

**CASS COUNTY HIGHWAY DEPARTMENT  
BIDDERS PROPOSAL**

**FOR  
COUNTY PROJECT CB1201  
BOX CULVERT REPLACEMENT**

15/22 Gunkel Township on Cass Highway 34,  
in Cass County, North Dakota

**Date of Letting: 10:00 A.M., April 11th, 2013**

Proposal of: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**COUNTY PROJECT CB1201**  
**BOX CULVERT REPLACEMENT**

15/22 Gunkel Township on Cass Highway 34,  
in Cass County, North Dakota

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

\_\_\_\_\_/s/  
Jason P. Benson  
ND Reg. No. 7490

Date: \_\_\_\_\_ 3/15/13

GOVERNING SPECIFICATIONS:  
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED BY THE NORTH DAKOTA DEPARTMENT OF TRANSPORTATION, OCTOBER 2008; SHALL APPLY, STANDARD DRAWINGS CURRENTLY IN EFFECT; AND OTHER CONTRACT PROVISIONS SUBMITTED HEREIN.

THIS DOCUMENT WAS ORGINALLY ISSUED AND SEALED BY JASON P. BENSON, ND REG. NO. 7490 ON 3/15/13 AND THE ORIGINAL DOCUMENT IS STORED AT THE CASS COUNTY HIGHWAY DEPARTMENT, WEST FARGO, ND.

**COUNTY PROJECT NUMBER CB1201**

**BOX CULVERT REPLACEMENT**

**INSTRUCTIONS TO BIDDERS:**

The Cass County Auditor at the Auditor's Office, 211 9th Street South, Fargo, North Dakota, will receive sealed bids until 10:00 A.M. on April 11, 2013. Bids will be opened immediately following the hour set for receiving bids in the Grasslands Room (Old Commission Room) at the Cass County Courthouse, 211 9th Street South, Fargo, North Dakota.

Plans and proposals may be obtained at the office of the Cass County Engineer at West Fargo, North Dakota, at \$10.00 per set, non-refundable.

All envelopes containing bids must be clearly marked on the outside "**BID FOR COUNTY HIGHWAY 34 BRIDGE REPLACEMENT**", and the current North Dakota Contractors license number must be shown.

A bidder's bond in the amount of 5% of the amount bid, made payable to Cass County shall accompany each bid in a SEPARATE ENVELOPE ATTACHED TO THE OUTSIDE OF THE BID. Certified or Cashier's checks will not be accepted. **A copy of the current ND Contractor's License or certificate of renewal shall be included in the Bid Bond envelope.** No bid will be read or considered which does not comply with the bond or license requirements.

Prequalification is required for all bidders prior to obtaining a bidder's proposal. Contractors may be required to submit information detailing their ability to perform the work specific to this project. Cass County shall determine the Prequalification status of each contractor requesting a proposal, and reserves the right to deny bid documents to any contractor based on the County's responsibility determination.

The County reserves the right to reject any or all bids, and to waive any irregularities. All bidders must be qualified to bid under the laws of the State of North Dakota.

**COUNTY PROJECT NUMBER CB1201**

**BOX CULVERT REPLACEMENT**

**INDEX OF PROVISIONS:**

North Dakota Supplemental Specifications

Supplemental Specifications dated March 1, 2013 are not included in this proposal but are available at the county engineer's office, or be downloaded from the NDDOT's website at the following website:

<http://www.dot.nd.gov/dotnet/suplspecs/standardspecs.aspx>

Price Schedule for Miscellaneous Items Dated January 1, 2012

Special Provision 13-1 Contractor License & Contractor Claims

Construction Notes

Box Culvert Details

Location Map

Standard Drawings

NUMBER

TITLE

D-704-8, 9, 10, 11, 12, 14, 15, 22, & 26

CONSTRUCTION SIGNING

**STANDARD DRAWINGS ARE NOT INCLUDED IN PLANS BUT ARE AVAILABLE AT THE COUNTY ENGINEER'S OFFICE.**

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

PRICE SCHEDULE FOR MISCELLANEOUS ITEMS

January 1, 2012

The Contractor agrees to accept the following unit prices for each listed item of work and/or material when no project Contract Unit Price exists for that item. Each price listed will be full compensation for the cost of labor, material, and equipment necessary to provide the item of work and/or material, complete in place, including (but not limited to) royalty, disposal of unsuitable material, equipment rental, sales tax, use tax, overhead, profit, and incidentals.

Payment for items of work under this schedule performed by a Subcontract shall include an additional allowance for the Prime Contractor as specified in Section 104.03 of the Standard Specifications.

Each listed price is referenced to the Standard Specifications by Section number and Section name.

SECTION NO.	SECTION NAME	ITEM NAME	PRICE PER ITEM
107.05 A.1	Maintaining Traffic	Flagging	\$25 per MHR
107.05 B.1	Haul Roads	Water	\$21 per M Gal.
107.05 B.7	Haul Roads	Bituminous Mix	\$28 per Ton**
107.05 B.7	Haul Roads	Bitumen for Mix	Invoice Price* + 10%
107.05 B.7	Haul Roads	Aggregate Base	\$13 per Ton**
203.01 B	Rock Excavation	Rock Excavation	\$8.40 per CY
203.01 C	Shale Excavation	Shale Excavation	Common Excavation Bid Price + \$0.70 per CY
203.01 D	Muck Excavation	Muck Excavation	\$7 per CY
203.02 F	Embankment Construction	Overhaul	\$1.12 per CY - Mile
407.07 B.2.a or 408.07 C.2.a	Hot Bit. Pavement (Excavated Material Hauled to Disposal Area)	Bituminous Mixture	Machine Placed: Bid or Invoice Price + \$20 per Ton Hand Placed: Bid or Invoice Price + \$37 per Ton
420.06	Bituminous BOX CULVERT REPLACEMENT	Blotter Sand	\$23 per Ton**
650.04 D.2 Step 3 650.05 D.2 Step 3	Repair & Overlay of PCC Bridge Decks	Low-Slump Concrete	\$335.55 per CY
708	Erosion Control	Mucking Silt Fence	\$3.00 per L.F.
708	Erosion Control	Mucking of Fiber Rolls	\$3.00 per L.F.
708	Erosion Control	Removal of Silt Fence	\$3.50 per L.F.
708	Erosion Control	Removal of Fiber Rolls	\$3.50 per L.F.

