

!"#\$%&'()*+,-./01&2/0-345&&

!"#\$%&'()*+,-./01&2/0-345&

67,0-489,& : -8; ,38) ,& ' (\$!%<&8=-, ;& ""*">*#>?&., 98=, ;&#%*"**#A<&#B*"@*"#<&>*"C*"#<&#&#B*" "<&C* ">*"@<&B*@D*" !<&!*" ""* "D<&%*B*@#&&

E\$!"#%&'()*+,&%+,-&

E0/ ; , F80&/GG(8)4F ,)4=&/4&4H, & I)89 , . =845&(J&K8=-(. 8&0- . . ,)435&/ . , & ; 898 ; , ; &8)4 (&4L (&F / 8) & 0/4, M (.8, =N& . , M-3/ .&/) ; &) (* . , M-3/ .& I) ; , . &4H8=& , 7, 0-489, &M-8 ; , 38) , <& . , M-3/ .&J/0-345&=H/33& 0, & . , J, . . . ; &4 (&/=&P4,) - . . ; &/) ; &4,) - . . , &4./01Q&J/0-345&</) ; &4H8=&M. (-G&=H/33&0 (&48) - , &4 (& 8)03- ; , &4H, &4. / ; 848 (&/3&J/0-345&(J&4H, &8)=484-48 (&)\$&& 670, G4&L84H& . , M/ . ; &4 (&4H, & ; , J8)848 (&)=& 38=4, ; &H, . . , 8)<!"#\$%&'#()*+)&#% , - - *# . , /)*%0! ' **2!# 3)%4, +5) (%+0+24)& ' * , 4%I , . ' *!6% , + (%#\$% +0!%)\$#&+) (%!0% , ((4)\$%\$, . . , () 3# . % , - - 0#+!3)+!\$%0!% , +6%0!')4!6-)%#+ . ' (#+&7%/ ' !%+0!% *#3#!) (%!07! ' **2!# 3)% ' +4, +5) (7%- , 4!2!# 3)%+0+4)& ' * , 4%I , . ' *!67% , + (!) + ' 4) (% , + (!) + ' 4) % !4, . 5%I , . ' *!68&&

' (* . , M-3/ .&J/0-345&=H/33&0, & ; 898 ; , ; &8)4 (&4H. , &M. (-G=N&R "S&J-33*48 F , <&. /) 1 , ; <&) (* . , M-3/ .& J/0-345&R) (*4,) - . . , &4./01&R ' ++S&J/0-345S?&R@S&J-33*48 F , <&- . /) 1 , ; <&) (* . , M-3/ .&J/0-345?&/) ; & R !S&G/ .4*48 F , <&) (* . , M-3/ .&J/0-345&R/ ; T-)04&J/0-345S&U"VS&

+H, & . , W-8. , F ,)4=& ; 8=48)M-8=H8)M&O, 4L , ,)&/&J-33*48 F , <&. /) 1 , ; &) (* . , M-3/ .&J/0-345&F , FO , . & /) ; &/&J-33*48 F , <&- . /) 1 , ; &) (* . , M-3/ .&J/0-345&F , FO , . &=H/33&0, &F / ; , &/4&4H, &0/ FG=-& 3, 9, 3&& XH83, &F /) 5&(J&4H, &J-33*48 F , &- . /) 1 , ; &) (* . , M-3/ .&4843, =&L833&) (4&O, & , 38 F 8) / 4 , ; <&84&8=& 8 FG38084&8) &4H8=&M-8 ; , 38) , &4H/4&4H, &8) ; 898 ; - / 3=&4H/4& F , , &4&4H, &W- / 38J80/48 (&)=&J (& ' ++&J/0-345& =H (-3 ; & . , 0, 89, &/) &/GG. (G.8/4, & ' ++&J/0-345&4843, &/=& ; , =0.80, ; &8) &4H, &J (33 (L8)M&=, 048 (&)\$&&Y) & F (4&08.0- F=4/) 0, =<&) (*4,) - . . , &4./01&J/0-345&F , FO , . &=LH (&H/9, &G.8 F / .5&/ -4H (& .845&8) & . . , / .OH<& (&4, /OH8)M<& (&038)80/3ZG. (J, ==8 (&) / 3&G. / 0480, <& (& . & , 74,)=8 (&) & ; -48, =&=H (-3 ; & . , 0, 89, & 4843, &OH/) M, =&/GG. (G.8/4, &4 (&. /) 1 , ; & ' ++&G (=848 (&)=&/4&4H, &48 F , & (J&=-OH&. , /GG(8)4F ,)4=&U@VS&

