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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL BRIDGE PROGRAM

FAS 1067 (COUNTY HIGHWAY 6)
SECTION 99-00119-00-BR
JO DAVIESS COUNTY
PROJ. NO. BRS-1067(102)
C-92-097-00
CONTRACT # 85402

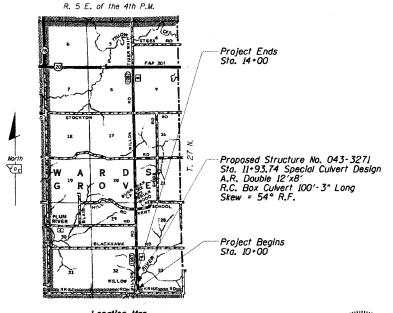
Index of Sheets

Cover Sheet
 Summary of Quantities and Typical Cross Sections
 Plan and Profile and Schedule of Quantities
 Erosion Control Plan
 Culvert Plans
 Station Cross Sections

Standards

280001-03 Temporary Erosion Control Systems 515001-02 Name Plates for Bridges Woven Wire Fence 665001-01 702001-06 Traffic Control Devices 720011 Metal Posts for Signs, Markers & Delineators 728001 Telescoping Steel Sign Support 729001 Applications of Types A & B Metal Posts (For Signs & Markers) 780001-01 Typical Pavement Markings BLR-21-6 Typical Application of Traffic

Control Devices for Construction
On Rural Local Highways





Rural Bridge Collector ADT= 200 (2026): 2% Trucks Design Speed = 40 mph



Illinois Professional No. 062-049706 Expires 11/30/07

<u>Scales</u>

Plan	<u></u>	50	100
Profile Horiz.	0	50	100
Profile Vert,	0	5	10
Cross Sections	0	5	10

/ Itilities

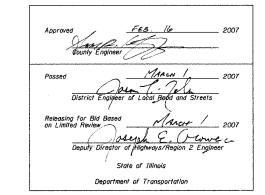
Electricity:

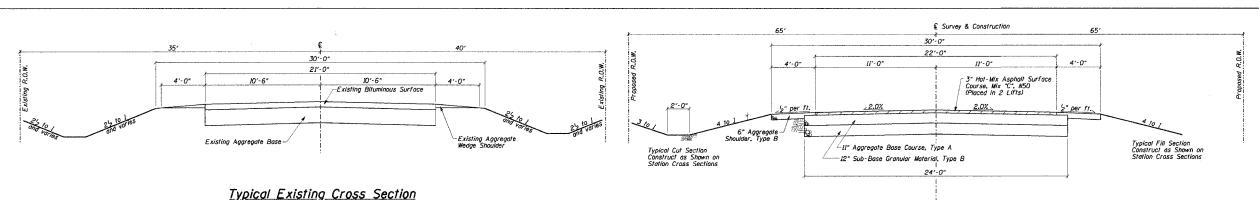
Commonwealth Edison 2900 W. Route 20 P.O. Box 568 Rockford, IL 61109

Telephone:

Verizon 302 W. Main Street Freeport, IL 61032

Toll Free Joint Utility Locating Information for Excavators (J.U.L.I.E) Telephone Number 1-800-892-0123



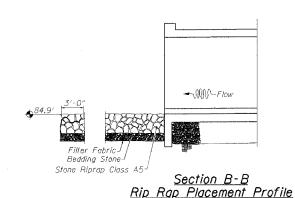


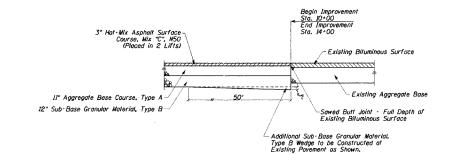
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Typical Proposed Cross Section

Sta. 10+50 to Sta 13+50

Transition from existing roadway to proposed roadway to be constructed from Sta. 10+00 to Sta. 10+50 and from Sta. 13+50 to Sta. 14+00

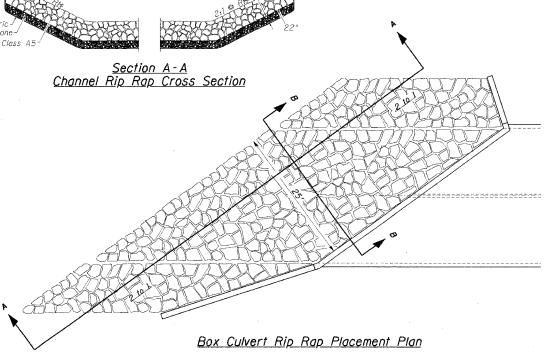




Elevation at Beginning and End of Improvment

Joint Details

Filter Fabric Stone Riprap Class A5 <u>Section A-A</u> <u>Channel Rip Rap Cross Section</u>



