



## PREFACE

The Faculty Handbook is intended to be a guide for faculty at Lamar University. It is not meant to be a comprehensive, self-contained policy document; however, it does provide a wide range of up-to-date information on significant university policies, procedures, and activities.

Approved departmental, college, and university policies or *Rules and Regulations* of the Board of Regents, Texas State University System, govern in the event of conflict with the provisions of this handbook. All Lamar instructional faculty as well as any university committee and standing body such, the Faculty Senate are advised to familiarize themselves with the *Rules and Regulations*.

This handbook is one source of information about university faculty policies, but is not a contract.

Faculty may review, offer suggestions, or make recommendations to the Board of Regents.

FROM THE PRESIDENT

Dear Colleagues:

Lamar University as a comprehensive doctoral institution seeks to provide flexible, student-centered learning; by preparing students for careers and advanced degrees and becoming economic engine of the region by providing leading research and creative activities for students, faculty and the region. Lamar University seeks to provide and to prepare students to be leaders in their fields and to be creative and innovative in their work and in their lives.



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#A! A=7! AC87! ;<! CBCAC?Z! 78VZ;E87BA5! A=7! V;;D;@AZ@-ZAE7@A; Q:7JCA?9Z7! <?QKZAE!  
7>V7:C7B07BI?QQ;:J?BQ7!\CA=!4%#%\$&'!&!\*"#'+,-(%&e\$=[!25!o!R\O`!!'=7!?8;KBA!@=?ZZ!97!  
@A?A7J!CB!A=7!CBCAC?Z!Z7AA7:;!<!?VV;CBA87BA!?BJ!:7Q;:J7J!CB!A=7!V7:@;BB7Z!<CZ7!;<!A=7!<?QKZA  
\$:7JCA?9Z7!@7:DCQZ7@7!Q;B@7:7J!<;!V;;8;AC;BI?BJ!A7BK:7YKC:787BA@7!7@A?9ZC@=87BA!  
;<!Q:7JCA?9Z7!@7:DCQ7!@=?ZZ!97!9?@7J!;BI!A=7!7Q;887BJ?AC;BI;<!A=7!J7V?:A87BA!Q=?C!7BJ?Q?J78C  
J7?BI?QQ;:JBL!A;!A=7!LKCJ7ZCB7@!97Z;\

FF[F '0#\*4&#1-!\* b%1+3&1\*3! "-0! U01-0! 43021\$3 [!!-B7! E7?;! ;<! Q:7JCA?9Z7! @7:DCQ7! 8?E! 97!

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FO[F \$01'301#!"-0"#\$\$%&(!U0-/-'1-\* [!\$:CA7:Q;B@CJ7:7J!<::!V::;8;AC;B!?:7!ZC@A7J!97Z!E!  
:7V:7@7B@CBC8K8Z7D7Z@?Q?J78CQ=C7D787BA!B7Q7@ @?:E!A;!97!Q;B@CJ7:7J!<::!V::;8;AC;B!A;!

FO[F[ 36#/U&34!-"!1\*-0/#'1-\*!'-,3!1\*\$&%+3+!1!\*U0-/'1-\*!#UU&1\$#'1-\*4[!!!!  
'=7!<;ZZ;\CBL!?:7!7>?8VZ7@!;<!CB<;:8?AC;B!\=CQ=!Q?BJCJ?A7@!A;C;B!8;CL=A!V;;DCJ7!  
?@! ?VV;;V:C?A7! 7DCJ7BQ7! ?BJ!8;B;K?AC;B! !-?Q?J78CQ?QQ;8VZC@=87BA@[! \$Z7?;!  
JC@ACBQAC;B@!8K@A!97!8?J7!<;! ?Q=C7D787BA@! ?A!A=7!CBA7:B?AC;B?Z5!B?AC;B?Z5!:7LC;B?

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Jf! 3<<7QACD7!/?@ @C@ACBL!\CA=!?J8CBQ!@A:?ACD7!A?@]@

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4'%+3\*!03&#'1-\*4)1U4!#4!321+3\*\$3+!,(W W  
?f! 3<<7QACD7! V?:ACQCV?A?B;CBL! :7A7BAC;B! ?BJ! :7Q:KCA87BA!  
?QACDQAC7@  
9f! 3DCJ7BQ7!;<!=CL=!YK?ZCAE!;<!?Q?J78CQ!?JDC@CBL





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7D?ZK?A7J!<;!V:;8;AC;B!A;!A=7!<;ZZ;\CBL!?:B]@!CBLA7:8@!<!A=7!<;ZZ;\CBL!8CBC8K8!Q:CA7:C?]

F`[F[F[F!!-!#4414#\*!U0-"344-0[!";:!V:;8;AC;B!A;!A=7!:?B]!<!?@ @C@A?BA!V:;<7@ @;:5!  
A=7!8CBC8!:7YKC:787BA@!?:7!?!L:?JK?A7!J7L:77!CB!ZC9:?:E! @QC7BQ7! <;8! ?B! #87:CQ?B!  
&C9:?:E!# @ @;QC7A7JCA7J! CB@ACAKAC;B! e;:! ?VV:;V:C?A7!L:?JK?A7!J7L:77! ?@! J7<CB7J!9E!  
A=7! V;@CAC;Bf! ?BJ! ?! @7Q;BJ!L:?JK?A7!J7L:77k!A=:77!E7?:@!<!V:;<7@ @C;B?Z!7>V7:C7BQ7! ?A  
&?8?:! %BCD7:@CAEk!J78;B@A:?A7J!Q;8V7A7BQ7!CB!^;9!V7:<;8?BQ7!CB! ?QQ;:J?BQ7!\CA=!A=7!  
\$:CA7:C?<:;! '7BK:7! ?BJ! U;:8;AC;B! e97Z;\fk! 7DCJ7BQ7! ;<! V:;<7@ @C;B?Z! J7D7Z;V87BAk! ?BJ!  
Q;BA:C9KAC;B@!CBL?A!Z7?@A!;B7!<!A=7!<;ZZ!\CBL!?:7?@W

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F`[F[F[O!! -!#44-\$1#'3!U0-"344-0!!e#\*+'!13+lg1)! '3\*%03ff[!";:!V:;8;AC;B!A;!  
A=7!:?B]!<!?@ @;QC?A7!V:;<7@ @;8CBC8K8!:7YKC:787BA@!?:7!?!L:?JK?A7!J7L:77!CB!ZC9:?:E!  
@QC7BQ7! <;8! ?B! #87:CQ?B! &C9:?:E! # @ @;QC7A7JCA7J! CB@ACAKAC;B! e;:! ?VV:;V:C?A7!  
L:?JK?A7!J7L:77! ?@! J7<CB7J!9E!A=7!V;@CAC;Bf! ?BJ! ?! @7Q;BJ!L:?JK?A7!J7L:77k! @C>!E7?:@!<!  
V:;<7@ @C;B?Z!7>V7:C7BQ7! ?A! %BCD7:@CAE!eCBQZKJCB!Q:7JCA!<;!V:C;:! @7:DCQ7!L:?BA7J!  
AC87!<!CBCAC?Z!C:7fk!<;K;!E7?:@! ?A!A=7! ?@ @C@A?BA!V:;<7@ @;:! ?BJk!J78;B@A:?A7J!V:;<CQ  
^;9! V7:<;8?BQ7! CB! ?QQ;:J?BQ7! \CA=! A=7! \$:CA7:C?<:;! '7BK:7! ?BJ! U;:8;AC;B! e97Z;\fk!  
@CLBC<CQ?BAIC

F`[F[O! 36U&#\*#\*1-\*!-!"!30/4[!!U:7DC;K@!\;:]!7>V7:C7BQ7!@=?ZZ!97!Q;B@CJ7:7J!CB!  
<;K:!Q?A7L;:C7!@W

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Ff!V;:<7@ @C;B?Z!ZC9:?:E!7>V7!C7BQ75  
Of!V:7W;:<7@ @C;B?Z!ZC9:?:E!7>V7!C7BQ75  
`f!B;B dZC9:?:E!V;:<7@ @C;B?Z!7>V7:C7BQ75! ?BJ!  
Rf!V?:A8C87!7>V7:C7BQ7[

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'=7!ZC9:?:E\_@!V7:@;BB7Z!Q;88CAA77!@=?ZZ!^KJL7!A=7!7YKCD?Z7BQ7!;<!V:7DC;K@!\;:]!7>V7:C7BQ  
1B! B;:8?Z! QC:QK8@A?BQ7@5! ?! 8?>C8K8! ;<! A;! E7?:@! Q:7JCA! A;\?:J! V;:8;AC;B! @=?ZZ! 97!  
?\?:J7J!<;! ?ZZ!\;:]!7>V7:C7BQ7!;KA@CJ7!;<!&?8?:!%BCA@C

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?JD?BQ7! A=7! 8C@ @C;B! ;<! A=7! &C9:?:E! ?BJ! A=7! %BCD7:@CAE! 9E! CBD;ZD787BA! CB! Q;88K

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7>V7:C7BQ7!CB!?!V;:<7@@C;B?Z!V;@CAC;B!?!<A7:!7?:BCBL!A=7!8?@A7:|@!J7L:77!CB!ZC9:?:E!@  
'=7!Q?BJCJ?A7!8?E!7Q7CD7!;B7!E7?:!;<!Q:7JCA!<;;!7?Q=!E7?:!;<!7>V7:C7BQ7[

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KBCD7:@CAE!Q;88KBCAE[

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F`O[F`[R!+78;B@A:?A7@;BV7A7BQ7!CB!V7:@;BB7Z!J8CBC@A:?AC;B!9E!A=7!<;ZZ;\CBLW

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Q[ U::DCJ7@!?!Q;BL7BC?Z!\;]CBL!7BDC::B87BA!<;!Q;ZZ7?LK7@!?!BJ!@A?<<[!!!!!!!

CC[ 4KVV::A@!?!BJ!7BQ;K:?L7@!Q;ZZ7LC?Z!V?:AQQCV?AC;B[

CCC[ 3<<7QACD7ZE! V::8;A7@! A=7! C8?L7! ;<! ZC9?:?C?B@! \CA=CB@CAE! KBCD7:

Q;88KBCAE[

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F`[O[F[T[O!!+78;B@A:?A7@!KBJ7:@A?BJCBL!;<!7>C@ACBL!@E@A78!Q?V?9CZCAC7@!?!@L7B7:?Z!]B;\Z7JL7!;<!QK:7BA!J7D7Z;V87BA@!CBIZC9:?:E!?!KA;8?AC;B]

F`[O[F[T[!!+7@CLB@!7<<7QACD7!?!BJ!7<<CQC7BA!87?B@!;<!7D?ZK?ACBLIZC9:?:E!@E@A7V:;DCJ7@!?!V;V:;V:C?A7!?!B?ZE@C@!;<!@KQ=!7D?ZK?AC;B!]

F`[O[F[T[R!!+78;B@A:?A7@!7<<7QACD7B7@!@!CBIKBJ7:A?]CBI@B7@50!7B?ZCBL!@V7QC<CQ?AC;B@! ?BJ! ?@@C@ACBL! CBI A=7! J7@CLB5! A7@ACBL5! ?BJ! C8VZ7877B=?BQ787BA@! A;! A=7! &C9:?:E\_@! ?KA;8?A7J! @E@A78@! \CA=CBI LCD7B! 7Q;B;8CZC8CA?AC;B@[

F`[O[F[T[T!!3<<7QACD7ZE! Q;88KBCQ?A7@!]B;\Z7JL7! ;<! ZC9:?:E! ?KA;8?A7J! @E@A78@! ?QA@BCA;!@A?<<!CBI!A=7!&C9:?:E!?!BJ!A;!;A=7!?!V;V:;V:C?A7!J7V?:A87BA@!?!BJ!CBJCDCJK?\CA=CBI!A=7!%BCD7:@CAE[

F`[O[F[T[a! /?CBA?CB@! V;@CACD7! \;:]CBL! :7Z?AC;B@=CV@! \CA=! 1B<;:8?AC;B! 4E@A78V7:@;BB7Z!?!@!\7ZZ!?!@!\CA=!@A?<<!CBI!;A=7!ZC9:?:E!KBCA@[

F`[O[F[T[H!!\$;;;JCB?A7@!?!BJ!V?:ACQCV?A7@!CBI!A=7!CB@A:KQAC;B!;<!ZC9:?:E!@A?<<!;!ZK@7:@!CBI?KA;8?A7J!@E@A78@!?!QACDCAC7@!?!BJ!V:;Q7JK:7@[

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F`[O[F[a[F! +78;B@A:?A7@! Q;8V7A7BQ7! CBI 7@A?9ZC@=CBL! ?BJ! 8?CBA?CBCBL9C9ZC;L 8.4[8.46!CBCF`[@[Tc 42 0 8.4 (!) 0 5C

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F`[O[F[H[R#7D7Z;V@!@EZZ?9C! ?BJ!;A=7:!CB@A:KQAC;B?Z!8?A7:C?Z@!:7Z7D?BA!A;!A=7!Q;  
97CBL!A?KL=A[

F`[O[F[H[T!!+7@CLB@! ?BJ!V;;JKQ7@!CB@A:KQAC;B?Z! ?KJC;DC@K?Z!V;;L:?8@!A=?A!@KV  
?BJm;;!@KVVZ787BA!A=7!7JKQ?AC;B?Z!V;;L:?8@!;<!A=7!%BCD7:@CAE

F`[O[F[M!!\$-&&3\$'1-!+323&-U/3\*[ !

F`[O[F[M[F! ! +78;B@A:?A7@! L;;J! ^KJL87BA! ?BJ! Q;8V7A7BQ7! CB! @7Z7QACBL! ?BJ!  
:7Q;887BJCBL!VK:Q=?@7!;<!ZC9:?:E! ?BJ!87JC?!8?A7:C?Z@!CB! @KVV;;A!;<!A=7!QK::7BA!  
B77J@! ?BJ!Z;BL! ?BL7!L;?Z@!;<!A=7!&C9:?:E[

F`[O[F[M][O!!#78;B@A:?A7@!Q;8V7BQ7!CB! @7Z7QACBL! ?BJ!\77JCBL!8?A7:C?Z@5!9;A=!  
CB! ?VV;;V:C?A7!@K9^7QA!?:?@! ?BJ!<;!A=7!:7<7:7BQ7!Q;ZZ7QAC;B[

F`[O[F[M][!!+78;B@A:?A7@!]B;\Z7JL7!;<!A=7!QK::CQKZK85!7@7?:Q=5! ?BJ!;A=7!:ZC9:?:E!  
:7Z?A7J! ?QACDCAC7@!;<!A=7!%BCD7:@CAE!J7V?:A87BA@CB! ?Z@CBA?C?Z!@!  
?Q?J78CQ!@K9^7QA!?!7?@[

F`[O[F[M][R!/?CBA?CB@!V;@CACD7!\;:]CBL! :7Z?AC;B@=CV@!\CA=!V7:@;BB7Z!CB! ?Q?J7  
J7V636 Tm / (C) 7.7 42 0 07 (@K) 8 7.636 Tm /T636 T(8) -0.3-7.7 (@K 8.4 (B)C) 7.7 42 -127 (A)



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F`O[F[FP[F!!+78;B@A:?A7@!Q;8V7A7BQ7! ?BJ! L;;J! ^KJL87BA! CB! ?@@C@ACBL! ZC9:?:E!  
K@7:@!A;!Z;Q?A7!CB<;:8?AC;B[

F`O[F[FP[O!!\$;:7QAZE!JC@Q7:B@!?BJ!CBA7:V:7A@!K@7!:7YK7@A@!?BJ!YK7@AC;B@[

F`O[F[FP[!+78;B @A:?A7@!Q;8V7A7BQ7! CB! K@CBL! :7<7:7BQ7! 8?A7:C?Z@! ?BJ! ;A=7:!  
:7@;K:Q7@[

F`O[F[FP[R!!+78;B@A:?A7@! ?!\CZZCBLB7@@! A;! ?@@C@A! K@7:@! ?BJ! A;! V7:@C@A! 9  
Q;BD7BAC;B?Z!@;K:Q7@!A;!V;;DCJ7!J7@C:7J!CB<;:8?AC;B[

F`O[F[FP[T! +78;B@A:?A7@! KBJ7:@A?BJCBL! ;<! ?QYKC@CAC;B@

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F`[O[O[FM!!U:7@7BA?AC;B@!;<!Q:7?ACD7!7>=C9CA@!;:;!V;@A7:!!@7@@@C;B@!?!A!877ACBL@5!Q;B  
::\;]@=;V@[!

F`[O[O[FG! U?:ACQCV?AC;B! ?@! 8;J7:?A;:;! ;! V?B7ZC@A! ?A! Z;Q?Z! 877ACBL@5! Q;B<7:7BQ7@5  
\;]@=;V@[!

F`[O[O[OP!!\$;BA:C9KACBL!7BA:C7@!CB!?!VK9ZC@=7J!;7k7:7BQ7!\;:]

F`[O[O[OF!!UK9ZCQ?AC;B!;<!7DC7\@!;!79@A:?QA@[

F`[O[O[OO!!3JCACBL!;:;!Q;BA:C9KACBL@Z7AA7:@5!L:?E!ZCA7:?AK:75!7AQ!e7;@C7  
VK9ZCQ?AC;B@f

F`[O[O[O`!!U?:ACQCV?AC;B!CB!;7@7?:Q=!?BJ!@Q=;Z?:ZEmQ:7?ACD7!?QACDQAE!;KA@CJ7!A=7!ZC

F`[O[O[OR!!g;:]A;\?:J!;!Q;8VZ7AC;B!;<!?B!?JJCAC;B?Z!;7Z7D?BA!?JD?BQ7J!J7L:77[

F`[O[O[O!U:7@7BA?AC;B@!?!A!&C9:?:E!;:;!%BCD7:@CAE!Q;ZZ;YKC?]

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F`[O`[M! U;; <7@@C;B?Z! :7Q;LBCAC;B@! ?BJ! ;KA@A?BJCBL! ?Q=C7D787BA@! e?\?:J@5! =;B;  
@;QC7AC7@5!7AQ[f]

F`[O[R &1,0#0(!#\*+!%\*123041'(!#"#104[ !

F`[O[R[F!!U:7@7BA?AC;B@!;! @78CB?:@!A;5!;!Q;B@KZA?AC;B@!CA=5!<?QKZAE!?BJ! @AKJ7BA!  
\CA=CB!A=7!%BCD7:@CAE!:7Z?AC@C@BYZ!87@A7:@[

F`[O[T! 4'%+3\*!03&#-'1-\*4)1U4[ !

F`[O[T[F!!47:DCQ7!?@!?!B!?JDC@;:!A;!@AKJ7BA!L;KV@!:7Q;LBCc7J!9E!A=7!%BCD7:@CAE[

F`[O[a!

U;ZCQEW8CB?Z!+7L:77@  
\$=?VA7:W!115!U;ZCQC7@!X!U;;Q7JK:7@  
47QAC;BFF  
&?@A!#VV;;D7SMBK?:E!OPFG!!!

FR! U-&1\$(!-\*!30/1\*#&!+3b0334!"-0!"#\$%&'( !!!

#B!7?:B7J!J; QA:;?Z!J7L:77!<;8!?:7LC;B?Z7EQ:7JCA7J!CB@ACAKQC;B!7JKQ?AC;B!@=?ZZ!97!A=7!  
7JKQ?AC;B?Z!@A?B!?!V;;8;AC;B!;:! CBCA7Z!CBA87BA!97E;B!A=7!?:B!];<!CB@A:KQA:;5!7>Q7VA!CB!  
A=;@7! JC@QCVZCB7@! A=?A! Z?Q7D7ZAA?ZCBCB! ;! :7Q;LBCc7! ;A=7! 7DCJ7BQ7! ;<! ?Q?J78CQ! ;!  
V;;<7@ @C;B?Z!Q=C7D787BA!CB!ZC7K!;<!A=7!J;QA:;?A7!?!=7!+7?B@\_!\$;KBQCZ@A?77@?A?@!;<!  
A=7?QQ:7JCA77L:77@!CB!A=7@7!?:7?@!

FR[F! aP0-%0!/#4'30\_4!+3b033[ !!1B!JC@QCVZCB7@!\=#0A78CQ!\$;KBQCZ!;<!+7?B@7:8CB7@!  
A=7! aE;K;! 8?@A7!@! J7L:775! ;! CA@! 7YKCD?Z7BA5! A;! 97! ?B! 7>Q7VAC;B!A;?Z! J7L:77!  
:7YKC:787BA5! @KQ=! ?!8?@A7!@!J7L:77!8?E!97!QQ7VA?9Z7!<;! ?VV;CBA87BA! ?B!V;;8;AC;B!A;!A=7!  
:?B]@! ;<! ? @C@A?BA! ?B! ? @ @ ;QC?A7! V;;<7 @ @ ;! 9KA! B!A=7!77@?Z7BA! ;<! A=7?A!  
8?@A7!@!@!@=?ZZ!97RT;K:;8?@A7!@!5!?B!J!88K8!;<! P!L: ?JK?A7!JCA! =;K: @!CB!A=7!A7?Q=CBL!  
<C7ZJ! ! '=?! J7?B! ?B! J7V?:A87BA! Q=?C: ! @=?ZZ! J7A7:8CB7! A=7! :7Z7D?BQ7! ;<! ?JJCAC;B?Z!  
J7L:77@m7YKCD?Z7BA@! ! '=?! Q?BJCJ?A7! ;<;! V;;8;AC;B! 8K@A! =?D7! A;! E7A?B! ;K6DZ: @CAE!  
A7?Q=CBL! 7>V7:C7BQ7! 97E;B! ! A=7YKC:7J! ;<! <?QKZAE! \CA=! J;QA:;?Z! J7L:77@! ;<;!  
?VV;CBA87BAmV;;8;AC;B!A;!A=7! ;B @ @ ;QC?A77@ @! ;8CBC8K8!;<!@C>!E7! :f

'=?! +7?B@\_! \$;KBQCZ! :7Q;LBCc7@! A=7! <;Z;\CBL! J7L:77@! ?@! 7>Q7VAC;B@! A;! A=7! J;QA:;?Z! J7L:77!  
:7YKC:787BA!CB! ?VV;CBA87BA! ?B!V;C;B!Q:CA7:C?W!! @AKJC;!?:A5!/[!#[!eaP! =;K: @fk!A=7?A7:5!/[!#[!  
eaP! =;K: @fk!@;QC?Z!\;;]5!/[4g!eaP! =;K: @fk!ZC9: ?E! @QC7BQ75!/[!44#K?@5! ?B! ?B! ?JJCAC;B?Z!  
8?@A7:\_@B! ?! :7Z7D?BA! ??:? ! ;! A=7! 7YKCD?Z7BA! CB! ?VV;;D7J! ?JD?BQ7J! ;B! ;C88Z! ?B!  
Q;B@K87: ! @QC787BA7:C: ! J7@CLB5!/?@A7: ! ;<!# :Q=CA7QAK:7! ?B!/?@A7: ! ;<!1BA7:C: ! #7@C  
`a! =;K: @! ?B! ?B! ?JJCAC;B?Z! P!L: ?JK?A7! =;K: @

FR[0 `P dRT!)-%0!/#4'30\_4!+3b0334 [!1B!JC@QCVZCB7@!\=7:7!A=7!+7?B@J7\$;KBQBZ@!A=?A!A=7!  
`P dRT! =;K:;8?@A7!@!J7L:77!@=?ZZ!97! ?B! 7>Q7VAC;B!A;!A=7!J;QA:;?Z!J7L:77!7YKC:787BA5!A=7!Q?BJCJ?A7  
8?E!97!Q;B@CJ7:7J!<;!V;;8;AC;B!A;! ? @ @ C@A?BA!V;9K@B!A! ? @ @ ;QC?A7!V;;<7 @ @ ;! ;!V;;k7 @ @ ;f  
?<A7: ! @C>!E7?:@! ;A88Z?Q=CBL7:C7BQ77!\$ ;KBQCZ!:7Q;LBCc7@!A=7!<;Z;\CBL! =K:!  
8?@A7!@!J7L:77@! ?! ?! 7>Q7VAC;B@!A;!A=7!J;QA:;?Z!J7L:77!7YKC:787BA!<;!V;;8;AC;B!W!Q;88KBCQ?AC;B  
JC@:;J7:@! eQZCBCQ?Z! @KV7:DC@:;@f5!/?@A7:\_@! CB! \$;88KBCQ?AC;B! +C@:;J7:@k! @AKJC;!?:A5!/[!#[!  
A=7?A7!/[!#[! !!

FR[! &#g!+3b0334 [!!=?! SK:C@! +;QA:;?A7! eS+[f5] ,?Q=7Z:;! ;<! &7L?Z! &7AA7:@! e&[&,[f5] ?B! 8?@A7:\_@!  
J7L:77@! CB! Z?! ??:? :7Q;LBCc7J! ?@! 7>Q7VAC;B@! A;! A=7! J;QA:;?Z! J7L:77! CB! A7?Q=CBL! <C7ZJ@!\=7:  
CB@A:KQAC;B!CB!A=7!Z7V;C@7A?B!7>V7QA7U!

FR[R U30"-0/#\*\$3! 4#\*+#+0+4! "-0! 36\$3U'1-\*4! '-! '30/1\*#&! +3b0334 [! ! #ZZ! <?QKZAE!  
Q?BJCJ?A7@! \=;! V:7@7BA! J7L:77@! ?@! 7>Q7VAC;B@! A;! A=7! A7:8CB?Z! J7L:77! V;ZCQE! 8K@A! 877A! A  
<;Z;\C! J;QK87BA7J! V7:<;8?BQ7! @A?BJ?:J@W! ! @KV7:C: ! A7?Q=CBL! 7<<7QACD7B7@ @k! :7Q;LBC  
@Q=;Z?:ZE! V;;JKQAC;B5! :7@??:Q=! ?B! V;;<7 @ @ C;B?Z! ?Q=C7D787BAK! ?B! ;C88Z?B! CB!  
Q;ZZ7L7! ?B! KBCD7: @CAE! ?<<?C: @! ! 4KQ=! Q?BJCJ?A7@! @=?ZZ! =?D7! ?A?V78B@7A;9ZC! ?AC;B!  
@KV7:C: ! ;V7:<;8?BQ7!CB!@Q=;Z?:ZE! ?B!m; !Q:7?ACD7!V;;JKQAC;B]



FT[a U0-2-4!4!03213g!#\*+!0 3\$-//3\*+#'1-\*[!!\*7>A5!?ZZ!<CZ7@!?BJ !:7Q;887BJ?AC;B@!@=?ZZ!97!  
@AKJC7J!?BJ!Q;B@CJ7:7J!9E!A;@A5!\=;!@=?ZZ!:7Q;887B+!&:0-7-+\$.;! (-+&+-&:0-7-+\$7?Q=!



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?BJm;:;!CBCAC?Z!Q;BA:?QA!J7A?CZCBL!A=780,090277BQZKJ7J!=7:7[!

\*;A7 W!"?QKZAE!?VVZECBL!7?:ZE!<A;B;A;!A=7!:?B!;!V;:<7@@;:!8K@A!  
JC@QZ;@7! A=?A! <?QA! ?BJ! CBQZKJ7! CB! A=7! 7@@?E! ?! ^K@ACkCQ?AC;B! 9?@  
B?AC;B?ZmCBA7:B?AC;B?Z!@A?AK:7!CB!A=7!JC@QCVZCB7[

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2-&%/3!1W!43\$'1-\*! ,! @=?Z;B@C@A!;<!7D?ZK?ACD7!Z7AA7:@!::CLCB?ACBL!?  
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Fa[T! \$)#104! -"! U 304-\*\*3&! \$-//1"334 [! ,E! 8?^;:CAE! D;A75! 87897:@! ;<! 7?QV7:@;BB7Z!  
Q;88CAA77!@=?ZZ!7Z7QA!?!QZ!C=?C;!C@!;7@V;B@C9Z7!<;!;L?BCcCBL!877ACBL@5!JC@A:C9KACBL!<  
Q;8VZ7ACBLm@CLBCBL!A=7!80[B97=?Z<!;A=7!Q;88CAA775!<;\?:JCBL!A=7!V;V;V:C?A7!8?A7:C?Z@!  
A;IA=7!B7>A!Z7D7Z5! ?BJ!B;AC<ECBL!7?Q=?VVZCQ?BA!;<!A=7!Q;88CAA77\_@\_!J7QC@C;B!  
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Fa[a! 2-1\*b!U-&1\$( [!!1B!B;!CB@A?BQ7!@=?ZZ!?!87897;!;<7?QV7Z;88CAA77!;! ?BE! ?J8CBC@A:?A;!  
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KBCD7:@CAE!@-@-@!8;@A!V:7@ACLC;K@!Q?J78CQ!?\?:J!!'=C@!?\?:J!@=?ZZ!97!Q;B<7::7J!?BBK?ZZE!A;  
@7Z7QA7J5A687187897:@!;<!A=7!<?QKZAE!<;!JC@ACBLKC@=7J!Q?J78CQ!V7;<;8?BQ7[!!#@@;QC?A7!  
<KZZ!V;;<7@ @;;@! @=?ZZ!97!7ZCLC9Z7! <;!A=C@!?\?:J!!'=7!:7QCV7BA@AZZ;QZC<7[!!'=7!

