

**PROPOSAL
FOR
CONCRETE HEADWALL CONSTRUCTION
DAUS ROAD OVER BOULTON DRAIN**

**TUSCOLA COUNTY
BOARD OF COUNTY ROAD COMMISSIONERS**

**1733 S. MERTZ RD.
CARO, MI 48723**

LETTING DATE – September 16, 2010

8:30 A.M.

**HEADWALL CONSTRUCTION
(with all related work)**

PROJECT \$ _____

CONTRACTOR: _____

ADDRESS: _____

SIGNED: _____
Print Name

DATE: _____

PHONE: _____

FAX: _____

**MATERIAL
SOURCES:** _____

OPEN TO TRAFFIC DATE: FRIDAY, NOVEMBER 12, 2010

TUSCOLA COUNTY
ROAD COMMISSION
PROPOSAL FOR
CONCRETE HEADWALL CONSTRUCTION
DAUS ROAD OVER BOULTON DRAIN

Page 2 of 6

Sealed proposals will be received by the Tuscola County Road Commission at their office at 1733 S. Mertz Rd., Caro, Michigan, 48723 until 8:30 A.M., Thursday, **September 16, 2010** at which time and place proposals will be publicly opened and read for the concrete headwall construction and related work on Daus Road, Elkland Township, Section 12 & 13, Tuscola County, Michigan.

The undersigned has examined the proposal, specifications, plans, and the location of the work described herein and is fully informed as to the nature of the work and conditions relating to its performance and understands that the quantities shown are approximate only and are subject to either increase or decrease.

GENERAL:

This work involves excavating and constructing Concrete headwalls at the grades specified on plans, with related work. The metal culvert will remain in place. The gravel roadbed shall be restored, as per section 306 of the 2003 Standard Specifications for Construction.

The Contractor hereby proposes to furnish all necessary labor, equipment and materials to complete the work as shown on the plans, for the bid price listed herein described in strict accordance with the requirements of the Michigan Department of Transportation 2003 Standard Specifications for Construction, Standard Plan and/or such other special provisions and supplemental specifications as may be attached to this proposal.

CONSTRUCTION:

Completion Date:

The open to traffic date is November 12, 2010. Liquidating damages of one hundred dollars (\$100.00) may be assessed each day the road remains closed beyond November 13, 2010.

The slope restoration completion date shall be upon approved permanent vegetation being established, as determined by the Engineer.

Dewatering:

Separation of the work site from the water flow shall be the responsibility of the Contractor in compliance with the MDEQ Permit attached. Payment for all related work shall be included in the Pay Item Excavation, Fdn.

Concrete:

Substructure Concrete shall conform to requirements in Section 701 of the 2003 MDOT Standard Specifications for Construction.

Headwall Details:

Shall be according to the plans.

Utility Coordination:

The contractor is responsible for coordinating all utility relocations as needed. Note: Miss Dig must be contacted 72 hours prior to start of work.

Construction Staking:

A bench mark has been established. All other staking necessary shall be completed by the Contractor.

Tree/Brush Removal:

Shall include the removal of all trees and stumps within the project area, payment for such work shall be included in the Pay Item, Excavation Fdn.

Soil Erosion and Sedimentation Control:

A DEQ permit has been obtained for this work. All work must comply with permit requirements and have permanent control measures in place prior to complete release of contract. Temporary and permanent control measures shall be included in the Soil Erosion and Sediment Control item. Mulch blanket will be considered included in the soil erosion and sedimentation control pay item if needed due to stabilization after October 10th, per DEQ Permit.

Slope Restoration:

See attached special provision, Culvert Headwall Construction

Guardrail; Backed, Det G2, Mod.

See attached special provision, Culvert Headwall Construction

Guardrail, Terminal End Shoe, Type B

The End Shoe pay item shall include the installation of the yellow and black diagonal strip decal.

Maintaining Traffic:

The project shall be constructed under a road closure using sign materials meeting MDOT standards. The road closure route shall be approved by the Engineer prior to installation. The installation and maintenance of the signs shall be the responsibility of the Contractor and costs shall be considered included in Mobilization.

PAYMENT & AWARD:

Liability:

The contractor shall at all times exercise extreme care and shall assume all liability for any damages resulting from his operation and shall hold the Tuscola County Road Commission harmless from any such claims or damages.

The successful bidder must also furnish certificates for policies giving satisfactory evidence of insurance coverage to the minimum extent of \$500,000.00 property damage and \$1,000,000.00 personal liability to insure adequate payment for any damage caused by his operations.

The contractor shall, prior to the start of work, file with the Tuscola County Road Commission a certification that he carries worker's compensation insurance.

Quantities:

Quantities shown are estimates and subject to increase or decrease. Any work that changes in quantity will be paid at the unit price as bid.

Any additional work shall be approved by the Engineer and paid at an agreed quoted price. Any items not shown will be as approved by the Engineer.

Payments:

Partial payments for this project can be made by the Road Commission, after invoice is provided for work completed.

Items of Work

The list of following items is for information and partial payment purposes.

<u>ITEM</u>	<u>Quantities</u>	<u>Units</u>	<u>Unit Price</u>	<u>Total</u>
1) Mobilization	1.00	LS	_____	_____
2) Soil Erosion & Sediment Control	1	LSUM	_____	_____
3) Excavation, Earth	5	Cyd	_____	_____
4) Embankment, CIP	120	Cyd	_____	_____
5) Excavation, Fdn	325	Cyd	_____	_____
6) Backfill, Structure, CIP	240	Cyd	_____	_____
7) Aggregate Surface Course	80	Ton	_____	_____
8) Substructure Concrete	100	Cyd	_____	_____
9) Reinforcement, Steel, Epoxy Coated	6,528	Lbs	_____	_____
10) Joint Waterproofing	131	Sft	_____	_____
11) Guardrail, Type B	50	Lft	_____	_____
12) Backed Guardrail, Detail G2, Modified	2	Ea	_____	_____
13) Terminal End Shoe, Type B	4	Ea	_____	_____
14) Guardrail, Reflector	8	Ea	_____	_____
15) Slope Restoration	60	Syd	_____	_____
16) Riprap, Heavy	100	Syd	_____	_____

Project Total: _____

Bid Deposit:

A cashier's check, certified check, bank money order or bid bond made out to the Tuscola County Road Commission in an amount equal to at least 5% of the bid must accompany this proposal. The bid deposit will be returned after sufficient work has been completed.

*Half-Sized Plans and DEQ Permit attached, or full size plans may be ordered from the Road Commission office in Caro.

NON-COMPLIANCE WITH PROJECT SPECIFICATION PROVISIONS

Any variation from the specifications of the project herein without written approval from the Tuscola County Road Commission and/or its authorized representative may result in, at the discretion of the Road Commission, the voiding and/or canceling of the acceptance of any bid and/or contract, resulting from this project.

The Board reserves the right to accept or reject any or all proposals and to re-advertise or to accept the proposal that, in their opinion, is in the best interest of Tuscola County.

TUSCOLA COUNTY ROAD COMMISSION

SPECIAL PROVISIONS
FOR
CULVERT HEADWALL CONSTRUCTION

RSSA:SJP

1 of 1

2/17/09

Definitions.

Standard Specifications: The Michigan Department of Transportation's 2003 Standard Specifications for Construction.

Standard Plans and Special Details: The Michigan Department of Transportation's current Road and Bridge Standard Plans and Special Details as listed on their website at www.michigan.gov/mdot.

1. Backed Guardrail, Det G2, Modified. This item of work shall conform to the requirements for the pay item of **Backed Guardrail, Det G2** as specified in section 807 of the Standard Specifications, Standard Plan R-72-Series and as detailed on the plans.

2. Slope Restoration. This item of work shall consist of finish grading areas which have been disturbed due to construction of the walls and shall include the following pay items as listed in section 816 of the Standard Specifications for Construction:

1. Topsoil Surface, Salvaged, 3 inches
2. Topsoil Surface, Furnished, 3 inches (if needed)
3. Seeding, Mixture THM
4. Fertilizer, Chemical Nutrient, Class A
5. Mulch Blanket

All slopes shall be Class B. Payment shall be by the Square Yard complete as measured in place.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

PERMIT

To Top
3/25/09

ISSUED TO:

Tuscola County Road Commission
1733 South Mertz Road
Caro, MI 48723

Permit No.	09-79-0007-P
Issued	March 23, 2009
Extended	
Revised	
Expires	March 23, 2014

This permit is being issued by the Michigan Department of Environmental Quality (MDEQ) under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) and specifically:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Part 301 Inland Lakes and Streams | <input type="checkbox"/> Part 315 Dam Safety |
| <input type="checkbox"/> Part 325 Great Lakes Submerged Lands | <input type="checkbox"/> Part 323 Shorelands Protection and Management |
| <input type="checkbox"/> Part 303 Wetlands Protection | <input type="checkbox"/> Part 353 Sand Dune Protection and Management |
| <input checked="" type="checkbox"/> Part 31 Floodplain/Water Resources Protection | |

Permission is hereby granted, based on permittee assurance of adherence to State requirements and permit conditions to:

Construct concrete headwalls and wingwalls at existing culvert at Daus Road crossing of Boulton Drain. All work shall be completed in accordance with permit conditions, information submitted, and the approved attached plans.

