

SPECIFICATIONS
FOR
REINFORCED FOUR SIDED CONCRETE BOX

TO
THE BOARD OF COUNTY COMMISSIONERS
HENRY COUNTY, OHIO

FOR
THE HENRY COUNTY HIGHWAY DEPARTMENT

BIDS WILL BE RECEIVED – Tuesday, March 7, 2023
@ 9:30 A.M.

LEGAL NOTICE

Notice is hereby given that sealed bids will be received at the Office of the Board of County Commissioners of Henry County, Ohio, 1853 Oakwood Avenue, Napoleon, Ohio until Tuesday, March 7, 2023 at 9:30 A.M., at which time and place, bids will be opened and read for the furnishing of:

- a) 59.92 L.F. of 20' Span x 10' Rise Four Sided Concrete Box with 24.3 Degree Skew
- b) 77 L.F. of 20' Span x 10' Rise Four Sided Concrete Box
- c) 44.21 L.F. of 20' Span x 9' Rise Four Sided Concrete Box with 5.5 Degree Skew

with all appurtenances for use by the Henry County Highway Department.

All material shall be in accordance with the details and specifications for the same which are on file at the Office of the Henry County Engineer. The specifications, legal notice, and bid proposal will also be available on the Henry County Engineer's website www.henrycountyengineer.com under the link "Bid Request Listing".

Bids must be submitted on the forms provided by the Engineer.

Bids may be hand delivered or mailed in a sealed envelope bearing the Bidder's name and address and marked "Sealed Bid for Concrete Box".

The said Board reserves the right to reject any or all bids.

The contract will be award to the lowest and best bidder.

No bid will be considered unless it be accompanied by a bond executed by a surety company authorized to do business in the State of Ohio or a certified check on a solvent bank; either in the amount of five (5%) percent of the bid to guarantee that if said bid is accepted, a contract will be entered into and the performance of it properly secured.

BY ORDER OF
BOARD OF COUNTY COMMISSIONERS
HENRY COUNTY, OHIO

By: Kristi Schultheis, Clerk

Four Sided Concrete Box Specifications

Box Sections

Shall conform to the State of Ohio, Department of Transportation Specifications 706.05 (Precast Reinforced Concrete Box Sections). All box sections shall conform to ASTM C 1577 as defined below:

- a. 59.92 L.F. of 20' Span x 10' Rise Four Sided Concrete Box with 24.3 Degree Skew with 8' of cover.
- b. 77 L.F. of 20' Span x 10' Rise Four Sided Concrete Box with 1-3 feet of cover.
- c. 44.21 L.F. of 20' Span x 9' Rise Four Sided Concrete Box with 5.5 Degree Skew with 1-3 feet of cover.

General

Bid price shall include the lifting holes and plugs for all pipe, and shall include sufficient quantities of joint filler (i.e. mastic) compound as required for the sizes and lengths of box sections specified. The price shall also include a load rating analysis for Ohio & AASHTO Vehicles (2F1, 3F1, 5C1, Type 3, Type 3-3 and Type 3S2), Specialized Hauling Vehicles (SU4/4F1, SU5, SU6 and SU7), and Emergency Vehicles (EV2 and EV3).

Bid price shall include delivery to the project site.

PROOF OF INSURANCE

Vendors are required to furnish the County with a certificate of insurance in the minimum amount of \$1,000,000.00 primary and \$1,000,000.00 umbrella coverage. The County, its elected office and employees shall be named as additional insured with respect to all activities under any agreement resulting from this bidding. The certificate of insurance shall provide that such insurance shall not be cancelled without thirty (30) days prior written notice to the County. Vendors will replace certificate for any insurance expiring prior to the effective end date under any agreement resulting from this bidding.

WORKER'S COMPENSATION

Vendors shall maintain Worker's Compensation coverage as required by Ohio law. A copy of a valid Worker's Compensation certificate shall be submitted with the bid.

INDEMNIFICATION/HOLD HARMLESS

The vendor shall indemnify and hold harmless the County, its agents and employees from any and all losses, claims, damages, lawsuits, costs, judgments, expenses or any other liabilities which they may incur as a result of bodily injury, sickness, disease or death, or injury to or destruction of tangible property including the loss of use resulting therefrom, caused in whole or part by the negligent act or omission of the vendor or any person directly or indirectly employed by any of them or any person for whose acts any of them may be liable.

VERIFICATION OF "NO FINDING FOR RECOVERY"

No political subdivision shall award a contract for goods, services, or construction to a person against whom a Finding for Recovery has been issued by the Auditor of State, if the Finding for Recovery is unresolved.

The undersigned, by their signature and title, document that no "Finding for Recovery" is outstanding for the bidder.

By:

Title

Prior to award of a contract, Henry County shall verify and report to the Engineer and the Bidder that the Bidder does not appear in the State Auditor's database for "Findings of Recovery".

