



Submittal #20.4

LYONS FERRY STRAW PULP PLANT
Starbuck, WA
Project # 15NA0050

Owner: Columbia Pulp
Engineer: Allnorth Consultants Ltd.

12'd X 31'h API 620 SST
330-TK-3322 PULP LINE MIX TANK A
330-TK-3326 PULP LINE MIX TANK B

- Tank Shop Drawing Resubmittal

Tank Contractor:

T BAILEY, INC.

12441 Bartholomew, Rd.
Anacortes, WA 98221
Voice 360) 293-0682
Fax 360) 293-3893

It is hereby certified that this equipment/material is in compliance with the contract drawings and specifications, coordination with other work on the job, and dimensional suitability.

T BAILEY, INC. By Mike Jansma

Date 07/09/18

Sheet List Table			
	Sheet	Rev	Description
1	1.0	B	Elevation and Notes For TK-3322
1	1.1	B	Elevation and Notes For TK-3326
	2.0	O	Anchor Bolts Details
	2.1	O	Anchor Bolts Layout
1	3.0	B	Plan & Apps For TK-3322
1	3.1	B	Plan & Apps For TK-3326
	3.2	A	Bottom Cone Plan View
1	4.0	B	Shell Rollout For TK-3322
1	4.1	B	Shell Rollout For TK-3326
	4.2	A	Compression Ring Layout
	4.3	A	Shell Detail
	4.4	A	Cone Details
	4.5	A	Cone Details
	4.6	A	Weld Map For TK-3322
	4.7	A	Weld Map For TK-3326
1	5.0	B	Support Columns For TK-3322
1	5.1	B	Support Columns For TK-3326
1	5.2	B	Support Columns Details
1	5.3	B	Support Columns Details
1	5.4	A	Support Columns Details
1	5.5	A	Support Columns Details
1	6.0	B	Roof Layout
1	6.1	B	Roof Details
1	9.0	B	Baffle Plates
1	9.1	B	Baffle Plates Details
	20.0	A	30"Ø Manway With Davit For TK-3322
	20.1	A	30"Ø Manway With Davit For TK-3326
1	20.2	B	30"Ø Manway Details
1	20.3	B	30"Ø Manway Details

	20.4	A	30"Ø Manway Details	On Hold!
1	21.0	B	8"Ø Gooseneck Vent	
1	22.0	B	3"Ø Roof Nozzle	
	23.0	A	4"Ø Roof Nozzle	
1	24.0	B	60"Ø Roof Nozzle With Blind Flg	
1	24.1	B	60"Ø Roof Nozzle With Blind Flg	
	25.0	A	18"x18" Roof Inspection Hatch	
1	25.1	B	18"x18" Roof Inspection Hatch Details	
1	27.0	B	8"Ø Cone Nozzle	
	28.0	A	14"Ø Cone Nozzle	
1	30.0	B	1"Ø Shell Coupling	
1	30.1	B	1"Ø Shell Nozzle	
	31A	A	3"Ø Studding Outlet	
	33.0	A	6"Ø Shell Nozzle	
	35.0	A	Straw Inlet	
	35.1	A	Straw Inlet Details	
	36.0	A	Straw & Pressate Inlet For TK-3322	
	36.1	A	Straw & Pressate Inlet For TK-3326	
	36.2	A	Straw & Pressate Inlet Details	
	36.3	A	Straw & Pressate Inlet Details	
	45.0	A	Lifting Lugs	
1	46.0	A	Tailing Lug	
1	48.0	B	Support Repads	
	50.0	O	Anchor Templates Layout	
1	60.0	B	Shipping Information For TK-3322	
1	60.1	B	Shipping Information For TK-3326	

Notes:

1	PJ	07/09/78	Revised Drawings And Resubmitted For Approval
0	PJ	04/13/18	Released Anchor Bolts And Templates For Fabrication
A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			



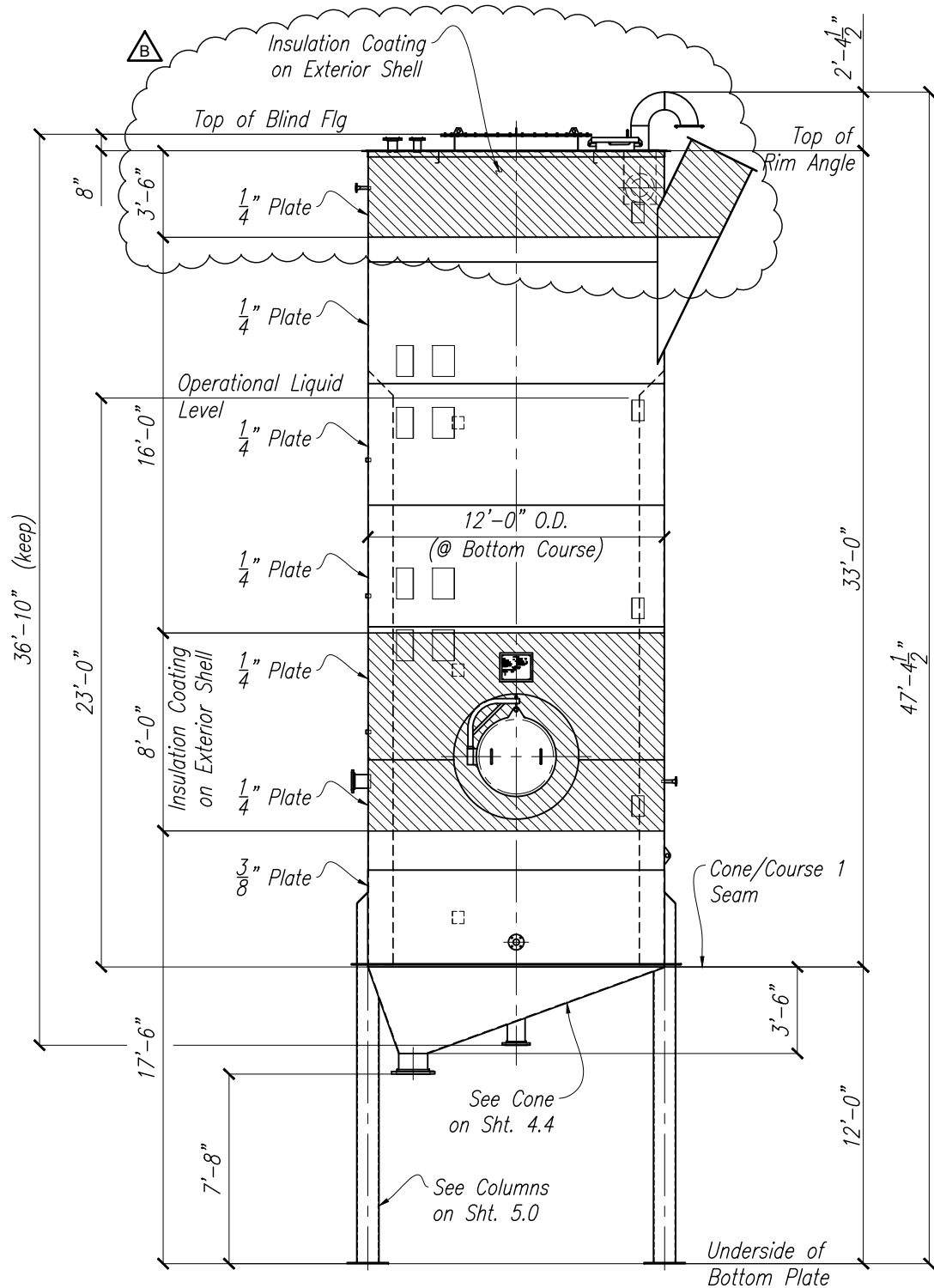
12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website:
FAX: (360) 293-3893 www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.			
DRAWN BY: PJ	DATE: 04/03/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Drawing List			
JOB#: 600-01-3322		SHT#: DL	1

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326



Tank Elevation View

Tank TK-3322

DESIGN DATA		VESSEL DATA	
DESIGN DATA	DESCRIPTION	12'-0" OD x 33'-0" H.	
	NUMBER REQUIRED	1	
	CAPACITY	25,500 GALLONS NOMINAL	
	DESIGN PRESSURE	PRODUCT HEAD @ SP. GR. = 1.0 , MAX. = ATM. PRESSURE and MIN. = 1.7" W.C. VACUUM	
	OPERATING PRESSURE	ATMOSPHERIC + PRODUCT HEAD @ SP. GR. = 1.0	
	TEST PRESSURE	PER API 620 12th ED.	
	DESIGN METAL TEMPERATURE	18°F	
	MAXIMUM OPERATING TEMPERATURE	250°F	
	DESIGN TEMPERATURE	200 °F	
	JOINT EFFICIENCY	0.70 ON SHELL	
	CORROSION ALLOWANCE	0" ON SHELL, ROOF, BOTTOM	
	CODE & STAMP	PER API-620 12th ED. AS A GUIDELINE	
	ROOF LOAD	SNOW LIVE LOAD = 30 PSF ROOF LIVE LOAD = 25 PSF	
	SEISMIC LOAD	Ss= 0.330 g; S1=0.125 g; SUG=II; SITE CLASS=D	
	WIND LOAD	110 MPH (3 sec. gust - ULT)	
	SHELL	A240-316L	
MATERIALS	BOTTOM	A240-316L	
	ROOF	A240-316L	
	NOZZLE	NECK A312-TP316L	FLANGE A182-F316L
	MANWAY	NECK A240-316L	FLANGE A240-316L COVER A240-316L
	REINFORCING PADS	A240-316L	
	PIPING	A312-TP316L	
	COUPLINGS	A403 GR. WP316L	
	BOLTING	BOLTS SS316 NUTS SS316 STUDS NONE	
	GASKETS	1/8" THK Garlock Graph-Lock 3125SS	
	STRUCTURAL	A36	
	ELECTRODES	IN ACCORDANCE WI/API-620	
CONSTRUCTION	STRESS RELIEF	NONE	
	CLEANING	BROOM CLEAN AFTER FABRICATION	
	SURFACE PREPARATION	N/A	
	INTERNAL PAINTING	N/A	
	EXTERNAL PAINTING	N/A	
	LINING	NONE	
	INSULATION	Prime: Carbozinc 608HB. Finish: Carbotherm 551	
	LADDERS & PLATFORMS	NONE	
	CATHODIC PROTECTION	NONE	
	FOUNDATION	CONCRETE BY OTHERS	
QUALITY ASSURANCE	Q.A. MANUAL	-	
	MILL CERTIFICATIONS	REQUIRED ON PLATE	
	WELDERS	QUALIFIED PER ASME SECTION IX	
	WELDING	PER API 620 12th ED.	
	NON-DESTRUCTIVE TESTING	PER API 620 12th ED.	
		RT 10% OF SHELL BUTT WELDS	
	TESTING	PER API 620 12th ED.	
		AIR PRESSURE TEST REPADS PER API 620 12th ED.	
		PER API 620 12th ED.	
		PER API 620 12th ED.	

Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website: www.TBailey.com
FAX: (360) 293-3893

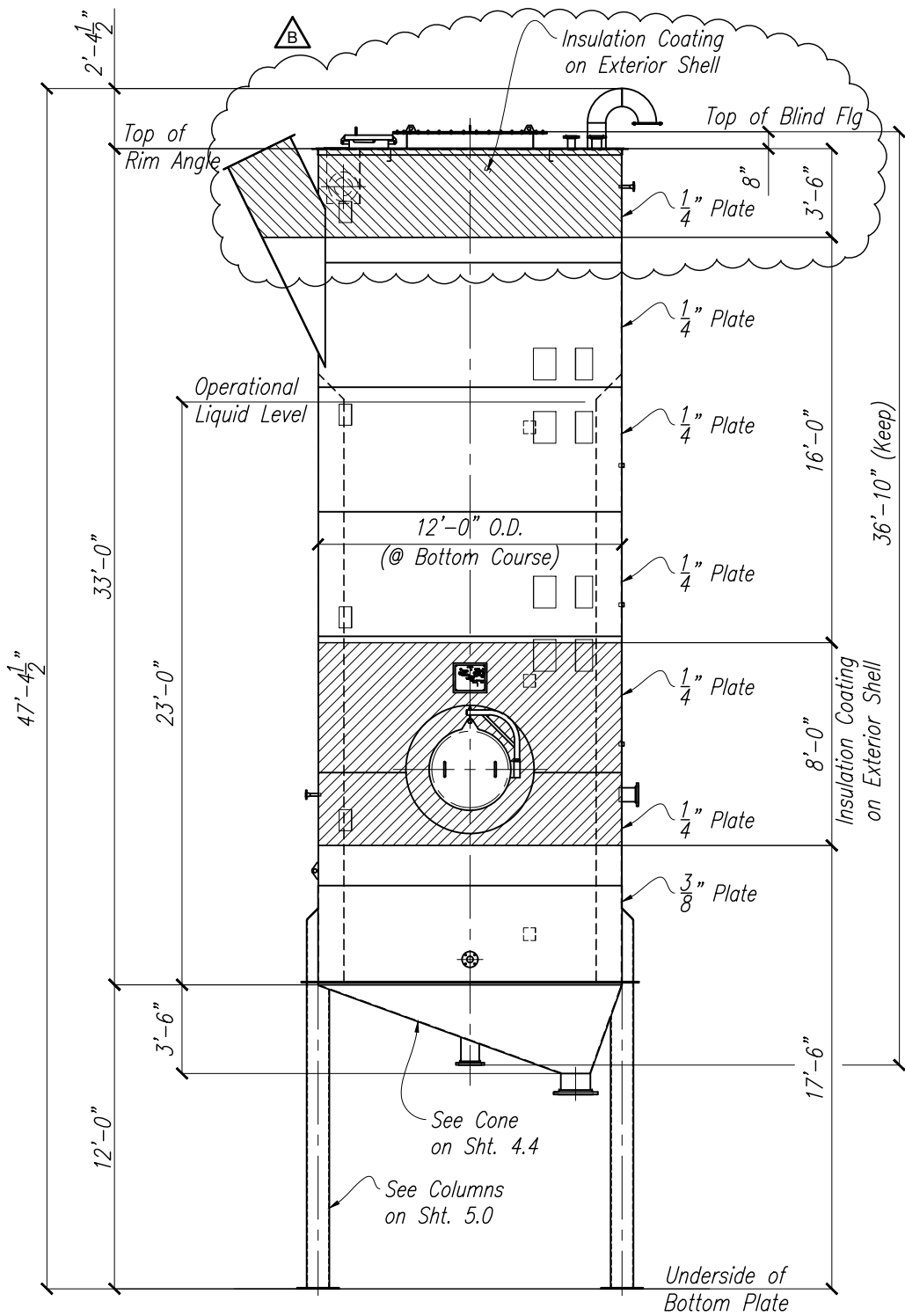


FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/11/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Elevation And Notes For TK-3322			
JOB#: 600-01-3322		SHT#: 1.0	





Tank Elevation View

Tank TK-3326

DESIGN DATA		VESSEL DATA	
DESIGN DATA	DESCRIPTION	12'-0" OD x 33'-0" H.	
	NUMBER REQUIRED	1	
	CAPACITY	25,500 GALLONS NOMINAL	
	DESIGN PRESSURE	PRODUCT HEAD @ SP. GR. = 1.0 , MAX. = ATM. PRESSURE and MIN. = 1.7" W.C. VACUUM	
	OPERATING PRESSURE	ATMOSPHERIC + PRODUCT HEAD @ SP. GR. = 1.0	
	TEST PRESSURE	PER API 620 12th ED.	
	DESIGN METAL TEMPERATURE	18°F	
	MAXIMUM OPERATING TEMPERATURE	250°F	
	DESIGN TEMPERATURE	200 °F	
	JOINT EFFICIENCY	0.70 ON SHELL	
	CORROSION ALLOWANCE	0" ON SHELL, ROOF, BOTTOM	
	CODE & STAMP	PER API-620 12th ED. AS A GUIDELINE	
	ROOF LOAD	SNOW LIVE LOAD = 30 PSF ROOF LIVE LOAD = 25 PSF	
	SEISMIC LOAD	Ss= 0.330 g; S1=0.125 g; SUG=II; SITE CLASS=D	
	WIND LOAD	110 MPH (3 sec. gust - ULT)	
	SHELL	A240-316L	
MATERIALS	BOTTOM	A240-316L	
	ROOF	A240-316L	
	NOZZLE	NECK A312-TP316L	FLANGE A182-F316L
	MANWAY	NECK A240-316L	FLANGE A240-316L COVER A240-316L
	REINFORCING PADS	A240-316L	
	PIPING	A312-TP316L	
	COUPLINGS	A403 GR. WP316L	
	BOLTING	BOLTS SS316	NUTS SS316 STUDS NONE
	GASKETS	1/8" THK Garlock Graph-Lock 3125SS	
	STRUCTURAL	A36	
	ELECTRODES	IN ACCORDANCE W/API-620	
CONSTRUCTION	STRESS RELIEF	NONE	
	CLEANING	BROOM CLEAN AFTER FABRICATION	
	SURFACE PREPARATION	N/A	
	INTERNAL PAINTING	N/A	
	EXTERNAL PAINTING	N/A	
	LINING	NONE	
	INSULATION	Prime: Carbozinc 608HB. Finish: Carbotherm 551	
	LADDERS & PLATFORMS	NONE	
	CATHODIC PROTECTION	NONE	
	FOUNDATION	CONCRETE BY OTHERS	
QUALITY ASSURANCE	Q.A. MANUAL	-	
	MILL CERTIFICATIONS	REQUIRED ON PLATE	
	WELDERS	QUALIFIED PER ASME SECTION IX	
	WELDING	PER API 620 12th ED.	
	NON-DESTRUCTIVE TESTING	PER API 620 12th ED.	
		RT 10% OF SHELL BUTT WELDS	
	TESTING	SPECIAL TESTING	
		PER API 620 12th ED.	
		AIR PRESSURE TEST REPADS PER API 620 12th ED.	
		SHELL	
		PER API 620 12th ED.	
		BOTTOM	
		PER API 620 12th ED.	
		ROOF	
		PER API 620 12th ED.	

Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website:
FAX: (360) 293-3893 www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

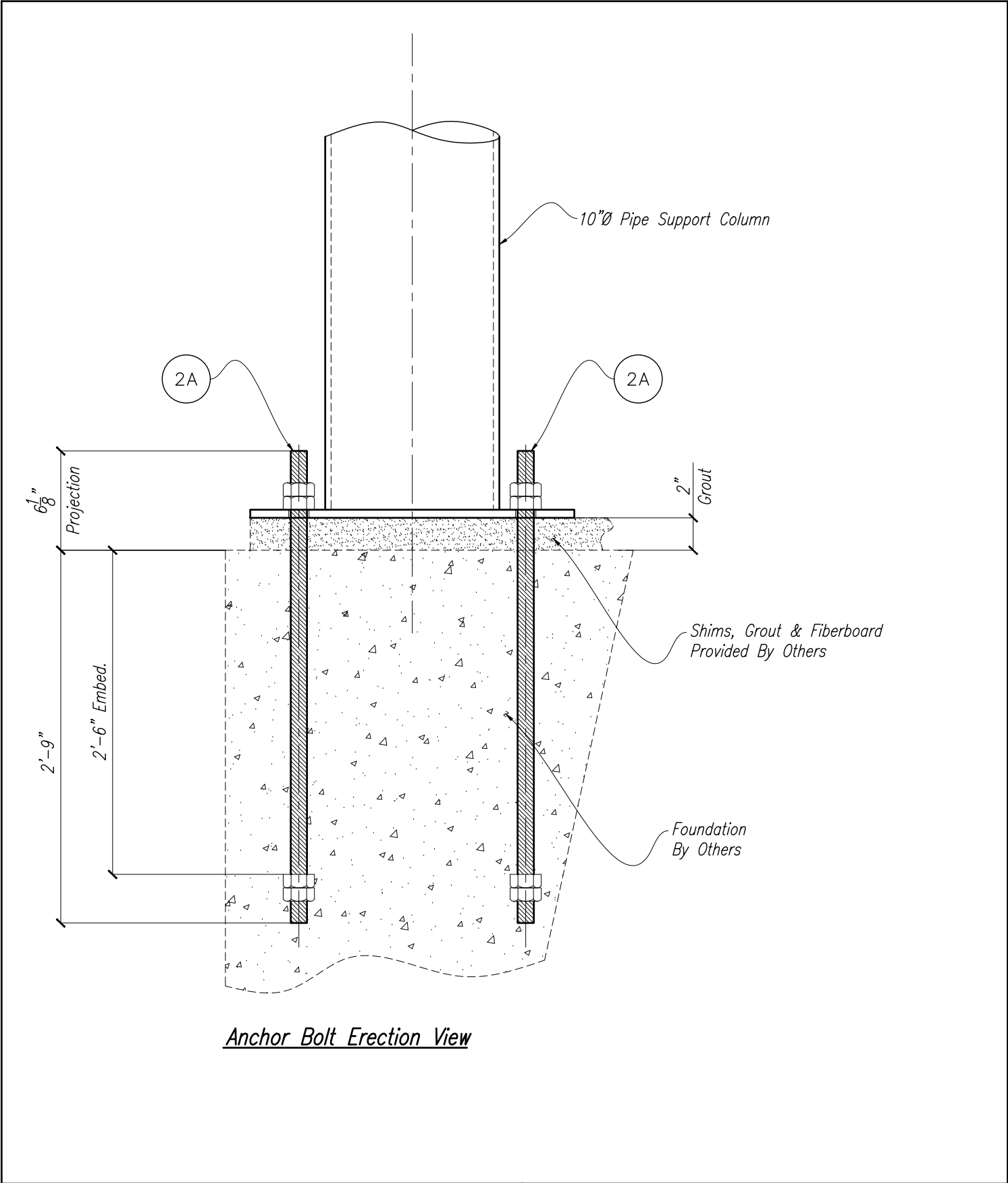
DRAWN BY: PJ DATE: 05/14/18 CHK'D BY: TM DATE: --/--/--

CUSTOMER: Columbia Pulp, LLC 12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050

TITLE: Elevation And Notes For TK-3326

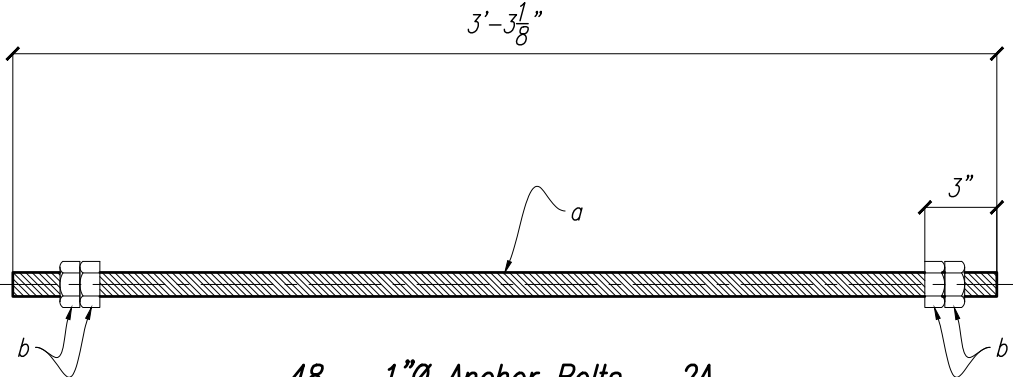
JOB#: 600-01-3322 SHT#: 1.1





Anchor Bolt Erection View

BILL OF MATERIALS						
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	WEIGHT U.S. lbs
48	2A		ANCHOR BOLT			23.9
48		a	1"Ø THREADED ROD	3'-3 1/8"	FULL THREAD, GALV	F1554-36 22.8
192		b	1"Ø Hex Nut		ZP	A194-2H 0.3



48 - 1"Ø Anchor Bolts - 2A
(24) For TK-3322
(24) For TK-3326

Notes:

REV.	BY	DATE	DESCRIPTION
0	PJ	04/13/18	Released For Fabrication
A	PJ	04/05/18	For Approval
REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326



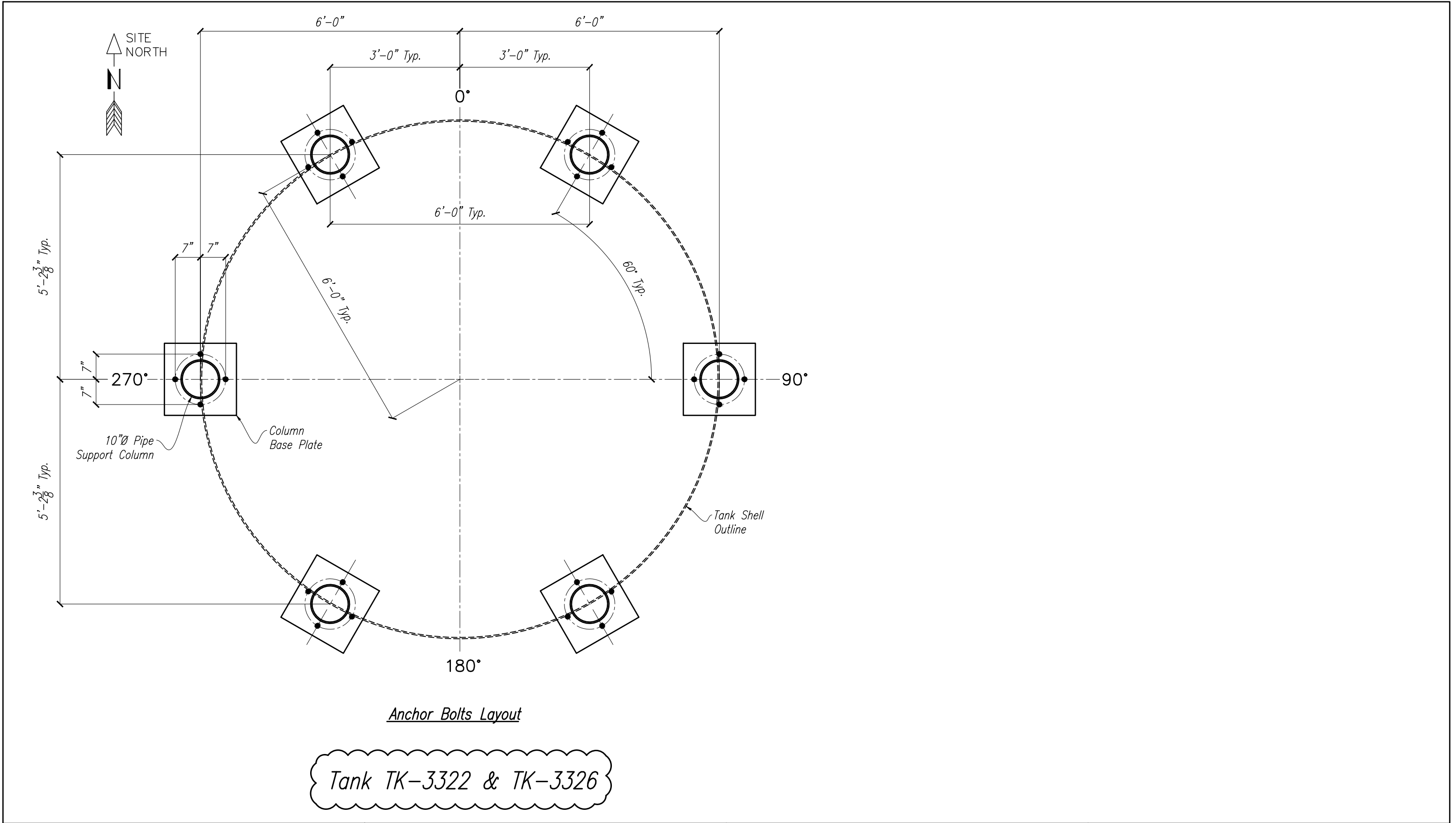
12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website:
FAX: (360) 293-3893 www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.			
DRAWN BY: PJ	DATE: 04/03/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0"Ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Anchor Bolts Details			
JOB#: 600-01-3322		SHT#: 2.0	





Tank TK-3322 & TK-3326

Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
0	PJ	04/13/18	Released For Fabrication
A	PJ	04/05/18	For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

CERTIFIED FABRICATOR

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ

DATE: 04/03/18

CHK'D BY: TM

DATE: --/--/--

CUSTOMER: Columbia Pulp, LLC

PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050

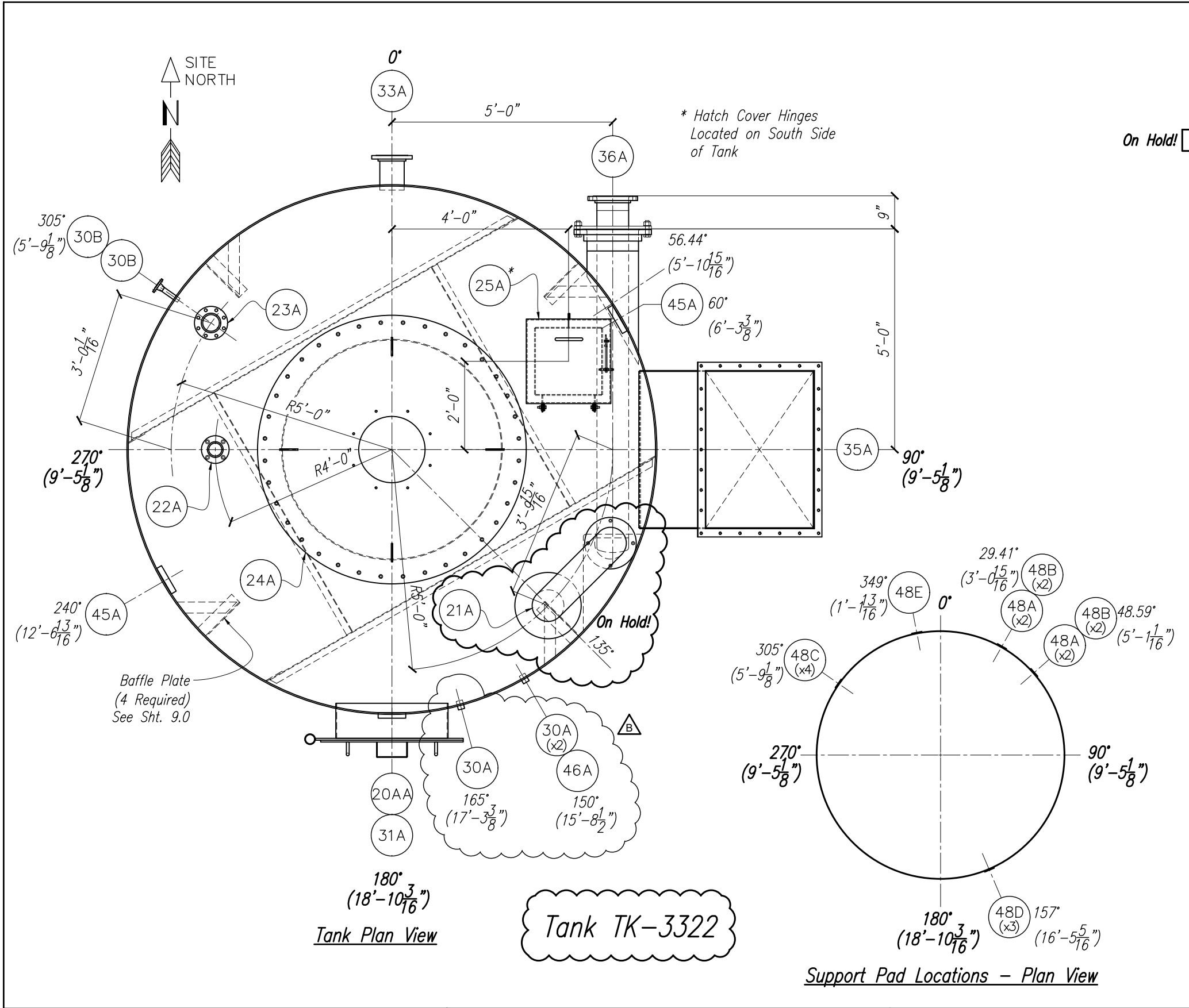
TITLE: Anchor Bolts Layout

JOB#: 600-01-3322

SHT#: 2.1

12'-0"Ø X 36'-10"H

0



APPURTENANCE SCHEDULE						* FROM BOTTOM OF COLUMN BASE PLATE
ITEM	RADIUS	DEGREE	PROJ.	*ELEV.	APPURTENANCE	
9A	Ins. Shell	See Sht. 9.0	--	See Sht. 9.0	(4) Baffle Plates @ 90° Apart	
20AA	Shell	180°	8"	20'-6"	30" Shell Manway W/Davit & Nameplate (M1)	
21A	5'-0"	135°	--	Roof	8" Gooseneck Vent (N7)	
22A	4'-0"	270°	8"	Roof	3" Level Instrument With Blind (N6)	
23A	5'-0"	305°	8"	Roof	4" Vent (to Oxidizer) (N14)	
24A	--	Center	7 13/16"	Roof	60" Agitator With Blind (N13)	
25A	--	See Plan	6"	Roof	18"x18" Inspection Opening w/Hinged Cover (M2)	
27A	Bottom Cone	Center	--	8'-10"	8" Steady Bearing (N15) *	
28A	Bottom Cone	0°	--	7'-8"	14" Pump Suction (N1) *	
30A	Shell	150°	--	34'-0"	1" Temperature Instrument (N3)	
30A	Shell	150°	--	23'-6"	1" Temperature Instrument (N9)	
30A	Shell	165°	--	13'-0"	1" Temperature Instrument (N10)	
30B	Shell	305°	6"	19'-6"	1" Peroxide Inlet (N8)	
30B	Shell	305°	6"	43'-6"	1" Peroxide Inlet (N4)	
31A	Shell	180°	Flush	13'-0"	3" Level Instrument (N11)	
33A	Shell	0°	8"	19'-6"	6" Steam Inlet/Sparger (N2)	
35A	Shell	90°	--	See Elevation	Straw Inlet (N12)	
36A	Shell	56.44°	--	43'-6"	14"/8" Pressate Inlet (N5)	
45A	Shell	60°, 240°	--	--	Lifting Lugs (2)	
46A	Shell	150°	--	16'-6"	Tailing Lug	
48A	SHELL	48.59°	--	36'-6"	1/4"x12"x12" Support Repad (P1)	
48A	SHELL	29.41°	--	36'-6"	1/4"x12"x12" Support Repad (P2)	
48B	SHELL	48.59°	--	34'-0"	1/4"x12"x15" Support Repad (P3)	
48B	SHELL	29.41°	--	34'-0"	1/4"x12"x15" Support Repad (P4)	
48A	SHELL	48.59°	--	27'-6"	1/4"x12"x12" Support Repad (P5)	
48A	SHELL	29.41°	--	27'-6"	1/4"x12"x12" Support Repad (P6)	
48B	SHELL	48.59°	--	25'-0"	1/4"x12"x15" Support Repad (P7)	
48B	SHELL	29.41°	--	25'-0"	1/4"x12"x15" Support Repad (P8)	
48C	SHELL	305°	--	42'-6"	1/4"x10"x10" Support Repad (P9)	
48C	SHELL	305°	--	34'-6"	1/4"x10"x10" Support Repad (P10)	
48C	SHELL	305°	--	26'-6"	1/4"x10"x10" Support Repad (P11)	
48C	SHELL	305°	--	18'-6"	1/4"x10"x10" Support Repad (P12)	
48D	SHELL	157°	--	34'-0"	1/4"x6"x6" Support Repad (P13)	
48D	SHELL	157°	--	24'-0"	1/4"x6"x6" Support Repad (P14)	
48D	SHELL	157°	--	14'-0"	1/4"x6"x6" Support Repad (P15)	
48E	SHELL	349°	--	13'-0"	1/4"x10"x10" Support Repad (P16)	

* See Sht. 3.2 For Bottom Cone Nozzles

Notes:
1. Dimensions are right & left from 0° @ outside bottom course
1' = 1 1/4" (1.2566")
5' = 6 5/16" (6.2832")
2. Bolt Holes of Nozzles Flanges to Straddle Vertical Centerline
3. Bolt Holes of Roof Nozzles Flanges to Straddle 90°/270° Centerline
PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval

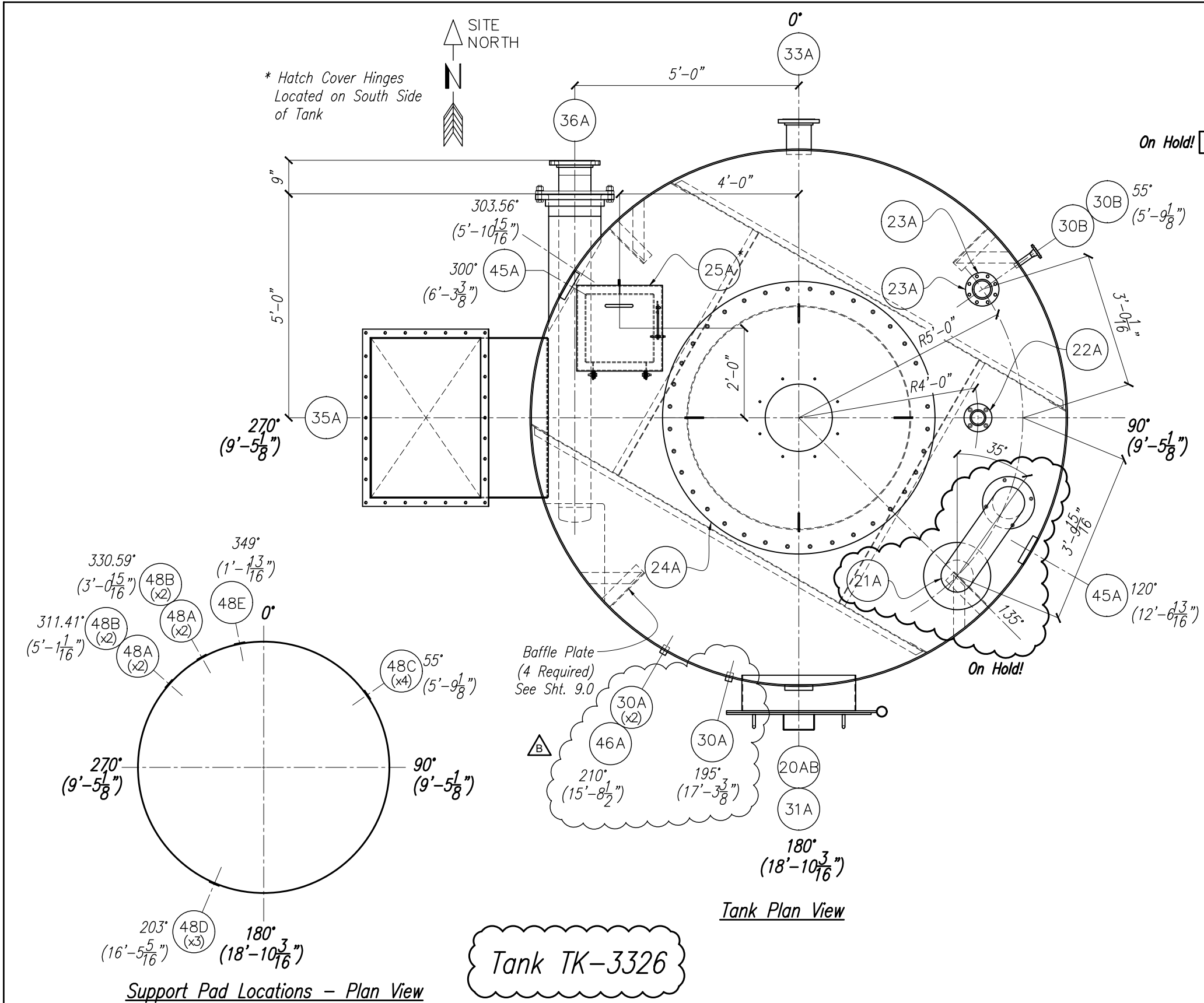


12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website:
FAX: (360) 293-3893 www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.			
DRAWN BY: PJ	DATE: 05/11/18	CHKD BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Plan & Apps For TK-3322			
JOB#: 600-01-3322		SHT#: 3.0	



APPURTENANCE SCHEDULE					
ITEM	RADIUS	DEGREE	PROJ.	*ELEV.	APPURTENANCE
9A	Ins. Shell	See Sht. 9.0	--	See Sht. 9.0	(4) Baffle Plates @ 90° Apart
20AB	Shell	180°	8"	20'-6"	30" Shell Manway W/Davit & Nameplate (M1)
21A	5'-0"	135°	--	Roof	8" Gooseneck Vent (N7)
22A	4'-0"	90°	8"	Roof	3" Level Instrument With Blind (N6)
23A	5'-0"	55°	8"	Roof	4" Vent (to Oxidizer) (N14)
24A	--	Center	7 13/16"	Roof	60" Agitator With Blind (N13)
25A	--	See Plan	6"	Roof	18"x18" Inspection Opening w/Hinged Cover (M2)
27A	Bottom Cone	Center	--	8'-10"	8" Steady Bearing (N15) *
28A	Bottom Cone	0°	--	7'-8"	14" Pump Suction (N1) *
30A	Shell	210°	--	34'-0"	1" Temperature Instrument (N3)
30A	Shell	210°	--	23'-6"	1" Temperature Instrument (N9)
30A	Shell	195°	--	13'-0"	1" Temperature Instrument (N10)
30B	Shell	55°	6"	19'-6"	1" Peroxide Inlet (N8)
30B	Shell	55°	6"	43'-6"	1" Peroxide Inlet (N4)
31A	Shell	180°	Flush	13'-0"	3" Level Instrument (N11)
33A	Shell	0°	8"	19'-6"	6" Steam Inlet/Sparger (N2)
35A	Shell	270°	--	See Elevation	Straw Inlet (N12)
36A	Shell	303.56°	--	43'-6"	14"/8" Pressate Inlet (N5)
45A	Shell	120°, 300°	--	--	Lifting Lugs (2)
46A	Shell	210°	--	16'-6"	Tailing Lug
48A	SHELL	311.41°	--	36'-6"	1/4"x12"x12" Support Repad (P1)
48A	SHELL	330.59°	--	36'-6"	1/4"x12"x12" Support Repad (P2)
48B	SHELL	311.41°	--	34'-0"	1/4"x12"x15" Support Repad (P3)
48B	SHELL	330.59°	--	34'-0"	1/4"x12"x15" Support Repad (P4)
48A	SHELL	311.41°	--	27'-6"	1/4"x12"x12" Support Repad (P5)
48A	SHELL	330.59°	--	27'-6"	1/4"x12"x12" Support Repad (P6)
48B	SHELL	311.41°	--	25'-0"	1/4"x12"x15" Support Repad (P7)
48B	SHELL	330.59°	--	25'-0"	1/4"x12"x15" Support Repad (P8)
48C	SHELL	55°	--	42'-6"	1/4"x10"x10" Support Repad (P9)
48C	SHELL	55°	--	34'-6"	1/4"x10"x10" Support Repad (P10)
48C	SHELL	55°	--	26'-6"	1/4"x10"x10" Support Repad (P11)
48C	SHELL	55°	--	18'-6"	1/4"x10"x10" Support Repad (P12)
48D	SHELL	203°	--	34'-0"	1/4"x6"x6" Support Repad (P13)
48D	SHELL	203°	--	24'-0"	1/4"x6"x6" Support Repad (P14)
48D	SHELL	203°	--	14'-0"	1/4"x6"x6" Support Repad (P15)
48E	SHELL	349°	--	13'-0"	1/4"x10"x10" Support Repad (P16)

Notes:

- Dimensions are right & left from 0° @ outside bottom course
1" = 1 1/4" (1.2566")
5" = 6 5/16" (6.2832")
- Bolt Holes of Nozzles Flanges to Straddle Vertical Centerline
- Bolt Holes of Roof Nozzles Flanges to Straddle 90°/270° Centerline

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Added Support Pad 48E, Put Gooseneck Vent on Hold
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY INC.

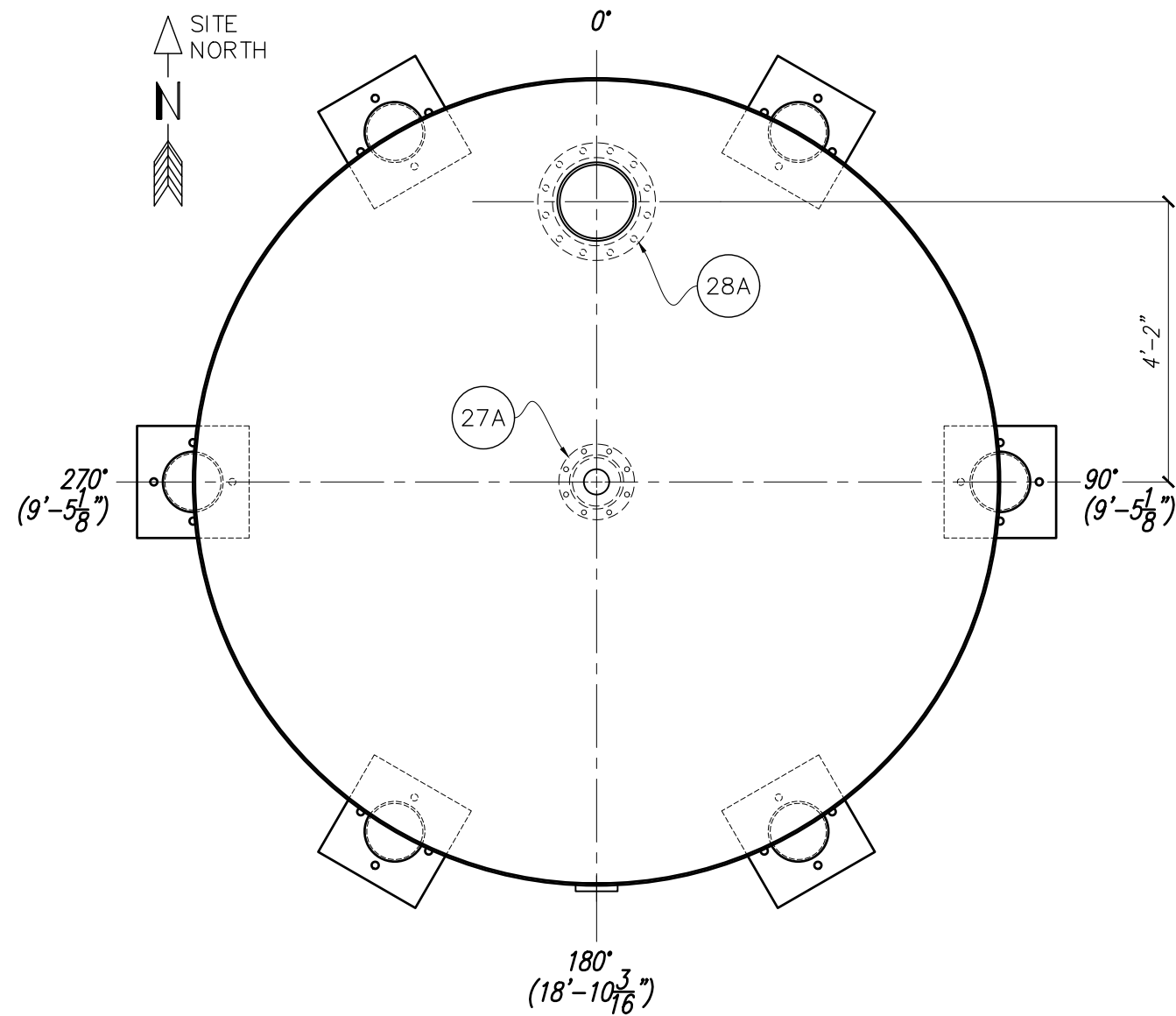
12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.			
DRAWN BY: PJ	DATE: 05/14/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Plan & Apps For TK-3326			
JOB#: 600-01-3322		SHT#: 3.1	
			



Bottom Cone Plan View

Tank TK-3322 & TK-3326

Notes:

- Dimensions are right & left from 0° @ outside bottom course
 $1' = 1\frac{1}{4}"$ (1.2566")
 $5' = 6\frac{5}{16}"$ (6.2832")
- Bolt Holes of Nozzles Flanges to Straddle Vertical Centerline
- Bolt Holes of Roof Nozzles Flanges to Straddle 90°/270° Centerline

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

T BAILEY
INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

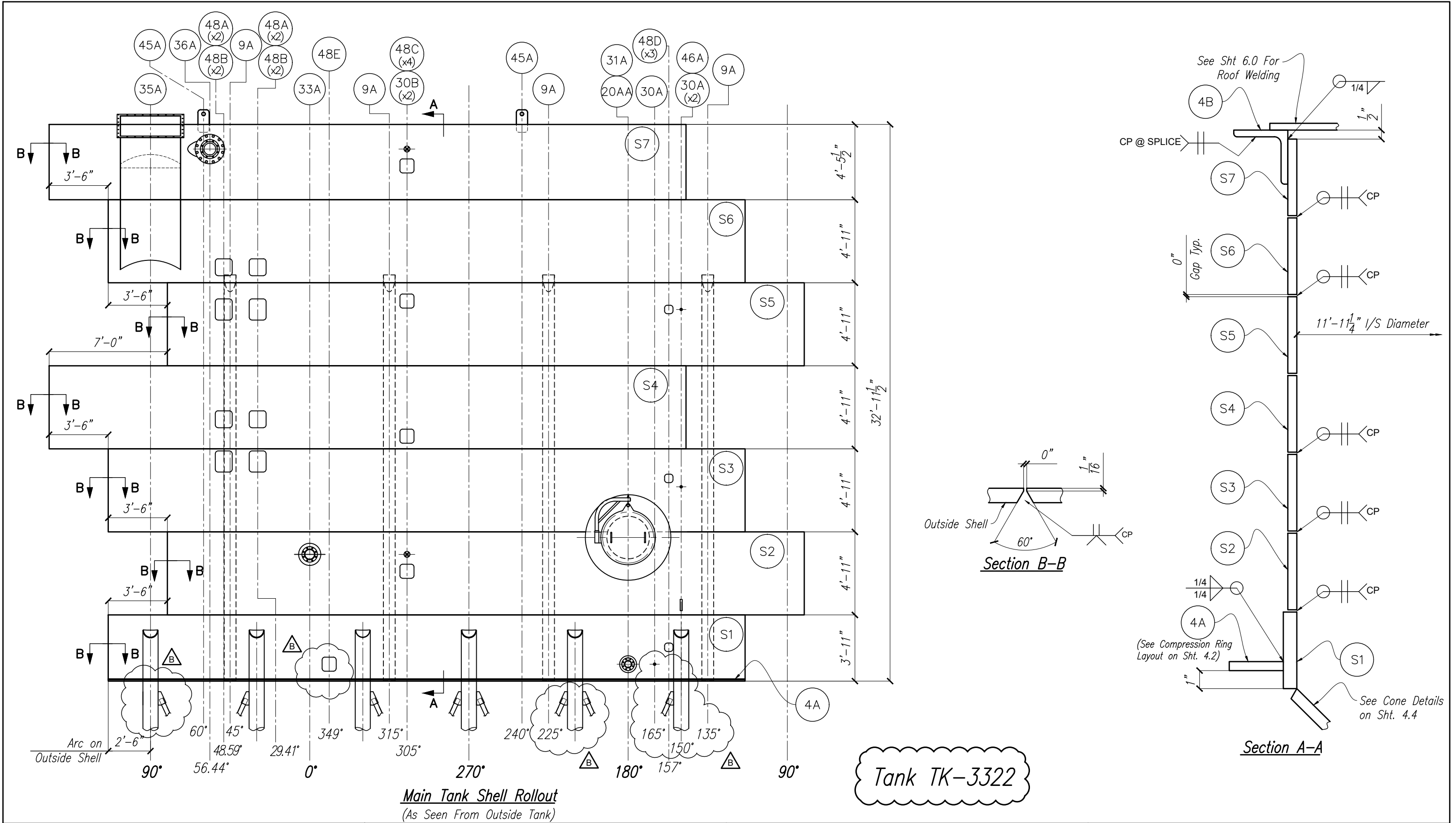


FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/14/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Bottom Cone Plan View			
JOB#: 600-01-3322		SHT#: 3.2	





Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

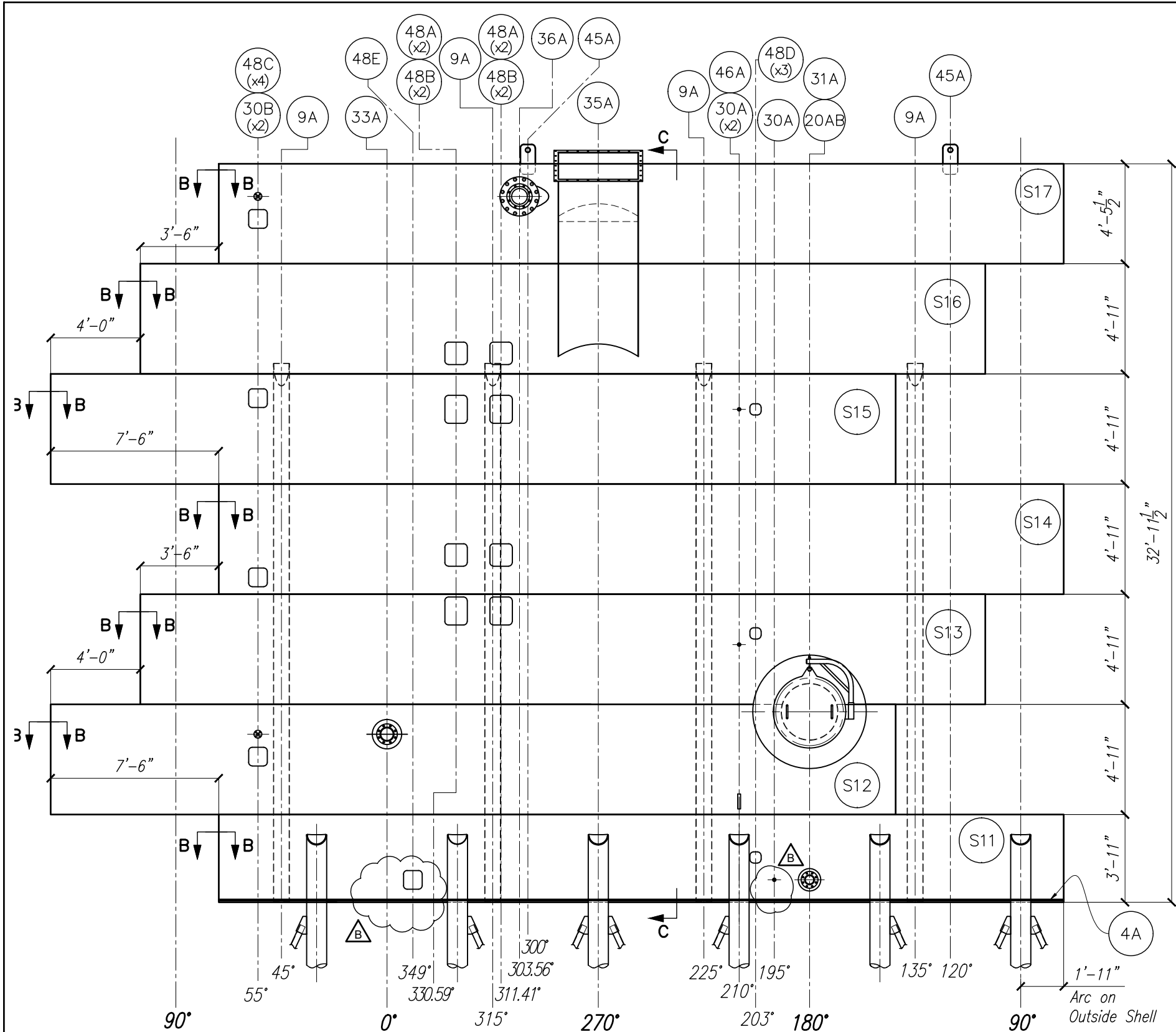
CERTIFIED FABRICATOR

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

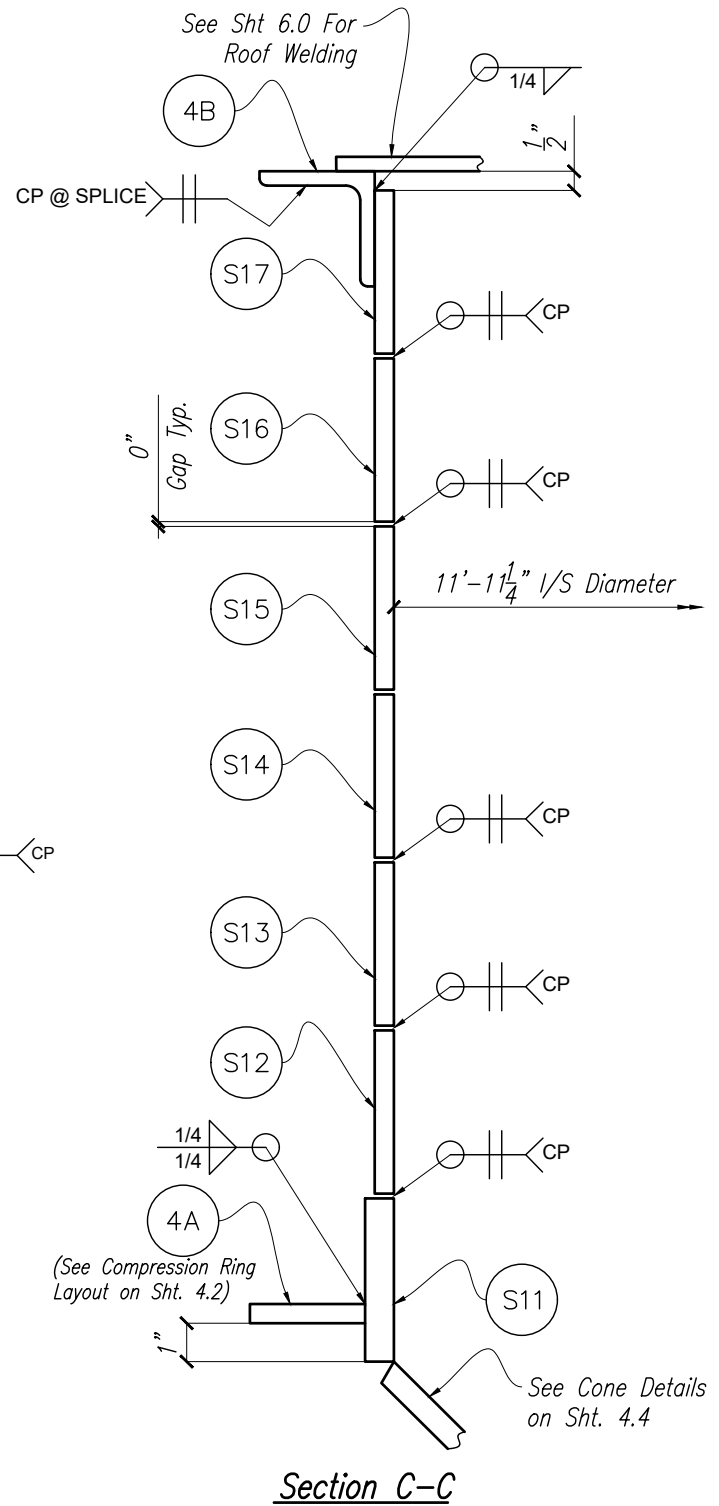
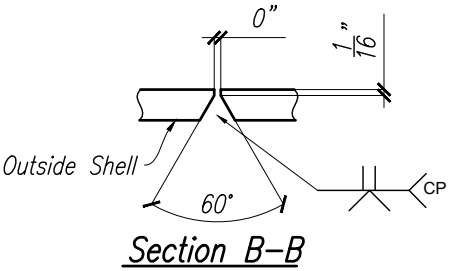
DRAWN BY: PJ	DATE: 05/31/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Shell Rollout For TK-3322			
JOB#: 600-01-3322		SHT#: 4.0	

B



Main Tank Shell Rollout
(As Seen From Outside Tank)

Tank TK-3326



Notes:			
PULPING LINE MIX TANK A 330-TK-3322 TANK B 330-TK-3326			
REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval
REVISIONS			

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

FOR APPROVAL

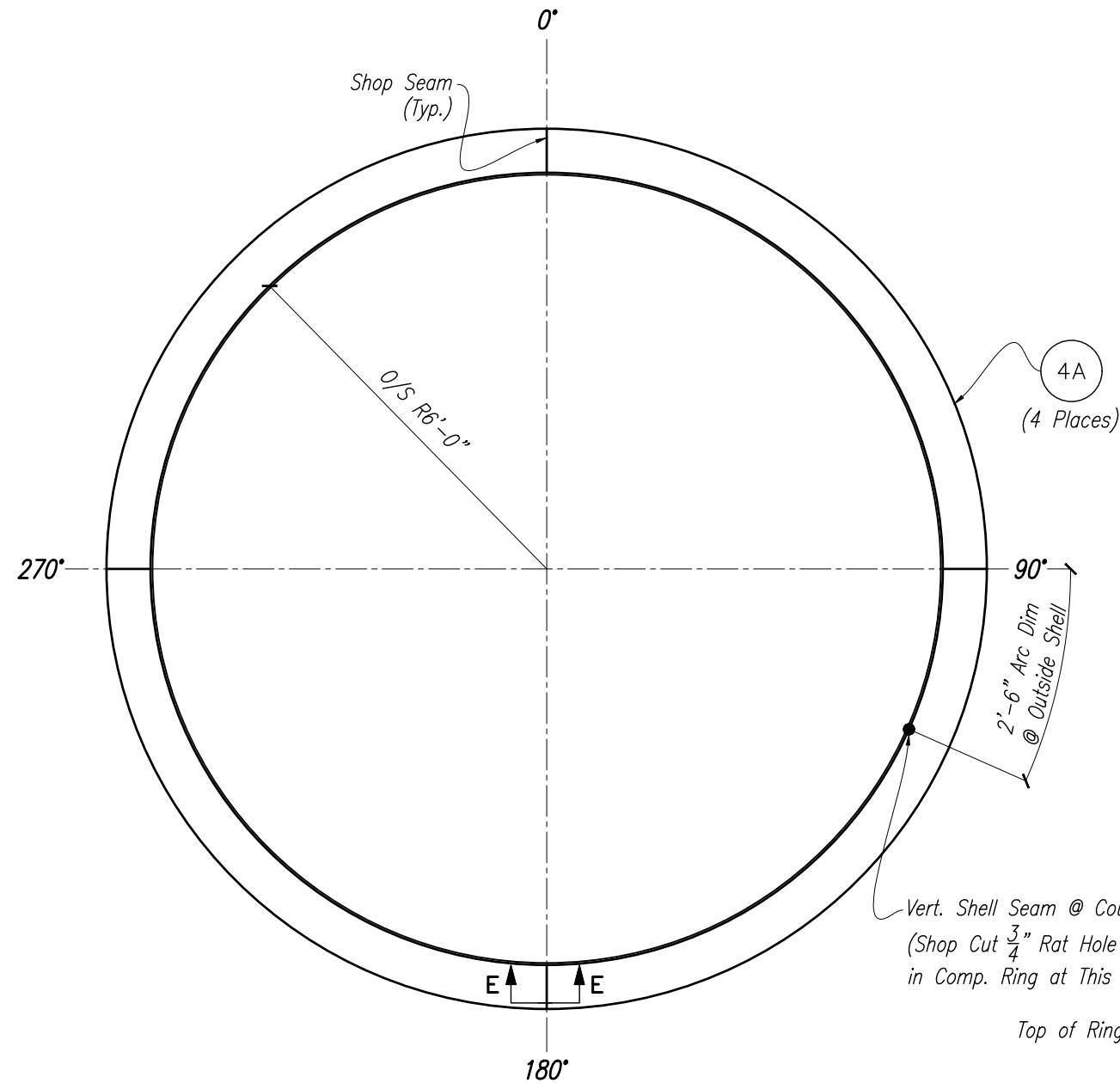
The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/05/18	CHK'D BY: TM	DATE: --/--
--------------	----------------	--------------	-------------

CUSTOMER: Columbia Pulp, LLC
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050

TITLE: Shell Rollout For TK-3326

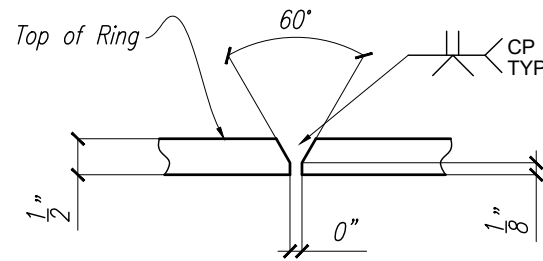
JOB#: 600-01-3322	SHT#: 4.1
-------------------	-----------



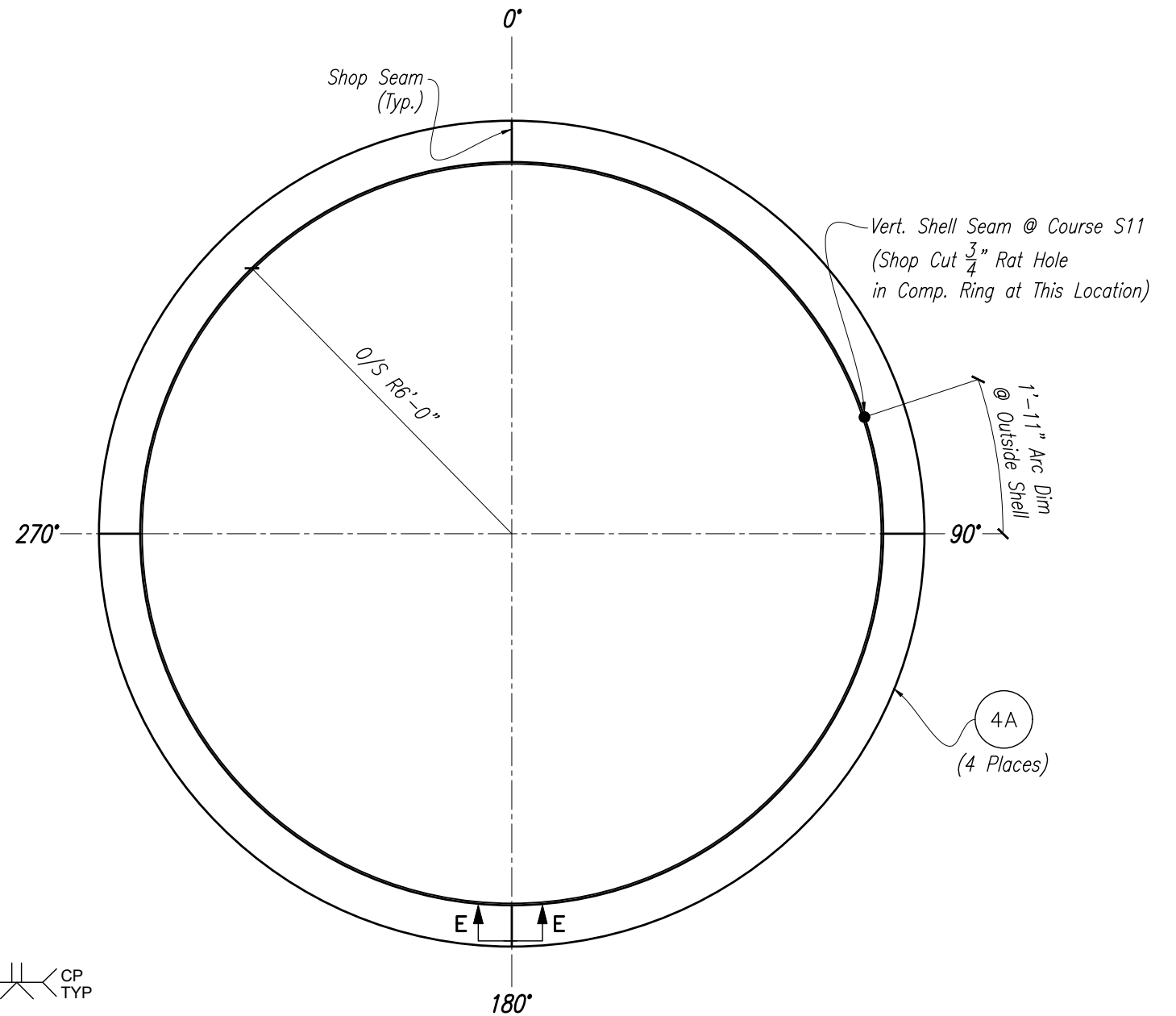
Compression Ring Layout

Tank TK-3322

Vert. Shell Seam @ Course S1
(Shop Cut $\frac{3}{4}$ " Rat Hole
in Comp. Ring at This Location)



Section E-E
(Typical)



Compression Ring Layout

Tank TK-3326

Notes:

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com



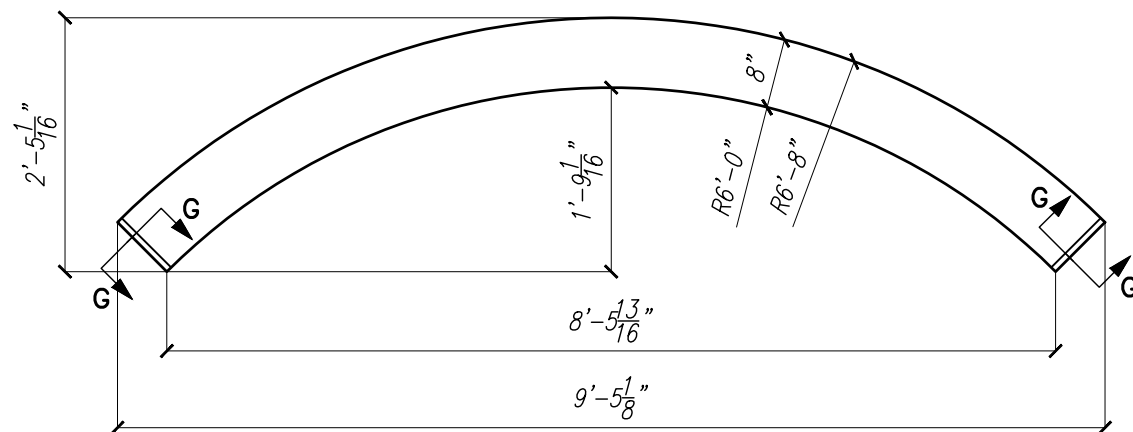
FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/05/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Compression Ring Layout			
JOB#: 600-01-3322		SHT#: 4.2	



PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

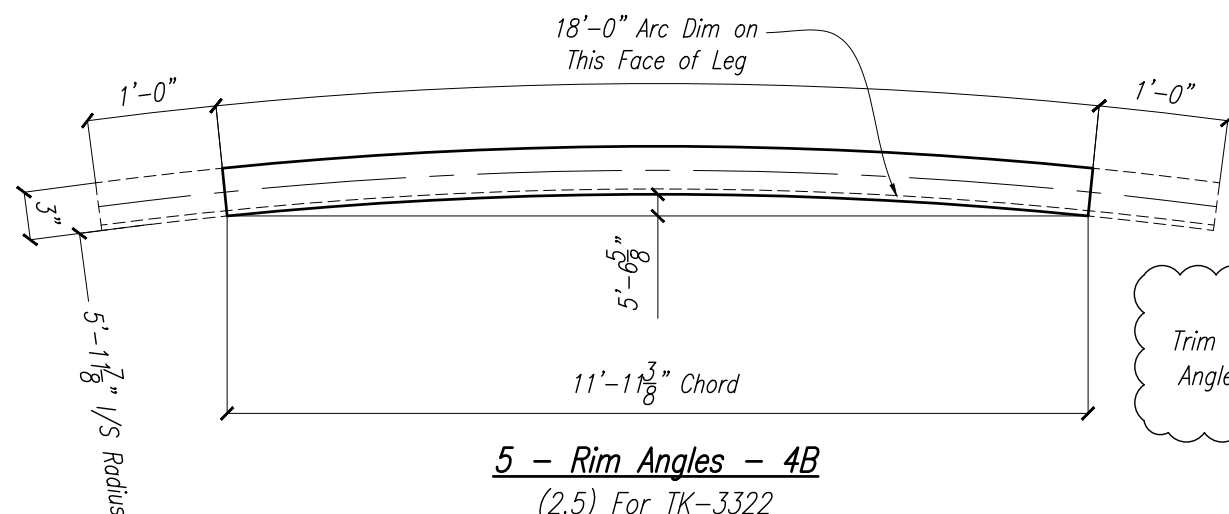


8 - Compression Rings - 4A

(4) For TK-3322

(4) For TK-3326

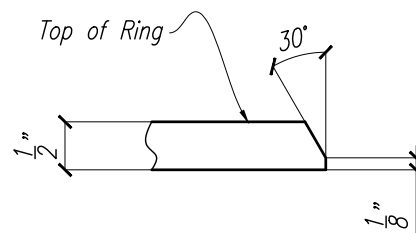
Tank TK-3322 & TK-3326



5 – Rim Angles – 4B

(2.5) For TK-3322

(2.5) For TK-3326



Section G-G

Shop Note:
Trim Unrolled Ends of Rim
Angle to 18'-0" Minimum

BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
1	S1		PL 3/8 x 47	37'-7 3/16"	[1]	A240-316L	2,273.7
1	S2		PL 1/4 x 59	37'-6 13/16"	[1]	A240-316L	1,921.7
1	S3		PL 1/4 x 59	37'-6 13/16"	[1]	A240-316L	1,921.7
1	S4		PL 1/4 x 59	37'-6 13/16"	[1]	A240-316L	1,921.7
1	S5		PL 1/4 x 59	37'-6 13/16"	[1]	A240-316L	1,921.7
1	S6		PL 1/4 x 59	37'-6 13/16"	[1]	A240-316L	1,921.7
1	S7		PL 1/4 x 53 1/2	37'-6 13/16"	[1]	A240-316L	1,742.6
1	S11		PL 3/8 x 47	37'-7 3/16"	[1]	A240-316L	2,273.7
1	S12		PL 1/4 x 59	37'-6 13/16"	[1]	A240-316L	1,921.7
1	S13		PL 1/4 x 59	37'-6 13/16"	[1]	A240-316L	1,921.7
1	S14		PL 1/4 x 59	37'-6 13/16"	[1]	A240-316L	1,921.7
1	S15		PL 1/4 x 59	37'-6 13/16"	[1]	A240-316L	1,921.7
1	S16		PL 1/4 x 59	37'-6 13/16"	[1]	A240-316L	1,921.7
1	S17		PL 1/4 x 53 1/2	37'-6 13/16"	[1]	A240-316L	1,742.6
8	4A		PL 1/2 x 6.625 sq. ft.		TEMP	A240-316L	136.4
5	4B		L 3 x 3 x 1/4	20'-0"	[2]	A240-316L	107.8

