

		Murphy-PFFS-	SP	00	L	BOM	1	MURI
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	CONSTRUCTORS •ENGINEERS
3	1	Sch 40 SA-53B CS ERW Pipe Saddle			6"	6.000	16x3	1233 N. Price I St. Louis, MO
11	1	150lb RF Sch 40 Bore SA105 CS WN Flg					3	314-997-660
5	1	Std Wt SA234 WPB CS BW LR 90 Deg EII					16	BIMCAD@murp
4	1	3000∦ FS Thread—0—Let			1 1/2"	1.500	2x16	
1	1	Std Wt SA-53B CS ERW Pipe PE	BEV	BEV	7'-10"	94.027	16	
2	1	Std Wt SA-53B CS ERW Pipe PE	BEV	BEV	40'-0"	480.000	16	O

		BOM-STEE	L		
Item No	Order	Description	Qty	Size	Steel L
S12		ASTM A36 CS Plate 1/2" Thick	3	12.000 x 7.625	
S17		ASTM A36 CS Plate 1/2" Thick	3	12.000 x 7.875	
S24		ASTM A36 CS Plate 1/2" Thick	3	12.000 x 5.688	
S25		ASTM A36 CS Plate 1/2" Thick	3	12.000 x 3.875	

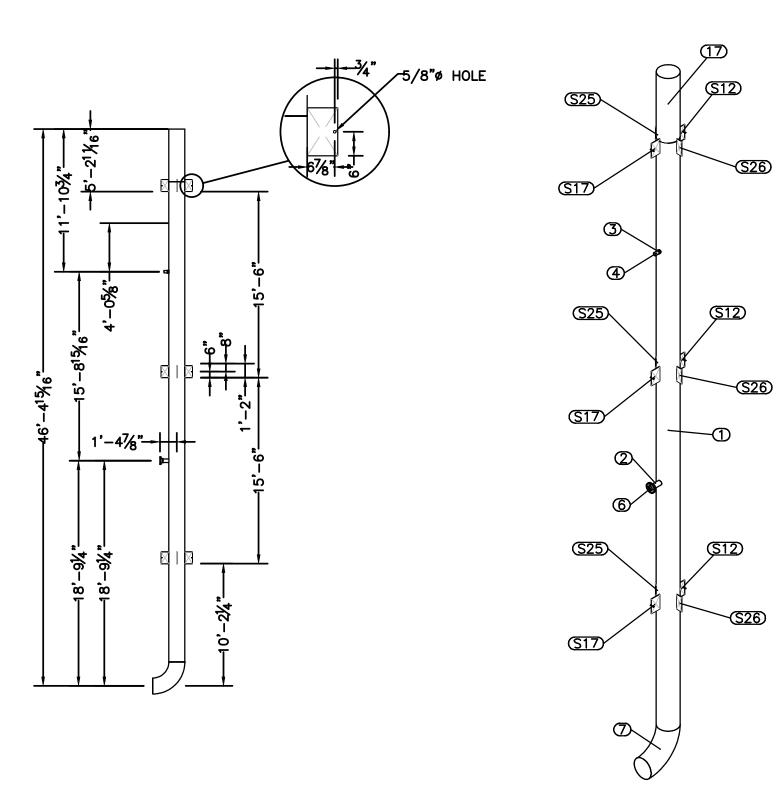
CONSTRUCTORS • ENGINEERS MECHANICAL • INDUSTRIAL

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

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COMMENTS	8		PWHT	HYDRO TEST	프
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QA/QC ACCEPT

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JOB NO. 210140	0140		MEC	MECH RISERS	_
		SERVICE NAME	IAME		87
REF.DWG.			1014	210140-RISER-02	· _
DRAWING NO./TRACKING NO.	ACKING NO.		QTY.	SHT/NO REV	<u> </u>
210140-	210140-RISER-02-01	2-01	1	1 or 1 0	REV o



		Murphy-PFFS-	·SP	00	L-BC	M		
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	
2	1	Sch 40 SA-53B CS ERW Pipe Saddle			6"	6.000	16x3	ı
6	1	150lb RF Sch 40 Bore SA105 CS WN Flg					3	
4	1	No.647 TT Dielectric Transition Fitting					2	Ĺ
7	1	Std Wt SA234 WPB CS BW LR 90 Deg Ell					16	
3	1	3000# FS Thread-0-Let			1 1/2"	1.500	2x16	
1	1	Std Wt SA-53B CS ERW Pipe PE	BEV	BEV	40'-0"	480.000	16	
17	1	Std Wt SA-53B CS ERW Pipe PE	BEV	BEV	4'-4 11/16"	52.698	16	

