City of Phoenix
Office of the City Engineer
Design and Construction Procurement

Digitally Signed 08/23/2023

PROJECT NO. WS90400084
LIFT STATION 66 REFURBISHMENT

ADDENDUM NO. 3

ISSUE DATE: Wednesday, August 23rd, 2023

Bidders are hereby notified that the Bidding and Contract Documents for the above referenced project for which Bids are to be received on **Tuesday, August 29, 2023,** are amended as follows:

Information to Bidders – The following is provided to Bidders for information only (Refer to Drawings, Specifications, and Addenda for construction instructions):

Q1.	Specification 01330 – Submittals section 01330.1.3.A requires all submittals within 14 calendar days after the Notice to Proceed: Submit the following items within 30 calendar days after the Notice to Proceed." Please clarify the intent of specification regarding Submittal Process.
A1.	Submittals will be required 30 calendar days instead of 14 days after the Notice to Proceed. Refer to additions and deletions below for Item 1: Section 01330-1 – Submittals, PART 1 – GENERAL, 1.3 PROCEDURE A & B.
Q2.	Provide verification that the Ductile Iron piping for the Lift Station is to be Class 55 for both above ground and buried. This is an extremely thick piping system. Section 15101 is referenced, and Part 2.1 B. speaks to either Class 53, the norm, or Class 350 which is a bit thinner wall. .47 to .43 wall thickness.
A2.	Ductile Iron piping for the Lift Station is to be Class 53 for both above ground and buried piping.
Q3.	Regarding the pole fixtures, drawing E-14 Keynote 3 states "Contractor is to use existing conduit, wire and hardware". The Fixture Schedule for type "A" however appears to imply a new 12.5' tall pole and 2.5' tall pole base. Is a new pole and/or pole base to be provided? (a.) If a new pole is required but the existing pole base reused, please provide as-built cut-sheets of the existing fixture anchor bolt template so that the anchor bolt layout of the new poles can match the existing layout. (b.) If new bases are required, should the requirement be changed to replace the existing wire?
A3.	(a.) For the existing poles and bases, use existing poles and bases. (b) For new poles and bases, furnish and install new poles, bases, conduits, conductors, etc.
Q4.	Drawing E-15 identifies the Main Distribution Panel PDP-MDP-NG to be by SQ D, please provide the Model # for this unit.
A4.	The 480V draw out switchgear is equipped with Square D Masterpact, NW type circuit breakers.

Q5.	The (3) 800A fused disconnects shown on drawing E-15 are labeled as “MCP”s, which are typically required by Section 17260 to be furnished by a UL 508 shop. However, as no motor controls (i.e.: starters, VFDs, or controls) appear within these units, they are assumed to be regular disconnect switches to be furnished per Section 16143. Please advise if this is not correct.
A5.	There are four (4) fused disconnect switches that are equipped and rated for splicing the branch circuit conductors to the pumps’ submersible cables. The Label is an identification label. MCP-101, -102, -103, and -104 are fused disconnect switches that are equipped and rated for splicing the branch circuit conductors to the pumps’ submersible cables. These fused disconnect switches generally fall under Specification Section 16143 but with additional equipping and rating for splicing as indicated above and in the Contract Document.
Q6.	Per section 01610-1.3 the pre-purchased equipment is to include the testing of the equipment. As such, it is understood that the pre-purchased VFDs will include the harmonic studies and testing as required by the VFD specification Section 16425-2.1.C. Please advise if this is not correct.
A6.	Harmonic testing will not be required as it was reviewed during the VFD submittal process. Coordination with the City’s 3rd Party EI&C inspector Arcadis will be coordinated as well for this equipment.
Q7.	Does the Owner require a specific testing agency to perform the Section 16061 testing of the ground system?
A7.	Ground resistance testing shall be performed by the City's E,I&C Inspection Firm (Arcadis.) Contractor to coordinate with this effort. All power and control wiring megger testing shall be by contractor. All loop tests, startup and calibration of associated instruments shall be performed by contractor.
Q8.	Power System / Arc Flash Analysis Section 16215 states for the Contractor to contract with the City’s E,I&C inspection firm (Arcadis). Please provide the contact information for this firm.
A8.	The Power System / Arc Flash Analysis shall be performed by the City's E,I&C Inspection Firm (Arcadis.) Contractor to coordinate with this effort.
Q9.	Drawing E-17 General Note 3 states to provide 100’ of circuitry for loads which do not have “designated conduits and conductors”. As this is an existing plant with existing circuits identified, confirmation of “designated conduits and conductors” is not possible at the time of bid. This should be converted to a known allowance amount and consolidated with all other allowances and contingencies.
A9.	All known loads do have circuit(s) assigned to them. This work is meant for unknown and undocumented loads only. Items that arise during construction associated with this concern will be considered for reimbursement in "Line Item 47: Allowance for All Other Work Not Previously Listed."
Q10.	Drawing E-17 General Note 4 states to provide 100’ of 1”C with 3 #12 conductors for each breaker labeled as spare. Notes like this do not work properly and are not reasonable. There are an unlimited number of variables so no one knows what the value of this is. This should be converted to a known allowance amount and consolidated with all other allowances and contingencies.
A10.	Per note 4 on sheet E17 include in the bid 100 feet of circuitry (2-#12, #12G, 1”C) for each circuit indicated as spare. The panel schedules for panel LP-A, LP-UPS, LP-UPS-2 & PP-A

