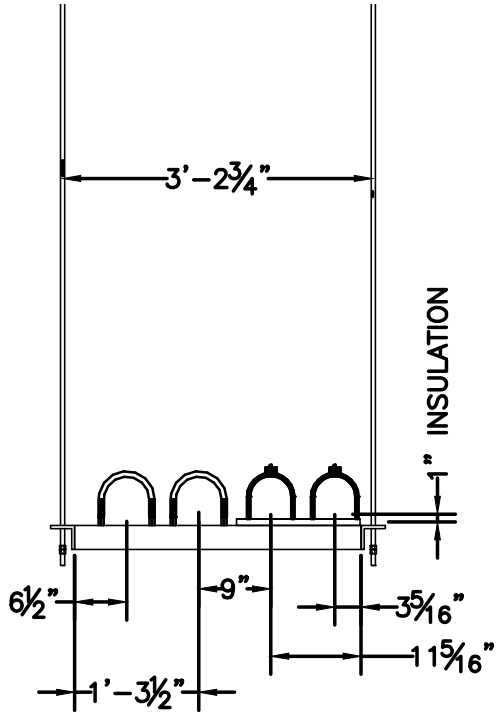
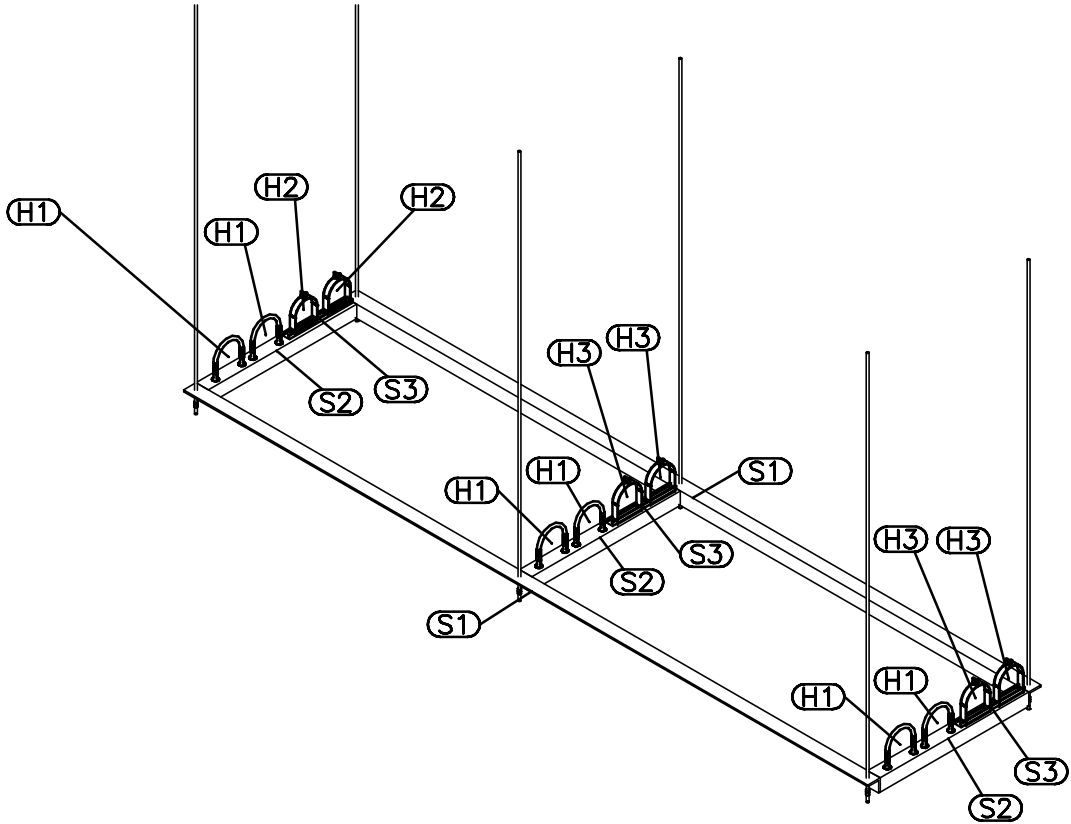
