

**City of Hills**

**Council Members**

Bruce Endris

Steve Harris

Merle Hill

Thom Kirkpatrick

Cathy Knebel

201 N 1<sup>st</sup> St P O Box 345

Hills, Iowa 52235-0345

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[www.hills-ia.org](http://www.hills-ia.org)

**Mayor**

Tim Kemp

Clerk

Bonnie Hansen

Deputy Clerk

Leanne Sommers

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Regular Meeting

Hills Fire Department Meeting Room @ 7:00 PM

June 9, 2014

- **Consent Agenda:**
  - Minutes from meeting May 12 and May 19
  - Bills from May 19- June 7
- **Public Discussion**
- **New Business**
  - Second Reading of sewer ordinance regarding rate increase
  - Discussion and possible action on setting a Public Hearing on Water Protection Ordinance
  - Discussion and possible action on easements for water utilities
  - Resolution 2014-12 approving annexation of Luers/Prybil property
- **Previous Business**
  - Discussion and possible action on Water utility
  - Third reading of the ordinance regarding the City of Hills Water Utility
  - Discussion of Electric Pump bid
- **Council Action List, Comments, Concerns, Reports**
  - Mayor
  - Attorney
  - Maintenance
  - Fire Department
  - Sewer
  - Clerk
- **Adjournment**

Hills City Council  
Meeting  
May 12, 2014  
7:00 PM  
Hills Fire Station Meeting Room

The regular Hills City Council meeting was called to order at 7:00 PM on Monday, May 12, 2014 at the Hills Fire Station Meeting Room.

Mayor Tim Kemp called the meeting to order at 7:00 PM. Council members present were: Bruce Endris, Merle Hill, Thom Kirkpatrick and Cathy Knebel. Absent: Steve Harris

A motion was made by Kirkpatrick and seconded by Endris to approve the consent agenda of the minutes and bills. Ayes: 4. Motion passed.

**Public Discussion:** None

**Council Meeting**

**New Business:**

Discussion was held regarding the Materials Testing Contract presented by Shive Hattery Engineering. A motion was made by Kirkpatrick and seconded by Knebel to accept this contract. Ayes: 4 Motion passed

Discussion was held regarding the erosion control notice of intent for mayor signature was presented. A motion was made by Hill and seconded by Knebel to accept this notice. Ayes:4 Motion passed.

Resolution 2014-01 approving the specs for the Hills Water Utility was read. A motion was made by Knebel and seconded by Hill to accept this resolution. Roll call was held. Ayes: 5 Resolution passed.

The Public Hearing on the sewer rate increase was opened at 7:08 pm. No comments. Hearing closed at 7:09 pm.

The first reading of the ordinance changing the sewer rates was read. A motion was made by Knebel and seconded by Kirkpatrick to adopt this ordinance. Roll Call was held. Ayes: 4 First Reading passed.

The Public Hearing on the Water Revenue Loan and Disbursement Agreement was opened at 7:11 pm. No comments. Public Hearing was closed at 7:12.

Resolution 2014-09 regarding taking additional action to enter into a Water Revenue Loan and Disbursement Agreement was read. A motion was made by Endris and seconded by Hill to accept this resolution. Roll Call was held. Ayes: 4 Resolution passed

The Public Hearing on the General Obligation Improvement Loan and Disbursement Agreement was opened at 7:15pm. No Comment. Public Hearing closed at 7:16 pm.

Resolution 2014-10 regarding taking additional action into a General Obligation Water Improvement Loan and Disbursement Agreement was read. A motion was made by Knebel and seconded Kirkpatrick to accept this resolution. Roll Call was held. Ayes: 4 Resolution passed.

Resolution 2014-11 adopting and approving the Tax Compliance Procedures relating to Tax Exempt Bonds was read. A motion was made by Knebel and seconded by Endris. Roll Call was held. Ayes: 4 Resolution passed.

A motion was made by Kirkpatrick and seconded by Knebel to accept the LL Pelling Bid not to exceed the amount on the bid. Ayes: 4 Motion passed

The DNR Construction permit was received today.

Update was given on the easements for the Oakcrest Hill Subdivision crossing by the railroad tracks. An update was given regarding the easement between the Stoner and Stutsman properties. The Council decided to give to May 31 then start condemnation proceedings possibly.

The Streb will become the Oak Crest Hill Well on June 1. Letters will be sent to residents by the clerk to notify of the change and the rate increase.

The second reading of the water ordinance was read. A motion was made by Kirkpatrick and seconded by Hill to adopt the second reading. Roll Call was held. Ayes: 4 Second reading passed.

**Council Concern List:**

**Reports:**

**Attorney:**

**Fire Chief:** Absent-April saw 41 calls, 19 fires, 21 EMS, and one car accident. Chief VanNevel replaced the batteries on the fire station generator. The water fights went well. The Hills Fire Association spring dance will be held on May 31 at Old 218 Tap at 8:00 PM, same band as last year.

**Maintenance:** Due to the heavy rain that day, Ron was working on the storm drains throughout the town

**Sewer:** Bruce stated Electric Pump came to do an estimate on replacing two pumps and rebuilding an electrical box. .

**Mayor:** The Mayor updated the Council that Hills Elementary was planting 48 trees this week.

**Clerk:** - No report.

A motion was made by Hill and seconded by Endris to adjourn the meeting at 8:00 PM. Ayes: 5 Motion passed.

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Tim Kemp, Mayor

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Bonnie Hansen, Clerk

Hills City Council  
Special Meeting  
May 19, 2014  
6:30 PM  
Hills City Office Meeting Room

A special Hills City Council meeting was called to order at 6:30 PM on Monday, May 19, 2014 at the Hills City Office Meeting Room.

Mayor Tim Kemp called the meeting to order at 6:30 PM. Council members present were: Bruce Endris, Merle Hill and Cathy Knebel. Absent: Steve Harris and Thom Kirkpatrick

A motion was made by Hill and seconded by Knebel to approve Casey's Cigarette Permit and the bills from May 8 to May 19. Ayes: 3. Motion passed.

A discussion was held regarding communication from the attorney for Katherine Stutsman and Brenda Stoner regarding the easement of their property for water line installation. Discussion was held and a counter proposal was discussed. Mayor Kemp will communicate with City Attorney Sittig the general consensus of the council that was present.

A motion was made by Knebel and seconded by Hill to adjourn the meeting at 6:40 PM. Ayes: 3 Motion passed.

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Tim Kemp, Mayor

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Bonnie Hansen, Clerk

INVOICE#/LN	TY	DUE DATE	INV DATE	REFERENCE	GROSS	DISCOUNT	NET	DISCOUNT TAKEN	PAYMENT AMOUNT	DIST	MAN	CHCK	SQ	CK
-----														
HILLS BANK & TRUST GENERAL														
1013 CITY OF IOWA CITY														
28229	1 I	6/09/2014	6/09/2014	JUNE FEES	487.42		487.42		487.42	001				1
				** VENDOR TOTALS *	487.42		487.42		487.42					
1335 DEREK BARNARD														
JUNE14	1 I	6/09/2014	6/09/2014	WEBSITE UPDATES	60.00		60.00		60.00	001				1
				** VENDOR TOTALS *	60.00		60.00		60.00					
1269 NEUZIL,SANDERSON & SIGAFOOSE,P														
14433	1 I	6/09/2014	6/09/2014	CITY FEES	920.00		920.00		920.00	001				1
				** VENDOR TOTALS *	920.00		920.00		920.00					
1046 GAZETTE COMMUNICATIONS														
2517787	1 I	6/09/2014	6/09/2014	PUBLICATIONS	77.06		77.06		77.06	001				1
2517788	1 I	6/09/2014	6/09/2014	PUBLICATIONS	21.67		21.67		21.67	001				1
				** VENDOR TOTALS *	98.73		98.73		98.73					
1068 I WIRELESS														
JUNE14	1 I	6/09/2014	6/09/2014	CELL PHONE	46.76		46.76		46.76	001				1
				** VENDOR TOTALS *	46.76		46.76		46.76					
1071 IMWCA														
2014	1 I	6/09/2014	6/09/2014	WORK COMP PREMIUM 14-1	5112.00		5112.00		5112.00	001				1
				** VENDOR TOTALS *	5112.00		5112.00		5112.00					
1101 JOHNSON COUNTY SHERIFF														
JUNE2014	1 I	6/09/2014	6/09/2014	JUNE FEES	2167.75		2167.75		2167.75	001				1
				** VENDOR TOTALS *	2167.75		2167.75		2167.75					
1173 PAUL'S DISCOUNT														
32474	1 I	6/09/2014	6/09/2014	TOOLS	48.07		48.07		48.07	001				1
				** VENDOR TOTALS *	48.07		48.07		48.07					
1193 SHARON TELEPHONE														
JUNE14	1 I	6/09/2014	6/09/2014	224 1/2 FIRE DEPT	36.25		36.25		36.25	001				1
	2 I			224 1/2 FIRE DEPT	36.24		36.24		36.24	001				1
	4 I			223 MAINTENANCE SHOP	33.73		33.73		33.73	001				1
	5 I			513 CLERK OFFICE	132.47		132.47		132.47	001				1
				* INVOICE TOTALS	238.69		238.69		238.69					
				** VENDOR TOTALS *	238.69		238.69		238.69					
1203 STUTSMAN INC														
161548	1 I	6/09/2014	6/09/2014	FD DIESEL	564.26		564.26		564.26	001				1
				** VENDOR TOTALS *	564.26		564.26		564.26					
1216 U S POST OFFICE														
JUNENEWS	1 I	6/09/2014	6/09/2014	JUNE NEWSLETTER	70.00		70.00		70.00	001				1
				** VENDOR TOTALS *	70.00		70.00		70.00					
1219 VISA														

INVOICE#/LN	TY	DUE DATE	INV DATE	REFERENCE	GROSS	DISCOUNT	NET	DISCOUNT TAKEN	PAYMENT AMOUNT	DIST	MAN	CHCK	CK SQ
1219 VISA													
JUNE14	1 I	6/09/2014	6/09/2014	AUTOZONE	207.92		207.92		207.92	001			1
	2 I			SUPPLIES	257.08		257.08		257.08	001			1
				* INVOICE TOTALS	465.00		465.00		465.00				
JUNE14FD													
	1 I	6/09/2014	6/09/2014	AUTOZONE	207.92		207.92		207.92	001			1
	2 I			SUPPLIES	257.08		257.08		257.08	001			1
				* INVOICE TOTALS	465.00		465.00		465.00				
				** VENDOR TOTALS *	930.00		930.00		930.00				
				GENERAL	10743.68		10743.68		10743.68				
ROAD USE TAX													
1203 STUTSMAN INC													
161550	1 I	6/09/2014	6/09/2014	CITY DIESEL	125.46		125.46		125.46	110			1
				** VENDOR TOTALS *	125.46		125.46		125.46				
				ROAD USE TAX	125.46		125.46		125.46				
WATER													
1269 NEUZIL,SANDERSON & SIGAFOOSE,P													
14433	2 I	6/09/2014	6/09/2014	WATER LEGAL FEES	1081.00		1081.00		1081.00	600			1
				** VENDOR TOTALS *	1081.00		1081.00		1081.00				
JUNE14													
	6 I	6/09/2014	6/09/2014	2247 OAK CREST WELL	28.65		28.65		28.65	600			1
				** VENDOR TOTALS *	28.65		28.65		28.65				
				WATER	1109.65		1109.65		1109.65				
SEWER													
1034 BRUCE ENDRIS													
JUNE14	1 I	6/09/2014	6/09/2014	WAGES	800.00		800.00		800.00	610			1
	2 I			OVERTIME 5/9	75.00		75.00		75.00	610			1
	3 I			OVERTIME 5/23	25.00		25.00		25.00	610			1
				* INVOICE TOTALS	900.00		900.00		900.00				
				** VENDOR TOTALS *	900.00		900.00		900.00				
1287 KEYSTONE LABORATORIES													
4080	1 I	6/09/2014	6/09/2014	TESTS	78.38		78.38		78.38	610			1
4419	1 I	6/09/2014	6/09/2014	TESTS	41.68		41.68		41.68	610			1
				** VENDOR TOTALS *	120.06		120.06		120.06				
1193 SHARON TELEPHONE													
JUNE14	3 I	6/09/2014	6/09/2014	2107 LIFT STATION	32.93		32.93		32.93	610			1
				** VENDOR TOTALS *	32.93		32.93		32.93				
1216 U S POST OFFICE													
JUN14	1 I	6/09/2014	6/09/2014	JUNE UB BILLING	59.33		59.33		59.33	610			1

INVOICE#/LN	TY	DUE DATE	INV DATE	REFERENCE	GROSS	DISCOUNT	NET	DISCOUNT TAKEN	PAYMENT AMOUNT	DIST	MAN	CHCK	CK SQ
** VENDOR TOTALS *					59.33		59.33		59.33				
SEWER					1112.32		1112.32		1112.32				
LANDFILL/GARBAGE													
1014 CITY OF IOWA CITY LANDFIL													
JUNE2014	1	I	6/09/2014	6/09/2014	MAY FEES		188.12		188.12	670			1
** VENDOR TOTALS *					188.12		188.12		188.12				
1100 JOHNSON COUNTY REFUSE, INC													
69831	1	I	6/09/2014	6/09/2014	FEES FOR MAY		1216.00		1216.00	670			1
** VENDOR TOTALS *					1216.00		1216.00		1216.00				
1216 U S POST OFFICE													
JUN14	2	I	6/09/2014	6/09/2014	JUNE UB BILLING		59.33		59.33	670			1
** VENDOR TOTALS *					59.33		59.33		59.33				
LANDFILL/GARBAGE					1463.45		1463.45		1463.45				
BANK TOTALS					14554.56		14554.56		14554.56				
TOTAL MANUAL CHECKS									.00				
TOTAL E-PAYMENTS									.00				
TOTAL PURCH CARDS									.00				
TOTAL OPEN PAYMENTS									14554.56				
GRAND TOTALS					14554.56		14554.56		14554.56				

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF  
THE CITY OF HILLS, IOWA, BY ADDING AND AMENDING PROVISIONS  
RELATED TO PROTECTION OF THE CITY'S PUBLIC WATER SUPPLY AND  
REGULATING THE USE OF WATER WELLS WITHIN CITY LIMITS

Be it enacted by the City Council of the City of Hills, Iowa:

SECTION 1. There is hereby adopted the following Chapter 93 entitled "Private Wells and Public Water Supply Protection":

93.01 PRIVATE WELLS.

1. No person shall construct or reconstruct a well within the city limits of the City of Hills for the production of water when the property to be served is within 100 feet of a municipal water main, unless such construction or reconstruction is approved by the City Council. The City Council may approve a request to construct or re-construct a well for non-potable water use upon the terms and conditions the City Council deems appropriate.
2. Any private well in existence upon a property at the time a municipal water main is placed within 100 feet of the property may be maintained until such time as the pump for such well must be replaced or the well must be re-drilled or otherwise reconstructed, at which time the well must be abandoned and appropriately capped. Any such active well may not be connected to the potable water supply plumbing of any building located on the property.

93.02 CONTAMINATION PREVENTION.

1. In order to prevent contamination of the City's potable water supply, the Superintendent may require any user of the City's public water system to install a backflow prevention device on the building service line where such line enters the building, or at another point designated by the Superintendent.
2. At no time may any private well or other non-City water source or any other possible source of contamination be connected directly to the City's public water system or to the potable water plumbing system of a building served by the City's public water system. The Superintendent or his designee shall have the authority to enter any property to ensure such cross-connections do not exist.

93.03 SEPARATION DISTANCES FROM WELLS. The separation distances contained in Iowa Administrative Code Section 567, Chapter 43, TABLE A, are hereby adopted and incorporated herein. These separation distances shall apply to any existing City water supply wells and any new water supply wells as may be constructed or otherwise connected to the system.

93.04 ENFORCEMENT.

1. Any violation of the provisions of this ordinance shall be a municipal infraction and may be prosecuted as such pursuant to Chapter 5 of the Hills Municipal Code of Ordinances.

2. Should the City determine that a violation of this ordinance has resulted in any contamination of the City's water system, the person or entity responsible for the violation shall be required to pay damages in an amount sufficient to decontaminate the water system and return it to acceptable operating status, as required by the Iowa Department of Natural Resources or the Environmental Protection Agency, including all City staff time attending to the contamination.

3. The enforcement provisions of this ordinance are not mutually exclusive.

SECTION 2. SEVERABILITY CLAUSE. Each section, paragraph, sentence, clause, and provision of this Ordinance is separable, and if any provision is held unconstitutional or invalid for any reason, such decision shall not affect the remainder of this Ordinance nor any part thereof other than that affected by such decision.

SECTION 3. WHEN EFFECTIVE. This ordinance shall be in effect from and after its final passage, approval and publication as provided by law.

First reading on the \_\_\_\_ day of \_\_\_\_\_, 2014.

Second reading on the \_\_\_\_ day of \_\_\_\_\_, 2014.