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Q;B@KZA?AC;B!\CA=!A=7!?VV:;V7C?A77BA?Z!<?QKZAE!?BJ!J7?B@[!!1B!7>Q7VAC;B?Z!Q?@7@5!  
A=7V:7@CJ7BAE!\?CD7!A=7!8CBC8K8!Z7BLA=!;<!@7:DCQ7!:7YKC:787BA[

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U7:@;B@!\=;!:=;ZJ!?B!787:CAK@!ACAZ7!?A!;A=7!CB@ACAKAC;B@!B:;8?ZZE!@=?ZZ!B;A!97!7ZCLC9  
787:CAK@!ACAZ7!?A!&?8?:!%BCD7!@CAKZAE!87897:7B^;ECBL!787:CAK@!@A?AK@!C@!:7Q?ZZ7J!  
A;!@7:DCQ7!CB!A=7!CBA7:7@A!;<!A=7!KBCD7:@CAE!?!<A7:?!B!CBA7:D7BCBL!V7:C;J5!787:CAK@!@  
B;A!97!?!<<7QA7J[

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27\$0, ET 0 42 15-E(\$) (,%) ]J ET Q q 0.24 0 0 0.24 12 589.92 cm BT 42 0 0 42 990 466 716 TT5 1 Tf [ (



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FG[F #\$\$+3/1\$!"033+/- [!!1B@ACAKAC;B@!;<!=CL=7:!7JKQ?AC;B!@7:D7!A=7!Q;88;B!L;;J[!!=7!Q;88;B!  
L;;J!J7V7BJ@!KV;B!?!<:77!@7?:Q=!<;!A:KA=!(B!@!<:77!7>V:7@ @C;B[!!)7BQ75!CA!C@!7@ @7BAC?Z!A=?A!<?<  
87897:@!97!<:77!A;!VK:@K7!@Q=;Z?:ZE!CBYKC:E!CA=;KA!KBJK7!:7@A:CQAC;B5!?BJ!A;!D;CQ7!?BJ!VK9

FG[ [F +3"1\*1'1-\*!-'! '3\*%03 [!!'=7! A7:8! +\$("0\$! @=?ZZ! J7B;A7! ?B! 7BACAZ787BA! A;! Q;BACBK7J!  
78VZ;E87BA! ?@!?!87897:;! <A=7!&?8?;! %BCD7: @CAE!<?QKZAE!!#!A7B87897?QKZAE  
7>V7QA! A;! Q;BACBK7! =C@! ;! =7:! <?QKZAE! V; @CAC;B5! KBZ7@ @! ?J7YK?A7! Q?K@7! <;! JC@8

FG[ '[F! ' 3#\$)1\*b! U0-"1\$13\*\$ ( m%U301-0!'3#\$)1\*b! 3""3\$'123\*344!  
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?f!!! \$?BJCJ?A7\_@! ]B;\Z7JL7! ?BJ! ?9CZCAE! A;! ? :ACQKZ?A7! CA! eV7:@;B?Z  
@A?A78A5! Z7AA7:@! <;8! Q;ZZ7?LK7@5! @AKJ7BA@m<;:87! @AKJ7BA@  
?J8CBC@A:?A;:@f  
! ! ! ! 9f!!! \$:7?AC;B!;<!CB@A:KQAC;B?Z!8?A7:C?Z@  
! ! ! ! Qf!!! \$;K:@7!?BJ!QK::CQKZK8!J7D7Z;V87BA  
Jf!!! \$;K:@7!7D?ZK?AC;B@5!@AKJ7BA!?QQ;8VZC@=87BA@5!A7?Q=CBL!?\?:J@  
?BJ!;A=7:J;QK87BA7J!:7Q;LBCAC  
7f! +C:7QAC;B!;<!A=7@7@!eKBJ7:L:?JK?A75!L:?JK?A7f! ?BJ!JC@@@7:A?AC;B@  
e\=7:7!?VVZCQ?9Z7f

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?f! UK9ZCQ?AC;B@!;<!9;;]@5!Q=?VA7:@5!?:ACQZCQ?7BV!Q7@ @C;B?Z!  
\;]@! e7[L[5! V::JKQAC;B! ;<! @=;\@5! :7QCA7Z@6BL@5! 8K@CQ?Z!  
Q;8V:@CAC;B@5!V7:<;:8?BQ7@5!@7AmQ;@AK87!J7@CLBf  
9f!!! 3DCJ7BQ7!;<!A=7!YK?ZCAE!;<!7@7?:Q=mQ:7?ACD7!?QACDCAE  
Qf!!! 4Q=;Z?:Z0 0 0V7:UK9ZCK@5

Jf!! 4V;B@;:@=CV! ;<! @AKJ7BA! ;:L?BCc?AC;B@5! \CA=! 78V=?@C@! ;B!  
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Jf! #B!?@@C@A?BA!V;:<7@@;!\=;!?VVZC7@!<;!A7BK:7!97<;7!A=7!<KZ<CZZ87BA!;<!A=7!:7YK  
V;;9?AC;B?:E!V7:C;J!eC[7[5!s7?:ZEtf!8K@A!Z@;!?VVZE!<;!s7?:ZEt!V;;8;AC;B!A;!?@@;QC?A7  
V;;<7@@;[!!U:C;!\:CAA7B!V;V;D?Z!A;!?VVZE!7?:ZE!8K@A!97!L:?BA!7!B!E!A#7!  
V;;D;@A5BJ!@KQ=!?VV;D?Z!J;7@!B;A!9CBJ!A=7!J7?B!;!V;;D;@A!A;!?!<?D;:9Z7!  
:7Q;887BJ?AC;B[!!B!JJCAC;B5!B!7?:ZE!V;VZCQ?AC;B!8K@A!97!JC@QZ;@7J!CB!\:CACBL  
A=7!V;VZCQ?BA[

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7f! \$:7JCA! <;! V:C;!! @7:DC7! E7?;! ;<! :7DC7!@=?ZZ! 97! CBJCQ?A7J! ;B!QZAE!  
87897:\_@!CBCACAZ!;!<!V;V;CBA\$7BA

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J7D7Z;V87BA! ?BJ! <77J9?Q! ;B! V::L:7@ @B;A! 7>V:7@ @! ;! C8VZ7BK:7! ;KAQ;8@! <;!  
V::9?AC;B?:E!<?QKZAE!878@7:

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FG[ [FR#UU-1\*/3\*!-!#+/1\*14 '0#123!-"1\$3 [!!#VV;CBA87BA!A;!?B! ?J8CBC@A:?ACD7!;<<CQ75!  
:: !A=7!Z;@ @!;<!A=7! @?875! @=?ZZ!6D7!A=7! ?VV;CBA77!;<!A7B@:7JCA!A;\?:J!7?:BCBL!  
A7BK:7! CB! A=7! =CL=7@A! CB@A:KQAC;B?Z! :?B! =7ZJ! V:C;:! A;! ;! JK:CBL! ?VV;CBA87BA! A;! @  
?J8CBC@A:?ACD7!;<<CQ7[

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FG[ [FO[F U7:@;BB7Z! \$;88CAA77 @3?Q=! J7V?:A87BA! ?BJQ;ZZ7L7mZC9?:?E! @=?ZZ!  
7@A?9ZC@V7?@;BB7Z!88CAA77! ;<! A7BK:7J! <?QKZAE! @=?ZZ! 7D?ZK?A7!  
A7BK:7!Q?BJCJ?A7@ 897:@! @=?ZZ!97!7Z7QA7J!9E! ?BJ! <;!8!A=7!A7BK:7J!  
<?QKZAE! ;<! A=7! :7@V7QACD7! J7V?:A87BA! ;! Q;ZZ7L7mZC9?E@CAE!  
V7:@;BB7Z!Q;88CAA77! @=?ZZ! ?Z@;!97!7@A?9ZC@=7J!e@

:7Q;887BJ?A C;B! @K98CAA7J!9E! A=7! J7V?:A87BA! Q=?C:! A;! A=7! J7?B[! ! 1<! A=7!  
J7V?:A87BA! Q=?C:! C@!?! Q?BJCJ?A7!<;! A7BK:75! A=7! Q=?C;! ;<! A=7! J7V?:A87BA?Z!  
A7BK:7! Q;88CAA77! @=?ZZ5! ?<A7:! Q;B@KZA?AC;B!\CA=! A=7;! A=7:! 87897:@! ;<! A=7!  
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-!'!)310!#UU-1\*/3\*5!36\$3U!',(!0341b\*#1-!\*-0!03'103/3\*'  
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OF[F '30/1\*#1-!\*"-0! T88Z&A6.;2 [!!'7:8CB? AC;B!;<!A=7!78VZ;E87BA!;<!?!<?QKZAE!87897:!\=;!  
=?@!977B!L:?BA7J!A7BK:7!?BJ!;<!?ZZ!;A=7:!<<?QKZAE!87897:@!97<;:7!A=7!7>VC:?AC;B!;<!A=7!@A?A7J!V7:C;  
;<!A=7C:!?VV;CBA87BA5!7>Q7VA!9E!7@CLB?AC;B!;!7AC:787BA5!;BZE!@=%Z!97<;B[!!T--)&  
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8f ! 2C;Z?ACBL!&?8?:\_@!V;ZCQE!;7Z?ACBL!A;!7Z7QA;:BCQ!B7A;:]!<?QCZCAC7@!@KQ=!?@!Z  
B7A\;:]@5!78?C?BJA=7!CBA7:7A[

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^;9!?!A!A=7!KBCD7:@CAE!8?E!97!@K@V7BJ7J!;!JC@Q=?;L7J!<;8!?!ZZ!;A=7!JKAC7@!;!^;9@!CB!A  
KBCD7:@CAE!<;!A=7!@?87!;:;A84!"%\$ [!!1B!7?Q=Q?@75!A=7!C@@K7!@=?ZZ!97!J7A7:8CB7J!  
9E!?!B!7YKCA?9Z7!V;:Q7JK75;:JCBL!V;:A7QAC;B!A;!A=7!CL=A@!;<!A=7!<?QKZAE!87897:?!?BJ!A;!  
A=7!CBA7:7@A@!;<!A=7!KBCD7:@CAE!?!BJ!4E@A78[!!

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#!@A7B;L:?V=CQ!;!7Z7Q**Q**!B**Q**;:J!;<!A=7!

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OO[ 03#UU-1\*/3\*!-"!\*-\*

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U;ZCQEW;B d7BK:7J!"?QKZAE5!\*;B07?VV;CBA87BA!07?@;B@

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A=?A!A=7!@K9@7YK7BA!Q?J78CQ!E7?:\CZZ!97!A=7!A7:8CB?Z!E7?:!;<!?VV;CBA787BA@Z7Z!B;A!9  
?!@A?A787BA!;<!A=7!:7?@;B@!KV;B!\=CQ=!A=7!J7QC@C;B!<;!@KQ=!?QAC;B!C@!9?@7J5!7>Q7VA!?!@!J7  
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OT[ '30/1\*#'1-\*! -"! "#\$%&'(! 3/U&-(/3 \*! %\*+30! 4U3\$1#&!  
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OH[F 3/U&-(/3\*! \*-1\$3! #\*+! U#(/3\*! -U'1-\*4 [! ! ! '=7! V:7@CJ7BA! @=?ZZ! :7Q;887BJ! A=7!  
78VZ;E87BA!;!:7d78VZ;E87BA!;<!<?QKZAE!A;!A=7! ;?:J!;<!07A7@!!'=7! ;?:J! @=?ZZ! ?VV;CBA! ?BJ!  
78VZ;E!<?QKZAE! ?A! CA@! ?BBK?Z! 877ACBL! ;! ?A! A=7! 7?:ZC7@A! V: ?QACQ?Z! 877ACBL! <;ZZ;\CBL! A=7! L;  
?VV;;D?Z!;<!A=7!4A?A7I@!b7B7:?Z!#VV;;V:C?AC;B@!#QA!

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4?Z?:C7@! ? @ @;QC?A7J! \C@;B@CB7;V;CBA87BA@E! 97! V?CJ! ;D7:! FO! 8;BA=@5! ?A! A=7!  
;VAC;B!;<!A=7!<?QKZAE!87897:[!!-BQ7!?!V?E87BA!;VAC;B!C@!Q=;@7B5!A=?A!87A=;J!@=?ZZ! :78?CB!CB!7<<  
KBACZ!?! \CAA7B! :7YK7@A!A;!Q=?BL75!7<<7QACD7!A=7!B7>A!<C@Q?Z!E7?:5!C@!@K98CAA7J!A;! ?BJ! ?VV  
-<<CQ7! ;<! )K8?B!07@;K:Q7@[!!!B7!<?QKZAE!87897:@5!C<!B;!87A=;J!C@!Q=;@7B5!A;B7!BCB7  
Q;BA: ?Q@ ?Z?! @=?ZZ!97!V?CJ! ;D7:! FO! 8;BA=@[!!'=7!V?E87BA!87A=;J! @=?ZZ!97!QZ7!JK:CBL! ?!

U;ZCQEW+7V?:A87BA! \$=?C:!?BJ! U;;L:?8! +C:7QA;:!  
#VV;CBA87BA@  
\$=?VA7:W!115!U;ZCQC7@!X!U;;Q7JK:7@  
47QAC;B!OM  
&?@A!#VV;;D7\$?BK?:E!OPFG

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OM[ +3U#0/3\*!\$)#10! #\*+!U0-b0#/#+103\$'-0! #UU-1\*/3\*4 !!!

OM[F #UU-1\*/3\*!#! #<A7!:7Q7CDCBL!CBVKA!<;8QKZAE!?!BJ!<A7!:IQ;B@KZA?AC;B!CA=!A=7!V;;D;@A5!A=7!  
J7?B! @=?ZZ! ?VV;CBA! ;<! J7V?:A87BA! Q=?C:@! ?BJ! V;;L:?8! JC:7QA;:7@V;CBA87BA@! 8K@A! 97!  
?VV;;D7J!9E!A=7!V:7@CJ7BA!?!BJ!A=7!;;?J!;<!07L7BA@!!

OM[D 43021\$3!#\*+!4' 1U3\*+!#! +7V?:A87BA!Q=?C@!V;;L:?8!JC:7QA;:@@:7D7!A!A=7!VZ7?@K:7!;<!A=7!  
?Q?J78CQ! J7?B! #BE! ?J8CBC@A:?ACD7! @ACV7BJ! ?@ @;QC?A7J!\CA=! A=7@7! V;@CAC;B@!:78?CB@!  
V;@CAC;B!\=7B!A=7!;QQKV?BA@?D7

OM[! #+/1\*14'0#123!#\*+!1\*4'0%\$'1-#&!#UU-1\*/3\*!-\$)#104!!+7V?:A87BA!Q =?C:@=?ZZ!  
:7Q7CD7!=?AC87! ?J8CBC@A! ?AVD?BA87BA@P!T3! ?BJ!=?Z<dAC87!CB@A:KQAC;B?Z! ?VV;CBA87BA@!  
e[TP! ""3f! JK:CBL! A=7! "?ZZ! ?BJ! 4V:CBL! @787@A7:@5! ?B!C87Z ePT ""3f! ?J8CBC@A:?ACD7!  
?VV;CBA87BA@!JK:CBL!7?Q=;!<!A=7!@K887!A7K887!47@ @C;B@!1!X!1B! ?J8CBC@A:KQAC;B5!Q=?C:@!@=?ZZ!  
:7Q7CD7!?!=2XC87!ePT"3f!CB@A:KQAC;B?Z! ?VV;CBA87BA!JK:CBL!;B7!;<!A=7!A;!@K887!A7:8@! ?BJ5!C<!  
@K887!<KBJ@!V7:8CA5!@=?ZZ!97!CB! ?BE!J7V?:A87BA?Z!;A?AC;B!<;! ?B!@K87!CB@A:KQAC;B?Z!  
?VV;CBA87BA! P!T3! <;!A=7!;A=7 !@K887!A7:8!! \$=?C:@!8?E!B;A! :7Q7CD7!9;A! ?J8CBC@A:?ACD7!  
?VV;CBA87BA@! P!T3! ;!9;A=!CB@A:KQAC;B?Z! ?VV;CBA87BA@! ;!<!A=7!@K887!A7:8@!!

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`P[! \*-!1"1\$#1-!-! 0341b\*#1-! #\*+! 03&3#43! "0-! 3/U&-(/3\*!  
\$-\*0#\$' !

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/;9CZCAE!;<!<?QKZAE!87897:@!78;BLIQ;ZZ7L7@!7BJ!KBCD7:@CAC7@!C@!CL=AZE!7Q;LBCc7J!7@!J7@  
#87:CQ?B!CL=7:!7JKQ?AC;B[!(7A5!A=7!J7V?:AK:7!;<!7!<?QKZAE!87897:!!Z?E@!7YKC:7@!Q=?BL7@!\CA=C  
?!J7V?:A87BA!7BJ!8?E!7BA?CZ!8?^;:!!?J^K@A87BA@!;B!A=7!V?:A!;<!A=7!<?QKZAE!87897:!!@!Q;ZZ7?LK7@5!A  
?J8CBC@A:?AC;B5!7BJ!@AKJ7BA@!CB!A=7!<?QKZAE!87897:!!@!Q;ZZ7?LK7@5!A?J8CBC@A!;Q7JK:7@!7L?:JCBL!  
A=7!7@CLB?AC;B!;<!<?QKZAE!87897:@!7!A!97!k;ZZ;\7J]

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`P[F! \*-!1"1\$#1-!-!0341b\*#1-\* [!!!#!<?QKZAE!87897:!!@=;KZJ!B;A!7@CLB!Z?A7:!!A=7B!7?E!  
A=C;AE!J?E@!7!<A7:!!7Q7CD?CB!7BA!;<!A=7!A7:8@!;<!Q;BACBK7J!78VZ;E87BA!;<;!A=7!<;ZZ;\CBL!E7?:5!  
\=CQ=7D7:!!J?A7!;QQK:@!Z?A7:[!!!#!<?QKZAE!87897:!!\;!\C@=7@!A!;7@CLB!@=;KZJ!LCD7!B;ACQ75!CB!\:CA  
A;!A=7!V:7@CJ7BA!A=;KL=!A=7!J7V?:A87BA!Q=7?B;UV?B;@A[

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`P[O! 03&3#43!"0-!/3 /U&-(/3\*!\$-\*0#\$' [!!#<A7:!!7!<?QKZAE!87897:!!=@!@CLB7J!7!Q;BA:?QA!<;!  
A=7!@K9@7YK7BA!E7?:5!V;:<7@ @C;B?Z!7A=CQ@!7YKC:7!A=?A!A=7!<?QKZAE!87897:!!@=;KZJ!B;A!@;ZC  
V;@CAC;B!7Z@7=7:7!<;!A=7!V7:C;J!A=7!<?QKZAE!87897:!!@!Q;9ZCL?A7J!A;!A7?Q=IKBJ7!A=7!A7:8@!;<!A=7!  
@CLB7J!Q;BA:?QA!;)\7D7:5!@=;KZJ!7B!KB@;ZCQCA7J!;<<7:!!Q;87!A;!A=7!<?QKZAE!87897:5!\=CQ=IA=7!<?QK  
87897:!!J7@C:7@!A;!7QQ7VA5!?!7YK7@A!<;:!!7Z7?@7!<;8!A=7!Q;B;A7?A!@7B;ZKZZ!Q;B@CJ7:?AC;B!  
'=7! <?QKZAE!87897:!!@=?ZZ!@K98CA!7.7 (A) 1?AAV.4 ?7A;:AQ;B!8!7AA\C@K8A!5?A0 42 148 (C) 7.7.3 (@=;

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`F[! 03'103/3\*!U-&1\$134!#\*+!43021\$3!"-&&-g1\*b!03'103/3\* !

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`F[F! 03'103/3\*!#b3 [!!%BJ7:!7>?@!Z?!\&?8?!%BCD7:@CAEB;A!C8V;@7?!?8?BJ?A;;E!7AC:787BA!  
?L7!<;!A7BK:7!<?QKZAE[!!

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`F[O! 1\*4'0%\$1-\*#&!43021\$3!"-&&-g1\*b!03'103/3\* [!!&?8?!@=?ZZ!V;;DCJ7!?B!;VV;;AKBCAE!<;!  
YK?ZC<C7J! <?QKZAE! A;! Q;BACBK7! CB! @;87! CB@A:KQAC;B?Z! @7:DCQ7!A779@C@!7B!7#?Z<  
:7AC787BA[!!%BJ7:! A=7! CB@A:KQAC;B?Z! @7:DCQ7! <;ZZ;\CBL!:7AC:787BA!V;;L:?85! <?QKZAE! 8?E! ?VVZE  
:7AC:787BA!A=;;KL=!B;;8?Z! ?J8CBC@A:?ACD7!Q=?BB7Z@! ?BJ!97!:7LC@A7:7J!<;!V;@A





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`F[T[a! 3""3\$!-"!\$)#\*b3!1\*!4#'%4[!#!<?QKZAE!87897: \_@! ?QQ7VA?BQ7!;<!2/3!@A?AK@!=?@!A=7!  
<;ZZ;\CBL!7<<7QA@W

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?f! #!<?QKZAE!87897:;!@;@7! ?VVZCQ?AC;B!C@! ?VV:;D7J!8K@A!<;:8?ZZE!:7AC:75!:7ZCBYKC@  
=C@! ;! =7:! <A787! @A?AK@5! ?KA;8?ACQ?ZZE! :7ZCBYKC@=! A7BK:7! ?@! ;<! A=7! J?A7  
?VVZCQ?AC;B!C@! ?VV:;D7J!8K@A!m=7:!78VZ;E87BA!\CA=BGDIE CAE! ?A!A=7!7BJ!  
;<!A=7!2/3!A7:8[ !

9f! '=7!<?QKZAE!87

A78CB?A7!?BE!8;JC<C7J!78VZ;E87BA!L:?BA7J!KBJ7:!A=C@!V;ZCQE!?BJ!7Z7QA!<KZZ!AC87!:7AC  
@A?AK@!9E!LCDCBL!V:C;!\CAA7B!B;A007!@A7B;A!Z7@ @!A=?B! @C>AE!J?E@!V:C;!\A;!A=7!  
97LCBBCBL!;<!?!LCD7B!@787@A7:[

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`F[T[F`!+%0#'1-! -"! 2-&%\*#0(! /-+1"\$# 1-! -"! 3 /U&-/(3\*! U0-b0#/[! '=7!  
KBCD7:@CAE58?A! CA@! @;Z7! JC@Q:7AC;B5!QIB@CBACBK77! 2/3! U;;L:?8! ?@!  
J7@Q:C97J!=7:7CB

U;ZCQEW07@CLB?AC;B!X!7:8CB?AC;B!U;;Q7JK:7@  
\$=?VA7:W!115!U;ZCQC7@!X!U;;Q7JK:7@  
47QAC;E0!  
&?@A!#VV;;D78?BK?:E!OPFG

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O[! 0341b\*#1-!#\*+!30/1\*#1-!U0-\$3+%034 !!!

1B!A=7!7D7BA!;<!?:7@CLB?AC;B!CB!A=7!Q;K:@7!;<!?W07857@078@0A87!CB@A:KQA;:!@=;KZJ!  
LCD7!78VZ7!B;ACQ7!A;!A=7!Q=?C!;<!A=7!J7V?:A87BA!A;!?@ @K:7!A=7!KBCBA7::KVA7J!J7ZCD7:E!;<!CB@A  
1B!7ZZ!Q?@7@!;<!78VZ;E87BA!A7:8CB?AC?B0!Z?:E!Q=7Q]@!@=?ZZ!97!:7Z7?@7J!A;!A=7!<?QKZAE!87897:  
?A! A=7! B7>A! :7LKZ?;! J?A7! ;<! V?E87BA5! ?<A7:!\:CAA7B! QZ7?:?BQ7! eQ;8VZ7AC;B! ?BJ! ?VV;;D?Z! ;<! A=  
27:#-17\$(+& 23,+& A=\$4D& W!%2@! 977B! LCD7B! 9E! A=7! J7?B! ;<! A=7! Q;ZZ7L7! ;! A=7! V;;D;@A[!]=7!  
QZ7?:?BQ7!@Z!Q7:AC<E!A=?AW

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?f! ?ZZ!B7Q7@ @?:E!:7Q;;J@5!CBQZKJCBL!L:?J7!:7Q;;J@5!=?D7!977B!Q;8VZ7A7J! ?BJ!A:?B@<7::7J!A  
A=7!J7V?:A87BA!Q=?C:k  
9f! ?ZZ!9KCZJCBL! ?BJ!;;8!J7E @!=?D7!977B!7AK:B7J!A;!A=7!J7V?:A87BA!Q=?C:k  
Qf ?ZZ!V?:]CBL!V7:8CA@5!Q;8VKA7:!!?QQ7 @ @5! ?BJ!ZCZ@E!BJK?C @!=?D7!977B!7AK:B7J!  
A;!A=7!V;;V7:!KBCD7: @CAE!;<kCQC?Z@k  
Jf! ?B!7>CA!CBA7:DC7!!=?@!977B!Q;8VZ7A7J!CA=!A=7!-<<CQ7!;<!K8?B!07@;K:Q7@k  
Yf! ?ZZ!;<<CQ7! ?BJ!Z?9;;?A;;E!<?QCZCAC7@!=?D7!977B!D?Q?A7J!CB!V;;V7:!:;J7:k! ?BJ  
<f ?!<;\?:JCBL! ?JJ:7@ @!=?@!977B!<CZ7A#A=7!-<<CQ7!;<!K8?B!07@;K:Q7@! ?BJ!V7:@;BB7Z!  
<;8@!=?D7!977B!Q;8VZ7A7J!<;!:7AC:787BA! ?BJ!A?>!7V;;ACBL!Q;;7@V;BJ7BQ7[

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#! :0+|+,7\$&9'4"#+1&7\$7>\$@=?ZZ!97!;B7!\=;@7!AQ#CBL! ? @ @CLB87BA! ?BJ! ?VV;CBA87BA!\CA=!A=7!

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#9?BJ;B7J! ?BJ! KBQZ?C87J! V7:@;B?Z! V;;V7:AE! ;<! D?ZK75! CBQZKJCBL! SC97A! B;AQZVKA7:@5!  
A?9Z7A@5!Q7ZZKZ?;!V=;B7@! ?BJ!;A=7:!A7Q=B;Z;LC7@!Q?V?9Z7!;<! @A;;CBL!JCLCACc7J!J?A?5! @A?A7!  
CJ7BAC<CQ?AC;B5!\?ZZ7A@5!VK:@7@5!Q:7JCA!Q?:J@5!\?AQ=7@5!^7VZ:E5!Q?87:??@5!A7>A9;;]@5!;;9  
JC@Q;D7:7J!B!&?8?:\_@!Q?8VK@!@=C8797?A7ZE!AK:B7J!;D7;!A;!Q?8VK@!V;ZCQ7!<;!@?<7]77VCBL!  
?BJ!@A?BJ?:JCc7J!=?BJZCBL[!!!-A=7!?:ACQZ7@!;<!V;;V7:AE!A=?A!J;!B;A!877A!A=7!J7<CB7J!D?ZK7!@=?ZZ  
<;\?:J7J! A;! A=7! ;<<CQ7! ;<! V;;V7:AE! 8?B?L787BA! eWMPf! <;! @A;;?L7[! U;;V7:AE! @=?ZZ! 97!  
Q;B@CJ7:7?9?BJ;B7J! C<! CA! ?VV7?:@! <;!8! A=7! QC:QK8@A?BQ7@! KBJ7;! \=CQ=! ! &?8?:! Q;87@! CBA;!  
V;@ @7@ @C;B!;<!A=7!V;;V7:AE!A=?A!A=7!\B7!:=? @!A=;;\B!CA!?\?E!;!=? @!D;ZKBA?:CZE!!Z7<A!;;!Z;@A!CA!\C  
?BE!CBA7BA!;;!7>V7QA?AC;B!A;!7L?CB!CA[

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#9?BJ;B7J! ?BJ! KBQZ?C87J! V7:@;B?Z! V;;V7:AE! ?QYKC:7J!9E!Q?8VK@!V;ZCQ7!;;!V;;V7:AE!8?B?L787BA!  
@=?ZZ!97!=7ZJ!<;!?!8CBC8K8!;<!;B7!=KBJ:7J! ?BJ!A\7BAE!eFOPf!J?E @!<;!8!A=7!AC87!Q?8VK@!V;ZCQ7!;;!  
V;;V7:AE!8?B?L787BA! ?QYKC:7 @!A=7!V;;V7:AE!!!1<!A=7!V;;V7:AE!C@!7QZ?C87J!JK:CBL!A=?A!AC875!&?8  
8?E! Q=?L7! A=7! ;B7:! ?! :7?@;B?9Z7! @A;;?L7! <77! \$?8VK@! V;ZCQ7! @=?ZZ! J7D7Z;V! ?VV;;V:C?A7!  
V;;Q7JK:7@!A;! ?@ @K:7!A=7!7AK:B5!C<!V;@ @C9Z75!;<!KBQZ?C87J!V7:@;B?Z!V;;V7:AE!;<!D?ZK7!A;!A=7!V  
;B7:@[!4KQ=!V;;Q7JK:7@! @=?ZZ!97!VK9ZC@=7J!CB! ?ZZ! ?VV;;V:C?A7?B?9?BJ;B7J!@L@! ?BJ! @=?ZZ!  
CBQZKJ7! Q;BA?QACBL! A=7! V;;V7: ! ;B7:! A=;;KL=! Q?8VK@! Q;BA?QA! :7Q;;J@! eA7Z7V=;B75! 8?CZCBL! ?B  
7Z7QA;;BCQ! ?JJ:7@ @7@f!

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#<A7;!;B7!=KBJ:7J! ?BJ!A\7BAE!eFOPf!J?E @5! ?BJ! ?<A7! ?VV;;V:C?A7!V;;V7:AE!Q=7Q]@!\=CQ=! :7<Z7QA!A=  
D?ZK7!;<!A=7!V;;V7:

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`T[! 1\*+3/\*1"1\$#1-\*!-"!3/U&-(334 !!  
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`a[! "#\$%&'(!-,&1b#1-\*4!#\*+! g-0.&-#+4 !!  
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`a[F! "#\$%&'(!g-0.!&-#+4 [!!3?Q=!<?QKZAEI87897:!V?CJd<KZZ





CBA7:7@A@!;<!A=7!@AKJ7BA@!\CA=!7L?:J!A;!Q;K:@7!;<<7:CBL@!V?:?8;KBA[!!1A!C@!:7Q;LBCc7J!A=?A!O  
J7V?:A87BA@!A=7!OF!@787@A?@ @CLB87BA!8?E!A?]7!?!<;8!;A=7!A=?B!@7D7B!A=:77!@787@A7:!  
=;K:!Q;K:@7@[!!

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'=7!V:C8?:E!VK:V;@7!;<!A=C@!:7?@ @CLB7J!AC87!C@!A;!?<<;J!V:;9?AC;B?:E!<?QKZAE!A=7!;VV:;AKBCA  
@V7BJ!8;;7!AC87!;B!A=7!@Q=;Z?:@=CV5!:7@7?:Q=5!?BJm;:!Q:7?ACD7!@ACDCAE!B!CBL!A7BK:7!  
?BJ!V:;8;AC;B!A;!A=7!?!?B]!;<!?@@@;QC?A7!V:;<7@@@;[!!)7BQ75!JK:CBL!A=7!AC87!<?QKZAE!87897:@!?!?7!  
LCD7B!A=C@!:7?@ @CLB7J!AC875!A=7E!8?E!B;A!A7?Q=!;D7:Z;?J@!e7>QZKJCBL!Q;K:@7@!A?KL=A!JK:C  
@787@A7:@!?!?BJ!@K887!@f[!

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#ZZ!B7!A7BK@A:~?Q]!<?QKZAE!CZZ!97!V:;DCJ7J!A=C@!:7?@ @CLB7J!AC87!~?KA;8?ACQ?ZZE!KBACZ!A=7!Q;  
;<!A=7!47Q;BJ!(7?:!U77:!07DC7[!!1<!A=7!:7DC7!Q;88CAA77!=@!Q;BQ7:B@!?!?9;KA!A=7!Q?BJCJ?A7\_@!  
V:;L:7@@@!CB!A=7!?!?7?!;<!@Q=;Z?:@=CV5!:7@7?:Q=5!?BJm;:~!Q:7?ACD7!@ACDCAE!B!CBL!A7BK:7!  
A7?Q=CBL!~@ @CLB87BA!\CZZ!Q;BACBK7!A=;;KL=!A=7!<C<A=!E7?:[!!];\7D7:5!C<!A=7!:7@KZA@!;<!A=?A!:7!  
V;@CACD75!~?BJ!V77:@!?!?7!@?AC@<C7J!\CA=!A=7!Q?BJCJ?A7\_@!V:;L:7@@@!CB!A=7!?!?7?!;<!@Q=;Z?:@=CV  
?BJm;:~!Q:7?ACD7!~?QACDCAE!B!CBL!A7BK:7!~!CZZ!97!LCD7B!A=7!;VAC;B!A;!A7?Q=!B;A!8:;7!A=?B!OF!@787@A7:!  
=;K:@!JK:CBL!7?Q=@K9@7YK7BA!~?Q?J78CQ!E7?:!eC[7[5!<?ZZ!~?BJ!@V:CBL!@787@A7:@f!A=;;KL=!A=7!  
;<!A=7!<C<A=!E7?:!;<!<KZZ!AC87!@7:DCQ7[!!]=C@85Z797J76C@C;B5!~?BJ!7?Q=1B7BK:7:~?Q!  
<?QKZAE!87897:~!CZZ!97!V:;DCJ7J!A=C@!:7?@ @CLB7J!AC87!;BZE!KV;B!\CAA7B!;7YK7@A!A;!A=7!J7V?:A  
Q=?C!e\CA=IQ;VE!A;!A=7!J7?B!~?BJ!V:;D;@Af!B;Iz?A7!A=?B!"79:K?:EIFT!;<!7?Q=!E7?:!<;!A=7!@K9@7YK7BA!  
~?Q?J78CQ!E7?:[!!#L?CB5!A=7!9CZCAE!A;@7Z77Q@ @CLB7J!AC87!;VAC;B!A7:8CB?A7@!?!A!A=7!7BJ!;<!A=7!  
<C<A=!E7?:!;<!V:;9?AC;B?:E88ZZ8VZ;E87BA!eA;ICBQZKJ7!~?BE!Q:7JCA!~?J7J!<;!V:C;!!@7:DCQ7f[

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3>Q7VAC;B@!A;!A=C@!V;ZCQE!\CZZ!97!Q;B@CJ7:7J!;B!?!Q?@7!9E!Q?@7!9?@C@5!?







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`G[! U-&1\$(! -\*! #++1'1-\*#&! 3/U&-(/3\*! -"! "#\$%&'(! e\$-\*&1\$! -"! 1\*'3034' f!

"?QKZAE! 87897:@! @±~~BZA~~! 97! JC@Q;K:?L7J! <:;8! ?QQ7VACBL! ?VV;V:C?A7! ?VV;CBA87BA@! ;<! ?!

