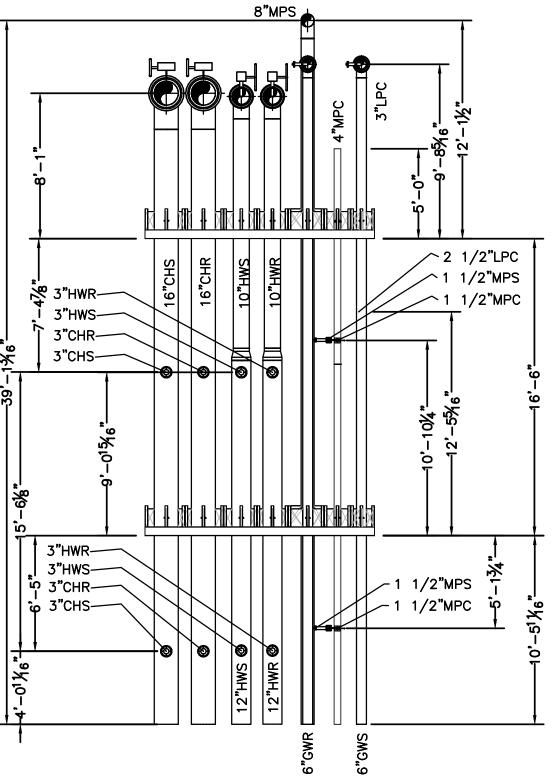


NOTE: PLATE IS 2" HIGHER ON THE MPS LINE THAN THE OTHERS ON THE RISER FOR EXPANSION.



CONSTRUCTORS • ENGINEERS MECHANICAL • INDUSTRI

1233 N. Price Rd. St. Louis, MO 63132-2303 314-997-6600 phone

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-ATION		=		COMMENTS	PS ∦	DRN CHK APP
ORIENT	TION	'D TIGH	ATION	ဘ	Murphy wps#	Nac
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FLANGE WEIGHT/ORIENTATION	FITTING ORIENTATION	BOLTS/CPLG'S/TH'D TIGHT	SPOOL IDENTIFICATION	PWHT	NA N	
FLANG	FITTING	BOLTS,	SPOOL	dro test	NA	MOTO

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	ATION	SPOOL IDENTIFICATION	SPOOL					
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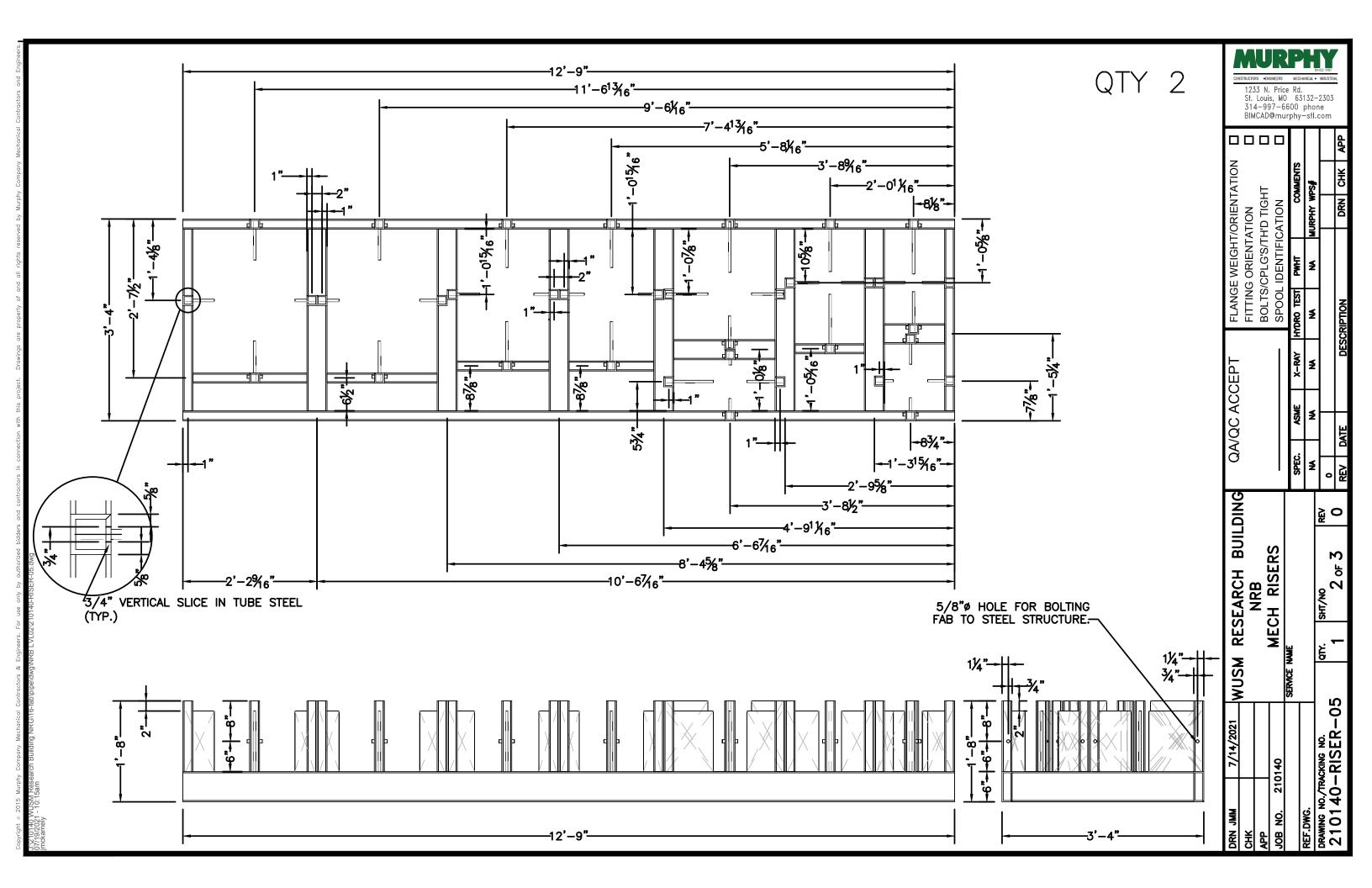
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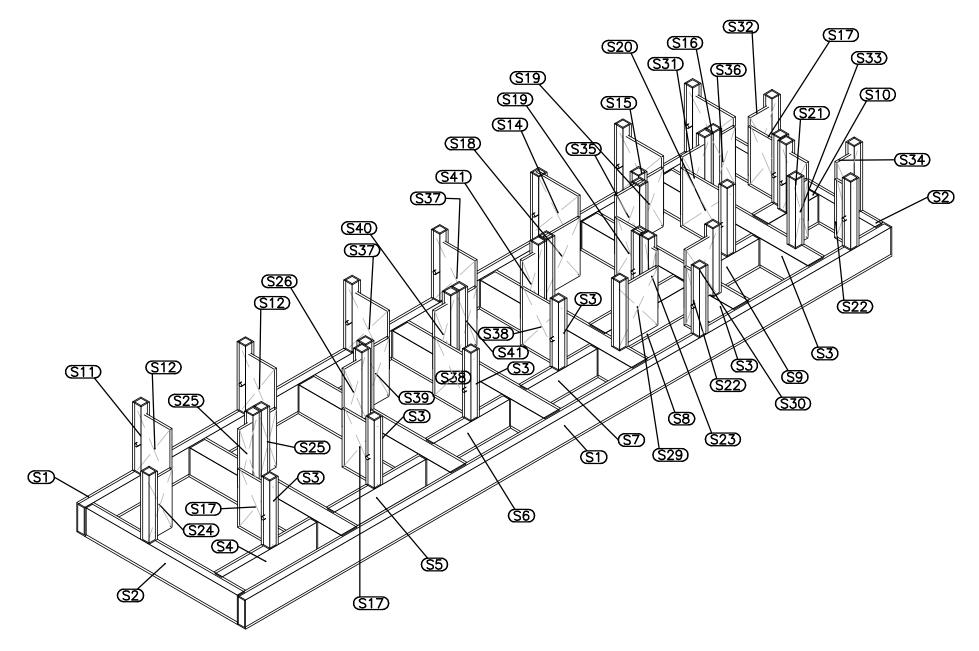
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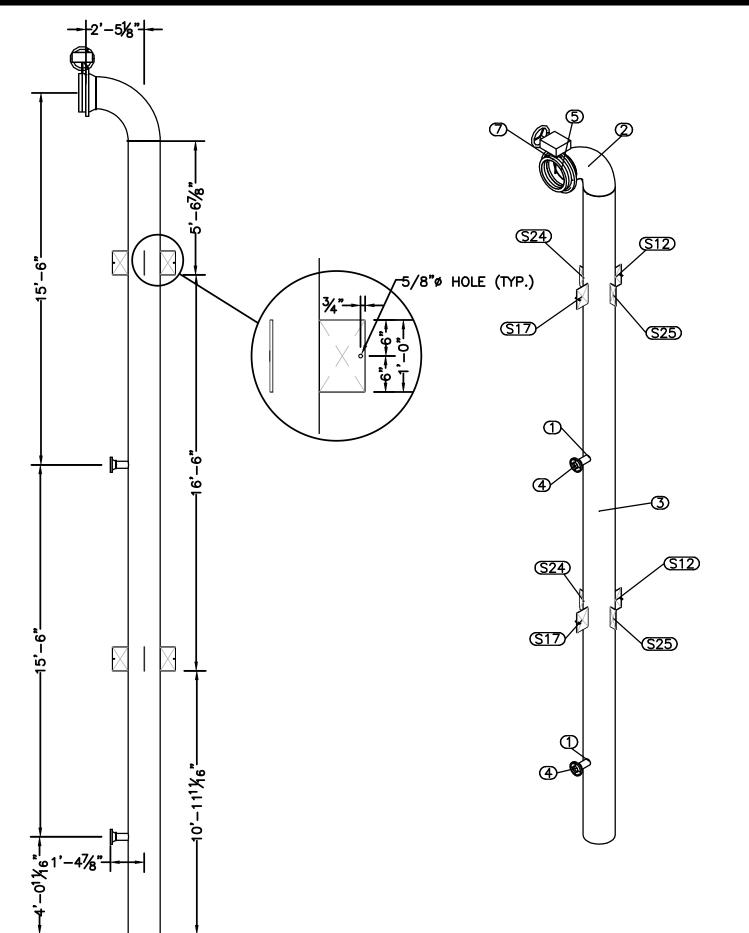
40-RISER-05	9.T. SHI



