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

APPEARANCES:

BOARD MEMBERS:

ANTONIO VILLARAIGOSA, CHAIR
MICHAEL ANTONOVICH, 1ST VICE CHAIR
JOHN FASANA
JOSE HUIZAR
RICHARD KATZ
ARA J. NAJARIAN
PAM O'CONNOR
ZEV YAROSLAVSKY
KIMBERLY YU

MTA OFFICIALS:

ARTHUR T. LEAHY, CHIEF EXECUTIVE OFFICER
MICHELE JACKSON, BOARD SECRETARY
CHARLES SAFER, COUNTY COUNSEL
MICHELE CHAU, BOARD SPECIALIST
COLLETTE LANGSTON, BOARD SPECIALIST

APPEARANCES:

COUNSEL:

FOR BEVERLY HILLS:

CITY OF BEVERLY HILLS
BY: LAURENCE S. WIENER, ESQ.
455 NORTH REXFORD DRIVE
BEVERLY HILLS, CALIFORNIA 90210
310-285-1000

HILL, FARRER & BURRILL LLP
BY: KEVIN H. BROGAN, ESQ.
300 SOUTH GRAND AVENUE
37TH FLOOR
LOS ANGELES, CALIFORNIA 90071-3109
213-620-0460

GILCHRIST & RUTTER PC
BY: ROBERT I. MC MURRY, ESQ.
1299 OCEAN AVENUE
SUITE 900
SANTA MONICA, CALIFORNIA 90401
310-393-4000

FOR LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY:

LOS ANGELES COUNTY
OFFICE OF COUNTY COUNSEL
BY: MR. CHARLES SAFER, ESQ.
ONE GATEWAY PLAZA
LOS ANGELES, CALIFORNIA 90012
213-922-2523

BEFORE HEARING OFFICER RICHARD E. DROOYAN, ESQ.

MUNGER, TOLLES & OLSON
335 SOUTH GRAND AVENUE
35TH FLOOR
LOS ANGELES, CALIFORNIA 90017
213-683-9100

I N D E X

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LOS ANGELES, CALIFORNIA MAY 17, 2012

1:46 P.M.

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CHAIR VILLARAIGOSA: ON BEHALF OF THE MTA BOARD, I'D LIKE TO WELCOME THE CITY OF BEVERLY HILLS TO THIS HEARING.

THIS HEARING IS BEING HELD PURSUANT TO CALIFORNIA PUBLIC UTILITY CODE SECTION 30639 AT THE REQUEST OF THE CITY OF BEVERLY HILLS. IN RELATION TO THE GROUND RULES, THE HEARING IS SCHEDULED BETWEEN 1:30 AND 5:00 P.M., WE WILL ADJOURN THIS HEARING AT 5:00 P.M.

THE PURPOSE OF THIS HEARING IS NOT TO DETERMINE THE BEST LOCATION FOR THE CENTURY CITY STATION OF THE WESTSIDE SUBWAY EXTENSION PROJECT. RATHER, THE SOLE PURPOSE OF THIS HEARING IS TO GIVE THE CITY OF BEVERLY HILLS AND THE METROPOLITAN TRANSIT AUTHORITY AN OPPORTUNITY TO PRESENT EVIDENCE IN THE FORM OF TESTIMONY AND/OR EXHIBITS REGARDING THE REASONABLENESS OF THE PROPOSED CONSTELLATION STATION AND TUNNEL ALIGNMENT UNDER BEVERLY HILLS HIGH SCHOOL.

THE BOARD WILL NOT BE MAKING ANY DECISIONS TODAY REGARDING THE LOCATION OF THE CENTURY CITY STATION AND TUNNEL ALIGNMENT. A DECISION BY THE BOARD ON THE LOCATION OF THE CENTURY CITY STATION AND TUNNELS MAY BE MADE AT THE

NEXT BOARD MEETING ON MAY 24TH OR SOMETIME THEREAFTER. BEFORE MAKING THESE DECISIONS, THE BOARD WILL CONSIDER ALL RELEVANT INFORMATION INCLUDING THE EVIDENCE PRESENTED TODAY.

I WILL NOW TURN THE HEARING OVER TO RICHARD DROOYAN, AN ATTORNEY IN THE FIRM OF MUNGER, TOLLES & OLSON IN LOS ANGELES, WHO WILL CONDUCT THE HEARING.

MR. DROOYAN, PLEASE PROCEED.

HEARING OFFICER DROOYAN: THANK YOU, MR. MAYOR.

GOOD AFTERNOON, LADIES AND GENTLEMEN.

CHAIR VILLARAIGOSA: WAIT. YOU'RE GOT TO TURN THAT ON.

HEARING OFFICER DROOYAN: AM I ON? THANK YOU. CAN YOU HEAR ME?

GOOD AFTERNOON.

LET ME JUST INTRODUCE MYSELF. MY NAME IS RICHARD DROOYAN. I'M GOING TO SERVE AS THE HEARING OFFICER TODAY. MY ROLE IS TO FACILITATE THE HEARING. I WILL NOT BE MAKING ANY DECISIONS. I WILL NOT BE MAKING ANY SUBSTANTIVE DECISIONS.

IF THERE ARE ANY SUBSTANTIVE DECISIONS THAT NEED 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 FACILITATOR IN THIS PROCEEDING.

FIRST OF ALL, LET ME ASK: WHO'S GOING TO BE

REPRESENTING CITY OF BEVERLY HILLS IN THIS PROCEEDING?

MR. LARRY WIENER: MR. HEARING OFFICER, MY NAME IS LARRY WIENER. I'M THE CITY ATTORNEY FOR THE CITY OF BEVERLY HILLS. WE WILL HAVE MYSELF MAKING SOME BRIEF INTRODUCTORY COMMENTS, AND PRESENTING EVIDENCE WILL BE MR. KEVIN BROGAN AND MR. ROBERT MC MURRY.

HEARING OFFICER DROOYAN: LET ME GET YOUR NAMES AGAIN. MR. WIENER?

MR. WIENER: LARRY WIENER.

MR. BROGAN: BROGAN, B-R-O-G-A-N.

MR. MC MURRY: MC MURRY, M-C-M-U-R-R-Y.

HEARING OFFICER DROOYAN: THANK YOU.

AND WHO WILL BE REPRESENTING THE MTA TODAY?

MR. SAFER: CHARLES SAFER, ASSISTANT COUNTY COUNSEL.

HEARING OFFICER DROOYAN: MR. WIENER AND MR. SAFER, LET ME FIRST START BY ASKING HOW YOU WANT TO PROCEED. SHOULD WE HAVE THE MTA SIMPLY SUBMIT ITS EVIDENCE AND ITS PROPOSAL AND THEN HAVE THE CITY OF BEVERLY HILLS PROCEED? THAT SEEMS TO ME TO BE THE LOGICAL WAY TO DO IT. AND THAT BASICALLY GIVES THE CITY OF BEVERLY HILLS A MAXIMUM AMOUNT OF TIME TO MAKE ITS PRESENTATION.

MR. WIENER: WE ARE FINE WITH THAT. THANK YOU.

HEARING OFFICER DROOYAN: MR. SAFER, DO YOU WANT

TO MAKE THE PRESENTATION ON BEHALF OF THE MTA AND EXPLAIN WHAT EVIDENCE THE MTA IS GOING TO BE SUBMITTING?

MR. SAFER: YES. WHAT I WAS GOING TO DO, MR. DROOYAN, IS I REQUESTED THAT A CERTIFICATE WHICH WILL BE PASSED OUT TO THE BOARD MEMBERS AND TO COUNSEL FOR BEVERLY HILLS -- I WOULD LIKE THAT THE CERTIFICATE AND THE ATTACHED CD BE COLLECTIVELY MARKED AS EXHIBIT 1 FOR IDENTIFICATION AND OFFER THEM INTO EVIDENCE.

THESE CD'S CONTAIN THE EVIDENCE THAT MTA IS RELYING UPON TO SUPPORT THE REASONABLENESS OF THE LOCATION OF THE CONSTELLATION STATION AND TUNNELS UNDER BEVERLY HILLS SCHOOL. THE PROPOSAL IS THE SAME PROPOSAL THAT HAS BEEN BEFORE THE BOARD PREVIOUSLY.

HEARING OFFICER DROOYAN: YOU'VE PROVIDED THIS EVIDENCE TO THE CITY OF BEVERLY HILLS?

MR. SAFER: YEAH. IT'S -- THEY ARE AWARE OF THE PROPOSALS. IN FACT, THAT'S WHY WE'RE HERE TODAY, BECAUSE THEY ARE QUESTIONING THE REASONABLENESS OF THAT PROPOSAL. AND THE CD'S ARE BEING DISTRIBUTED NOW.

HEARING OFFICER DROOYAN: BEFORE -- MR. WIENER, ONE THING, LET ME --

I KNOW WE HAVE MANY REQUESTS TO SPEAK AT PUBLIC COMMENT. MY UNDERSTANDING IS THE PUBLIC COMMENT WILL BE AFTER THE CONCLUSION OF THE HEARING. IS THAT CORRECT, MR. SAFER?

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

HEARING OFFICER DROOYAN: OKAY. THANK YOU.

MR. WIENER.

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

HEARING OFFICER DROOYAN: MR. SAFER, DO YOU WANT TO ELABORATE ON WHAT IS IN THE CD'S AND WHAT INFORMATION HAS PREVIOUSLY BEEN PROVIDED TO THE CITY OF BEVERLY HILLS?

MR. SAFER: MOST OF THE ITEMS -- I WILL READ THROUGH A LIST OF THE DOCUMENTS THAT ARE ON THE CD'S. MOST OF THEM HAVE BEEN PUBLIC FOR QUITE AWHILE.

WE HAVE THE WESTSIDE SUBWAY EXTENSION FEIS/FEIR INCLUDING THE APPENDICES. THERE IS THE PRELIMINARY GEOTECHNICAL ENVIRONMENTAL REPORT OF DECEMBER 2011. THERE'S THE CENTURY CITY T.O.D. AND WALK ACCESS STUDY FROM FEBRUARY 2012; THE CENTURY CITY FAULT INVESTIGATION 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.

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

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

THERE'S THE REPORT OF INDEPENDENT REVIEW PANEL DATED OCTOBER 19TH, 2012; VIDEOS OF METRO PLANNING AND PROGRAMMING COMMITTEE FROM OCTOBER 19TH. AND THERE'S A RESPONSE TO COMMENTS FROM PRIME SOURCE CONSULTING AND HILLSBOROUGH REFERRAL AT THE METRO PLANNING AND PROGRAMMING COMMITTEE CONCERNING THE CENTURY CITY ALIGNMENTS MADE IN 2012. AND LASTLY, THERE'S THE REPLY TO THE EXPONENT RESPONSES DATED MAY 15TH, 2012.

THESE ARE ALL, YOU KNOW, ONLINE.

HEARING OFFICER DROOYAN: MR. WIENER, I UNDERSTAND YOU HAVEN'T HAD A CHANCE TO LOOK AT THESE, BUT I GATHER THAT CERTAINLY THE CITY OF BEVERLY HILLS IS FAMILIAR WITH THE PROPOSAL; IS THAT CORRECT?

MR. WIENER: WE ARE FAMILIAR WITH THE PROPOSAL TO SITE THE STATION ON CONSTELLATION BOULEVARD AND THE PROPOSED ALIGNMENT.

HEARING OFFICER DROOYAN: OKAY. WELL, DO YOU HAVE ANY FURTHER EVIDENCE YOU WANT TO INTRODUCE, MR. SAFER?

MR. SAFER: NO. THAT'S ALL.

HEARING OFFICER DROOYAN: MR. WIENER, I'M GOING TO TURN IT OVER TO YOU NOW.

MR. WIENER: THANK YOU VERY MUCH.

GOOD AFTERNOON. AS I MENTIONED, MY NAME IS LARRY WIENER. I'M THE CITY ATTORNEY FOR THE CITY OF BEVERLY HILLS.

I'VE HEARD IT SAID THAT THE ONLY WAY TO TAKE A SUBWAY TO CENTURY CITY IS THROUGH BEVERLY HILLS HIGH SCHOOL. AND WE ARE HERE TODAY TO EXPLAIN THAT IS NOT THE CASE. YOU DO HAVE CHOICES.

YOU MAY NOT HAVE THE INFORMATION NECESSARY RIGHT NOW TO MAKE FULLY INFORMED CHOICES, BUT YOU DO HAVE A CHOICE. AND WE ARE HERE TO PROVIDE YOU WITH INFORMATION THAT WILL ALLOW YOU TO MAKE A CHOICE THAT DOES NOT INVOLVE

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

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

THREE, YOU NEED TO UNDERSTAND THE RELATIVE RISKS OF THE CHOICES THAT ARE BEFORE YOU. WHAT ARE THE POTENTIAL CONSEQUENCES OF EACH CHOICE, AND WHAT IS THE PROBABILITY -- WHAT ARE THE CHANCES THAT THOSE POTENTIAL CONSEQUENCES MIGHT OCCUR? 1 IN A 100,000,000, 1 IN 10,000,000, 1 IN A 1,000, 1 IN 100, 1 IN 10? YOU DON'T KNOW THAT INFORMATION.

YOU KNOW THAT NONE OF YOUR CHOICES INVOLVE ZERO RISK. WHAT YOU NEED TO KNOW IS WHAT THE RISK IS OF EACH CHOICE AND WHAT THE PROBABILITY IS THAT THOSE RISKS MIGHT 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.

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

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

WE HOPE THAT YOU WILL CONDUCT THIS HEARING IN THE 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 BEGIN BY INTRODUCING KEVIN BROGAN WHO WILL PRESENT EVIDENCE REGARDING THE EXTENSIVE GEOLOGIC WORK THAT WAS DONE AT BEVERLY HILLS HIGH SCHOOL AND THAT SHED SOME LIGHT ON THE QUESTIONS THAT HAVE BEEN RAISED REGARDING THE BEVERLY -- THE WEST BEVERLY HILLS LINEAMENTS.

THANK YOU VERY MUCH.

HEARING OFFICER DROOYAN: THANK YOU, MR. WIENER.

MR. BROGAN.

MR. BROGAN: THANK YOU, MR. HEARING OFFICER, MEMBERS OF THE BOARD.

WE HAVE FIVE WITNESSES WHO WILL TALK ABOUT GEOTECHNICAL AND OTHER TECHNICAL DATA BEFORE THIS BOARD. THE FIRST WILL BE PHIL BUCHIARELLI. SECOND WILL BE ELDON GATH. THIRD WILL BE MILES KENNEY. THE FOURTH WILL BE DR. SHLEMON BY VIDEOTAPE; HE'S NOT AVAILABLE TODAY. AND THE FIFTH WILL BE TIM BURESH.

WE EXPECT TO ESTABLISH THAT THE UNCERTAINTY INVOLVING THE GEOTECHNICAL SITUATION OF CENTURY CITY IS SUCH THAT THIS BOARD SHOULD SUBSTANTIALLY CONSIDER OTHER ALTERNATIVES TO THE SO-CALLED "LOCALLY PREFERRED ALTERNATIVE" BECAUSE IT'S A SIGNIFICANT PROJECT INVOLVING A SIGNIFICANT AMOUNT OF TAX MONEY, AND IT SHOULD BE DONE

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

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

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

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

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

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

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

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

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

MR. BROGAN: EXCUSE ME, MR. HEARING OFFICER. WOULD YOU APPRECIATE TO HAVE ALL THE HEARING PEOPLE WHO MIGHT BE SWORN AT LEAST IN OUR TESTIMONY PRESENTED AT THE SAME TIME FOR ONE SWEARING?

HEARING OFFICER DROOYAN: LET'S JUST DO IT ONE AT A TIME.

MR. BROGAN: YES, SIR.