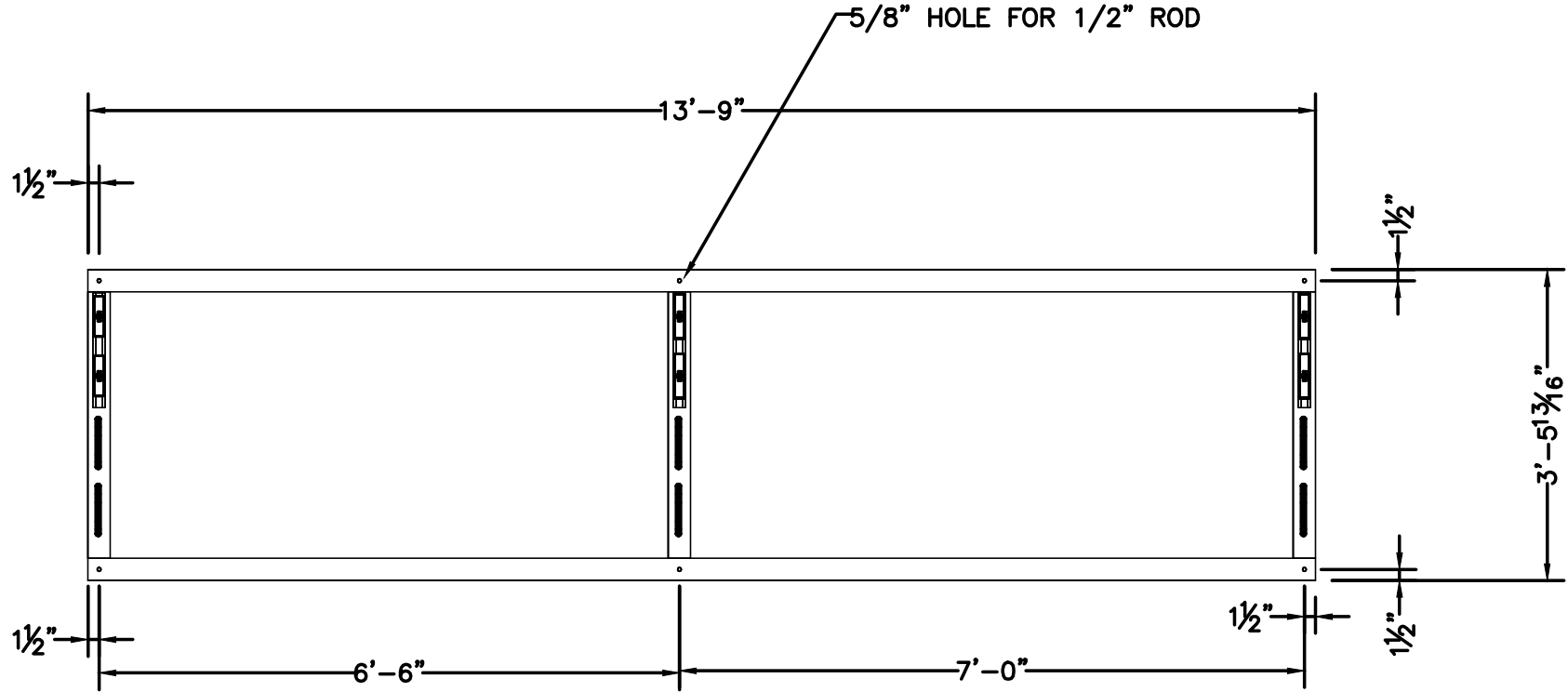