\* Price paid for bituminous material will be Invoice Price plus Freight Costs.

\*\* Price includes haul up to 10 miles. Payment for haul exceeding 10 miles will be according to Section 109.04 C of the Standard Specifications. The haul distance for Aggregate Base and Bituminous Mix will be based on the average haul. The haul distance for Blotter Sand will be from the point where the haul begins to the point where it enters the project.

**CASS COUNTY HIGHWAY DEPARTMENT**

**SPECIAL PROVISION 13-1**

January 1, 2013

**SECTION 102.02 CONTRACTOR LICENSE**

Section 102.02 of the Standard Specifications for Road and Bridge Construction, 2008 edition is deleted. All bidders must possess a current North Dakota Contractors License in accordance with § 43-07-12 of the North Dakota Century Code.

**SECTION 104.06 CONTRACTOR CLAIMS**

If the Contractor claims additional compensation for work or material not covered by the Contract, the Contractor is required to prosecute the claim in accordance with Standard Specifications for Road and Bridge Construction, 2008 edition, paragraph 104.06, et seq. The provisions of subparagraph 104.06 D are not applicable to this contract, nor are the provisions of North Dakota Century Code 24-02-26 et seq. as the North Dakota Department of Transportation is not a party to this contract.

References in the Standard Specifications for Road and Bridge Construction, 2008 edition, to the North Dakota Department of Transportation or Department must be construed as referring to the owner. Likewise, a reference by the same works to engineer or director must be construed as referring to the owner of the project.

Not For Bidding

## CONSTRUCTION NOTES

### PRECAST REINFORCED CONCRETE BOX CULVERT

**Precast Reinforced Concrete Box Culvert:** A double 12-foot x 5-foot (2 Single Lines) x 56-foot long (barrel length) precast reinforced concrete box culvert shall be installed at the existing centerline of the bridge. It shall be designed for one and a half feet of fill.

The installation of the precast RCB shall satisfy the applicable portions of "AASHTO standard specifications for highway bridges," Division II, Section 27, and Section 2 along with Section 210 of the "North Dakota standard specifications for road and bridge construction." The contractor shall provide a 6-inch minimum thickness of sand bedding (screedable fine granular material) for a leveling course, and a 1' minimum thickness of 1.5-inch crushed rock for foundation fill under the RCB. Geotextile fabric type S1 shall be placed between the foundation fill and the sand bedding.

The design and manufacture of the precast RCB shall satisfy the applicable portion of "AASHTO standard specifications for highway bridges," division I, section 17, and "AASHTO materials specification M259." The design shall also meet or exceed the following criteria:

- A. Live load: HS25
- B. Load factor design
  - 1. Dead load factor = 1.30
  - 2. Live load factor = 2.17
  - 3. Strength reduction ( $\phi$ ) factors
    - A. Shear = 0.85
    - B. Flexure = 0.9
- C. Dead loads
  - 1. Concrete = 150 lbs./cu. ft.
  - 2. Earth = 120 lbs./cu. ft.
  - 3. Lateral earth = 40 lbs./sq. ft./ft. of depth
- D. Applications of loads - the RCBs shall be designed for the greater moments and shears resulting from the following two load conditions:
  - 1. Dead load + live load + balanced lateral earth load
  - 2.  $0.8 \times$  (dead load + live load + unbalanced lateral earth load). The unbalanced lateral earth load occurs when one side of the culvert has 40 lbs/sq. ft./ft. of depth while the other side has 20 lbs./sq. ft./ft. of depth.

The precast RCB shall be comprised of barrel sections and end sections. The concrete used to make the sections shall have a minimum compressive strength of 4,000 psi.

The barrel sections shall not be any shorter than 4 feet long. The minimum thickness of the barrel parts is 10 inches for the roof and floor, and 8 inches for the walls. Any haunch or fillet at the inside corners of the barrel shall not exceed a triangular shape with 12 inch horizontal and 12 inch vertical legs. The barrel section joints shall be tongue and groove.

The end sections shall include a reinforced concrete parapet on the top of the roof, and a reinforced concrete cutoff wall below the floor. The parapet shall be 1' x 1' and shall be as long as the barrel section is wide. The cutoff walls shall be placed under the end of the apron and shall be a minimum of 8 inches thick, 2.5 feet deep, and 3 feet longer than the barrel sections are wide. Holes shall be cast at 3' centers through the floor of each end section and into the cutoff walls to receive 3/4" diameter dowels. Then the voids shall be filled with grout. The slope of the end sections shall not be any steeper than 2 to 1, measured perpendicular to the centerline of the roadway. The end of the section shall not be higher than 2' - 4" above the floor. The end sections shall be connected to the main barrel by the use of galvanized U-bolts or galvanized steel-bolted plates in such a manner that the inside corner surface is smooth.

An acceptable method shall tie all the RCB sections together. The ties should adequately hold the sections together under construction load and service load conditions. The sections shall be tied together with prestressing strands or galvanized steel U-bolts. There shall be a minimum of four strands at each joint placed at each outside corner. If the U-bolts are used, the four U-bolts will be located at the third points of the outside walls. All hardware shall either be hot-dipped galvanized according to section 854 of the "North Dakota Standard Specifications for Road and Bridge Construction" or mechanically galvanized according to ASTM B695. Prestressing cables shall be corrosion protected and their ends grouted.

