



352926718, '(, 1(6)257+(352027, 2\$1'7(185(352&(6  
 7(185(75\$&. )\$&8/7<  
 )R\$SSOLF&RCPV\W&KHDH\Q\G D Q V

7KH 3URJXLVGM\$ULR\YLVGH UHF RVPKIQ F D V GR Q D D S R U G W I R S D O R R S R D O Q M R H Q X U H F  
 ZD\ V WR SUHVHQW WKHLU DFFRPSOLVKPHQWV HIIHFWLYHO\ DQG FR  
 RUJDQLR\ D W F R O G L B D W H I V R D Q V L G H I Q G G Z G W V R G H U V R V Z K O D M L Q U H O Z F R E N D Q G  
 WR SURYLGH FODULW\ WR UH D G H U V D W Y D U L R X V O H Y H O V R I U H Y L H Z

7KH JXLG Q Q Z I D Q H X S H U U H S O H D F H W R W K O H D Q S O M B U D F I O H F R P S U H K M Q W R H P H I Q W  
 063 FRQWUDFW SULQFLSOHV W S Z H I ' D F X S D H U L & a?

(/, \*, %, /, 7<  
 , P S R U V Q B Q W H F D Q G L G Y D W W H I Q L W K F I K D L Q G H D Q V F R R Q W X O W E B Q W E L H I R W H  
 G H F L G L Q J Z K H Q W R V H H N S U R P R W L R Q D Q G W H Q X U H

) R F D Q G L G H M N E L C R J P R W U R Q N D V V R S U R W H Z L W W H I Q X U H  
 ‡ \$ V V L S W B Q H P X W W E F L K S R U W R W H L Q X U H

D

IDFXOW\ PHPEHU UHFHLYHV D 7'< H Q M B Q U L R S Q V R R R V Z H R \ O H D I  
 o & 29, 'H [ W H Q V L R Q 7 K H D G P L Q L V W U D W L R Q D Q G 0 6 3 K D Y H D J U

HOLJLEO&29R'H [ W R L Q P D G G D Q R Q G G L W D U  
 ‡ \$ P D [ L P R P W K U H H \ M D L P H R H L X Y Q G H H I D Q R V Q K M U W R X X L R Q V R I K L J K F  
 F U H G L W H G W R W K H H [ S H U L H Q F H U H T X L U H P H Q W I R U S U R P R W L R  
 S U R I H V V L R Q D O Z R U N S U L R U W R K I L L H I G D V W K H V O H R V Z W H O L R P I X R I W H  
 W K B U D Q W K B W K M L R K L U Z Q I D O O S U Z R G X E W W I S H L M Y I L Q X W L W R K I W L R Q  
 L Q F O X W K B E R Q Q V L G H U D W L R Q

DERXW WKL V SRVV

‡ 7KH FDQGLGDWDIYH D UHFRUG

)RU FDQGLGDWHV VHHNLQJ SURPRWLRQ WR UDN RI IXOO SURIH  
‡ 7KFDQGPXKVDHHLJKVDRW/XFFHMVQVQVHHDFKSEJLDRQXHDLDVWLRMXWLR  
KLJKHU HGXFDWLRQ DW WKH UDN RI DVVLVWDQW SURIHVVRU  
8QLYHUVLW\ RI ODVVDFKXVHWVXV\WZHOOWWZIRHRUZXNFKI\DVVR  
‡ 7KMDUURXYDHHZIRDRQVLGHRSDVPERQ/ERQKFDQGLGDWRPISOLDVQPHQWY  
SHUIRUPDQFH ZKLOH LQ UDN DW WKH 8QLYHUVLW\ RI ODVVDF  
JLYHQ WR WKH RYHUDOO ERG\ RI ZRUN RI WKH FDQGLGDWH RY  
SURPRWLRQV RU DW SULRU LQVWLWXWLRQV

5(48,5(0(17625352027,2\$1'7(185(  
(OLJEDQGLGDH/YHWRHGWQSIUHSDEVDWYRISZLVQF,QM013FRQWZKLRW WOLQH  
WKH WHQXUH DQG SURPRWLRQ SURFHGXUH DQG WR PDNH WKHPVHO  
UHOHYDQW GHDGOLQHV WKDW DUH SDUW RI WKH SURFHVV

