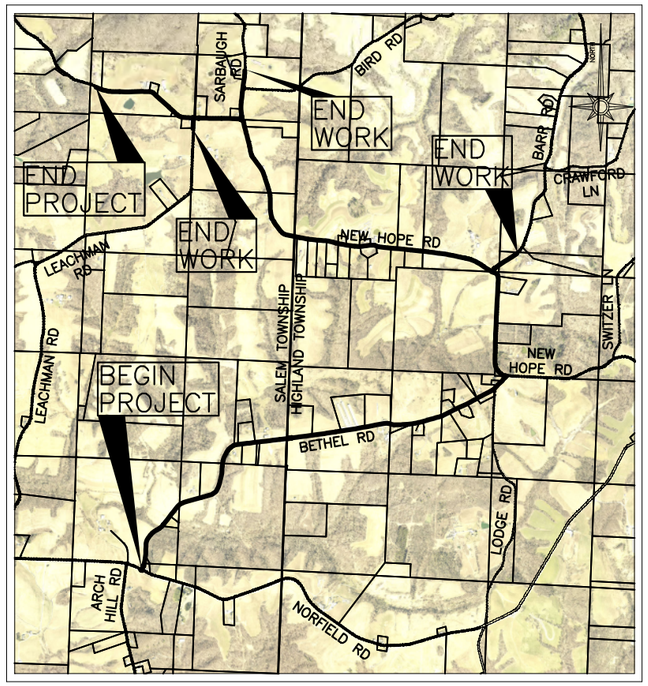
BETHEL–NEW HOPE WATERLINE EXTENSION

SALEM & HIGHLAND TOWNSHIPS
MUSKINGUM COUNTY, OHIO

PROJECT DESCRIPTION

THE CONSTRUCTION OF A WATERLINE EXTENSION ON BETHEL RD FROM NORFIELD RD TO NEW HOPE RD AND ON NEW HOPE RD FROM BETHEL RD TO 8005 NEW HOPE RD. ALSO, INCLUDES WATERLINE IMPROVEMENTS ON SARBAUGH RD, LEACHMAN RD, AND BARR RD.



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MELISSA J. BELL, PRESIDENT
MUSKINGUM COUNTY COMMISSIONER — 09/24/26 DATE

DRAKE L. PROUTY
MUSKINGUM COUNTY COMMISSIONER — 09/24/26 DATE

CINDY S. CAMERON
MUSKINGUM COUNTY COMMISSIONER — 09/24/26 DATE

NOTE TO CONTRACTOR:
ANY MODIFICATIONS TO THE WATERLINE IMPROVEMENTS SHOWN ARE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER. THIS POLICY SHALL BE ADHERED TO THROUGHOUT THE LIFE OF THIS PROJECT. ANY MODIFICATIONS MADE THAT THAT HAVE NOT BEEN APPROVED BY THE PROJECT ENGINEER MAY BE SUBJECT TO REMOVAL, AT THE DISCRETION OF THE PROJECT ENGINEER. THE COST TO REMOVE UNAPPROVED WORK SHALL BE BURDENED BY THE CONTRACTOR WHO PERFORMED SAID WORK, NOT THE OWNERS OR THE PROJECT ENGINEER.

PROPERTY OWNER:
MUSKINGUM COUNTY COMMISSIONNERS
401 MAIN STREET
ZANESVILLE, OHIO 43701

CONTACT PERSON:
DON MADDEN, PROJECTS DIRECTOR
401 MAIN STREET
ZANESVILLE, OHIO 43701
(740)588–4389

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1–800–362–2764
OHIO UTILITIES PROTECTION SERVICE
NON–MEMBERS
MUST BE CALLED DIRECTLY

ENGINEER'S SEAL:

STATE OF OHIO
GARY JOHN WILLIAMS
E-60476
REGISTERED
PROFESSIONAL ENGINEER

SIGNED:
DATE: 9.25.26

PREPARED BY:
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PROJECT NAME: BETHEL–NEW HOPE WATERLINE EXTENSION
PROJECT LOCATION: NEW CONCORD, OHIO 43762
PLANS APPROVED BY: MJE
PLANS PREPARED BY: GJW
DATE: 09/24/2026
REVISED:
SHEET SIZE: 11" x 17"
SHEET NAME: TITLE SHEET
SHEET NUMBER: 01 / 28

BEGIN PROJECT

END PROJECT

END WORK

END WORK

END WORK

LEACHMAN RD

LEACHMAN RD

ARCH HILL RD

PIDCOCK RD

NORFIELD RD

BEACH LN

LODGE RD

BETHEL RD

SALEM TOWNSHIP
HIGHLAND TOWNSHIP

NEW HOPE RD

NEW HOPE RD

NEW HOPE RD

NEW HOPE RD

SARBAUGH RD

BIRD RD

BARR RD

CRAWFORD LN

STOOPS LN

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

LEGEND

SHEET NO.

Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
740-454-0155

Muskingum County ENGINEER'S OFFICE

PREPARED BY:

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

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SHEET SIZE: 11" x 17"

SHEET NAME: INDEX SHEET

SHEET NUMBER: 02 / 28

LIGHT POLE

LIGHT/POWER POLE

POWER POLE

PP
POWER POLE

TELECOM POLE

LIGHT/TELECOM POLE

TELECOM/LIGHT/POWER POLE

UNKNOWN POLE

SIGN
SIGN POLE

GUY WIRE ANCHOR

CELLPHONE TOWER

EXISTING TOWER

HALF HEADWALL

HEADWALL

EXISTING FIRE HYDRANT

PROPOSED FIRE HYDRANT

OR
EXISTING WATER GATE VALVE

OR
PROPOSED WATER GATE VALVE

PROPOSED AIR RELEASE VALVE

OR
EXISTING WATER METER

PROPOSED WATER METER

EXISTING WATER MANHOLE

PROPOSED WATER MANHOLE

EXISTING CATCH BASIN NO. 2 – 2B

PROPOSED CATCH BASIN NO. 2 – 2B

EXISTING GAS METER

PROPOSED GAS METER

EXISTING GAS MANHOLE

PROPOSED GAS MANHOLE

EXISTING GAS VALVE

PROPOSED GAS VALVE

EXISTING GAS SERVICE STOP

PROPOSED GAS SERVICE STOP

EXISTING GAS LINE VENT

EXISTING SANITARY SEWER MANHOLE

PROPOSED SANITARY SEWER MANHOLE

EXISTING SEPTIC TANK

PROPOSED SEPTIC TANK

EXISTING SEWER PUMP STATION

EXISTING SANITARY SEWER VALVE

PROPOSED SANITARY SEWER VALVE

EXISTING SANITARY SEWER LINE VENT

CLEAN OUT

EXISTING ELECTRIC RISER/PULL BOX

PROPOSED ELECTRIC RISER/PULL BOX

EXISTING ELECTRIC METER

PROPOSED ELECTRIC METER

EXISTING ELECTRIC MANHOLE

PROPOSED ELECTRIC MANHOLE

EXISTING TELECOM MANHOLE

PROPOSED TELECOM MANHOLE

EXISTING TELEPHONE PEDESTAL

PROPOSED TELEPHONE PEDESTAL

EXISTING UNKNOWN PULL BOX

EXISTING UNKNOWN MANHOLE

EXISTING UNKNOWN UTILITY VALVE

PLUG VALVE

STOP CHECK VALVE

EXISTING MAILBOX

PROPOSED MAILBOX

MAILBOX

EXISTING TREE

EXISTING EVERGREEN TREE

EXISTING SHRUB

EXISTING STONE FOUND

EXISTING LARGE ROCK

GRINDER PUMP

SPRING DEVELOPED

SIGNAL PEDESTAL

PRIVATE/PUBLIC SIGN

LINE TYPES

- EXISTING WATER LINE
- EXISTING SANITARY LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING GAS LINE
- EXISTING OVERHEAD TELECOM LINE
- EXISTING UNDERGROUND TELECOM
- EXISTING UTILITY LINE
- EXISTING UNDERDRAIN
- EXISTING VEGETATION
- EXISTING FENCE
- EXISTING STORM LINE
- EXISTING SIDEWALK
- EXISTING SHOULDER
- EXISTING RIGHT OF WAY
- EXISTING LIMITED ACCESS
- EXISTING RAILROAD RIGHT OF WAY
- PROPOSED WATER LINE
- PROPOSED SANITARY LINE
- PROPOSED FORCEMAIN
- ABANDONED FORCEMAIN
- PROPOSED FENCE
- PROPOSED STORM LINE
- PROPOSED EASEMENT

PREPARED BY:
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109 Graham Street
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DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: SYMBOLS & LINE STYLES

SHEET NUMBER: 03 / 28

GENERAL NOTES
THE CONTRACTOR SHALL NOTIFY THE COUNTY ENGINEER'S OFFICE, TELEPHONE (740) 454-0155 FORTY EIGHT (48) HOURS PRIOR TO COMMENCING WORK ON THE PROJECT, HOLIDAYS AND WEEKENDS EXCLUDED.

AT THE TIME OF THE BID OPENING EACH BIDDER WILL BE PRESUMED TO HAVE INSPECTED THE SITE AND TO HAVE READ AND TO BE THOROUGHLY FAMILIAR WITH THE PLANS AND CONTRACT DOCUMENTS.

ALL PROPERTY LINE MARKERS (IRON PINS, SPIKES, CONCRETE MONUMENTS, ETC.) THAT ARE DISTURBED BY THE CONSTRUCTION OPERATIONS SHALL BE REFERENCED AND PROPERLY RESET FOLLOWING CONSTRUCTION UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL SURVEYOR OF THE STATE OF OHIO AT THE CONTRACTOR'S EXPENSE.

ALL MANUFACTURED MATERIALS USED FOR THIS PROJECT MUST BE DOMESTIC AND MADE IN THE U.S.A

ALL SHOP DRAWINGS MUST BE APPROVED BY MUSKINGUM COUNTY WATER DEPARTMENT.

MUSKINGUM COUNTY WATER DEPARTMENT IS TO HAVE AN INSPECTOR ON THE JOB SITE AT ALL TIMES WHEN THE CONTRACTOR IS WORKING.

SPECIFICATIONS:
THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS DATED JANUARY 2016, INCLUDING ALL SUPPLEMENTS THERETO IN FORCE ON DATE OF CONTRACT SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS EXCEPT AS SUCH SPECIFICATIONS ARE MODIFIED BY THE FOLLOWING SPECIFICATIONS OR BY THE LATEST EDITION OF THE AWWA STANDARDS, SHALL APPLY AS NEEDED AND ARE HEREBY CONSIDERED A PART OF THESE PLANS.

PERMITS:
PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND HAVE IN HIS POSSESSION AN APPROVED AND SIGNED SET OF CONSTRUCTION DRAWINGS. WITHOUT THE REQUIRED PERMITS AND AN APPROVED SET OF PLANS, CONSTRUCTION WILL NOT BE PERMITTED.

TREES:
TREES ENCOUNTERED DURING CONSTRUCTION OUTSIDE THE RIGHT-OF-WAY LIMITS SHALL BE REMOVED ONLY WHEN NECESSARY AND COSTS OF SAME SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

SAFETY REQUIREMENTS:
THE CONTRACTOR AND SUBCONTRACTOR 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 TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

MISCELLANEOUS WORK:
ALL ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF SAME SHALL BE INCLUDED IN THE PRICE FOR VARIOUS RELATED ITEMS. IF NO SCHEDULE OF VALUES IS PROVIDED ALL ITEMS OF WORK INDICATED ON THE PLANS ARE TO BE PERFORMED WITH FULL COMPENSATION TO BE INCLUDED IN THE CONTRACT AMOUNT.

FIELD TILE:
ALL FIELD TILE BROKEN DURING EXCAVATION SHALL BE REPLACED TO ORIGINAL CONDITION OR CONNECTED TO EITHER THE CURB SUB DRAIN OR THE STORM SEWER SYSTEM AS DIRECTED BY THE ENGINEER.

SURPLUS EXCAVATION:
THE CONTRACTOR SHALL DISPOSE OF ALL SURPLUS EXCAVATION OFFSITE.

TRAFFIC CONTROL:
ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE "OHIO MANUAL OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION AND MAINTENANCE OPERATIONS." COPIES OF WHICH ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC, 25 S. FRONT STREET, COLUMBUS, OHIO 43215.

TWO -WAY TRAFFIC MUST BE MAINTAINED AT ALL TIMES.

ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR VARIOUS ITEMS.

EROSION CONTROL:
EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF OHIO'S STANDARDS FOR STORM WATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION MANUAL "RAINWATER AND LAND DEVELOPMENT".

TRACKING OR SPILLAGE OF MUD, DIRT, OR DEBRIS UPON STREETS, RESIDENTIAL OR COMMERCIAL DRIVES, SIDEWALKS, OR BIKE PATHS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED IMMEDIATELY.

THE PROJECT SITE SHALL BE FREE OF ALL DEBRIS AND MATERIALS RESULTING FROM THIS OPERATION AND ALL SURFACES, STRUCTURES, DITCHES, AND PROPERTY RESTORED TO ORIGINAL CONDITION TO THE SATISFACTION OF THE OWNER.

EXISTING UTILITIES:
THE IDENTITY AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS AS ACCURATELY AS PROVIDED BY THE OWNER OF THE UNDERGROUND UTILITY AS REQUIRED BY SECTION 153.64 OR SECTION 3781.27 OF THE OHIO REVISED CODE, THE COUNTY AND THE ENGINEER ASSUME NO RESPONSIBILITY FOR THE ACCURACY OF LOCATIONS OR DEPTHS OF UNDERGROUND FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS.

THE CONTRACTOR SHALL DESIGNATE FOR EXISTING UTILITIES AROUND ALL PROPOSED STRUCTURES BEFORE DIGGING TO VERIFY NO CONFLICTS EXIST. WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING DESIGNATION AND/OR CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER, THE COUNTY AND THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AT (1-800-362-2764) AT LEAST 48 HOURS, AND NO MORE THAN 10 DAYS PRIOR TO EXCAVATING WITH SUCH TIME PERIODS NOT INCLUDING WEEKENDS OR HOLIDAYS. CONTRACTOR SHALL SIMILARLY CONTACT ALL UTILITY OWNERS WHO ARE NOT SUBSCRIBERS TO OUPS.

