!

+3 4 5 6 1 7 8 9 :+

2E"E!G(?%-<,! ' -,%>#B)! / ,+=-<?+%):!X+#3C$, .:! ' ` !89aD!Z-$5$H)+
2E J;+G(?%-<,! ' -,%>#B)! / ,+=-<?+%):!X+#3C$, .:! ' ` !89aD! I 3-C+?%<)!
&E"E+G(?%-<,!

- GT%-,?+=-!.-=-5$;C-,%!$4!6k6!&$>!(,.!#$55(O$<(%+=-!(H<--C-,%?!
- A-=-5$;-.!^+?+%+,H!"#3$5(<!1<$H<(C!4$<!?#3$$5?!(,.!#$CC>,+%)!$<H(,+d(%+$,?! 1<$H<(C!A-=-5$;C-,%!
- &E"E

Q, ?%+%>%- .!#$C ;<-3- , ?+=-!#<(.5-!%$!H<(=-!?%> . - , %! ;<$H<-??!%<(#B+, H!4$<!?%> . - , %!(. =+?+, H!(, .!?>##-??!

Q, ?%+%>%- .!*> , +$<!5-=-5!@<+%+, H!(, .!? ; --#3!#$><?-!+ , !C$?%!C (*$<?!%$!3-5 ; !?%> . - , %!#(<--<!?>##-??!

M(#+5+%(%- . !H<$@%3!$4!$, -!$4!%3-!5(<H-?%!#$C ; >%-<!?#+- , #-! ; <$H<(C?!+ , !%3-!?%(%-!(, . !#$> , %<) !

!

pI$,=-<%+,H!;5(?%+#?:!%+<-?!@(?%-:!$+5?!(,.!5>O<+#(,%?!+,%$!4>-5?!?>+%(O5-!4$<!>?-!+,!.+-?-5!H-,-<(%$<?! 4$>,.!$,!4$<@(<.!$;-<(%+,H!O(?-?q:!K(<=-)!2>3<!YK+W0-#[!F!"#$%%!&#'()!Y/ I&[:!N-$,(<.!V$$.! Q,?%+%>%-!YNV Q[:!_#%$O-<!\:!677DE!4>,.-.!hi9a:777E!

!

!

A<E!"#$%%!GE!&#B()!
1(H-!]!

_<O+%(5!&(;;+,H:!/XI!Z<(,%:!A-#-CO-<!8a:!677]:!h67R\:!4>,.-.E!

!

J<%?!(,.!"#+-,#-?!I<-(%+=-L"#3$5(<?3+;!J@(<.:!"#$%%!GE!&#'():!I-,%<(5!&+??$><+!"%(%-!
/,+=-<?+%):!V(<<-,?O><H:!&_!]i79\:!A-#-CO-<!677]:!4>,.-.E!h6R77E!

!

?I5M'"#$%%!GE!&#'():!1AJWZ<(,%:!I-,%<(5!&+??$><+!"%(%-!/,+=-<?+%):!V(<<-,?O><H:!&_!]i79\:!
_#%$O-<!]:!677]! hRR7!4>,.-.E!

!

K;0$$&'?$2(780-LM')*$';0$$0'B==$&*$(2$0';0/&87M'*I-,%<(5!&+??$><+!"%(%-!/,+=-<?+%):!
V(<<-,?O><H:!&_!]i79\:!_#%$O-<!R:!677]!!h!677!

?+&8(&:+:7'!"80/#8(6$'.$8*+47:!"#$%%!GE!&#'():!1GIWZ<(,%:!I-,%<(5!&+??$><+!

t"@-,?$,:!^Jb!tN-+,-,:!Nfb!t&$$.):!2b!tf>,%>,-,:!KNb!&#B():!"Gb!2-><C(,,:!"b!K$,$><:!Xb! K(5-:!XIb!^+.-(>:!1b!Z()5$<:!&_E!^$5(%+5-!1<$4+5+,H!$4!"-@(H-!"5>.H-!2+$?$5+.?!N(,.WJ;;5+-.! +,!A+=-<?-!2+$C-?!$4!V(?3+,H%$,!"%(%-!Y/"J[E!Q,!;<-;(<(%+$,!4$<!?>0C+??+$,!%$!?*$2+7=*$0$' T-'./0#*'U'E,@AE'

'

pG,=+<$,C-,%(5!J,(5)?+?!$4!"@+%#3H<(??!$,!"$+5q:!Z-C-:!ZEb!A$0?$,Wf$,-?:!IEb!K(H-,3$44:!2Eb! &#'():!"EGE!/,+=-<?(5!f$><,(5!$4!I3-C+?%<):!^$5E\Y\[:!;;E98W9D!A_Qc! 87E8\8a9L>*#E678RE7\7\76!

