NORTHWESTERN	I UNIVERSITY
PROJECT NAME	
JOB #	

SECTION 2 0!00 " HVAC INSULATION

#ENERAL

1\$1 SUMMARY

A. S%&'() * I*&+, -%.:

1\$ I*.,+/'() * M/'%0(/+.:

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F. F+%1(2+% E+/.') 3 %0(&: C+) . %-"&%+B . 5) *6%")0 %15/*-%-"0,22%0 3 /'%0(/+.\$ C) 3 5+? @('8 ASTM C : 7B T?5% I 4) 0 ',2,+/0 3 /'%0(/+. /*- T?5% II 4) 0 .8%%' 3 /'%0(/+.\$

- 1\$ P0)-,&'.: S,2;%&'') &) 35+(/*&% @('8 0%A,(0%3 %*'.B 50)9(-%) *%) 4 '8% 4)++) @(*6:
 - /\$ A\%0)4\%1 USA I*&\F A\%0)&\%\\$
 - 2\$ A03/&%++ LLCF AP A03/4+%1 DP0%4%00%-E\$
 - &\$ RBG C)05)0/'()*FI*.,+"S8%%' 1800 /*-I*.,+"T,2% 180\$

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FOR:

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C.	

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PROJECT NAME	
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- 1\$ ASJ: W8('% <0/4'"5/5% 4(2%6+/.."0%(*4)0&%-.&0(3 @('8 /+, 3(*, 3"4)(+2/&<(*6F &) 35+?(*6 @('8 ASTM C 11 6B T?5% I\$
- 2\$ F\$H J/&<%': A+, 3(*, 3"4)(# 4(2%)6+/..."0%(*4)0&%-...&0(3 @('8 <0/4'"5/5%) 2/&<(*6F &) 35+?(*6 @('8 ASTM C 11 6B T?5% II\$

2\$8 FIELD"APPLIED JACHETS

- A. F(%+-"/55+(%-;/&<%'...8/++&) 35+? @('8 ASTM C = 21B T?5% IB , *+%...)'8%0@(.% (*-(&/'%-\$) B) + (-1.55)'% (-1.55
- B. FSH J/&<%': A+, 3(*, 3"4)(+"4/&% 4(2%06+/..."0%(*4)0&%-.&0(3 @('8 <0/4'"5/5%0 2/&<(*6\$

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2\$= REMOVABLE INSULATION COVERS

- A. A&&%5'/2+% M/*,4/&',0%0.:
 - 1\$ A-9/*&% T8%03/+C)05\$
 - 2\$ T8\%3 /+ E*\%6? P0) -,&'.\BI*\&\$
 - \$ T%35'%&\$
 - 7\$ R%3&) T%&8*)+)6?BI*&\$
- B. R%3)9/2+% &%0/3 (& 2+/*<%' '?5% @('8 V%+&0) '/2. /*-2)1".'('&8%-B 1\$:> @(-% D"0(*6 .'0/5.B 6, ..%'.B 8)' 4/&% (**%);/&<%'(*6B'?5% 07 .'/(*+%...'%+'/6 @('8+/.%0 %*60/9%--/'/ 0(9%'%-') 2)-?B),'%0;/&<%'(*6B'?5% 07 .'/(*+%...'%+ A,(+'(*6 5(*.B .5%&(4(&/++? .8/5%-/*-&)*.'0,&%-4)0 (*.,+/%-('%3)\$

2\$10 TAPES

NORTHWESTERN UNIVERSITY PROJECT NAME		
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2\$12	CORNER AN#LES	

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PROJE	WESTERN UNIVERSITY CT NAME	FOR: ISSUED: 11/06/2018
\$7	#ENERAL PIPE INSULATION INSTALLATION	
A.	R%A,(0%3%*'.(*'8(./0'(&+%6%*%0/++?/55+?')/++(*.,+/'()*3/'%0(/0%A,(0%3%*'./0%.5%&(4(%-(*9/0(),.5(5%(*.,+/'()*3/'%0(/+(*.'/+	

B.