The top and two outside surfaces of each barrel section joint shall be wrapped with a geotextile fabric that prevents soil from leaking through the joint. The geotextile fabric shall be a minimum of 24 inches wide and shall meet the requirements of geotextile fabric type S1. Geotextile fabric shall also be required at the outside of each cutoff wall vertical joint, if more than one unit is used. A groove should be made in the bedding 1" deep and 2" - 3" wide in front of each joint to prevent sand from being pushed into the joint during installation. Each joint shall also be sealed with 1 1/4" cord preformed plastic joint sealant (ASTM C-990) on all four sides or on the bottom and up 1/3 of the sides.

The costs of providing and installing the ties, the geotextile fabric, and joint sealant shall be included in the price bid for the precast RCB.

The contractor shall submit shop drawings to the construction engineer for approval before the manufacture of the RCB sections. These shop drawings shall show a minimum of the following:

- Layout showing RCB placement and clearances.
- Type and strength of concrete and reinforcing steel.
- All concrete and reinforcing dimensions.
- Reinforcing steel clearances.
- Method of tying sections together.
- Method of covering and sealing the joints.
- Installation and handling instructions.

End sections are required on each end of both lines. Barrels shall be spaced 1 foot apart, and flowable fill shall be used between the box culverts (including end sections). At each end, the flowable fill shall be capped with 6" of 3,000 psi concrete. The concrete cap, and any other additional items required for the installation of flowable fill shall be included in the price bid for flowable fill. Mix design for flowable fill shall be approved by engineer prior to placement.

**Aggregates:** The attention of the bidders is directed to M.S. 298.75 (Aggregate Material Tax), pursuant to the removal of aggregates from any deposit in Minnesota.

**Haul Roads:** The Contractor's attention is directed to Section 107.05 B of the Standard Specifications with regard to the use of public roads for hauling materials to the project. It shall be the Contractor's responsibility to investigate the suitability of routes with the agency having control of the road prior to submitting a bid.

**Removal of Structure:** This bid item shall include all costs associated with the removal of existing 12' x 5' wooden double cell structure. The structure shall be removed in its entirety. All material shall be disposed of off-site at a location of the contractor's choosing, approved by the engineer. Burial of the removed material will not be permitted.

**Select Backfill:** The Class 5 aggregate backfill shall be compacted in layers not to exceed 6 inches using a hand-held vibratory plate compactor or hand-held mechanical tamper to the top pipe a distance of two feet on either side of the pipe. All equipment shall be operated to produce a uniform density throughout the entire section. The desired degree of compaction will be considered obtained when the surface is tightly bound and shows no rutting or displacement under equipment operation. Water shall be applied as needed to secure required results. All other aggregate pertaining to pipe culverts shall be placed according to section 203.02H. Plan quantity includes 25% shrinkage.

**Flowable Fill:** CDF shall be used between the walls of the individual lines of precast RCB culverts. CDF shall have a compressive strength of 150-300 psi.

**Seeding:** Seeding - Type B Class V shall meet the requirements of section 708 of the standard specifications except that the minimum amount of live seed per acre shall be modified as follows:

CLASS V	POUNDS OF LIVE SEED PER ACRE
Meadow Bromegrass	20
Intermediate Wheatgrass	20
Crested Wheatgrass	20
Tetraploid Int. Ryegrass	8
Creeping Alfalfa	12
Rye	<u>20</u>
TOTAL	100

Total acreage is approximately 0.5 acres.

**Loose Rock Riprap And Geotextile Fabric Type RR:** Excavation quantities for placement of loose rock riprap and geotextile fabric type RR shall be included in the price bid for riprap and not paid for separately. This item shall be placed at the locations shown on the plans. Exact dimensions to be determined by the Engineer in the field, and quantities may vary. Riprap shall be 6" to 12" diameter and uniformly graded. Materials shall meet the requirements of sections 708.04, 709, and 858 of the standard specifications. Unit price will not be adjusted with increase or decrease in quantity.

**Traffic Control:** This item shall include all costs associated with flagging, and required signage for the site to safely close the road. No official detour shall be posted. Temporary local access shall be maintained at all times.

**Fiber Rolls 12IN:** This item shall include all costs with placing and securing the 12IN fiber rolls for siltation and erosion control.

**Geotextile Fabric – Type S1:** This item shall include all costs associated with the placement of the geotextile fabric – Type S1. Actual surface area will be the measurement used for payment, no allowances made for overlapping.

**Geotextile Fabric – Type R1:** This item shall include all costs associated with the placement of the geotextile fabric – Type R1. Actual surface area will be the measurement used for payment, no allowances made for overlapping.

Not For Bidding

**PROPOSAL**

Note: The envelope containing this proposal should be marked:

**“BID FOR COUNTY HIGHWAY 34 BRIDGE REPLACEMENT”**, in Cass County

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Proposal of: \_\_\_\_\_

\_\_\_\_\_  
Mailing Address

to furnish and deliver all materials and to do and perform all work, in accordance with the Standard Specifications, adopted by North Dakota Department of Transportation October 2008, Standard Drawings currently in effect, and other contract provisions submitted herewith of the North Dakota Department of Transportation except as specifically stated otherwise in the "Special Provisions" contained therein, for the improvement of a certain Public Highway in Cass County, State of North Dakota, on which proposals will be received until 10:00 o'clock A.M., on the 11th day of April, 2013, this project being known as Cass County Project No. CB1201. Said project being situated as follows: Box Culvert Replacement on a Cass Highway 34 in Gunkel Township between sections 15 and 22, 4.62 Miles E of State Highway 18.

Not For Bidding

**PROPOSAL**

**PROJECT NO:** CB1201

**TYPE:** BOX CULVERT REPLACEMENT

**LENGTH:** 0.02 MILES.

To The Chairman:  
Cass County Board of Commissioners  
Fargo, North Dakota

In accordance with the advertisement and notice to bidders from the Cass County Highway Department inviting proposals for the work on the project described above, the Bidder proposes to furnish all materials specified, and perform all work in the manner and at the time prescribed. The Bidder understands the quantities of work shown herein are approximate only, and are subject to increase or decrease. The bidder further understands that all quantities of work, whether increased or decreased, are to be performed at the unit prices proposed herein (except as otherwise provided in the contract documents).

