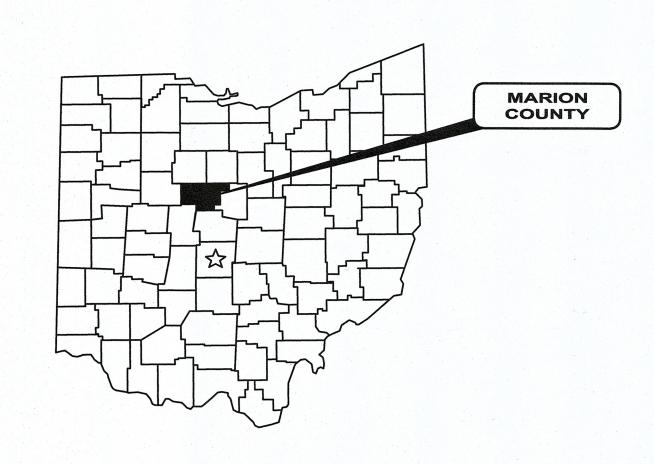
# VILLAGE OF WALDO, OHIO

# MARION STREET BRIDGE AND RETAINING WALL REPLACEMENT AND IMPROVEMENTS

MARION COUNTY, OHIO



INDEX OF SHEETS				
SHEET TITLE:	SHEET NUMBER			
TITLE SHEET	1			
NOTES 1	2			
NOTES 2	3			
DETAILS	4			
PLAN AND PROFILE	5			
SITE PLAN	6			
CULVERT DETAILS	C1-C6			



# **UNDERGROUND UTILITIES CONTACT BOTH SERVICES**

CALL TWO WORKING DAYS **BEFORE YOU DIG** 

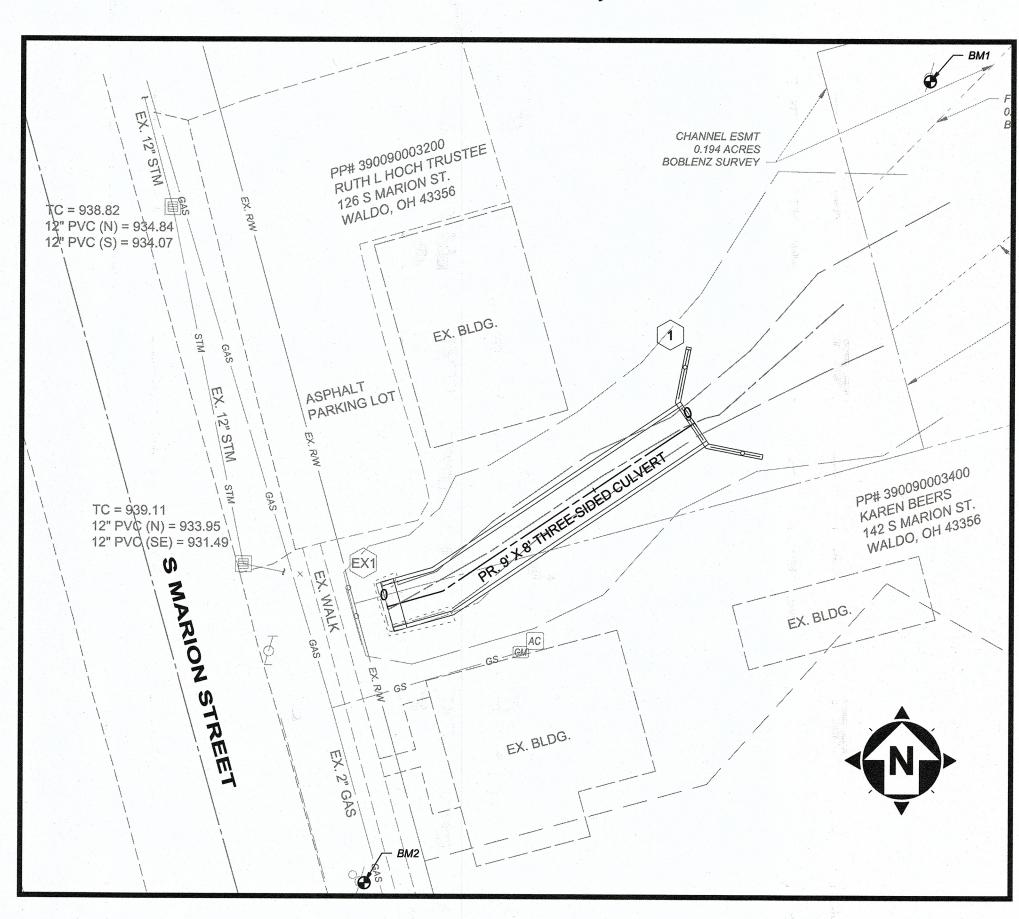
1-800-362-2764 (TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE **NON-MEMBERS** MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988

- 1. THE SURVEY SHOWN ON THESE PLANS WAS OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY AND MAY NOT BE SUITABLE FOR PROPERTY LINE SURVEYS OR ANY OTHER
- 2. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
- 3. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

# DECEMBER, 2019



# **LOCATION MAP**

LIST OF STANDARD DRAWINGS THE STANDARD DRAWINGS ON THESE PLANS SHALL BE CONSIDERED A PART THEREOF.



**ENGINEER'S PROJECT No. 190749** 

# **VILLAGE OFFICIALS**

#### **ADMINISTRATION**

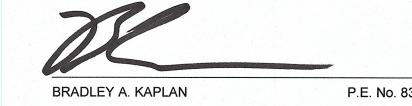
.MAYOR .CLERK/TREASURER

# COUNCIL

RYAN A. MITCHELL	COUNCIL MEMBE
WILLIAM C. GROLL	COUNCIL MEMBE
REX G. HENRY	COUNCIL MEMBE
JIM D. CELLAR	COUNCIL MEMBE
KEVIN C. EMIGH	COUNCIL MEMBE
DOUGLAS A. PARKS	COUNCIL MEMBE

VILLAGE OF WALDO

DATE







NO.	DESCRIPTION	ELEV
BM1	SPIKE IN WEST SIDE OF ELECTRIC POLE ON NORTHWEST SIDE OF EMBANKMENT BEHIND 126 NORTH MARION STREET NORTHING: 289114.319 EASTING: 1808107.441	933.89
BM2	SPIKE IN EAST SIDE OF ELECTRIC POLE ON EAST SIDE OF MARION STREET IN FRONT OF 141 NORTH MARION STREET NORTHING: 288946.201 EASTING: 1807990.036	942.10



ALL CONTRACT SPECIFICATIONS ACCOMPANYING THESE PLANS ARE TO BE CONSIDERED A PORT THEREOF. APPROVAL OF THESE PLANS SHALL BE IN ACCORDANCE WITH THE VILLAGE OF WALDO, AND ALL WORK TO BE COMPLETELY ACCEPTABLE TO THE VILLAGE OF WALDO OFFICIALS. ANY MODIFICATION TO THE WORK SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE VILLAGE OF WALDO.

THE VILLAGE OF WALDO RESERVES THE RIGHT TO DIRECT PROJECT SPECIFIC CHANGES TO ANY VILLAGE CONSTRUCTION NOTE AND SPECIFICATION.

#### 2. SITE VISIT

THE CONTRACTOR IS STRONGLY ENCOURAGED TO VISIT THE SITE AND BECOME FULLY INFORMED REGARDING ALL CONDITIONS AFFECTING THE SCOPE OF THE WORK. FAILURE TO VISIT THE SITE SHALL NOT RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY IN THE PERFORMANCE OF THIS CONTRACT. IT IS RECOMMENDED THAT THE CONTRACTOR VISIT THE SITE AND VERIFY THE EXTENT OF THE WORK TO BE PERFORMED PRIOR TO MAKING HIS BID. THIS IS ESPECIALLY TRUE WITH REGARD TO ANY REMOVAL ITEMS.

#### BENCH MARKS

THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL BENCH MARKS, PROPERTY LINE REFERENCES (E.G., PINS, PIPES, MONUMENTS, MARKERS, ETC.), REFERENCE POINTS, STAKES AND ANY OTHER SURVEY REFERENCE. IN CASE OF DISTURBANCE, THE CONTRACTOR SHALL ENGAGE A REGISTERED SURVEYOR TO REPLACE THEM AT THE CONTRACTOR'S OWN EXPENSE AND SHALL BE RESPONSIBLE FOR ANY ERRORS THAT MAY BE CAUSED BY THEIR LOSS OR DISTURBANCE.

ELEVATIONS ARE BASED ON 1988 NORTH AMERICAN VERTICAL DATUM (NAVD 88). ALL VERTICAL CONTROL POINTS WERE SET USING A COUNTY OR VILLAGE CERTIFIED SOURCE MONUMENT FOR ITS POINT OF ORIGIN, AS CALLED OUT AND SHOWN ON THE PLAN AND PROFILE SHEETS AND/OR TITLE SHEET. PLAN BENCHMARKS HAVE BEEN LOCATED INSIDE OF THE RIGHT-OF-WAY OR WORK LIMITS OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING BENCHMARKS DURING THE PROJECT AND IF DESTROYED, THE CONTRACTOR IS RESPONSIBLE FOR REPLACING THEM AT HIS OWN EXPENSE. THE CONTRACTOR SHALL REFERENCE ALL IRON PINS AND MONUMENTS BEFORE EXCAVATING AT OR NEAR SAID IRON PINS OR MONUMENTS. THE CONTRACTOR SHALL NOT DISTURB EXISTING RIGHT-OF-WAY OR PROPERTY CORNER MARKERS THAT ARE REQUIRED TO REMAIN AFTER CONSTRUCTION, AS DETERMINED BY THE VILLAGE OF WALDO. IF ANY PINS OR MONUMENTS ARE DISTURBED, DESTROYED, OR DAMAGED BY THE CONTRACTOR THAT HAVE NOT BEEN DESIGNATED TO BE REMOVED IN THESE PLANS, THEY SHALL BE ACCURATELY REPLACED BY A REGISTERED SURVEYOR AT THE COMPLETION OF THE PROJECT OR AT THE DIRECTION OF THE DESIGN ENGINEER AND AT THE CONTRACTOR'S EXPENSE.

#### 4. BASIS OF BEARINGS

BEARINGS BASED ON DATA ACQUIRED BY GPS OBSERVATIONS AS PER NAD 83 (2011)-OHIO STATE PLANE COORDINATE SYSTEM-NORTH ZONE USING MONUMENT OHMA FROM THE OHIO DEPARTMENT OF TRANSPORTATION CORS NETWORK.

#### SURVEY NOTE

TOPOGRAPHY SHOWN HEREIN WAS COMPILED FROM A FIELD SURVEY PERFORMED OCTOBER 2019 BY CT CONSULTANTS, INC.

UNDERGROUND UTILITIES SHOWN HEREIN ARE BASED ON FIELD MARKINGS (BY OTHERS) AND AVAILABLE RECORDS AND AS SUCH, SHOULD BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.

#### . PROJECT LIMITS

THE CONTRACTOR'S CONSTRUCTION OPERATIONS ARE CONFINED TO THE SITE AREA, THE ROAD RIGHT-OF-WAY AREA, OR EASEMENT AREAS UNLESS OTHERWISE AGREED UPON BY THE AFFECTED PROPERTY OWNER. THE CONTRACTOR SHALL PROVIDE THE VILLAGE WITH DOCUMENTATION FOR PROPERTY OWNER AGREEMENTS, ALLOWING THE CONTRACTOR TO USE AND/OR ACCESS THE PROPERTY FOR CONSTRUCTION PURPOSES. THE CONTRACTOR SHALL USE THE APPROPRIATE CONSTRUCTION METHODS TO PREVENT DISTURBING ANY AREA OUTSIDE THESE AREAS.

#### 7. EASEMEN

APPROVAL OF THIS PLAN IS CONTINGENT UPON ALL EASEMENTS REQUIRED FOR THE CONSTRUCTION BEING SECURED AND RECORDED BY THE VILLAGE OF WALDO PRIOR TO COMMENCEMENT OF THE WORK, AND NO WORK WHICH REQUIRES AN EASEMENT WILL BE ALLOWED TO PROCEED UNTIL THIS IS DONE.

# B. <u>RIGHTS-OF-WA</u>

IN ADDITION TO DIRECT REQUIREMENTS OF THE CONTRACT SPECIFICATIONS, THE CONTRACTOR SHALL OBSERVE AND CONFORM TO THE SPECIFIC REQUIREMENTS OF ALL RIGHT-OF-WAYS INCLUDING EASEMENTS, COURT ENTRIES, RIGHTS-OF-ENTRY OR ACTION FILED IN COURT IN ACCORDANCE WITH THE CODE OF APPLICABLE GOVERNING AGENCY. THE COST OF THE OPERATIONS NECESSARY TO FULFILL SUCH REQUIREMENTS SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS IMPROVEMENT ITEMS UNLESS SPECIFIC PROVISION IS MODE IN THE CONTRACT SPECIFICATIONS.

THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE PROJECT SITE UNDER DEVELOPMENT ON THE EXISTING RIGHT-OF-WAYS, CONSTRUCTION AND PERMANENT EASEMENTS AND SHALL NOT TRESPASS UPON OTHER PRIVATE PROPERTY WITHOUT WRITTEN CONSENT OF THE OWNER.

# PRECONSTRUCTION MEETING

A PRE-CONSTRUCTION MEETING SHALL BE HELD AT LEAST 15 CALENDAR DAYS BEFORE ANY WORK IS BEGUN. REPRESENTATIVES OF THE OWNER, DESIGN ENGINEER, AND CONTRACTOR SHALL BE IN ATTENDANCE. A SCHEDULE OF SEQUENCE OF EVENTS, DURING CONSTRUCTION MUST BE SUBMITTED FOR REVIEW AT LEAST (7) SEVEN DAYS PRIOR TO THIS MEETING.

# 10. <u>CONTINGENCY QUANTITIES</u>

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE ESTIMATE OF QUANTITIES FOR ITEMS DESIGNATED AS SUCH OR REFERENCED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE DESIGN ENGINEER AND/OR THE VILLAGE OF WALDO.

# ADDITIONAL COMPENSATION

THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, SERVICES, AND RELATED ACCESSORIES FOR A COMPLETE PROJECT AS SHOWN AND DESCRIBED IN THE PLANS AND SPECIFICATIONS. THE PRICE FOR ITEMS OF WORK OR MATERIALS SHOWN ON THE PLANS OR PROVIDED FOR IN THE SPECIFICATIONS OR SPECIAL PROVISIONS FOR WHICH NO SEPARATE UNIT PRICE IS GIVEN SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS. IT IS THE INTENTION OF THE CONTRACT DOCUMENTS TO PROVIDE AND REQUIRE A COMPLETED WORK PROJECT READY FOR OPERATION. ANY WORK ITEMS OMITTED FROM SUCH CONTRACT DOCUMENTS WHICH ARE CLEARLY NECESSARY FOR THE COMPLETION OF SUCH WORK AND ITS APPURTENANCES SHALL BE CONSIDERED A PART OF SUCH WORK ALTHOUGH NOT DIRECTLY SPECIFIED OR CALLED FOR IN THE CONTRACT DOCUMENTS (E.G. BONDS AND INSURANCES, "OWNER/CONTRACTOR PROTECTIVE POLICY", "ALL RISK BUILDER'S RISK INSURANCE", AND/OR "INSTALLATION FLOATER INSURANCE", ETC.).

SUBMISSION OF A BID SHALL BE CONSIDERED EVIDENCE THAT THE BIDDER IS SATISFIED WITH THE PLANS AND CONDITIONS AS SHOWN. NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR COMPLIANCE WITH THE PLANS, SPECIFICATIONS, OR SPECIAL PROVISIONS. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR BY REASON OF COMPLIANCE WITH ANY OF THE REQUIREMENTS INDICATED IN THE SPECIFICATIONS, UNLESS OTHERWISE SPECIFICALLY PROVIDED.

A DETAILED BREAKDOWN OF LUMP SUM BID ITEMS MAY BE REQUESTED BY THE VILLAGE OF WALDO AND/OR DESIGN ENGINEER. NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR THIS EFFORT.

# . MOBILIZATION

MOBILIZATION SHALL BE IN ACCORDANCE WITH ODOT CMS ITEM 624.

13. <u>PERMITS</u>

THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND GOVERNMENT FEES, LICENSES, AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE IMPROVEMENTS SHOWN ON THE PLANS. AN ORIGINAL PERMIT, WITH SIGNATURES, SHALL BE KEPT ONSITE AT ALL TIMES.

WHEN OCCUPYING OR EXCAVATING WITHIN PUBLIC RIGHT OF WAY LIMITS, THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE ODOT AND/OR THE VILLAGE OF WALDO. THE VILLAGE OF WALDO CAN BE CONTACTED BETWEEN THE HOURS OF 8:00AM AND 4:00PM MONDAY THROUGH FRIDAY. PHONE: (740) 726-2709.

#### 14. SAFETY REQUIREMENTS

THE CONTRACTOR AND SUBCONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTOR(S) TO INITIATE, MONITOR, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

THE CONTRACTOR AND SUBCONTRACTOR SHALL ALSO ABIDE BY ALL ORDINANCES OF THE VILLAGE OF WALDO.