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DRN JMM		3/11/2021	WUSM RESEARCH BUILDING				QA/QC ACCEPT				FLANGE WEIGHT/ORIENTATION				<input type="checkbox"/>
CHK			NRB CUP				FITTING ORIENTATION				FITTING ORIENTATION				<input type="checkbox"/>
APP			PIPE RACKS								BOLTS/CPLG'S/TH'D TIGHT				<input type="checkbox"/>
JOB NO.		210140	SERVICE NAME								SPOOL IDENTIFICATION				<input type="checkbox"/>
REF.DWG.			CUP LEVEL 02				SPEC.		ASME	X-RAY	HYDRO TEST	PWHT	COMMENTS		
			NA		NA		NA		NA		NA		MURPHY WPS#		
			0												
			REV		DATE		DESCRIPTION				DRN		CHK	APP	
			1		1 of 2		0								
			QTY.		SHT/NO		REV								
			210140-A-UPL2-1G		1		0								



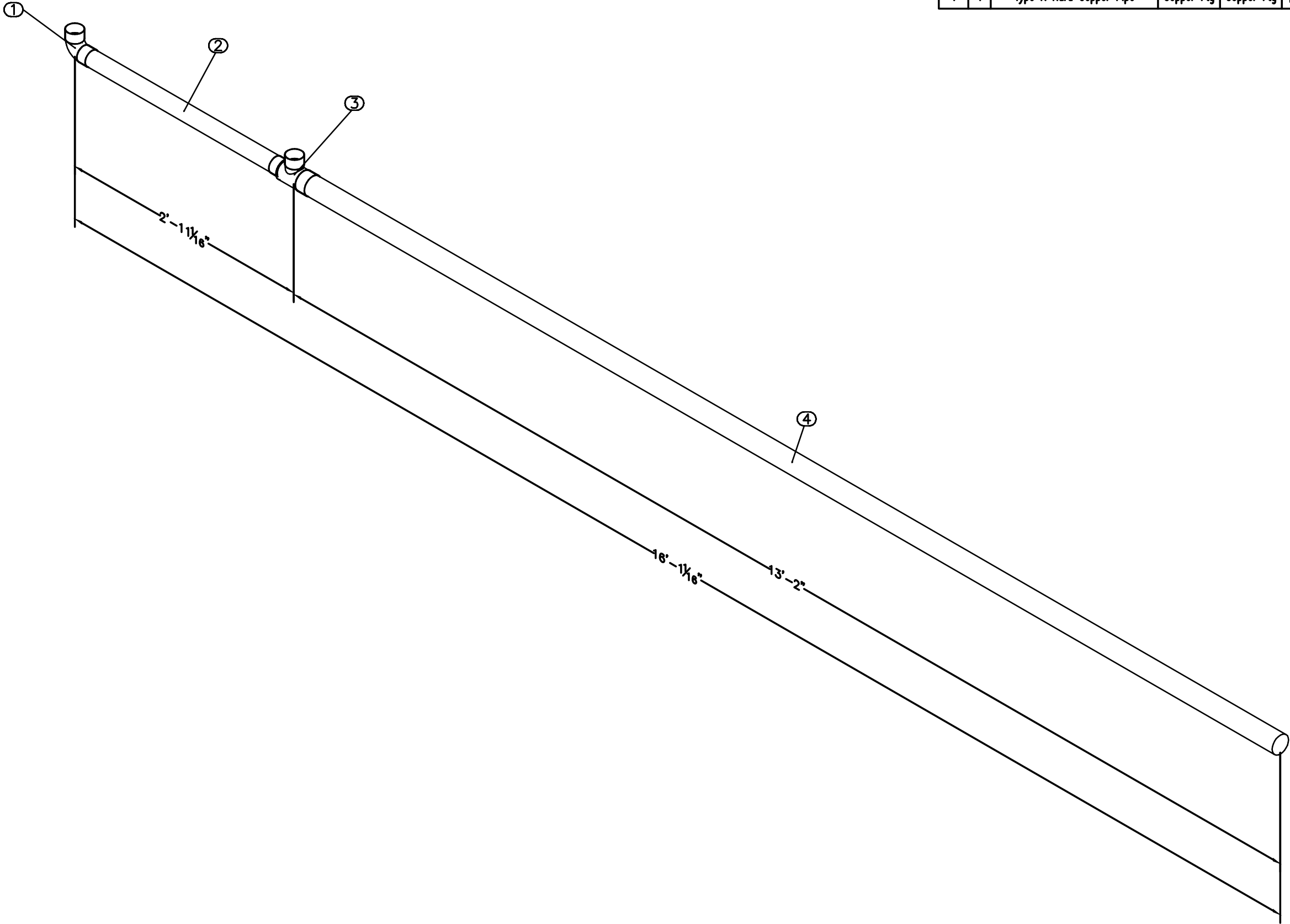
BOM-STEEL					
Item No	Order	Description	Qty	Size	Steel
H1	Fig137	Fig.137 U-Bolt (4)-Nut Black	6	5	
H2	929162	Klo-Shure Strut Clamp 1-1/2in Insul Cplg - Fiberglass_CTS	2	1-1/2	
H3	929262	Klo-Shure Strut Clamp 1-1/2in Insul Cplg - Fiberglass_CTS	4	2-1/2	
S1	L3x3x3/8	ASTM A36 CS Equal Angle	2	L3x3x3/8	165'
S2	L3x3x3/8	ASTM A36 CS Equal Angle	3	L3x3x3/8	35 3/4'
S3	B52 GRN	1FT GREEN 12GA CHANNEL	3	1-5/8x13/16	15 1/4'

