

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	COVER SHEET
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12-22	STRUCTURE PLANS
23-32	CROSS SECTIONS

03-07-2025 LETTING ITEM 127

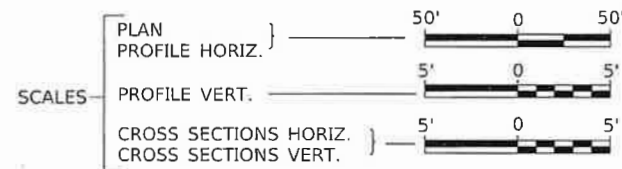
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**LOCAL BRIDGE FORMULA PROGRAM**  
**IROQUOIS COUNTY**  
**SECTION 17-00234-00-BR**  
**F.A.S. 1335 (C.H. 42) OVER**  
**TRIBUTARY TO LITTLE MUD CREEK**  
**PROJECT NO. UJKE(060)**  
**BRIDGE REPLACEMENT**  
**JOB NUMBER C-93-004-22**

**HIGHWAY STANDARDS**

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-04 NAME PLATE FOR BRIDGES
- 701901-10 TRAFFIC CONTROL DEVICES
- 725001-01 OBJECT AND TERMINAL MARKERS
- BLR 21-9 TYPICAL APPLICATIONS OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- BLR 24-2 MAILBOX TURNOUT FOR LOCAL ROADS



PROPOSED STRUCTURE SN 038-3016  
 SINGLE SPAN 33" PCC DECK BEAM  
 SUPERSTRUCTURE ON CONCRETE  
 SPILL-THRU PILE BENT ABUTMENTS,  
 74'-0" BK TO BK, 30'-0" O TO O DECK,  
 SKEWED 20° RT. AHEAD.

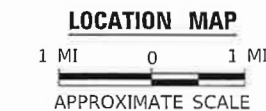


SECTION 17-00234-00-BR  
 BEGINS  
 STATION 15+00.00



SECTION 17-00234-00-BR  
 ENDS  
 STATION 24+50.00

EXISTING STRUCTURE SN 038-3008  
 SINGLE SPAN CONCRETE SLAB BRIDGE ON  
 CLOSED ABUTMENTS WITH CONCRETE WINGWALLS.  
 ±28'-0" BK TO BK, ±26'-6" O TO O DECK,  
 SKEWED 15° RT AHEAD.  
 (TO BE REMOVED)



NET LENGTH OF PROJECT = 950.00 FEET = 0.180 MILES  
 DESIGN CLASSIFICATION: MINOR COLLECTOR (NON-URBAN)  
 DESIGN ADT = 140 (2024)  
 DESIGN SPEED = 40 MPH

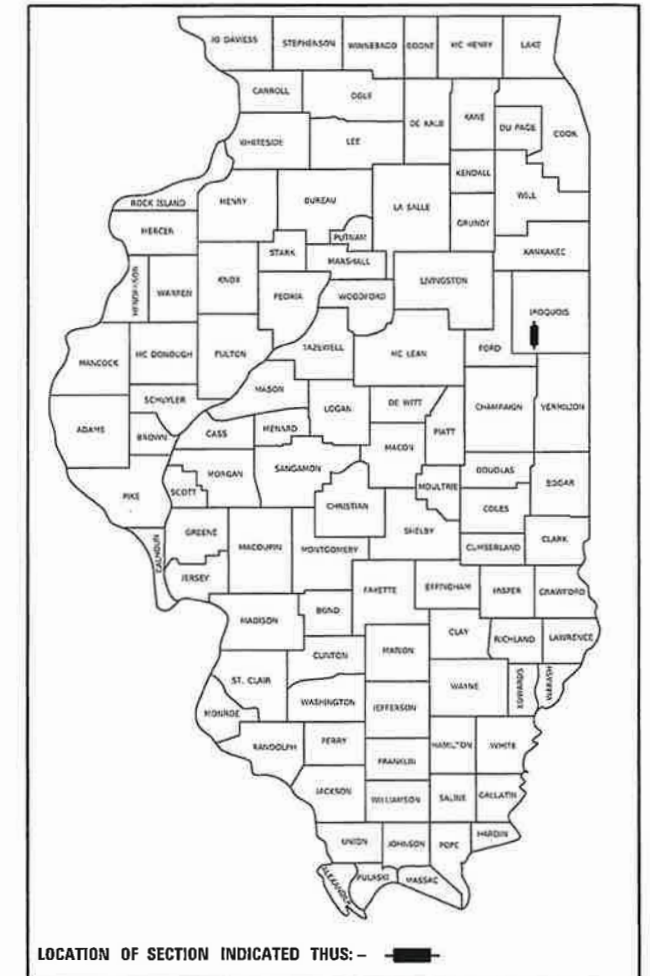
**UTILITY COMPANIES**

- FRONTIER COMMUNICATIONS  
BLOOMINGTON, ILLINOIS
- EASTERN ILLINI ELECTRIC COOP  
PAXTON, ILLINOIS
- METRO COMMUNICATIONS  
SULLIVAN, ILLINOIS

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

CONTRACT NO. 87769

F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	1
CONTRACT NO. 87769				
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT NO. UJKE(060)		



LOCATION OF SECTION INDICATED THUS: - [Symbol] -  
 PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PLANS DESIGNED IN ACCORDANCE WITH BUREAU OF LOCAL ROADS AND STREETS MANUAL GUIDELINES FOR TWO LANE RURAL LOCAL ROADS - RECONSTRUCTION

APPROVED	<i>December 19,</i>	2024
	<i>Alan Harwood</i>	
IROQUOIS COUNTY ENGINEER		
PASSED	<i>January 3,</i>	2025
	<i>[Signature]</i>	
DISTRICT THREE ENGINEER OF LOCAL ROADS & STREETS		
Released For Bid Based on Limited Review	<i>January 3,</i>	2025
	<i>Juha Thompson</i>	
REGION TWO ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		

DATE: 12/19/2024

*Matthew Ogden*  
SIGNATURE  
ENGINEERS SEAL

**Hutchison Engineering, Inc.**  
2024 JOB#4815

SEE SHEET 7 OF 32 FOR STA 17+27 RT PRIVATE ENTRANCE DETAILS

**COMMITMENTS**

THERE ARE NO COMMITMENTS FOR THIS PROJECT

**GENERAL NOTES**

THE REMOVAL OF EXISTING OIL & CHIP SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE PROJECT SHALL BE REMOVED AS EARTH EXCAVATION AND NO COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LABOR OR EQUIPMENT REQUIRED.

ALL WASTE OR UNDESIRABLE MATERIAL AS IDENTIFIED BY THE ENGINEER SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY AT THE CONTRACTOR'S EXPENSE.

ALL EXISTING PRIVATELY OWNED UTILITIES REQUIRING ADJUSTMENT WILL BE MADE BY THE UTILITY COMPANY INVOLVED. WHERE NO PROVISIONS HAVE BEEN MADE FOR ADJUSTMENTS ON THE PLANS, NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY THE SAID UTILITY ADJUSTMENTS.

THE PROFILE GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND IN THE STATION CROSS SECTIONS ARE TO THE TOP OF THE FINISHED SURFACE.

ALL EXISTING DRAINAGE STRUCTURES NOT BEING REMOVED OR ADJUSTED BY THE CONTRACTOR THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

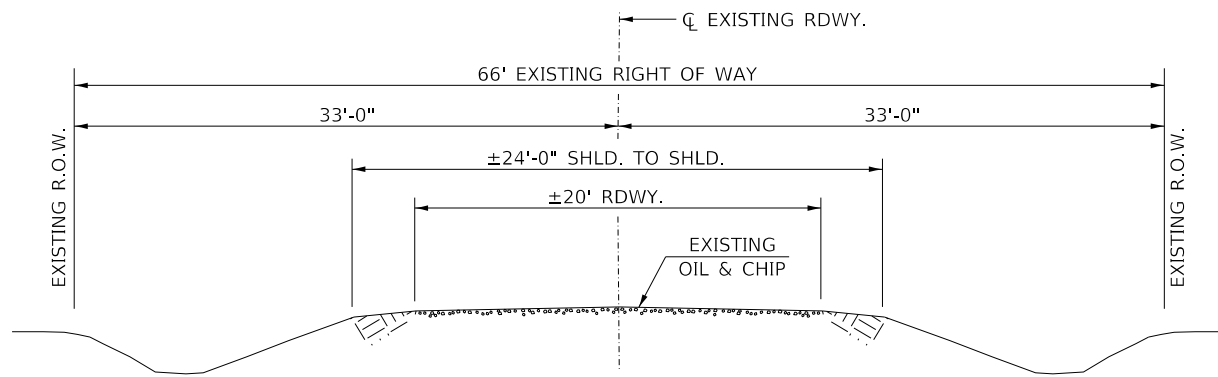
IF THE CONTRACTOR UTILIZES ORANGE TRAFFIC CONTROL SIGNS, THEY ARE REQUIRED TO BE FLUORESCENT ORANGE AND SHALL MEET RETRO REFLECTIVITY STANDARDS PER ARTICLE 1091.03 OF THE STANDARD SPECIFICATIONS.

THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.

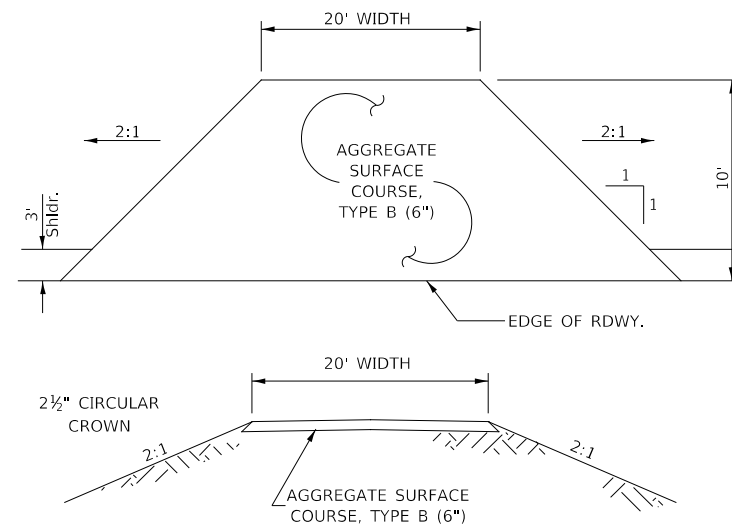
THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AND TRENCHING OPERATIONS AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE PROPERTY MARKERS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT, HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

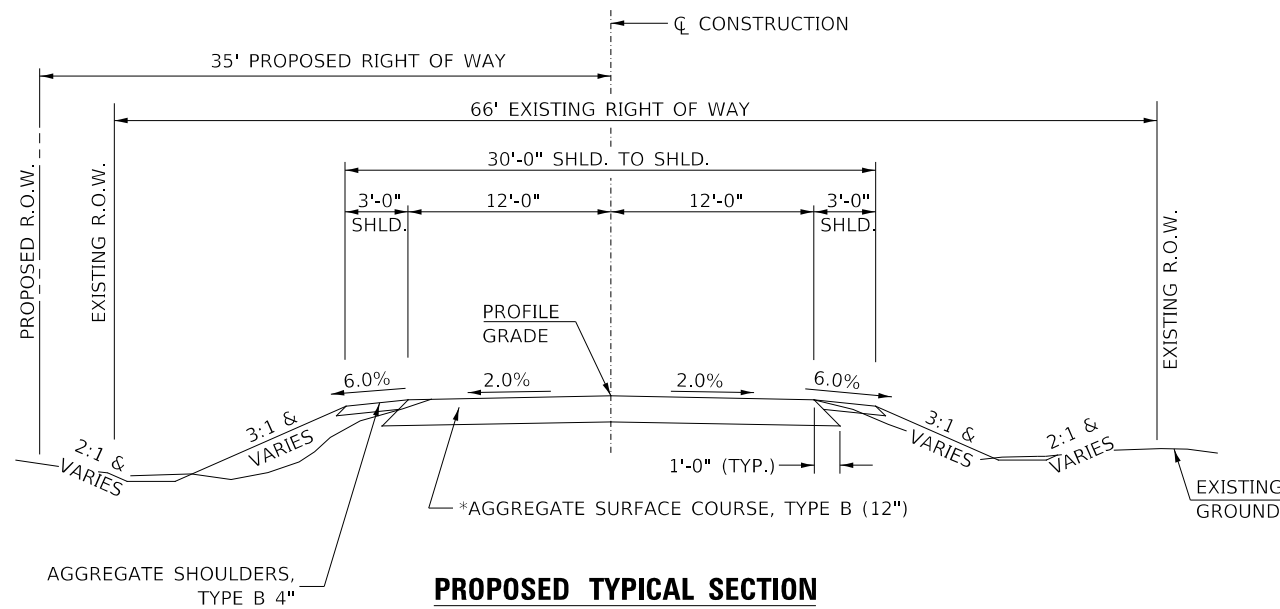
ALL ELEVATIONS SHOWN REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.



**EXISTING TYPICAL SECTION**



**PRIVATE ENTRANCE**  
STA 15+79 LT (20' WIDE)



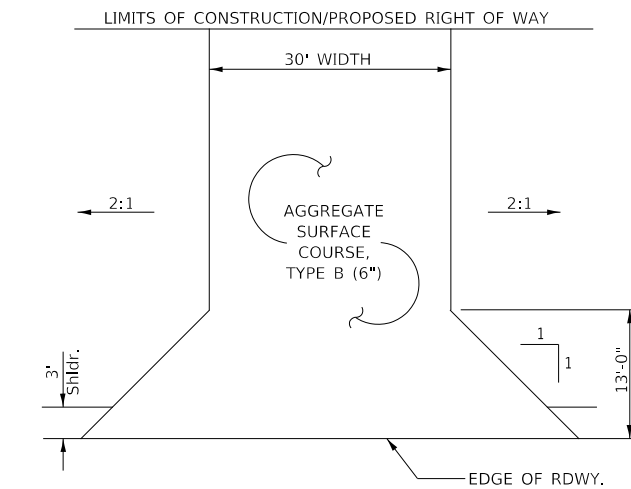
**PROPOSED TYPICAL SECTION**

STA. 15+00.00 TO STA. 19+66.00  
STA. 20+40.00 TO STA. 24+50.00

EXCEPT TRANSITIONS

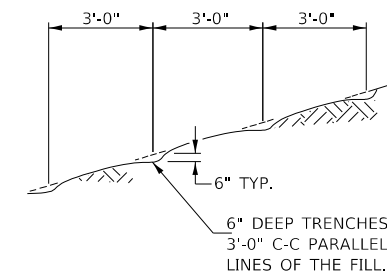
BRIDGE OMISSION  
STA. 19+66.00 TO STA. 20+40.00

\*ADDITIONAL PLACEMENT OF AGGREGATE SURFACE COURSE, TYPE B WILL BE REQUIRED WHERE THE PROPOSED PROFILE GRADE RAISES MORE THAN 12" FROM THE EXISTING SURFACE ELEVATION. EARTH FILL WILL NOT BE ALLOWED AND THE LIMITS WILL BE AT THE DISCRETION OF THE ENGINEER. AGGREGATE SURFACE COURSE, TYPE B SHALL BE PLACED IN ACCORDANCE WITH SECTION 402 OF THE STANDARD SPECIFICATIONS



**FIELD ENTRANCES**

STA 21+10 RT  
STA 21+10 LT



NOTE: ALL SLOPES 3:1 OR STEEPER AND GREATER THAN 5' IN HEIGHT SHALL BE CONTOUR PLOWED AS SHOWN IN DETAIL, COST SHALL BE INCLUDED WITH SEEDING, CLASS 2 (SPECIAL).

**DETAIL OF CONTOUR PLOWING**

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PLOT DATE = 12/16/2024	CHECKED - STM/MMO	REVISED - _____
	DATE - 12/16/2024	REVISED - _____

**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

**GENERAL NOTES, TYPICAL SECTIONS, DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 15+00.00 TO STA. 24+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	2
CONTRACT NO. 87769				
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT NO. UUK060

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	735
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	30
20300100	CHANNEL EXCAVATION	CU YD	650
SP 20700220	POROUS GRANULAR EMBANKMENT	CU YD	55
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	500
28000305	TEMPORARY DITCH CHECKS	FOOT	48
28000400	PERIMETER EROSION BARRIER	FOOT	580
28000500	INLET AND PIPE PROTECTION	EACH	4
28100209	STONE RIPRAP, CLASS A5	TON	700
28200200	FILTER FABRIC	SQ YD	615
SP 40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	2,111
42300100	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 5 INCH	SQ YD	35
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	10
48101200	AGGREGATE SHOULDERS, TYPE B	TON	120
SP 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	83
50200100	STRUCTURE EXCAVATION	CU YD	60
50300225	CONCRETE STRUCTURES	CU YD	28.8
50300280	CONCRETE ENCASEMENT	CU YD	2.6
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	2,160
50800105	REINFORCEMENT BARS	POUND	3,110
51200957	FURNISHING METAL SHELL PILES 12"x0.250"	FOOT	440
51202305	DRIVING PILES	FOOT	440
51203200	TEST PILE METAL SHELLS	EACH	2
51500100	NAME PLATES	EACH	1
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2
54010802	PRECAST CONCRETE BOX CULVERTS 8' X 2'	FOOT	24
SP 542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	40
SP 542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	20
SP 542D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	40
SP 59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	8.0
60801018	FLAP GATE 18"	EACH	1
63200310	GUARDRAIL REMOVAL	FOOT	208
67100100	MOBILIZATION	L SUM	1
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4

SP: SEE SPECIAL PROVISIONS  
 GBSP: SEE GUIDE BRIDGE SPECIAL PROVISIONS  
 \* SPECIALTY ITEM

CONSTRUCTION CODE TYPE: 0010  
 BRIDGE CODE TYPE: X080

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	UNIT	QUANTITY
* SP X0327690	TELEVISION INSPECTION OF SEWER, SPECIAL	FOOT	1,000
SP X1200090	TRAVERSABLE PIPE GRATE (SPECIAL)	EACH	2
* SP X2300017	STEEL RAILING, TYPE SM (SPECIAL)	FOOT	148
SP X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.75
GBSP X5810103	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	30
SP Z0062500	SAWING P.C. CONCRETE DRIVEWAYS	FOOT	16

SP: SEE SPECIAL PROVISIONS  
 GBSP: SEE GUIDE BRIDGE SPECIAL PROVISIONS  
 \* SPECIALTY ITEM

CONSTRUCTION CODE TYPE: 0010  
 BRIDGE CODE TYPE: X080

EARTHWORK SUMMARY					
STATION TO STATION	EARTH EXCAVATION	CHANNEL EXCAVATION	STRUCTURE EXCAVATION	FILL	WASTE (SHORTAGE)
	CU YD				
RDWY 15+00.00 - 19+66.00	410			212	96
RDWY 20+40.00 - 24+50.00	324			181	62
CHANNEL		650			
STRUCTURE			60		
TOTAL	734	650	60	393	158
USE	735	650	60	-	160

(@ 25% SHRINKAGE)

PIPE CULVERTS, CLASS D, TYPE 1 18"		
STATION	SIDE	FOOT
19+52	LEFT	20
TOTAL		20

PIPE CULVERTS, CLASS D, TYPE 1 24"		
STATION	SIDE	FOOT
21+10	RIGHT	40
TOTAL		40

PIPE CULVERTS, CLASS D, TYPE 1 15"		
STATION	SIDE	FOOT
21+10	LEFT	40
TOTAL		40

AGGREGATE SHOULDERS, TYPE B 140#/CF				
STATION TO STATION	SIDE	WIDTH	LENGTH	TON
15+00.00 - 15+60.50	LT	VAR.	60.50'	8
15+00.00 - 15+45.00	RT	VAR.	45.00'	7
15+92.50 - 19+48.19	LT	3.00'	350.69'	25
15+45.00 - 15+60.00	RT	3.50' AVG.	15.00'	1
15+60.00 - 15+80.00	RT	4.00'	20.00'	2
15+80.00 - 15+90.00	RT	3.50' AVG.	10.00'	1
15+90.00 - 16+84.00	RT	3.00'	94.00'	7
16+84.00 - 16+99.00	RT	3.50' AVG.	15.00'	1
16+99.00 - 17+06.00	RT	4.00'	7.00'	1
17+48.50 - 19+54.69	RT	3.00'	206.19'	15
19+48.19 - 19+60.95	LT	3.55' AVG.	12.76'	1
19+54.69 - 19+71.00	RT	3.55' AVG.	16.31'	1
20+34.90 - 20+51.31	LT	3.63' AVG.	16.41'	1
20+45.05 - 20+57.80	RT	3.55' AVG.	12.75'	1
20+51.31 - 20+83.50	LT	3.00'	32.19'	3
20+57.80 - 20+83.50	RT	3.00'	25.70'	2
21+36.50 - 24+00.00	LT	3.00'	263.50'	19
21+36.50 - 24+00.00	RT	3.00'	263.50'	19
24+00.00 - 24+50.00	LT	2.07' AVG.	50.00'	2
24+00.00 - 24+50.00	RT	2.44' AVG.	50.00'	3
TOTAL				120

PIPE CULVERT REMOVAL			
STATION	SIZE	SIDE	FOOT
20+22	18"	LEFT	15
20+41	24"	RIGHT	20
21+07	24"	RIGHT	24
21+14	15"	LEFT	24
TOTAL			83

GUARDRAIL REMOVAL			
STATION TO STATION	SIDE	FOOT	
19+27 - 19+79	LEFT	52	
19+36 - 19+88	RIGHT	52	
20+12 - 20+64	LEFT	52	
20+19 - 20+71	RIGHT	52	
TOTAL			208

PERIMETER EROSION BARRIER			
STATION TO STATION	SIDE	FOOT	
15+00 - 16+00	LEFT	115	
17+06 - 17+48	RIGHT	45	
20+90 - 21+30	LEFT	45	
20+90 - 21+30	RIGHT	45	
21+75 - 24+50	RIGHT	280	
24+00 - 24+50	LEFT	50	
TOTAL			580