[1] ROLL TO A 5'-11 5/8" INSIDE RADIUS
[2] ROLL TO A 5'-11 7/8" INSIDE RADIUS

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

TBAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

AISC CERTIFIED FABRICATOR

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/05/18	CHK'D BY: TM	DATE: --/--
--------------	----------------	--------------	-------------

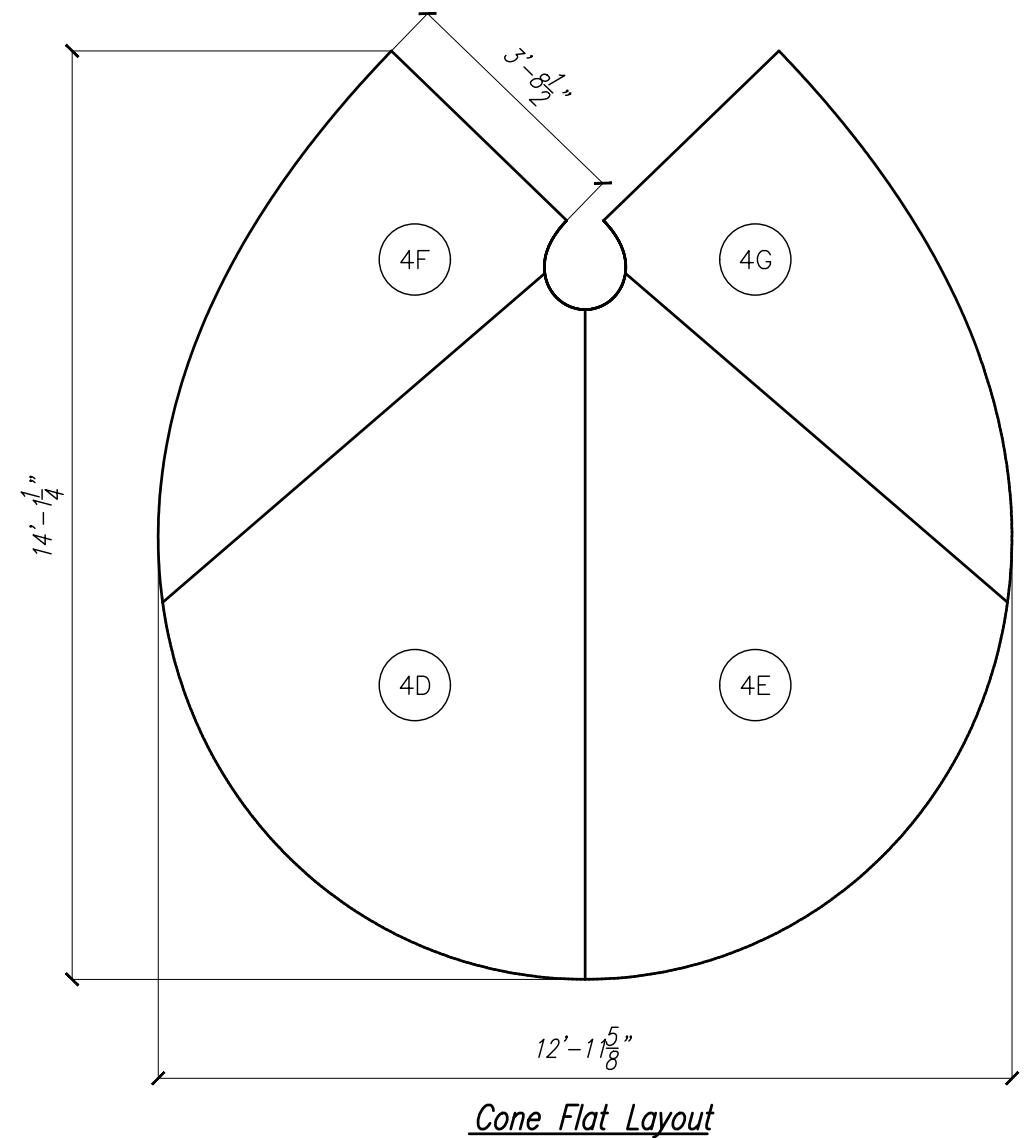
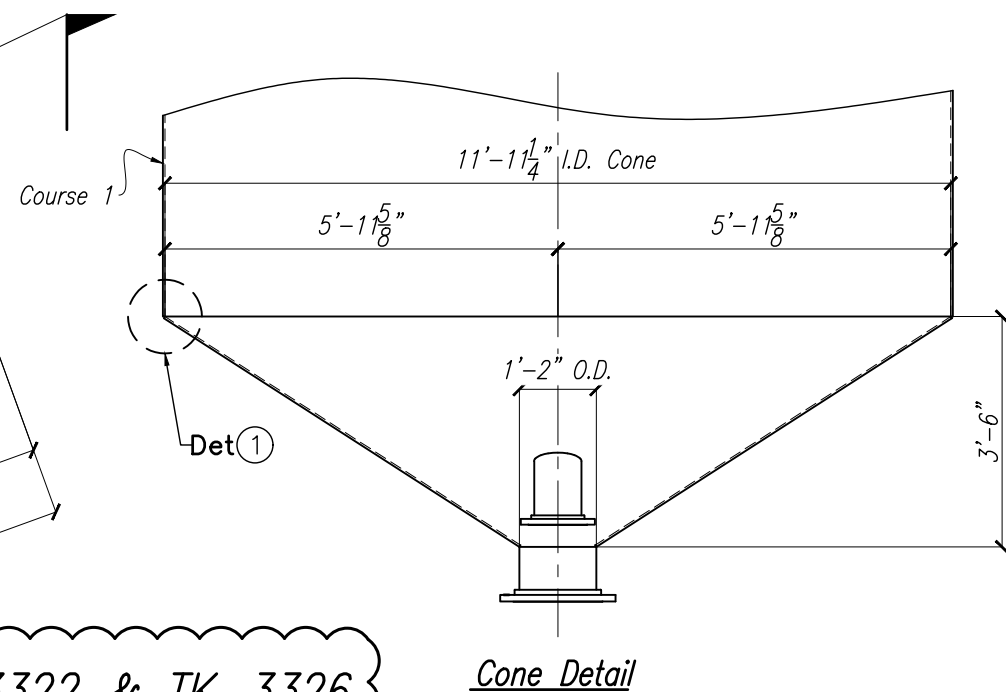
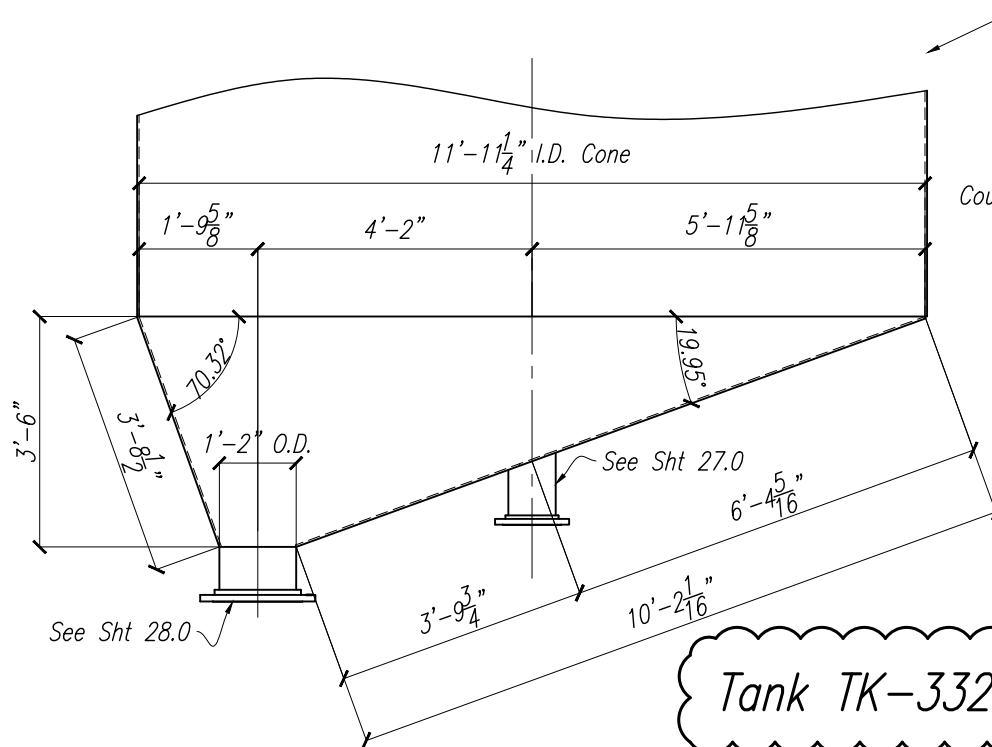
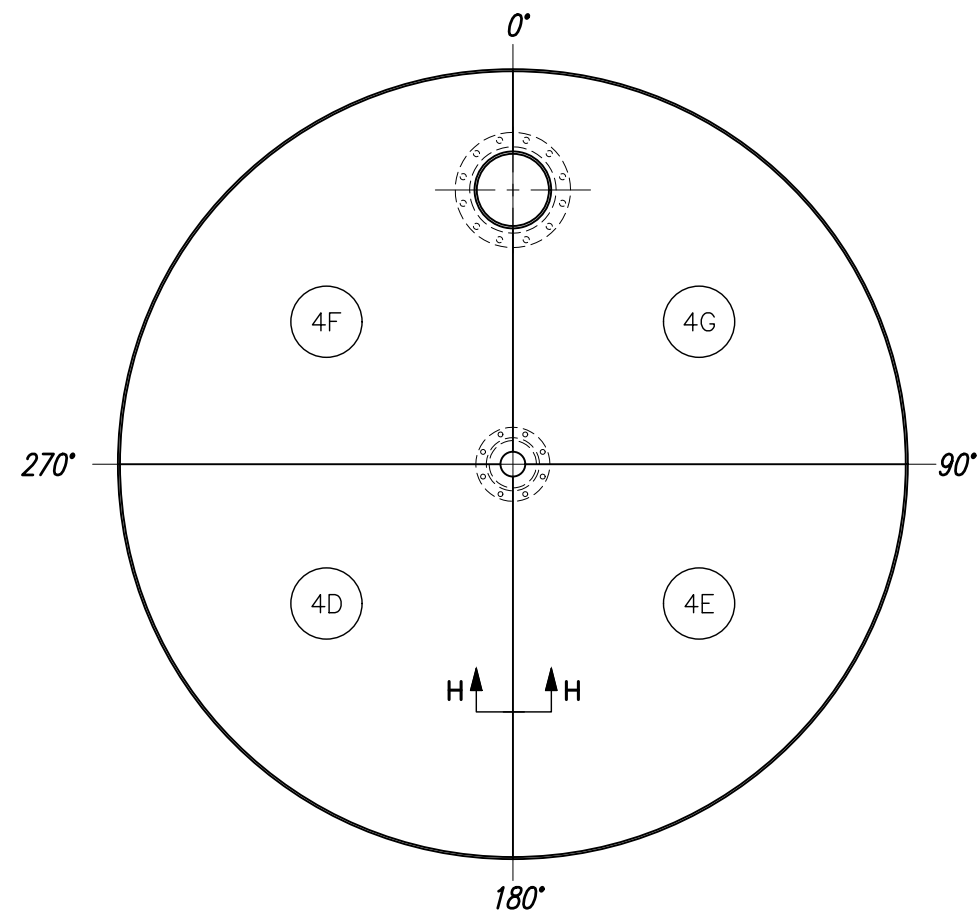
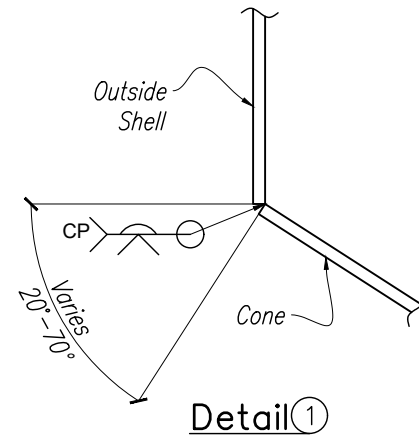
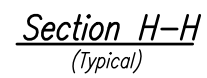
CUSTOMER: Columbia Pulp LLC 12'-0"Ø X 36'-10"

PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050

TITLE: Shell Detail

JOB#: 600-01-3322 SHT#: 4.3 





BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
2	4D		PL 3/8 x 45.245 sq. ft.		TEMP /FORM	A240-316L	698.6
2	4E		PL 3/8 x 45.245 sq. ft.		TEMP /FORM	A240-316L	698.6
2	4F		PL 3/8 x 23.428 sq. ft.		TEMP /FORM	A240-316L	361.7
2	4G		PL 3/8 x 23.428 sq. ft.		TEMP /FORM	A240-316L	361.7

<i>A</i>	<i>PJ</i>	<i>06/11/18</i>	<i>For Approval</i>
REV.	BY	DATE	DESCRIPTION
REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

TBAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

AISC CERTIFIED FABRICATOR

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/08/18	CHK'D BY: TM	DATE: --/--
--------------	----------------	--------------	-------------

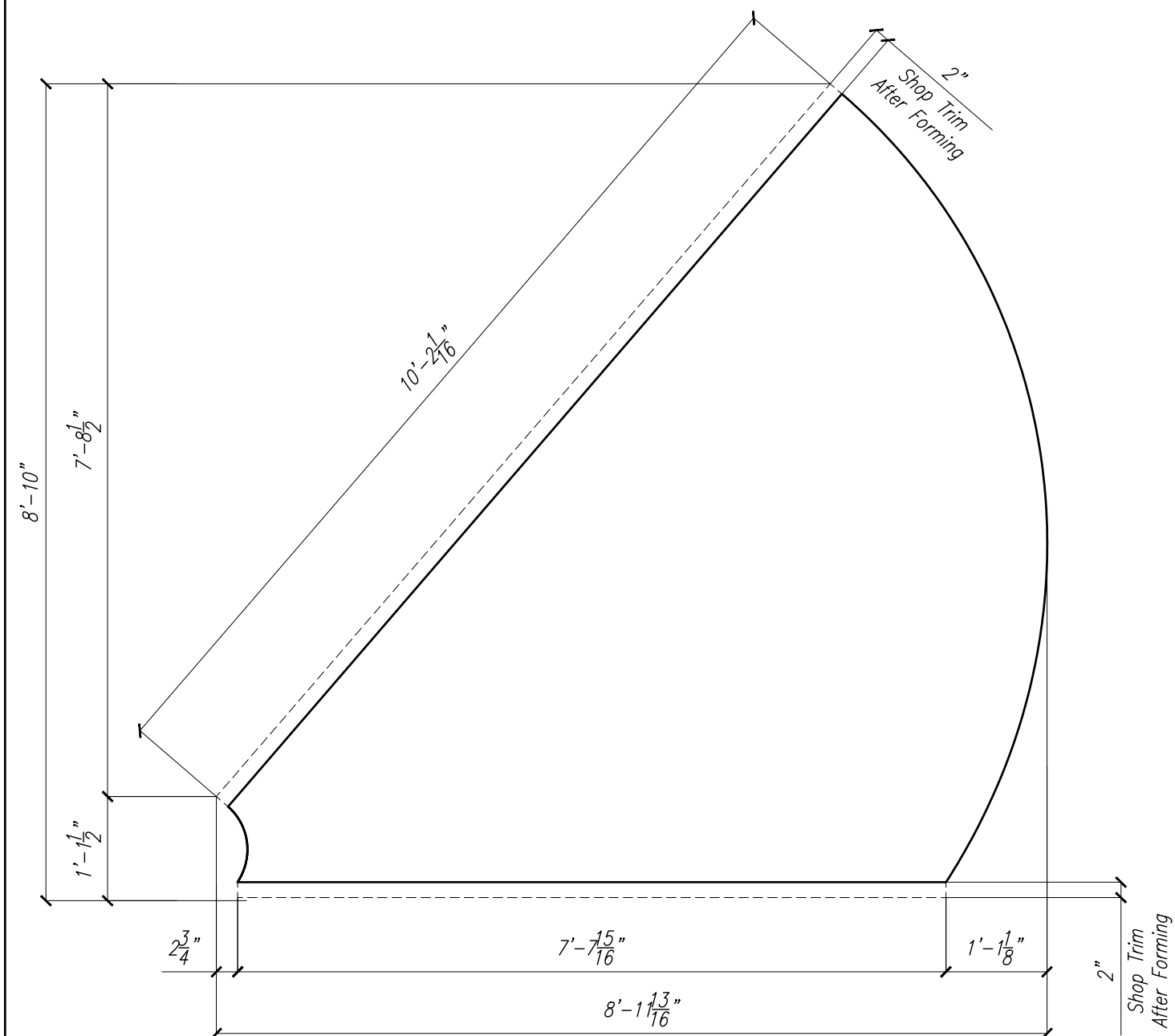
CUSTOMER: Columbia Pulp, LLC 12'-0"Ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050

TITLE: Cone Details

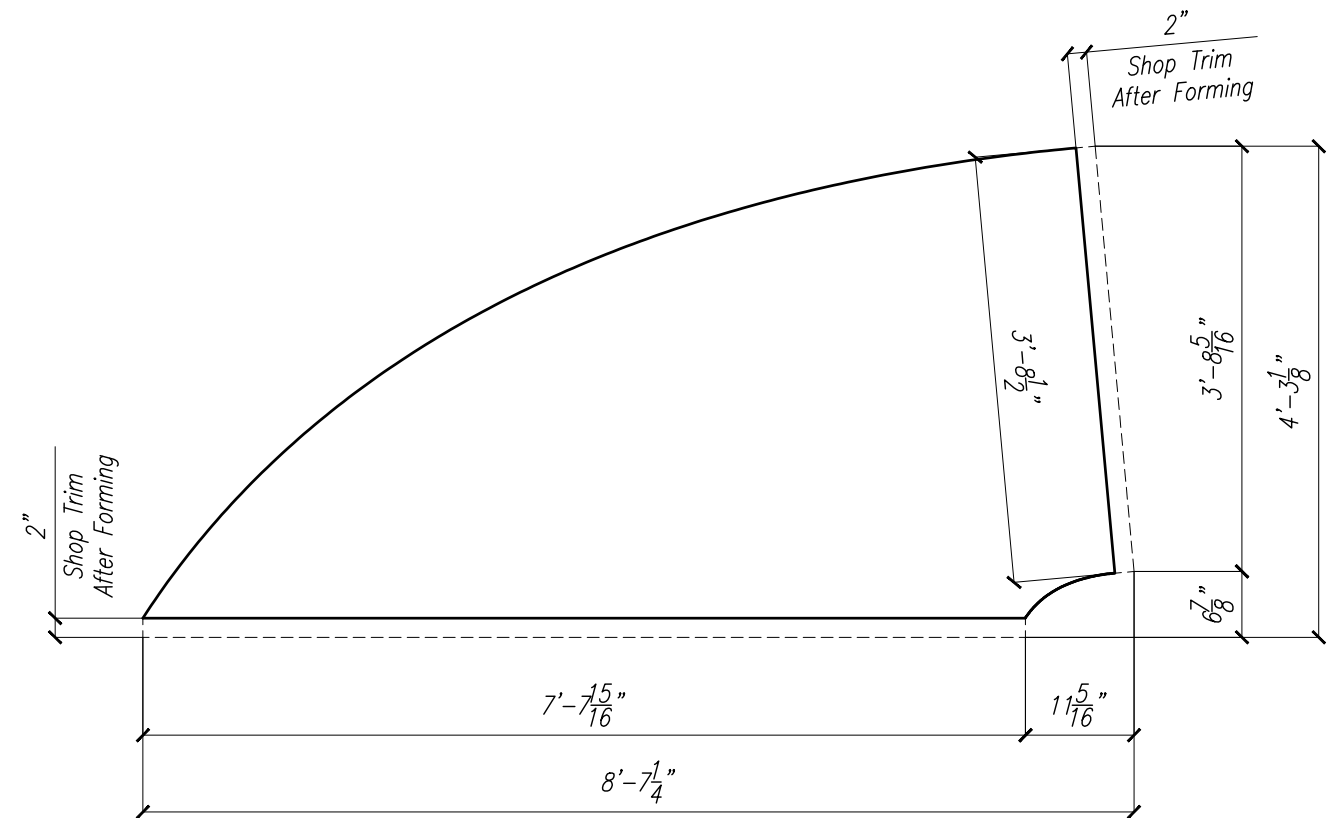
JOB#: 600-01-3322

SHT#: 4.4

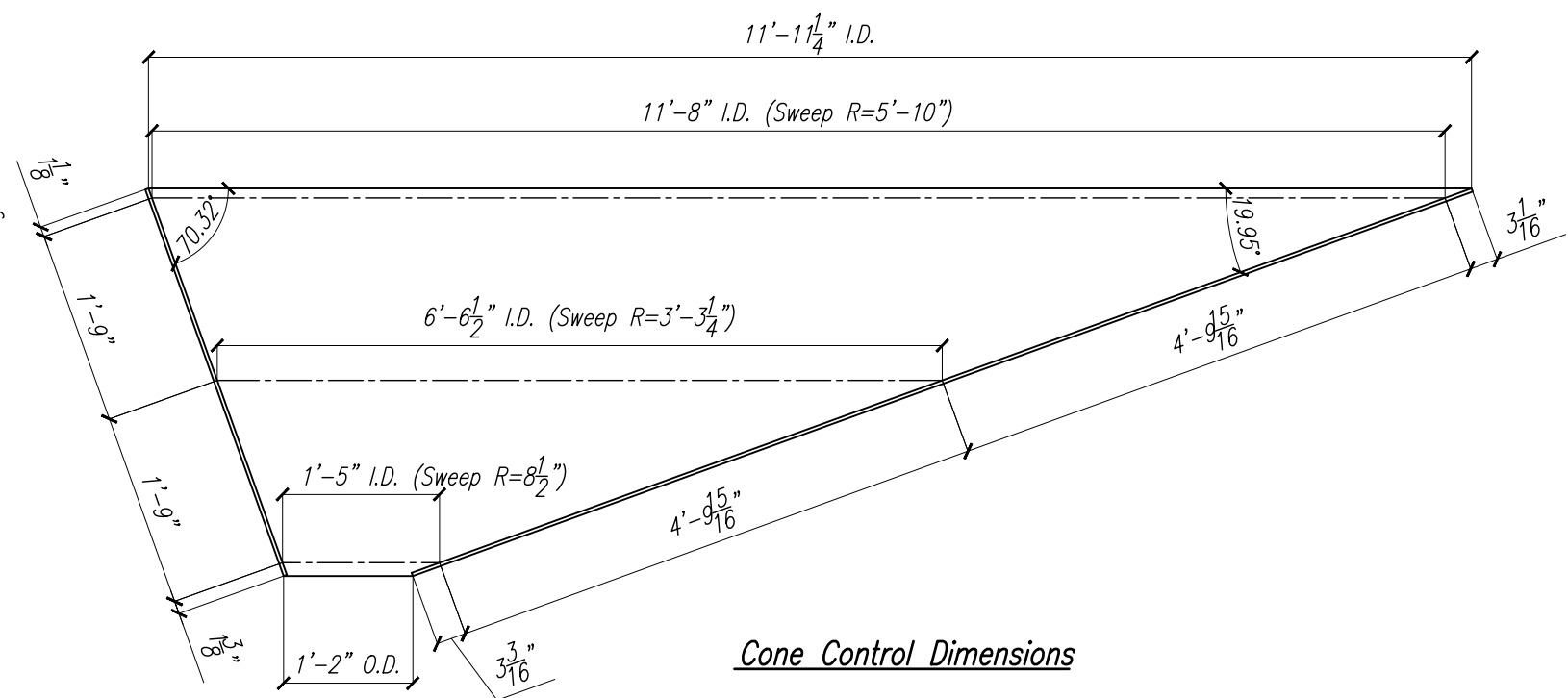




Flat Layout of 4D & 4E



Flat Layout of 4F & 4G



Cone Control Dimensions

Notes:

<i>A</i>	<i>PJ</i>	<i>06/11/18</i>	<i>For Approval</i>
REV.	BY	DATE	DESCRIPTION
REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

TBAILEY
INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

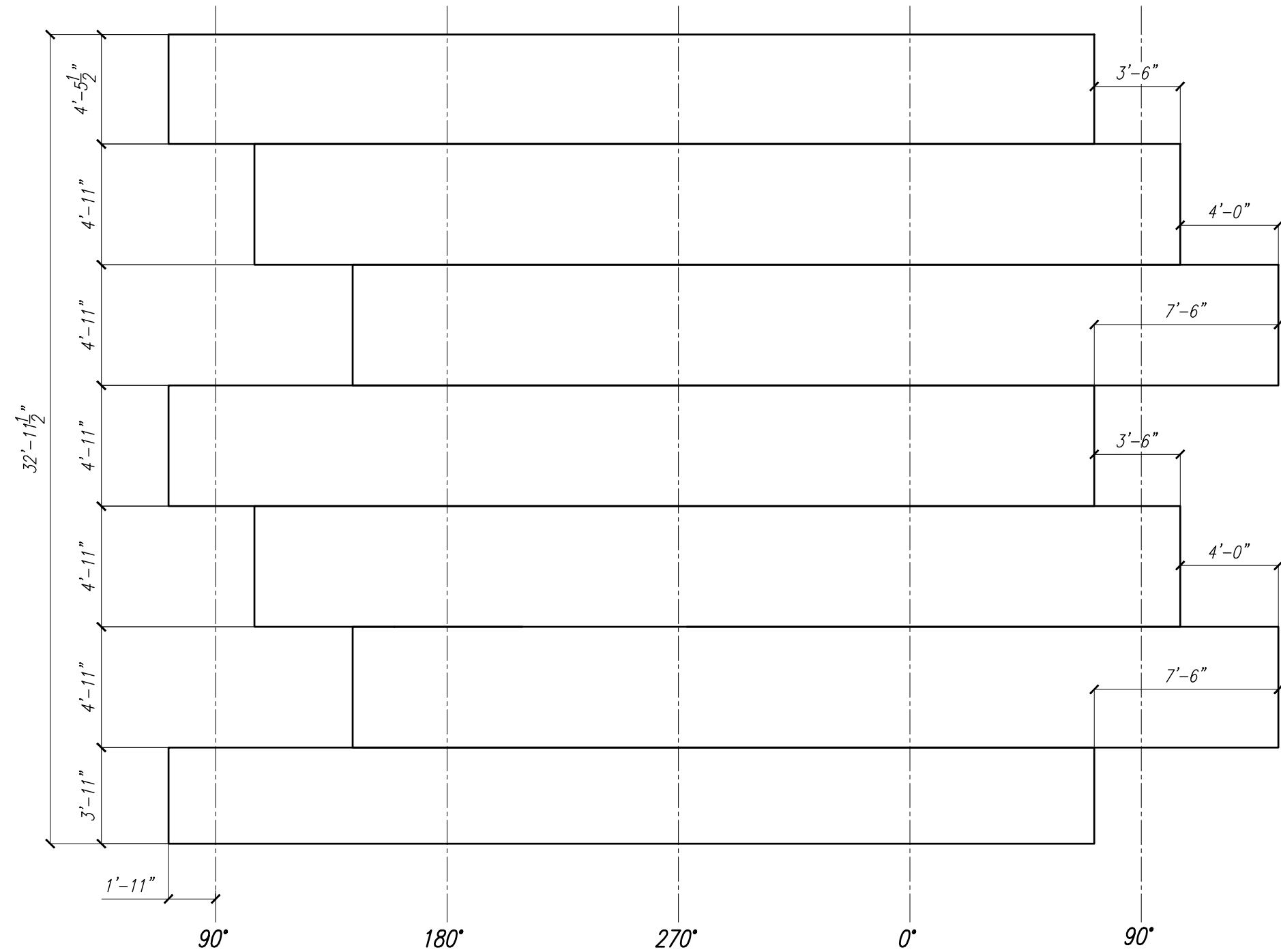
Website:
www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/12/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Cone Details			
JOB#: 600-01-3322		SHT#: 4.5	



Weld Map Rollout
(As Seen From Inside Tank)

Tank TK-3326

Notes:

PULPING LINE MIX TANK A 330-TK-3322 TANK B 330-TK-3326				

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

TBAILEY
INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

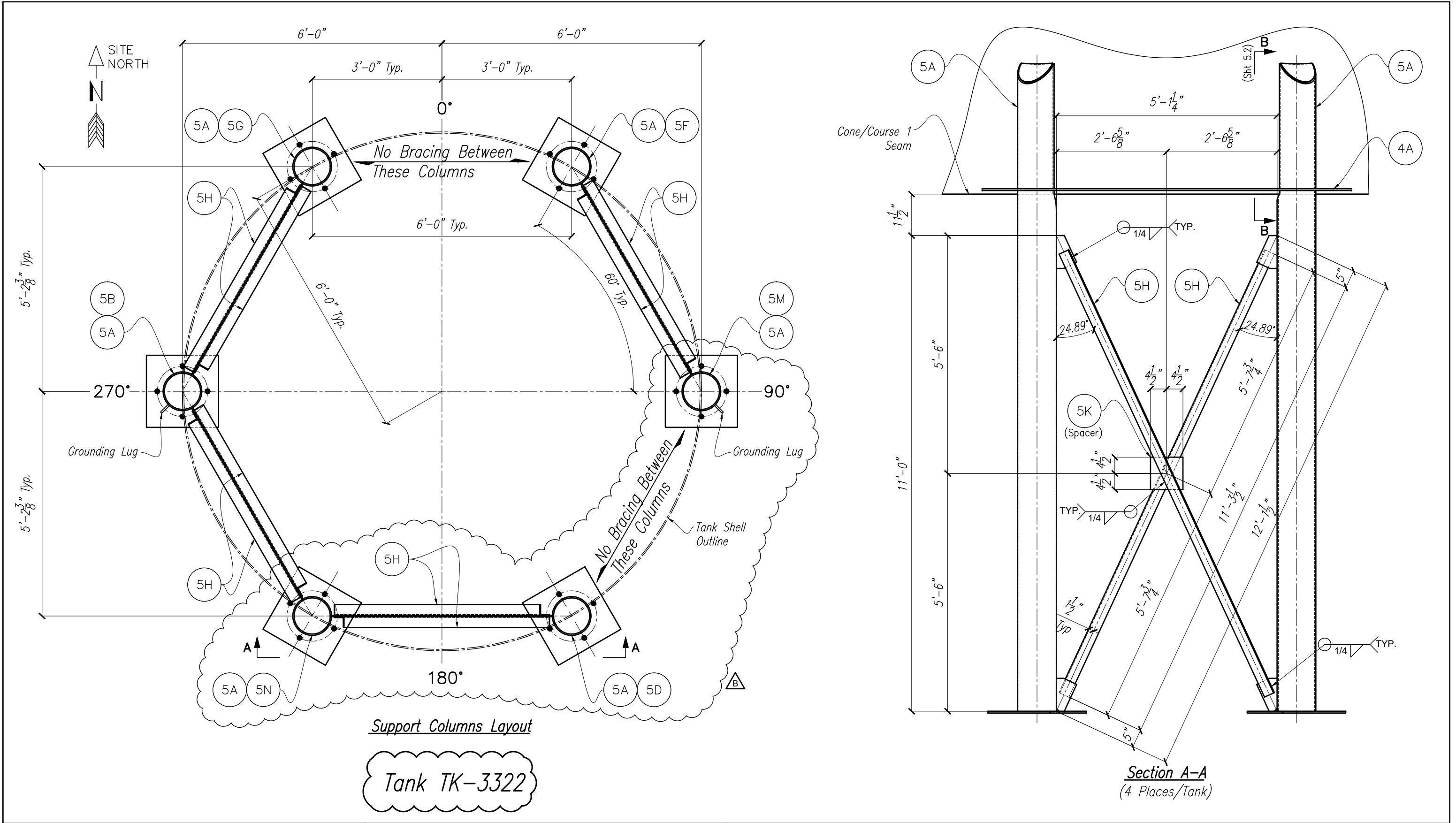
CERTIFIED
FABRICATOR

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/06/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Weld Map For TK-3326			
JOB#: 600-01-3322		SHT#: 4.7	

⚠



Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

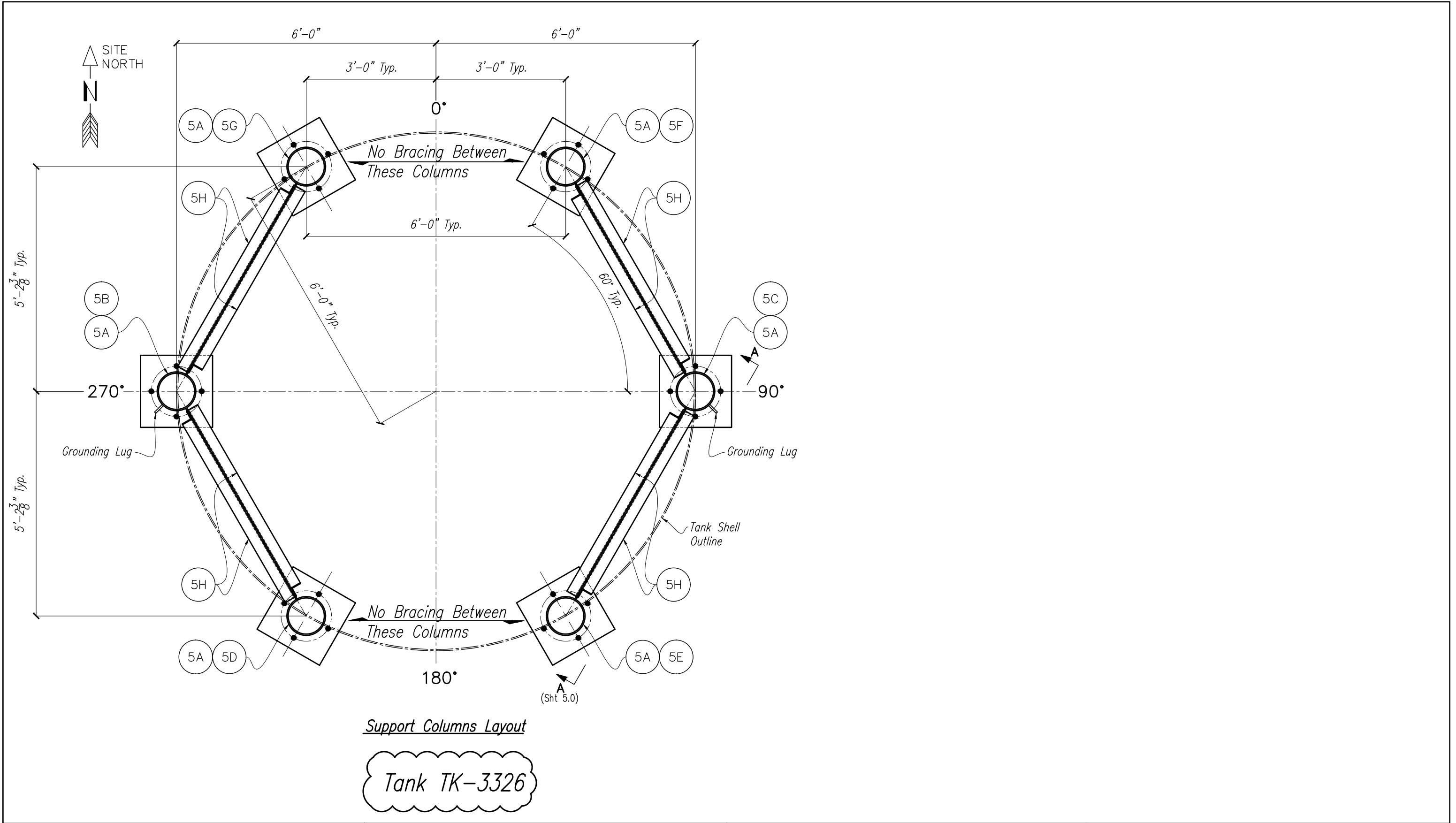
CERTIFIED FABRICATOR

FOR APPROVAL

DRAWN BY: PJ	DATE: 06/07/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Support Columns For TK-3322			
JOB#: 600-01-3322		SHT#: 5.0	

12'-0" X 36'-10" H

B



Support Columns Layout

Tank TK-3326

Notes:

Notes:				
PULPING LINE MIX TANK A 330-TK-3322 TANK B 330-TK-3326	B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
	A	PJ	06/11/18	For Approval
	REV.	BY	DATE	DESCRIPTION
	REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

