

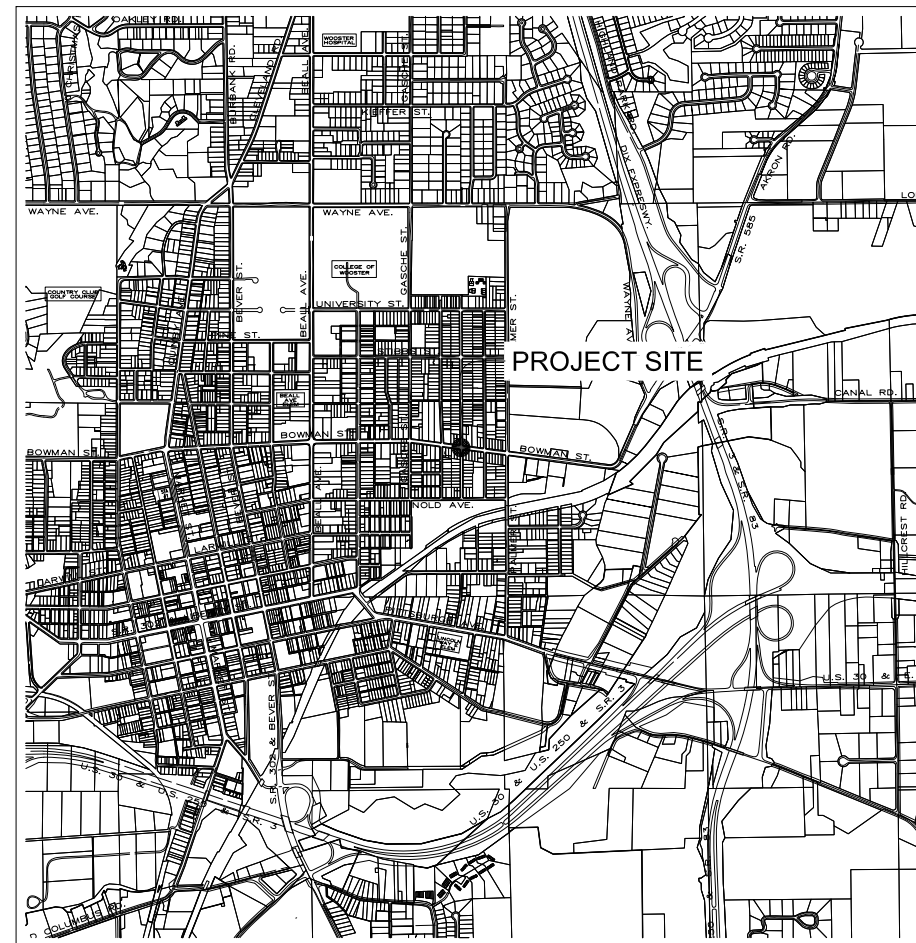
E. BOWMAN STREET MI 1.64 CULVERT REPLACEMENT

CITY OF WOOSTER, OHIO 2024

INDEX OF SHEETS

TITLE	SHEET
TITLE SHEET.....	1
GENERAL NOTES, GENERAL SUMMARY, LEGEND, & ABBREVIATIONS.....	2
PLAN & PROFILE.....	3
MISCELLANEOUS DETAILS.....	4-5

ESTIMATED CONSTRUCTION COST = \$75,000



LOCATION MAP



SPECIFICATIONS

THE 2023 CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS, AND THE CITY OF WOOSTER ENGINEERING CONSTRUCTION STANDARDS SHALL GOVERN THIS IMPROVEMENT.



DESIGNED _____
JOHN RICE, CITY ENGINEER
DATE _____
FEBRUARY 29, 2024

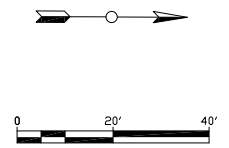
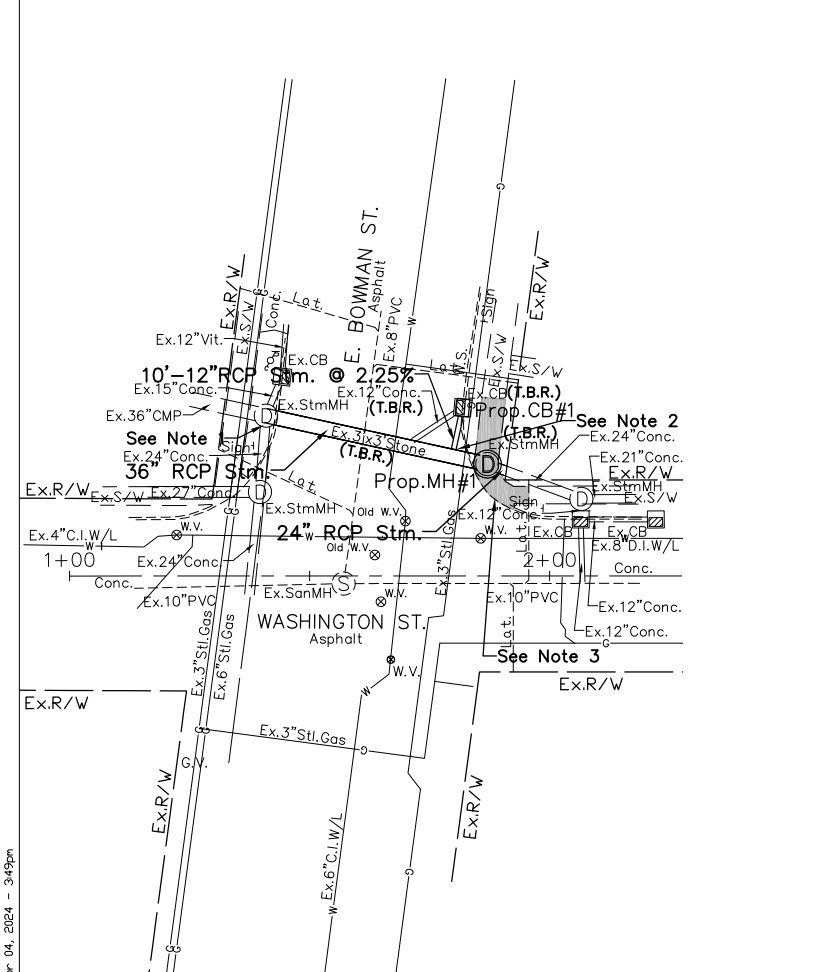


