

FLANGE DRILLING:
 DRILL FLANGE WITH WATERMAN STD. DRILLING
 DRILL 7/8 (22mm) DIA. HOLE 8 PLCS
 EQUALLY SPACED ON TOP CENTER LINE
 ON A 29-1/2 (749mm) DIA. BOLT CIRCLE

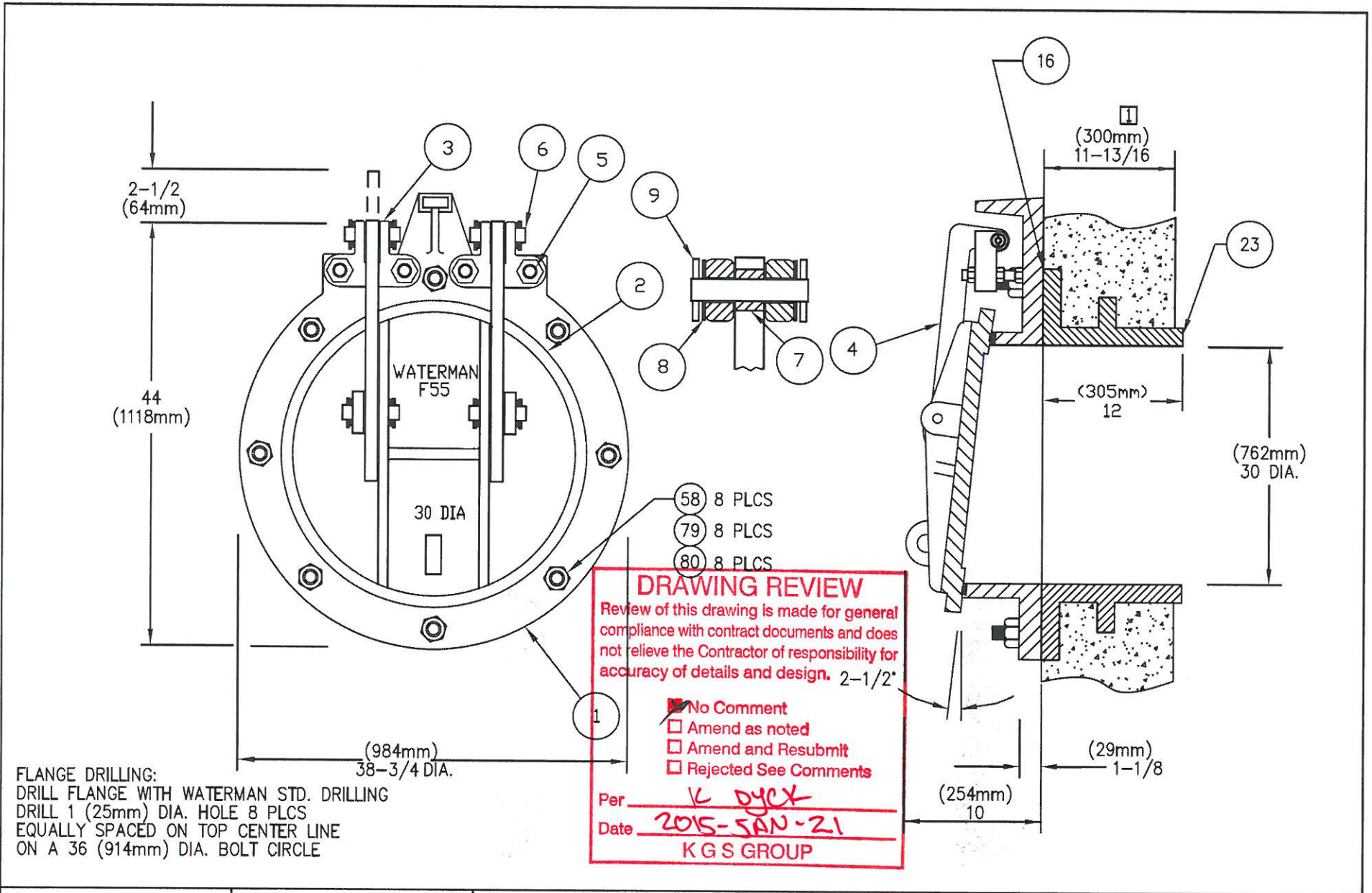
DRAWING REVIEW
 Review of this drawing is made for general compliance with contract documents and does not relieve the Contractor of responsibility for accuracy of details and design.