HEARING OFFICER DROOYAN: IT'LL BE EASIER FOR THE BOARD MEMBERS TO FOLLOW WHO IS SPEAKING.

THE WITNESS: FIRST NAME IS PHILIP, P-H-I-L-I-P; LAST NAME IS BUCHIARELLI, B-U-C-H-I-A-R-E-L-L-I.

HEARING OFFICER DROOYAN: AND, COURT REPORTER, WOULD YOU PLEASE ADMINISTER THE OATH.

PHILIP BUCHIARELLI,

A WITNESS HEREIN, CALLED BY AND ON BEHALF OF THE CITY HAVING BEEN FIRST DULY SWORN, WAS EXAMINED AND TESTIFIED AS FOLLOWS:

HEARING OFFICER DROOYAN: GOOD MORNING -- GOOD AFTERNOON, MR. BUCHIARELLI.

THE WITNESS: GOOD AFTERNOON.

HEARING OFFICER DROOYAN: YOU CAN PROCEED BY WAY OF A STATEMENT OR BY WAY OF QUESTION AND ANSWER, HOWEVER YOU WANT TO PROCEED.

EXAMINATION

MR. BROGAN: I THINK OUR INTENT TO PRESERVE TIME IS TO LET THE WITNESS DESCRIBE BRIEFLY HIS BACKGROUND AND THEN PROCEED WITH HIS INVESTIGATION AND CONCLUSIONS.

HEARING OFFICER DROOYAN: THAT'S FINE. AND I -- I WOULD HOLD THE BACKGROUND TO A MINIMUM SO THAT YOU HAVE AS MUCH TIME AS POSSIBLE TO GET INTO THE SUBSTANCE. I'M GOING TO MAKE A PRESUMPTION THAT WITH THE RESUME THAT THE WITNESS IS GOING TO BE QUALIFIED, BUT THE BOARD CERTAINLY WILL HAVE THAT INFORMATION.

GO AHEAD.

THE WITNESS: THANK YOU VERY MUCH.

MY NAME IS PHILIP BUCHIARELLI. I'M A PRINCIPAL GEOLOGIST WITH LEIGHTON CONSULTING. I'VE BEEN WITH LEIGHTON FOR 25 YEARS. I'M A STATE LICENSED PROFESSIONAL GEOLOGIST AND ALSO A CERTIFIED ENGINEERING GEOLOGIST.

WE COMMISSIONED -- WE WERE ASKED BY THE BEVERLY HILLS UNIFIED SCHOOL DISTRICT TO CONDUCT A FAULT INVESTIGATION OF BEVERLY HILLS HIGH SCHOOL. AS YOU ARE FAMILIAR, THIS PRESENTATION -- THIS SLIDE SHOWS THE FAULTS THAT WERE MAPPED BACK IN OCTOBER 2011 IN THE -- IN THE REPORT PRESENTED BY -- BY PARSONS BRINCKERHOFF, "PB" TO THE METRO BOARD, AT THE TIME.

THIS IS THE FAULT INVESTIGATION OF THE WESTSIDE 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.

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

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

IN EVALUATING THESE FAULTS, PB EXTENDED A NUMBER OF TRANSECTS OR A SERIES OF BORINGS THAT THEY DUG IN THE GROUND AND CONE PENETROMETER TESTS, AND THOSE EXTENDED BASICALLY RIGHT THROUGH THIS AREA. THIS IS PB'S TRANSECT 4 PARSON -- PARSONS BRINKERHOFF'S TRANSECT 4.

THE SCHOOL IS ROUGHLY IN THIS AREA, AND THESE ARE NUMEROUS FAULTS WHICH HAVE BEEN MAPPED ALONG THAT TRANSECT THROUGH THE SCHOOL.

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

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

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

TO THE MAPS TO THE FAULTS MAPPED BY PB.

WE ALSO EXCAVATED 675 FEET OF TRENCH WHERE WE PHYSICALLY REMOVED THE UPPER 12 TO 15 FOOT OF THE SOIL ACROSS BEVERLY HILLS HIGH SCHOOL WHERE POSSIBLE AND LOOKED AT THE SOIL TO LOOK FOR EVIDENCE OF FAULTS.

WE ALSO EXCAVATED 12 CPT SOUNDINGS ALONG DURANT DRIVE. THIS IS A PICTURE OF ONE OF THE DRILL RIGS ON CAMPUS. BASICALLY, WE'RE STANDING IN MORENO DRIVE LOOKING AT THE BEVERLY HILLS HIGH SCHOOL CAMPUS IN THE LAWN AREA. THAT'S ACTUALLY CALLED THE "GRADUATION LAWN AREA." THEY TAKE A GRADUATION PHOTO THERE EVERY YEAR.

THIS SHOWS THE DATA POINTS THAT WE COLLECTED ACROSS THE BEVERLY HILLS CAMPUS. THE BLUE DOTS ARE CORE BORINGS THAT WE LOCATED. THE RED DOTS ARE CPT POINTS. AND THEY ARE A LITTLE DIFFICULT TO SEE, BUT THE GREEN LINES ARE -- ARE FAULT TRENCHES: FAULT TRENCH 1, 2, 3, AND 4.

WITH OUR TRENCHES WE WERE ABLE TO ACHIEVE ABOUT 90 PERCENT CONTINUITY ACROSS THE CAMPUS. IN OTHER WORDS, BETWEEN FAULT TRENCH 1, THE OVERLAP OF FAULT TRENCH 3 AND 4, FAULT TRENCH 2, WE WERE ABLE TO GO FROM ACTUALLY THE CITY OF L.A. TO CITY OF BEVERLY HILLS LINE ALL THE WAY TO MORENO DRIVE WITH VERY FEW GAPS.

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

AND CORRELATED THE DATA FROM ONE BORING TO THE NEXT.

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

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

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

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

SO THERE'S A CLAY UNIT, SORT OF A BROWNISH SAND AND 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.

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

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

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.

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

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

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

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

AS I SAID, THE OTHER THING WE DID WAS EXCAVATE ABOUT 675 FEET OF TRENCH ACROSS THE CAMPUS. AGAIN, THIS IS -- WE'RE IN THE LAWN AREA. MORENO DRIVE IS BEHIND US. WE'RE LOOKING UP TO THE MAIN BUILDINGS AND THE GRASSY AREA. THIS IS EAST OF THE MAIN PART OF THE CAMPUS.

WHEN YOU EXCAVATE TRENCHES, YOU GET A REALLY GREAT EXPOSURE OF ALL THE SOIL NEAR THE SURFACE, ALL THE NEAR-SURFACE SOIL. AND THAT'S THE SOIL WE'RE MOST CONCERNED ABOUT BECAUSE THAT'S THE SOIL THAT IS THE YOUNGEST AND WOULD SHOW EVIDENCE OF RECENT ACTIVE FAULTING.

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

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.

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

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

WHAT THEY DETERMINED IS THAT THIS SURFACE BOTH IN FT-3, FT-2, AND IN FT-1, THIS SURFACE WAS 70- TO 100,000 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

LEAST 100,000 YEARS OLD.

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

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

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

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

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

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

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

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

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

WE ACTUALLY HAD A PROFESSOR FROM UCR COME OUT TO THE CAMPUS, TAKE SAMPLES OF THIS MATERIAL, TAKE IT BACK TO HIS LAB, AND LOOK UNDER A MICROSCOPE. AND HE SAID NO. THIS -- THE MATERIAL THAT'S IN THERE IS DEPOSITIONAL. 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.

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

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.

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

THE WEST BEVERLY HILLS LINEAMENT HAS BEEN TALKED ABOUT FOR A COUPLE DECADES ALTHOUGH UP UNTIL RECENTLY, IT'S ALWAYS BEEN INFERRED. AND THEN WHEN THE DATA CAME OUT IN NOVEMBER -- IN DECEMBER THAT IT WAS REALLY A FAULT, WE SOMEWHAT EXPECTED TO FIND A FAULT THROUGH HERE, BUT WE 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 CAMPUS, BE WENT BACK TO DURANT DRIVE TO TRY AND SEE IF THERE WAS SOMETHING WE WERE MISSING.

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.

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

BUT IT -- BECAUSE WE DIDN'T FIND FAULTS MID-TRANSECT AND BECAUSE THIS DATA WE WERE UNSURE ABOUT, WE REPEATED TRANSECT T-4 AS IT -- OR T-4 AS IT PERTAINS TO THE PORTION THAT WE WERE CONCERNED ABOUT WHICH WAS IMMEDIATELY IN FRONT OF BEVERLY HILLS HIGH SCHOOL.

SO ACTUALLY, WE'VE SEEN THE SESSION BEFORE. I JUST DIDN'T BRING IT TO THE POINT THAT THIS WAS ALONG DURANT DRIVE. AND SO HERE'S OUR DATA POINTS. AND REALLY WE FOUND NO EVIDENCE THAT THERE -- FOR FAULTS HERE.

I WILL POINT OUT THAT MOST OF PB'S FAULTS ARE RELATED TO THE CPT DATA. AS I SAID, CPT, YOU ACTUALLY DON'T GET TO LOOK AT THE DIRT. ALL YOU SEE IS THE HOLE IN THE GROUND AND ELECTRONIC SIGNATURE OF WHAT THEY SEE ABOVE IT.

THERE'S ONE OTHER ITEM -- ONE OTHER ITEM THAT WE 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 WHICH ONE. BUT ONE OF THE CPT'S WAS LOGGED AS BEING 50 FOOT DEEP, BUT ON THE CROSS SECTION WAS ACTUALLY SHOWN AS BEING 75 FEET DEEP. SO SOMEHOW OR OTHER THAT GOT EXTENDED. I DON'T KNOW WHAT -- WHAT IMPACT THAT MAY HAVE HAD ON THEIR DATA INTERPRETATION.

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

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

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

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

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

SO THIS ORANGE LINE WAS A FAULT THAT'S NOW BEEN MOVED TO HERE. THIS ORANGE LINE STOPPED, AND NOW IT'S BEEN EXTENDED. THIS FAULT IS NEW. THIS FAULT USED TO GO 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 A LITTLE BIT HARD TO SEE, BUT THIS IS LABELED "FAULT TRENCH 4." THIS IS LABELED "FAULT TRENCH 3." THIS IS -- THEY'RE LABELING THE BACKGROUND -- I HOPE YOU CAN SEE IT -- AS 4. THIS IS 2. THEY'VE ACTUALLY MISLABELED OUR FAULT TRENCHES. THIS IS FT-1, FT-2, FT-3, FT-4. AGAIN, I DON'T KNOW IF THAT JUXTAPOSITION PLAYED ANY ROLE IN THEIR REVIEW, BUT IT CERTAINLY IS A QUESTION.

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

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

MR. YAROSLAVSKY: CAN I JUST ASK: HOW MUCH IS THE DIFFERENCE FROM THE ONE TO THE OTHER? HOW MANY FEET?

THE WITNESS: I'M GOING TO ESTIMATE SOMETHING ON THE ORDER OF 20 TO 30 FEET. THAT'S AN ESTIMATE. I CAN'T REALLY MEASURE FOR YOU.

MR. YAROSLAVSKY: FOR EACH ONE?

THE WITNESS: WELL, YOU KNOW, THESE TWO -- YES, I WOULD ESTIMATE THAT.

YOU KNOW, I CAN GO BACK TO THIS. THIS IS PROBABLY EASIER FOR ME TO GAUGE. THIS TRENCH WAS PROBABLY A HUNDRED FEET LONG OR SO. SO THIS END OF IT, ABOUT 20 FEET.

BEAR WITH ME. THIS IS A LITTLE BIT HARD OF -- DIFFICULT OF A FIGURE TO EXPLAIN.

THIS -- YOU REMEMBER IN OUR BORING DISCUSSION, WE TALKED A LITTLE BIT ABOUT A SAND UNIT AND A SILTY CLAY UNIT ATOP THE SAN -- AT THE SAN PEDRO FORMATION.

THIS IS A FIGURE FROM PB'S MAY 14TH RESPONSE REPORT, AND WE'LL TALK ABOUT THIS QUITE A BIT TODAY. FIRST OF ALL, I WANT YOU TO KNOW THAT THE RED DOTS ARE DATA POINTS THAT WE HAVE ACCESS TO. WHAT -- WHAT PB HAS DONE IS TRIED TO SHOW A CONTOUR MAP, IF YOU UNDERSTAND WHAT A CONTOUR MAP IS. IT IS A TOPOGRAPHY MAP OF THE SURFACE WHERE YOU WOULD GENERALLY FIND SAND BELOW AND A CLAY MATERIAL ABOVE. THIS IS THE SURFACE OF THE SAN PEDRO FORMATION.

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

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

350 FEET OF RIGHT LATERAL STRIKE SLIP MOVEMENT MEANS THAT THE MAYOR WOULD BE 350 FEET DOWN THAT WAY, AND I WOULD BE HERE. SO THAT'S WHAT THEY ARE DEPICTING HERE. THEY ARE ALSO DEPICTING A NORTHWARD DIPPING SURFACE, SO THAT AS THAT MOVES RIGHT, IF YOU STEP ACROSS THE FAULT, YOU HAVE TO GET DEEPER. RIGHT?

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

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.

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

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

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

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

THE WITNESS: I'M SORRY.

MR. BROGAN: THE PB FAULTS.

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

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

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

NOT THE MOST DEFINITIVE TOOL TO DETERMINE ACTIVITY.

THIS IS IN THE MIDDLE OF PAGE 3.

IN THE MIDDLE OF PAGE 4 THEY MAKE THIS STATEMENT, "IN THE ABSENCE OF CONTINUOUS TRENCH EXPOSURE SHOWING UNBROKEN DEPOSITS OR SOILS OF UNKNOWN AGE, IT IS NOT POSSIBLE TO PROVE THAT ANY PARTICULAR FAULT STRAND THAT PB IDENTIFIED WITHIN THE WEST BEVERLY HILLS LINEAMENT IS ACTIVE OR INACTIVE. SUCH DATA CAN ONLY BE GLEANED FROM TRENCHES THAT PROVIDE CONTINUOUS EXPOSURE OF THE ENTIRE WIDTH OF THE POTENTIAL FAULT ZONE."

PB DIDN'T DO ANY TRENCHES. ON PAGE 3 THEY TELL US TRENCHING IS NOT DEFINITIVE. ON PAGE 4, THEY ARE IGNORING OR TELLING US SOME OF OUR DATA IS NOT ACCURATE BECAUSE WE WEREN'T ABLE TO TRENCH THE ENTIRE SITE. THAT MAKES IT REALLY HARD FOR ANYONE TO QUESTION THEIR DATA. IF TRENCHING IS DEFINITIVE, GREAT. IF IT'S NOT DEFINITIVE, GREAT. BUT THEY ARE BASICALLY SAYING BOTH WAYS IN THIS RESPONSE REPORT.

THIS CONCLUDES MY PRESENTATION.

MR. BROGAN: THANK YOU, MR. BUCHIARELLI.

WE'LL CALL AS OUR NEXT WITNESS MR. ELDON GATH.

MR. GATH, PLEASE COME FORWARD AND BE SWORN.

HEARING OFFICER DROOYAN: WOULD YOU SPELL YOUR NAME FOR THE RECORD, PLEASE.

THE WITNESS: YES, SIR. ELDON -- EXCUSE ME --

ELDON, E-L-D-O-N; GATH, G-A-T-H.

HEARING OFFICER DROOYAN: MADAM COURT REPORTER, WOULD YOU SWEAR THE WITNESS, PLEASE.

ELDON GATH,

A WITNESS HEREIN, CALLED BY AND ON BEHALF OF THE CITY HAVING BEEN FIRST DULY SWORN, WAS EXAMINED AND TESTIFIED AS FOLLOWS:

EXAMINATION

BY MR. BROGAN:

Q MR. GATH, WOULD YOU BASICALLY STATE YOUR BACKGROUND IN ABOUT 15 SECONDS.