!

J3C-.!&:!&+%<(!J:!&#'()!":!K$??(+,!&:!uJ!2<+-4!X-=+-@!$4!V$$.W15(?%+#!I$C;$?+%-?!(,.! 1$??+05-!/?-!$4!">#3!I$C;$?+%-?!(?!&(B+,H!\A!1<+,%-<!M+5(C-,%?P:!03-!I$C;$?+%-?!(,.! J.=(,#-.!&(%-<+(5?!GT;$!YIJ&e[!678i:!_<5(,.$!MN:!_#%$0-<!8\W8]!

!

J3C-.!&:!v3(,H!I:!&#'()!":!"3+<?(%!^:!'3(,!f:!pJ,!Q,=-?%+H(%+$,!$4!&-%3(,-!I$C0>?%+$,!+,! J!X-#%(,H>5(<!"3(;-.!&-?$!I3(C0-<q:!1<$#--.+,H!$4!%3-!J"&G!678i!Q,%-<,(%+$,(5! &-#3(,+#(5!G,H+,--<+,H!I$,H<-??!(,.!GT;$?+%+$,:!&$,%<-(5:!I(,(.(:!U$=-C0-<!8iW67:!678i!

!

2+$4>-5c!J,!(5%-<,(%+=-!%$!4$??+5!4>-5!4$<!(55-=+(%+,H!@$<5.!-,-<H)!(,.!-#$,$C+#!#<+?-?:!23(%%(<(+:! 'E:!"%(5+#B:!VE:!&#'():!"E:!Z-C-:!ZE:!23(%%(<(+:!UE:!f$><,(5!$4!G,=+<$,C-,%(5!"#+-,#-!(,.! K-(5%3:!1(<%!J:!UVRR:!!i]:!8i6iW8ii6E!

!

U(=+H(%+,H!%3-!I3(55-,H-?!$4!Q,%-<.+?#+;5+,(<)!X-?-(<#3!+,!%3-!/,.-<H<(.>(%-!"#+-,#-?c!J,! /,.-<H<(.>(%-!13)?+#?!"%>.-,%P?!1-<?;-#%+=-:!X$0-<%!VE!N(?35--:!"#$%%!&#'():!.YG?FW'UVRV:! UZ:!6aW\RE!

!

p"),%3-?-?!$4!2+;)<+.+,-W>W$T+.-?!(,.!2+;)<+.+,-W>M>[W.+$T+.-?:q!"#$%%!GE!&#'():!N+,#$5,!VE! &(+,(:!X$0-<%!VE!N(?35--:!'<(+H!JE!V3--5-<:!J5(,!2<$@,:!A$8$0+#-#%(#'?+22:&(#/8(+&7:! UVVS:!\HU]JM'8a8W8aaE!

!

p&$.-<,!";$<%!(,.!I3-C+?%<)c!V3(%!(!Z$54!M(,(%+#!"3$>5.!',$@:q!"#$%%!GE!&#'()t:!0+C$%3)! X$00+,?:!(,.!X-,s-!"E!I$5-:!YE'?*$2E'!4:#E:!UVVZ:!aR:!8\89W8\66E!

!

pA-=-5$;+,H!(,!/,.-<H<(.>(%-!I(;?%$,-!I$><?-!+,!%3-!I3-C+#(5!"#+-,#-?c!J!U--.-.! J>HC-,%(%+$,!%$!%3-!/,.-<H<(.>(%-!X-?-(<#3!GT;-<+-,#-:q!"#$%%!GE!&#'():!X-,--!"E!I$5-:!(,.! J5(,!2E!2<$@,:!.YG?F:!UVVZI+^:!i8WiDE!

