

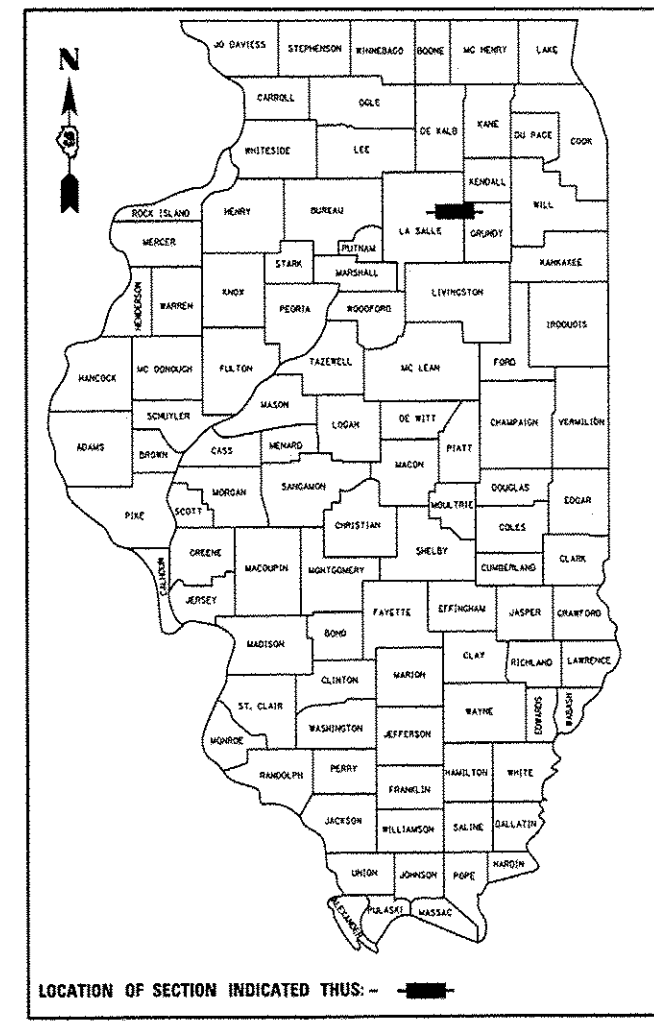
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

F.A.P. ROUTE 623 (US 6)  
SECTION (0)T

1773 FEET EAST OF IL ROUTE 170  
DRAINAGE IMPROVEMENT  
LASALLE COUNTY  
C-93-028-14

D-93-002-14



<b>RURAL</b>	
<b>MINOR ARTERIAL</b>	
<b>F.A.P. 623 (US 6)</b>	
<b>2013</b>	
ADT	3500
P.V.	84.78%
S.U.	9.42%
M.U.	5.80%

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED *July 28 2014*  
*Paul Coetzee*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

*Aug 15 2014*  
*John D. Baranzelli, P.E.*  
ENGINEER OF DESIGN AND ENVIRONMENT

*Aug 15 2014*  
*Omer Osman, P.E.*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

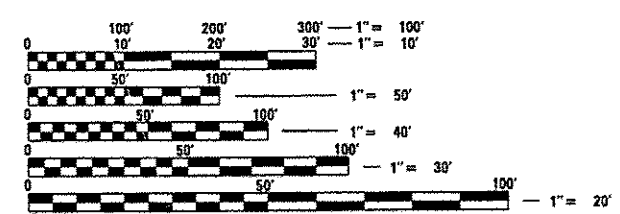
1. COVER SHEET
2. GENERAL NOTES
- 3-5. SUMMARY OF QUANTITIES
6. TYPICAL SECTION
7. SITE PLAN
8. PLAN DETAILS - REMOVAL
9. PLAN AND PROFILE
10. CAST-IN-PLACE, CONCRETE BOX CULVERT END SECTION DETAILS
11. CAST-IN-PLACE, CONCRETE BOX CULVERT DROP BOX DETAILS
- 12-13. PRECAST CONCRETE BOX CULVERT DETAILS
14. TRAVERSABLE GRATE FOR CONCRETE DROP BOX
15. ENTRANCE DETAILS
16. CROSS SECTIONS

**STANDARDS**

- |           |  |
|-----------|--|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                               |
| 001001-02 | AREAS OF REINFORCEMENT BARS  |
| 001006    | DECIMAL OF AN INCH AND OF A FOOT   |
| 202001-01 | EARTH MEDIAN DITCH CHECK   |
| 280001-07 | TEMPORARY EROSION CONTROL SYSTEMS  |
| 406201-01 | MAILBOX TURNOUT  |
| 542301-03 | PRECAST REINFORCED CONCRETE FLARED END SECTION                             |
| 701001-02 | OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY                     |
| 701006-05 | OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE |
| 701201-04 | LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH                        |
| 701301-04 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS                                |
| 701901-03 | TRAFFIC CONTROL DEVICES  |

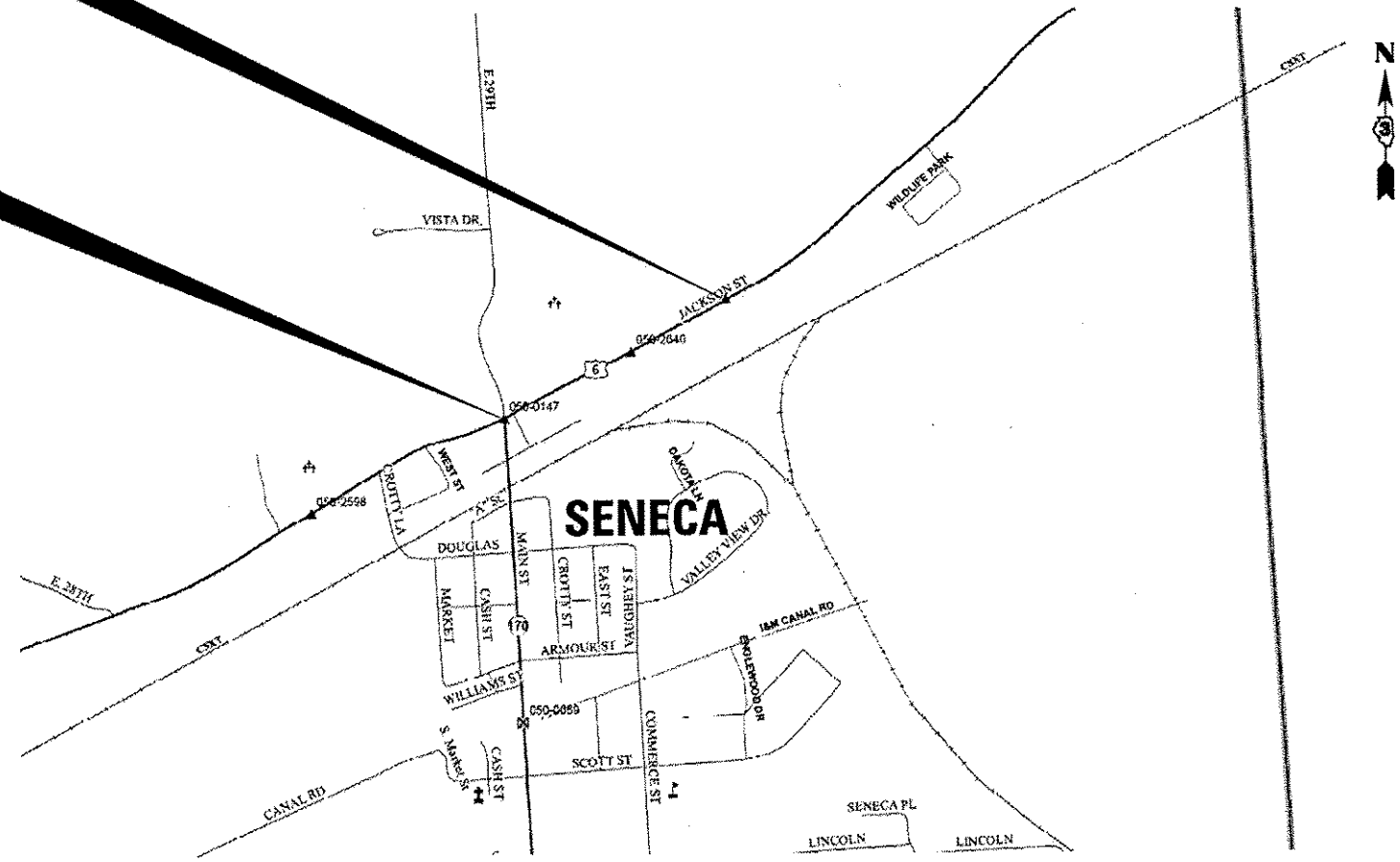
**IMPROVEMENT LOCATION**  
F.A.P. ROUTE 623 (US 6)  
STA. 352+00 LT. TO STA. 259+00 LT.

**INTERSECTION**  
F.A.P. ROUTE 623 (US 6) - STA. 338+90  
IL ROUTE 170 - STA. 0+00



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: JOE KANNEL P.E.  
UNIT CHIEF: RON WOODSHANK  
TOWNSHIP: MANLIUS  
CONTRACT NO. 66D35

GROSS LENGTH = 650 FT. = 0.123 MILE  
NET LENGTH = 650 FT. = 0.123 MILE

**GENERAL NOTES**

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

THE THICKNESS OF HMA 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 HMA IS PLACED.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES WILL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE VARIOUS CULVERT WORK.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW HMA PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / SQ YD / IN

THE WORK REQUIRED TO CONNECT ANY SEWER TO AN EXISTING DRAINAGE STRUCTURE OR PIPE WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE PIPE DRAIN ITEMS.

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

**COMMITMENTS**

RECONSTRUCTION OF THE PRIVATE ENTRANCE AND MAIL BOX TURN-OUT AT STATION 353+81 LT. SHALL BE CONSTRUCTED AS SHOWN ON PLAN DETAILS. DEVIATIONS FROM WHAT IS SHOWN SHALL NOT BE PERMITTED.