THE CONTRACTOR SHALL FOLLOW THE OSHA REQUIREMENTS FOR CONFINED SPACE ENTRY, TITLE 29 OF THE CODE OF FEDERAL REGULATIONS, PORT 1910.146 WHILE PERFORMING WORK INSIDE ANY MANHOLE OR OTHER PERMIT-REQUIRED CONFINED SPACE. ONE COPY OF ALL CONFINED SPACE ENTRY PERMITS SHALL BE GIVEN TO THE VILLAGE OF WALDO UPON PROJECT COMPLETION.

#### 15. EMERGENCY PROVISIONS

THE CONTRACTOR SHALL PROVIDE THE VILLAGE OF WALDO WITH 24-HOUR EMERGENCY TELEPHONE NUMBERS, IN WRITING, PRIOR TO THE START OF CONSTRUCTION.

#### 16. INSPEC

INSPECTION OF THIS PROJECT SHALL BE PROVIDED BY REPRESENTATIVES OF CT CONSULTANTS.

ANY MODIFICATIONS TO THE WORK SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE VILLAGE OF WALDO. NO WORK TO BE COMMENCED UNTIL ARRANGEMENTS HAS BEEN MADE WITH CT CONSULTANTS FOR INSPECTION.

THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE VILLAGE OF WALDO AND CT CONSULTANTS AT LEAST (7) SEVEN WORKING DAYS PRIOR TO ANY CONSTRUCTION.

#### 17. CONSTRUCTION LAYOUT STAKES AND SURVEYING

INITIAL CONSTRUCTION LAYOUT STAKES AND SURVEYING SERVICES FOR THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR. ANY RE-STAKING NEEDED TO REPLACE STAKES THAT HAVE BEEN REMOVED OR DAMAGED THROUGHOUT THE COURSE OF WORK SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE VILLAGE OF WALDO. STAKING SHALL BE IN ACCORDANCE WITH ODOT CMS ITEM 623.

#### 18. CONTRACT WORK PERFORMED BY THE VILLAGE

IN THE EVENT THAT IT BECOMES NECESSARY FOR THE VILLAGE OF WALDO TO PERFORM WORK REQUIRED BY THE CONTRACTOR UNDER THIS CONTRACT BECAUSE OF FAILURE OR REFUSAL OF THE CONTRACTOR TO PERFORM SUCH WORK WITHIN A REASONABLE TIME, THE CONTRACTOR SHALL REIMBURSE THE VILLAGE OF WALDO AT THE RATE OF 2.5 TIMES THE ACTUAL COST OF LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PERFORM SUCH WORK. THE VILLAGE OF WALDO SHALL BE REIMBURSED BY THE CONTRACTOR BY WAY OF A DEDUCTION FROM THE CONTRACTOR'S NET PAYMENT UNDER THIS CONTRACT.

#### 9. <u>SCHEDUL</u>

THE CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE OF OPERATIONS TO THE VILLAGE OF WALDO AND RECEIVE APPROVAL IN WRITING BEFORE WORK IS STARTED ON THIS PROJECT. COST SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

#### 20. COORDINATION BETWEEN CONTRACTORS

THE CONTRACTOR, FOR THIS PLAN, SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES AND ANCILLARY PROJECT NEEDS WITH ANY OTHER CONTRACTORS ON THIS PROJECT OR OTHER CONTRACTORS WORKING IN THE VICINITY. PRIOR TO FINALIZATION OF SCHEDULING FOR THIS PROJECT, THE CONTRACTOR WILL CONFIRM THERE ARE NO SCHEDULE CONFLICTS.

# 21. EXPOSE EXISTING UTILITY

WHERE POTENTIAL GRADE AND ALIGNMENT CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR SHALL EXPOSE UTILITIES OR STRUCTURES SUFFICIENTLY IN ADVANCE OF LAYING PIPE FOR THE DESIGN ENGINEER TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION. ANY DISCREPANCY WITH THE PLANS SHALL BE COORDINATED WITH THE VILLAGE OF WALDO TO ENSURE THAT THERE ARE NO CONSTRUCTION OR CONFLICT ISSUES ASSOCIATED WITH SAID DISCREPANCY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS EVEN IF A SPECIFIC ITEM IS NOT PROVIDED IN THE ESTIMATE OF QUANTITIES.

# 22. <u>UTILITY POLE PROTECTION</u>

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION OPERATIONS AND PROTECT EXISTING UTILITY POLES. UTILITY POLES WITHIN THE INFLUENCE OF TRENCHES OR EARTHWORK OPERATIONS SHALL BE REINFORCED BY THE UTILITY COMPANY PRIOR TO CONSTRUCTION ACTIVITIES. NOTIFICATION OF THE UTILITY COMPANY PRIOR TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE HIS WORK EFFORTS WITH THOSE OF THE UTILITY COMPANIES SUCH THAT THE MAINTENANCE OF THEIR EXISTING FACILITIES CAN BE MAINTAINED AND PROTECTED DURING THE TIME WORK IS GOING ON ADJACENT TO THE POLE.

THE COST FOR ANY REQUIRED PROTECTION OR RELOCATION OF EXISTING POWER OR TELEPHONE POLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DELAYS TO THE CONTRACTOR AS A RESULT OF TIMING OF POLE RELOCATION OR PROTECTION SHALL NOT BE CONSIDERED COMPENSATORY DELAYS, AS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS WORK IN CONFORMANCE TO THE UTILITY COMPANY'S SCHEDULE.

ALL COSTS INCURRED FOR THE SUPPORT OF UTILITY POLES AND COORDINATION FOR TEMPORARY SUPPORT SHALL BE INCLUDED WITH THE VARIOUS BID ITEMS. ALL COSTS SHALL BE AT THE CONTRACTORS EXPENSE, AND NO REIMBURSEMENT OR SEPARATE PAYMENT SHALL BE MADE.

# 23. MATERIAL SAFETY DATA SHEETS

THE CONTRACTOR SHALL SUBMIT, FOR INFORMATION ONLY, THE MANUFACTURERS' HAZARDOUS MATERIALS COMMUNICATION INFORMATION FORMS FOR ALL MATERIALS TO BE INCORPORATED INTO THE WORK.

# 24. <u>STORAGE OF EQUIPMENT AND MATERIALS</u> THE CONTRACTOR SHALL INFORM THE VILLAGE OF WALDO OF THE LOCATION FOR THE STORAGE OF

EQUIPMENT AND MATERIALS AT THE PRE-CONSTRUCTION MEETING.

# CONSTRUCTION DEBRIS ALL DEBRIS, RUBBLE, UNUSABLE MATERIALS, AND ITEMS NOT SALVAGED BY THE OWNER SHALL BECOME THE

PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF PROPERLY.

# 26. SANITARY CONVENIENCE FACILITIES THE CONTRACTOR SHALL FURNISH.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN SANITARY CONVENIENCE FACILITIES FOR THE WORKERS AND INSPECTORS FOR THE DURATION OF THE WORK AND ALL PHASES OF CONSTRUCTION. COST SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

# 27. NON-RUBBER TIRED VEHICLES

NON-RUBBER TIRED VEHICLES SHALL NOT BE MOVED ON PUBLIC STREETS, EXISTING PRIVATE ROADWAYS OR PARKING LOTS. EXCEPTIONS MAY BE GRANTED BY THE VILLAGE OF WALDO FOR THEIR ROADWAYS ONLY. GRANTING OF EXCEPTIONS MUST BE IN WRITING, AND ANY DAMAGE MUST BE REPAIRED TO THE SATISFACTION OF THE VILLAGE OF WALDO.

# 28. PRUNING

BRANCHES OR GROWTH WHICH INTERFERES WITH THE FREE CONSTRUCTION OF THE PROJECT MAY BE REMOVED FROM TREES/BUSHES THAT ARE TO BE SAVED BY THE USE OF PRUNING TOOLS WITH PRIOR APPROVAL FROM THE DESIGN ENGINEER AND VILLAGE. ALL PRUNING TOOLS USED AND METHODS EMPLOYED

SHALL MEET THE APPROVAL OF THE VILLAGE. THE BRANCHES SHALL BE REMOVED WITH A GOOD CLEAN CUT MADE FLUSH WITH THE PARENT TRUNK OR, IF HAVING A GOOD HEALTHY LATERAL BRANCH, THE CUT SHALL BE A GOOD CLEAN SLANTING CUT CLOSE TO AND BEYOND THE HEALTHY BRANCH. ALL PRUNING CUTS SHALL BE PAINTED WITH ON ACCEPTED PRUNING PRESERVATIVE. THE COST OF ALL WORK AND EXPENSES CONNECTED WITH TREE PRUNING SHALL BE INCLUDED IN THE PRICE BID FOR ODOT CMS ITEM 201, CLEARING AND GRUBBING. NO EXTRA PAYMENTS SHALL BE MADE.

#### 29. SIGNS, MAILBOXES, FENCES, ETC.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING SIGNS, MAILBOXES, FENCES, GUARDRAIL, SHRUBS, PROPERTY, DRAINAGE STRUCTURES, OR OTHER PHYSICAL FEATURES DISTURBED OR DAMAGED DURING CONSTRUCTION, WHETHER SHOWN ON THE PLANS OR NOT, TO THEIR ORIGINAL OR BETTER CONDITION AND LOCATION AND TO THE SATISFACTION OF THE VILLAGE OF WALDO. COST SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

#### 30 MAIL SERVICE

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT U.S. MAIL DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS. THIS RESPONSIBILITY IS LIMITED TO RELOCATION OF MAILBOXES TO A TEMPORARY LOCATION THAT WILL ALLOW THE COMPLETION OF THE WORK AND SHALL ALSO INCLUDE THE RESTORATION OF MAILBOXES TO THEIR ORIGINAL LOCATION OR APPROVED NEW LOCATION. BEFORE RELOCATING ANY MAILBOXES, THE CONTRACTOR SHALL CONTACT THE U.S. POSTAL SERVICE AND RELOCATE MAILBOXES ACCORDING TO THE POSTAL SERVICE AND SATISFACTION OF THE PROPERTY OWNERS.

#### R1 MAINTAINING SERVICE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS FOR MAIL SERVICE, DELIVERY SERVICE, POLICE, FIRE AND SOLID WASTE REMOVAL IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF WALDO FOR CURRENT COLLECTION DATE EACH WEEK PRIOR TO STARTING WORK AND BE RESPONSIBLE FOR MAINTAINING ACCESS TO THE VARIOUS FACILITIES ASSOCIATED WITH THESE SERVICES SUCH AS DUMPSTERS AND MAILBOXES DURING THE COURSE OF THIS PROJECT. COST FOR MAINTAINING SERVICE SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS IN THE CONTRACT.

#### 32. SUBSURFACE SOIL DATA

SUBSURFACE INVESTIGATIONS WERE NOT COMPLETED BY THE DESIGN ENGINEER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATIONS OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. IT IS THEREFORE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE SUBSURFACE/SITE CONDITIONS, AND NO ADDITIONAL PAYMENT WILL BE MADE FOR DIFFERING SITE CONDITIONS. ANY PERFORMANCE OF SITE SUBSURFACE INVESTIGATIONS (TEST HOLES) SHALL BE COORDINATED IN ADVANCE WITH THE VILLAGE OF WALDO. EXCAVATED MATERIAL SHALL BE REPLACED IN A CONTROLLED MANNER TO MINIMIZE FIELD EARTHWORK AND THE DISTURBED AREA SHALL BE RESTORED AS DIRECTED BY THE VILLAGE OF WALDO.

#### 33. SOIL STOCKPILE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL SOIL STOCKPILES, INCLUDING TRENCH EXCAVATION STOCKPILES, PROTECTED FROM EROSION. THE AREAS SURROUNDING THE STOCKPILES ARE TO BE PROTECTED FROM SEDIMENT WITH THE USE OF PERIMETER CONTROL DEVICES SUCH AS EARTH OR STRAW BALE DEVICES OR SILT FENCES. THESE PERIMETER CONTROL DEVICES SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT.

#### 34. <u>DISPOSAL OF EXCESS EXCAVATION</u>

THE CONTRACTOR SHALL DISPOSE OF ALL EXCESS EXCAVATION AT AN OFFSITE LOCATION AS APPROVED BY THE VILLAGE OF WALDO. FOR DISPOSAL OUTSIDE THE LIMITS OF THE PROJECT THE CONTRACTOR SHALL PROVIDE A COPY OF THE SIGNED, WRITTEN AGREEMENT BETWEEN THE CONTRACTOR AND OFFSITE LANDOWNER BEFORE SUCH DISPOSAL OCCURS. THIS WRITTEN AGREEMENT SHALL CLEARLY STATE THE PURPOSE OF THE AGREEMENT AND INDICATED THE LANDOWNER'S PERMISSION FOR SUCH USE. EXCESS EXCAVATION MATERIAL SHALL NOT BE DISPOSED OF WITHIN ANY FLOODPLAIN AREA, UNLESS ANY AND ALL NECESSARY APPROVALS TO DO SO HAVE BEEN OBTAINED.

ALL MATERIALS TO BE DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SOUND MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. NO EXCESS MATERIALS ARE TO BE DISPOSED OF IN ANY WETLAND, FLOOD PLAIN OR OTHER ENVIRONMENTALLY SENSITIVE AREAS. EROSION CONTROL MEASURES AT THE DISPOSAL SITE, IF APPLICABLE, MUST BE INSTALLED AND MAINTAINED UNTIL DISPOSAL IS COMPLETE AND THE DISPOSAL SITE IS PERMANENTLY STABILIZED.

# 35. REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT, AND AGAIN BEFORE FINAL ACCEPTANCE BY THE VILLAGE OF WALDO, THE CONTRACTOR ALONG WITH THE LOCAL REPRESENTATIVES SHALL MAKE AN INSPECTION OF THE EXISTING SEWERS WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. THE VILLAGE OF WALDO SHALL KEEP RECORDS OF THE INSPECTIONS IN WRITING.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED OR RECONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE VILLAGE OF WALDO.

ALL EXISTING MANHOLES, CATCH BASINS, DRAINS, SEWERS, AND APPURTENANCES INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR SHALL CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS TO THE SATISFACTION OF THE VILLAGE OF WALDO. THE ABOVE IS NOT APPLICABLE FOR STRUCTURES TO BE ABANDONED.

THE CONTRACTOR SHALL REMOVE DEBRIS, SILT, ETC., FROM THE EXISTING MANHOLES AND CATCH BASINS THAT HAVE BEEN AFFECTED BY CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL MAINTAIN SERVICE IN EXISTING SEWERS DURING CONSTRUCTION. ALL EXISTING CHARTED OR UNCHARTED STORM SEWERS ENCOUNTERED DURING CONSTRUCTION SHALL BE CONNECTED INTO THE NEW SYSTEM.

# 36. REPLACEMENT OF DRAIN TILES AND STORM SEWERS

ALL DRAIN TILE AND STORM SEWERS DAMAGED, DISTURBED, OR REMOVED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH THE SAME QUALITY PIPE OR BETTER, MAINTAINING THE SAME GRADIENT AS EXISTING. REPLACED DRAIN TILE SHALL BE LAID ON COMPACTED BEDDING EQUAL IN DENSITY TO SURROUNDING STRATUM. IF POSSIBLE, THE DRAIN TILE AND/OR STORM SEWER SHALL BE CONNECTED TO A STORM SEWER STRUCTURE, CURB UNDERDRAIN OR OUTLET INTO THE ROADWAY DITCH AS APPLICABLE. REPLACEMENT SHALL BE DONE AT THE TIME OF THE BACKFILL OPERATIONS.

ALL FIELD TILE BROKEN DURING EXCAVATION SHALL BE REPLACED TO ORIGINAL CONDITION OR CONNECTED TO THE CURB UNDERDRAIN OR TO THE STORM SEWER SYSTEM AS DIRECTED BY THE VILLAGE OF WALDO.

# 37. MAINTAIN DRAINAGE

THE FLOW IN ALL SEWERS, DRAINS, AND WATERCOURSES ENCOUNTERED SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE, AND WHENEVER SUCH WATERCOURSES AND DRAINS ARE DISTURBED OR DESTROYED DURING THE EXECUTION OF THE WORK, THEY SHALL BE RESTORED BY THE CONTRACTOR AT HIS OWN COST AND EXPENSE, UNLESS SPECIFIC PROVISION IS MADE WITHIN THE CONTRACT DOCUMENTS FOR THE MEASURE OF AND PAYMENT FOR SUCH SPECIFIC ITEMS, TO A CONDITION SATISFACTORY TO THE VILLAGE OF WALDO.

# 38. <u>DEWATERING/BYPASS PUMPING</u> THE CONTRACTOR IS RESPON

THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL DEWATERING OPERATIONS AS REQUIRED TO ACCOMPLISH THE PROPOSED CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SOIL AND GROUNDWATER TESTING FOR GROUNDWATER DISCHARGE CONSIDERATIONS.