**AFFIDAVIT IN COMPLIANCE WITH SECTION 3517.13
OF THE OHIO REVISED CODE**

STATE OF OHIO

HENRY COUNTY

The undersigned personally appeared before me, as an individual or as a representative of

_____ for a contract for _____
(Name of Entity) (Type of Product or Service)

to be let by the County of Henry, who, being duly cautioned and sworn, makes the following statement with respect to prohibited activities constituting a conflict of interest or other violations under Ohio Revised Code Section 3517.13, and further states that the undersigned has the authority to make the following representation on behalf of himself or herself or of the business entity:

1. That none of ***the*** following has **individually** made since April 4, 2007 and that, if awarded a contract for the purchase of goods or services in excess of \$10,000, none of the following **individually** will make, beginning on the date the contract is awarded and extending until one year following the conclusion of the contract, as an individual, one or more campaign contributions totaling in excess of \$10,000, to any elected official of the County of Henry or their individual campaign committees:
 - a. Myself;
 - b. Any partner or owner or shareholder of the partnership (if applicable);
 - c. Any owner of more than 20% of the corporation or business trust (if applicable);
 - d. Each spouse of any person identified in (a) through (c) of this section;
 - e. Each child seven years of age to seventeen years of age of any person identified in divisions (a) through (c) of this section (only applicable to contributions made on or after April 4, 2007)
2. That none of the following have **collectively** made since April 4, 2007, and that, if awarded a contract for the purchase of goods or services in excess of \$10,000, none of the following **collectively** will make, beginning on the date the contract is awarded and extending until one year following the conclusion of the contract, one or more campaign contributions totaling in excess of \$10,000, to any elected official of the County of Henry or their individual campaign committees:
 - a. Myself;
 - b. Any partner or owner or shareholder of the partnership (if applicable);
 - c. Any owner of more than 20% of the corporation or business trust (if applicable);
 - d. Each spouse of any person identified in (a) through (c) of this section;
 - e. Each child seven years of age to seventeen years of age of any person identified in divisions (a) through (c) of this section (only applicable to contributions made on or after April 4, 2007)

Signature_____

Title_____

Sworn to before me and subscribed in my presence this _____ day of _____, 20_____.

Notary Public_____

My Commission expires_____

PROPOSAL

<u>Quantities</u>	<u>Description</u>	<u>Unit Price</u>	<u>Total Price</u>
59.92 L.F.	20' Span x 10' Rise Box Sections with 24.3 Degree Skew	\$_____	\$_____
77 L.F.	20' Span x 10' Rise Box Sections with No Skew	\$_____	\$_____
44.21 L.F.	20' Span x 9' Rise Box Sections with 5.5 Degree Skew	\$_____	\$_____
Total Amount of Bid			\$_____

Drawings are attached.

Accompanying this bid must be a bid bond executed by a Surety Company authorized to do business in the State of Ohio or a certified check on a solvent bank; either in the amount of 5% of the bid to guarantee that if said bid is accepted, a contract will be entered into and the performance of it properly secured.

The Board of County Commissioners reserves the right to reject any and all bids.

Date:_____

FIRM NAME:_____

By:_____

Title:_____

Address:_____

Telephone Number: _____

Fax Number:_____

Email:_____



HENRY COUNTY BRIDGE 13A-0.45
NAPOLEON TWP. (INSIDE NAPOLEON)
BRIDGE REPLACEMENT



Ohio Utilities Protection Service
HENRY COUNTY ENGINEER
1823 OAKWOOD AVENUE
NAPOLEON, OHIO 43545
419-592-2976

THOMAS J. SCHUM, P.E., P.S.
HENRY COUNTY ENGINEER
1823 OAKWOOD AVENUE
NAPOLEON, OHIO 43545
419-592-2976

DRAWING DETAILS
DRAWN BY: JTH 01/13/23
DESIGNED BY: JTH 01/13/23
REVIEWED BY: DH 01/17/23
REVISED

CREW LEADER: NOTE ADDITIONS & CHANGES DURING CONSTRUCTION, AND RETURN TO THE ENGINEER
HENRY CO. SIGN TECHNICIAN: PLACE "DO NOT DIG BETWEEN SIGNS" SIGNAGE & BRIDGE END MARKERS

GUARDRAIL

- 1R) (3) - 12.5' X 45' RADIUS RAIL
- 2R) (1) - 12.5' X 15' RADIUS RAIL
- 3R) (14) - 12.5' STRAIGHT RAIL
- 4R) (4) - FLARED END SECTIONS
- 5R) (38) - STEEL BEAM POSTS [(6) WILL BE PLATED & ANCHORED TO BOX - SEE PROFILE]

*NOTE: STUBWALLS & FOOTERS TO HAVE
(2) MATS OF STEEL REINFORCEMENT -
UPPER & LOWER; REBAR TO BE
EQUALLY SPACED W/ MIN. 2" BETWEEN
STEEL & OUTER SURFACES.