Water Course Affected: Boulton Drain

Property Location: Tuscola County, Elkland Township, Section 12 13

Town/Range 14N, 11E

Authority granted by this permit is subject to the following limitations:

- Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
- The permittee in exercising the authority granted by this permit shall not cause unlawful pollution as defined by Part 31, Floodplain/Water Resources Protection of the NREPA.
- This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
- All work shall be completed in accordance with the plans and the specifications submitted with the application and/or plans and specifications attached hereto.
- No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved herein.
- It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Act of 1974 and comply with each of the requirements of that act.
- This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits or complying with other state statutes.
- This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
- Permittee shall notify the MDEQ within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached, preaddressed post card to the office addressed thereon.
- This permit shall not be assigned or transferred without the written approval of the MDEQ.
- Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific State Act, Federal Act and/or Rule under which this permit is granted.
- Work to be done under authority of this permit is further subject to the following special instructions and specifications:

1. In issuing this permit, the MDEQ has relied on the information and data which the permittee has provided in connection with the permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete, or inaccurate, the MDEQ may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
2. The permittee is responsible for acquiring all necessary easements or rights-of-way before commencing any work authorized by this permit. All construction operations relating to or part of this project shall be confined to the existing right-of-way limits or other acquired easements.
3. The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee's obligation to acquire any local, county, state or federal approval, or authorizations necessary to conduct the activity.
4. Noncompliance with these terms and conditions, and/or the initiation of other regulated activities not specifically authorized by this permit shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, the MDEQ may initiate criminal and/or civil proceedings as may be deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.
5. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity and/or mitigation plan from the MDEQ. Such revision requests shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by the MDEQ prior to being implemented.
6. This permit may be transferred to another person upon written approval of the MDEQ. The permittee must submit a written request to the MDEQ to transfer the permit to the new owner. The new owner must also submit a written request to accept transfer of the permit. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties which includes all the above information may be provided to the MDEQ. The MDEQ will review the request and if approved, will provide written notification to the new owner.
7. Authority granted by this permit does not waive compliance requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA. Any discharge of sediment into waters of the state and/or off the road right-of-way is a violation of this permit, Part 91, and Part 31, Water Resources Protection, of the NREPA. A violation of these parts subjects the permittee to potential fines and penalties.
8. If the project, or any portion of the project, is stopped and lies incomplete for any length of time other than that encountered in a normal work week, every precaution shall be taken to protect the incomplete work from erosion, including the placement of temporary gravel bag riprap or other acceptable temporary protection.
9. No work shall be done in the stream during periods of above-normal flows except as necessary to prevent erosion.
10. Temporary soil erosion and sedimentation control measures shall be installed before commencement of the earth change and shall be maintained daily. Temporary soil erosion and sedimentation control measures shall be maintained until permanent soil erosion and sedimentation control measures are in place and the area is stabilized. Permanent soil erosion and sedimentation control measures for all slopes, channels, ditches, or any disturbed area shall be installed within five (5) calendar days after final grading or the final earth change has been completed.

11. All raw areas resulting from the permitted construction activity shall be promptly and effectively stabilized with sod and/or seed and mulch (or other technology specified by this permit or project plans) in a sufficient quantity and manner so as to prevent erosion and any potential siltation to surface waters or wetlands.
12. All raw earth within 100 feet of a lake, stream, or wetland that is not brought to final stabilization by the end of the active growing season shall be temporarily stabilized with mulch blankets in accordance with the following dates: September 20th for the Upper Peninsula, October 1st for the Lower Peninsula north of US-10, and October 10th for the Lower Peninsula south of US-10.
13. All slurry resulting from any dewatering operation shall be discharged through a filter bag or pumped to a sump located away from wetlands and surface waters and allowed to filter through natural upland vegetation, gravel filters, or other engineered devices for a sufficient distance and/or period of time necessary to remove sediment or suspended particles. The discharge of slurry water resulting from the hydrodemolition of concrete is not allowed to enter a lake, stream, or wetland.
14. All dredge/excavated spoils including organic and inorganic soils, vegetation, and other material removed shall be placed on upland (non-wetland, non-floodplain or non-bottomland), prepared for stabilization, and stabilized with sod and/or seed and mulch in such a manner so as to prevent and ensure against erosion of any material into any waterbody, wetland, or floodplain.
15. During removal or repair of the existing structure, every precaution shall be taken to prevent debris from entering any watercourse. Any debris reaching the watercourse during the removal and/or reconstruction of the structure shall be immediately retrieved from the water. All material shall be disposed of in an acceptable manner consistent with local, state, and federal regulations.
16. The use of explosives for removal of the structure over the waterbody, including any abutments or piers, is strictly prohibited.
17. Prior to the removal of the existing structures located in the water or wetland; cofferdams of steel sheet piling, gravel bags, clean stone, coarse aggregate, or concrete barriers shall be installed to isolate all construction activities from all surface waters, wetlands, and drains. The cofferdam shall be maintained in good working order throughout the duration of the project. Upon project completion, the accumulated materials shall be removed and disposed of at an upland site. The cofferdam shall then be removed in its entirety.
18. The road fill side slopes shall not be steeper than 1-on-2 (1 vertical to 2 horizontal) except where headwalls of reinforced concrete, mortar masonry, dry masonry, or other acceptable methods are used.
19. Road fill side slopes terminating in the stream and any raw streambanks resulting from the construction shall be riprapped to three (3) feet above the ordinary high water mark. All raw slopes above this line and all other road fill slopes, ditches, and other raw areas draining directly to the stream shall be protected with riprap, sod and/or seed and mulch as may be necessary to provide effective erosion protection.
20. Unless specifically stated under the "Permitted Activity" of this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the waterbody are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.

21. This permit is being issued for the maximum time allowed under Part 301, Inland Lakes and Streams and Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, including all permit extensions allowed under the administrative rules R 281.813 and R 281.923. Therefore, no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by the MDEQ, will be for a five-year period beginning at the date of issuance.
22. This permit placard shall be kept posted at the work site, in a prominent location at all times for the duration of the project, or until permit expiration.

Steven E. Chester, Director
Department of Environmental Quality

By

Roxanne Merrick

801 Jeff Silagy

District Representative

Land and Water Management Division

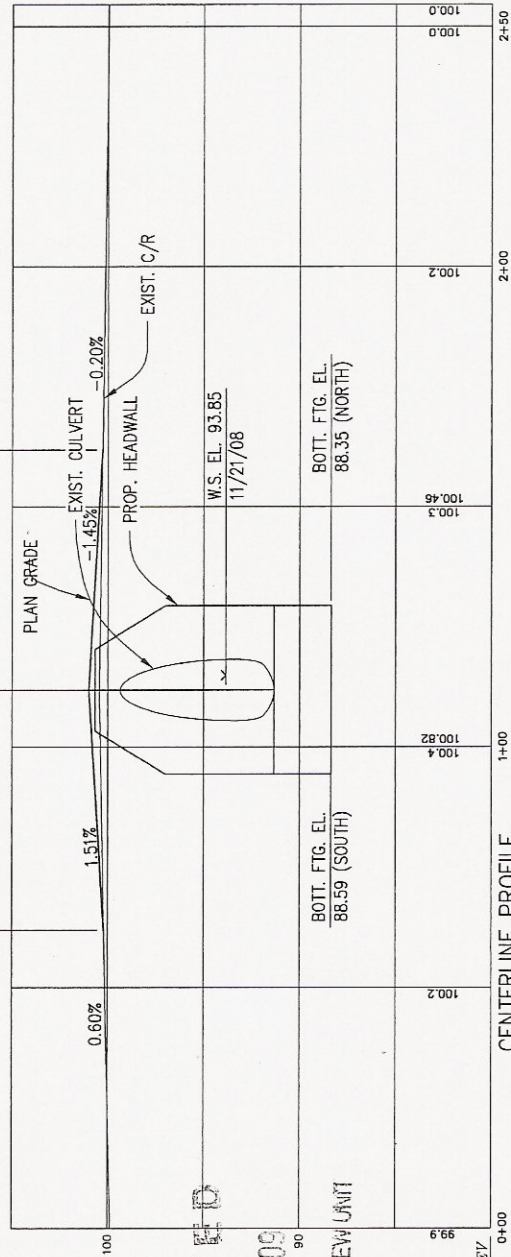
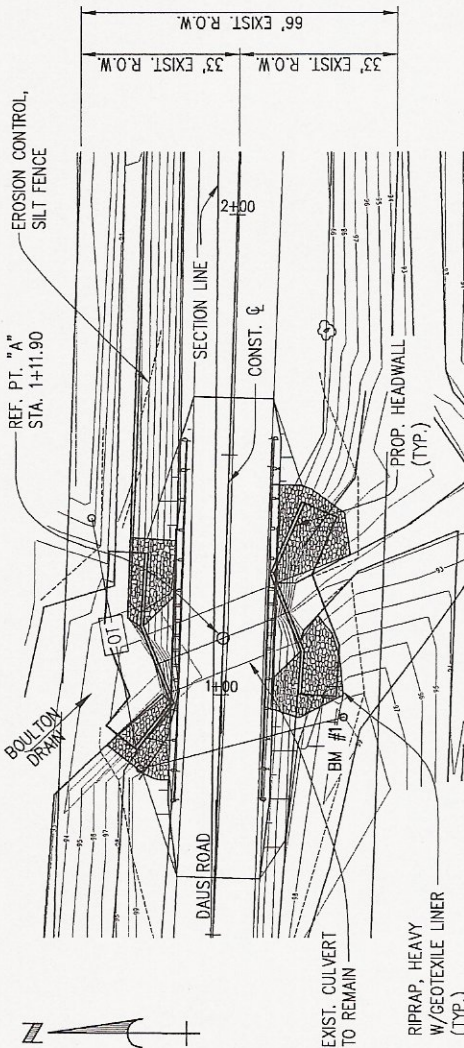
989-705-3429

