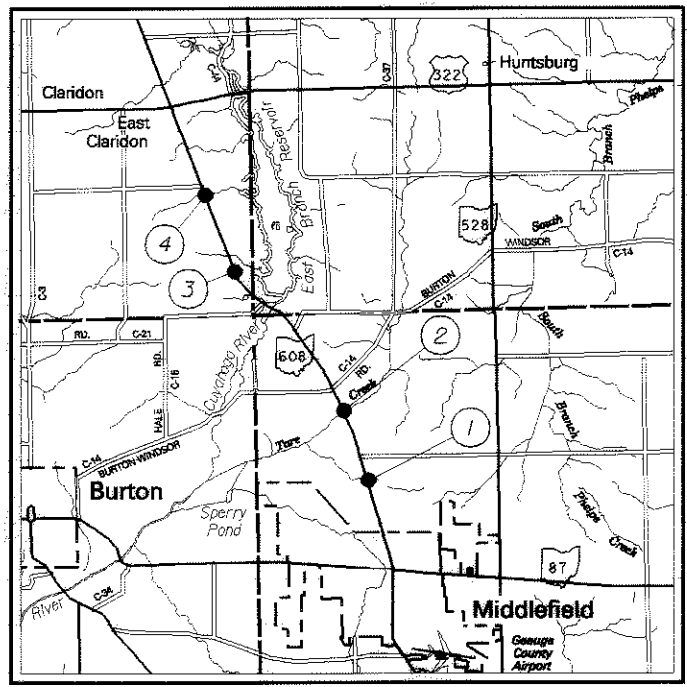


040311 PID - 21809  
 Dist 12 5/5/2004  
 GEA - SR 608-3.04/3.76/5.81/6.50



LOCATION MAP

Latitude: 41° 33' 33" Longitude: 81° 07' 42"



Portion To Be Improved  
 Interstate & Divided Highway  
 Undivided State & Federal Routes  
 Other Roads

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## GEA - 608 - 3.04 / 3.76 / 5.81 / 6.50

### Claridon Township Middlefield Township Geauga County

**Work Locations:**

- ① GEA-608-3.04
- ② GEA-608-3.76
- ③ GEA-608-5.81
- ④ GEA-608-6.50

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**PROJECT DESCRIPTION**

This project provides for the improvement of SR 608 by replacing 2 culverts at SLM's 3.04 and 3.76. This project also provides for the improvement of the ends of existing culverts at SLM's 5.81 and 6.50.

**2002 SPECIFICATIONS**

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

I hereby approve these plans and declare that the making of this improvement will require part time closing of the highway to traffic, as noted in the plans, during which time detours will be provided as shown herein. Provisions for the maintenance and safety of traffic will be as set forth in the plans and estimates.

**UNDERGROUND UTILITIES**  
 TWO WORKING DAYS  
**BEFORE YOU DIG**  
 CALL 1-800-362-2764 (TOLL FREE)  
 OHIO UTILITIES PROTECTION SERVICE  
 NON-MEMBERS  
 MUST BE CALLED DIRECTLY

PLAN PREPARED BY:  
 Ohio Department of Transportation  
 District 12 Production  
 5500 Transportation Blvd  
 Garfield Heights, OH 44125

Engineer's Seal:  
  
 SIGNED: *Brian Blayne*  
 DATE: 2-5-2004

Standard Construction Drawings						Supplemental Specifications	
F-2.1	07-28-00	RM-4.2	04-18-03	TC-41.10	01-19-01	MT-101.70 10-18-02	802 07-19-02
F-3.3	07-28-00			TC-41.20	01-19-01	MT-105.10 10-18-02	
F-3.4	07-28-00	CB-1.2	07-19-02	TC-52.10	04-20-01	MT-105.11 10-18-02	832 02-12-03
				TC-52.20	04-20-01		
GR-1.1	04-18-03	HW-2.2	07-19-02	TC-65.10	10-19-01		833 02-12-03
GR-2.1	04-18-03			TC-73.10	01-19-01		
GR-2.2	04-18-03	MH-1.2	07-19-02				864 07-11-00
GR-2.3	04-18-03			MT-96.11	04-19-02		
GR-3.4	04-18-03	DM-1.4	07-19-02	MT-96.20	04-19-02		908
GR-4.2	10-17-03	DM-4.4	07-19-02	MT-96.21	04-19-02		4-18-03
GR-5.3	04-18-03			MT-96.25	04-20-01		
		BP-3.1	07-28-00	MT-97.10	04-19-02		
				MT-97.11	04-19-02		
				MT-101.20	10-18-02		
				MT-101.60	10-18-02		
							Special Provisions
							NATIONWIDE PERMIT
							#3 10-17-03

Approved: *David Pyle*  
 Date: 4-28-2004 District Deputy Director  
 Approved: *Jordan Prator*  
 Date: 2-25-04 Director, Department of Transportation

Federal Project No. Non-Federal  
 Construction Project No. 21809  
 Railroad Involvement None  
 GEA-608-3.04/3.76/5.81/6.50  
 1/55

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**PROJECT DESCRIPTION**

THIS PROJECT PROVIDES FOR THE IMPROVEMENT OF SR 608 BY REPLACING TWO CULVERTS AT SLM'S 3.04 AND 3.76. THIS PROJECT ALSO PROVIDES FOR THE IMPROVEMENT OF THE ENDS OF EXISTING CULVERTS AT SLM'S 5.81 AND 6.50.

**PROFILE AND ALIGNMENT**

THE PROPOSED PAVEMENT RESURFACING SHALL FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. THE PROPOSED ASPHALT CONCRETE SURFACE SHALL HAVE A UNIFORM THICKNESS OF 1.5".

THE ALIGNMENT AND PROFILE OF S.R. 608 SHALL NOT BE CHANGED.

**UTILITIES OWNERSHIP**

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT. THE OHIO DEPARTMENT OF TRANSPORTATION HAS USED THE BEST AVAILABLE INFORMATION TO DETERMINE THE UTILITY COMPANIES SERVING THIS AREA, BUT CANNOT GUARANTEE THE UTILITY COMPANY LIST IS COMPLETE.

ADELPHIA  
14300 SOUTH INDUSTRIAL PARKWAY  
MAPLE HTS., OHIO 44137  
ATTN: GARY NAUMANN  
PHONE: 216-663-4003  
FAX: 216-581-3262

THE ILLUMINATING CO.  
6896 MILLER RD.  
BRECKSVILLE, OHIO 44141  
ATTN: FRANK DIBBS  
PHONE: 440-546-8748  
FAX: 440-546-8775

DOMINION EAST OHIO GAS COMPANY  
1201 EAST 55<sup>TH</sup> STREET  
CLEVELAND, OHIO 44103  
ATTN: MIKE ANTONIUS  
PHONE: 216-736-6675  
FAX: 216-736-6883

AMERITECH  
13630 LORAIN AVE. 4<sup>TH</sup> FLOOR  
CLEVELAND, OHIO 44111  
ATTN: ERIC JOHNSTON  
PHONE: 216-476-6141  
FAX: 216-476-6013

POWER GAS MARKETING & TRANSMISSION  
3010 STATE ROUTE 88  
GARRETTSVILLE, OH 44231  
ATTN: JOHN FIRKO  
PHONE: 330-527-5630

STAR CABLE  
4720 MAHONING AVE  
YOUNGSTOWN, OHIO 44515  
ATTN: TOM BEAT  
PHONE: (800) 569-0200

WESTERN RESERVE TELEPHONE  
205 S. HAMDEN STREET  
CHARDON, OH 44024  
ATTN: JON HOBBY  
PHONE: 440-285-5474

GEAUGA COUNTY DEPARTMENT OF  
WATER RESOURCES  
470 CENTER STREET  
CHARDON, OHIO 44024  
PHONE: 440-285-2222 X6370

AKRON WATER  
1570 RAVENNA ROAD  
KENT, OHIO 44240  
ATTN: KIM COY  
PHONE: (330) 678-0077  
FAX: (330) 678-0927

BRAINARD GAS CORP.  
4369 BRAINARD RD.  
ORANGE VILLAGE, OHIO 44022  
ATTN: ED BONK  
PHONE: (216) 591-9110

VILLAGE OF MIDDLEFIELD  
14860 N. STATE STREET  
MIDDLEFIELD, OH 44062  
PHONE: 440-632-5248

**COOPERATION BETWEEN CONTRACTORS**

THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT. NO WAIVER OF ANY PROVISIONS OF 105.08 OF THE CMS IS INTENDED.

**CONTINGENCY QUANTITIES**

THE CONTRACTOR SHALL NOT ORDER MATERIAL OR PERFORM WORK FOR THE PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

**RIGHT OF WAY**

ALL WORK IS TO BE PERFORMED WITHIN THE EXISTING RIGHT OF WAY OR EASEMENTS.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

**ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN**

THIS ITEM IS SPECIFICALLY INTENDED TO PROVIDE FOR THE REMOVAL OF TREES AS SHOWN IN THE PLANS. THIS ITEM SHALL ALSO BE USED TO CLEAR TREES AND VEGETATION WHEN REMOVING AND REPLACING FENCE. THIS ITEM OF WORK SHALL BE PERFORMED AT THE BEGINNING OF THE CONTRACT WORK.

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
S.L.M. 5.81			
15"	2	0	2
18"	1	0	1
S.L.M. 6.50			
15"	1	0	1

**INDIANA BAT**

THIS PROJECT IS WITHIN THE RANGE OF THE FEDERALLY ENDANGERED INDIANA BAT (*MYOTIS SODALIS*). THE PROJECT MAY IMPACT SUMMER AND BROOD REARING HABITATS FOR THIS SPECIES (I.E., TREES OVER NINE INCHES DIAMETER BREST HEIGHT WITH LOOSE OR PEELING BARK AND/OR CAVITIES GREATER THEN 3-4 INCHES IN SIZE). TO PREVENT HARM TO THESE BATS, THE REMOVAL OF ANY POTENTIAL ROOST TREES MUST BE COMPLETED BETWEEN SEPTEMBER 15 AND APRIL 15. ALL BAT TREE CUTTING MUST BE COMPLETED BEFORE THE APRIL 15<sup>TH</sup> DEADLINE.

**TEMPORARY STREAM CROSSING FORDS**

WHERE STREAM CROSSING FORDS ARE REQUIRED FOR EQUIPMENT CROSSING, THE CROSSING SHALL CONSIST OF CLEAN NON-TOXIC GRANULAR OR ROCK MATERIAL, PROPERLY MAINTAINED TO PREVENT EROSION, WITH PROVISIONS FOR CONVEYANCE OF ANTICIPATED HIGH FLOWS, AND SHALL NOT IMPEDE THE MOVEMENT OF AQUATIC LIFE. ROCK OR GRANULAR MATERIAL SHALL BE ROCK AS PER 203.02 OR DUMP ROCK FILL TYPE A, B, C OR D AS PER 601.08, EXCEPT ALL MATERIALS SHALL BE RETAINED ON THE 12.5mm SIEVE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH PART 330, APPENDIX A, SPECIFIC CATEGORIES OF DISCHARGES NATIONALLY PERMITTED, PARAGRAPH (A14), MINOR ROAD CROSSING FILLS - THE FEDERAL REGISTER -CORPS OF ENGINEERS FINAL REGULATIONS, CURRENT EDITION.

**INSTREAM WORK**

INSTREAM WORK WILL BE LIMITED WHERE PRACTICABLE AND ONLY CLEAN NON-ERODIBLE MATERIAL WILL BE USED FOR FORDS OR COFFERDAMS. THIS TEMPORARY PLACED MATERIAL WILL BE REMOVED AND THE STREAM BOTTOM RESTORED TO NEAR NATURAL CONDITIONS WHEN THE WORK IS COMPLETED.

**DEMOLITION DEBRIS**

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.

**STREAM CHANNEL EXCAVATION**

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM THE STREAM CHANNEL. THIS PERTAINS TO ANY EXCAVATION OPERATIONS SUCH AS, FOUNDATION PIER OR ABUTMENT EXCAVATION, CHANNEL CLEANOUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS.

**SEEDING AND MULCHING**

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SEEDING AND MULCHING	920 SQ. YD.
659, SOIL ANALYSIS TEST	1 EACH
659, TOPSOIL	450 CU. YD.
659, COMMERCIAL FERTILIZER	0.55 TON
659, LIME	0.84 ACRE
659, INTER-SEEDING	205 SQ. YD.
659, WATER	22 M GAL

THE CONTRACTOR IS REQUIRED TO ESTABLISH A GOOD STAND OF GRASS OF UNIFORM COLOR AND DENSITY TO THE SATISFACTION OF THE ENGINEER.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

**WORK CONSTRAINTS FOR CULVERT REPLACEMENT AT S.L.M. 3.76**

THE CONTRACTOR MUST KEEP ALL EQUIPMENT, MATERIALS AND WORK WITHIN THE CONSTRUCTION LIMITS SHOWN IN THE PLANS. THE AREA SURROUNDING THIS CULVERT REPLACEMENT IS CONSIDERED A CATEGORY 3 WETLAND. DISTURBING THE WETLANDS IS STRICTLY PROHIBITED AND MAY RESULT IN UNNECESSARY DELAY TO THE PROJECT AT THE CONTRACTOR'S EXPENSE.

GENERAL NOTES

GEA-608-3.04/  
3.76 / 5.81 / 6.50

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**ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN**

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING ASPHALT OVERLAY FULL WIDTH TO A DEPTH OF 1 1/2 INCHES. IN SHOULDER AREAS, THE REMOVAL SHALL BE EQUAL TO THAT OF THE REMOVAL OVER THE PAVEMENT. THE PLANED ROADWAY SURFACES SHALL BE EXPOSED TO TRAFFIC FOR NO MORE THAN THREE (3) WEEKS. THE TIME LIMIT SHALL BEGIN ON THE FIRST DAY OF PLANING, AND SHALL CONTINUE BASED ON CALENDAR DAYS, EXCLUDING ANY WEATHER DAYS, UNTIL COMPLETION OF THE ASPHALT CONCRETE SURFACE COURSE. FAILURE TO COMPLY WITH THIS SHALL RESULT IN THE CONTRACTOR BEING ASSESSED A USER COST FEE AS PER SECTION 108.07 OF THE CMS.

AREAS WHICH HAVE TRANSVERSE WEDGES (BUTT JOINTS) ARE TO BE REMOVED IN TWO PASSES AS REQUIRED FOR MAINTAINING TRAFFIC. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE SECOND PASS.

PRIOR TO PLANING THE PAVEMENT, THE CONTRACTOR SHALL FIELD SURVEY THE LOCATIONS OF THE EXISTING PAVEMENT MARKINGS WITHIN THE PROJECT LIMITS FOR THE PLACEMENT OF TEMPORARY MARKINGS AND PROPOSED FINAL PAVEMENT MARKINGS. ALL COSTS ASSOCIATED WITH THIS SURVEY SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

**ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE**

THE RATE OF THE 407 TACK COAT FOR INTERMEDIATE COURSE SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.05 GAL./SQ. YD. FOR ESTIMATION PURPOSES ONLY.

**ITEM 619 - FIELD OFFICE, TYPE B**

A TYPE B FIELD OFFICE IS REQUIRED FOR THIS PROJECT.

**ITEM 202 - FENCE REMOVED, AS PER PLAN**

**ITEM 607 - FENCE, TYPE 47RA**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:

1. REMOVING THE EXISTING FENCE (SEE PLAN SHEETS FOR LOCATIONS):

- S.L.M. 3.04 - BETWEEN STA. 17+29.52 AND STA. 18+21.30 (APPROXIMATELY 110 FT. OF SPLIT RAIL FENCE WITH ELECTRIFIED WIRE)
- S.L.M. 3.76 - BETWEEN STA. 12+00.00 AND STA. 14+00.00 (APPROXIMATELY 160 FT. OF FARM FENCE)
- S.L.M. 6.50 - BETWEEN STA. 7+44.66 AND STA. 8+66.80 (APPROXIMATELY 130 FT. OF FARM FENCE)

2. IMMEDIATELY INSTALL TEMPORARY FENCE AT S.L.M. 3.04 AND S.L.M. 6.50 TO ADEQUATELY SECURE THE ADJACENT FARMS TO THE SATISFACTION OF THE ENGINEER. TEMPORARY FENCE SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE CONTRACTOR'S OPERATION. UPON COMPLETION OF THE PROJECT, THE TEMPORARY FENCE SHALL BE REMOVED. THE ABOVE WORK SHALL BE INCLUDED UNDER ITEM 202 - FENCED REMOVED, AS PER PLAN.

3. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL INSTALL ITEM 607 - FENCE, TYPE 47RA (APPROXIMATELY 150 FT. AT S.L.M. 6.50) TO REPLACE THE DISTURBED FENCE AT THE LOCATIONS SHOWN IN THE PLANS.

ANY TREES OR VEGETATION GROWING THROUGH OR NEAR THE PROPOSED AND EXISTING FENCE SHALL BE REMOVED AND DISPOSED OF AS PER ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- ITEM 202 - FENCE REMOVED, AS PER PLAN . . . . . 400 FT.
- ITEM 607 - FENCE, TYPE 47RA . . . . . 150 FT.

**ITEM 606 - GUARDRAIL, TYPE 5**

THE LOCATION OF GUARDRAIL RUNS ARE SUBJECT TO ADJUSTMENTS TO ASSURE THAT THE PLANNED INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC. THE INTENT IS TO UPGRADE AND REPLACE GUARDRAIL, GENERALLY AT EXISTING LOCATIONS. LOG POINTS OF THE PROPOSED END TREATMENTS ARE APPROXIMATE. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE THE EXISTING GUARDRAIL, PREPARE THE SITE, AND INSTALL NEW GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL SHALL BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON THE SITE AND READY FOR INSTALLATION. INSTALLATION OF THE NEW RAIL SHALL BEGIN IMMEDIATELY AFTER THE REMOVAL OPERATION HAS TAKEN PLACE. THE MAXIMUM GAP LENGTH IN ANY RAIL RUN SHALL BE 50 FEET. NO GAPS SHALL BE LEFT OPEN AT THE END OF THE WORK PERIOD. BARRELS MAY NOT BE SUBSTITUTED FOR GUARDRAIL. FAILURE TO COMPLY WITH THESE REQUIREMENTS SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED ON THIS PROJECT UNTIL SUCH TIME THAT THE ENGINEER IS ASSURED COMPLIANCE.

**ITEM 617 - COMPACTED AGGREGATE, TYPE A, AS PER PLAN**

THIS ITEM SHALL BE USED ALONG THE SHOULDERS TO REESTABLISH A SMOOTH TRANSITION FROM THE PAVED SHOULDER TO THE ADJACENT SOFT SHOULDER.

THE ACTUAL DEPTH USED WILL VARY DEPENDING UPON EXISTING CONDITIONS. FOR ESTIMATING PURPOSES, AN AVERAGE DEPTH OF 2" WILL BE USED. WATER, IF NEEDED SHALL BE APPLIED AS PER ITEM 617 AND INCLUDED UNDER ITEM 617 - COMPACTED AGGREGATE, TYPE A, AS PER PLAN.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 617 - COMPACTED AGGREGATE, TYPE A, AS PER PLAN . . . . . 10 C.Y.

**ITEM 202 - GUARDRAIL REMOVED, AS PER PLAN**

THIS ITEM SHALL INCLUDE STANDARD TYPE RAILS INCLUDING ANCHOR ASSEMBLIES AND TERMINAL ASSEMBLIES.

THE FOLLOWING SHALL BE USED AS DIRECTED BY THE ENGINEER:

AT LOCATION S.L.M. 5.81 THE CONTRACTOR MAY BE REQUIRED TO REMOVE A PORTION OF THE EXISTING GUARDRAIL (37.5 FT.) TO GAIN ACCESS TO THE WORK SITE. THE GUARDRAIL SHALL THEN BE RE-ERECTED WITHIN THE SAME WORKING DAY AS THE REMOVAL. AFTER COMPLETION OF THE PROJECT, THE GUARDRAIL SHALL AGAIN BE REMOVED AND RE-ERECTED TO EXIT THE WORK SITE.

ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED TO PERFORM THE WORK ABOVE SHALL BE PAID FOR UNDER ITEM 202 - GUARDRAIL REMOVED, AS PER PLAN.

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 202 - GUARDRAIL REMOVED, AS PER PLAN . . . . . 75 FT.

**ITEM 614 - WORK ZONE PAVEMENT MARKINGS**

WORK ZONE MARKINGS SHALL BE PLACED AT THE LOCATIONS OF THE PERMANENT MARKINGS AS LOCATED IN THE FIELD.

AFTER THE PAVEMENT PLANING PROCESS IS COMPLETED, THE FOLLOWING TEMPORARY MARKINGS SHALL BE USED:

ITEM 614 - WORK ZONE CENTER LINE, CLASS I, 642 PAINT . . . . . 0.04 MILE

AFTER THE SURFACE COURSE IS PLACED, THE FOLLOWING TEMPORARY MARKINGS SHALL BE USED:

ITEM 614 - WORK ZONE CENTER LINE, CLASS II, 642 PAINT. . . . . 0.04 MILE

**ITEM 614 - WORK ZONE MARKING SIGNS**

A QUANTITY OF 8 EACH WORK ZONE MARKING SIGNS (4 - "NO EDGE LINES" W8-H13-36, 1 - "DO NOT PASS" R4-1-30, 3 - "PASS WITH CARE" R4-2-30) HAS BEEN CARRIED TO THE GENERAL SUMMARY.

THE CONTRACTOR SHALL ERECT THE WORK ZONE MARKING SIGNS IN ACCORDANCE WITH THE CONSTRUCTION AND MATERIALS SPECIFICATIONS MANUAL AND AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL COVER ALL CONFLICTING WORK ZONE SIGNS DURING PERIODS THAT THEY ARE NOT APPLICABLE. THE COST OF COVERING AND UNCOVERING THESE SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614- WORK ZONE MARKING SIGN.

**ITEM 614 - DETOUR SIGNING**

THIS ITEM SHALL BE USED FOR THE PROPOSED DETOUR ROUTE DETAILED ON SHEETS 7-8.

THE CONTRACTOR SHALL ERECT THE DETOUR SIGNS IN ACCORDANCE WITH THE CONSTRUCTION AND MATERIALS SPECIFICATIONS MANUAL AND AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL COVER ALL CONFLICTING WORK ZONE SIGNS DURING PERIODS THAT THEY ARE NOT APPLICABLE. THE COST OF COVERING AND UNCOVERING THESE SIGNS SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614-DETOUR SIGNING.

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**ITEM 614 - MAINTAINING TRAFFIC**

GENERALLY THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO MAKE THE PROPOSED REPAIR WITH A MINIMUM OF HAZARD, DELAY, AND INCONVENIENCE TO THE MOTORISTS USING THE HIGHWAY AFFECTED BY THE WORK DONE UNDER THIS CONTRACT. FURTHERMORE, IN ADDITION TO THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING SPECIFIC PROVISIONS ARE MANDATORY.

**I. NOTIFICATION**

SINCE FUNCTIONAL TRAFFIC CONTROL IS A MAJOR CONCERN ON THIS PROJECT, IT IS ESSENTIAL THAT THE MOTORING PUBLIC BE ADEQUATELY FOREWARNED OF FUTURE LANE CLOSURES AND TRAFFIC CONSTRICTIONS. THEREFORE, THE CONTRACTOR SHALL SUBMIT A WRITTEN SCHEDULE TO THE ENGINEER, RESPONSIBLE LAW ENFORCEMENT AGENCIES AND THE ODOT PUBLIC INFORMATION OFFICE (216-581-2100) INDICATING THE LOCATIONS AND DATES OF THE LANE CLOSURES OF ANY SUCH CLOSURES.

**II. NIGHTTIME WORK**

NIGHTTIME WORK (THE HOURS FROM SUNSET TO SUNRISE 9:00 PM TO 8:00 AM). THE CONTRACTOR IS NOT PERMITTED TO WORK AT NIGHT EXCEPT DURING THE ALLOWED WEEKEND CLOSURES.

**III. RESTRICTIONS**

1.) ALL CLOSURES SHALL BE IN ACCORDANCE WITH THE APPLICABLE STANDARD CONSTRUCTION DRAWING(S).

2.) ALL THROUGH TRAFFIC LANES SHALL BE KEPT OPEN AT ALL TIMES ACCEPT DURING THE HOURS OF CONSTRUCTION OR AS NOTED ON SHEETS 9-10.

NOTWITHSTANDING THE ABOVE, NO LANE CLOSURES SHALL OCCUR DURING THE PERIOD BEGINNING AT 12:00 NOON ON THE DAY PRECEDING AND CONTINUING UNTIL NOON ON THE DAY FOLLOWING LEGAL HOLIDAYS AND HOLIDAY WEEKENDS SUCH AS MEMORIAL DAY, FOURTH OF JULY, AND LABOR DAY. FURTHERMORE, NO LANE CLOSURES SHALL BE IMPLEMENTED OR IN PLACE DURING INCREASED TRAFFIC VOLUMES CAUSED BY SPECIAL EVENTS OR WHEN THE ENGINEER DEEMS THE CLIMATOLOGICAL CONDITIONS TOO HAZARDOUS.

**A.) WHEN REQUIRED**

WHENEVER ANY PART OF THE TRAVELED SURFACE IS BEING WORKED UPON OR IS OTHERWISE NOT SUITABLE FOR SAFE AND CONVENIENT USE BY VEHICLES, TRAFFIC CONTROL DEVICES SUFFICIENT TO PROTECT SUCH AREAS AS TO ASSURE THE SAFE AND CONVENIENT PASSAGE OF VEHICULAR TRAFFIC SHALL BE INSTALLED AND MAINTAINED. SUCH TRAFFIC CONTROL DEVICES AND THE MANNER IN WHICH THEY ARE USED SHALL BE CONSISTENT WITH THESE PLANS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, HEREINAFTER REFERRED TO AS THE "MANUAL". THE TRAFFIC CONTROL DEVICE SYSTEM SHALL CONSTITUTE THE MINIMUM PROVISIONS FOR TRAFFIC CONTROL FOR EACH PARTICULAR SITUATION. WHENEVER THE ENGINEER DEEMS IT NECESSARY ESPECIALLY WHERE A GRADE, CURVE, OR MERGE CONDITION EXISTS, HE MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED.

**B. CONDITIONS**

DURING ALL PARTS OF THIS PROJECT, FLAGGERS, SIGNING, BARRICADES, FLASHING ARROWS, ETC. SHALL BE LOCATED AS INDICATED IN THE MANUAL OR AS SHOWN IN THE STANDARD DRAWINGS. TWO-WAY TRAFFIC SHALL BE MAINTAINED ON ONE LANE AT LEAST 10 FEET WIDE AT ALL TIMES.

**C. ADVANCE WARNING SIGNS**

ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE.

**D. FLAGGERS**

AT LEAST TWO FLAGGERS ARE REQUIRED FOR EACH CLOSURE, THE CONTRACTOR SHALL FURNISH ADDITIONAL FLAGGERS AS DIRECTED BY THE ENGINEER.

**ITEM 614 - MAINTAINING TRAFFIC (CONTINUED)**

**E. FAILURE TO COMPLY**

IF THERE IS ANY FAILURE TO COMPLY WITH PROVISIONS FOR TRAFFIC CONTROL SET OUT IN THESE PLANS AND NOTES, OR WITH PROVISIONS OF THE "MANUAL", THE HIGHWAY IN THE VICINITY OF THE WORK AREA SHALL NOT BE CONSIDERED IN A CONDITION FOR A SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC AND SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

**V. MAINTAINING TRAFFIC MATERIALS**

**A. SIGNS**

SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES SHALL BE AS APPROVED IN THE "MANUAL", OR IN DIMENSION DRAWINGS PROVIDED BY THE DEPARTMENT OF TRANSPORTATION. THE SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER PRIOR TO THE START OF THE PROJECT.

**B. SIGN SUPPORTS**

SIGN SUPPORTS SHALL BE OF SUFFICIENT SIZE AND HEIGHT AS TO SUPPORT THE SIGNS AT THE APPROPRIATE HEIGHT. SUPPORTS SHALL BE ADEQUATE IN MASS AND STABILITY TO PREVENT THE SIGNS FROM BEING BLOWN OVER BY WIND OR VEHICULAR GENERATED AIR TURBULENCE.

**C. CONES**

CONES SHALL BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

**VI. PAYMENT**

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING AND REMOVING TEMPORARY MAINTENANCE OF TRAFFIC CONTROL DEVICES SHALL BE MADE UNDER THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

**MAINTAINING TRAFFIC - ALLOWABLE CLOSURE OF SR 608 FOR CULVERT REPLACEMENTS**

THE CONTRACTOR CAN CLOSE SR 608 FOR ONE WEEKEND (FRIDAY 8:00 PM TO MONDAY 6:00 AM) PER CULVERT FOR PURPOSES OF REMOVING THE EXISTING CULVERT AND/OR PLACING THE PROPOSED CULVERT, SUBJECT TO THE FOLLOWING CONDITIONS:

ALL CLOSURES SHALL BE COORDINATED WITH THE PROJECT ENGINEER. NO CLOSURE OF THE ROADWAY, OR CHANGES TO THE CLOSURE, SHALL BE IMPLEMENTED WITHOUT THE APPROVAL OF THE PROJECT ENGINEER.

AT LEAST TWO (2) WEEKS PRIOR TO THE CLOSURE, OR CHANGE OF CLOSURE, WRITTEN NOTIFICATION SHALL BE PROVIDED TO THE PROJECT ENGINEER, LOCAL SAFETY FORCES, AND THE ODOT D-12 PUBLIC INFORMATION OFFICE. THIS NOTIFICATION SHALL CLEARLY STATE WHICH SECTION OF SR 608 THAT WILL BE CLOSED.

ONLY ONE (1) CULVERT LOCATION CAN BE CLOSED AT A TIME FOR ACCESS OF SAFETY FORCES.

THE CONTRACTOR SHALL HAVE FROM FRIDAY 8:00 PM TO MONDAY 6:00 AM, TO COMPLETE EACH CULVERT REMOVAL AND REPLACEMENT. LIQUIDATED DAMAGES PER 108.10 SHALL BE DEDUCTED FOR EACH ADDITIONAL DAY THAT SECTION OF SR 608 IS NOT OPEN TO TRAFFIC BY WAY OF A SIGNALIZED CLOSURE.

THE CONTRACTOR MAY UTILIZE ONE-LANE CLOSURES OF SR 608, WITH THE USE OF FLAGGERS AS NOTED ELSEWHERE IN THESE PLANS.

ALL CLOSURES OF SR 608 SHALL OCCUR AFTER LABOR DAY. THE CONTRACTOR IS RESTRICTED TO 30 DAYS MAXIMUM SIGNALIZED CLOSURE PER LOCATION.

**SEQUENCE OF OPERATIONS**

**PHASE 1**

- SET UP DETOUR AS PER SHEETS 7-8.
- PERFORM WEEKEND CLOSURE FOR REMOVAL OF EXISTING CULVERT AND INSTALLATION OF PROPOSED CULVERTS.
- REPLACE ASPHALT
- INSTALL NECESSARY ITEMS FOR SIGNALIZED CLOSURE AND INSTALL BARRIER BEFORE OPENING TO TRAFFIC.

**PHASE 2**

- REMOVE AND/OR COVER DETOUR SIGNS UNDER SIGNALIZED CLOSURE.
- MAINTAIN SIGNALIZED CLOSURE AS PER SHEETS 9-10.
- UNDER SIGNALIZED CLOSURE PERFORM GUARDRAIL WORK, CONSTRUCT WINGWALLS, INSTALL DRAINAGE ITEMS, REPLACE FENCE, PERFORM GRADING AND PERFORM ALL OTHER WORK ASSOCIATED WITH THE PROPOSED CULVERT.

**PHASE 3**

- COMPLETELY REMOVE THE SIGNALIZED CLOSURE.
- PLANE AND PAVE ACCORDING TO PLAN SHEETS.
- PERFORM STRIPING.

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**GENERAL NOTES**

**GEA-608-3.04/  
3.76 / 5.81 / 6.50**

**ITEM 614 - WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1) THE QUADGUARD CZ, (24" [610 MM] WIDE 6-BAY) WORK ZONE IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312.467.6750)

THE LENGTH OF THE 6-BAY QUADGUARD CZ IS 20'-9" [6.33 M]. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH MANUFACTURE'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
QSCZCVR-T4	QUADGUARD CZ SYSTEM FOR CONSTRUCTION ZONES	5/13/99 REV. J	8/27/99
35-40-10	QUADGUARD SYSTEM CONCRETE PAD, CZ, QG	11/19/97 REV. D	8/27/99
35-40-16	QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, QG	7/30/99 REV. F	8/27/99
354051Z	QUADGUARD CZ SYSTEM NOSE ASSEMBLY, CZ, QG 24, 30, 36	5/17/99	8/27/99
35-40-18	TRANSITION ASSEMBLY, 4 OFFSET, QG	6/25/99 REV. F	8/27/99
3540260	QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY	11/19/97 REV. C	8/27/99

2) THE TRACC (TRINITY ATTENUATING CRASH CUSHION) MANUFACTURED BY SYRO INC. 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330.545.4373).

THE TRACC IS 21'-0" [6.4M] LONG AND 2'-7" [0.8 M] WIDE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURE'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS450	CRASH-CUSHION ATTENUATING TERMINAL	3/12/99 REV. 1	8/27/99
SS450M	PLAN, ELEVATION & SECTIONS	3/12/99 REV. 1	8/27/99
SS455	TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION & SECTIONS	2/18/99	8/27/99
SS461	TRACC TRANSITION TO CONCRETE SAFETY SHAPE BARRIER REV. 1 PLAN, ELEVATION & SECTIONS	6/30/99	8/27/99
SS462	TRACC TRANSITION TO CONCRETE BARRIER SINGLE SLOPE PLAN, ELEVATIONS & SECTIONS	6/30/99	8/27/99

THE CONTRACTOR SHALL PROVIDE A REPLACEMENT UNIT WHEN AN IMPACT IS SEVERE ENOUGH TO REQUIRE COMPLETE REPLACEMENT OF THE ATTENUATOR. THE CONTRACTOR SHALL HAVE A SPARE PARTS PACKAGE AVAILABLE ON THE PROJECT SITE AT ALL TIMES WHEN AN ATTENUATOR IS IN PLACE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE COMPLETE SPARE PARTS PACKAGE FOR EVERY 1 TO 6 UNITS INSTALLED ON THE PROJECT SITE. FOR EXAMPLE, 5 INSTALLED UNITS REQUIRE 1 SPARE PARTS PACKAGE AND 7 INSTALLED UNITS REQUIRE 2 SPARE PARTS PACKAGES.

