**STANDARD FRAME & COVER**

Use Norwood N.F.80 or Trojan T.F. 80 on all manholes in roadways or walks (SEE DRAWING SM-06)

**SAFETY TYPE M.H. RUNG**

ALUMINUM SPACING TO BE 400mm CENTRE TO CENTRE

**THE CITY OF SPRUCE GROVE**

**PLANNING AND INFRASTRUCTURE**

**STANDARD STORM MANHOLE**

**REVISIONS**

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**DRAWN:** T. CRAWFORD  
**DATE:** MARCH 6, 2006  
**CHECKED:** J. MUSTARD  
**SCALE:** NOT TO SCALE  
**APPROVED:** J. MUSTARD  
**DRAWING No.:** SM-01
NOTES
1. SAFETY STEPS TO BE SPACED AT 400 MAX. DISTANCE. FIRST STEP TO BE 150 MAX. BELOW FRAME, LAST STEP TO BE 300 MAX. ABOVE BENCHING.
2. ALL JOINTS TO BE SET WITH RUBBER GASKET AND FINISHED WITH NON-SHRINK GROUT INSIDE AND OUTSIDE FOR FULL CIRCUMFERENCE.
3. CHANNEllING AND BENCHING TO BE FINISHED TO TROWEL SMOOTHNESS.
4. COMPACT BACKFILL AROUND MANHOLES TO A MINIMUM OF 97% STANDARD PROCTOR DENSITY.
5. FOR MANHOLES EXCEEDING 7.0m IN DEPTH A SAFETY PLATFORM SHALL BE INSTALLED.
6. THE DEPTHS OF CONCRETE AND REINFORCEMENT FOR THE CONCRETE BASE MUST BE DESIGNED FOR THE SPECIFIC MANHOLE DEPTH AND SOIL CONDITIONS.
7. JOINTS BETWEEN GRADE RINGS, GRADE RINGS AND CONES, AND BETWEEN RINGS AND FRAMES MUST BE WATERTIGHT.
8. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.

THE CITY OF SPRUCE GROVE
PLANNING AND INFRASTRUCTURE

PERCHED MANHOLE

DRAWN: T. CRAWFORD    DATE: MARCH 6, 2006
CHECKED: J. MUSTARD   SCALE: NOT TO SCALE
APPROVED: J. MUSTARD   DRAWING No.: SM-02
NOTES:

1. THIS TYPE OF MANHOLE IS TO BE BUILT ONLY ON MAINS OF 1200mm DIAMETER OR LARGER AND WHERE THERE IS NO CHANGE IN DIRECTION.

2. SAFETY STEPS TO BE SPACED AT 400 MAX. DISTANCE. FIRST STEP TO BE 150 MAX. BELOW FRAME, LAST STEP TO BE 300 MAX. ABOVE BENCHING.

3. FOR MANHOLES EXCEEDING 7.0m IN DEPTH A SAFETY PLATFORM SHALL BE INSTALLED.

4. WHERE REQUIRED, CATCH BASIN LEADS SHALL ENTER MANHOLE IN PIPEZONE.

SEE TYPICAL MANHOLE DRAWINGS FOR DETAILS OF BARREL

RUBBER GASKET JOINTS GROUT INSIDE AND OUTSIDE

MANHOLE RUNGS CAST IN BARRELS – 400 SPACING

CONCRETE BEDDING MIN. STRENGTH 25 MPa

UNDISTURBED SOIL OR MECHANICALLY COMPACTED

THE CITY OF SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

T-RISER MANHOLE

DRAWN: T. CRAWFORD DATE: MARCH 6, 2006
CHECKED: J. MUSTARD SCALE: NOT TO SCALE
APPROVED: J. MUSTARD DRAWING No.: SM-03

(1200mm AND LARGER PIPES)
100 OR 150 NECK RING TO SUIT SUBGRADE.

FOR HIGH ROLL FACE CURB USE 150 OR 100 TAPERED NECK RING

RINGS MUST HAVE THE SAME ALIGNMENT AS THE BARREL. NO STEPPING ALLOWED.