IF THERE ARE MARKERS OR OTHER APPARENT PHYSICAL EVIDENCE IN OUR 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 800-925-0988, TOLL FREE SAID NOTIFICATION SHALL BE GIVEN A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

THE FOLLOWING UTILITIES ARE KNOWN OR CAN BE EXPECTED TO BE LOCATED WITHIN THE LIMITS OF THIS PROJECT:

UTILITY	OWNER	PHONE NUMBER
GAS/PETROLEUM	DIVERSIFIED GAS & OIL	330.493.0440
GAS/PETROLEUM	NATIONAL GAS & OIL	740.344.2102
GAS/PETROLEUM	PETRO QUEST, INC.	740.554.5888
GAS/PETROLEUM	DOMINION ENERGY, INC.	866.366.4357
GAS/PETROLEUM	ENBRIDGE GAS, INC.	877.542.2630
GAS	COLUMBIA GAS OF OHIO	740.450.1215
ELECTRIC	AEP	614.716.1000
WATER	MUSKINGUM COUNTY WATER DEPT	740.453.0678
WATER	CITY OF ZANESVILLE WATER DEPT	740.455.0631
WASTEWATER	MUSKINGUM COUNTY SEWER DEPT	740.452.4940
WASTEWATER	CITY OF ZANESVILLE SEWER DEPT	740.455.0662
COMMUNICATIONS	AT&T OHIO	740.454.3455
COMMUNICATIONS	CHARTER/SPECTRUM COMMUNICATIONS	888.438.2427
COMMUNICATIONS	AEP TELECOM	800.672.2231

THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL PROCEED WITH THE WORK AND PROTECT ALL UNDERGROUND UTILITIES IN A MANNER AT LEAST AS CAUTIOUS AND PROTECTIVE OF SAFETY AND UNDERGROUND UTILITIES AS THOSE METHODS IDENTIFIED IN SECTIONS 3781.25 THROUGH 3781.30 OF THE OHIO REVISED CODE.

ALL MARKED PRIVATE UTILITY REPAIRS OR RELOCATION (GAS, ELECTRIC, PHONE, ETC.) WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ANY REPAIRS OR RELOCATION OF UNMARKED PRIVATE UTILITIES (GAS, ELECTRIC, PHONE, ETC.) SHALL BE THE RESPONSIBILITY OF THE UTILITY OWNER. ANY REPAIRS OR RELOCATION OF UNMARKED PUBLIC UTILITIES SUCH AS WATER SHALL BE THE RESPONSIBILITY OF THE UTILITY OWNER. ANY REPAIRS TO WATER SERVICE LINES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM SPECIAL WATER SERVICE LINE REPAIR, A QUANTITY OF 20 WATER SERVICE LINE REPAIR UNITS HAVE BEEN INCLUDED IN THE ESTIMATED QUANTITIES FOR THIS PROJECT.

WATER WITHDRAWAL REGISTRATION:
THE OHIO DEPARTMENT OF NATURAL RESOURCES REQUIRES A WATER REGISTRATION WHERE SURFACE OR GROUNDWATER IS WITHDRAWN AT A RATE GREATER THAN 100,000 GALLONS PER DAY. THE CONTRACTOR WILL BE REQUIRED TO APPLY FOR AND SUBMIT THE REQUIRED FORM.

STREET, STORM AND WATER NOTES
PERMITS:
PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND HAVE IN HIS POSSESSION AN APPROVED AND SIGNED SET OF CONSTRUCTION DRAWINGS. WITHOUT THE REQUIRED PERMITS AND AN APPROVED SET OF PLANS, CONSTRUCTION WILL NOT BE PERMITTED.

UNAUTHORIZED STREET EXCAVATION:
IN THE EVENT EXCAVATION FOR THE STREET IS FROM 0" TO 6" BELOW THAT CALLED FOR THE PLANS, THE CONTRACTOR SHALL REPLACE THIS EXCESS EXCAVATED MATERIAL WITH COMPACTED 304 CRUSHED LIMESTONE AGGREGATE AS DIRECTED AND AT NO EXTRA COST TO THE OWNER OR ENGINEER.

BACKFILL - WATER MAINS & WATER SERVICES:
WHERE WATER MAINS AND WATER SERVICE INSTALLATIONS CROSS EXISTING PAVEMENT AT AN ANGLE OR RUN PARALLEL WITH THE EDGE OF EXISTING PAVEMENT VIA OPEN TRENCH METHODS, THE TRENCH SHALL BE BACKFILLED IN ACCORDANCE WITH TRENCH DETAILS INCLUDED ON THE DETAIL SHEETS.

ROADSIDE SWALE RESTORATION:
WHERE WATER LINE INSTALLATION DISTURBS EXISTING ROADSIDE SWALES, CONTRACTOR SHALL BE REQUIRED TO RESTORE ROADSIDE SWALES TO PRE-CONSTRUCTION CONDITIONS FOLLOWING INSTALLATION. COST FOR RESTORATION TO BE INCLUDED IN THE UNIT PRICE FOR WATER LINE.

ROADWAY SURFACE RESTORATION:
THE PROPOSED WATERLINE HAS BEEN DESIGNED WITHIN CLOSE PROXIMITY OF THE EXISTING ROADWAY SURFACE TO MINIMIZE CONFLICTS WITH EXISTING UTILITIES. THIS MAY RESULT IN OPEN TRENCHES DURING CONSTRUCTION THAT ENCROACH WITHIN THE ROADWAY SURFACES. MUSKINGUM COUNTY HAS RECEIVED APPROVAL FROM THE SALEM AND HIGHLAND TOWNSHIP TRUSTEES TO DO SO. THE CONTRACTOR WILL BE REQUIRED TO RESTORE ANY ROADWAY SURFACES DISTURBED BY CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE TRENCH DETAIL (PAVEMENT AREAS) FOR TOWNSHIP AND COUNTY-MAINTAINED ROADS NOTED ON SHEET 07 OF THE PLANS. THIS DETAIL WILL BE THE SAME REGARDLESS OF THE ROADWAY SURFACE (ASPHALT, CHIP AND SEAL, OR COMPACTED AGGREGATE) IMPACTED. THE ROADWAY SURFACE AREA RESTORED WILL BE LIMITED TO PRE-CONSTRUCTION ROADWAY SURFACE AREAS. MUSKINGUM COUNTY WILL NOT REQUIRE THAT THE ENTIRE TRENCH WIDTH FOLLOW THE DETAIL IF ONLY A PORTION OF THE TRENCH IMPACTS THE ROADWAY.

WATER MAINS:
ALL WATER LINE MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE MUSKINGUM COUNTY WATER AUTHORITY CURRENT RULES AND REGULATIONS. ALL WATER LINE MATERIAL 10" DIAMETER OR LESS SHALL BE PVC AWWA C900, DR-18. IN CASE OF CONFLICT IN GRADE BETWEEN WATER LINES AND STORM SEWERS, CONTACT OWNER FOR CONCURRENCE BEFORE LOWERING WATER LINES.

BACKFILL GROUND OVER THE TOP OF THE PIPE SHALL BE FREE OF ROCKS, ORGANIC REFUSE OR OTHER OBJECTIONABLE MATERIAL. SEE BACKFILL NOTE ABOVE. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR CONDUCTING PRESSURE AND LEAKAGE TESTS AT A PRESSURE OF 150 PSI IN ACCORDANCE WITH AWWA C600 OR 1 1/2 TIMES WORKING PRESSURE. THE NORMAL WORKING PRESSURE FOR THE WATER MAIN SHALL NOT BE LESS THAN 35 PSI. ANY TAPPING SLEEVES REQUIRED SHALL BE STAINLESS STEEL. INCLUDING BOLTS AND ACCESSORIES.

WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED GRAVITY SANITARY OR STORM SEWER, SEPTIC TANK, OR SURFACE TREATMENT SYSTEM. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE.

WATER MAINS CROSSING SANITARY OR STORM SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER WITH PREFERENCE TO THE WATER MAIN LOCATED ABOVE THE SEWER.

AT CROSSINGS, ON FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. SPECIAL STRUCTURAL SUPPORT FOR THE WATER AND SEWER PIPES MAY BE REQUIRED.

CHLORINATION OF WATER MAINS:
THE CONTRACTOR SHALL BE MADE RESPONSIBLE FOR HAVING THE WATER MAINS CHLORINATED AND TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS SECTION C651. THE COST OF CHLORINATION SHALL BE INCLUDED IN THE PRICE BID OF THE VARIOUS WATER MAIN ITEMS. THE CONTRACTOR SHALL SUBMIT TWO (2) COPIES OF TEST RESULTS TO THE WATER DEPARTMENT. TABLET CHLORINATION SHALL BE USED, THE TABLETS SHALL BE FIXED TO THE PIPE WITH PERMATEX. OWNER WILL ALSO SAMPLE WATER MAINS FOR PROPER CHLORINATION.

SERVICE CONNECTIONS:
SERVICES SHALL BE MADE USING FORD F-1100 CORPORATION STOPS. VALVE BOXES SHALL BE MUELLER OR BINGHAM-TAYLOR WITH COVERS MARKED "WATER". NO SUBSTITUTION FOR VALVE BOXES WILL BE PERMITTED UNLESS APPROVED BY THE MUSKINGUM COUNTY WATER DEPARTMENT. THE LOCATION OF THE END OF THE SERVICE WILL BE MARKED AS DIRECTED BY THE MUSKINGUM COUNTY WATER DEPARTMENT.

SERVICE CONNECTIONS BY CONTRACTOR SHALL BE MADE BY TAPPING THROUGH A SERVICE CLAMP OR SADDLE PROVIDING FULL 360° SUPPORT AGAINST THE PIPE. CLAMP AND BOLTS SHALL BE STAINLESS STEEL, WITH MINIMUM 6" BETWEEN BOLT CENTERS. ALL SERVICE LINES MUST GO TO PROPERTY LINE. ALL WATER SERVICE LINES SHALL BE 2" OR LESS, AND SHALL BE 200 PSI C.T.S., TUBING. WATER SERVICE TAP SIZE SHALL BE 3/4". WHEN SERVICES MUST CROSS ROADWAYS, UTILIZE HORIZONTAL DIRECTIONAL DRILLING METHODS TO INSTALL 3/4" HDPE (DR 9) 250 PSI C.T.S. SERVICE TUBING.

TRACER TAPE:
TAPE SHALL BE LAID NO LESS THAN 18" ABOVE THE MAIN LINE PIPE. FOIL-BASED TAPE WILL NOT BE ALLOWED.

TRACER WIRE:
TRACER WIRE SHALL BE TAPED TO THE TOP OF WATER MAINS AND SERVICE CONNECTIONS. TRACER WIRE USED SHALL BE COPPERHEAD WIRE OR APPROVED EQUAL AND BE MADE OF 12 GAUGE WIRE. TRACER WIRE USED AT DIRECTIONAL DRILL (BORE) LOCATIONS SHALL BE COPPERHEAD WIRE SPECIFIED FOR DIRECTIONAL DRILLING OR APPROVED EQUAL. ALL LOCATE TRACER WIRE CONNECTIONS WILL HAVE WATER TIGHT WIRE NUTS.

VALVES:
GATE VALVES SHALL COMPLY WITH AWWA C509, IRON BODY, RESILIENT WEDGE VALVES, MANUFACTURED 2500 SERIES AMERICAN FLOW CONTROL. VALVES WILL BE LOCATED CLOSE TO MAIN LINE VALVE, CLOSE RIGHT TEE'S WHEN IN A BRANCH LINE. SUPPLY ONE VALVE WRENCH FOR EACH 10 VALVES INSTALLED. WRENCHES ARE TO BE TURNED OVER TO MUSKINGUM COUNTY WATER DEPARTMENT.

VALVE BOXES:
VALVE BOXES SHALL BE LOCATED WITHIN THE R/W AND 6" FROM THE PROPERTY LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR ORDERED BY THE ENGINEER.

JOINTS:
ALL PVC PIPE SHALL BE PROVIDED WITH PUSH-ON-TYPE WITH A THICKENED BELL AND SHALL CONFORM TO ASTM D 3139 WITH A RUBBER GASKET CONFORMING TO ASTM F477.

FITTINGS:
THE FITTINGS SHALL BE DUCTILE IRON, MADE IN THE UNITED STATES, CONFORMING TO AWWA C153, SHALL BE PROVIDED WITH MECHANICAL JOINT ENDS (WITH RETAINER GLAND) MADE IN ACCORDANCE WITH AWWA C111. ALL C153 FITTINGS SHALL HAVE A BITUMINOUS COATED CEMENT LINING COMPLYING WITH AWWA C104 AND SHALL HAVE AN OUTSIDE COATING COMPLYING WITH AWWA C110. ANCHORAGE METHODS TO BE USED UTILIZING ANCHORING TEES, ELBOWS AND COUPLINGS SHALL BE APPROVED BY THE ENGINEER. FITTINGS SHALL BE EQUIPPED WITH A ROTABLE GLAND OR OTHER METHOD TO FACILITATE VERTICAL POSITIONING OF APPURTENANCES. ALL BENDS SHALL HAVE CONCRETE THRUST BLOCKING. ALL BOLTS SHALL BE FIELD COATED WITH A BITUMINOUS COATING AFTER IN PLACE.

METER PITS:
METER PITS SHALL BE LOCATED AS SHOWN ON THE PLANS, AND SHALL INCLUDE COPPER SETTERS.

METER PITS SHALL BE MIDSTATE 18" X 24".

PIT LID SHALL BE 18" X 15" WITH HOLE FOR TOUCH READ DEVICE.

COPPER SETTER SHALL BE FORD 5/8" X 3/4" VH72-18W-44-33.

FIRE HYDRANTS:
FIRE HYDRANTS SHALL BE 12" HIGH FLOW ONLY. FIRE HYDRANTS OPEN RIGHT, WITH A 6" X 2' ANCHOR COUPLER BETWEEN VALVE AND HYDRANT. ALL FIRE HYDRANTS SHALL BE SET A MINIMUM OF 4' FROM THE EDGE OF THE PAVEMENT, BUT NOT MORE THAN 6' UNLESS OTHERWISE SHOWN. THE BREAKAWAY FLANGE SHALL BE A MINIMUM OF 3" ABOVE GRADE BUT NO MORE THAN 6" ABOVE GRADE. USE CLASS "A" SETTING WHERE APPLICABLE. CUT CHAINS OFF OF ALL HYDRANTS, LUBE THREADS OF CAPS WITH SUPER LUBE GREASE.

HYDRANT DRAINS SHOULD BE PLUGGED. WHEN THE DRAINS ARE PLUGGED, THE BARRELS MUST BE PUMPED DRY BEFORE AND DURING COLD WEATHER PERIODS WHEN TEMPERATURES ARE LIKELY TO BE COLD ENOUGH TO FREEZE THE WATER IN THE HYDRANT BARREL.

HYDRANT DRAINS, WHERE ALLOWED, SHALL NOT BE LOCATED WITHIN 10 FEET OF SANITARY SEWERS, STORM SEWERS, OR STORM INLETS.

HYDRANT DRAINS, WHERE ALLOWED, MUST BE ABOVE THE SEASONAL GROUNDWATER TABLE.

WHERE HYDRANT DRAINS ARE NOT PLUGGED, A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED UNLESS THE NATURAL SOILS WILL PROVIDE ADEQUATE DRAINAGE.

