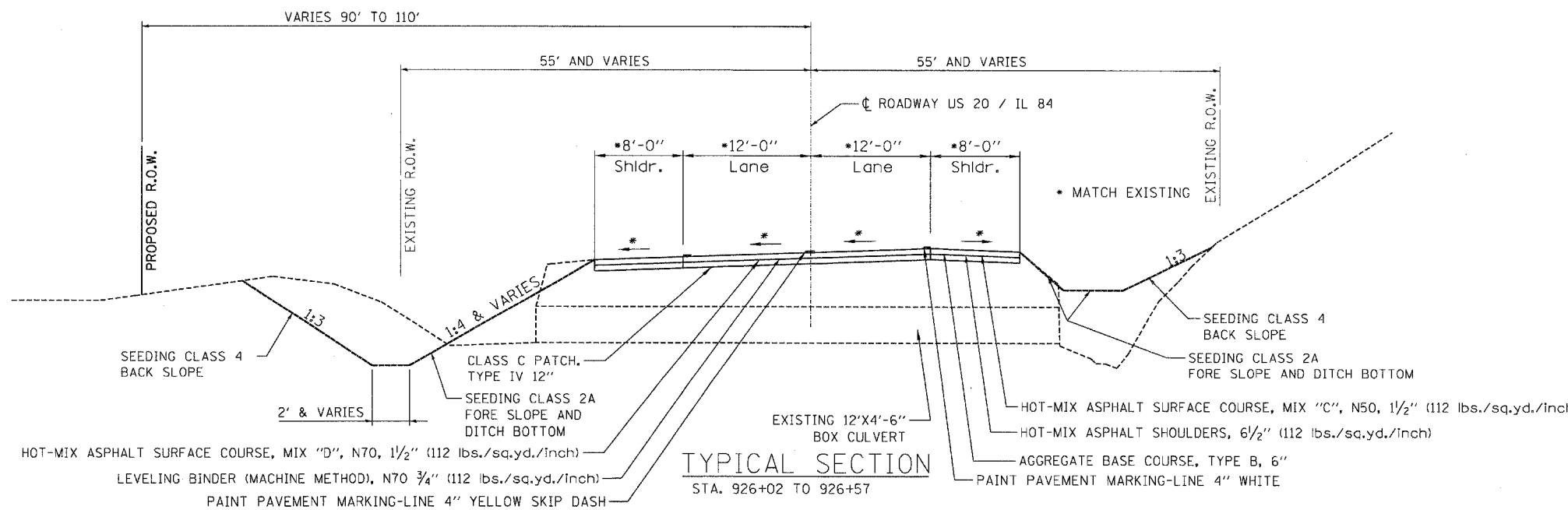
THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED.

USE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. WHEN RESURFACING EXISTING HOT-MIX ASPHALT SHOULDERS, THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310.

REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

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



HOT-MIX ASPHALT SHOULDER

FILE NAME = PA\2298-01 - US 20 Box Culvert\marstation_files\00 Sheet Files\210106TYP.dgn	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS		F.A.P. RTE. 301	SECTION 29T-1	COUNTY JO DAVIESS	TOTAL SHEETS 30	SHEET NO. 4	
PLOT SCALE = 10.0000' / IN.	CHECKED - JMS	DRAWN - FJS	REVISED -		SCALE: _____	SHEET NO. ____ OF ____ SHEETS	STA. _____ TO STA. _____	FED. ROAD DIST. NO. _____	ILLINOIS FED. AID PROJECT	CONTRACT NO. 64C58		
PLOT DATE = 3/25/2008	DATE - 3-28-08	REVISOR -	REVISOR -									

SCHEDULE OF QUANTITIES

20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)

UNIT	LOCATION		
8"	923+95	94 RT	
8"	923+91	94 RT	
8"	923+47	83 RT	
8"	923+45	84 RT	
8"	923+39	94 RT	
8"	923+10	99 RT	
8"	923+06	105 RT	
8"	923+04	124 RT	
8"	922+78	115 RT	
8"	922+99	105 RT	
8"	923+00	90 RT	
8"	923+17	131 RT	
8"	923+35	103 RT	
8"	923+37	97 RT	
8"	923+39	94 RT	
10"	924+01	95 RT	
10"	923+96	95 RT	
10"	923+85	103 RT	
10"	923+37	97 RT	
10"	923+28	94 RT	
10"	923+00	131 RT	
12"	926+50	90 LT	
12"	923+75	92 RT	
12"	924+22	79 RT	
12"	923+11	100 RT	
12"	923+08	130 RT	
14"	924+01	100 RT	
14"	923+87	89 RT	
14"	922+68	125 RT	
14"	922+90	180 RT	
14"	923+46	92 RT	
310 TOTAL			

20100210 TREE REMOVAL (OVER 15 UNITS DIAMETER)

UNIT	LOCATION		
16"	926+42	70 LT	
16"	926+39	69 LT	
16"	926+42	86 LT	
16"	926+39	83 LT	
16"	927+56	96 LT	
16"	927+59	95 LT	
16"	923+09	109 RT	
16"	922+89	95 RT	
16"	923+49	113 RT	
18"	924+36	87 RT	
18"	924+11	91 RT	
18"	923+32	121 RT	
36"	926+34	60 LT	
36"	926+39	57 LT	
270 TOTAL			

20200100 EARTH EXCAVATION

STA. 922 + 25 TO STA. 929+25			
EARTH EX CUT (CY)	EARTH EX ADJ. SHRINK 25%	FILL (CY)	EARTH WORK BALANCE WASTE (CY)
3166	2375	464	1911

25000210 SEEDING, CLASS 2A

ACRE	LOCATION		
0.4	STA. 922 + 25 TO STA. 929 + 25	LT	
0.6	STA. 922 + 25 TO STA. 929 + 25	RT	
1 TOTAL			

25000310 SEEDING, CLASS 4

ACRE	LOCATION		
0.5	STA. 922 + 25 TO STA. 929 + 25	LT	
0.75	STA. 922 + 25 TO STA. 929 + 25	RT	
1.25 TOTAL			

25000750 MOWING

ACRE	LOCATION		
0.4	STA. 922 + 25 TO STA. 929 + 25	LT	
0.6	STA. 922 + 25 TO STA. 929 + 25	RT	
1 TOTAL			

25100115 MULCH, METHOD 2

ACRE	LOCATION		
1	STA. 922 + 25 TO STA. 929 + 25	LT	
0.75	STA. 922 + 25 TO STA. 929 + 25	RT	
1.75 TOTAL			

25100630 EROSION CONTROL BLANKET

SQ YD	LOCATION		
564	STA. 922 + 25 TO STA. 929 + 25	LT	
613	STA. 922 + 25 TO STA. 929 + 25	RT	
1177 TOTAL			

28000250 TEMPORARY EROSION CONTROL SEEDING

POUND	LOCATION		
900	STA. 922 + 25 TO STA. 929 + 25	100 LB/ACRE	
900 TOTAL			

28000300 TEMPORARY DITCH CHECKS

EACH	LOCATION		
1	STA. 922 + 37	RT	
1	STA. 922 + 60	LT	
1	STA. 922 + 87	RT	
1	STA. 923 + 10	LT	
1	STA. 923 + 37	RT	
1	STA. 923 + 60	LT	
1	STA. 924 + 10	LT	
1	STA. 924 + 33	RT	
1	STA. 924 + 83	RT	
1	STA. 925 + 33	RT	
1	STA. 925 + 59	LT	
1	STA. 925 + 83	RT	
1	STA. 926 + 09	LT	
1	STA. 926 + 33	RT	
1	STA. 926 + 59	LT	
1	STA. 926 + 83	RT	
1	STA. 927 + 18	LT	
1	STA. 927 + 33	RT	
1	STA. 927 + 68	LT	
1	STA. 927 + 83	RT	
1	STA. 928 + 14	LT	
1	STA. 928 + 33	RT	
1	STA. 928 + 61	LT	
1	STA. 928 + 83	RT	
24 TOTAL			

28000400 PERIMETER EROSION BARRIER

FOOT	LOCATION		
719	STA. 922 + 25 TO STA. 929 + 25	RT	
783	STA. 922 + 25 TO STA. 929 + 25	LT	
1502 TOTAL			

28000500 INLET AND PIPE PROTECTION

EACH	LOCATION		
1	STA. 928 + 47	RT	
1 TOTAL			

28100107 STONE RIPRAP, CLASS A4

SQ YD	LOCATION		
350	STA. 923 + 95	RT (35'X90')	
78	STA. 924 + 80	LT (35'X20')	
428 TOTAL			

28200200 FILTER FABRIC

SQ YD	LOCATION		
350	STA. 923 + 95	RT	
78	STA. 924 + 80	LT	
428 TOTAL			

35101800 AGGREGATE BASE COURSE, TYPE B 6"

SQ YD	LOCATION		
160	STA. 923 + 94 TO STA. 924 + 74	RT, LT	
110	STA. 926 + 02 TO STA. 926 + 57	RT, LT	
270 TOTAL			

40600635 LEVELING BINDER (MACHINE METHOD), N70

TON	LOCATION		
105	STA. 922 + 25 TO STA. 929 + 25		
105 TOTAL			

40600982 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

SQ YD	LOCATION		
66.5	STA. 922 + 25 TO STA. 922 + 50		
66.5	STA. 929 + 00 TO STA. 929 + 25		
133 TOTAL			

40603310 HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50

TON	LOCATION		
105	STA. 922 + 25 TO STA. 929 + 25	SHOULDERS LT, RT	
105 TOTAL			

40603340 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

TON	LOCATION		
157	STA. 922 + 25 TO STA. 929 + 25		
157 TOTAL			

44201383 CLASS C PATCHES, TYPE IV, 12 INCH

SQ YD	LOCATION		
213	STA. 923 + 94 TO STA. 924 + 74	(80'X24')	
147	STA. 926 + 02 TO STA. 926 + 57	(55'X24')	
360 TOTAL			

48203023 HOT-MIX ASPHALT SHOULDERS, 6-1/2"

SQ YD	LOCATION		
142	STA. 923 + 94 TO STA. 924 + 74	RT, LT	
98	STA. 926 + 02 TO STA. 926 + 57	RT, LT	
240 TOTAL			

50105200 REMOVE EXISTING CULVERTS

EACH	LOCATION		
1	STA. 926 + 27.88		
1 TOTAL			

63500105 DELINEATORS

EACH	LOCATION		
2	ONE AT EACH END OF PROPOSED CULVERT		
2 TOTAL			

66600105 FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS

EACH	LOCATION		
1	STA. 922 + 00	52.63 LT	
1	STA. 923 + 75	130 RT	
1	STA. 922 + 47.3	134.05 RT	
1	STA. 924 + 00	90.0 LT	
1	STA. 924 + 50	86.15 RT	
1	STA. 926 + 00	90.0 LT	
1	STA. 926 + 50	110.0 LT	
1	STA. 927 + 50	110.0 LT	
1	STA. 929 + 00	51.69 LT	
9 TOTAL			

66700305 PERMANENT SURVEY MARKERS, TYPE II

EACH	LOCATION		
1	MARKER PLACED NEAR THE PROPOSED STRUCTURE		
1 TOTAL			

70300100 SHORT-TERM PAVEMENT MARKING

FOOT	LOCATION		
144	STA. 922 + 25 TO STA. 929+25	CENTERLINE	
56	STA. 922 + 25 TO STA. 929+25	EOP RT	
56	STA. 922 + 25 TO STA. 929+25	EOP LT	
256 TOTAL			

70300520 PAVEMENT MARKING TAPE, TYPE III 4"

FOOT	LOCATION		
873	STA. 921 + 11 TO STA. 929+84	STAGE 1, LT	
605	STA. 922 + 23 TO STA. 928+28	STAGE 1, RT	
605	STA. 922 + 23 TO STA. 928+28	STAGE 2, LT	
873	STA. 922 + 67 TO STA. 929+40	STAGE 2, RT	
2956 TOTAL			

70300570 PAVEMENT MARKING TAPE, TYPE III 24"

FOOT	LOCATION		
12	STA. 920 + 51	STAGE 1,2	
12	STA. 930 + 00	STAGE 1,2	
24 TOTAL			

70301000 WORK ZONE PAVEMENT MARKING REMOVAL

SQ FT	LOCATION		
488	STA. 921 + 11 TO STA. 928+28	RT, LT STAGE 1	
536	STA. 920 + 51 TO STA. 930+00	RT, LT STAGE 2	
1024 TOTAL			

70400100 TEMPORARY CONCRETE BARRIER

FOOT	LOCATION		
637.5	STA. 922 + 06.5 TO STA. 928 + 44	STAGE 1	
637.5 TOTAL			

70400200 RELOCATE TEMPORARY CONCRETE BARRIER

FOOT	LOCATION		
637.5	STA. 922 + 06.5 TO STA. 928 + 44	STAGE 2	
637.5 TOTAL			

78001110 PAINT PAVEMENT MARKING-LINE 4"

FOOT	LOCATION		
1834	STA. 920 + 67 TO STA. 929+84	EOP	2 APPLICATIONS
1834	STA. 920 + 67 TO STA. 929+84	EOP	2 APPLICATIONS
460	STA. 920 + 67 TO STA. 929+84	CL SKIP DASH	2 APPLICATIONS
4128 TOTAL			

78300100 PAVEMENT MARKING REMOVAL

SQ FT	LOCATION		
306	STA. 920 + 67 TO STA. 929+84	EOP	
306	STA. 920 + 67 TO STA. 929+84	EOP	
76	STA. 920 + 67 TO STA. 929+84	CENETRLINE	
688 TOTAL			

A2006714 TREE, QUERCUS MACROCARPA (BUR OAK), 1 3/4" CALIPER, BALLED AND BURLAPPED

EACH	LOCATION		
45	AS DIRECTED BY DISTRICT LANDSCAPE ARCHITECT		
45 TOTAL			

Z0014800 CULVERT TO BE CLEANED

FOOT	LOCATION		
50	STA. 924 + 50	25 RT TO 25 LT	30" ELLIPTICAL PIPE
50 TOTAL			

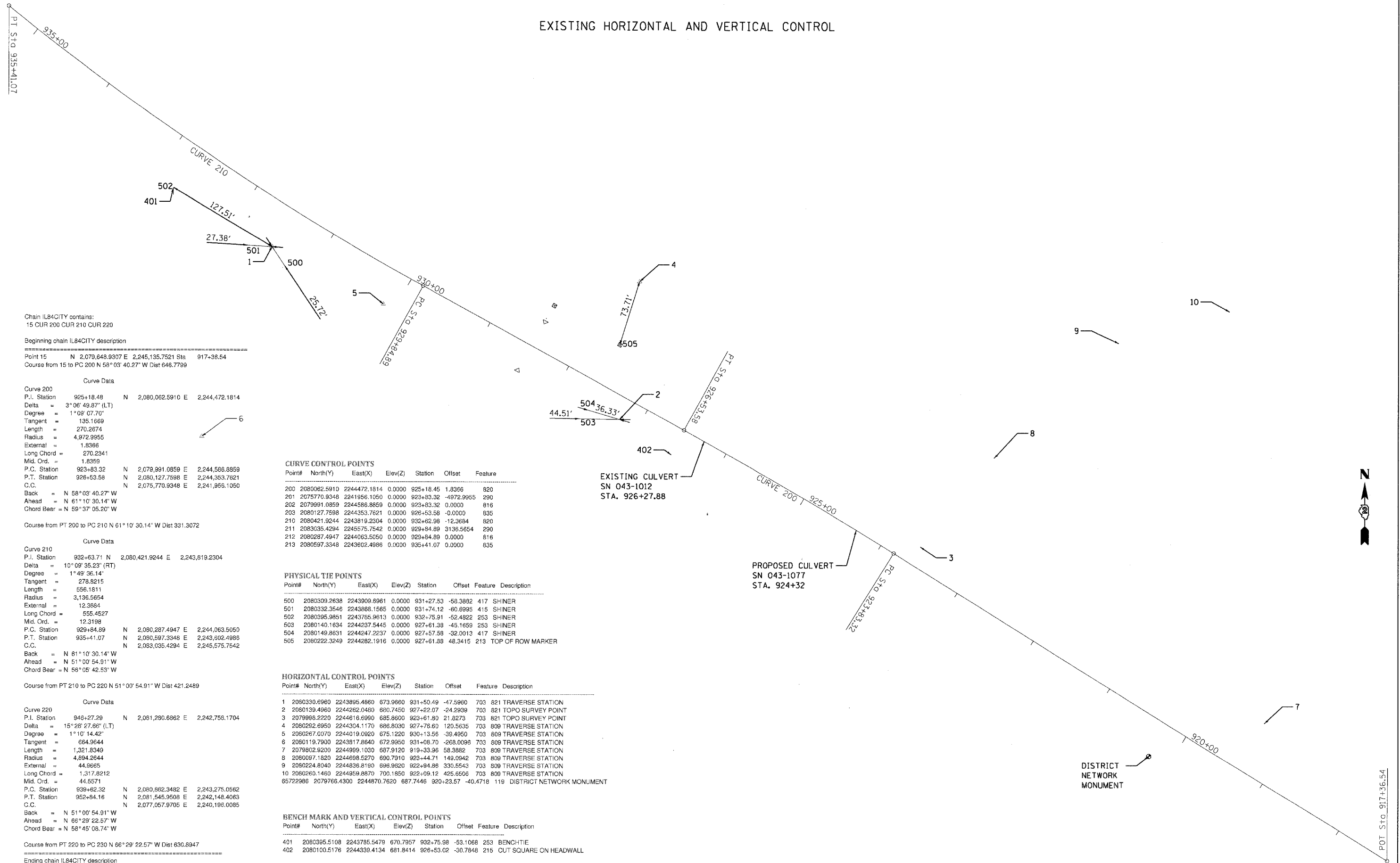
Z0030250 IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3

EACH	LOCATION		
1	STA. 922 + 13	STAGE 1	
1	STA. 928 + 38	STAGE 1	
2 TOTAL			

Z0030350 IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3

EACH	LOCATION		
1	STA. 922 + 13	STAGE 2	
1	STA. 928 + 38	STAGE 2	
2 TOTAL			

EXISTING HORIZONTAL AND VERTICAL CONTROL



Chain IL84CITY contains:
15 CUR 200 CUR 210 CUR 220

Beginning chain IL84CITY description

Point 15 N 2,079,648.9307 E 2,245,135.7521 Sta 917+38.54
Course from 15 to PC 200 N 58° 03' 40.27" W Dist 646.7799

Curve Data

Curve 200
P.I. Station 925+18.48 N 2,080,062.5910 E 2,244,472.1814
Delta = 3° 06' 49.87" (LT)
Degree = 1° 09' 07.70"
Tangent = 135.1669
Length = 270.2674
Radius = 4,972.9355
External = 1.5366
Long Chord = 270.2341
Mid. Ord. = 1.8359
P.C. Station 923+83.32 N 2,079,991.0859 E 2,244,586.8859
P.T. Station 926+53.58 N 2,080,127.7598 E 2,244,353.7621
C.C. = N 58° 03' 40.27" W
Back = N 61° 10' 30.14" W
Ahead = N 59° 37' 05.20" W

Course from PT 200 to PC 210 N 61° 10' 30.14" W Dist 331.3072

Curve Data

Curve 210
P.I. Station 932+63.71 N 2,080,421.9244 E 2,243,819.2304
Delta = 10° 09' 35.23" (RT)
Degree = 1° 49' 36.14"
Tangent = 278.8215
Length = 556.1811
Radius = 3,136.5654
External = 12.3684
Long Chord = 555.4527
Mid. Ord. = 12.3198
P.C. Station 929+84.89 N 2,080,287.4947 E 2,244,063.5050
P.T. Station 935+41.07 N 2,080,597.3348 E 2,243,602.4986
C.C. = N 81° 10' 30.14" W
Back = N 51° 00' 54.91" W
Ahead = N 56° 05' 42.53" W

Course from PT 210 to PC 220 N 51° 00' 54.91" W Dist 421.2489

Curve Data

Curve 220
P.I. Station 946+27.29 N 2,061,280.6862 E 2,242,758.1704
Delta = 15° 28' 27.66" (LT)
Degree = 1° 10' 14.42"
Tangent = 664.9644
Length = 1,321.8349
Radius = 4,894.2644
External = 44.9665
Long Chord = 1,317.8212
Mid. Ord. = 44.5571
P.C. Station 939+82.32 N 2,080,862.3482 E 2,243,275.0562
P.T. Station 952+84.16 N 2,081,545.9508 E 2,242,148.4063
C.C. = N 51° 00' 54.91" W
Back = N 66° 29' 22.57" W
Ahead = N 58° 45' 08.74" W