	on the same sheet (E17) indicate which circuits are labeled as spare. Items that arise during construction associated with this concern will be considered for reimbursement in "Line Item 47: Allowance for All Other Work Not Previously Listed."
Q11.	Section 01143 – 1.0 (Lift Station 66): In lieu of the 8-phase shut down listed here, can we do a long term shut down instead? This would include a plan for long term bypass. All demos would be done during this time and plant would be rebuilt.
A11.	Yes. Bypass operations shall be up to contractor's means and method in order to ensure ongoing and proper bypass operations.
Q12.	Drawing page 52/80 – Note 4 is missing. See attached. Pipe penetration detail 5 on page 75 does not show that note either. Need information on how to seal the pipe in the sleeve.
A12.	Refer to PIPE PENETRATION NOTES at top left of page 52/80. Note 4 states "EDGE OF OPENING SHALL BY TAPERED TO SLOPE OUTWARD AT TOP OF OPENING . SLOPE APPROX 1" PER 12" VERT/HORIZ."
Q13.	Drawing page 39/80 – Note 5, where do these DCCN lines connect? How many lines are connecting? Drawing shows 3 but note 5 says 'line.' Please provide detail. See attached.
A13.	Three (3) lines are currently connected. The existing DCCN lines connect as follows: • One (1) line connects to the SS Manhole just north of the wet well area. • One (1) line runs North outside of the station and connects to a Diversion box. • One (1) line connects to the existing force main. Refer to attached as-built drawings for further clarification.
Q14.	Drawing 58/80 – At the top the DCCN lines are shown but it only shows 1 line. It also says to see continuation on drawings 36 and 49. No detail shown on 36. There is no continuation on 49. Please provide more detail. See attached.
A14.	Contractor shall reuse the existing line that runs to the current header and connect to the proposed header system shown on Sheet 39.
Q15.	Specification 02145 3.1.B – page 234– Is there a rain flow we should consider (historical data) when designing the bypass?
A15.	Refer to https://www.maricopa.gov/625/Rainfall-Data for historical data. Bypass design shall be the responsibility of the contractor.
Q16.	Specification 02145 3.2.E.2 – "Add ferric chloride to the wastewater flow upstream of bypass pumping operations to reduce odor. Make determination of flow characteristic for required dosing." Is there a facility (ie Lift Station) that feeds this lift station, where this equipment could be installed instead of in a manhole?
A16.	This section shall be removed.
Q17.	Are there any historical liquid sulfide levels on the 36" influent coming into the lift station?
A17.	Historical liquid sulfide levels for this area are not available.

Q18.	Will you plan to continue using Bioxide during the construction period?
A18.	There is no active Bioxide being used at this lift station.
Q19.	There is a discrepancy regarding the instrumentation for the Biofilter Odor Control system. a. Section 13126-1.1.A.2.e specifies the odor control system to include gauges and instrumentation. P&ID drawing I-12 Keyed Note 1 however, states for the contractor to furnish the pressure gauges and differential pressure switch. Are these instruments furnished as a part of the Biofilter "package system" or separately? b. P&ID drawing I-12 Keyed Note 1 and Electrical drawing E-13 refer to a differential pressure switch (DPS-1200A). No differential pressure switch, however, is shown on P&ID drawing I-12 nor is one shown on the E-21 conduit block diagram for the Biofilter system. Is a differential pressure switch (DPS-1200A) required?
A19.	a. All instruments required for the Biofilter system shall be provided by the Biofilter system's packaged vendor in accordance with Specification 13126. Specification 13126 refers to Division 17 Specifications. If there are instruments that are not indicated on the P&IDs but are necessary for the complete and effective operation of the Biofilter system, then these instruments shall be provided by the Biofilter system's packaged vendor in accordance with Specification 13126. Specification 13126 refers to Division 17 Specifications. b. Regardless of what is not indicated on the P&ID Drawings, if there are instruments that are not indicated on the P&IDs but are necessary for the complete and effective operation of the Biofilter system, then these instruments shall be provided by the Biofilter system's packaged vendor in accordance with Specification 13126. Specification 13126 refers to Division 17 Specifications.
Q20.	In review of the documentation in Attachment C for the Owner supplied VFDs, there is some concern regarding what is being supplied. Are drives with services in complete compliance with Section 16425 being supplied? Or are "bare" drives being supplied? a. Section 01110-1.5.A.3 and Bid Item description 01271-1.4.AQ appears to only specify the Contractor to be responsible for coordination with the vendor, installation of the VFDs at the site, and assistance with the vendor for start-up and testing. There is no mention of any requirements for the Contractor to "build-up" or modify the VFDs from what is received. b. Documentation in Attachment C however contains statements such as "FAT testing will be completed by Installation Contractor at Local Control Panel shop approved by the City of Phoenix", "It is understood that the control section will not be completed until a later date…", a noted deviation to 16425-2.4.B (referring to installation of the Flygt MAS 801), and schematic drawings that do not appear to include all the necessary items identified on Electrical drawing E-18. c. If the pre-purchased VFDs are not being supplied in complete compliance with Section 16425, including all specified services, provide specific instruction and clarification on what work scope is to be included and provided by the Contractor.

A20.	a. The VFDs are being supplied with the whole enclosure. The new enclosure is replacing the existing enclosure. There is no "build-up" of the VFD enclosure. See comments below. b. Item No.1 Control Section: The Contractor for this project will be responsible for FAT testing of the separately-arriving Control Section, and for installing and connecting the Control Sections to the VFDs. Item No.2 Flygt MAS 801: The Contractor for this project will be responsible for installing the Flygt MAS 801 on the Control Sections of the VFDs. c. Contractor for this project is responsible for installation of the VFDs and their control sections (as a system) and as not included in the Attachment C by the purchasing contractor.

Project Specifications and Contract Documents:

Item 1: Section 01330-1 – Submittals, PART 1 – GENERAL, 1.3 PROCEDURE A & B

DELETE: Submittals within 14 calendar days after the Notice to Proceed: Submit the following items within 30 calendar days after the Notice to Proceed.

ADD: Submit the following items within 14 calendar days after the Notice to Proceed.

DELETE: Submittals within 30 calendar days after the Notice to Proceed: Submit the following items within 30 calendar days after the Notice to Proceed.

ADD: Submit the following items within 30 calendar days after the Notice to Proceed.

Technical Specifications:

Item 2: Section 15050-40 Piping Systems, PART 3 – EXECUTION, 3.27 SYSTEM - 13

DELETE: Exposed Pipe/Valves:
All Sizes: Class 55 Epoxy lined interior, Refer to Section 15101, Ductile Iron Pipe.

ADD: Exposed Pipe/Valves:
All Sizes: Class 53 Epoxy line interior, Refer to Section 15101, Ductile Iron Pipe.

Item 16: Section 02145-6 DIVERSION OF WATER OR SEWAGE FLOW AND DEWATERING, 3.2 PROTECTION, E Odor Control, 2.