THE COST OF ANY DEWATERING OPERATIONS OR BYPASS PUMPING REQUIRED FOR THE CONSTRUCTION OF STORM SEWERS SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS. NO SEPARATE PAYMENT FOR DEWATERING AND/OR BYPASS PUMPING WILL BE PROVIDED.

SHOULD WATER BE ENCOUNTERED, THE CONTRACTOR SHALL FURNISH AND OPERATE SUITABLE PUMPING EQUIPMENT OF SUCH CAPACITY TO ADEQUATELY DEWATER THE TRENCH. THE TRENCH SHALL BE SUFFICIENTLY DEWATERED SO THAT THE PLACEMENT OF BEDDING AND LAYING AND JOINING OF THE PIPE IS MADE ON FIRM, DRY GROUND. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL DEWATERING OPERATIONS AS REQUIRED TO ACCOMPLISH THE PROPOSED CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SOIL AND GROUNDWATER TESTING FOR GROUNDWATER DISCHARGE CONSIDERATIONS.

THE COST OF ALL DEWATERING WORK REQUIRED FOR THE CONSTRUCTION OF THE STORM SEWER SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE VARIOUS SEWER BID ITEMS. NO SEPARATE PAYMENT FOR PUMPS WILL BE PROVIDED, THE CONTRACTOR IS SOLELY RESPONSIBLE TO THE OHIO DEPARTMENT OF NATURAL RESOURCES (O.D.N.R.) FOR REGISTRY, MAINTENANCE, AND ABANDONMENT OF ANY WITHDRAWAL DEVICES USED IN THE CONSTRUCTION OF THIS PROJECT, IF REQUIRED.

THE CONTRACTOR SHALL BE REQUIRED TO COMPLETE AND FILE A WELL LOG AND A DRILLING REPORT FORM WITH O.D.N.R., DIVISION OF WATER, WITHIN 30 DAYS OF THE COMPLETION OF INSTALLATION OF ANY WELL, WELL POINT, PIT OR OTHER DEVICE USED FOR THE PURPOSE OF REMOVING GROUNDWATER FROM AN AQUIFER. THIS SHALL BE DONE IN ACCORDANCE WITH SECTIONS 1521.01 AND 1521.05 OF THE OHIO REVISED CODE AND ALL APPLICABLE REQUIREMENTS OF THE OHIO DEPARTMENT OF NATURAL RESOURCES. IN ADDITION, ANY SUCH FACILITY THAT HAS A CAPACITY TO WITHDRAW WATERS OF THE STATE IN AN AMOUNT GREATER THAN 100,000 GALLONS PER DAY FROM OIL SOURCES SHALL BE REGISTERED BY THE CONTRACTOR WITH THE CHIEF OF THE O.D..N.R., DIVISION OF WATER, WITHIN THREE MONTHS OF THE COMPLETION OF THE FACILITY IN ACCORDANCE WITH SECTION 1521.16 OF THE OHIO REVISED CODE. COPIES OF THE NECESSARY PAPERWORK CON BE OBTAINED AT O.D.N.R., DIVISION OF WATER, FOUNTAIN SQUARE, COLUMBUS, OHIO, 43224-1387, PHONE: (614) 265-6717. ANY DEVICE INSTALLED FOR THE PURPOSE OF LOWERING THE GROUNDWATER LEVEL TO FACILITATE CONSTRUCTION OF THIS PROJECT SHALL BE PROPERLY ABANDONED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 3745-9-10 OF THE OHIO ADMINISTRATIVE CODE OR IN ACCORDANCE WITH THE PROVISION OF THIS PLAN OR AS DIRECTED BY THE VILLAGE OF WALDO OR THEIR REPRESENTATIVE. BYPASS PUMPING IS REQUIRED WHEREVER THE FLOW IN ANY SEWER IS DISRUPTED BY CONSTRUCTION OF NEW SEWER SEGMENTS, MANHOLES, OR ASSOCIATED ACTIVITIES. BYPASS PUMPING MUST PROVIDE FOR POSSIBLE STORM FLOWS THAT MAY TYPICALLY BE EXPECTED DURING THE SEASONS THAT THE WORK IS IN PROGRESS. THE CONTRACTOR SHALL HAVE A CONTINGENCY PLAN TO PREVENT DAMAGE DURING HIGH FLOWS. THE VILLAGE WILL NOT BE RESPONSIBLE FOR DAMAGES DUE TO HIGH FLOWS. THE CONTRACTOR SHALL CONVEY ALL WATER TO A NATURAL DRAINAGE CHANNEL OR STORM SEWER WITHOUT DAMAGE TO PROPERTY BY UTILIZING PROPER EROSION AND SEDIMENT CONTROLS. DIRECT DISCHARGE OF SEDIMENT LADEN WATER TO THE VILLAGE'S SEWER SYSTEM OR A RECEIVING STREAM IS A VIOLATION OF OHIO EPA AND THE VILLAGE OF WALDO REGULATIONS. THE CONTRACTOR WILL BE HELD LIABLE FOR ANY VIOLATION AND SUBSEQUENT FINES. THE CONTRACTOR SHALL BE RESPONSIBLE TO PLACE AND MAINTAIN THE NECESSARY SEDIMENT CONTROL MEASURES TO FILTER THE DEWATERING DISCHARGE. COST FOR THE ABOVE SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS PROJECT IMPROVEMENTS. THE COST OF ANY DEWATERING OPERATIONS OR BYPASS PUMPING REQUIRED FOR THE CONSTRUCTION OF STORM SEWER SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS SEWER ITEMS.

CONTINUED ON SHEET 3...

TREET BRIDGE WING AND RETAI REPLACEMENT & IMPROVEMENT WALDO, OHIO

WHEN SAWCUTTING OF PAVEMENT (CONCRETE, ASPHALT, ETC.) IS NECESSARY, THE CONTRACTOR SHALL EMPLOY DUST COLLECTION MEASURES AND SHALL ENSURE ALL SLURRY IS CLEANED FROM THE ROADWAY OR WALKING SURFACE IMMEDIATELY AFTER SAWING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY DAMAGE TO PRIVATE PROPERTY CAUSED BY DUST AND SLURRY.

#### 40. SITE SECURITY

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SUFFICIENT SITE SECURITY MEASURES AND/OR PERSONNEL TO PROTECT ALL NEW CONCRETE WORK FROM VANDALISM UNTIL THE CONCRETE IS SUFFICIENTLY CURED AT NO ADDITIONAL COST TO THE CONTRACT PRICE. THE COST OF ALL SUCH WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING "RECORD PLAN" CONSTRUCTION DRAWINGS TO THE VILLAGE OF WALDO AFTER THE PROJECT HAS BEEN COMPLETED. THE PLANS MUST INCLUDE TOP OF CASTING AND INVERT ELEVATIONS FOR ALL SANITARY AND STORM STRUCTURES AND IDENTIFY ANY AND ALL FIELD MODIFICATIONS TO, AND DEVIATIONS FROM, THE APPROVED PLAN SET. A REDLINE SET OF PLANS REFLECTING THE "RECORD PLAN" INFORMATION SHALL BE KEPT BY THE CONTRACTOR AND PROVIDED TO THE DESIGN ENGINEER FOR REVIEW AND SUBSEQUENT PREPARATION OF THE RECORD PLAN DRAWINGS. IF THE REDLINE PLANS ARE INCOMPLETE OR MISSING INFORMATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING THE MISSING INFORMATION BY FIELD SURVEY OR OTHER MEANS TO FACILITATE A COMPLETE SET OF RECORD DRAWINGS. FOR ACCEPTANCE OF WORK, THE VILLAGE REQUIRES A SIGNED COMPLETE SET OF RECORD DRAWINGS.

THE IDENTITY AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES LOCATED IN AND AROUND THE CONSTRUCTION AREA HAVE BEEN SHOWN AND LABELED ON THE PLANS AS ACCURATELY AS PROVIDED BY USING INFORMATION PROVIDED BY THE RESPECTIVE UTILITY OWNERS. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE VILLAGE OF WALDO AND/OR THE DESIGN ENGINEER ASSUME NO RESPONSIBILITY TO THE ACCURACY, LOCATIONS OR DEPTHS OF THE UNDERGROUND FACILITIES AS SHOWN ON THE PLANS.

THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL CALL, TOLL FREE, THE OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 72 HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION OF ANY UTILITIES AS REQUIRED BY THE PLAN WITH THE OWNER OF THE AFFECTED UTILITY.

SUPPORT AND PROTECTION OF ALL UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COSTS FOR REPAIR AND RESTORATION OF EXISTING UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL SERVICE LATERALS AND LINES. COSTS ASSOCIATED WITH THE ABOVE WORK AND RESPONSIBILITIES SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

IF THERE ARE MARKERS OR OTHER APPARENT PHYSICAL EVIDENCE IN OR NEAR THE PROJECT AREA THAT MAY INDICATE THE EXISTENCE OF UNDERGROUND PETROLEUM OR NATURAL GAS PIPELINES, THE CONTRACTOR SHALL ADDITIONALLY CONTACT THE OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE (OGPUPS) AT 1-800-925-0988 (TOLL FREE). SAID NOTIFICATION SHALL BE GIVEN A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

PRIVATE UTILITY MANHOLES WITHIN THE LIMITS OF THE WORK SHALL BE ADJUSTED TO GRADE BY THE RESPECTIVE UTILITY, IF REQUIRED AS REFERENCED ON THE PLANS. ALL PRIVATE UTILITY RELOCATION (GAS, ELECTRIC, PHONE, ETC.) WILL BE THE RESPONSIBILITY OF THE UTILITY OWNERS. THIS WORK SHALL BE DONE CONCURRENTLY WITH THE IMPROVEMENTS AS DETAILED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION AND/OR PROTECTION OF ANY UTILITIES AS REQUIRED BY THE PLAN WITH THE OWNER OF THE AFFECTED UTILITY, NO SEPARATE PAYMENT SHALL BE MADE FOR COORDINATION.

THE VILLAGE OF WALDO AND THE DESIGN ENGINEER ASSUME NO RESPONSIBILITY FOR UNMARKED OR INCORRECTLY MARKED UTILITIES THAT MAY INTERFERE WITH COMPLETION OF THE PROJECT. ANY DELAYS AND/OR COSTS CAUSED BY UNMARKED OR INCORRECTLY MARKED UTILITIES ARE SOLELY BETWEEN THE CONTRACTOR AND UTILITY OWNER AND ARE NOT THE RESPONSIBILITY OF THE VILLAGE OF WALDO AND THE DESIGN ENGINEER. NOTIFICATION OF THE UTILITY COMPANIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, AT NO ADDITIONAL EXPENSE TO THE VILLAGE OF WALDO, TO AVOID DAMAGE TO EXISTING UNDERGROUND AND OVERHEAD UTILITY LINES DURING THE ENTIRE PROJECT. IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES, THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AT NO ADDITIONAL EXPENSE TO THE VILLAGE OF WALDO INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS.

TELEPHONE:
FRONTIER COMMUNICATIONS
550 LEADER STREET
MARION, OHIO 43302
PHONE: 740-383-0575
ATTN: SCOTT EARLY

STORM SEWER VILLAGE OF WALDO 363 W. MAIN STREET WALDO, OHIO 43356 PHONE: 740-726-2129 ATTN: BRUCE BAKER

SANITARY SEWER: VILLAGE OF WALDO 223 S. MARION STREET 850 TECH CENTER DRIVE WALDO, OHIO 43356 GAHANNA, OHIO 43230 PHONE: 740-883-6871 PHONE: 740-726-2771 ATTN: PAUL PAXTON ATTN: SHERRIE SHOPE

PHONE: 866-632-6243 ATTN: JON MOORE CONSOLIDATED ELECTRIC CO-OP 4993 STATE ROUTE 521 DELAWARE, OHIO 43015 PHONE: 740-363-2641

NISOURCE

1600 DUBLIN ROAD

COLUMBUS, OHIO 43215

# 43. BACKFILL TESTING

PRIOR TO CONSTRUCTION, SOIL DENSITY TESTS SHALL BE MADE ON ALL TRENCHES WHICH CROSS THE PROPOSED PAVEMENTS OR WHICH LIE SUCH THAT THE PROPOSED PAVEMENTS ARE LOCATED WITHIN ANY PORTION OF THE INFLUENCE LINE OF SAID TRENCH. WHERE RESULTS INDICATE THAT THE TRENCH DOES NOT MEET THE COMPACTION REQUIREMENTS, ALL BACKFILL MATERIALS SHOULD BE REMOVED, REPLACED AND RE-TESTED UNTIL COMPACTION MEETS REQUIREMENTS OF APPLICABLE ODOT CMS ITEM.

# 44. CONCRETE CURE AND SEAL

ALL EXPOSED CONCRETE SURFACES SHALL RECEIVE 2 COATS OF A CLEAR, NON-YELLOWING ACRYLIC CURING COMPOUND MEETING THE REQUIREMENTS OF ASTM C309 AND AASHTO M148. MAXIMUM VOC SHALL BE 400G/I WITH A MINIMUM 25% SOLVENTS BY WEIGHT. COST FOR THE CURE AND SEAL SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

#### 45. CONNECTIONS BETWEEN EXISTING PIPES AND PROPOSED STRUCTURES

THE COST OF MAKING CONNECTIONS BETWEEN EXISTING STORM PIPES THAT ARE TO REMAIN IN SERVICE AND PROPOSED INFRASTRUCTURE, INCLUDING BUT NOT LIMITED TO CONCRETE COLLARS, COUPLINGS, MISCELLANEOUS SECTIONS OF PIPE, BACKFILLING AND BEDDING SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

#### 46. CROSSING AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING STORM SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT. INVERT ELEVATIONS SHALL NOT DEVIATE FROM PLAN ELEVATION BY MORE THAN 0.05 FOOT. FAILING TO MEET THE ABOVE REQUIREMENTS IS CAUSE FOR REJECTION OF THE AFFECTED SECTION OF SEWER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ODOT CMS 611 ITEMS.

# 47. EXISTING DRAINAGE SYSTEMS

EXISTING DRAINAGE SYSTEMS (FIELD TILES, ROOF DRAIN OUTLETS, SUMP PUMPS, ETC.) ENCOUNTERED DURING CONSTRUCTION OF THE NEW CULVERT OR REMOVAL OF EXISTING STORM SEWERS SHALL BE EXTENDED AS NECESSARY, AND CONNECTED TO THE PROPOSED STORM SEWER OR CULVERT BY BLIND TAPPING TO THE NEW CULVERT OR CONNECTED TO THE CATCH BASIN AS DIRECTED BY THE DESIGN ENGINEER. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ODOT CMS 611 ITEMS.

THIS PLAN MAKES NO PROVISIONS FOR CONNECTION, NOR SHALL THE CONTRACTOR CONNECT, ANY UNTREATED SEPTIC DRAINAGE INTO THE DRAINAGE SYSTEM. IF THE CONTRACTOR ENCOUNTERS A PIPE OR CONNECTION TO ANY STORM SEWER THAT IN THE ESTIMATION OF THE VILLAGE OF WALDO MAY BE AN ILLICIT CONNECTION FROM AN ON-SITE SEWAGE DISPOSAL SYSTEM, THE MARION COUNTY HEALTH DEPARTMENT SHALL BE CONTACTED AT 740-387-6520.

SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR SO THAT EXISTING DRAINS WILL NOT BE CLOSED OR OTHERWISE RENDERED INOPERATIVE BY ANY CONSTRUCTION OPERATION OR NEW IMPROVEMENT.

#### 48. UTILITY EXCAVATION/ INSTALLATION, AND DEMOLITION

PAYMENT FOR ALL UTILITY EXCAVATION AND/OR INSTALLATION SHALL BE INCLUDED WITHIN THE PRICE BID FOR THE CONDUIT. STRUCTURE, AND VARIOUS ITEMS, NO SEPARATE PAYMENT WILL BE MODE FOR EXCAVATION NECESSARY TO PERMANENTLY REMOVE ANY ITEMS NOT ALREADY DESIGNATED BY THESE PLANS.

#### 49. STRUCTURES TO BE REMOVED/ABANDONED

THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL/ABANDONMENT OF SEWER STRUCTURES AS DESIGNATED ON THE PLANS. REMOVAL AND DISPOSAL SHALL BE IN ACCORDANCE WITH ODOT CMS ITEM 202. CASTINGS SHALL BE SALVAGED AND RETURNED TO THE VILLAGE OF WALDO, IF REQUESTED. IN THE EVENT THE CASTINGS ARE NOT DESIRED BY THE VILLAGE, THE CONTRACTOR SHALL DISPOSE OF THEM IN ON ENVIRONMENTALLY SOUND MANNER. EXISTING STRUCTURES TO BE ABANDONED IN PLACE SHALL BE THOROUGHLY FILLED WITH CONTROLLED DENSITY FILL. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS FOR THE REMOVAL/ABANDONMENT OF THE EXISTING STRUCTURE.