Third and final passage on the \_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
TIM KEMP, MAYOR

ATTEST:

\_\_\_\_\_  
BONNIE HANSEN, CITY CLERK

I certify that the forgoing was published in accordance with the laws and ordinances of the State of Iowa and the City of Hills the \_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
BONNIE HANSEN, CITY CLERK

Drafted and approved as to form by City Attorney

\_\_\_\_\_  
EREK P. SITTING, CITY ATTORNEY



## RESOLUTION 2014-

### RESOLUTION APPROVING THE VOLUNTARY ANNEXATION OF PROPERTY

**WHEREAS**, the City of Hills, State of Iowa, is a duly organized municipal corporation; and

**WHEREAS**, the City of Hills, Iowa has received an application for Voluntary Annexation from the property owners of certain real estate under the ownership of said petitioners, located in Johnson County, Iowa as shown on the map identified as Exhibit "B" attached hereto and made a part of and legally described as follows:

#### LEGAL DESCRIPTION

See Exhibit "A" attached hereto and made a part hereof.

**WHEREAS**, such property collective adjoins the City as required by Chapter 368, Code of Iowa, 2009; and

**WHEREAS**, all required notification has been carried out pursuant to Chapter 368, Code of Iowa, 2009; and

**WHEREAS**, it is in the best interests of the City and public that said property be annexed to the City of Hills, at this time

**NOW THEREFORE**, THE CITY COUNCIL OF THE CITY OF HILLS DOES RESOLVE AS FOLLOWS:

SECTION 1. The Application for Voluntary Annexation is hereby approved and said property described in Exhibit "A" shall be annexed to the City of Hills, Iowa in accordance with Chapter 368, Code of Iowa, 2009, and such property shall hereinafter become and be part of the City of Hills, Iowa.

SECTION 2. The Mayor and City Clerk are hereby authorized and directed to prepare and execute all documents necessary for this annexation and to file the same as directed and required by the Code of Iowa.

PASSED AND ADOPTED ON June 9, 2014

Tim Kemp  
Mayor

Bonnie Hansen,  
City Clerk

I HEREBY CERTIFY that the forgoing resolution was duly adopted by the City Council of the City of Hills, Iowa at a regular meeting held on June 9, 2014 by the following vote:

ATTEST:

Bonnie Hansen,  
City Clerk

**MAY  
MONTHLY  
REPORT**

CASH 3:48

## BALANCE SHEET

OPER: BR

CALENDAR 5/2014, FISCAL 11/2014

ACCOUNT NUMBER	ACCOUNT TITLE	MTD BALANCE	YTD BALANCE
001-000-1110	CASH - GEN	3,923.64	197,560.64
001-000-1115	CASH - FIRE TOWNSHIP CONTRIB	5,700.00	139,766.00
110-000-1110	CASH - RUT	1,234.94	346,778.30-
121-000-1110	CASH - LOST		65,818.20
600-000-1110	CASH - WATER	2,150.00-	40,615.90-
610-000-1110	CASH - SEWER	4,717.72	195,629.11
670-000-1110	CASH - GARBAGE	1,460.65-	11,733.96
	CASH TOTAL	11,965.65	223,113.71
001-000-1160	CD - 10151413		40,000.00
001-000-1161	CD - 10151405		55,000.00
001-000-1163	CD - 10180420		140,000.00
001-000-1165	CD - 10155919 (FIRE)		11,000.00
001-000-1166	CD - 10134617 (FIRE)		5,000.00
001-000-1167	CD #10206068		200,000.00
110-000-1162	CD 10163707		100,000.00
110-000-1164	CD 10112191		50,000.00
110-000-1167	CD - 10134633		10,000.00
110-000-1168	CD - 10131266		30,000.00
110-000-1169	CD - 10096063		25,000.00
110-000-1170	CD - 10100444		40,000.00
110-000-1171	CD - 10100949		50,000.00
121-000-1160	CD - 10206076		101,892.72
610-000-1172	CD - 10100964		15,000.00
610-000-1173	CD - 10180065		5,400.00
610-000-1174	CD - 10189637		8,024.15
610-000-1175	CD #10206084		101,600.18
670-000-1175	CD - 10134625		5,000.00
670-000-1176	CD - 10099992		15,000.00
670-000-1177	CD - 102060092		50,000.00
	SAVINGS/CD'S TOTAL	.00	1,057,917.05
	TOTAL CASH	11,965.65	1,281,030.76

CALENDAR 5/2014, FISCAL 11/2014

ACCOUNT NUMBER	ACCOUNT TITLE	TOTAL BUDGET	MTD BALANCE	YTD BALANCE	PERCENT EXPENDED	UNEXPENDED
001-110-6420	POLICE - CONTRACTUAL SERVICE	26,013.00	2,167.75	23,845.25	91.67	2,167.75
001-130-6413	JOHNSON COUNTY EMERGENCY MGMT	3,500.00				3,500.00
001-150-6020	WAGES PT - FIRE	2,228.00	185.66	2,042.26	91.66	185.74
001-150-6110	SS/MED - CITY SHARE	200.00	14.20	156.20	78.10	43.80
001-150-6130	IPERS - CITY SHARE	250.00	18.83	207.13	82.85	42.87
001-150-6210	ASSOCIATION DUES	800.00		321.00	40.13	479.00
001-150-6230	TRAINING	5,000.00		1,210.77	24.22	3,789.23
001-150-6240	MEETINGS & CONFERENCES	200.00				200.00
001-150-6331	VEHICLE OPERATIONS	6,000.00		2,144.43	35.74	3,855.57
001-150-6332	VEHICLE REPAIR	3,000.00	39.93	1,802.15	60.07	1,197.85
001-150-6371	ELECTRIC/GAS EXPENSE	2,500.00	121.43	1,985.95	79.44	514.05
001-150-6373	FIRE DEPT TELEPHONE	500.00	34.25	458.49	91.70	41.51
001-150-6399	OTHER MAIN & REPAIRS	3,000.00		2,766.55	92.22	233.45
001-150-6504	MINOR EQUIPMENT	6,000.00		1,304.40	21.74	4,695.60
001-150-6515	MISC EXPENSE	3,500.00	9.49	5,071.03	144.89	1,571.03-
001-150-6723	HEAVY EQUIPMENT	20,000.00				20,000.00
001-170-6020	WAGES PT - BUILD INSPECTOR	8,000.00	665.00	2,485.00	31.06	5,515.00
001-170-6110	SS/MED - CITY SHARE	400.00	50.87	190.10	47.53	209.90
001-170-6130	IPERS - CITY SHARE	500.00	59.38	221.90	44.38	278.10
001-170-6507	OPERATING SUPPLY - BUILD INSPC	200.00				200.00
001-230-6240	MEETINGS & CONFERENCES	200.00				200.00
001-230-6371	ELECTRIC/GAS	11,000.00	848.07	9,824.16	89.31	1,175.84
001-410-6430	LIBRARY	5,800.00		5,361.62	92.44	438.38
001-430-6010	WAGES - PARKS	23,075.00	1,666.12	20,826.64	90.26	2,248.36
001-430-6030	WAGES SEASONAL - PARKS	1,000.00	490.00	2,517.00	251.70	1,517.00-
001-430-6110	SS/MED - CITY SHARE	1,800.00	164.93	1,770.30	98.35	29.70
001-430-6130	IPERS - CITY SHARE	1,200.00	184.73	1,895.53	157.96	695.53-
001-430-6320	GROUNDS MAINT	5,000.00	457.60	2,319.88	46.40	2,680.12
001-430-6321	TREES/PLANTS/WEEDS/BRUSH	5,000.00		5,004.85	100.10	4.85-
001-430-6380	TESTS	300.00		24.00	8.00	276.00
001-460-6310	BLD MAINT/REPAIR- COM CTR	2,500.00		335.50	13.42	2,164.50
001-460-6515	MISC	5,000.00				5,000.00
001-460-6516	SCHOOL PAYMENTS	20,000.00		20,000.00	100.00	
001-460-6730	LAND	10,000.00				10,000.00
001-499-6440	SPECIAL EVENTS	7,500.00		978.75	13.05	6,521.25
001-610-6010	WAGES - MAYOR	2,100.00	175.00	1,925.00	91.67	175.00
001-610-6020	WAGES - COUNCIL	3,000.00		1,250.00	41.67	1,750.00
001-610-6110	SS/MED - CITY SHARE	450.00	13.39	242.93	53.98	207.07
001-620-6010	WAGES - CLERK	35,020.00	2,782.40	33,388.80	95.34	1,631.20
001-620-6110	SS/MED - CITY SHARE	3,000.00	212.88	2,554.54	85.15	445.46
001-620-6130	IPERS - CITY SHARE	3,000.00	248.48	2,981.75	99.39	18.25
001-620-6170	UNEMPLOYMENT COMPENSATION	500.00		672.00	134.40	172.00-
001-620-6401	AUDITING/ACCOUNTING			1,200.00		1,200.00-
001-630-6450	ELECTIONS	2,000.00		2,362.71	118.14	362.71-
001-640-6411	LEGAL EXPENSE	15,000.00		6,601.00	44.01	8,399.00
001-650-6160	WORKERS COMP	3,300.00		4,234.79	128.33	934.79-
001-650-6210	ASSOCIATION DUES	2,000.00		1,799.12	89.96	200.88
001-650-6310	BLDG MAINT & REPAIR	15,000.00	217.00	15,982.98	106.55	982.98-
001-650-6371	ELECTRIC/GAS EXPENSE	11,000.00	576.97	8,504.67	77.32	2,495.33
001-650-6373	TELEPHONE	3,500.00	201.03	2,875.69	82.16	624.31
001-650-6408	INSURANCE EXPENSE	30,000.00	9,718.00	31,760.48	105.87	1,760.48-

CITY OF HILLS  
BUDGET REPORT  
CALENDAR 5/2014, FISCAL 11/2014

ACCOUNT NUMBER	ACCOUNT TITLE	TOTAL BUDGET	MTD BALANCE	YTD BALANCE	PERCENT EXPENDED	UNEXPENDED
001-650-6414	PRINTING & PUBLISHING	2,500.00	145.44	2,929.85	117.19	429.85-
001-650-6419	TECHNOLOGY SERVICE EXPENSE	3,500.00	60.00	5,415.63	154.73	1,915.63-
001-650-6504	MINOR EQUIPMENT	2,000.00	143.69	1,444.84	72.24	555.16
001-650-6506	OFFICE SUPPLIES	3,000.00	127.23	2,801.08	93.37	198.92
001-650-6507	OPERATING SUPPLIES	3,000.00		160.52	5.35	2,839.48
001-650-6508	POSTAGE & HANDLING	500.00		1,958.23	391.65	1,458.23-
001-650-6515	MISC			6,654.25		6,654.25-
001-650-6599	MISC EXPENSE	1,200.00		294.50	24.54	905.50
001-699-6490	ENGINEER EXP - OTHER PROF SERV	12,000.00	111.00	1,939.72	16.16	10,060.28
001-699-6515	MISC EXPENSE			6,087.84		6,087.84-
110-210-6010	WAGES - ROAD USE	23,075.00	1,666.12	20,826.64	90.26	2,248.36
110-210-6110	SS/MED - CITY SHARE	1,800.00	127.48	1,593.48	88.53	206.52
110-210-6130	IPERS - CITY SHARE	1,200.00	148.80	1,859.98	155.00	659.98-
110-210-6331	VEHICLE OPERATIONS	5,000.00	131.29	4,943.26	98.87	56.74
110-210-6332	VEHICLE REPAIR	4,000.00		2,265.67	56.64	1,734.33
110-210-6399	OTHER MAINT & REPAIR	1,000.00		40.43	4.04	959.57
110-210-6417	STREET MAINT EXPENSE	35,000.00		539.60	1.54	34,460.40
110-210-6515	MISC	500.00				500.00
110-210-6723	HEAVY EQUIPMENT	7,500.00				7,500.00
110-210-6768	ALLEY GRAVEL/PATCH	5,000.00				5,000.00
110-240-6417	STREET MAINT EXPENSE		100.00	100.00		100.00-
110-240-6509	POSTS/SIGNS	1,000.00		10.47	1.05	989.53
110-250-6470	SNOW & ICE REMOVAL	5,000.00		11,783.15	235.66	6,783.15-
110-270-6417	STREET CLEANING	5,000.00				5,000.00
110-865-6765	STORM DRAINAGE	2,000.00				2,000.00
121-210-6417	STREET MAINT EXPENSE	65,000.00				65,000.00
121-430-6320	GROUNDS MAINT & REPAIR	2,000.00				2,000.00
121-815-6765	STORM DRAINAGE	2,000.00				2,000.00
121-815-6767	SANITARY SEWERS	3,000.00				3,000.00
600-810-6010	WAGES - FULL TIME		250.00	250.00		250.00-
600-810-6350	OPERATIONAL EQUIP REPAIR	10,000.00		2,612.50	26.13	7,387.50
600-810-6411	LEGAL	10,000.00		13,413.50	134.14	3,413.50-
600-810-6414	PRINTING/PUBLISHING	2,000.00		6,075.00	303.75	4,075.00-
600-810-6490	ENGINEERING COSTS	1,178,000.00	1,550.00	278,171.13	23.61	899,828.87
610-815-6010	WAGES - SEWER	15,000.00	850.00	11,283.00	75.22	3,717.00
610-815-6110	SS/MED - CITY SHARE	500.00		104.66	20.93	395.34
610-815-6130	IPERS - CITY SHARE	200.00		122.15	61.08	77.85
610-815-6320	GROUNDS MAINT & REPAIR	3,000.00		46.87	1.56	2,953.13
610-815-6350	OPERTAIONAL EQUIP REPAIR	5,000.00		34,235.88	684.72	29,235.88-
610-815-6371	ELECTRIC/GAS EXPENSE	14,000.00	963.63	12,948.74	92.49	1,051.26
610-815-6373	TELEPHONE SERVICE	500.00	32.93	853.64	170.73	353.64-
610-815-6380	TESTS	4,500.00	265.32	2,839.88	63.11	1,660.12
610-815-6399	OTHER MAINT & REPAIRS	1,200.00	1,470.00	4,912.66	409.39	3,712.66-
610-815-6418	TAX EXPENSE	1,400.00		794.00	56.71	606.00
610-815-6508	SEWER- POSTAGE	800.00	57.49	641.89	80.24	158.11
610-910-6910	TRANFER OUT	6,180.00				6,180.00
670-840-6491	LANDFILL	3,000.00	332.08	1,701.58	56.72	1,298.42
670-840-6492	GARBAGE	35,280.00	2,688.00	30,795.70	87.29	4,484.30
670-840-6508	LANDFILL/GARBAGE- POSTAGE	900.00	57.49	705.86	78.43	194.14
670-840-6535	GARBAGE BAGS	5,000.00		1,440.00	28.80	3,560.00

CITY OF HILLS  
BUDGET REPORT  
CALENDAR 5/2014, FISCAL 11/2014

ACCOUNT NUMBER	ACCOUNT TITLE	TOTAL BUDGET	MTD BALANCE	YTD BALANCE	PERCENT EXPENDED	UNEXPENDED
	DIFFERENCE	1,813,271.00	32,601.38	713,005.08	39.32	1,100,265.92
	PROOF	1,813,271.00	32,601.38	713,005.08	39.32	1,100,265.92

CITY OF HILLS  
REVENUE REPORT  
CALENDAR 5/2014, FISCAL 11/2014

ACCOUNT NUMBER	ACCOUNT TITLE	BUDGET ESTIMATE	MTD BALANCE	YTD BALANCE	PERCENT RECD	UNCOLLECTED
001-150-4475	TOWNSHIP CONTRIBUTIONS	43,000.00	5,700.00	23,000.00	53.49	20,000.00
001-150-4705	PRIVATE SOURCE CONTRIBUTIONS		892.81	982.81		982.81-
001-430-4310	SHELTER RENT- PARKS	200.00	150.00	301.50	150.75	101.50-
001-650-4340	OTHER MISC USE OF MONEY	2,000.00				2,000.00
001-950-4000	GEN PROP TAX	303,912.00	20,570.88	302,284.56	99.46	1,627.44
001-950-4100	ALCOHOL LICENSE	450.00		465.00	103.33	15.00-
001-950-4105	CIGARETTE PERMIT	75.00	75.00	75.00	100.00	
001-950-4120	BUILDING/CONTRUCT PERMIT	4,000.00	2,300.00	6,050.00	151.25	2,050.00-
001-950-4180	URBAN CHICKEN PERMIT	10.00		5.00	50.00	5.00
001-950-4186	GOLF CART PERMIT	40.00		5.00	12.50	35.00
001-950-4300	INTEREST	10,000.00	518.90	4,745.87	47.46	5,254.13
001-950-4710	REIMBURSEMENT	8,000.00	1,561.00	19,144.73	239.31	11,144.73-
001-950-4750	MERCHANDISE SALES	6,500.00		1,595.31	24.54	4,904.69
001-950-4799	MISC REVENUE			774.75		774.75-
110-210-4300	INTEREST	2,000.00	208.48	2,450.23	122.51	450.23-
110-210-4430	ROAD USE TAX	67,839.00	3,297.32	63,727.15	93.94	4,111.85
121-950-4090	LOCAL OPTION TAX	32,000.00		11,208.70	35.03	20,791.30
121-950-4300	INTEREST			1,018.76		1,018.76-
600-810-4820	PROCEEDS FROM DEBT/LOAN	1,200,000.00		290,110.13	24.18	909,889.87
610-815-4300	INTEREST	500.00	43.52	1,014.37	202.87	514.37-
610-815-4500	CHARGES/FEES	109,500.00	8,244.46	88,264.30	80.61	21,235.70
610-815-4550	MISC CHARGES			310.00		310.00-
610-815-4560	SALES TAX COLLECTED	1,400.00	69.11	765.17	54.66	634.83
610-910-4830	TRANSFER IN	6,180.00				6,180.00
670-840-4300	INTEREST	1,200.00	43.53	1,020.95	85.08	179.05
670-840-4501	GARBAGE FEES	35,290.00	1,483.39	21,690.59	61.46	13,599.41
670-840-4502	GARBAGE BAGES	5,000.00	70.00	4,327.00	86.54	673.00
670-840-4503	LANDFILL		20.00	20.00		20.00-
		=====	=====	=====	=====	=====
	DIFFERENCE	1,839,096.00	45,248.40	845,356.88	45.97	993,739.12
		=====	=====	=====	=====	=====
		=====	=====	=====	=====	=====
	PROOF	1,839,096.00	45,248.40	845,356.88	45.97	993,739.12
		=====	=====	=====	=====	=====



# WATER UTILITY

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF  
THE CITY OF HILLS, IOWA, BY ADDING AND AMENDING PROVISIONS  
RELATED TO THE CITY'S PUBLIC WATER SYSTEM

Be it enacted by the City Council of the City of Hills, Iowa:

SECTION 1. There is hereby adopted the following Chapter 90 entitled "Water Service System":

"90.01 WATER SYSTEM ESTABLISHED. By virtue of the power vested in the City Council by the voters at a special election held on November 6, 2012, pursuant to Iowa Code Section 388.2, there is hereby established in the City of Hills a public water system. Said public water system shall be known as the "Hills Water System." Future projects that include water main construction will require connection by adjacent properties within one year of final acceptance of the project unless otherwise provided in a development agreement, annexation request, annexation agreement, or resolution approved by the City Council.