Summary of Quantities Construction Type Code: XO28-2A

Code No.	<u>Item</u>	<u>Unit</u>	Quantity
20200100	Earth Excavation	Cu. Yd.	850
20300100	Channel Excavation	Cu. Yd.	150
20400800	Furnished Excavation	Cu. Yd.	500
20700220	Porous Granular Embankment	Cu. Yd.	257
25001000	Seeding Class 2 (Special)	Acre	0.84
25100630	Erosion Control Blanket	Sq. Yd	<i>7</i> 5
28000200	Earth Excavation for Erosion Control	Cu. Yd.	10
28000250	Temporary Erosion Control Seeding	Pound	350
28000300	Temporary Ditch Checks	Each	11
28000900	Fence (Erosion Control)	Foot	1050
28100109	Stone Rip Rap, Class A5	Sq. Yd.	190
28200200	Filter Fabric	Sq. Yd.	190
31101000	Sub-Base Granular Material, Type B	Ton	580
35100100	Aggregate Base Course, Type A	Ton	550
40600100	Bituminous Materials (Prime Coat)	Gallon	200
40603310	Hot-Mix Asphalt Surface Course, Mix "C", N50	Ton	<i>1</i> 65
48101200	Aggregate Shoulders, Type B	Ton	96
50100100	Removal of Existing Structures	Each	1
50200400	Rock Excavation for Structures	Cu. Yd.	10
50800105	Reinforcement Bars	Pound	51740
51500100	Name Plates	Each	1
51603QQ	Drilled Shaft in Soil 18"	Cu. Yd.	2.5
51604000	Drilled Shaft in Rock 18"	Cu. Yd.	6. 5
54003000	Concrete Box Culverts	Cu. Yd	270
66503200	Barbed Wire Fence, Five Strand	Foot	405
70101830	Traffic Control and Protection, Standard BLR 21	L. Sum	1
78001110	Paint Pavement Marking - Line 4"	Foot	900
67100100	Mobilization	L. Sum	1
* SPECIALTY Z	TEMS		

Pavement Design - FAS 1067

Traffic Parameters

Structural Design Traffic (S.D.T.) - Year 2027 - P.V. = 176; S.U. = 18; M.U. = 6 Class IV Road Heavy Commercial Vehicles (HCV) = S.U. + M.U. = 24

Subgrade Parameters

Subgrade Soil Properties (Based on Information from Jo Daviess County Soil Survey)
Soil Type - Beavercreek
Subgrade Resilient Modulus ERi
ERI © Optimum Moisture Content = 6.0 ksi
ERI adjusted for seasonal moisture = < 2.0 ksi (will require subgrade improvement)
Immediate Bearing Value (IBV) = 3.72

Pavement Design

Figure 37-3L from BLR Design Manual - 3" HMA - 11" Aggregate Type A Base

Subgrage Improvement

Figure 37-7B from BLR Design Manual - 12" Granular Sub-Base for Subgrade Improvement

Asphalt Mix Requirements Mixture Use(s): Surface PG: PG 58-22 Design Air Voids: 3.00/N50 Mixture Composistion (Gradation Mixture) IL9.5 or 12.5 Friction Aggregate: C 20 Year ESAL: 0.06 Density to the satisfaction of the Engineer

General Notes

Where Section or Subsection Monuments are encountered, the Engineer shall be notified before such Monuments are removed. The Contractor shall protect and carefully preserve all propety marks and monuments until the owner, an autoorized surveyor or agent has witnessed or otherwise referenced their location

Removal of the existing pavement (bituminous surface and aggregate base), where necessary to construct the proposed pavement, shall be considered Earth Excavation.

Seeding, Class 2 (Special)

The area to be seeded shall consist of all disturbed earth surfaces within the Right of Way, as directed by the Engineer

Application Rates Used in Quantity Calculations

Sub-Base Granular Material, Type B 120 lb./Cu. Ft. Aggregate Base Course, Type A 125 lb./Cu. Ft. Bituminous Materials (Prime Coat) 0.20 Gallons/Sq. Yd. Hot-Mix Asphalt Surface Course, Mix "C", N50 1.51 Ton/Cu. Yd. Aggregate Shoulders, Type B 120 lb./Cu. Ft.