MANUFACTURER:
ALL MANUFACTURED MATERIALS FOR THIS PROJECT ARE TO BE "MADE IN THE U.S.A." OR AS APPROVED BY THE ENGINEER.

PREPARED BY:
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

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PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: GENERAL NOTES (1)

SHEET NUMBER: 04 / 28

WATERLINE SPECIFICATIONS:
ACCEPTABLE PIPE & APPURTENANCES
PIPE MATERIAL/PIPE SPECS - 3 IN: PVC PIPE/DR21/ASTM D2241, HDPE IPS/DR 11/ AWWA C906; 6 IN: PVC PIPE/DR 18/AWWA C900, HDPE IPS/DR 11/AWWA C906
VALVES/TAPPING SLEEVES - AWWA C500
STOP BOXES/SERVICE BOXES - AWWA C800
DISINFECTION/FLUSHING - AWWA C651
INSTALLATION/TESTING AWWA C600, C605

WATERLINE SYSTEM PRESSURE REQUIREMENTS:
THE SYSTEM SHALL BE DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI (140 KPA) AT GROUND LEVEL AT ALL POINTS IN THE DISTRIBUTION SYSTEM UNDER ALL CONDITIONS OF FLOW. THE NORMAL WORKING PRESSURE IN THE DISTRIBUTION SYSTEM SHOULD BE APPROXIMATELY 60 TO 80 PSI (410 TO 550 KPA) AND SHALL NOT BE LESS THAN 35 PSI (240 KPA) UNLESS OTHERWISE APPROVED BY THE REVIEWING AUTHORITY.

PAY ITEM NOTES:
WATERLINE FITTINGS & APPURTENANCES - COST OF FITTINGS, APPURTENANCES, AND JOINT RESTRAINT SYSTEMS REQUIRED FOR INSTALLATION OF 3 AND 6 INCH WATERLINES DEPICTED ON THE PLANS TO BE INCLUDED IN THE UNIT PRICES FOR WATERLINE PAY ITEMS.

FIRE HYDRANT ASSEMBLY - COST OF FIRE HYDRANT ASSEMBLY TO INCLUDE VALVE, VALVE BOX SETTING, CONNECTION TO WATERLINE, PIPE BETWEEN VALVE AND HYDRANT, AND THRUST BLOCK AS SHOWN ON DETAIL SHEETS.

ROADWAY SURFACE RESTORATION - THE COST OF RESTORING ROADWAY SURFACES DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE INCLUDED IN THE UNIT PRICES FOR WATERLINE PAY ITEMS.

ROADSIDE SWALE RESTORATION - THE COST OF RESTORING ROADSIDE SWALES DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE INCLUDED IN THE UNIT PRICES FOR WATERLINE PAY ITEMS.

CULVERT RESTORATION - THE COST OF REPLACING EXISTING DRIVEWAY OR ROADWAY CULVERTS DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE INCLUDED IN THE UNIT PRICES FOR WATERLINE PAY ITEMS.

EROSION AND SEDIMENTATION CONTROL
CLEARING AND GRUBBING SHALL COMMENCE WHEN THE CONTRACTOR IS PREPARED TO START CONSTRUCTION.

PROPERLY INSTALL EROSION CONTROLS (E.G., SILT FENCES, STRAW BALES, ETC.) ON SLOPES, ALONG STREAMS AND DRAINAGE WAYS, AROUND DRAINAGE STRUCTURES, AND ANYWHERE ELSE THAT EXPOSED SOIL COULD RUN OFF. ALL SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO STARTING CONSTRUCTION.

SITE STAGING AREAS IN LOCATIONS THAT REQUIRE NO OR LITTLE CLEARING AND THAT ARE DISTANT FROM STREAM BANKS. IF THIS IS UNAVOIDABLE, APPROVAL OF THE STAGING AREA BY OHIO EPA, DIVISION OF ENVIRONMENTAL AND FINANCIAL ASSISTANCE IS NECESSARY.

PROTECT STOCKPILED TOPSOIL WITH SILT BARRIERS, TEMPORARY SEEDING, OR A COVERING SUCH AS WITH ANCHORED STRAW MULCH.

REMOVE ONLY THOSE TREES, SHRUBS, AND GRASSES THAT MUST BE REMOVED FOR CONSTRUCTION; PROTECT THE REST TO PRESERVE THEIR AESTHETIC, HABITAT, AND EROSION CONTROL VALUES.

AS CONSTRUCTION IS COMPLETED, PERMANENTLY STABILIZE EACH DISTURBED AREA WITH PERENNIAL VEGETATION INSTALLED ACCORDING TO NATURAL RESOURCES CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS.

FINAL GRADING WILL BE CONSISTENT WITH PRE-CONSTRUCTION TOPOGRAPHY FOR DRAINAGE AND AESTHETIC REASONS.

NO MORE THAN 200 FEET OF TRENCH SHALL BE OPEN AT ANY GIVEN TIME. TRENCH OPENING, PIPE LAYING, AND BACKFILLING SHOULD OCCUR SO AS TO MINIMIZE THE AMOUNT OF DISTURBED AREA.

UNPAVED AREAS WILL BE WET DOWN (AS NECESSARY) DURING CONSTRUCTION TO MINIMIZE DUST GENERATION.

IF WORK IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROLS IN GOOD OPERATING CONDITION DURING THE SUSPENSION OF THE WORK. ALSO, WHEN SEASONAL CONDITIONS PERMIT AND THE SUSPENSION OF WORK IS EXPECTED TO EXCEED A PERIOD OF ONE MONTH, THE CONTRACTOR SHALL PLACE TOPSOIL, FINE GRADE, SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS LEFT EXPOSED WHEN WORK IS STOPPED, AS SPECIFIED HEREIN.

WHEN WORKING ADJACENT TO A WATERWAY, THE CONTRACTOR SHALL MAINTAIN A BUFFER ZONE OF UNDISTURBED VEGETATION BETWEEN THE WORK AREA AND THE WATERWAY. IF A BUFFER ZONE OF VEGETATION CANNOT PREVENT SILTATION OF THE WATERWAY, SILT BARRIERS SHALL ALSO BE INSTALLED BY THE CONTRACTOR IN THESE AREAS TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE WATERWAY.

INSTALL EROSION AND SEDIMENTATION CONTROL PRACTICES REFERRING TO NATURAL RESOURCES CONSERVATION SERVICE OR EQUIVALENT STANDARDS AND SPECIFICATIONS FOR PARTICULAR TECHNIQUES. THE PRACTICES ARE TO BE MAINTAINED IN EFFECTIVE WORKING CONDITION DURING CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

CONTRACTOR SHALL REMOVE DAILY ALL MUD, SOIL AND DEBRIS THAT MAY BE TRACKED ONTO EXISTING STREETS, DRIVES, OR WALKS BY HIS EQUIPMENT OR THAT OF SUBCONTRACTORS OR SUPPLIERS.

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 AT A SITE APPROVED BY THE ENGINEER. NO EXCESS MATERIALS ARE TO BE DISPOSED OF IN ANY WETLAND, FLOODPLAIN, SURFACE WATER, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS. EROSION CONTROL MEASURES AT THE DISPOSAL SITE MUST BE INSTALLED AND MAINTAINED UNTIL DISPOSAL IS COMPLETE AND THE DISPOSAL SITE IS PERMANENTLY STABILIZED. GIVING EXCAVATED SOIL AWAY DOES NOT RELIEVE THE CONTRACTOR OR ENGINEER OF THIS RESPONSIBILITY.

TREES / VEGETATION PROTECTION
TREE REMOVAL WILL BE LIMITED TO THAT NECESSARY FOR CONSTRUCTION AND WILL BE LIMITED FURTHER TO THE PERMANENT EASEMENT WHENEVER POSSIBLE. IF THE PROJECT IS LOCATED WITHIN THE RANGE OF THE FEDERALLY-ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND TREES MUST BE CUT, THIS MUST OCCUR BETWEEN SEPTEMBER 30 AND APRIL 1. INDIANA BATS ARE HIGHLY-DEPENDENT UPON TREES INCLUDING DEAD AND DYING TREES OF SPECIES WITH EXFOLIATING BARK, CREVICES, OR CAVITIES IN UPLAND AREAS OR RIPARIAN CORRIDORS AND LIVING TREES OF THE SPECIES LISTED ABOVE WITH EXFOLIATING BARK, CAVITIES, OR HOLLOW AREAS FORMED FROM BROKEN BRANCHES OR TOPS. IF SUITABLE TREES MUST BE CUT DURING THE PROHIBITED TIME PERIOD, A NET SURVEY MUST BE CONDUCTED TO DETERMINE THE PRESENCE OR ABSENCE OF INDIANA BATS PRIOR TO CUTTING.

TREES WHICH ARE NOT REMOVED WILL BE PROTECTED BY ENSURING THAT TREES TO BE REMOVED ARE FELLED SO AS NOT TO INJURE THE REMAINING TREES.

SOIL AND OTHER MATERIAL WILL NOT BE STORED NEXT TO OR WITHIN THE DRIP-LINE OF TREES.

PRESERVATION OF LANDSCAPING SHOULD TAKE PRECEDENCE OVER REMOVAL. IF REMOVAL OR DAMAGE IS UNAVOIDABLE, EXISTING VEGETATION SHOULD BE REPAIRED OR REPLACED "IN-KIND" UNLESS THE HOMEOWNER SPECIFIES OTHERWISE.

IF TREES/SHRUBS CANNOT BE REPLACED IN THE SAME LOCATION DUE TO INSTALLATION OF THE SEWER SYSTEM, RELOCATION SHOULD BE CONSIDERED.

THE CONTRACTOR SHALL REPAIR ALL INJURIES TO BARK, TRUNKS, LIMBS, AND ROOTS OF REMAINING VEGETATION BY PROPERLY DRESSING, CUTTING, BRACING AND PAINTING, USING ONLY APPROVED TREE SURGERY METHODS, TOOLS, AND MATERIALS. WHEN ROOTS ARE DAMAGED DURING EXCAVATION, THE ABOVE GROUND PORTION OF THE TREE WILL BE PRUNED TO COMPENSATE. SELECTIVELY PRUNE TREE LIMBS PRIOR TO CONSTRUCTION ONLY IN ESTABLISHED EASEMENTS WHERE REMOVAL IS NECESSARY FOR OPERATION OF EQUIPMENT.

DEWATERING
SILT FROM CONSTRUCTION OPERATIONS SHALL NOT BE PERMITTED TO ENTER THE STORM SEWER SYSTEM. WHEN CONSTRUCTION OCCURS NEAR STORM SEWER INLETS, EROSION CONTROL MEASURES SUCH AS INLET FILTERS AND STRAW BALES SHALL BE USED TO PREVENT SILT FROM ENTERING THE STORM SEWERS. IF DEWATERING IS NECESSARY, FLOWS SHOULD BE FILTERED BEFORE ENTERING STORM DRAINS OR STREAMS.

ARCHAEOLOGICAL / HISTORICAL RESOURCES
CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED UNDER OHIO REVISED CODE (O.R.C.) SECTION 149.53, TO NOTIFY OHIO'S STATE HISTORIC PRESERVATION OFFICE (SHPO), AND TO COOPERATE WITH THAT OFFICE IN ARCHAEOLOGICAL AND HISTORIC SURVEYS AND MITIGATION EFFORTS IF SUCH DISCOVERIES ARE UNCOVERED WITHIN THE PROJECT AREA.

CONTACT: OHIO STATE HISTORIC PRESERVATION OFFICE
DIANA WELLING
RESOURCE PROTECTION & REVIEW DEPARTMENT MANAGER
PHONE: 1-614-298-2000
EMAIL: DWELLING@OHIOHISTORY.ORG

PROHIBITED CONSTRUCTION ACTIVITIES
DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOOD PLAINS EVEN WITH THE PERMISSION OF THE PROPERTY OWNER;

LOCATING STOCKPILE STORAGE AREAS IN ENVIRONMENTALLY SENSITIVE AREAS;

INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAMS OR STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS;

PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE;

DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS, OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO;

DISPOSING OF TREES, BRUSH AND OTHER DEBRIS IN ANY STREAM CORRIDOR, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS;

OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT;

DISCHARGING INJURIOUS SILICA DUST CONCENTRATIONS INTO THE ATMOSPHERE RESULTING FROM BREAKING, CUTTING, CHIPPING, DRILLING, BUFFING, GRINDING, POLISHING, SHAPING OR SURFACING CLOSER THAN 200 FEET TO PLACES OF RESIDENCES OR COMMERCIAL, PROFESSIONAL, QUASI-PUBLIC OR PUBLIC PLACES OF HUMAN OCCUPATION;

STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES;

RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE ENGINEER.

OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OF 8:00 AM AND 5:00 PM OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS; AND

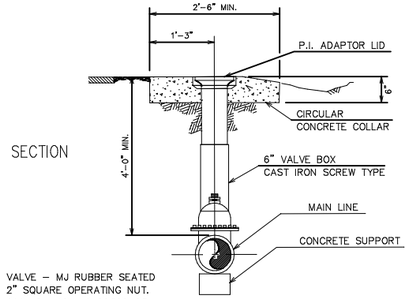
CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS AND THE ENGINEER, AND CLOSING CLEAR ACCESS:

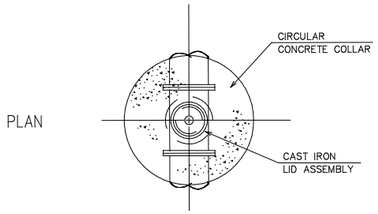
- BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES;
- BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE; OR
- BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.