A HI. MY NAME IS ELDON GATH. I'M THE PRESIDENT OF A CONSULTING COMPANY CALLED "EARTH CONSULTANTS INTERNATIONAL."

I'M A PAST PRESIDENT OF THE ASSOCIATION OF ENGINEERING GEOLOGISTS, A CERTIFIED ENGINEERING GEOLOGIST IN THE STATE OF CALIFORNIA, AND I'M CURRENTLY ON THE TECHNICAL ADVISORY COMMITTEE FOR THE BOARD OF PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS.

Q THANK YOU.

WOULD YOU PLEASE PROCEED WITH YOUR WORK AND CONCLUSIONS.

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

THE INVESTIGATION THAT I WAS BROUGHT IN TO ASSIST THEM WITH. AND -- AND I HOPE YOU UNDERSTAND HE DID A VERY NICE JOB. AND LEIGHTON CONSULTING ALSO DID A VERY NICE A JOB.

AND IT IS JUST INCREDIBLE THAT WE NOW HAVE THIS METRO OR THIS PARSONS'S REVIEW REPORT BACK ON IT. AND I WANT YOU TO UNDERSTAND THAT THIS WORK THAT THEY DID IS JUST EXTREMELY CONCLUSIVE TO -- TO ME AND TO EVERYONE WHO HAS LOOKED AT IT WITH AN HONEST -- HONEST EYE.

Q THEY MEANING LEIGHTON OR PB?

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.

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

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 THE ENTIRE WIDTH OF THE SCHOOL, VERY IMPRESSIVE EXCAVATIONS AND VERY EXCELLENT EXPOSURES THAT CLEARLY SHOWED THAT THERE WERE NO ACTIVE FAULTS THROUGH THE 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 REPORT SAYS, WE DID OPEN IT UP TO AMEC LEAD GEOLOGIST ON THIS PROJECT, AND SHE REVIEWED THE TRENCH AS WELL.

IN ADDITION TO THAT AND UNLIKE THE -- THE PREVIOUS WORK, WE DEVELOPED THIS VERY ROBUST AND MULTIDISCIPLINARY ASSESSMENT OF THE AGE CONTROL ON THE SEDIMENTS THAT WERE PRESENT AT THE SITE.

IN PB'S REPORT -- THIS IS THEIR GEOLOGY SECTION -- IT'S PRETTY SIMPLE. AND THE HIGHLIGHTED -- THE AGE OF THE YELLOW IS THE HOLOCENE. THAT EFFECTIVELY DEFINES THE AGE OF AN ACTIVE FAULT. IF IT DOESN'T BREAK THOSE SEDIMENTS, IT DOESN'T -- IT DOESN'T AFFECT ANYTHING

IN TERMS OF THE HAZARD.

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

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

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

THERE IS NO CONFIRMATION OF THAT, THAT THEY ARE, IN FACT, AN ACTIVE FAULT. IN FACT, THERE'S NO CONFIRMATION OF EVEN A FAULT THERE. THESE ARE JUST INTERPRETATIONS OF POTENTIAL OFFSETS IN A SIGNATURE THAT IS DRIVEN DOMINANTLY BY THOSE CPT PROBES.

SO WHY CALL THEM ACTIVE WITH NO CONFIRMATION? WELL, THE REASON IS, IS THAT THEY WERE ASSUMED TO BE ACTIVE BECAUSE OF A MODEL PARADIGM CONNECTING THESE WITH THE NEWPORT INGLEWOOD FAULT SEVERAL MILES TO THE SOUTH.

SO IN METRO'S TRANSECT 7, THEY -- THEY HAVE ACTUALLY A FAIRLY DECENT AMOUNT OF BORINGS, AND THEY DON'T DRAW ANY FAULTS THERE. THEY DRAW THEM WHERE THE CPT'S COME IN. AND, AGAIN, WHEN YOU DO A CPT, I MEAN, AS PHIL POINTED OUT, THIS IS ALL THE GEOLOGY YOU SEE. YOU SEE ASPHALT BECAUSE YOU'RE PUSHING THROUGH. THAT'S IT.

AND YOUR SIGNATURE COMES FROM A LITTLE THREE-INCH OR FOUR-INCH HOLE HERE THAT'S PUSHED THROUGH THE ASPHALT RESULTING IN AN ELECTRONIC FINGERPRINT OF THE SOILS.

NOW, THERE'S A LOT OF -- A LOT OF THINGS THAT CAN MAKE THAT CHANGE, AND INTERNALLY THERE'S A LOT OF VARIATIONS WITHIN CPT'S. IT IS AN EXCELLENT TOOL, BUT IT IS NOT THE ONLY TOOL THAT YOU WOULD BASE A DECISION LIKE THIS UPON.

WHEN YOU DRILL, YOU AT LEAST GET A THREE OR 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."

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

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

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.

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

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

IT FEELS LIKE THIS, QUITE FRANKLY, AND IT'S NOT 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.

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

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

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

BUT EVEN SO, THEY ARE NOT IDENTICAL AND THEY SHOULD NEVER BE INTERPRETED TO BE IDENTICAL. HERE, FOR EXAMPLE, IS A SET OF CPT'S. THE -- THE LIGHT GREEN ONES ARE AMEC, AND THE DARK GREEN ONES ARE LEIGHTON'S. THESE 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.

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

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

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

INTERPRETATIONS.

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

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

AND INSTEAD THEY'VE TURNED IT INTO A FAIRLY STEEP SLOPE TO THE NORTH SO THAT THEY CAN GET OVER HERE AND OFFSET IT AGAINST THIS THING, WHICH IS BASED ON TWO OR THREE DATA POINTS THAT WE CAN'T REVIEW, AND PUT THAT FAULT RIGHT THROUGH THE MIDDLE OF THOSE TWO BORINGS WHICH DO NOT ALLOW 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 THROUGH THE SCHOOL. THERE'S A NICE GENTLE EAST DIPPING SURFACE ON A MILLION-YEAR-OLD SURFACE. BUT RIGHT HERE THROUGH CONSTELLATION IS THE HINGE OF THE FOLD. WELL, IF THIS IS AN ACTIVELY GROWING STRUCTURE LIKE IT'S BEEN SEEMINGLY IMPLIED, THEN THIS IS OF SOME CONCERN I WOULD HOPE FOR YOU FOR THE DESIGN OF THE CONSTELLATION STATION 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 THROUGH BEVERLY HILLS ON THIS TRANSECT, BECAUSE INSTEAD OF ALLOWING THE SEDIMENTS TO DIP TO THE EAST LIKE THEY DO, THEY WERE ALL MADE HORIZONTAL. AND THEY'RE MADE HORIZONTAL BECAUSE OF THIS DATA POINT AND THIS DATA POINT, AND THIS DATA POINT OVER HERE BECAUSE THEY DON'T KNOW WHICH WAY THEY ARE DIPPING, SO THEY JUST DREW HORIZONTAL LINES.

AND THEN, OF COURSE, YOU CAN PUT FAULTS IN THEM BECAUSE YOU'VE GOT TO STEP THESE THINGS DOWN. OVER HERE 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 THIS IS VERY DISINGENUOUS. AND THIS IS NOT -- THIS BLACK LINE IS ACCURATE. THESE -- THESE ORANGE LINES ARE NOT. AND I THINK YOU NEED TO PAY ATTENTION TO THIS.

AND THAT'S THE END OF MY TALK. THANK YOU.

HEARING OFFICER DROOYAN: THANK YOU, MR. GATH.

MR. BROGAN, YOUR NEXT WITNESS.

MR. BROGAN: THANK YOU, YOUR HONOR.

OUR NEXT WITNESS, WE'RE GOING TO CALL MILES KENNEY.

LET'S CALL DR. SHLEMON BY VIDEO.

HEARING OFFICER DROOYAN: THAT'S FINE.

MR. BROGAN: THANK YOU.

HEARING OFFICER DROOYAN: WE HAVE THAT SET UP?

MR. BROGAN: IT'S ALL SET. I HOPE.

HEARING OFFICER DROOYAN: I'LL ADMIT THIS AS BASICALLY AN EXHIBIT. I THINK TECHNICALLY HE PROBABLY SHOULD HAVE BEEN SWORN IF GIVING TESTIMONY, BUT I THINK GIVEN THE TIME LIMITS AND THE NEED TO MOVE THIS PROCEEDING FORWARD, I THINK WE SHOULD ADMIT IT AS AN EXHIBIT.

MR. BROGAN: I APPRECIATE THAT, AND WE'LL MAKE A COPY FOR YOUR HONOR AND FOR THE RECORD. WE HAVE A COPY.

MAY WE BEGIN WITH THE -- GO AHEAD AND PLAY IT.

HEARING OFFICER DROOYAN: WE'RE MISSING THE SOUND. HOLD IT.

MR. BROGAN: IS THERE ANYTHING YOU CAN DO FOR THE -- THE VOLUME'S TURNED UP HERE. VOLUME'S UP HERE.

HEARING OFFICER DROOYAN: ALL RIGHT. LET'S TRY IT AGAIN.

MR. BROGAN: NO. SOMETHING'S -- VOLUME LEVEL IS TURNED UP.

HEARING OFFICER DROOYAN: AT THE WORST, WE'LL ADMIT IT AS AN EXHIBIT.

MR. BROGAN: WELL, WE CAN ADJUST. I DON'T KNOW HOW LONG IT WILL TAKE FOR THE AUDIO PERSON TO GET HERE, BUT WE CAN SWAP WITNESSES AROUND.

HEARING OFFICER DROOYAN: THAT'S FINE.

MR. YAROSLAVSKY: YEAH, WHY DON'T YOU DO THAT, MR. DROOYAN --

HEARING OFFICER DROOYAN: THAT'S FINE.

MR. YAROSLAVSKY: -- AND LET SEE IF THEY CAN FIX THAT IN THE MEANTIME.

HEARING OFFICER DROOYAN: I THINK THAT'S ABSOLUTELY RIGHT.

MR. BROGAN: ALL RIGHT. WE'LL CALL AS OUR NEXT WITNESS MR. MILES KENNEY. MR. KENNEY, PLEASE COME FORWARD AND BE SWORN. I'M SORRY. DR. KENNEY. PLEASE COME FORWARD AND BE SWORN.

HEARING OFFICER DROOYAN: PLEASE STATE YOUR FULL NAME FOR THE RECORD AND SPELL IT, PLEASE.

THE WITNESS: MILES, M-I-L-E-S; KENNEY, K-E-N-N-E-Y.

HEARING OFFICER DROOYAN: DR. KENNEY, WOULD YOU BE SWORN BY OUR COURT REPORTER, PLEASE.

MILES KENNEY,

A WITNESS HEREIN, CALLED BY AND ON BEHALF OF THE CITY HAVING BEEN FIRST DULY SWORN, WAS EXAMINED AND TESTIFIED AS FOLLOWS:

EXAMINATION

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BY MR. BROGAN:

Q MR. KENNEY, WOULD YOU BRIEFLY DESCRIBE YOUR PROFESSIONAL BACKGROUND IN 15 SECONDS OR LESS.

A YES. I'M A PROFESSIONAL GEOLOGIST IN THE STATE OF CALIFORNIA. I HAVE A PH.D. IN GEOLOGY. MY SPECIALITIES ARE GEOMORPHOLOGY, SEISMIC HAZARDS, FAULT SURFACE RUPTURES, STRUCTURAL GEOLOGY, AND TECTONICS. AND I HAVE ABOUT, UNBELIEVABLY -- I CAN'T BELIEVE IT -- 22 YEARS OF EXPERIENCE.

HEARING OFFICER DROOYAN: SPEAK INTO THE MICROPHONE, AND MAYBE JUST SLOW UP A LITTLE BIT FOR OUR COURT REPORTER.

THE WITNESS: OKAY. AND ABOUT 22 YEARS EXPERIENCE IN THE FIELD, PRIMARILY WORK IN SOUTHERN CALIFORNIA.

OKAY. I APPRECIATE THIS OPPORTUNITY TO PRESENT THIS DATA. I'VE BEEN WORKING ON THIS PROJECT FOR BEVERLY HILLS HIGH SCHOOL SINCE FEBRUARY 2011. I'VE HAD THE OPPORTUNITY TO REVIEW ALL OF THE SUBSURFACE REPORTS AS THEY WERE ISSUED.

AT THE BEGINNING OF MY WORK IN FEBRUARY OF LAST YEAR, I PERFORMED A GEOMORPHOLOGY STUDY. PRIOR TO HAVING ANY SUBSURFACE STATUS SO ESSENTIALLY THE MACTEC OF 2010 REPORT WAS THE FIRST SUBSURFACE STUDY DONE IN THE AREA. 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 "PRELIMINARY GEOMORPHIC STRATIGRAPHIC AND STRUCTURAL EVALUATION OF THE CENTURY CITY AREA." THE ROLE THAT I DECIDED TO TAKE IN THIS PROJECT OTHER THAN STUDYING THE GEOMORPHOLOGY, WHICH PARSONS AGREES IS A VERY IMPORTANT ASPECT OF FAULT EVALUATION, WAS ALSO JUST TO REEVALUATE THE PARSONS'S DATA, SORT OF SEE HOW THEY EVALUATED THE FAULTS; ALSO TO LOOK AT THE LOCAL KINEMATICS AS WELL AND SEE IF WE COULD EXPLAIN THE WEST BEVERLY HILLS LINEAMENT.

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

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

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

PROFESSIONAL OPINION BASED ON THE DATA.

AT LEAST ONE FAULT IDENTIFIED BY PARSONS WITHIN THE -- AND THAT'S PARSONS-BRINCKERHOFF I'M REFERRING TO, IN THEIR 2011 REPORT. SO AT LEAST ONE OF THE FAULTS THAT PARSONS IDENTIFIES WITHIN THE WEST BEVERLY HILLS LINEAMENT FAULT ZONE IS LIKELY REAL.

SO I DID IDENTIFY A FAULT IN MY REEVALUATION OF THEIR DATA. BUT IT'S CONSIDERED PART OF WHAT I WOULD CONSIDER PART OF THE SANTA MONICA BOULEVARD FAULT ZONE. NOW, THAT'S A NAME I'VE CAME UP WITH TO NAME THE FAULT ZONE THAT I AGREE EXISTS ALONG SANTA MONICA BOULEVARD.

THERE'S A REASON I'M NOT CALLING IT THE SANTA MONICA FAULT ZONE, AND I'LL DESCRIBE THAT LATER. BUT I BASICALLY THINK THAT THE FAULTS ALONG SANTA MONICA BOULEVARD ACTUALLY ARE SECONDARY FAULTS AND NOT THE PRIMARY BASAL REVERSE FAULT TO THE SANTA MONICA FAULT ZONE.

SO -- SO WE WILL TALK ABOUT THIS OTHER FAULT THAT I BELIEVE IS SORT OF NESTLED WITHIN THE WEST BEVERLY HILLS LINEAMENT FAULT ZONES, BUT IT ACTUALLY STRIKES ABOUT 90 DEGREES, BECAUSE THE PARSONS'S DATA, THEY HAD NO STRIKE DATA WITH ANY OF THEIR FAULT CROSS-SECTION DATA. SO THEY WENT DOWN. THEY'D FIND SOME FAULTS, BUT YOU REALLY WITH THE DATA THAT THEY HAD HAD NO IDEA WHICH WAY THAT THESE THINGS WOULD ACTUALLY TREND.