DELETE:

2. Add ferric chloride to the wastewater flow upstream of bypass pumping operations to reduce odor. Make determination of flow characteristic for required dosing.

   a. Add the ferric chloride from a location upstream that will allow 10 to 15 minutes reaction time before the flow enters the work area. The chemical dosing shall reduce odors generated from the wastewater stream to a level acceptable to the City. If this is not accomplished by adding the ferric chloride only, an additional control may be required. Add hydrogen peroxide downstream to the flow that has been dosed with ferric chloride. The Hydrogen peroxide shall be added to allow a 5 – minute reaction time before the flow enters the work area. Any dosage combination of the two chemicals may be used to ensure continuous control of odors acceptable to the City.

Plan Sheets:

Items 13 and 14 regarding DCCN locations and connections:

ADD:

Drawing C-4, As-Built, “12” WATER LINE RESIDUALS PUMP STATION YARD PUMPING 1” Dated 11/05.

Drawing M-6, As-Built, “PUMP STATION ODOR CONTROL FACILITY PLANS“ Dated 11/05.

Drawing M-9, As-Built, “PUMP STATION ODOR CONTROL FACILITY DETAILS“ Dated 11/05.

Patty Kennedy, P.E.
Deputy Water Services Director
Wastewater Engineering

END OF ADDENDUM NO. 3

SECTION 01330

SUBMITTALS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Submittal of documents described in the General Conditions, Supplementary Conditions and hereinafter are required prior to, during and at the end of the construction period. The submittals shall conform to the requirements described in this Section and all referenced Sections or Articles.

1.2 GENERAL SUBMITTAL REQUIREMENTS

A. A submittal shall be made for each complete system. Piecemeal submittals will not be accepted.
B. Submittals requiring ENGINEER review only will be processed within 15 calendar days after receipt from the CONTRACTOR. Complicated submittals such as submersible pumps, biofilter odor control systems, motor control centers, and control systems will be processed within 30 calendar days after receipt from the CONTRACTOR. Submittals requiring ENGINEER and OWNER review will be processed within 30 calendar days after receipt from the CONTRACTOR.
C. CONTRACTOR shall maintain a file of all approved submittal documents at the work site.
D. CONTRACTOR shall show his executed internal review and approval marking. Submittals which are received from sources other than through CONTRACTOR'S Office or which have not undergone CONTRACTOR review will be returned "Rejected".

1.3 PROCEDURE

A. Submit the following items within 14 calendar days after the Notice to Proceed. Location of information concerning each submittal is referenced and a copy of each required form is included in Section 01331, Reference Forms.
   1. Preliminary Schedule of Values: Prepare and submit in accordance with Section 01291, Schedule of Values.
   2. Preliminary Schedule of Shop Drawings and Sample Submittal in accordance with the General Conditions and Section 01332, Shop Drawing Procedures.
   3. Preliminary Progress Schedule: Prepare and submit in accordance with Section 01321 - Progress Schedule CPM.

B. Submit the following items within 30 calendar days after the Notice to Proceed.

3.27 SYSTEM - 13

Piping Symbol/Service:	RW	Raw Wastewater
	FM	Forcemain
	SS	Sanitary Sewer

Test Requirements:	Medium:	Wastewater: Refer to Paragraph 3.5.C., above.	
	Pressure:	350 psig.	
	Duration:	120 minutes.	
Gasket Requirements:	Flange:	Refer to Section 15101, Ductile Iron Pipe.	
	Push-on/Mech Cpl:	Ductile Iron: Refer to Section 15101, Ductile Iron Pipe.	
Exposed Pipe/Valves:			
All sizes	Pipe:	Ductile Iron:	Class 53, epoxy lined interior, Refer to Section 15101, Ductile Iron Pipe.
		Conn:	Flanged.
		Ftgs:	Refer to Section 15101, Ductile Iron Pipe: Coating, lining and ends to match pipe.
All sizes	Valves:	N/A.	
Buried and Encased Pipe/Valves:			
48-inches and smaller	Pipe:	Ductile Iron:	Same as exposed. Refer to Section 15101, Ductile Iron Pipe.
		Conn:	Mechanical joint.
		Ftgs:	Refer to Section 15101, Ductile Iron Pipe: Coating, lining and ends to match pipe.
48-inches and smaller	Valves:	N/A.	

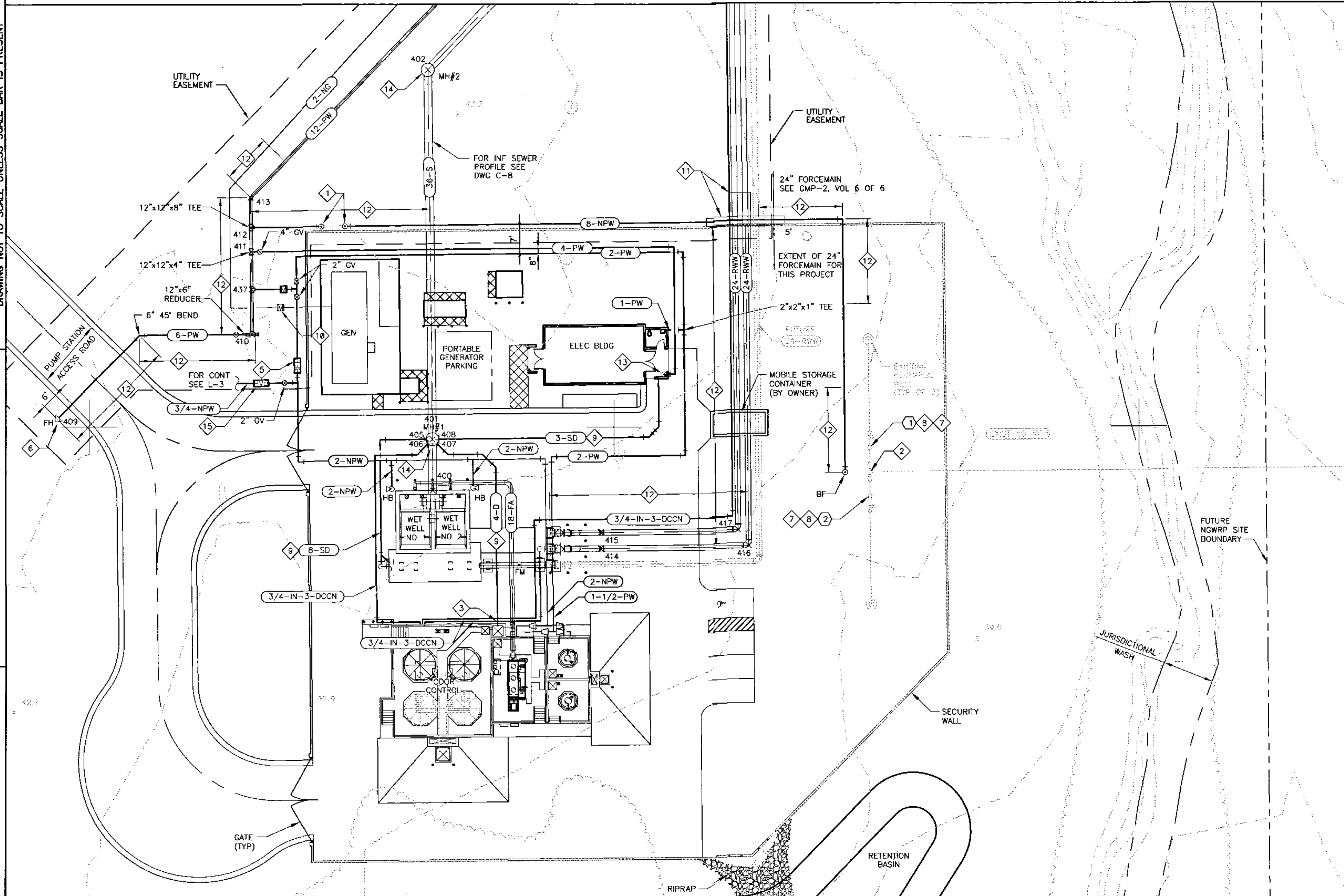
Remarks:
1. Refer to Drawings for pipe size and valve type. Omit coating on encased pipe.
2. Manual air vents shall be provided at the high points and drains provided at the low points of each reach of pipeline as specified in Paragraph 3.7.A.1.a., above.