cc: Elkland Township
MDOT, Local Agency Programs
MDEQ, WB, Saginaw Bay (Matt Siler)
MDEQ, LWMD, Saginaw Bay (Theresa Custodio)

BENCH MARKS	
BM #1	RR SPIKE IN TELEPHONE POLE
EL.	99.52
STA.	0+96.25' RT.

DEQ/LWMD
Permitted Plan

MAR 23 2009
File No. 09-79-7P
Page No. 585



RECEIVED
MAR 05 2009
TRANSPORTATION REVIEW UNIT

BY:	KJO	DATE:	2/09	SHEET NO.	3
CHK:	CJK	DATE:	2/09	OF	4
				W. O. NO.	79-241

RS&A ASSOCIATES, INC.
ARCHITECTURE & SURVEYING
405 RIVER STREET, ALPENA, MICHIGAN 49707
PHONE: (989) 354-3178 FAX: (989) 354-3191

TUSCOLA COUNTY ROAD COMMISSION
DAUS ROAD OVER BOLTUN DRAIN
ELKLAND TOWNSHIP
SECTIONS 12 & 13 T14N-R11E

Your bid will not be accepted unless the enclosed agreement is signed and returned with your bid.

AGREEMENT

This agreement made this _____ day of _____, 20____
by and between the Board of Tuscola County Road Commissioners and _____
_____.

1. _____ hereby agrees to undertake the following work
in the status of an independent contractor performing the following job:

2. Said contractor, _____, shall at all times exercise extreme care and shall assume any and all liability for property damage or bodily injury resulting from the above operation by this employees, agents, assigns, sub-contractors and anyone else acting under his control or direction; and will indemnify, hold harmless and defend the Tuscola County Road Commission, its Commissioners or employees from any and all claims for property damage or bodily injury arising out of this Agreement.

3. Said contractor, _____, while engaged in said job shall maintain and furnish certificates of insurance, naming the Tuscola County Road Commission and Commissioners as **an additional insured** under the policy, with policy limits of \$500,000/\$1,000,000 for property damage and bodily injury, and **shall** furnish the Tuscola County Road Commission copies of said certificates of insurance prior to commencing any work on said project. Additionally, said contractor, _____, shall furnish prior to start of said job with the Board of Tuscola County Road Commissioners, a policy of insurance certifying he carries and has in effect worker's compensation insurance on all those required to be covered under Michigan law.

4. The address of the Board of Tuscola County Road Commissioners is 1733 S. Mertz Rd., Caro, MI 48723.

Witnessed:

Board of Tuscola County Road Commissioners

Contractor

TUSCOLA COUNTY
ROAD COMMISSION
“AN EQUAL OPPORTUNITY EMPLOYER”

SPECIAL PROVISION
FOR
MAINTAINING TRAFFIC
1 of 1

GENERAL

Traffic shall be maintained in accordance with Sections 103.05, 103.06, 812, and 922 of the 2003 Michigan Department of Transportation (MDOT) Standard Specifications for Construction, including any Supplemental Specifications, and as herein specified.

CONSTRUCTION INFLUENCE AREA

The construction influence area (CIA) shall consist of the width of the project right-of-way from 3,500 feet before the project P.O.B. to 3,500 feet beyond the project P.O.E. and 500 feet in all directions along all cross roads.

TRAFFIC CONTROL DEVICES

All traffic control devices and their usage shall conform to the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), 2005 edition as amended, and as herein specified.

Sign covers shall be placed over existing regulatory, warning and construction signs that are not applicable during construction.

Signing for a lane closure shall be according to attached MDOT Maintaining Traffic Typical Figure M0150. Additional signing pertaining to “Andy’s Law” shall be post driven at the proper D distance prior to project limits as per attached MDOT Figure M0030 on all long term operations and may be required on other projects at the discretion of the Engineer.

Sheeting shall conform to Engineer grade reflective sheeting and must meet the requirements for ASTM D 4956 Type I engineer grade sheeting, as per section 922.02B, of the 2003 Standard Specifications for Construction.

TRAFFIC RESTRICTIONS

Work shall be conducted during daylight hours only. No work shall be conducted on Sundays unless approved by the Engineer.

The maximum distance between the traffic regulators shall be no more than 2 miles in length. All sequences of more than 2 miles in length will require written permission from the Engineer before proceeding.

PAYMENT

Payment for Maintaining Traffic shall be included in other Bid unit prices. There will be no separate payment for Maintaining Traffic.

TUSCOLA COUNTY ROAD COMMISSION
TITLE IV COMPLIANCE
APPENDIX A

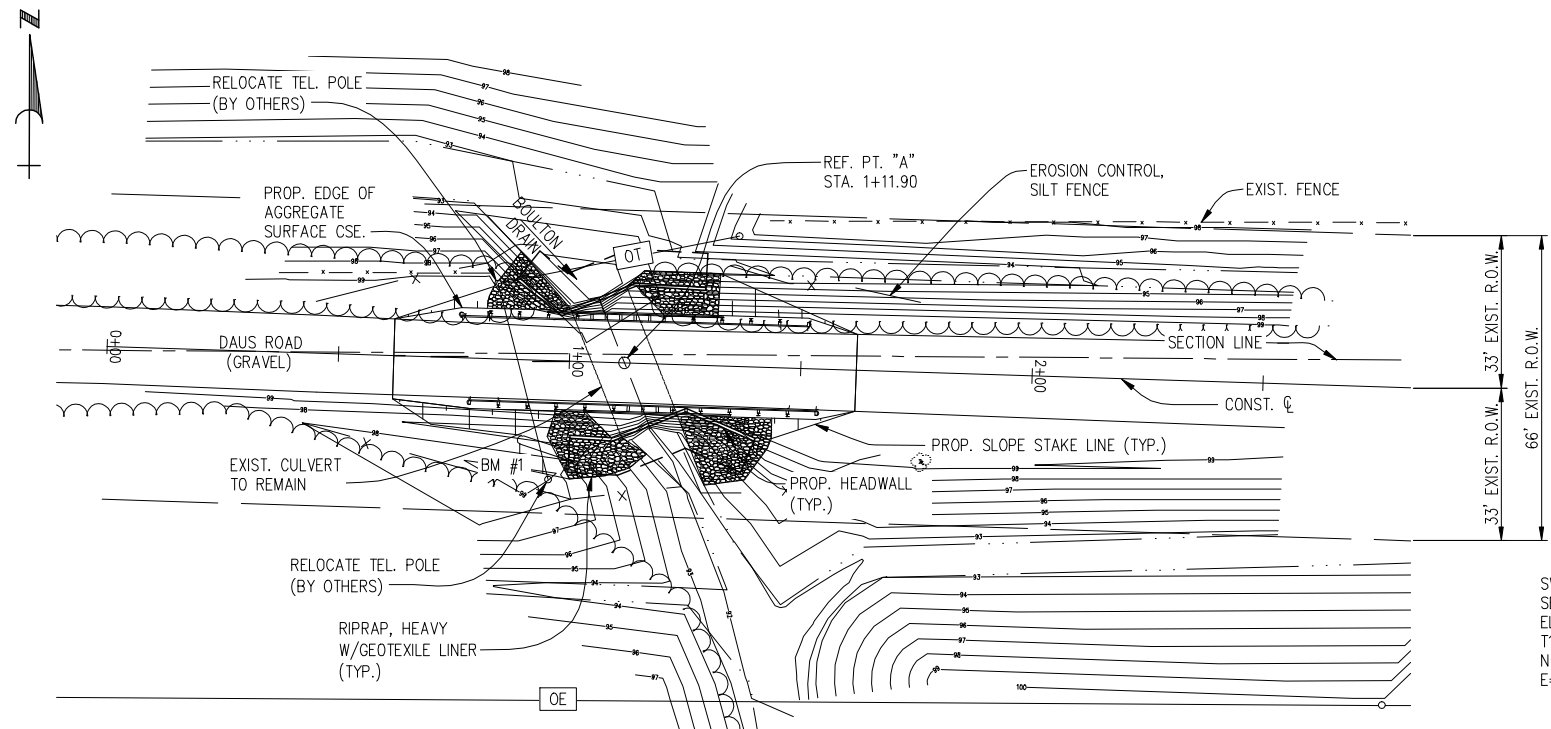
During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor shall comply with the Regulations relative to non-discrimination in Federally-assisted programs of the Department of Transportation, Title 49, code of Federal Regulations, Part 21 as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulation, including employment practices when the contractor covers a program set forth in Appendix B of the Regulations.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the **Tuscola County Road Commission** to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses this information, the contractor shall so certify to the State highway department, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Non-compliance:** In the event of the contractor's non-compliance with the non-discrimination provisions of this contract, the **Tuscola County Road Commission** shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - (a) Withholding of payments to the contractor under the contract until the contractor complies, and/or
 - (b) Cancellation, termination or suspension of the contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor shall include the provisions of paragraphs(1) through (6) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issues pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the **Tuscola County Road Commission** may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the **Tuscola County Road Commission** to enter into such litigation to protect the interests of the County, and, in addition, the contractor may request the State highway department to enter into such litigation to protect the interests of the State and/or the United States to enter into such litigation to protect the interests of the United States.