PREPARED BY:
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109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

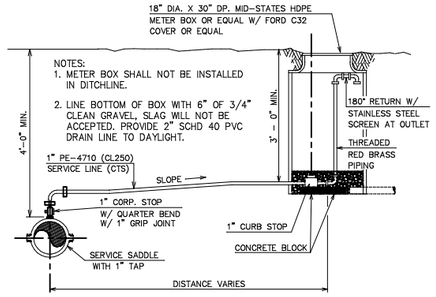
PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION
PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE
PLANS PREPARED BY: GJW
DATE: 09/28/2026
REVISED:
SHEET SIZE: 11" x 17"
SHEET NAME: GENERAL NOTES (2)
SHEET NUMBER: 05 / 28



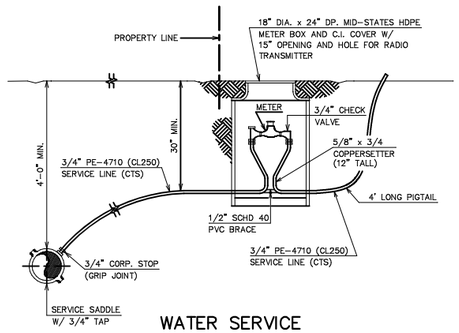


VALVE BOX SETTING

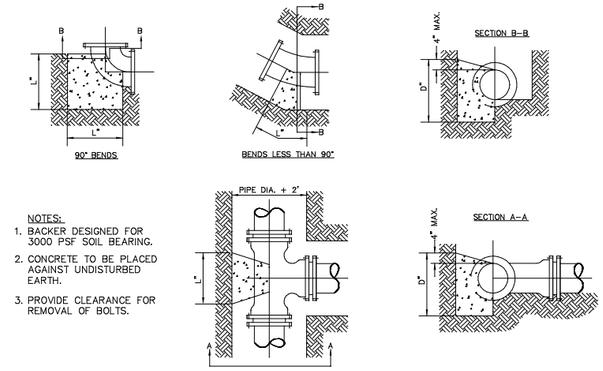


AIR RELEASE VALVE

NTS MARK "AR"



WATER SERVICE LINE DETAIL



TYP. BEND AND TEE DETAILS

SIZE OF PIPE	BENDS: DEGREE OF BEND 11 1/4° L"	D"	22 1/2° L"	D"	45° L"	D"	90° L"	D"
3"	8	6	10	6	20	6	36	8
4"	8	6	10	6	20	6	36	8
6"	8	6	12	7	20	8	36	9
8"	9	8	16	9	24	12	50	11
12"	14	12	24	14	36	18	60	18
16"	18	16	32	18	36	36	70	26

STEEL WILL BE USED AS REQUIRED BY ENGINEER

RUN	TEES: BRANCH 3",4",6" L"	D"	8" L"	D"	12" L"	D"	16" L"	D"
3"	16	7						
4"	16	7						
6"	16	7						
8"	14	8	18	12				
12"	14	12	24	14	36	18		
16"	18	16	32	18	36	36	70	26

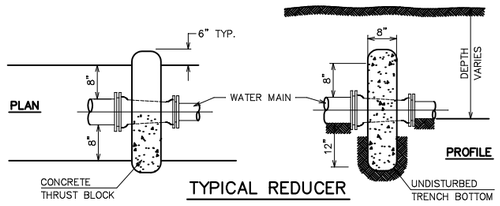
STEEL WILL BE USED AS REQUIRED BY ENGINEER

MINIMUM REQUIREMENTS

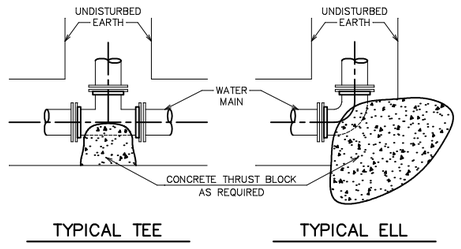
THRUST BLOCK NOTES

1) KEEP CONCRETE CLEAR OF JOIN AND ACCESSORIES.
2) CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
3) REQUIRED BEARING AREAS AT FITTINGS SHALL BE AS INDICATED BELOW, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
4) BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 100 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 1,000 LBS/SQ. FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING = (TEST PRESS./100) x (1000/SOIL BEARING STRESS) x (TABLE VALUE).
5) THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
6) BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
7) BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ. FT.

BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS, 100 PSI PRESSURE)					
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	BEND ANGLE 45°	22 1/2°	11 1/4°
3", 4", 6"	3.8	5.3	2.9	1.5	1
8"	6.5	9.1	4.9	2.5	1.3
12"	13.7	19.4	10.5	5.3	2.7
16"	23.8	26.0	14.0	7.2	3.6
18"	29.9	42.3	22.9	11.7	5.9



TYPICAL REDUCER

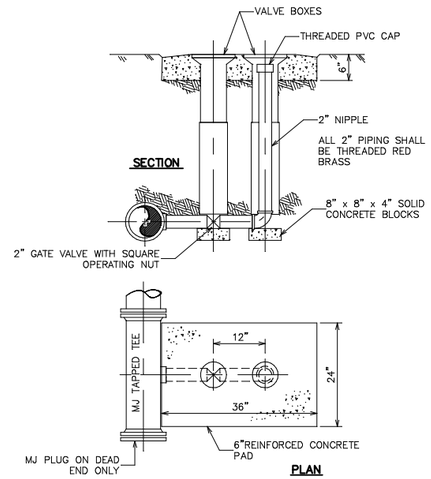


TYPICAL TEE

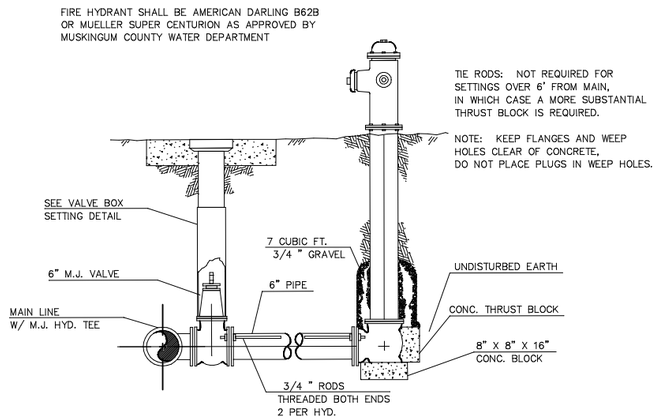
TYPICAL ELL

NOTE:
1) PROVIDE SUBSTANTIAL THRUST BLOCKING ON ALL FITTINGS.

THRUST BLOCK DETAILS



FLUSH OUT ASSEMBLY



FIRE HYDRANT ASSEMBLY

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PREPARED BY:

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PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

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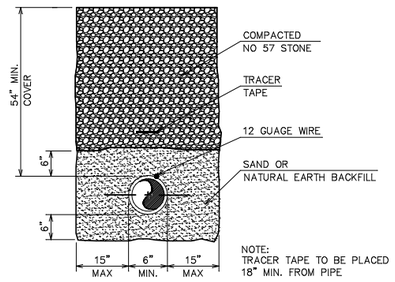
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REVISED:

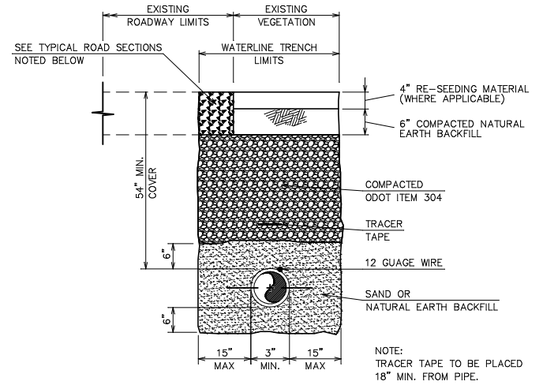
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SHEET NAME: DETAIL SHEET (1)

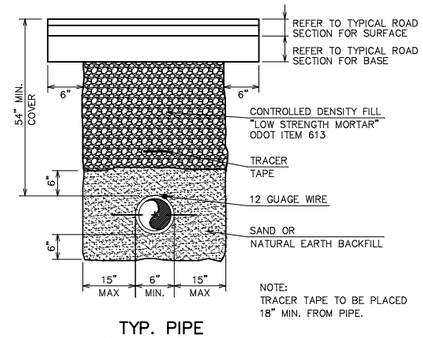
SHEET NUMBER: 06 / 28



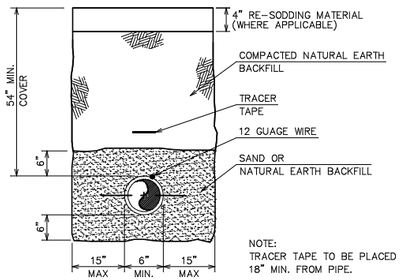
TYP. PIPE TRENCH DETAIL
NON-PAVED DRIVEWAY AREAS



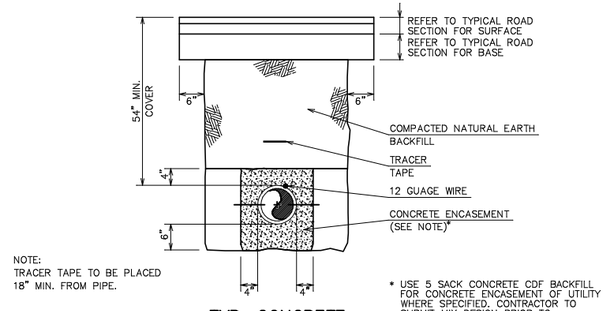
TYP. PIPE
TRENCH DETAIL
(PARALLEL TO EXISTING ROADWAYS)



TYP. PIPE
TRENCH DETAIL
(PERPENDICULAR TO EXISTING ROADWAYS)



TYP. PIPE
TRENCH DETAIL
(EXIST. VEGETATION AREAS)



TYP. CONCRETE
ENCASEMENT DETAIL

* USE 5 SACK CONCRETE CDF BACKFILL FOR CONCRETE ENCASEMENT OF UTILITY WHERE SPECIFIED. CONTRACTOR TO SUBMIT MIX DESIGN PRIOR TO CONSTRUCTION FOR ENGINEER'S APPROVAL.

5" NO. 57s

5" AGGREGATE BASE

TYPICAL ROAD SECTION
FOR PAVEMENT REPAIR AREAS
FOR TOWNSHIP ROADS

1 1/2" ASPHALT CONCRETE SURFACE COURSE*
2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE*

6" AGGREGATE BASE*

TYPICAL ROAD SECTION
FOR PAVEMENT REPAIR AREAS
FOR COUNTY ROADS

* CONTRACTOR MAY SUBSTITUTE ASPHALT/ AGGREGATE BASE WITH 8" CLASS C CONCRETE (4000 PSI) WITH WELDED WIRE MESH 6x6 W1.4xW1.4 (10 GAGE)

Muskingum County ENGINEER'S OFFICE
Mark J. Eicher, P.E., P.S.
109 Graham Street Zanesville, Ohio 43701
740-454-0155

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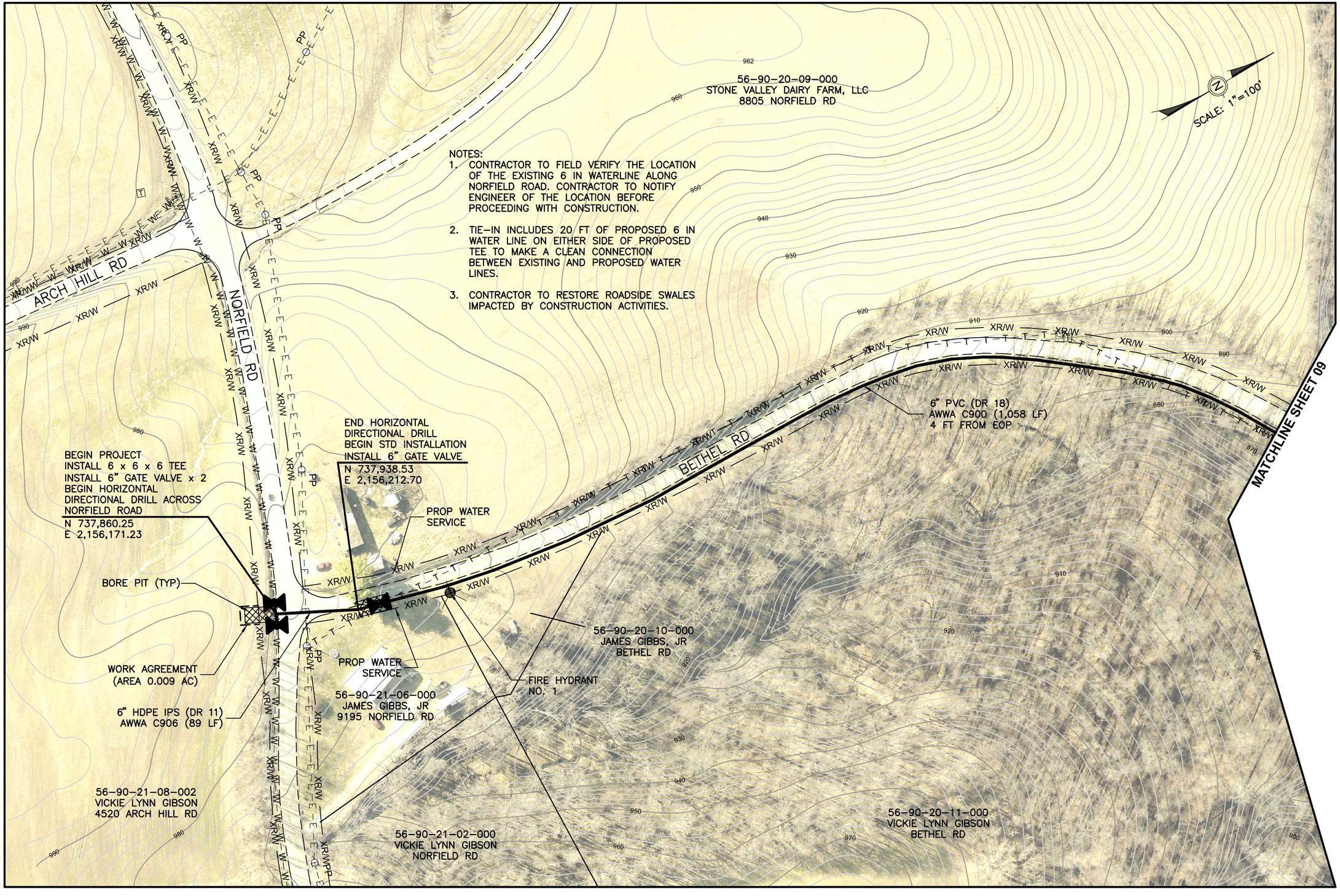
DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: DETAIL SHEET (2)

SHEET NUMBER: 07 / 28



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PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (1)

SHEET NUMBER: 08 / 28

NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.

