SANITARY SEWER DETAILS
FINISHED GRADE
OR SUBGRADE
BACKFILL MATERIAL:
CRUSHED SURFACING
OR CDF AS DIRECTED
BY CITY

3" MIN. WIDTH FLOURESCENT
IDENTIFICATION TAPE TO RUN
CONTINUOUS WITH PIPE

FINAL BEDDING LIFT 6" MIN
ABOVE CROWN OF PIPE

SPRING LINE

FLEXIBLE PIPE

2ND BEDDING LIFT
(HAUNCHING)

INITIAL BEDDING LIFT
FOUNDATION GRAVEL
AS REQUIRED

UNDISTURBED EARTH

NOTE:
BACKFILL MATERIAL AND COMPACTION SHALL BE IN CONFORMANCE WITH
CITY STANDARDS AND/OR THE STATE OR COUNTY PERMIT REQUIREMENTS
(AS MAY BE APPLICABLE);
MINIMUM REQUIREMENTS:
ALL GRANULAR BACKFILL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR,
ASTM D1557
MANHOLE FRAME & COVER WITH "SEWER" CAST ON COVER WITH 3" HIGH RAISED LETTERS (NON-SKID PATTERN) AS MANUFACTURED BY EAST JORDAN IRONWORKS, ERGO 24. 3 HOLE LOCKING FRAME AND COVER, ONE (1) BOLT HOLE TO BE CENTERED OVER LADDER

FIRST STEP
14" MIN.
18" MAX.

INFRA RISER AS MANUFACTURED BY EAST JORDAN IRON WORKS FOR PAVED AREAS

GROUT BETWEEN RINGS

POLYPROPYLENE MANHOLE
STEPS NO. P-13938 LOCATED AT 12" O.C.

GROUT LIFT HOLES INSIDE AND OUTSIDE

MANHOLE DIAMETER
48": STANDARD
54": DEPTh≥20 FT

POLYPROPYLENE LADDER (3" MAXIMUM LENGTH)

SEE NOTE 1

SLOPE SHELF TO CHANNEL AT 3/8"/FT

CHANNEL 3/4 PIPE DIA

FLOW

GROUT FILL

FOUNDATION GRAVEL
8-INCH MINIMUM

UNDISTURBED EARTH

NOTES:
1. FOR PIPE CONNECTIONS TO MANHOLES, CORE THE MANHOLE AND CONNECT SEWER PIPE WITH A WATER TIGHT FLEXIBLE RUBBER BOOT IN MANHOLE WALL, KOR-N-SEAL BOOT OR EQUAL.
2. DROP OF GRADE THRU MANHOLE SHALL BE 0.10' (SLOPE=3/8"/FT) (48" MANHOLE) UNLESS OTHERWISE APPROVED BY THE CITY.
3. LARGER MANHOLES WILL BE REQUIRED AT THE DISCRETION OF THE CITY ENGINEER BASED ON PIPE SIZE, NUMBER AND ORIENTATION OF PIPE(S).
4. INSTALL CONCRETE COLLAR IN UNPAVED AREAS. SEE DETAIL.
5. PRE-CHANNELED MANHOLES ARE NOT ACCEPTABLE.
6. THE INSIDE AND OUTSIDE OF ALL JOINTS SHALL BE THOROUGHLY COATED WITH EPOXY GROUT (OR EQUAL) TO BE APPLIED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

CITY OF ALGONA
TYPICAL PRECAST MANHOLE

APPROVED: 04/06/2015

DWG. NO. TPMH
LOCATE MANHOLE FRAME AND COVER ON UPSTREAM SIDE OF MANHOLE AND TO THE SIDE OF CHANNEL ALIGN ONE BOLT HOLE OVER LADDER.

PRECAST CONCRETE MANHOLE

2" (TYP.)

1'-0" MIN. RADIUS

SHORT PIPE SECTION AT MANHOLE (D.I. PIPE ONLY)

SLOPE SHELF TO CHANNEL AT 3/8" PER FOOT

CHANNEL AS REQUIRED

NOTES:

1. FOR PIPE CONNECTIONS TO MANHOLES, CORE THE MANHOLE AND CONNECT SEWER PIPE WITH A WATER TIGHT FLEXIBLE RUBBER BOOT IN MANHOLE WALL, KOR-N-SEAL BOOT OR EQUAL.

2. ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE MADE WITH A CONCRETE CORING MACHINE UNLESS OTHERWISE APPROVED BY THE CITY.

