P-101 CHARGE PUMP MAKE: GOULDS MODEL: 1"X1.5"-6, 3996 SUCTION: 1.5"-150# F.F.

M - 101

ELECTRIC MOTOR (CHARGE PUMP)
MAKE: TECO-WESTINHOUSE
SIZE: 5HP, 3600 rpm

460V/60Hz/3 PHASE FRAME: 184T

P-201 MA-155M TRIPLEX PLUNGER PUMP (CUSTOMER SUPPLIED) MAKE: APLEX MODEL: A-50 SIZE: TBA SUCTION: 3"-150# F.F. DISCHARGE: 2"-1500# TAPPED NPT

M - 201

ELECTRIC MOTOR (PLUNGER PUMP)

(CUSTOMER SUPPLIED)
MAKE: TECO-WESTINHOUSE

460V/60Hz/3 PHASE

MA-156M TRIPLEX PLUNGER PUMP (CUSTOMER SUPPLIED) MAKE: APLEX MODEL: B-85M SIZE: TBA SUCTION: 3"-150# F.F. DISCHARGE: 2"-1500# L.F.
"PLUNGER SIZE: -M - 202

P-202

ELECTRIC MOTOR (PLUNGER PUMP)

(CUSTOMER SUPPLIED)
MAKE: TECO-WESTINHOUSE

SIZE: -

480V/60Hz/3 PHASE

LOW PRESSURE SWITCH MAKE: CCS DUAL SNAP MODEL: 6900 SERIES SIZE: 1/2" MAX. PRESS.: 15 pel DESIGN PRESS .: FALLING SHUTOFF

PI-101. 102. 103. 104.

107
SUCTION PRESSURE INDICATOR

MAKE: WIKA/WBI MEASUREMENT: 0-100 PSI

SIZE: 4" FACE, 1/2" NPT

PSL-101, 102

PSH-101, 102 HIGH PRESSURE SWITCH MAKE: CCS DUAL SNAP SIZE: 1/2" MAX, PRESS.: 2050 pel DESIGN PRESS.: RISING SHUTOFF

PI-105, 106 DISCHARGE PRESSURE INDICATOR

MAKE: WIKA/WBI

MEASUREMENT: 0-5,000 PSI

SIZE: 4" FACE, 1/2" NPT

FQI-101 TURBINE FLOW METER FLOW TOTALIZER MAKE: PRIMARY FLOW MODEL: WM0150X2 SIZE: 1-1/2"x2.0" MAX. PRESSURE: 3,700 pa NECTIONS: SANDWICH STYLE FLOW ANALYZER

> SET PRESSURE: 2200 paig (FLANGED CONNECTIONS INSTALLED)

H-101, 102 PSV-101, 102 PRESSURE RELIEF VALVE
MAKE: FARRIS
MODEL: 27DA33H-M20 UNIT HEATER
MAKE: CATADYNE
MODEL: WX SERIES
SIZE: 24 × 24 INLET x OUTLET: 3/4" NPT X 1" NPT ORIFICE AREA (eq. "): 0.110

SUCTION STABILIZER
MAKE: STATUS FLOW
MODEL: SFV-1504-F-600 SUCTION FILTER MAKE: J.L. FILTRATION MODEL: 5-BAG FILTER CONNECTION: 4" 150# R.F. CONNECTION SIZE: 3" 150# R.F.

F - 101

S-103, 104 DISCHARGE STABILIZER MODEL: SFT-21002-F-600 CONNECTION: 2" 900# R.F.

S-101, 102

VSH-101, 102 MAKE: MURPHY MODEL: VS-2-EX

DT-101

DAY TANK MAKE: KENCO

EF-101. 102 EXHAUST FAN MAKE: DAYTON 12" 120V/1 PHASE/60 Hz

LSL-101, 102

MAKE: MURPHY

MODEL: EL-150-EX

DPSH-101 DIFF. PRESS. SHUTDOWN SWITCH MAKE: CCS DUAL SNAP MODEL: 646DZE2 SET PRESS .: 15 pel RISING CONNECTION: 1/2" NPT

ACV-101, 102

MANUAL BYPASS CONTROL VALVE

MAKE: BETTIS

ACTUATION: PNEUMATIC

PSHL-101, 102 SKID LIMITS MODEL: 6900 SERIES SIZE: 1/2" MAX, PRESS.: 2050 pai H-101, 102 DESIGN PRESS.: FALLING SHUTOFF S-101 S-102 HARD PIPED DT-101 3°-150# 50# LSL (LSL) M - 201(Pi 102) PI 103 3/8" 3/8" 3/8" 3/8" 101 102 VSH 0 EF-101 M-202 101 102 7 1/2" (101) PSL 101 F-101 S-103 S-104 M-101 3"x1" Pi 104 101 105 1/2" 3°-150# HARD PIPE TO 1-1001-900# DRAIN MANIFOLD 150# F.F. 4"- 150#(N1) 4"X1.5" NOTE: DRAIN MANIFOLD TO HAVE COMPRESSED AIR PURGE CONNECTION P-101 4"X3" 4"X3" HARD PIPE TO 1" 2"-900# x 2"-300# SET @ 2200 pelg -101-PURGE -102 101 PSHH) DRAIN MANIFOLD 102 ₭ 1/2" 100 2°- 150 (N4) 1/2" 🔀 2°-OPEN SUMP 50# (GATE VALVE TO 1/2" 300# 300# 1/2" BE SHIPPED LOOSE) 2"-900# 2"-150# 107 106 2°- 150/(N3) 2"-2"-900# 1/2" 1/2" \$ 6-0 EF-102 2"-150# 2°-150# 101 102 101 102 FQI 101 900# S S 3"-900# 3"- 900#(N2) 1/4" 1/4" SKID LIMITS

