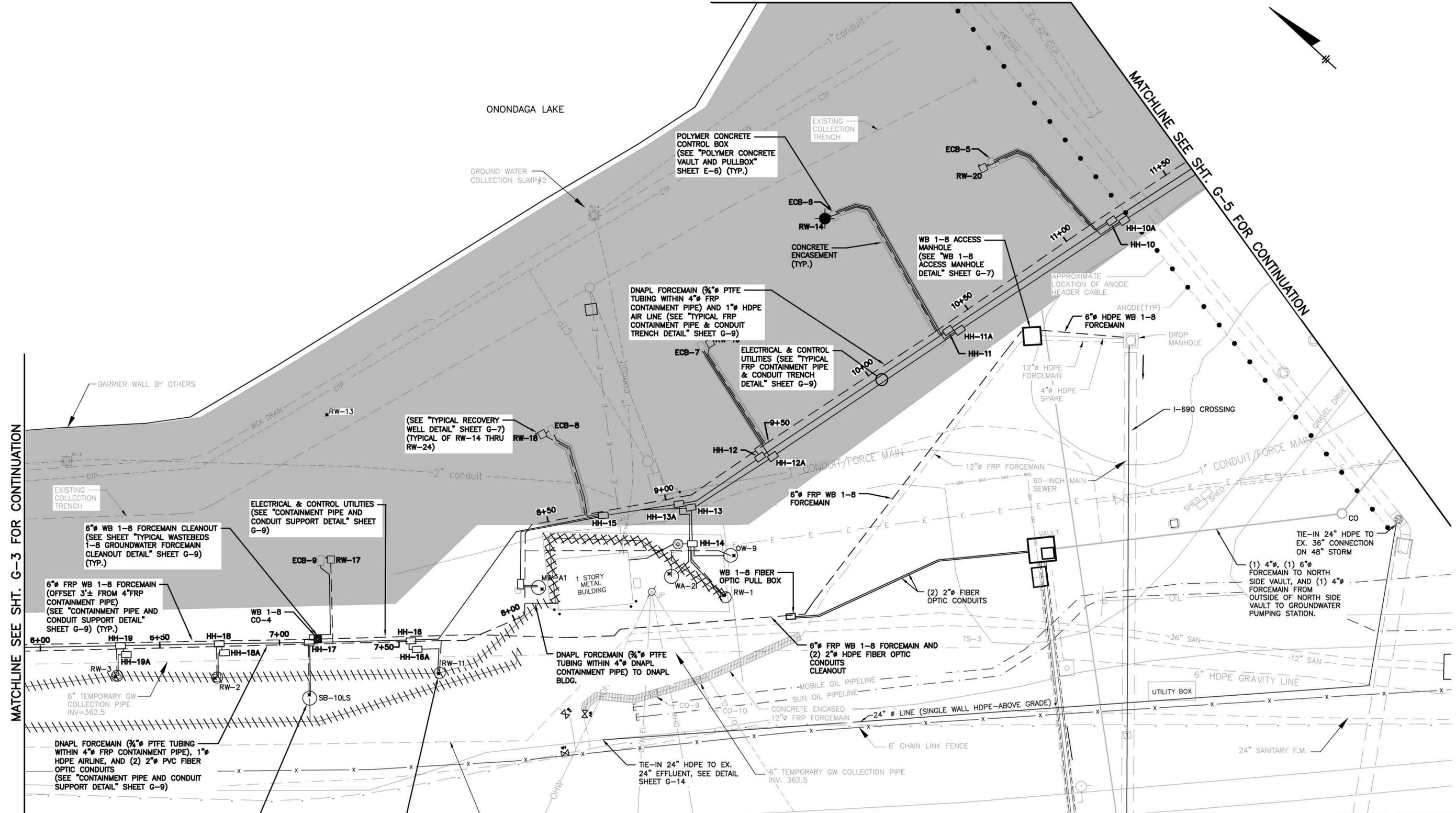


MATCHLINE SEE SHT. G-3 FOR CONTINUATION

MATCHLINE SEE SHT. G-5 FOR CONTINUATION



PLAN SCALE: 1"=20'

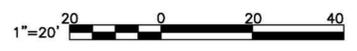
RECORD DRAWINGS
To the best of our knowledge, information and belief, based on information provided by others, these record drawings substantially represent the project as constructed.