!

p1<$=+.+,H!(,!J;;<$;<+(%-!X-?-(<#3!G,=+<$,C-,%!4$<!(!13)?+#(5!"#+-,#-!A-;(<%C-,%:q!&#'()t:! "EGEb!N(?35--:!XEVE!?GF'_:/08$0%-'C:%%$8(&:!UVV]I+\'Y6D[:!8\8W8\iE!

!

pJ,!/,.-<H<(.>(%-!Q,%-<.+?#+;5+,(<)!I$><?-!+,!I$C;>%(%+$,(5!(,.!03-$<-%+#(5!I3-C+?%<)c!0@$! J;;<$(#3-?!J<-!2-%%-<!03(,!_,-E`+"#$%%!GE!&#'()t!(,.!X-,--!"E!I$5-:!I/X!A-=-5$;+,H!(,.! ">?%(+,+,H!(!X-?-(<#3!W!">;;$<%+=-!I><<+#>5>Cc!J!I$C;-,.+>C!$4!">##-??4>5!1<(#%+#-?c! ;>05+#(%+$,!<-5-(?-.!$,!M-0<>(<)!68?%:!UVV]+(%!%3-!U(%+$,(5!1<-??!I5>0!+,!V(?3+,H%$,:!AEIE!

!

pI3-C+#(5!"-;(<(%+$,!(,.!I3(<(#%-<+d(%+$,!$4!I$C;$>,.?!Q,!%3-!_<H(,+#!N(0$<(%$<)!"-o>-,#-c! J,!Q,=-?%+H(%+=-!GT-<#+?-q!"#$%%!&#'()t:!f(?$,!K$55(,.:!J?35-)!&+553(C:!(,.!A-05+,(!1(B3+<(:!)0/&7/#8(+&7'+<'.(77+:0('1#/4$2-'+<'I#($&#$:!UVV]I+VZ:!]DWD\E!

!

p6:6Sc]S:6rW0-<;)<+.+,-!8:8rW.+$T+.-!(,.!0-%<(#)(,$O-,d-,-!q!&#'()t:!"EGEb!V3--5-<:!'EJE:!
K$5%3$>?-:!2E!`$(87#*0(<8'<:0'a0(78/%%+,0/=*($'UI"!668!YUVV[[!98W96E!

!

pJ!#$C;>%(%+$,(5!?%>.)!$4!?>54><!O<+.H-.!#)#5$$#%(%-%<(-,$;3(,-?c!%$@(<.?!%3-!?),%3-?-?!$4!

a6E!Z-C-:!ZE:!2(,(#3!2E:!"--5-,H-<:!XE:!"3$<%:!KE!Z(,%:!A:!&#'():!"E!G,=+<$,C-,%(5!(,(5)?+?!$4!
?@+%#3H<(??!+C;(#%!$,!?$+5!(,.!>%+5+d(%+$,!$4!O+$C(??:!J I"!U(%+$,(5!C--%+,H!+,!"(,!M<(,#+?#$:!
I J!&(<#3!68W6R:!6787E!

!

a8E!1<-5+C+,,(<)!"%>.+-?!$4!"@+%#3H<(??!QC;(#%!$,!"$+5:!f()C-!Z+O?$,:!2<+(,!2(,(#3:!A(,(!
Z(,%:!0<(=+?!V3+?5-<I+"#$%%!&#'():!Z+*(!Z-C-:!M(,?$,!'+.@(<$:!J I"!&+.@-?%!X-H+$,(5:!A-?!
&$+,-?:!Q$@(!_#%$O-<!67W66:!6779E!

!

a7E!X-.>#%+$,!$4!#(<O$,!4$$%;<+,%!(%!(!&+.@-?%!<-H+$,(5!>,+=-<?+%)I+I3<+?%$;3-<!2<$@,I+"#$%%!

RaE!p I $C ; 5-%-!0@$!A+C - , ?+$, (5!U&X! J ??+H, C - , %!(, . ! I 3(<(#%-<+d(%+$, !$4!">54$, (%- . !(, . !
/ , ?>54$, (%- . !1$5)Y-%3-<!-%3-<!B-%$, -[!Y1GG ' [!&$, $C -<?:q!"#$%%!GE!&# ' ( ):!X$0-<%! V E!N(?35--!
QQQ:!A(, +-55-!&$>5:!2<)#-!K$5%3$>?-:!X$0-<%! V E! ' $; +%dB-:!\9"#! J I "!&+. V -?%!X-H+$, (5!&--%+, H!
677i:!&(, 3(%%(, :! ' "!_#%$0-<!67W66:!677 i E!

