

Hamilton County Water & Wastewater  
Treatment Authority (WWTA)

Inspection Notification and  
Typical Details for  
Simplex Grinder Station Installations



Revised April 1, 2024

## **INSPECTION NOTIFICATION**

### 1st Inspection from WWTa — Call 423-209-7842

After tank is set and discharge line is installed, prior to covering.

### 2nd Inspection from WWTa — Call 423-209-7842

After control panel and pump is completely wired. The contractor's plumber and electrician need to be present when the inspection is performed.

### 3rd Inspection from Hamilton County Building Inspection — Call 423-209-7860

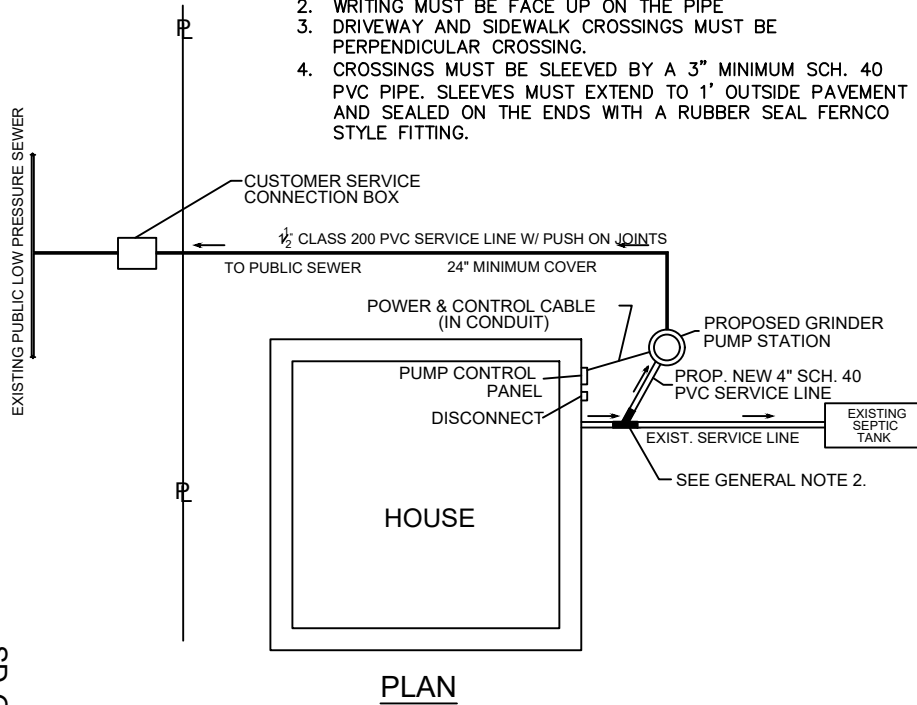
After disconnect has been set and power has been supplied to control panel.

### **Final Inspection and Approval is from WWTa**

Revised April 1, 2024

#### ADDITIONAL NOTES

1. MAXIMUM DISCHARGE LINE DEPTH OF 3FT
2. WRITING MUST BE FACE UP ON THE PIPE
3. DRIVEWAY AND SIDEWALK CROSSINGS MUST BE PERPENDICULAR CROSSING.
4. CROSSINGS MUST BE SLEEVED BY A 3" MINIMUM SCH. 40 PVC PIPE. SLEEVES MUST EXTEND TO 1' OUTSIDE PAVEMENT AND SEALED ON THE ENDS WITH A RUBBER SEAL FERNCO STYLE FITTING.