1 No Comment
 Amend as noted
 Amend and Resubmit
 Rejected See Comments

Per K Dyck
 Date 2015-JAN-21
 KGS GROUP

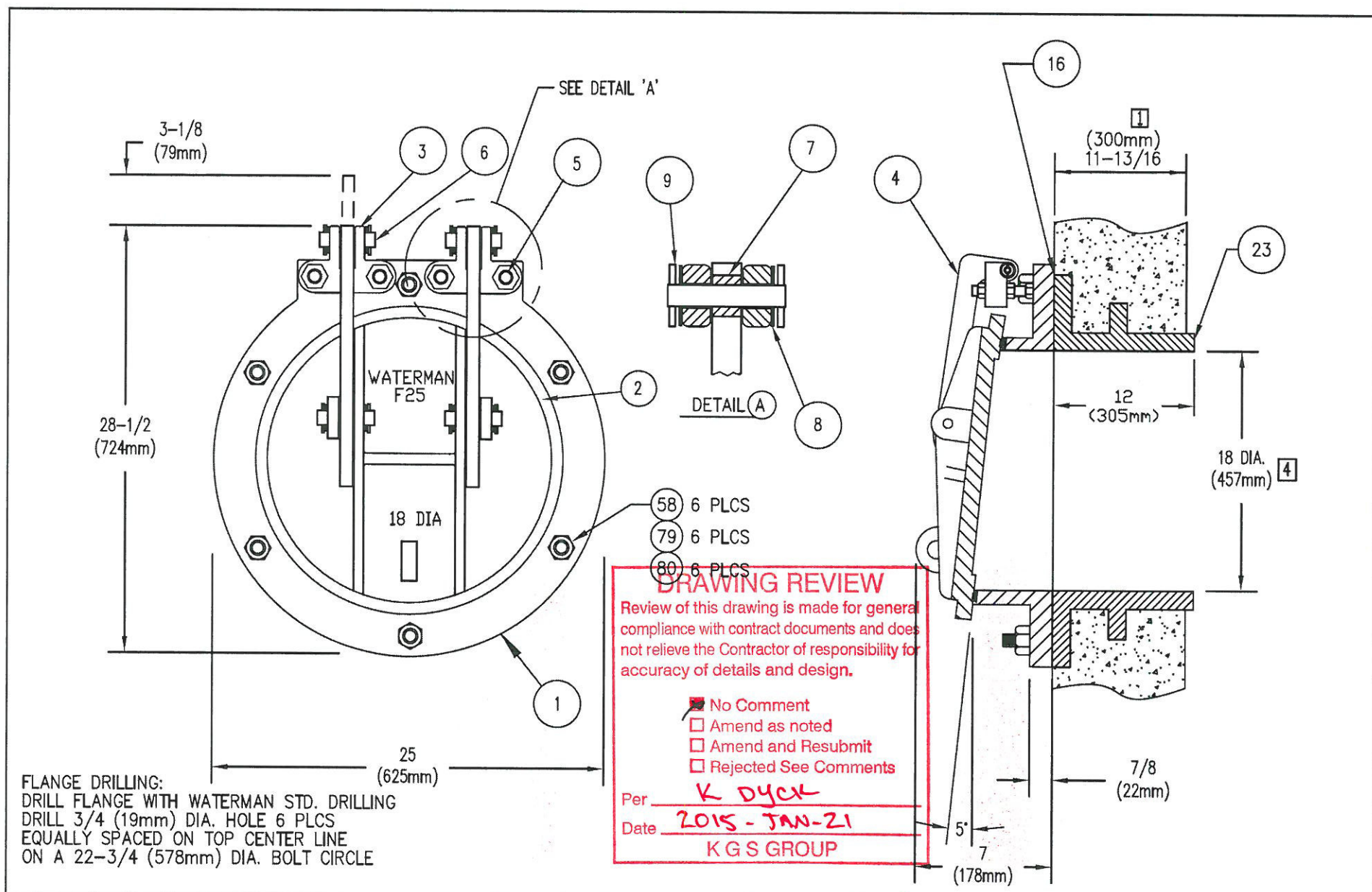
DESCRIPTION	PART #/ SIZE	MATERIAL	FIN	QTY	TOT	FINISH KEY
1. FRAME SEAT (BRONZE)	71114640001	CAST IRON: ASTM A-126 CL. B	6E-X	1	2	1. AS CAST 2. MILL
2. COVER SEAT (BRONZE)	71114630001	COMP. BRZ: ASTM B-584 AL. 844	3	-	-	3. MACHINED
3. PIVOT LUG	71109680002	CAST IRON: ASTM A-126 CL. B	6E-X	1	2	4. GALVANIZE ASTM A-123
4. HINGE LINK	3/4 THICK (101713)	COMP. BRZ: ASTM B-584 AL. 844	3	-	-	5. GALVANIZE ASTM A-153
5. HINGE STUD & NUTS	1 NC X 4-1/2 LG	DUCTILE IRON: ASTM A-536 GR.65-45-12	6E-X	2	4	6. PAINT -
6. HINGE PIN	3/4 DIA X 3-1/2 LG (101673-6)	STRUCTURAL STEEL: ASTM A-36	4	2	4	6E-X BLAST CLEAN PER SSPC-SP6
7. HINGE BUSHING	0.822 I.D. X 3/4 LG (101672-6)	STN STL HDW: ASTM F-593C/D & 594 GRP 1 (TY 304)	2,3	4	8	(2) CTS (5 MILS/CT) AMERCOAT 68HS VOC PRIMER
8. WASHER	3/4 DIA	STN STL HDW: ASTM F-593C/D & 594 GRP 1 (TY 304)	2	12	24	(2) CTS (4 MILS/CT) AMERLOCK2
9. HEX HEAD BOLT & NUT	1/4 DIA X 1-1/4 LG	PERMA-LUBE: SAE 841 BRONZE <input checked="" type="checkbox"/>	2,3	4	8	(TDF-18 MILS MIN.) COLOR: GRAY
		STN STL HDW: ASTM F-593C/D & 594 GRP 1 (TY 304)	2	8	16	NOTES:
16. MASTIC GASKET	TUBE TYPE	MASTIC GASKET	2	1	2	ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.
23. THIMBLE (PAINT INSIDE ONLY)	TYPE F-CC X 12 LG.	CAST IRON: ASTM A-126 CL. B	6E-X	1	2	DESIGNED FOR 55 FT SEATING HEAD.
58. ALL THREADED STUD	3/4 NC X 3-1/2 LG	STN. STL. SHAPES: ASTM A-276 TY. 304/304L D/C	2,3	8	16	3.
79. HEX NUT	3/4 NC	STN. STL HDW: ASTM F-593 & 594 GRP 1, COND. CW (TY. 304)	2	8	16	CONTRACTOR TO VERIFY OR SUPPLY.
80. WASHER	3/4 DIA.	STN. STL (TY. 304)	2	8	16	5. DIMENSIONS IN INCHES WITH MILLIMETERS IN PARENTHESIS UNLESS OTHERWISE SPECIFIED.

(2) GATES REQ'D @	REV. NO.	DATE	BY
REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WATERMAN INDUSTRIES AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF WATERMAN INDUSTRIES ©		JAN. 12, '15	JLG RV
(610mm) 24 DIA. WATERMAN MODEL F-55-FB CAST IRON DRAINAGE GATE	FOR: POWER & MINE SUPPLY CO. LTD. 75 MERIDIAN DR., UNIT 4 WINNIPEG MB R2R 2V9 CANADA	JOB NO. ME24107B	PROJECT MANAGER ROGER VALDEZ
	PO: P085606	QUOTE NO. WQ14-E-24107B	DRAWN BY: MH CHK'D BY: REM ENG BY: REM
	REF: SOUTH END WATER POLLUTION CONTROL CENTRE SEWPCC UPGRADE/EXPANSION PROJECT WINNIPEG, CANADA	QUOTE ITEM NO. 3	SHEET 1 OF 1
	ENG: KGS GROUP <input checked="" type="checkbox"/>	SCALE NTS	DATE DEC. 04, 2014
		DRAWING NO. SA-14-0713	