T

BAILEY

INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

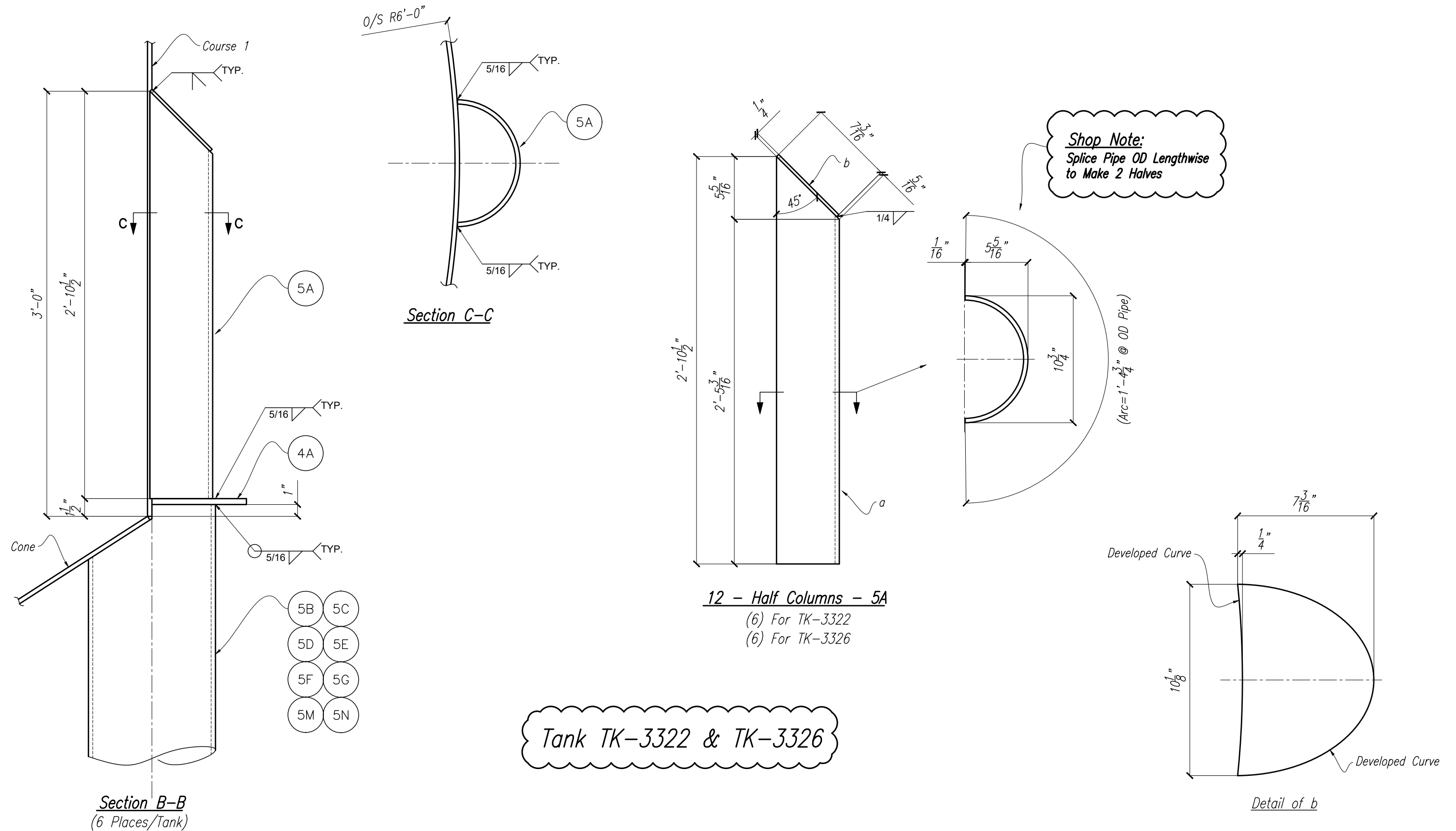
CERTIFIED
FABRICATOR

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/07/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Support Columns For TK-3326			
JOB#: 600-01-3322		SHT#: 5.1	

B



Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

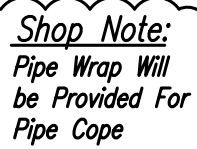
CERTIFIED FABRICATOR

FOR APPROVAL

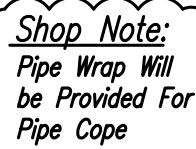
The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/07/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Support Columns Details			
JOB#: 600-01-3322		SHT#: 5.2	

B

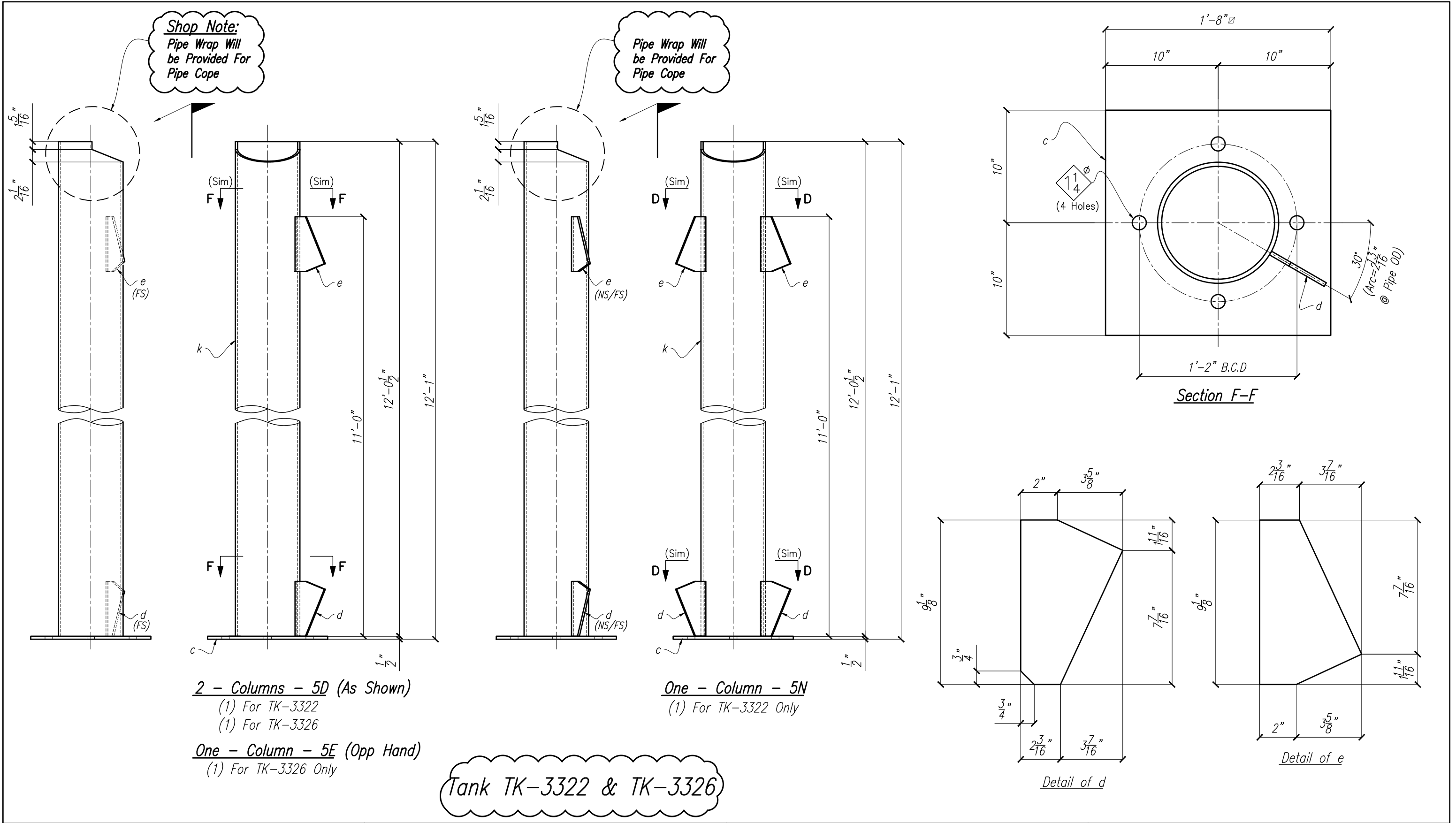


B 1 - Column - 5C (Opp Hand)
(1) For TK-3326 Only



JOB#: 600-01-3322	SHI#: 5.3	
-------------------	-----------	---





Notes:

PULPING LINE MIX TANK A 330-TK-3322

TANK B 330-TK-3326

A	PJ	07/09/18	New Sheet, For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

T BAILEY INC.

CERTIFIED FABRICATOR

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ

DATE: 07/09/18

CHK'D BY: TM

DATE: --/--

CUSTOMER: Columbia Pulp, LLC

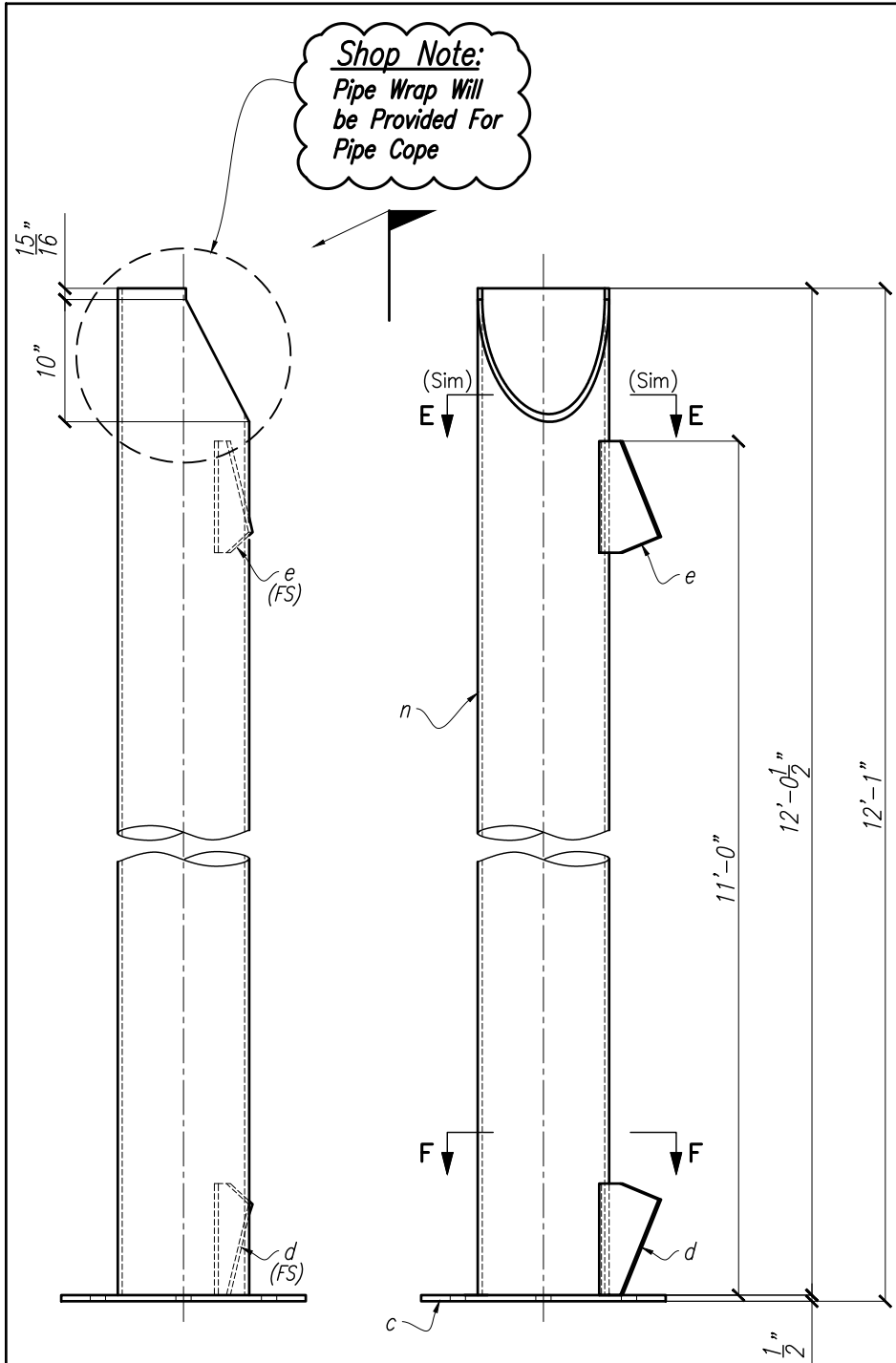
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050

TITLE: Support Columns Details

JOB#: 600-01-3322

SHT#: 5.4

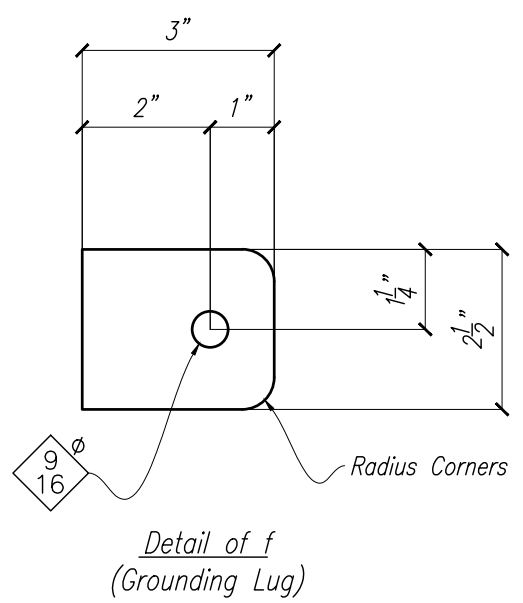
A



Shop Note:
Pipe Wrap Will
be Provided For
Pipe Cope

2 - Columns - 5F (As Shown)
(1) For TK-3322
(1) For TK-3326
2 - Columns - 5G (Opp Hand)
(1) For TK-3322
(1) For TK-3326

BILL OF MATERIALS						
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL WEIGHT U.S. lbs
2	5G		COLUMN			552.3
2		c	PL 1/2 x 20	1'-8"	W/HOLES	57.2
2		d	PL 3/8 x 0.246 sq. ft.		TEMP	3.8
2		e	PL 3/8 x 0.248 sq. ft.		TEMP	3.8
2		n	10"Ø Sch 40S Pipe	12'-0 1/2"	COPE 1E	487.4
16	5H		L 3 x 3 x 1/4	11'-3 1/2"		A240-316L 60.9
8	5K		PL 3/8 x 9	0'-9"		A240-316L 8.7
1	5M		COLUMN			552.8
1		c	PL 1/2 x 20	1'-8"	W/HOLES	57.2
1		d	PL 3/8 x 0.246 sq. ft.		TEMP	3.8
1		e	PL 3/8 x 0.248 sq. ft.		TEMP	3.8
1		f	PL 1/4 x 2 1/2	0'-3"	W/HOLE	0.5
1		g	10"Ø Sch 40S Pipe	12'-0 1/2"	COPE 1E	487.4
1	5N		COLUMN			559.9
1		c	PL 1/2 x 20	1'-8"	W/HOLES	57.2
2		d	PL 3/8 x 0.246 sq. ft.		TEMP	3.8
2		e	PL 3/8 x 0.248 sq. ft.		TEMP	3.8
1		k	10"Ø Sch 40S Pipe	12'-0 1/2"	COPE 1E	487.4



BILL OF MATERIALS						
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL WEIGHT U.S. lbs
12	5A		HALF COLUMN			120.4
12		a	10"Ø Sch 40S Pipe	2'-10 1/2"	1 MAKES 2 / M1E	A312-TP316L 116.4
12		b	PL 1/4 x 0.385 sq. ft.		TEMP	A240-316L 4.0
2	5B		COLUMN			560.4
2		c	PL 1/2 x 20	1'-8"	W/HOLES	A240-316L 57.2
4		d	PL 3/8 x 0.246 sq. ft.		TEMP	A240-316L 3.8
4		e	PL 3/8 x 0.248 sq. ft.		TEMP	A240-316L 3.8
2		f	PL 1/4 x 2 1/2	0'-3"	W/HOLE	A240-316L 0.5
2		g	10"Ø Sch 40S Pipe	12'-0 1/2"	COPE 1E	A312-TP316L 487.4
1	5C		COLUMN			560.4
1		c	PL 1/2 x 20	1'-8"	W/HOLES	A240-316L 57.2
2		d	PL 3/8 x 0.246 sq. ft.		TEMP	A240-316L 3.8
2		e	PL 3/8 x 0.248 sq. ft.		TEMP	A240-316L 3.8
1		f	PL 1/4 x 2 1/2	0'-3"	W/HOLE	A240-316L 0.5
1		g	10"Ø Sch 40S Pipe	12'-0 1/2"	COPE 1E	A312-TP316L 487.4
2	5D		COLUMN			552.3
2		c	PL 1/2 x 20	1'-8"	W/HOLES	A240-316L 57.2
2		d	PL 3/8 x 0.246 sq. ft.		TEMP	A240-316L 3.8
2		e	PL 3/8 x 0.248 sq. ft.		TEMP	A240-316L 3.8
2		k	10"Ø Sch 40S Pipe	12'-0 1/2"	COPE 1E	A312-TP316L 487.4
1	5E		COLUMN			552.3
1		c	PL 1/2 x 20	1'-8"	W/HOLES	A240-316L 57.2
1		d	PL 3/8 x 0.246 sq. ft.		TEMP	A240-316L 3.8
1		e	PL 3/8 x 0.248 sq. ft.		TEMP	A240-316L 3.8
1		k	10"Ø Sch 40S Pipe	12'-0 1/2"	COPE 1E	A312-TP316L 487.4
2	5F		COLUMN			552.3
2		c	PL 1/2 x 20	1'-8"	W/HOLES	A240-316L 57.2
2		d	PL 3/8 x 0.246 sq. ft.		TEMP	A240-316L 3.8
2		e	PL 3/8 x 0.248 sq. ft.		TEMP	A240-316L 3.8
2		n	10"Ø Sch 40S Pipe	12'-0 1/2"	COPE 1E	A312-TP316L 487.4

Tank TK-3322 & TK-3326

Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
A	PJ	07/09/18	New Sheet, For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

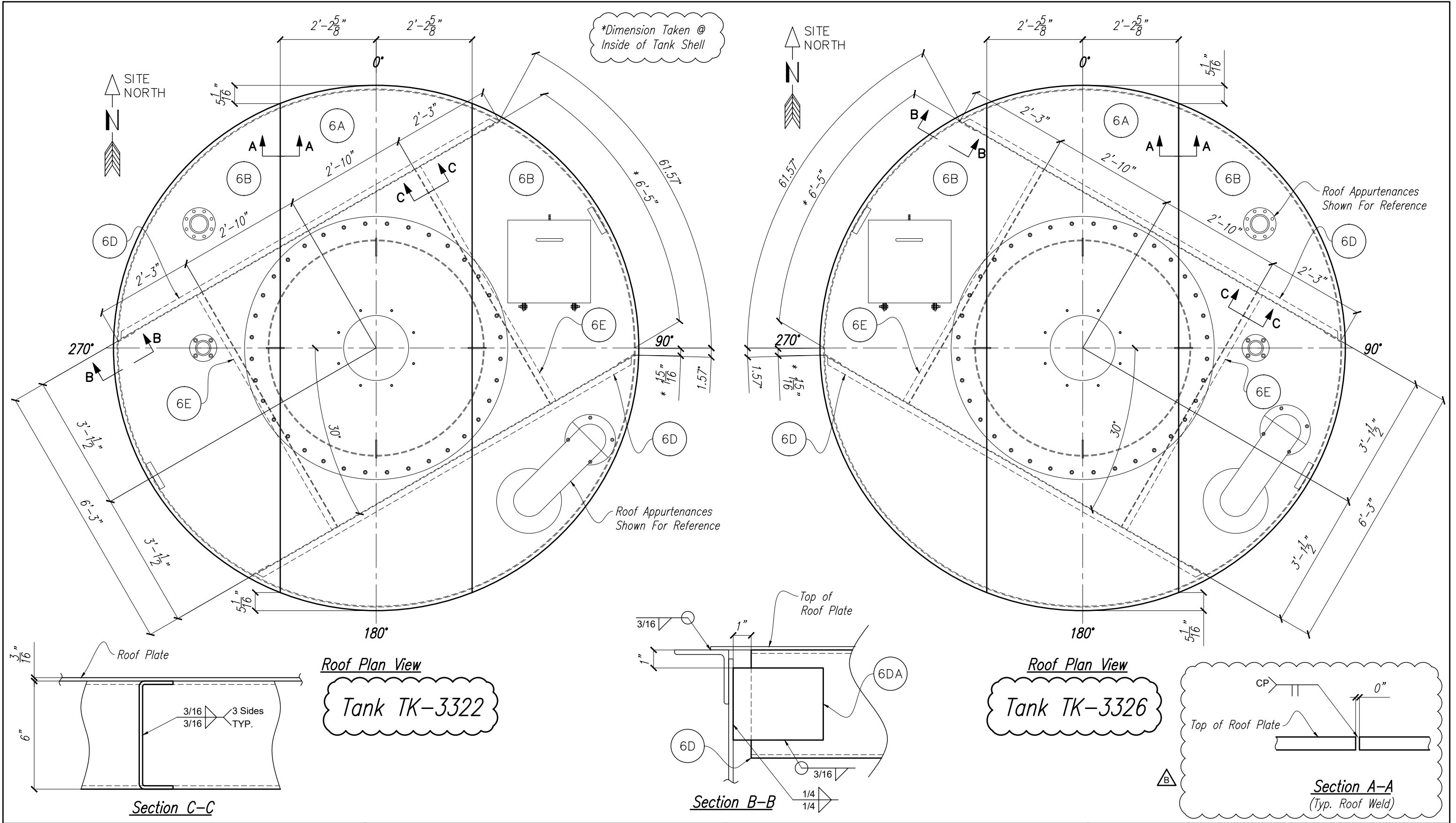
CERTIFIED FABRICATOR

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 07/09/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Support Columns Details			
JOB#: 600-01-3322		SHT#: 5.5	

△



Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

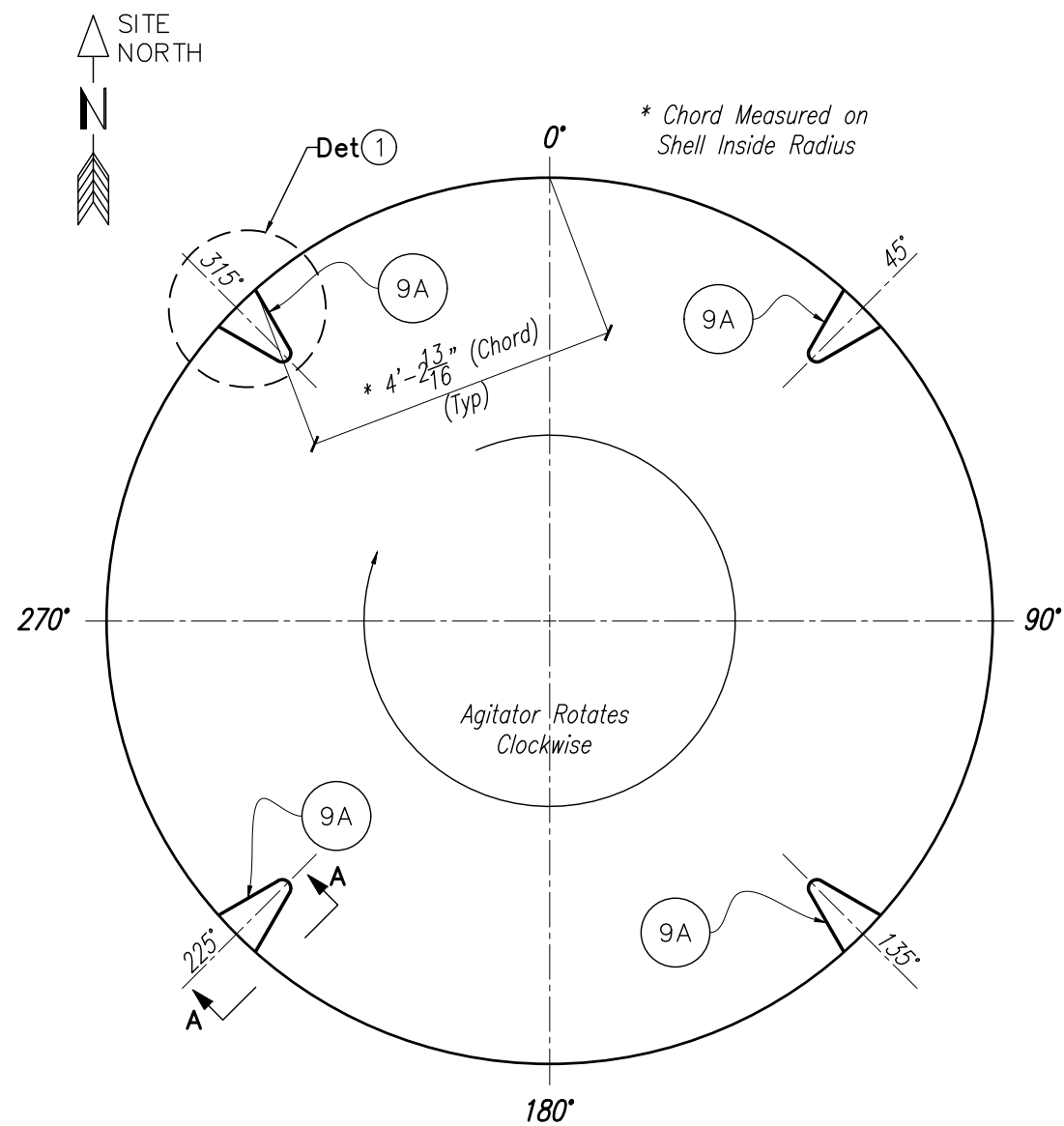
Website:
www.TBailey.com

CERTIFIED FABRICATOR

FOR APPROVAL

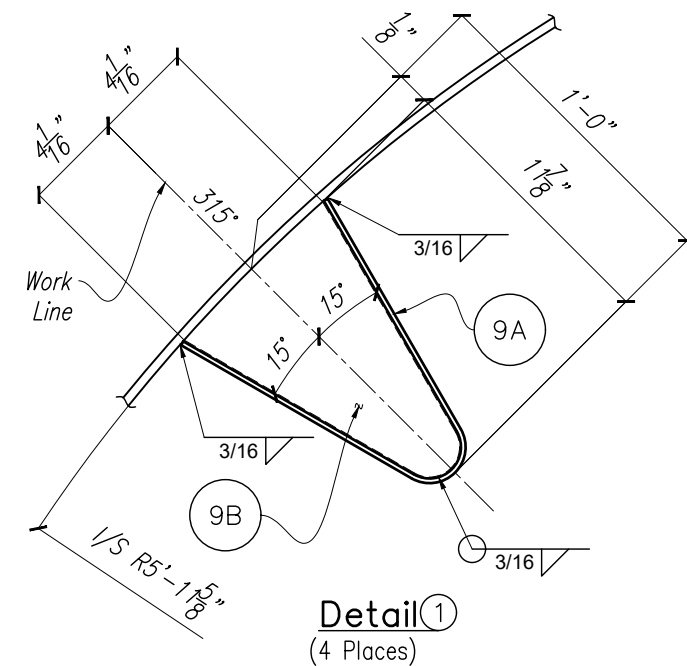
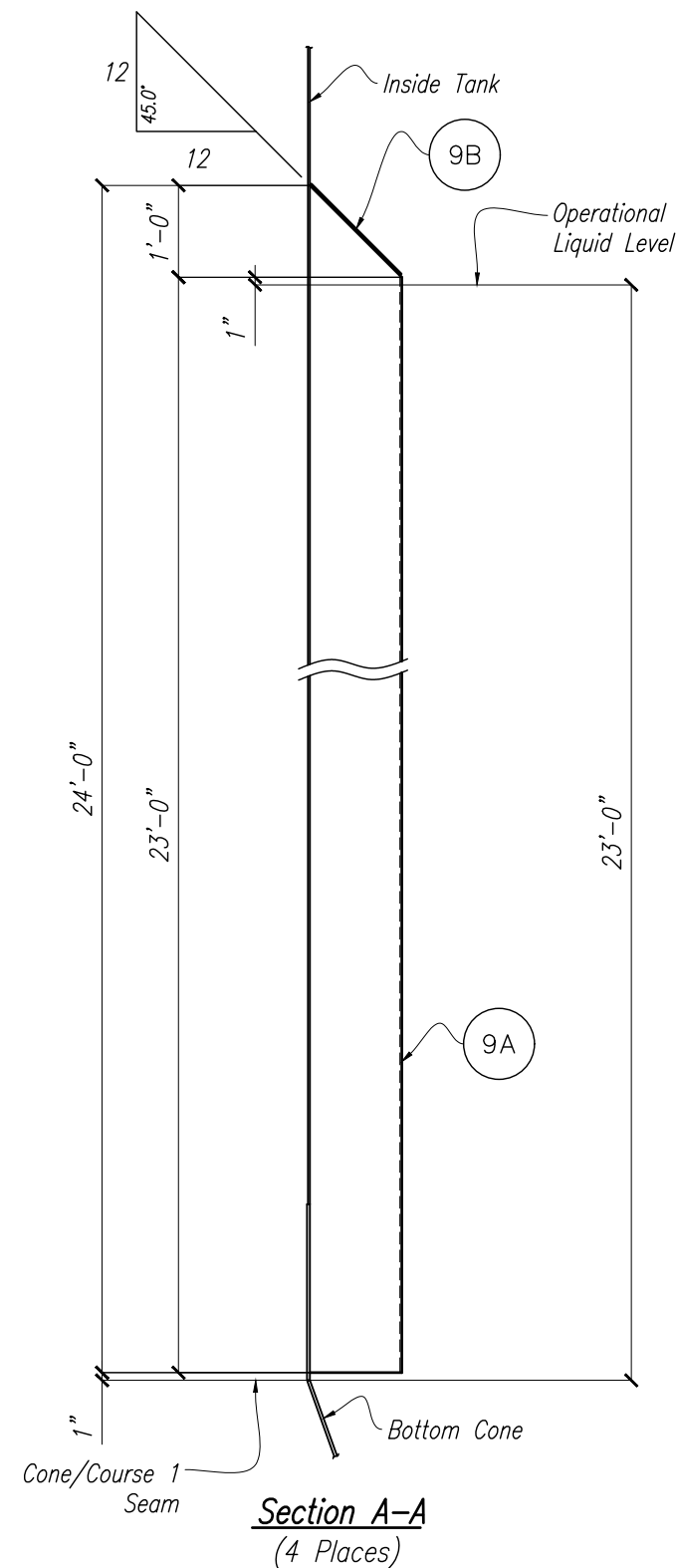
The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/30/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Roof Layout			
JOB#: 600-01-3322		SHT#: 6.0	



Baffle Plan View
(Installation Detail)

Tank TK-3322 & TK-3326



Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Whole Sheet Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

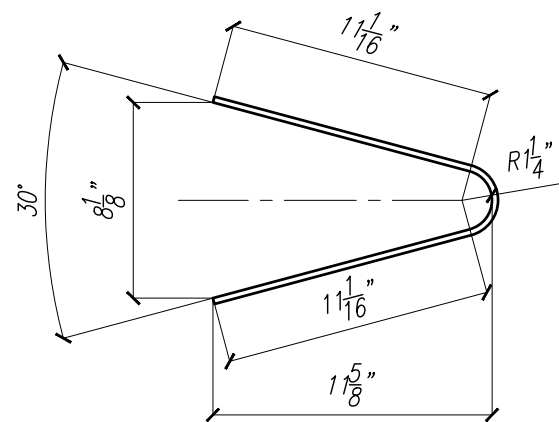


FOR APPROVAL

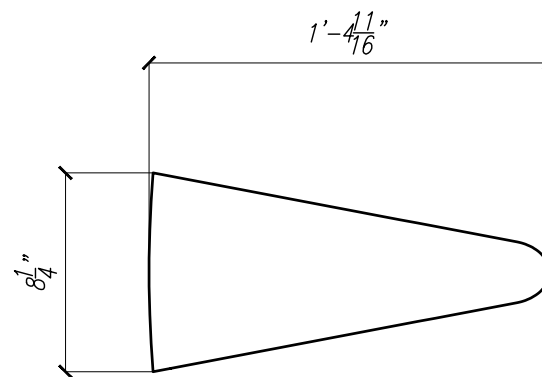
The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/29/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Baffle Plates			
JOB#: 600-01-3322		SHT#: 9.0	





Section A-A



8 - Cover plates - 9B

(4) For TK-3322
(4) For TK-3326

8 - Baffle plates - 9A

(4) For TK-3322
(4) For TK-3326

BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
8	9A		BAFFLE PLATE				535.8
8		a	PL 1/4 x 25 3/4	12'-0"	FORM	A240-316L	267.9
8		b	PL 1/4 x 25 3/4	12'-0"	FORM	A240-316L	267.9
8	9B		PL 1/4 x 0.539 sq. ft.		TEMP	A240-316L	5.6

B	PJ	07/09/18	Revised Whole Sheet Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

**T BAILEY
INC.**

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/30/18	CHK'D BY: TM	DATE: --/--
--------------	----------------	--------------	-------------

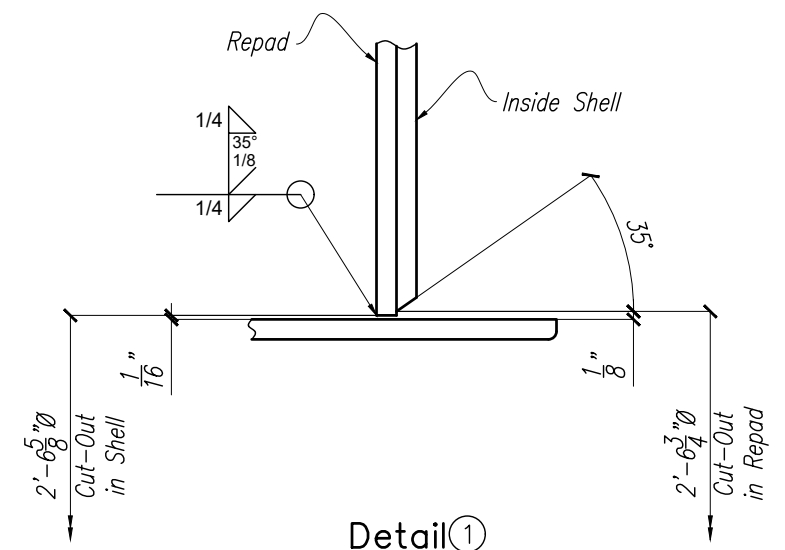
CUSTOMER: Columbia Pulp LLC 12'-0"Ø X 36'-10"H

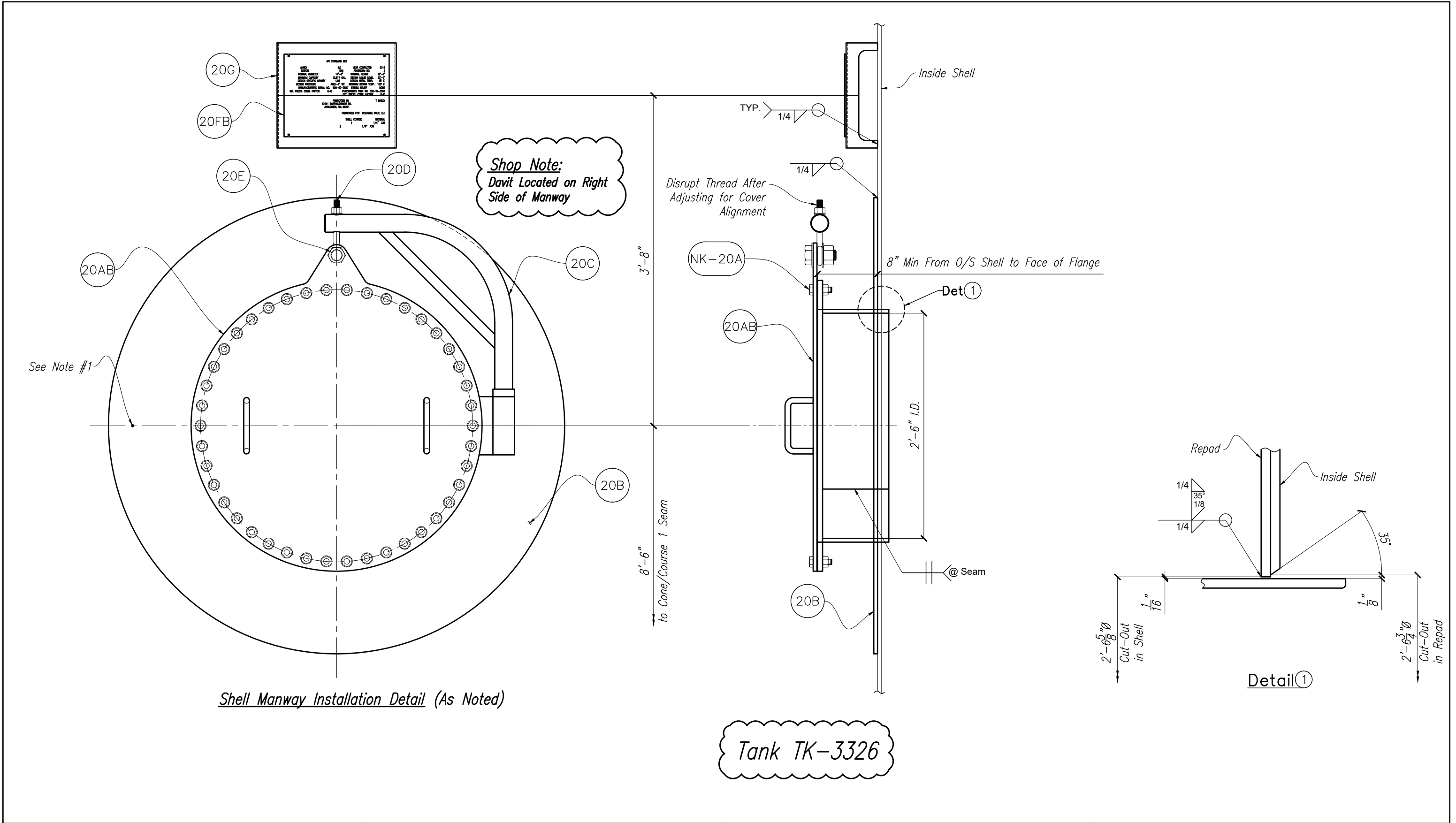
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050

TITLE: Baffle Plates Details

JOB#: 600-01-3322	SHT#: 9.1	
-------------------	-----------	---







Notes:
1. Install 1/4" NPT in repad & deburr for testing.
Leave open to environment after testing.