MIXTURES TABLE

	HMA PAVEMENT (FULL DEPTH)		ENTRANCES
	HMA BINDER (2 LIFTS)	HMA SURFACE (2" LIFT)	HMA INCIDENTAL (2" LIFT)
PG GRADE	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% □ N50	4.0% □ N50	4.0% □ N50
MIXTURE COMPOSITION	IL 19.0 FG	IL 9.5	IL 9.5
FRICTION AGGREGATE		MIXTURE C	MIXTURE C
DENSITY TEST METHOD	CORES/ NUCLEAR	CORES/ NUCLEAR	SATISFACTION OF ENGINEER

DATE: July 28, 2014

PREPARED BY: [Signature]  
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: \_\_\_\_\_  
DISTRICT CONSTRUCTION ENGINEER

[Signature]  
DISTRICT MATERIALS ENGINEER

[Signature]  
DISTRICT OPERATIONS ENGINEER

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				CONT. MAINT. 100% STATE
				MINOR STRUCTURES
				0040
<del>20200100</del>	<del>EARTH EXCAVATION</del>	<del>CU YD</del>	<del>90</del>	<del>90</del>
21400100	GRADING AND SHAPING DITCHES	FOOT	700	700
<del>20700220</del>	<del>POROUS GRANULAR EMBANKMENT</del>	<del>CU YD</del>	<del>35</del>	<del>35</del>
25000110	SEEDING, CLASS 1A	ACRE	0.5	0.5
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	2000	2000
28401000	SLOPE MATTRESS 12"	SQ YD	5	5
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A, 4"	SQ YD	67	67
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	63	63
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	10	10
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	15	15
<del>40701981</del>	<del>HOT MIX ASPHALT PAVEMENT (FULL DEPTH), 15"</del>	<del>SQ YD</del>	<del>25</del>	<del>25</del>
40800025	BITUMINOUS MATERIALS (PRIME COAT)	POUND	239	239
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	20	20

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FILE NAME =	USER NAME = woodshenkr1	DESIGNED - RW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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MODELNAME*	PLOT SCALE = 48,0000' / in.	CHECKED - HA	REVISED -			SCALE 20		SHEET 1 OF 3 SHEETS		STA. TO STA.	CONTRACT NO. 66035
	PLOT DATE = 7/28/2014	DATE - 7/14/2014	REVISED -			ILLINOIS FED. AID PROJECT					

Rev.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				CONT. MAINT. 100% STATE
				MINOR STRUCTURES
				0040
44000100	PAVEMENT REMOVAL	SQ YD	67	67
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	158	158
44201783	CLASS D PATCHES, TYPE IV, 11"	SQ YD	67	67
48101200	AGGREGATE SHOULDERS, TYPE B	TON	2	2
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50105220	PIPE CULVERT REMOVAL	FOOT	104	104
<del>50200100</del>	<del>STRUCTURE EXCAVATION</del>	<del>CU YD</del>	<del>25</del>	<del>25</del>
<del>50800205</del>	<del>REINFORCEMENT BARS, EPOXY COATED</del>	<del>POUND</del>	<del>1277</del>	<del>1277</del>
<del>54002040</del>	<del>EXPANSION BOLTS 3/4 INCH X 6 INCH</del>	<del>EACH</del>	<del>27</del>	<del>27</del>
54001001	BOX CULVERT END SECTION, CULVERT NO. 1	EACH	1	1
<del>54003000</del>	<del>CONCRETE BOX CULVERTS</del>	<del>CU YD</del>	<del>9.1</del>	<del>9.1</del>
54010402	PRECAST CONCRETE BOX CULVERTS 4' X 2'	FOOT	21	21
542A1060	PIPE CULVERTS, CLASS A, TYPE 2 15"	FOOT	33	33
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	147	147
54213450	END SECTIONS 15"	EACH	8	8
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1	1

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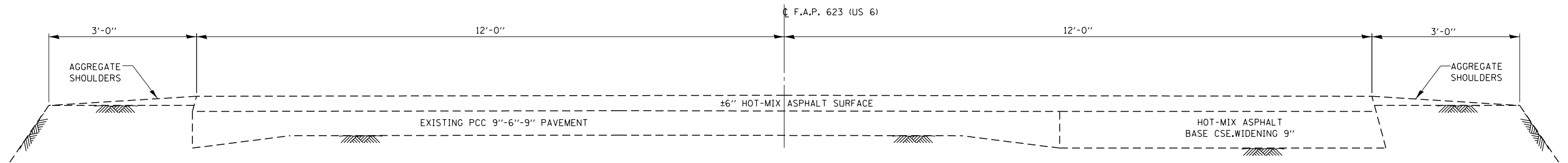
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#MODELNAME#	PLOT DATE = 7/29/2014	DATE - 7/14/2014	REVISED -			ILLINOIS FED. AID PROJECT CONTRACT NO. 66035					

Rev.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
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				MINOR STRUCTURES
				0040
<del>54248510</del>	<del>CONCRETE COLLAR</del>	<del>CU YD</del>	<del>1</del>	<del>1</del>
54260311	TRAVERSABLE PIPE GRATE	FOOT	85	85
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	35	35
60500040	REMOVING MANHOLES	EACH	1	1
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	30	30
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
<del>* 78001110</del>	<del>PAINT PAVEMENT MARKING LINE 4"</del>	<del>FOOT</del>	<del>200</del>	<del>200</del>
X0322263	CULVERT DROP BOX	EACH	1	1
X0327790	PRECAST CONCRETE BOX CULVERTS 4' x 2', TWO SECTION ELBOW	EACH	1	1

\*SPECIALITY ITEM

Rev.



**TYPICAL SECTION**

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*MODELNAME*	PLOT DATE = 7/28/2014	DATE - 7/14/2014	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES**

SCALE 20 SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(0)T	LASALLE	16	6
			CONTRACT NO. 66035	
ILLINOIS FED. AID PROJECT				





**WORK ZONE**

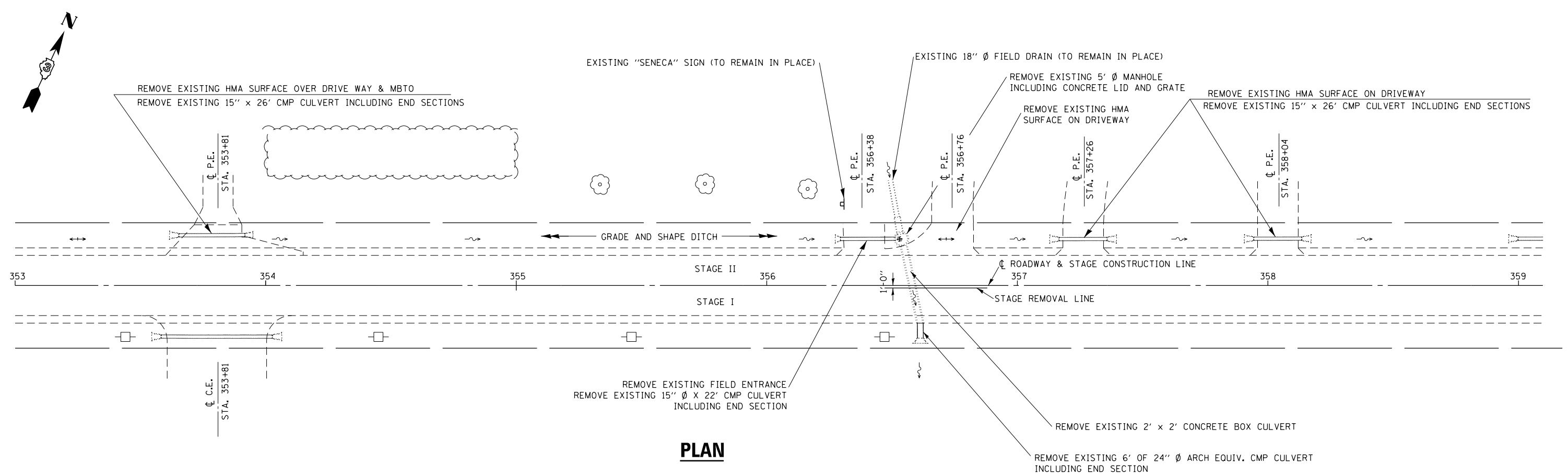
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SITE PLAN**

SCALE 20 SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(0)T	LASALLE	16	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 66D35	



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

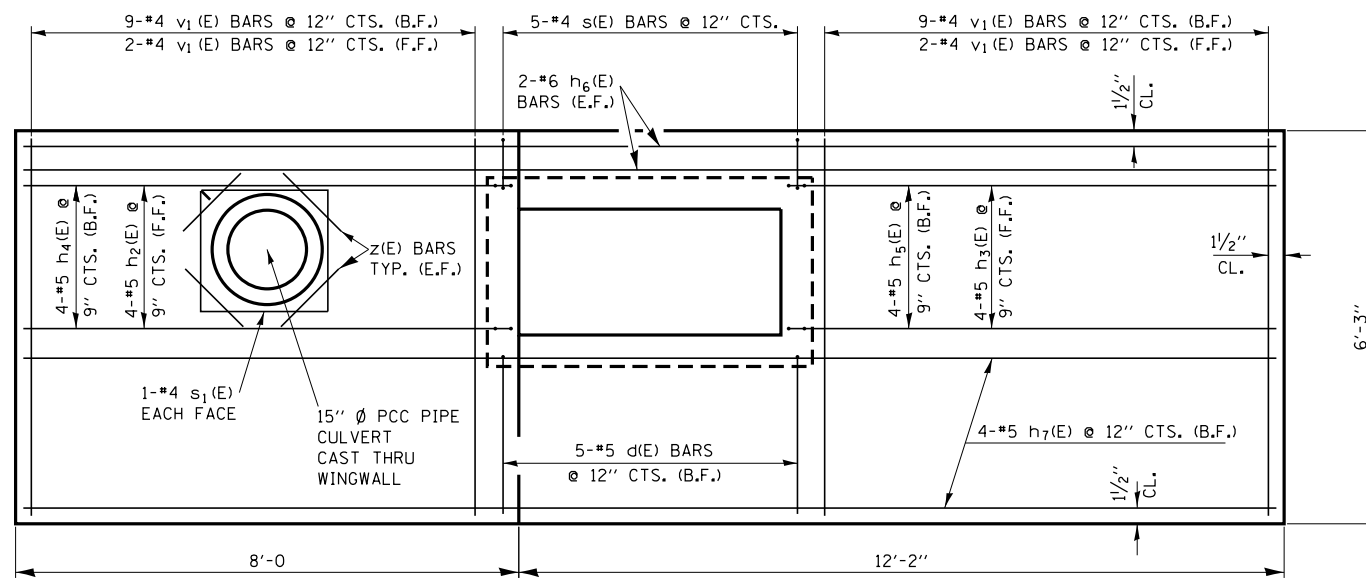
**PLAN DETAILS - REMOVAL**

SCALE 20 SHEET 1 OF 1 SHEETS STA. TO STA.