DRN JMM		3/11/2021		WUSM RESEARCH BUILDING		CUP LEVEL 02		REV	
CHK				NRB CUP		SHT/NO		2 OF 2	
APP				PIPE RACKS		QTY.		1	
JOB NO.		210140		SERVICE NAME		CUP LEVEL 02		REV	
REF.DWG.									
DRAWING NO./TRACKING NO.		210140-A-UPL2-1G		1		2		0	

QA/QC ACCEPT		FLANGE WEIGHT/ORIENTATION		FITTING ORIENTATION		BOLTS/CPLG'S/TH'D TIGHT		SPOOL IDENTIFICATION	
SPEC.		ASME		X-RAY		HYDRO TEST		PWHT	
NA		NA		NA		NA		NA	
REV		DATE		DESCRIPTION		DRN		CHK APP	
0									

COMMENTS		MURPHY WPS#	

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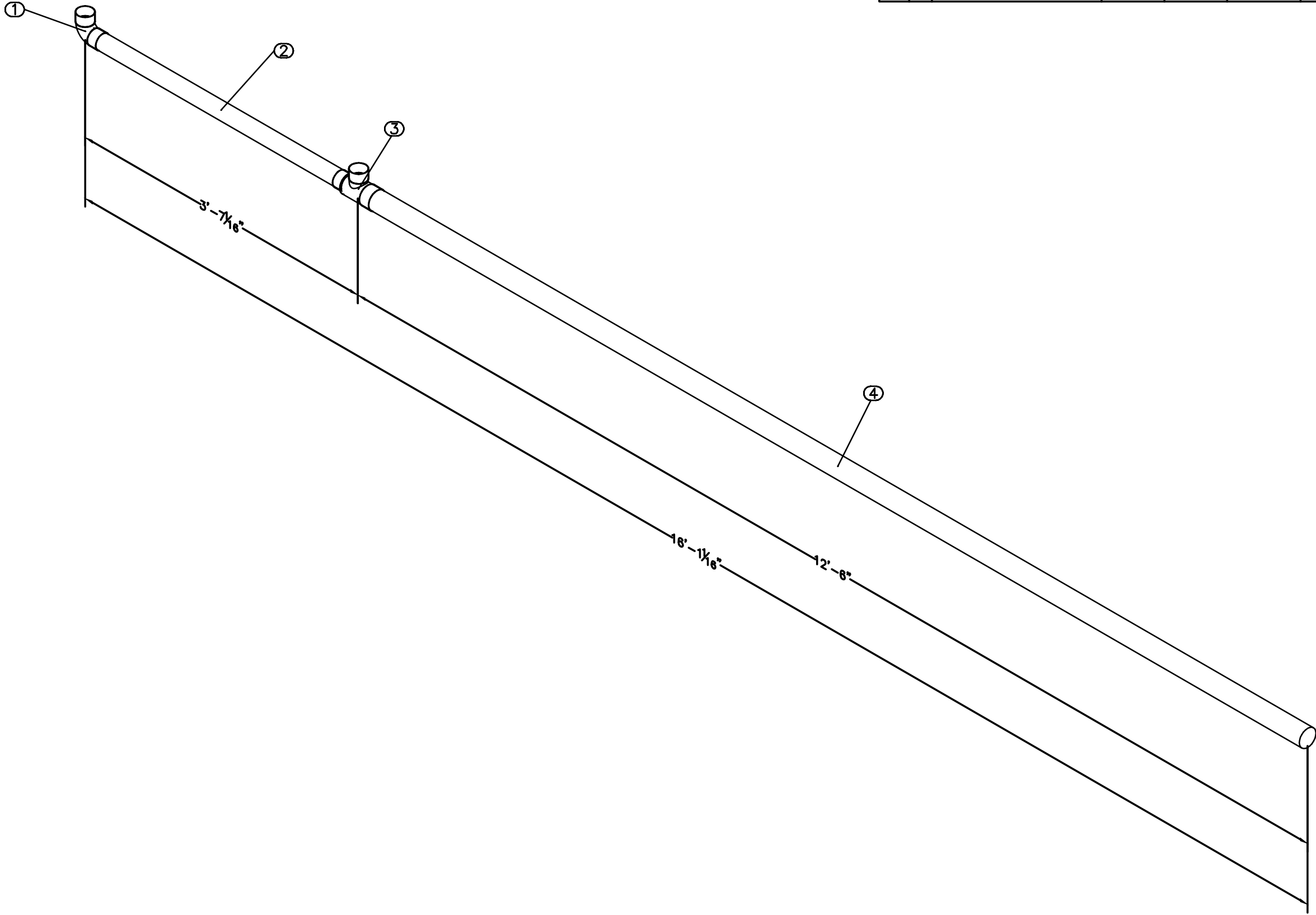
Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
3	1	Wrot 611R CxCxC Reducing Tee					2-1/2x2x2
1	1	Wrot 607 90 Deg Ell CxC					2
2	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-8 1/16"	32.089	2
4	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	13'-0 7/16"	156.410	2-1/2

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DRN JMM		3/29/2021		WUSM RESEARCH BUILDING				QA/QC ACCEPT		<input type="checkbox"/> FLANGE WEIGHT/ORIENTATION <input type="checkbox"/> FITTING ORIENTATION <input type="checkbox"/> BOLTS/CPLG'S/TH'D TIGHT <input type="checkbox"/> SPOOL IDENTIFICATION													
CHK				NRB CUP PIPE RACKS				SPEC. NA				HYDRO TEST NA				PWHT NA				COMMENTS			
APP								ASME NA				X-RAY NA				MURPHY WPS#							
JOB NO.	210140			SERVICE NAME				REV 0				DATE				DRN				APP			
REF.DWG.				UPL2-1G RACK				REV 0															
DRAWING NO./TRACKING NO.				QTY.				SHT/NO				DESCRIPTION											
210140-A-UPL2-1G-01				1				1 of 1															



Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
3	1	Wrot 611R CxCxC Reducing Tee					2-1/2x2
1	1	Wrot 607 90 Deg Ell CxC					2
2	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	3'-4 1/16"	40.088	2
4	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	12'-4 7/16"	148.410	2-1/2