The bid schedule, time for completion, other provisions, and bidder's affidavit follows:

Not For Bidding

**PROPOSAL**

**BID SCHEDULE FOR COUNTY PROJECT NUMBER CB1201**  
 BIDDER MUST TYPE OR NEATLY PRINT UNIT PRICES IN NUMERALS,  
 MAKE EXTENSIONS FOR EACH ITEM, AND TOTAL, DO NOT CARRY  
 UNIT PRICES FURTHER THAN THREE (3) DECIMAL PLACES.

CASS COUNTY HIGHWAY DEPARTMENT						
CB1201: 15-22 GUNKEL TOWNSHIP				ESTIMATED QUANTITIES		
ON CASS HIGHWAY 34						
OVER A TRIBUTARY OF THE ELM RIVER						
ITEM	SPEC NO.	DESCRIPTION	UNIT	APPROX. QUANTITY	UNIT COST	TOTAL
1	103	CONTRACT BOND	L SUM	1		
2	202	REMOVAL OF STRUCTURE	EA	1		
3	203	COMMON EXCAVATION	CY	266		
4	203	COMMON EXCAVATION - WASTE	CY	283		
5	210	SELECT BACKFILL	TON	354		
6	210	FLOWABLE FILL	CY	17		
7	210	REINFORCEMENT AGGREGATE	CY	112		
8	302	AGGREGATE BASE COURSE CL 5	TON	112		
9	638	12' x 5' PRECAST RCB	LF	132		
10	638	12' x 5' PRECAST RCB END SECTION	EA	4		
11	702	MOBILIZATION	L SUM	1		
12	704	TRAFFIC CONTROL	L SUM	1		
13	708	RIPRAP - LOOSE ROCK	CY	86		
14	708	SEEDING - TYPE B - CLASS V	ACRE	0.50		
15	708	MULCHING	ACRE	0.50		
16	708	FIBER ROLLS 12IN	LF	200		
17	709	GEOTEXTILE FABRIC - TYPE S1	SY	262		
18	709	GEOTEXTILE FABRIC - TYPE R1	SY	551		

TOTAL: \$ \_\_\_\_\_

RECEIPT OF ADDENDUMS

NO. 1 \_\_\_\_\_  
 NO. 3 \_\_\_\_\_

NO. 2 \_\_\_\_\_

**PROPOSAL**

**COUNTY PROJECT NUMBER:** CB1201

**TYPE:** BOX CULVERT REPLACEMENT

**TIME FOR COMPLETION:**

The undersigned Bidder agrees, if awarded the contract, to prosecute the work with sufficient forces and equipment to complete the contract work within the allowable time specified as follows:

**WORKING DAY CONTRACT:** N/A working days, counted as provided in Standard Specification No. 108.04. Working days will be counted from N/A or from the actual date on which on-site work is started, whichever is earlier.

**COMPLETION DATE CONTRACT:** August 30, 2013 provided however, that a minimum of N/A working days, counted as provided in Standard Specification No. 108.04, are guaranteed for the performance of the work. Working days will be counted from N/A or from the actual date on which onsite work is started, whichever is earlier.

Not For Bidding

**PROPOSAL**

**COUNTY PROJECT NUMBER:** CB1201

**TYPE:** BOX CULVERT REPLACEMENT

**CONTRACT EXECUTION:**

The undersigned Bidder agrees, if awarded the contract, to execute the contract form and furnish a contract bond within ten days, as determined by NDCC Section 1-02-15, after date of notice of tentative award, in accordance with the provisions of Sections 103.05 and 103.06 of the Standard Specifications.

**AFFIDAVIT:**

STATE OF \_\_\_\_\_

)ss.

COUNTY OF \_\_\_\_\_

The undersigned bidder, being duly sworn, does depose and say that he/she is an authorized representative

Of \_\_\_\_\_

\_\_\_\_\_, a

Mailing Address

\_\_\_ Individual    \_\_\_ Partnership    \_\_\_ Joint Venture    \_\_\_ Corporation

and that the said bidder has examined and carefully prepared its bid from the plans and specifications and has checked the same in detail before submitting said proposal or bid; and that the said bidder or its agents, office, or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal or bid.