APPROVALS: REVISIONS: LINE LIST DATE DESCRIPTION DWN CHK APP DESCRIPTION DESIGN OPERATING PIPE SCH. X-RAY PWHT Y/N LINE HYDRO TEST PRESS. (kPa) A.R. A 2005.06.13 PRELIMINARY PRESS. (kPa) TEMP. (C) PRESS. (KPå) TEMP. ('C) FROM TO A.R. 207 80 10% B 2005.06.15 PRELIM MODIFICATIONS -29 TO 38 L1 SKID EDGE P-103 1965 138 21 C 2005.06.16 ISSUED FOR APPROVAL A.R. 10% L2 P-103 F-101 1965 -29 TO 38 276 21 414 80 A.R. 1965 -29 TO 38 414 80 10% 0 2005.06.20 ISSUED FOR CONSTRUCTION L3 F-101 P-102 • 276 21 1 2005.08.22 FOR CLARIFICATION M.C 10% 414 80 L4 L3 P-101 1965 -29 TO 38 276 21 R.M. 13 983 20 975 80 10% 2 2005.10.13 AS-BUILTS £5 P-102/L6 SKID EDGE 15 306 -29 TO 38 21 20 975 80 10% -29 TO 38 13 983 1.6 P-101 15 15 306 21 THIS DRAWING AND DATA EMBODY INFORMATION WHICH IS THE CONFIDENTIAL PROPERTY OF CANDYNE PUMP SERVICES INC. AND SHALL NOT BE COPIED, REPRODUCED, DISCLOSED TO OTHERS, OR USED IN WHOLE OR IN PART FOR ANY PURPOSE, WITHOUT THE EXPRESS WRITTEN CONSENT OF CANDYNE PUMP SERVICES INC. PSV-102/HCV-102 SKID EDGE 1965 -29 TO 38 138 21 207 80 10% 80 10% PSV-101/HCV-101 1965 -29 TO 38 138 21 207 LB L7

APPROVED FOR CONSTRUCTION DRAWINGS SHALL NOT BE USED FOR FABRICATION UNLESS THE THIS STAMP HAS BEEN SIGNED AND DATED BY CANDYNE PERSONNEL. WORK COMPLETED WITHOUT THIS APPROVAL IS AT THE RISK AND EXPENSE OF THE FABRICATOR. REFER TO NOTES BELOW. APPROVED - PROCEED WITH CONSTRUCTION