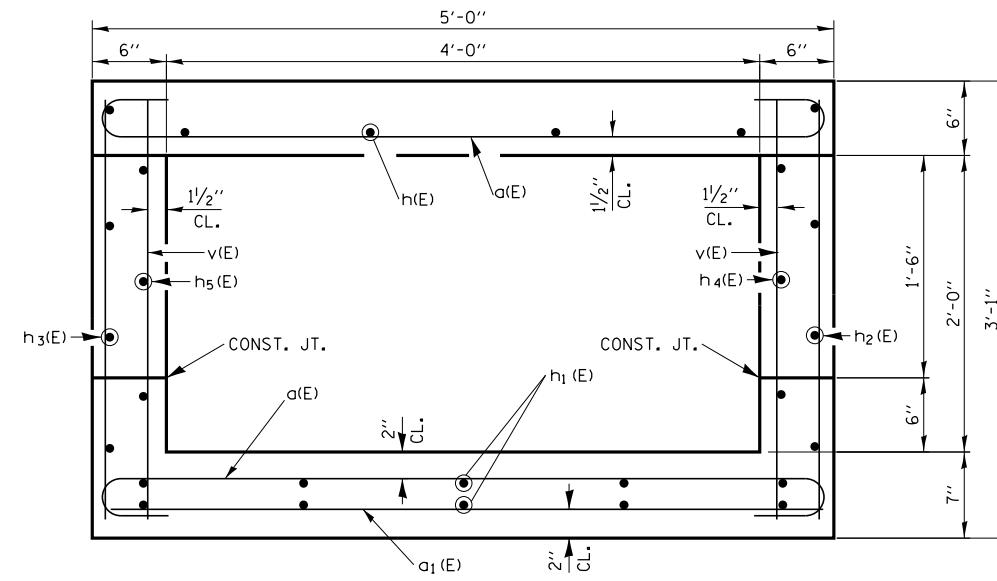
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CONTRACT NO. 66D35			ILLINOIS FED. AID PROJECT	



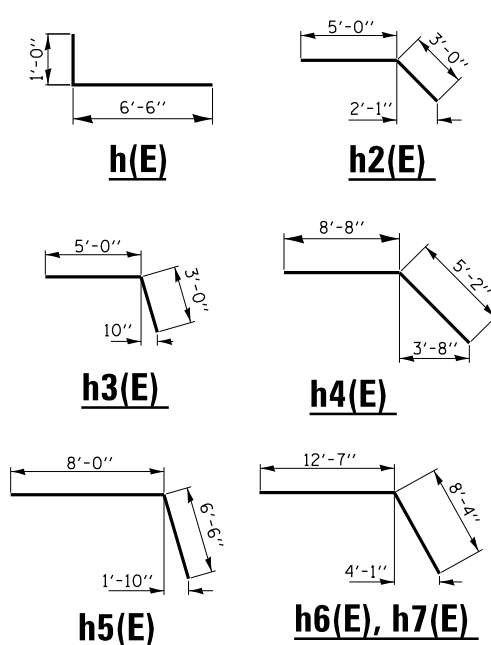




**WINGWALL ELEVATION**



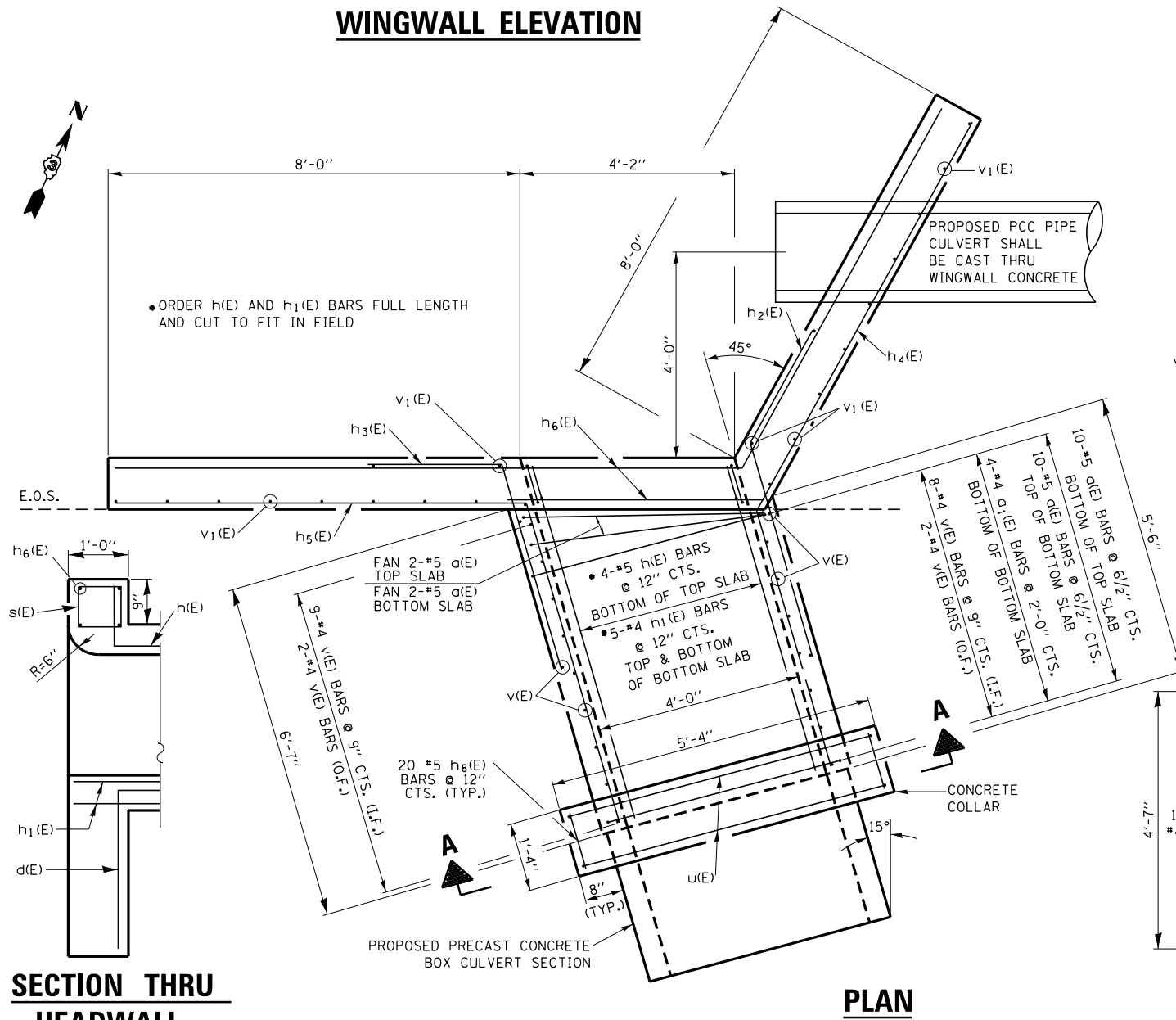
**SECTION THRU BARREL**  
DIMENSIONS AT RT. L'S TO CULVERT



**BILL OF MATERIALS**

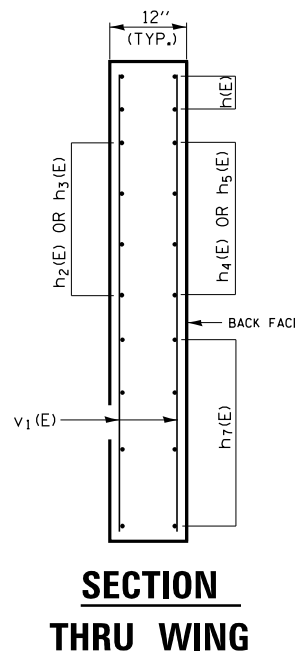
BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	24	5	5'-10"	
a1(E)	4	4	4'-8"	
d(E)	5	5	4'-9"	
h(E)	4	5	7'-7"	
h1(E)	10	4	7'-0"	
h2(E)	4	5	8'-0"	
h3(E)	4	5	8'-0"	
h4(E)	4	5	13'-10"	
h5(E)	4	5	14'-6"	
h6(E)	4	6	20'-11"	
h7(E)	4	5	20'-11"	
h8(E)	20	5	1'-1"	
s(E)	5	4	3'-3"	
s1(E)	2	4	4'-9"	
u(E)	4	4	11'-4"	
v(E)	21	4	2'-10"	
v1(E)	22	4	6'-0"	
z(E)	8	4	1'-6"	
CONCRETE BOX CULVERT			CU YD	6
REINFORCEMENT BARS			POUND	872
EPOXY COATED				
CONCRETE COLLAR			CU YD	0.6

