

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	*	MACOUPIN	25	1

* - D-6 SHLDR RUMBLE STRIPS 2008-03

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP 325 (IL RTE. 16)
SECTION D-6 SHLDR RUMBLE STRIPS 2008-03
PROJECT NO. *ACHSIP-0325(047)*
MACOUPIN COUNTY
C-96-109-07

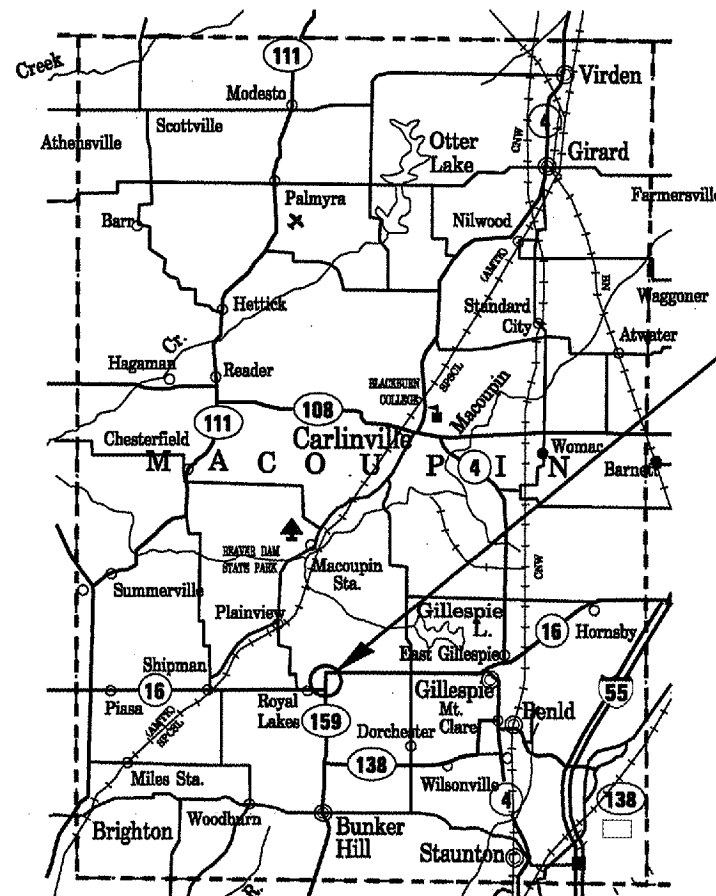
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HIGHWAY STANDARDS

000001-05	701201-02
001001-01	701301-02
001006	701306-02
280001-04	701311-02
542201-01	701326-02
542301-01	720001
542306-01	720006-01
701001-01	728001
701006-02	780001-01
701011-01	

D-96-109-07



PROJECT LOCATION
STA. 101 + 41.77 TO STA. 119 + 12.12
STA. 19 + 06.99 TO STA. 73 + 50.00



LOCATION MAP

A.D.T. = 2,150 (YEAR 2006)
NET LENGTH OF PROJECT = 7,213.36 FT. (1.366 MILES)

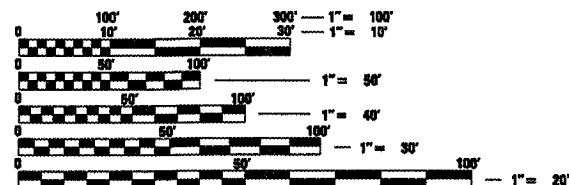
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *July 20 08*
Chris M. Reed
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 21 20 08
Eric E. Harn
ENGINEER OF DESIGN AND ENVIRONMENT

March 21 20 08
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**



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

CONTRACT NO. 72B32

PROJECT ENGINEER: SAL MADONIA (217) 782-4761
SQUAD LEADER: MARCUS BRUCE / TIM SLAGLE (217) 524-0946

GENERAL NOTES:

1. ALL OF THE DISTURBED AREAS WITHIN THE RIGHT OF WAY NOT COVERED BY SURFACING MATERIAL SHALL BE SEEDED.
2. THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE FOR THE DURATION OF THIS PROJECT.
3. SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED SHALL BE DETERMINED BY THE ENGINEER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF FORTY-EIGHT HOURS ADVANCE NOTICE IS REQUIRED. ANY DAMAGE TO THE UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE, INCLUDING TEMPORARY REPAIRS WHICH MAY BE REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS.
5. THE THICKNESS OF HOT-MIX ASPHALT SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT-MIX ASPHALT IS PLACED.
6. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
7. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:
SEEDING, CLASS 2:
 FERTILIZER RATIO 1:1:1 RATE:270 LBS/ACRE (90* OF NITROGEN, 90* OF PHOSPHOROUS, 90* OF POTASSIUM)
 AGRICULTURAL GROUND LIMESTONE: 2 TON/ACRE
 MULCH: 2 TON/ACRE
8. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
9. UNLESS NOTED OTHERWISE, STATIONS AND OFFSETS REFER TO CENTERLINE OF PROJECT.
10. IN ADDITION TO FIELD SURVEYS AND AERIAL SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
11. BEFORE ORDERING PIPE CULVERTS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

COMMITMENTS:

THERE ARE NO COMMITMENTS MADE FOR THIS PROJECT.

MIXTURE REQUIREMENTS	
LOCATION(S):	PROPOSED LT. & RT. SHLDRS.
MIXTURE USE(S):	HMA SHOULDERS
P.G.:	PG 58-22
DESIGN AIR VOIDS:	2.0% @ N DESIGN = 30
MIXTURE COMPOSITION: (GRADATION MIXTURE)	BAM
FRICITION AGGREGATE:	NOT APPLICABLE

DISTRICT SIX	
EXAMINED <u>January 16</u> <u>20 08</u> <i>Sami H...</i>	
OPERATIONS ENGINEER	
EXAMINED <u>Jan 16</u> <u>20 08</u> <i>W.B. J...</i>	
PROGRAM IMPLEMENTATION ENGINEER	
EXAMINED <u>Jan 16</u> <u>20 08</u> <i>W.B. J...</i>	
PROGRAM DEVELOPMENT ENGINEER	

SUMMARY OF QUANTITIES

CODE NO	PAY ITEM	UNIT	90% FED 10% STATE SFTY - 2A QUANTITY
X0545005	BOX CULVERT REMOVAL	L SUM	1
20200100	EARTH EXCAVATION	CU YD	50
20200600	EXCAVATING AND GRADING EXISTING SHOULDER	UNIT	107
20400800	FURNISHED EXCAVATION	CU YD	100
25000200	SEEDING, CLASS 2	ACRE	0.75
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	68
25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	68
25000600	POTASSIUM FERTLIZER NUTRIENT	POUND	68
25100115	MULCH, METHOD 2	ACRE	0.75
28000400	PERIMETER EROSION BARRIER	FOOT	156
28000500	INLET AND PIPE PROTECTION	EACH	4
28100225	STONE RIP RAP, CLASS B 3	TON	8
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	3573
50800105	REINFORCEMENT BARS	POUND	3410
54002020	EXPANSION BOLTS 3/4 INCH	EACH	26
54003000	CONCRETE BOX CULVERTS	CU YD	21.7

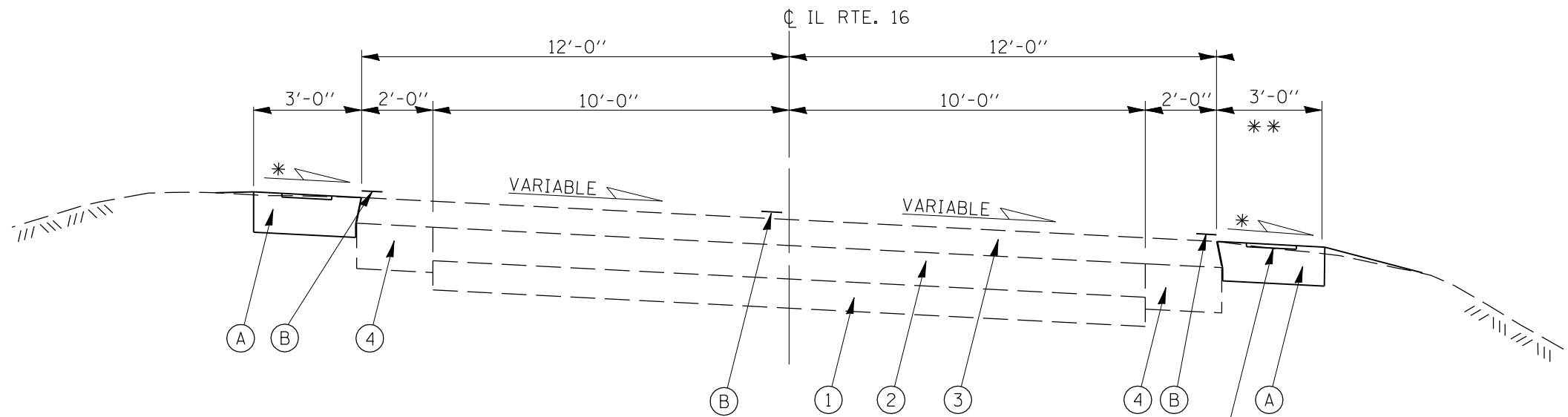
* - D-6 SHLDR RUMBLE STRIPS 2008-03

SUMMARY OF QUANTITIES

CODE NO	PAY ITEM	UNIT	90% FED 10% STATE SFTY - 2A QUANTITY
54200433	PIPE CULVERTS, TYPE 1 RCCP 18"	FOOT	8
54207171	PIPE CULVERTS, TYPE 1, REINFORCED CONCRETE - ELLIPTICAL, EQUIVALENT ROUND-SIZE 36"	FOOT	12
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	1
54214731	PRECAST REINFORCED CONCRETE FLARED END SECTIONS - ELLIPTICAL, EQUIVALENT ROUND-SIZE 36"	EACH	2
54248515	CONCRETE COLLAR	EACH	2
63200310	GUARDRAIL REMOVAL	FOOT	335
64200105	SHOULDER RUMBLE STRIP	FOOT	13879
67100100	MOBILIZATION	L SUM	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	15
* 72000100	SIGN PANEL - TYPE 1	SQ FT	90.5
* 72800100	TELESCOPIC STEEL SIGN SUPPORT	FOOT	180
* 78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	15265

* SPECIALTY ITEMS

* - D-6 SHLDR RUMBLE STRIPS 2008-03



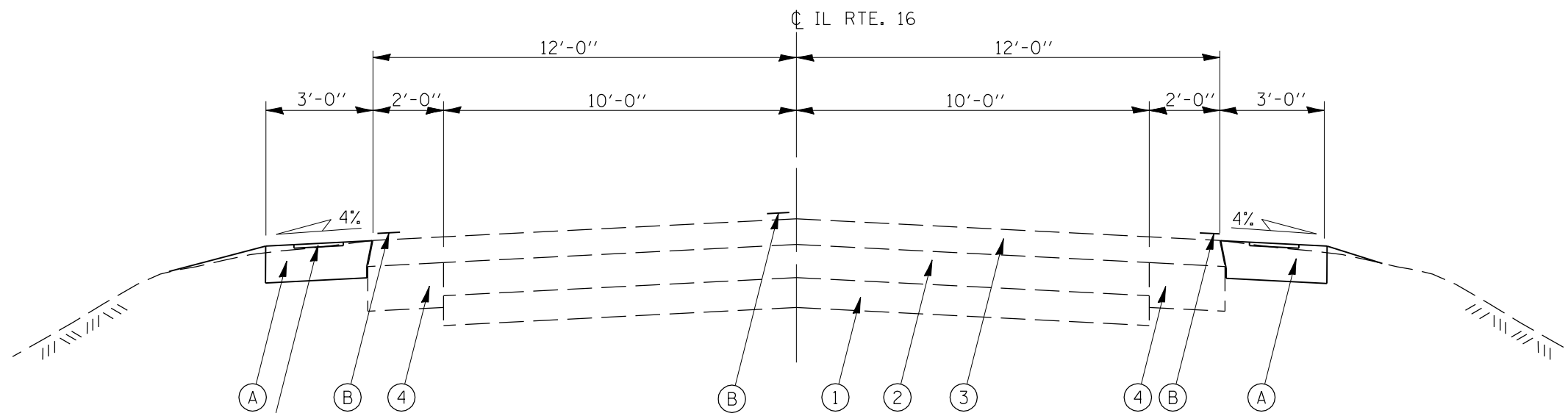
* - PROPOSED BIT SHLDR SLOPE TO MATCH EXISTING PAVEMENT SLOPE.

S.E. TRANSITION STA. 52+27 TO STA. 54+97
FULL SUPER EL. STA. 54+97 TO STA. 68+50
S.E. TRANSITION STA. 68+50 TO STA. 71+20

PROPOSED SHOULDER
RUMBLE STRIP (TYP.)

LEGEND

- ① EXISTING COMPACTED GRAVEL, 6"
- ② EXISTING BITUMINOUS MATERIAL, 7"
- ③ EXISTING BITUMINOUS SURFACE, ±6"
- ④ EXISTING BITUMINOUS BASE COURSE WIDENING, 9"
- Ⓐ PROPOSED BITUMINOUS SHOULDERS, 8" WITH RUMBLE STRIPING
- Ⓑ PROPOSED PAVEMENT MARKING - LINE, 5"



PROPOSED SHOULDER
RUMBLE STRIP (TYP.)