CITY OF ALGONA

TYPICAL MANHOLE PLAN VIEW

APPROVED: [Signature]

DATE: 04/06/2015

DWG. NO. TMHP
NOTES:

1. FOR PIPE CONNECTIONS TO MANHOLES CORE THE MANHOLE AND CONNECT SEWER PIPE WITH A WATER TIGHT FLEXIBLE RUBBER BOOT IN MANHOLE WALL, KOR-N-SEAL BOOT OR EQUAL. ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE MADE WITH A CONCRETE CORING MACHINE UNLESS OTHERWISE APPROVED BY THE CITY.

2. DROP OF GRADE THRU MANHOLE SHALL BE 0.10'.

3. PRE-CHANNELED MANHOLES ARE NOT ACCEPTABLE.

4. CONSTRUCT CONCRETE COLLAR IN UNPAVED AREAS PER DETAIL.

5. THE INSIDE AND OUTSIDE OF ALL JOINTS SHALL BE THOROUGHLY COATED WITH EPOXY GROUT (OR EQUAL) TO BE APPLIED ACCORDING TO MANUFACTURERS SPECIFICATIONS.
MANHOLE FRAME & COVER WITH "SEWERS" CAST ON COVER WITH 3' HIGH RAISED LETTERS (NON-SKID PATTERN) AS MANUFACTURED BY EAST JORDAN IRON WORKS, ERGO 24.3 HOLE LOCKING FRAME AND COVER. ONE (1) BOLT HOLE TO BE CENTERED OVER LADDER

FINISHED GRADE
4" X 24" PRECAST CONC. ADJUSTMENT RINGS
2 RINGS REQUIRED
4 RINGS MAXIMUM
PLASTER INSIDE AND OUTSIDE FACE WITH 1/2" THICK GROUT
48" TO 24" OFFSET CONE

POLYPROPYLENE MANHOLE STEPS NO. P-19393B LOCATED AT 12" O.C.

PRECAST MANHOLE
RUBBER GASKET SEALING RING (TYP)

POLYPROPYLENE LADDER (3' MAXIMUM LENGTH)
CUT OUT EXISTING PIPE, MAKE SMOOTH INVERT & CHANNEL AFTER NEW LINE IS ACCEPTED.

CAST IN PLACE CHANNEL & SHELF, 3500# PSI CONCRETE

12" MINIMUM

NOTES:
1. FOR PIPE CONNECTIONS TO MANHOLES, CORE THE MANHOLE AND CONNECT SEWER PIPE WITH A WATER TIGHT FLEXIBLE RUBBER BOOT IN MANHOLE WALL, KOR-N-SEAL BOOT OR EQUAL.

2. DROP OF GRADE THRU MANHOLE SHALL BE 0.10' (SLOPE=3/8"/FT) (48" MANHOLE) UNLESS OTHERWISE APPROVED BY CITY INSPECTOR.

3. LARGER MANHOLES WILL BE REQUIRED AT THE DISCRETION OF THE CITY ENGINEER BASED ON PIPE SIZE, NUMBER AND ORIENTATION OF PIPE(S).

4. INSTALL CONCRETE COLLAR IN UNPAVED AREAS. SEE DETAIL.

5. PRE-CHANNELED MANHOLES ARE NOT ACCEPTABLE.

6. THE INSIDE AND OUTSIDE OF ALL JOINTS SHALL BE THOROUGHLY COATED WITH EPOXY GROUT (THOROC OR EQUAL) TO BE APPLIED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

CITY OF ALGONA
TYPICAL SADDLE MANHOLE

APPROVED: [Signature]

DATE: 04/06/2015

DWG. NO. TSMH
NOTES:

1. FOR PIPE CONNECTIONS, CORE THE MANHOLE AND CONNECT SEWER PIPE WITH A WATER TIGHT FLEXIBLE RUBBER BOOT IN MANHOLE WALL, KOR-SEAL BOOT OR EQUAL.

2. DROP OF GRADE THRU MANHOLE SHALL BE 0.10' (SLOPE=3/8'/FT) UNLESS OTHERWISE APPROVED BY CITY INSPECTOR.

3. LARGER MANHOLES WILL BE REQUIRED AT THE DISCRETION OF THE CITY ENGINEER BASED ON PIPE SIZE, NUMBER AND ORIENTATION OF PIPE(S).

4. INSTALL CONCRETE COLLAR IN UNPAVED AREAS. SEE DETAIL.

5. PRE-CHEDNELED MANHOLE ARE NOT ACCEPTABLE.

6. THE INSIDE AND OUTSIDE OF ALL JOINTS SHALL BE THOROUGHLY COATED WITH EPOXY GROUT (THOROC OR EQUAL) TO BE APPLIED ACCORDING TO MANUFACTURERS SPECIFICATIONS.
NOTES:

1. FOR PIPE CONNECTIONS TO MANHOLES, CORE THE MANHOLE AND CONNECT SEWER PIPE WITH A WATER TIGHT FLEXIBLE RUBBER BOOT IN MANHOLE WALL, KOR-N-SEAL BOOT OR EQUAL.