\_\_\_\_\_,

Title \_\_\_\_\_

Bidder must sign on this line

Subscribed and sworn to  
before me this day

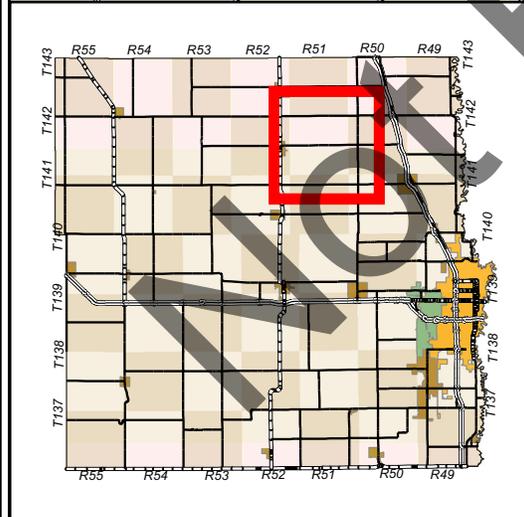
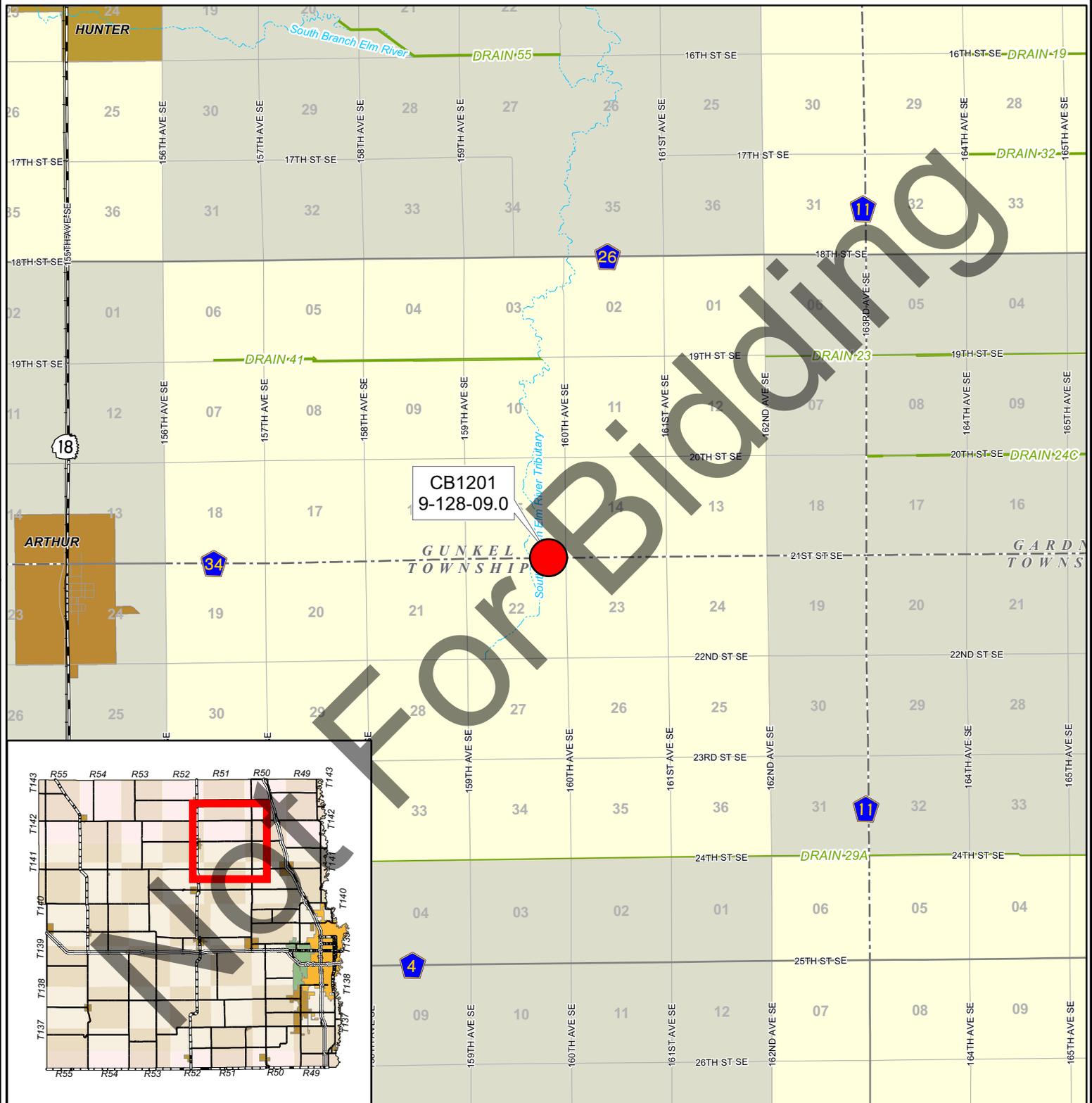
\_\_\_\_\_  
Type or Print Signature

\_\_\_\_\_ County, \_\_\_\_\_ State

\_\_\_\_\_  
Notary Public

My commission expires \_\_\_\_\_

# CASS COUNTY HIGHWAY DEPARTMENT COUNTY PROJECT NUMBER CB1201 - STRUCTURE REPLACEMENT COUNTY HIGHWAY 34 - Sections 15/22 GUNKEL TOWNSHIP - TRIBUTARY OF ELM RIVER