APPROVED AS NOTED - PROCEED WITH CONSTRUCTION

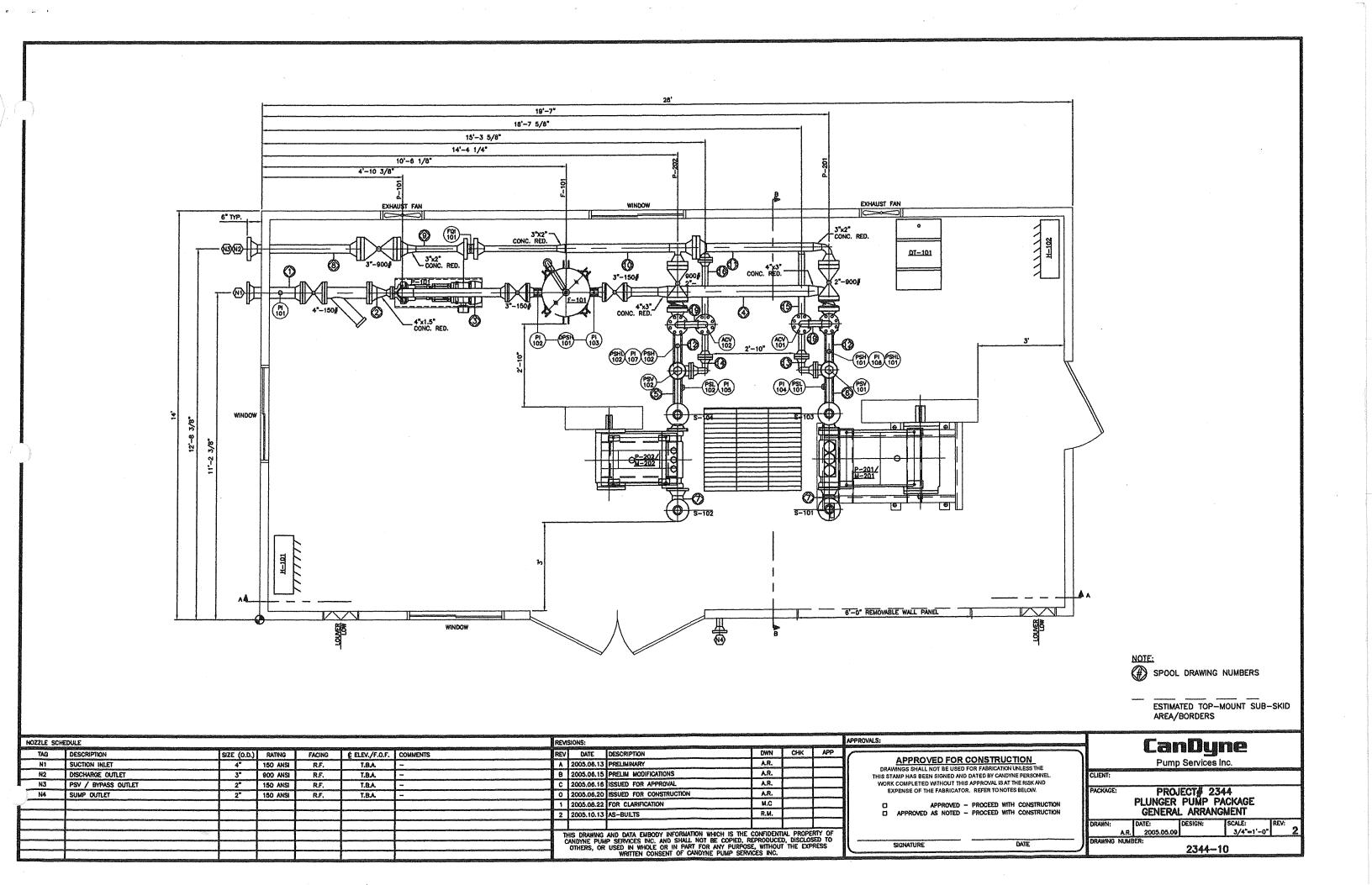
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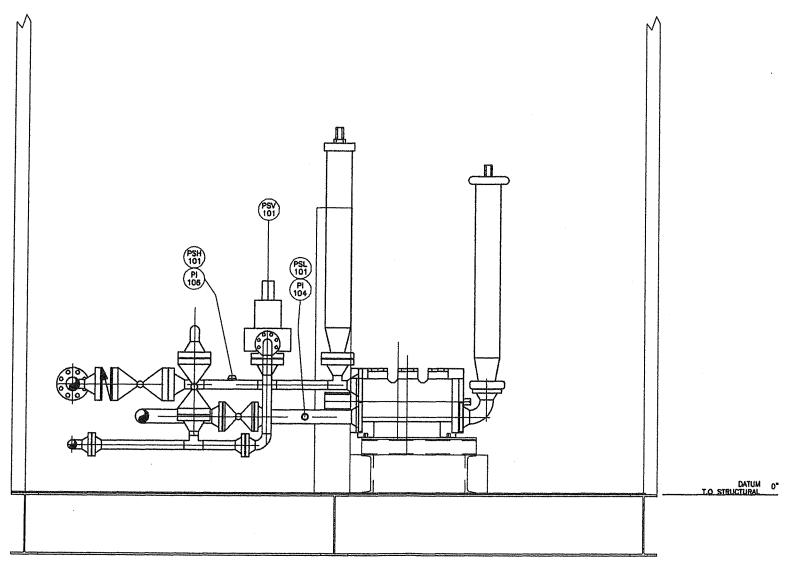
SIGNATURE

CLIENT PROJECT# 2344
PLUNGER PUMP PACKAGE PACKAGE: PROCESS & INSTRUMENTATION DIAGRAM DESIGN A.R. 2005.05.09 2344-01

CanDyne

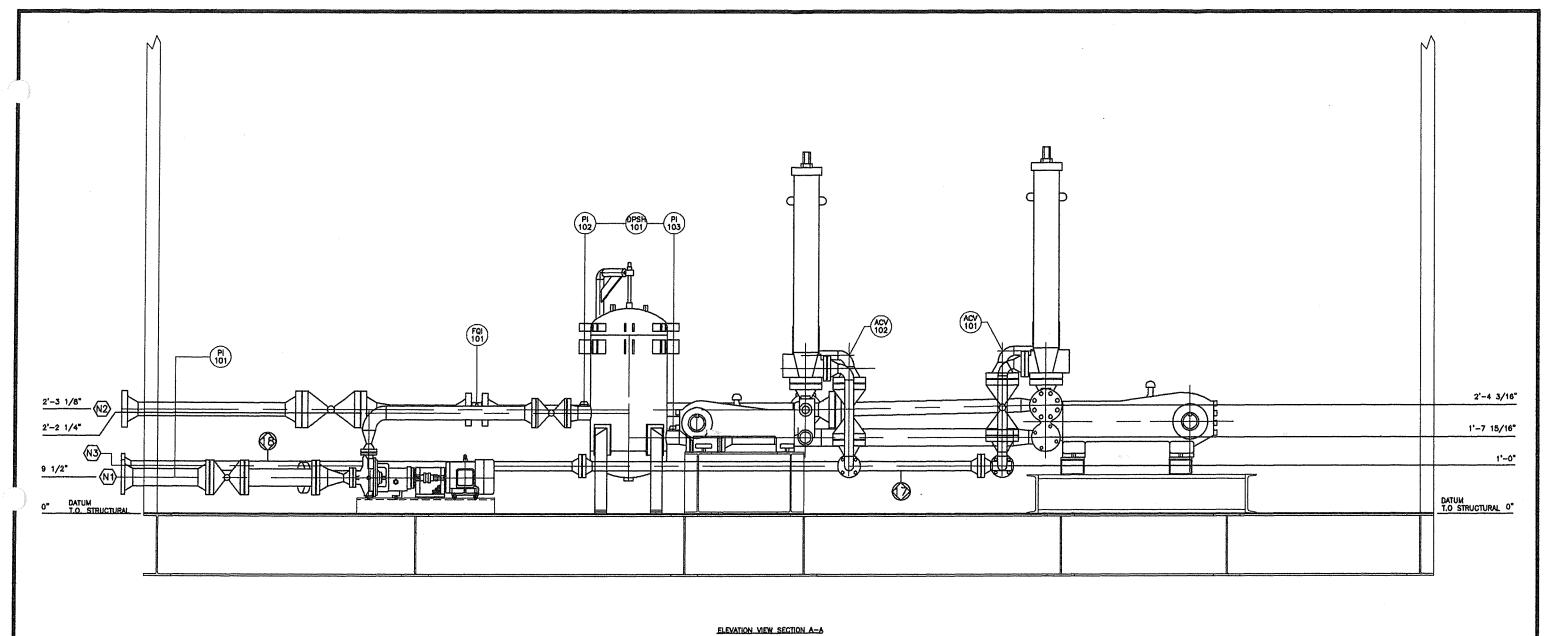
Pump Services Inc.