#5 REBAR QUANTITIES
STUBWALLS

PER MAT
1B) (3) PC. - 23'
+ 2B) (13) PC. - 26"
10'6" / MAT X (4) = 406 LIN. FT.
X 1.043# / LIN. FT. = 407.04# TOTAL

FOOTERS

PER MAT
1B) (3) PC. - 23'
+ 2B) (13) PC. - 26"
10'6" / MAT X (8) = 812 LIN. FT.
X 1.043# / LIN. FT. = 846.9# TOTAL

4-SIDED CONCRETE BOX

- 10B) (10) - 20' SPAN X 10' RISE X 5' LONG SECTIONS, WITH 12" THICK SIDEWALLS AND 14" THICK TOP & BOTTOM
- 20B) (2) - 20' SPAN X 10' RISE X 10' LONG WEDGE SECTIONS, WITH 12" THICK SIDEWALLS AND 14" THICK TOP & BOTTOM

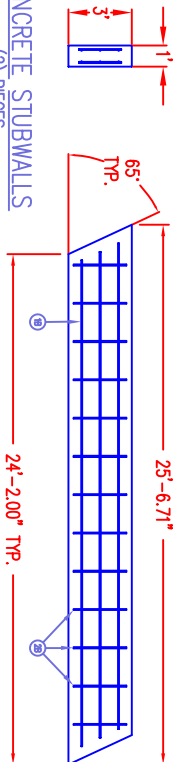
GEOTEXTILE FABRIC

- 1F) (10) 6' X 24' (BETWEEN THE LOW LAYERS)
- 2F) (12) 4' X 24' (1/2-WAY UP LOW LAYERS)
- 3F) (4) 6' X 72' (BETWEEN THE TOP LAYERS)
- 4F) (4) 4' X 72' (1/2-WAY UP TOP LAYERS)

TOP OF 6TH LAYER TO BE
LEVEL WITH TOP OF BOX
#8 STONE W/ GEOTEXTILE FABRIC
PLACED BETWEEN BLOCKS & 1/2 WAY
UP, FROM FACES TO STONE LIMITS,
TOP, EACH COURSE, EACH END
AND STUBWALL

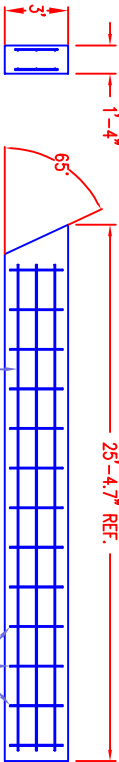
GUARDRAIL LAYOUT & LIST

(NOT TO SCALE)



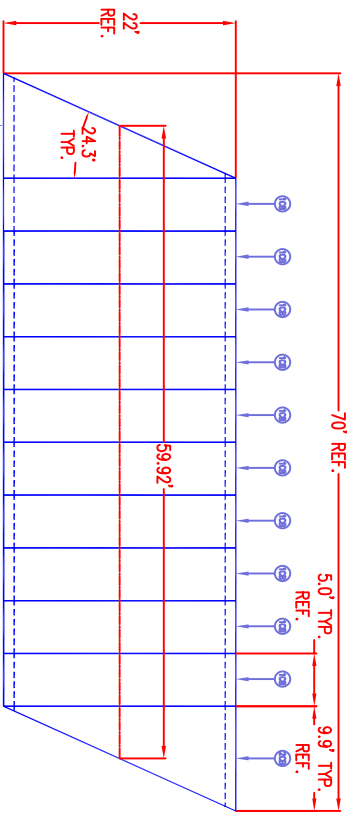
CONCRETE STUBWALLS

(2) PIECES



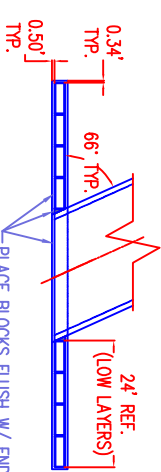
CONCRETE WALL FOOTERS

(4) PIECES



CONCRETE STUBWALL, FOOTER, & BOX DETAILS

(NOT TO SCALE)

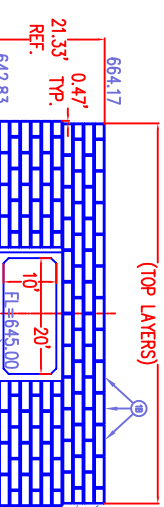


PLACE BLOCKS FLUSH W/ END OF BOX,
W/ CORNERS MEETING SIDE OF BOX; FILL
VOIDS W/ CONCRETE OR MORTAR MIX, TYP.