**ITEM 614 - WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL) (CONTINUED)**

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY THE APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE WITH THE UNIT BID PRICE FOR ITEM 614, WORK ZONE IMPACT ATTENUATOR, (BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT, MAINTAIN, REPAIR, REPLACE OR RELOCATE A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL) . . . . . 8 EACH

**GENERAL NOTES**

**GEA-608-3.04/  
3.76 / 5.81 / 6.50**

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ITEM 606, ANCHOR ASSEMBLY, TYPE E-98:

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330.545.4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50 FT, INCLUSIVE OF TWO 25 FT LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS265M	ET-2000 (1997) PLAN, ELEVATION & SECTIONS	6/20/97	3/6/98
SS142	ET2000 PLUS 50'-0" PLAN, ELEVATION & SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SS141	ET2000 PLUS PLAN, ELEVATION & SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET2000 PLUS 50'-0" WITH 12'-6" PANELS & HBA POSTS 1-4 PLAN, ELEVATION & SECTION	5/22/00	7/31/00

- 2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815.464.5917).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50 FT, INCLUSIVE OF FOUR 12.5 FT LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

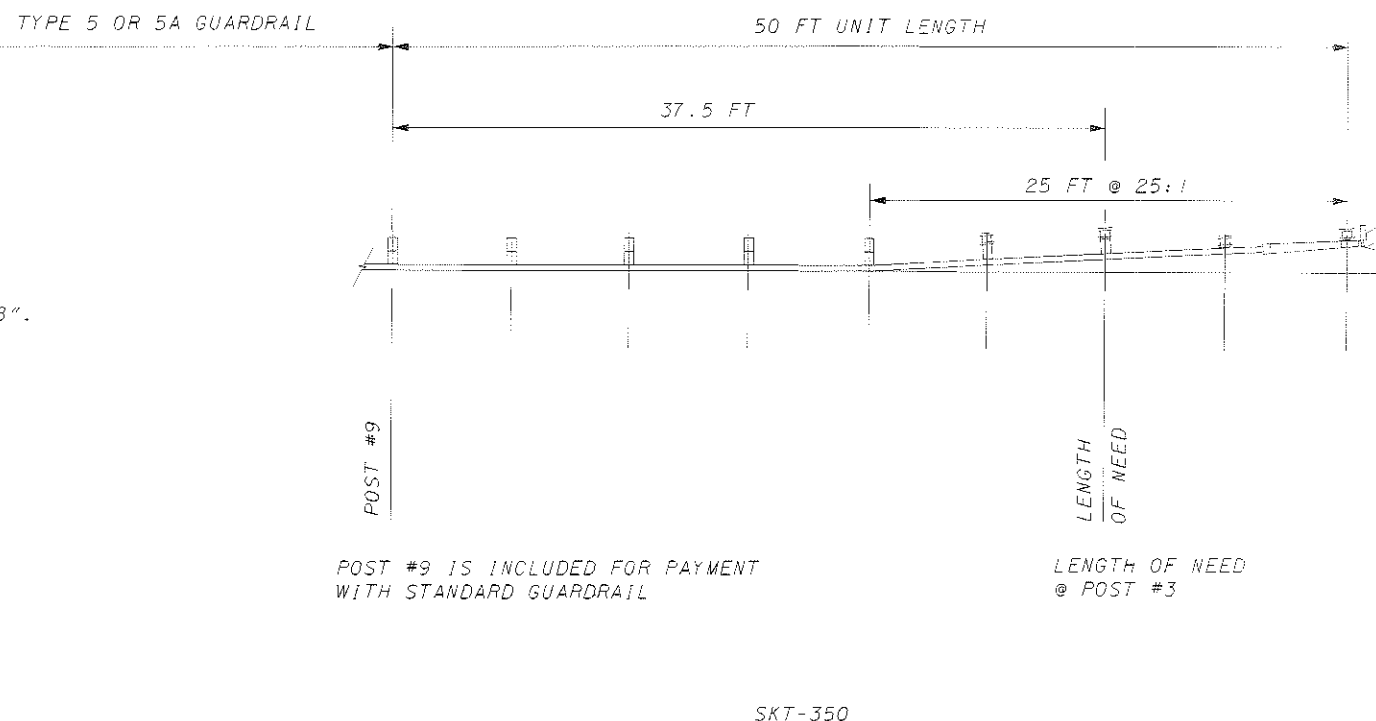
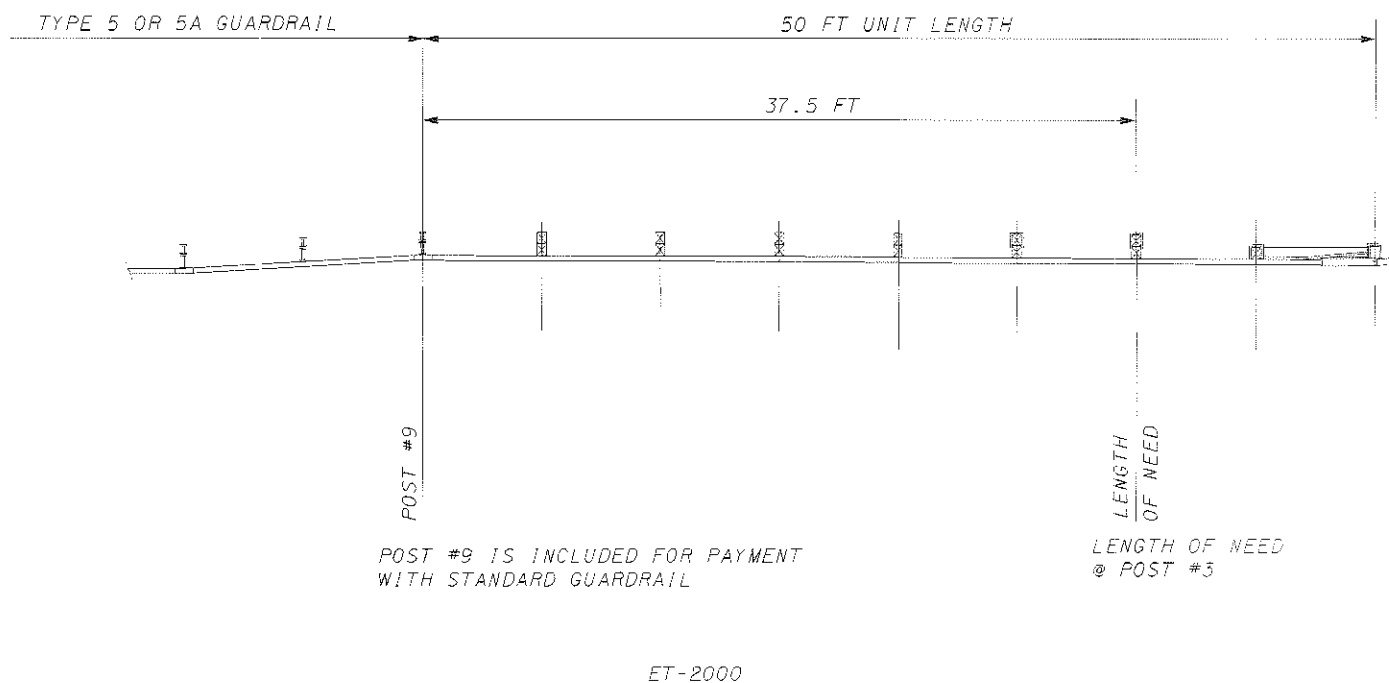
DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18"x18". DELINEATORS SHALL COMPLY WITH STANDARD TRAFFIC DRAWING TC-61.10.

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES [100 mm] ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES [706 mm] FROM THE EDGE OF THE SHOULDER.

ON SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES [100 mm] ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, DELINEATORS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.



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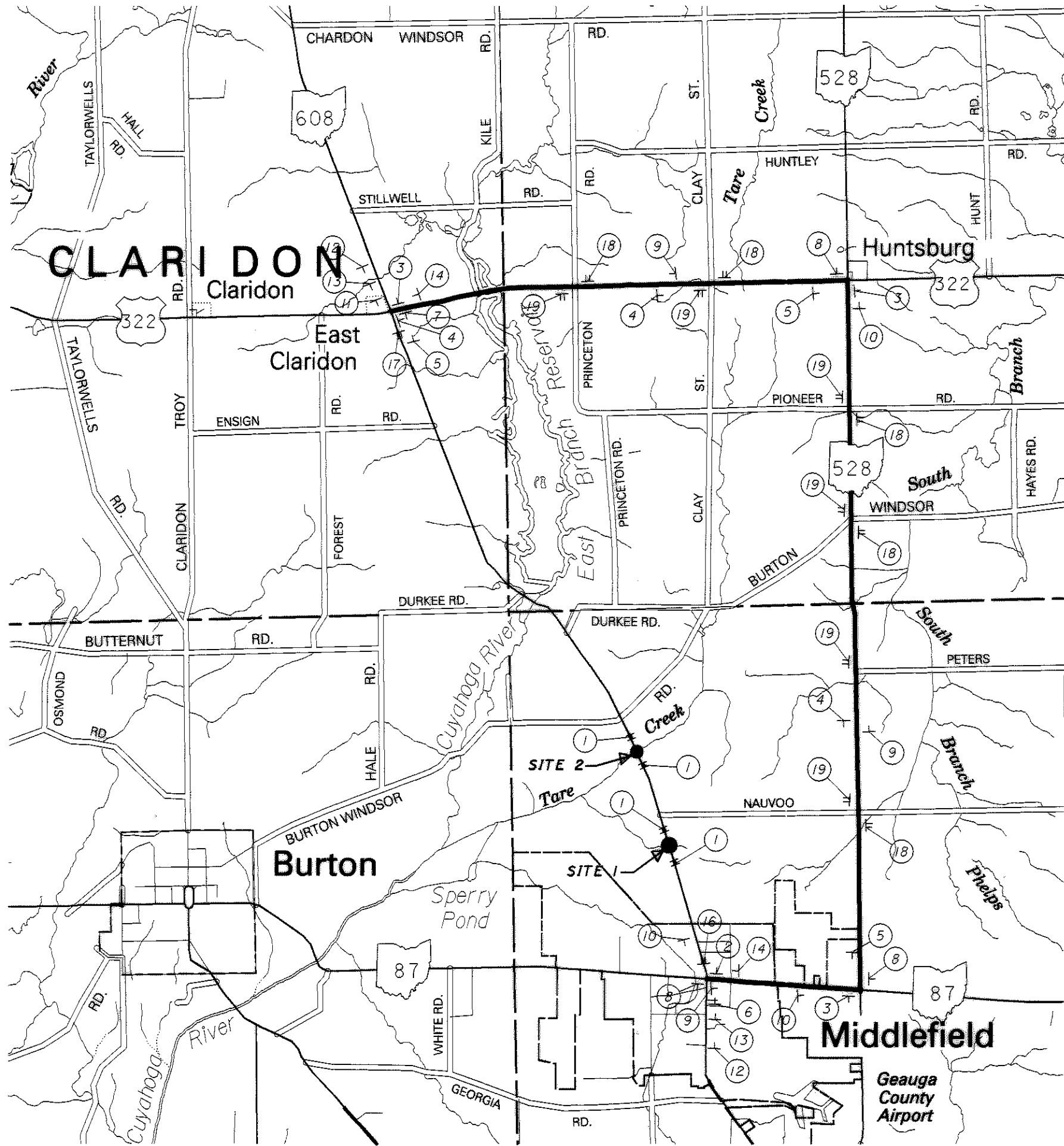
GENERAL NOTES

GEA-608-3.04/  
3.76 / 5.81 / 6.50

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BARRICADES DENOTED BY ① SHALL BE TEMPORARILY PLACED ONLY DURING THE REMOVAL AND THE REPLACEMENT OF THE CULVERT.

— SIGNED DETOUR ROUTE

SEE SHEET 8 FOR SIGN LEGEND



CALCULATED	G.J.N.
CHECKED	L.D.H.

DETOUR PLAN - GEA 608

GEA-608-3.04/  
3.76 / 5.81 / 6.50

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1




R11-2-48

2




M4-8-24  
M3-1-24  
M1-5-24-3  
M6-1R-24

3



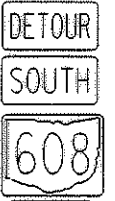
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4



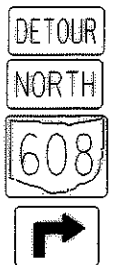
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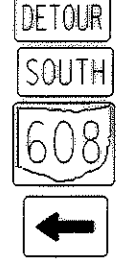
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M5-1-24

6



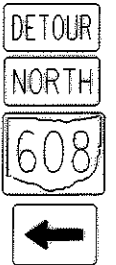
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M1-5-24-3  
M5-1-24

7




M4-8-24  
M3-3-24  
M1-5-24-3  
M6-1L-24

8




M4-8-24  
M3-1-24  
M1-5-24-3  
M6-1L-24

9



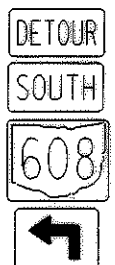
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M1-5-24-3  
M6-3-24

10




M4-8-24  
M3-1-24  
M1-5-24-3  
M5-1-24

11




M4-8-24  
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M1-5-24-3  
M5-1-24

12



W20-3-36

13



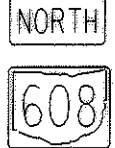
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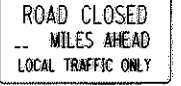


M4-8a-24


16



M3-1-24  
M1-5-24-3




R11-3a-60



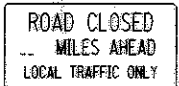
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CONTRACTOR TO INSERT MILEAGE


17



M3-3-24  
M1-5-24-3




R11-3a-60



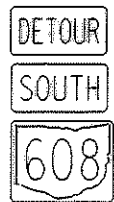
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CONTRACTOR TO INSERT MILEAGE

18




M4-8-24  
M3-1-24  
M1-5-24-3  
M6-1L-24




M4-8-24  
M3-3-24  
M1-5-24-3  
M6-1R-24

19



M4-8-24  
M3-3-24  
M1-5-24-3  
M6-1L-24



M4-8-24  
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M1-5-24-3  
M6-1R-24

SEE SHEET I FOR DETOUR MAP

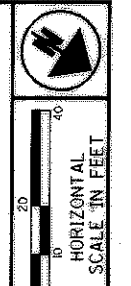
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DETOUR PLAN SIGN LEGEND - GEA 608

GEA-608-3.04/  
3.76 / 5.81 / 6.50



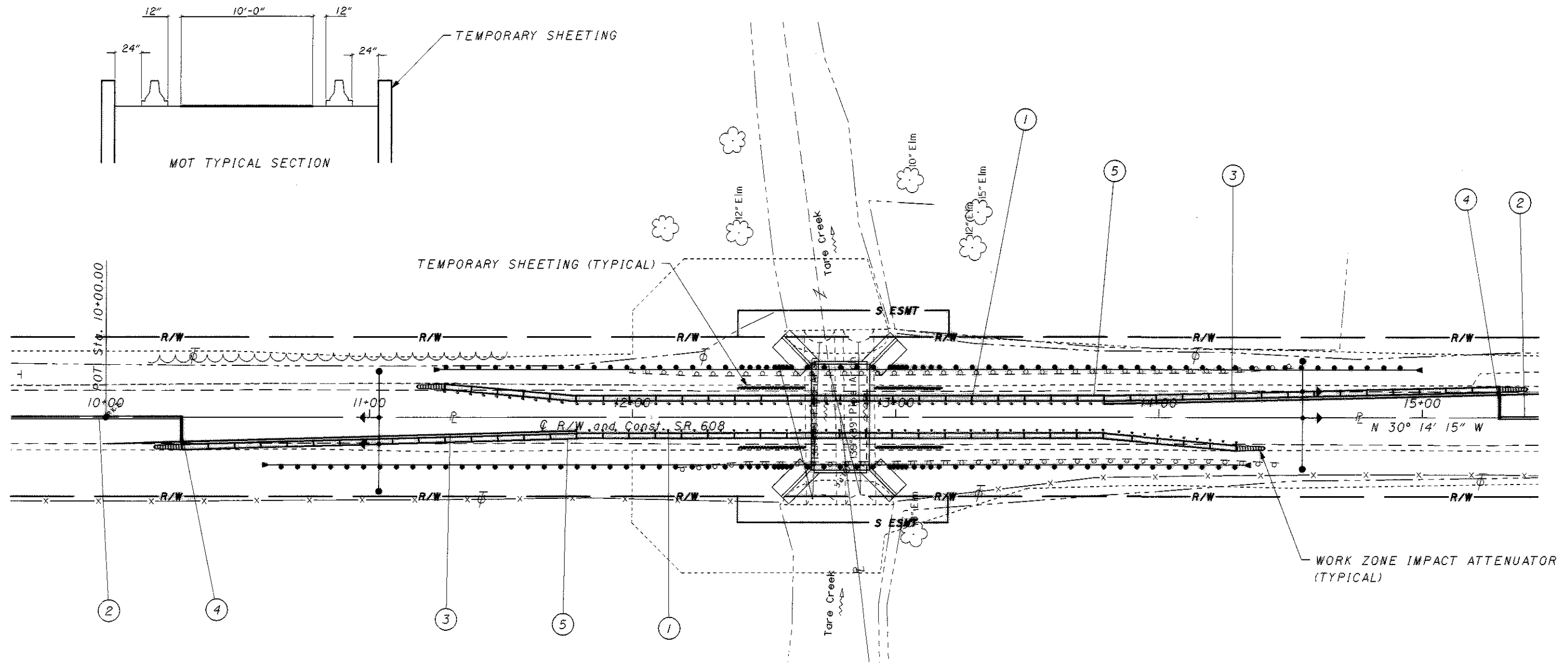
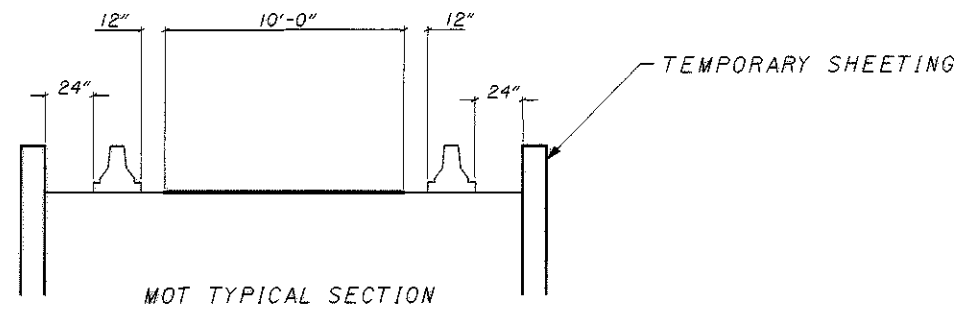




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Maintenance of Traffic at S.L.M. 3.76  
Phase Two

GEA-608-3.04/  
3.76/5.81/6.50



PRE-TIMED CONTROL

INTERVAL	TIME
1	14
2	28
3	3
4	14
5	28
6	3

\* SEE MT-96.20 FOR INTERVALS

REF NO.	STATION		SIDE	614	614	614	614	614	614	622
	FROM	TO		WORK ZONE RAISED PAVEMENT MARKER (Y/W) EACH	WORK ZONE CENTER LINE, CLASS I, 740.06 TYPE I FT.	WORK ZONE EDGE LINE, CLASS I, 740.06 TYPE I (WHITE) FT.	WORK ZONE STOP LINE, CLASS I, 740.06 TYPE I FT.	BARRIER REFLECTOR, TYPE B2 EACH	OBJECT MARKER, TWO WAY EACH	PORTABLE CONCRETE BARRIER, 32" FT.
1	11+29.00	13+79.00	LT	51						
	11+79.00	14+29.00	RT	51						
2	8+79.00	10+29.00	Q		150					
	15+29.00	16+79.00	Q		150					
3	9+99.00	11+79.00	RT			182.5				
	13+79.00	15+59.00	LT			182.5				
4	10+29.00		RT				10			
	15+29.00		LT				10			
5	10+29.00	14+29.00	RT					16	16	400
	11+29.00	15+29.00	LT					16	16	400
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				102	300	365	20	32	32	800

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SHEET NUMBER										ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2	3	13	18	26	35	42	43								
<b>ROADWAY</b>															
										201	11001	LUMP		CLEARING AND GRUBBING, AS PER PLAN	2
						1				202	20010	1	EACH	HEADWALL REMOVED	
	75			475			462.5			202	38001	1012.5	FT	GUARDRAIL REMOVED, AS PER PLAN	3
	400									202	75001	400	FT	FENCE REMOVED, AS PER PLAN	3
							1			202	98100	1	EACH	REMOVAL MISC.: FLOWER BOX	
			21							203	10000	21	CU YD	EXCAVATION	
			159		371	100	200			203	20000	830	CU YD	EMBANKMENT	
		375		475			612.5			606	13000	1462.5	FT	GUARDRAIL, TYPE 5	
		25		75						606	13010	100	FT	GUARDRAIL, TYPE 5 WITH TUBULAR BACKUP	
		2		4			3			606	22010	9	EACH	ANCHOR ASSEMBLY, TYPE E-98	
		2					1			606	26500	3	EACH	ANCHOR ASSEMBLY, TYPE T	
		4		4						606	35140	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4	
	150									607	15100	150	FT	FENCE, TYPE 47RA	
<b>EROSION CONTROL</b>															
						6				601	11000	6	SQ YD	RIPRAP USING 6" REINFORCED CONCRETE SLAB	
						21				601	32000	21	CU YD	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	
							26			601	32100	26	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
			12							601	32200	12	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
	1									659	00100	1	EACH	SOIL ANALYSIS TEST	
	450									659	00300	450	CU YD	TOPSOIL	
	920		1010		2113					659	10000	4043	SQ YD	SEEDING AND MULCHING	
	205									659	15000	205	SQ YD	INTER-SEEDING	
	0.55									659	20000	0.55	TON	COMMERCIAL FERTILIZER	
	0.84									659	31000	0.84	ACRE	LIME	
	22									659	35000	22	M GAL	WATER	
										832	10000	1	EACH	STORM WATER POLLUTION PREVENTION PLAN	
										832	20000	LUMP		EROSION CONTROL	
<b>DRAINAGE</b>															
						2.4	5.5			602	20000	7.9	CU YD	CONCRETE MASONRY	
		80								603	06100	80	FT	15" CONDUIT, TYPE C	
		195								603	07600	195	FT	18" CONDUIT, TYPE C	
		127								603	13600	127	FT	30" CONDUIT, TYPE C, 706.02	
						22				603	24000	22	FT	60" CONDUIT, TYPE C	
							16			603	26000	16	FT	72" CONDUIT, TYPE A	
		3								604	04900	3	EACH	CATCH BASIN, NO. 2-3	
		3				1				604	31500	4	EACH	MANHOLE, NO. 3	

**GENERAL SUMMARY**

**GEA-608-3.04/  
3.76 / 5.81 / 6.50**

SHEET NUMBER										ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	5	9	10	13	18	26	35	43							
<b>PAVEMENT</b>															
					267		267			254	01001	534	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN	3
				13			13			407	14000	26	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
			17							408	10000	17	GALLON	PRIME COAT	
			3	11			11			448	46904	25	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG70-22M	
10										617	10101	10	CU YD	COMPACTED AGGREGATE, TYPE A, AS PER PLAN	3
<b>TRAFFIC CONTROL</b>															
				6		8		10		626	00300	24	EACH	BARRIER REFLECTOR, TYPE A2	
				0.04			0.04			643	00100	0.08	MILE	EDGE LINE	
				0.02			0.02			643	00300	0.04	MILE	CENTER LINE	
<b>STRUCTURES</b>															
FOR STRUCTURE GEA-608-3.04 SEE SHEET 18 FOR STRUCTURE GEA-608-3.76 SEE SHEET 35															
<b>MAINTENANCE OF TRAFFIC</b>															
										SPECIAL	61411300	4	EACH	WORK ZONE TRAFFIC SIGNAL	
	8									614	12338	8	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	
										614	12420	LUMP		DETOUR SIGNING	
8										614	12460	8	EACH	WORK ZONE MARKING SIGN	
		74	102							614	12800	176	EACH	WORK ZONE RAISED PAVEMENT MARKER	
0.04										614	21100	0.04	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
0.04										614	21500	0.04	MILE	WORK ZONE CENTER LINE, CLASS II, 642 PAINT	
		28	32							614	13302	60	EACH	BARRIER REFLECTOR, TYPE B2	
		28	32							614	13360	60	EACH	OBJECT MARKER, TWO WAY	
		0.06	0.06							614	21200	0.12	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
		0.07	0.07							614	22200	0.14	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I	
		20	20							614	26400	40	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
		660	800							622	40020	1460	FT	PORTABLE CONCRETE BARRIER, 32"	
										614	11000	LUMP		MAINTAINING TRAFFIC	
										619	16010	5	MONTH	FIELD OFFICE, TYPE B	
										623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
										624	10000	LUMP		MOBILIZATION	

**GENERAL SUMMARY**

**GEA-608 / 3.04 / 3.76 / 5.81 / 6.50**

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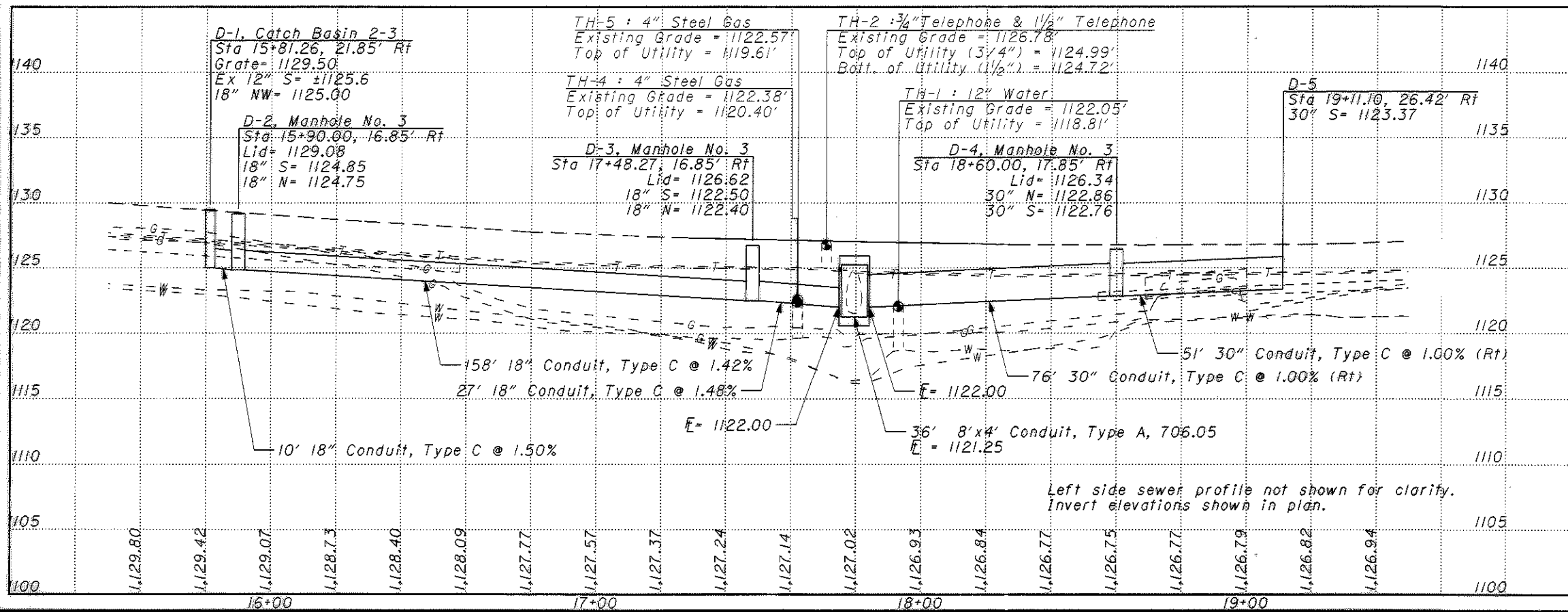
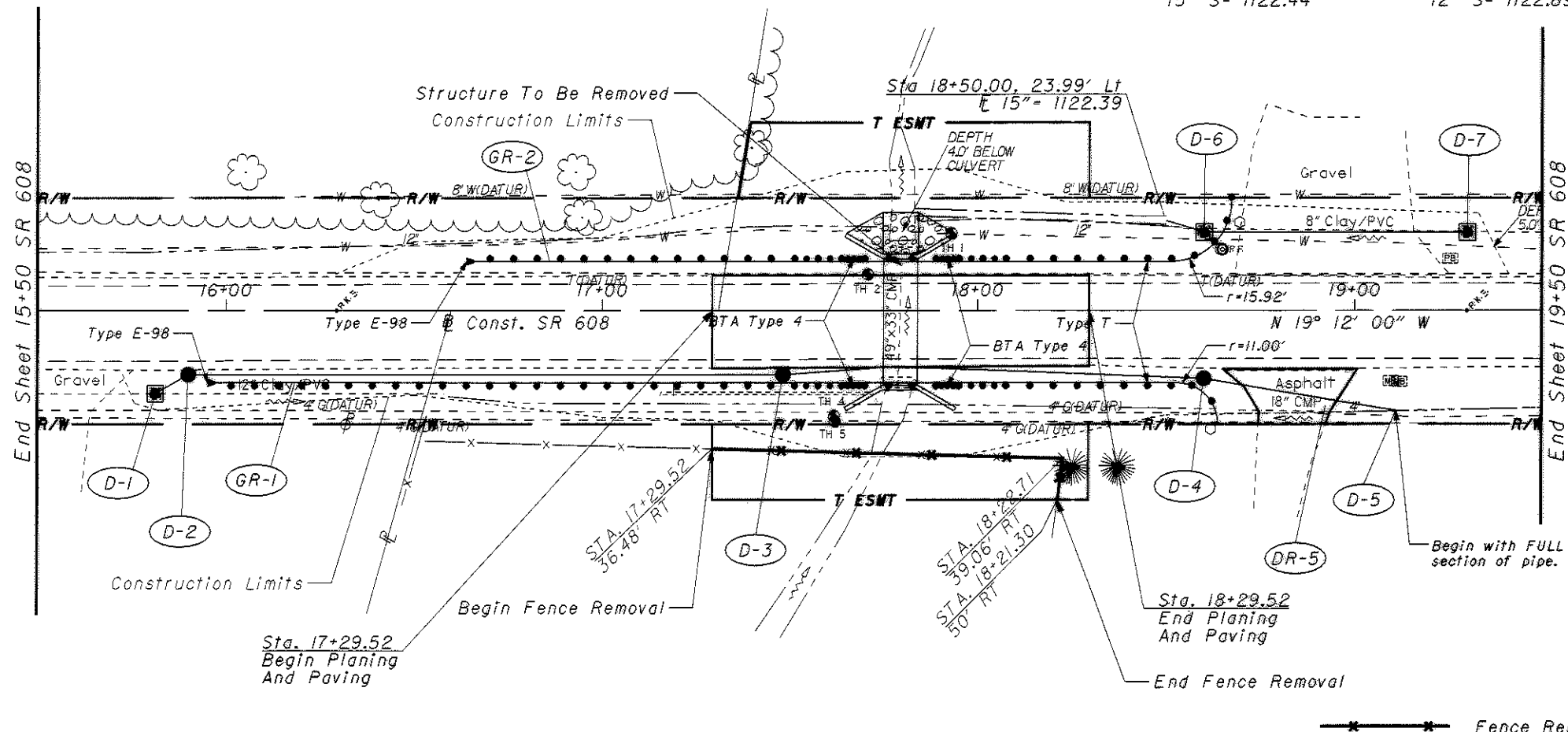
Control Point 1, PK Set  
Sta 16+29.30 @ SR 608  
N 10,140.55, E 9,015.75

Control Point 2, PK Set  
Sta 19+29.95 @ SR 608  
N 10,424.47, E 8,916.88

Benchmark/Control Point 3, Iron Pin Fd  
Sta 18+64.98, 16.48' Lt  
N 10,357.70, E 8,922.69  
Elevation= 1125.98

D-6, Catch Basin 2-3  
Sta 18+60.00, 21.00' Lt  
Grate= 1124.83  
15" N= 1122.54  
15" S= 1122.44

D-7, Catch Basin 2-3  
Sta 19+30.00, 21.00' Lt  
Grate= 1125.90  
Ex 8" N= 1123.1  
12" S= 1122.89



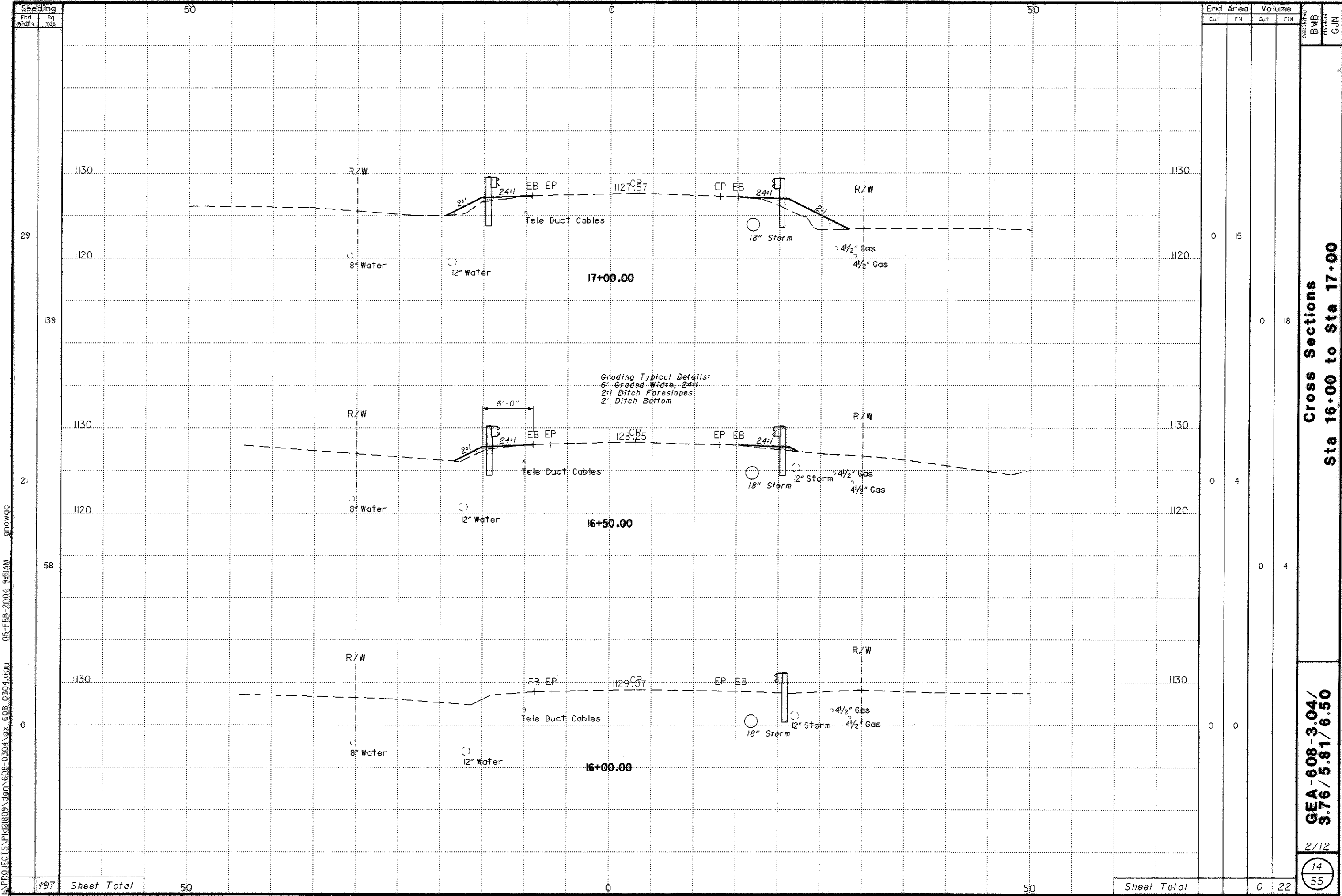
REF NO.	STATION		SIDE	QUANTITY	UNIT	MATERIAL DESCRIPTION
	FROM	TO				
GR-1	15+95.15	18+63.87		1	Each	Anchor Assembly, Type E-98
GR-2	16+63.90	18+66.94		1	Each	Anchor Assembly, Type E-98
D-1	15+81.26	21.85'		1	Each	Bridge Terminal Assembly, Type 4
D-2	15+90.00	16.85'		1	Each	Anchor Assembly, Type 7
D-3	17+48.27	14.85'		1	Each	Anchor Assembly, Type 7
D-4	18+60.00	14.85'		1	Each	Anchor Assembly, Type 7
D-5	19+11.10	26.42'		1	Each	Anchor Assembly, Type 7
D-6	18+60.00	21.00'		1	Each	Anchor Assembly, Type 7
D-7	19+30.00	21.00'		1	Each	Anchor Assembly, Type 7
DR-1	18+85.00	20.00'		1	Each	Anchor Assembly, Type 7
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				<b>2</b>	<b>2</b>	
606			Anchor Assembly, Type E-98	1	Each	
606			Anchor Assembly, Type 7	1	Each	
606			Bridge Terminal Assembly, Type 4	2	Each	
606			Guardrail, Type 5	225	Ft	
606			Guardrail, Type 5	150	Ft	
606			Guardrail, with Tubular Backup	12.5	Ft	
603			15" Conduit, Type C	10	Ft	
603			15" Conduit, Type C	158	Ft	
603			15" Conduit, Type C	27	Ft	
603			30" Conduit, Type C	76	Ft	
603			30" Conduit, Type C	51	Ft	
604			Catch Basin, No. 2-3	1	Each	
604			Catch Basin, No. 2-3	1	Each	
604			Catch Basin, No. 2-3	1	Each	
608			Prime Coat	17	Gallon	
604			Manhole, No. 3	3	Each	
604			Manhole, No. 3	3	Each	
626			Barrier Reflector, Type A2	3	Each	
626			Barrier Reflector, Type A2	3	Each	
448			Asphalt Concrete Surface Course, Type 1, P&G-22M (2")	3	Cu. Yd.	