+H8=&M-8 ; , 38) , &/GG38, =&4 (&/33&) , L35*H8. , ; & ' ++&J/0-345&F , FO , . &= &) ; &4 (&4H (=, &) (* . , M-3/ .& J/0-345&LH (&/ . , &. , /GG(8)4, ; &8)4 (& ' ++&J/0-345&G (=848 (&)=&/4&4H, &48 F , & (J&=-OH&. , /GG(8)4F ,)4\$&

[\$. #, % / * 0 % - (* 1 (2 3 # + 4 % \$ 5 (6 * + 7 8 % + 9 0 % (8 0 # " 4 (: # " 9 ; , < (= % 1 ' + % \$ (&

+H, . . , &=H/33&0, &=87& F / 8) &45G, =&(J&J-33*48 F , <&. /) 1 , ; & ' ++&J/0-345&&& 6 / OH&=H (-3 ; &H/9, & G.8 F / .5&. , =G (&)=8083845&8) &/&=8)M3, &/ . . , /N&4, /OH8)M<& (& . & . , / .OH<& (& .038)80/3ZG. (J, ==8 (&) / 3& G. / 0480, <& (& . & , 74,)=8 (&) / 0489848, =<& (& .380. / .8, =&&&+H, &4843, =&=H (-3 ; &8 ; ,) 48J5&4H, &/ . . , /\$& X 84H8) & , /OH&/ . , /<&4H, . . , &=H/33&0, &4H. , , &. /) 1=N&&

"\$ \ , =, / .OH&J/0-345&R \ , =, / .OH&] . (J, == (& .&E== (08/4, & \ , =, / .OH&] . (J, == (& .&E==8=4/) 4& \ , =, / .OH&] . (J, == (& .S&

@ \$ + , /OH8)M&J/0-345&R + , /OH8)M&] . (J, == (& .&E== (08/4, & + , /OH8)M&] . (J, == (& .&E==8=4/) 4& + , /OH8)M&] . (J, == (& .S&

! \$ ^ 3 8) 80 / 3Z] . (J, ==8 (&) / 3&] . / 0480, &J/0-345&R ^ 3 8) 80 / 3&] . (J, == (& .&E== (08/4, & ^ 3 8) 80 / 3&] . (J, == (& .&E==8=4/) 4& ^ 3 8) 80 / 3&] . (J, == (& (& .&] . (J, ==8 (&) / 3&] . / 0480, &] . (J, == (& .&

$$E = (08/4, k] \cdot (J, =8()/3k] \cdot /0480, k] \cdot (J, =(\cdot k E = 8 = 4 /) 4k] \cdot (J, =8()/3k] \cdot /0480, k$$

8)4, .98, L=L84H(-)84< ; ,G/.4F,)4</ ; Z(.&0(33,M,&J/0-345&F, FO, .=\$&+H, &=-00, ==J-3&
0/); 8;/4, =&H(-3; &; , F()=4./4, &G(4,)48/3&J(.&, 70, 33,)0, &8)&4H, &G.8F/.5&/ ., /&(J&4H, 8.&
/GG(8)4F,)4=&R, \$M\$<&4, /OH8)M<&. , =, / .OH<&038)80/3ZG. (J, ==8()/3&G./0480, <&, 74,)=8()&(.&380./ .5S&
/=&L, 33&/=&8)&4H, &=, .980, &/); &G. (J, ==8()/3&/=G, 04=&. , 3/4, ; &4(&4H, 8.& ; 8=08G38) , =&/); &4H, 8.&
G(=848()=\$&