O'BRIEN & GERE
By: ENGINEERS, INC.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER THIS DOCUMENT.

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

IN CHARGE OF BEW
DESIGNED BY EPS CHECKED BY BAK
DRAWN BY SED



NO.	DATE	REVISION	INIT.
4	06/19/2014	FINAL DRAWING	
3	12/14/2012	RECORD DRAWING	
2	06/07/2011	ISSUED FOR CONSTRUCTION	
1	03/17/2011	NYSDEC COMMENTS INCORPORATED	
0	02/09/2011	ISSUED FOR BID	



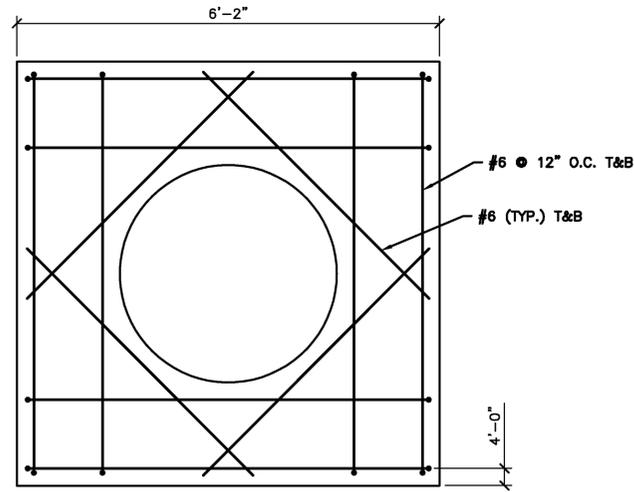
HONEYWELL INTERNATIONAL INC.
DNAPL PHASE 1 RECOVERY
SYSTEM MODIFICATIONS
WILLIS/SEMET
LAKESHORE IRM