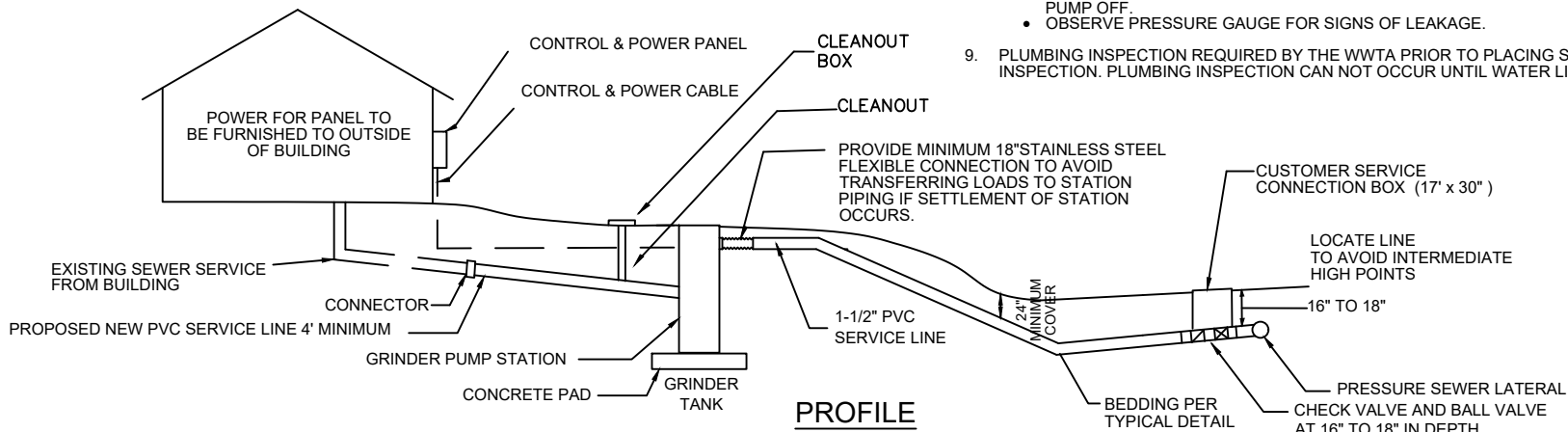


#### GENERAL NOTES:

1. INSTALL CONTROL PANEL ON SIDE OF HOUSE IN VIEW OF GRINDER PUMP STATION. INSTALL WITH ELECTRICAL DISCONNECT AND RUN DEDICATED 220 VOLT LINE FROM MAIN BREAKER BOX TO DISCONNECT. INSTALLATION REQUIRES LICENSED ELECTRICIAN AND ELECTRICAL PERMIT.
2. IF SEPTIC TANK IS ABANDONED, IT SHALL BE PUMPED CLEAN, FILLED WITH CRUSHED STONE OR FLOWABLE FILL AND DISCONNECTED.
3. INSTALLATION BY A PLUMBER OR CONTRACTOR APPROVED BY THE WWTA.
4. LOCATION OF GRINDER TANK AND CONTROL PANEL TO BE APPROVED BY THE WWTA. TANKS AND CONNECTION BOX MUST NOT BE UNDER DECKS OR STAIRS OR IN CONCRETE/ASPHALT DRIVEWAYS, WALKWAYS, OR PATIOS. THE TANK AND CONNECTION BOX MUST BE A MINIMUM OF 3FT AWAY DRIVEWAYS, TREES, BUSHES, AND GENERAL LANDSCAPING.
5. PLUMBER SHALL WARRANTY ALL INSTALLATION WORK FOR ONE (1) YEAR AFTER FINAL INSPECTION.

#### PLUMBER NOTES:

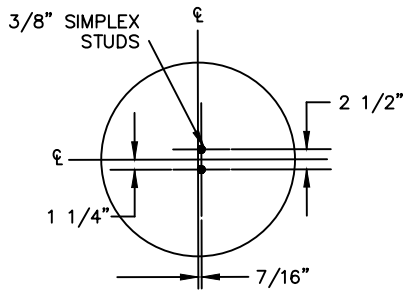
1. INSTALLATION MUST COMPLY, IN GENERAL, WITH THE STANDARD PLUMBING CODE PUBLISHED BY THE SOUTHERN BUILDING CODE CONGRESS INTERNATIONAL, LATEST REVISION, AND WWTA REQUIREMENTS.
2. GRINDER PUMP SYSTEM SHALL BE PURCHASED FROM WWTA APPROVED DEALER/MANUFACTURER.
3. SERVICE CONNECTION BOX AND TANK LID MUST BE AT GROUND LEVEL AND NOT COVERED. CONNECTION BOX AND LID MUST BE IN GOOD CONDITION TO PASS FINAL INSPECTION.
4. PUMP AND BASIN SHALL BE INSTALLED IN ACCORDANCE WITH THE WWTA SPECIFICATIONS.
5. GRAVITY SEWER LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE WWTA SPECIFICATIONS FOR GRAVITY CONSTRUCTION.
6. PUMP DISCHARGE SERVICE LINES SHALL BE 1 1/2" CLASS 200 PVC WITH PUSH ON JOINTS. NO MALE THREADED FITTINGS OR GASKET JOINTS. ADDITIONAL COUPLINGS MUST BE SOLVENT-WELD ONLY AND HAVE A THRUST-BLOCK.
7. DISCHARGE SERVICE LINES SHALL BE INSTALLED WITH A MINIMUM COVER OF 24" AND A MAXIMUM OF 36".
8. GRINDER PUMP SYSTEM AND DISCHARGE SERVICE LINES SHALL BE TESTED AS FOLLOWS;
  - a. PRIOR TO BACKFILLING;
    - CLOSE ISOLATION BALL VALVE AT PROPERTY LINE.
    - FILL PUMP BASIN WITH WATER.
    - TURN PUMP ON AND OBSERVE OPERATIONS.
    - OBSERVE DISCHARGE SERVICE LINES FOR LEAKS.
  - b. AFTER BACKFILLING;
    - CLOSE ISOLATION BALL VALVE AT PROPERTY LINE.
    - REMOVE CHECK VALVE AT PROPERTY AND INSTALL PRESSURE GAUGE APPARATUS WITH FLUSHING VALVE.
    - FILL PUMP BASIN AND DISCHARGE LINE WITH WATER.
    - TURN ON GRINDER PUMP TO PRESSURIZE LINE. CLOSE PUMP STATION ISOLATION VALVE AND TURN PUMP OFF.
    - OBSERVE PRESSURE GAUGE FOR SIGNS OF LEAKAGE.
9. PLUMBING INSPECTION REQUIRED BY THE WWTA PRIOR TO PLACING SYSTEM IN SERVICE AT THE TIME OF INSPECTION. PLUMBING INSPECTION CAN NOT OCCUR UNTIL WATER LINE IS INSTALLED.



