## APPENDIX L

 R.B. Cutler: The Flight of CE 399, Excerpts ${ }^{22}$
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Underpass Bridete．incorrectly d the $S S$ plat．男he third is the．需umber of pairs of traffic lines on Elm S\＆̊reet between theintersection with Houston Street and the ${ }^{\circ}$ Triple Underpass
 the first drawing in December 笣63：by liay 1964空 with the advent of labo pains induced 苞 by the birth of the single＝
 mental concept ${ }_{0}^{\circ}$ of the repo
AP photographe落 James Altgens bicture of the matorcede．

 and carried byopenonst，every neifis media in the wirgld immed－ 1ately after t気e sssassination（CE 900，R，11需 and Yar－ borough Exh1b1世 A．XXI，781－2）需As well as show eng a man
 doorway of the shot sequence 受n which the Reporyt＇s theses are pounded．it
 the left of theft front whe is a white tra嶪fic line； once that In⿻上丨 and the limousing were spotted o veyor＇s plat and correlated with the proper Zap 萮uder film frame，a majo $\frac{a}{a}$ plece of the assinssination puzzl
 If the SS platy is used there $1 \frac{5}{5}$ no way of making the fore－ ground object 11 ne up properl要 with those in the background． the net resul会 being that it 位 impossible to face Altgens where he said，woe was when he swapped the picture．Having
 months of 196范．the FBI made certain that eachisone of the
 delineated or ${ }_{50} 1 t s$ May 31 st plat；in this instafice it could not afford $\frac{.0}{0}$ do other role． By coordinat皆g the bade round objects in the ${ }_{2}^{2}$ en prouder film with the limousine spotted at the fifth pair of traffic lines，
 correlated with 2－255，well by y the span of inaction assoc－ lated with C

 enactment of the crime conducted by the FBI．管（Please turn next to the 息aption and explanatory notes accompanying CE 900）


 879．and 89\％（XVII，899．900 has many shadow figures watch－
 instant of the first shot．管his display give空 the impression

 This exhibit is pag需 113 of the Repo号t．The reader my easily check how carefully the FBI wont about establish－ ingrothe facts of the assassination ba comparing the actual with the re－enactmen＇facsimile＇ind the following dey ails：
 right of the Flower crotch of the＇large oak tres．
3．Left front whee i＇s vertical allofnment with this same crotch．
3．Vertical relationship of any of the three occupants of the right op de of the limousine，left in the pictures，withe the corners and Faces of the cone crete pylon ing．the background．©
Amount of one of the TSBD＇sentrance columns visible to the 1 mediate right of the 笑lon．
Theron item that does appear to be reasonably correct is
 when 1 ：this is small e solace when the 畐ert rear wheel 9 verflical relationship with the TSBD＇in decorative screw Anwall $^{\circ}$ is studied．Obviously．with a much Forger amount of the limousine＇s plath showing $1 n$ the Altgens＇photo，the pe－ enactment car，che＇Queen Mary＇．is ret heading in precisely the The disturbing colt about dhs error the the limousine of twos of the President＇s head．It must be assumed that $\mathrm{Z}-313$ is the only position close to ping correct：the other thirteen are too far north，too close to the TSND． Coupled with the fac\＆that Altgens writ actually further dow面ill alongside E Em Street＇s southeurb than the Fe photographer，this efror in plotting 尊he limousine＇s 害ctual leftiturn and subsequent curving pathsfilows greater fanti－ tide in the so－calle $\overline{5}$ impossibility of being able to shoot through the upper brefnches of the＇la gee oak tree＇at？ The actual travel－lige positions the president in the $\pi$ larger part of the $V$ scraped opening ip the branches（ ${ }_{\mathrm{F}}^{\mathrm{p}}$ ，101）：
 the $\underset{\sim}{2} B I$ and the Commission on the Single－Bullet Theory

 in a logic㿽，straightforward manner．Howere it is in－ portant to $\stackrel{\circ}{\circ}$ note that not one
 In the fife 登en volumes of her airings and only which is tie inaccurate，wo
 cast on the with whichothe commas on woutur