NOTE: PLATE IS 2" HIGHER ON THE MPS LINE THAN THE OTHERS ON THE RISER FOR EXPANSION.



1907 OUSTRI	SING ANICAL • II	MECHAP	ERS	•ENGINEE	STRUCTORS	CON	Steel L	Size	Qty	BOM-STE Description	Order	tem
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	phone)O p	-660	-997- CAD@n	314-		153°	6x2x1/4"	4		CS RECT Tube	S1 S2
_							36"	6x2x1/4"	12		CS RECT Tube	sz S3
	Ш]				22 1/2°	6x4x1/4" 6x2x1/4"	2		CS RECT Tube	52 S4
\dashv	Ιł	ഉ				z	21 3/4"	6x2x1/4"	2		CS RECT Tube	S5
	•	COMMENTS				TIC	18 1/4"	6x2x1/4"	2		CS RECT Tube	S6
\dashv	#S#		,	도,		FLANGE WEIGHT/ORIENTATION	16 3/4°	6x2x1/4"	2		CS RECT Tube	S7
	MURPHY		SPOOL IDENTIFICATION	BOLTS/CPLG'S/TH'D TIGHT	O	٦E	20"	6x2x1/4"	2		CS RECT Tube	S8
\dashv	ĮŽ		<u></u>		FITTING ORIENTATION	9	13 3/4"	6x2x1/4"	2		CS RECT Tube	S9
			≟	L/S/	Z	띪	12"	6x4x1/4"	2		CS RECT Tube	310
	≰	PWH	Z II	5 5	뿚	VEI	14"	SQ2x2x1/4	72	ASTM A36 CS Square Tube	CS SQ Tube	S11
	Ш		⊒ [Q c	0) E V		2.000 x 7.625	4	ASTM A36 CS Plate 1/2" Thick		S12
	П	EST	ວຸ [T.S	Ž	NG		2.000 x 8.125	4	ASTM A36 CS Plate 1/2" Thick		313
	≰	hydro test	ر آ	BO	Ħ	FLA		2.000 x 10.000	2	ASTM A36 CS Plate 1/2" Thick		314
	Ш	ξ	\dashv				-	2.000 x 9.875	2	ASTM A36 CS Plate 1/2" Thick		315
	П	۲	ıſ					2.000 x 10.375	2	ASTM A36 CS Plate 1/2" Thick		316
	≰	X-RAY	П			\perp		2.000 x 7.875	6	ASTM A36 CS Plate 1/2" Thick		317
	Ш	×	П			QA/QC ACCEPT		2.000 x 8.250	6	ASTM A36 CS Plate 1/2" Thick		318
	П					Ö		2.000 x 6.250	4	ASTM A36 CS Plate 1/2" Thick		319
_	l≨i	ASME	П			Α		2.000 x 11.250	2	ASTM A36 CS Plate 1/2" Thick		320
	Ш	`				lŏ		2.000 x 5.563	2	ASTM A36 CS Plate 1/2" Thick		321
	П		П			X		2.000 x 4.000	4	ASTM A36 CS Plate 1/2" Thick		322
	ا≰ا	SPEC.				G		2.000 x 2.500	2	ASTM A36 CS Plate 1/2" Thick		523
0	Ш	ຶ						2.000 x 5.688	2	ASTM A36 CS Plate 1/2" Thick		524
	Т		Τ		<u> </u>	2		2.000 x 3.875	4	ASTM A36 CS Plate 1/2" Thick		S25
C						CNIC		2.000 x 4.875	2	ASTM A36 CS Plate 1/2" Thick		S26
_	F							2.000 x 5.000	2	ASTM A36 CS Plate 1/2" Thick		S27
			,	S				2.000 x 3.500	6	ASTM A36 CS Plate 1/2" Thick		528
1			il	RISERS				2.000 x 9.250	2	ASTM A36 CS Plate 1/2" Thick		529
•			<u> </u>	<u>, ত</u>	:) m	I		2.000 x 7.000	2	ASTM A36 CS Plate 1/2" Thick		S30
!	S		:	~	NRB	8		2.000 x 6.000	2	ASTM A36 CS Plate 1/2" Thick		S31
•			:	Ή	jZ	1		2.000 x 5.875	2	ASTM A36 CS Plate 1/2" Thick		332
	Γ		i	MECH)	RESEARCH		2.000 x 3.250	2	ASTM A36 CS Plate 1/2" Thick		333
•	Į		: 	Σ	_	Ω		2.000 x 4.813	2	ASTM A36 CS Plate 1/2" Thick		334
<u>'</u>	ľ		SERVICE NAME		E	2		2.000 x 6.250	2	ASTM A36 CS Plate 1/2" Thick		335
			<u> </u>		<i>)</i>	MSIIM		2.000 x 5.500	2	ASTM A36 CS Plate 1/2" Thick		536
Ľ	_		<u> </u>		-	3		2.000 x 9.125	1	ASTM A36 CS Plate 1/2" Thick		337
4						_		2.000 x 9.250	1	ASTM A36 CS Plate 1/2" Thick		538
						2021		2.000 x 6.000	1	ASTM A36 CS Plate 1/2" Thick		S 39
210140 DISEB						7/14/2021		2.000 x 4.500	1	ASTM A36 CS Plate 1/2" Thick		340
			⊋	{		1/2		2.000 x 4.500	2	ASTM A36 CS Plate 1/2" Thick		S 4 1
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		Murphy-PFFS	_5	SPO	00L-	BO	M	M
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	CONSTRUCTORS
1	2	Sch 40 SA-53B CS ERW Pipe Saddle			6"	6.000	16x3	1233 St. L
4	2	150lb RF Sch 40 Bore SA105 CS WN Flg					3	314
5	1	150lb RF Sch 40 Bore SA105 CS WN Flg					16	BIMO
6	1	150lb CS Flange Cap Screw Set					16 (1x3-1/4)	
7	1	LD-1000 Butterfly Valve					16	
2	1	Std Wt SA234 WPB CS BW LR 90 Deg Ell					16	O
3	1	Std Wt SA-53B CS ERW Pipe PE	BEV	BEV	33'-0 9/16"	396.568	16	ATION

