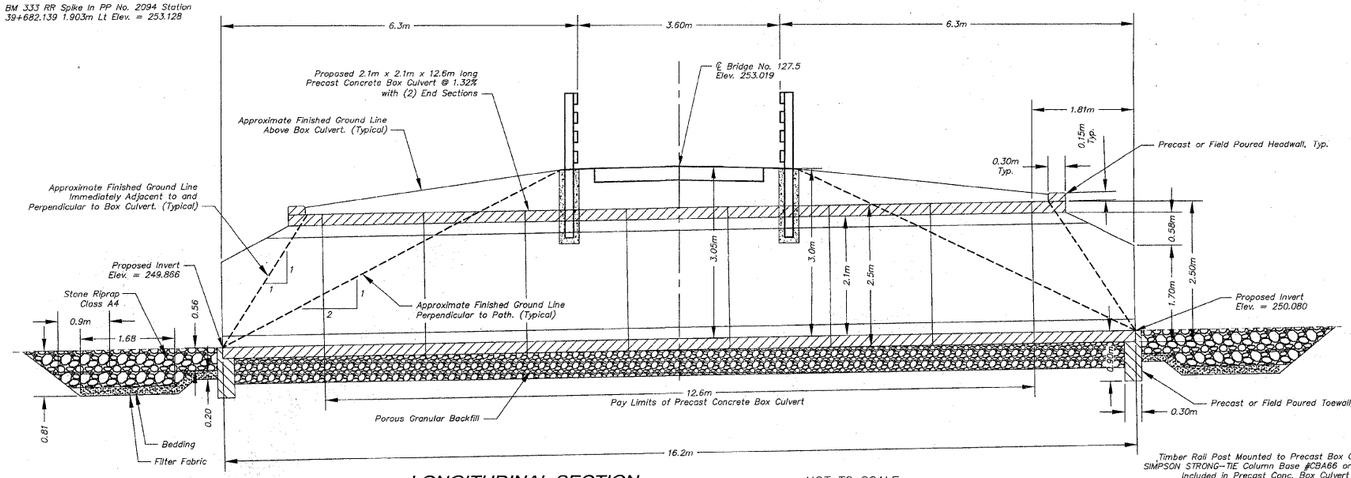
BENCH MARK

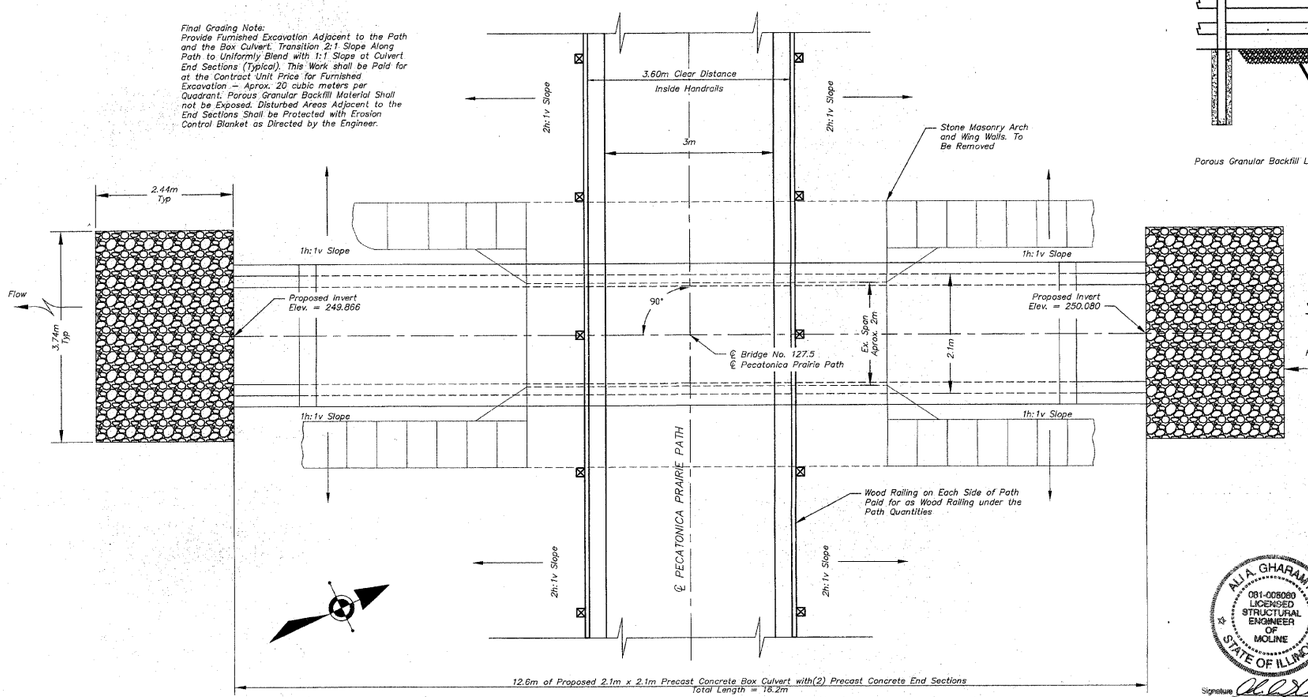
BM 333 RR Spike in PP No. 2094 Station 39+682.139 1.903m Lt Elev. = 253.128