CBA7@A@!;<!&?8?:!%BCD7: @CAE[  
Lf! 07Q7CD7!?BE!Q;8V7B@?AC;B!<;! @7:DCQ7@!?!@?!4A?A7!78VZ;E77!<;!8!?BE! @;K:Q7!;A=7:!A=?B!  
A=7!4A?A7!;<!7>? @5!7>Q7VA!?!@!;A=7:\C@7!V;;DCJ7J!9E!Z?]  
=f! \$;88CA!?BE!?QA!;<!<:?KJ5!JC@=;B7@AE5!;!CZZ7L?ZC@BZK;BCQ?E!\?E!;<!7>Z8V  
?BJ!B;A!ZC8CA?AC;Bf!@!@7@A?A?CB!V7:@;B?Z!;!<CB?BQC?Z!97B7<CA@!A;!#CQ=!A=7E!?:7  
B;A!7BACAZ7J!9E!Z?!\;!\V;ZCQEK!<;LCBL!;!?ZA7:CBL!Q=7Q!@5?B!;A=7;!J;QK87BA@5!  
(7) 8.4 (;) 80.3 (!) -4 (\) .4 (!) -0.3 (!) -4 (B) 80.3 (7) 80.3 (7) 8.7 (B) 8.4 (C) 7.4 (!) -6.10(:) 23.5 (!)Tc 42







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1A!@=?ZZ!97!?!DC;Z?AC;B!;<IKBCD7:@VA@CZC@B!@?A=7:\C@7!Q?K@7!?!?C87;!!;A=7:\!7?V;B !A;! 97!9;;KL=A!;BA;!A=7!V:78C@7@!;<!&?8?;!%BCD77@CAFA!?!;A=7:\C@7!B;A7J!CB!A=C!@!@7QAC;B RO[F! +3"1\*1'1-\*!-"!U03/1434[!! wU:78C@7@!;<!?@E78!\$;8V;B7BAI&?8?;!%BCD7:@VA@K@7J!CB! A=C@!V;ZCQB@!?!@A:KQAK:7!?!BJ!A=7!ZCZK@CBL!V?:]CBL!Z;A@5!L??:L7@5!;!!;A=7!?!VVK:A7B?BQ7@5! ;B!\=CQ=!A=7! @A:KQAK:7!C@! @CAK?A7Jf!;878!#%BCD7:@CA@!;B7:@=CV!;!!Q;BA;;Z!!=C@! V;:=C9CAC;B!7>A7BJ@!A;!Z7?@7J5!9;;;!7J!;!!;A=7!?!<?QCZCAC87B!#7KBQAC;B5!7D7BA5!;!!?QACDCAE! A?7@!;!!C@!A?]CBL!VZ?Q7!9KA!J;7@!B;A!?!VVZE!A;W

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RO[F[F &?!7B<;Q787BA!V7:@;BB7Z5!7QACBL!CB!V7:<;8?BQ7!;<!A=7C:!JKAC7@k

RO[F[Q! '=7!A:?B@V;:ACBL!;<!@KQ=!<C:7?:8@5!=?BJLKB@5!;!!;A=7!V;:=C9CA7J!V7?V;B@!<;!!7LC@A:?AC; \CA=! ?BJ! @A;?L7!9E!AKBCD7:@CAK9ZCQ! @?<7AE!; <<CQ7k!;!!A=7!V:7@CJ7BAI@! =;87! ?BJ! L;;KBJ@k

RO[F[! !?B@V;:A?AC;B!;<!?!<C:7?:8!;!!?88KBCAC;B!CB!?!Z;Q]7J5!V@CB7A7ZE?@7J!8;A;!! D7=CQZ7!9E!?!V7:@;B5! ?BJ!Z?<KZZE!V;@ @7@ @7@!A=7!<C:7?:8!;!!?88KBCAC;BW!?!B!?! @A:77 J:CD7?E!Z;Q87J!;B!A=7!Q?8VK@!;!!9f!CB!?!V?:]CBL!Z;A5!V?:]CBL!L??:L75!;!!;A=7!V?:]CBL! ??:7?!Z;Q?A7J!;B!A=7!Q?8VK!@!]

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RO[O +3"1\*1'1-\*!-"! U0-)1,1'3+ !g3#U-\*4 [!!wU;:=C9CA7J!g7?V;B@@!77<CB7J!9E!'7>?@!U7B?Z! \$;J75!4 7QAC;Ba!PF!CB@Z!A=7k;ZZ;\CBLW

RO[O[F w\$ZK9w!87?BCBL!B!CB@A:K87BA?8VZ7M?9Z?Q]Q]k!BCL=A@ACQ]k!8?Q7k!BKbQ=?]K5!?!? BKQ=KJ!;!!A;8?=?] f!A=?A!C@!@V7QC<CQ?ZZE!J7@CLB7J5!8?J75!;!!?J?VA7J!<;!!A=7!VK:V;@7!; CB<ZCQACBL!@7:C;K@!9;JCZE!CB^K:E!;!!J7A!V7E@CA;C]CB

RO[O[Dw3>VZ;@CD7!\7?V;B5w!87?BCBL!BE!7>VZ;@CD7!;!!CBQ7BJC?E!9;895!L:7B?J75!;Q]7A5!;!!8CB7! A=?A!C@!J7@CLB7J5!8?J75!;!!?J?VA7J!<;!!A=7!VK:V;@7!;<!CB<ZCQACBL!@7:C;K@!9;JCZE!CB J7?A=5!;!!@K9@A?BAC?Z!V;V7:AE!J?8?L75!;!!<;!!A=7!WKbQ@V?Z!Q?K@CBL!@KQ=!?!Z;KJ! :7V;A!?!@!A;!Q?K@7!KBJK7!VK9ZCQ!?!Z?:8!;!!A7;;;!e=7A=7!@KQ=!?!7?V;B!C@!J7@CLB7J5!8?J75! ;!!?J?VA7J!<;!!J7ZCD7:E!;!!@=;;ACBLfk

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RO[O!]

RO[O[ba w);?>! 9;895w! 87?BCBL! ?! J7DCQ7! A=?AW! ?f! :7?@;B?9ZE! ?WV77!@B! 7>VZ;@CD7! ;!  
CBQ7BJC?:E!J7DCQ7k!;!5!9f!9E!CA@!J7@CLBIQ?K@7@!Z?:8!;!7?QAC;B!;<!BE!AEV7!9E!V;ZCQE5  
@?<7AE5! ;!;A=7:?! J8CBC@A:?A;:;! ?A! ?! @E@A78! Q;8V;B7BA5!\=;! ?7! Q=?L7J!\CA=! ?@ @K:CBL  
Q?8VK@!@?<7AEk

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RO[O[H w\$=78CQ?Z! JC@V7B@CBL! J87DCQ7w?! J7DCQ7! e;A=7:! A=?B! ?! Q=78CQ?Z! JC@V7B@7:! @;ZJ!  
Q;887:QC?ZZE! <;!V7:@;B?Z!V;;A7QAC;Bf!A=?A!C@!J7@CLB7J5!8?J75!;! ?J?VA7J!<;!A=7!VK:V;@7  
;<!JC@V7B@CBL!?!@K9@A?BQ7!Q?V?9Z7!;<!Q?K@CBL!?!JD7:@7!V@EQ=;Z;LCQ?Z!;!IV=E@C;Z;LCC  
;B!?!=K8?B!97CBL[

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RQ ! \$-\*\$3#&3+!\$#00(!-!)#\*+b%\*4 [!&?8?:!%BCD7:@CAE!C@!Q;88CAA7J!A;!8?CBA?CBCBL!?!7ZQ;8CBL!

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'7>?@!#Q?J78E!;<!&7?J7:@=CV!CB!A=7!)K8?BCAC7@W!!#:7@CJ7BAC?Z! =;B;:@!

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:7<7::7J!A;!Z?!7B<;:Q787BA!<;!?:7@A!?BJIV;:@7QKAC;B[  
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RO^[T[! 4AKJ7BA@! 8?E! 97! @K9^7QA! A;! JC@QCVZCB7! KV! A;! ?BJ! CBQZKJCE  
7>VKZ@C!B!  
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RO^[T[R 38VZ;E77@! 8?E! 97! @K9^7QA! A;! JC@QCVZCB7! KV! A;! ?BJ! CBQZKJCB  
A7:8CB?AC;B!  
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A7BK:7!:7DC7!V;:Q7@@!J7D7Z;V7J!9E!A=7!<?QKZAE!;<!&?8?;!%BCD7:@CAE5!A=7!V7:<;8?BQ7!;<!7?Q  
A7BK:7J!<?QKZAE!87897;!eA;!CBQZKJ7M+?B!@m7QA;: @8K@A!97!:7DC7!79E!V77:@!?!BBK?ZZE  
;!?A!Z7?@A!;BQ7!7D7:E!@C>!E7?:@!?!<A7!:A=7!J?A7!A=7!<?QKZAE!87897;! \?@!L:?BA7J!A7BK:7!;!7Q7CD7  
?B! ?Q?J78CQ! V;:8;AC;B! !'=7! <?QKZAE! ;<! ??Q=! J7V?:A87BA5! CB! Q;ZZ?9;: ?AC;B! \CA=@A=?ZQ=?C:5!  
J7D7Z;V! ?B! ?VV;:V:C?A75! \CAA7B! V;:Q7@@Q;8VZC@=! A=C@!A=?@!C@5! 7CA=7;! A;! Q;BJKQA! ?!  
Q;8V:7=7B@CD7! V7:<;8?BQ7! 7D?ZK?AC;B! ?BBK?ZZE! ;<! ?ZZ! A7BK:7J! <?QKZAE! ;! A;! Q;BJKQA! ?!  
Q;8V:7=7B@CD7! V7:<;8?BQ7! 7D?ZK?AC;B! ;<! ??Q=! A7BK:7J! <?QKZAE! 87897;CBL! 7D7:E! @C>  
E7?;! V7:C;J5?BJ! \=CQ=! :7@KZS@!?! :?ACBL! ;<! s@?AC@<?QA;:E! V7:<;8?BQ7! ;! ;sKB@?AC@<?QA;:E  
V7:<;8?BQ7!t!!'=7!V;:Q7@@!8K@A!CBQZKJ7!A=7!CJ7BAC<CQ?AC;B!;<!?!<?QKZAE!87897;!A;!A?ZZE!D;A7@  
CB!A=7!Q?@7!;<!?!8?^;:CAE!D;A7!;<!sKB@?AC@<?QA;:E!Q;B7@?CA=!A=7!Q;ZZ7?LK7@7!<!A=  
<?QKZAE!87897;!@;!7D?ZK?A7J!?BJ!V;:DCJ7!=C8m=7;!CA=!?!9:C7<5!\:CAA7B!@K88?;E!;<!A=7!?:AC;B?Z7!<  
A=7! D;A7! ! !'=7! Q=?C: ! ;<! A=7! J7V?:A87BA7?D;BB7?D;88CAA77@=?ZK?ZZE! A=7! D;A7@! ;B! A=7!  
V7:<;8?BQ7!;<!A=7!Q=?C:;! ?8!JC:7QA;: @!\=;!8K@A!97!7D?ZK?A7E! ?ZZ!A7BK:7J!<?QKZAE!CB!A=7!  
J7V?:A87BA[! !'=7! V;:Q7@@!8K@A!97! ?VV;:D7J! CBCAC?ZZE! 9E! A=7! J7?B! ?BBJMV:7D@7A5!  
V7:C;JCQ?ZZE[! !?BKB:7A: ?Q]!<?QKZAE!\CZZ!B;A!B7Q7@@?:CZE!97!@K9^7QAI!A;A=7!V77!:7DC7!V;:Q7@ @  
?!V?:A!;<!A=7C:?!BBK?Z!7D?ZK?A7C?A5!A=;KL=!A=7C: !V;:JKQACDCAE!@=?ZZ!97!7D?ZK?A7J! ?BBK?ZZE!9E!  
Z7?@A!A=7!J7V?:A87BA!Q=?C:[

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:7DC7!Q;ZZ7L7mZC9: ?E! ?B!KBA!CA=!A=7!<KZZ!AC87!<?QKZAE! ?@!?!L;KV[!!'=7!@V7QC<CQ!J?A  
@=?ZZ!97!J7A7:8CB7J!9E!A=7!B77J@!;<!A=7!KBCA[

RR[ [O 1B!"79:K?:E!;<!7?Q=IE7?:5!7D7:E!<?QKZAE!87897;! @=?ZZ!Q;8VZ7A7!A=7! ?BBK?ZZE!A!e"  
A=?A!@7A@!<;A=! \=?A! =7;! !@=7! =? @!Q;BA: C9KA7JJK: CBL!A=7!V:7DC;K@!Q?Z7BJ?:!E7?:!A;\?:J!A=

JC@A:C9KAC;B!<;!A=7BQK7?;!e477!47QAC;B!12!;<!A=7!"O[PMf[!!1A!C@!Z7<A!A;!A=7!<?QKZAE!?B  
Q=?C;!;<!7?Q=!J7V?:A87BA5! @K9^7QA!A;!A=7!?VV;;D?Z!;<!A=7!J7?B5!A;!J7A7:8CB7!\=7A=7;!A=7!  
JC@A:C9KAC;B! V7:Q7BA?L7@! ? :7!A;!97!A=7! @?87!<;!7D7:E;B7!;! \CZZ!D?:E!<;8! CBJCDCJK?Z!A  
CBJCK?Z[!!#@!@A?A7J!CB!#VV7BJC>!12!e\$;887BA@!?BJ!1B@A:KQAC;B@f!<;!A=7!"O[PM5!VZ?B  
V?L7@!8?E!97!:7DC@7J!A!?BE!AC87!JK:CBL!A=7!7D?ZK?AC;B!V7:C;J!9E! @C8VZ7!?L:7787BA!eC  
\:CACBL5! @K9^5 cm BT -.7 (B) -6 Tm /TT.7 (!) -;!

47QAC;B! RR[O! <;! ?! J7@Q:CVAC;B! ;<! A=7! V;;Q7@@! ?BJ! J7V?:A87BA?Zm<?QKZAE! :7@V;B@C9CZC  
sA:CLL7:7Jt! ?VV;;?Q=IJ7@Q:C97J! ?9;D7!J;7@!B;A! ?VVZE[!!0?A=7:5!A=7!:7@KZA!;<QKZAE!<?  
CBCAC?A7@!A=7!J7@Q:7DC7!V;;Q7@@!J7@Q:C97J!CB!A=7!:78?CBJ7!;!<A=7!@!@7QAC;B[

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1A!C@!A=7!:7@V;B@C9CZCAE!;<!A=7!J7V?:A87BA!Q=?C:mZC9?:?E!Q;;JCB?A;:!A;!B;AC<E5!CB!\:CACBL  
87897!;!<!A=7!@CAK?AC;B! ?BJ!;<!A=7!A;!;<;ZZ;\CB!B;@!A=7!V7:@;B!A;!97!B;AC<C7J!C@!A=7!Q=?C:m  
V;;L:?8!JC:7QA;;@!CA!\CZZ!97!A=7!J7?B!\=;!J;7@!@;[f!!'=7!<?QKZAE!87897:!8K@A!7CA=7:!CBCAC?A7! ?!  
V;;<7@ @C;B?Z!J7D7Z;V87BA!VZ?B!;;! :7YK7@A! A=?A! A=7! %BCD7:@CAE!U7:<;8?BQ7!3D?ZK?AC;B!#VV  
\$;88CAA77!7DC7!7D?ZK?AC;B@!LCD7B!9E!A=7!J7V?:A87BA!Q=?C:mZC9?:?E!Q;;JCB?A;;! ?BJ!J7?B[!!'=7!  
J7QC@C;B!8K@A!97!LCD7B!9E!A=7!<?QKZAE!87897:5!CB!\:CACBL5!A;A=7!J7V?:A87BA!Q=?C:mZC9?:?E!Q;;;  
\CA=CB!A7B!\;;]CBL!J?E @!;<!B;AC<CQ?AC;B[!!'=7!%BCD7:@CAE!U7:<?8CB!73D?ZK!\$;88CAA77!  
@=?ZZ!Q;B@C@A! ;<! ;B7! A7BK:7J! <?QKZAE! 87897:! 7Z7QA7J! <;8! 7?Q=! Q;ZZ7L7! ?BJ! A=7! ZC9?:?E[!!'=7!  
Q;88CAA77!@=?ZZ!Q;B@CJ7:!A=7!KB@?AC@<?QA;;E!7D?ZK?AC;B@5!@A?A787BA@!<;8!A=7!<?QKZAE!8  
;A=7!:7Z7D?BA!8?A7:C?Z@! ?BJ!J7A7:8CB!7D?ZK?AC;B@! \7!18?J7!CB! ?B! ?9CA?:?E!;;!Q?V:CQC;K@!  
8?BB7:[!!gCA=CB!OP!\;;]CBL!J?E @!;<!A=7!7Q7CVA!;<!A=7! ?VV7?Z5!A=7!Q;88CAA77!@=?ZZ!@K98CA!CA@!<  
A;!A=7!V;;D;@A[!!'=7!V;;D;@A!@=?ZZ!B;AC<E!A=7!<?QKZAE!87897:5!J7V?:A87BA!Q=?C:mZC9?:?E!Q;;JCB?

@=?ZZ! :7Q;887BJ! ?! @V7QC<CQ! J7D7Z;V87BA! VZ?B! \CA=CB! @C>AE! J?E@! ;<! A  
<QKZAE! 87897: \_@! CBCAC?AC!B!;Q7@-@! ?@! J7@Q:C97J! ?9;B7!  
J7D7Z;V87BA!VZ?B!@=?ZZ!@V7QC<E!A=7!J7<CQC7BQC7@!A=?A!?:7!97CBL!J7:7  
?BJ! \=?A! Q:CA7:C?! 8K@A! 97! @?AC@<C7J! 9E! A=7! <?QKZAE! 87897: ! CB! ;J7: ! A!  
:787JE !V7:<;8?BQ7!J7<CQC7BQC7@7@7! '=7!V7:C;J!Q;D7:7J!9E!A=7!  
J7D7Z;V87BA! VZ?B! @=;KZJ! L7B7:??ZZE! 97! B;! 8;;7! A=?B! A\;! E7?:@!!  
3>Q7VAC;B@!A;!A=C@!8?>C8K8!AC87!V7:C;J!8K@A!97!V7V;;D7J!9E!A=7!<?QKZAE!  
87897:5!J7V?:A87BA!Q=?C:mZC9:?:E!Q;;JCB?A;;5!J7?B5!B!V;;D;@A!

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RR[R[F[R! 1<!A=7!J7D7Z;V87BA!B!Z? @!977B!J7@CLB7J!9E!?!+7D7Z;V87BA!\$;88CAA775!  
CA! @=?ZZ!97! @7BA!A;!A=7!J7V?:A87BA!Q=?C:mZC9:?:E!Q;;JCB?A;!!<;! =C@!;! =7  
:7Q;887BJ?AC;B@!B!B!V7V;;D?Z!! =7!J7V?:A87BA!Q=?C:mZC9:?:E!Q;;JCB?A;!  
@=?ZZ! 877A!\CA=! A=7! <?QKZAE! 87897: !<;! <CB?Z! :7DC7!D?ZJ! ?NA=7!  
VZ?B!!1<!A=7!VZ?B!C@!V7V;;D7J!9E!e;!! =?@!977B!J7@CLB7J!9E!f!A=7!J7V?:A87BA!  
Q=?C:mZC9:?:E!Q;;JCB?A;!! ?BJ!A=7! <?QKZAE! 87897:5!9;A=7!V7:AC7@!8K@A! @CL  
A=7! VZ?B! ?BJ! ?! Q;VE! @=?ZZ! 97! @7BA! A;! A=7! J7?B!! ! 1<! A=7! J7V?:A87BA!  
Q=?C:mZC9:?:E!Q;;JCB?A;!! ?BJ!A=7! <?QKZAE! 87897:5!9;A=7!V7:AC7@!8K@A! @CL  
@=?ZZ! 877A!\CA=! A=7! J7V?:A87BA! Q=?C:mZC9:?:E! Q;;JCB?A;!! ?BJ! <?QKZAE  
87897: !A; !:7DC7!A=7!J7D7Z;V87BA!VZ?B!B!J!8?J!7! :7Q;887BJ?AC;B@!!1<!<  
A=7!<?QKZAE!87897: !J;7@!B;A!L:77!CA=!A=7! :7Q;887BJ?AC;B@!;!A=7!J7?B5!  
A=7!A=7!J7D7Z;V87BA!VZ?B!C@!<;!?:J7J!A;!A=7!V7V;;D;@A!<;!?!<CB?Z! =7?:CBL!  
?BJ!J7QC@C;B!! =7!<CB?Z!J7D7Z;V87BA!VZ?B!@=;KZJ!@77!A;!97B7<CA!9;A=7!A=7!  
<?QKZAE!87897: !?BJ!A=7!KBCD7: @CAE!

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V;;8;AC;B! JK:CBL! A=7! V7:C;J! Q;D7:7J! 9E! A=7! J7D7Z;V87BA! VZ?B!! ! '=7!  
V7:<;8?BQ7!7D?ZK?AC;B!V;;Q7@ @!V:7@Q:C97J!CB!\$=?VA7: !115!@7QAC;B!RR!;<!A=  
&?8?:!%BCD7: @CAKZAE!)?BJ9;;]!@=?ZZ!@K@V7B7J!JK:CBL!A=7!V7:C;J!  
Q;D7:7J!9E!A=7!V;;<7@ @C;B?Z!J7D7Z;V87BA!

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RR[R[F[d! #ZZ! V;;<7@ @C;B?Z!J7D7Z;V87BA! VZ?B@! @=?ZZ!97! <;87J!A;! ?JJ:7@ @! @V7QC<  
@CAK?AC;B@! ?BJ! @=;KZJ! 97! CBJCDCJK?ZCc7J!! !);7D7:5! ??Q=! V;;<7@ @C;B?  
J7D7Z;V87BA!VZ?B!@=;KZJ!CBQZKJ7!A=7!<ZZ;CBLW!

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! ?f! @V7QC<CQ!J7<CQC7BQC7@!A;!97!?:JJ:7@ @7Jk!  
! 9f!!! @V7QC<CQ!;9^7QACD7@!B77J7J!A;! :787JE!A=7!J7kCQC7BQC7@k!  
! Q! ?! ZC@A! ;<! ?QACDCAC7@! A;! 97! Q?::C7J! ;KA! A;! ?Q=C7D7! A=7! :7YKC:  
;KAQ;87@!;<!A=7!V;;<7@ @C;B?Z!J7D7Z;V87BA!VZ?Bk  
! Jf!!! ?!@Q=7JKZ7!<;!Q;8VZ7ACBL!A=7!QACDCAC7@k!  
! 7f!!! Q:CA7:C?!A=?A!@=?ZZ!97!K@ @!V;;L:7@ @k!B  
! 4!!! ?!VZ?B!<;!V7:C;JCQ!J;QK87BA7J! ? @ @7@ @87BA!A;!97!Q;BJKQA7J! ?A!  
Z7?@A!7D7:E!@787@A7:!

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RR[R[F[H!! # @ @7@ @87BA! J;QK87BA?AC;B! <;! A=7! J7D7Z;V87BA! VZ?B! 8K@A! CBQZKJ7! ?!  
@A?A787BA!;<V;;L:7@ @!V:7V?:7J!9E!A=7!<?QKZAE!87897: !?BJ!?!A;87Z! :C  
:7@V;B@7!9E!A=7!J7V?:A87BA!Q=?C:mZC9:?:E!Q;;JCB?A;!!;!A=7!+7D7Z;V87BA!  
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Q;;JCB?A;!! ;! A=7! +7D7Z;V87BA! \$;88CAA77! 7>A7BJ! A=7! @Q=7JKZ7! <;!  
Q;8VZ7ACBL!A=7!J7D7Z;V87BA!JK:CBL!BE!;<!A=7!V7:C;JCQ! ? @ @7@ @87BA @!!  
'=7! BK897: ! ;<! @KQ=! :7YK7@A@! @=?ZZ! 97! ZC8CA7J! A;! ;B75! KBZ7@ @! A=7!



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! ?f! U77:~V7:<~;8?BQ7!~BJ!@~?Z?:EIJ?A?!?@~!Q;8V?:7J!A;!CB@ACAKAC;B!~?BJ!@~?Z?:EIJ?A?!~\CZZ  
 97!Q;B@CJ7:7J!CB!J7A7:8CBCBLI8?:]7A!V?E!~?JD?BQ7@~[  
 9f! ~;!97!Q;B@CJ7:7J<~;~!?!8?:]7A!~?JD?BQ75!?!<~?QKZAE!87897:~!8K@A!~=?D7!Q;8VZ7A7J!  
 Q:7J7BAC?Z@~!~?VV~;~V:C?A7!<~;~!A=7!JC@QCVZCB7!~?BJ!97!A7BK:7A!~?CB!A7BK:7  
 8CBC8K8!;<~!A=~77!E7?~!@~[  
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 Jf! ~;!97!Q;B@CJ7:7J!<~;~!?!8?:]7A!~?JD?BQ75!?!<~?QKZAE!87897:~!@~!@~?Z?:E!CB!~7Z?AC;B!A;!?!  
 <~?QKZAE!87897:~!@~!~?B!~8K@A!97!;KA!;<~!~?ZCLB87BA!~\CA=~V77:~!CB@ACAKAC;B!@~?Z?:C7  
 <~?QKZAE!~?A!~@C8CZ?:ZE!~@CAK?A7@~!KBCD7J@C7A87BA@!~\CA=~@C8CZ?:!  
 ?QQ;8VZC@=~87BA@~!CB!A=7!@~?87!JC@QCVZCB75!~\CA=~!Q;8V?:~9Z7!~?B!~?BJ!AC87!;<~!@7:D

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! ?f! 1BA7:B?Z!/C@~?ZCLB87BAV?:C@~;B!;<~!@~?Z?:C7@CZ7Z!V7:<~;~8CBL!78VZ;E77@!  
 CBB7\_@~!KBC!J7V?:A87BA!~\CA=CB!A=7!@~?87!^;9!QZ?@~@C<CQ?AC;B!~?A!&~8?:!%BCD7:@C  
 9f! /?:]7A!/C@~?ZCLB87BA!~7B!A=7!~?D7:~?L7!8?:]7A!V?E<~;~!?!Q;8V?:~9Z7!^;9!~\CA=  
 V77:~!CB@ACAKAC;B@~!C@!~@CLBC<CQ?BAZE!~CL=7:~!@~?B?A!~VZB7Z@~7!~7@~!CB!  
 8CBJ5!~?@AKJE!;<~!J!A7BQ=8?:]7J!<~;~!A=7!~?VVZCQ?9Z7!~8?:]7A!~\CZZ!97!B77J7J!  
 A;!97!Q;BJKQA7J!A;!@KVV~;~A!A=C@~!~?AC;B?Z7[!  
 Qf 4V7QC<CQ! 3>V?B@C;B! ;<~! 07@V;B@C9CZCAC7@~! IB;A! ?! 7QZ@~@C<CQ?AC;B!  
 QZ?@~@C<CQ?AC;B5!~?BE!~@CLBC<CQ?BA!Q=?BL7@~!CB!~7@~\CB@C9CZCAC7@~!B5;A!~7YK  
 ^;9!ACAZ7[!g:~!QZ;@7ZE!~\CA=~!K8?B!~7@~;K:Q7@~!A;!J7A7:8CB7!~7A=7:~!A=7!^;9!Q=?BL7@  
 \?::~?BA!?!~7QZ?@~@C<CQ?AC;B!!!  
 Jf! 4?Z?:E! \$;KBA7:~;<~<7i!! C~! ?! @~?Z?:E! ?J^K@A87BA! C@~! 97CBL! 8?J7! 9?@7J! KV;B! ?!  
 Q;KBA7:~;<~<77Q7CD7J!9E!~?B!78VZ;E775!&~?8?:!@~;KZJ



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V;;JKQACD7[!!'=C@!JC87B@C;B!C@!C8V;;A?BA!B;A?ZAE!CB@A:KQAC;B5!9KA!Z@;!A;!A=7!7?ZCc?AC;B!  
A=7!KBCD7:@CAE!@!L;!Z!?!@?!@QC7BA!C?B!QKZAE!CB@A:KQAC;B5!9KA!Z@;!A;!A=7!7?ZCc?AC;B!  
1B!A=C@!@VC:CA5!A=7!KBCD7:@CAE!@=?ZZ!7BQ;K:?L7!<?QKZAE!87897:@!A;!7Q;LBCd7!A=7C!:7@V;  
V!;<7@@C;B?ZIL;A=!A=;;KL=!7@7?:Q=!?BJ!Q:7?ACD7!QACDCAC7@!;KA@CJ7!A=7!QZ?@ @;;8[

1B! ?JJCAC;B! A;! CA@! ?ZZ;Q?A7J! @A?A7! <KBJ@5! &?8?:! %BCD7:@CAE! :7Q7CD7@! :7D7BK7@! <;8!  
@KVV;;A7J! V;;L:78@5! V;;^7QA@5! ?BJ! :7@7?Q<HCQ7! ;<!07@7?:Q=! ?BJ! 4V;B@! U;;L:78@!  
#J8CBC@A:?AC;B! ?A! &?8?:! %BCD7:@CAE! V;;DCJ7@! @KVV;;A! ?BJ! <KBJCBL! A;! <?QKZAE! ?BJ! @A?<<! A;  
A=7C!:7@7?:Q=5!7JKQ?AC;B5! ?BJ! ;KA:7?Q=! ?BJ! QACDCAC7@! ?Q=! ?J8CBC@A:?AC;B! @=?ZZ! Q;;JCB?A7!  
?BJW!!?f!J7D7Z;V!87Q=?BC@8@!<;!@77]CBL!7 0 0 0.24 12 589.92 cm BT 42 0 0 42 400 -15 (!) 16 42T 42 0 0

9K@CB7@B5?CD?A7!<;KBJ?AC;B@!A;!7B=?BQ7!<KBJCBL!;<!7@7?:Q=!L:?BA@!?!BJ!V;;L:?8@[  
Qf '=7!;<<CQ7!@=?ZZ!V;;DCJ7!CB<;8?AC;B!?!9;KA!A=7!?!D?CZ?9CZCAE!;<!7>A7:B?Z!@KVV;;A!<;!7@  
?BJ!V;;L:?8@!A;!A=7!KBCD7:@CAE!Q;88KBCAE[  
Jf! '=7!;<<CQ7!@=?ZZ!?@@C@A!<?QKZBE!9E!W!C!B!7D7Z;VCBL!V;;V:@?Z@5!9E!8?]CBL!Q;BA?QA!  
7f \CA=!?VV;;V:C?A7!<KBJCBL!L7BQC7@5!?!BJ!9E!CJ7BAC<ECBLIA=7!97@A!V;@@C9Z7!@;K:Q7@!<;

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V;;V7:AE5!CBQZKJCB7BA@!?!BJ!Q;VE:CL=V7A@CBCBL!A;!V7:@;B@!78VZ;E7J!9E!&?8?!%BCD7:@CAE!  
e?BJ!;A=7!CB@ACAKAC;B@!;<!A=7!4E@A78f!?!BJ!7@78E!CB@ACAKAC;B?Z!<?QCZCAC7@!?!BJ!7@;K;  
&?8?!%BCD7:@CAE\_@!CBA7ZZ7QAK?Z!Q;VE:CL=V7A@CBCBL!Q;VE:CL=A!?!BJ!V?A7BA!V;ZCQC7@5!?!?7!<;KBJ!  
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?VV:7QC?ACD7ZE! ?QQ7VA7J[! ! 1A! @=?ZZ! 97! A=ZCAE@; <BA@C9DCQ7! V:7@CJ7BA! <;! %BCD7:@CAE!  
#JD?BQ787BA! A;! V::8VAZE! 7D?ZK?A7! ?BE! LC<A5ZZ?BA5CV5! ;! @Q=;Z?:@=CV! A7BJ7:7J! A;! A=7!  
KBCD7:@CAE! 7! A=7! LC<A! C@! ?QQ7VA7J[! ! #BE! ;<7:!