PLAN PREPARED BY
CITY OF WOOSTER
DIVISION OF ENGINEERING
538 N. MARKET ST. WOOSTER, OHIO 44691
PH: (330) 263-5251 FAX: (330) 263-5283



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SHEET 1 of 5

M:\Engineering\PROJECTS\2024\Projects\E. Bowman Street\164 Culvert Replacement\164E.BowmanSt\Topo.dwg - GP_PP_01_2024 - Apr. 04, 2024 - 3:45pm



LEGEND

SHADING INDICATES CONCRETE REPLACEMENT.

965	Prop.CB#1, Single Inlet Sta.1+81.92, 35.1'Lt. Grate=956.90 12" RCP E. Inv.952.50	Prop.MH#1, 60" I.D. Sta.1+87.03, 23.3'Lt. Casting=957.25 36" RCP S. Inv.951.50 24" RCP N. Inv.952.23	965
960	Ex. B.L. Profile		960
955	47'-36" RCP Strm. @ 0.80%	4'-24" RCP Strm. @ 1.10%	955
950	Ex. 36" CMP Ex. 24" Conc. Ex. 10" PVC	Ex. 3x3' Stone (T.B.R.) Ex. 24" Conc. Ex. 12" Conc. Ex. 12" Conc. (T.B.R.) Ex. 10" PVC Ex. 8" PVC	950
945	Ex. Strm. C.B. Sta.1+44.30, 41.5'Lt. Grate=956.72 15" Conc. F. Inv. 951.72 12" Vit. W. Inv. 951.72	Ex. Strm. C.B. (T.B.R.) Sta.1+81.92, 35.1'Lt. Grate=956.91 12" Conc. SE. Inv. 952.94	945
940	Ex. Strm. MH Sta.1+40.89, 33.4'Lt. Casting=957.42 24" Conc. E. Inv. 949.12 36" CMP S. Inv. 948.82 15" Conc. W. Inv. 952.02 3'x3' Stone N. Inv. 951.12 (T.B.R.)	Ex. Strm. MH (T.B.R.) Sta.1+87.03, 23.3'Lt. Casting=957.31 24" Conc. N. Inv. 952.23 3'x3' Stone N. Inv. 951.12	940
935	Ex. Strm. MH Sta.1+39.67, 17.5'Lt. Casting=956.37 27" Conc. S. Inv. 948.03 24" Conc. E. Inv. 948.33 24" Conc. W. Inv. 948.03	Ex. Strm. MH Sta.2+06.63, 16.0'Lt. Casting=957.60 24" Conc. S. Inv. 952.46 21" Conc. N. Inv. 953.46 12" Conc. E. Inv. 953.81	935
930	36" RCP N. Inv. 951.12±	Ex. Strm. C.B. Sta.2+06.47, 11.8'Lt. Grate=956.88 12" Conc. Inv. 953.84 12" Conc. E. Inv. 954.04 12" Conc. N. Inv. 954.04	930
925	Ex. San. MH Sta.1+57.09, 1.6'Rt. Casting=957.00 10" PVC S. Inv. 948.30 8" PVC W. Inv. 948.75 10" PVC N. Inv. 948.30	Ex. Strm. C.B. Sta.2+22.13, 11.8'Lt. Grate=957.29 12" Conc. S. Inv. 954.39	925
920	956.74 956.71 956.67 956.63	920	920

CONSTRUCTION NOTES:

- CONTRACTOR SHALL PROVIDE A NEW OR REWORKED OPENING IN THE EX. STORM MANHOLE TO ACCOMMODATE THE PROP. 36" STORM SEWER. ONCE CONNECTED THE CONTRACTOR SHALL SEAL COMPLETELY WITH A CLASS QC MS CONCRETE. COST SHALL BE INCLUDED IN THE UNIT PRICE FOR 36" RCP STORM SEWER.
- CONTRACTOR SHALL PROVIDE A CORE DRILLED OPENING IN THE PROP. 36" STORM SEWER FOR THE PROP. 12" STORM SEWER. THE CONNECTION SHALL BE MADE WITH AN INSERTATEE OR A CONCRETE COLLAR.
- CONTRACTOR SHALL CONSTRUCT AN ADA AND ODOT COMPLIANT CURB RAMP IN ACCORDANCE WITH CITY STANDARDS AND ODOT SCD. BP-7.1.