90.02 DEFINITIONS. The following terms are defined for use in the chapters in this Code of Ordinances pertaining to the Water Service System:

1. "Combined service account" means a customer service account for the provision of two or more utility services.
2. "Customer" means, in addition to any person receiving water service from the City, the owner of the property served, and as between such parties the duties, responsibilities, liabilities and obligations hereinafter imposed shall be joint and several.
3. "State Plumbing Code" means the most recent version of the Iowa State Plumbing Code adopted by the Iowa Department of Health at the time a connection is made.
4. "Superintendent" means the Superintendent of the City water system or any duly authorized assistant, agent, or representative.
5. "Water main" means a water supply pipe provided for public or community use.
6. "Water service pipe" means the pipe from the water main to the building served.
7. "Water system" or "water works" means all public facilities for securing, collecting, storing, pumping, treating, and distributing water.

90.03 SUPERINTENDENT'S DUTIES. The Superintendent shall supervise the installation of water service pipes and their connection to the water main and enforce all regulations pertaining to water services in the City in accordance with this chapter. This chapter shall apply to all replacements of existing water service pipes as well as to new ones. The Superintendent shall make such rules, not in conflict with the provisions of this chapter, as may be needed for the detailed operation of the water system, subject to the approval of the Council. In the event of an emergency the

Superintendent may make temporary rules for the protection of the system until due consideration by the Council may be had.

(Code of Iowa Sec. 372.13[4])

**90.04 MANDATORY CONNECTIONS.** The owners of any houses, buildings or structures used for human occupancy, employment, or use, situated within the City and abutting on any street, alley, or right-of-way in which there is located a public water main are hereby required to connect such facilities to the City's public water system in accordance with the provisions of these Water Service chapters within sixty (60) days after the date of official notice to do so, provided that said public water main is located within one hundred (100) feet of the property line of such owner.

**90.05 ABANDONED CONNECTIONS.** When an existing water service is abandoned or a service is renewed with a new tap in the main, all abandoned connections with the mains shall be turned off at the corporation stop and made absolutely watertight.

**90.06 PERMIT REQUIRED.** Before any person makes a connection with the public water system, a written permit must be obtained from the City. The application for the permit shall include a legal description of the property, the name of the property owner, the name and address of the person who will do the work, and the general uses of the water. If the proposed work meets all the requirements of this chapter and if all fees required under this chapter have been paid, the permit shall be issued. Work under any permit must be completed within sixty (60) days after the permit is issued, except that when such time period is inequitable or unfair due to conditions beyond the control of the person making the application, an extension of time within which to complete the work may be granted. The permit may be revoked at any time for any violation of these chapters.

**90.07 FEE FOR PERMIT.** Before any permit is issued the person who makes the application shall pay three hundred fifty dollars (\$350.00) to the Clerk to cover the cost of issuing the permit and supervising, regulating, and inspecting the work.  
(Code of Iowa, Sec. 384.84)

**90.08 COMPLIANCE WITH PLUMBING CODE.** The installation of any water service pipe and any connection with the water system shall comply with all pertinent and applicable provisions, whether regulatory, procedural or enforcement provisions, of the State Plumbing Code.

**90.09 PLUMBER REQUIRED.** All installations of water service pipes and connections to the water system shall be made by a State-licensed plumber.

**90.10 EXCAVATIONS.** All trench work, excavation, and backfilling required in making a connection shall be performed in accordance with the State Plumbing Code and the provisions of Chapter 135 of this Code of Ordinances.

90.11 TAPPING MAINS. All taps into water mains shall be made by or under the direct supervision of the Superintendent and in accord with the following:  
(Code of Iowa, Sec. 372.13[4])

1. Independent Services. No more than one house, building, or premises shall be supplied from one tap unless special written permission is obtained from the Superintendent and unless provision is made so that each house, building, or premises may be shut off independently of the other.
2. Sizes and Location of Taps. All mains shall receive no smaller than a one-inch tap. All taps in the mains shall be made in the top half of the pipe, at least eighteen (18) inches apart. No main shall be tapped nearer than two (2) feet of any joint in the main.
3. Corporation Stop. A brass corporation stop, of the pattern and weight approved by the Superintendent, shall be inserted in every tap in the main. The corporation stop in the main shall be of the same size as the service pipe.
4. Location Record. An accurate and dimensional sketch showing the exact location of the tap shall be filed with the Superintendent in such form as the Superintendent shall require.
5. Costs. All costs and expenses incident to the tapping into a water main and installation of the corporation stop, service pipe and curb shutoff valve shall be borne by the property owner.

90.12 INSTALLATION OF WATER SERVICE PIPE. Water service pipes and construction thereof shall comply with all applicable provisions of the State Plumbing Code. The surface of any area excavated must be returned to its condition prior to excavation and to the satisfaction of the City.

90.13 RESPONSIBILITY FOR WATER SERVICE PIPE. All costs and expenses incident to the installation, connection, and maintenance of the water service pipe from the main to the building served shall be borne by the owner. The owner shall indemnify the City from any loss or damage that may directly or indirectly be occasioned by the installation or maintenance of said water service pipe.

90.14 FAILURE TO MAINTAIN. When any portion of the water service pipe which is the responsibility of the property owner becomes defective or creates a nuisance and the owner fails to correct such nuisance, the City may do so and assess the costs thereof to the property.

(Code of Iowa, Sec. 364.12[3a & h])

90.15 CURB VALVE. There shall be installed within the public right-of-way, or within a perpetual easement granted to the City, a main shut-off valve on the water service pipe of a pattern approved by the Superintendent. The shut-off valve shall be constructed to be visible and even with the pavement or ground.

90.16 INTERIOR VALVE. There shall be installed a shut-off valve on every service pipe inside the building as close to the entrance of the pipe within the building as possible and so located that the water can be shut off conveniently. Where one service pipe supplies more than one customer within the building, there shall be separate valves for each such customer so that service may be shut off for one without interfering with service to the others.

90.17 INSPECTION AND APPROVAL. All water service pipes and their connections to the water system must be inspected and approved in writing by the Superintendent before they are covered, and the Superintendent shall keep a record of such approvals. If the Superintendent refuses to approve the work, the plumber or property owner must proceed immediately to correct the work. Every person who uses or intends to use the municipal water system shall permit the Superintendent to enter the premises to inspect or make necessary alterations or repairs at all reasonable hours and on proof of authority.

90.18 COMPLETION BY THE CITY. Should any excavation be left open or only partly refilled for twenty-four (24) hours after the water service pipe is installed and connected with the water system, or should the work be improperly done, the City shall have the right to finish or correct the work, and the Council shall assess the costs to the property owner or the plumber. If the plumber is assessed, the plumber must pay the costs before receiving another permit. If the property owner is assessed, such assessment may be collected with and in the same manner as general property taxes.

(Code of Iowa, Sec. 364.12 [3a & h])

90.19 SHUTTING OFF WATER SUPPLY. The Superintendent may shut off the supply of water to any customer because of any violation of the regulations contained in these Water Service System chapters that is not being contested in good faith. The supply shall not be turned on again until all violations have been corrected and the Superintendent has ordered the water to be turned on.

90.19 OPERATION OF CURB VALVE AND HYDRANTS. It is unlawful for any person except the Superintendent to turn water on at the curb valve, and no person, unless specifically authorized by the City, shall open or attempt to draw water from any fire hydrant for any purpose whatsoever. The City shall maintain all fire hydrants. Maintenance performed on private fire hydrants shall be paid for by the property owner. The City does not guarantee a constant supply of water and shall not be liable for failure to supply the same. The City may limit the use of water in the event of an emergency wherein the supply of water is limited or needed to meet the emergency.

90.20 PROHIBITED ACTS. It is unlawful for any person to injure, destroy, deface, or disturb any portion of the Hills Water System, to interfere with or obstruct the water supply, or to tamper with or turn a water valve for the purpose of turning on water service which has been previously been disconnected, without permission of

the City. Further, it is unlawful to make use of water which is provided through a shut-off valve which has been turned on without permission of the City. It is unlawful to interfere with normal distribution system pressures and to impede, obstruct, or otherwise cause any potential hazards to the water system.

90.21 REFUSAL OR DISCONTINUANCE OF WATER SERVICE. Water service may be refused or discontinued by the City upon reasonable notice to the customer for any violation of any rule, regulation, or condition of service including, but not limited to:

1. Misrepresentation in any application regarding the intended use of water or the property or fixtures to be served;
2. Failure to report to the City change in or additional use of water or additions made to the property or fixture to be served;
3. Resale or giving away water;
4. Waste or misuse of water due to failure to maintain service pipes or fixtures;
5. Tampering or permitting tampering with the meter, meter seal, service or valves;
6. Connection or cross-connection of any separate water supply to premises that is connected to the Hills Public Water System;
7. Nonpayment of bills for combined service account;
8. Refusal to allow City access to service or install meters;
9. Any unlawful act or violation of the regulations contained in these Water Service chapters.

90.22 WAIVER OF FEES. The fees provided for in Chapter 90 shall not be collected for properties connected to the City's water system under the City's initial contract to construct the water system, executed in April 2014. The owner of any property included in the bids and specifications for connection under such contract that is not so connected due to the owner's refusal shall be required to pay all fees provided for in Chapter 90; and the owner of such property shall be responsible for the costs of installing a water service connection to the property. Any other building constructed prior to the completion of the initial construction and full activation of the City's water system shall not be charged the fees provided for in Chapter 90, but the owner or developer of such building shall be responsible for the costs of installing a water service connection to the building."

SECTION 2. There is hereby adopted the following Chapter 91 entitled "Water Meters":

"91.01 PURPOSE. The purpose of this chapter is to encourage the conservation of water and facilitate the equitable distribution of charges for water service among customers.

91.02 WATER USE METERED. All water furnished customers shall be measured through meters furnished by the City and installed by the City.

91.03 FIRE SPRINKLER SYSTEMS; EXCEPTION. Fire sprinkler systems may be connected to water mains by direct connection without meters under the direct supervision of the Superintendent. No other open, unmetered connection shall be incorporated in the system, and there shall be no valves except a main control valve at the entrance to the building which must be sealed open.

91.04 LOCATION OF METERS. All meters shall be so located that they are easily accessible to meter readers and repairmen and protected from freezing.

91.05 METER SETTING. The property owner shall provide all necessary piping and fittings for proper setting of the meter including a valve on the discharge side of the meter. Meter pits may be used only upon approval of the Superintendent and shall be of a design and construction approved by the Superintendent.

91.06 METER COSTS. The full cost of any meter larger than that required for a single-family residence shall be paid to the City by the property owner or customer prior to the installation of any such meter by the City, or, at the sole option of the City, the property owner or customer may be required to purchase and install such meter in accordance with requirements established by the City.

91.07 METER REPAIRS. Whenever a water meter owned by the City is found to be out of order the Superintendent shall have it repaired. If it is found that damage to the meter has occurred due to the carelessness or negligence of the customer or property owner, or the meter is not owned by the City, then the property owner shall be liable for the cost of repairs.

91.08 RIGHT OF ENTRY. The Superintendent shall be permitted to enter the premises of any customer at any reasonable time to read, remove, or change a meter.

91.09 METER INSTALLATION FEE. There shall be a fee charged to the property owner for each new installation of a water meter in accordance with the schedule of such fees approved by resolution of the Council. Such meter shall remain the property of the City.

91.10 ACCURACY TEST. The Superintendent shall make a test of the accuracy of any water meter at any time when requested in writing, but not more often than once in six months. Such request shall be accompanied by a refundable deposit of five dollars (\$5.00) guaranteeing payment of costs if found due. If the meter is found to overrun to the extent of two percent (2%) or more, the cost of the test shall be paid by the City and a refund shall be made to the customer for overcharges collected since the last known date of accuracy but not for longer than three months, plus the meter test deposit. If the meter is found to be accurate or slow, or less than 2% fast, the customer deposit shall be forfeited as the reasonable costs of the test, and the customer shall be liable for any deficiency over 2% up to three months.

91.11 METER READING UNAVAILABLE. Where a meter has ceased to register, or meter reading could not be obtained for any reason, the quantity of water consumed for billing purposes shall be based upon an average of the prior six (6) months consumption, unless such calculation can be shown by the customer to be inaccurate.”

SECTION 3. There is hereby adopted the following Chapter 92 entitled “Water Rates”:

“92.01 SERVICE CHARGES. Each customer shall pay for water service provided by the City based upon use of water as determined by meters provided for in Chapter 91. Each location, building, premises, or connection shall be considered a separate and distinct customer whether or not owned or controlled by the same person.  
(Code of Iowa, Sec. 384.84)

92.02 RATES FOR SERVICE. Water service within the City shall be furnished at the monthly rate of \$35.00.  
(Code of Iowa, Sec. 384.84)

92.03 RATES OUTSIDE THE CITY. Water service shall be provided to any customer located outside the corporate limits of the City which the City has agreed to serve at rates five percent (5%) above the rates provided in Section 92.02. No such customer, however, will be served unless the customer shall have signed a service contract agreeing to be bound by the ordinances, rules, and regulations applying to water service established by the Council.  
(Code of Iowa, Sec. 364.4 & 384.84)

92.04 BILLING FOR WATER SERVICE. Water service shall be billed as part of a combined service account, payable in accordance with the following:  
(Code of Iowa, Sec. 384.84)

1. Bills Issued. The Clerk shall prepare and issue bills for combined service accounts on or before the 5<sup>th</sup> day of each month.
2. Bills Payable. Bills for combined service accounts shall be due and payable at the office of the Clerk by the 20<sup>th</sup> day of the same month.
3. Late Payment Penalty. Bills not paid when due shall be considered delinquent. A one-time late payment penalty of twenty dollars (\$20.00) shall be added to each delinquent bill.

92.05 SERVICE DISCONTINUED. Water service to delinquent customers shall be discontinued in accordance with the following:  
(Code of Iowa, Sec. 384.84)

1. Notice. The Clerk shall notify each delinquent customer that service will be discontinued if payment of the combined service account, including late payment charges, is not received by the date specified in the notice of delinquency. Such



notice shall be sent by ordinary mail to the customer in whose name the delinquent charges were incurred and shall inform the customer of the nature of the delinquency and shall inform the customer of the opportunity for a hearing prior to the discontinuance, and the procedure for requesting a hearing.

2. Notice to Landlords. If the customer is a tenant, and if the owner or landlord of the property or premises has made a written request for notice, the notice of delinquency shall also be given to the owner or landlord. If the customer is a tenant and requests a change of name for service under the account, such request shall be sent to the owner or landlord of the property if the owner or landlord has made a written request for notice of any change of name for service under the account to the rental property.

3. Hearing. The customer may request a hearing regarding a notice of delinquency by requesting such a hearing in writing not later than three (3) days prior to the date of discontinuance, contained in the notice of delinquency. If a hearing is requested in accordance with this provision, the Mayor shall conduct an informal hearing and shall make a determination as to whether the disconnection is justified. If the Mayor finds that the disconnection is justified, the customer may appeal the Mayor's decision to the Council by requesting such an appeal in writing within three (3) days of the Mayor's decision. The Council shall hear the appeal at its next regular meeting. If the Council finds that disconnection is justified, then such disconnection shall be made, unless payment has been received.

4. Fees. A fee of forty dollars (\$40.00) shall be charged before service is restored to a delinquent customer. No fee shall be charged for the usual or customary trips in the regular changes in occupancies of property.

92.06 LIEN FOR NONPAYMENT. The owner of the premises served and any lessee or tenant thereof shall be jointly and severally liable for water service charges to the premises. Water service charges remaining unpaid and delinquent shall constitute a lien upon the premises served and shall be certified by the Clerk to the County Treasurer for collection in the same manner as property taxes.