TABLE OF QUANTITIES SHOWN ARE FOR INFORMATION ONLY

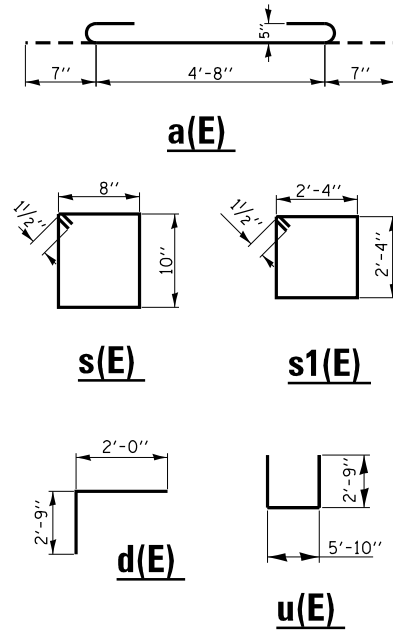


**PLAN**

**SECTION THRU HEADWALL**



**SECTION THRU WING**



**SECTION A-A**

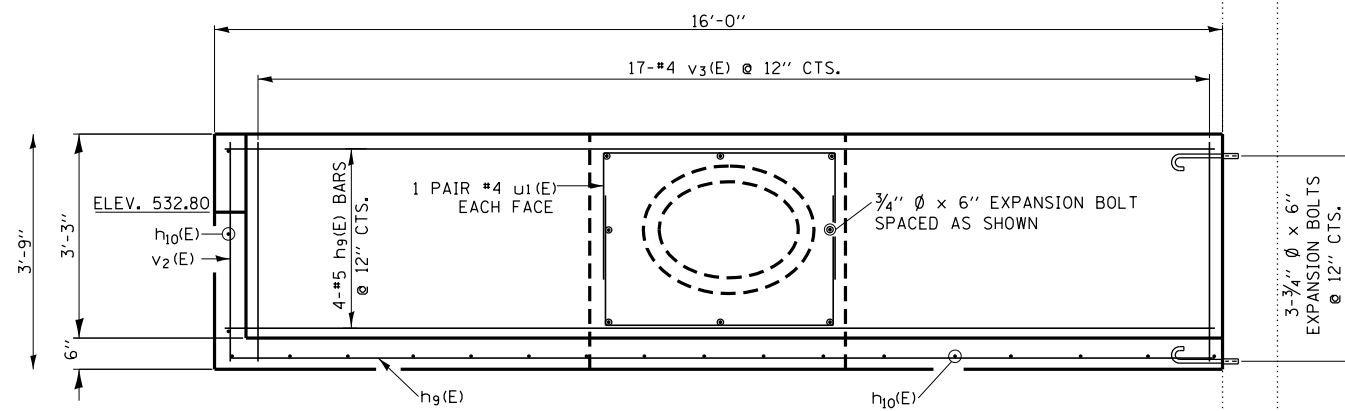
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*MODELNAME*	PLOT DATE = 7/31/2014	DATE - 7/14/2014	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

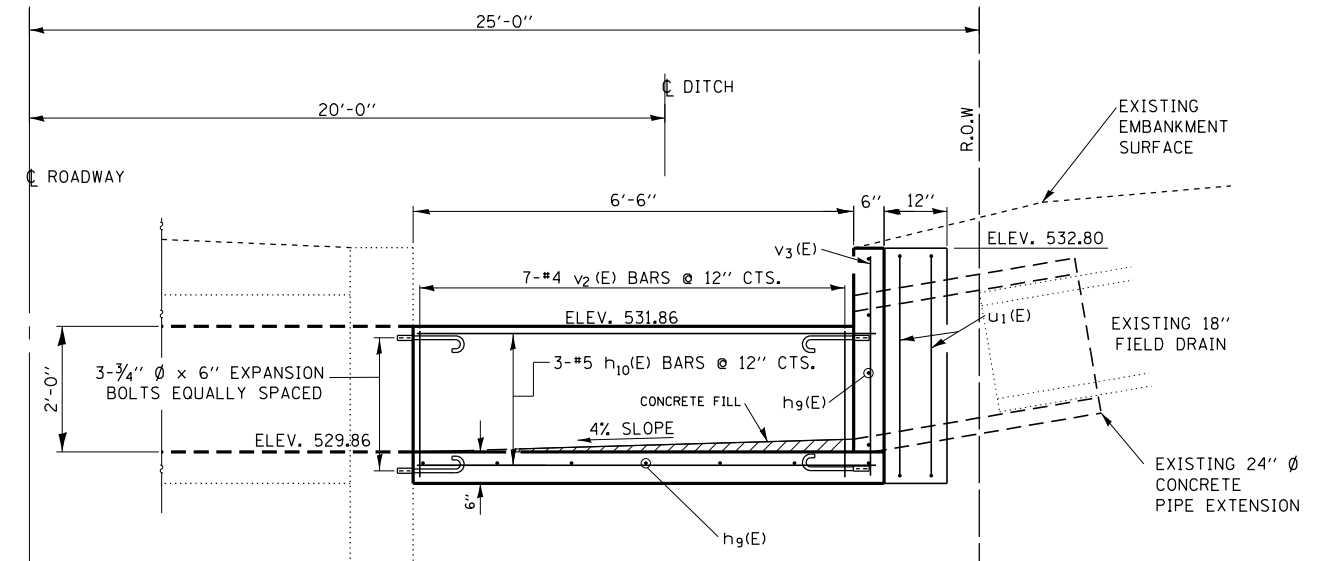
**CAST-IN-PLACE CONCRETE BOX CULVERT  
END SECTION DETAILS**

SCALE 20 SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 623	SECTION (0)T	COUNTY LASALLE	TOTAL SHEETS 16	SHEET NO. 10
			CONTRACT NO. 66D35	
ILLINOIS FED. AID PROJECT				

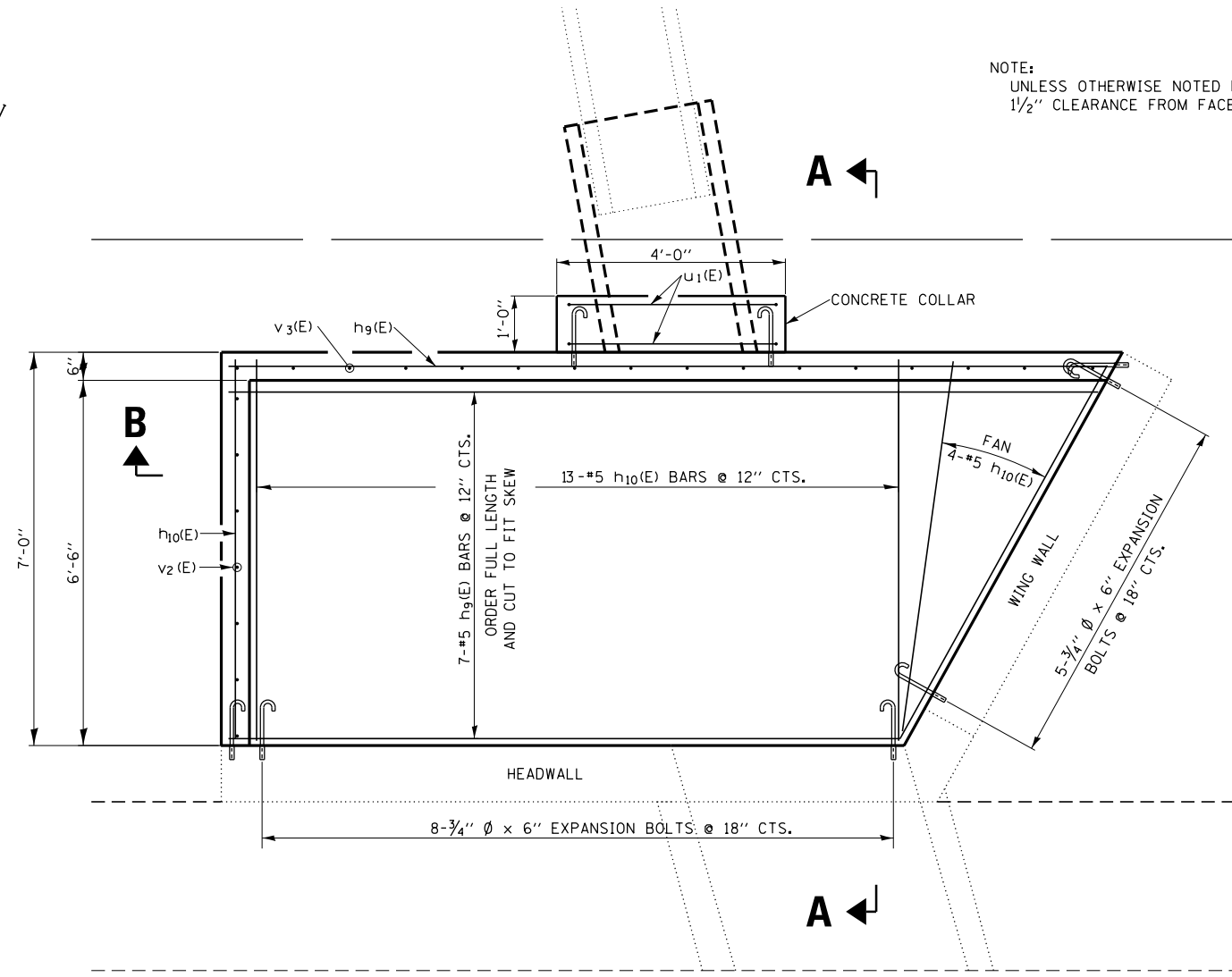


**SECTION B-B**

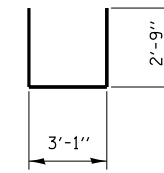


**SECTION A-A**

NOTE:  
UNLESS OTHERWISE NOTED REINFORCEMENT SHALL HAVE A 1/2" CLEARANCE FROM FACE OF CONCRETE. (TYPICAL)