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY INC.
12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

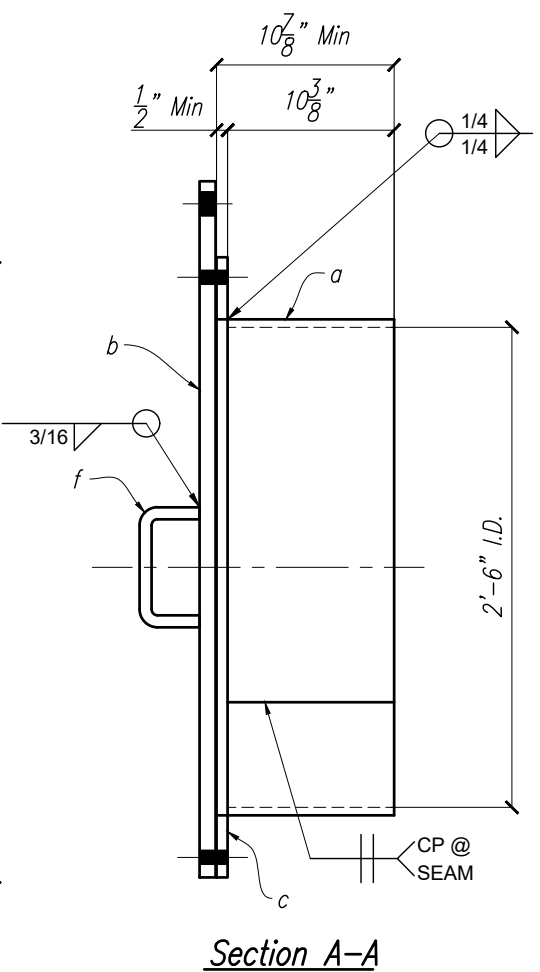
CERTIFIED FABRICATOR

FOR APPROVAL

Website:
www.TBailey.com

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.			
DRAWN BY: PJ	DATE: 05/29/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0"Ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: 30"Ø Manway With Davit For TK-3326			
JOB#: 600-01-3322		SHT#: 20.1	





One – Nameplate – 20FA
Text Height = $\frac{1}{4}$ "

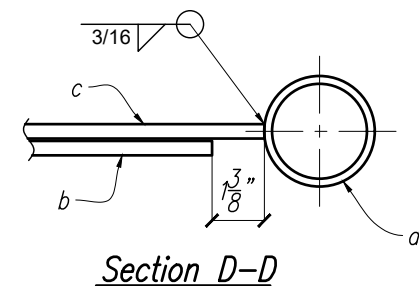
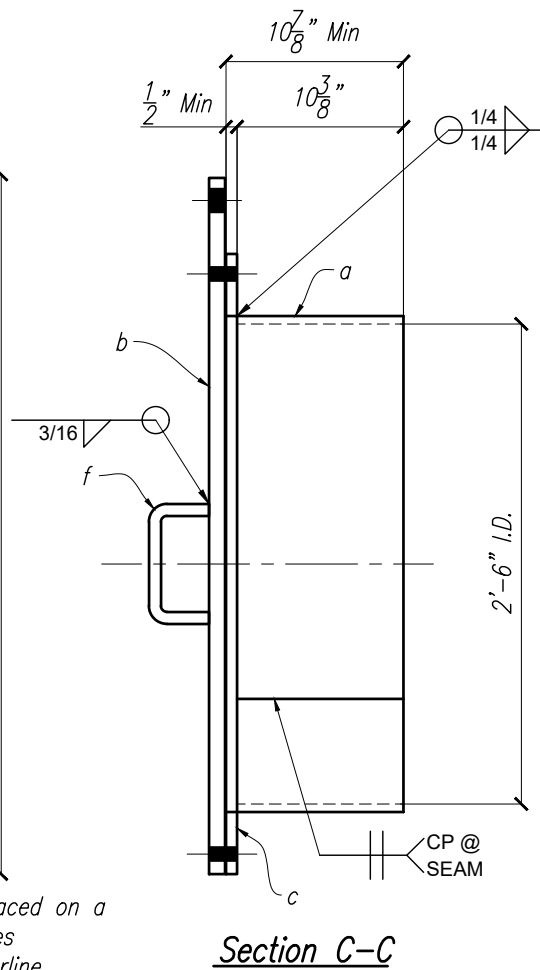
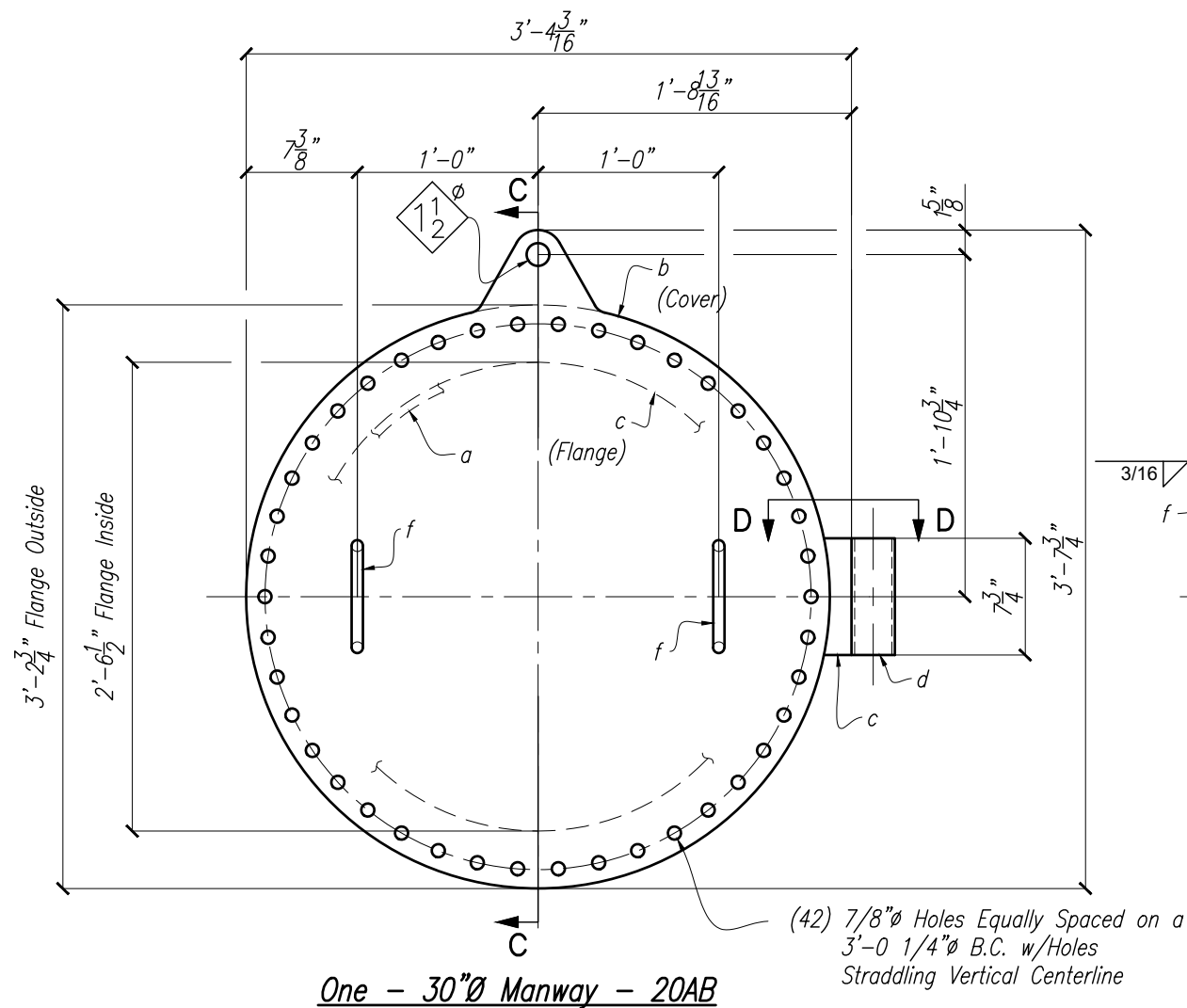


No Paint

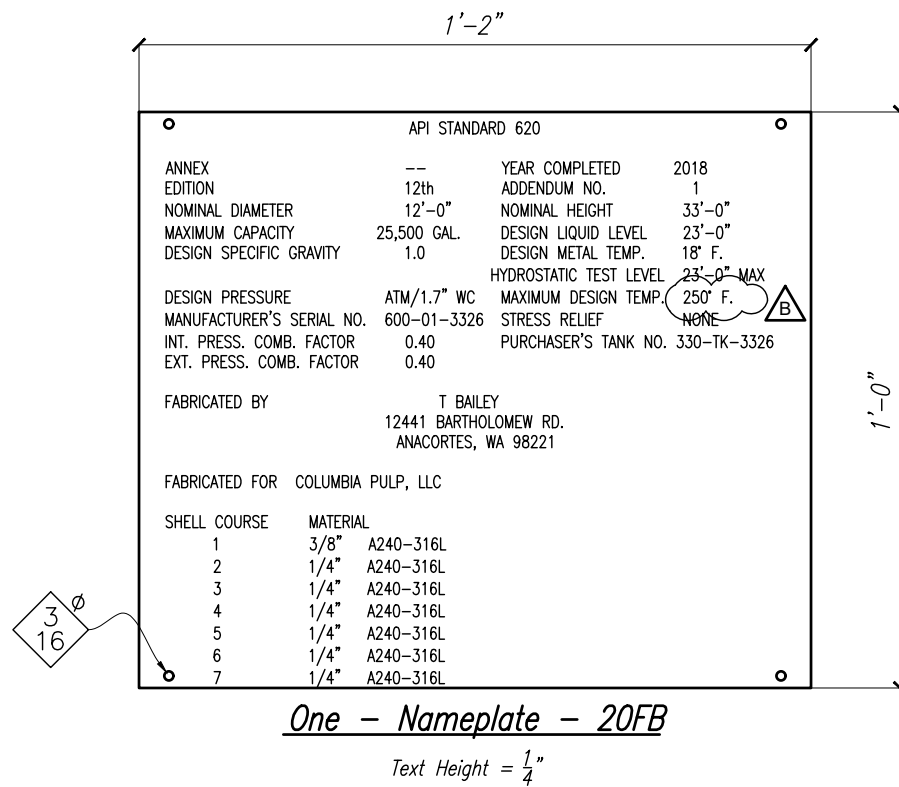
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

The logo for TBailey Inc. features a large, stylized 'T' followed by 'BAILEY' in a serif font and 'INC.' in a smaller, italicized serif font. To the right is a banner with the text 'AS CERTIFIED FABRICATOR'. Below the logo, the address '12441 Bartholomew Rd. Anacortes, WA 98221' is listed, followed by phone and fax numbers: 'PH: (360) 293-0682' and 'FAX: (360) 293-3893'. The website 'www.TBailey.com' is also provided. A box on the right contains the text 'FOR APPROVAL'.

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.			
DRAWN BY: PJ	DATE: 05/15/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			12'-0"ø X 36'-10"H
TITLE: 30"Ø Manway Details			
JOB#: 600-01-3322		SHT#: 20.2	



Tank TK-3326



No Paint

Notes:

REV.	BY	DATE	DESCRIPTION
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com



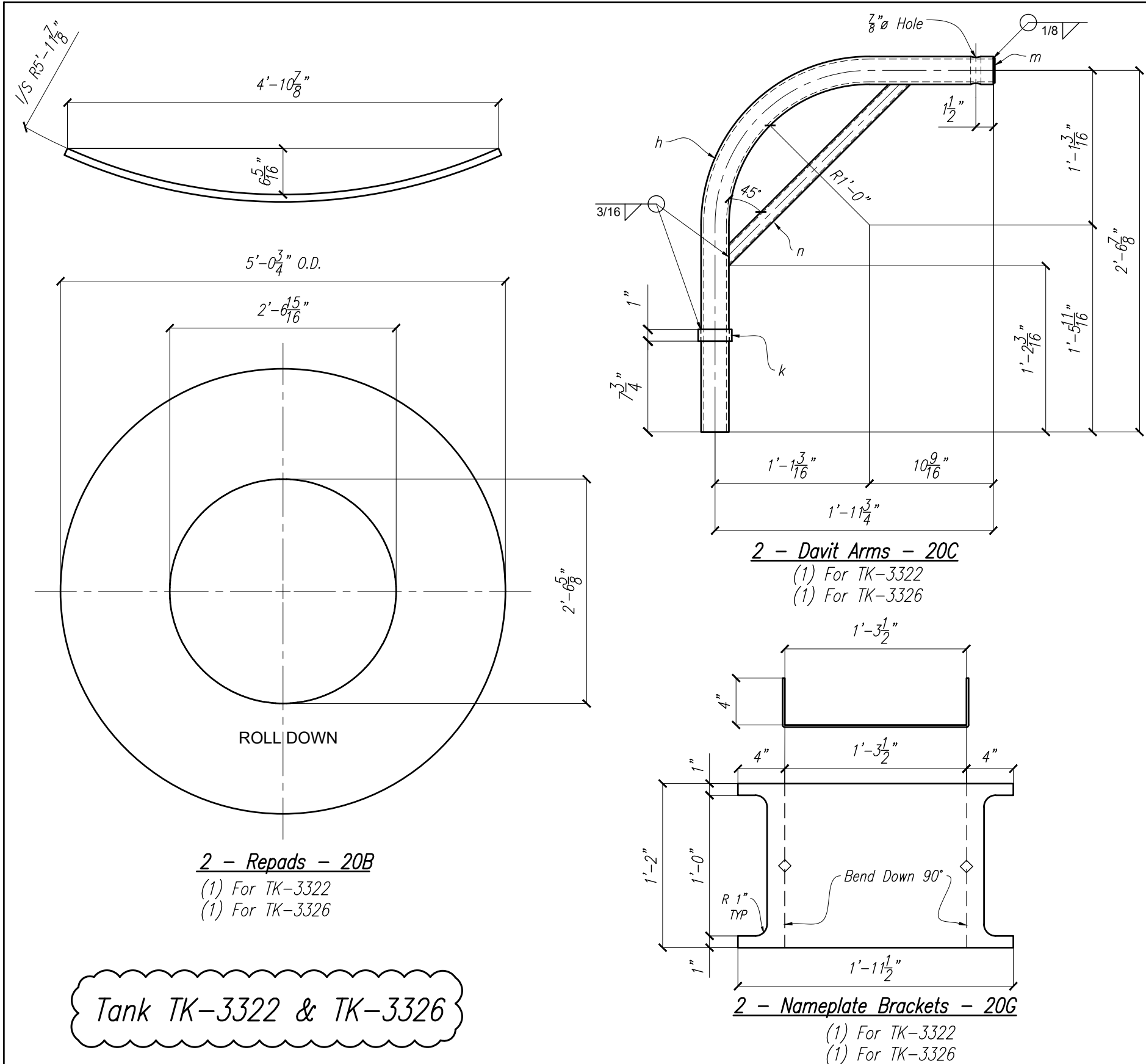
FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/29/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: 30"Ø Manway Details			
JOB#: 600-01-3322		SHT#: 20.3	

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326





BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
1	20AA		30"Ø MANWAY W/DAVIT				362.9
1		a	PL 1/4 x 10 3/8	7'-11 1/16"	[1]	A240-316L	64.4
1		b	PL 3/4 x 8.344 sq. ft.		TEMP W/HOLES	A240-316L	212.9
1		c	PL 3/4 x 3.03 sq. ft.		TEMP W/HOLES [2]	A240-316L	78.8
1		d	2 1/2"Ø Sch 40 Pipe	0'-7 3/4"		SS316	3.7
2		f	3/4Ø Rod	1'-0"	FORM	A240-316L	1.5
1	20AB		30"Ø MANWAY W/DAVIT				362.9
1		a	PL 1/4 x 10 3/8	7'-11 1/16"	[1]	A240-316L	64.4
1		b	PL 3/4 x 8.344 sq. ft.		TEMP W/HOLES	A240-316L	212.9
1		c	PL 3/4 x 3.03 sq. ft.		TEMP W/HOLES [2]	A240-316L	78.8
1		d	2 1/2"Ø Sch 40 Pipe	0'-7 3/4"		SS316	3.7
2		f	3/4Ø Rod	1'-0"	FORM	A240-316L	1.5
2	20B		PL 1/4 x 14.975 sq. ft.		TEMP [3]	A240-316L	155.8
2	20C		DAVIT ARM				24.5
2		h	2"Ø Sch 80S Pipe	4'-1 11/16"	FORM	SS316	20.8
2		k	2 1/2"Ø Sch 40S Pipe	0'-1"		SS316	0.5
2		m	PL 3/16 x 0.025 sq. ft.		2 1/8" O.D.	A240-316L	0.1
2		n	Bolt 3/4"Ø x 3"	1'-9 7/8"	M2E	SS316	3.1
2	NK-20A		NOZZLE KIT				26.4
2		p	1/8" GASKET FOR A 30" MANWAY		W/HOLES	GL3125SS	
88		s	Bolt 3/4"Ø x 3"		[4]	SS316	0.6
2	20D		1 1/2Ø Eyebolt, 3/4"Ø Rod x 6 Ln		W/N&W [5]	SS316	1.4
2	20E		Bolt 1 3/8"Ø x 3 1/4"		W/N&W	SS316	4.1
1	20FA		NAMEPLATE w/4 #10 x 1/2" Round			A240-304	0.4
			Pan-Head Screws w/Nylock Nuts				
1	20FB		NAMEPLATE w/4 #10 x 1/2" Round			A240-304	0.4
			Pan-Head Screws w/Nylock Nuts				
2	20G		PL 3/16 x 0.534 sq. ft.		TEMP/FORM	A240-316L	4.2

- [1] ROLL TO A 1'-3" INSIDE RADIUS
- [2] MACHINE MANWAY FLANGE TO MIN 1/2" AFTER FINISH
- [3] ROLL TO A 5'-11 7/8" INSIDE RADIUS
- [4] BOLT QUANTITY INCLUDES 5% EXTRA
- [5] MCMASTER-CARR PN: 3032T125

Shop Confirm Bolt Lengths After
Machining & Fabrication

No Paint

Notes:

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

T
BAILEY
INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ DATE: 05/15/18 CHK'D BY: TM DATE: --/--/--

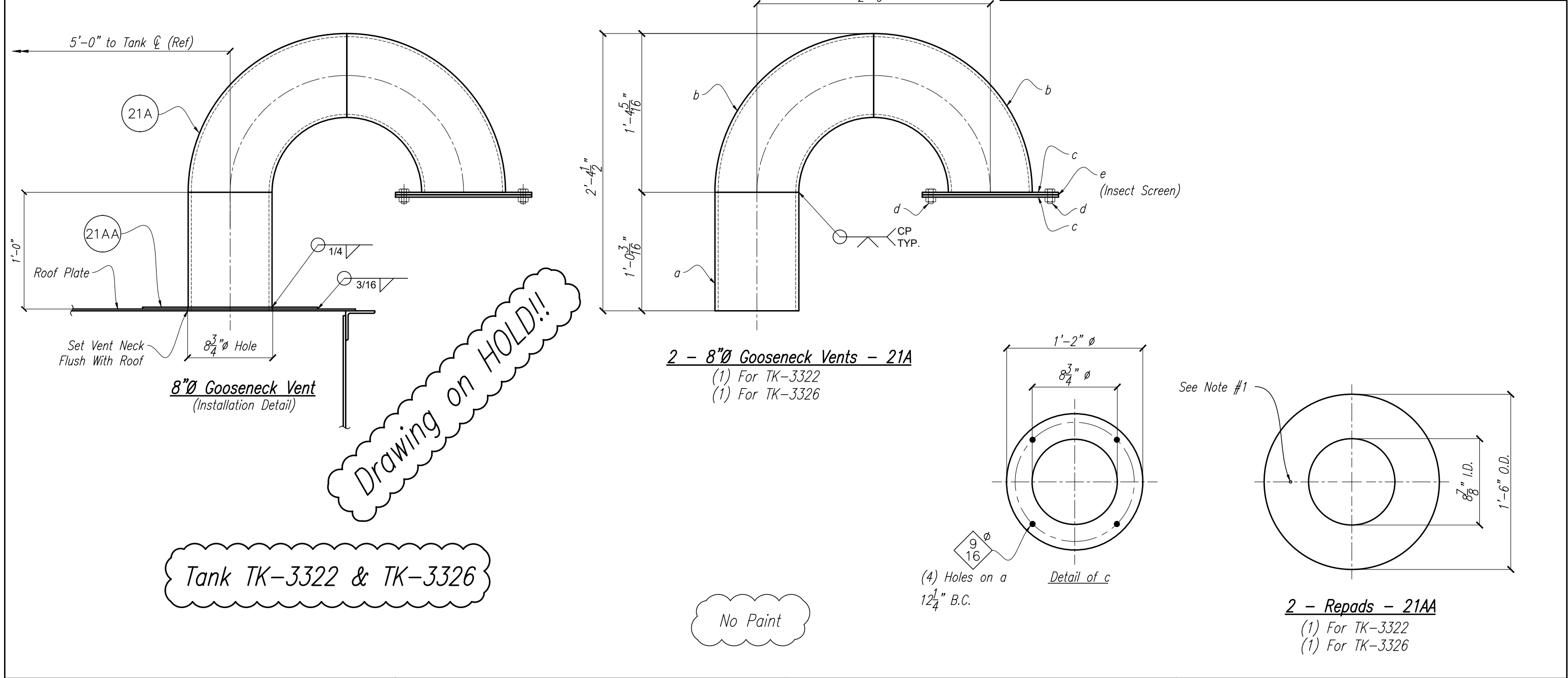
CUSTOMER: Columbia Pulp, LLC 12'-0"Ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050

TITLE: 30"Ø Manway Details

JOB#: 600-01-3322 SHT#: 20.4



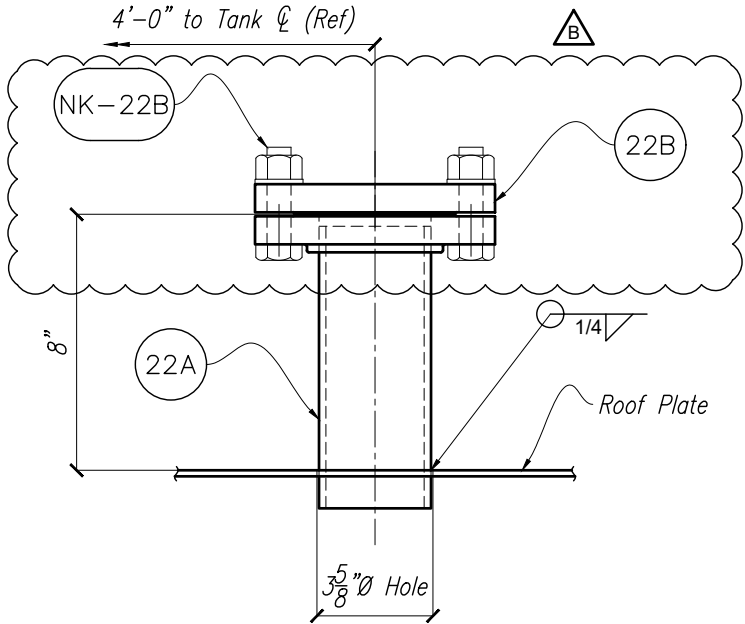
BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
2	21A		8"Ø GOOSENECK VENT				143.0
2		a	8"Ø Sch 40S Pipe	1'-0 3/16"		A312-TP316L	29.0
4		b	8"Ø 90° LR Elbow Sch 40S			A403-WP316L	51.2
4		c	PL 1/4 x 0.537 sq. ft.		TEMP W/HOLES	A240-316L	5.6
8		d	Bolt 1/2"Ø x 1 1/4"		W/NUT	SS316	0.1
2		e	WELDED MESH BIRD SCREEN		12"Ø, 1" OPENING	SS316	
2	21AA		PL 3/16 x 1.35 sq. ft.		TEMP	A240-316L	14.1



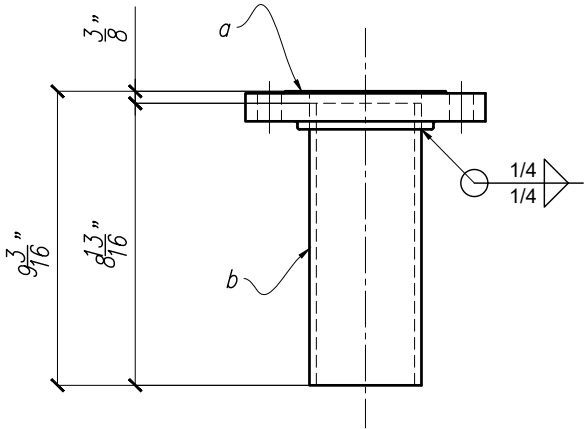
Notes: 1. Install 1/4"Ø NPT in repad & deburr for testing. Leave open to environment after testing				T BAILEY INC. 12441 Bartholomew Rd. Anacortes, WA 98221 PH: (360) 293-0682 FAX: (360) 293-3893		CERTIFIED FABRICATOR		The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.	
PULPING LINE MIX TANK A 330-TK-3322 TANK B 330-TK-3326		REV. BY DATE DESCRIPTION		Website: www.TBailey.com		FOR APPROVAL		DRAWN BY: PJ DATE: 05/15/18 CHK'D BY: TM DATE: --/--/--	
		REVISIONS						CUSTOMER: Columbia Pulp, LLC PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050	
								TITLE: 8"Ø Gooseneck Vent	
								JOB#: 600-01-3322 SHT#: 21.0	

BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
2	22A		3"Ø ROOF NOZZLE				17.5
2		a	3"Ø 150# RFSO Flange			A182-F316L	9.2
2		b	3"Ø Sch 40S Pipe	0'-8 13/16"		A312-TP316L	8.3
2	22B		3"Ø 150# RF Blind Flange			A182-F316L	9.2
2	NK-22B		NOZZLE KIT				2.2
2		d	1/8" GASKET		[1]		
10		e	Bolt 5/8"Ø x 3"		W/N&W [2]	SS316	0.4

[1] GARLOCK GRAPH LOCK 3125SS TO MATCH 3"Ø 150# RFSO FLANGE
[2] BOLT QUANTITY INCLUDES 5% EXTRA



3"Ø Roof Nozzle
(Installation Detail)



2 - 3"Ø Roof Nozzles - 22A
(1) For TK-3322
(1) For TK-3326

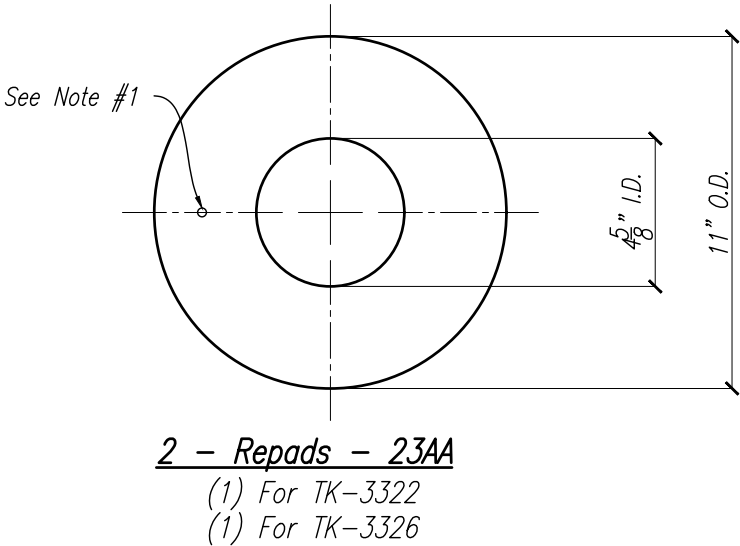
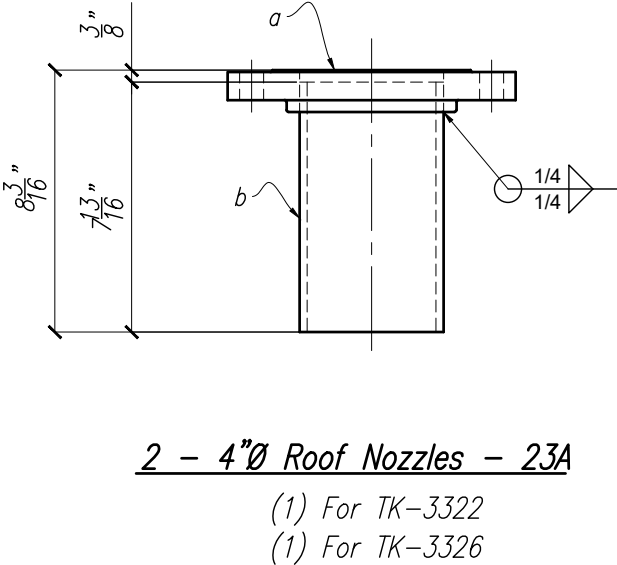
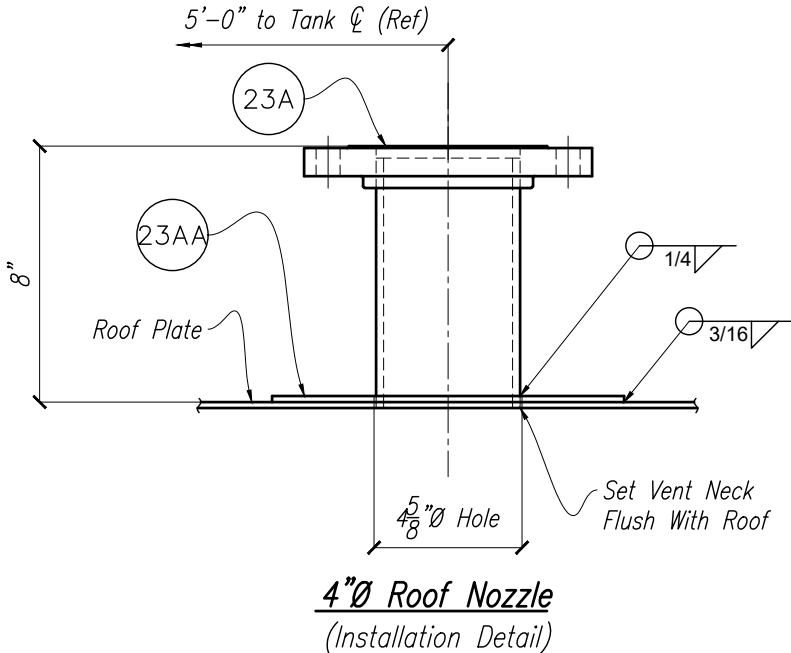
Tank TK-3322 & TK-3326

No Paint

Notes:

</

BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
2	23A		4"Ø ROOF NOZZLE				20.3
2		a	4"Ø 150# RFSO Flange			A182-F316L	13.3
2		b	4"Ø Sch 40S Pipe	0'-7 13/16"		A312-TP316L	7.0
2	23AA		PL 3/16 x 0.543 sq. ft.		TEMP	A240-316L	4.2



Tank TK-3322 & TK-3326

No Paint

Notes:

1. Install 1/4"Ø NPT in repad & deburr for testing.
Leave open to environment after testing

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

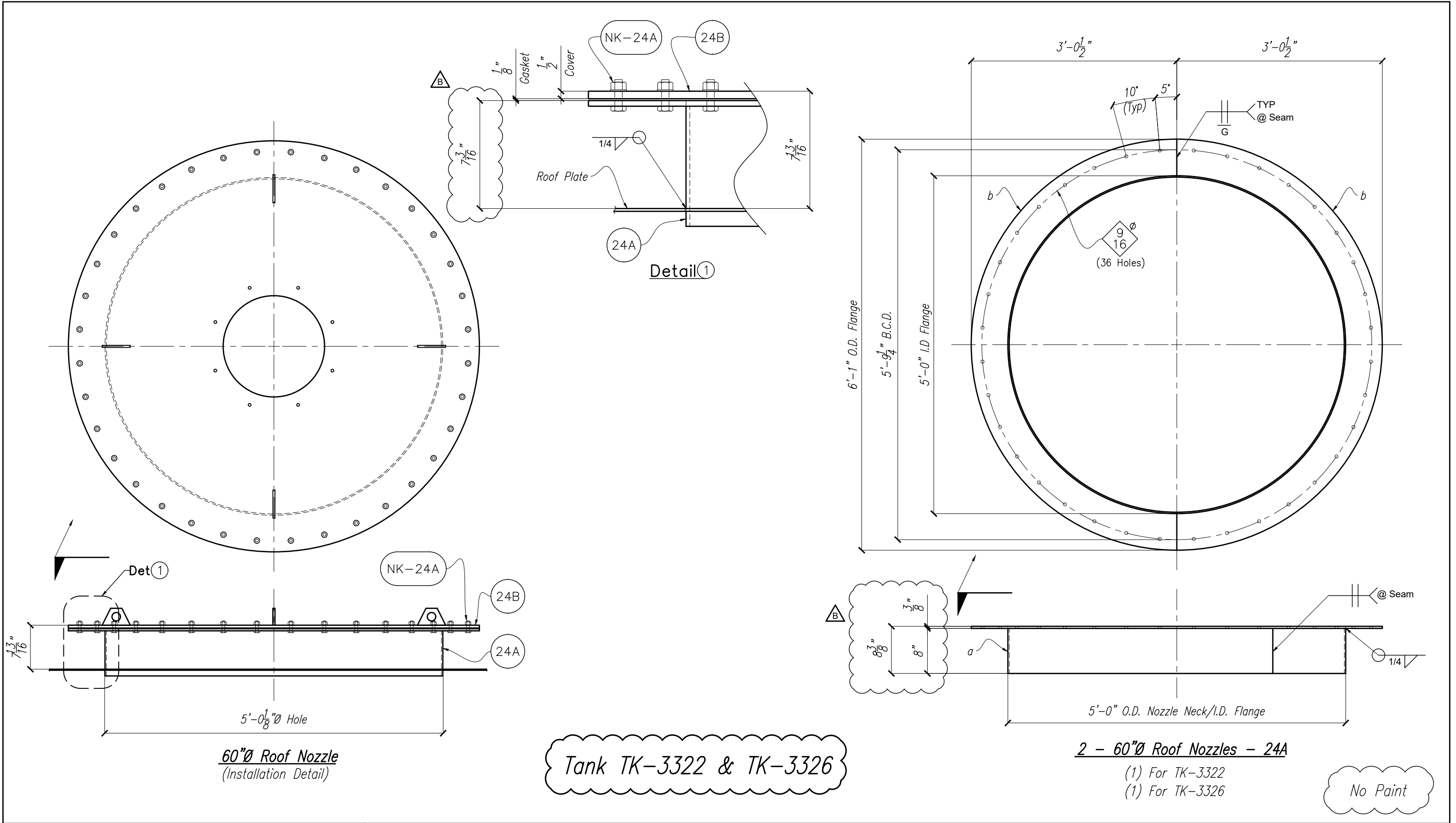
CERTIFIED FABRICATOR

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/22/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: 4"Ø Roof Nozzle			
JOB#: 600-01-3322		SHT#: 23.0	