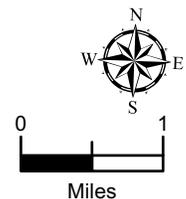


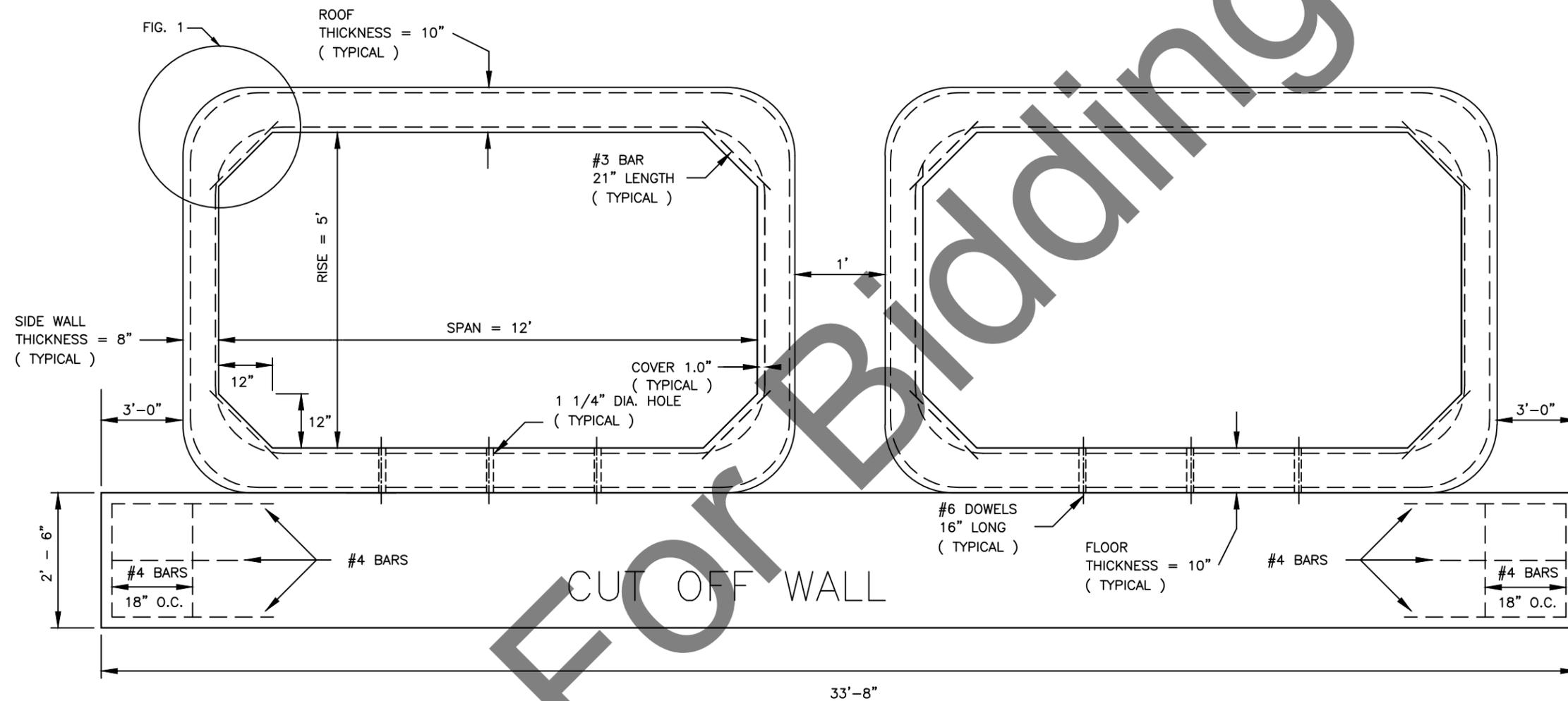
**CASS COUNTY GOVERNMENT**



Prepared by  
Cass County Highway Dept.  
February 2013

- |   |                |   |                     |   |             |
|---|----------------|---|---------------------|---|-------------|
|  | Bridge Project |  | Drain/Coulee/Ditch  |  | Interstates |
|  | City Limits    |  | Perennial Stream    |  | US Routes   |
|  | FARGO          |  | Intermittent Stream |  | State       |
|  | WEST FARGO     |   |                     |  | County      |





- NOTES:
1. SECTIONS SHALL BE FASTENED USING TIE BARS.
  2. AREA OF STEEL UNITS ARE IN SQ. IN. PER FT. ALL LAPS SHALL BE 14" UNLESS OTHERWISE STATED. REINFORCING SHALL MEET AASHTO M-55, AND SHALL BE GRADE 60. IF WELDED WIRE FABRIC IS USED, IT SHALL HAVE A YIELD STRENGTH OF 65,000 POUNDS PER SQUARE INCH.
  3. THE OUTSIDE OF ALL JOINTS TO BE COVERED WITH A GEOTEXTILE FABRIC 24" WIDE. THE FABRIC IS TO EXTEND ALL AROUND THE BOX SECTION AND BE HELD IN PLACE DURING BACK FILL PLACEMENT.
  4. FLOOR HOLES ARE FOR ATTACHMENT TO CUT OFF WALL AND SHOULD BE USED AT END SECTIONS ONLY.

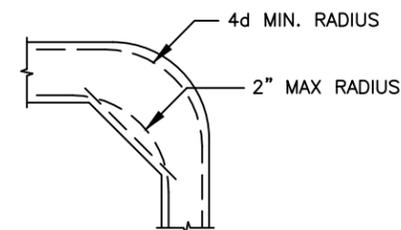
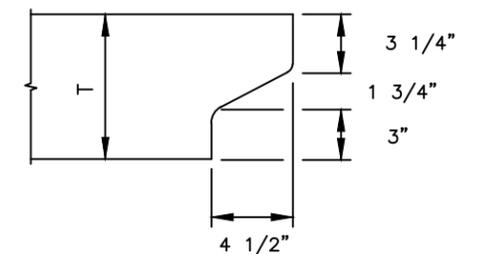
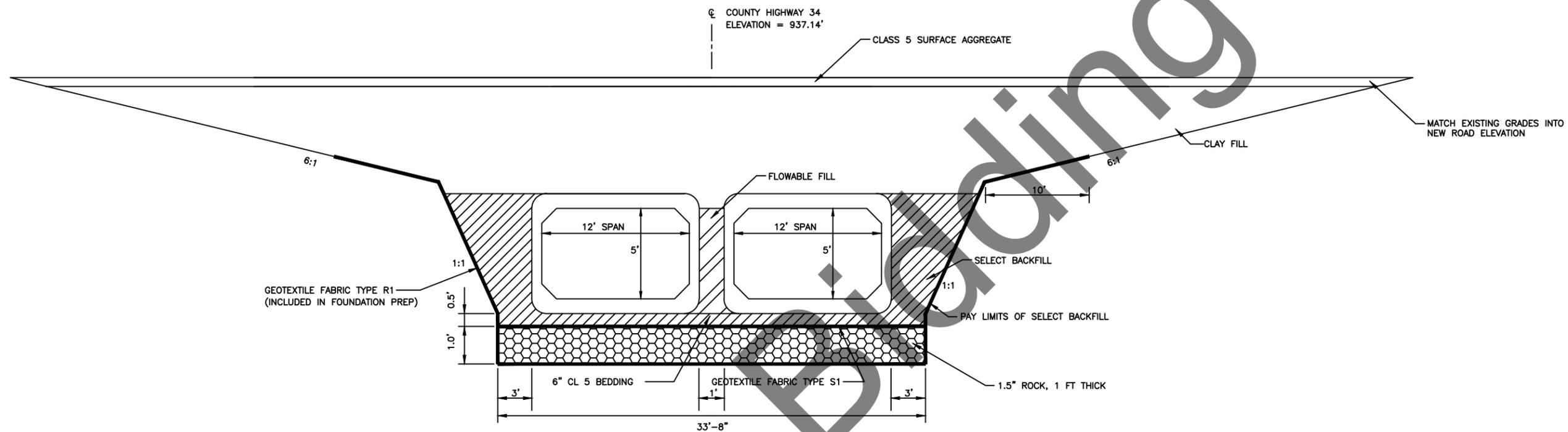