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

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

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

THEN, ALSO, THE SANTA MONICA BOULEVARD FAULT ZONES ARE SECONDARY UPPER PLATE FAULTS TO THE SANTA MONICA FAULT ZONE PROPER. OKAY. SO THAT IS INFERRING THAT WE DON'T KNOW WHERE THE BASAL FAULT IS TO THE SANTA MONICA 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 THE THINGS THAT I DID: PUBLISHED SCIENTIFIC REPORTS AND MAPS; I DID THAT FOR A NUMBER OF MONTHS. I ALSO DID A GEOMORPHIC STUDY. I ALSO HAD THE SUBSURFACE WORK BY MACTEC, THE 2010 REPORT. IT ENDS UP TURNING OUT TO BE, I THINK, VERY IMPORTANT.

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

AND THEN THERE'S ME. I AM THE PRESIDENT OF KENNEY 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.

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

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

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

I'LL ALSO BE SHOWING YOU AN ANCIENT CHANNEL THAT FLOWED RIGHT THROUGH CENTURY CITY. AND THEN THERE'S THESE UNDERLYING SEDIMENTS THAT I JUST PACKED INTO A COUPLE, BUT I WANTED TO NOTICE -- WANT YOU TO NOTE ONE THING. THIS EROSION ABOUT 150,000 YEARS OLD, PRETTY WELL DATED BY SOIL TECTONICS. THE UNIT RIGHT BELOW IT, FOR EXAMPLE, IN T-4 IS RIGHT -- CB-13 ON TRANSECT 4 WHICH IS VERY CLOSE TO PARSONS T-10, THESE SEDIMENTS ARE 500,000 YEARS OLD. SO YOU JUST GO DOWN ABOUT 40, 50 FEET, AND YOU'RE ALREADY AT A HALF-MILLION-YEAR-OLD SEDIMENTS.

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

I'M GOING TO SPEND A LITTLE TIME ON THIS FIGURE. THE CHANNEL FLOWED RIGHT THROUGH THE CHEVIOT HILLS. SO 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 THE CHANNEL FLOWED THROUGH HERE WAS BECAUSE OF THE FAULTING ALONG, I BELIEVE, SECONDARY FAULT, THE SANTA MONICA BOULEVARD FAULT ZONE WHICH SPLAYED OUT IN THIS AREA. MOST OF THESE FAULTS HAVE NORMAL OFFSET WHICH PRODUCES EXTENSION OF, YOU KNOW, THE VALLEY TO GO DOWN. AND I BELIEVE THAT THAT CUT APART THESE SURFACES HERE, DROPPED THIS AREA DOWN, THE CHANNEL WAS CAPTURED AND FLOWED OUT INTO THIS SURFACE.

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

SO HERE IS THE CENTURY CITY AREA, AND THESE ARE THE VARIOUS TRANSECTS ASSOCIATED WITH IT, THE PARSONS'S REPORT. AND I SHOW YOU THE AGE DATES HERE: 40,000 YEARS 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

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

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

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

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

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

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

TO THE PREVIOUS SLIDE?

THE WITNESS: YEAH, NO PROBLEM.

MR. YAROSLAVSKY: THIS "F" LINE, WHERE IS THAT --

THE WITNESS: OKAY.

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

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

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

MR. YAROSLAVSKY: WHERE'S CONSTELLATION?

THE WITNESS: CONSTELLATION'S RIGHT HERE. AND HERE'S THE PROPOSED CONSTELLATION AVENUE.

MR. YAROSLAVSKY: OKAY. THANK YOU.

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

BUT THIS IS WHERE I'M PROPOSING A FAULT GOES THROUGH. NOW, I BELIEVE THAT THE FAULT IS INACTIVE, BASED ON MY CROSS SECTIONS. THAT WOULD NEED TO BE CONFIRMED,

BUT THE INITIAL DATA HAS SUGGESTED IT IS INACTIVE.

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

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

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

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

THIS UP, I NOTICED THAT PARSONS HAD PUT IN A SERIES OF FAULTS HERE, BASICALLY THE WEST BEVERLY HILLS --WEST BEVERLY HILLS LINEAMENT FAULT ZONE. AND WHAT THEY HAD DONE IS, THE SCALE OF THIS, THE VERTICAL SCALE IS TEN TIMES THE HORIZONTAL SCALE.

WHAT THAT TENDS TO DO IS TO IF YOU -- WELL, I'LL SHOW YOU ON THE NEXT SLIDE. THAT FOLD BASICALLY LOOKS LIKE THAT IF YOU MAKE THE SCALE LOOK ONE TO ONE. SO HORIZONTAL EQUALS VERTICAL. SO YES, THERE'S A FOLD THERE, BUT IT'S NOT QUITE AS DRAMATIC AS YOU MIGHT THINK BY LOOKING AT IT WHEN IT'S EXAGGERATED.

SO IF YOU'RE LOOKING AT THIS AND LOOKING AT A LAYER OF GRAVEL HERE AND A LAYER OF GRAVEL THERE WITH THE EXAGGERATION OF 10 TO 1, THIS IS GOING TO BE TEN TIMES HIGHER THAN THAT THAN IT IS IN REALITY. AND YOU MIGHT REALLY -- YOUR EYE AS A HUMAN BEING MIGHT PROCESS IT AND WANT TO PUT A FAULT HERE.

WHAT I NOTICED IS THAT I TOOK MY RULER AFTER I PLOTTED THIS ALL UP, AND I PUT MY RULER, AND I HAD ESSENTIALLY A STRAIGHT LINE. THAT'S WHEN I REALIZED THAT FOLDING AND TILTING, SOMETHING THAT WASN'T REALLY, I DON'T BELIEVE, ADMINISTERED APPROPRIATELY OR CONSIDERED IN THE PARSONS'S EVALUATION -- IT TURNS OUT TO BE EXTREMELY IMPORTANT.

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.

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

I'LL JUST DO THIS ONE QUICKLY. YOU'VE SEEN TRANSECT 4 A MILLION TIMES, BUT I DID THE SAME THING, JUST LOOKED AT THE GEOLOGY, LOOKED FOR GRAVEL OVER CLAY LAYERS, -- LIKE THIS ONE'S VERY, VERY DISTINCTIVE -- AND ONCE I ASSUMED THERE WAS A TILT TO THE -- IF I MADE THAT ASSUMPTION THAT THE UNITS WERE TILTED, YOU JUST GET A BEAUTIFUL, BEAUTIFUL CROSS SECTION LIKE THIS. THIS IS TO 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 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 PLANTS DIE ON THE HILLSIDES, AND THE ROOTS HAVE BROKEN UP ALL OF THE ROCKS, BUT THE STORMS ARE STILL POWERFUL. WE VERY COMMONLY WILL GET A MASS FLUX OF VERY POWERFUL FLOW EVENTS THAT BRING DOWN A LOT OF GRAVELS, CAUSE EROSION AT THE BOTTOM, AND THEN AS THE CLIMATE SLOWLY CHANGES, EVERYTHING SLOWS DOWN, AND WE GET FINER AND FINER GRAIN SEDIMENTS. AND THEN IT KIND OF SHUTS DOWN, AND WE GET A SERIES OF CLAYS AT THE TOP. AND THESE ARE DOCUMENTED ALL OVER THE MOJAVE DESERT AND AROUND THE WORLD, ACTUALLY.

AND WE'LL ALSO GET SOILS AT THE TOP OF THESE, AN "A" HORIZON, "B" HORIZON, "K" HORIZON WITH CARBONATE AND OXIDES, MANGANESE AND SO ON. NOW, THIS IS REALLY IMPORTANT BECAUSE THESE CLAY LAYERS ARE VERY COMMONLY FOR -- I WOULD SAY MOST OF THE MARKER BEDS, NOT ALL OF THEM,

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

AND AS YOU'LL SEE, IF YOU EVALUATE WITH FINDING UPWARD SEQUENCES -- IN OTHER WORDS, IF WHEN PARSONS LOOKED AT A MARKER BED THAT WAS MADE OF -- HAD A -- WITH CLAY WITH A LOT OF SOIL IN IT, IF IT DISAPPEARED, I NOTICED THAT THEY OFTEN THOUGHT THAT WAS A FAULT. BUT WHAT I DISCOVERED WAS, IT WAS OFTEN -- OR ANOTHER INTERPRETATION IS THAT THAT SOIL THAT WOULD COME ACROSS WAS JUST SIMPLY ERODED AWAY BY AN EROSION SURFACE UP HERE. AND I WILL SHOW YOU THAT IN A MOMENT.

SO IT JUST PROVIDES A WHOLE NEW WAY TO LOOK AT THEIR DATA. AND I'VE EVALUATED ALL THEIR TRANSECTS EXCEPT FOR T-3, I BELIEVE.

SO HERE'S TRANSECT 4. I KNOW THIS IS WAY TOO MUCH TO LOOK AT, BUT ANYTHING THAT HAD A SOIL PARAMETER LIKE THE MANGANESE OXIDE, CARBONATE, BT HORIZON, I SHADED IN PURPLE.

AND TO ME AS A GEOLOGIST WHO'S DONE A LOT OF FAULT TRENCHING -- AND MAYBE YOU CAN REMEMBER SOME OF THE PICTURES OF THE FAULT TRENCH. BUT THIS IS LIKE A BIG FAULT TRENCH. THIS LOOKS MORE NATURAL TO ME IN TERMS OF EROSION SURFACES AND FINDING UPWARD SEQUENCE RIGHT HERE AND THEN THE CLAY AT THE TOP.

AND THAT'S -- I KNOW YOU CAN'T SEE IT FROM WHERE

-- 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.

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

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

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

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

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

THAT LEIGHTON -- OR NOT LEIGHTON -- BUT PARSONS PUTS FAULTS THROUGH HERE IS THE LOSS POSSIBLY OF THESE UNITS OVER HERE. THESE ARE QUITE DRAMATIC, THESE TWO UNITS. THEY ARE CARBONATE LAYERS. THEY ARE PRETTY DISTINCTIVE. YOU CAN CARRY THEM ACROSS MOST OF THE STUDY AREA.

BUT I BELIEVE HERE, WHAT THEY DIDN'T NOTICE IS THAT RIGHT ABOVE THEM HERE IS A VERY WELL-DEVELOPED EROSION SURFACE. SO INSTEAD OF FAULTING, AN ALTERNATIVE INTERPRETATION IS THAT THIS EROSION SURFACE JUST ERODED THOSE UNITS OUT.

SO AGAIN, THIS IS -- LET'S SEE. ONE OF THE POSSIBLY TWO FAULTS, HOWEVER -- OH. YEAH. SO THEN NOW WE'RE GOING TO TALK ABOUT THIS FAULT "F." OKAY.

SO WE WERE JUST LOOKING AT TRANSECTS ORIENTED THIS WAY, CONSTELLATION T-4, T-7. I SEE NO FAULTS. HOWEVER, WHEN I LOOKED AT T-7, WHICH IS PERPENDICULAR TO THAT AND RUNS PERPENDICULAR TO THE SANTA MONICA BOULEVARD FAULT ZONE, I SEE SOMETHING DIFFERENT. HERE IS MY BENEDICT CANYON BASAL SURFACE HERE, 150,000 YEARS OLD. THIS IS THE SAME EROSION SURFACE LEIGHTON IDENTIFIED DOWN TO THE SOUTH AT THE HIGH SCHOOL.

THIS BASICALLY -- THIS EROSION SURFACE GOES AROUND THE HILL THAT BEVERLY HILLS IS BUILT ON. BUT HERE'S THE FAULT. AND BASICALLY THESE OLDER 500-, 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 DRAWING THIS, MY EYE WOULD SORT OF OPEN UP WHEN SOMETHING WAS OFF ONLY BY TWO OR THREE FEET. I MEAN, IT WAS REALLY EYE-POPPING, EYE-DRAINING, I GUESS, TO PUT THIS TOGETHER. 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 THE FAULT F OVER ON TRANSECT 1-A. BUT IT'S NOT OFFSETTING THESE UNITS. SO THIS IS ABOUT 150,000 YEARS OLD. IT MIGHT OFFSET THAT. I'M NOT SURE.

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

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

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

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

HAVE NO WAY TO DATE THEM.

SO THIS IS WHAT I'D RECOMMEND IF ANY FUTURE 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.

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

SO WE -- SO THIS IS BASICALLY WHERE THEY FOUND THE FAULT. THEY DID GEOPHYSICAL SEISMIC LINES, TWO OF THEM WITH SOME BORINGS. THEY ALSO FOUND A GROUNDWATER 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.

AND JUST TO LET YOU KNOW, I DO AGREE THAT THERE ARE FAULTS RUNNING THROUGH HERE IN THE SANTA MONICA BOULEVARD FAULT ZONE, AND THEY PROBABLY DO TURN UP TOWARD THIS DIRECTION. SO THIS IS PROBABLY, AS YOU'LL SEE LATER, A PULL APART BASIN AT THE EASTERN END OF THE SANTA MONICA BOULEVARD FAULT ZONE. THE FAULTS PROBABLY SPLAY OUT TO THIS AREA TO PRODUCE THE ANCIENT CHANNEL TO ALLOW THE CHANNEL TO GO THROUGH IT.

MR. YAROSLAVSKY: CAN I --

THE WITNESS: HOWEVER, I BELIEVE THERE'S A GOOD CHANCE THE FAULTS ARE INACTIVE.

MR. YAROSLAVSKY: CAN I ASK YOU JUST AGAIN --

THE WITNESS: YES.

MR. YAROSLAVSKY: -- TO POINT OUT WHERE WE ARE? WHERE IS SANTA MONICA BOULEVARD ON THIS?

THE WITNESS: OH, I'M SORRY. YES, HERE'S SANTA MONICA BOULEVARD.

MR. YAROSLAVSKY: OKAY. SO THIS IS PURPLE EDGED, PURPLE --

THE WITNESS: THAT'S NOT MINE. THAT'S PARSONS'S.

MR. YAROSLAVSKY: AND WHAT DO THEY CLAIM THAT IS?

THE WITNESS: PARSONS CLAIMS THAT -- I KEEP

LOSING MY MOUSE -- THIS IS THE WEST BEVERLY HILLS LINEAMENT FAULT ZONE.

MR. YAROSLAVSKY: YES, I UNDERSTAND. BUT WHAT IS THE RED, MAGENTA, WHATEVER IT'S CALLED, PURPLE --

THE WITNESS: OH, THE PURPLE. THE PURPLE IS BASICALLY ME PUBLICLY SAYING I AGREE WITH MACTEC THAT THIS IS POTENTIALLY A FAULT HERE. SO THAT'S THE ONLY DIFFERENCE. I'M SAYING THAT THEY PLOTTED A FAULT HERE, AND I'M IN AGREEMENT THAT THERE'S LIKELY A WELL-DEVELOPED FAULT THERE.

MR. YAROSLAVSKY: HOW FAR SOUTH OF SANTA MONICA BOULEVARD IS THAT FAULT?

THE WITNESS: I DON'T KNOW THE SCALE EXACTLY. ACTUALLY, I DON'T KNOW WHAT --

MR. YAROSLAVSKY: LESS THAN A COUPLE OF HUNDRED FEET?

THE WITNESS: YEAH, IT'S PROBABLY SOMETHING LIKE THAT. YEAH.

MR. YAROSLAVSKY: AND THEN THE RED, RED LINE HERE, IT'S RED SQUARES.

THE WITNESS: YEAH. THIS ONE IS WHAT PARSONS MAPPED IN 2011. SO AFTER THE MACTEC REPORT, ONCE THEY FINISHED THEIR STUDY IN 2011, THEY PLOTTED THE FAULT RIGHT HERE.

MR. YAROSLAVSKY: OKAY. AND THE EASTERN PART OF

THAT LINE IS WHERE?

THE WITNESS: THIS ONE?

MR. YAROSLAVSKY: THE EASTERN END, YEAH. RIGHT THERE. THAT'S CORRECT.