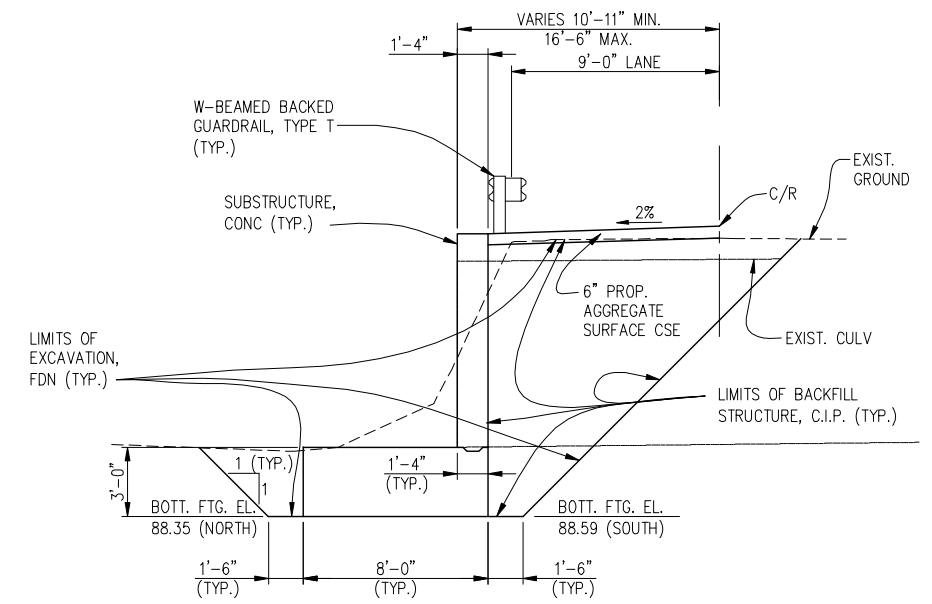
“The **TUSCOLA COUNTY ROAD COMMISSION**, in accordance with Title VI of the Civil Rights Act of 1964, 78-252, 42 U.S.C. 2000d-222d-4, the Civil Rights Act of 1987, P.L. 100-259, and Title 49, Code of Federal Regulations, Department of Transportation, subtitle A, Office of the Secretary, Part 21, Non-discrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, Disadvantaged Business Enterprise firms will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of Race, Color, Sex, Age, National Origin, or Handicap in consideration for an award. For additional compliance information, please see Appendix A.”

BENCH MARKS	
BM #1	
RR SPIKE IN TELEPHONE POLE	EL. 99.52
STA: 0+96 25' RT.	

UTILITIES	
OE	OVERHEAD ELECTRIC
OT	OVERHEAD TELEPHONE



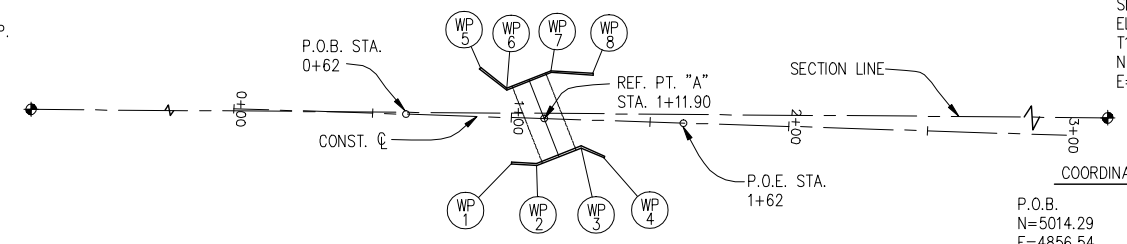
SITUATION PLAN



TYPICAL CROSS SECTION @ CULVERT

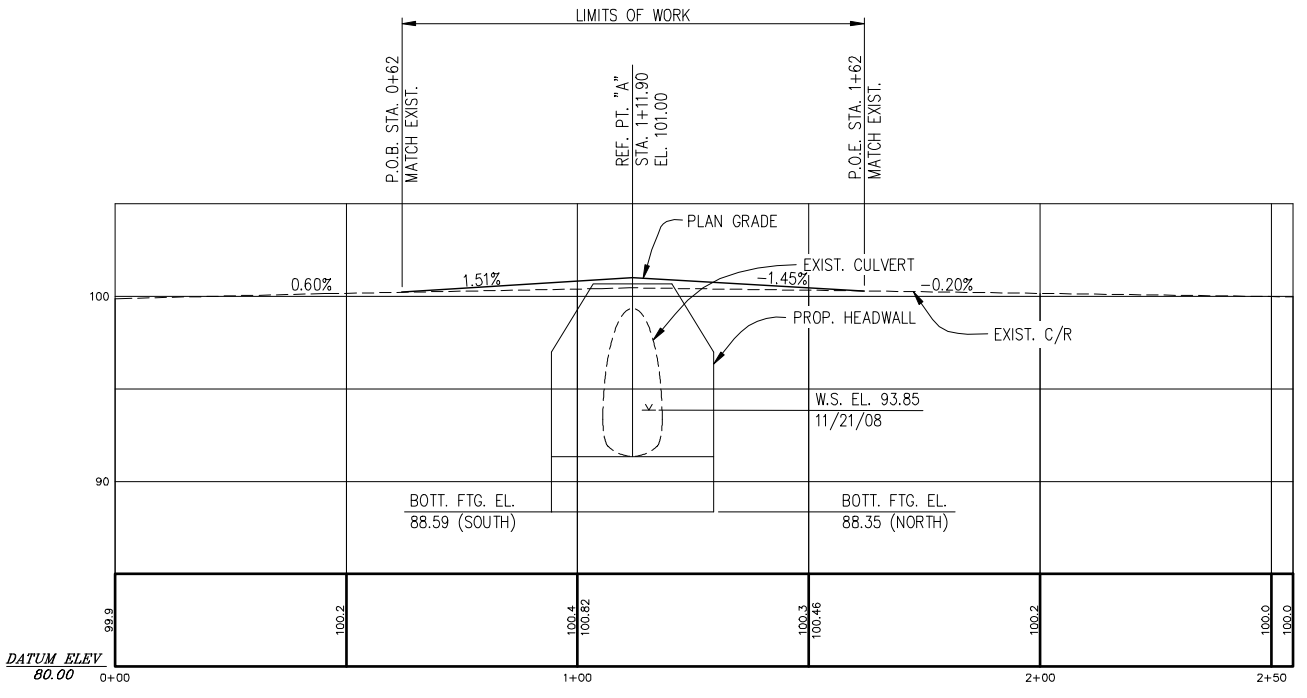
SW CORNER
SEC. 12
ELKLAND TWP.
T14N-R11E
N=5020.18
E=4178.52