DESCRIPTION	PART #/ SIZE	MATERIAL	FIN	QTY	TOT	FINISH KEY
1. FRAME SEAT (BRONZE)	71114200001	CAST IRON: ASTM A-126 CL. B	6E-X	1	2	1. AS CAST 2. MILL
2. COVER SEAT (BRONZE)	71114190001	COMP. BRZ: ASTM B-584 AL. 844	3	-	-	3. MACHINED
3. PIVOT LUG	71109730002	CAST IRON: ASTM A-126 CL. B	6E-X	1	2	4. GALVANIZE ASTM A-123
4. HINGE LINK	1 THICK (100187/100178)	COMP. BRZ: ASTM B-584 AL. 844	3	-	-	5. GALVANIZE ASTM A-153
5. HINGE STUD & NUTS	1-1/4 NC X 5-1/2 LG	DUCTILE IRON: ASTM A-536 GR.65-45-12	6E-X	2	4	6. PAINT -
6. HINGE PIN	1 DIA X 6 LG	STRUCTURAL STEEL: ASTM A-36	4	2	4	6E-X BLAST CLEAN PER SSPC-SP6
7. HINGE BUSHING	1.062 I.D. X 1 LG (101672-7)	STN STL HDW: ASTM F-593C/D & 594 GRP 1 (TY 304)	2,3	4	8	(2) CTS (5 MILS/CT) AMERCOAT 68HS VOC PRIMER
8. WASHER	1 DIA	STN STL HDW: ASTM F-593C/D & 594 GRP 1 (TY 304)	2	12	24	(2) CTS (4 MILS/CT) AMERLOCK400
9. HEX HEAD BOLT & NUT	3/8 DIA X 1-3/4 LG	PERMA-LUBE: SAE 841 BRONZE	2,3	4	8	(TDF-18 MILS MIN.) COLOR: GRAY
		STN STL 304	2	8	16	NOTES:
		STN STL HDW: ASTM F-593C/D & 594 GRP 1 (TY 304)	2	8	16	ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.
16. MASTIC GASKET	TUBE TYPE	MASTIC GASKET	2	1	2	DESIGNED FOR 55 FT SEATING HEAD.
23. THIMBLE (PAINT INSIDE ONLY)	TYPE F-CC X 12 LG.	CAST IRON: ASTM A-126 CL. B	6E-X	1	2	3.
58. ALL THREADED STUD	7/8 NC X 4 LG	STN. STL. SHAPES: ASTM A-276 TY. 304/304L D/C	2,3	8	16	CONTRACTOR TO VERIFY OR SUPPLY.
79. HEX NUT	7/8 NC	STN. STL HDW: ASTM F-593 & 594 GRP 1, COND. CW (TY. 304)	2	8	16	5. DIMENSIONS IN INCHES WITH MILLIMETERS IN PARENTHESIS UNLESS OTHERWISE SPECIFIED.
80. WASHER	7/8 DIA.	STN. STL (TY. 304)	2	8	16	

(2) GATES REQ'D @	REV. NO.	DATE	BY
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		JAN. 12, '15	JLG
			RV
(762mm) 30 DIA. WATERMAN MODEL F-55-FB CAST IRON DRAINAGE GATE	FOR: POWER & MINE SUPPLY CO. LTD. 75 MERIDIAN DR., UNIT 4 WINNIPEG MB R2R 2V9 CANADA	JOB NO. ME24107B	PROJECT MANAGER ROGER VALDEZ
	PO: P085606	QUOTE NO. WQ14-E-24107B	DRAWN BY: MH CHK'D BY: REM ENG BY: REM
	REF: SOUTH END WATER POLLUTION CONTROL CENTRE SEWPCC UPGRADE/EXPANSION PROJECT WINNIPEG, CANADA	QUOTE ITEM NO. 4	SHEET 1 OF 1
	ENG: KGS GROUP	SCALE NTS	DATE DEC. 04, 2014
		DRAWING NO. SA-14-0714	