2. DROP OF GRADE THRU MANHOLE SHALL BE 0.10' (MIN), UNLESS OTHERWISE APPROVED.

3. ALIGN FORCE MAIN DISCHARGE WITH OUTLET PIPE.
NOTES:

1. BACKFILL MATERIAL AND COMPACTION SHALL BE IN CONFORMANCE WITH THE CITY STANDARDS AND/OR THE STATE OR COUNTY PERMIT REQUIREMENTS, (AS MAY BE APPLICABLE)

2. FORCE MAIN MAY BE HDPE OR PVC OF THE SIZE AND CLASS APPROVED BY CITY IF CONDITIONS WARRANT SAME (AND AS REQUIRED AND DIRECTED BY CITY). WHEN HDPE OR PVC IS APPROVED, BEDDING SHALL EXTEND FROM 4" BELOW PIPE TO 4" ABOVE PIPE.
NOTE:

1. PAINT PORTION OF SERVICE MARKER THAT IS ABOVE FINISHED GRADE WITH WHITE PAINT. STENCIL WITH BLACK LETTERS "S/S" USING 3" HIGH LETTERS. LOCATE SERVICE MARKER AT END OF EACH SERVICE. STENCIL TOTAL LENGTH OF 2x4.

2. TAP EXISTING SEWER MAIN WITH APPROVED CITY SADDLE. INSTALL NEW SIDE SEWER TEE ON NEW MAIN LINES.

3. WHEN TAPPED SERVICE IS PERMITTED, CONTRACTOR SHALL PROVIDE SEWER MAIN COUPON TO CITY STAFF.

4. PROVIDE PEA GRAVEL PIPE BEDDING SEE TRENCH SECTION DETAIL.

CITY OF ALGONA
NEW SIDE SEWER SERVICE

APPROVED: Date: 04/05/2015

DWG. NO. SSD
NOTE:
SEE TYPICAL TRENCH SECTION FOR DUCTILE IRON SEWER PIPE FLEXIBLE OR RIGID PIPE AS APPROPRIATE

CITY OF ALGONA
STANDING SIDE SEWER

APPROVED:  
DATE: 04/06/2015

DWG. NO. SSS
NOTES:

1. FOR PIPE CONNECTIONS TO STORM DRAINAGE MANHOLES, CORE THE MANHOLE AND CONNECT SEWER PIPE WITH A WATER TIGHT FLEXIBLE RUBBER BOOT IN MANHOLE WALL, KOR-N-SEAL BOOT OR EQUAL.

2. DROP OF GRADE THRU MANHOLE SHALL BE 0.10', UNLESS OTHERWISE APPROVED.


4. PROVIDE ADEQUATE VERTICAL CLEARANCE TO REMOVE VALVE COMPONENTS W/O DISASSEMBLY.
EAST JORDAN IRON WORKS
MODEL NO. 00104043L04

CITY OF ALGONA

MANHOLE FRAME AND COVER

APPROVED:

DATE: 04/06/2015

DWG. NO.
SSMH COVER
- ERGO
SECTION

NOTE:
CONSTRUCT CONCENTRIC CONCRETE COLLARS AROUND ALL MANHOLE FRAMES LOCATED OUTSIDE OF PAVEMENT AREAS

MANHOLE FRAME COLLAR

NOTE:
1. THE INSIDE AND OUTSIDE OF ALL JOINTS SHALL BE THOROUGHLY COATED WITH EPOXY GROUT (THOROC OR EQUAL) TO BE APPLIED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

CITY OF ALGONA
MANHOLE FRAME COLLAR

APPROVED:

DATE: 04/06/2015

DWG. NO. MHCLAR
POLYPROPYLENE LADDER

LADDER SHALL CONFORM TO
POLYPROPYLENE ASTM D-4101
1/2" GRADE 60 REINFORCING
BAR A-615 9/16" COLD DRAWN
BAR C-1018

POLYPROPYLENE MANHOLE STEPS

POLYPROPYLENE STEP, LANE
NO. P-13938 OR EQUAL

CITY OF ALGONA
POLYPROPELENE LADDER AND
MANHOLE STEPS

APPROVED: [Signature]
DATE: 04/06/2015

DWG. NO.
PLMHS