S 1/4 CORNER
SEC. 12
ELKLAND TWP.
T14N-R11E
N=5000.00
E=6809.90



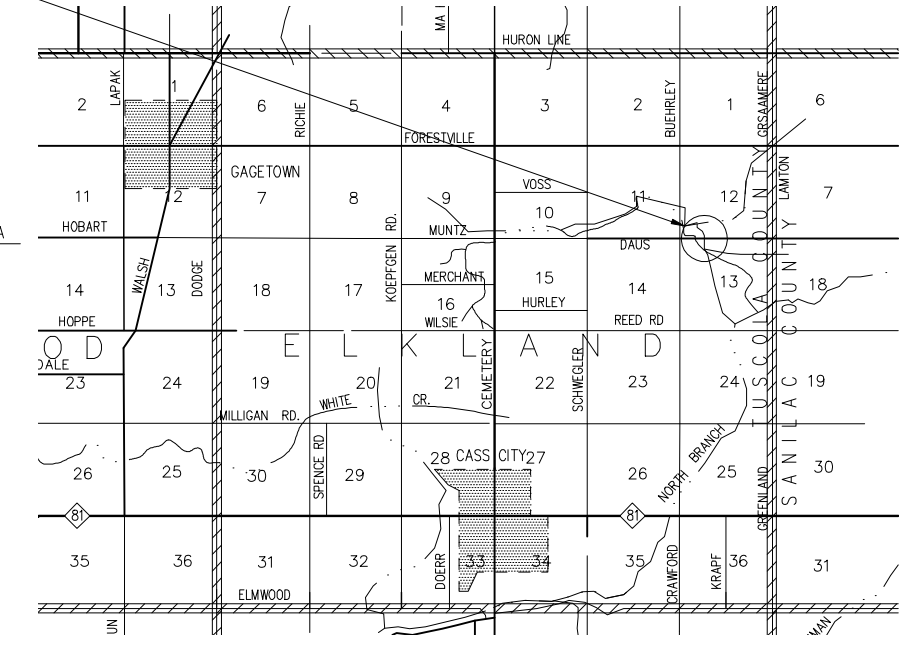
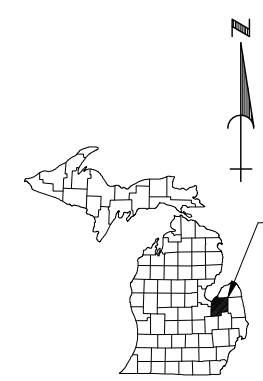
ALIGNMENT SKETCH

COORDINATES	
P.O.B.	WP 4
N=5014.29	N=4998.58
E=4856.54	E=4927.95
P.O.E.	WP 5
N=5011.11	N=5031.15
E=4956.49	E=4883.52
WP 1	WP 6
N=4996.42	N=5023.68
E=4894.59	E=4892.92
WP 2	WP 7
N=4995.87	N=5029.97
E=4903.75	E=4908.85
WP 3	WP 8
N=5002.16	N=5029.05
E=4919.70	E=4924.00



CENTERLINE PROFILE
SCALE: HORZ. 1"=20'
VERT. 1"=5'

PROJECT LOCATION



LOCATION SKETCH

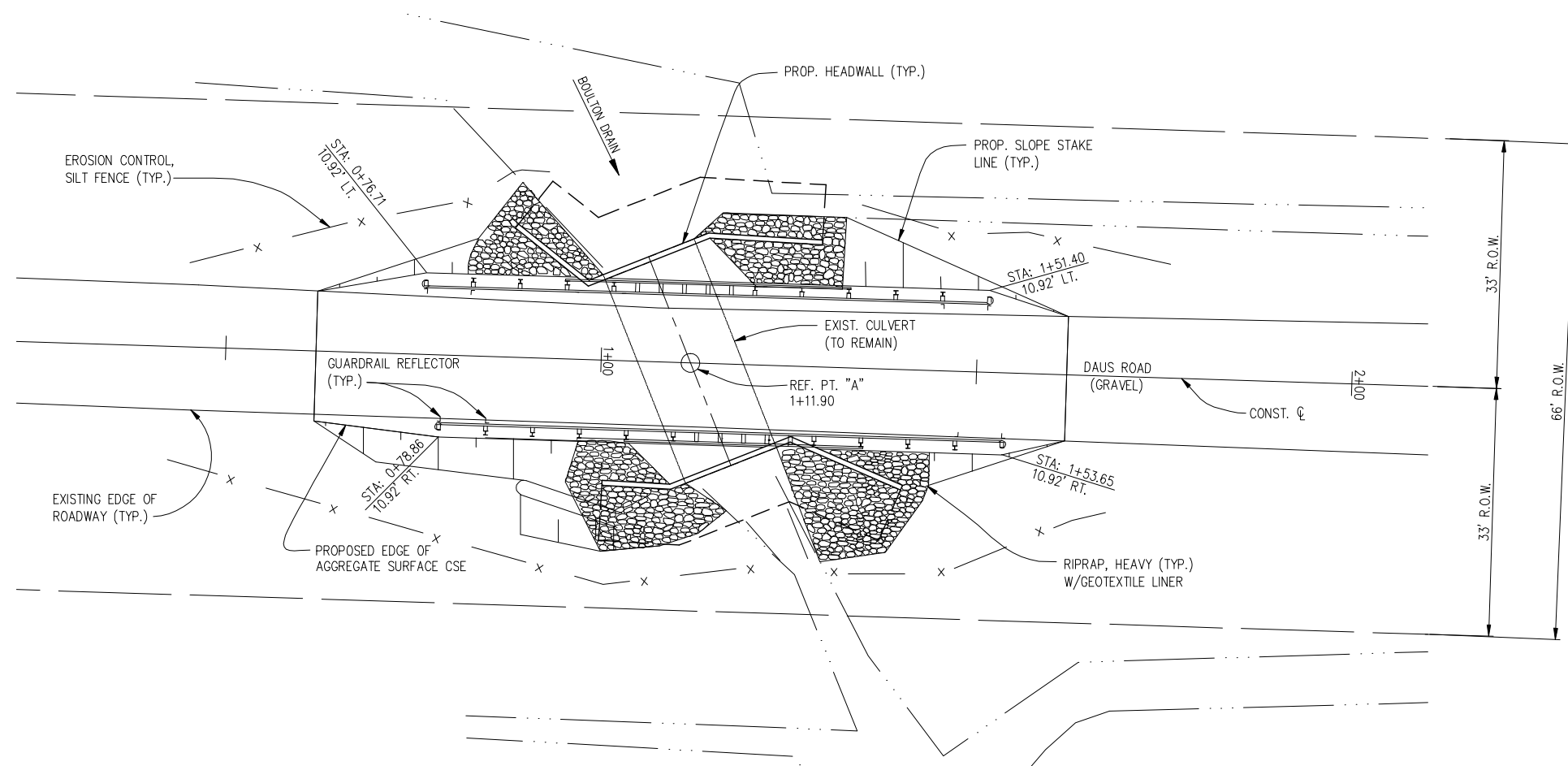
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(989) 354-3178

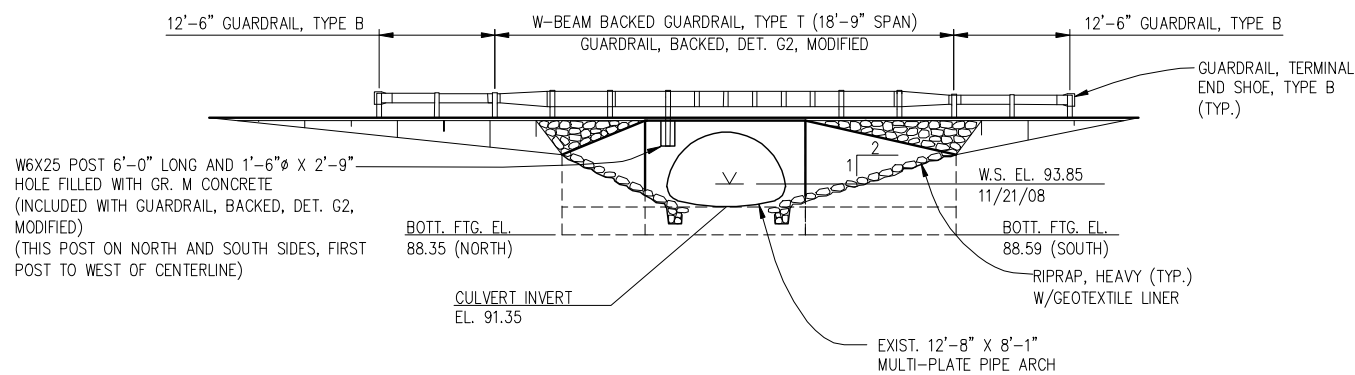
TUSCOLA COUNTY ROAD COMMISSION
DAUS ROAD OVER BOULTON DRAIN
ELKLAND TOWNSHIP
SECTION 12 & 13, T14N - R11E