: \$. ;%#0;<(=%1'+%\$(DE)%' ,#,'*+-(1*0(D#'?'>*-','*+&
fG, 08J80&W-/38J80/48()=&J(.&, /OH&. /)1&=H/33&O, &; , 4, .F8) , ;&05&4H, &; , G/.4F,)4</ ; Z(.&0(33,M,&
L84H&/GG. (9/3&05&4H, &G. (9(=4\$&+H, &L(.13(/ ;&. , W-8. , F,)4=&J(.& ' ++&J/0-345&F, FO, .=&
=H(-3; &O, &=G, 33, ; &(-4&8)&; , 4/83&8)&/ ; 9/)0, \$&2(.&4, /OH8)M&/GG(8)4F,)4=&<&4H, ., &=H(-3; &O, &
03, / .35&/ .480-3/4, ; &4, /OH8)M&/==8M) F,)4=&/); &4, /OH8)M&3(/ ;=&8)03- ; 8)M&/; T-=4F,)4=&F / ; &
J(.&3/ .M, &03/==, =&(.&O(-. =&L84H&F - 348G3, &=, 048()=\$& \ , =, / .OH&/GG(8)4F,)4=&=H(-3; &=G, 33&
(-4&4H, &=G, 08J80&. (3, =&<& ; -48, =&<&M./)4&G. (T, 04=&/); &, 7G, 04/48()=&J(.&J-4- . , &J-) ; 8)M\$&
^38)80/3ZG. (J, ==8()/3&G./0480, &380./ .8/)<&038)80/3&; , G/.4F,)4&J/0-345&/GG(8)4F,)4=&=H(-3; &
03, / .35&/ .480-3/4, &4H, &=G, 08J80&. (3, =&<&. , =G()=8083848, =&/); &G, .J(.F /)0, &, 7G, 04/48()=&J(.&
; , 389, .8)M&038)80/3ZG. (J, ==8()/3&G./0480, &380./ .8/)&(.&038)80/3&; , G/.4F,)4&J/0-345&=&. , 980, =\$&
674,)=8()&/GG(8)4F,)4=&=H(-3; &; , =0.80, &4H, &=G, 08J80&, 74,)=8()&/0489848, =&/); &(-438) , &
. , 3/48()=H8G=&L84H&4H, &; , G/.4F,)4\$&

c \$. *+,0#',(F%+/,?&

,74,) - /48)M&08.0- F=4/)0,=k,78=4\$670,G4kJ(.k^38)80/3Z].(J,==8()/3k]./0480,<k^38)80/3k
b,G/.4F,)4k2/0-345<k/);k'+++kJ/0-345kLH(,k=3/.8,=k/.,&J-);,;k8)&LH(3,k(.k8)&G/.4k05k
M./)4*; ,G,);,)4k=(-.0,=k(Jk.,9,)-,<k'+++kJ/0-345kL84Hk4L(k4(J89,k5,/.=k(Jk0(=,0-489,k
=,.980,&L84HkG(=8489,k/))-/3k,9/3-/48(=kL833k.,0,89,k=87kF()4H=e&k)(480,k(Jk)(.),L/3k
-)3,==k,74,)-/48)M&08.0- F=4/)0,=k,78=4k/);k'+++kJ/0-345kL84HkF(.,k4H/)&J89,k0(=,0-489,k
5,/.=kL84HkG(=8489,k/))-/3k,9/3-/48(=kL833k.,0,89,k/kF8)8F-Fk(Jk/k(),*5,/.k)(480,k(Jk
().),L/3k-)3,==k,74,)-/48)M&08.0- F=4/)0,=k,78=4k