LONGITUDINAL SECTION

(Looking East) NOT TO SCALE

Final Grading Note:
Provide Furnished Excavation Adjacent to the Path and the Box Culvert. Transition 2:1 Slope Along Path to Uniformly Blend with 1:1 Slope at Culvert End Sections (Typical). This Work shall be Paid for at the Contract Unit Price for Furnished Excavation — Aprox. 20 cubic meters per Quadrant. Porous Granular Backfill Material Shall not be Exposed. Disturbed Areas Adjacent to the End Sections Shall be Protected with Erosion Control Blanket as Directed by the Engineer.

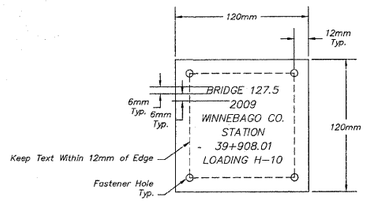


PLAN

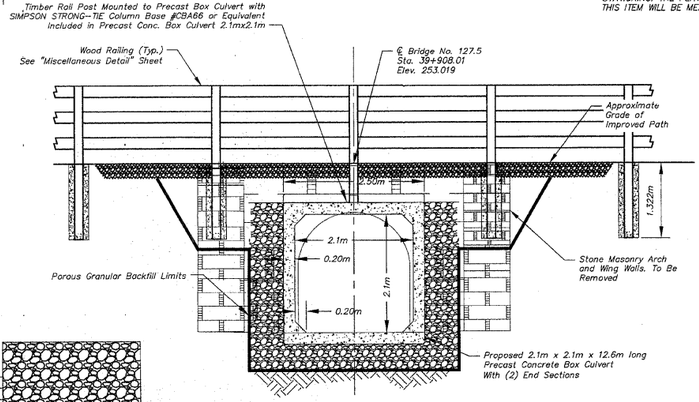
NOT TO SCALE

BRIDGE 127.5 NOTES

1. THE PRECAST CONCRETE BOX CULVERT BARREL SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C850 AND THE END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ARTICLES 1003.02 AND 1004.02 OF THE STANDARD SPECIFICATIONS, WITH THE EXCEPTION OF A GRADATION.
2. ALL TREE REMOVAL AND SELECTIVE BRUSH CLEARING SHALL BE IN ACCORDANCE WITH THE PLANS AND SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER. TREE REMOVAL AND SELECTIVE CLEARING WILL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE FOR THE APPROPRIATE ITEM.
3. THE CONTRACTOR SHALL REMOVE EXISTING STONE ARCH TO A MINIMUM DEPTH OF 1.5m BELOW FINISHED GRADE. THE CONTRACTOR SHALL REMOVE EXISTING WING WALLS.
4. PRECAST CONCRETE BOX CULVERT SECTIONS AND BOX CULVERT END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 540.06 OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE REQUIREMENTS OF AASHTO M273M.
5. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENT OF AASHTO M31M. M42M OR M53M GRADE 420.
6. LIFTING HOLES SHALL BE FILLED WITH CONCRETE PLUGS AND MASTIC AFTER BOX SECTIONS ARE IN PLACE.
7. BOX CULVERT SECTIONS AND END SECTIONS SHALL BE PRECAST, CAST-IN-PLACE CONCRETE. ALTERNATIVE FOR BOX CULVERT SECTIONS AND END SECTIONS IS NOT ALLOWED. HEADWALL AND TOEWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE.
8. THE EXCAVATION AND BACKFILLING FOR PRECAST CONCRETE BOX CULVERT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 502 OF THE STANDARD SPECIFICATIONS EXCEPT A LAYER OF POROUS GRANULAR BACKFILL, AT LEAST 457mm(18") IN THICKNESS, SHALL BE PLACED BELOW THE ELEVATION OF THE BOTTOM OF THE BOX. THE POROUS GRANULAR BACKFILL SHALL BE PLACED TO EXTEND AT LEAST 600mm(2') EACH SIDE OF THE BOX. THE PRECAST CONCRETE BOX CULVERT SHALL BE LAID IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ARTICLE 542.04 (d) OF THE IDOT STANDARD SPECIFICATIONS. STRUCTURE EXCAVATION WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED WITH THE COST OF REMOVING THE EXISTING STRUCTURE.
9. SHOP PLANS FOR THE PRECAST CONCRETE BOX CULVERT SECTIONS AND THE END SECTION SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 1042.03 (b) OF THE IDOT STANDARD SPECIFICATIONS.
10. THE PRECAST CONCRETE BOX CULVERT EXCLUDING END SECTIONS WILL BE MEASURED AND PAID PER METER FOR PRECAST CONCRETE BOX CULVERT, OF THE SIZE SPECIFIED, AND INCLUDES POROUS GRANULAR BACKFILL EXCAVATION EXCEPT EXCAVATION OF ROCK AND/OR UNSUITABLE MATERIAL BELOW BEDDING GRADE.
11. THE PRECAST CONCRETE BOX CULVERT END SECTION WILL BE MEASURED ON AN EACH BASIS. THE END SECTIONS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR BOX CULVERT END SECTIONS, OF THE CULVERT NUMBER SPECIFIED, AND INCLUDE EXCAVATION, TOEWALL AND HEADWALL.
12. CONTRACTOR SHALL FURNISH AND INSTALL A BRASS NAME PLATE IN ACCORDANCE WITH SECTION 515 OF THE IDOT STANDARD SPECIFICATIONS EXCEPT THAT IT SHALL BE INSTALLED WITH FOUR (4) TAMPER RESISTANT SCREWS TO THE TOP TIMBER RAIL ON THE RIGHT-HAND SIDE ABOVE THE CULVERT WHILE LOOKING IN THE DIRECTION OF INCREASING STATIONING. THE PLATE SHALL BE MADE OF SOLID BRASS 3MM THICK WITH IMPRINTED STAMP LETTERING 6MM HIGH. THIS ITEM WILL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE FOR NAME PLATES.