FIGURE 1

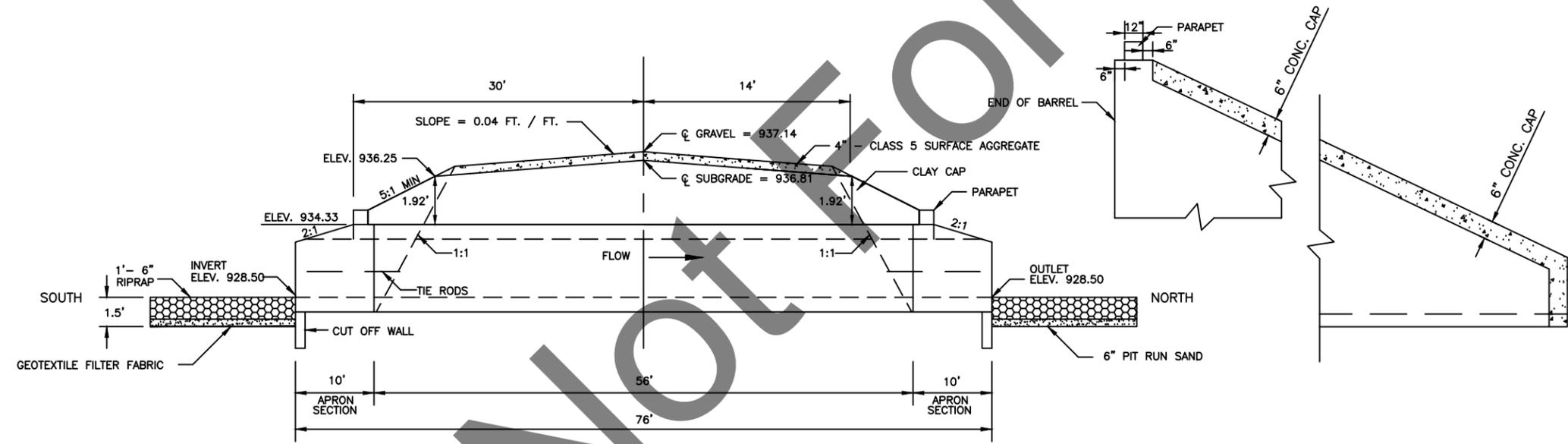


JOINT DETAIL

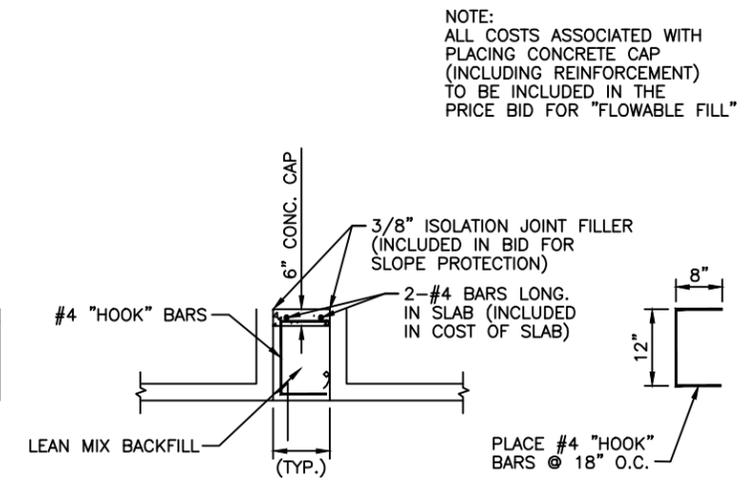
CASS COUNTY HIGHWAY DEPARTMENT  
 PROJECT NO. CB1201  
 BOX CULVERT DETAILS  
 SHEET 1 OF 4