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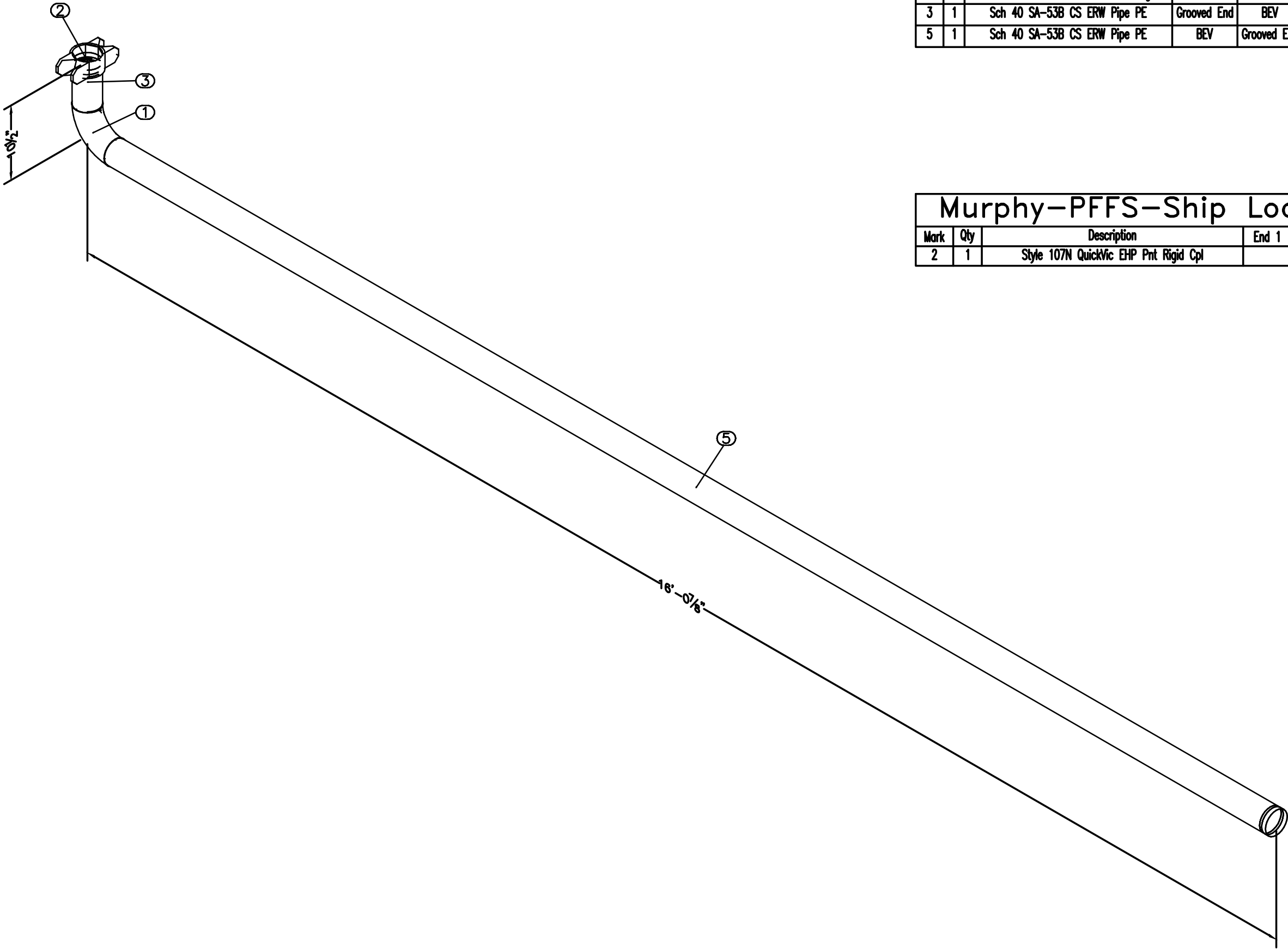
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<input type="checkbox"/> FITTING ORIENTATION	
<input type="checkbox"/> BOLTS/CPLG'S/TH'D TIGHT	
<input type="checkbox"/> SPOOL IDENTIFICATION	