CONCRETE BLOCKS

- 1B) (176) 2' X 2' X 6' FULL
- 2B) (32) 2' X 2' X 3' HALF

(TOP LAYERS)



CONCRETE FOOTER
CONCRETE STUBWALL
BOX SIDES TO BE 12" THICK;
TOP & BOTTOM TO BE 14" THICK

WINGWALL, BOX, & GRS DETAILS (TYPICAL)

(NOT TO SCALE)

LEGEND

- PROPOSED MAIN CHANNEL
- #823 A.C. (3") ON #304 (6" MIN.)
- AREA TO BE CUT
- AREA TO BE FILLED
- ROCK CHANNEL PROTECTION, TYPE D (18" THICK)
- #411 BERM STONE
- FLOWABLE FILL (LSM-50)
- #8 STONE - 6" BEDDING
- #304 STONE

- 1) 35' YARD² - 48" STONE TYP BOX BEHIND
- 2) 75' YARD² - 48" STONE TYP BEHIND BLOCKS
- 3) 1' CURB - 411 ASPHALT
- 4) 500' WEDGE TEST - 411 ASPHALT
- 5) 250' YARD² - 411 ASPHALT
- 6) 250' YARD² - 411 ASPHALT
- 7) 250' YARD² - 411 ASPHALT
- 8) 250' YARD² - 411 ASPHALT
- 9) 250' YARD² - 411 ASPHALT
- 10) 250' YARD² - 411 ASPHALT
- 11) 250' YARD² - 411 ASPHALT
- 12) 250' YARD² - 411 ASPHALT
- 13) 250' YARD² - 411 ASPHALT
- 14) 250' YARD² - 411 ASPHALT
- 15) 250' YARD² - 411 ASPHALT

5' O/S LOCATIONS
EASTING - 1541603.9853 / NORTHING - 6552026.5318
EASTING - 1541685.7473 / NORTHING - 6591998.7889

NOTES:

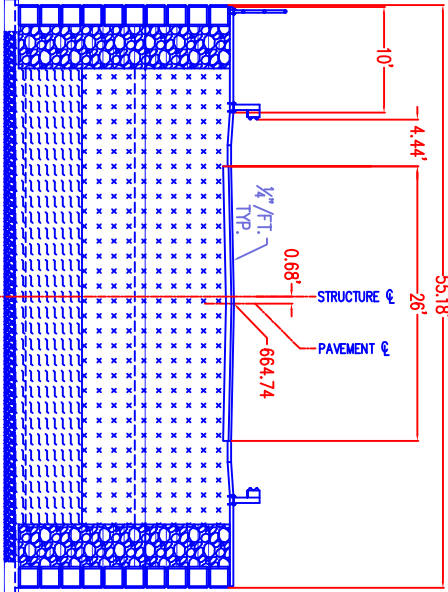
- TRENCH WALLS SHALL BE SLOPED AT A ONE & ONE HALF TO ONE RATIO (1-1/2:1) AT A POINT 4' ABOVE THE TRENCH BOTTOM, UNLESS PROTECTED FROM SLIPPAGE BY SHORING, TRENCH BOX, OR OTHER MEANS. NO EXCAVATION MATERIALS SHALL BE STOCKPILED WITHIN 2' OF THE TRENCH WALL.
- PLACE 12" WIDE TYPE 2 WATERPROOFING OVER ALL VERTICAL JOINTS TO BE COVERED BY SOL. PLACE TYPE 3 WATERPROOFING OVER TOP OF STRUCTURE & 2' OVER SIDES, OVERLAPPING VERTICAL JOINTS. PLACE CONCRETE SEALER ON DECK NOT COVERED BY TYPE 2 WATERPROOFING.
- BACKFILL W/ 411 BERM STONE TO SUB-GRADE UNDER ROADWAY, AND TO A MINIMUM OF THE SPRING LINE FOR THE REMAINING LENGTH OF PIPE. COMPACT BERM STONE W/ MECHANICAL TAMP IN 12" LIFTS, THOROUGHLY FLOODED W/ WATER.
- ALL AREAS THAT ARE BARE AND/OR HAVE TURF DAMAGED FROM CONSTRUCTION ACTIVITIES SHALL BE SEEDED & MULCHED. MULCHING MATERIALS SHALL BE KEPT IN PLACE WITH ASPHALT EMULSION OR OTHER APPROVED METHOD.