**END VIEW**  
NOT TO SCALE



**SIDE VIEW**  
NOT TO SCALE



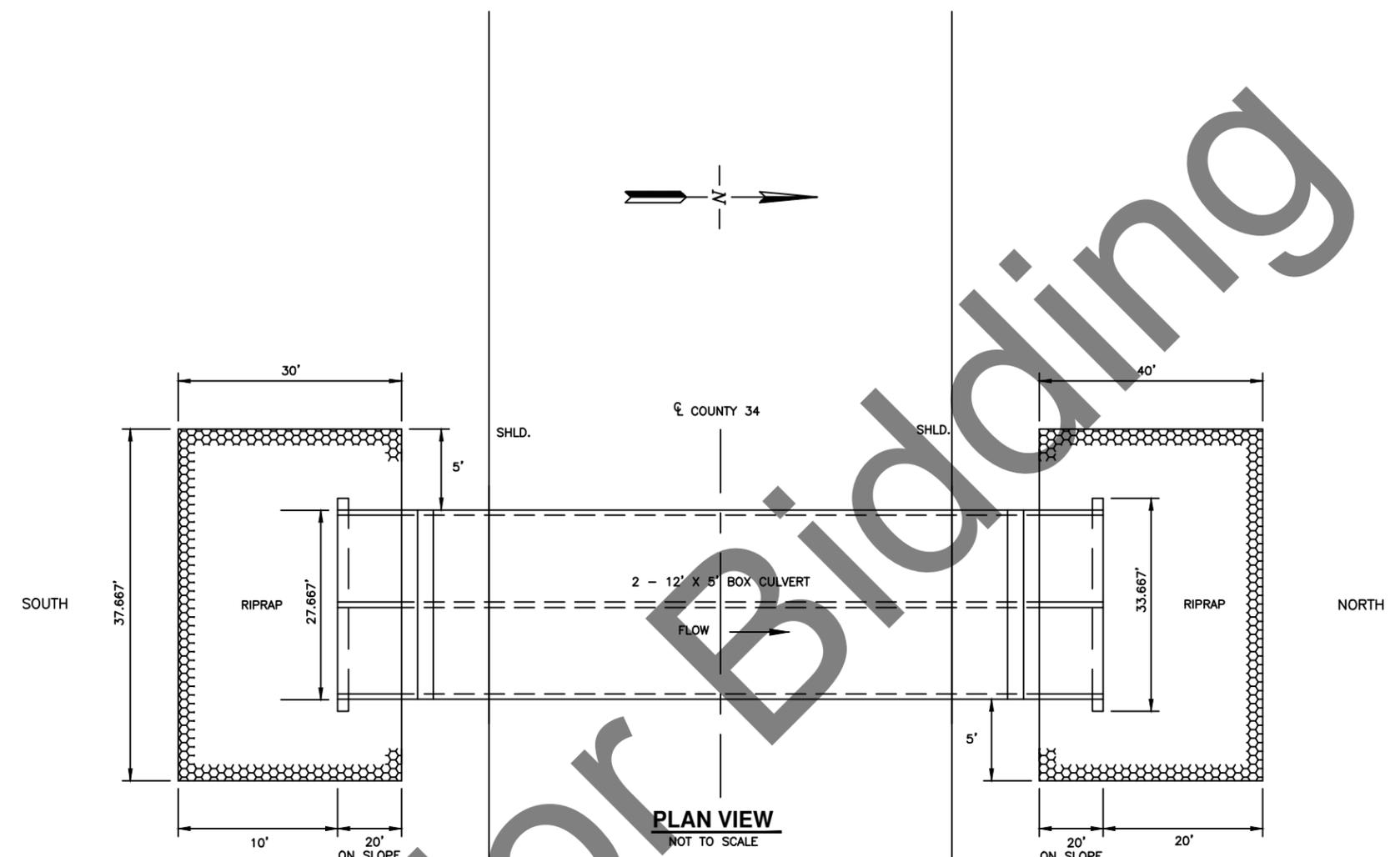
**CONCRETE CAP DETAILS**  
NOT TO SCALE

NOTE:  
ALL COSTS ASSOCIATED WITH  
PLACING CONCRETE CAP  
(INCLUDING REINFORCEMENT)  
TO BE INCLUDED IN THE  
PRICE BID FOR "FLOWABLE FILL"

THIS DOCUMENT WAS ORIGINALLY ISSUED  
AND SEALED BY  
JASON P. BENSON  
N.D. REG. NO. 7490  
ON 03/15/2013 AND THE ORIGINAL  
DOCUMENT IS STORED AT THE CASS COUNTY  
HIGHWAY DEPARTMENT, WEST FARGO, ND

CASS COUNTY HIGHWAY DEPARTMENT  
PROJECT NO. CB1201  
BOX CULVERT DETAILS  
SHEET 2 OF 4

Not For Bidding



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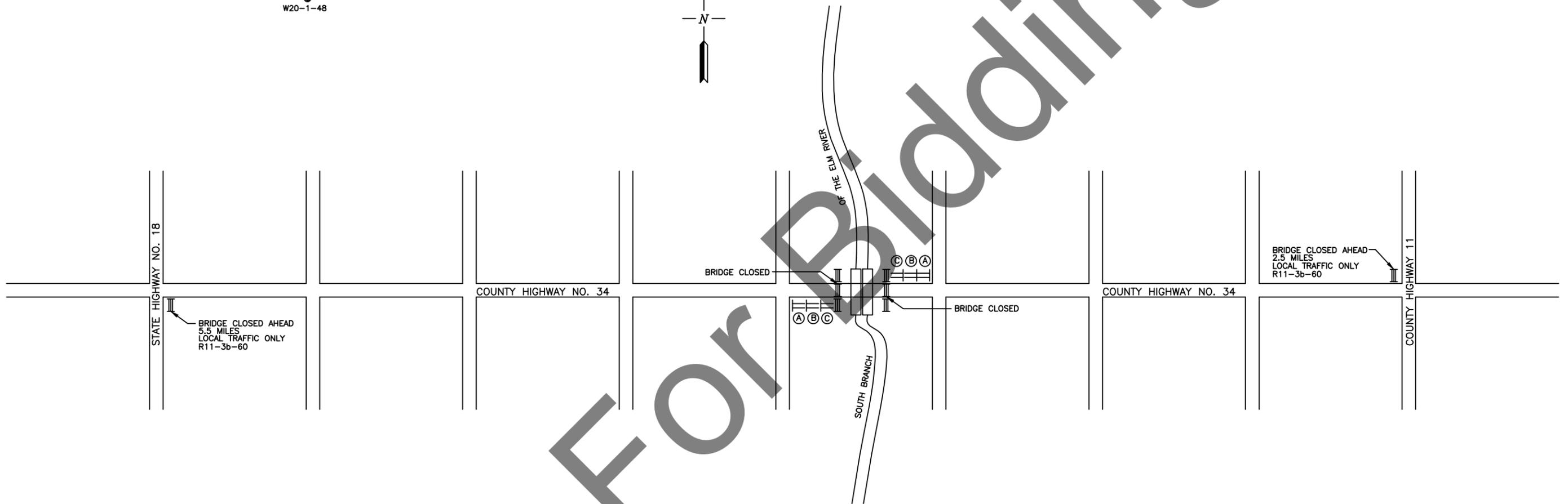
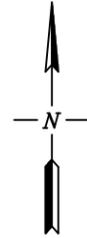
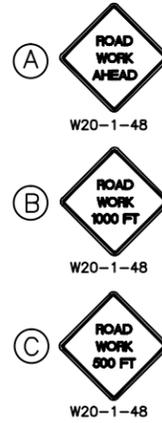
CASS COUNTY HIGHWAY DEPARTMENT  
PROJECT NO. CB1201  
BOX CULVERT DETAILS  
SHEET 3 OF 4

TRAFFIC CONTROL LEGEND

⇒ POST-MOUNTED SIGN

||| TYPE III BARR.

NOT TO SCALE



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CASS COUNTY HIGHWAY DEPARTMENT  
PROJECT NO. CB1201  
TRAFFIC CONTROL LAYOUT  
SHEET 4 OF 4