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A=7!Q=;CQ7!;<!CB@A:KQAC;B?ZI8?A7:C?Z@!A;!97!K@7J!CB!A=7!Q;K:@7@!;<<7:7J!9E!A=7!J7V?:A87BA5!M  
?VV:;D?Z!9E!A=7!J7V?:A87BA!Q=?C:[!#ZA=;KL=!A=7!KA=;@=CV!;<!9;])@5!KAZZC7508!87897!  
?BJ!@C8CZ?:!8?A7:C?Z@!9E!87897:@!;<!A=7!<?QKZAE!@=;KZJ!97!7BQ;K:?L7J5!A=7!IV:7@Q:C97J!K@7!;<!A=  
<;!@AKJ7BA@!C@!?!:7@V;B@C9CZCAE!A=?A!L;7@!97E;BJ!A=?A!;<!A=7!CBJCDCJK?Z!KA=;[!g=7:7!V:?  
?BJ!7YKCA?9Z75!A=7!Q=?L7!<;!;KAZCB7C5!@#7C8CZ?:!8?A7:C?Z@!V:7@Q:C97J!<;!A=7!K@7!;<!  
@AKJ7BA@!@=;KZJ!97!9;:B7!9E!A=7!CB@A:KQAC;B?Z!J7V?:A87BA!Q;BQ7:B7J!g=7B7D7:!!Q=?L7!C  
?KA=;Cc7J!<;!@KQ=!Q;VC7J!8?A7:C?Z@5!A=7!V:CQ7@!@=;KZJ!97!?!Z;!?!@!V;@C9Z75!Q;B@C@A7B  
V?E87BA!;<!?!<?BJ!7?@;B?9Z7!;E?ZAE!A;!A=7!KA=;!;!KA=;@[!C@!Q=?L7!8K@A!97!Q;B@CJ7:7J!  
CB!Q;B^KBQAC;B\CA=!?B!CBQCJ7BA?Z!Q;K:@7!<77!;!Q=?L7!@KQ=!A=?A!@AKJ7BA@!?!7!B;A!Q=?L7J!8;7  
;BQ7!<;!A=7!@?87!8?A7:C?Ze@f[!7>A9;])@5!B;A79;])@5!8?BK?Z@5!@;A778?A7:C?Z@!<;!A=7!  
K@7!;<!@AKJ7BA@5!\CAA7B!;!V:7V?7J!9E!?!87897:;!<!A=7!<?QKZAE5!@=?ZZI;B;A!97!V:7@Q:C97J!<;!A=7!  
;<!;!@;ZJ!A;!@KQ=!@AKJ7BA@!KBACZ!@KQ=9;])@5!B;A7@5!8?BK?Z@5!;!8?A7:C?Z@!@=?ZZI=?D7!977B!?  
\CA=!7?@;B@!@A?A7J5!9E!A7A87BA!Q=?C:5!J7?B5!?BJ!V;;D;@A!#ZZI!@KQ=!7YK7@A@!@=?ZZI!CBJCDK



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78VZ;E77!\CA=;KA!@V7QC<CQ!JC:7QAC;B!;!!@CLBC<CQ?BA!@KVV;;A!;<!&?8?;!%BCD7:@CAE!@=?ZZ!E  
Z7?@7J5!:7BA7J5!;!;A=7:\C@7!K@7J!CB!?!8?BB7;!A=?A!Q;8V7A7@!\CA=!A=7!CB@A:KQAC;B?Z!;<<7:CB  
&?8?!\CA=;KA!A=7!V:0;CAA7B!?VV;;D?Z!;<!A=7!V;;D;@A!!!!4=;KZJ!?VV;;D?Z!97!L:?BA7J!A;!;<<7:!A=7!  
Q;K:@75!Q;K:@7!Q;8V;B7BA@5!;!CB@A:KQAC;B?Z!@KVV;;A!8?A7:C?Z@!;KA@CJ7!;<!A=7!CB@ACA  
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;!Q=?;L7@!A;!97!7>V7BJ7J!<;V7:@;B?Z!;!KBCD7:@CAE!VK:V;@7@#?ZZ!B;A! @7ZZ!A;! @AKJ7BA@!?!BE!  
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C8V::A?BQ7[!!#ZZ!KBCD7:@CAE!78VZ;E77@!@=?ZZ!97!7>V7QA7J!A;!97!Q;BACBK;K@ZE!?BJ!?QACD7ZE!Q  
?9;KA!@?<7AE[!]"?QKZAE!@=;KZJ!V::;8;A7!?B!?\?:7B7@ @!;<!@?<7AE!?BJ!J7D7Z;V!V;@CACD7!?AACAKJ7@  
@?<7AB!BL!A=7C: ! @AKJ7BA @[!!#ZZ!V;A7BAC?Z! @?<7AE!-0887!0?8?7?!!:7V::A7J!A;!;B7\_@!  
@KV7:DC@::! ?BJ!A;!A=7!-<<CQ7!;<!0C@]!/?B?L!787BAZCQC7@5!<;8@5!?BJ!?JDCQ7!;B!@?<7AE!?BJ!  
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KBCD7:@CAE!<KBJ@!?:7!:7YKC:7J5! @=?ZZ!97!8?J7!A=;;KL=!A=7!-<<CQ7!;<!A=7!2CQ7!U:7@CJ7BA!<;!"CB  
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Q;B@K87J!;B!Q?8VK@!7>Q7VA!C@!#&"%!9KCZJCBL@!;!<?QCZCAC7@!J7@CLB?A7J!9E!A=7!V:7@CJ7BA!  
@;QC?Z!7D7BA@!!=7:7!?ZQ;=;Z!97D7:?L7@!?!?@7:D7J!@=?ZZ!97#0KZ?AC;B@W

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KBACZ! ?<A7:!TWPP!V[8!\CA=;KA!7>VZCQCA! ?KA=;:Cc?AC;B!<;8!A=7!V:7@CJ7BA[!#ZQ;=;Z!8?E!97!@7:  
?KA=;:Cc7J!<?QCZCAC7@!4BJ@E?E5!WPP!V[8!KBACZ!8CJBCL=A!4?C!E5!TWPP!V[8!KBACZ!  
OWPP!?[8[k!FPWPP!?[8!KBACZ!OWPP!?[8[k!?BJ!4KBJ?E5!B;B!KBACZ!8CJBCL=A[!-:JCB?:CZE!<?QCZCA  
B;A!97!;V7B!JK:CBL!=;ZCJ?E!V7:C;J@[!;7D7:?L7!?BJ!9?:A7BJ7!@7:DCQ7!@=?ZZ!97!JC@Q;BACBK7J!A=C

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<;;8!J?8?L7@!?!BJm;!!QZ7?BCBL!\=CQ=!;7@KZA!<;;8!?!B!;L?BCc?AC;B!@!<KBQAC;B[  
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K@7!;<!?B!CZZ7L?Z! ?BJ!Q;BA:;ZZ7J! @K9@A?BQ7! ?A! ?BE!AC87! ;B!A=7!KBCD7:@CAE!@!V:78C@7@!C@  
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@=?ZZ! :7Q7CD7! ?BJ! ?Q]B;\Z7JL7! :7Q7CVA! ;<! A=7! KBCD7:@CAE!@!V:78C@7@! V;ZCQE! ! 3?Q=  
78VZ;E77!7BL?L7J!CB!A=7!V7:<;:8?BQ7!;<!?!<7J7:?Z!L:?BA! @=?ZZ!97!:7YKC:7J!A;! @CLB!?! \:CAA7B! ?BJ!  
J?A7J! ?Q]B;\Z7JL87BA!A=?A! =7! ;! @ =7! =? @! :7Q7CD7J! ?! Q;VE! ;<! A=7! KBCD7:@CAE!@!V:78C@7@!  
V;ZCQE!e?D?CZ?9Z7!CB!A=7!07074CB@;:7J!U;;L:?8@!-<<CQ7f[!#!Q;VE!;<!A=C@!?!Q]B;\Z7JL87BA!  
@=?ZZ!97!CBQZKJ7J!CB!A=7!78VZ;E77!@!V7:@;BB7Z!<CZ7[

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7?Q=I78VZ;E77!7BL?L7J!CB!A=7!V7:<;:8?BQ7!;<!?!<7J7:?Z!L:?BA! @=?ZZ!97!:7YKC:7J!A;! @CLB! ?BJ!J?A7!?!  
\:CAA7B! ?L:7787BA!A=?A! =7! ;! @ =7! \CZZ! ?9CJ7!9E!A=7!A7:8@! ;<! A=7! KBCD7:@CAE!@!V:78C@7@!  
V;ZCQE!k! ?BJ!A=?A! =7! ;! @ =7! @ =?ZZ!B;AC<E!A=7!KBCD7:@CAE!eA=;KL=! =C@! ;! =7! ?J8CBC@A:?ACD7!@  
A=7! )K8?B! 07@;K:Q7@! -<<CQ7f! ;<! ?BE! Q:C8CB?Z! J:KL! Q;BDCQAC;B@! e@A?A7! ;! <7J7:?Zf! <;! ?! DC;Z?A  
;QQK::CBL!CB!A=7!\;;]VZ?Q7!B;!Z?A7B!ACD7!J?E@!?!<A7! !@KQ=!Q;BDCQAC;B[! ! =7!78VZ;E77!@=?ZZ! ?Z@;!  
?Q]B;\Z7JL7! A=?A! <?CZK:7! A;! @ ;! B;AC<E! A=7! KBCD7:@CAE! ;<! @KQ=! Q;BDCQAC;B@! @=?ZZ! CA@7Z<  
DC;Z?AC;B!;<!KBCD7:@CAE! :7LKZ?AC;B@5! ?BJ!@=?ZZ!@K9^7QA!A=7!78VZ;E77!A;!JC@QCVZCB?E! ?QAC

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7BL?L7J!CB!A=7!V7:<;:8?BQ7!;<!?!<7J7:?Z!L:?BA! \CA=CBI!A7BIJ?E@! ;<! :7Q7CVA! ;<! B;ACQ7! ;<! @KQ=!Q;BDCQ  
<;:8! A=7! 78VZ;E775! ;! <;:8! A=7! AC87! A=7! KBCD7:@CAE!@!V:78C@7@! ?QAK?Z! B;ACQ7! ;<! @KQ=!  
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?BJ!7@;]@ 5!^;K:B?Z@5!8CQ;:<;:8@5!8?V@5!8K@CQ!@Q;:7@5!@A?A;7!7!B!8!7!B!7!V!K!9ZCQ?AC;B@5!  
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@Q=;Z?:ZE!^;K:B?Z@! ?BJ!A=7!V7:C;JCQ?Z@!A=;:KL=!@K9@Q:CVAC;B@!A;!?:LL:7L?A7J!J?A?9?@7@! ?@!  
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Q;8VKA7: @CBK@7!;!:78;A7ZE!A;!Z;Q?A7!V:CBA! ?BJ!7Z7QA;:BCQ!9;]@!CB!A=7!BZCB7!Q?A?Z;L!['=7E!Q?B!  
?Z@;! ?QQ7@ @!JCLCA?Z!QCA?AC;B!CBJ7>7@! ?BJ!A7?A9?@B?Z?ACQZ7@5! ?BJ!CB7LKCJ7@!  
A?CZ;:7J!A;!@V7QC<CQ!@K9^7QA!<C7ZJ@!;<!@AKJE5!@AEZ7! ?BJ!<;:8?AACBL!=7ZV!<;:!7@7?:Q=!V?V7: @  
?BJ!JC@A?BQ7!7JKQ?AC;B!@KVV;:A!#!@7!B!CQ!ZC9:?:E!@A?<<!V;:DCJ7@! ?@ @C@A?BQ7!CB!A=7!K@7  
:7<7:7BQ7!8?A7:C?Z@5!L;D7:B87BA8;7BA@5! @V7QC?Z!Q;ZZ7QAC;B@! ?BJ! ?Q=CD?Z!8?A7:C?Z@5! :7@7  
8?A7:C?Z@5! ?BJ!CB@A:KQAC;B?Z!87JC? !['=7!\$?:JCB?Z!-B7!\$?:J! @7:D7@! ?@! ?V?A;BI@!ZC9:?:E!Q? ?J!  
9;::;CBL! VK:V;@7@! ! &?8?;! 3Z7QA;:BCQ! #QQ7@ @! e&3#! Q:7J7BAC?Z@! ?7! KACZC7J! A;! ?QQ7@ @!  
J?A?9?@7@?A=7!:7Z7QA;:BCQ! :7@;K:Q7@ [!!'=7!ZC9:?:E!V;:DCJ7@! !;:8@!<;:!L;KV!@AKJE5! ?BJ!A=7!<C<A=  
<Z;:;C@! ?J7@CLB?A7J!YKC7A!@AKJE5?Z? ! \$7C@;VE!8?Q=CB7@!<;:;9;A=!V:CBA! ?BJ!8C@;k;:8  
?:7! ?D?CZ?9Z7?8VKA7: @?:7!;V7BZE! ?QQ7@ @C9Z7!A;! ?ZZ!@AKJCB@A?C7B?A9@IZ;Q?A7J!;BIA=7!  
<C:@A! ?BJ! @7D7BA=5kZ@?7QACD7ZE! !#B! ?JJCAC;B?Z!Q;8VKA7: @! ?7! ?D?CZ?9Z7!<;: !QZ? @ @7@!  
?BJ!@V7QC?Z!V;^7QA@!CB! ?CB?Z?7B?A=?E!QZ? @ @;:8! ! ?CB?@A?<<!V;:DCJ7! ?@ @C@A?BQ7!CB!A=7!  
K@7!<!Q;8VKA7: @5!V:CBA?BJ!@;<A! ?7! !['=7:7! ?7C! @7V? ?A7ZE!J8CBC@A7:7J! ?7?@!CB!A=7!b: ?E!  
&C9:?:E!%BCD7: @CAE! g:CACBL! \$7BA7k!AKJ7BA! 'KA;:CBL! ?BJ! 07A7BA@7BDC7@KA;:C?Z!  
\$7BA7:k!<<CQ7! UZ?BBCBL! ?BJ! # @ @7@ @ \$7BA7k!<;: !'7?Q=CB ?BJ! &7?:BCBL! 3B=?BQ787BAK  
-<<CQ7! ;<! 07@7?:Q=! ?BJ! 4V;B@;U;:L: ?8@! #J8CBC@A: ?AC;B47:DCQ7@! )7ZV! +7@]k! /7JC?!  
47:DCQ7@J8CBC@A7:7J!9E! ?BJ!%BCD7: @CAE!A7BA7: [

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?BJ! ?ACQZ7@!A=;:KL=! ?B!7<<CQC7BA!CBA7:ZC9:?:E!Z; ?B!9;::;CBL! @E@A78! !&?8?!%BCD7: @CAE!@AKJ7

:7YKC:CBL!CBA7B@CD7!87JCQ?Z!Q?:7\CZZ!97!:7<7::7J!A;!?:7?!=;@VCA?Z!787:L7BQE!<?QCZCAC7@(!)7?  
@7:DCQ7@!@=?ZZ!B;A!97!::KACB7ZE!?D?CZ?9Z7!A;!<?QKZAE!?BJ!@A?<<[!]"?QKZAE!?BJ!@A?<<!\=;!=  
\;] d7Z?A7J!CB^K:C7@!8?E!97!A:7?A7J!A!A=7!7?A7J!A!A=7!7?A7J!A!A=7!7?A7J!A!A=7!7?A7J!A!A=7!7?A7J!A!A=7!

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'7Q=B;Z;LE!U;ZCQC7@! ?BJ!4A?BJ?:J@!\=CQ=!?:7! ?D?CZ?9Z7! ?A!!  
=AAV@Wmm\Z?8?:[7d@nOCQ7Bd@KVV:AmV:ZCQC7@mCfJb;=AC;B5!V;ZCQC7@!V7:A?CBCBL!  
A;!A=7;:ZJ!gCJ7!g79 mCBA7!B7A!97!<;KBJ!CB!#VV7BJC!#!!

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@A?BJ! @AKJ7BA@!\CZZ! :?J! KBCD7?ZAC7BA!A;!A=7C:!Q?8VK@! ?JJ:7@ @! ?A!Z??@A! ;BQ7!7D7:E!  
\77]5! ?BJ!A=?A!Q?8VK@! ?Q?8E!97!9? @7J! ;B!A=C@!7>V7QA?AC;B!!! =C@!V;ZCQE! ?VVZC7@!A;! @AKJ7B  
JK:CBL! ?BE! @787@A7:m@7@ @C;BmA7:8!A=7! @AKJ7BA!C@!7B;;ZZ7J! ?BJ!A;!<?QKZAE! ?BJ!@A?<<!JK:CB  
Q;BA: ?QA7J!78VZ;E87BA5!7>Q7VA!;<<CQC?Z! ;ZCJ?E@! ;! ;! ;A=7!V7:C;J@!\=7B!A=7@?8VK@!C@!IQZ;

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A=C@J:7@ @! ?BJ!CA!C@!7>V7QA7J!A=?A! ?ZZ!<?QKZAE5!BA@! @?BZ! ;A=7C! ?JJ:7@ @7@!<;!  
87@ @?L7@A! Z??@A! ;BQ7!7D7:E! [77]A=7! ?BB;KBQ787BA@! @=?ZZ! ?VV7?;! ;B!A=7! KBCD7: @CAE\_@!  
=;87V?L7! e\Z?8?:[7JKf! !1B!787:L7BQC7@5! Q?8VK@! CB<;8@AC?7! 7Z7QA;;BCQ?ZZE! @7BA!  
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,Z?Q]9;?J !e&?8?:\_ @!&?7:BCBL! ?B?L787BA!4E@A78f5!BZCB@S3D?ZK?AC;B@?8?:\_ @!@AKJ7BA!  
7D?ZK?AC;B!<ICB@A:KQAC;B! @E@B@B@?8?:\_ @!@AKJ7BA!QZK9! ?BJ! ;L?BCc?AC;B!8V!K@15!Q  
Q8VKA7: @8E4Q=;Z?: @=C5! @8VK@V:CBA@B!BJA=7!C:7Z7 @A;] [!!!

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CB<;8?AC;BZ? @! :7Q;;J@5!L: ?CBK57BA!7Q;;J@5!V?E87BA5! ?BJ!<CB?BQC?Z! ?CJ!CB<;8?AC;B!!  
&?8?:1+!Q;B@C@A?IQ?VCA?ZI! ?BJ!7CL=A!BK87C@C!C;!!@7QK:CAE5!A=7!&?8?:1+! :7YKC:7@! ?!V? @ @!  
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V;;DCJ7J! @KQ=!<:77J;8@! ? :? !7>7:QC@ 780BB7:!A=?A!J;7@!B;A!CZZ7L?ZZE!J7::L?A7!A=7!:CL=A@!;<!  
;A=7:@!;!CBA7:<7CA=!A=7! ?Q?J78CQ!V;;L: ?8@! ?BJ! ?J8CBC@A: ?ACD7!V;; 878@?7@CD7: @CAE  
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8?BB7!: :7@A:CQAC;B@! ?@:7@?CJ7B?E!C8V;@? !e@77!4K9V?:?L:?V=@!! ?BJ! aa[T!;<!A=C@!  
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7B^;E7J!9E!A=7@AKJ7BA@5!<?QKZAE5! ?B&78A?%BCD7: @CAE=! :7@V7QA!A;!A=7!;VV;;AKBCAE!A;!  
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;<!Q?BJCJ?A7@!<;!VK9ZCQ?7!8K@A! ?9CJ7!9E!A=7!V;;DC@C;B@!;<!A#C@!47QAC;B[

aa[Q` ! 4V7?]7: @!A;!97!V?CJ!<;!8!@A?A7!<KBJ@!A;! @V7?]7?BJ!Q?8VK@!@=?ZZ!@V7?]!CB!?!<?QCZCAE!  
A=?A!C@!;V7B!A;!A=7!VK9ZCQ?@?@AC;B!J;7@!B;A! ?VVZE!A;!QZ? @ @7@5!@78CB?:@5!@E8V;@C  
?BJ!Q;B<7:7BQ7@!CBA7BJ7J!<;!A=7!K@7! ?BJ!97B7<CA!;<! @AKJ7BA@5!<?QKZAE5!@A?<<5!  
LK7@A@![\*;!V7:@;B!8?E!;9@A:KQA!;!Z7@?B7V7BA=7!;VV;;AKBCAE!<;!A=7! ?KJC7BQ7!A;!  
@77?B;B@7;



DC;Z?AC;B!;<! ?BE!<7J7:?Z5! @A?A75! ;!Z;Q?Z!Z? \!&CA7:?AK:7!8?E!B:A!97!JC@A:C9KA7J!\=7:7!A  
8?BB7! ;!<;8! ;<! @?CJ! JC@A:C9KAC;B! Q;B@ACAKA7@;B!C@A7ZIC @:KVA@! QZ?@ @::;8!  
JC@QK@@@C;B5!C8V787@BA7B?BQ7!;<!VK9ZCQ!;J7:5!;!Q;B@ACABA7@;A+W7:@;B!  
JC@A:C9KACBL!;!JC@@@78CB?ACBL!A=7!8?A7:C?Z!;!C;B;EDC;K?Z]

aa[a[Q "; :!V;ZCQE!VK:V;@7@5! ?JD;Q?QE!87?B@! ?JJ!7@7@CBLV!<;!C88CB7BA! ?QAC;B! ?BJ!  
@A77ZCBL5!9;Z@A7!C;B;CBL!CA!A;!@KQ=! ?QAC;B! ?@!;VV;@7J!A?@A77@ @K@ ?Z!;Z!  
8;:?ZIV;V:C7AE!;<! ?!Q;K:@7!;<! ?QAC;B]

aa[a[ ! #BE!L;KV!;!V7:@;B5!\=7A=7:;!B;A! ?!@AKJ7BA!;!78VZ;E778;B@A:?ACBL!;B!Q?8VK@!  
@=?ZZ! ?J=7:7!A;!A=7!V;;DC@C;B;@7;? @8JKQ?AC;B!\$;J75!47QAC;BITF[G'Ts;Z@;\@W!

aa[a[ [F! \*,!V7:@;B!;!L;KV!;<!V7:@;B@! ?QACBL!CB!Q;BQ7!CBA7BAC;B?ZZE!7BL?L7!  
CB!JC@:KVACD7! ?QACDCAE!;!JC@:KQ@789ZEK?8?\_ @Q?8VK@!  
+C@:KVACD7! ?QACDCAE!78@KQACBL!;!:7@A:?CBCBL!A=7!V?@ @?L7!;<!  
V7:@;B@!A;!A@78VK@!;! ?B!?:7?!;<!A=7!Q?8VK@A;! ?B!7?CA5!7BA:?BQ75  
;!=?ZZ! ?E!;<! ?BE!9KCZJCB! \CA=;KA!A=7! ?KA=;C@A7C;B;CBC@A:?AC;B!;<  
&?8? :Kof!47CcCBLIQ;BA;;Z!;<! ?B!?:7?!;<! ?!Q?8VK@!;! ?BE!9KCZJCB!B!  
;<! ?! ?9KCZJCB!<;!A=7!VK:V;@7! ;<! CBA7:<7CBE!C;B;CBC@A:?ACD75!  
7JKQ?AC;Z5!7@7?:Q=5!;!A?KA=;C@7J! ?QACDCAE!K@:KVACBL! ?BJm;!  
V:7D7BACBL!;! ?AA78VACBL!A;!V:7D7BQ7E!DC;Z7BQ7!;!A=7!A=7?A!;<!  
<;Q7! ;! DC;Z7BQ7! ?BE? \<KZ! ?@ @789ZE! ?KA=;C@7J!&98? :@!  
?J8CBC@A:?AC;B! #! Z? \<KZ! ?@ @789ZE! C@! JC@:KVA7J@;B7CB!  
?AA7BJ?BQ7!C@! :7BJ7:7J!CBQ?V!@ZACQCV?ACBL!CB!A=7! ?@ @789ZE!JK7!A;!  
A=7!K@7!;<!;<;Q7!DC;Z7BQ7!;! ?!?:7?@;B?9Z7!<7?;!;<!;<;Q7!;!DC;Z7BQ7]

aa[a[ [O! #BE!V7:@;B! \=;IC@!Q;BDCQA7J!A=7!A=C:J!AC87!;<!DC;Z7BQ7!A=7!A=C:J!  
A=7:7?<A?7!ZCCLC9Z7!A;! ?AA7BJ! ?BE! @CZ;Z55!;!KBCD7: @CAE! :7Q7CDCBL!  
<KBJ@!<;8!A=7!4A?A7!;<! ?7>?@? !V7:C;J!;<!A\;!E7?:@!<;8! @KQ=!A=C:J!  
Q;BDCQAC;B]

aa[a[R \*,A=CBL!=7:7CB!@=?ZZ!97!Q;B@A:K7J!A;!CB<:CBL!KV;B! ?BE!@V7Q=;! ?7>V:7@ @C;B!  
LK?:?BA77J!9E!A=7!\$;B@ACAKAC;B;B@A7!4A?A7@!;!A=7!4A?A7!;<!!7?>@]

aa[a[T! +C@:KVACD7!#QACDCAC7@[!+C@:KVACD7! ?QACDCAC7@?BOD7=C@C@7J@!@!|=7!  
V:7@CJ7BA!@=?ZZ!V::8VAZE!KACZC@87?ZK7?@KZ!=?ZA! ?BJ!7ZC8CB?A7! ?BE!KQ! ?ZZ! @  
JC@:KVACD7! ?QACDCAC7@?BOD7=C@C@7J@!B7JC?A7ZE!B;AC<E!A=7!Q=?BQ7ZZ;! ?BJ!A=7!Q=?C:8?B!;<!A=7!  
;?:J !;<!07L7BA@]

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aH! U-&1\$(!-\*!U-&1\$134 !

#BE!87897;!;<!A=7!<?QKZAE!;!@A?<<!;!?BE!@AKJ7BA5!CBJCDCJK?ZZB!EQ/ZZ70A0DCZAE5B!  
V;ZCQE!V;V;@?Z! ?JJ:7@ @CBL! ?B! ?Q?J78CQ! C@ @K7! ;! Q;BQ7:B! <;! Q;B@CJU:7@CB7FA\_A@!  
3>7QKACD\$7KBQCZ! '=7! V:7@CJ7BA! ;! =C@m=7:! J7@CLB77

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aM[ 4%,4#\*123!\$)#\*b3!U-&1\$(W!4#\$4\$-\$!\*-1"1\$#1-\* !!  
#BE!87897!;!<!A=7!<?QKZAE!;!@A?<<!;!BE!@AKJ7BA5!CBJCDCJK?Z?B?E!VZ7Q7C7D7ZAA7B!  
V;V;@?Z! ?JJ:7@CBL! ?Q?J78CQ!L:78@mQ;K:@7@m@K9@A?BACD7! Q=?BL7@! e@77! 97Z;!f!  
Q;B@CJ7?:AC;B! 9E! A77!;V:C?A7! J7V?:A87BA?Z5! Q;ZZ7L75! ?BJ! KBCD7:@CAE! QK::CQKZK8! :7DC7  
Q;88CAA77@!?!BJ!Q?J78CQ!J8CBC@A:?A;: @[!!

aM[F U%0U-43[!!&?8?!%BCD7:@CAE!VZQ;87@!A=7!7>V?B@C?BU78CQ!;VV;:AKBCAC7@!A=:;KL=!A=7!  
J7D7Z;V87BA! ?BJ! C8VZ787BA?AC;B! ;<! B7! V;L:78@! ?BJm;:! Q;K:@7@[! &?8?!%BCD7:@CAE! C@! ?Z@!  
Q;88CAA7J! A;! ?J=7:CBL! A;! A=7! V;ZCQC7@! ?BJ! :7YKC:787BA@! ;<! CA@! :7LC;B?Z! ?QQ:7JCACBL! 9;JE  
4;KA=7:B! #@@@;QC?AC;B! ;<! \$;ZZ7L7@! ?B;Z@Q\$;88C@@C;B! ;B! \$;ZZ7L7@! e4#\$4\$-\$f! 1B!  
?QQ;:J?BQ7! \CA=! @KQ=! V;ZCQE5! &?8?!%BCD7:@CAE! \CZZ! B;AC<E! 4#\$4\$-\$! ;<! V:A7BAC?Z! ;! ?QA  
@K9@A?BACD7!Q=?BL7!A;ICA@!;Z7!?!BJ!@Q;V7!CB!?!AC87ZE!8?BB7:5!?!BJ!CB!@;87!Q?@7@5!\CZZ!@77!]  
<:;!Q=?BL7!97<;:7!A=7!CBA7C7!C@!C8VZ787BA7J]

4#\$4\$-\$! C@! :7Q;LBCc7J! 9E! A=7!%BCA7J! 4A?A7@! +7V?:A87BA! ;<! 3JKQ?AC;B! ?@! ?B! ?L7BQE! \=; @7!  
?QQ:7JCA?AC;B!7B?9Z7@!ICA@!87897: @!A;!@77]!7ZCLC9CZCAE!A;V?:ACQCV?A7!CB!CAZ7!12!V;L:78@[!!  
C@! :7@V;B@C9Z7!<;:7DC7CBL! ?ZZ! @K9@A?BACD7!Q=?BL7!A;ICA@!;Z7!?!BJ!@Q;V7!CB!?!AC87ZE!8?BB7:5!?!BJ!CB!@;87!Q?@7@5!\CZZ!@77!]  
:7DC7@!A;!J7A7:8CB7!\=7A=7:;!B;A!A=7!Q=?BL7!=?@!?!<<7QA7J!A=7!YK?ZCAE!;<!A=7!A;A?Z!CB@ACAKAC  
A;!?@ @K:7!A=7!VK9ZCQ!A=?A! ?ZZ! ?@V7QA@! ;<!A=7!CB@ACAKAC;B!Q;BACBK7!A;!877A!J7<CB7J!@A?BJ?:  
&?8?!%BCD7:@CAE! C@! ?Z@;! Q;88CAA7J! A;! 7@A?9ZC@=CBL! V;Q7JK:7@! A;! 7B@K:7! Q;8VZC?BQ7!  
V;DCJCB! LKCJ?BQ7! ?BJ! 7>V7QA?AC;B@! :7L?:JCB! A=; @7! QK::CQKZ?;! ?BJ! ;L?BCc?AC;B?Z! Q=?B!  
:7YKC:CBL!B;AC<CQ?AC;B! ?BJm;: !?VV;:D?Z]

aM[O +3"1\*1'-4[!!4K9@A?BACD7!Q=?BL7!A;ICA@!;Z7!?!BJ!@Q;V7!CB!?!AC87ZE!8?BB7:5!?!BJ!CB!@;87!Q?@7@5!\CZZ!@77!]  
@Q;V7! ;<! ?B! ?QQ:7JCA7J! CB@ACAKAC;B! 3>?8VZ7@! ;<! V;A7BAC?Z! @K9@A?BACD7! Q=?BL7! CBQZK  
Q;K:@7@! ;! V;L:78@! A=?A! :7V:7@7BA! ?! @CLBC<CQ?BA! J7V?:AK:7! <;:8! A=; @7! QK::7BAZE! ?VV;:D7  
7@A?9Z=CBL! ?B! ?JJCAC;B?Z! Z;Q?AC;B! L7;L:V=CQ?ZZE! ?V?:A! <;:8! A=7! 8?CB! Q?8VK@! ?A! \=CQ=! A  
CB@ACAKAC;B! ;<<7: @! ?A! Z7?@A! TPv! ;<! ?V;L:785!CBCAC?ACBL!^;CBA!J7L:77@!\CA=! ?B;A=7!CB@ACAK  
? !V;L:785! ?BJ!Q=?BLCBL!A=7!7@A?9ZC@=7J!8C@ @C;B! ;<!A#7!1B@ACAKAC;B  
! =7:7! ?7!A=77!JC<<7:7BA!AEV7@! ;<! @K9@A?BACD7!Q=?BL75!CBQZKJCB!eFf! @K9@A?BACD7!Q=?BL7  
B;AC<CQ?AC;B! ?BJ! ?VV;:D?Z!V:C;: !A;!C8VZ787BA?AC;B5!eOf! @K9@A?BACD7!Q=?BL7! :7YKC:CBL! ;BZE!B;A  
V:C;: !A;!C8VZ787BA?AC;B5! ?BJ!e f! :7DC7! ?BJ! ?VV;:D?Z! ?QK!VZ?B@! \=7B!QZ; @CBL! ?!V;L:78! ;!  
CB@ACAKAC;B?Z! @CA7! !07V;:ACBL!4K9@A?BACD7!\$=?BL7@!W7B#\$4\$-\$! ;DCJ7@!7>?8VZ7@!  
;<!JC<<7:7BA!AEV7@! ;<! @K9@A?BACD7!Q=?BL7! ?BJ!A=7!V;Q7JK:7@! !K@7J!CB!877ACBL!B;AC<CQ?AC  
?VV;:D?Z! :7YKC:787BA@]

aM[! 0-&34[! !  
aM[ [F 0;Z7!;<!U:7@CJ7BA! !7!7@CJ7BA&?8?!%BCD7:@CAE!B;AC<C7@C77BA!;<!4#\$4\$-\$!  
;<!@K9@A?BACD7!Q=?BL7@!?!A!A=7!CB@ACAKAC;B]  
aM[ [O 0;Z7!;<!U;:D;@A! ?BJ!2CQ7!U:7@CJ7BA!<;:#Q?J78CQ!#<<?C:@[!4K9@A?BACD7!Q=?BL7@!?!7!AEV7C  
A=7! :7@KZ! ?QACDCAC7@! CB! A=7! +CDC@C;B! ;<! #Q?J7 39.9 (Q-245.8 ) 8.4 (AM7(m) -7.7C) 77C







\$)#U'30!111!  
#+214-0(!-0b#\*1r#1-4 !