NAME PLATE



SECTION THRU BARREL

NOT TO SCALE

DESIGN LOADING

H-10

Design Fill Height < 610mm

DESIGN STRESSES

f'c = 35 MPa (PRECAST)

f'c = 24 MPa (FIELD POURED)

Reinforcing fy = 450 MPa (WELDED WIRE FABRIC)

Reinforcing fy = 420 MPa (FIELD POURED)

Fasteners fy = 248 MPa

DESIGN SPECIFICATIONS

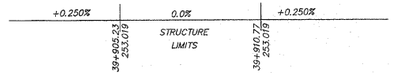
2002 AASHTO Standard Specifications — 17th Edition

SEISMIC DATA

Seismic Performance Category (SPC) = A

Bedrock Acceleration Coefficient (A) = 3.25%

Site Coefficient(s) = 1.0



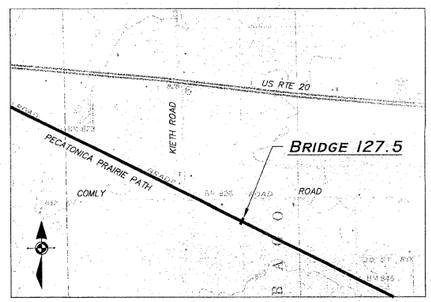
PROFILE GRADE

BILL OF MATERIAL - BRIDGE 127.5

ITEM	UNIT	QUANTITY
PRECAST CONC BOX CULVERT 2.1M X 2.1M	M	12.6
BOX CULVERT END SECTIONS	EA	2
REMOVE EXIST. STONE ARCH & WING WALLS	EA	1
POROUS GRANULAR BACKFILL	CM	132
STONE RIPRAP, CLASS A5	SM	18
FILTER FABRIC	SM	18
NAME PLATE	EA	1

ALI A. GHARAMTI
081-008080
LICENSED STRUCTURAL ENGINEER OF MOLINE
STATE OF ILLINOIS

Signature
Date 3/5/09
Exp. Date 11/30/10



LOCATION SKETCH

GENERAL PLAN & ELEVATION OVER A TRIBUTARY DITCH TO THE PECATONICA RIVER SECTION 94-00267-00-BT WINNEBAGO COUNTY STATION 39+908.01

REVISIONS		
NO.	ITEM	DATE
2	IDOT Review Comments and Internal Review	1/28/2009

PLOTTING SCALE: 1 : 1
DRAWN BY: JRC/CDS
CHECKED BY:
DATE: DECEMBER, 2008

McClure Engineering Associates, Inc.
7282 Argus Drive (815) 398-2332
Rockford, Illinois 61107-5837 FAX (815) 398-2496
Design Firm License: Illinois 184-000816

BRIDGE NO. 127.5 STA. 39+908.01

PECATONICA PRAIRIE PATH Contract 85443

WINNEBAGO COUNTY HIGHWAY DEPARTMENT SECTION 94-00267-00-BT

FILE NAME: G:\surveys\PECPATH\1ST RELEASE\98-037 a127.5.dwg JOB NUMBER: 04-28-98-037

SHEET NO. 87 OF 98