THE WITNESS: THAT'S IT. THEY STOPPED IT RIGHT THERE.

MR. YAROSLAVSKY: AND WHERE IS THAT? IS THAT CENTURY PARK EAST, AVENUE OF THE STARS? WHERE?

THE WITNESS: THIS IS --

MR. YAROSLAVSKY: THIS IS AVENUE OF THE STARS.

THE WITNESS: YEAH. IT'S PRETTY CLOSE. I THINK THIS IS -- HERE'S CENTURY PARK -- YEAH, IT'S PRETTY CLOSE TO THAT ACTUALLY. I THINK THIS IS JUST TO THE LEFT OF CENTURY PARK WHERE IT COMES THROUGH.

MR. YAROSLAVSKY: AND THE PURPLE ONE, AGAIN, YOU AGREE THAT -- THAT'S YOUR MAPPING OR OUR MAPPING? THE PURPLE HASH THING.

THE WITNESS: THIS ONE?

MR. YAROSLAVSKY: YES.

THE WITNESS: THAT IS MACTEC'S REPORT. THIS IS WHERE MACTEC PLOTTED THE FAULT RIGHT UP TO HERE, AND THIS IS WHERE I FOUND IT IN MY EVALUATION OF THE PARSONS'S DATA. SO I BELIEVE THAT PARSONS --

MR. YAROSLAVSKY: SO YOU THINK IT GOES CONSIDERABLY FARTHER EAST THAN THE CITY LIMITS OF BEVERLY

HILLS AND L.A.?

THE WITNESS: NO, I DIDN'T -- ACTUALLY, THIS GOT IN THE WAY. I HAD STOPPED IT ROUGHLY HERE. I REALLY DON'T KNOW HOW --

MR. YAROSLAVSKY: WHERE IS THAT?

THE WITNESS: I REALLY DON'T KNOW HOW FAR EAST IT GOES. I REALLY DON'T HAVE ANY DATA TO CONTROL IT.

MR. YAROSLAVSKY: WELL, IF THE GREEN LINE OVER HERE IS AVENUE OF THE STARS, WHERE'S THE HIGH SCHOOL ON THIS MAP?

THE WITNESS: THE HIGH SCHOOL IS RIGHT IN HERE.

MR. YAROSLAVSKY: SO IT'S EAST OF -- EAST OF THE SANTA MONICA BOULEVARD/WILSHIRE INTERCHANGE -- INTERSECTION; CORRECT?

THE WITNESS: WILSHIRE'S UP HERE. INTERSECTION OF WILSHIRE --

MR. YAROSLAVSKY: I KNOW BUT --

THE WITNESS: -- AND SANTA MONICA IS UP HERE.

MR. YAROSLAVSKY: YEAH, YOU'RE RIGHT. I'M SORRY.

THE WITNESS: THAT'S ALL RIGHT.

MR. YAROSLAVSKY: THE EASTERN -- THE -- I GUESS IT'S THE EASTERN PART OF THE END OF THIS PURPLE LINE, FAULT, IS EAST OF THE HIGH SCHOOL; CORRECT?

THE WITNESS: THAT'S CORRECT.

MR. YAROSLAVSKY: THANK YOU.

THE WITNESS: OKAY. AND THERE'S -- THERE'S GOOD EVIDENCE, THOUGH, THAT THIS FAULT IS INACTIVE, BASED -- AND I'LL SHOW YOU SOME MORE EVIDENCE ALONG THOSE LINES.

MR. BURESH: BOARD MEMBER YAROSLAVSKY, IF I CAN HELP CLARIFY. TIM BURESH.

THAT LINE BASICALLY IS RUNNING THROUGH THE FIST LINE OF DEVELOPMENTS JUST SOUTH OF SANTA MONICA.

MR. YAROSLAVSKY: HE CLARIFIED IT FOR ME. THANK YOU, MR. BURESH.

THE WITNESS: SO HERE WE GO.

AND THIS JUST SORT OF CLARIFYING AND LOOKING AT THE GEOLOGIC MAP, I'VE PUT TOGETHER WHERE PARSONS PUT THEIR FAULT THAT I CALL "F," AND THEY CALL IT "HOLOCENE ACTIVITY INDETERMINATE" WHICH IS MIND BOGGLING TO ME BECAUSE THEY DIDN'T HAVE ANY DETERMINATE HOLOCENE ACTIVITY ON ANY FAULT, BUT.

BUT IT SOMEWHAT LINES UP WITH THAT LITTLE FAULT THAT I WAS SPECULATING MIGHT BE THERE. BUT IT'S VERY DIFFICULT FOR ME TO IMAGINE THAT THIS FAULT'S ACTIVE. THERE ARE SO MANY MARKER BEDS THAT I MAPPED OF GOING OVER THE TOP IT. AND I THINK THERE'S A GOOD PROBABILITY THIS 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

BEVERLY HILLS LINEAMENT FAULT ZONE BY PARSONS IS LIKELY REAL BUT STRIKES NORTHEAST/SOUTHWEST AND IS PART OF THE SANTA MONICA BOULEVARD FAULT ZONE. THAT'S FAULT F.

NOW, I WANT TO GET INTO MY GEOMORPHIC ANALYSIS. I LOOKED AT PRESERVING SURFACES --

HEARING OFFICER DROOYAN: DR. KENNEY, HOW MUCH LONGER DO YOU THINK YOU'RE GOING TO BE? BECAUSE I WANT TO --

THE WITNESS: OH, OKAY. I'LL GO THROUGH IT QUICKLY.

HEARING OFFICER DROOYAN: ALL RIGHT. BECAUSE I DO WANT TO TAKE A BREAK, CERTAINLY FOR OUR COURT REPORTER.

THE WITNESS: OH, WOULD YOU LIKE TO DO THAT NOW?

HEARING OFFICER DROOYAN: HOW LONG ARE YOU GOING TO BE?

THE WITNESS: PROBABLY ANOTHER AT LEAST 15 MINUTES.

HEARING OFFICER DROOYAN: ALL RIGHT. WHY DON'T WE TAKE A SHORT BREAK NOW --

THE WITNESS: AND I'LL BE ANOTHER 10 MINUTES.

HEARING OFFICER DROOYAN: LET'S LET OUR COURT REPORTER TAKE A BREAK.

THE WITNESS: OKAY.

HEARING OFFICER DROOYAN: WE'LL TAKE A 10 MINUTE

BREAK. COME BACK AT 3:35.

(A BRIEF RECESS WAS TAKEN.)

HEARING OFFICER DROOYAN: OKAY. LET'S GET STARTED AGAIN.

DR. KENNEY.

MR. KENNEY: YES.

HEARING OFFICER DROOYAN: WILL YOU RESUME YOUR PRESENTATION. THANK YOU.

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

THIS IS RATHER COMPLICATED, I ADMIT. BUT I UTILIZED A BEAUTIFUL TOPOGRAPHICAL MAP, THE SAME ONE THAT DOLAN USED IN 1992 FOR HIS STUDY OF THE SANTA MONICA FAULT ZONE. THIS ESSENTIALLY IS THE SANTA MONICA BOULEVARD 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.

SO DOLAN IN 1992 AND SEEK (PHONETIC) PROPOSED THAT THIS IS A REVERSE FAULT, THAT THIS IS THE PRIMARY STRAND OF THE SANTA MONICA FAULT ZONE. AND IF THAT WAS THE CASE, THIS AREA ON THE -- TOWARD THE NORTHWEST SHOULD BE HIGHER THAN THE SEDIMENTS OVER HERE IN ORDER TO PRODUCE 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."

SO HERE IS THAT GREEN SURFACE COMING DOWN HERE. YOU CAN SEE THE DRAINAGE IS CUTTING INTO THE OLD FANNED SURFACE. THESE -- THIS SURFACE CORRELATES. WE DATED IT RIGHT HERE ON WILSHIRE BOULEVARD AT 80- TO -- AROUND 80- 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.

SO THIS IS THE AREA THE DOLAN MAP IS THE ACTUAL SCARP TO THE SANTA MONICA BOULEVARD -- OR THE SANTA MONICA FAULT ZONE, SAYING THAT THIS SIDE WENT UP. AND IT'S REASONABLE IF YOU LOOK AT IT AT FIRST GLANCE BECAUSE SANTA MONICA IS HERE. THERE IS A LINEAMENT, AND THERE IS THIS SLOPE; HOWEVER, WHEN YOU REALLY PUT THIS CROSS SECTION TOGETHER AND YOU KNOW THE AGES OF THESE SURFACES, YOU CAN SEE THAT IT JUST GOES STRAIGHT ACROSS.

SO THIS INDICATES A COUPLE OF THINGS. IT INDICATES THAT THERE HASN'T BEEN A LOT OF OFFSET IN THIS WHOLE FAULT ZONE TO BEGIN. AND ALSO CLEARLY SHOWS THAT IS PROBABLY NOT A REVERSE STRIKE SLIP FAULT; THAT IT'S PROBABLY SOMETHING ELSE, BUT CERTAINLY NOT REVERSE.

SO THAT INDICATES THAT THIS IS PROBABLY -- THE SANTA MONICA BOULEVARD FAULT ZONE IS PROBABLY NOT THE PRIMARY BASAL SHEAR FAULT OF THE SANTA MONICA FAULT ZONE, BUT ACTUALLY UPPER PLATE SECONDARY FAULTS.

HERE IS -- LET'S TAKE A LOOK AT CROSS SECTION B TO "B PRIME" DOWN THROUGH HERE, SO A LITTLE FURTHER DOWN SANTA MONICA BOULEVARD. THIS IS THE MORMON TEMPLE. THE STUDY AREA IS UP IN HERE. SO THIS CROSS SECTION IS A LITTLE BIT OUT OF THE PARSONS'S 2011 STUDY AREA.

AND THIS CROSS SECTION IS QUITE STARTLING. HERE'S THAT 300-T SURFACE, IF YOU WILL, CORRELATED ACROSS HERE, AT LITTLE LOWER ELEVATIONS. HERE IS THE SANTA MONICA BOULEVARD FAULT ZONE WHICH WAS MAPPED AS THE SANTA MONICA FAULT ZONE PROPER BY DOLAN. AND YOU CAN SEE IF THIS WAS A REVERSE FAULT, THIS SURFACE SHOULD BE UP HERE TO MAKE THAT SEVEN- TO NINE-METER SCARP THAT HE PUBLISHED. AND WE, IN FACT, SEE THE EXACT OPPOSITE.

SO THIS SIDE HAS GONE DOWN RELATIVE TO THIS SIDE. SO I DON'T BELIEVE THAT THIS IS THE ACTUAL PRIMARY SANTA MONICA BOULEVARD FAULT ZONE. IT'S A SECONDARY FAULT ZONE. AND THAT LENDS A LITTLE MORE CREDENCE TO THE FAULT ZONE POTENTIALLY BEING INACTIVE.

MR. YAROSLAVSKY: WHERE IS THE PRIMARY FAULT ZONE?

THE WITNESS: WE DON'T KNOW.

MR. YAROSLAVSKY: BUT YOU DO KNOW THERE IS ONE; RIGHT?

THE WITNESS: I'M SPECULATING THAT THERE IS ONE BECAUSE ONLY A MILE AND A HALF TO THE WEST WHERE DOLAN AND CATCHINGS AND OTHER PEOPLE HAVE DONE SOME SEISMIC LINES, THEY HAVE IDENTIFIED THE SANTA MONICA FAULT ZONE THERE. THEY'RE DIPPING IN ABOUT 20 TO 30 DEGREES TO THE NORTH. IT'S HARD TO IMAGINE THAT YOU ONLY COME OVER HERE A COUPLE OF MILES AND THE FAULT IS DIPPING ABOUT 75 TO 80 DEGREES.

SO WHAT I'M SPECULATING, THEY -- DOLAN TRENCHED DOWN THERE AT THE V.A. HOSPITAL, NEVER FOUND THE ACTUAL FAULT. IT'S DIFFICULT -- IT MIGHT BE SOMEWHAT BLIND TOWARD THE SURFACE, AND IT WOULD BE RELATIVELY DIFFICULT MAYBE TO TRENCH IT. SO WHAT I'M SPECULATING IS THAT THIS FAULT ZONE MIGHT BE BLIND WITHIN THE CHEVIOT HILLS. THUS THE POTENTIAL THAT ALL OF THESE SEDIMENTS HERE WOULD BE HANGING-WALL SEDIMENTS, AND THERE'S THE POTENTIAL FOR SOME FAULTING HERE. BUT REALLY IT'S UNKNOWN AT THIS TIME.

MR. YAROSLAVSKY: SO YOU DON'T KNOW WHERE THE PRIMARY FAULT IS?

THE WITNESS: THAT'S CORRECT.

MR. YAROSLAVSKY: IT COULD BE UNDER SANTA MONICA BOULEVARD?

THE WITNESS: THIS IS TRUE. OH, NO, I DON'T 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 HAVE SOME MORE INFORMATION HERE I MIGHT NOT GET TO TODAY.

MR. YAROSLAVSKY: IF IT'S NOT THERE, WHERE WOULD IT BE HYPOTHETICALLY?

THE WITNESS: IT WOULD BE TO THE SOUTH. IT WOULD BE JUST LIKE THIS CROSS SECTION HERE, WHERE HERE IS SANTA MONICA BOULEVARD; AND THIS IS TO THE NORTH, THIS IS 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 RED LINE, IS IN CHEVIOT HILLS?

THE WITNESS: THIS IS THE CHEVIOT HILLS. THIS IS THE HILLCREST COUNTRY CLUB TO THE SOUTH JUST A FEW MILES.

MR. YAROSLAVSKY: YEAH. SO -- SO THE -- SO YOU'RE SAYING -- IT'S YOUR TESTIMONY THAT THERE IS NO FAULT -- ACTIVE FAULT UNDER SANTA MONICA BOULEVARD?

THE WITNESS: NO. I'M SAYING THAT --

MR. YAROSLAVSKY: IS THAT TRUE --

THE WITNESS: THERE'S A STRONG -- BASED ON THE DATA THAT I HAVE NOW, IT'S NOT CONCLUSIVE, BUT THE DATA THAT I HAVE NOW, THERE'S VERY STRONG EVIDENCE THAT THE POSSIBILITY -- STRONG POSSIBILITY THAT THE FAULT ZONE ALONG SANTA MONICA BOULEVARD IS INACTIVE, BASED ON GEOMORPHOLOGY AND EVALUATION OF THE CROSS SECTIONS AND THE AGE DATA THAT WE HAVE OF THE SURFACE SEDIMENTS.

MR. YAROSLAVSKY: BUT IT'S NOT CONCLUSIVE AND BASED ON THE DATA YOU HAVE NOW? OUR EXPERTS --

THE WITNESS: THAT'S RIGHT. IT WOULD --

MR. YAROSLAVSKY: -- OUR EXPERTS ARE --

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.

MR. YAROSLAVSKY: THANK YOU.

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

THE WITNESS: ABSOLUTELY, IT WOULD.

MR. FASANA: -- EL MONTE STATION?

THE WITNESS: YES. IF YOU WERE TO GO TO THE SANTA MONICA BOX AND PERFORM A MORE DETAILED FAULT INVESTIGATION, PARTICULARLY IF SOMEHOW -- I DON'T KNOW HOW YOU WOULD DO IT LOGISTICALLY, BUT IF YOU COULD DO FAULT TRENCHING THERE ACROSS THAT AREA, I FEEL FAIRLY CONFIDENT THAT YOU -- THAT YOU WOULDN'T HAVE TO GO EXCESSIVELY DEEP.