(Code of Iowa, Sec. 384.84)

92.07 LIEN EXEMPTION. The lien for nonpayment shall not apply to a residential rental property where water service is separately metered and the rates or charges for the water service are paid directly to the City by the tenant, if the landlord gives written notice to the City that the property is residential rental property and that the tenant is liable for the rates or charges. In addition, a lien for nonpayment shall also not apply to the charges for any of the services of sewer systems, storm water drainage systems, sewage treatment, solid waste collection, and solid waste disposal where the charge is paid directly to the City by the tenant, if the landlord gives written notice to the City that the property is residential rental property and that the tenant is liable for the rates or charges for such service. The City may require a deposit not exceeding the usual cost of ninety (90) days of such services to be paid to the City. The landlord's written notice shall contain the name of the tenant responsible for charges, the address of the rental property that the tenant is to occupy, and the date that the occupancy begins. Upon receipt, the City shall acknowledge the

notice and deposit. A change in tenant shall require a new written notice to be given to the City within thirty (30) business days of the change in tenant. When the tenant moves from the rental property, the City shall refund the deposit if all service charges are paid in full. A change in the ownership of the residential rental property shall require written notice of such change to be given to the City within thirty (30) business days of the completion of the change of ownership. The lien exemption does not apply to delinquent charges for repairs related to any of the services.  
(Code of Iowa, Sec. 384.84)

92.08 LIEN NOTICE. A lien for delinquent water service charges shall not be certified to the County Treasurer unless prior written notice of intent to certify a lien is given to the customer in whose name the delinquent charges were incurred. If the customer is a tenant and if the owner or landlord of the property or premises has made a written request for notice, the notice shall also be given to the owner or landlord. The notice shall be sent to the appropriate persons by ordinary mail not less than thirty (30) days prior to certification of the lien to the County Treasurer.  
(Code Iowa, Sec. 384.84)

92.09 CUSTOMER DEPOSITS. There shall be required from every customer not the owner of the premises served a seventy five dollars (\$75.00) deposit intended to guarantee the payment of bills for service.  
(Code of Iowa, Sec. 384.84)

92.10 TEMPORARY VACANCY. A property owner may request water service be temporarily discontinued and shut off at the curb valve when the property is expected to be vacant for an extended period of time. Should the owner request shut off or turn on after normal business hours, a fee of forty dollars (\$40.00) for each after-hours trip shall apply. During a period when service is temporarily discontinued as provided herein the account-holder shall be liable for the minimum service charge. The City will not drain pipes or pull meters for temporary vacancies.

92.11 USE BY CUSTOMER. Water furnished by the City may only be used for domestic consumption and production by the customer, members of the customer's household, or the customer's employees. The customer shall not sell or offer to sell to any other person or entity water provided by the City without the prior written approval of the City.

92.12 REFUSAL OF SERVICE. The City may refuse service to new customers when, in the opinion of the City, the capacity of the City's water facilities will not permit such additional service."

SECTION 4. SAVINGS CLAUSE. Each section, paragraph, sentence, clause, and provision of this Ordinance is separable, and if any provision is held unconstitutional or invalid for any reason, such decision shall not affect the remainder of this Ordinance nor any part thereof other than that affected by such decision.

SECTION 5. WHEN EFFECTIVE. This ordinance shall be in effect from and after its final passage, approval and publication as provided by law.

First reading on the \_\_\_\_ day of \_\_\_\_\_, 2014.

Second reading on the \_\_\_\_ day of \_\_\_\_\_, 2014.

Third and final passage on the \_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
TIM KEMP, MAYOR

ATTEST:

\_\_\_\_\_  
BONNIE HANSEN, CITY CLERK

I certify that the forgoing was published in accordance with the laws and ordinances of the State of Iowa and the City of Hills the \_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
BONNIE HANSEN, CITY CLERK

Drafted and approved as to form by City Attorney

\_\_\_\_\_  
EREK P. SITTIG, CITY ATTORNEY



## PRE-CONSTRUCTION CONFERENCE AGENDA

### Municipal Water System - Division 1 Hills, IA

**Meeting Date/Time:** June 2, 2014 @ 10:00 a.m.  
**Meeting Location:** Hills City Clerk Office

**A. Project:** Municipal Water System - Division 1  
Hills, Iowa

**FOX PN:** 3395-11A.600

**B. Contracting Authority:** City of Hills, Iowa

**Project Representative:** 

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Bonnie Hansen, Hills City Clerk  
201 N. 1st Street  
Hills, IA 52235  
Phone: 319-679-3197  
Email: cityhills@sharontc.net

**City Project Manager:** 

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Jim Wolf

**Owner's Field Representative:** 

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Steve Flake  
Water Plant Superintendent  
Cell: 319-471-8285  
Email: ssflake@mchsi.com

**Facility address for deliveries:** 

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Hills, Iowa 52235

**C. Design and Construction Services:**

FOX Engineering Associates, Inc.  
414 South 17<sup>th</sup> Street, Suite 107  
Ames, Iowa 50010  
Phone: 515-233-0000  
Fax: 515-233-0103

**Project Manager:** 

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Steve Troyer, P.E.  
Cell: 515-290-3847  
Email: sjt@foxeng.com

**Project Engineer:** 

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Erik Rasmussen, E.I.  
Cell: 515-402-7135  
Email: etr@foxeng.com

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Subconsultants: Civil, Structural, Electrical, and Mechanical Engineers  
Shive-Hattery, Inc.  
Contact: Kevin Trom, PM, City Engineer  
Eric Munchel, Project Engineer  
Office: (319) 354-3040  
Email: ktrom@shive-hattery.com  
Email: emunchel@shive-hattery.com

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Controls Engineer:  
Riesberg Engineering Company  
Contact: Brian Riesberg, P.E.  
Cell: 515-822-1609  
Email: brian@riesberg-engr.com

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**D. Contractor:**  
Dave Schmitt Construction  
250 50th Ave. SW  
Cedar Rapids, IA 52404  
Phone: 319-365-8669  
FAX: 319-365-2677

Project Manager: Shaun Kukuzke  
Cell: 319-329-9278  
Email: shaun@daveschmittconstruction.com

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Project Superintendent:  
Cell:  
Email:

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**E. Utility Company Contacts:**  
Water Lines: City of Hills  
Sanitary Sewer: City of Hills  
Railroad: Crandic Railroad  
Gas Lines: Mid American  
Electrical: Alliant Energy  
Telephone: Sharon Telephone  
One Call 1-800-292-8989

**F. Contract:**  
Contract Price ----- \$4,352,237.00  
Milestone 1 Date ----- October 11, 2014  
Milestone 2 Date ----- April 11, 2015  
Milestone 3 Date ----- Not Used  
Milestone 4 Date ----- July 11, 2015  
Milestone 5 Date ----- August 29, 2015  
Milestone 6 Date ----- Not Used  
Substantial Completion Date ----- November 28, 2015  
Final Completion Date ----- December 23, 2015  
Liquidated Damages ----- After Substantial Completion Date: \$750/day  
After Final Completion Date: \$500/day

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G. **Type of Construction:** This division includes construction of a new water distribution system, new water treatment plant, and modifications to two existing water supply wells.

H. **Conference Checklist Items:**

1. Purpose of preconstruction conference - does not alter documents
2. Attendance - sign roster
3. Contract Documents:
  - a. Effective date:
  - b. Performance, Payment, and Maintenance Bond: Included with Contract Documents.
  - c. Insurance Certificates: Included with Contract Documents.
  - d. Notice of Award: sent to Contractor May 15, 2014
  - e. Notice to Proceed:
  - f. Signed Agreements:
4. Sales and Use Taxes: Instructions to Bidders Article 22. Owner is exempt from Iowa State Sales and Use Taxes on materials and equipment to be incorporated in the work. Said taxes shall not be included in the bid. Refer to Supplementary Conditions (SC), paragraph SC-6.10 for additional information.
  - a. Contractor submit list of all subcontractors, including FEIN
  - b. Owner will complete on-line application with Iowa Dept. of Revenue and Finance, and provide authorization letter and tax exemption certificate.
5. Submittal of Subcontractors and Suppliers List: See SC Para. SC-6.06
  - a. Submit list of subcontractors/suppliers within 10 days of the effective date of the agreement.
  - b. Contractor will need to invite subcontractors and suppliers to Submittal Exchange.
6. Progress Schedule: See specification Section 01 1100 para. 1.03, Section 01 3300 para. 1.06, and General Conditions (GC) para. 2.05-2.07.
  - a. Submit with 10 days of the effective date of the agreement.
  - b. Critical Work Sequencing/Phasing Issues: See Section 01 1100 para. 1.02 and 1.03.
7. Shop Drawing Submittals: See Section 01 1100 para. 1.08, and GC para. 2.06 and 6.17, and SC para. SC-6.17.

*NOTE: All submittals, Request for Information (RFIs), and other construction correspondence will be facilitated through [SubmittalExchange.com](http://SubmittalExchange.com). Contractor is required to submit comprehensive submittal list, complete with approximate dates of submittal of each item, for review by the Engineer. Submittal Exchange will host one training session for the Contractor and one for the Engineer, as required.*

  - a. Submit schedule of submittals
  - b. Each submittal shall have a cover sheet and a Supplier/Contractor Statement of Compliance sheet.
  - c. Engineer has 21-day review period.
  - d. Charges for excessive review (see GC para. 6.17.D. & E.)
  - e. O&M manuals
8. Alternatives and Substitute Review: See GC para. 6.05

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9. Construction Photographs: See Section 01 3300 para. 1.07: 36 photos prior to start of construction; 12 – 36 photos each month with pay application; pictures posted to Submittal Exchange
  10. Schedule of Values and Schedule of Payments: See Section 01 3300 para. 1.04 & 1.05; GC 2.05: submit within 10 days of agreement
  11. Stored Materials: See GC para. 5.06, 6.03, 15.02.B
    - a. Available lands
    - b. Payment for stored materials → provide invoice with pay application
  12. Site Access: See Section 01-1100 para. 1.06.
    - a. Access new water treatment plant and water tower from South 3rd Street.
    - b. Access Well No. 1 and No. 2 from Oak Crest Hills Road.
    - c. Avoid blocking access to other properties near site area.
  13. Temporary Buildings: See Section 01 5100 para. 1.02.
  14. Submittal of Contractor personnel authorized to execute payment applications, change orders, substantial completion and final payment : \_\_\_\_\_
  15. Traffic Applications: See Section 01 5100 para. 1.04.; C4.00 per 2008 MUTCD
  16. Safety: Refer to GC para. 6.13 through 6.15:
    - a. All jobsite safety matters are the Contractor's responsibility.
    - b. Contractor designated safety representative: \_\_\_\_\_
  17. Project Communications:
    - a. Sub-contractors ↔ Contractor ↔ Engineer ↔ Owner.
    - b. Requests-for-Information (RFIs): all RFI's and responses to be submitted via SubmittalExchange.com.
    - c. Set a monthly Progress Meeting on: \_\_\_\_\_
  18. Testing Responsibilities: See Sections 01 4500, 03 3000 para. 3.15, 03 4100 para 2.13 & para 3.4, and 04 2000 para 3.13
    - a. Contractor's responsibility: Concrete materials and mix design; pipe pressure & leakage tests; disinfection of well and new piping and sample analysis; others as specified.
    - b. Owner: Concrete temperature, slump, air entrainment, and compressive/flexural strength; in-place densities; others as specified
    - c. Testing Company and Lab: Shive-Hattery
    - d. Contractor coordinates the testing; provides minimum 48 hr notice to testing company
  19. Construction Utilities: See Sections 01 1100 para. 1.04., and 01 5100 para. 1.03 - Contractor responsible for electrical power, telephone, internet, natural/LP gas, water, and sanitary facilities
  20. Permits:
    - a. IDNR construction permit – Permit approved May 13, 2014
    - b. City Building Permit
  21. Storm Water/Erosion Control: See Section 01 55723 Stormwater Pollution Prevention Plan and drawing sheets C1.04 to C1.04.

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22. Neighborhood Issues and Communication: See Section 01 1100 para. 1.03.D.8 and 1.07 Notices
23. Procedure for Application for Payment:
- a. See Supplemental Conditions – Article 14.
  - b. Applications considered once each month at first Council Meeting – 2nd Monday of each month.
  - c. Construction payments need to be submitted to Engineer first for review. Submit at least 20 days prior to the Council Meeting to allow for Engineer review and any needed revisions.
  - d. Applications must be accompanied by:
    - i. Updated progress schedule & report (see Section 01-3300 para. 1.06)
    - ii. Tabulation of stored materials/invoices (if requesting payment for stored materials)
    - iii. Construction photos (see Section 01-3300 para. 1.07)
24. Change Order Procedures and Determination of Amount:
- a. Absolutely no changes without prior written approval
  - b. Request-for-change proposal is not a Change Order
  - c. Documentation to Engineer first, Engineer to review, Engineer submits to the Owner. Only Owner can approve changes.
  - d. Field Order; Work Change Directive; Change Order
25. Sets of Plans and Specs: 14 sets provided to Contractor; additional copies can be provided at cost of reproduction.
26. Clarifications and Interpretations: Written RFI's submitted via Submittal Exchange.
27. Special Requirements/Documentation required by Owner and/or Funding Agencies:
- a. SRF documentation submitted with bid.
  - b. Contractor must notify FOX if using MBE/WBE/SBRA businesses. If utilized, additional forms must be completed for submittal to IDNR.
  - c. Davis Bacon Wage Rate Requirements:
    - i. Forms can be found at the following link:  
[http://www.iowasrf.com/about\\_srf/davis-bacon-labor-procedures/](http://www.iowasrf.com/about_srf/davis-bacon-labor-procedures/)
    - ii. Compliance Monitor -
    - iii. Fact Sheet #6 - Instructions for Contractors
    - iv. Fact Sheet #15 - Missing Job Classifications - Contractor to review Wage Rate Decision and request any missing classifications needed for this project
    - v. Fact Sheet #17 - Fringe Benefits under Davis-Bacon
    - vi. IFA Form C - Project Contacts: Needs to be submitted as soon as possible.
    - vii. Notice Poster
    - viii. Submit payrolls to: \_\_\_\_\_ – email is acceptable.
    - ix. Contractor is responsible for getting subcontractor payrolls submitted as well. These are required as soon as they are working on the site.
    - x. Payrolls must be submitted WEEKLY.
28. Contractor's Record Drawings: See GC para. 6.17, SC para. SC-6.17, Section 01 3300 para. 1.11: Maintain as-built redline drawings of all changes to the work; submit with application for final payment.



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**Additional Notes:**

# Pre Construction Meeting

June 2, 2014

- Fox lead engineer, Shive-Hattery consulting engineering, and Lee engineering
- Shive- Hattery (Ryan Bowers) will have weekly contact with Jim Wolfe
- Most of the water mains will be open cut
- Shive Hattery will do random checks
- Jim will work approx 20 hours a week
- Jim is to avoid being "safety monitor" this is up to contractor
- Jim is to talk to the engineer before any major changes
- 3 types of orders
  - Field – minor, no extra cost
  - Work Change- emergency change, mayor must sign
  - Change order – full council approval needed
- Construction monthly payments will be by application and percentage of job completed
- Monthly progress meetings will be held on the second Wednesday of each month during construction at 10:00 am at the Hills Fire Station Meeting Room
- City (Bonnie) will approve weekly payroll submission by each contractor and verify payroll meets Davis-Bacon requirements. (Bonnie will have to take training on this on the computer)
- Bonnie will supply sales tax info to contractors via website
- Construction to begin June 30 give or take a week either way
- Two crews will be working by the end of August
- Lines will be installed to curb stop this fall yet
- There will be 6 community meetings
- Water plant construction will work 7-3:30 pm; water distribution construction will work 7-5 or 6 pm, 55 hours a week. If two rain days, will work Saturdays

- Woodruff Construction has water plant, Stevens has land erosion part of contract, Gingerich has plumbing part of contract

# SEWER UTILITY



4280 E 14<sup>th</sup> St  
Des Moines, IA 50313  
Office: 515-265-2222  
Toll Free: 800-383-7867  
Fax: 515-265-8079

201 4th Ave SW  
New Prague, MN 56071  
Office: 952-758-6600  
Toll Free: 800-536-5394  
Fax: 952-758-7778

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TO: City of Hills, IA  
ATTN: Bruce Endris  
REF: Hills, IA – Pump Replacement , Panel and Piping Retrofit  
DATE: 5/30/14

Electric Pump is pleased to submit the following quote for your review and consideration.

### **Quote**

Scope of Work: Replace existing control panel with new Pumpcon Duplex 230V/3 Phase/ 4 Wire Control Panel; to functionally match existing panel from 2007.

Remove old pumps and piping in dry pit and replace with new dry pit submersible pumps listed below.

Run new suction line into wet well and reconfigure piping to fit in dry pit.  
Remove everything in wet well and replace trash basket.