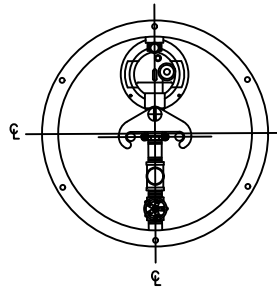
# GRINDER PUMP SERVICE INSTALLATION

HAMILTON COUNTY WATER & WASTEWATER TREATMENT AUTHORITY

SD-GP-1

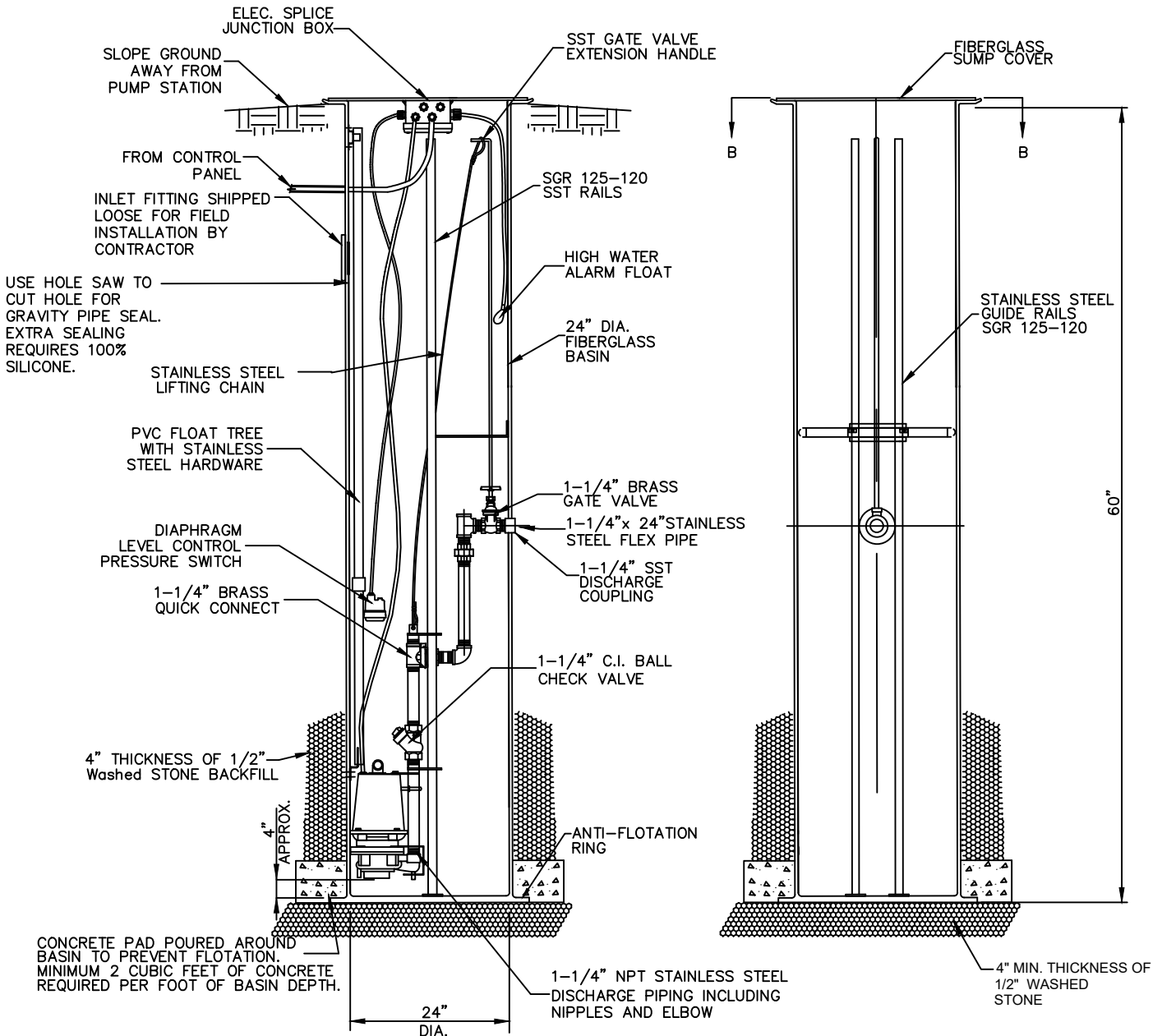


TOP VIEW



SECTION B-B

GENERAL NOTES  
1. IF TANK EXTENSION IS NEEDED,  
MUST BE LESS THAN 2'