Course from PT 220 to PC 230 N 66° 29' 22.57" W Dist 630.8947

Ending chain IL84CITY description

CURVE CONTROL POINTS

Point#	North(Y)	East(X)	Elev(Z)	Station	Offset	Feature
200	2080062.5910	2244472.1814	0.0000	925+18.45	1.8366	820
201	2075770.9348	2241956.1050	0.0000	923+83.32	-4972.9955	290
202	2079991.0859	2244586.8859	0.0000	923+83.32	0.0000	816
203	2080127.7598	2244353.7621	0.0000	926+53.58	-0.0000	835
210	2080421.9244	2243819.2304	0.0000	932+62.98	-12.3684	820
211	2083035.4294	2245575.7542	0.0000	929+84.89	3136.5654	290
212	2080287.4947	2244063.5050	0.0000	929+84.89	0.0000	816
213	2080597.3348	2243602.4986	0.0000	935+41.07	0.0000	835

PHYSICAL TIE POINTS

Point#	North(Y)	East(X)	Elev(Z)	Station	Offset	Feature Description
500	2080309.2638	2243909.6961	0.0000	931+27.53	-58.3892	417 SHINER
501	2080332.3546	2243868.1565	0.0000	931+74.12	-60.8995	415 SHINER
502	2080395.9851	2243765.9613	0.0000	932+75.91	-52.4822	253 SHINER
503	2080140.1634	2244237.5445	0.0000	927+61.38	-45.1659	253 SHINER
504	2080149.8631	2244247.2237	0.0000	927+57.58	-32.0013	217 SHINER
505	2080222.3249	2244282.1916	0.0000	927+61.88	48.3415	213 TOP OF ROW MARKER

HORIZONTAL CONTROL POINTS

Point#	North(Y)	East(X)	Elev(Z)	Station	Offset	Feature Description
1	2090330.6960	2243895.4660	673.9660	931+50.49	-47.5960	703 821 TRAVERSE STATION
2	2080139.4960	2244282.0480	680.7450	927+22.07	-24.2939	703 821 TOPO SURVEY POINT
3	2079996.2220	2244616.6990	685.8600	923+61.80	21.8273	703 821 TOPO SURVEY POINT
4	2080292.6950	2244304.1170	686.8030	927+76.60	120.5635	703 809 TRAVERSE STATION
5	2080267.0070	2244019.0920	675.1220	930+13.56	-39.4950	703 809 TRAVERSE STATION
6	2080119.7900	2243817.8640	672.9950	931+08.70	-268.0096	703 809 TRAVERSE STATION
7	2079802.9200	2244999.1030	687.9120	919+33.96	58.3882	703 809 TRAVERSE STATION
8	2080097.1820	2244698.5270	690.7910	923+44.71	149.0942	703 809 TRAVERSE STATION
9	2080224.8040	2244836.8190	696.9620	922+94.86	330.5543	703 809 TRAVERSE STATION
10	2080260.1460	2244959.8870	700.1850	922+09.12	425.6506	703 809 TRAVERSE STATION
6572296	2079766.4300	2244870.7620	687.7446	920+23.57	-40.4718	119 DISTRICT NETWORK MONUMENT

BENCH MARK AND VERTICAL CONTROL POINTS

Point#	North(Y)	East(X)	Elev(Z)	Station	Offset	Feature Description
401	2080395.5108	2243785.5479	670.7957	932+75.98	-53.1068	253 BENCHTIE
402	2080100.5176	2244339.4134	681.8414	926+53.02	-30.7848	215 CUT SQUARE ON HEADWALL

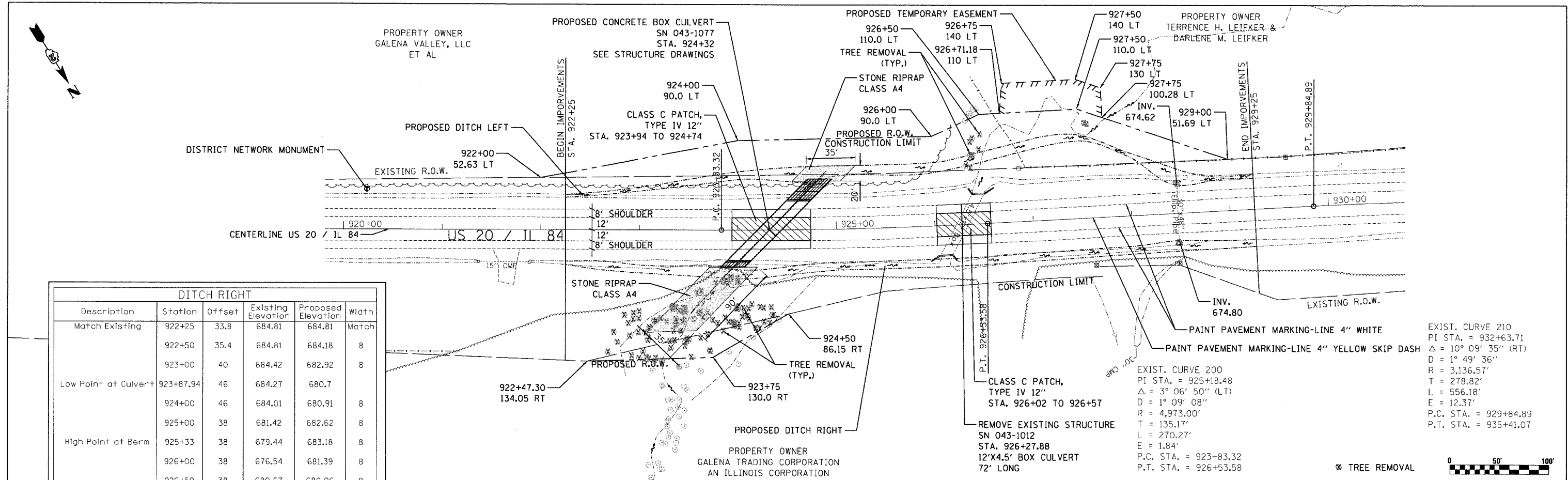


POT. STA. 917+36.54

FILE NAME =	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALIGNMENT, TIES AND BENCHMARKS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\2298-01 - US 20 Box Culvert\microstation files\00 Sheet Files\210106HVC.dgn	DRAWN - AJP	REVISED -	301			29T-1	JODAVIESS	30	6	
PLOT SCALE = 50.0000' / IN.	CHECKED - JMS	REVISED -	CONTRACT NO. 64C58							
PLOT DATE = 3/25/2008	DATE - 3-28-08	REVISED -	ILLINOIS FED. AID PROJECT							
SCALE: 1"=50'		SHEET NO. 1 OF 1 SHEETS		STA. 917+36.54 TO STA. 935+41.07						

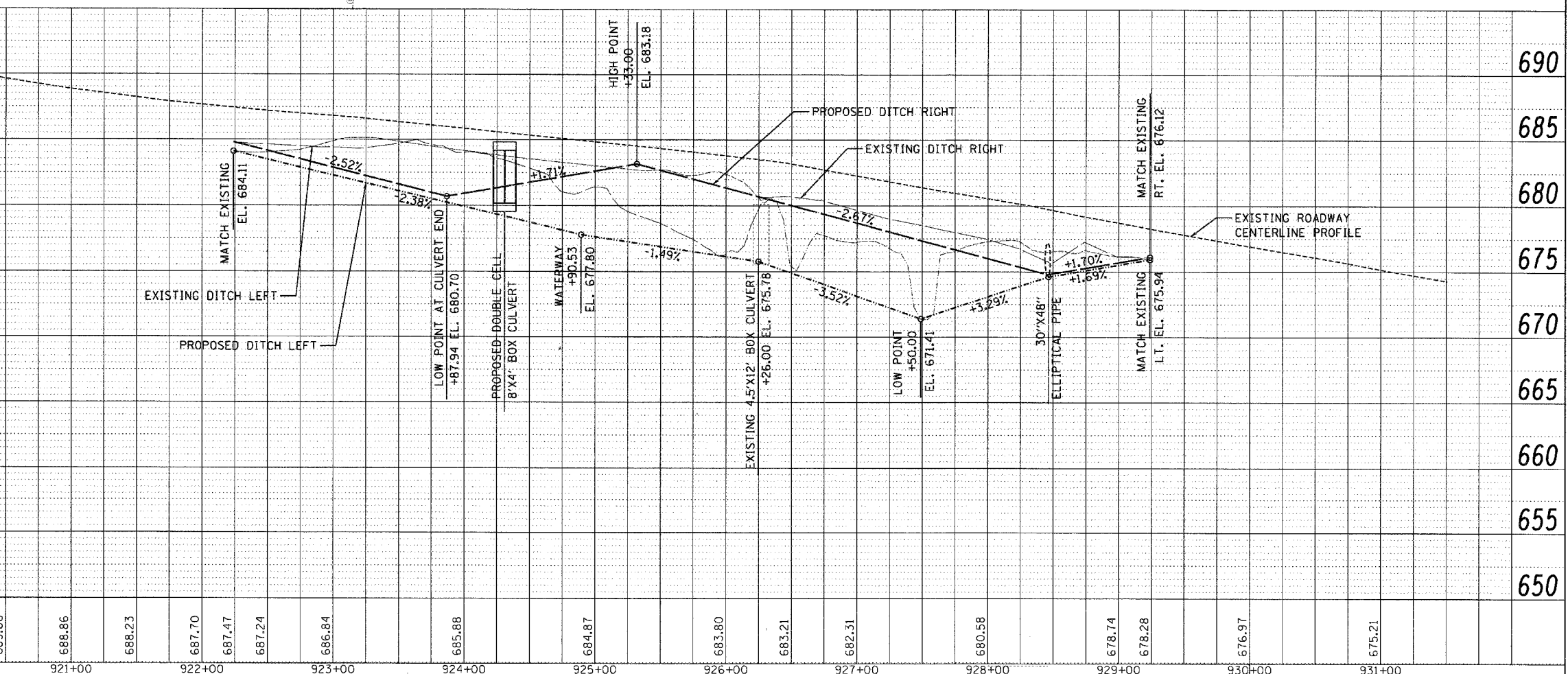
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	PLOTTED	
	CHECKED	
	BY	
	NO.	
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO.	
	FILE NAME	

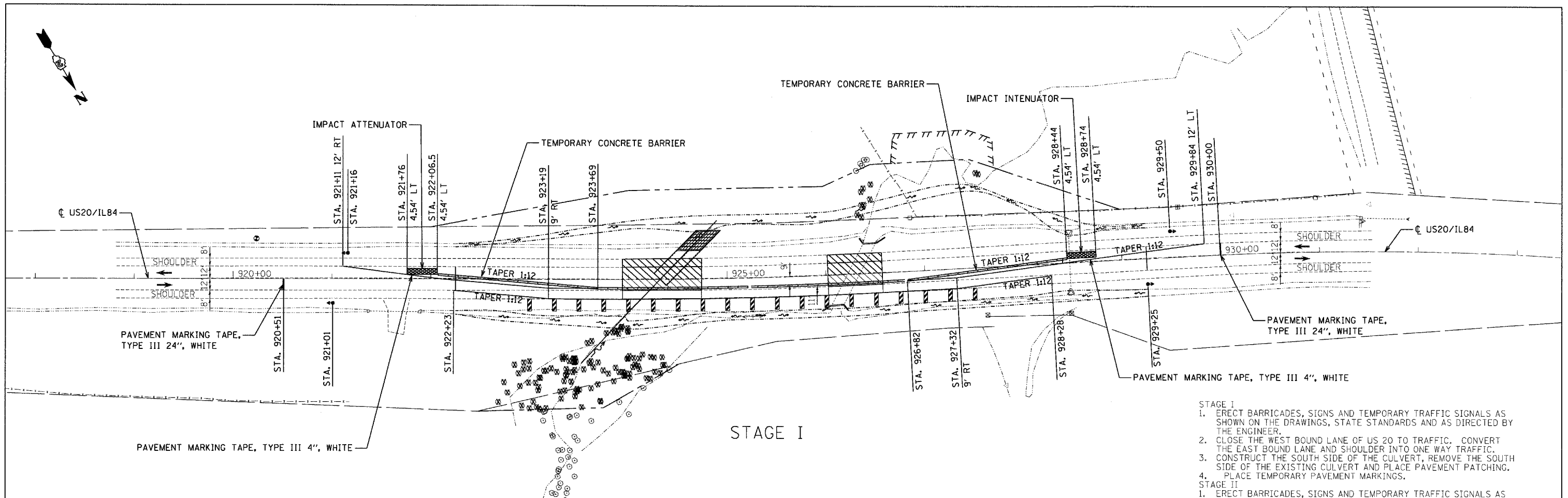


DITCH RIGHT					
Description	Station	Offset	Existing Elevation	Proposed Elevation	Width
Match Existing	922+25	33.8	684.81	684.81	Match
	922+50	35.4	684.81	684.18	8
	923+00	40	684.42	682.92	8
Low Point at Culvert	923+87.94	46	684.27	680.7	
	924+00	46	684.01	680.91	8
	925+00	38	681.42	682.62	8
High Point at Berm	925+33	38	679.44	683.18	8
	926+00	38	676.54	681.39	8
	926+50	38	680.67	680.06	8
	927+00	36.8	679.8	678.72	8
	927+50	36.1	679.2	677.39	8
	928+00	35.3	677.58	676.05	8
Elliptical Pipe Invert	928+46.89	34.6	674.87	674.8	8
	929+00	34.4	676.81	675.7	8
Match Existing	929+25	34.4	676.12	676.12	8

DITCH LEFT					
Description	Station	Offset	Existing Elevation	Proposed Elevation	Width
Match Existing	922+25	-34.1	684.11	684.11	Match
	922+50	-35.8	684.04	683.52	3
	923+00	-41	684.87	682.33	4
	924+00	-55	684.16	679.96	8
Culvert	924+90.53	-59	683.14	677.8	
	925+00	-59	683.05	677.66	10
	926+00	-59	682.46	676.17	10
Waterway	926+26		674.96	675.78	
	926+50	-67	676.15	674.93	10
	927+00	-77	677.21	673.17	10
Low Point	927+50	-81	671.41	671.41	6
	928+00	-61.5	676.34	673.06	4
Elliptical Pipe Invert	928+47.55	-42.9	674.62	674.62	
	929+00	-33.5	676.18	675.51	2
Match Existing	929+25	-33.6	675.94	675.94	Match

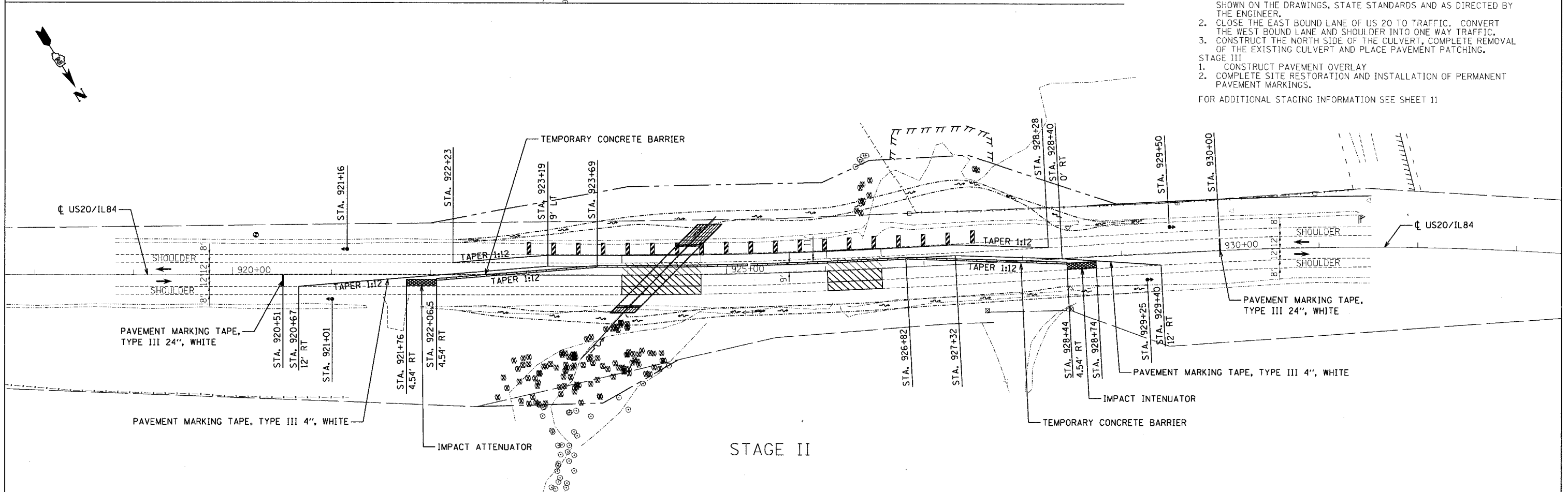


692.58	691.51	690.54	689.66	688.86	688.23	687.70	687.47	687.24	686.84	685.88	684.87	683.80	683.21	682.31	680.58	678.74	678.28	676.97	675.21	
919+00	920+00	921+00	922+00	923+00	924+00	925+00	926+00	927+00	928+00	929+00	930+00	931+00								



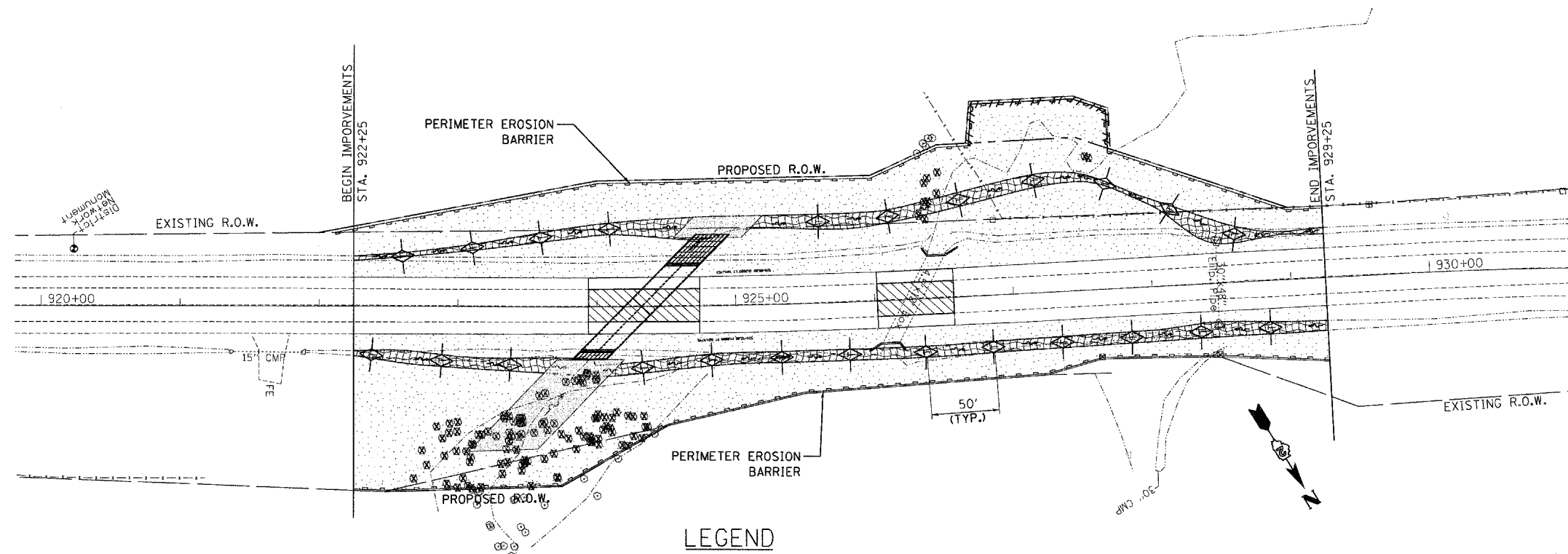
STAGE I

- STAGE I
1. ERECT BARRICADES, SIGNS AND TEMPORARY TRAFFIC SIGNALS AS SHOWN ON THE DRAWINGS, STATE STANDARDS AND AS DIRECTED BY THE ENGINEER.
 2. CLOSE THE WEST BOUND LANE OF US 20 TO TRAFFIC. CONVERT THE EAST BOUND LANE AND SHOULDER INTO ONE WAY TRAFFIC.
 3. CONSTRUCT THE SOUTH SIDE OF THE CULVERT AND PLACE PAVEMENT PATCHING.
 4. PLACE TEMPORARY PAVEMENT MARKINGS.
- STAGE II
1. ERECT BARRICADES, SIGNS AND TEMPORARY TRAFFIC SIGNALS AS SHOWN ON THE DRAWINGS, STATE STANDARDS AND AS DIRECTED BY THE ENGINEER.
 2. CLOSE THE EAST BOUND LANE OF US 20 TO TRAFFIC. CONVERT THE WEST BOUND LANE AND SHOULDER INTO ONE WAY TRAFFIC.
 3. CONSTRUCT THE NORTH SIDE OF THE CULVERT, COMPLETE REMOVAL OF THE EXISTING CULVERT AND PLACE PAVEMENT PATCHING.
- STAGE III
1. CONSTRUCT PAVEMENT OVERLAY
 2. COMPLETE SITE RESTORATION AND INSTALLATION OF PERMANENT PAVEMENT MARKINGS.
- FOR ADDITIONAL STAGING INFORMATION SEE SHEET 11


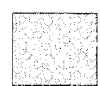


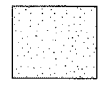
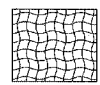


STAGE II

FILE NAME =	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC STAGING PLANS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PA\2298-01 - US 20 Box Culvert\marostation	Files\00 Sheet Files\Z10106ST0.dgn	DRAWN - AJP	REVISED -				301	29T-1	JO DAVIESS	30	8
PLOT SCALE = 50,0000' / IN.	CHECKED - JMS	REVISED -	CONTRACT NO. 64C58								
PLOT DATE = 3/25/2008	DATE - 3-28-08	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								



LEGEND

-  TEMPORARY DITCH CHECK
-  STONE RIPRAP
-  PERIMETER EROSION BARRIER
-  TREE REMOVAL
-  SEEDING
-  EROSION CONTROL BLANKET

FILE NAME =	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -
PA\2298-01 - US 20 Box Culvert\microstation files\00 Sheet Files\Z10106ER.dgn	DRAWN - FJS	CHECKED - JMS	REVISED -
PLOT SCALE = 49,9998' / IN.	DATE - 3-28-08		
PLOT DATE = 3/25/2008			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EROSION CONTROL PLAN

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	29T-1	JO DAVIESS	30	9
CONTRACT NO. 64C58				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

Bench Mark: District Network Monument at approx. Sta. 920+00, Elevation 687.736

Existing Structure: S.N. 043-1012 is approximately 200' west at Sta. 926+26 constructed in 1925, extended in 1963 and 1986. 12'x4'-6" Concrete Box Culvert to be removed.