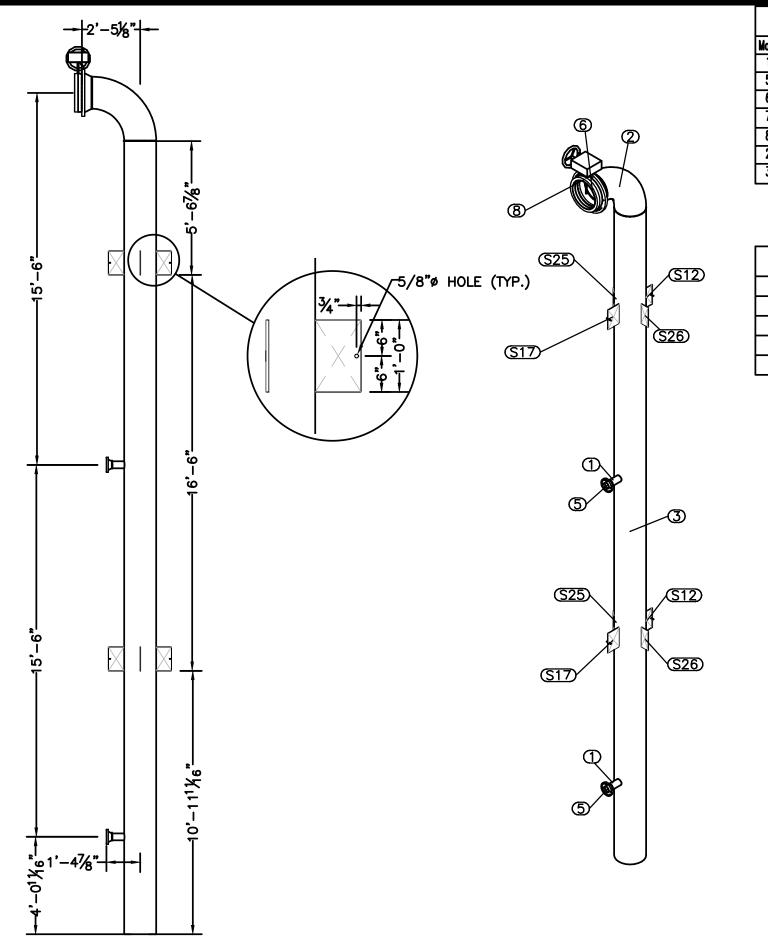
	ВОМ-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S25	12.000 x 3.875	ASTM A36 CS Plate 1/2" Thick	2	0.450
S12	12.000 x 7.625	ASTM A36 CS Plate 1/2" Thick	2	0.816
S24	12.000 x 5.688	ASTM A36 CS Plate 1/2" Thick	2	0.627
S17	12.000 x 7.875	ASTM A36 CS Plate 1/2" Thick	2	0.840

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DRN CH		DESCRIPTION	DES	DATE	_
MURPHY WPS#	NA MU	NA	W	¥	≨
COMMEN	PWHT	X-RAY HYDRO TEST	X-RAY	ASME	EC.
TION	SPOOL IDENTIFICATION	SPOOL			
) TIGHT	BOLTS/CPLG'S/TH'D TIGHT	BOLTS			
NO	FITTING ORIENTATION	Ž			
RIENTATIC	FLANGE WEIGHT/ORIENTATIC	FLANG	CEPT	QA/QC ACCEPT	Ø

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RESEARCH NRB	MECH RISERS		210140-RISER-US	SHT/NO	_	_
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MSDA 		SERVICE NAME	,		05.01	-
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CHK APP	1707/61//		
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JOB NO. 210140			X
		SERVICE NAME	VAME
REF.DWG.		.\	2101
DRAWING NO./TRACKING NO.	Ş		QTY.
210140-RISER-05-01	SER-05	5-01	_