THE CONTRACTOR SHALL ENSURE THERE IS A SURVEYOR'S LEVEL AND ROD ON THE PROJECT FOR USE IN PERFORMING GRADE CHECKS WHENEVER SEWER LINE STRUCTURES OR PIPE ARE BEING INSTALLED. THE CONTRACTOR SHALL MAKE THIS EQUIPMENT AVAILABLE FOR USE, AND SHALL ASSIST THE VILLAGE'S INSPECTOR, IN PERFORMING GRADE CHECKS WHEN REQUESTED BY THE INSPECTOR. THE INSPECTOR WILL MAKE ALL REASONABLE ATTEMPTS TO CONFINE REQUESTS FOR ASSISTANCE IN PERFORMING GRADE CHECKS TO A TIME CONVENIENT TO THE CONTRACTOR.

#### THESE CHECKS WILL BE PERFORMED TO ENSURE THE FOLLOWING:

- A. PROPER PLACEMENT OF EACH STRUCTURE.
- B. PROPER INSTALLATION OF PIPE RUNS.
- C. GRADE, AFTER AN OVERNIGHT OR LONGER SHUTDOWN.
- D. GRADE, AT ANY OTHER TIME THE INSPECTOR HAS REASON TO QUESTION GRADE OF INSTALLATION.

A GRADE CHECK PERFORMED BY THE VILLAGE INSPECTOR IN NO WAY RELIEVES THE CONTRACTOR FROM THE ULTIMATE RESPONSIBILITY TO ENSURE CONSTRUCTION TO THE PLAN GRADE.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING SEWER, OR EXISTING APPURTENANCE TO BE CONNECTED TO, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN SEWER SLOPE, THE DESIGN ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED SEWER WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CULVERT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE DESIGN ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CULVERT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY. GRADES AND ELEVATIONS SHOWN ON THE PLANS SHALL NOT BE REVISED UNDER ANY CIRCUMSTANCES WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE VILLAGE OF

# 52. SEEDING AND MULCHING

WATER:

ALL SEEDING AND MULCHING FOR ALL DISTURBED AREAS SHALL BE IN ACCORDANCE WITH ODOT CMS ITEM 659. PRICE SHALL BE INCLUDED IN ITEM 659.

ALL DISTURBED AREAS SHALL BE SEEDED, AND THE TURF MIX SHALL BE OF THE FOLLOWING COMPOSITION:

SEED MIX: KENTUCKY BLUEGRASS: 65 LB/A 30% OF MIXTURE CREEPING RED FESCUE: 65 LB/A 30% ANNUAL RYEGRASS: 43 LB/A 20% PERENNIAL RYEGRASS: 43 LB/A 20%

APPLICATION: APPLY BY BROADCAST SEEDER, DRILL SEEDING METHOD IN TWO DIRECTIONS OR BY HYDROSEEDING.

STARTER FERTILIZER: 18-24-12; APPLY AT RATE EQUAL TO 1 LB. OF ACTUAL NITROGEN PER 1,000 S.F. APPLY TWO APPLICATIONS PER MANUFACTURERS SPECIFICATIONS.

TACKIFIER: 60 GAL./ACRE.

1.500 LBS./ACRE, DYED GREEN. WOOD MULCH:

OR STRAW MULCH: EVENLY PLACE CLEAN STRAW OVER ALL SEEDED AREAS AT A RATE OF 2 TONS/ACRE.

CONTRACTOR SHALL MAINTAIN ALL SEEDED AREAS BY WATERING AND REPLANTING AS NECESSARY TO ESTABLISH A UNIFORMLY DENSE STAND (90% COVER) OF SPECIFIED

#### TOPSOIL PLACEMENT SHALL BE AS SPECIFIED IN ODOT CMS ITEM 653. TOPSOIL TO BE PROVIDED FROM OFF-SITE SOURCES.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINISH GRADING REQUIRED TO PROVIDE PROPER SEED AND PLANTING BEDS. PLACE A MINIMUM OF 4-IN OF TOPSOIL IN ALL PLANTING AREAS DISTURBED DURING

WHERE STORMWATER SHEET FLOWS FROM LANDSCAPED AREAS TO PAVEMENT AREAS, THE FINISH GRADE IN LANDSCAPE AREAS AFTER SETTLING SHALL BE 1/2-IN ABOVE THE TOP OF PAVEMENT. WHERE STORMWATER SHEET FLOWS FROM PAVEMENT TO LANDSCAPE AREAS, THE FINISH GRADE IN THE LANDSCAPE AREA SHALL BE 1/2-IN BELOW THE PAVEMENT AFTER SETTLING.

#### 54. RESTORATION, CLEANUP, AND MAINTENANCE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE CLEANUP OF ANY DEBRIS, MUD OR DIRT TRACKED OR SPILLED IN THE VILLAGE OF WALDO AND/OR PUBLIC STREETS OR PRIVATE DRIVES WHETHER INSIDE OR OUTSIDE THE PROJECT AREA. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF ANY SERVICES CONTRACTED AND/OR COMPLETED BY THE VILLAGE OF WALDO IN THE CLEANUP OF ANY TRACKING OR SPILLAGE ANYTIME DURING PROJECT CONSTRUCTION. THE VILLAGE OF WALDO MAY REQUIRE THE CONTRACTOR TO PERFORM REGULAR AND FREQUENT PAVEMENT CLEANING IF EXCESSIVE AMOUNTS OF DIRT AND MUD ARE LEFT ON THE PAVEMENTS. THIS MAY INCLUDE REMOVAL BY SWEEPING, POWER CLEANING, OR MANUAL METHODS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS, UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL LEAVE THE AREA DISTURBED BY CONSTRUCTION IN THE SAME OR BETTER CONDITION AS PRIOR TO COMMENCEMENT OF THIS WORK.

IT IS THE INTENT OF THE VILLAGE OF WALDO TO KEEP INCONVENIENCE TO THEIR RESIDENTS. BUSINESSES. AND GUESTS AT AN ABSOLUTE MINIMUM. ALL WORK IS TO CONTINUE ON A UNIFORM BASIS AND ON SCHEDULE, PARTICULARLY THE RESTORATION AND CLEANUP OF DISTURBED AREAS AFTER CONSTRUCTION. ALL FENCES, SIGNS, DRAINAGE STRUCTURES, LANDSCAPING AREAS, OR OTHER PHYSICAL FEATURES ETC. REMOVED, DISTURBED OR DAMAGED DURING WORK SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR UNLESS OTHERWISE PROVIDED FOR IN THE CONTRACT. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE DESIGN ENGINEER AND VILLAGE OF WALDO. ALL ADDITIONAL COSTS SHALL BE AT THE CONTRACTOR'S EXPENSE. NO SEPARATE PAYMENT SHALL BE MADE.

THE CONTRACTOR SHALL PERFORM DAILY CLEANUP OF THE WORK SITE. ALL TRASH, INCLUDING CANS, BOTTLES, FOOD SCRAPS, CONTAINERS, AND WRAPPERS SHALL BE PROPERLY DISPOSED OF OFF-SITE AND SHALL NOT BE THROWN IN THE CONSTRUCTION AREA, OR WITHIN TRASH RECEPTACLES PROVIDED BY THE VILLAGE OF WALDO FOR IT'S GUESTS.

CARE SHALL BE EXERCISED WHEN WORKING AROUND EXISTING TREES AND SHRUBS. ANY TREES OR SHRUBS NOT MARKED FOR REMOVAL, AND DAMAGED BY THE CONTRACTOR WILL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE VILLAGE OF WALDO AND/OR THE OWNER.

SPECIAL CARE SHALL BE TAKEN TO AVOID DAMAGE TO TREES AND THEIR ROOT SYSTEMS. MACHINE EXCAVATION SHALL NOT BE USED WHEN, IN THE OPINION OF THE DESIGN ENGINEER, IT WOULD ENDANGER THE TREE ROOTS. IN GENERAL, WHERE EXCAVATION IS WITHIN TEN (10) FEET OF THE CENTER OF A TREE WHICH IS NOT TO BE REMOVED, THE DESIGN ENGINEER SHALL BE NOTIFIED (PRIOR TO EXCAVATION) FOR HIS DETERMINATION ON HOW BEST TO PROCEED. THE OPERATION OF ALL EQUIPMENT, PARTICULARLY WHEN EMPLOYING BOOMS, THE STORAGE OF MATERIALS AND THE DISPOSITION OF EXCAVATION, SHALL BE CONDUCTED IN A MANNER WHICH WILL NOT INJURE TREES, TRUNKS, BRANCHES OR THEIR ROOTS. THE COST OF ALL SUCH WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

ALL AREAS IN THE RIGHT-OF-WAY ARE TO BE GRADED AND SEEDED AS SOON AS WORK IN THAT AREA IS COMPLETE.

ALL SURFACES INCLUDING DRAINAGE STRUCTURES, LANDSCAPING, PAVEMENTS, DRIVEWAYS, BERMS AND OTHER SURFACES DISTURBED DURING CONSTRUCTION OF THIS PROJECT SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER BY THE CONTRACTOR AT NO ADDITIONAL COST.

CONTRACTOR SHALL KEEP ALL STREETS, LANES, AND PARKING AREAS ADJACENT TO THE PROJECT CLEAN AND FREE FROM ANY DEBRIS, MUD AND/OR OTHER CONSTRUCTION EQUIPMENT AT ALL TIMES DURING THE PROJECT. ALL VEHICLES SHALL ENTER AND EXIT THE WORK SITE BY THE SAME ROUTE TO AVOID THE TRACKING OF ANY CONSTRUCTION MATERIALS. THE CONTRACTOR IS PROHIBITED FROM USING DRIVEWAYS TO TURN VEHICLES AROUND. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AT HIS OWN EXPENSE ANY CONSTRUCTION DEBRIS FROM ALL CURBS, GUTTERS, STRUCTURES, OR NON-SCHEDULED STREETS WHICH HAVE BEEN MARRED OR DEFACED DURING THE PROCESS OF TRANSPORTING OR APPLYING ANY CONSTRUCTION RELATED MATERIALS.

EXCAVATING AND BACKFILLING FOR SEWERS SHALL COMPLY WITH ODOT CMS ITEM 611. THE CONTRACTOR SHALL EXCAVATE ALL MATERIAL OF WHATEVER NATURE ENCOUNTERED, INCLUDING ROCK, AND REMOVE EXCESS MATERIAL FROM THE SITE. NO ADDITIONAL PAYMENT WILL BE MADE FOR ROCK EXCAVATION. BLASTING IS NOT PERMITTED. IF UNSUITABLE MATERIAL IS ENCOUNTERED AT THE SUBGRADE OF THE TRENCH, THE TREATMENT OF THIS MATERIAL SHALL FOLLOW ODOT CMS ITEM 611.05. REPLACEMENT OF UNSUITABLE MATERIAL WITH STRUCTURAL BACKFILL AS SPECIFIED IN ODOT CMS ITEM 611.05 SHALL BE REQUIRED IF DEWATERING OF THE SUBGRADE DOES NOT PRODUCE A SUBGRADE ACCEPTABLE TO THE VILLAGE OF WALDO.

ANY EXCAVATION PERFORMED BEYOND THE STANDARD TRENCH WIDTH, AS DEFINED ON THE PLAN DETAILS DUE TO SITE CONDITIONS OR THE CONTRACTOR'S METHODS ARE DONE SO SOLELY AT THE CONTRACTOR'S EXPENSE. NO EXTRA PAYMENT WILL BE MADE FOR UNAUTHORIZED EXCAVATION.

# 56. COMPACTION TESTING

THE CONTRACTOR IS RESPONSIBLE FOR ALL COMPACTION, ASPHALT AND CONCRETE TESTING. THE VILLAGE RESERVES THE RIGHT TO HAVE COMPACTION TESTED PERFORMED BY THE CONTRACTOR OUTSIDE OF THE INFLUENCE OF THE ROADWAY.

# 57. CONTROL DENSITY BACKFILL FOR STORM SEWER (OPTIONAL)

THE CONTRACTOR MAY BACKFILL THE TRENCH WITH ODOT ITEM 613 LOW STRENGTH MORTAR BACKFILL, TYPE I OR II IN ACCORDANCE WITH SECTION 613.03 WITH VILLAGE APPROVAL. NO SEPARATE PAYMENT SHALL BE MADE. PAYMENT SHALL BE INCLUDED WITH THE PRICE BID FOR THE SEWER PIPE IF THE CONTRACTOR CHOOSES THIS ALTERNATIVE.

# ITEM NOTES:

# 58. ITEM 201 - CLEARING AND GRUBBING

ALL TREES, FENCE POSTS, ROCKS, BUSH, STAMPS, AND FENCE SPECIFICALLY MARKED FOR REMOVAL THAT HAVE NOT BEEN ITEMIZED WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM 201 - CLEARING AND GRUBBING. THE VILLAGE OF WALDO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS LOCATED WITHIN THE RIGHT-OF-WAY, BUT NOT SHOWN ON THE PLANS. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201 - CLEARING AND GRUBBING.

- 59. ITEM 203 EXCAVATION AND EMBANKMENT CONSTRUCTION, INCLUDING PAVEMENT REMOVAL, AS PER PLAN ALL EXCAVATION AND EMBANKMENT, INCLUDING TEMPORARY CUTS AND FILLS, REQUIRED TO COMPLETE THE IMPROVEMENTS IDENTIFIED IN THE PLANS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 203 -EXCAVATION AND EMBANKMENT CONSTRUCTION, INCLUDING PAVEMENT REMOVAL, AS PER PLAN. THE COST FOR ALL ASPHALT PAVEMENT REMOVAL, INCLUDING DRIVEWAYS, SHALL BE INCLUDED IN THIS PRICE BID. SAW CUTTING SHALL BE INCLUDED IN THIS PRICE BID ITEM. NO SEPARATE PAYMENT SHALL BE MADE FOR SAW
- 60. ITEM 601 ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER THIS ITEM HAS BEEN PROVIDED TO STABILIZE THE EXISTING SLOPE ALONG THE DITCH UPSTREAM AND DOWNSTREAM OF THE PROPOSED STORM SEWER HEADWALLS. LIMITS OF THE AREA TO RECEIVE ROCK CHANNEL PROTECTION ARE SHOWN ON THE PLANS. IN ADDITION TO THE REQUIREMENTS OF ODOT CMS ITEM

601, THIS ITEM SHALL INCLUDE ANY NECESSARY GRADING, TO RE-ESTABLISH THE SLOPES TO BE STABILIZED.

# 61. ITEM 832 - EROSION CONTROL, AS PER PLAN

THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL AT ALL POINTS WHERE STORMWATER RUNOFF LEAVES THE PROJECT INCLUDING WATERWAYS, OVERLAND SHEET FLOW, AND STORM SEWERS. EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED AS PER THE REQUIREMENTS OF THE STANDARDS AND SPECIFICATION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL OF THE ODNR.

EROSION CONTROL MEASURES ARE TO BE INSTALLED PER THE VILLAGE OF WALDO STANDARDS, AND ARE TO BE MAINTAINED UNTIL SUCH TIME THAT THEY ARE NO LONGER REQUIRED BY THE PERMIT AND THE VILLAGE. COST FOR EROSION AND SEDIMENTATION CONTROL SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ODOT CMS 832 ITEMS.

ALL LAND DISTURBING ACTIVITIES SHALL BE SUBJECT TO INSPECTION AND SITE INVESTIGATION BY THE

VILLAGE OF WALDO. FAILURE TO COMPLY WITH THESE REGULATIONS IS SUBJECT TO LEGAL ENFORCEMENT

EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED AS A PART OF THIS PROJECT AND AN SEC PLAN SHALL BE SUBMITTED TO THE VILLAGE OF WALDO BY THE CONTRACTOR AT LEAST 7 DAYS PRIOR TO CONSTRUCTION . THE SEDIMENTATION AND EROSION CONTROL PLAN SHALL REFLECT A SCHEMATIC DIAGRAM OF THE INTENDED MEASURE FOR COMPLIANCE WITH THE REQUIRED STANDARDS. GENERAL PRACTICE AND/OR SITE FIELD CONDITIONS MAY WARRANT VARIATION IN THE PLACEMENT OR USE OF THE SPECIFIED CONTROLS.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING NECESSARY AND ADEQUATE MEASURES FOR PROPER CONTROL OF EROSION END SEDIMENT RUNOFF FROM THE SITE ALONG WITH PROPER MAINTENANCE AND INSPECTION IN COMPLIANCE WITH THE VILLAGE OF WALDO.

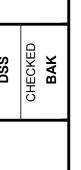
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE VILLAGE OF WALDO 48-HOURS PRIOR TO COMMENCEMENT OF INITIAL SITE LAND DISTURBANCE ON ANY SITE OF ONE (1) OR MORE ACRES. THIS INCLUDES SITE CLEARING, GRUBBING AND ANY EARTH MOVING. PRIMARY EROSION AND SEDIMENT CONTROL PRACTICES ARE MANDATED BY REGULATION TO BE IN PLACE FROM THE BEGINNING OF THE CONSTRUCTION

NO AREA FOR WHICH GRADING HAS BEEN COMPLETED OR WHERE A DENUDED AREA WILL REMAIN IDLE FOR MORE THAN FOURTEEN (14) DAYS SHALL BE LEFT UNSEEDED FOR LONGER THAN SEVEN (7) DAYS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SEDIMENT CONTROL DEVICES AT THE CONCLUSION OF THE CONSTRUCTION, BUT NOT BEFORE GROWTH OF PERMANENT COVER IS ESTABLISHED. THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE (CONSISTENT WITH SEDIMENT/EROSION CONTROL PROCTICES) FOR THE WORK AREA ALL TIMES.