No Salvage.

One lane of traffic to be maintained under stage construction.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
F.A.P. 301	29T-1	JO DAVIESS	30	10	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

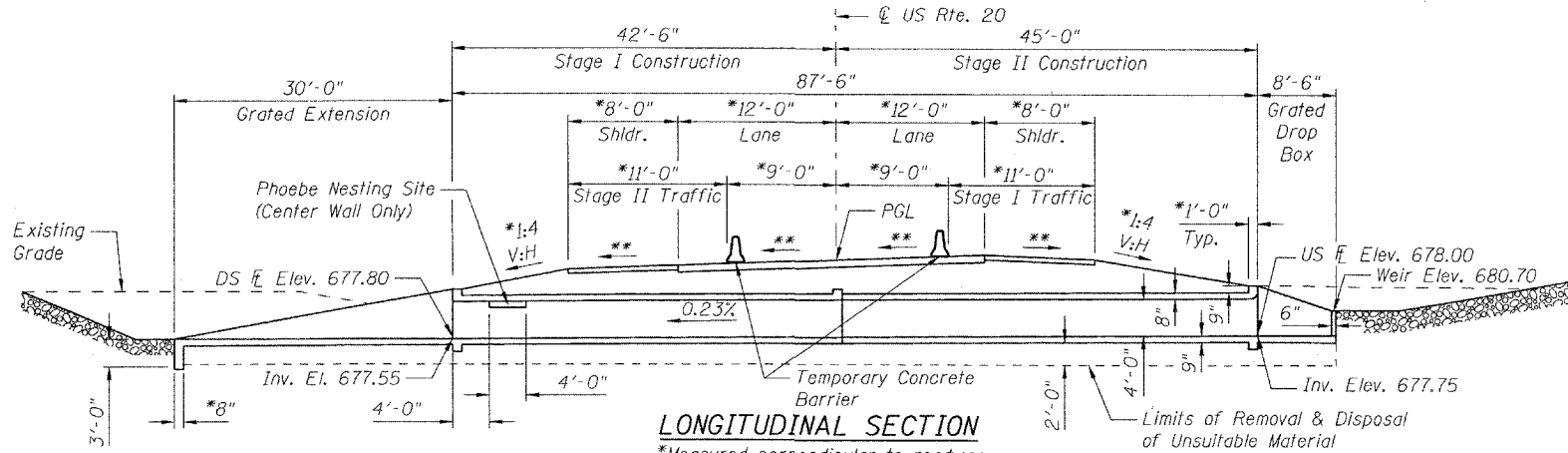
Contract #64C58

INDEX OF SHEETS

1. General Plan
2. Stage Construction
3. Culvert Plan
4. Culvert Sections
5. Culvert Details
6. Grated Drop Box
7. Grated Extension
8. Bar Splicer Assembly Details
9. Boring Log

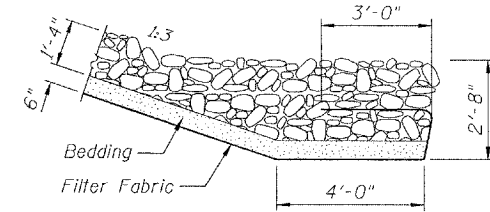
GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.
2. Exposed edges shall have a 3/4" chamfer.
3. The proposed grated end sections (headwalls and wingwalls) shall extend less than 4 inches (i.e. 3 inches typical) above the adjacent ground elevation.
4. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
5. Precast alternate is not allowed.
6. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
7. The contract unit price "Cu Yd" for Concrete Box Culverts shall include the Galvanized Pipe, Pipe Caps, Bolts, Nuts, Washers, Steel Plates, earth excavation, backfilling, compacted CA-7 aggregate bedding material and necessary grading.

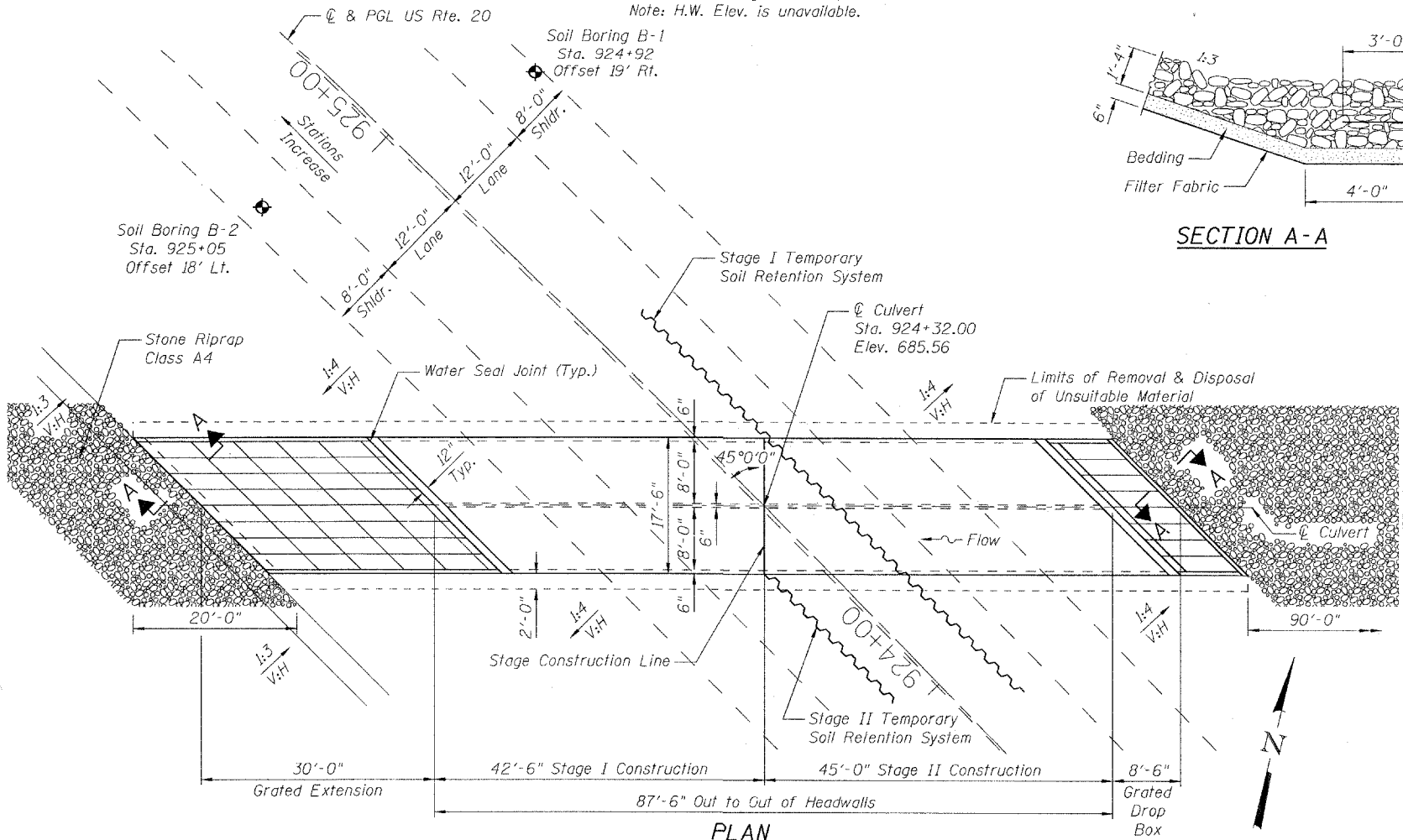


LONGITUDINAL SECTION

*Measured perpendicular to roadway
** Match existing cross slopes
Note: H.W. Elev. is unavailable.



SECTION A-A



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material	Cu. Yd.	201
Stone Riprap, Class A4	Sq. Yd.	428
Filter Fabric	Sq. Yd.	428
Remove Existing Culverts	Each	1
Reinforcement Bars	Pound	40,170
Bar Splicers	Each	129
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	129.0
Temporary Soil Retention System	Sq. Ft.	836
Breaker-Run Crushed Stone	Ton	244

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 35,000$ psi (steel pipe)

HORIZONTAL CURVE DATA

Exist. Curve 200
PI Sta. = 925+18.48
 $\Delta = 3^\circ 06' 50''$ (LT)
 $D = 1^\circ 09' 08''$
 $R = 4,973.00'$
 $T = 135.17'$
 $L = 270.27'$
 $E = 1.84'$
S.E. Run = Match Existing
P.C. Sta. = 923+83.32
P.T. Sta. = 926+53.58

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	674.75	674.55

WATERWAY INFORMATION

Drainage Area = 155.0 acres
Existing Low Grade Elev. 680.56 ft. @ Sta. 926+71
Proposed Low Grade Elev. 683.18 ft. @ Sta. 925+33

Flood Year	Frequency Year	Discharge cfs	Headwater Elev. (ft)	
			Existing	Proposed
Ten-Year	10	288	x	682.58
Design	50	401	x	682.52
Base	100	461	x	682.96
OVT (E)	2	205		680.56
OVT (P)	144	497		683.18

10-Year Velocity through Existing Culvert = 12.2 fps
10-Year Velocity through Proposed Culvert = 8.32 fps

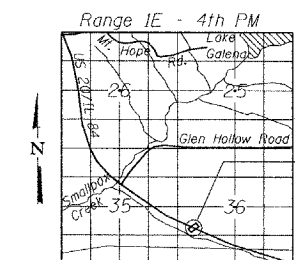
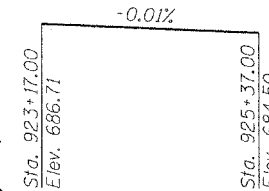


Signature: *Deborah A. Troia*
Date: March 24, 2008
November 30, 2008 Expires

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (TDP)
ENGINEER OF BRIDGES AND STRUCTURES

PROFILE GRADE
(along @ US Route 20)



LOCATION SKETCH

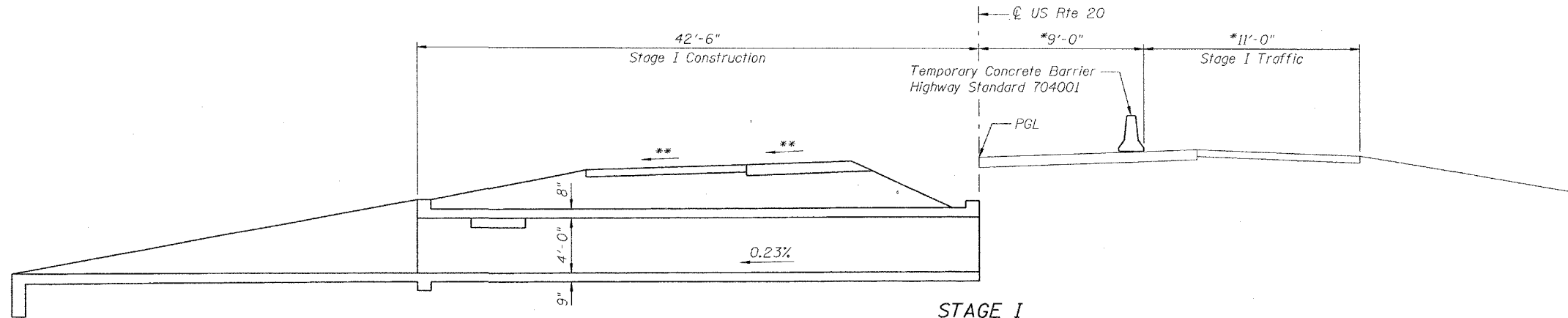
GENERAL PLAN
US ROUTE 20/IL ROUTE 84
OVER UNNAMED TRIBUTARY
TO SMALLPOX CREEK
F.A.P. 301 SECTION 29T-1
JO DAVIESS COUNTY
STATION 924+32.00
STRUCTURE NO. 043-1077

DESIGNED	LAS
CHECKED	DAZ
DRAWN	SAW
CHECKED	LAS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
F.A.P. 301	29T-1	JO DAVIESS	30	11	9 SHEETS
FED. AID DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #64C58



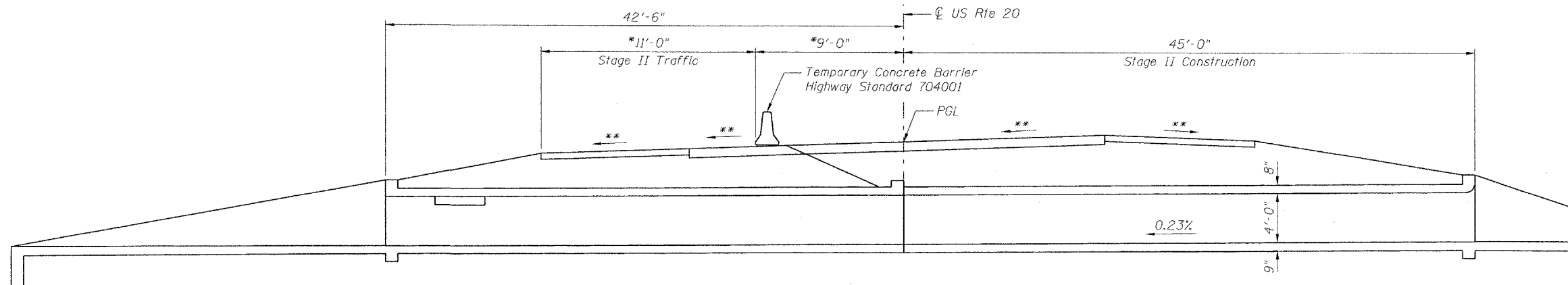
STAGE I

(Looking North)

- * Measured Perpendicular to Roadway
- ** Match Existing Cross Slopes

BILL OF MATERIAL

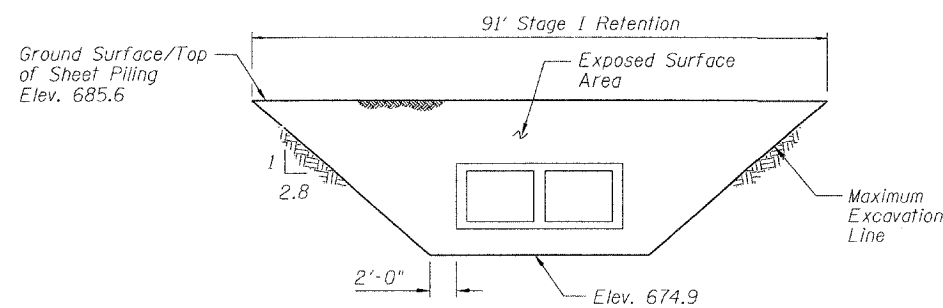
ITEM	UNIT	QUANTITY
Remove Existing Culverts	Each	1
Temporary Soil Retention System	Sq. Ft.	836



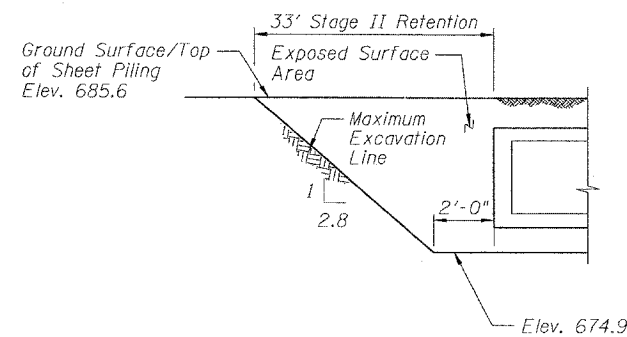
STAGE II

(Looking North)

- * Measured Perpendicular to Roadway
- ** Match Existing Cross Slopes



**STAGE I TEMPORARY
SOIL RETENTION SYSTEM**



**STAGE II TEMPORARY
SOIL RETENTION SYSTEM**

NOTES

1. Hard driving may be encountered during the sheet piling installation. The Contractor shall provide the appropriate equipment for the soil conditions indicated on the boring logs.
2. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
3. Portion of Stage I Temporary Soil Retention System on North side of Box Culvert to remain in place and be utilized during Stage II construction.