3.3 DAMAGES

A. Repairs for any damage that may result from negligence, inadequate or improper installation, maintenance, insufficient and operation of bypass system, including mechanical or electrical failures are the responsibility of the CONTRACTOR.

+ + END OF SECTION + +

MATCHLINE – SEE DWG C-5



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POINT TABLE

NUM	NORTH	EAST	ELEV	DESCRIPTION
400	1002576.03	639730.86	1519.96	36" INV
401	1002596.48	639730.82	1542.32	RIM SEWER MH # 1
402	1002734.74	639729.10	1542.73	RIM SEWER MH #2
405	1002595.35	639728.24	1536.67	8" SD INV
406	1002593.59	639728.99	1539.26	3"x3/4" DCCN INV
407	1002593.63	639732.52	1531.55	4" D INV
408	1002595.41	639733.24	1538.00	3" D INV
409	1002602.91	639587.80	0.00	FH
410	1002635.13	639661.90	0.00	12" TEE
411	1002666.34	639661.56	0.00	12"x12"x4" TEE
412	1002675.51	639661.46	0.00	12"x12"x8" TEE
413	1002686.90	639661.33	0.00	12" 45 DEG BEND
414	1002554.15	639794.88	1532.45	24" 45 DEG BEND
415	1002560.15	639794.81	1532.45	24" 45 DEG BEND
416	1002554.78	639851.44	1532.32	24" 90 DEG BEND
417	1002560.74	639847.37	1532.32	24" 90 DEG BEND
437	1002652.05	639661.72	0.00	12" T

ELEVATIONS OF 0.00 INDICATE MINIMUM COVER OR DO NOT APPLY

KEY NOTES

1. BF. GRADE SO THAT 3" EXPOSED.
2. ADD FLEXIBLE COUPLING. ROTATE EXIST (6-RCH) TEE AND CONNECT TO NEW (8-NPW)
3. 4" VENT W/P-TRAP.
4. BACKFLOW PREVENTOR PER COP STD DET P1352.
5. BACKFLOW PREVENTOR PER COP STD DET P1354.
6. FIRE HYDRANT LOCATION PER COP STD DET P1362 AND INSTALLATION PER MAG STD DET 360.
7. REMOVE AND REPLACE EXIST FLOW METER WITH MAGMETER.
8. INSTALL FLEXIBLE COUPLING.
9. SLOPE AT 1/4" PER FT.
10. CONTRACTOR TO COORDINATE METER TYPE AND INSTALLATION WITH UTILITY SUPPLIER.
11. CONCRETE PIPE ENCASEMENT PER MAG STD DET 404.
12. RESTRAIN JOINTS PER MAG STD DET 303.
13. FIRE RISER, SEE P DWGS
14. MANHOLE PER 2 / C-4 C-9
15. PRESSURE VACUUM BREAKER PER COP STD DET P1355. PVB TO BE 12" ABOVE HIGHEST IRR OUTSOURCE POINT.

EQUIPMENT LIST

#	Serial Key Number	Description
1	0034334	MAGMETER
2	0034343	MAGMETER

N.

0 10 20 40
SCALE IN FEET
1"=20'

FACILITY DRAWINGS
This drawing was supplied by a Consultant Engineer from a post construction project. The original construction drawing was modified based on information provided by the Contractor to provide the Record Drawing. The City does not warranty this drawing to be a complete and accurate portrayal of facilities as they exist in the field.

REMARKS | DWG NUMBER | CAD FILE NAME | DATE

FOR CITY OF PHOENIX USE ONLY – REFERENCE CID NUMBER:
REV. | ENG. (CO.) | PROJ. NO. | PROJ. NAME

THIS DRAWING MUST BE FIELD VERIFIED BEFORE USE
DRAWING NOT TO SCALE UNLESS SCALE BAR IS PRESENT

RECORD DRAWING

"PER CITY OF PHOENIX ORDINANCE G-4396, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

DSWA
DAMON S. WILLIAMS ASSOCIATES, L.L.C.