'=7!KBCD7:@CAE!:7Q;LBCc7@!A=7!C8V;;A?BQ7!;<!?JDC@;;E!;;L?BCc?AC;B@!CB!L7B7V8ZBAZ7CDE!J7D7Z;  
7BQ;K:?L7@!A=7! ?QACD7!V?:ACQCV?AC;B!;<!<?QKZAE!87897:@!CB!@KQ=!;;L?BCc?AC;B@!!U?:ACQCV?AC  
Q;B@CJ7:7J!?!:7@V;B@C9CZCAE!;<!A=7!<?QKZAE!|=7!7Q;887BJ?AC;B@!;<!;<CQC?ZIKBCD7:@CAE!JDC@;;E!;;L  
@=?ZZ!97!@K9^7QA!A;!:7DC7! ?BJ! ?QAC;B!9E!A=7!V:7@CJ7BA! ?BJ!|=7!'7>?@!4A?A7!%BCD7:@CAE!4E@A78!;;?  
07L7BA@! ";;! ?JJCAC;B?Z! CB<;:8?AC;B! ?BJ! QK::7BA! 87897:@=CV! ;@A7:@5! @77!  
=AAVWmm<?QKZAE@A?<<[Z?8?:[7]7B!CZCQ!;B888CAA77@! ?BJ!\$;KBQCZ@!!

/#S- 0!%\*123041'(!\$-4'1'%3\*\$(!-0b#\*1r #1-4W!

#ž U03 41+3\*\_4! 363 \$%'123 !\$-%\*\$1&[! '=7!3>7QKACD7!\$;KBQCZ!@=?ZZ! ?JDC@7!A=7!V:7@CJ7BA  
;B!V;ZCQC7@! ?BJ!V;;Q7JK:7@!<;!A=7!KBCD77@CDE@A5!A=7!DCQ7!V:7@CJ7BA!<;!<CB?BQ7! ?BJ  
;V7:?AC;B@5! A=7! DCQ7! V:7@CJ7BA! <;! KBCD7:@CAE! ?JD?BQ787BA5! A=7! DCQ7! V:7@CJ7BA! <;!  
7BL?L787BA5!A=7!DCQ7!V:7@CJ7BA!<;!CB<;:8?AC;B!A7@-B;Z7UC5!QA;!!<!8?:]7ACBL!  
Q;88KBCQ?AC;B!@=?ZZ!97!87897:@ ;<!A=7!Q!KBQCZ!E!@7:D7!B! ?B -4!9?@C@! ?@!  
J7A7:8CB7J!9E!A=7!V:7@CJ7BA! ?BJ!@CJ7BA@=?ZZ!Q=?C!A=7!Q;KBQCZ[

\$ž #\$\$+3/1\$! \$-%\*\$1&! -" +3#\*4! !=7! !#Q?J78CQ!\$;KBQCZ!<!+7?B@!e#\$+!@=?ZZ! ?JDC@7!A=7  
V;;D;@A! ;B!8?AA7:@!V7:A?CBCBL!A;! ?Q?J78CQ!V;ZCQE! ?BJ!A=7!YK?ZCAE!;<!CB@A:KQAC;B!CB! ?ZZ!  
V;;L:?8@!;<!A=7!KBCD7:@CAE!KBQCZ!@=?ZZ!7DC7!V;;L:?8!V;;V;@?Z@!CB! ?BE!<C7ZJ!;<!@AKJE5!  
CB<;:8 J7V?:A87BA! Q=?C:@!;<! ?ZZ! ?Q?J78CQ!V;ZCQC7@! :7Q;887BJ7J! 9E! A=7! Q;KBQCZ5! :7Q;887BJ!  
V;ZCQC7@A?CBCBL!A;! ?Q?J78CQ!V;;Q7JK:7@5! ?BJ!7Q;887BJ!Q=?BL7@!CB! ?Q?J78CQ!8?AA7:@!A=?A!CZ  
C8V;;D7CB@A:KQAC;B! ?BJ!@A?B7!Q;KBQCZ!@=?ZZ!CBQZKJ7!A=7!J7?B@! ?BJ!97!Q=?C:7J!9E!A=7!  
V;;D;@A[

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FP[ &#/#0!\$#034!e ,3)#21-0#&! #44344/3\*! #\*+! 1\*3023\*1-! '3#/ f[  
&?8?:!\$?:7@!le<;:87:ZE!B;|B!?!@!A7!,7=?DC;:Z!#@ @7@ @87BA7:D7BAC;B!7?8!e,#1@=?ZZ  
:7V;:A!A;!A=7!@ @;QCDCQ7!V:7@CJ7BA!<;!@AKJ7BA!7BL787BA!@AKJ7BA@ @K7@!V7:A?CBCBL  
A;! @AKJ7BA!97=?DC;:?! ?BJ! A=7! B77KBCD7:@CAE! :7@CBA7!D7BAC;B[! !'=7! 87897:@=CV! @=?ZZ  
Q;B@C@A!;<A=7!;<!V;ZCQ75!A=7!@ @C@A?BA!Q=C7<!;<!V;ZCQ75!A=7!CAZ7!J6!QA!CB?A;:5  
A=7!7?ZA=!Q7BA7B!Q;KB@7Z;: @!8!A=7!7?ZA=!Q7BA7B!?!?JJCAC;B!V;CBA7!V:7@7BA?ACD7@  
<;:8! :7@CJ7BQ7! ZC<75! JC@?9CZCAE! @7:DCQ7@5! @AKJ7BA! 7BL787BA! @BZVA@777!@!  
?@ @;QC?A7!DCQ7!V:7@CJ7BA!<;! @AKJ7BA7B7?B!787BA!AKJ7BA@ZZ! @7;B7?BJ!Q=?C!A=7  
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FF[ ,%+b3!+323&-U/3\*! \$-//1"33[ !!'=7! ,KJL7A! +7D7Z;V87BA! \$;88CAA77! @=?ZZ  
?JDC@7!A=7!V;:D;@A!V7@CJ7BA! ?9;KA!<KB!JCB!<;:!B7!;!7>V?BJ7J!9KJL7A?E!CBCA@ACD7@!!#  
Q=?L7J!9E!A=7!V:7@CJ7BA5!A=7!Q;88CAA77!@=?ZZ!Q;B@CJ7!9KJL7A?E!7YK7@A@!<;:8!<?QKZAE!B.  
?BJ!8?7!7:7Q;887BJ?AC;B@!7L?:JCB!7@;K:Q7!7ZZ;Q?AC;B!!/7897:@=CV!@=?ZZ!Q!B@C@AE<!?  
:7V:7@7BA?ACD7!<;:8!7?Q=!;<!A=7!Q;ZZ7L7@5!?!:7V:7@7BA?ACD7!<;:8!A=7!ZC9?:E5!?!:7V:7@7BA?ACD7  
A=7!V:7@CJ7BA!;<!A=7!\$;KBQCZ!;<!1B@A:KQAC;B?Z!+7V?:A87BA@5!A=7!V:7@CJ7BA!;<!A=7!4AKJ7BA!b;D7  
#@ @;QC?AC;B5!A=7!"?QKZAE!47B?A7!V:7@CJ7BA!\$;KBQCZ!V:7@CJ7BA!k?BJ!?!:7V:7@7BA?ACD7!<;:8  
A=7#Q?J78CQ!\$;KBQCZ!;<!+7?B@!!'=7!DCQ7!V:7@CJ7BA!?BJ!?!@ @;QC?A7!DCQ7!V:7@CJ7BA!<;:8!<CB?BG  
;V7:?AC;B@5!?BJ!A=7!JC:7QA;:;<!CB@ACAKAC;B?Z!7@7?:Q=!@=?ZZ!@7:D7!?!@!87897:@!!'=7!Q;88CAA77  
97!Q=?C:79E!A=7!@ @;QC?A7!V;:D;@A!?!?QKZAE!?BJ!ZC9?:E!7V:7@7BA?ACD7@!@=?ZZ!97!7Z7QA7J!9  
<;:8!A=7!<KZAC87!<?QKZAE[

FO[ \$#/U%4!014.!03+%\$'1-!\$-//1"33 [!!'=7!0C@]!/?B?L787BA!\$;KBQCZ!@=?ZZ!JDC@7  
A=7!DCQ7!V:7@CJ7BA!BQ7CB!;V7:?AC;B@!;B!Z?@5!V;ZCQ7@5?8@!:7Z?ACBL!A;!Q?8VK@  
:C@]! @A?BJ?:J@! ?BJ!7>V;@K:7!!'=7! 87897:@=CV!;<!A=7!Q;KBQCZ!@=CBA7J!9E!A=7!DCQ7  
V:7@CJ7BA!<;:8!<CB?BQ7!?BJ!;V7:?AC;B@5!B@A!;<!?!D?:C7AE!;<!@A?<!87897:@!<;:8!7Z@?BA!  
;<!A=7!KBCD7:@CAE!?BJ!A=7!&?8?:!1B@ACAKA7!;<!7Q=B;Z;LE!CBQZKJCB!<CB?BQ75!&?8?:!V;ZCQ75!  
7BL?L787BA5!A=Z7AC@C@CJ7BQ7!ZC<75!<?QCZCAC7@5!CBA7:B?AC;B?Z7BAKZ7BA!@7Z5CQ7@5!  
V;:QK:787BA5=7?ZA=!Q7BA7B!7@7?:Q=?BJ!@V;B@;:7J!@7:DCQ7@7BA?ACD7@!<;:8!A=7!4A?<<  
#JDC@;:E!KBQCZ!?BJ!A=7!QKZAE!47B?A7!@=?ZZ!Z@;!@7:JQ7QA;:;<!;C@]!8?B?L787BA!@=?ZZ  
Q=?C!A=7!Q;KBQCZ[

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Jf! 1BQ;8VZ7A7!:7DC@7J!?!VZBQA CZZ!B;A!97!V;:Q7@ @7Jk!A=7!@AKJ7BA!\CZZ!B;A!97!7ZCLC9Z

R[O[G #6!1/U&1\$#1-4[!!"7J7:~Z!Z?!\?ZZ;\@!Q7:A?CBI!78VZ;E7:dV;;DCJ7J!7JKQ?AC;BI?@ @C@A?BQ7!  
97B7<CA@!AA97k:77!A;!&%#U!V?:ACQCV?BA@[!1BQZKJ7J!CBI!A=C@!?!ZZ;\?BQ7!?:7!KBJ7:L:?JK?A7!  
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J7ZCD7:7J!A;!<?QKZAE!87897:@!A=;;KL=!J7V?:A87BA!QZ7C@!;BCQ7ZVE@ CA7J!CBI;Z;Q?Z!9?B]@!  
;!Q:7JCA!KBC;B@[!!#KA;8?ACQ!J7V;@CA!CB!?!Z;Q?Z!9?B]!;!Q:7JCA!KBC;BI:7YKC:7@!\:CAA7B!KA=;;Cc?A  
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V?CJ! ;D7:!! FO! 8;BA@! KBZ7@ @! A=7E! :7YK7@A! ?! Q=?BL7! CB! A=7! @?Z?:E! V?E87BA! 87A=;J! V:C;! A;!  
47VA7897:!! FT!\CA=! A=7! ;<<CQ7! ;<! =K8?B! :7@;K:Q7@[!! #! Q=?BL7! CB! V?E87BA! 87A=;J! @=?ZZ! B;A! 97!  
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\=CQ=!@=;KZJ!97!K@7J!?!@!A=7!7AK:BI?JJ:7@ @!<;!<?QKZAE!8?CZ[!!/7897:@!;<!A=7Z@QKZAE!8?E!  
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@=;KZJ!B;A!BA7:<7:7!\CA=!;B7\_@!?! @ @CLB7J!JKAC7@! ?BJ! @=;KZJ!97!:7@A:CQA7J!@ @CBQCJ7BA?Z!K  
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Q=?BB7Z@[!!#ZZ!V?:AC7@!CB!A=7!Q=?BB7Z! @=;KZJ!=?D7!A=7!;VV;:AKBCAE!A;!7>V:7@ @!?!L:7787BA!;!JC@?L:  
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:7@CJ7BA! :7@7:D7@!A=7!:CL=A!A;!8?]7!J7QC@C;B@! \CA=;KA!<;ZZ;\CBZ!K=?ZC@A7@5!Q;DCJ7J5!CB!A=7!  
:7@CJ7BAI@!;VCBC;B5!A=7!97@A!CBA7KBC@A@CAE? :7!@7:D7J! ?BJ!A=7!J7QC@C;B!C@!@K9^7QA!A;!A=7! ?VV; ;D  
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Q;B@A:K7J!A;!ZC8CA!A=7!V; ;7: @!;<!A=7!;?:J!;<!07L7BA@! ?@!J7ZCB7?A7J!CB!47QAC;B@!FPM[PF!A=; ;KL=!FPM[  
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7>7:QC@7@!A=7!7>QZK@CD7!:CL=A!;<!A=7!Q;VE:CL=A!;\B7;!KBZ?\<KZZE[!\$7:A7C#ZC@A?AC;B@!A;!A:  
:CL=A@!?:7!J7<CB7J!CB!47QAC;B@!FPH!A=::KL=!FOO!;<!A=7!\$!VE:CL=A!#QA[  
O[FF S-1\*!g-0,[!! s#!€^;CBA!\;:]\_!C@!?!;\;:]!V:7V?:7J!9E!A!\;];!8;:7!KA=;:@!\CA=!A=7!CBA7BAC;B!A=?A!  
A=7C;!Q;BA:C9KAC;B@!97!87:L7J!CBA;!CB@7V?:?9Z7!;:!CBA7:J7V7BJ7B7C?A@;Z7!tFH!  
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A=?B!?!ZZ!:CL=A@f5!K@K?ZZE!ZC8CA7J!A;!?!V?:ACQKZ?!A7::CA;:E!?BJm;:!AC87!V7:C;J!#!ZCQ7B@  
L:?BA7J!?!@!?!B!7>QZK@CD7!ZCQ7B@>QZK@CD7!ZCQ7B@7[  
O[F! U30"-0/[! !s'!;€V7:<;:8\_!?!;\;:]!87?B@!A;!:7QCA75!:7BJ7:5!VZ?E5!J?BQ75!;:?!QA!CA5!7CA=7:!JC:7QAZE!  
;:9E!87?B@!;<!?BE!J7DCQ7!;:V;:Q7 @ @!;:5!CB!A=7!Q? @7!;<!?!8;AC;B!VCQAK:7!;:;!A=7!?!KJC;DC@K?Z  
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\;:]@\_!CBQZKJ7!A!C87B@C;B?Z!?!BJ!A!C87B@C;B?Z!\;:]@!;<!<CB75!L:?V=CQ5!?!BJ!?!VVZC7J!?!A5!  
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\CA=!A=7!A7:8@!;! ?BE! ?L:7787BA!L;D7:BCBL!@KBCBL[!1<! ?BE!@KQ=?L:7787BA!C@!@CZ7BA!  
?@!A;! ;B7:@=CV5!A=7B!A=7!%BCD7:@GAE+A=@KZ7!CL=A!;<@KQ=!;! ;]@[

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Z?\@5!CBQZKJCBL!A=7!7@V;B@C9Z75!L;;J!<?CA=!7>7:QC@7!;<!<?C:!K@7!:CL=A@!9E!<?QKZAE5!@A?<<  
3>Q7VA! ?@! ?ZZ;\7J! 9E! Z7A57! :7V;;JKQAC;B5! VK9ZCQ! JC@A:C9KAC;B! eCBQZKJCBL! JCLCA?Z! A: ?B@8  
VK9ZCQ! JC@VZ?E5! VK9ZCQ! V7:<;8?BQ7! ;! Q:7?AC;B! ;<! J7:CD?ACD7!\;:]@5! \CA=;KA! A=7! Q;B@7BA! ;<  
Q;VE:CL=A!;\B7:5!C@!V;:=C9CA7J!9E!A=7!\$;VE:CL=A!#QA!eFH!%BCA7J!4A?A7@!\$;J75!47QAC;BFPaf[

G[O! 4'#%-0(!36\$3U'1-\*4!! '=7! Q;VE:CL=A! Z?! V;;DCJ7@! <;! Q7:A?CB! ZC8CA7J! K@7@! A=?A! J;! B;A!  
:7YKC:7!V7:8C@@@C;B!|=7@7!CBQZKJ7!A=7!ZC9:?:E!7>Q7VAC;B!eFH!%BCA7J!4A?A7@!\$;J75!47QAC;B@!F  
FPGf5!A=7!<?C:!K@7!7>Q7VAC;B!eFH!%BCA7J!4A?A7@!\$;J75!47QAC;B!FFP!%BCA7J!4A?A7@!\$;J75!47QAC;B!  
eFH!%BCA7J!4A?A7@!\$;J75!47QAC;B!FFPeOff[

G[O[F &C9:?:E!3>Q7VAC;BH!%BCA7J!4A?A7@!\$;J75!47QAC;B!FFPM5! ?ZZ;\@!ZC9:?:C7@!A;!8?]7!Q;VC7@!<

ZCQ7B@7!'EV7@!;<! ?L:7787BA@!CBQZKJ7!'7:8@!;<!%@75!\$?:7?ACD7!\$;88;B@!&Q7B@75!QZC  
A=;KL=! ?L:7787BA@5! ?BJ! KBCD7@ZAE:L:7787BA@! \CA=! V;;DCJ7:@! ;<! 7Z7QA::BCQ!  
:7@;K:Q7@!E!ZC9:?:E!7@7?:Q=!J?A?9?@7@5!C87!@<A\?:7!ZCQ7B@7@5!7AQ[f!g=7B!  
K@CBL!8?A7:C?Z@!ZCQ7B@7J!9E!&?8?:!%BCD7:@CAE5!e7[L!5!ZCQ7B@7J! @;<A\?:75! @A:7?8C



FF[F! 0%&34! !=7! :7Q;:JCBL! ;! V7:<;8?BQ7! ;<! 8K@CQ! Q;KZJ! :7YKC:7! V7:8C@@C;B! <;! ?! VK9ZCQ!  
V7:<;8?BQ7!ZCQ7B!@V7QC<CQ?ZZE5

Ff! A=7!J;QA:CB7!;<!w<?C:IK@75w!?!@!J7A?CZ7J!?!V7C7Z@A!8K@CQ?Z!V7:<;8?BQ7@k!?!BJ

O! A=7!3#)\$!#QA!V;:DCJ7@!@V7QC<CQ!7>78VAC;B@!<;!Q7A?CBA@!K@CQ?Z!g;:]@!

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9E!8K@CQC?B@5!?!@!\7ZZ!?!@!A;!DCJ7;!;?!KJC;!7Q;:JCBL@!7L?:JZ7@ @!;<!87JC?5!\CA=!A=7!7>Q7V  
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Ff! V:CD?A7!V7:<;8?BQ7@k!?!BJ

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Q;VE:CL=A@!=?D7!977B!CB<:CBL7J!@=;KZJ!@77!Z7L?Z!Q;KB@7Z[

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A;! CB<:CBL7! A=7! Q;VE:CL=A@! ;<! ;A=7:@! :C@]! A=7! Z;@ @! ;<! B7A!C!D!C!D!  
;<<7BJ7:@! ?7! @K9^7QA! A;! ?JJCAC;B?Z! JC@QCVZCB?E! ?QAC;B! KV! A;! ?BJ! CBQZKJCBL! 7>VK  
JC@Q=?L7[!%B?KA=;:Cc7J!@=?CBL!<!Q;VE:CL=A7J!JCLCA?Z!8?A7:C?Z@!B7A!C!D!  
@=?CBL!DC;Z?A7@!A=7!+CLCA?Z!/CZZ7BB@K@A!E!\$##?BJ!7>V;@7@!A=7!V7:V7A:?A;!





FHFO U#3\*!/#\*#b3/3\* [! '=7!V:7@CJ7BA!;<!7?Q;8QB7BA5!;!!?BE!V7:@;B!J7@CLB?A7J!9E!  
=C85!C@!/?KA=;;Cc7J!A;!B7L;AC?A7!CA=!:7VKA?9Z?!!<ZB@!A;!@7QK:7!<;!7?8V;B7BA!  
?::?BL787BA@4;:!A=7!8?B?L787BA!;<!CBD7BA@;?BJ!JC@Q;D7:C7@!CBI\=CC8V;B7BA@  
J7QCJ7@!A;!?@ @7:A!7?BJ!7>VZ;CA!CA@!;\B7:@±CV!CBA7:7@A!  
FHFOF!4KQ=!8?B?L787BA!8?E!CBQZKJ75!9KA!C@!B;A!ZC8CA7J!A;5!Q;8V7A7BA!7D?ZK?AC;B!;<!CBD7B  
?BJ!JC@Q;D7:E!JC@QZ;@K:7@5K@V7CZ@B!;<!?VVZCQ?AC;B@!<;!V?A7BA@5!7?BJ!ZCQ7B@CBL  
?J8CBC@A:?AC;B!;<!V?A7BA@  
FHFOF#! Q8V;B7BA! C@! ?KA=;;Cc7J! A;! ?J8CBC@A7:! CA@! ;\B! V?A7BA! 8?B?L787BA! ?BJ! ZCQ7B@CB  
V;L:78! \CA=;KA! A=7! K@7! ;<! ?! V?A7BA! 8?B?L787BA! ?L7BA5! C<! CA! J7A7:8CB7@! A=?A! @KQ  
?::?BL787BA8?E!97AA7:!@7:D78Q;B7BA!7?BJ!VK9ZCQ!CBA7!7@A@  
FH[F ! &1\$3\* 434 [! '=7!V:7@CJ7BA!;<!7?Q;8QB7BA!8?E!L:?BA!ZCQ7B@7@!<;!A=7!K@7!;<!CBD7BAC;B@!  
?BJ!JC@Q;D7:C7@!CB!AG7!8V;B7BA!=?@!7?B!;\B7:@=CV!CBA7:7@A!  
FH[F [F!1A!C@!:7Q;LBCc7J!KBJ7:! @;87K@A?BQ7@!A=7!L:?BACBL!;<!7?B!7>QZK@CD7!ZCQ7 (B) 8.4 -103

Q8V;B7BA!V7:@;BB7Z! ?BJ!@AKJ7BA@!8K@A!9:CBL!A=7!V;;V;@7J! ?L:7787BA!A;!A=7! ?AA7BAC;B!;<!  
A=7! ?VWV:C?A7! ?J8CBC@A:?A;;@!;<8V;B7BA! ?BJ!7CA=7;!;9A?CB?CD7!;!;<!Q8V;B7BA!  
:CL=A@! ;! ;A=7:\C@7! 8;JC<E! A=7! Q;B@KZACBL! ?L:7787BA!A!CA;BA=C@ZCQE5! ?@! C@!  
J7A7:8CB7J!9E!A=78V;B7BA!CB!CA@!JC@Q:7AC;B[

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FH[FH! -B7J! 9E! A=7! \$;8V;B7BA! 1B! ?L:7787BA@!\CA=! 9K@CB7@ @! 7BACAC7@! :7Z?ACBL! A;! :CL=A@  
CBD7BA@! ?BJ! JC@Q;D7:C7@! ;\B7J! 9E! ?! Q;8V;B7BA5! ;8V;B7BA! 8?E! : 7Q7CD7! 7YKCAE!  
CBA7:7@A@! ?@!V?:AC?Z! ;!A;A?Z!Q;8V7B@?AC;B!<;!A=7! :CL=A@!Q;BD7E7J[

FH[FH[O! -B7J! 9E! ?B!38VZ;E77[!1B! ?QQ;;J?BQ7!\CA=! '7>?@!3JKQ?AC;B!\$;J75!47QAC;B!TF[GO5! ?BJ!  
@K9^7QA! :7DC7! ?BJ! ?VV;;D?Z! 9E! A=7! V:7@CJ7BA! ;8V;B7BA5! 78VZ;E77@! ;<! ?!  
Q8V;



7f! U7:Q7BA?L7!;<!3<<A7! ?8;KBA! ;<!7<<;A! Q;88CAA7J!9E!A=7!CBD7@ACL?A;:!A;!A=7!V;:^7QA!  
@=;KZJ!97!Q;B@C@A7BA!\CA=!;A=7;!JKAC7@!!  
<f )K8?B!4K9^7QA@<!A=7!V;V;@7J!7@7?:Q=;!V;^7QA!CBD;ZD7@!A=7!K@7!;<!=K8?B!@K9^7QA@5  
J;7@!A=7!:7@7?:Q=!V;A;Q;Z!Q;8VZE!\CA=!L;D7:B87BA?Z!:7YKC:787BA@! ?BJ!\CA=!?@@K:?BQ7@!



;<!07@7?:Q=!?BJ!4V;B@::7J!U::L:?8@

-BQ7! A=7! <;8?Z! V;;\@?Z! C@! @K98CAA7J5! A=7! A7:8@! ?BJ! Q;BJCAC;B@! L;D7:BCBL! \;;! ??:7!  
7@A?9ZC@=7J!CB!B7L;AC?AC;B@!97A\77B!A=7!@V;B@::CBL!77B@;77J!A77CJDCJK?Z@!  
CB!A=77CD7:@CAE[!!'=7!:7@V;B@C9Z7!?J8CBC@A:?ACD7!;<<CQ7:!\CZZ!A?]?7!A=7!CBCAC?ACD7!C  
A=7! @B@::! A;!8;JC<E!V;;DC@C;B@!A;! ?QQ;88;J?A7!V;ZCQE!B77J@!;<! A=7! CB@ACAKAC;B5! ?L?  
Q;;:JCB?ACBL5!\=7B! ?VV;;V:C?A75!\CA=!A=7!V7:@;B! :7@V;B@C9Z7!<;!Q;BJKQA!;<!A=7!V;;^7QA! ?B.  
\CA=!A=7!;A=7!;<<ZCQ;?A=77CD7:@CAE[

#ZZ! @?Z?:C7@! ?BJ!\?L7@!;<! :7@7?:QB77ZCZZ! Q;;:7@V;BJ! A;! A=7!7>C@ZACB! ?B@!  
\?L7!V;ZCQC7@!;<!A77B7:@CAE[!#BEVAQB@!8K@A!97! ?VV;;D7J!9E!A=7!J7V?:A87B5!Q  
J7?B5! ?BJ!A=7! ?VV;;V:C?A77@CJ7BA!CB!A=7!;;KL=!J: ?<A!V;;V;@?Z!\:CACBL!@A?L7@[!!1<5!<;!  
7>?8VZ75!A=7!V;CBQCBDZ@ACL?A; !V;;V;@7J!A;!J7D;A7?Z7!AC87!A;! ?!V;;^7QA! ?BJ!A=7!  
J7V?:A87BA!Q=?C;! ?B77B!Q;BQK;!A=?A!A=7! :7@7?:Q=!V;;^7QA!\CZZ!:77KZZ! ?87!<;!  
;B7!E7?:5!A=7!V;CBQCQV?Z!CBD7@ACL?A; !88E7ZC@W;77E7?:ZE!@?Z?:E! :?A7!CB!A=7!L: ?BA!  
?VVZ77AC;B!!1<!A=7!L: ?BA! ?VVZCQ?AC;B!C@!<;!8;;7!A=?B!;B7!E7?:5!;;!;D7:Z?V@! ?!Q?Z7BJ?:!E7?:5





A=7! "7J7:??! 8CBC8K8! \?L7[! ! \*;ACQ7! ;<! ?BE! CBQ:??@7! :7YKC:7J! 9E! Z?! \CZZ! 97!  
V:;DCJ7J]

O[R]O 07V;:A@[

O[R]O[FU;:L:7 @ @! 07V;:A@[\7ZD7! Q;VC7@! ;<! ?!\:CAA7B! V;:L:7 @ @!:7V;:A! \CZZ! 97!  
@K98CAA7J!9E!S?BK?:E!FT! ?BJ!#V:CZ!OP!9E?C?7BA!;<!?!:7@7?:Q=L: ?BA!  
<;!7D?ZK?AC;B!9E!A=7!07@7?:Q=!\$;KBQCZ[!!'=C@!:7V;:A!8?E!97!?!9:C7<!9KA!  
Q;8V:7=7B@CD7! \:CAA7B! J7@Q:CVAC;B! ;<! A=7! @A?AK@! ;<! A=7! V;:^7QA[! ! \*;  
@A?BJ?:J! <;:8! C@! :7YKC:7J[! ! '=C@!:7V;:A5! A;L7A=7! \CA=! ;A=7! :7Z7D?BA!  
8?A7:C?Z@5!97Q@?!V?:A!;<!A=7!V7:8?B7BA! :7Q;J!;<!A=7!V;:^7QA[

O[R]O[CB?Z!07V;:A!!\7ZD7!Q;VC7@! ;<!?!<;:8?Z!A7:8CB?Z!7V;:A!?:7!7YKC:7J!;<!  
7?Q=" ?QKZAE!07@7?:Q=!b: ?BA! :7QCVC7BA[! !'=C@!C@!?! \:CAA7B! ?QQ;KBA! \=CQ  
Q;BA?CB@!?! @K88?:E!;<!A=7!V;:^7QA5!CA@!<CBA@!C@5ZK@C;B[! ! \;  
Q;VC7@! ;<! ?B! KBVK9ZC@=7J! 8?BK@Q:CVA5! :7@KZACBL! <;:8! A=7! @KVV;:A7  
:7@7?:Q=5! \CZZ! @?AC@<E! A=C@!:7YKC:787BA[! !# V;:V;@?Z! <;:?! ?B7!!! V;:^7QA  
@K98CAA7J!9E!?!<;:87!:7QCVC7BA! \CZZ!B;A!97!Q;B@CJ7:7JKA@Z!A=7!#  
=?@!?!VV;:D7J!A=7!<CBVZA!;<!A=7!V:C;:V;:^7QA[

O[R]! U?A7BA5! \$;VE:CL=A5! ?BJ! 0;E?ZAE! #L:7787BZ@[\@V7QC<CQ!8?AA7: @! V7:A?CBCBL! A;!  
V?A7BA@5! Q;VE:CL=A@5! ?BJ! ;E?ZAC7@! 8K@A! 97! CB! ?QQ;:J! \CA=! QK::7BA! V;ZCQ  
?VV;:D7J! 9E! A=7! ;?;J! ;<! 07L7BA@[! ! 477#VV7BJC>! +\$;VE:CL=A5! ABZZ7QAK?Z!  
U;:V7:AE5! ?BJ!U?A7BA!U;Z@EC[! ]--D [!