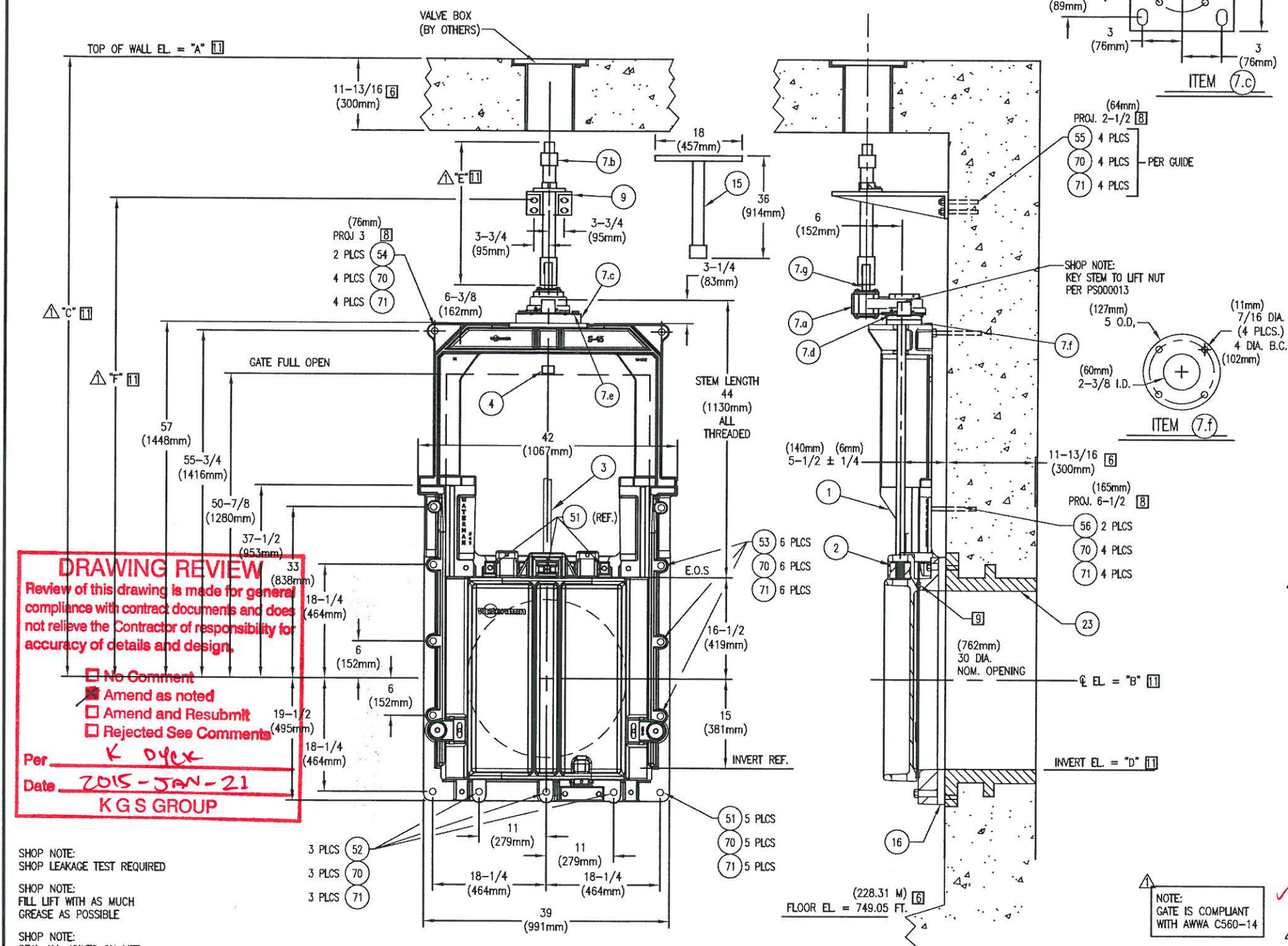
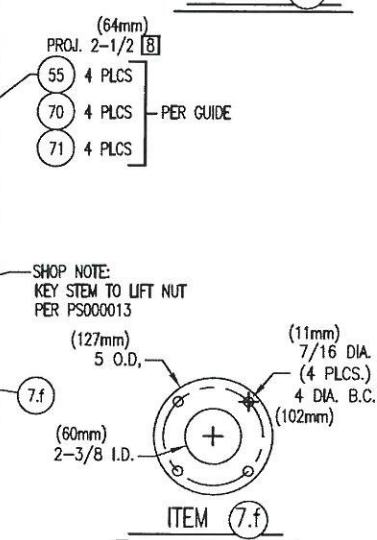
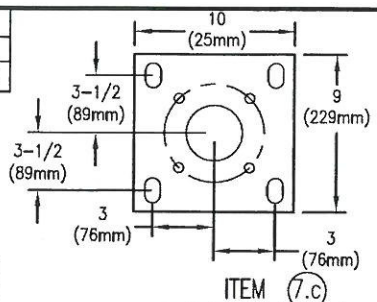


DESCRIPTION	PART #/ SIZE	MATERIAL	FIN	QTY	TOT	FINISH KEY
1. FRAME SEAT (BRONZE) ⚠	W-666-01	CAST IRON: ASTM A-126 CL. B	6E-X	1	1	1. AS CAST 2. MILL
2. COVER SEAT (BRONZE) ⚠	W-665	COMP. BRZ: ASTM B-584 AL. 844 ✓	3	-	-	3. MACHINED
3. PIVOT LUG	W-667 (REF. 101394)	CAST IRON: ASTM A-126 CL. B	6E-X	1	1	4. GALVANIZE ASTM A-123
4. HINGE LINK	REF. 101695	COMP. BRZ: ASTM B-584 AL. 844 ✓	3	-	-	5. GALVANIZE ASTM A-153
5. HINGE STUD & NUTS	5/8 NC X 4-1/2 LG.	DUCTILE IRON: ASTM A-536 GR. 65-45-12	6E-X	2	2	6. PAINT -
6. HINGE PIN	5/8 DIA. X 3-1/4 LG. (REF. 101673-4)	STRUCTURAL STEEL: ASTM A-36	4	2	2	6E-X BLAST CLEAN PER SSPC-SP6
7. HINGE BUSHING	.688 I.D. X .840 O.D. X 5/8 LG. (REF. 101672-4)	STAINLESS STEEL: ASTM A-276 TYPE 304	2,3	4	4	(2) CTS (5 MILS/CT) AMERCOAT 68HS VOC PRIMER
8. WASHER	5/8 DIA.	STN. STL: ASTM F-593C/D & 594 GRP 1 (TY 304)	2	12	12	(2) CTS (4 MILS/CT) AMERLOCK400
9. HEX HEAD BOLT & NUT	1/4 DIA. X 1-1/4 LG.	STAINLESS STEEL: ASTM A-276 TYPE 304	2,3	4	4	(TDFT-18 MILS MIN.) COLOR: GRAY [6]
16. MASTIC GASKET	TUBE TYPE	PERMA-LUBE: SAE 841 BRONZE ✓	2,3	4	4	NOTES:
23. THIMBLE (PAINT INSIDE ONLY)	TYPE F-CC X 12 LG.	304 SS	-	-	-	[1] ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.
58. ALL THREADED STUD	5/8 NC X 3-1/2 LG.	STN. STL, SHAPES: ASTM A-276 TY. 304/304L D/C	2	8	8	[2] DESIGNED FOR 25 FT SEATING HEAD. [4]
79. HEX NUT	5/8 NC	-	2	8	8	3.
80. WASHER	5/8 DIA.	MASTIC GASKET	2	1	1	[4] CONTRACTOR TO VERIFY OR SUPPLY.
		CAST IRON: ASTM A-126 CL. B	6E-X	1	1	5. DIMENSIONS IN INCHES WITH MILLIMETERS IN PARENTHESIS UNLESS OTHERWISE SPECIFIED.
		STN. STL, SHAPES: ASTM A-276 TY. 304/304L D/C	2,3	6	6	
		STN. STL HDW: ASTM F-593 & 594 GRP 1, COND. CW (TY. 304)	2	6	6	
		STN. STL (TY. 304)	2	6	6	