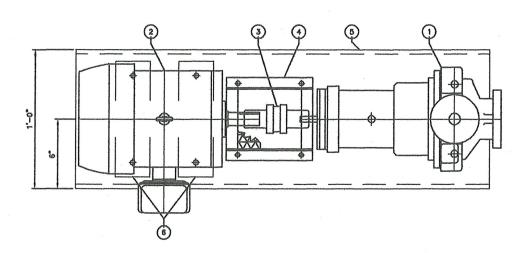


ELEVATION VIEW SECTION B-B

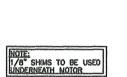
NOZZLE SCHE	NOZZLE SCHEDULE							REVISIONS:						APPROVALS:		
		SIZE (0.0.)	RATING	FACING	É ELEV./F.O.F.		Section 2		To	DESCRIPTION T	DWN	СНК			CanDune	
The second secon	SUCTION INLET	4"	150 ANSI	R.F.	T.B.A.		The property	CONTRACTOR OF THE PERSON NAMED IN		RELINARY	A.R.			APPROVED FOR CONSTRUCTION		
	DISCHARGE OUTLET	3"	900 ANSI	R.F.	T.B.A.	-	Contract Con	The second second		PRELIM MODIFICATIONS	A.R.			DRAWINGS SHALL NOT BE USED FOR FABRICATION UNLESS THE	Pump Services Inc.	
And an internal or other Persons and the Perso	PSV / BYPASS OUTLET	2"	150 ANSI	R.F.	T.B.A.		С	2005,06	.16 15	SSUED FOR APPROVAL	A.R.			THIS STAMP HAS BEEN SIGNED AND DATED BY CANDYNE PERSONNEL. WORK COMPLETED WITHOUT THIS APPROVAL IS AT THE RISK AND	CLIENT:	
N4	SUMP OUTLET	2"	150 ANSI	R.F.	T.B.A.		0	2005.06	.20 15	SSUED FOR CONSTRUCTION	AR.	<u></u>		an t	PACKAGE: PROJECT# 2344	
1				4			1	2005.08	,22 F	OR CLARIFICATION	M.C			. D APPROVED - PROCEED WITH CONSTRUCTION	PLUNGER PUMP PACKAGE	
							2	2005.10	.13 AS	S-BUILTS	R.M.			APPROVED AS NOTED - PROCEED WITH CONSTRUCTION	ELEVATION LAYOUT	
				-											DRAWN: DATE: DESIGN: SCALE: REV:	
							Th	IIS DRAW	NG AN	ND DATA EMBODY INFORMATION WHICH IS THE C SERVICES INC. AND SHALL NOT BE COPIED, RE' SED IN WHOLE OR IN PART FOR ANY PURPOSE, WRITTEN CONSENT OF CANDYNE PUMP SERVIC	ONFIDENT	IAL PROPE	RTY OF		A.R. 2005.05.09 G.P. 1": 1' 2	
							٠	OTHERS,	OR U	SERVICES INC. AND SHALL NOT BE COPIED, REI ISED IN WHOLE OR IN PART FOR ANY PURPOSE,	, WITHOUT	D, DISCLOS T THE EXP	RESS	SIGNATURE DATE	DRAWING NUMBER:	
									Silvini Silvini Silvini	WRITTEN CONSENT OF CANDYNE PUMP SERVICE	ES INC.				2344-12	

