

# GENERAL NOTES

1. SEE CROSS SECTIONS FOR SPECIAL DITCHES AND BACKSLOPES.
2. THE FINAL TOP FOUR INCHES OF SOIL IN ANY RIGHT-OF-WAY AREA DISTURBED BY THE CONTRACTOR MUST BE CAPABLE OF SUPPORTING VEGETATION. THE SOIL MUST BE FROM THE A HORIZON (ZERO TO 2' DEEP) OF SOIL PROFILES OF LOCAL SOILS.
3. ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTH MOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.
4. PREVIOUSLY PUGMILLED STOCKPILES OF "TYPE A" OLDER THAN 1 MONTH WILL NOT BE APPROVED FOR USE UNTIL MOISTURE CHECK IS RUN TO VERIFY MOISTURE CONTENT. MATERIAL SHIPPED TO PROJECTS WITHOUT BEING TESTED WILL NOT BE ACCEPTED.
5. PLACEMENT AND COMPACTION OF THE BACKFILL FOR PROPOSED ACROSS ROAD CULVERTS AND EXISTING ACROSS ROAD CULVERTS THAT ARE REMOVED SHALL CONFORM TO SECTION 502.10 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT THE MATERIAL SHALL CONFORM TO ARTICLE 208.02 OF THE STANDARD SPECIFICATIONS, AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD LABORATORY DENSITY. ANY MATERIAL CONFORMING TO THE REQUIREMENTS OF ARTICLE 1003.04 OR 1004.05 WHICH HAS BEEN EXCAVATED FROM THE TRENCHES SHALL BE USED FOR BACKFILLING THE TRENCHES. THE ENTIRE EXCAVATION, WITHIN 2 FEET OUTSIDE OF EACH SHOULDER, SHALL BE BACKFILLED WITH TRENCH BACKFILL MATERIAL TO THE BOTTOM OF THE PROPOSED SUBGRADE. IMPERVIOUS MATERIAL SHALL BE USED ON THE OUTER 3 FEET AT EACH END OF THE CULVERT.
6. THE SUBGRADE ON THIS PROJECT, EXCLUSIVE OF ROCK CUT AREAS IS SCHEDULED TO BE IMPROVED TO A 10" DEPTH ON IDEAL ROAD AND A 12" DEPTH ON IL RTE. 40 ACCORDING TO MECHANISTIC PAVEMENT DESIGN. THE AREAS SCHEDULED TO BE IMPROVED UTILIZING SUBBASE GRANULAR MATERIAL, TYPE C TO A DEPTH GREATER THAN THIS ARE ESTIMATED BASED ON THE ORIGINAL GEOTECHNICAL INVESTIGATION. THE SUBGRADE SHALL BE PROCESSED IN ACCORDANCE WITH ARTICLE 301.04 OF THE STANDARD SPECIFICATIONS BEFORE THE ENGINEER SHALL DETERMINE THE LIMITS AND THE ADDITIONAL THICKNESS OF IMPROVEMENT REQUIRED, IF ANY. ANY ADDITIONAL UNDERCUTTING REQUIRED AFTER THIS EVALUATION SHALL BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL AND COURSE AGGREGATE SHALL BE USED TO REPLACE THE UNSUITABLE MATERIAL.
7. ALL EMBANKMENT CONSTRUCTED OF COHESIVE SOIL SHALL BE CONSTRUCTED WITH NOT MORE THAN 110% OF OPTIMUM MOISTURE CONTENT, DETERMINED BY THE STANDARD PROCTOR TEST. COHESIVE SOIL SHALL BE DEFINED AS ANY SOIL WHICH CONTAINS GREATER THAN 10% PARTICLES BY WEIGHT PASSING THE 75 UM (#200 SIEVE). THE 110% OF OPTIMUM MOISTURE LIMIT MAY BE WAIVED IN FREE-DRAINING GRANULAR MATERIAL WHEN APPROVED BY THE ENGINEER.
8. WHEN ALL OR A PORTION OF A PIPE WILL BE IN FILL, THE EMBANKMENT, OR A PORTION THEREOF, SHALL BE CONSTRUCTED PRIOR TO EXCAVATING THE TRENCH. THE MAXIMUM DEPTH OF TRENCH USED TO CALCULATE TRENCH BACKFILL QUANTITIES SHALL BE NO MORE THAN FIVE FEET.
9. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING CLASS 4 OR 2A SHALL BE USED, EXCEPT IN FRONT OF PROPERTIES WHERE THE GRASS WILL BE MOWED, THEN USE SEEDING CLASS 1A. CLASS 2A SHALL BE USED ON FRONT SLOPES AND DITCH BOTTOMS. CLASS 4 SHALL BE USED BEHIND TYPE A GUTTER, ON ALL BACKSLOPES AND AREAS BEHIND THE BACKSLOPE, AND BEYOND THE TOE OF FRONT SLOPE ON FILL SECTIONS WITHOUT DITCHES.
10. ALL EARTHWORK QUANTITIES ARE CALCULATED BY THE METHOD OF DIGITAL TERRAIN MODELING USING TOTAL STATION SURVEYS.
11. SHRINKAGE FACTOR, ASSUMED TO BE 25% FOR THIS PROJECT, ARE ESTIMATED FOR THE PURPOSE OF DETERMINING A BALANCE OF EARTHWORK. THE CONTRACTOR SHALL ESTIMATE HIS OWN SHRINKAGE FACTORS IN DETERMINING HIS EARTHWORK. NO PAYMENT WILL BE MADE ON EARTHWORK QUANTITIES DUE TO VARIATION IN THE SHRINKAGE FACTOR SINCE EARTHWORK IS MEASURED IN ITS FINAL POSITION.
12. RECOMMENDATIONS OUTLINED IN THE ROADWAY GEOTECHNICAL REPORT PREPARED BY ILLINOIS DEPARTMENT OF TRANSPORTATION, DATED FEB. 10, 2014 WERE USED IN PREPARATION OF THE ROADWAY PLANS AND RELATED EARTHWORK CALCULATIONS
13. IF UNDERCUTS ARE ENCOUNTERED, UNDERCUTS WILL BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL. AFTER TOP SOIL STRIPPING AND VEGETATION CLEARING AND PRIOR TO UNDERCUTTING, THE SUBGRADE WILL BE TESTED WITH A STATIC OR DYNAMIC CONE PENETROMETER IN ACCORDANCE WITH THE IDOT SUBGRADE STABILITY MANUAL TO DETERMINE REMEDIAL TREATMENT.
14. TESTING OF SUBGRADES AND EMBANKMENTS WILL BE REQUIRED. TESTING REQUIREMENTS WILL BE PER APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS AND THE SUBGRADE STABILITY MANUAL. IF PROOF ROLLS ARE REQUIRED BY THE ENGINEER, THE COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.
15. EARTH EXCAVATION SHALL BE PAID FOR ONLY ONCE, REGARDLESS OF STAGING OR SEQUENCING OF CONTRACTORS OPERATIONS THAT REQUIRE STOCKPILING OF MATERIALS FOR LATER USE. REDISTRIBUTION AND RESPREADING IN SHOULDERS AND CONSTRUCTING EMBANKMENTS. UNDERCUT QUANTITIES HAVE BEEN ASSUMED AND ACTUAL QUANTITY WILL DEPEND ON FIELD CONDITIONS AT TIME OF CONSTRUCTION.
16. THE ADDITIONAL THICKNESS OF PROPOSED PAVEMENT REQUIRED TO MATCH THE BRIDGE APPROACH PAVEMENT SHALL BE INCLUDED IN THE COST FOR THE PROPOSED PAVEMENT AND NOT PAID FOR SEPARATELY.
17. THE AREA TO BE TACKED OR PRIMED SHALL BE LIMITED TO THAT WHICH CAN BE COVERED WITH HMA ON THE NEXT DAYS PRODUCTION, BUT NO MORE THAN FIVE DAYS IN ADVANCE OF THE PLACEMENT OF THE HMA, UNLESS APPROVED BY THE ENGINEER.
18. THE CONTRACTOR WILL BE REQUIRED TO FURNISH 5/2" HIGH BRASS STENCILS AS APPROVED BY THE ENGINEER AND INSTALL STATIONING AT 250' INTERVALS, STATIONING SHALL BE PLACED ON BOTH LANES OF THE 2 LANE HIGHWAYS AND ON THE OUTSIDE LANES IN BOTH DIRECTIONS IN BOTH DIRECTIONS ON 4 LANE HIGHWAYS, THE STATIONS SHALL BE PLACED 6" INSIDE THE PAVEMENT MARKING EDGE SO THEY CAN BE READ FROM THE SHOULDER. THIS WORK WILL BE INCLUDED IN THE COST OF THE FINAL PAVEMENT SURFACE.
19. ALL "AGGREGATE SUBGRADE IMPROVEMENT" (SECTION 303), SHALL BE COMPLETED IN ACCORDANCE WITH ARTICLES 311.04, 311.05, 311.05(a), 311.06 AND 311.07. ALL AGGREGATE SUBGRADE THICKNESSES EQUAL TO OR LESS THAN 12 INCHES SHALL BE CONSTRUCTED OF AGGREGATE OF CAO2 GRADATION. ALL AGGREGATE SUBGRADE THICKNESSES GREATER THAN 12 INCHES SHALL BE CONSTRUCTED OF CS02.
20. INSTALL RUMBLE STRIPS IN ALL SHOULDERS IN ACCORDANCE WITH STATE STANDARD 642001. RUMBLE STRIPS SHALL BE PLACED ON SHOULDERS ON BOTH SIDES OF THE PAVEMENT.
21. PAVEMENT MARKING SHALL BE DONE ACCORDING TO STANDARD 780001, EXCEPT AS FOLLOWS:
  1. ALL WORDS, SUCH AS "ONLY", SHALL BE 8 FEET HIGH.
  2. ALL NON-FREEWAY ARROWS SHALL BE THE LARGE SIZE.
  3. THE DISTANCE BETWEEN YELLOW NO-PASSING LINES SHALL BE 8 INCHES, NOT 7 INCHES AS SHOWN IN THE DETAIL OF TYPICAL LANE AND EDGE LINES.
  4. CENTERLINE SKIP DASH PAVEMENT MARKING ON MULTI-LANE DIVIDED, MULTI-LANE UNDIVIDED, AND ONE-WAY ROADWAY SHALL BE ACCORDING TO DISTRICT STANDARD 41.1.
22. WHERE FIELD TILE IS ENCOUNTERED, STORM SEWER OR PIPE DRAIN WILL BE USED IN ACCORDANCE WITH SECTION 611. THE MINIMUM SIZE FOR REPLACEMENT WILL BE 6" FOR PIPE DRAINS AND 8" FOR STORM SEWER, BUT THE SIZE MUST BE AT LEAST 2" LARGER THAN THE ADJOINING TILE. A FIELD TILE JUNCTION VAULT WILL BE CONSTRUCTED AT THE RIGHT OF WAY TO CONNECT THE TILE AND STORM SEWER. SEE SUMMARY OF QUANTITIES FOR THE ESTIMATED QUANTITIES.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.39 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123. THE FOLLOWING LISTED UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS ARE MEMBERS OF JULIE:

NICOR  
1844 FERRY ROAD, NAPERVILLE, IL 60563-9600

COMED  
123 ENERGY AVENUE, ROCKFORD, IL 61109

FRONTIER COMMUNICATIONS  
124 EAST LINCOLNWAY, MORRISON, IL 61270

IDOT IS NOT A MEMBER OF JULIE. IF YOU ARE NEAR ANY OVERHEAD LIGHTING, INTERSECTION LIGHTING OR TRAFFIC SIGNALS, CONTACT THE IDOT TRAFFIC OFFICE AT 815/284-5469 AT LEAST 48 HOURS PRIOR TO WORK

MIXTURE USES:	IL40 SURFACE	IL 40 BINDER TOP LIFT	IL 40 BINDER LOWER LIFTS	IDEAL SURFACE	IDEAL BINDER	LOWER SHOULDER LIFTS
PG GRADE*	SBS PG 64-28	SBS PG 64-28	PG 64-22	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS**	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50	3.0% @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL - 9.5	IL - 19.0	IL - 19.0	IL - 9.5	IL - 19.0	IL - 19.0
FRICTION AGGREGATE	C	N/A	N/A	C	N/A	N/A
20 YEAR ESAL	0.9	0.9	0.9	N/A	N/A	N/A
MIX UNIT WEIGHT	112 LBS/SY/IN	N/A	N/A	112 LBS/SY/IN	N/A	112 LBS/SY/IN
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA	QC/QA	QC/QA	QC/QA	QC/QA