(1) GATE REQ'D @ [1]	REV. NO.	DATE	BY
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(457mm) 18 DIA. WATERMAN MODEL F-25-FB CAST IRON DRAINAGE GATE	FDR: POWER & MINE SUPPLY CO. LTD. 75 MERIDIAN DR., UNIT 4 WINNIPEG MB R2R 2V9 CANADA	JOB NO. ME24107B	PROJECT MANAGER ROGER VALDEZ
	PD: P085606	QUOTE NO. WQ14-E-24107B	DRAWN BY: MH CHK'D BY: REM ENG BY: REM
	REF: SOUTH END WATER POLLUTION CONTROL CENTRE SEWPCC UPGRADE/EXPANSION PROJECT WINNIPEG, CANADA	QUOTE ITEM NO. 5	SHEET 1 OF 1
	ENG: KGS GROUP ✓	SCALE: NTS	DATE: DEC. 04, 2014
		DRAWING NO. SA-14-0715	

TABULATION BLOCK						
GATE LOCATION	T.O.W. ELEV. "A"	GATE @ ELEV. "B"	T.O.W. DIM. "C"	INVERT ELEV. "D"	DIM. "E"	DIM. "F"
CHAMBER 4	763.90 FT (232.837 M)	751.90 FT (229.18 M)	144 (3657.6 mm)	750.65 FT (228.80 M)	78-5/8 (1997 mm)	118 (2997 mm)
MANHOLE 1	762.80 FT (232.50 M)	754.24 FT (229.89 M)	102-3/4 (2609 mm)	752.99 FT (229.510 M)	37-3/8 (949 mm)	77 (1956 mm)
MANHOLE 3	767.39 FT (233.90 M)	760.24 FT (231.77 M)	85-3/4 (2179mm)	758.99 FT (231.340 M)	20-1/4 (514 mm)	61 (1549 mm)

EMBEDDED DEPTH FOR ALL THREADED STUDS			
DIAMETER	EMBEDDED DEPTH	HOLE DEPTH	HOLE DIA.
5/8 (16mm)	5-5/8 (143mm)	5-7/8 (149mm)	3/4 (19mm)



DRAWING REVIEW
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No Comment
 Amend as noted
 Amend and Resubmit
 Rejected See Comments

Per K Olex
 Date 2015-JAN-21
KGS GROUP

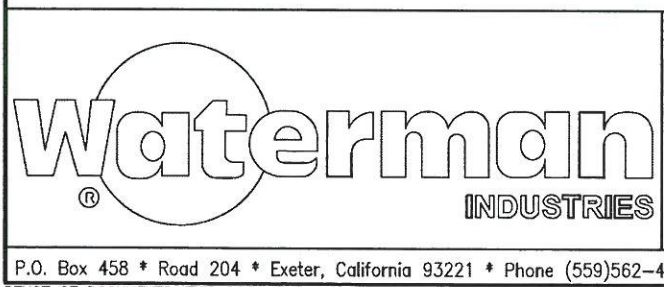
MATERIAL KEY	FINISH KEY	PAINT KEY
1. CAST IRON-ASTM A-126 CL. B 2. DUCTILE IRON-ASTM A-536 GR.65-45-12 3. MANGANESE BRONZE: ASTM B-584 ALLOY 865 4. NAVAL BRZ.:ASTM B-21 AL C48200 5. STRUCTURAL STEEL-ASTM A-36 6. STN STL SHAPES:ASTM A-276 TY.304/304L D/C 9C. STN STL PLATE-ASTM A-240 TY.304/304L D/C 11. STL PIPE-ASTM A-53 TY. E GR. A 12. COMMERCIAL BRONZE 15A. STN STL HDW-ASTM F-593C/D & 594 GRP 1 (TY 304) 15C. STN. STL. HDW: ASTM F-879 GRP 1 (TYP 304) 16. MASTIC GASKET	1. AS CAST 2. MILL 3. MACHINED 4. GALVANIZE-ASTM A-123 5. GALVANIZE-ASTM A-153 6. SEE PAINT KEY 26. PHOSPHOR BRZ.: ASTM B-139 AL 510	6E-X BLAST CLEAN PER SSPC-SP6 (2) CTS (5 MILS/CT) AMERCOAT 68HS VOC PRIMER (2) CTS (4 MILS/CT) AMERLOCK400 (TOFT-18 MILS MIN.) COLOR: GRAY [6]