!

RDE!p e W<( )! I <)?%(55$H<(; 3)!(, . ! I <)?%(5!G , H+, --<+, H:q!"#$%%!GE!&# ' ( ):! / , +=-<?+%)!$4!
I (5+4$<, +(5W"(, !A+-H$:! J >H>?%!86"#!677 i E!

!

R]E!pM+, . +, H!(, ! J ; ; <$; <+(%-!X-?-(<#3!&$. -5!4$<!(!13)?+#(5!"#+-, #-!A- ; (<%C - , %:q!"#$%%!GE!
&# ' ( ):!X$0-<%! V E!N(?35--!QQQ:!677 i !U(%+$, (5! I / X!&--%+, H:!N(! I <$??-:! V Q!f>, -!6\!j !f>, -!6]"#E!

!

RRE!p03-!1<- ; (<(%+$, !$4!1$5)G%3-<G%3-< ' -%$, -!Y1GG ' [!&$, $C -<?:q!"E!GE!&# ' ( ):!XE! V E!
' $; +%dB-:!XE! V E!N(?35--!QQQ:!677 i !U(%+$, (5! I / X!&--%+, H:!N(! I <$??-:! V Q!f>, -!6\!j !f>, -!6]"#E!

!

R i E!p / ?+, H!-5-#%<$, +#!%-#3 , 5H)!%$!0-%%-<! ; <- ; (<-!(!%+C -W?%<-??- . !$<!(5%-<, (%+=-!?%> . - , %!

i]E!p") , %3-?-?!$4!1<$%$, !GT3(, H-!&$, $C -<?:qX$O-<%!N(?35--!QQQ:!"#$%%!&# ' ( ):!U(%+$, (5!

\iE!p&$.-<,!";$<%!(,.!I3-C+?%<)c!V3(%!(!I3-C+#(55)!J@(<-!";$<%?!M(,(%+#!"3$>5.!' ,$@Eq! Z+44+,:!ZE JE:!&(<?3(55:!0E1E:!2$$,-:!"EXE!(,.!"EGE!&#'()E!I-,%<(5!&+??$><+!"%(%-!/ ,+=-<?+%)E! XE! '$;+%dB-E!V+,$,(!"%(%-!/ ,+=-<?+%)E′&+??$><+!J#(.-C)!$4!"#+-,#-!Yf$;5+,:!&_:!J;<+5!67W68:! 6778[E!

!

\\E!p&(%-<+(5!"#+-,#-c!Q,%-<,-%!(,.!V-0I0!G,3(,#-.!N(0$<(%$<)!+,!Z-,-<(5!I3-C+?%<):!"3$<%:! &E:!2$$,-:!"EXE:!&(<?3(5:!0E1E!(,.!"EGE!&#'()E!I-,%<(5!&+??$><+!"%(%-!/ ,+=-<?+%)E!&+??$><+! J#(.-C)!$4!"#+-,#-!Yf$;5+,:!&_:!J;<+5!67W68:!6778[E!

\6E!p03-!A-=-5$;C-,%!$4!J%%<(#%+=-!&-%3$.?!%$!Q,%<$.>#-!1$5)C-<?:!A<>H?!(,.!K+H3! 1-<4$<C(,#-!&(%-<+(5?!%$!2-H+,,+,H!I3-C+?%<)!"%>.-,%?q:!&(<?3(55:!0E!1Eb!Z+44+,:!ZE!JEb!2$$,-:! "E!XEb!&#'():!"E!GE:!UI /X!6778!YN-T+,H%$,:!'`!i7iDR:!&(<#3!8RW8D:!6778[E!

!

\8E!pU$,#$=(5-,%!Q,%-<(#%+$,?!+,!0-<;)<+.+,-WUW$T+.-?q:!&(<?3(55:!0E!1Eb!25(#B?%$#B:!"E!IEb! &#'():!"E!GE:!UI /X!6778!YN-T+,H%$,:!'`!i7iDR:!&(<#3!8RW8D:!6778[E!