		Murphy-PFFS	_5	SPO)OL-	BO	М	
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	
1	2	Sch 40 SA-53B CS ERW Pipe Saddle			6*	6.000	16x3	
5	2	150lb RF Sch 40 Bore SA105 CS WN Flg					3	
6	1	150lb RF Sch 40 Bore SA105 CS WN Flg					16	
7	1	150lb CS Flange Cap Screw Set					16 (1x3-1/4)	l
8	1	LD-1000 Butterfly Valve					16	
2	1	Std Wt SA234 WPB CS BW LR 90 Deg Ell					16	l
3	1	Std Wt SA-53B CS ERW Pipe PE	BEV	BEV	33'-0 9/16"	396.568	16	

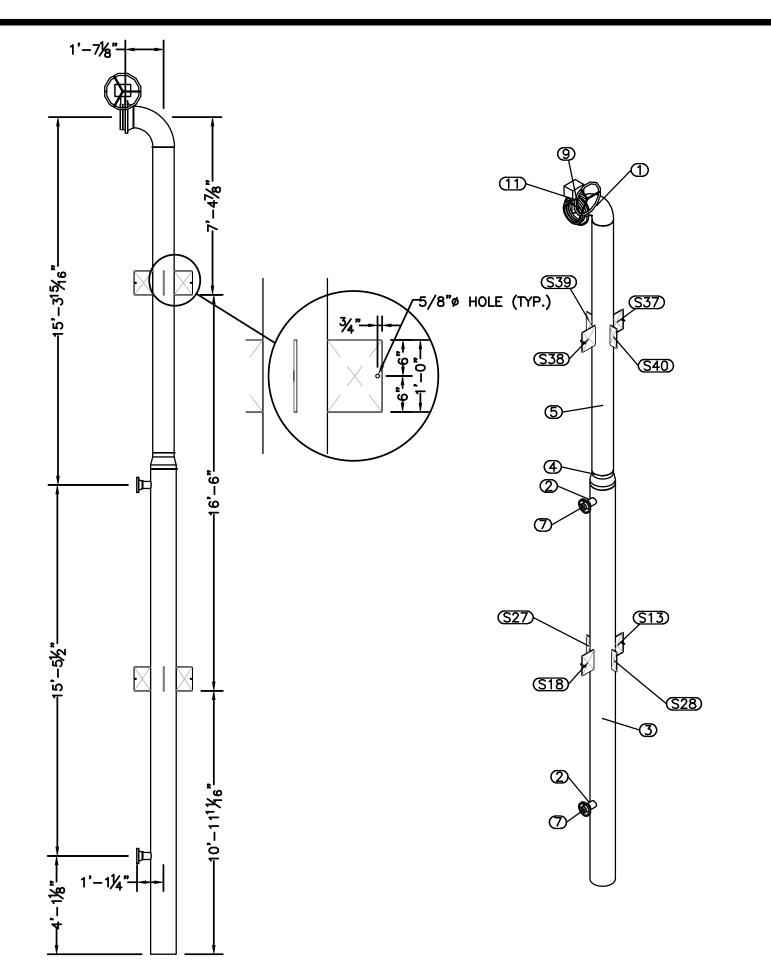
	ВОМ-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S26	12.000 x 4.875	ASTM A36 CS Plate 1/2" Thick	2	0.548
S12	12.000 x 7.625	ASTM A36 CS Plate 1/2" Thick	2	0.816
S25	12.000 x 3.875	ASTM A36 CS Plate 1/2" Thick	2	0.450
S17	12.000 x 7.875	ASTM A36 CS Plate 1/2" Thick	2	0.840

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APP	DRN CHK APP	NAC		NOTE
	#Sd	MURPHY WPS#	NA M	¥
	COMMENTS	8	PWHT	dro test
		ATION	SPOOL IDENTIFICATION	SPOOL
	⊨	'D TIGH	BOLTS/CPLG'S/TH'D TIGHT	BOLTS/
		NOI	FITTING ORIENTATION	FITTIN
	'ATION	ORIENT	FLANGE WEIGHT/ORIENTATION	FLANG

CHK	DRN JMM	1/19/2021	WISW DECE		ONIC	OA/C	QA/QC ACCEPT	EPT
MECH RISERS SERVICE NAME	CHK		MOOM NEON					
SERNCE NAME 210140-RISER-05 NA NA SER-05-02 1 Tof 1	APP			אאפ				
SERVICE NAME	JOB NO. 210	140	MECH	RISERS				
40-RISER-05 210140-RISER-05 SPEC: ASME ASME			SERVICE NAME		<u> </u>		17704	2
40-RISER-05-02 $\frac{\text{QTY.}}{1}$ SHT/NO REV $\frac{\text{REV}}{0}$			210140.	LPINEBLOS		FEG.	ASME	A-RAI
(-05-02) arr. shr/No 1 oF 1 0 0 0 REV	REF.DWG.		21017	NISEN OS		¥	¥	¥
1 1 or 1 0 8EV	DRAWING NO./TRA	CKING NO.			₩	 	-	
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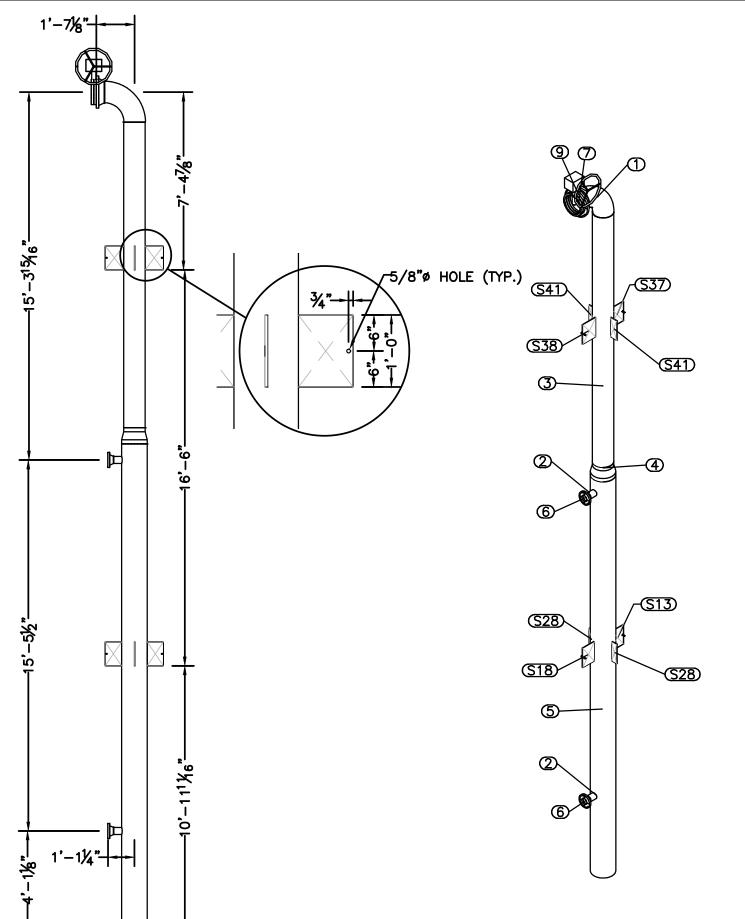
	Murphy-PFFS	<u> </u>	SP	00L-	-BC	M	MUR
Qty	Description	End 1	End 2	Lft	LDec	Size	CONSTRUCTORS •ENGINEERS
2	Sch 40 SA-53B CS ERW Pipe Saddle			4"	4.000	12x3	1233 N. Price St. Louis, MO
1	Std Wt SA234 WPB CS BW CONC RED					12x10	314-997-66
2	150lb RF Sch 40 Bore SA105 CS WN Flg					3	BIMCAD@mur
1	•					10	
1	150lb CS Flange Cap Screw Set					10 (7/8x2-1/4)	_
1	N200235 Butterfly Valve					10	O
1	Std Wt SA234 WPB CS BW LR 90 Deg Ell					10	ATI T
1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	12'-8 11/16"	152.691	10	H S Z
1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	20'-2 1/2"	242.500	12	DRIENTATION TION D TIGHT NTION
	Qty 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Oty Description 2 Sch 40 SA-53B CS ERW Pipe Saddle 1 Std Wt SA234 WPB CS BW CONC RED 2 150lb RF Sch 40 Bore SA105 CS WN Fig 1 150lb RF Sch 40 Bore SA105 CS WN Fig 1 150lb CS Flange Cap Screw Set 1 N200235 Butterfly Valve 1 Std Wt SA234 WPB CS BW LR 90 Deg Ell 1 Sch 40 SA-53B CS ERW Pipe PE	Description End 1	Qty Description End 1 End 2 2 Sch 40 SA-53B CS ERW Pipe Saddle	Description End 1 End 2 Lft	Qty Description End 1 End 2 Lft LDec 2 Sch 40 SA-53B CS ERW Pipe Saddle 4" 4.000 1 Std Wt SA234 WPB CS BW CONC RED 4" 4.000 2 150lb RF Sch 40 Bore SA105 CS WN Flg 5.00 5.00 1 150lb RF Sch 40 Bore SA105 CS WN Flg 5.00 5.00 1 150lb CS Flange Cap Screw Set 5.00 5.00 1 N200235 Butterfly Valve 5.00 5.00 1 Std Wt SA234 WPB CS BW LR 90 Deg Ell 5.00 5.00 1 Sch 40 SA-53B CS ERW Pipe PE 5.00 5.00	2 Sch 40 SA-53B CS ERW Pipe Saddle 4" 4.000 12x3 1 Std Wt SA234 WPB CS BW CONC RED 12x10 2 150lb RF Sch 40 Bore SA105 CS WN Flg 3 1 150lb RF Sch 40 Bore SA105 CS WN Flg 10 1 150lb CS Flange Cap Screw Set 10 (7/8x2-1/4) 1 N200235 Butterfly Valve 10 1 Std Wt SA234 WPB CS BW LR 90 Deg Ell 10 1 Sch 40 SA-53B CS ERW Pipe PE BEV BEV 12'-8 11/16" 152.691 10