UTILITY OWNERS

TELEPHONE/F.O.: BRIGHTSPEED (USBC)
POWER: TRI-COUNTY RURAL ELECTRIC CO-OP
WATER: FULTON COUNTY PUBLIC UTILITIES
GAS: OHIO GAS COMPANY

PROFILE (VIEWING NINE)

HORIZONTAL & VERTICAL SCALE



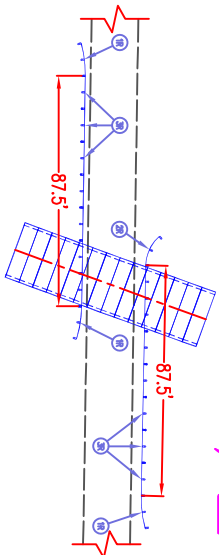
70' L.F. - 20' SPAN X 10' RISE 4-SIDED CONCRETE BOX @ 0.00%



CREW LEADER: NOTE ADDITIONS & CHANGES DURING CONSTRUCTION, AND RETURN TO THE ENGINEER
HENRY CO. SIGN TECHNICIAN: PLACE "DO NOT DIG BETWEEN SIGNS" SIGNAGE & BRIDGE END MARKERS

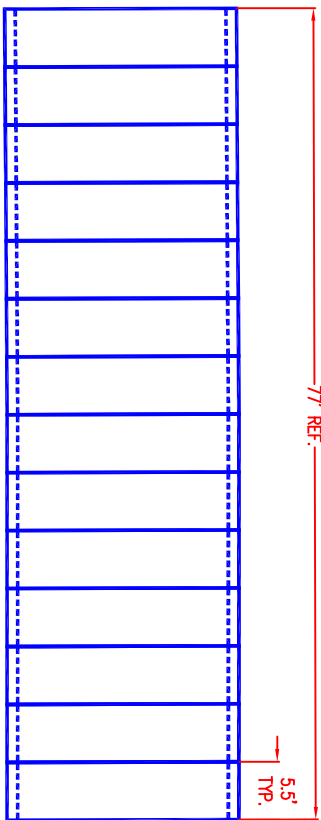
GUARDRAIL

- 1R) (3) - 12.5' X 45' RADIUS RAIL
2R) (1) - 12.5' X 15' RADIUS RAIL
3R) (14) - 12.5' STRAIGHT RAIL
4R) (4) - FLARED END SECTIONS
5R) (3R) - STEEL BEAM POSTS [(6) WILL BE PLATED & ANCHORED TO BOX - SEE PROFILE]



GUARDRAIL LAYOUT & LIST

(NOT TO SCALE)



4-SIDED CONCRETE BOX
1CB) (14) - 20' SPAN X 10' RISE X 5'6" LONG SECTIONS, WITH 12" THICK SIDEWALLS AND 14" THICK TOP & BOTTOM

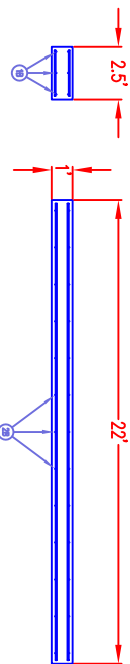
CONCRETE STUBWALL (TYP.)

1S) (2) - 2'6" WIDE X 1' HIGH X 22' LONG

*NOTE: EACH STUBWALL TO HAVE (2) MATS OF STEEL REINFORCEMENT - UPPER & LOWER. REBAR TO BE EQUALLY SPACED W/ MIN. 2" BETWEEN STEEL & OUTER SURFACES.

#5 REBAR QUANTITIES

PER MAT 97'6" PER MAT
1B) (3) PC. - 21'8"
2B) (15) PC. - 2'2"
97'6" PER MAT
X 1.043# PER LIN. FT.
391.04# TOTAL



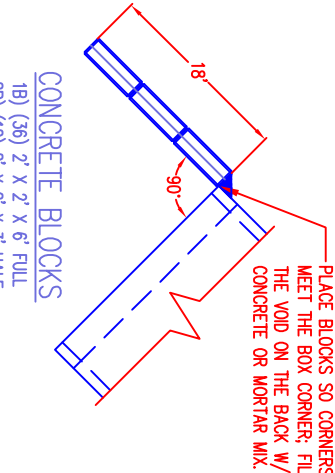
CONCRETE STUBWALL & BOX DETAILS

(NOT TO SCALE)

GEOTEXTILE FABRIC

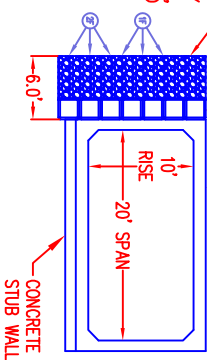
1F) (12) 6' X 18' (BETWEEN THE LAYERS)
2F) (14) 4' X 18' (1/2-WAY UP LAYERS)