THE THING THAT'S IN YOUR FAVOR IS THAT, I BELIEVE THAT THERE'S VERY OLD SEDIMENTS THAT ARE EXPOSED ON THE SURFACE. SO ALL YOU'D HAVE TO FIND IS THREE OR FOUR LAYERS HORIZONTAL ACROSS THERE, AND IT MIGHT BE A DONE DEAL. BUT IT WOULD REQUIRE THAT TO PROVIDE SUFFICIENT 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 CHEVIOT HILLS. HERE'S THAT BLIND FAULT THAT I'M POSTULATING COMES THROUGH HERE. AND HERE'S THE SANTA MONICA BOULEVARD FAULT ZONE. LOOK HOW LINEAR IT IS. THAT SUGGESTS IT STRIKES THE FAULTING. HERE ARE ALL THE DRAINAGES COMING THROUGH. LET'S GO AHEAD AND TAKE A LOOK IF THERE'S A CHANGE IN THE PATTERN OF THESE DRAINAGES CROSSING THE SANTA MONICA BOULEVARD.

SO HERE IS THE SAME AREA. WE ARE JUST LOOKING AT THE DRAINAGES, AND I ASKED THE QUESTION: CAN YOU SEE THE FAULT? AND I DON'T REALLY SEE IT. BUT LET'S ACTUALLY JUST PUT SANTA MONICA BOULEVARD ON HERE.

AND IF WE LOOK AT THESE ONE BY ONE, DISTRICT -- KEEP IN MIND DOLAN PROPOSED -- AND IT'S COMMON FOR EAST/WEST TRENDING THRUST FAULTS TO HAVE A LEFT LATERAL COMPONENT. SO HE DIDN'T COME UP WITH THAT, BUT -- LIKE THE CUCAMONGA. BUT HERE IT'S PRESUMED TO BE A LEFT LATERAL REVERSE FAULT WHERE THIS SIDE GOES UP, AND THESE ROCKS GO THIS WAY.

SO WE -- TYPICALLY WITH A DRAINAGE ANALYSIS, WHAT YOU WOULD SEE IF THAT WAS THE CASE IS THE DRAINAGES TURNING LIKE THIS. OLDER DRAINAGES WOULD TURN MORE, AND 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.

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

THIS IS THE FAULTS MAP BY PARSONS TO KIND OF GIVE YOU AN IDEA OF WHERE YOU ARE, BEVERLY HILLS HIGH SCHOOL. THIS DRAINAGE GOES STRAIGHT ACROSS. AND THIS DRAINAGE, THAT'S THE MODERN BENEDICT CANYON, GOES STRAIGHT ACROSS.

SO WHAT I SEE HERE IS, BASICALLY, I DO NOT SEE SIGNIFICANT OR REPEATED RIGHT LATERAL OFFSET. I DON'T SEE REPEATED LEFT LATERAL OFFSET. I SEE ALMOST NO PATTERN WHATSOEVER OTHER THAN WHAT THIS REALLY LOOKS LIKE TO ME IS AN OLD FAULT ZONE THAT IS ERODING OUT. AND IT'S ESSENTIALLY ALONG A FAULT ZONE, THE ROCKS GET STRIATED AND BROKEN UP. THEY ERODE AT A FASTER RATE THAN THE SURROUNDING ROCK. IT'S MORE INHERENT.

SO WHAT I'M SEEING HERE GEOMORPHICALLY IS AN OLDER FAULT ZONE THAT'S PRIMARILY A STRIKE SLIP IN THE

PAST, BUT IT HASN'T MOVED IN A LONG TIME. SEE, THE STRAIGHT NATURE OF IT INDICATES STRIKE SLIP; HOWEVER, WE DON'T SEE ANY STRIKE SLIP OFFSET OF THE DRAINAGES. 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 ERODED INTO, AND THE LINEAMENT ITSELF THAT WE SEE IS A GEOMORPHIC LINEAMENT OF THE FAULT ZONE ERODING OUT, BUT NOT ASSOCIATED WITH ACTIVE FAULTING.

SO THE RESULTS OF THE DRAINAGE ANALYSIS IS A TRIBUTARY SYSTEM DOES NOT APPEAR SYSTEMATICALLY OFFSET BY EITHER RIGHT OR LEFT LATERAL DISPLACEMENT. IT INFERS THAT THE SANTA MONICA BOULEVARD LINEAMENT APPEARS DOMINATED BY 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.

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

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

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

IN OTHER WORDS, AN ACTIVE FAULT RUPTURES -- IS CONSIDERED A FAULT THAT RUPTURES EVERY 11,000 YEARS. THE REASON FOR THAT IS THAT IT'S ASSUMED THAT IF A FAULT IS ACTIVE BUT HAS A RECURRENCE INTERVAL OF LESS THAN 10,000 YEARS -- SO IN OTHER WORDS, IF THIS SURFACE IS 40,000 YEARS OLD, IT'S SEEN AT LEAST A MINIMUM OF FOUR EARTHQUAKES -- AND THAT'S ASSUMING A VERY LONG RECURRENCE 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 OF THE SANTA MONICA BOULEVARD LINEAMENT SUGGESTS STRIKE SLIP DISPLACEMENT AS OPPOSED TO DIP SLIP BUT NOT -- BUT THERE'S NO OFFSET DRAINAGES. SO THIS SUGGESTS INACTIVITY TO ME. NO WELL-DEFINED SCARPS ASSOCIATED WITH THE SANTA MONICA BOULEVARD FAULT ZONE OR PROPOSED WEST BEVERLY HILLS LINEAMENT FAULT ZONES ON THE 40,000-YEAR-OLD SURFACE, AND THAT SUGGESTS INACTIVITY AS WELL TO ME.

OKAY. AND THEN THIS IS MY LAST SLIDE FOR TODAY. AGAIN, I JUST WANTED TO COME BACK TO THIS SLIDE BECAUSE IT TIES INTO THE INACTIVITY ARGUMENT. THAT THERE'S THIS EROSION SURFACE WHICH IS PROBABLY AT LEAST 50,000 YEARS OLD, IF NOT MORE. I'M DOING A MINIMUM THERE. AND HERE'S ONE OF THE FAULTS AND ANOTHER AND ANOTHER.

AND YOU CAN SEE THAT THIS EROSION SURFACE GOES RIGHT ACROSS THIS. THIS IS ALONG THE MAIN PART OF THE FAULT ZONE RIGHT THROUGH HERE, ACROSS FAULT F AND FAULT E, RIGHT HERE. THESE ARE THE TWO DOMINANT FAULTS IN THE AREA.

FAULT E COMES UP TO THE SHALLOWEST, AND IT LOOKS LIKE THERE'S A STRONG POSSIBILITY IT'S INACTIVE AS WELL. SO, AGAIN, THIS WOULD BE A GOOD PLACE TO DO A FAULT STUDY TO -- IF YOU WERE --

TO ANSWER YOUR QUESTION, IF YOU WERE TO DO A FAULT STUDY HERE, MOST PEOPLE AGREE THAT THE FAULT COMES IN FROM THIS DIRECTION. SO IF THE FAULTS ARE IDENTIFIED HERE FOUND TO BE INACTIVE, I BELIEVE MOST GEOLOGISTS THAT WORK IN MY PROFESSION WOULD FEEL RELATIVELY CONFIDENT THAT THIS WOULD BE A SAFE AREA TO PUT THE STATION. BUT, OF COURSE, WE WOULD HAVE TO ELIMINATE THIS ARGUMENT OF THE WEST BEVERLY HILLS COMING IN OVER HERE, WHICH I'M IN AGREEMENT ON EXISTS.

AND THEN -- AND THAT'S IT. THANK YOU VERY MUCH. THERE'S EXTRA EVIDENCE THERE FOR IT BEING A SECONDARY FAULT. OKAY.

HEARING OFFICER DROOYAN: THANK YOU.

THE WITNESS: THANK YOU.

HEARING OFFICER DROOYAN: DO YOU HAVE A QUESTION?

MS. O'CONNOR. WELL, SO YOUR -- YOUR FIRST SLIDE, THE INTERIM CONCLUSION SLIDE, AND THEN SOME OF THE LAST ONES WERE NOT PART OF THE PRINTED MATERIAL?

THE WITNESS: IT SHOULD BE IN THERE.

MS. O'CONNOR: OKAY. THEY ARE NOT IN MINE.

THE WITNESS: OH, IT'S AT THE END. WHICH -- WHAT'S NOT IN THERE? I'M SORRY.

MS. O'CONNOR: YOUR INTERIM SLIDE WHERE YOU SAID INTERM CONCLUSION SLIDE AT THE BEGINNING. YOU HAVE THAT? YOU HAVE A SLIDE THAT SAYS MANY QUESTIONS, BUT YOU DON'T

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

THE WITNESS: OH.

MS. O'CONNOR: -- AND THEN YOUR LAST SLIDE THAT YOU JUST SHOWED DOESN'T SEEM TO BE IN MINE. MINE ENDS IN LIKE GEOMORPHIC DRAINAGE ANALYSIS, AND THEN IT GOES TO --

THE WITNESS: YEAH, YOU MIGHT HAVE --

MR. BROGAN: THE PAGES ARE OUT OF ORDER.

MS. O'CONNOR: I JUST PAGED THROUGH THE WHOLE THING, BUT ANYWAY. OKAY.

THE WITNESS: YEAH, YOU MIGHT HAVE A SLIGHTLY DIFFERENT VERSION --

MS. O'CONNOR: OKAY. BECAUSE I WAS TRACKING --

THE WITNESS: -- OF THE PRESENTATION.

MS. O'CONNOR: THANK YOU.

THE WITNESS: SLIGHTLY DIFFERENT.

HEARING OFFICER DROOYAN: OKAY.

MR. BROGAN: THANK YOU, MR. KENNEY. WE NOW HAVE -- DR. KENNEY.

WE KNOW HAVE THE VIDEO OF DR. SHLEMON.

OKAY. WE'VE GOT SOUND.

HEARING OFFICER DROOYAN: AND WOULD YOU AND STATE AND SPELL HIS NAME FOR THE RECORD.

I.T. TECHNICAN: HE'LL ACTUALLY STATE AND SPELL IT AT THE TOP OF THE VIDEO.

HEARING OFFICER DROOYAN: AND LET ME JUST SAY,

TECHNICALLY UNDER THE PUBLIC UTILITIES CODE, THIS HAS TO BE UNDER AN OATH OR AFFIRMATION. AND WHAT WE'LL DO IS WE'LL ADMIT THIS AS AN EXHIBIT. AND THEN, MR. WIENER, WILL YOU SUBMIT TO THE BOARD JUST A DECLARATION THAT YOU WOULD USE IN A COURT WITH AN AFFIDAVIT?

MR. WIENER: WE WILL DO THAT.

(CITY'S EXHIBIT WAS IDENTIFIED AND ADMITTED INTO EVIDENCE.)

HEARING OFFICER DROOYAN: GO AHEAD. HE'S NOT LIVE. HE'S GOING TO TESTIFY --

(START OF VIDEO.)

EXAMINATION

BY THE NARRATOR:

Q DR. SHLEMON, GOOD AFTERNOON, SIR.

CAN YOU PLEASE INTRODUCE YOURSELF AND SPELL YOUR LAST NAME?

A YES, INDEED. MY NAME IS ROY; LAST NAME, SHLEMON, S-H-L-E-M-O-N.

Q AND, DR. SHLEMON, CAN YOU PLEASE IDENTIFY FOR US AND LIST FOR US YOUR EDUCATIONAL BACKGROUND?

A YES. MANY SCHOOLS. MOST OF MY DEGREES -- IN FACT, ALL OF THEM ARE IN GEOLOGY. THE UNION CARD, THE PH.D. WAS AT BERKELEY, UNIVERSITY OF CALIFORNIA AT BERKELEY. AND I'VE TAUGHT AT ANY NUMBER OF UNIVERSITIES

SINCE THAT TIME.

Q AND IT'S MY UNDERSTANDING, DOCTOR, THAT YOU'VE TAUGHT AT AND GIVEN LECTURES AT THE UNIVERSITY OF CALIFORNIA AT DAVIS, STANFORD UNIVERSITY, LOUISIANA STATE UNIVERSITY, UCLA, CAL STATE LOS ANGELES, UC IRVINE, AND SAN DIEGO STATE UNIVERSITY; IS THAT CORRECT?

A THAT'S CORRECT, AMONG OTHERS. I MIGHT POINT OUT THAT THE DAVIS, UNIVERSITY OF CALIFORNIA AT DAVIS, WAS A FULL TIME -- MY FIRST ACADEMIC POSITION, THEN LATER TO LSU AT BATON ROUGE. AND THE OTHERS WERE ESSENTIALLY CONSULTING PROFESSORSHIPS AND INVITED LECTURESHIPS.

Q AND HOW LONG HAVE YOU BEEN A CONSULTING GEOLOGIST?

A PROBABLY FOR THE LAST APPROXIMATELY 40 YEARS, FULL-TIME CONSULTING.

Q AND WHAT ARE YOUR AREAS OF SPECIALTY?

A WELL, THE TECHNICAL SPECIALTIES ARE CALLED KINESIOLOGY, GEOMORPHOLOGY, SOIL STRATIGRAPHY, ET CETERA, BUT THE MAIN FOCUS AND THE MAIN APPLICATION IS TO DATE FAULTS TO DETERMINE IF A FAULT ACCORDING TO CALIFORNIA CRITERIA IS EITHER ACTIVE OR IT IS NOT ACTIVE. SO IT'S A SEISMIC ISSUE THAT I DEAL WITH MAINLY.

Q AND, DOCTOR, HAVE YOU PREPARED A REPORT DATED NOVEMBER 6, 2011, FOR SHANNON & WILSON ON BEHALF OF THE CITY OF BEVERLY HILLS?

A YES, I DID. THAT'S CORRECT.

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

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

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

A THE CONSTELLATION STATION, AS ANY OTHER ALTERNATIVE SITE, NEEDS TO BE PRUDENT; NEEDS ADEQUATE INVESTIGATION, VERY SPECIFICALLY, SITE-SPECIFIC INVESTIGATION. SO WHETHER THAT'S DONE AT THE CONSTELLATION OR AT ANY OTHER ALTERNATIVE, IT IS A REQUIREMENT TO MEET THE STANDARD OF PRACTICE AS WELL AS TO ENSURE PUBLIC HEALTH AND SAFETY.

Q AND TO YOUR KNOWLEDGE, HAS ANY SITE-SPECIFIC EVALUATION OF THE CONSTELLATION -- THE PROPOSED CONSTELLATION STATION OCCURRED?

A TO MY KNOWLEDGE, NOT YET. THE CONSTELLATION 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?

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

VERY SPECIALLY, THAT MEANS PROBABLY WITH HIGHER PROBABILITY THAT TRENCHING IS DONE, OPENING UP EXCAVATIONS IN WHICH THE GEOLOGISTS, PLURAL, CAN LOG, CAN DOCUMENT, CAN PHOTO-DOCUMENT ALL EXPOSURES TO DETERMINE TWO THINGS: ONE, IS THERE A FAULT PRESENT OR MANY FAULTS; AND THEN, SECONDLY, HOW OLD IS THE FAULT? THAT IS: WHAT WAS THE TIME OF LAST GROUND RUPTURE, NEAR-SURFACE GROUND RUPTURE?

THAT BY DEFINITION FITS INTO THE CALIFORNIA LAW, THE REQUIREMENT THAT ONE WILL NOT BUILD A HABITABLE STRUCTURE -- AND A TERMINAL OR A STATION IS A HABITABLE STRUCTURE -- AND ONE WILL NOT BUILD SUCH A STATION ON AN ACTIVE FAULT. SO THOSE ARE THE TWO COMPONENTS OF THE MAIN COMPONENTS OF A GEOLOGICAL INVESTIGATION.

Q HAS TRENCHING BEEN PERFORMED AT THE PROPOSED CONSTELLATION SITE?

A TO MY KNOWLEDGE, NOT YET.