O[R]R UK9ZCQ?AC;B@7QCVC7BA@! ;<! <?QKZAE! :7@7?:Q=!L: ?BA@! ?!7! 7BQ;K: ?L7J! A;! @K98CA!  
?:ACQZ7@!:7@KZACBL!<;:8!A=7C:!:7@7?:Q=IV;:^7QA@!A;IV;:<7@ @C;B?Z!^:K:B?Z@[! !1A!C@  
A=?A! ?Q]B;\Z7JL87BA! ;<7A! <?QA! A=?A! V;:^7QA! @KVV;:A! \?@! Q;BJKQA7J! A=;:KL=! ?!  
&?8?:!%BCD7:@CAE!-:L?BCc7J!07@7?:Q=!b: ?BA!97!LCD7B!CB!A=7!?:ACQZ7[

O[R]T 07AK:B!;<!3YKCV87BA!8YKCV87BA!VK:Q=?@7J!\CA=! :7@7?:Q=!<KBJ@!C@!A=7!V;:V7:AE!  
;<!&?8?:!%BCD7:@CAE! ?BJ! \CZZ!97!;B!A=7!CBD7BAK@?7BA!A!A=7!^K:C@JCQAC;B!;<!  
A=7!-<<CQ7D?7@7?:Q=! ?BJ!4V;B@;:7J!U;:L: ?8@!g=7B! ?B!CBJCDCJK?Z!Q;8VZ7A7@!  
A=7!K@7!;<!?!VC7Q7!;<!7YKCV87BA!8U04U# @ =;KZJ!97!B;AC<C7J[! !3YKCV87BA!;B!  
CBD7BA;:E!A;!A=7!-<<CQ7@?7?:Q=! ?BJ!4V;B@;:7J!U;:L: ?8@?BJ! ?@ @B7J!A;! ?!  
<?QKZAE!87897: !C@!A;!97!8?CBA?CB7J!;KA!;<! =C@!;! =7!:7@7?:Q=9KJL7A!JK:CBL!A=7!  
V7:C;J!A=7! :7@7?:Q=!C@!97CBL!Q;BJKQA7J! ?BJ! @K9@7YK7BAZE!9E!A=7!J7V?:A87BA!C  
\=CQ=!A=7!7YKCV87BA!8?E!97!VZ?Q7J!9E!2A64# [!

O[T] "14\$#&!/#"3045!03U-0'1\*b!03h%103/3\*" 4!#\*+!4#&#0134[ !

O[T]F 3>V7BJCAK:7@#CZZ!<KBJ@!:7Q7CD7J!<;:?!?Q;BA: ?QA!;L?ZBA97@J7V;@CA7J!CB!?!  
@V7QC7CD7: @CAE! ?QQ;KBA!J7@CLB?A7J!<;:!A=7!VK:V;@7!9E!A=7!"CB?BQ7!-<<CQ7! ?E  
7?Q=! :7YKC@CAC;B!<;:!7>V7BJCAK:7!;<!A=7@7!<KBJ@! @=?ZZ!97UCC?Q@?CBA!A=  
#L7BA[! !3?Q=! :7YKC@CAC;B!4 (!) -7-7.7 ( (L) 8.4(L) 8.7.7 (C) 7.7 (B) 8.4 (?) 8.4 (8.4 (B) ET Q

V:7@CJ7BA[!07?@ @CLB7J!AC87!:7Z?A7J!A;!7@7?:Q=IV;:L:?8@!@=;KZJ!97!B7L;AC?A7J!?!A  
Z7?@A!A;!8;BA=@!V:C;:!A;!A=7!97LCBBCBL!;<!A=7!@787@A7!;!A7:8!CB! =CQ=!A=7!  
:7@7?:Q=!@=?ZZ!97LCB[

'=7!Q;8V7B@?AC;B!?:A7!<;! \;];B!@V7QC?Z!V;:^7QA@!CA7U?BJ!9?@7J!;B!A=7!  
<?QKZAE!87897: \_@!BCB7!8;BA=@!@?Z?:E[!!1A!8?E!B;A!7>Q77J!A=7!V;:V;:AC;B?A7!@=?7!;<!  
A=7!9?@7!@?Z?:E!<;! ?BE!LCD7B!V7:C;J! ! \$;8V7B@?AC;B!<;!@7:DCQ7@!V7:<;87J!  
;KA@CJ7!;<!A=7!8;BA=!?Q?J78CQ!E7?:!C@!V7:8CAA7J!e7[L[5!?ZZ!;:V?A!;<!?!@K887!  
A7:8f5! \CA=!A=7! :?A7!;<!V?E!9?@7J!;B!A=7! :7LKZ?8;BA7?@?Z?:E! :?A7! ";;!  
7>?8VZ75! ?@ @K87!?!<?QKZAE!87897:!=?@!8;BA7?@7!;<!nRT5PPP!enT5PPP!  
V7:!8;BA=f! ?BJ! =?@! OTv! "3! :7?@ @CLB7J!AC87! JK:CBL! A=7! "?ZZ! ?BJ! 4V:CBL!  
@787@A7: @! VZK@! A=:77! 8;BA=@! ;<! FPPv! "3! @K887: 78VZ;E87BA! A=;:KL= ?!  
@V;B@;:7J! V;^7QA! ! 1B! A=C@! 7>?8VZ75! 8;BA7?@?Z?:E! \;KZJ! :78?CB! ?A!  
nRT5PPP! ?BJ! ?B! ?JJCAC;B?Z!nFT5PPP! \;KZJ!97!V?CJ!<;!A=7!@K887: !e!8;BA=@! ?A!A=7!  
nT5PPPm8;BA=!9?@7f[

1A!C@!A=7!V;ZCQE!;<!&?8?!%BCD7: @CAE!B;A!A!;V;:DCJ7! ?JJCAC;B?Z!Q;8V7B@?AC;B! ?  
FPPv! "3! A;! <?QKZAE! ?BJ! V;:<7@ @C;B?Zm?J8CBC@A: ?ACD7! 78VZ;E77@! CB! @V;B@;:7  
V;^7QA@! 7>Q7VA! CB! KBK@K?Z! QC:QK8@A?BQ7@! ! ";;! A=;@7! 7BL?L7J! CB! @V;B@;:  
V;^7QA@5! ?JJCAC;B?Z!Q;8V7B@?AC;B! CB! 7>Q7@ @! ;<! FPPv! "3! 8?E!97! L: ?BA7J! ;BZE!  
 \CA=! 3D?BQ7J! ?VV;:D?Z!<;!8!9;A=!A=7!V;@A! ?BJ!A=7! @V;B@;:CBL! ?L7BQE5! ?BJ!  
A=7B! ;BZE! \=7B! CA! Q?B! 97! QZ7?:ZE! J78;B@A: ?A7J! A=?A5! 97Q?K@7! ;<! ?B! CBJCDCJK?Z  
@V7QC?ZCc7J! ]B;Z7JL7! ;! 7>V7?75! =7m@=7! C@! A=7! 8;@A! ?VV;:V:C?A7! CBJCDCJK?Z! A  
V;:DCJ7! A=7! @7:DCQ7@! ! "K:A=7: ! CA! 8K@A! 97! QZ7?:! A=?A! A=7! @7:DCQ7@! ! ?7! ;KA@CJ  
@Q;V7!;<!B;:8?Z!^;9! :7@V;B@C9CZCAC7@! ?BJ!Q;: @ @IQ;ZZ7L7! ;!J7V?:A87BA?Z!ZCB7@! ?B  
;QQK: !?A! ?!@7V?:?A7! ;! :78;A7!@CA7[

! 4CB? CBAC?BCD7: @CAE! Q;B@KZACBL! C@! ?@ @K87J! A;! 97! KBJ7:A? ]7B! ?@! ?! %BCD7:  
;9ZCL?AC;B! :7YKC:CBL! B;! Q;8V7B@?AC;B! CB! ?JJCAC;B?Z!Q;8V7B@?AC;B! ?Z?:E5! <?QKZAE!  
87897: @! \=; <KBQAC;B! ?@! Q;B@KZA?BA@! ;! ;A=7: \C@7! Q;BA:C9KA7! A;! ?! @V;B@;:7J!  
V;^7QA! Q;BJKQA7J! 9E! A7! !<?QKZAE!87897: !;<!A=7!@?87!CB@ACAKAC;B!@=;KZJ! :7Q7CD7!  
B;! <CB?BQC?Z! Q;8V7B@?AC;B! A=:;KL= ! A=7! @V;B@;:7J! V;^7QA! KBZ7@ @! A=7! V;^7Q  
9KJL7A@! <;! A=7C: ! :7?@ @CLB7J! AC87! ! "K:A=7:5! ?@! B;A7J! ?9;D75! A=C@! ?JJCAC;B  
Q;8V7B@?AC;B! @=;KZJ!97!9?@7J!;B!A=7!B;:8;BA7?@?Z?:E! :?A7! ?BJ!A=7! "3!  
@=;KZJ!B;A!7>Q77J!FPPv!7>Q7VA!CB!KBK@K?Z!QC:QK8@A?BQ7@ [

1B! ?QQ;:J?BQ7! \CA7J?Z! ?BJ! @A?A7!A?>!Z?@5BCD7! @CAE! J7JKQA@!<;!8!7?Q=!  
V?EQ=7Q!A=7! ?VV;:V:C?A7! \CA=;ZJCBL!A?>[!# @?ZJCDC? @A?BQ7@! :7YKC:75!A=7!  
KBCD@CAE! \CZZ!8? ]7!V?E;:ZZ!J7JKQAC;B@!<;! @;QC?Z! @7QK:CAE!A?>5! ?BBKCAE!V:78  
87JCQ?Z!CB@K: ?BQ75! ?BJ!;A=7: !@KQ=!J7JKQAC;B@! ?@! ?8?E!97! :7YKC:7J[

01123456""=! "

"

01123456"G! "

=095C;"248>0?5<3":5GB?7"034"1:5@0>,"0>?

"E=2:10 F'

!

?AA7BJ?BQ7!?BJ!A=7!Z?@A!7JKQ?AC;B?Z! ?L7BQE!;!CB@ACAKAC;B! ?AA7BJ7J[!];\7D7:5! @Q=;;Z@!8K@A!A7ZZ!  
?9;KA!JC:7QA;;E!CB<;8?AC;B! ?BJ! ?ZZ;! @AKJ7BA@!?!?7?@;B?9Z7!?8;KBA!;<!AC87!A;!:7YK7@A!A=?A!A=7!@Q=;;Z!  
JC@QZ;@7!JC:7QA;;E!CB<;8?AC;B! ?9;KA!A=7!8K@A!B;AC<E! @AKJ7BA@! ?BBK?ZZE! ;!A=7C:!:CL=A@!KB.





01123456"B! "

835@275?;"1:<>248:27"5

3":2=2:23>2"?<"7?8423?"0>04295>"

G:52@03>27 "

;! V:;DCJ7! <:;! A=7!:7@;ZKAC;B!;<! ?ZZ7L7J! ?Q?J78CQ! L:C7D?BQ7@! CB! ?! V:;8VA5!KCA:89ZBJ7Q7@ @!  
A=;KL=;KA!A=7BCD7: @QAE8!A87BA @5ZZ7L7@!?!BJ!A?Q?J78CQ!CDC@C;B@!;!KCD7: @CAE! @=?ZZ!<;ZZ;!  
A=7!L:C7D?BQ7! ?BJ! ?VV7?Z@!JK;Q@! ?@!VK9ZC@=7J! CB!A7E!C@!?!'=7:7! @=?ZZ!97!CB! Q;QZ7L7! ?!  
4AKJ7BA?QKZAE!07Z?AC;B@!\$;88CAA77[!!1A! @=?ZZ!97!Q;8V:C@7J!;<!<;K:!  
@AKJ7BA@5! ?BJ!;B7!L: ?JK?A7! @AKJ7BA[!!+7V;Q=87B!B?E!B;A! @7:D7! ?@!?!87897:;!<!A=C@!Q;88CAA77!  
'=7!87897: @!;<!A=7!Q;88CAA77! @=?ZZ!97!Q=; @7B!9EIV:;Q7JK:7@!7@A?9ZC @;ZZ7L7!A=7!Q=?C:;!A=7!  
Q;88CAA77! @=?ZZ!97! @7Z7QA7J!<;8!A=7!<89ZAE!8V;B! ?VV;CBA87BA!;<!A=7!Q;88CAA77!77B7!  
A=7Q;ZZ7L7!@=?ZZ!V:;DCJ7!?!87897: @=CV!ZC@XCB!QA!A=7!A=7!D7BA!A=?A! ?BE!87897:;!<!A=7!Q;88CAA77!  
C@!?!V?:AE!A;!A=7! ?ZZ7L7J!L:C7D?BQ7!;!C@!KB?D?CZ?9Z7!<;! ?B!7>A7BJ7J!V7: C7B!C@87B!A=7!CBA!  
?!@K9@ACA7!87897: [

'=7!4AKJ7BA?QKZAE!07Z?AC;B@!\$;88CAA77! @=;KZJ!97! CBD;ZD7J!CB! ?B! ?ZZ7L7J!L:C7D?BQ7! ;BZE! ?<A7: !B;8  
V:;Q7JK:7@!<;! :7@;ZDCBL!C@ @K7@! =?D7!977B!7>=?K@A7J[!!'=7!CBCAC?Z! @A7V!CB!A=7!B;:8?Z!V:;Q7JK:7! @=  
<;!A=7! ?LLC7D7J!V?:AE!e=7BQ7<;A=!:7<7:7J!A! ?@!+5!A;!JC@QK@ @!A=7!C@ @K7! \CA=!A=7!;<<7BJCBL!V?:AE  
e=7BQ7<;A=!:7<7:7J!A;! ?@!+0"4+-0f[!!1<!A=7!C@ @K7!C@!B;A! :7@;ZD7J! @?AC@<?QA:;CZE5!A=7!@AKJ7BA\_@!@  
@=;KZJ!97!A;!Q;B@KZA! \CA=!A=7!CB @AVKAS;BQ@=?C: [!!1<!A=7! ?A87BAQ=?C: !Q?BB;A! :7@;ZD7!A=7!C@ @K7!  
@?AC@<?QA:;CZE5!A=7!8?AA7: ! @=;KZJ!97! :7<777B5A=7!A87E!Q;BD7B7!A=7Q7V?:A8!

3?Q=!:7DC7\!Q;88CAA77!@=?ZZ!?A!A=7!Q;BQZK@C;B!;<!CA



01123456"R! "



9E!A=7!KCD7:@CAE5!@=?ZZI:7V:7@7BA5!CB!\:CACBL5!A=?A!@KQ=!?!V7:@;B!=?@!B;A!:7A?CB7J!?

01123456" S!"



!

R! U?









! ^:9J7@Q:CVAC;B! ?BJ!<;ZZ;\@5!CB!@K9@A?BQ75!A=7!?AA?Q=7J8;J7Z[!]=7!CB@A:K87BA!@  
97!J7@CLB7J!A;!7ZCQCA!<?QKZAE!DC7!@!V7:ACB7BA!A;! ?B!7D?ZK?AC;B!;<!Q;ZZ7L7!Z7?J  
?BJ!V;;L: ?8@[!  
F[O] '=7!@KV7:DC@;: ! @=?ZZ!V!;DCJ?J8CBC@A:?A;:!97CBL!7D?ZK?A7J! ?B!;VV;:AKBCAE!A;!  
:7DC7!A=7!V;;V;@7J!CB@A:K87BA! ?BJ!8? ]7! @KLL7@AC;B@!Q;BQ7:BCBL!A=7!J7Z7AC;B5  
?JJCAC;B5!;: !7DC@C;B!;<!CA78@[!]  
F[ ] '!=7! ?J8CBC@A:?A;:!97CBL!7D?ZK?A7J!8?E!V;;DCJ7!<?QKZAE!CA=! ?! :CAA7BZC@A!;<!7Z7D  
?QQ;8VZC@=87BA@5! ?Q=C7D787BA@! ?BJ! ?QACDCAC7@[!  
F[R] '=7!V ;:D;@A!@=?ZZ!8?CBA?CB! ?J?A? ?9?B]!;<!V:7DC;K@ZK: D7E!CA78@!A;!97!8?J7!  
?D?CZ?9Z7!A;!@K9@7YK7BA!#0\$@! ?@!A=7E!Q:7?A7!B7!@K: D7E!CB@A:K87BA@[  
F[R] '=7!#0\$! @=?ZZ! ?J8CBC@A7;!A=7! ?VV;;D7J!CB@A:K87BA! ?Z!<?QKZAE!CA=! ?A!Z7?@A!;B7!  
E7?;!;<!@7:DCQB!A=7!\$;ZZ7L7!;: !KBCA!JC:7QAZE! ?<<7QA7J!9E!A=7! ?J8CBC@A:?AC;B!;<!A=7!V7:  
97CBL!7D?ZK?A7J5!7>Q7VA!<?QKZAE!;B!Z7?D7! \=;! ? :7!B;A!CB! :7@CJ7BQ7[! !1B!;J7;!A;! ?<<C:8! ?ID?Z  
V;;Q7@ @5!A=7!\$;88CAA77!KZJ!A? ]7!@KQ=!@A7V@! ?@! ?! :7! ? ?@;B?9Z7!A;!7B@K:7!A=?A!;BZE!A=;@7  
<?QKZAE!87897: @! \=;! @=;KZJ!V;;DCJ7!CBVKA!J;! @;!e7[L!5!;BZE!7ZCLC9Z7!<?QKZAE!<;8! ?!J7?B\_  
Q;ZZ7L7!@=;KZJ!Q;8VZ7A7! ?BJ! :7AK:B!A=7!7D?ZK?AC;B!CB@A:K87BAf! ?BJ!A=?A!B;!<?QKZAE!8789  
@K98CA@78A=?B!;B7!7D?ZK?AC;B!CB@A:K87BA[!]  
F[T] '=7! #0\$! @=?ZZ! Q;ZZ7QA! ?BJ! A?9KZ?A7! A=7! :7@V;B@7@! ?BJ! V;;JKQ7! <;: ! A=7! ?VV;;V:C?A7!  
@KV7:DC@;: ! ?!@A?AC@ACQ?Z!@K88?;E!;<!A=7!J?A? [! !1B! ?JJCAC;B5!A=7!\$;88CAA77!@=?ZZ!Q;8V  
<;\?:J!A=7!\:CAA7B! :7@V;B@7@!A;!@V78@Q=7! ?\;;!V:C8?;E!J?A? !L?A=7:7J!9E!A=7!  
\$;88CAA77! \CZZ! 97! Q;B@CJ7:7J! @A:CQAZE! Q;B<CJ7BAC?Z5! \CZZ! B;A! 97! 8?J7! ?D?CZ?9Z7! A  
?J8CBC@A:?A;:!97CBL! :7DC7!7J5! ?BJ! \CZZ!97! :7AK:B7J!A;!A=7!@KV7:DC@;:[  
F[a] '=7! ?QACDCAC7@!ZC@A7J!97Z;!@=?ZZ!97!V7:7.7 (B) 8!5 (!)!4-269.6 (B/TT3 1 -7.7 (!)! -55.3 (L) -0.3

\CZZ! 97! V;:DCJ7J! \CA=! @KCA?9Z7! @K88?:E! CB<;8?AC;B! ;B! A=7! ;KAQ;87! ;<! A=7!  
7D?ZK?AC;B!V;:Q7!@ @[

F[a[H +;QK87BA@!L7B7:?A7J!?!V?:A!;<!A=C@!Q;8V:7=7B@CD7!:7DC7!V;:Q7@ @!@=?ZZ!97!]7V!  
?@!?!B<CJ7BAC?Z!<CZ7!9E!A@7!]=7 @7!J;QK87BA @!@=?ZZ!97!8?J7!?D?CZ?9Z7!A;!  
@K9@7YK7BA! #0\$@! \=7B! A=7! ?J8CBC@A:?A;:! CB! YK7@AC;B! ?L?CB! :7Q7CD7@!  
Q;8V:7=7B@CD7!:7DG7[

O! 03\$-//3\*+3+'1/3#,&3[ !

O[F '=7!#0\$!@=;KZJ!97!<;87J!9E!#V:CZ!F!;<!A=7!@787@A7!:V:7D?ZK?AC;B[

O[0 '=7!@K:D7E!CB@A:K87BAe@f!@#KZJ!97!?!BJ!J7ZCD7:7J!A;!A=7Dy@A!9E!47VA7897:!  
FT!;<!A=7!<;8?Z!7D?ZK?AC;B!E7?:[

O[! #J8CBC@A:?AC;B!;<!A=7!@K:D7E!CB@A:K87BA!@=;KZJ!97!Q;8VZ7A7J!9E!-QA;97:FT!;<!A=7!<;8?  
7D?ZK?AC;B!E7?:[

O[R #JJCAC;B?Z!CBVKA!<;8!@A?<<5!@AKJ7BA@5!?!BJ!;A=7:@!@=;KZJ!97!Q;ZZ7QA7J!9E!\*;D7897:FT!;<  
<;8?Z!7D?ZK?AC;B!E7?:[

O[T '=7! @K88?:E! J;QK87BA! ?BJ! ?@ @;QC?A7J! :7Q;887BJ?AC;B@! @=;KZJ! 97! Q;8VZ7A7J! 9E!  
+7Q7897:FT!;<!A=7!<;8?Z!7D?ZK?AC;B!E7?:[

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;<!J7V?:A87BA!Q=?C:@!CB!A=7C:!KBCA!CB!?!AC87ZE!8?BB7:[!1B!A=7!7D?Z7!A;B;B5A?Q=!J7?B!  
@=?ZZ!J:?!K!V;B!A=7!:7@KZA@!;<!?!KBCD7:@CAE!?!V;D7J!@K:D7E!CB@A:K87BA!?!J8CBC@A7:7J!?!@!J7  
CB!A=7@7!V;:Q7JK:7@5!"Q!FM\$A@!<;8!A=7!:7DC7!V7:C;J5!?!BJ!;A=7!:J;QK87BA7J!@;K:Q7@!;<!  
CB<;8?AC;B!?!@!J7787J!?!V;V:C?A7!9E!A?B!J7?@ @C@A!CB!A=7!:7DC7!V;:Q7 @ @5!A=7!J7?B!\CZZ!\;:]  
\CA=!A=:77!<?QKZAE!87897:@!Q=;@7B!?!@!J7@Q:C97J!97Z;\!

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b3\*30#&!U0-\$3+%034 [!!

O[F! '=7!J7?B!@=?ZZ!CB<;8!A=7!J7V?:A87BA!Q=?C:IV:C;A;!CBCAC?ACBL!A=7!<;8?Z!:7DC7\!

O[Q! '=7!J7?B!@=?ZZ!Q;BJKQA!?!B?A?B!?!8;BL!A=7!A7BK:7J!<?QKZAE!\CA=CB!A=7!J7V?:A87BA!A;!  
@7Z7QA!A=7!<C:@A!<?QKZAE!87897:!A;!?!@ @C@A!CB!A=7!:7DC7\!|=7!J7?B5!?!<A7!Q;B@KZA?AC;  
7Z7QA7J!<?QKZAE!87897:?!?BJ!A=7!J7V?:A87BA!Q=?C:5!\CZ!?!VJ!CBA;B?Z!A7BK:7J!  
<?QKZAE!87897:@!A!@C@A!CB!A=7!:7DC7\!-B7!;<!A=78!\CZZ!97!<;8!A=7!J7V?:A87BA5!?!BJ!A=7!

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<KBJCBL!<;!7@7?:Q=5!@Q=;Z?:@=CV5!?BJm;:!Q:7?ACD7!ACDC!E!92-002!bE!C!CD Q q 0.24 0 0 0.AEC

<?QKZAE!87897:!?BJ!V;D7J!9E!A=7!Q;ZZ7L7!Q;88CAA77!?!B;@A!|=7:7!\CZZ!97!  
B;! :7JKQAC;B!CB!A7?Q=CBL! ? @ @CLB87BA! ?@!V?:A! ;<! @KQ=! ?B! ?L:7787BA5! 7>Q7VA!  
@ACVKZ?A7J! 9E! A=7! <KBJCB! ?=7B! ?! V;:AC;B! ;<! A=7! @?Z?:E! C@! V?CJ! DC?!  
L:?BAmQ;BA:?QA[

O[O[O!!!=7!9?@7!@?Z?:E!;<!?!<?QKZAE!87897:!\=;!C@!@7Z7C@7Q=!?B!?@ @CLB87BA!\CZZ!  
97! J7A7:8CB7J! A=;:KL=! ?B! ?ZL;:CA=8! CBQZKJCBL! A=7! <;ZZ;\CBL! Q;8V;B7BA@W!  
7@A?9ZC@=87BA?B! ?L:77JKV;B!V7:Q7BA?L7!;<! :7@7?:Q=!7<<;:A5!Q?ZQKZ?AC;B!;<!?!  
:7JKQAC;B!CB!4A?A7! <KBJCBL! 9?@7J! KV;B! A=7! V7:Q7BA?L75! CBQ:7?@7! CB! @?Z?:E!  
9?@7J!KV;B!V;A7BAC?Z!L! ?BAkKBJ@5! ?BJ! ?!@KVVZ787BA?Z! ?ZZ;Q?AC;B!9?@7J!KV;B!  
A=7!V7:Q7BA?L7!;<! :7@7?:Q=!7<<! :A!A!A=7! =;87! J7V?:A87BA! <;! K@7! CB!  
7B=?BQCBL!:7@7?Q#;:!7>?8VZ7W

?f! U;:<[!S;B7@5!?!F[PI"3!<?QKZAE!87897:!\=;!7?:B@!nTP5PPP!V7:!?Q?J78CQ!  
E7?:5!C@! ?QQ7VA7J!CBA;!A=C@!V;:L:?8[



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><99<3C; +8724"835@2:75?;"=0>8C?;"=<:97 "

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#ZZ!A=7!<;ZZ;\CB!;8 @?:7!?D?CZ?9Z7M AAVWmm<?QKZAE@A?<<[Z?8?:[70K?Q@78C@@mCBJ7>[=A8Z

' 3\*%03!#\*+!U0-/'1-\* !  
! "O[FF!<;!7BK:7!X!U::8;AC;B! !  
! ";;8!\CA=! 1B@A:KQAC;B@!e  
! ";;8?A!<;!7BK:7!?BJ!U::8;AC;B! "CZ7@!e" f !  
! '7BK:7!?BJ!U::8;AC;B!U::Q7@ @!\CA=!2;ZK87!1!U;@!BZCB7!e" f !  
! ";KBJ?AC;B?Z!bKcJ7ZCB7@!B!K!A+XU!U::Q7@ @!,7LCBBCBL!"?ZZF!e" f!  
! #JJ7BJK8!A;!";KBJ?AC;B?Z!#L:7787BA@!;B!XU!<;!?"Z!P!F!e"U+" f!  
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\$ %001\$ %&%!/\$-%\*\$1&!"-0/4 !  
! \$;K:@7#JJCAC;B!e" f !  
!! %@7!\=7B!?JJCBL!?!B7!Q;K:@7,[Tc 42 0 0 -33 Tm /TTJZ! 8 (J) 81041 8;B!

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F[F! 1B@ACAkA2,8KZ@F=7 !'7>?@! 4A?A7%BCD7:@CA@A785CAQ;ZZ7L7@BJ! KBCD7:@CAC7@!  
eQ;ZZ7QACD7ZE7J! A;! ?@w4E@A787BJm;! w\$;8V;B7BA@wBJ! K@7UCBA7:Q=?B19ZE!  
=7:7CBf!?:7!Q;88CAA7J!A;!Q:7?ACBL!BJ!8?CBA?CBCBL!7JKQ?AC;B?Z!Q;88KBCAC7@!CB!\=CQ=7!  
CBJCDCJK?Z!C@!:7@V7QA7J5!V7:7QC?A7J!BJ!D?ZK7J!!=7!4E@A78!JCZCL7BAZE!@A:CD7@!A  
7BDC::B87BA=?A7:8CA@BJ!7BQ;K:?L7@7D7:E;B7A;!V7:<;8! ?AA=7C=CL=7@7AD7ZCB!  
?Q?J78C?|=7 !4E@A78!@QK@B!A;Z7:?BQ7577BB7@ @BJ!:7@V7QAQ7E!CBV;;DCJCBL!

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CBD7@ACL?A7[#JJCAC;B?Z



O[TFa Q;B@7BA! A;! 7BL?L7! CB! @7>K?Z! ?QACDCAE! \CA=! ;7@B;@B VZE!  
Q;B@7BA!A;!7BL?L7!CB!@7>K?Z!?QACDCAE! \CA=  
O[TFH Q;7:QC;B5!<;:Q75!;!A=:7?A!CBD?ZCJ?A7@!Q;B!@7BAk!?BJ5  
O[TFM 97CBL!CBA;>CQ?A7J!;!KBJ7;!A=7!CB<ZK7BQ7!;!KZ@5;Z?BE!;A=7:!  
@K9@A?BQ7!C@!B7D7QK@7!;!7BL?LCBL!CB!@7>8C@Q;BJKQA[

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O[FR`! QK@A;JC?Z!@A?<<!|=;!?:7!B;A!?!@CLB7J!J8CBC!JKAC7@k  
O[FRR! L;KBJ@]77V7:!!@A?<<!|=;!?:7!B;A!?!@CLB7J!J8CBC@A:?ACD7!JKAC7@k  
O[FRT! 8?CBA7B?BQ7!@A?<<!|=;!?:7!B;A!?!@CLB7J!J8CBC@A!?ACD7!JKAC7@k  
O[FRa! :?BQ=m?L:CQKZAK:?Z!@A?<<!|=;!?:7!B;A!?!@CLB7J!J8CBC@A!?ACD7  
O[FRH! @A?<<!|=;!?:7!B;A!?!@CLB7J!J8CBC@A:?ACD7!JKAC7@[  
O[FT! 07A?ZC?AC;B!87?B@!BE!JD7:@7!QAC;B!A=:7?A7B7J!;!A?]7B7L@CB!7Q?K@7!=7!;!  
@=7!=?@!<CZ7J5!@KVV;:A7J5!;!V;:DCJ7J!CB!QAC;B!CA=!?!\$;8VZ?CBA!;<147>K?Z!  
/C@Q;BJKQA5!CBQZKJCB!A9Z8CA7J!A;!JC:7QA! ?BJ!CBJC:7QA!CBAC8CJ?AC;B5!A=:7?A@5!  
=??:@ @87BA[4 (;)8.7AC;B!A==6.1 (!)-293.4 (97.7 (B)8.4 (J)8.88.4 #@@@8.4 (7)8.4 (Q?7.7 (QK)8.4 (Z)(J)

A=?A!V7:@;BI@!;:L;KVI@!@795@7J!;B!L7BJ7:! @A7:7;AEV7@5! @7D7:7!;:V7:D?@CD75!?BJ!  
\\=7:7!CA877A@!7CA=7:;!<!A=7!<;ZZ;\CB7LQWA  
O[FMF 4K98C@@C;B5! Q;B@7BA5! ;! :7^7QAC;B! ;<! A=7! 97=?DC;! C@! 97C7D7J

[=AAV@Wmm@A?AKA7@JQ?VCA:ZIA7>?@\[L;Dm+;Q@!mU3m=A8mU3\[RO\]=A8](#)

- O[O! 4AKJ7BA!:7<7:@!A;!?BE!V7:@;B!\=;!=?@!977B!?QQ7VA7J!<;!J8C@-@C@5QK::7BAZE!;! \?@!V:7DC;K@ZE!7B;;ZZ7J!CB@=77B A!;B7CA=7:!!?<KZB7!;!!V?:AC87!9?@C@[
- O[OR '=C:J!V?:AE!:7<7:@!A;!?BE!V7:@;B!\=;!C@!B;A!?!QK::7BA!@KZB7!;!!V?:AC87!9?@C@[ CBQZKJCBL!9KA!B;A!ZC8CA7J!A;!D7B!@C@7J!?!BJ!KBCBDCA7J!DC@CA;:@[
- O[OT '=C:JdJ?:AE!07V;;ACBL!:7<7:@!A;!K98C@ @C;B!;<!?!Q;8VZ?C@7!>K?ZI8C@Q;BJKQA!9E!?! V7:@;B!;B!97=?Z<!;<!?B;A=7:V7:@!B]
- O[Oa 'CAZ7! 16! \$;;:JCB?A;!! C@! A=7! V7:@;B! \=;! =?@! 977B! J7@CLB?A7J!!987;B7B A! A;!