Note: The above application rates for Bituminous Materials (Prime Coat) are for quantity calculations only. The application rate to be applied will be determined by the Engineer at the time of placement.

> Summary of Quantities, Typical Sections, Details Pavement Design & General Notes

> > FAS 1067 Section No. 99-00119-BR Jo Daviess County

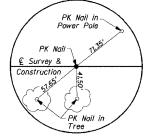
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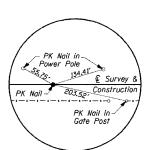
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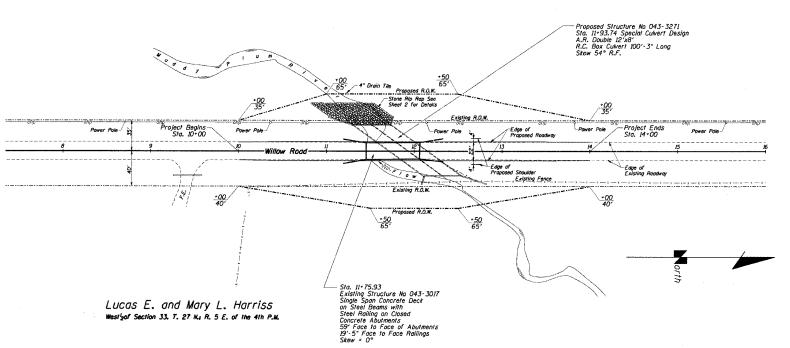


P.O.T. Sta. 4+56.84 (Ties)



P.O.T. Sta. 16+00.00 (Ties)

B.M. # 2 - Spike Nail in Power Pole 34.00' Left, Sta. 6+98.99, Elev. = 103.06'



Karl E. and Lori L. Lawfer East's of Section 32, T. 27 N. R. 5 E. of the 4th P.M.

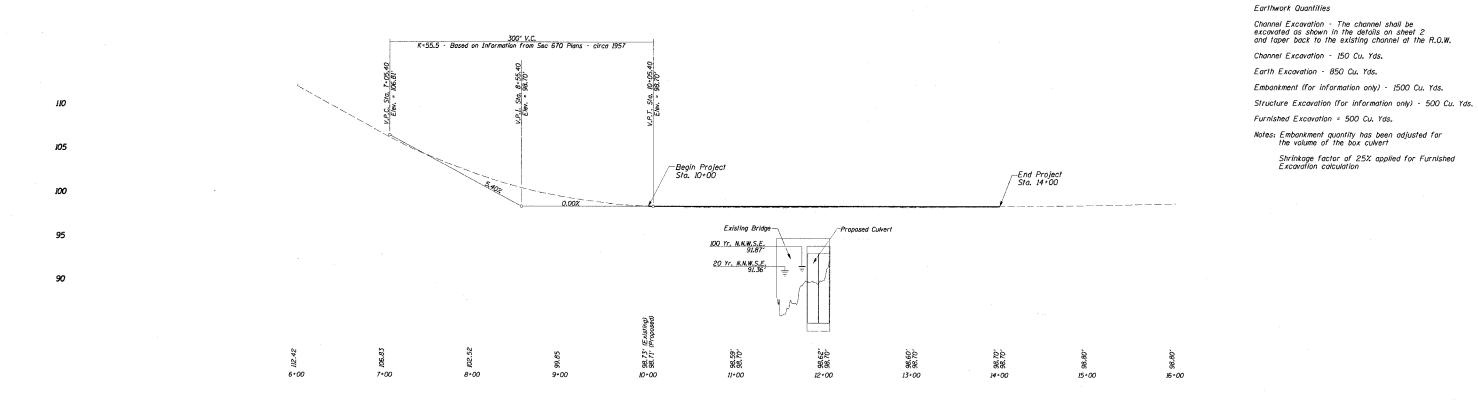
B.M. # 1 - Chiseled "X" in NE. Wingwall 11.95' Right, Sta. 12+32.64, Elev. = 100.00'