# LINETYPE LEGEND

EX. BUILDING	<u> </u>	EX. SIGN	-0
			P
EX. CONTOUR	805—	EX. ELEC POLE	9
CENTER LINE		EX. PULL BOX	PB
EX. R/W	EX. RW		
EX. PROPERTY LINE	EX. PIL	EX. GUY WIRE —	$- \rightarrow$
EX. FENCE	xxxxx	EX. STREET LIGHT	O(=
EX. WAT			
EX. WAT SERVICE	ws ws ws	EX. STM MANHOLE	
EX. SAN	SAN ————————————————————————————————————	EX. C&G INLET	
EX. STM			
EX. GAS	GAS GAS	EX. SAN MANHOLE	
EX. OH ELEC	ELEC-OH ————————————————————————————————————	EX. WATER VALVE	$\bigotimes^{WV}$
EX. TRAFFIC	TRAF — TRAF — TRAF —		~/
EX. DRIVEWAY		EX. FIRE HYDRANT	<b>Q</b>
EX. FACE OF CURB		EX. WATER METER	[WM]
EX. BACK OF CURB			
EX. SIDEWALK		EX. CURB STOP	$\otimes$
EX. VEGETATION		EX. GAS VALVE	GV ⊗
EX. WAT (TBA)	— WAT-ABAN — WAT-ABAN — WAT-ABAN —	EV TREE	25- Auronaly
PR. PROPERTY LINE		EX. TREE	The state of the s
PR. R/W		EX. TRAFFIC POLE	R
PR. CONTOUR	805	DD CUIDD DAME	7
PR. CURB AND GUTTER		PR. CURB RAMP	200000000000000000000000000000000000000
PR. FACE OF CURB		PR. UTILITY CONC RING	
PR. BACK OF CURB		DD CION	_
PR. SIDEWALK		PR. SIGN	•
PR. DRIVEWAY		PR. FIRE HYDRANT	<b></b>
PR. SAWCUT			_
PR. CONST. LIMITS		PR. CURB STOP/WAT METER	⊗
PR. STM		PR. SANITARY MANHOLE	
PR. WAT MAIN		DD STM MANUALE	
PR. WAT SERVICE	WS WS WS WS WS	PR. STM MANHOLE	
PR. SANITARY SEWER		PR. C&G INLET	
PR. SANITARY SERVICE		EY TREE (TRR)	E Thomas

EX. TREE (TBR)



4 2

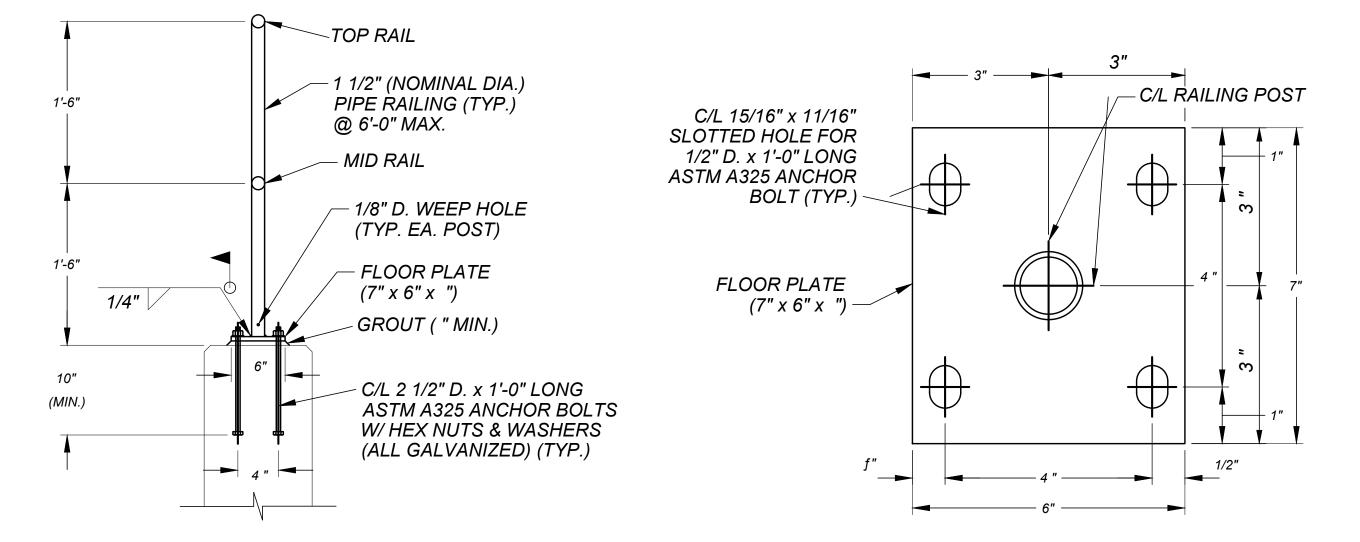
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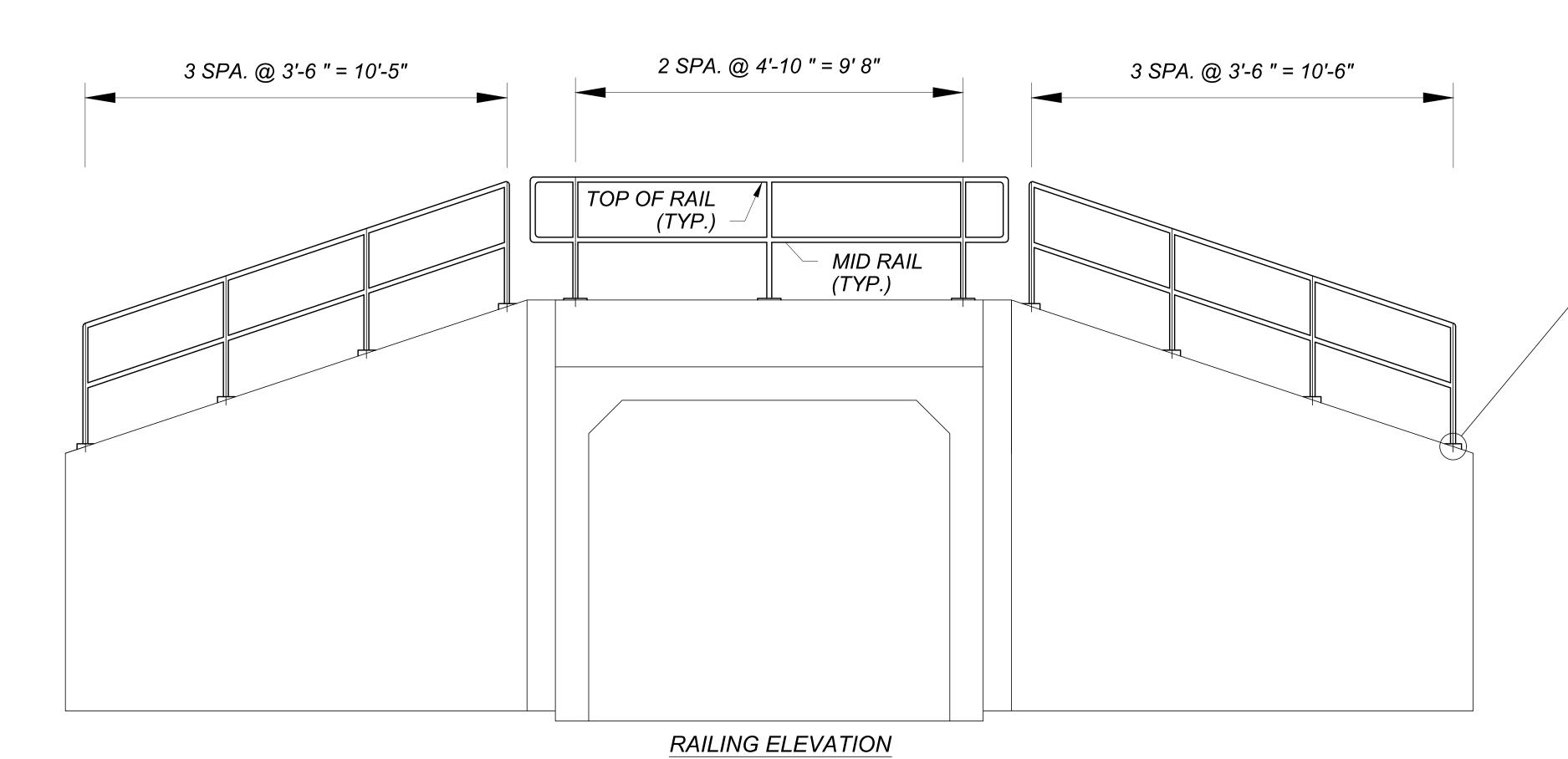
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TAILS

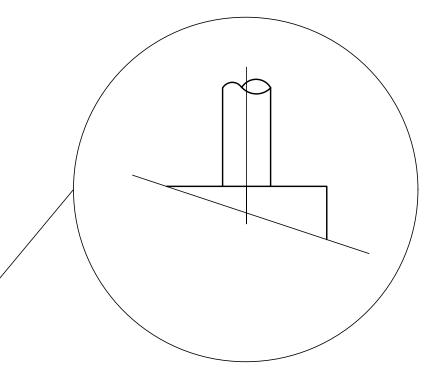


RAILING DETAIL

(SEE NOTE 4)



FLOOR PLATE



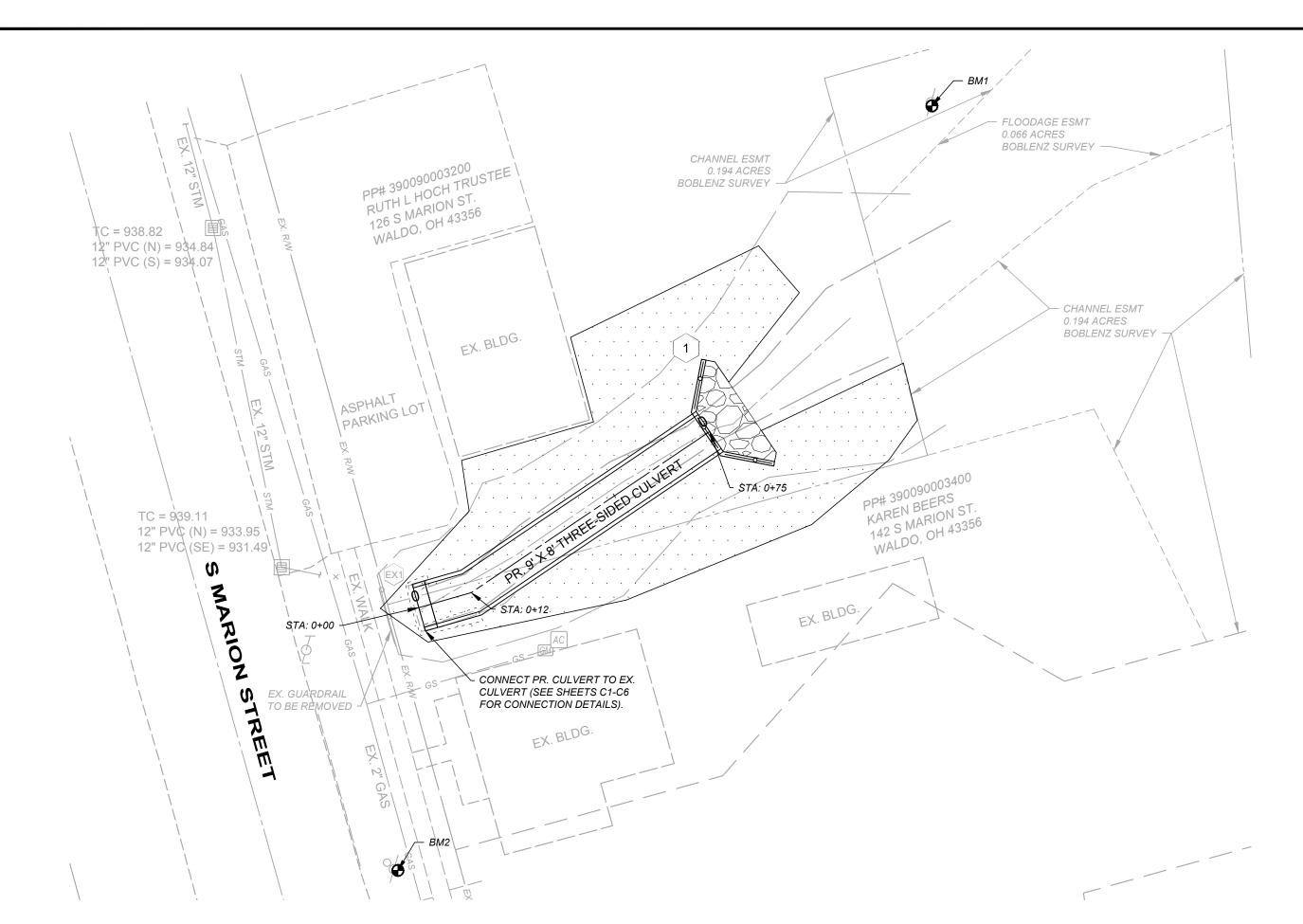
# EXPANDED VIEW - BEVELED FLOOR PLATES

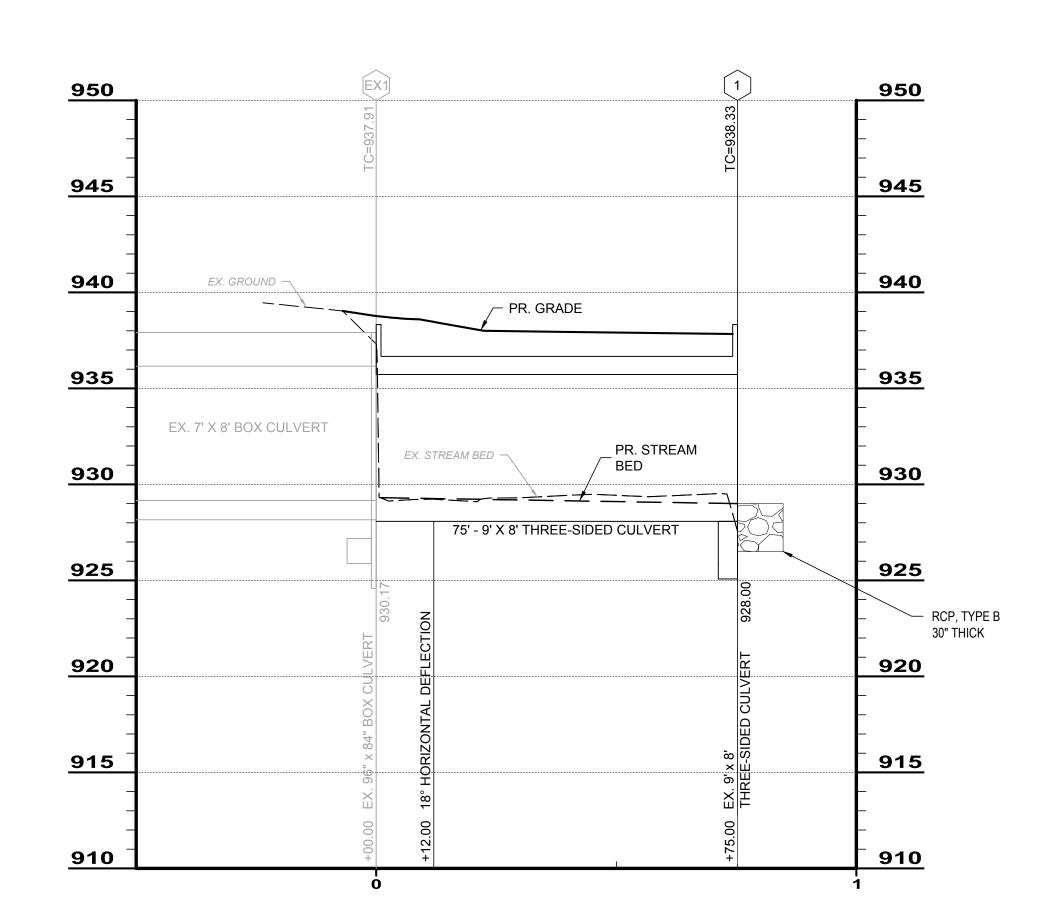
# **RAILING NOTE:**

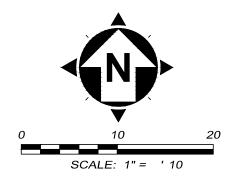
THIS ITEM SHALL CONFORM TO ITEM 517 EXCEPT THAT ALL STEEL RAILING, POSTS, AND FLOOR PLATES SHALL BE PAINTED WITH BLACK (FEDERAL COLOR NO. 17038) POLYVINYL COATING AFTER FABRICATION AND GALVANIZATION.