56-90-20-09-000
STONE VALLEY DAIRY FARM, LLC
8805 NORFIELD RD

56-90-20-14-002
TODD & CATHY QUINN
8485 BETHEL RD

SCALE: 1"=100'

PROP WATER SERVICE

POLE HOLD

FIRE HYDRANT NO. 2

6" PVC (DR 18)
AWWA C900 (1,241 LF)
4 FT FROM EOP

MATCHLINE SHEET 10

END STD INSTALLATION
BEGIN HORIZONTAL DIRECTIONAL DRILL
N 738,923.59
E 2,156,632.28

END HORIZONTAL DIRECTIONAL DRILL
BEGIN STD INSTALLATION
N 739,016.55
E 2,156,725.29

BETHEL RD

PROP WATER SERVICE

EX CULVERT

BORE PIT (TYP)

6" HDPE IPS (DR 11)
AWWA C906 (132 LF)

POLE HOLD

6" PVC (DR 18)
AWWA C900 (86 LF)
4 FT FROM EOP

MATCHLINE SHEET 08

56-90-20-13-000
RALPH WILLIAM JR &
INA MAXINE GRUBB
8200 BETHEL RD

56-90-20-12-000
RALPH WILLIAM JR &
INA MAXINE GRUBB
8200 BETHEL RD

56-90-20-11-000
VICKIE LYNN GIBSON
BETHEL RD

56-90-20-14-000
DONALD F & ARLENE J &
THEODORE L & JUDITH G QUINN
BETHEL RD

PREPARED BY:
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Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

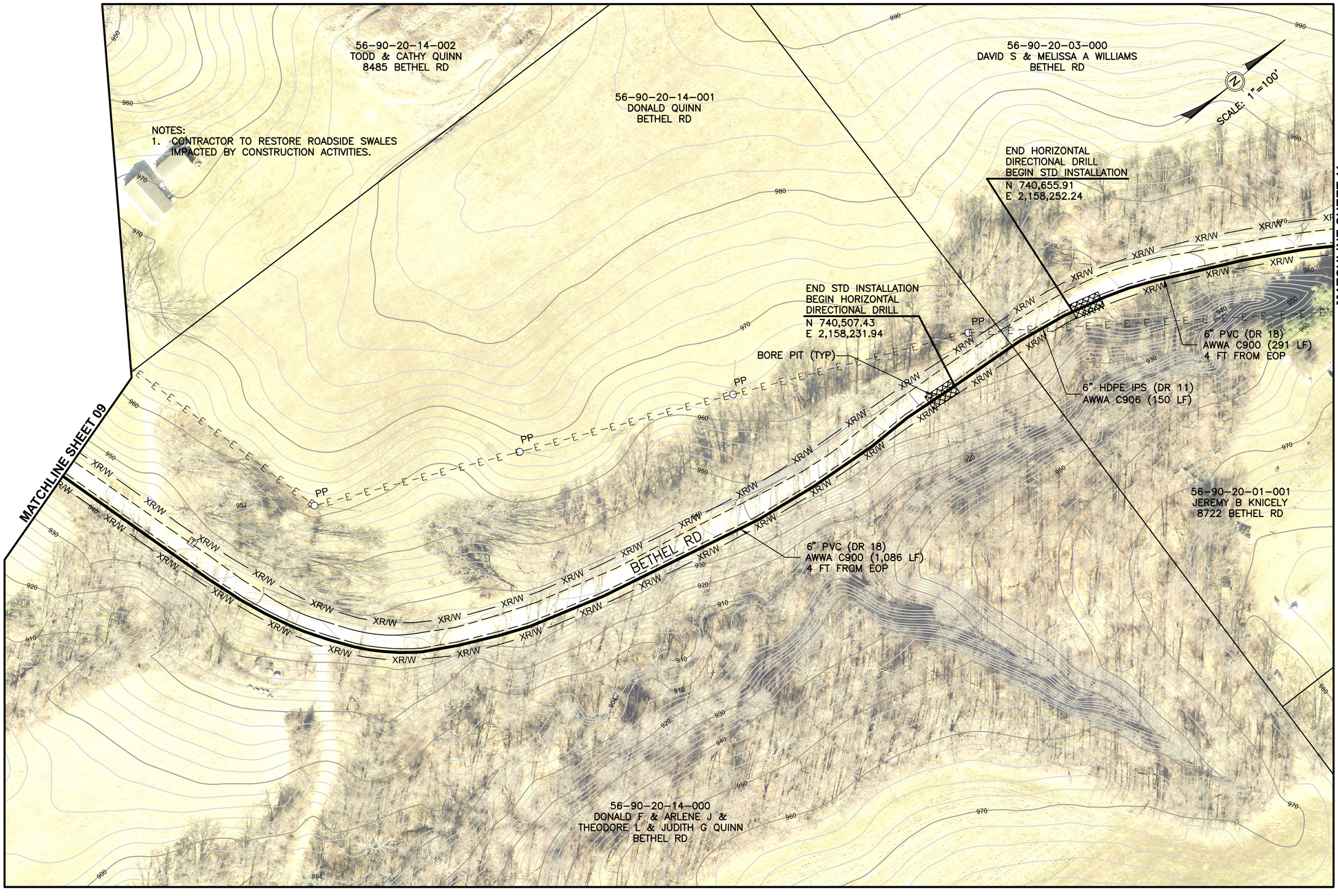
DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (2)

SHEET NUMBER: 09 / 28



Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PREPARED BY:

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

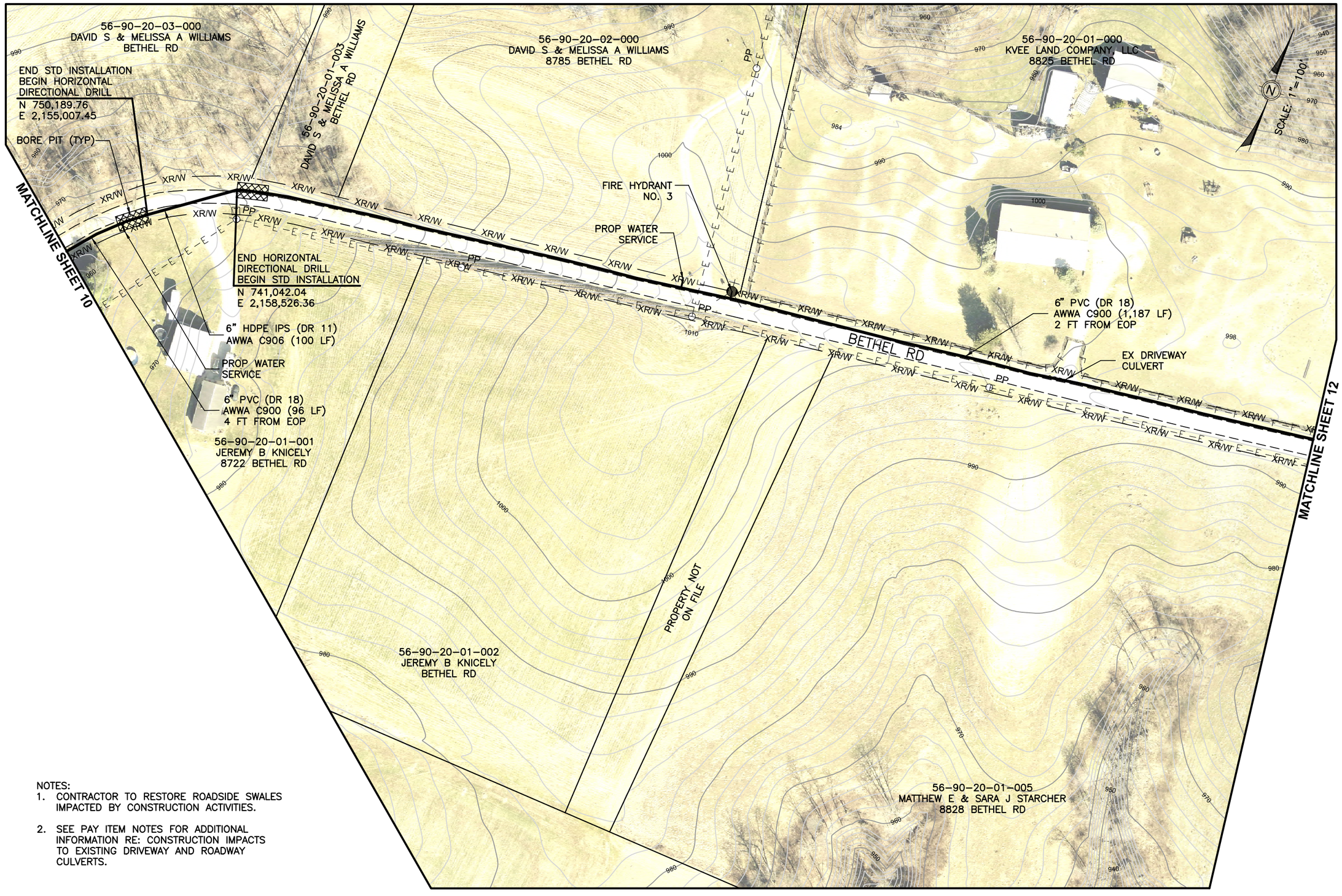
DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (3)

SHEET NUMBER: 10 / 28



NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.

2. SEE PAY ITEM NOTES FOR ADDITIONAL INFORMATION RE: CONSTRUCTION IMPACTS TO EXISTING DRIVEWAY AND ROADWAY CULVERTS.

PREPARED BY:
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PROJECT NAME:
BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION:
NEW CONCORD, OHIO 43762

PLANS APPROVED BY:
MJE

PLANS PREPARED BY:
GJW

DATE:
09/28/2026

REVISED:

SHEET SIZE:
11" x 17"

SHEET NAME:
PLAN
SHEET (4)

SHEET NUMBER:
11
28

MATCHLINE SHEET 11

MATCHLINE SHEET 13

56-90-20-01-000
KVEE LAND COMPANY, LLC
8825 BETHEL RD

23-70-16-11-003
JEREMY & SARA KNICELY
BETHEL RD

23-70-16-11-000
JARED W KNICELY TRUST &
JEREMY B KNICELY TRUST
9420 BETHEL RD

SALEM TOWNSHIP LINE
HIGHLAND TOWNSHIP LINE

SCALE: 1"=100'

PROP GATE VALVES
(SEE NOTES)

AIR RELEASE VALVE NO. 1
INSTALL AT HIGH POINT
2 FT OFF EOP

EX CULVERT

6" PVC (DR 18)
AWWA C900 (1,430 LF)
2 FT FROM EOP

BETHEL RD

56-90-20-01-004
MATTHEW E & SARA J STARCHER
BETHEL RD

56-90-20-01-005
MATTHEW E & SARA J STARCHER
8828 BETHEL RD

23-70-16-11-000
JARED W KNICELY TRUST &
JEREMY B KNICELY TRUST
9420 BETHEL RD

NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.
2. INSTALL GATE VALVE EITHER SIDE OF GAS LINE CROSSINGS AT A LOCATION AGREEABLE TO THE ENGINEER AND GAS COMPANY REPRESENTATIVES.
3. SEE PAY ITEM NOTES FOR ADDITIONAL INFORMATION RE: CONSTRUCTION IMPACTS TO EXISTING DRIVEWAY AND ROADWAY CULVERTS.

PREPARED BY:
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PROJECT NAME:
BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION:
NEW CONCORD, OHIO 43762

PLANS APPROVED BY:
MJE

PLANS PREPARED BY:
GJW

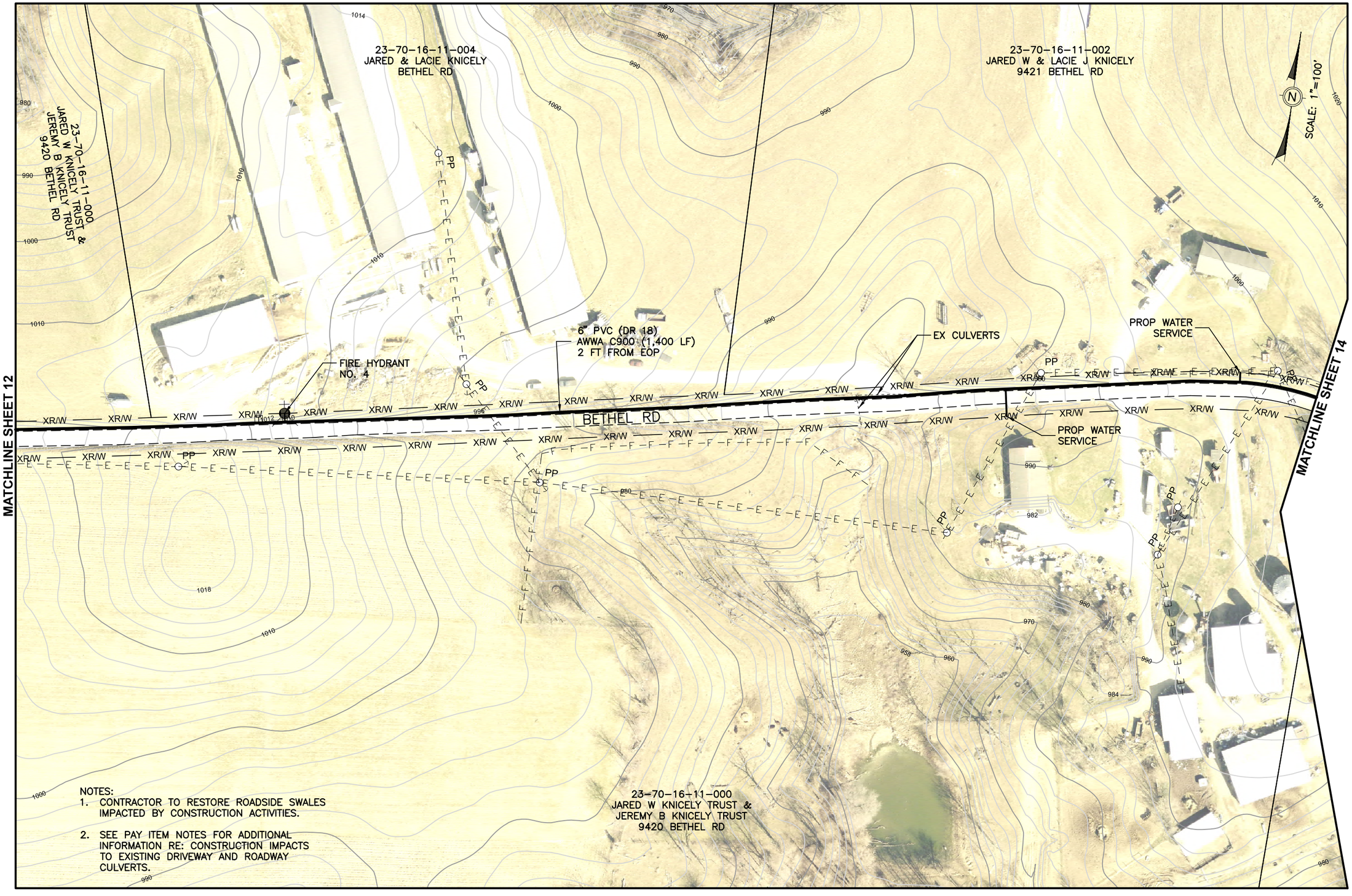
DATE:
09/28/2026

REVISED:

SHEET SIZE:
11" x 17"

SHEET NAME:
PLAN SHEET (5)

SHEET NUMBER:
12
28



PREPARED BY:
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PROJECT NAME:
BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION:
NEW CONCORD, OHIO 43762