Two (2) Flygt NT3153.095-462HT pumps. Pumps shall be equipped with a 20 HP submersible electric motor, connected for operation on 230 volts, 3 phase, 60 hertz, 4 wire service, with 50 feet of submersible cable (SUBCAB) suitable for submersible pump applications. The power cable shall be sized according to NEC and ICEA standards and also meet with P-MSHA Approval.  
Pumps to be furnished with the following:

- T-Stand
- 4" Inlet Elbow
- SS Cable Holder
- Gasket & Bolt Kits
- Ultrasonic Flowmeter
- 4" Gate Valve
- 6" Gate Valve
- Aluminum Trash Basket
- Powder Coated Davit Crane
- PVC Piping and Flanges
- 5/16" SS Lifting Chain
- Cord grip
- Misc Mechanical

One (1) Pumpcon Duplex Control Panel - 20HP, 3/60/230/4W – 52 FLA  
To be furnished with the following:  
• (2) N/O Float Back-up w/ 40' cable

- (2) Flygt Mini-Cas II Seal Fail and Motor Over-temp Relay
- Mult-Smart II Pump Controller
- MTISB/Probe
- OmniSite XR-50 Cellular Monitoring
- SS Junction Box
- Misc Electric

One (1) Lot of freight and installation Labor

**Total Selling Price: \$ 89,591.00 plus tax**

**Note the following:**

- Disposal of old equipment by EP.
- Anything not specifically mentioned in this proposal is the responsibility of others.
- The City is responsible for adding valve and bypass line.
- The City is responsible for cleaning the Wetwell and Drypit prior to EP arrival.
- There will need to be a 300 Amp service at the site.

If you have any questions or concerns with the contents of this proposal please feel free to contact us at (800) 383-7867.

Thanks you for your consideration,

John Miller & 515-707-6025

cc: Salina Godfrey

## Purchase Agreement: Hills, IA

**\*\*Ship to Address (Pumps, accessories, and control panel):**

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Tagging Instructions: \_\_\_\_\_

### **Note the following:**

- Return this purchase agreement to Salina Godfrey at [salinabg@electricpump.com](mailto:salinabg@electricpump.com) or via fax (515) 265-8079

Delivery: 10 – 12 Weeks after approval  
Payment: Net 30 Days – Upon completion

We are pleased to make the following offer to sell the listed Merchandise which is firm for (30) thirty days from the above date, and is automatically withdrawn thereafter without any further notice.

1. Signing and returning this document to Electric Pump's office in Des Moines, IA may accept this offer.
2. This offer and acceptance constitutes the entire Agreement between the parties and may be modified only by a writing signed by both parties.
3. The prices quoted for equipment are valid for (30) thirty days. If the quote includes start up services and it is scheduled by the request of the buyer for a time other than Monday through Friday 8:00 to 5:00 additional charges will be due.
4. Payment terms are NET 30 (thirty days) after the mailing of seller's invoice.
5. Delivery terms are F.O.B. Place of Shipment. Seller agrees to put the merchandise in the possession of the carrier, to make a reasonable contract of carriage for their transportation, to obtain and deliver or tender such documents as may be necessary to enable Buyer to obtain possession, and to promptly notify the Buyer of shipment. After seller has delivered the merchandise to the carrier, the risk of loss of the merchandise will be borne by the Buyer. The prices quoted herein include transportation charges based on existing truckload rates, any change in delivery rates existing at the time of delivery will be billed to your account. Dates of delivery are determined from the date of Seller's acceptance of any order or orders by Buyer and are estimates of approximate dates of delivery, not a guaranty of a particular day of delivery.
6. Sales and use tax are not included.
7. Buyer shall notify seller in writing at Seller's place of business as shown on the reverse side of this page, within twenty (20) days of receipt of merchandise, or any complaint whatsoever buyer may have concerning such merchandise. Failure to give such notice shall constitute a waiver by Buyer of all claims in respect to such goods.
8. If notice of complaints is provided within twenty (20) days of Buyer's receipt of the merchandise, Seller agrees to inspect the merchandise at Seller's place of business during Seller's normal business hours and days. Upon inspection, if the merchandise is determined to be defective in material or workmanship, Seller, at Seller's option, shall repair or replace said merchandise at no cost to Buyer, or Seller may refund the purchase price. If the examined merchandise is found not to be defective or is not for some other reason within the warranty coverage, Seller's service time expended on and off-location will be charged to Buyer.

9. Seller will have no further warranty obligation under this Agreement if the Equipment is subjected to abuse, misuse, negligence or accident or if buyer fails to perform any of its duties set forth in Paragraphs 8 and 9.
10. THE WARRANTY PRINTED ABOVE IS THE ONLY WARRANTY MADE BY THE SELLER REGARDING THIS PURCHASE. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NOTHING HEREIN CONTAINED SHALL LIMIT BUYER'S RIGHTS AGAINST THE MANUFACTURER, WITH RESPECT TO MANUFACTURER'S WARRANTIES, IF ANY.
11. WARRANTY REPAIRS (which fall under the manufacturer's warranty, if any) ARE F.O.B. ELECTRIC PUMP, INC. SERVICE LOCATION. ELECTRIC PUMP, INC. WILL NOT ASSUME ANY EXTENDED WARRANTIES UNLESS APPROVED BY PRIOR WRITTEN CONSENT. THIS INCLUDES SERVICE CALLS TO JOB SITES ON PRODUCT COVERED DURING THE WARRANTY PERIOD. PLEASE REFER TO THE ATTACHED PRODUCT WARRANTY STATEMENT FOR CLARIFICATION.
12. IT IS UNDERSTOOD AND AGREED THAT SELLER'S LIABILITY WHETHER IN CONTRACT, IN TORT, UNDER ANY WARRANTY, IN NEGLIGENCE OR OTHERWISE SHALL NOT EXCEED THE RETURN OF THE AMOUNT OF THE PURCHASE PRICE PAID BY BUYER AND UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES. THE PRICE STATED FOR THE MERCHANDISE IS A CONSIDERATION IN LIMITING SELLER'S LIABILITY. NO ACTION, REGARDLESS OF FORM, ARISING OUT OF THE TRANSACTION UNDER THIS AGREEMENT MAY BE BROUGHT BY BUYER MORE THAN ONE-YEAR AFTER THE CAUSE OF ACTION HAS ACCRUED.
13. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Iowa. Any dispute or disputes arising between the parties hereunder, insofar as the same cannot be settled by friendly agreement, shall be litigated only in The Iowa District Court for Polk County, in Des Moines, Iowa. Seller also has the right to commence an action against the Buyer in the County of the Buyer's principal place of business.

\*\*\*We need a hard copy of this agreement and/or a Purchase Order to start the submittal process.\*\*\*\*\*

Business Name \_\_\_\_\_

Street Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

Purchase Order Number \_\_\_\_\_

Purchase Order Amount \_\_\_\_\_

SIGNATURE \_\_\_\_\_

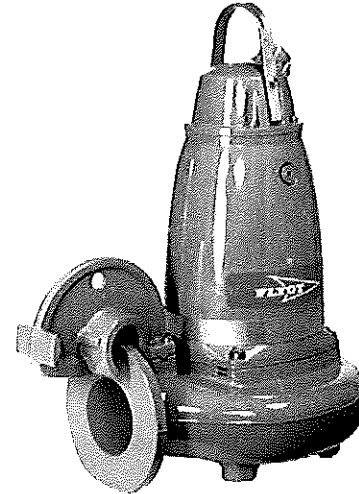
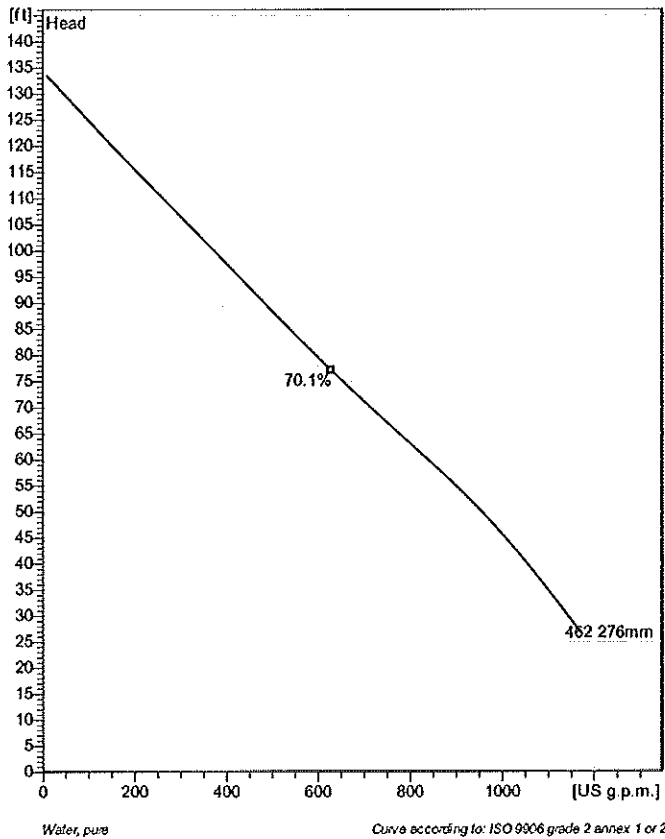
DATE \_\_\_\_\_

\*\*A signed copy of this must be returned with your P.O.

Is Project Taxable? Y or N, if No a tax exempt form must be supplied for our records



**NT 3153 HT 3~ 462**  
Technical specification



Note: Picture might not correspond to the current configuration.

**General**

Patented self cleaning semi-open channel impeller, Ideal for pumping in waste water applications. Possible to be upgraded with Gulde-plin® for even better clogging resistance. Modular based design with high adaptation grade.

**Pump**

Impeller material	Hard-Iron™
Discharge Flange Diameter	3 15/16 inch
Suction Flange Diameter	100 mm
Impeller diameter	276 mm
Number of blades	2

**Motor**

Motor #	N3153.095 21-18-4AA-D 20hp
Stator variant	5
Frequency	60 Hz
Rated voltage	230 V
Number of poles	4
Phases	3~
Rated power	20 hp
Rated current	52 A
Starting current	296 A
Rated speed	1755 rpm
Power factor	
1/1 Load	0.83
3/4 Load	0.77
1/2 Load	0.66
Efficiency	
1/1 Load	87.5 %
3/4 Load	89.0 %
1/2 Load	89.0 %

**Configuration**

Installation: T - Vertical Permanent, Dry



# NT 3153 HT 3~ 462

## Performance curve

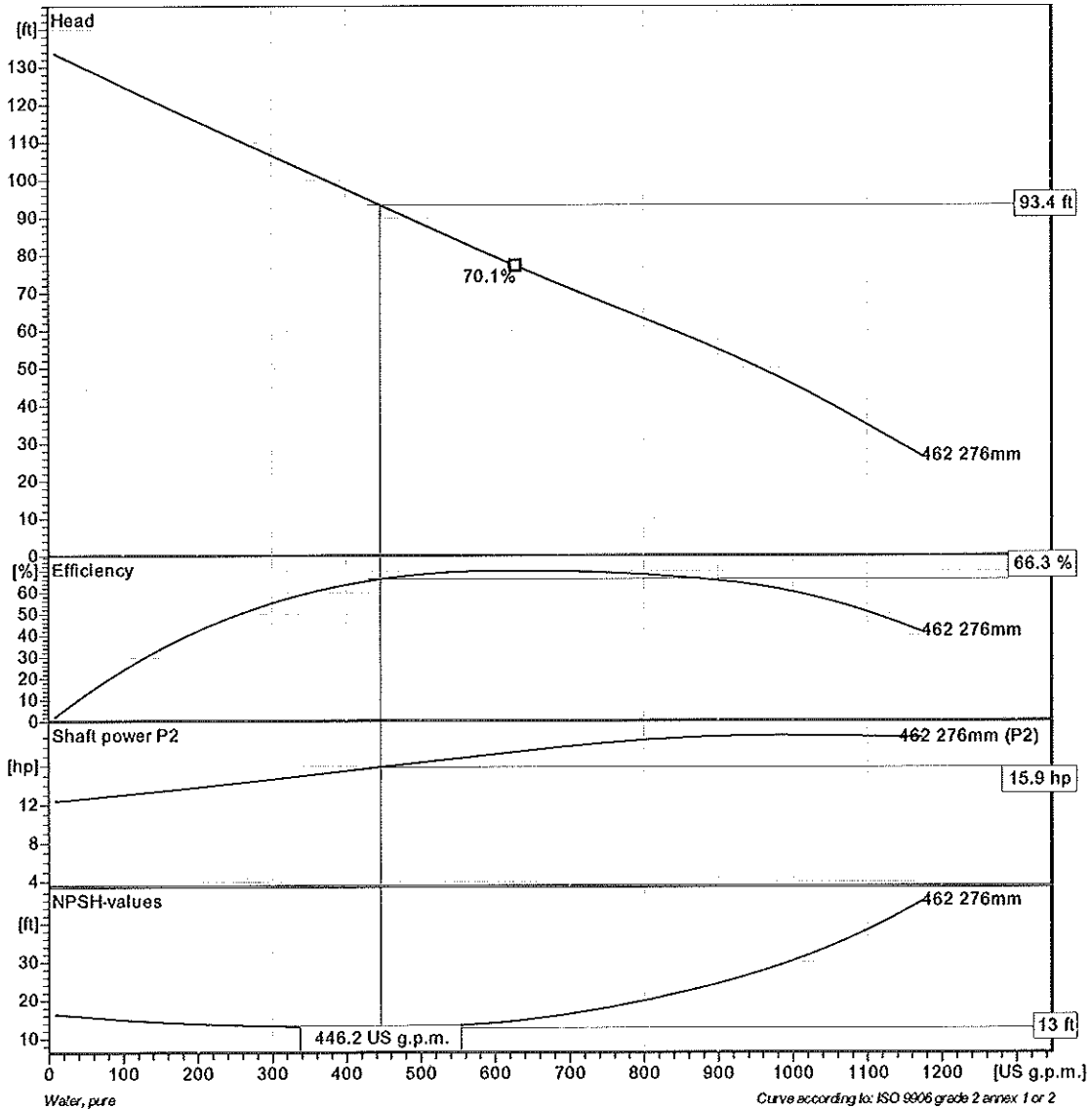
### Pump

Discharge Flange Diameter 3 15/16 inch  
Suction Flange Diameter 100 mm  
Impeller diameter 10 7/8"  
Number of blades 2

### Motor

Motor # N3153.095 21-18-4AA-D 20hp  
Stator variant 5  
Frequency 60 Hz  
Rated voltage 230 V  
Number of poles 4  
Phases 3~  
Rated power 20 hp  
Rated current 52 A  
Starting current 296 A  
Rated speed 1755 rpm

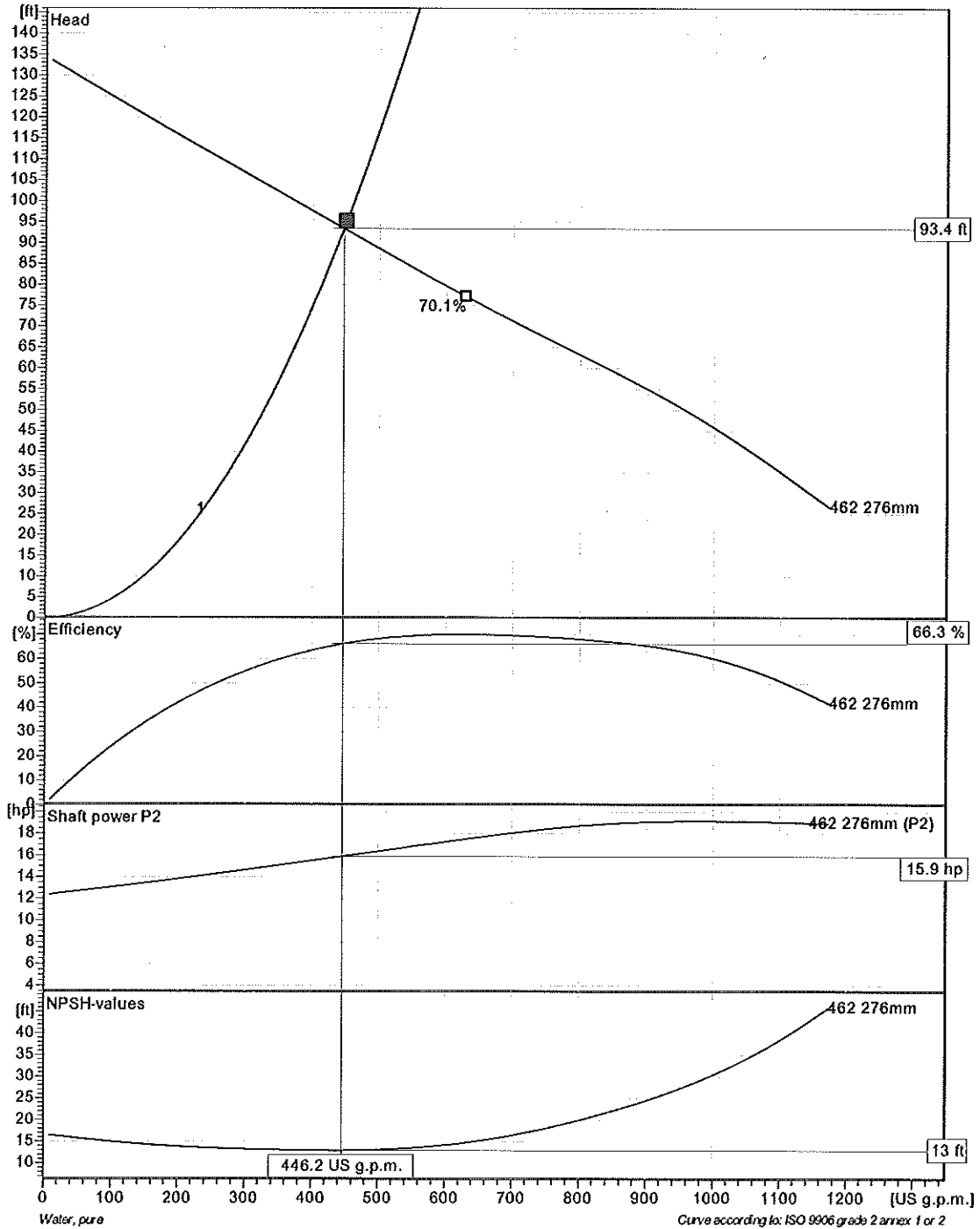
Power factor  
1/1 Load 0.83  
3/4 Load 0.77  
1/2 Load 0.66  
Efficiency  
1/1 Load 87.5 %  
3/4 Load 89.0 %  
1/2 Load 89.0 %