PLAN OF SITE

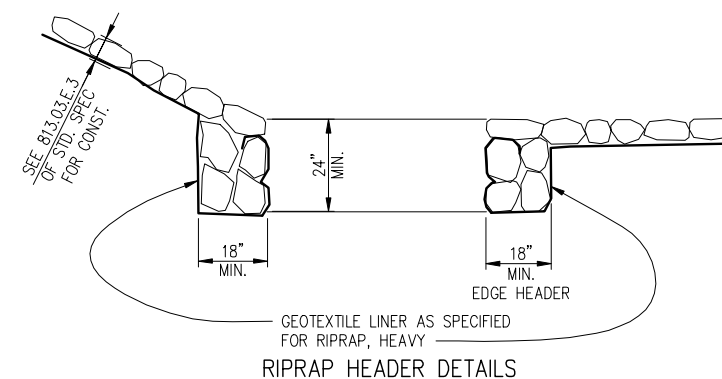
BY:	DATE:	W.O. #	SHEET NO.
KJO	2/09	79-241	1
CHK:	DATE:		OF 4
CJK	2/09		



PLAN VIEW



ELEVATION



RIPRAP HEADER DETAILS

NOTE:
HEADER AND GEOTEXTILE LINERS ARE INCLUDED WITH RIPRAP, HEAVY

NOTES:
THE WATER LEVEL IS SUBJECT TO CHANGE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING A DETERMINATION OF THE WATER LEVELS THAT MAY EXIST DURING CONSTRUCTION.

TEMPORARILY STORED EXCAVATED MATERIAL SHALL NOT BE ALLOWED TO ERODE INTO THE WATERCOURSE.

IMMEDIATELY AFTER THE CONSTRUCTION OF THE HEADWALLS AND WINGWALLS ARE COMPLETED, THE APPLICABLE SLOPE PROTECTION SHALL BE PLACED ON THE ADJACENT EMBANKMENT SLOPES.

A COFFERDAM HAS NOT BEEN PROVIDED FOR THIS STRUCTURE. OTHER MEANS OF WATER CONTROL MAY BE USED, AS APPROVED BY THE ENGINEER, PROVIDED THEY DO NOT DISTURB THE STREAM BED. WATER CONTROL AND PUMPING, WHETHER IT BE BY COFFERDAM OR OTHER APPROVED MEANS, WILL BE INCLUDED IN THE BID ITEM EXCAVATION, FDN.

ALL OFFSET DIMENSIONS ARE TAKEN FROM THE CONSTRUCTION CENTERLINE.

GEOTEXTILE LINER SHALL BE PLACED ON ALL SLOPES PRIOR TO PLACING RIPRAP. PAYMENT FOR GEOTEXTILE LINER SHALL BE INCLUDED IN PAYMENT FOR RIPRAP.

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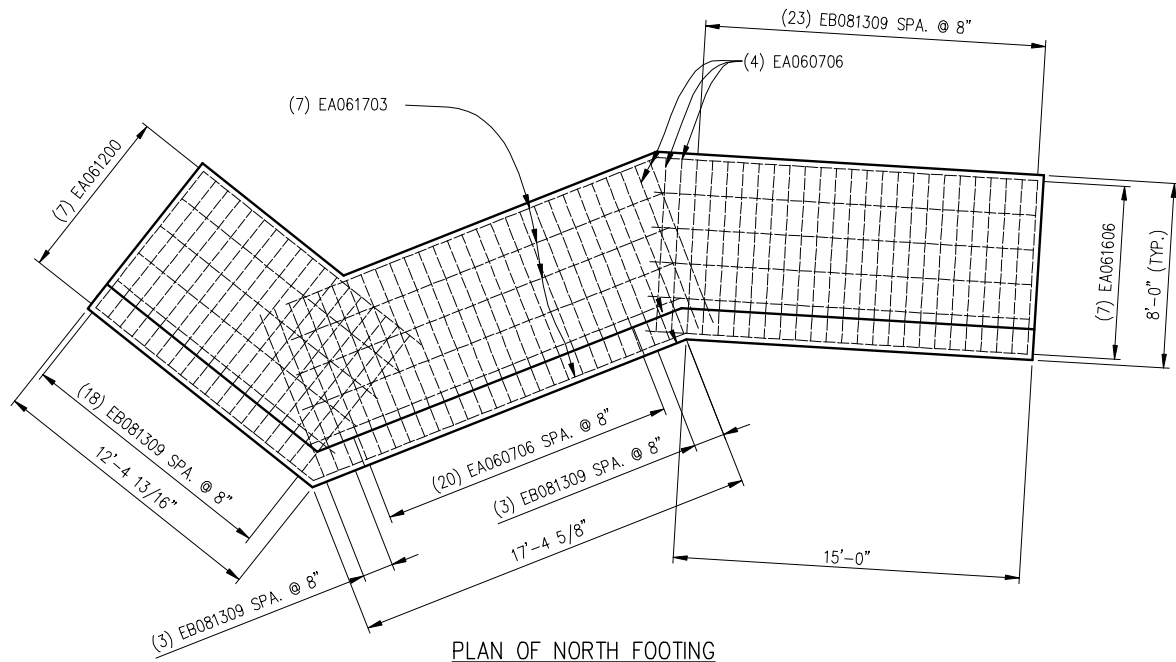
PLAN OF STRUCTURE