**Plan and Profile**  
**SR 608 Sta 15+50 to Sta 19+50**

1/12

13  
55

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Seeding	
End Width	Sq Yds
29	
139	
21	
58	
0	
197	Sheet Total

End Area		Volume	
Cut	Fill	Cut	Fill
0	15	0	18
0	4	0	4
0	0	0	0
0	22	0	22

**Cross Sections  
Sta 16+00 to Sta 17+00**

**GEA-608-3.04/  
3.76 / 5.81 / 6.50**

2/12

14  
55

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Seeding  
End Width Sq Yds  
0 66  
Sheet Total

50

0

50

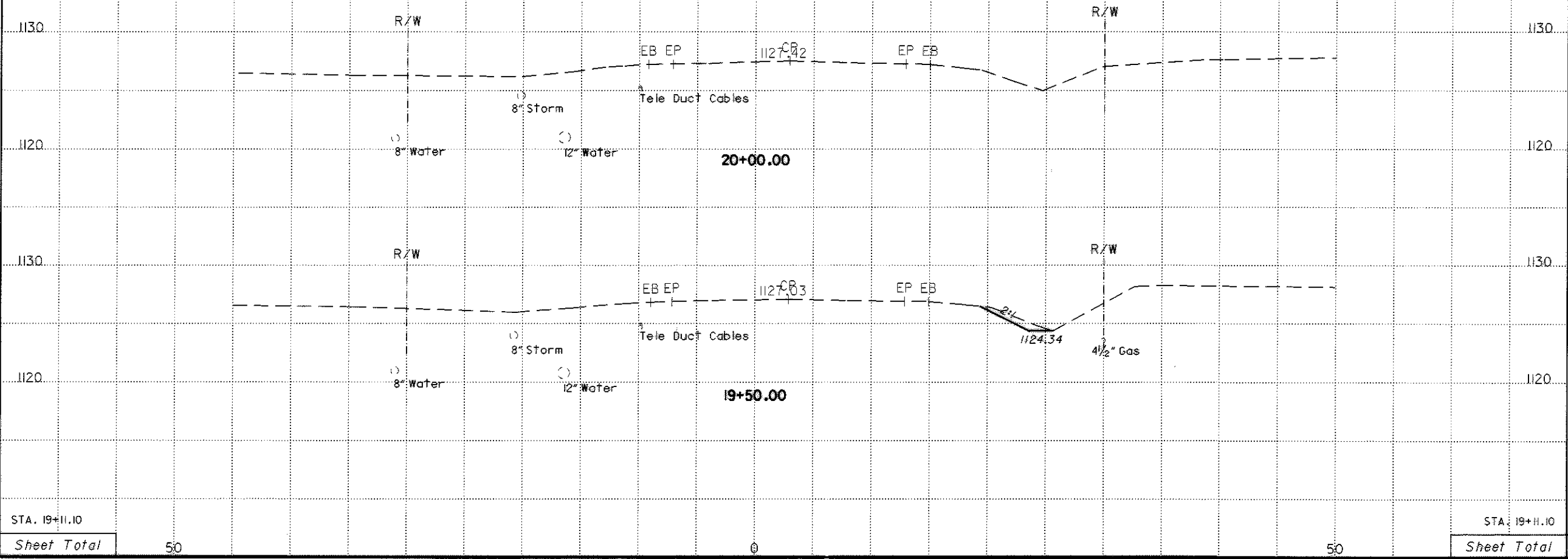
End Area		Volume		CUTBACK	G.U.N.
Cut	Fill	Cut	Fill		
0	0	0	0		
		3	0		
		3	0		
		5	0		
4	0				
Sheet Total		8	0		

**Cross Sections  
Sta 19+50 to Sta 20+00**

**GEA-608-3.04/  
3.76 / 5.81 / 6.50**

4/12  
16  
55

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STA. 19+11.10

STA. 19+11.10

Sheet Total

Sheet Total

50

50

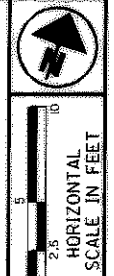
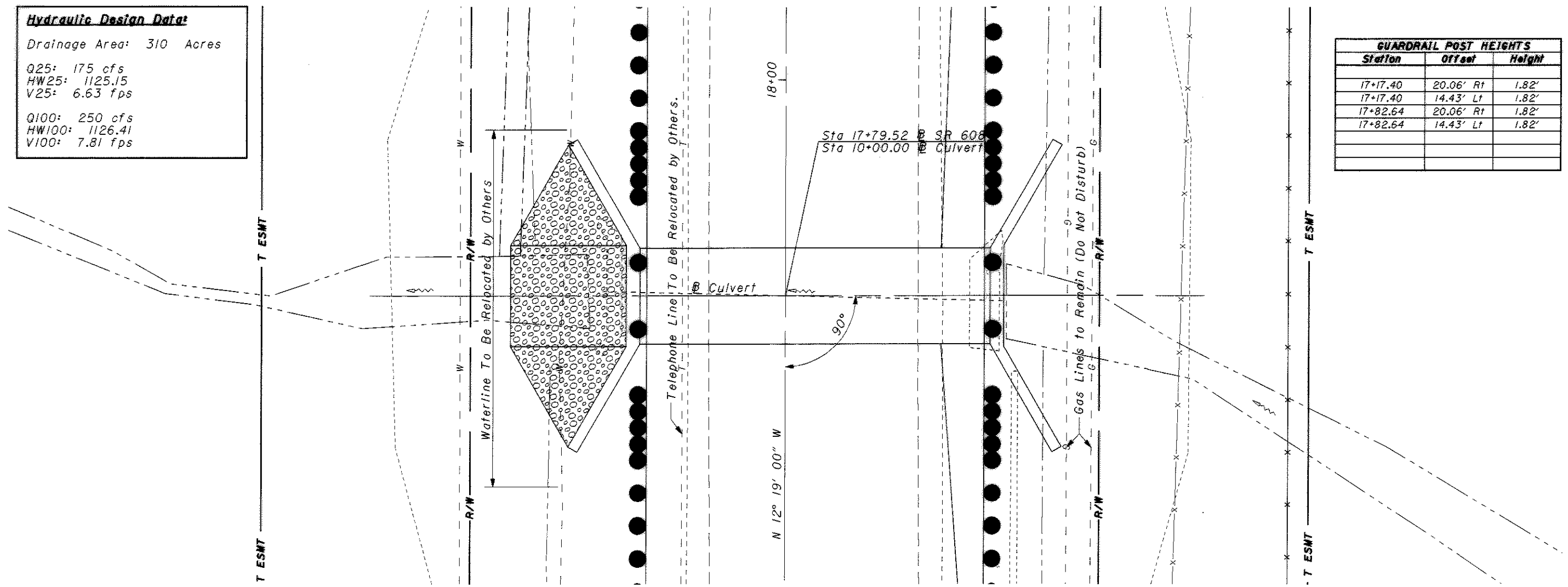
**Hydraulic Design Data:**

Drainage Area: 310 Acres

Q25: 175 cfs  
 HW25: 1125.15  
 V25: 6.63 fps

Q100: 250 cfs  
 HW100: 1126.41  
 V100: 7.81 fps

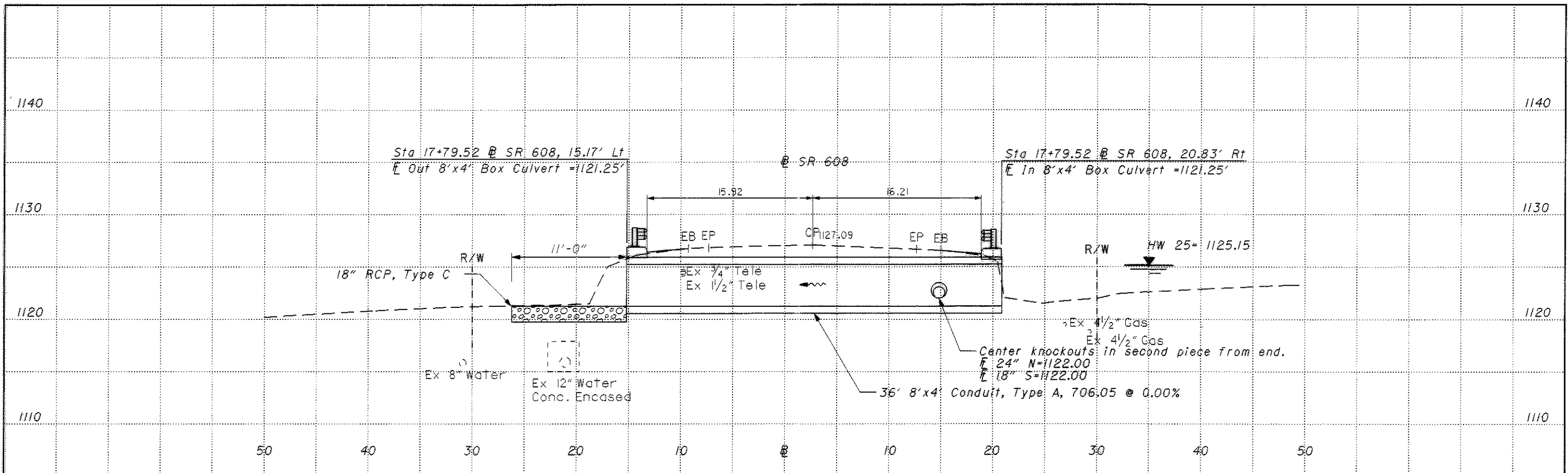
GUARDRAIL POST HEIGHTS		
Station	Offset	Height
17+17.40	20.06' Rt	1.82'
17+17.40	14.43' Lt	1.82'
17+82.64	20.06' Rt	1.82'
17+82.64	14.43' Lt	1.82'



CALCULATED  
 BMB  
 CHECKED  
 G/JN

**Culvert Detail at GEA-608-3.04**

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**GEA-608-3.04/  
 3.76/5.81/6.50**

**Design Loading**

HS 20-44 and the Alternate Military Loading.

**Design Stresses**

Cast-in-place structures  
 Concrete Class C -  $f'c = 4,000$  psi Substructure  
 Reinforcing Steel - ASTM A615, A616, or A617  $f_y = 60,000$  psi.

Precast structures: for box and pipe culverts see CMS Section 603.

**Removal of Existing Structure**

When no longer needed to maintain traffic, the existing structure shall be removed with the concurrence of the Engineer.

**Item 503 - Unclassified Excavation**

Excavation limits for the proposed structure shall be as defined in 503.10. Excavation outside these limits necessary to remove the existing structure shall be included in Item 202 for payment.

**Item 603 - 8'x4' Conduit, Type A, 706.05, As Per Plan**

This item shall include restoration of pavement and paved shoulders. The following calculations are for estimating purposes only and are to be included under payment for Item 603 - 8'x4' Conduit, Type A, 706.05, As Per Plan. These quantities assume a 12 ft. wide trench:

Item 301 - Asphalt Concrete Base, PG64-22  
 $12 \text{ ft.} \times 24 \text{ ft.} \times 0.9375 \text{ ft.} / (27 \text{ cu.ft./cu.yd.}) = 10 \text{ CU. YD.}$

Item 408 - Prime Coat  
 $(12 \text{ ft.} \times 24 \text{ ft.} / (9 \text{ sq.ft./sq.yd.})) / (\text{sq.yd./}0.4 \text{ gal.}) = 12.8 \text{ GAL.}$

Item 304 - Aggregate Base, As Per Plan  
 $12 \text{ ft.} \times 24 \text{ ft.} \times 0.5 \text{ ft.} / (27 \text{ cu.ft./cu.yd.}) = 6 \text{ CU. YD.}$

Beginning and ending box culvert sections shall be fabricated with the standard tongue and groove on both ends of the sections.

End sections shall be fabricated with mechanical connectors embedded in the top of the box section to anchor the proposed headwall. Bars H503 and H513 shall be compatible with these connectors.

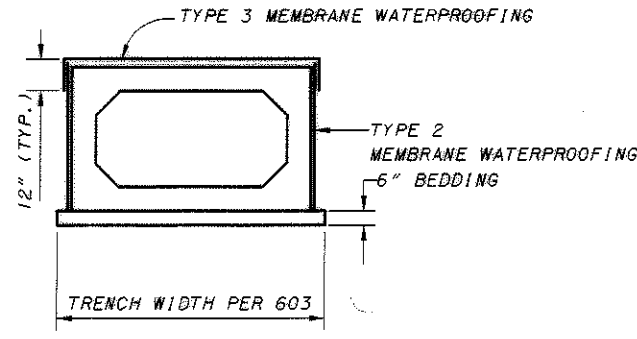
**Culvert Outlet Erosion Control**

The following quantity is carried to the general summary to protect the culvert outlet as shown in the plans.

Item 601 Rock Channel Protection, Type C, with Filter 12 Cu Yds

**Utility Lines**

All expenses involved in relocating (installing) the affected utility lines shall be borne by the owner(s). The contractor and owner(s) are requested to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.



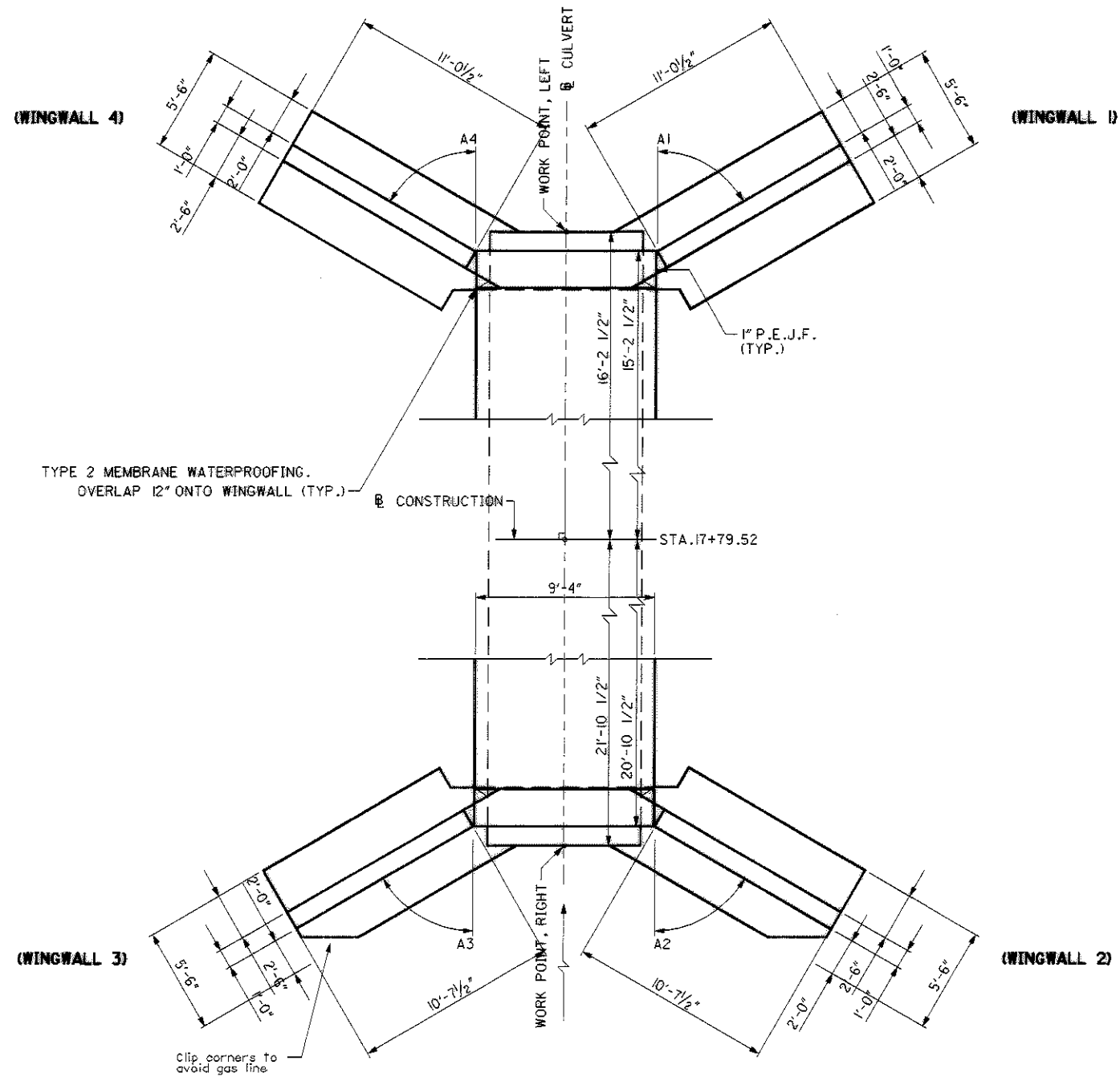
**BOX CULVERT FOUNDATION**

STRUCTURE SUMMARY (GEA-608-3.04)					
ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
202	11000	LUMP		STRUCTURE REMOVED	
503	11100	LUMP		COFFERDAMS, CRIBS, AND SHEETING	
503	21300	LUMP		UNCLASSIFIED EXCAVATION	
509	10000	3630	LB.	EPOXY COATED REINFORCING STEEL	
511	46000	9	CU. YD.	CLASS C CONCRETE, RETAINING WALL OR WINGWALL	
511	46500	21	CU. YD.	CLASS C CONCRETE, FOOTING	
511	46600	2	CU. YD.	CLASS C CONCRETE, HEADWALL	
512	33000	45	SQ. YD.	TYPE 2 WATERPROOFING	
512	33010	41	SQ. YD.	TYPE 3 WATERPROOFING	
516	13600	18	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER	
518	21231	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	21
603	94801	36	FT.	8' X 4' CONDUIT, TYPE A, 706.05, AS PER PLAN	18
864	10100	37	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), WINGWALL	

CALCULATIONS FOR PLANING AND PAVING	
ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (1.5" DEEP)	
STA. 17+30± TO STA. 18+30± 100 FT. x 24' / (9 SQ.FT./SQ.YD.) = 267 SQ. YD.	
ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE	
STA. 17+30± TO STA. 18+30± 100 FT. x 24' / (0.05 GAL./SQ.YD.) = 13 GAL.	
ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M (1.5" DEEP)	
STA. 17+30± TO STA. 18+30± 100 FT. x 24 FT. x 0.125 FT. / (27 CU.FT./CU.YD.) = 11 CU. YD.	
ITEM 643 - CENTER LINE	
STA. 17+30± TO STA. 18+30± 100 FT. / (5280 FT./MILE) = 0.02 MILE	
ITEM 643 - EDGE LINE	
STA. 17+30± TO STA. 18+30± 200 FT. / (5280 FT./MILE) = 0.04 MILE	
* QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY ON SHEETS 11-12	

ROADWAY CROSS SECTION SUMMARY				
SHEET NO.	203		659	
	EXCAVATION	EMBANKMENT	SEEDING AND MULCHING	
	CU. YD.	CU. YD.	SQ. YD.	
14		22	197	
15	13	137	747	
16	8		66	
<b>TOTALS CARRIED TO GENERAL SUMMARY:</b>				
	21	159	1010	

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WINGWALL ANGLES	
A1	60°0'0"
A2	60°0'0"
A3	60°0'0"
A4	60°0'0"

WORK POINTS		
LOCATION	STATION	OFFSET
LEFT	17+79.52	16'-2 1/2"
RIGHT	17+79.52	21'-10 1/2"

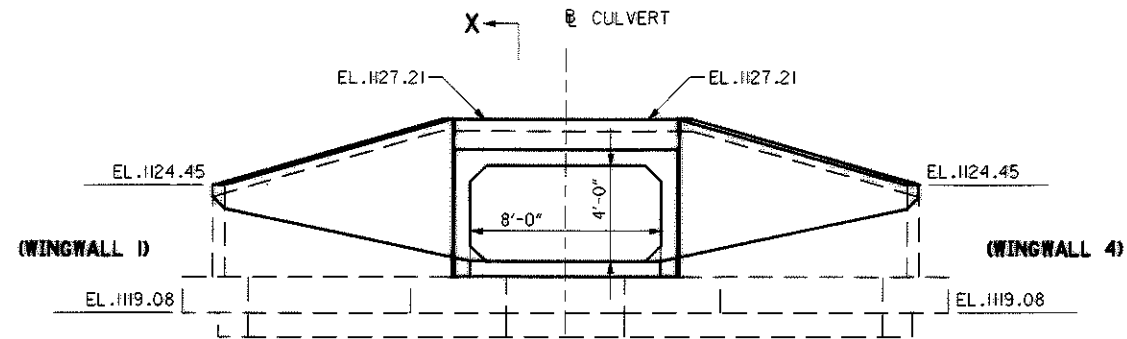
**CULVERT & WINGWALL LAYOUT**

DESIGNED	DRAWN	REVIEWED	DATE
BMB	ADP		
CHECKED	REVISED		
G/JN			

**Structure Details**  
GEA-608-3.04  
Unnamed Tributary of Tare Creek

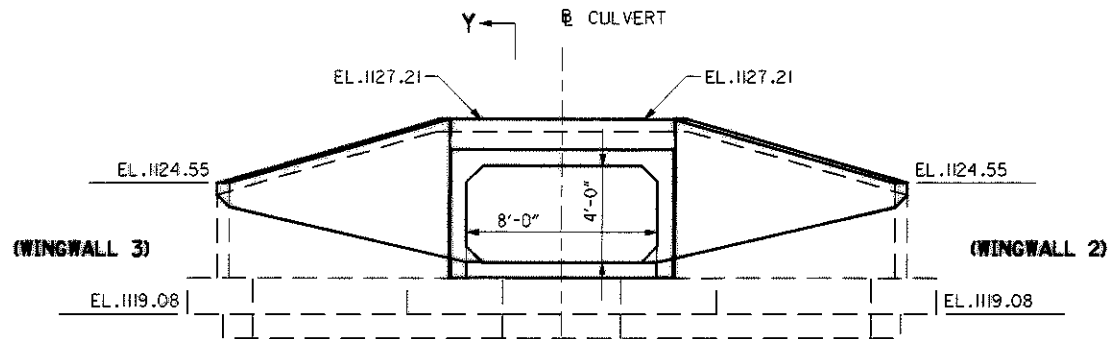
**GEA-608-3.04/  
3.76/5.81/6.50**

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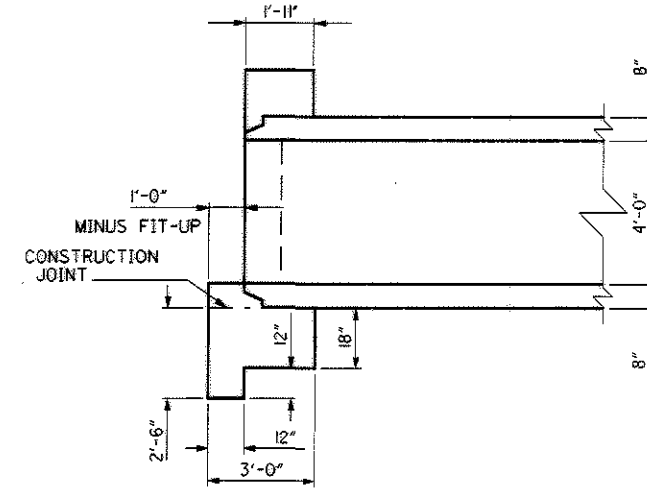
**OUTLET ELEVATION**

FLOWLINE ELEVATION: EL. 1121.25

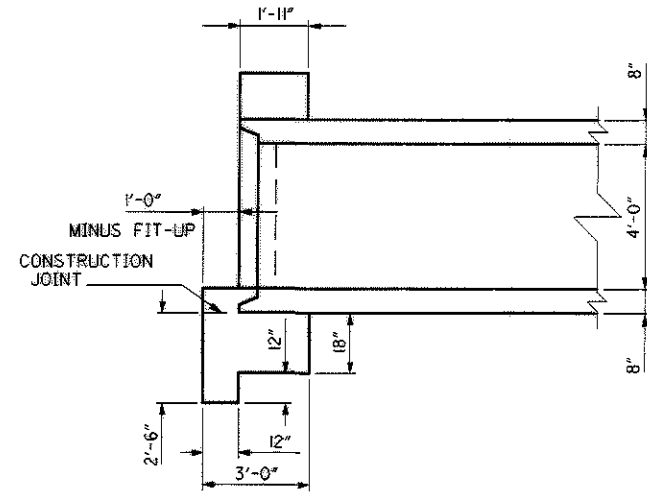


**INLET ELEVATION**

FLOWLINE ELEVATION: EL. 1121.25



**SECTION X-X**



**SECTION Y-Y**

DESIGN AGENCY  
District 12 Production

DESIGNED	DRAWN	REVIEWED	DATE
BMB	ADP		
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GJN			

Structure Details  
GEA-608-3.04  
Unnamed Tributary of Tare Creek

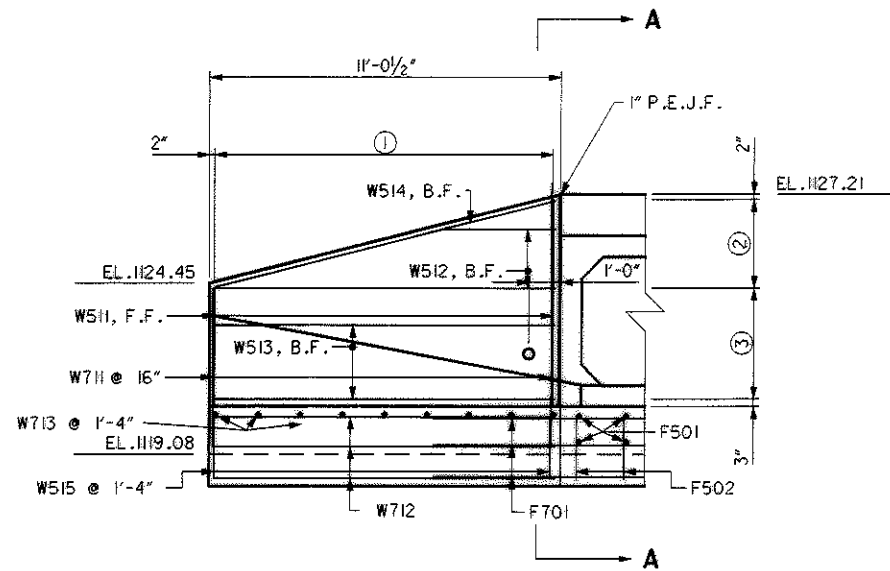
GEA-608-3.04/  
3.76/5.81/6.50

8 / 12

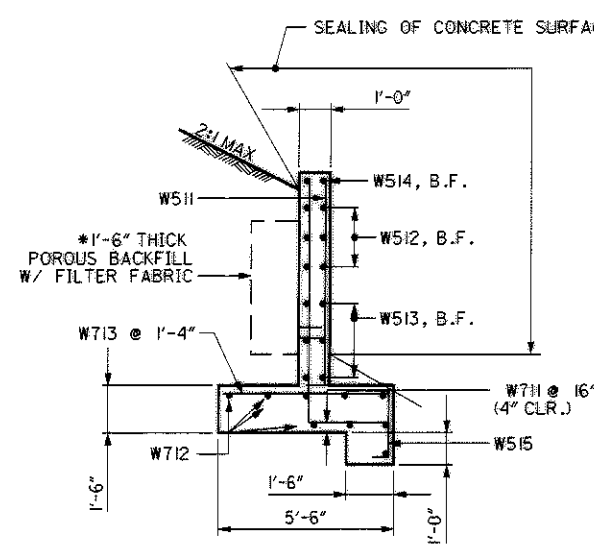
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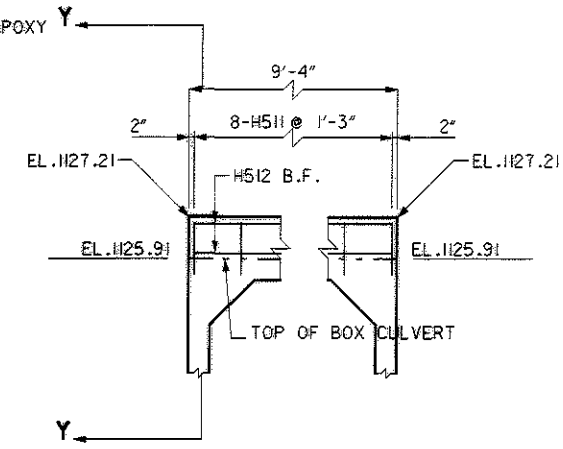
**LEGEND**  
 F.F. - FRONT FACE  
 R.F. - REAR FACE  
 B.F. - BOTH FACES



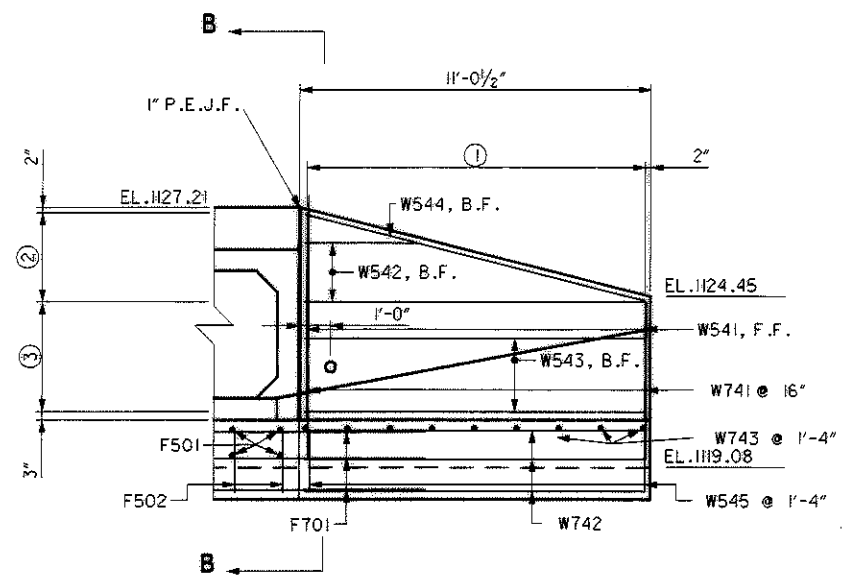
**WINGWALL 1 ELEVATION**  
 NOTE: 4" DIA. WEEPHOLE ELEV. = 1122.06  
 ① SER. OF 9 @ 1'-4"  
 ② 3 SPACES @ 11"  
 ③ 3 SPACES @ 1'-2"



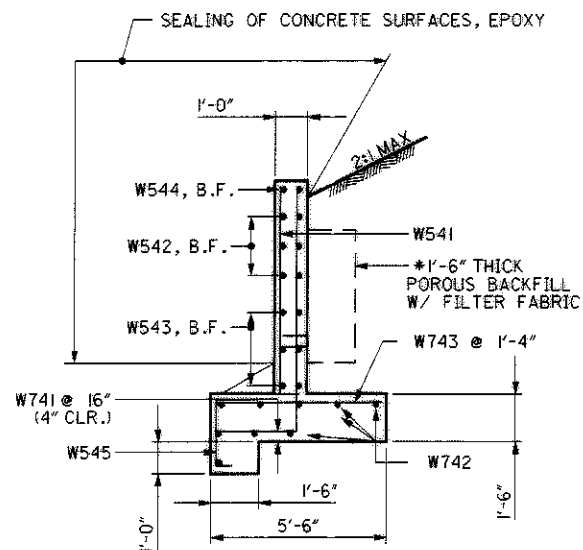
**SECTION A-A**  
 \*SEE NOTES, THIS SHEET



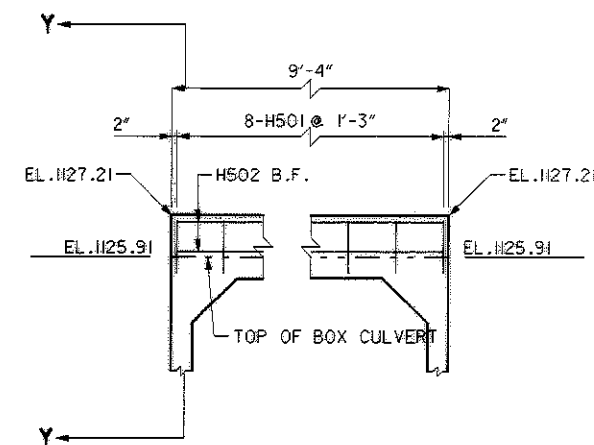
**OUTLET HEADWALL REINFORCING DETAIL**  
 SEE SHEET 10/12 FOR SECTION Y-Y



**WINGWALL 4 ELEVATION**  
 NOTE: 4" DIA. WEEPHOLE ELEV. = 1122.06  
 ① SER. OF 9 @ 1'-4"  
 ② 3 SPACES @ 11"  
 ③ 3 SPACES @ 1'-2"



**SECTION B-B**



**INLET HEADWALL REINFORCING DETAIL**  
 SEE SHEET 10/12 FOR SECTION Y-Y

**NOTES:**  
 ITEM 516, POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN 1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.  
 1" PREFORMED EXPANSION JOINT FILLER SHALL BE EXTENDED FROM TOP OF FOOTING TO TOP OF WALL.

DESIGN AGENCY: District 12 Production  
 DATE: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 STRUCTURE FILE NUMBER: \_\_\_\_\_  
 DESIGNED: BMB  
 CHECKED: G/JN  
 Structure Details  
 GEA-608-3.04  
 Unnamed Tributary of Tare Creek  
 GEA-608-3.04/  
 3.76/5.81/6.50  
 9/12  
 21/55

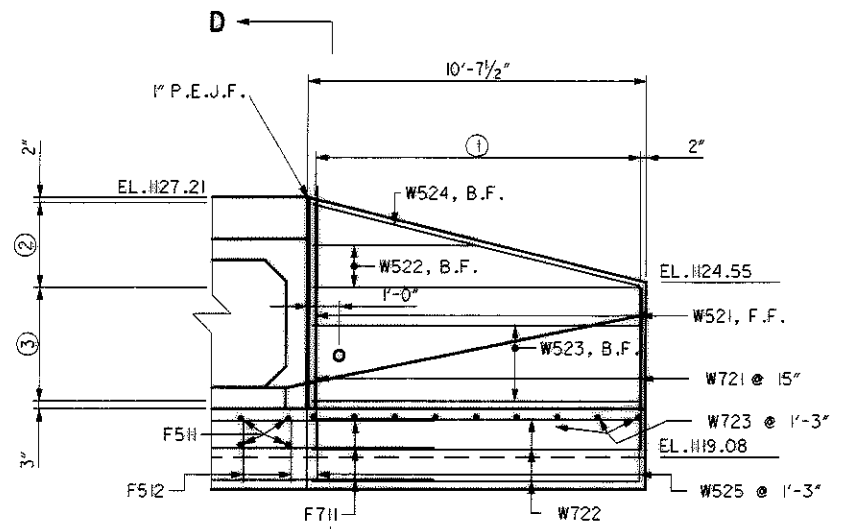
**LEGEND**

F.F. - FRONT FACE  
 R.F. - REAR FACE  
 B.F. - BOTH FACES

DATE	REVIEWED	DATE	REVIEWED
	ADP		ADP
STRUCTURE FILE NUMBER	DESIGNED	STRUCTURE FILE NUMBER	DESIGNED
	CH/IB		CH/IB

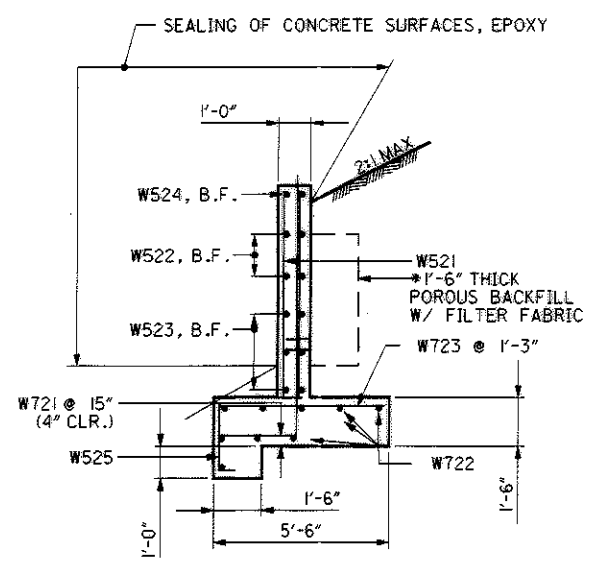
Structure Details  
 GEA-608-3.04  
 Unnamed Tributary of Tare Creek

GEA-608-3.04/  
 3.76/5.81/6.50

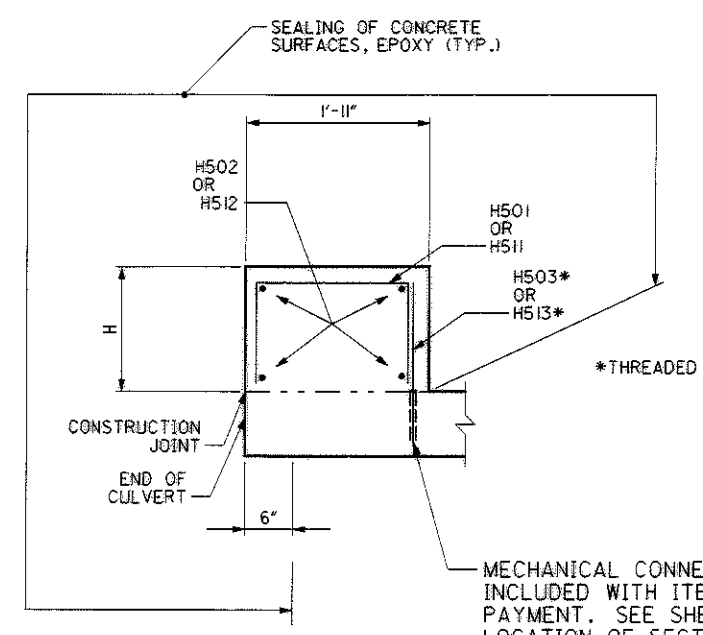


**WINGWALL 2 ELEVATION**  
 NOTE: 4" DIA. WEEPHOLE  
 ELEV. = 1122.09

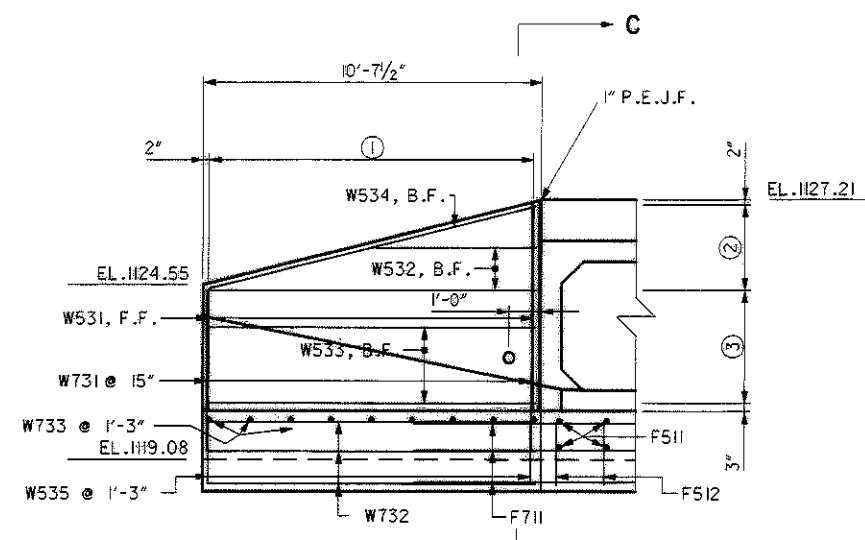
① SER. OF 9 @ 1'-3"  
 ② 2 SPACES @ 1'-4"  
 ③ 3 SPACES @ 1'-2"



**SECTION D-D**  
 \*SEE NOTES ON SHEET 9/12

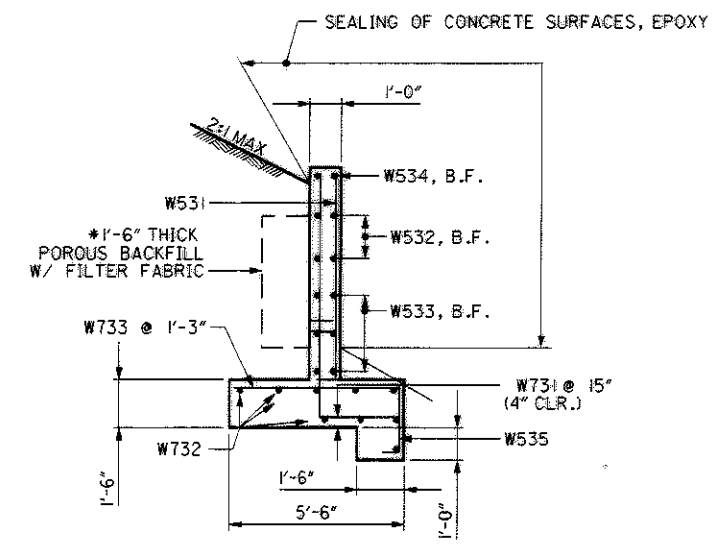


**SECTION Y-Y**  
 H = 1'-3 1/2" OUTLET HEADWALL  
 H = 1'-3 1/2" INLET HEADWALL



**WINGWALL 3 ELEVATION**  
 NOTE: 4" DIA. WEEPHOLE  
 ELEV. = 1122.09

① SER. OF 9 @ 1'-3"  
 ② 2 SPACES @ 1'-4"  
 ③ 3 SPACES @ 1'-2"