**PLAN**



**u1(E)**

**BILL OF MATERIALS**

BAR	NO.	SIZE	LENGTH	SHAPE
h9	11	5	15'-9"	—
h10	20	5	7'-3"	—
u1	4	4	8'-7"	□
v2	7	4	2'-3"	—
v3	17	4	3'-6"	—
CONCRETE BOX CULVERT			CU YD	3.1
REINFORCEMENT BARS EPOXY COATED			POUND	405
3/4" DIA. x 6"			EACH	27
CONCRETE COLLAR			CU YD	0.4

TABLE OF QUANTITIES SHOWN ARE FOR INFORMATION ONLY

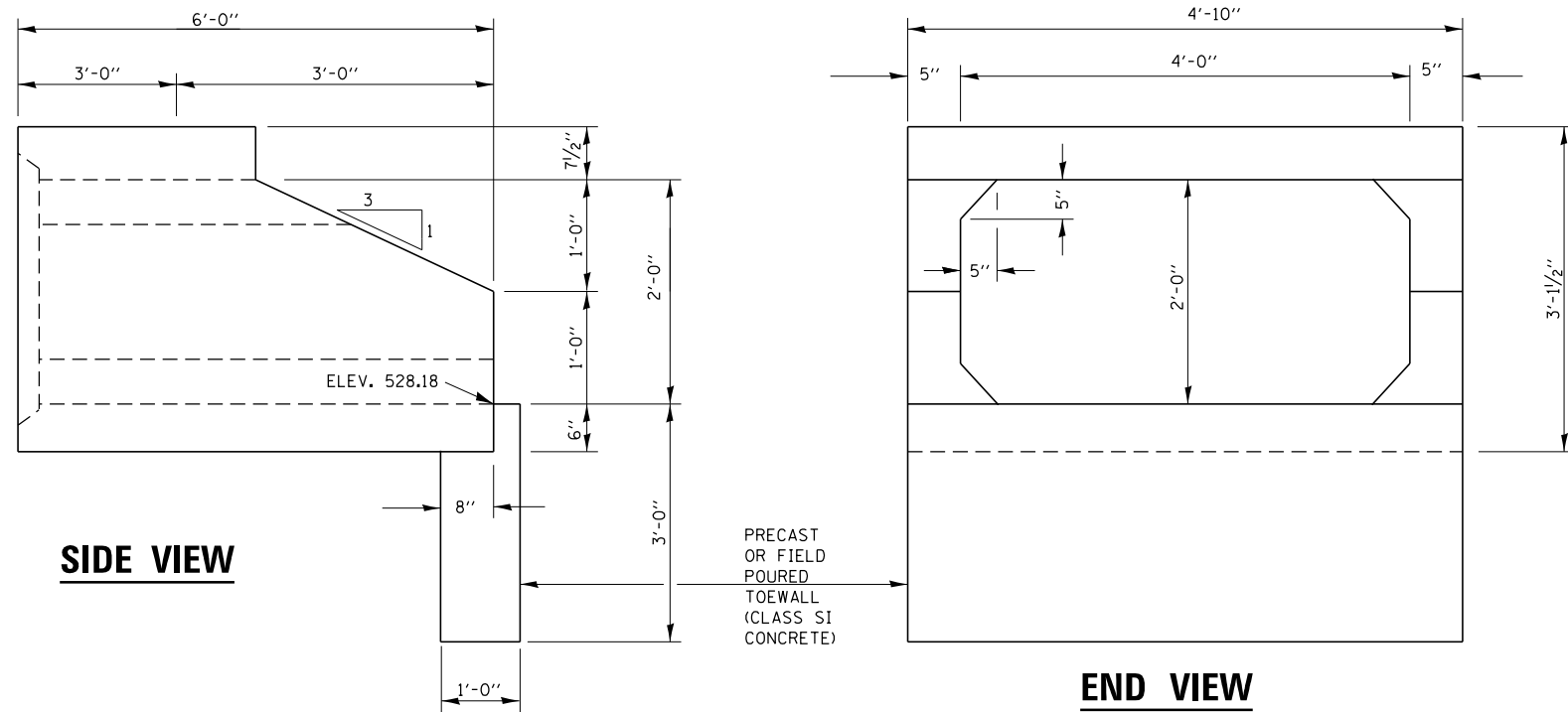
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*MODELNAME*	PLOT DATE = 8/4/2014	DATE - 7/14/2014	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**CAST-IN-PLACE CONCRETE BOX CULVERT  
DROP BOX DETAILS**

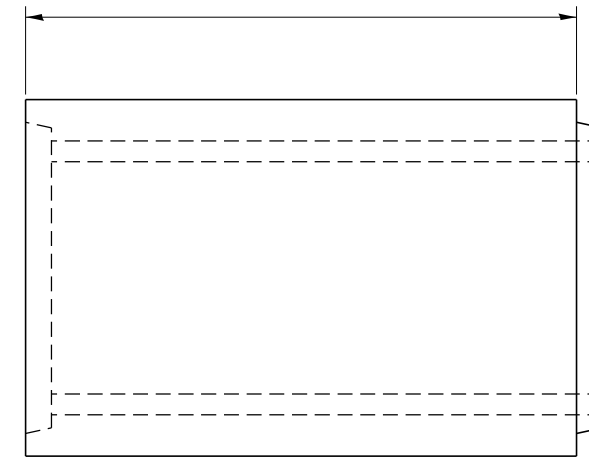
SCALE 20 SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(0)T	LASALLE	16	11
CONTRACT NO. 66D35			ILLINOIS FED. AID PROJECT	