GENERAL
PARTIAL SITE PLAN

FILE NO.
1163.43783-004
DATE
FEBRUARY 2011

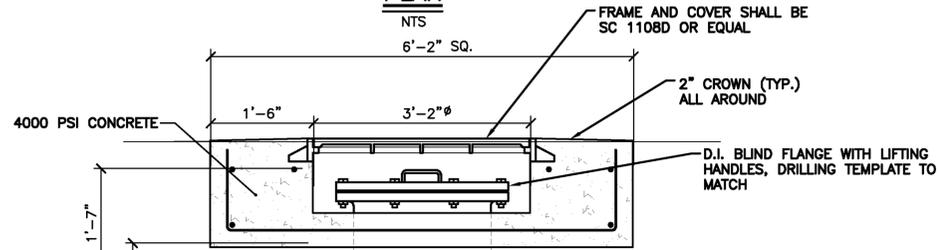
G-4





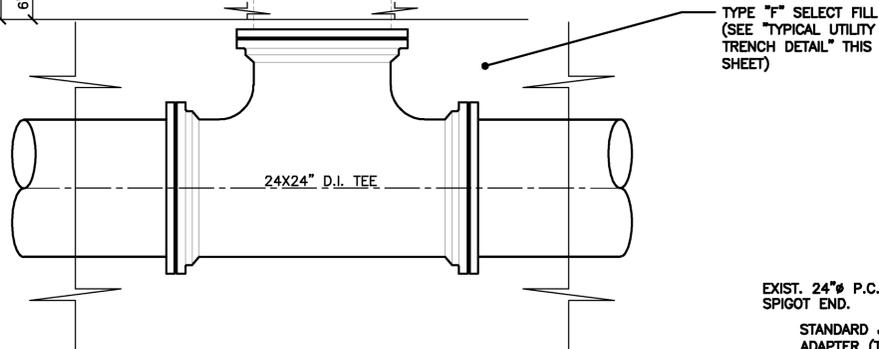
PLAN

NTS



TOP PAD DETAIL

NTS



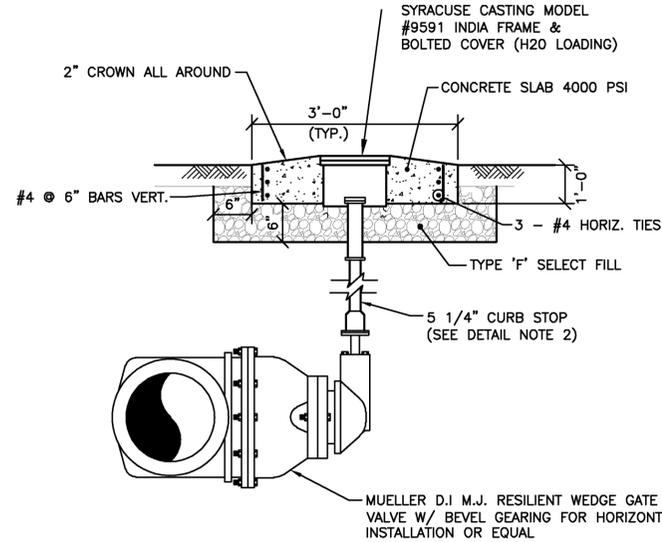
TYPICAL 30"/24" DUCTILE IRON PIPING REHABILITATION DETAIL

NOT TO SCALE

DETAIL NOTES:

- CONTRACTOR TO VERIFY ALL ELEVATIONS, DISTANCES ETC., PRIOR TO CONSTRUCTION.
- INSTALL MEGALUG SERIES 1100 AS MFG. BY EBBA IRON SALES, INC. OR EQUAL RETAINER GLANDS ON ALL M.J. PIPE FITTINGS AND VALVES WITHIN THE 40'-0" WORK AREA.
- SEE SHEETS G-4, G-5, AND G-6 FOR APPLICATION.

EXIST. 30"/24" P.C.C.P. BELL AND SPIGOT END.
STANDARD JOINT x M.J.S. ADAPTER (TYP. X 2)

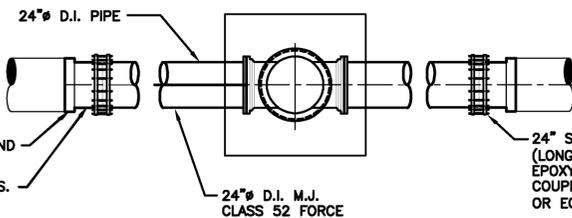


TYPICAL CURB STOP AND TOP PAD DETAIL

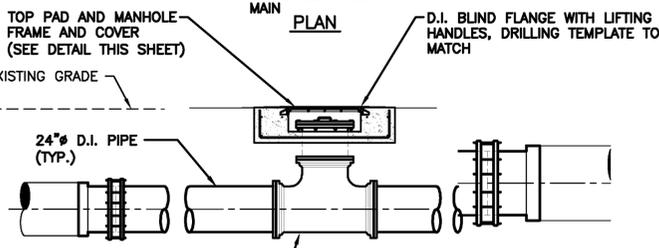
NOT TO SCALE

DETAIL NOTE:

- PROVIDE PADLOCK, MASTER LOCK CO. MODEL 1KA (KEY 2537). ALL LOCKS TO BE KEYED THE SAME. PROVIDE 2 EXTRA LOCK SETS TOTAL.
- A CURB STOP EXTENSION SHALL BE USED IF DEPTH OF BEVEL GEAR ON GATE VALVE IS GREATER THAN 8 FEET BELOW GRADE.