ITEM DESCRIPTION	MATERIAL KEY	FINISH KEY	PART NO. OR SIZE (FOR WATERMAN USE ONLY)	QTY/ GATE	TOTAL QTY
1. SLUICE GATE ASSEMBLY	-	-	-	1	3
a) FRAME	2	6E-X	W-4531-00-02 (REF. 110240)	1	1
b) COVER	2	6E-X	W-4516-00-02 (REF. 110242)	1	A/R
c) SEATS	-	-	-	1	A/R
1) SEAT	5	2,3	3/4 IN. WIDE EXTRUSION (REF. 100076)	2	2
d) GUIDE RAIL	2	6E-X	CAST INTEGRAL WITH FRAME	2	2ea
e) SIDE WEDGE ASSEMBLY	-	-	-	2	2
1) COVER WEDGE: LEFT	4	1,3	W-3026 L (REF. 110606)	2	2
2) FRAME WEDGE: LEFT	2,4	1,3,6E-X	W-4519 (REF. 110197)	2	2
3) COVER WEDGE: RIGHT	4	1,3	W-3030 R (REF. 110608)	2	2
4) FRAME WEDGE: RIGHT	2,4	1,3,6E-X	W-4518 (REF. 110198)	2	2
5) ASSEMBLY / ADJUSTING HARDWARE	15A	2	-	-	-
f) TOP WEDGE ASSEMBLY	-	-	-	-	-
1) TOP WEDGE: COVER	4	1,3	W-3024 (REF. 110602)	2	2
2) TOP WEDGE: FRAME	4	1,3	W-3028 (REF. 110612)	2	2
3) ASSEMBLY / ADJUSTING HARDWARE	15A	2	-	-	-
h) BOTTOM WEDGE ASSEMBLY	-	-	-	-	-
1) BOTTOM WEDGE: COVER	4	1,3	W-3027 (REF. 110610)	1	1
2) BOTTOM WEDGE BLOCK BRACKET: FRAME	4	1,3	W-3029 (REF. 110618)	1	1
3) ASSEMBLY / ADJUSTING HARDWARE	15A	2	-	-	-
j) YOKE	2	6E-X	REF. 110244	1	1
2. THRUST NUT	4	1,3	W-5072 (1-1/2 DIA., 4 TPI, LH) [5] (REF. 108339-91)	1	3
3. STEM (NON-RISING)	9A	2,3	1-1/2 DIA., 4 TPI, LH [5] (REF. 108141-1)	1	3
4. LIMIT NUT	1	4	1-1/2 DIA., 4 TPI, LH [5] (REF. 108218-11)	1	3
7. LIFT ASSEMBLY	-	-	-	1	3
a) LIFT	1,4	6E-X	TYPE IS2 2:1	1	1
b) 2 SQ OPERATING NUT NON-RISING STEM EXTENSION	1,11	2,3	REF. 108478-1	1	1
c) BASE PLATE	6	6E-X	REF. 110628-1 (MODIFIED)	1	1
d) FLAT HEAD BOLT	15C	2	3/8 NC x 1-3/4 LG	4	4
e) HEX HEAD BOLT, NUT & WASHER	15A	2	1/2 NC x 2-1/2 LG	4	4/4/8
f) SPACER RING	9C	2,3	5/8 THK.	1	1
g) 30mm TO 2-1/2 HEX ADAPTER	12	2,3	REF. 110804	1	1
9. STEM GUIDE	1,26	2,3,6E-X	REF. 100885-7	1	3
15. T-HANDLE	2,6,11	4	REF. 101077-2 (18 INCH)	1	3
16. MASTIC GASKET	16	-	TUBE TYPE	1	3
23. THIMBLE (PAINT INSIDE AND EXPOSED SURFACES)	1	6E-X	TYPE F-SC X 12 LG	1	3
51. THREADED STUD	9A	2,3	5/8 NC X 3-1/2 LG.	5	15
52. THREADED STUD	9A	2,3	5/8 NC X 6 LG.	3	9
53. THREADED STUD	9A	2,3	5/8 NC X 8 LG.	6	18
54. THREADED STUD [8]	9A	2,3	5/8 NC X 9 LG.	2	6
55. THREADED STUD [8]	9A	2,3	5/8 NC X 8-1/2 LG.	8	24
56. THREADED STUD [8]	9A	2,3	5/8 NC X 12-1/2 LG.	2	6
70. HEX NUT	15A	2	5/8 NC	30	90
71. WASHER	304 SS	2	5/8 DIA	30	90

NOTES: UNLESS OTHERWISE SPECIFIED.

- (GATE CAPACITY) MAXIMUM SEATING HEAD = 35 FT. (10.67 M); MAXIMUM UNSEATING HEAD = 20 FT. (6.1 M).
- OPERATING HEAD FROM GATE CENTER LINE: SEATING HEAD = 4.145 M; UNSEATING HEAD = 12.01 FT. (3.66 M).
- LIFT CAPACITY @ 40 LBS PULL = 4,145 LBS.
- TURN OPERATING NUT CCW TO OPEN (RAISE) GATE.
- 29° STUB ACME THREADS. (1/4 PITCH, 1/4 LEAD; SL)
- CONTRACTOR TO VERIFY OR SUPPLY.
- DIMENSION INCLUDES THICKNESS FOR GROUT PAD.
- CONTRACTOR TO PROVIDE HILTI HIT-RE 500-SD (WET OR DRY CONDITIONS), HILTI HY-200 (DRY CONDITIONS ONLY); OR EQUAL EPOXY FOR ANCHORS.
- IMPACT INTO DOVETAIL GROOVE/ MACHINE FLAT TO .002 T.I.R. W/ A 63° FINISH OR BETTER.
- DIMENSIONS IN INCHES WITH MILLIMETERS IN PARENTHESIS UNLESS OTHERWISE SPECIFIED.
- SEE TABULATION BLOCK.

(3) GATES REQ'D. @ [6]



(762mm X 762mm)
 30 X 30 WATERMAN MODEL
 HEAVY DUTY SLUICE GATE

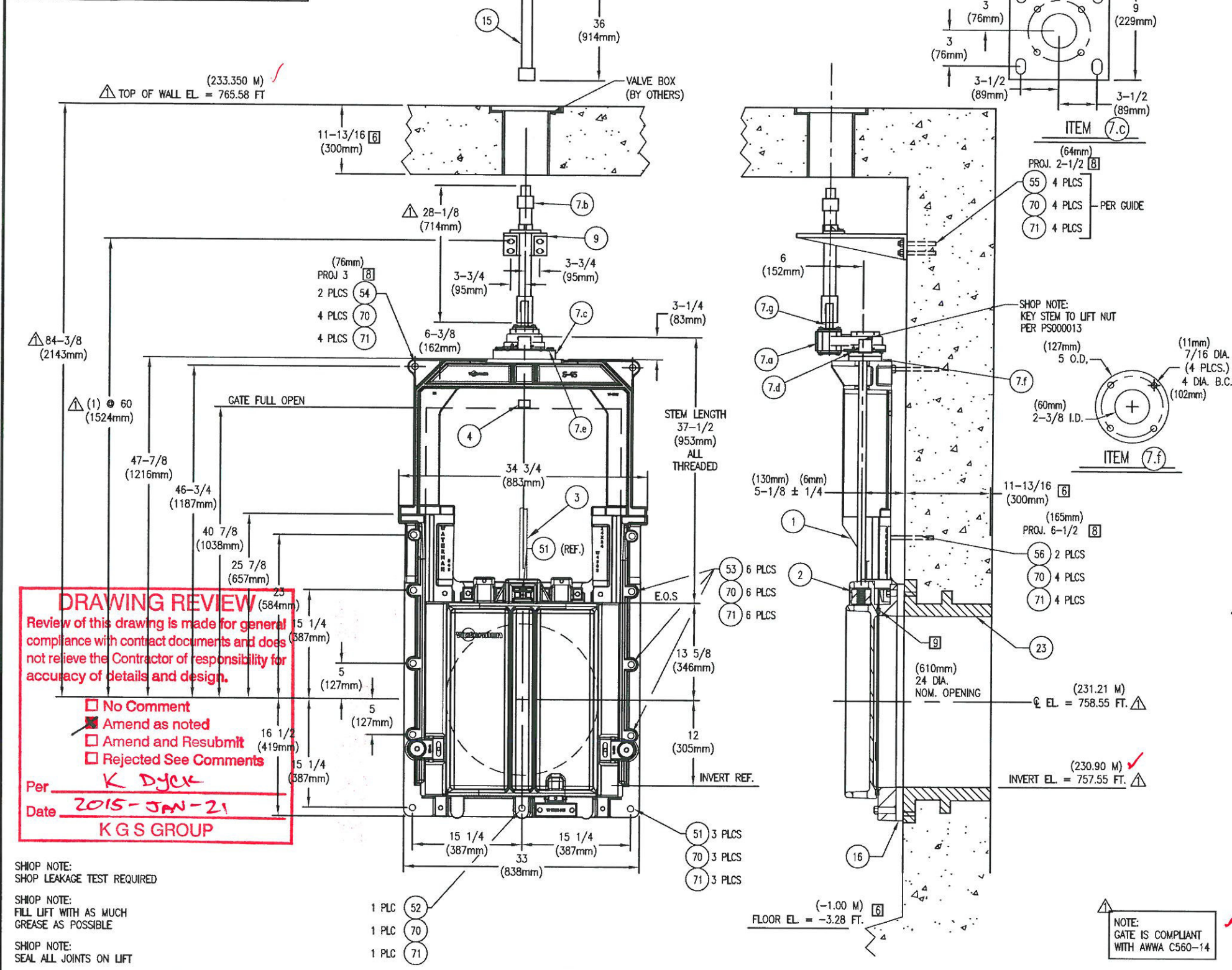
FOR: POWER & MINE SUPPLY CO. LTD.
 75 MERIDIAN DR., UNIT 4
 WINNIPEG MB R2R 2V9
 CANADA
 PO: P085606