 the same paige．is almost 1diegtical except that an＇a＇in
 photographers．Zapruder，Mựhnore and Nix hate been added． The third 告d last is part．
 by Philip
 on a wall 要
 but most 0 号 Main Street and en have been cit out．Having

 basic fact of the assassination at hand on g can only
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0 GIy $\forall$ ygit VID conjecture why the Commissin chose to usemt so springly．
 ten thousand words；it is．융ndeed on excellont vehicle for
 as it per慜ins to the flightpath possibiligles of CE 399．

 In Januar 1968 the writer obtained a printo from West＇s






 was made，药ogether with the Depositary ${ }^{\circ}$ ．


 trict Atterney Jim Garriso会。 The curio




so-named because it is 需he only publishe plat of the origin\%1 drawn by the Dillas County Surveyor from which
 becoming CE 882. CE883. Whart of Shaneyfent Exh1bit No. 25 as well as the writer's 'al print..... rote the patch. the inget and the woin annocting pipe apong the northside ECm Street cudb..... th words 'stgeet light' are west o the streetrilight sympol.... Depositary has not yet been correcteda. cne rertical ang dial diagram and its acecompanying tifble of el votions, the contour ines In Elmentreet and gotmicol. il diagram were omitted and the notes accompanying West's signature relocated toog create better composition for the page in Thompson's book. 会, the Zapruder frame numbers went also reletteree enlarged for clarity... on. the writer's print was kindly in iturnished by Richard spisague, a researcep in New York: from shorles After The dact' same, whose original came notations 'Nan Castellanoin Los Angeles who made the
 and 'spdewalk' during her research of the first shot..... this isas close as ons can get to the original after rive ygars has elapsed


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the picture wis published in the December 22－28；issue of the Los Angeles F riding by in 召 convertible wa suivible，and thex efore shoot－ able，from thts well－hidden and escapable snlper＇s nest． One need only 0 consider the mul iduninous chances against a successful as㻥ssination to arwive at the logia of having as many guns $\frac{\pi}{0}$ gt the ready as phsible in order，forestall fallure．Sho登d the above－grojind riflemen misisi their mark． it could well ${ }^{3}$ be that the most $\begin{gathered}\text { 彩 } y \text {－underground pistolman，held }\end{gathered}$ in reserve rot just such an emễrgency，could entecute the

 only if one refuses to think a尊 a conspirator． | a |
| :---: |



The major var駼tions between the SS and FBI plats are con－ sistent with 努he minor discrep完ncies．The Tho 突hton roadsign． the first enc馬untered along EIm Street，sets atiquite a dif－ ferent angle.$\frac{\operatorname{mn}}{\Sigma}$ the $S S$ pirour In the FBI＇si．©
 the patch ares ot shown at all．In the SS plat ©


 tors that a billet scarred they sidewalk in thi vicinity． By including physical fact 15 one drawing anctig excluding
 of the eradication of yet another，unreported bullet scar． this one on．Ehe roadway pavement． The ridiculo露 side of this whole performance mission is tere the inlet on 要he northside of exists aboutöten feet uph1ll 芜rom the souther
 1968．Had tipe Commission chosion to publish macce frames

 other five，号reviously mentioned．in order to protect the


 so clumsy．so puerile that it Granted the 苐范orm－sewer theory is specualtion：－1t has more verisimilitude than the omulssion ons eliminati：of physical