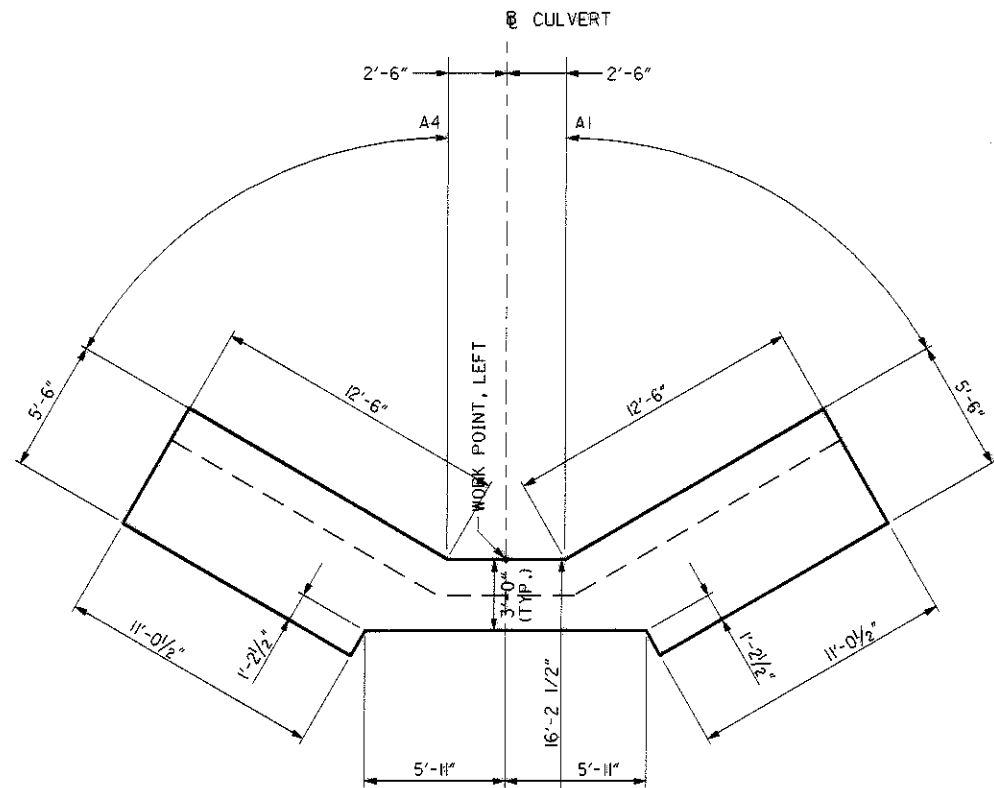


**SECTION C-C**

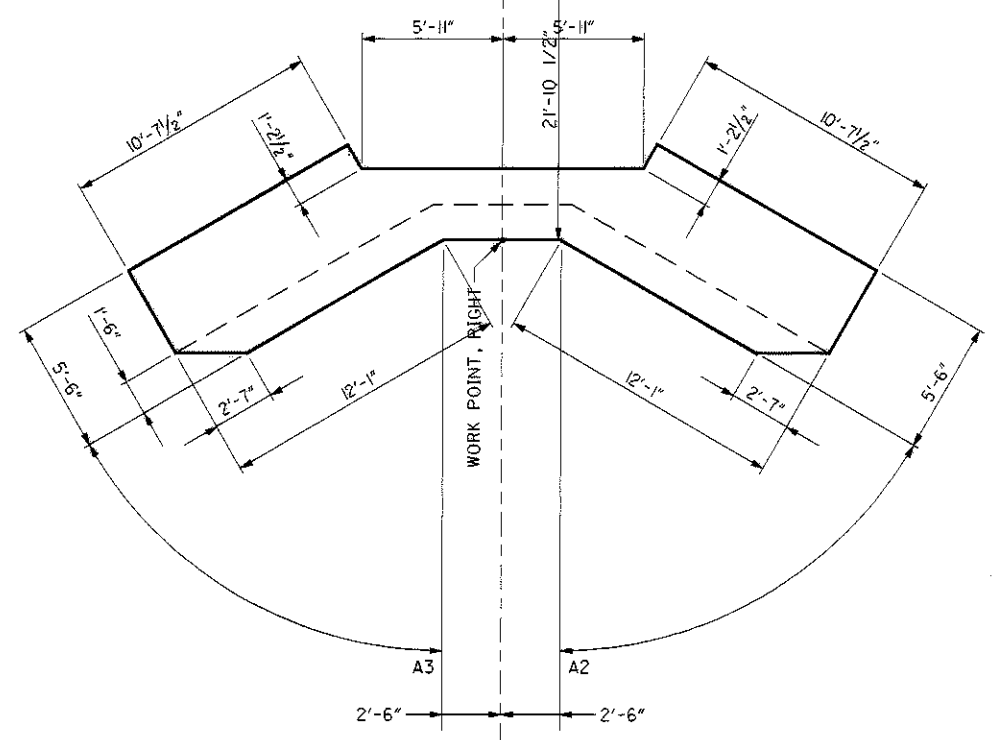
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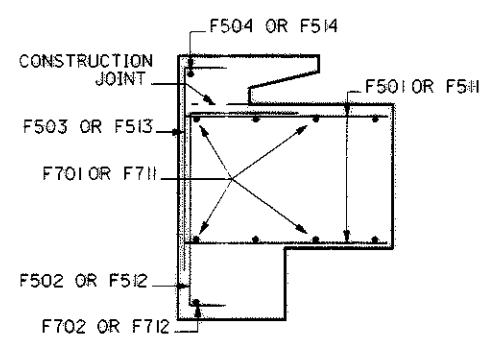
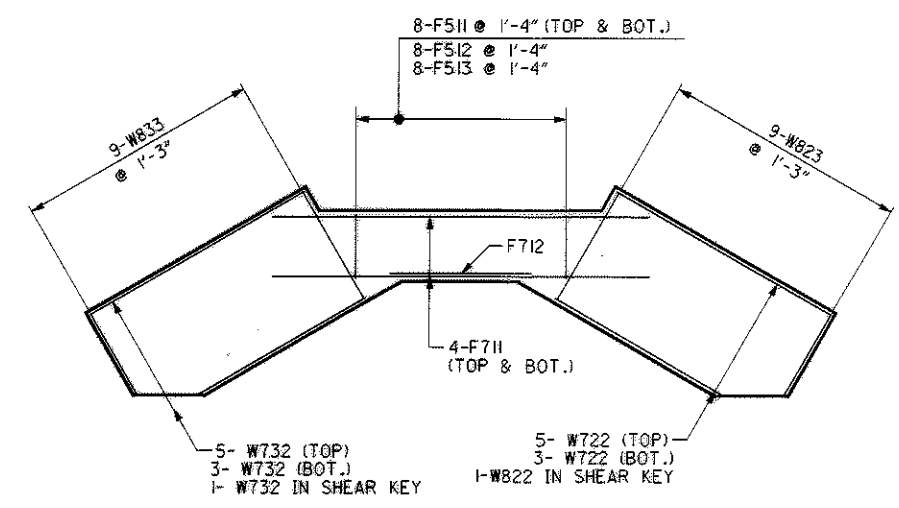
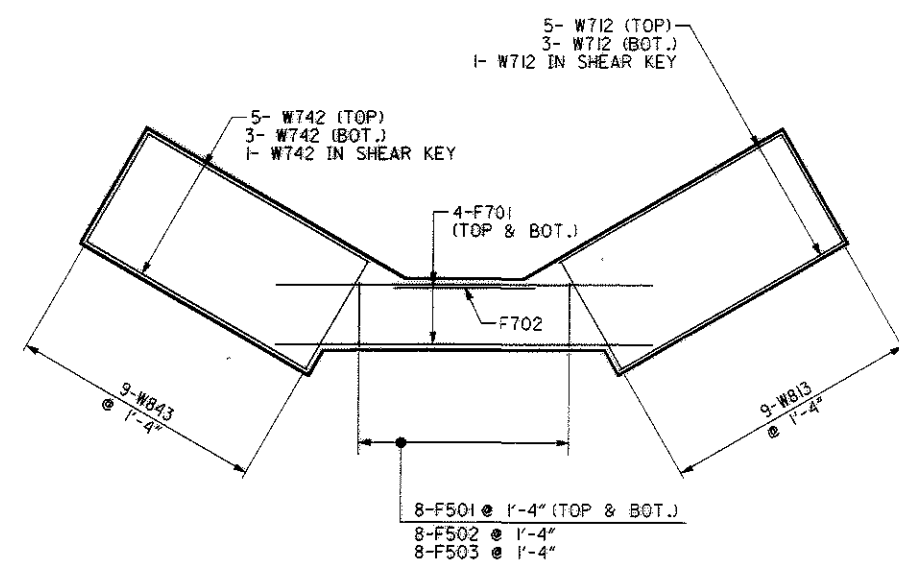


CONSTRUCTION  
 STA. 17+79.52



**FOOTING LAYOUT**

SEE TABLE ON SHEET 7/12 FOR VALUES OF A1 THRU A4  
 FOR WORKPOINT STATIONS AND OFFSETS SEE SHEET 7/12



**FOOTING REINFORCING DETAIL**

**FOOTING REINFORCING**

DESIGNED	DATE	REVIEWED	DATE
BMB		ADP	
CHECKED		REVISED	
G/JN		STRUCTURE FILE NUMBER	

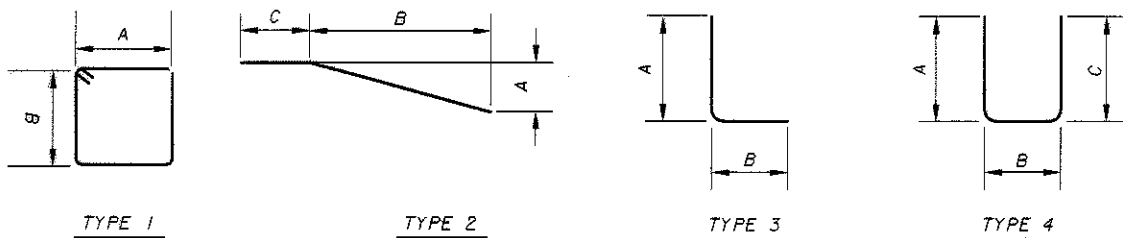
EPOXY COATED REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	INCR
<b>WINGWALL 1</b>								
W511	1	3'-8"	48	STR				4 1/2"
	S.O.	TO						
	9	6'-5"						3'-7 1/2"
W512	2	3'-5"	44	STR				
	S.O.	TO						
	3	10'-8"						
W513	6	10'-8"	67	STR				
W514	2	10'-11"	23	STR				
W711	9	7'-6"	166	3	5'-0" to	2'-6"		4 1/2"
		10'-3"			7'-9"			
W712	9	10'-9"	198	STR				
W713	10	5'-2"	106	STR				
W515	9	3'-8"	34	4	1'-4"	2'-1"	6"	
SUBTOTAL = 686 LBS								
<b>WINGWALL 2</b>								
W521	1	3'-10"	48	STR				4"
	S.O.	TO						
	9	6'-5"						
W522	2	5'-1"	32	STR				5'-2"
	S.O.	TO						
	2	10'-3"						
W523	6	10'-3"	64	STR				
W524	2	10'-6"	22	STR				
W721	9	7'-8"	166	3	5'-2"	2'-6"		4"
		10'-3"			7'-9"			
W722	9	10'-4"	196	STR				
W723	10	5'-2"	106	STR				
W525	9	3'-8"	34	4	1'-4"	2'-1"	6"	
SUBTOTAL = 668 LBS								
<b>WINGWALL 3</b>								
W531	1	3'-10"	48	STR				4"
	S.O.	TO						
	9	6'-5"						
W532	2	5'-1"	32	STR				5'-2"
	S.O.	TO						
	2	10'-3"						
W533	6	10'-3"	64	STR				
W534	2	10'-6"	22	STR				
W731	9	7'-8"	166	3	5'-2"	2'-6"		4"
		10'-3"			7'-9"			
W732	9	10'-4"	196	STR				
W733	10	5'-2"	106	STR				
W535	9	3'-8"	34	4	1'-4"	2'-1"	6"	
SUBTOTAL = 668 LBS								

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	INCR
<b>WINGWALL 4</b>								
W541	1	3'-8"	48	STR				4 1/2"
	S.O.	TO						
	9	6'-5"						3'-7 1/2"
W542	2	3'-5"	44	STR				
	S.O.	TO						
	3	10'-8"						
W543	6	10'-8"	67	STR				
W544	2	10'-11"	23	STR				
W741	9	7'-6"	166	3	5'-0" to	2'-6"		4 1/2"
		10'-3"			7'-9"			
W742	9	10'-9"	198	STR				
W743	10	5'-2"	106	STR				
W545	9	3'-8"	34	4	1'-4"	2'-1"	6"	
SUBTOTAL = 686 LBS								
<b>CULVERT FOOTING</b>								
F501	16	2'-8"	45	STR				
F502	8	3'-11"	33	4	6"	2'-2"	1'-6"	
F503	8	3'-7"	30	3	3'-0"	9"		
F504	1	7'-8"	8	STR				
F511	16	2'-8"	45	STR				
F512	8	3'-11"	33	4	6"	2'-2"	1'-6"	
F513	8	3'-7"	30	3	3'-0"	9"		
F514	1	7'-8"	8	STR				
F701	8	15'-10"	259	STR				
F702	1	6'-0"	12	STR				
F711	8	15'-10"	259	STR				
F712	1	6'-0"	12	STR				
SUBTOTAL = 774 LBS								
<b>HEADWALL</b>								
H501	8	3'-2"	28	4	1'-0"	1'-7"	1'-0"	
H502	4	9'-0"	38	STR				
H503*	8	1'-0"	8	STR				
H511	8	3'-2"	28	4	1'-0"	1'-7"	1'-0"	
H512	4	9'-0"	38	STR				
H513*	8	1'-0"	8	STR				
SUBTOTAL = 148 LBS								
*These bars are threaded to connect to mechanical inserts.								

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, W601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL TO BE EPOXY COATED.

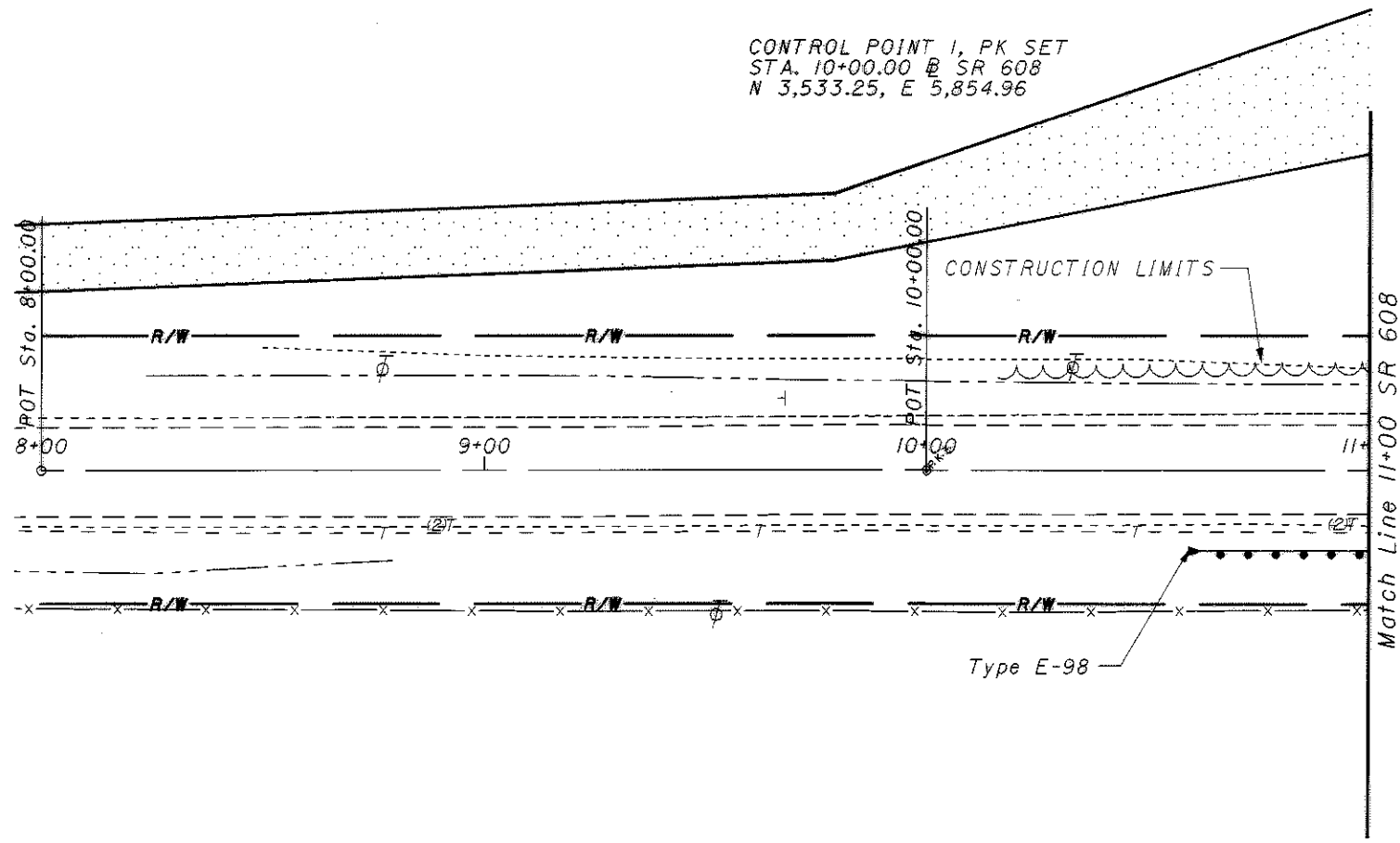


BENDING DIAGRAMS

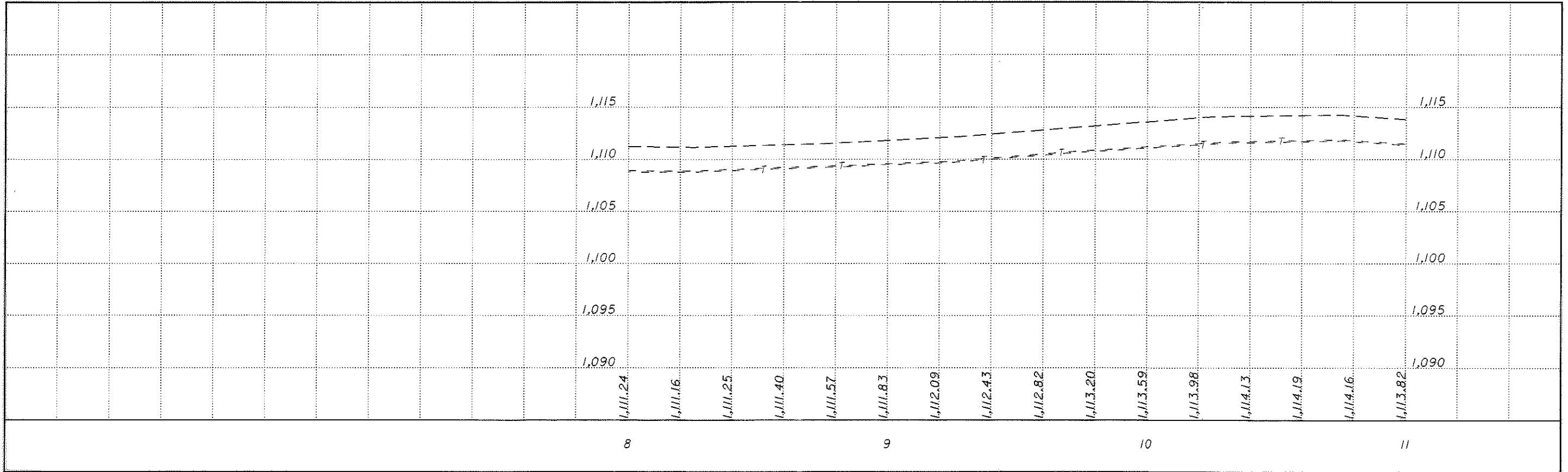
S.O. - SERIES OF

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DESIGN AGENCY: District 12 Production  
 DATE: \_\_\_\_\_  
 REVIEWED: \_\_\_\_\_  
 DRAWN: ADP  
 DESIGNED: BMB  
 CHECKED: GJN  
**Structure Details**  
 GE A-608-3.04  
 Unnamed Tributary of Tare Creek  
 12/12  
 24/55



- WETLANDS TO BE AVOIDED

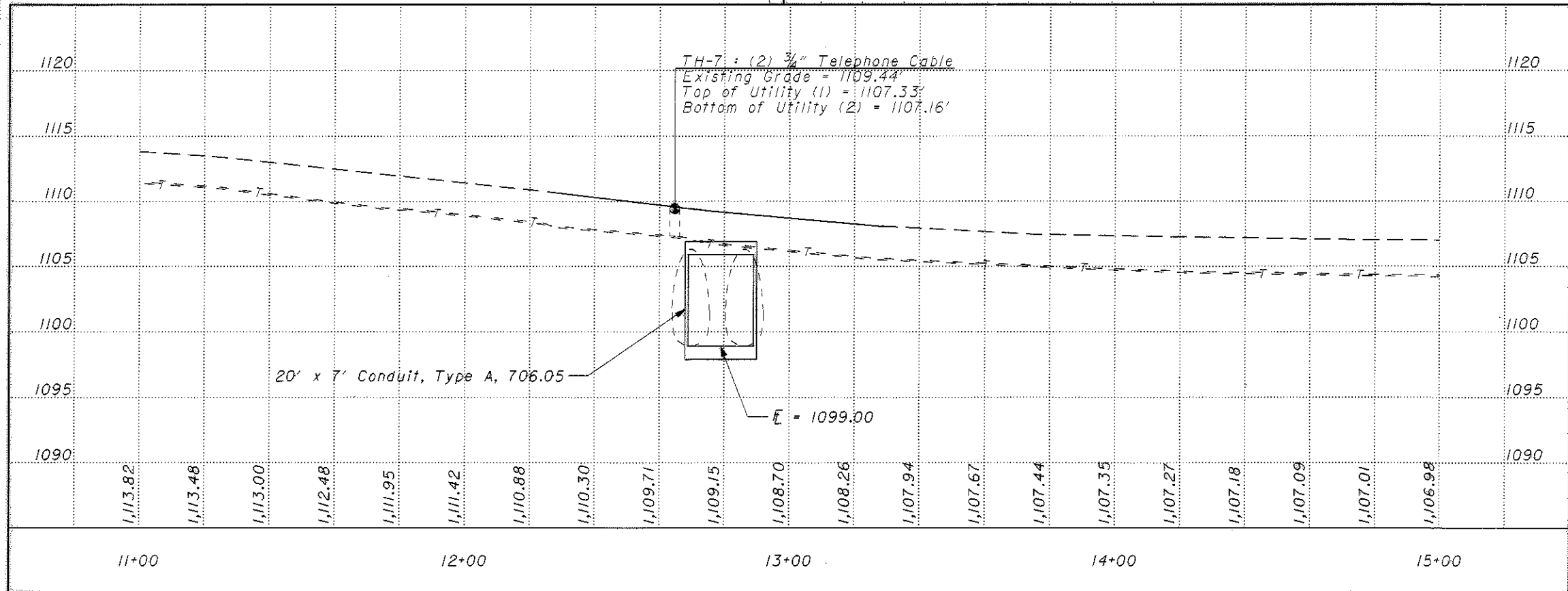
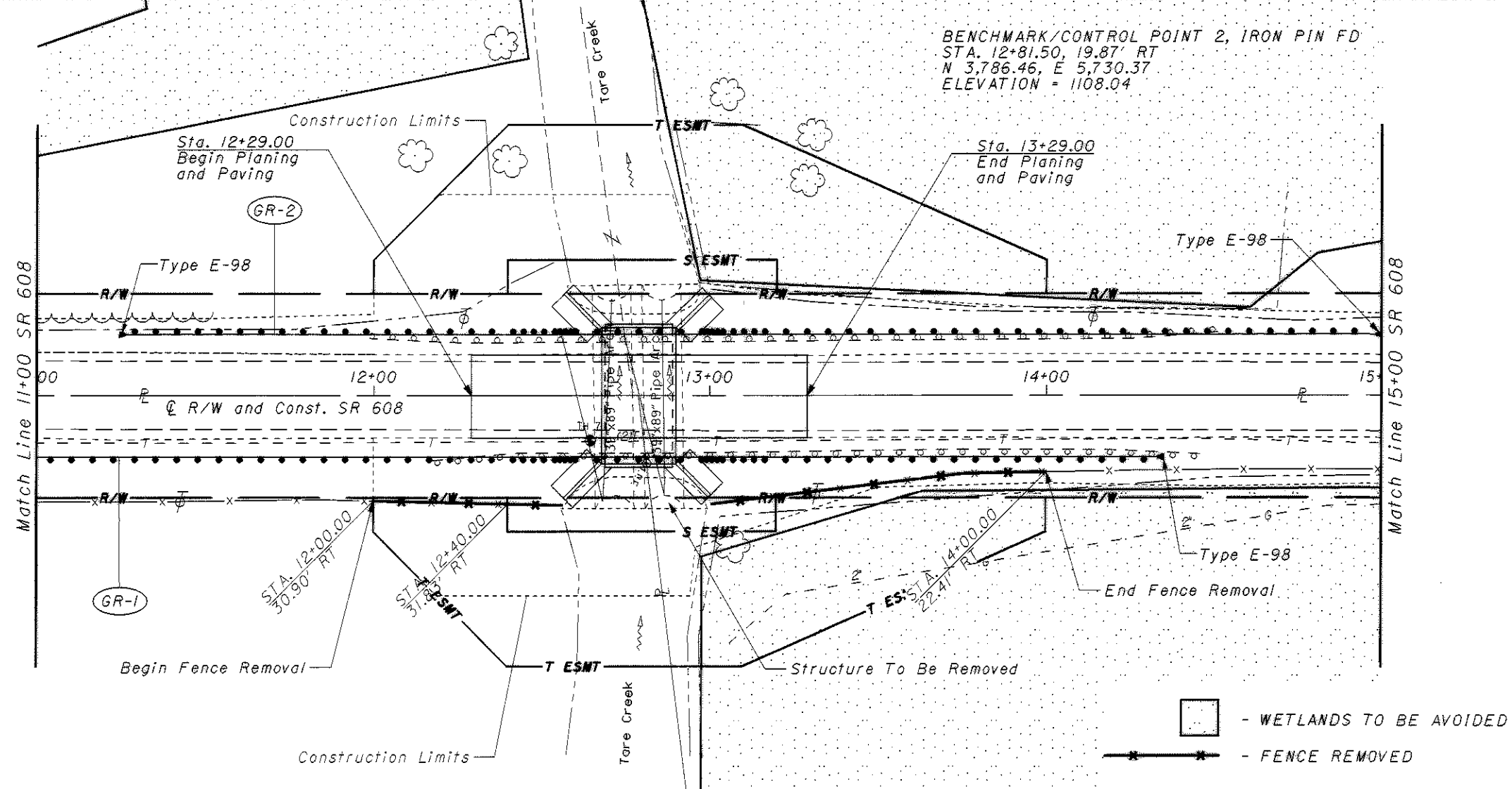


CALCULATED  
 GUN  
 CHECKED  
 LDH

**Plan And Profile**  
**SR 608 Begin to Sta 11+00**

**GEA-608-3.04/**  
**3.76/5.81/6.50**

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REF NO.	STATION		SIDE	QUANTITY	UNIT	TOTAL
	FROM	TO				
GR-1	10+59.30	14+32.97	18'			
GR-2	11+24.40	14+98.07	-18'			
606				Anchor Assembly, Type E-98	Each	2
606				Bridge Terminal Assembly, Type 4	Each	2
606				Guardrail, Type 5	Ft	237.5
606				Guardrail, Type 5 with Tubular Backup	Ft	237.5
606				Guardrail, Type 5	Ft	475
606				Guardrail, Type 5 with Tubular Backup	Ft	475
626				Barrier Reflector, Type A2	Each	4
202				Guardrail Removed, As Per Plan	Ft	237.5
				<b>TOTALS CARRIED TO GENERAL SUMMARY</b>		<b>475</b>

**Plan and Profile**  
**SR 608 Sta 11+00 to Sta 15+00**

**GEA-608-3.04/**  
**3.76/5.81/6.50**

2/17

CALCULATED: GJN  
 CHECKED: LDH

0 10 20  
 Horizontal Scale in Feet

26  
 55



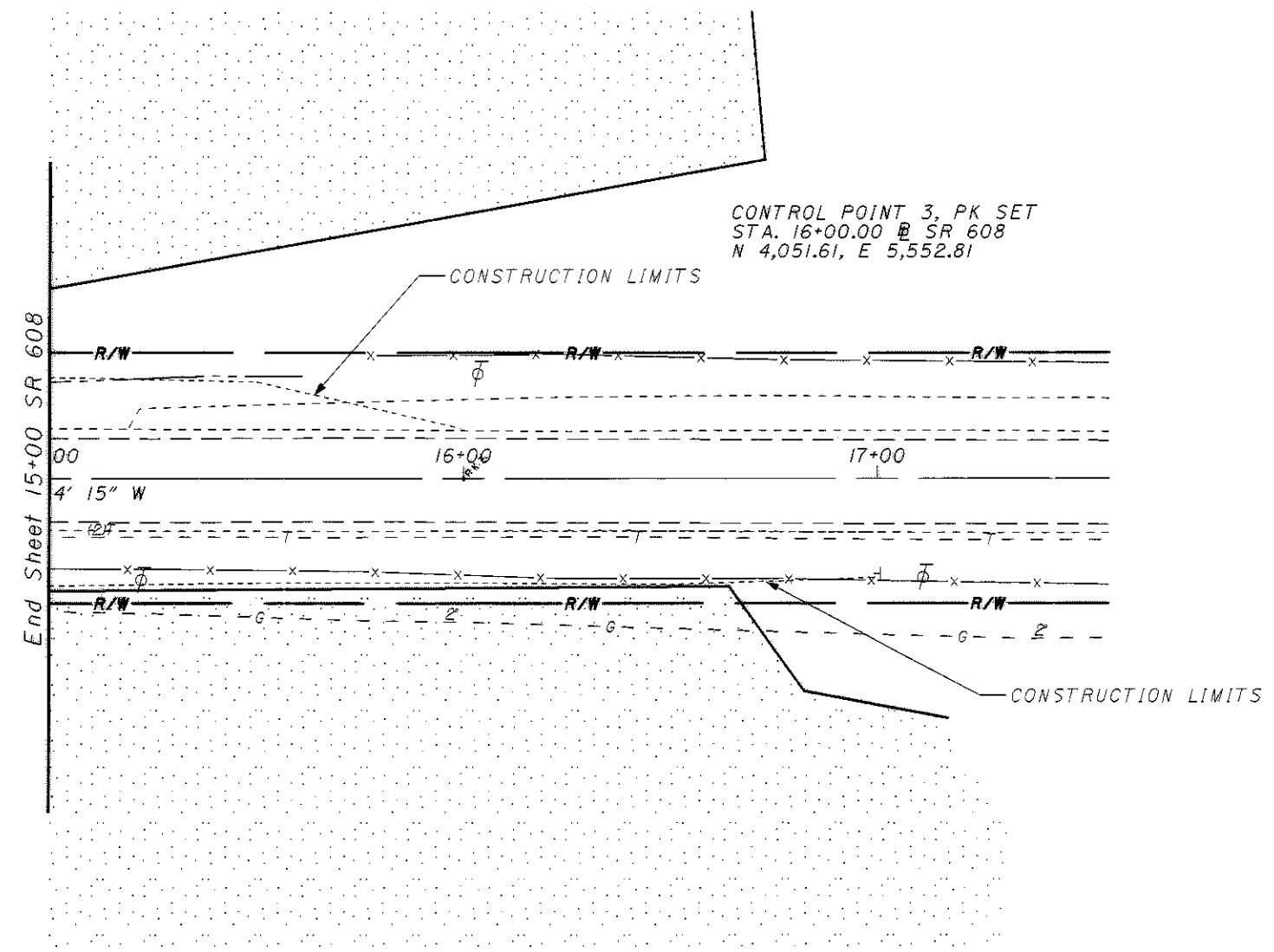
CALCULATED  
G.J.N.  
CHECKED  
LDH

**Plan And Profile**  
**SR 608 Sta. 15+00 to End**

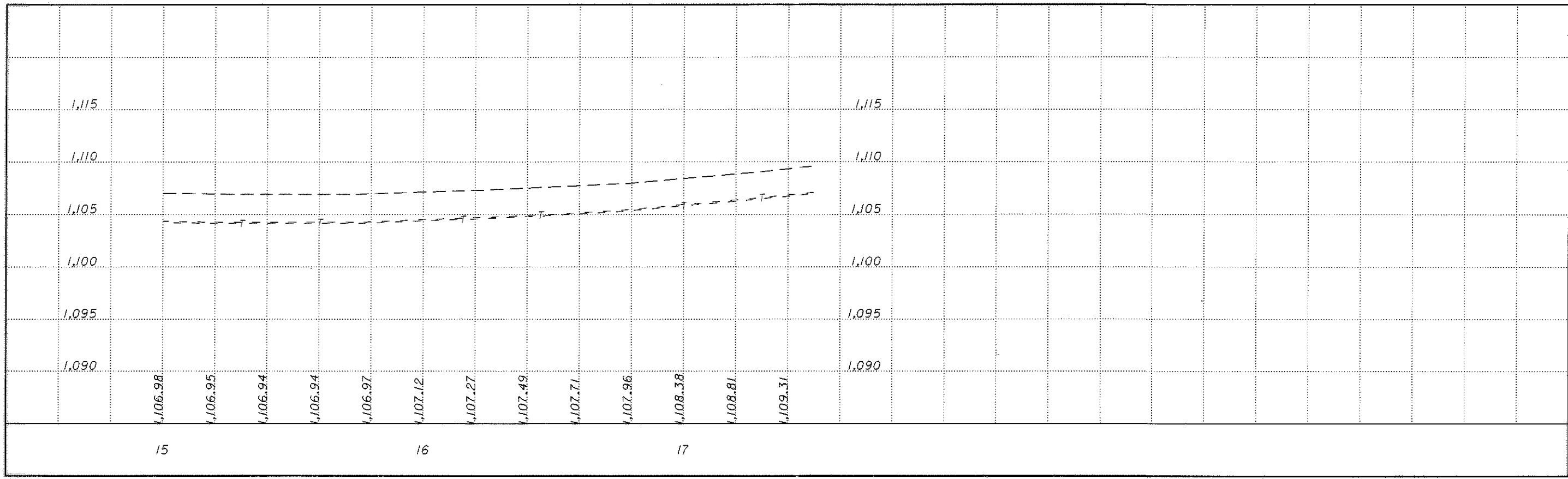
**GEA - 608 - 3.04 /**  
**3.76 / 5.81 / 6.50**

3/17

27  
55



- WETLANDS TO BE AVOIDED



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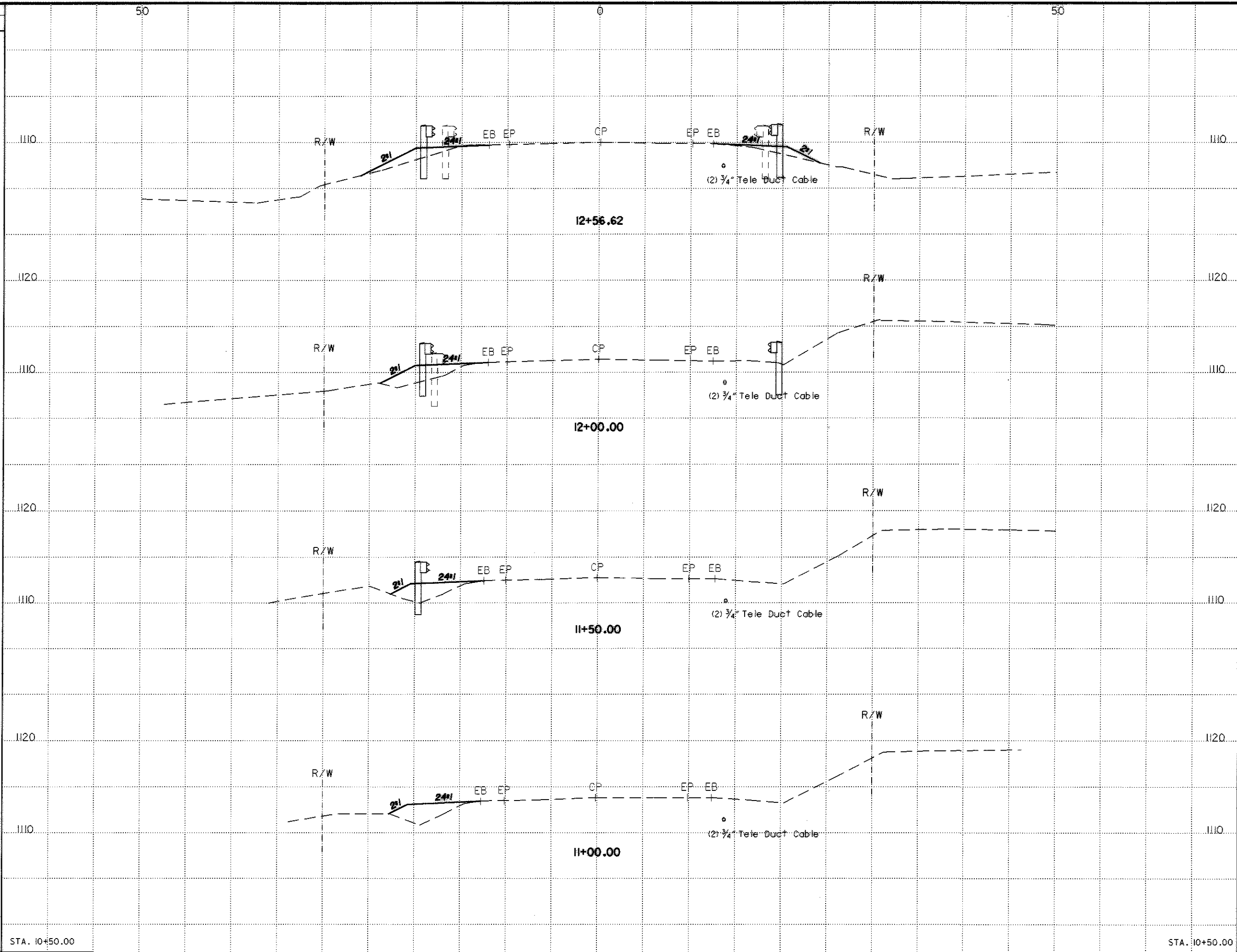