	BOM-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S12	12.000 x 7.625	ASTM A36 CS Plate 1/2" Thick	3	0.816
S26	12.000 x 4.875	ASTM A36 CS Plate 1/2" Thick	3	0.548
S17	12.000 x 7.875	ASTM A36 CS Plate 1/2" Thick	3	0.840
S25	12.000 x 3.875	ASTM A36 CS Plate 1/2" Thick	3	0.450

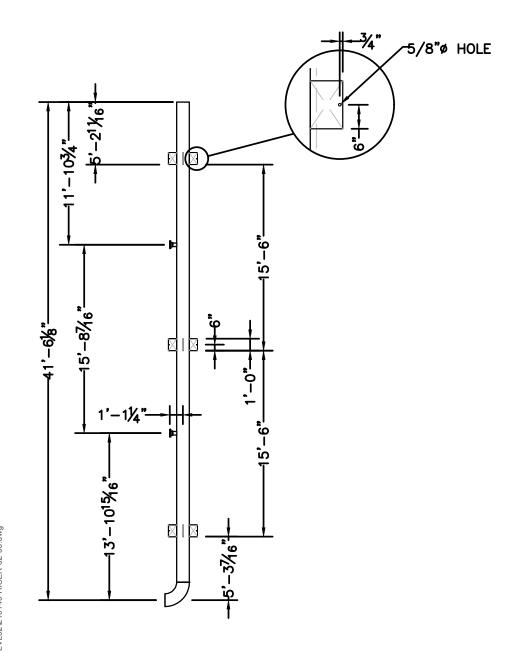
CONSTRUCTORS •ENGINEERS MECHANICAL • INDUSTRIA

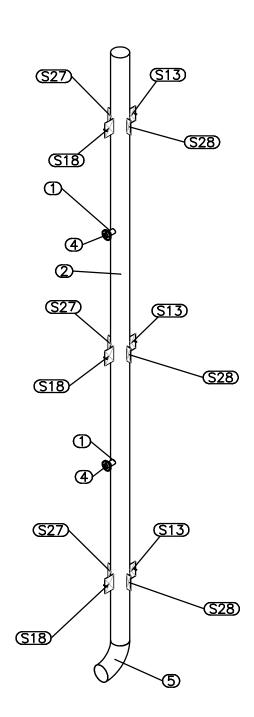
1233 N. Price Rd. St. Louis, MO 63132–2303 314–997–6600 phone BIMCAD@murphy-stl.com

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SERVICE NAME
210140—RISER
lany. | SHT/NO WUSM RESEARCH NRB MECH RISER -02 REF.DWG.
DRAWING NO./TRACKING NO.
210140-RISER-02





		Murphy-PFFS-S	PO	OL-	-BC	M		MURI
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	CONSTRUCTORS •ENGINEERS
1	2	Sch 40 SA-53B CS ERW Pipe Saddle			4"	4.000	12x3	1233 N. Price St. Louis, MO
4	2	150lb RF Sch 40 Bore SA105 CS WN Flg					3	314-997-660
5	1	Std Wt SA234 WPB CS BW LR 90 Deg Ell					12	BIMCAD@murp
2	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	40'-0"	480.000	12	0000

	BOM-	-STEEL-PLA	ΤE	
Item No	Size	Description	Qty	Area (sq ft)
S28	12.000 x 3.500	ASTM A36 CS Plate 1/2" Thick	3	0.414
S13	12.000 x 8.125	ASTM A36 CS Plate 1/2" Thick	3	0.864
S27	12.000 x 5.000	ASTM A36 CS Plate 1/2" Thick	3	0.560
S18	12.000 x 8.250	ASTM A36 CS Plate 1/2" Thick	3	0.877