Duty point	Flow	Head	Guarantee	Grade
HI:2000	450 US g.p.m.	95 ft	No	Level A

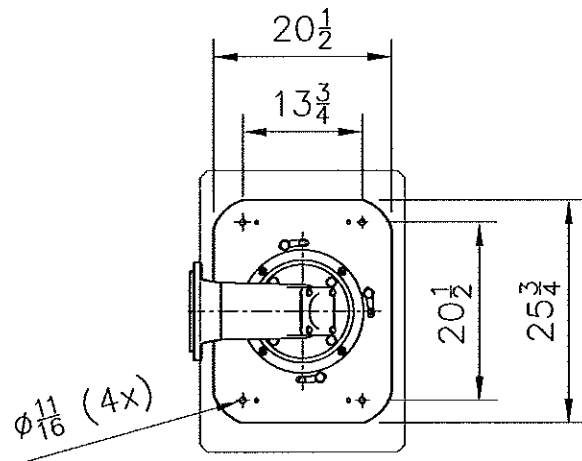
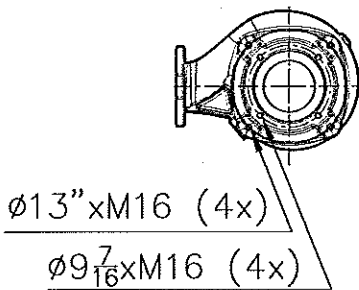
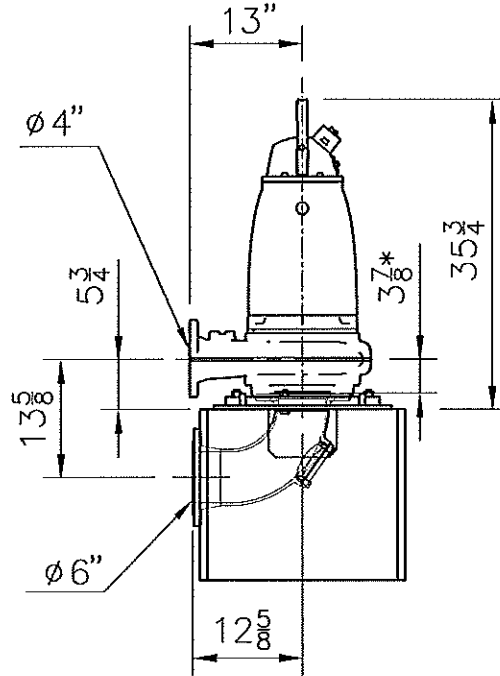
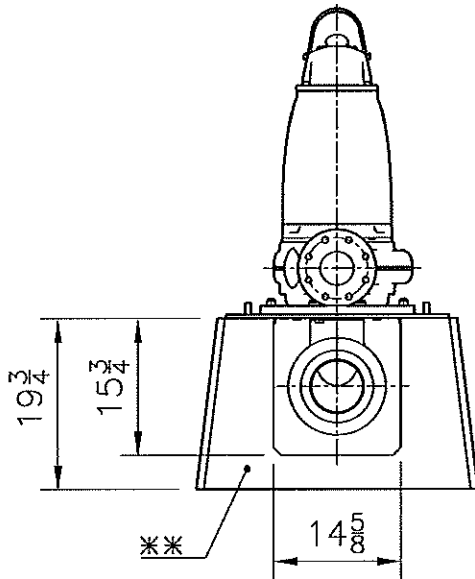
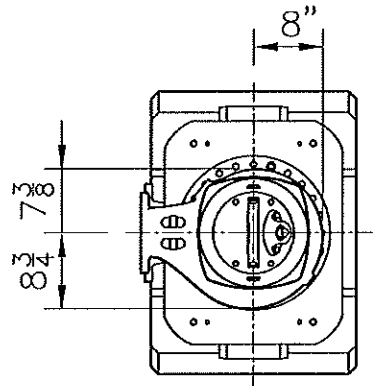
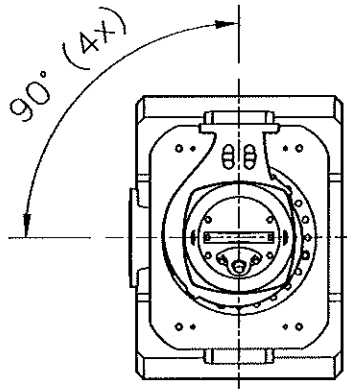
Project	Project ID	Created by	Created on	Last update
			2014-05-27	

**NT 3153 HT 3~ 462**  
Duty Analysis



Pumps running /System	Individual pump			Total					
	Flow	Head	Shaft power	Flow	Head	Shaft power	Hyd. eff.	Specific energy	NPSHre
1	446 US g.p.m.	93.4 ft	15.9 hp	446 US g.p.m.	93.4 ft	15.9 hp	66.3 %	498 kWh/US MG	13 ft

Project	Project ID	Created by	Created on 2014-05-27	Last update
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\* Dimension to elbow flange.

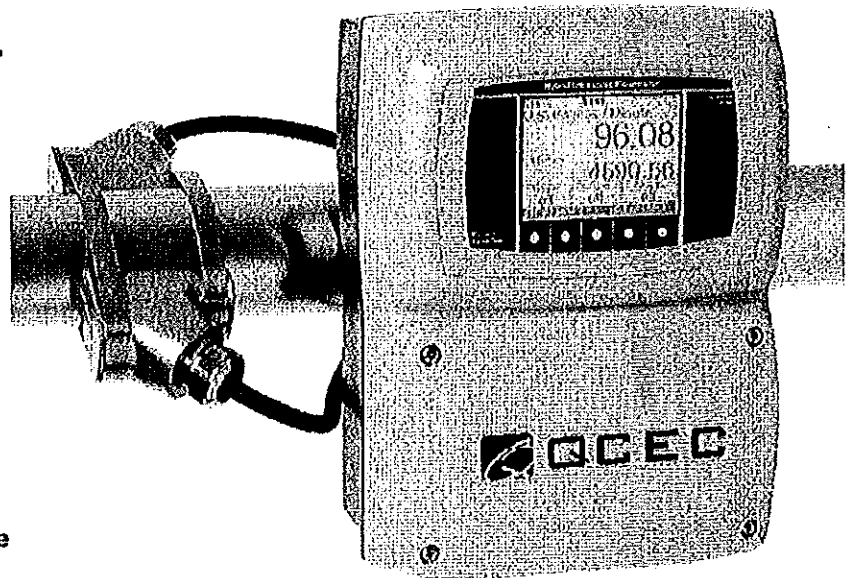
\*\* For concrete foundation dimensions, see drawing 768 50 00. Not supplied by Xylem.

WEIGHT (lbs)		
Pump	Stand unit	Inlet elbow
500	85	135

	Denomination Dimensional drwg NT, FT 3153 HT Ø6" / Ø4"	Drawn by JS Scale	Checked by Date 130702	
		7787000		Reg no 5399
		3		



## QC-DT-1 Hybrid Ultrasonic Flowmeter



Selectable Doppler or Transit Time  
Non-Invasive clamp on transducers  
High quality QVGA display  
NEMA 4X (IP 66) washdown enclosure  
Tamper resistant Interface  
Optional "Smart" external communications

💧 Liquid applications

**NEMA 4X CE**



### Applications:

- Sewage
- Wastewater
- Pulp & Paper Slurries
- DI water
- Discharge water
- Caustics
- Chemical Slurries
- Ground water
- Food and Beverage
- Petrochemical
- Any sound conducting liquid

### Features:

- Selectable Doppler or Transit Time operating mode.
- Custom quality metric algorithms and DSP technology ensures reliable, high accuracy measurements.
- Quick and easy clamp-on transducer installation. Proprietary AGC (Automatic Gain Control) algorithm eliminates manual gain adjustment.
- Tamper Resistant 2-button user Interface.
- Factory configured for easy installation.
- High quality 320 x 240 pixel QVGA backlit LCD.
- Data logging to standard SD Card format. Factory configured to three minute time interval triggers. Logs time, date, flow rate and total flow values. 500,000 events with included 32MB SD Card.
- Isolated 4-20 mA output - factory configured.
- 0 - 1000Hz Pulse output - factory configured.
- Optional - Computer connection via RS-232, RS-485, USB, Ethernet. Permits remote access and control of all functions including real-time display, system configuration, data logging, remote data capture and process control functions. Software permits remote Internet access through local network set-up.

# QC-DT-1 Hybrid Ultrasonic Flowmeter

## Installation:

### Fluid Requirements

The QC-DT-1 Hybrid Ultrasonic Flow Meters can measure fluid flow in virtually any fluid in which sound waves can travel. The QC-DT-1 meters are considered "hybrid" because they can measure fluid flow using either the Doppler or Transit Time methods. The QC-DT-1 ultrasonic sound transducers are clamped to the outside of the pipe wall and include no moving parts. This method of flow measurement is safe, non-intrusive and very easy to service.

The Doppler measurement method requires particles be present in the flow stream to "reflect" the sound waves. The meter may be operated in the Doppler mode when the fluid contains 0.02% to 15% (200 to 150,000 ppm) of particles.

The Transit Time measuring method requires relatively "clean" fluid to enable the sound waves to complete their circuit. The meter may be operated in the Transit-Time mode when the fluid contains 0% to 10% (0 to 100,000 ppm) of particles. To allow for changes in the fluid's particle count, the S2 monitors the signal gain and employs an Automatic Gain Control (AGC) algorithm that periodically adjusts the gain maintain the optimum power level.

The speed at which sound travels in the fluid must be known. The factory will configure the meter for a known fluid during the initial configuration. The QC-DT-1 includes a 5-button user interface and remote PC software that can be used to configure the meter. Many common fluids are listed in the software and can be selected directly from the menu. Provided the speed of sound in the fluid is known, custom "unknown" fluids can be input manually by the user. A list of various fluids and their sound speeds are provided in the user manual.

### Flow Stream Requirements

The QC-DT-1 sound wave beam is only affected by fluid that actually passes through the beam and therefore, the meter will not measure accurately if the fluid velocity is not consistent across the entire pipe diameter. Flow disturbances such as pumps, elbows, tees, and valves in the flow stream can cause swirl patterns and vortices that will affect the measurement. Install the transducers on a straight run of pipe as far as possible from any disturbances. The distance required for accuracy will depend on the type of disturbance.

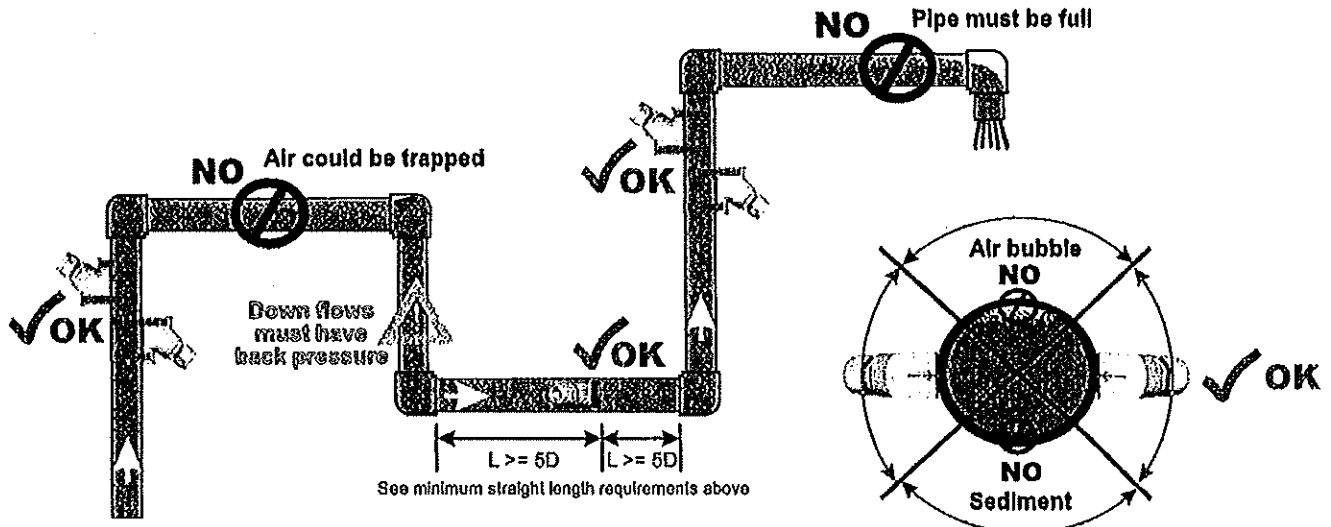
### Minimum Straight Pipe Length Requirements

The meter's accuracy is affected by disturbances such as pumps, elbows, tees, valves, etc., in the flow stream. Install the meter in a straight run of pipe as far as possible from any disturbances. The distance required for accuracy will depend on the type of disturbance.

Type of Disturbance	Straight Lengths of Pipe Required	
	Upstream from Transducers	Downstream from Transducers
Flange	5 x Nominal Pipe Size	5 x Nominal Pipe Size
Reducer	7 x Nominal Pipe Size	5 x Nominal Pipe Size
90° Elbow	10 x Nominal Pipe Size	5 x Nominal Pipe Size
Two 90° Elbows - 1 Direction	15 x Nominal Pipe Size	5 x Nominal Pipe Size
Two 90° Elbows - 2 Directions	20 x Nominal Pipe Size	5 x Nominal Pipe Size
Gate valve or Pump	25 x Nominal Pipe Size	5 x Nominal Pipe Size

### Transducer Mounting Location

- The meter can be mounted on horizontal or vertical runs of pipe.
- Mounting on the sides (3 o'clock and 9 o'clock) position on horizontal pipe is recommended.
- Mounting anywhere around the diameter of vertical pipe is acceptable, however, the pipe must be completely full of fluid at all times.
- Back pressure is required on downward flows to ensure a full pipe.
- See the minimum straight length of pipe requirement chart above.
- The meter can accurately measure flow from either direction.



# QC-DT-1 Hybrid Ultrasonic Flowmeter

## Specifications:

### General Operation

#### Measuring Principle

Hybrid. User-selectable Doppler or Transit Time operating modes.

#### Fluid Types

Virtually any acoustically conductive fluid.

Transit time mode from 0% to 10% (0 to 100,000 ppm) particulate.

Doppler mode from 0.02% to 15% (200 to 160,000 ppm) of 50 micron particulate.

#### Fluid Velocity Range

0.25 to 30 feet per second (0.07 to 9 meters per second)

#### Nominal Pipe Sizes

2.0 inch - 100 inch (63mm to 2500mm)

#### Pipe Liner Materials

Most plastic liners

#### Pipe Materials

Most metal and plastic pipes

Pipe Material	Pipe Size Ranges	Max Pipe Wall
Brass (Naval)	2" to 100" (63mm to 2500mm)	.500" (13mm)
Copper	2" to 100" (63mm to 2500mm)	.500" (13mm)
FRP (fiberglass Reinforced Plastic)	2" to 100" (63mm to 2500mm)	.500" (13mm)
Iron (cast)	2" to 100" (63mm to 2500mm)	.500" (13mm)
Iron (ductile)	2" to 100" (63mm to 2500mm)	.500" (13mm)
Nylon	2" to 100" (63mm to 2500mm)	2.00" (50mm)
Polyethylene (HDPE)	2" to 100" (63mm to 2500mm)	2.00" (50mm)
Polyethylene (LDPE)	2" to 100" (63mm to 2500mm)	1.00" (25mm)
Polypropylene	2" to 100" (63mm to 2500mm)	.500" (13mm)
PVC / CPVC	2" to 100" (63mm to 2500mm)	2.00" (50mm)
304 Stainless Steel	2" to 100" (63mm to 2500mm)	.500" (13mm)
304L Stainless Steel	2" to 100" (63mm to 2500mm)	.500" (13mm)
316 Stainless Steel	2" to 100" (63mm to 2500mm)	.500" (13mm)
Steel (1% carbon hard)	2" to 100" (63mm to 2500mm)	.500" (13mm)
Steel (carbon)	2" to 100" (63mm to 2500mm)	.500" (13mm)
Titanium	2" to 100" (63mm to 2500mm)	.500" (13mm)

Note: Consult the factory for an updated list of pipe materials.