h\$ >0*&*,'*+*(1(688(:#'9;,<k

fG,08J8,;k0.84.,8/kJ(.kG.(F(48(k)/);k;=0.8G48(k)(Jk4H,kG.(0,==k=-,;kJ(.kG.(F(48(k)k8)k./)1k
=H(-3;k0,k=G,33,;k(-4k05k4H,k=OH((3<k0(33,M,k(.k/0/; ,F80k-)84k/);k/GG.(9,;k05k4H,kG.(9(=4k
8)k/;9/0),Skk+H,k; ,9,3(GF,)4k(Jk=G,08J80k0.84.,8/k/);&M-8; ,38),=k=-,; &4(k; ,4, .F8),k
=4/);/.;=k(Jk,70,33,)0,kJ(.kG.(F(48(k)kG-.G(=,=k=H(-3;k0,k4H,k.,=G(=)8083845k(Jk4H,k
; ,G/.4F,)4Z-)84k=-OT,04k4(k/GG.(9/3k05k/k; ,/)k(.k;8.,04(.kU%Vk/);k4H,kG.(9(=4k
69/3-/48(k)/.,/ =k=H(-3;k0,k0(=)8=4,)4kL84Hk4H,k,=4/O38=H,; &/0/; ,F80k=4/);/.;=kJ(.k, /OHk
;8=08G38),Skk+H,k; ,08=8(k)4(k/GG35kJ(.kG.(F(48(k)kL(-3;k0,k(),k4H,k'+++kJ/0-345kF,FO, .k
0(-3;k,3,04k(.k)(4?k/))-/3k.,98,L=k=H(-3;k0,k9/3-/03,k8);80/4(.=k(Jk4H,k/GG380/)4e=k
.. /;8),=kJ(.kG.(F(48(k)kSkk+H,k; ,08=8(k)k)/kG.(F(48(k)k/GG380/48(k)k(Jk/k'+++k/0/; ,F80k
/GG(8)4F,)4k=H(-3;k)(4k0/.5k/-4(F/480k.,L/.;=kR/G/.4kJ.(F&OH/)M,k8)k4843,Sk(.kG,)/348,=k
J.(Fk4H,k0(33,M,<k=OH((3k(.k/0/; ,F80k-)84kG.(98; ,; <kH(L,9, .<k4H/4k/k_80././8/)&Yk
0(=)8; ,.; &J(.kG.(F(48(k)k4(k_80././8/)&YYk; - .8)M&H8=k(.kH, .k=874Hk5, / .k(Jk,FG3(5F,)4k/=k/k
_80././8/)&YYk/);&LH(k8=k)(4kG.(F(4, ;k4(k_80././8/)&YYkF/5k0,k=-OT,04k4(k/-4(F/480k
().),L/3k