TELEVISION INSPECTION OF SEWER, SPECIAL	
APPROXIMATE LOCATION	FOOT
15+00 RT TO 20+00 RT	1,000
TOTAL	1,000

TEMPORARY DITCH CHECKS		
STATION	SIDE	FOOT
17+80	LEFT	12
19+80	RIGHT	12
20+30	LEFT	12
20+40	RIGHT	12
TOTAL		48

INLET AND PIPE PROTECTION		
STATION	SIDE	EACH
17+06	RIGHT	1
19+42	LEFT	1
21+26	RIGHT	1
21+27	LEFT	1
TOTAL		4

AGGREGATE SURFACE COURSE, TYPE B 140#/CF				
STATION TO STATION	THICKNESS	WIDTH	LENGTH	TON
15+00.00 - 15+50.00	1.00'	25.00'	50.00'	88
15+50.00 - 19+66.00	1.00' & VAR.	25.00'	416.00'	1,043
ABUTMENT BACKFILL - SEE SPECIAL PROVISIONS				42
20+40.00 - 24+00.00	1.00' & VAR.	25.00'	360.00'	772
24+00.00 - 24+50.00	1.00'	23.75' AVG.	50.00'	83
ENTR. 15+79.00 LT	0.50'	30.00' AVG.	10.00'	11
ENTR. 17+27.00 RT	0.50'	33.00' AVG.	13.00'	15
ENTR. 21+10.00 LT	0.50'	30' & VAR.	23.00'	30
ENTR. 21+10.00 RT	0.50'	30' & VAR.	20.30'	27
TOTAL				2,111

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PLOT DATE = 12/19/2024	CHECKED - MMO/STM	REVISED - _____
	DATE - 12/16/2024	REVISED - _____

**IROQUOIS COUNTY  
 COUNTY HIGHWAY 42 OVER  
 TRIBUTARY TO LITTLE MUD CREEK**

**SUMMARY OF QUANTITIES,  
 SCHEDULES OF QUANTITIES**

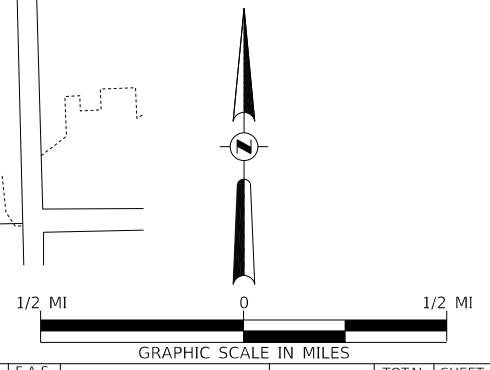
SCALE: NONE SHEET 1 OF 1 SHEETS STA. 15+00.00 TO STA. 24+50.00

F.A.S. RTE. 1335	SECTION 17-00234-00-BR	COUNTY IROQUOIS	TOTAL SHEETS 32	SHEET NO. 3
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87769	
FED. AID PROJECT NO. UUK6(060)				



- 1 **ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY**  
R11-3
- 2 **ROAD CLOSED 2 3/4 MILE AHEAD LOCAL TRAFFIC ONLY**  
R11-3
- 3 **ROAD CLOSED 3/4 MILE AHEAD LOCAL TRAFFIC ONLY**  
R11-3
- 4 **ROAD CLOSED 1/4 MILE AHEAD LOCAL TRAFFIC ONLY**  
R11-3
- 5 **ROAD CLOSED AHEAD**  
W20-3
- 6 **ROAD CLOSED 500 FT**  
W20-3
- 7 **TYPE III BARRICADES**

SEE STANDARD BLR 21 AND SPECIAL PROVISIONS



MODEL: D:\p\h\... FILE NAME: V:\1315 - CH 42 over Trib to Little Mud Creek (Iroquois)\CADD\CADD Sheets\1815-0001.dgn

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PLOT DATE = 12/16/2024	CHECKED - STM/MMO	REVISED -
	DATE - 12/16/2024	REVISED -

**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

**TRAFFIC CONTROL PLAN**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. 15+00.00 TO STA. 24+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	4
CONTRACT NO. 87769				
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT NO. UUK(060)	

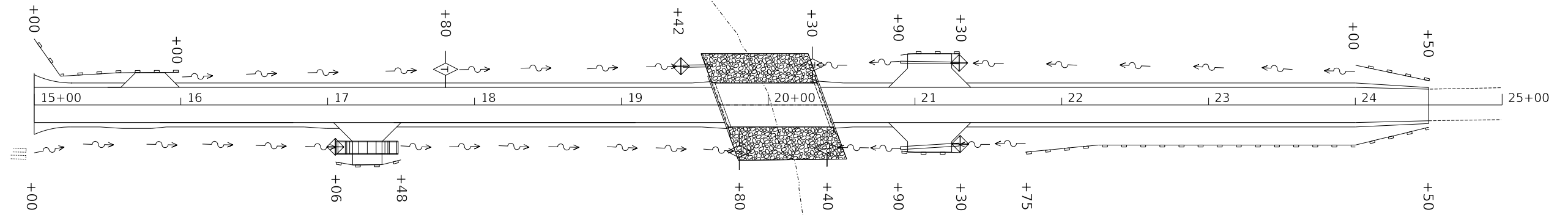
T 25 N, R 14 W, 2nd PM  
SECTION 28

TRIBUTARY

TO

LITTLE

NOTE: TEMPORARY EROSION CONTROL SEEDING SHALL BE DONE IN ACCORDANCE WITH ARTICLE 280.04 OF THE STANDARD SPECIFICATIONS



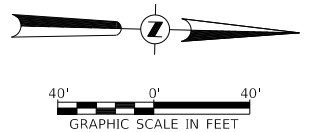
MUD

CREEK

T 25 N, R 14 W, 2nd PM  
SECTION 27

**LEGEND**

- SPECIAL DITCH - FLOW LINE AND DIRECTION
- PERIMETER EROSION BARRIER
- PROPOSED RIPRAP PLACEMENT
- TEMPORARY DITCH CHECK
- INLET & PIPE PROTECTION



PLAN	SURVEYED	DATE
	PLOTTED	
NOTE BOOK NO.	CHECKED	
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
NOTE BOOK NO.	CHECKED	
	FILE NAME	

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PLOT DATE = 12/16/2024	DATE - 12/16/2024	REVISED - _____

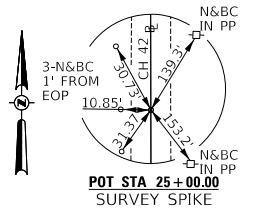
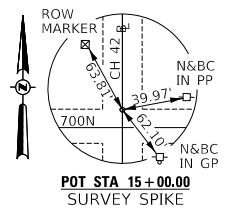
**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

**EROSION CONTROL PLAN**

SCALE: 1"=40' SHEET 1 OF 1 SHEETS STA. 15+00.00 TO STA. 24+50.00

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1335	17-00234-00-BR	IROQUOIS	32	5
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT NO. UUK(060)		

T 25 N, R 14 W, 2nd PM  
SECTION 28



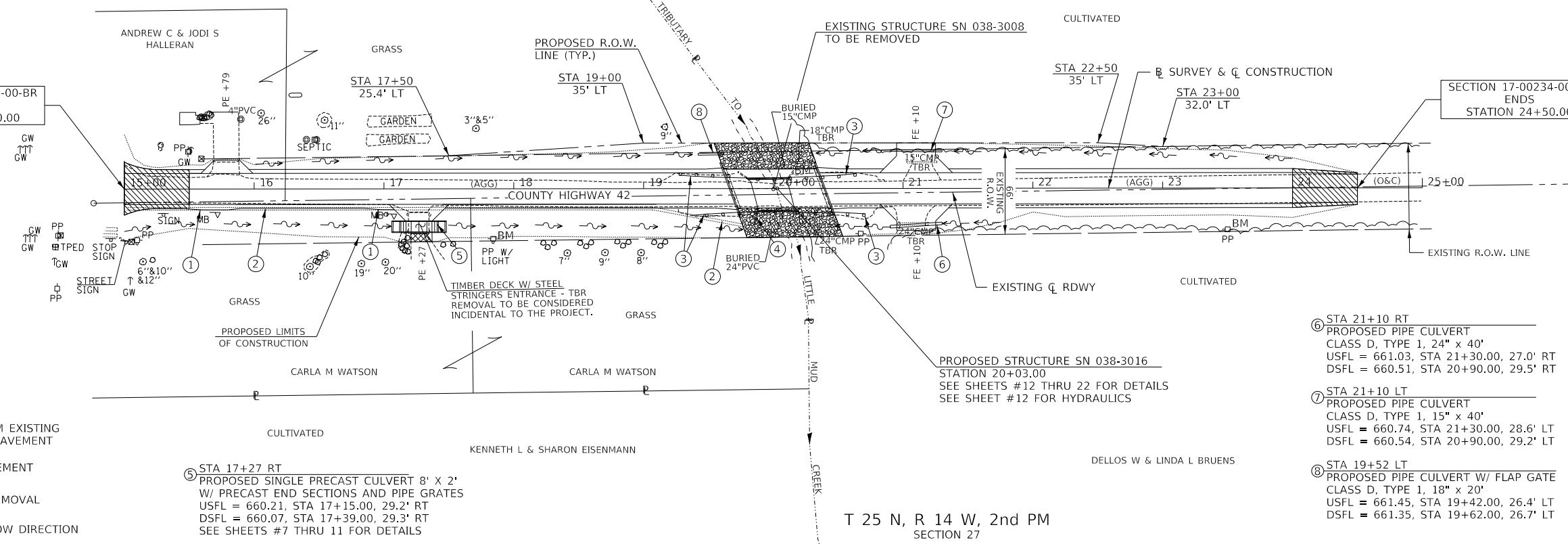
SECTION 17-00234-00-BR  
BEGINS  
STATION 15+00.00

SECTION 17-00234-00-BR  
ENDS  
STATION 24+50.00

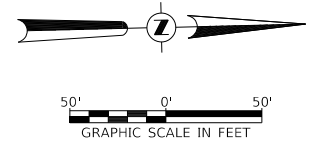
- 1 MAILBOX TURNOUT IN ACCORDANCE WITH STD. BLR 24-2
- 2 EXISTING 24" CLAY/PVC TILE TO BE INSPECTED. SEE SPECIAL PROVISIONS
- 3 EXISTING GUARDRAIL TO BE REMOVED
- 4 ABANDONED 24" CLAY/PVC TILE TO BE FILL W/ CONTROLLED LOW-STRENGTH MATERIAL.

**LEGEND**

- TRANSITION TO OR FROM EXISTING TO PROPOSED TYPICAL PAVEMENT
- PROPOSED RIPRAP PLACEMENT
- DRIVEWAY PAVEMENT REMOVAL
- SPECIAL DITCH WITH FLOW DIRECTION

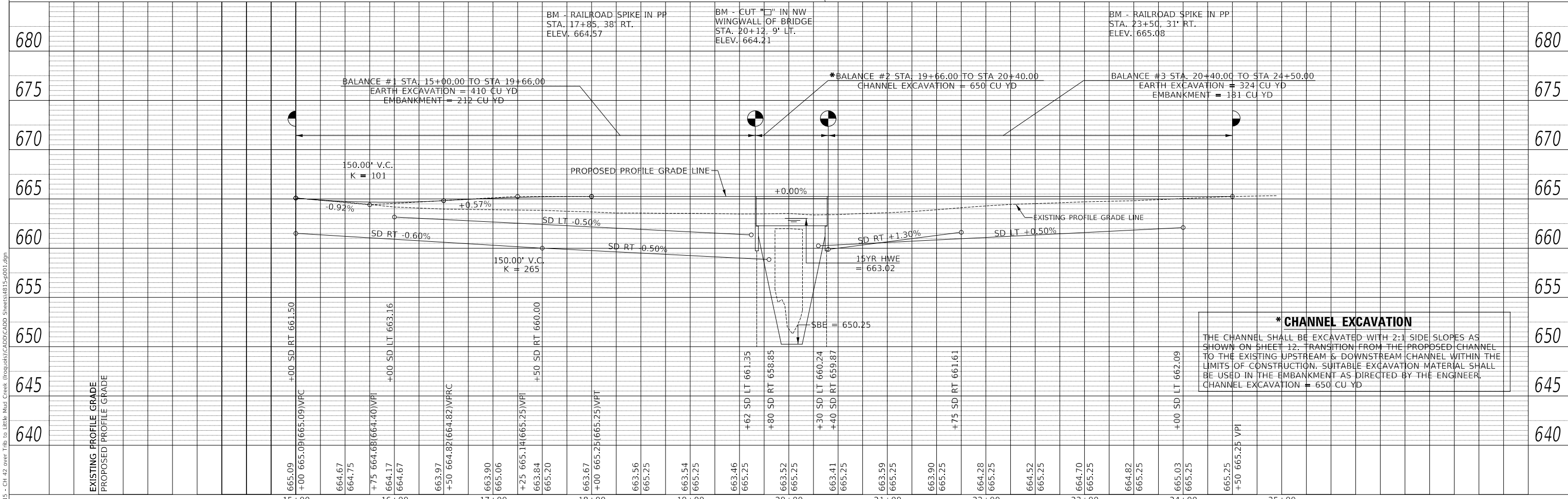


T 25 N, R 14 W, 2nd PM  
SECTION 27



DATE	
BY	
PLAN	
NO.	

DATE	
BY	
PROFILE	
NO.	



**\* CHANNEL EXCAVATION**  
THE CHANNEL SHALL BE EXCAVATED WITH 2:1 SIDE SLOPES AS SHOWN ON SHEET 12. TRANSITION FROM THE PROPOSED CHANNEL TO THE EXISTING UPSTREAM & DOWNSTREAM CHANNEL WITHIN THE LIMITS OF CONSTRUCTION. SUITABLE EXCAVATION MATERIAL SHALL BE USED IN THE EMBANKMENT AS DIRECTED BY THE ENGINEER.  
CHANNEL EXCAVATION = 650 CU YD

**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

**PLAN AND PROFILE**

USER NAME = M0gden	DESIGNED - JPS	REVISED -
PLOT SCALE = SSCALE5	CHECKED - STM/MMO	REVISED -
PLOT DATE = 12/16/2024	DATE - 12/16/2024	REVISED -

SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. 15+00.00 TO STA. 24+50.00

F.A.S. RTE. 1335	SECTION 17-00234-00-BR	COUNTY IROQUOIS	TOTAL SHEETS 32	SHEET NO. 6
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87769	
FED. AID PROJECT NO. UUK6(060)				

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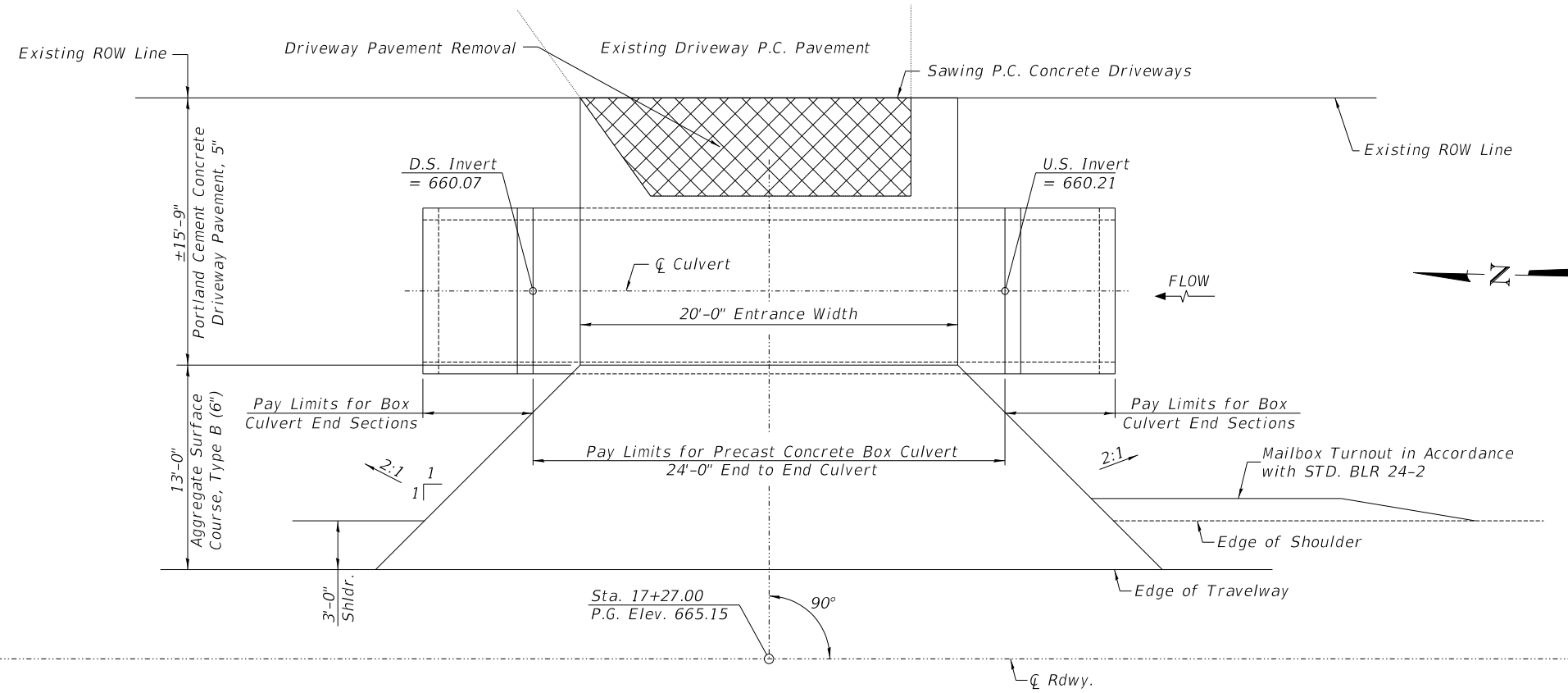
**GENERAL NOTES**

All excavation required for removal of the existing structure or construction of the culvert as shown in these plans and in accordance with the Standard Specifications shall be included in the cost of Precast Concrete Box Culverts. Areas of excavation required for construction of the new culvert shall be backfilled with Porous Granular Embankment up to the top of slab elevation. The required depth of removal and replacement of unsuitable materials may be adjusted by the Engineer to account for variable subsurface conditions. The 6 in. thick layer of porous granular embankment required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. The construction of the Portland Cement Concrete Driveway Pavement shall be in accordance with Sec. 423 of the Standard Specifications. The area to be excavated for the proposed box culvert and end sections shall not be measured for payment. The cost of the excavation and disposal shall be included in the cost of Precast Concrete Box Culverts, 8'x2'.

**TOTAL BILL OF MATERIAL**

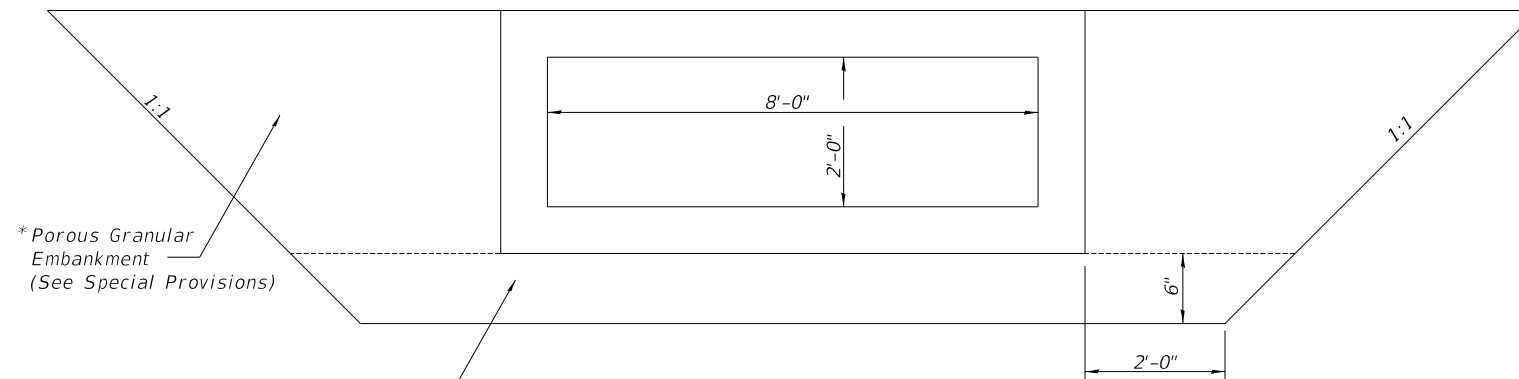
ITEM	UNIT	TOTAL
Removal & Disposal of Unsuitable Material	CU YD	30
① Porous Granular Embankment	CU YD	55
Aggregate Surface Course, Type B	TON	15
Sawing P.C. Concrete Driveways	FOOT	16
Portland Cement Concrete Driveway Pavement, 5"	SQ YD	35
Driveway Pavement Removal	SQ YD	10
Box Culvert End Sections, Culvert No. 1	EACH	2
Precast Concrete Box Culverts 8' X 2'	FOOT	24
① Traversable Pipe Grate (Special)	EACH	2
① Membrane Waterproofing System for Buried Structures	SQ YD	30

① See Special Provisions



**PLAN**

\*Last 3' from the outer face of the each end section toe walls shall be impervious material



**SECTION THROUGH PRECAST BOX CULVERT**

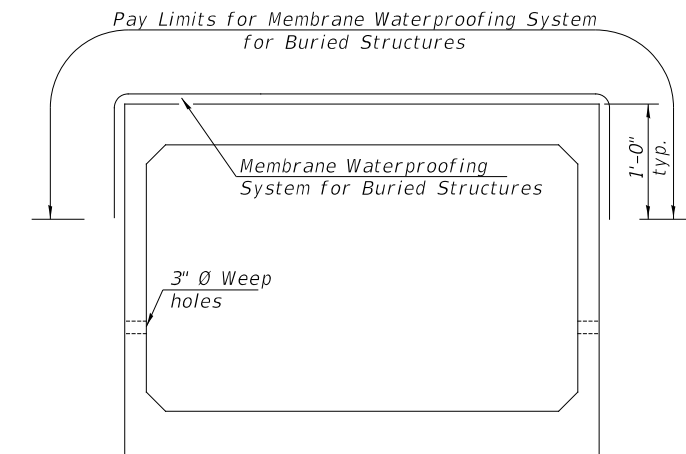
**POROUS GRANULAR EMBANKMENT DETAIL AT PROPOSED BOX CULVERTS**

**BOX CULVERT BACKFILLING DETAIL**

Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, to 3 feet from the outer face of the end section toe walls and not closer than 2 ft from the face of embankment.