REVISIONS

NO.	BY	DATE	CKD	REMARKS
1	PGH	07/04	RJK	REVISED PER ADDENDUM 1
2	PGH	06/05	AP	REVISED FOR 12" PW ONLY
3	PGH	11/05	KJK	RECORD DRAWING CHANGES

DES JB
DWN SAR, PGH
CKD JJG, JHM

City of Phoenix

CITY OF PHOENIX
WATER SERVICES DEPARTMENT
NORTH GATEWAY
WATER RECLAMATION PLANT
PHASE 1
RESIDUALS PUMP STATION
AND FORCE MAINS

CIVIL
12" WATER LINE
RESIDUALS PUMP STATION
YARD PIPING 1

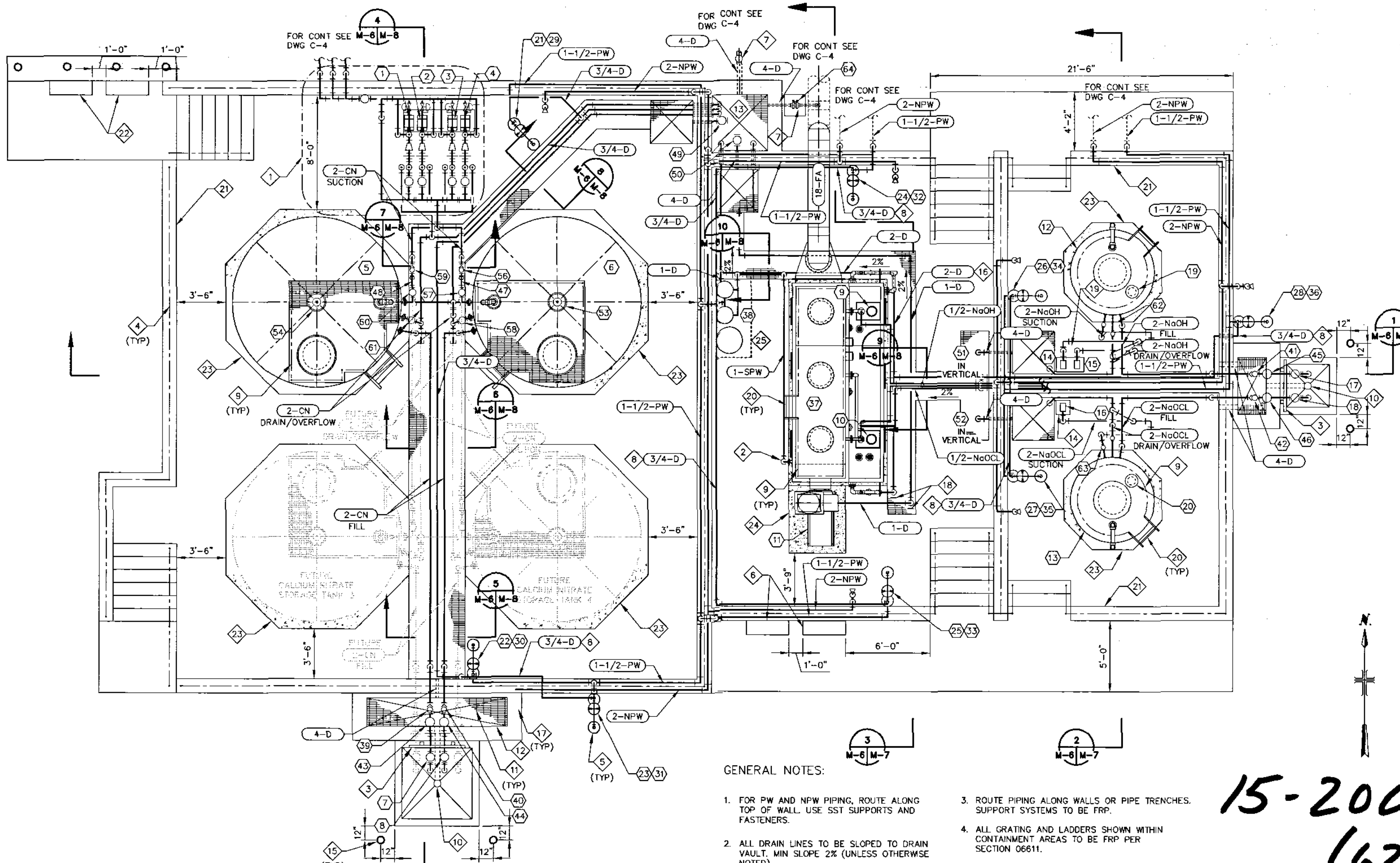
CITY PROJECT NO. WS85090003
DATE: SEPTEMBER 2004
DWG NO. C-4
SHEET NO. 9 OF 128
CAD FILE: C-NGPS-YP1.dwg

Dwg File: U:\CADD\030370\dwg\030371\Record Drawings\C-NGPS-YP1.dwg Modified: Jun 19, 2006 – 11:03am Plotted: Jul 13, 2006 – 7:45am

THIS DRAWING MUST BE FIELD VERIFIED BEFORE USE
DRAWING NOT TO SCALE UNLESS SCALE BAR IS PRESENT

RECORD DRAWING

"PER CITY OF PHOENIX ORDINANCE G-4396, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."



GENERAL NOTES:

1. FOR PW AND NPW PIPING, ROUTE ALONG TOP OF WALL. USE SST SUPPORTS AND FASTENERS.
2. ALL DRAIN LINES TO BE SLOPED TO DRAIN VAULT. MIN SLOPE 2% (UNLESS OTHERWISE NOTED).
3. ROUTE PIPING ALONG WALLS OR PIPE TRENCHES. SUPPORT SYSTEMS TO BE FRP.
4. ALL GRATING AND LADDERS SHOWN WITHIN CONTAINMENT AREAS TO BE FRP PER SECTION 06611.

15-2006-0066
(62 OF 133)