69/3-/48(k)(Jk4H,k0/);8;/4,e=k/GG380/48(k)J(.kG.(F(48(k)k=H(-3;kJ(0=)k)k4H,k=G,08J80k/.,/k
(Jk/GG(8)4F,)4k i k4, /OH8)M<k.,=,/.OHk038)80/3ZG.(J,==8()/3kG./0480,<k,74,)=8(k)&(k.380./ .5k i k
/ =kL,33k/=k=, .980,k/);&G.(J,==8()/3k/0489848,=k.,3/4,;k4(k4H/4kG.8F/.5k.,=G(=)8083845k
Y)kG.(F(48(k)k0(=)8; ,./48(=)k4H,k4(4/3k0()4.80-48(k)k(Jk4H,kJ/0-345kF,FO, .k4(k4H,kF8==8(k)
(Jk4H,k=OH((3<k0(33,M,k(.k/0/; ,F80k-)84k(9, .k/k=-4/8),; &G, .8(;k(Jk48F,k=H(-3;k0,k4/1,)k
8)4(k0(=)8; ,./48(k)Skk+H8=k8)03-; ,=k0(FG.,H,)=89,k; (0-F,)4/48(k)(Jk4H,kG(=848(k)<k
8)03-;8)M&/k3,44, .k(Jk/GG(8)4F,)4k8; ,)48J58)M&H(F, k; ,G/.4F,)4k(.k-)84k/);k4H,k8)848/3k
G(=848(k)k; ,=0.8G48(k)<k0(F F-)80/48(k)=k; ,4/838)M&OH/)M,=k8)&G(=848(k)k.,=G(=)8083848,=k/);k
)5k(4H, .k=4/4, F,)4=k.,M/.;8)M&,7G,04,; &G, .J(.F/)0,Sk
6/OHk0/FG-=k=H/33k/; (G4k/kG.(F(48(k)kG.(0,==k4H/4k8)9(39,=k/4k3,/=4k(),&J/0-345k0(F F844, ,k
0(FG(=,; &(Jk(k),k(.kF(.,k'+++kJ/0-345k/4k4H,kG.(F(4/O3,k./)1k(.k/0(9,<k/);k(),k(.kF(.,k
4,)-.,; &J/0-345k8Jk=-OHk'+++kJ/0-345k/);&4,)-.,; &J/0-345k,78=4\$&+H,k0(F F844, ,k(.k

K\$ >#0,'"')#,'*+'+(:#'9;,<(G*H%0+#+'%&

' ++&J/0-345&F, FO, . =e&. (3, &8)&J/0-345&M(9, .)/0, &=H/33&O, &/ .480-3/4, ; &05&4H, &8); 898; -/3&
O/FG-=&L84H8)&4H, &38F84=&(J&4H, &I)89, . =845&(J&K8==(-.8&^(33,04, ; &\ -3, =&/); &\ , M-3/48()=\$&
+H, &M(/3&8=&4(&8; ,)48J5&L/5=&J(.&4H, &' ++&J/0-345&F, FO, . =&4(&H/9, &/&9(80, &L84H8)&4H, 8. &
O/FG-=&/); &0(33, M, <&=OH((3&(.&/0/; , F80&-)84&/); &4(&O, &8)9(39, ; &8)&J/0-345&M(9, .)/0, &
LH, . , &/GG. (G.8/4, \$&&&

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IJK&+H, &O/4, M(.8, =&(J&' ++<&-) . /)1, ; <&)(*) . , M-3/ .&J/0-345<&/); &G/ .4*48F, <&)(*) . , M-3/ .&J/0-345&
8)O3- ; , & ; 8JJ, . ,)4&J/0-345&4843, =&/==(O8/4, ; &L84H&, /OH&O/4, M(.5&&f, 048()& [&(J&4H8=& ; (O- F ,)4&38=4=&4H, &
J/0-345&4843, =&/==(O8/4, ; &L84H&4H, &' ++&M. (-G&&+843, =&/==(O8/4, ; &L84H&4H, &-) . /)1, ; <&)(*) . , M-3/ .&
J/0-345&M. (-G&8)O3- ; , <&O-4&/ . , &) (4&38F84, ; &4(<&8)=4. -O4(.<&3, 04- . , .<&=,)8(.&3, 04- . , .&/); &98=848)M&
G. (J, ==(. \$&+H, &4843, &(J&98=848)M&G. (J, ==(. &=H/33&()35&O, &- , ; &J(.&4H(=, &J/0-345&()&4, FG(. / .5&
/GG(8)4F,)4=\$&] / .4*48F, &(.&0(- .4, =5&/GG(8)4F,)4=&=H/33&O, &0()=8; , . , ; &/ ; T-)O4&/GG(8)4F,)4=&/); &
8)O3- ; , &=-OH&4843, =0.26.T2(G2(8)/)0.2(4)0.2(,)0.2(; &L)-0.2(8)0.2(4)0.2(H&,)0.5.225-7H&, 848- ; , H; &LH&4H, , -