BY:	DATE:
KJO	2/09
CHK:	DATE:
CJK	2/09

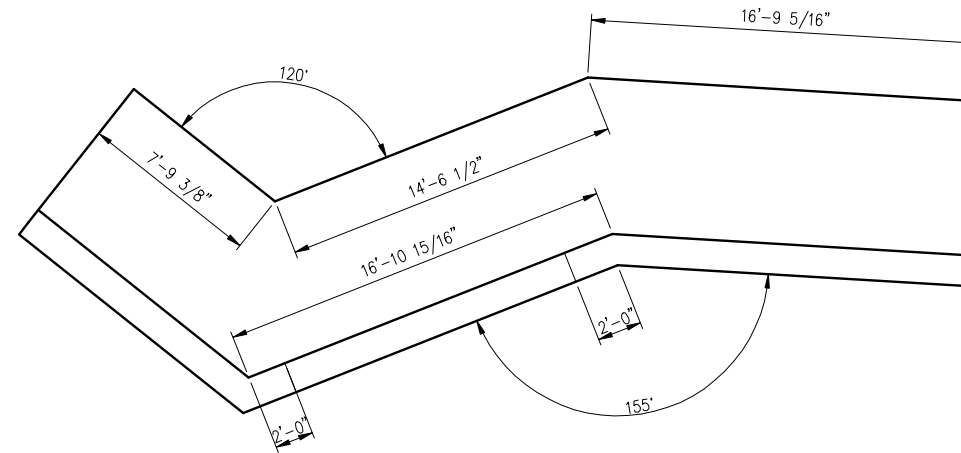
W.O. # 79-241

SHEET NO.
2
OF 4

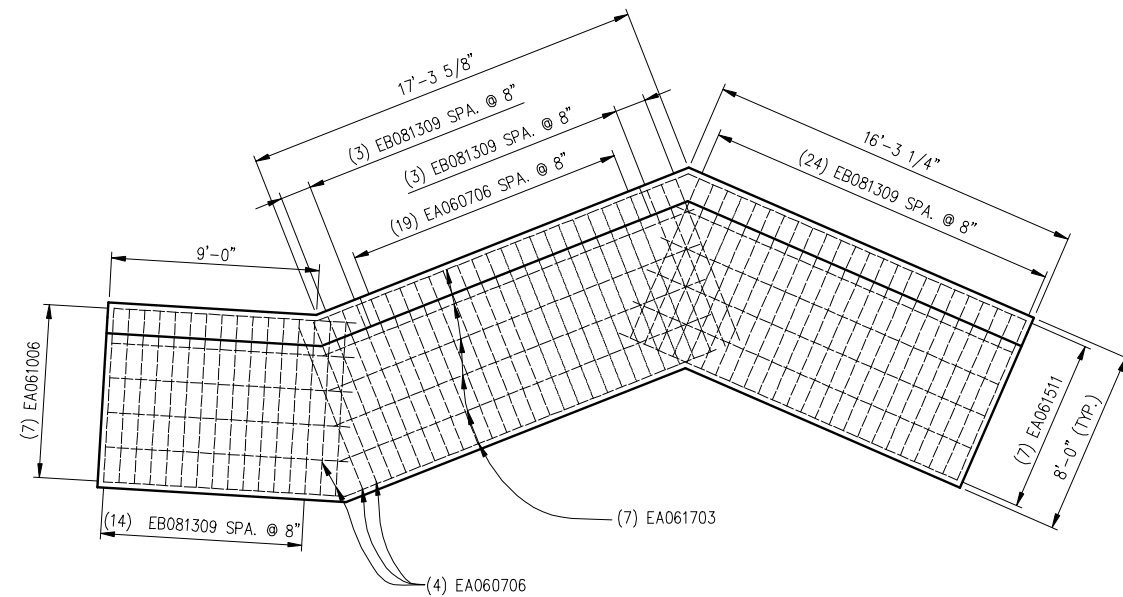
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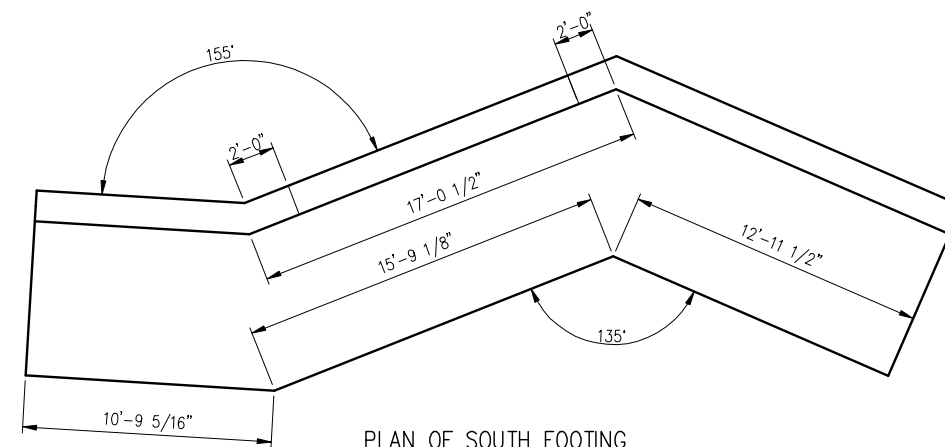
PLAN OF NORTH FOOTING



PLAN OF NORTH FOOTING



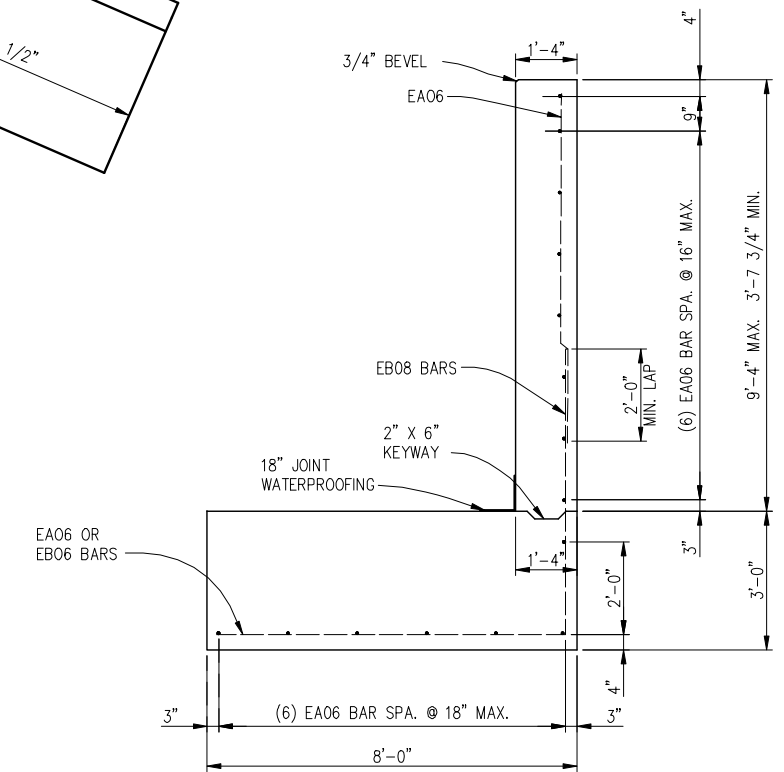
PLAN OF SOUTH FOOTING



PLAN OF SOUTH FOOTING

SUBSTRUCTURE CONCRETE (S2)	
LOCATION	LEFT SIDE
NORTH FOOTING	37.28
SOUTH FOOTING	36.48
NORTH HEADWALL	12.88
SOUTH HEADWALL	13.27
TOTAL	99.91 CYD

QUANTITIES	
1 LS	MOBILIZATION, MAX. \$6,400
120 CYD	EMBANKMENT, CIP
5 CYD	EXCAVATION, EARTH
240 CYD	BACKFILL, STRUCTURE, CIP
325 CYD	EXCAVATION, FDN
250 LFT	EROSION CONTROL, SILT FENCE
80 TON	AGGREGATE SURFACE CSE
100 CYD	SUBSTRUCTURE CONCRETE
6528 LB	REINFORCEMENT STEEL, EPOXY COATED
131 SFT	JOINT WATERPROOFING
50 LFT	GUARDRAIL, TYPE B
2 EA	GUARDRAIL, BACKED, DET. G2
4 EA	GUARDRAIL, TERMINAL END SHOE, TYPE B
8 EA	GUARDRAIL REFLECTOR
100 SYD	RIPRAP, HEAVY
60 SYD	SLOPE RESTORATION



SECTION VIEW

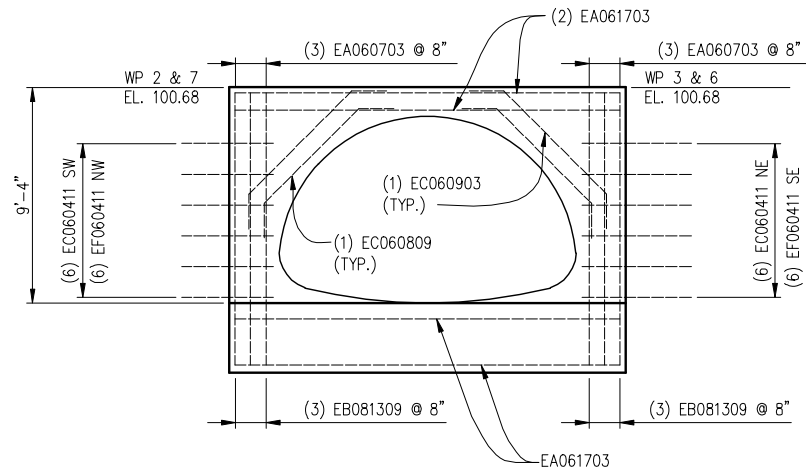
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FOOTING DETAILS

BY	DATE	W.O. #	SHEET NO.
KJO	2/09	79-241	3
CHK	DATE		
CJK	2/09		OF 4

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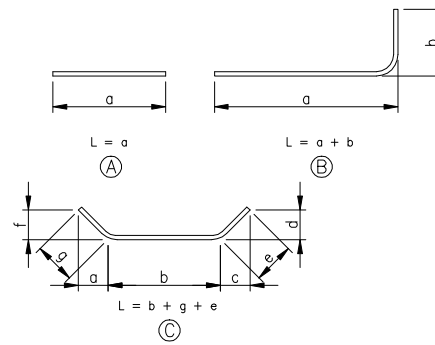


MAIN HEADWALL ELEVATION

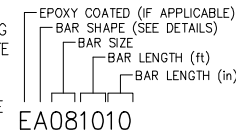
NOTES:

TOLERANCES IN CUTTING AND BENDING BARS ARE AS ESTIMATED IN THE MANUAL OF STANDARD PRACTICE OF THE CONCRETE REINFORCING STEEL INSTITUTE AND DETAILING MANUAL OF THE AMERICAN CONCRETE INSTITUTE.

ALL BENDS IN REINFORCING STEEL TO BE MADE ABOUT A PIN OF THE MINIMUM DIAMETER ALLOWED BY SPECIFICATIONS.