### Accuracy

Flow Rate Averaging Time	Transit Time Accuracy at at Nominal Pipe Sizes
5.0 Seconds (default setting)	+/-1% of rate > 1 ft/sec +/-0.01 ft/sec < 1 ft/sec
1.0 Seconds	+/-1% of rate > 5 ft/sec +/-0.05 ft/sec < 5 ft/sec
0.5 Seconds	+/-2% of rate > 12 ft/sec +/-0.25 ft/sec < 12 ft/sec

Flow Rate Averaging Time	Doppler Accuracy at Nominal Pipe Sizes
5.0 Seconds (default setting)	+/-2% of rate > 12 ft/sec +/-0.25 ft/sec < 12 ft/sec
1.0 Seconds	+/-2% of rate > 12 ft/sec +/-0.25 ft/sec < 12 ft/sec
0.5 Seconds	+/-2% of rate > 12 ft/sec +/-0.25 ft/sec < 12 ft/sec

### Shipping Specifications

Carton Dimensions: 21" x 17" x 9-1/2"

Carton Weight: 24 lbs. (10.9 Kg.)

### SPU (Signal Processing Unit)

#### Enclosure

NEMA 4X (IP66), Powder coated aluminum, SS clamps and hardware. Dimensions: 11.00H x 8.60W x 5.00D inches (279H x 218W x 127D mm) Weight 9.5 lb. (4.3 Kg.)

#### Mounting

Wall, pipe (vertical or horizontal) or panel mounting. Hardware Included. Panel opening: 10.63H x 8.10W inches (270H x 208W mm) Panel Depth. Rear: 2.78 inches (71 mm), Front : 2.18 inches (55 mm)

#### Power Requirements

95-264 VAC 50/60Hz or 15-30 VDC; 30 watts maximum

#### Operating Temperature

14°F to 140°F (-10°C to 60°C) Storage: -40°F to 168°F (-40°C to 70°C)

#### Display

320 x 240 pixel QVGA backlit LCD, UV resistant.

Simultaneous Rate and Total: 10 digit maximum + exponent to E+32

Decimal point factory configured.

#### Display Languages

English, Spanish, French or German factory configured.

#### Keypad

Two-button positive action tactile switch keypad.

#### Display Volume Units

Factory configured Rate and Total display units in: U.S. Gallons, ounces, barrels (US liquid), barrels (US oil), cubic feet, acre feet, Imperial (British) gallons, liter, cubic meter, or user defined "custom" units.

Rate display in feet or meters per second.

#### Display Time Units

Factory configured for seconds, minutes, hours, days.

#### Display/Output Update Time

Factory configured for 1.0 seconds.

#### Flow Rate Display Averaging

Factory configured for 5.0 seconds.

#### Data Outputs

- Isolated 4-20 mA output - factory scaled at 0 to 30 ft/s
- 0-1000 Hz Pulse output - factory scaled at 0 to 30 ft/s

#### Data Logging

Date/time stamped flow rate and flow total data in FAT32 file format, easily imported into Excel. Factory configured to trigger at 3 minutes time intervals. Over 500,000 log events possible with included 32MB SD Card.

#### Process Control - optional

(requires communications option shown below)

Three independently configurable 10 amp Form C, NO/NC relays.

- Configure to flow rate for high/low/range rate alarm. Programmable release values enable auto release or manual latching operation.
- Configure to flow total for manual trigger batch operations or automatically triggered, timed batch operations.

#### External Communications - optional

Computer connection via RS-232, RS485, USB, Ethernet.

- Includes user communication and configuration software
- Permits remote internet access through local network set-up
- Remotely access and upload data logging files.

### Clamp-On Transducers

#### Housing

NEMA 6P (IP67), Nickel plated aluminum, SS clamps & hardware.

Dimensions: 3.12H x 2.95W x 1.60D in. (79H x 75W x 41D mm)

Weight (excluding cable): 0.8 lb. (0.4 kg.) each

#### Cable

Shielded coaxial RG/U Type:59. PVC jacket, black. RoHS Compliant

Standard length: 10 ft. (3m)

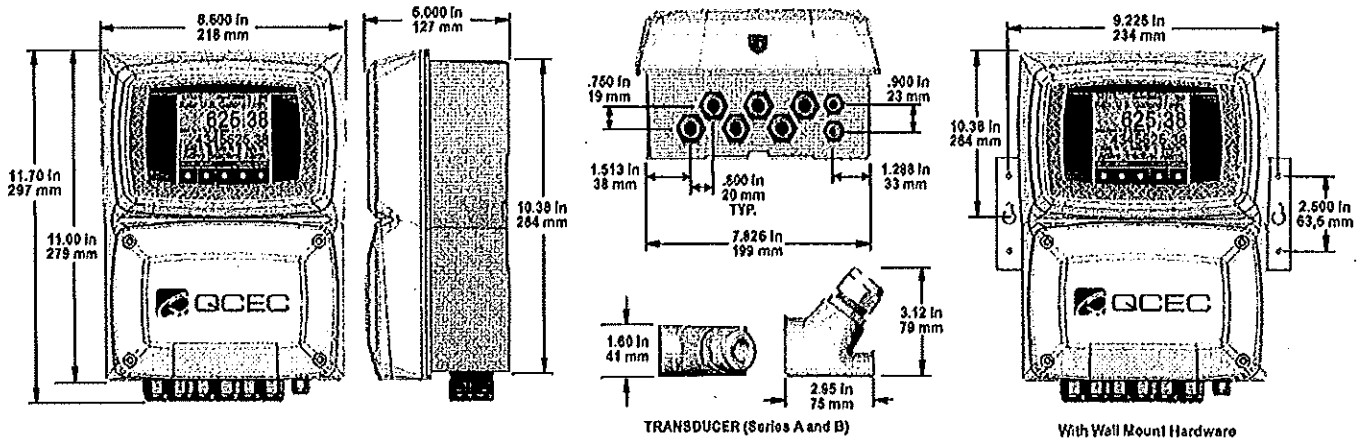
Optional lengths available: 25 ft. (7m), 50 ft. (15m), 100 ft. (30m)

#### Pipe Surface Temperature

-20°F to 300°F (-34°C to 160°C)

# QC-DT-1 Hybrid Ultrasonic Flowmeter

## Dimensions:



4280 E. 14th Street • Des Moines, IA 50313-2604 • (515) 266-2268 • fax: (515) 266-0243

[www.qcec.com](http://www.qcec.com)





# Specification

## MultiSmart Pump Station Manager Specification

<b>Document</b>	MultiSmart Pump Station Manager
<b>Date</b>	November 1, 2012
<b>Revision</b>	6.00
<b>MultiSmart version</b>	3.0.3

## 1. Pump Controller Functions

The pump controller shall provide user ready automatic control of pumps with an intuitive HMI interface. The pump controller shall contain pre-designed operational parameters that are selected and configured via the user interface (HMI). The minimum features available in the pump controller shall include:

- A. Pump control of up to 6 pumps; including pump grouping and pump alternation.
- B. Intelligent Hand-Off-Auto Control:
  - o Hand mode (semi-automatic, non-maintained manual mode), the pump switches off at the deactivation set point and then resets to Auto mode for the next pump run cycle.
  - o Hand mode (fully manual, maintained mode). To pump beyond the off (deactivation) set point, the Hand-Off-Auto button must be held down by the user for failsafe control.
- C. Level set point adjustment for pump activation, deactivation and station level alarms.
- D. Level device input capability shall include: 4-20mA analog signal, conductive probe or floats.
- E. Redundant level device input capability with automatic input fault control (input device switching).
- F. Selectable charge (fill) or discharge (empty) modes.
- G. Pre-configured station optimization features:
  - o Maximum pump off time
  - o Maximum pumps to run
  - o Maximum starts per hour
  - o Inter-pump start and stop time delays
  - o Maximum pump run time
  - o Blocked pump detection
  - o Well washer control capability
  - o Well clean out control capability
  - o Pump operation control (profile programming) capability
- H. "Locked level" alarm function to indicate a level device fault.
  - o User-defined % change within a specified time period
  - o Different set point values for low use or high use time periods (user defined)
- I. Pump alternation modes:
  - o Fixed lead pump assignment
  - o Normal alternation
  - o User defined alternation using N:1 ratio
  - o Run most efficient pump using N:1 ratio
  - o Alternation by the number of hours run or the number of starts within a specified time period
- J. Pump decommissioning:
  - o Decommissioned pump is automatically removed from the pump controller.
  - o Internal remote monitoring data tag shall flag the decommissioned status of a pump
- K. Up to (6) unique user defined profiles of set points shall be available to control pumps during specific site conditions or events. Features shall include:
  - o Automatic profile change based on date and time
  - o Profile selection option from SCADA (remote control), digital input, logic tag or local display HMI
- L. Datalogger for user-defined faults and events:
  - o 50,000 events to internal flash memory

- 10,000,000 events by writing directly to an SD card or USB
  - FTP data transfer or download data capability of event and fault logs in the form of a (csv) file for Microsoft Excel analysis
- M. 3-phase supply voltage monitoring and supply fault management for the following conditions:
- Under-voltage
  - Over-voltage
  - Phase fail
  - Phase rotation
- N. Monitoring of dc power supply, battery voltage, and internal controller temperature
- O. Energy, power and pump efficiency monitoring:
- kW, kVA, power factor, kWhr, KVAH calculation for each pump
  - pump efficiency calculation (litres or gals per kWhr) for each pump
- P. Motor protection features:
- 3-phase current monitoring for each pump
  - Over- and under-current trip
  - Ground/earth fault
  - Current phase imbalance fault
  - I<sup>2</sup>T fault
  - Insulation resistance testing for motor windings
- Q. Flow measurement:
- Calculated flow via liquid level draw down data
- R. VFD speed control capability.
- S. Fault module capability as follows:
- Pump hold out function
  - Automatic restart function after fault condition is no longer present
  - Manual reset of fault required (if user intervention of fault reset is selected)
- T. Remote control via remote telemetry monitoring to include the following:
- Changing the mode of pumps (hand/off/auto)
  - Reset of pump faults and station faults
  - Changing pump and alarm setpoints
  - Changing operational profiles
- U. Security
- User defined password management for access to programming areas in the controller
  - Automatic data logging of personnel who have entered the programming areas
  - Automatic logging of all unsuccessful login attempts with a date and time stamp
  - Digital input option for controlled access to programming areas
- V. SD/USB ports shall be available for the following operations:
- Firmware upgrades
  - Save and load pump controller configuration
  - Download data logs
  - Export or import Modbus and DNP3 points list

## 2. Advanced Programming Functions

The pump controller shall have the option of interfacing with IEC61131-3 and IEC61499 compliant PLC programming languages to enhance functionality or interact with the pump controller.

The pump controller shall have the option of using a simple logic engine to enhance functionality or interact with the pump controller.

## 3. Input /Output Characteristics

The pump controller inputs and outputs shall be modular and shall be expandable.

Available I/O types shall include:

- A. Digital inputs (voltage free input), also configurable as counters
- B. Digital outputs (240V, 5A resistive)
- C. Analog inputs (10bit)
- D. Analog outputs (10bit)

### 3.1 User defined digital inputs

Digital Inputs shall be configurable based on specific pump sensor arrangements:

- A. Seal sensor (conductive)
- B. PTC Thermistor
- C. Flygt FLS & CLS
- D. Conductive probe (for liquid level sensing)

### 3.2 Dedicated pump monitoring inputs

The pump controller shall provide support for the following pump monitoring inputs:

- A. Insulation resistance test (IRT) with user selectable test voltage up to 1000VDC
- B. 3-phase current monitoring, derived from external current transformer devices with a 0.5% input resolution tolerance
- C. 3-phase supply voltage monitoring at 0.5% input resolution tolerance. Up to 630VAC maximum voltage (phase to phase).

### 3.3 Duoprobe Support

The pump controller shall have an internal atmospheric pressure sensor to allow for atmospheric pressure sensing and signal correction when used in conjunction with the Multitrode Duoprobe pressure transducer level sensing device.

## 4. User interface

The pump controller shall include a graphical user interface (HMI) display for configuration settings, control operations, and advanced programming. The following display characteristics shall be provided:

### 4.1 Status indication

The following parameters shall be displayed on the main screen:

- A. Liquid level in percentage, meters, feet or other custom defined units
- B. Set points for pump control and alarms
- C. Pump status (running or stopped)
- D. Pump availability
- E. Pump fault indication

- F. 3-phase voltage supply values
- G. Date and time indication
- H. User configurable options to display pump information and station status

#### 4.2 Information screens

The following parameters shall be available via a user key press from the main screen:

- A. Hours Run accumulators for each pump and the pump station with the following information:
  - o minutes run for last pump cycle
  - o total minutes (hourly)
  - o total hours today, total hours yesterday
  - o total hours this week, total hours last week
  - o total accumulated hours
- B. Pump Start accumulators for each pump & the station with the following comparisons
  - o pump starts this hour, pump starts last hour
  - o pump starts today, pump starts yesterday
  - o pump starts this week, pump starts last week
  - o total accumulated pump starts
- C. Flow values
  - o station inflow rate
  - o pump flow rate
  - o total station volume
  - o overflow data (including overflow start time, duration, estimated volume)
- D. Power and Efficiency
  - o pump efficiency in gallons or litres per KWHr - or KVAh
  - o power in kW, KVA
  - o power factor
  - o energy accumulators per pump in KWHr and KVAH
- E. Insulation resistance value for each pump motor in (Ohms)
- F. I/O Status
  - o Digital I/O status and accumulated values
  - o Analog I/O status and values in (mA) or scaled values
  - o 3-phase voltage, current, frequency, phase angle, power factor
- G. Database viewer to review all statistics, data information and available tags in real time
- H. Communications information and statistics

#### 4.3 Control Functions

The pump controller display interface shall be capable of performing the following control operations:

- A. Pump control mode for each pump (Hand-Off-Auto)
- B. Pump fault reset
- C. Level alarm reset

#### 4.4 Fault screen

The main screen shall include a Fault button which takes the user to a Fault screen and allows them to check all current and unacknowledged alarms.

The fault screen will provide fault details along with a date and time stamp for each fault occurrence.

A fault reset option shall be presented to the user when alarms can be acknowledged or reset.

#### 4.5 History screen

The main screen shall include a History button which takes the user to a History screen which allows them to view the following information:

- A. Viewing of all faults and events
- B. Information filtering capability

#### 4.6 Configuration screens

The user configuration screens shall provide capability to change pump control settings as follows:

- A. Setup Wizard function to configure the pump controller settings by user input to specific questions
- B. Set point programming of alarms and pump activation/deactivation.
- C. Enable or disable alarms
- D. Set alternation mode for pumps
- E. Configure I/O as follows:
  - o Assign primary/backup level to any input, e.g. 4-20mA or conductive probe
  - o Assign pre-defined or user-defined faults to any digital input
  - o Zero and span analog inputs
  - o Configure digital output source
  - o Configure analog output source
- F. Configure faults as follows:
  - o display the fault to the local screen only
  - o manual reset (local) or remote reset operation before pump becomes available
  - o auto-restart (after fault condition clears) with configurable restart time
  - o auto-restart user-selectable number of times within time window before locking out
  - o customized text for fault and event name
- G. Configure station optimization parameters
- H. Configure supply protection
  - o Under and over voltage alarm points
  - o Volts phase imbalance and volts phase rotation set points
  - o DC supply alarm set point
- I. Configure motor protection
  - o Under current set points
  - o Over current set points
  - o Ground/earth fault set points
  - o Phase failure set points
- J. Configure communications ports, speeds and addresses

#### **4.7 Configuration program backup, restore and firmware upgrades**

The pump controller configuration interface shall allow the user to save and restore pump controller configurations onto a portable SD card or USB storage device.

The pump controller shall allow for the import of DNP3 and Modbus point lists and custom logic scripts via the SD or USB ports.

The pump controller configuration interface shall allow the user to backup system log files, alarm and event log files, and custom scripts via the SD or USB ports.

Firmware upgrades shall be possible by using a firmware upgrade file on a portable SD card or USB storage device.

### **5. Communications**

#### **5.1 Physical**

The pump controller shall include the following data communication ports:

- A. Two Ethernet ports (10Mbit/s)
- B. Two RS232 ports (115kBit/s)
- C. Two RS485 ports (115kBit/s)
- D. USB device port
- E. SD card port

#### **5.2 Communication Types**

The pump controller shall support the following communication types:

- A. TCP/IP
- B. UDP
- C. RS232
- D. RS485
- E. Private radio over RS232
- F. PSTN
- G. Wireless LAN
- H. Cellular data (via integral ppm module)
- I. Cellular voice

#### **5.3 Communication Protocols**

DNP3 (master & slave, level 2 compliant), including:

- A. Change of state reporting
- B. Native date/time and quality stamps for each data point
- C. Event buffering for different classes of data
- D. Support for multiple masters and slaves to be configured on the unit
- E. DNP Security (for securing communications between master station and RTU)

Modbus (master & slave) including:

- F. Modbus TCP
- G. Modbus RTU

- H. Modbus ASCII
- I. Support for multiple masters and slaves

## 6. Performance and Environmental Characteristics

The pump controller shall meet the following performance and environmental characteristics:

- A. Central Processing Unit Speed: 566MHz
- B. Central Processing Unit RAM Size: 256MByte
- C. Central Processing Unit Flash Memory Size: 64MByte
- D. Real Time Clock
- E. Working temperature      -10°C to +60°C
- F. Storage temperature      -40°C to +90°C
- G. Humidity                    5% to 95% (non-condensing)
- H. IP Rating                    Controller Base Unit:    IP20, Nema 1  
                                  Display Interface        IP65, Nema 4

## 7. Warranty

The pump controller shall be provided with a 5 year limited manufacturer's warranty.