68E!

9E!r03-!G44-#%?!$4! J , , >5(%+$, !$, ! I)#5$O>%(. +- , -!2$, . ! J 5%-<, (%+$, c! J ! I $C ; (<(%+=-!"%> .)!$4!
"-C+W-C ; +<+#(5!(, . !*1T'D&(8(+'*&-%3$. ?Er!"#$%%!GE!&# ' ( ):!1(>5! ' + ; <$4!(, . ! J 5(, !2E!2<$@ , E!03-!
"-#$, . !G5-#%<$, +#! I $C ; >%(%+$, (5! I 3-C+?%<)! I $, 4-<- , #-!U$=-C0-<!899R:!1(; -<!n8]E!

!

aE!r") , %3-%+#! J ; ; <$(#3-?!0$! J , , >5(%- . !A-@(<

I3-C+#(5! I$CC>,+#(%+$,!"B+55?!

!

KE!0-5-=+?+$,! J ; ; -(<(,#-?!(, .!U-@?! J<%+#5-?c!

!

' ^& J !X(.+$!678]!
A+?#>??+$,!$4!G,H+,--<+,H!

!

' 0""!0^!]L6RL678R!
I$C;>%-<!"#+-,#-!

!

' &_"!RL\7L88!
J5%-<,(%+=-!G,-<H)! F !G(<%3@--B!+,%-<=+-@

V (<<-, ?O><H!W!O><, +, H!>?- . !%+<-?!+, %$!4>-5!
#$>5 . !?(=-!%3-!5+=-?!$4! / E"E!%<$$; ?:!
+, #5> . +, H!+, ! J 4H3(, +?%(, !(, . !Q<(oE!EEE

☐ J;;$+,%-.!%$!%3-!J<B(,?(?!G#$,$C+#!A-=-5$;C-,%!I$CC+??+$,!"F0!A+=+?+$,!0)!
Z$=-<,$<!J?(!K>%#3+,?$,:!678]E!

☐ J;;$+,%-.!%$!%3-!2$(<.!$4!A+<-#%$<?!K+W0-#:!NNI:!678]!
J<BWN(W0-T!678\!J,,>(5!J#3+-=-C-,%!J@(<.?!4$<!GT#-55-,#-!+,!0-#3,$5$H)!
A<-)4>?!0-(#3-<W"#3$5(<!J@(<.!U$C+,--!677]!
677RW677]!M(#>5%)!X-?-(<#3!A()?!1(;-<!I$C;-%+%+$,:!"-#$,.!

M(#>5%)!V$<B5$(.!87W;<-?-,%!

!

2E I3-C+?%<)!A-;(<%C-,%!I$CC+%%--?c!
J@(<.?!I$CC+%%--!8999W!677a!
I$55$o>+>C!(,.!"-C+,(<!15(,,+,H!I$CC+%%--c!I3(+<!8999!
A-;(<%C-,%!V-O!;(H-!.-=-5$;-<!6777!
A-;(<%C-,%!G,3(,#-C-,%!I$CC+%%--!6777!
A-;(<%C-,%!1<$C$%+$,!(,.!0-,><-!#$CC+%%--!Y#3(+<C(,[!677i!
I3(+<!"-(<#3!I$CC+%%--!677\W677i!
K1NI!J#o>+?+%+$,!I$CC+%%--!78L7RW88L7R!
2+$#3-C+?%?!"-(<#3!I$CC+%%--!
J,(5)%+#(5!"-(<#3!I$CC+%%--!677R!(,.!677]!
1<$C$%+$,!I$CC+%%--!
0-,><-!I$CC+%%--!
VI&!&$<<+?!X-,$=(%+$,!I$CC+%%--!7RW7D!
A-;(<%C-,%!1F0!H>+.-5+,-!#$CC+%%--!(.!3$#!7RW7]!
A-;(<%C-,%!"%>.-,%!-=(5>(%+$,!(,.!J,,>(5!X-;$<%!H>+.-5+,-!I$CC+%%--!(.!3$#!
A-;(<%C-,%!X-#<>+%C-,%!(,.!X-%-,%+$,!I$CC+%%--!

A<E!"#$%%!GE!&#B()!
1(H-!6R!