FILE NAME -	USER NAME - Bryan.Hartmann	DESIGNED -	REVISED 4/13/2020 PG GRADE REV
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Default		PLOT SCALE = 2.0000' / in.	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES**

SCALE: SHEET 3 OF 197 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1084	03-00083-00-BR	CARROLL	197	3
JOB *C-92-067-06		CONTRACT NO. 85645		
ILLINOIS FED. AID PROJECT				

# SUMMARY OF QUANTITIES

## CONSTRUCTION TYPE CODE: 0010

PAY ITEM	DESCRIPTION	CONSTRUCTION CODE TYPE:		0004	0010
		UNIT	TOTAL	IDOT	COUNTY
50104400	CONCRETE HEADWALL REMOVAL	EACH	2	2	
50300225	CONCRETE STRUCTURES	CU YD	216.6		216.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	53.7		53.7
50300260	BRIDGE DECK GROOVING	SQ YD	825		825
50300280	CONCRETE ENCASEMENT	CU YD	5.6		5.6
50300300	PROTECTIVE COAT	SQ YD	1125		1125
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	3120		3120
50400705	PRECAST PRESTRESSED CONCRETE DECK BEAMS (42" DEPTH)	SQ FT	3333		3333
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	49,110		49,110
51201700	FURNISHING STEEL PILES HP12X74	FOOT	1,447		1,447
51202305	DRIVING PILES	FOOT	1,447		1,447
51203700	TEST PILE STEEL HP12X74	EACH	4		4
51204650	PILE SHOES	EACH	28		28
51500100	NAME PLATES	EACH	1		1

\* = SPECIAL PROVISION

△ = SPECIALTY ITEM

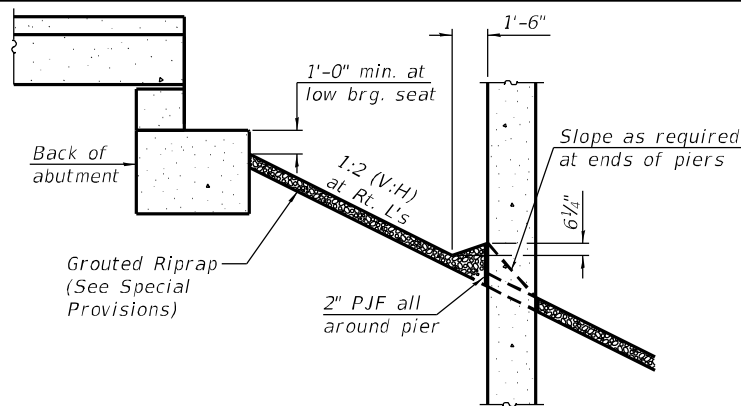
# SUMMARY OF QUANTITIES

## CONSTRUCTION TYPE CODE: 0010

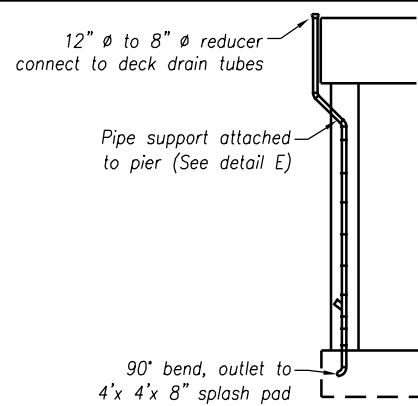
				CONSTRUCTION CODE TYPE:		0004	0010
	PAY ITEM	DESCRIPTION	UNIT	TOTAL	IDOT	COUNTY	
△	78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	18		18	
△	A2006714	TREE, QUERCUS MACROCARPA (BUR OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	6	6		
△	B2001114	TREE, CERCIS CANADENSIS (EASTERN REDBUD), 1-3/4" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	6	6		
*△	X0322352	SEEDING MOBILIZATION	EACH	6	4	2	
*	X0323660	DROP BOX NO.1	EACH	1	1		
*	X0323661	DROP BOX NO.2	EACH	1	1		
*	X0795800	COARSE AGGREGATE	TON	10,616	8663	1953	
*	X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	958		958	
*	X5040100	PRECAST BRIDGE APPROACH SLAB	SQ FT	2040		2040	
*	X5428836	CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 36" (SPECIAL)	EACH	1	1		
① *	<del>X5860110</del>	<del>GRANULAR BACKFILL FOR STRUCTURES</del>	<del>CU YD</del>	<del>86</del>		<del>86</del>	
*	X6020182	DRAINAGE STRUCTURE SPECIAL	L SUM	1	1		
*	X6024240	INLETS, SPECIAL	EACH	4		4	
*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1	0.25	0.75	

\* = SPECIAL PROVISION

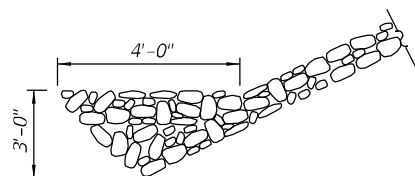
△ = SPECIALTY ITEM



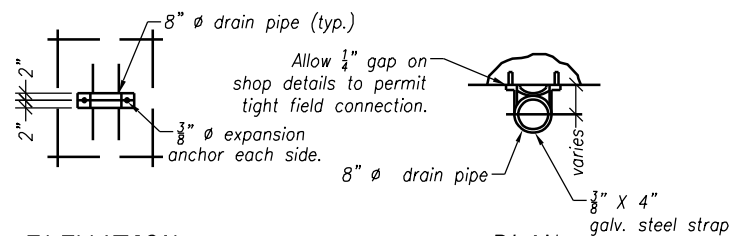
SECTION THRU SLOEWALL



DRAINAGE SYSTEM ELEVATION  
(TYP. EA. END N. PIER)