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326



Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

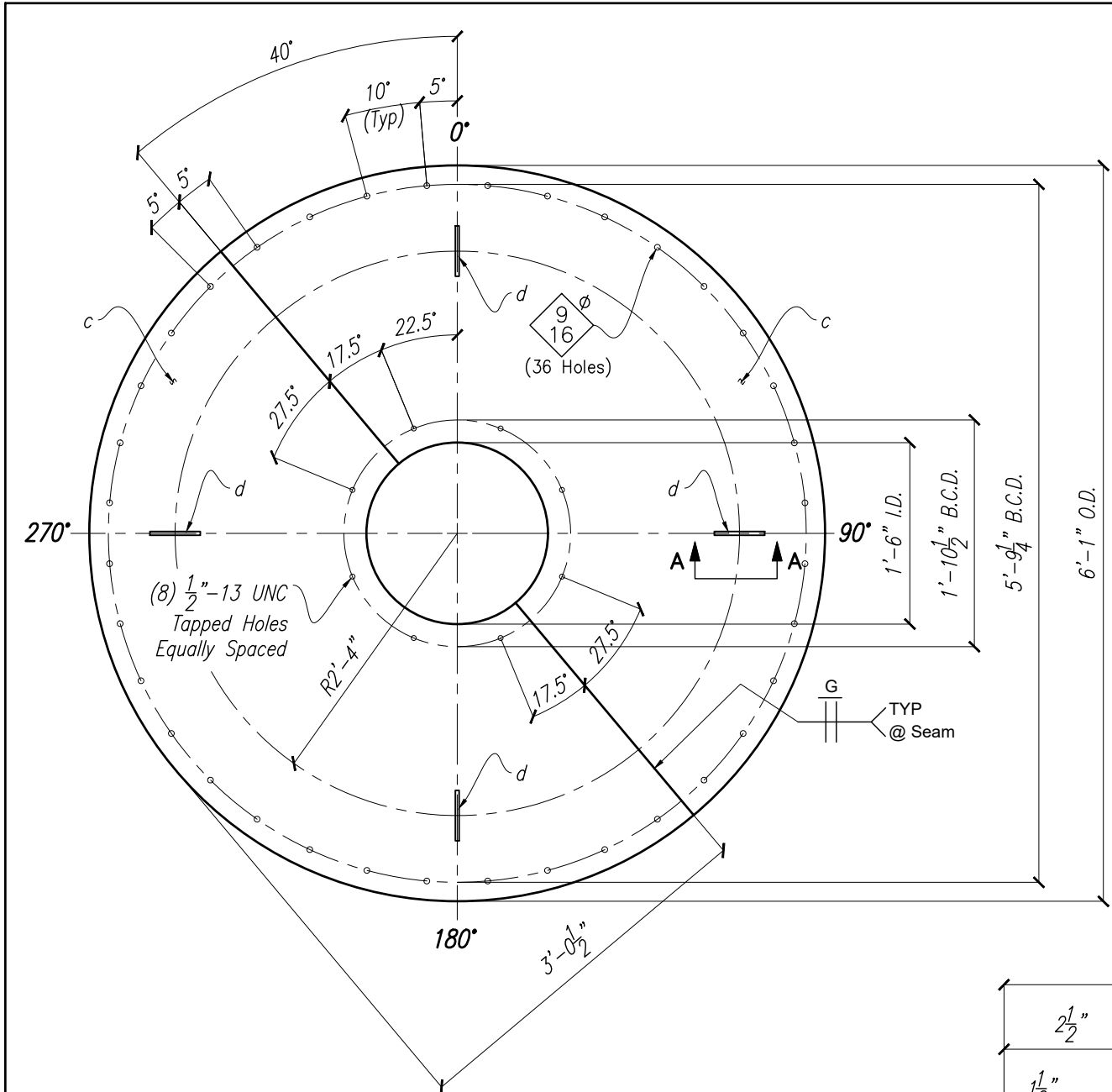
CERTIFIED FABRICATOR

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

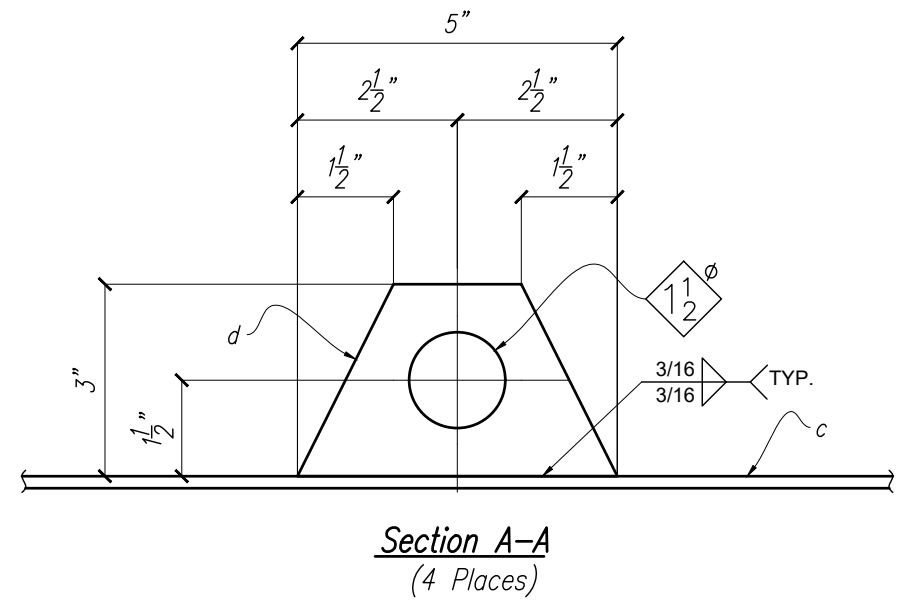
DRAWN BY: PJ	DATE: 05/24/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: 60"Ø Roof Nozzle With Blind Flg			
JOB#: 600-01-3322		SHT#: 24.0	

No Paint



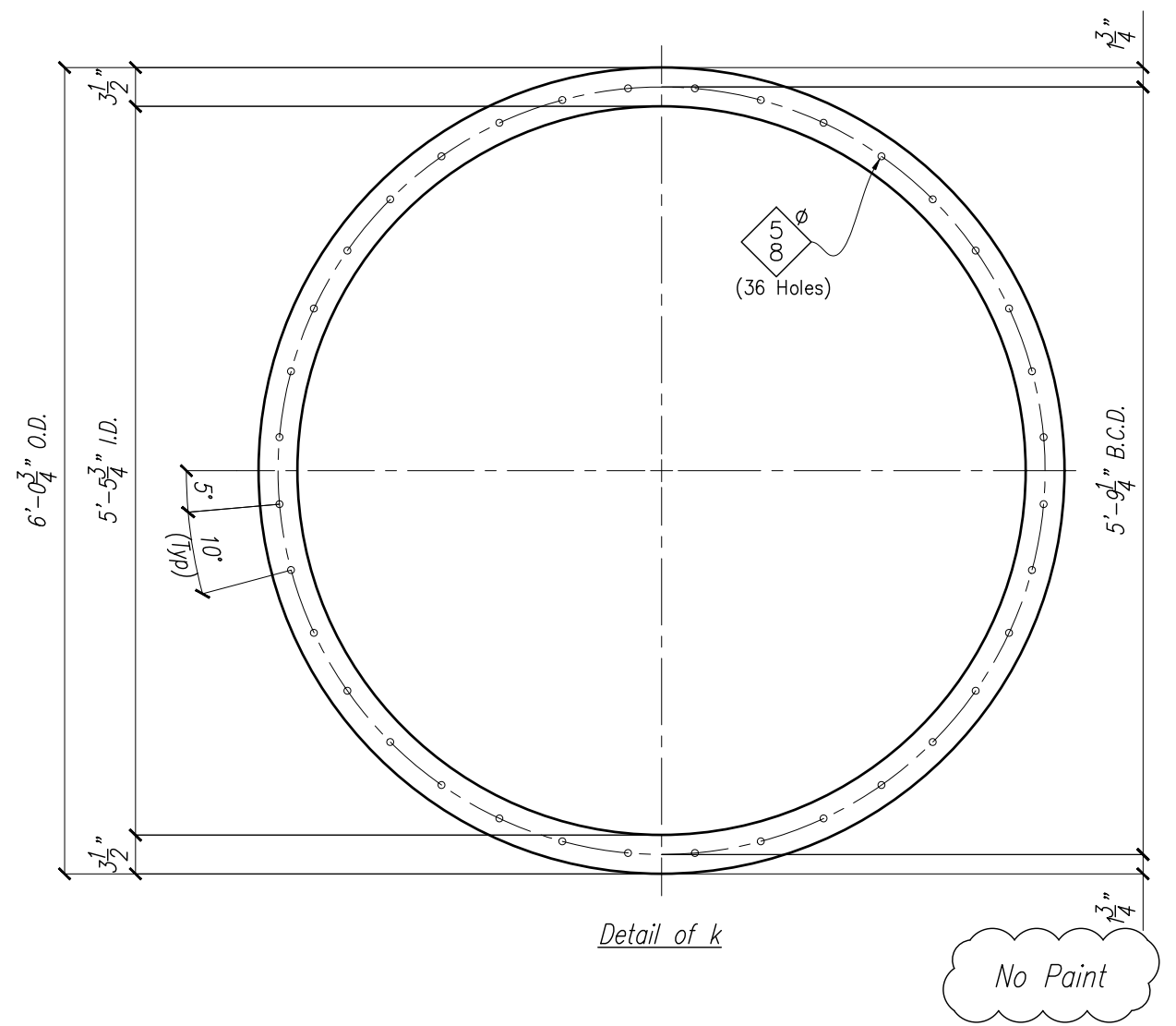
2 - 60"Ø Flange Covers - 24B
(1) For TK-3322
(1) For TK-3326

Tank TK-3322 & TK-3326



BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
2	24A		60"Ø ROOF NOZZLE				254.1
2		a	PL 1/4 x 8	15'-7 11/16"	[1]	A240-316L	108.5
4		b	PL 3/8 x 4.715 sq. ft.		TEMP W/HOLES	A240-316L	72.8
2	24B		60"Ø FLANGE COVER				565.9
4		c	PL 1/2 x 13.649 sq. ft.		TEMP W/HOLES	A240-316L	281.1
8		d	PL 3/8 x 0.061 sq. ft.		TEMP W/HOLE	A240-316L	0.9
2	NK-24A		NOZZLE KIT				5.0
2		k	1/8" x 3 1/2" Wide Gasket		SEE DETAIL	GL3125SS	
72		m	Bolt 1/2"Ø x 1 1/2"		W/N&W	SS316	0.1

[1] ROLL TO A 2'-5 3/4" INSIDE RADIUS
[2] BOLT QUANTITY INCLUDES 10% EXTRA



Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised BOMI, Resubmit For Approval
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

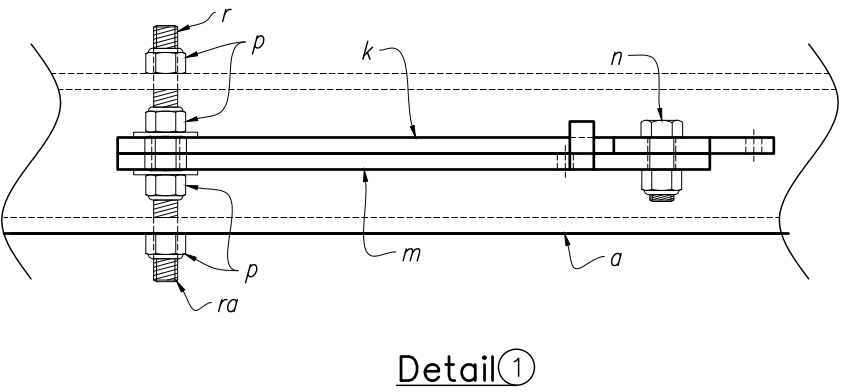
CERTIFIED FABRICATOR

FOR APPROVAL

Website:
www.TBailey.com

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/24/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: 60"Ø Roof Nozzle With Blind Flg			
JOB#: 600-01-3322		SHT#: 24.1	



Tank TK-3322 & TK-3326

JOB#: 600-01-3322	SHT#: 25.0	
-------------------	------------	---

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326



Detail of e1

[illegible]

B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

T BAILEY INC.

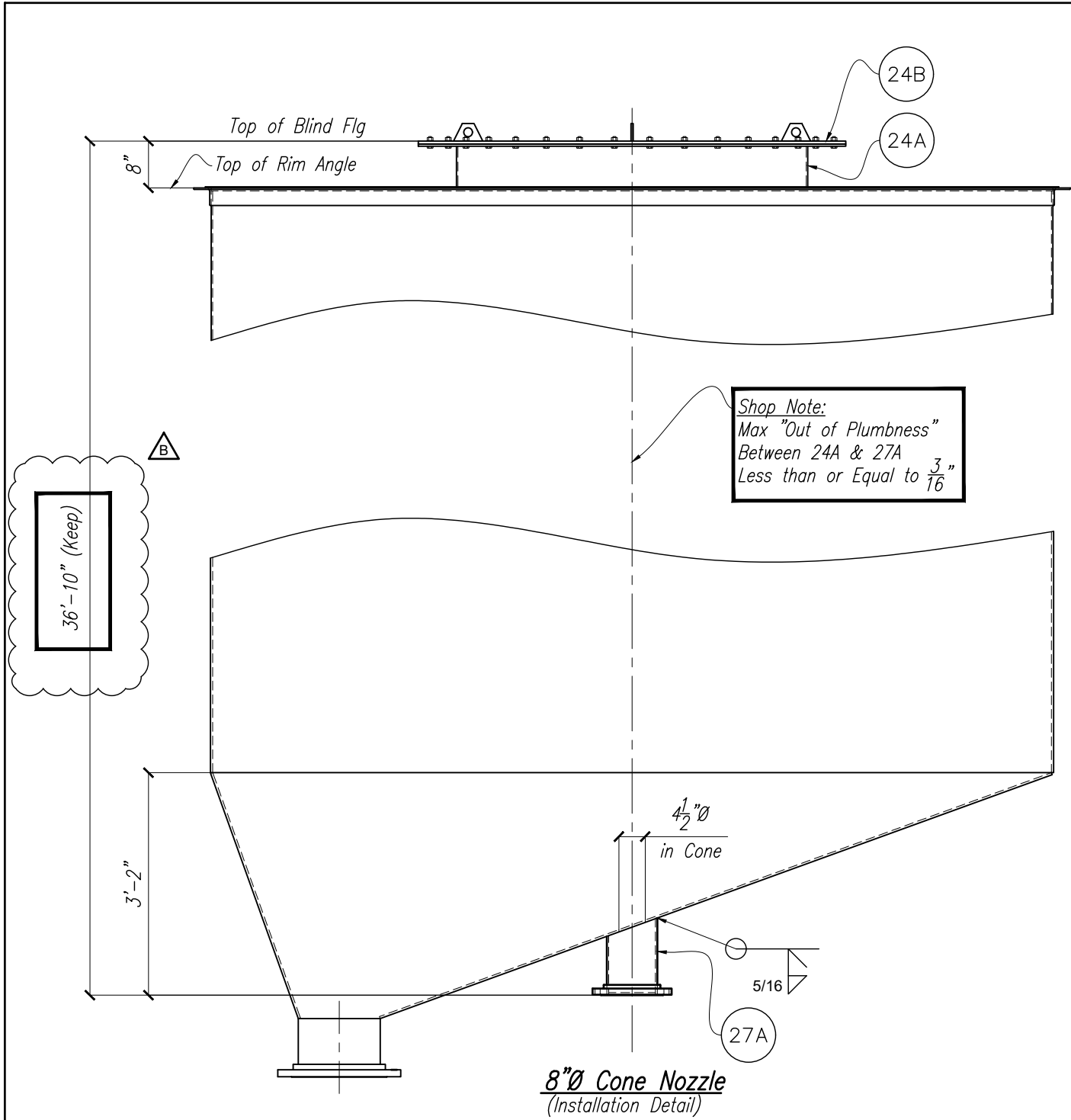
Website:
www.TBailey.com



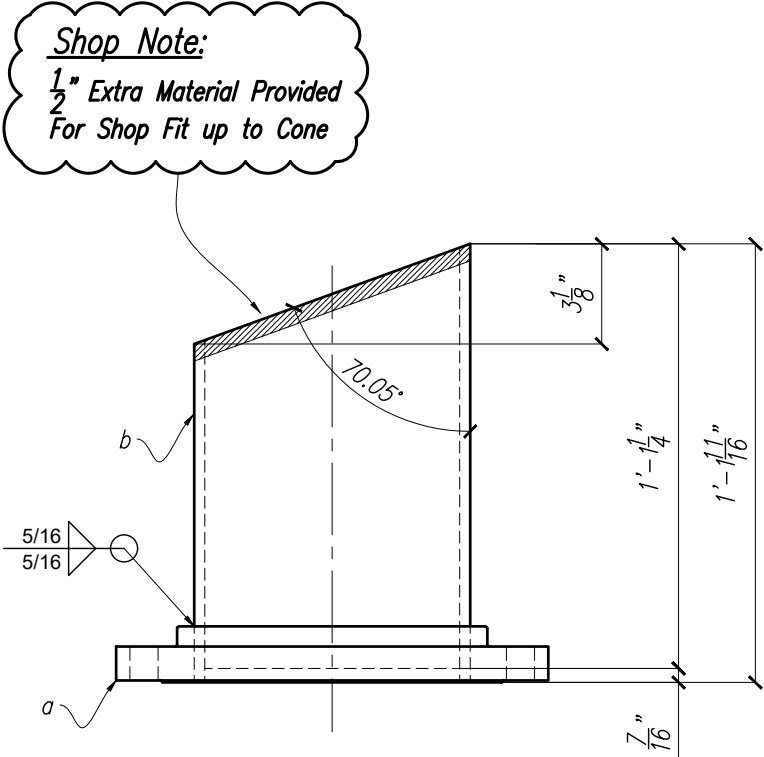
FOR APPROVAL

JOB#: 600-01-3322	SHT#: 25.1	
-------------------	------------	---





BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
2	27A		8"Ø CONE NOZZLE				60.2
2		a	8"Ø 150# RFSO Flange			A182-F316L	28.7
2		b	8"Ø Sch 40S Pipe	1'-1 1/4"	M1E	A312-TP316L	31.5



2 - 8"Ø Cone Nozzles - 27A
(1) For TK-3322
(1) For TK-3326

Tank TK-3322 & TK-3326

No Paint

Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com



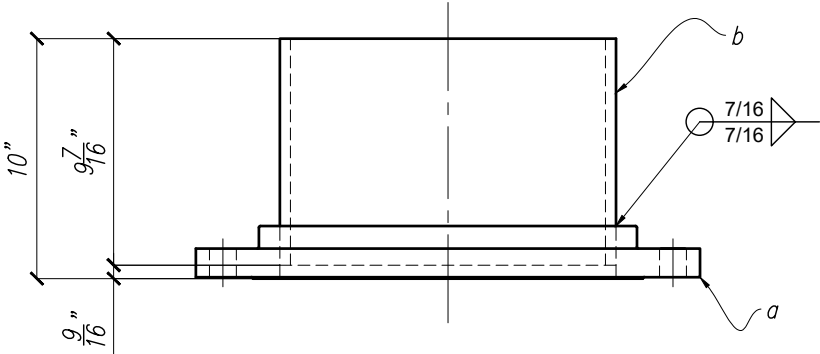
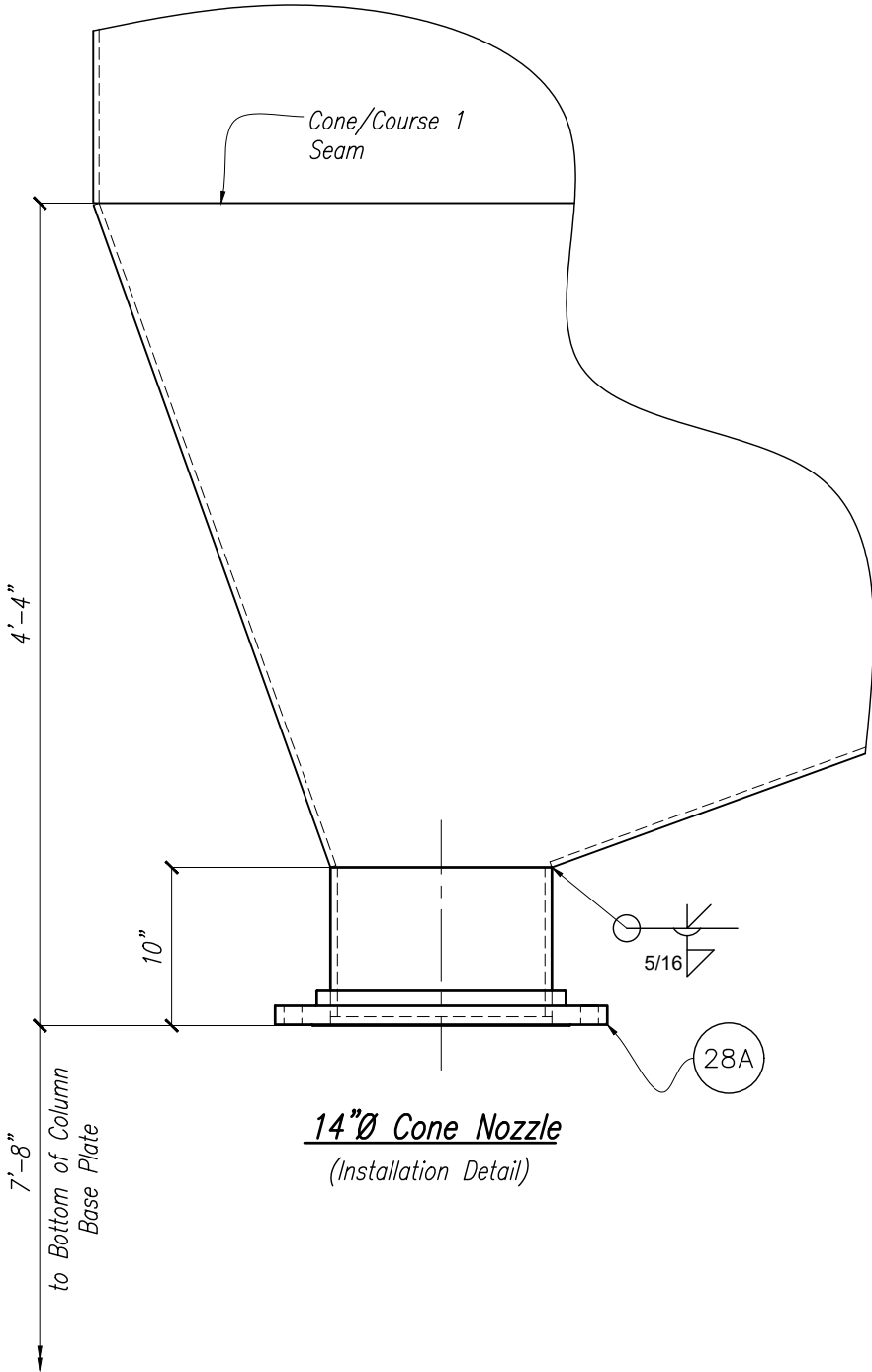
FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/08/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: 8"Ø Cone Nozzle			
JOB#: 600-01-3322		SHT#: 27.0	



BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
2	28A		14"Ø CONE NOZZLE				134.8
2		a	14"Ø 150# RFSO Flange			A182-F316L	85.0
2		b	14"Ø Sch 40S Pipe	0'-9 7/16"		A312-TP316L	49.8



2 - 14"Ø Cone Nozzles - 28A
(1) For TK-3322
(1) For TK-3326

Tank TK-3322 & TK-3326

No Paint

Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website:
FAX: (360) 293-3893 www.TBailey.com



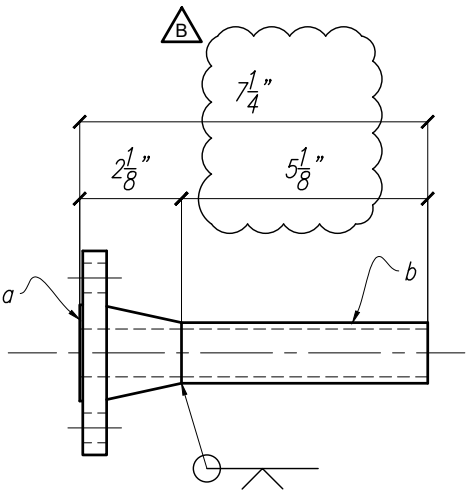
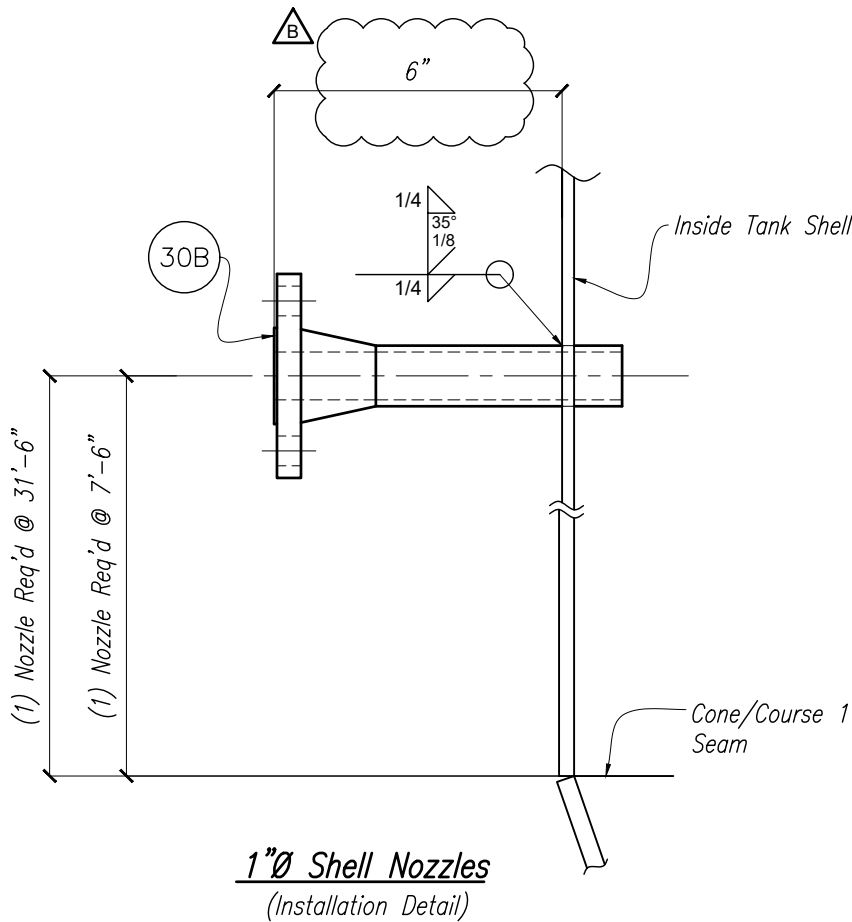
FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/08/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: 14"Ø Cone Nozzle			
JOB#: 600-01-3322		SHT#: 28.0	



BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
4	30B		1"Ø SHELL NOZZLE				3.3
4		a	1"Ø 150# RFWN Flange w/Sch 40S Bore			A182-F316L	2.6
4		b	1"Ø Sch 40S Pipe	0'-5 1/8"		A312-TP316L	0.7



4 - 1"Ø Shell Nozzles - 30B
(2) For TK-3322
(2) For TK-3326

Tank TK-3322 & TK-3326

No Paint

Notes:

B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website:
FAX: (360) 293-3893 www.TBailey.com



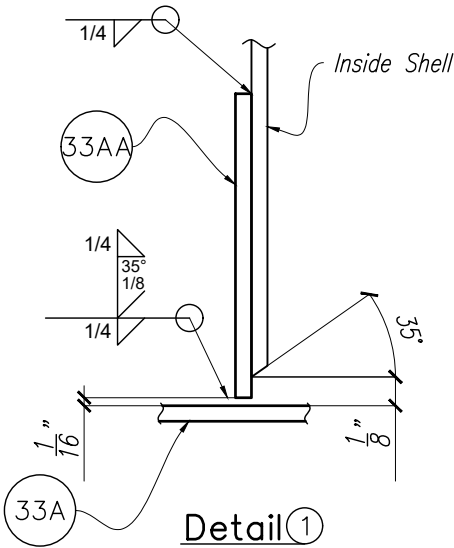
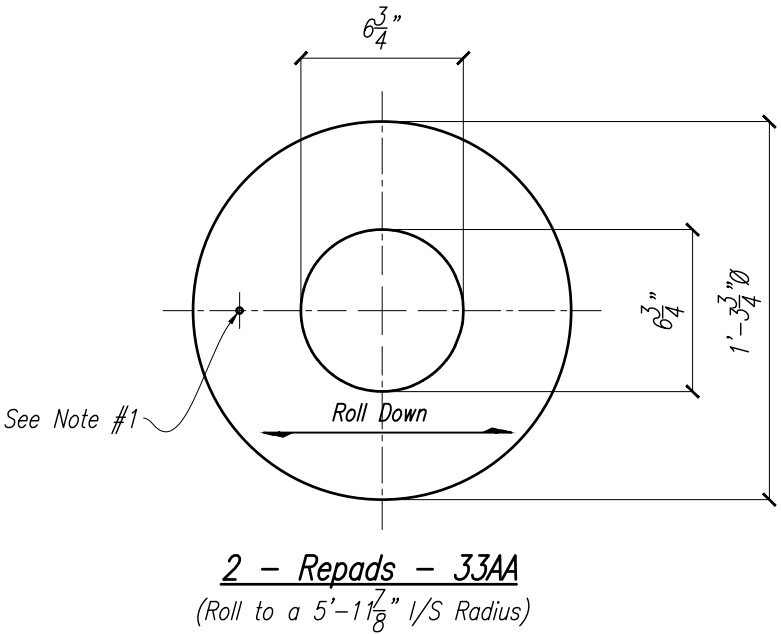
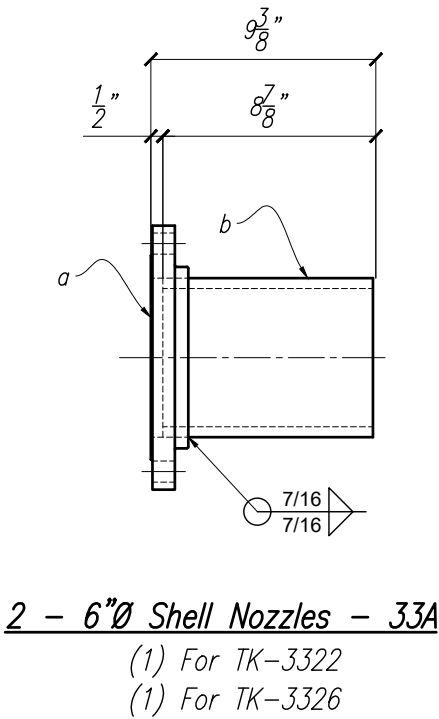
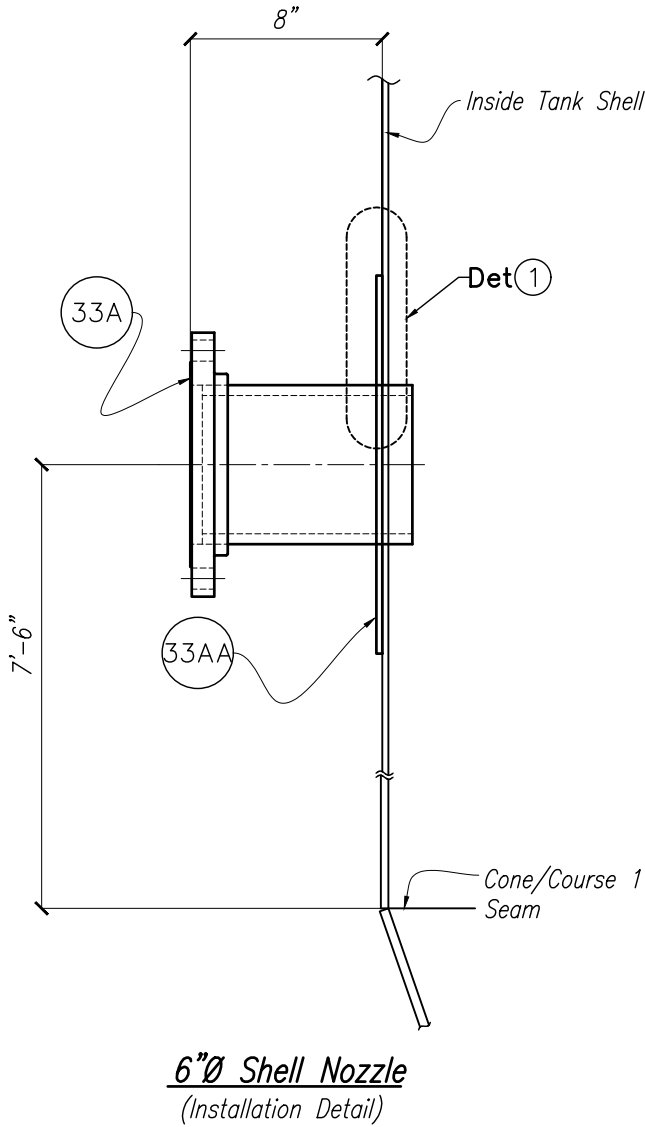
FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/22/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: 1"Ø Shell Nozzle			
JOB#: 600-01-3322		SHT#: 30.1	



BILL OF MATERIALS							
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
2	33A		6"Ø SHELL NOZZLE				31.4
2		a	6"Ø 150# RFSO Flange			A182-F316L	17.4
2		b	6"Ø Sch 40S Pipe	0'-8 7/8"		A312-TP316L	14.0
2	33AA		PL 1/4 x 1.104 sq. ft.		TEMP	A240-316L	11.5



Tank TK-3322 & TK-3326

No Paint

Notes:

1. Install 1/4"Ø NPT in repad & deburr for testing.
Leave open to environment after testing

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

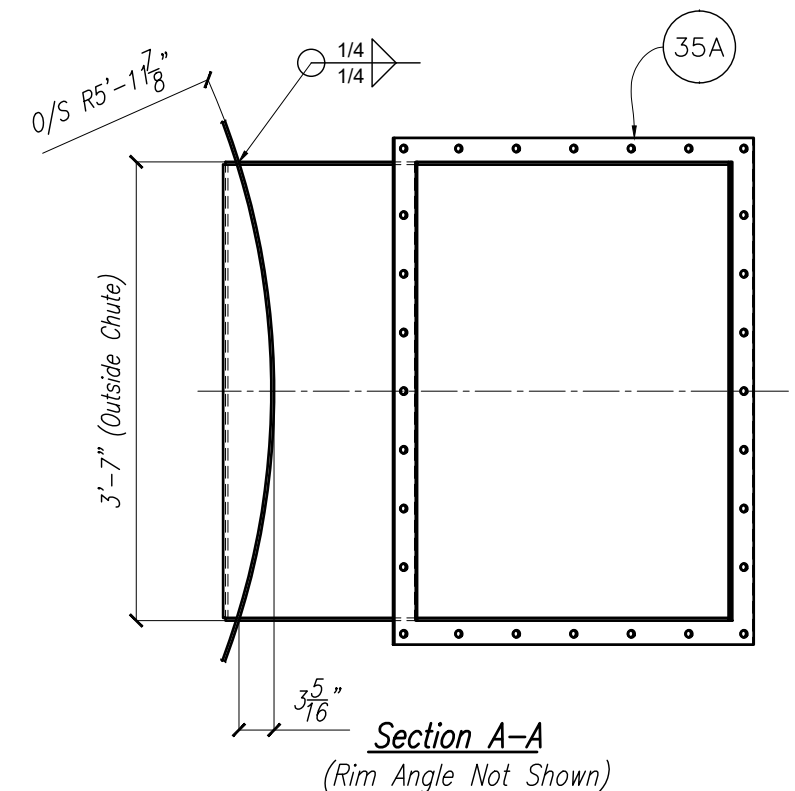
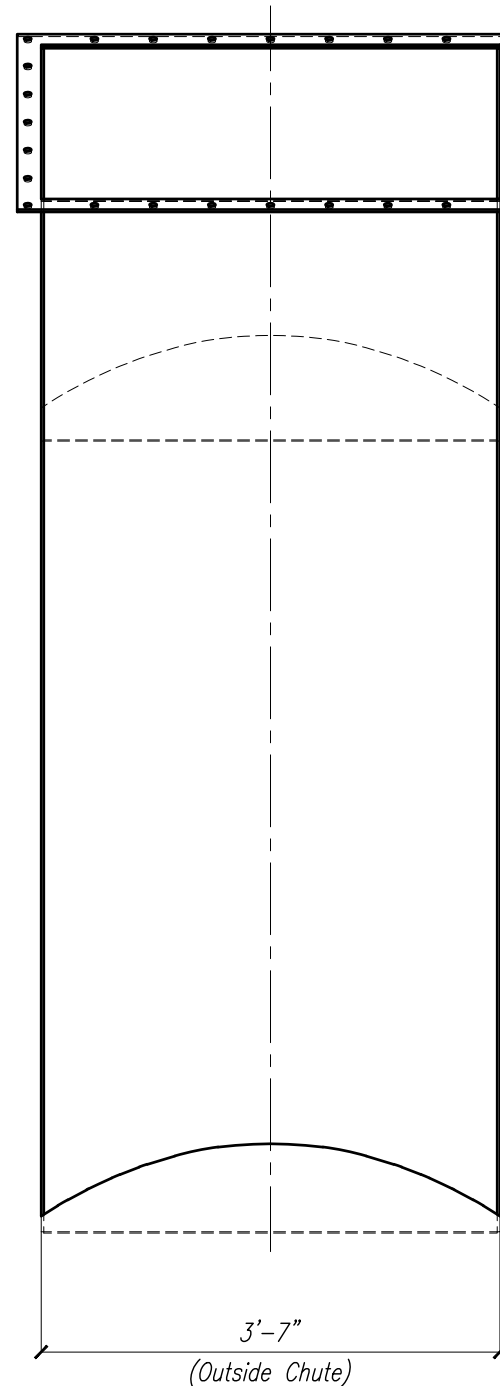
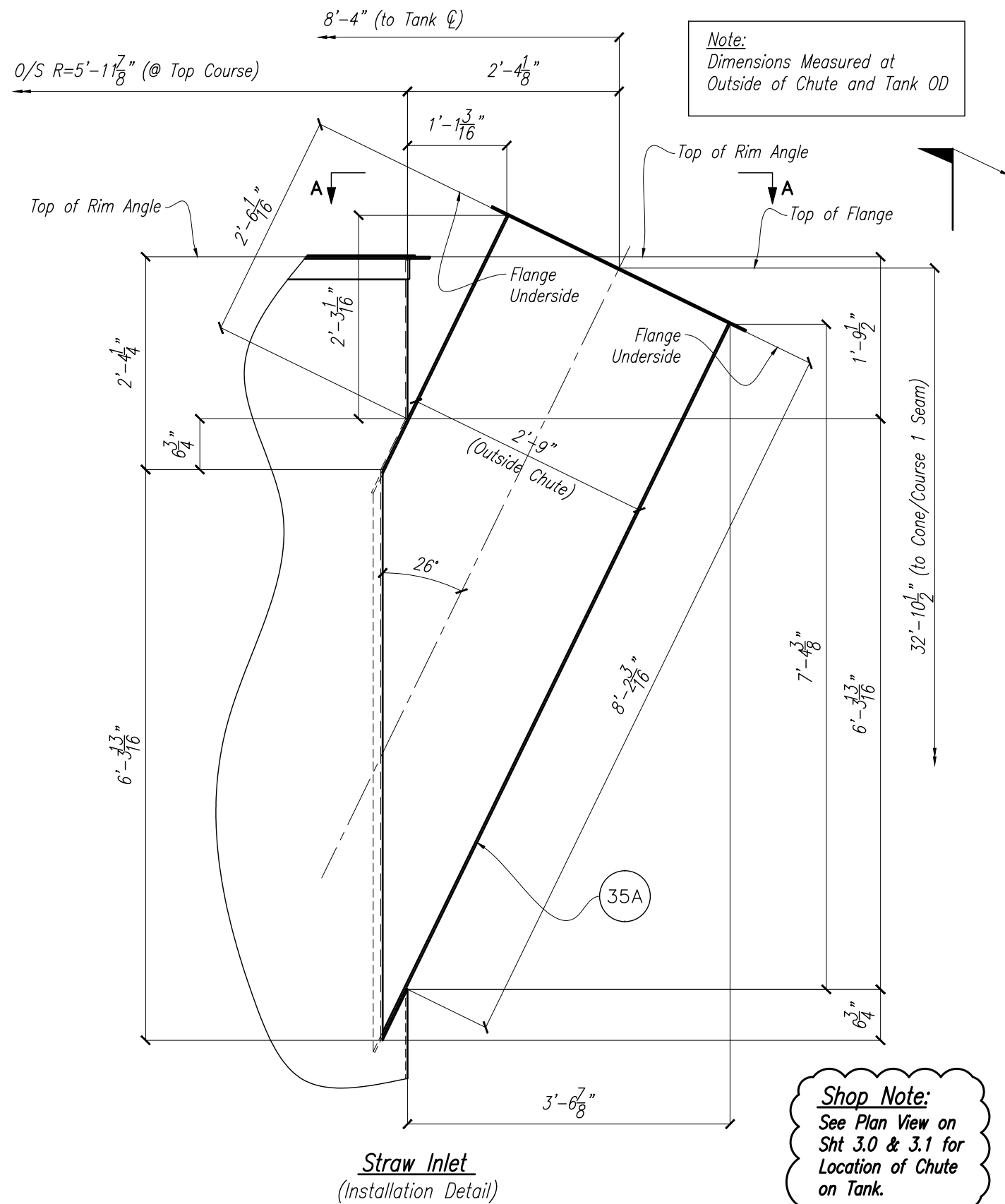


FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/23/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: 6"Ø Shell Nozzle			
JOB#: 600-01-3322		SHT#: 33.0	





Tank TK-3322 & TK-3326

No Paint

Notes:

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com



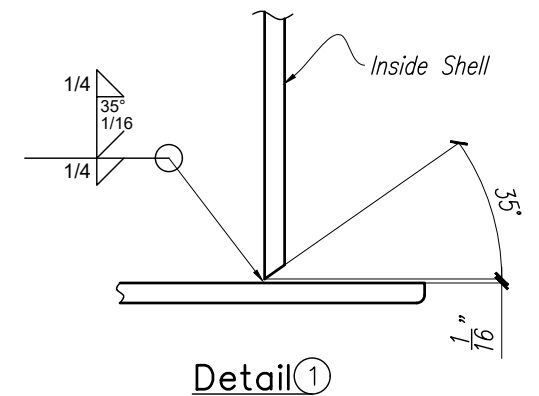
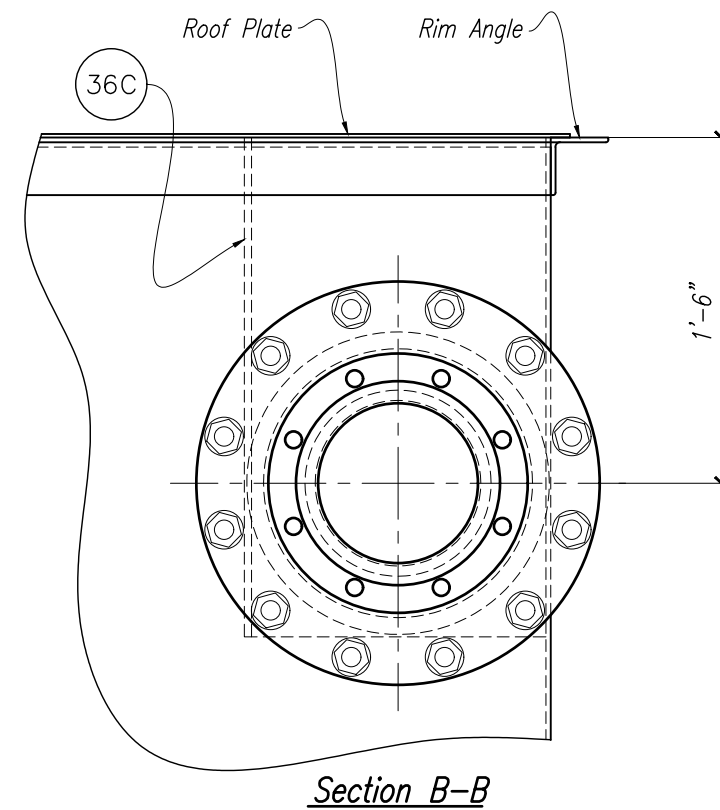
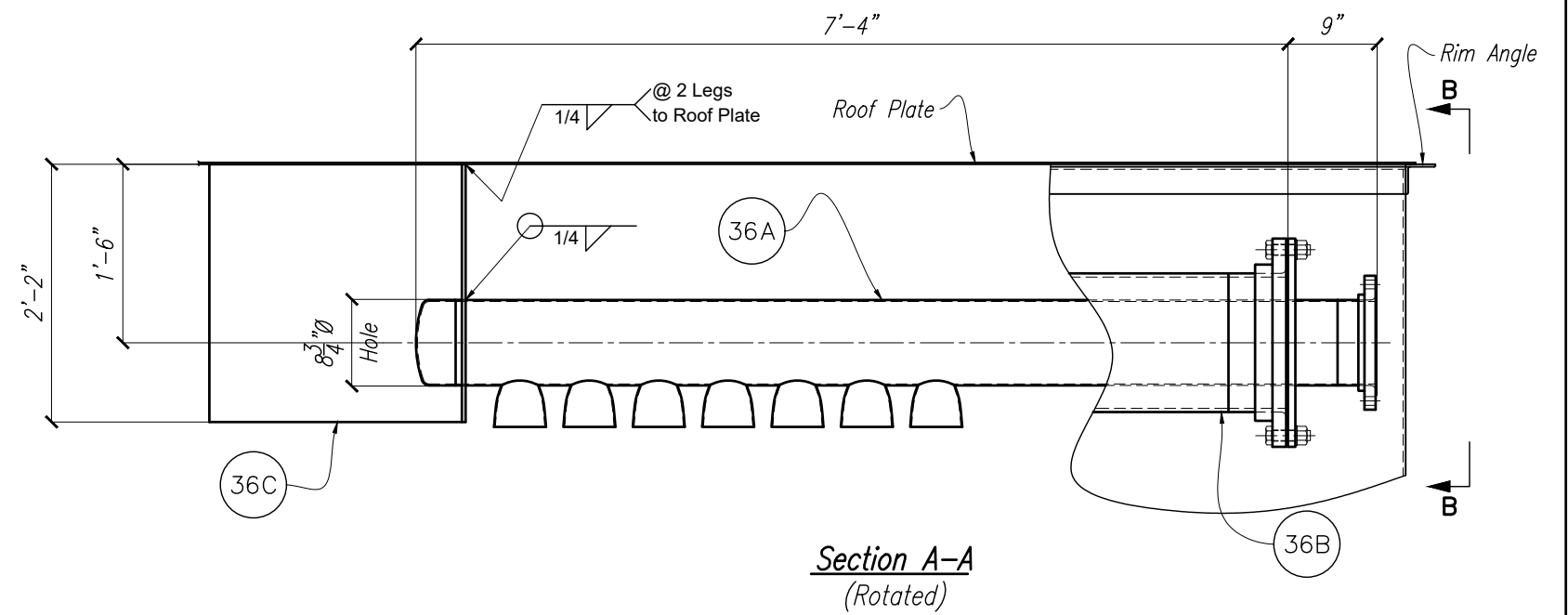
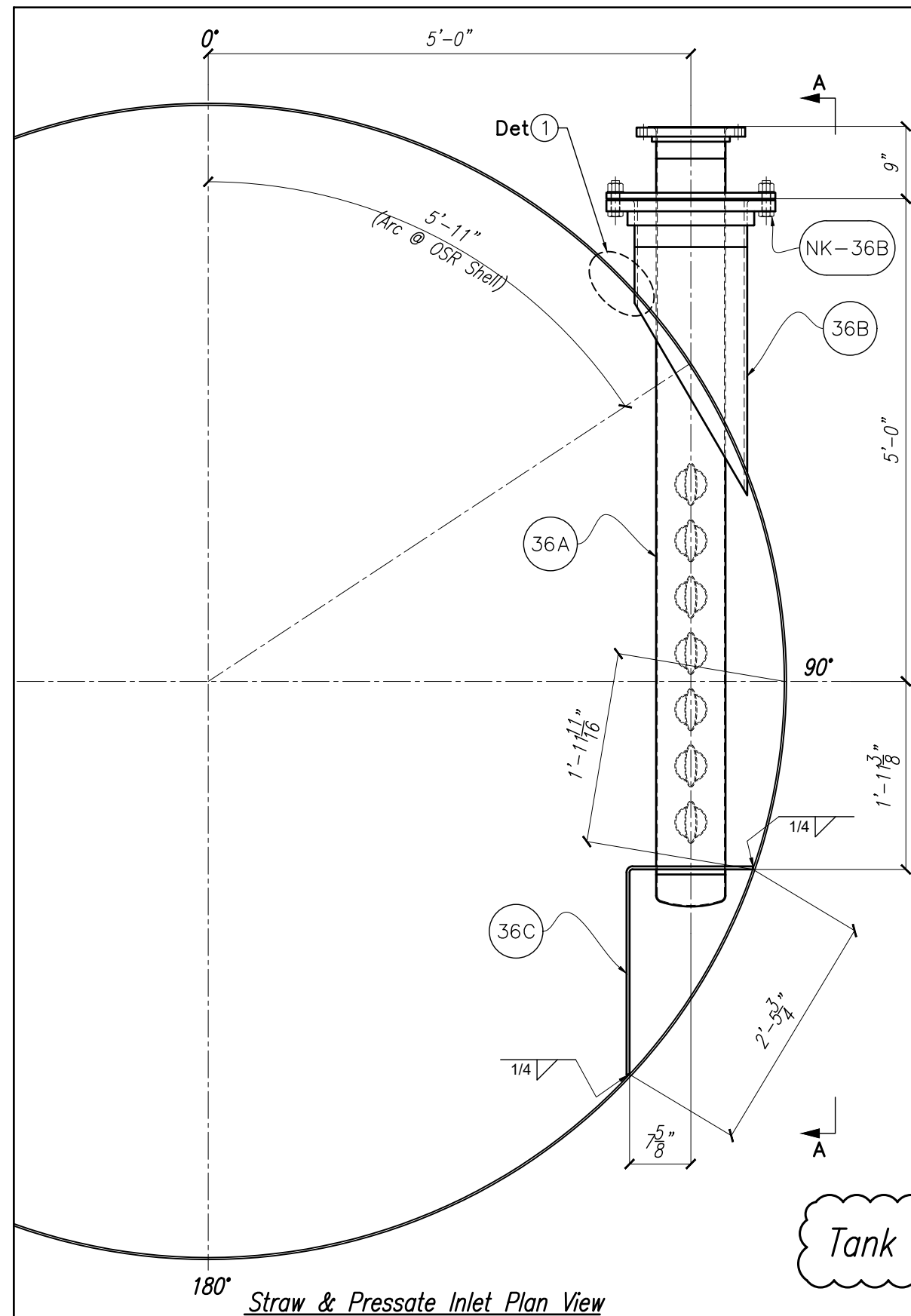
FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 05/25/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Straw Inlet			
JOB#: 600-01-3322			SHT#: 35.0

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326





No Paint

Notes:

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

**T BAILEY
INC.**

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

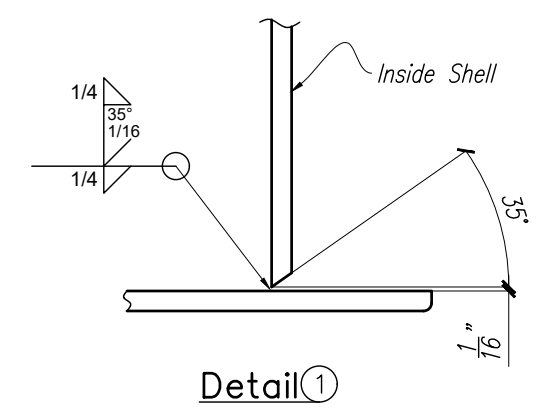
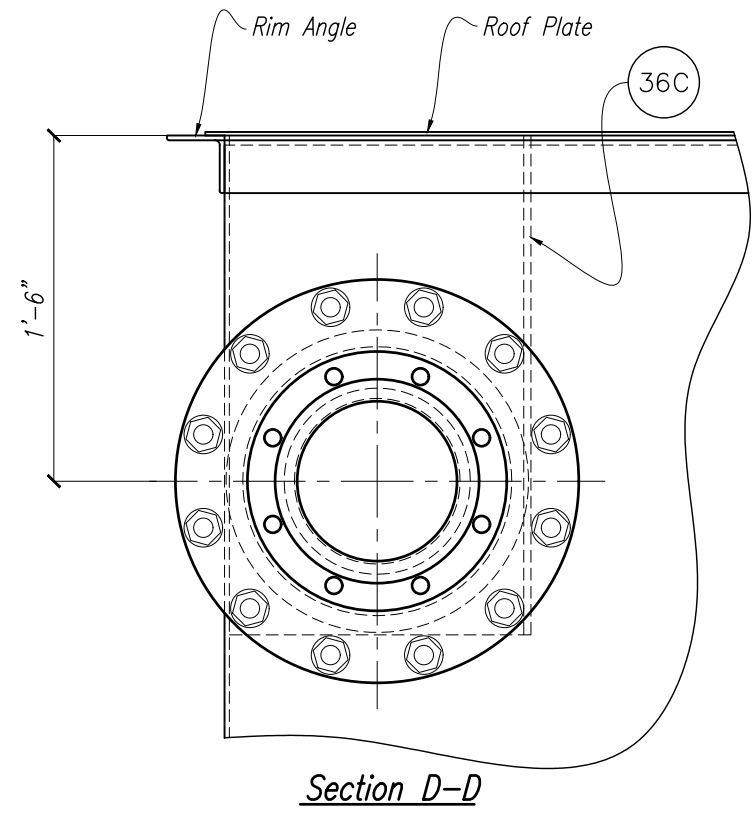
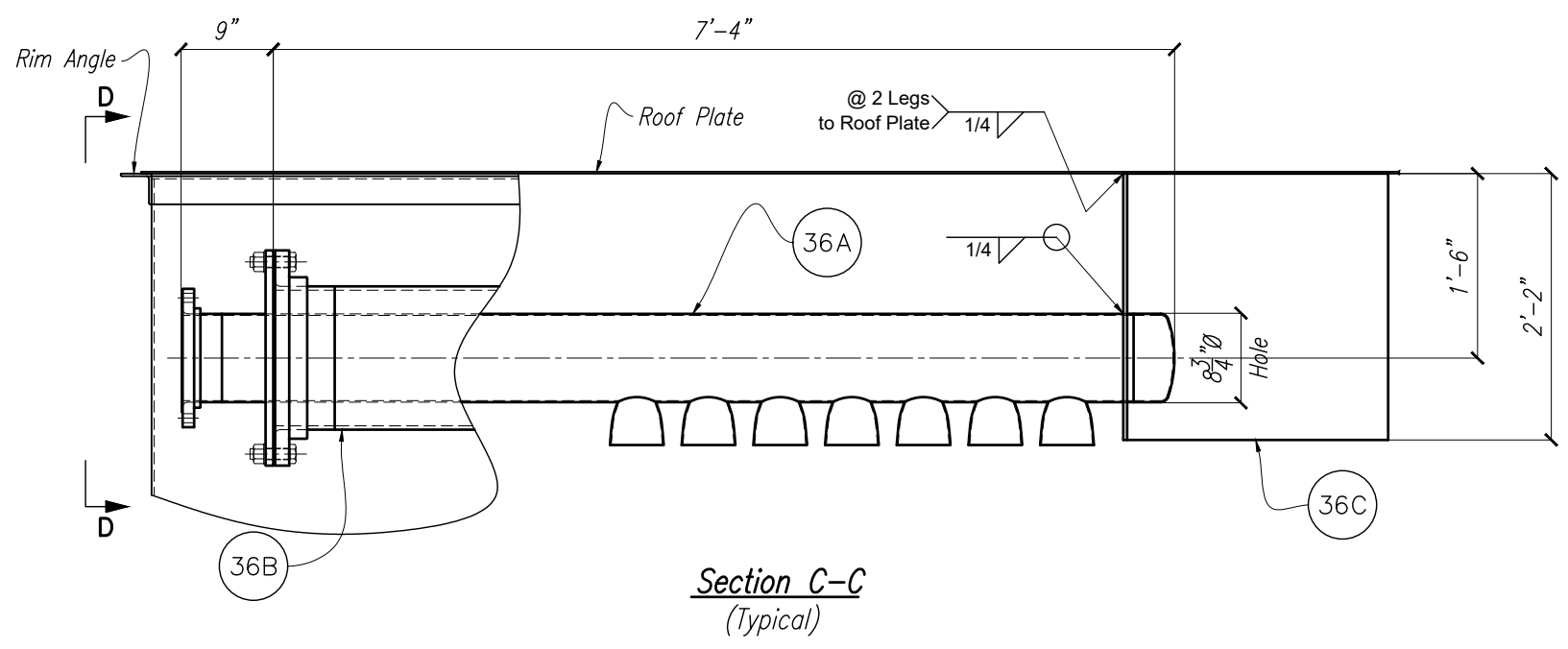
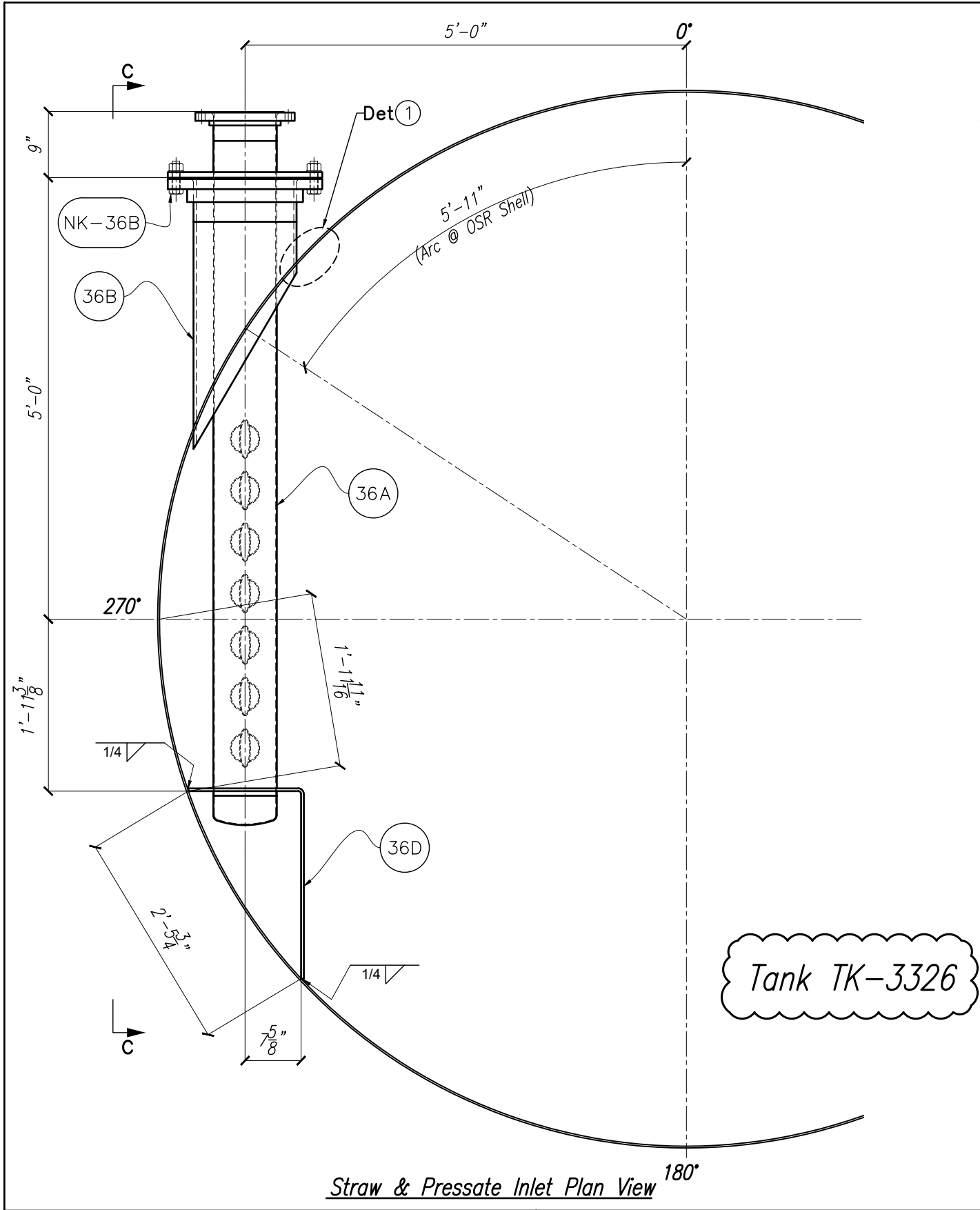
Website:
www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/04/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0" X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Straw & Pressate Inlet For TK-3322			
JOB#: 600-01-3322		SHT#: 36.0	



No Paint

Notes:

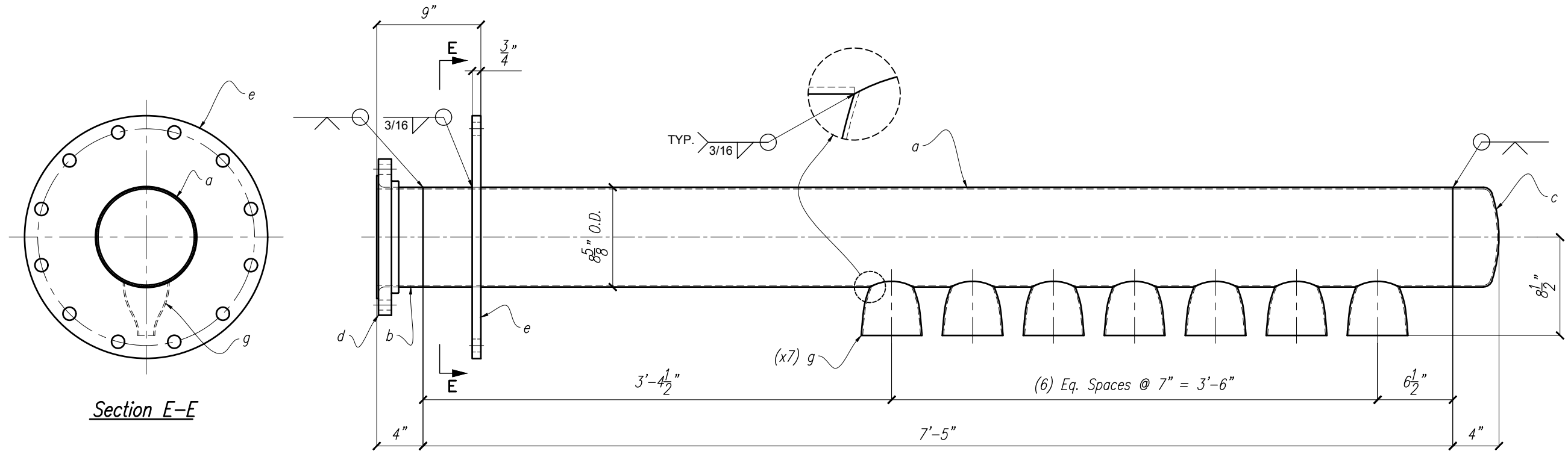
PULPING LINE MIX TANK A 330-TK-3322 TANK B 330-TK-3326			
REV.	BY	DATE	DESCRIPTION
A	PJ	06/11/18	For Approval
REVISIONS			

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website:
FAX: (360) 293-3893 www.TBailey.com

FOR APPROVAL

DRAWN BY: PJ	DATE: 06/04/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Straw & Pressate Inlet For TK-3326			
JOB#: 600-01-3322		SHT#: 36.1	

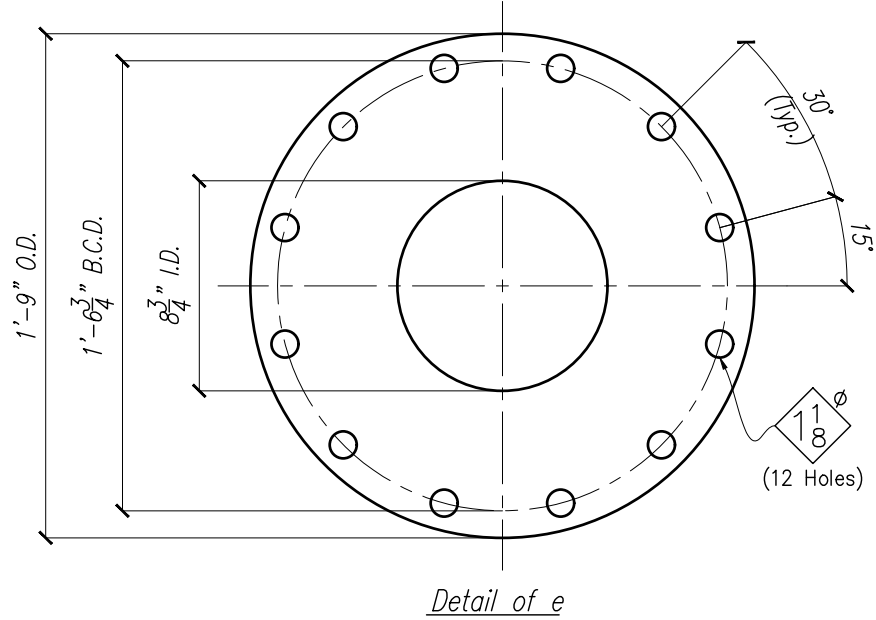
12'-0"ø X 36'-10"H



Section E-E

2 - Inlet Spray Nozzle Headers - 36A

- (1) For TK-3322
- (1) For TK-3326



Detail of e

Tank TK-3322 & TK-3326

No Paint

Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website:
FAX: (360) 293-3893 www.TBailey.com

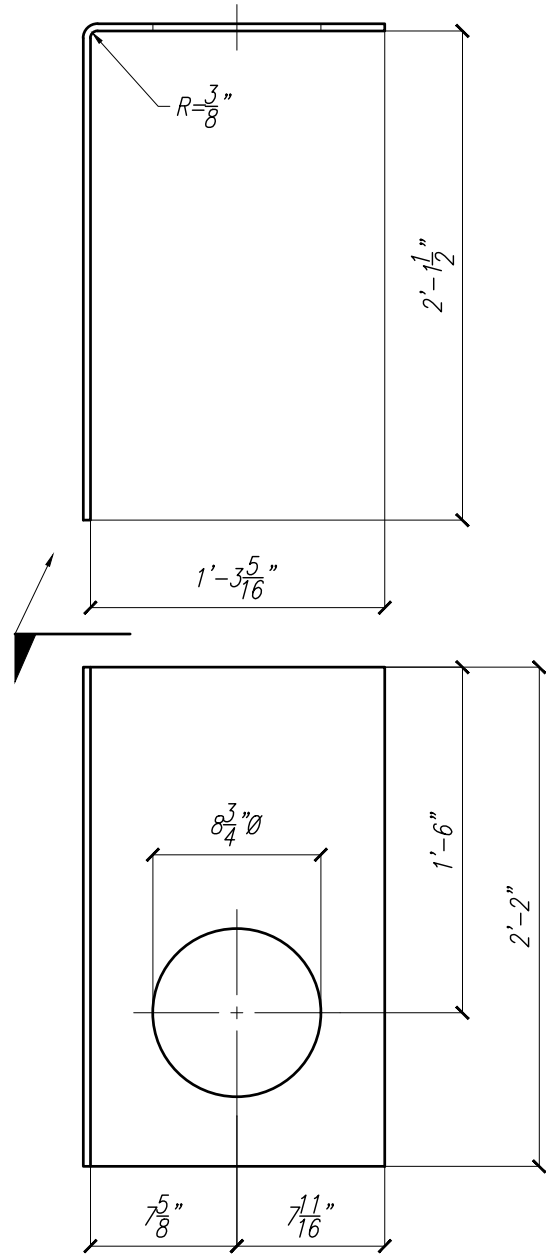


FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

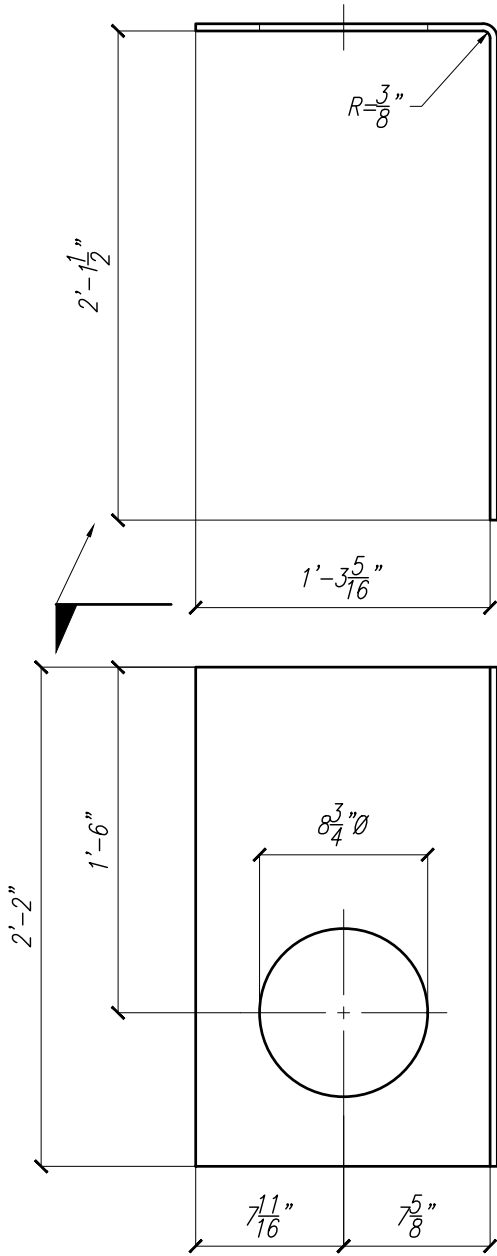
DRAWN BY: PJ	DATE: 06/04/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Straw & Pressate Inlet Details			
JOB#: 600-01-3322		SHT#: 36.2	





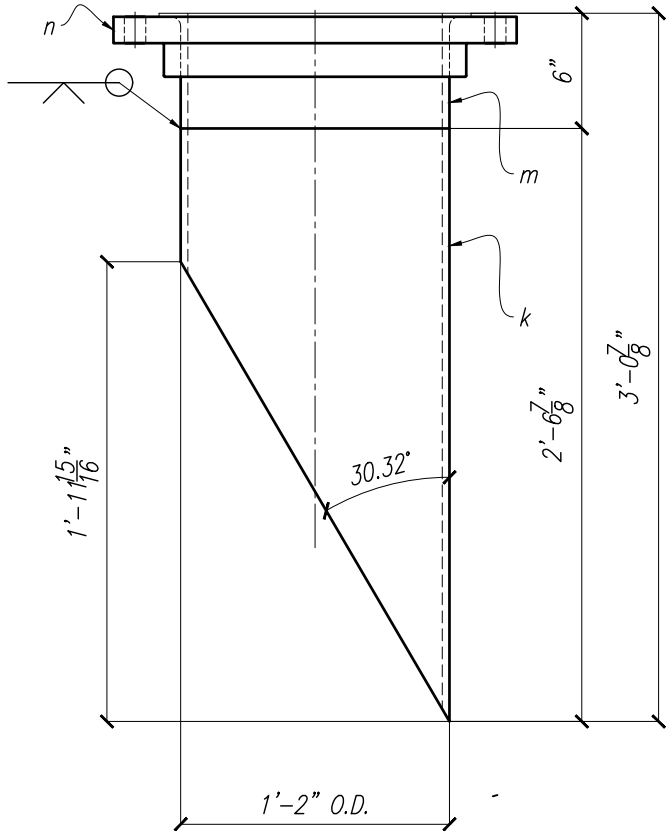
One – Support Bracket – 36C

Tank TK-3322



One – Support Bracket – 36D

Tank TK-3326



2 – Inlet Sleeves – 36B

(1) For TK-3322
(1) For TK-3326

Tank TK-3322 & TK-3326

No Paint

BILL OF MATERIALS

QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
2	36A		SPRAY NOZZLE HEADER				202.1
2		a	8"Ø Sch 10S Pipe	7'-5"		A312-TP316L	99.4
2		b	8"Ø Sch 10S MSS STUB END		4" LG	A182-F316L	
2		c	8"Ø STD Pipe Cap			A182-F316L	12.0
2		d	8"Ø 150# Lap Joint Flange			A182-F316L	28.7
2		e	PL 3/4 x 1.987 sq. ft.		SEE DETAIL	A240-316L	62.0
14		g	SPRAYER			SS316	
2	36B		INLET SLEEVE				241.9
2		k	14"Ø Sch 40S Pipe	2'-6 7/8"	M1E	A312-TP316L	163.0
2		m	14"Ø Sch 40S MSS SUB END		6" LG	A182-F316L	
2		n	14"Ø 150# Lap Joint Flange			A182-F316L	78.8
1	36C		PL 3/8 x 26	3'-5 3/16"	TEMP W/HOLE, FORM	A240-316L	114.8
1	36D		PL 3/8 x 26	3'-5 3/16"	TEMP W/HOLE, FORM	A240-316L	114.8
2	NK-36B		NOZZLE KIT				16.5
2		p	1/8" GASKET		[2]		
24		q	Bolt 1"Ø x 4"		W/N&W	SS316	1.4

[1] ROLL TO A 5'-11 7/8" INSIDE RADIUS
[2] GARLOCK GRAPH LOCK 3125SS TO MATCH 14"Ø RFSO FLANGE

Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

A	PJ	06/11/18	For Approval	
REV.	BY	DATE	DESCRIPTION	
			REVISIONS	

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website:
FAX: (360) 293-3893 www.TBailey.com

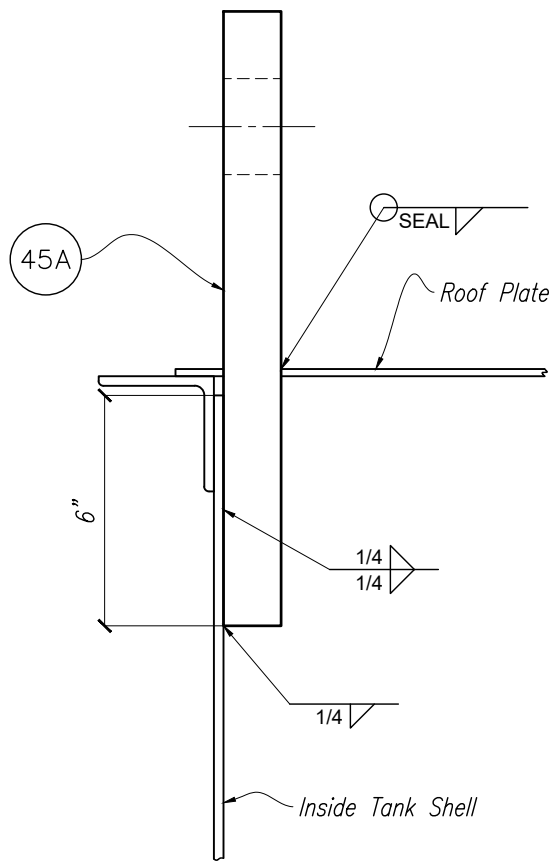


FOR APPROVAL

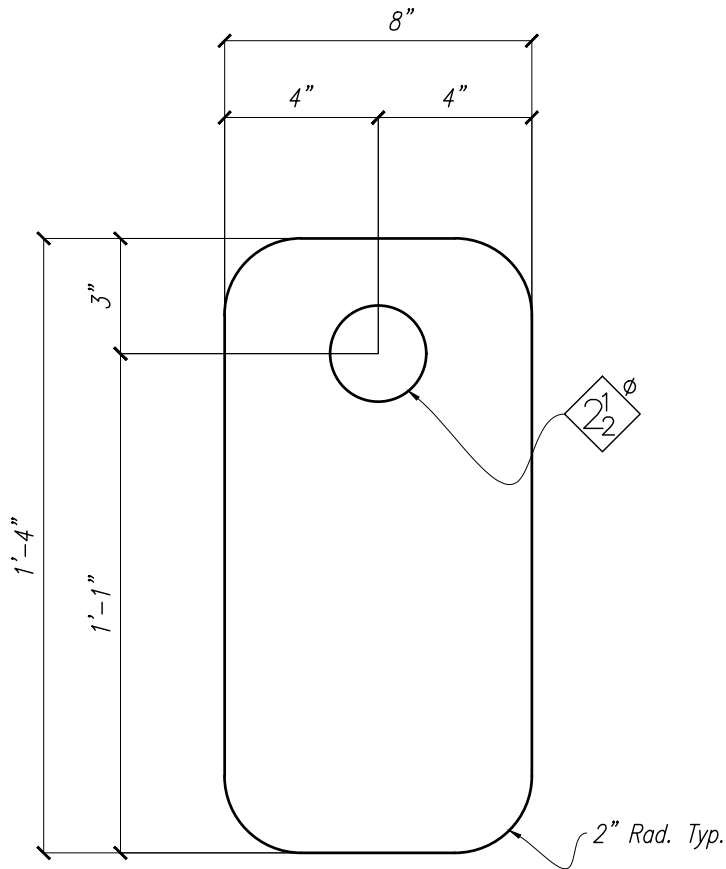
The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.			
DRAWN BY: PJ	DATE: 06/04/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC		12'-0"Ø X 36'-10"H	
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Straw & Pressate Inlet Details			
JOB#: 600-01-3322		SHT#: 36.3	



BILL OF MATERIALS						
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	WEIGHT U.S. lbs
4	45A		PL 1 1/2 x 8	1'-4"	W/HOLE	A240-316L 55.5



Lifting Lug
(Installation Detail)



4 - Lifting Lugs - 45A
(2) For TK-3322
(2) For TK-3326

Tank TK-3322 & TK-3326

No Paint

Notes:

A	PJ	06/11/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

T
BAILEY
INC.