STA. 19+07 TO STA. 52+27
STA. 71+20 TO STA. 73+50

*- D-6 SHLDR RUMBLE STRIPS 2008-03

FILE NAME = c:\projects\d610907\shotypical.dgn	USER NAME = laughlin1	DESIGNED - RTS	REVISED -
		DRAWN - RTS	REVISED -
		CHECKED - MEB	REVISED -
		DATE - JANUARY 15, 2007	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 19+06.99 TO STA. 73+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	*	MACOUPIN	25	5
CONTRACT NO. 72B32				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

EXCAVATING AND GRADING EXISTING SHOULDERS		
LOCATION (STATION RANGE)	SHOULDER LENGTH (FT)	QUANTITY (UNITS)
19+06.99 TO 64+69.40, LEFT	4,562.4	45.6
66+37.16 TO 73+50.00, LEFT	712.8	7.1
19+06.99 TO 73+50.00, RIGHT	5,443.0	54.4
TOTAL = 107.1 UNITS		

HOT MIX ASPHALT SHOULDERS, 8"			
LOCATION (STATION RANGE)	SHOULDER LENGTH (FT)	SHOULDER WIDTH (FT)	QUANTITY (SQ YD)
19+06.99 TO 64+69.40, LEFT	4,562.4	3.0	1,520.8
66+37.16 TO 73+50.00, LEFT	712.8	3.0	237.6
19+06.99 TO 73+50.00, RIGHT	5,443.0	3.0	1,814.3
TOTAL = 3,572.7 SQ YD			

SIGN PANEL, TYPE 1					
W1-8 CHEVRON SIGNS *			W1-2 CURVE SIGNS **		
STATION	QUANTITY, EACH SIGN (SQ FT)	TOTAL QUANTITY, EACH POST (SQ FT)	STATION	TYPE	QUANTITY, EACH SIGN (SQ FT)
54+00	3.0	6.0	49+55 RT.	W1-2R	6.25
55+20	3.0	6.0			
56+40	3.0	6.0	72+93 LT.	W1-2L	6.25
57+60	3.0	6.0			
58+80	3.0	6.0			
60+00	3.0	6.0			
61+20	3.0	6.0			
62+40	3.0	6.0			
63+72	3.0	6.0			
64+80	3.0	6.0			
66+30	3.0	6.0			
67+50	3.0	6.0			
68+70	3.0	6.0			
SUBTOTAL = 78.0 SQ FT			SUBTOTAL = 12.50 SQ FT		
TOTAL = 90.50 SQ FT					

TELESCOPIC STEEL SIGN SUPPORT	
STATION	QUANTITY (FOOT)
49+55	12.0
54+00	12.0
55+20	12.0
56+40	12.0
57+60	12.0
58+80	12.0
60+00	12.0
61+20	12.0
62+40	12.0
63+72	12.0
64+80	12.0
66+30	12.0
67+50	12.0
68+70	12.0
72+93	12.0
TOTAL = 180.0 SQ FT	

* - EACH SIGN IS 18" X 24"
EACH STEEL SIGN SUPPORT HAS 2 SIGN PANELS, ONE EACH SIDE

** - EACH SIGN IS 30" X 30"
EACH STEEL SIGN SUPPORT HAS 1 SIGN PANEL

PAINT PAVEMENT MARKING - LINE 5" SCHEDULE		
LOCATION (STATION RANGE)	DESCRIPTION	QUANTITY (FOOT)
101+41.77 TO 107+90.46	LEFT EDGE LINE - WHITE	648.69
110+56.04 TO 119+12.12	LEFT EDGE LINE - WHITE	856.08
(STA. CHANGE: 119+12.12 BACK = 19+06.99 AHEAD)		
19+06.99 TO 64+69.40	LEFT EDGE LINE - WHITE	4,562.41
66+37.16 TO 73+50.00	LEFT EDGE LINE - WHITE	712.84
101+41.77 TO 109+10.79	RIGHT EDGE LINE - WHITE	769.02
110+25.58 TO 119+12.12	RIGHT EDGE LINE - WHITE	886.54
(STA. CHANGE: 119+12.12 BACK = 19+06.99 AHEAD)		
19+06.99 TO 73+50.00	RIGHT EDGE LINE - WHITE	5,443.01
118+12.42 TO 119+12.12	30' SKIP / 10' DASH CENTERLINE - WHITE	24.93
(STA. CHANGE: 119+12.12 BACK = 19+06.99 AHEAD)		
19+06.99 TO 73+50.00	30' SKIP / 10' DASH CENTERLINE - WHITE	1,360.75
TOTAL = 15,264.27 FEET		

RUMBLE STRIPS	
LOCATION (STATION RANGE)	QUANTITY (FOOT)
101+41.77 TO 107+90.46, LEFT	648.69
110+56.04 TO 119+12.12, LEFT (STA. CHANGE: 119+12.12 BACK = 19+06.99 AHEAD)	856.08
19+06.99 TO 64+69.40, LEFT	4,562.41
66+37.16 TO 73+50.00, LEFT	712.84
101+41.77 TO 109+10.79, RIGHT	769.02
110+25.58 TO 119+12.12, RIGHT (STA. CHANGE: 119+12.12 BACK = 19+06.99 AHEAD)	886.54
19+06.99 TO 73+50.00, RIGHT	5,443.01
TOTAL = 13,878.59 FEET	

* - D-6 SHLDR RUMBLE STRIPS 2008-03

FILE NAME = c:\projects\d610907\shsch.dgn	USER NAME = laughtinr1	DESIGNED - RTS	REVISED - JAN. 16, 2008
		DRAWN - RTS	REVISED -
		CHECKED - MEB	REVISED -
		DATE - JAN. 12, 2008	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY SCHEDULES

SCALE: NO SCALE SHEET NO. 1 OF 2 SHEETS STA. TO STA.

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	*	MACOUPIN	25	6
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 72B32	

EARTHWORK FOR CULVERT EXTENSIONS									
LOCATION (STATION)	END AREA (SQ. FT.)		DISTANCE (FOOT)	SUM OF END AREA'S (SQ. FT.)		SECTION VOLUMES (CU. YD.)		EARTH EXCAVATION ADJUST FOR SHRINKAGE (CU. YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CUBIC YARD)
	CUT	FILL		CUT	FILL	CUT	FILL		
5' X 3' BOX CULVERT									
46+78.06	0	0	-	-	-	-	-	-	-
46+88.06	3	10	10	3	10	1	2	1	-1
46+98.06	4	6	10	7	16	1	3	1	-2
47+08.06	4	8	10	8	14	1	3	1	-2
47+18.06	5	9	10	9	17	2	3	2	-1
47+28.06	6	9	10	11	18	2	3	2	-1
47+38.06	7	8	10	13	17	2	3	2	-1
47+48.06	8	8	10	15	16	3	3	2	-1
47+58.06	14	11	10	22	19	4	4	3	-1
47+68.06	14	27	10	28	38	5	7	4	-3
47+78.06	15	39	10	29	66	5	12	4	-8
47+88.06	25	56	10	40	95	7	18	5	-13
47+98.06	14	9	10	39	65	7	12	5	-7
48+08.06	12	4	10	26	13	5	2	4	+2
48+18.06	11	1	10	23	5	4	1	3	+2
48+28.06	8	0	10	19	1	4	0	3	+3
48+38.06	4	0	10	12	0	2	0	2	+2
48+48.06	2	0	10	6	0	1	0	1	+1
48+58.06	0	0	10	2	0	0	0	0	0
SUBTOTALS =						44			-30
5' X 5' BOX CULVERT									
52+63.22	0	0	-	-	-	-	-	-	-
52+73.22	0	6	10	0	6	0	1	0	-1
52+83.22	10	19	10	10	25	2	5	2	-3
52+93.22	0	16	10	10	35	2	6	2	-4
53+03.22	0	62	10	0	78	0	14	0	-14
53+13.22	0	24	10	0	86	0	16	0	-16
53+23.22	1	15	10	1	39	0	7	0	-7
53+33.22	0	6	10	1	21	0	4	0	-4
53+43.22	0	4	10	0	10	0	2	0	-2
53+53.22	0	0	10	0	4	0	1	0	-1
53+63.22	0	0	10	0	0	0	0	0	0
SUBTOTALS =						4			-52
3' X 2' BOX CULVERT									
59+53.85	0	0	-	-	-	-	-	-	-
59+63.85	0	3	10	0	3	0	1	0	-1
59+73.85	0	0	10	0	3	0	1	0	-1
59+93.14	0	0	19	0	0	0	0	0	0
60+03.14	2	22	10	2	22	0	4	0	-4
60+13.14	0	10	10	2	32	0	6	0	-6
60+23.14	0	4	10	0	14	0	3	0	-3
60+33.14	1	3	10	1	7	0	1	0	-1
60+43.14	5	0	10	6	3	1	1	1	0
60+53.14	0	0	10	5	0	1	0	1	+1
SUBTOTALS =						4			-52
GRAND TOTALS =						50			-97
ROUNDED =						50			-100
USE: 50 CUBIC YARDS EARTH EXCAVATION 100 CUBIC YARDS FURNISHED EXCAVATION									

PERIMETER EROSION BARRIER		
LOCATION	SIDE	BARRIER LENGTH (FT)
5' X 3' BOX CULVERT		
STA. 52+63.04 TO STA. 52+89.87	RIGHT	35
STA. 52+98.49 TO STA. 53+62.92	RIGHT	76
5' X 3' BOX CULVERT		
STA. 59+53.70 TO STA. 59+61.47	LEFT	20
STA. 59+66.57 TO STA. 59+73.96	LEFT	25
		TOTAL = 156 FEET

INLET AND PIPE PROTECTION	
LOCATION	NO.
5' X 3' CULVERT EXTENSION, UPSTREAM END	1
5' X 5' CULVERT EXTENSION, UPSTREAM END	1
5" X 5' CULVERT EXTENSION, NORTH DITCH CULVERT	1
3' X 2' CULVERT EXTENSION, UPSTREAM END	1
TOTAL = 4 EACH	

PIPE CULVERTS, TYPE 1 RCCP 18"	
LOCATION	LENGTH (FOOT)
5' X 5' PIPE - NORTH DITCH	8
TOTAL = 8.0 FEET	

PIPE CULVERTS, TYPE 1, REINFORCED CONCRETE - ELLIPTICAL, EQUIVALENT ROUND-SIZE 36"	
LOCATION	LENGTH (FOOT)
3' X 2' CULVERT - LEFT END	8
3' X 2' CULVERT - RIGHT	4
TOTAL = 12.0 FEET	

PRECAST REINFORCED CONCRETE FLARED END SECTION 18"	
LOCATION	NO. (EACH)
5' X 5' PIPE - NORTH DITCH	1
TOTAL = 1 EACH	

PRECAST REINFORCED CONCRETE FLARED END SECTIONS - ELLIP. EQUIV. ROUND SIZE 36"	
LOCATION	NO. (EACH)
3' X 2' PIPE - LEFT END	1
3' X 2' PIPE - RIGHT END	1
TOTAL = 2 EACH	

GUARDRAIL REMOVAL		
LOCATION (STATION)	SIDE	LENGTH (FOOT)
46+81.78 TO 48+47.51	RIGHT	165.73
58+88.62 TO 60+57.15	RIGHT	168.53
TOTAL = 335 FEET		

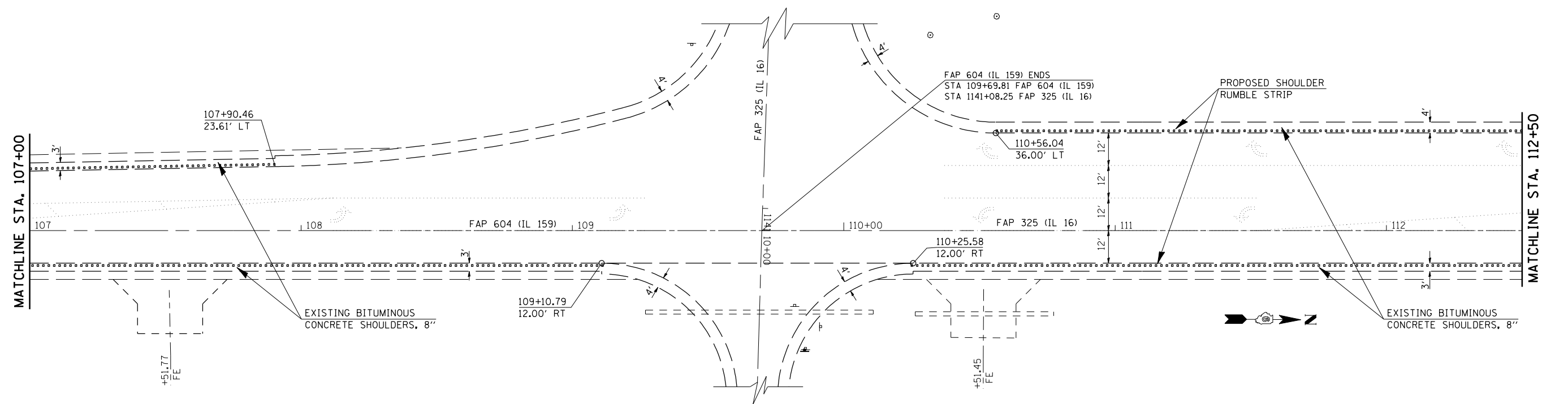
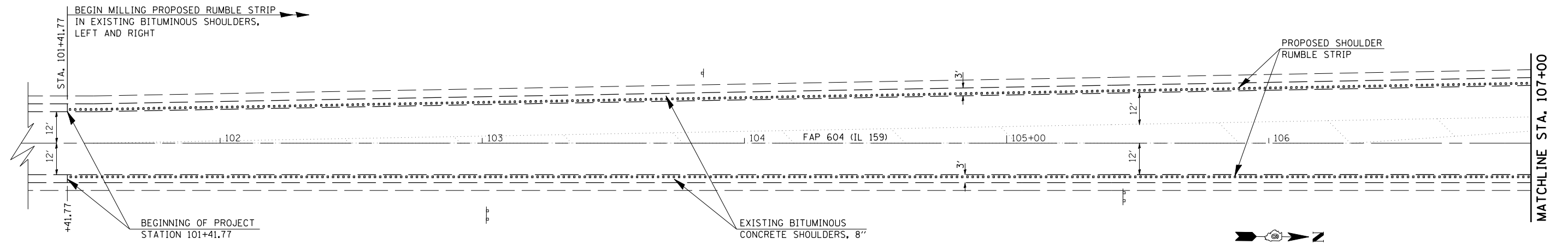
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		CHECKED - MEB	REVISED -
		DATE - JAN. 12, 2008	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT EXTENSION SCHEDULES			
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS
325	*	MACOUPIN	25
			7
CONTRACT NO. 72B32			
SCALE: NO SCALE	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.