Q DOCTOR, DO YOU SEE ANY ANALYSIS IN THE AMEC REPORT THAT SUGGEST THAT THERE COULD BE A FAULT RUNNING 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 INVESTIGATION MUST BE PERFORMED.

Q DOCTOR, WHAT IS THE RISK OF MOVING FORWARD WITH THE CONSTELLATION SITE WITHOUT HAVING THE RISKS ASSESSMENT INVESTIGATIVE WORK DONE THAT YOU BELIEVE IS NECESSARY IN 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.

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?

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

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

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

Q DOCTOR, IT'S MY UNDERSTANDING THAT THERE WAS A 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 LOOKED AT IT VERY BRIEFLY. BUT I HAD THE OPPORTUNITY TO -- TO GET THE GIST OF THE SENSE OF THEIR CONCLUSIONS.

Q AND IN YOUR PROFESSIONAL OPINION, WAS THERE ANYTHING IN THAT POSTING ON THE MTA WEB SITE OF MAY 14, 2012, THAT LEADS YOU TO BELIEVE THAT THE CONSTELLATION STATION HAS BEEN PROPERLY EVALUATED FOR LOCATION AS A SUBWAY STATION?

A I SAW NOTHING ABOUT THE CONSTELLATION STATION IN PARTICULAR. MOST OF THE FOCUS IN THAT MOST RECENT REPORT THAT, AS YOU'VE DESCRIBED, POSTED ON THE WEB SITE FOCUSES ON THE SANTA MONICA STATION, AND STILL INFERS, IF NOT ALLEGES, THAT THERE ARE ACTIVE FAULTS OR HIGH PROBABILITY OF ACTIVE FAULTS THROUGH THE PROPOSED SANTA MONICA STATION, BUT THERE'S NO REAL DISCUSSION WHATSOEVER. IN FACT, I'M NOT EVEN SURE THE WORD "CONSTELLATION STATION" EVEN APPEARS -- IT MIGHT -- IN THE REPORT.

THERE ARE SOME GRAPHICS IN THE REPORT THAT CONTOUR SOME OF THE OLDER SEDIMENTS AND SUGGEST THAT THERE MAY BE OTHER GEOLOGICAL STRUCTURES THAT PROJECT TOWARDS THE CONSTELLATION SITE, BUT, AGAIN, NO SPECIFIC WORK HAS BEEN DONE TO EVALUATE FROM A FAULT STANDPOINT THE CONSTELLATION STATION.

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

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

SO SITE-SPECIFIC INVESTIGATIONS ARE DEFINITELY REQUIRED FOR ANY PROPOSED CONSTELLATION STATION.

(CONCLUSION OF VIDEO.)

HEARING OFFICER DROOYAN: THANK YOU.

MR. BROGAN: MR. HEARING OFFICER, MY NEXT WITNESS, WE'LL CALL MR. TIM BURESH. MR. BURESH IS PRESENTLY BEFORE THE PANEL.

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

COURT REPORTER SWEAR YOU IN.

THE WITNESS: TIM BURESH, B-U-R-E-S-H.

HEARING OFFICER DROOYAN: MADAM COURT REPORTER, SWEAR THE WITNESS.

TIM BURESH,

A WITNESS HEREIN, CALLED BY AND ON BEHALF OF THE CITY HAVING BEEN FIRST DULY SWORN, WAS EXAMINED AND TESTIFIED AS FOLLOWS:

EXAMINATION

THE WITNESS: I'VE BEEN INFORMED THAT I NEED TO CUT MY TIME IN HALF, WHICH IS KIND OF TYPICAL. I -- I'VE NEVER HAD AS MUCH TIME AS I'D FOR 20 YEARS IN FRONT OF THIS BOARD. SO THAT'S NOT A SURPRISE.

YOU KNOW, SOMETIMES WE GET REALLY MESSED UP ON THIS. MY BACKGROUND IS -- I'M PROBABLY ONE OF THE FEW ENGINEERS WHO'S HAD A STRONG BACKGROUND IN BOTH EDUCATION AND IN TRANSIT WORK. I LIKE TO BUILD SCHOOLS. I LIKE TO BUILD SUBWAYS. I WOULD LIKE TO BUILD THIS SUBWAY, AND I WOULD LIKE TO SEE THE NEXT GENERATION OF SCHOOLS GET BUILT IN BEVERLY HILLS.

NOW, I'M SENSITIVE TO HAVING SIGNED OFF ON MORE 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.

BUT SOMETIMES STAFF GETS IT WRONG FOR LOTS OF LOGICAL AND GOOD AND SOLID REASONS. BUT SOMETIMES IT NEEDS TO GET CLARIFIED. NOW AT THIS STAGE IN THE PROCESS, IN MY MIND, YOU'VE GOT A BALANCING DECISION. FOR ALL TRANSIT SYSTEMS, WE'RE LOOKING AT BALANCING RIDERSHIP VERSUS COST. WE'LL SPEND MONEY TO GET MORE RIDERS. IS IT WORTH IT? IS IT GOOD INVESTMENT?

THE SAME TIME, ARE THERE ANY TECHNICAL OBJECTIONS? SEISMIC BEING FRONT, FIRST, AND FOREMOST HERE, BUT THERE MAY BE OTHERS. AND IS THERE ANY UNNECESSARY OR AVOIDABLE IMPACT ON THIRD PARTIES THAT -- THAT WE CAN'T WORK AROUND OR MITIGATE?

NOW, FOR ME IT ALWAYS STARTS WITH RIDERSHIP. THE, METRO TRAFFIC DEMAND MODEL IS FINE. IT'S A GOOD MACRO-LEVEL DEMAND MODEL. IT SAYS THAT WE NEED A STATION SOMEWHERE IN THE CENTURY CITY AREA. WE AGREE WITH THAT. IT SAYS THERE'LL BE ABOUT 6,000 RIDERS. WE AGREE WITH THAT. THE MODEL IS FINE FOR THAT.

AND WE ABSOLUTELY AGREE THAT THERE NEEDS TO BE 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.

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

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

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

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

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

IT'S NOT LIKE IN MOST PLACES IN MOST METROPOLITAN CITIES. EVERYBODY SEES THE GOLF COURSE IN THE NORTH, AND YOU SAY THAT'S A BARRIER, AND IT IS. BUT AT LEAST ON THE GOLF COURSE, YOU CAN GET OUT AT EITHER THE NORTHWEST OR 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.

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

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

NOW, ALSO THE STUDIES ARE WAY, WAY TOO CENTERED ON THE WHOLE 600-FOOT WALKING DISTANCE ON HERE. AND, OF COURSE, RIDERSHIP VARIES WITH WALKABILITY. THE CLOSER A STATION IS TO YOU, THE MORE CONVENIENT IT IS TO USE, THE 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.

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

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

SIMILARLY, IF YOU WENT OVER TO THE MUSEUM DISTRICT, THAT 600-FOOT DISTANCE STANDS FOR THE PROPOSITION THAT NOBODY WALKS FROM MOCA TO THE TAR PITS. AND WE SEE MILLIONS OF PEOPLE DOING THAT EVERY YEAR.

AND, FRANKLY, THE DATA IN CENTURY CITY ALONE STANDS UP FOR IT. IT SAYS THAT PEOPLE WILL WALK FOUR TIMES AS FAR FOR LUNCH AS THEY WILL TO RIDE A SUBWAY. AND IT JUST DOESN'T STAND UP TO GOOD COMMON SENSE, AND IT'S NOT GOOD PLANNING.

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

SO IN OTHER WORDS, IT DOESN'T -- I CAN'T WALK LIKE THE CROW FLIES. WHAT MATTERS IS HOW FAR I HAVE TO ACTUALLY WALK. IS MY -- THE ENTRANCE TO MY BUILDING ON 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.

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

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

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

GROUPS OF RIDERS, BUT THE RIDERSHIP IS ESSENTIALLY EQUAL.

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

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

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

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

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

NOW TODAY AS BEST I CAN TELL FROM THE PARTIAL 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.

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

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

THE PROPER LOCATION REALLY SHOULD BE BETWEEN AVENUE OF THE STARS AND CENTURY PARK EAST, AND YOU TAKE ADVANTAGE OF THE MEDIAN THAT'S OUT THERE. THERE'S A LOT OF GREAT BENEFITS THAT COME FROM THAT. IT SHOULD BE A DUAL-ENTRANCE STATION, IF NOT A TRIPLE-ENTRANCE STATION.

THE BIAS TOWARD A SINGLE ENTRANCE STATION, I FIND HARD TO JUSTIFY. JUST ON RIDERSHIP ALONE GOING TO MULTIPLE ENTRANCES ACROSS A SYSTEM, YOU'D PROBABLY GENERATE A 10 PERCENT BUMP IN RIDERSHIP WHICH WOULD BE HUGE. AND IT'S RELATIVELY MINOR COST IF YOU DO THOSE MULTIPLE ENTRANCES DURING THE INITIAL CONSTRUCTION. HECK, 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.

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

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

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

NOW, WE GET INTO THE SEISMIC REPORT, AND I'M SURE A LOT OF PEOPLE ON THE PERIPHERY OF THIS WONDER WHY ON EARTH DOES THE SCHOOL EVEN CARE ABOUT THE SEISMIC CONDITIONS AROUND THE STATIONS IN CENTURY CITY. THE SIMPLE REALITY IS BECAUSE WHEN YOU READ THE F.E.I.S./E.I.R, THE DOMINANT REASON, IN SOME PLACES THE ONLY REASON, FOR RECOMMENDING CONSTELLATION IS BECAUSE OF THE PRESENCE OF ACTIVE FAULTING AT SANTA MONICA.

WELL, OKAY. IF THAT STUDY IS WRONG, THOUGH -- AND AS YOU'VE HEARD, WE HAVE A LOT OF REASONS TO BELIEVE IT'S WRONG OR AT LEAST INCOMPLETE ON HERE -- THEN YOU DON'T HAVE TO HAVE THAT RESTRICTION. THEN YOU CAN HAVE AN OPEN CONSIDERATION OF COST VERSUS RIDERSHIP AND OTHER FACTORS IN HERE.

AND I WANT TO JUST SHARE A FEW THINGS ABOUT WHY I 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.

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

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

WE DID EVERYTHING POSSIBLE TO COME UP WITH A TEAM THAT COULD BE NEUTRAL AND OBJECTIVE ON IT. AND THERE'S WHY. AT LEAST ONE BOARD MEMBER IN HERE HAS HAD A STINT AS A SCHOOL BOARD MEMBER. AND IT'S VERY HARD TO OVERSTATE THE IMPORTANCE OF CHILD SAFETY IN THE EDUCATION WORLD. YOU DON'T GAMBLE WITH CHILDREN'S SAFETY, PERIOD, EVER.

NOW, I'LL CHEERFULLY DRIVE 80 MILES-AN-HOUR DOWN 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.

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

SECONDARY IS: CAN WE USE OUR SITE? WILL WE BE ABLE TO BUILD BUILDINGS? AND THIRD WAS: WELL, WHAT DOES THAT MEAN ABOUT THE REST OF THE MTA STUDY FOR THE SUBWAYS?

NOW, THERE'S A REAL PROBLEM AND PRECONCEPTION THAT'S TRUE OF ALL TYPES OF ENGINEERS AND SCIENTISTS ON HERE. AND PRECONCEPTIONS CAN ALSO GET BUTTRESSED BY FIRST IMPRESSIONS. YOU KNOW, ANYBODY WHO FLIES UP AND DOWN THIS STATE AND LOOKS DOWN AT THE SAN ANDREAS FAULT CAN GO, "THAT'S A FAULT." IT'S CLEAR. IT'S OBVIOUS. IT'S RIGHT THERE. IT'S A NICE CLEAN CRACK IN THE GROUND.

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

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

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

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.

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

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

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

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

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

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

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

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

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

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

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

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

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

NOW, IF SOMEBODY WAS STANDING OUT ON THE HILL --

MR. YAROSLAVSKY: CAN YOU BE MORE SPECIFIC ON

THAT? I HEARD YOU QUOTED ON THE RADIO THIS MORNING. IN FACT, IT WASN'T A QUOTE. IT WAS YOUR VOICE SAYING THE PROPOSED TUNNEL WAS NOT GOING UNDER THE SCHOOL. IT WAS GOING THROUGH THE SCHOOL.

THE WITNESS: YES.

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

THE WITNESS: I'LL GO RIGHT BACK INTO HERE. BASICALLY, IF YOU LOOK AT -- NOW, THIS IS AT THE ORIGINAL PLANNING DOCUMENT, RESPONSE TO THE D.E.I.S. SO IT SHOWS 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 --

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

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

THE WITNESS: ELEVATION 200.

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

THE WITNESS: 200 FEET.

MR. YAROSLAVSKY: -- BELOW GRADE? THE SCHOOL

BUILDING, PARKING GARAGE? WHAT?

THE WITNESS: A LITTLE BIT OF EVERYTHING IN THERE.

MR. YAROSLAVSKY: OKAY. ANYTHING GOING TO BE THREE STORIES BELOW GRADE?

THE WITNESS: POSSIBLY. UP ON THE HILL, YES. DEFINITELY.

MR. YAROSLAVSKY: AND HOW DEEP IS THREE STORIES BELOW GRADE?

THE WITNESS: THREE STORIES BELOW -- LET'S BE CAREFUL --

MR. YAROSLAVSKY: HOW MANY FEET IS IT? HOW MANY FEET IS IT?

THE WITNESS: -- I WANT YOU TO BE CAREFUL HERE BECAUSE I SAID THERE'S A REASON WHY THE BUILDING SPACE WAS CARVED OUT TO ELEVATION 200. ELEVATION 200 SAYS THAT YOU'RE GOING TO HAVE TO BUILD A VERY BIG BUILDING BACK INTO THE SLOPE. YOU'LL HAVE TO STAIR STEP IT UP SO THAT YOU AVOID BOTH GOING TOO HIGH BECAUSE YOU HAVE A THREE-STORY MAXIMUM UNDER THE --

MR. ANTONOVICH: SLOW DOWN WHEN YOU'RE TALKING

THE WITNESS: OKAY.

FOR A NUMBER OF REASONS YOU CAN'T BUILD SCHOOL BUILDINGS VERY HIGH. THE EXISTING CODE MAKES IT ESSENTIALLY IMPRACTICAL TO BUILD IT MORE THAN THREE

STORIES HIGH.

MR. YAROSLAVSKY: MR. BURESH, I DON'T MEAN TO INTERRUPT YOU, BUT TIME IS SHORT, AND IT'S MY QUESTION. I JUST WANT YOU TO ANSWER MY QUESTION. I DON'T NEED ANYTHING ELSE.

YOU SAID THIS MORNING ON KABC RADIO AT ABOUT 9:05 THAT THE PROPOSED TUNNEL, THE PROPOSED SUBWAY, UNDER THE HIGH SCHOOL PROPERTY DOESN'T GO UNDER THE BUILDINGS. IT GOES THROUGH THE BUILDINGS OR THROUGH THE SCHOOL.

YOU KNOW HOW DEEP THE TUNNEL IS, DON'T YOU?

THE WITNESS: I SURE DO. TAKE A LOOK AT THE RED LINE ON --

MR. YAROSLAVSKY: EIGHTY FEET --

THE WITNESS: -- THERE. AND YOU CAN SEE THE --

MR. YAROSLAVSKY: -- 80 FEET --

THE WITNESS: -- COMING RIGHT ACROSS THE BLUE LINE WHICH IS WHERE --

MR. YAROSLAVSKY: SIXTY FEET BELOW GRADE AT THE CROWN UNDER THE HILL AND -- AND TEN FEET LESS THAN THAT IN THE FLAT PART OF THE SCHOOL; CORRECT?