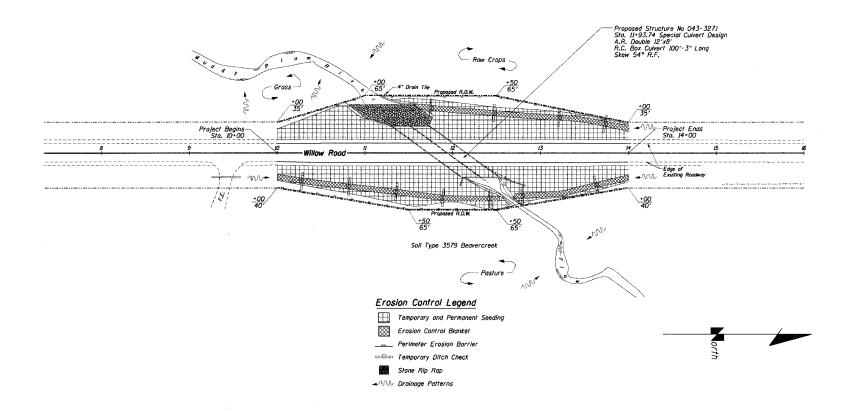
Schedule of Quantities

B.M. # 3 - Spike Nail in Power Pole 34.85' Left, Sta. 15+55.31, Elev. = 98.42'

Shrinkage factor of 25% applied for Furnished Excavation calculation

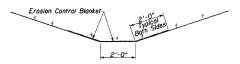


Erosion Control Plan



Bill of Materials

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>
Temporary Erosion Control Seeding	Pound	350
Seeding Class 2 (Special)	Acre	0.84
Temporay Ditch Checks	Each	11
Perimeter Erosion Barrier	Feet	1050
Earth Excavation for Erosion Control	Cu. Yd.	10
Erosion Control Blanket	Sq. Yd.	75
Stone Riprap, Class A5	Sq. Yd.	190
Filter Fabric	Sq. Yd.	190



Erosion Control Blankent Installation Detail

See Standard 280001-03 for Details on Remaining Erosion Control Items

Description of Stabilization Practices During Construction

- 1. During construction, areas outside the construction limits as outlined previously herein shall be protected.

 The contractor shall not use this area for staging (except as described on the plans and directed by the Engineer), parking of vehicles or construction equipment, storage of materials, or other construction related activities.
- (a.) Within the construction limits, areas which may be susceptible to erosion as determined by the Engineer shall remain undisturbed until full-scale construction is underway to prevent unnecessary soil erosion.
- (b.) Earth stockpiles shall be temporarily seeded if they are to remain unused for more than fourteen days.
- (c.) As construction proceeds, the contractor shall institute the following as directed by the Engineer:
 - i. Place temporary erosion control facilities at locations shown on the plans.
 - ii. Temporarily seed erodible bare earth on a weekly basis to minimize the amount of erodible surface area within the contract limits.
 - ill. Construct roadside ditches and provide temporary erosion control systems.
 - iv. Temporarily divert water around proposed culvert locations.
 - v. Build necessary embankment at culvert locations and then excavate and place culvert.
 - vi. Continue building up the embankment to the proposed grade while at the same time, placing permanent erosion control such as rip rap ditch lining and conducting final shaping to the slopes.
- (d.) Excavated areas and embankment shall be permanently seeded immediately after final grading. If not, they shall be temporarily seeded if no construction activity in the area is planned for 7 days.
- (e.) Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel of other pollutant in accordance with EPA water quality regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site.
- (f.) The Resident Engineer shall inspect the project daily during construction activities. Inspection shall also be done weekly and after rains of ½ inch or greater or equivalent snowfall and during the winter shutdown period.
- (g.) Sediment collected during construction of the various temporary erosion control systems shall be disposed of on the site on a regular basis as directed by the Engineer. The cost of this maintenance shall be included in the unit bid price for earth excavation for erosion control.
- (h.) The temporary erosion control systems shall be removed as directed by the engineer after use is no longer needed or no longer functioning. The cost of this removal shall be included in the unit bid price for various temporary erosion control pay items.

Description of Structural Practices after Final Grading

- Temporary erosion control systems shall be left in place with proper maintenance until permanent erosion control
 is in place and working properly and all proposed turf areas seeded and established.
- Once permanent erosion controls as proposed in the plans are functional and established, temporary liems shall be removed, cleaned up, and disturbed turf re seeded.