EQUIPMENT LIST

#	Serial Key Number	Description
1	0034299	Calcium Nitrate Pump 1
2	0034300	Calcium Nitrate Pump 2
3	0034301	Calcium Nitrate Pump 3
4	0034302	Calcium Nitrate Pump 4
5	0034467	Calcium Nitrate Tank 1
6	0034468	Calcium Nitrate Tank 2
7	0034297	Ball Valve
8	0034298	Ball Valve
9	0034193	Scrubber Recirculation Pump 1
10	0034195	Scrubber Recirculation Pump 2
11	0034192	Scrubber Exhaust Fan
12	0034517	Sodium Hydroxide Tank
13	0034518	Sodium Hypochlorite Tank
14	0034250	Sodium Hydroxide Pump 1
15	0034251	Sodium Hydroxide Pump 2
16	0034253	Sodium Hypochlorite Pump
17	0034262	Ball Valve
18	0034273	Ball Valve
19	0034390	Level Sensor
20	0034391	Level Sensor
21	0034501	Eyewash/Shower
22	0034502	Eyewash/Shower
23	0034503	Eyewash/Shower
24	0034504	Eyewash/Shower
25	0034505	Eyewash/Shower
26	0034506	Eyewash/Shower
27	0034507	Eyewash/Shower
28	0034508	Eyewash/Shower
29	0034509	Eyewash/Shower Panel
30	0034510	Eyewash/Shower Panel
31	0034511	Eyewash/Shower Panel
32	0034512	Eyewash/Shower Panel
33	0034513	Eyewash/Shower Panel
34	0034514	Eyewash/Shower Panel
35	0034515	Eyewash/Shower Panel
36	0034516	Eyewash/Shower Panel
37	0034535	Odor Scrubber
38	0034536	Water Softener System
39	0034573	Ball Check Valve
40	0034571	Ball Check Valve
41	0034579	Ball Check Valve
42	0034582	Ball Check Valve
43	0034572	Basket Strainer
44	0034570	Basket Strainer
45	0034578	Basket Strainer
46	0034580	Basket Strainer
47	0034576	Wye Strainer
48	0034574	Wye Strainer
49	0034331	Ball Valve
50	0034583	Ball Valve
61	0034033	Ball Valve
62	0034263	Ball Valve
63	0034274	Ball Valve
64	0034632	Buried Ball Valve w/ Extended Stem

FACILITY DRAWINGS
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KEY NOTES

1. CALCIUM NITRATE METERING PUMP AREA PER 3 M-6 | M-9
2. ODOR SCRUBBER MAKEUP WATER PER 1 M-6 | M-9
3. CHEMICAL FILL STATION PER 2 M-6 | M-9
4. ALUMINUM HANDRAIL
5. EMERGENCY EYEWASH/SHOWER PER TYPICAL DETAILS
6. ODOR SCRUBBER CONTROL PANELS
7. P-TRAP WITH 2" VENT, EXTEND 10' ABOVE FINISHED GRADE
8. 3/4" SCALD VALVE DRAIN PIPE FOR EMERGENCY EYEWASH/SHOWER
9. FRP HANDRAIL
10. 4" ZURN Z-415 FLOOR DRAIN
11. FRP GRATING
12. CHEMICAL SPILL CONTAINMENT TRENCH
13. DRAIN VAULT
14. SODIUM HYPOCHLORITE METERING PUMP AREA PER 5 M-6 | M-9
15. SAFETY POST PER MAG STD DTL 140
16. 2" SCRUBBER DRAIN/OVERFLOW LINE
17. 1-1/2" HOSE BIBB PER TYPICAL DETAILS
18. PIPE CLEANOUT
19. SODIUM HYDROXIDE METERING PUMP AREA SEE 4 M-6 | M-9
20. FRP LADDER
21. PROVIDE SPECIAL PROTECTIVE COATING TO ALL CONCRETE SURFACES INSIDE CONTAINMENT AREA
22. CALCIUM NITRATE FEED SYSTEM CONTROL PANELS
24. CONC EQUIP PAD PER S DWGS.
25. SUN SHADE

SCALE IN FEET 0 2 4 8
1/4"=1'-0"

FOR CITY OF PHOENIX USE ONLY – REFERENCE CID NUMBER:

REV.	ENG. (CO.)	PROJ. NO.	PROJ. NAME	DATE	CAD FILE NAME	DWG NUMBER	REMARKS

DSWA
DAMON S. WILLIAMS ASSOCIATES, L.L.C.

REVISIONS				
NO.	BY	DATE	CKD	REMARKS
△	PGH	11/05	KJK	RECORD DRAWING CHANGES

DES JMB
DWN RLC, PGH
CKD JJG, JHM

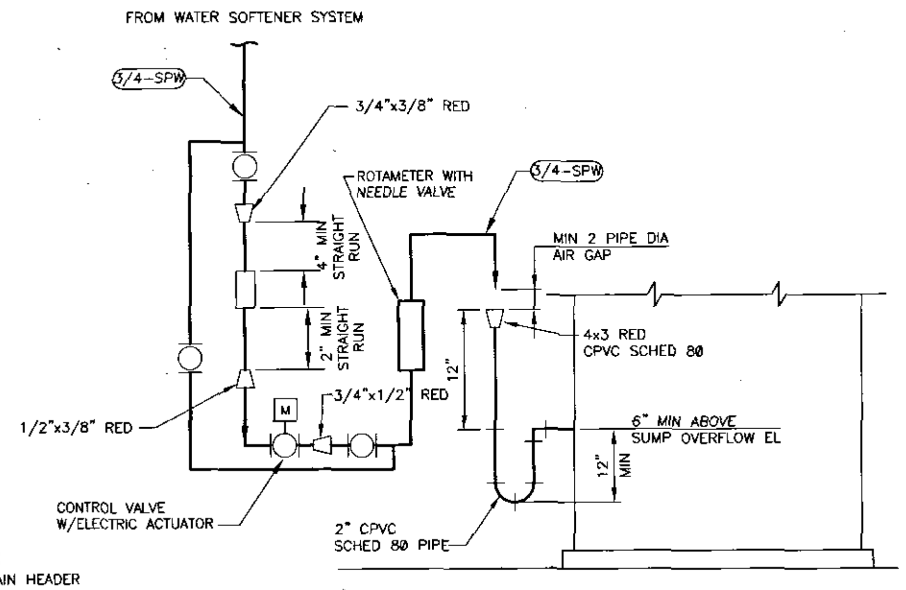
City of Phoenix

CITY OF PHOENIX
WATER SERVICES DEPARTMENT
NORTH GATEWAY WATER RECLAMATION PLANT PHASE 1
RESIDUALS PUMP STATION AND FORCE MAINS