QA/QC ACCEPT	

SPEC.	ASME	X-RAY	HYDRO TEST	PWHT	COMMENTS		
NA	NA	NA	NA	NA	MURPHY WPS#		
0							
REV	DATE	DESCRIPTION			DRN	CHK	APP

DRN	JMM	3/29/2021	WUSM RESEARCH BUILDING				
CHK			NRB CUP				
APP			PIPE RACKS				
JOB NO.	210140	SERVICE NAME	UPL2-1G RACK				
REF.DWG.							
DRAWING NO./TRACKING NO.	210140-A-UPL2-1G-02	QTY.	1	SHT/NO	1 of 1	REV	0

SHIP LOOSE



Murphy-PFFS-SPOOL-BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	Std Wt SA234 WPB CS BW LR 90 Deg El					3
3	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	BEV	5 7/8"	5.850	3
5	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	15'-8 1/4"	188.257	3

Murphy-PFFS-Ship Loose BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
2	1	Style 107N QuickVic EHP Pnt Rigid Cpl					3

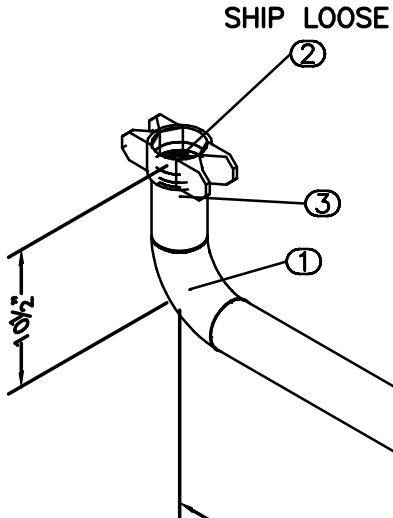
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<input type="checkbox"/> FLANGE WEIGHT/ORIENTATION		QA/QC ACCEPT		WUSM RESEARCH BUILDING			
<input type="checkbox"/> FITTING ORIENTATION				NRB CUP			
<input type="checkbox"/> BOLTS/CPLG'S/TH'D TIGHT				PIPE RACKS			
<input type="checkbox"/> SPOOL IDENTIFICATION				SERVICE NAME			
SPEC.	ASME	X-RAY	HYDRO TEST	PMHT	COMMENTS		
NA	NA	NA	NA	NA	MURPHY WPS#		
0							
REV	DATE	DESCRIPTION		DRN	CHK	APP	

DRN	JMM	3/29/2021	UPL2-1G RACK		
CHK			1 of 1		
APP			REV 0		
JOB NO.	210140	QTY.	1	SHT/NO	1 of 1
REF.DWG.					
DRAWING NO./TRACKING NO.	210140-A-UPL2-1G-03				



Murphy-PFFS-SPOOL-BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	Std Wt SA234 WPB CS BW LR 90 Deg El					3
3	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	BEV	5 7/8"	5.850	3
5	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	15'-8 1/4"	188.257	3

Murphy-PFFS-Ship Loose BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
2	1	Style 107N QuickVic EHP Pnt Rigid Cpl					3

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<input type="checkbox"/>	FLANGE WEIGHT/ORIENTATION
<input type="checkbox"/>	FITTING ORIENTATION
<input type="checkbox"/>	BOLTS/CPLG'S/TH'D TIGHT
<input type="checkbox"/>	SPOOL IDENTIFICATION

QA/QC ACCEPT	ASME	X-RAY	HYDRO TEST	COMMENTS
SPEC.	NA	NA	NA	MURPHY WPS#
NA	NA	NA	NA	
0	REV	DATE	DESCRIPTION	DRN
				CHK
				APP

DRN	JMM	3/29/2021	WUSM RESEARCH BUILDING
CHK			NRB CUP
APP			PIPE RACKS
JOB NO.	210140	SERVICE NAME	UPL2-1G RACK
REF.DWG.		QTY.	1
DRAWING NO./TRACKING NO.	210140-A-UPL2-1G-04	SHT/NO	1 of 1
		REV	0