* - D-6 SHLDR RUMBLE STRIPS 2008-03

FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
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* - D-6 SHLDR RUMBLE STRIPS 2008-03

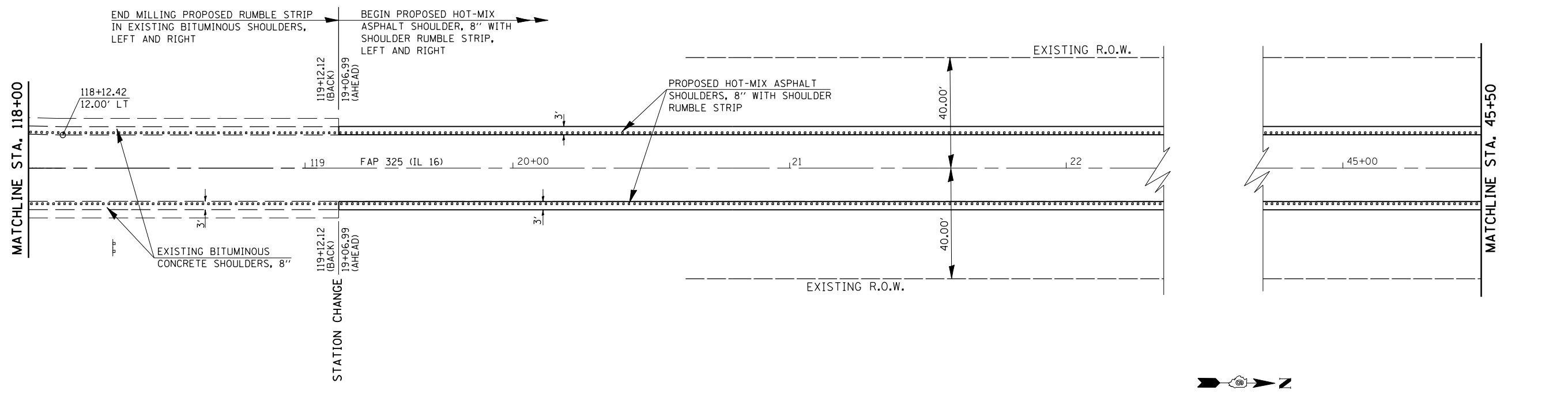
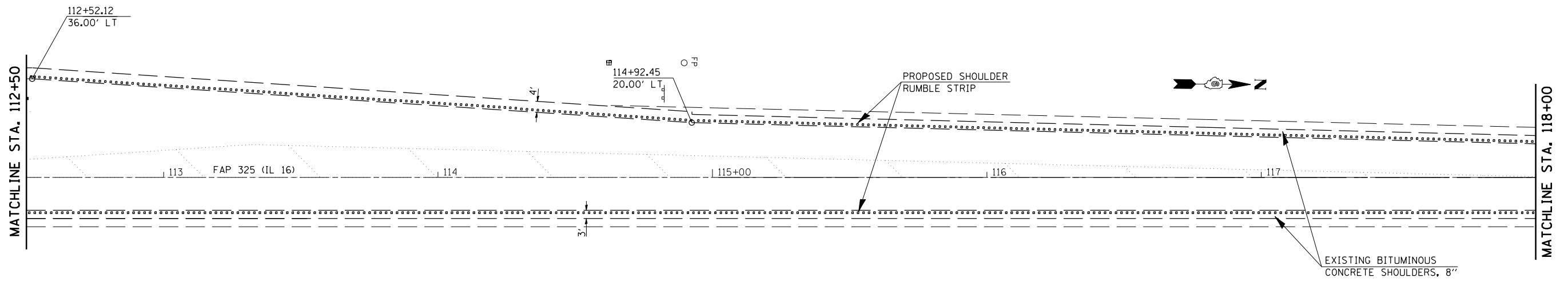
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	PLOT DATE = Jan-18-2008 07:17:50AM	DATE - JAN. 12, 2008	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PLAN LAYOUT SHEET NO. 1

SCALE: NO SCALE SHEET NO. 1 OF 5 SHEETS STA. 101+41.77 TO STA. 112+50.00

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	*	MACOUPIN	25	8
CONTRACT NO. 72B32				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

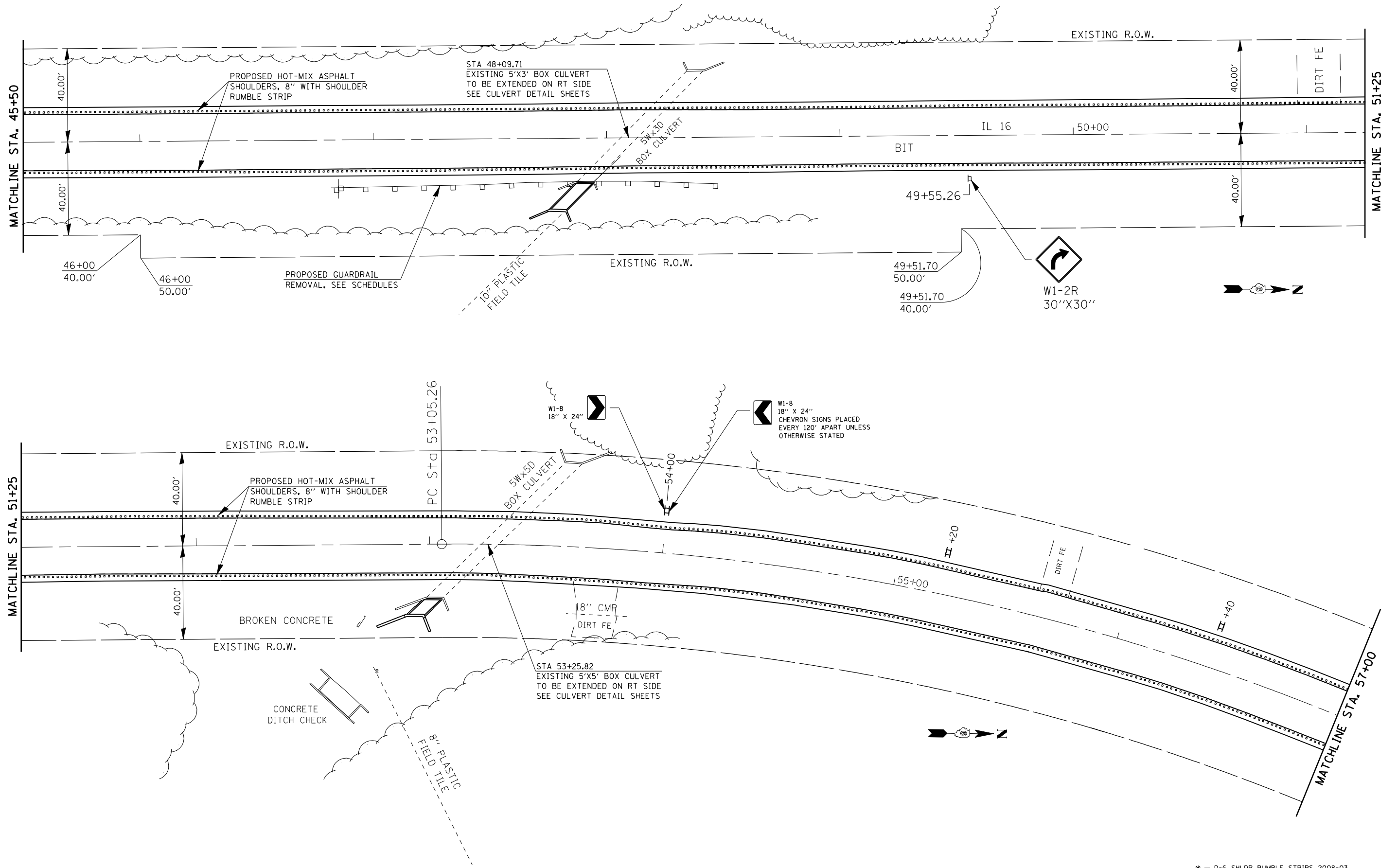


FILE NAME = c:\projects\0610907\shdet01s.dgn	USER NAME = laughlinr1	DESIGNED - RTS	REVISED - JAN. 15, 2008
		DRAWN - RTS	REVISED -
		CHECKED - MEB	REVISED -
		DATE - JAN. 12, 2008	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PLAN LAYOUT SHEET NO. 2		
SCALE: NO SCALE	SHEET NO. 2 OF 5 SHEETS	STA. 112+50.00 TO STA. 45+50.00

* - D-6 SHLDR RUMBLE STRIPS 2008-03				
FAP RTE. 325	SECTION *	COUNTY MACOUPIN	TOTAL SHEETS 25	SHEET NO. 9
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

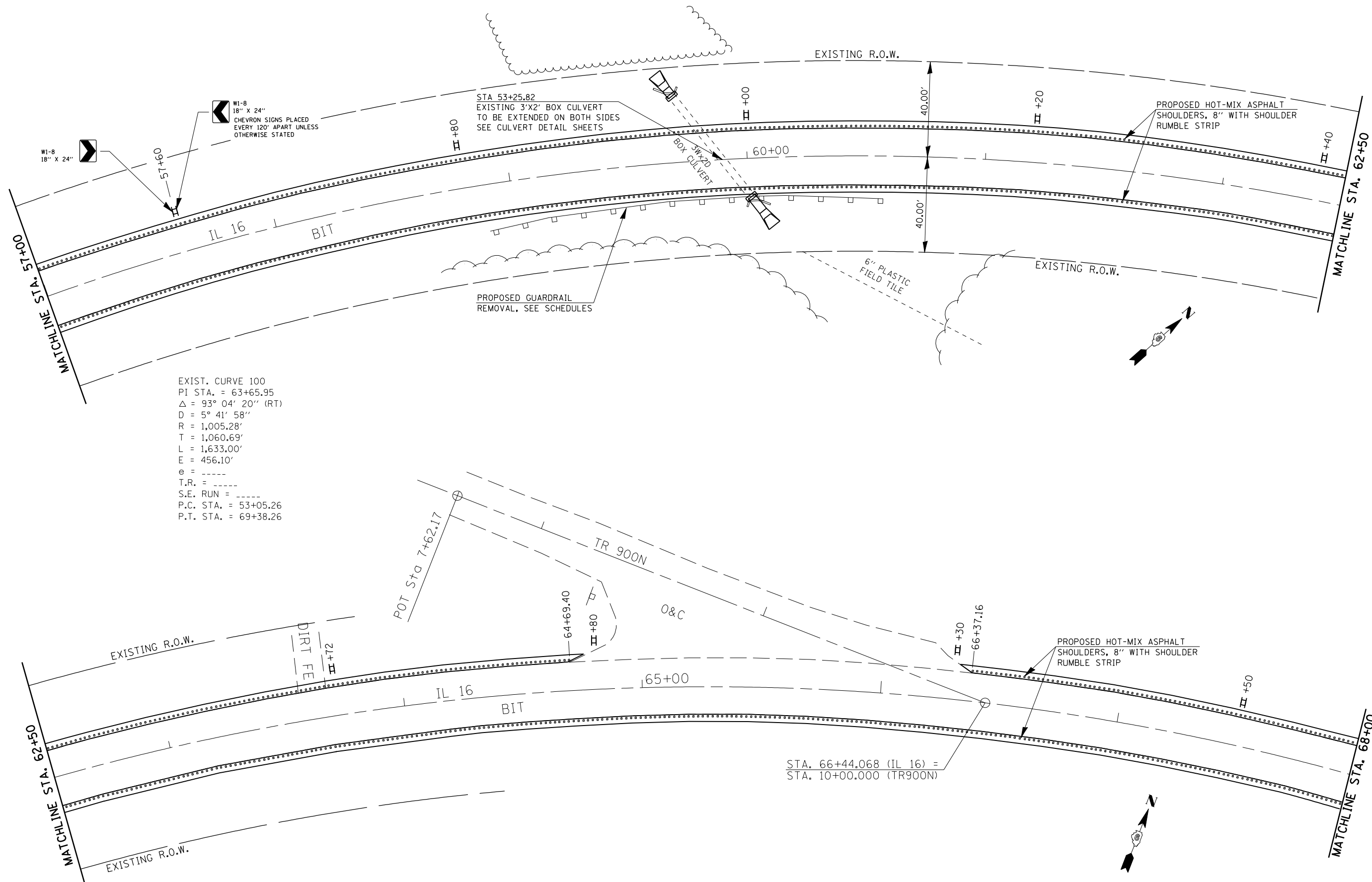


FILE NAME = c:\projects\d610907\shdtdetails.dgn	USER NAME = laughlinr1	DESIGNED - RTS	REVISED - JAN. 15, 2008
		DRAWN - RTS	REVISED -
		CHECKED - MEB	REVISED -
		DATE - JAN. 12, 2008	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PLAN LAYOUT SHEET NO. 3		
SCALE: NO SCALE	SHEET NO. 3 OF 5 SHEETS	STA. 45+50.00 TO STA. 57+00.00

* - D-6 SHLDR RUMBLE STRIPS 2008-03				
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	*	MACOUPIN	25	10
CONTRACT NO. 72B32				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXIST. CURVE 100
 PI STA. = 63+65.95
 $\Delta = 93^\circ 04' 20''$ (RT)
 $D = 5^\circ 41' 58''$
 $R = 1,005.28'$
 $T = 1,060.69'$
 $L = 1,633.00'$
 $E = 456.10'$
 $e = \text{-----}$
 $T.R. = \text{-----}$
 $S.E. \text{ RUN} = \text{-----}$
 $P.C. \text{ STA.} = 53+05.26$
 $P.T. \text{ STA.} = 69+38.26$

STA. 66+44.068 (IL 16) =
 STA. 10+00.000 (TR900N)

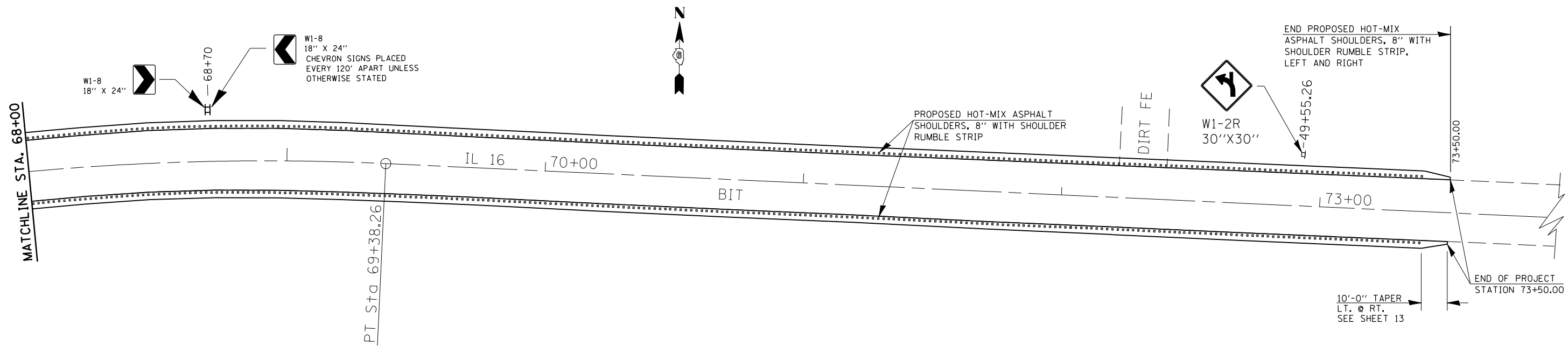
FILE NAME = c:\projects\d610907\shdtetails.dgn	USER NAME = laughtinr1	DESIGNED - RTS	REVISED - JAN. 15, 2008
		DRAWN - RTS	REVISED -
		CHECKED - MEB	REVISED -
		DATE - JAN. 12, 2008	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PLAN LAYOUT SHEET NO. 4
 SCALE: NO SCALE SHEET NO. 4 OF 5 SHEETS STA. 57+00.00 TO STA. 68+00.00

* - D-6 RUMBLE STRIPS 2008-03

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	*	MACOUPIN	25	11
CONTRACT NO. 72B32				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



