

PLAN VIEW
NOT TO SCALE

STAND-UP CONCRETE CURB SECTION

CONCRETE CURB & GUTTER SECTION

SECTION A-A
NOT TO SCALE

SECTION B-B
NOT TO SCALE

NOTES:

1. ALL WORK SHALL CONFORM TO ODOT ITEM 604 EXCEPT AS OTHERWISE NOTED HEREIN.
2. PRECAST CONCRETE OR BRICK CATCH BASINS ARE ALLOWED AS NOTED HEREIN.
3. ALL CONCRETE SHALL CONFORM TO ODOT ITEM 499 CLASS C (4000 PSI).
4. WHEN STREET PROFILE IS PIPE IN 1% OR STEEPER, CONSTRUCT CATCH BASIN IN ACCORDANCE WITH CITY STD. DWG. NO. 3.
5. A CONCRETE CHANNEL SHALL BE POURED INTO THE BOTTOM OF THE CATCH BASIN USING CLASS 'C' CONCRETE. THE CHANNEL SHALL TAPER FROM 1/2" THICKNESS TO 2" MIN. THICKNESS AT THE LOWEST SEWER INVERT AND SHALL BE FINISHED WITH A SMOOTH SURFACE.
6. THE EXCAVATED AREA AROUND THE CATCH BASIN SHALL BE BACKFILLED WITH ODOT ITEM 703.11, TYPE 1 (304, 411, OR 617) COMPACTED IN 6" LIFTS OR ODOT ITEM 613, NO FOUNDRY SAND OR SLAG PERMITTED.
7. EXPANSION JOINT MATERIAL SHALL CONFORM TO ODOT ITEM 705.03, 1" OF JOINT SEALER (705.04) SHALL BE PLACED OVER EXPANSION JOINTS.
8. CASTINGS SHALL BE EAST JORDAN 7030 CURB INLET WITH TYPE T1 BACK AND TYPE M6 VANE GRATE, NEENAH R-3067-L OR EQUAL APPROVED BY CITY ENGINEER (GRATE USED SHALL NOT BE SPECIFICALLY IDENTIFIED BY MANUFACTURER AS NOT SUITABLE FOR BICYCLE TRAFFIC). THE CASTING BACK (HOOD) MUST INCLUDE TCO-SENSITIVE MARKINGS SUCH AS "DUMP NO WASTE, DRAINS TO STREAM" AND AN AQUATIC LIFE LOGO. THE LETTERING AND LOGO SHALL BE RAISED OR RECESSED AND INTEGRAL WITH THE CASTING. ALTERNATE NOTATION OR LOGO IS SUBJECT TO THE CITY ENGINEER'S APPROVAL.
9. ALL OPENINGS AND KNOCKOUTS FOR INLET AND OUTLET PIPING SHALL BE FASHIONED NEATLY. ALL ANNUAL SPACE SHALL BE FILLED WITH CEMENT GROUT, BRICK AND MORTAR, OR CLASS 'C' CONCRETE.
10. ONE 4" DIAMETER INLET PIPE SHALL BE INSTALLED ON THE SIDE OF THE CATCH BASIN OPPOSITE THE STREET (AS SHOWN).
11. KNOCKOUT PANELS ARE NOT ALLOWED UNLESS PRE-APPROVED BY THE CITY ENGINEER.
12. ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION.

BRICK CATCH BASINS ARE ACCEPTABLE AND SHALL BE CONSTRUCTED PER THIS DRAWING AND THE FOLLOWING SPECIFICATIONS:

1. PROVIDE CLAY BRICK (ASTM C-32-83) WALLS WITH FULL MORTAR (ASTM C-150, AIR-ENTRAINED PORTLAND CEMENT) JOINTS. CONCRETE AND CEMENT BLOCKS/BRICKS ARE PROHIBITED FOR NEW OR RECONSTRUCTED BASINS.
2. THE CATCH BASIN SHALL HAVE A CONCRETE BASE (MINIMUM 6" THICKNESS) EXTENDING 6" BEYOND OUTSIDE OF FOUR WALLS OF CATCH BASIN.
3. EVERY SEVENTH COURSE MUST BE A STRETCHER COURSE.
4. WALLS SHALL BE MINIMUM 6" THICK.
5. PLASTER OUTSIDE WALLS WITH 1/2" NON-SHRINK MORTAR. INSIDE JOINTS MUST BE NEATLY STRUCK AND CLOSED.