Maintenance after Construction

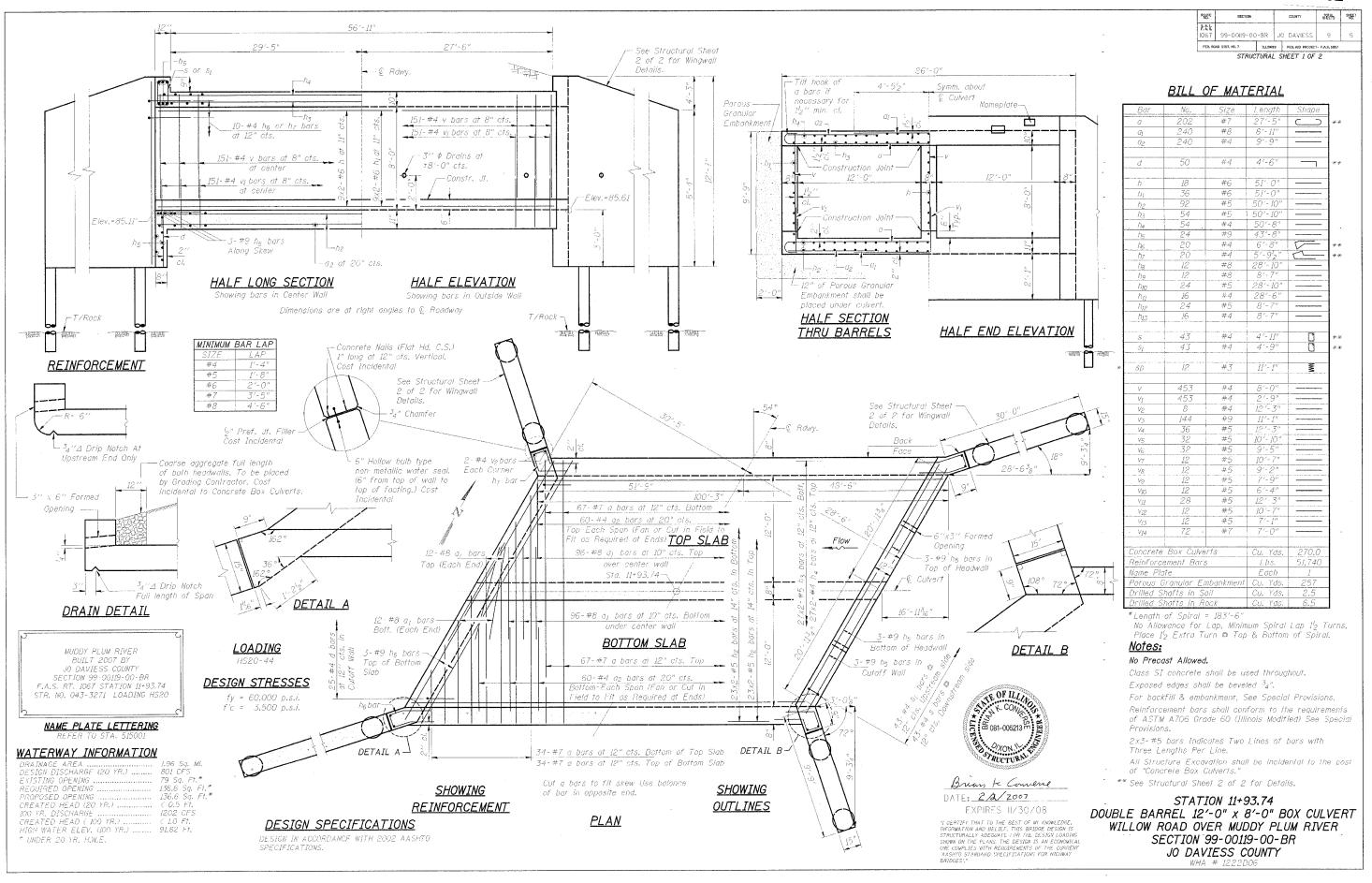
1. Construction is complete after acceptance by I.D.O.T. final inspection. Maintenance up to this date will be by the