BAR NUMBERS:



STEEL REINFORCEMENT, EPOXY COATED - FOOTINGS												
MARK	DIMENSIONS								SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g	h				
EA060706	7'-6"								#6	7'-6"	47	530
EA061006	10'-6"								#6	10'-6"	7	110
EA061200	12'-0"								#6	12'-0"	7	126
EA061511	15'-11"								#6	15'-11"	7	167
EA061606	16'-6"								#6	16'-6"	7	174
EA061703	17'-3"								#6	17'-3"	14	363
EA081309	7'-6"	6'-3"							#8	13'-9"	91	3341
TOTAL												4811

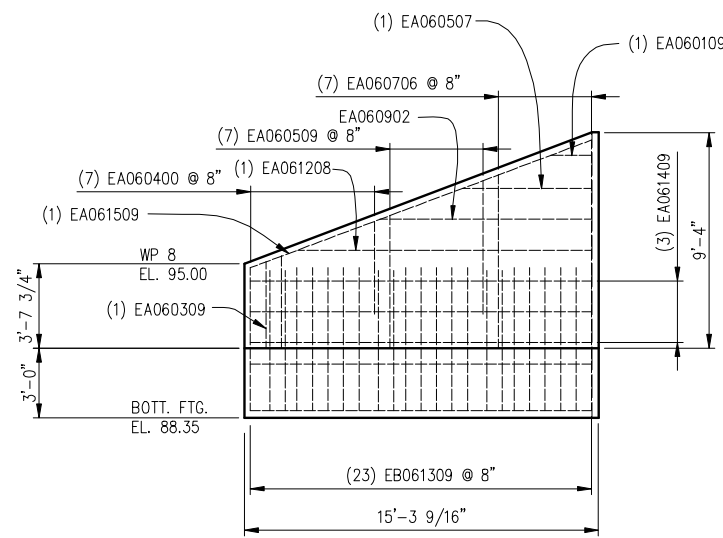
STEEL REINFORCEMENT, EPOXY COATED - MAIN HEADWALLS												
MARK	DIMENSIONS								SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g	h				
EA060703	7'-3"								#6	7'-3"	12	131
EA061703	17'-3"								#6	17'-3"	4	104
EC060411	0'-0"	3'-0"	1'-6 5/8"	1'-4 1/4"	1'-11"	0'-0"	0'-0"		#6	4'-11"	6	44
EC060411	0'-0"	3'-0"	1'-8 7/8"	0'-9 11/16"	1'-11"	0'-0"	0'-0"		#6	4'-11"	12	89
EC060411	0'-0"	3'-0"	0'-11 1/2"	1'-7 7/8"	1'-11"	0'-0"	0'-0"		#6	4'-11"	6	44
EC060809	1'-0 3/4"	5'-9"	1'-0 3/4"	1'-0 3/4"	1'-6"	1'-0 3/4"	1'-6"		#6	8'-9"	4	53
EC060903	1'-0 3/4"	6'-3"	1'-0 3/4"	1'-0 3/4"	1'-6"	1'-0 3/4"	1'-6"		#6	9'-3"	4	56
TOTAL												521

STEEL REINFORCEMENT, EPOXY COATED - NW WINGWALL												
MARK	DIMENSIONS								SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g	h				
EA060102	1'-2"								#6	1'-2"	1	2
EA060403	4'-3"								#6	4'-3"	6	38
EA060500	5'-0"								#6	5'-0"	1	8
EA060510	5'-10"								#6	5'-10"	6	53
EA060703	7'-3"								#6	7'-3"	6	65
EA060806	8'-6"								#6	8'-6"	1	13
EA061105	11'-5"								#6	11'-5"	4	69
EA061202	12'-2"								#6	12'-2"	1	18
TOTAL												266

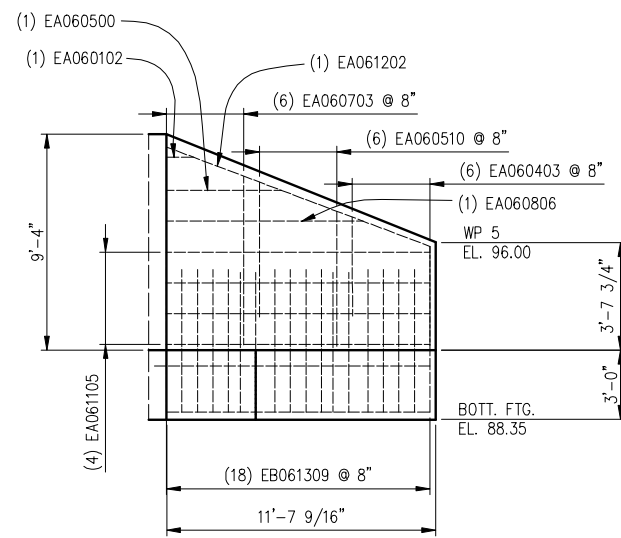
STEEL REINFORCEMENT, EPOXY COATED - NE WINGWALL												
MARK	DIMENSIONS								SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g	h				
EA060109	1'-9"								#6	1'-9"	1	3
EA060309	3'-9"								#6	3'-9"	1	6
EA060400	4'-0"								#6	4'-0"	7	42
EA060507	5'-7"								#6	5'-7"	1	8
EA060509	5'-9"								#6	5'-9"	7	61
EA060706	7'-6"								#6	7'-6"	7	79
EA060902	9'-2"								#6	9'-2"	1	14
EA061208	12'-8"								#6	12'-8"	1	19
EA061409	14'-9"								#6	14'-9"	3	67
EA061509	15'-9"								#6	15'-9"	1	24
TOTAL												323

STEEL REINFORCEMENT, EPOXY COATED - SE WINGWALL												
MARK	DIMENSIONS								SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g	h				
EA060202	2'-2"								#6	2'-2"	1	3
EA060402	4'-2"								#6	4'-2"	2	13
EA060509	5'-9"								#6	5'-9"	11	95
EA060704	7'-4"								#6	7'-4"	11	121
EA060900	9'-0"								#6	9'-0"	1	14
EA061411	14'-11"								#6	14'-11"	1	22
EA061505	15'-5"								#6	15'-5"	4	93
EA061510	15'-10"								#6	15'-10"	1	24
TOTAL												385

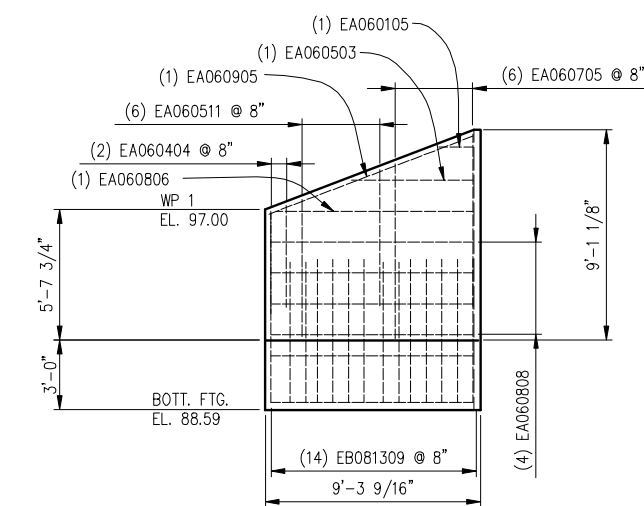
STEEL REINFORCEMENT, EPOXY COATED - SW WINGWALL												
MARK	DIMENSIONS								SIZE	LENGTH	NO. REQ'D	TOTAL WT.
	a	b	c	d	e	f	g	h				
EA060105	1'-5"								#6	1'-5"	1	2
EA060404	4'-4"								#6	4'-4"	2	13
EA060503	5'-3"								#6	5'-3"	1	8
EA060511	5'-11"								#6	5'-11"	6	53
EA060705	7'-5"								#6	7'-5"	6	67
EA060806	8'-6"								#6	8'-6"	1	13
EA060808	8'-8"								#6	8'-8"	4	52
EA060905	9'-5"								#6	9'-5"	1	14
TOTAL												222



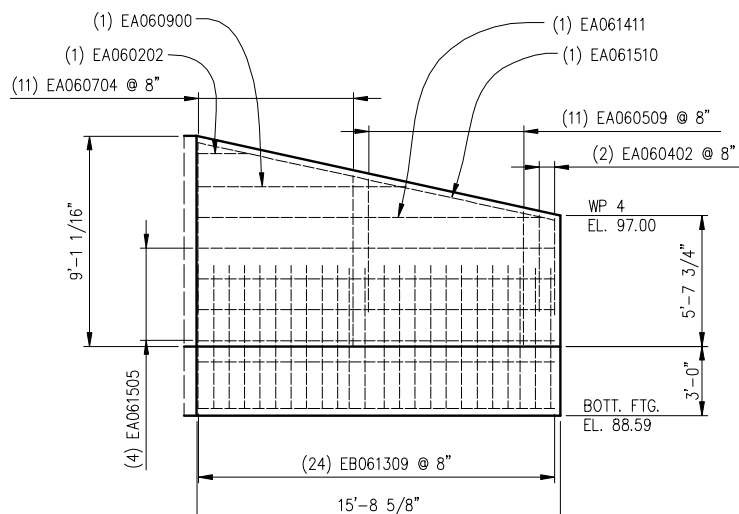
NE WINGWALL ELEVATION



NW WINGWALL ELEVATION



SW WINGWALL ELEVATION



SE WINGWALL ELEVATION



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ELEVATIONS AND REINFORCEMENT

BY:	DATE:	W.O. # 79-241	SHEET NO. 4
KJO	2/09		
CHK:	DATE:	OF 4	
CJK	2/09		