PRECAST CONCRETE CATCH BASINS ARE ACCEPTABLE AND SHALL BE CONSTRUCTED PER THIS DRAWING AND THE FOLLOWING SPECIFICATIONS:

1. THE PRECAST UNIT CONFORMS TO ODOT ITEM 706.13.
2. PRECAST WALLS AND BOTTOM SHALL HAVE A MINIMUM THICKNESS OF 6".
3. A 6" CONCRETE BASE EXTENSION IS REQUIRED ON ALL FOUR SIDES WHEN DEPTH (TOP OF GRATE TO LOWEST PIPE INVERT) EXCEEDS 6 FEET.
4. STACKED PRECAST SECTIONS MUST HAVE A TONGUE/GROOVE JOINT AND A BUTYL SEALANT.
5. SHOP DRAWING OF THE PRECAST UNIT SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

BRICK CATCH BASINS ARE ACCEPTABLE AND SHALL BE CONSTRUCTED PER THIS DRAWING AND THE FOLLOWING SPECIFICATIONS:

1. PROVIDE CLAY BRICK (ASTM C-32-83) WALLS WITH FULL MORTAR (ASTM C-150, AIR-ENTRAINED PORTLAND CEMENT) JOINTS. CONCRETE AND CEMENT BLOCKS/BRICKS ARE PROHIBITED FOR NEW OR RECONSTRUCTED BASINS.
2. THE CATCH BASIN SHALL HAVE A CONCRETE BASE (MINIMUM 6" THICKNESS) EXTENDING 6" BEYOND OUTSIDE OF FOUR WALLS OF CATCH BASIN.
3. EVERY SEVENTH COURSE MUST BE A STRETCHER COURSE.
4. WALLS SHALL BE MINIMUM 6" THICK.
5. PLASTER OUTSIDE WALLS WITH 1/2" NON-SHRINK MORTAR. INSIDE JOINTS MUST BE NEATLY STRUCK AND CLOSED.

PRECAST CONCRETE CATCH BASINS ARE ACCEPTABLE AND SHALL BE CONSTRUCTED PER THIS DRAWING AND THE FOLLOWING SPECIFICATIONS:

1. THE PRECAST UNIT SHALL CONFORM TO ODOT ITEM 706.13.
2. PRECAST WALLS AND BOTTOM SHALL HAVE A MINIMUM THICKNESS OF 6".
3. A 6" CONCRETE BASE EXTENSION IS REQUIRED ON ALL FOUR SIDES WHEN DEPTH (TOP OF GRATE TO LOWEST PIPE INVERT) EXCEEDS 6 FEET.
4. STACKED PRECAST SECTIONS MUST HAVE A TONGUE/GROOVE JOINT AND A BUTYL SEALANT.
5. SHOP DRAWING OF THE PRECAST UNIT SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

**OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering**

APPROVED DATE: MAR. 2012
APPROVED BY: CDB, RMB, SLH
DRAWING FILE NAME: ce_01.dwg

**STANDARD DRAWING NO. 1
CURB INLET CATCH BASIN**

REVISIONS

DESCRIPTION	DATE	BY

SHEET 1 OF 1

SECTION A-A
NOT TO SCALE

PLAN VIEW
NOT TO SCALE

SECTION A-A
NOT TO SCALE

NOTES:

1. ALL WORK SHALL CONFORM TO ODOT ITEM 604 EXCEPT AS OTHERWISE NOTED HEREIN.
2. PRECAST CONCRETE OR BRICK CATCH BASINS ARE ALLOWED AS NOTED HEREIN.
3. IF THE CATCH BASIN WILL BE USED IN A TRAFFIC-BEARING APPLICATION, THE PRECAST CONCRETE PORTION OF AN ODOT 2-28 CATCH BASIN MAY BE USED. HOWEVER, THE LETTERING AND LOGO SHALL BE RAISED OR RECESSED AND INTEGRAL WITH THE CASTING. ALTERNATE NOTATION OR LOGO IS SUBJECT TO THE CITY ENGINEER'S APPROVAL.
4. ALL CONCRETE SHALL CONFORM TO ODOT ITEM 499 CLASS C (4000 PSI).
5. A CONCRETE CHANNEL SHALL BE POURED INTO THE BOTTOM OF THE CATCH BASIN USING CLASS 'C' CONCRETE. THE CHANNEL SHALL TAPER FROM 1/2" THICKNESS TO 2" MIN. THICKNESS AT THE LOWEST SEWER INVERT AND SHALL BE FINISHED WITH A SMOOTH SURFACE.
6. THE EXCAVATED AREA AROUND THE CATCH BASIN SHALL BE BACKFILLED WITH ODOT ITEM 703.11, TYPE 1 (304, 411, OR 617) COMPACTED IN 6" LIFTS, NO FOUNDRY SAND OR SLAG PERMITTED.
7. WHERE CATCH BASIN WILL BE LOCATED WITHIN CROSSWALK, AT ADA RAMP, OR IN DESIGNATED BIKE LANE, CASTING SHALL BE EAST JORDAN IRON WORKS (EJW) 5250 INLET WITH V-6622260 ADA GRATE OR NEENAH R-3067-L INLET WITH TYPE T1 GRATE, OR EQUAL APPROVED BY CITY ENGINEER. AS APPLICABLE, GRATE SHALL BE ORIENTED SUCH THAT THE LONG OPENINGS ARE PERPENDICULAR TO NORMAL DIRECTION OF BICYCLE TRAFFIC FLOW. IN OTHER LOCATIONS, CASTING SHALL BE EJW 5250 OR NEENAH R-3067-L INLET AND STANDARD GRATE MAY BE USED. IN ALL LOCATIONS, GRATE MUST INCLUDE "TCO-SENSITIVE" MARKINGS SUCH AS "DUMP NO WASTE, DRAINS TO STREAM" AND AN AQUATIC LIFE LOGO. THE LETTERING AND LOGO SHALL BE RAISED OR RECESSED AND INTEGRAL WITH THE CASTING. ALTERNATE NOTATION OR LOGO IS SUBJECT TO THE CITY ENGINEER'S APPROVAL.
8. ALL OPENINGS AND KNOCKOUTS FOR INLET AND OUTLET PIPING SHALL BE FASHIONED NEATLY. ALL ANNUAL SPACE SHALL BE FILLED WITH CEMENT GROUT, BRICK AND MORTAR, OR CLASS 'C' CONCRETE.
9. ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION.

BRICK CATCH BASINS ARE ACCEPTABLE AND SHALL BE CONSTRUCTED PER THIS DRAWING AND THE FOLLOWING SPECIFICATIONS:

1. PROVIDE CLAY BRICK (ASTM C-32-83) WALLS WITH FULL MORTAR (ASTM C-150, AIR-ENTRAINED PORTLAND CEMENT) JOINTS. CONCRETE AND CEMENT BLOCKS/BRICKS ARE PROHIBITED FOR NEW OR RECONSTRUCTED BASINS.
2. THE CATCH BASIN SHALL HAVE A CONCRETE BASE (MINIMUM 6" THICKNESS) EXTENDING 6" BEYOND OUTSIDE OF FOUR WALLS OF CATCH BASIN.
3. EVERY SEVENTH COURSE MUST BE A STRETCHER COURSE.
4. WALLS SHALL BE MINIMUM 6" THICK.
5. PLASTER OUTSIDE WALLS WITH 1/2" NON-SHRINK MORTAR. INSIDE JOINTS MUST BE NEATLY STRUCK AND CLOSED.

PRECAST CONCRETE CATCH BASINS ARE ACCEPTABLE AND SHALL BE CONSTRUCTED PER THIS DRAWING AND THE FOLLOWING SPECIFICATIONS:

1. THE PRECAST UNIT SHALL CONFORM TO ODOT ITEM 706.13.
2. PRECAST WALLS AND BOTTOM SHALL HAVE A MINIMUM THICKNESS OF 6".
3. A 6" CONCRETE BASE EXTENSION IS REQUIRED ON ALL FOUR SIDES WHEN DEPTH (TOP OF GRATE TO LOWEST PIPE INVERT) EXCEEDS 6 FEET.
4. STACKED PRECAST SECTIONS MUST HAVE A TONGUE/GROOVE JOINT AND A BUTYL SEALANT.
5. SHOP DRAWING OF THE PRECAST UNIT SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

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**STANDARD DRAWING NO. 4
SQUARE-TOP CATCH BASIN**

REVISIONS

DESCRIPTION	DATE	BY

SHEET 1 OF 1

THE CITY'S STANDARD MANHOLE FOR SANITARY AND STORM SEWERS IS THE ODOT MH-3 WITH THE MODIFICATIONS NOTED. SEE SHEET 30F 3 FOR CITY'S MODIFICATION NOTES.