REF: SOUTH END WATER POLLUTION
 CONTROL CENTRE SEWPCC
 UPGRADE/EXPANSION PROJECT
 WINNIPEG, CANADA

ENG: C.M. SIEPMAN **KGS GROUP**

REV. NO.	DATE	BY	JOB NO.	PROJECT MANAGER		
			ME24107B	ROGER VALDEZ		
REV. NO.	DATE	BY	QUOTE NO.	DRAWN BY	CHK'D BY	ENGINEER
			WQ14-E-24107B	MH	REM	REM
REV. NO.	DATE	BY	QUOTE ITEM NO.	SHEET		
			1	1 OF 1		
REV. NO.	DATE	BY	SCALE	DATE		
			NTS	DEC. 04, 2014		
REV. NO.	DATE	BY	DRAWING NO.			
			RB-14-0711			

EMBEDDED DEPTH FOR ALL THREADED STUDS			
DIAMETER	EMBEDDED DEPTH	HOLE DEPTH	HOLE DIA.
5/8 (16mm)	5-5/8 (143mm)	5-7/8 (149mm)	3/4 (19mm)



DRAWING REVIEW
 Review of this drawing is made for general compliance with contract documents and does not relieve the Contractor of responsibility for accuracy of details and design.

No Comment
 Amend as noted
 Amend and Resubmit
 Rejected See Comments

Per K Dyck
 Date 2015-JAN-21
K G S GROUP

SHOP NOTE:
 SHOP LEAKAGE TEST REQUIRED

SHOP NOTE:
 FILL LIFT WITH AS MUCH GREASE AS POSSIBLE

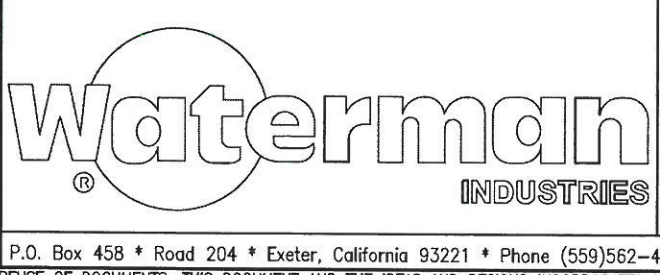
SHOP NOTE:
 SEAL ALL JOINTS ON LIFT

MATERIAL KEY	FINISH KEY	PAINT KEY
1. CAST IRON:ASTM A-126 CL B 2. DUCTILE IRON:ASTM A-536 GR.65-45-12 4. MANGANESE BRONZE: ASTM B-584 ALLOY 865 5. NAVAL BRZ.:ASTM B-21 AL C48200 6. STRUCTURAL STEEL:ASTM A-36 9A. STN STL SHAPES:ASTM A-276 TY.304/304L D/C 9C. STN STL PLATE:ASTM A-240 TY.304/304L D/C 11. STL PIPE:ASTM A-53 TY. E. GR. A 12. COMMERCIAL BRONZE 15A. STN STL HDW:ASTM F-593C/D & 594 GRP 1 (TY 304) 15C. STN. STL. HDW: ASTM F-879 GRP 1 (TYP 304) 16. MASTIC GASKET	1. AS CAST 2. MILL 3. MACHINED 4. GALVANIZE-ASTM A-123 5. GALVANIZE-ASTM A-153 6. SEE PAINT KEY 26. PHOSPHOR BRZ.: :ASTM B-139 AL 510	6E-X BLAST CLEAN PER SSPC-SP6 (2) CTS (5 MILS/CT) AMERCOAT 68HS VOC PRIMER (2) CTS (4 MILS/CT) AMERLOCK400 (TDF-18 MILS MIN.) COLOR: GRAY[G]