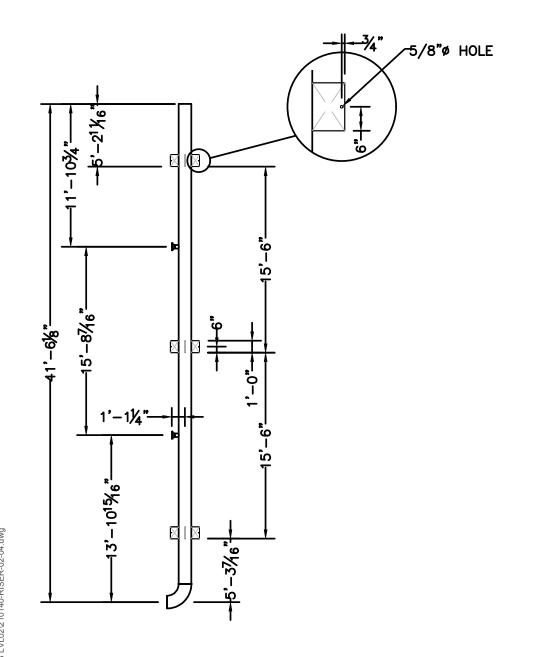
CONSTRUCTORS • ENGINEERS MECHANICAL • INDUSTRIAL

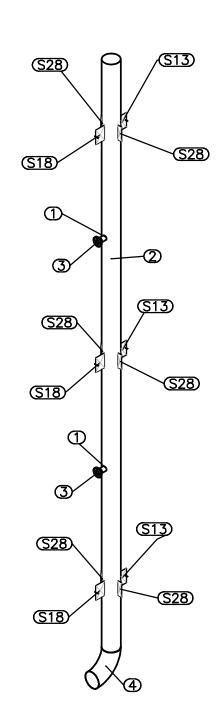
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St. Louis, MO 63132-2303
314-997-6600 phone
BIMCAD@murphy-stl.com

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RESEARCH BUILDING NRB	MECH RISERS		210140-RIVER-02	O MISEN OF	ON/ JHS		<u>ــ</u>
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F.DWG. MING NO./TRACKING NO. 10140—RISER—O		-	ME	SERVICE NAME	7 2101,	QTY.	2-03 1
구나지 얼마 나라나 하다.	CHK	APP	JOB NO. 210140		REF.DWG.	DRAWING NO./TRACKING NO.	210140-RISER-02-03





		Murphy-PFFS-S	PO	OL-	-BC	M		MURI
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	CONSTRUCTORS •ENGINEERS
1	2	Sch 40 SA-53B CS ERW Pipe Saddle			4"	4.000	12x3	1233 N. Price I St. Louis, MO
3	2	150lb RF Sch 40 Bore SA105 CS WN Flg					3	314-997-660
4	1	Std Wt SA234 WPB CS BW LR 90 Deg EII					12	BIMCAD@murp
2	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	40'-0"	480.000	12	0000

	BOM-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S28	12.000 x 3.500	ASTM A36 CS Plate 1/2" Thick	3	0.414
S13	12.000 x 8.125	ASTM A36 CS Plate 1/2" Thick	3	0.864
S28	12.000 x 3.500	ASTM A36 CS Plate 1/2" Thick	3	0.414
S18	12.000 x 8.250	ASTM A36 CS Plate 1/2" Thick	3	0.877