PLANS APPROVED BY:
MJE

PLANS PREPARED BY:
GJW

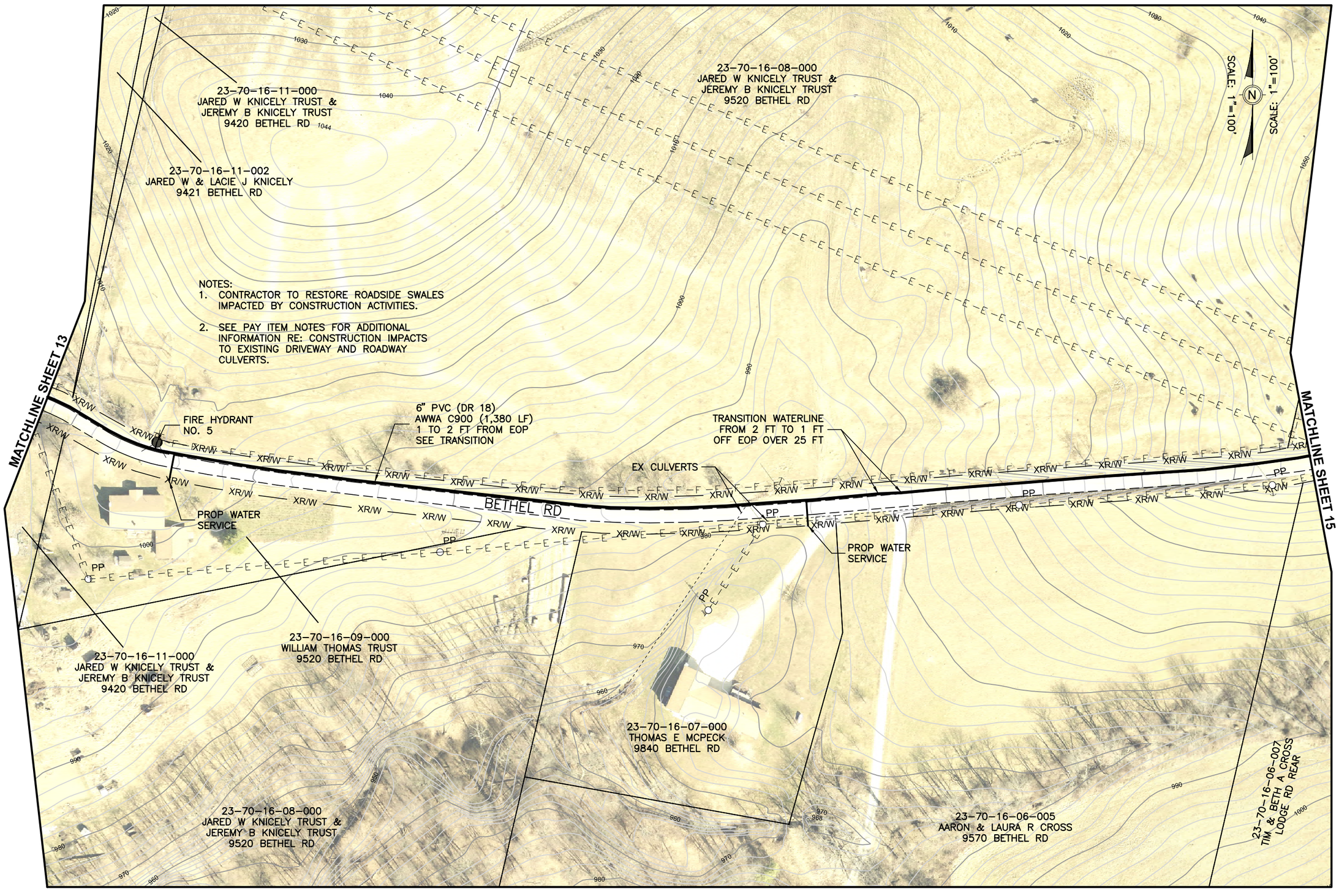
DATE:
09/28/2026

REVISED:

SHEET SIZE:
11" x 17"

SHEET NAME:
PLAN SHEET (6)

SHEET NUMBER:
13
28



PREPARED BY:
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

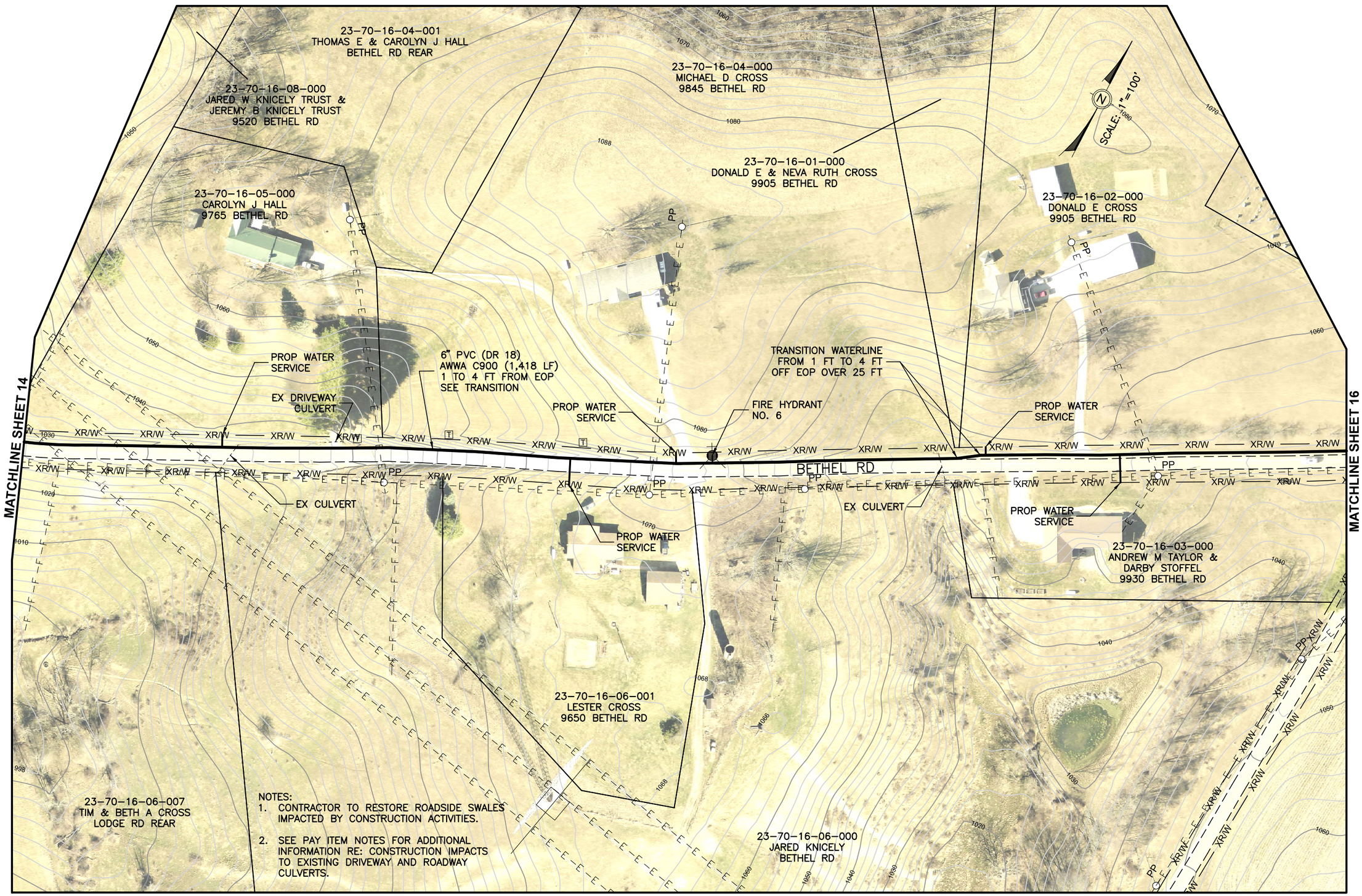
DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (7)

SHEET NUMBER: 14 / 28



PREPARED BY:
Muskingum County ENGINEER'S OFFICE
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (8)

SHEET NUMBER: 15 / 28

NOTES:
1. 3" STUB OFF 6 X 6 X 3 TEE FOR FUTURE WATERLINE EXTENSION EAST ON BETHEL ROAD IS 20' IN LENGTH.
2. 3" STUB SHALL BE PVC (DR 21) ASTM D2241.
3. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.
4. SEE PAY ITEM NOTES FOR ADDITIONAL INFORMATION RE: CONSTRUCTION IMPACTS TO EXISTING DRIVEWAY AND ROADWAY CULVERTS.

SCALE: 1"=100'

23-70-16-02-000
DONALD E CROSS
9905 BETHEL RD

23-70-16-32-000
HIGHLAND TWP BOARD
OF TRUSTEES
ADDRESS NOT ON FILE

23-80-17-04-000
BETHEL M E CHURCH
BETHEL RD

23-40-15-10-000
JOSEPH VANREETH &
LUANN HILL & LITA VANREETH
9860 NEW HOPE RD

23-50-14-13-000
RYAN GERBER
9955 NEW HOPE RD

23-80-17-05-000
STEPHANIE & CRAIG D BARNHOUSE
10020 BETHEL RD

23-50-14-12-000
PHILIP LON ALLEN TR
NEW HOPE RD

MATCHLINE SHEET 15

MATCHLINE SHEET 17

EX CULVERT

6" PVC (DR 18)
AWWA C900 (296 LF)
4 FT FROM EOP

PROP WATER SERVICE

LODGE RD

BETHEL RD

NEW HOPE RD

FIRE HYDRANT NO. 7

FIRE HYDRANT NO. 8

WORK AGREEMENT
(AREA 0.014 AC)

BORE PIT (TYP)

END HORIZONTAL
DIRECTIONAL DRILL
BEGIN STD INSTALLATION
N 742,841.88
E 2,165,369.09

6" HDPE IPS (DR 11)
AWWA C906 (86 LF)

END STD INSTALLATION
BEGIN HORIZONTAL
DIRECTIONAL DRILL
N 742,637.07
E 2,165,326.30

6" HDPE IPS (DR 11)
AWWA C906 (199 LF)

23-50-14-13-000
RYAN GERBER
9955 NEW HOPE RD
WORK AGREEMENT
IN PLACE FOR 0.009 AC

END STD INSTALLATION
BEGIN HORIZONTAL
DIRECTIONAL DRILL
N 742,809.96
E 2,165,449.16

6" PVC (DR 18)
AWWA C900 (26 LF)

END HORIZONTAL
DIRECTIONAL DRILL
BEGIN STD INSTALLATION
N 742,785.80
E 2,165,457.60

INSTALL 6 x 6 x 3 TEE
INSTALL 6" GATE VALVE x 2
INSTALL 3" GATE VALVE FOR
FUTURE EXTENSION EAST
SEE NOTES
N 742,797.88
E 2,165,453.38

6" PVC (DR 18)
AWWA C900 (964 LF)
4 FT FROM EOP

EX CULVERT

PROP WATER SERVICE

FIRE HYDRANT NO. 8

XR/W

PP

E

F

1060 1070 1080 1050 1040 1030 1020 1010 1000 990 980 1078 1082 1002

Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
740-454-0155
Muskingum County ENGINEER'S OFFICE
PREPARED BY:

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

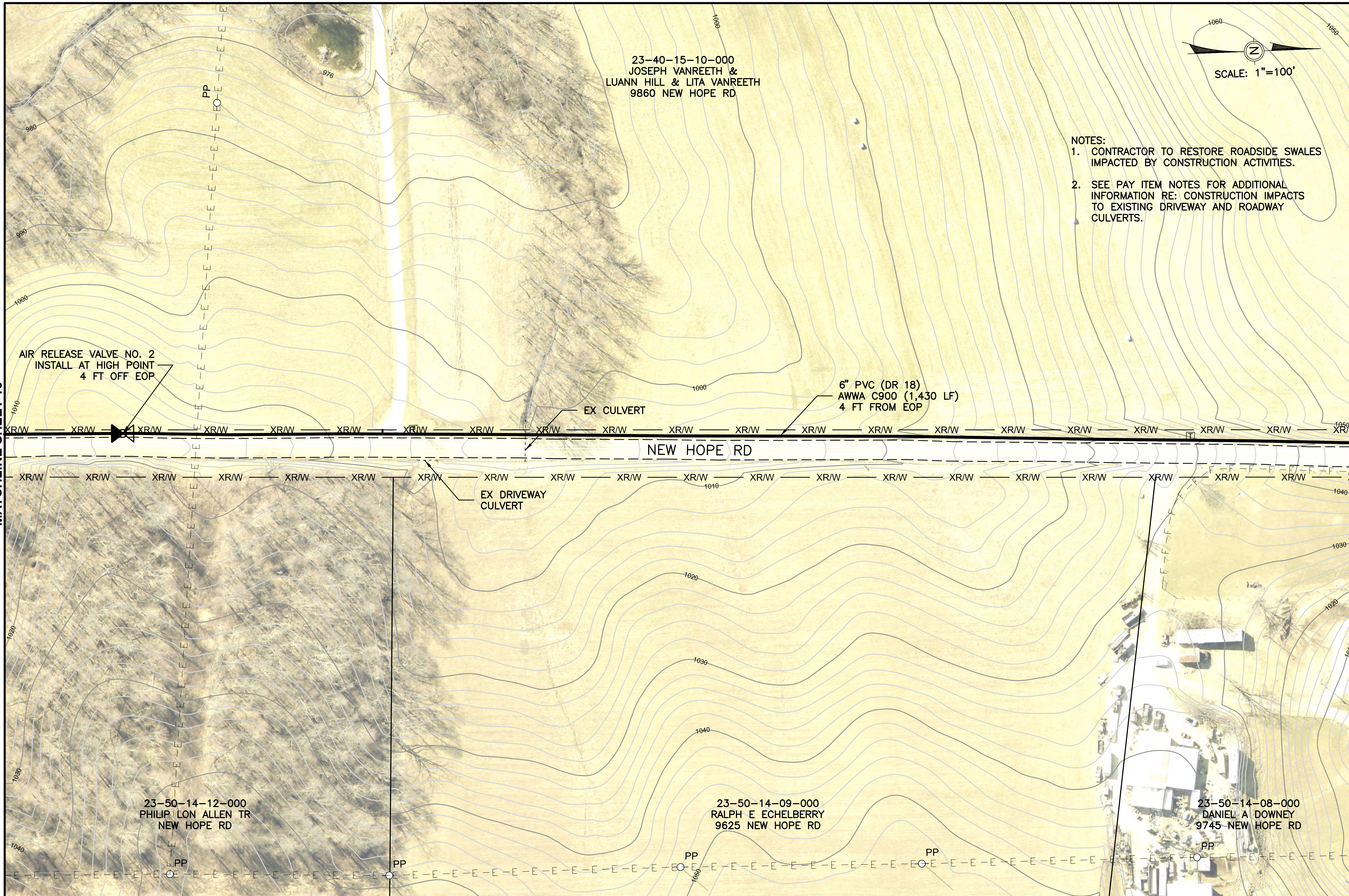
DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (9)

SHEET NUMBER: 16 / 28



PREPARED BY:

Muskingum County ENGINEER'S OFFICE

Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (10)

SHEET NUMBER: 17 / 28

NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.