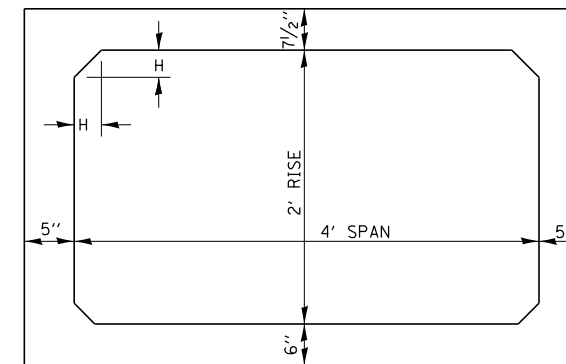
**PRECAST CONCRETE BOX CULVERT END SECTION**

**GENERAL NOTES:**  
 MINIMUM COVER FOR BOX CULVERTS SHALL BE 6".

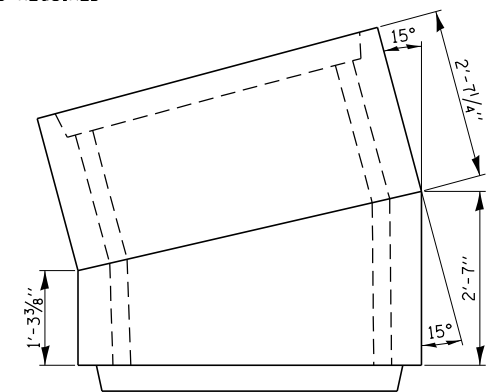


**ELEVATION**

2 - 4'-6" SECTIONS REQUIRED  
 2 - 6'-0" SECTIONS REQUIRED



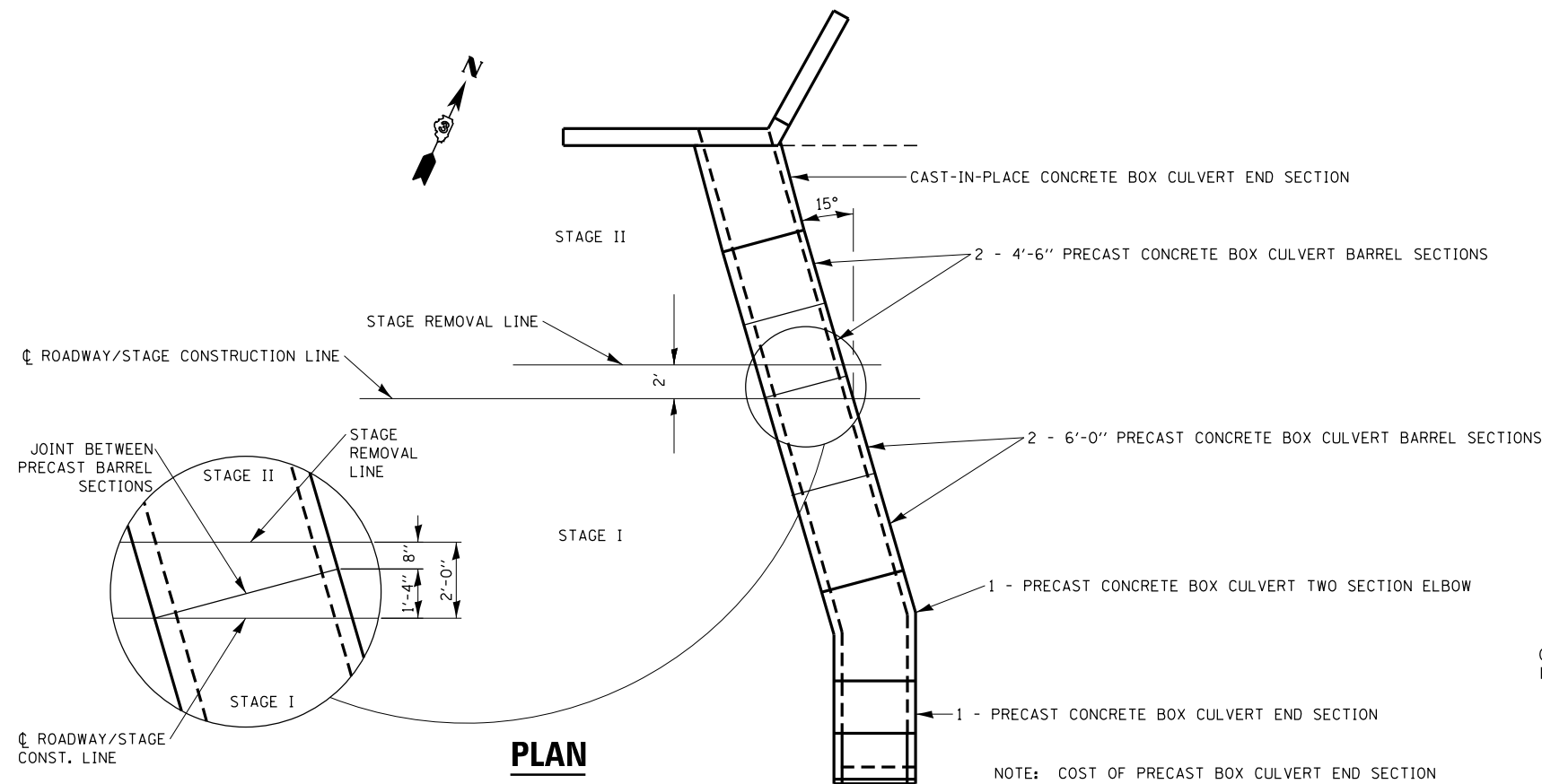
**TYPICAL BARREL SECTION**



**PLAN**

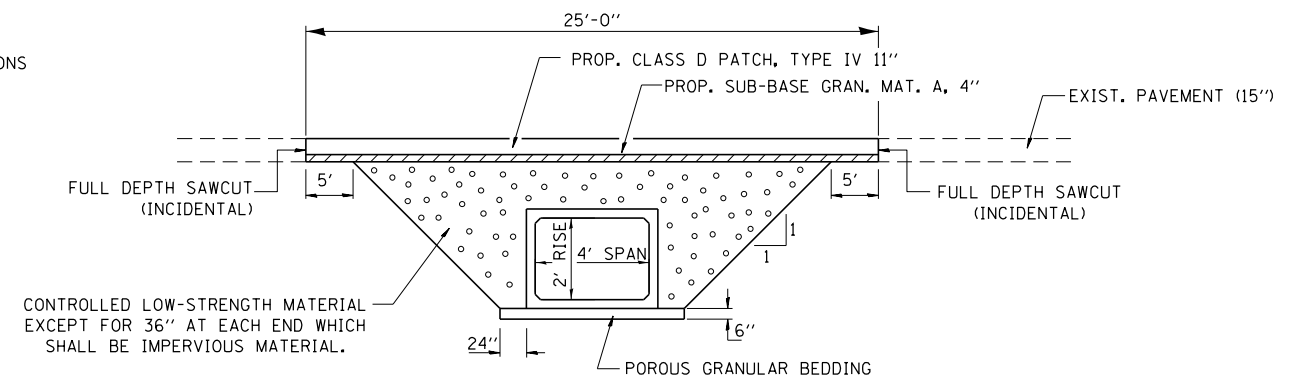
**TWO SECTION ELBOW**

1 EACH REQUIRED



**PRECAST CONCRETE BOX CULVERT**

NOTE: COST OF PRECAST BOX CULVERT END SECTION SHALL BE INCLUDED IN THE COST OF THE PRECAST CONCRETE BOX CULVERT 4' X 2'



**SECTION THROUGH PRECAST BOX CULVERT**

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RW	REVISED -
ei:\pw_work\pwidot\woodshankr1\d0362707\0366035-shit-details.dgn		DRAWN - RW	REVISED -
		CHECKED - HA	REVISED -
		DATE - 7/14/2014	REVISED -

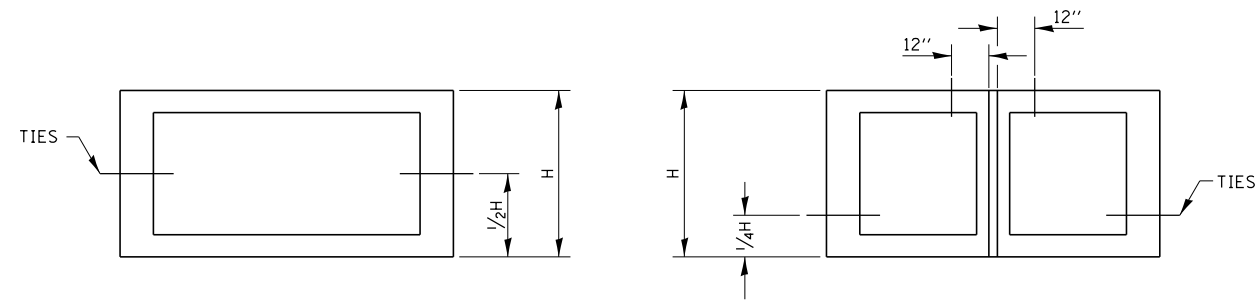
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE BOX CULVERT DETAILS**

SCALE 20 SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(01)	LASALLE	16	12
CONTRACT NO. 66D35			ILLINOIS FED. AID PROJECT	

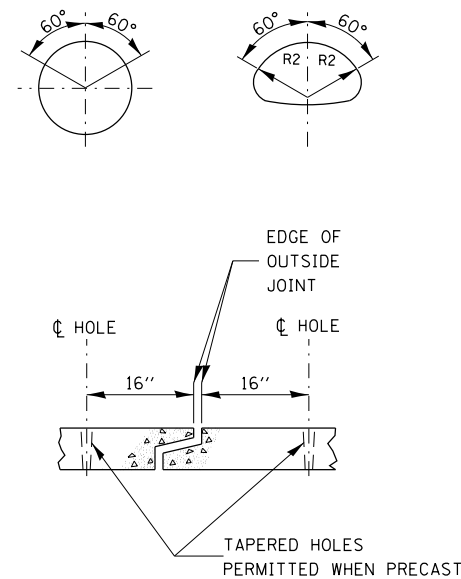
THE CULVERT TIES SHALL BE INCLUDED IN THE COST OF THE CONCRETE PIPE CULVERTS OR THE PRECAST CONCRETE BOX CULVERT. THE MECHANICAL TIES SHALL BE ON THE OUTSIDE OF THE CULVERT. THE NUTS AND WASHERS SHALL BE PLACED ON THE INSIDE OF THE CULVERT AND COVERED WITH MASTIC JOINT SEALER CONFORMING TO ARTICLES 1055 OR 1056 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.



PLACEMENT OF HOLES		
BOX CULVERT FEET	PIPE SIZE INCHES	THREAD DIAMETER INCHES
	12	5/8
	15	ROLLED THREADS (SEE NOTE 4)
	18	
	21	
	24	
	27	
	30	
3 x 2	33	3/4 CUT OR ROLLED
3 x 3	36	
4 x 2	42	
4 x 3	48	
4 x 4	54	1 CUT OR ROLLED
5 x 3	60	
5 x 4	66	
5 x 5	72	
6 x *	78	
7 x *	84	
8 x *	90	
9 x *	96	
10 x *	102	1 1/4
	108	
	120	
	132	
11 x * AND GREATER	138 AND GREATER	

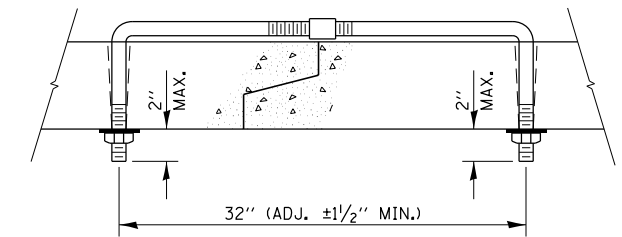
**NOTES:**

- HOLES SHALL BE CAST-IN OR DRILLED 16" FROM OUTSIDE EDGE OF JOINT.
- NUTS AND WASHERS ARE NOT REQUIRED ON INSIDE OF 27" DIAMETER PIPE OR LESS.
- TIES ARE NOT REQUIRED FOR BELL PIPE 24" AND SMALLER. ON OTHER SIZES TIE MAY BE INSERTED FROM INSIDE.
- CUT THREADS MAY BE USED IF WASHER AND NUT ARE USED.
- PIPE SIZE LISTED IS INSIDE DIAMETER OF ROUND PIPE OR EQUIVALENT DIAMETER OF PIPE ARCH OR ELLIPTICAL.
- GALVANIZING OF TIES IS REQUIRED.