ALTERNATE CORNER DETAIL

SECTION VIEWS OF REINFORCED PRECAST MANHOLES

NOTES:

GENERAL: With correct soil and site conditions, this standard precast manhole may be used for any required manhole depth. The use of the precast manhole shall be limited to depths of 10 feet or less. The use of this manhole shall be limited to depths of 10 feet or less. The use of this manhole shall be limited to depths of 10 feet or less.

JOINT SEAL: Seal between precast manhole sections and joints on sanitary sewers shall be sealed with neoprene sealant conforming to ASTM D-1085.

OPENINGS: The maximum pipe opening shall be the O.D. of the pipe being supported plus 1/2" shall be fabricated or field cut in the manhole.

MATERIALS: Materials for bases and other precast sections, including reinforcement and specified details, shall comply with the requirements of CM 706.13.

PIPE PIPES: When specified pipe sizes, drop pipe shall be constructed from pipe specified on drawings.

TOP SLAB REPAIR: Reinforcing steel used within the top slab shall be epoxy coated.

LEGEND

Reinforcing steel to comply with approved materials per Dept. of Public Works, Office of Materials Management.

MAXIMUM PIPE SIZES

BASE I.D.	MIN. "I"	MAX. PIPE SIZE
60" (1500)	5" (125)	36" (915)
72" (1800)	6" (150)	48" (1200)
84" (2100)	7" (175)	60" (1500)
96" (2400)	8" (200)	72" (1800)
108" (2700)	9" (225)	84" (2100)

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**STANDARD DRAWING NO. 10
PRECAST STORM OR SANITARY MANHOLE**

REVISIONS

DESCRIPTION	DATE	BY

SHEET 1 OF 3

MANHOLE NO. 3 W/ BASE I.D. AND WEIR

ALTERNATE ECCENTRIC CONE TOP

FLAT SLAB TRANSITION

SECTION A-A

FLAT SLAB TOP

DI VERSI ON WEIR DETAIL

FLAT SLAB TOP

NOTES:

MANHOLE NO. 3 W/ BASE I.D. AND WEIR: DISPERSED WEIR. Form manhole base with tapered weir pipe or pipe of 3/4" and weaver pipe conforming to CM 706.13. A 2'-0" long concrete curb shall be provided on the manhole when a dispersed weir is specified on the plans.

ALTERNATE ECCENTRIC CONE TOP: Place concrete slab perpendicular to flow of incoming tank sewer. Down concrete or masonry into the base of the opening to a depth of 1" (1" long curb) on the concrete wall and space 1" (1" long curb) on the concrete wall.

FLAT SLAB TRANSITION: All materials and labor, including excavation and backfill, shall be in accordance with approved materials per Dept. of Public Works, Office of Materials Management.

MANHOLE NO. 3 WITH BASE I.D. AND WEIR: DISPERSED WEIR.

THE CITY'S STANDARD MANHOLE FOR SANITARY AND STORM SEWERS IS THE ODOT MH-3 WITH THE MODIFICATIONS NOTED. SEE SHEET 30F 3 FOR CITY'S MODIFICATION NOTES.

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APPROVED DATE: JAN 2012
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DRAWING FILE NAME: ce_10.dwg

**STANDARD DRAWING NO. 10
PRECAST STORM OR SANITARY MANHOLE**

REVISIONS

DESCRIPTION	DATE	BY

SHEET 2 OF 3

BID SET
Not For Construction

revision	date	issued
1	06/14/2019	ADDENDUM #1
2	06/19/2019	ADDENDUM #2

Dale Hayward

issue date
06.19.2019

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c18514

sheet name
STANDARD DETAILS

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