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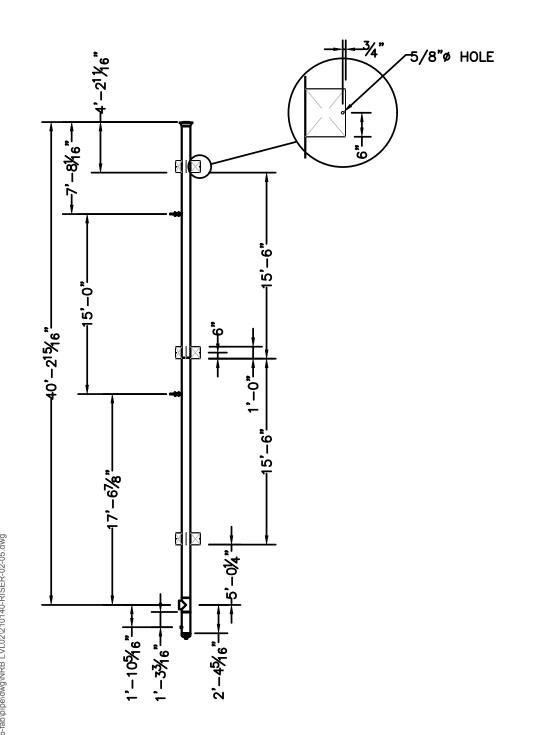
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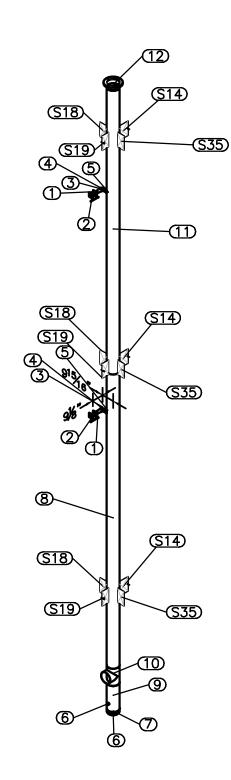
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314-997-6600 phone
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				FITTING	FITTING ORIENTATION	ATION	
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		210140-RISER-02	9	, Po
RESEARCH NRB MECH RISE		140-	SHT/NO	
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WSNW	SERVICE NAME			-02 - 04
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CHK			
APP			•
JOB NO. 210	210140		2
		SERVICE NAME	AME
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DRAWING NO./TRACKING NO.	ACKING NO.		đΩ.
210140-	210140-RISER-02-04	2-04	~





		Murphy-PFFS-	SP	00	DL-B	OM	
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
10	1	Std Wt SA234 WPB CS BW TEE					8
12	1	150lb RF Sch 40 Bore SA105 CS WN Flg					8
7	1	Std Wt SA234 WPB CS BW Cap					8
2	2	83A-140 CS 1500 lb 3pc FP Ball Valve THD					1-1/2
3	2	3M A105 FS SW 90 Deg Ell					1-1/2
5	2	3000# FS Soc-0-Let			1 3/8"	1.375	1-1/2x8
6	2	3000# FS Thread-0-Let			1 1/16"	1.063	3/4x8
8	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	20'-0"	240.000	8
9	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	1'-9 3/16"	21.180	8
11	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	19'-3 9/16"	231.540	8
1	2	Sch 80 A106B CS SMLS Pipe	SW	MPT	6"	6.000	1-1/2
4	2	Sch 80 A106B CS SMLS Pipe	SW	SW	3 1/4°	3.264	1-1/2

	ВОМ-	-STEEL-PLA	ΓΕ	
Item No	Size	Description	Qty	Area (sq ft)
S35	12.000 x 6.250	ASTM A36 CS Plate 1/2" Thick	3	0.682
S1 4	12.000 x 10.000	ASTM A36 CS Plate 1/2" Thick	3	1.047
S18	12.000 x 8.250	ASTM A36 CS Plate 1/2" Thick	3	0.877
S19	12.000 x 6.250	ASTM A36 CS Plate 1/2" Thick	3	0.682

MURPHY

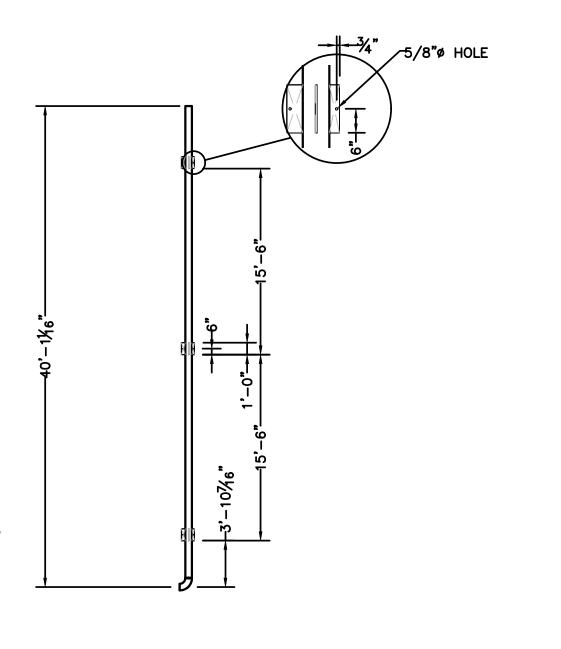
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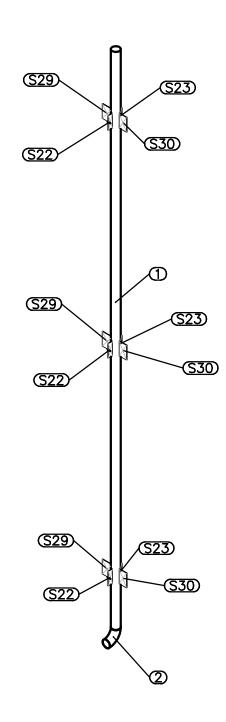
1233 N. Price Rd.
St. Louis, MO 63132-2303
314-997-6600 phone
BIMCAD@murphy-stl.com

