NOTES:
1. SEE UTILITY STANDARDS FOR TRENCHING AND CONSTRUCTION REQUIREMENTS
2. SEE STANDARD DETAIL FOR TYPICAL TRENCH SECTION

**NOT TO SCALE**

City of Oak Harbor
ENGINEERING DEPARTMENT
8855 SE Barrington Drive
Oak Harbor, WA 98277

TYPICAL SIDE SEWER
SS-1 Typical Side sewer.dwg
REVISED 2-24-06
1. An operational check of the pump, on/off switch, floats and alarm system shall be required as part of the testing procedures.

2. Gravity sewer pipe shall be considered as part of the residential sewer pump installation. Testing of gravity lines shall be completed at the time the force main is tested.

3. The alarm must be in a conspicuous location and must consist of both audio and visual alarms.

4. Wet well must be watertight.

5. The grinder pump wet well shall be installed on level, undisturbed soil with a minimum total load bearing capacity of 2000 pounds per square foot. The grinder pump wet well shall be set on a layer of pea gravel a minimum of 6 inches compacted depth.

6. Electrical inspection shall be completed and approval posted at job site prior to calling for inspection by city inspector.

7. The pumping chamber shall be adequately vented. Venting may be accomplished through the building or structure plumbing vents where the system venting has been approved by the local jurisdiction authority or by a direct 2" minimum vent to the atmosphere.

8. Equipment that in normal operation may cause an arc or spark shall not be installed in any pumping chamber.

9. Float switches installed in an unclassified location shall be hermetically sealed to prevent the entrance of gases or vapors.

10. Where a conduit system is installed between the pumping chamber and the control panel, motor disconnect, or power source, an approved sealing fitting shall be installed to prevent the migration of gases or vapors from the pumping chamber, and shall remain accessible.

11. Wire splices in junction boxes installed in pumping chambers, shall be suitable for wet locations.

12. Submergence of the pumping motor shall be guaranteed by the design of the pump or by redundant off floats.

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City of Oak Harbor
Engineering Dept

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RESIDENTIAL SEWER GRINDER PUMP

SS-2Residential Sewer Grinder Pump.dwg
REVISED 3-20-06
NOTES:
1. DROP OF GRADE THROUGH MANHOLE SHALL BE 0.1-FT UNLESS OTHERWISE APPROVED BY CITY ENGINEER.
2. MANHOLES SHALL COMPLY WITH WSDOT STANDARD SPECIFICATIONS FOR TYPE I MANHOLES
3. PIPES SHALL PROTRUDE NO MORE THAN 1-inch INTO MANHOLE.
4. ECCENTRIC CONE SHALL BE PLACED OUT OF TIRE TRACK AND SUCH THAT THE LADDER LANDS ON THE LARGE SHELFW

4"X 24" PRECAST CONCRETE ADJUSTMENT RINGS. 8" MIN. 18" MAX. GROUT INSIDE AND OUT BRUSH FINISH INSIDE

48" TO 24" ECCENTRIC CONE

PRECAST MANHOLE

MANHOLE LADDER

PROVIDE RUBBER GASKET AND GROUT AT ALL JOINTS.

GROUT ALL LIFT HOLES

CONSTRUCT CHANNEL AND SHELF IN FIELD SMOOTH FINISH WITH CLASS 3000 CONCRETE

PIPE CONNECTION TO MANHOLE BY CAST IN PLACE COUPLING OR CORDED WATER TIGHT BOOT, KOR-N-SEAL OR EQUAL

COMPACTED FOUNDATION GRAVEL 8" MINIMUM

UNDISTURBED EARTH

MANHOLE FRAME AND COVER EAST JORDAN IRON WORKS HINGED MANHOLE UNIT OR APPROVED EQUIVALENT

FINISHED GRADE

24" DIA.

28" MAX TO FIRST STEP

30'-0" MINIMUM

25'-0" MAXIMUM

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TYPICAL SECTION
TYPE 1 MANHOLE

SS-3Typical Type 1 Manhole.dwg
REVISSED 3-19-10
NOTES:

1. DROP OF GRADE THROUGH MANHOLE SHALL BE 0.1-FT UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

2. MANHOLES SHALL COMPLY WITH WSDOT STANDARD SPECIFICATIONS FOR TYPE III MANHOLES

3. PIPES SHALL PROTRUDE NO MORE THAN 1-inch INTO MANHOLE.
POLYPROPYLENE STEP, LANE NO. P-13938 OR EQUAL

POLYPROPYLENE  
MANHOLE STEPS

RUNG  
1/2" GRADE 60

RAIL  
9/16" ROUND BAR

12" O.C.  
3” - 0” MAXIMUM

BOLT TO WALL IF NOT IMBEDDED IN CHANNEL BENCH

LADDER SHALL CONFORM TO  
POLYPROPYLENE ASTM D-1401  
1/2" GRADE 60 REINFORCING BAR A-615 9/16" COLD DRAWN BAR C-1018.

POLYPROPYLENE LADDER

City of Oak Harbor  
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TYPICAL MANHOLE LADDER STEPS

6/9/06
NOTES:

1. DROP OF GRADE THROUGH MANHOLE SHALL BE 0.1-FT UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

2. MANHOLES SHALL COMPLY WITH WSDOT STANDARD SPECIFICATIONS FOR TYPE III MANHOLES.

3. PIPES SHALL PROTRUDE NO MORE THAN 1-INCH INTO MANHOLE.