* - D-6 SHLDR RUMBLE STRIPS 2008-03

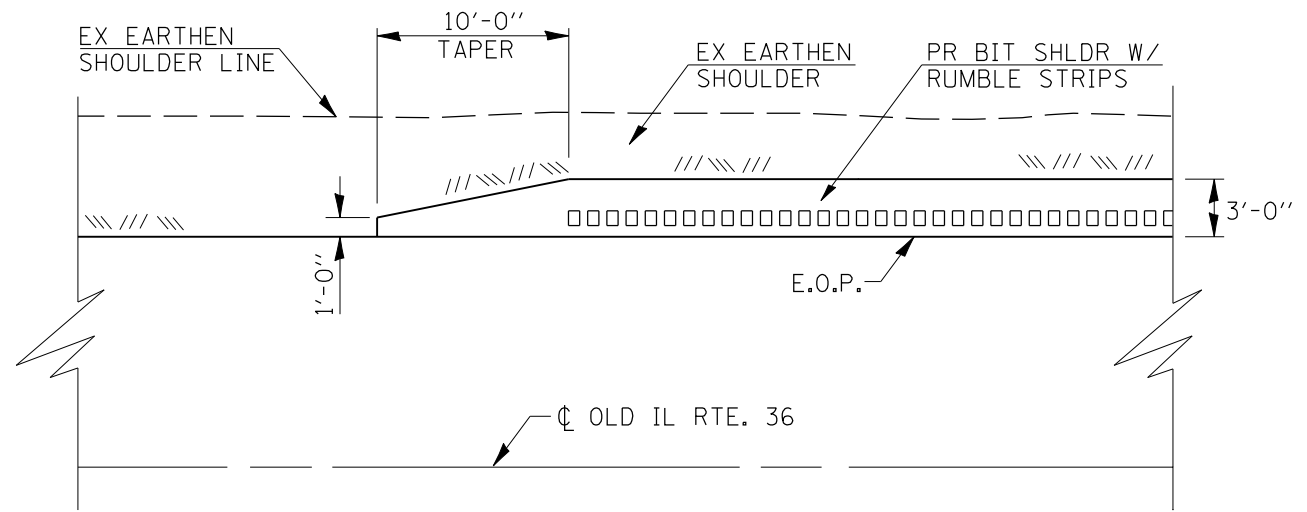
FILE NAME = c:\projects\d610907\shdtdetails.dgn	USER NAME = laughlinr1	DESIGNED - RTS	REVISED - JAN. 15, 2008
		DRAWN - RTS	REVISED -
	PLOT SCALE = 40.0000' / IN.	CHECKED - MEB	REVISED -
	PLOT DATE = Jan-18-2008 07:17:52AM	DATE - JAN. 12, 2008	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

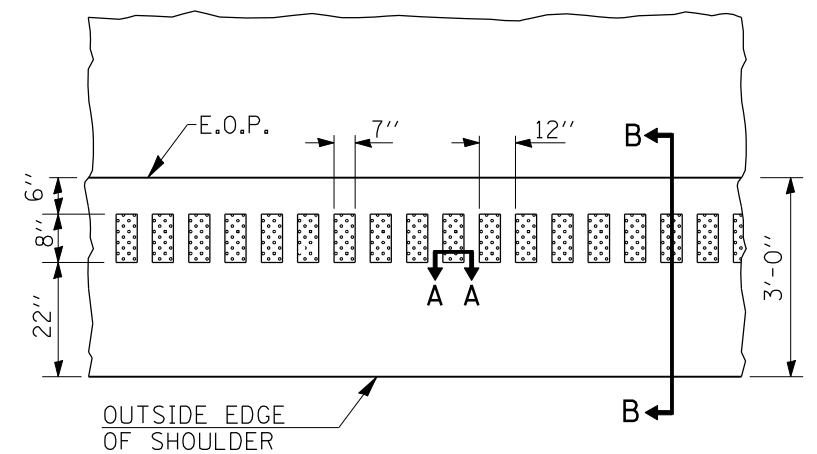
PLAN LAYOUT SHEET NO. 5

SCALE: NO SCALE SHEET NO. 5 OF 5 SHEETS STA. 68+00.00 TO STA. 73+50.00

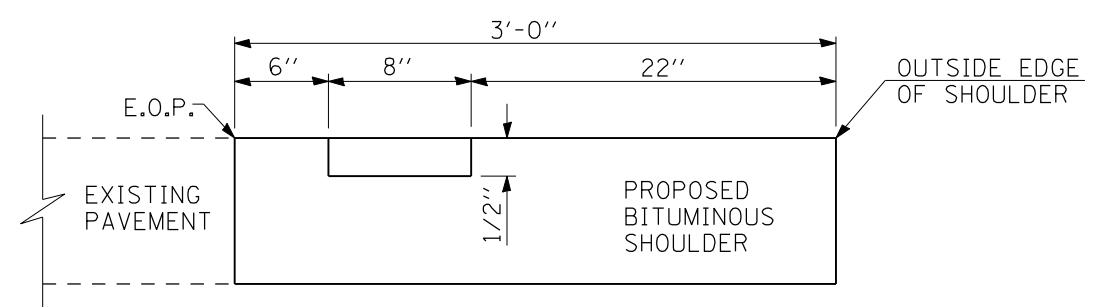
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	*	MACOUPIN	25	12
CONTRACT NO. 72B32				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



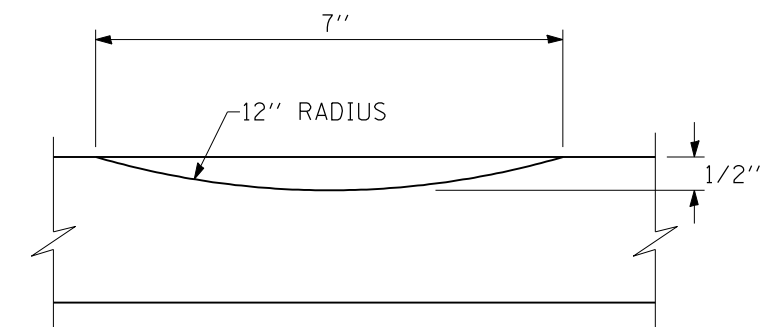
TAPER DETAIL FOR PROPOSED BITUMINOUS SHOULDER
 (TRANSITION WIDTH FOR PROPOSED BITUMINOUS SHOULDER FROM 1'-0" TO 3'-0" WITHIN 10'-0")



PLAN VIEW



SECTION B-B



SECTION A-A

FILE NAME = c:\projects\d610907\shdtdetails.dgn	USER NAME = laughlin1	DESIGNED - RTS	REVISED - JAN. 15, 2008
		DRAWN - RTS	REVISED -
		CHECKED - MEB	REVISED -
		DATE - JAN. 12, 2008	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

RUMBLE STRIP DETAILS

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

*-D-6 SHLDR RUMBLE STRIPS 2008-01

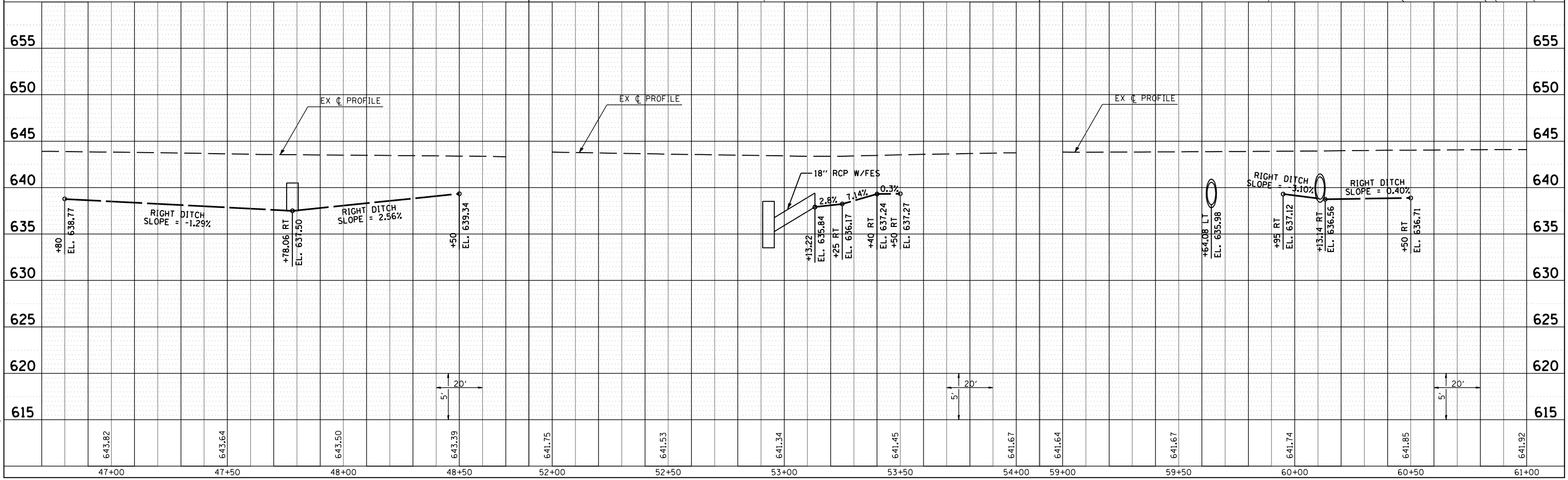
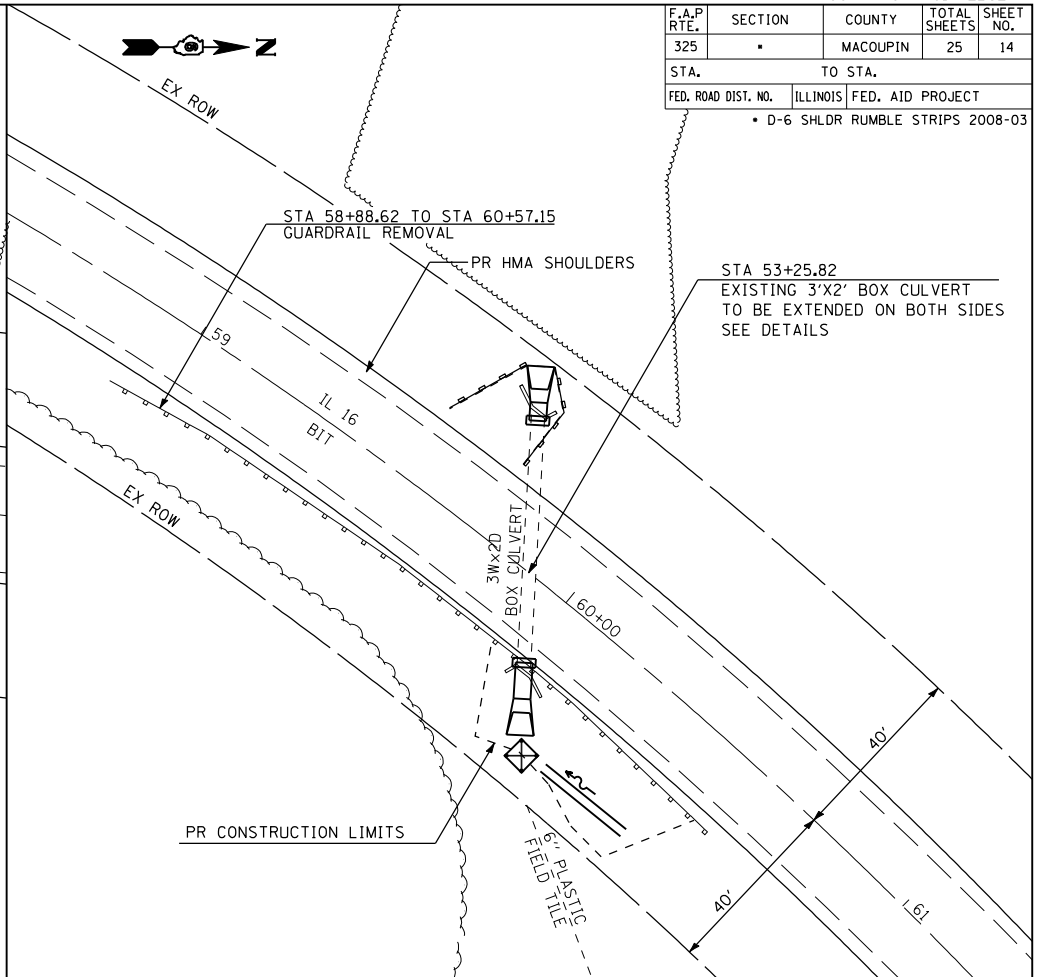
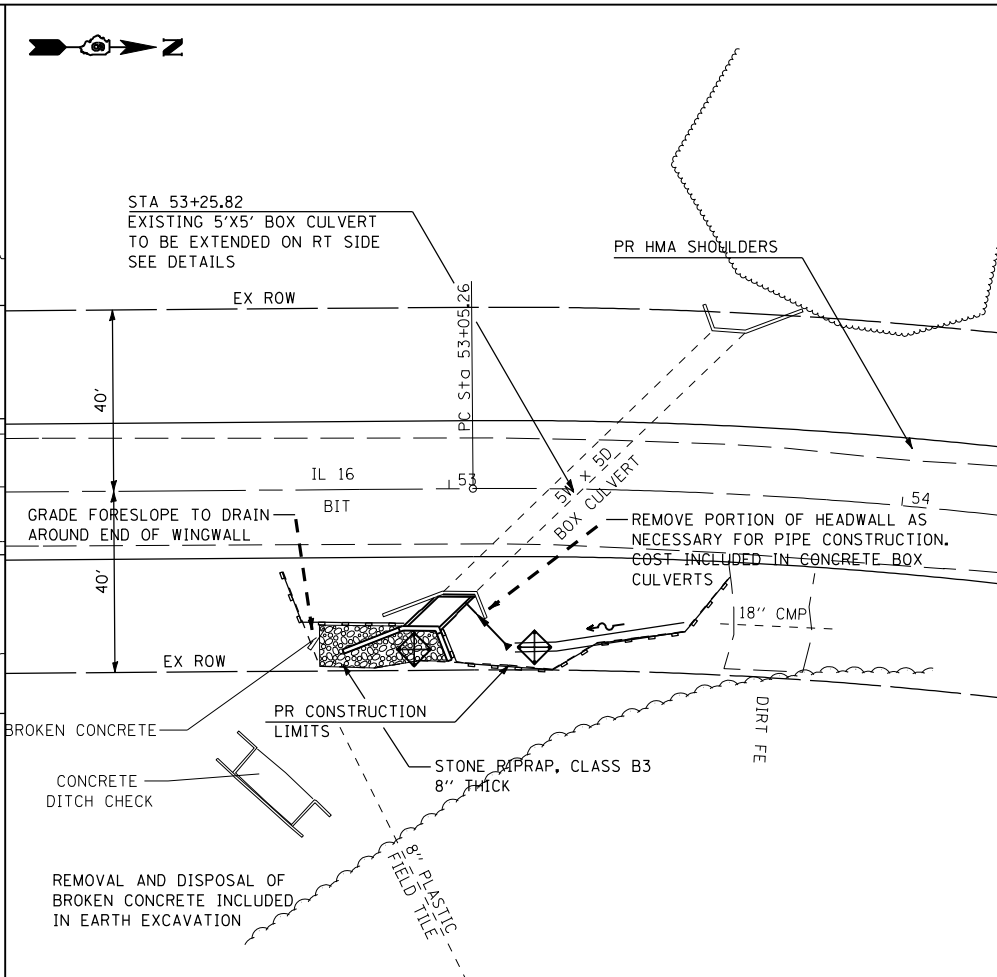
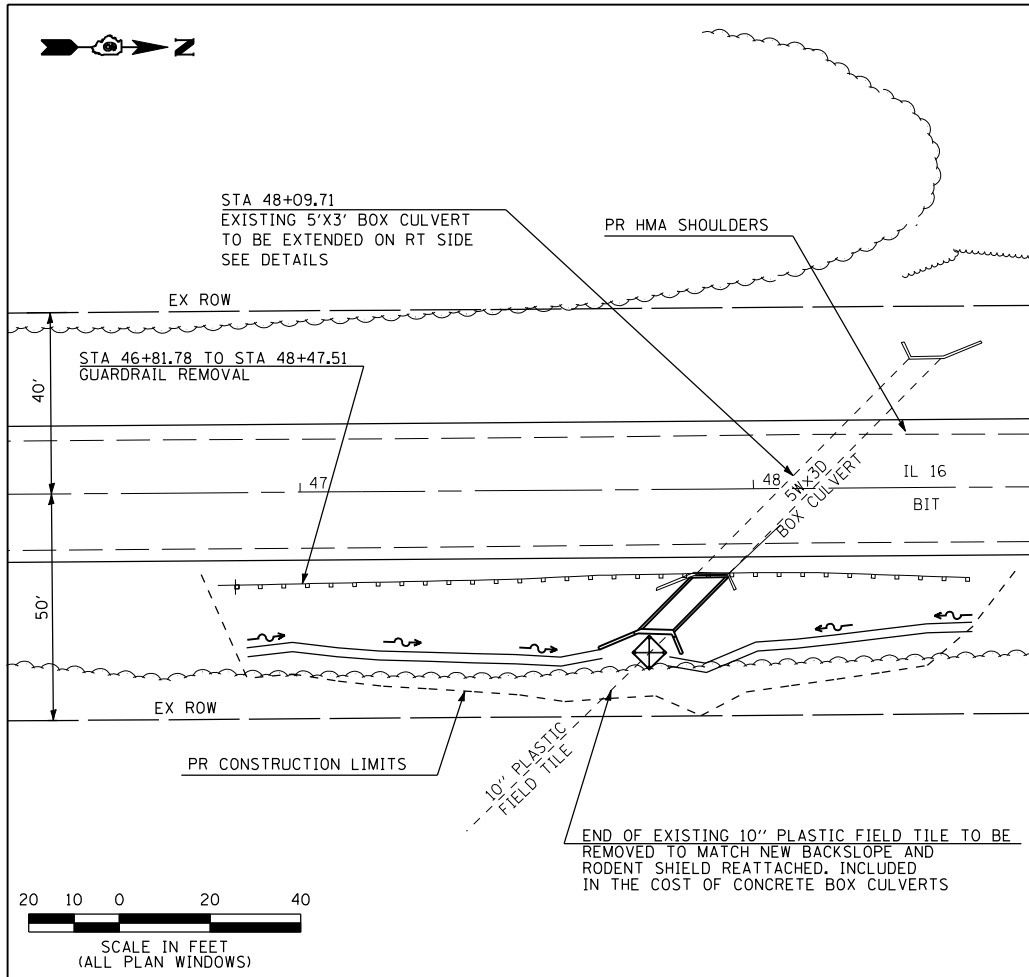
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	*	MACOUPIN	25	13
CONTRACT NO. 72B32				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325		MACOUPIN	25	14
STA. 325		TO STA. 326		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• D-6 SHLDR RUMBLE STRIPS 2008-03				