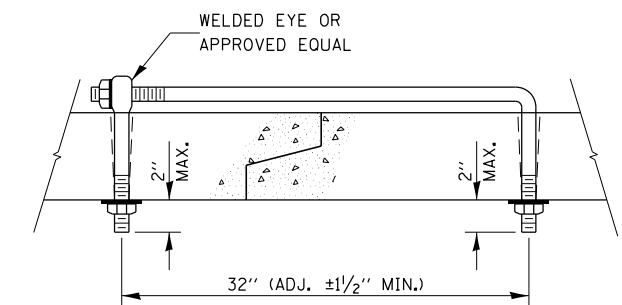


WELD COUPLER TO BOLT

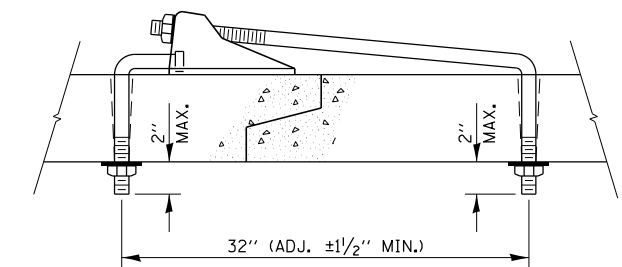
**TOP VIEW**



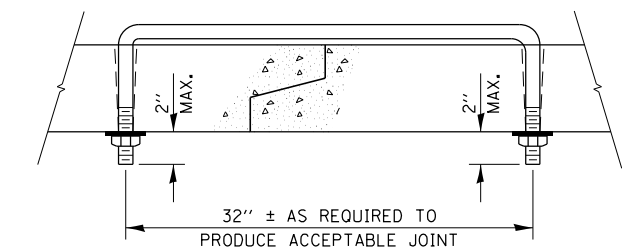
**ADJUSTABLE TIE**



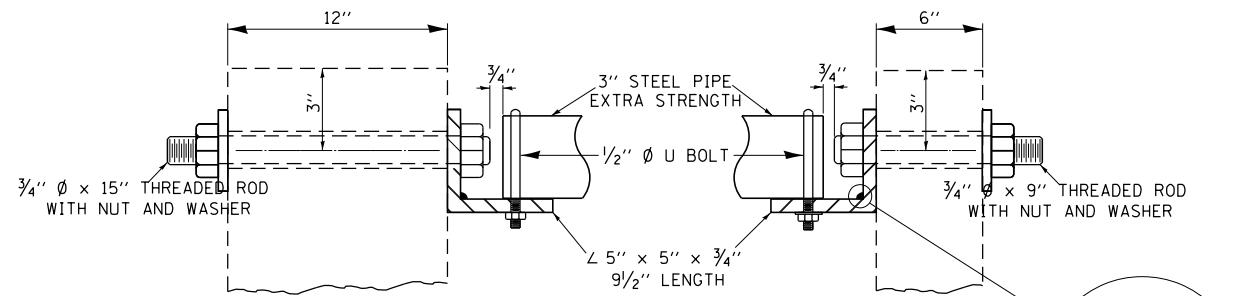
**EYE BOLT TIE**



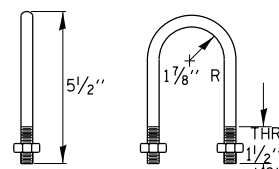
**CANOPY TIE**



**U BOLT TIE**



**SECTION A-A**



**1/2" DIA. U BOLT**

( 2 PER PIPE REQ'D )

**GENERAL NOTES**

ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD.

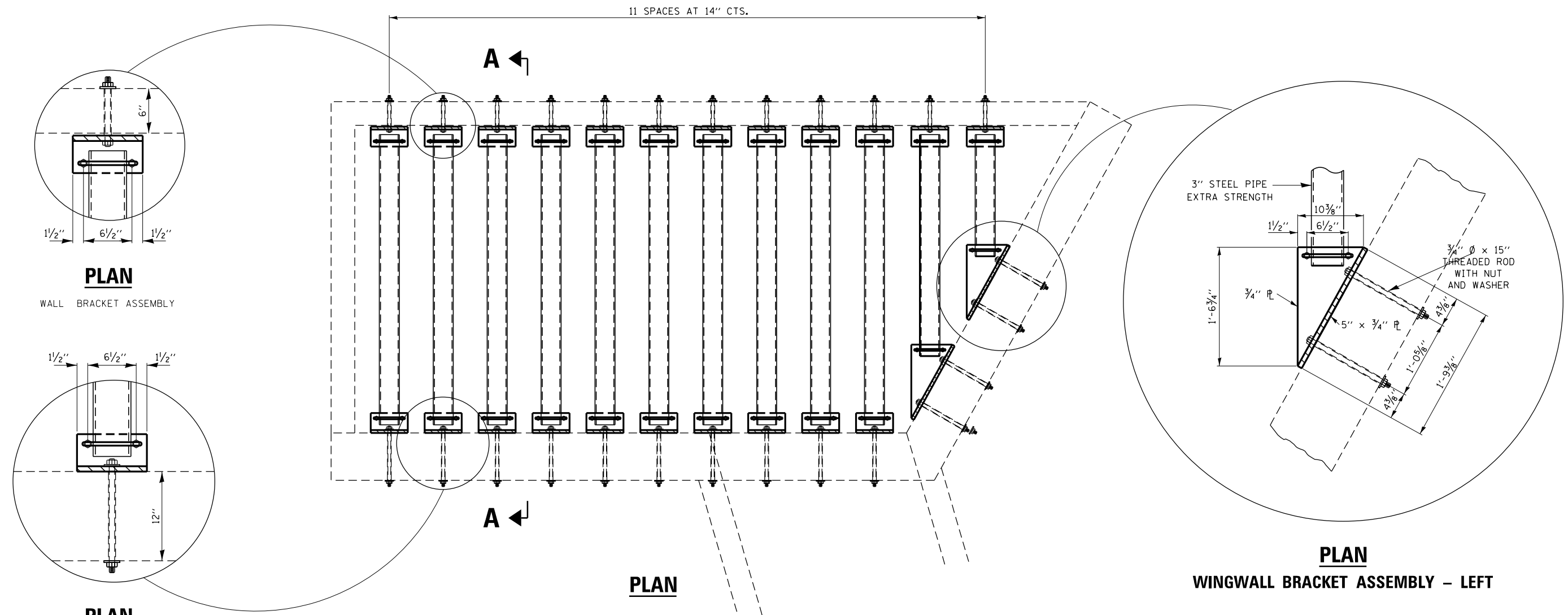
THREADED RODS AND NUTS SHALL CONFORM TO ASTM A 307.  
 ALL BOLTS SHALL HAVE WASHERS AT EACH END.  
 HOLES SHALL BE 1/16" OVERSIZE UNLESS OTHERWISE NOTED EXCEPT IN CONCRETE WHICH SHALL BE 1/8" OVERSIZE.

ANGLES AND STEEL PLATES SHALL CONFORM TO AASHTO M183.  
 STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B OR ASTM A 501.  
 STEEL PIPES, ANGLES AND PLATES SHALL BE HOT DIPPED GALVANIZED CONFORMING TO THE REQUIREMENTS OF AASHTO M111.

BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANIZED CONFORMING TO THE REQUIREMENTS OF AASHTO M232.

CUTTING OF THE EXTRA STRENGTH PIPE AND ANGLES TO THE EXACT LENGTHS AND DRILLING HOLES IS TO BE DONE IN THE FIELD.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE "FOOT" FOR GRATING FOR CONCRETE HEADWALLS IN PLACE, AND SHALL INCLUDE FABRICATION PAINTING, CENTER SUPPORTS WHEN REQUIRED, AND INSTALLATION OF THE GRATING AS DETAILED.



**PLAN**

WALL BRACKET ASSEMBLY

**PLAN**

HEADWALL BRACKET ASSEMBLY

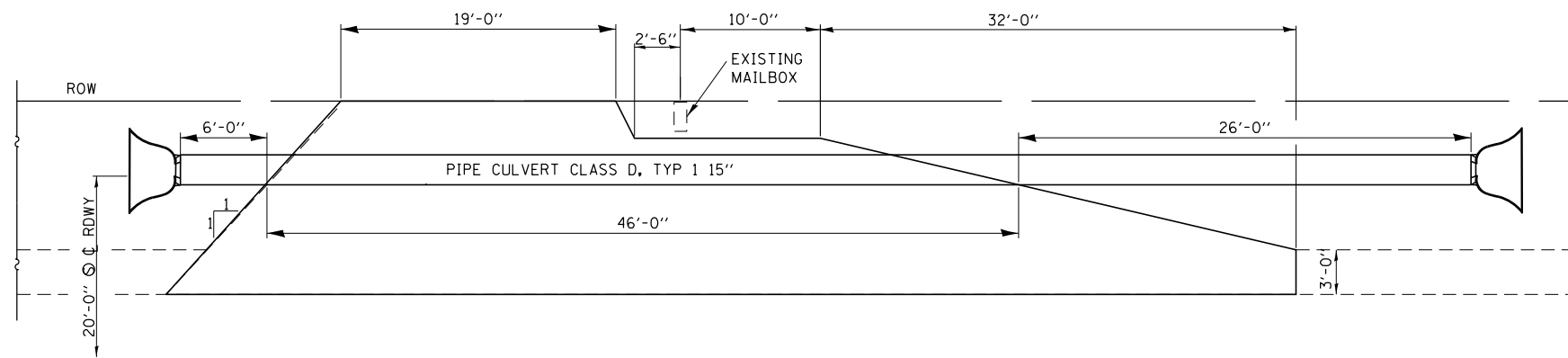
**PLAN**

WINGWALL BRACKET ASSEMBLY - LEFT

**PLAN**

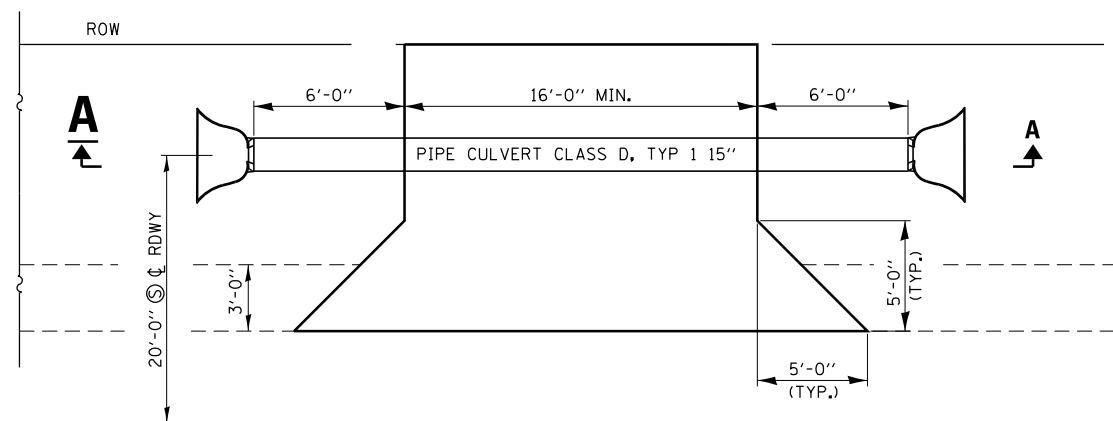
FILE NAME =	USER NAME = woodshankr1	DESIGNED - RW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GRATING FOR CONCRETE HEADWALL</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw_work\p\dot\woodshankr1\d0362707\0366035-shit-details.dgn	DRAWN - RW	REVISIED -	623					(01)	LASALLE	16	14	
*MODELNAME*	PLOT SCALE = 40.0000 ' / in.	CHECKED - HA	REVISIED -		SCALE 20			SHEET 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 66D35	
	PLOT DATE = 7/28/2014	DATE - 7/14/2014	REVISIED -		ILLINOIS FED. AID PROJECT							





