## LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY SPECIAL MEETING OF THE MTA BOARD TO CONDUCT PUBLIC HEARING

REPORTER'S TRANSCRIPT OF PROCEEDINGS

THURSDAY, MAY 17, 2012 1:46 P.M.

METRO ONE GATEWAY PLAZA 3RD FLOOR BOARDROOM LOS ANGELES, CALIFORNIA 90012

PUBLIC HEARING

REPORTER: MARCIA S. MC ENTEE

CSR NO. 13399

## 1 APPEARANCES:

2	BOARD MEMBERS:
3	
4	ANTONIO VILLARAIGOSA, CHAIR MICHAEL ANTONOVICH, 1ST VICE CHAIR
5	JOHN FASANA JOSE HUIZAR
6	RICHARD KATZ ARA J. NAJARIAN
7	PAM O'CONNOR ZEV YAROSLAVSKY
8	KIMBERLY YU
9	
10	MTA OFFICIALS:
11	ARTHUR T. LEAHY, CHIEF EXECUTIVE OFFICER MICHELE JACKSON, BOARD SECRETARY CHARLES SAFER COUNTY COUNCEL
12	CHARLES SAFER, COUNTY COUNSEL MICHELE CHAU, BOARD SPECIALIST COLLETTE LANGSTON, BOARD SPECIALIST
13	COLLETTE LANGSTON, BOARD SPECIALIST
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1 APPEARANCES:

2 COUNSEL: 3 FOR BEVERLY HILLS: 4 CITY OF BEVERLY HILLS BY: LAURENCE S. WIENER, ESQ. 5 455 NORTH REXFORD DRIVE BEVERLY HILLS, CALIFORNIA 90210 6 310-285-1000 7 8 HILL, FARRER & BURRILL LLP BY: KEVIN H. BROGAN, ESQ. 9 300 SOUTH GRAND AVENUE 37TH FLOOR LOS ANGELES, CALIFORNIA 90071-3109 10 213-620-0460 11 12 GILCHRIST & RUTTER PC BY: ROBERT I. MC MURRY, ESQ. 1299 OCEAN AVENUE 13 SUITE 900 SANTA MONICA, CALIFORNIA 90401 14 310-393-4000 15 16 FOR LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY: 17 LOS ANGELES COUNTY OFFICE OF COUNTY COUNSEL 18 BY: MR. CHARLES SAFER, ESQ. 19 ONE GATEWAY PLAZA LOS ANGELES, CALIFORNIA 90012 213-922-2523 20 21 BEFORE HEARING OFFICER RICHARD E. DROOYAN, ESQ. 2.2 23 MUNGER, TOLLES & OLSON 335 SOUTH GRAND AVENUE 24 35TH FLOOR LOS ANGELES, CALIFORNIA 90017 25 213-683-9100

1	I N D E X		
2	CITY'S WITNESS	EXAMINAI	ION
3		19	
4	PHILIP BUCHIARELLI BY MR. BROGAN	19	
5	ELDON GATH BY MR. BROGAN	41	
6	MILES KENNEY	55	
7	BY MR. BROGAN	55	
8	ROY SHLEMON, ON VIDEOTAPE - ADMITTED AS EXHIBIT	97	
9	TIM BURESH BY MR. BROGAN	105	
10			
11	SUBODH MEDEHKAR, BY MR. MC MURRY	137	1
12			
13			
14			
15	ΕΧΗΙΒΙΤΟ		
16	(EXHIBITS WERE RETAINED BY HEARING	OFFICER.	)
17	CITY DESCRIPTION	ID'D	ADMT ' D
18	BOOKLETS WITH RESUMES AND POWER POINTS	17	17
19	OF EACH WITNESS IN HEARING		
20	VIDEOTAPE OF DR. SHLEMON	97	97
21			
22			
23			
24			
25			

1	INDEX (CONTINUED)		
2		a	
3	PROPOSED EXHIBIT		
4	(PROPOSED EXHIBITS REQUESTED TO BE INCLUDED I WERE RETAINED BY HEARING OFFICER AND/OR COU NOT MARKED.)		
5	METRO		
6	DESCRIPTION	PAGE	LINE
7	CERTIFICATE AND ATTACHED CD'S OF VARIOUS REPORTS, STUDIES, SUMMARIES, RESPONSES	9	3
8	2011-2012		
9	CITY OF BEVERLY HILLS		
10	DESCRIPTION	PAGE	LINE
11	"HAZARD ASSESSMENT STUDY WESTSIDE SUBWAY EXTENSION" ARTICLE, 2/7/12, AND	138	14
12			
13 14	EXPOSITORY DOCUMENT EXPLAINING CERTAIN POTENTIAL ALIGNMENTS AND DIAGRAMS	150	16
15	RESUME OF DR. MEDHEKAR	150	16
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

1 LOS ANGELES, CALIFORNIA MAY 17, 2012 2 1:46 P.M. -0-3 4 CHAIR VILLARAIGOSA: ON BEHALF OF THE MTA BOARD, 5 б I'D LIKE TO WELCOME THE CITY OF BEVERLY HILLS TO THIS 7 HEARING. 8 THIS HEARING IS BEING HELD PURSUANT TO CALIFORNIA 9 PUBLIC UTILITY CODE SECTION 30639 AT THE REQUEST OF THE CITY OF BEVERLY HILLS. IN RELATION TO THE GROUND RULES, 10 THE HEARING IS SCHEDULED BETWEEN 1:30 AND 5:00 P.M., 11 12 WE WILL ADJOURN THIS HEARING AT 5:00 P.M. 13 THE PURPOSE OF THIS HEARING IS NOT TO DETERMINE THE BEST LOCATION FOR THE CENTURY CITY STATION OF THE 14 15 WESTSIDE SUBWAY EXTENSION PROJECT. RATHER, THE SOLE 16 PURPOSE OF THIS HEARING IS TO GIVE THE CITY OF BEVERLY HILLS AND THE METROPOLITAN TRANSIT AUTHORITY AN 17 OPPORTUNITY TO PRESENT EVIDENCE IN THE FORM OF TESTIMONY 18 AND/OR EXHIBITS REGARDING THE REASONABLENESS OF THE 19 20 PROPOSED CONSTELLATION STATION AND TUNNEL ALIGNMENT UNDER 21 BEVERLY HILLS HIGH SCHOOL. THE BOARD WILL NOT BE MAKING ANY DECISIONS TODAY 22 23 REGARDING THE LOCATION OF THE CENTURY CITY STATION AND TUNNEL ALIGNMENT. A DECISION BY THE BOARD ON THE LOCATION 24

OF THE CENTURY CITY STATION AND TUNNELS MAY BE MADE AT THE

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1 NEXT BOARD MEETING ON MAY 24TH OR SOMETIME THEREAFTER. 2 BEFORE MAKING THESE DECISIONS, THE BOARD WILL CONSIDER ALL RELEVANT INFORMATION INCLUDING THE EVIDENCE PRESENTED 3 4 TODAY. I WILL NOW TURN THE HEARING OVER TO 5 6 RICHARD DROOYAN, AN ATTORNEY IN THE FIRM OF MUNGER, TOLLES 7 & OLSON IN LOS ANGELES, WHO WILL CONDUCT THE HEARING. 8 MR. DROOYAN, PLEASE PROCEED. 9 HEARING OFFICER DROOYAN: THANK YOU, MR. MAYOR. 10 GOOD AFTERNOON, LADIES AND GENTLEMEN. CHAIR VILLARAIGOSA: WAIT. YOU'RE GOT TO TURN 11 12 THAT ON. HEARING OFFICER DROOYAN: AM I ON? THANK YOU. 13 CAN YOU HEAR ME? 14 15 GOOD AFTERNOON. 16 LET ME JUST INTRODUCE MYSELF. MY NAME IS RICHARD DROOYAN. I'M GOING TO SERVE AS THE HEARING 17 OFFICER TODAY. MY ROLE IS TO FACILITATE THE HEARING. 18 I WILL NOT BE MAKING ANY DECISIONS. I WILL NOT BE MAKING 19 20 ANY SUBSTANTIVE DECISIONS. 21 IF THERE ARE ANY SUBSTANTIVE DECISIONS THAT NEED 22 TO BE MADE TODAY -- AND I'M NOT SURE THERE WILL BE --THOSE WILL BE MADE BY THE BOARD. SO MY ROLE IS REALLY A 23 FACILITATOR IN THIS PROCEEDING. 24 25 FIRST OF ALL, LET ME ASK: WHO'S GOING TO BE

1 REPRESENTING CITY OF BEVERLY HILLS IN THIS PROCEEDING? 2 MR. LARRY WIENER: MR. HEARING OFFICER, MY NAME IS LARRY WIENER. I'M THE CITY ATTORNEY FOR THE CITY OF 3 4 BEVERLY HILLS. WE WILL HAVE MYSELF MAKING SOME BRIEF INTRODUCTORY COMMENTS, AND PRESENTING EVIDENCE WILL BE 5 6 MR. KEVIN BROGAN AND MR. ROBERT MC MURRY. 7 HEARING OFFICER DROOYAN: LET ME GET YOUR NAMES 8 AGAIN. MR. WIENER? 9 MR. WIENER: LARRY WIENER. MR. BROGAN: BROGAN, B-R-O-G-A-N. 10 MR. MC MURRY: MC MURRY, M-C-M-U-R-R-Y. 11 HEARING OFFICER DROOYAN: THANK YOU. 12 13 AND WHO WILL BE REPRESENTING THE MTA TODAY? 14 MR. SAFER: CHARLES SAFER, ASSISTANT COUNTY 15 COUNSEL. 16 HEARING OFFICER DROOYAN: MR. WIENER AND MR. SAFER, LET ME FIRST START BY ASKING HOW YOU WANT TO 17 PROCEED. SHOULD WE HAVE THE MTA SIMPLY SUBMIT ITS 18 EVIDENCE AND ITS PROPOSAL AND THEN HAVE THE CITY OF 19 20 BEVERLY HILLS PROCEED? THAT SEEMS TO ME TO BE THE LOGICAL 21 WAY TO DO IT. AND THAT BASICALLY GIVES THE CITY OF 22 BEVERLY HILLS A MAXIMUM AMOUNT OF TIME TO MAKE ITS 23 PRESENTATION. MR. WIENER: WE ARE FINE WITH THAT. THANK YOU. 24 25 HEARING OFFICER DROOYAN: MR. SAFER, DO YOU WANT

1 TO MAKE THE PRESENTATION ON BEHALF OF THE MTA AND EXPLAIN 2 WHAT EVIDENCE THE MTA IS GOING TO BE SUBMITTING? MR. SAFER: YES. WHAT I WAS GOING TO DO, 3 4 MR. DROOYAN, IS I REQUESTED THAT A CERTIFICATE WHICH WILL BE PASSED OUT TO THE BOARD MEMBERS AND TO COUNSEL FOR 5 6 BEVERLY HILLS -- I WOULD LIKE THAT THE CERTIFICATE AND THE 7 ATTACHED CD BE COLLECTIVELY MARKED AS EXHIBIT 1 FOR 8 IDENTIFICATION AND OFFER THEM INTO EVIDENCE. 9 THESE CD'S CONTAIN THE EVIDENCE THAT MTA IS RELYING UPON TO SUPPORT THE REASONABLENESS OF THE LOCATION 10 OF THE CONSTELLATION STATION AND TUNNELS UNDER BEVERLY 11 HILLS SCHOOL. THE PROPOSAL IS THE SAME PROPOSAL THAT HAS 12 BEEN BEFORE THE BOARD PREVIOUSLY. 13 HEARING OFFICER DROOYAN: YOU'VE PROVIDED THIS 14 15 EVIDENCE TO THE CITY OF BEVERLY HILLS? 16 MR. SAFER: YEAH. IT'S -- THEY ARE AWARE OF THE PROPOSALS. IN FACT, THAT'S WHY WE'RE HERE TODAY, BECAUSE 17 THEY ARE QUESTIONING THE REASONABLENESS OF THAT PROPOSAL. 18 19 AND THE CD'S ARE BEING DISTRIBUTED NOW. HEARING OFFICER DROOYAN: BEFORE -- MR. WIENER, 20 21 ONE THING, LET ME --22 I KNOW WE HAVE MANY REQUESTS TO SPEAK AT PUBLIC 23 COMMENT. MY UNDERSTANDING IS THE PUBLIC COMMENT WILL BE AFTER THE CONCLUSION OF THE HEARING. IS THAT CORRECT, 24

25 MR. SAFER?

1 MR. SAFER: THAT'S CORRECT. THE HEARING IS FOR 2 PURPOSES OF BEVERLY HILLS TO PUT ON ITS EVIDENCE AND MTA 3 TO PUT ON ITS EVIDENCE REGARDING THE REASONABLENESS OF THE 4 PROPOSED LOCATION. AFTER THAT'S -- AFTER BOTH SIDES 5 CONCLUDE, THE HEARING CAN BE CLOSED, AND THEN THE PUBLIC 6 CAN MAKE THEIR COMMENTS AS THEY WOULD AT A SPECIAL MEETING 7 AT THE BOARD UNDER THE BROWN ACT.

8 HEARING OFFICER DROOYAN: OKAY. THANK YOU.9 MR. WIENER.

10 MR. WIENER: JUST FOR THE RECORD, WE DID JUST NOW 11 RECEIVE THESE CD'S. WE DON'T KNOW WHAT THE CONTENT IS OF 12 THE CD'S, AND WE DO NOT HAVE AN ABILITY TO PLAY THE CD'S 13 HERE AT THE HEARING.

HEARING OFFICER DROOYAN: MR. SAFER, DO YOU WANT 14 15 TO ELABORATE ON WHAT IS IN THE CD'S AND WHAT INFORMATION 16 HAS PREVIOUSLY BEEN PROVIDED TO THE CITY OF BEVERLY HILLS? MR. SAFER: MOST OF THE ITEMS -- I WILL READ 17 THROUGH A LIST OF THE DOCUMENTS THAT ARE ON THE CD'S. 18 19 MOST OF THEM HAVE BEEN PUBLIC FOR QUITE AWHILE. 20 WE HAVE THE WESTSIDE SUBWAY EXTENSION FEIS/FEIR 21 INCLUDING THE APPENDICES. THERE IS THE PRELIMINARY 22 GEOTECHNICAL ENVIRONMENTAL REPORT OF DECEMBER 2011. 23 THERE'S THE CENTURY CITY T.O.D. AND WALK ACCESS STUDY FROM FEBRUARY 2012; THE CENTURY CITY FAULT INVESTIGATION 24 25 REPORT, NOVEMBER 2011, INCLUDING THE EXECUTIVE SUMMARY.

THERE'S THE CENTURY CITY AREA TUNNELING SAFETY REPORT FROM
 NOVEMBER 2011, INCLUDING THE EXECUTIVE SUMMARY FROM
 OCTOBER 19TH, 2011.

4 THERE'S ALSO THE BUILDING AND ADJACENT STRUCTURE 5 PROTECTION REPORT DATED FEBRUARY 15, 2011; THE PRELIMINARY 6 REVIEW COMMENTS; THE CENTURY CITY AREA FAULT INVESTIGATION 7 REPORT; WESTSIDE SUBWAY EXTENSION PROJECT CENTURY CITY AND 8 BEVERLY HILLS, SHANNON & WILSON, MARCH 8TH, 2012; THERE'S 9 MTA'S RESPONSE TO THE LEIGHTON CONSULTING REPORT. IT'S 10 DATED MAY 14TH, 2012.

11 THERE'S THE CENTURY CITY AREA TUNNEL SAFETY AND 12 FAULT INVESTIGATIONS DATED OCTOBER 14TH, 2011. THERE'S 13 THE RESPONSE TO HAZARDOUS ASSESSMENT STUDY BY EXPONENT 14 DATED APRIL 4, 2012; THE RESPONSE TO PRELIMINARY REVIEW 15 COMMENTS OF CENTURY CITY AREA FAULT INVESTIGATION BY 16 SHANNON WILSON DATED APRIL 17TH, 2012.

THERE'S THE REPORT OF INDEPENDENT REVIEW PANEL 17 DATED OCTOBER 19TH, 2012; VIDEOS OF METRO PLANNING AND 18 PROGRAMMING COMMITTEE FROM OCTOBER 19TH. AND THERE'S A 19 20 RESPONSE TO COMMENTS FROM PRIME SOURCE CONSULTING AND 21 HILLSBOROUGH REFERRAL AT THE METRO PLANNING AND 22 PROGRAMMING COMMITTEE CONCERNING THE CENTURY CITY ALIGNMENTS MADE IN 2012. AND LASTLY, THERE'S THE REPLY TO 23 THE EXPONENT RESPONSES DATED MAY 15TH, 2012. 24 25 THESE ARE ALL, YOU KNOW, ONLINE.

1 HEARING OFFICER DROOYAN: MR. WIENER, I 2 UNDERSTAND YOU HAVEN'T HAD A CHANCE TO LOOK AT THESE, BUT I GATHER THAT CERTAINLY THE CITY OF BEVERLY HILLS IS 3 4 FAMILIAR WITH THE PROPOSAL; IS THAT CORRECT? MR. WIENER: WE ARE FAMILIAR WITH THE PROPOSAL TO 5 6 SITE THE STATION ON CONSTELLATION BOULEVARD AND THE 7 PROPOSED ALIGNMENT. 8 HEARING OFFICER DROOYAN: OKAY. WELL, DO YOU 9 HAVE ANY FURTHER EVIDENCE YOU WANT TO INTRODUCE, 10 MR. SAFER? 11 MR. SAFER: NO. THAT'S ALL. HEARING OFFICER DROOYAN: MR. WIENER, I'M GOING 12 TO TURN IT OVER TO YOU NOW. 13 MR. WIENER: THANK YOU VERY MUCH. 14 15 GOOD AFTERNOON. AS I MENTIONED, MY NAME IS 16 LARRY WIENER. I'M THE CITY ATTORNEY FOR THE CITY OF 17 BEVERLY HILLS. I'VE HEARD IT SAID THAT THE ONLY WAY TO TAKE A 18 SUBWAY TO CENTURY CITY IS THROUGH BEVERLY HILLS HIGH 19 SCHOOL. AND WE ARE HERE TODAY TO EXPLAIN THAT IS NOT THE 20 21 CASE. YOU DO HAVE CHOICES. YOU MAY NOT HAVE THE INFORMATION NECESSARY RIGHT 22 23 NOW TO MAKE FULLY INFORMED CHOICES, BUT YOU DO HAVE A CHOICE. AND WE ARE HERE TO PROVIDE YOU WITH INFORMATION 24 25 THAT WILL ALLOW YOU TO MAKE A CHOICE THAT DOES NOT INVOLVE

1 TUNNELING UNDERNEATH BEVERLY HILLS HIGH SCHOOL.

SO WHAT INFORMATION DO YOU NEED? WHAT WILL WE
PRESENT TO YOU TODAY?
ONE, YOU NEED TO KNOW MORE ABOUT THE GEOLOGY

5 UNDER BEVERLY HILLS HIGH SCHOOL AND SANTA MONICA 6 BOULEVARD. WE WILL PROVIDE YOU WITH THAT INFORMATION. 7 AFTER LISTENING TO THE INFORMATION TODAY, WE BELIEVE YOU 8 MAY WANT EVEN MORE INFORMATION.

9 TWO, YOU NEED TO KNOW SOMETHING ABOUT THE 10 POTENTIAL RISKS TO BEVERLY HILLS HIGH SCHOOL FROM THE 11 PROPOSED TUNNELING. WE WILL PROVIDE YOU WITH THAT 12 INFORMATION TODAY.

13THREE, YOU NEED TO UNDERSTAND THE RELATIVE RISKS14OF THE CHOICES THAT ARE BEFORE YOU. WHAT ARE THE15POTENTIAL CONSEQUENCES OF EACH CHOICE, AND WHAT IS THE16PROBABILITY -- WHAT ARE THE CHANCES THAT THOSE POTENTIAL17CONSEQUENCES MIGHT OCCUR?1810,000,000, 1 IN A 1,000, 1 IN 100, 1 IN 10? YOU DON'T19KNOW THAT INFORMATION.

20 YOU KNOW THAT NONE OF YOUR CHOICES INVOLVE ZERO 21 RISK. WHAT YOU NEED TO KNOW IS WHAT THE RISK IS OF EACH 22 CHOICE AND WHAT THE PROBABILITY IS THAT THOSE RISKS MIGHT 23 OCCUR. AND WE'RE GOING TO TALK ABOUT THAT.

FOURTH AND FINALLY, WE BELIEVE YOU NEED TO ASK:WHAT CHOICE DO WE HAVE TO AVOID THIS DEBATE ABOUT SAFETY

AND RISK? WHAT CHOICE DO WE HAVE TO AVOID TUNNELING UNDER
 BEVERLY HILLS HIGH SCHOOL AND STILL PLACE A SUBWAY STATION
 AT CONSTELLATION BOULEVARD?

WE BELIEVE AND WE WILL PROVIDE TO YOU THREE
ALIGNMENTS THAT WE BELIEVE ARE FEASIBLE TO AVOID BEVERLY
HILLS HIGH SCHOOL AND STILL ARRIVE AT A STATION ON
CONSTELLATION BOULEVARD. ARE THERE PROS AND CONS TO EACH
OF THESE ALTERNATIVES? ABSOLUTELY. THERE ARE PROS AND
CONS TO EACH OF THE CHOICES THAT ARE BEFORE YOU TODAY.

BUT THERE ARE WAYS TO AVOID BEVERLY HILLS HIGH
SCHOOL AND REACH CONSTELLATION BOULEVARD WITHOUT
TRIGGERING ADDITIONAL SAFETY CONCERNS. WE WILL PRESENT
THOSE OPTIONS TO YOU, AND WE ASK YOU TO SERIOUSLY CONSIDER
THOSE OPTIONS.

15 THE STATE LEGISLATURE MANDATED THIS HEARING TODAY 16 TO PROVIDE LOCAL COMMUNITIES WITH AN OPPORTUNITY TO 17 PROVIDE INPUT INTO THE PROCESS OF SITING METRO FACILITIES. 18 WE TAKE THIS OPPORTUNITY SERIOUSLY, AND WE TAKE IT AT 19 FACE-VALUE.

20 WE BELIEVE THAT WE HAVE IMPORTANT INFORMATION TO 21 SHARE WITH YOU THAT SHOULD BEAR ON YOUR DECISION ABOUT 22 WHERE TO SITE A STATION IN CENTURY CITY AND THE PROPOSED 23 ALIGNMENT TO GET THERE.

24 WE HOPE THAT YOU WILL CONDUCT THIS HEARING IN THE 25 SPIRIT THAT IS MANDATED BY THE LAW, AND WE HOPE THAT YOU

ACCEPT THE EVIDENCE THAT WE HAVE TO OFFER WITH AN OPEN
 MIND.

WE THANK YOU FOR THIS OPPORTUNITY. AND I WANT TO 3 4 BEGIN BY INTRODUCING KEVIN BROGAN WHO WILL PRESENT EVIDENCE REGARDING THE EXTENSIVE GEOLOGIC WORK THAT WAS 5 6 DONE AT BEVERLY HILLS HIGH SCHOOL AND THAT SHED SOME LIGHT 7 ON THE QUESTIONS THAT HAVE BEEN RAISED REGARDING THE 8 BEVERLY -- THE WEST BEVERLY HILLS LINEAMENTS. 9 THANK YOU VERY MUCH. HEARING OFFICER DROOYAN: THANK YOU, MR. WIENER. 10 MR. BROGAN. 11 MR. BROGAN: THANK YOU, MR. HEARING OFFICER, 12 13 MEMBERS OF THE BOARD. WE HAVE FIVE WITNESSES WHO WILL TALK ABOUT 14 15 GEOTECHNICAL AND OTHER TECHNICAL DATA BEFORE THIS BOARD. 16 THE FIRST WILL BE PHIL BUCHIARELLI. SECOND WILL BE ELDON GATH. THIRD WILL BE MILES KENNEY. THE FOURTH WILL 17 BE DR. SHLEMON BY VIDEOTAPE; HE'S NOT AVAILABLE TODAY. 18 19 AND THE FIFTH WILL BE TIM BURESH. 20 WE EXPECT TO ESTABLISH THAT THE UNCERTAINTY 21 INVOLVING THE GEOTECHNICAL SITUATION OF CENTURY CITY IS 22 SUCH THAT THIS BOARD SHOULD SUBSTANTIALLY CONSIDER OTHER 23 ALTERNATIVES TO THE SO-CALLED "LOCALLY PREFERRED 24 ALTERNATIVE" BECAUSE IT'S A SIGNIFICANT PROJECT INVOLVING 25 A SIGNIFICANT AMOUNT OF TAX MONEY, AND IT SHOULD BE DONE

1 RIGHT. AND WE THINK THAT'S WHAT THIS EVIDENCE WILL SHOW.

2 SO FIRST OFF, MR. BUCHIARELLI, PLEASE COME 3 FORWARD.

4 AND WITH -- I'M GOING TO AVOID THE MICROPHONE FOR 5 A SECOND.

6 HEARING OFFICER DROOYAN: THAT'S FINE. WE CAN7 HEAR. WE CAN HEAR.

8 MR. BROGAN: WE HAVE BOOKS WITH RESUMES AND 9 SUMMARIES OF THE POWER POINTS FOR EACH OF THE BOARD 10 MEMBERS, WHICH I WILL HAND UP IN BOX FORM.

11 AND WE APPRECIATE THE BOARD RECEIVING THIS. I'M 12 NOT SURE WHETHER THE HEARING OFFICER EXPECTS THESE ITEMS 13 TO BE OFFERED IN EVIDENCE AS SUCH AS IN AN ORDINARY TRIAL, 14 BUT WE'RE SUBMITTING THESE TO BE PART OF THE RECORD FOR 15 THIS. AND DEPENDING UPON THE RULES THE HEARING OFFICER 16 SETS, WE'LL ABIDE BY THOSE AND EITHER OFFER THEM OR 17 WHATEVER.

18 THESE BOOKLETS CONTAIN THE RESUMES OF EACH OF THE 19 EXPERTS WHO WILL TALK TODAY ALONG WITH A SUMMARY OF THEIR 20 POWER POINTS FOR LATER REVIEW.

21 HEARING OFFICER DROOYAN: THERE ARE NO TECHNICAL 22 RULES OF EVIDENCE HERE. AND I THINK THAT THESE SHOULD BE 23 MADE PART OF THE RECORD. WE'LL ADMIT THEM AS EVIDENCE SO 24 THAT THE BOARD WILL HAVE THEM AND BE PART OF THE OFFICIAL 25 RECORD.

1 (CITY'S EXHIBIT WAS IDENTIFIED AND

2 ADMITTED INTO EVIDENCE.) MR. BROGAN: AND JUST ONE OTHER -- TWO OTHER 3 4 ITEMS AS LONG AS WE'RE TALKING ABOUT PROCEDURE. ON THE LIST THAT MR. SAFER PRESENTED, NUMBER 14 HAS NOT BEEN 5 6 RECEIVED BY US. SO I ANTICIPATE WE'LL GET A COPY OF IT, 7 BUT I'M NOT FAMILIAR WITH THAT DOCUMENT. 8 HEARING OFFICER DROOYAN: WELL, I ASSUME IT IS ON 9 THE CD, BUT WHAT YOU'RE SAYING: YOU HAVEN'T PREVIOUSLY 10 SEEN IT. I UNDERSTAND THAT. 11 MR. BROGAN: YES, YOUR HONOR. 12 HEARING OFFICER DROOYAN: OKAY. MR. BROGAN: AND SECOND, SECOND ITEM IS THAT 13 WE'RE CONFIRMING THAT METRO IS CALLING NO LIVE WITNESSES 14 15 AT THIS HEARING. 16 HEARING OFFICER DROOYAN: THAT'S MY UNDERSTANDING. MR. SAFER? 17 MR. SAFER: THAT'S CORRECT. 18 HEARING OFFICER DROOYAN: IT'S MY UNDERSTANDING 19 20 UNDER THE PUBLIC UTILITIES CODE THAT WE NEED TO HAVE THE 21 WITNESS SWORN IN. DO WE HAVE AN OFFICER WHO CAN 22 ADMINISTER THE OATH, OR COURT REPORTER? 23 IF YOU WOULD, SIR, SPELL YOUR NAME FOR THE RECORD, PLEASE. 24 25 THE WITNESS: BUCHIARELLI.

1 MR. BROGAN: EXCUSE ME, MR. HEARING OFFICER. 2 WOULD YOU APPRECIATE TO HAVE ALL THE HEARING PEOPLE WHO MIGHT BE SWORN AT LEAST IN OUR TESTIMONY PRESENTED AT THE 3 4 SAME TIME FOR ONE SWEARING? HEARING OFFICER DROOYAN: LET'S JUST DO IT ONE AT 5 6 A TIME. 7 MR. BROGAN: YES, SIR. 8 HEARING OFFICER DROOYAN: IT'LL BE EASIER FOR THE 9 BOARD MEMBERS TO FOLLOW WHO IS SPEAKING. THE WITNESS: FIRST NAME IS PHILIP, P-H-I-L-I-P; 10 LAST NAME IS BUCHIARELLI, B-U-C-H-I-A-R-E-L-L-I. 11 HEARING OFFICER DROOYAN: AND, COURT REPORTER, 12 WOULD YOU PLEASE ADMINISTER THE OATH. 13 14 15 PHILIP BUCHIARELLI, 16 A WITNESS HEREIN, CALLED BY AND ON BEHALF OF THE CITY HAVING BEEN FIRST DULY SWORN, WAS EXAMINED AND TESTIFIED 17 AS FOLLOWS: 18 19 20 HEARING OFFICER DROOYAN: GOOD MORNING -- GOOD 21 AFTERNOON, MR. BUCHIARELLI. THE WITNESS: GOOD AFTERNOON. 22 23 HEARING OFFICER DROOYAN: YOU CAN PROCEED BY WAY OF A STATEMENT OR BY WAY OF QUESTION AND ANSWER, HOWEVER 24 25 YOU WANT TO PROCEED.

1	EXAMINATION
2	MR. BROGAN: I THINK OUR INTENT TO PRESERVE TIME
3	IS TO LET THE WITNESS DESCRIBE BRIEFLY HIS BACKGROUND AND
4	THEN PROCEED WITH HIS INVESTIGATION AND CONCLUSIONS.
5	HEARING OFFICER DROOYAN: THAT'S FINE. AND I
б	I WOULD HOLD THE BACKGROUND TO A MINIMUM SO THAT YOU HAVE
7	AS MUCH TIME AS POSSIBLE TO GET INTO THE SUBSTANCE. I'M
8	GOING TO MAKE A PRESUMPTION THAT WITH THE RESUME THAT THE
9	WITNESS IS GOING TO BE QUALIFIED, BUT THE BOARD CERTAINLY
10	WILL HAVE THAT INFORMATION.
11	GO AHEAD.
12	THE WITNESS: THANK YOU VERY MUCH.
13	MY NAME IS PHILIP BUCHIARELLI. I'M A PRINCIPAL
14	GEOLOGIST WITH LEIGHTON CONSULTING. I'VE BEEN WITH
15	LEIGHTON FOR 25 YEARS. I'M A STATE LICENSED PROFESSIONAL
16	GEOLOGIST AND ALSO A CERTIFIED ENGINEERING GEOLOGIST.
17	WE COMMISSIONED WE WERE ASKED BY THE BEVERLY
18	HILLS UNIFIED SCHOOL DISTRICT TO CONDUCT A FAULT
19	INVESTIGATION OF BEVERLY HILLS HIGH SCHOOL. AS YOU ARE
20	FAMILIAR, THIS PRESENTATION THIS SLIDE SHOWS THE FAULTS
21	THAT WERE MAPPED BACK IN OCTOBER 2011 IN THE IN THE
22	REPORT PRESENTED BY BY PARSONS BRINCKERHOFF, "PB" TO
23	THE METRO BOARD, AT THE TIME.
24	THIS IS THE FAULT INVESTIGATION OF THE WESTSIDE
25	SUBWAY EXTENSION. IN PARTICULAR, I WANT TO MAKE SURE YOU

UNDERSTAND THIS AREA RIGHT HERE IS BEVERLY HILLS HIGH
 SCHOOL. THIS IS THE CONSTELLATION PROPOSED SUBWAY LINE.
 THIS IS THE CONSTELLATION STATION.

4 THESE RED LINES ARE FAULTS THAT HAVE BEEN MAPPED BY PB IN THIS AREA. WHEN THIS REPORT WAS PRESENTED, IT 5 6 WAS A SIGNIFICANT CONCERN TO BEVERLY HILLS UNIFIED SCHOOL 7 DISTRICT BECAUSE THESE FAULTS ARE SHOWN AS ACTIVE, AND 8 THEY ARE SHOWN PRIMARILY UNDERNEATH THE HIGH SCHOOL. SO 9 THERE WAS A CONCERN OF THE DISTRICT BOTH TO STUDENTS AND TO THE FACILITIES THAT THERE MAY BE A RISK OF FAULTING AND 10 ACTIVE FAULTING AT THE HIGH SCHOOL. 11

EVALUATING THIS RISK THEN BECAME OF VITAL
IMPORTANCE. BECAUSE OF THIS RISK, BEVERLY HILLS U.S.D.
COMMISSIONED LEIGHTON TO CONDUCT AN INVESTIGATION OF
FAULTING AT BEVERLY HILLS HIGH SCHOOL. PARTICULARLY,
THEY'VE ASKED US TO REVIEW THE FAULTING ALONG THE WEST
BEVERLY HILLS LINEAMENT.

UNLIKE METRO, THESE FAULTS HAVE AN IMPLICATION 18 BECAUSE THEY HAVE TO BE REVIEWED BY THE CALIFORNIA 19 20 GEOLOGIC SURVEY, IN ORDER FOR A SCHOOL TO MAKE ANY 21 ADDITIONS TO THEIR SCHOOLS, THAT WORK IN IT IS REVIEWED BY 22 THE CALIFORNIA DIVISION OF STATE ARCHITECT WHO RELIES ON 23 CALIFORNIA GEOLOGIC SURVEY TO EVALUATE THE ADEQUACY OF THE GEOLOGIC DATA. OUR REPORT WAS COMPLETED APRIL 22ND, 2004, 24 25 AND SUBMITTED TO CGS FOR REVIEW ON APRIL 24, 2012.

1 IN EVALUATING THESE FAULTS, PB EXTENDED A NUMBER 2 OF TRANSECTS OR A SERIES OF BORINGS THAT THEY DUG IN THE GROUND AND CONE PENETROMETER TESTS, AND THOSE EXTENDED 3 4 BASICALLY RIGHT THROUGH THIS AREA. THIS IS PB'S 5 TRANSECT 4 PARSON -- PARSONS BRINKERHOFF'S TRANSECT 4. 6 THE SCHOOL IS ROUGHLY IN THIS AREA, AND THESE ARE 7 NUMEROUS FAULTS WHICH HAVE BEEN MAPPED ALONG THAT TRANSECT 8 THROUGH THE SCHOOL.

9 I WANT TO, AGAIN, SORT OF TALK JUST REAL QUICKLY 10 ABOUT WHAT THIS DATA SHOWS. THESE ARE BORINGS. BORINGS 11 ARE DRILLED IN THE GROUND. THEY BASICALLY -- YOU DRILL UP 12 HOLLOW-STEM AUGER IN THE BORE -- IN THE GROUND, AND YOU 13 TAKE UP SOIL SAMPLES OUT OF THE GROUND, AND YOU LOOK AT 14 THE SOIL SAMPLES.

15 A CPT OR A CONE PENETROMETER TEST, BASICALLY 16 YOU'RE TAKING A -- A STEEL PROBE AND PUSHING IT INTO THE 17 GROUND AND BY MEASURING THE FRICTION RESISTANCE AT THE TIP 18 OF THAT PROBE AND THE SIDE FRICTION ALONG THE EDGE OF THAT 19 PROBE, YOU'RE GETTING AN ELECTRICAL SIGNAL BACK THAT GIVES 20 YOU AN IDEA OF WHAT THE SOIL CONDITIONS ARE.

21 SO AS I SAID, LEIGHTON WAS COMMISSIONED BY THE 22 BEVERLY HILLS U.S. -- U.S.D. TO CONDUCT A FAULT STUDY ON 23 BEVERLY HILLS HIGH SCHOOL CAMPUS. OUR WORK CONSISTED OF 24 THE EXCAVATION OF 21 HOLLOW-STEM AUGER BORINGS ACROSS THE 25 CAMPUS, ACROSS THE WIDTH OF THE CAMPUS, ROUGHLY PARALLEL

1 TO THE MAPS TO THE FAULTS MAPPED BY PB.

2	WE ALSO EXCAVATED 675 FEET OF TRENCH WHERE WE
3	PHYSICALLY REMOVED THE UPPER 12 TO 15 FOOT OF THE SOIL
4	ACROSS BEVERLY HILLS HIGH SCHOOL WHERE POSSIBLE AND LOOKED
5	AT THE SOIL TO LOOK FOR EVIDENCE OF FAULTS.
6	WE ALSO EXCAVATED 12 CPT SOUNDINGS ALONG DURANT
7	DRIVE. THIS IS A PICTURE OF ONE OF THE DRILL RIGS ON
8	CAMPUS. BASICALLY, WE'RE STANDING IN MORENO DRIVE LOOKING
9	AT THE BEVERLY HILLS HIGH SCHOOL CAMPUS IN THE LAWN AREA.
10	THAT'S ACTUALLY CALLED THE "GRADUATION LAWN AREA." THEY
11	TAKE A GRADUATION PHOTO THERE EVERY YEAR.
12	THIS SHOWS THE DATA POINTS THAT WE COLLECTED
13	ACROSS THE BEVERLY HILLS CAMPUS. THE BLUE DOTS ARE CORE
14	BORINGS THAT WE LOCATED. THE RED DOTS ARE CPT POINTS.
15	AND THEY ARE A LITTLE DIFFICULT TO SEE, BUT THE GREEN
16	LINES ARE ARE FAULT TRENCHES: FAULT TRENCH 1, 2, 3,
17	AND 4.
18	WITH OUR TRENCHES WE WERE ABLE TO ACHIEVE ABOUT
19	90 PERCENT CONTINUITY ACROSS THE CAMPUS. IN OTHER WORDS,
20	BETWEEN FAULT TRENCH 1, THE OVERLAP OF FAULT TRENCH 3
21	AND 4, FAULT TRENCH 2, WE WERE ABLE TO GO FROM ACTUALLY
22	THE CITY OF L.A. TO CITY OF BEVERLY HILLS LINE ALL THE WAY

23 TO MORENO DRIVE WITH VERY FEW GAPS.

24 THOSE GAPS THAT WE DID HAVE IN OUR DATA WERE25 COVERED BY THESE BORINGS WHERE WE LOOKED AT THE BORINGS

1 AND CORRELATED THE DATA FROM ONE BORING TO THE NEXT.

2 I WANT TO TALK JUST A LITTLE BIT ABOUT WHAT THAT 3 BORING DATA IS, WHAT THAT -- WHAT IT MEANS TO CORRELATE 4 INFORMATION FROM ONE BORING TO ANOTHER.

5 BASICALLY, AFTER YOU COLLECT SAMPLES FROM THE 6 BORINGS, THEY ARE PUT IN WOODEN BOXES. SO WE COLLECT 7 CONTINUOUS CORE SAMPLES FROM THE SURFACE ALL THE WAY DOWN 8 TO DEPTHS ON THE ORDER OF 100, 150. A COUPLE OF OUR 9 BORINGS WENT DOWN TO, I THINK, APPROACHING 180 FEET.

10 SO WE TAKE THOSE. WE LOOK AT THEM AS THEY ARE 11 COMING UP. WE LOG THEM, THOSE SAMPLES, AS THEY ARE COMING 12 UP, AND THEN WE PUT THEM IN WOODEN BOXES. AND -- AND --13 SO THAT WE HAVE THEM AVAILABLE TO LOOK AT LATER. THESE 14 ARE THE WOODEN BOXES LAID OUT IN THE PARKING LOT AT 15 BEVERLY HILLS HIGH SCHOOL.

16 AND THIS IS WHAT THE CORE SAMPLES LOOK LIKE. NOW, I'M A GEOLOGIST, SO I'VE BEEN DOING THIS A LONG TIME, 17 BUT I DON'T THINK IT'S TOO HARD FOR US TO SEE THAT THIS 18 GRAY UNIT IS A GRAY CLAY. THIS IS NEAR THE BOTTOM OF OUR 19 20 BORING. THERE'S A DEPTH OF 120 FEET, 115 FEET. THIS IS 21 ONE OF OUR BORINGS, CORE BORING 4, THIS IS CORE BORING 3. 22 SO THESE ARE TWO BORINGS THAT ARE SEPARATED BY ABOUT 23 A HUNDRED FEET.

SO THERE'S A CLAY UNIT, SORT OF A BROWNISH SANDAND THEN SORT OF AN OFF-WHITE SAND. OVER HERE, HERE'S THE

CLAY UNIT; HERE'S THE BROWNISH SAND; THERE'S THE OFF-WHITE
 SAND AT THE SAME DEPTH. SO WE'RE SEEING THAT THERE ARE
 UNITS HERE AND HERE WHICH ARE CORRELATIVE.

GOING UP, THIS IS AT A DEPTH OF 90 TO 105 FEET, THE SAME BORINGS, THERE'S SORT OF A BROWN LAYER, A LITTLE GRAY, OFF-WHITE. BASICALLY, THE SAME THING HERE, OFF-WHITE BROWN LAYER AT A DEPTH OF 75 TO 90 FEET, THE SAME TWO BORINGS.

NOW, HERE WE'RE GETTING A LITTLE BIT DIFFERENT -DIFFERENT -- A DIFFERENCE IN THE MATERIAL TYPE. THIS IS A
UNIT, AGAIN, THE SAND UNIT THAT WE'RE CALLING THE
"SAN PEDRO FORMATION." HERE WE'RE GETTING INTO A YOUNGER
UNIT. WE'RE CALLING IT "OLDER ALLUVIUM." SO BASICALLY,
THIS IS A SILTIER OR CLAYER MATERIAL BROWN WHERE THESE
OFF-WHITE SANDS ARE PRETTY CLEAR.