PLAN



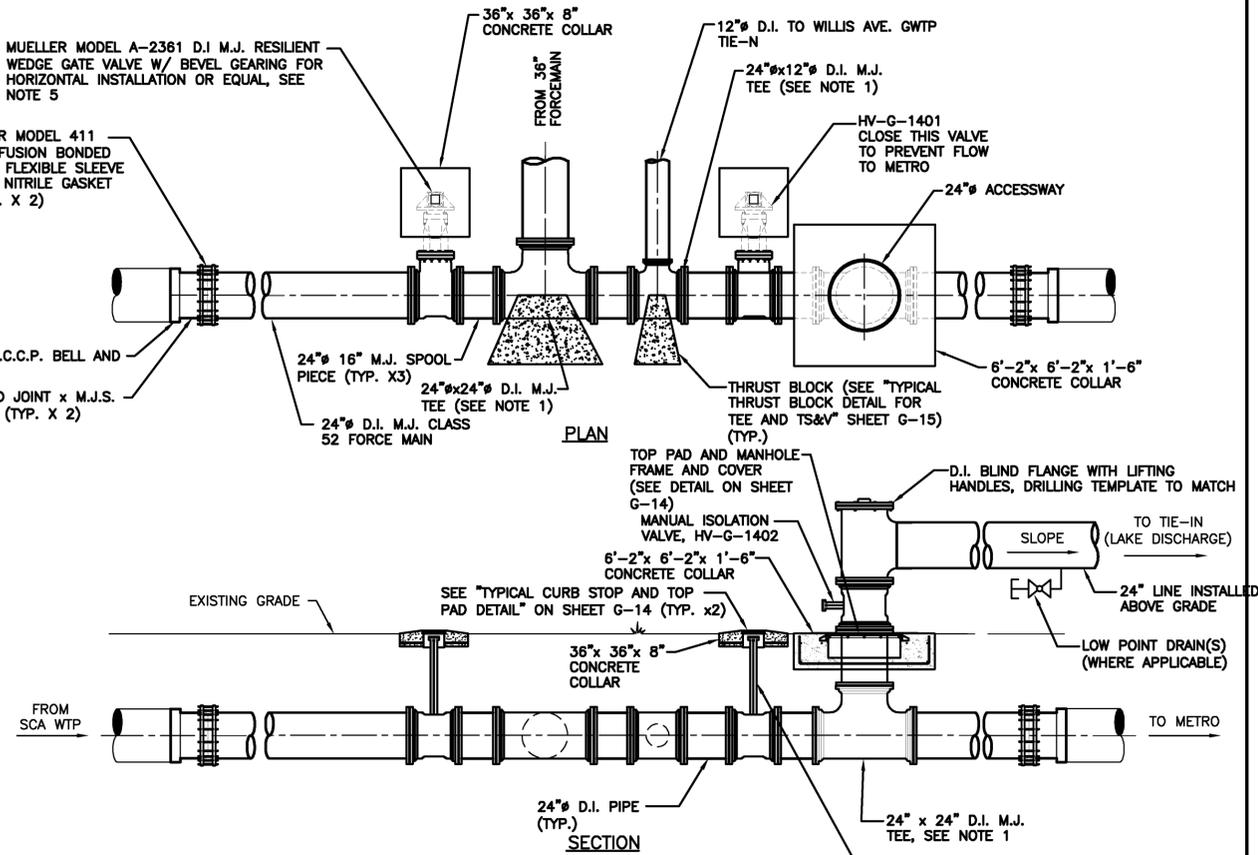
SECTION

TYPICAL DUCTILE IRON MANHOLE REPLACEMENT DETAIL

NOT TO SCALE

DETAIL NOTES:

- INSTALL MEGALUG SERIES 1100 AS MFG. BY EBBA IRON SALES, INC. OR EQUAL RETAINER GLANDS ON ALL M.J. ENDS WITHIN THE 40'-0" WORK AREA.
- CONTRACTOR TO VERIFY ALL ELEVATIONS, DISTANCES ETC., PRIOR TO CONSTRUCTION.
- SEE SHEETS G-9 AND G-10 FOR APPLICATION.



PLAN

SECTION

COUNTY FORCEMAIN AND WILLIS AVE. GWTP TIE-IN DETAIL

NOT TO SCALE

DETAIL NOTES:

- INSTALL MEGALUG SERIES 1100 AS MFG. BY EBBA IRON SALES, INC. OR EQUAL RETAINER GLANDS ON ALL M.J. PIPE FITTINGS AND VALVES WITHIN THE 40'-0" WORK AREA.
- CONTRACTOR TO VERIFY ALL ELEVATIONS, DISTANCES ETC., PRIOR TO CONSTRUCTION.
- EXISTING 24-INCH IS FULLY ENCASED IN A CONCRETE CRADLE. CONTRACTOR TO REMOVE CONCRETE CRADLE.
- SEE SHEET G-7 FOR APPLICATION.
- VALVE OPERATORS (CURB STOPS) SHALL BE LOCATED ON THE NORTHSIDE OF THE CHAINLINK FENCE SO THAT THEY CAN BE OPERATED WITHOUT HAVING TO ACCESS THE ROUTE 690 R.O.W.