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			BOLTS	BOLTS/CPLG'S/TH'D TIGHT	I'D TIGHT	
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RESEARCH NRB	MECH		210140-RISER-02		_
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APP
JOB NO. 210140
SERVCE NAMI
REF.DWG.
210140—RISER—02—05





		Murphy-PFFS-	SP	00	L-B0	М	
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
2	1	Std Wt SA234 WPB CS BW LR 90 Deg EII					6
1	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	39'-3 15/16"	471.938	6

	BOM-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S30	12.000 x 7.000	ASTM A36 CS Plate 1/2" Thick	3	0.755
S23	12.000 x 2.500	ASTM A36 CS Plate 1/2" Thick	3	0.317
S29	12.000 x 9.250	ASTM A36 CS Plate 1/2" Thick	3	0.974
S22	12.000 x 4.000	ASTM A36 CS Plate 1/2" Thick	3	0.463

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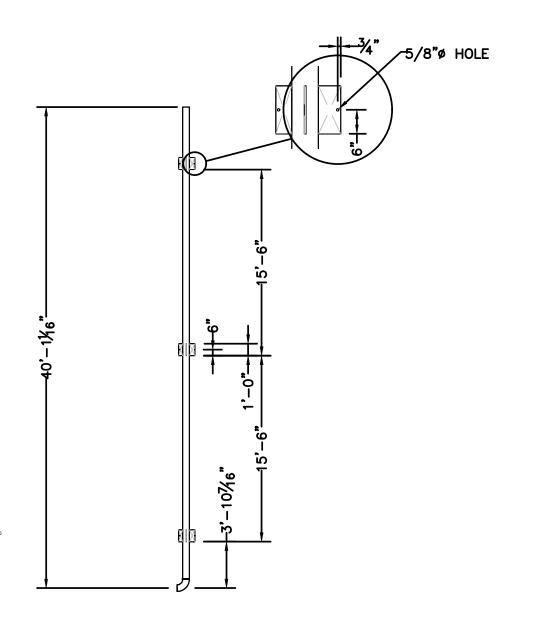
CONSTRUCTORS • ENGINEERS MECHANICAL • INDUSTRIAL

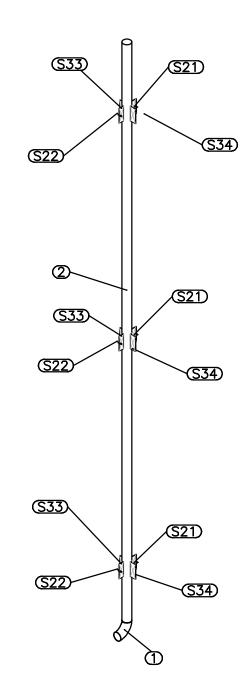
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	1233 N. Price St. Louis, MO 314-997-66 BIMCAD@mui	63132 600 pho	ne

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REARCH BUILDING NRB CH RISERS	NAME 210140 BISEB 02	-0-KISEK-02	SHT/NO 1 1
WUSM RESEARCH NRB MECH RISE	SERVICE NAME	41014	106 QT.