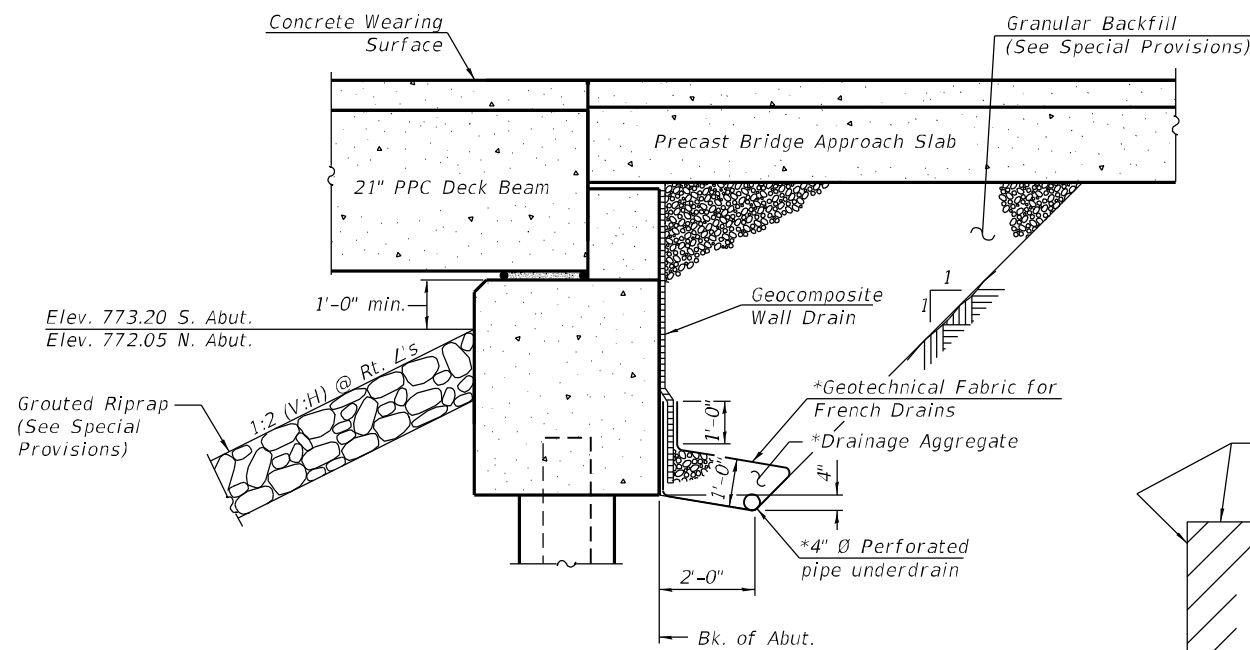


SECTION A-A



ELEVATION Pipe support at 4' cts. PLAN

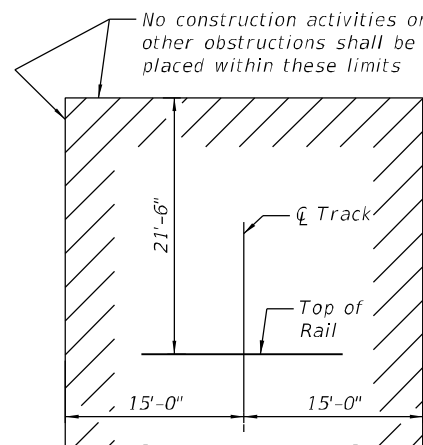
DETAIL E - DRAINAGE SUPPORT DETAIL AT ABUTMENT & PIERS



SECTION THRU ABUTMENT  
(Horiz. dim. @ Rt. L's)

\*Included in the cost of Pipe Underdrains for Structures.  
(See Special Provisions)

Note:  
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



MINIMUM CONSTRUCTION CLEARANCE ENVELOPE  
(Normal to Railroad)

TOTAL BILL OF MATERIAL

CODE	ITEM	UNIT	SUPER	SUB	TOTAL
50100100	Removal Of Existing Structures	Each	0.5	0.5	1
50300225	Concrete Structures	Cu Yd	-	216.6	216.6
50300255	Concrete Superstructure	Cu Yd	53.7	-	53.7
50300260	Bridge Deck Grooving	Sq Yd	825	-	825
50300280	Concrete Encasement	Cu Yd	-	5.6	5.6
50300300	Protective Coat	Sq Yd	1,125	-	1,125
50400405	Precast Prestressed Concrete Deck Beams (21" Depth)	Sq Ft	3,120	-	3,120
50400705	Precast Prestressed Concrete Deck Beams (42" Depth)	Sq Ft	3,333	-	3,333
50800205	Reinforcement Bars, Epoxy Coated	Pound	25,050	24,060	49,110
51201700	Furnishing Steel Piles Hp12X74	Foot	-	1,447	1,447
51202305	Driving Piles	Foot	-	1,447	1,447
51203700	Test Pile Steel Hp12X74	Each	-	4	4
51204650	Pile Shoes	Each	-	28	28
51500100	Name Plates	Each	1	-	1
59100100	Geocomposite Wall Drain	Sq Yd	-	41	41
*X5030305	Concrete Wearing Surface, 5"	Sq Yd	958	-	958
*X5040100	Precast Bridge Approach Slab	Sq Ft	2,040	-	2,040
*58600101	Granular Backfill For Structures	Cu Yd	-	86	86
*Z0046304	Pipe Underdrains For Structures 4"	Foot	-	200	200
*Z0018800	Drainage System	L.Sum	-	1	1
*XX004565	Grouted Riprap	Sq Yd	-	1,320	1,320

\*See Special Provisions

Notes:

Structure Excavation will not be measured for payment and will not be paid for separately.

Cost of Structure Excavation is included in cost of Concrete Structures.

Protective Coat shall be applied to top of approach slabs, concrete wearing surface, parapets and to inside surfaces of parapets.

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

All abutment berms shall be sloped 1/2" per ft. to drain.

Concrete from the existing structure shall not be buried within 200 feet of the proposed structure.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.

All construction joints shall be bonded.

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

The Contractor shall protect vertical faces of pile caps at abutments and piers, exposed beneath the beam seats, with polyethylene sheeting, to prevent any Non-shrink grout not contained by foam backer rod from leaking down vertical faces of pile caps. Cost included in Precast Prestressed Conc. Deck Bms. of the size specified.