#8 STONE W/ GEOTEXTILE FABRIC
PLACED BETWEEN BLOCKS & 1/2 WAY UP, FROM FACES TO STONE LIMITS, TYP. EACH COURSE, EACH END



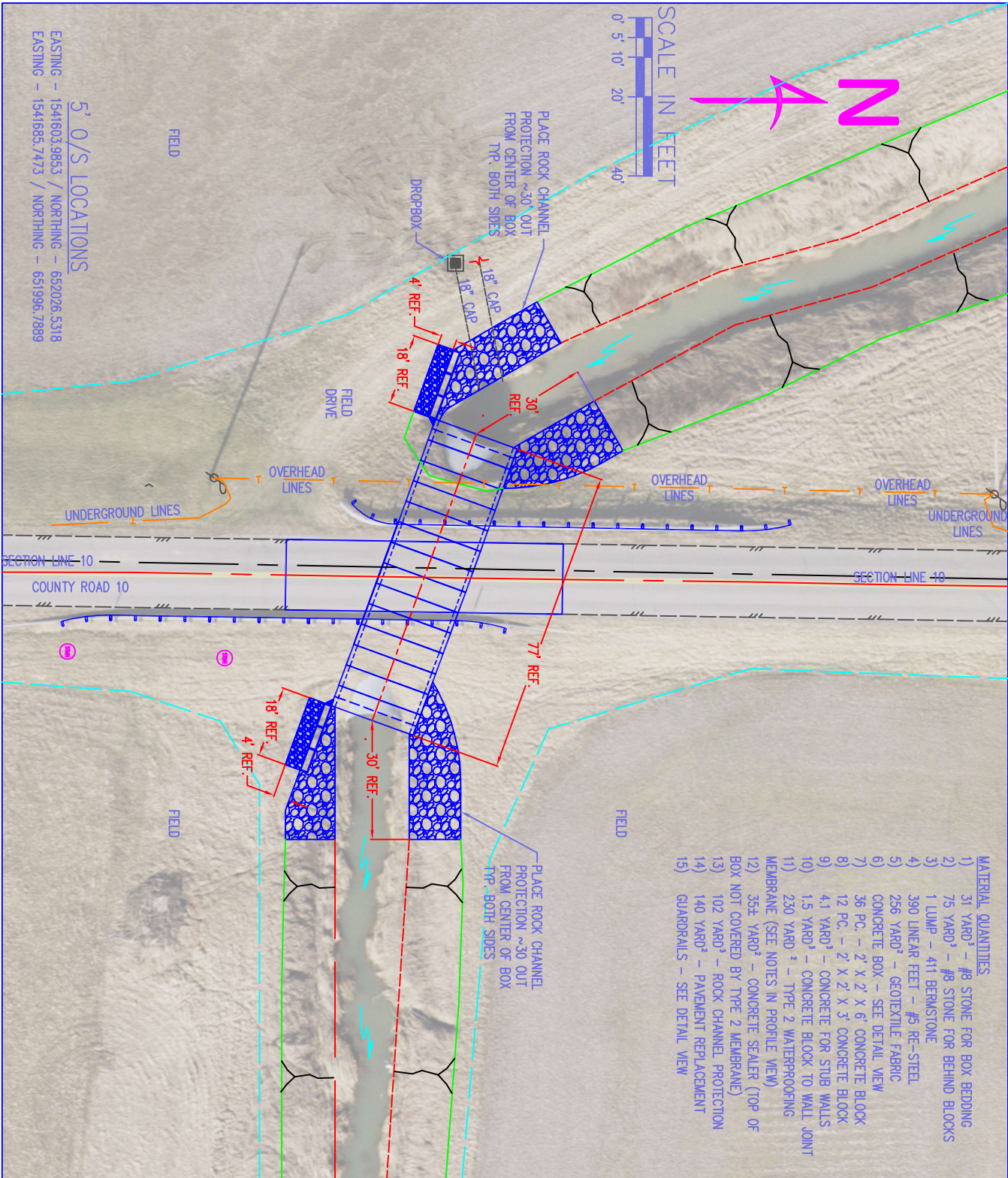
CONCRETE BLOCKS

1B) (36) 2' X 2' X 6' FULL
2B) (12) 2' X 2' X 3' HALF



LEGEND

- PROPOSED MAIN CHANNEL
#823 A.C. (3") ON #304 (6" MIN.)
AREA TO BE CUT
AREA TO BE FILLED
ROCK CHANNEL PROTECTION, TYPE D (18" THICK)
#411 BERM STONE
FLOWABLE FILL (15M-50)
#8 STONE - 6" BEDDING
#304 STONE