Seeding  
 End Width Sq Yds

31  
 142  
 14  
 72  
 12  
 67  
 12  
 75  
 15



End	Area		Volume		Calculated BMB Contract	CUN
	Cut	Fill	Cut	Fill		
1110	0	12				
1120	0	24				
1110	0	11				
1120	0	20				
1110	0	11				
1120	0	20				
1120	0	11				
1110	0	22				
STA. 10+50.00	0	13				
Sheet Total	0	86				

**Cross Sections  
 Sta 11+00 to Sta 12+56.62**

**GEA-608-3.04/  
 3.76 / 5.81 / 6.50**

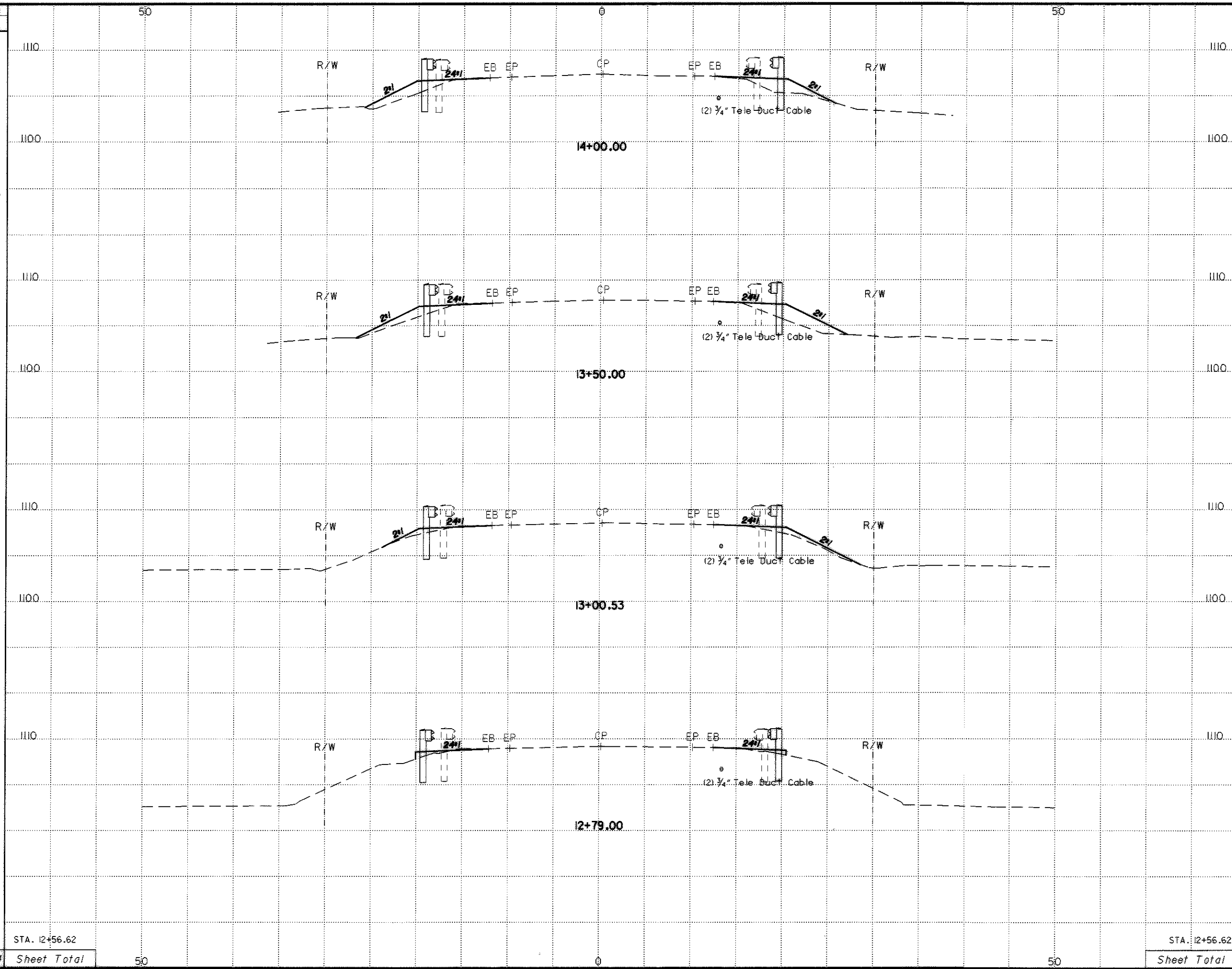
6/17  
 30  
 55

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356 Sheet Total

Sheet Total

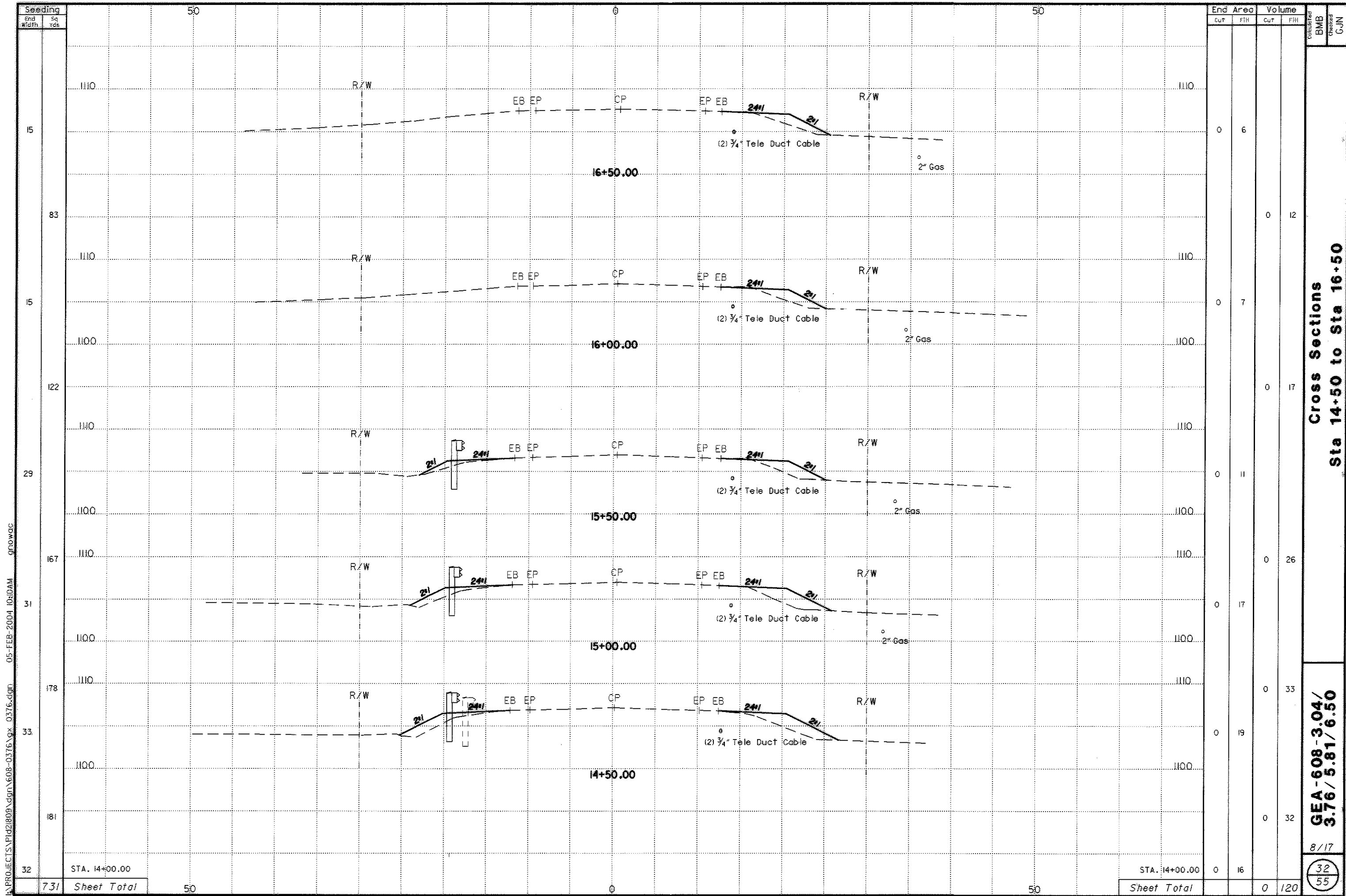
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 31 20 63 66 34 35 32 50 50 50 50



Sta	End Area		Volume	
	Cut	Fill	Cut	Fill
12+79.00	0	4	0	7
13+00.53	0	6	0	4
13+50.00	0	18	0	22
14+00.00	0	16	0	31
<b>Sheet Total</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>64</b>

**Cross Sections**  
**Sta 12+79 to Sta 14+00**

GEA-608-3.04/  
 3.76/5.81/6.50  
 7/17  
 31  
 55



Sta	End Area		Volume	
	Cut	Fill	Cut	Fill
14+50.00	0	16	0	120
15+00.00	0	17	0	33
15+50.00	0	11	0	26
16+00.00	0	7	0	12
16+50.00	0	6	0	6
<b>Total</b>	<b>0</b>	<b>67</b>	<b>0</b>	<b>202</b>

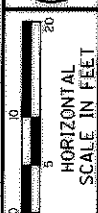
**Cross Sections**  
**Sta 14+50 to Sta 16+50**

**GEA-608-3.04/**  
**3.76/ 5.81/ 6.50**

8/17  
 32  
 55

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CALCULATED BMB  
CHECKED G/JN

**Culvert Detail at GEA-608-3.76**

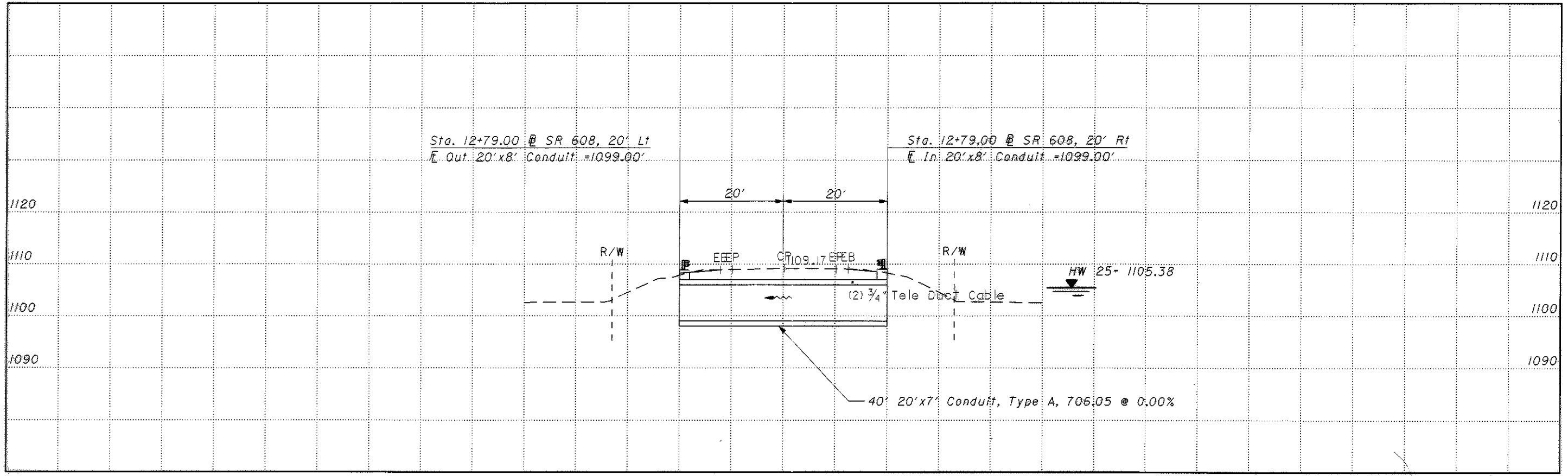
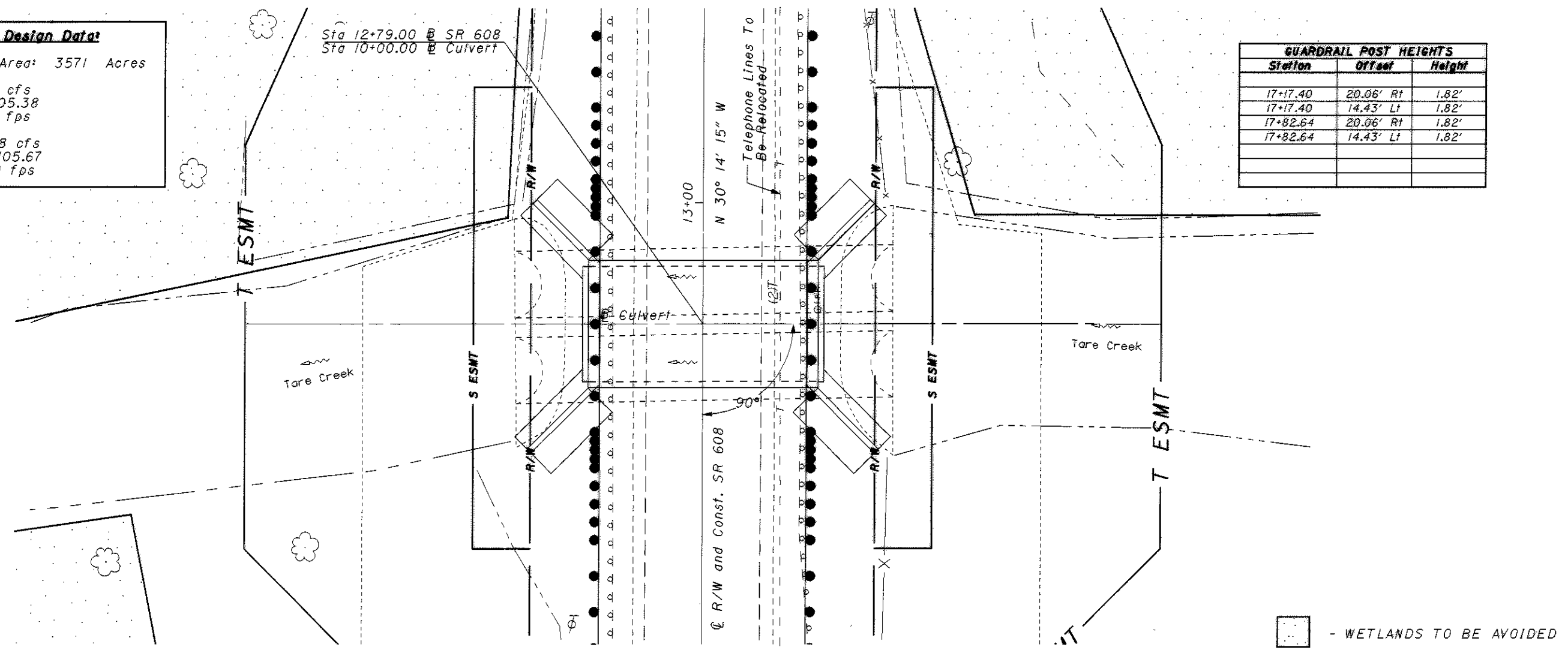
**GEA-608-3.04/  
3.76 / 5.81 / 6.50**

10/17

34  
55

**Hydraulic Design Data:**  
 Drainage Area: 3571 Acres  
 Q25: 618 cfs  
 HW25: 1105.38  
 V25: 5.2 fps  
 Q100: 828 cfs  
 HW100: 1105.67  
 V100: 6.9 fps

GUARDRAIL POST HEIGHTS		
Station	Offset	Height
17+17.40	20.06' Rt	1.82'
17+17.40	14.43' Lt	1.82'
17+82.64	20.06' Rt	1.82'
17+82.64	14.43' Lt	1.82'



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**DESIGN LOADING:**

HS20-44 AND THE ALTERNATE MILITARY LOADING.

**DESIGN STRESSES:**

CAST-IN-PLACE STRUCTURES  
 CONCRETE CLASS C - f'c = 4,000 psi SUBSTRUCTURE  
 REINFORCING STEEL - ASTM A615, A616, OR A617  
 Fy = 60,000 psi.

PRECAST STRUCTURES: FOR BOX AND PIPE CULVERTS SEE CMS SECTION 603.

**REMOVAL OF EXISTING STRUCTURE:**

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE REMOVED UPON RECEIVING PERMISSION FROM THE ENGINEER.

**UTILITY LINES:**

ALL EXPENSES INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE OWNER(S). THE CONTRACTOR AND OWNER(S) ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

**ITEM 503 - UNCLASSIFIED EXCAVATION:**

EXCAVATION LIMITS FOR THE PROPOSED STRUCTURE SHALL BE AS DEFINED IN 503.10. EXCAVATION OUTSIDE THESE LIMITS NECESSARY TO REMOVE THE EXISTING STRUCTURE SHALL BE INCLUDED IN 202 FOR PAYMENT.

**ITEM 603 - 20' X 7' CONDUIT, TYPE A, 706.05, AS PER PLAN**

THIS ITEM SHALL INCLUDE RESTORATION OF PAVEMENT AND PAVED SHOULDERS. THE FOLLOWING CALCULATIONS ARE FOR ESTIMATING PURPOSES ONLY AND ARE TO BE INCLUDED UNDER PAYMENT FOR ITEM 603 - 20' X 7' CONDUIT, TYPE A, 706.05, AS PER PLAN. THESE QUANTITIES ASSUME A 24 FT. WIDE TRENCH:

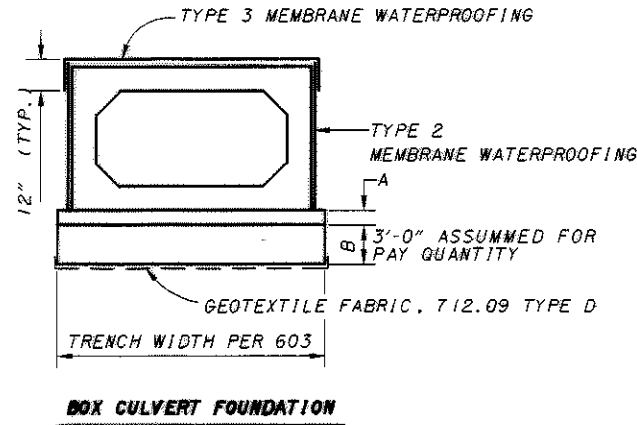
ITEM 301 - ASPHALT CONCRETE BASE, PG64-22  
 24 FT. X 24 FT. X 0.9375 FT. / (27 CU.FT./CU.YD.) = 20 CU. YD.

ITEM 408 - PRIME COAT  
 (24 FT. X 24 FT. / (9 SQ.FT./SQ.YD.)) / (SQ.YD./0.4 GAL) = 25.6 GAL.

ITEM 304 - AGGREGATE BASE, AS PER PLAN  
 24 FT. X 24 FT. X 0.5 FT. / (27 CU.FT./CU.YD.) = 11 CU. YD.

BEGINNING AND ENDING BOX CULVERT SECTIONS SHALL BE FABRICATED WITH THE STANDARD TONGUE AND GROOVE ON BOTH ENDS OF THE SECTIONS.

END SECTIONS SHALL BE FABRICATED WITH MECHANICAL CONNECTORS EMBEDDED IN THE TOP OF THE BOX SECTION TO ANCHOR THE PROPOSED HEADWALL. BARS H503 AND H513 SHALL BE COMPATIBLE WITH THESE CONNECTORS.



A = 6" MINIMUM PER 603.

B = REMOVAL OF UNSUITABLE MATERIAL AND REPLACEMENT WITH COMPACTED BEDDING MATERIAL. THIS REMOVAL SHALL BE PAID FOR UNDER ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN (CUBIC YARD). ALL OTHER UNCLASSIFIED EXCAVATION IS PAID FOR LUMP SUM UNDER ITEM 503 - UNCLASSIFIED EXCAVATION.

ESTIMATED QUANTITIES					
ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
202	11000	LUMP		STRUCTURE REMOVED	
204	50000	112	SQ. YD.	GEOTEXTILE FABRIC, 712.09 TYPE D	
503	11100	LUMP		COFFERDAMS, CRIBS, AND SHEETING	
503	21300	LUMP		UNCLASSIFIED EXCAVATION	
503	21101	107	CU. YD.	UNCLASSIFIED EXCAVATION, AS PER PLAN	35
509	10000	8819	LB.	EPOXY COATED REINFORCING STEEL	
511	46000	28	CU. YD.	CLASS C CONCRETE, RETAINING WALL OR WINGWALL	
511	46500	67	CU. YD.	CLASS C CONCRETE, FOOTING	
511	46600	5	CU. YD.	CLASS C CONCRETE, HEADWALL	
512	33000	84	SQ. YD.	TYPE 2 WATERPROOFING	
512	33010	96	SQ. YD.	TYPE 3 WATERPROOFING	
516	13600	5	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER	
518	21230	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	38
603	96487	40	FT.	20' X 7' CONDUIT, TYPE A, 706.05, AS PER PLAN	35
603	98500	107	CU. YD.	CONDUIT, MISC.; ADDITIONAL BEDDING	
864	10100	82	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	

**CALCULATIONS FOR PLANING AND PAVING**

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (1.5" DEEP)  
 STA. 12+29± TO STA. 13+29±  
 100 FT. x 24' / (9 SQ.FT./SQ.YD.) = 267 SQ. YD.

ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE  
 STA. 12+29± TO STA. 13+29±  
 100 FT. x 24' / (0.05 GAL./SQ.YD.) = 13 GAL.

ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M (1.5" DEEP)  
 STA. 12+29± TO STA. 13+29±  
 100 FT. x 24 FT. x 0.125 FT. / (27 CU.FT./CU.YD.) = 11 CU. YD.

ITEM 643 - CENTER LINE  
 STA. 17+30± TO STA. 18+30±  
 100 FT. / (5280 FT./MILE) = 0.02 MILE

ITEM 643 - EDGE LINE  
 STA. 17+30± TO STA. 18+30±  
 200 FT. / (5280 FT./MILE) = 0.04 MILE

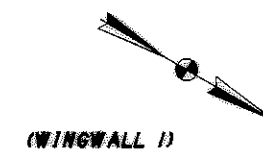
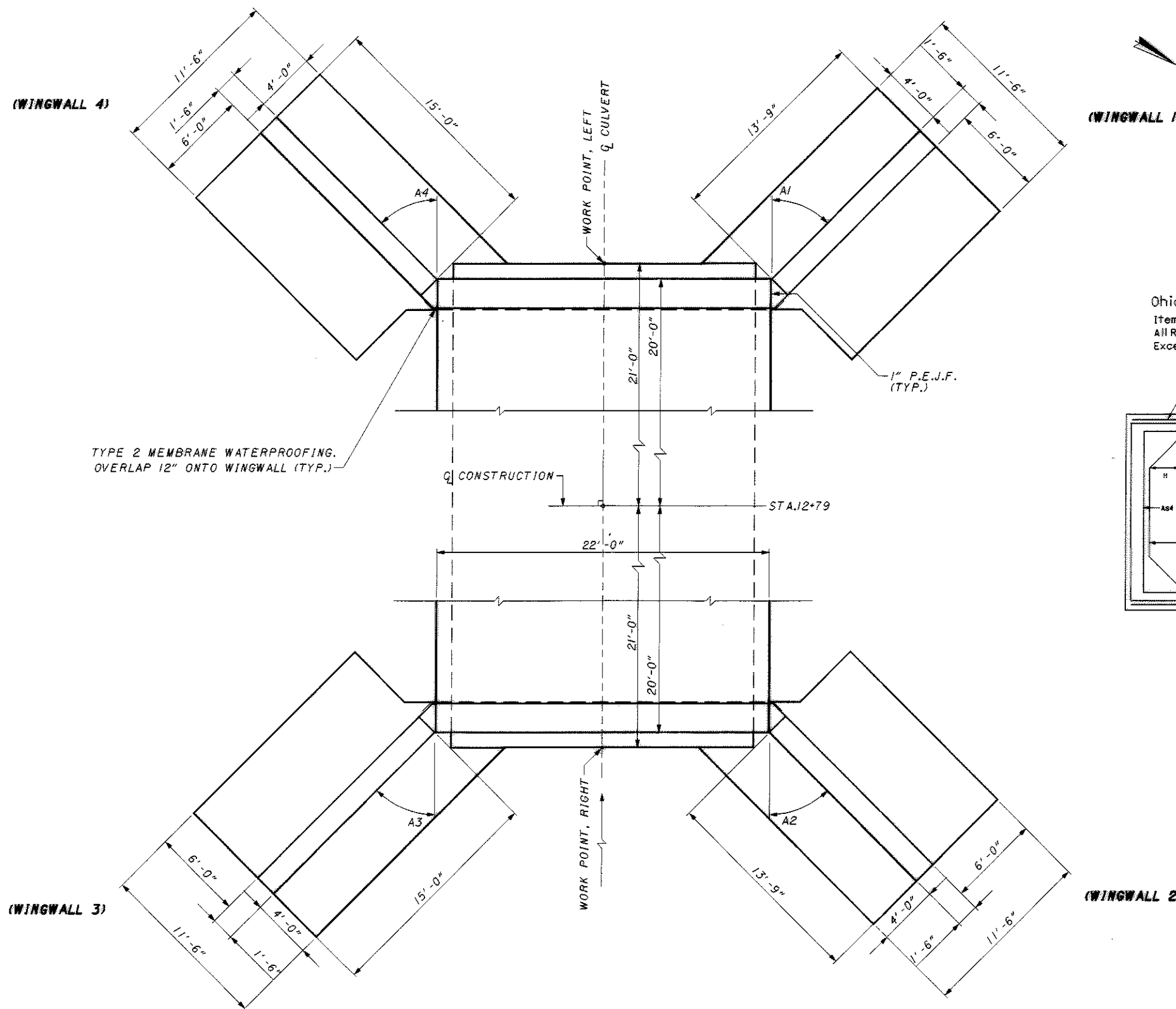
\* QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY ON SHEETS 11-12

ROADWAY			
CROSS SECTION SUMMARY			
SHEET NO.		203	659
		EMBANKMENT	SEEDING AND MULCHING
		CU. YD.	SQ. YD.
28		29	150
29		59	258
30		86	356
31		64	504
32		120	731
33		13	114
<b>TOTALS CARRIED TO GENERAL SUMMARY:</b>		371	2113

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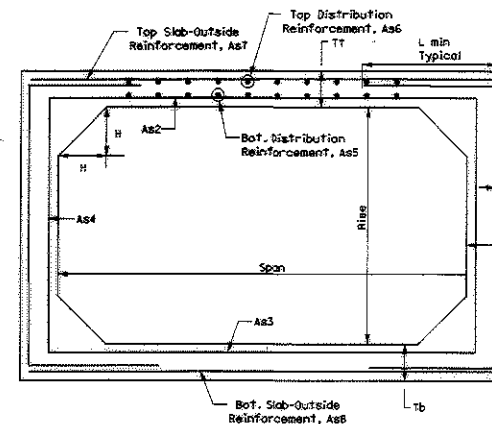
DESIGN AGENCY: D-12 PRODUCTION  
 DATE: 12/30/03  
 STRUCTURE FILE NUMBER: 2802201  
 DRAWN: ADP  
 CHECKED: BMB  
 DESIGNED: BMB  
 GENERAL NOTES & ESTIMATED QUANTITIES  
 GEA-608-376  
 TARE CREEK  
 95A-908-304  
 95A-908-376  
 11 / 17  
 35  
 55

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GEA-608-0376  
PID 21809

Ohio Department of Transportation  
Item 603 - 20' X 7' Conduit Type A, 706.05, As Per Plan  
All Requirements of 706.05 and ASTM C1433 Shall Be Met  
Except As Detailed Herein:



Loading: HS25 & ALT. MILITARY  
Depth of Cover = 1.00'

Span	20'
Rise	7'
Tt	12"
Tb	12"
Ts	12"
H	12"
As1	1.32
As2	1.44
As3	1.32
As4	0.29
As5	0.29
As6	0.29
As7	0.29
As8	0.29
L min	66"

Notes: Maximum spacing of reinforcing shall be 4".  
The minimum concrete compressive strength shall be 5000 psi.  
The minimum yield strength for reinforcing shall be 60 ksi.  
As min = 0.002 X Gross Section Area

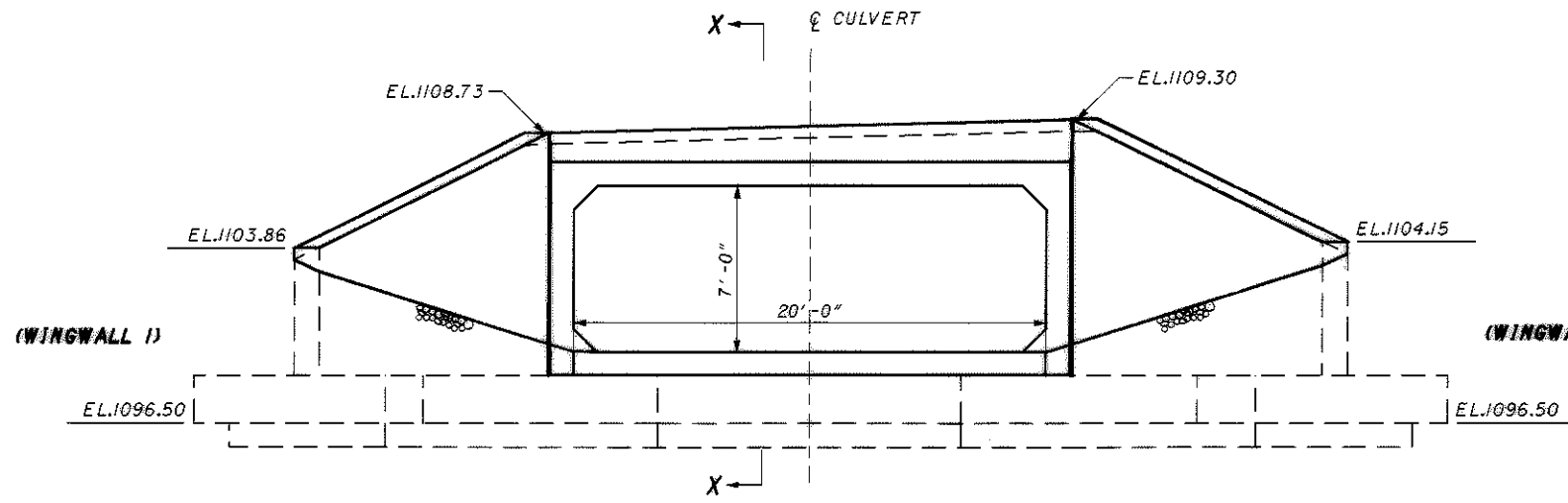
WINGWALL ANGLES	
A1	45°0'0"
A2	45°0'0"
A3	45°0'0"
A4	45°0'0"

WORK POINTS		
LOCATION	STATION	OFFSET
LEFT	12+79.00	21'-0"
RIGHT	12+79.00	21'-0"

**CULVERT & WINGWALL LAYOUT**

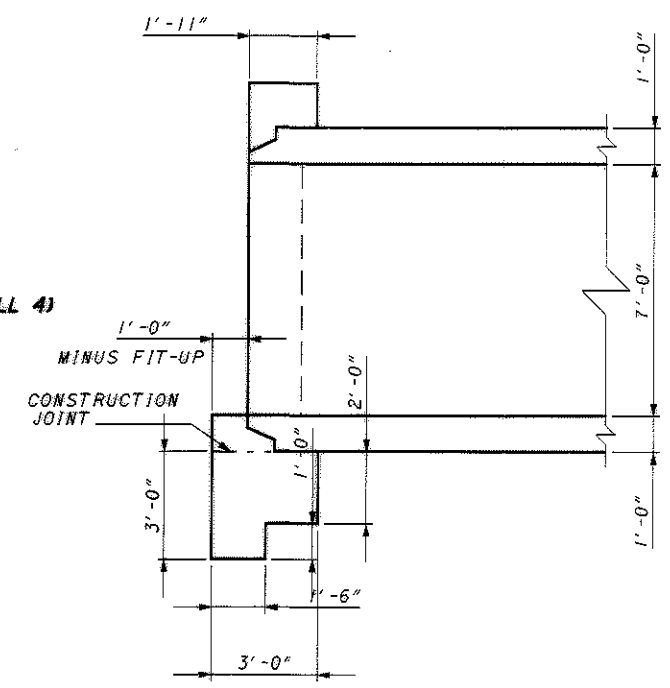


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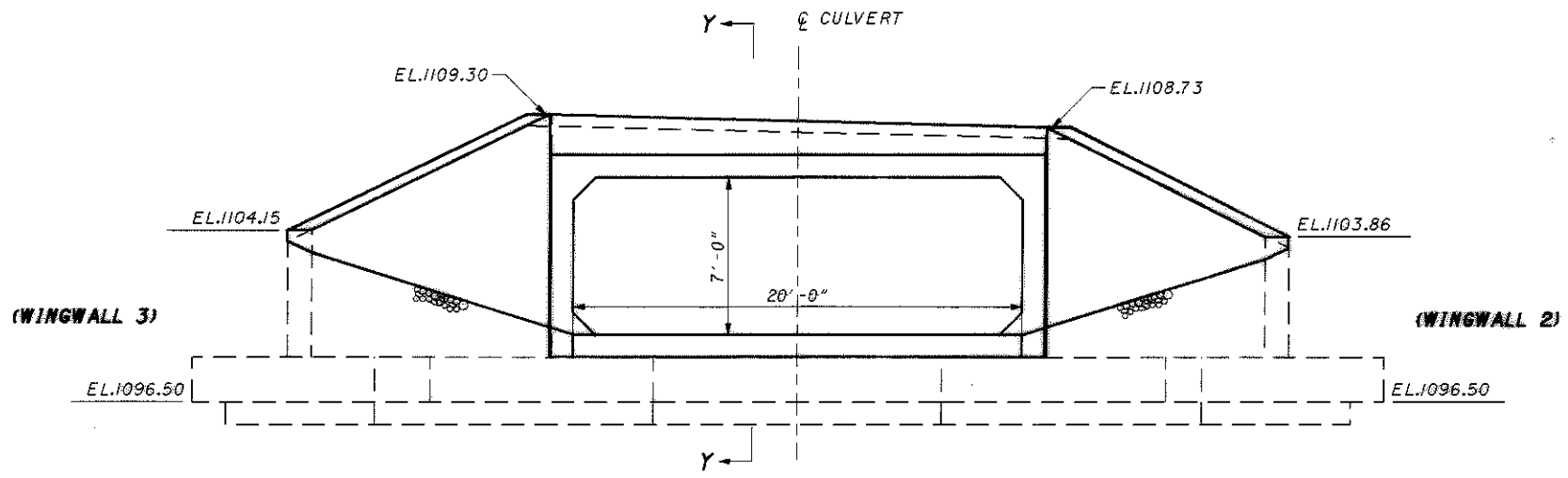