Cost for removal of existing bridge rail is included in cost for Removal of Existing Structures.

Special attention is called to Section 512 of the Standard Specifications.

RAILROAD CONSTRUCTION NOTES

- Any shoring system that impact the Railroad operations and/or supports Railroad embankment shall be designed and constructed per the Railroad temporary Shoring requirements.
- All demolition within the Railroad right-of-way and/or demolition that may impact the Railroad tracks or operations shall comply with the Railroad demolition requirements.
- Erection over the Railroad right-of-way shall be designed to cause no interruption to all Railroad operations.
- The elevation of the existing top-of-rail profile shall be verified before beginning construction. All discrepancies shall be brought to the attention of the Railroad prior to construction.
- The proposed grade separation project shall not change the quantity and/or characteristics of the flow in the Railroad ditches and/or drainage structures.
- The contractor must submit a proposed method of erosion and sediment control for any disturbed areas outside of the plan limits and have the method approved by the Railroad prior to beginning any grading on the project site.
- For Railroad coordination please refer to the Railroad's Coordination Requirements as part of the Specifications or Special Provisions of the project.
- Temporary Construction Clearances, including falsework clearances, shall comply with "Minimum Construction Clearances Envelope".
- All permanent clearances shall be verified before project closeout.

INDEX OF BRIDGE SHEETS

- General Plan And Elevation
- General Data
- Top Of Concrete Elevations
- Superstructure
- Superstructure Details
- Precast Bridge Approach Slab
- Precast Bridge Approach Slab
- Precast Bridge Approach Slab
- 21" X 48" Ppc Deck Beam
- 21" X 48" Ppc Deck Beam Details
- 42" X 48" Ppc Deck Beam
- 42" X 48" Ppc Deck Beam Details
- Abutments
- Piers
- Hp Pile Details
- Boring Logs 1 Of 2
- Boring Logs 2 Of 2

BURLINGTON NORTHERN SANTA FE RAILROAD  
BUILT 2020 BY CARROLL COUNTY  
F.A.S. RTE. 1084 SEC. 03-00083-00-BR  
STA. 596+41.17 LOADING HL-93  
STRUCTURE NO. 008-4229

NAME PLATE  
See Std. 515001

wendler  
WENDLER ENGINEERING SERVICES, INC.  
698 Timber Creek Road, Dixon, Illinois 61021  
www.wendlergs.com ph: 815.288.2261  
Illinois Professional Design Firm No. 184-000848

DESIGNED - LAN  
CHECKED - SAB  
DRAWN - LAN, DJV  
CHECKED - SAB

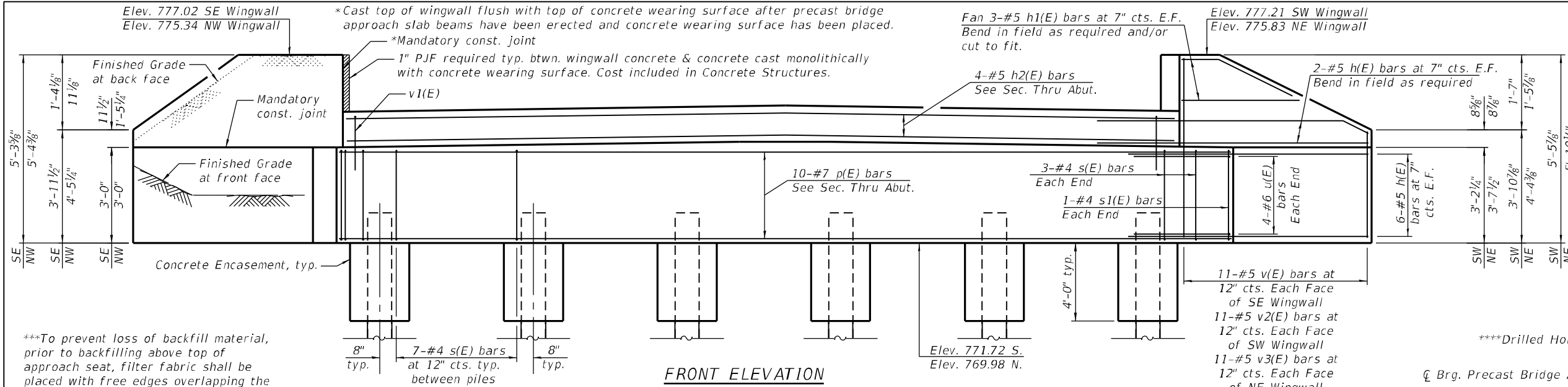
REVISED 4/14/20 PILING QUANTITY  
REVISED GRANULAR BACKFILL NO.  
REVISED AND DRAIN DETAIL TITLE  
REVISED -

CARROLL COUNTY HIGHWAY DEPARTMENT  
IDEAL ROAD OVER BNSF RAILWAY  
Milepost 125.24, DOT# 069873R, Subdivision: Aurora, Illinois  
Latitude 41°58' Longitude 89°49' near Milledgeville, Illinois

GENERAL DATA  
STRUCTURE NO. 008-4229

BRIDGE SHEET NO. 2 OF 17 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1084	03-00083-00-BR	CARROLL	197	110
WES# 2120237			CONTRACT NO. 85645	
[ILLINOIS] FED. AID PROJECT				



\*\*\*To prevent loss of backfill material, prior to backfilling above top of approach seat, filter fabric shall be placed with free edges overlapping the P/JF at least 12 in. in all directions, except to pof filter fabric shall be flush with top of wingwall. Filter fabric shall be according to Section 282 with 8 oz/sq yd material allowed. Cost included in Concrete Structures.