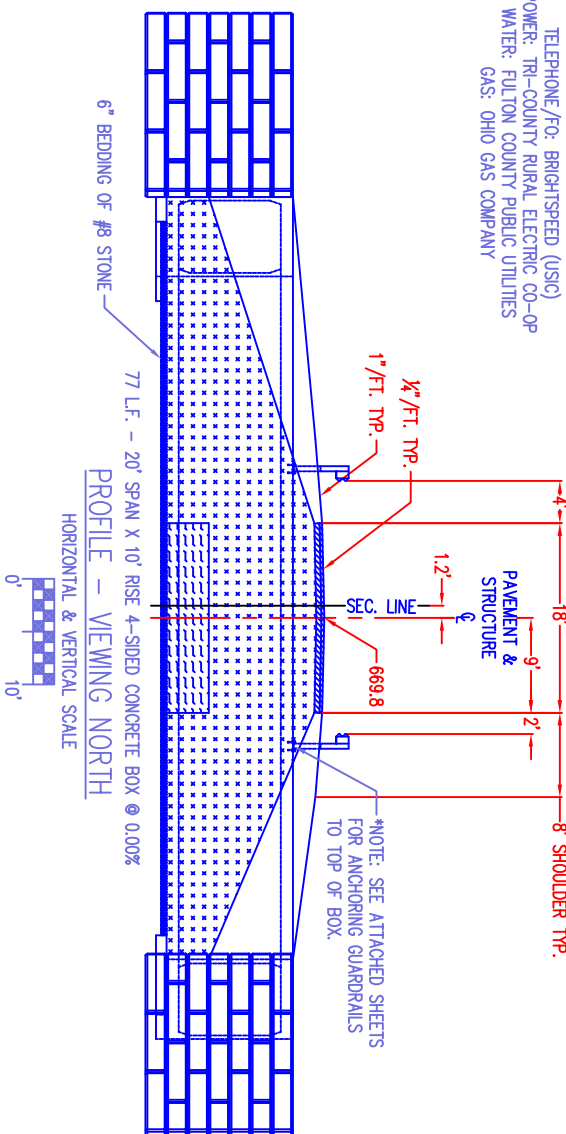


5' O/S LOCATIONS

EASTING - 1541603.9853 / NORTHING - 652026.5318
EASTING - 1541685.7473 / NORTHING - 651996.7889

UTILITY OWNERS

TELEPHONE/F/O: BRIGHTSPEED (USIC)
POWER: TR-COUNTY RURAL ELECTRIC CO-OP
WATER: FULTON COUNTY PUBLIC UTILITIES
GAS: OHIO GAS COMPANY



NOTES:

- ALL AREAS THAT ARE BARE AND/OR HAVE TURF DAMAGED FROM CONSTRUCTION ACTIVITIES SHALL BE SEED & MULCHED. MULCHING MATERIALS SHALL BE KEPT IN PLACE WITH ASPHALT EMULSION OR OTHER APPROVED METHOD.
- BACKFILL W/ 411 BERM STONE TO SUB-GRADE UNDER ROADWAY, AND TO A MINIMUM OF THE SPRING LINE FOR THE REMAINING LENGTH OF PIPE. COMPACT BERM STONE W/ MECHANICAL TAMP IN 12" LIFTS, THOROUGHLY FLOODED W/ WATER.
- TRENCH WALLS SHALL BE SLOPED AT A ONE & ONE HALF TO ONE RATIO (1-1/2:1) AT A POINT 4' ABOVE THE TRENCH BOTTOM, UNLESS PROTECTED FROM SLIPPAGE BY SHORING, TRENCH BOX, OR OTHER MEANS. NO EXCAVATION MATERIALS SHALL BE STOCKPILED WITHIN 2' OF THE TRENCH WALL.
- PLACE 12" WIDE TYPE 2 WATERPROOFING OVER ALL VERTICAL JOINTS TO BE COVERED BY SOIL. PLACE TYPE 3 WATERPROOFING OVER TOP OF STRUCTURE & 2' OVER SIDES, OVERLAPPING VERTICAL JOINTS. PLACE CONCRETE SEALER ON DECK NOT COVERED BY TYPE 2 WATERPROOFING.

- MATERIAL QUANTITIES**
- 31 YARD³ - #8 STONE FOR BOX BEDDING
 - 75 YARD³ - #8 STONE FOR BEHIND BLOCKS
 - 1 LUMP - 411 BERMSTONE
 - 390 LINEAR FEET - #5 RE-STEEL
 - 256 YARD³ - GEOTEXTILE FABRIC
 - CONCRETE BOX - SEE DETAIL VIEW
 - 36 PC. - 2' X 2' X 6' CONCRETE BLOCK
 - 12 PC. - 2' X 2' X 3' CONCRETE BLOCK
 - 41 YARD³ - CONCRETE FOR STUB WALLS
 - 1.5 YARD³ - CONCRETE BLOCK TO WALL JOINT
 - 230 YARD² - TYPE 2 WATERPROOFING
 - 354 YARD² - CONCRETE SEALER (TOP OF BOX NOT COVERED BY TYPE 2 MEMBRANE)
 - 102 YARD³ - ROCK CHANNEL PROTECTION
 - 140 YARD³ - PAVEMENT REPLACEMENT
 - GUARDRAILS - SEE DETAIL VIEW