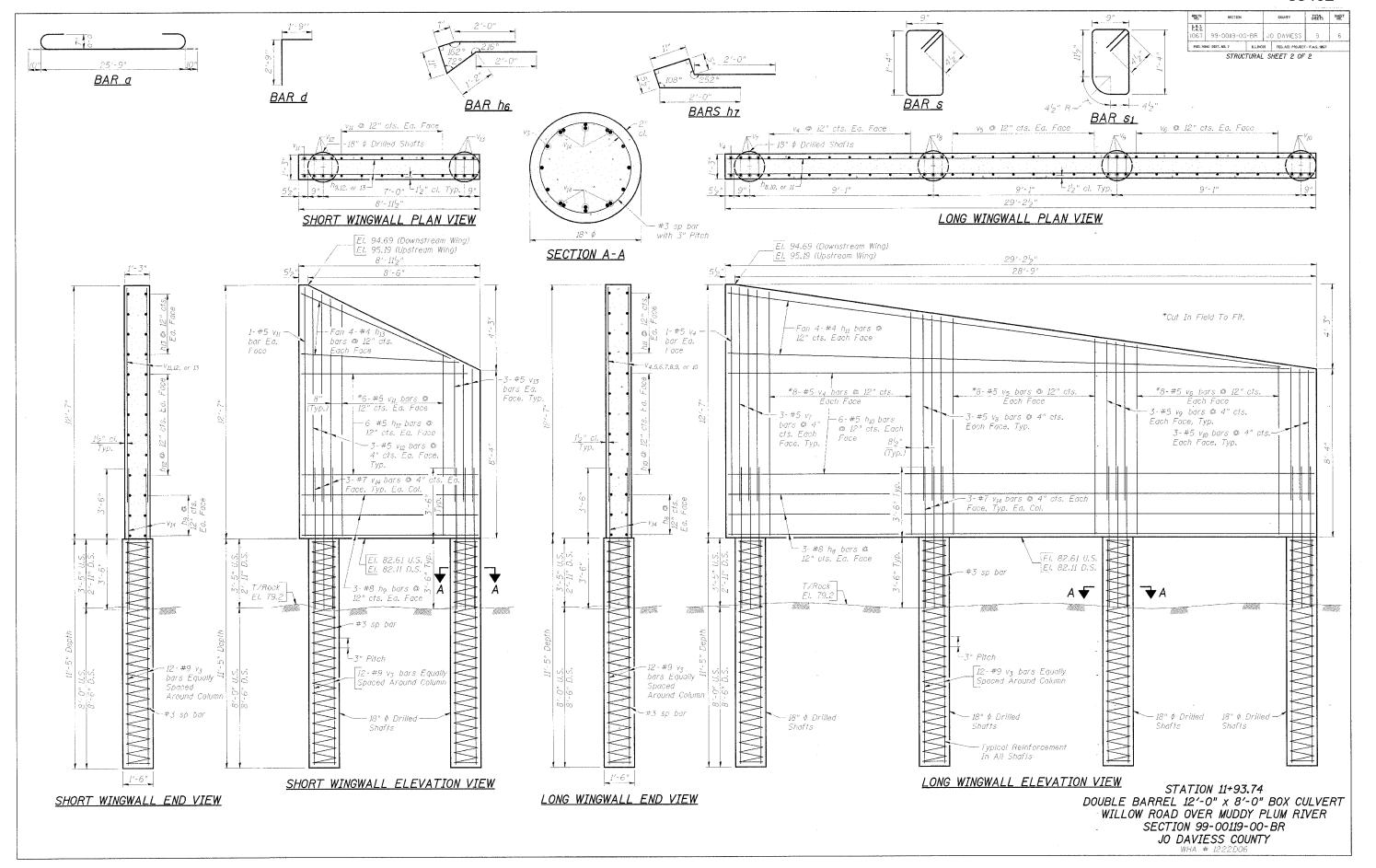
Miscellaneous

- 1. Temporary ditch checks shall be located at every 1.5 ft. fall/rise ditch grade.
- 2. Temporary erosion control seeding shall be applied at a rate of 100 lbs/acres.
- Temporary ditch checks shall be constructed with products from the Department's approved list or shall be constructed from aggregate with the approval of the Engineer.
- 4. Sediment collected during construction by the various temporary erosion control systems shall be disposed of on the site on a regular basis, as directed by the Engineer. The cost of this maintenance shall be paid for at the contract unit price per cubic yard for earth excavation for erosion control.
- 5. All erosion control products furnished shall be specifically recommended by the manufacturer for the use specified in the erosion control plan. Prior to the approval and use of the product, the contractor shall submit to the Engineer a notarized certification by the producer stating the intended use of the product and that the physical properties required for this application are met or exceeded. The contractor shall provide manufacturer installation procedures to facilitate the Engineer in the construction inspection.

Notes: All items shall be constructed as shown on standard 280001-03 and as directed by the Engineer. Maintenance and cleaning of the erosion control items shall be included in the respective erosion control pay items.