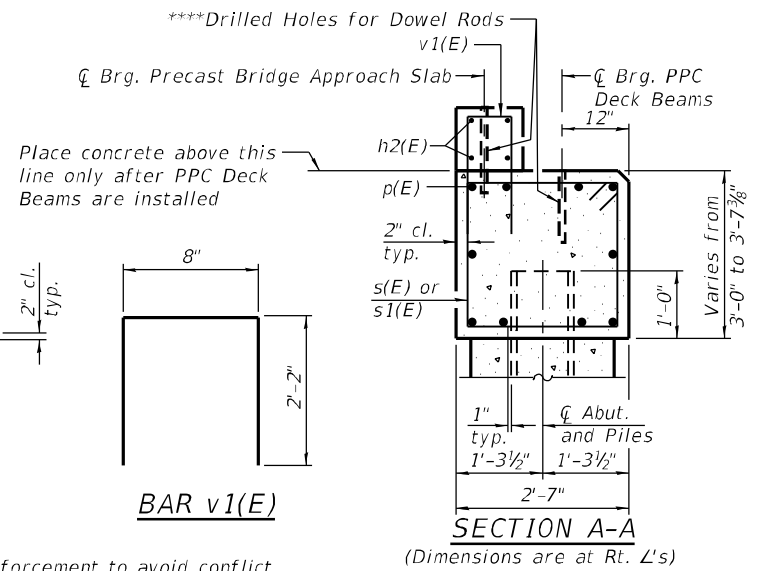
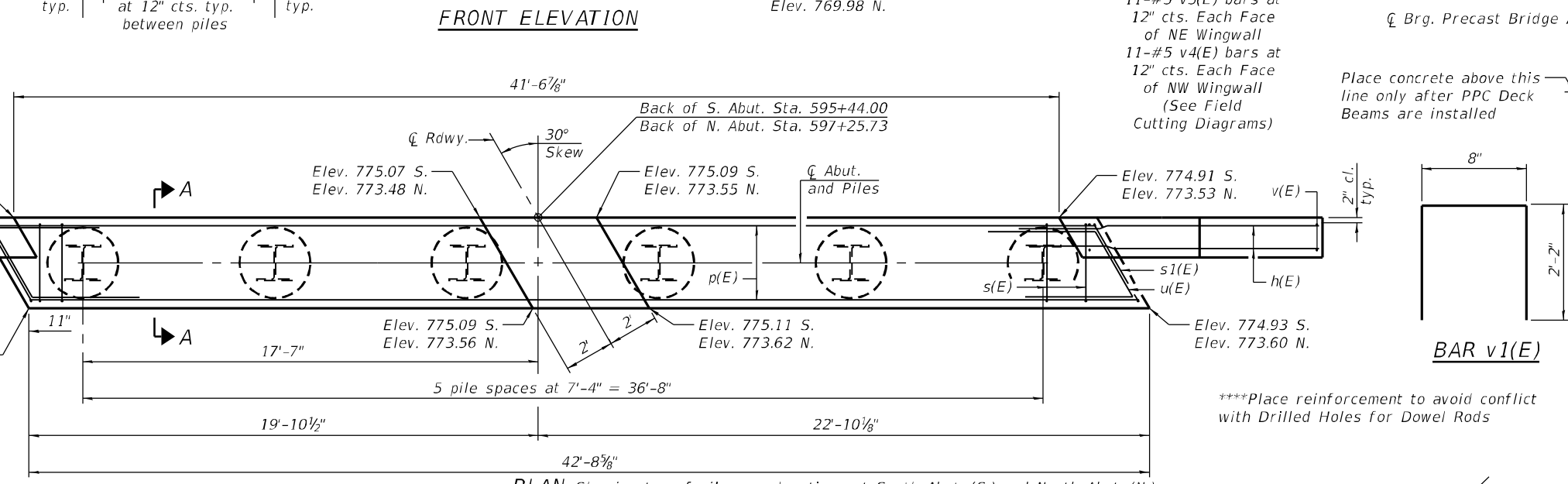
Piles at abutments shall be driven through 2'-0" diameter precored holes extending to elevation 746.00 according to Article 512.09(c) of the Standard Specifications. Cost included in driving piles.

**SOUTH ABUT. PILE DATA**

Type: Steel HP 12x74 with Pile Shoes  
 Nominal Required Bearing: 536 kips  
 Factored Resistance Available: 203 kips  
 Est. Length: 67'  
 No. Production Piles: 5  
 No. Test Piles: 1

**NORTH ABUT. PILE DATA**

Type: Steel HP 12x74 with Pile Shoes  
 Nominal Required Bearing: 536 kips  
 Factored Resistance Available: 203 kips  
 Est. Length: 53'  
 No. Production Piles: 5  
 No. Test Piles: 1

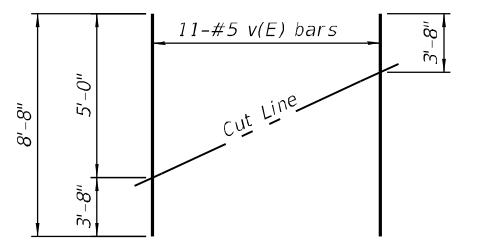
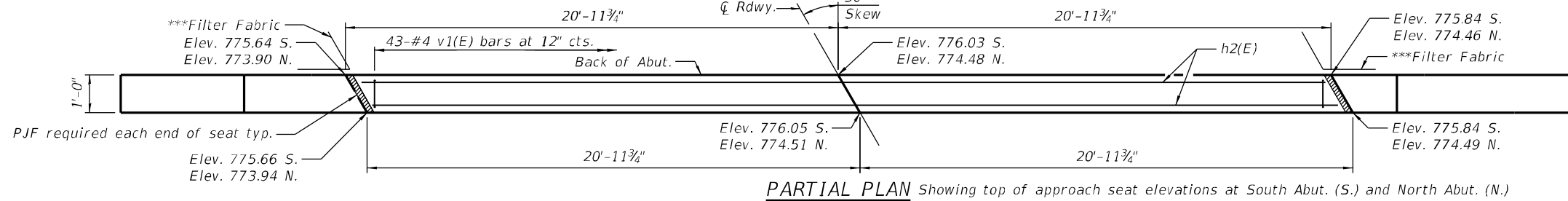