\$UWDF,DM013FRQVSDRFWGLGDQW KFDQGDQDWHLRZMKNHTXLUHRSUQWRWLRQ  
DQG WHQXUH %DVHG RQ WKH FRQUUDFW FRQVLGHUDWLRQ RI DFD

\* XLGHORQHOFMLQSDYDZHUV

7KHVH RXWVLGH UHYLHZHUV VKRXOG EH DILOLDWHG ZLWK LQVWL  
TXDOLW\ RI ZKLFK [FILMIGHUWPKHHWWHDSGLDUGJWRW\ RI ODVVDFKXVHWV  
WDDM SOD EDIWSURRYLQVHGHQYDLODZHU V H O R L F Q W M G W W K D W H R Q W H V D P H V W D

4XD OIH [LWHGURQYDLOH ZHUV

‡ VKREKEDGWLHYCHOLJWVGHVFLISOFLQXIPHODLWEXHPEHUV

‡ PXKVDYHFKLHYHGGW KERVXKFDWGLGLWKHURU

‡ PXVQRKVDYMHVMCHGCHQRVWFRMIGHFLGXRKQFRRIQMFZUMWKW  
FDQGLGDWH PD\ LQFOXGH EXW DUH QRW OLPLWHG WR

- o KDYMQJYDFGHQWRKDWKZKRHURGVKHFDQGLGDWHMPPALWRVQHHR  
KDYHHHQGSRWRWUDODGYLVRU
- o KDYEQQGXUWVHIGRUFKDERSDVDEVOLZRLQWKGHDQGGZGWWKHIFHSPDLRQ  
PHJDXOWLSWIKIRUHG SXEOLFDWLRQ ,QVRPHILHOGV LWPD  
UHYLHZHUV ZKR KDYH QRW FROODERUDWHG LQVRPHZD\Z  
FDWKKHFKGRBZFWGONGLVZXWKKH 2IILFH RISWIKRUBWLRPLWLQJ  
OHWWHU
- o KDYDQQSVHUVRIDPQOHDOWLRQVKLS  
KDYLQJ EHHQ D VWXGHQW RI WKH FDQGLGDWH
- o KDYDQSURIHRVLLCQCFWIDGHFDQGLGDWHIV

(;7(51\$/(/77(5352&('85(6

&DQGL3GDRVHGXUH

7KFDQGLGDWMMKSHURRYPCWZLWBEVU GFF&DUWSMUDWFC PPMWQDNK VHLWH  
EHPDLVWPHKDLUS&WVSRQLLHFRRPPEIQDGHGSUWR16HSWHLFZELUWKFH QGLGDW  
ZLOO DSSO\ IRU SURPRWLRQ DQG RU WHQXUH 7KH FDQGLGDWH V  
SRUWIROLR

‡ \$SSHQGLJFRBSOZDWNHBP

‡ \$SSHQGL[ D WKH OLVW RI WKH FDQGLGDWHV V VXJJHVWLRQV  
SHUWRQZHWWR[FOXGFRIOVRIPGBISBWHLBYLDRZMKN EDVHDSHUFHLYHG  
FRQIOLFW RI LQWHUHV

‡ DFXU&BQW

‡ DUHDVRRQDERMDPSPDFKURZBUOV VXEPMR[WLHRYDLOZHU

‡ RSWLDEODVNDWVXHQVWVHUKDQSDJRUHVHDFFRKPSOEWKPLHQWV  
VWDWHPHQW LV W\SLFDOO\ LQFRUSRUDWHG LQWR WKH UHVHD

‡ RSWLERUQDQJJHQVHUKDQSDJSHUV&RYDLOE P S D FWD WHPHQW

7KH FDQGLGDWRIDDFMWRRIW DYHFRQVZDWWKHU&YDIOHZXUJMKH HQWLUH  
SURPRDQV&RQXWRHF7KHLQDQVW[WHUHQDQZLH&VH VKZLUM&H QGLGDWH

&KDDQ'GD&URFHGXUH

7K&HDQ

(;7(51\$// (77(57,0(/,1(  
 (D U O N T X P H D V F L O L W D V Y H D U L O Y D E A U Z H E W R P M Q K O M G K V K I P V E H V D U R H Q P H D W H U  
 W K D Q W Q R W G D G W H V