	BOM-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S37	12.000 x 9.125	ASTM A36 CS Plate 1/2" Thick	1	0.962
S39	12.000 x 6.000	ASTM A36 CS Plate 1/2" Thick	1	0.657
S38	12.000 x 9.250	ASTM A36 CS Plate 1/2" Thick	1	0.974
S 4 0	12.000 x 4.500	ASTM A36 CS Plate 1/2" Thick	1	0.511
S27	12.000 x 5.000	ASTM A36 CS Plate 1/2" Thick	1	0.560
S18	12.000 x 8.250	ASTM A36 CS Plate 1/2" Thick	1	0.877
S13	12.000 x 8.125	ASTM A36 CS Plate 1/2" Thick	1	0.864
S28	12.000 x 3.500	ASTM A36 CS Plate 1/2" Thick	1	0.414

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St. Louis, MO 63132–2303
314–997–6600 phone
BIMCAD@murphy-stl.com

1	***	VIA
X-RAY HYDRO TEST PWHT COMMI	X-RAY	ASME
SPOOL IDENTIFICATION		
BOLTS/CPLG'S/TH'D TIGHT		
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/2021 WILCM	WILCL		PESEABCH BILL DING		SINIC	
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		MEC	MECH RISERS	RS		
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ER-05-03	5-03	_	1or 1	_	0	



	Murphy-PFFS	3-	SP	OOL-	-BC	M	MUR
Qty	Description	End 1	End 2	Lft	LDec	Size	CONSTRUCTORS •ENGINEERS
2	Sch 40 SA-53B CS ERW Pipe Saddle			4"	4.000	12x3	1233 N. Price St. Louis, MO
1	Std Wt SA234 WPB CS BW CONC RED					12x10	314-997-660
2	150lb RF Sch 40 Bore SA105 CS WN Flg					3	BIMCAD@murp
1	150lb RF Sch 40 Bore SA105 CS WN Flg					10	
1	150lb CS Flange Cap Screw Set					10 (7/8x2-1/4)	
1	N200235 Butterfly Valve					10	NO
1	Std Wt SA234 WPB CS BW LR 90 Deg Ell					10	ATI T
1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	12'-8 11/16"	152.691	10	N N
1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	20'-2 1/2"	242.500	12	DRIENTATION TION D TIGHT ATION
	2 1 2 1 1	Oty Description 2 Sch 40 SA-53B CS ERW Pipe Saddle 1 Std Wt SA234 WPB CS BW CONC RED 2 150lb RF Sch 40 Bore SA105 CS WN Fig 1 150lb RF Sch 40 Bore SA105 CS WN Fig 1 150lb CS Flange Cap Screw Set 1 N200235 Butterfly Valve 1 Std Wt SA234 WPB CS BW LR 90 Deg Ell 1 Sch 40 SA-53B CS ERW Pipe PE	Oty Description End 1 2 Sch 40 SA-53B CS ERW Pipe Saddle 1 Std Wt SA234 WPB CS BW CONC RED 2 150lb RF Sch 40 Bore SA105 CS WN Flg 1 150lb RF Sch 40 Bore SA105 CS WN Flg 1 150lb CS Flange Cap Screw Set 1 N200235 Butterfly Valve 1 Std Wt SA234 WPB CS BW LR 90 Deg Ell 1 Sch 40 SA-53B CS ERW Pipe PE BEV	Oty Description End 1 End 2 2 Sch 40 SA-53B CS ERW Pipe Saddle Image: Saddle Std Wt SA234 WPB CS BW CONC RED Image: Saddle Std Wt SA234 WPB CS BW CONC RED Image: Saddle Saddle Std Wt Sa234 WPB CS BW CONC RED Image: Saddle Saddle Saddle Std Wt Saddle Saddl	Description End 1 End 2 Lft	Oty Description End 1 End 2 Lft LDec 2 Sch 40 SA-53B CS ERW Pipe Saddle 4" 4.000 1 Std Wt SA234 WPB CS BW CONC RED 4" 4.000 2 150lb RF Sch 40 Bore SA105 CS WN Flg 5.00 5.00 1 150lb CS Flange Cap Screw Set 5.00 5.00 1 N200235 Butterfly Valve 5.00 5.00 1 Std Wt SA234 WPB CS BW LR 90 Deg Ell 5.00 6.00 1 Sch 40 SA-53B CS ERW Pipe PE 6.00 6.00 6.00	2 Sch 40 SA-53B CS ERW Pipe Saddle 4" 4.000 12x3 1 Std Wt SA234 WPB CS BW CONC RED 12x10 2 150lb RF Sch 40 Bore SA105 CS WN Flg 3 1 150lb RF Sch 40 Bore SA105 CS WN Flg 10 1 150lb CS Flange Cap Screw Set 10 (7/8x2-1/4) 1 N200235 Butterfly Valve 10 1 Std Wt SA234 WPB CS BW LR 90 Deg Ell 10 1 Sch 40 SA-53B CS ERW Pipe PE BEV BEV 12'-8 11/16" 152.691 10