EXIST. 30"/24" P.C.C.P. BELL AND SPIGOT END.
STANDARD JOINT x FLANGE ADAPTER (TYP. X 2)

DETAIL NOTES:

- INSTALL MEGALUG SERIES 1100 AS MFG. BY EBBA IRON SALES, INC. OR EQUAL RETAINER GLANDS ON ALL M.J. PIPE FITTINGS AND VALVES WITHIN THE 40'-0" WORK AREA.
- CONTRACTOR TO VERIFY ALL ELEVATIONS, DISTANCES ETC., PRIOR TO CONSTRUCTION.
- PIPE LENGTHS SHALL BE COORDINATED WITH THE STEEL BRIDGE FABRICATION SO THAT THE PIPE IS SUPPORTED ON BOTH SIDES OF THE PIPE JOINT.
- SEE SHEET G-8 FOR APPLICATION.

24" DUCTILE IRON HARBOR BROOK PIPING REHABILITATION DETAIL

NOT TO SCALE

RECORD DRAWINGS
To the best of our knowledge, information and belief, these record drawings substantially represent the project as constructed.

O'BRIEN & GERE ENGINEERS, INC.

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IN CHARGE OF	JRH
DESIGNED BY	NMK CHECKED BY MJD
DRAWN BY	SED

NOT TO SCALE

NO.	DATE	REVISION	INIT.
3	06/19/2014	FINAL DRAWING	
2	04/15/2013	RECORD DRAWING	
1	12/29/2011	ISSUED PER FIELD MODIFICATION #1	
0	11/01/2011	ISSUED FOR CONSTRUCTION	
C	09/02/2011	RE-ISSUED FOR NYSDEC REVIEW	
B	02/01/2011	ISSUED FOR NYSDEC REVIEW	
A	01/10/2011	ISSUED FOR CLIENT REVIEW	



HONEYWELL INTERNATIONAL INC.
ONONDAGA LAKE
30-INCH/24-INCH FORCEMAIN
REHABILITATION PHASE 1
SYRACUSE, NEW YORK

GENERAL
**REHABILITATION
DETAILS**

FILE NO.	1163.46358-014
DATE	NOVEMBER 2011

G-14

Attachment 3
NYSDEC Approval of
Supplemental Treatment
System and Lake Discharge

New York State Department of Environmental Conservation

Division of Environmental Remediation

Remedial Bureau D, 12th Floor

625 Broadway, Albany, New York 12233-7013

Phone: (518) 402-9676 • Fax: (518) 402-9020

Website: www.dec.ny.gov



Joe Martens
Commissioner

April 18, 2014

Mr. John P. McAuliffe, P.E.
Program Director, Syracuse
Honeywell International
301 Plainfield Road, Suite 330
Syracuse, NY 13212

Re: Onondaga Lake Bottom SCA Water Treatment Plant, Supplemental Treatment and Lake Discharge (No. 7-34-030)

Dear Mr. McAuliffe:

The New York State Department of Environmental Conservation (Department) has reviewed your letter dated April 17, 2014. This letter contains the sampling results from the supplemental treatment system for direct discharge to Onondaga Lake from the Sediment Containment Area Water Treatment Plant. The results meet the effluent limits contained within the approved January 2014 SCA Water Treatment Plant Supplemental Treatment and Discharge Design Work Plan (Work Plan). The direct discharge from the supplemental treatment system to Onondaga Lake during METRO shutdowns per the Work Plan is hereby approved.

The Department looks forward to the submittal and review of the draft construction completion report for the supplemental treatment system. This construction completion report is due to the Department by June 16, 2014. If you have questions regarding this letter, please feel free to call me at 518-426-9676.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard A. Mustico', with a long horizontal flourish extending to the right.