16 BUT, NONETHELESS, BETWEEN BORING CB-3 AND CB-4 17 THEY ARE VERY SIMILAR. AS YOU GO UP, IT GETS A LITTLE 18 HARDER, BUT BECAUSE WE'VE HAD THAT CORRELATION OF DEPTH, 19 THIS UNIT MATCHES THIS UNIT. THIS SORT OF -- I'LL CALL IT 20 ORANGE-BROWN MATCHES THIS ORANGE-BROWN AND SO ON.

21 THIS IS AT A DEPTH OF 45 TO 60 FEET. AND SO WE 22 JUST CONTINUE ON. AND THEN WHAT WE'VE DONE NOW IS WE'VE 23 CORRELATED THESE TWO BORINGS. AND SO NOW WE'LL LOOK AT 24 THESE TWO BORINGS AND THEN THOSE TWO BORINGS AND THEN 25 THOSE TWO BORINGS, AND WE'LL CORRELATE THESE ACROSS THE

1 CAMPUS. THE END RESULT IS --

LET ME STEP BACK HERE REAL QUICK. SORRY. THEY
ARE NOT ALWAYS THIS CLEAR. SOMETIMES THEY ARE A LITTLE
HARDER. THESE ARE ACTUALLY TWO BORINGS, BUT IT'S ACTUALLY
STILL PRETTY CLEAR. THESE ARE TWO BORINGS. THIS IS OUR
BORING CB 13. THIS IS A PB BORING. THESE ARE BOTH ON
DURANT. THIS IS THEIR BORING T-4, B-10.

8 SO HERE WE HAVE THIS SORT OF DARK GRAY CLAY WITH 9 A LITTLE SAND ABOVE. I SHOULD ALSO POINT OUT THAT THIS IS 10 145 FEET, 150 FEET. THESE ARE ALL DEPTHS BELOW THE 11 SURFACE. AND THIS BORING, BECAUSE IT WAS DONE BY PB, 12 A LITTLE DIFFERENT METHOD, THEY'VE SHOWN THESE AS GETTING 13 DEEPER TO THE LEFT; WHERE IN OURS, WE GO DEEPER TO THE 14 RIGHT.

BUT, NONETHELESS, THERE'S THIS CLAY UNIT WITH A
GRAY SAND BELOW WITH AN OFF-WHITE SAND BELOW THAT.
HERE'S OUR CLAY UNIT WITH THE GRAY SAND BELOW AND THE
OFF-WHITE SAND BELOW THAT.

19 THIS ELEVATION IS 150, SO WE'RE ABOUT A FOOT
20 ABOVE THAT. THAT'S AN ELEVATION ABOUT 149. THIS IS 160.
21 THAT'S 155. THAT'S AN ELEVATION OF ABOUT 156. SO WE'RE
22 SEEING ABOUT SEVEN-FOOT OF DIFFERENCE BETWEEN THESE TWO
23 BORINGS. OUR BORING CB-13, WAS ACTUALLY THE SURFACE
24 ELEVATION WAS A COUPLE FEET HIGHER. SO THE REAL
25 DIFFERENCE HERE IS ABOUT FIVE FEET BETWEEN T-4, B-10

1 AND OUR CB-13. AND THAT'S WHAT WE SHOWED.

2 SO THIS IS A CORRELATION OF THESE BORINGS WHEN 3 YOU GO FROM BORING TO BORING THIS IS T-4, B-10, THEIRS, 4 OURS CB-13. THIS IS OUR 15, 16, 17, AND 18. YOU CAN SEE 5 THERE IS SORT OF A PRETTY GOOD TREND, NOT VERY STEEP 6 ACROSS THE BOTTOM OF THOSE BORINGS. AND AS YOU GO UP, 7 WE'RE SEEING THE SAME CORRELATIONS AS WE GO ACROSS THE 8 TRANSECT.

9 AS I SAID, THE OTHER THING WE DID WAS EXCAVATE ABOUT 675 FEET OF TRENCH ACROSS THE CAMPUS. AGAIN, THIS 10 IS -- WE'RE IN THE LAWN AREA. MORENO DRIVE IS BEHIND US. 11 12 WE'RE LOOKING UP TO THE MAIN BUILDINGS AND THE GRASSY 13 AREA. THIS IS EAST OF THE MAIN PART OF THE CAMPUS. 14 WHEN YOU EXCAVATE TRENCHES, YOU GET A REALLY 15 GREAT EXPOSURE OF ALL THE SOIL NEAR THE SURFACE, ALL THE 16 NEAR-SURFACE SOIL. AND THAT'S THE SOIL WE'RE MOST CONCERNED ABOUT BECAUSE THAT'S THE SOIL THAT IS THE 17 YOUNGEST AND WOULD SHOW EVIDENCE OF RECENT ACTIVE 18

19 FAULTING.

20 THESE TRENCHES WERE BENCHED. AS I SAID, THESE 21 ARE 12 TO 15 FEET DEEP. THESE ARE ABOUT FIVE FEET, AND 22 WE'VE BENCHED THEM SO THAT THEY ARE SAFE FOR US TO GO IN 23 AND SO ALSO WE CAN SEE A VERTICAL SURFACE THAT'S EASY FOR 24 US TO LOG.

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25
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BACK HERE WE DIDN'T HAVE QUITE AS MUCH ROOM, IT

AS NARROWER. SO IN THIS CASE THESE TREN CES S WERE
 SHORED. THE TRENCHES, AS I SAID, PROVIDE EXCELLENT
 EXPOSURE.

4 THIS IS A LOG OF ONE OF THE TRENCHES. THIS IS 5 OUR TRENCH FT-3. WHAT WE DO IS WE CLEAN OFF THE SIDES OF 6 THE TRENCH; WE LOOK AT THE SOIL; AND WE TRY TO MAP 7 CONTINUOUS UNITS FROM ONE END TO THE OTHER.

8 IN THIS CASE WE ACTUALLY FOUND A FAULT. THIS IS 9 A FAULT WITHIN FAULT TRENCH 3. BUT ONE OF THE THINGS THAT 10 WE ALSO DID THAT WAS NOT DONE BY PB IS THAT WE WERE --11 BECAUSE OF OUR DATA, WE WERE ABLE TO AGE THE SOILS. WE 12 AGED THE SOILS IN A NUMBER OF DIFFERENT WAYS. ONE OF THE 13 WAYS WE DETERMINED THE AGE OF THE SOIL -- OF THE UNITS IS 14 BY HAVING A --

SOILS, YOU KNOW, TOPSOIL METERIZE AND TAKE A
CERTAIN AMOUNT OF TIME TO DEVELOP. AND WE HAVE HIRED -WE HAD HIRED ACTUALLY TWO -- THREE DIFFERENT EXPERTS TO
HELP US AGE THE SOILS.

19 WHAT THEY DETERMINED IS THAT THIS SURFACE BOTH IN 20 FT-3, FT-2, AND IN FT-1, THIS SURFACE WAS 70- TO 100,000 21 YEARS OF AGE.

THESE FAULTS COME UP TO A GRAVEL LAYER, A GRAVEL CHANNEL HERE, BUT THEY DO NOT GO INTO THAT GRAVEL CHANNEL. THEY DO NOT BREAK THAT GRAVEL CHANNEL. THE SURFACE IS 70 TO 100,000 YEARS OLD. THAT GRAVEL CHANNEL IS OLDER, AT

1 LEAST 100,000 YEARS OLD.

2 BY CALIFORNIA LAW A FAULT IS ACTIVE IF IT'S 3 11,000 YEARS OLD OR YOUNGER IF IT'S BROKEN THE SURFACE IN 4 THE LAST 11,000 YEARS. THIS FAULT IS A 100,000 YEARS OR 5 OLDER, SO IT'S NOT ACTIVE.

6 THIS IS ANOTHER ONE OF OUR FAULT TRENCHES. THIS 7 IS FAULT TRENCH FT-2. WE HAD A PHOTO OF THIS ONE EARLIER. 8 ONE OF THE -- THE BASIS FOR THE ORIGINAL MAPPING OF THE 9 WEST BEVERLY HILLS LINEAMENT WAS SOME WORK DONE BY DR. DOLAN IN 1992 WHERE HE RECOGNIZED ELEVATED OLDER 10 ALLUVIAL SOILS TO THE WEST AND BENEDICT CANYON YOUNG 11 ALLUVIAL SOILS TO THE EAST. AND HE ACTUALLY NOTED THAT 12 BASICALLY THIS SLOPE AND THIS LEVEL AREA SUGGESTED THAT 13 THERE -- THAT SLOPE MAY BE FAULT CONTROLLED. 14

15 SO THAT WAS IMPORTANT TO US TO EXCAVATE A TRENCH 16 ACROSS THAT EXPOSURE. WHAT WE FOUND IS THAT THIS SLOPE 17 ACTUALLY CONTINUES IN THE SUBSURFACE. THESE LAYERS OF 18 ALLUVIUM RUN ACROSS, BUT THEY WERE ERODED AWAY. THIS 19 SLOPE WAS CREATED. AND THEN AS CLIMATE CHANGE OCCURRED 20 AND GLACIAL PERIODS OCCURRED, SEA LEVELS CHANGED. THIS 21 AREA WAS BACKFILLED WITH ALLUVIUM.

22 SO THERE IS NO FAULTING HERE. THIS IS JUST A 23 PALEO SLOPE. IT'S A NATURAL -- WE WOULD CALL IT A 24 "BUTTRESS UNCONFORMITY" BASICALLY. BUT IT'S NOT FAULTED. 25 THERE'S NO EVIDENCE OF FAULTING HERE.

1 THIS IS A PICTURE A LITTLE BIT DOCTORED UP TO 2 MAKE IT CLEARER, BUT THIS IS A PICTURE. HERE IS THE --3 AND WHEN I SAID "DOCTORED," I SIMPLY MEAN I'VE HIGHLIGHTED 4 THE COLORS OF THE OLD ALLUVIUM VERSUS THE YOUNG ALLUVIUM. 5 SO HERE THESE HORIZONTAL LAYERS OF OLDER ALLUVIUM. HERE'S 6 THE YOUNG ALLUVIUM, AND THIS IS BASICALLY JUST SITTING ON 7 -- ON TOP OF THAT. BUT THERE'S NO FAULT THERE.

8 ONE OF THE OTHER THINGS THAT WE FOUND IN FAULT 9 TRENCH 2 THAT WAS OF CONCERN TO US AND WE INVESTIGATED 10 WERE THESE, WE CALL THEM, "SOIL FRACTURES." THEY DON'T 11 HAVE SIGNIFICANT OFFSET. IN SOME CASES THEY OFFSET THESE 12 UNITS AN INCH OR TWO, BUT WE WEREN'T QUITE SURE WHAT THEY 13 WERE.

14 NOTICE, IN SOME CASES THEY DON'T EXTEND TO THE 15 BOTTOM OF THE TRENCH. SO WE DIDN'T BELIEVE THEY WERE 16 FAULTS, BUT WE WEREN'T QUITE SURE. HERE'S A COUPLE PICTURES OF THEM. THEY'RE A LITTLE HARD TO SEE, BUT THESE 17 RED RIBBONS MARK THE LOCATION OF THESE FRACTURES. THERE'S 18 A LITTLE BIT CLOSER PICTURE. YOU CAN SORT OF SEE THERE, 19 20 HAVE A SLIGHTLY, I GUESS, YOU KNOW, GRAYISH COLOR AS 21 OPPOSED TO THE BROWNISH SURROUNDINGS.

AND HERE'S ANOTHER. AND THIS ONE WE'VE ACTUALLY
SHOWN, BUT IT'S GOT A LITTLE BIT OF OFFSET. IN OTHER
WORDS, THIS SAND BED SHOULD GO LIKE THIS, BUT THIS SIDE
HAS BEEN RAISED RELATIVE TO THIS. WE THOUGHT IT WAS KIND

1 OF INTERESTING THAT IT WAS EAST SIDE UP BECAUSE IT DIDN'T 2 SEEM TO MAKE SENSE. THE -- THE SLOPE ACTUALLY IS WESTSIDE 3 UP, SO THESE FEATURES WERE EAST SIDE UP, WHICH IS OPPOSITE 4 OF WHAT THE SLOPE IS THERE AT BEVERLY HILLS HIGH SCHOOL.

5 WELL, WE DID A NUMBER OF THINGS TO INVESTIGATE 6 THIS. FIRST, ONE OF THE THINGS WE DID -- FIRST OF ALL, 7 THEY ARE NOT -- THEY'RE IRREGULAR, NOT LINEAR. MOST OF 8 THEM DIE OUT AT DEPTH. THERE'S NO SHEARING WITHIN HERE. 9 IF WE THOUGHT THEY WERE FAULTS, FAULTS MOVE SIDE TO SIDE; 10 THEY CREATE FRICTION; THEY USUALLY DEVELOP CLAY AND 11 SHEARING. WE DIDN'T SEE THAT.

12 WE ACTUALLY HAD A PROFESSOR FROM UCR COME OUT TO 13 THE CAMPUS, TAKE SAMPLES OF THIS MATERIAL, TAKE IT BACK TO 14 HIS LAB, AND LOOK UNDER A MICROSCOPE. AND HE SAID NO. 15 THIS -- THE MATERIAL THAT'S IN THERE IS DEPOSITIONAL. 16 IT'S NOT FAULT CONTROLLED. IT'S NOT SHEARED.

AND HE ESTIMATED THAT EVEN IF THEY CONCEIVABLY
WOULD BE SOMEHOW A FAULT-RELATED FEATURE, THE MATERIAL
THAT'S DEPOSITED IN THERE IS 10- TO 20-, PERHAPS OVER
30,000 YEARS OF AGE; AGAIN, NOT ACTIVE FEATURES.

21 WE ANTICIPATED WHERE WE SAW THESE, WE SAW THESE
22 PRIMARILY ON SLOPES. WE BELIEVE THEY ARE PROBABLY RELATED
23 TO SLOPE MOVEMENT OR SLOPE CREEP AS A RESULT OF SEISMIC
24 SHAKING.

25

SO WHEN WE TAKE OUR -- THIS IS A -- QUITE A LONG

FIGURE. THIS IS -- YOU KNOW, I HESITATE TO BRING IT OUT.
 BUT IT'S QUITE LONG. BUT THIS IS FT-1, THIS IS FT-2.
 THIS IS MORENO DRIVE. THIS EXTENDS OFF CAMPUS. SO
 THERE'S OUR FAULT TRENCHES. THERE IS THE RESULT OF OUR
 CORE BORINGS, SHOWING THESE CONTINUOUS UNITS ACROSS THE
 CAMPUS.

7 WHEN YOU TAKE THOSE ALTOGETHER CONTINUOUS AND 8 GENERALLY DIPPING TO THE EAST -- WHEN YOU TAKE THESE ALL 9 TOGETHER, THERE'S JUST REALLY NO PLACE HERE TO SHOW THE 10 FAULTS THAT HAVE BEEN MAPPED ACROSS THE CAMPUS. THAT 11 WAS, YOU KNOW, A LITTLE BIT OF A SURPRISE TO US, TO BE 12 HONEST.

13 THE WEST BEVERLY HILLS LINEAMENT HAS BEEN TALKED 14 ABOUT FOR A COUPLE DECADES ALTHOUGH UP UNTIL RECENTLY, 15 IT'S ALWAYS BEEN INFERRED. AND THEN WHEN THE DATA CAME 16 OUT IN NOVEMBER -- IN DECEMBER THAT IT WAS REALLY A FAULT, 17 WE SOMEWHAT EXPECTED TO FIND A FAULT THROUGH HERE, BUT WE 18 DID NOT.

BECAUSE WE DID NOT, WE WENT BACK TO TRANSECT 4.
THIS TRANSECT WAS DONE IN THE MIDDLE OF THE CAMPUS.
TRANSECT F-4 WAS DONE ALONG DURANT DRIVE AT THE NORTH END
OF THE CAMPUS. BECAUSE WE DIDN'T FIND A FAULT IN MID

23 CAMPUS, BE WENT BACK TO DURANT DRIVE TO TRY AND SEE IF

24 THERE WAS SOMETHING WE WERE MISSING.

25 THIS IS, AGAIN, PB'S TRANSECT 4. ONE OF THE

THINGS THAT WE DID NOTICE IS THAT AS WE LOOKED ON THE
 GROUND WHEN PB CONDUCTED THEIR INVESTIGATION, THEY SPRAY
 PAINTED ON THE PAVEMENT THE NUMBERS OF THEIR CPT POINTS.
 SO THEY PAINTED ON THE PAVEMENT CPT-1, CPT-2, CPT-3,
 ET CETERA.

6 WHEN WE COMPARED THOSE PAINTINGS ON THE PAVEMENT 7 WITH THE MAP THEY PREPARED, THESE NUMBERS WERE REVERSED. 8 SO THIS WAS CPT-7. THIS WAS CPT-6. THIS WAS CPT-5. WE 9 DON'T KNOW WHETHER THAT'S REALLY -- WHETHER THEY CORRECTED 10 THAT AS THEY WENT IN. WE CERTAINLY DIDN'T KNOW AT THAT 11 POINT.

12 BUT IT -- BECAUSE WE DIDN'T FIND FAULTS 13 MID-TRANSECT AND BECAUSE THIS DATA WE WERE UNSURE ABOUT, WE REPEATED TRANSECT T-4 AS IT -- OR T-4 AS IT PERTAINS TO 14 15 THE PORTION THAT WE WERE CONCERNED ABOUT WHICH WAS 16 IMMEDIATELY IN FRONT OF BEVERLY HILLS HIGH SCHOOL. SO ACTUALLY, WE'VE SEEN THE SESSION BEFORE. I 17 JUST DIDN'T BRING IT TO THE POINT THAT THIS WAS ALONG 18 DURANT DRIVE. AND SO HERE'S OUR DATA POINTS. AND REALLY 19 WE FOUND NO EVIDENCE THAT THERE -- FOR FAULTS HERE. 20 21 I WILL POINT OUT THAT MOST OF PB'S FAULTS ARE RELATED TO THE CPT DATA. AS I SAID, CPT, YOU ACTUALLY 22 23 DON'T GET TO LOOK AT THE DIRT. ALL YOU SEE IS THE HOLE IN 24 THE GROUND AND ELECTRONIC SIGNATURE OF WHAT THEY SEE ABOVE

25 IT.

1 THERE'S ONE OTHER ITEM -- ONE OTHER ITEM THAT WE 2 NOTED WITH THE CPT DATA THAT WAS A POTENTIAL CONCERN TO US. ONE OF THE CPT'S -- AND I'M SORRY. I CAN'T REMEMBER 3 4 WHICH ONE. BUT ONE OF THE CPT'S WAS LOGGED AS BEING 50 FOOT DEEP, BUT ON THE CROSS SECTION WAS ACTUALLY SHOWN 5 6 AS BEING 75 FEET DEEP. SO SOMEHOW OR OTHER THAT GOT 7 EXTENDED. I DON'T KNOW WHAT -- WHAT IMPACT THAT MAY HAVE 8 HAD ON THEIR DATA INTERPRETATION.

9 SO HERE ARE OUR CONCLUSIONS. AGAIN, I SAID THAT
10 THE WEST BEVERLY HILLS LINEAMENT WAS ORIGINALLY MAPPED AS
11 A DIFFERENCE IN ELEVATION AS A SLOPE BETWEEN THE WESTSIDE,
12 ELEVATED ALLUVIUM ON THE WESTSIDE AND THE LOWER YOUNGER
13 ALLUVIUM MATERIAL ON THE WEST. WELL, WE DUG ACROSS THAT
14 LINEAMENT, AND WE FOUND NO EVIDENCE THAT IT WAS A FAULT.
15 THEREFORE, WE FIND THAT TO BE AN EROSIONAL FEATURE.

16 WE FIND DIRECT GEOLOGIC EVIDENCE THERE'S BEEN NO
17 FAULTING ASSOCIATED WITH THE WEST BEVERLY HILLS LINEAMENT
18 OF BEVERLY HILLS FOR AT LEAST 100,000 YEARS AND PERHAPS
19 MORE THAN 500,000 YEARS.

20 WE HAVE REFUTED THE FAULTS MAPPED BY PB AS PART 21 OF THE WEST BEVERLY HILLS LINEAMENT, AND WE'VE FOUND NO 22 EVIDENCE FOR THOSE FAULTS ON THE CAMPUS. BASED ON OUR 23 STUDY, NO FAULT-RELATED STRUCTURAL SETBACKS HAVE BEEN 24 ASSOCIATED WITH THE WEST BEVERLY HILLS LINEAMENT ARE 25 REQUIRED FOR BEVERLY HILLS HIGH SCHOOL.

WE'VE COMPLETED OUT REPORT, AND THAT HAS BEEN
 SUBMITTED TO THE -- AND THOSE FINDINGS AND CONCLUSIONS
 HAVE BEEN SUBMITTED TO THE CALIFORNIA GEOLOGIC SURVEY.

4 NOW, MONDAY PARSONS, PB'S, SUBMITTED -- PREPARED A RESPONSE REPORT TO OUR APRIL 22ND REPORT. THIS IS A MAP 5 6 FROM -- EXCUSE ME. THIS IS A MAP FROM THAT REPORT. I'M 7 SORRY. SOME OF THESE ARE SORT OF NORTH-FACING. SOME OF 8 THESE ARE EAST-FACING. I'LL JUST SAY, AGAIN, THAT THIS IS THE BEVERLY HILLS HIGH SCHOOL CAMPUS. THIS IS BASICALLY 9 THE CITY DOWN TO YOUR RIGHT HERE. HERE'S DURANT DRIVE, 10 11 SANTA MONICA BOULEVARD. THIS IS THE PROPOSED

12 CONSTELLATION STATION.

AS A RESULT OF OUR STUDY, PB HAS RE-ANALYZED 13 THEIR DATA, AND THEY HAVE MOVED SOME OF THE FAULTS FROM 14 15 WHERE THEY WERE PREVIOUSLY LOCATED. NOW, THIS IS A LITTLE 16 BIT OF A PROBLEM FOR US BECAUSE WHEN WE CONDUCTED THAT STUDY, WE THOUGHT THAT THE MAP -- THE FAULTS ON THE MAP 17 WERE BASED ON AN EXTENSIVE AMOUNT OF WORK, AS WAS 18 TESTIFIED TO, THAT THIS WAS AN EXTENSIVE, EXHAUSTIVE 19 20 INVESTIGATION WHERE THEY WERE TRYING TO LOCATE AS 21 ACCURATELY AS POSSIBLE THESE FAULTS.

22 SO THIS ORANGE LINE WAS A FAULT THAT'S NOW BEEN 23 MOVED TO HERE. THIS ORANGE LINE STOPPED, AND NOW IT'S 24 BEEN EXTENDED. THIS FAULT IS NEW. THIS FAULT USED TO GO 25 THROUGH HERE, BUT NOW IT STOPPED. AND IT STOPS BECAUSE WE

DIDN'T SEE IT IN FAULT TRENCH 2. THIS FAULT WAS MOVED
 BECAUSE WE DIDN'T SEE IT IN FAULT TRENCH 1. THIS FAULT
 AMAZINGLY CONTINUES JUST AT THE EDGE OF OUR FAULT TRENCH
 DATA.

ONE OTHER THING THAT I SHOULD POINT OUT -- IT'S 5 6 A LITTLE BIT HARD TO SEE, BUT THIS IS LABELED "FAULT 7 TRENCH 4." THIS IS LABELED "FAULT TRENCH 3." THIS IS --8 THEY'RE LABELING THE BACKGROUND -- I HOPE YOU CAN SEE IT -- AS 4. THIS IS 2. THEY'VE ACTUALLY MISLABELED OUR 9 FAULT TRENCHES. THIS IS FT-1, FT-2, FT-3, FT-4. AGAIN, I 10 DON'T KNOW IF THAT JUXTAPOSITION PLAYED ANY ROLE IN THEIR 11 12 REVIEW, BUT IT CERTAINLY IS A QUESTION.

13 THE CONSTELLATION TRANSECT IS A CROSS SECTION 14 THAT'S DRAWN ROUGHLY THROUGH THIS AREA. WHEN YOU PLOT 15 THESE NEW LOCATIONS OF FAULTS, THIS IS -- THIS IS THE SAME 16 GENERAL AREA, SO THE RED LINES ARE WHERE THEY WERE 17 PREVIOUSLY MAPPED, AND THE GREEN LINES ARE WHERE THEY ARE 18 NOW MAPPED.

19 THIS IS ALL BASED ON NO NEW DATA ON THEIR PART.
20 ACTUALLY, NO NEW DATA ON OUR PART. UP OVER HERE, OUR DATA
21 IS OVER HERE. IT CAUSES US CONCERN BECAUSE THEY HAVE
22 SIMPLY MOVED THE FAULTS TO NEW LOCATIONS BASED ON -- WELL,
23 WE'RE NOT QUITE SURE WHAT. IF THE DATA IS SUBJECT TO THAT
24 AMOUNT OF INTERPRETATION, WE JUST QUESTION HOW CONFIDENT
25 YOU CAN BE IN THE FAULTS THAT -- AS THEY ARE LOCATED.

1 MR. YAROSLAVSKY: CAN I JUST ASK: HOW MUCH IS 2 THE DIFFERENCE FROM THE ONE TO THE OTHER? HOW MANY FEET? THE WITNESS: I'M GOING TO ESTIMATE SOMETHING ON 3 4 THE ORDER OF 20 TO 30 FEET. THAT'S AN ESTIMATE. I CAN'T 5 REALLY MEASURE FOR YOU. 6 MR. YAROSLAVSKY: FOR EACH ONE? 7 THE WITNESS: WELL, YOU KNOW, THESE TWO -- YES, I 8 WOULD ESTIMATE THAT. 9 YOU KNOW, I CAN GO BACK TO THIS. THIS IS PROBABLY EASIER FOR ME TO GAUGE. THIS TRENCH WAS PROBABLY 10 A HUNDRED FEET LONG OR SO. SO THIS END OF IT, ABOUT 11 20 FEET. 12 BEAR WITH ME. THIS IS A LITTLE BIT HARD OF --13 14 DIFFICULT OF A FIGURE TO EXPLAIN. 15 THIS -- YOU REMEMBER IN OUR BORING DISCUSSION, WE 16 TALKED A LITTLE BIT ABOUT A SAND UNIT AND A SILTY CLAY UNIT ATOP THE SAN -- AT THE SAN PEDRO FORMATION. 17 THIS IS A FIGURE FROM PB'S MAY 14TH RESPONSE REPORT, 18 AND WE'LL TALK ABOUT THIS QUITE A BIT TODAY. FIRST OF 19 20 ALL, I WANT YOU TO KNOW THAT THE RED DOTS ARE DATA POINTS 21 THAT WE HAVE ACCESS TO. WHAT -- WHAT PB HAS DONE IS TRIED 22 TO SHOW A CONTOUR MAP, IF YOU UNDERSTAND WHAT A CONTOUR 23 MAP IS. IT IS A TOPOGRAPHY MAP OF THE SURFACE WHERE YOU 24 WOULD GENERALLY FIND SAND BELOW AND A CLAY MATERIAL ABOVE. 25 THIS IS THE SURFACE OF THE SAN PEDRO FORMATION.

1 THE DIFFERENT COLORS REPRESENT DIFFERENT 2 ELEVATIONS. SO IF YOU AND I WERE STANDING HERE AND WE 3 WALKED TO THE NORTH -- AGAIN, THIS IS THE CAMPUS RIGHT 4 HERE -- AND WE WALKED TO THE NORTH, WE WOULD BE GENERALLY 5 WALKING DOWN A SLOPE. OKAY? SAME THING HERE. WE WOULD 6 BE GENERALLY WALKING DOWN A SLOPE TO THE NORTH.

7 WELL, BASED ON DATA -- I'M NOT SURE WHAT DATA --8 THEY HAVE SHOWN A SIGNIFICANT FAULT RIGHT THROUGH HERE. 9 IN THE TEXT OF THE REPORT, THEY ARE SHOWING EVIDENCE FOR 300 TO 350 FEET OF RIGHT LATERAL STRIKE SLIP MOVEMENT. 10 RIGHT LATERAL STRIKE SLIP MOVEMENT MEANS THAT IF YOU AND I 11 12 WERE LOOKING AT EACH OTHER AND THAT FAULT MOVED, YOU WOULD 13 GO THAT WAY, AND I'D STILL BE HERE OR I WOULD GO THAT WAY. 14 350 FEET OF RIGHT LATERAL STRIKE SLIP MOVEMENT 15 MEANS THAT THE MAYOR WOULD BE 350 FEET DOWN THAT WAY, AND

16 I WOULD BE HERE. SO THAT'S WHAT THEY ARE DEPICTING HERE. 17 THEY ARE ALSO DEPICTING A NORTHWARD DIPPING SURFACE, SO 18 THAT AS THAT MOVES RIGHT, IF YOU STEP ACROSS THE FAULT, 19 YOU HAVE TO GET DEEPER. RIGHT?

20 SO IF I WERE HERE AND I WAS SUPPOSED TO BE HERE, 21 AS THIS FAULT MOVES THIS WAY, I WOULD BECOME DEEPER AND 22 DEEPER AS THIS CONTINUES TO MOVE BECAUSE THAT'S A DIPPING 23 SURFACE. SO NOW IF I STEP OVER, I HAVE TO GO QUITE A WAYS 24 DOWN TO FIND THAT SURFACE.

25

ANOTHER POINT I WANT TO POINT OUT -- SO THIS IS

SHOWING THERE'S A MAJOR FAULT ACROSS THIS FEATURE. ONE OF
 THE INTERESTING THINGS ABOUT THIS FEATURE IS THAT NONE OF
 THE OTHER FAULTS OVER HERE SHOW ANY OFFSET OF THAT
 SURFACE. THERE'S NO OFFSET OF THAT SURFACE ON THIS FAULT.
 THERE'S NO OFFSET OF THIS SURFACE ON THIS FAULT. THERE'S
 NO OFFSET OF THAT SURFACE EVEN ALONG DURANT DRIVE. NO
 OFFSET.

8 THIS IS A MILLION-YEAR-OLD SURFACE. SO THERE'S
9 NO OFFSET ON THIS SURFACE IN A MILLION YEARS. AND THIS IS
10 PREPARED BY PB DATED MAY 14TH.

11 NOW I WANT TO GO BACK AND JUST TALK AGAIN FOR A
12 MINUTE. THIS IS OUR T-4, B-10 ON ONE SIDE OF THE FAULT.
13 THIS IS OUR CB-13 ON THE OTHER SIDE OF THE FAULT.
14 REMEMBER WHEN WE HAD THIS CONVERSATION EARLIER, THIS IS AN
15 ELEVATION OF 149. THIS IS AN ELEVATION OF 156.

16 IF THIS IS FIGURE IS CORRECT, THERE SHOULD BE 17 20 TO 50 FOOT OF SEPARATION ACROSS THOSE TWO FAULTS, 18 ACROSS THIS FAULT BETWEEN THOSE TWO BORINGS. THERE'S NOT. 19 INSTEAD THERE'S FIVE OR SIX FEET OF SEPARATION WHICH IS 20 EXACTLY WHAT WE'VE MAPPED WITH A GENTLY SLOPING SURFACE TO 21 THE EAST.

THAT AMOUNT OF SEPARATION MATCHES THE SAME SEPARATION WE'VE SEEN IN EACH OF THESE BORINGS. THE RED LINES ARE THE -- AGAIN, THE BORINGS THAT HAVE BEEN MAPPED IN THE MOST RECENT MAY 14TH PB REPORT.

SO WE JUST DON'T SEE ANY EVIDENCE FOR THOSE
 FAULTS AT BEVERLY HILLS HIGH SCHOOL.

3 MR. BROGAN: YOU MEAN THE RED LINES WERE THE
4 FAULTS.

5 THE WITNESS: I'M SORRY.

6 MR. BROGAN: THE PB FAULTS.

7 THE WITNESS: THE RED LINES WERE THE PB FAULTS IN
8 THE MOST RECENT MAY 14TH REPORT.

9 THERE'S ONE MORE COMMENT I WANT TO MAKE, AND THEN 10 I'LL CONCLUDE. THIS IS IN THE -- IN THE MAY 14TH REPORT 11 THERE'S TWO STATEMENTS, ONE OF THEM ON PAGE 13 -- ON 12 PAGE 3 AND ONE OF THEM ON PAGE 4.

ON PAGE 3 THE REPORT MAKES THE FOLLOWING
STATEMENT. "METRO AGAIN NOTES THAT TRENCHING IS NOT THE
SINGLE MOST DEFINITIVE TOOL TO DETERMINE THE ACTIVITY OR
INACTIVITY OF FAULTS. ONE MUST INTEGRATE ALL LINES OF
EVIDENCE: GEOMORPHIC, SEISMICITY, GEOPHYSICAL, BORING
CPT, ET CETERA, TO JUDGE FAULT ACTIVITY."

YOU KNOW, I'LL SAY AGAIN THAT WE WERE ABLE TO
TRENCH 90 PERCENT OF THE CAMPUS. IN THE AREAS WHERE WE
WEREN'T ABLE TO TRENCH, WE DUG NUMEROUS BORINGS TO
CORRELATE UNITS ACROSS THAT UNIT.

23 PB WAS UNABLE TO DIG ANY FAULT TRENCHES. ALL OF
24 THEIR DATA IS BASED ON CPT'S -- MAJORITY OF CPT'S AS WELL
25 AS CORE DATA. SO THEY ARE TELLING US THAT TRENCHING IS

1 NOT THE MOST DEFINITIVE TOOL TO DETERMINE ACTIVITY.

2 THIS IS IN THE MIDDLE OF PAGE 3.

IN THE MIDDLE OF PAGE 4 THEY MAKE THIS STATEMENT, 3 4 "IN THE ABSENCE OF CONTINUOUS TRENCH EXPOSURE SHOWING UNBROKEN DEPOSITS OR SOILS OF UNKNOWN AGE, IT IS NOT 5 6 POSSIBLE TO PROVE THAT ANY PARTICULAR FAULT STRAND THAT PB 7 IDENTIFIED WITHIN THE WEST BEVERLY HILLS LINEAMENT IS 8 ACTIVE OR INACTIVE. SUCH DATA CAN ONLY BE GLEANED FROM 9 TRENCHES THAT PROVIDE CONTINUOUS EXPOSURE OF THE ENTIRE WIDTH OF THE POTENTIAL FAULT ZONE." 10 PB DIDN'T DO ANY TRENCHES. ON PAGE 3 THEY TELL 11 US TRENCHING IS NOT DEFINITIVE. ON PAGE 4, THEY ARE 12 IGNORING OR TELLING US SOME OF OUR DATA IS NOT ACCURATE 13 BECAUSE WE WEREN'T ABLE TO TRENCH THE ENTIRE SITE. THAT 14 15 MAKES IT REALLY HARD FOR ANYONE TO QUESTION THEIR DATA. IF TRENCHING IS DEFINITIVE, GREAT. IF IT'S NOT 16 DEFINITIVE, GREAT. BUT THEY ARE BASICALLY SAYING BOTH 17 WAYS IN THIS RESPONSE REPORT. 18 19 THIS CONCLUDES MY PRESENTATION. 20 MR. BROGAN: THANK YOU, MR. BUCHIARELLI. 21 WE'LL CALL AS OUR NEXT WITNESS MR. ELDON GATH. 22 MR. GATH, PLEASE COME FORWARD AND BE SWORN. 23 HEARING OFFICER DROOYAN: WOULD YOU SPELL YOUR NAME FOR THE RECORD, PLEASE. 24 THE WITNESS: YES, SIR. ELDON -- EXCUSE ME --25

1	ELDON, E-L-D-O-N; GATH, G-A-T-H.
2	HEARING OFFICER DROOYAN: MADAM COURT REPORTER,
3	WOULD YOU SWEAR THE WITNESS, PLEASE.
4	
5	ELDON GATH,
6	A WITNESS HEREIN, CALLED BY AND ON BEHALF OF THE CITY
7	HAVING BEEN FIRST DULY SWORN, WAS EXAMINED AND TESTIFIED
8	AS FOLLOWS:
9	
10	EXAMINATION
11	BY MR. BROGAN:
12	Q MR. GATH, WOULD YOU BASICALLY STATE YOUR
13	BACKGROUND IN ABOUT 15 SECONDS.
14	A HI. MY NAME IS ELDON GATH. I'M THE PRESIDENT OF
15	A CONSULTING COMPANY CALLED "EARTH CONSULTANTS
16	INTERNATIONAL."
17	I'M A PAST PRESIDENT OF THE ASSOCIATION OF
18	ENGINEERING GEOLOGISTS, A CERTIFIED ENGINEERING GEOLOGIST
19	IN THE STATE OF CALIFORNIA, AND I'M CURRENTLY ON THE
20	TECHNICAL ADVISORY COMMITTEE FOR THE BOARD OF PROFESSIONAL
21	ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS.
22	Q THANK YOU.
23	WOULD YOU PLEASE PROCEED WITH YOUR WORK AND
24	CONCLUSIONS.

25 A WELL, PHIL HAS GIVEN YOU THE -- THE BACKGROUND ON

1 THE INVESTIGATION THAT I WAS BROUGHT IN TO ASSIST THEM 2 WITH. AND -- AND I HOPE YOU UNDERSTAND HE DID A VERY NICE JOB. AND LEIGHTON CONSULTING ALSO DID A VERY NICE A JOB. 3 4 AND IT IS JUST INCREDIBLE THAT WE NOW HAVE THIS 5 METRO OR THIS PARSONS'S REVIEW REPORT BACK ON IT. AND I 6 WANT YOU TO UNDERSTAND THAT THIS WORK THAT THEY DID IS 7 JUST EXTREMELY CONCLUSIVE TO -- TO ME AND TO EVERYONE WHO 8 HAS LOOKED AT IT WITH AN HONEST -- HONEST EYE. 9 Q THEY MEANING LEIGHTON OR PB?

10 A THEY BEING LEIGHTON. THANK YOU.

OKAY. SO WHY THIS IS MORE CONCLUSIVE? WELL,
 LEIGHTON COMPLETELY REDID TRANSECT 4 AFTER QUESTIONS
 EMERGED ABOUT THE DATA VALIDITY. I UNDERSTAND THAT'S NOW
 BEEN RECTIFIED AT AMEC -- ON AMEC SIDE.

15 BUT AT THE TIME WE DIDN'T KNOW THAT, AND AT THE 16 TIME WE NEEDED TO UNDERSTAND WHY TRANSECT 4 COULD BE 17 INTERPRETED SO AGGRESSIVELY WITH SO MANY FAULTS WHEN WE 18 WERE JUST NOT SEEING ANYTHING TO INDICATE THAT IN THE 19 SEDIMENTS THAT WERE EXPOSED IN THE TRENCHES IN THE 20 BORINGS.

IN ADDITION TO REDOING THE TRANSECT, THEY
 SUPPLEMENTED IT WITH ADDITIONAL CPT'S AND ADDITIONAL
 BORINGS, AND THEIR BORINGS WENT CONSIDERABLY DEEPER THAN
 AMEC BORINGS DID BECAUSE THEY WERE TRACKING THAT -- THAT
 UNIT CALLED "THE SAN PEDRO FORMATION" WHICH WAS VERY

1 DISTINCTIVE AND EASILY CORRELATED FROM BORING TO BORING.

FURTHERMORE, THAT UNIT IS PERHAPS AS OLD AS A
MILLION YEARS OLD. AND SO IF THAT UNIT IS NOT AFFECTED BY
FAULTING, IT PRETTY MUCH PUTS TO BED ANY OTHER CONCERN.
IN ADDITION, AS PHIL SAID, THEY TRENCHED ALMOST

6 THE ENTIRE WIDTH OF THE SCHOOL, VERY IMPRESSIVE
7 EXCAVATIONS AND VERY EXCELLENT EXPOSURES THAT CLEARLY
8 SHOWED THAT THERE WERE NO ACTIVE FAULTS THROUGH THE
9 SCHOOL.

IN ADDITION, WE OPENED THE TRENCH SIDE UP TO A
 CALIFORNIA GEOLOGICAL SURVEY. THEY SPENT ALMOST A WEEK
 OUT THERE. U.S. GEOLOGICAL SURVEY WAS THERE AND VISITED
 IT.

IN ADDITION, UNLIKE WHAT THE RECENT PARSONS'S 14 15 REPORT SAYS, WE DID OPEN IT UP TO AMEC LEAD GEOLOGIST ON 16 THIS PROJECT, AND SHE REVIEWED THE TRENCH AS WELL. IN ADDITION TO THAT AND UNLIKE THE -- THE 17 PREVIOUS WORK, WE DEVELOPED THIS VERY ROBUST AND 18 MULTIDISCIPLINARY ASSESSMENT OF THE AGE CONTROL ON THE 19 20 SEDIMENTS THAT WERE PRESENT AT THE SITE. 21 IN PB'S REPORT -- THIS IS THEIR GEOLOGY SECTION -- IT'S PRETTY SIMPLE. AND THE HIGHLIGHTED -- THE 22 23 AGE OF THE YELLOW IS THE HOLOCENE. THAT EFFECTIVELY DEFINES THE AGE OF AN ACTIVE FAULT. IF IT DOESN'T BREAK 24 25 THOSE SEDIMENTS, IT DOESN'T -- IT DOESN'T AFFECT ANYTHING

1 IN TERMS OF THE HAZARD.

2 AND THEN THE OTHER UNITS DOWN BELOW GET OLDER AND 3 OLDER. IN THIS SECTION WE NOW KNOW THAT THE OLDER 4 ALLUVIAL DEPOSITS ARE BETWEEN 200- TO 500,000 YEARS OLD. 5 WE DON'T REALLY BELIEVE THESE ESTUARINE DEPOSITS. WE 6 THINK THEY ARE ACTUALLY JUST FLOOD PLAIN DEPOSITS. BUT 7 THAT'S A TRIVIAL ISSUE.

8 AND THEN DOWN THERE AT THE BOTTOM, THE TARGET, 9 THAT WAS THE SAN PEDRO FORMATION. IT COULD BE AS OLD A 10 MILLION YEARS. IT MAY ONLY BE 750,000, BUT AT THAT POINT 11 YOU'RE STARTING TO SPLIT HAIRS THAT ARE KIND OF

12 IRRELEVANT.

13 AT THE SCHOOL THE AGE OF SEDIMENTS TO GET DOWN 14 BELOW WHICH TO DEFINE WHETHER A FAULT POSES A HAZARD OR 15 NOT IS THAT YELLOW LINE THERE. IT'S ONLY ABOUT SIX FEET 16 DOWN. EVERYTHING BELOW THAT IF IT'S NOT FAULTED, THERE IS 17 NO FAULT HAZARD. AND THAT WAS CONSISTENT THROUGH THIS 18 WHOLE SYSTEM.