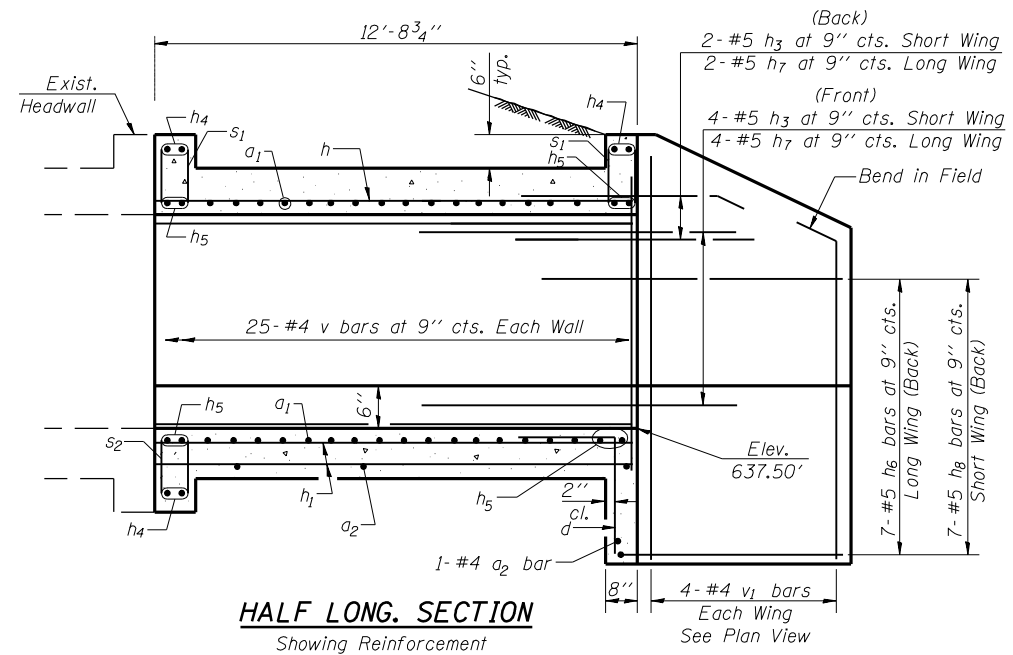
PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	NO. OF WAY CHECKED		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	NO. OF WAY CHECKED		
	STRUCTURE NOTATIONS CHKD		

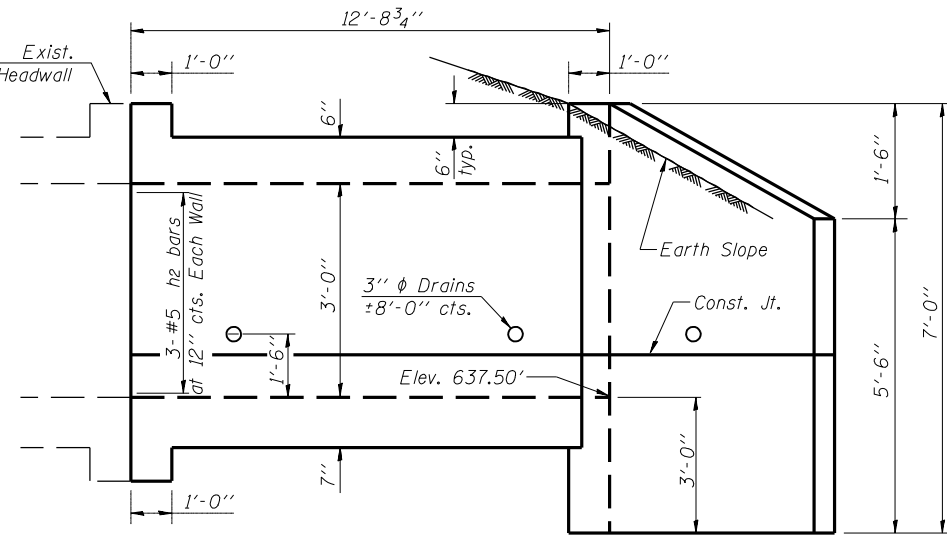
PLOT DATE = Jan-18-2008 07:17:53AM
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 PLOT SCALE = 40.6884' / IN.
 USER NAME = laughlin-1



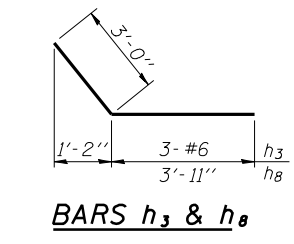
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325		MACOUPIN	25	15
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
D-6 SHLDR RUMBLE STRIPS 2008-03				



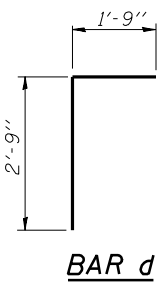
HALF LONG. SECTION
Showing Reinforcement