•	X	SERVICE NAME	210	מדי.	100
	210140	3		40./TRACKING NO.	40_DISFD_02





		Murphy-PFFS-	SP	00	L-B0	М	
Mar	(Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	Std Wt SA234 WPB CS BW LR 90 Deg EII					6
2	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	39'-3 15/16"	471.938	6

	BOM-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S21	12.000 x 5.563	ASTM A36 CS Plate 1/2" Thick	3	0.615
S34	12.000 x 4.813	ASTM A36 CS Plate 1/2" Thick	3	0.542
S33	12.000 x 3.250	ASTM A36 CS Plate 1/2" Thick	3	0.390
S22	12.000 x 4.000	ASTM A36 CS Plate 1/2" Thick	3	0.463

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CONSTRUCTORS CHOMBEDS MECHANICAL - MOUSTRIAL

1233 N. Price Rd.

5t. Louis, MO 63132–2303

314–997–6600 phone

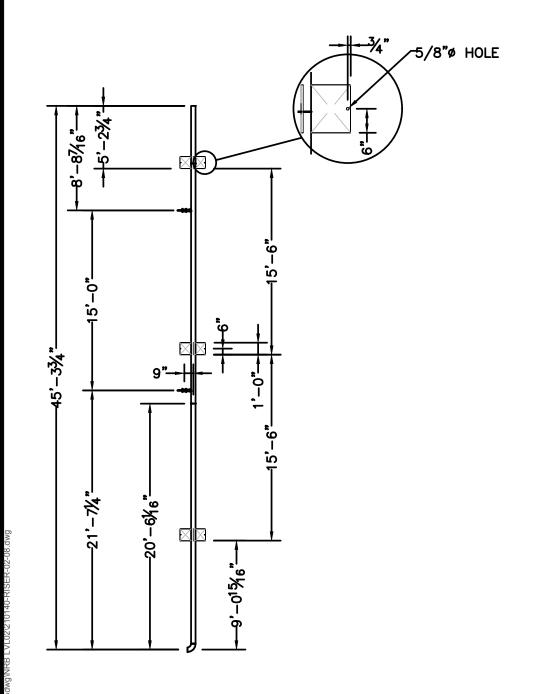
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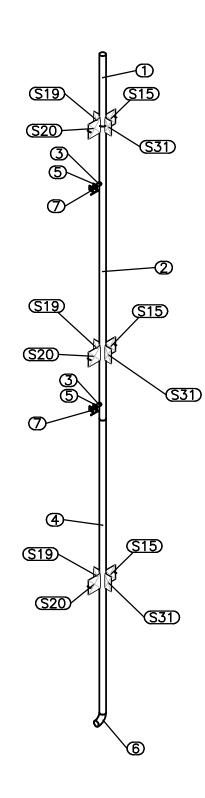
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NRB	MECH RISER	WE	210140-RISER	QTY. SHT/NO	_
		SERVICE NAME	2		<u> </u>
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	SERVICE NAME 210	REF. DWG. ORAWING NO./TRACKING NO. 210140_BISEB_07_07	REF.DWG.
JOB NO. 210140	$\begin{vmatrix} \text{service naw} \\ 21 \end{vmatrix}$		F.DWG.





		Murphy-PFFS-	SP	OC	L-B	ОМ		MUR
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	CONSTRUCTORS •ENGINEERS
7	2	83A-140 CS 1500 lb 3pc FP Ball Valve THD					1-1/2	1233 N. Price St. Louis, MO
6	1	XH SA234 WPB CS BW LR 90 Deg EII					4	314-997-66 BIMCAD@mur
3	2	3000# FS Soc−0-Let			1 3/8"	1.375	1-1/2x4	DIMCADGIIIdi
1	1	XH SA-53B CS SMLS Pipe	BEV	BEV	4'-9 7/16"	57. 4 12	4	
2	1	XH SA-53B CS SMLS Pipe	BEV	BEV	20'-0"	240.000	4	7
4	1	XH SA-53B CS SMLS Pipe	BEV	BEV	20'-0"	240.000	4	NOI
5	2	Sch 80 A106B CS SMLS Pipe	SW	MPT	4"	4.000	1-1/2	ĭΑΤ Ť

	BOM-	-STEEL-PLA	ΤE	
Item No	Size	Description	Qty	Area (sq ft)
S31	12.000 x 6.000	ASTM A36 CS Plate 1/2" Thick	3	0.657
S15	12.000 x 9.875	ASTM A36 CS Plate 1/2" Thick	3	1.035
S19	12.000 x 6.250	ASTM A36 CS Plate 1/2" Thick	3	0.682
S20	12.000 x 11.250	ASTM A36 CS Plate 1/2" Thick	3	1.169