\* INLET TO BE MINIMUM OF 36" FROM BOTTOM OF TANK

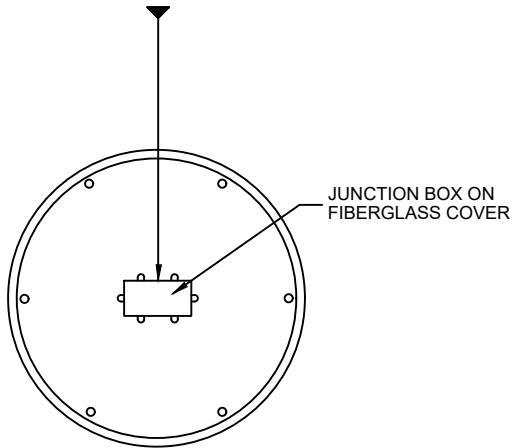
# SIMPLEX GRINDER PUMP STATION

HAMILTON COUNTY WATER & WASTEWATER TREATMENT AUTHORITY

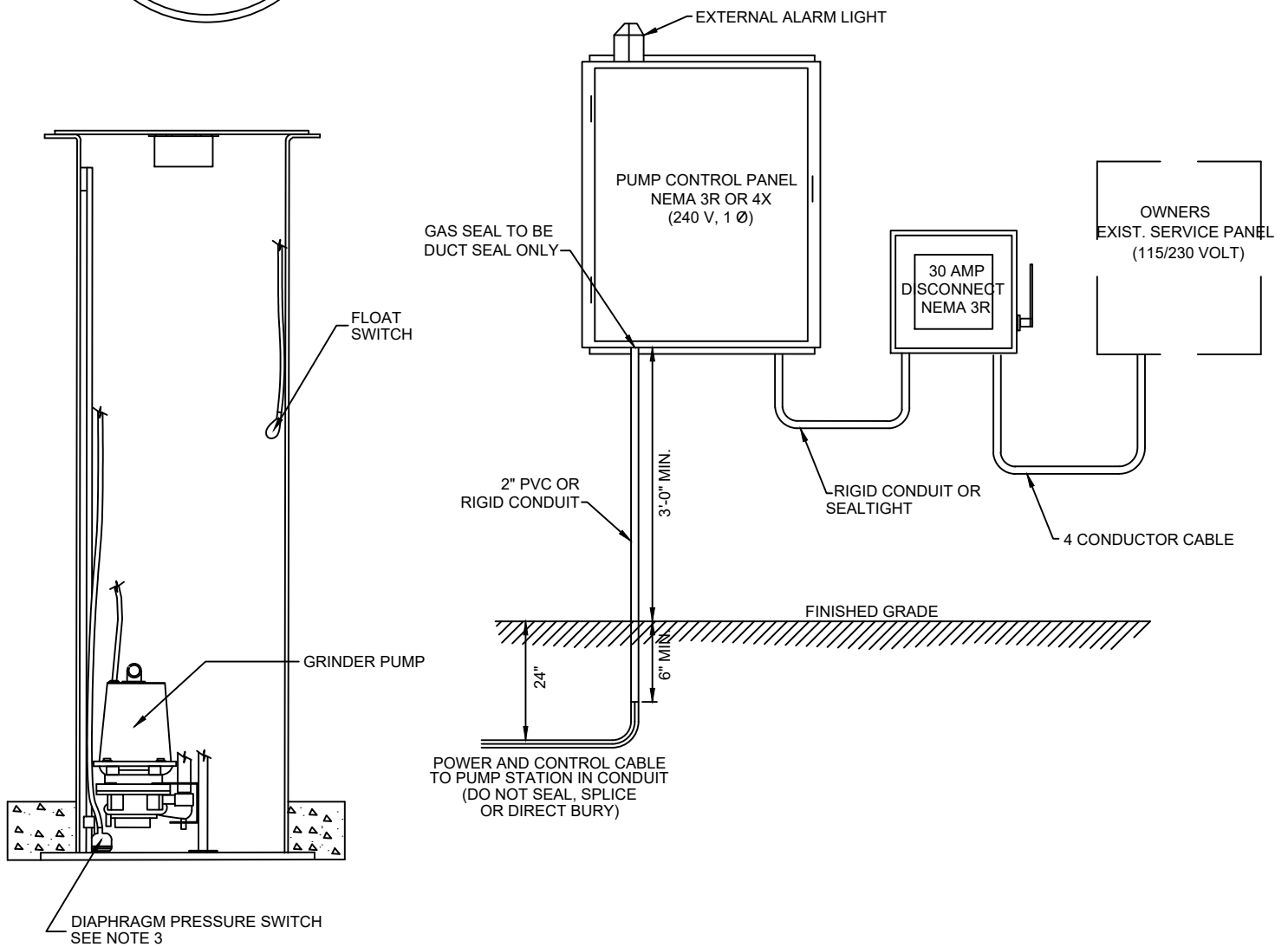
SD-GP-2

## NOTES:

1. GRINDER PUMP WIRE
  2. DIAPHRAGM PRESSURE SWITCH WIRE
  3. FLOAT ALARM WIRE
- MUST GO THROUGH "J" BOX ON FIBERGLASS COVER.



1. GRINDER PUMP WIRE, DIAPHRAGM PRESSURE SWITCH WIRE, AND FLOAT SWITCH WIRE SHALL GO THROUGH THE "J" BOX ON THE FIBERGLASS COVER.
2. THE GRINDER PUMP WIRE SHALL NOT BE SPLICED INSIDE THE "J" BOX. IF THE WIRE LENGTH BETWEEN THE TANK AND THE CONTROL PANEL EXCEEDS THE STANDARD WIRE LENGTH AND IS APPROVED BY WWTa, ELECTRICIAN MUST SUPPLY FLOAT WIRE LONG ENOUGH TO PREVENT SPLICING.