\*\*\*\*Place reinforcement to avoid conflict with Drilled Holes for Dowel Rods

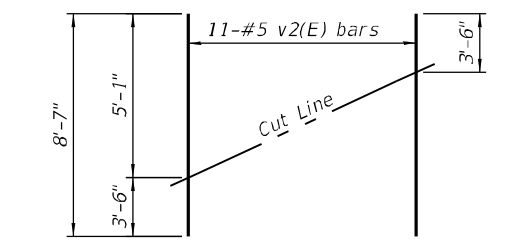
**BILL OF MATERIAL FOR TWO ABUTMENTS**

Bar	No.	Size	Length	Shape
h(E)	64	#5	13'-10"	—
h1(E)	24	#5	10'-6"	—
h2(E)	4	#5	41'-8"	—
p(E)	20	#8	42'-4"	—
s(E)	82	#4	10'-3"	□
s1(E)	4	#4	10'-11"	□
u(E)	16	#6	11'-2"	∩
v(E)	11	#5	8'-8"	—
v1(E)	86	#5	5'-0"	□
v2(E)	11	#5	8'-7"	—
v3(E)	11	#5	9'-6"	—
v4(E)	11	#5	9'-1"	—
Concrete Structures		Cu. Yd.	37.7	
Reinforcement Bars, Epoxy Coated		Pound	5,340	
Furnishing Steel Piles HP12x74		Foot	600	
Driving Piles		Foot	600	
Test Pile Steel HP12x74		Each	2	
Pile Shoes		Each	12	
Concrete Encasement		Cu. Yd.	5.6	

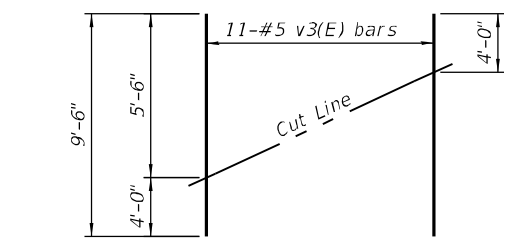
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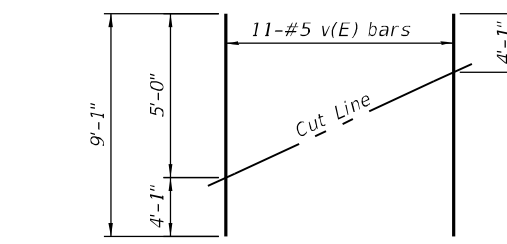
**BAR v(E) FIELD CUTTING DIAGRAM**  
 Order bars full length. Cut as shown and use remainder of bars in opposite face.



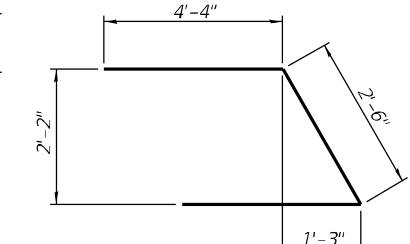
**BAR v2(E) FIELD CUTTING DIAGRAM**  
 Order bars full length. Cut as shown and use remainder of bars in opposite face.



**BAR v3(E) FIELD CUTTING DIAGRAM**  
 Order bars full length. Cut as shown and use remainder of bars in opposite face.



**BAR v4(E) FIELD CUTTING DIAGRAM**  
 Order bars full length. Cut as shown and use remainder of bars in opposite face.



**BAR u(E)**

**wendler**  
 WENDLER ENGINEERING SERVICES, INC.  
 698 Timber Creek Road, Dixon, Illinois 61021  
 www.wendlers.com ph: 815.288.2261  
 Illinois Professional Design Firm No. 184-000848

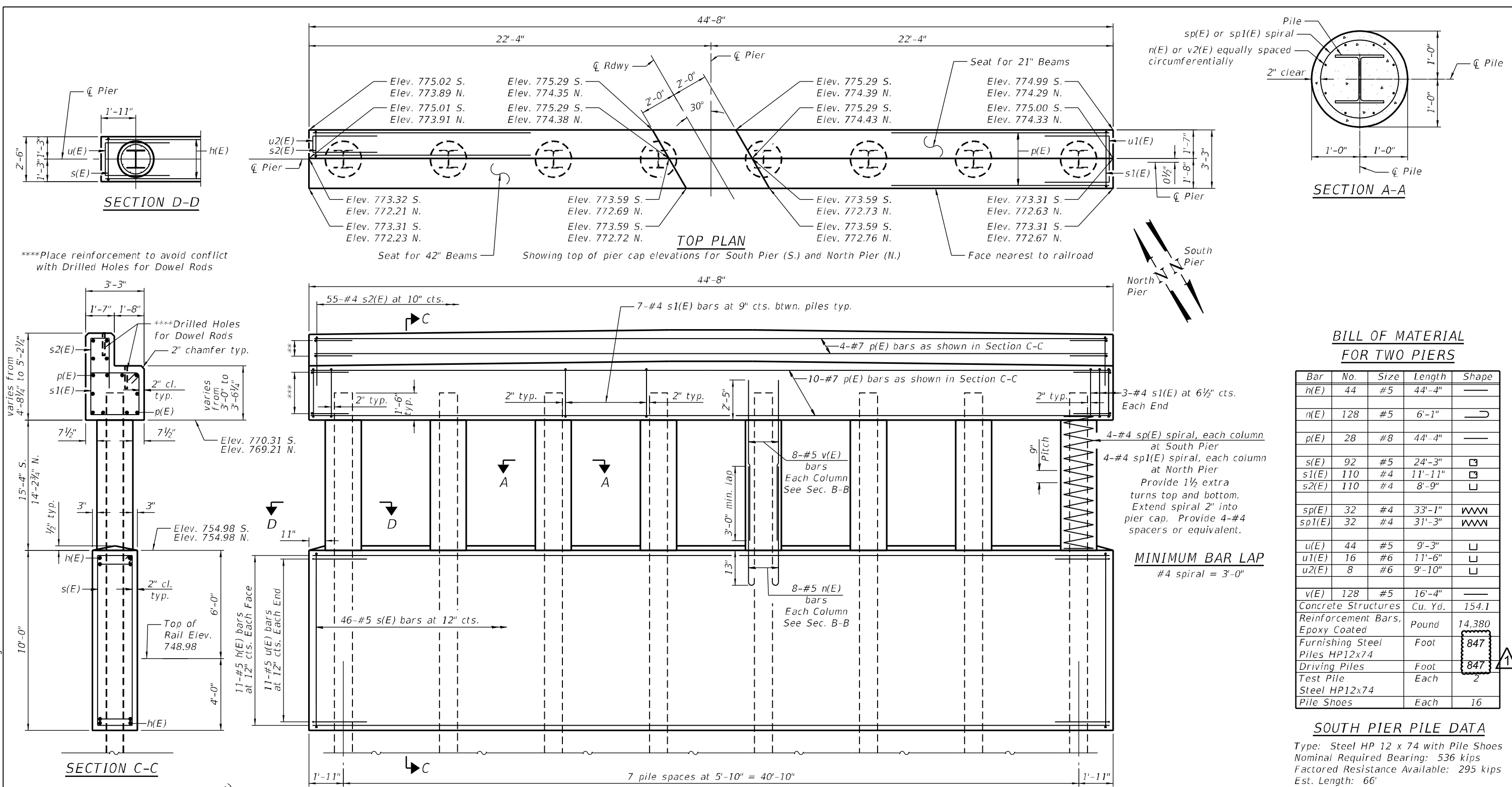
DESIGNED - LAN	REVISED 4/13/20 PILING QUANTITY
CHECKED - SAB	REVISED -
DRAWN - LAN, DJV	REVISED -
CHECKED - SAB	REVISED -