HAND RAILING AND POSTS SHALL BE FABRICATED FROM NOMINAL SIZE 1  $\frac{1}{2}$ " DIAMETER 0.145" WALL THICKNESS STEEL PIPE MEETING THE REQUIREMENTS OF THE SPECIFICATION FOR WELDED AND SEAMLESS STEEL PIPE ASTM A 53 STANDARD WEIGHT, SCHEDULE 40.

GALVANIZE STEEL RAILING, POSTS, AND FLOOR PLATES AFTER FABRICATION, AS SPECIFIED IN ASTM A 123. RE-GALVANIZE AREAS IN WHICH SPELTER COATING HAS BEEN DAMAGED, AS SPECIFIED IN AASHTO M 36, SECTION 24. METALIZING PROCESS OR REPAIR UNDER THE DIRECTION OF THE ENGINEER WITH STICK-FORM GALVANIZING REPAIR COMPOUND MEETING FEDERAL SPECIFICATION O-G-93.







#### **SHEET NOTES**

#### **EXPOSE EXISTING UTILITIES**:

WHERE POTENTIAL GRADE AND ALIGNMENT CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR SHALL EXPOSE UTILITIES OR STRUCTURES SUFFICIENTLY IN ADVANCE OF LAYING PIPE FOR THE DESIGN ENGINEER TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE NEW CONSTRUCTION. ANY DISCREPANCY WITH THE PLANS SHALL BE COORDINATED WITH THE DESIGN ENGINEER TO ENSURE THAT THERE ARE NO CONSTRUCTION OR CONFLICT ISSUES ASSOCIATED WITH SAID DISCREPANCY. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS IMPROVEMENT ITEMS IF A SPECIFIC ITEM IS NOT PROVIDED IN THE ESTIMATE OF QUANTITIES.

<u>CAUTION</u>:
O.S.H.A. CLEARANCE REQUIREMENTS TO BE MAINTAINED DURING CONSTRUCTION BETWEEN EQUIPMENT AND OVERHEAD UTILITY LINES.

THE CONTRACTOR SHALL PROVIDE SITE GRADING AROUND THE CULVERT, HEADWALL, AND WINGWALL INFRASTRUCTURE, IN ORDER TO ENSURE POSITIVE DRAINAGE TOWARD THE STREAM. PAYMENT FOR GRADING SHALL BE INCLUDED IN THE UNIT PRICE FOR EXCAVATION AND EMBANKMENT CONSTRUCTION.

#### PRECAST DETAILS:

THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH AND INSTALL A REINFORCED CONCRETE STRUCTURE THREE-SIDED BOX CULVERT, INCLUDING REINFORCED CONCRETE HEADWALLS, WINGWALLS, AND FOUNDATIONS PER PLAN. SEE SHEETS C1-C6 FOR DETAILS.

## CONCRETE REMOVAL IN EXISTING CHANNEL:

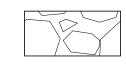
THE CHANNEL OF THE EXISTING STREAM IS LINED WITH CONCRETE PANELS, BRICKS, AND OTHER MATERIAL. THIS WAS INSTALLED TO PREVENT ADDITIONAL EROSION TO THE PROPERTY OWNERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL CONCRETE PANELS AND MATERIAL LOCATED ALONG THE BANKS AND CHANNEL OF THE STREAM, PRIOR TO THE INSTALLATION OF THE NEW CULVERT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING MATERIAL IN ACCORDANCE WITH ODOT CMS ITEM 202. ALL COST ASSOCIATED FOR THIS EFFORT SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 202 - CONCRETE BASE REMOVED.

#### UTILITY POLE PROTECTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING REINFORCEMENT WORK WITH UTILITY COMPANY FOR ANY UTILITY POLES LOCATED WITHIN THE INFLUENCE OF TRENCHES OR EARTHWORK OPERATIONS. SEE GENERAL NOTE NO. 22 FOR ADDITIONAL INFORMATION.

THE PROPOSED THREE-SIDED BOX CULVERT SHALL BE INSTALLED AS PER THE DRAWINGS (SHEET C1-C6) PROVIDED BY PRETEK GROUP, OR APPROVED EQUAL..

# **LEGEND**

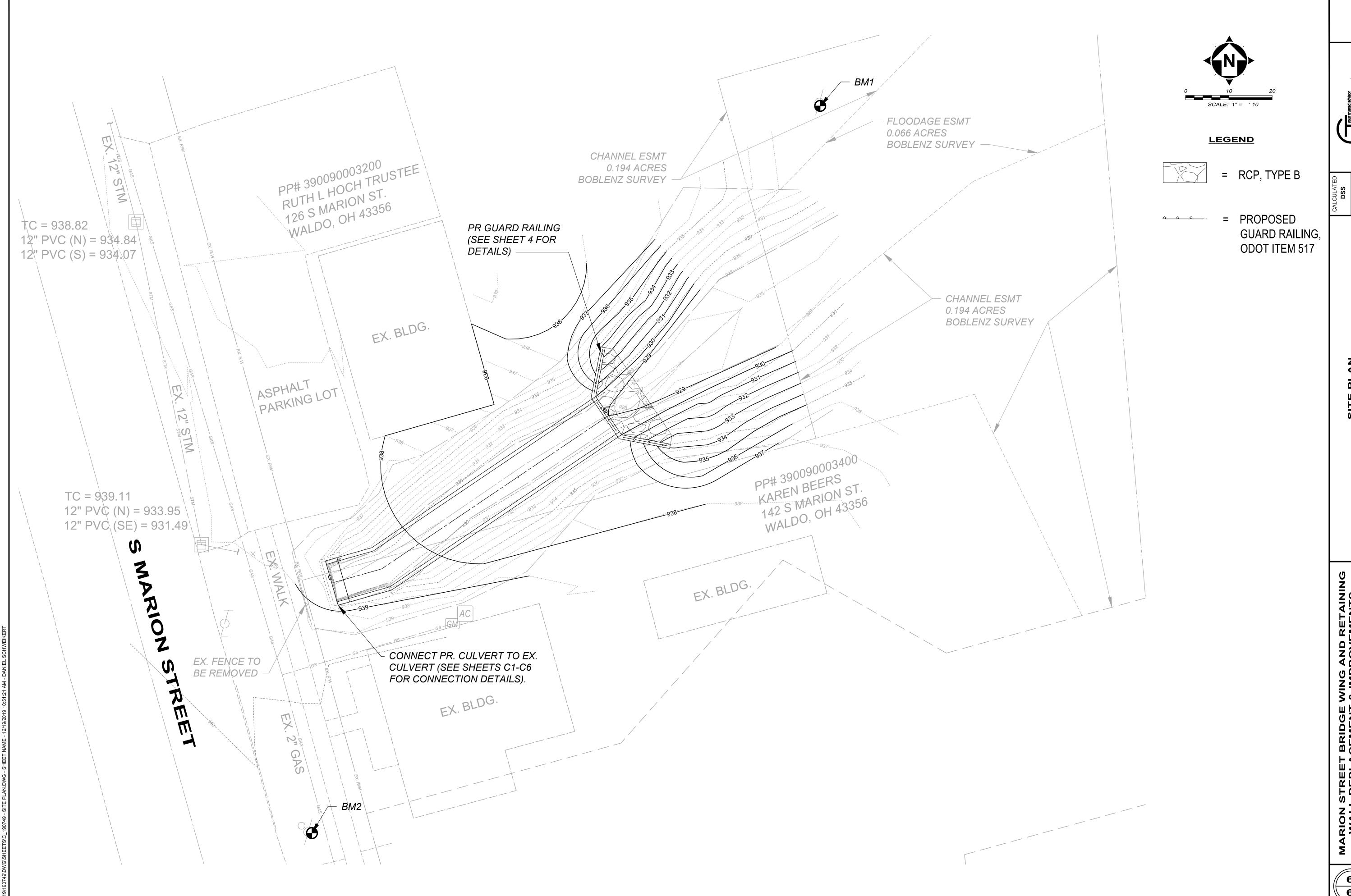


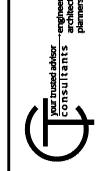
RCP, TYPE B



GRADING AND SEEDING AND MULCHING LIMITS

PR. CULVERT CENTERLINE TABLE						
STATION	NORTHING (PER PLAN)	EASTING (PER PLAN)	NORTHING (AS-BUILT)	EASTING (AS-BUILT)		
0+00	289003.9726	1807994.6182				
0+12	289007.268	1808006.1586				
0+75	289042.6702	1808058.567				





MARION STREET BRIDGE WING AND RETAINING WALL REPLACEMENT & IMPROVEMENTS WALDO, OHIO

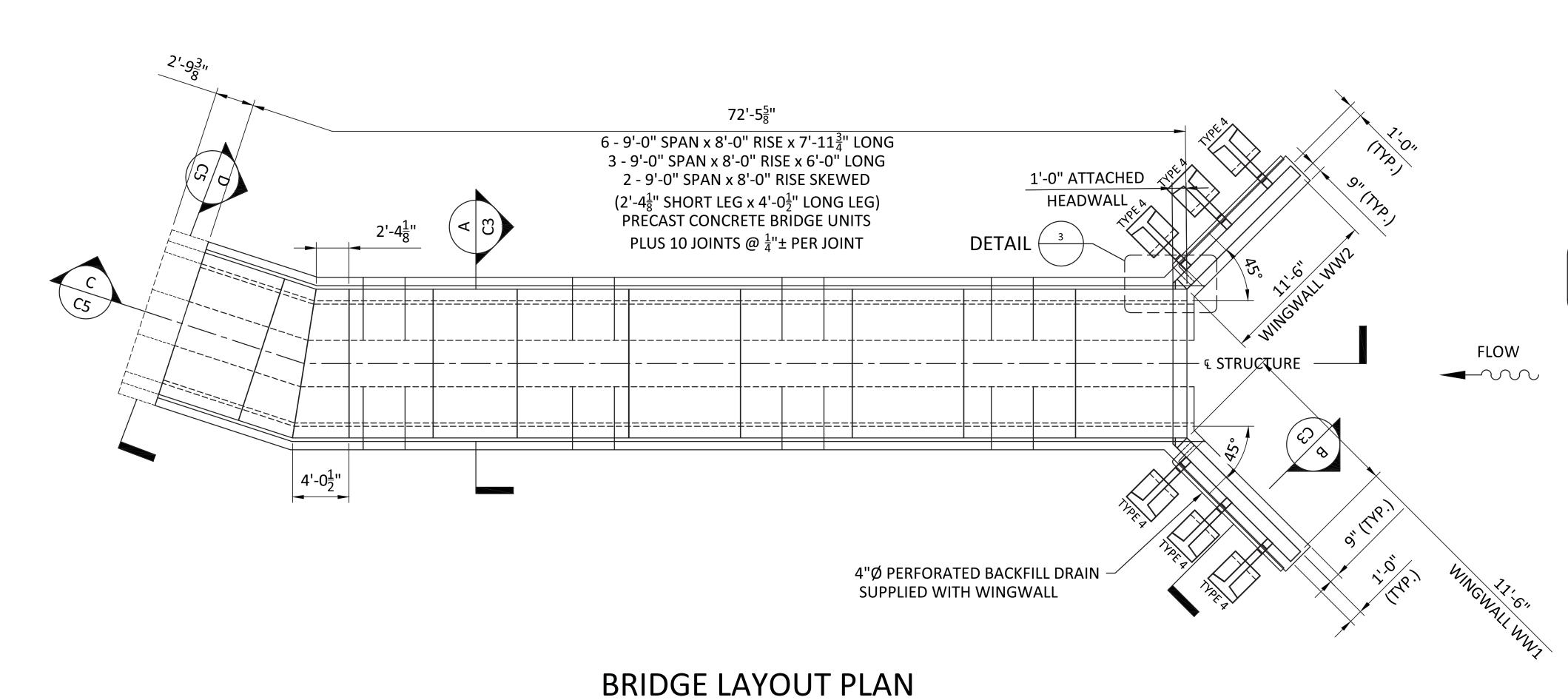
# SOUTH MARION STREET CULVERT STRUCTURE

WALDO

**LOCALE:** WALDO

OHIO

STATE: OH



### **DESIGN NOTES**

1. THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS "LRFD BRIDGE DESIGN SPECIFICATIONS", 8TH EDITION AND INTERIM SPECIFICATIONS TO DATE. DESIGN LOADS ARE AS FOLLOWS:

BRIDGE UNITS: HL-93
DESIGN FILL HEIGHT: 1'-0" MIN. TO 3'-0" MAX.
HEADWALLS: EARTH PRESSURE ONLY
WINGWALLS: EARTH PRESSURE ONLY

2. THE FOUNDATIONS FOR THIS PROJECT ARE DESIGNED IN ACCORDANCE WITH:

NET ALLOWABLE BEARING PRESSURE: 2,000 PSF GROSS ALLOWABLE BEARING PRESSURE: 2,480 PSF

3. CONFORMANCE TO THESE DRAWINGS, SPECIFICATIONS, AND EXISTING CONDITIONS, INCLUDING HYDRAULIC CAPACITY, SCOUR, GRADING AND SOIL CONDITIONS SHALL BE VERIFIED BY OTHERS.

# **MATERIALS - FOUNDATION**

- 1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI
- 2. REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A996 GRADE 60

#### / NOTI

BRIDGE STATIONING, LOCATION, ELEVATIONS, AND DIMENSIONS TO BE VERIFIED BY OTHERS PRIOR TO POURING PRECAST.