`[RQ! CBJCDCJK?Z@!\=;@7!@Q;V7!;<!78VZ;E87BA!CBQZKJ7!Q;B7Ck!CB787BZ@AKBJ7:!  
'7>?@!Z?\!  
`[R!! 3?Q=!Q8V;B7BA!\CZZ!CJ7BAC<E! ?BJ!V;;DCJ7!Q;8VZ7A7!!CBBA8QAC;B!;<!@KQ  
CBJCDCJK?Z@! CB! D?:C;K@! Z;Q?AC;B@KACBQZZ088A7J! A;! A87;B7BAI@!  
\79@CA7k!A=7!@AK!7BAI@;k!A=7!+7?B!;<!4AKJ7BAI@!-<<CQ7k! ?BJ!\$?8VK@!U;ZCQ7!  
;: !47QK:CAE[  
`[RR!! '=7@7!CBJCDCJK?Z@!\CZZ!8?CBA?CB!Q;B<CJ7BAC?ZC8A!CB+7C7B3BQ7C:!  
V;;<7@@C;B?Z! :KZ7@! ;<! Q;BJKQA! !+7@ @ZZ@A! CB! ?! Q:C@@C@! @CAK?AC;B! ?BJ! V;;DC  
CB<;:8?AC;B! ?9;KA/;@@C9Z7! :7@;K:Q7@5! @;87! ;<! \=CQ=! 8?E! CBQZKJ7! Z?\  
7B<;:Q787BA5! 87JCQ?Z! ?@C@A?BQ75! V@EQ=;Z;LCQ?Z!CQAK8@7ZDB13QE!  
?@C@A?BQ75!ZL@Z?@C75!\$;8V;B7BA@QCVZCB?:E! ?QAC;B5!C88CL:?AC;B!@7:DCQ7@  
?BJQ:C8CBVZ@7QKAC;B!!=7E!\CZ!B7D7?Z!A=7CQAC8I@!CJ7BABA\CA=;KA!  
A=7!CQAC8I@!V7:8C@@C;B!7>Q7VA!K8007.F7>Q7VAC;B@C@7HIC887JC?A7!  
A=:7?A!A;!A=7CQAC8;A=7:@!C@!V:7@7BA5!;:!CQAC8DC@!?!8CB;:f!2CQACB@!B77J  
B;A!7D7?Z!A=7C!B?87@!C<!Q?ZZCBL!A=7@7!C8808JACZ8!<::



\$4#!CB!D?:C;K@Q?AC;B@5!CBQZKACB;A!ZC8CA7J!A;!A=7!\$;8V;B7BAI@?Z7k!  
A=7! @AKJ7BAI@! =?BJ9;;]k! A=7! ?BBK?Z! @7QK:CAE!!A=7A?7?BJ;<!4AKJ7BAI@!  
-<<CQ7[

R[FH! )K8?B! 07@;K:Q7@[! #! Q;8VZ?CBA! ;<! @7>K?Z! 8C@Q;BJKQA!9;K!-9! A; A=7!  
)K8?B!07@;K:Q7@!+7V?:A87BA5!\=CQ=\C;ZVAZE!CB<;:8!A=7!'CAZ7!16!\$;;:JCB?A;:!  
;<!A=7!Q;8VZ?CBA[

R[FM! 07@V;B@C9Z7!38VZ;E77[!#B!CBJCDCJK?Z!8?E!:7V;:A@ZZKZ78C@Q;BJKQA!A;!?!  
:7@V;B@C9Z7VZ;E775! ?@! A=?A! A7:8JG@B7J! CB! O[FR! ?9;D7! #! <?QKZAE! ;: @A?<<!  
87897:\CA=?BE]B;\Z7JL7! eCBQZKJCB! @A=?BJ! ;9@7:D?AC;Bf! ?9;KA! ?!]B;B! ;:  
@K@V7QA7J!CBQCJ7BA!;<!@7>K?Z!8C@Q;BJKQA!e;A@B;J@B;K?Z@7CJ7BAC<C7J!CB!  
@7QAC;B! [R! ?9;D7f!8K@A! :7V;:A@B;CJ7BA!A;!A@7!B7BA!V;ZCQ7!;: @7QK:CAE!;:!  
A=7Q8V;B7BAI@!'CAZ7!16!\$;;:JCB?A;:[!\*;!78VZ;E77@KA=;Cc7J!A;!CBD7@ACL?A7!;:  
:7@;ZD7! ;8VZ?CBA@! \CA=;KA! @B;D;ZD787BA! ;<! A=78V;B7BAI@! 'CAZ7! 16!  
\$;;:JCB?A;:[!!

R[FG! 1BJCDCJK?Z@!8?E! ?Z@;!<CZ7! ?B;BE8;K@!:7V;:A@;B7BA! @=?ZZ! V;:DCJ7!A=7!  
V;B7!BK897;! ?BJ!\79! ?JJ:7 @ @?D?CZ?9Z7!<;! ?B;BE8;K@! :A @! [1BJCDCJK?Z@! \=;!  
Q=; @7!A!<CZ7! ?B;BE8;K@!:7V;:A@! ?7! ?JDC@7J!A=?A! CA!8?E!97!D7-E!A@Z<CQKZA  
Q8V;B7BA! A;! <;ZZ;\! KV! ?BJm;: ! A?]7! ?QAC;B! ;B;BE8;K@! :7V;:A@5! \=7:7!  
Q;;:9;: ?ACBL!CB<;:8?AC;B;C8CA7B;BE8;K@!:7V;:A@!8?E!97!K@7J!<;!\$Z7:Q!A!

:7Z?ACBL!A;! @7>K?ZI8C@Q;BJKQA!8?E!97!Q;B@CJ7:7J!D@ZVAC?BT;<!A=C@!U;ZCQE!?BJ!8?E!  
:7@KZA!CB!JC@QCVZCB?:E!@?BQAC;B!@!97C7D7@!A=?A!@=7!;!7!=?@!977B!@K9^7QA7J!A;!  
:7A?ZC?AC;B!@K87JC?A7ZE!;7V;A@!Q;BQ7:B!A;!A=7C:!'CAZ7!16!\$;;:JCB?A;[

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'=7! Q



?QAC;B!A;!CBA7:D7B7k  
M[OFd! V::Q7JK:7@!<:!:7V::ACBL5!CBD7@ACL?ACBL5!?BJV?@@@?@?@?BQAC;B@!  
<:!:@7>K?Z!8C@Q;BJKQA!?!@!J7@Q!@9C?@?Ek  
M[OFH! ;VAC;B@!<:!:7V::ACBL! @7>K?Z!8C@Q;BJKQA?BJO?BAC?ZCAE!A=?A!8?E!  
?AA?Q=!A;!@KQ=!7V::ACBLk  
M[OFM!Q?8VK@! ?BJ! Q;88KBCAE! :7@;K:Q7@! ?D?CZ?9Z?BVZ?CB?BA@! ;!  
:7@V;BJ7BA!@k  
M[OFG!CBA7:0@?AE!87?@K:7@!?!D?CZ?9Z?BVZ?CB?BA@?k5  
M[OFeFP

FP[FF! #@ @CLB87BA[!=7!'CAZ7!16!\$;,:JCB?A;!\CZZI:7DC78WZ?CBA!?BJ!CBD7@ACL?A7!A=7!  
8?AA7:[! #ZA7:B?ACD7ZE5! A=7!'CAZ7CB?A;:!8?E! ? @ @CLB! A=7! CBD7@ACL?AC;B! A;! ?!  
+7VKAE\$;,:JCB?A;:!;! CBD7@ACL?A;;! ?BJ! ?JDC@ 78WZ7CB?BA! ;<! AB787! ?BJ!  
Q;BA?QA! CB<;:8?AC;B! ;<! A=7! CBJCDCJK?Z!! 469@CLB7BA! :7BQ7@! A!  
BD7@ACL?A;:! CB! A=C@! @7QAC! B=7! CBJCDCJK?Z! CBD7@ACL?ACBL! A=7! Q;8VZ?CBA  
\=7A=7!?!'CAZ7!16\$;,:J CB?A;:5!+7VKAE!\$;,:JCB?A;:5BD7@ACL?A;:[  
FP[FO! 1BCAC?Z!/77ACBL!\CA=!\$;8VZ?CB?BA[!#@! @; ;B! ?@! C @A=7! CBD7@ACL?A;:;! @=?ZZ!  
Q;BA

:7?@;B?9Z7!7<<:A!A;!7B@K:7!A=?A!A=?! CBD7@BUC7@ZKA;B!;<!8VZ?CBA!  
;QQK:@!CB!?!@!7<<CQC7BA!?!81B@7@0Z75!\CA=!?B!7>V7QA?AC;BVAQ7@A@7!  
e7>QZK@CD7!;1YB7?Z!V;:Q7JK:7@f!\CZZ!L7B7:?ZZE!97!Q;8VZ7A7J!\CA@P!@C>AE  
Q?Z7BJ?;!J?E@!;<!A=8VZ?CBA5! ?9@7BA!7>A7B!QA@CB8@A?BQ7@!!=7!CAZ7!16!  
\$;;;JCB?A;:!8?E!8;JC<E!A=C@!1BE!;A=7!J7?JZCB7@!Q;BA?CB7J!CB!A=C@!U;ZCQE!?!@!  
B7Q7@E!A!?!QQ;8VZC@=!A=7!VK:V;@7@!@A?A7J!?!BJ!<;!L;;J!Q?K@79BQZKJCL5  
B;A!ZC8CA7J!A;5!A=7!Q;8VZ7>CAE!;<!A=7!CBD7@A@CB7@A@B!?!B?@!@]

FP[OO \*;ACQ7!;<! #ZZ7L?AC;B@! A;! 07@V;BJ7BA!#!A! A=7! ;KA@CB7@7ACL?AC;B5! A=7  
1BD7@ACL?A;!\CZZ!V;:DCJ7@A@BJ7BA;:8VA!B;ACQ7!;<!A=7!ZZ7L?AC;B@!?!L?CB@A!  
=C8!;!=7!CB!\:CAGB!L7A=7!CA=!?!Q;VE!;<!A=C@!U;ZCQE!g:CAA7B7Z7@C@B@!  
\CZZ!97!V;:DCJ7J!A;A=8VZ?CB?BA!Q;BQK::7BAZE!7@V;BJ7BA]

FP[O`! 3YKCA?9Z7!?!7?A87BA]

FP[O`H 1BD7@ACL!VZ:78?CB!B7KA?Z!A=;:KL=;KCB@ACL?AC;B!?!BJ!V;:DCJ7!  
9;A=!A=7!QVZ?CB?BA!?!BJ@V;BJ7BA!;VV;:AKBCAC7@!A;!7@V;BJ!CB!V7:@;B!  
?BJ!CB7>K?Z!/C@Q;BJKQA!U;ZCQE!\:CACBL5!A;! @K98CA!7Z7D?BA!J;QK87BA@  
?BJ!A;!V;:JKQ7:7Z7D?BA!CAB7@7@7@]

FP[O`O '=7! Q;8VZ?CB?BA! ?BJ!@V;BJ7BA!\CZZ! :7Q7CB@CB@8K8!;<!<;AZCL=A!  
=:K:@!B;ACQ7!;<!?BE!@?B@7@BBL5!JK7!V;:Q7@@!!=7?:CBL5!;?!VV7ZZ?A7!  
877ACBL5!BE]

FP[O`! ;A=! Q;8VZ?CB?BA! ?BJ!@V;BJ7BA!8?E!=?D7!;B7V:7@7BA?ACD7! ?BJm;!  
;B7!?!JDC@;:!V:7@7BA!?!87Z@BL@!?!V?:AE!=?@!\CA=IA=7!1BD7@ACL?A;:5!CAZ7!  
1d \$;;;JCB?A;:5! +7VKA! \$;;;JCB?A;:;! ;! ;A=7! Q8V;B7BA! ?J8CBC@A?A;!  
:7Z?A7J!A;!?!Q;8VZ?CBA!?!=7!7V:7@7BA?ACD7@;:8?E!V;:DCJ7!@KVV;A5!  
LKCJ?BQ7! ;! ?JDCQ7! A=7! Q;8VZ?CB?BA! ;!@V;BJ7BA5! 9KA! 8?E! B;A!  
;A=7!\C@7JC:7QAZE!V?:ACQCV?A7!CB!A=7!877ACBL@]

FP[O`R '=7!Q;8VZ?CB?BA!@V;BJ7BA5!?!BJ!?!VV;:V:C?A7!;<<CZ7Z@!Z7?@A!<;:AE  
7CL=A;K:@!CB!?!JD?BQ75!97!V;:DCJ7@7@!A;?!BE!CB<;:8?AC;B!A=?A!\CZZ!97!  
K@7J!?!<A7!ACBD7@ACL?AC;B!9KA!JK:CBL!J@7@A@7@B@?;

FP[OR 1BD7@ACL?AC;B! #QACDCAC7@! 1BD7@ACL?A;!\CZZ! !LCB=8?AC;B!7DC7  
Q8VZ?CB?BA5@V;BJ7BA5! ?BJ!CAB7@7@7@BD7@ACL?A;!\CZZ! @=?ZZ! Q;BJKQA! @CA7!  
CB@V7QAC;B5!C<IB7Q7@!@A@B?A!7!CB<;:8?AC;B!<;:8!@;K:Q7@!?!@!?!V;:V:C?A7!  
LCDB!A=7B?AK:7!;<!A=7!Q;8VZ?CBA]

FP[OT 07V;:A! ;<! 1BD7@ACL?AC;B!B77@ACL?A;!\CZZ! Q;8VZ7CA7B! 1BD7@ACL?ACD7!  
07V;:A! A=?A! CBQZKJ7@! @K88?7BA7;DC7@! Q;BJKQA7Jk! V=;A;L:?V=@5! C<! ?BE!  
J;QK87BA@!?!B8?A7:C?Z@!7Q7CD7JK!J7@Q:CVAC;B@!;<CZ7B@7@K8B?C7@!  
;<!7Z7D?BA!7Z7QA;:BCQ!7Q;:J@k! ?BJ!?!J7A?CZ7JAZ7!7D7BA@7AZJ!A;A=7!  
CBQCJ7BA!g=7B!A@77@ACL?A;B@A=7!CAZ7!16!\$;;;JCB?A;:A=7!1BD7@ACL?ACD7!  
07V;:A!\CZZ!9@K98CAA7J!A;A=7!CAZ7!16!\$;;;JCB?A;:;<;:7DC7!?!B!KCBJC

!

FF[! 4'#\*+#0+!-!03213g!#\*+!"1\*+1\*b !

FF[F 07DC7! !=7! 'CAZ7! 16! \$;;;JCB?A;!\CZZ! :7DC7! A=7! 07V;:A! 1BD7@ACL?AC;B! KBJ7! A=7!  
wV:7V;BJ7?BQ7!;<!A=7!7DCJ7BQ7w!@A?BJ7JCB7J!CB!47QAC;B!O!FO!;<!A=C@!U;ZCQE!  
! !

FF[O "CBJCBL!!=7!CAZ7!16!\$;;;JCB?A;!\CZZ!8?7!?!:\CAA7B!<CBJCBL!?!A;



A=7!#2U!;<!K8?B!:7@;K:Q7@!;:A=7C:!7YKCD?Z7BA!V:C;:IA;!C@@KCB!@?BQAC;B  
FO[OFD+K7!U;;Q7@ @!)7?:CBL!;!\$;8VZ?CB?BA!A!K@7BA7@V;BJ7BA!8?E!7Z7QA!A!  
JC@VKA7!A=7!"CBJCBL!?BJh@!B@7AC;B!A=;;KL=!?!JK7!V;;Q7@ @!=7?:CBL!  
U;;Q7JK:7@! <! A=7! =7?:CBL! ?;7! ;KAZCB7J! CB! A=7! 4E@A78! 0KZ7@! ?BJ  
07LKZ?AC;B@5! \$=?VA7;! 21oo! dTGH ?BJ! A=7Q8 V;B7BAI@! 4AKJ7BA!  
+C@QCVZCB7!U;;Q7JK:7@507WAC;B@!?!@!<;ZZ;\@W ! !  
FO[OFQF '=7!Q;8V ;B7BA!:

?VV::V:C?A7B7@@! ;<! A=7! @?BQAC;B  
@CLBC<CQ?BA! V::Q7JK:?Z! 7::;!@! ::  
;8C@@C;B@K!!?BJ

FO[OFR`O! \$;8VZ?CB?BA! @=?ZZ! :7Q7CD7! B;ACQ7!;<  
=??:CBL! ?BJ! =?@! ?! :CL=A! A;V97@7BA[!  
\$;8VZ?CB?BA! @=?ZZ! B7Q7A;8V7ZZ7J!  
A;!?AA7BJ! ?BE!=7?:CB! B7!YK7@AC;B7J!  
9E!A=77@V;BJ7BA[

FO[OFT1B! ?BE! @CAK?AC;B!\=7:7! A=7! :7@V;B@C9Z7! ?J8CBC@A;BAZCQ7! A=7!  
78VZ;E77!B7>A!CB!ZCB7!CB! ?KA=!CAE@CZ?BQAC;B@[

!

F[! #UU3#&!-"!1\*+1\*b!-0!4#\*\$'1-\*4 !

F[F! 0CL=A! A;!#VV7?Z[!1<!7CA=7!:Q;8VZ?CB?BA!@V;B77BA!C@C@?AC@<C7J!\CA=!A=7!'CAZ7!16!  
\$;;JCB?A;:I@!"CBJCB!5!@?BQAC;B5J7B78CB?AC;B!;<!?JK7!V::;Q7@C@CBL5!7CA=7:IV?:AE!  
8?E! ?VV7?Z! A;! A#?VV::V:C?A7! \$;8V;B7BA! #VV7ZZ?A7! #KA=;:CAE! ?@! CBJCQ?A7J! 97Z;\[  
07<7:7BQ7@!A;!wV?:AC7@w!CB!A=C@! @7QAC;B! ?BJ!CB!A=7!4B7@KZ8K@K?@!@k7BA!;  
A=7!:7@V;BJ7BA5!Q;8V;B7BAV::7@7BA?ACD7!B6KZ7JCB?A;:;! :J7@CLB77f5!Q;8V;B7BA!  
?J8CBC@A:?A;:!\=;!C8V;@?BQAC;B@5!B7Z?CB?BA[

F[O! b;;KBJ@!<;!#VV7?Z[! =7!L;;KBJ@!<;! ?BE! ?VV7?Z! ? :7!ZC8CA7J!A;Z7ACBLW

F[OF! V:7DC;K@ZE!KB?D?CZ?9Z7!:7Z7D?BA!7DCJ7BQ7k

F[OO! @K9@A?BACD7!V;;Q7JK:?Z!7::;:CB!A=C@C@;B@A=7?:CBLK!;

F[O`!! @?BQAC;B!C@!@K9@A?BAC?ZZE!JC@V;;V;;AC;B?A7!A;!A=7!"CBJCB!K

F[OR! A=7!<CBJCB! \?@!B;A!@KVV;;A7J!9E!A=7!7DCJ7BQ7[

F[!! U;;Q7JK:7!<;!#VV7?Z[

F[F! ! #B! ?J8CBC@A:?A;: !7Q7CDCBL!B;ACQ7!;<! ?VV7?Z!\CZZ!V!;BQ77BQ;CB7!A=7!  
V?:AC7@!Q;BQK::7BAZE!\CA=!!7Q7CVA[

F[O!! 4AKJ7BA@!#BE! ?VV7?Z!;<!A=7!<CBJCB!5! @?BQAC;B!;:J7A7806?KCB @ @!  
=7?:CBL! C@! L;D7:B7J! 9E! A=7! V;;Q7JK:7@! ;KAZB77! 4AKJ7BA! \$;BJKQA! ?BJ!

=C@m=7:!Q;BA:?QA!V7:C;J5!A=7!<?QKZAE!87897!8?E!  
=7?:CBL!VK:@K?BA!A;!@7E@Q[BTQ(!);7D7:5!A=7!<?QKZAE!87897:18?E!  
?VV7?Z=A=7!<CBJCBL@!?BJm;!!@B@BA@KQ=?VV7?Z!C@B7J!9E!A=7!  
4E@A78!0KZ7@!?BJ!07LKZ?A@5!25!o!R!R[

F[ R` !#ZZ!;A=7:!?VV7?Z@!;<!A=7!<CBJCBL!;!@?BQAC;B;B@B@?A?<?QKZAE!  
87897:!C@!L;D7:B7J!9E!A+V;Q7JK:7@!;KAZCB7J!CB!A=7!4E@A78!0KZ7@!?BJ  
07LKZ?A@5! \$2VA7:! 25! o! O[FT! ?BJ! A=78@B7BAI@ @A?<<m78VZ;E77!  
L:C7D?BQ7!Q7JK:7@!;!CA@KCD?Z7BA[

F[T ! '7BK:7J!"?QKZAE

F[TF!

V;;DCJ7J!A;!A=7!\$;8VZ?CB?BA[

! !

FT! , 13\*\*1#&!U-&1\$(!03213g !!!

3?Q=!9C7BBCK85!A=C@!U;ZCQE!@=?ZZ!97!7DC7\7J!#BE!7DC@BDC@7C78C7?ZZ!97!9;;KL=A!  
97<;7!A=7!4E@A78I@!.;?J!;<107L7BA@!<;



5 ( 3 2 5 7 , 1 \* 6 8 % 6 7 \$ 1 7 , 9 ( & + \$ 1 \* ( 6

#<A7:! QK::CQKZ?;! ?BJ! V;;L:?88?ACQ! Q=?BL7@! =?D7! 977B! ?VV;;D7J! 9E! &?8?;! %BCD7:@CAE5! !=7!  
'7>?@!4A?A7!%BCD7:@CAE!4E@A785! ?BJ!C<! ?VV;;V:C?A75!A=7!'7>?@!)CL\$;7JCBKACBC;B!  
,;?:J5! A=7! 4;KA=7:B! #@@;QC?AC;B! ;<! \$;ZZ7L7@! ?BJ! 4Q=;;Z@d\$;88C@@@C;B! ;B! \$;ZZ7L7@!  
e4#\$4\$-\$!8K@A!97!B;AC<C7J5! ?BJ!CB!@;87!Q?@75!L:?BA! ?VV;;D?Z[!!!

3>?8VZ7@!;<!JC<<7:7BA!AEV7@!;<!@K9@A?BACD7!Q=?BL75!A=7!@V7QC<CQ!V;;Q7JK:7!A;!97!K@7J!  
A=7C!:7@V7QACD7! ?VV;;D?ZmB;AC<CQ?AC;B! :7YKC:787BA@5! ?BJ!A=7C!:7V;;ACBL!AC87!ZCB7@!?:?  
A=7!A?9Z7A=?A;ZZ;\@! \$K::7BA!CB<;:8?AC;B!E! 97! ;9A?CB7J?A!\\@?Q@Q;Q;:L! !=7!  
A=:77!V;;Q7JK:7@!CBQZKJ7W!

U;;Q7JK:7! F! il 07DC7! ;<! 4K9@A?BACD7! \$=?BL7@! 07YKC;CBL+,-(&' )& 6::0-/'#& <0,-0&

?SQ( 'N\&.\*L' !      1JN,/PJ' !      1JKNJ

|                |            |                                   |   |                                  |                |
|----------------|------------|-----------------------------------|---|----------------------------------|----------------|
| ?\$Q('N&.*L' ! | 1JN,/PJ' ! | 1JKNJ<br>3N%KMK,.%K<br>:'UPKJ/' ! | ?KO'="J.O' "<br>MNJ<br>>N*%,%K*L<br>><> ! | 1JKNJ<br>0QQJN).-"<br>:'UPKJ/' ! | 4N,PO'*.%.%KN* |
|----------------|------------|-----------------------------------|---|----------------------------------|----------------|

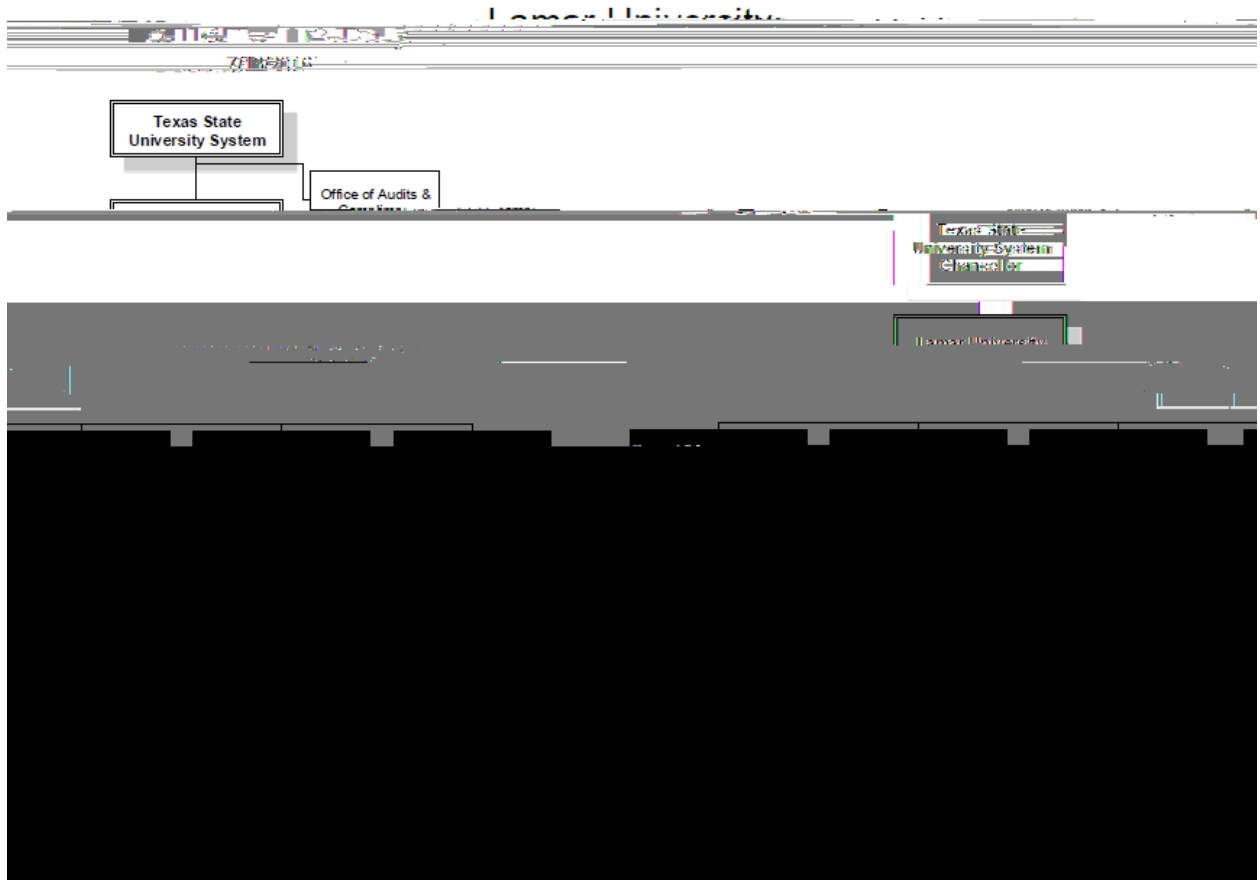
1BCAC?AG?LQ7:AC<CQ?A7AC<C BT 38 0 0 3-0.0034 Tc 38 BT :A7

|  |             |                                     |   |                                   |                |
|--|-------------|-------------------------------------|---|-----------------------------------|----------------|
| ?\$Q'( 'NIV&.*L' !   | 1JN,'/PJ' ! | 1JKN'J<br>3N%KMK,.%K!<br>:'UPKJ'/ ! | ?KO' '=J.O' "<br>MNJ<br>>N*%.,%K*L<br>><> ! | 1JKN'J<br>0QQJN).-"<br>:'UPKJ'/ ! | 4N,PO'*.%.%KN* |
| 3>V?BJCBV::L:78 !;<<7:CBL@V:7DC;K@ZEV::D7J!;<Q?8VK@!@CA7@  |             |                                     |   |                                   |                |
| f#JJCBL!V:V:;D7J!<br>V::L:78@!A=?A!#03!' !<br>@CLBC<CQ?BAZE!JC<7:7BA<br>QK::7BAV::L:78@!AA=7@CA7                       | *# !        | *# !                                | *# !  | *# !                              | *# !           |
| f#JJCBL!V:V:;D7J!<br>V::L:78@!A=?A!#03!<br>@CLBC<CQ?BAZE!JC<7:7E<br>QK::7BAV::L:78@!AA=7@CA7<br>9KA!' !?AA=7CB@ACA KAC | *# !        | *# !                                | *# !  | *# !                              | *# !           |
| #JJCBLV::L:78@!A=?A#03 !<br>@CLBC<CQ?BAZE!JC<7:7E<br>QK::7BAV::L:78@!AA=7@CA7<br>#*+ !?AA=7CB@ACA KAC;B                | F!          | (7@                                 | a!8;BA=@                                    | (7@                               | U:;@V7QAK@     |
| #ZA7:CB@CLBC<CQ?BAZE!<br>Z7BLA;=<!V:;L:78 !  | F!          | *# !                                | *# !  | (7@                               | /;JC<C7J       |

?\$Q'( 'N\A&.\*L ' !

|  |             |                                   |  |                                   |  |
|--|-------------|-----------------------------------|--|-----------------------------------|--|
| ?\$Q'( 'N\&.*L' !  | 1JN,/'PJ' ! | 1JKN'J<br>3N%KN%KN*<br>:'UPKJ/' ! | ?KO' '=J.O' "<br>MNJ<br>>N*%.,%K*L<br>><> !  | 1JKN'J<br>0QQJN).-"<br>:'UPKJ/' ! | 4N,PO'*.%.%KN*   |
| \$Z;@CBIV;L:~85 !?VV::D7J!;<Q?8VK@!@CA7BQ+Q?8VK@;5!CB@ACA\KAC;B                |             |                                   |  |                                   |  |
| f1B@ACA\KAC;?QA@A#<br>;B! @AKJ7BA@   | `!          | (7@                               | 1887JC?A7ZE<br><;ZZ;\CBL<br>J7QC@AB<br>QZ;@7 | (7@                               | +7@Q:CVA@;B7?Q#KA<br>VZ?BQBQZKJTA#Z7AAZ!<br>B;AC<CQ?AC;B |
| f1B@ACA\KAC;?QA@A#<br>?B;A=7!CB@ACA\KAC;BQ#<br>;KA@AKJ7BA@?Q=dKA<br>#L:7787BA! | `!          | (7@                               | 1887JC?A7ZE<br><;ZZ;\CBL<br>J7QC@AB<br>QZ;@7 | (7@                               | +7@Q:CVA@;B7?Q#KA<br>VZ?BQ;VE!                           |

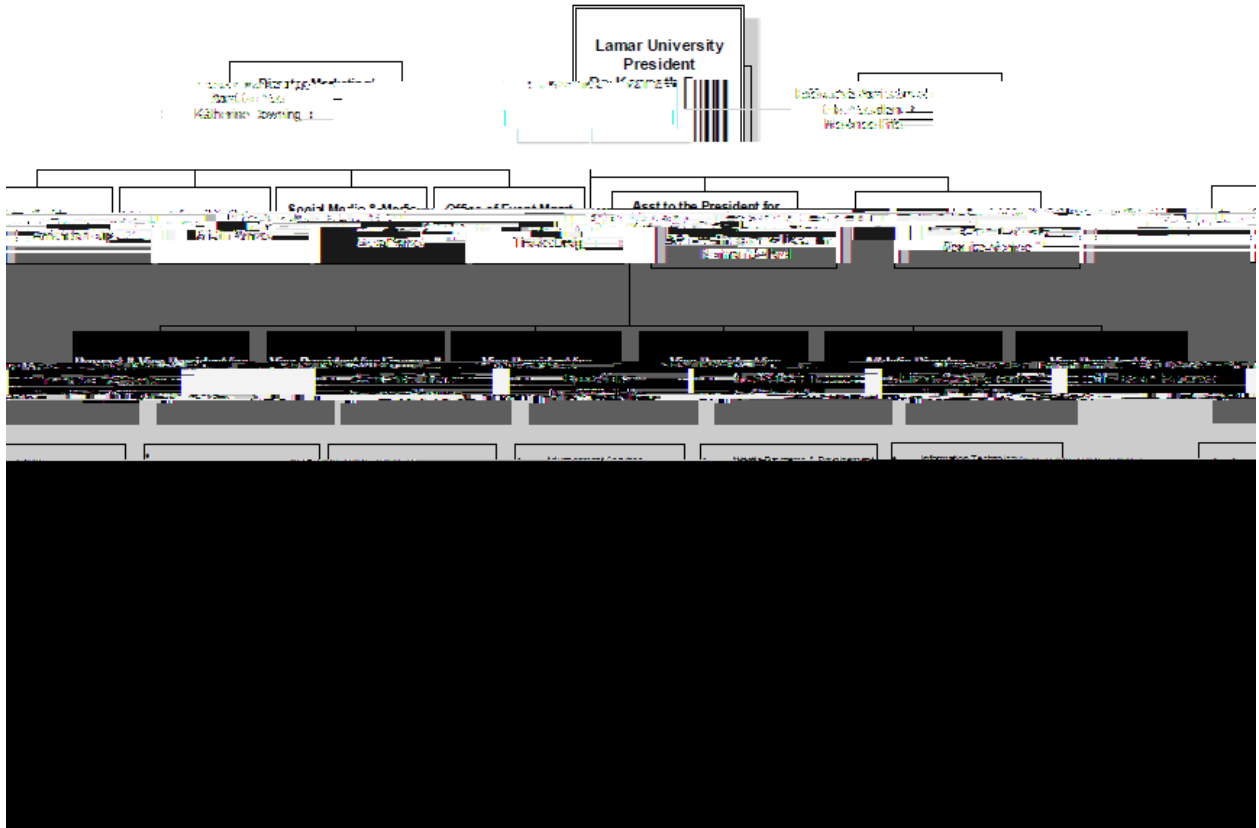
APPENDIX R.  
LAMAR UNIVERSITY ORGANIZATIONAL CHARTS  
TEXAS STATE UNIVERSITY SYSTEM AND LAMAR