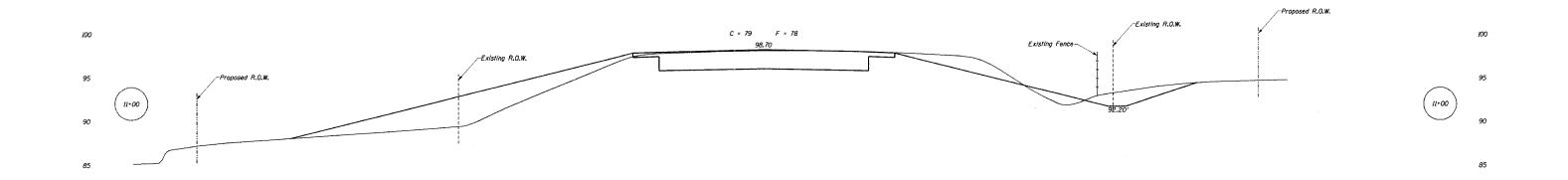
See proposal booklet for the "Storm Water Pollution Prevention Plan".

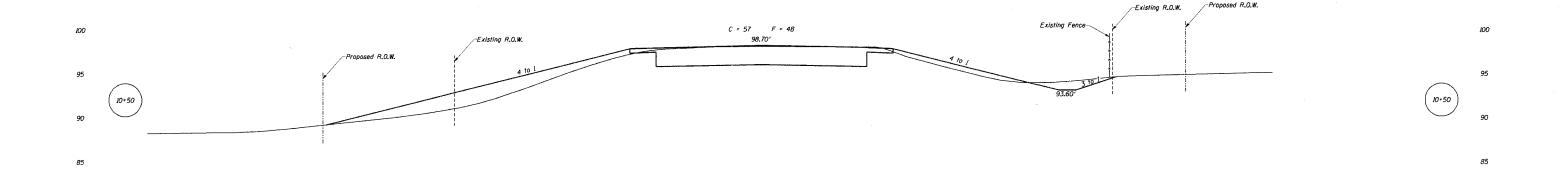


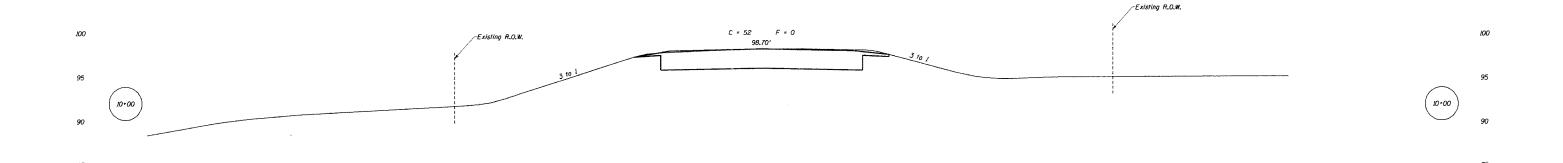


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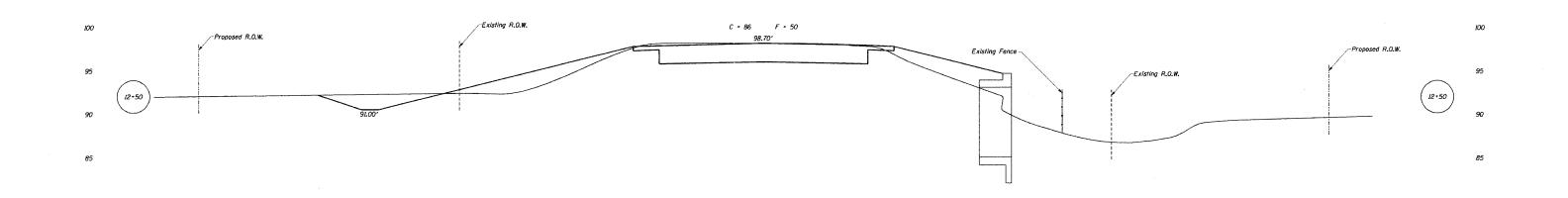