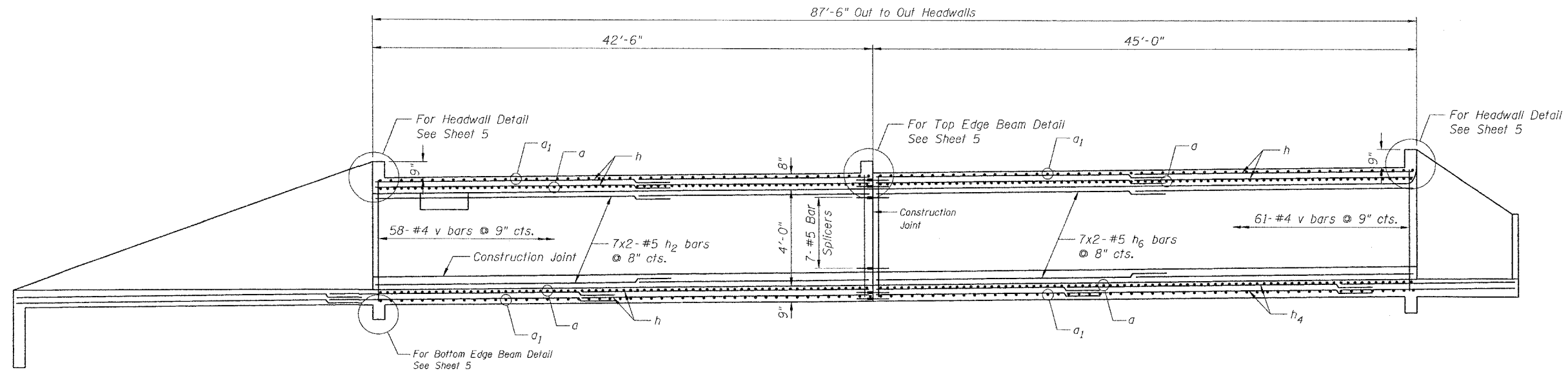
DESIGNED	LAS
CHECKED	DAZ
DRAWN	SAW
CHECKED	LAS

STAGE CONSTRUCTION
US ROUTE 20/IL ROUTE 84
OVER UNNAMED TRIBUTARY
TO SMALLPOX CREEK
F.A.P. 301 SECTION 29T-1
JO DAVIESS COUNTY
STATION 924+32.00
STRUCTURE NO. 043-1077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO.
F.A.P. 301	29T-1	JO DAVIESS	30	13	9 SHEETS
FED. ROAD DIST. NO. 7	SUB. PROJ.	FED. AID PROJECT			

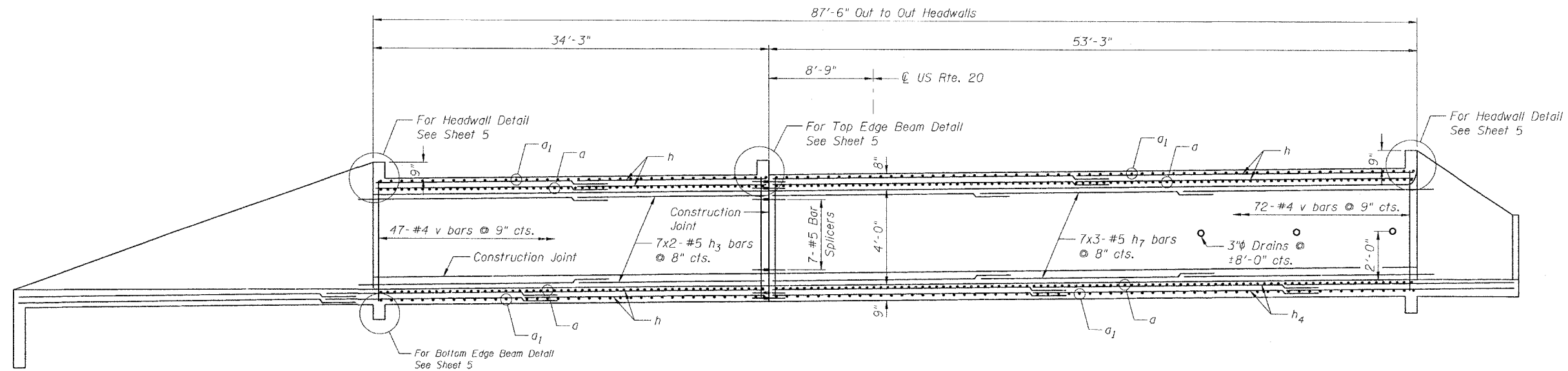
Contract #64C58



**LONGITUDINAL SECTION
CENTER WALL**

(Looking North)

*Measured Perpendicular to Roadway



**LONGITUDINAL SECTION
SOUTH WALL**

(Looking North)

*Measured Perpendicular to Roadway

NOTES

- Bars indicated thus: 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
- Minimum Bar Laps (Unless noted otherwise)

Barrels

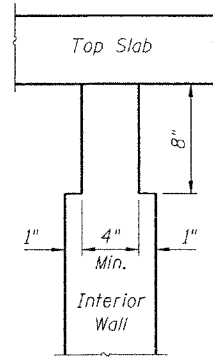
#4 bars	1'-4"
#5 bars	1'-8"
#6 bars	2'-0"

DESIGNED	LAS
CHECKED	DAZ
DRAWN	SAW
CHECKED	LAS

**CULVERT SECTIONS
US ROUTE 20/IL ROUTE 84
OVER UNNAMED TRIBUTARY
TO SMALLPOX CREEK
F.A.P. 301 SECTION 29T-1
JO DAVIESS COUNTY
STATION 924+32.00
STRUCTURE NO. 043-1077**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 301	29T-1	JO DAVIESS	30	14
SHEET NO. 5				
9 SHEETS				
FED. ROAD DIST. NO. 7	ALLIANCE	FED. AID PROJECT		
Contract #64C58				

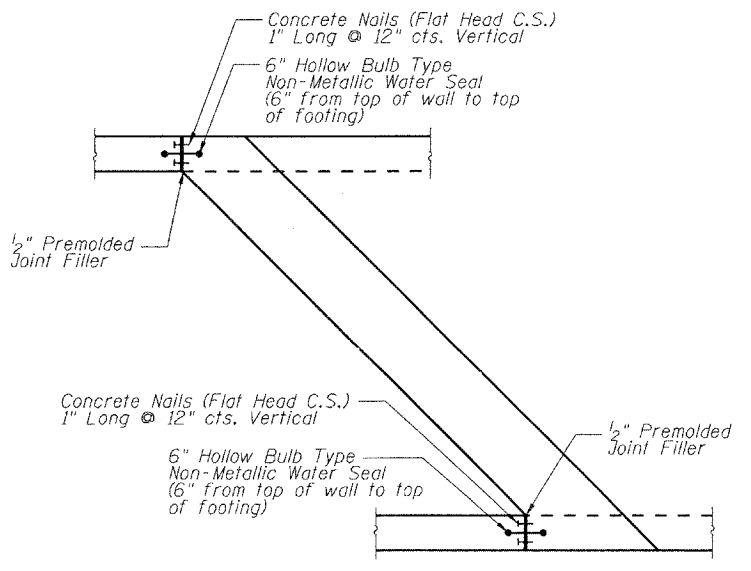


PHOEBE NESTING SITE NOTCH DETAIL

NOTE: Notch formed by rough-finished board attached to and removed with formwork.

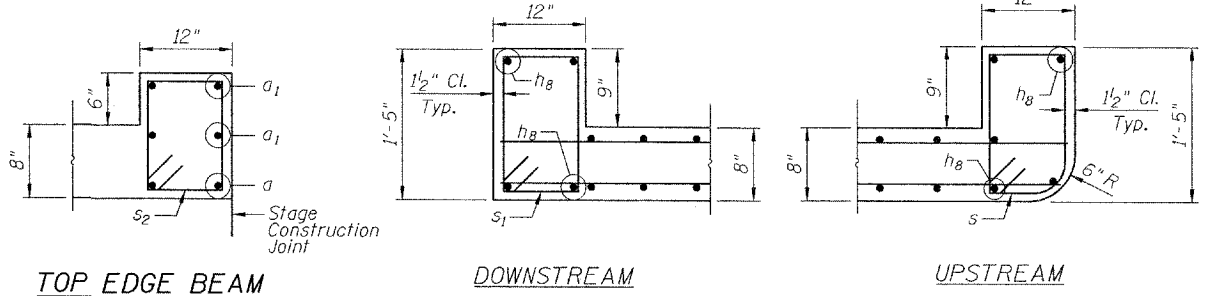
STATION 924+32.00
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 301/US ROUTE 20
SEC. NO. 29T-1
LOADING HS20
STR. NO. 043-1077

NAME PLATE
(See Std. 515001)

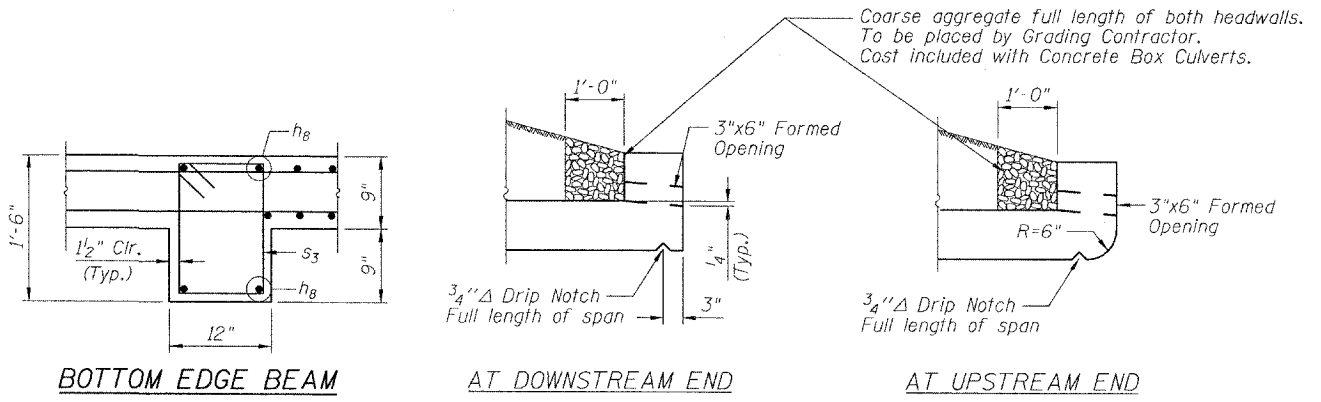


CORNER DETAIL

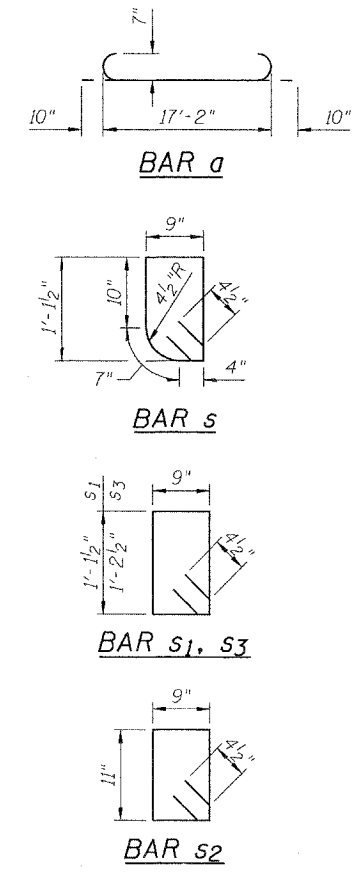
DESIGNED	LAS
CHECKED	DAZ
DRAWN	SAW
CHECKED	LAS



HEADWALL DETAILS

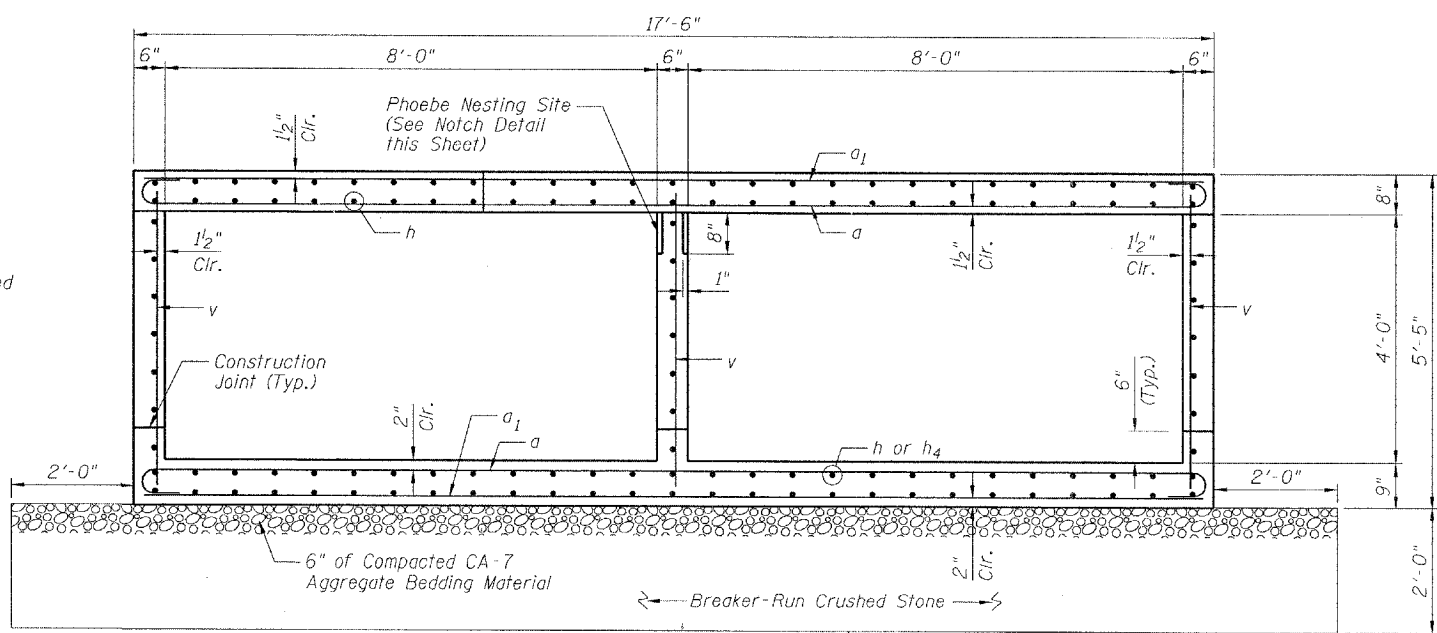


DRAIN DETAIL



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	302	#7	18'-10"	U
a ₁	204	#7	17'-2"	—
h	378	#5	28'-0"	—
h ₁	21	#5	18'-3"	—
h ₂	14	#5	21'-11"	—
h ₃	14	#5	18'-3"	—
h ₄	162	#5	21'-7"	—
h ₅	14	#5	19'-6"	—
h ₆	14	#5	23'-2"	—
h ₇	21	#5	19'-1"	—
h ₈	16	#6	23'-9"	—
s	26	#4	4'-5"	U
s ₁	26	#4	4'-6"	U
s ₂	18	#4	4'-1"	U
s ₃	52	#4	4'-9"	U
v	357	#4	5'-1"	—
Item		Unit	Quantity	
Concrete Box Culverts		Cu. Yd.	102.9	
Reinforcement Bars		Pound	37,650	



SECTION A-A

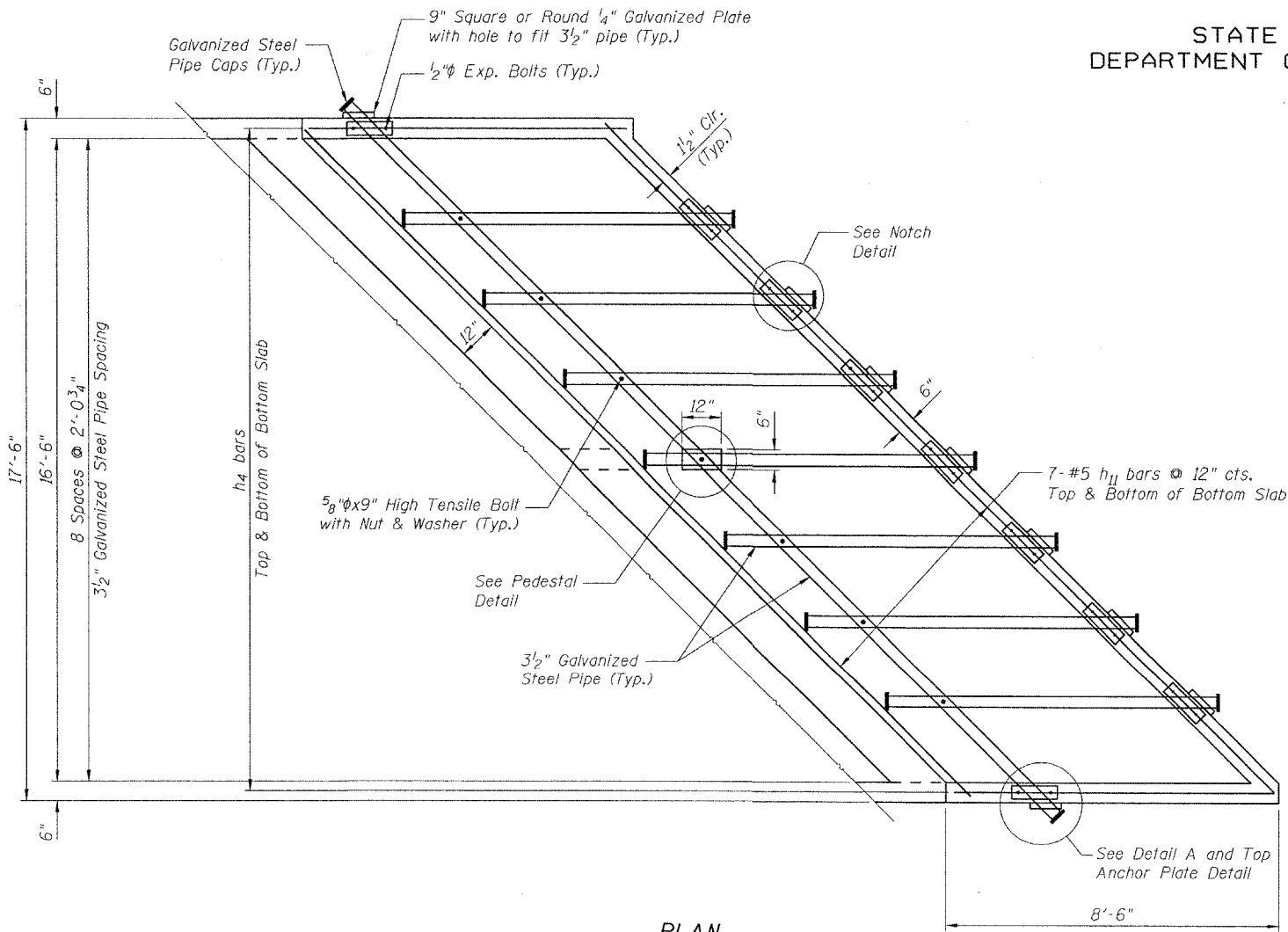
Note: The Breaker-Run Crushed Stone shall be capped with 6 in. of CA7 and satisfy the Standard Specifications unless otherwise indicated in the Special Provisions. The cost of the capping material shall be included in the pay item for Concrete Box Culverts.

CULVERT DETAILS
US ROUTE 20/IL ROUTE 84
OVER UNNAMED TRIBUTARY
TO SMALLPOX CREEK
F.A.P. 301 SECTION 29T-1
JO DAVIESS COUNTY
STATION 924+32.00
STRUCTURE NO. 043-1077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6
F.A.P. 301	29T-1	JO DAVIESS	30	15	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #64C58



PLAN

GENERAL NOTES

Steel pipes shall conform to A.S.T.M. A-53 (Type E or S) Grade B, Schedule 80, and shall be galvanized conforming to A.S.T.M. A-120.

Steel plates shall conform to AASHTO M-183 and shall be galvanized conforming to AASHTO M-111.

Bolts, nuts, and washers shall be in accordance with Article 1006.0B of the Standard Specifications and shall be galvanized.

The contract unit price "Cu Yd" for Concrete Box Culverts shall include the Galvanized Pipe, Pipe Caps, Bolts, Nuts, Washers, Steel Plates, earth excavation, backfilling, compacted CA-7 aggregate bedding material and necessary grading.

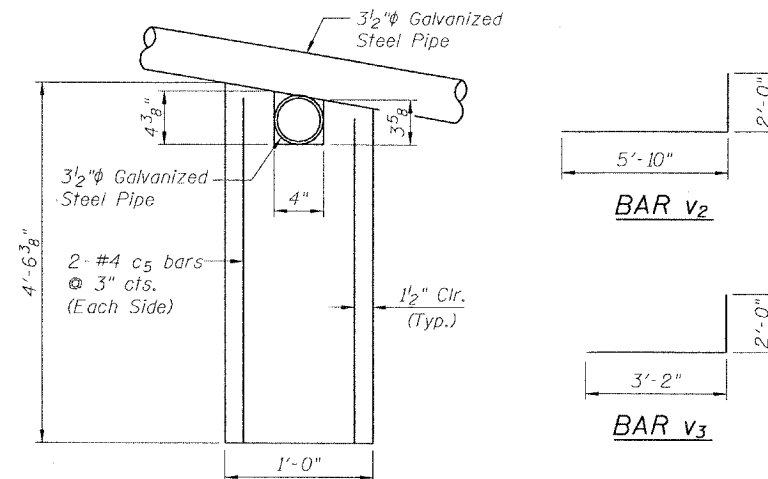
Reinforcement bars will be paid for separately.

Order v₂ bars full length. Cut to fit as shown and discard remainder.