**OUTLET ELEVATION**

FLOWLINE ELEVATION: EL.1099.00

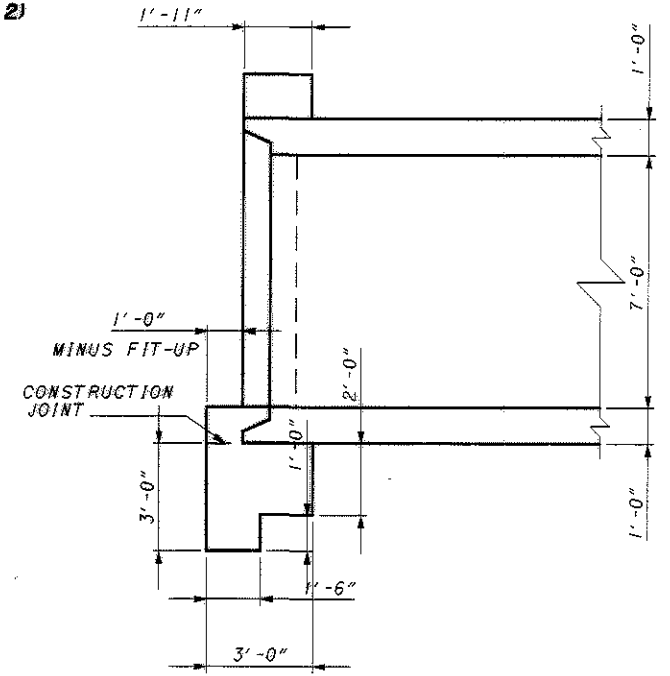


**SECTION X-X**



**INLET ELEVATION**

FLOWLINE ELEVATION: EL.1099.00



**SECTION Y-Y**

DESIGN AGENCY  
**D-12 PRODUCTION**

DATE  
12/30/03  
REVIEWED  
ADP  
STRUCTURE FILE NUMBER  
2802201

DRAWN  
BMB  
CHECKED  
55

STRUCTURE DETAILS  
GEA-608-3.76  
TARE CREEK

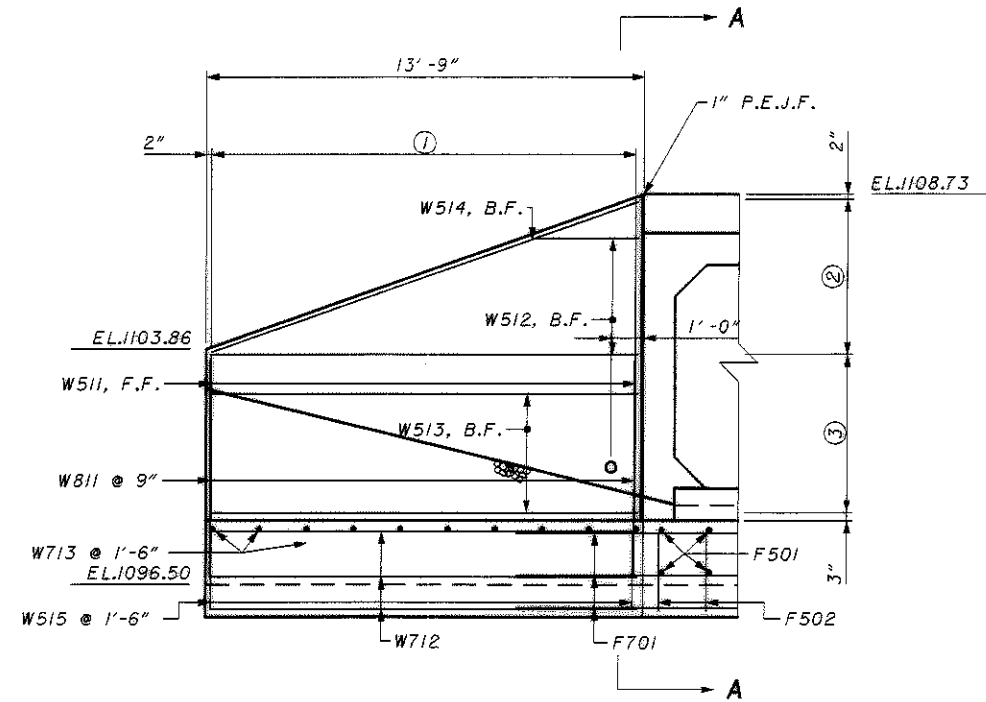
GEA-908-3.04/  
3.76/5.81/8.50

13/17

37  
55

**LEGEND**

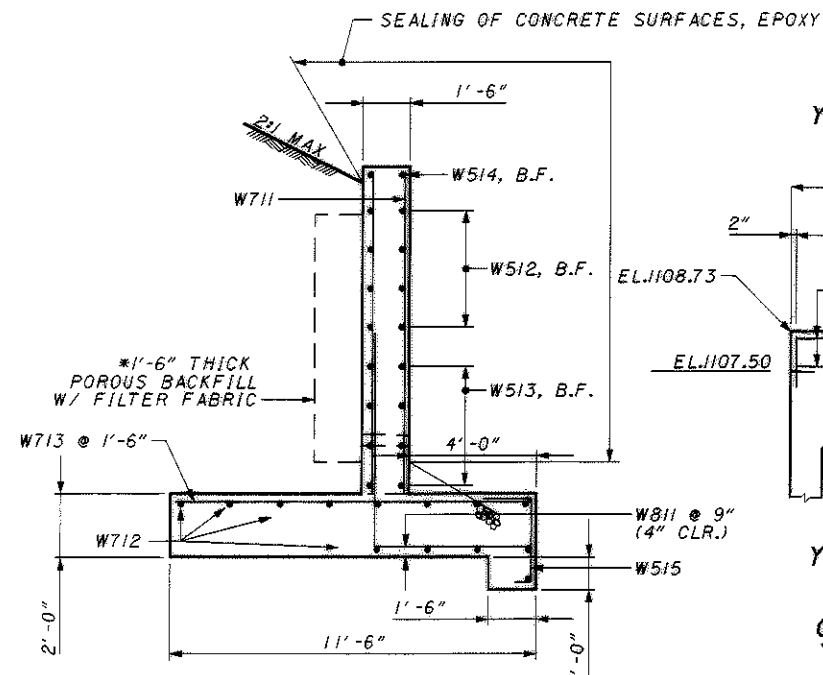
F.F. - FRONT FACE  
R.F. - REAR FACE  
B.F. - BOTH FACES



**WINGWALL 1 ELEVATION**

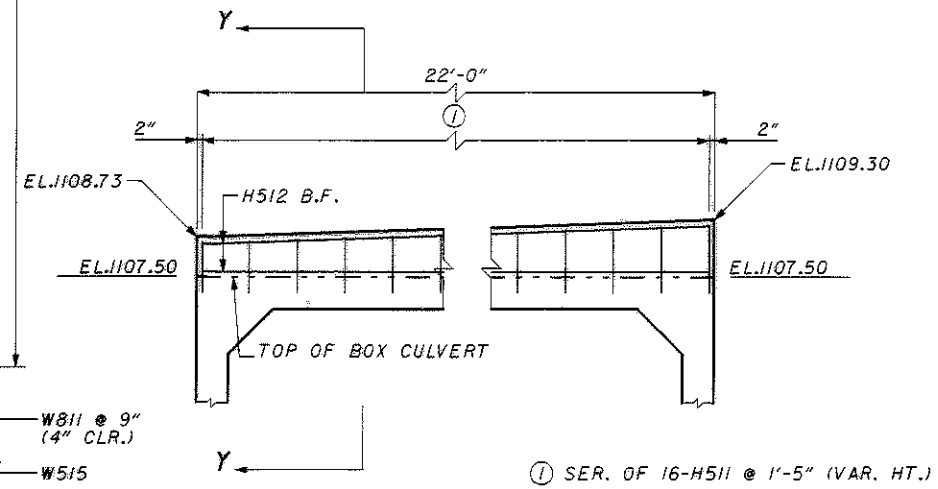
NOTE: 4" DIA. WEEPHOLE  
ELEV. = 1099.990

- ① SER. OF 10 @ 1'-6"
- ② 4 SPACES @ 1'-3"
- ③ 4 SPACES @ 1'-3"



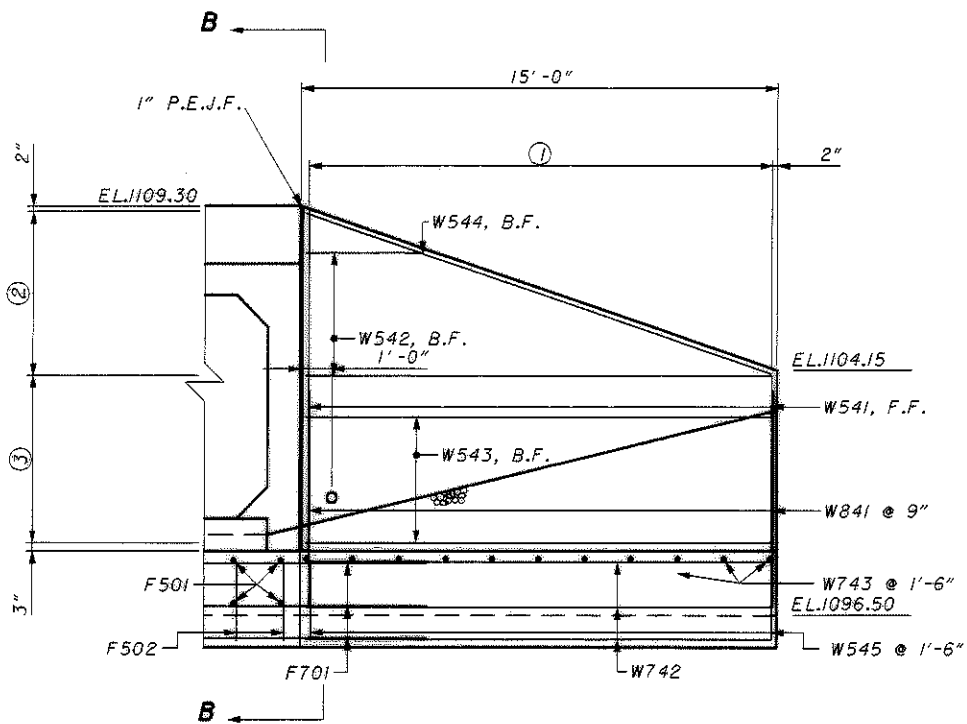
**SECTION A-A**

\*SEE NOTES, THIS SHEET



**OUTLET HEADWALL REINFORCING DETAIL**

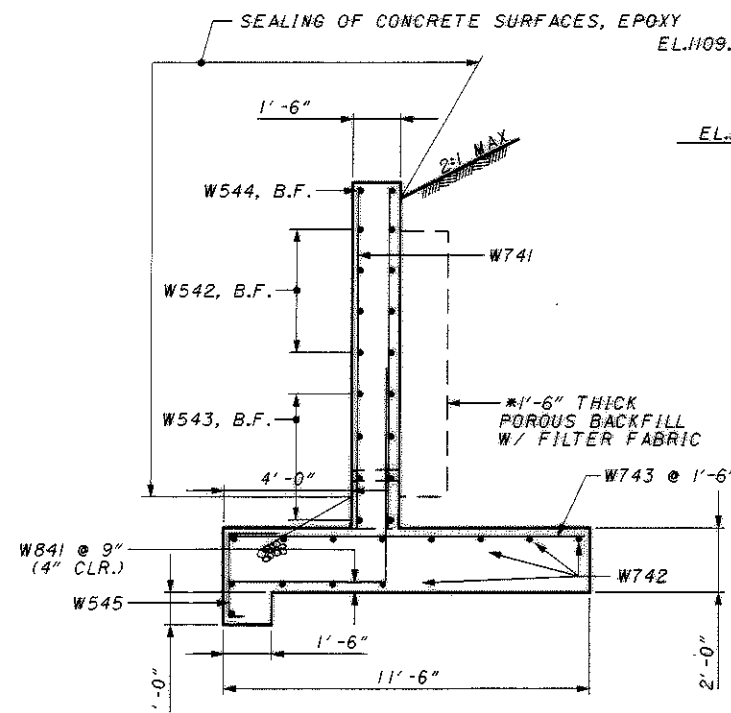
SEE SHEET 15/17 FOR SECTION Y-Y



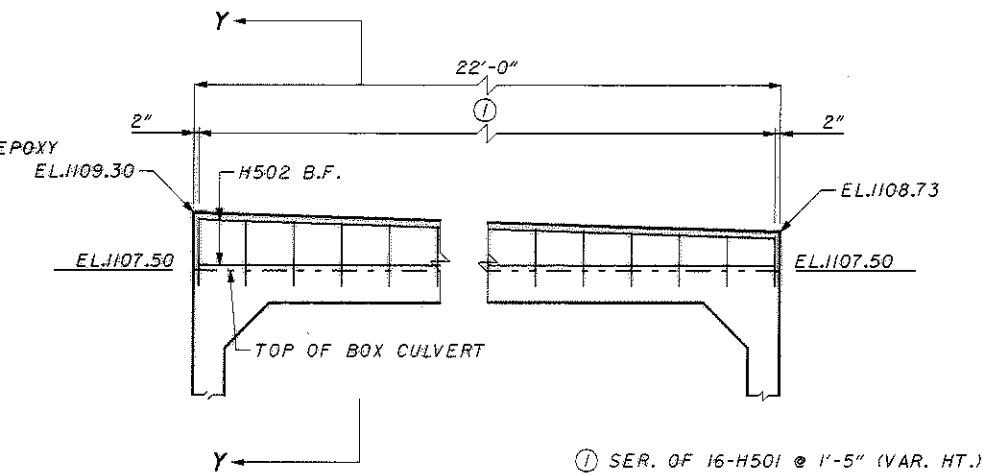
**WINGWALL 4 ELEVATION**

NOTE: 4" DIA. WEEPHOLE  
ELEV. = 1099.990

- ① SER. OF 11 @ 1'-6"
- ② 4 SPACES @ 1'-3"
- ③ 4 SPACES @ 1'-4"



**SECTION B-B**



**INLET HEADWALL REINFORCING DETAIL**

SEE SHEET 15/17 FOR SECTION Y-Y

**NOTES:**

ITEM 518, POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN 1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.

1" PREFORMED EXPANSION JOINT FILLER SHALL BE EXTENDED FROM TOP OF FOOTING TO TOP OF WALL.

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DESIGN AGENCY: **D-12 PRODUCTION**  
 DATE: 12/30/03  
 REVIEWED: 2802201  
 DRAWN: ADP  
 DESIGNED: BMB  
 CHECKED: [ ]  
 STRUCTURE FILE NUMBER: 2802201  
 STRUCTURE DETAILS  
 GEA-608-3.76  
 TARE CREEK  
 GEA-608-3.04/  
 3.76/5.81/8.50  
 14/17  
 38  
 55

**LEGEND**

F.F. - FRONT FACE  
R.F. - REAR FACE  
B.F. - BOTH FACES

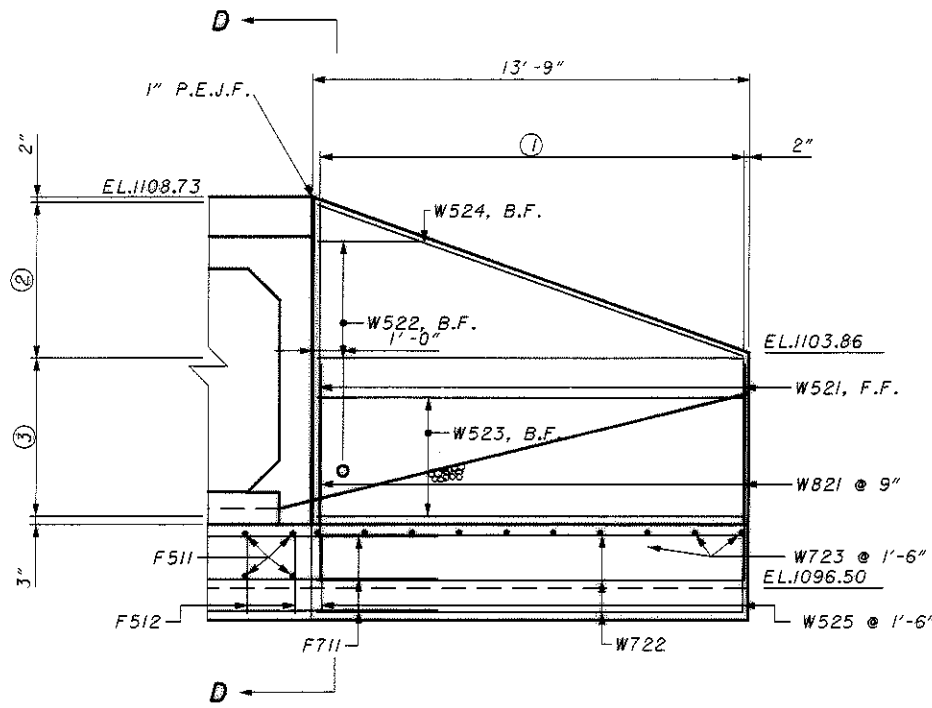
BEST COPY AVAILABLE  
D-12 PRODUCTION

DATE 12/30/03  
REVIEWED  
DRAWN ADP  
CHECKED BMB

STRUCTURE FILE NUMBER 2802201  
DESIGNED BY BMB  
STRUCTURE DETAILS  
GEA-608-3.76  
TARE CREEK

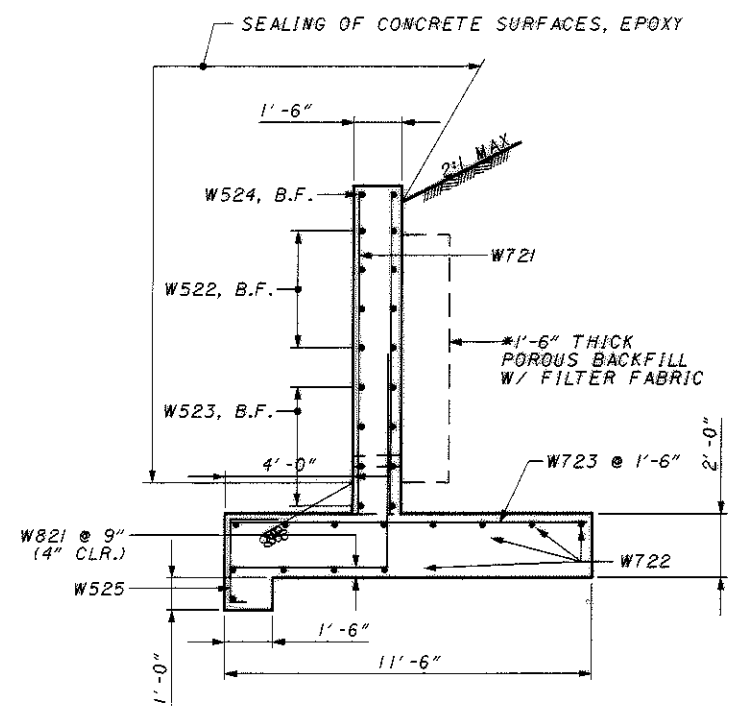
GEA-608-3.04/  
3.76/5.81/6.50

15/17  
39  
55

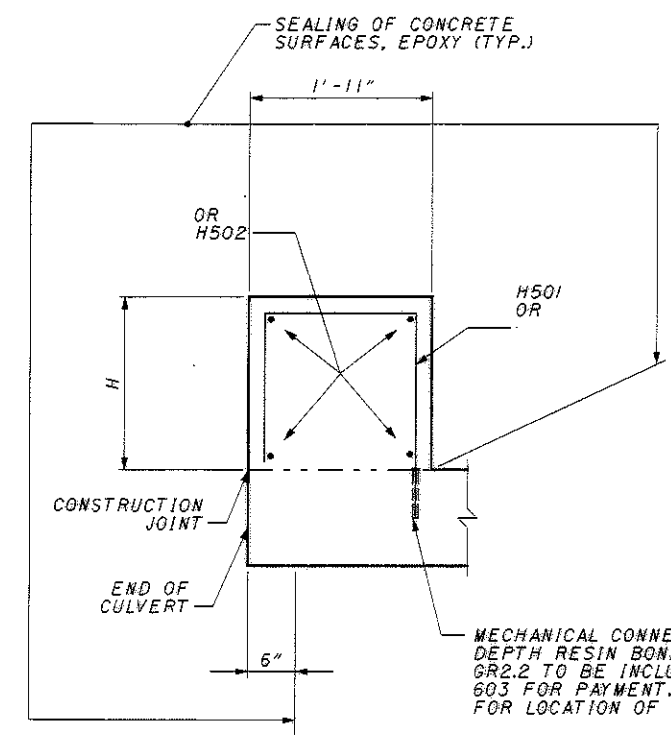


**WINGWALL 2 ELEVATION**  
NOTE: 4" DIA. WEEPHOLE ELEV. = 1099.990

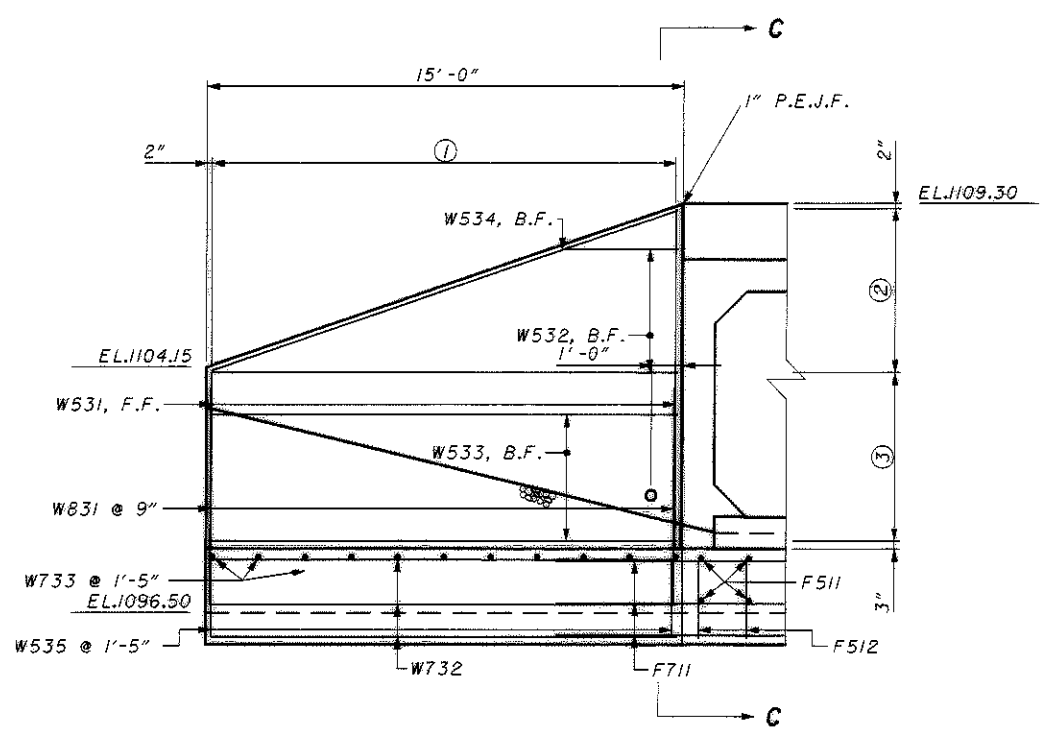
- ① SER. OF 10 @ 1'-6"
- ② 4 SPACES @ 1'-3"
- ③ 4 SPACES @ 1'-3"



**SECTION D-D**  
\*SEE NOTES ON SHEET 14/17

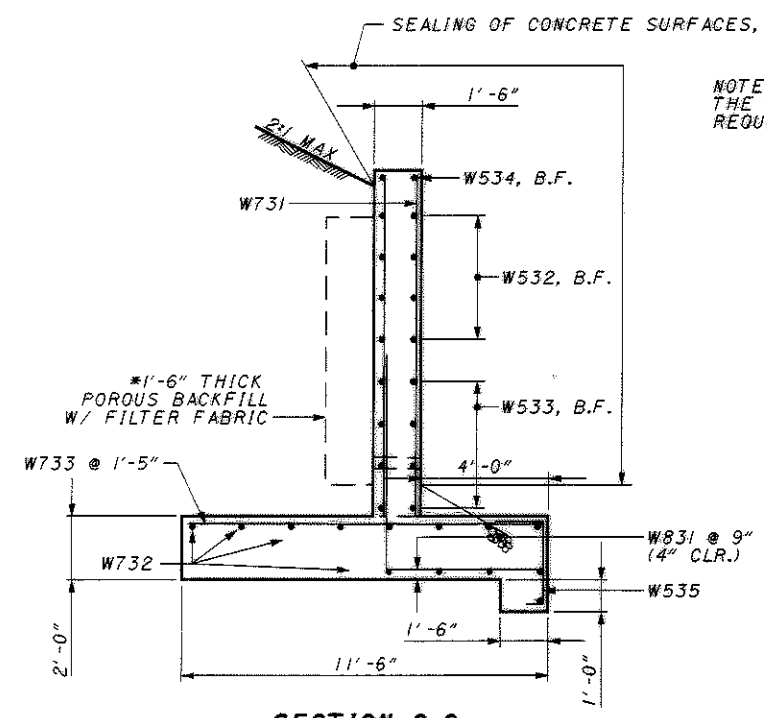


**SECTION Y-Y**  
MECHANICAL CONNECTOR OR PARTIAL DEPTH RESIN BONDED ANCHORS PER GR2.2 TO BE INCLUDED WITH ITEM 603 FOR PAYMENT. SEE SHEET 14/17 FOR LOCATION OF SECTION Y-Y.



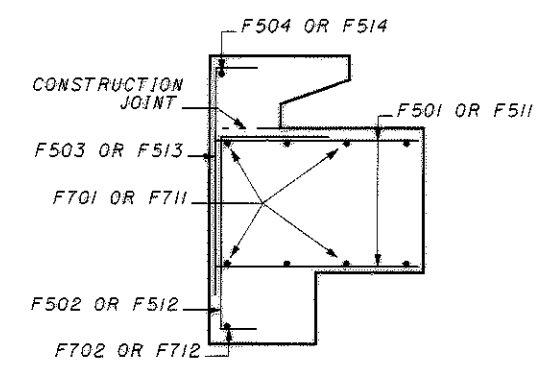
**WINGWALL 3 ELEVATION**  
NOTE: 4" DIA. WEEPHOLE ELEV. = 1099.990

- ① SER. OF 11 @ 1'-6"
- ② 4 SPACES @ 1'-3"
- ③ 4 SPACES @ 1'-4"



**SECTION C-C**

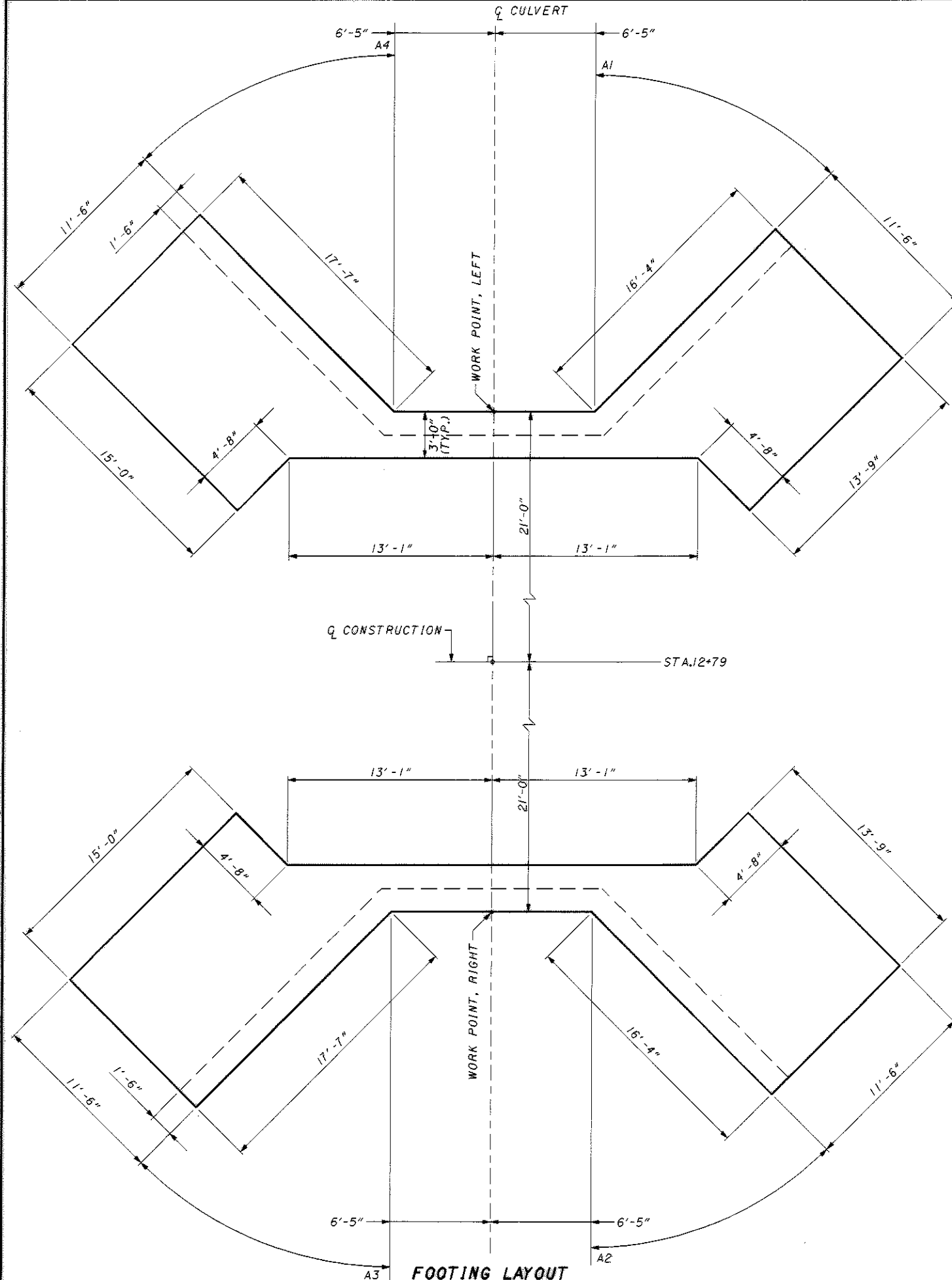
NOTE TO DESIGNER: THIS DETAIL REPRESENTS THE HIGHER OF THE TWO HEADWALLS. PLEASE CHECK IF THE LOWER HEADWALL REQUIRES THE SAME NUMBER OF LONGITUDINAL BARS



**FOOTING REINFORCING DETAIL**

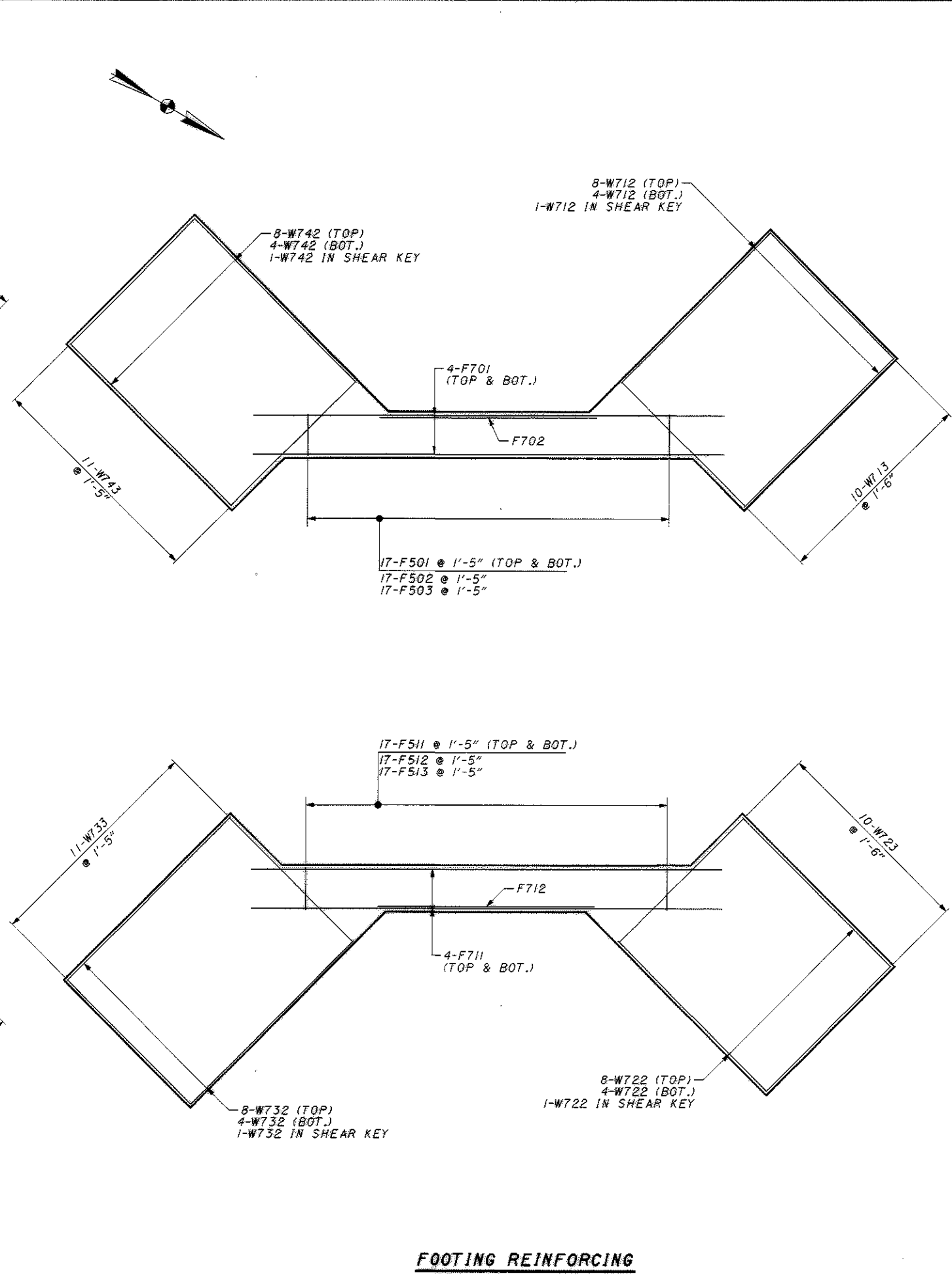
I:\PROJECTS\PI\21809\dgm\608-0376\add\_20x7.dgn 05-FEB-2004 10:13AM gnowac

R:\PROJECTS\PI\21809\dgn\608-0376.dgn 20x7.dgn 05-FEB-2004 10:13AM gn0wdc

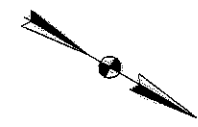


**FOOTING LAYOUT**

SEE TABLE ON SHEET 12/17 FOR VALUES OF A1 THRU A4  
FOR WORKPOINT STATIONS AND OFFSETS SEE SHEET 12/17



**FOOTING REINFORCING**



DESIGN AGENCY <b>D-12 PRODUCTION</b>	
DESIGNED BMB	CHECKED
DRAWN ADP	REVISED
REVIEWED DATE 12/30/03	STRUCTURE FILE NUMBER 2802201
<b>STRUCTURE DETAILS</b> GEA-608-3.76 TARE CREEK	
<b>GEA-608-3.04</b> <b>3.76/5.81/6.50</b>	
16 / 17	
<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <span style="font-size: 8px;">40</span>  <span style="font-size: 8px;">55</span> </div>	

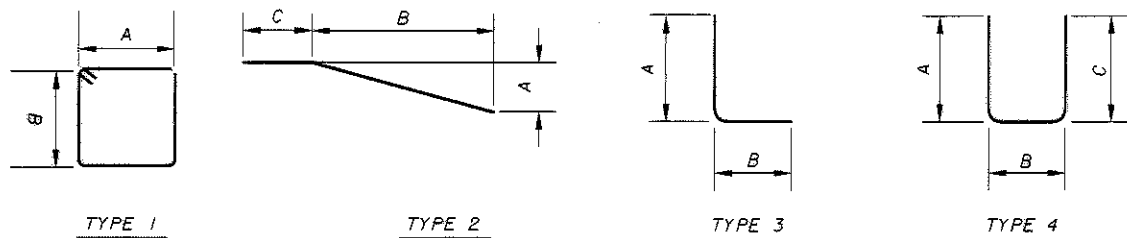
EPOXY COATED REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	INCR
<b>WINGWALL 1</b>								
W511	1	5'-2"	79	STR				6 1/2"
	S.O.	TO						
	10	10'-0"						
W512	2	3'-2"	69	STR				3'-5"
	S.O.	TO						
	4	13'-4"						
W513	8	13'-4"	111	STR				
W514	2	14'-2"	30	STR				
W515	10	4'-4"	45	4	1'-6"	2'-7"	6"	
W711	1	5'-2"	155	STR				6 1/2"
	S.O.	TO						
	10	10'-0"						
W712	13	13'-5"	357	STR				
W713	10	11'-2"	228	STR				
W811	19	11'-5"	579	3	6'-8"	5'-0"		
SUBTOTAL =			1653 LBS					
<b>WINGWALL 2</b>								
W521	1	5'-2"	79	STR				6 1/2"
	S.O.	TO						
	10	10'-0"						
W522	2	3'-2"	69	STR				3'-5"
	S.O.	TO						
	4	13'-4"						
W523	8	13'-4"	111	STR				
W524	2	14'-2"	30	STR				
W525	10	4'-4"	45	4	1'-6"	2'-7"	6"	
W721	1	5'-2"	155	STR				6 1/2"
	S.O.	TO						
	10	10'-0"						
W722	13	13'-5"	357	STR				
W723	10	11'-2"	228	STR				
W821	19	11'-5"	579	3	6'-8"	5'-0"		
SUBTOTAL =			1653 LBS					
<b>WINGWALL 3</b>								
W531	1	5'-6"	92	STR				6"
	S.O.	TO						
	11	10'-7"						
W532	2	3'-6"	75	STR				3'-8 1/2"
	S.O.	TO						
	4	14'-7"						
W533	8	14'-7"	122	STR				
W534	2	15'-5"	32	STR				
W535	11	4'-4"	50	4	1'-6"	2'-7"	6"	
W731	1	5'-6"	181	STR				6"
	S.O.	TO						
	11	10'-7"						

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	INCR
W732	13	14'-8"	390	STR				
W733	11	11'-2"	251	STR				
W831	21	11'-5"	640	3	6'-8"	5'-0"		
SUBTOTAL =			1833 LBS					
<b>WINGWALL 4</b>								
W541	1	5'-6"	92	STR				6"
	S.O.	TO						
	11	10'-7"						
W542	2	3'-6"	75	STR				3'-8 1/2"
	S.O.	TO						
	4	14'-7"						
W543	8	14'-7"	122	STR				
W544	2	15'-5"	32	STR				
W545	11	4'-4"	50	4	1'-6"	2'-7"	6"	
W741	1	5'-6"	181	STR				6"
	S.O.	TO						
	11	10'-7"						
W742	13	14'-8"	390	STR				
W743	11	11'-2"	251	STR				
W841	21	11'-5"	640	3	6'-8"	5'-0"		
SUBTOTAL =			1833 LBS					
<b>CULVERT FOOTING</b>								
F501	34	2'-8"	95	STR				
F502	17	4'-5"	78	4	6"	2'-8"	1'-6"	
F503	17	3'-7"	64	3	3'-0"	9"		
F504	1	19'-8"	21	STR				
F511	34	2'-8"	95	STR				
F512	17	4'-5"	78	4	6"	2'-8"	1'-6"	
F513	17	3'-7"	64	3	3'-0"	9"		
F514	1	19'-8"	21	STR				
F701	8	30'-2"	493	STR				
F702	1	13'-10"	28	STR				
F711	8	30'-2"	493	STR				
F712	1	13'-10"	28	STR				
SUBTOTAL =			1558 LBS					
<b>HEADWALL</b>								
H501	1	3'-10"			1'-7"		11"	
	S.O.	TO	74	4	TO	1'-7"	TO	1"
	16	5'-0"			2'-2"		1'-6"	
H502	4	18'-1"	75	STR				
H511	1	3'-10"			1'-7"		11"	
	S.O.	TO	74	4	TO	1'-7"	TO	1"
	16	5'-0"			2'-2"		1'-6"	
H512	4	15'-11"	66	STR				
SUBTOTAL =			289 LBS					

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, W601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL TO BE EPOXY COATED.