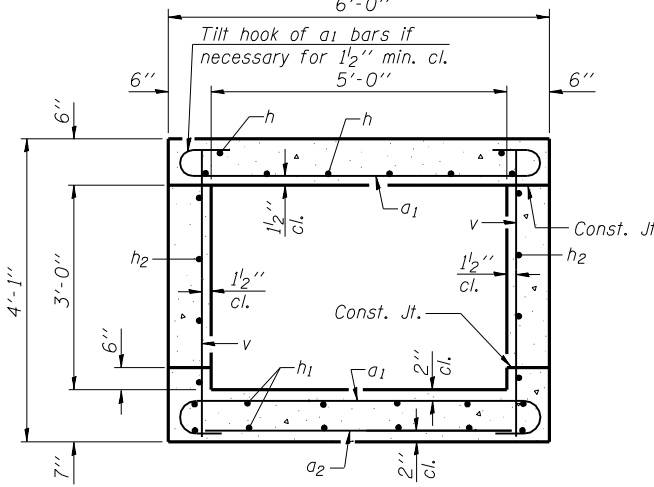
HALF ELEVATION
Showing Outlines



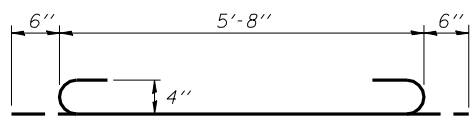
BARS h3 & h8



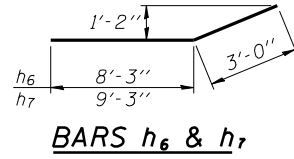
BAR d



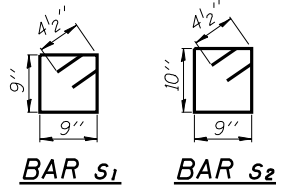
SECTION THRU BARREL



BAR a1

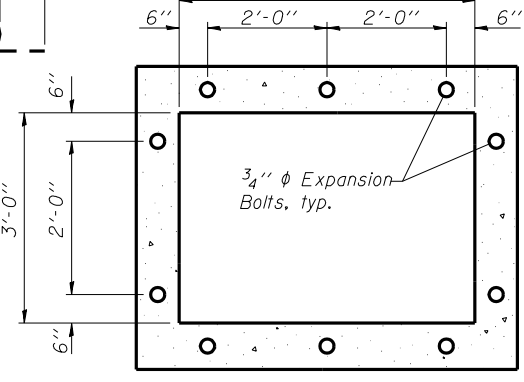


BARS h6 & h7

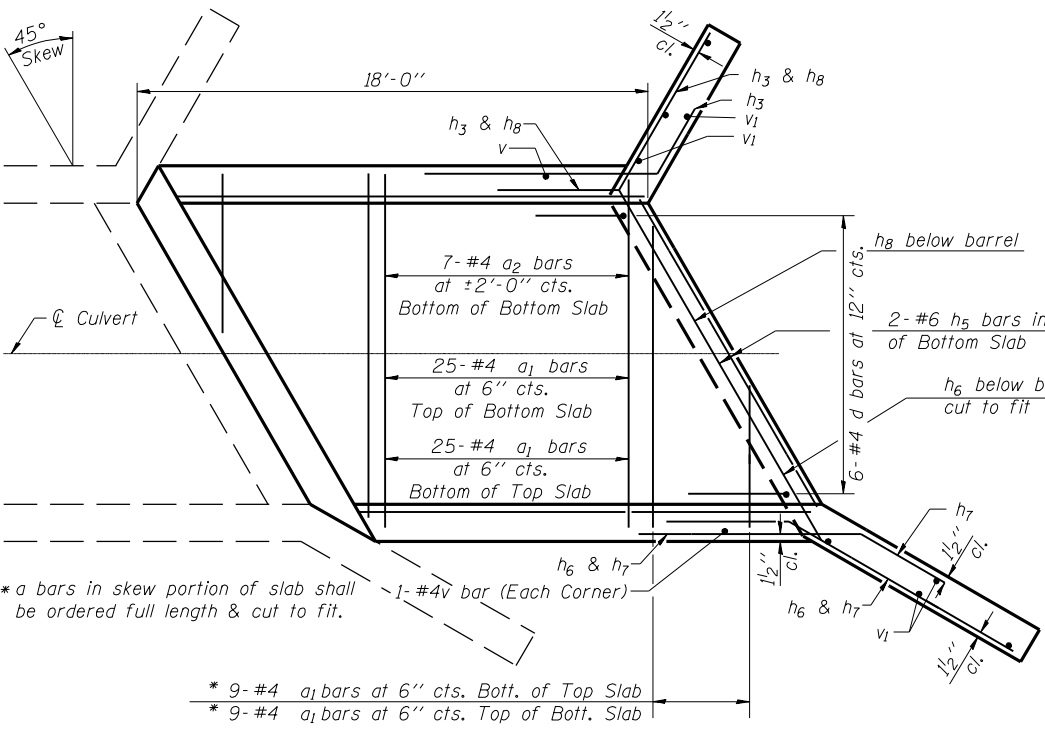


BAR s1

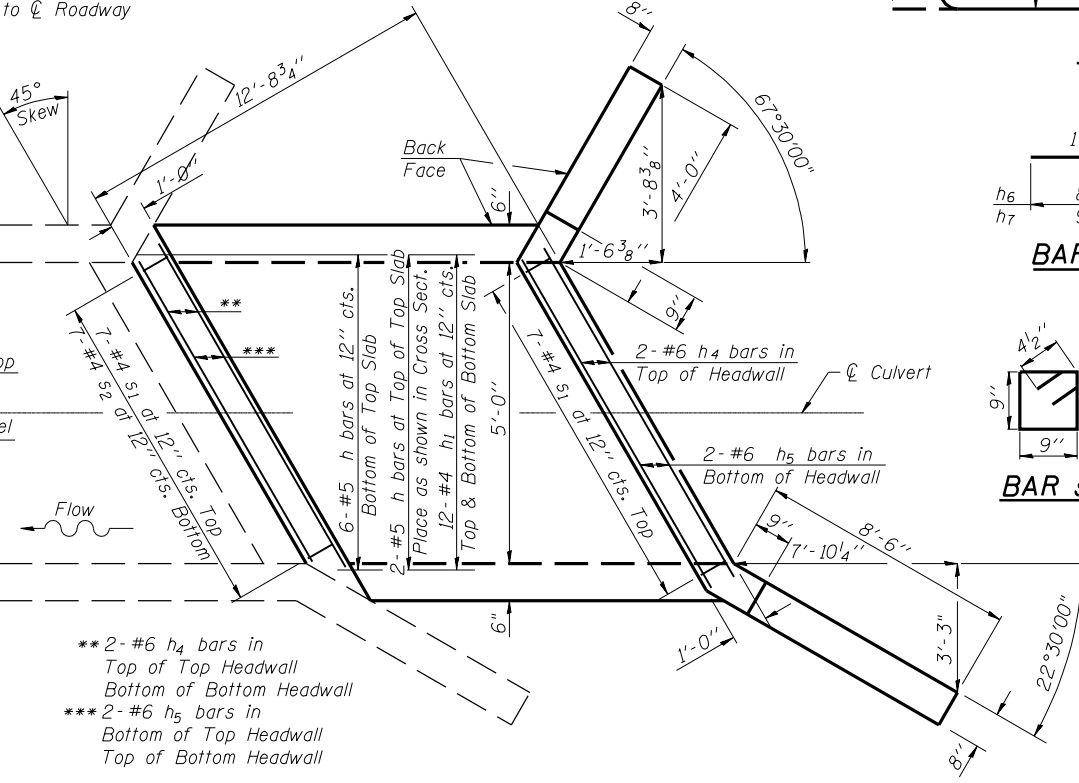
BAR s2



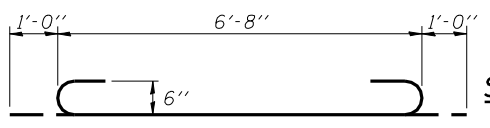
EXPANSION BOLT LAYOUT



SHOWING REINFORCEMENT



SHOWING OUTLINES



SECTION THRU HEADWALL
(Up Stream End Only)

BAR h5

DESIGN STRESSES

$f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$

LOADING HS 20-44 & ALT.

PLAN

NOTES

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
All construction joints shall be bonded.

BILL OF MATERIAL

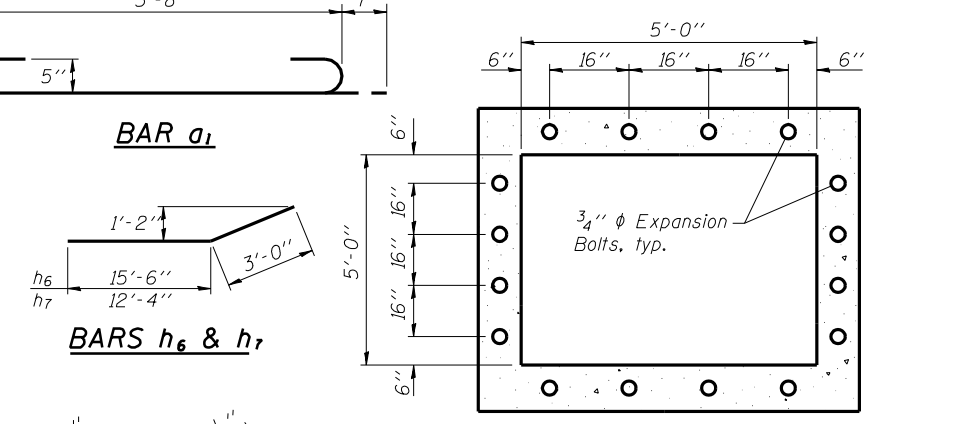
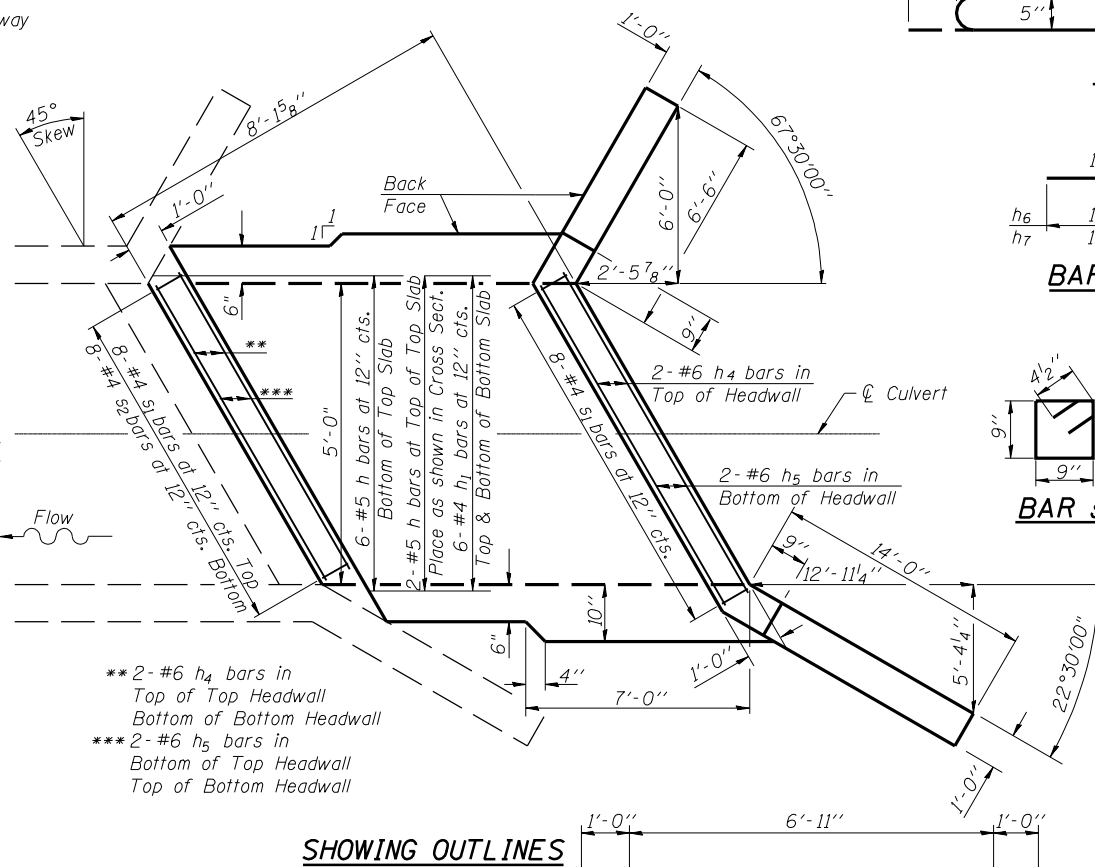
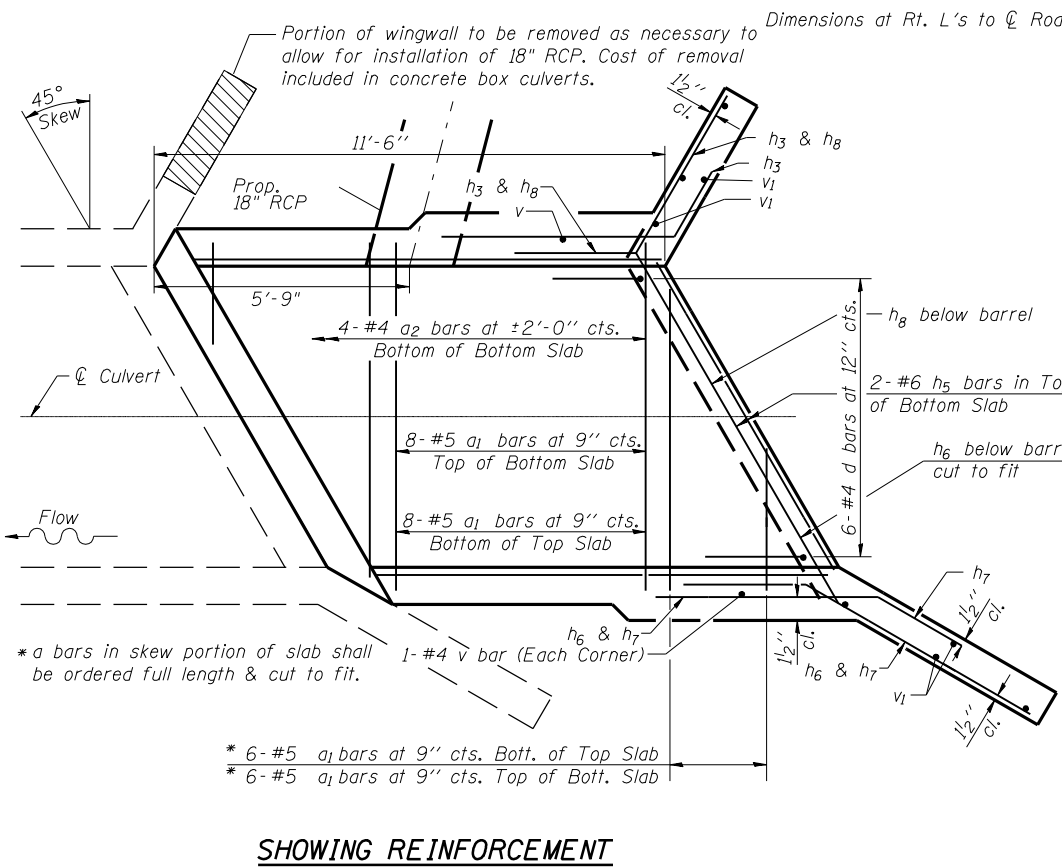
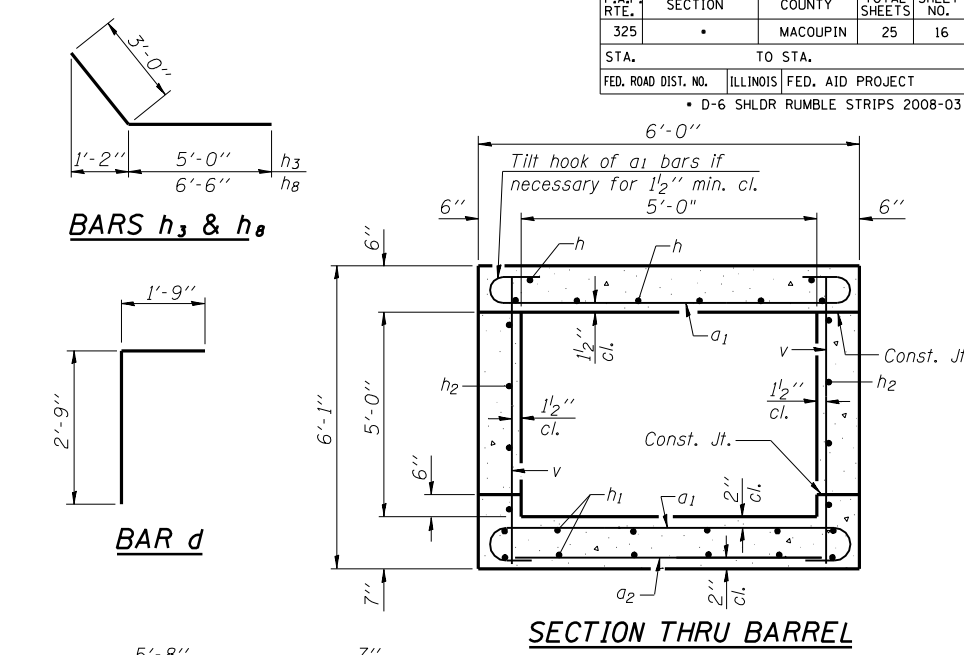
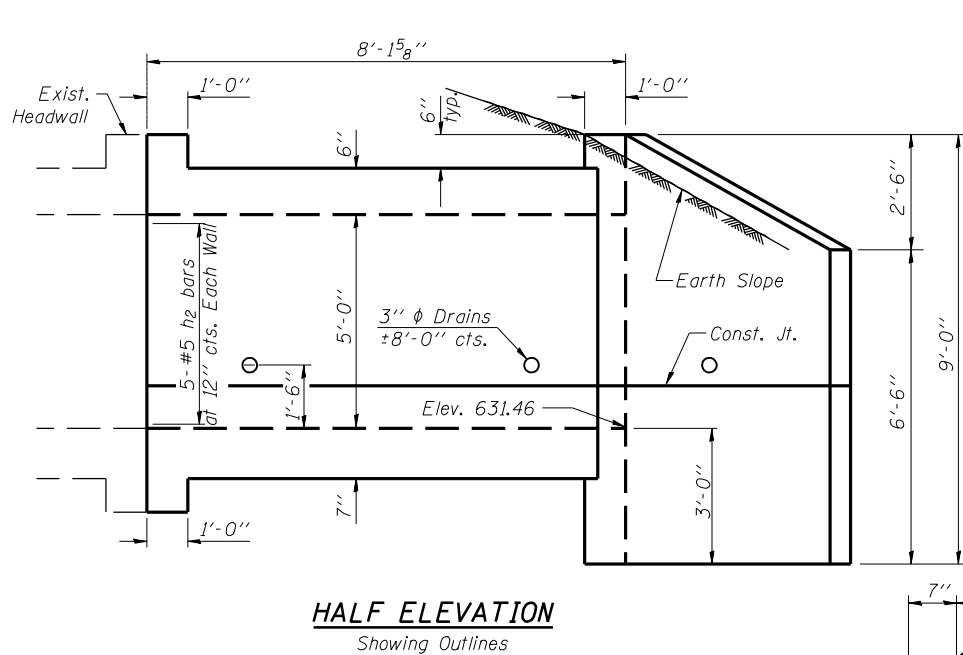
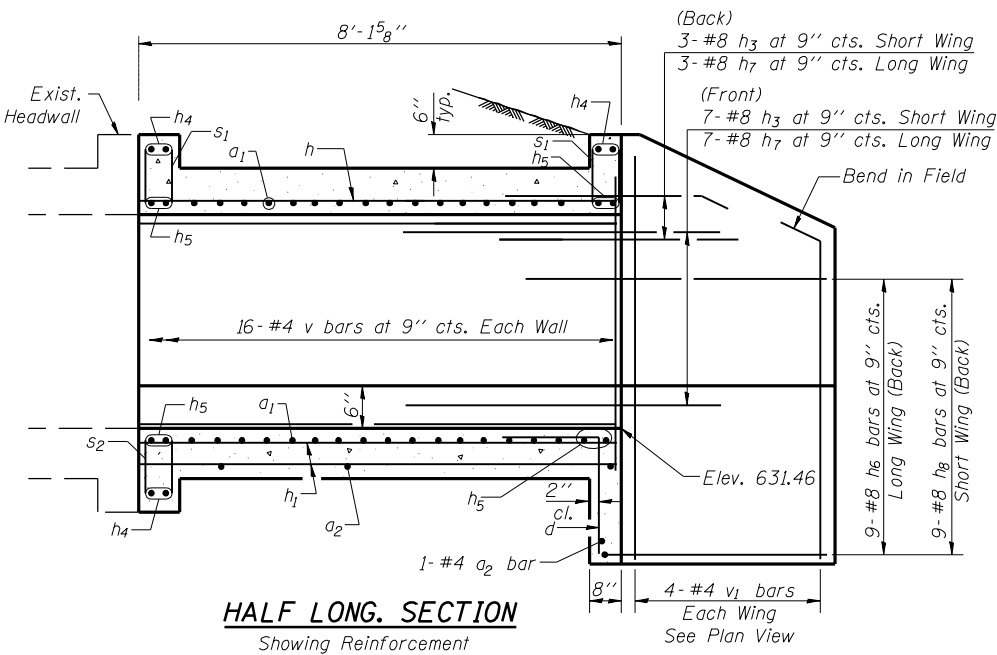
Bar	No.	Size	Length	Shape	
a1	68	#4	6'-8"	C	
a2	8	#4	5'-8"	—	
d	6	#4	4'-6"	—	
h	8	#5	17'-7"	—	
h1	12	#4	17'-7"	—	
h2	6	#5	17'-4"	—	
h3	6	#5	6'-6"	—	
h4	6	#6	6'-8"	—	
h5	6	#6	8'-8"	C	
h6	7	#5	11'-3"	—	
h7	6	#5	12'-3"	—	
h8	7	#5	6'-11"	—	
s1	14	#4	3'-9"	—	
s2	7	#4	3'-11"	—	
v	52	#4	3'-9"	—	
v1	8	#4	6'-9"	—	
Expansion Bolts 3/4"				Each	10
Concrete Box Culverts				Cu. Yd.	9.2
Reinforcement Bars				Pound	1360

