



PUMP STATION NOTES

1. Area 3 Feet Below Grade Must Be Kept Free Of Concrete To Minimize Frost Heave.
2. Supports Must Be Minimum 12 Gauge Hot Dipped Galvanized. Provide Rust Proof Finishes Throughout With Special Emphasis On Weld Joints & Cut Ends.
3. The Contractor Will Furnish And Install A Separate Grounding Electrode.
4. Unistrut Or Equivalent Stainless Steel Framing And Fittings.
5. All Grounding Of Equipment And Services Shall Be Per N.E.C. Article 250.
6. Provide #6 Ground Conductor From Main Breaker MD-1 To Telephone Junction Box.
7. All Conduit Above Ground Shall Be Rigid Galvanized Steel Conduit (RGS) And All Conduit Below Grade Shall Be PVC Schedule 80 Conduit Unless Otherwise Noted.
8. Provide Watertight Hubs At Conduit Entrance At All Enclosures Mounted Outdoors.
9. Provide 4" Wide, 4" Thick Concrete Sidewalk To Housing Access Door From Paved Drive.
10. The Pumps And Electrical Equipment In The Wetwell Must Meet The Requirements Of The NEC For Class I, Group D, Division 1 Locations Per Paragraph 42.3.5 Of The RSWF.
11. The Submersible Pump Motor Cords Shall Be Designed For Flexibility And Serviceability Under Extreme Conditions And Meet The Requirements Of The NEC For Flexible Cords In Wastewater Pump Stations.
12. Growly Overflows Shall Be Provided Wherever Possible. If an Overflow is provided the station shall be equipped with a Portable Generator Receptacle. The Receptacle shall be a 3 position On-Off-On Switch. The MMAWTP Emergency Pumping Procedures Shall Be Used In The Event Of Electrical Service Failure & Permanent Emergency Generator Failure. The Procedures Are As Follows:
 1. Upon Failure Of Electrical Pump Station Failure, The Emergency Natural Gas Backup Generator Will Be Used And The Wetwell Level Will Be Monitored.
 2. If The Natural Gas Backup Generator Fails, The Wastewater Treatment Plant Has 6 Portable Electrical Backup Generators Available For Use At The Station.
 3. If No Portable Backup Generator Is Available, The Wetwell Hatch Will Simply Be Opened And A Portable Pump Dropped Into The Wetwell To Pump The Wastewater To The Nearest Downstream Sanitary Sewer Manhole As A Bypass. The Wetwell Level Is Then Monitored Thereafter.
13. Alarm Telephone Services At The Pump Station & The MMAWTP Are To Be Ordered By MMAWTP. Prior To Ordering, An Address Of The Proposed Station Is To Be Provided & The Service Entrance Pedestal Is To Be In Place.
14. Electrical Diagrams Must Be Provided As Part Of Shop Drawing Submittal & Approval.
15. All Electrical Work Shall Be Done In Strict Accordance With 2002 National Electrical Code (NEC) & Local Code Enforcement Agencies Requirements. Electrical Contractor Shall Obtain All Required Permits & Inspections. Provide A Copy Of Acceptance By Electrical Inspector, & Shall Guarantee The Installation For One Full Year From Date Of Owners Acceptance.
16. All Equipment & Material Shall Be New & Unused, Approved For The Purpose & Bear A U. L. Label Whenever Such Material Or Equipment Is Used. The Contractor Shall Arrange A Meeting With The Owner, MMAWTP, & Project Engineer To Explain The Operation Of The System A Factory Representative Shall Explain The Programming Of The Motor Starter. Four (4) Copies Of Operating & Maintaining Manuals Shall Be Given To The Owner/Project Engineer.

PUMP FLOW REQUIREMENTS
PUMP FLOW REQUIREMENT: Q = _____ GPM
TOTAL DYNAMIC HEAD: TDH = _____ FEET

NOTE: FIGURES ARE TO BE PLACED IN THE UNDERLINED AREAS AS SHOWN, TO BE DETERMINED BY THE DESIGN ENGINEER.

REVISIONS

NO.	DATE	DESCRIPTION
1	7-27-00	B.S.L.
2	7-22-03	B.S.L.
3	2-11-04	B.S.L.
4	7-05-05	D.G.C.
5	2-14-08	B.S.L.
6	2-11-09	B.S.L.

SCALE: NONE
DATE: FEBRUARY 2000
SHEET NO. 1 OF 2

CITY OF MONROE, MICHIGAN
ENGINEERING DEPARTMENT
SEWER PUMP STATION DETAILS
GENERAL SPECIFICATIONS & DETAILS
FILE NO. F-XXXX

APPROVED: _____
DATE: _____
CITY ENGINEER