Richard A. Mustico, P.E.
Project Manager
Remedial Bureau D
Division of Environmental Remediation

cc: Tim Larson – NYSDEC
Bob Edwards - NYSDEC
Brian Baker - NYSDEC
Catherine Hardison - NYSDEC
Margaret Sheen, Esq. - NYSDEC, Syracuse
Mary Jane Peachey - NYSDEC, Syracuse
Harry Warner – NYSDEC, Syracuse
Joe Zalewski – NYSDEC, Syracuse
Tara Blum - NYSDEC, Syracuse
Sandra Lizlovs - NYSDEC, Syracuse
Maureen Schuck - NYSDOH
Mark Sergott – NYSDOH
Bob Nunes – USEPA, NYC
Argie Cirillo, Esq. – USEPA, NYC
Joseph Heath, Esq.
Jeanne Shenandoah – Onondaga Nation
Thane Joyal, Esq.
Curtis Waterman – HETF
Alrna Lowry, Esq.
William Hague - Honeywell
Larry Somer - Honeywell
Brian Israel, Esq. - Arnold & Porter
Bob Rule - DeMaximis
Chris Calkins - O'Brien & Gere
Paul Schultz - O'Brien & Gere
Brian White - O'Brien & Gere
Tom Conklin – O'Brien & Gere
Mark Byrne – O'Brien & Gere

Attachment 4
SCA WTP STS Standard
Operating Procedures
(SOPs)

RESPONSE TO WET WEATHER OPERATIONS & METRO REQUEST FOR SHUTDOWN

1.0 INTRODUCTION

1.1 DESCRIPTION OF SCA TREATMENT PLANT

The Sediment Consolidation Area (SCA) Water Treatment Plant (WTP) is located at 522 Gere Lock Rd., Syracuse, NY 13209. The SCA WTP is designed to remove solids, metals, and volatile organics from the water accumulated while dredging Onondaga Lake. The dredged material is processed through thickeners and then stored in geo-tubes located in the Sediment Processing Area (SPA). The thickeners and geo-tubes are designed to remove the bulk of the solids and act as primary treatment. The water from the thickeners and geo-tubes is treated by the WTP. The WTP normally discharges treated effluent to the Metropolitan Syracuse Wastewater Treatment Facility (Metro) for supplemental treatment prior to discharge to Onondaga Lake.

2.0 WET WEATHER OPERATIONS

2.1 SCENARIOS & ACTIONS TO BE TAKEN

Rain events, snow thaws and Metro maintenance activities will require various actions by the SCA WTP operator. When requested by Metro operations to secure discharge due to a rain event, it will require the following immediate actions.

- 2.1.1 Make entry into the control room log indicating the following: time of request, reason for request, and requestor's name. Request estimated duration of event.
- 2.1.2 Notify Project Manager/Lead Operator of request, and discuss water management strategies.

3.0 DISCHARGE TO WEST BASIN

3.1 DISCHARGE TO WEST BASIN

- 3.1.1 SPA Operator requests WTP to direct pretreated effluent to the West Basin.
- 3.1.2 WTP Operator confirms West Basin level has sufficient capacity to accept flows <135".
- 3.1.3 WTP Operators establish flow path to West Basin.
 - 3.1.3.1 WTP Technician Opens manual valve to fill West Basin at West Basin Transfer Pump.
 - 3.1.3.2 WTP Technician Closes manual valve at discharge of West Basin Transfer Pump.
 - 3.1.3.3 WTP Technician Closes/verify closed HV-3176 & HV-3113 manual valve on effluent reject line to East Basin.
 - 3.1.3.4 WTP Technician Opens manual valve HV-3117 in WTP to direct flows to the West Basin.
- 3.1.4 WTP Operator Closes HV-3138 block valve to Metro.
- 3.1.5 WTP Operator monitors level in West Basin and communicates to the SPA operator the best estimate of volume available.
- 3.1.6 WTP Operator verifies the effluent Tank PH via AIC 30011 is < 8.7. Adjust PH down as necessary via acid injection system.
- 3.1.7 SPA/SCA Operators Monitor level in the East & West Basins. They will coordinate with OMI Project Management to determine proper water balance strategy. Factors will include forecast, WTP status, dredge solids, Metro CSO pump down schedule, etc.