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BOX CULVERT EXTENSION DETAILS
STA 48+09.71, 45° LT FWD
EXISTING 5' X 3' BOX CULVERT
SCALE: VERT. / HORIZ.
DATE: / /
DRAWN BY: /
CHECKED BY: /

PLOT DATE = Jan-18-2008 07:17:54AM
FILE NAME = c:\projects\48187\shl\shl.dwg
PLOT SCALE = 48.6884 / IN.
USER NAME = laughlinr1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325		MACOUPIN	25	16
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
D-6 SHLDR RUMBLE STRIPS 2008-03				



See next sheet for pipe connection details on north side

NOTES

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
All construction joints shall be bonded.

DESIGN STRESSES
 $f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$

LOADING HS 20-44 & ALT.

REVISIONS

NAME	DATE

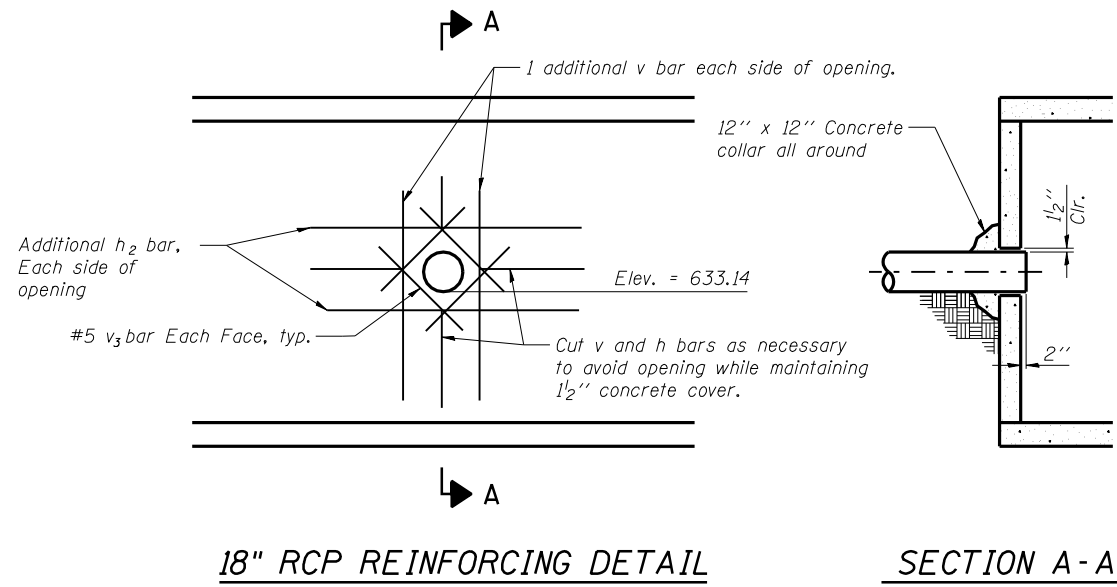
ILLINOIS DEPARTMENT OF TRANSPORTATION

BOX CULVERT EXTENSION DETAILS
STA 53+25.82, 45° LT FWD
EXISTING 5' X 5' BOX CULVERT

SCALE: VERT. HORIZ.
DATE: DRAWN BY: CHECKED BY:

PLOT DATE = Jan-18-2008 07:17:55AM
 FILE NAME = c:\projects\68181977\shl\shl.dwg
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = laughlin1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	*	MACOUPIN	25	17
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• D-6 SHLDR RUMBLE STRIPS 2008-03				



Note: At the Contractor's option delete the concrete collar and cast the wall around the pipe.

PLOT DATE = Jan-18-2008 07:17:56AM
 FILE NAME = c:\projects\6818107\shl\details\sdgn
 PLOT SCALE = 40.6884' / IN.
 USER NAME = laughlin-1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

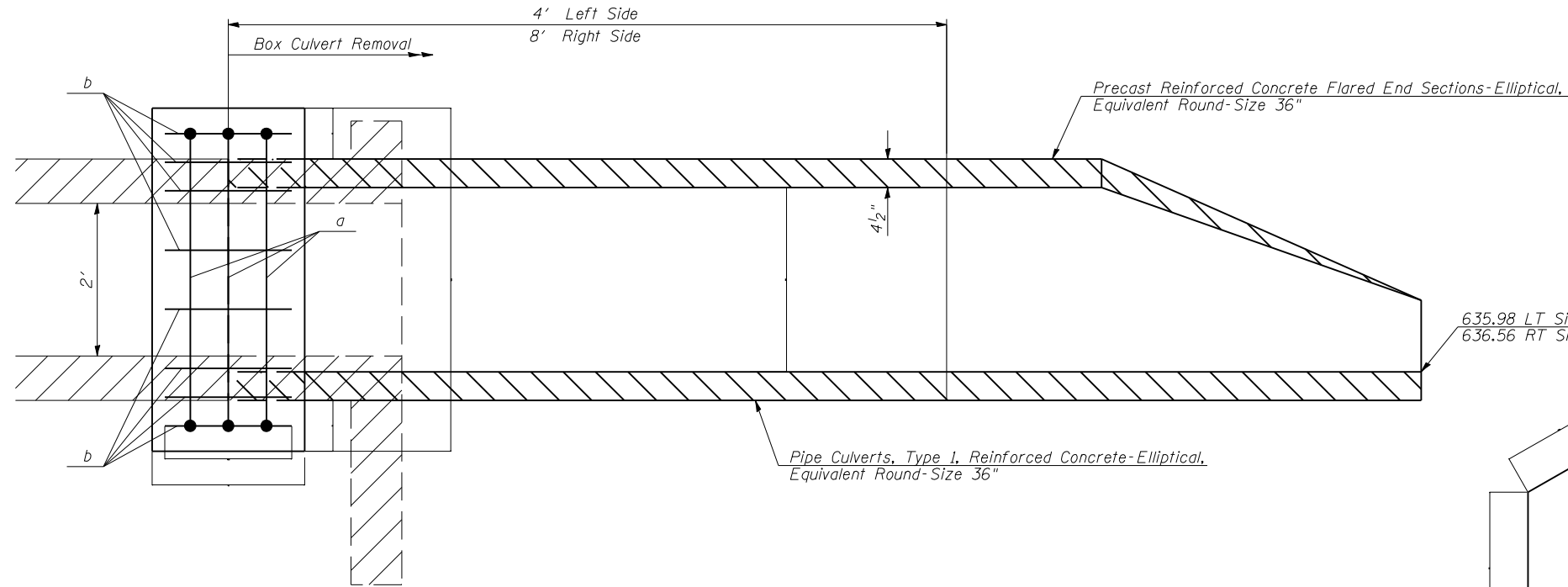
BOX CULVERT EXTENSION DETAILS

STA 53+25.82, 45° LT FWD

EXISTING 5' X 5' BOX CULVERT

SCALE: VERT. DRAWN BY
 HORIZ. CHECKED BY
 DATE

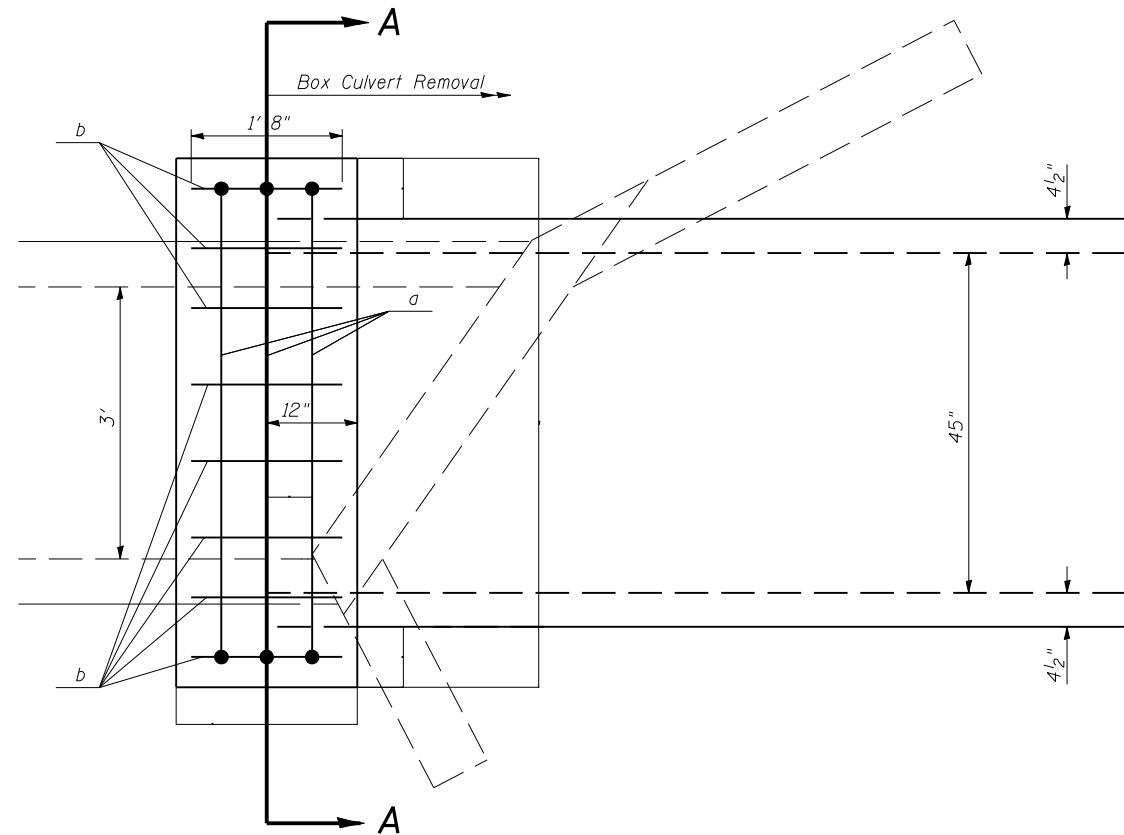
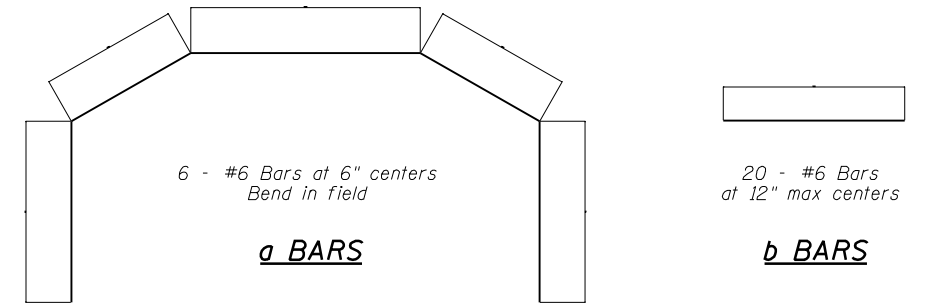
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325		MACOUPIN	25	18
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• D-6 SHLDR RUMBLE STRIPS 2008-03				



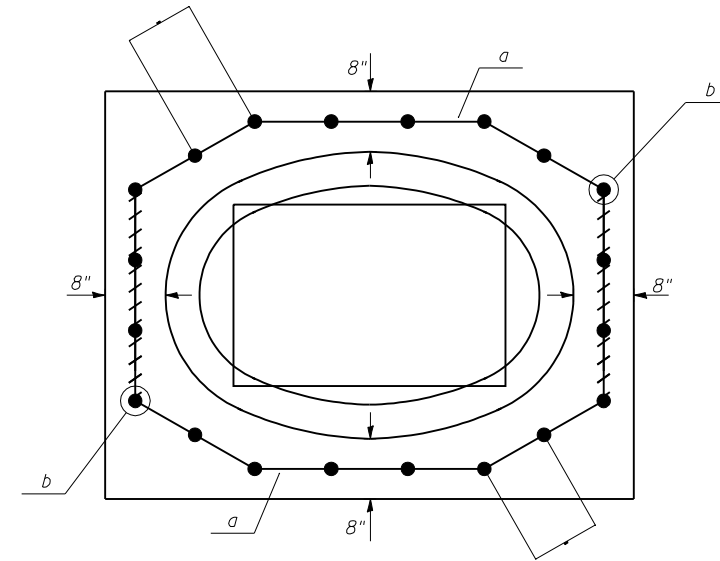
ELEVATION

- Notes**
- Class SI Concrete shall be used for the Collar
 - Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, grade 60.
 - Reinforcement bars shall be bent in the field
 - Estimated Quantities for One Collar