In concludinge this examinatiom of the basic dato available for plotting the illghtpath $1: \frac{0}{9}$ is pertinent toinnote two errors on Theignson＇s plat whie CE 882． $\qquad$
When numbering the contour lines on Elm Street man lettered ${ }^{\text {M }} 26$ on line 424 需ereby making two $426^{\prime}$ s． one where it Es $_{\text {E }}$ at $Z-168$ and ag well as omitting 424 completer This minor chemical error． similar to the＇a＇in＇Depositary＇，could only気e construed
 these roadwayöcontours．The 宏reet profile，仙 the diagram， upper right．空hows a smooth，depmhill slope，wifi indeed
 affected by t苟e lack of elevatotion 424．00． The other error the height of the President＇sthead above the pavement，$\frac{A_{a}}{}$ so shown in the road profile diagram，is quite anotherumatter．The 170 to CE 399＇s flightpath traversing the President originates in the table of Elevations of his head．when juxtaposed with the proper roc ${ }^{\circ}$ way elevations，yields an average height of 40＂for this E．© scaling the point from theorionn plat and lealcates a clear misunde ${ }_{6}^{6}$ standing ot human nopportions．
A normal person，sitting casug
 that the lima kine＇s adjustable rear seat was ${ }_{y}^{c}$ n the full
 the upper hal of the range．．．．When an estimate范 $10^{\prime \prime}-12^{\prime \prime}$ is added as the reasonable dimension for the l品mousine＇s
floor over the pavement．it cheating be ascertained
 above the Ell Street roadway．While the acturd difference in the resulting correction ab the angles at 186 and $2-234$ only lessens 㝕he declination 亭 half a degree 慗 accentuates the monument会 lack of concer息with which the 品urder of the
 term．

 readily be ascertained d After all th tons of the
 the incorrecét height and the © lear indicationoor a sharper left turn rex Houston Stree onto Elm than the FBI assumed． the 11 mousing＇s curved trave $\frac{5_{0}^{5}}{5}$ line remains the starting point for the tests that fol 亭 far are miniogcule alongside that preposterousoñantasy of one ancient（19感）bullet causing seven wounds in two men and subsequently being＇hui＇three hies from the scene of the crime．virtually unscathed．

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time to aim 嗱 fire with any 祭ope for successai
 ferent betwee号 1230， 22 Novem花r 1963．and 060 1964．the dat of the re－enactyent．This difference is clearly shownöby comparing the wind whown lower of the tree 㷰ross Elm Street in the Zapruderafilm，with
 re－enactment，萝hotos（CE 892 triftough 8．XVIII，歌－91）。

 the May 1964 宮ictures．Surel房 the top branches of the ＇large oak trexe＇would be eve合g more subject tonwind－motion than the lowex branches of a 突ighboring tree 亭解d hence
 the re－enoctiant photos show some motion of the too branches，eve总 on that galim，liay morning；Z－18登 is a good place to stare the tests．
 Critics have 我oiced the opinion that the firstot shot that
 have，which 會 1 tself tends ti＂make one almostricertain that it Aid．


shot was fire is is coincident ${ }^{2} 1$ th $Z=202$ ．It Es，there－ fore，more the if pertinent to examine $Z-198$ ，a giant quarter－

$Z=210$ is chosen because the Report states that this is the first．frame at which the assaying could have opened fire

 test in that 晏he President＇s forehead is all t

 no other reason than to check 空he Reports preps． $\mathrm{Z}-225$ is also ${ }^{2}$ considered important by the Reno because
 visible as he femerges from behind the roadsigns It is obvious that 嵅 has been hit and the question how is：has
 yawed and aged into the Governor back yet？$\stackrel{\rightharpoonup}{0}$ The Report
 Z－234 is the governor＇s frame：－in the 26 November 1966 issue of ines he indicates that he was not hit until then． If the Governing is correct about $\mathrm{Z}-234$ ，and it

 $45 \stackrel{\text { ت }}{\square}$

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 In front of the main entrance which is centered below the second $p$ ir oi windows
5. Elm Stree originally continued straight o ones part of the Da $\frac{5 l a s ~ g r i d ~ p a t t e r n o ̃ i s t r e e t ~ l a y o u t . ~ W h e n ~ t h e ~}{0}$ Triple Underpass was bullteselm street was carved, as was commegige street, to go under the rallrgad together with Main $\stackrel{\circ}{\circ}$ This left a sigil section of en street which now to the west of the TSBD.
6. The traff究 1 light shown once 585 , and street light

 to make Et. scape architects ansi ned it in il 1940 .
 Elm Street, corrected from its position shogun on CE 585.
8. The grass, knoll, up which gentle lagidscaped slope between the curvingestreet and

 off the phat to the left.


 motorcyc管 cops－I guessothey left thelr 呙otorcycles
 course，需 the IIne of shoting．I guess 变hey thought
 Was to tre left and in front of Zapruder：जुbehind him indic高tes activity inctict vicinity of 屈he stockade fence：thys is where most．

 where the 茾Stemmons roadsi憲 interferes matorially with



 on a competely windiess mornifs until Z－2． 0 ：beyond that poin程 CE 399 soars over the branch－tots，unmolested．
12．The FBI＇$\frac{\text { se }}{5}$ rourteen presidential head posithons are
 Ine of the center of the 号imousine indicating its
 is drawn tangent to the dixhed curve at the test points

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己
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16．The northay arrow and scaleãare orsually inchinded or any plat：the page is ghproximately elgyty feet to the 受ch．A good check care be obtained by gealing the knowgicurb to
 Z－255．
17．The enlaty detail planzor the＇nest＇，yeper right
 of sill 势d window openin薷 shom in variow CE＇s．
 joints．愛he plan＇s accuracy was checked 豝 a fellow－

 found to 炭e an inch and a othalf．which is liess than the width of a pencil line drawn on this 菅范ge．Were another depaftsman todelimontputhe plan thenre would be differences amoun ing to inghes here ara there but


18．The numberys preceded by 9 㷅lus sign indica貫e the heights objects above the sixth floor feoring． Of note 等 the 59－1nch he 坒ht of a few oper flaps on the top of the 54－inch pi总s of boxes whic若 can scarce－ ly be cortrued as effect受ely hiding a 69Einch rifleman．
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19．When the examined using a live ma苞，it soon become clear that the phys＜compat＞ᄋ＜compat＞ᅮ＜compat＞ᄋ cal limitations． rapid rico only the head and shoulders of the rifleman are in－ dicated 突 It it is assumed that he is knelling on

 will now fit into the notmhuman configuration of the boxes a宽arranged．This case in the FBI re－enactenent．The boxeswere cleared away to 号make room not on s for photograph bis but also
 of the Etand－in for the him to 等neel and follow 焉he target comfortably．
 rest bo氣es but setting on the seat box，家he rifleman＇s
 target $\frac{W_{s}}{\omega^{3}}$ cut off by the window sill．T僢e standing position is equally inter which hr g must aim and rice is framed bel造 by the wood widow sill． $16^{\prime \prime}$ o

 dicate登that the assess in is a midget．a

 obstacle 产in scoring two 节ullseyes out of 㚭hree shots



 would be 管ufficient to thfow his aim off 解rget．
20．The proper relationship between the $40.2-$ Hanch rifle
 into focuid in this scale frawing．With the assassin


 mission＇sitistar witness，who was directly ageross both Elm Stree from the findow，sigting on a Fow wall．
 that he s感w 70 to 8 swercent 0 the gun when it was fired andent body of the from the waleit up．＇ （ 3.63 ）
 the most ${ }^{\circ} 1 \mathrm{fflcult}$ shot sofne hunters encoufter is
 will sta缶 their quarry until it is either arevel with or above 管heir line of fig berore moving 总 for the EORGIA LIBR
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k111．T Te angles of decifnation， 17 and 2.5 degrees

 to mitigte against two perfect shots and one miss in less thaid six seconds．
 rays，whitch at half－aftertwelve，the prealise hour of the a黄sassination，had
 flightpa菅h．while it is 柋rue some hunters experience very 11 t盆le trouble with 気he sun＇s slare and glint in the whde，open spaces of precious rew hace the in－ timate kowledge of the 离离ficulties attendant upon