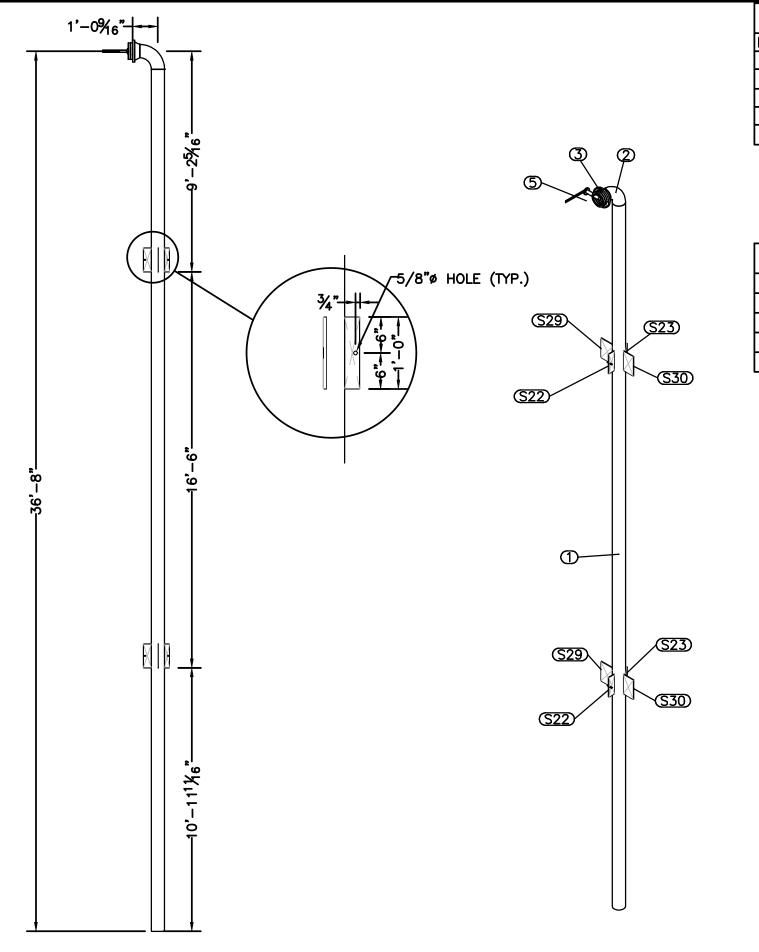
	BOM-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S 4 1	12.000 x 4.500	ASTM A36 CS Plate 1/2" Thick	1	0.511
S37	12.000 x 9.125	ASTM A36 CS Plate 1/2" Thick	1	0.962
S 4 1	12.000 x 4.500	ASTM A36 CS Plate 1/2" Thick	1	0.511
S38	12.000 x 9.250	ASTM A36 CS Plate 1/2" Thick	1	0.974
S18	12.000 x 8.250	ASTM A36 CS Plate 1/2" Thick	1	0.877
S28	12.000 x 3.500	ASTM A36 CS Plate 1/2" Thick	1	0.414
S13	12.000 x 8.125	ASTM A36 CS Plate 1/2" Thick	1	0.864
S28	12.000 x 3.500	ASTM A36 CS Plate 1/2" Thick	1	0.414

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SPOOL IDENTIFICATION		
BOLTS/CPLG'S/TH'D TIGH		
FITTING ORIENTATION		
FLANGE WEIGHT/ORIENT	QA/QC ACCEPT	QA/(
t)		

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		Z E	MECH RISERS	2	
	SERVICE NAME	AME			
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	7	101.	Z10140-RISEK-US	20->	
		QTY.	SHT/NO		REV
õ	05-04	-	10F 1	_	0

•	ME	SERVICE NAME	2101	QTY.	5-04 1
	210140			NO./TRACKING NO.	40-RISFR-05-04



		Murphy-PFFS	–S	PC	OL-B	ОМ		
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	
3	1	150lb RF Sch 40 Bore SA105 CS WN Flg					6	
4	2	150lb CS Flange Cap Screw Set					6 (3/4x2)	
5	1	N200235 Butterfly Valve					6	
2	1	Std Wt SA234 WPB CS BW LR 90 Deg Ell					6	Е
1	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	35'-10 15/16"	430.908	6	I _

	BOM-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S29	12.000 x 9.250	ASTM A36 CS Plate 1/2" Thick	2	0.974
S22	12.000 x 4.000	ASTM A36 CS Plate 1/2" Thick	2	0.463
S30	12.000 x 7.000	ASTM A36 CS Plate 1/2" Thick	2	0.755
S23	12.000 x 2.500	ASTM A36 CS Plate 1/2" Thick	2	0.317