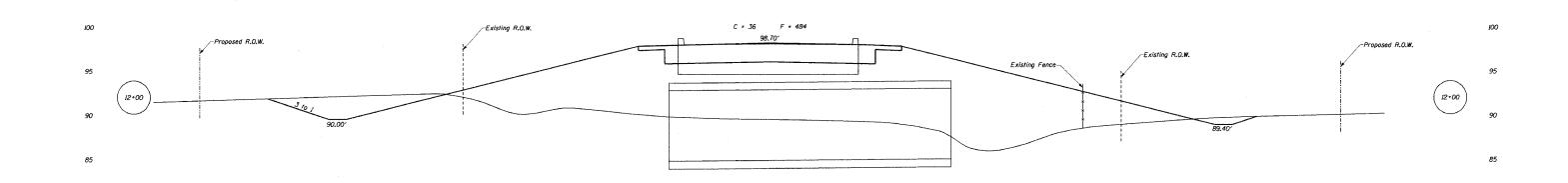


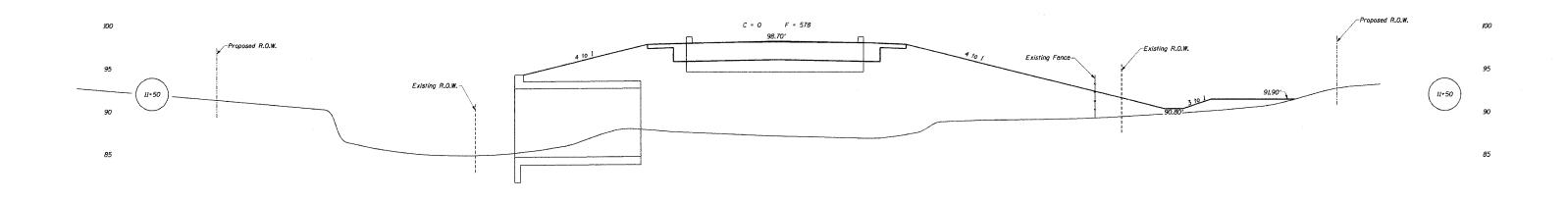
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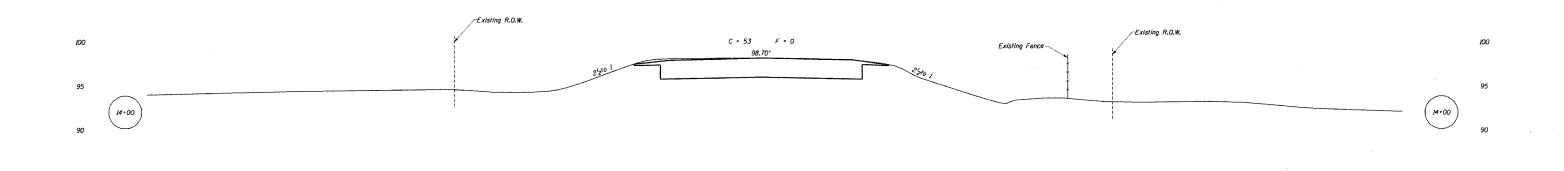


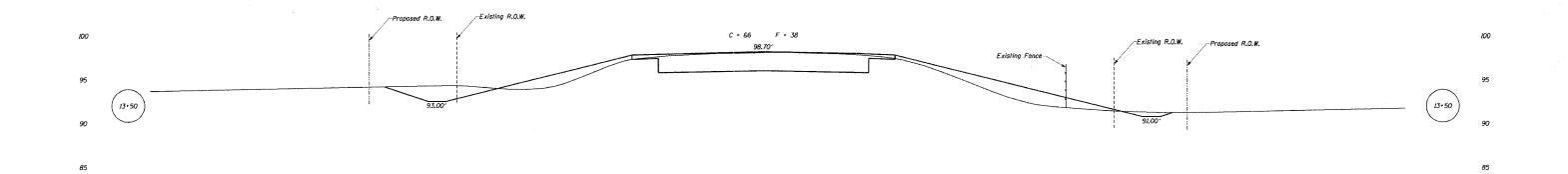


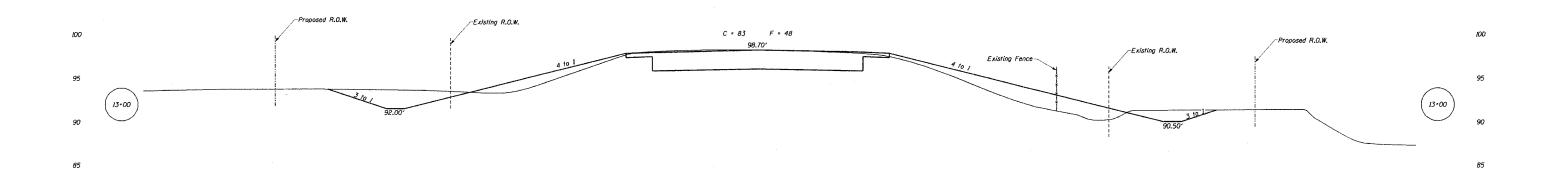
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