PLAN & PROFILE

Z: BRIDGES-CULVERTS BRIDGES-CULVERTS BRIDGES10-19.20 2023\DRAWINGS\PLAN



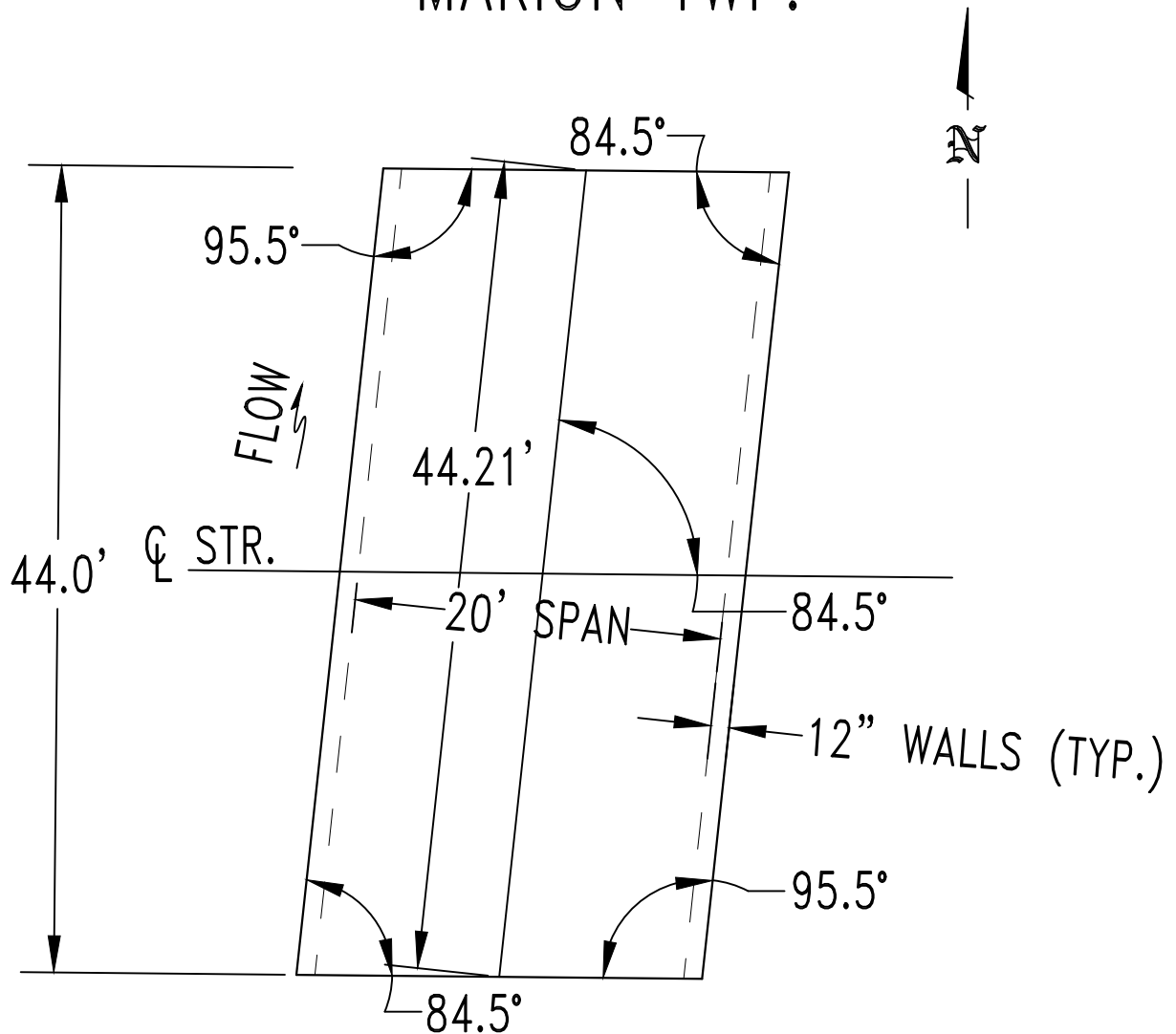
Ohio Utilities Protection Service
Call 811
before you dig

TIMOTHY J. SCHUM, P.E., P.S.
HENRY COUNTY ENGINEER
1823 OAKWOOD AVENUE
MADOLETON, OHIO 43045
419-592-2976

DRAWING DETAILS
DRAWN BY: JTH 01/13/23
DESIGNED BY: JTH 01/13/23
REVIEWED BY: DH 01/17/23
REVISED

HENRY COUNTY BRIDGE 10-19.20
LIBERTY TWP. - CO. RD 10 (BETWEEN T & U)
BRIDGE REPLACEMENT

F1-0.30
MARION TWP.



44.21 L.F.-20' SPAN X 9' RISE
4 SIDED CONCRETE BOX
WITH 1'-3' OF COVER
LENGTH & NUMBER OF PRECAST
BOX SECTIONS TO BE PER
MANUFACTURER