C.B. SHOULDER RING

25mm LIFTING HOLE

WATER TIGHT MORTAR JOINT

250mm MIN. 2.00% 

UNDISTURBED SOIL OR TAMPED BACKFILL

WASHED ROCK

SECTION A–A

THE CITY OF SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

PRECAST CATCH BASIN

DRAWN: T. CRAWFORD  DATE:  MARCH 6, 2006
CHECKED: J. MUSTARD  SCALE: NOT TO SCALE
APPROVED: J. MUSTARD  DRAWING No.: SM-04

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SAFETY TYPE M.H. RUNG
ALUMINUM SPACING TO BE
400mm CENTRE TO CENTRE

MANHOLE FRAME
AND COVER

GRADE RINGS
AS REQUIRED
GRADE RINGS SHALL
ALIGN WITH BARREL
(no stepping or
staggering)

ECCENTRIC
CONICAL TOP

ALL JOINTS MORTARED
INSIDE AND OUT
RUBBER GASKET JOINT

RUNGS

PRECAST REINFORCED
CONCRETE BARREL

MIN. 600mm
ABOVE BASE
TO FORM SUMP

UNDISTURBED SOIL
OR MECHANICALLY OR
HAND TAMPERED

20mm COMPACTED GRANULAR FILL

THE CITY OF
SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS
DATE DETAILS DRAWN

STANDARD CB MANHOLE

DRAWN: T. CRAWFORD DATE: MARCH 6, 2006
CHECKED: J. MUSTARD SCALE: NOT TO SCALE
APPROVED: J. MUSTARD DRAWING No.: SM-05
Provide 4–20mm dia. vent hole.

**NOTE**

NORWOOD FOUNDRY TYPE NF80 OR TROJAN FOUNDRY TYPE TF80

GROUT TO BE INSTALLED BETWEEN FLANGE AND MANHOLE BARREL ON RAISED MANHOLES.
THE CITY OF SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

REVISIONS

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LOT GRADING

DRAWN: T. CRAWFORD  DATE: MARCH 6, 2006
CHECKED: J. MUSTARD  SCALE: NOT TO SCALE
APPROVED: J. MUSTARD  DRAWING No.: SM-07
NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.
NOTE:
POND EDGE TREATMENT NOT SHOWN FOR CLARITY.

POND BOTTOM

1.00 m DEEP SEDIMENT TRAP

3.00 m DEEP RAP

2.0 m x 3.0 m x 0.20 m CONCRETE SLAB AT BASE OF SEDIMENT TRAP ON 150 mm GRANULAR BASE (REQUIRED AT INLET ONLY)

TYPICAL FLARED END (SEE DETAIL SM-09)

BULK CONCRETE TO BE PLACED OVER PIPE JOINT

TYPICAL FLARED END (SEE DETAIL SM-09)

CLASS 'A' BEDDING (FOR 10 m UP THE PIPE)

INSTALL FILTER FABRIC UNDER RAP-RAP

300 mm DEEP LAYER OF 150 mm RAP-RAP PLACED ON THE ENTIRE SLOPED SURFACE AREA OF THE SEDIMENT TRAP

THE CITY OF SPRUCE GROVE

PLANNING AND INFRASTRUCTURE

INLET/OUTLET DETAIL

REVISIONS

DATE DETAILS DRAWN

DRAWD: S.WILLIAMS
DATE: MARCH 4, 2014
CHECKED: J. MUSTARD
SCALE: NOT TO SCALE
APPROVED: J. MUSTARD
DRAWING No.: SM-11
# Plan View

- Road Shoulder
- Slope
- Water Flow
- Rip-Rap Slope and End Protection

# Front View

- Bc + 2.0m

# Side Section A-A

- Culvert with Std. Steel End Section
- Water Flow
- Rip-Rap

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## The City of Spruce Grove

### Planning and Infrastructure

#### Revisions

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### Rip-Rap

- Drawn: T. Crawford
- Date: March 6, 2006
- Checked: J. Mustard
- Scale: Not to Scale
- Approved: J. Mustard
- Drawing No.: SM-12
NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. WICK DRAINS TO BE CUT 300mm INSIDE CB AND MUST BE VISIBLE.