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CONSTRUCTORS - EMOINEERS MECHANICAL • INDUSTRIAL

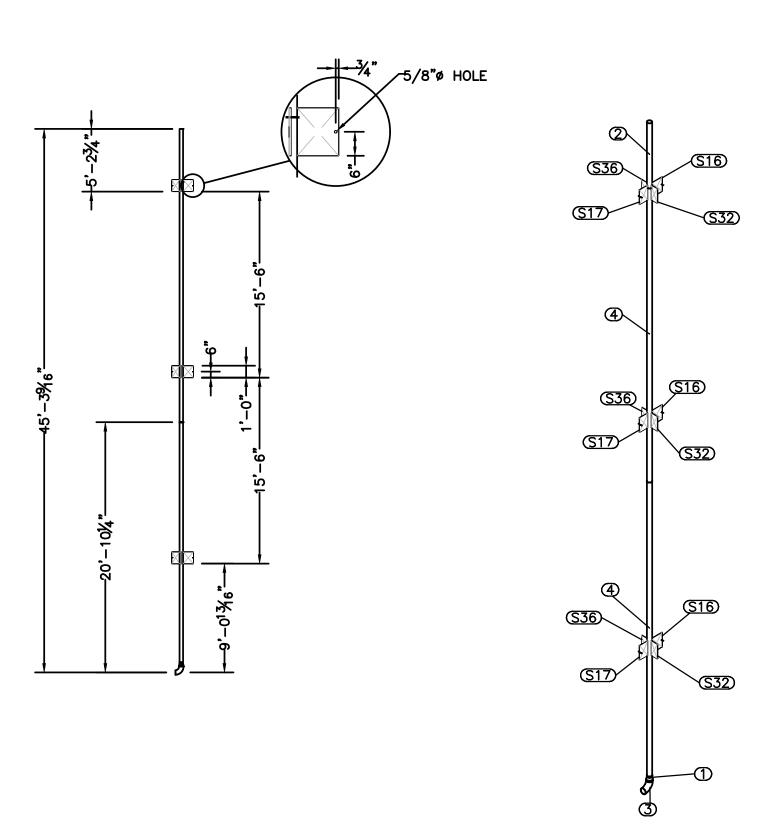
1233 N. Price Rd.
St. Louis, MO 63132-2303
314-997-6600 phone
BIMCAD@murphy-stl.com

FLANGE WEIGHT/ORIENTAT FITTING ORIENTATION BOLTS/CPLG'S/TH'D TIGHT SPOOL IDENTIFICATION)	/2
FITTING ORIENTATION BOLTS/CPLG'S/TH'D TIGHT SPOOL IDENTIFICATION	FLANGE WEIGHT/C	SHT/ORIENTAT
BOLTS/CPLG'S/TH'D TIGHT SPOOL IDENTIFICATION	FITTING ORIENTAL	NTATION
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WUSM RESEARCH NRB MECH RISER SERVICE NAME
210140—RISE -08

REF.DWG.
DRAWING NO./TRACKING NO.
210140-RISER-02



		Murphy-PFFS-	·SP	00	L-B0	М		
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	
1	1	XH SA234 WPB CS BW CONC RED					4x3	
3	1	XH SA234 WPB CS BW LR 90 Deg EII					4	
2	1	XH SA-53B CS SMLS Pipe	BEV	BEV	4'-5 1/16"	53.077	3	
4	2	XH SA-53B CS SMLS Pipe	BEV	BEV	20'-0"	240.000	3	[

	ВОМ-	-STEEL-PLA	TE	
Item No	Size	Description	Qty	Area (sq ft)
S16	12.000 x 10.375	ASTM A36 CS Plate 1/2" Thick	3	1.084
S32	12.000 x 5.875	ASTM A36 CS Plate 1/2" Thick	3	0.645
S17	12.000 x 7.875	ASTM A36 CS Plate 1/2" Thick	3	0.840
S36	12.000 x 5.500	ASTM A36 CS Plate 1/2" Thick	3	0.609

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CONSTRUCTORS **ENGINEERS MECHANICAL • INDUSTRIAL

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St. Louis, MO 63132-2303

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MURPHY WPS#	NA MUF	¥	¥	¥
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TION	SPOOL IDENTIFICATION	SPOO		
) TIGHT	BOLTS/CPLG'S/TH'D TIGHT			
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