FOR APPROVAL

DATE DESCRIPTION ENG

D

SOUTH MARION STREET CULVERT STRUCTURE

PRETEK

PROJECT NUMBER: 19-567 DATE: 11/27/2019

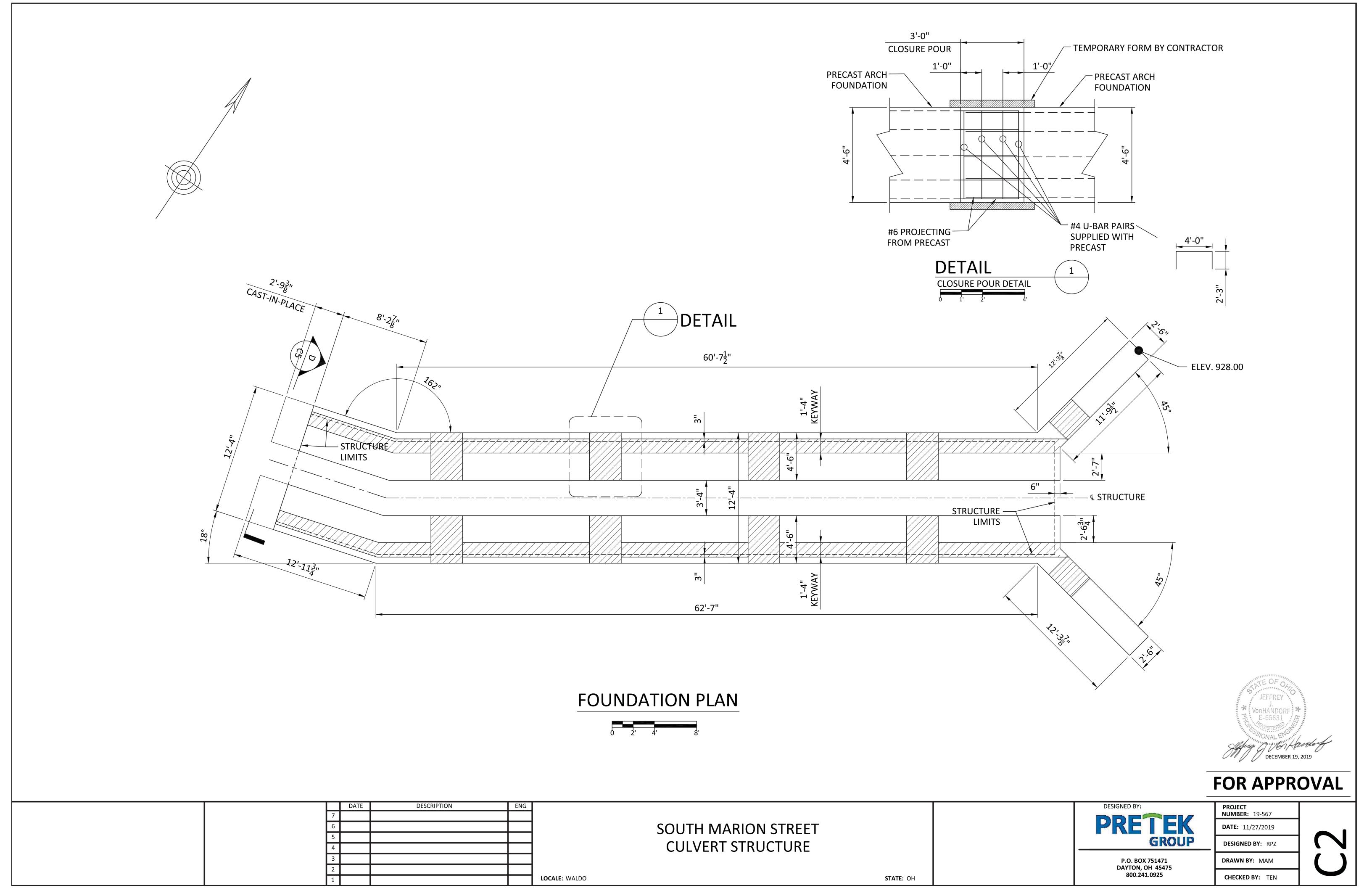
**DESIGNED BY:** RPZ

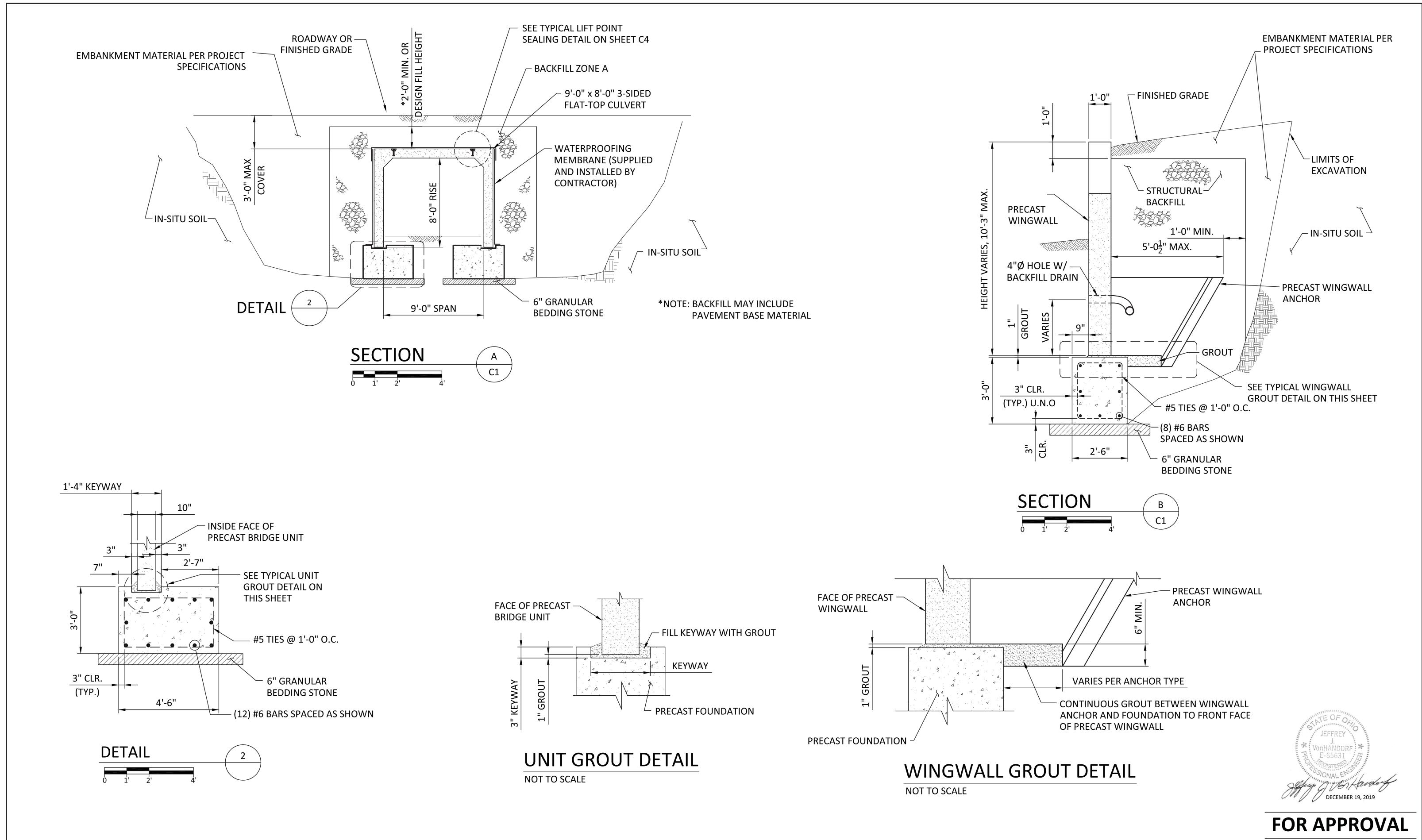
P.O. BOX 751471 DAYTON, OH 45475

DRAV

DRAWN BY: MAM

CHECKED BY: TEN





PROJECT NUMBER: 19-567

SOUTH MARION STREET **CULVERT STRUCTURE** 

DESCRIPTION

DATE

PRETEK GROUP P.O. BOX 751471

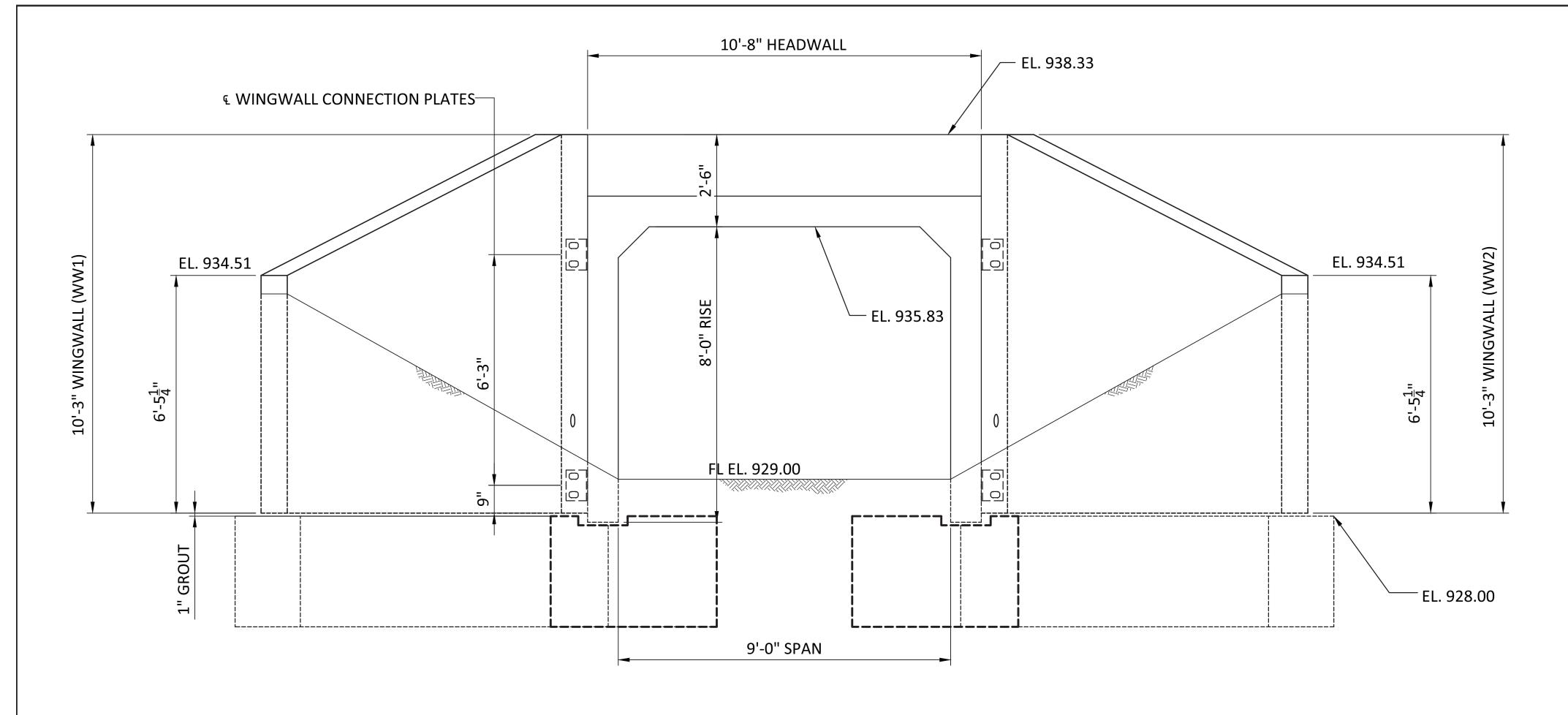
**DATE:** 11/27/2019 **DESIGNED BY:** RPZ DRAWN BY: MAM

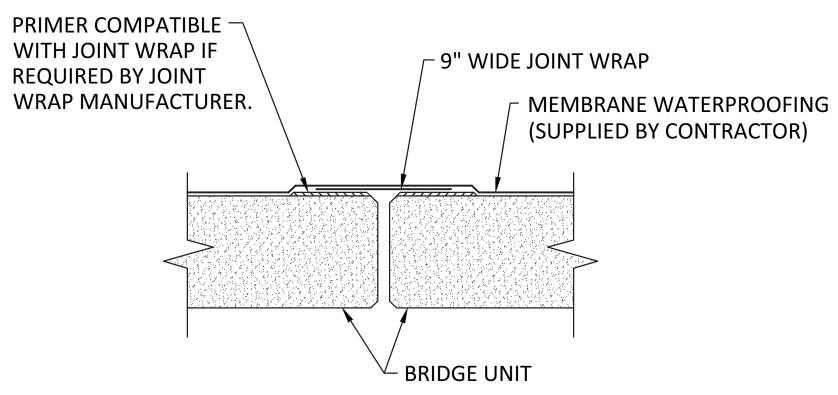
**CHECKED BY:** TEN

DAYTON, OH 45475 800.241.0925

LOCALE: WALDO

STATE: OH

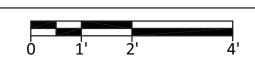


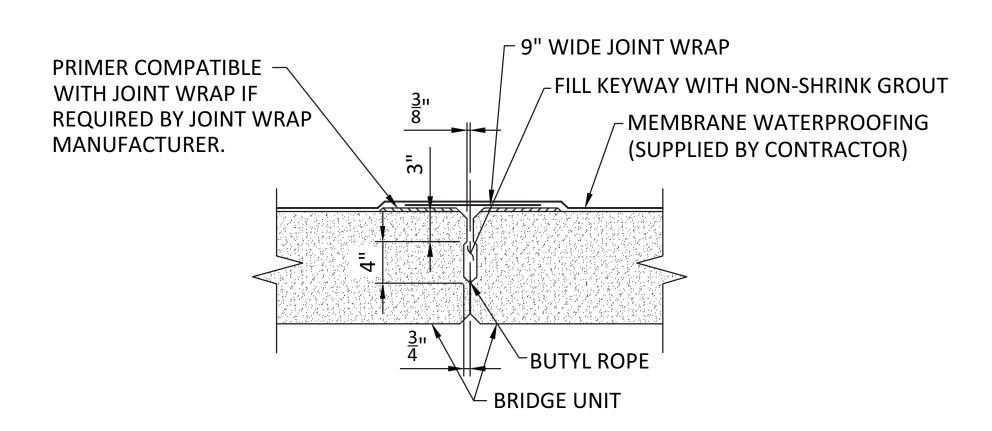


JOINT SEAL DETAIL AT LEGS

NOT TO SCALE

# UPSTREAM END ELEVATION

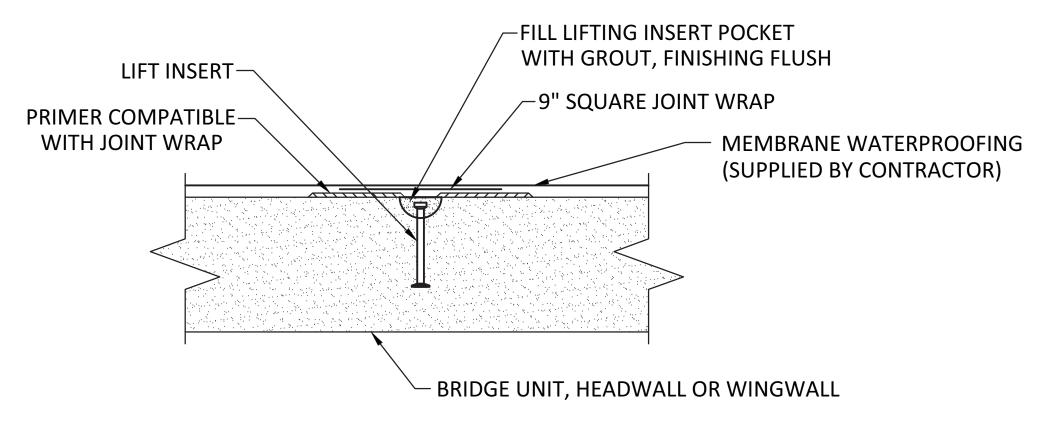




TOP SLAB BRIDGE JOINT SEAL DETAIL NOT TO SCALE

NOTE: AFTER ERECTION, JOINTS SHALL BE FILLED WITH NON-SHRINK GROUT. OMIT KEY ON EXTERIOR FACES OF PIECES MARKED "U1"

LOCALE: WALDO



# TYPICAL LIFT POINT SEALING DETAIL

NOT TO SCALE

STATE: OH



# **FOR APPROVAL**

	DATE	DESCRIPTION	ENG
7	DATE	DESCRIPTION	LING
6			
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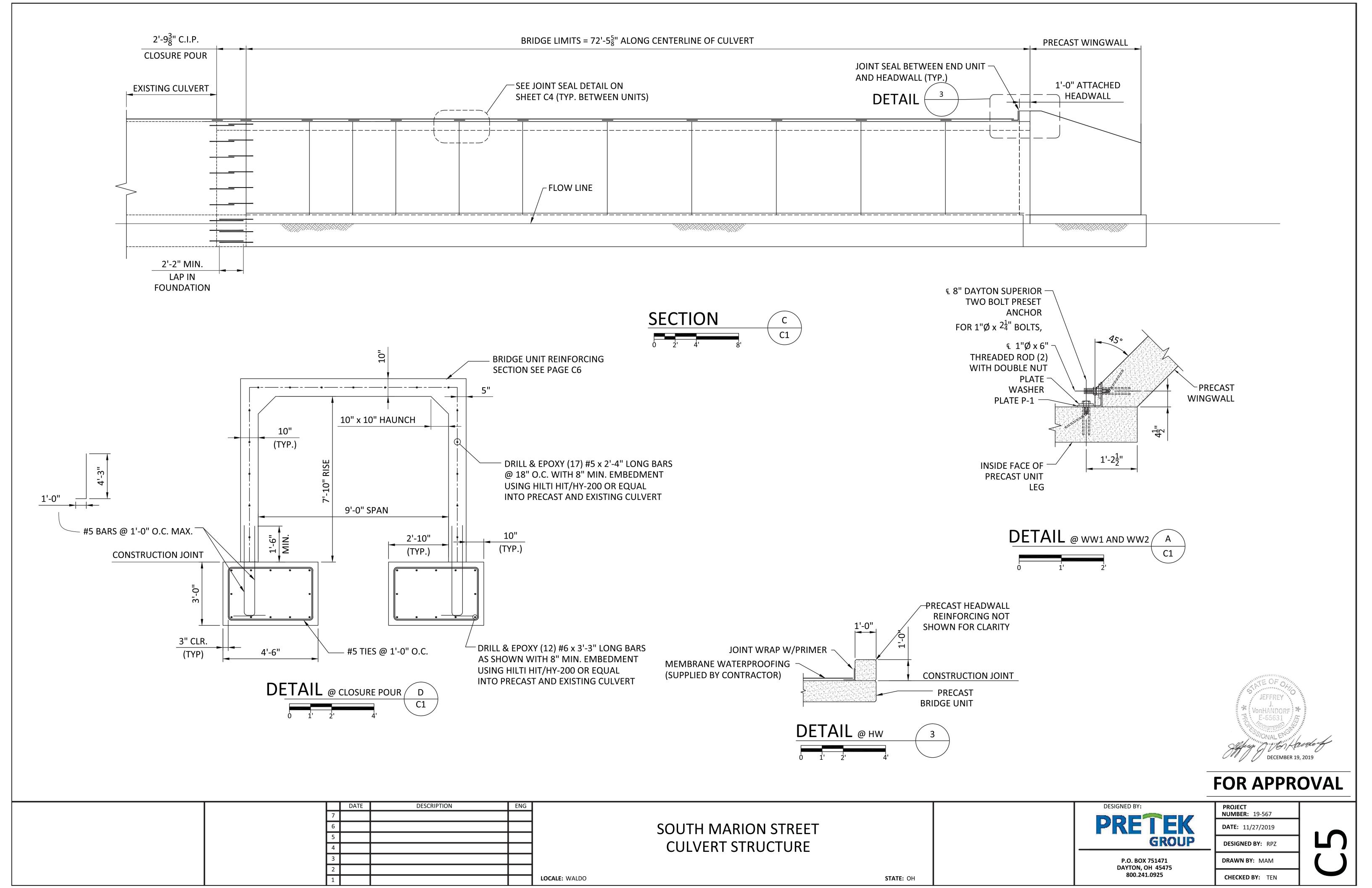
SOUTH MARION STREET **CULVERT STRUCTURE** 