Class SI Concrete 1.1 cy
Reinforcement Bars 140 pound



PLAN



SECTION A-A

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BOX CULVERT EXTENSION DETAILS
STA 59+89.53, 35° RT FWD
EXISTING 3' X 2' BOX CULVERT

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	•	MACOUPIN	25	19
STA. 46+50.00		TO STA. 47+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• D-6 SHLDR RUMBLE STRIPS 2008-03				

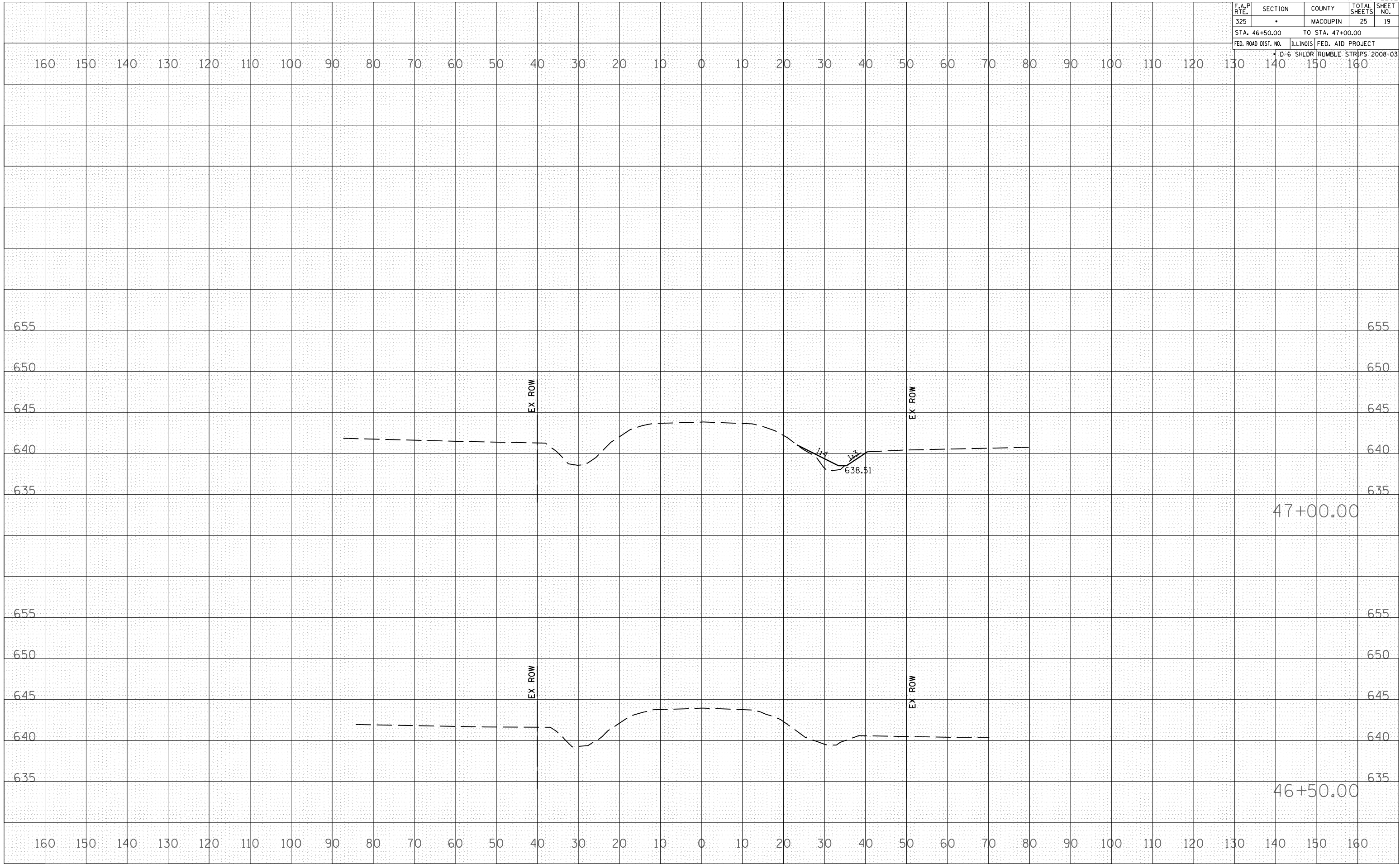
BY	DATE

FINAL SURVEY NO.	SURVEYED	PLOTTED	DATE

BY	DATE

ORIGINAL SURVEY NO.	SURVEYED	PLOTTED	DATE

PLOT DATE = Jan-18-2008 07:17:57AM
 FILE NAME = 465008.dwg
 PLOT SCALE = 40.0000" / 1"
 USER NAME = laughlin-1

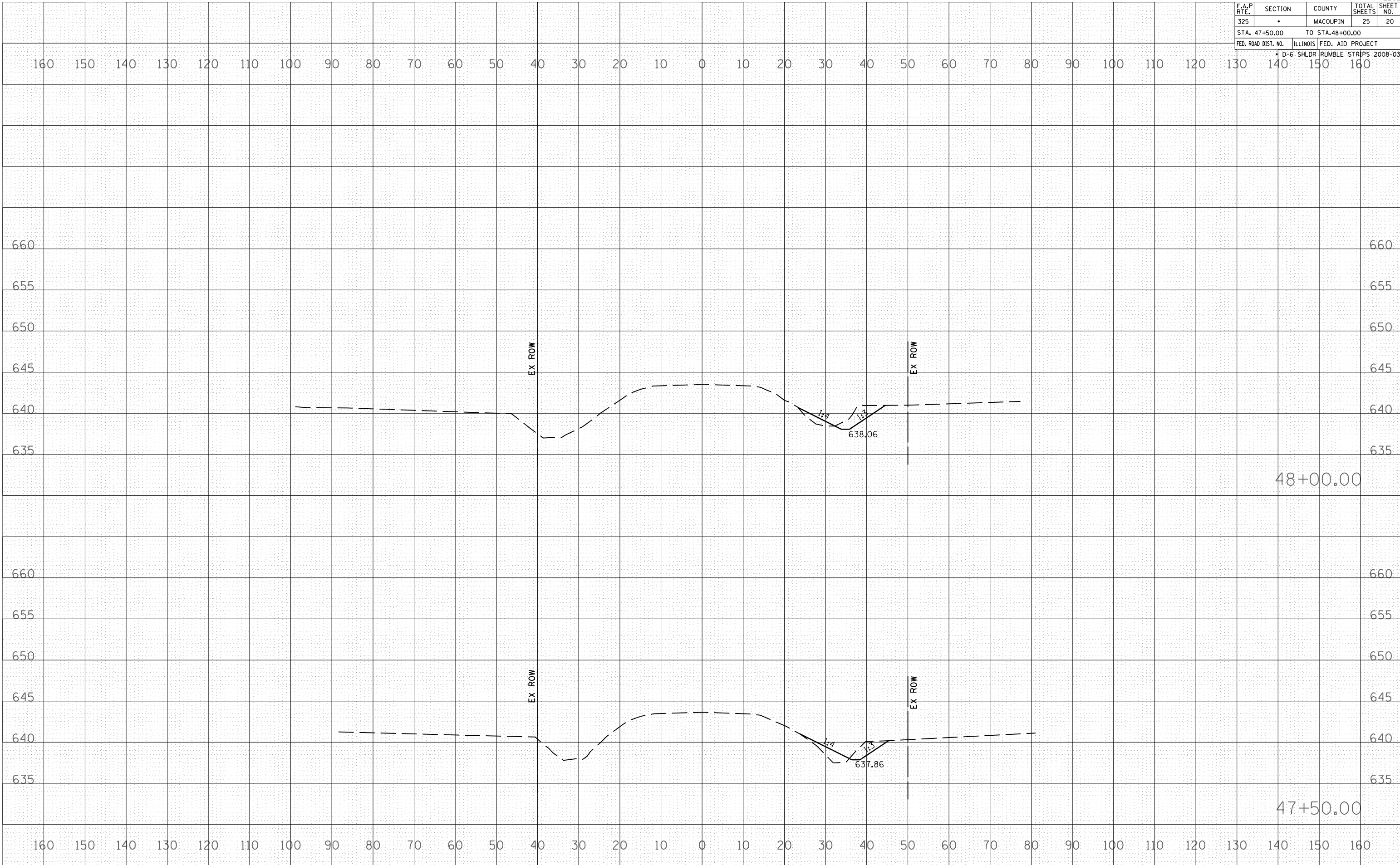


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325		MACOUPIN	25	20
STA. 47+50.00		TO STA. 48+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
D-6 SHLDR RUMBLE STRIPS 2008-03				

BY	DATE

BY	DATE

PLOT DATE = Jan-18-2008 07:17:57AM
 FILE NAME = 4065884
 PLOT SCALE = 1/4" = 100'-0"
 USER NAME = laughlin-1

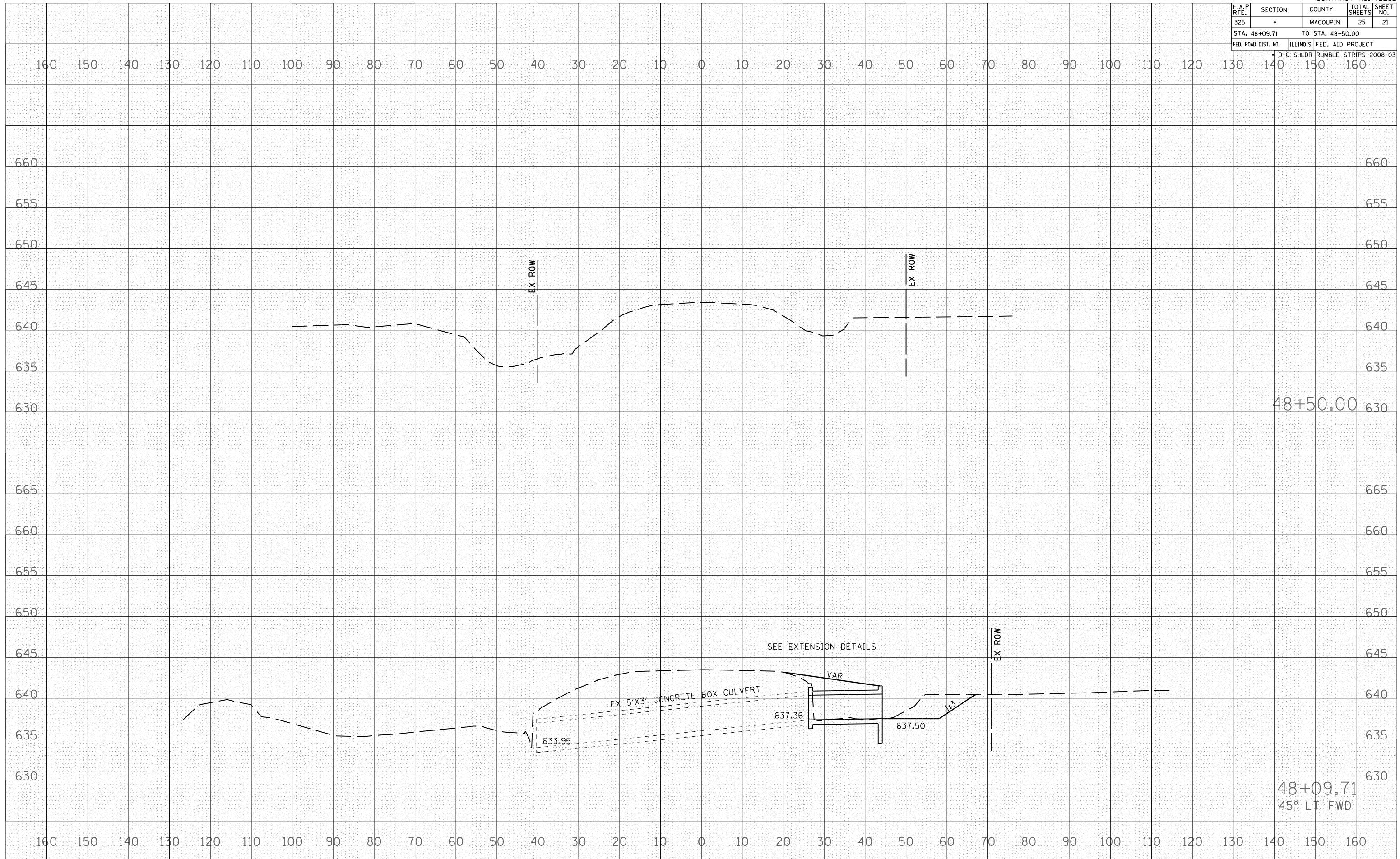


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	•	MACOUPIN	25	21
STA. 48+09.71		TO STA. 48+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
D-6 SHLDR RUMBLE STRIPS 2008-03				

BY	DATE

BY	DATE

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 FILE NAME = 48+09.71-48+50.00.dwg
 PLOT SCALE = 40,000.00 / IN.
 USER NAME = laughlin-1



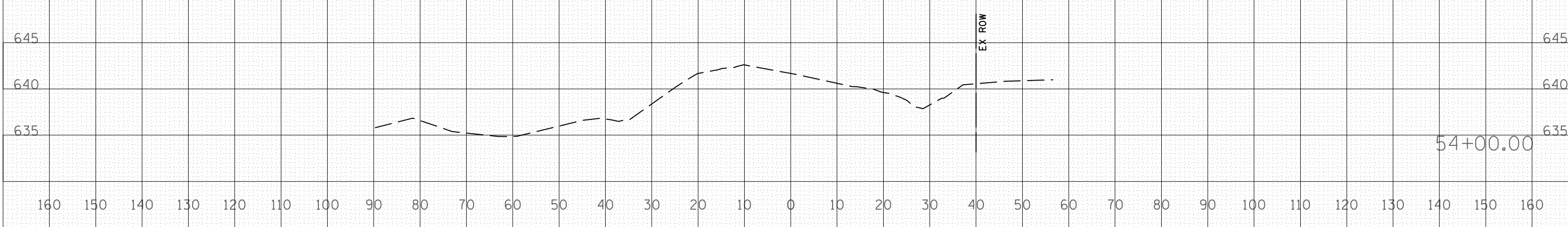
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	•	MACOUPIN	25	23
STA. 96+00.00		TO STA. 54+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		• D-6 SHLDR RUMBLE STRIPS 2008-03		

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

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

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

PLOT DATE = Jan-18-2008 07:17:58AM
 FILE NAME = 4065884
 PLOT SCALE = 40.65884 / IN.
 USER NAME = laughlin-1



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	•	MACOUPIN	25	25
STA. 60+50.00		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		D-6 SHLDR RUMBLE STRIPS 2008-03		

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

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

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

PLOT DATE = Jan-18-2008 07:17:54AM
 FILE NAME = 4065884
 PLOT SCALE = 1/4" = 100'
 USER NAME = laughlin-1



60+50.00