 would be of eight等 degrees fis far supfion to the nest，whe堅e the hunter wouru nate to squin $\frac{1}{0}$ into the
 barricados．the non－functionel helghts of ethe boxes



all hinde裔ing，rather thancomplimenting the efforts of someone shooting with tare intent to kil禺。 It may well be this is the place 葡here the shot we w rived that miss寄d the 11 mousine scarred the lm street，




 the assas㽞in which the Confession would no ty the world bel
24．When a wo， 11 －be assassin considers his owrypost－
 amental sere：escape．Then only route is is distance

 stair．$\frac{A}{4} 1$ three are in the northwest coiner of the
 the nest on
25．The possibility of an acc惑s hatch through the sixth floor into the top of the Ep passenger elevation shaft． which ha fits last stop of the fifth floor has not been men 劳
 feet nor of the nest：C离 photographs show boxes


 nẹarer
 D11lard on $p .6 \frac{0}{0}$ of the Report．运This is the wes范rly，left－ hand wiAh of the fiftho pair counting ffom Houston Street：矣，can be readil芴 ascertained DyCexamining the TSBE plan on the plo爱，a flightpath From this
 tree＇b哀苞 about $\mathrm{Z}=180$ ．

27．From either nest the pas然enger elevator，岸ccessible
 stairwa conspirfer．Gaf nilg access For the groug floor
 would orffy have to brazenly mingle with 侖e confused
 posite gorner，to become The sumpintion of these 1 路bilities far outweighs any
 premise that this crampe腎，uncomfortable 需pace was

someone $t$
by making
苞

$\qquad$ dirty wort who live to besinired as require and who must cont Bually chortle $\frac{\text { 会 }}{}$ the ease with inich their difficult命会ission was acco䯨plished．
28．The enlarged，detoil plan the limousine 10 合 left cornẹ⿸厂犬 is is drawn fromionformation on the pub－
 This is peinted on the same page with a siular draw－
 In the inferior spaces of 甪he two automobites is im－
 and the REport．There is $\$_{0}^{2} 1 / 2^{\prime \prime}$ less space between the Presidgent and the Gove范nor and they si to the ce葡ter travel－line＇because of the＂queen＇s＇ narrower find shallowe back sente．The jume are entirfiny dirrefen $\quad \sqrt{\text { Th }}$ are much $\frac{\text { E．}}{\omega}$ gher ofr te pavementif higher abofve the door and the seats form aiPalmost continuou苞 bench across the car．This allogned a wider
 been avai叙ble and was a lörge factor in metuing the re－silneménits a ppear corre 烒t．（CE 903．XVI要，96）
29．The anglevor the shoulders気and the directiog of the
 the sixth in loon nest rout hive in the limousin on aim
 manship a

 angles with this well were 荡not considered
this stun but are inclu $52^{\circ} 40^{\circ}$ \％े $Z-198=51^{\circ} 45^{\circ}$ lineations w111 produce 気ther figures fonthese and other me．surements but n気ne should be so 等ar removed from the writer＇s to war 荷nt responsible consideration of the 等ngle－Bullet The
31．The tes皆fllghtpaths arejin plan only：lowing down from above，a bird＇s－eyewview，for the following basic reason．${ }^{\circ}$ The variables encountered in at exempting to state，克品 example，the 苞recise relationtinip between
 the Pre曾ident＇s tie to 䮖e bullet＇s point of entry
 were in int in mountable．There are too many cuman－ elementonevaluations ana phys 等al variables to pin this dimension down to the ${ }^{\text {Fist }}$ unchalleagable fac－ tion of Eू，inch．Hance only No the upsiand downs，the yow in the vertices plane，of CE 399 营 flightpath．Th急 horizontal var． changes oil direction in ． sufficient unto themselves as indication．
 vagaries will be held $1 n$ reserve should 薄e dark．