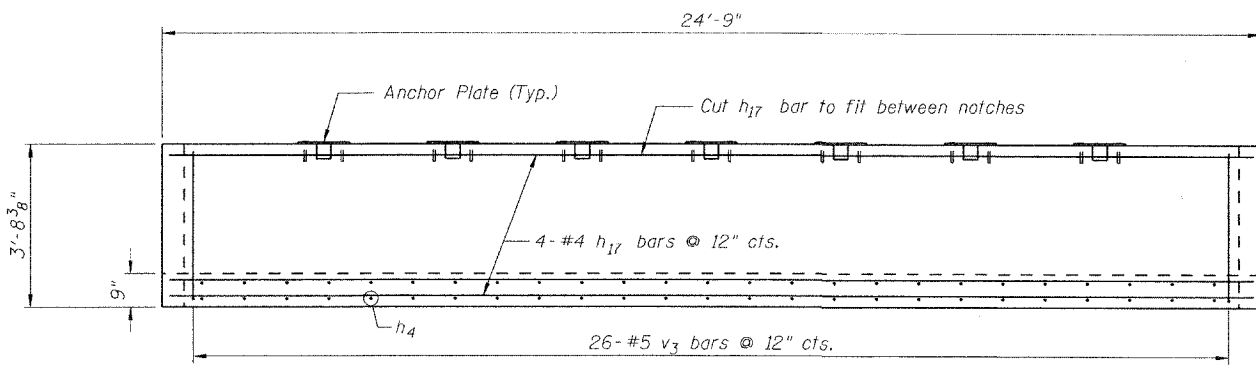
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
c5	4	#4	4'-2"	—
h11	14	#5	24'-2"	—
h17	4	#4	24'-2"	—
h22	6	#4	8'-2"	—
h23	2	#4	5'-8"	—
h24	2	#4	3'-5"	—
h25	2	#4	6'-4"	—
h26	2	#4	1'-7"	—
v2	16	#5	7'-10"	—
v3	26	#5	5'-2"	—

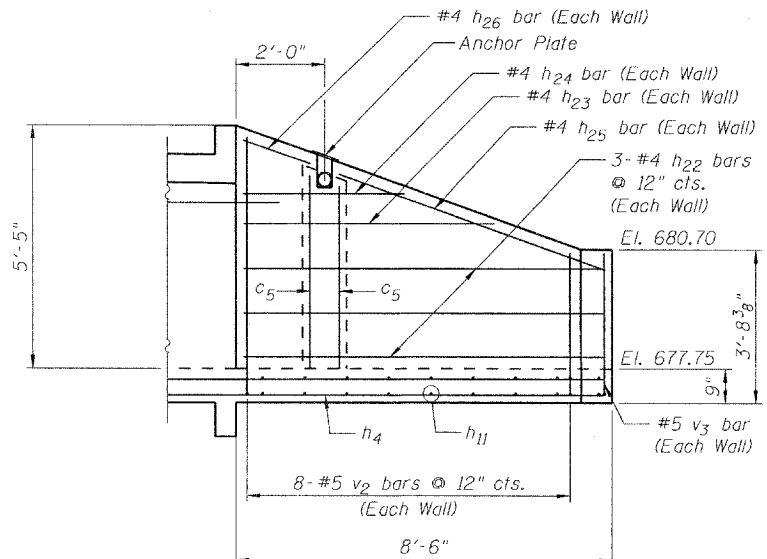
Item	Unit	Quantity
Concrete Box Culverts	Cu. Yd.	6.8
Reinforcement Bars	Pound	760
3 1/2" Galvanized Steel Pipe	1 @ 26'	26
3 1/2" Galvanized Pipe Caps	Each	16
1/4" Galvanized Steel Plate (9" Nominal)	Each	9
1/2"x4"x14" Galvanized Steel Plate	Each	9
5/8"x9" Galvanized Steel Bolts	Each	7
1/2" Galvanized Exp. Bolts	Each	18



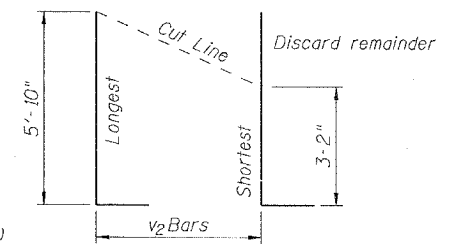
PEDESTAL DETAIL



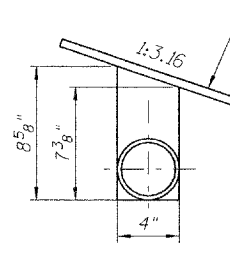
BACK WALL



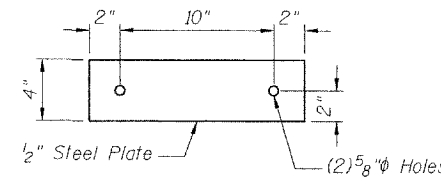
ELEVATION



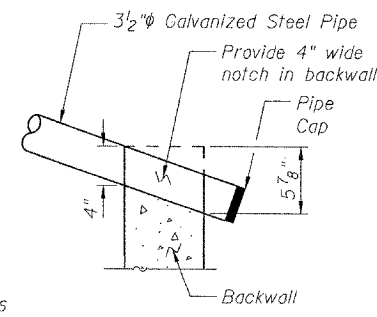
BAR v₂ CUT DIAGRAM



DETAIL A



TOP ANCHOR PLATE



NOTCH DETAIL

DESIGNED	LAS
CHECKED	DAZ
DRAWN	SAW
CHECKED	LAS

GRATED DROP BOX
US ROUTE 20/IL ROUTE 84
OVER UNNAMED TRIBUTARY
TO SMALLPOX CREEK
F.A.P. 301 SECTION 29T-1
JO DAVIESS COUNTY
STATION 924+32.00
STRUCTURE NO. 043-1077

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8
F.A.P. 301	29T-1	JO DAVIESS	30	17	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

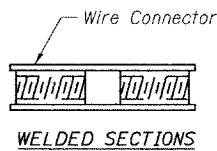
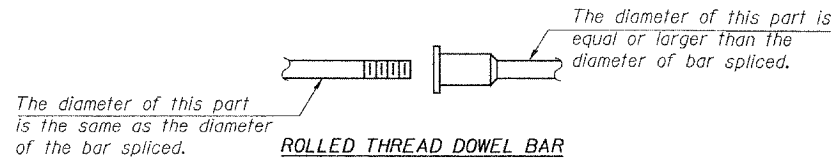
Contract #64C58

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

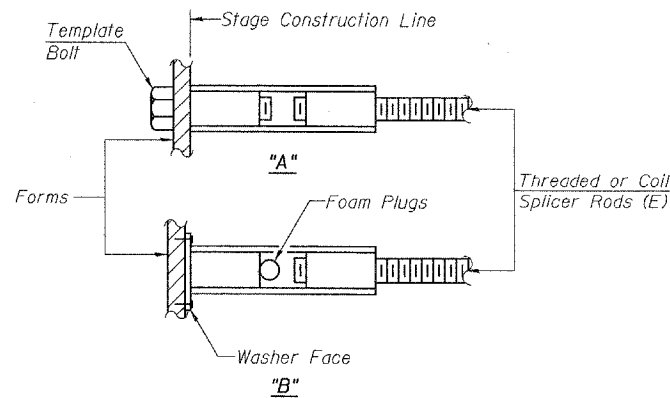
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



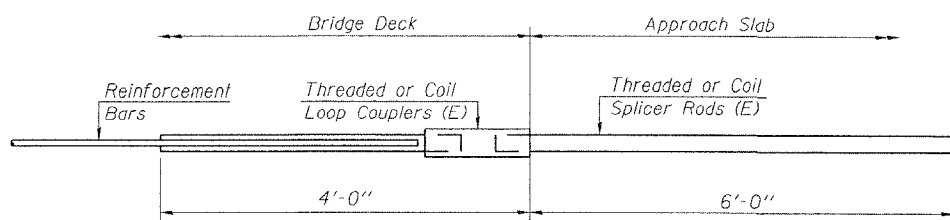
BAR SPLICER ASSEMBLY ALTERNATIVES

**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



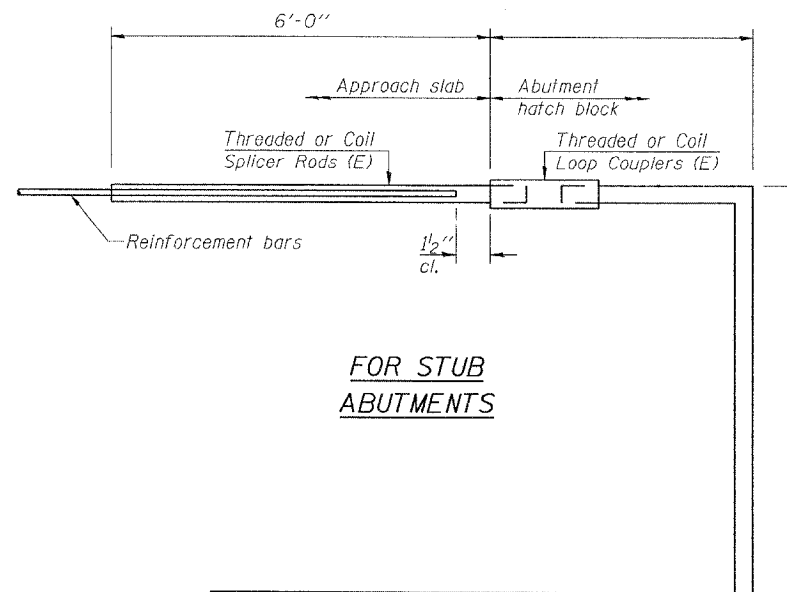
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



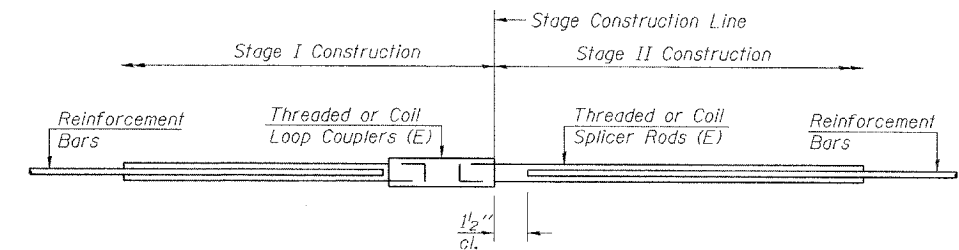
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	12.3 kips - tension
No. Required =	



FOR STUB ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	12.3 kips - tension
No. Required =	



STANDARD

Bar Size	No. Assemblies Required	Location
#5	54	Top Slab
#5	54	Bottom Slab
#5	21	Walls

BAR SPLICER ASSEMBLY DETAILS

US ROUTE 20/IL ROUTE 84
OVER UNNAMED TRIBUTARY
TO SMALLPOX CREEK
F.A.P. 301 SECTION 29T-1
JO DAVIESS COUNTY
STATION 924+32.00
STRUCTURE NO. 043-1077

DESIGNED	LAS
CHECKED	DAZ
DRAWN	SAW
CHECKED	LAS

BSD-1

11-1-06

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9 9 SHEETS
F.A.P. 301	29T-1	JO DAVIESS	30	18	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. ROAD PROJECT			

Contract #64C58

SOIL BORING B-1

SOIL BORING B-2

Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG Page 1 of 1 Date 9/21/08

ROUTE US 20 DESCRIPTION P92-101-06 Box Culvert on US 20, .6 m. S. of Glen Hollow Road LOGGED BY W. Garza

SECTION LOCATION E. Galena Twp., 35 NE, SEC., TWP. 28N, R9G. 1E

COUNTY Jo Daviess DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Dietrich Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O D E	Surface Water Elev. Stream Bed Elev.	D E P T H	B L O W S	U C S	M O D E
BORING NO. B-1 Station 924+32 Offset 19.00 ft CL Ground Surface Elev. 99.6					97.0				
Shoulder 12" Asphalt			1.3	21					
STIFF brown SILTY CLAY LOAM			P		78.10				
MEDIUM brown SILTY CLAY LOAM	97.10	3							
		4	0.9	25					
	95.60	5	P		75.00				
VERY SOFT brown SILTY CLAY									
		1							
	93.10	3	B	28					
SOFT brown SILTY CLAY									
		1							
	90.63	3	P	24					
VERY SOFT tan LOAM with weathered LIMESTONE									
		0							
	88.10	3	P	20					
MEDIUM tan SILTY CLAY									
		1	0.6	24					
	85.60	3	B						
MEDIUM gray SILTY CLAY									
		1							
	83.10	4	B	31					
SOFT gray SILTY LOAM with broken weathered LIMESTONE									
		1							
	80.10	4	0.3	24					
		9	B						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG Page 1 of 1 Date 9/21/08

ROUTE US 20 DESCRIPTION P92-101-06 Box Culvert on US 20, .6 m. S. of Glen Hollow Road LOGGED BY W. Garza

SECTION LOCATION E. Galena Twp., 35 NE, SEC., TWP. 28N, R9G. 1E

COUNTY Jo Daviess DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Dietrich Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O D E	Surface Water Elev. Stream Bed Elev.	D E P T H	B L O W S	U C S	M O D E
BORING NO. B-2 Station 925+05 Offset 18.00 ft CL Ground Surface Elev. 99.6					97.0				
Asphalt Shoulder 12" MEDIUM dark brown SILTY CLAY LOAM			0.8	25					
STIFF brown SILTY CLAY LOAM	97.10	2							
		3	1.0	26					
	95.60	5	B		75.00				
VERY DENSE tan weathered LIMESTONE									
		1							
	93.10	3	B	27					
MEDIUM brown SILTY CLAY LOAM									
		1	0.7	27					
	93.10	3	B						
SOFT tan LOAM with LIMESTONE fragments									
		2							
	90.63	3	P	21					
SOFT tan LOAM with LIMESTONE fragments									
		2							
	88.10	4	0.3	24					
		4	P						
MEDIUM tan weathered LIMESTONE									
		7							
	85.60	8							
MEDIUM tan weathered LIMESTONE									
		9							
	83.10	11							
LOOSE tan weathered LIMESTONE									
		5							
	80.63	5							
		4							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

DESIGNED	LAS
CHECKED	DAZ
DRAWN	SAW
CHECKED	LAS

BORING LOG
US ROUTE 20/IL ROUTE 84
OVER UNNAMED TRIBUTARY
TO SMALLPOX CREEK
F.A.P. 301 SECTION 29T-1
JO DAVIESS COUNTY
STATION 924+32.00
STRUCTURE NO. 043-1077

STORM WATER POLLUTION PREVENTION PLAN EROSION CONTROL PLAN

THE FOLLOWING PLAN WAS ESTABLISHED AND INCLUDED IN THESE PLANS TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE SILTATION WITHIN THE CONSTRUCTION ZONE AND TO ELIMINATE SEDIMENTS FROM ENTERING AND LEAVING THE CONSTRUCTION ZONE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN ITEMS, AS SHOWN IN THIS PLAN AND REFERENCED BY THE LEGEND, SHALL BE PLACED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION RESULTING FROM THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL PLACE PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A REASONABLE AMOUNT OF TIME; THEREFORE, REDUCING THE AMOUNT OF AREA BEING OPEN TO THE POSSIBILITY OF EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE RESIDENT ENGINEER WILL DETERMINE IF TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED, THE SIZE OF THE PROPOSED DITCH CHECKS, THE PROPER METHOD OF INSTALLATION, AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS SHALL BE ADDED WHICH ARE NOT INCLUDED IN THE PLANS. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS.

SITE DESCRIPTION

DESCRIPTION OF CONSTRUCTION ACTIVITY:

THIS PROJECT CONSISTS OF REMOVING AND REPLACING AN EXISTING 12'X4.5' RC BOX CULVERT WITH A DOUBLE CELL 8'X4' RC BOX CULVERT AND SOME DITCH GRADING.

DESCRIPTION OF INTENDED SEQUENCE OF ACTIVITIES:

THE SEQUENCE OF EVENTS ARE AS FOLLOW: CLEARING, EMBANKMENT, EXCAVATION, GRADING AND PAVING. THIS PROJECT WILL BE CONSTRUCTED IN SEGMENTS AS SHOWN IN THE "STAGING PLANS".

TOTAL CONSTRUCTION SITE (CONSTRUCTION LIMIT TO CONSTRUCTION LIMIT) 2.7 ACRES

PROPOSED R.O.W (TOTAL PARCEL AREA) 0.6 ACRES

DISTURBED BY EXCAVATION (E.O.P TO CONSTRUCTION LIMIT) 2.1 ACRES

SUPPORTING REPORTS AND PLANS

THE FOLLOWING ASSISTED IN DEVELOPING THE EROSION CONTROL PLAN AS REFERENCED DOCUMENTS:

SOIL PROFILE SHEETS, SOILS REPORTS, BORING LOGS
USGS DRAINAGE MAPS, PROJECT PLAN DOCUMENTS

DRAINAGE TRIBUTARIES RECEIVING WATER FROM CONSTRUCTION SITE

SMALLPOX CREEK

EROSION CONTROLS AND SEDIMENT CONTROL PROCEDURES

STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:

PERIMETER EROSION CONTROL SHALL BE PLACED PRIOR TO BEGINNING EARTHWORK.

STABILIZATION PRACTICES DURING CONSTRUCTION:

AS EARTH EXCAVATION AND EMBANKMENT ARE BEING COMPLETED THE CONTRACTOR SHALL PLACE DITCH CHECKS, INLET AND PIPE PROTECTION, EROSION CONTROL BLANKET, AND SEEDING AS STAGES OF THE PROJECT ARE COMPLETED. PERIMETER EROSION BARRIER WILL BE INSTALLED AT ADDITIONAL LOCATIONS AS THE PROJECT PROGRESSES. SEEDING SHALL BE COMPLETED AS SPECIFIED IN THE EROSION CONTROL/SEEDING MOBILIZATION AND TEMPORARY SEEDING SPECIAL PROVISION.

MAINTENANCE AFTER FINAL GRADING

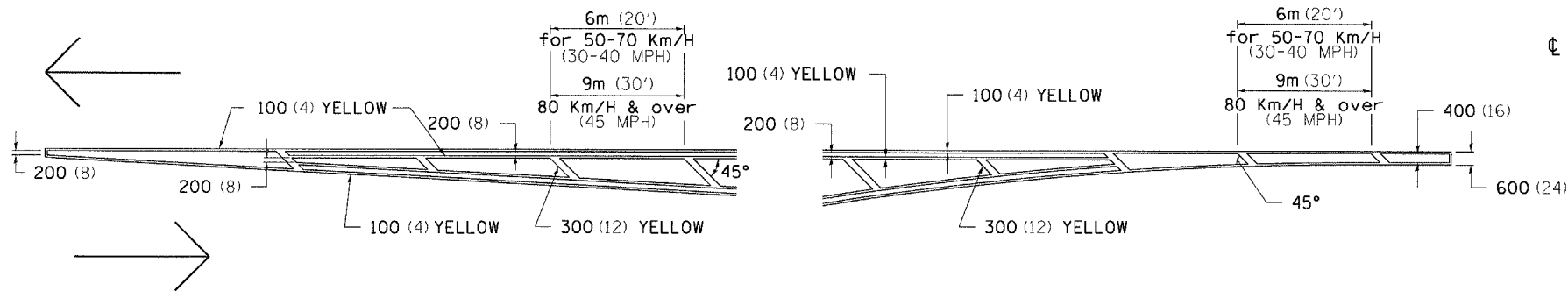
TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED WITH THE PROPER STAND. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP AND DISTURBED TURF RESEDED.