DRWN BY	CHKD BY	APPROV BY
SLG	JAR	JAR
DATE	02/24	SCALE
		N/A

CITY OF WOOSTER
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E. BOWMAN STREET
MI. 1.64 CULVERT REPLACEMENT
STA. 1+00 TO STA. 2+50

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3 of 5

WATERLINE CONSTRUCTION

- MAIN LINES:** DUCTILE IRON PIPE, CLASS 52, AWWA C151, CEMENT LINED, AWWA C104, RUBBER GASKETED JOINTS, AWWA C111, 6" MINIMUM DIAMETER FOR DISTRIBUTION LINE.
- TAPPING SLEEVE:** TAPPING SLEEVE SHALL BE SMITH-BLAIR STYLE 665 (STAINLESS STEEL) OR MUELLER H-304L (STAINLESS STEEL WITH STAINLESS STEEL FLANGE AND MJ OUTLET FOR STANDARD GATE VALVE). ALL TAPS SHALL BE MADE BY THE CONTRACTOR UNDER THE SUPERVISION OF AUTHORIZED CITY PERSONNEL, AND IN ACCORDANCE WITH CITY STANDARDS.
- BEDDING:** 6" MINIMUM OF ODOT #8 OR #67 GRAVEL. LIMESTONE IS NOT PERMITTED.
- BACKFILL:** 5'-0" MINIMUM COVER ON MAIN LINE.
- MAIN LINE VALVES:** MUELLER A-2361 OR EJ FLOWMASTER, WITH 304 STAINLESS STEEL FASTENERS, CLOSE LEFT, RESILIENT WEDGE, MECHANICAL JOINT.
- VALVE BOX:** EJ 8560 SERIES THREE PIECE SCREW TYPE BOX, 8800 VALVE BOX DROP LID, (SEE WT-8.0)
- FITTINGS:** DUCTILE IRON, MECHANICAL JOINT, AWWA C153 WITH 304 STAINLESS STEEL NUTS AND BOLTS.
- THRUST RESTRAINT:** FIELD LOCK GASKETS, MJ FIELD LOK OR MECHANICAL JOINTS W/ EBAA IRON SERIES 1100 RESTRAINTERS (STAINLESS STEEL NUTS AND BOLTS).
- HYDRANTS:** MUELLER SUPER CENTURION 250 A-423, EJ WATERMASTER 5CD250, OR KENNEDY GUARDIAN K81-D, 5'-6" BURY, OPEN LEFT, WITH 304 STAINLESS STEEL NUTS AND BOLTS. NATIONAL STANDARD FIRE HOSE THREADED OUTLETS. PUBLIC HYDRANTS SHALL BE PAINTED SAFETY YELLOW AND PRIVATE HYDRANTS SHALL BE PAINTED INTERNATIONAL RED.

GENERAL NOTES WATERLINE

WATERLINE INSTALLATION

- WATERLINES SHALL BE INSTALLED TO MAINTAIN THE FOLLOWING MINIMUM ISOLATION DISTANCES FROM EXISTING AND PROPOSED SEWERS:
VERTICAL ISOLATION = 18 INCHES
HORIZONTAL ISOLATION = 10 FEET
- ALL HYDRANTS AND VALVES SHALL BE LOCATED OUTSIDE OF THE DITCH LINE AND DRAINAGE SWALES WHEREVER POSSIBLE.
- NOT USED.
- A MINIMUM OF 35 PSI SHALL BE MAINTAINED IN ALL WATER MAINS AND SERVICES DURING NORMAL OPERATING CONDITIONS.
- BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
- CONCRETE BLOCKING SHALL ONLY BE USED WHEN INDICATED ON THE DRAWINGS. COSTS FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE SIZE OF DUCTILE IRON PIPE AND FITTINGS.
- WATERLINES SHALL BE INSTALLED WITH A MINIMUM COVER MEASURED BELOW EXISTING GRADE OR BELOW LEVEL OF EDGE OF ADJACENT PAVEMENT, WHICHEVER RESULTS IN THE LOWER ELEVATION. MINIMUM COVER SHALL BE 5 FEET UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

GENERAL NOTES WATERLINE

STORM SEWER

- STORM PIPE:** THE MINIMUM SIZE STORM SEWER MAIN SHALL BE 12" DIAMETER. ALL STORM SEWER SHALL BE PLACED PER THE APPLICABLE TRENCH DETAIL IN ST-13, WHERE STORM AND SANITARY SEWERS CROSS, ALIGN JOINTS EQUIDISTANT FROM THE CROSSING AND EXTEND PREMIUM, GASKETED JOINTS 10' IN EACH DIRECTION.
- ALL PIPE SHALL CONFORM TO ODOT 611, MATERIAL SPECS AS FOLLOWS:**
REINFORCED CONCRETE SEWER PIPE - ODOT 706.02, ASTM C76, CLASS 3, 4 OR 5 BASED ON LOADING CONDITIONS, W/ GASKETED JOINTS PER ASTM C443, PVC SOLID WALL PIPE (ODOT 707.45, SDR35, W/ GASKETED JOINTS PER ASTM D3212), CORRUGATED POLYPROPYLENE SMOOTH LINED PIPE (ODOT 707.65), CORRUGATED HDPE SMOOTH LINED PIPE (ODOT 707.33 WITH GASKETED JOINTS PER AASHTO M252, AASHTO M294, OR ASTM F2306 AND ASTM F477.
- ALL PIPE UNDER OR WITHIN 2' OF PAVEMENT SHALL BE REINFORCED CONCRETE SEWER PIPE UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. OVER STORM PIPES SHALL BE PER ODOT L&D VOLUME 2 SECTION 1104.2.**
- MANHOLE PIPE CONNECTIONS:** STORM SEWER PIPE CONNECTIONS TO MANHOLES SHALL BE MADE WITH CLASS QC MISC OR QC MS CONCRETE COLLAR SEALS, A MINIMUM OF 6" THICK AROUND THE PIPE.
- HDPE MANHOLE ENTRY PIECES:** MANHOLE ENTRY PIECES (MEP) FABRICATED FOR HDPE, CORRUGATED PLASTIC PIPE SHALL BE FABRICATED BY THE PIPE MANUFACTURER IN ACCORDANCE WITH AASHTO M252 AND M294, AND SHALL BE A MIN. OF 3'-3" LONG.
- DRIVE PIPE:** RCP, CMP, PVC, OR HDPE (DOUBLE WALL) UNDER DRIVES AT UNIMPROVED ROADS. MINIMUM 12" DIAMETER PIPE, OR AS APPROVED BY THE CITY ENGINEER.
- HEADWALLS:** POURED IN PLACE REINFORCED CONCRETE OR PRECAST CONCRETE, PER ODOT STANDARD CONSTRUCTION DRAWINGS.
- ROCK CHANNEL PROTECTION:** TYPE A, B, OR C ROCK OR STONE, W/ FABRIC FILTER, PER ODOT ITEM 601 OF THE SIZE, THICKNESS AND LENGTH AS SPECIFIED IN FIGURE 1107-1 "ROCK CHANNEL PROTECTION AT CULVERT AND STORM SEWER OUTLETS". ODOT LOCATION AND DESIGN MANUAL VOL. 2 - DRAINAGE DESIGN. ROCK CHANNEL PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER THE INSTALLATION OF THE PERTINENT STORM STRUCTURE OR HEADWALL.

NOTE:
LIFT HOLES IN REINFORCED CONCRETE PIPE SHALL BE PLUGGED WITH CONCRETE PLUGS.

GENERAL NOTES STORM SEWER

MANHOLES (SANITARY & STORM)

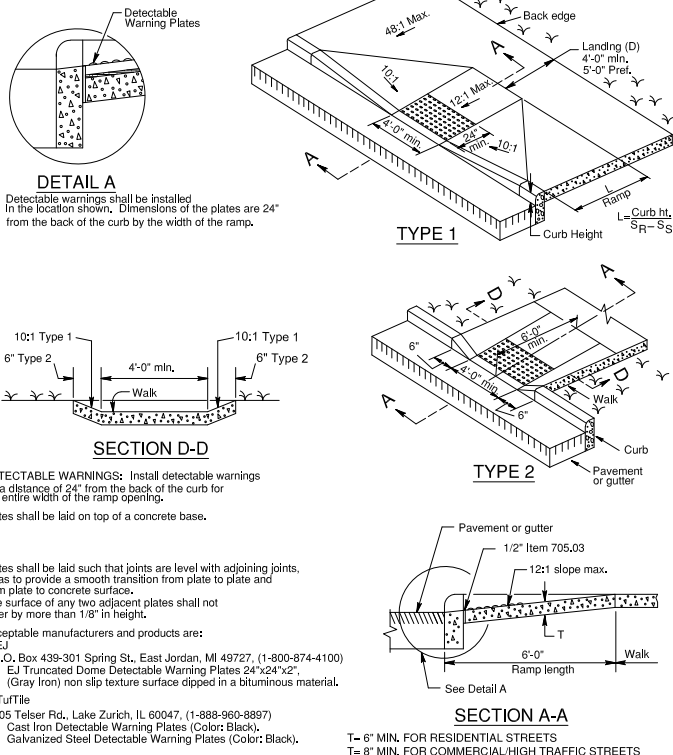
- A. CONSTRUCTION:**
- SANITARY MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C1244.
 - ALL NEW MANHOLES SHALL BE 6" THICK MINIMUM, PRECAST CONCRETE CONFORMING TO ASTM C478. PRECAST BASES SHALL BE 6" THICK MINIMUM.
 - NEW MANHOLES PLACED OVER EXISTING SEWER LINES, REFERRED TO AS "DOG-HOUSE" MANHOLES, SHALL HAVE CAST-IN-PLACE CONCRETE BASES WITH REINFORCEMENT (REBAR #4 @12" O/C EACH WAY). BASES SHALL BE CLASS QC MS OR QC MISC CONCRETE WITH A MINIMUM THICKNESS OF 10".
 - MANHOLES WITH PRECAST CONCRETE BASES SHALL BE PLACED ON A COMPACTED GRAVEL BED OF ODOT NO. 57 AGGREGATE HAVING A MINIMUM THICKNESS OF 3".
 - RUBBER O-RING GASKETS (MEETING ASTM C-443) SHALL BE USED BETWEEN PRECAST MANHOLE SECTIONS. APPLY MASTIC TAR STRIP BETWEEN SECTIONS.
 - SANITARY MANHOLE PIPE CONNECTORS SHALL BE RUBBER SLEEVES W/ STAINLESS STEEL BANDING, CAST-IN RUBBER COMPRESSION GASKETS, OR FIELD INSTALLED RUBBER COMPRESSION GASKETS W/ GROUT COLLAR THAT PROVIDES A FLEXIBLE, WATER-TIGHT SEAL PER ASTM C-923.
 - THE CENTERLINE OF THE MANHOLE SHALL BE LOCATED OVER THE CENTERLINE OF THE MAIN SEWER, WHENEVER POSSIBLE.
 - MANHOLE STEPS SHALL BE REINFORCED POLYPROPYLENE PLASTIC, 16" O/C MAXIMUM AND IN PROPER ALIGNMENT.
 - MANHOLE FRAMES SHALL BE SET EVEN AND FLUSH WITH THE INTERIOR WALLS OF THE MANHOLE.
 - GRADE ADJUSTMENT RINGS SHALL BE PRECAST CONCRETE ONLY AND CONFORMING TO ASTM C478 GRADE RINGS. BRICK OR BLOCK MATERIALS ARE NOT PERMITTED. A MAXIMUM 12" OF ADJUSTMENT RINGS MAY BE USED. FINAL ADJUSTMENTS SHALL USE EJ INFRA-SPACER TO ACCOUNT FOR LONGITUDINAL AND CROSS SLOPES.
 - SANITARY MANHOLE CASTINGS IN OR NEAR WATERWAYS AND DITCHES SHALL BE FITTED WITH A MANHOLE INFILTRATION PROTECTION DEVICE. THE COST OF WHICH SHALL BE INCLUDED IN THE PRICE OF THE MANHOLE.
 - MANHOLES LOCATED WITHIN THE SLOPE OF A DITCH SHALL BE INSTALLED SO THE STEPS ARE ON THE OPPOSITE SIDE OF MANHOLE FROM THE DITCH OR FLOWLINE. CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER FOR CORRECT ORIENTATION OF STEPS.
- B. CASTINGS:**
- 1) APPROVED MANHOLE FRAMES AND LIDS ARE SHOWN IN THE TABLE:
- | MANHOLE USE TYPE | HT | EJ | | NEENAH | |
|---|----------------|----------------------|-----------|------------------------------|--------------------|
| | | CASTING | LID | CASTING | LID |
| MANHOLE WITHIN PAVEMENT | 9" | 1050 | TYPE A | R-1713 NON-ROCKING | TYPE B NON-ROCKING |
| MANHOLE NOT IN PAVEMENT BUT IN RW | 9"
7"
4" | 1050
1022
1037 | TYPE A | R-1713
R-1772
R-1947-A | TYPE B |
| MANHOLE IN YARD NOT IN PAVEMENT NOT IN RW | 9"
7" | 1050 ZPT
1045 ZPT | BOLT DOWN | R-1916-C
R-1916-F | TYPE B BOLT DOWN |
- * Must be preapproved by the City Engineer
- FRAMES SHALL BE SET LEVEL, EXCEPT SET TO GRADE WHEN WITHIN THE PAVEMENT. LIDS SHALL BE FITTED AND FINISHED TO PROVIDE A FIRM AND EVEN SEAT IN THE FRAME.
 - FRAMES AND LIDS SHALL BE FITTED, MATCHED, AND MARKED PRIOR TO DELIVERY TO THE PROJECT.
 - THE FRAME SHALL BE SET ON A MASTIC STRIP AROUND ITS PERIMETER AND PLACED ON THE SEAT OF THE CONCRETE STRUCTURE.
 - ANY SUBSTITUTIONS OF EQUAL QUALITY AND DIMENSIONS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO PROCUREMENT.
 - ALL LIDS SHALL BE CAST WITH THE WORDS "SANITARY" OR "STORM" AS APPROPRIATE.
 - ALL CASTINGS AND LIDS SHALL BE COATED WITH A WATERBASED BITUMINOUS COATING OR EQUAL.
 - ALL CASTINGS AND LIDS SHALL MEET OR EXCEED AASHTO H-20 LOADING AND AASHTO M306 REQUIREMENTS.
- C. PAYMENT:**
- 1) PAYMENT SHALL BE FOR THE MANHOLE COMPLETE IN PLACE, EXCAVATION AND BACKFILL INCLUDED.

GENERAL NOTES MANHOLES

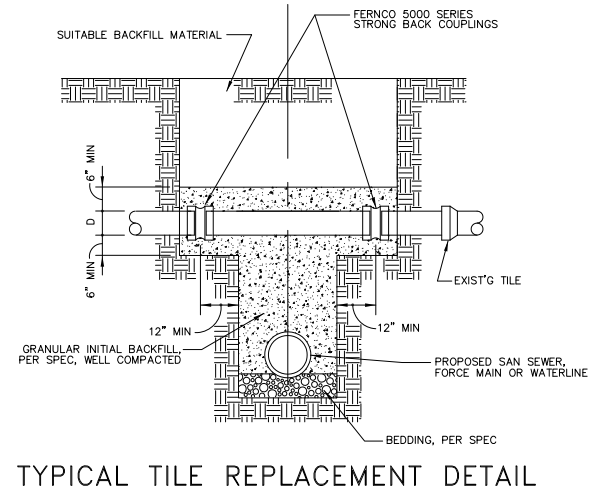
CATCH BASINS & INLETS

- A. CONSTRUCTION:**
- INLETS AND CATCH BASINS MAY BE CAST-IN-PLACE OR PRECAST CONCRETE. CAST-IN-PLACE CONCRETE SHALL BE CLASS QC 1. REINFORCED PRECAST CONCRETE SHALL BE AS SPECIFIED.
 - MINIMUM WALL THICKNESS OF CAST-IN-PLACE INLETS AND BASINS SHALL BE 6". MINIMUM WALL THICKNESS OF PRECAST INLETS AND BASINS SHALL BE 6".
 - MINIMUM THICKNESS FOR BASES OF INLETS AND BASINS SHALL BE 6".
 - CATCH BASINS & INLETS WITH PRECAST CONCRETE BASES SHALL BE PLACED ON A COMPACTED GRAVEL BED OF ODOT NO. 57 AGGREGATE HAVING A MINIMUM THICKNESS OF 3".
 - BRICK AND CONCRETE BLOCK ARE NOT PERMITTED MATERIALS FOR THE CONSTRUCTION OR MODIFICATION OF INLETS AND CATCH BASINS. USE CONCRETE ADJUSTMENT RINGS, EJ INFRA-RISERS, OR CAST-IN-PLACE CONCRETE. IF CAST-IN-PLACE, THE CONCRETE SHALL HAVE #8 LIMESTONE AGGREGATE AND BE PLACED AGAINST FORMS ON THE INSIDE OF THE INLET AND WITH THE USE OF A VIBRATOR FOR PROPER CONSOLIDATION TO AVOID HONEYCOMBING.
 - FRAMES SHALL BE SET EVEN AND FLUSH WITH THE INTERIOR WALLS OF THE INLETS AND BASINS.
 - DOUBLE INLETS SHALL BE LOCATED AT ALL SAG VERTICAL CURVES. UNDERDRAINS SHALL DRAIN TO THE BACK WITH SOLID PIPE PROVIDED FOR A MINIMUM OF 10' FROM THE WALLS.
 - INVERTS SHALL BE FORMED IN ALL INLET AND BASIN STRUCTURES TO PROVIDE POSITIVE FLOW. USE CLASS QC MS OR QC MISC CONCRETE WITH ODOT #8 AGGREGATE TO FORM INVERTS.
 - ALL PIPING THROUGH CATCH BASIN WALLS SHALL BE SEALED WITH A CLASS QC MS OR QC MISC CONCRETE COLLAR A MINIMUM OF 6" THICK.
- B. CASTINGS:**
- 1) APPROVED FRAMES/GRATES FOR BASINS AND INLETS ARE SHOWN BELOW:
- | STRUCTURE TYPE | EJ | | | NEENAH | | |
|---------------------------------------|-------|-----------------|------|----------------------------------|----------------|------------|
| | FRAME | GRATE | BACK | FRAME | GRATE | CURB BOX |
| SINGLE CURB INLET (MOD. ODOT NO. 3A) | 7035 | M4 | T1* | R-3290 | TYPE V | 3" RADIUS* |
| DOUBLE CURB INLET (MOD. ODOT NO. 3) | 7036 | M4 | T1* | R-3246-CL-2 RH
R-3246-CL-2 LH | TYPE V | 3" RADIUS* |
| 2-2A CATCH BASIN (w ANGLE FRAME) | 5110 | M3 (SINUSOIDAL) | | 4871.3001 | R-4859, TYPE S | |
| 2-2B CATCH BASIN IN PAVEMENT | 5250 | M3 (SINUSOIDAL) | | R-3405 | TYPE A | |
| 2-2B CATCH BASIN NON-PAVED AREAS | 5110 | M3 (SINUSOIDAL) | | 4871.3001 | R-4859, TYPE S | |
| FLAT SINGLE INLET, 2'x3', IN PAVEMENT | 5245 | M1 | | R-3413 | TYPE C | |
- * CURB INLETS LOCATED WITHIN DRIVES SHALL HAVE EJ T3 BACKS (EQUIVALENT BY NEENAH).
- ALL GRATES WITHIN THE PAVEMENT SHALL BE BICYCLE-SAFE AND SET CORRECTLY WITH THE DIRECTION OF WATER FLOW.
 - THE FRAME AND GRATE SHALL BE FITTED AND FINISHED TO PROVIDE A FIRM AND EVEN SEAT IN THE FRAME.
 - BASINS AND INLETS SHALL BE PLACED TRUE TO LINE AND GRADE, PER PLAN.
 - THE FRAMES AND GRATES SHALL BE FITTED, MATCHED, AND MARKED PRIOR TO DELIVERY TO THE PROJECT.
 - ANY SUBSTITUTIONS OF EQUAL QUALITY AND DIMENSIONS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO PROCUREMENT.
 - ALL FRAMES AND GRATES SHALL BE COATED WITH A WATERBASED BITUMINOUS COATING (OR EQUAL) AND SHALL MEET OR EXCEED AASHTO M306.
 - ALL CASTINGS SHALL HAVE THE WORDS "DUMP NO WASTE" AND "DRAINS TO WATERWAY" ALONG WITH A FISH LOGO CAST INTO THE GRATE AND/OR BACK OR CURB BOX.
- C. PAYMENT:**
- THE CONCRETE PAVEMENT BLOCK-OUT SHALL BE PLACED AFTER THE CASTING HAS BEEN SET, BUT WILL BE PAID FOR AS THOUGH PART OF THE PAVEMENT.
 - NO DEDUCTION SHALL BE MADE IN QUANTITIES OF PAVEMENT BECAUSE OF THE CASTING.

GENERAL NOTES CATCH BASINS & INLETS



CURB RAMP DETAILS



TILE REPAIR

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APPROVED BY: [Signature]

DATE: 02/24

SCALE: N/A

CITY OF WOOSTER
DIVISION OF ENGINEERING

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JOHN RICE
CITY ENGINEER

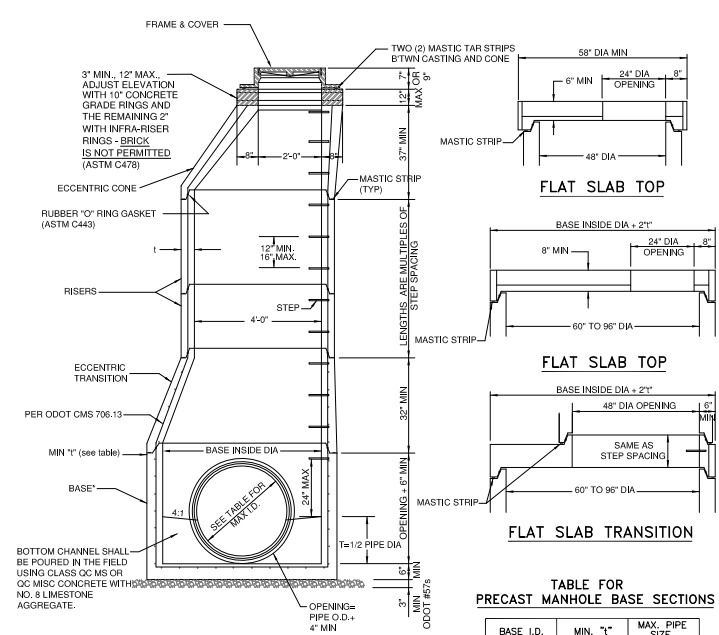
E. BOWMAN STREET
STREET REPLACEMENT
MI. 1.64 CULVERT REPLACEMENT
MISCELLANEOUS DETAILS

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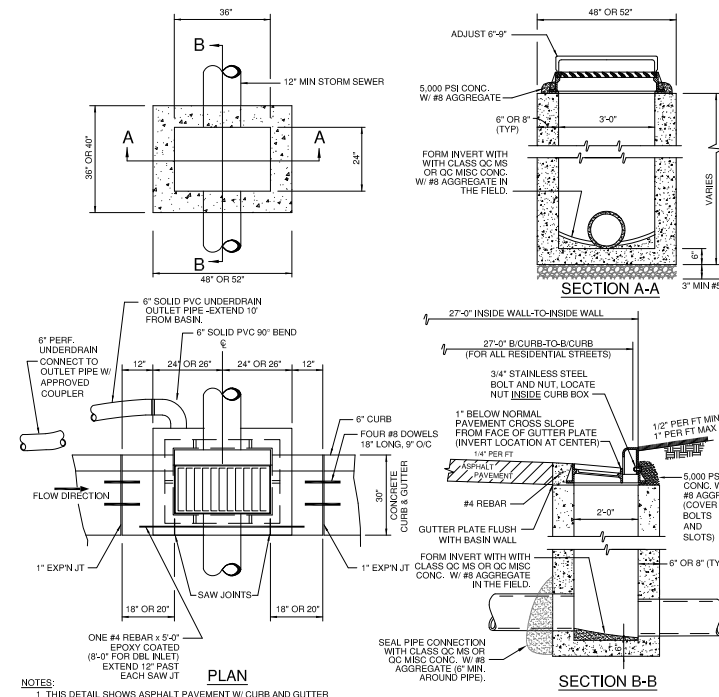
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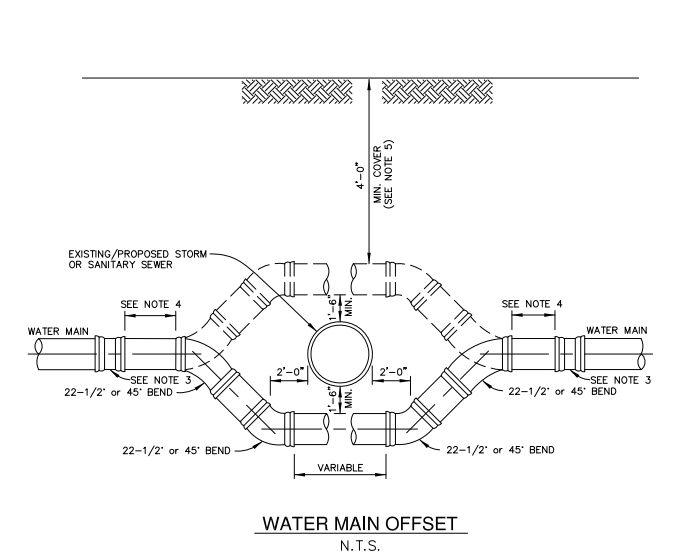


* 60" TO 96" PRECAST BASE (SEE TABLE FOR MAXIMUM PIPE SIZES)

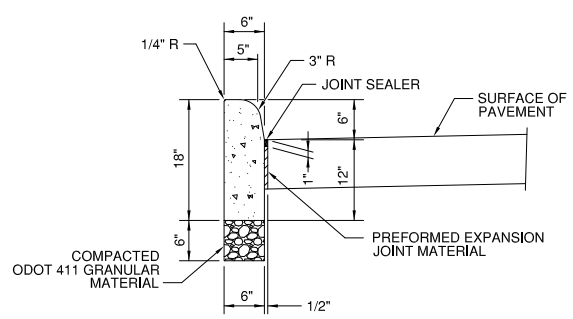
LARGE DIAMETER STORM MANHOLE



CURB INLET SINGLE



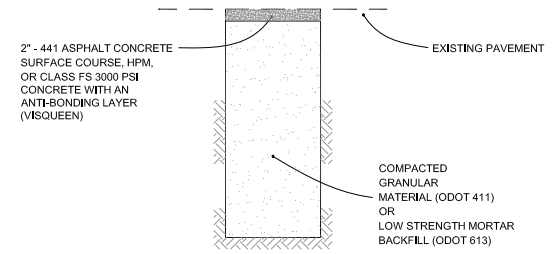
WATER MAIN OFFSET DETAIL



TYPE 6 CURB

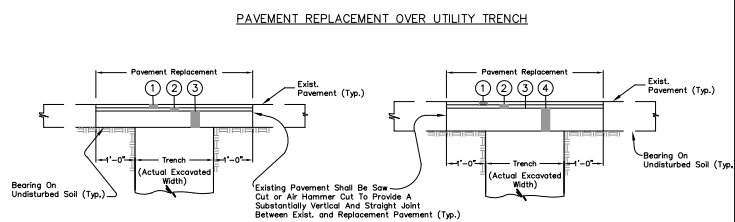
- NOTES:
- COST PER LINEAR FOOT OF TYPE 6 CONCRETE CURB SHALL INCLUDE EXCAVATION AND GRANULAR MATERIAL.
 - PREFORMED EXPANSION JOINT MATERIAL IS NOT REQUIRED WHERE CURB IS ADJACENT TO ASPHALT PAVEMENT.

CURB DETAIL

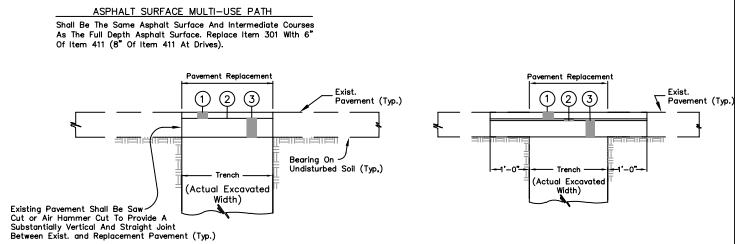


- NOTE 1: TEMPORARY PAVEMENT PATCHES SHALL BE MAINTAINED IN A DRIVABLE CONDITION.
- NOTE 2: TEMPORARY PAVEMENT PATCHES SHALL BE REPLACED WITH PERMANENT PAVEMENT RESTORATION AS SOON AS POSSIBLE.
- NOTE 3: GRAVEL PAVEMENT PATCHES SHALL BE USED FOR A MAXIMUM OF 1 WEEK, AFTER WHICH TEMPORARY PAVEMENT OR PERMANENT RESTORATION SHALL BE PERFORMED.
- NOTE 4: TEMPORARY CONCRETE SHALL USE NO. 8 STONE.

TEMPORARY PAVEMENT REPLACEMENT DETAIL

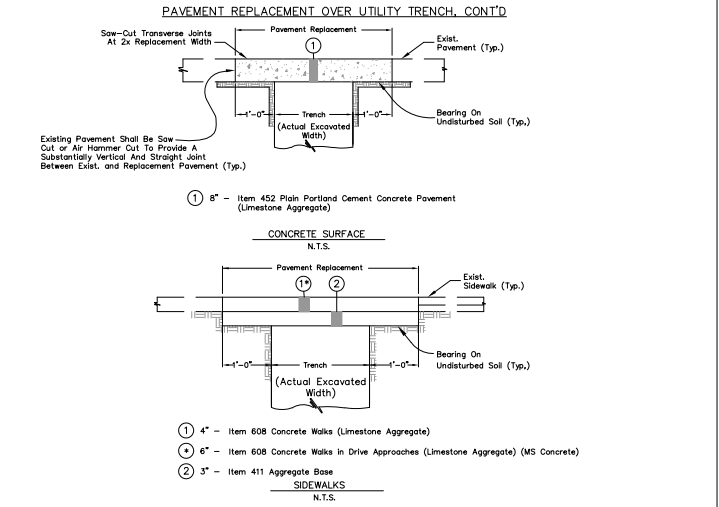


- 1 1 1/4" - Item 441 Asphalt Concrete Surface Course, Type 1, Medium Duty
- 2 1 3/4" - Item 441 Asphalt Concrete Intermediate Course, Type 2, Medium Duty
- 3 7" - Item 301 Bituminous Aggregate Base (Placed in 2 Equal Layers)



- 1 1 1/4" - Item 441 Asphalt Concrete Surface Course, Type 1, Medium Duty
- 2 Item 408 Prime Coat (0.5 Gal. Bituminous Material Per Sq. Yd.)
- 3 6" - Item 411 Aggregate Base

PAVEMENT REPLACEMENT DETAILS



- 1 6" - Item 452 Plain Portland Cement Concrete Pavement (Limestone Aggregate)
- 2 1 1/4" - Item 441 Asphalt Concrete Intermediate Course, Type 2, Medium Duty
- 3 Item 407 Tack Coat (0.1 Gal. Bituminous Material Per Sq. Yd.)
- 4 6" - Item 305 Portland Cement Concrete Base (MS Concrete)
- 1 4" - Item 608 Concrete Walks in Drive Approaches (Limestone Aggregate) (MS Concrete)
- 2 3" - Item 411 Aggregate Base

- PAVEMENT REPLACEMENT OVER UTILITY TRENCH - NOTES:
- All Pavement and Sidewalk Replacement Details Shown Represent The Minimum Acceptable Repair. If Existing Surfaces Exceed These Details, Then Repaired Surfaces Shall Match The Existing.
 - All Joints Between Existing Curb Or Pavement And The Pavement Replacement Surface Shall Be Sealed With Crafcoc Roadsealer 515.
 - Pavement Replacement Quantities Approved For Payment Shall Be Calculated Based On The Trench Width Shown On The Utility Trench Detail.
 - Pavement Replacement Shall Include Restoration or Replacement of All Damaged Pavement Markings.
 - Limestone Aggregate Shall Be Used In Surface Course Of Asphalt And All Concrete Used For Pavement Replacement.
 - Tack Coat Shall Be Placed On All Surfaces To Receive Asphalt Concrete.

PAVEMENT REPLACEMENT DETAILS

DRWN BY: CHKD BY: APPROV BY: SLG JAR JAR JAR DATE: 02/24 SCALE: N/A

CITY OF WOOSTER DIVISION OF ENGINEERING

E. BOWMAN STREET 1.64 CULVERT REPLACEMENT MISCELLANEOUS DETAILS

REVISED 1 01/02/2011 2 3 4 5 6 7 8 9 10 SHEET 5 OF 5