**PRIVATE ENTRANCE DETAIL**

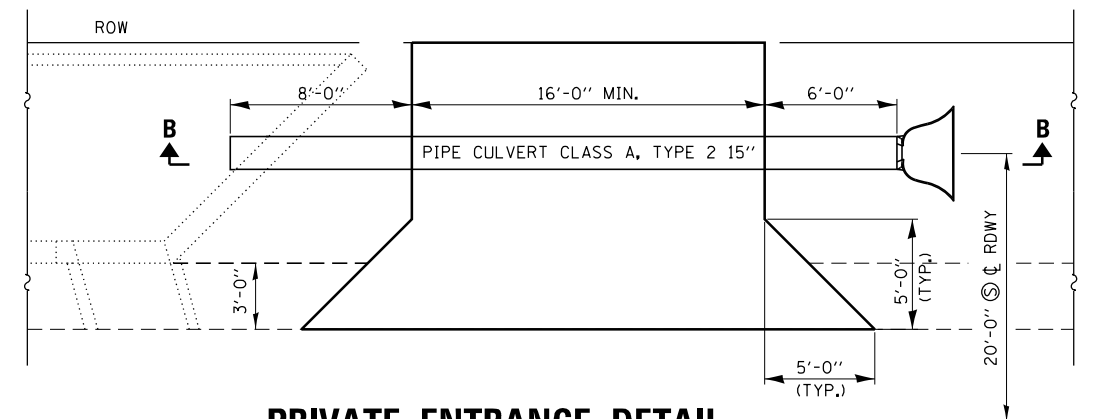
STA. 353+81 LT.



**PRIVATE ENTRANCE DETAIL**

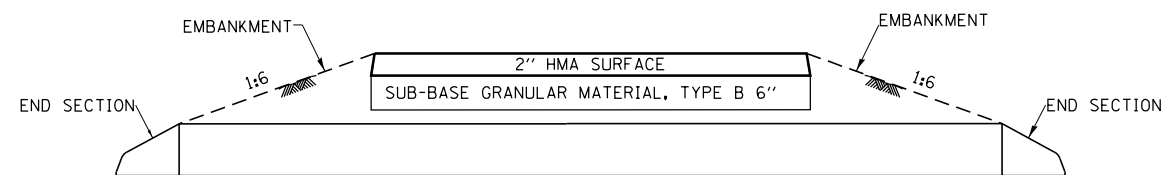
STA. 355+16 LT.  
 STA. 357+26 LT.  
 STA. 358+04 LT.

NOTE:  
 SUITABLE MATERAILS EXCAVATED FROM DITCHES  
 MAY BE USED TO RECONSTRUCT SLOPES ADJACENT  
 TO PIPE LOCATIONS.

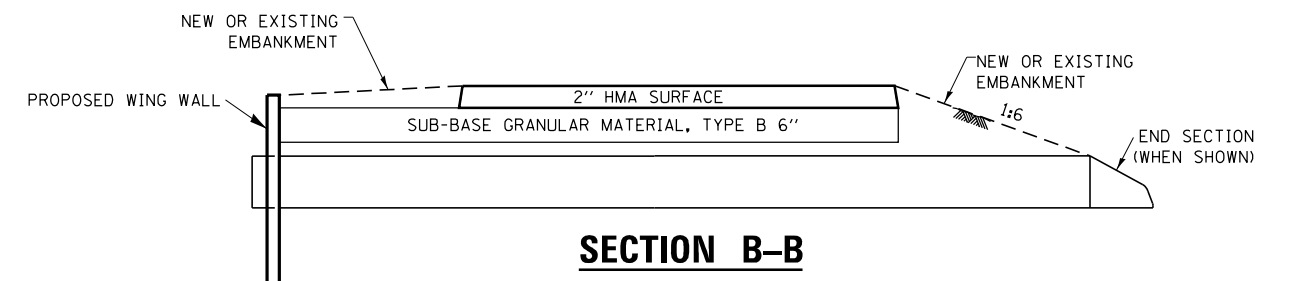


**PRIVATE ENTRANCE DETAIL**

STA. 356+76 LT.



**SECTION A-A**



**SECTION B-B**

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RW	REVISED -
ei:\pwork\pwork\woodshankr1\d0362707\0366035-shit-details.dgn		DRAWN - RW	REVISED -
	PLOT SCALE = 48.0000' / in.	CHECKED - HA	REVISED -
*MODELNAME*	PLOT DATE = 7/31/2014	DATE - 7/14/2014	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

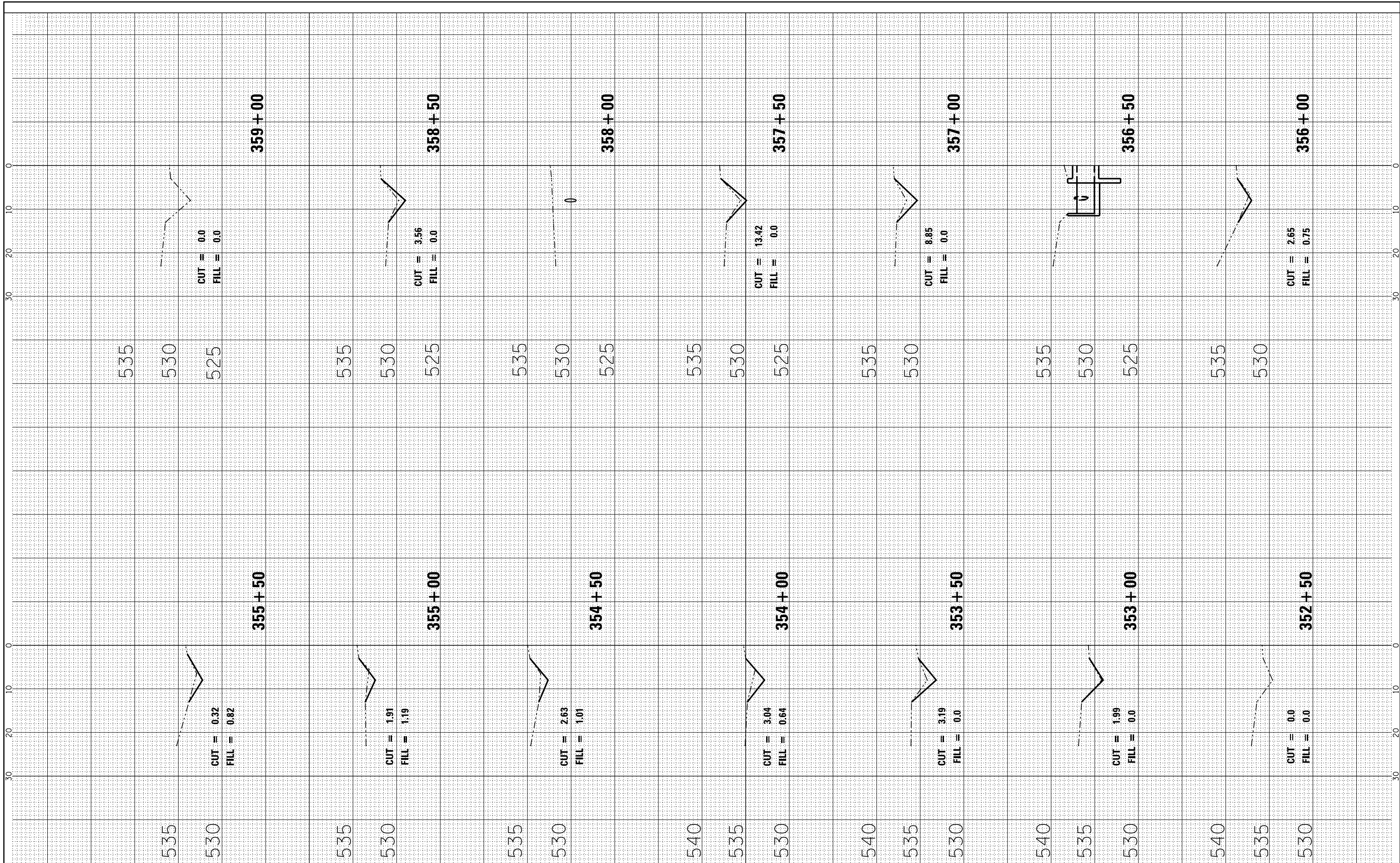
**ENTRANCE DETAILS**

SCALE 20 SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(0)T	LASALLE	16	15
CONTRACT NO. 66D35			ILLINOIS FED. AID PROJECT	

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME = c:\pw\_work\pwidot\woodshankr1\d0362707\0366035-shd-details.dgn

USER NAME = woodshankr1  
 PLOT SCALE = 48.0000' / in.  
 PLOT DATE = 7/28/2014

DESIGNED - RW  
 DRAWN - RW  
 CHECKED - HA  
 DATE - 7/14/2014

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 623	SECTION (0)T	COUNTY LASALLE	TOTAL SHEETS 16	SHEET NO. 16
			CONTRACT NO. 66D35	
ILLINOIS FED. AID PROJECT				