STORM WATER POLLUTION PREVENTION PLAN 2.1

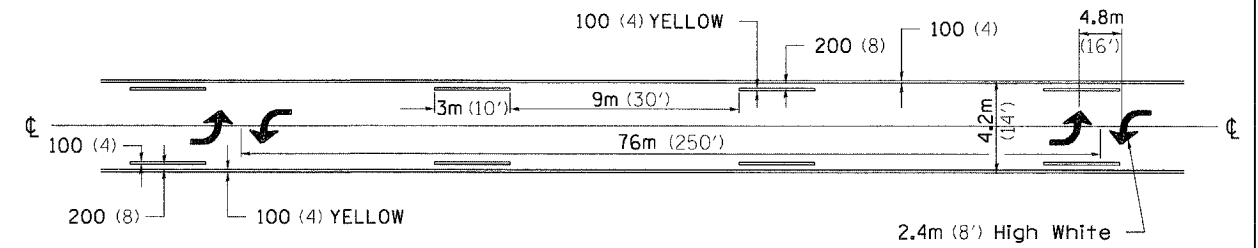
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PLOT SCALE = 30,0000' / IN.	CHECKED - JMS	DATE - 3-28-08	REVISED -	SCALE:	SHEET NO. 1 OF 7 SHEETS	STA.	TO STA.	CONTRACT NO. 64C58		
PLOT DATE = 3/25/2008	DATE - 3-28-08	REVISED -		<small>FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT</small>						

TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

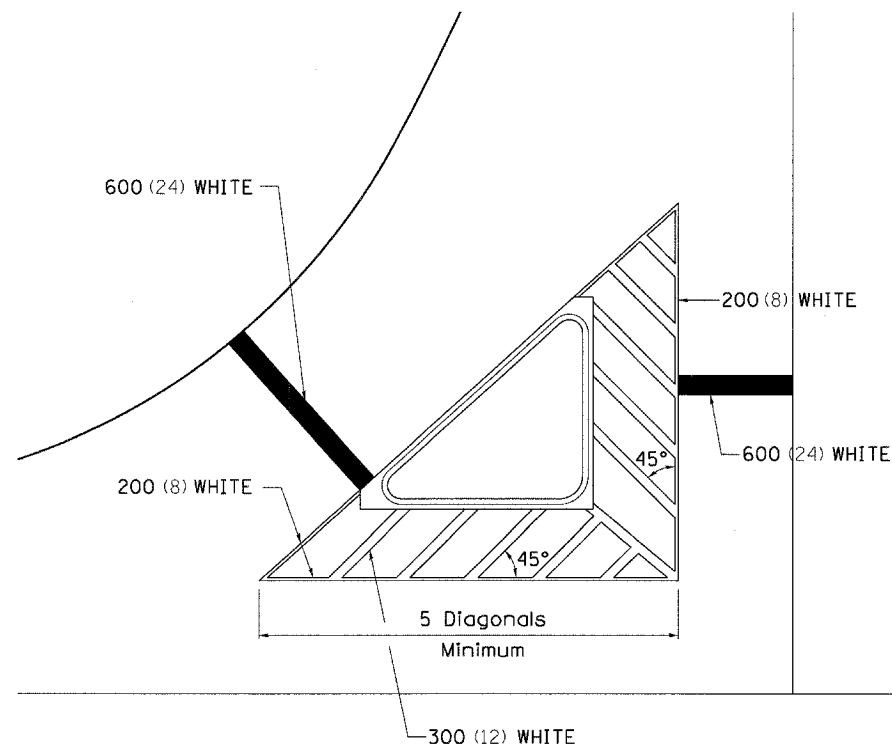


MEDIAN PAVEMENT MARKING

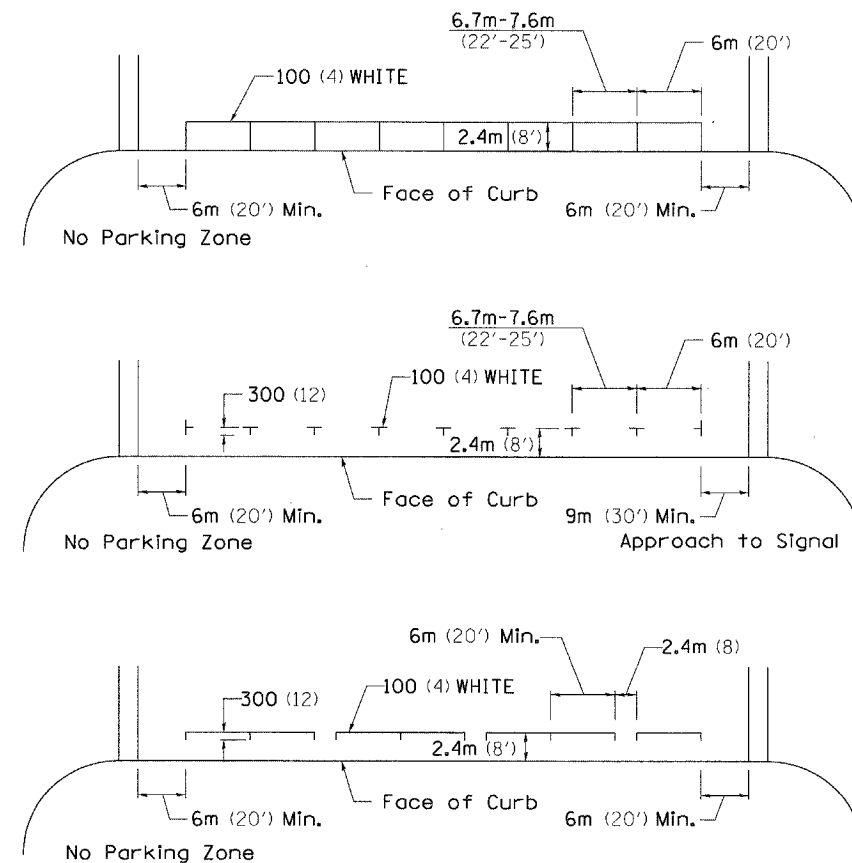


•• ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TYPICAL ISLAND OFFSET SHOULDER WIDTH

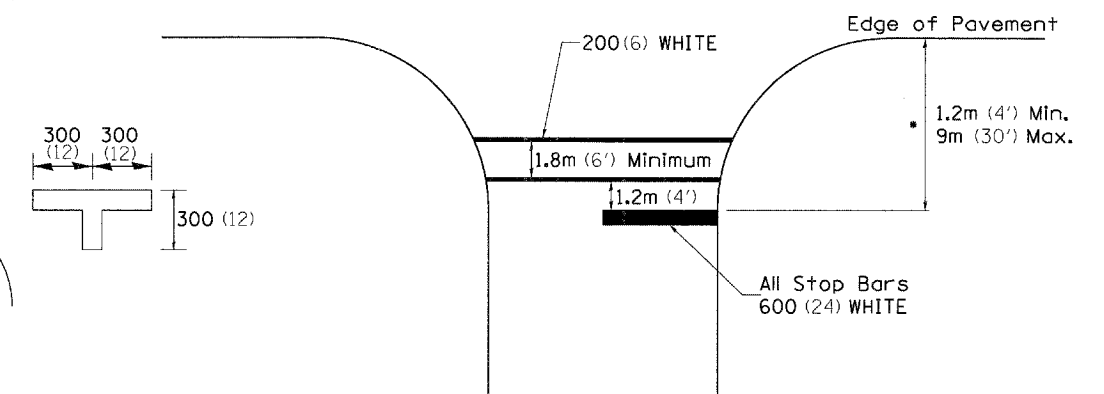


TYPICAL PARKING SPACING



STANDARD CROSSWALK MARKING

See Schedules for Locations



• Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

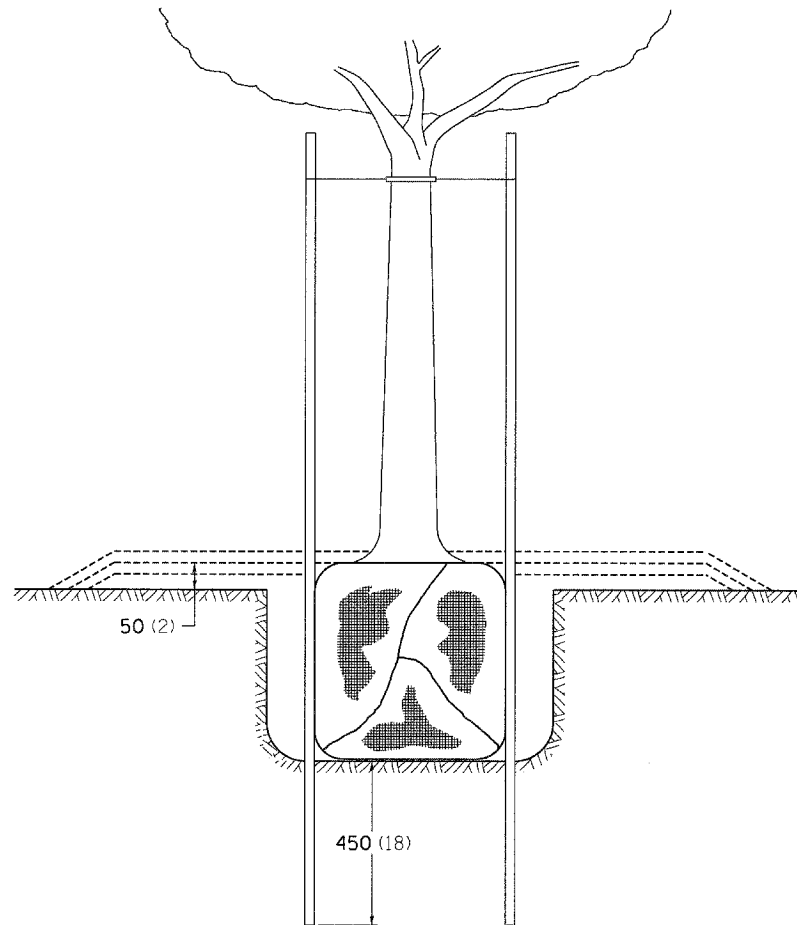
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PLOT SCALE = 30,0000' / 1"	DRAWN - AJP	CHECKED - JMS	REVISED -
PLOT DATE = 3/25/2008	DATE - 3-28-08	REVISED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

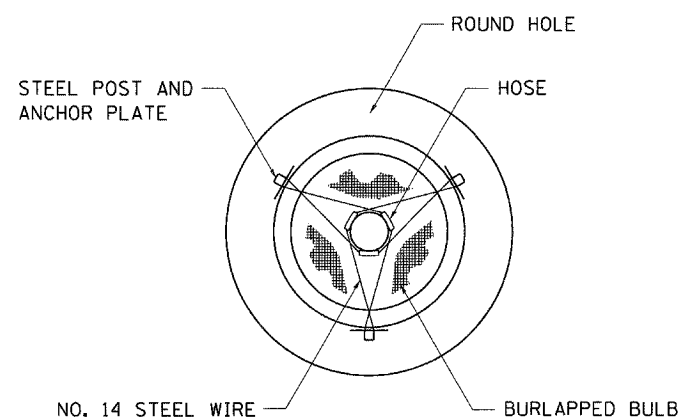
REGION 2 / DISTRICT 2 STANDARD
TYPICAL PAVEMENT MARKINGS SHEET 1 OF 2 41.1

F.A. RTE. 301	SECTION 29T-1	COUNTY JO DAVIESS	TOTAL SHEETS 30	SHEET NO. 20
SCALE: SHEET NO. 4 OF 7 SHEETS STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT CONTRACT NO. 64C58		

DETAILS OF PLANTING AND BRACING TREES

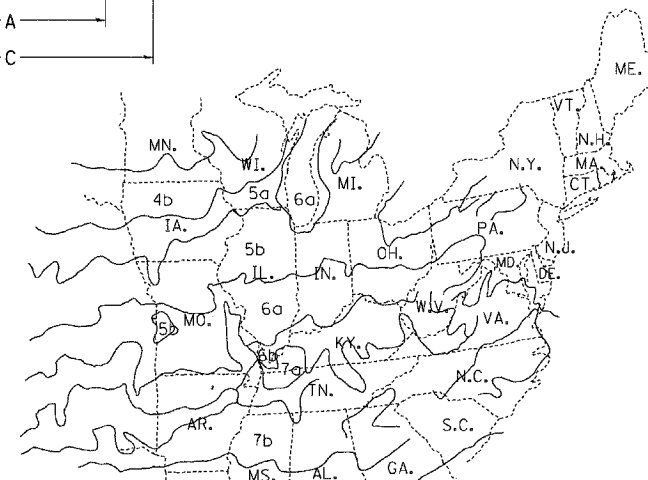
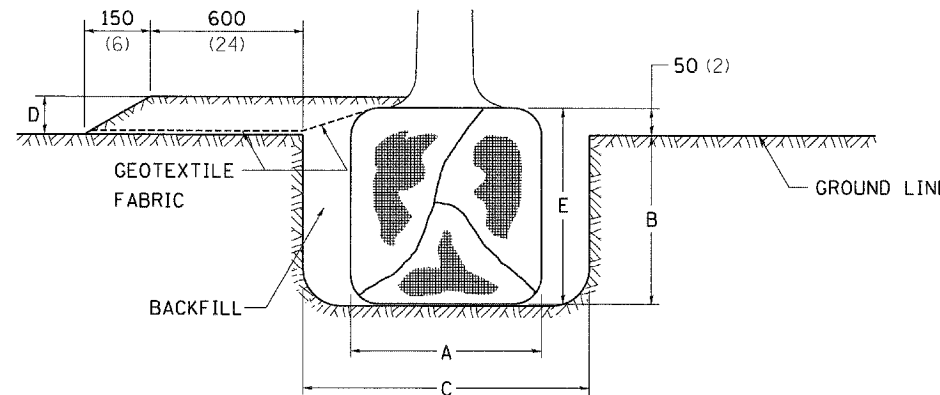


TREES SMALLER THAN 115 (4 1/2) IN DIAMETER



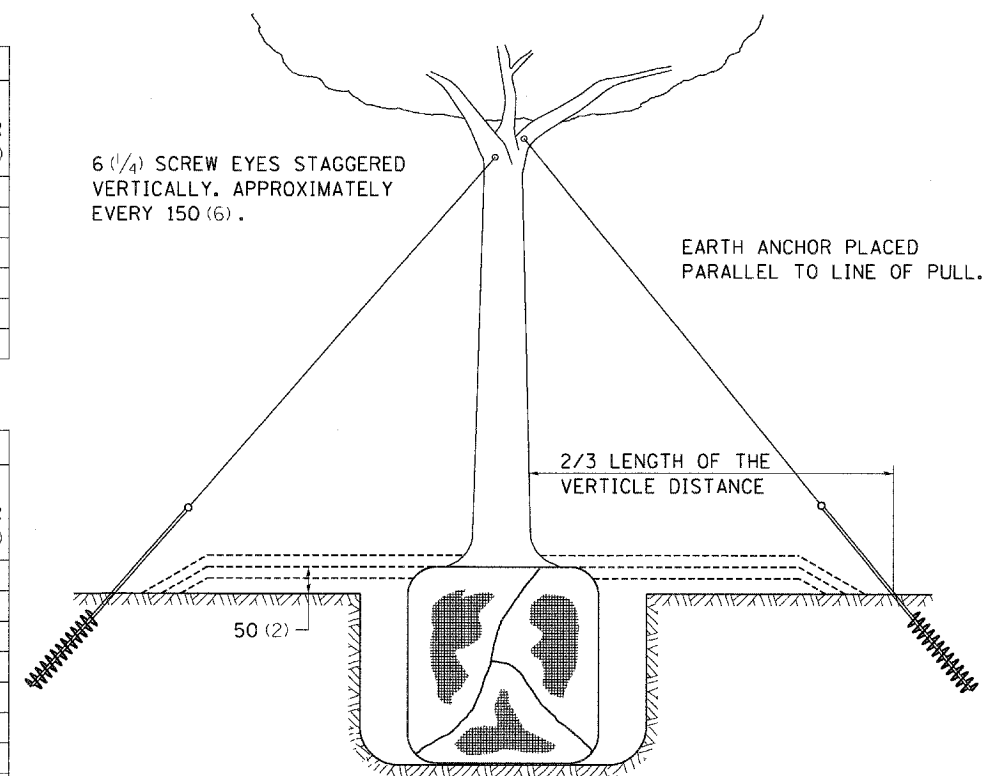
SMALL	A	B	C	D	E	F
TREE SIZE	DIAMETER OF BALL OR ROOT SYS.	DEPTH OF HOLE EXCAVATION	WIDTH OF HOLE EXCAVATION	THICKNESS OF MULCH COVER	DEPTH OF BALL OR ROOT SYS.	VOLUME OF MULCH COVER m ³ (CU. YDS.)
1.5-1.8m (5'-6')	400 (16)	250 (10)	750 (30)	100 (4)	300 (12)	0.41 (0.54)
1.5-1.8m (5'-6') BB	400 (16)	250 (10)	750 (30)	100 (4)	300 (12)	0.41 (0.54)
1.8-2.0m (6'-7') BB	450 (18)	300 (12)	750 (30)	100 (4)	350 (14)	0.41 (0.54)
2.0-2.4m (7'-8') BB	500 (20)	275 (11)	750 (30)	100 (4)	325 (13)	0.41 (0.54)
2.4-3.0m (8'-10') BB	600 (24)	350 (14)	900 (36)	100 (4)	400 (16)	0.47 (0.61)
3.0-3.6m (10'-12') BB	650 (26)	375 (15)	900 (36)	100 (4)	425 (17)	0.47 (0.61)

LARGE	A	B	C	D	E	F
TREE SIZE	DIAMETER OF BALL OR ROOT SYS.	DEPTH OF HOLE EXCAVATION	WIDTH OF HOLE EXCAVATION	THICKNESS OF MULCH COVER	DEPTH OF BALL OR ROOT SYS.	VOLUME OF MULCH COVER m ³ (CU. YDS.)
0-50 (0-2)	500 (20)	275 (11)	900 (36)	100 (4)	325 (13)	0.47 (0.61)
50-65 (2-2 1/2) BB	600 (24)	350 (14)	1200 (48)	100 (4)	400 (16)	0.60 (0.78)
65-75 (2 1/2-3) BB	700 (28)	425 (17)	1200 (48)	100 (4)	475 (19)	0.60 (0.78)
75-90 (3-3 1/2) BB	800 (32)	425 (17)	1500 (60)	100 (4)	475 (19)	0.73 (0.96)
90-100 (3 1/2-4) BB	900 (36)	500 (20)	1500 (60)	100 (4)	550 (22)	0.73 (0.96)
100-115 (4-4 1/2) BB	1000 (40)	550 (22)	1800 (72)	100 (4)	600 (24)	0.89 (1.16)
115-125 (4 1/2-5) BB	1100 (44)	600 (24)	1800 (72)	100 (4)	650 (26)	0.89 (1.16)
125-140 (5-5 1/2) BB	1200 (48)	675 (27)	2100 (84)	100 (4)	725 (29)	1.06 (1.38)

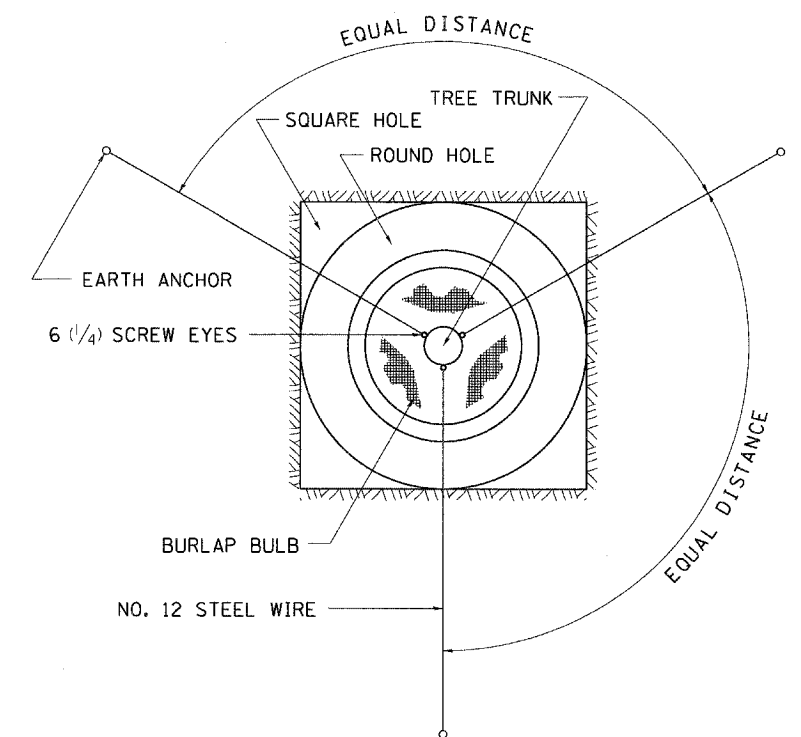


PLANT HARDINESS ZONE MAP

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
PUBLICATION NO. 814



TREES OVER 115 (4 1/2) IN DIAMETER



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD
DETAILS OF PLANTING AND BRACING TREES 92.1

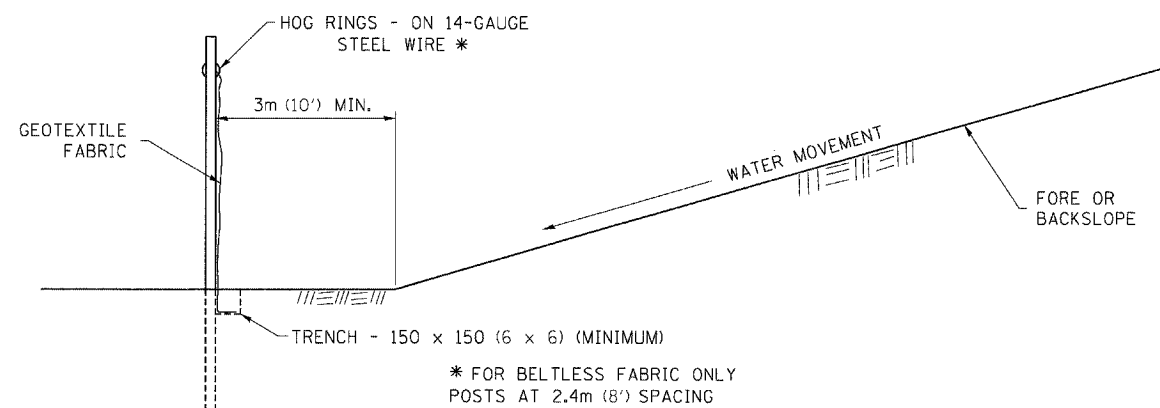
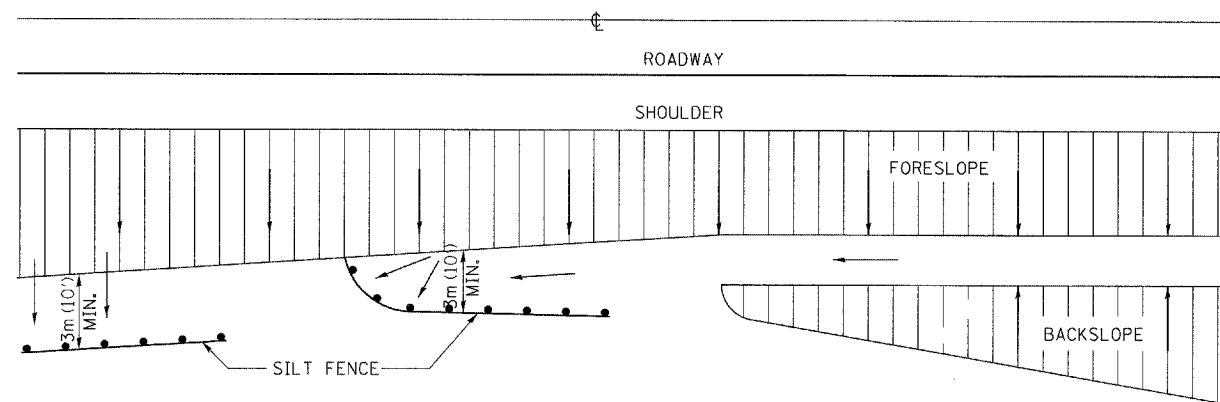
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	29T-1	JO DAVIESS	30	22

FILE NAME =	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED - 10-15-04
P:\2298-01 - US 20 Box Culvert\microstation files\00 Sheet Files\Z10106DET.dgn		DRAWN - AJP	REVISED -
		CHECKED - JMS	REVISED -
		DATE - 3-28-08	REVISED -

SCALE: SHEET NO. 7 OF 7 SHEETS STA. TO STA.