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- $2\$ \qquad W8\%^* \ ^{4+/*}6\% \ /^*-\ ,^*()^* \ ^8)9\%0. \ /0\% \ ^{3/-}\%40) \ ^{3.\%}()^* \ /^{5}5\% \ (^*.\ ,^+/'()^* \ ^8\%1'\%^*-\ (^*.\ ,^+/'()^* \ ^40) \ ^{3/+}6\%. \)0\ ,^*()^*+)^*6 \ /'\ ^{4/+}.'\ '@)\ '(^{3\%}. \ '^{8\%} \ (^*.\ ,^+/'()^* \ '^{8}(&<^*\%...)9\%0 \ /^-;/^{8\%*'}5(5\%) \ (^*.\ ,^+/'()^*)^* \ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ ^{8/+}\%80. \ (^*.\ ,^+/'()^*)^* \ /^*-\ (^*.\ ,^+/'()^*)^*-\ (^*.\ ,^+/'()^*)^* \ /^*-\ (^*.\ ,^+/'()^*)^* \ /^*-\ (^*.\ ,^+/'()^*)^* \ /^*-\ (^*.\ ,^+/'()^*)^* \ /^*-\ (^*.\ ,^+/'()^*)^$
- \$ C)*.'0,&'0%3)9/2+%9/+9%(*.,+/'()*&)9%0.(*./3%3/**%0/.4)04+/*6%. %1&%5'-(9(-%'8%'@)"5/0'.%&'()*)*'8%9%0'(&/+&%*'%0+(*%)49/+9%2)-?\$
- :\$ U*+%.. / PVC; /&<%' (. (* -(&/'%- (* 4(%+-"/55+(%- 4%&) * &)

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- %\$ 135/+% (*.,+/'()*)9%05(*./*-/''/&8.5%%-@/.8%0.\$
- 4\$ C,' %1&%...5)0'()*)45(*..%1'%*-(*62%?)*-.5%%-@/.8%0.)02%*-5/0/+%+@('8 (*.,+/'()*.,04/&% C)9%0 %15).%-5(*./*-@/.8%0.@('8'/5%3/'&8(*6(*.,+/'()* 4/&(*6\$
- $F) 0 -, \&'. /^* 5 \%^*, 3. @ ('8 ., 04/8\% '\% 35\% /', 0\% . 2\%) @ / 32 (\%*'B (*.'/# / \&)*'(*,), .)$ 7\$,*20)<%* 9/5)0 2/00(%0\$ C0%/'% / 4/&(*6 +/5 4)0 +)*6(', -(*/+ .%/3 . /*- %*- ;)(*'. @('8 (*.,+/'()*2?0%3)9(*62(*&8%.40)31%-6%/*-1%*-)4(*.,+/'()*.%63%*'\$S%&,0%+/5. ') /-;/&%*' (*.,+/'()* .%&'()*\$ I*.'/++ 9/5)0 2/00(%0 &)*.(.'(*6)4 4/&')0?")0 4(%+-"/55+(%- $\frac{1}{2}$ $\frac{1}{8}$ $\frac{1}$
 - R%5/(0.5, *&', 0%.B'%/0.B'*-5%*%'0/'()*. @('8.'/5%)0.3/.'(&').3/(*'/(*.9/5)0")2/00(%0 .%/+\$
 - 2\$ I*.'/# 9/5)0 .')5. 4)0 -,&'@)0< /*- 5+%*, 3.)5%0/'(*6 2%+)@ :0 -%6 F /' 18"4))' (*'%09/+.\$ V/5)0 .')5. .8/+ &)*.(.')49/5)0"2/00(%0 3/.'(&/55+(%-(*/M".8/5%-5/''%0*)9%0(*.´,+/'()*4/&%B/+)*62,''%*-)4(*.,+/'()*B/*-)9%0'8%.,04/&%\$C)9%0 (*.,+/'() * 4/&% /*-.,04/&% ') 2% (*.,+/'%- / @(-'8 %A,/+') 2 '(3%. '8% (*.,+/'() * '8(&<*%..2,'*)'+%..'8/* (*&8%.\$
- :\$ O9%0+/5, *4/&%-2+/*<%'. / 3(*(3,3) 42(*&8%.)*+)*6(',-(*/+.%/3./*-%*-;)(*'.\$ A'
- 6\$ 4, ++ (*.,+/'() *.%&'() *4)0 %/&8 .,04/&% 1*.'/++ (*.,+/'() *) *0), *-/*-4+/'")9/+-,&' %+2)@. @('8 (*-(9(-,/++? 3 ('%0%-6)0%. &,'') 4(''8% %+2) @\$
- !\$ F)0B)/0-1*.,+/'()*B(*.'/++(*.,+/'()*)*0%&'/*6,+/0-,&'%:2)@./*-'0/*.('()*.@('8/4,++ (*.,+/'()*.%&'()*4)0%/&8.,04/&%\$#0))9%/*-.&)0%(*.,+/'()*')4('/.&+).%+?/.5)..(2+%')),'.(-%/*-(*.(-%0/-(,.)4%+2)@.\$ I*.'/++(*.,+/'()*)*0),*-/*-4+/'")9/+-,&'%+2)@. @('8 (*-(9(-,/++? 3('%0%-6)0%. &,'') 4(''8% %+2) @\$