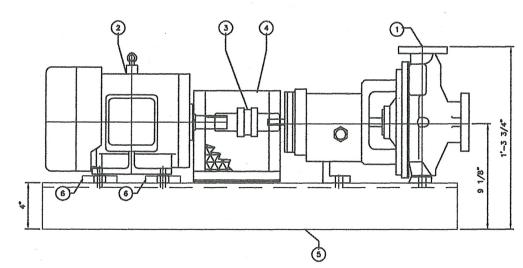


NOZZLE SCHEDULE RE							REVISIONS:							APPROVALS:		
TAG	DESCRIPTION	SIZE (0.D.)	RATING	FACING	& ELEV./F.O.F.	COMMENTS	REV	DATE	DES	SCRIPTION	DAM	CHK	APP			CanDyne
N1	SUCTION INLET	4"	150 ANSI	R.F.	T.B.A.	-	A 2	2005.08.13	3 PREI	ELIMINARY	A.R.			APPROVED FOR CONSTRUCTION		Pump Services Inc.
N2	DISCHARGE OUTLET	3"	900 ANSI	R.F.	T.B.A.	-	B 2	2005.06.15	5 PRE	ELIM MODIFICATIONS	A.R.			DRAWINGS SHALL NOT BE USED FOR FABRICATION UNLESS THE THIS STAMP HAS BEEN SIGNED AND DATED BY CANDYNE PERSONNEL.	CLIENT:	
N3	PSV / BYPASS OUTLET	2"	150 ANSI	R.F.	T.B.A.	••	C 2	2005.06.16	6 ISSU	UED FOR APPROVAL .	A.R.			WORK COMPLETED WITHOUT THIS APPROVAL IS AT THE RISK AND		
N4	SUMP OUTLET	2*	150 ANSI	R.F.	T.B.A.	-	0 2	2005.06.20	O ISSU	UED FOR CONSTRUCTION	A.R.			EXPENSE OF THE FABRICATOR. REFER TO NOTES BELOW.	PACKAGE:	PROJECT# 2344
L							1 2	005.08.22	2 FOR	R CLARIFICATION	M.C			APPROVED - PROCEED WITH CONSTRUCTION		PLUNGER PUMP PACKAGE
							2 2	2005.10.13	3 AS-	BUILTS	R.M.			☐ APPROVED AS NOTED — PROCEED WITH CONSTRUCTION		ELEVATION LAYOUT
															DRAWN:	DATE: DESIGN: SCALE: REV:
							THE	DRAWING	G AND	DATA EMBODY INFORMATION WHICH IS THE C	ONFIDENT	AL PROPER	RTY OF			A.R. 2005,05,09 G.P. 1":1' 2
<u> </u>							120	THERS, OF	OMP SE	DATA EMBODY INFORMATION WHICH IS THE C ERVICES INC. AND SHALL NOT BE COPIED, REI ED IN WHOLE OR IN PART FOR ANY PURPOSE,	, WITHOUT	THE EXP	RESS	SIGNATURE DATE	DRAWING N	
							<u> </u>		<u> </u>	WRITTEN CONSENT OF CANDYNE PUMP SERVICE	CES INC.				9	2344-11

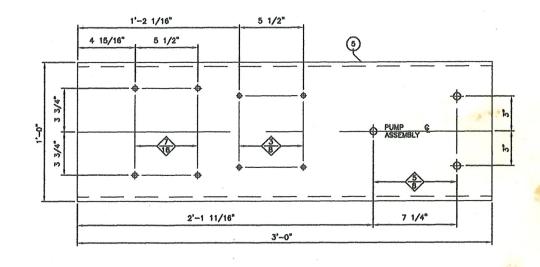


CHARGE PUMP ASSEMBLY - PLAN VIEW

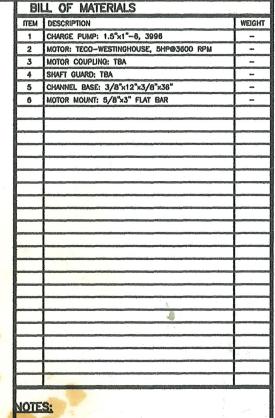




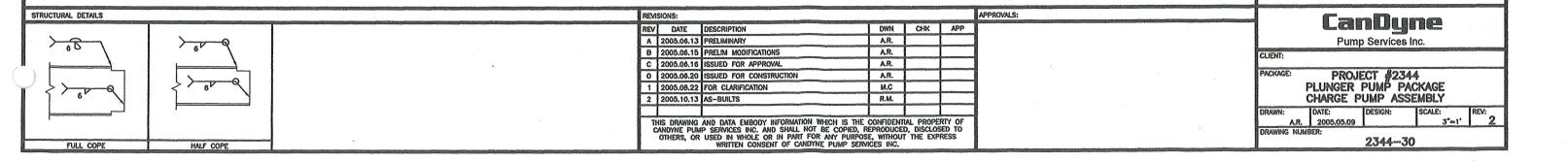
CHARGE PUMP ASSEMBLY - ELEVATION VIEW

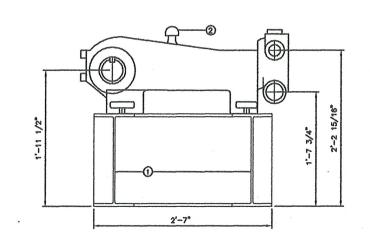


ITEM #5 DETAIL

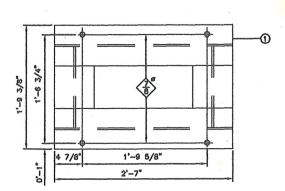


- STRUCTURAL STEEL SHALL CONFORM TO CSA 640.20 & 640.21.
 GRADE 300W FOR ROLLED SHAPES AND GRADE 350W CLASS C
 FOR HSS SHAPES.
- ALL STRUCTURAL STEEL FABRICATION & ASSEMBLY SHALL BE PERFORMED IN ACCORDANCE WITH CAN/CSA-518,1-94 "LIMIT STATES DESIGN OF STEEL STRUCTURES", UNLESS STATED OTHERWISE.
- ALL SHOP CONNECTIONS SHALL BE FULLY WELDED, UNLESS NOTED OR DETAILED OTHERWISE, WITH A 6mm CONTINUOUS FILLET WELD.
- 4. ALL STRUCTURAL STEEL SURFACES TO BE PAINTED AND CLEANED IN ACCORDANCE WITH SSPC SPECIFICATION SP-6 "COMMERCIAL BLAST CLEANING".
- 5. ALL PAINTING SHALL BE DONE IN ACCORDANCE WITH THE PAINT MANUFACTURER'S SPECIFICATIONS.





NOTE: MOTOR MOUNTS ON PUMP SURFACE, NOT SHOWN IN DRAWING.

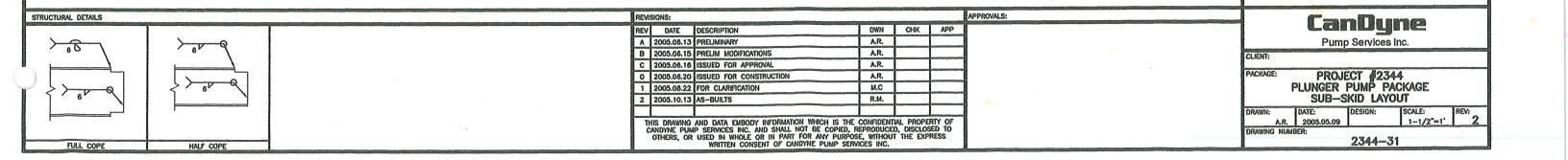


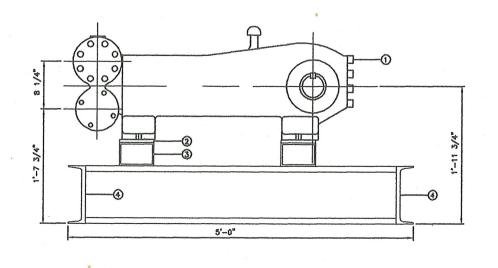
2 PUMP: APLEX A-50 3 BELT GAURD: SUPPLIED BY CUSTOMER

BILL OF MATERIALS

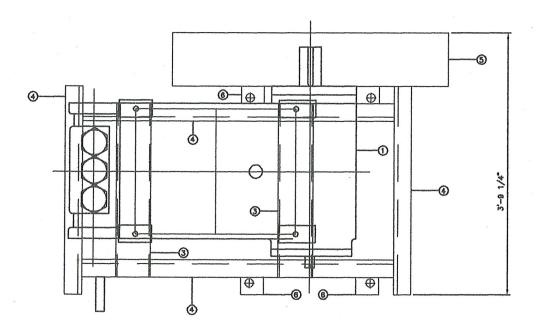
ITEM DESCRIPTION 1 BASE: W16@40

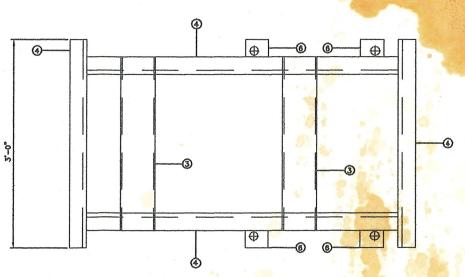
- STRUCTURAL STEEL SHALL CONFORM TO CSA G40.20 & G40.21.
 GRADE 300W FOR ROLLED SHAPES AND GRADE 350W CLASS C
 FOR HSS SHAPES.
- ALL STRUCTURAL STEEL FABRICATION & ASSEMBLY SHALL BE PERFORMED IN ACCORDANCE WITH CAN/CSA-516.1-94 "LIMIT STATES DESIGN OF STEEL STRUCTURES", UNLESS STATED OTHERWISE.
- ALL SHOP CONNECTIONS SHALL BE FULLY WELDED, UNLESS NOTED OR DETAILED OTHERWISE, WITH A 6mm CONTINUOUS FILLET WELD.
- ALL STRUCTURAL STEEL SURFACES TO BE PAINTED AND CLEANED IN ACCORDANCE WITH SSPC SPECIFICATION SP-6 "COMMERCIAL BLAST CLEANING".
- ALL PAINTING SHALL BE DONE IN ACCORDANCE WITH THE PAINT MANUFACTURER'S SPECIFICATIONS.





NOTE:
ALL COMPONENTS OF THIS SUB SKID
ARE CUSTOMER SUPPLIED, TOP MOUNT,
MOTOR MOUNTS ON TOP OF PUMP,
NOT SHOWN IN DRAWING,





M.C

R.M.

BILL OF MATERIALS ITEM DESCRIPTION WEIGHT 1 PUMP: APLEX B-85M 2 PUMP MOUNT: 1/2" RISER PLATE 3 PUMP MOUNT: 4"x6" SQUARE BAR 4 BASE: C10@30 5 BELT GUARD: CUSTOMER SUPPLIED 6 MOTOR MOUNT: 3"x4" SQUARE BAR

- STRUCTURAL STEEL SHALL CONFORM TO CSA G40.20 & G40.21.
 GRADE 300W FOR ROLLED SHAPES AND GRADE 350W CLASS C
 FOR HSS SHAPES.
- ALL STRUCTURAL STEEL FABRICATION & ASSEMBLY SHALL BE PERFORMED IN ACCORDANCE WITH CAN/CSA-516.1-94 "LIMIT STATES DESIGN OF STEEL STRUCTURES", UNLESS STATED OTHERWISE.
- ALL SHOP CONNECTIONS SHALL BE FULLY WELDED, UNLESS NOTED OR DETAILED OTHERWISE, WITH A 6mm CONTINUOUS FILLET WELD.
- ALL STRUCTURAL STEEL SURFACES TO BE PAINTED AND CLEANED IN ACCORDANCE WITH SSPC SPECIFICATION SP-8 "COMMERCIAL BLAST CLEANING".
- ALL PAINTING SHALL BE DONE IN ACCORDANCE WITH THE PAINT MANUFACTURER'S SPECIFICATIONS.

	Pum	Services	Inc.							
	DDO II	ror Hor	44							
1	PROJECT #2344 PLUNGER PUMP PACKAGE SUB-SKID LAYOUT									
-	DATE:	DESIGN:	SCALE:	REV:						

CanDyne

DATE DESCRIPTION DWN CHK APP A 2005.06.13 PRELIMINARY A.R. B 2005.06.15 PRELIM MODIFICATIONS A.R. CLIENT: C 2005.06.16 ISSUED FOR APPROVAL A.R. PACKAGE: 0 2005.06.20 ISSUED FOR CONSTRUCTION A.R.

APPROVALS:

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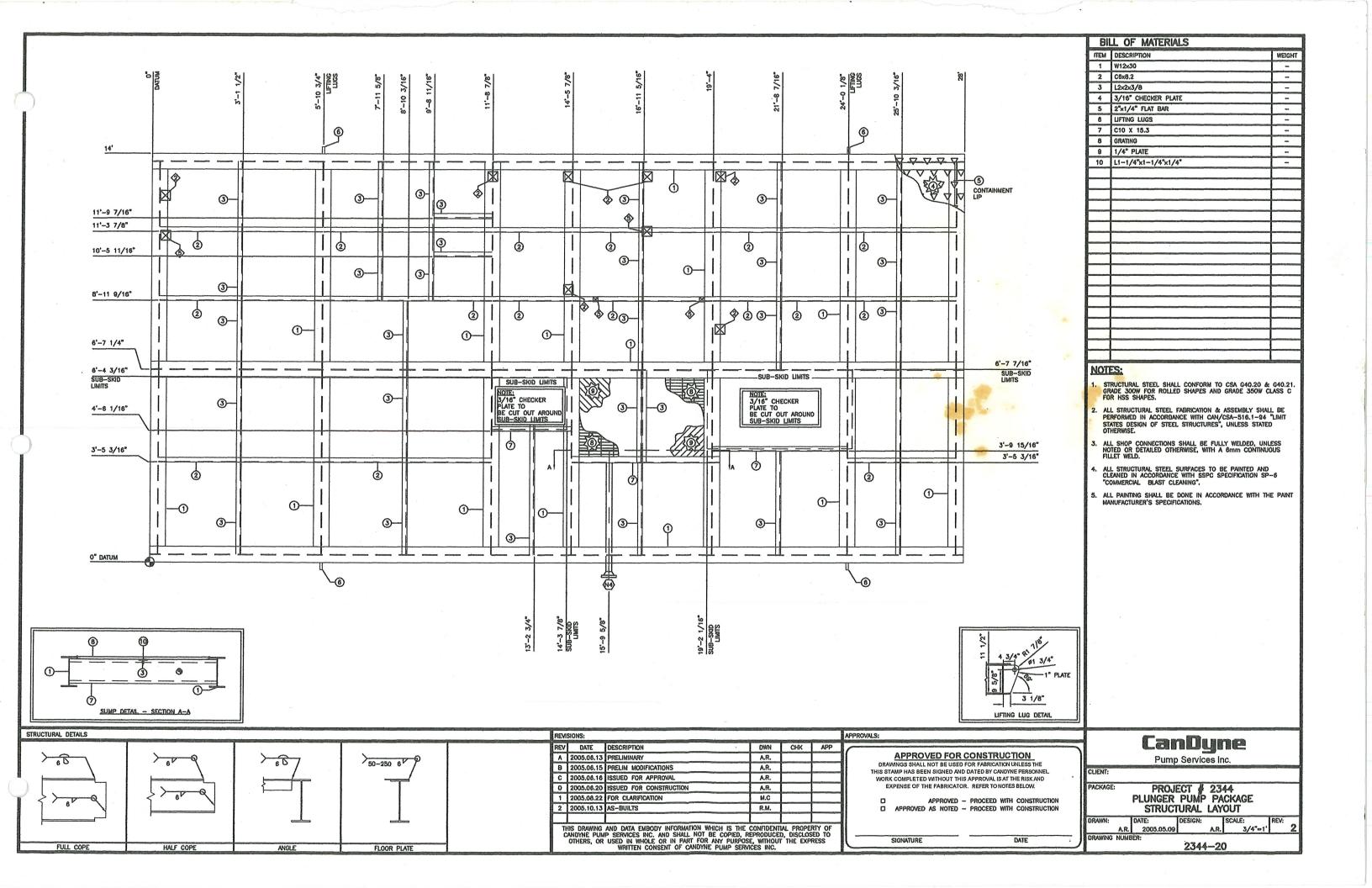
1 2005.08.22 FOR CLARIFICATION

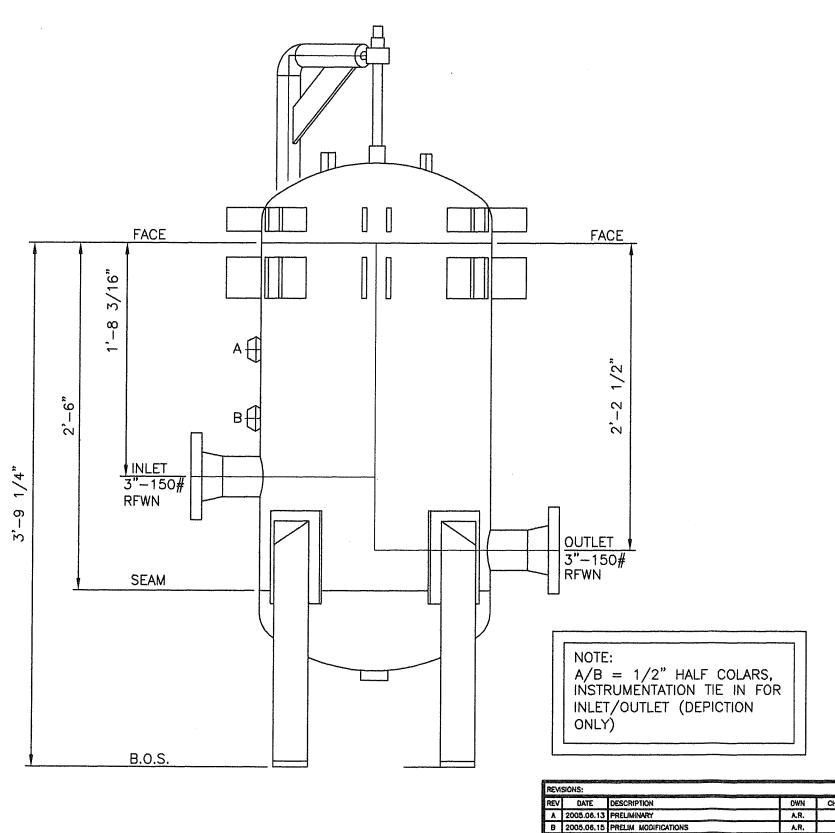
2 2005.10.13 AS-BUILTS

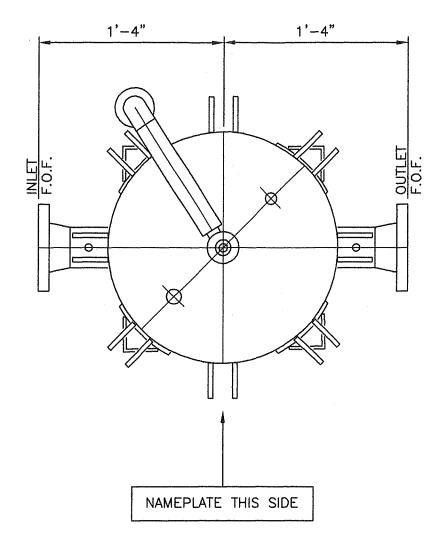
A.R. 2005.05.09 2344-32

FULL COPE HALF COPE

STRUCTURAL DETAILS







3 BAG FILTER, 30 MICRON

REVI	SIONS:					APPROVALS:	C INCLUDE STREET, STREET, AND AND ADDRESS.		
REV	DATE	DESCRIPTION	DWN	CHK	APP		t CanDyne		
A	2005.08.13	PRELIMINARY	A.R.			APPROVED FOR CONSTRUCTION	Pump Services Inc.		
В	2005.06,15	PRELIM MODIFICATIONS	A.R.			DRAWINGS SHALL NOT BE USED FOR FABRICATION UNLESS THE THIS STAMP HAS BEEN SIGNED AND DATED BY CANDYNE PERSONNEL.	CLIENT:		
C	2005.06.16	ISSUED FOR APPROVAL	A.R.			WORK COMPLETED WITHOUT THIS APPROVAL IS AT THE RISK AND			
0	2005.08.20	ISSUED FOR CONSTRUCTION	A.R.			EXPENSE OF THE FABRICATOR. REFER TO NOTES BELOW.	PACKAGE: PROJECT #2344		
1	2005.08.22	FOR CLARIFICATION	и.с			☐ APPROVED - PROCEED WITH CONSTRUCTION	PLUNGER PUMP PACKAGE		
2	2005.10.13	AS-BUILTS	R.M.			APPROVED AS NOTED - PROCEED WITH CONSTRUCTION	FILTER DETAIL		
C	ANDYNE PUN	AND DATA EMBODY INFORMATION WHICH IS THE IP SERVICES INC. AND SHALL NOT BE COPIED, R USED IN WHOLE OR IN PART FOR ANY PURPOS WRITTEN CONSENT OF CANDYNE PUMP SERV	EPRODUCEI E. WITHOUT	D. DISCLO	SED TO	SIGNATURE DATE	DRAWN: DATE: DESIGN: SCALE: REV: DRAWING NUMBER: 2344-41		