# BigQ Davit Cranes

products of the Quality Control Equipment Company • (800) 959-7232 • www.qcec.com

## B10 Davit Crane

1000 Pound Lift Class

The B10 davit easily disassembles for transport and use in multiple locations. Configure it for each such application by selecting the most appropriate:

davit model   B10    
 mounting base   HQ130    
 winch option   WQ100    
 lift cable   HQ810-36SS  

Note: Entrust configuration decisions and base installation design only to engineers who are well-acquainted with applicable regulations and standards.



### 1. Davit Models (see page 2 for specifications)

The B10 davit is available in two corrosion-resistant material and finish combinations:

Model	Material
B10	blue powder-coated carbon steel
B10SS	electro-polished stainless steel

- The elevation of the four-position extendable boom is ratchet-adjustable under load
- The E-Z Turn bushing and sleeve provide unconstrained 360° rotation about the base socket centerline
- 2 year limited warranty

### 2. Mounting Bases (see pages 3 and 4)

The crane's hook-height range varies with the selected base, one of which should be permanently-installed at each intended lift location:

Type	Carbon Steel	Stainless Steel	Type	Carbon Steel	Stainless Steel
Pedestal	HQ311	HQ311SS	Recessed	HQ331	HQ331SS
Dolly	HQ371	HQ371SS	Bracket	HQ351	HQ351SS

### 3. Lifting Winch Options (see separate data sheets)

These winches feature 1000-pound full-drum capacities and automatic load-control braking:

Option	Type	Description	Option	Type	Description
10	manual	BigQ WQ100	20	110Vac	BigQ WQ200

### 4. Lift Cables (see capacity chart on page 2)

QCEC stocks the following commonly-ordered lift cable assemblies:

Part No.	Length	Diameter	Wire Rope	Winch End	Load End
HQ810-28SS	28 feet				
HQ810-36SS	36 feet	1/4 inch	7x19 stainless	swaged ball	1300 lb stainless steel latching eye-hook
HQ810-45SS	45 feet				

Custom assemblies can be ordered through QCEC.

# BigQ Davit Cranes

products of the Quality Control Equipment Company • (800) 959-7232 • www.qcec.com

## B10 Davit Specifications

Hook Reach and Elevation: see following pages

Load Capacity: up to 1000 pounds, depending on boom position

Cable Configuration: single-line only

Ratchet Jack: 13 full turns raise boom from minimum to maximum elevation; 14-inch handle; positive stops restrict clevis pin spacing from 16 to 21.5 inches

Mast Rotation: Unrestrained 360 degree rotation about base centerline

Mast Bearings: bronze E-Z Turn pin bushing and Nyloil MDX sleeve bearing

Cable Sheave: easily-replaced, heavy-duty Delrin pulley with bronze axle bushing

Assembly Pins: stainless steel clevis and lynch pins, bound to crane with stranded lanyards

ID Tag: corrosion-resistant metal plate with date of manufacture, model and serial numbers

Component Weights:

- mast: 41 pounds
- boom: 35 pounds
- boom extension: 23 pounds
- jack: 11 pounds
- handle: 7 pounds

## B10-10 Crane Capacity

When a B10 davit is paired with an WQ100 manual winch, that crane's lift capacity depends only on the position of the boom and the lift cable type, material and diameter (the rigging must also include an equally-strong hook and sling):

Boom Position	1	2	3	4	1	2	3	4
Cable	rotation-resistant (5.0 design factor)				non-rotation-resistant (3.5 design factor)			
1/4" stainless	1000 lb	750 lb	600 lb	500 lb	1000 lb	750 lb	600 lb	500 lb
1/4" galvanized	1000 lb							

Up to 51 feet of 1/4" wire rope can theoretically be wound about the WQ100 drum (5 perfect layers). Practical limits will be 20 – 30 percent less:

- Add distance to boom tip for maximum cable length.
- Subtract the 3' minimum (four wraps) that must be kept on the drum to get maximum lift distance.

*Δ It is the customer's responsibility to determine the suitability of this device to all intended uses, to engineer the base installations to support the intended loads, and to make sure the crane is operated in compliance with all applicable codes and regulations.*

*⊗ This device is not to be used to lift or support people!*

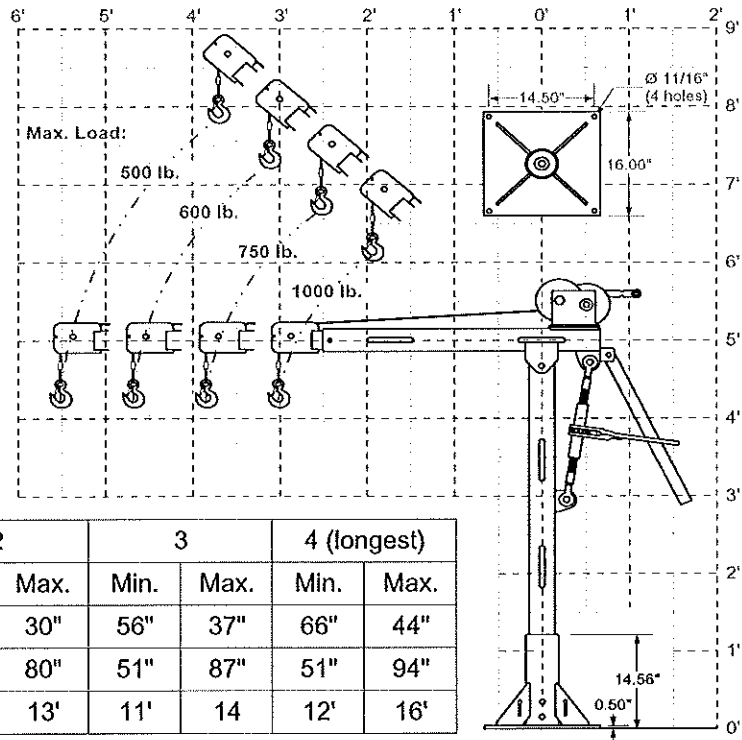
# BigQ Davit Cranes

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## Pedestal Base

The illustration and table on this page detail the hook reach and elevation ranges of an B10-10 crane mounted in an HQ311 pedestal base:

- Hook elevations assume a 7" hook.
- Minimum cable is the single-line length needed to lower the hook to floor level. Add its maximum below-floor distance to obtain the optimum cable length.



Boom Position	1 (shortest)		2		3		4 (longest)	
Boom Angle	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Hook Reach	36"	23"	46"	30"	56"	37"	66"	44"
Hook Elevation	51"	73"	51"	80"	51"	87"	51"	94"
Minimum Cable	9'	11'	10'	13'	11'	14'	12'	16'

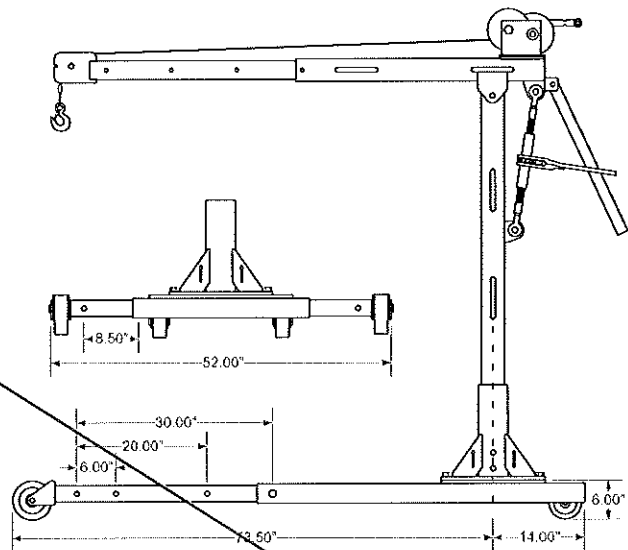
## Dolly Base

The HQ371 dolly base consists of an HQ300 pedestal base mounted on a mobile platform that is 6-inches high. Thus, the hook reach and elevation ranges of an B10-10 crane mounted on such a dolly are the same as those shown above for pedestal bases, except that the hook elevation and minimum cable specifications must be increased by 6 inches.

As indicated to the right, you can adjust both the dolly's width (two positions) and length (four positions).

**When used with this base, the davit mast must be pinned to prevent the load from rotating to an unstable position.**

**Do not extend the davit boom beyond the ends of the dolly legs!**

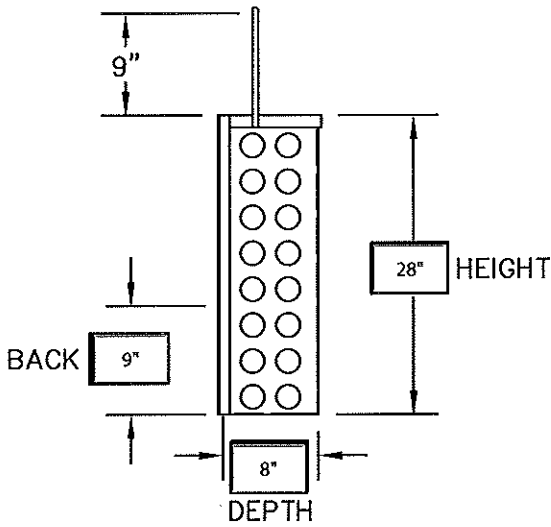


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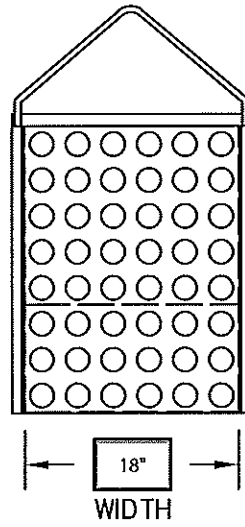


MODEL NO. B1ABBBAA18A28A08A09A  
 QUANTITY: 1  
 ORDER NO. Q32158  
 LOCATION/TAG:

STANDARD FEATURES:  
 PERFORATED SIDES, BACK AND BOTTOM  
 1/2" DIAMETER LIFTING BAIL  
 ALL WELDED CONSTRUCTION



SIDE VIEW



FRONT VIEW

TRASH BASKET MATERIAL:

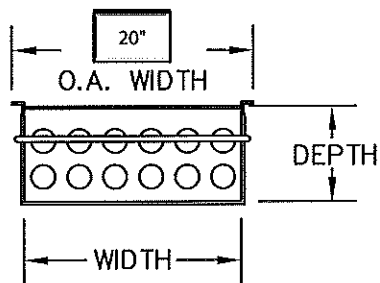
- ALUMINUM (.080)
- T-304 S.STL. (16 GA.)
- T-316 S.STL. (16 GA.)

HOLE SIZE:

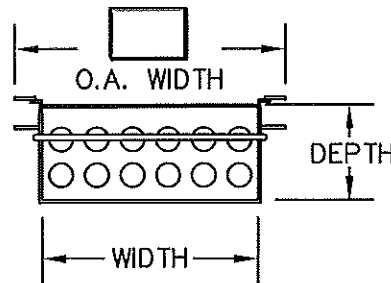
- STANDARD 2"Ø @ 3" O.C.
- HOLE DIAMETER
- HOLE SPACING

\* MISCELLANEOUS

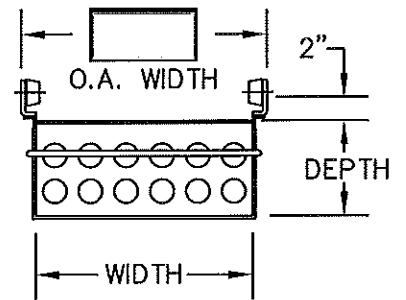
\* SEE ACCOMPANYING DETAIL DRAWING



PLAN VIEW  
STANDARD RAILS



PLAN VIEW  
PIPE RAILS



PLAN VIEW  
CHANNEL RAILS

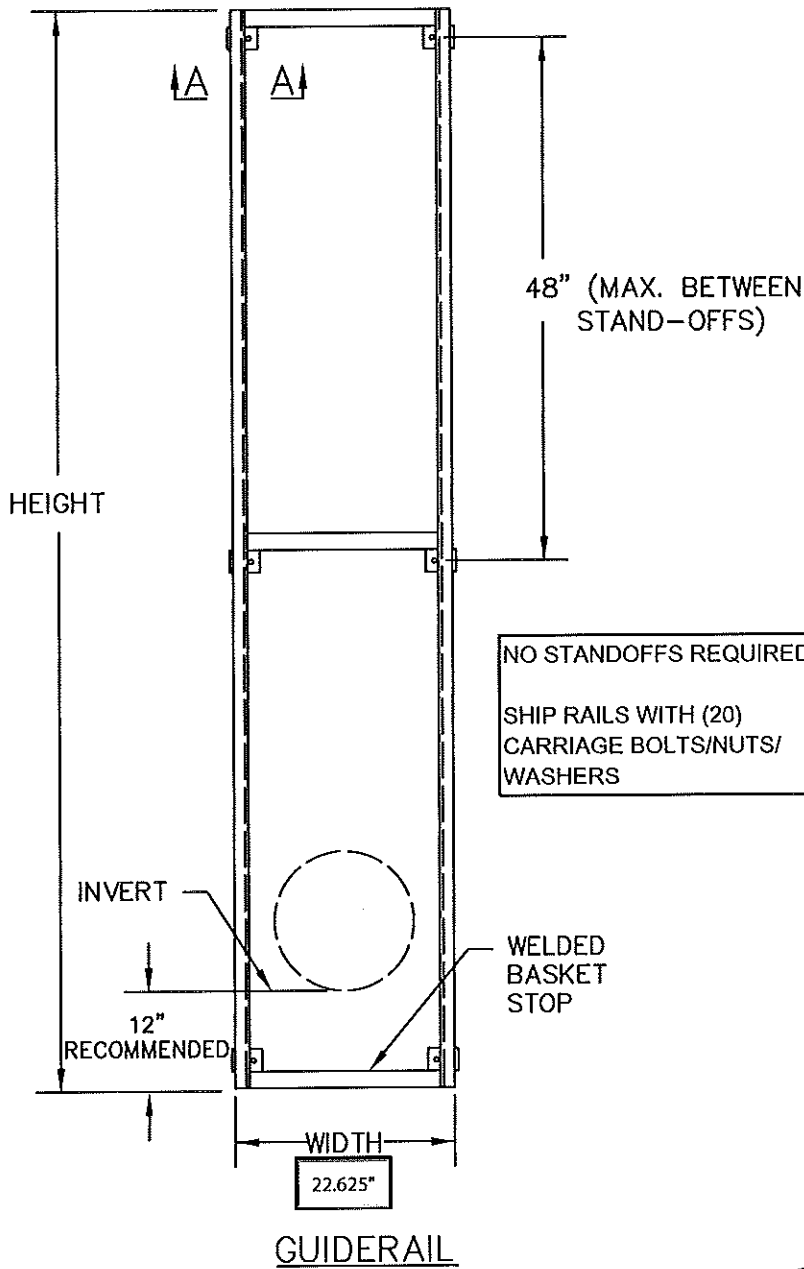


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MODEL NO. B1D192--AABABA  
 QUANTITY: 1  
 ORDER NO. Q32158  
 LOCATION/TAG:

NOTE: GUIDE RAIL SYSTEMS ARE JOB SPECIFIC AND NON-RETURNABLE



TRASH BASKET RAIL SYSTEM

STANDARD FEATURES:  
 ALL WELDED ALUMINUM CONSTRUCTION  
 STAND OFFS SHIPPED LOOSE FOR  
 FIELD ADJUSTMENT

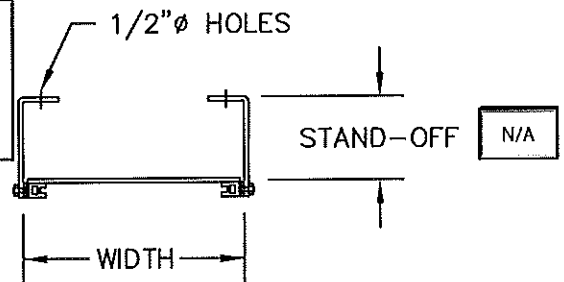
CHANNEL GUIDE RAIL MATERIAL:

ALUMINUM

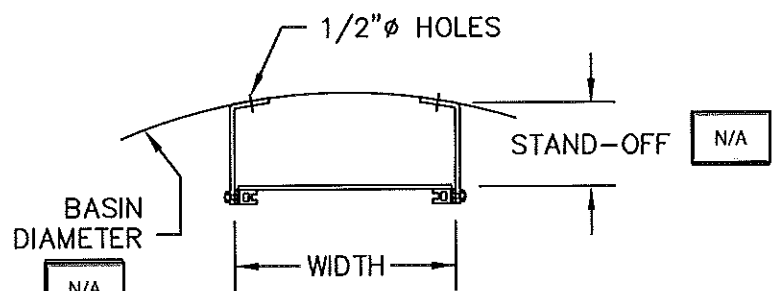
192" HEIGHT (RAIL LENGTH)

0 SETS OF STANDOFFS

NO STANDOFFS REQUIRED.  
 SHIP RAILS WITH (20)  
 CARRIAGE BOLTS/NUTS/  
 WASHERS



FLAT WALL APPLICATION



ROUND WALL APPLICATION