0 D \	& D Q G I S G J R W G I G V S R W H C H Y I L D D Q M A K R W R H F O I X U R H W K H U H Y L H Z H U O L V W
0 L G D \	& K D L U V H R V H E H Y D U C H Z N P Q O L E V W H Y L H Z H U V
/ D V Z W H R N D \	& K D M L H U C F O Q G L G D W W U R P H D W H Z X H R O D V F F H S W H C
0 L G X Q H	, I W K H F K D L U K D V Q R W U H F H L Y H G D W C F R P P L W S H F O Q G L V G H V E R O D L G G W W H R Q E Z H U
0 L G X J X V W	& K D H L O V X D C H W H O I Q V K O N E H W G F H D Q S G D N G G L V U H Y L H Z H U V L I Q H H G H G
6 H S W H P E H U	( [ W H W G I Y O H Z H R U X V E F M K M Y D O X D Q S L & Q D L H Y L H [ W H U Q D O P D W H U L D O V D Q G F R P S O H W H
) L U V R Q G I D Q F W R I	& K D M L X E P L D W W H W E R D C L V K D W H L D F R Q W U G R W & D

7+(352027,2\$1'7(185(

6 X S S O H P H D Q W H D R D Q W B ' Q W

5 H T X L U H G

‡ \$ O D Q Q R X B I O U L R Y G L G X E W K R S I V U V P H U Q W R Q P P O G W S I D U F K P E L O G  
G H D Q L I G E D Q Q K Y D O X D Q P O F O Q W R L E R / R I J Y R W V L D R F K L F Q O J X G H  
U H D S S R L Q W P H Q W O H W W H U V

‡ 6 W X G H Y Q V X I D V R P S C H U X E G U H Y L H Q F O X G F I D Q Q R S G R H V S O J H V R I D G E V  
F R P S O H W H G H Y D D Q E D O X L R I Q Q U R Q R P H U L F D O U D W L Q J V D Q G D O O  
D J U H H Z P L H Q W 0 6 3 I D F M E T V X L D U H G Q R R V V K D U H R P Y S O U L D Q W L R Q U J E O X  
D Q G S U L Q J F D Q G L G D W H V P D \ L Q F O X G H H Y D O X D W L R Q V I U I

‡ 6 K R X O G D Q \ U H T X L U H G G R F X P H K C S D W E R I Q W E K O X P O D W E H O S D E I H D  
Z L W K D O L V W R I D Q \ P L V V L Q J L W H P V D Q G E U L H I H [ S O D Q D W L

2 S W L R Q D O

‡ 6 H Y H U D P S O M F I D Q G L B E V M I V E I O R H O B U I V

‡ 2 W K H K S S O H P R I Q W H D Q W Q L I D F D Y Q V R G E I O X W W F U D W K F D Y Q E R X I I L F L H Q W C  
H [ S U H V V H G L Q W K H L G R R V L G E W D W W R L Q H R D Q G K L G D W E G M K U R X O G K I  
W R I R V W F U L W L F D O L W H P V D Q G V K R X O G O D E H O W K H P F O H D U

‡ & 2 9 , ' S H U V I R P S D V W D W H P H Q W

7 K H U G I S L M H F O R W E F D Q G L G D W D X Q W W P D K G H H L P S R U W R Z Q W F H D Q G L G D H W H V  
D G Y L V H G W K D W U H Y L H Z H U V D U H X Q O L N H O \ W R S X W Z H L J K W R Q  
L Q G L F D W H G D E R F D Q S E F U W G I Q J O V H G W R I R F X V W K H L U H I I R U W V V  
& 9 D U H W E G G R F X J K S O H W H

& \$ 1 ' , ' \$ 7 ( 1 6 \$ 5 5 \$ 7 , 9 (

7 K H F D Q G L G D W H I V Q D U U D W L Y H V K R X O G W H O O W K H V W R U \ R I W K H L U  
L Q V W U X F W L R Q D O H I I H F W L Y H Q H V V D Q G V H U Y L F H 7 K H Q D U U D W L Y H V  
F D Q G L G D W H I V J Z B W N S C H V F F U L L Q W K H L U G L V F L S O L Q H D Q G L Q W K H X Q I  
F R Q W U L V E K K H L R R B V I D R V R Z H O C H H F R P P H Q G H G O D H Q U I D W V L R S H W K H

\$ Q H I I H F W L Y H S U D H V D H O M Q F L V Z L O P Y Q W K H W Z J R G W K H F D Q G L G D W H I V D F F I  
G L V W L F O R F O W L Y L H Z L V B I O R M Q U H H D E V H I U R W K H F D Q G L G E D V O N D I M M F W R U O H F W L Y H  
G H W D L O V W K D W I R F X V R Q W K H F D Q G L G D W H I V D F K L H Y H P H Q W V G X U L  
O D V V D F K X V H W W V / R Z H O O

7 K H Q D U U D W L Y H V K R X O G D G G U H V V H D F K R I W K H W K U H H V W D Q G D U G  
V K R X O G I R F X V R Q W K H R X W F R P H V R I W K H Z R U N L Q H D F K % R W K I R U  
D F F R P S O L V K P H Q W V P D \ E H D V V H V V H G L Q D Y D U L H W \ R I Z D \ V D Q G P D  
U H Y L H Z E F O X G L Z W H R R P I U R R W K I S W F L B O W L F I L S V I R D N M I R U M P X G G P E H D Q W G  
E R W K T X D O L W D W L Y H D Q G T X D Q W L W D W L Y H P H D V X U H V

5 ( 6 ( \$ 5 & + 6 & + 2 / \$ 5 6 + , & 5 ( \$ 7 , 9 ( \$ & 7 , 9 , 7 <

, Q W K L V V H F W L R Q R I W K H Q D U U D W L Y H W K H F D Q G L G D W H V K R X O G  
I X U W K H U H G F R Q Y H L L U D V H L O R Q V D I Q G H V W D E O L V K H G W K H L U F R P P L W P H  
L O O X N M U F F W P I S O L O K V M A Q S 9 V K F D Q G L G E R S O R Y L G H F I I S O D R E W V R Q S O L Q D  
F R Q Y H Q W L R Q V W R D O O G L Z V F R S O L C H X H R V L Q W P I U S U H W W K H L U D F F R P  
F U L W H U L D W K D W D U H P R V W L P S R U W D Q W L Q W K H F D Q G L G D W H I V I L

7 K H F D Q G L G D W H I V W K H V L P S R W W H I O F H H D R I F R K O B U D Q G F B H D D F W Y D I O U K H  
G H Y H O R S P H Q W R I W K H L U " U \$ / Q D q ( ß - É Ä y \$ ö ò • b D q ( ß - É ö G ö

W K K Í Á ` ì v \$ ú W K



,16758&7,21\$))(&7,9(1(66

,Q WKL V VHF WLRQ RI WKH QDUUDWLWHD FV KIH Q F DSK E B Q DW R B E R K W R K B G V  
8QLYHUVLW\TV LQVWUXFWLRQDO PLVVLRQ LQ DQG EHIRQG WKH FO  
UHVXOWLQJ IURP MKRHLWFDQVW E B E V B E K D E ERPSOLLVZDPAWQDQV  
FROOH D B P V GLVFLSOLQH WR XQGHUWLW S B G R W K H F W L W X H F W L L D R Q K D W  
RI VWXG\

([FHOOHQFH LQ F H Q W W D D F W R V Q K H V P L V V L R Q RI 80DVV /RZHOO DQG  
DFWLYLWLHV WKDW ERWK GLUH G X F D M D R Q D F Z B S U H F W L G H F R U D W X H V  
DFFRUGLQW 3FRQWUDFWRV D E R Q V K L H Y L F Q W U X I F M I E R Q D K R G K B G W L G H U  
WKH IXOO EUHDGWK RI WKHLU FRQWULEXWLRQV

7 K B 6 3 F R Q W 9, D P A W F G H I L L Q H W U X I F M I E R Q D K R G K B G W L G H U





6 H U Y L V I R P P X Q V X M D K E X Q F O W L P L W R H G  
‡ S D U W L R L C S P P L X R C R V D G W L G H W H R K S V H G H K F X D U H Q X O D F R C P X Q L Q V L H V  
W K H Z R U N R I W K H I D F X O W \ P H P E H U  
‡ V H U Y L Q C U I S I R C S X E O L F R S J D Q S O J H V H Q W F D S V L R O L V F  
‡ V L J Q L R L X F V O M V F L S H W I L R L U D H S G R I H F D S L R Q D O M R X W U H R F K W X D H Q G W V  
W H D F K H U V R X W U H D F K W R R W K H U F R P P X Q L W \ J U R X S V R U S X E  
‡ H Q J D J H Z R H Q K W H R P P X Q L M O L W W K I E F X C H V E H D W R D F D G R S U R I H V V L R Q D C  
H I S H U W L V H  
) D F X O V H N S L U R J P R W R K G Q R I H A K R M L S K D H [ I D ] P I S Q G L W W L Q D X E V R I S O L V K I P I Q W V  
D V E X W Q R W O L P L W H G W R  
‡ Q D W O R H O D G U R V O K L S V F L S O L Q D B I N R W L W U H A S E D G O A K U V A E S R € p f P 0 p E  
‡ O H D G H U R V O K L S P S X V  
‡ P H Q W R U I M X Q L R Z L W D F X S H R D W G H H Y H O R S P H Q W  
‡ O H D G H O V D K R S O L Y H Z L G L O M W L D W L Y H V  
‡ I R U J V L Q V W D P Q E I S V I K W Q Z I L W W K I R S P P X Q L W \

& 29, ' 03 \$ & 7 \$ 7 ( 0 ( 17 ) 25 6833 / ( 0 ( 17 \$ ) , / ( ,  
, Q H F R J G M W K I R Z D Q V K L F K H G L R U X 9 W L R O V I H H D F H X O R W M K H 3 U R Y B W W V  
F D Q G L G D W H V W R L Q F O X G H L Q V S H J H U V W X S V S O P I P G Q V R X E S D F O W L R U L D Q V U  
S D Q G H P L F D Q G L W V U H V X O W L Q J F R Q G L W L R Q V R Q W K H L U H I I R U W V L O

\$ & 29, ' V W D W L H P H M T X J D F H X O V R S W S U R Y R O P H L Q F Q X V H P H W H J L L Y W O R K H  
G H S D U F K P H L O W R W H Y W H D Z O G D O Q W K H L U V X S S O H P H Q W D O P D W H U L D O V I L

) D F X I O V G L G O G W F I R U V Y E R Z P L W D Z I L W K B R I H W K W P O S I R F O X P H Q W H I H U H Q F H  
\$ V N L Q J W K H 5 L J K W 4 X H V W L R Q V \$ S U L P H U I R U P H U L W W H Q X U H D Q G  
K W W S V Z Z Z S Q D V R U J F R Q W H Q W S Q D V V X S S O ' & 6 X S S O H P H

) R D P R U F R P S G H W F X R W K R C S R B V 9, ' R Q D F X Z R W S N O H D V M W R K R I O O R D Z L L Q U F O H  
Z K L F K L V W K H S V R L X W F H O R I Q W K B D E R Y H  
O D O L V F K W O 2 S @ Q N B R K I H Z D N H R I D & 2 D q s C

\$''(1'\$

\$,01666010 WEHPWKUH FDQGLGDWH PD\ VXEPLW DGGHQGD WR WKH SRU  
WKH PDWHULDO\$GLCHVGB \$R R X O R O E R V X E P L W W H G E \ H P D L O p R p R p R p