BENDING DIAGRAMS

S.O. - SERIES OF

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DESIGN AGENCY  
D-12 PRODUCTION

DATE  
12/30/03  
STRUCTURE FILE NUMBER  
2802201

DRAWN  
ADP  
REVISOR

DESIGNED  
BMB  
CHECKED

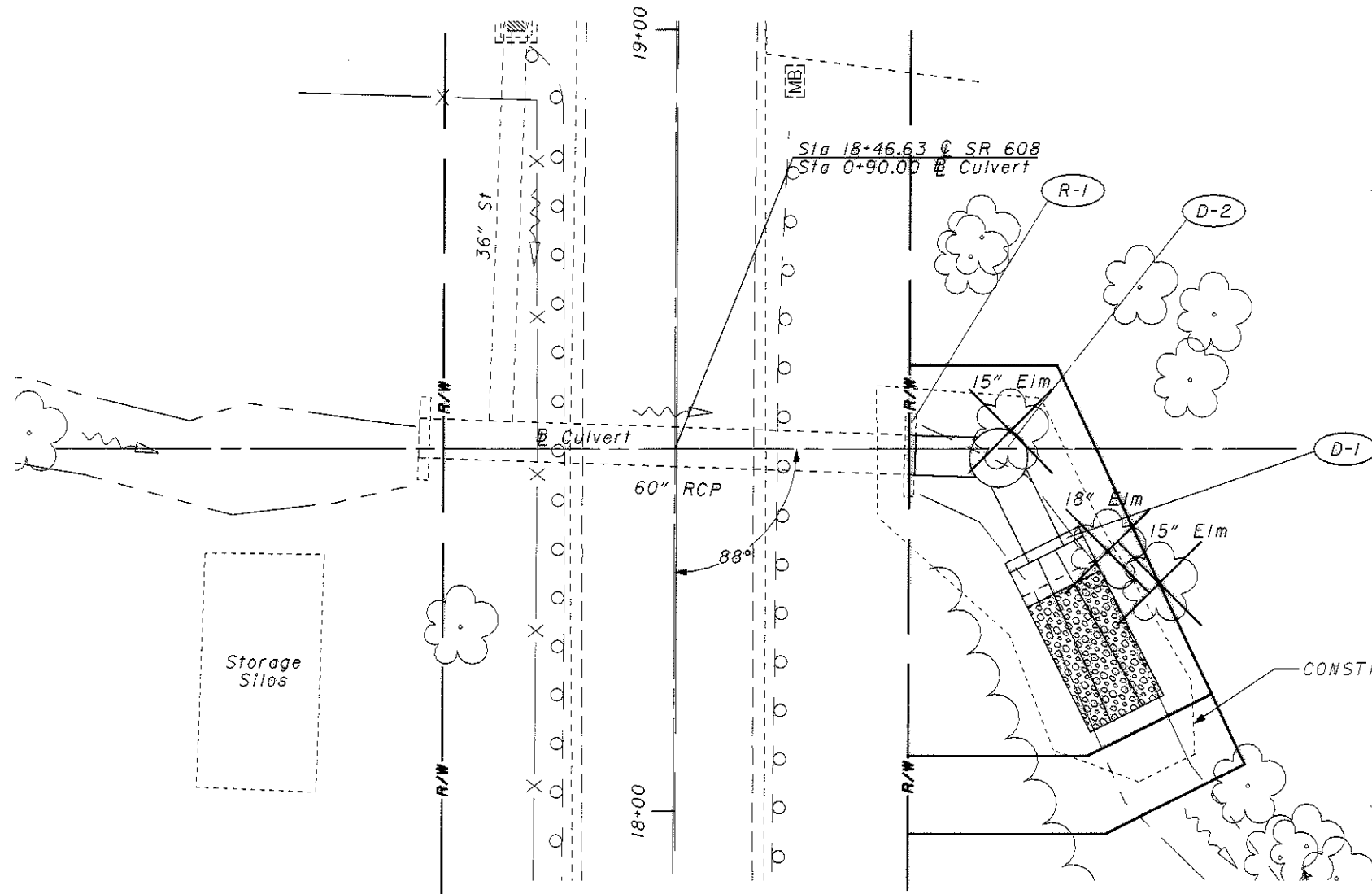
REINFORCING STEEL LIST  
GEA-608-376  
TARE CREEK

GEA-608-3.04/  
3.76/5.81/6.50

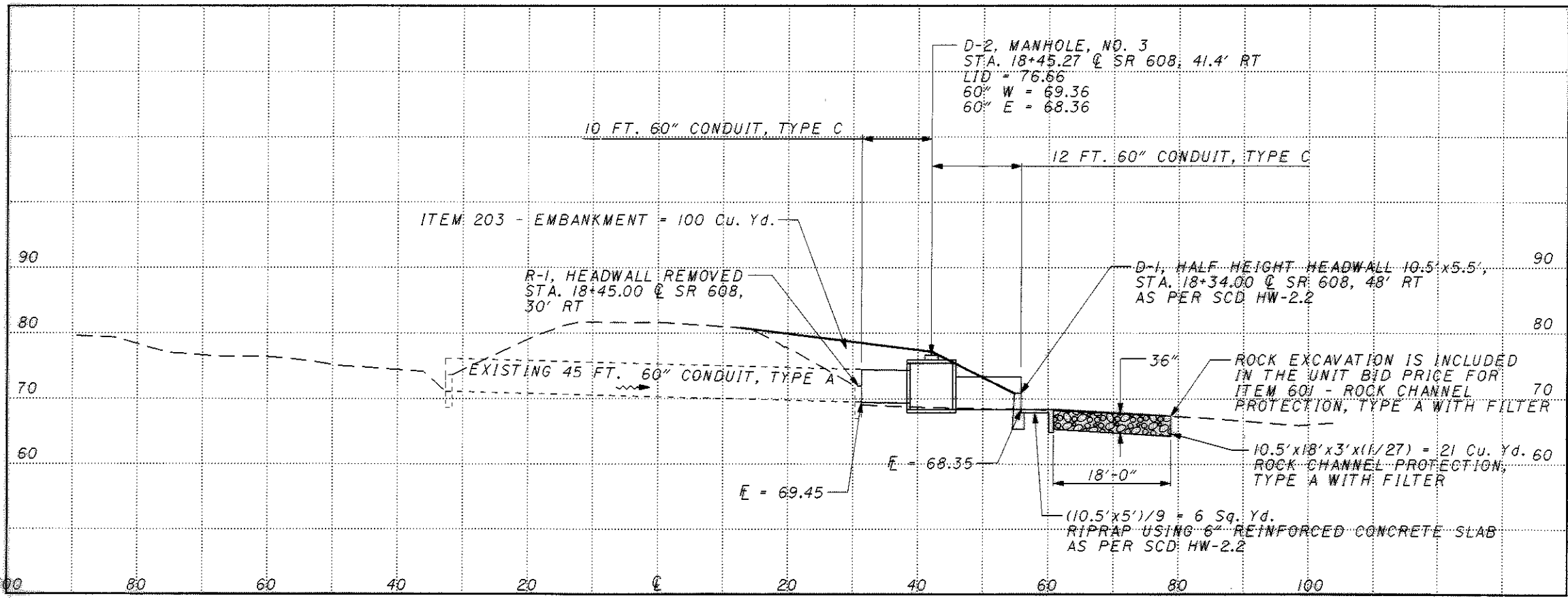
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41  
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Hydraulic Design Data:	
Drainage Area:	180 Acres
Q25:	190 cfs
HW25:	76.10
V25:	15.2 fps



REF NO.	STATION		SIDE	ITEM	UNIT	QUANTITY	TOTALS CARRIED TO GENERAL SUMMARY		
	FROM	TO							
D-1	18+34.00	48' RT		HEADWALL REMOVED	EACH	1			
D-2	18+45.27	41.4' RT		EMBANKMENT	CU. YD.	100			
R-1	18+45.00	30' RT		ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	CU. YD.	21			
				RIPRAP USING 6" REINFORCED CONCRETE SLAB	SO. YD.	6			
				CONCRETE MASONRY	CU. YD.	2.4			
				60" CONDUIT, TYPE C	FT.	12			
				MANHOLE, NO. 3	EACH	1			
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>									

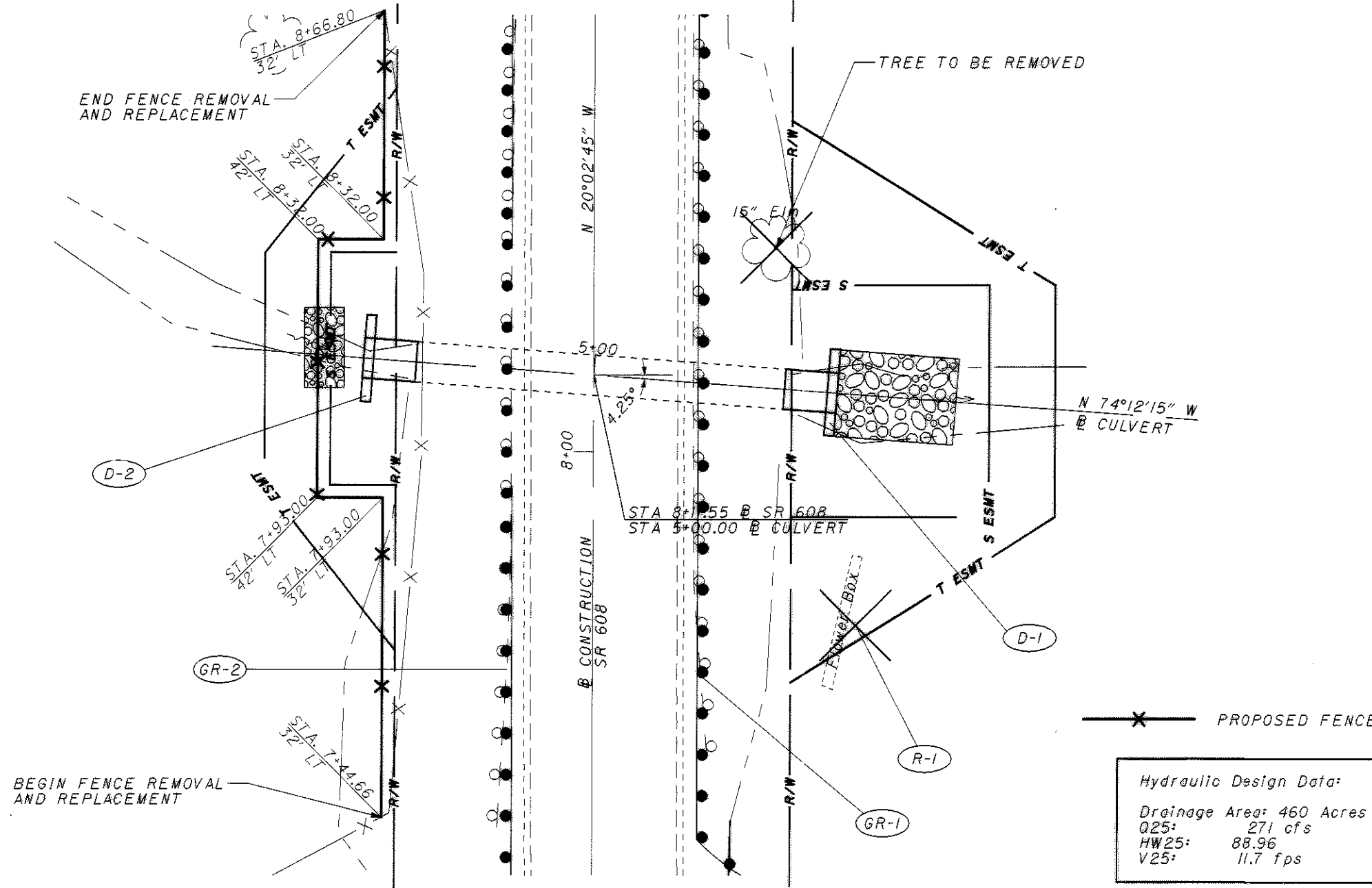
PROJECTS\F1d21809\dgn\608-0581.dgn 05-FEB-2004 10:14AM gnowac

**Culvert Detail at GEA-608-5.81**

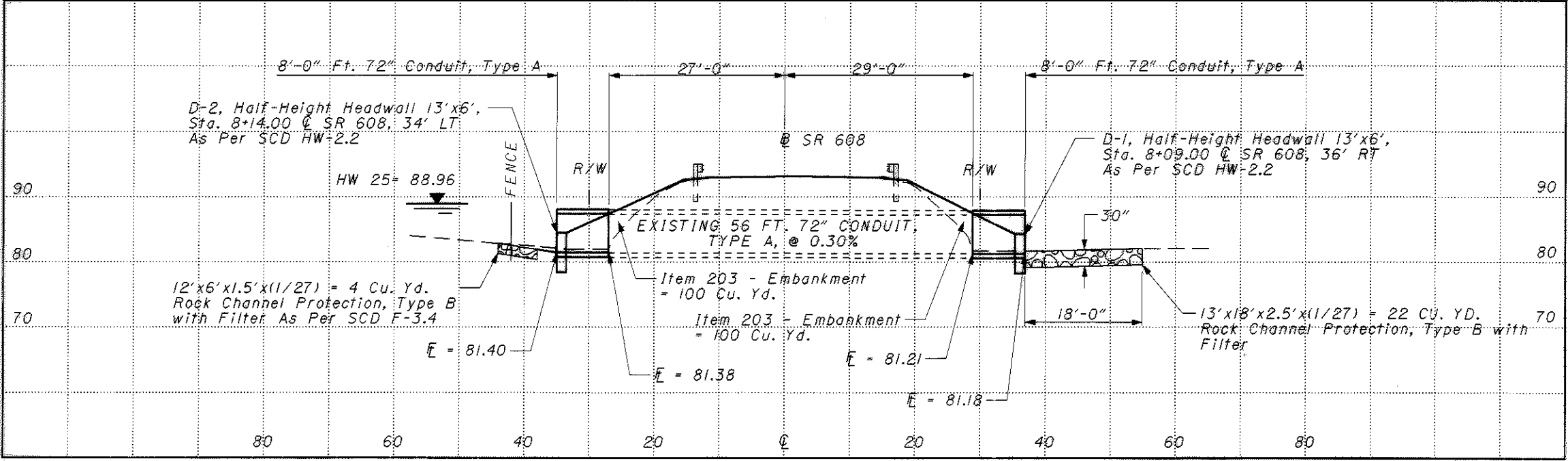
GEA-608-3.04/  
3.76 / 5.81 / 6.50

42  
55

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**Hydraulic Design Data:**  
 Drainage Area: 460 Acres  
 Q25: 271 cfs  
 HW25: 88.96  
 V25: 11.7 fps



REF NO.	STATION		SIDE	Guardrail Removed, As Per Plan	Removal Misc. Flower Box	Embankment	Rock Channel Protection, Type B with Filter	Concrete Masonry	72" Conduit, Type A	Guardrail, Type 5	Anchor Assembly, Type E-98	Barrier Reflector, Type A2	
	FROM	TO											
D-1	8+09.00	36'RT											
D-2	8+14.00	34'LT											
GR-1	7+33.00	9+79.00 RT								200	1	4	
GR-2	6+20.00	11+30.00 LT								412.5	2	6	
R-1	7+73.72	39'RT		1									
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				462.5		200	26	5.5	16	612.5	1	3	10

**GEA-608-3.04/**  
**3.76/5.81/6.50**

**Culvert Detail at GEA-608-6.50**

# PROJECT SITE PLAN

**SITE DESCRIPTION:**

THE WORK PROPOSED FOR THIS PROJECT INVOLVES REPLACING TWO (2) CULVERTS AT S.L.M. 3.04 AND S.L.M. 3.76. THIS PROJECT ALSO PROVIDES FOR THE IMPROVEMENT OF THE ENDS OF EXISTING CULVERTS AT S.L.M. 5.81 AND S.L.M. 6.50.

TOTAL AREA OF PROJECT = 1.5 ACRES

PROJECT EARTH DISTURBED AREA = 0.84 ACRES

ESTIMATED CONTRACTOR EARTH DISTURBED AREA = 0.62 ACRES

NOTICE OF INTENT EARTH DISTURBED AREA = 4.9 ACRES

**RUNOFF COEFFICIENT :**

PRE-CONSTRUCTION = 0.78

POST-CONSTRUCTION = 0.78

**ESTIMATE OF THE IMPERVIOUS AREA :**

PRE-CONSTRUCTION = 3,800 SQ. YDS.

POST-CONSTRUCTION = 3,800 SQ. YDS.

SOIL AND WATER CONSERVATION MAPS COVERING THE PROJECT : SOIL SURVEY OF GEAUGA COUNTY

LATITUDE AND LONGITUDE OF THE CENTER OF THE PROJECT = N 41°33'33" W 81°07'42"

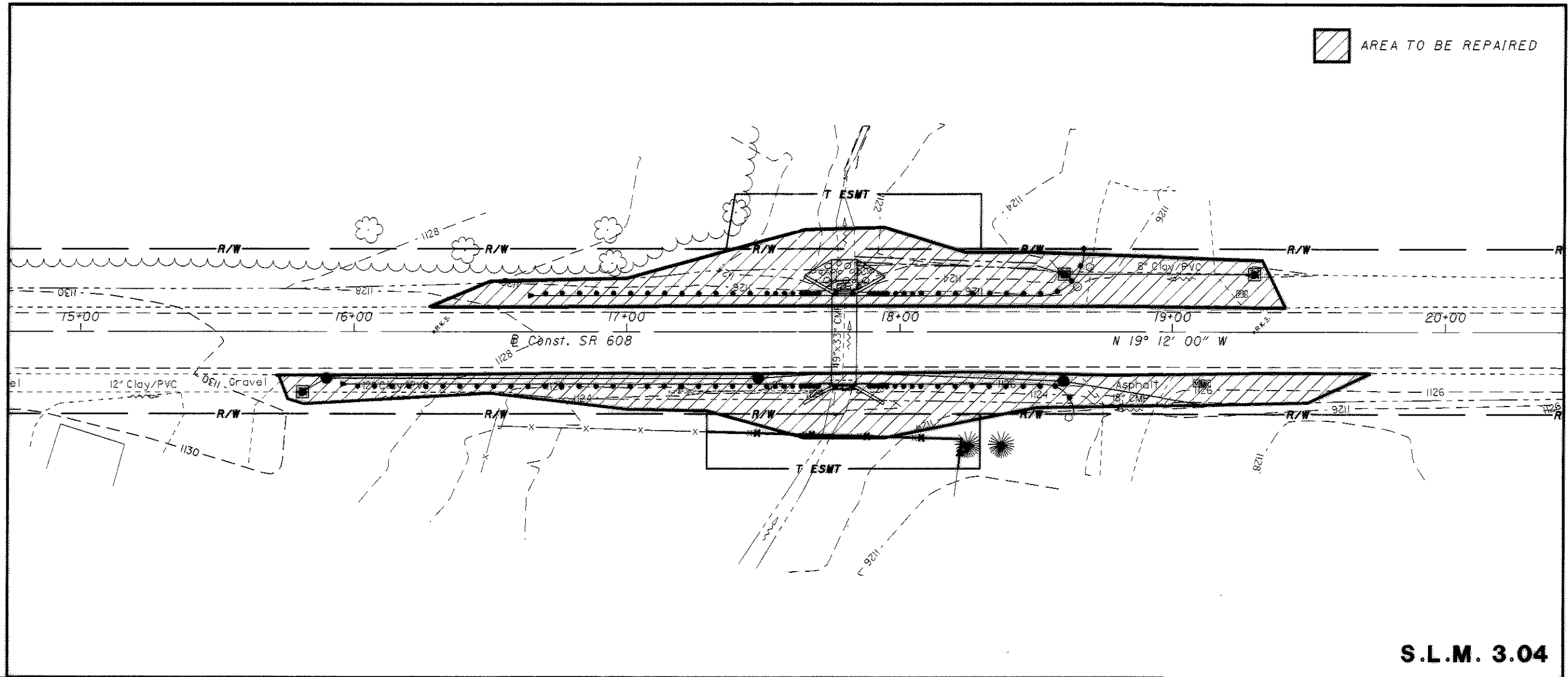
NAME AND NUMBER OF THE USGS 7.5 MINUTE QUADRANGLE MAP(S) THAT SHOW THE PROJECT AREA :


MIDDLEFIELD, OH  
539-05-NE

EAST CLARIDON, OH  
539-09-SE

RECEIVING WATERS ARE A REGULATED TOTAL MAXIMUM DAILY LOAD WATER BODY : NO

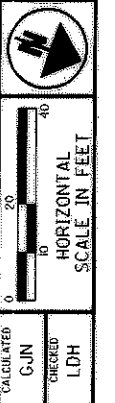
IMMEDIATE RECEIVING STREAMS : TARE CREEK (S.L.M. 3.76)



 AREA TO BE REPAIRED

**S.L.M. 3.04**

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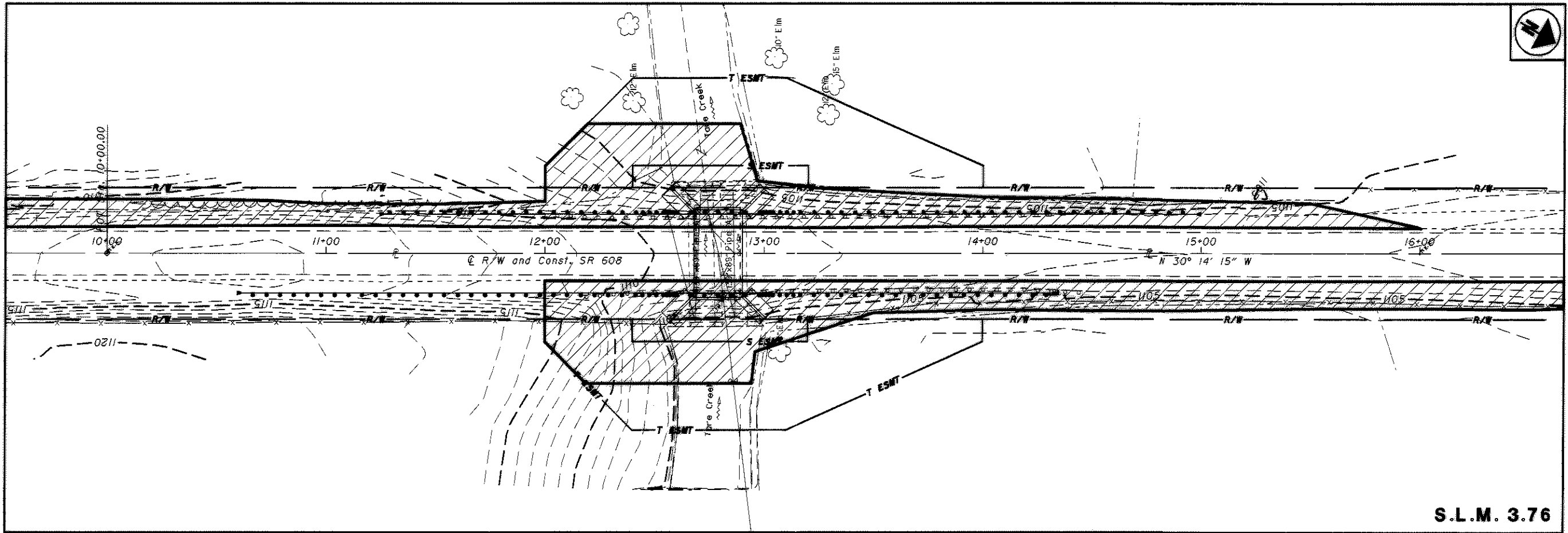
PROJECT SITE PLAN  
AREA 1

GEA-608-3.04/  
3.76/5.81/6.50

44  
55

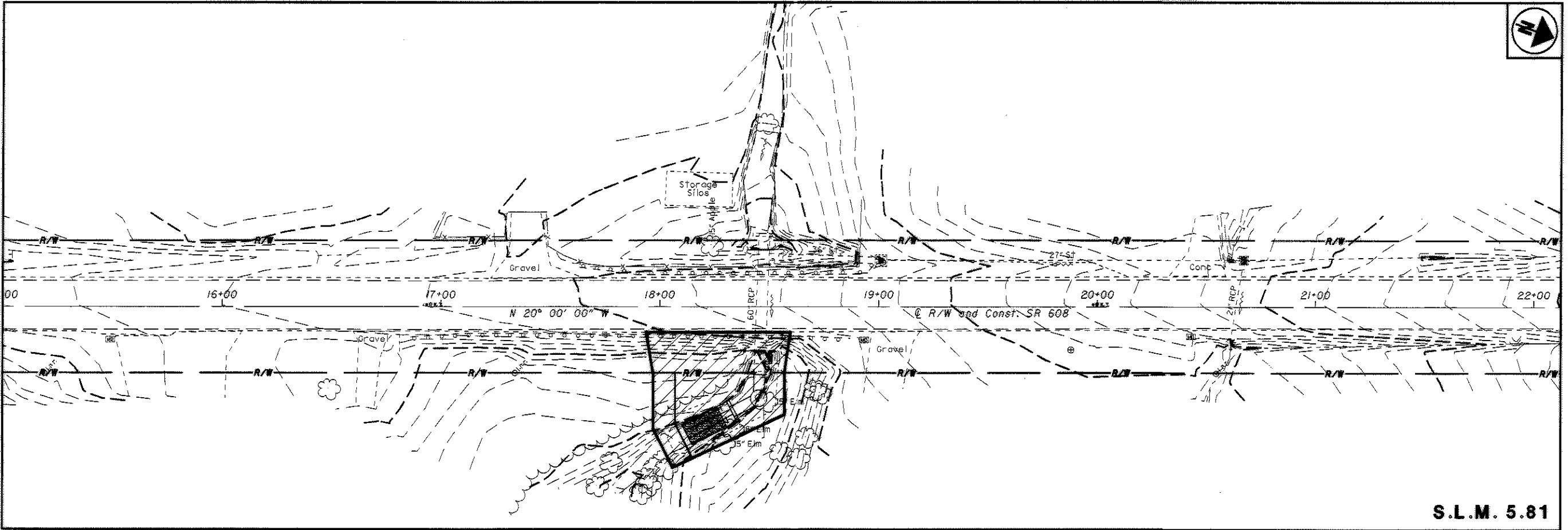


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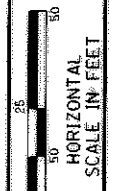


S.L.M. 3.76

AREA TO BE REPAIRED



S.L.M. 5.81



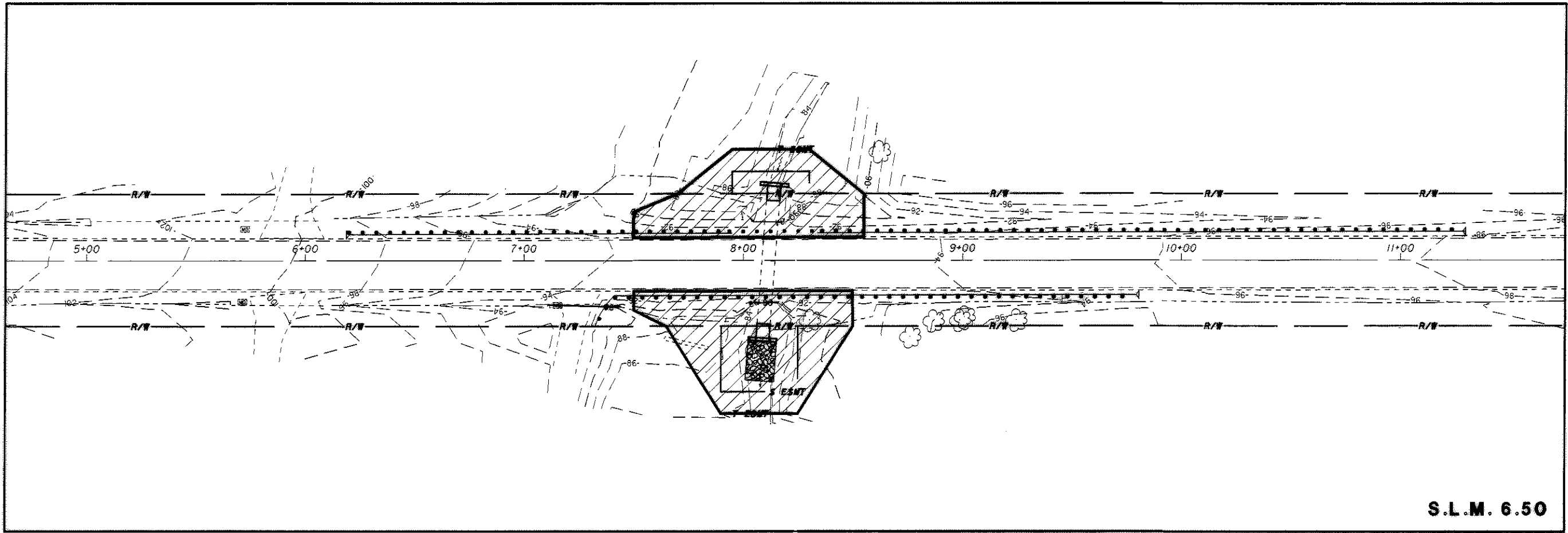
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G-JUN


PROJECT SITE PLAN  
AREA 2 AND 3

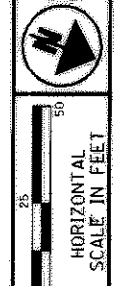
GEA-608-3.04/  
3.76/5.81/6.50

45  
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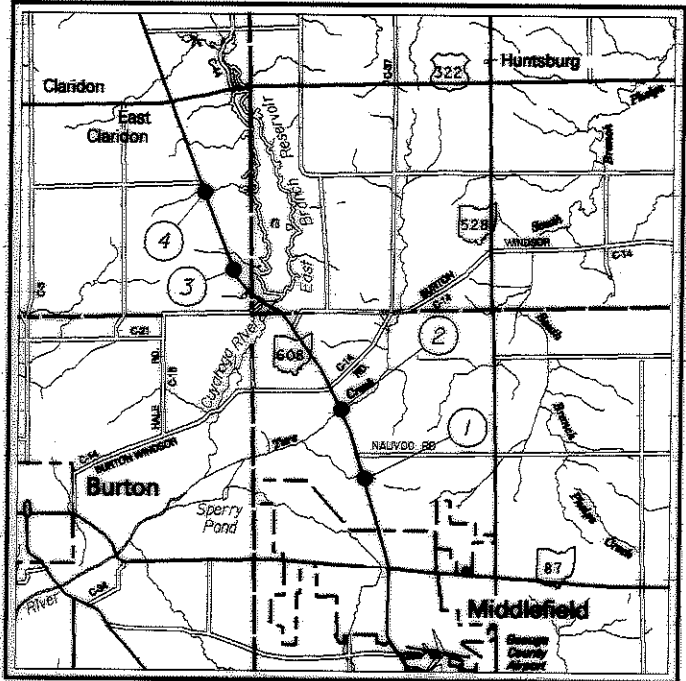
 AREA TO BE REPAIRED



CALCULATED	G.J.N
CHECKED	LDH

**PROJECT SITE PLAN  
AREA 4**

**GEA-608-3.04/  
3.76 / 5.81 / 6.50**



**LOCATION MAP**

Latitude: 41° 33' 33" Longitude: 81° 07' 42"



Portion To Be Improved	-----	=====
Interstate & Divided Highway	-----	=====
Undivided State & Federal Routes	-----	=====
Other Roads	-----	=====

**DESIGN DESIGNATION**

Current ADT (-----)	-----
Design Year ADT (-----)	-----
Design Hourly Volume (-----)	-----
Directional Distribution	-----
Trucks (24 Hour B&C)	-----
Design Speed	-----
Legal Speed	-----
Design Functional Classification--	-----

**DESIGN EXCEPTIONS**  
None Required

**UNDERGROUND UTILITIES**  
TWO WORKING DAYS  
**BEFORE YOU DIG**  
CALL 1-800-362-2764 (TOLL FREE)  
OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:  
Ohio Department of Transportation  
District 12 Production  
5500 Transportation Blvd  
Garfield Heights, OH 44125  
(216) 581-2333, x283

**STATE OF OHIO**  
**DEPARTMENT OF TRANSPORTATION**  
**GEA-608-3.04 / 3.76 / 5.81 / 6.50**

**Claridon Township**  
**Middlefield Township**  
**Geauga County**

- Work Locations:**
- ① GEA-608-3.04
  - ② GEA-608-3.76
  - ③ GEA-608-5.81
  - ④ GEA-608-6.50

**Index of Sheets:**

Title Sheet	1
Culvert GEA-608-3.04:	
Property Map	2
Right of Way Detail	3
Culvert GEA-608-3.76:	
Property Map	4
Right of Way Detail	5
Culvert GEA-608-5.81:	
Property Map	6
Right of Way Detail	7
Culvert GEA-608-6.50:	
Property Map	8
Right of Way Detail	9

**CONVENTIONAL SIGNS**

County Line	-----
Township Line	-----
Section Line	-----
Corporation Line	----- or -----
Fence Line (existing)	----- (proposed)
Center Line	-----
Trees, Stumps (to be removed)	-----
Utility Poles: Telephone, Power, Light	-----
Right of Way (only)	----- R/W
Standard Highway Ease.	----- SH
Temp. Right of Way	----- T
Exist. Right of Way	----- Ex R/W
Exist. Stand. High. Ease.	----- Ex SH
Exist. Channel Ease.	----- Ex CH
Exist. Utility Ease.	----- Ex U
Property Line	----- (in existing fence) -----
Railroad	----- or -----
Guardrail (existing)	----- (proposed)
Construction Limits	----- Construction Limits


**MONUMENT LEGEND**

■	EXISTING R/W MONUMENT BOX
■	PROPOSED R/W MONUMENT BOX
⊙	EXISTING CONCRETE MONUMENT
●	PROPOSED CONCRETE MONUMENT
⚡	RAILROAD SPIKE FOUND
⚡	RAILROAD SPIKE SET
⊙	IRON PIN FOUND
⊙	IRON PIN FOUND W/ ID CAP
⊙	IRON PIN SET W/ ID CAP
⊙	IRON PIPE FOUND
⊙	IRON PIPE SET
⊙	P.K. NAIL FOUND
⊙	P.K. NAIL SET

**PROJECT DESCRIPTION**  
This project provides for the improvement of SR 608 by replacing 2 culverts at SLM's 3.04 and 3.76. This project also provides for the improvement of the ends of existing culverts at SLM's 5.81 and 6.50.

**2002 SPECIFICATIONS**  
The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

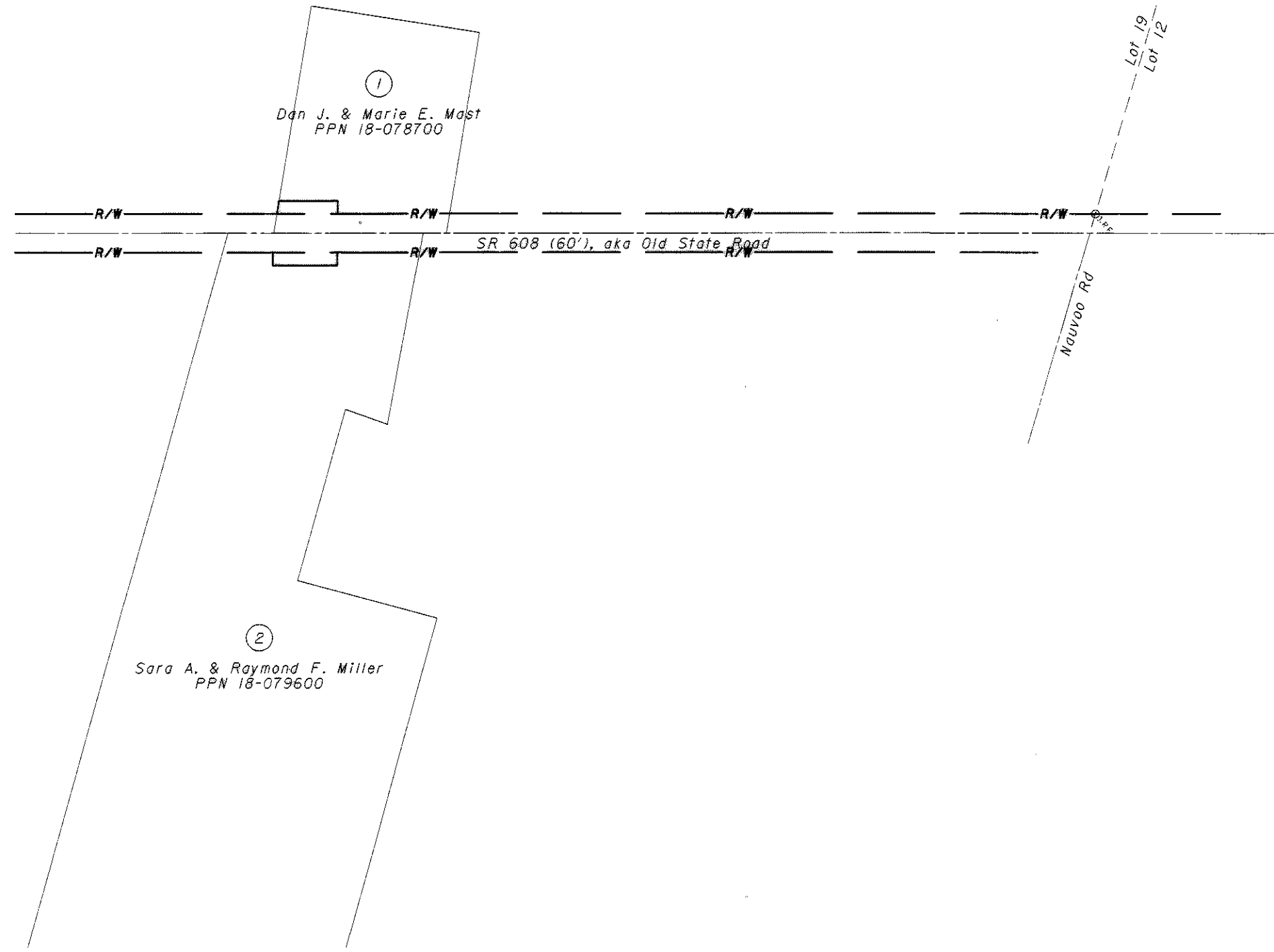
I hereby approve these plans and declare that the making of this improvement will require part time closing of the highway to traffic, as noted in the plans, during which time detours will be provided as shown herein. Provisions for the maintenance and safety of traffic will be as set forth in the plans and estimates.