The rod depicifing the approxi骂tely 170 vertictil angle of CE 399＇s ryightpath is carerully posed parallel to a clotheslines strung along the wall and a corpetly－ tilted transit telescope．Thts alinement is supposed to show how 受e bullet woundeq the President 究 the neck and throat ar men hit the Gevernor in the bosk．The horizontal arefle between thes alleged points bin the flightpath，seen only by look第名 strelght downinto the ilmousine．what not allow this triple hit．
 $\mathrm{Z}-186$ throught $\mathrm{Z}-210$ ．Igss the wavigg right hanj which of course woupd have polled the oftcure．secondly，the Governor＇s sthond－in is s dmping orinin 2－238 thyough Z -246 which 1 well arken the Govephor was hit．${ }^{2}$ Thirdiy． the Governor 篤imself statad that was looking＇a littile bit to the leqt，of center＇when he was hit（Lise，November 25．1966．p．$\left.\frac{4}{3} 1\right)$ ；scarcely the：position of theustand－in who is looking about $120^{\circ}$ to ge right of centar．Finally． the rod can seen to be wel？this side of thí first two wounds and must terminate on the far side of the third which was neri the Governor＇s．might armpit．The actual． alinement of Phese three wounds．so fundamentaf to the Report，will ge seen in the tefot flightpaths tog rollow． Once again the tender，loving eare with which the FBI and the Comm室sion treat any aspect of the Sini Theory is so far removed from the truth that 1 makes a mockery notyonly of this exhbit but also of Ethe entire investigation into the racts 感irrounding the aEsasination．

or individual.

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creeping er shadow of doubt ixppear for one 1 distant to be in neg of further intensification．
 Enough of digression；these 黄irty－one considErations aside．this
 sixth－floor．${ }_{\text {I．}}^{\text {I．}}$ southeasterly w point for th er right of CE 3 息 and the five test flight－ paths constitute a careful a which is the 䓡one that fits the Report＇s report Men the actions of
ןenp！＾！pu！do uo！ım！！eu y nor the words on it may be：reproduced in any form；used by an unauthorized person；or placed in the collections of any

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TEST Z-1.98
The Presidentois still

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## TEST Z-210

 The Stemmons roadsign blanks out the 11 mousine ${ }^{\circ}$ 's seating section in this test. Mepositiongng of the Pesident and the Goveanor is thereby rendered impossible as only the top of the former's head is visible and the latter disappeared ${ }_{4}$ n the preceeding frame....no chawge is made in either man from Test Z-19.\%....
The travel-Rine/filghtpath angle has diminisk㐾d to $11030^{\circ}$ and presento CE 399 with the deasiest $21 g$ and gag of all the tests.. inhowever, the yafig maximized ing that the change in elevation must be pecomplished in the minimum
 beyond the reasonable limits nof how a bullet could, wouldor should perform....

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## TEST Z－225

 difficulty igin introduced intogthe pattern of ehe flight－ path．．．．the Fresident．in batyely reacting＂ter his having been hit is 哭1sing both hands to his throat．a oth1s complicates 6if $399^{\prime} s$ work in that the autopsy．Pakes no mention of hefid wounds
The Governor：
falled to glempse the Pr sident orte of his right eye． the President has swayed slightly Norward and to his left making the lateral $21 g-y a w-z a g$ aistance about as in $\mathrm{Z}=186$ ．．．．
 close enough to admit of a single－bullet theory had the Governor susgined a puncturecof his left lungo rather than being＇解t by a bullet whion entered the sextreme right side o $\frac{\rho_{0}}{0}$ his back＇．．．．．．
The difficul気y of negotiatinge a clear passage．\＃ुetween the President：s clutching fingers is now added to the impossible．Contorted configutation of the fl築htpath．

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The Presidendirs hands are nowecioser about his throat and he has leaneg further forwardand to his leftyo. the Gover nor has turned slightly beyond the left of cerater where 'he felt something strike himin the back'... © this last
 efforts ind the asset of the minimum travel ${ }^{2}$ indine/inightpath angle. $3^{\circ} 20^{\circ}$, more than offset by the liability of the maximum ciateral distance Gcross the limou然ne.....


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[^1]:    48. 
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