**At no time may the East Basin exceed 105" or the West Basin exceeds 134".
Exceeding these levels will not allow 12" of freeboard.**

4.0 DISCHARGE THROUGH STS (SUPPLEMENTAL TREATMENT SYSTEM) TO LAKE

STS SYSTEM STEPS

- 4.1 Contact WTP Chief Operator and Project Manager of intentions to direct discharge.
- 4.2 Notify Charles Sharpe, O'Brien & Gere Senior Project Engineer – (315) 263-8827 cell (315) 956-6100 work. Determine if compliance sample of effluent must be taken.
- 4.3 **Contact Willis Ave Ground Water Treatment Plant (GWTP) & Request and/or Verify The Following : (See Contact/Call Out List at the end of this document- Required notice is 1 Hour for verification of shutdown for GWTP & Honeywell Pump Station).**
- 4.4 Verify Honeywell Pump Station is down, pump breakers open and discharge BV closed. This is a chain Valve and is located on the lower floor of the station and is painted yellow.
- 4.5 Verify GWTP is off line or configured for direct lake discharge.
 - 4.5.1 Contact Metro Principal Operator on duty and request Metro Valve #1 - Harbor Brook Interceptor Sewer (HBIS) & Metro Valve #2 - West Side Force Main (WSFM) be closed by Metro personnel. It may take Metro personal up to two hours to perform and verify valves are closed.

*Inform them that the GWTP, Honeywell Pump Station and SCA WTP HV-3138 BV to Metro are closed and no flow is in the Outfall #15 force main.
- 4.6 In SCA WTP verify STS Inlet BV HV –3181 is in the closed position.
- 4.7 Once confirmation is received from Willis Ave & Metro perform the following:
 - 4.7.1 Close and place control lock on SCA WTP HV-3140.
- 4.8 Go to the Honeywell Pump Station & perform the following:
 - 4.8.1 Verify the two control switches below the VFD's are in the off position.
 - 4.8.2 Verify "Main Disconnect" on panel 1 is open. Place control lock on breaker.
 - 4.8.3 Verify pump discharge is closed. Place control lock on valve.
- 4.9 Go to the Onondaga County Metro Facility Gate. Ring Control Room via intercom & request permission to enter facility.
- 4.10 Proceed to the East & West SCA WTP to Metro Isolation Valves. These valves are on the west side of the property along the fence. Verify valves are in the closed position and place a control lock on Metro Valve #1 - Harbor Brook Interceptor Sewer (HBIS) & Metro Valve #2 - West Side Force Main (WSFM).
- 4.11 Go to the lakefront and locate the Outfall #15 sample port flange. Verify flange is closed, secure and all bolts are in place. Place a control lock and cable on flange to prevent it from being opened during discharge. **Opening out fall sample flange during discharge may cause serious injury due to pressure and flow.**
- 4.12 At the lakefront locate SCA WTP Direct Discharge Isolation Valve STS BV HV-6-1402.
- 4.13 Contact the WTP lead operator and request permission to open STS BV HV-6-1402 (lake discharge) utilizing drill motor. It is about 320 – 330 turns to reposition valve.
- 4.14 Place control lock on STS BV HV-6-1402 when fully open and return to the SCA WTP.
- 4.15 Contact Willis Ave and verify they are prepared to direct discharge. Use contact list at the end of this document.
- 4.16 Verify the following on the STS System:
 - 4.16.1 The inlet and outlet valves are open to the STS vessels located on each of the tank manifolds.

- 4.16.2 The 4 manual discharge BV's are closed.
- 4.16.3 Obtain and record effluent meter readings in WTP STS Discharge Form (attached) and control room log.
- 4.16.4 With permission from the WTP lead operator open the STS Inlet BV HV 3181 very slowly to pressurize STS system. Walk down system for leaks.
- 4.16.5 Slowly, and one at a time, open the 4 STS discharge BV's to establish flow to Outfall #15.
- 4.16.6 Notify SPA operator that the west basin BV HV 3177 is going to be closed to secure flow to west basin.

5.0 SECURING STS SYSTEM & RESTORING FLOW TO METRO

When permission is granted through Metro ETS personnel restoration of normal or partial flow to Metro shall be restored. Perform the following steps in the below order.