NOW, PB'S TRANSECT DOESN'T EVEN HAVE THOSE
DEPOSITS ON TOP. THEY HAVE ALL OF THESE VERY OLD
SEDIMENTS, HUNDREDS TO 200- TO 3-, 400,000 YEARS OLD
PROBABLY, AND YET THEY DRAW THE FAULTS ALL THE WAY TO THE
SURFACE AND CONSIDER THEM TO BE ACTIVE. THERE'S NOT EVEN
A SHADOW OF A DOUBT IN THAT STATEMENT, AND THAT'S -THAT'S VERY UNFORTUNATE.

1 THERE IS NO CONFIRMATION OF THAT, THAT THEY ARE, 2 IN FACT, AN ACTIVE FAULT. IN FACT, THERE'S NO CONFIRMATION OF EVEN A FAULT THERE. THESE ARE JUST 3 4 INTERPRETATIONS OF POTENTIAL OFFSETS IN A SIGNATURE THAT IS DRIVEN DOMINANTLY BY THOSE CPT PROBES. 5 6 SO WHY CALL THEM ACTIVE WITH NO CONFIRMATION? 7 WELL, THE REASON IS, IS THAT THEY WERE ASSUMED TO BE 8 ACTIVE BECAUSE OF A MODEL PARADIGM CONNECTING THESE WITH 9 THE NEWPORT INGLEWOOD FAULT SEVERAL MILES TO THE SOUTH. SO IN METRO'S TRANSECT 7, THEY -- THEY HAVE 10 ACTUALLY A FAIRLY DECENT AMOUNT OF BORINGS, AND THEY DON'T 11 DRAW ANY FAULTS THERE. THEY DRAW THEM WHERE THE CPT'S 12 13 COME IN. AND, AGAIN, WHEN YOU DO A CPT, I MEAN, AS PHIL POINTED OUT, THIS IS ALL THE GEOLOGY YOU SEE. YOU SEE 14 15 ASPHALT BECAUSE YOU'RE PUSHING THROUGH. THAT'S IT. 16 AND YOUR SIGNATURE COMES FROM A LITTLE THREE-INCH OR FOUR-INCH HOLE HERE THAT'S PUSHED THROUGH THE ASPHALT 17 RESULTING IN AN ELECTRONIC FINGERPRINT OF THE SOILS. 18 NOW, THERE'S A LOT OF -- A LOT OF THINGS THAT CAN 19 20 MAKE THAT CHANGE, AND INTERNALLY THERE'S A LOT OF 21 VARIATIONS WITHIN CPT'S. IT IS AN EXCELLENT TOOL, BUT IT 22 IS NOT THE ONLY TOOL THAT YOU WOULD BASE A DECISION LIKE 23 THIS UPON. WHEN YOU DRILL, YOU AT LEAST GET A THREE OR 24

25 FOUR-INCH DIAMETER CORE THAT YOU CAN BUT IN A BOX, AND YOU

CAN TOUCH AND LOOK AT AND SAY, "WOW, THAT'S THE SAME AS
 OVER HERE."

3 IN THIS CASE THIS IS ONE OF LEIGHTON'S BORINGS 4 THAT THEY BACKFILLED WITH BENTONITE, SO YOU CAN KIND OF 5 SEE THAT EVEN COMPARED TO A TRENCH, AND EVEN THOUGH THIS 6 IS TWICE AS BIG AS A CPT, IT'S STILL INSIGNIFICANT IN 7 TERMS OF WHAT YOU CAN SEE WHEN YOU ACTUALLY DIG A TRENCH. 8 WELL, THAT'S THE POINT. WHEN YOU DIG A TRENCH, YOU CAN 9 SEE EVERYTHING.

AND IT JUST LAYS IT OUT FOR YOU, AND YOU JUST GO 10 FROM LAYER TO LAYER TO LAYER, LIKE A CAKE, AND YOU JUST 11 WALK UP THE HILL. AND THE REALLY CRITICAL ISSUE IS AND 12 EVERYBODY ELSE CAN SEE IT TOO -- THE TIME TO ARGUE ABOUT 13 14 GEOLOGY IS NOT WHEN YOU MAKE A CARTOON AND PUT IT IN A 15 REPORT. THE TIME TO ARGUE ABOUT IT IS WHEN YOU'RE 16 STANDING OUT IN THE FIELD LOOKING AT THE DATA, LOOKING AT THE EXPOSURES, AND COMING UP WITH A CONSENSUS AS TO WHAT 17 THINGS MEAN AND HOW IMPORTANT THEY ARE. 18

WELL, PHIL TOOK YOU THROUGH THE PHYSICAL -- THE
ISSUES OF THE BORINGS, AND I JUST WANT TO SAY THAT WE DID
THIS. WE LAID THEM OUT IN THE PARKING LOT DAYS ON END.
WE HAD -- WE HAD CALIFORNIA GEOLOGICAL SURVEY PEOPLE OUT
HERE. WE HAD CITY GEOLOGISTS. WE EVEN HAD AMEC
GEOLOGISTS OUT HERE AND -- AND PARSONS CONSULTANTS AS
WELL.

SO AFTER SEVERAL DAYS OF GOING FROM BORING TO
 BORING TO BORING AND CORRELATING EVERYTHING, THERE WAS
 PRETTY MUCH CONSENSUS, AND I DIDN'T HEAR ANY DIFFERENT
 THAT THESE, THE LEIGHTON TRANSECTS, WERE PRETTY GOOD.

5 AND THERE'S ONE LINGERING QUESTION, AND THAT WAS 6 THAT ONE THAT PHIL ALLUDED TO BETWEEN THEIR BORING -- AMEC 7 BORING 10 AND LEIGHTON'S BORING 13. AND SO WE ACTUALLY 8 BROUGHT EVERYTHING BACK TO THE PARKING LOT. AND AMEC 9 BROUGHT THEIR BORINGS OVER, AND WE LAID THEM OUT. AND YOU SAW THE PHOTO THERE THAT -- THAT SAN PEDRO CONTACT IS 10 EXACTLY WHERE IT WAS INTERPRETED BY LEIGHTON. AND THERE 11 12 IS NO NEED TO PUT A FAULT THROUGH THERE, ESPECIALLY A 13 FAULT THAT IS SUPPOSED TO HAVE 400 FEET OF OFFSET.

14 WELL, AT THE END OF THE DAY WHEN WE GOT THAT --15 THAT REPORT BACK FROM METRO, IT WAS JUST FRUSTRATING. 16 I MEAN, IT WAS LIKE, "WHY BOTHER?" I MEAN, LITERALLY. DESPITE SITTING THERE LOOKING AT DIRT FOR THREE DAYS WITH 17 EVERYBODY PRESENT, HOURS OF DISCUSSION, AND THEN GENERAL 18 AGREEMENT IN THE FIELD THAT THERE WERE NO ACTIVE FAULTS 19 20 THAT ONE COULD INTERPRET THROUGH THE SCHOOL, THE PARSONS'S 21 REPORT NOW SAYS THAT WE HAVE CONFIRMED THEIR FAULTS. NOW THEY HAD TO MOVE THEM A LITTLE BIT. AND -- AND THAT'S --22 23 YOU KNOW, PHIL'S TALKED ABOUT THAT.

24 IT FEELS LIKE THIS, QUITE FRANKLY, AND IT'S NOT
25 SCIENCE. IT FEELS LIKE IT'S PARADIGM DRIVEN AND OPINION

DRIVEN AND MAYBE A BIT OF ARROGANCE THROWN IT THAT THEY
 COULDN'T HAVE POSSIBLY INTERPRETED THIS INCORRECTLY.

3 WELL, THEY USED CONE PENETROMETERS FOR THE 4 DOMINANT PART OF THEIR INTERPRETATION. AND AS I SAY, 5 THEIR ONLY ONE TOOL, AND WITHIN THEMSELVES, THEY HAVE 6 INTERNAL VARIATION WHICH IS NOT NECESSARILY VISIBLE TO YOU 7 AS AN INTERPRETER BECAUSE ALL YOU'VE GOT TO WORK WITH IS A 8 LITTLE ELECTRONIC SIGNATURE.

9 SO CPT IS ONLY IMAGE OF SUBSURFACE. I MEAN --10 AND YOU DON'T EVEN KNOW WHAT THEY ARE NECESSARILY SENSING 11 BECAUSE IT'S A -- IT'S A COMPUTER ALGORITHM THAT TELLS YOU 12 WHETHER IT'S SAND OR -- OR CLAY OR NOT. BUT IN THIS CASE, 13 THIS IS ONE OF THE NEW FAULTS THAT SHOWED UP. IT SHOWS UP 14 HERE BETWEEN THESE TWO CPT'S. AND I WILL BE DARNED IF I 15 CAN UNDERSTAND WHY. SO VERY SUBJECTIVE INTERPRETATIONS.

AS I ALLUDED TO, THEY ALSO HAVE INHERENT VARIABILITY AMONGST THEMSELVES. IN OTHER WORDS, THESE TWO CPT'S ARE ONLY EIGHT FEET APART, AND THEY ARE SIMILAR, BUT THEY ARE NOT IDENTICAL. AND IN ADDITION, WHAT WE LOOK AT IS AS THE AMEC CPT'S GO DEEPER AND DEEPER AND DEEPER, THE CORRELATIVE UNIT BECOMES DEEPER AND DEEPER AND DEEPER.

AND ONE OF THE THINGS WE WERE VERY CAREFUL ABOUT IN DOING LEIGHTON'S CPT'S IS TO MEASURE THE VERTICALITY OF THE PROBE BECAUSE IT'S VERY COMMON FOR THESE PUSH PROBES TO KICK OUT SIDEWAYS, ESPECIALLY IN THIS TYPE OF

SEDIMENTS. AND AS THEY KICK OUT FURTHER AND FURTHER AND
 FURTHER OUT HERE, THAT DEPTH CAN BE VARIABLE AS IT'S
 GETTING STRETCHED BECAUSE IT'S GETTING LONGER BUT NOT ANY
 DEEPER. WELL, AN INTERPRETER WOULDN'T KNOW THAT.

5 AND NEXT PROBE RIGHT NEXT TO IT MIGHT GO 6 PERFECTLY STRAIGHT, AND YOU WOULDN'T KNOW THAT EITHER 7 UNLESS YOU WERE MEASURING THE VERTICALITY OF THE PROBES. 8 AND I THINK BASED ON THIS CORRELATION THAT THE AMEC CPT'S 9 WERE PROBABLY DEVIATING FROM VERTICAL, AND THIS LEADS TO 10 THE OPPORTUNITY TO INTERPRET FAULTS BETWEEN CPT'S WHERE 11 ONE WENT STRAIGHT AND ONE DIDN'T.

12 BUT EVEN SO, THEY ARE NOT IDENTICAL AND THEY 13 SHOULD NEVER BE INTERPRETED TO BE IDENTICAL. HERE, FOR 14 EXAMPLE, IS A SET OF CPT'S. THE -- THE LIGHT GREEN ONES 15 ARE AMEC, AND THE DARK GREEN ONES ARE LEIGHTON'S. THESE 16 ARE ABOUT TEN FEET APART; THESE ARE ABOUT 20 FEET APART.

AND YOU CAN SEE THIS IS NOT THE SAME AS THIS, AND
THIS IS CERTAINLY NOT THE SAME AS THIS. AND THIS ISN'T
THE SAME AS THIS, AND THIS ISN'T THE SAME AS THIS. WELL,
AMEC PUT A FAULT HERE. AND I'M THINKING, WELL, WHY NOT
PUT IT OVER HERE TO WHERE IT REALLY CHANGED. AND WELL,
YOU COULDN'T PUT IT HERE BECAUSE THEN IT WOULDN'T SNEAK
THROUGH ONE OF THE GAPS IN THE TRENCHES.

AND I'M BOTHERED BY THAT TYPE OF SCIENCE, SO I HOPE YOU ARE AS WELL. SO HERE'S THEIR NEW FAULT MAP THAT

PHIL SHOWED YOU. AND SOME OF THESE HAVE MOVED, AND SOME
 OF THEM HAVE NOT. BUT THEY HAVE ALL WIGGLED AROUND HERE,
 OVER HERE, WHEN THEY HAVE TO FIT THROUGH THE TRENCHES.
 AND NO FAULTS HAVE BEEN REMOVED. THEY'VE JUST BEEN
 CHANGED A LITTLE BIT. AND THEY ARE JUST QUITE LITERALLY
 DRAWN PERFECTLY TO MISS THESE TRENCHES. IT'S -- IT'S
 PUZZLING.

8 SO AS I SAID, PB STILL PLACES AN ACTIVE FAULT 9 BETWEEN THESE TWO BORINGS. AND I'M SAYING "WHY?" THESE 10 ARE TWO OF THE MOST IDENTICAL BORINGS YOU'RE EVER GOING TO 11 SEE, AND YET THEY HAVE A FAULT THROUGH THE MIDDLE OF 12 THESE. AND THIS IS WHAT PHIL SHOWED YOU. THESE BORINGS 13 ARE JUST -- YOU CAN JUST WALK THEM RIGHT UP THERE, AND --14 AND YOU CAN CONTINUE.

15 BUT THEIR TRANSECT HAS -- HAS JUST NAILED IT. I 16 MEAN, NOT THE -- NOT ONLY DID THEY REPLICATE AMEC TRANSECT 17 4, BUT THEY DID A WHOLE NEW ONE, AND THEY EXPOSED ALMOST 18 90 PERCENT OF IT IN TRENCHES, AND YET IT SEEMS LIKE IT WAS 19 COMPLETELY IGNORED IN THE NEW REVIEW IN THE RESPONSE.

20 A LOT OF EFFORT WAS PLACED IN THE NEW RESPONSE 21 ABOUT THE FAULTS THAT WE DID FIND. WELL, THEY ARE 22 IMPRESSIVE. IT'S A ZONE OF FAULTING, A FOOT OR TWO WIDE. 23 THAT TOTAL OFFSET THAT YOU CAN MEASURE HERE IS FOUR 24 INCHES. SO DRAMATIC. THIS IS NOT ANYTHING THEY WOULD 25 HAVE EVER BEEN ABLE TO SEE IN THAT SCALE IN THEIR CPT

1 INTERPRETATIONS.

2 AND FURTHERMORE, IT'S CAPPED UP AT THE TOP BY A DEPOSIT THAT IS A SCREEN DEPOSIT THAT CUT RIGHT ACROSS THE 3 4 TOP OF THE GROUND, AND SO THESE EARTHQUAKES, WHATEVER 5 HAPPENED TO MAKE THIS HAPPEN, OCCURRED BEFORE THIS DEPOSIT 6 WAS PLACED DOWN. AND THIS DEPOSIT IS SITTING BENEATH A 7 COUPLE HUNDRED THOUSAND YEARS OF SOIL DEVELOPMENT. SO 8 WE'RE LOOKING AT A FOUR-INCH DISPLACEMENT SEVERAL HUNDRED THOUSAND YEARS AGO. IT'S HARD TO FEEL VERY THREATENED BY 9 10 THAT.

OTHER COMMENTS WERE THAT THE WEST BEVERLY HILLS 11 12 LINEAMENT HAS BEEN MAPPED BY THE STATE AND MAPPED BY THE 13 U.S. GEOLOGICAL SURVEY. AND THIS IS SOMEWHAT TRUE. I MEAN, THEY DOT THE WHOLE THING THROUGH HERE, BUT THEY MAP 14 15 IT WAY OUT IN HERE, NOT THROUGH BEVERLY HILLS HIGH SCHOOL. 16 AND NOW HERE'S THE NEW PLACE THAT THE METRO REVIEW RESPONSE PUTS THE FAULT. SO IT'S A MOVING TARGET, AS PHIL 17 18 POINTED OUT.

AND HERE'S THEIR TOPO MAP THAT THEY'VE MADE ON
THAT SAN PEDRO FORMATION, USING A LOT OF DATA THAT WE
DON'T HAVE ACCESS TO AND TAKING OUR DATA OVER HERE FROM
THE LEIGHTON TRANSECT "B" -- "A" AND ALL OF THE BORINGS
AND COMPLETELY CHANGING IT.

AS --AS I HOPE YOU ARE PERSUADED, THE DATA
INDICATES VERY CLEARLY A NICE GENTLE SLOPE TO THE EAST.

1 AND INSTEAD THEY'VE TURNED IT INTO A FAIRLY STEEP SLOPE TO 2 THE NORTH SO THAT THEY CAN GET OVER HERE AND OFFSET IT 3 AGAINST THIS THING, WHICH IS BASED ON TWO OR THREE DATA 4 POINTS THAT WE CAN'T REVIEW, AND PUT THAT FAULT RIGHT 5 THROUGH THE MIDDLE OF THOSE TWO BORINGS WHICH DO NOT ALLOW 6 FOR SUCH A FAULT THROUGH THE MIDDLE OF THEM.

WELL, YOU CAN REINTERPRET DOTS. THIS IS JUST A
CONNECT-THE-DOTS PUZZLE. AND -- AND WHEN YOU DO AND YOU
ADD IN OUR NEW DATA, OUR DATA HERE FROM THE TRANSECT, AND
GET THIS NICE GENTLE EAST DIP, YOU CAN TAKE THIS BULLS-EYE
PATTERN WHICH IS A CALLED AN "ANTICLINE" OR A "FOLD," AND
YOU CAN JUST CONNECT IT. AND ALL OF OUR SEDIMENTS ARE
SHOWING HERE IS THIS IS THE EAST LIMB OF THIS FOLD.

HERE'S A LITTLE CARTOON FROM -- WHICH MAYBE I
DON'T KNOW IF THIS HELPS OR NOT -- BUT THIS IS WHAT WE'RE
SEEING, JUST A NICE GENTLE EAST DIP. BUT HERE'S THE HINGE
OF THE FOLD, RIGHT HERE. RIGHT HERE.

AND WHEN YOU PLOT THIS, HERE IS WHAT WE SEE 18 THROUGH THE SCHOOL. THERE'S A NICE GENTLE EAST DIPPING 19 20 SURFACE ON A MILLION-YEAR-OLD SURFACE. BUT RIGHT HERE 21 THROUGH CONSTELLATION IS THE HINGE OF THE FOLD. WELL, IF 22 THIS IS AN ACTIVELY GROWING STRUCTURE LIKE IT'S BEEN 23 SEEMINGLY IMPLIED, THEN THIS IS OF SOME CONCERN I WOULD HOPE FOR YOU FOR THE DESIGN OF THE CONSTELLATION STATION 24 25 BECAUSE STATIONS DON'T BEND; BUT THEY DON'T FOLD ANY

BETTER OR DON'T FAULT. I DON'T THINK I SAID THAT RIGHT,
 BUT.

BUT HERE'S WHY ALL OF THESE FAULTS SHOW UP 3 4 THROUGH BEVERLY HILLS ON THIS TRANSECT. BECAUSE INSTEAD OF ALLOWING THE SEDIMENTS TO DIP TO THE EAST LIKE THEY DO, 5 6 THEY WERE ALL MADE HORIZONTAL. AND THEY'RE MADE 7 HORIZONTAL BECAUSE OF THIS DATA POINT AND THIS DATA POINT, 8 AND THIS DATA POINT OVER HERE BECAUSE THEY DON'T KNOW 9 WHICH WAY THEY ARE DIPPING, SO THEY JUST DREW HORIZONTAL 10 LINES.

AND THEN, OF COURSE, YOU CAN PUT FAULTS IN THEM 11 12 BECAUSE YOU'VE GOT TO STEP THESE THINGS DOWN. OVER HERE 13 IT'S PERMISSIBLE FOR THIS TO BE A SLOPE UNTIL YOU GET TO THIS FAULT, AND THEN SUDDENLY IT'S GOT TO BE A FAULT. AND 14 15 THIS IS VERY DISINGENUOUS. AND THIS IS NOT -- THIS BLACK 16 LINE IS ACCURATE. THESE -- THESE ORANGE LINES ARE NOT. AND I THINK YOU NEED TO PAY ATTENTION TO THIS. 17 AND THAT'S THE END OF MY TALK. THANK YOU. 18 HEARING OFFICER DROOYAN: THANK YOU, MR. GATH. 19 MR. BROGAN, YOUR NEXT WITNESS. 20 21 MR. BROGAN: THANK YOU, YOUR HONOR. 22 OUR NEXT WITNESS, WE'RE GOING TO CALL 23 MILES KENNEY. LET'S CALL DR. SHLEMON BY VIDEO. 24

25 HEARING OFFICER DROOYAN: THAT'S FINE.

1 MR. BROGAN: THANK YOU.

2 HEARING OFFICER DROOYAN: WE HAVE THAT SET UP? MR. BROGAN: IT'S ALL SET. I HOPE. 3 4 HEARING OFFICER DROOYAN: I'LL ADMIT THIS AS BASICALLY AN EXHIBIT. I THINK TECHNICALLY HE PROBABLY 5 6 SHOULD HAVE BEEN SWORN IF GIVING TESTIMONY, BUT I THINK 7 GIVEN THE TIME LIMITS AND THE NEED TO MOVE THIS PROCEEDING 8 FORWARD, I THINK WE SHOULD ADMIT IT AS AN EXHIBIT. 9 MR. BROGAN: I APPRECIATE THAT, AND WE'LL MAKE A COPY FOR YOUR HONOR AND FOR THE RECORD. WE HAVE A COPY. 10 MAY WE BEGIN WITH THE -- GO AHEAD AND PLAY IT. 11 HEARING OFFICER DROOYAN: WE'RE MISSING THE 12 SOUND. HOLD IT. 13 MR. BROGAN: IS THERE ANYTHING YOU CAN DO FOR THE 14 15 -- THE VOLUME'S TURNED UP HERE. VOLUME'S UP HERE. 16 HEARING OFFICER DROOYAN: ALL RIGHT. LET'S TRY IT AGAIN. 17 MR. BROGAN: NO. SOMETHING'S -- VOLUME LEVEL IS 18 19 TURNED UP. 20 HEARING OFFICER DROOYAN: AT THE WORST, WE'LL 21 ADMIT IT AS AN EXHIBIT. MR. BROGAN: WELL, WE CAN ADJUST. I DON'T KNOW 22 23 HOW LONG IT WILL TAKE FOR THE AUDIO PERSON TO GET HERE, BUT WE CAN SWAP WITNESSES AROUND. 24 25 HEARING OFFICER DROOYAN: THAT'S FINE.

MR. YAROSLAVSKY: YEAH, WHY DON'T YOU DO THAT, 1 2 MR. DROOYAN --HEARING OFFICER DROOYAN: THAT'S FINE. 3 4 MR. YAROSLAVSKY: -- AND LET SEE IF THEY CAN FIX THAT IN THE MEANTIME. 5 6 HEARING OFFICER DROOYAN: I THINK THAT'S 7 ABSOLUTELY RIGHT. 8 MR. BROGAN: ALL RIGHT. WE'LL CALL AS OUR NEXT WITNESS MR. MILES KENNEY. MR. KENNEY, PLEASE COME FORWARD 9 10 AND BE SWORN. I'M SORRY. DR. KENNEY. PLEASE COME 11 FORWARD AND BE SWORN. HEARING OFFICER DROOYAN: PLEASE STATE YOUR FULL 12 NAME FOR THE RECORD AND SPELL IT, PLEASE. 13 THE WITNESS: MILES, M-I-L-E-S; KENNEY, 14 15 K-E-N-N-E-Y. 16 HEARING OFFICER DROOYAN: DR. KENNEY, WOULD YOU BE SWORN BY OUR COURT REPORTER, PLEASE. 17 18 19 MILES KENNEY, 20 A WITNESS HEREIN, CALLED BY AND ON BEHALF OF THE CITY 21 HAVING BEEN FIRST DULY SWORN, WAS EXAMINED AND TESTIFIED 22 AS FOLLOWS: 23 24 EXAMINATION

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1 BY MR. BROGAN:

2 Q MR. KENNEY, WOULD YOU BRIEFLY DESCRIBE YOUR PROFESSIONAL BACKGROUND IN 15 SECONDS OR LESS. 3 4 А YES. I'M A PROFESSIONAL GEOLOGIST IN THE STATE OF CALIFORNIA. I HAVE A PH.D. IN GEOLOGY. MY 5 6 SPECIALITIES ARE GEOMORPHOLOGY, SEISMIC HAZARDS, FAULT 7 SURFACE RUPTURES, STRUCTURAL GEOLOGY, AND TECTONICS. AND 8 I HAVE ABOUT, UNBELIEVABLY -- I CAN'T BELIEVE IT --9 22 YEARS OF EXPERIENCE. HEARING OFFICER DROOYAN: SPEAK INTO THE 10 MICROPHONE, AND MAYBE JUST SLOW UP A LITTLE BIT FOR OUR 11 COURT REPORTER. 12 13 THE WITNESS: OKAY. AND ABOUT 22 YEARS 14 EXPERIENCE IN THE FIELD, PRIMARILY WORK IN SOUTHERN 15 CALIFORNIA. 16 OKAY. I APPRECIATE THIS OPPORTUNITY TO PRESENT 17 THIS DATA. I'VE BEEN WORKING ON THIS PROJECT FOR BEVERLY HILLS HIGH SCHOOL SINCE FEBRUARY 2011. I'VE HAD THE 18 OPPORTUNITY TO REVIEW ALL OF THE SUBSURFACE REPORTS AS 19 20 THEY WERE ISSUED. 21 AT THE BEGINNING OF MY WORK IN FEBRUARY OF LAST YEAR, I PERFORMED A GEOMORPHOLOGY STUDY. PRIOR TO HAVING 22 23 ANY SUBSURFACE STATUS SO ESSENTIALLY THE MACTEC OF 2010 24 REPORT WAS THE FIRST SUBSURFACE STUDY DONE IN THE AREA. 25 AND THEN THE PARSONS'S REPORT DONE IN 2011 WAS THE SECOND

EVER SUBSURFACE-FAULT-INVESTIGATION-TYPE SUBSURFACE STUDY
 DONE IN THE AREA.

SO I'M GOING TO -- THIS IS -- TITLE OF MY TALK IS 3 4 "PRELIMINARY GEOMORPHIC STRATIGRAPHIC AND STRUCTURAL EVALUATION OF THE CENTURY CITY AREA." THE ROLE THAT I 5 6 DECIDED TO TAKE IN THIS PROJECT OTHER THAN STUDYING THE 7 GEOMORPHOLOGY, WHICH PARSONS AGREES IS A VERY IMPORTANT 8 ASPECT OF FAULT EVALUATION, WAS ALSO JUST TO REEVALUATE 9 THE PARSONS'S DATA, SORT OF SEE HOW THEY EVALUATED THE 10 FAULTS; ALSO TO LOOK AT THE LOCAL KINEMATICS AS WELL AND SEE IF WE COULD EXPLAIN THE WEST BEVERLY HILLS LINEAMENT. 11

12 IT IS A REAL LINEAMENT. IT DOES EXIST. IT JUST
13 DOESN'T MEAN THAT IT HAS TO BE DUE TO FAULTING IN THE NEAR
14 SURFACE.

15 INTERIM CONCLUSIONS -- I'LL JUST JUMP RIGHT TO --16 AFTER QUITE A BIT OF WORK, I COULD BOIL IT DOWN TO THIS 17 ESSENTIALLY: A REASONABLE REEVALUATION OF THE EXISTING 18 DATA THAT INCLUDES THE LEIGHTON FAULT TRENCHING. I WAS IN 19 THERE. I WAS IN THE TRENCH. I WAS IN A COUPLE OF THOSE 20 PHOTOS. I HAD THE OPPORTUNITY TO SEE THE CORES COMING OUT 21 OF THE GROUND AS WELL AND ALL OF THE FAULT TRENCHES.

22 SO A REASONABLE REEVALUATION OF ALL THE EXISTING 23 DATA SUGGESTS THAT FAULTS ASSOCIATED WITH THE WEST BEVERLY 24 HILLS LINEAMENT, NEWPORT/INGLEWOOD FAULT ZONE DO NOT 25 EXIST. SO I'LL GO ON THE RECORD AS SAYING THAT'S MY

1 PROFESSIONAL OPINION BASED ON THE DATA.

2 AT LEAST ONE FAULT IDENTIFIED BY PARSONS WITHIN THE -- AND THAT'S PARSONS-BRINCKERHOFF I'M REFERRING TO, 3 IN THEIR 2011 REPORT. SO AT LEAST ONE OF THE FAULTS THAT 4 PARSONS IDENTIFIES WITHIN THE WEST BEVERLY HILLS LINEAMENT 5 6 FAULT ZONE IS LIKELY REAL. 7 SO I DID IDENTIFY A FAULT IN MY REEVALUATION OF 8 THEIR DATA. BUT IT'S CONSIDERED PART OF WHAT I WOULD 9 CONSIDER PART OF THE SANTA MONICA BOULEVARD FAULT ZONE. 10 NOW, THAT'S A NAME I'VE CAME UP WITH TO NAME THE FAULT ZONE THAT I AGREE EXISTS ALONG SANTA MONICA BOULEVARD. 11 12 THERE'S A REASON I'M NOT CALLING IT THE SANTA MONICA FAULT ZONE, AND I'LL DESCRIBE THAT LATER. 13 BUT I BASICALLY THINK THAT THE FAULTS ALONG SANTA MONICA 14 15 BOULEVARD ACTUALLY ARE SECONDARY FAULTS AND NOT THE 16 PRIMARY BASAL REVERSE FAULT TO THE SANTA MONICA FAULT 17 ZONE. SO -- SO WE WILL TALK ABOUT THIS OTHER FAULT THAT 18 19 I BELIEVE IS SORT OF NESTLED WITHIN THE WEST BEVERLY HILLS 20 LINEAMENT FAULT ZONES, BUT IT ACTUALLY STRIKES ABOUT 21 90 DEGREES, BECAUSE THE PARSONS'S DATA, THEY HAD NO STRIKE 22 DATA WITH ANY OF THEIR FAULT CROSS-SECTION DATA. SO THEY WENT DOWN. THEY'D FIND SOME FAULTS, BUT YOU REALLY WITH 23 THE DATA THAT THEY HAD HAD NO IDEA WHICH WAY THAT THESE 24 25 THINGS WOULD ACTUALLY TREND.

1 THE SANTA MONICA BOULEVARD FAULTS LIKELY DO 2 EXIST, SO I CONFIRM THAT. IN FACT, I THINK PARSONS DID A 3 GOOD JOB. THE OFFSET ACROSS SOME OF THESE FAULTS IS QUITE 4 SIGNIFICANT, AND THE DATA THAT THEY HAD BETWEEN THEIR 5 BORINGS AND CPT'S WERE FAIRLY CLEAR.

6 HOWEVER, AS WAS INDICATED EARLIER, QUITE A BIT OF 7 AGE DATA WAS COLLECTED IN THE LEIGHTON REPORT. AND I WAS 8 -- I HAD THE OPPORTUNITY TO COLLECT SOME DATA AS WELL ON 9 THE TERRA GEOMORPHIC SURFACES OUT THERE TO START PUTTING TOGETHER THE GEOLOGIC HISTORY. AND SO FOR THE FIRST TIME 10 TODAY YOU WILL SEE A GEOLOGIC MAP OF THE ACTUAL STUDY AREA 11 WHICH IS DIFFICULT FOR ME TO BELIEVE THAT A GEOLOGIC MAP 12 WITH RELATIVE AGES FOR THE SURFACE SEDIMENTS HAD NEVER 13 14 BEEN CONSTRUCTED.

15 NEXT, THE SANTA MONICA BOULEVARD FAULT ZONE
16 LIKELY DOES EXIST, BUT THEY MAY BE DOMINANTLY STRIKE SLIP
17 NORMAL. SO THESE OBLIQUE FAULTS THAT ARE STRIKE SLIP, AND
18 THAT'S IN CONTRADICTION TO WHAT'S BEEN PUBLISHED FOR THE
19 MAIN SANTA MONICA FAULT ZONE, AND THAT IS REVERSE LEFT
20 LATERAL. I'LL SHOW EVIDENCE FOR THAT.

21 THEN, ALSO, THE SANTA MONICA BOULEVARD FAULT 22 ZONES ARE SECONDARY UPPER PLATE FAULTS TO THE SANTA MONICA 23 FAULT ZONE PROPER. OKAY. SO THAT IS INFERRING THAT WE 24 DON'T KNOW WHERE THE BASAL FAULT IS TO THE SANTA MONICA 25 FAULT ZONE. THAT IS THE FAULT THAT DIPS ABOUT 20 TO

30 DEGREES, VERY WELL DOCUMENTED DOWN AT THE V.A. HOSPITAL
 BY A NUMBER OF SUBSEQUENT STUDIES.

AND I'LL ALSO SHOW YOU EVIDENCE THAT THERE IS A POSSIBILITY, A REASONABLE INTERPRETATION OF THE EXISTING DATA TO SUGGEST THAT THIS FAULT ALONG SANTA MONICA BOULEVARD ARE INACTIVE, AND THAT IS BASED ON THE TRANSECTS, REEVALUATION OF THE TRANSECTS, AND ALSO GEOMORPHOLOGY, IN TERMS OF WHAT I'M CONTRIBUTING. AND SO IN REVIEW OF THE EXISTING DATA, THESE ARE

10 THE THINGS THAT I DID: PUBLISHED SCIENTIFIC REPORTS AND 11 MAPS; I DID THAT FOR A NUMBER OF MONTHS. I ALSO DID A 12 GEOMORPHIC STUDY. I ALSO HAD THE SUBSURFACE WORK BY 13 MACTEC, THE 2010 REPORT. IT ENDS UP TURNING OUT TO BE, 14 I THINK, VERY IMPORTANT.

15 I THINK MACTEC IS A SUBSIDY COMPANY OR ORIGINALLY 16 WAS TURNED INTO PARSONS, I BELIEVE. THE LEIGHTON FAULT INVESTIGATION, EARTH CONSULTANTS INTERNATIONAL, AND SOIL 17 TECTONICS AND KENNEY GEOSCIENCE. THE EARTH CONSULTANTS 18 19 INTERNATIONAL AND SOIL TECTONICS ARE THE EXPERTS THAT --20 WELL, IT WAS ELDON OVERSEEING EVERYTHING WITH HIS VAST 21 EXPERIENCE, BUT AS WELL THEY PERFORMED SOIL AGE DATING, 22 AND THAT IS SOIL TECTONICS AS WELL PROVIDES SOIL AGE DATES 23 FOR NEAR SURFACE SOILS.

24AND THEN THERE'S ME. I AM THE PRESIDENT OF25KENNEY GEOSCIENCE. SO FIRST THING THAT I LIKE TO DO TO

UNDERSTAND THE GEOLOGY OF THE AREA IS TO REALLY UNDERSTAND
 THE LOCAL STRATIGRAPHY. ELDON SHOWED THAT STRATIGRAPHIC
 COLUMN THAT WAS USED BY PARSONS 2011. IT'S INCREDIBLY
 SIMPLE. I'M GOING TO SHOW YOU ONE THAT I LIKE TO PUT
 TOGETHER THAT'S A LITTLE MORE COMPLICATED, TOO MUCH TO
 DIGEST HERE.

7 BUT IN ORDER TO REALLY UNDERSTAND FAULTING, WE 8 NEED TO KNOW: WHAT THE STRATIGRAPHY IS; HOW IT WAS 9 DEPOSITED; ARE THERE CHANNELS; ARE THERE CLAY LAYERS; WAS 10 IT ORIGINALLY FLAT, OR THEY'RE UNDULATORY EROSION SURFACES, WERE THERE BEAUTIFUL SOILS FORMED THAT COULD 11 HAVE BEEN ERODED, THAT SORT OF THING. SO YOU NEED TO KNOW 12 13 THESE THINGS IN ORDER TO UNDERSTAND FAULTING, ESPECIALLY WHEN YOU'RE JUST CORRELATING BORING TO BORING. 14

15 SO THIS IS THE STRATIGRAPHIC COLUMN THAT I'VE PUT 16 TOGETHER AFTER REVIEWING ALL OF THE -- AND REPROCESSING 17 ALL OF THE PARSONS'S TRANSECTS BORING LOGS. I LITERALLY 18 TOOK THEM AND CUT THEM AND SPLICED THEM TOGETHER. I 19 REALIZE THIS IS A LITTLE DIFFICULT TO SEE, BUT THIS IS 20 A VERY IMPORTANT SURFACE.

I DON'T KNOW IF YOU RECALL THE LEIGHTON FAULT
TRENCH DATA THAT HAD THE BEAUTIFUL CHANNEL WALL COMING
DOWN IN FT-2. THAT BASAL SHEAR SURFACE IS BASICALLY -EROSION SURFACE IS ESSENTIALLY THIS ONE. IT'S ABOUT 45 TO
55 FEET DEEP.

1 I'VE BEEN ABLE TO CORRELATE THAT EROSION SURFACE 2 OVER TO TRANSECT 4, TRANSECT 2, ALL THE WAY UP TO -- ALONG 3 TRANSECT 7 OVER TO TRANSECT 1, VERY PROMINENT EROSION 4 SURFACE, THE BOTTOM OF IT IS ABOUT 150,000 YEARS OLD. IT 5 WAS FORMED DURING A GLACIAL MAXIMUM WHEN SEA LEVEL HAD 6 DROPPED DOWN TO ABOUT 250, 300 FEET BELOW WHAT IT IS 7 TODAY, CAUSING A DEEP EROSION INTO THE HILLS.

8 I'LL ALSO BE SHOWING YOU AN ANCIENT CHANNEL THAT 9 FLOWED RIGHT THROUGH CENTURY CITY. AND THEN THERE'S THESE 10 UNDERLYING SEDIMENTS THAT I JUST PACKED INTO A COUPLE, BUT 11 I WANTED TO NOTICE -- WANT YOU TO NOTE ONE THING. THIS 12 EROSION ABOUT 150,000 YEARS OLD, PRETTY WELL DATED BY SOIL 13 TECTONICS. THE UNIT RIGHT BELOW IT, FOR EXAMPLE, IN T-4 14 IS RIGHT -- CB-13 ON TRANSECT 4 WHICH IS VERY CLOSE TO

15 PARSONS T-10, THESE SEDIMENTS ARE 500,000 YEARS OLD. SO 16 YOU JUST GO DOWN ABOUT 40, 50 FEET, AND YOU'RE ALREADY AT 17 A HALF-MILLION-YEAR-OLD SEDIMENTS.

18 OKAY. HERE IS THE, IF YOU RECALL, THE BENEDICT
19 CANYON WASH. THESE ARE THE UPPER UNITS. THE BENEDICT
20 CANYON WASH IS ABOUT 40,000 YEARS OLD AT THE TOP,
21 150- AT THE BOTTOM. THIS REPRESENTS AN ANCIENT CHANNEL,
22 150,000 YEARS AGO.

23 I'M GOING TO SPEND A LITTLE TIME ON THIS FIGURE.
24 THE CHANNEL FLOWED RIGHT THROUGH THE CHEVIOT HILLS. SO
25 I'M REFERRING TO THIS WHOLE AREA, IS THE CHEVIOT HILLS.

THERE'S THE WEST BEVERLY HILLS LINEAMENT. IT IS CLEARLY A
 LINEAMENT. AND THIS ANCIENT CHANNEL FLOWED THROUGH HERE.

AND I BELIEVE ACTUALLY ONE OF THE REASONS THAT 3 4 THE CHANNEL FLOWED THROUGH HERE WAS BECAUSE OF THE FAULTING ALONG, I BELIEVE, SECONDARY FAULT, THE SANTA 5 6 MONICA BOULEVARD FAULT ZONE WHICH SPLAYED OUT IN THIS 7 AREA. MOST OF THESE FAULTS HAVE NORMAL OFFSET WHICH 8 PRODUCES EXTENSION OF, YOU KNOW, THE VALLEY TO GO DOWN. 9 AND I BELIEVE THAT THAT CUT APART THESE SURFACES HERE, DROPPED THIS AREA DOWN, THE CHANNEL WAS CAPTURED AND 10 FLOWED OUT INTO THIS SURFACE. 11

12 THIS IS A REASONABLE GEOMORPHIC SURFACE IN TERMS 13 OF EROSION FOR ABOUT 40,000 YEARS. THESE OTHER SEDIMENTS UP HERE ARE WHAT I CALL MY "CHEVIOT HILLS DEPOSITS." AND 14 15 THEY ARE 180- TO 200,000 YEARS OLD ON THE SURFACE. AND 16 THIS IS A REASONABLE AMOUNT OF EROSION. IN FACT, THIS IS VERY CONSISTENT, THIS GEOMORPHOLOGY HERE, FOR THOSE IN 17 TERMS OF THE LEVEL OF EROSION COMPARED TO THE MOJAVE 18 19 DESERT.

20 SO HERE IS THE CENTURY CITY AREA, AND THESE ARE 21 THE VARIOUS TRANSECTS ASSOCIATED WITH IT, THE PARSONS'S 22 REPORT. AND I SHOW YOU THE AGE DATES HERE: 40,000 YEARS 23 OLD FOR THIS SURFACE AND ABOUT 80- TO 150,000 THERE.

OKAY. HERE'S THE VERY FIRST GEOLOGIC MAP MADE OF
SORT OF THE PARSONS'S AREA, IF YOU WILL. THIS IS THE

1 TRANSECT 2, TRANSECT 1-A -- NO -- YEAH, TRANSECT 1-A --2 TRANSECT 1-A -- THAT'S -- WHAT IS THAT -- 3. I'M LOSING 3 IT HERE.

4 THIS IS TRANSECT 7, TRANSECT 4, THE CONSTELLATION 5 TRANSECT HERE. SO THIS IS BEVERLY HILLS HIGH SCHOOL, AND 6 THIS IS ESSENTIALLY WHERE THOSE FAULT TRENCHES WERE DUG BY 7 LEIGHTON. THIS IS -- THESE -- ALL THESE WHITE SURFACES 8 EXPOSE THE CHEVIOT HILL DEPOSITS WHICH ARE VERY OLD, 9 80,000 TO 200,000 YEARS OLD AT THE SURFACE. AND HERE THE BENEDICT CANYON WASH, THIS ANCIENT WASH, THE UPPER SURFACE 10 IS ABOUT 40,000. THIS IS ABSOLUTELY CRITICAL. 11

12 PARSONS SAID GEOMORPHOLOGY IS AN IMPORTANT WAY TO 13 ANALYZE FAULTING. AND SO BASICALLY, THIS IS A BEAUTIFUL 14 SURFACE IN THIS AREA. AND I WOULD IMAGINE IF FAULTING HAS 15 OCCURRED IN THE LAST 40,000 YEARS, WE'D SEE EVIDENCE OF 16 IT.

17 THIS IS ALSO PART OF MY CONCLUSIONS, IS THAT THIS 18 IS WHAT I CALL "FAULT F," WHICH I DO BELIEVE GOES OVER TO 19 A REASONABLE INTERPRETATION OVER TO TRANSECT 7. AND THERE 20 MIGHT EVEN BE A LITTLE ONE HERE. SO IN OTHER WORDS, THERE 21 MIGHT BE A ZONE OF FAULTING ACROSS THIS AREA.

22 SO DO THE WEST BEVERLY HILLS LINEAMENTS FAULTS 23 EXIST? I'M GOING TO GO THROUGH A LITTLE HISTORY OF HOW 24 I DID THIS STUDY --

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MR. YAROSLAVSKY: CAN I JUST ASK YOU TO GO BACK

1 TO THE PREVIOUS SLIDE?

2 THE WITNESS: YEAH, NO PROBLEM.

3 MR. YAROSLAVSKY: THIS "F" LINE, WHERE IS THAT -4 THE WITNESS: OKAY.

5 MR. YAROSLAVSKY: -- TODAY, STREET-WISE, IS IT
6 SANTA MONICA BOULEVARD? WHERE IS IT?

7 THE WITNESS. OKAY. LET ME SPEND A SECOND ON8 THAT AND ADJUST MY MIC HERE.

9 OKAY. THIS IS SANTA MONICA BOULEVARD. SO I
10 HAVEN'T CHANGED THE PARSONS'S MAP AT ALL. I BELIEVE IT'S
11 PARSONS'S 2011 PLATE 3. SO THIS IS NORTH UP THIS WAY.
12 THIS IS SANTA MONICA BOULEVARD. AND THIS IS MORENO DRIVE
13 COMING DOWN HERE, AND THERE'S BEVERLY HILLS HIGH SCHOOL.
14 WHAT WOULD THIS BE? THE AVENUE OF THE STARS, RIGHT
15 THROUGH HERE TRANSECT 1, 8. I THINK IT IS.

16 MR. YAROSLAVSKY: WHERE'S CONSTELLATION?

17 THE WITNESS: CONSTELLATION'S RIGHT HERE. AND18 HERE'S THE PROPOSED CONSTELLATION AVENUE.

19 MR. YAROSLAVSKY: OKAY. THANK YOU.

20 THE WITNESS: AND I'M GLAD YOU STOPPED ME. THIS
21 IS IMPORTANT FIGURE FOR A NUMBER OF REASONS. I JUST HAVE
22 A LOT TO GET THROUGH.

23 BUT THIS IS WHERE I'M PROPOSING A FAULT GOES

24 THROUGH. NOW, I BELIEVE THAT THE FAULT IS INACTIVE, BASED

25 ON MY CROSS SECTIONS. THAT WOULD NEED TO BE CONFIRMED,

1 BUT THE INITIAL DATA HAS SUGGESTED IT IS INACTIVE.

2 BUT ONE OF THE THINGS I WANT TO POINT OUT IS IF 3 FAULT INVESTIGATIONS ARE DONE IN THE FUTURE THAT IF YOU DO 4 IT ON THESE MUCH, MUCH OLDER SEDIMENTS, YOU MIGHT NOT HAVE 5 THE APPROPRIATE AGE SEDIMENTS TO DETERMINE WHERE FAULTING 6 IS ACTIVE OR INACTIVE.

7 OKAY. DO WEST BEVERLY HILLS LINEAMENTS FAULTS 8 REALLY EXIST? WELL, ONE OF THE THINGS I DID -- AND THIS 9 WAS PRIOR TO THE LEIGHTON FAULT INVESTIGATION. AS SOON AS 10 THE PARSONS'S REPORT CAME OUT, IT WAS HANDED TO ME, AND 11 I STARTED PROCESSING THE DATA. AND WHAT I SIMPLY DID IS 12 I LOOKED AT ALL OF THESE BORINGS.

NOW, MANY OF THESE BORINGS WERE BORROWED FROM
MUCH, MUCH OLDER -- IN FACT, THEY DON'T HAVE THE SAME
LEVEL OF DATA ON THIS TRANSECT AS THEY DO ON THE OTHERS.
SOME OF THESE BORING LOGS ARE FROM THE 1960'S AND SO ON.
BUT STILL I FELT THAT IT WAS MEANINGFUL.

18 SO WHAT I DID IS I LOOKED AT THE COMPOSITION AND 19 THE LAYERING. THAT'S ALL -- IT WAS REALLY SIMPLE. I 20 DIDN'T CARE IF IT WAS SAN PEDRO OR WHAT THE UNIT WAS 21 CALLED. I JUST SAID, "IS THERE LIKE SOME CONSISTENCY WITH 22 THE GRAVEL LAYER OVER HERE?" LIKE THESE DOTS I SHOW. IS 23 THERE A CLAY LAYER SOMEWHERE IN HERE THAT'S OVERLYING 24 SAND? THIS IS A NICE DISTINCTIVE UNIT AS WELL.

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AND THEN IT'S -- AND THEN WHEN I STARTED PLOTTING

1 THIS UP, I NOTICED THAT PARSONS HAD PUT IN A SERIES OF

2 FAULTS HERE, BASICALLY THE WEST BEVERLY HILLS --WEST

3 BEVERLY HILLS LINEAMENT FAULT ZONE. AND WHAT THEY HAD

4 DONE IS, THE SCALE OF THIS, THE VERTICAL SCALE IS TEN

5 TIMES THE HORIZONTAL SCALE.

6 WHAT THAT TENDS TO DO IS TO IF YOU -- WELL, I'LL 7 SHOW YOU ON THE NEXT SLIDE. THAT FOLD BASICALLY LOOKS 8 LIKE THAT IF YOU MAKE THE SCALE LOOK ONE TO ONE. SO 9 HORIZONTAL EQUALS VERTICAL. SO YES, THERE'S A FOLD THERE, BUT IT'S NOT QUITE AS DRAMATIC AS YOU MIGHT THINK BY 10 LOOKING AT IT WHEN IT'S EXAGGERATED. 11 12 SO IF YOU'RE LOOKING AT THIS AND LOOKING AT A 13 LAYER OF GRAVEL HERE AND A LAYER OF GRAVEL THERE WITH THE 14 EXAGGERATION OF 10 TO 1, THIS IS GOING TO BE TEN TIMES 15 HIGHER THAN THAT THAN IT IS IN REALITY. AND YOU MIGHT 16 REALLY -- YOUR EYE AS A HUMAN BEING MIGHT PROCESS IT AND 17 WANT TO PUT A FAULT HERE. WHAT I NOTICED IS THAT I TOOK MY RULER AFTER I 18 PLOTTED THIS ALL UP, AND I PUT MY RULER, AND I HAD 19 20 ESSENTIALLY A STRAIGHT LINE. THAT'S WHEN I REALIZED THAT 21 FOLDING AND TILTING, SOMETHING THAT WASN'T REALLY, I DON'T 22 BELIEVE, ADMINISTERED APPROPRIATELY OR CONSIDERED IN THE 23 PARSONS'S EVALUATION -- IT TURNS OUT TO BE EXTREMELY 24 IMPORTANT.

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SO ESSENTIALLY, AT THAT POINT I REALIZED WE HAVE

A VERY REASONABLE INTERPRETATION TILTING TO REEVALUATE THE
 PARSONS'S LOGS, AND ESSENTIALLY THERE'S NO NEED FOR ANY
 FAULTING WHATSOEVER.

4 AND HERE, AGAIN, THIS IS ONE TO ONE, AND HERE'S THE ANTICLINE. YOU CAN SEE THAT THIS ANTIFORMAL STRUCTURE 5 6 HERE -- AND I BELIEVE IT'S SORT OF MONOCLINAL OVER HERE, 7 AND THERE MIGHT BE ANOTHER BEND TO THE NORTH ON THIS. 8 THERE ARE LITTLE COMPLEXITIES. BUT IT MIGHT BE ACTIVE. 9 YOU CAN SEE HOW IT'S FOLLOWING THE NATURAL TOPOGRAPHY QUITE NICELY. AND THIS IS POSSIBLY EVIDENCE OF LOCAL 10 ACTIVE TECTONICS TAKING PLACE IN THE AREA, BUT THAT WOULD 11 NEED TO BE MORE FULLY EVALUATED. 12

13 I'LL JUST DO THIS ONE QUICKLY. YOU'VE SEEN TRANSECT 4 A MILLION TIMES, BUT I DID THE SAME THING, JUST 14 15 LOOKED AT THE GEOLOGY, LOOKED FOR GRAVEL OVER CLAY LAYERS, 16 -- LIKE THIS ONE'S VERY, VERY DISTINCTIVE -- AND ONCE I ASSUMED THERE WAS A TILT TO THE -- IF I MADE THAT 17 ASSUMPTION THAT THE UNITS WERE TILTED, YOU JUST GET A 18 BEAUTIFUL, BEAUTIFUL CROSS SECTION LIKE THIS. THIS IS TO 19 20 THE EAST.

THIS IS BASICALLY THE WEST BEVERLY HILLS
LINEAMENT. IT'S MY PROFESSIONAL OPINION THAT PART OF THE
REASON THE LINEAMENT IS THERE IS BECAUSE OF THIS FOLDING.
IF YOU BASICALLY LIFT THIS AREA UP, AND THIS AREA

25 GOES DOWN RELATIVELY -- BENEDICT CANYON IS IN HERE ERODING

AWAY AND MAYBE MIGRATING THIS DIRECTION -- YOU WILL
 EVENTUALLY END UP WITH HILLS OVER HERE, CHEVIOT HILLS, AND
 THE HOLLYWOOD BASIN OVER HERE. AND IT'S -- IT'S REALLY
 THE STORY GOES ALONG -- GOES VERY WELL. SO ESSENTIALLY,
 WHAT I'M SAYING IS I BELIEVE FOLDING AND UPLIFT HAS CAUSED
 THE WEST BEVERLY HILLS LINEAMENT.

THE WAY THAT I WENT THROUGH THE PARSONS'S DATA,
I DECIDED TO LOOK AT WHAT IS REFERRED TO AS "FINDING
UPWARD SEQUENCES." NOW, THESE ARE BELIEVED TO BE
ASSOCIATED WITH CLIMATIC EVENTS.

SO AT THE TAIL END OF A GLACIAL PERIOD, ALL THE 11 PLANTS DIE ON THE HILLSIDES, AND THE ROOTS HAVE BROKEN UP 12 13 ALL OF THE ROCKS, BUT THE STORMS ARE STILL POWERFUL. WE 14 VERY COMMONLY WILL GET A MASS FLUX OF VERY POWERFUL FLOW 15 EVENTS THAT BRING DOWN A LOT OF GRAVELS, CAUSE EROSION AT 16 THE BOTTOM, AND THEN AS THE CLIMATE SLOWLY CHANGES, EVERYTHING SLOWS DOWN, AND WE GET FINER AND FINER GRAIN 17 SEDIMENTS. AND THEN IT KIND OF SHUTS DOWN, AND WE GET A 18 SERIES OF CLAYS AT THE TOP. AND THESE ARE DOCUMENTED ALL 19 20 OVER THE MOJAVE DESERT AND AROUND THE WORLD, ACTUALLY. 21 AND WE'LL ALSO GET SOILS AT THE TOP OF THESE, AN "A" HORIZON, "B" HORIZON, "K" HORIZON WITH CARBONATE AND 22 23 OXIDES, MANGANESE AND SO ON. NOW, THIS IS REALLY

24 IMPORTANT BECAUSE THESE CLAY LAYERS ARE VERY COMMONLY FOR
25 -- I WOULD SAY MOST OF THE MARKER BEDS, NOT ALL OF THEM,

1 BUT IN TERMS OF CLAY ONES, THESE ARE THE MARKER BEDS USED 2 BY PARSONS.

AND AS YOU'LL SEE, IF YOU EVALUATE WITH FINDING 3 4 UPWARD SEQUENCES -- IN OTHER WORDS, IF WHEN PARSONS LOOKED AT A MARKER BED THAT WAS MADE OF -- HAD A -- WITH CLAY 5 6 WITH A LOT OF SOIL IN IT, IF IT DISAPPEARED, I NOTICED 7 THAT THEY OFTEN THOUGHT THAT WAS A FAULT. BUT WHAT I 8 DISCOVERED WAS, IT WAS OFTEN -- OR ANOTHER INTERPRETATION 9 IS THAT THAT SOIL THAT WOULD COME ACROSS WAS JUST SIMPLY ERODED AWAY BY AN EROSION SURFACE UP HERE. AND I WILL 10 SHOW YOU THAT IN A MOMENT. 11 SO IT JUST PROVIDES A WHOLE NEW WAY TO LOOK AT 12 13 THEIR DATA. AND I'VE EVALUATED ALL THEIR TRANSECTS EXCEPT 14 FOR T-3, I BELIEVE. 15 SO HERE'S TRANSECT 4. I KNOW THIS IS WAY TOO 16 MUCH TO LOOK AT, BUT ANYTHING THAT HAD A SOIL PARAMETER 17 LIKE THE MANGANESE OXIDE, CARBONATE, BT HORIZON, I SHADED IN PURPLE. 18 AND TO ME AS A GEOLOGIST WHO'S DONE A LOT OF 19 FAULT TRENCHING -- AND MAYBE YOU CAN REMEMBER SOME OF THE 20 21 PICTURES OF THE FAULT TRENCH. BUT THIS IS LIKE A BIG 22 FAULT TRENCH. THIS LOOKS MORE NATURAL TO ME IN TERMS OF 23 EROSION SURFACES AND FINDING UPWARD SEQUENCE RIGHT HERE AND THEN THE CLAY AT THE TOP. 24 AND THAT'S -- I KNOW YOU CAN'T SEE IT FROM WHERE

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-- FROM THE BACK, BUT THAT'S ESSENTIALLY WHAT'S HERE. AND
 HERE IS THE WEST BEVERLY HILLS LINEAMENT FAULT ZONE BY
 PARSONS.

AND YOU'LL NOTICE THAT THIS -- THIS IS A REALLY GOOD EXAMPLE. THIS SOIL HORIZON DISAPPEARS HERE AND DISAPPEARS HERE. AND THE WAY I EXPLAIN THAT IS RIGHT ABOVE IT IS THIS BEAUTIFUL EROSION SURFACE THAT HAS SIMPLY ERODED IT OUT. OKAY. AND THAT'S THE REASON THAT YOU WOULD NOT HAVE A CORRELATION WITH THIS BORING AND MAYBE THESE TWO ADJACENT TO IT.

11 YOU CAN ALSO SEE THE FOLD AS WELL COMES THROUGH 12 DOWN HERE. AND THEN WHAT THIS IS OVER HERE, YOU'LL NOTICE 13 IT'S A LITTLE DIFFERENT. I WENT AHEAD AND CONTINUED 14 TRANSECT 4. I REALIZE IT'S A FAR STRETCH, BUT I JUST DID 15 IT JUST TO SORT OF SEE WHERE IT WOULD GO. ALL THE WAY UP 16 TO TRANSECT 1-A, UP IN THIS AREA.

BUT THE POINT IS ON THE FINDING UPWARD SEQUENCES, 17 IS THAT AS YOU GO UP THE SECTION, IT PROVIDES LOTS OF 18 DIFFERENT LAYERS THAT I FEEL YOU CAN CORRELATE ACROSS. 19 20 AND ALL YOU NEED IS A COUPLE OF THESE BECAUSE, REMEMBER, 21 RIGHT ABOUT HERE IS ALREADY 500,000 YEARS OLD, IN THE TOP OF THE CHEVIOT HILLS. AND THE BENEDICT CANYON, THIS IS 22 23 PROBABLY 40- TO 50,000-YEAR-OLD SEDIMENTS RIGHT HERE. YOU GET INTO OLD SEDIMENTS VERY QUICK. 24

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SO ALL YOU NEED IS A COUPLE OF MARKERS TO GO

ACROSS HERE. CONTINUOUSLY HAVE CONFIDENCE IN THAT. AND
 YOU COULD SAY THAT THERE IS NO FAULTING THERE PROBABLY.

SO HERE'S A CLOSE-UP ACTUALLY OF THE WEST BEVERLY 3 4 HILLS LINEAMENTS FAULT ZONE ON TRANSECT 4. THESE ARE THE SOILS THAT ARE ABOUT -- THIS IS ACTUALLY, IN FACT, WHERE 5 6 IT WAS DATED CB-13, I THINK, AT ABOUT 40,000 YEARS OLD. 7 SO LITERALLY AT THE BOTTOM OF THE FIELD, THAT SURFACE, 8 THAT'S THE SURFACE I'LL BE TALKING ABOUT. THE TOP OF THE 9 BENEDICT CANYON WASH IS 45- -- I'M SORRY -- 40,000 YEARS OLD. OKAY. AND I DON'T SEE ANY EVIDENCE OF FAULTING 10 HERE. 11

HERE'S A TRANSECT 2-E JUST TO THE NORTH ALONG 12 SANTA MONICA BOULEVARD. THIS IS TO THE SOUTHWEST ALONG 13 14 SANTA MONICA BOULEVARD JUST TO THE EAST. I HAVE ONLY 15 FOCUSED IN ON PART OF IT WHERE THE WEST BEVERLY HILLS 16 LINEAMENT FAULTS WERE MAPPED BY PARSONS. AGAIN, THIS IS ABOUT 40,000-YEAR-OLD SEDIMENTS HERE; 150,000 YEARS OLD 17 HERE; AND THIS IS A VERY NATURAL LOOKING CROSS SECTION TO 18 ME TERMS OF THE NATURAL PROCESSES. 19

ALL THESE GREEN LINES ARE EROSION SURFACES, AND
THESE ARE THE TOPS OF THE FINDING UPWARD SEQUENCES. SO
THIS IS HUNDREDS OF THOUSANDS OF YEARS OLD. AND I CAN
CARRY IT RIGHT THROUGH WITHOUT ANY FAULTING.

I THINK ONE OF THE REASONS THAT -- AND, AGAIN,
THIS IS AN ALTERNATIVE INTERPRETATION. ONE OF THE REASONS

1 THAT LEIGHTON -- OR NOT LEIGHTON -- BUT PARSONS PUTS 2 FAULTS THROUGH HERE IS THE LOSS POSSIBLY OF THESE UNITS OVER HERE. THESE ARE QUITE DRAMATIC, THESE TWO UNITS. 3 4 THEY ARE CARBONATE LAYERS. THEY ARE PRETTY DISTINCTIVE. YOU CAN CARRY THEM ACROSS MOST OF THE STUDY AREA. 5 6 BUT I BELIEVE HERE, WHAT THEY DIDN'T NOTICE IS 7 THAT RIGHT ABOVE THEM HERE IS A VERY WELL-DEVELOPED 8 EROSION SURFACE. SO INSTEAD OF FAULTING, AN ALTERNATIVE 9 INTERPRETATION IS THAT THIS EROSION SURFACE JUST ERODED 10 THOSE UNITS OUT. SO AGAIN, THIS IS -- LET'S SEE. ONE OF THE 11 POSSIBLY TWO FAULTS, HOWEVER -- OH. YEAH. SO THEN NOW 12 WE'RE GOING TO TALK ABOUT THIS FAULT "F." OKAY. 13 14 SO WE WERE JUST LOOKING AT TRANSECTS ORIENTED 15 THIS WAY, CONSTELLATION T-4, T-7. I SEE NO FAULTS. 16 HOWEVER, WHEN I LOOKED AT T-7, WHICH IS PERPENDICULAR TO 17 THAT AND RUNS PERPENDICULAR TO THE SANTA MONICA BOULEVARD FAULT ZONE, I SEE SOMETHING DIFFERENT. HERE IS MY 18 BENEDICT CANYON BASAL SURFACE HERE, 150,000 YEARS OLD. 19 20 THIS IS THE SAME EROSION SURFACE LEIGHTON IDENTIFIED DOWN 21 TO THE SOUTH AT THE HIGH SCHOOL. THIS BASICALLY -- THIS EROSION SURFACE GOES 22 23 AROUND THE HILL THAT BEVERLY HILLS IS BUILT ON. BUT HERE'S THE FAULT. AND BASICALLY THESE OLDER 500-, 24 25 600,000 YEAR OLD SAN PEDRO FORMATION JUST SIMPLY DOES NOT

LINE OVER HERE. IT REQUIRES WAY TOO STEEP A DIP. I FELT
 WAS UNREASONABLE. THE DIP OF THE FOLD, AS WE SAW, WAS
 ONLY THREE TO MAYBE FIVE DEGREES, MIGHT EVEN BE A LITTLE
 FAULT HERE.

I KEPT HAVING -- YOU KNOW, BASICALLY WHEN I WAS 5 6 DRAWING THIS, MY EYE WOULD SORT OF OPEN UP WHEN SOMETHING 7 WAS OFF ONLY BY TWO OR THREE FEET. I MEAN, IT WAS REALLY 8 EYE-POPPING, EYE-DRAINING, I GUESS, TO PUT THIS TOGETHER. 9 SO I THOUGHT THERE WAS A FAULT MAYBE HERE, AND THIS FAULT. BUT YOU CAN SEE THAT THIS IS FAULT F. AND I WILL SHOW YOU 10 THE FAULT F OVER ON TRANSECT 1-A. BUT IT'S NOT OFFSETTING 11 THESE UNITS. SO THIS IS ABOUT 150,000 YEARS OLD. IT 12 MIGHT OFFSET THAT. I'M NOT SURE. 13

BUT BY THE TIME YOU GET UP TO THIS SURFACE,
YOU'RE AT 40,000. AND I BELIEVE THE FAULT AT LEAST IN
THIS AREA IS PROBABLY INACTIVE.

HERE IS TRANSECT 1-8. SO WHAT WE JUST DID, IS WE 17 WENT FROM TRANSECT 7 OVER HERE ALL THE WAY DOWN TO 18 TRANSECT 8. WE'RE GOING TO LOOK AT FAULT F IN THIS AREA 19 20 AND IT'S RIGHT HERE. NOTICE THAT IT DIPS TOWARD THE 21 NORTHWEST, LIKE IT DID HERE. SO HERE THIS IS TO THE NORTHWEST. THE FAULT PROBABLY DIPS THAT DIRECTION, AND 22 23 SEDIMENTS ARE DOWN ON THIS SIDE. AND WHEN WE COME HERE, WE SEE THE SAME TYPE OF FAULT DIPPING THAT WAY. AND THIS 24 25 IS ESSENTIALLY EXACTLY WHERE PARSONS MAPPED IT.

1 SO THE FAULT IS ONE OF THE MOST MAJOR FAULTS IN 2 TERMS OF APPARENT DISPLACEMENT WITHIN THE SANTA MONICA 3 BOULEVARD FAULT ZONE. AND IT STRIKES RIGHT THROUGH HERE. 4 SO I'M SAYING THIS SIDE GOES UP, AND THIS SIDE GOES DOWN. 5 AND THEN THERE'S OTHER FAULTS AS WELL.

6 SO I'M BASICALLY AGREEING THAT THOSE FAULTS ARE 7 HERE. HOWEVER, I'D LIKE TO POINT OUT THAT LOOKING --8 THERE'S A REASONABLE INTERPRETATION OF THIS. YOU HAVE THIS EROSION SURFACE HERE. OKAY. AND IT'S FAIRLY 9 CONTINUOUS RIGHT OVER THESE FAULTS. THESE SEDIMENTS, I 10 DON'T KNOW THEIR EXACT AGE. I'M EXTRAPOLATING THE AGE 11 DATA A LITTLE WAYS, BUT THEY'RE PROBABLY A MINIMUM OF 12 40,000 YEARS OLD RIGHT HERE. SO I FEEL FAIRLY CONFIDENT 13 THAT THESE WOULD BE 40- TO 50-, 60,000-YEAR-OLD SEDIMENTS 14 15 RIGHT HERE, AND THAT THEY MAY NOT BE OFFSET.

16 THIS, BY THE WAY, I BELIEVE IF THE SANTA MONICA 17 STATION IS CONSIDERED SERIOUSLY, THAT THIS WOULD BE THE 18 AREA YOU WOULD WANT TO DO THE FAULT STUDY. YOU HAVE THE 19 BENEDICT CANYON WASH SEDIMENTS EXPOSED, THEY ARE OF A GOOD 20 AGE, REALLY WELL STRATIFIED.

I WOULD NOT RECOMMEND DOING A STUDY HERE BECAUSE
YOU HAVE VERY OLD SEDIMENTS. THE FAULTS COULD BE
INACTIVE, AND LITERALLY THE LANDSCAPE COULD HAVE ERODED
DOWN INTO THE FAULTS. SO YOU WOULD GET THERE, AND YOU
WOULD SEE FAULTS POSSIBLY ON THE SURFACE, BUT YOU WOULD

1 HAVE NO WAY TO DATE THEM.

2 SO THIS IS WHAT I'D RECOMMEND IF ANY FUTURE 3 STUDIES TAKE PLACE THERE.

NOW SOME ADDITIONAL EVIDENCE FOR FAULT F ON
TRANSECT 7, AND THAT IS PROVIDED BY MACTEC. ONCE I
PLOTTED FAULT F, I REALIZED I HAD SEEN IT BEFORE. AND
THIS IS THE REASON I'M TALKING ABOUT THE MACTEC REPORT. I
KNOW IT GETS SORT OF LOST IN THE SHUFFLE POSSIBLY, BUT
THIS IS A FIGURE FROM MACTEC 2010. THIS FIGURE IS ALSO
USED IN PARSONS 2011. AND YOU CAN SEE THIS FAULT.

11 NOW, THIS IS THE PARSONS'S FAULT MAP AREA. THIS
12 IS WHERE WE'VE BEEN SORT OF FOCUSING TODAY. YOU CAN SEE
13 THE MACTEC STUDY WENT ALL THE WAY DOWN TO THE MORMON
14 TEMPLE HERE. AND THIS IS THE CHEVIOT HILLS.

15 SO WE -- SO THIS IS BASICALLY WHERE THEY FOUND 16 THE FAULT. THEY DID GEOPHYSICAL SEISMIC LINES, TWO OF 17 THEM WITH SOME BORINGS. THEY ALSO FOUND A GROUNDWATER 18 BARRIER TO DEFINE THE LOCATION OF THIS FAULT.

AND SO NOW WE'RE GOING TO TAKE A LOOK AT THAT BOX HERE SORT OF IN THE STUDY AREA AND OVERLAY MACTEC'S DATA. AND THEN THIS IS MACTEC'S REPORT MAP RIGHT TO ABOUT HERE. AND THEN I WENT AHEAD AND EXTRAPOLATED BECAUSE I FOUND IT EXACTLY THERE. SO I FOUND THIS VERY INTRIGUING THAT IT'S JUST VERY, VERY CONSISTENT THAT THEY ACTUALLY HAVE DATA CONFIRMING THE EXISTENCE POTENTIALLY. I JUST -- IT'S

UNBELIEVABLE THAT THIS LINES UP THIS PERFECTLY. AND
 USUALLY IN GEOLOGY THAT DOESN'T HAPPEN UNLESS IT'S
 PROBABLY HAPPENING.

4 AND JUST TO LET YOU KNOW, I DO AGREE THAT THERE ARE FAULTS RUNNING THROUGH HERE IN THE SANTA MONICA 5 6 BOULEVARD FAULT ZONE, AND THEY PROBABLY DO TURN UP TOWARD 7 THIS DIRECTION. SO THIS IS PROBABLY, AS YOU'LL SEE LATER, 8 A PULL APART BASIN AT THE EASTERN END OF THE SANTA MONICA BOULEVARD FAULT ZONE. THE FAULTS PROBABLY SPLAY OUT TO 9 THIS AREA TO PRODUCE THE ANCIENT CHANNEL TO ALLOW THE 10 CHANNEL TO GO THROUGH IT. 11 MR. YAROSLAVSKY: CAN I --12 13 THE WITNESS: HOWEVER, I BELIEVE THERE'S A GOOD CHANCE THE FAULTS ARE INACTIVE. 14 15 MR. YAROSLAVSKY: CAN I ASK YOU JUST AGAIN --16 THE WITNESS: YES. MR. YAROSLAVSKY: -- TO POINT OUT WHERE WE ARE? 17 WHERE IS SANTA MONICA BOULEVARD ON THIS? 18 THE WITNESS: OH, I'M SORRY. YES, HERE'S 19 20 SANTA MONICA BOULEVARD. 21 MR. YAROSLAVSKY: OKAY. SO THIS IS PURPLE EDGED, 22 PURPLE --THE WITNESS: THAT'S NOT MINE. THAT'S PARSONS'S. 23 MR. YAROSLAVSKY: AND WHAT DO THEY CLAIM THAT IS? 24 25 THE WITNESS: PARSONS CLAIMS THAT -- I KEEP

1 LOSING MY MOUSE -- THIS IS THE WEST BEVERLY HILLS

2 LINEAMENT FAULT ZONE.

3	MR. YAROSLAVSKY: YES, I UNDERSTAND. BUT WHAT IS
4	THE RED, MAGENTA, WHATEVER IT'S CALLED, PURPLE
5	THE WITNESS: OH, THE PURPLE. THE PURPLE IS
6	BASICALLY ME PUBLICLY SAYING I AGREE WITH MACTEC THAT THIS
7	IS POTENTIALLY A FAULT HERE. SO THAT'S THE ONLY
8	DIFFERENCE. I'M SAYING THAT THEY PLOTTED A FAULT HERE,
9	AND I'M IN AGREEMENT THAT THERE'S LIKELY A WELL-DEVELOPED
10	FAULT THERE.
11	MR. YAROSLAVSKY: HOW FAR SOUTH OF SANTA MONICA
12	BOULEVARD IS THAT FAULT?
13	THE WITNESS: I DON'T KNOW THE SCALE EXACTLY.
14	ACTUALLY, I DON'T KNOW WHAT
15	MR. YAROSLAVSKY: LESS THAN A COUPLE OF HUNDRED
16	FEET?
17	THE WITNESS: YEAH, IT'S PROBABLY SOMETHING LIKE
18	THAT. YEAH.
19	MR. YAROSLAVSKY: AND THEN THE RED, RED LINE
20	HERE, IT'S RED SQUARES.
21	THE WITNESS: YEAH. THIS ONE IS WHAT PARSONS
22	MAPPED IN 2011. SO AFTER THE MACTEC REPORT, ONCE THEY
23	FINISHED THEIR STUDY IN 2011, THEY PLOTTED THE FAULT RIGHT
24	HERE.
25	MR. YAROSLAVSKY: OKAY. AND THE EASTERN PART OF

1 THAT LINE IS WHERE?

2 THE WITNESS: THIS ONE? MR. YAROSLAVSKY: THE EASTERN END, YEAH. RIGHT 3 4 THERE. THAT'S CORRECT. THE WITNESS: THAT'S IT. THEY STOPPED IT RIGHT 5 6 THERE. 7 MR. YAROSLAVSKY: AND WHERE IS THAT? IS THAT CENTURY PARK EAST, AVENUE OF THE STARS? WHERE? 8 9 THE WITNESS: THIS IS --MR. YAROSLAVSKY: THIS IS AVENUE OF THE STARS. 10 THE WITNESS: YEAH. IT'S PRETTY CLOSE. I THINK 11 THIS IS -- HERE'S CENTURY PARK -- YEAH, IT'S PRETTY CLOSE 12 TO THAT ACTUALLY. I THINK THIS IS JUST TO THE LEFT OF 13 CENTURY PARK WHERE IT COMES THROUGH. 14 15 MR. YAROSLAVSKY: AND THE PURPLE ONE, AGAIN, YOU 16 AGREE THAT -- THAT'S YOUR MAPPING OR OUR MAPPING? THE 17 PURPLE HASH THING. THE WITNESS: THIS ONE? 18 MR. YAROSLAVSKY: YES. 19 20 THE WITNESS: THAT IS MACTEC'S REPORT. THIS IS 21 WHERE MACTEC PLOTTED THE FAULT RIGHT UP TO HERE, AND THIS IS WHERE I FOUND IT IN MY EVALUATION OF THE PARSONS'S 22 23 DATA. SO I BELIEVE THAT PARSONS --24 MR. YAROSLAVSKY: SO YOU THINK IT GOES 25 CONSIDERABLY FARTHER EAST THAN THE CITY LIMITS OF BEVERLY

1 HILLS AND L.A.?

2 THE WITNESS: NO, I DIDN'T -- ACTUALLY, THIS GOT IN THE WAY. I HAD STOPPED IT ROUGHLY HERE. I REALLY 3 4 DON'T KNOW HOW --5 MR. YAROSLAVSKY: WHERE IS THAT? 6 THE WITNESS: I REALLY DON'T KNOW HOW FAR EAST IT 7 GOES. I REALLY DON'T HAVE ANY DATA TO CONTROL IT. 8 MR. YAROSLAVSKY: WELL, IF THE GREEN LINE OVER 9 HERE IS AVENUE OF THE STARS, WHERE'S THE HIGH SCHOOL ON THIS MAP? 10 THE WITNESS: THE HIGH SCHOOL IS RIGHT IN HERE. 11 MR. YAROSLAVSKY: SO IT'S EAST OF -- EAST OF THE 12 SANTA MONICA BOULEVARD/WILSHIRE INTERCHANGE --13 14 INTERSECTION; CORRECT? 15 THE WITNESS: WILSHIRE'S UP HERE. INTERSECTION 16 OF WILSHIRE --MR. YAROSLAVSKY: I KNOW BUT --17 THE WITNESS: -- AND SANTA MONICA IS UP HERE. 18 MR. YAROSLAVSKY: YEAH, YOU'RE RIGHT. I'M SORRY. 19 20 THE WITNESS: THAT'S ALL RIGHT. 21 MR. YAROSLAVSKY: THE EASTERN -- THE -- I GUESS 22 IT'S THE EASTERN PART OF THE END OF THIS PURPLE LINE, 23 FAULT, IS EAST OF THE HIGH SCHOOL; CORRECT? THE WITNESS: THAT'S CORRECT. 24 25 MR. YAROSLAVSKY: THANK YOU.

THE WITNESS: OKAY. AND THERE'S -- THERE'S GOOD 1 EVIDENCE, THOUGH, THAT THIS FAULT IS INACTIVE, BASED --2 AND I'LL SHOW YOU SOME MORE EVIDENCE ALONG THOSE LINES. 3 4 MR. BURESH: BOARD MEMBER YAROSLAVSKY, IF I CAN HELP CLARIFY. TIM BURESH. 5 6 THAT LINE BASICALLY IS RUNNING THROUGH THE FIST 7 LINE OF DEVELOPMENTS JUST SOUTH OF SANTA MONICA. 8 MR. YAROSLAVSKY: HE CLARIFIED IT FOR ME. 9 THANK YOU, MR. BURESH. THE WITNESS: SO HERE WE GO. 10 AND THIS JUST SORT OF CLARIFYING AND LOOKING AT 11 THE GEOLOGIC MAP, I'VE PUT TOGETHER WHERE PARSONS PUT 12 THEIR FAULT THAT I CALL "F," AND THEY CALL IT "HOLOCENE 13 14 ACTIVITY INDETERMINATE" WHICH IS MIND BOGGLING TO ME 15 BECAUSE THEY DIDN'T HAVE ANY DETERMINATE HOLOCENE ACTIVITY 16 ON ANY FAULT, BUT. BUT IT SOMEWHAT LINES UP WITH THAT LITTLE FAULT 17 THAT I WAS SPECULATING MIGHT BE THERE. BUT IT'S VERY 18 DIFFICULT FOR ME TO IMAGINE THAT THIS FAULT'S ACTIVE. 19 20 THERE ARE SO MANY MARKER BEDS THAT I MAPPED OF GOING OVER 21 THE TOP IT. AND I THINK THERE'S A GOOD PROBABILITY THIS 22 FAULT IS INACTIVE AS WELL.

OKAY. THE INTERIM SUMMARY. THE WEST BEVERLY
HILLS LINEAMENT FAULTS LIKELY DO NOT EXIST. OUR ANALYSIS
INDICATES THAT AT LEAST ONE FAULT MAPPED WITHIN THE WEST

1 BEVERLY HILLS LINEAMENT FAULT ZONE BY PARSONS IS LIKELY 2 REAL BUT STRIKES NORTHEAST/SOUTHWEST AND IS PART OF THE SANTA MONICA BOULEVARD FAULT ZONE. THAT'S FAULT F. 3 4 NOW, I WANT TO GET INTO MY GEOMORPHIC ANALYSIS. I LOOKED AT PRESERVING SURFACES --5 6 HEARING OFFICER DROOYAN: DR. KENNEY, HOW MUCH 7 LONGER DO YOU THINK YOU'RE GOING TO BE? BECAUSE I WANT 8 то --THE WITNESS: OH, OKAY. I'LL GO THROUGH IT 9 10 QUICKLY. HEARING OFFICER DROOYAN: ALL RIGHT. BECAUSE I 11 DO WANT TO TAKE A BREAK, CERTAINLY FOR OUR COURT 12 13 REPORTER. THE WITNESS: OH, WOULD YOU LIKE TO DO THAT NOW? 14 15 HEARING OFFICER DROOYAN: HOW LONG ARE YOU GOING 16 TO BE? THE WITNESS: PROBABLY ANOTHER AT LEAST 15 17 18 MINUTES. HEARING OFFICER DROOYAN: ALL RIGHT. WHY DON'T 19 20 WE TAKE A SHORT BREAK NOW --21 THE WITNESS: AND I'LL BE ANOTHER 10 MINUTES. HEARING OFFICER DROOYAN: LET'S LET OUR COURT 22 23 REPORTER TAKE A BREAK. 24 THE WITNESS: OKAY. 25 HEARING OFFICER DROOYAN: WE'LL TAKE A 10 MINUTE

- 1 BREAK. COME BACK AT 3:35.
- 2 (A BRIEF RECESS WAS TAKEN.)
  3 HEARING OFFICER DROOYAN: OKAY. LET'S GET
  4 STARTED AGAIN.
  5 DR. KENNEY.
- 6 MR. KENNEY: YES.

7 HEARING OFFICER DROOYAN: WILL YOU RESUME YOUR8 PRESENTATION. THANK YOU.

9 MR. KENNEY: CERTAINLY.

SO LAST YEAR I PERFORMED A GEOMORPHIC ANALYSIS
 AND PRESERVED -- AND I LOOKED AT PRESERVED TERRA SURFACES
 ACROSS THE CHEVIOT HILLS AREA WHICH IS BASICALLY AN
 UPLIFTED, ABANDONED, AND INCISED INTO A SORT OF FANNED
 SURFACE, IF YOU WILL.
 I DID A DRAINAGE ANALYSIS WHICH IS VERY COMMON

16 FOR FAULT STUDIES. BASICALLY, DRAINAGES CAN GET DEFLECTED 17 AND DEFORMED AND OFFSET BY FAULTING. DID A LINEAMENT 18 ANALYSIS ALONG SANTA MONICA BOULEVARD AND PRESERVED TERRA 19 SURFACES OVERLYING FAULTS. SO WE'LL GO THROUGH THESE ONE 20 AT A TIME.

21 THIS IS RATHER COMPLICATED, I ADMIT. BUT I 22 UTILIZED A BEAUTIFUL TOPOGRAPHICAL MAP, THE SAME ONE THAT 23 DOLAN USED IN 1992 FOR HIS STUDY OF THE SANTA MONICA FAULT 24 ZONE. THIS ESSENTIALLY IS THE SANTA MONICA BOULEVARD 25 WHERE HE PLACED HIS SCARPS BACK IN 1992.

THESE GREEN SURFACES ARE THE TERRA SURFACES.
 AND SO THESE GREEN SURFACES ARE NOW SEPARATED BY
 DRAINAGES, BUT AT ONE TIME THEY WERE CONTINUOUS, JUST LIKE
 THIS SURFACE WAS. SO ENVISION TAKING THIS BEAUTIFUL
 FANNED SURFACE, UPLIFTING IT, AND IT GETS INCISED INTO.
 AND SO NOW WE'RE LEFT WITH THESE REMNANT SURFACES.

THESE SURFACES, WE DATED HERE AND ALSO OVER HERE
AND CORRELATED THEM AND FOUND THAT THESE GREEN SURFACES
WERE, IN FACT, THE SAME AGE ACROSS THE SANTA MONICA
BOULEVARD.

11 SO DOLAN IN 1992 AND SEEK (PHONETIC) PROPOSED 12 THAT THIS IS A REVERSE FAULT, THAT THIS IS THE PRIMARY 13 STRAND OF THE SANTA MONICA FAULT ZONE. AND IF THAT WAS 14 THE CASE, THIS AREA ON THE -- TOWARD THE NORTHWEST SHOULD 15 BE HIGHER THAN THE SEDIMENTS OVER HERE IN ORDER TO PRODUCE 16 THE SCARP THAT HE SAYS IS SEVEN TO NINE METERS HIGH.

SO WE'RE GOING TO TAKE A LOOK AT CROSS SECTION 1
-- "A" DOWN TO "A PRIME" RIGHT ACROSS HERE. AND
SOMEBODY'S PHONE'S GOING, I THINK. THERE WE GO.
"HI, MOM."

21 SO HERE IS THAT GREEN SURFACE COMING DOWN HERE. 22 YOU CAN SEE THE DRAINAGE IS CUTTING INTO THE OLD FANNED 23 SURFACE. THESE -- THIS SURFACE CORRELATES. WE DATED IT 24 RIGHT HERE ON WILSHIRE BOULEVARD AT 80- TO -- AROUND 80-25 TO 100,000 YEARS OLD. THIS IS WHAT I BELIEVE IS AN AREA

THAT IS DOWN-FAULTED BY FAULTING ALONG SANTA MONICA
 BOULEVARD. AND HERE'S THE SURFACE WE CORRELATED THIS ONE
 TO, THE 300-T AT THE SAME AGE.

4 SO THIS IS THE AREA THE DOLAN MAP IS THE ACTUAL SCARP TO THE SANTA MONICA BOULEVARD -- OR THE SANTA MONICA 5 6 FAULT ZONE, SAYING THAT THIS SIDE WENT UP. AND IT'S 7 REASONABLE IF YOU LOOK AT IT AT FIRST GLANCE BECAUSE 8 SANTA MONICA IS HERE. THERE IS A LINEAMENT, AND THERE IS 9 THIS SLOPE; HOWEVER, WHEN YOU REALLY PUT THIS CROSS SECTION TOGETHER AND YOU KNOW THE AGES OF THESE SURFACES, 10 YOU CAN SEE THAT IT JUST GOES STRAIGHT ACROSS. 11 12 SO THIS INDICATES A COUPLE OF THINGS. IT 13 INDICATES THAT THERE HASN'T BEEN A LOT OF OFFSET IN THIS WHOLE FAULT ZONE TO BEGIN. AND ALSO CLEARLY SHOWS THAT IS 14 15 PROBABLY NOT A REVERSE STRIKE SLIP FAULT; THAT IT'S 16 PROBABLY SOMETHING ELSE, BUT CERTAINLY NOT REVERSE. SO THAT INDICATES THAT THIS IS PROBABLY -- THE 17 SANTA MONICA BOULEVARD FAULT ZONE IS PROBABLY NOT THE 18 PRIMARY BASAL SHEAR FAULT OF THE SANTA MONICA FAULT ZONE, 19 BUT ACTUALLY UPPER PLATE SECONDARY FAULTS. 20 21 HERE IS -- LET'S TAKE A LOOK AT CROSS SECTION B 22 TO "B PRIME" DOWN THROUGH HERE, SO A LITTLE FURTHER DOWN 23 SANTA MONICA BOULEVARD. THIS IS THE MORMON TEMPLE. THE STUDY AREA IS UP IN HERE. SO THIS CROSS SECTION IS 24 25 A LITTLE BIT OUT OF THE PARSONS'S 2011 STUDY AREA.

1 AND THIS CROSS SECTION IS QUITE STARTLING. 2 HERE'S THAT 300-T SURFACE, IF YOU WILL, CORRELATED ACROSS HERE, AT LITTLE LOWER ELEVATIONS. HERE IS THE 3 4 SANTA MONICA BOULEVARD FAULT ZONE WHICH WAS MAPPED AS THE SANTA MONICA FAULT ZONE PROPER BY DOLAN. AND YOU CAN SEE 5 6 IF THIS WAS A REVERSE FAULT, THIS SURFACE SHOULD BE UP 7 HERE TO MAKE THAT SEVEN- TO NINE-METER SCARP THAT HE 8 PUBLISHED. AND WE, IN FACT, SEE THE EXACT OPPOSITE. 9 SO THIS SIDE HAS GONE DOWN RELATIVE TO THIS SIDE. 10 SO I DON'T BELIEVE THAT THIS IS THE ACTUAL PRIMARY SANTA MONICA BOULEVARD FAULT ZONE. IT'S A SECONDARY FAULT ZONE. 11 12 AND THAT LENDS A LITTLE MORE CREDENCE TO THE FAULT ZONE 13 POTENTIALLY BEING INACTIVE. MR. YAROSLAVSKY: WHERE IS THE PRIMARY FAULT 14 15 ZONE? 16 THE WITNESS: WE DON'T KNOW. MR. YAROSLAVSKY: BUT YOU DO KNOW THERE IS ONE; 17 18 RIGHT? THE WITNESS: I'M SPECULATING THAT THERE IS ONE 19 20 BECAUSE ONLY A MILE AND A HALF TO THE WEST WHERE DOLAN AND 21 CATCHINGS AND OTHER PEOPLE HAVE DONE SOME SEISMIC LINES, 22 THEY HAVE IDENTIFIED THE SANTA MONICA FAULT ZONE THERE. 23 THEY'RE DIPPING IN ABOUT 20 TO 30 DEGREES TO THE NORTH. 24 IT'S HARD TO IMAGINE THAT YOU ONLY COME OVER HERE A COUPLE 25 OF MILES AND THE FAULT IS DIPPING ABOUT 75 TO 80 DEGREES.

1 SO WHAT I'M SPECULATING, THEY -- DOLAN TRENCHED 2 DOWN THERE AT THE V.A. HOSPITAL, NEVER FOUND THE ACTUAL FAULT. IT'S DIFFICULT -- IT MIGHT BE SOMEWHAT BLIND 3 4 TOWARD THE SURFACE, AND IT WOULD BE RELATIVELY DIFFICULT MAYBE TO TRENCH IT. SO WHAT I'M SPECULATING IS THAT THIS 5 6 FAULT ZONE MIGHT BE BLIND WITHIN THE CHEVIOT HILLS. THUS 7 THE POTENTIAL THAT ALL OF THESE SEDIMENTS HERE WOULD BE 8 HANGING-WALL SEDIMENTS, AND THERE'S THE POTENTIAL FOR SOME 9 FAULTING HERE. BUT REALLY IT'S UNKNOWN AT THIS TIME. MR. YAROSLAVSKY: SO YOU DON'T KNOW WHERE THE 10 PRIMARY FAULT IS? 11 THE WITNESS: THAT'S CORRECT. 12 13 MR. YAROSLAVSKY: IT COULD BE UNDER SANTA MONICA 14 BOULEVARD? 15 THE WITNESS: THIS IS TRUE. OH, NO, I DON'T 16 THINK SO. I THINK THERE'S A LOT OF DATA -- I THINK THERE'S A LOT OF DATA TO SUGGEST THERE'S NOT. THAT'S -- I 17 HAVE SOME MORE INFORMATION HERE I MIGHT NOT GET TO 18 19 TODAY. 20 MR. YAROSLAVSKY: IF IT'S NOT THERE, WHERE WOULD 21 IT BE HYPOTHETICALLY? THE WITNESS: IT WOULD BE TO THE SOUTH. IT WOULD 22 23 BE JUST LIKE THIS CROSS SECTION HERE, WHERE HERE IS SANTA MONICA BOULEVARD; AND THIS IS TO THE NORTH, THIS IS 24 25 TO THE SOUTH. SO IT WOULD BE TO THE SOUTH UNDER THE

CHEVIOT HILLS. OKAY. SO CONSTELLATION AVENUE WOULD BE
 LIKE HERE. OKAY. THAT'S THE SURFACE IT'S ON. AND THEN
 THE SANTA MONICA STATION IS SORT OF PROPOSED OVER HERE.
 SO THAT SHOULD HELP YOU OUT --

MR. YAROSLAVSKY: SO THIS RED LINE, THIS DASHED 5 б RED LINE, IS IN CHEVIOT HILLS? 7 THE WITNESS: THIS IS THE CHEVIOT HILLS. THIS IS 8 THE HILLCREST COUNTRY CLUB TO THE SOUTH JUST A FEW MILES. 9 MR. YAROSLAVSKY: YEAH. SO -- SO THE -- SO YOU'RE SAYING -- IT'S YOUR TESTIMONY THAT THERE IS NO 10 FAULT -- ACTIVE FAULT UNDER SANTA MONICA BOULEVARD? 11 THE WITNESS: NO. I'M SAYING THAT --12 MR. YAROSLAVSKY: IS THAT TRUE --13 14 THE WITNESS: THERE'S A STRONG -- BASED ON THE 15 DATA THAT I HAVE NOW, IT'S NOT CONCLUSIVE, BUT THE DATA 16 THAT I HAVE NOW, THERE'S VERY STRONG EVIDENCE THAT THE POSSIBILITY -- STRONG POSSIBILITY THAT THE FAULT ZONE 17 ALONG SANTA MONICA BOULEVARD IS INACTIVE, BASED ON 18 GEOMORPHOLOGY AND EVALUATION OF THE CROSS SECTIONS AND THE 19 20 AGE DATA THAT WE HAVE OF THE SURFACE SEDIMENTS. 21 MR. YAROSLAVSKY: BUT IT'S NOT CONCLUSIVE AND 22 BASED ON THE DATA YOU HAVE NOW? OUR EXPERTS --23 THE WITNESS: THAT'S RIGHT. IT WOULD --MR. YAROSLAVSKY: -- OUR EXPERTS ARE --24 25 THE WITNESS: -- IT WOULD REQUIRE -- IT WOULD

REQUIRE A FAULT INVESTIGATION THAT I WOULD RECOMMEND WOULD
 BE SOMEWHERE WHERE THE BENEDICT CANYON WASH SEDIMENTS ARE
 EXPOSED, PARTICULARLY THE ANCIENT ONES.

4

MR. YAROSLAVSKY: THANK YOU.

5 MR. FASANA: JUST A FOLLOWUP ON THAT. WOULD SOME 6 TYPE OF A TRENCHING PROTOCOL ON THE SANTA MONICA BOX HELP 7 SHED SOME MORE LIGHT IN TERMS OF WERE -- OR WHETHER AT 8 LEAST IT WAS LOCATED NEAR THE --

9 THE WITNESS: ABSOLUTELY, IT WOULD.

10 MR. FASANA: -- EL MONTE STATION?

THE WITNESS: YES. IF YOU WERE TO GO TO THE 11 12 SANTA MONICA BOX AND PERFORM A MORE DETAILED FAULT 13 INVESTIGATION, PARTICULARLY IF SOMEHOW -- I DON'T KNOW HOW YOU WOULD DO IT LOGISTICALLY, BUT IF YOU COULD DO FAULT 14 15 TRENCHING THERE ACROSS THAT AREA, I FEEL FAIRLY CONFIDENT 16 THAT YOU -- THAT YOU WOULDN'T HAVE TO GO EXCESSIVELY DEEP. THE THING THAT'S IN YOUR FAVOR IS THAT, I BELIEVE 17 THAT THERE'S VERY OLD SEDIMENTS THAT ARE EXPOSED ON THE 18 SURFACE. SO ALL YOU'D HAVE TO FIND IS THREE OR FOUR 19 20 LAYERS HORIZONTAL ACROSS THERE, AND IT MIGHT BE A DONE 21 DEAL. BUT IT WOULD REQUIRE THAT TO PROVIDE SUFFICIENT 22 EVIDENCE, FOR EXAMPLE, FOR THE CGS.

BUT, AGAIN, I HAVE SOME PRETTY GOOD EVIDENCE
SUGGESTING THAT IT'S INACTIVE IN THE CROSS SECTIONS IN THE
GEOMORPHOLOGY. SO FAULTS ALONG SANTA MONICA BOULEVARD

HAVE NOT EXHIBITED SIGNIFICANT REVERSE FAULTING. IT'S THE
 FINDINGS OF THOSE TWO CROSS SECTIONS.

I ALSO DID A DRAINAGE ANALYSIS. SO HERE'S THE 3 4 CHEVIOT HILLS. HERE'S THAT BLIND FAULT THAT I'M POSTULATING COMES THROUGH HERE. AND HERE'S THE SANTA 5 6 MONICA BOULEVARD FAULT ZONE. LOOK HOW LINEAR IT IS. THAT 7 SUGGESTS IT STRIKES THE FAULTING. HERE ARE ALL THE 8 DRAINAGES COMING THROUGH. LET'S GO AHEAD AND TAKE A LOOK 9 IF THERE'S A CHANGE IN THE PATTERN OF THESE DRAINAGES 10 CROSSING THE SANTA MONICA BOULEVARD. SO HERE IS THE SAME AREA. WE ARE JUST LOOKING AT 11 THE DRAINAGES, AND I ASKED THE QUESTION: CAN YOU SEE THE 12 13 FAULT? AND I DON'T REALLY SEE IT. BUT LET'S ACTUALLY 14 JUST PUT SANTA MONICA BOULEVARD ON HERE. 15 AND IF WE LOOK AT THESE ONE BY ONE, DISTRICT --16 KEEP IN MIND DOLAN PROPOSED -- AND IT'S COMMON FOR EAST/WEST TRENDING THRUST FAULTS TO HAVE A LEFT LATERAL 17 COMPONENT. SO HE DIDN'T COME UP WITH THAT, BUT -- LIKE 18 THE CUCAMONGA. BUT HERE IT'S PRESUMED TO BE A LEFT 19 20 LATERAL REVERSE FAULT WHERE THIS SIDE GOES UP, AND THESE 21 ROCKS GO THIS WAY. 22 SO WE -- TYPICALLY WITH A DRAINAGE ANALYSIS, WHAT

23 YOU WOULD SEE IF THAT WAS THE CASE IS THE DRAINAGES
24 TURNING LIKE THIS. OLDER DRAINAGES WOULD TURN MORE, AND
25 YOUNGER DRAINAGES WOULD TURN LESS BECAUSE THEY SAW

DIFFERENT NUMBERS OF EARTHQUAKES. SO HERE YOU CAN SEE - AND KEEP IN MIND THESE SEDIMENTS ARE VERY OLD. OKAY?
 40,000 -- ACTUALLY, THESE ARE 80- TO 200,000 YEARS OLD AT
 THE SURFACE. SO THESE DRAINAGES HAVE BEEN HERE FOR A LONG
 TIME, HUNDREDS OF THOUSAND OF YEARS.

6 THIS DRAINAGE COMES UP HERE, STRAIGHT ACROSS, 7 STRAIGHT ACROSS, STRAIGHT ACROSS, STRAIGHT ACROSS. THIS 8 ONE DOES KIND OF MERGE THERE. THIS ONE DOES. THIS ONE 9 HAS A RIGHT LATERAL DEFLECTION. THIS ONE HAS A RIGHT 10 LATERAL DEFLECTION. THIS DRAINAGE KIND OF FLOWS ALONG 11 HERE. THIS IS THE ESCARPMENT OF --

12 THIS IS THE FAULTS MAP BY PARSONS TO KIND OF GIVE 13 YOU AN IDEA OF WHERE YOU ARE, BEVERLY HILLS HIGH SCHOOL. THIS DRAINAGE GOES STRAIGHT ACROSS. AND THIS DRAINAGE, 14 15 THAT'S THE MODERN BENEDICT CANYON, GOES STRAIGHT ACROSS. 16 SO WHAT I SEE HERE IS, BASICALLY, I DO NOT SEE SIGNIFICANT OR REPEATED RIGHT LATERAL OFFSET. I DON'T SEE 17 REPEATED LEFT LATERAL OFFSET. I SEE ALMOST NO PATTERN 18 19 WHATSOEVER OTHER THAN WHAT THIS REALLY LOOKS LIKE TO ME IS 20 AN OLD FAULT ZONE THAT IS ERODING OUT. AND IT'S 21 ESSENTIALLY ALONG A FAULT ZONE, THE ROCKS GET STRIATED AND BROKEN UP. THEY ERODE AT A FASTER RATE THAN THE 22 SURROUNDING ROCK. IT'S MORE INHERENT. 23 SO WHAT I'M SEEING HERE GEOMORPHICALLY IS AN 24

25 OLDER FAULT ZONE THAT'S PRIMARILY A STRIKE SLIP IN THE

1 PAST, BUT IT HASN'T MOVED IN A LONG TIME. SEE, THE 2 STRAIGHT NATURE OF IT INDICATES STRIKE SLIP; HOWEVER, WE DON'T SEE ANY STRIKE SLIP OFFSET OF THE DRAINAGES. 3 4 SO WHAT THAT SUGGESTS TO ME IS THAT IT HAD ITS DAY. IT WAS ACTIVE IN THE PAST, AND NOW IT'S JUST SIMPLY GETTING 5 6 ERODED INTO, AND THE LINEAMENT ITSELF THAT WE SEE IS A 7 GEOMORPHIC LINEAMENT OF THE FAULT ZONE ERODING OUT, BUT 8 NOT ASSOCIATED WITH ACTIVE FAULTING.

9 SO THE RESULTS OF THE DRAINAGE ANALYSIS IS A 10 TRIBUTARY SYSTEM DOES NOT APPEAR SYSTEMATICALLY OFFSET BY 11 EITHER RIGHT OR LEFT LATERAL DISPLACEMENT. IT INFERS THAT 12 THE SANTA MONICA BOULEVARD LINEAMENT APPEARS DOMINATED BY 13 EROSION AND DEPOSITION THAT'S POSSIBLY NOT ACTIVE.

AND SO I KNOW I'VE ALREADY MENTIONED THIS BEFORE, BUT IT'S WORTH JUST LOOKING AT THE SANTA MONICA LINEAMENT AND JUST SORT OF SAYING OPENLY: YES, IT IS A LINEAMENT; IT IS GEOMORPHIC; THERE IS A CHANGE IN THE SLOPE THROUGH HERE. BUT I DON'T BELIEVE IT'S A REVERSE CHANGE IN SLOPE, AND I DON'T BELIEVE THAT IT'S ASSOCIATED WITH ACTIVE FAULTING AT THIS TIME.

21 AND THE STRAIGHT NATURE OF IT SUGGESTS TO ME VERY 22 STRONGLY THAT IT IS -- WAS ORIGINALLY ASSOCIATED WITH 23 PRIMARILY STRIKE SLIP FAULTING WITH SOME EXTENSION TAKING 24 PLACE UP HERE IN ORDER TO FORM THIS DEPRESSION THAT THE 25 ANCIENT BENEDICT CANYON WENT THROUGH.

1 NOW, I PURPOSELY DIDN'T PUT ANYTHING ON THIS FIGURE. THIS IS THE BEAUTIFUL CONTOUR MAPS OF HOOPS, 2 1930. THESE ARE FIVE-FOOT CONTOURS. THIS IS ABOUT --3 4 THIS IS 275 CONTOUR. THIS IS BEVERLY HILLS HIGH SCHOOL. 5 RIGHT THERE. SANTA MONICA STATION IS PROPOSED RIGHT ABOUT 6 IN HERE. CONSTELLATION IS DOWN IN HERE SOMEWHERE, I 7 THINK. AND THAT FAULT F COMES THROUGH LIKE THIS OVER 8 THERE AND THEN SORT OF UP TO THIS AREA.

9 NOW, THIS IS THE SURFACE, BASED ON THE DATA WE
10 HAVE TODAY, THAT'S ABOUT 40,000 YEARS OLD. AND THIS
11 SURFACE RIGHT OVER HERE IS 100,000 YEARS OLD. AND THIS
12 GEOMORPHOLOGY IS VERY SUBTLE.

13 IN OTHER WORDS, AN ACTIVE FAULT RUPTURES -- IS CONSIDERED A FAULT THAT RUPTURES EVERY 11,000 YEARS. THE 14 15 REASON FOR THAT IS THAT IT'S ASSUMED THAT IF A FAULT IS 16 ACTIVE BUT HAS A RECURRENCE INTERVAL OF LESS THAN 10,000 YEARS -- SO IN OTHER WORDS, IF THIS SURFACE IS 40,000 17 YEARS OLD, IT'S SEEN AT LEAST A MINIMUM OF FOUR 18 19 EARTHQUAKES -- AND THAT'S ASSUMING A VERY LONG RECURRENCE 20 INTERVAL.

I DON'T SEE ANY SCARPS IN HERE. AND THESE ARE
VERY DENSE SOILS. THESE ARE RUPTURED THROUGH HERE
REPEATEDLY FOUR TIMES, I WOULD IMAGINE WE WOULD SEE SOME
TYPE OF A SCARP HERE, SOME TYPE OF AN ALIGNMENT OF THE
DRAINAGE, AND I JUST DON'T SEE THAT. WHERE FAULT F IS

HERE, FOR EXAMPLE, THIS LOOKS LIKE AN OLD SURFACE IS
 SIMPLY ERODING AWAY.

RESULTS OF THE LINEAMENT ANALYSIS, STRAIGHT TREND 3 4 OF THE SANTA MONICA BOULEVARD LINEAMENT SUGGESTS STRIKE SLIP DISPLACEMENT AS OPPOSED TO DIP SLIP BUT NOT -- BUT 5 6 THERE'S NO OFFSET DRAINAGES. SO THIS SUGGESTS INACTIVITY 7 TO ME. NO WELL-DEFINED SCARPS ASSOCIATED WITH THE 8 SANTA MONICA BOULEVARD FAULT ZONE OR PROPOSED WEST 9 BEVERLY HILLS LINEAMENT FAULT ZONES ON THE 40,000-YEAR-OLD SURFACE, AND THAT SUGGESTS INACTIVITY AS WELL TO ME. 10 OKAY. AND THEN THIS IS MY LAST SLIDE FOR TODAY. 11 12 AGAIN, I JUST WANTED TO COME BACK TO THIS SLIDE BECAUSE IT 13 TIES INTO THE INACTIVITY ARGUMENT. THAT THERE'S THIS EROSION SURFACE WHICH IS PROBABLY AT LEAST 50,000 YEARS 14 15 OLD, IF NOT MORE. I'M DOING A MINIMUM THERE. AND HERE'S 16 ONE OF THE FAULTS AND ANOTHER AND ANOTHER. AND YOU CAN SEE THAT THIS EROSION SURFACE GOES 17 RIGHT ACROSS THIS. THIS IS ALONG THE MAIN PART OF THE 18 FAULT ZONE RIGHT THROUGH HERE, ACROSS FAULT F AND FAULT E, 19 20 RIGHT HERE. THESE ARE THE TWO DOMINANT FAULTS IN THE 21 AREA. 22 FAULT E COMES UP TO THE SHALLOWEST, AND IT LOOKS

23 LIKE THERE'S A STRONG POSSIBILITY IT'S INACTIVE AS WELL.
24 SO, AGAIN, THIS WOULD BE A GOOD PLACE TO DO A FAULT STUDY
25 TO -- IF YOU WERE --

1 TO ANSWER YOUR QUESTION, IF YOU WERE TO DO A 2 FAULT STUDY HERE, MOST PEOPLE AGREE THAT THE FAULT COMES IN FROM THIS DIRECTION. SO IF THE FAULTS ARE IDENTIFIED 3 4 HERE FOUND TO BE INACTIVE. I BELIEVE MOST GEOLOGISTS THAT 5 WORK IN MY PROFESSION WOULD FEEL RELATIVELY CONFIDENT THAT 6 THIS WOULD BE A SAFE AREA TO PUT THE STATION. BUT, 7 OF COURSE, WE WOULD HAVE TO ELIMINATE THIS ARGUMENT OF THE 8 WEST BEVERLY HILLS COMING IN OVER HERE, WHICH I'M IN 9 AGREEMENT ON EXISTS. AND THEN -- AND THAT'S IT. THANK YOU VERY MUCH. 10 THERE'S EXTRA EVIDENCE THERE FOR IT BEING A SECONDARY 11 FAULT. OKAY. 12 HEARING OFFICER DROOYAN: THANK YOU. 13 THE WITNESS: THANK YOU. 14 15 HEARING OFFICER DROOYAN: DO YOU HAVE A QUESTION? 16 MS. O'CONNOR. WELL, SO YOUR -- YOUR FIRST SLIDE, THE INTERIM CONCLUSION SLIDE, AND THEN SOME OF THE LAST 17 ONES WERE NOT PART OF THE PRINTED MATERIAL? 18 THE WITNESS: IT SHOULD BE IN THERE. 19 20 MS. O'CONNOR: OKAY. THEY ARE NOT IN MINE. 21 THE WITNESS: OH, IT'S AT THE END. WHICH --WHAT'S NOT IN THERE? I'M SORRY. 22 23 MS. O'CONNOR: YOUR INTERIM SLIDE WHERE YOU SAID INTERM CONCLUSION SLIDE AT THE BEGINNING. YOU HAVE THAT? 24

YOU HAVE A SLIDE THAT SAYS MANY QUESTIONS, BUT YOU DON'T

25

1 HAVE -- AT LEAST MY COPY DOESN'T HAVE --

2 THE WITNESS: OH. MS. O'CONNOR: -- AND THEN YOUR LAST SLIDE THAT 3 4 YOU JUST SHOWED DOESN'T SEEM TO BE IN MINE. MINE ENDS IN LIKE GEOMORPHIC DRAINAGE ANALYSIS, AND THEN IT GOES TO --5 6 THE WITNESS: YEAH, YOU MIGHT HAVE --7 MR. BROGAN: THE PAGES ARE OUT OF ORDER. 8 MS. O'CONNOR: I JUST PAGED THROUGH THE WHOLE 9 THING, BUT ANYWAY. OKAY. THE WITNESS: YEAH, YOU MIGHT HAVE A SLIGHTLY 10 11 DIFFERENT VERSION --MS. O'CONNOR: OKAY. BECAUSE I WAS TRACKING --12 THE WITNESS: -- OF THE PRESENTATION. 13 MS. O'CONNOR: THANK YOU. 14 15 THE WITNESS: SLIGHTLY DIFFERENT. 16 HEARING OFFICER DROOYAN: OKAY. MR. BROGAN: THANK YOU, MR. KENNEY. WE NOW HAVE 17 -- DR. KENNEY. 18 WE KNOW HAVE THE VIDEO OF DR. SHLEMON. 19 20 OKAY. WE'VE GOT SOUND. 21 HEARING OFFICER DROOYAN: AND WOULD YOU AND STATE 22 AND SPELL HIS NAME FOR THE RECORD. 23 I.T. TECHNICAN: HE'LL ACTUALLY STATE AND SPELL IT AT THE TOP OF THE VIDEO. 24 25 HEARING OFFICER DROOYAN: AND LET ME JUST SAY,

1 TECHNICALLY UNDER THE PUBLIC UTILITIES CODE, THIS HAS TO BE UNDER AN OATH OR AFFIRMATION. AND WHAT WE'LL DO IS 2 WE'LL ADMIT THIS AS AN EXHIBIT. AND THEN, MR. WIENER, 3 WILL YOU SUBMIT TO THE BOARD JUST A DECLARATION THAT YOU 4 WOULD USE IN A COURT WITH AN AFFIDAVIT? 5 MR. WIENER: WE WILL DO THAT. 6 7 (CITY'S EXHIBIT WAS IDENTIFIED AND 8 ADMITTED INTO EVIDENCE.) 9 HEARING OFFICER DROOYAN: GO AHEAD. HE'S NOT LIVE. HE'S GOING TO TESTIFY --10 11 12 (START OF VIDEO.) 13 EXAMINATION BY THE NARRATOR: 14 15 Q DR. SHLEMON, GOOD AFTERNOON, SIR. 16 CAN YOU PLEASE INTRODUCE YOURSELF AND SPELL YOUR LAST NAME? 17 A YES, INDEED. MY NAME IS ROY; LAST NAME, SHLEMON, 18 19 S-H-L-E-M-O-N. 20 Q AND, DR. SHLEMON, CAN YOU PLEASE IDENTIFY FOR US 21 AND LIST FOR US YOUR EDUCATIONAL BACKGROUND? A YES. MANY SCHOOLS. MOST OF MY DEGREES -- IN 2.2 FACT, ALL OF THEM ARE IN GEOLOGY. THE UNION CARD, THE 23 24 PH.D. WAS AT BERKELEY, UNIVERSITY OF CALIFORNIA AT 25 BERKELEY. AND I'VE TAUGHT AT ANY NUMBER OF UNIVERSITIES

1 SINCE THAT TIME.

2	Q AND IT'S MY UNDERSTANDING, DOCTOR, THAT YOU'VE
3	TAUGHT AT AND GIVEN LECTURES AT THE UNIVERSITY OF
4	CALIFORNIA AT DAVIS, STANFORD UNIVERSITY, LOUISIANA STATE
5	UNIVERSITY, UCLA, CAL STATE LOS ANGELES, UC IRVINE, AND
6	SAN DIEGO STATE UNIVERSITY; IS THAT CORRECT?
7	A THAT'S CORRECT, AMONG OTHERS. I MIGHT POINT OUT
8	THAT THE DAVIS, UNIVERSITY OF CALIFORNIA AT DAVIS, WAS A
9	FULL TIME MY FIRST ACADEMIC POSITION, THEN LATER TO LSU
10	AT BATON ROUGE. AND THE OTHERS WERE ESSENTIALLY
11	CONSULTING PROFESSORSHIPS AND INVITED LECTURESHIPS.
12	Q AND HOW LONG HAVE YOU BEEN A CONSULTING
13	GEOLOGIST?
14	A PROBABLY FOR THE LAST APPROXIMATELY 40 YEARS,
15	FULL-TIME CONSULTING.
16	Q AND WHAT ARE YOUR AREAS OF SPECIALTY?
17	A WELL, THE TECHNICAL SPECIALTIES ARE CALLED
18	KINESIOLOGY, GEOMORPHOLOGY, SOIL STRATIGRAPHY,
19	ET CETERA, BUT THE MAIN FOCUS AND THE MAIN APPLICATION IS
20	TO DATE FAULTS TO DETERMINE IF A FAULT ACCORDING TO
21	CALIFORNIA CRITERIA IS EITHER ACTIVE OR IT IS NOT ACTIVE.
22	SO IT'S A SEISMIC ISSUE THAT I DEAL WITH MAINLY.
23	Q AND, DOCTOR, HAVE YOU PREPARED A REPORT DATED
24	NOVEMBER 6, 2011, FOR SHANNON & WILSON ON BEHALF OF THE
25	CITY OF BEVERLY HILLS?

1

A YES, I DID. THAT'S CORRECT.

2 Q AND, SIR, WHAT YOUR WAS YOUR PURPOSE IN PREPARING 3 THAT REPORT?

4 A THAT NOVEMBER REPORT OF 2011 FOCUSED MAINLY ONLY 5 A REVIEW OF THE AMEC REPORT, THE ORIGINAL REPORT FOR THE 6 WESTSIDE SUBWAY EXTENSION, AND VERY SPECIFICALLY FOCUSING 7 ON THE INFERRED FAULTS THAT WERE IDENTIFIED THAT WOULD 8 IMPACT THE PROPOSED ALTERNATE STATIONS BUT ALSO OTHER 9 PLACES IN BEVERLY HILLS.

10 Q AND, DOCTOR, IN YOUR PROFESSIONAL SCIENTIFIC 11 OPINION, HAS THERE BEEN ENOUGH GEOLOGICAL WORK DONE IN 12 YOUR VIEW TO SUPPORT THE CONSTELLATION SITE AS A SUBWAY 13 STATION?

A THE CONSTELLATION STATION, AS ANY OTHER 14 15 ALTERNATIVE SITE, NEEDS TO BE PRUDENT; NEEDS ADEQUATE 16 INVESTIGATION, VERY SPECIFICALLY, SITE-SPECIFIC INVESTIGATION. SO WHETHER THAT'S DONE AT THE 17 CONSTELLATION OR AT ANY OTHER ALTERNATIVE, IT IS A 18 REQUIREMENT TO MEET THE STANDARD OF PRACTICE AS WELL AS TO 19 20 ENSURE PUBLIC HEALTH AND SAFETY. 21 O AND TO YOUR KNOWLEDGE, HAS ANY SITE-SPECIFIC EVALUATION OF THE CONSTELLATION -- THE PROPOSED 22 23 CONSTELLATION STATION OCCURRED? A TO MY KNOWLEDGE, NOT YET. THE CONSTELLATION 24 25 STATION HAS BEEN SELECTED AS AN ALTERNATIVE, BUT UNLESS

AMEC OR SOME OTHER CONSULTING GROUP HAS BEEN INVOLVED
 RECENTLY, WHICH I DON'T THINK THAT IS THE CASE, THAT LEVEL
 OF INVESTIGATION IS REQUIRED DEFINITELY.

Q OKAY. NOW, DOCTOR, YOU REFERRED TO SITE-SPECIFIC WORK. IN YOUR OPINION, WHAT SITE-SPECIFIC WORK NEEDS TO BE PERFORMED AT THE CONSTELLATION STATION BEFORE IT COULD BE PROPERLY EVALUATED AND APPROVED AS A SUBWAY STATION SITE?

9 A THE GEOLOGICAL WORK PLUS THE ENGINEERING,
10 OF COURSE, SHOULD MEET ALL STANDARDS OF PRACTICE. THAT IS
11 PROFESSIONAL STANDARDS OF PRACTICE TO ENSURE THE PUBLIC
12 HEALTH AND SAFETY.

VERY SPECIALLY, THAT MEANS PROBABLY WITH HIGHER 13 14 PROBABILITY THAT TRENCHING IS DONE, OPENING UP EXCAVATIONS 15 IN WHICH THE GEOLOGISTS, PLURAL, CAN LOG, CAN DOCUMENT, 16 CAN PHOTO-DOCUMENT ALL EXPOSURES TO DETERMINE TWO THINGS: 17 ONE, IS THERE A FAULT PRESENT OR MANY FAULTS; AND THEN, SECONDLY, HOW OLD IS THE FAULT? THAT IS: WHAT WAS THE 18 TIME OF LAST GROUND RUPTURE, NEAR-SURFACE GROUND RUPTURE? 19 20 THAT BY DEFINITION FITS INTO THE CALIFORNIA LAW, 21 THE REOUIREMENT THAT ONE WILL NOT BUILD A HABITABLE 22 STRUCTURE -- AND A TERMINAL OR A STATION IS A HABITABLE 23 STRUCTURE -- AND ONE WILL NOT BUILD SUCH A STATION ON AN 24 ACTIVE FAULT. SO THOSE ARE THE TWO COMPONENTS OF THE MAIN 25 COMPONENTS OF A GEOLOGICAL INVESTIGATION.

1

Q HAS TRENCHING BEEN PERFORMED AT THE PROPOSED

2 CONSTELLATION SITE?

3 A TO MY KNOWLEDGE, NOT YET.

4 Q DOCTOR, DO YOU SEE ANY ANALYSIS IN THE AMEC 5 REPORT THAT SUGGEST THAT THERE COULD BE A FAULT RUNNING 6 THROUGH THE CONSTELLATION SITE?

A YES, THERE IS. THE AMEC REPORT REFERRED TO A
POSSIBLE SPLAY OF THE NEWPORT/INGLEWOOD OR SOME OTHER
FAULT SYSTEM. AND A REASONABLE PROJECTION FROM THEIR DATA
-- AND THEY SHOW IT ON THEIR MAPS IN THEIR ORIGINAL REPORT
-- PROJECTS RIGHT TOWARD THE PROPOSED CONSTELLATION
STATION. AGAIN, ANOTHER REASON THAT A SITE-SPECIFIC

13 INVESTIGATION MUST BE PERFORMED.

14 Q DOCTOR, WHAT IS THE RISK OF MOVING FORWARD WITH 15 THE CONSTELLATION SITE WITHOUT HAVING THE RISKS ASSESSMENT 16 INVESTIGATIVE WORK DONE THAT YOU BELIEVE IS NECESSARY IN 17 ORDER TO PROPERLY EVALUATE THAT SITE?

A WELL, THE RISK IS INHERENT IN A POSSIBLE FAULT AND A POSSIBLE ACTIVE FAULT GOING THROUGH THE STATION. SO TO NOT DO THE APPROPRIATE STANDARD OF PRACTICE WORK IS NOT PRUDENT AND DOES NOT MEET THE STANDARDS OF PRACTICE AND CERTAINLY WOULD NOT MEET THE REQUIREMENTS OF THE ALQUIST-PRIOLO ACT, WHICH DEFINES AN ACTIVE FAULT IN THE STATE OF CALIFORNIA.

25

Q DOCTOR, DO YOU BELIEVE THAT TRENCHING AT THE

VACANT SITE AT THE CORNER OF CONSTELLATION AND AVENUE OF
 THE STARS WOULD BE BENEFICIAL TO ANALYZE THE PROPOSED
 CONSTELLATION SITE?

4 А WELL, INDEED. ANY EXISTING EXPOSURE SHOULD BE VERY USEFUL. IT MAY NOT BE SUFFICIENT. THERE -- THEY MAY 5 6 BE REQUIRED TO DO ADDITIONAL INVESTIGATIONS, BUT I HAVEN'T 7 SEEN THAT PARTICULAR SITE, BUT IF THERE IS AN EXCAVATION 8 THERE, CERTAINLY A COMPETENT GEOLOGIST SHOULD EXAMINE IT 9 TO DETERMINE TWO THINGS: ONE, ARE THERE FAULTS OR NO FAULTS? IS IT EXPOSED IN THE CUTS? AND THEN, SECONDLY, 10 IF THERE ARE FAULTS, ARE THEY ACTIVE OR NOT? 11

12 AND, OF COURSE, ONE WILL DETERMINE THE AGE OF 13 THOSE SEDIMENTS, AND THEY NEED TO BE DEMONSTRABLY GREATER 14 THAN THE 11,500 YEARS OLD WHICH IS THE STATE DEFINITION 15 FOR AN ACTIVE FAULT. THAT IS IF SEDIMENTS YOUNGER THAN 16 THAT NUMBER HAVE BEEN DISPLACED BY FAULTING, THEN IT'S 17 CONSIDERED AN ACTIVE FAULT IN CALIFORNIA.

18 SO YES, I WOULD CERTAINLY TAKE ADVANTAGE OF ANY 19 EXISTING CUTS. CERTAINLY, IT WOULD SAVE TIME, MONEY, AND 20 SUPPLEMENT ALL THE OTHER GEOLOGICAL INVESTIGATIONS THAT 21 ARE LIKELY REQUIRED TO PRODUCE A REALISTIC EVALUATION OR 22 RISK, IF YOU WILL, OF THE VIABILITY OF THE CONSTELLATION 23 STATION.

24 Q DOCTOR, IT'S MY UNDERSTANDING THAT THERE WAS A 25 REPORT POSTED ON THE MTA WEB SITE DATED MAY 14TH, 2012,

IN RESPONSE TO THE LEIGHTON CONSULTANT'S REPORT. HAVE YOU
 HAD AN OPPORTUNITY TO REVIEW THAT POSTING?

A VERY BRIEFLY. IT JUST CAME OUT, AND I JUST 3 4 LOOKED AT IT VERY BRIEFLY. BUT I HAD THE OPPORTUNITY TO -- TO GET THE GIST OF THE SENSE OF THEIR CONCLUSIONS. 5 6 Q AND IN YOUR PROFESSIONAL OPINION, WAS THERE 7 ANYTHING IN THAT POSTING ON THE MTA WEB SITE OF MAY 14, 8 2012, THAT LEADS YOU TO BELIEVE THAT THE CONSTELLATION 9 STATION HAS BEEN PROPERLY EVALUATED FOR LOCATION AS A SUBWAY STATION? 10 I SAW NOTHING ABOUT THE CONSTELLATION STATION IN 11 А PARTICULAR. MOST OF THE FOCUS IN THAT MOST RECENT REPORT 12 13 THAT, AS YOU'VE DESCRIBED, POSTED ON THE WEB SITE FOCUSES 14 ON THE SANTA MONICA STATION, AND STILL INFERS, IF NOT 15 ALLEGES, THAT THERE ARE ACTIVE FAULTS OR HIGH PROBABILITY 16 OF ACTIVE FAULTS THROUGH THE PROPOSED SANTA MONICA STATION, BUT THERE'S NO REAL DISCUSSION WHATSOEVER. IN 17 FACT, I'M NOT EVEN SURE THE WORD "CONSTELLATION STATION" 18 EVEN APPEARS -- IT MIGHT -- IN THE REPORT. 19 20 THERE ARE SOME GRAPHICS IN THE REPORT THAT 21 CONTOUR SOME OF THE OLDER SEDIMENTS AND SUGGEST THAT THERE 22 MAY BE OTHER GEOLOGICAL STRUCTURES THAT PROJECT TOWARDS 23 THE CONSTELLATION SITE, BUT, AGAIN, NO SPECIFIC WORK HAS 24 BEEN DONE TO EVALUATE FROM A FAULT STANDPOINT THE 25 CONSTELLATION STATION.

1 Q AND TO SUMMARIZE YOUR OPINIONS, DOCTOR, IS IT 2 YOUR OPINION THAT PUBLIC HEALTH AND SAFETY AND CALIFORNIA 3 LAW REQUIRE THAT BEFORE THE PROPOSED CONSTELLATION STATION 4 CAN BE DETERMINED TO BE THE LOCATION OF THE SUBWAY STATION 5 IN CENTURY CITY, THAT SITE-SPECIFIC INVESTIGATION MUST BE 6 PERFORMED?

7 А ABSOLUTELY. THE STATION, CONSTELLATION STATION, 8 WHEREVER IT MAY BE LOCATED IN THE CENTURY CITY AREA, IS A HABITABLE STRUCTURE. AND AS A HABITABLE STRUCTURE, IT 9 REQUIRES STANDARD-OF-PRACTICE INVESTIGATIONS TO CONFORM, 10 11 AS YOU'VE JUST POINTED OUT, WITH THE REQUIREMENTS OF THE 12 CALIFORNIA ALQUIST-PRIOLO ACT TO MAKE SURE THERE ARE NO ACTIVE FAULTS THERE. AND THIRDLY, COMMON SENSE PREVAILS 13 THAT ONE SHOULD ALWAYS ENSURE AS MUCH AS POSSIBLE PUBLIC 14 15 HEALTH AND SAFETY.

16SO SITE-SPECIFIC INVESTIGATIONS ARE DEFINITELY17REQUIRED FOR ANY PROPOSED CONSTELLATION STATION.

18 (CONCLUSION OF VIDEO.)

19

20 HEARING OFFICER DROOYAN: THANK YOU.

21 MR. BROGAN: MR. HEARING OFFICER, MY NEXT

22 WITNESS, WE'LL CALL MR. TIM BURESH. MR. BURESH IS

23 PRESENTLY BEFORE THE PANEL.

24 HEARING OFFICER DROOYAN: OKAY. IF YOU WOULD25 STATE YOUR NAME AND SPELL IT, AND THEN WE'LL HAVE THE

1 COURT REPORTER SWEAR YOU IN.

25

2 THE WITNESS: TIM BURESH, B-U-R-E-S-H. HEARING OFFICER DROOYAN: MADAM COURT REPORTER, 3 4 SWEAR THE WITNESS. 5 6 TIM BURESH, 7 A WITNESS HEREIN, CALLED BY AND ON BEHALF OF THE CITY 8 HAVING BEEN FIRST DULY SWORN, WAS EXAMINED AND TESTIFIED 9 AS FOLLOWS: 10 11 EXAMINATION THE WITNESS: I'VE BEEN INFORMED THAT I NEED TO 12 CUT MY TIME IN HALF, WHICH IS KIND OF TYPICAL. I -- I'VE 13 NEVER HAD AS MUCH TIME AS I'D FOR 20 YEARS IN FRONT OF 14 15 THIS BOARD. SO THAT'S NOT A SURPRISE. 16 YOU KNOW, SOMETIMES WE GET REALLY MESSED UP ON THIS. MY BACKGROUND IS -- I'M PROBABLY ONE OF THE FEW 17 ENGINEERS WHO'S HAD A STRONG BACKGROUND IN BOTH EDUCATION 18 AND IN TRANSIT WORK. I LIKE TO BUILD SCHOOLS. I LIKE TO 19 20 BUILD SUBWAYS. I WOULD LIKE TO BUILD THIS SUBWAY, AND I 21 WOULD LIKE TO SEE THE NEXT GENERATION OF SCHOOLS GET BUILT 22 IN BEVERLY HILLS. 23 NOW, I'M SENSITIVE TO HAVING SIGNED OFF ON MORE 24 THAN A FEW ENVIRONMENTAL DOCUMENTS. I'M SENSITIVE TO THE

FACT THAT THEY'RE NEVER PERFECT. AND I'M NOT HERE TO

NIT-PICK ON THAT STUFF. I'M ALSO SENSITIVE TO THE FACT
 THAT IT'S VERY DIFFICULT FOR BOARDS TO SOMETIMES SIFT
 THROUGH THE TREES AND FIND THE FOREST IN HERE. AND MAYBE
 THERE'S A TENDENCY SOMETIMES TO JUST RELY ON STAFF OVERLY
 MUCH.

6 BUT SOMETIMES STAFF GETS IT WRONG FOR LOTS OF 7 LOGICAL AND GOOD AND SOLID REASONS. BUT SOMETIMES IT 8 NEEDS TO GET CLARIFIED. NOW AT THIS STAGE IN THE PROCESS, 9 IN MY MIND, YOU'VE GOT A BALANCING DECISION. FOR ALL 10 TRANSIT SYSTEMS, WE'RE LOOKING AT BALANCING RIDERSHIP VERSUS COST. WE'LL SPEND MONEY TO GET MORE RIDERS. IS IT 11 WORTH IT? IS IT GOOD INVESTMENT? 12 13 THE SAME TIME, ARE THERE ANY TECHNICAL OBJECTIONS? SEISMIC BEING FRONT, FIRST, AND FOREMOST 14 15 HERE, BUT THERE MAY BE OTHERS. AND IS THERE ANY 16 UNNECESSARY OR AVOIDABLE IMPACT ON THIRD PARTIES THAT --THAT WE CAN'T WORK AROUND OR MITIGATE? 17 NOW, FOR ME IT ALWAYS STARTS WITH RIDERSHIP. 18 THE, METRO TRAFFIC DEMAND MODEL IS FINE. IT'S A GOOD 19 MACRO-LEVEL DEMAND MODEL. IT SAYS THAT WE NEED A STATION 20 21 SOMEWHERE IN THE CENTURY CITY AREA. WE AGREE WITH THAT. IT SAYS THERE'LL BE ABOUT 6,000 RIDERS. WE AGREE WITH 22 23 THAT. THE MODEL IS FINE FOR THAT. AND WE ABSOLUTELY AGREE THAT THERE NEEDS TO BE 24

25 SOME KIND OF LEVEL OF SERVICE IN THAT AREA. NOBODY IS

PROPOSING ELIMINATING A CENTURY CITY STATION. IT'S JUST
 A QUESTION OF WHETHER IT'S ON SANTA MONICA OR ON
 CONSTELLATION.

4 NOW, THE PROBLEM IS WHEN YOU TRY TO TAKE A 5 MACRO-LEVEL MODEL AND APPLY IT TO THE MICRO LEVEL. AND 6 WITHOUT GETTING TOO COMPLICATED ON HERE, THE MACRO-LEVEL 7 MODELS ARE ALL BASED ON TRAFFIC, ON T.A.Z.'S. YOU TAKE 8 ALL YOUR DATA, YOU AGGREGATE IT, YOU AVERAGE IT, AND THEN 9 IT'S VERY HARD TO UN-BLEND THAT AND COME BACK TO SOMETHING 10 SITE SPECIFIC ON HERE.

11 NOW, IF YOU LOOK AT THE ACTUAL DETAILS OF THE 12 STUDIES -- AND YES, I HAVE READ ALMOST EVERY PAGE OF THIS 13 DOCUMENT -- IT STANDS FOR THE PROPOSITION THAT THE CENTER 14 OF THE CENTER IS IN FRONT OF BJ'S RESTAURANT IN THE MALL. 15 I'VE WALKED AROUND THERE A LOT, AND I'M PRETTY DARN SURE 16 IT'S NOT IN FRONT OF BJ'S RESTAURANT, THAT IT'S ACTUALLY 17 SOMEWHERE ELSE.

18 WHEN YOU LOOK AT HOW YOU TRY AND APPLY THAT MODEL 19 TO EVALUATE BETWEEN TWO DIFFERENT STATION LOCATIONS WITHIN 20 THE T.A.Z., IT REALLY BREAKS DOWN. IT'S JUST SIMPLY TOO 21 CRUDE FOR IT. AND IT'S BECAUSE IT DOESN'T RECOGNIZE 22 WHAT'S REALLY GOING ON THERE.

23 YOU SEE THE CIRCLES THAT COME OUT OF YOUR
24 REPORTS, AND THAT'S BASICALLY ABOUT ALL IT'S DOING, IS
25 AGGREGATE DATA. AND EVEN WHEN YOU -- YOU COMPOUND IT WITH

1 THE WALK ACCESS STUDY, THE WALK ACCESS STUDY JUST STANDS 2 FOR THE PROPOSITION IT TAKES A LONG TIME TO WALK FROM 3 CENTURY PARK EAST OVER TO BJ'S TAVERN. WELL, WE AGREE 4 WITH IT, ALTHOUGH MY -- MY SOPHOMORE DAUGHTER IN HIGH 5 HEELS DOES IT ABOUT HALF THE TIME THAT -- THAT MOUDEN HAD 6 IN HER STUDY ON THERE.

SO IT'S -- I APPRECIATE THE EFFORT OF TRYING TO
DO IT, BUT THAT'S JUST NOT HOW YOU DO IT. FIRST AND
FOREMOST, NONE OF THOSE METHODS ACKNOWLEDGE WHAT'S UNIQUE
ABOUT CENTURY CITY. THIS IS A CITY OF WALLS AND BARRIERS.
IT'S NOT LIKE ANYWHERE ELSE IN L.A.

12 IT'S NOT LIKE IN MOST PLACES IN MOST METROPOLITAN 13 CITIES. EVERYBODY SEES THE GOLF COURSE IN THE NORTH, AND 14 YOU SAY THAT'S A BARRIER, AND IT IS. BUT AT LEAST ON THE 15 GOLF COURSE, YOU CAN GET OUT AT EITHER THE NORTHWEST OR 16 THE NORTHEAST SIDES INTO BEVERLY HILLS AND WESTWOOD.

OLYMPIC BOULEVARD IS A MUCH BIGGER BARRIER. IT
EFFECTIVELY CUTS EVERYTHING OFF TO THE SOUTH. YOU'RE NOT
GOING TO SEE ANY RIDERS REALLY COME FROM SOUTH OF OLYMPIC
BOULEVARD IN HERE. YOU'LL SEE VERY FEW THAT WILL SNEAK IN
ON OLYMPIC BOULEVARD FROM THE EAST AND THE WEST SIDES.

YOU'VE ALSO GOT SOME VERY PECULIAR DEMOGRAPHICS
THAT COME INTO THIS. THE AVERAGE RESIDENT AGE IN CENTURY
CITY IS 60 YEARS OLD. WE HAVE A PRIMARILY RETIRED
POPULATION. WE HAVE ASSISTED LIVING CENTERS ON THAT.

WE HAVE PEOPLE WHO ARE NOT DAILY COMMUTERS WHO OWN CARS
 AND WHO ARE WEALTHY, IN SHORT, PEOPLE WHO YOU KNOW DON'T
 RIDE SUBWAYS VERY OFTEN. AND THEY ARE KIND OF COUNTED
 INTO THIS POOL JUST BECAUSE OF THE AGGREGATE NATURE OF THE
 T.A.Z. STUDIES.

6 AT THE SAME TIME YOU'VE GOT A HIGH SCHOOL OF 2200 7 PEOPLE WHO HAVE KIDS WHO DON'T HAVE DRIVER'S LICENSES WHO 8 DON'T HAVE CARS WHO COMMUTE EVERY DAY WHO ALREADY RIDE THE 9 BUSES AND USE TRANSIT AND WHOSE PARENTS WOULD LOVE TO HAVE 10 THEM RIDE THE SUBWAY TO SCHOOL INSTEAD OF DRIVING THEM 11 EVERY DAY. THEY'RE NOT IN YOUR MODELS. THEY'RE EXCLUDED.

12 IT ALL HAS TO DO WITH HOW IT'S STRUCTURED AND 13 BECAUSE YOU'RE USING AGGREGATE LEVEL DATA AS OPPOSED TO 14 SITTING DOWN AND REALLY DOING IT PROPERLY WHICH IS COMING 15 INTO SOME PARED DATA METHODOLOGY.

16 NOW, ALSO THE STUDIES ARE WAY, WAY TOO CENTERED
17 ON THE WHOLE 600-FOOT WALKING DISTANCE ON HERE. AND, OF
18 COURSE, RIDERSHIP VARIES WITH WALKABILITY. THE CLOSER A
19 STATION IS TO YOU, THE MORE CONVENIENT IT IS TO USE, THE
20 MORE LIKELY YOU ARE TO USE IT. THAT'S COMMON SENSE.

BUT THERE'S NO ARBITRARY AND AUTOMATIC DISTANCES
IN THERE, AND IT VARIES STRONGLY BY COMMUNITY AND BY
POPULATION, BY HABITS OF THE WALKERS ON HERE.

24 IF THAT WALK ACCESS STUDY WAS SO SOLID AND THIS
25 METHODOLOGY WAS SO GOOD, THEN YOUR STAFF SHOULD HAVE USED

1 IT EVERYWHERE ELSE IN HERE. AND YOU CAN SEE VERY QUICKLY 2 THAT IF YOU APPLIED IT AT WESTWOOD UCLA IT WOULD STAND FOR 3 THE PROPOSITION THAT THAT STATION AIN'T GOING TO GET NO 4 STUDENTS, AIN'T GOING TO GET NOBODY FROM WESTWOOD VILLAGE 5 OR THE FEDERAL CENTER OR FROM THE UCLA MEDICAL CENTER 6 BECAUSE THEY ARE WAY OUTSIDE THAT ALL IMPORTANT 600-FOOT 7 RADIUS, WHICH I DON'T BELIEVE IT.

8 SIMILARLY, IF YOU WENT OVER TO THE MUSEUM 9 DISTRICT, THAT 600-FOOT DISTANCE STANDS FOR THE PROPOSITION THAT NOBODY WALKS FROM MOCA TO THE TAR PITS. 10 AND WE SEE MILLIONS OF PEOPLE DOING THAT EVERY YEAR. 11 12 AND, FRANKLY, THE DATA IN CENTURY CITY ALONE 13 STANDS UP FOR IT. IT SAYS THAT PEOPLE WILL WALK FOUR 14 TIMES AS FAR FOR LUNCH AS THEY WILL TO RIDE A SUBWAY. AND 15 IT JUST DOESN'T STAND UP TO GOOD COMMON SENSE, AND IT'S 16 NOT GOOD PLANNING.

17 GOOD PLANNING REQUIRES THAT YOU SIT DOWN AND DO A
18 PAIRED DEMAND MODEL WHERE YOU GO TO ALL OF THE INDIVIDUAL
19 PROPERTIES, RIDERSHIP CHARACTERISTICS, USE YOUR GPS LOADED
20 SYSTEM, YOU HAVE ACTUAL WALK PATHS THAT ARE IMPEDENCE
21 LOADED.

22 SO IN OTHER WORDS, IT DOESN'T -- I CAN'T WALK 23 LIKE THE CROW FLIES. WHAT MATTERS IS HOW FAR I HAVE TO 24 ACTUALLY WALK. IS MY -- THE ENTRANCE TO MY BUILDING ON 25 THE RIGHT OR THE WRONG SIDE OF THE BLOCK? ARE THERE

STAIRS IN BETWEEN? HOW MANY TRAFFIC LIGHTS DO I HAVE TO
 WAIT FOR? THOSE ARE ALL FACTORS THAT WEIGH IN VERY
 HEAVILY IN TERMS OF THE ACTUAL RIDERSHIP.

NOW, GOOD STATION DESIGN MODELING SAYS THAT YOU
WOULD TAKE THE ENTIRE AREA AROUND HERE AND LOAD IN YOUR
VARIOUS IMPEDENCE FACTORS, AND THEN YOU'D BEGIN RUNNING
ITERATIONS. AND YOU'D BEGIN PLAYING WITH MULTIPLE
ENTRANCES UNTIL YOU FIND THE OPTIMUM LOCATION.

9 AND I THINK EVERYBODY'S GOING TO AGREE VERY QUICKLY THAT THE CENTER OF THIS CENTURY CITY RIDERSHIP 10 AREA, WHICH INCLUDES A LOT OF RIDERS FROM WESTWOOD AND 11 FROM BEVERLY HILLS, NOT JUST CENTURY CITY PER SE, IS 12 13 SOMEWHERE IN THE BLOCK BOUNDED BY CONSTELLATION, SANTA 14 MONICA, AVENUE OF THE STARS, AND CENTURY PARK EAST. AND 15 THAT CENTROID WILL VARY DEPENDING UPON WHERE YOU PUT YOU 16 THE STATION.

17 IF YOU SHIFT IT TO SANTA MONICA, IT GOES A LITTLE
18 TO THE NORTH BECAUSE YOU'RE GETTING MORE WESTWOOD RIDERS.
19 IF YOU GO TO CONSTELLATION, IT SHIFTS A LITTLE BIT MORE TO
20 THE SOUTH BECAUSE YOU'RE NOT GETTING THOSE NORTHERN
21 RIDERS.

22 WHEN YOU GO THROUGH AND DO THAT ANALYSIS ON
23 THERE, THOUGH, WHAT YOU'RE GOING TO FIND IS IN THE SHORT
24 TERM FOR ALL STATISTICAL PURPOSES, YOU HAVE ABOUT EVEN
25 RIDERSHIP BETWEEN THE TWO STATIONS. SLIGHTLY DIFFERENT

1 GROUPS OF RIDERS, BUT THE RIDERSHIP IS ESSENTIALLY EQUAL.

2 IN THE LONG TERM, SAY 25 YEARS, THAT DOESN'T HOLD UP. THE RIDERSHIP SHIFTS SIGNIFICANTLY TOWARD 3 4 SANTA MONICA. THE REASON FOR THAT IS SIMPLY THE AGE OF THE BUILDINGS. IF YOU GO UP ON SANTA MONICA -- AND JUST 5 6 LOOK AT YOUR STAGING DRAWINGS TO GET A VERY GOOD EXAMPLE 7 OF THAT -- YOU FIND THAT YOU HAVE OLDER BUILDINGS, SMALLER 8 BUILDINGS THAT ARE RIPE FOR URBAN RENEWAL AND REPLACEMENT 9 WITH MUCH HIGHER DENSITIES.

10 IF YOU GO TOWARDS CONSTELLATION, YOU'RE NOT GOING TO SEE THAT HAPPEN. THE BUILDINGS ARE NEWER, AND THEY'LL 11 ESSENTIALLY BE REPLACED MORE IN KIND. A GOOD EXAMPLE IS 12 13 THE WESTFIELD DEVELOPMENT WHICH IS ESSENTIALLY REPLICATING 14 THE TOTAL SQUARE FOOTAGE AND RIDERSHIP AND TRIP DEMANDS 15 THAT ARE THERE TODAY. THERE'S NO NET REAL INCREASE. THAT 16 WILL NOT BE TRUE UP AT THE NORTHERN END, ESPECIALLY IN 17 WESTWOOD AND ESPECIALLY IN THE ADJACENT AREAS OF BEVERLY 18 HILLS.

SO RIDERSHIP, THERE ISN'T A HUGE DIFFERENCE
BETWEEN THE TWO. AND THEN THE REAL QUESTION IS: IF THERE
IS A DIFFERENCE -- AND BEAR IN MIND, LET'S SAY IF WE HAVE
1,000 RIDERS MORE AT ONE STATION OVER THE OTHER, HALF OF
THOSE RIDERS ARE COMING OFF THE BUS. SO HOW MUCH ARE WE
WILLING TO PAY TO GET 500 MORE RIDERS?

25

AND THAT BRINGS US UP TO THE COST ISSUE. NOW, AS

1 OF TODAY -- YOU HAVE A DETAILED SERIES OF COSTS DOCUMENTS 2 THAT ARE PREPARED. TO DO A PROPER ESTIMATE, YOU START OUT FIRST WITH THE COST DATABASE, HISTORICAL DATABASE THAT 3 4 SHOULD BE SET UP. YOU HAVE A STANDARD COST ELEMENT 5 DATABASE. THERE'S THEN A BASIS AND ASSUMPTIONS DOCUMENTS. 6 THERE'S DETAILED SPREADSHEETS AND TAKEOFFS PREPARED, AND 7 THEN IT GETS TURNED INTO A FINAL STANDARD ESTIMATE FORMAT 8 SHEET.

9 I'VE REQUESTED THAT, BUT I HAVEN'T RECEIVED ANY 10 OF IT. STAFF SAYS THAT EVERYTHING WE NEED IS IN THE DOCUMENTS. WELL, THIS IS WHAT IT IS IN THE DOCUMENTS. 11 I MEAN, I'VE GOT AT LEAST 20 DIFFERENT PRICES THAT 12 13 SUPPOSEDLY COMPARE THE DIFFERENT COSTS BETWEEN THE TWO 14 STATIONS, AND I CAN PRETTY MUCH TELL YOU THAT NONE OF THEM 15 ARE RIGHT. WELL, THEY ARE -- ACTUALLY THE TRUTH IS 16 SOMEWHERE IN BETWEEN THAT RANGE.

NOW, THAT MAKES IT VERY HARD AND VERY CONFUSING
FOR YOU. HOWEVER, THERE ARE SOME FACTS WE CAN USE TO
IDENTIFY SOME OF THOSE COST DIFFERENCES. THE SIMPLE FACT
IS THAT CONSTELLATION HAS A LONGER ALIGNMENT, AND THAT'S
GOING TO COST MORE, MAYBE A QUARTER OF A MILE LONGER.
AND THAT DOESN'T SOUND LIKE A LOT, BUT THAT QUARTER MILE
IN THE D.E.I.S. WAS GOING TO COST 65 MILLION MORE.

24 NOW TODAY AS BEST I CAN TELL FROM THE PARTIAL25 ESTIMATE THAT WAS PROVIDED FOR SEGMENT 1, EVEN THOUGH

WE'RE GOING TO HAVE VERY HIGH GAS CONDITIONS, MUCH MORE
 DIFFICULT TUNNELING CONDITIONS, MUCH MORE EXPLORATORY
 DRILLING, MUCH MORE CONVOLUTED SITE REPARATION AND
 PREPARATION CONDITIONS IN THERE, OUR TUNNELING COSTS ARE
 ACTUALLY GOING DOWN, I'M NOT SURE I BUY THAT.

6 BUT THAT STILL SAYS THAT EQUIVALENT TUNNELING IN 7 THIS AREA HAS GOT TO BE AT LEAST \$45 TO \$65 MILLION MORE 8 FOR CONSTELLATION THEN SANTA MONICA.

9 NOW YOU LOOK AT THE STATION. AND STAFF NARROWED
10 DOWN THE DEBATE UNNECESSARILY. YOU EITHER -- ON SANTA
11 MONICA THERE WERE TWO STATION LOCATIONS. ONE CENTERED ON
12 AVENUE OF THE STARS, ONE CENTERED ON CENTURY PARK EAST.
13 WELL, I DON'T LIKE EITHER OF THOSE.

14THE PROPER LOCATION REALLY SHOULD BE BETWEEN15AVENUE OF THE STARS AND CENTURY PARK EAST, AND YOU TAKE16ADVANTAGE OF THE MEDIAN THAT'S OUT THERE. THERE'S A LOT17OF GREAT BENEFITS THAT COME FROM THAT. IT SHOULD BE A18DUAL-ENTRANCE STATION, IF NOT A TRIPLE-ENTRANCE STATION.19THE BIAS TOWARD A SINGLE ENTRANCE STATION, I FIND

20 HARD TO JUSTIFY. JUST ON RIDERSHIP ALONE GOING TO
21 MULTIPLE ENTRANCES ACROSS A SYSTEM, YOU'D PROBABLY
22 GENERATE A 10 PERCENT BUMP IN RIDERSHIP WHICH WOULD BE
23 HUGE. AND IT'S RELATIVELY MINOR COST IF YOU DO THOSE
24 MULTIPLE ENTRANCES DURING THE INITIAL CONSTRUCTION. HECK,
25 YOU'RE PROBABLY GOING TO HAVE TO BUILD SOME OF THEM JUST

FOR TEMPORARY CONSTRUCTION STAGING AND ACCESS ANYWAY. WHY
 NOT MAKE THEM PERMANENT. IT'S CHEAP, AND IT HAS A BIG
 BENEFIT TO YOU. THAT'S NOT BEING CONSIDERED.

4 NOW, CONSTELLATION IS REALLY LANDLOCKED BY ITS GEOMETRY. YOU CAN'T REALLY SHIFT IT AROUND A WHOLE LOT, 5 6 BUT IT'S A MESSY SITE BECAUSE THE ROAD IN THERE IS 7 ACTUALLY NOT FLAT. IT'S THE -- IT'S THE PEAK OF A HILL 8 RIGHT AT AVENUE OF THE STARS. SO YOU'VE GOT TO BRIDGE IT 9 UP. YOU'VE GOT TO COVER IT WITH DECKING, AND THEN YOU BASICALLY HAVE GOT TO BUILD THE STATION INSIDE THAT. AND 10 THAT'S LIKE BUILDING A SHIP INSIDE A BOTTLE. 11

THE OPPOSITE IS TRUE UP ON SANTA MONICA. YOU 12 13 LOSE A BUS LANE, BUT IT'S NOT THAT BUSY IN THERE. AND YOU 14 HAVE THE POSSIBILITY OF BEING ABLE TO BUILD THAT IN AN 15 OPEN-STAGED CONSTRUCTION. YOU AVOID THE COST OF DECKING. 16 THE STATION IS MUCH SHALLOWER BECAUSE THERE ARE NO SHALLOW UTILITIES THAT ARE IN PLACE ANYMORE. AND YOU'RE ABLE TO 17 BUILD IT FAST. YOU CUT DOWN THE CONSTRUCTION TIME, YOU 18 19 CUT DOWN THE CONSTRUCTION COST.

YOU PUT THOSE TOGETHER WITH A WHOLE BUNCH OF
OTHER FACTORS ON THAT WHICH COME IN ON THERE, AND LITTLE
THINGS THAT ARE BUILT INTO THE FINAL E.I.S./E.I.R.
DRAWINGS RIGHT NOW THAT ARTIFICIALLY INFLATE THE COST
DIFFERENCE IN -- BETWEEN CONSTELLATION AND SANTA MONICA,
AND YOU CLEAN ALL THAT UP. A SANTA MONICA STATION,

ALIGNMENT STATION TOGETHER IS GOING TO COST AT LEAST \$100
 MILLION LESS THAN CONSTELLATION.

3 SO NOW WE'RE TALKING ABOUT A VERY SMALL 4 DIFFERENCE IN RIDERSHIP FOR A VERY LARGE DIFFERENCE IN 5 COST. AND AT LEAST TO ME, \$100 MILLION IS STILL REAL 6 MONEY. AND IT'S SOMETHING YOU COULD DO A LOT OF THINGS 7 WITH. WITH \$100 MILLION YOU COULD COVER MULTIPLE 8 ENTRANCES THROUGHOUT THE ENTIRE SYSTEM AND STILL HAVE 9 MONEY LEFT OVER, JUST AS ONE EXAMPLE.

10 NOW, WE GET INTO THE SEISMIC REPORT, AND I'M SURE A LOT OF PEOPLE ON THE PERIPHERY OF THIS WONDER WHY ON 11 12 EARTH DOES THE SCHOOL EVEN CARE ABOUT THE SEISMIC 13 CONDITIONS AROUND THE STATIONS IN CENTURY CITY. THE 14 SIMPLE REALITY IS BECAUSE WHEN YOU READ THE 15 F.E.I.S./E.I.R, THE DOMINANT REASON, IN SOME PLACES THE 16 ONLY REASON, FOR RECOMMENDING CONSTELLATION IS BECAUSE OF THE PRESENCE OF ACTIVE FAULTING AT SANTA MONICA. 17 WELL, OKAY. IF THAT STUDY IS WRONG, THOUGH --18 AND AS YOU'VE HEARD, WE HAVE A LOT OF REASONS TO BELIEVE 19 IT'S WRONG OR AT LEAST INCOMPLETE ON HERE -- THEN YOU 20 21 DON'T HAVE TO HAVE THAT RESTRICTION. THEN YOU CAN HAVE AN 22 OPEN CONSIDERATION OF COST VERSUS RIDERSHIP AND OTHER 23 FACTORS IN HERE.

AND I WANT TO JUST SHARE A FEW THINGS ABOUT WHYI THINK THAT YOU OUGHT TO PAY SOME STRONG ATTENTION TO THE

SCHOOL DISTRICT PROCESS EVEN MORE THAN THE PROCESS THAT
 YOU DID INTERNALLY WITH STAFF. ON -- YOU MAY NOT KNOW IT,
 BUT I ALSO WORKED MY WAY THROUGH SCHOOL WORKING IN SOILS
 LABS AND OUT ON DRILLING RIGS.

5 SO WHEN YOU TALK ABOUT THINGS LIKE HOW YOU KEEP 6 CONE PENETROMETERS STRAIGHT IN THE GROUND AND HOW 7 ACCURATELY THOSE RESULTS COME IN, HAVING INITIALED OFF ON 8 A BUNCH OF THOSE THINGS, THERE IS REAL-WORLD CONDITIONS 9 THAT HAPPEN OUT THERE. AND PEOPLE NEED TO PAY ATTENTION 10 TO THAT. I DON'T THINK THAT GOT CONSIDERED IN HERE NEARLY 11 AS WELL AS IT SHOULD HAVE BEEN.

12 WHEN WE WENT INTO THE SCHOOL DISTRICT ON HERE, 13 ONCE THE REPORT CAME OUT, IT WAS SHOCKING BECAUSE IT 14 BASICALLY SAID: HEY, YOU'VE GOT MULTIPLE ACTIVE FAULTS 15 CRISSCROSSING YOUR ONLY HIGH SCHOOL IN TOWN. THAT SET OFF 16 ALARM BELLS THAT CAUSED THE SCHOOL DISTRICT TO REACT AS 17 QUICKLY AS IT COULD ON THERE.

18 WE DID EVERYTHING POSSIBLE TO COME UP WITH A TEAM
19 THAT COULD BE NEUTRAL AND OBJECTIVE ON IT. AND THERE'S
20 WHY. AT LEAST ONE BOARD MEMBER IN HERE HAS HAD A STINT AS
21 A SCHOOL BOARD MEMBER. AND IT'S VERY HARD TO OVERSTATE
22 THE IMPORTANCE OF CHILD SAFETY IN THE EDUCATION WORLD.
23 YOU DON'T GAMBLE WITH CHILDREN'S SAFETY, PERIOD, EVER.
24 NOW, I'LL CHEERFULLY DRIVE 80 MILES-AN-HOUR DOWN

25 THE ROAD DRINKING COFFEE AND TALKING ON MY PHONE. I'LL

WALK ON HIGH STEEL. YOU KNOW, I'LL DO ALL KINDS OF CRAZY
 THINGS. BUT I WON'T LET MY KID WALK DOWN THE SIDEWALK ON
 A BUSY STREET WITHOUT ME HOLDING HIS HAND. YOU DON'T TAKE
 RISK WITH YOUR CHILDREN THAT YOU WOULD AS AN ADULT.

5 SO WHEN THE BOARD DIRECTION CAME TO THE -- TO THE 6 INVESTIGATION TEAM, IT WAS ABSOLUTELY CRYSTAL CLEAR, AND 7 THIS WAS THE ORDER OF PRIORITY. NUMBER ONE, YOU TELL US 8 IF OUR KIDS ARE SAFE OR NOT IN THE BUILDINGS THAT ARE NOW 9 SUPPOSEDLY STANDING ON TOP OF THESE ACTIVE FAULTS. WE WANT TO KNOW IF WE CAN SLEEP WELL AT NIGHT OR WHETHER 10 WE'VE GOT TO GET A BUNCH OF PORTABLES AND MOVE THEM OUT. 11 AND WE DON'T CARE WHAT THE ANSWER IS. WE DON'T WANT THE 12 CONVENIENT ANSWER. WE WANT THE RIGHT ANSWER THAT WE CAN 13 SLEEP WELL TONIGHT. AND THAT DEFINED THE OBJECTIVITY WE 14 15 WENT FORWARD WITH ON HERE.

16 SECONDARY IS: CAN WE USE OUR SITE? WILL WE BE ABLE TO BUILD BUILDINGS? AND THIRD WAS: WELL, WHAT DOES 17 THAT MEAN ABOUT THE REST OF THE MTA STUDY FOR THE SUBWAYS? 18 NOW, THERE'S A REAL PROBLEM AND PRECONCEPTION 19 THAT'S TRUE OF ALL TYPES OF ENGINEERS AND SCIENTISTS ON 20 21 HERE. AND PRECONCEPTIONS CAN ALSO GET BUTTRESSED BY FIRST IMPRESSIONS. YOU KNOW, ANYBODY WHO FLIES UP AND DOWN THIS 22 23 STATE AND LOOKS DOWN AT THE SAN ANDREAS FAULT CAN GO, "THAT'S A FAULT." IT'S CLEAR. IT'S OBVIOUS. IT'S RIGHT 24 25 THERE. IT'S A NICE CLEAN CRACK IN THE GROUND.

1 BUT THAT'S NOT WHAT WE SEE EVERYWHERE ELSE. THE 2 WEST BEVERLY HILLS LINEAMENT, LOTS OF PEOPLE SAID, "GEE, 3 THAT'S NICE AND STRAIGHT. IT LOOKS GOOD. THAT MUST BE 4 A FAULT." AND A WHOLE LOT OF OTHER PEOPLE SAID, "NO WAY. 5 IT'S NOT." A LOT OF PEOPLE SAID THE SAME THING ALONG 6 SANTA MONICA BOULEVARD. IS IT OR ISN'T IT?

7 WELL, WE'RE NOW PRETTY SURE THAT THE WEST BEVERLY
8 HILLS LINEAMENT IS DEFINITELY NOT A SEISMIC FEATURE. I
9 THINK THE FEATURES THAT YOU'RE SEEING ALONG SANTA MONICA
10 ARE SEISMIC, BUT PROBABLY NOT ACTIVE AND PROBABLY
11 SECONDARY WITH A WHOLE LOT OF EVIDENCE TO THAT EFFECT.

12 THE POINT IS IF YOU DO HAVE PRECONCEPTIONS COMING 13 INTO IT, THOUGH, THEN YOU'RE KIND OF LIKE -- LIKE THE GUY 14 WHO ONLY HAS ONE TOOL, AND THAT'S A HAMMER. IF THE ONLY 15 TOOL YOU'VE GOT IS A HAMMER, THEN THE WHOLE WORLD LOOKS 16 LIKE A NAIL, AND YOU WIND UP FOLLOWING YOUR CONCLUSIONS 17 ACCORDINGLY.

WE WERE VERY CAREFUL TO AVOID THAT. WE HAD SIX DIFFERENT PEOPLE LOOK AT THE SOILS DATING PROCESS. AND I CAN PERSONALLY TELL YOU THEY ARE STUBBORN. SOME OF THEM ARE VERY OLD-FASHIONED, AND THEY DID NOT AGREE. AND IT TOOK A LONG TIME TO GET CONSENSUS ON THERE. BUT THAT'S A PROCESS THAT YOU GO THROUGH, AND THEN YOU GET COMFORTABLE WITH THE RESULTS, AND YOU DO IT IN THE LIGHT OF DAY.

25 IF YOU LOOK AT THESE PICTURES ON HERE -- THEY'RE

CGS, RIGHT IN THE MIDDLE OF THIS. AND THAT IS PROBABLY
 THE BIGGEST SINGLE DIFFERENCE BETWEEN OUR STUDIES AND ALL
 THE WORK DONE BY MTA. EVERYTHING THAT WE'VE DONE HAS BEEN
 UNDER THE REGULATORY OVERSIGHT OF CGS. AND THEY'VE BEEN
 OUT THERE EVERY STEP OF THE WAY. THEY'VE CHANGED OUR
 INVESTIGATION MULTIPLE TIMES. THEY'VE MADE US GO BACK,
 RECONSIDER, RETHINK, RE-COMPARE, AND REINVESTIGATE THINGS.

8 THIS HAS NOT BEEN DONE WITH THE BLIND -- IN THE 9 DARK. IT'S NOT A QUESTION OF MY OPINION OR MY EXPERT'S 10 OPINION VERSUS YOUR EXPERT'S OPINION BECAUSE WE BOTH HAVE 11 OPINIONS. BUT AT THE END OF THE DAY, CGS IS GOING TO MAKE 12 SOME DECISIONS. AND THEY'LL BE MAKING DECISIONS ABOUT 13 FAULTS ON THE SCHOOL, AND THEY WILL CERTAINLY BE MAKING 14 DECISIONS ABOUT ALQUIST-PRIOLO.

BUT SO WILL A LOT OF OTHER PEOPLE. YOU KNOW, 15 16 WHEN WE WENT THROUGH HERE, WHEN -- THE MINUTE THESE FAULTS 17 COME OUT, THEY WERE IMPACTING ALL KINDS OF PEOPLE. I THINK THERE'S GOT TO BE A LOT OF PRIVATE PROPERTY 18 DEVELOPERS OUT THERE RIGHT NOW SCRAMBLING TRYING TO FIGURE 19 20 OUT IF THEIR BUILDINGS ARE SAFE, IF THEY'RE GOING TO BE 21 ABLE TO DEVELOP THEIR PROPERTY. IS THEIR ASSET DECREASED 22 IN VALUE?

AND THEY'RE GOING TO BE COMING UP WITH THEIR DATA
AS WELL. SOMEWHERE WITHIN THE NEXT FEW WEEKS, THE NEXT
COUPLE OF MONTHS, ALL THAT DATA IS GOING TO COME FORWARD,

AND IT WILL GET RESOLVED. THERE WILL NOT BE A QUESTION
 ABOUT WHAT LEVEL OF ACTIVITY THERE IS SEISMICALLY WITHIN
 THE OVERALL AREA. I KNOW I GOT A LITTLE BIT OUT OF ORDER,
 IF THAT GETS YOU IN HERE, BUT.

5 YOU KNOW, I JUST WANT TO POINT OUT HERE TOO THAT 6 WHEN WE GO OUT AND LOOK AT THE CORES, THAT'S PAINSTAKING 7 WORK. THAT'S PEOPLE ON THEIR KNEES FOR DAY AT A TIME. 8 YOU CAN'T SHORTCUT THAT. THE AMEC PEOPLE DID. I DON'T 9 KNOW WHY THEY SKIPPED THAT STEP. IT'S -- I CANNOT EXPLAIN 10 IT. IT'S A BIG ONE. AND IT LED TO A LOT OF VERY SERIOUS 11 MISCONCEPTIONS OUT THERE.

12 CPT DATA, YOU'VE ALREADY HEARD HOW THESE THINGS 13 CAN SO EASILY GET CROOKED ON THERE. AND IT'S JUST TOO 14 EASY TO CONVOLUTE THAT. AND IF YOU'RE OVER-RELYING ON ANY 15 ONE METHOD OF DATA, YOU'RE GOING TO BE IN TROUBLE.

16 THE WORLD IS NOT FLAT. IT'S PRETTY MUCH ANYTHING OTHER THAN FLAT ON THAT. SO WHEN YOU HAVE A 17 PREDISPOSITION THAT SAYS IT HAS TO BE FLAT OR ANYTHING 18 OTHER THAN THAT MUST BE A FAULT, YOU'RE INEVITABLY GOING 19 20 TO IDENTIFY THINGS THAT ARE FALSE POSITIVES, THAT JUST DO 21 NOT BEAR OUT. AND THAT'S WHAT YOU SEE IN YOUR REPORT ON 22 THERE. I THINK IT'S REALLY FLAWED AND INCOMPLETE ON 23 THERE. THERE IS NO SUFFICIENT REASON AT THIS TIME TO 24 EXCLUDE SANTA MONICA.

25

NOW, THERE'S ANOTHER THING I WOULD POINT OUT TOO,

1 THAT IN THAT WHOLE DRAWING OF THE MTA, WHERE YOU INDICATE 2 THE RED FAULTS ON THERE, THE MTA STUDY IDENTIFIED A LOT OF 3 OTHER FAULTS TOO. THEY ARE RUNNING EAST/WEST. THERE'S AT 4 LEAST TWO MORE OF THEM COMING ACROSS THE JMB PROPERTY. 5 THEY JUST THOUGHT THEY WEREN'T ACTIVE, SO THEY DIDN'T PUT 6 THEM DOWN.

BUT THE POINT IS THAT OUR WHOLE THEORY THAT YOU
GOT SECONDARY FAULTING, YOU'RE GOING TO SEE HANGING-WALL
FAULTS THROUGHOUT THE CHEVIOT HILLS, THAT'S ALREADY BORNE
OUT. YOU ALREADY HAVE DATA TO THAT EFFECT. AND, AGAIN,
A LOT OF PEOPLE, A LOT OF INSTITUTIONS ARE GOING TO GO
FORWARD AND COME UP WITH CREDIBLE DECISION MAKING ON THIS
PROCESS THAT'S GOING TO HAPPEN IN THE VERY NEAR TERM.

14 OUR REPORT -- OUR INITIAL REPORT HAS BEEN IN THE 15 CGS ALREADY A FEW WEEKS. NORMALLY THEY TAKE FOUR TO SIX 16 WEEKS. OUR SECOND REPORT IS IN NEXT WEEK. WE'RE GOING TO HAVE THOSE ANSWERS. AND FOR SOMETHING THAT WE'RE NOT 17 GOING TO BUILD FOR ANOTHER FOUR OR FIVE OR SIX YEARS, IT 18 DOES NOT SEEM VERY PRUDENT TO BE RUSHING FORWARD MAKING A 19 20 DECISION THAT ARTIFICIALLY EXCLUDES A \$100 MILLION LESS 21 EXPENSIVE STATION OPTION BASED ON FAULTY DATA AND 22 INCOMPLETE DATA BECAUSE, FRANKLY, TODAY YOU DON'T KNOW IF 23 CONSTELLATION IS SAFE.

YOU LOOK VERY CLOSELY AT SANTA MONICA. YOU
HAVEN'T LOOKED ANYWHERE NEAR AS CLOSELY AT CONSTELLATION.

1 THERE IS AN IMPACT ON THE SCHOOL. OVER A YEAR 2 AGO THE SCHOOL SENT IN A MASTER PLANNING DOCUMENT THAT 3 SAID: OKAY. WHAT DO WE THINK WE'RE GOING TO NEED OVER 4 THE NEXT HUNDRED YEARS? NOW, I GUARANTEE NOBODY HAS A 5 MASTER PLAN FOR 100 YEARS SITTING ON THEIR SHELF. SO WE 6 PULLED TOGETHER AS MUCH DATA AS WE COULD.

7 THIS IS THE ONLY HIGH SCHOOL SITE IN BEVERLY 8 HILLS. IT SERVED WELL FOR A CENTURY. IT HAS THE CAPACITY 9 TO MEET THE NEEDS OF THE DISTRICT FOR ANOTHER CENTURY AS 10 LONG AS YOU MAINTAIN THE BUILD-ABILITY OF IT. IT'S GOING 11 TO BE CRITICAL THAT EVERY BUILDING ON THERE SOONER OR 12 LATER GETS REPLACED. AND THEY WILL GET BIGGER BECAUSE 13 IT'S GOING TO GROW ON IT.

14 UNFORTUNATELY, THE F.I.E.S/E.I.R. SIMPLY IGNORES
 15 THE MASTER PLANNING REQUIREMENTS OF THE DISTRICT

16 ALTOGETHER.

17 NOW, FOR A LOT OF REASONS THE BUILDING IS GOING
18 TO HAVE TO GET BIGGER, AND IT'S GOING HAVE TO GO DOWN.
19 AND WE'RE NOT TALKING ABOUT INADEQUATE SEPARATION BETWEEN
20 TUNNELS AND BUILDINGS. WE'RE TALKING ABOUT NO SEPARATION.
21 WE'RE TALKING ABOUT HARD ENCROACHMENT AND ABOUT NOT BEING
22 ABLE TO BUILD OUT TO THE DEPTH THAT WE THINK WE'RE GOING
23 TO HAVE TO BUILD OUT IN THERE.

24 NOW, IF SOMEBODY WAS STANDING OUT ON THE HILL -25 MR. YAROSLAVSKY: CAN YOU BE MORE SPECIFIC ON

1 THAT? I HEARD YOU QUOTED ON THE RADIO THIS MORNING.

2 IN FACT, IT WASN'T A QUOTE. IT WAS YOUR VOICE SAYING THE
3 PROPOSED TUNNEL WAS NOT GOING UNDER THE SCHOOL. IT WAS
4 GOING THROUGH THE SCHOOL.

5 THE WITNESS: YES.

6 MR. YAROSLAVSKY: CAN YOU EXPLAIN WHAT YOU MEANT 7 BY THAT?

8 THE WITNESS: I'LL GO RIGHT BACK INTO HERE. 9 BASICALLY, IF YOU LOOK AT -- NOW, THIS IS AT THE ORIGINAL 10 PLANNING DOCUMENT, RESPONSE TO THE D.E.I.S. SO IT SHOWS 11 THE TUNNEL PROFILE HERE ON THE RIGHT SIDE. LET'S SEE.

MR. YAROSLAVSKY: WELL, I MEAN, YOU DON'T HAVE TO
SHOW ME A CHART. YOU CAN JUST SPEAK --

14 THE WITNESS: BASICALLY, WHAT YOU'RE GOING TO SAY 15 IS THAT YOU'RE GOING TO HAVE TO BUILD DOWN TO ELEVATION 16 200, THREE STORIES BELOW GRADE. THE CAMPUS IS GOING TO 17 INCLUDE THE ADMINISTRATIVE BLOCK AS WELL AS THE MAIN 18 CAMPUS --

MR. YAROSLAVSKY: OKAY. I'M SORRY. WHAT WOULD
BE THREE STORIES BELOW GRADE? THE SCHOOL?

21 THE WITNESS: ELEVATION 200.

22 MR. YAROSLAVSKY: I DON'T KNOW WHAT THAT MEANS.
23 WHAT WILL BE THREE STORIES --

24 THE WITNESS: 200 FEET.

25 MR. YAROSLAVSKY: -- BELOW GRADE? THE SCHOOL

1 BUILDING, PARKING GARAGE? WHAT?

2 THE WITNESS: A LITTLE BIT OF EVERYTHING IN 3 THERE. 4 MR. YAROSLAVSKY: OKAY. ANYTHING GOING TO BE 5 THREE STORIES BELOW GRADE? 6 THE WITNESS: POSSIBLY. UP ON THE HILL, YES. 7 DEFINITELY. 8 MR. YAROSLAVSKY: AND HOW DEEP IS THREE STORIES 9 BELOW GRADE? THE WITNESS: THREE STORIES BELOW -- LET'S BE 10 11 CAREFUL --MR. YAROSLAVSKY: HOW MANY FEET IS IT? HOW MANY 12 13 FEET IS IT? THE WITNESS: -- I WANT YOU TO BE CAREFUL HERE 14 15 BECAUSE I SAID THERE'S A REASON WHY THE BUILDING SPACE WAS 16 CARVED OUT TO ELEVATION 200. ELEVATION 200 SAYS THAT YOU'RE GOING TO HAVE TO BUILD A VERY BIG BUILDING BACK 17 INTO THE SLOPE. YOU'LL HAVE TO STAIR STEP IT UP SO THAT 18 19 YOU AVOID BOTH GOING TOO HIGH BECAUSE YOU HAVE A 20 THREE-STORY MAXIMUM UNDER THE --21 MR. ANTONOVICH: SLOW DOWN WHEN YOU'RE TALKING 22 THE WITNESS: OKAY. 23 FOR A NUMBER OF REASONS YOU CAN'T BUILD SCHOOL BUILDINGS VERY HIGH. THE EXISTING CODE MAKES IT 24 25 ESSENTIALLY IMPRACTICAL TO BUILD IT MORE THAN THREE

1 STORIES HIGH.

2 MR. YAROSLAVSKY: MR. BURESH, I DON'T MEAN TO INTERRUPT YOU, BUT TIME IS SHORT, AND IT'S MY QUESTION. 3 4 I JUST WANT YOU TO ANSWER MY QUESTION. I DON'T NEED 5 ANYTHING ELSE. 6 YOU SAID THIS MORNING ON KABC RADIO AT ABOUT 9:05 7 THAT THE PROPOSED TUNNEL, THE PROPOSED SUBWAY, UNDER THE 8 HIGH SCHOOL PROPERTY DOESN'T GO UNDER THE BUILDINGS. IT 9 GOES THROUGH THE BUILDINGS OR THROUGH THE SCHOOL. YOU KNOW HOW DEEP THE TUNNEL IS, DON'T YOU? 10 THE WITNESS: I SURE DO. TAKE A LOOK AT THE RED 11 12 LINE ON --MR. YAROSLAVSKY: EIGHTY FEET --13 THE WITNESS: -- THERE. AND YOU CAN SEE THE --14 15 MR. YAROSLAVSKY: -- 80 FEET --16 THE WITNESS: -- COMING RIGHT ACROSS THE BLUE LINE WHICH IS WHERE --17 MR. YAROSLAVSKY: SIXTY FEET BELOW GRADE AT THE 18 CROWN UNDER THE HILL AND -- AND TEN FEET LESS THAN THAT IN 19 20 THE FLAT PART OF THE SCHOOL; CORRECT? 21 THE WITNESS: OH, NO. YOU'RE WAY SHALLOWER THAN THAT. YOU'RE -- YOU'RE LESS THAN 45 FEET DOWN AT THE 22 BOTTOMS ON THERE. AND BEFORE YOU --23 24 MR. YAROSLAVSKY: I'M TEMPTED TO SAY YOU ARE 25 UNDER OATH. BUT ANYWAY, LOOK, THERE IS NO WAY IN THE

1 WORLD THAT THE SCHOOL DISTRICT IS GOING TO BUILD A 2 SIX-STORY BUILDING UNDERGROUND, IS THERE, MR. BURESH? THE WITNESS: YOU KNOW WHAT? IF I'D SAT OUT 3 4 THERE A HUNDRED YEARS AGO AND SAID, "SON, WE'RE GOING TO BUILD 30- AND 40-STORY BUILDINGS NEXT DOOR WHERE THOSE 5 6 BARNS ARE IN CENTURY CITY, " PEOPLE WOULD HAVE THOUGHT THEY 7 WERE CRAZY, AND HAVE SAID, "THERE'S NO WAY YOU'RE EVER 8 GOING TO GO BUILD THAT." 9 MR. YAROSLAVSKY: SO YOU THINK IT IS LIKELY THAT 10 THEY WILL BUILD A SIX-STORY UNDERGROUND BUNKER FOR THE SCHOOL? 11 THE WITNESS: NO, BUT I THINK --12 13 MR. YAROSLAVSKY: KIDS WILL STUDY --14 THE WITNESS: -- IT'S ENTIRELY POSSIBLE THAT 15 THEY'RE GOING TO BUILD A STAIR STEP BUILDING THAT GOES 16 INTO THE SIDE WITH UNDERGROUND PARKING IN THE BACK AND WITH BUILDINGS THAT ARE OPEN IN THE FRONT. 17 MR. YAROSLAVSKY: SIX-STORY UNDERGROUND PARKING? 18 THE WITNESS: IT'S ENTIRELY POSSIBLE. 19 20 MR. YAROSLAVSKY: OF COURSE, IT'S POSSIBLE. IS 21 IT PROBABLE? THE WITNESS: WHEN THE CAMPUS HAS A --22 23 MR. YAROSLAVSKY: THERE ISN'T A PLAN --MR. BURESH, THERE ISN'T A PLAN THAT THE SCHOOL DISTRICT 24 25 HAS PROVIDED TO US, TO YOU, OR TO ANYBODY ELSE THAT SHOWS

1 ANYTHING DEEPER THAN TWO OR THREE STORIES OF PARKING.

2 THE WITNESS: YOU GOT THAT PLAN.

3 MR. YAROSLAVSKY: PARDON?

4 THE WITNESS: YOU GOT THAT PLAN. THOSE DOCUMENTS
5 WERE PROVIDED TO YOU A YEAR AGO. AND RATHER THAN RESPOND
6 TO THEM OR CLARIFY OR --

7 MR. YAROSLAVSKY: WHAT DOES THAT SHOW --

8 THE WITNESS: -- OR CHALLENGE THEM, YOU SIMPLY
9 HAVE IGNORED THEM.

10 MR. YAROSLAVSKY: WHAT DOES THAT SHOW?

11 THE WITNESS: WE SHOWED YOU AND DESCRIBED THE 12 DEMOGRAPHIC PRESSURES THAT WERE GOING TO HAPPEN IN THE 13 DISTRICT, THE TOTAL VOLUME OF BUILDINGS THAT WOULD NEED TO 14 BE BUILT IN ORDER TO ACCOMMODATE A DOUBLING OF THE SCHOOL 15 POPULATION ON THE SITE.

16 MR. YAROSLAVSKY: DOES IT SHOW A SIX-STORY

17 UNDERGROUND STRUCTURE?

18 THE WITNESS: IT SHOWS A BUILDING SPACE THAT WILL 19 HAVE TO GO DOWN TO ELEVATION 200 ACROSS THE MIDDLE PART OF 20 THE CAMPUS. THE PRIME PART OF THE CAMPUS IS IMPORTANT --21 THAT WOULD BE THE YELLOW SQUARE ON HERE -- FOR THE SIMPLE 22 REASON THAT THE SOUTHERN THIRD OF THE CAMPUS IS THE 23 FLATTEST AREA FOR ATHLETICS. IT'S ALSO THE MOST HEAVILY 24 CONTAMINATED PART OF THE SITE.

25

THE NORTHERN PART OF THE SITE IS THE SKINNIEST

PART OF THE SITE, AND IT'S ALSO COVERED WITH EXISTING
 BUILDINGS. THE PRIME BUILDING AREA IS THE YELLOW AREA,
 AND THAT HAPPENS TO BE OVERLAYING EXACTLY BY THE TUNNEL
 ALIGNMENT CROSSING THE CAMPUS.

5 AND LIKE IT OR NOT -- AND I DON'T LIKE IT --6 NOBODY WANTS TO BUILD UNDERGROUND. BUT IF YOU HAVE TO PUT 7 A GREAT BIG CONCENTRATED BUILDING IN ONE AREA AND YOU 8 CAN'T GO UP, THAT LEAVES YOU VERY FEW OPTIONS.

9 MR. YAROSLAVSKY: SO YOU STAND BY YOUR STATEMENT
10 THAT YOU BELIEVE OUR PROPOSED TUNNEL RUNS THROUGH THE
11 BUILDINGS OF THE SCHOOL?

12 THE WITNESS: I BELIEVE IT RUNS THROUGH THE 13 FUTURE PRESERVED SPACE AREA THAT WILL BE NECESSARY TO 14 ACCOMMODATE THE GROWTH ON THE CAMPUS. AND THAT GROWTH IS 15 PREMISED UPON A DOUBLING POPULATION IN THERE. POPULATION 16 IS NOTORIOUSLY HARD TO PREDICT. DOUBLING IS JUST BASED ON 17 VERY CONSERVATIVE DEMOGRAPHICS.

18 MR. YAROSLAVSKY: THANKS. YOU'VE ANSWERED MY
 19 QUESTION --

20 THE WITNESS: NOTHING MORE.

21 MR. YAROSLAVSKY: THANK YOU.

22 HEARING OFFICER DROOYAN: MR. BURESH, ANYTHING

23 FURTHER?

24 THE WITNESS: WELL, I WOULD ALSO POINT OUT TOO,25 THOUGH, WE TALK ABOUT HOW FAR PEOPLE NEED TO GO

1 UNDERGROUND. YOU KNOW YOU CHANGED THE DESIGN

2 SUBSTANTIALLY WHERE IT'S GONE ON WITH FUTURE DEVELOPERS.

3 THE WESTWOOD HOTEL THAT APPEARED AT THE WESTWOOD/UCLA STATION, YOU DROPPED A TUNNEL SOME 50 FEET 4 5 DOWN TO ACCOMMODATE THAT. THE TUNNEL GOT DROPPED. IT HAS 6 AT LEAST 45 FEET OF SEPARATION OF THE WESTFIELD MALL ALSO. 7 YOU ONLY DROPPED IT ABOUT FIVE FEET COMING OUT OF 8 THE HIGH SCHOOL. THERE HAS BEEN NO EFFORT TO ACCOMMODATE 9 THE NEEDS EXPRESSED BY THE HIGH SCHOOL. AND I DO STAND BY 10 THAT TESTIMONY.

11 AND THERE HAS BEEN NO EFFORT TO MEET ON THAT. 12 AND YOUR STAFF HAS BEEN MADE AWARE OF THAT WITH THE 13 PLANNING DOCUMENTS SENT IN, WHEN YOUR TUNNEL ADVISORY 14 PANEL CAME OUT, AND I PERSONALLY WALKED THEM ON THE SITE 15 AND SHOWED THEM WHERE AND WHY WE WOULD HAVE TO GO THAT 16 DEEP AT MORENO. THEY WERE AWARE OF THAT.

AND THERE IS NOT SUFFICIENT DEPTH EITHER AT THE
SHALLOW END OF THE CAMPUS OR AT THE DEEP END OF THE CAMPUS
FOR THAT. THE TUNNEL IS TOO SHALLOW.

20 THERE'S A LOT OF EXTRANEOUS ENGINEERING ISSUES, 21 AND I WON'T EVEN GET INTO THEM ON THAT. BUT, YOU KNOW, 22 SUFFICE TO SAY YOU HAVE EXACT -- AND I DO STAND CORRECTED 23 ON THIS. THERE IS ONE FIELD ACT COMPLIANT SCHOOL THAT 24 DOES HAVE A TUNNEL UNDER IT IN THE STATE OF CALIFORNIA, 25 A PUBLIC SCHOOL.

BUT THE TUNNEL IS A GOOD 200 FEET UNDER THE
 SCHOOL. AND IF YOU WANT TO BUILD YOUR TUNNEL 200 FEET
 UNDER THE SCHOOL, I DON'T THINK ANYBODY WOULD REALLY
 OBJECT TO THAT.

BUT THAT'S NOT THE CONDITION ANYWHERE ELSE IN 5 б HERE. YOU KNOW, THE HIGH SCHOOL NEEDS ARE REAL, AND THEY 7 SHOULD BE ACCOMMODATED. YOU CAN'T JUST IGNORE THEM. YOU 8 MAY NOT LIKE THEM. YOU CAN DEBATE THEM. YOU CAN 9 DISAGREE. WE CAN EXPLORE ALTERNATIVES, BUT THEY CAN'T JUST BE IGNORED. THERE WILL BE IRREPARABLE HARM IF YOU 10 PROCEED WITH THE DESIGN AS IT'S NOW SHOWN ON THERE. 11 THOSE ARE MY CONCLUSIONS. THE TRUTH WILL COME 12 13 OUT ON SANTA MONICA. YOU'RE SPENDING \$100 MILLION DOLLARS FOR NO REAL INCREASE IN RIDERSHIP, AND YOU'RE GOING TO 14 15 HURT THE CAMPUS. 16 HEARING OFFICER DROOYAN: THANK YOU. MR. WIENER: THANK YOU FOR YOUR TIME. OUR NEXT 17 -- MR. MC MURRY WILL PRESENT OUR NEXT WITNESS WHICH WILL 18 BE FROM EXPONENT'S FAILURE ASSOCIATES. 19 20 HEARING OFFICER DROOYAN: OKAY. MR. BURESH. 21 MR. BURESH, MR. KATZ HAS ONE MORE QUESTION FOR YOU, IF 22 YOU'RE HERE.

23 THE WITNESS: YES, SIR.

24 MR. KATZ: SORRY -- SORRY, MR. BURESH -- UNTIL IT
25 CLEARS IN FRONT OF YOU. SORRY TO CALL YOU BACK UP.

1 I WAS LISTENING CAREFULLY WHEN YOU SAID THAT 2 ABOUT -- YOUR COMMENT ABOUT PUTTING THE SAFETY OF CHILDREN 3 FIRST. OBVIOUSLY, THAT'S SOMETHING WE ALL TAKE VERY 4 SERIOUSLY. I WAS HOPING -- I WAS HOPING YOU COULD CLARIFY 5 FOR ME, THOUGH, WHY IT WAS THAT YOU RECOMMENDED HIGH SPEED 6 RAIL BUILD A TUNNEL UNDER MIRAMAR COLLEGE. I'M JUST 7 CURIOUS. I DIDN'T --

8 THE WITNESS: WELL, ACTUALLY, I DIDN'T GET TO9 STAY THERE LONG ENOUGH TO EVEN CHANGE THAT ONE.

10MR. KATZ: I'M READING A LETTER THAT YOU SENT TO11THE CHANCELLOR OF MIRAMAR COLLEGE. AND WHERE IT SAYS.

12 "WHILE THE AUTHORITY MUST CONTINUE TO STUDY ALL

13 ALTERNATIVES, IT'S CLEAR THAT THE ONLY VERTICAL PROFILE 14 THAT SHOULD BE CONSIDERED THROUGH MIRAMAR COLLEGE IS A 15 BORED TUNNEL OPTION DEEP ENOUGH TO CAUSE INSIGNIFICANT 16 IMPACTS TO THE COLLEGE."

17 THE WITNESS: AND THE LAST PHRASE WAS AGAIN?
18 MR. KATZ: "DEEP ENOUGH TO CAUSE INSIGNIFICANT
19 IMPACTS TO THE COLLEGE."

20 THE WITNESS: RIGHT. SO THE POINT ABOUT THERE IS 21 YOU HAD TO CROSS ONE SIDE OF THE FREEWAY TO THE OTHER, GO 22 UNDER THE CAMPUS, AND WE HAD TO BE ABLE TO FIND A WAY TO 23 GET UNDERNEATH IT.

24 NOW, AS YOU ALSO KNOW, I LEFT THE AUTHORITY25 BEFORE THAT PROCESS COULD BE COMPLETED. THAT WAS STILL IN

1 THE ALTERNATIVES TO BE CONSIDERED. IT ALSO WOULD HAVE 2 BEEN IN MY RECOMMENDATION HAD I STAYED THERE THAT WE 3 ACTUALLY REROUTED IT SUBSTANTIALLY TO THE NORTH AND AVOID 4 THAT ALIGNMENT ALTOGETHER BECAUSE OF EXACTLY THOSE KINDS 5 OF CONFLICTS THAT WERE PRESENT THROUGHOUT IT.

6 MR. KATZ: WELL, THE CHANCELLOR WROTE BACK AND 7 SAID THAT HE DIDN'T UNDERSTAND WHY THIS WAS THE PREFERRED 8 ROUTE. AND I THINK THAT THE LETTER THAT CAME BACK FROM 9 THE CHANCELLOR TO YOU TALKED ABOUT THIS BEING THE 10 PREFERRED ROUTE, NOT AN -- IT WAS PART OF THE ALTERNATIVE STUDY, BUT YOU CAME TO THE CONCLUSION AS AN INTERIM -- YOU 11 SAID, I BELIEVE, INTERIM STEP INITIALLY A TUNNEL WOULD BE 12 13 THE ALTERNATIVE THAT MADE SENSE.

14 THE WITNESS: LET'S BACK UP. THAT APPROACH, THAT 15 PARTICULAR ALIGNMENT GOING DOWN THERE WOULD FORCE YOU TO 16 CROSS BY TUNNEL SOMETHING FROM ONE SIDE OF THE FREEWAY TO 17 GET TO THE OTHER TO EVENTUALLY GET DOWN TO THE COAST IN 18 SANTA MONICA. THAT CONTAINED PROBLEMS WITH ALL OF THE 19 ALTERNATIVES --

20 MR. KATZ: I'M SORRY. THE COAST IN SANTA MONICA?
21 THE WITNESS: EXCUSE ME. IN SAN DIEGO.

22 MR. KATZ: ALL RIGHT. I JUST WANT TO MAKE SURE.23 IT'S A LONG FREEWAY, BUT NOT THAT LONG.

24 BUT I'M STILL -- IT SOUNDS LIKE A DIFFERENT SIDE 25 OF THE SAME ARGUMENT. THE CHANCELLOR FOR THE COLLEGE IS

SAYING, "WHY ARE YOU GOING UNDER MY COLLEGE?" AND YOU'RE
 SAYING TO HIM, "IT'S THE BEST WAY TO GO."

I DON'T -- I MEAN, IS IT JUST -- DO YOU STOP 3 4 CARING ABOUT THE KIDS AT A CERTAIN AGE? I DON'T THINK SO. NO. HOLD ON. HOLD ON. I'M NOT -- I'M NOT 5 6 ASKING TO GET -- AND I KNOW THAT'S NOT HOW YOU THINK, SO 7 I DON'T GET IT. 8 THE WITNESS: WELL, FRANKLY, AS I JUST SAID, EVEN WITH THE LAST SLIDE, BEFORE I GOT CUT OFF IN THERE, IF 9 YOU'RE DEEP ENOUGH, THERE IS NO IMPACT. NOW THAT'S A 10 CAMPUS THAT'S YOUNG AND DYNAMIC, AND IT'S NOT GOING 11 UNDERGROUND. IT'S GOT PLENTY OF GROUND, AND THEY'RE 12 13 SPREAD OUT ON THERE. MR. KATZ: BUT THEY MIGHT GO UNDERGROUND IN THE 14 15 FUTURE. YOU DON'T KNOW THAT, BASED ON WHAT YOU WERE JUST 16 SAYING ABOUT --THE WITNESS: THAT CAMPUS --17 MR. KATZ: -- FUTURE. 18 THE WITNESS: -- IS GROWING VERY RAPIDLY. AND 19 20 IF THAT WERE THE RESPONSIBILITY, THAT CERTAINLY WOULD

21 BECOME A PRECLUSION TO THE TUNNEL GOING UNDERNEATH THERE.

22 NOW, WHAT WE'RE ALSO SKIPPING IS THAT NONE OF23 THOSE ALTERNATIVES WERE WORKING VERY WELL DOWN THERE.

24AND ONE OF THE THINGS THAT I INITIATED BEFORE I25LEFT WAS EXPLORING A COMPLETELY DIFFERENT ROUTE THAT WOULD

HAVE MADE THAT TRANSITION FROM THE 15 CORRIDOR OUT TO THE
 I-5 CORRIDOR MUCH MORE TO THE NORTH WHICH WOULD HAVE
 AVOIDED TRANSITIONING UNDERNEATH ALL OF THOSE PROPERTIES
 WITH THAT SIMILAR KIND OF CONCLUSION.

5 MR. KATZ: I WOULD APPRECIATE SEEING THAT IF IT'S 6 AROUND OR BECAUSE I LOOKED FOR ANYTHING ELSE ABOUT THIS, 7 SO I WENT BACK TO THE CHANCELLOR, SAME RULE AGAIN, TO SEE 8 IF SOMETHING'S DIFFERENT AND COULDN'T FIND IT.

9 THE WITNESS: NO, THERE'S NOTHING ELSE WITH THE 10 CHANCELLOR BECAUSE WHAT WE WANTED TO SET UP WAS A WORKING 11 COMMITTEE TO BE ABLE TO EXPLORE AND UNDERSTAND EXACTLY 12 WHAT THEIR REQUIREMENTS ARE, WHICH IS EXACTLY WHAT MTA 13 SHOULD HAVE DONE HERE.

14 MR. KATZ: OKAY. GOT IT. THANK YOU. APPRECIATE15 IT.

16 HEARING OFFICER DROOYAN: OKAY. MR. MC MURRY.17 MR. ROBERT MC MURRY: THANK YOU.

18 MY NAME IS ROBERT MC MURRY, GILCHRIST AND RUTTER.
19 I VENTURE I KNOW REASONABLY WELL HALF THE PEOPLE
20 ON THE PODIUM, AT LEAST HALF THAT ARE LEFT.

I HAVE FIRST OF ALL A PROCEDURAL MATTER. WE HAVE
A LETTER OBJECTING TO A NUMBER OF THE PROCEDURAL ISSUES
CONCERNING THIS HEARING. I DON'T PROPOSE TO TAKE YOUR
TIME TO DEBATE THOSE ISSUES. WE HAVE PASSED OUT COPIES TO
EVERYBODY, AND WE WILL HAVE COPIES FOR THE RECORD OF OUR

1 OBJECTIONS, AND WE'LL JUST LEAVE THEM AT THAT, IF THAT'S 2 ACCEPTABLE TO EVERYONE.

HEARING OFFICER DROOYAN: WE'LL ACCEPT THAT AS 3 4 PART OF THE RECORD.

MR. MC MURRY: THANK YOU. 5

17

6 SECONDLY, DESPITE THE FACT THAT I DATED A COURT 7 REPORTER FOR FOUR YEARS AND I TAUGHT COURT REPORTING FOR 8 A YEAR, I STILL HAVE A TENDENCY TO TALK TOO FAST. SO 9 PLEASE, IF I DO GET AHEAD OF YOU, THROW THE MACHINE AT ME OR SOMETHING. IT WOULDN'T BE THE FIRST TIME. 10

GIVEN THE LATENESS OF THE HOUR, WE'RE GOING TO 11 TRY TO SHORTEN THIS TESTIMONY AS BEST WE CAN. I WOULD 12 13 GUESS THAT WE'LL PROBABLY RUN 30 MINUTES TO DO THAT, WHICH WILL PUT US AT TEN MINUTES PAST THE HOUR. I WILL TRY TO 14 15 HOLD IT TO THAT. THE LAST COLLOQUY WENT BEYOND WHAT WE 16 EXPECTED. SO I'LL DO MY BEST TO SHORTEN THE TESTIMONY. HEARING OFFICER DROOYAN: AND THAT'S FINE. WE

STARTED 15 MINUTES LATE, SO I THINK IN FAIRNESS THAT YOU 18 SHOULD HAVE THE EXTRA TEN MINUTES. 19

20 MR. MC MURRY: OKAY. WELL, IF YOU HAVE 15, I'LL 21 TAKE 15.

HEARING OFFICER DROOYAN: AND WE DO HAVE -- LET 22 23 ME JUST SAY, WE DO HAVE PUBLIC COMMENTS. SO I'M NOT SURE HOW WE'RE GOING TO HANDLE THAT, SO. 24

25 LET'S AT LEAST GET THE HEARING CONCLUDED AS

1 QUICKLY AS WE CAN.

2 MR. MC MURRY: WE WILL TRY TO DO SO. THANK YOU. AT THIS POINT WE WOULD LIKE TO OFFER THE 3 4 TESTIMONY OF DR. SUBODH MEDHEKAR. 5 6 EXAMINATION 7 BY MR. MC MURRY: Q AND FIRST OF ALL, I WOULD LIKE TO ASK HIM TO 8 9 EXPLAIN WHO HE IS EMPLOYED BY? A I'M SUBODH MEDHEKAR. I'M EMPLOYED BY EXPONENT. 10 O AND HAS EXPONENT PREPARED SEVERAL REPORTS 11 CONCERNING THIS PARTICULAR ISSUE OF THE LOCATION OF 12 13 BEVERLY HILLS HIGH SCHOOL, THE POTENTIAL EFFECTS OF THE ALIGNMENT, SO ON AND SO FORTH? 14 15 A YES. 16 MR. MC MURRY: WE HAVE COPIES OF THOSE REPORTS, IF THEY'VE NOT BEEN ENTERED INTO THE RECORD BEFORE. WE 17 WILL BE HAPPY TO DO SO. 18 HEARING OFFICER DROOYAN: MR. MEDHEKAR, THIS IS 19 20 THE REPORT ON EXPONENT LETTERHEAD. I'M LOOKING FOR A DATE 21 ON HERE. I SEE THAT IT'S A RESUME, AND I'M NOT SURE WE HAVE THE REPORT. IS IT IN HERE? 22 23 MR. MC MURRY: I'M CALLING THE WITNESS'S ATTENTION TO, NOT TO SOUND LIKE A LAWYER, A REPORT CALLED 24 25 "A HAZARD ASSESSMENT STUDY WESTSIDE SUBWAY EXTENSION."

1 HAS A DATE OF FEBRUARY 7, 2012.

25

2	THE WITNESS: YES.
3	MR. MC MURRY: THAT'S YOUR COMPANY'S REPORT.
4	AND THERE'S A FURTHER DOCUMENT ENTITLED "RESPONSE TO
5	METRO'S COMMENTS ON EXPONENT'S REPORT," WHICH IS DATED
6	APRIL 25TH, 2012. AND I WILL EXPLAIN TO YOU THAT THIS WAS
7	A RESPONSE DOCUMENT DONE AFTER METRO HAD COMMENTED ON THE
8	ORIGINAL EXPONENT REPORT.
9	AND YOU WERE ALSO INVOLVED IN PREPARATION OF
10	THAT?
11	THE WITNESS: YES.
12	MR. MC MURRY: WE WOULD ASK THAT THESE BOTH BE
13	INCLUDED IN THE RECORD.
14	HEARING OFFICER DROOYAN: THAT'S FINE. I'M JUST
15	NOT A HUNDRED PERCENT SURE I HAVE THEM. BUT MAYBE WE'LL
16	GET THEM FROM YOU AT THE CONCLUSION OF THE HEARING, AND
17	THEY'LL BE INCLUDED AS PART OF THE RECORD.
18	MR. MC MURRY: OKAY. IF YOU COULD PASS THOSE
19	OVER SO THAT THE CHAIR HAS THEM.
20	THESE ARE REPORTS THAT ARE VERY FAMILIAR TO METRO
21	AND HAVE BEEN THOROUGHLY DISCUSSED AND EVALUATED.
22	HEARING OFFICER DROOYAN: OKAY.
23	BY MR. MC MURRY:
24	Q FIRST OF ALL, DR. MEDHEKAR, COULD YOU EXPLAIN TO
25	

ME WHAT IS YOUR PROFESSIONAL BACKGROUND AND WHAT IS THE

1 PRIMARY AREA OF FOCUS FOR YOU IN YOUR PROFESSIONAL CAREER? A I'M A CHEMICAL ENGINEER. ALL MY DEGREES, MY 2 BACHELOR'S, MASTER'S, AND DOCTORATE, ALL ARE IN CHEMICAL 3 4 ENGINEERING. I'M ALSO A REGISTERED CHEMICAL ENGINEER. AND MY SPECIALTY WORKING OVER THE LAST 20 YEARS 5 6 HAS BEEN IN DOING RISK ASSESSMENTS, RISKS AND LIABILITY 7 ASSESSMENTS. I'VE WORKED ON PROJECTS RANGING FROM NUCLEAR 8 POWER PLANTS TO PETROCHEMICAL FACILITIES TO AEROSPACE TO 9 BIOMEDICAL DEVICES, ALL IN ONE, DOING RISK ASSESSMENTS. WHEN YOU SAY RISK ASSESSMENT, MY UNDERSTANDING IS 10 Q THERE ARE SEVERAL DIFFERENT TYPES OF RISK ASSESSMENTS. 11 12 COULD YOU EXPLAIN TO ME THE DIFFERENT BETWEEN A 13 QUALITATIVE AND A QUANTITATIVE RISK ASSESSMENT AND HOW THAT IMPACTS THIS CASE? 14 15 A YES. THE RISK ASSESSMENTS CAN BE DONE WITH 16 DIFFERENT GRADATIONS. YOU CAN START OFF WITH SOMETHING THAT IS SIMPLE, QUALITATIVE RISK ASSESSMENTS. AND THESE 17 ARE VERY STANDARD IN MOST OF THE INDUSTRIES. YOU CAN DO 18 19 HAZOPS, HAZARD OPERATIONS; YOU CAN DO A FAILURE MODES AND 20 EFFECTS ANALYSIS. YOU CAN DO A PRELIMINARY HAZARDS 21 ANALYSIS. YOU CAN DO HAZARDS ANALYSIS. ALL THESE ARE 22 QUALITATIVE OR SEMI-QUANTITATIVE EVALUATIONS.

23 ESSENTIALLY, IT LOOKS AT NEW PROCESSES OR NEW
 24 DESIGNS TO UNDERSTAND WHAT KINDS OF RISKS OR SCENARIOS
 25 COULD MANIFEST DURING THE CONSTRUCTION OR DEVELOPMENT OR

OPERATION OF FACILITY. AND YOU LOOK AT THESE SCENARIOS,
 AND YOU IDENTIFY WHAT IS THE CONSEQUENCE OF THESE
 SCENARIOS, WHAT IS THE LIKELIHOOD OF THE SCENARIO.
 AND YOU USE EITHER SOME KIND OF SIMPLE RISK

5 MATRIX TO ASSIGN THE RISK LEVEL TO THESE SCENARIOS. SO 6 ESSENTIALLY, IT HELPS YOU IN A VERY QUALITATIVE MANNER TO 7 GO ABOUT ASSIGNING RISK.

8 IF YOU TAKE IT A STEP FURTHER -- AND THIS IS WHAT 9 IS DONE IN A LITTLE MORE ADVANCED INDUSTRIES OR IF THE 10 RISK IDENTIFIED BY THE QUALITATIVE EVALUATION IS HIGH 11 ENOUGH TO JUSTIFY -- YOU PERFORM A QUANTITATIVE RISK 12 ANALYSIS WHICH IS YOU THEN TAKE THESE HIGH-RISK RANKING SCENARIOS, AND YOU EVALUATE THE LIKELIHOOD IN A 13 PROBLEMISTIC FASHION OR YOU FORM A QUANTITATIVE ANALYSIS 14 15 USING THOUGHT-TREE OR ELEMENTARY METHODS TO GET TO THE 16 LIKELIHOOD.

FOR EXAMPLE, HOW LIKELY IS IT THAT THIS FAULT 17 WOULD ACTUALLY RUPTURE OR WHETHER IF IT'S A GAS, HOW 18 LIKELY WE COULD ENCOUNTER THIS GAS OR ACCUMULATE IN A 19 20 LOCATION THAT WOULD BE HAZARDOUS. AND YOU ALSO DO 21 CONSEQUENCE ANALYSIS WHICH ARE MORE QUANTITATIVE. 22 SO THE CONCEPT REMAINS THE SAME, BOTH IN 23 QUALITATIVE AND QUANTITATIVE ANALYSIS, EXCEPT THE DEGREE TO WHICH YOU PERFORM CHANGES FROM QUALITATIVE TO 24 25 QUANTITATIVE AND GOING HIGHER.

1 Q DO YOU HAVE A PROFESSIONAL OPINION AS TO WHAT 2 TYPE OF ANALYSIS WOULD BE APPROPRIATE FOR WHAT'S BEFORE 3 THIS BOARD?

4 А BASED ON THE -- THE RISK OF HAZARD FACTORS THAT I SEE AT THESE LOCATIONS: POTENTIAL FOR FAULTING, POTENTIAL 5 6 FOR SETTLEMENT, POTENTIAL FOR MAINTAINING AND ENCOUNTERING 7 AN ACCUMULATION, AND POTENTIAL FOR SUBSIDENCE, I THINK THE 8 MOST PRUDENT WAY OF DOING THIS IS TO FIRST DO A 9 QUALITATIVE EVALUATION TO FIND OUT WHICH OF THESE ARE OF 10 GREATER CONCERN THAN OTHERS AND THEN PERFORM A MORE DETAILED PROBLEMISTIC QUANTITATIVE ANALYSIS ON THOSE 11 12 SCENARIOS FOR THE SITE. Q AND HAS THIS BEEN DONE FOR THIS CASE? 13 14 A ACTUALLY, FOR THIS CASE, BASED ON THE REPORTS I'VE SEEN, NO RISK ASSESSMENT HAS DONE. NEITHER A 15 16 OUALITATIVE NOR A OUANTITATIVE RISK ASSESSMENT HAS BEEN PERFORMED AT THIS LOCATION. 17 IN YOUR EXPERIENCE IS THIS SOMETHING THAT WOULD 18 0 BE TYPICAL OR APPROPRIATE TO BE DONE IN A CASE LIKE THAT? 19 20 A YES. IT WOULD BE HIGHLY APPROPRIATE THAT ONE 21 SHOULD PERFORM A RISK ASSESSMENT TO EVALUATE WHAT RISKS 22 CAN EXIST OR MAYBE THERE WHEN I'VE BEEN TO A STATION DOING 23 TUNNELING ACTIVITY, TYPICALLY ENGINEERS WHEN THEY DESIGN A

24 PROCESS, THEY -- THEY ARE TAUGHT HOW TO MAKE A SUCCESS25 PLAN. I WILL DO THIS. I WILL MAKE SURE THE CONSTRUCTION

1 STEP OCCURS.

2 IT TAKES MUCH MORE DISCIPLINE, AND A FORMAL RISK ASSESSMENT IS THE ONLY WAY THAT CAN -- THESE ENGINEERS CAN 3 4 BE FORCED TO THINK OF ALL POSSIBLE WAYS THAT YOU CAN GET TO A FAILURE. IDENTIFY THE SCENARIO, IDENTIFY THE 5 6 CONSEQUENCE OF IT, IDENTIFY THE LIKELIHOOD OF IT, AND THEN 7 DECIDE HOW RISKY THAT WHOLE PROCESS IS. 8 Q HAVE YOU HAD A CHANCE TO REVIEW THE REPORTS BY 9 THE METRO EXPERTS -- AND I'LL SORT OF COMBINE THEM 10 TOGETHER -- THAT HAVE DISCUSSED THE RISKS ASSOCIATED WITH LOCATING A SUBWAY SITE OR STATION SITE AT CONSTELLATION 11 12 BOULEVARD? A YES. I HAVE REVIEWED THE REPORT, AND I'VE 13 REVIEWED THE -- REVIEWED THE COMMENT. 14 15 WHEN WE FIRST SAID IN OUR REPORT THAT ONE SHOULD 16 PERFORM QUANTITATIVE RISK ASSESSMENT FOR THIS, THEIR RESPONSE WAS, WELL, WE DON'T DO RISK ASSESSMENT, 17 QUANTITATIVE RISK ASSESSMENTS, FOR ANY SUCH ACTIVITIES. 18 19 ONLY NUCLEAR POWER PLANTS DO THAT. IN A SUBSEQUENT RESPONSE TO THAT WE CITED A 20 21 NUMBER OF DOCUMENTS INCLUDING TUNNELING ASSOCIATION 22 GUIDELINES AND OTHER DOCUMENTS THAT KIND OF RECOMMEND WHAT 23 WE ARE SUGGESTING. AND THE SECOND RESPONSE I THINK WE JUST GOT TWO 24 25 DAYS AGO WAS: WELL, WE COULD DO IT, BUT YOU WOULDN'T

UNDERSTAND IT. IT'S GOING TO BE TOO COMPLICATED. IT'S
 NOT GOING TO BE TIME SPENT.

I DON'T THINK THAT'S TRUE. I THINK THE RISK
ASSESSMENT REPORT IF IT'S PROPERLY DONE, IT'S VERY
TRANSPARENT. IT TELLS YOU WHERE THE RISKS ARE. IT TELLS
YOU NOT ONLY WHERE THEY ARE. IT TELLS YOU WHAT ARE THE
DOMINANT CONTRIBUTORS TO THIS RISK.

8 IN FACT, NOT DOING A RISK ASSESSMENT IS PROBABLY 9 AS OPAQUE AS YOU CAN BE BECAUSE YOU -- YOU'RE NOT TELLING 10 ME THAT YOU'VE DONE ONE, OR IF YOU HAVE DONE ONE, YOU'RE 11 NOT SHOWING IT TO ME.

Q SO IN YOUR OPINION, HAS THERE BEEN SUFFICIENT 12 13 SCIENTIFIC STUDY DONE IN ORDER TO JUSTIFY LOCATING THE 14 SITE, SUBWAY SITE, AT THE CONSTELLATION BOULEVARD SITE? 15 A NO. AT A MINIMUM I WOULD REQUEST THAT A -- AS A 16 PRUDENT TASK THAT ONE SHOULD LOOK AT THE STATION, LOOK AT THE ACTIVITIES INVOLVED, AND PERFORM A RISK ASSESSMENT 17 BEFORE YOU CAN MAKE A DECISION WHETHER IT'S SAFE ENOUGH TO 18 19 DO THAT OR NOT.

20 Q WHAT SPECIFIC ACTIVITIES WOULD YOU ASK TO BE 21 INCLUDED IN SUCH AN ANALYSIS?

A WHAT I WOULD -- I WOULD INCLUDE A MORE DETAILED
STUDY OF POTENTIAL FAULTING IN THE AREA, LOOK AT WHETHER
OR NOT YOU CAN GET METHANE AND HOW MUCH QUANTITIES OF
METHANE CAN BE ENCOUNTERED WHILE DRILLING.

1 I WOULD TRY TO SEE IF BETTER SERVICE CAN BE DONE 2 FOR LOCATING AND IDENTIFYING OIL OR GAS WELLS THAT MAY 3 EXIST OUT THERE. I WOULD TRY TO UNDERSTAND THE POTENTIAL 4 FOR SETTLING. I WOULD TRY TO SEE WHAT THE IMPACT OF THIS 5 ACTIVITY WOULD BE FOR THE SUBSURFACE AND SUBSURFACE 6 INFRASTRUCTURE THAT MAY EXIST IN THE FUTURE.

7 AND I WOULD TRY TO BRING THIS ALL IN A 8 COMPREHENSIVE RISK STUDY THAT PUTS ALL THIS INFORMATION 9 AND THEN GIVES YOU AN ANSWER, WHAT IS THE RISK BASED ON ALL OF THESE FACTORS FOR SOMEBODY TO MAKE A DECISION 10 WHETHER THE RISK IS ACCEPTABLE, OR IS IT COMPARABLE TO ANY 11 OTHER LOCATION. WITHOUT DOING THIS, WITHOUT KNOWING WHAT 12 13 THE RISK LEVELS ARE, I DON'T KNOW HOW ONE CAN MAKE A PRUDENT DECISION. 14

15 Q AND SPECIFICALLY, YOU MENTIONED IN YOUR REPORTS 16 THE ISSUE AS TO SOIL GAS DATA AND THE GASSY GROUND 17 CONDITIONS THAT ARE INVOLVED. COULD YOU EXPAND ON THAT 18 A LITTLE?

A WELL, I THINK THIS WILL TAKE A GEOLOGIST TO
EXPLAIN THIS, BUT I UNDERSTAND THAT THE PROPOSED PATHWAY
FOR THE TUNNEL GOES THROUGH AN UNSATURATED ZONE WHERE
THERE IS A POTENTIAL FOR METHANE GAS. AND THAT METHANE
GAS COULD BE ENCOUNTERED DURING THE TUNNELING ACTIVITY,
THAT METHANE GAS COULD EITHER NOW OR IN THE FUTURE -COULD MIGRATE TO OTHER SUBSURFACE OR INFRASTRUCTURE

LOCATIONS AFTER THE TUNNELING HAS BEEN DONE, MUCH LATER
 AND COULD ACCUMULATE AND POTENTIALLY CAUSE A THREAT EITHER
 NOW OR LATER.

4 0 AND DO YOU BELIEVE THAT THE POSSIBILITY OF 5 ABANDONED OR UNCONFIRMED OIL WELLS IS A SIGNIFICANT 6 POSSIBILITY? AND I THINK YOU MENTIONED THIS EARLIER. 7 A YES. I THINK THIS, AGAIN, GOES TO MY COLLEAGUES. 8 THERE ARE OTHER PEOPLE WHO ALSO WORKED ON THIS WHO HAVE --9 WHO HAVE REPORTED THAT THERE ARE MANY CASES, WELL CASES, 10 OIL WELL CASES, WHERE PREDOMINANT FEATURE OF THAT AREA THAT ARE NOT KNOWN. AND THE CURRENT STUDY THAT WAS DONE 11 WAS NOT COMPLETED SOON ENOUGH AND DID NOT HAVE THE RIGHT 12 13 TOOLS TO IDENTIFY ALL OF THESE POTENTIAL OIL CASES. 14 IF YOU ENCOUNTER AN OIL CASING DURING THE 15 ACTIVITY, IT COULD STOP THE ACTIVITY, TUNNELING ACTIVITY, 16 CAUSING OTHER PROBLEMS THAT COULD MANIFEST. AGAIN, THIS WOULD BE -- SHOULD ALSO BE A PART OF EITHER BETTER 17 UNDERSTANDING OF WHERE THESE ARE AND AN UNDERSTANDING OF 18 WHAT RISK WOULD THEY POSE IF YOU DID ENCOUNTER SUCH CASES. 19 20 Q AND TO YOUR KNOWLEDGE, HAS THERE BEEN ANY STUDY 21 OF ABANDONED OIL WELLS ON THE PROPERTIES INVOLVED FROM THE 22 CONSTELLATION STATION UP THROUGH THE ALIGNMENT AND THE 23 BEVERLY HILLS PROPERTY?

A NOT A THOROUGH REVIEW AS WE WOULD -- YOU WOULD
RECOMMEND.

1 Q IS THERE ANY PHYSICAL CONSTRAINT OR OTHER 2 INHIBITION THAT WOULD PREVENT METRO FROM DOING SUCH A 3 STUDY?

4 A NOT THAT I KNOW OF.

5 Q WHAT IS THE RISK THAT WOULD BE POSED BY MOVING 6 FORWARD WITH THE CONSTELLATION SITE AS HAS BEEN PROPOSED 7 HERE WITHOUT DOING A FULL RISK ASSESSMENT? WHAT WOULD 8 HAPPEN?

9 A WELL, WHAT WOULD WORRY ME IS THAT COULD BE RISKS 10 ASSOCIATED WITH THE PROJECT THAT ARE NOT WELL UNDERSTOOD OR NOT QUANTIFIED. SO IT IS -- WHAT IF THE RISK WERE 11 12 HIGH, AND WHAT IF YOU WERE TO PERFORM THIS PROJECT AND 13 ENCOUNTER HIGH RISKS THAT HAVE NOT BEEN IDENTIFIED BUT 14 SHOULD HAVE BEEN IF HAD YOU DONE YOUR COMPLETE DUE 15 DILIGENCE AND DONE A RISK ASSESSMENT BEFORE YOU BEGAN THE 16 PROJECT. THAT WOULD BE TERRIBLE.

Q SO WOULD IT BE FAIR TO SAY FROM WHAT YOU SAID
THAT THERE IS A SIGNIFICANT RISK THAT YOU COULD ENCOUNTER,
EITHER THINGS THAT COULD CAUSE DELAYS IN THE PROJECT OR
THINGS THAT MIGHT RESULT IN INCREASED COSTS IN THE

21 PROJECT?

22 A YES.

Q AND, AGAIN, YOU COMMENTED ON THIS EARLIER IN YOUR
TESTIMONY, BUT THE MAY 15TH, 2012, REPORT THAT WAS DONE
WITH RESPECT TO THE EXPONENT RISK ANALYSIS, ET CETERA,

YOU'VE ALREADY SAID THAT YOU DON'T AGREE WITH THEIR
 COMMENT ABOUT THE TRANSPARENCY, ET CETERA, OF A
 PROBABILITY RISK ASSESSMENT. DO YOU ALSO HAVE COMMENTS
 CONCERNING THE STATEMENT IN THE METRO REPORT WHICH STATES
 THAT PROBABILITY ANALYSIS IS NOT, QUOTE, STANDARD PRACTICE
 FOR MAJOR CIVIL ENGINEERING PROJECTS EXCEPT FOR HIGH
 HAZARD NUCLEAR POWER PLANTS?

8 A NO, I DON'T THINK THAT'S TRUE. TODAY, YOU KNOW,
9 EVERYBODY ASKS YOU TO DO A RISK ASSESSMENT, AND THEY GET

10 IT ON DIFFERENT LEVELS. Q.R.A., QUANTITATIVE RISK ASSESSMENTS, ARE ROUTINELY PERFORMED ON MANY PROJECTS. THEY ARE PERFORMED ON CHEMICAL. IF YOU DO A MODIFICATION TO -- TO A PROCESS, Q.R.A.'S ARE REQUIRED. THERE'S A GUIDANCE TUNNELING ASSOCIATION THAT GIVES YOU SIMILAR GUIDANCE AS WHAT WE HAVE SAID. BUT WHAT I FIND THAT NOTHING, NOT EVEN A QUALITATIVE ANALYSIS, HAS BEEN DONE YET ON THIS PROJECT.

Q ARE THERE ANY OTHER COMMENTS THAT YOU HAVE
CONCERNING THE INADEQUACY OF THE RISK ANALYSIS OR THE
GENERAL INVESTIGATION THAT HAS BEEN DONE WITH RESPECT TO
THE POSSIBILITY OF THE CONSTELLATION SITE?

A WELL, MY -- MY -- MY JOB WAS TO KIND OF LOOK AT
AND UNDERSTAND IF THE RISK ASSESSMENT HAS BEEN DONE
CORRECTLY. AND WHAT I FOUND WAS NO RISK ASSESSMENT HAS
BEEN DONE.

1 SO I WOULD -- I WOULD -- FROM MY PERSPECTIVE, 2 IT'S VERY IMPORTANT YOU DO A RISK ASSESSMENT. I WOULD RECOMMEND THAT YOU DO A QUALITATIVE RISK ASSESSMENT. 3 4 IDENTIFY THE BIG HITTERS AND USE A MORE REFINED QUANTITATIVE RISK ASSESSMENT. IDENTIFY THOSE RISKS, AND 5 6 THEN MAKE A DECISION WHETHER IT'S SAFE OR NOT SAFE. 7 0 THANK YOU FOR BEING CONCISE, DR. MEDHEKAR. I'LL 8 TURN YOU OVER TO ANY QUESTIONS FROM THE BOARD, KEEPING IN 9 MIND THAT SEVERAL OF THESE PEOPLE ARE VERY GOOD 10 CROSS-EXAMINERS. MR. MC MURRY: ARE THERE ANY OUESTION YOU'D LIKE 11 12 ТО --13 HEARING OFFICER DROOYAN: ANY QUESTIONS? MR. HUIZAR: SO IF NO RISK ASSESSMENT WAS DONE, 14 15 ARE YOU SUGGESTING THAT WE CREATE A SEPARATE DOCUMENT AND 16 CALL IT A RISK ASSESSMENT? THE WITNESS: WELL, A RISK ASSESSMENT INVOLVES --17 COMES IN SOME STEPS, WHICH IS LOOKING AT THE PROCESS, 18 IDENTIFYING DIFFERENT SCENARIOS, IDENTIFYING -- IF YOU'RE 19 20 DOING IT CALLING IT A RISK ASSESSMENT, IDENTIFYING 21 CATEGORIES FOR THOSE SCENARIOS. WHAT ARE THE 22 CONSEQUENCES? AND MAYBE GIVE A GRADATION OF CONSEQUENCES 23 OR ASSIGNING LIKELIHOODS TO THE SCENARIOS MAYBE ONCE A YEAR, ONCE IN TEN YEARS, ONCE IN HUNDRED YEARS. AND THEN 24 25 COME IN WITH A RISK MATRIX TO GIVE A RISK LINE.

THIS HAS NOT BEEN DONE. AND SO I WOULD SAY, YES 1 2 A SEPARATE RISK ASSESSMENT SHOULD BE PERFORMED. MR. HUIZAR: COULD IT BE THAT IT'S JUST THE 3 DOCUMENTS THAT WERE PREPARED? IT'S JUST A DIFFERENT 4 5 METHODOLOGY TO GET TO THE SAME TYPE OF CONCLUSION? 6 THE WITNESS I HAVE NOT SEEN ANY DOCUMENT THAT 7 EVEN QUANTITATIVELY ADDRESSES THIS FORMAT OF RISK DOING RISK ASSESSMENT. IF THERE IS ONE -- AND I HOPE THERE IS 8 9 ONE -- THEN I HAVE NOT SEEN IT. 10 MR. HUIZAR: OR EVEN IN THE DOCUMENTS THAT WE'RE 11 PREPARING INHERENT IN THAT, THERE IS A RISK ASSESSMENT. 12 WE MAY NOT CALL IT A RISK ASSESSMENT, BUT THERE IS A RISK 13 ASSESSMENT. 14 THE WITNESS: I WOULD NOT CALL IT A RISK 15 ASSESSMENT. MR. HUIZAR: OKAY. THANKS. 16 17 MR. MC MURRY: ANY OTHER QUESTIONS? HEARING OFFICER DROOYAN: ANY OTHER QUESTIONS? 18 19 THANK YOU VERY MUCH. 20 MR. MC MURRY: THANK YOU, DR. MEDHEKAR. HEARING OFFICER DROOYAN: MR. MC MURRY, 21 MR. WIENER, ANYTHING FURTHER FROM THE CITY OF 22 23 BEVERLY HILLS? 24 MR. MC MURRY: YES, YOUR HONOR. WE DO HAVE --EXCUSE ME. FORCE OF HABIT. 25

HEARING OFFICER DROOYAN: THAT'S OKAY. I'VE BEEN
 ELEVATED. THANKS.

3 MR. MC MURRY: OKAY. WE COULD DEBATE THE WISDOM
4 OF THAT COMMENT, BUT.

5 HEARING OFFICER DROOYAN: NOT WISDOM. GO AHEAD.
6 MR. MC MURRY: YES. WE DO HAVE ONE MORE DOCUMENT
7 WHICH IS -- IT ENDED UP BEING HANDED OUT RIGHT NOW. IT'S
8 SIMPLY AN EXPOSITORY DOCUMENT THAT EXPLAINS CERTAIN
9 POTENTIAL ALIGNMENTS AND DIAGRAMS. IT DOESN'T HAVE
10 EVIDENTIARY VALUE.

11 WE'RE JUST GOING TO USE IT TO MAKE SOME POINT 12 ABOUT THE POTENTIAL THINGS THAT WERE NOT DISCUSSED AND 13 EVALUATED IN THE METRO REPORT. SO IT'S NOT EVIDENCE, 14 PER SE, BUT WE'D LIKE IT INCLUDED IN THE RECORD, OF 15 COURSE.

16 HEARING OFFICER DROOYAN: WE'LL INCLUDE IT IN THE 17 RECORD, CERTAINLY.

18 AND ALSO, BEFORE -- WE'RE GOING TO INCLUDE THE
19 RESUME FROM DR. MEDHEKAR.

20 MR. MC MURRY: YES.

21 HEARING OFFICER DROOYAN: SO THAT WILL BE PART OF

22 THE RECORD AS WELL.

23 MR. MC MURRY: WE THANK YOU.

24 HEARING OFFICER DROOYAN: GO AHEAD.

25 MR. MC MURRY: FIRST, LET ME EXPLAIN WHAT YOU'RE

1 ABOUT TO SEE. WE HAVE THROUGHOUT THIS HEARING -- AND WE 2 APPRECIATE YOUR TIME AND ATTENTION TO IT -- ATTEMPTED TO 3 MAKE THE POINT NOT THAT WE THINK THERE SHOULD BE A 4 SANTA MONICA STATION OR THAT THERE SHOULD BE A 5 CONSTELLATION STATION OR ONE IS BETTER THAN THE OTHER OR 6 SO ON AND SO FORTH.

7 WE'RE NOT EVEN ATTEMPTING TO ARGUE THAT DECISION 8 WITH YOU AT THIS POINT. WHAT WE ARE SIMPLY SAYING IS IT 9 IS CLEAR THAT THERE HAS NOT BEEN SUFFICIENT INVESTIGATION 10 AND NOT ENOUGH FACTS FOR YOU AS A BOARD TO MAKE THAT 11 CHOICE AT THIS POINT.

12 YOU MAY HAVE THOUGHTS ABOUT IT, ET CETERA, BUT 13 YOU DON'T HAVE SUFFICIENT DATA. AND WE'VE HAD NUMEROUS 14 EXPERTS EXPLAIN TO YOU WHY THAT INVESTIGATION HAS BEEN 15 INCOMPLETE, WHAT SHOULD BE DONE TO ANSWER THOSE QUESTIONS, 16 AND SO ON AND SO FORTH.

17 WHAT I'M GOING TO TAKE IS A SLIGHTLY DIFFERENT
18 TACK AT THIS POINT. I'M GOING TO START WITH THE
19 ASSUMPTION THAT, OKAY. YOU'RE PROPOSING A CONSTELLATION
20 STATION. YOU SAID THAT IS THE PROPOSAL BEFORE YOU. LET
21 US ACCEPT THAT FOR A MINUTE THAT YOU WANT A CONSTELLATION
22 STATION.

23 THAT DOESN'T ANSWER THE INQUIRY, HOWEVER BECAUSE
24 THERE ARE A NUMBER OF WAYS YOU COULD DO A CONSTELLATION
25 STATION, AND SOME OF THOSE DO NOT INVOLVE TUNNELING OVER

1 -- UNDER BEVERLY HILLS HIGH SCHOOL.

2 AND THAT'S WHAT WE WOULD LIKE TO MAKE SURE, THAT 3 ALL THE ALTERNATIVES, EVEN ASSUMING A CONSTELLATION 4 STATION HAVE BEEN ADEQUATELY EVALUATED. AND, FRANKLY, IN 5 A THOROUGH REVIEW OF THE RECORD GOING BACK EVEN TO THE 6 PRE-E.I.R. DAYS, WE CAN FIND NO EVIDENCE THAT THESE 7 ALTERNATIVES WERE EVER CONSIDERED.

8 LET ME START WITH -- YOU HAVE COPIES OF THESE 9 DOCUMENTS. LET'S LOOK OVER TO THE FIRST PAGE, IF WE CAN, 10 AND SEE IF THIS THING WORKS. WHAT WE HAVE HERE IS SIMPLY 11 THE FORMER ALIGNMENT ALONG SANTA MONICA BOULEVARD AND THE 12 PROPOSED ALIGNMENT RIGHT NOW.

13 I WILL FIRST MAKE THE COMMENT WHICH I WILL NOT
14 DEBATE THAT SIMPLY LOOKING AT THESE TWO ALIGNMENT WOULD
15 SUGGEST THAT POLITICIANS AND ECONOMISTS DREW THE SECOND
16 ONE, AND ENGINEERS DREW THE FIRST ONE.

BUT THIS IS SIMPLY A METHOD OF LOOKING AT THESE,THE VICINITY.

19 IF YOU'LL TURN NOW TO THE SECOND PAGE, WE HAVE A 20 MAP HERE OF CENTURY CITY. AND WHAT WE'RE LOOKING AT HERE 21 AND SUPERVISOR YAROSLAVSKY HAS TAUGHT ME -- HE, BY THE 22 WAY, WAS INVOLVED IN MY FIRST MAJOR CASE. THAT SHOWS HOW 23 OLD WE ARE, ZEV, BOTH OF US.

24 MR. YAROSLAVSKY: SPEAK FOR YOURSELF.

25 MR. MC MURRY: I DID.

1 IF YOU LOOK HERE, HERE'S THE CONSTELLATION 2 STATION. HERE IS CENTURY PARK WEST. HERE IS AVENUE OF 3 THE STARS. HERE IS CENTURY PARK EAST. HERE IS ROUGHLY 4 THE SITE OF THE SCHOOL DISTRICT, AND THIS IS, OF COURSE, 5 SANTA MONICA BOULEVARD, THE INFAMOUS.

6 I WANT TO CALL YOUR ATTENTION, BEFORE WE EVEN 7 START, TO THE BUILDINGS THAT ARE LOCATED IN CENTURY CITY 8 BECAUSE THEY ARE CRITICAL TO THIS ANALYSIS. HERE IS WHERE 9 THE CONSTELLATION STATION IS. DIRECTLY ABOVE THAT, ARE BUILDINGS 14 AND 13. THESE ARE CALLED THE "WATT TOWERS," 10 IF YOU'VE BEEN TO CENTURY CITY. THEY ARE 23 STORIES IN 11 HEIGHT. THEY PROBABLY HAVE, ALTHOUGH WE CAN'T CONFIRM THE 12 13 DATA, FAIRLY DEEP FOUNDATIONS, ET CETERA, AND THEREFORE WOULD BE DIFFICULT TO TUNNEL UNDERNEATH, SO ON AND SO 14 15 FORTH.

BUILDINGS 12 AND 16 ARE SIMPLY PARKING
STRUCTURES. THIS ONE IS PRIMARILY FOR THE WATT TOWERS
WHICH INCIDENTALLY DO NOT HAVE SUBTERRANEAN PARKING. AND
THEY HAVE NO MORE THAN 3 STORIES -- 2 1/2 STORIES
ACTUALLY OF SUBTERRANEAN PARKING. AND THEREFORE, IT WOULD
BE RELATIVELY EASY AND EFFECTIVE FOR A NORMAL TUNNEL TO GO
UNDERNEATH THEM.

23 I'D ALSO LOOK LIKE TO SHOW YOU BUILDINGS 9 AND
24 10. THESE ARE BOTH FAIRLY LOW LEVEL OFFICE STRUCTURES,
25 ET CETERA, AGAIN, WHICH DO NOT HAVE SUBTERRANEAN ISSUES.

1 BUILDING 4 IS THE PARKING STRUCTURE, AGAIN, ABOUT 2 2 1/2 STORIES UNDERGROUND WHICH SERVES THIS BUILDING. BUILDING 8 IS ABOUT A 20-PLUS STORY OFFICE 3 4 BUILDING. AGAIN, IT HAS UNDERGROUND PARKING WITH THAT 5 LIMIT. 6 THIS IS 3. THAT IS AN UNDERGROUND PARKING --7 THAT IS AN ABOVE-GROUND PARKING STRUCTURE. 8 1 AND 2 ARE THE ABOVE-GROUND PARKING STRUCTURES FOR THE BEVERLY HILLS HIGH SCHOOL. THEY ARE ACTUALLY PART 9 OF OUR LAND. BUILDING 6 -- SCHOOL DISTRICT. I'M SORRY. 10 PART OF THE BEVERLY HILLS HIGH SCHOOL PROPERTY. 11 THIS IS BUILDING 6, WHICH AGAIN IS A LOWER LEVEL 12 13 OFFICE BUILDING. AND THIS IS THE NEW 10000 WILSHIRE --14 15 10000 SANTA MONICA CONDOMINIUM SITE WHICH WAS JUST 16 APPROVED BY THE CITY OF LOS ANGELES, I BELIEVE, LAST MONTH. NO COMMENT ON THAT FACT THAT A 39-STORY STRUCTURE 17 WAS APPROVED WITHOUT ANY CONCERN ABOUT AND WITH A 18 SIGNIFICANT STUDY SHOWING THAT THERE WAS NO DANGER OF 19 20 FAULT ACTIVITY ON THAT LOCATION. 21 NOW, LET ME SUGGEST THAT IT IS NOT ONLY POSSIBLE 22 BUT FEASIBLE, AS BEST WE CAN TELL -- AND SURELY THIS IS 23 SUBJECT TO FURTHER INVESTIGATION -- TO PUT A STATION SITE ON CENTURY CITY AND STILL NOT HAVE TO GO THROUGH BEVERLY 24 25 HILLS HIGH SCHOOL. WE HAVE THREE ALIGNMENTS THAT WE CAN

1 DRAW THAT WILL WORK OUT.

2 FIRST OF ALL, THIS IS ALIGNMENT OPTION NUMBER 1. YOU'LL NOTICE THAT THE STATION HAS BEEN MOVED SOMEWHAT TO 3 4 THE WEST BUT STILL INTERSECTS WITH AVENUE OF THE STARS. AND THEN IT CURVES UPWARD -- AND I WILL EMPHASIZE THAT IT 5 6 CURVES IN A WAY THAT IS SATISFACTORY FOR METRO 7 STANDARDS -- MISSES THE WATT TOWERS SO THAT ONE DOES NOT 8 HAVE TO TUNNEL UNDERNEATH THEM, GOES THROUGH BUILDING 12, 9 WHICH AS I SAID IS SIMPLY A PARKING STRUCTURE WITH ONLY 2 1/2 STORIES UNDERGROUND. I KNOW BECAUSE I DROVE UP AND 10 DOWN IT TO MAKE SURE. THE THINGS I DO FOR THE QUEEN. 11 12 IT MISSES BUILDING D COMPLETELY. IT MISSES 13 BUILDING 6 COMPLETELY. IT MISSES THE 39-STORY TOWER WHICH 14 PROBABLY HAS DEEP FOUNDATION. IT MISSES THE HIGH SCHOOL 15 SITE COMPLETELY. AND IT CURVES OVER AND JOINS ONTO 16 SANTA MONICA BOULEVARD AT A LOCATION THAT IS EAST OF ALL OF THE IDENTIFIED SANTA MONICA FAULT ZONE STRUCTURES. 17 IN SHORT, THE ANALYSIS OF ALIGNMENT NUMBER 1 18 19 SHOWS YOU THAT IT AVOIDS ALL THE STRUCTURES EXCEPT FOR A 20 PARKING STRUCTURE. ASIDE FROM BUILDING 12, THE PARKING 21 STRUCTURE, IT GOES ONLY VACANT LAND, OPEN SPACE, 22 LANDSCAPING, AND/OR MAJOR ROADWAYS WHICH SURELY WILL 23 REDUCE THE ACQUISITION COST. IT COMPLIES WITH ALL METRO 24 REQUIREMENTS FOR TUNNELS -- AND, AGAIN, WE'VE HAD THIS EXAMINED BY SEVERAL EXPERTS. THIS IS NOT JUST ME 25

1 TALKING -- INCLUDING THE CURVED RADIUS RESTRICTIONS.

2 IT AVOIDS THE SANTA MONICA FAULT ZONE COMPLETELY.
3 AND IT ONLY CROSSES THE BEVERLY HILLS LINEAMENT IN A
4 PERPENDICULAR DIRECTION.

5 AND I HAVE TO STOP HERE FOR A BRIEF EXPLANATION. 6 I'M NOT GOING TO PUT ON EXPERT TESTIMONY. BUT ANY OF THE 7 GEOLOGISTS CAN ATTEST TO YOU THAT WHEN YOU'RE LOCATING A 8 STATION, IT'S CRITICAL TO KNOW WHERE THE FAULT STRUCTURE 9 IS. WHEN, HOWEVER, YOU'RE LOCATING A TUNNEL, IT IS NOT AS 10 CRITICAL. AND IN FACT, THE ONLY TIME THAT A TUNNEL POSES AN INSUPERABLE PROBLEM IS IF THE FAULT STRUCTURE IS 11 12 PARALLEL TO THE TUNNEL.

13 IF THE TUNNEL IS GOING TO CROSS THE FAULT
14 STRUCTURE IN A PERPENDICULAR WAY, THAT IS LIKE A "T,"
15 IN FACT, YOU CAN DESIGN FOR THAT. AND, IN FACT, IT WOULD
16 BE VIRTUALLY IMPOSSIBLE TO BUILD ANY SUBWAY IN ANY MAJOR
17 METROPOLITAN AREA WITHOUT CROSSING FAULTS. YOU SIMPLY
18 HAVE TO DO IT IN A FASHION LIKE THAT.

19 IF YOU LOOK AT THE DIAGRAMS, YOU WILL SEE THAT
 20 WHEN YOU REACH THE BEVERLY HILLS LINEAMENT AREA, THE
 21 STRUCTURE IS RUNNING VIRTUALLY PERPENDICULAR AND THEREFORE
 22 SHOULD NOT BE AN ISSUE.

THAT TAKES US TO OPTION NUMBER 2, WHICH IS, YOU
CAN SEE, TAKES THE STATION SITE SOMEWHAT FURTHER TO THE
WEST AND SPLITS THE STATION SITE INTO TWO. ONE IS THE

STATION; THE OTHER IS THE CROSS-OVER PORTION OF THE
 STATION WHICH CAN RUN THROUGH THIS VACANT PARCEL OVER
 HERE. I DON'T KNOW WHAT THE DEVELOPMENT PLANS ARE FOR
 THIS PARCEL.

5 I KNOW THAT I'VE BEEN AROUND FOR 30 YEARS, AND 6 THEY'VE TALKED ABOUT DEVELOPING IT THAT ENTIRE TIME AND 7 STILL HAVEN'T. SO I DON'T KNOW WHERE IT'S GOING.

8 YOU COULD PUT THE ENTIRE STATION AND THE 9 CROSSOVER HERE IF YOU WANTED TO. WE THOUGHT IT BETTER TO 10 SPLIT THEM. YOU GO AGAIN THROUGH BUILDING 12 AND A SMALL 11 PORTION OF BUILDING 16 WHICH IS, AS I SAID, ALSO A PARKING 12 STRUCTURE.

YOU ALSO CROSS UNDER BUILDING 6 WHICH AGAIN
APPEARS TO HAVE SUFFICIENT SAFE UNDERGROUND STATUS TO
PROVIDE FOR A TUNNEL, AND THEN IT GOES OVER HERE. THE
ANALYSIS FOR THIS PARTICULAR SITE IS THAT IT ONLY CROSSES
UNDER A COUPLE OF BUILDINGS, 16 AND 12 AND THEN 6.

18 IN SHORT, IT'S EQUIVALENT TO THE OTHER SITE. IT
19 IS HOWEVER A MUCH STRAIGHTER LINE AND MUCH EASIER FACILITY
20 TO ADVANCE.

21 THE THIRD ALIGNMENT IS ONE THAT WE CREATED IN AN 22 ATTEMPT TO KEEP THE STATION FOR CONSTELLATION IN THE SAME 23 LOCATION. AND AS YOU AS YOU CAN SEE, HERE'S WHERE THE 24 EXISTING STATION STARTS. HERE'S WHERE THIS DIAGRAM 25 STARTS.

1 SO IT'S ESSENTIALLY THE CONSTELLATION STATION 2 THAT HAS BEEN PROPOSED BY METRO. IT THEN CURVES UP THROUGH HERE, GOING THROUGH BUILDING 9 WHICH IS --3 4 WE SAID, DOES NOT HAVE A GREAT DEAL OF SUBTERRANEAN CLEARANCE AND THEN BUILDING 4 WHICH IS THE PARKING 5 6 STRUCTURE, BUILDING 8 WHICH SIMILARLY HAS 2 1/2 STORIES. 7 BUILDING 3 WAS SUCH A PARKING STRUCTURE. AND ALTHOUGH IT 8 APPEARS TO CLIP THE 10000 SANTA MONICA SITE, IN FACT, IT 9 CAN BE DESIGNED SUCH THAT IT DOES NOT DO SO. 10 HEARING OFFICER DROOYAN: LET'S BACK UP TO THAT LAST SLIDE. 11 MR. MC MURRY: THIS WAS NOT SUPPOSED TO BE HERE. 12 13 THIS IS MY IDEA OF AN EXAMPLE OF GOOD ALIGNMENT. AND RICK WAS SUPPOSED TO TAKE THAT SLIDE OUT, AND HE DIDN'T. 14 15 RICK: SORRY, SIR. 16 MR. MC MURRY: THAT'S OKAY. IT IS A 1984 WINNER OF THE POSTER CONTEST AT THE UNIVERSITY OF WASHINGTON 17 PRIOR TO THE GAME. WE LOST THE HOMECOMING GAME, BUT I GOT 18 TO MARRY THE GIRL, SO IT WORKED OUT FINE. 19 20 NEXT, GO ON TO MORE SERIOUS MATTERS. LET ME TELL 21 YOU WHAT WE BELIEVE THE BOARD SHOULD DO AT THIS POINT. 22 RIGHT NOW YOU'RE BEING ASKED TO DECIDE WHERE THE SUBWAY SHOULD GO. THAT'S A CRITICAL CHOICE THAT AFFECTS 23 24 BUSINESS; RESIDENTS; BEVERLY HILLS HIGH SCHOOL STUDENTS 25 FACULTY, STAFF; ALL OF US, AS YOU CAN SEE FROM THE FACT

THAT THERE IS A SIGNIFICANT TURNOUT OF CONCERNED PEOPLE
 HERE.

3 AND RIGHT NOW YOU'RE BEING TOLD BY METRO YOU 4 SHOULD MAKE AN ALIGNMENT DECISION. AND THAT DECISION IS 5 BEING DRIVEN MOSTLY BY POLITICAL AND ECONOMIC REASONS, NOT 6 BY ENGINEERING CONCERNS AS SHOWN BY THE FACT THAT MOST OF 7 THE ENGINEERING STUFF HAS NOT BEEN DONE.

8 RIGHT NOW YOU DON'T HAVE THE DATA NECESSARY TO 9 MAKE THAT DECISION. YOU'RE, IN EFFECT, GIVEN A CHOICE BETWEEN TWO ALIGNMENTS, ONE OF THEM, THE SANTA MONICA SITE 10 WHICH ARGUABLY MAY HAVE SOME PROBLEMS BUT THAT'S NOT CLEAR 11 12 VERSUS A SITE THAT'S NEVER BEEN INVESTIGATED AT ALL. AND 13 SOMEHOW YOU'RE SUPPOSED TO MAKE THE DECISION THAT "WELL, 14 IF WE'VE NEVER INVESTIGATED AT ALL, THAT'S BETTER THAN A 15 SITE THAT HAS SOME PROBLEMS, SO LET'S VOTE." DOESN'T MAKE 16 SENSE.

17 THE SANTA MONICA SITE HAS NOT FULLY BEEN 18 INVESTIGATED. IT MAY HAVE MITIGATING CIRCUMSTANCES. WE 19 DON'T KNOW. THE CONSTELLATION SITE COULD TURN OUT TO HAVE 20 GREATER PROBLEMS THAN THE SANTA MONICA SITE FOR ALL WE 21 KNOW.

IT'S BEEN POINTED OUT BY YOUR GEOLOGISTS THAT,
YOU KNOW, TRENCHING IS THE BEST WAY TO DO THESE THINGS.
THE CONSTELLATION BOULEVARD IS SITTING RIGHT ON TOP OF A
GIGANTIC VACANT LOT WHICH IS A 40-FOOT HOLE IN THE GROUND.

THERE'S NEVER BEEN ANY SUGGESTION THAT TRENCHING SHOULD BE
 DONE TO ANSWER THESE QUESTIONS.

FOR THAT MATTER, THE SANTA MONICA STATION IS
LOCATED ON SANTA MONICA BOULEVARD WHICH IS IMMEDIATELY
ADJACENT TO THE BEVERLY HILLS COUNTRY CLUB. AND YOU HAVE
THE POWER OF CONDEMNATION. IS THERE SOME REASON WHY YOU
CAN'T DO SOME TRENCHING THERE? WHY ARE THESE QUESTIONS
STILL BEING DEBATED IN A, YOU KNOW, FOUR-HOUR HEARING
WHEN, IN FACT, THESE QUESTIONS COULD BE ANSWERED?

10 AND EVEN IF CONSTELLATION TURNS OUT TO BE YOUR 11 CHOICE OF SITES -- EVEN IF AND I DON'T ARGUE THAT -- THEN 12 THERE ARE OTHER TUNNEL OPTIONS WHICH COULD AVOID GOING 13 UNDER BEVERLY HILLS HIGH SCHOOL.

IF THAT'S TRUE -- AND I SAY "IF" BECAUSE I'M NOT 14 15 SUGGESTING THAT THE INVESTIGATION'S BEEN DONE YET. IF 16 THAT'S TRUE, THEN YOU COULD AVOID -- YOU COULD HAVE A CONSTELLATION SITE; YOU COULD AVOID BEVERLY HILLS HIGH 17 SCHOOL AND ALL THE STUFF THAT YOU'RE GOING THROUGH RIGHT 18 NOW; AND IN FACT, YOU COULD DO SO WITHOUT ANY FURTHER 19 20 SINGLE CLEARANCE. I WON'T ARGUE THAT POINT, BUT THAT'S MY 21 OPINION, AND IT'S OTHERS AS WELL.

AND THE QUESTION IS: WHY NOT DO THAT? WHY
WASN'T THAT INVESTIGATED? WHY DIDN'T WE LOOK AT
ALTERNATIVE SITES? THESE MAY NOT BE THE ONLY THREE.
THERE MAY BE ENGINEERS WHO COULD CAME UP WITH BETTER ONES.

1 THE POINT IS NOBODY EVER CAME UP WITH THEM.

2 AND WE BELIEVE THAT THOSE QUESTIONS SHOULD BE ANSWERED BEFORE YOU HAVE TO MAKE A DECISION, AND NOW IS 3 4 NOT THE TIME TO MAKE THAT DECISION. OTHERWISE YOU'RE GOING TO SHORTCHANGE US. YOU'RE GOING TO SUBJECT METRO TO 5 6 GREATER DELAYS DUE TO LITIGATION, AND EVEN WORSE 7 CONSEQUENCE IS IF YOU LOSE THE LITIGATION. 8 ALL TOLD, IT'S A BETTER DECISION, IT SEEMS TO US, 9 TO CHOOSE ONE OF THE ALTERNATIVES. AND IF YOU WANT TO 10 GAMBLE ON IT AND GO FORWARD IN THE NEXT WEEK OR TWO, BE MY GUEST, BUT IT'S NOT A GOOD BET RIGHT NOW. SO DON'T DO IT. 11 12 THAT CONCLUDES OUR PRESENTATION UNLESS ANYBODY 13 HAS ANY QUESTIONS. 14 HEARING OFFICER DROOYAN: MR. WIENER. 15 MR. WIENER: I WILL WRAP UP IN THE NEXT MINUTE 16 AND A HALF --17 HEARING OFFICER DROOYAN: OKAY. MR. WIENER: -- BY 5:15. 18 WE THANK YOU FOR YOUR TIME AND ATTENTION TODAY. 19 20 WE REALIZE IT WAS A LENGTHY HEARING. WE BELIEVE IT WAS AN 21 IMPORTANT PRESENTATION TO PRESENT. WHAT DID WE HEAR? WE HEARD THAT IT APPEARS THE 22 23 WEST BEVERLY HILLS LINEAMENT IS NOT A FAULT. IT APPEARS 24 THAT THERE IS STRONG EVIDENCE THAT THE SANTA MONICA 25 BOULEVARD LINEAMENT, AS DR. KENNEY REFERRED TO IT, IS NOT

1 AN ACTIVE FAULT.

2 WE HEARD FROM DR. MEDHEKAR THAT THERE HAS BEEN NO RISK ANALYSIS. THERE ARE RISKS TO BEVERLY HILLS HIGH 3 4 SCHOOL FROM TUNNELING UNDERNEATH BEVERLY HILLS HIGH 5 SCHOOL, BUT THERE HAS BEEN NO RISK ANALYSIS, NOT A 6 QUANTITATIVE RISK ANALYSIS, NOT EVEN A QUALITATIVE RISK 7 ANALYSIS THAT COMPARES THE RISKS OF GOING UNDER 8 SANTA MONICA BOULEVARD OR HAVING A STATION AT SANTA MONICA 9 BOULEVARD VERSUS TUNNELING UNDER BEVERLY HILLS HIGH 10 SCHOOL.

11 AND WE PROBABLY DON'T HAVE THE SCIENCE YET TO 12 REALLY DO A PROPER RISK ANALYSIS BECAUSE WE HAVEN'T DONE 13 THE INVESTIGATION, THE SEISMIC INVESTIGATION, THAT COULD 14 BE UNDER SANTA MONICA BOULEVARD AND AT THE CONSTELLATION 15 STATION.

16 SO WHERE DOES THAT LEAVE US? AS I SAID AT THE 17 BEGINNING, I BELIEVE WE STILL HAVE CHOICES. I BELIEVE 18 THAT IT IS UNREASONABLE TO CHOOSE A CONSTELLATION 19 BOULEVARD STATION AND AN ALIGNMENT UNDER BEVERLY HILLS 20 HIGH SCHOOL WHILE YOU STILL HAVE INFORMATION THAT YOU NEED 21 TO MAKE AN INFORMED DECISION.

AND THAT IS WHAT NEEDS TO BE DONE. WE NEED TO --IF YOU -- IF THE INFORMATION THAT HAS BEEN PRESENTED TO YOU TODAY IS NOT SATISFACTORY, WE SHOULD BE LOOKING FOR DEFINITIVE INFORMATION REGARDING WHETHER OR NOT THERE IS

1 AN ACTIVE FAULT UNDER SANTA MONICA BOULEVARD AND WHETHER 2 OR NOT ONE OF THE ALTERNATIVE ROUTES THAT WE HAVE SUGGESTED COULD REACH CONSTELLATION BOULEVARD AND AVOID 3 4 BEVERLY HILLS HIGH SCHOOL AND PERHAPS EVEN AVOID THE ISSUE OF WHETHER OR NOT THERE IS A SEISMIC RISK TO PUTTING A 5 6 STATION AT SANTA MONICA BOULEVARD. 7 WE IMPLORE YOU TO TAKE THE TIME BECAUSE YOU HAVE 8 THE TIME TO MAKE THE RIGHT CHOICE. 9 AND WE THANK YOU FOR TAKING THAT UNDER CONSIDERATION AND YOUR ATTENTION TODAY. 10 HEARING OFFICER DROOYAN: THANK YOU, MR. WIENER. 11 MADAM SECRETARY, DO YOU HAVE --12 13 THAT IS THE END OF YOUR PRESENTATION, I TAKE IT? 14 MR. WIENER: YES. 15 MR. FASANA: DOES THAT CONCLUDE THE HEARING? I 16 NEED TO LEAVE IMMEDIATELY. HEARING OFFICER DROOYAN: WE'RE JUST ABOUT READY 17 TO CONCLUDE IT. ONE QUESTION, AND THEN THE SECRETARY'S IS 18 19 GOING TO READ --20 MR. ANTONOVICH: QUESTION FOR MTA STAFF. IF THE 21 MTA DID BUILD A TUNNEL UNDER THE HIGH SCHOOL, WHAT TYPE OF 22 APPROVAL DOES THE SCHOOL DISTRICT NEED FROM MTA TO 23 CONSTRUCT ABOVE OR ADJACENT TO THE TUNNELS? AND HOW CLEAR 24 ARE THOSE REQUIREMENTS FOR APPROVAL IF THEY ARE ARBITRARY 25 OR DEFINED?

1 AND IS THERE A SET OF RULES OR DESIGNED CRITERIA 2 AND STANDARDS FOR ADJACENT CONSTRUCTION? AND DO THOSE 3 RULES GOVERN WHAT A PROPERTY OWNER CAN BUILD OVER THE 4 TUNNELS AND WHAT THE PROPERTY OWNER CAN BUILD ADJACENT TO 5 THE TUNNELS?

6 ESSENTIALLY, IS THE SCHOOL DISTRICT CEDING 7 CONTROL OVER ITS FUTURE DEVELOPMENT ON PLANS TO LEVEL --8 ANY LEVEL DISCRETION EXERCISED BY THE MTA. AND ARE THE 9 RULES FOR APPROVAL OBJECTIVE AND ESTABLISHED ENOUGH SO 10 THAT MTA CANNOT ARBITRARILY REFUSE PLANS BY THE SCHOOL 11 DISTRICT?

12 AND THAT'S ART OR --

MR. LEAHY: I'LL JUST SAY, WE DON'T HAVE STAFF
HERE AT THE MEETING TO ANSWER THAT QUESTION, BUT WE'LL
COME PREPARED AT THE NEXT MEETING TO DO SO.

16 MR. ANTONOVICH: AND THEN ALSO IF TAKEN BY
17 EMINENT DOMAIN, DOES MTA THEN CONTROL THE PROPERTY OWNER'S
18 ABILITY TO BUILD ON HIS OR HER PROPERTY AFTER THE TUNNELS
19 ARE BUILT BY THE MTA?

20 AND SECONDLY, PAST EXPERIENCE THAT MTA HAS HAD 21 WITH PROPERTY OWNERS WHO WANTED TO BUILD OVER MTA TUNNELS. 22 HAVE WE DEALT WITH THAT? HOW MANY SUCH OWNERS AND 23 INSTANCES? WHEN DID THEY NEED TO PROVIDE -- WHAT DID THEY 24 NEED TO PROVIDE TO MTA BEFORE BUILDING? THE TIME FRAME IT 25 TOOK FOR THEM TO APPROVE OR DENY THOSE REQUESTS? THE COST

1 THAT MTA BILLED THE PROPERTY OWNERS TO GO THROUGH THAT 2 PROCESS AND ANY ADDITIONAL CONSTRUCTION COSTS THAT THESE PROPERTY OWNERS INCURRED DUE TO THAT REQUIREMENT. SO 3 4 THOSE QUESTIONS. HEARING OFFICER DROOYAN: THANK YOU. OKAY. 5 6 THAT'S GOING TO CONCLUDE THE HEARING. 7 MADAM SECRETARY, WOULD YOU PLEASE READ YOUR 8 STATEMENT. 9 MS. JACKSON: THE NOTICE OF INTENT TO HOLD THE PUBLIC WAS MAILED TO ALL 88 CITIES WITHIN LOS ANGELES 10 11 COUNTY; THE BOARD OF SUPERVISORS OFFICES FOR LOS ANGELES, ORANGE, SAN BERNARDINO, RIVERSIDE, AND VENTURA COUNTIES; 12 AND PUBLISHED ON THE INTERNET. 13 AFFIDAVITS OF PUBLICATION WILL BE FILED WITH THE 14 15 METRO SECRETARY AND MADE AVAILABLE IN THE SECRETARY'S 16 OFFICE FOR REVIEW. HEARING OFFICER DROOYAN: THANK YOU. I WILL MAKE 17

18 SURE THAT THIS ALL GETS IN AS PART OF THE RECORD. THAT
19 CONCLUDES THE HEARING.

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20

21 (WHEREUPON THE PROCEEDINGS

22 WERE ADJOURNED AT 5:19 P.M.)

24 25

23

1 STATE OF CALIFORNIA ) ) SS. 2 COUNTY OF LOS ANGELES ) 3 4 I, MARCIA S. MC ENTEE, A CERTIFIED SHORTHAND REPORTER IN AND FOR THE STATE OF CALIFORNIA, DO HEREBY 5 6 CERTIFY: 7 THAT ON THURSDAY, MAY 17, 2012, I DID REPORT IN 8 STENOGRAPHIC WRITING ALL OF THE TESTIMONY AND PROCEEDINGS 9 IN THE FOREGOING PROCEEDINGS; THAT SAID PROCEEDINGS WERE THEREAFTER REDUCED 10 11 TO A TRANSCRIPT UNDER MY DIRECTION; I FURTHER CERTIFY THAT THE FOREGOING IS A 12 FULL, TRUE, AND CORRECT TRANSCRIPT OF SAID TESTIMONY AND 13 PROCEEDINGS. 14 15 I FURTHER CERTIFY THAT I AM NEITHER COUNSEL 16 FOR NOR RELATED TO ANY PARTY TO SAID ACTION, NOR IN ANYWISE INTERESTED IN THE OUTCOME THEREOF. 17 IN WITNESS WHEREOF, I HAVE HEREUNTO 18 SUBSCRIBED MY NAME THIS 21ST DAY OF MAY, 2012. 19 20 21 2.2 23 MARCIA S. MC ENTEE, CSR NO. 13399 24 25