The work shown in the detail shall be performed in accordance with the applicable portions of Article 207 and Article 540 of the Standard Specifications. This work shall be paid for at the contract unit price per TON for Porous Granular Embankment.

Last 3' from the outer face of the each end section toe wall shall be impervious material, subject to approval of the Engineer.



**MEMBRANE WATERPROOFING FOR BURIED STRUCTURES**

GRANULAR CULVERT BACKFILL & BOX CULVERT DESIGN FILL							
STATION	PROPOSED BOX CULVERT SIZE	LENGTH (FEET)	TYPE	SKEW	DESIGN FILL		POROUS GRANULAR EMBANKMENT
					EDGE OF SHOULDER (MINIMUM)	PROFILE GRADE (MAXIMUM)	
17+27.00	8' X 2'	24	PRECAST	0°	1.00'	1.58'	55
TOTAL							55

SEE STANDARD PRECAST BOX CONFIGURATIONS IN ASTM C1577-11a

MODEL: D:\p\ch\17-42 over Trib. to Little Mud Creek (Iroquois)\CADD\CADD Sheets\1815-c001.dgn  
FILE NAME: V:\1815 - CH 42 over Trib. to Little Mud Creek (Iroquois)\CADD\CADD Sheets\1815-c001.dgn

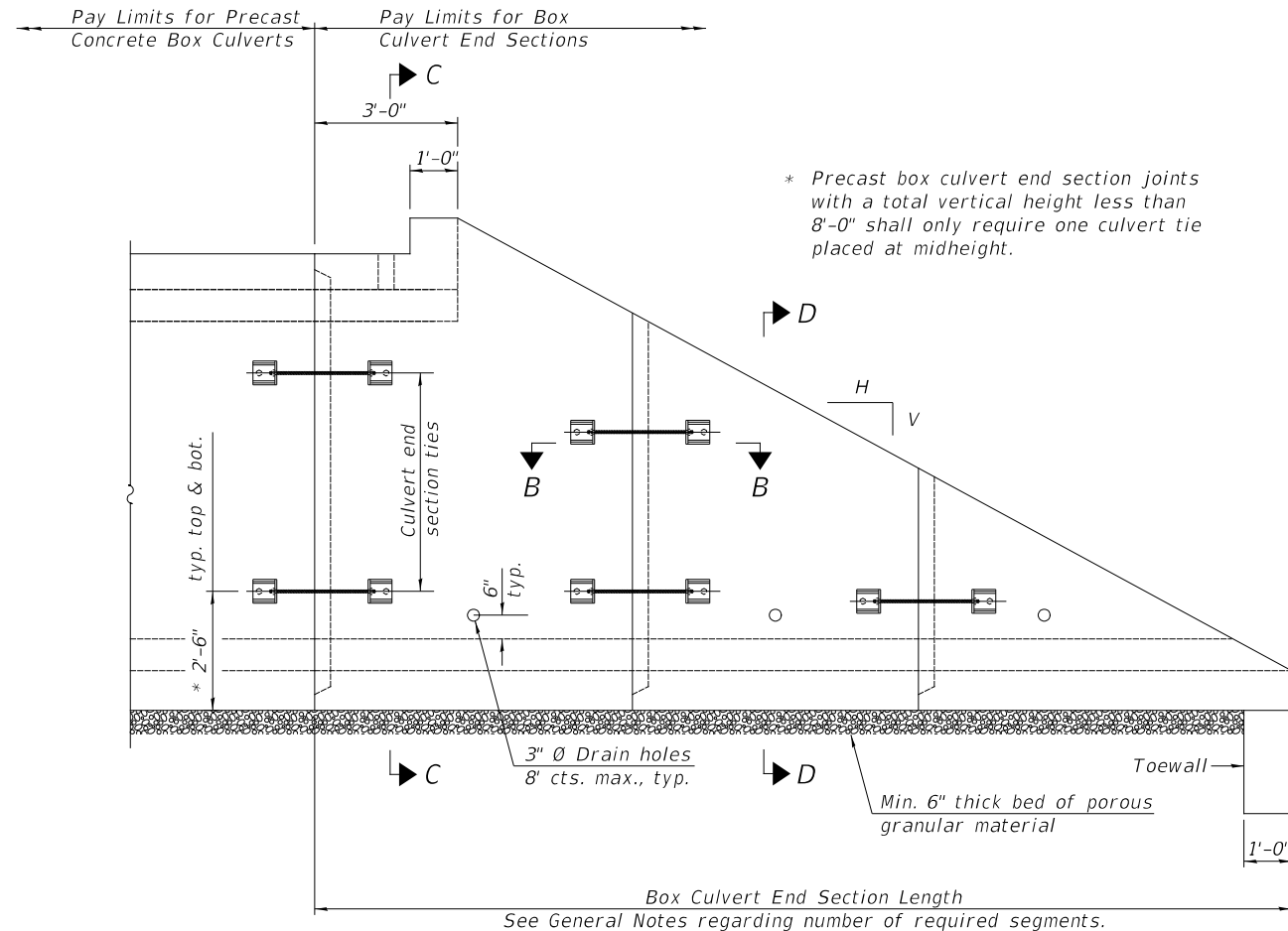
USER NAME = M0gden	DESIGNED - JPS	REVISED - _____
PLOT SCALE = \$SCALES	DRAWN - JPS	REVISED - _____
PLOT DATE = 12/16/2024	CHECKED - STM/MMO	REVISED - _____
	DATE - 12/16/2024	REVISED - _____

**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

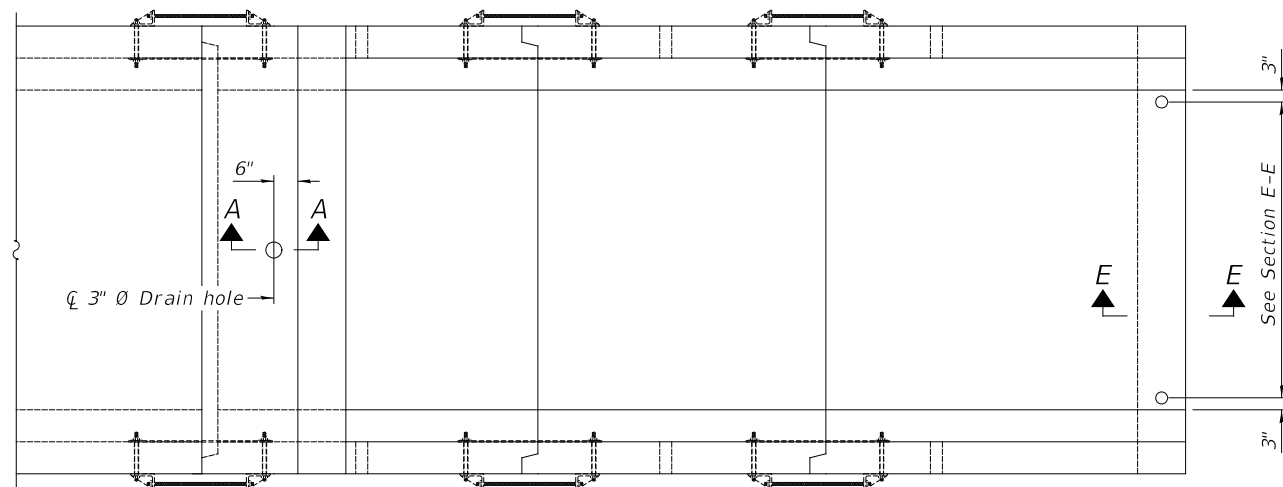
**PRECAST BOX CULVERT AND DETAILS**

SCALE: NONE SHEET NO. 1 OF 5 SHEETS STA. 17+27.00 TO STA. 17+27.00

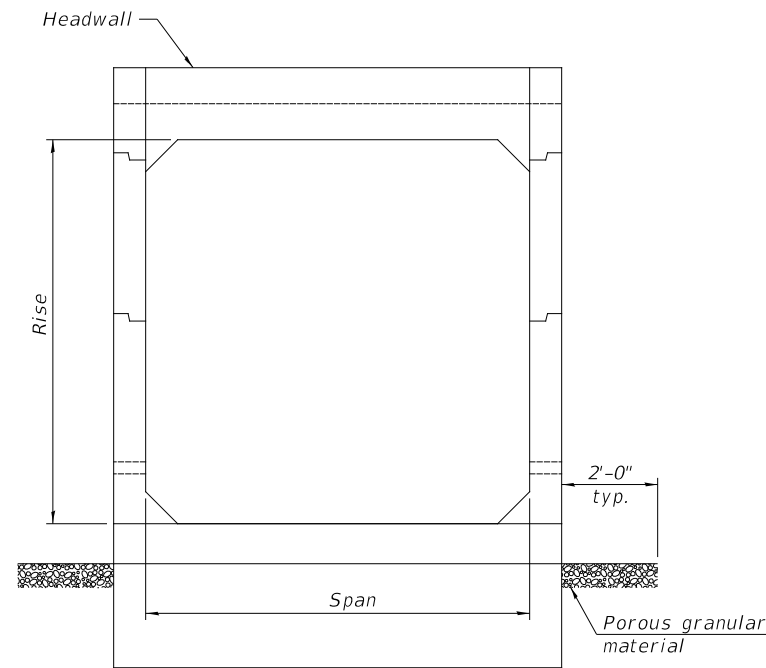
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	7
CONTRACT NO. 87769				
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT NO. UUK6(060)	



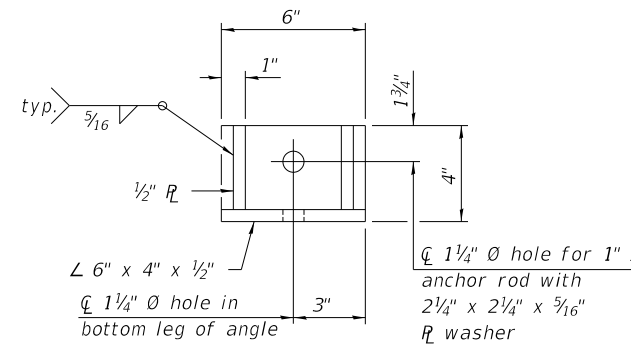
**ELEVATION**



**PLAN**



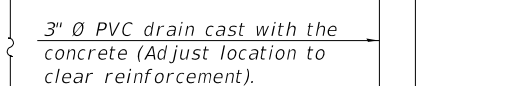
**END VIEW**



**RESTRAINT ANGLE DETAIL**

12" x 12" x 6" block of CA5, CA7, or CA11 coarse aggregate placed over drain opening. Block of aggregate shall be completely wrapped in nonwoven geotextile fabric.

Provide a double layer of 12" x 12" nonwoven geotextile fabric centered over the drain hole. Fabric shall be sealed to the concrete with mastic.



**SECTION A-A**

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.) (Sheet 1 of 2)

**GENERAL NOTES**

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. This work will be measured for payment as each, with each end of each culvert being one each. End sections will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

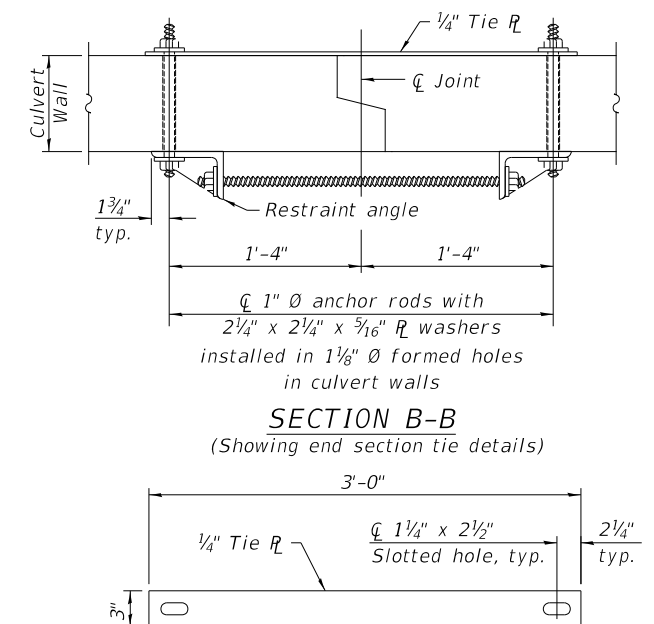
1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd..

For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.



**TIE PLATE DETAIL**

SCB-TES

2-17-2017

USER NAME = MOgden	DESIGNED - JPS	REVISED - _____
DRAWN - JPS	REVISED - _____	
PLOT SCALE = SSCALE5	CHECKED - STM/MMO	REVISED - _____
PLOT DATE = 12/16/2024	DATE - 12/16/2024	REVISED - _____

**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

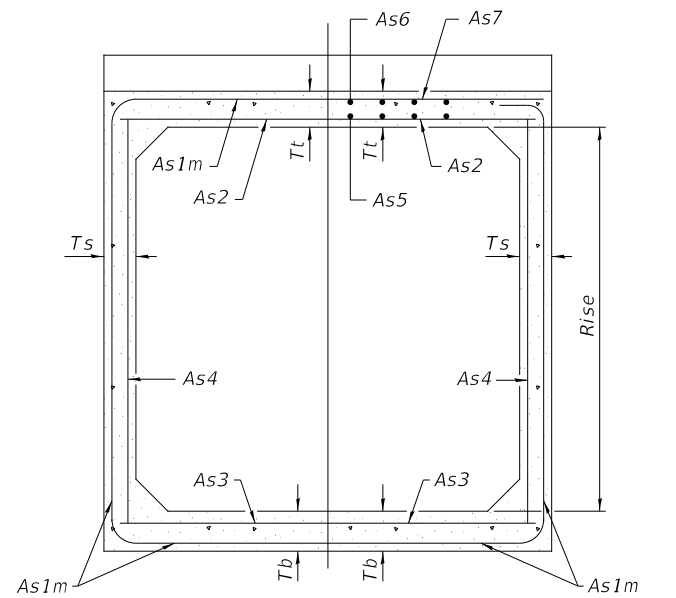
**SINGLE CELL PRECAST BOX CULVERT TAPERED END SECTIONS**

SCALE: NONE SHEET NO. 2 OF 5 SHEETS STA. 17+27.00 TO STA. 17+27.00

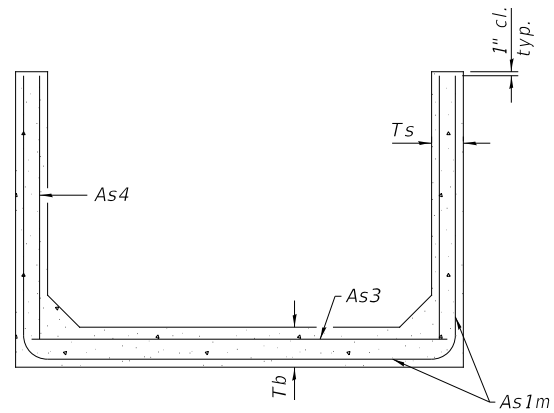
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	8
CONTRACT NO. 87769				
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT NO. UUK6(060)		

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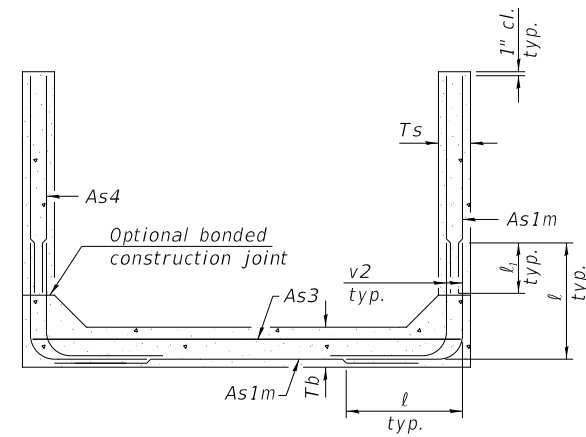




**SECTION C-C**



**SECTION D-D**



**ALTERNATE SECTION D-D**

		<b>As1m REINFORCEMENT</b>										
		(in. <sup>2</sup> /ft)										
Ts (in.)	Rise (ft)	2	3	4	5	6	7	8	9	10	11	12
4	0.19	0.17										
5	0.26	0.21	0.18									
6	0.22	0.26	0.23	0.22								
7	0.25	0.33	0.59	0.27	0.28							
8	0.40	0.35	0.43	0.39	0.36	0.34	0.40					
9	0.44	0.39	0.35	0.43	0.40	0.37	0.36	0.48				
10	0.48	0.42	0.38	0.47	0.44	0.41	0.38	0.42	0.56			
11	0.52	0.45	0.54	0.50	0.46	0.44	0.41	0.46	0.50	0.65		
12	0.55	0.49	0.58	0.54	0.50	0.48	0.45	0.46	0.46	0.61	0.75	

(As1m reinforcement based upon welded wire reinforcement conforming to AASHTO M 55 or M 221).

**ℓ<sub>1</sub> DIMENSION**

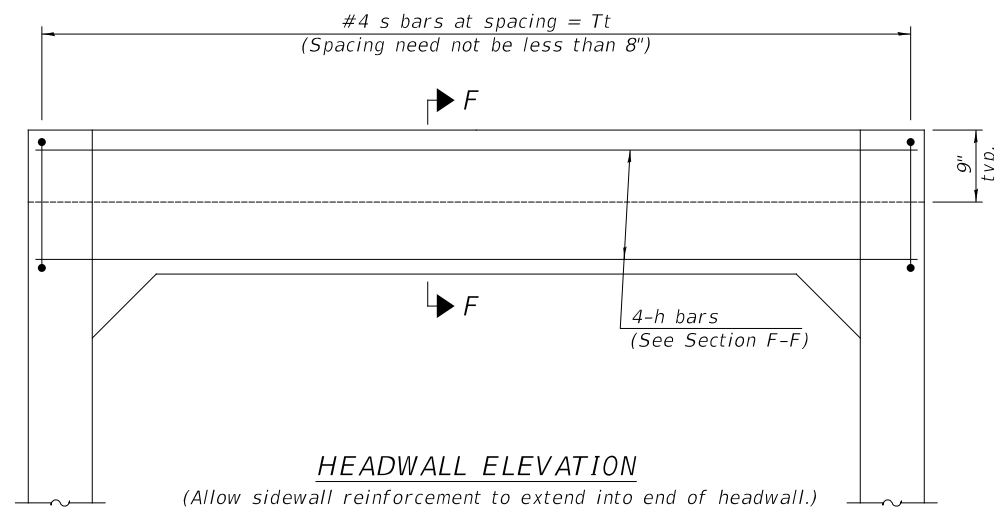
- #3 bar = 2'-0"
- #4 bar = 2'-8"
- #5 bar = 3'-4"
- #6 bar = 3'-11"

**Notes:**

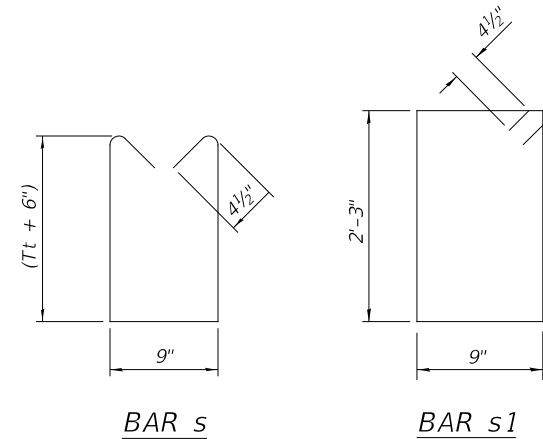
Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.

The size and spacing of the v2 bars shall provide a minimum reinforcement area along each face of the walls (in.<sup>2</sup>/ft.) equal to 1.10\*(As1m). v2 bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.



**HEADWALL ELEVATION**



**BAR s**

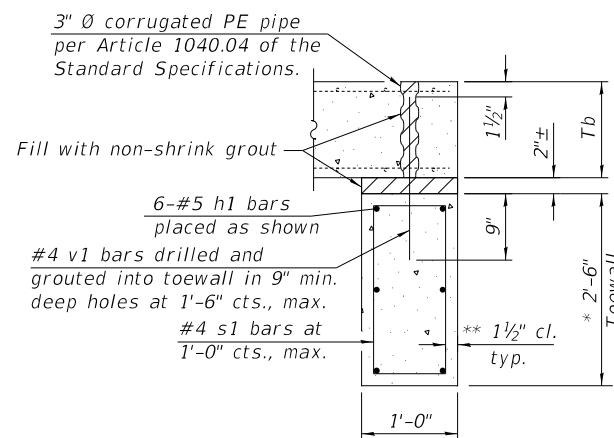
**BAR s1**

**TOEWALL CONSTRUCTION SEQUENCE**

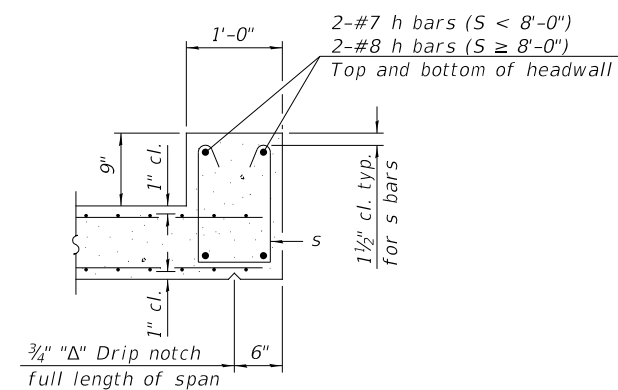
1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

\* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling the method.

\*\* If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.



**SECTION E-E**



**SECTION F-F**

(Sheet 2 of 2)

MODEL: D:\p\ch\17-00234-00-01.dwg FILE NAME: V:\17-00234-00-01.dwg

SCB-TES

2-17-2017

USER NAME = MOgden	DESIGNED - JPS	REVISED - _____
PLOT SCALE = 5/16	DRAWN - JPS	REVISED - _____
PLOT DATE = 12/16/2024	CHECKED - STM/MMO	REVISED - _____
	DATE - 12/16/2024	REVISED - _____

**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

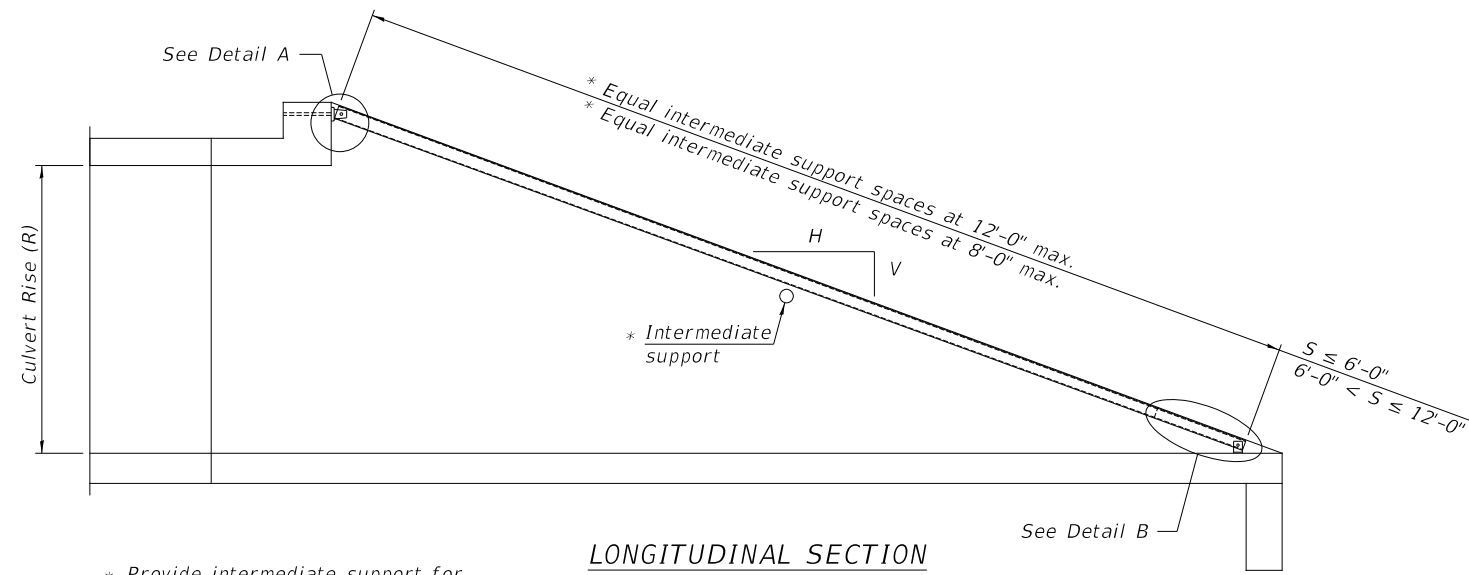
**SINGLE CELL PRECAST BOX CULVERT TAPERED END SECTIONS**

SCALE: NONE SHEET NO. 3 OF 5 SHEETS STA. 17+27.00 TO STA. 17+27.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	9
CONTRACT NO. 87769				
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT NO. UUK6(060)		

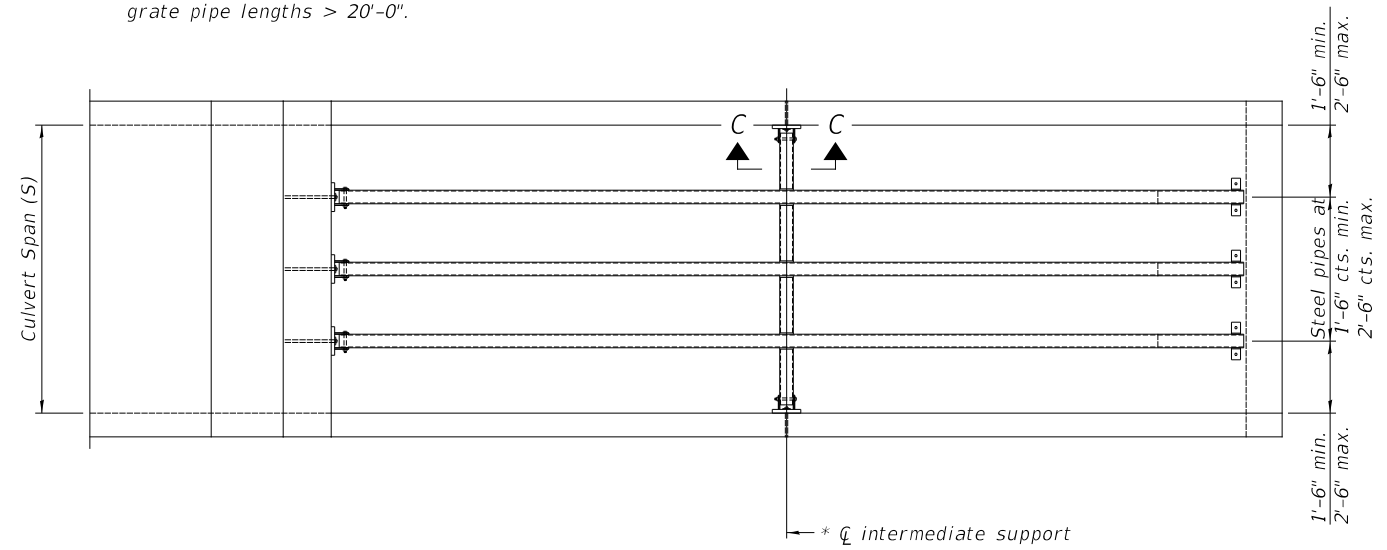
**GENERAL NOTES**

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1½" unless noted otherwise.  
 This standard shall only be used on concrete end sections not skewed more than ±15 degrees with roadway.  
 The Contractor may install the thru bolts using drilling and grouting in lieu of providing a formed hole using steel pipe. Installation shall be in accordance with Article 509.06 using a method that results in the annulus surrounding the bolt being completely filled with adhesive. The method of drilling shall not result in spalled concrete at the exit face. Epoxy grouted thru bolts shall be snug tightened followed by an additional ½ turn on the interior nut at final installation. Cost included with Traversable Pipe Grate.

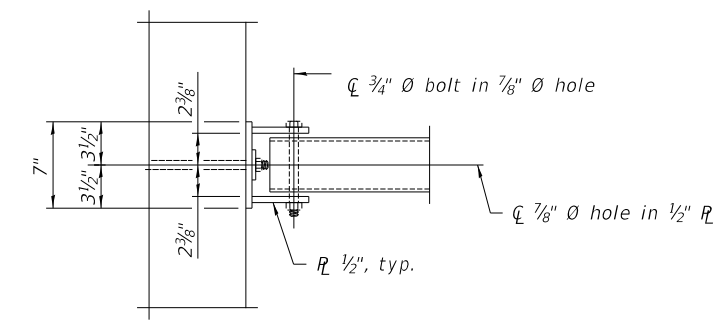


**LONGITUDINAL SECTION**

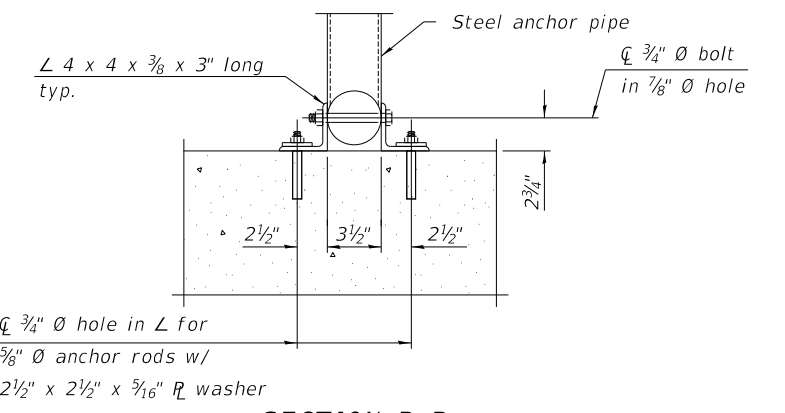
\* Provide intermediate support for grate pipe lengths > 20'-0".



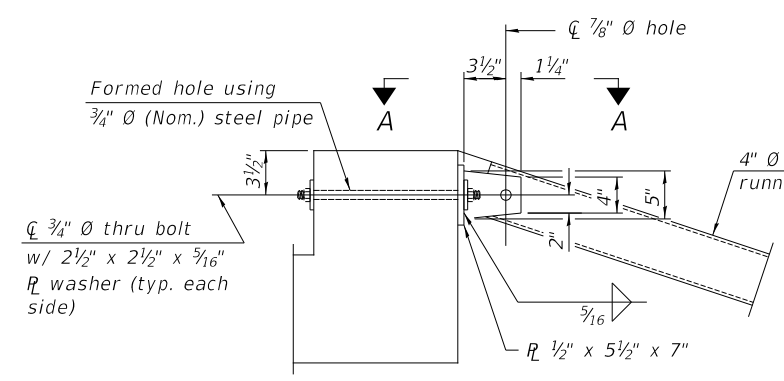
**PLAN VIEW**



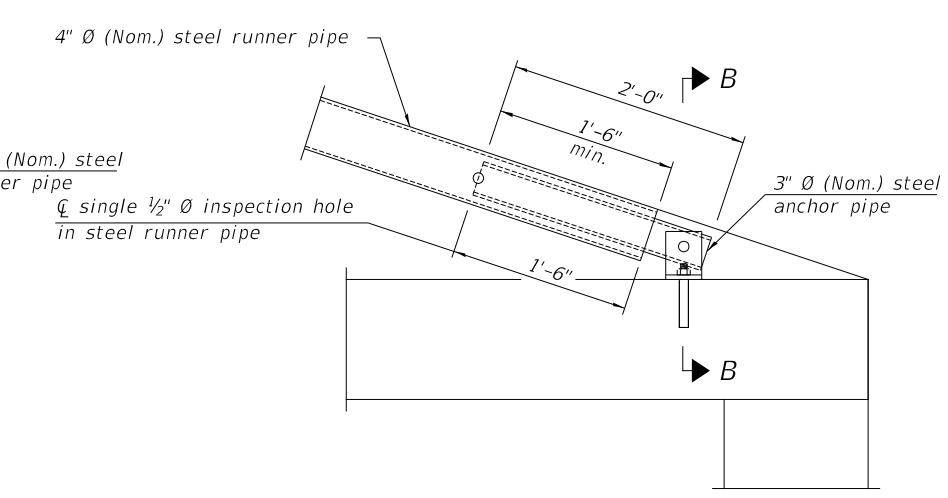
**VIEW A-A**



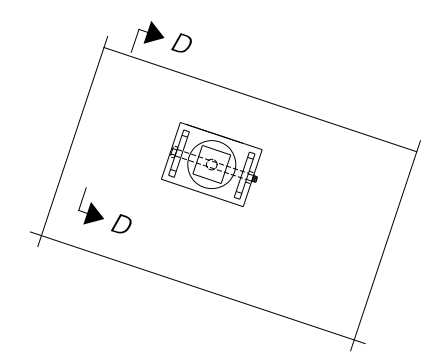
**SECTION B-B**



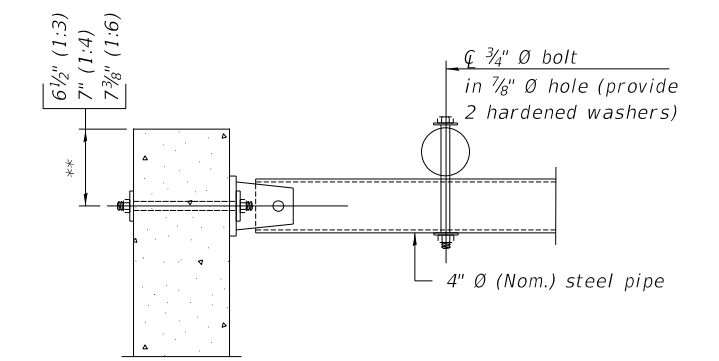
**DETAIL A**



**DETAIL B**



**VIEW C-C**  
(See Detail A for dimensions and details not shown.)



**SECTION D-D**

\*\* Measured perpendicular to top of culvert wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the culvert end section.

(Sheet 1 of 2)

MODEL: D:\cadd\1335 - CH 42 over Trib. to Little Mud Creek (Iroquois)\CADD\CADD Sheets\1335-001.dgn  
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TPGBC-ZS

2-17-2017

USER NAME = M0gden	DESIGNED - JPS	REVISED - _____
DRAWN - JPS	REVISED - _____	
PLOT SCALE = \$SCALE\$	CHECKED - STM/MMO	REVISED - _____
PLOT DATE = 12/16/2024	DATE - 12/16/2024	REVISED - _____

**IROQUOIS COUNTY  
 COUNTY HIGHWAY 42 OVER  
 TRIBUTARY TO LITTLE MUD CREEK**

**TRAVERSABLE PIPE GRATE FOR BOX CULVERTS**

SCALE: NONE SHEET NO. 4 OF 5 SHEETS STA. 17+27.00 TO STA. 17+27.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	10
CONTRACT NO. 87769				
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT NO. UUK6(060)		

**PIPE-GRATE SCHEDULE FOR BOX CULVERT END SECTIONS**

Precast Box Culvert Dimensions			Slope of End Section								
			1:3			1:4			1:6		
S (ft)	R (ft)	Tt (in)	Main Pipe No. / Length	Int. Support No. / Length	Total Length of Pipe	Main Pipe No. / Length	Int. Support No. / Length	Total Length of Pipe	Main Pipe No. / Length	Int. Support No. / Length	Total Length of Pipe
4	2	7.5	1 @ 8'-10"	N/A	8'-10"	1 @ 11'-7"	N/A	11'-7"	1 @ 17'-2"	N/A	17'-2"
4	2	5	1 @ 8'-2"	N/A	8'-2"	1 @ 10'-8"	N/A	10'-8"	1 @ 15'-11"	N/A	15'-11"
4	3	7.5	1 @ 12'-0"	N/A	12'-0"	1 @ 15'-8"	N/A	15'-8"	1 @ 23'-3"	1 @ 3'-7"	26'-10"
4	3	5	1 @ 11'-4"	N/A	11'-4"	1 @ 14'-10"	N/A	14'-10"	1 @ 22'-0"	1 @ 3'-7"	25'-7"
4	4	7.5	1 @ 15'-2"	N/A	15'-2"	1 @ 19'-10"	1 @ 3'-7"	23'-5"	1 @ 29'-4"	2 @ 3'-7"	36'-6"
4	4	5	1 @ 14'-6"	N/A	14'-6"	1 @ 18'-11"	N/A	18'-11"	1 @ 28'-1"	2 @ 3'-7"	35'-3"
5	2	8	1 @ 8'-11"	N/A	8'-11"	1 @ 11'-9"	N/A	11'-9"	1 @ 17'-5"	N/A	17'-5"
5	2	6	1 @ 8'-5"	N/A	8'-5"	1 @ 11'-1"	N/A	11'-1"	1 @ 16'-5"	N/A	16'-5"
5	3	8	1 @ 12'-1"	N/A	12'-1"	1 @ 15'-10"	N/A	15'-10"	1 @ 23'-6"	1 @ 4'-7"	28'-1"
5	3	6	1 @ 11'-7"	N/A	11'-7"	1 @ 15'-2"	N/A	15'-2"	1 @ 22'-6"	1 @ 4'-7"	27'-1"
5	4	8	1 @ 15'-3"	N/A	15'-3"	1 @ 20'-0"	1 @ 4'-7"	24'-7"	1 @ 29'-7"	2 @ 4'-7"	38'-9"
5	4	6	1 @ 14'-9"	N/A	14'-9"	1 @ 19'-3"	N/A	19'-3"	1 @ 28'-7"	2 @ 4'-7"	37'-9"
5	5	8	1 @ 18'-5"	N/A	18'-5"	1 @ 24'-1"	2 @ 4'-7"	33'-3"	1 @ 35'-8"	3 @ 4'-7"	49'-5"
5	5	6	1 @ 17'-11"	N/A	17'-11"	1 @ 23'-5"	1 @ 4'-7"	28'-0"	1 @ 34'-8"	2 @ 4'-7"	43'-10"
6	2	8	2 @ 8'-11"	N/A	17'-10"	2 @ 11'-9"	N/A	23'-6"	2 @ 17'-5"	N/A	34'-10"
6	2	7	2 @ 8'-8"	N/A	17'-4"	2 @ 11'-5"	N/A	22'-10"	2 @ 16'-11"	N/A	33'-10"
6	3	8	2 @ 12'-1"	N/A	24'-2"	2 @ 15'-10"	N/A	31'-8"	2 @ 23'-6"	1 @ 5'-7"	52'-7"
6	3	7	2 @ 11'-10"	N/A	23'-8"	2 @ 15'-6"	N/A	31'-0"	2 @ 23'-0"	1 @ 5'-7"	51'-7"
6	4	8	2 @ 15'-3"	N/A	30'-6"	2 @ 20'-0"	1 @ 5'-7"	45'-7"	2 @ 29'-7"	2 @ 5'-7"	70'-4"
6	4	7	2 @ 15'-0"	N/A	30'-0"	2 @ 19'-8"	1 @ 5'-7"	44'-11"	2 @ 29'-1"	2 @ 5'-7"	69'-4"
6	5	8	2 @ 18'-5"	N/A	36'-10"	2 @ 24'-1"	2 @ 5'-7"	59'-4"	2 @ 35'-8"	3 @ 5'-7"	88'-1"
6	5	7	2 @ 18'-2"	N/A	36'-4"	2 @ 23'-9"	2 @ 5'-7"	58'-8"	2 @ 35'-2"	2 @ 5'-7"	81'-6"
6	6	8	2 @ 21'-7"	1 @ 5'-7"	48'-9"	2 @ 28'-3"	2 @ 5'-7"	67'-8"	2 @ 41'-9"	3 @ 5'-7"	100'-3"
6	6	7	2 @ 21'-4"	1 @ 5'-7"	48'-3"	2 @ 27'-11"	2 @ 5'-7"	67'-0"	2 @ 41'-3"	3 @ 5'-7"	99'-3"
7	2	8	2 @ 8'-11"	N/A	17'-10"	2 @ 11'-9"	N/A	23'-6"	2 @ 17'-5"	N/A	34'-10"
7	3	8	2 @ 12'-1"	N/A	24'-2"	2 @ 15'-10"	N/A	31'-8"	2 @ 23'-6"	2 @ 6'-7"	60'-2"
7	4	8	2 @ 15'-3"	N/A	30'-6"	2 @ 20'-0"	2 @ 6'-7"	53'-2"	2 @ 29'-7"	3 @ 6'-7"	78'-11"
7	5	8	2 @ 18'-5"	N/A	36'-10"	2 @ 24'-1"	3 @ 6'-7"	67'-11"	2 @ 35'-8"	4 @ 6'-7"	97'-8"
7	6	8	2 @ 21'-7"	2 @ 6'-7"	56'-4"	2 @ 28'-3"	3 @ 6'-7"	76'-3"	2 @ 41'-9"	5 @ 6'-7"	116'-5"
7	7	8	2 @ 24'-9"	3 @ 6'-7"	69'-3"	2 @ 32'-4"	4 @ 6'-7"	91'-0"	2 @ 47'-10"	6 @ 6'-7"	135'-2"
8	2	8	3 @ 8'-11"	N/A	26'-9"	3 @ 11'-9"	N/A	35'-3"	3 @ 17'-5"	N/A	52'-3"
8	3	8	3 @ 12'-1"	N/A	36'-3"	3 @ 15'-10"	N/A	47'-6"	3 @ 23'-6"	2 @ 7'-7"	85'-8"
8	4	8	3 @ 15'-3"	N/A	45'-9"	3 @ 20'-0"	2 @ 7'-7"	75'-2"	3 @ 29'-7"	3 @ 7'-7"	111'-6"
8	5	8	3 @ 18'-5"	N/A	55'-3"	3 @ 24'-1"	3 @ 7'-7"	95'-0"	3 @ 35'-8"	4 @ 7'-7"	137'-4"
8	6	8	3 @ 21'-7"	2 @ 7'-7"	79'-11"	3 @ 28'-3"	3 @ 7'-7"	107'-6"	3 @ 41'-9"	5 @ 7'-7"	163'-2"
8	7	8	3 @ 24'-9"	3 @ 7'-7"	97'-0"	3 @ 32'-4"	4 @ 7'-7"	127'-4"	3 @ 47'-10"	6 @ 7'-7"	189'-0"
8	8	8	3 @ 27'-11"	3 @ 7'-7"	106'-6"	3 @ 36'-6"	4 @ 7'-7"	139'-10"	3 @ 53'-11"	6 @ 7'-7"	207'-3"
9	2	9	3 @ 9'-3"	N/A	27'-9"	3 @ 12'-1"	N/A	36'-3"	3 @ 17'-11"	N/A	53'-9"
9	3	9	3 @ 12'-4"	N/A	37'-0"	3 @ 16'-2"	N/A	48'-6"	3 @ 24'-0"	3 @ 8'-7"	97'-9"
9	4	9	3 @ 15'-6"	N/A	46'-6"	3 @ 20'-4"	2 @ 8'-7"	78'-2"	3 @ 30'-1"	3 @ 8'-7"	116'-0"
9	5	9	3 @ 18'-8"	N/A	56'-0"	3 @ 24'-5"	3 @ 8'-7"	99'-0"	3 @ 36'-2"	4 @ 8'-7"	142'-10"
9	6	9	3 @ 21'-10"	2 @ 8'-7"	82'-8"	3 @ 28'-7"	3 @ 8'-7"	111'-6"	3 @ 42'-3"	5 @ 8'-7"	169'-8"
9	7	9	3 @ 25'-0"	3 @ 8'-7"	100'-9"	3 @ 32'-8"	4 @ 8'-7"	132'-4"	3 @ 48'-4"	6 @ 8'-7"	196'-6"
9	8	9	3 @ 28'-2"	3 @ 8'-7"	110'-3"	3 @ 36'-10"	4 @ 8'-7"	144'-10"	3 @ 54'-5"	6 @ 8'-7"	214'-9"
9	9	9	3 @ 31'-4"	3 @ 8'-7"	119'-9"	3 @ 40'-11"	5 @ 8'-7"	165'-8"	3 @ 60'-6"	7 @ 8'-7"	241'-7"
10	2	10	3 @ 9'-6"	N/A	28'-6"	3 @ 12'-5"	N/A	37'-3"	3 @ 18'-5"	N/A	55'-3"
10	3	10	3 @ 12'-8"	N/A	38'-0"	3 @ 16'-6"	N/A	49'-6"	3 @ 24'-6"	3 @ 9'-7"	102'-3"
10	4	10	3 @ 15'-10"	N/A	47'-6"	3 @ 20'-8"	2 @ 9'-7"	81'-2"	3 @ 30'-7"	3 @ 9'-7"	120'-6"
10	5	10	3 @ 19'-0"	N/A	57'-0"	3 @ 24'-9"	3 @ 9'-7"	103'-0"	3 @ 36'-8"	4 @ 9'-7"	148'-4"
10	6	10	3 @ 22'-1"	2 @ 9'-7"	85'-5"	3 @ 28'-11"	3 @ 9'-7"	115'-6"	3 @ 42'-9"	5 @ 9'-7"	176'-2"
10	7	10	3 @ 25'-3"	3 @ 9'-7"	104'-6"	3 @ 33'-0"	4 @ 9'-7"	137'-4"	3 @ 48'-10"	6 @ 9'-7"	204'-0"
10	8	10	3 @ 28'-5"	3 @ 9'-7"	114'-0"	3 @ 37'-2"	4 @ 9'-7"	149'-10"	3 @ 54'-11"	6 @ 9'-7"	222'-3"
10	9	10	3 @ 31'-7"	4 @ 9'-7"	133'-1"	3 @ 41'-3"	5 @ 9'-7"	171'-8"	3 @ 61'-0"	7 @ 9'-7"	250'-1"
10	10	10	3 @ 34'-9"	4 @ 9'-7"	142'-7"	3 @ 45'-5"	5 @ 9'-7"	184'-2"	3 @ 67'-1"	8 @ 9'-7"	277'-11"
11	2	11	4 @ 9'-9"	N/A	39'-0"	4 @ 12'-9"	N/A	51'-0"	4 @ 18'-11"	N/A	75'-8"
11	3	11	4 @ 12'-11"	N/A	51'-8"	4 @ 16'-11"	N/A	67'-8"	4 @ 25'-0"	3 @ 10'-7"	131'-9"
11	4	11	4 @ 16'-1"	N/A	64'-4"	4 @ 21'-0"	2 @ 10'-7"	105'-2"	4 @ 31'-1"	3 @ 10'-7"	156'-1"
11	6	11	4 @ 22'-5"	2 @ 10'-7"	110'-10"	4 @ 29'-3"	3 @ 10'-7"	148'-9"	4 @ 43'-3"	5 @ 10'-7"	225'-11"
11	8	11	4 @ 28'-9"	3 @ 10'-7"	146'-9"	4 @ 37'-6"	4 @ 10'-7"	192'-4"	4 @ 55'-5"	6 @ 10'-7"	285'-2"
11	10	11	4 @ 35'-0"	4 @ 10'-7"	182'-4"	4 @ 45'-9"	4 @ 10'-7"	235'-11"	4 @ 67'-7"	8 @ 10'-7"	355'-0"
11	11	11	4 @ 38'-2"	4 @ 10'-7"	195'-0"	4 @ 49'-10"	6 @ 10'-7"	262'-10"	4 @ 73'-8"	9 @ 10'-7"	389'-11"
12	2	12	4 @ 10'-0"	N/A	40'-0"	4 @ 13'-1"	N/A	52'-4"	4 @ 19'-5"	N/A	77'-8"
12	3	12	4 @ 13'-2"	N/A	52'-8"	4 @ 17'-3"	N/A	69'-0"	4 @ 25'-6"	3 @ 11'-7"	136'-9"
12	4	12	4 @ 16'-4"	N/A	65'-4"	4 @ 21'-4"	2 @ 11'-7"	108'-6"	4 @ 31'-7"	4 @ 11'-7"	172'-8"
12	6	12	4 @ 22'-8"	2 @ 11'-7"	113'-10"	4 @ 29'-7"	3 @ 11'-7"	153'-1"	4 @ 43'-9"	5 @ 11'-7"	232'-11"
12	8	12	4 @ 29'-0"	3 @ 11'-7"	150'-9"	4 @ 37'-10"	4 @ 11'-7"	197'-8"	4 @ 55'-11"	7 @ 11'-7"	304'-9"
12	10	12	4 @ 35'-4"	4 @ 11'-7"	187'-8"	4 @ 46'-1"	5 @ 11'-7"	242'-3"	4 @ 68'-1"	8 @ 11'-7"	365'-0"
12	12	12	4 @ 41'-8"	5 @ 11'-7"	224'-7"	4 @ 54'-4"	6 @ 11'-7"	286'-10"	4 @ 80'-3"	10 @ 11'-7"	436'-10"

(Sheet 2 of 2)

TPGBC-ZS

2-17-2017

MODEL: D:\cadd\15-CH-42-over-Trib-to-Little-Mud-Creek-Iroquois\CADD\CADD\_Schedule1815-c001.dgn

USER NAME = M0gden	DESIGNED - JPS	REVISED - _____
PLOT SCALE = sSCALE5	CHECKED - STM/MMO	REVISED - _____
PLOT DATE = 12/16/2024	DATE - 12/16/2024	REVISED - _____

**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

**TRAVERSABLE PIPE GRATE FOR BOX CULVERTS**

SCALE: NONE SHEET NO. 5 OF 5 SHEETS STA. 17+27.00 TO STA. 17+27.00

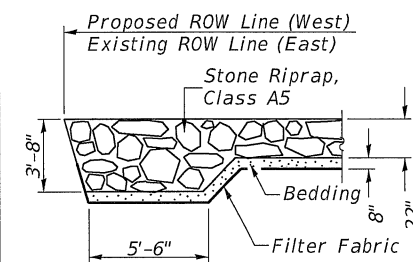
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	11
CONTRACT NO. 87769				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT NO. UUK6(060)		

B.M.: RR Spike in Power Pole Sta. 17+85.38' Rt. Elev. 664.57  
 R.R. Spike in Power Pole Sta. 23+50.31' Rt. Elev. 665.08

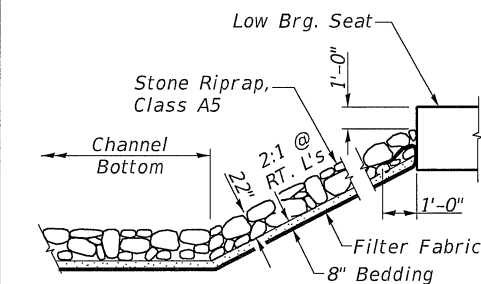
Existing Structure:  
 Single span concrete slab bridge supported on closed concrete abutments with concrete wingwalls. The structure is 28'-0" back to back of abutments, 26'-6" out to out deck, and is skewed ±15° Rt. ahead.  
 Str. No. 038-3008

Salvage: None  
 Road to be closed to traffic during construction.

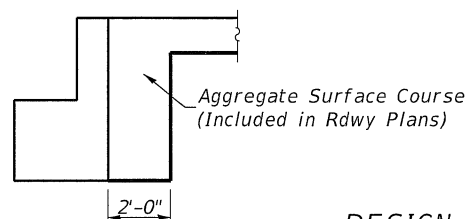
\*Terminal Marker-Direct Applied to be placed on Curled End Sections in accordance with Std. 725001



SECTION A-A



STONE RIPRAP DETAIL



SECTION B-B

See Special Provisions for gradation requirements.

DESIGNED	J.P.S.
CHECKED	M.M.O.
DRAWN	J.P.S.
CHECKED	S.T.M./J.E.H.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)		Item 113
S. Abut.	N. Abut.	
Q100	659.7	8
Q200	659.7	
Design	659.7	
Check	659.7	

OVER-THE-ROAD AREA

Freq. Yr.	Exist.	Prop.
15	0	0
100	194	0

WATERWAY INFORMATION

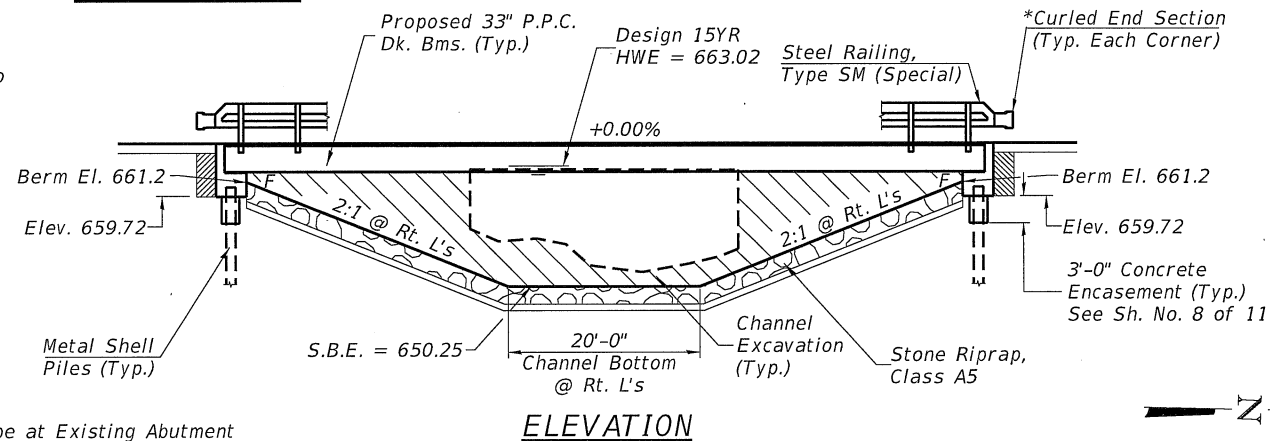
Drainage Area = 8.94 Sq. Mi.		Low Grade Elev. = 664.66 @ Sta. 15+93.00							
Flood Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Prop.		
Design	15	1,503	232	524	663.02	0.73	0.13	663.75	663.15
Base	100	2,420	232	524	664.02	0.53	0.66	664.55	664.68

TRIBUTARY TO LITTLE MUD CREEK  
 BUILT 202 BY  
 IROQUOIS COUNTY  
 SEC 17-00234-00-BR  
 C.H. 42 STATION 20+03.00  
 F.A. PROJ. NO. UUKE(060)  
 STR. NO. 038-3016 LOADING HL-93

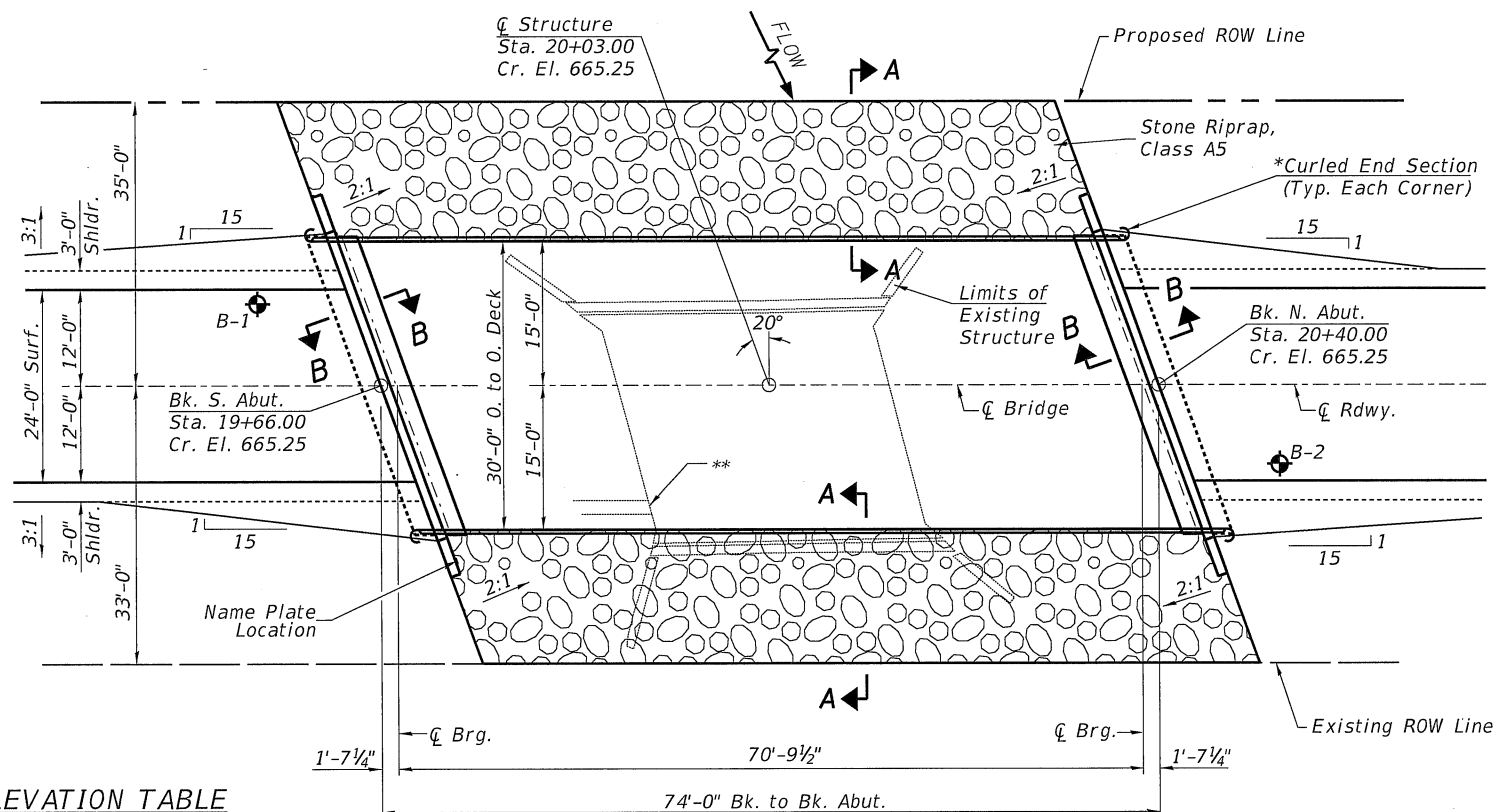
NAME PLATE

Locate Name Plate at S.E. Wingwall Corner of Bridge (See Std. 515001)

PROFILE GRADE



ELEVATION



PLAN

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

(FIELD UNITS) (PRECAST PRESTRESSED UNITS)  
 $f'_c = 3,500$  p.s.i.  $f'_c = 6,000$  p.s.i.  
 $f_y = 60,000$  p.s.i. (Rein.)  $f'_{ci} = 5,000$  p.s.i.  
 $f'_s = 270,000$  p.s.i. ( $1/2$ " Strands)  $f'_{si} = 201,960$  p.s.i. ( $1/2$ " Strands)

LOADING HL-93

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

GENERAL NOTES

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.  
 For Soil Boring Logs, See Sheets 9 thru 11 of 11.  
 A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Articles 1020.05(b)(10) and 1021.07 of the Standard Specifications.  
 Reinforcement Bars designated (E) shall be epoxy coated.  
 Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.  
 The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.  
 Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.

TOTAL BILL OF MATERIAL

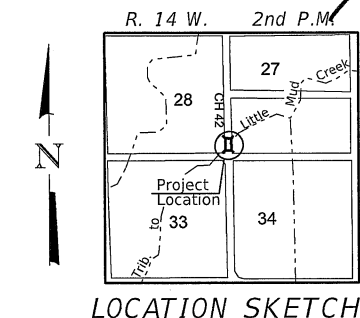
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD		650	650
Stone Riprap, Class A5	TON		700	700
Filter Fabric	SQ YD		615	615
Removal of Existing Structures	EACH			1
Structure Excavation	CU YD		60	60
Concrete Structures	CU YD		28.8	28.8
Concrete Encasement	CU YD		2.6	2.6
Precast Prestressed Concrete Deck Beams (33" Depth)	SQ FT	2,160		2,160
Reinforcement Bars	POUND		3,110	3,110
Furnishing Metal Shell Piles 12"x0.250"	FOOT		440	440
Driving Piles	FOOT		440	440
Test Pile Metal Shells	EACH		2	2
Name Plates	EACH		1	1
Controlled Low-Strength Material	CU YD		8.0	8.0
Terminal Marker - Direct Applied	EACH	4		4
Steel Railing, Type SM (Special)	FOOT	148		148

See Special Provisions



I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specification for Highway Bridges.  
 This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

Illinois Structural No. 6440  
 Expires 11/30/2026



LOCATION SKETCH

GENERAL PLAN AND ELEVATION

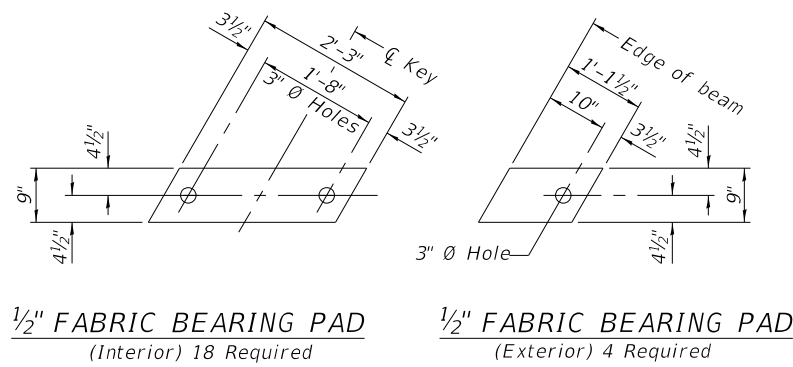
IROQUOIS COUNTY

SECTION 17-00234-00-BR

F.A.S. 1335 (C.H. 42) OVER

TRIB. TO LITTLE MUD CREEK

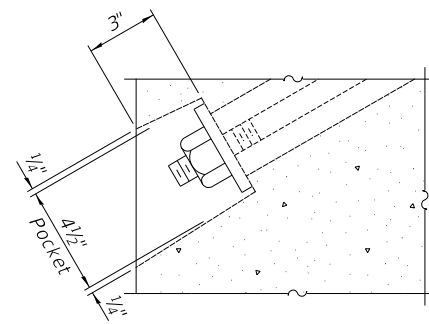
SHEET NO. 1	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11 SHEETS	1335	17-00234-00-BR	IROQUOIS	32	12
S.N. 038-3016			CONTRACT NO. 87769		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT NO. UUKE(060)		



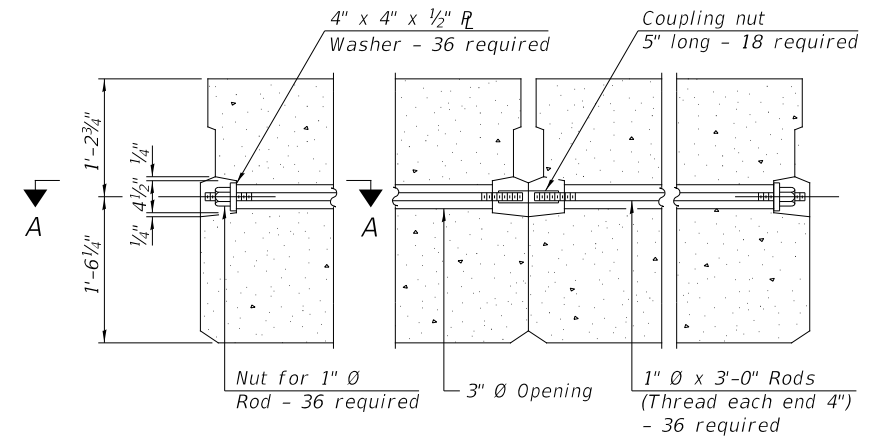
**1/2" FABRIC BEARING PAD**  
(Interior) 18 Required

**1/2" FABRIC BEARING PAD**  
(Exterior) 4 Required

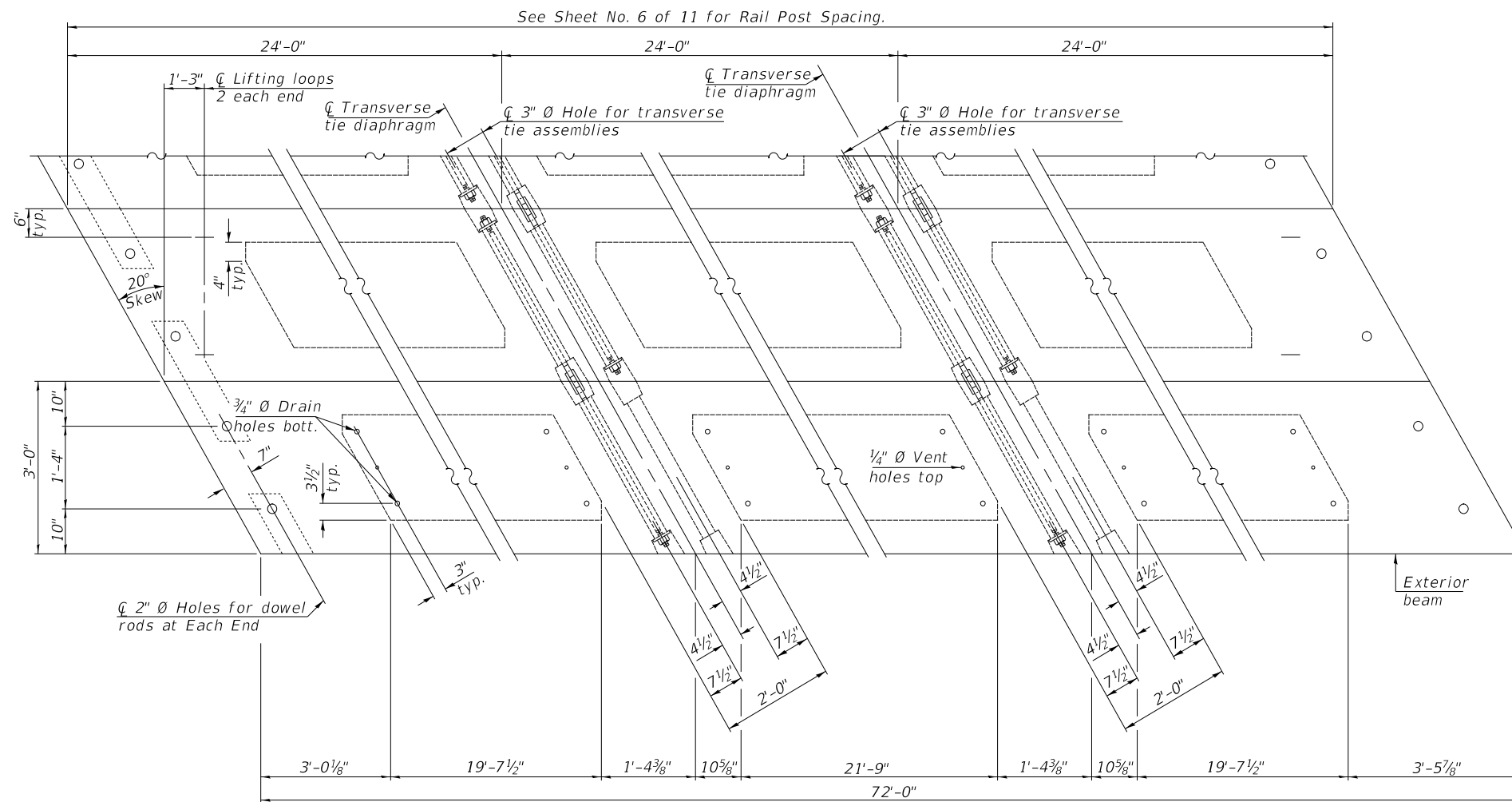
**FIXED**



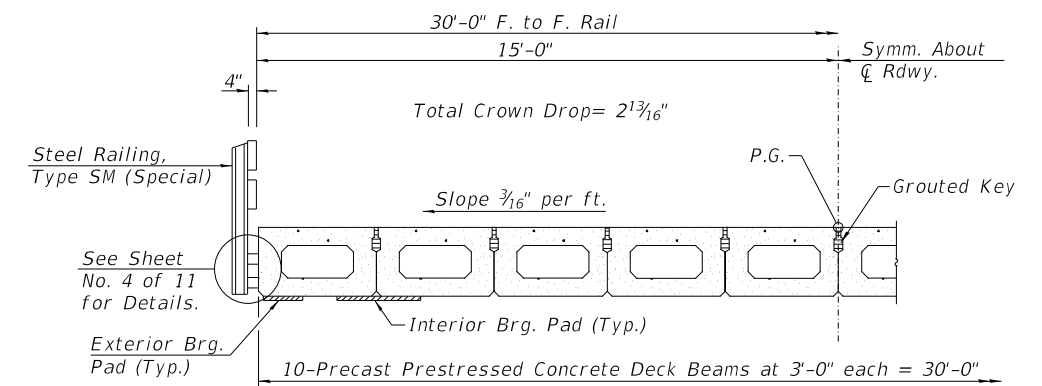
**SECTION A-A**



**TYPICAL TRANSVERSE TIE ASSEMBLY**



**PLAN VIEW**



**HALF CROSS SECTION**

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Precast Prestressed Concrete Deck Beams (33" Depth)	SQ FT	2,160

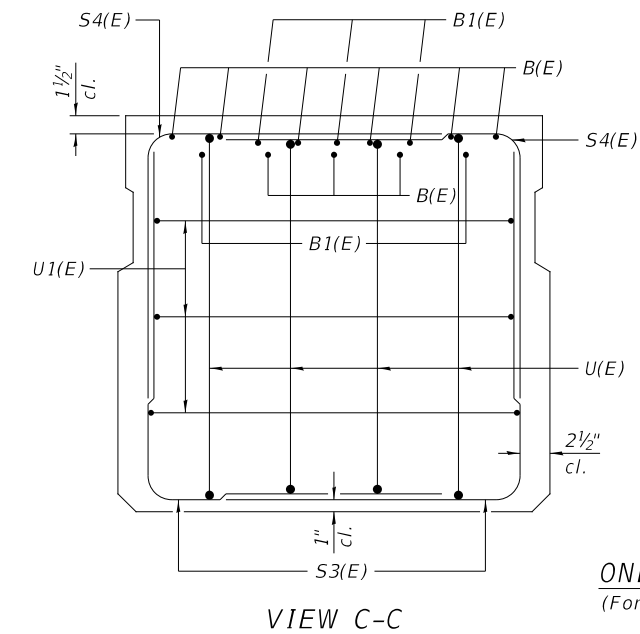
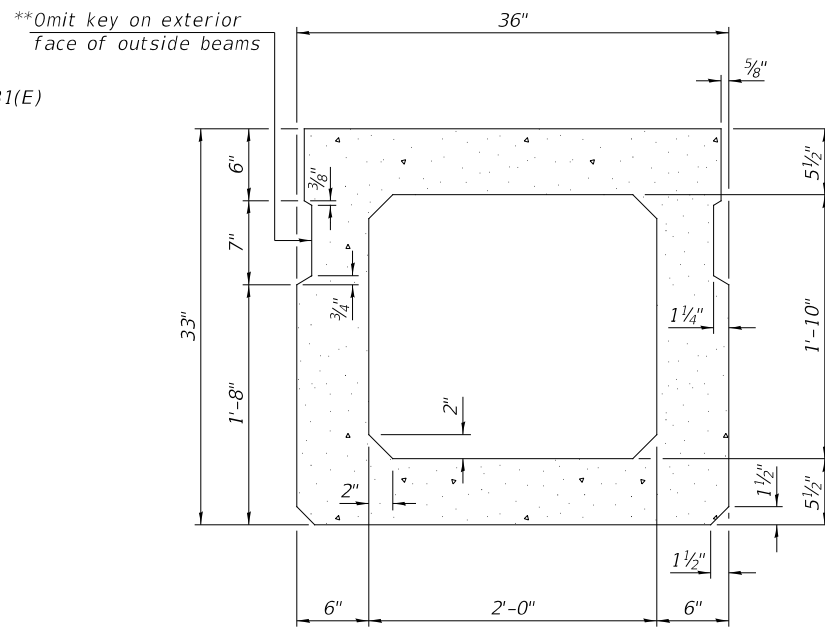
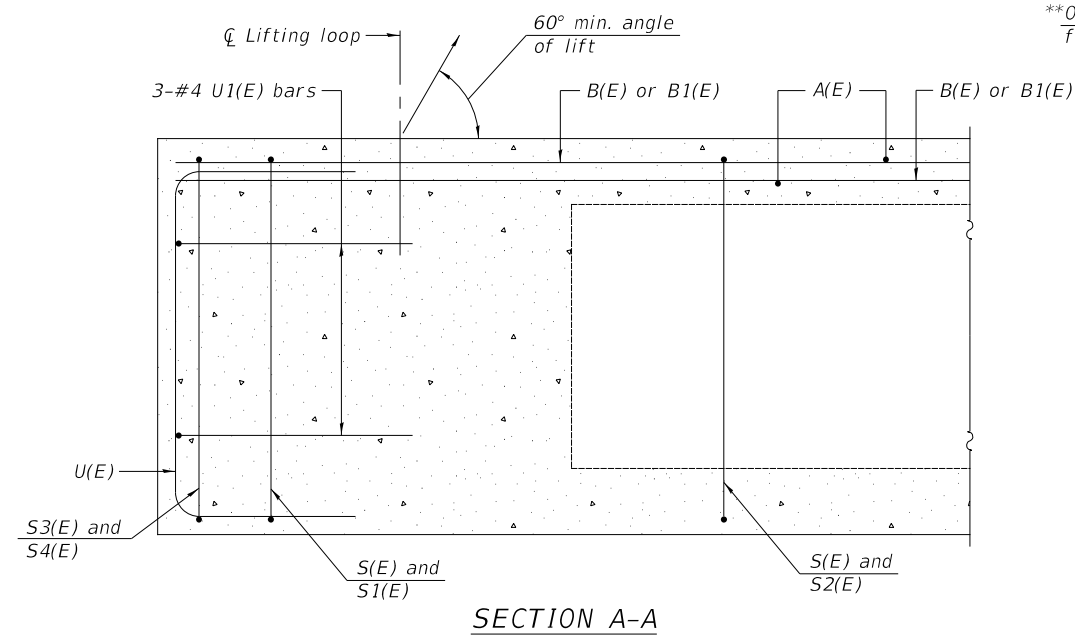
Note:  
Connect beams in pairs with the transverse tie configuration shown.

**NOTES**

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

**SUPERSTRUCTURE**  
**IROQUOIS COUNTY**  
**SECTION 17-00234-00-BR**  
**F.A.S. 1335 (C.H. 42) OVER**  
**TRIB. TO LITTLE MUD CREEK**

SHEET NO. 2 11 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1335	17-00234-00-BR	IROQUOIS	32	13
	S.N. 038-3016		CONTRACT NO. 87769		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT NO. UUK(060)		

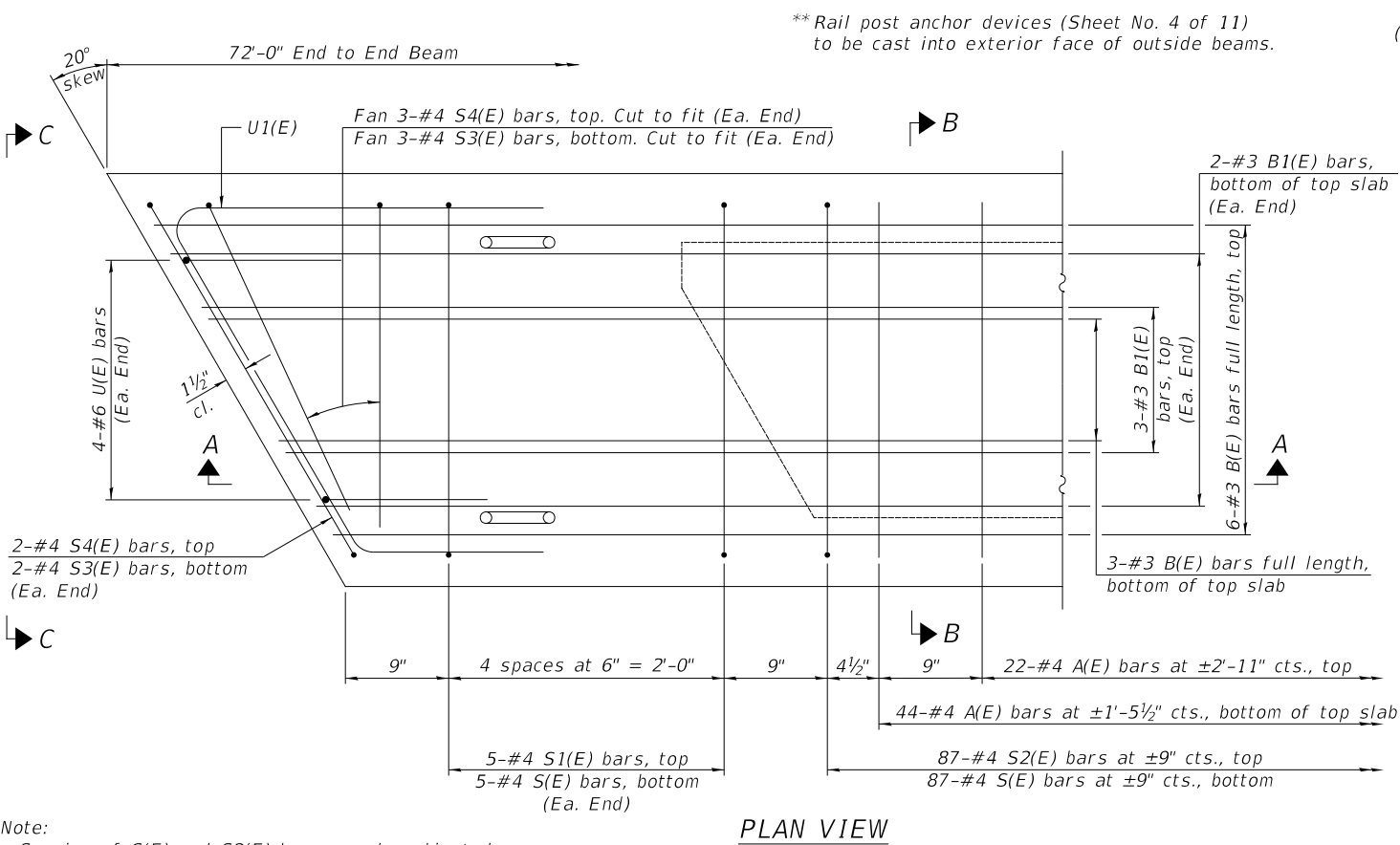


**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

BAR	NO.	SIZE	LENGTH	SHAPE
A(E)	66	#4	2'-7"	—
B(E)	9	#3	*71'-9"	—
B1(E)	10	#3	10'-0"	—
S(E)	97	#4	7'-8"	┌
S1(E)	10	#4	6'-5"	┌
S2(E)	87	#4	6'-8"	┌
S3(E)	10	#4	5'-4"	┌
S4(E)	10	#4	4'-8"	┌
U(E)	8	#6	5'-0"	┌
U1(E)	6	#4	6'-1"	┌

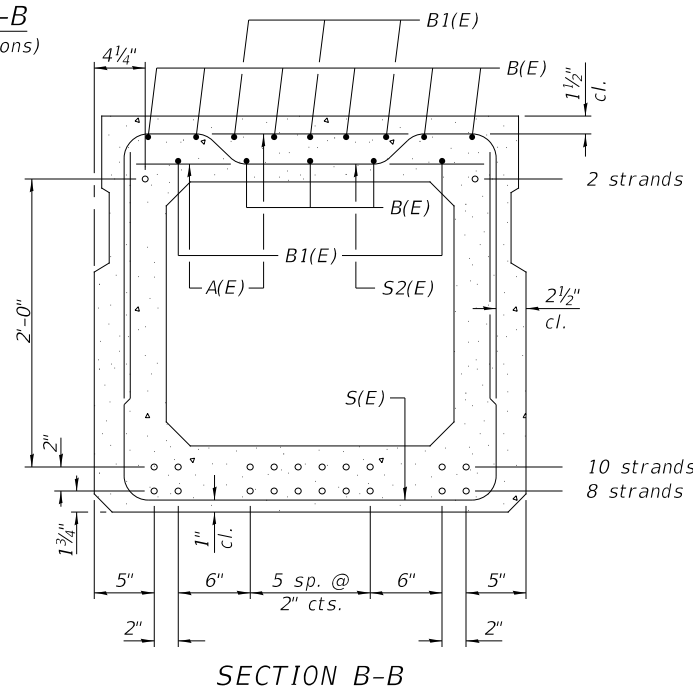
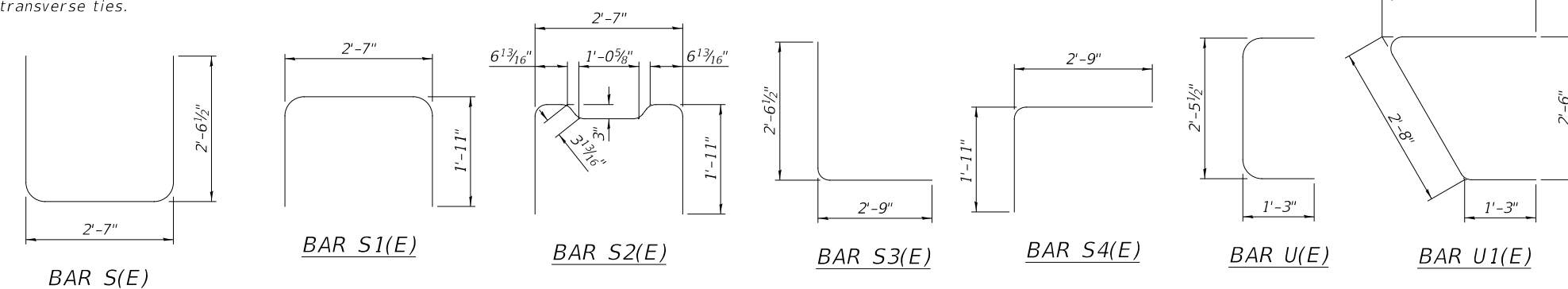
Note:  
See Sheet No. 2 of 11 for additional details and Bill of Material.

\*Total length, lap as necessary.  
**MINIMUM BAR LAP**  
#3 bar = 1'-6"



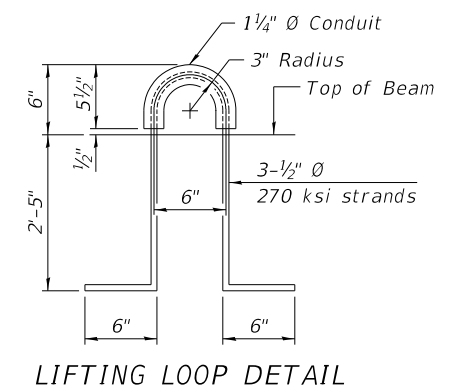
Note:  
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

**PLAN VIEW**



**SECTION B-B**  
(Showing reinforcement and permissible strand locations)  
20-1/2" Ø Strands Each Strand Stressed to 30,900 Lbs.  
8-Strands 1 3/4" up, 10-Strands 3 3/4" up, 2-Strands 2 7/8" up,

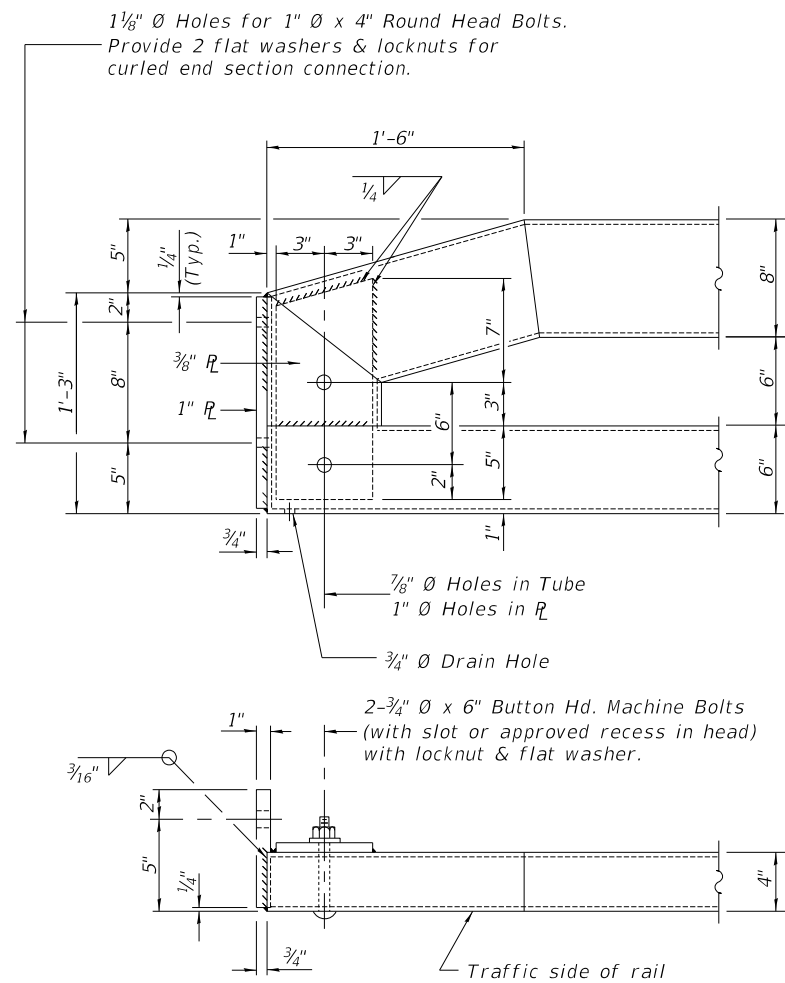
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.



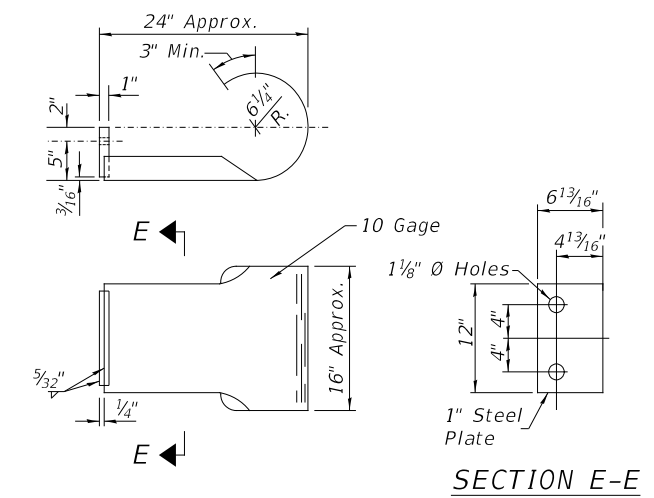
**SUPERSTRUCTURE DETAILS**  
**IROQUOIS COUNTY**  
**SECTION 17-00234-00-BR**  
**F.A.S. 1335 (C.H. 42) OVER**  
**TRIB. TO LITTLE MUD CREEK**

SHEET NO. 3 11 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1335	17-00234-00-BR	IROQUOIS	32	14
	S.N. 038-3016		CONTRACT NO. 87769		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT NO. UUK(060)		





END OF RAIL DETAILS



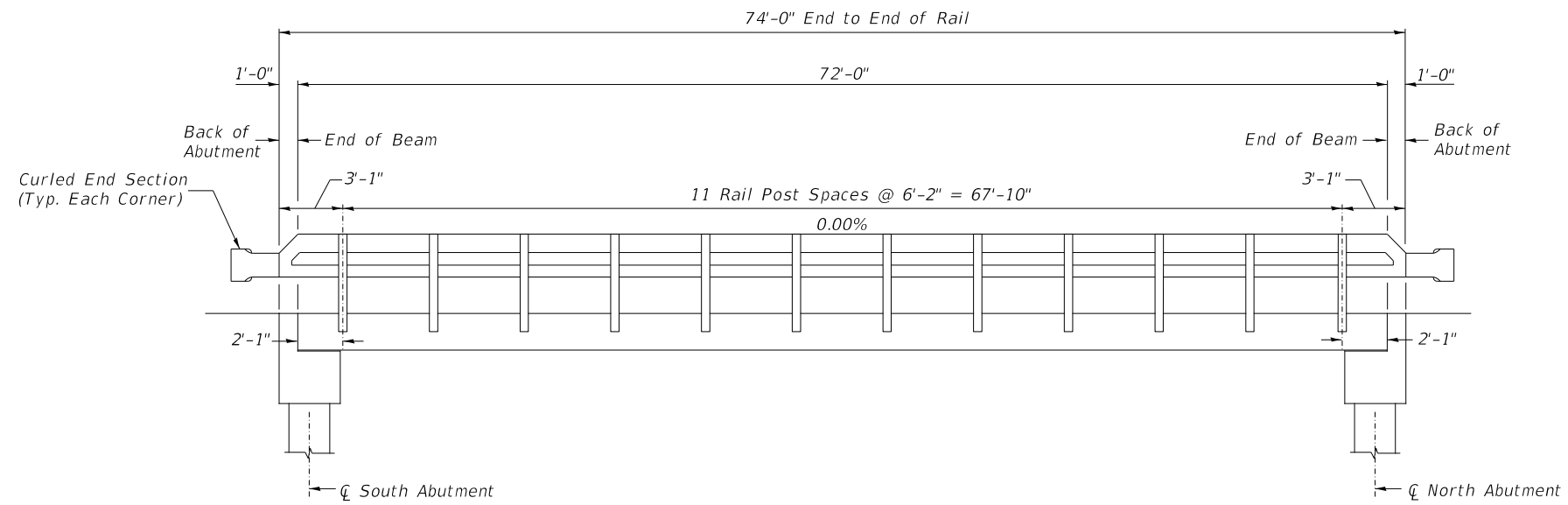
CURLED END SECTION

(4 Req'd) Cost Included with Steel Railing, Type SM (Special).  
Terminal Markers - Direct Applied shall be placed on  
end of each Curled End Section. (Typ. Each Corner)

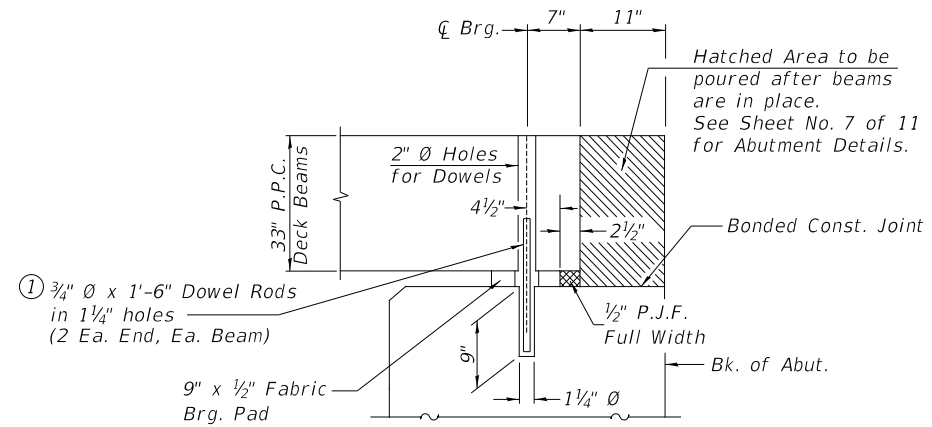
STEEL RAILING,  
TYPE SM (SPECIAL)  
IROQUOIS COUNTY  
SECTION 17-00234-00-BR  
F.A.S. 1335 (CH 42) OVER  
TRIB. TO LITTLE MUD CREEK

SHEET NO. 5 11 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1335	17-00234-00-BR	IROQUOIS	32	16
	S.N. 038-3016		CONTRACT NO. 87769		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT NO. UUKU(060)		





RAIL POST SPACING



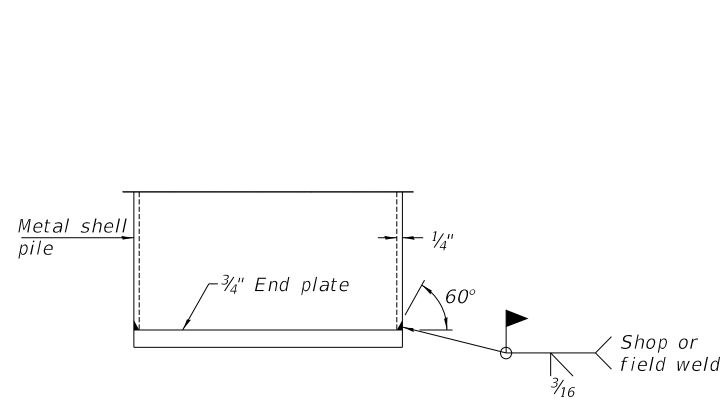
SECTION THRU ABUTMENTS  
(At Right Angles)

① Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hr.) prior to grouting the shear keys.

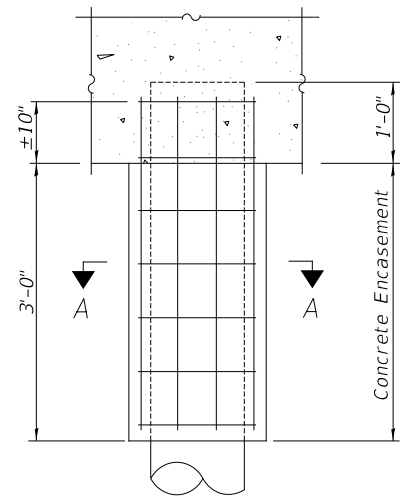
RAIL POST SPACING &  
SUPERSTRUCTURE DETAILS  
IROQUOIS COUNTY  
SECTION 17-00234-00-BR  
F.A.S. 1335 (C.H. 42) OVER  
TRIB. TO LITTLE MUD CREEK

SHEET NO. 6 11 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1335	17-00234-00-BR	IROQUOIS	32	17
	S.N. 038-3016		CONTRACT NO. 87769		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT NO. UUKE(060)		

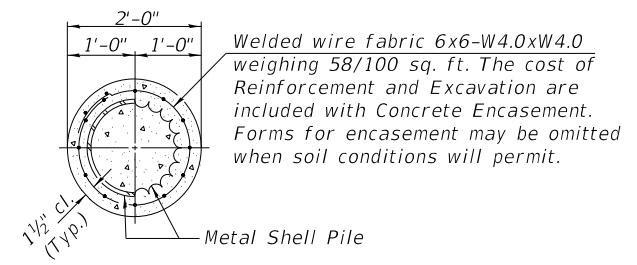




**END PLATE ATTACHMENT**

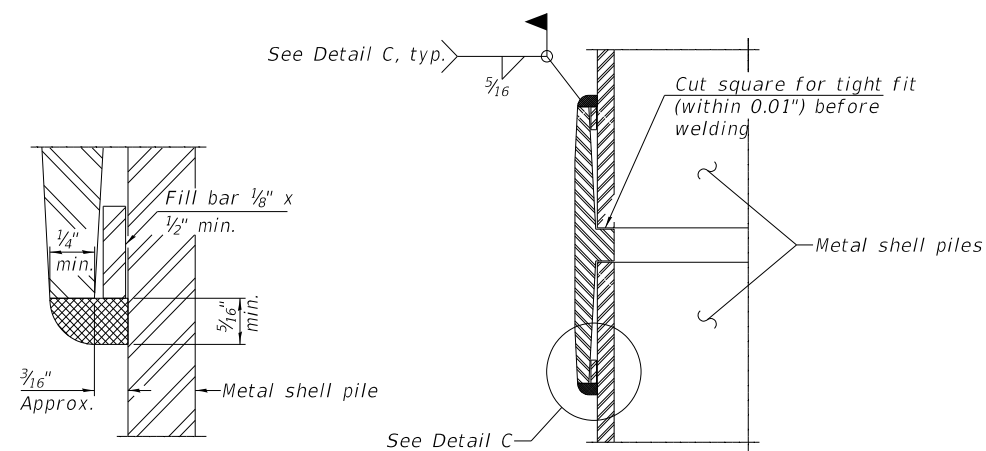


**ELEVATION**



**SECTION A-A**

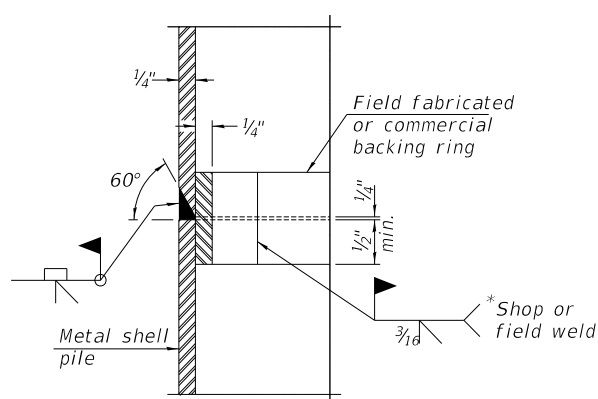
**DETAIL OF METAL SHELL PILE ENCASEMENT AT ABUTMENTS**



**DETAIL C**

**WELDED COMMERCIAL SPLICE**

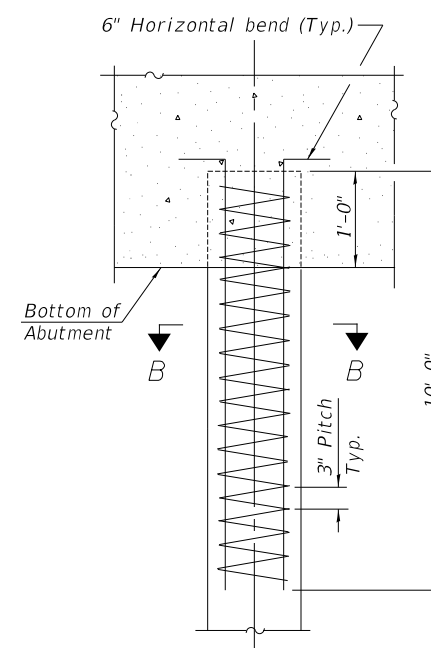
Notes:  
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
 Pile segments shall be driven to solid contact with splicer before welding.



**COMPLETE PENETRATION WELD SPLICE**

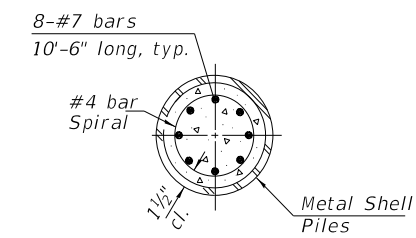
\* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note:  
 The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.



**ELEVATION**

**REINFORCEMENT AT ABUTMENTS**

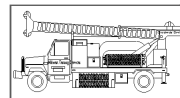


**SECTION B-B**

The cost of Reinforcement is included with Furnishing Metal Shell Piles 12"x0.250"

**METAL SHELL PILE DETAILS**  
**IROQUOIS COUNTY**  
**SECTION 17-00234-00-BR**  
**F.A.S. 1335 (C.H. 42) OVER**  
**TRIB. TO LITTLE MUD CREEK**

SHEET NO. 8 11 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1335	17-00234-00-BR	IROQUOIS	32	19
	S.N. 038-3016		CONTRACT NO. 87769		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT NO. UUK(060)		



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 1 of 3

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

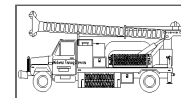
Client: Hutchison Engineering Inc.  
Project Name: Section 17-00234-00-BR  
Project Site: CH-42 Over Tributary To Mud Creek  
Iroquois County, Illinois

Boring No. B-1  
Surface Elev. 662.20  
Auger Depth 61' Rotary Depth NA  
Start Date 11/27/21 Finish Date 11/27/21

Location: 9' Left Of Station 19+60

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
662.20										Randy Safranski Diedrich D-120	
661.20	Stiff Black And Brown Clay (Fill)		1								
660.20			2								
659.20			3	1	SS	1.3	7	B	21		
658.20	Stiff Brownish Gray Clay		4								
657.20			5								
656.20			6	2	SS	1.5	8	B	20		
655.20			7								
654.20			8	3	SS	1.6	8	B	20		
653.20	Very Stiff Brown Gray Clay With Thin Sand Seams		9								
652.20			10								
651.20			11	4	SS	1.6	9	B	21		
650.20			12								
649.20			13	5	SS	2.3	14	B	18		
648.20			14								
647.20			15	6	SS	2.3	16	B	17		
646.20			16								
645.20	Very Stiff Gray Silty Loam Till		17								
644.20			18	7	SS	2.4	15	B	18		
643.20			19								
642.20		20	8	SS	2.1	14	B	19			

Groundwater Data: Static water level after auger removal -Elevation 644.0  
Comments:



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 2 of 3

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Hutchison Engineering Inc.  
Project Name: Section 17-00234-00-BR  
Project Site: CH-42 Over Tributary To Mud Creek  
Iroquois County, Illinois

Boring No. B-1  
Surface Elev. 662.20  
Auger Depth 61' Rotary Depth NA  
Start Date 11/27/21 Finish Date 11/27/21

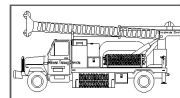
Location: 9' Left Of Station 19+60

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
641.20										Randy Safranski Diedrich D-120	
640.20	Very Stiff Gray Clay		22								
639.20			23	9	SS	2.4	15	B	18		
638.20	Very Stiff Gray Clay		24								
637.20			25								
636.20			26	10	SS	2.0	13	B	20		
635.20			27								
634.20	Very Stiff Gray Clay		28	11	SS	2.2	14	B	18		
633.20			29								
632.20	Very Stiff Gray Silty Loam Till		30								
631.20			31	12	SS	2.3	13	B	22		
630.20			32								
629.20			33								
628.20			34								
627.20			35								
626.20			36	13	SS	2.5	15	B	21		
625.20			37								
624.20	Very Stiff Gray Silty Loam Till		38								
623.20			39								
622.20			40	14	SS	3.0	9	S	15		
621.20			41								

Groundwater Data: Static water level after auger removal -Elevation 644.0  
Comments:

*SOIL BORINGS  
IROQUOIS COUNTY  
SECTION 17-00234-00-BR  
F.A.S. 1335 (C.H. 42) OVER  
TRIB. TO LITTLE MUD CREEK*

SHEET NO. 9 11 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1335	17-00234-00-BR	IROQUOIS	32	20
	S.N. 038-3016		CONTRACT NO. 87769		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT NO. UUK(060)		



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 3 of 3

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Hutchison Engineering Inc.  
Project Name: Section 17-00234-00-BR  
Project Site: CH-42 Over Tributary To Mud Creek  
Iroquois County, Illinois

Boring No. B-1  
Surface Elev. 662.20  
Auger Depth 61' Rotary Depth NA  
Start Date 11/27/21 Finish Date 11/27/21

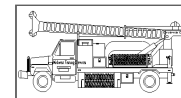
Location: 9' Left Of Station 19+60

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
620.20											
619.20			43								
618.20			44								
617.20			45	15	SS	3.5	26	S	14		
616.20			46								
615.20			47								
614.20	Very Stiff Gray Silty Loam Till		48								
613.20			49								
612.20			50	16	SS	3.4	28	S	14		
611.20			51								
610.20			52								
609.20			53								
608.20			54								
607.20			55								
606.20			56	17	SS	3.2	24	S	15		
605.20			57								
604.20		58									
603.20		59									
602.20		60									
601.20		61	18	SS	3.7	31	S	12			
600.20		62									

Groundwater Data: Static water level after auger removal -Elevation 644.0

Comments:

Bottom of Boring



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 1 of 3

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Hutchison Engineering Inc.  
Project Name: Section 17-00234-00-BR  
Project Site: CH-42 Over Tributary To Mud Creek  
Iroquois County, Illinois

Boring No. B-2  
Surface Elev. 662.20  
Auger Depth 61' Rotary Depth NA  
Start Date 11/27/21 Finish Date 11/27/21

Location: 10' Right Of Station 20+50

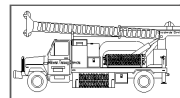
(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
662.20											
661.20	Stiff Black And Brown Clay (Fill)		1								
660.20			2								
659.20			3	1	SS	1.3	8	B	20		
658.20	Stiff Gray Clay		4								
657.20			5								
656.20			6	2	SS	1.7	9	B	20		
655.20			7								
654.20			8	3	SS	1.6	8	B	21		
653.20			9								
652.20			10								
651.20			11	4	SS	1.7	8	B	21		
650.20			12								
649.20			13	5	SS	1.9	13	B	18		
648.20		14									
647.20	Stiff Brownish Gray Clay With Thin Sand Seams		15								
646.20			16	6	SS	1.8	13	B	17		
645.20			17								
644.20			18	7	SS	1.6	12	B	18		
643.20			19								
642.20			20	8	SS	1.7	12	B	18		

Groundwater Data: Static water level after auger removal -Elevation 644.0

Comments:

*SOIL BORINGS  
IROQUOIS COUNTY  
SECTION 17-00234-00-BR  
F.A.S. 1335 (C.H. 42) OVER  
TRIB. TO LITTLE MUD CREEK*

SHEET NO. 10 11 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1335	17-00234-00-BR	IROQUOIS	32	21
	S.N. 038-3016		CONTRACT NO. 87769		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT NO. UUK(060)		



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 2 of 3

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

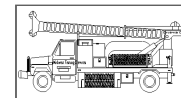
Client: Hutchison Engineering Inc.  
Project Name: Section 17-00234-00-BR  
Project Site: CH-42 Over Tributary To Mud Creek  
Iroquois County, Illinois

Boring No. B-2  
Surface Elev. 662.20  
Auger Depth 61' Rotary Depth NA  
Start Date 11/27/21 Finish Date 11/27/21

Location: 10' Right Of Station 20+50

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
641.20											
640.20	Stiff Gray Clay		22								
639.20			23	9	SS	1.9	17	B	22		
638.20			24								
637.20	Very Stiff Gray Clay		25	10	SS	1.8	12	B	21		
636.20			26								
635.20			27								
634.20	Very Stiff Gray Clay		28	11	SS	2.5	15	B	20		
633.20			29								
632.20			30								
631.20	Very Stiff Gray Clay		31	12	SS	2.3	14	B	18		
630.20			32								
629.20			33								
628.20	Very Stiff Gray Clay		34								
627.20			35								
626.20			36	13	SS	2.2	14	B	18		
625.20	Very Stiff Gray Clay		37								
624.20			38								
623.20			39								
622.20	Very Stiff Gray Silty Loam Till		40	14	SS	3.4	21	S	14		
621.20			41								

Groundwater Data: Static water level after auger removal -Elevation 644.0  
Comments:



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 3 of 3

Phone: 815-223-6696  
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e-mail: mts37@comcast.net

Client: Hutchison Engineering Inc.  
Project Name: Section 17-00234-00-BR  
Project Site: CH-42 Over Tributary To Mud Creek  
Iroquois County, Illinois

Boring No. B-2  
Surface Elev. 662.20  
Auger Depth 61' Rotary Depth NA  
Start Date 11/27/21 Finish Date 11/27/21

Location: 10' Right Of Station 20+50

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
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620.20											
619.20	Very Stiff Gray Silty Loam Till		43								
618.20			44								
617.20			45	15	SS	3.4	32	S	12		
616.20	Very Stiff Gray Silty Loam Till		46								
615.20			47								
614.20			48								
613.20	Very Stiff Gray Silty Loam Till		49								
612.20			50								
611.20			51	16	SS	3.8	35	S	12		
610.20	Very Stiff Gray Silty Loam Till		52								
609.20			53								
608.20			54								
607.20	Very Stiff Gray Silty Loam Till		55								
606.20			56	17	SS	3.3	27	S	13		
605.20			57								
604.20	Very Stiff Gray Silty Loam Till		58								
603.20			59								
602.20			60								
601.20	Very Stiff Gray Silty Loam Till		61	18	SS	3.1	32	S	12		
600.20			62								

Groundwater Data: Static water level after auger removal -Elevation 644.0  
Comments:

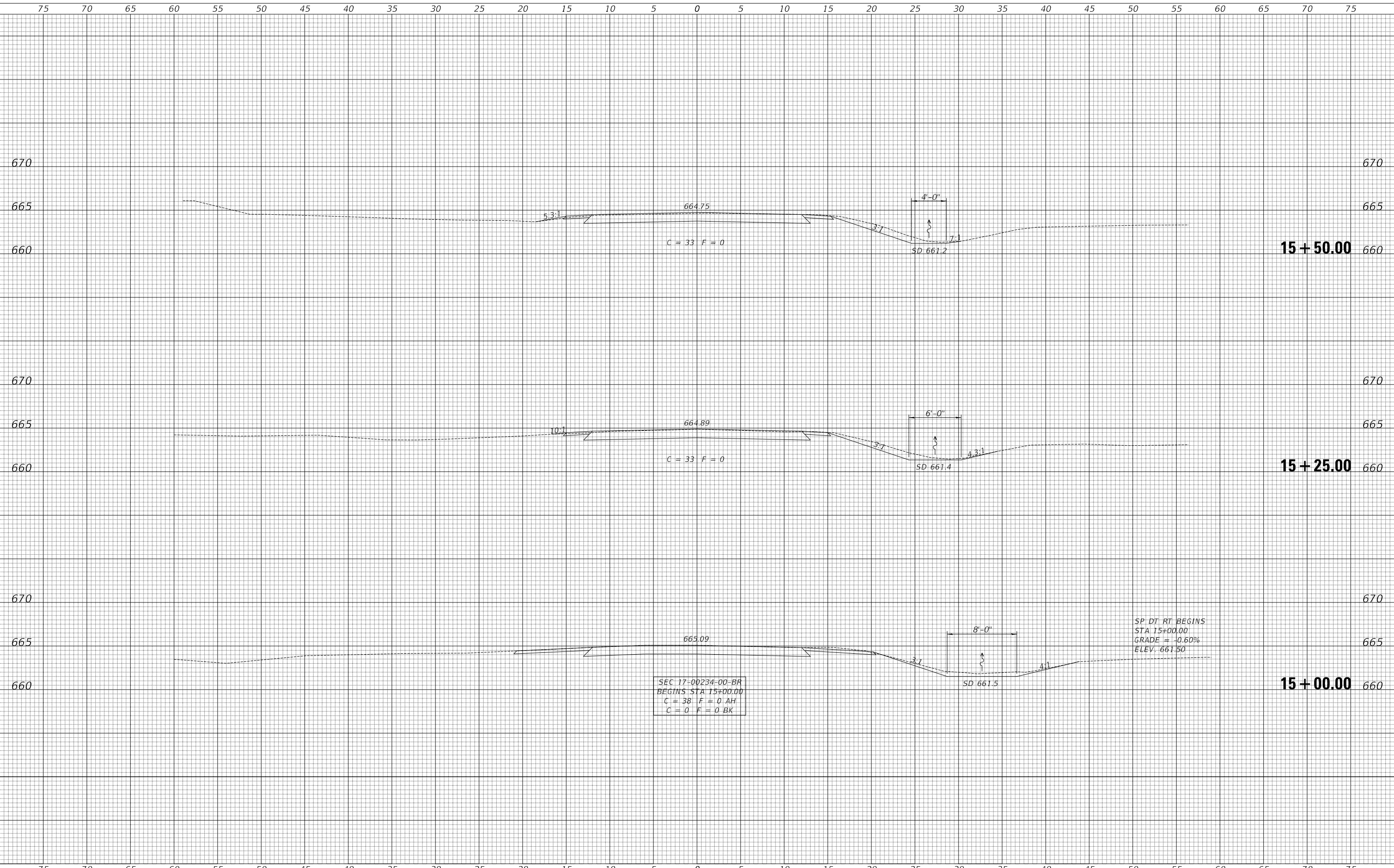
*SOIL BORINGS  
IROQUOIS COUNTY  
SECTION 17-00234-00-BR  
F.A.S. 1335 (C.H. 42) OVER  
TRIB. TO LITTLE MUD CREEK*

SHEET NO. 11 11 SHEETS	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1335	17-00234-00-BR	IROQUOIS	32	22
	S.N. 038-3016			CONTRACT NO. 87769	
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT NO. UUK(060)		

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

DATE	
BY	
SURVEYED	
PLOTTED	
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ORIGINAL SURVEY	
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**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

**CROSS SECTIONS**

SCALE: 1" = 5'    SHEET 1    OF 10 SHEETS    STA. 15+00.00    TO STA. 15+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	23
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87769	
FED. AID PROJECT NO. UUK(060)				



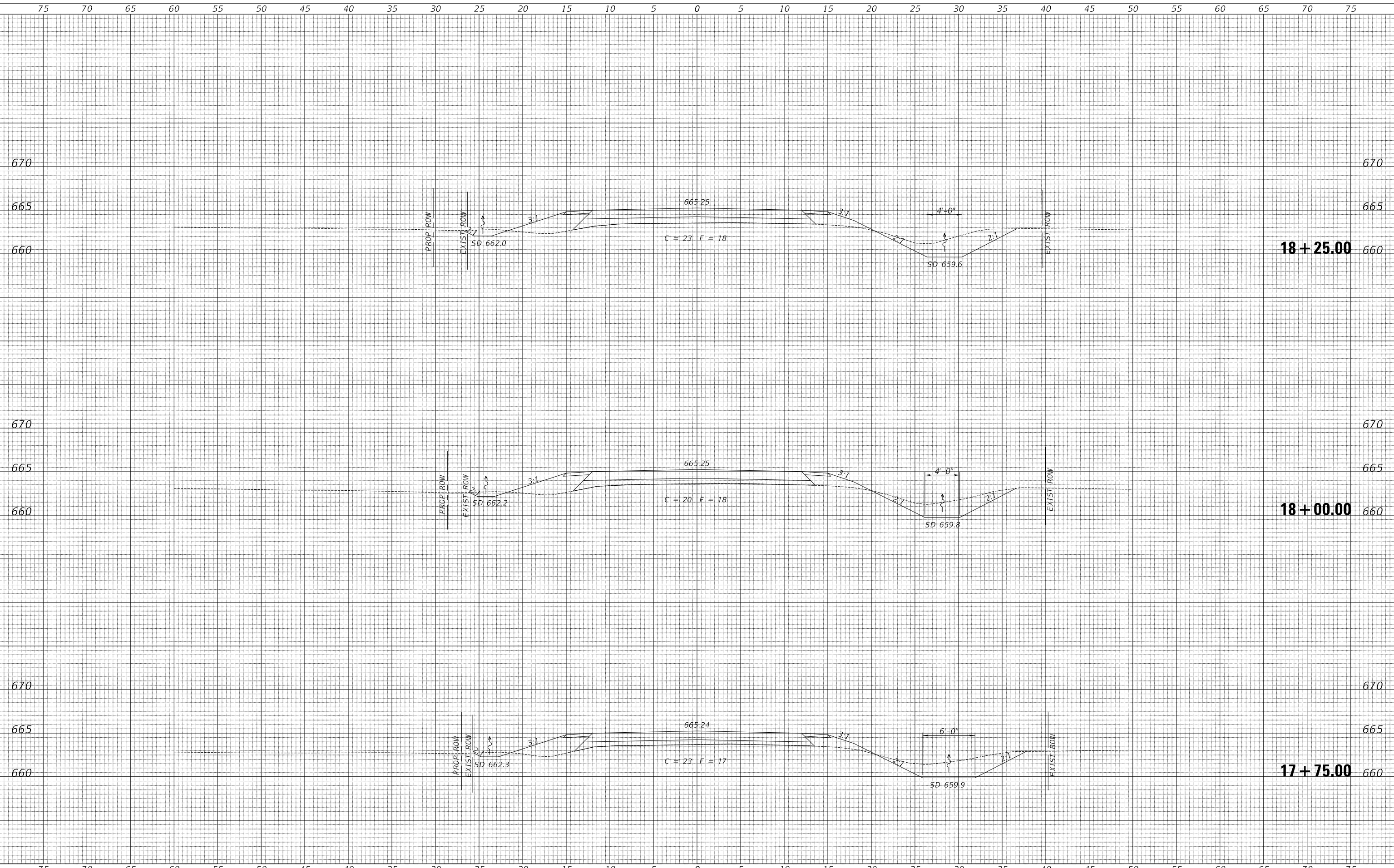




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BY	
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NOTE BOOK	
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**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

**CROSS SECTIONS**

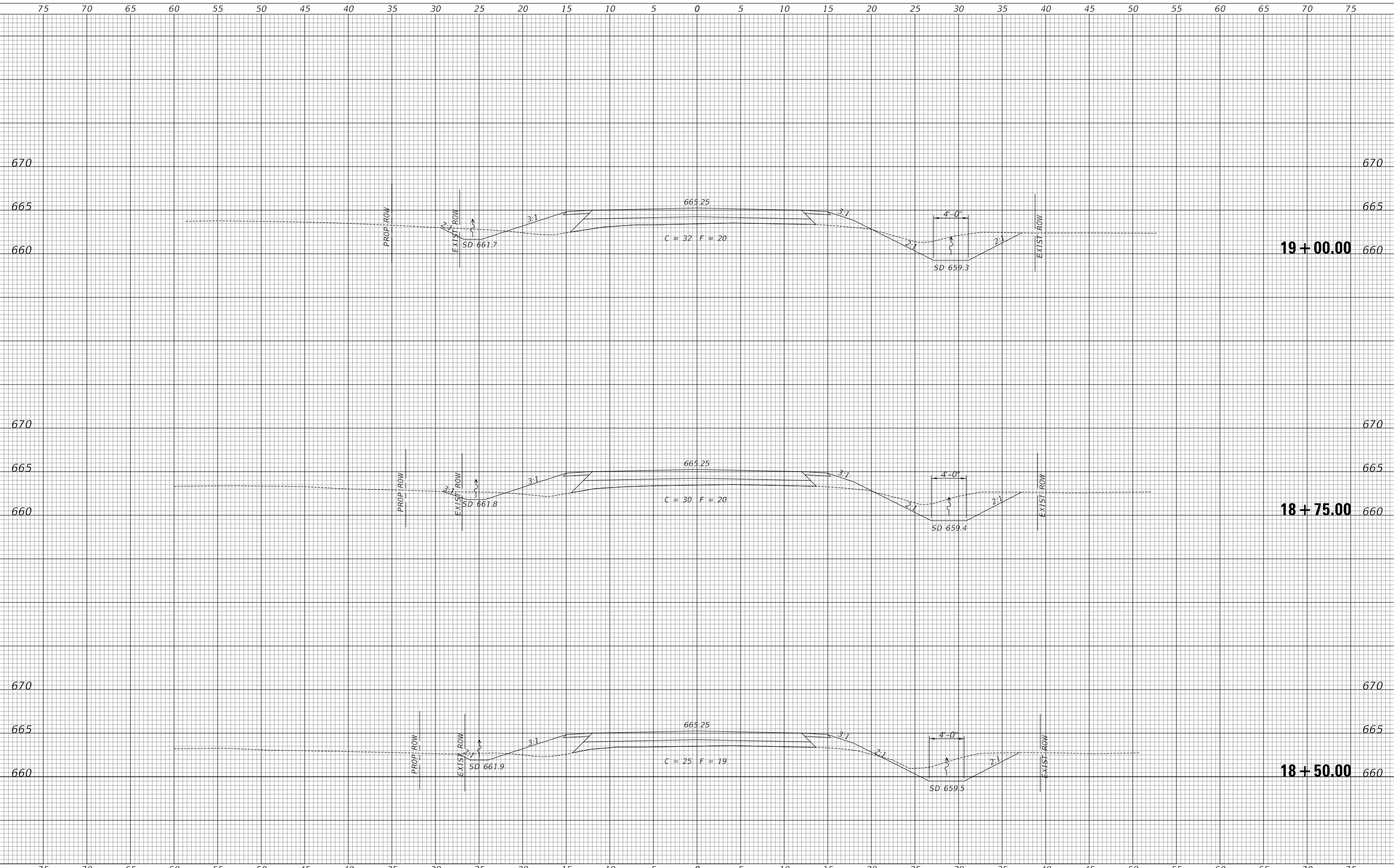
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-02-BR	IROQUOIS	32	26
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87769	
FED. AID PROJECT NO. UUK(060)				

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

DATE	
BY	
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NOTE BOOK	
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**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

**CROSS SECTIONS**

SCALE: 1" = 5'      SHEET 5      OF 10 SHEETS      STA. 18+50.00      TO STA. 19+00.00

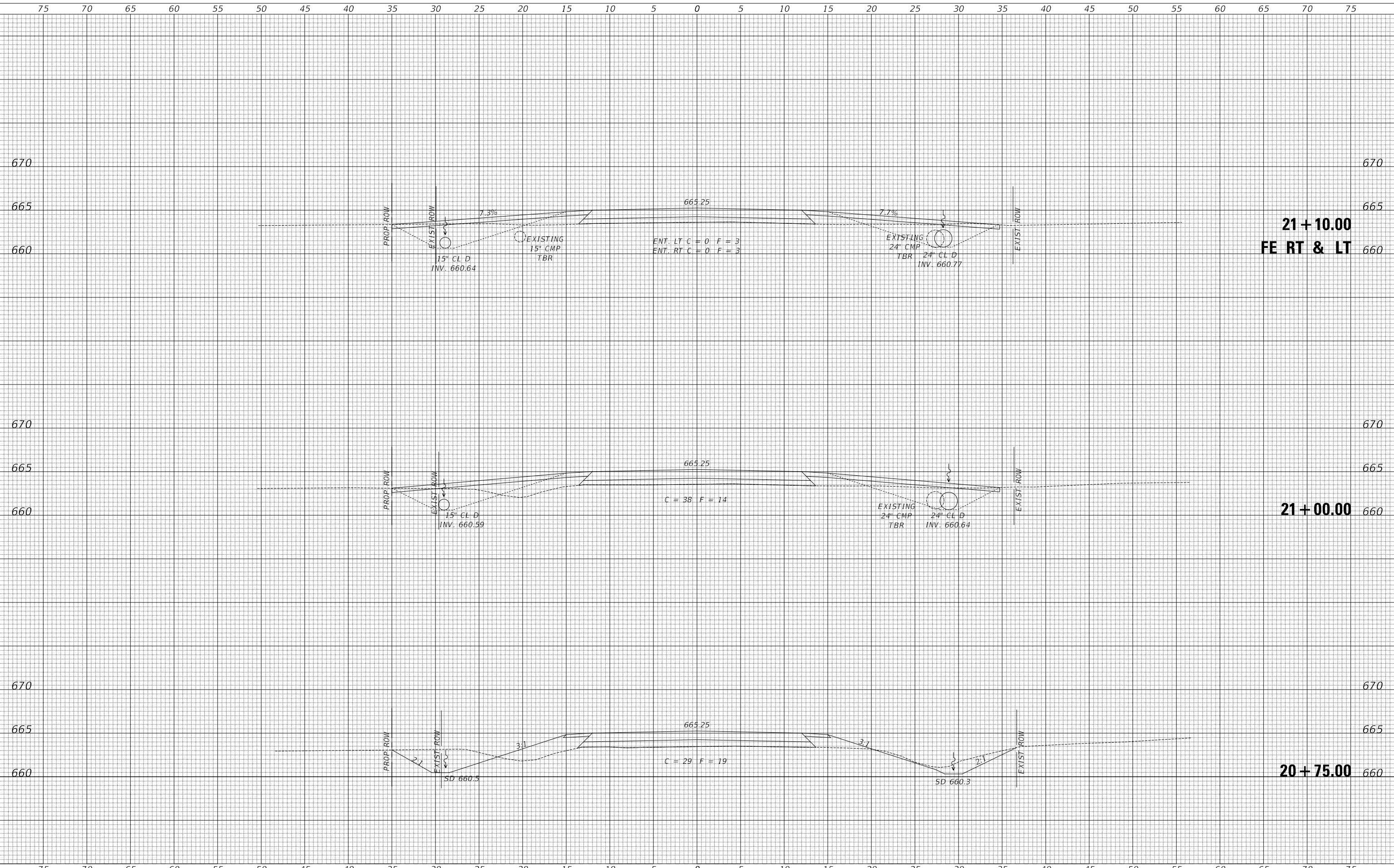
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1335	17-00234-00-BR	IROQUOIS	32	27
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87769	
FED. AID PROJECT NO. UUK(060)				



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

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

MODEL: Default  
FILE NAME: V:\1315 - Ch 42 over Trib to Little Mud Creek (Iroquois)\CADD\CADD Sheets\15-sxs\ch42sheets.dgn



USER NAME = M0gden	DESIGNED - JPS	REVISED - _____
	DRAWN - JPS	REVISED - _____
PLOT SCALE = sSCALE5	CHECKED - STM/MMO	REVISED - _____
PLOT DATE = 12/16/2024	DATE - 12/16/2024	REVISED - _____

**IROQUOIS COUNTY  
COUNTY HIGHWAY 42 OVER  
TRIBUTARY TO LITTLE MUD CREEK**

**CROSS SECTIONS**

SCALE: 1" = 5'    SHEET 7    OF 10    SHEETS    STA. 20+75.00    TO STA. 21+10.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	29
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87769	
FED. AID PROJECT NO. UUK(060)				

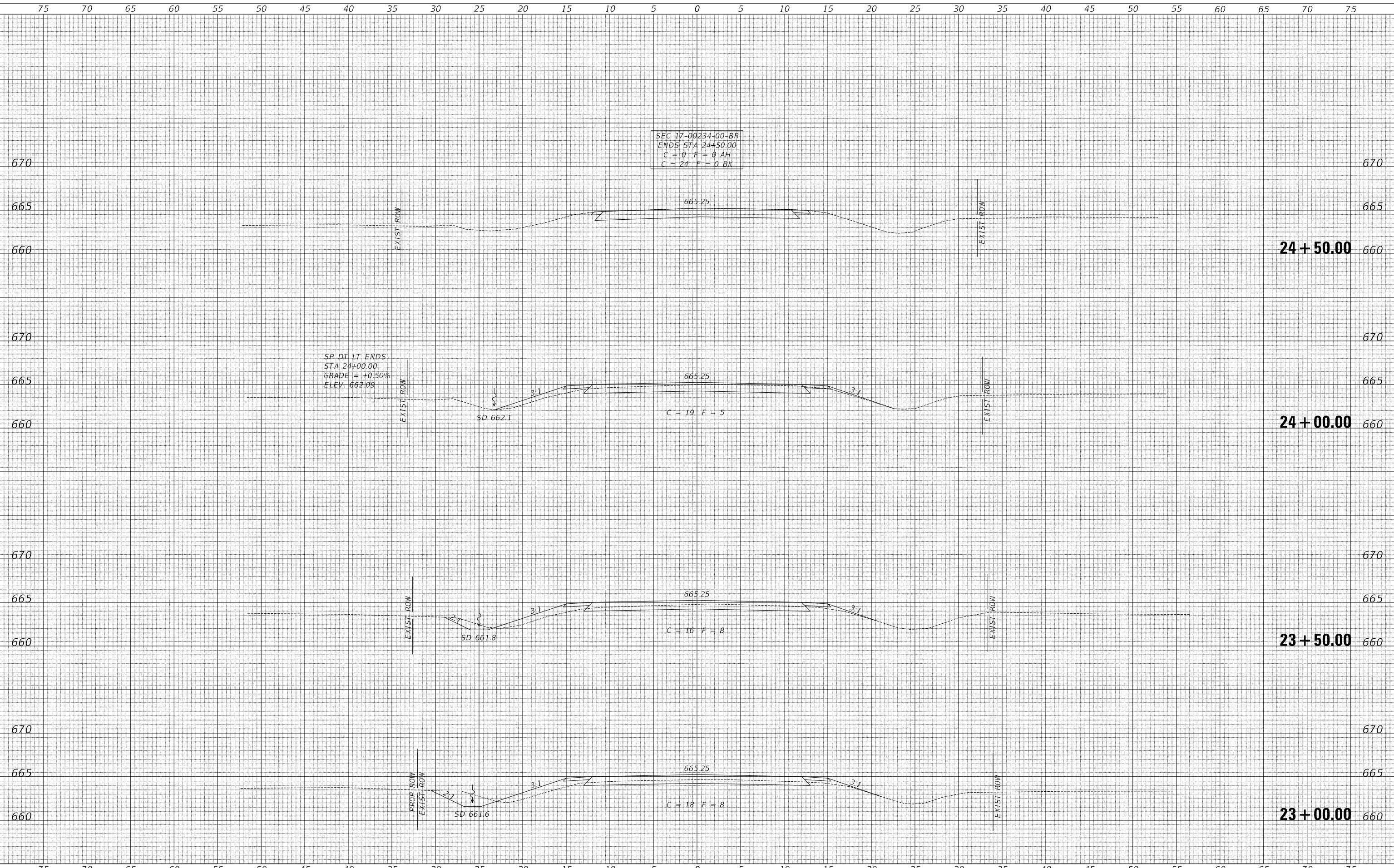




DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

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

MODEL: D:\dwg\ IROquois County Highway 42 over Tributary to Little Mud Creek (Iroquois\CAD\CADD\_Sheets\4215\ssrsc\sheet10.dgn  
 FILE NAME: V:\4215 - Ch 42 over Trib to Little Mud Creek (Iroquois\CAD\CADD\_Sheets\4215\ssrsc\sheet10.dgn



USER NAME =	M0gden	DESIGNED -	JPS	REVISED -	_____
		DRAWN -	JPS	REVISED -	_____
PLOT SCALE =	SSCALE5	CHECKED -	STM/MMO	REVISED -	_____
PLOT DATE =	12/16/2024	DATE -	12/16/2024	REVISED -	_____

**IROQUOIS COUNTY  
 COUNTY HIGHWAY 42 OVER  
 TRIBUTARY TO LITTLE MUD CREEK**

<b>CROSS SECTIONS</b>			
SCALE: 1" = 5'	SHEET 10	OF 10 SHEETS	STA. 23+00.00 TO STA. 24+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1335	17-00234-00-BR	IROQUOIS	32	32
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87769	
FED. AID PROJECT NO. UUK(060)				