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0%&) 3 3 %*-%- 2? (*.,+/'() * 3 /*,4/&',0%0\$ S%&,0%;/&<%' @('8 .'/(*+%..".'%%+ 2/*-. 12 (*&8%.) \$&\$ /*- /' %*-;)(*'.\$

\$8 FINISHES

- A. D,&'B EA,(53%*'B/*-P(5% I*.,+/'() * @('8 ASJ)0 O'8%0 P/(*'/2+% J/&<%' M/'%0(/+: P/(*';/&<%' @('8 5/(*'.?.'%3 (-%*'(4(%-2%+) @ /*-/...5%&(4(%-(* D(9(.() * 0= P/(*'(*6 S%&'() * ..\$
 - 1\$ F+/' A&0?+(& F(*(.8: T@) 4(*(.8 &) /'.)9%0 / 50(3 %0 '8/' (. &) 35/'(2+% @('8 ;/&<%' 3 /'%0(/+ /* 4(*(.8 &) /' 5/(*'\$ A - 4, *6(&(- /+ /6%*' ') 0%* -%0 4/20(& 3 (+-%@ 50))4\$
 - /\$ F(*(.8 C) /' M/'%(/+: I*'%()) = 4+/'B+/'%1''%3,+.()*.(I%)

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- O,'-))08 %15).%-.,55+?/*-0%',0*\$
- I'%3.N)'I*.,+/'%-: B.
 - $1\$ \qquad M\%'' / + \ -\ , \&' \ . \ @('8 \ -\ , \&' \ +(*\%) \) \ 4 \ .\ , \\ 44(\&(\%'' \ '8(\&<*\%..\ ') \ \&) \ 3.5 +? \ @('8 \ \%'*\%)6? \ \&) \ -\% \ / \ *-10.5 + (*\%) \ A \ .$

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- 1\$ PVC: 0 3 (+. '8(&<\$
- 2\$ A+, 3(*, 38\$3))'8)0C)00,6/'%-)0S',&&) E32)..%-: M(*(3, 3 0\$016 (*&8 '8(&<\$

\$1= REMOVABLE INSULATION COVERS

A. U.%') &) 9%0.'%/39/+9%.B&8(++%-@/'%09/+9%.B8%/'(*68)'@/'%09/+9%.B.'%/3%15/*.()*;)(*'.B &) *-%*./'%5,355/&</6%0%&%(9%0.B8%/'%1&8/*6%04/&%.B4+/.8'/*<.B8,0+(*6'/*<./*-.(3(+/09%..%+.B/*-/@<@/0-.,04/&%.*)'&)9%0%-2?(*.,+/'()*\$

\$20 COLD HYDRONIC PUMP INSULATION

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