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

EROSION CONTROL DETAILS FOR SILT FENCE



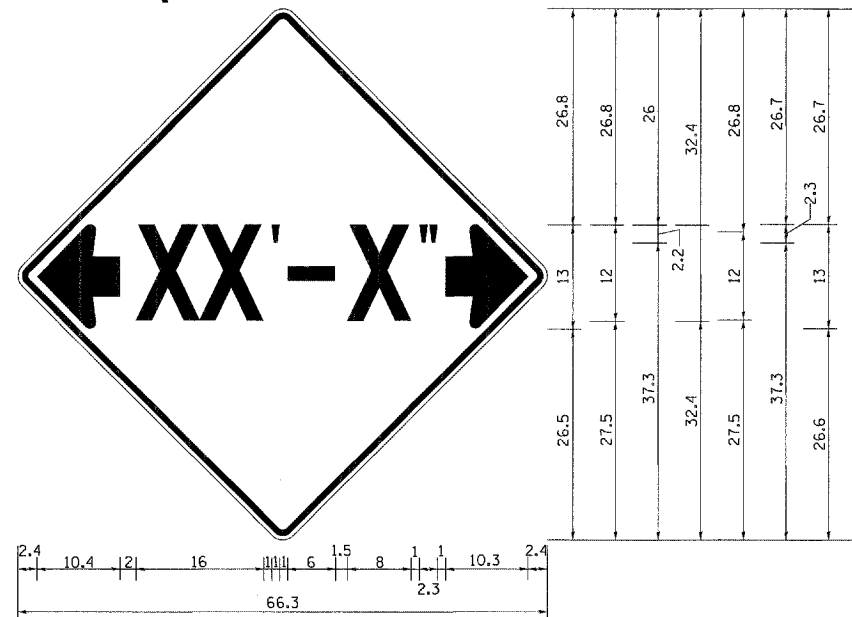
DETAILS OF SILT FENCE

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

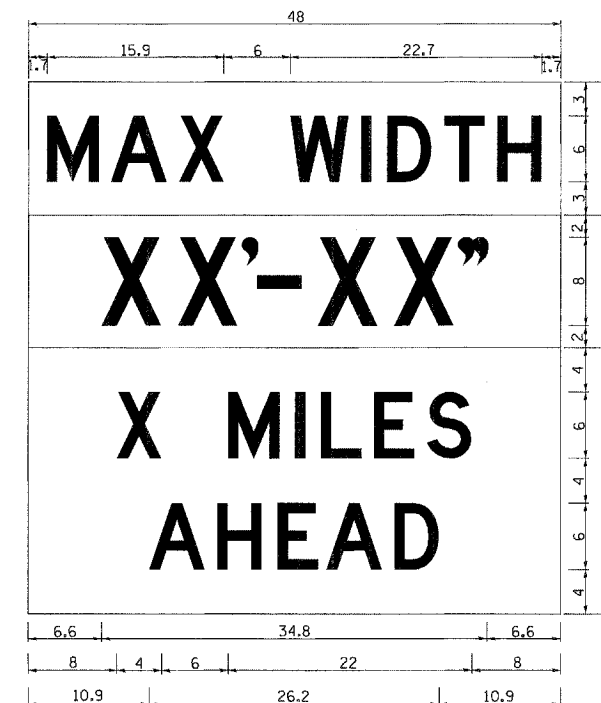
REVISED - 10-22-01

EROSION CONTROL DETAILS FOR SILT FENCE 29.2

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



NOTES
 W12-2 - Horizontal Clearance Sign
 48.0" across sides, 1.9" Radius,
 0.8" Border, 0.5" Indent, Black on
 Orange; Standard Arrow Custom
 10.4" X 8.1" 180° Black 11 Inch
 D Series Lettering; Standard Arrow
 Custom 10.4" X 8.1" 0°



W12-1103 (Width is 80);
 No border, Black on White;
 [MAX WIDTH] D;

 No border, Black on Orange;
 [XX'-XX''] D;

 No border, Black on White;
 [X MILES] D; [AHEAD] D;

All work to furnish and install these signs shall be included in the cost of the Traffic Control Standards and shall not be paid for separately.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 1-9-08

INFORMATIONAL WARNING SIGNS (FOR NARROW TRAVEL LANES) 39.2

FILE NAME =	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -
P:\2298-01 - US 28 Box Culvert\microstation files\00 Sheet Files\210126DET.dgn		DRAWN - FJS	REVISED -
PLOT SCALE = 30,0000' / IN.		CHECKED - JMS	REVISED -
PLOT DATE = 3/25/2009		DATE - 3-28-08	REVISED -

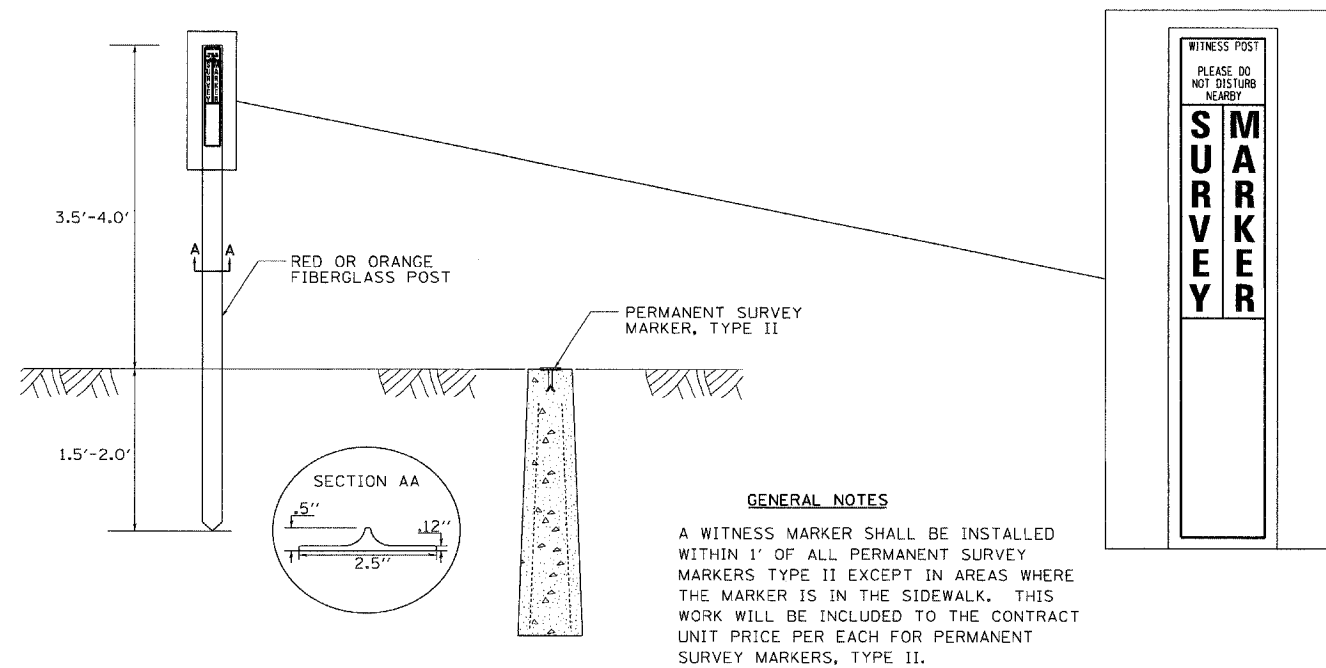
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DISTRICT 2 STANDARDS

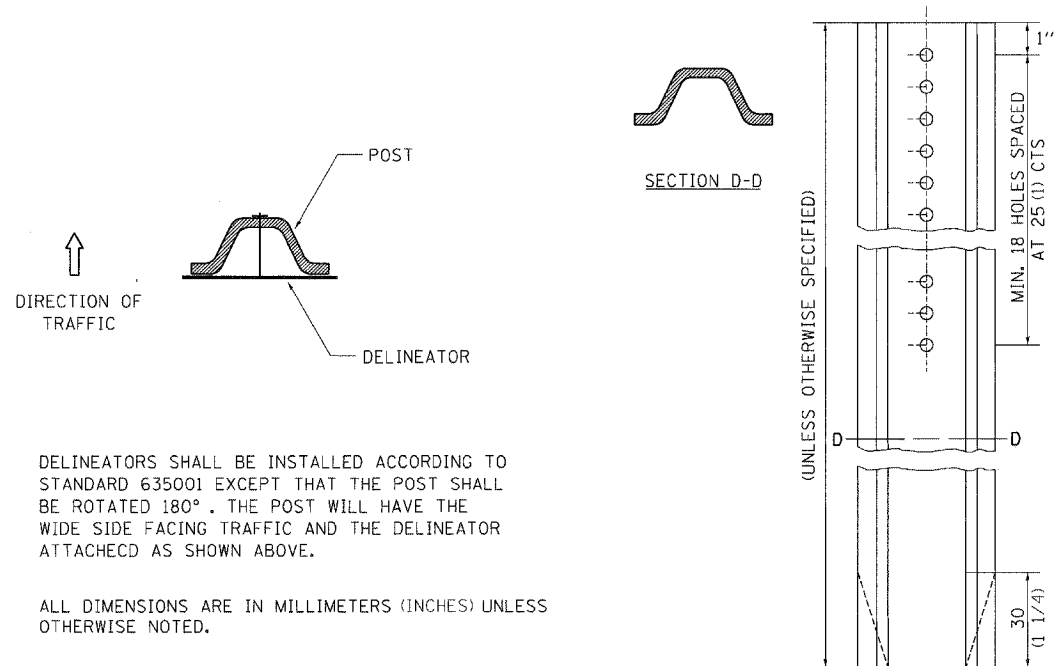
SCALE: SHEET NO. 2 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	29T-1	JO DAVIESS	30	23
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 64C58	

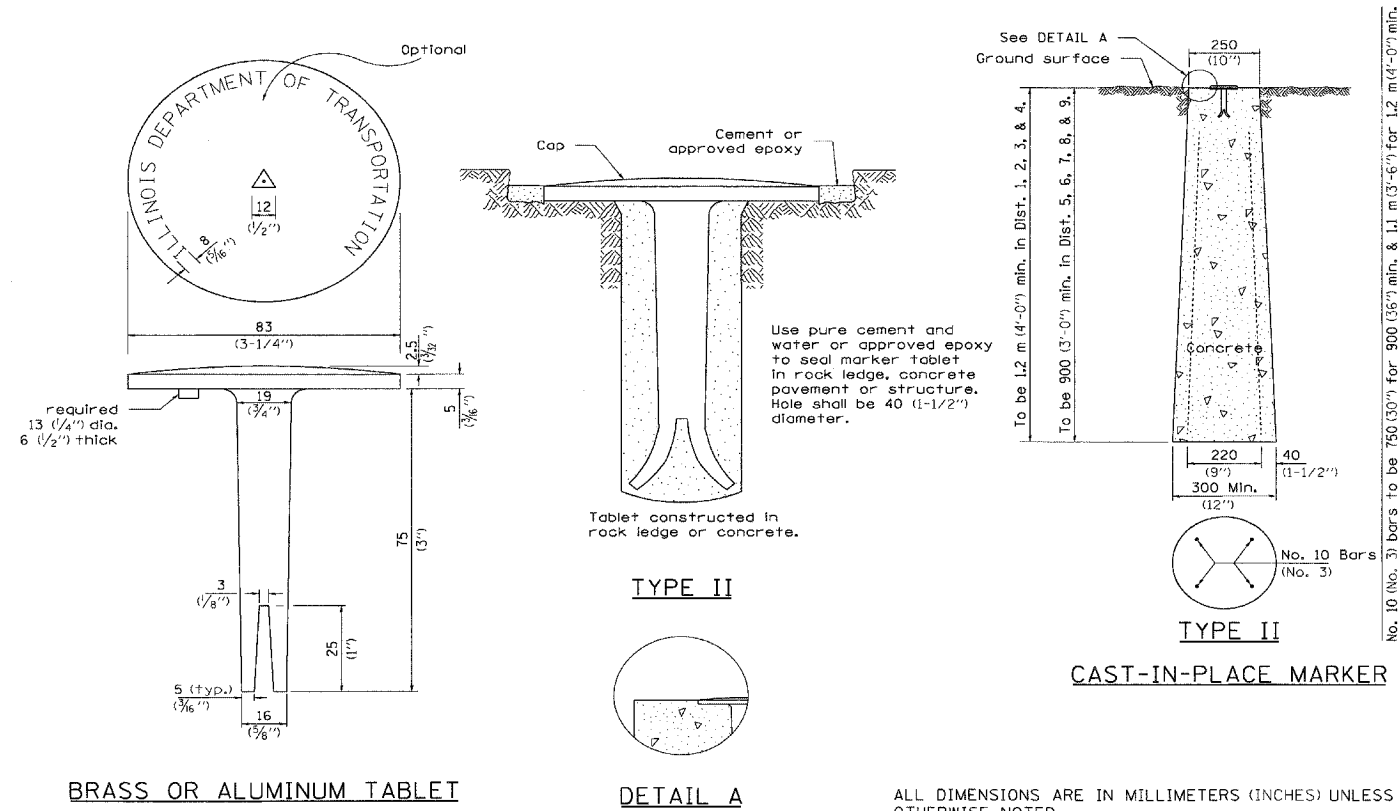
WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II



DELINEATOR AND POST ORIENTATION

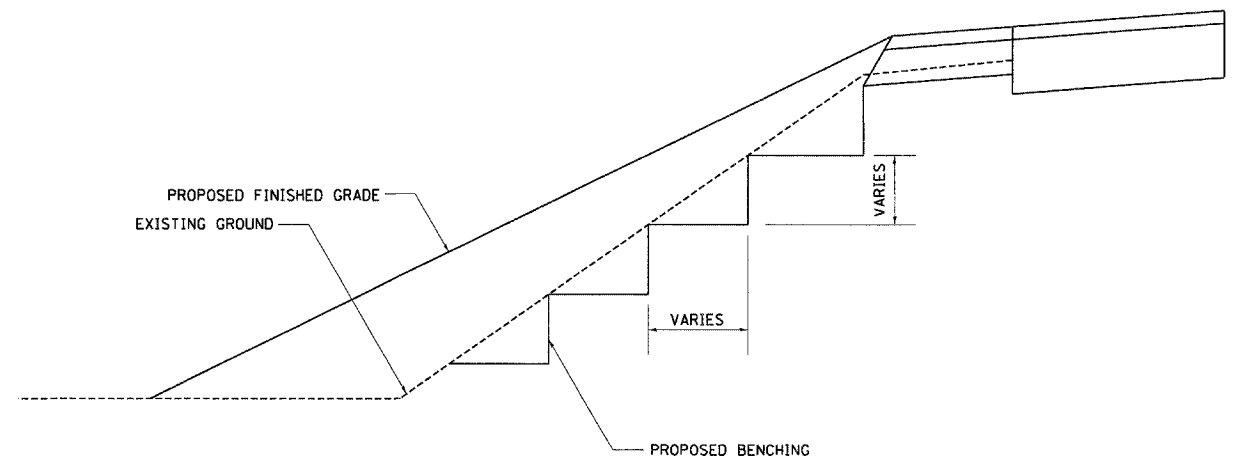


PERMANENT SURVEY MARKERS, TYPE II



DELINEATOR AND POST ORIENTATION 37.4

TYPICAL BENCHING ON EXISTING EMBANKMENT



WITNESS MARKER & PERMANENT SURVEY MARKERS, TYPE II 66.2

TYPICAL BENCHING ON EXISTING EMBANKMENT 50.4

FILE NAME =	USER NAME = ID07CAD	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 2 STANDARD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\2298-01 - US 20 Box Culvert\macrostation	on files\00 Sheet Files\210106DET.dgn	DRAWN - FJS	REVISED -			301	29T-1	JO DAVIESS	30	24
PLOT SCALE = 30.0000' / IN.	CHECKED - JMS	REVISED -	SCALE:			SHEET NO. 6 OF 7 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
PLOT DATE = 3/25/2008	DATE - 3-28-08	REVISED -	CONTRACT NO. 64C58							

LETTERING FOR NAME PLATE

STATION
 BUILT 200 BY
 STATE OF ILLINOIS
 RTE. SEC.
 FA PROJECT
 LOADING HS 20
 STR. NO.

SEE STD. 515001

STATION	STRUCTURE NO.
924+32	S.N. 043-1077

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

REVISED - 11-01-07

LETTERING FOR NAME PLATE 89.4

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 600(24) x 600(24)

100(4) CAPITAL LETTERS - BLACK

13 (1/2) BORDER - BLACK

WHITE REFLECTIVE - TYPE AP
 HIGH INTENSITY PRISMATIC SHEETING

GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE STOP LINE AS DIRECTED BY ENGINEER.