M	JR	PHY SINCE 1907
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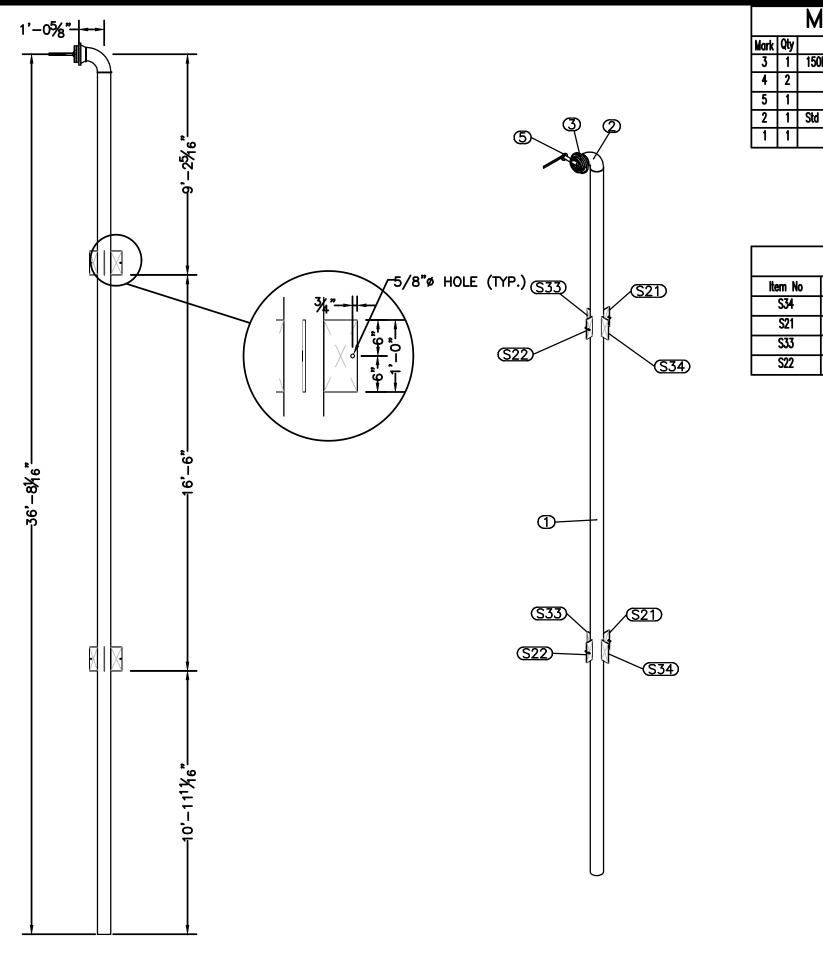
#S _d	MURPHY WPS#	¥.	¥	
COMMENTS	8	PWHT	HYDRO TEST	£
	ATION	SPOOL IDENTIFICATION	SPOOL	
E	I'D TIGH	BOLTS/CPLG'S/TH'D TIGHT	BOLTS	
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'ATION	ORIENT	FLANGE WEIGHT/ORIENTATION	FLANG	
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REF.DWG.

DRAWING NO./TRACKING NO.

210140-RISER-05-05



			Murphy-PFFS	–S	PC	OL-B	ОМ		
Ī	Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	
Γ	3	1	150lb RF Sch 40 Bore SA105 CS WN Flg					6	
Γ	4	2	150lb CS Flange Cap Screw Set					6 (3/4x2)	
Γ	5	1	N200235 Butterfly Valve					6	
Γ	2	1	Std Wt SA234 WPB CS BW LR 90 Deg Ell					6	C
Γ	1	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	35'-10 15/16"	430.908	6	l _

	BOM-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S34	12.000 x 4.813	ASTM A36 CS Plate 1/2" Thick	2	0.542
S21	12.000 x 5.563	ASTM A36 CS Plate 1/2" Thick	2	0.615
S33	12.000 x 3.250	ASTM A36 CS Plate 1/2" Thick	2	0.390
S22	12.000 x 4.000	ASTM A36 CS Plate 1/2" Thick	2	0.463

MUR	PHY SINCE 1907

St. Louis, MO 314-997-66 BIMCAD@mur	00	ohon	е

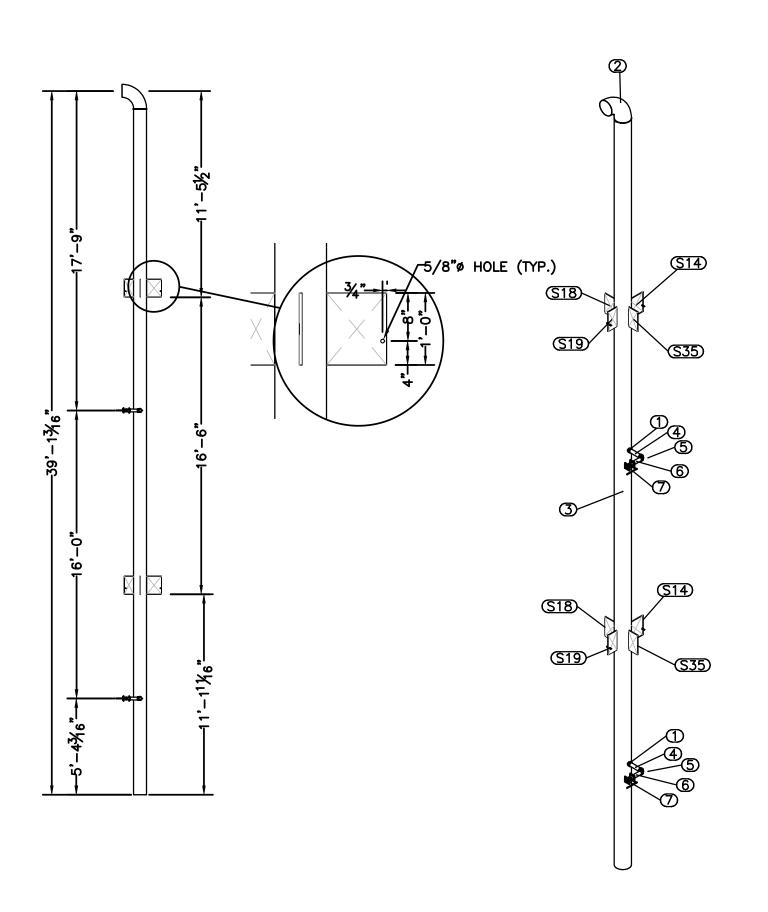
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DRAWING NO./TRACKING NO.

210140-RISER-05-06



		Murphy-PFFS-	SP	OC)L-B	OM		
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	i
7	2	83A-140 CS 1500 lb 3pc FP Ball Valve THD					1-1/2	
2	1	Std Wt SA234 WPB CS BW LR 90 Deg EII					8	
5	2	3M A105 FS SW 90 Deg Ell					1-1/2	L
1	2	3000 ∦ FS Soc-0-Let			1 3/8"	1.375	1-1/2x8	[
3	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	38'-1 1/16"	457.063	8	١.
6	2	Sch 80 A106B CS SMLS Pipe	SW	MPT	6"	6.000	1-1/2	Ī
4	2	Sch 80 A106B CS SMLS Pipe	SW	SW	7 3/8"	7.374	1-1/2	;

	ВОМ-	-STEEL-PLA	ΤE	
Item No	Size	Description	Qty	Area (sq ft)
S19	12.000 x 6.250	ASTM A36 CS Plate 1/2" Thick	2	0.682
S18	12.000 x 8.250	ASTM A36 CS Plate 1/2" Thick	2	0.877
S35	12.000 x 6.250	ASTM A36 CS Plate 1/2" Thick	2	0.682
S14	12.000 x 10.000	ASTM A36 CS Plate 1/2" Thick	2	1.047