# OFFICE OF THE PRESIDENT

## Lamar University

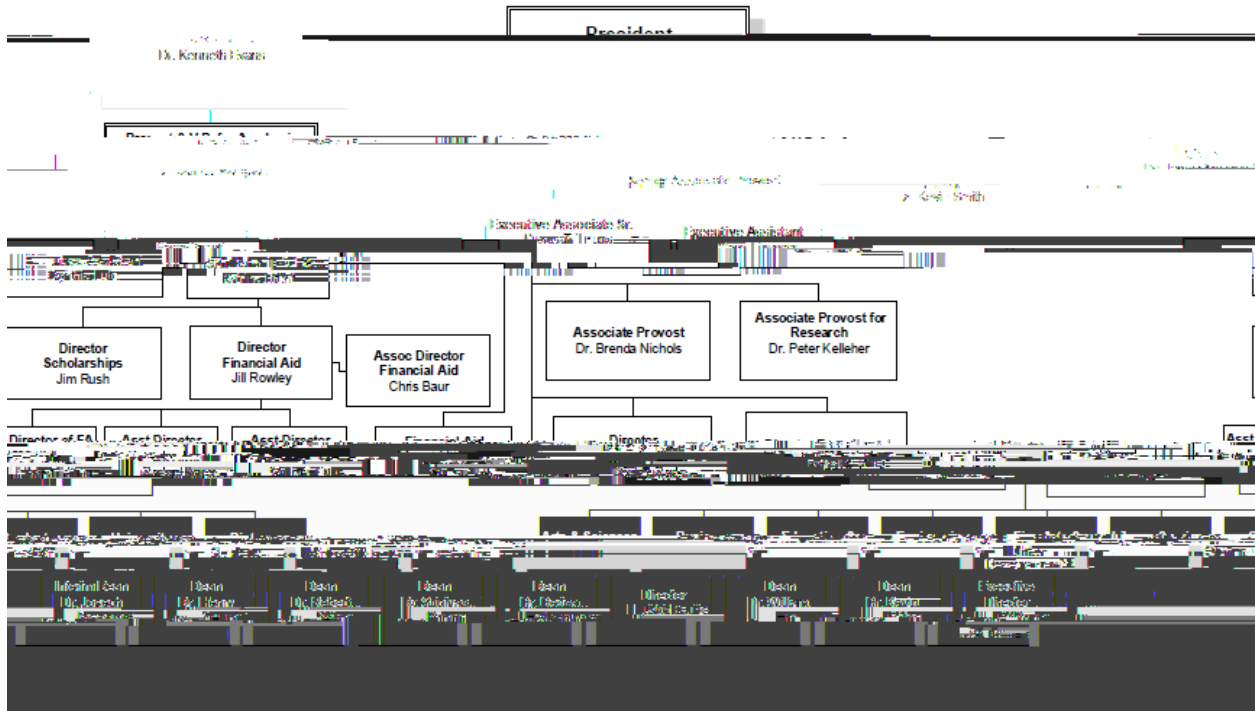
7/13/2016





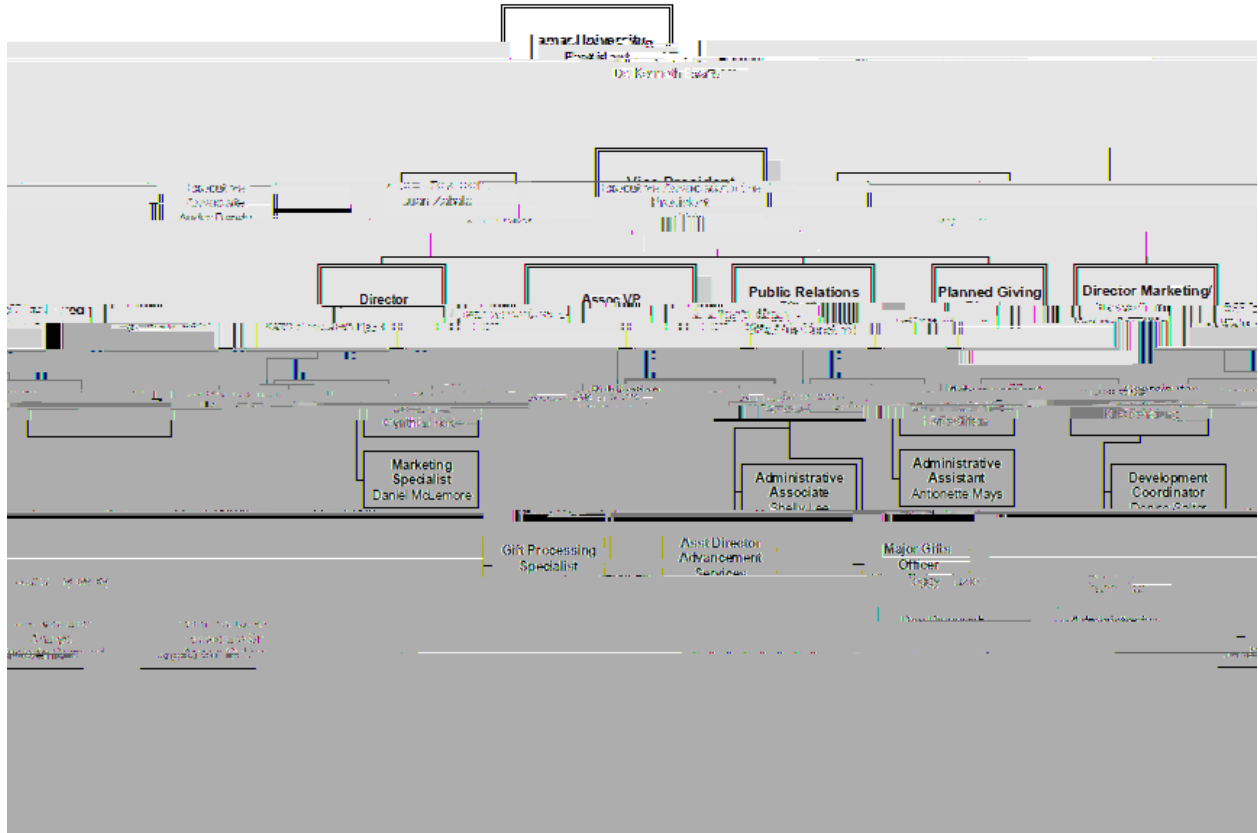
# OFFICE OF THE PROVOST AND VICE PRESIDENT FOR ACADEMIC AFFAIRS

Office of the Provost & Vice President  
For Academic Affairs  
7/13/2016



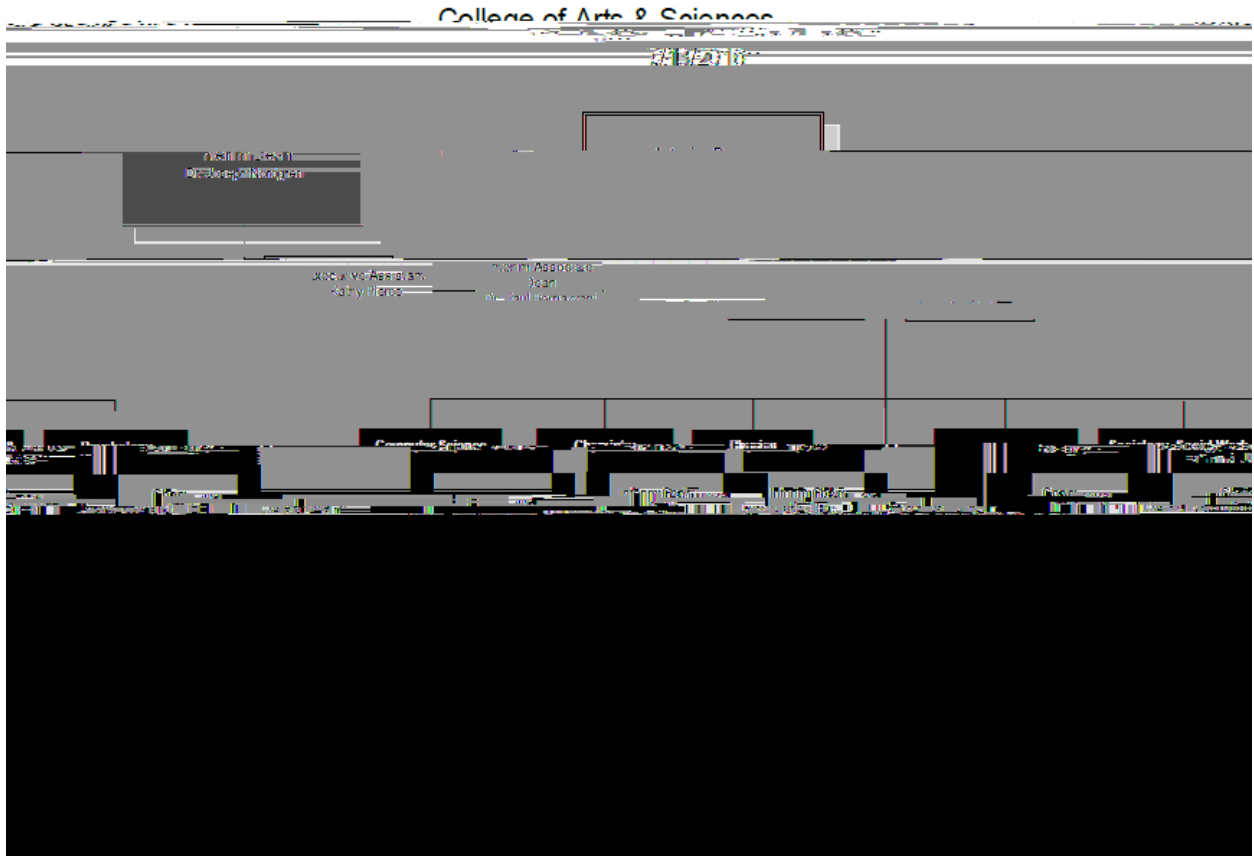
# DIVISION OF UNIVERSITY ADVANCEMENT

University Advancement  
7/13/2016

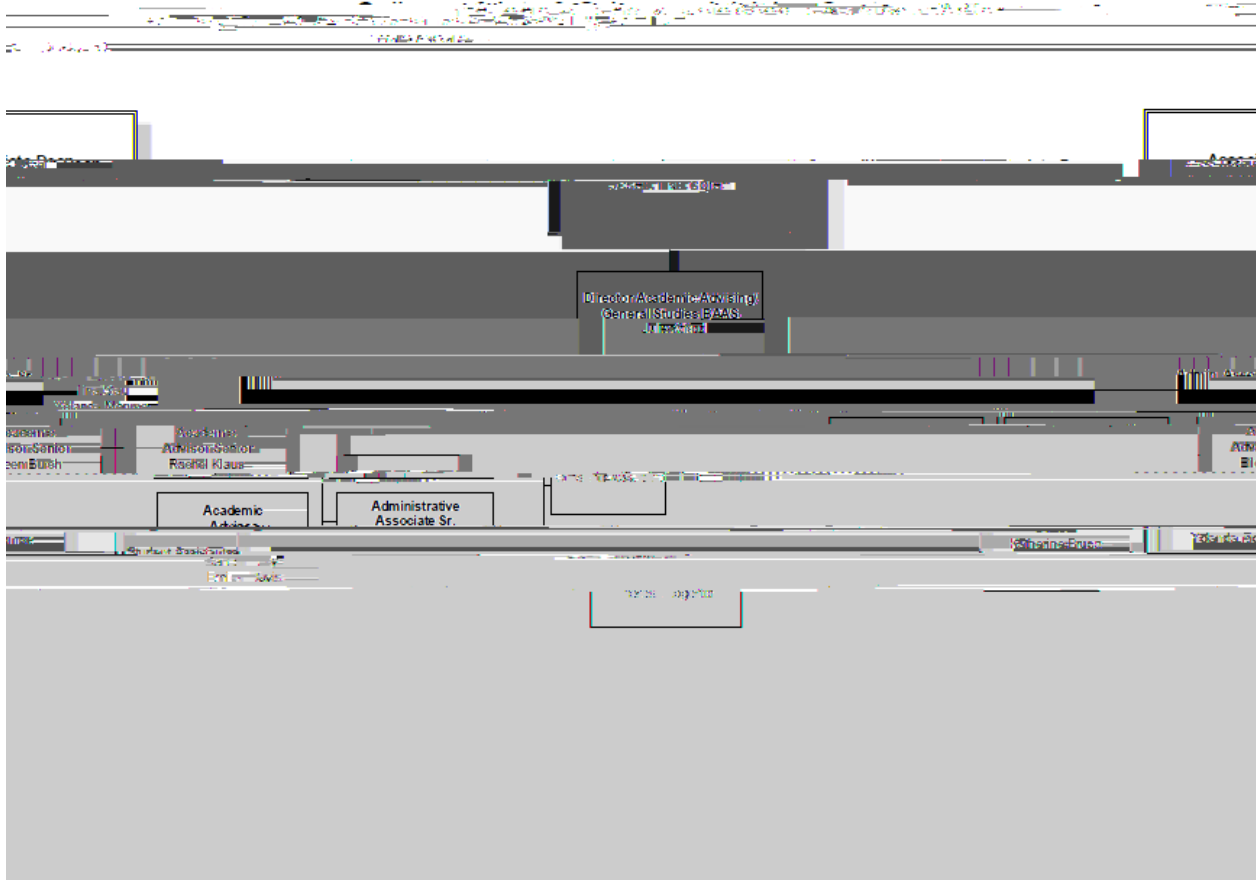




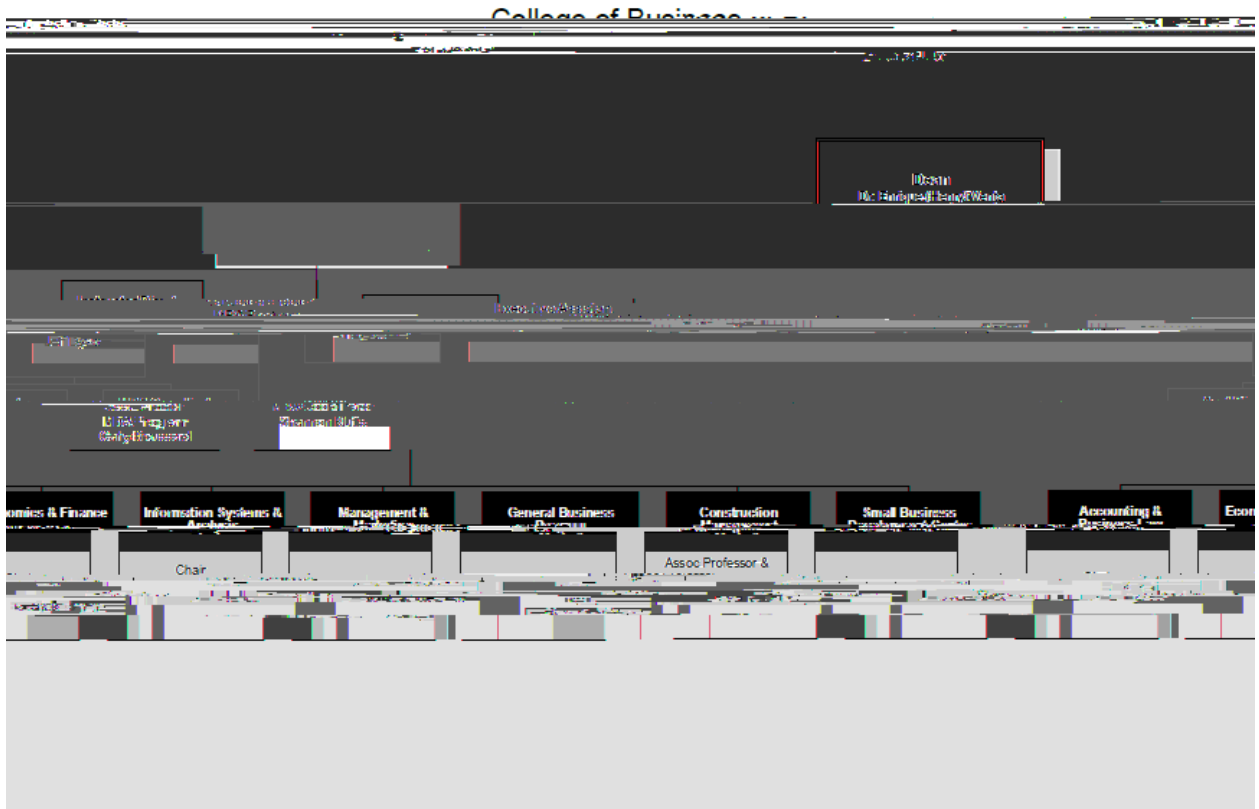
# COLLEGE OF ARTS AND SCIENCES



# ARTS AND SCIENCES ADVISING CENTER



# COLLEGE OF BUSINESS





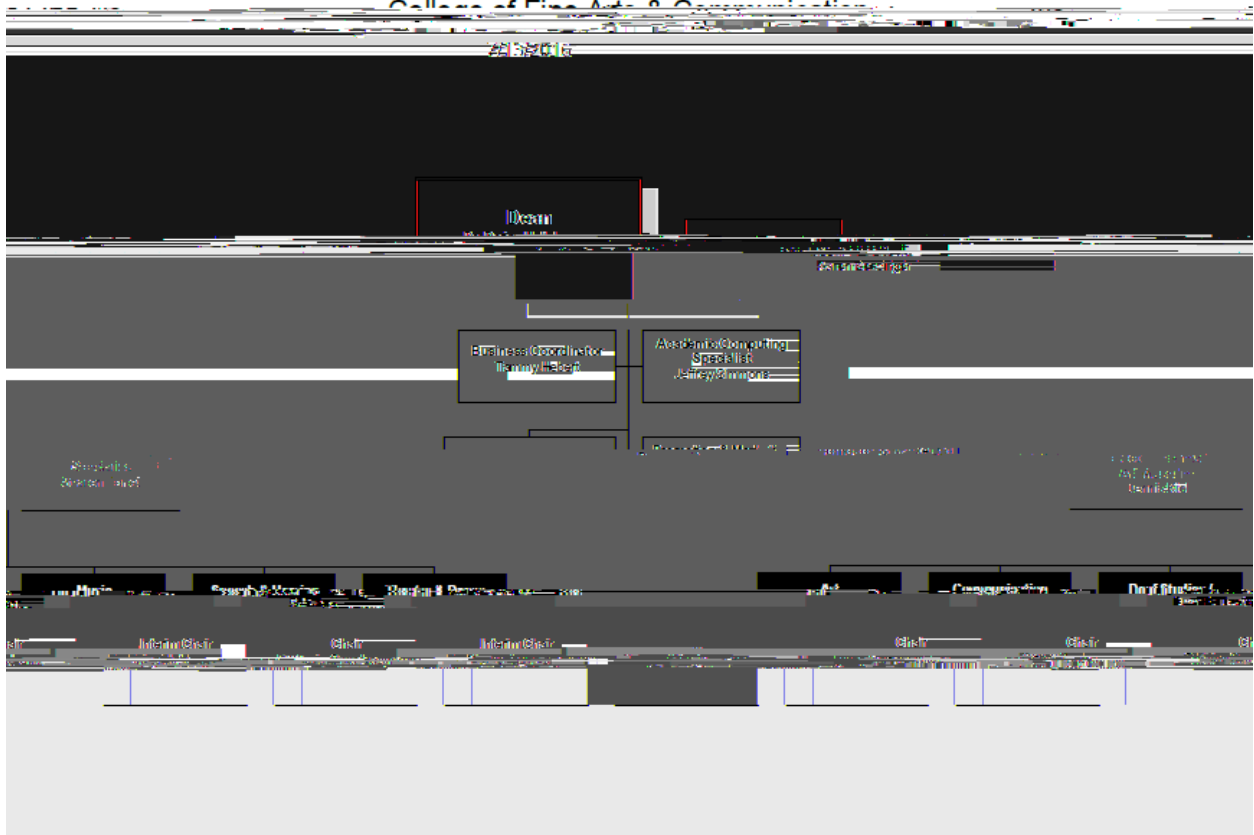
**COLLEGE OF ENGINEERING**

College of Engineering  
7/13/2016



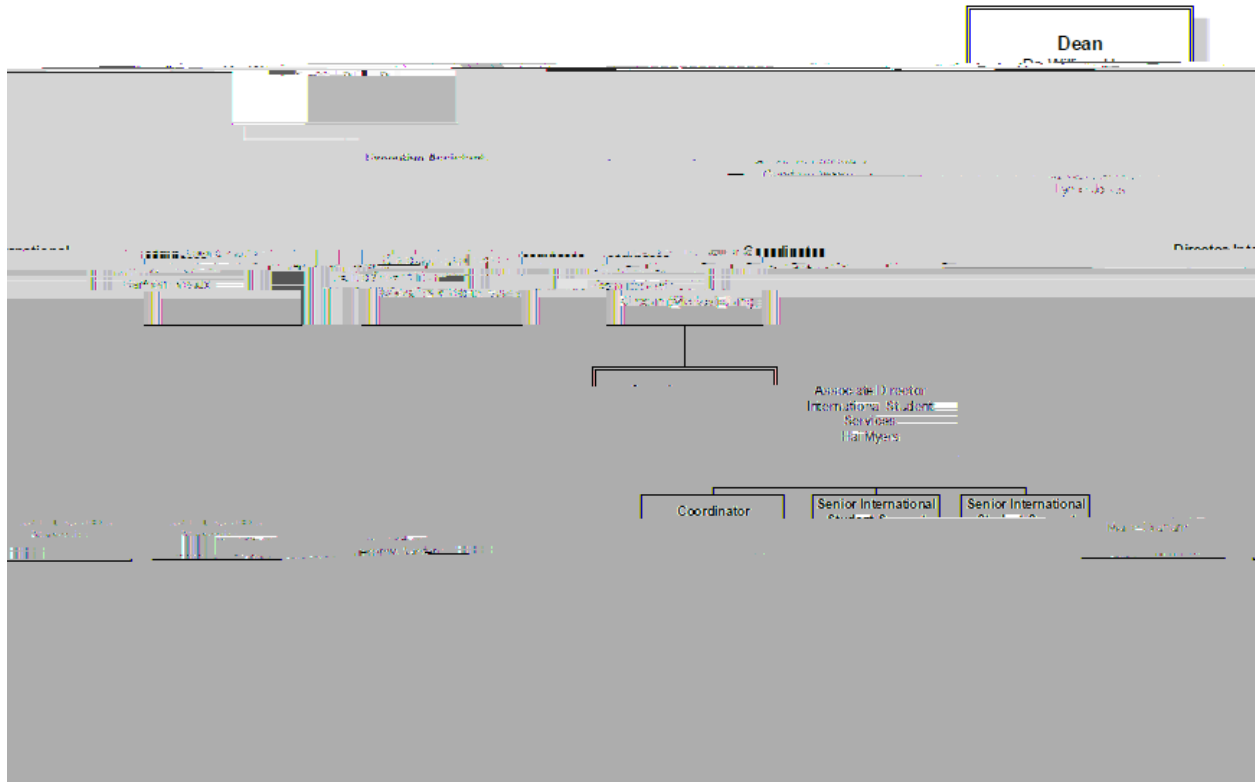


# COLLEGE OF FINE ARTS AND COMMUNICATION



# COLLEGE OF GRADUATE STUDIES

College of Graduate Studies  
7/13/2016



# DIVISION OF FINANCE AND OPERATIONS

## VP, Finance and Operations

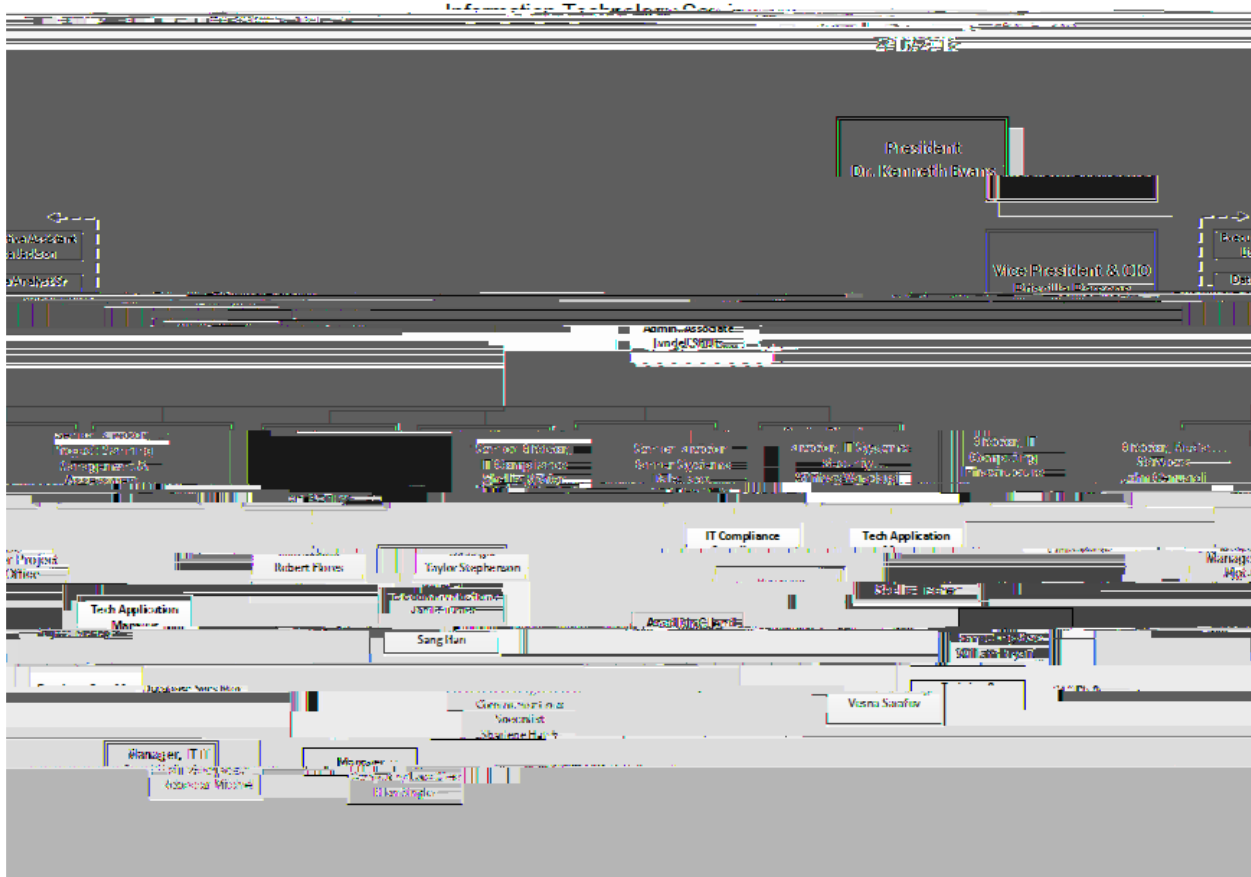
E. Craig Ness  
Vice President

Twila Baker, Ex Dir.

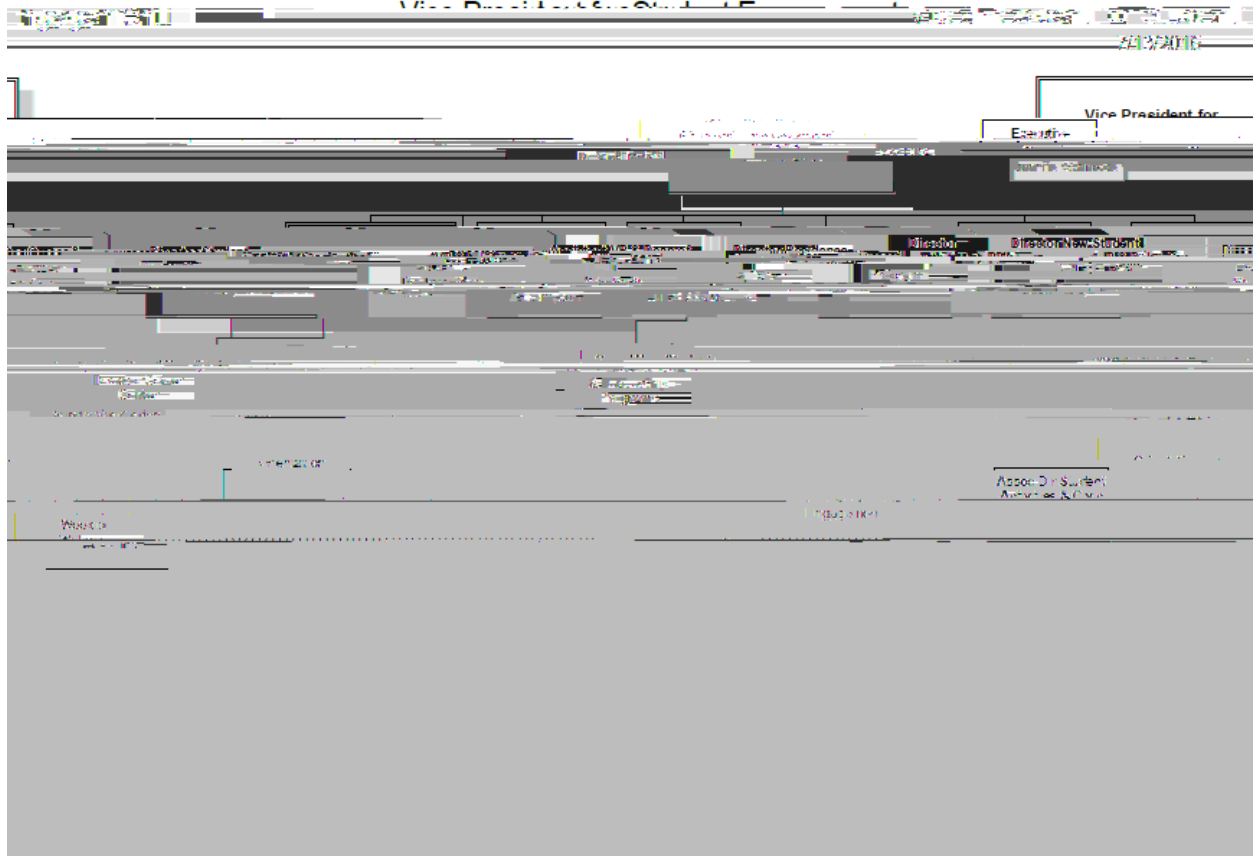
Joseph Amos & Dale Wood

Michael Holman - AMO     Wanda Bredemeier - AMO

# DIVISION OF INFORMATION TECHNOLOGY



# DIVISION OF STUDENT ENGAGEMENT



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