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

REVISED - 1-22-07

STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

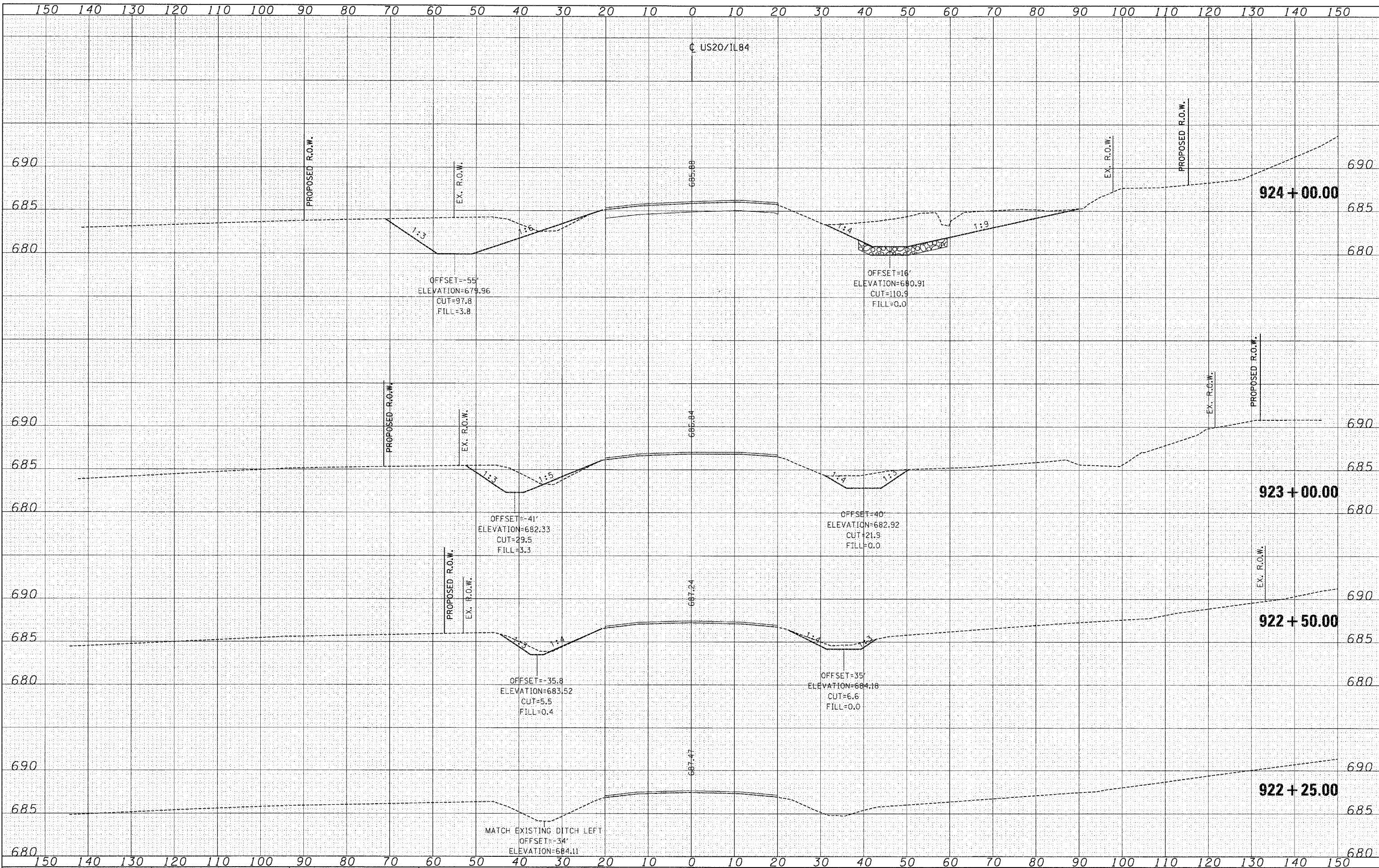
TREE REPLACEMENT SCHEDULE

CODE NUMBER	SCIENTIFIC NAME	COMMON NAME	SIZE	UNIT	QUANTITY
A2006714	QUERCUS MACROCARPA	BURR OAK	1 3/4" CALIPER (BALLED AND BURLAPPED)	EACH	45

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

REVISED - 8-10-05

TREE REPLACEMENT SCHEDULE 90.4



DATE	
BY	
FINAL SURVEY	
NOTED	
TEMP. DATE	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
NOTED	
TEMP. DATE	
AREAS CHECKED	
NO.	

FILE NAME =	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -
Pr\2299-01 - US 20 Box Culvert\microstation files\00 Sheet Files\Z\I\06XS-SHT.dgn		CHECKED - JMS	REVISED -
		DRAWN - AJP	REVISED -
		DATE - 03-28-08	REVISED -

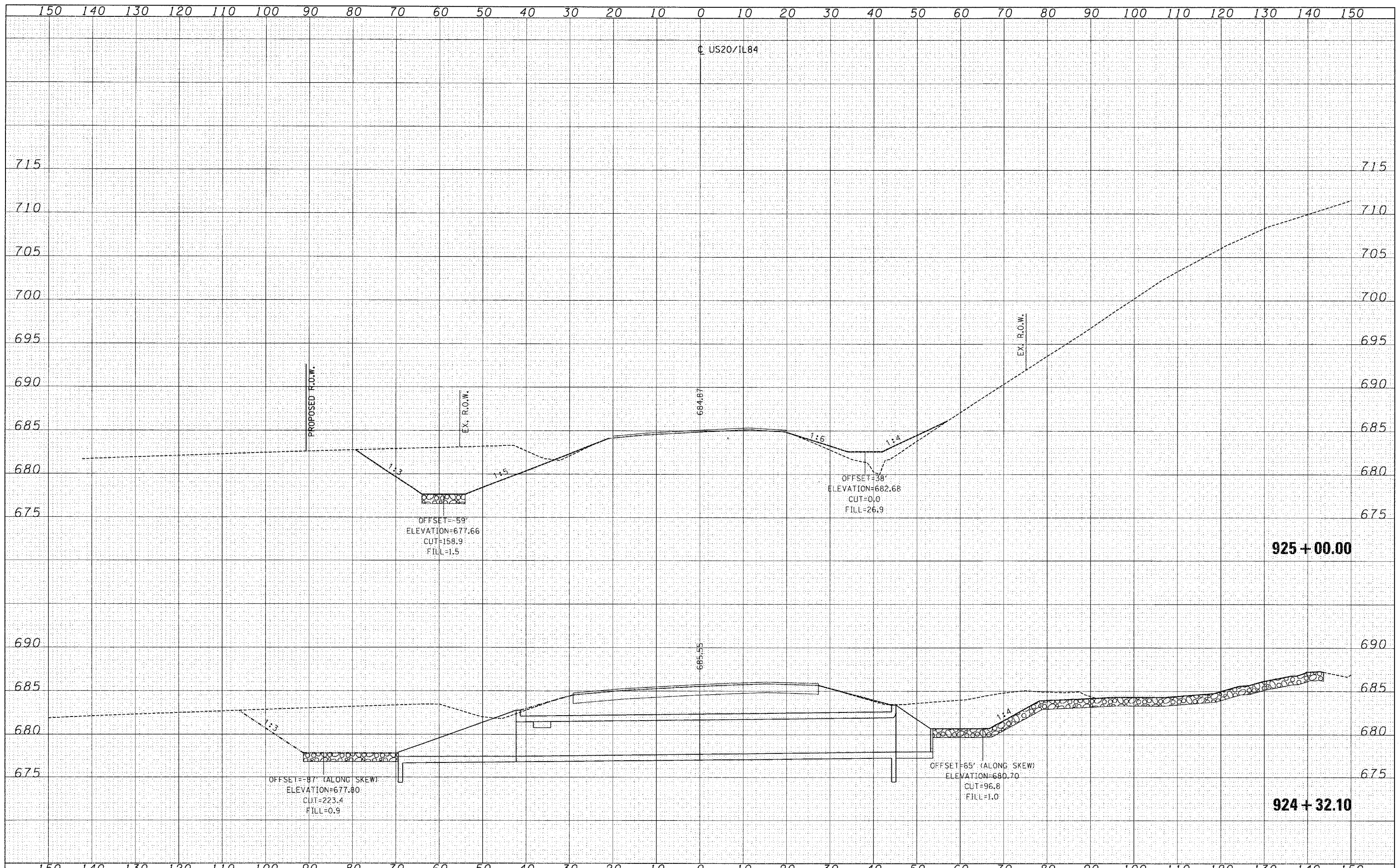
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
301	29T-1	JO DAVIESS	30
SCALE: 10H, 5V		SHEET NO. 1 OF 5 SHEETS	STA. 922+25 TO STA. 924+00

FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	SHEET NO.	26
		CONTRACT NO.	64C58

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

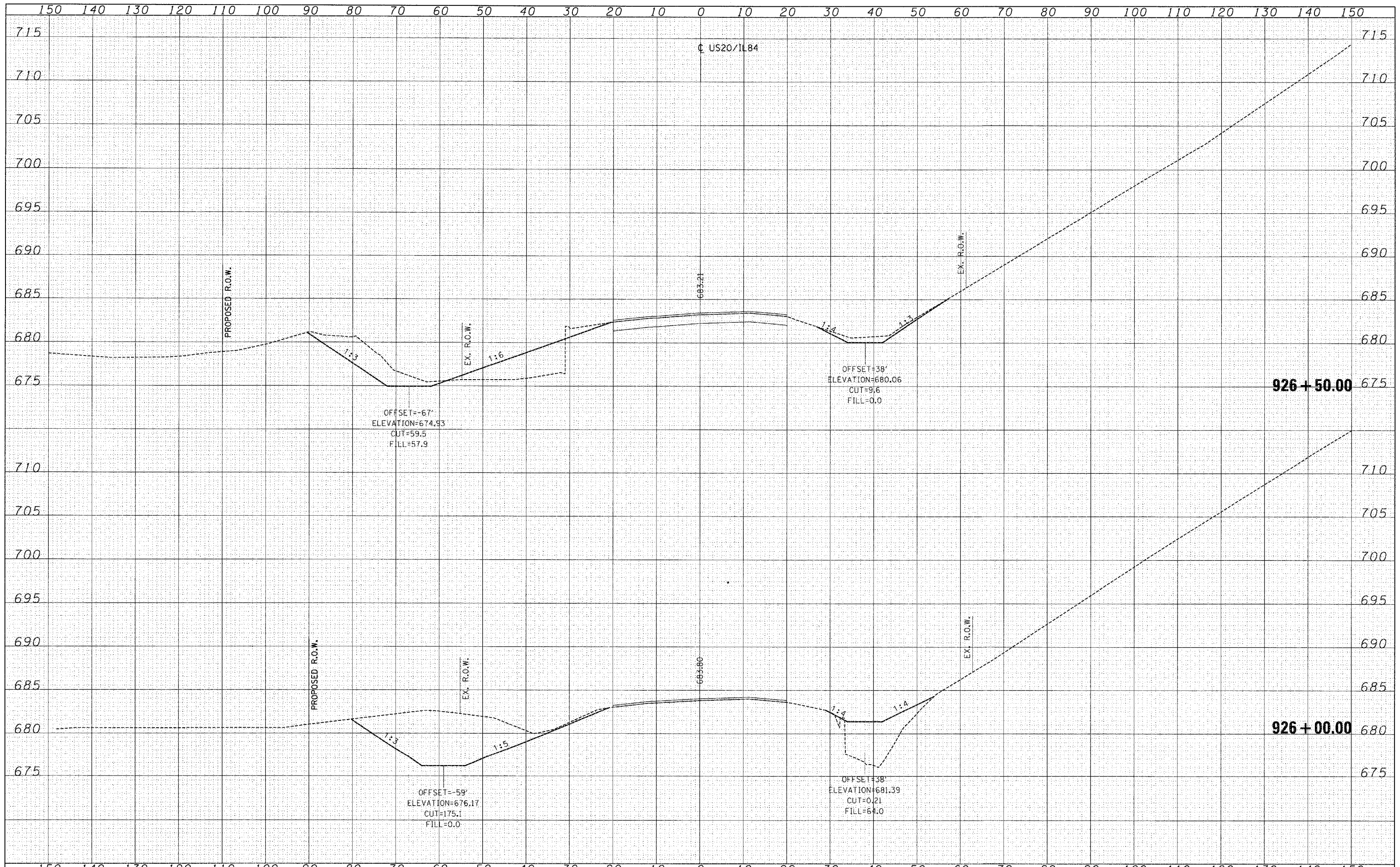
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME =	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTION			F.A.9	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\2298-01 - US 20 Box Culvert\microstation files\02 Sheet Files\120106XS-SHT.dgn	CHECKED - JMS	REVISOR -	REVISOR -		301	29T-1	JO DAVIESS	30	27			
PLOT SCALE = 10.0000' / IN.	DRAWN - AJP	REVISOR -	REVISOR -		SCALE: 10'H, 5'V			SHEET NO. 2 OF 5 SHEETS	STA. 924+32.10 TO STA. 925+00	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 64C58
PLOT DATE = 3/25/2008	DATE - 03-28-08	REVISOR -	REVISOR -									

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

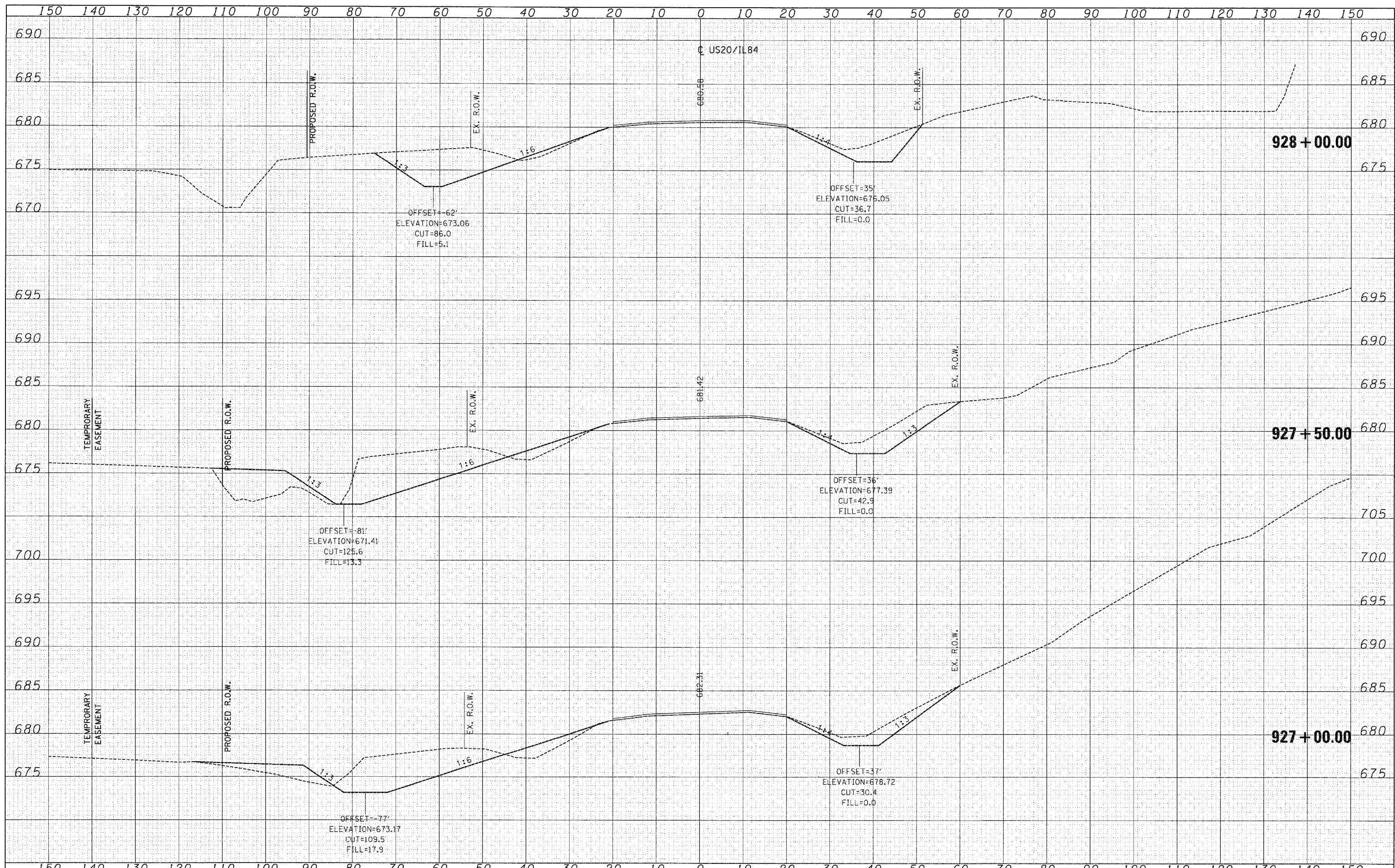
DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME =	USER NAME = IDOTCAD	DESIGNED -	SPF	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTION				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\2298-01 - US 20 Box Culvert\microstation files\20 Sheet Files\210126XS-SHT.dgn		CHECKED -	JMS	REVISED -			301	29T-1	JO DAVIESS	30	28				
PLOT SCALE = 10.0000' / IN.		DRAWN -	SJP	REVISED -			SCALE: 10'H, 5'V				SHEET NO. 3 OF 5 SHEETS	STA. 926+00 TO STA. 926+50	CONTRACT NO. 64C58		
PLOT DATE = 3/25/2008		DATE -	03-28-08	REVISED -			FED. ROAD DIST. NO.				ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

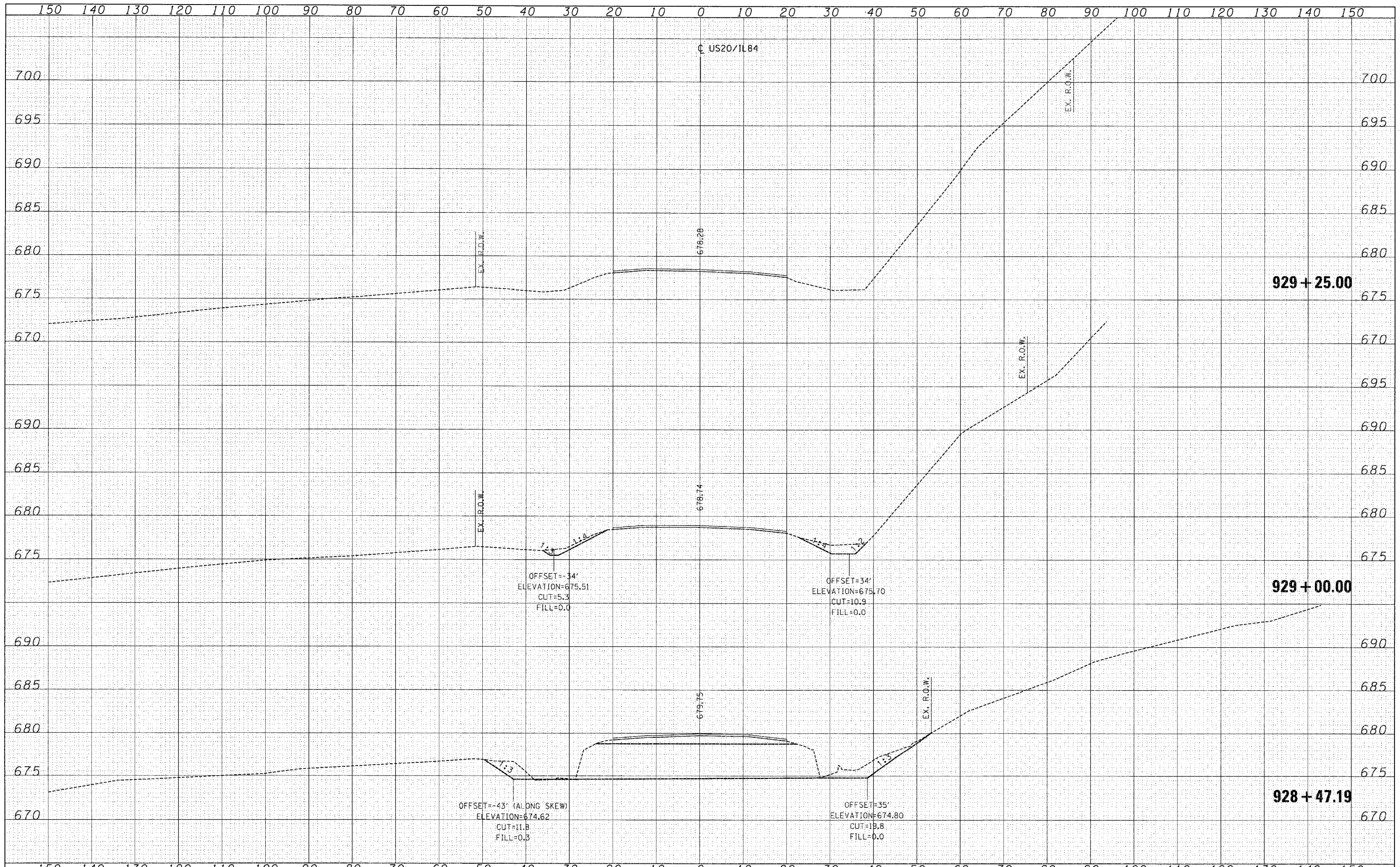


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		DRAWN -	AJP	REVISED -
		DATE -	03-28-08	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS	
SCALE: 10'H 5'V	SHEET NO. 4 OF 5 SHEETS
STA. 927+00	TO STA. 928+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	29T-1	JO DAVIESS	30	29
CONTRACT NO. 64C58				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



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

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

FILE NAME = 675
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USER NAME = IDOTCAD
 PLOT SCALE = 10.0000' / IN.
 PLOT DATE = 3/25/2008

DESIGNED - SPF
 CHECKED - JMS
 DRAWN - AJP
 DATE - 03-28-08

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS
 SCALE: 1"=4, 5'V SHEET NO. 5 OF 5 SHEETS STA. 928+47.19 TO STA. 929+25

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	29T-1	JO DAVIESS	30	30
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	