- 5.1 If west basin will allow additional capacity < 130" perform the following:
 - 5.1.1 Notify SPA operator of intent to discharge to West Basin.
 - 5.1.2 Notify Metro Principal Operator that we are dispatching an operator to their site to remove locks.
 - 5.1.3 Obtain and record effluent meter readings in STS Discharge Form (attached) & WTP logbook.
 - 5.1.4 Slowly open west basin BV HV 3177 in SCA WTP to establish flow to west basin.
 - 5.1.5 Slowly close the 4 manual STS discharge BV's.
 - 5.1.6 Slowly close STS Inlet BV HV 3181.
 - 5.1.7 At lakeshore remove control lock and close STS BV HV-6-1402 (lake discharge) utilizing drill motor.
 - 5.1.8 Remove control lock from outfall #15B sample port flange.
 - 5.1.9 Go to the Onondaga County Metro Facility Gate. Ring Control Room via intercom & request permission to enter facility.
 - 5.1.10 Proceed to Metro and remove both control locks Metro Valve #1 – Harborbrook Interceptor (HBIS) & Metro Valve #2 – West Side Force Main (WSFM).
 - 5.1.11 Notify Metro Principal Operator that locks are removed and request Metro Valve #1 – Harborbrook Interceptor (HBIS) & Metro Valve #2 – West Side Force Main (WSFM) be returned to normal by **METRO PERSONNEL**. Verify prior to leaving on LED position on readout on end of valve operator. One will indicate 100% open & the other 100% closed.
 - 5.1.12 Go to the Honeywell Pump Station & perform the following
 - 5.1.12.1 Remove control locks from "Main Disconnect" on panel 1 and pump discharge Block Valve.
 - 5.1.12.2 Notify Willis Ave GWTP via contact list at the end of this document that the control locks have been removed.
 - 5.1.13 Return to SCA WTP and open BV HV-3140.
 - 5.1.13.1 Open BV HV-3138 To Metro.
 - 5.1.13.2 Close BV HV-3177 to West Basin.

5.1.14 Notify Metro Principal Operator we are realigned to discharge to them, and obtain permission to restore flow.

Note: Depending on plant configuration (west basin, recycle, or shutdown) establish flow to Metro at approved flow rate.

*The intent is to maintain dredge operations during the switching to and from the STS system. However climate conditions and water inventory may result in terminating dredge operations.

6.0 CONTACT / CALL OUT LIST

HONEYWELL SCA WTP CALL LIST		
Control Room	315-487-2495 or 315-487-2547 (staffed 24/7)	
Mark Byrne	315-842-7024	
John Saraceni	315-706-1571	
Charles Sharpe	315-263-8827 cell or 315-956-6100 work	
SHUTDOWN CALL LIST FOR CAMILLUS AND SEMET WILLIS GWTP (CALL IN THIS ORDER)		
Name	Home	Mobile
1) GWTP Office		315-468-1663
2) John Formoza	315-638-6234	315-532-5608
3) Mike Stout	315-469-1504	315-558-4018
4) Wisam Aljoher		315-558-8328
5) Patrick Higgins		315-212-0570
6) James Haas		315-530-2342
7) Jeff Syrmanske		315-209-3487
METRO CONTACT LIST FOR PERMISSION TO DISCHARGE (CALL ON-DUTY PERSON)		
1) David Colbert	315-435-2260	
2) Tim O'Dell	315-391-4115	
3) Steve Bray	315-263-4972	
METRO CONTACT LIST FOR REQUESTING VALVE REPOSITIONING		
Control Room	315-435-3142	

Project Name:	Honeywell SCA WTP	Date of Shutdown Request:
Project Number:	51453	Time of Request:
		Name of Metro Employee Requesting Shutdown:
Dredging (Yes or No)		OBG Lead WTP Operator:
Process Sampling		Metro Restoration
Initial PH Grab (<9)		Name of Metro Employee
Ammonia Grab		Date & Time
Lab Technician		Call Received By

Initial Water Inventory

West Basin: _____”

East Basin: _____”

West Sump: _____”

East Sump: _____”

Initial Effluent Meter Reading: _____

Date Taken: _____

Time Taken: _____

Taken By: _____

Midnight Effluent Meter Reading: _____

Date Taken: _____

Time Taken: _____

Taken By: _____

Final Effluent Meter Reading: _____

Date Taken: _____

Time Taken: _____

Taken By: _____

(If event lasts longer than 1 day record midnight reading each night)

Comments:
