### ZOLEZZI BPS

ZOLEZZI BOOSTER PUMPS (OPM)			
DESCRIPTION	UNIT	VALUE	
TYPE OF PUMP	-	SUBMERSIBLE MULTI-STAGE W/ PITLESS ADAPTER	
NUMBER OF PUMP(S)	-	2	
CAPACITY EACH	GPM	900	
TOTAL DYNAMIC HEAD	FT (PSI)	460 (199)	
HORSEPOWER EACH	HP	150	
VFD OR SOFT START	_	SOFT START	

ZOLEZZI	PRESSURE	RELIEF
DESCRIPTION	UNIT	VALUE
MODEL	-	CLA-VAL 50-01
QUANTITY	-	1
SIZE	IN	6
SETTING	PSI	250
LOCATION	-	DISCHARGE BPS
MAX FLOW RATE	GPM	1800

ZOLEZZI S	SURGE TAI	NK (OPM)
DESCRIPTION	UNIT	VALUE
TYPE	-	BLADDER
VOLUME	GAL	250
PRECHARGE SETTING	PSI	60
LOCATION	_	DISCHARGE
FLANGE CONNECTION	-	ANSI 300

ZOLEZZI	TEST PRE	SSURES	
DESCRIPTION UNIT VALUE			
PITLESS CAN TO CV	PSI	400	
DISCHARGE PIPING	PSI	350	
SUCTION PIPING	PSI	150	

### STMGID WELL 11 PRS

STMGID WELL	11 PRS	<ul><li>PRESSURE</li></ul>
	RELIEF	
DESCRIPTION	UNIT	VALUE
MODEL	-	CLA-VAL 50-01
QUANTITY	-	1
SIZE	IN	3
SETTING	PSI	130
MAX FLOW RATE	GPM	460
LOCATION	-	UPSTREAM DUAL PRV'S

STMGID WELL 11 PRS - PRESSURE REDUCING				
DESCRIPTION UNIT VALUE				
MODEL - CLA-VAL 90-01				
QUANTITY	- 2 (SERIES)			
SIZE	SIZE IN 6			
UPSTREAM PRESSURE	PSI	130		
INTERMEDIATE PRESSURE	PSI	60		
DOWNSTREAM PRESSURE	PSI	5		
MAX FLOW RATE	GРM	1800		

#### WELCOME WAY PRS

WELCOME W	AY PRS - RFLIFF	- PRESSURE
	KELIEF	
DESCRIPTION	UNIT	VALUE
MODEL	-	CLA-VAL 50-01
QUANTITY	-	1
SIZE	IN	4
PRESSURE RELIEF SETTING	PSI	100
MAX FLOW RATE	GРM	1800
LOCATION	_	DOWNSTREAM PRV

WELCOME WAY PRS — PRESSURE REDUCING			
DESCRIPTION	UNIT	VALUE	
MODEL	-	CLA-VAL 90-01	
QUANTITY	-	1	
SIZE	IN	6	
UPSTREAM PRESSURE	PSI	145	
DOWNSTREAM PRESSURE	PSI	70	
MAX FLOW RATE	GРM	1800	

#### ARROWCREEK BPS

ARROWCREEK	BOOSTER	Pι	JMPS	(OPM)
DESCRIPTION	UNIT			VALUE
TYPE OF PUMP	-		MULTI	BMERSIBLE -STAGE W/ SS ADAPTER
NUMBER OF PUMP(S)	-			2
CAPACITY EACH	GPM			900
TOTAL DYNAMIC HEAD	FT (PSI)		35	0 (152)
HORSEPOWER EACH	HP			100
VFD OR SOFT START	-		S0	FT START

ARROWCREEK PRESSURE RELIEF			
DESCRIPTION	UNIT	VALUE	
MODEL	-	CLA-VAL 50-01	
QUANTITY	-	1	
SIZE	IN	6	
SETTING	PSI	270	
LOCATION	-	DISCHARGE BPS	
MAX FLOW RATE	GРM	1800	

ARROWCREEK SURGE TANK (OPM)		
DESCRIPTION	UNIT	VALUE
TYPE	-	BLADDER
VOLUME	GAL	250
PRECHARGE SETTING	PSI	25
LOCATION	-	SUCTION
FLANGE CONNECTION	-	ANSI 150

ARROWCR	EEK TEST	PRESSURES
DESCRIPTION	UNIT	VALUE
PITLESS CAN TO CV	PSI	400
DISCHARGE PIPING	PSI	350
SUCTION PIPING	PSI	200

# (E) ARROWCREEK PRS

٦.			
	` '	ROWCREE ESSURE R	
	DESCRIPTION	UNIT	VALUE
ı	MODEL	-	CLA-VAL 50-01
ĺ	QUANTITY	-	1
	SIZE	IN	4
ı	SETTING	PSI	100
I	LOCATION	-	DOWNSTREAM OF PRS
	MAX FLOW RATE	GPM	800

(E) ARROWCREEK PRS — PRESSURE REDUCING						
PRES	SORE KE	DUCING				
DESCRIPTION	UNIT	VALUE				
MODEL	-	CLA-VAL 93-01				
QUANTITY	-	1				
SIZE	IN	2				
UPSTREAM PRESSURE	PSI	N/A				
DOWNSTREAM PRESSURE	PSI	73				
MAX FLOW RATE	GPM	210				

# BID SET AUGUST 2015

### COPPER CLOUD BPS

COPPER CLO	UD BOOSTER	PUMPS (OPM)			
DESCRIPTION	UNIT	VALUE			
TYPE OF PUMP	_	SUBMERSIBLE MULTI-STAGE W/ PITLESS ADAPTER			
NUMBER OF PUMP(S)	-	2			
CAPACITY EACH	GPM	900			
TOTAL DYNAMIC HEAD	FT (PSI)	340 (147)			
HORSEPOWER EACH	HP	100			
VFD OR SOFT START	_	SOFT START			

COPPER CL	OUD TES	T PRESSURES
DESCRIPTION	UNIT	VALUE
PITLESS CAN TO CV	PSI	275
DISCHARGE PIPING	PSI	200
SUCTION PIPING	PSI	150

 WORK ORDER NO.
 10-0002

 DESIGNED
 JPB/DAD

 DRAWN
 AAA

 DATE
 AUGUST 2015

 CHECKED
 RCK

 SUBMITTED
 RECOMMENDED

 APPROVED
 APPROVED

TRUCKEE MEADOWS WATER

# U T H O R I T Y

1355 CAPITAL BLVD. / PO BOX 30013
RENO. DEVADA 80520-3013
PH 775-834-8080 / FX 775-834-8003

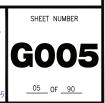
NOT REPRODUCIBLE

PROPERTY OF
TRUCKEE MEADOWS WATER
AUTHORITY, RETURN UPON
COMPLETION OF PROJECT
(Per Homeland Security Act)

TMWA ARROWCREEK DROUGHT RESPONSE DESIGN PROJECT

DESIGN CRITERIA





- NOTES:
  1. REFERENCE TMWA STANDARD DETAIL 10L-2 FOR THRUST BLOCK SIZING AND REQUIREMENTS.
  2. ALL BOLTS AND EXPOSED METAL SHALL BE COATED WITH BRUSHED-ON OR SPRAY MASTIC.
  3. TEE, VALVES, FITTINGS, DUCTILE IRON PIPE AND OTHER METAL PARTS SHALL BE ENCASED WITH POLYETHYLENE WRAP PER AWWA C105.
  4. CONCRETE FOR PADS SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AFTER 28 DAYS. BAG CONCRETE MIX IS NOT ACCEPTABLE.
  5. POSITION OF FLG X MJ VALVE (RUN) AND FLG X MJ ADAPTER MAY SWITCH, REFERENCE WATER IMPROVEMENT PLANS.

- IMPROVEMENT PLANS.

  AN ADDITIONAL FLG x MJ VALVE MAY BE REQUIRED IN LIEU OF FLG x MJ ADAPTER, REF. WATER IMPROVEMENT PLANS.

INSTALL 6" CAST IRON VALVE BOX WITH WAITE COVER MARKED "WATER" WITH CONCRETE COLLAR REF. TMWA STD. DETAIL 10J-2 FOR CONCRETE COLLAR REQUIREMENTS, TYP. OF 2, SEE NOTES 5 & 6 6" SDR-35 PVC CONDUCTOR FLG x MJ ADAPTER PIPE, O.D. = 6.275", TYP. OF 2, SEE NOTE 6 WITH MJ WEDGE ACTION RESTRAINT GLAND, SEE NOTES FLG x MJ GATE VALVE (AWWA C509 OR C515, DUCTILE IRON BODY) WITH MJ WEDGE ACTION RESTRAINT GLAND, TYP. OF 2, FLG x FLG x FLG DUCTILE IRON TEE (AWWA C110) SEE NOTE 5 DUCTILE IRON WATER— MAIN PIPE, TYP. DUCTILE IRON WATER MAIN PIPE, TYP. POUR CONCRETE PAD UNDER GATE VALVES AND TEE, MIN. 6" THICK, CONCRETE SHALL REMAIN CLEAR OF FLANGE AND MJ BOLTS, MATERIAL LIST DESCRIPTION TYP., SEE NOTE 4

FLG x FLG x FLG DUCTILE IRON TEE (AWWA C110)

DISTRIBUTION BRANCH INSTALLATIONS

FLG x MJ GATE VALVE WITH DUCTILE IRON BODY (AWWA C509 OR C515) FLG x MJ ADAPTER MJ WEDGE ACTION RESTRAINT GLAND

FLANGED TEES FLG X MJ GATE VALVES-RESTRAINED (10B-2)

6" CAST IRON VALVE BOX WITH COVER MARKED "WATER" 6" SDR-35 PVC CONDUCTOR PIPE SECTION, O.D. = 6.275" CONCRETE BULK - THRUST BLOCKS, PADS, COLLARS

REDUCED PRESSURE PRINCIPLE ASSEMBLY FOR IRRIGATION /10A-2 AND CONSTRUCTION WATER USE - HORIZONTAL (MODIFIED)

10. MINIMUM DIMENSIONS FOR THE THRUST BLOCK BEARING AREA FOR PIPE 2" AND SMALLER SHALL BE 8" X 8" AND

- COUPLINGS SHALL BE HYMAX 2000 SERIES COUPLINGS AS MANUFACTURED BY TOTAL PIPING SOLUTIONS, INC. OR TMWA APPROVED EQUIVALENT.
- 2. SNAP MACHINED END OFF TRANSITE (AC) PIPE TO EXPOSE ROUGH BARREL. INSTALL COUPLING ON ROUGH BARREL SECTION OF TRANSITE PIPE.

12" IN DEPTH. ALL OTHER SIZES TO BE DETERMINED BY ENGINEER.
11. FOR YEAR-ROUND USE REFER TO 10A-2.

3. FIELD MEASURE ACTUAL PIPE O.D. PRIOR TO ORDERING COUPLING. FOR OTHER TYPES OF PIPE NOT LISTED IN THE CHARTS BELOW AND/OR PIPE O.D.'S WHICH MAY DIFFER FROM THOSE LISTED BELOW, CONSULT MANUFACTURER'S SIZING CHART.

TYPE OF PIPE		6" C900 PVC (C900) 6" TRANSITE (AC CLASS 100		
6" C900 PVC (C900) 6" DUCTILE IRON (DI)	HYMAX COUPLING PART NO. 2000-0768-260	LOW RANGE (C900, DI) 6.42 - 7.05 LOW RANGE (C900, DI) 6.42 - 7.05	HYMAX COUPLING PART NO. 2000-0768-260	HIGH RANGE (AC) 7.01 - 7.68 LOW RANGE (C900, DI) 6.42 - 7.05
6" TRANSITE (AC) ROUGH BARREL CLASS 100/150/200	HYMAX COUPLING PART NO. 2000-0768-260	LOW RANGE (C900, DI) 6.42 - 7.05 HIGH RANGE (AC) 7.01 - 7.68	HYMAX COUPLING PART NO. 2000-0768-260	HIGH RANGE (AC) 7.01 - 7.68 HIGH RANGE (AC) 7.01 - 7.68

TYPE OF PIPE		PVC (C900) TILE IRON (DI)	8" TRANSITE (AC) ROUGH BARREL CLASS 100/150/200			
8" C900 PVC (C900) 8" DUCTILE IRON (DI)	HYMAX COUPLING PART NO. 2000-0984-260	LOW RANGE (C900, DI) 8.54 - 9.17 LOW RANGE (C900, DI) 8.54 - 9.17	HYMAX COUPLING PART NO. 2000-0984-260	HIGH RANGE (AC) 9.13 - 9.84 LOW RANGE (C900, DI) 8.54 - 9.17		
8" TRANSITE (AC) ROUGH BARREL CLASS 100/150/200	HYMAX COUPLING PART NO. 2000-0984-260		HYMAX COUPLING PART NO. 2000-0984-260	HIGH RANGE (AC) 9.13 - 9.84 HIGH RANGE (AC) 9.13 - 9.84		

TYPE OF PIPE			0 PVC (C900) TILE IRON (DI)		(AC) ROUGH BARREL S 100/150	10" TRANSITE (AC 200) ROUGH BARREL – CLASS 200		
10" C900 PVC (C900) 10" DUCTILE IRON (DI)			10.96 - 11.63 LOW RANGE (C900, DI)	HYMAX COUPLING PART NO. 2000-1226-260	10.96 - 11.63 LOW RANGE (C900, DI)	HYMAX COUPLING PART NO. 2000-1226-260	HIGH RANGE (AC 200) 11.59 - 12.26 LOW RANGE (C900, DI)	
ŀ	10" TRANSITE (AC) ROUGH BARREL CLASS 100/150	HYMAX COUPLING PART NO.	10.96 - 11.63 LOW RANGE (AC)	HYMAX COUPLING PART NO. 2000-1226-260	10.96 - 11.63 LOW RANGE (AC)	HYMAX COUPLING PART NO. 2000-1226-260	10.96 - 11.63 HIGH RANGE (AC 200) 11.59 - 12.26 LOW RANGE (AC)	
10" TRANSITE (AC 200) ROUGH BARREL		HYMAX COUPLING PART NO.	10.96 - 11.63 LOW RANGE (C900, DI) 10.96 - 11.63 HIGH RANGE (AC 200) 11.59 - 12.26	HYMAX COUPLING PART NO.	10.90 - 11.03	HYMAX COUPLING PART NO.	10.96 - 11.63 HIGH RANGE (AC 200) 11.59 - 12.26 HIGH RANGE (AC 200) 11.59 - 12.26	

TYPE OF PIP		C900 PVC (C900) DUCTILE IRON (DI)		(AC) ROUGH BARREL 100/150/200
	C900) HYMAX COUPI PART NO. 2000-1441-	LOW RANGE (C900, DI)	HYMAX COUPLING	LOW RANGE (C900, DI)
12" TRANSITE ( ROUGH BARRE CLASS 100/150,	L PART NO.	13.15 - 13.78 HIGH RANGE (AC)	HYMAX COUPLING PART NO. 2000-1441-260	13.74 - 14.41 HIGH RANGE (AC)

TYP



DISTRIBUTION TRANSITION FITTINGS
HYMAX 2000 SERIES COUPLING CHART
RUCKEE MEADOWS WATER AUTHORITY (REV 7/2011) NTS

10C-2	
TYP	

MAIN SIZE	VENDOR	MAIN TYPE	4"	6"	8"	10"	12"
4"	SM ROM	DI/CI PVC	663-04800400-200 SST-4.90 x 4" FL				
6"	SM ROM	DI/CI PVC	663-06630400-000 SST-7.00 x 4" FL	663*06630600-200 SST-7.00 x 6" FL			
ь	SM ROM	TR	663-(OD)400-000 SST-(OD) x 4" FL	663-(0D)0600-200 SST-(0D) x 6" FL			
	SM ROM	DI/CI PVC	663-09050400-000 SST-9.06 x 4" FL	663-09050600-000 SST-9.06 x 6" FL	663-09050800-200 SST-9.06 x 8" FL		
8"	SM ROM	TR	663-(OD)0400-000 SST-(OD) x 4" FL	663-(0D)0600-000 SST-(0D) x 6" FL	663-(0D)0800-200 SST-(0D) x 8" FL		
	SM ROM	SCH 40 STEEL	663-08630400-000 SST-8.63 x 4" FL	663-08630600-000 SST-8.63 x 6" FL	663-08630800-200 SST-8.63 x 8" FL		
	SM ROM	DI/CI PVC				663-11101000-200 SST-11.45 x 10" FL	
10"	SM ROM	TR	663-(OD)0400-000 SST-(OD) x 4" FL	663-(OD)0600-000 SST-(OD) x 6" FL		66(OD)1000-200 SST-(OD) x 10" FL	
	SM ROM	SCH 40 STEEL				663-10751000-200 SST-11.13 x 10" FL	
	SM ROM	DI/CI PVC				663-13201000-000 SST-13.30 x 10" FL	
12"	SM ROM	TR	663-(OD)0400-000 SST-(OD) x 4" FL			663-(0D)1000-000 SST-(0D) x 10" FL	
	SM ROM	SCH 40 STEEL				663-12751000-000 SST-12.85 x 10" FL	

TAP SIZE - FLANGED BRANCH

TYP

- MAXIMUM TEST PRESSURE IS 300 PSI FOR LISTED MANUFACTURERS.
   FLANGES (FL) SHALL BE STAINLESS STEEL ASTM A 240, TYPE 304.
- VENDOR (MANUFACTURER): SM = SMITH-BLAIR, ROM = ROMAC INDUSTRIES
   (OD) = PIPE OUTSIDE DIAMETER. CHECK WITH MANUFACTURER FOR CATALOG NUMBER FOR OTHER SIZES.
   FOR TAPS ON TRANSITE MAINS OD MUST BE FIELD MEASURED PRIOR TO ORDERING PARTS.

#### DISTRIBUTION TAP INSTALLATIONS WATER TAPPING SLEEVES



REVISION	DESCRIPTION	BY	APP	DATE
$\Lambda$	ADDENDUM #2	DAD	DAD	8/26/15

WORK ORDER NO.	10-0002
DESIGNED	JPB/DAD
DRAWN	AAA
DATE	
CHECKED	RCK
SUBMITTED	
RECOMMENDED	
APPROVED	



	NOT REPRODUCIBL	
	PROPERTY OF	
	TRUCKEE MEADOWS WATER	
٠.	AUTHORITY, RETURN UPON	
	COMPLETION OF PROJECT	
	(Per Homeland Security Act)	

## TMWA ARROWCREEK DROUGHT RESPONSE DESIGN **PROJECT TMWA TYPICAL CIVIL**

**DETAILS** 



COO

**BID SET** 

AUGUST 2015