Approved:   
Date: 1/22/2004 District Deputy Director  
Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Director, Department of Transportation

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Federal Project No.	Non-Federal	Construction Project No.	21809	Railroad Involvement	None
GEA-608-3.04 / 3.76 / 5.81 / 6.50					
1/9					
47					
55					

**GEA-608-3.04/ 3.76/ 5.81/ 6.50**  
**Middlefield Township**  
**Geauga County**  
**Lot 19**



**UNDERGROUND UTILITIES**  
 TWO WORKING DAYS  
**BEFORE YOU DIG**  
 CALL 1-800-362-2764 (TOLL FREE)  
 OHIO UTILITIES PROTECTION SERVICE  
 NON-MEMBERS  
 MUST BE CALLED DIRECTLY

**UTILITY OWNERSHIP:**

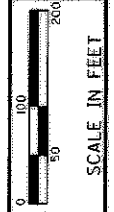
DOMINION EAST OHIO  
 ATTN: MARGARET BEVEL JETER  
 1201 EAST 55th STREET  
 CLEVELAND, OH 44103  
 (216) 736-6831

WESTERN RESERVE TELEPHONE  
 ALTEL COMM.  
 ATTN: JON HOBBY  
 205 S. HAMBDEN STREET  
 CHARDON, OH 44024  
 (440) 285-5474

VILLAGE OF MIDDLEFIELD  
 ATTN: CHARLES EHRHART  
 14860 N. STATE STREET  
 MIDDLEFIELD, OH 44062  
 (440) 632-5248

BRAINARD GAS CORP.  
 ATTN: ED BONK  
 4369 BRAINARD ROAD  
 ORANGE VALLEY, OH 44022  
 (216) 292-5353

THE LOCATION OF THE UNDERGROUND UTILITIES  
 SHOWN ON THE PLANS ARE OBTAINED FROM THE  
 OWNER OF THE UTILITIES AS REQUIRED BY  
 SECTION 153.64 O.R.C.



PID NO.  
**21809**

BY DESIGNER  
**BMB**  
 BY REVIEWER  
**TMS**

**PROPERTY MAP SLM 3.04**

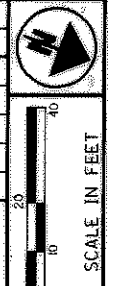
**GEA-608-3.04/  
 3.76/ 5.81/ 6.50**

2 / 9

48  
 55

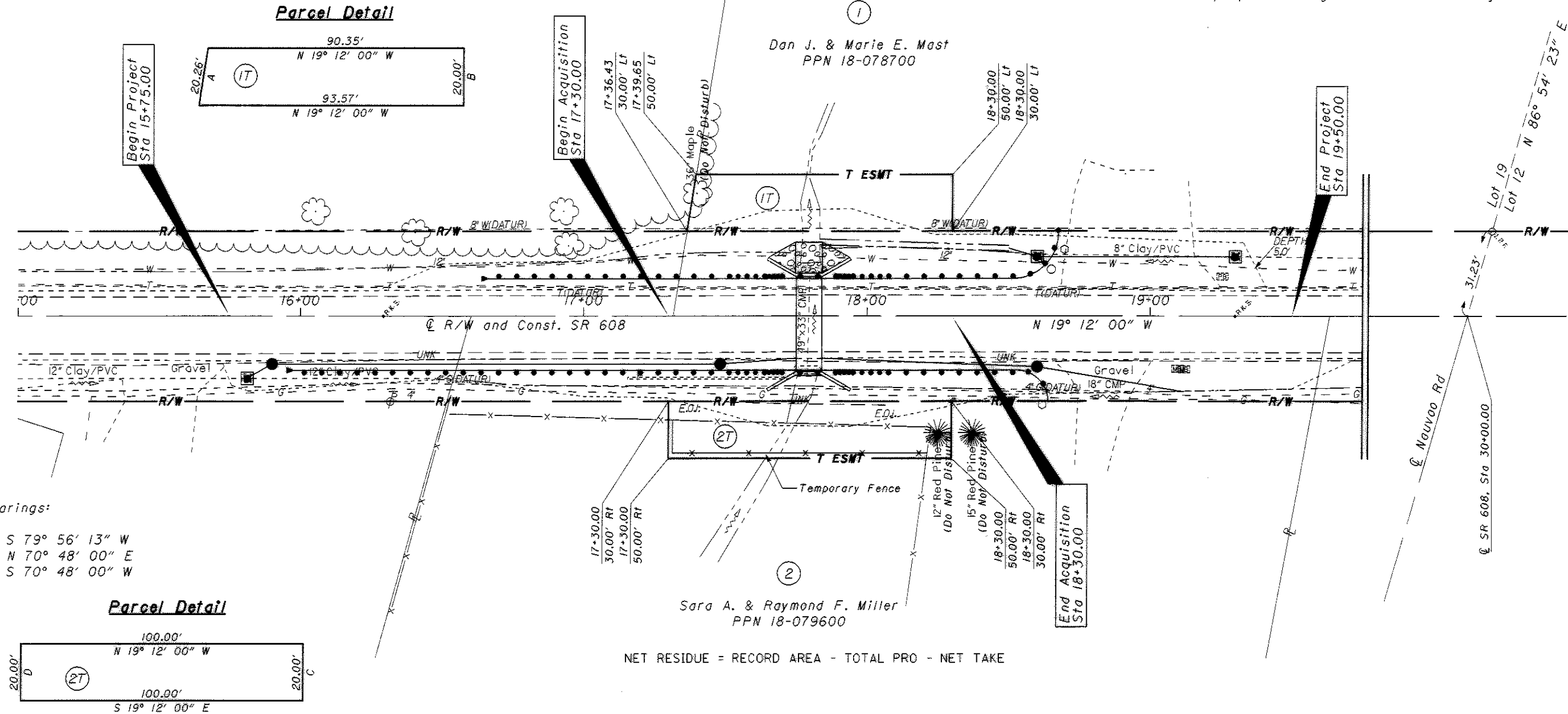
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Plan Completed: 3-7-03		
Rev	Date	Description
1	4-18-03	Revised Ownership Parcel 1.
2	4-18-03	Revised Owners' Record Parcel 2.



**Geauga County, Middlefield Township  
Lot 19**

The basis of bearing in this description are based on an assumed meridian and are for the purpose of angular measurement only.



Bearings:  
 A- S 79° 56' 13" W  
 B- N 70° 48' 00" E  
 C- S 70° 48' 00" W

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC- TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
			BOOK	PAGE								LEFT	RIGHT			BOOK	PAGE
1	Eli Ed Troyer & Mary Ann Troyer Dan J. & Marie E. Mast		1056	0031	18-078700	2.05									Culvert Replacement		
IT							0.042			0.042							
2	Sara A. & Raymond F. Miller		820	56	18-079600	20.89									Culvert Replacement		
2T			1117	0752			0.046			0.046							

PID NO. **21809**

P/W DESIGNER: BMB  
 P/W REVIEWER: TMS

Right of Way Plan, SLM 3.04

GEA-608-3.04/  
 3.76 / 5.81 / 6.50

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**GEA-608-3.04 / 3.76 / 5.81 / 6.50**  
**Middlefield Township**  
**Geauga County**  
**Lot 11**



PID NO.  
**21809**

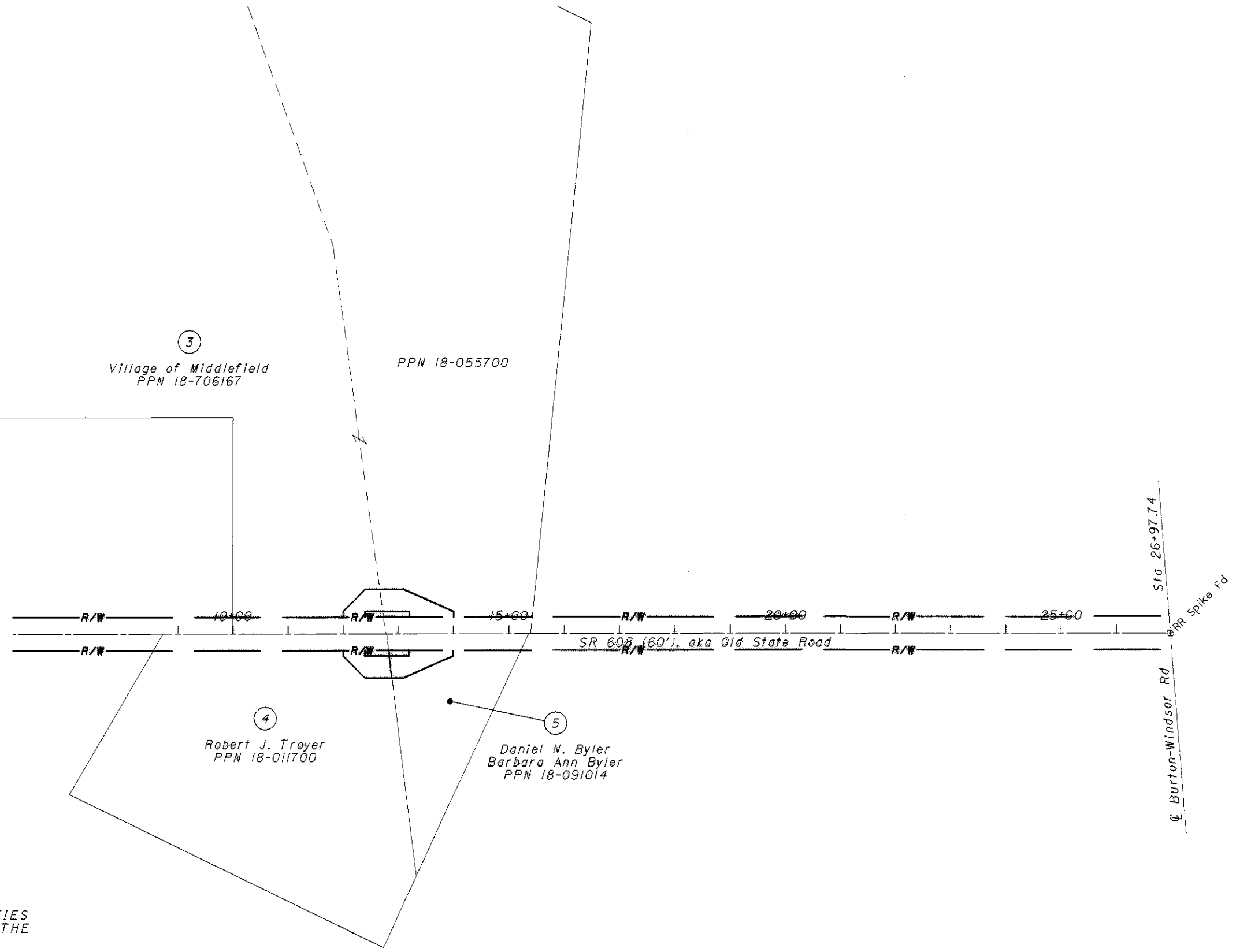
BY DESIGNER  
BMB  
BY REVIEWER  
TMS

**PROPERTY MAP SLM 3.76**

**GEA-608-3.04 / 3.76 / 5.81 / 6.50**

4 / 9

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**UNDERGROUND UTILITIES**  
TWO WORKING DAYS  
**BEFORE YOU DIG**  
CALL 1-800-362-2764 (TOLL FREE)  
OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

**UTILITY OWNERSHIP:**  
**WESTERN RESERVE TELE.**  
ATTN: JOHN HOBBY  
205 SOUTH HAMBDEN ST.  
CHARDON, OH 44024  
(440) 285-5468  
**POWER GAS MARKETING & TRANSMISSION**  
ATTN: JOHN FIRKO  
3010 STATE ROUTE 88  
GARRETTSVILLE, OH 44231  
(330) 527-5630

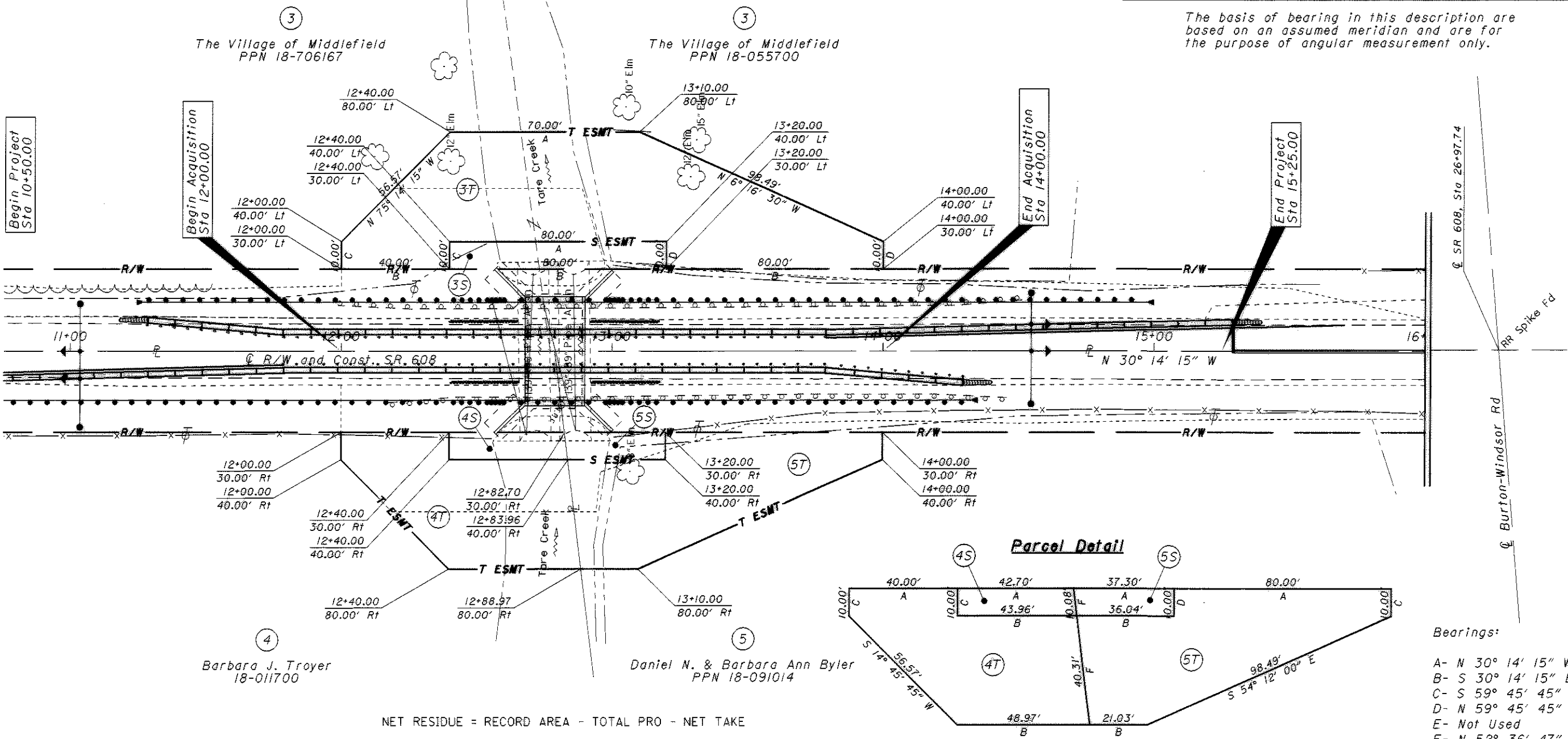
THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.

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Geauga County, Middlefield Township  
Lot 11

Plan Completed: 3-7-03		
Rev	Date	Description
1	4-18-03	Revised Ownership Parcel 4.

The basis of bearing in this description are based on an assumed meridian and are for the purpose of angular measurement only.



NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S RECORD PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
			BOOK	PAGE								LEFT	RIGHT			BOOK	PAGE
3	The Village of Middlefield		1180	0412	18-055700	12.50									Culvert Replacement		
			0400	0289	18-706167	19.54											
3S								0.018		0.018					18-706167 (0.008 Ac), 18-055700 (0.010 Ac)		
3T								0.152		0.152					18-706167 (0.054 Ac), 18-055700 (0.098 Ac)		
4	Robert J. Troyer		1497	0485	18-011700	5.39									Culvert Replacement		
4S								0.010		0.010							
4T								0.070		0.070							
5	Daniel N. & Barbara Ann Byler		1245	0533	18-091014	1.29									Culvert Replacement		
5S								0.008		0.008							
5T								0.081		0.081							

- Bearings:
- A- N 30° 14' 15" W
  - B- S 30° 14' 15" E
  - C- S 59° 45' 45" W
  - D- N 59° 45' 45" E
  - E- Not Used
  - F- N 52° 36' 47" E

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Right of Way Plan, SLM 3.76

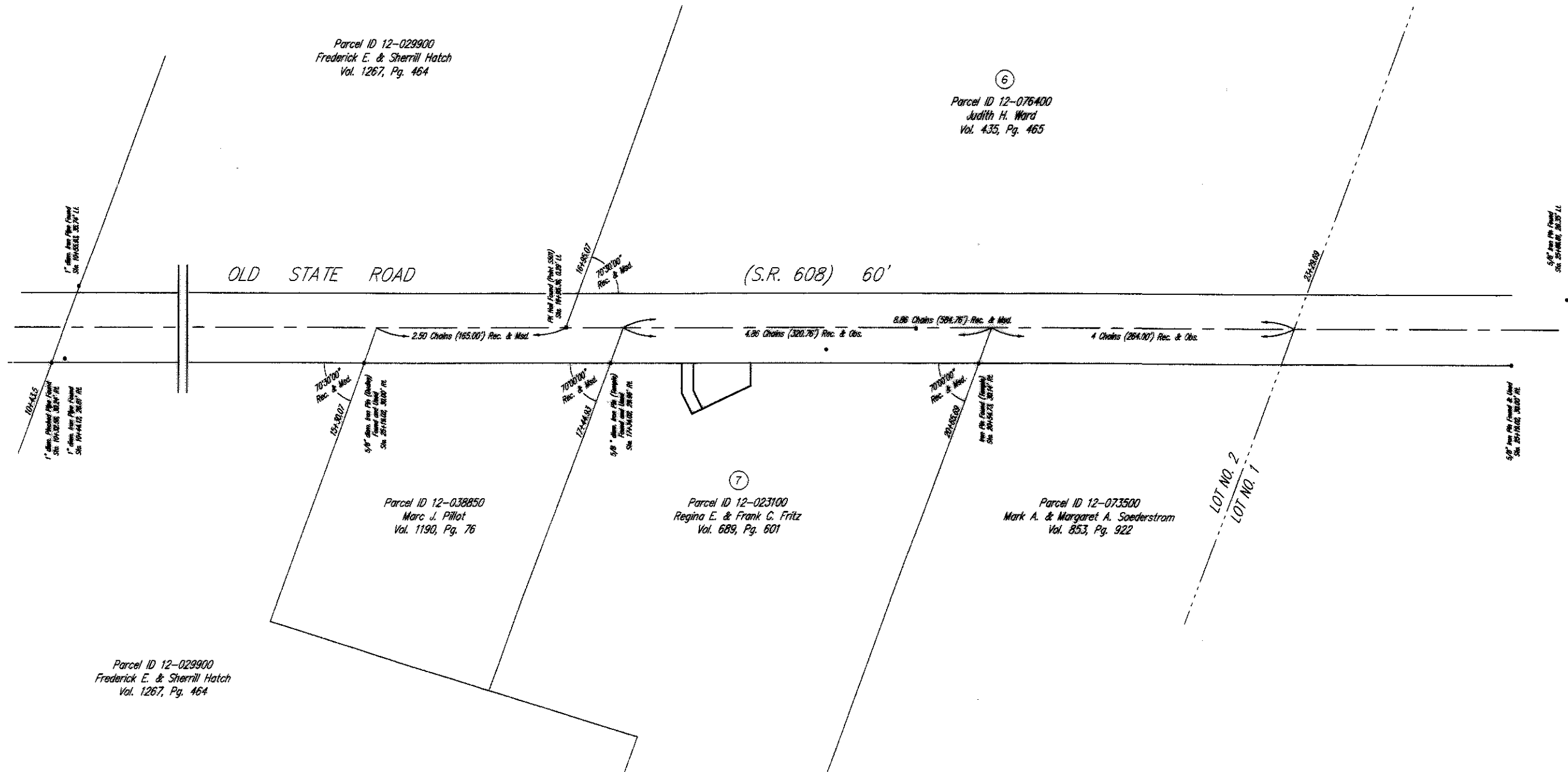
GEA-608-3.04/  
3.76/5.81/6.50

5 / 9

51  
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PID NO. 21809  
 BMB R/W DESIGNER  
 TMS R/W REVIEWER

**GEA-608-3.04 / 3.76 / 5.81 / 6.50**  
**Claridon Township**  
**Geauga County**  
**Lot 2, Section 15**



Parcel ID 12-029900  
 Frederick E. & Sherrill Hatch  
 Vol. 1267, Pg. 464

Parcel ID 12-076400  
 Judith H. Ward  
 Vol. 435, Pg. 465

Parcel ID 12-038850  
 Marc J. Pilot  
 Vol. 1190, Pg. 76

Parcel ID 12-023100  
 Regina E. & Frank C. Fritz  
 Vol. 689, Pg. 601

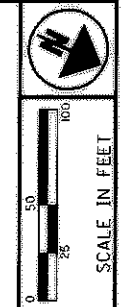
Parcel ID 12-073500  
 Mark A. & Margaret A. Soederstrom  
 Vol. 853, Pg. 922

Parcel ID 12-029900  
 Frederick E. & Sherrill Hatch  
 Vol. 1267, Pg. 464

OLD STATE ROAD

(S.R. 608) 60'

LOT NO. 2  
 LOT NO. 1



PID NO. **21809**  
 E/M DESIGNER: BMB  
 E/M REVIEWER: TMS

**PROPERTY MAP SLM 5.81**

**GEA-608-3.04 / 3.76 / 5.81 / 6.50**  
 6/9  
 52/55

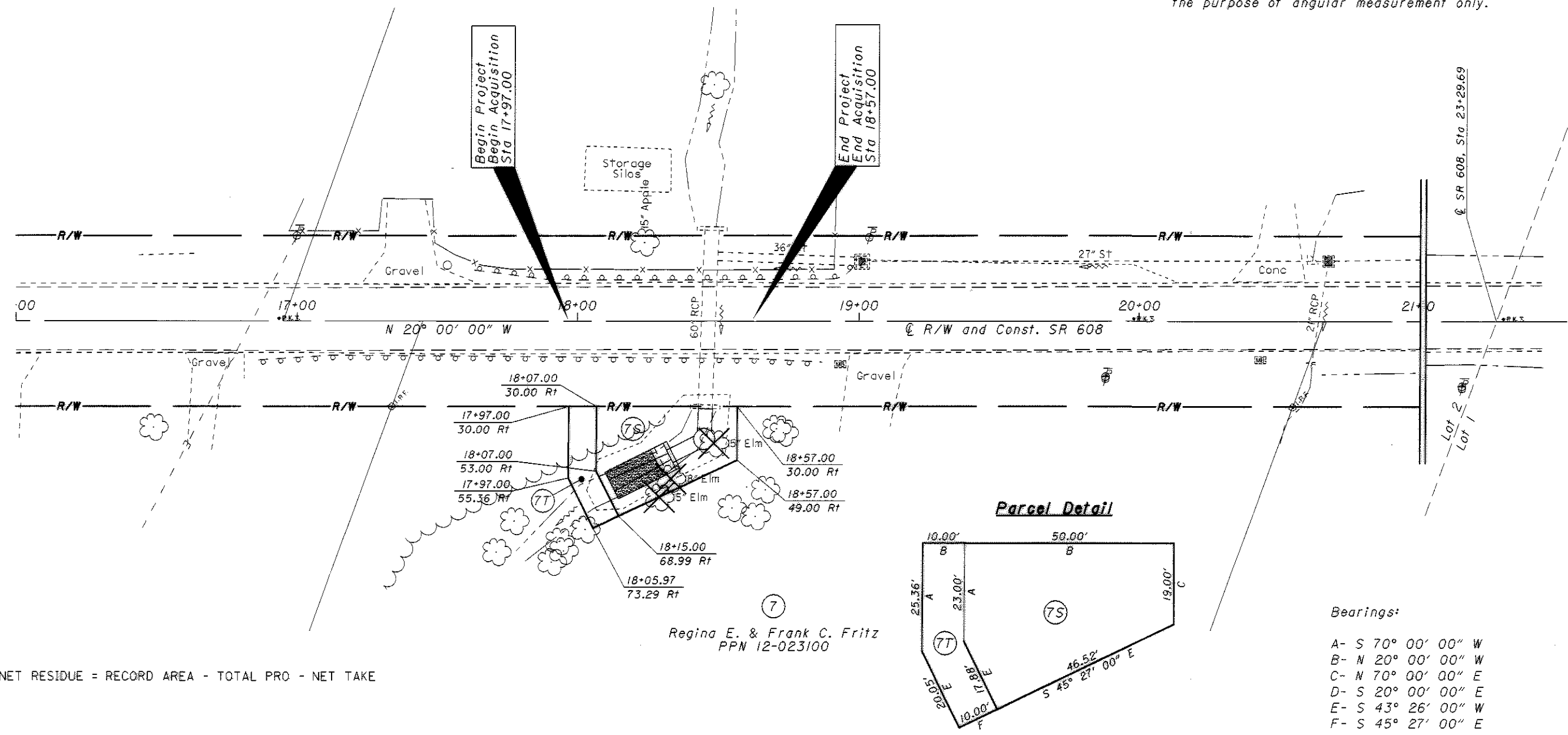
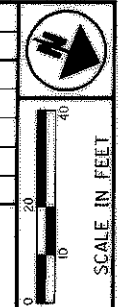
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Geauga County, Claridon Township  
Lot 2, Section 15

Plan Completed: 3-7-03		
Rev	Date	Description
1	4-18-03	Revised Ownership Parcel 7.
2	4-18-03	Revised Owners Record Parcel 7.
3	5-5-03	Parcel 6S Deleted.

The basis of bearing in this description are based on an assumed meridian and are for the purpose of angular measurement only.



NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
			BOOK	PAGE								LEFT	RIGHT			BOOK	PAGE
6	Not Used																
7	Regina E. Fritz, Marlene M. Moizuk, Thomas C. Fritz, Adrienne Fritz, & David Fritz		689	601	12-023100	3.29									Culvert Extension		
			1544	1207													
			1544	1204													
			237	107													
7S								0.034		0.034							
7T								0.010		0.010							

PID NO. 21809

BMB TMS

Right of Way Plan, SLM 5.81

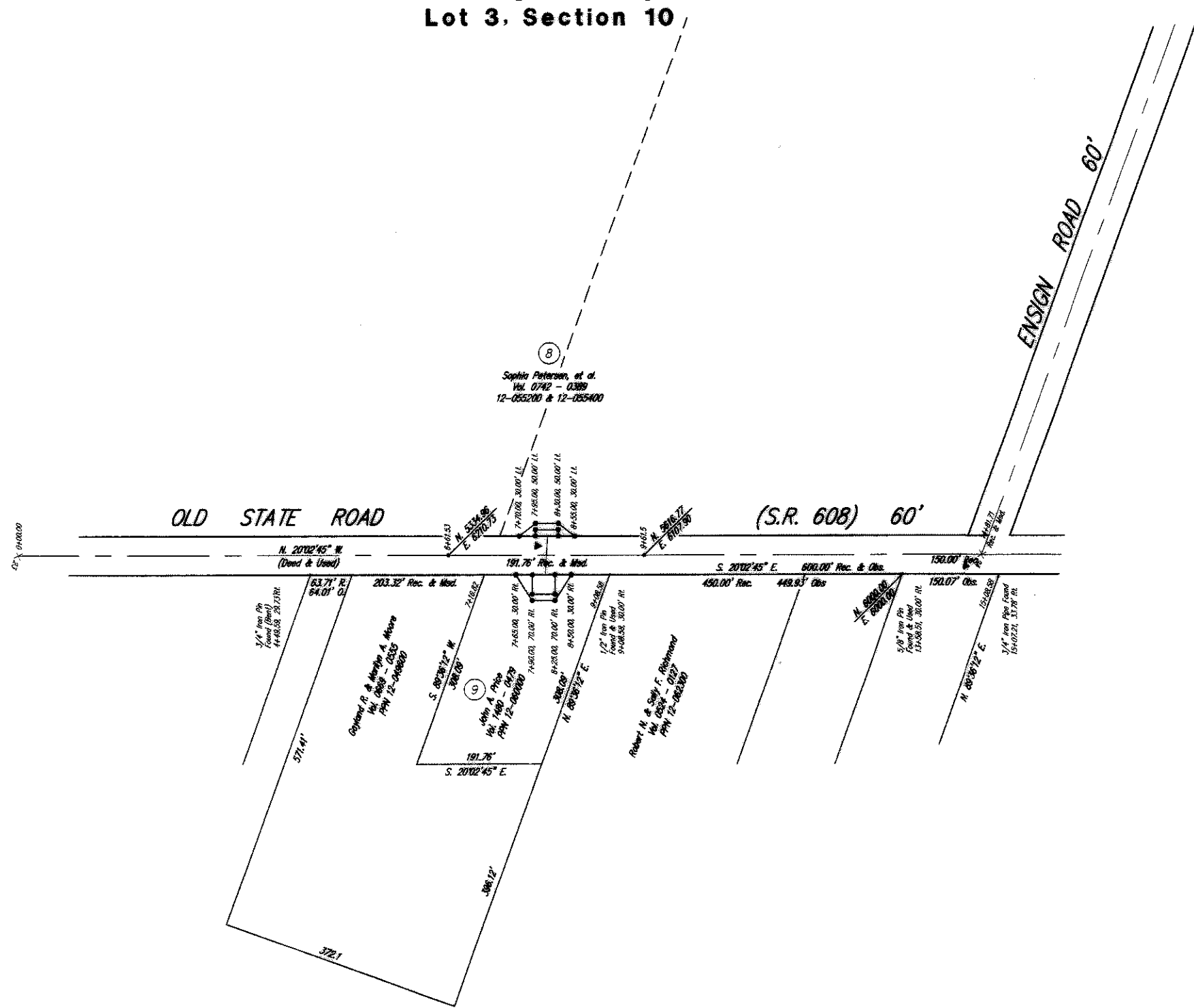
GEA-608-3.04/  
3.76/5.81/6.50

7 / 9

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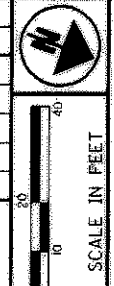
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GEA-608-3.04/ 3.76/ 5.81/ 6.50  
Claridon Township  
Geauga County  
Lot 3, Section 10



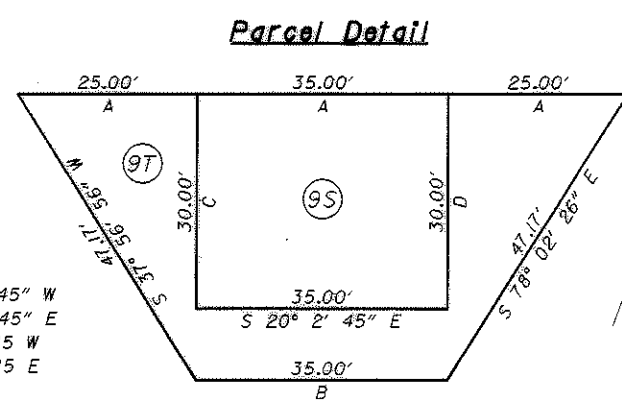
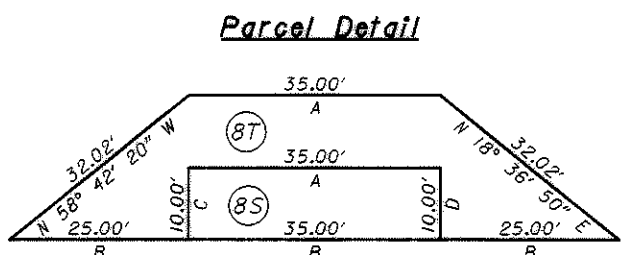
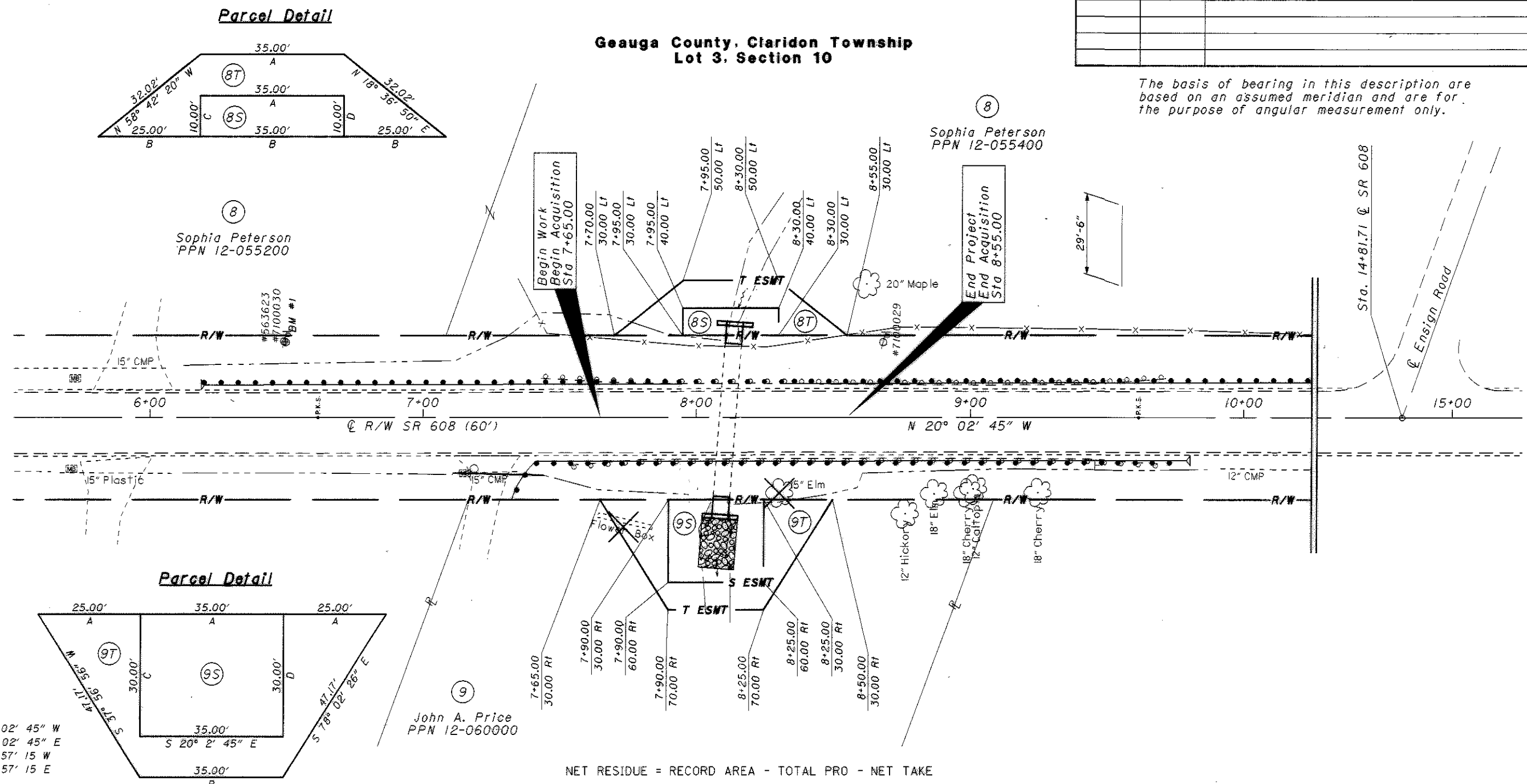
	 SCALE IN FEET
	PID NO. <b>21809</b>
E/M DESIGNER <b>BMB</b>	<b>PROPERTY MAP SLM 6.50</b>
E/M REVIEWER <b>TMS</b>	
8 / 9	<b>GEA-608-3.04/ 3.76/ 5.81/ 6.50</b>

Plan Completed: 3-7-03		
Rev	Date	Description



**Geauga County, Claridon Township  
Lot 3, Section 10**

The basis of bearing in this description are based on an assumed meridian and are for the purpose of angular measurement only.



**Bearings:**  
 A- N 20° 02' 45" W  
 B- S 20° 02' 45" E  
 C- S 69° 57' 15" W  
 D- N 69° 57' 15" E

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S RECORD PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
			BOOK	PAGE								LEFT	RIGHT			BOOK	PAGE
8	Sophia Petersen, 33.3% Int. Dorothy Hall, 13.34% Int. Peggy Dinallo, 13.34% Int. Betty Lou Balzer, 13.34% Int. Paul I. Peterson, 13.34% Int. Kenneth R. Petersen, 13.34% Int.		742	389	12-055200										Culvert Extension		
8S							0.008			0.008					12-055200 (0.000 Ac), 12-055400 (0.008)		
8T							0.020			0.020					12-055200 (0.000 Ac), 12-055400 (0.020)		
9	John A. Price		1480	0479	12-060000	1.28									Culvert Extension		
			1405	364													
			864	684													
			377	433													
9S							0.024			0.024							
9T							0.031			0.031							

PID NO. 21809

R/W DESIGNER BMB  
 R/W REVIEWER TMS

**Right of Way Plan, SLM 6.50**

**GEA-608-3.04/  
3.76 / 5.81 / 6.50**

9 / 9

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55

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