MATCHLINE SHEET 17

PROP WATER SERVICE

23-50-14-08-000
DANIEL A DOWNEY
9745 NEW HOPE RD

INSTALL 6 x 6 x 3 TEE
INSTALL 6" GATE VALVE x 2
BEGIN HORIZONTAL DIRECTIONAL DRILL ACROSS NEW HOPE ROAD
N 745,478.46
E 2,165,140.37

WORK AGREEMENT (AREA 0.017 AC)

BORE PIT (TYP)

23-40-15-10-000
JOSEPH VANREETH &
LUANN HILL & LITA VANREETH
9860 NEW HOPE RD

FIRE HYDRANT NO. 9

3" HDPE IPS (DR 11)
AWWA C906 (70 LF)

23-50-14-09-000
RALPH E ECHELBERRY
9625 NEW HOPE RD

23-40-15-10-000
JOSEPH VANREETH &
LUANN HILL & LITA VANREETH
9860 NEW HOPE RD

23-40-15-01-000
ROBERT B & BOBBI J VERNON
9625 NEW HOPE RD

23-50-15-01-001
RALPH E ECHELBERRY
BARR RD REAR

NEW HOPE RD

AIR RELEASE VALVE NO. 3
INSTALL AT HIGH POINT
4 FT OFF EOP

6" PVC (DR 18)
AWWA C900 (1,153 LF)
4 FT FROM EOP

END HORIZONTAL DIRECTIONAL DRILL
BEGIN STD INSTALLATION
INSTALL 3" GATE VALVE
N 745,541.21
E 2,165,170.49

3" PVC (DR 21)
ASTM D2241 (719 LF)
15 FT FROM EX ROW

PROP WATER SERVICE

23-50-14-07-000
RALPH E ECHELBERRY
6100 BARR RD

BARR RD

END WORK
N 749,946.45
E 2,165,763.21
INSTALL FLUSHOUT

PROP WATER SERVICE

23-40-15-01-000
ROBERT B & BOBBI J VERNON
9625 NEW HOPE RD

SCALE: 1" = 100'

MATCHLINE SHEET 19

Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PREPARED BY:

BETHEL-NEW HOPE WATERLINE EXTENSION
PROJECT NAME

NEW CONCORD, OHIO 43762
PROJECT LOCATION

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (11)

SHEET NUMBER: 18 / 28

NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.
2. SEE PAY ITEM NOTES FOR ADDITIONAL INFORMATION RE: CONSTRUCTION IMPACTS TO EXISTING DRIVEWAY AND ROADWAY CULVERTS.

MATCHLINE SHEET 18

MATCHLINE SHEET 20

23-40-15-01-000
ROBERT B & BOBBI J VERNON
9625 NEW HOPE RD

23-40-15-02-001
J WILLIAM & RACHEL A HODGE
9390 NEW HOPE RD

23-40-15-01-000
ROBERT B & BOBBI J VERNON
9625 NEW HOPE RD

23-40-15-02-000
RACHEL A & J WILLIAM HODGE ETAL
9235 NEW HOPE RD

NEW HOPE RD

EX CULVERT

6" PVC (DR 18)
AWWA C900 (1,418 LF)
4 FT FROM EOP

CELL TOWER FOOTPRINT

POLE HOLD

FIRE HYDRANT NO. 10

SCALE: 1" = 100'

Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PREPARED BY:

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

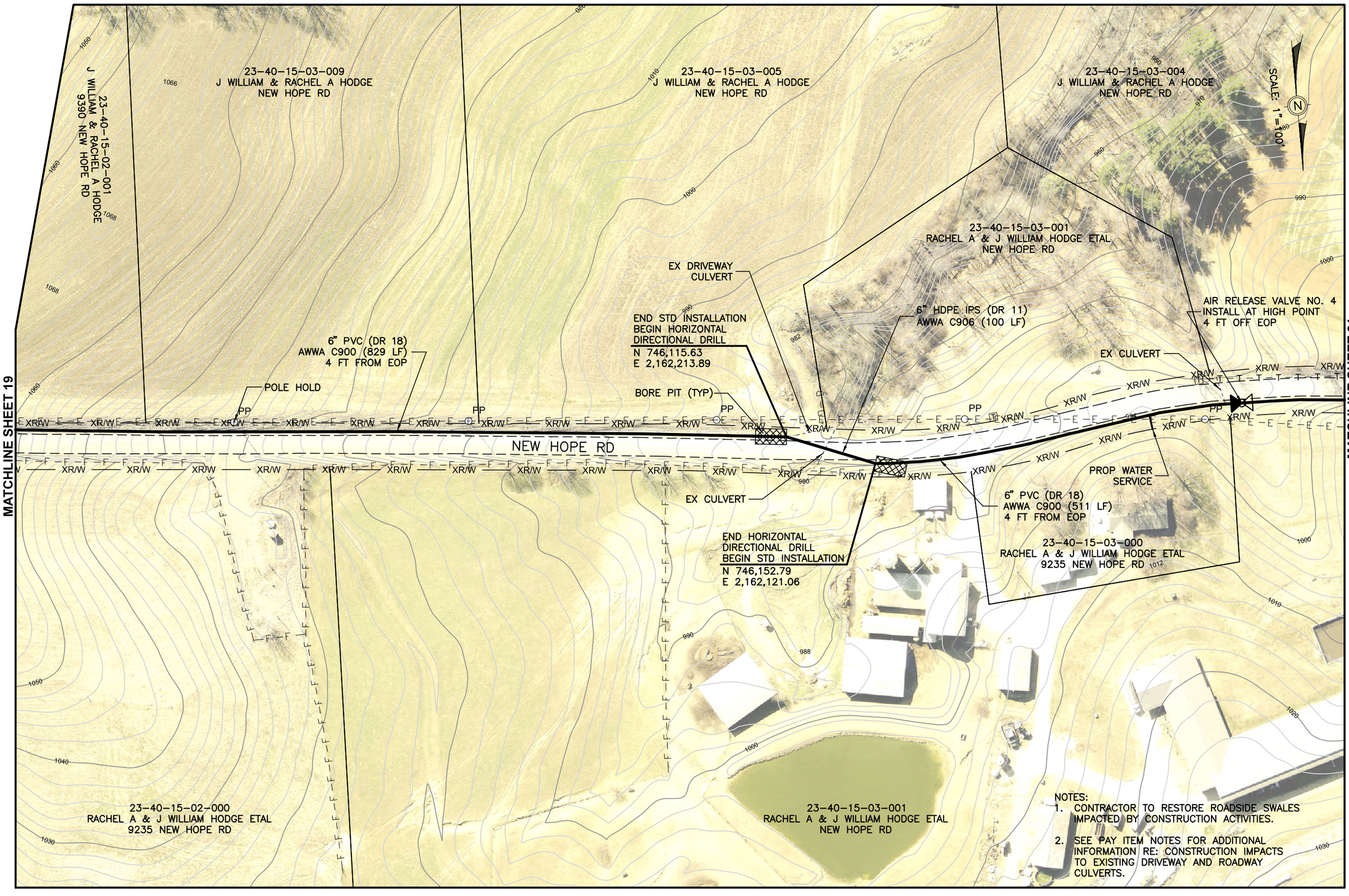
DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (12)

SHEET NUMBER: 19 / 28



PREPARED BY:
Muskingum County ENGINEER'S OFFICE
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

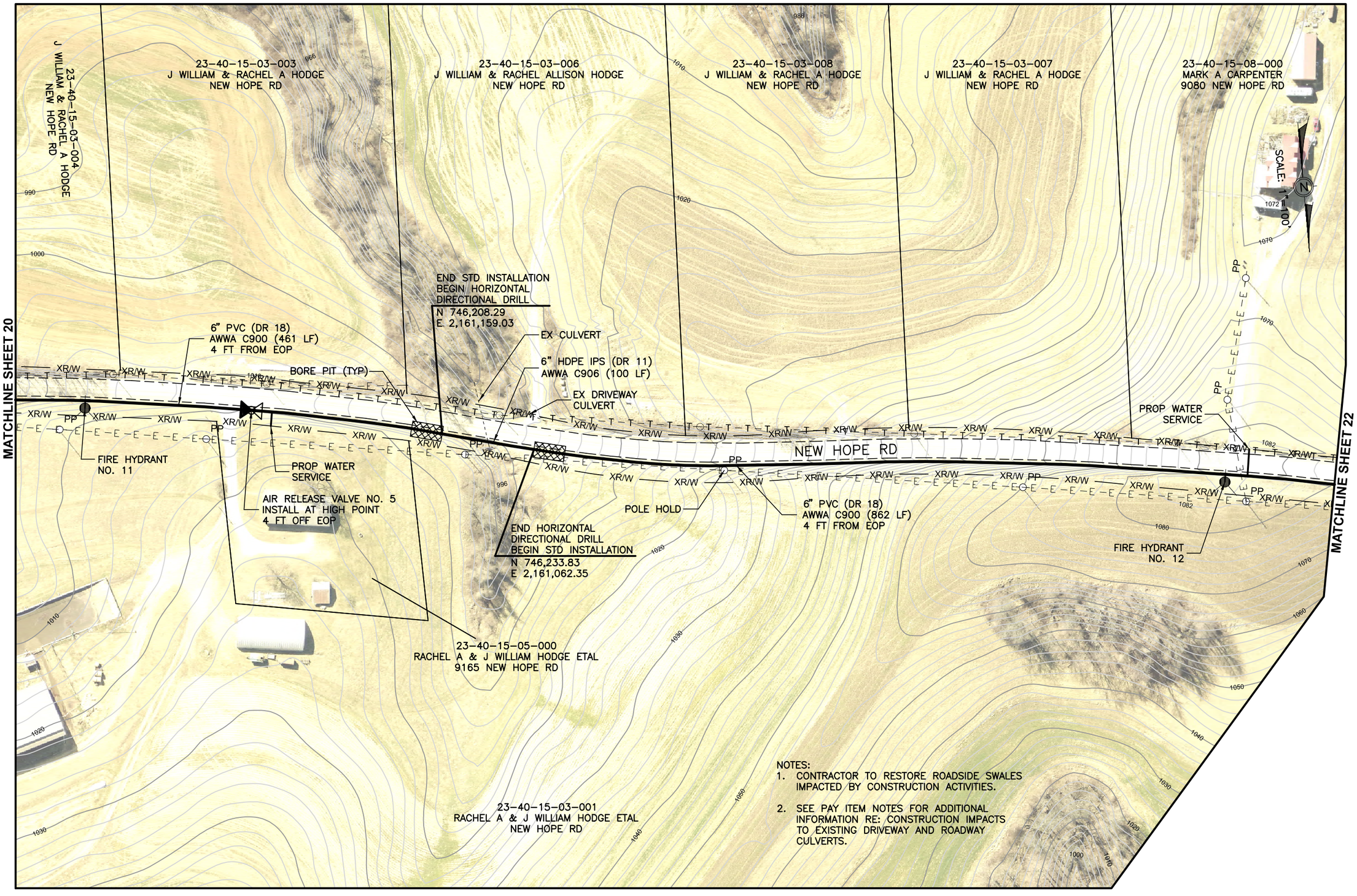
DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (13)

SHEET NUMBER: 20 / 28



PREPARED BY:
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PROJECT NAME:
BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION:
NEW CONCORD, OHIO 43762

PLANS APPROVED BY:
MJE

PLANS PREPARED BY:
GJW

DATE:
09/28/2026

REVISED:

SHEET SIZE:
11" x 17"

SHEET NAME:
PLAN SHEET (14)

SHEET NUMBER:
21
28

NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.
2. SEE PAY ITEM NOTES FOR ADDITIONAL INFORMATION RE: CONSTRUCTION IMPACTS TO EXISTING DRIVEWAY AND ROADWAY CULVERTS.

SCALE: 1" = 100'

23-40-15-06-000
K-VEE LAND COMPANY, LLC
NEW HOPE RD

56-60-01-23-000
JUSTIN D & ELLEN S REED
8910 NEW HOPE RD

SALEM TOWNSHIP LINE
HIGHLAND TOWNSHIP LINE

NEW HOPE RD

EX DRIVEWAY CULVERT

6" HDPE IPS (DR 11)
AWWA C906 (100 LF)

6" PVC (DR 18)
AWWA C900 (820 LF)
4 FT FROM EOP

END STD INSTALLATION
BEGIN HORIZONTAL
DIRECTIONAL DRILL
N 746,755.28
E 2,159,554.22

END HORIZONTAL
DIRECTIONAL DRILL
BEGIN STD INSTALLATION
N 746,836.90
E 2,159,496.45

PROP WATER SERVICE

POLE HOLD

FIRE HYDRANT
NO. 13

6" PVC (DR 18)
AWWA C900 (590 LF)
4 FT FROM EOP

EX CULVERT

BORE PIT (TYP)

EX CULVERT

EX DRIVEWAY CULVERT

MATCHLINE SHEET ##

MATCHLINE SHEET 23

23-40-15-03-001
RACHEL A & J WILLIAM HODGE ETAL
NEW HOPE RD

56-60-01-23-000
JUSTIN D & ELLEN S REED
8910 NEW HOPE RD

Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PREPARED BY:

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

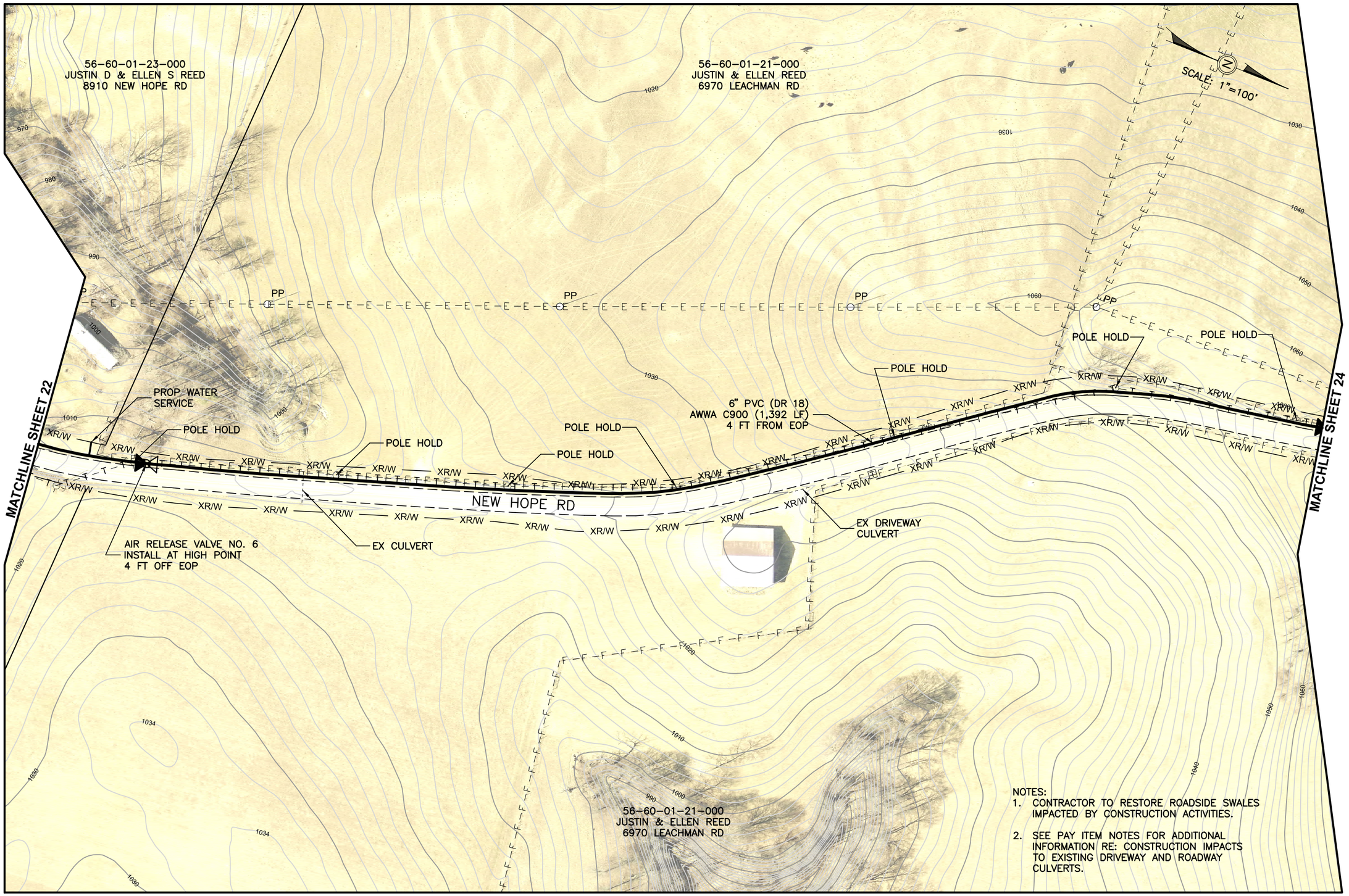
DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (15)

SHEET NUMBER: 22 / 28



NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.
2. SEE PAY ITEM NOTES FOR ADDITIONAL INFORMATION RE: CONSTRUCTION IMPACTS TO EXISTING DRIVEWAY AND ROADWAY CULVERTS.