3. DIAPHRAGM PRESSURE SWITCH HAS A 1/8" VENT TUBE WITH THE TWO CONTROL WIRES. THE DIAPHRAGM PRESSURE SWITCH VENT TUBE SHALL EXTEND TO THE TOP OF THE CONTROL PANEL.
4. LAY THE "J" BOX COVER ON THE GROUND ABOUT 1' FROM THE TANK TO ENSURE ENOUGH SLACK IS PROVIDED TO COMPLETELY REMOVE LID.
5. ALL CONNECTIONS FROM THE PUMP AND SWITCHES TO THE "J" BOX AND CONTROL PANEL SHALL COMPLY WITH HAMILTON COUNTY BUILDING INSPECTION, NEC, AND LOCAL CODES.
6. INSTALLATION REQUIRES ELECTRICAL PERMIT AND TAP-ON PERMIT.
7. FINAL INSPECTION TO BE PERFORMED BY WWTa (423-209-7842).
8. MUST RUN 4 CONDUCTOR CABLE FROM SERVICE PANEL TO DISCONNECT.
9. SEAL 2" ELECTRICAL HUB WITH 100% CLEAR SILICONE WITH NO SEALING AT CONDUIT ENDS.



# GRINDER PUMP ELECTRICAL INSTALLATION

HAMILTON COUNTY WATER & WASTEWATER TREATMENT AUTHORITY

SD-GP-3