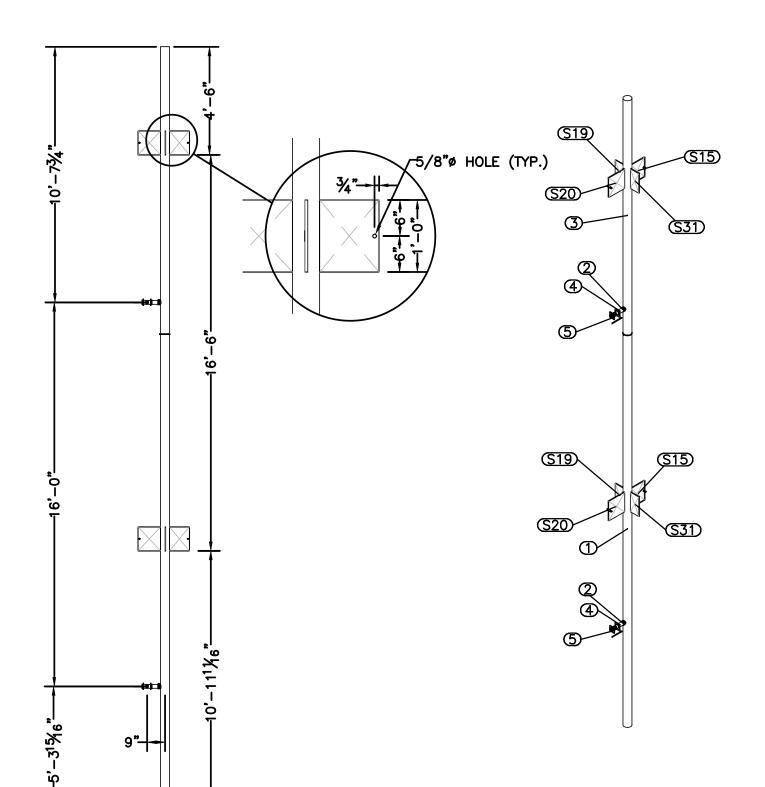
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1233 N. Price Rd.
St. Louis, MO 63132-2303
314-997-6600 phone
BIMCAD@murphy-stl.com

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COMMENTS	8	PWHT	S
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			Murphy-PFFS-	SP	OC)L-B	ОМ		
Ī	Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	
ſ	5	2	83A-140 CS 1500 lb 3pc FP Ball Valve THD					1-1/2	
Ī	2	2	3000 ∦ FS Soc-0-Let			1 3/8"	1.375	1-1/2x4	
Ī	1	1	XH SA-53B CS SMLS Pipe	BEV	BEV	20'-0"	240.000	4	L
ſ	3	1	XH SA-53B CS SMLS Pipe	BEV	BEV	11'-11 5/8"	143.595	4	ב
Ī	4	2	Sch 80 A106B CS SMLS Pipe	SW	MPT	4"	4.000	1-1/2	١,

	BOM-	-STEEL-PLAT	ΓΕ	
Item No	Size	Description	Qty	Area (sq ft)
S15	12.000 x 9.875	ASTM A36 CS Plate 1/2" Thick	2	1.035
S31	12.000 x 6.000	ASTM A36 CS Plate 1/2" Thick	2	0.657
S20	12.000 x 11.250	ASTM A36 CS Plate 1/2" Thick	2	1.169
S19	12.000 x 6.250	ASTM A36 CS Plate 1/2" Thick	2	0.682

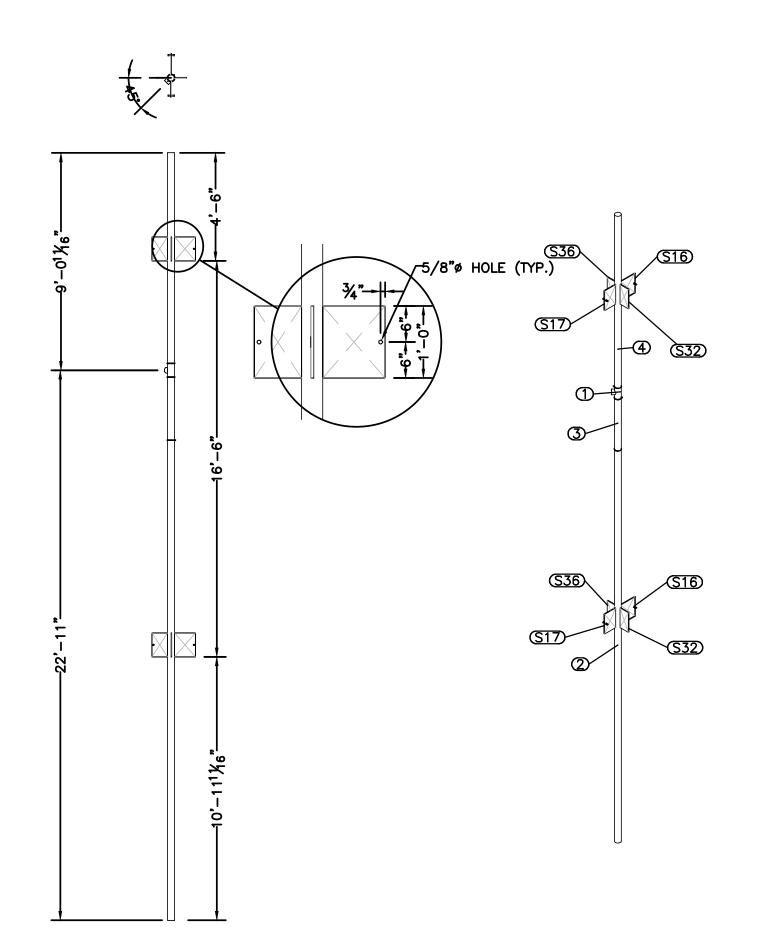
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314-997-6600 phone
BIMCAD@murphy-stl.com

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WUS	A RES	WUSM RESEARCH BUILDING NRB	DING		VQC ∕	QA/QC ACCEPT		FLANG FITTING BOLTS/
	MEC	MECH RISERS						SPOOL
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SERVICE NAME 2101	MECH RISE NAME 210140-RISE OTT SHI/NO
40-RISER-05-08 1	



		Murphy-PFF:	S-S	SPC	OL-E	30M	
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	XH SA234 WPB CS BW RED TEE					3x2-1/2
2	1	XH SA-53B CS SMLS Pipe	BEV	BEV	20'-0"	240.000	3
3	1	XH SA-53B CS SMLS Pipe	BEV	BEV	2'-7 3/8"	31.377	3
4	1	XH SA-53B CS SMLS Pipe	BEV	BEV	8'-9 3/16"	105.208	3

	BOM-	-STEEL-PLA	ΓΕ	
Item No	Size	Description	Qty	Area (sq ft)
S16	12.000 x 10.375	ASTM A36 CS Plate 1/2" Thick	2	1.084
S36	12.000 x 5.500	ASTM A36 CS Plate 1/2" Thick	2	0.609
S17	12.000 x 7.875	ASTM A36 CS Plate 1/2" Thick	2	0.840
S32	12.000 x 5.875	ASTM A36 CS Plate 1/2" Thick	2	0.645

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MURPHY WPS#	NA MUR	¥	¥	¥	¥	
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ION	SPOOL IDENTIFICATION	SPOOL				- [
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