PREPARED BY:
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (16)

SHEET NUMBER: 23 / 28

MATCHLINE SHEET 25

MATCHLINE SHEET 23

MATCHLINE SHEET 28

NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.
2. SEE PAY ITEM NOTES FOR ADDITIONAL INFORMATION RE: CONSTRUCTION IMPACTS TO EXISTING DRIVEWAY AND ROADWAY CULVERTS.

56-60-01-21-000
JUSTIN & ELLEN REED
6970 LEACHMAN RD

6" PVC (DR 18)
AWWA C900 (1,223 LF)
4 FT FROM EOP

POLE HOLD

POLE HOLD

FIRE HYDRANT
NO. 14

INSTALL 6 x 6 x 3 TEE
INSTALL 6" GATE VALVE x 2
BEGIN HORIZONTAL
DIRECTIONAL DRILL ACROSS
NEW HOPE ROAD
N 749,370.10
E 2,158,712.44

56-60-01-07-000
HANNAH M BUGGLIN
8545 NEW HOPE RD

POLE HOLD

PROP WATER
SERVICE

AIR RELEASE VALVE NO. 7
INSTALL AT HIGH POINT
4 FT OFF EOP

POLE HOLD

POLE HOLD

WORK AGREEMENT
(AREA 0.014 AC)

POLE HOLD

3" HDPE IPS (DR 11)
AWWA C906 (59 LF)

BORE PIT (TYP)

56-60-01-06-000
CRAIG W GEORGE TRUST &
TAMI D GEORGE TRUST &
DIRK W GEORGE
SARBAUGH RD

NEW HOPE RD

EX CULVERT

EX CULVERT

3" PVC (DR 21)
ASTM D2241 (615 LF)
8 FT FROM EOP

EX DRIVEWAY
CULVERT

EX CULVERT

AIR RELEASE VALVE NO. 11
INSTALL AT HIGH POINT
8 FT OFF EOP

SARBAUGH RD

END HORIZONTAL
DIRECTIONAL DRILL
BEGIN STD INSTALLATION
INSTALL 3" GATE VALVE
N 749,426.40
E 2,158,728.19

56-60-01-21-000
JUSTIN & ELLEN REED
6970 LEACHMAN RD

56-60-01-22-000
W GEORGE FARMS, LLC
NEW HOPE RD

56-60-01-06-000
CRAIG W GEORGE TRUST &
TAMI D GEORGE TRUST &
DIRK W GEORGE
SARBAUGH RD

SCALE: 1"=100'

PREPARED BY:
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (17)

SHEET NUMBER: 24 / 28

MATCHLINE SHEET 24

56-60-01-21-000
JUSTIN & ELLEN REED
6970 LEACHMAN RD

END WORK
N 749,125.87
E 2,157,482.94
INSTALL FLUSHOUT

LEACHMAN RD

PROP WATER SERVICE

3" PVC (DR 21)
ASTM D2241 (280 LF)
8 FT FROM EX ROW

INSTALL 6" GATE VALVE
INSTALL WATER SERVICES
END STD INSTALLATION
BEGIN HORIZONTAL
DIRECTIONAL DRILL ACROSS
LEACHMAN ROAD
N 749,401.65
E 2,157,607.88

56-60-01-14-000
ROBERT W TAYLOR
LEACHMAN RD

56-60-01-14-001
ROBERT W TAYLOR &
WADE S HATFIELD
8336 NEW HOPE RD

END HORIZONTAL
DIRECTIONAL DRILL
BEGIN STD INSTALLATION
INSTALL 6 x 6 x 3 TEE
INSTALL 6" GATE VALVE
INSTALL 3" GATE VALVE
N 749,405.56
E 2,157,493.66

SCALE: 1"=100'

POLE HOLD

AIR RELEASE VALVE NO. 8
INSTALL AT HIGH POINT
4 FT OFF EOP

6" PVC (DR 18)
AWWA C900 (608 LF)
4 FT FROM EOP

POLE HOLD

PROP WATER SERVICE

FIRE HYDRANT
NO. 15

56-60-01-13-000
ROBERT W TAYLOR
NEW HOPE RD

NEW HOPE RD

EX CULVERT

PROP WATER SERVICE

BORE PIT (TYP)

6" HDPE IPS (DR 11)
AWWA C906 (114 LF)

6" PVC (DR 18)
AWWA C900 (726 LF)
4 FT FROM EOP

56-60-01-11-000
WADE S HATFIELD
8340 NEW HOPE RD

POLE HOLD

NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.
2. SEE PAY ITEM NOTES FOR ADDITIONAL INFORMATION RE: CONSTRUCTION IMPACTS TO EXISTING DRIVEWAY AND ROADWAY CULVERTS.

56-60-01-09-000
CLARE BUCHANAN &
VERNA L SEGER, ETAL
NEW HOPE RD REAR

56-60-01-06-000
CRAIG W GEORGE TRUST &
TAMI D GEORGE TRUST &
DIRK W GEORGE
SARBAUGH RD

56-60-01-08-000
CRAIG W GEORGE TRUST &
TAMI D GEORGE TRUST
8435 NEW HOPE RD

56-60-01-11-000
WADE S HATFIELD
8340 NEW HOPE RD

MATCHLINE SHEET 26

PREPARED BY:
Mark J. Eicher, P.E., P.S.
Muskingum County ENGINEER'S OFFICE
109 Graham Street
Zanesville, Ohio 43701
740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

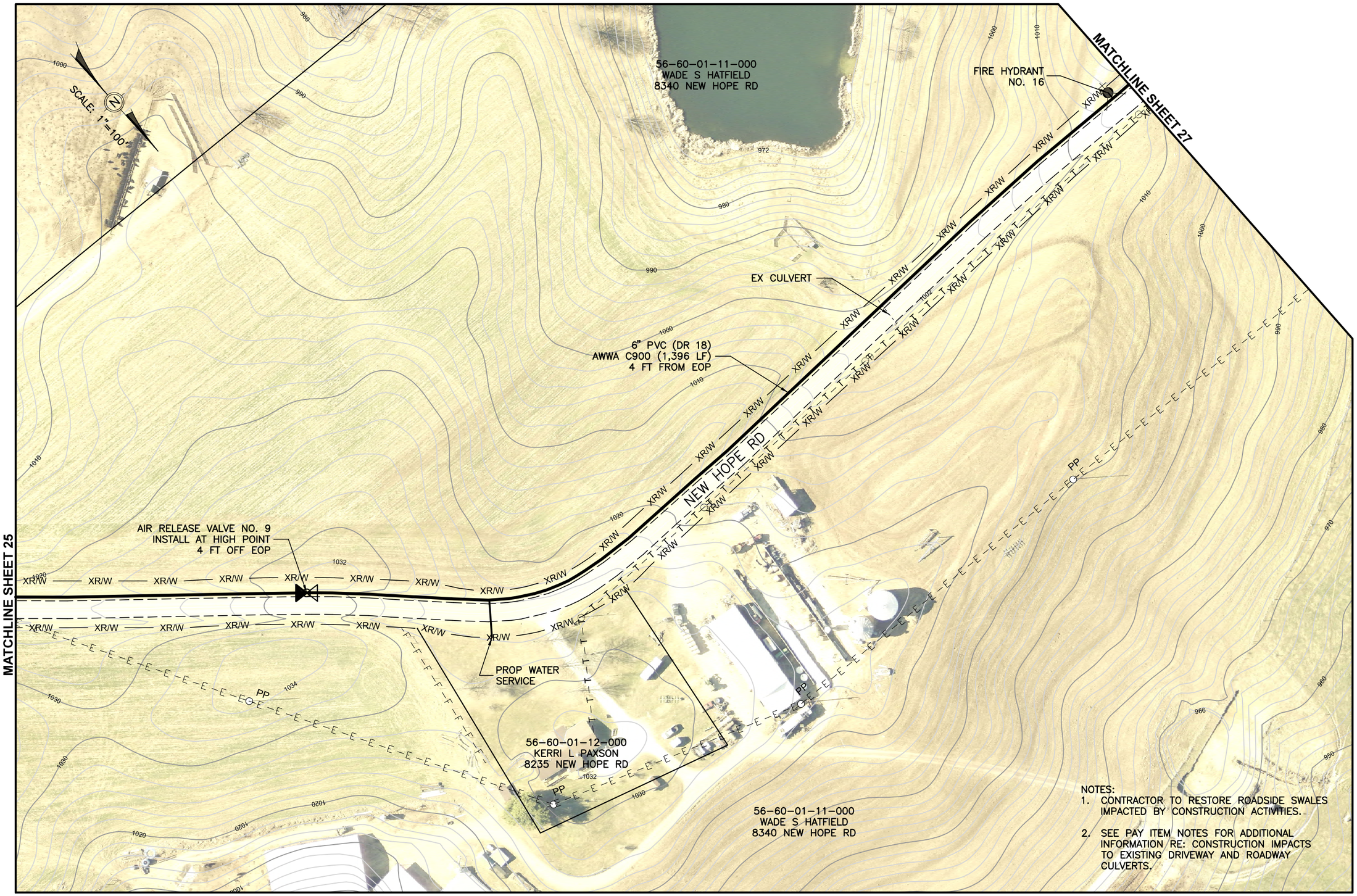
DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (18)

SHEET NUMBER: 25 / 28



NOTES:

1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.
2. SEE PAY ITEM NOTES FOR ADDITIONAL INFORMATION RE: CONSTRUCTION IMPACTS TO EXISTING DRIVEWAY AND ROADWAY CULVERTS.

PREPARED BY:
Muskingum County ENGINEER'S OFFICE
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (19)

SHEET NUMBER: 26 / 28

MATCHLINE SHEET 26

56-60-01-11-000
WADE S HATFIELD
8340 NEW HOPE RD

56-50-01-11-000
CLARE BUCHANAN &
VERNA L SEGER, ETAL
8340 NEW HOPE RD

6" PVC (DR 18)
AWWA C900 (623 LF)
4 FT FROM EOP

AIR RELEASE VALVE NO. 10
INSTALL AT HIGH POINT
4 FT OFF EOP

END PROJECT
N 750,189.76
E 2,155,007.45
INSTALL 6 x 6 x 2 TEE
INSTALL GATE VALVE ON
6" END OF TEE
INSTALL 2" FLUSHOUT ON
2" END OF TEE

PROP WATER
SERVICE

NEW HOPE RD

NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.

SCALE: 1"=100'

56-60-01-11-000
WADE S HATFIELD
8340 NEW HOPE RD

56-60-01-11-001
WADE S & AMANDA M HATFIELD
8005 NEW HOPE RD

56-50-01-20-000
LAPP FARMS, LLC
7460 NEW HOPE RD

PREPARED BY:
Muskingum County ENGINEER'S OFFICE
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (20)

SHEET NUMBER: 27 / 28

MATCHLINE SHEET 24

56-60-01-06-000
CRAIG W GEORGE TRUST &
TAMI D GEORGE TRUST &
DIRK W GEORGE
SARBAUGH RD

56-60-01-06-001
CRAIG W GEORGE TRUST &
TAMI D GEORGE TRUST
7195 SARBAUGH RD

SCALE: 1"=100'

END WORK
N 750,189.76
E 2,155,007.45
INSTALL FLUSHOUT

3" PVC (DR 21)
ASTM D2241 (581 LF)
8 FT FROM EOP

PROP WATER
SERVICE

EX CULVERT

EX CULVERT

SARBAUGH RD

BIRD RD

56-60-01-06-000
CRAIG W GEORGE TRUST &
TAMI D GEORGE TRUST &
DIRK W GEORGE
SARBAUGH RD

56-60-01-06-000
CRAIG W GEORGE TRUST &
TAMI D GEORGE TRUST &
DIRK W GEORGE
SARBAUGH RD

NOTES:
1. CONTRACTOR TO RESTORE ROADSIDE SWALES IMPACTED BY CONSTRUCTION ACTIVITIES.
2. SEE PAY ITEM NOTES FOR ADDITIONAL INFORMATION RE: CONSTRUCTION IMPACTS TO EXISTING DRIVEWAY AND ROADWAY CULVERTS.

PREPARED BY:
Mark J. Eicher, P.E., P.S.
109 Graham Street
Zanesville, Ohio 43701
Muskingum County ENGINEER'S OFFICE 740-454-0155

PROJECT NAME: BETHEL-NEW HOPE WATERLINE EXTENSION

PROJECT LOCATION: NEW CONCORD, OHIO 43762

PLANS APPROVED BY: MJE

PLANS PREPARED BY: GJW

DATE: 09/28/2026

REVISED:

SHEET SIZE: 11" x 17"

SHEET NAME: PLAN SHEET (21)

SHEET NUMBER: 28 / 28