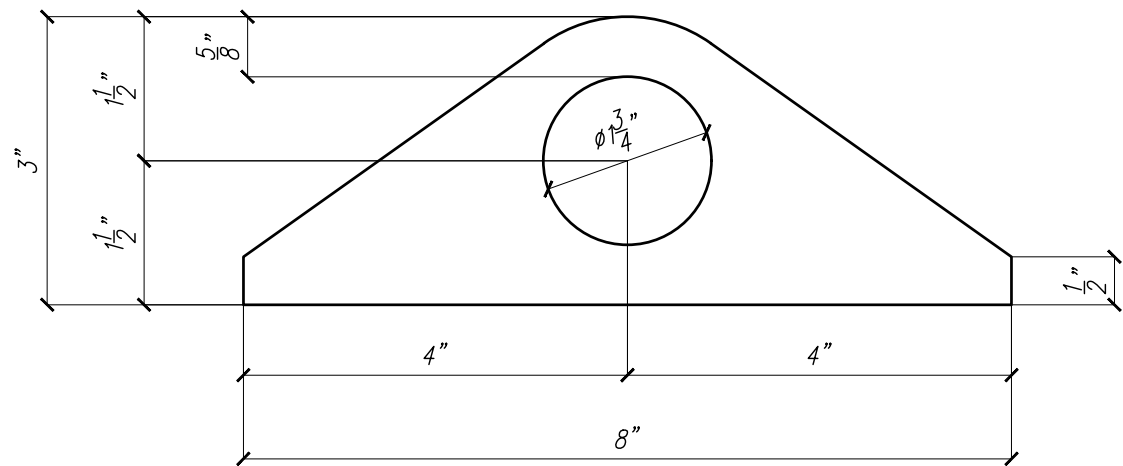
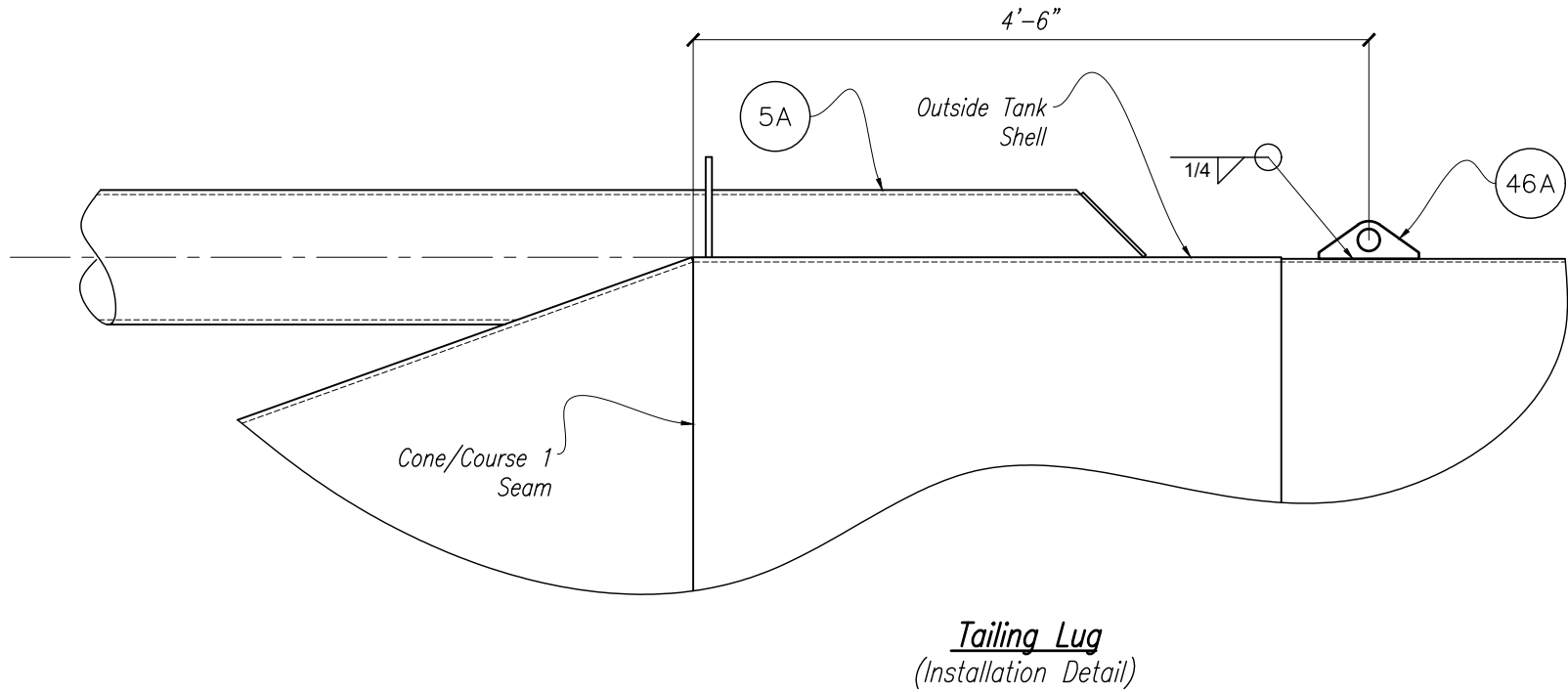
12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682 Website:
FAX: (360) 293-3893 www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.			
DRAWN BY: PJ	DATE: 06/07/18	CHK'D BY: TM	DATE: --/--/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Lifting Lugs			
JOB#: 600-01-3322		SHT#: 45.0	

BILL OF MATERIALS						
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	WEIGHT U.S. lbs
2	46A		PL 1 1/2 x 0.886 sq. ft.		TEMP W/HOLE	A240-316 55.3



2 - Tailing Lugs - 46A
(1) For TK-3322
(1) For TK-3326

Tank TK-3322 & TK-3326

No Paint

Notes:

Notes:						T BAILEY INC. 12441 Bartholomew Rd. Anacortes, WA 98221 PH: (360) 293-0682 FAX: (360) 293-3893 CERTIFIED FABRICATOR Website: www.TBailey.com FOR APPROVAL		The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited. DRAWN BY: PJ DATE: 07/05/18 CHK'D BY: TM DATE: --/-- CUSTOMER: Columbia Pulp, LLC PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050 TITLE: Tailing Lug JOB#: 600-01-3322 SHT#: 46.0 A	
								</	

Dim to 0° Mark Along OSR Shell
(See Tank Plan View on Sht. 3.0)

48A 48B
48C 48D

Dim to Bottom of
Column Base Plate
(See Appearance Schedule
on Sht. 3.0)

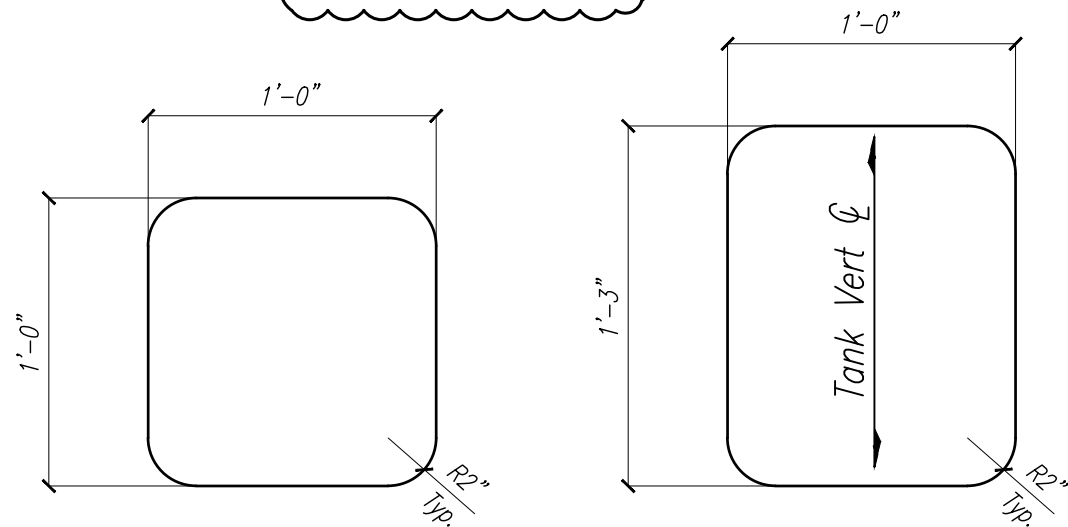
TYP.

3/16

Outside
Tank Shell

Shell Support Repad
(Installation Detail)

Tank TK-3322



8 - Support Repads - 48A

(4) For TK-3322
(4) For TK-3326

8 - Support Repads - 48B

(4) For TK-3322
(4) For TK-3326

Tank TK-3322 & TK-3326

Dim to 0° Mark Along OSR Shell
(See Tank Plan View on Sht. 3.1)

48A 48B
48C 48D

Dim to Bottom of
Column Base Plate
(See Appearance Schedule
on Sht. 3.1)

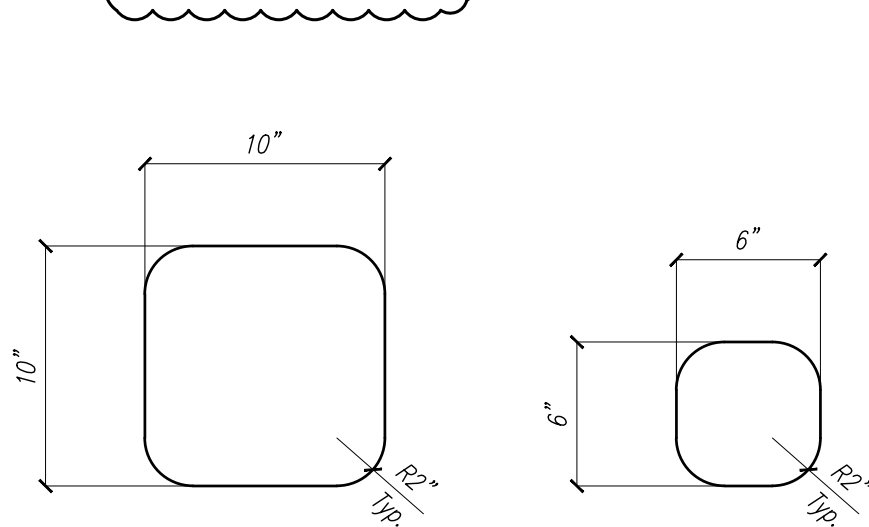
TYP.

3/16

Outside
Tank Shell

Shell Support Repad
(Installation Detail)

Tank TK-3326



8 - Support Repads - 48C

(4) For TK-3322
(4) For TK-3326

2 - Support Repads - 48E

(1) For TK-3322
(1) For TK-3326

B

No Paint

BILL OF MATERIALS

QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL	WEIGHT U.S. lbs
8	48A		PL 1/4 x 12	1'-0"		A240-316L	10.4
8	48B		PL 1/4 x 12	1'-3"		A240-316L	13.0
8	48C		PL 1/4 x 10	0'-10"		A240-316L	7.2
6	48D		PL 1/4 x 6	0'-6"		A240-316L	2.6
2	48E		PL 1/4 x 10	0'-10"		A240-316L	7.2

Notes:

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	06/11/18	For Approval
REVISIONS			

T BAILEY
INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

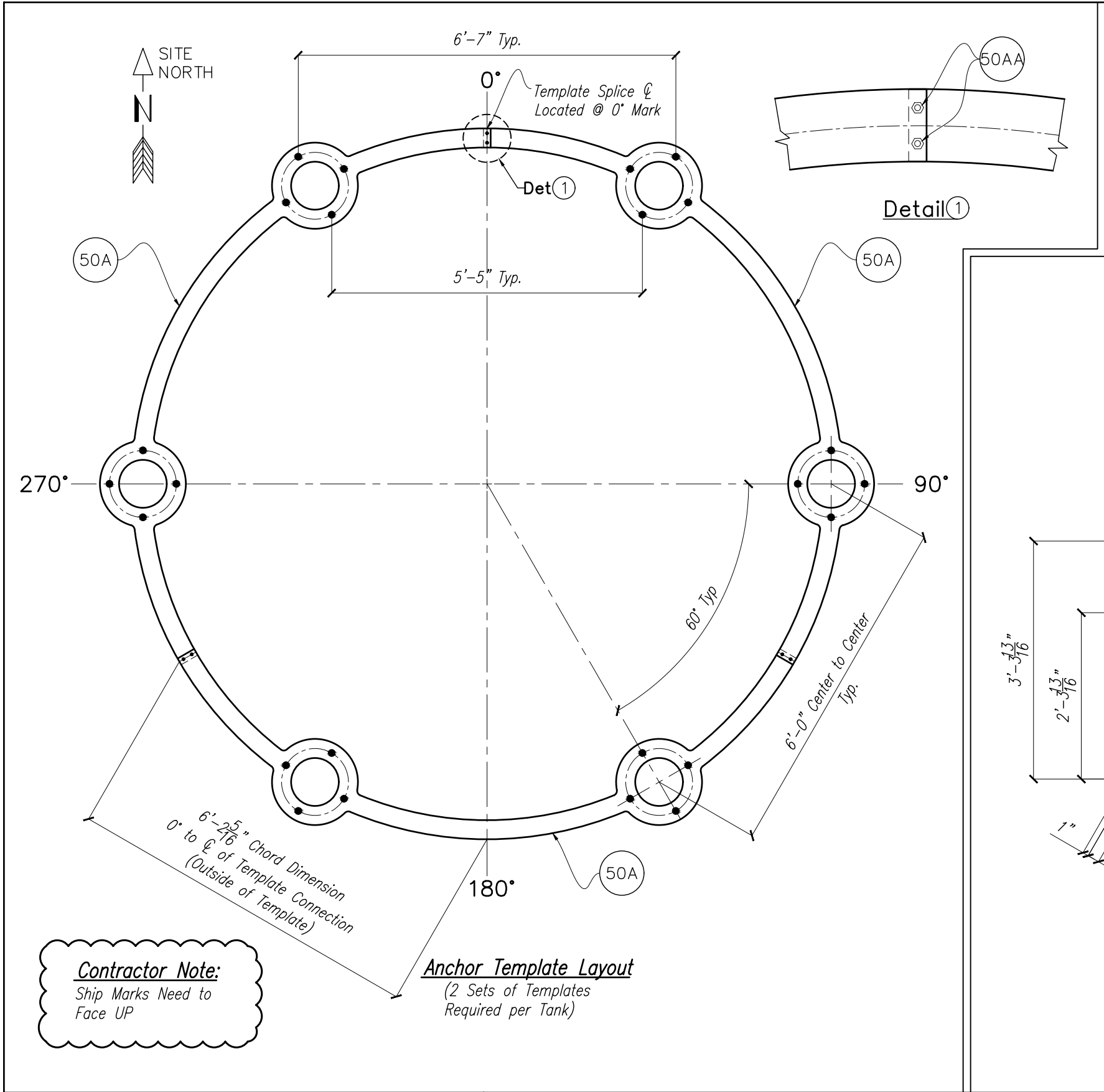


FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

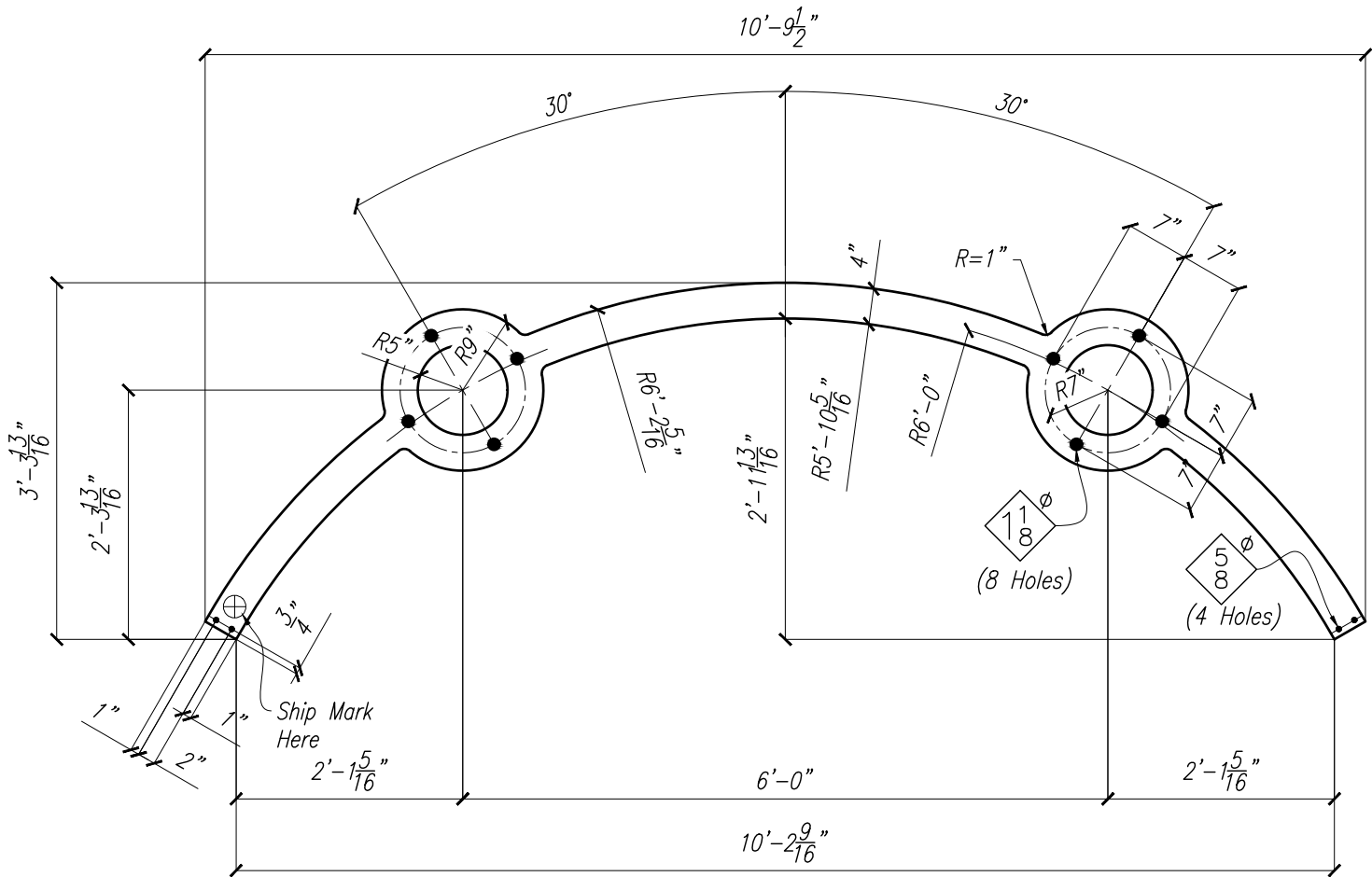
DRAWN BY: PJ	DATE: 06/06/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Support Repads			
JOB#: 600-01-3322		SHT#: 48.0	

B



BILL OF MATERIALS						
QTY	SHIP MARK	PART MARK	DESCRIPTION	LENGTH	REMARKS	MATERIAL
12	50A		PL 1/4 x 5.706 sq. ft.		TEMP W/HOLES	A36
27	50AA		Bolt 1/2"ø x 1 1/4"		W/NUT [1]	A307

[1] BOLT QUANTITY INCLUDES 10% EXTRA



12-Anchor Templates-50A
(6) For TK-3322
(6) For TK-3326

Notes:

REV.	BY	DATE	DESCRIPTION
0	PJ	04/13/18	Released For Fabrication
A	PJ	04/05/18	For Approval
REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

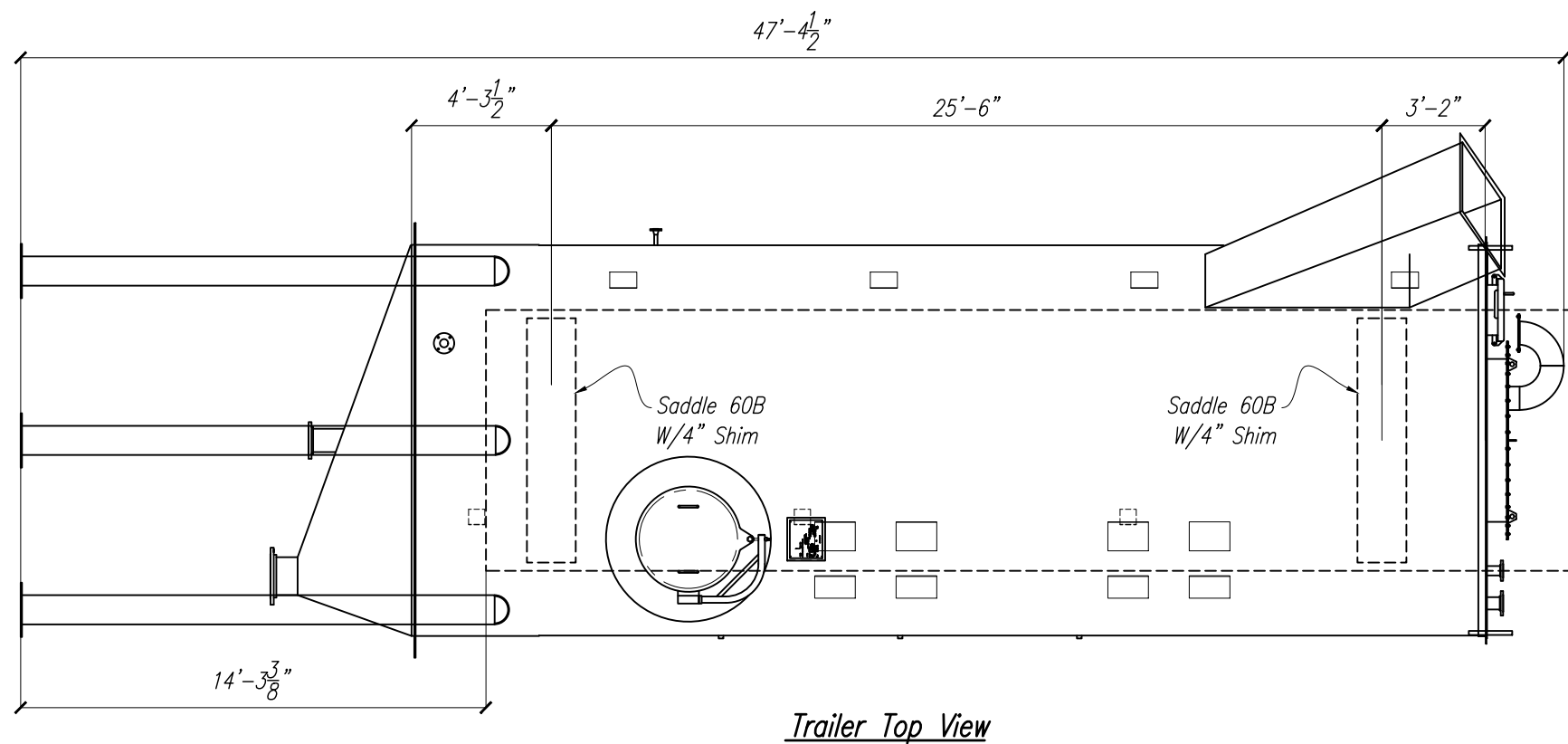
Website:
www.TBailey.com



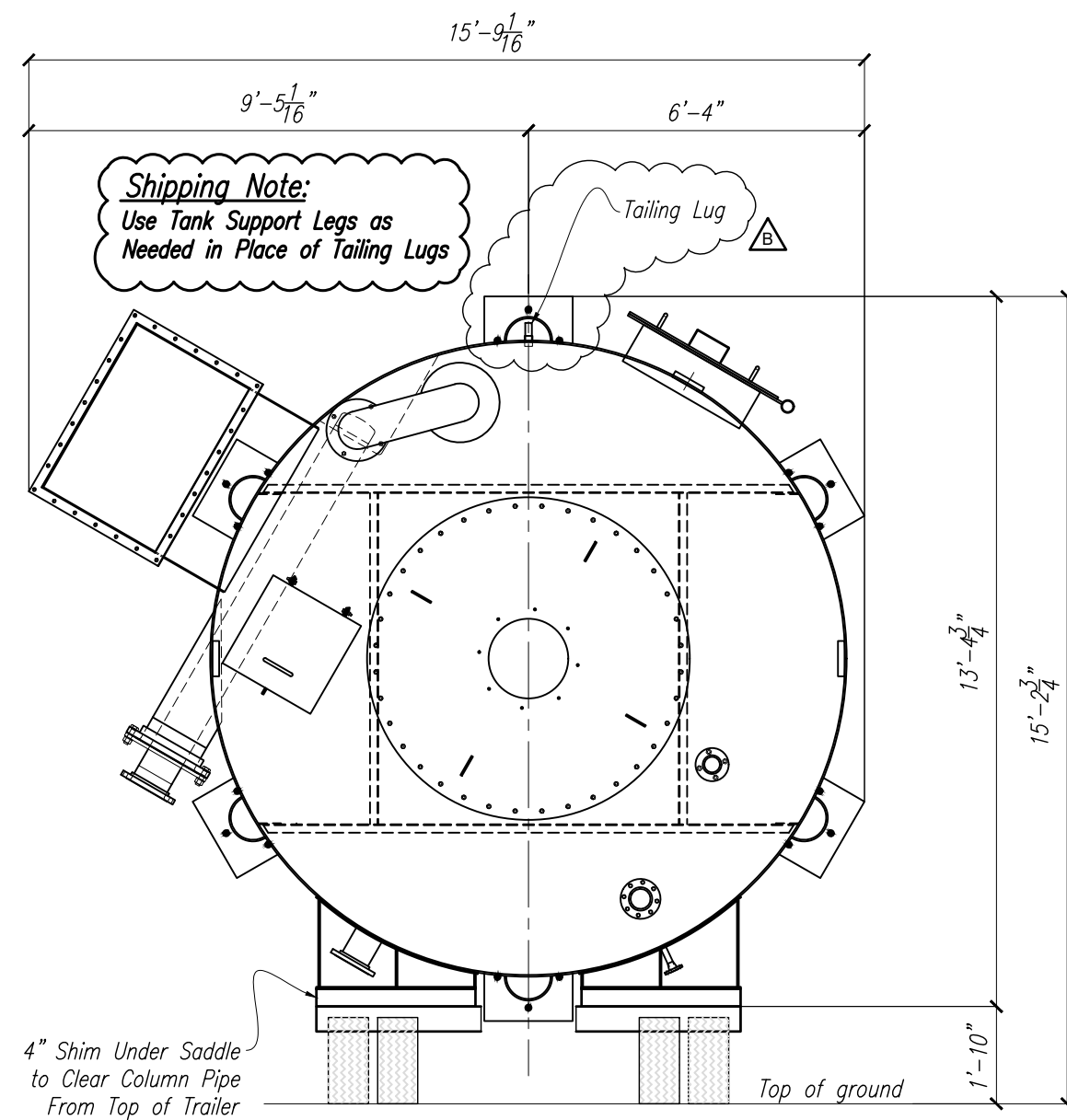
FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 04/03/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Anchor Templates Layout			
JOB#: 600-01-3322		SHT#: 50.0	0



Items to be Shipped Loose:
None



Tank TK-3322

Notes:

B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	04/05/18	For Approval
REV.	BY	DATE	DESCRIPTION
REVISIONS			

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

TANK B 330-TK-3326

TBAILEY
INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

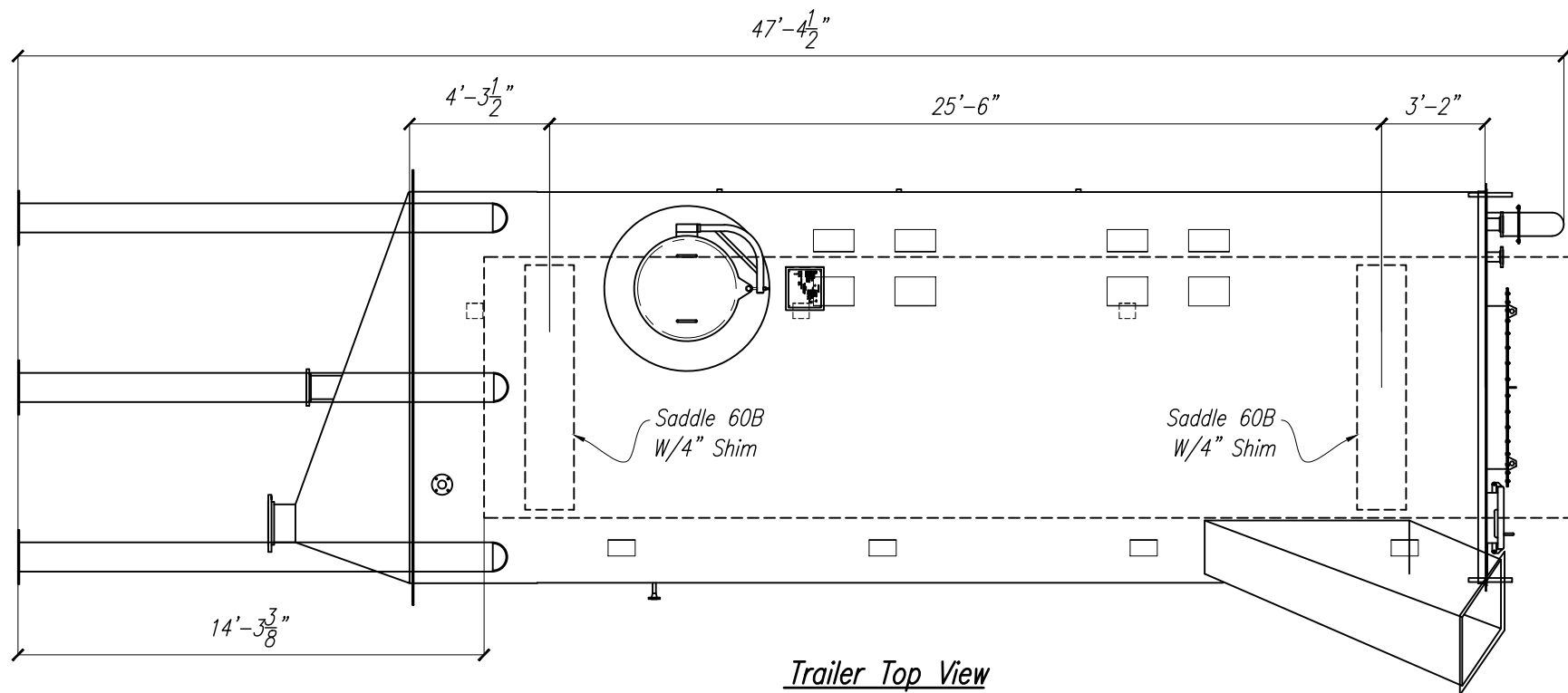
Website:
www.TBailey.com



FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

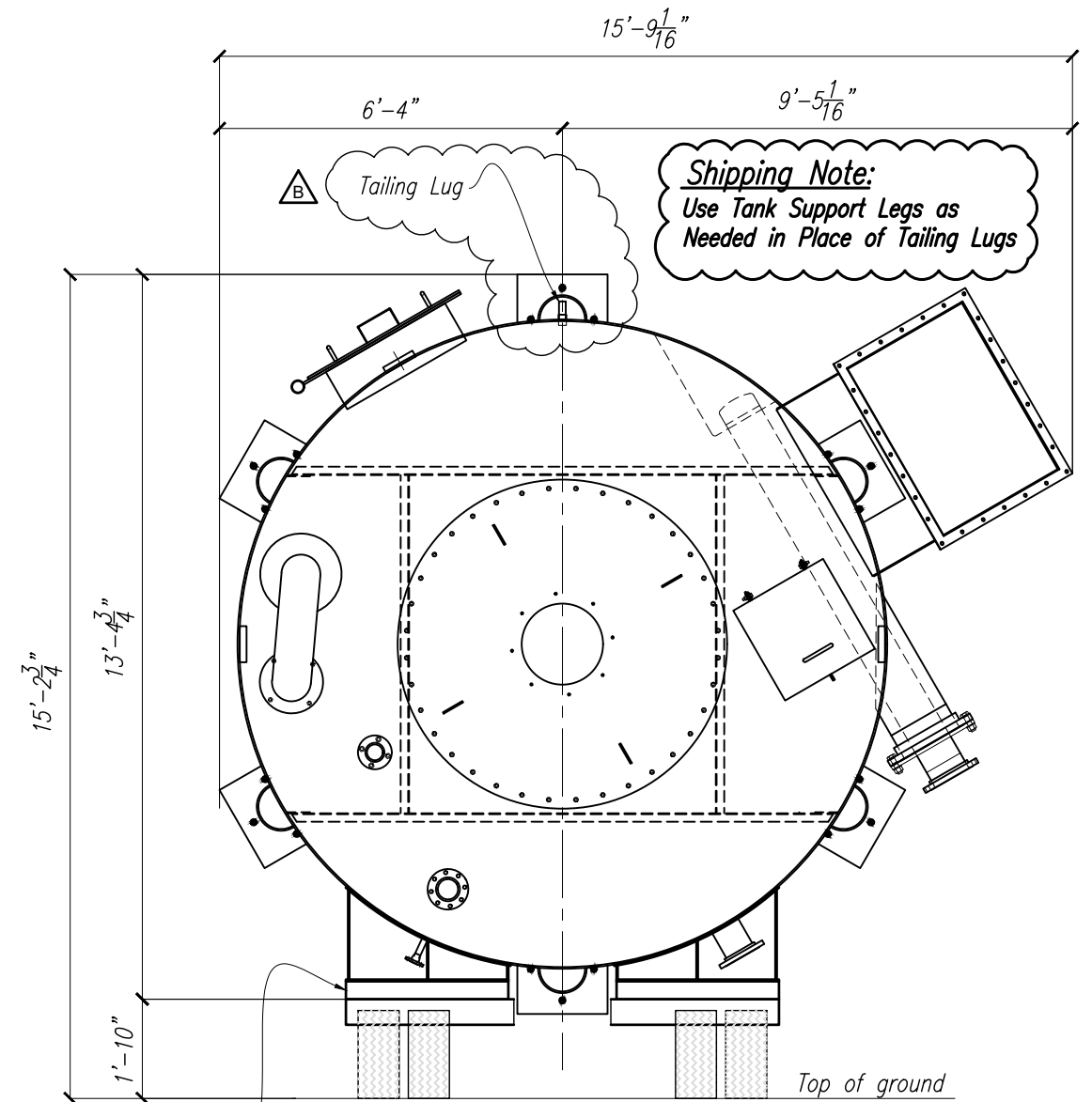
DRAWN BY: PJ	DATE: 06/07/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0" X 36'-10"
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Shipping Information For TK-3322			
JOB#: 600-01-3322		SHT#: 60.0	



Trailer Top View

Items to be Shipped Loose:
None

Tank TK-3326



4" Shim Under Saddle
to Clear Column Pipe
From Top of Trailer

Tank TK-3326 Shipping Orientation
(Total Shipping Weight Approx. ?? lbs)

Notes:

REV.	BY	DATE	DESCRIPTION
B	PJ	07/09/18	Revised Per Approval, Resubmit For Approval
A	PJ	04/05/18	For Approval
REVISIONS			

T BAILEY INC.

12441 Bartholomew Rd.
Anacortes, WA 98221
PH: (360) 293-0682
FAX: (360) 293-3893

Website:
www.TBailey.com

CERTIFIED FABRICATOR

FOR APPROVAL

The technical information provided on this drawing is the confidential property of T Bailey Inc. Reproduction of this drawing or use of this information for anything other than its limited, intended purpose as to this project, without the written permission of T Bailey Inc., is prohibited.

DRAWN BY: PJ	DATE: 06/07/18	CHK'D BY: TM	DATE: --/--
CUSTOMER: Columbia Pulp, LLC			12'-0"ø X 36'-10"H
PROJECT: Lyons Ferry Straw Pulp Plant, Project # 15NA0050			
TITLE: Shipping Information For TK-3326			
JOB#: 600-01-3322		SHT#: 60.1	

PULPING LINE MIX TANK A 330-TK-3322
TANK B 330-TK-3326

B