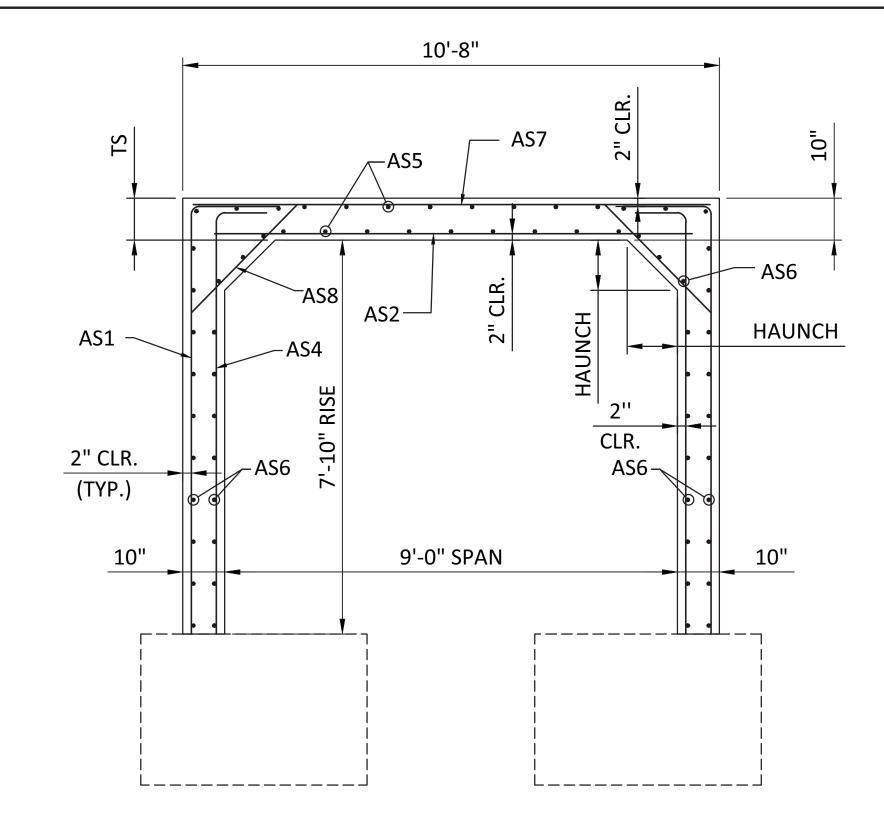
PRETEK GROUP

PROJECT NUMBER: 19-567 **DATE:** 11/27/2019

P.O. BOX 751471 DAYTON, OH 45475 800.241.0925 DRAWN BY: MAM

**DESIGNED BY:** RPZ **CHECKED BY:** TEN





# **DESIGN DATA:**

- 1. CORE STRENGTH OF CONCRETE SHALL BE 4,500 PSI MINIMUM AT 28 DAYS.
- 2. REINFORCING STEEL SHALL BE WITH A MINIMUM YIELD STRENGTH OF 60,000 PSI.
- 3. DESIGN LOAD: HL-93
- 4. SKEW ANGLE: N/A
- 5. 2" COVER ON EXT. SURFACES AND 2" COVER ON INT. SURFACES
- 6. D.E.C. 1'-0" MIN. TO 3'-0" MAX.

# TYPICAL BRIDGE UNIT REINFORCING ELEVATION

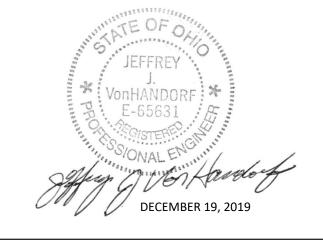
# AS4 BAR DETAIL AS1 BAR DETAIL

# TYPICAL BRIDGE UNIT REINFORCING LIST

AREA REQUIRED	ZONE	REINF. DESCRIPTION	LENGTH	TYPE	QTY
0.40 in <sup>2</sup> /ft	AS1	#4@6"O.C.	12'-0"	BENT	12
0.60 in <sup>2</sup> /ft	AS2	#4@4"O.C.	10'-3"	STR	9
N/A	AS3	N/A	N/A	STR	N/A
0.30 in <sup>2</sup> /ft	AS4	#4@8"O.C.	9'-5"	BENT	10
0.24 in <sup>2</sup> /ft	AS5	#4@10''O.C.	2'-5''	STR	17
0.13 in <sup>2</sup> /ft	AS6	#3@10''O.C.	2'-5"	STR	48
0.30 in <sup>2</sup> /ft	AS7	#4@8"O.C.	10'-3"	STR	5
0.30 in <sup>2</sup> /ft	AS8	#4@8"O.C.	3'-0"	STR	10

NOTES: AS5 & AS6 LENGTH VARIES BASED ON SKEW = LAY LENGTH -4", MAX =2'-5"

STATE: OH



**FOR APPROVAL** 

	DATE	DESCRIPTION	ENG	
7				
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1				LOCALE: \

SOUTH MARION STREET CULVERT STRUCTURE

PRETEK GROUP P.O. BOX 751471

**DAYTON, OH 45475** 

PROJECT
NUMBER: 19-567

DATE: 11/27/2019

DESIGNED BY: RPZ

DRAWN BY: MAM

DRAWN BY: MAM

CHECKED BY: TEN

# SPECIFICATIONS FOR THE MANUFACTURE AND DESIGN OF PRECAST THREE SIDED STRUCTURES, WINGWALLS AND HEADWALLS

#### 1. DESCRIPTION

THESE SPECIFICATIONS ARE FOR A PRECAST THREE SIDED ARCH STRUCTURE, HEADWALLS AND WINGWALLS. PRECAST PIECES SHALL CONFORM TO ASTM C1504-16

#### 2. DESIGN

THE PRECAST UNITS ARE DESIGNED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS "LRFD BRIDGE DESIGN SPECIFICATIONS". EIGHTH EDITION AND INTERIM SPECIFICATIONS TO DATE.

CONSTRUCTION EQUIPMENT HEAVIER THAN A D-4 DOZER IS NOT ALLOWED OVER THE ARCH STRUCTURE UNTIL BACKFILL IS PLACED TO AT LEAST 1' DEPTH OVER THE TOP OF THE ARCH. AT NO TIME SHALL HEAVY CONSTRUCTION OR BACKFILLING EQUIPMENT IN EXCESS OF 8 TONS BE PERMITTED OVER THE STRUCTURE OR WITHIN 3' OF ANY STRUCTURE LELEMENT WITHOUT AT LEAST 2' OF COVER OVER THE STRUCTURE UNLESS THE STRUCTURE IS DESIGNED FOR LESS COVER. EQUIPMENT WITH AXLE WEIGHT OR TOTAL WEIGHT GREATER THAN THE DESIGN LOAD SHALL NOT BE OPERATED ON THE STRUCTURE WITHOUT WRITTEN APPROVAL FROM PRETEK GROUP.

#### 3. MATERIALS - STEEL REINFORCEMENT AND HARDWARE

FERRULE LOOP AND EXPANDED COIL INSERTS SHALL BE AS MANUFACTURED BY DAYTON SUPERIOR CORPORATION OR EQUAL. STAINLESS STEEL INSERTS, RODS, NUTS AND WASHERS SHALL BE SAE 304. STRUCTURAL CONNECTIONS FOR ARCH UNIT PLATES AND PLATE WASHERS SHALL CONFORM TO ASTM A709, GRADE 36, GALVANIZED IN CONFORMANCE WITH ASTM A123. STEEL BOLTS, THREADED RODS AND NUTS FOR ARCH UNIT CONNECTION SHALL CONFORM TO ASTM A325. THREADED ITEMS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM B633, SERVICE CONDITION 1. OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

#### 4. PRECAST ELEMENTS

STORAGE OF UNITS SHOULD BE IN A MANNER THAT PREVENTS ANY DAMAGE OR CRACKING AND IN A FASHION APPROVED BY THE ENGINEER

#### 5. QUALITY ASSURANCE

THE PRECAST PLANT SHALL BE CERTIFIED BY THE NATIONAL PRECAST CONCRETE ASSOCIATION'S PLANT CERTIFICATION PROGRAM, PRECAST/PRESTRESSED CONCRETE INSTITUTE PLANT CERTIFICATION OR AMERICAN CONCRETE PIPE ASSOCIATION CERTIFIED PLANT DURING PRODUCTION OF ALL PRECAST ELEMENTS.

THE OWNER OR OWNER'S AGENT MAY INSPECT THE MATERIAL, MANUFACTURE AND FINISHED PRECAST ELEMENTS AT THEIR DISCRETION.

#### 6. PERMISSIBLE VARIATIONS

WINGWALL AND HEADWALL ARE TO BE MANUFACTURED SO THAT THE LENGTH, HEIGHT AND THICKNESS DOES NOT VARY MORE THAN 1/2" FROM WHAT IS SHOWN ON THE SHOP DRAWINGS. WINGWALL ANCHOR LENGTH LONGER THAN THAT SHOWN ON THE SHOP DRAWINGS SHALL NOT BE CAUSE FOR REJECTION.

THE MAXIMUM PERMISSIBLE JOINT WIDTH AT ANY LOCATION SHALL BE 3/4"

#### 7. WORKMANSHIP AND FINISH

PRECAST ELEMENTS ARE TO HAVE A SMOOTH STEEL FORM OR TROWELED SURFACE. THE ENDS OF BRIDGE UNITS SHALL BE NORMAL TO THE WALLS AND CENTERLINE OF THE ARCH. THE PRECAST ELEMENTS SHALL BE FREE OF ANY SUBSTANTIAL FRACTURE OR BLEMISH.

#### 8. MARKING

IN ADDITION TO MARKINGS DESCRIBED IN ASTM C1504 AND/OR PROJECT SPECIFICATIONS, THE PIECE MARK SHOWN IN THE SHOP DRAWINGS SHALL BE INCLUDED.

ACCEPTABLE	BACKFILL MATERI	AL IN ZONE A
SPAN	FILL HEIGHT	MATERIAL IN ZONE A
≤ 24'-0"	< 12¹-0"	A1, A2, A3
≤ 24'-0"	≥ 12¹-0"	A1, A3
> 24'-0"	ALL	A1, A3

#### TABLE 1 - ACCEPTABLE BACKFILL

#### 9. CONSTRUCTION

THE BRIDGE UNITS AND WINGWALLS SHALL BE INSTALLED ON CAST IN PLACE FOUNDATIONS PER THE PLANS. THE PROJECT ENGINEER SHALL VERIFY THAT THE FOUNDATION SUBGRADE IS IN COMPLIANCE WITH THE GEOTECHNICAL REPORT FOR THE PROJECT.

THE FOOTINGS SHALL HAVE A SMOOTH FLOAT FINISH WITH A MINIMUM COMPRESSIVE STRENGTH AS SPECIFIED IN THE DESIGN NOTES. THE SURFACE OF THE FOUNDATION SHALL NOT VARY BY MORE THAN 1/4" WHEN MEASURED WITH A 10 FOOT STRAIGHT EDGE. THE FOOTINGS SHALL HAVE REACHED A MINIMUM OF 2.000 PSI BEFORE INSTALLATION OF ANY PRECAST ELEMENTS. FOUNDATION DIMENSION SHALL MATCH THOSE THAT ARE SHOWN ON THE PLANS.

PRECAST ELEMENTS SHALL BE INSTALLED AS SHOWN ON THE PLANS AND SPECIAL CARE SHALL BE TAKEN TO VERIFY THAT ELEMENTS ARE PLACED TO FOLLOW THE DESIGNATED CENTERLINE OF THE STRUCTURE. BRIDGE STRUCTURES AND WINGWALLS ARE TO BE PLACED ON MASONITE SHIMS TO ALLOW A MINIMUM OF 1/2" CLEARANCE BETWEEN BOTTOM OF PRECAST ELEMENT AND TOP OF FOOTING. GAP TO BE FILLED WITH CEMENT GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI. GROUT TO BE COMPOSED OF PORTLAND CEMENT AND WATER OR CEMENT MORTAR COMPOSED OF ONE PART PORTLAND CEMENT AND THREE PARTS SAND BY VOLUME.

BUTT JOINTS BETWEEN BRIDGE UNITS SHALL BE COVERED WITH A 7/8" X 1 3/8" (1" NOMINAL) BUTYL ROPE AND A 9" (MINIMUM) WIDE STRIP OF JOINT WRAP. BUTYL ROPE SHALL BE CONSEAL (CS-212) OR EQUAL. A PRIMER COMPATIBLE WITH THE JOINT WRAP TO BE APPLIED ON EACH SIDE OF THE BUTT JOINT ON A CLEAN SURFACE IF REQUIRED BY JOINT WRAP MANUFACTURER. JOINT PROTECTION SHALL EXTEND FROM BOTTOM OF ONE LEG, UP OVER ARCH AND DOWN OPPOSITE LEG. ANY LAPS SHALL HAVE 6" OF OVERLAP AND HAVE OVERLAP RUNNING DOWN HILL.

LIFT HOLES ARE TO BE FILLED, PRIMED AND COVERED WITH JOINT WRAP. EDGES ALONG HEADWALL COLLAR AND TOP OF BRIDGE UNIT TO BE COVERED WITH JOINT WRAP INSTALLED PER MANUFACTURERS RECOMMENDATIONS. HEADWALLS THAT ARE CAST INTEGRAL WITH A BRIDGE UNIT REQUIRES NO TYPE OF JOINT PROTECTION.

JOINTS BETWEEN WINGWALL SECTIONS AND JOINTS BETWEEN A WINGWALL AND BRIDGE UNIT SHALL BE SEALED WITH EITHER A 2' WIDE STRIP OF FILTER FABRIC OR 9" WIDE (MINIMUM) JOINT WRAP.

BACKFILL IS DEFINED AS ALL REPLACED EXCAVATION AND NEW EMBANKMENT MATERIAL THAT IS ADJACENT TO THE THREE SIDED STRUCTURE, WINGWALLS AND HEADWALLS. BACKFILL MATERIAL WITHIN STRUCTURAL BACKFILL ZONE (BACKFILL ZONE A), MUST MEET THE AASHTO MATERIAL REQUIREMENTS ON THIS SHEET.

ALL BACKFILL IN ZONE A IS TO BE COMPACTED TO A MINIMUM DENSITY OF 95% STANDARD PROCTOR PER AASHTO T-99.

SPECIAL CARE IS TO BE TAKEN DURING BACKFILLING TO PROTECT THE PLACEMENT OF JOINT WRAP OR ANY WATERPROOFING MATERIAL.

MECHANICAL TAMPERS OR APPROVED COMPACTING EQUIPMENT NOT EXCEEDING 1 TON SHALL BE USED ON ALL BACKFILL MATERIAL THAT IS DIRECTLY ADJACENT TO THE STRUCTURAL ELEMENTS AND OVER THE TOP OF THE STRUCTURE UNTIL THERE IS AT LEAST 1' OF COVER OVER THE TOP. BACKFILL MATERIAL IN STRUCTURAL BACKFILL ZONE SHALL BE PLACED IN 8" LIFTS (MAXIMUM) BEFORE BEING COMPACTED. AT NO TIME SHALL HEAVY CONSTRUCTION OR BACKFILLING EQUIPMENT IN EXCESS OF 8 TON BE PERMITTED OVER THE STRUCTURE OR WITHIN 3' OF ANY STRUCTURAL ELEMENT WITHOUT AT LEAST 2' OF COVER OVER THE STRUCTURE UNLESS THE STRUCTURE IS DESIGNED FOR LESS COVER.

DURING BACKFILLING, AT NO TIME SHALL THERE BE MORE THAN 24" DIFFERENCE BETWEEN BACKFILL HEIGHT ON EACH SIDE OF THE CULVERT

BACKFILL DESCRIPTION						
AASHTO GROUP CLASSIFICATION	<u>A-1a</u>	<u>A-1b</u>	<u>A-2-4</u>	<u>A-2-5</u>	<u>A3</u>	
TYPICAL USCS MATERIALS	GW, GP, SP	GM, SW, SP, SM	GM, SM, ML, SP, GP	SC, GC, GM	SP, SM, SW	
PERCENT PASSING #10	50 MAX.					
PERCENT PASSING #40	30 MAX.	50 MAX.			51 MIN.	
PRECENT PASSING #200	15 MAX.	25 MAX.	35 MAX.	35 MAX.	10 MAX.	
CHARACTERISTICS OF FRACTION PASSING #40, LIQUID LIMIT			40 MAX.	41 MIN.		
CHARACTERISTIC OF FRACTION PASSING #40, PLASTICITY INDEX	6 MAX.	6 MAX.	10 MAX.	10 MAX.		
DESCRIPTION OF MATERIAL	MOSTLY GRAVEL WITH SOME SANDS AND FINES	GRAVELLY SAND OR GRADED SAND	SILTY OR CLAYEY GRAVEL AND SAND	SILTY OR CLAYEY GRAVEL AND SAND	FINE SAND	

STATE: OH



**FOR APPROVAL** 

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SOUTH MARION STREET CULVERT STRUCTURE

LOCALE: WALDO

PRETEK

P.O. BOX 751471 DAYTON, OH 45475 800.241.0925 PROJECT
NUMBER: 19-567

DATE: 11/27/2019

DESIGNED BY: RPZ

DRAWN BY: MAM

CHECKED BY: TEN