**CARROLL COUNTY HIGHWAY DEPARTMENT**  
**IDEAL ROAD OVER BNSF RAILWAY**  
 Milepost 125.24, DOT# 069873R, Subdivision: Aurora, Illinois  
 Latitude 41°58' Longitude 89°49' near Milledgeville, Illinois

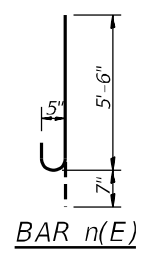
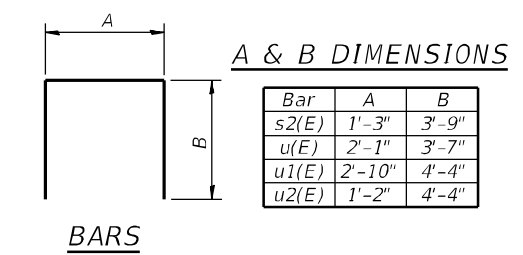
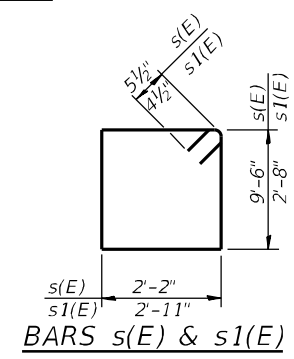
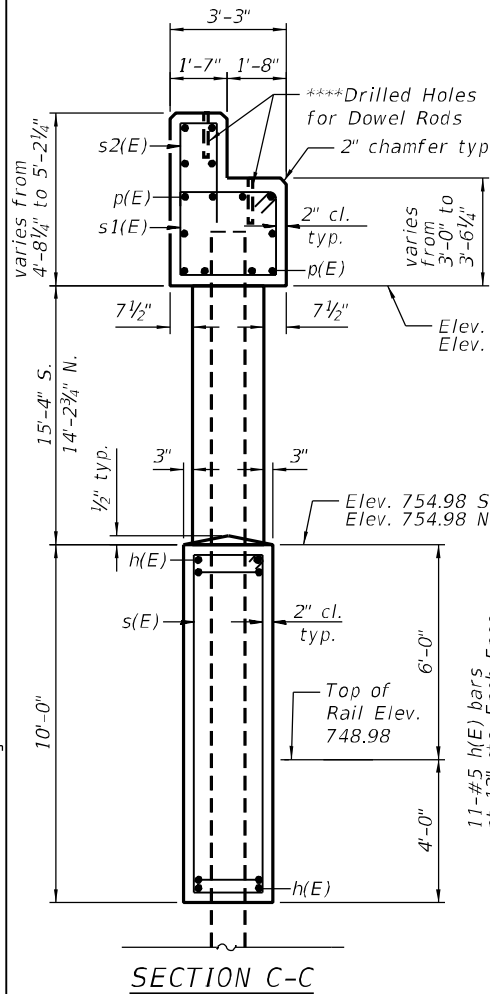
**ABUTMENTS**  
**STRUCTURE NO. 008-4229**  
 BRIDGE SHEET NO. 13 OF 17 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1084	03-00083-00-BR	CARROLL	197	121
WES# 2120237		CONTRACT NO. 85645		
[ILLINOIS] FED. AID PROJECT				

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\*\*\*Place reinforcement to avoid conflict with Drilled Holes for Dowel Rods



**BILL OF MATERIAL FOR TWO PIERS**

Bar	No.	Size	Length	Shape
h(E)	44	#5	44'-4"	—
n(E)	128	#5	6'-1"	⌋
p(E)	28	#8	44'-4"	—
s(E)	92	#5	24'-3"	⊠
s1(E)	110	#4	11'-11"	⊠
s2(E)	110	#4	8'-9"	⊠
sp(E)	32	#4	33'-1"	⋈
sp1(E)	32	#4	31'-3"	⋈
u(E)	44	#5	9'-3"	⊠
u1(E)	16	#6	11'-6"	⊠
u2(E)	8	#6	9'-10"	⊠
v(E)	128	#5	16'-4"	—
Concrete Structures	Cu. Yd.		154.1	
Reinforcement Bars, Epoxy Coated	Pound		14,380	
Furnishing Steel Piles HP12x74	Foot		847	
Driving Piles	Foot		847	
Test Pile Steel HP12x74	Each		2	
Pile Shoes	Each		16	

**MINIMUM BAR LAP**  
#4 spiral = 3'-0"

**SOUTH PIER PILE DATA**

Type: Steel HP 12 x 74 with Pile Shoes  
Nominal Required Bearing: 536 kips  
Factored Resistance Available: 295 kips  
Est. Length: 66'  
No. Production Piles: 7  
No. Test Piles: 1

**NORTH PIER PILE DATA**

Type: Steel HP 12 x 74 with Pile Shoes  
Nominal Required Bearing: 536 kips  
Factored Resistance Available: 295 kips  
Est. Length: 55'  
No. Production Piles: 7  
No. Test Piles: 1

Notes:  
For details of piles, see sheet 15 of 17.