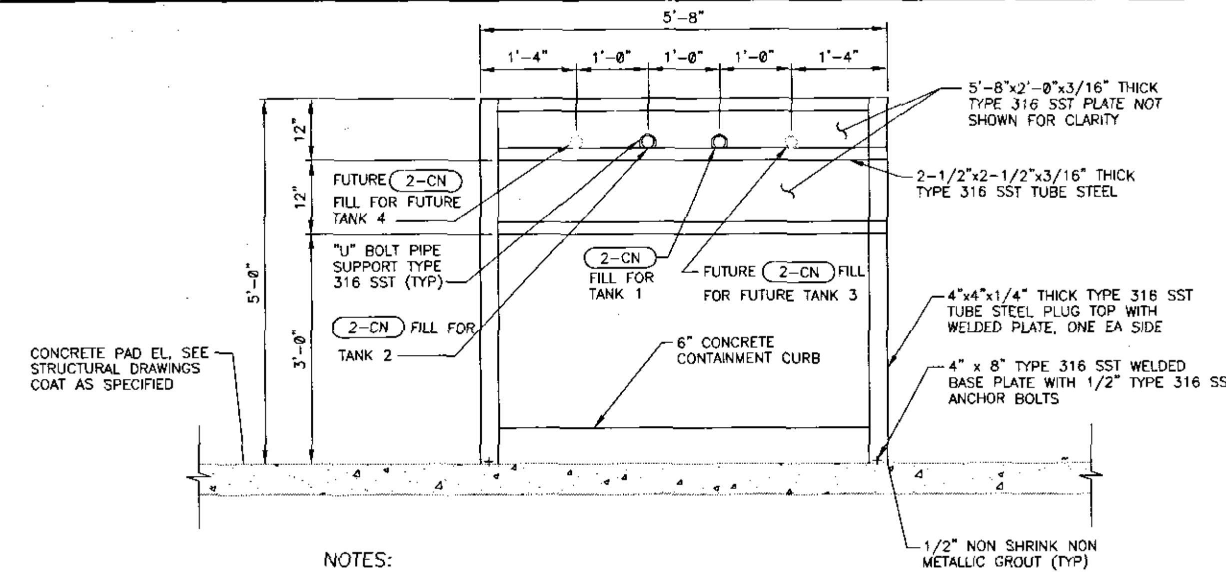
MECHANICAL
PUMP STATION ODOR CONTROL FACILITY PLAN

CITY PROJECT NO. WS85090003
DATE: SEPTEMBER 2004
DWG NO. M-6
SHEET NO. 63 OF 128
CAD FILE: M-NGPS-Odr-P01.dwg

Dwg File: U:\CADD\030370\dwg\030371\Record Drawings\M-NGPS-Odr-P01.dwg Modified: Jan 19, 2006 - 11:57am Plotted: Jul 13, 2006 - 8:05am



ODOR SCRUBBER MAKEUP WATER
DETAIL 1 M-6 M-9
NO SCALE

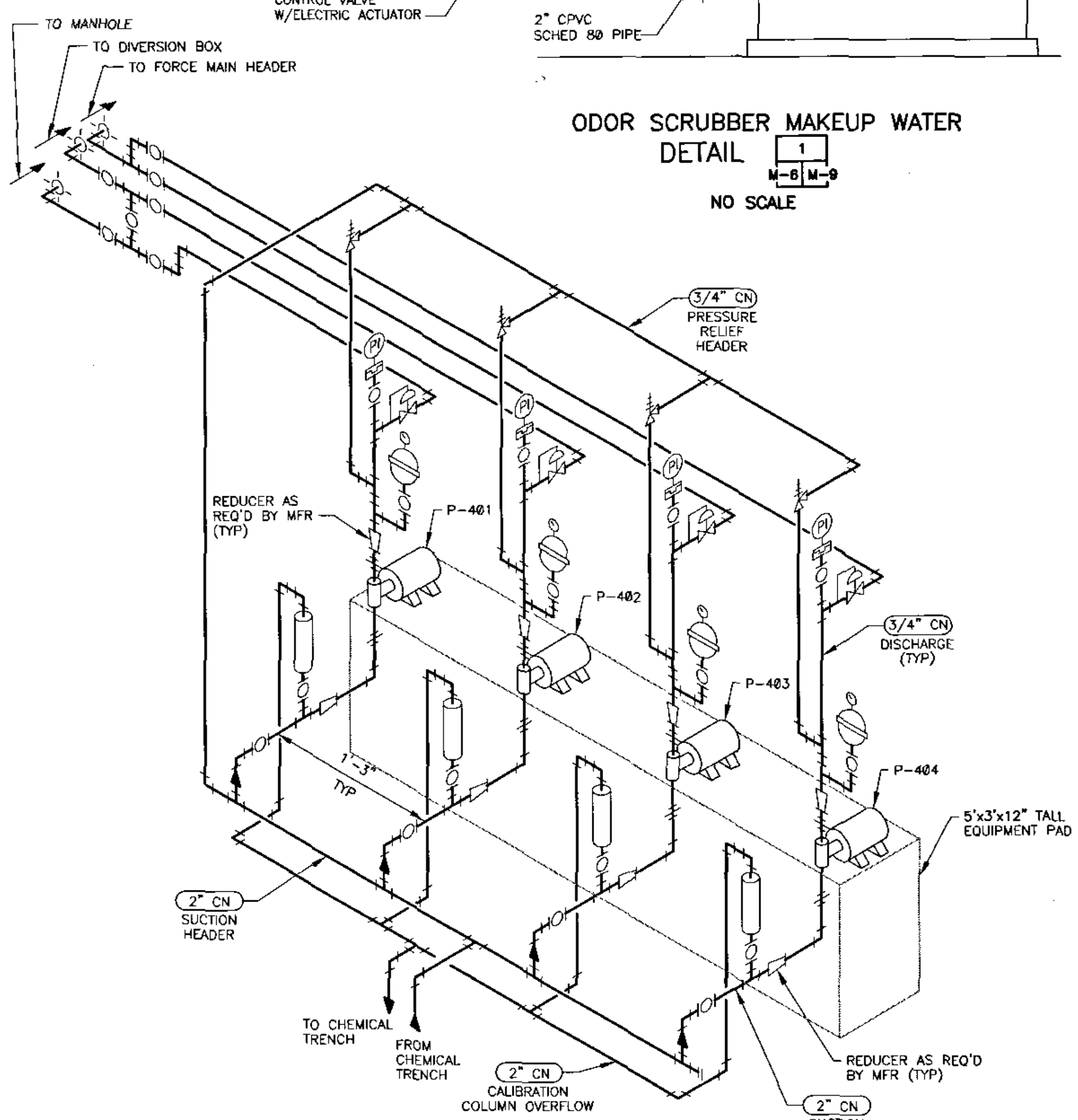


NOTES:

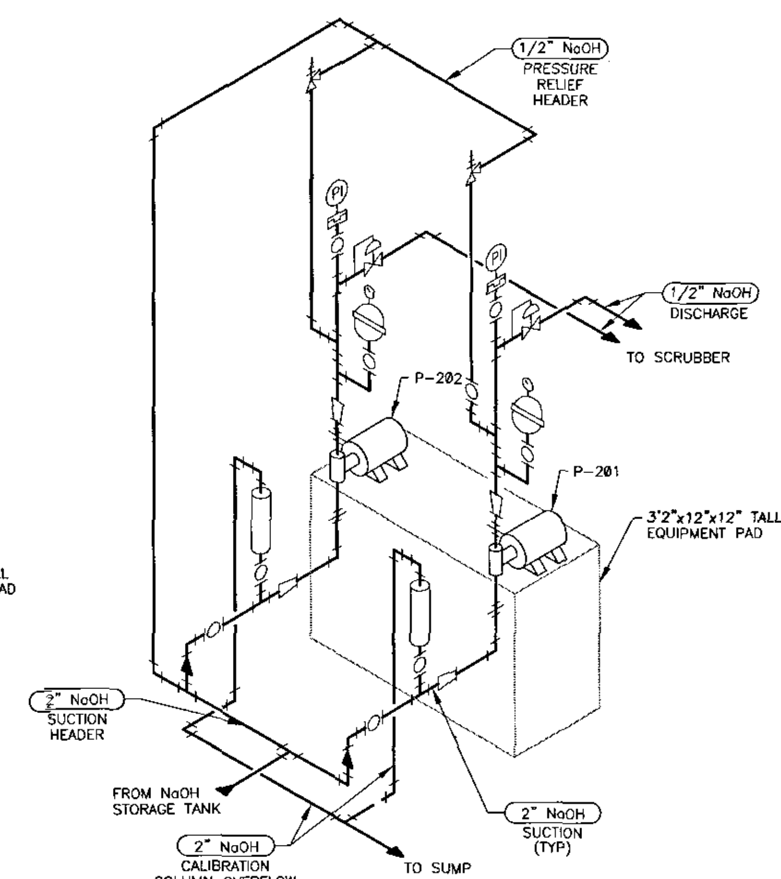
1. NaOH/NaOCl FILL STATION SIMILAR, PROVIDE SEPARATE 2" DIAMETER FILL LINES TO NaOH AND NaOCl TANKS.
2. COAT ALL CONCRETE SURFACES WITH CONTAINMENT COATING AS SPECIFIED.

CHEMICAL FILL STATION DETAIL
DETAIL 2 M-6 M-9
NO SCALE

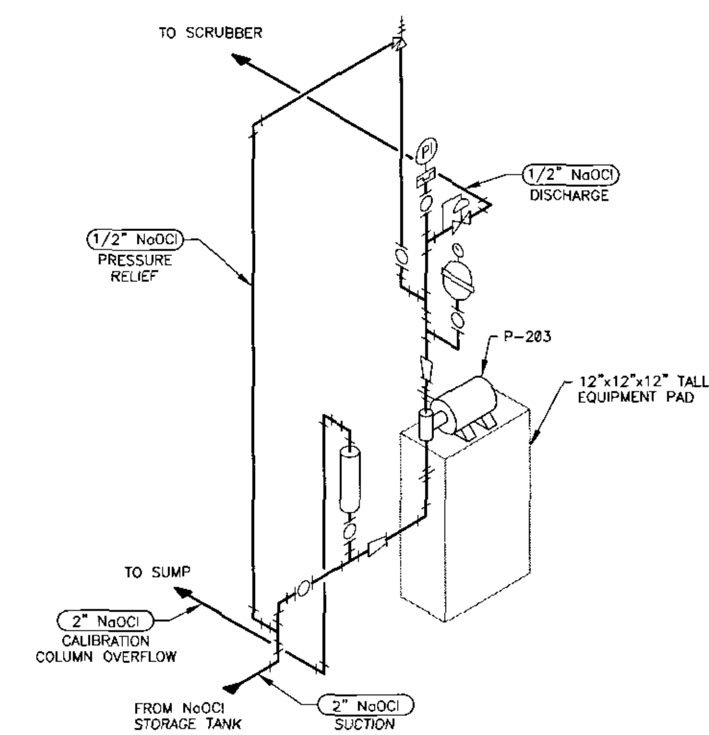
15-2006-0066
(65 of 133)



CALCIUM NITRATE METERING PUMP AREA
DETAIL 3 M-6 M-9
NO SCALE



SODIUM HYDROXIDE METERING PUMP AREA
DETAIL 4 M-6 M-9
NO SCALE



SODIUM HYPOCHLORITE METERING PUMP AREA
DETAIL 5 M-6 M-9
NO SCALE

FACILITY DRAWINGS
This drawing was supplied by a Consultant Engineer from a past construction project. The original construction drawing was modified based on information provided by the Contractor to provide the Record Drawing. The City does not warrant this drawing to be a complete and accurate portrayal of facilities as they exist in the field.

REV.	ENG. (CO.)	PROJ. NO.	PROJ. NAME	DATE	CAD FILE NAME	DWG NUMBER	REMARKS

FOR CITY OF PHOENIX USE ONLY - REFERENCE C/D NUMBER:

DSWA
DAMON S. WILLIAMS ASSOCIATES, L.L.C.

REVISIONS

NO.	BY	DATE	CKD	REMARKS
1	RLC	07/04	RJK	REVISED PER ADDENDUM 1
2	PGH	11/05	KJK	RECORD DRAWING CHANGES

DES SMC
DWN PGH
CKD JJG, JHM

City of Phoenix

CITY OF PHOENIX
WATER SERVICES DEPARTMENT
NORTH GATEWAY WATER RECLAMATION PLANT PHASE 1
RESIDUALS PUMP STATION AND FORCE MAINS

MECHANICAL

PUMP STATION ODOR CONTROL FACILITY DETAILS

CITY PROJECT NO. WS85090003
DATE: SEPTEMBER 2004
DWG NO. M-9
SHEET NO. 66 OF 128
CAD FILE: M-NGPS-Odr-D01.dwg

Dwg File: U:\CADD\83017\dwg\83037\Record Drawings\M-NGPS-Odr-D01.dwg Modified: Dec 12, 2005 - 2:57pm Plotted: Jul 13, 2006 - 8:06am