

Frame and cover as specified East Jordan No. 1040, Type A cover with 1045 frame or Neenah R-1643, w/ solid lid or approved equal. Cover shall be labeled **SANITARY**.

Grade rings to be Pre Cast Concrete or PVC in Non load bearing areas, No Bricks, 8" maximum.

Eccentric cone top

Risers

Steps to be reinforced polypropylene plastic steps, 12" wide, per ASTM D4101

"O" Ring Joint, Con Seal or equal at all joints. ASTM C-443

1/2"/Ft. slope

Base  
Bottom channel

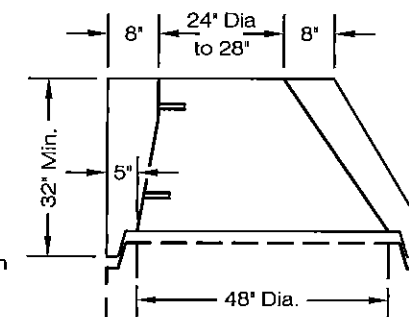
6" min. bedding #57 stone

48" BASE FOR PRECAST  
30" AND SMALLER PIPE

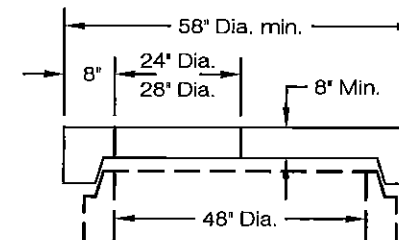
Anchor  
Gap Left For Clarity

Seal wraps tightly around castings and adjustment rings. Seal to extend 4" onto casting and 4" below the top of the cone section and shall be one piece.

Seal 12" Wide Minimum Centered Over Joint, Typ. All Joints



ECCENTRIC CONE TOP



FLAT SLAB TOP

## NOTES

Sections of the precast manhole shall be cast and assembled with either all tongue or all groove ends up. Lift holes may be provided in each section for handling.

**TOP AND TRANSITION** (or reducer) Sections may be either eccentric cone or flat slab.

**BASES** for manholes are shown with monolithic floor and riser which may be cast in one or two operations. A permissible alternate is to cast and ship the floor and barrel separately. Openings for inlet and outlet pipe shall be provided, either when the unit is cast or later, to meet project requirements. Bottom channels may be formed of concrete precast in the base or by field construction. Bases may also be poured in place. All inlets and outlets are to be identified.

**OPENINGS IN RISER SECTIONS** for 18" and smaller inlet pipes shall be prefabricated. Flexible connections shall be provided for sanitary and combined sewers.

**JOINT SEAL** between precast manhole sections on sewers shall be resilient and flexible gasket joints per ASTM C-443 or latest edition.

The manhole seal at the top of the manhole (casting, adjustment rings, etc.) shall be a "WRAPIDSEAL" heat shrinkable seal manufactured by Canusa-CPS or approved equal.

All other joints shall be sealed with CONSEAL CS102 butyl sealant manufactured by Concrete Sealants, Inc. or an approved equal.

A watertight flexible sleeve "KOR-N-SEAL", "PRESS WEDGE" or equal to be provided at all connections between manholes and pipes and shall meet the requirements of ASTM C-923.

**MATERIALS** for bases and other precast sections, including reinforcement not specified hereon, shall comply with the specifications.

**LANDING PLATFORMS** as shown on the Landing Details shall be installed in manholes that are over 28 feet deep to the invert with maximum vertical spacing of 20 feet.

**PRECAST MANHOLE** shall conform to the requirements of ASTM C-478. Concrete shall be 4000# P.S.I.

**SEAL** lift holes with approved concrete plugs and bit.

**ANCHORS** 1/2" dia. Allthread with washers and hex nut (Min 4). Lead anchor secured into the eccentric cone top.

**CASTINGS** for manholes shall be cleaned and painted in field with one coat of asphalt varnish or coal tar pitch paint.

## Sanitary Manholes

Castings in pavement shall have a solid lid and gasket.

Manhole Testing All sanitary manholes shall be vacuum tested per ASTM C 1244.

Precast collars and/or bricks for height adjustments to manholes must meet ASTM C-32.

*Larry Luffich*  
CITY OF NORTH RIDGEVILLE, ENGINEER

1	12/09	CB	STEP SPECIFICATION
REV No.	DATE	BY	DESCRIPTION
CITY OF NORTH RIDGEVILLE, OHIO DEPARTMENT OF ENGINEERING			
PRECAST CONCRETE MANHOLE			
SCALE: NOT TO SCALE			SAN-1
R	DATE: 10/01/08	DRWN BY: JAB/TEB	