ITEM DESCRIPTION	MATERIAL KEY	FINISH KEY	PART NO. OR SIZE (FOR WATERMAN USE ONLY)	QTY/ GATE	TOTAL QTY
1. SLUICE GATE ASSEMBLY	-	-	-	1	1
a) FRAME	2	6E-X	W-4503-00-02 (REF. 110131)	1	1
b) COVER	2	6E-X	W-4504-00-02 (REF. 110132)	1	1
c) SEATS	-	-	-	A/R	A/R
1) SEAT	5	2,3	3/4 IN. WIDE EXTRUSION (REF. 100076)	1	1
d) GUIDE RAIL	2	6E-X	CAST INTEGRAL WITH FRAME	2	2
e) SIDE WEDGE ASSEMBLY	-	-	-	lea	lea
1) COVER WEDGE: LEFT	4	1,3	W-3026 L (REF. 110606)	1	1
2) FRAME WEDGE: LEFT	2,4	1,3,6E-X	W-4519 (REF. 110197)	1	1
3) COVER WEDGE: RIGHT	4	1,3	W-3030 R (REF. 110608)	1	1
4) FRAME WEDGE: RIGHT	2,4	1,3,6E-X	W-4518 (REF. 110198)	1	1
5) ASSEMBLY / ADJUSTING HARDWARE	15A	2	-	-	-
f) TOP WEDGE ASSEMBLY	-	-	-	-	-
1) TOP WEDGE: COVER	4	1,3	W-3024 (REF. 110602)	2	2
2) TOP WEDGE: FRAME	4	1,3	W-3028 (REF. 110612)	2	2
3) ASSEMBLY / ADJUSTING HARDWARE	15A	2	-	-	-
h) BOTTOM WEDGE ASSEMBLY	-	-	-	-	-
1) BOTTOM WEDGE: COVER	4	1,3	W-3025 (REF. 110604)	1	1
2) BOTTOM WEDGE BLOCK BRACKET: FRAME	4	1,3	W-3029 (REF. 110618)	1	1
3) ASSEMBLY / ADJUSTING HARDWARE	15A	2	-	-	-
j) YOKE	2	6E-X	W-4505-00-02 (REF. 110133)	1	1
1) ASSEMBLY HARDWARE	15A	2	-	A/R	A/R
2. THRUST NUT	4	1,3	W-5072 (1-1/2 DIA., 4 TPI, LH)[5] (REF. 108339-91)	1	1
3. STEM (NON-RISING)	9A	2,3	1-1/2 DIA., 4 TPI, LH[5] (REF. 108141-1)	1	1
4. LIMIT NUT	1	4	1-1/2 DIA., 4 TPI, LH[5] (REF. 108218-11)	1	1
7. LIFT ASSEMBLY	-	-	-	1	1
a) LIFT	1,4	6E-X	TYPE IS2 2:1	1	1
b) 2 SQ OPERATING NUT NON-RISING STEM EXTENSION	1,11	2,3	REF. 108478-1	1	1
c) BASE PLATE	6	6E-X	REF. 110628-1 (MODIFIED)	1	1
d) FLAT HEAD BOLT	15C	2	3/8 NC x 1-3/4 LG	4	4
e) HEX HEAD BOLT, NUT & WASHER	15A	2	1/2 NC x 2-1/2 LG	4	4/8
f) SPACER RING	9C	2,3	5/8 THK.	1	1
g) 30mm TO 2-1/2 HEX ADAPTER	12	2,3	REF. 110804	1	1
9. STEM GUIDE	1,26	2,3,6E-X	REF. 100885-7	1	1
15. T-HANDLE	2,6,11	4	REF. 101077-2 (18 INCH)	1	1
16. MASTIC GASKET	16	-	TUBE TYPE	1	1
23. THIMBLE (PAINT INSIDE AND EXPOSED SURFACES)	1	6E-X	TYPE F-SC X 12 LG	1	1
51. THREADED STUD	9A	2,3	5/8 NC X 3-1/2 LG.	3	3
52. THREADED STUD	9A	2,3	5/8 NC X 6 LG.	1	1
53. THREADED STUD	9A	2,3	5/8 NC X 8 LG.	6	6
54. THREADED STUD [8]	9A	2,3	5/8 NC X 9 LG.	2	2
55. THREADED STUD [8]	9A	2,3	5/8 NC X 8-1/2 LG.	8	8
56. THREADED STUD [8]	9A	2,3	5/8 NC X 12-1/2 LG.	2	2
70. HEX NUT	15A	2	5/8 NC	26	26
71. WASHER	304 SS	2	5/8 DIA	26	26

NOTES: UNLESS OTHERWISE SPECIFIED.

- (GATE CAPACITY) MAXIMUM SEATING HEAD = 30 FT. (9.14 M); MAXIMUM UNSEATING HEAD = 20 FT. (6.1 M).
- OPERATING HEAD FROM GATE CENTER LINE: SEATING HEAD = 12.01 FT. (3.66 M); UNSEATING HEAD = 12.01 FT. (3.66 M).[8]
- LIFT CAPACITY @ 40 LBS PULL = 4,145 LBS.
- TURN OPERATING NUT CCW TO OPEN (RAISE) GATE.
- 29° STUB ACME THREADS. (1/4 PITCH, 1/4 LEAD; SL)
- CONTRACTOR TO VERIFY OR SUPPLY.
- DIMENSION INCLUDES THICKNESS FOR GROUT PAD.
- CONTRACTOR TO PROVIDE HILTI HIT-RE 500-SD (WET OR DRY CONDITIONS), HILTI HY-200 (DRY CONDITIONS ONLY); OR EQUAL EPOXY FOR ANCHORS.
- IMPACT INTO DOVETAIL GROOVE/ MACHINE FLAT TO .002 T.I.R. W/ A G3-FINISH OR BETTER.
- DIMENSIONS IN INCHES WITH MILLIMETERS IN PARENTHESIS UNLESS OTHERWISE SPECIFIED.



(610mm X 610mm)
 24 X 24 WATERMAN MODEL
 HEAVY DUTY SLUICE GATE

FOR: POWER & MINE SUPPLY CO. LTD.
 75 MERIDIAN DR., UNIT 4
 WINNIPEG MB R2R 2V9
 CANADA
 PO: P085606

REF: SOUTH END WATER POLLUTION
 CONTROL CENTRE SEWPCC
 UPGRADE/EXPANSION PROJECT
 WINNIPEG, CANADA
 ENG: C.M. SIEPMAN **KGS GROUP**

REV. NO.	DATE	BY	JOB NO.	PROJECT MANAGER		
			ME24107B	ROGER VALDEZ		
REV. NO.	DATE	BY	QUOTE NO.	DRAWN BY	CHK'D BY	ENGINEER
			WQ14-E-24107B	MH	REM	REM
REV. NO.	DATE	BY	QUOTE ITEM NO.	SHEET	1 OF 1	
			2			
REV. NO.	DATE	BY	SCALE	DATE		
			NTS	DEC. 04, 2014		
REV. NO.	DATE	BY	DRAWING NO.			
			RB-14-0712			