THE WITNESS: OH, NO. YOU'RE WAY SHALLOWER THAN THAT. YOU'RE -- YOU'RE LESS THAN 45 FEET DOWN AT THE BOTTOMS ON THERE. AND BEFORE YOU --

MR. YAROSLAVSKY: I'M TEMPTED TO SAY YOU ARE UNDER OATH. BUT ANYWAY, LOOK, THERE IS NO WAY IN THE

WORLD THAT THE SCHOOL DISTRICT IS GOING TO BUILD A SIX-STORY BUILDING UNDERGROUND, IS THERE, MR. BURESH?

THE WITNESS: YOU KNOW WHAT? IF I'D SAT OUT THERE A HUNDRED YEARS AGO AND SAID, "SON, WE'RE GOING TO BUILD 30- AND 40-STORY BUILDINGS NEXT DOOR WHERE THOSE BARNS ARE IN CENTURY CITY," PEOPLE WOULD HAVE THOUGHT THEY WERE CRAZY, AND HAVE SAID, "THERE'S NO WAY YOU'RE EVER GOING TO GO BUILD THAT."

MR. YAROSLAVSKY: SO YOU THINK IT IS LIKELY THAT THEY WILL BUILD A SIX-STORY UNDERGROUND BUNKER FOR THE SCHOOL?

THE WITNESS: NO, BUT I THINK --

MR. YAROSLAVSKY: KIDS WILL STUDY --

THE WITNESS: -- IT'S ENTIRELY POSSIBLE THAT THEY'RE GOING TO BUILD A STAIR STEP BUILDING THAT GOES INTO THE SIDE WITH UNDERGROUND PARKING IN THE BACK AND WITH BUILDINGS THAT ARE OPEN IN THE FRONT.

MR. YAROSLAVSKY: SIX-STORY UNDERGROUND PARKING?

THE WITNESS: IT'S ENTIRELY POSSIBLE.

MR. YAROSLAVSKY: OF COURSE, IT'S POSSIBLE. IS IT PROBABLE?

THE WITNESS: WHEN THE CAMPUS HAS A --

MR. YAROSLAVSKY: THERE ISN'T A PLAN -- MR. BURESH, THERE ISN'T A PLAN THAT THE SCHOOL DISTRICT HAS PROVIDED TO US, TO YOU, OR TO ANYBODY ELSE THAT SHOWS

ANYTHING DEEPER THAN TWO OR THREE STORIES OF PARKING.

THE WITNESS: YOU GOT THAT PLAN.

MR. YAROSLAVSKY: PARDON?

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

MR. YAROSLAVSKY: WHAT DOES THAT SHOW --

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

MR. YAROSLAVSKY: WHAT DOES THAT SHOW?

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

MR. YAROSLAVSKY: DOES IT SHOW A SIX-STORY UNDERGROUND STRUCTURE?

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

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.

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

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

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

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

THE WITNESS: NOTHING MORE.

MR. YAROSLAVSKY: THANK YOU.

HEARING OFFICER DROOYAN: MR. BURESH, ANYTHING FURTHER?

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

UNDERGROUND. YOU KNOW YOU CHANGED THE DESIGN SUBSTANTIALLY WHERE IT'S GONE ON WITH FUTURE DEVELOPERS.

THE WESTWOOD HOTEL THAT APPEARED AT THE WESTWOOD/UCLA STATION, YOU DROPPED A TUNNEL SOME 50 FEET DOWN TO ACCOMMODATE THAT. THE TUNNEL GOT DROPPED. IT HAS AT LEAST 45 FEET OF SEPARATION OF THE WESTFIELD MALL ALSO.

YOU ONLY DROPPED IT ABOUT FIVE FEET COMING OUT OF THE HIGH SCHOOL. THERE HAS BEEN NO EFFORT TO ACCOMMODATE THE NEEDS EXPRESSED BY THE HIGH SCHOOL. AND I DO STAND BY THAT TESTIMONY.

AND THERE HAS BEEN NO EFFORT TO MEET ON THAT. AND YOUR STAFF HAS BEEN MADE AWARE OF THAT WITH THE PLANNING DOCUMENTS SENT IN, WHEN YOUR TUNNEL ADVISORY PANEL CAME OUT, AND I PERSONALLY WALKED THEM ON THE SITE AND SHOWED THEM WHERE AND WHY WE WOULD HAVE TO GO THAT 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.

THERE'S A LOT OF EXTRANEOUS ENGINEERING ISSUES, AND I WON'T EVEN GET INTO THEM ON THAT. BUT, YOU KNOW, SUFFICE TO SAY YOU HAVE EXACT -- AND I DO STAND CORRECTED ON THIS. THERE IS ONE FIELD ACT COMPLIANT SCHOOL THAT DOES HAVE A TUNNEL UNDER IT IN THE STATE OF CALIFORNIA, 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 HERE. YOU KNOW, THE HIGH SCHOOL NEEDS ARE REAL, AND THEY SHOULD BE ACCOMMODATED. YOU CAN'T JUST IGNORE THEM. YOU MAY NOT LIKE THEM. YOU CAN DEBATE THEM. YOU CAN DISAGREE. WE CAN EXPLORE ALTERNATIVES, BUT THEY CAN'T JUST BE IGNORED. THERE WILL BE IRREPARABLE HARM IF YOU PROCEED WITH THE DESIGN AS IT'S NOW SHOWN ON THERE.

THOSE ARE MY CONCLUSIONS. THE TRUTH WILL COME OUT ON SANTA MONICA. YOU'RE SPENDING $100 MILLION DOLLARS FOR NO REAL INCREASE IN RIDERSHIP, AND YOU'RE GOING TO HURT THE CAMPUS.

HEARING OFFICER DROOYAN: THANK YOU.

MR. WIENER: THANK YOU FOR YOUR TIME. OUR NEXT -- MR. MC MURRY WILL PRESENT OUR NEXT WITNESS WHICH WILL BE FROM EXPONENT'S FAILURE ASSOCIATES.

HEARING OFFICER DROOYAN: OKAY. MR. BURESH. MR. BURESH, MR. KATZ HAS ONE MORE QUESTION FOR YOU, IF YOU'RE HERE.

THE WITNESS: YES, SIR.

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

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

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

MR. KATZ: I'M READING A LETTER THAT YOU SENT TO THE CHANCELLOR OF MIRAMAR COLLEGE. AND WHERE IT SAYS. "WHILE THE AUTHORITY MUST CONTINUE TO STUDY ALL ALTERNATIVES, IT'S CLEAR THAT THE ONLY VERTICAL PROFILE THAT SHOULD BE CONSIDERED THROUGH MIRAMAR COLLEGE IS A BORED TUNNEL OPTION DEEP ENOUGH TO CAUSE INSIGNIFICANT IMPACTS TO THE COLLEGE."

THE WITNESS: AND THE LAST PHRASE WAS AGAIN?

MR. KATZ: "DEEP ENOUGH TO CAUSE INSIGNIFICANT IMPACTS TO THE COLLEGE."

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

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

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

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

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

MR. KATZ: I'M SORRY. THE COAST IN SANTA MONICA?

THE WITNESS: EXCUSE ME. IN SAN DIEGO.

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

BUT I'M STILL -- IT SOUNDS LIKE A DIFFERENT SIDE 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 CARING ABOUT THE KIDS AT A CERTAIN AGE? I DON'T THINK SO.

NO. HOLD ON. HOLD ON. I'M NOT -- I'M NOT ASKING TO GET -- AND I KNOW THAT'S NOT HOW YOU THINK, SO I DON'T GET IT.

THE WITNESS: WELL, FRANKLY, AS I JUST SAID, EVEN WITH THE LAST SLIDE, BEFORE I GOT CUT OFF IN THERE, IF YOU'RE DEEP ENOUGH, THERE IS NO IMPACT. NOW THAT'S A CAMPUS THAT'S YOUNG AND DYNAMIC, AND IT'S NOT GOING UNDERGROUND. IT'S GOT PLENTY OF GROUND, AND THEY'RE SPREAD OUT ON THERE.

MR. KATZ: BUT THEY MIGHT GO UNDERGROUND IN THE FUTURE. YOU DON'T KNOW THAT, BASED ON WHAT YOU WERE JUST SAYING ABOUT --

THE WITNESS: THAT CAMPUS --

MR. KATZ: -- FUTURE.

THE WITNESS: -- IS GROWING VERY RAPIDLY. AND IF THAT WERE THE RESPONSIBILITY, THAT CERTAINLY WOULD BECOME A PRECLUSION TO THE TUNNEL GOING UNDERNEATH THERE.

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

AND ONE OF THE THINGS THAT I INITIATED BEFORE I LEFT 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.

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

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

MR. KATZ: OKAY. GOT IT. THANK YOU. APPRECIATE IT.

HEARING OFFICER DROOYAN: OKAY. MR. MC MURRY.

MR. ROBERT MC MURRY: THANK YOU.

MY NAME IS ROBERT MC MURRY, GILCHRIST AND RUTTER.

I VENTURE I KNOW REASONABLY WELL HALF THE PEOPLE 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

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

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

MR. MC MURRY: THANK YOU.

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

GIVEN THE LATENESS OF THE HOUR, WE'RE GOING TO TRY TO SHORTEN THIS TESTIMONY AS BEST WE CAN. I WOULD 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 HOLD IT TO THAT. THE LAST COLLOQUY WENT BEYOND WHAT WE 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 SHOULD HAVE THE EXTRA TEN MINUTES.

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

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

LET'S AT LEAST GET THE HEARING CONCLUDED AS

QUICKLY AS WE CAN.

MR. MC MURRY: WE WILL TRY TO DO SO. THANK YOU.

AT THIS POINT WE WOULD LIKE TO OFFER THE TESTIMONY OF DR. SUBODH MEDHEKAR.

EXAMINATION

BY MR. MC MURRY:

Q AND FIRST OF ALL, I WOULD LIKE TO ASK HIM TO EXPLAIN WHO HE IS EMPLOYED BY?

A I'M SUBODH MEDHEKAR. I'M EMPLOYED BY EXPONENT.

Q AND HAS EXPONENT PREPARED SEVERAL REPORTS CONCERNING THIS PARTICULAR ISSUE OF THE LOCATION OF BEVERLY HILLS HIGH SCHOOL, THE POTENTIAL EFFECTS OF THE ALIGNMENT, SO ON AND SO FORTH?

A YES.

MR. MC MURRY: WE HAVE COPIES OF THOSE REPORTS, IF THEY'VE NOT BEEN ENTERED INTO THE RECORD BEFORE. WE WILL BE HAPPY TO DO SO.

HEARING OFFICER DROOYAN: MR. MEDHEKAR, THIS IS THE REPORT ON EXPONENT LETTERHEAD. I'M LOOKING FOR A DATE ON HERE. I SEE THAT IT'S A RESUME, AND I'M NOT SURE WE HAVE THE REPORT. IS IT IN HERE?

MR. MC MURRY: I'M CALLING THE WITNESS'S ATTENTION TO, NOT TO SOUND LIKE A LAWYER, A REPORT CALLED "A HAZARD ASSESSMENT STUDY WESTSIDE SUBWAY EXTENSION."

HAS A DATE OF FEBRUARY 7, 2012.

THE WITNESS: YES.

MR. MC MURRY: THAT'S YOUR COMPANY'S REPORT. AND THERE'S A FURTHER DOCUMENT ENTITLED "RESPONSE TO METRO'S COMMENTS ON EXPONENT'S REPORT," WHICH IS DATED APRIL 25TH, 2012. AND I WILL EXPLAIN TO YOU THAT THIS WAS A RESPONSE DOCUMENT DONE AFTER METRO HAD COMMENTED ON THE ORIGINAL EXPONENT REPORT.

AND YOU WERE ALSO INVOLVED IN PREPARATION OF THAT?

THE WITNESS: YES.

MR. MC MURRY: WE WOULD ASK THAT THESE BOTH BE INCLUDED IN THE RECORD.

HEARING OFFICER DROOYAN: THAT'S FINE. I'M JUST NOT A HUNDRED PERCENT SURE I HAVE THEM. BUT MAYBE WE'LL GET THEM FROM YOU AT THE CONCLUSION OF THE HEARING, AND THEY'LL BE INCLUDED AS PART OF THE RECORD.

MR. MC MURRY: OKAY. IF YOU COULD PASS THOSE OVER SO THAT THE CHAIR HAS THEM.

THESE ARE REPORTS THAT ARE VERY FAMILIAR TO METRO AND HAVE BEEN THOROUGHLY DISCUSSED AND EVALUATED.

HEARING OFFICER DROOYAN: OKAY.

BY MR. MC MURRY:

Q FIRST OF ALL, DR. MEDHEKAR, COULD YOU EXPLAIN TO ME WHAT IS YOUR PROFESSIONAL BACKGROUND AND WHAT IS THE

PRIMARY AREA OF FOCUS FOR YOU IN YOUR PROFESSIONAL CAREER?

A I'M A CHEMICAL ENGINEER. ALL MY DEGREES, MY BACHELOR'S, MASTER'S, AND DOCTORATE, ALL ARE IN CHEMICAL ENGINEERING. I'M ALSO A REGISTERED CHEMICAL ENGINEER.

AND MY SPECIALTY WORKING OVER THE LAST 20 YEARS HAS BEEN IN DOING RISK ASSESSMENTS, RISKS AND LIABILITY ASSESSMENTS. I'VE WORKED ON PROJECTS RANGING FROM NUCLEAR POWER PLANTS TO PETROCHEMICAL FACILITIES TO AEROSPACE TO BIOMEDICAL DEVICES, ALL IN ONE, DOING RISK ASSESSMENTS.

Q WHEN YOU SAY RISK ASSESSMENT, MY UNDERSTANDING IS THERE ARE SEVERAL DIFFERENT TYPES OF RISK ASSESSMENTS. COULD YOU EXPLAIN TO ME THE DIFFERENT BETWEEN A QUALITATIVE AND A QUANTITATIVE RISK ASSESSMENT AND HOW THAT IMPACTS THIS CASE?

A YES. THE RISK ASSESSMENTS CAN BE DONE WITH DIFFERENT GRADATIONS. YOU CAN START OFF WITH SOMETHING THAT IS SIMPLE, QUALITATIVE RISK ASSESSMENTS. AND THESE ARE VERY STANDARD IN MOST OF THE INDUSTRIES. YOU CAN DO HAZOPS, HAZARD OPERATIONS; YOU CAN DO A FAILURE MODES AND EFFECTS ANALYSIS. YOU CAN DO A PRELIMINARY HAZARDS ANALYSIS. YOU CAN DO HAZARDS ANALYSIS. ALL THESE ARE QUALITATIVE OR SEMI-QUANTITATIVE EVALUATIONS.

ESSENTIALLY, IT LOOKS AT NEW PROCESSES OR NEW DESIGNS TO UNDERSTAND WHAT KINDS OF RISKS OR SCENARIOS 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 MATRIX TO ASSIGN THE RISK LEVEL TO THESE SCENARIOS. SO ESSENTIALLY, IT HELPS YOU IN A VERY QUALITATIVE MANNER TO GO ABOUT ASSIGNING RISK.

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

FOR EXAMPLE, HOW LIKELY IS IT THAT THIS FAULT WOULD ACTUALLY RUPTURE OR WHETHER IF IT'S A GAS, HOW LIKELY WE COULD ENCOUNTER THIS GAS OR ACCUMULATE IN A LOCATION THAT WOULD BE HAZARDOUS. AND YOU ALSO DO CONSEQUENCE ANALYSIS WHICH ARE MORE QUANTITATIVE.

SO THE CONCEPT REMAINS THE SAME, BOTH IN QUALITATIVE AND QUANTITATIVE ANALYSIS, EXCEPT THE DEGREE TO WHICH YOU PERFORM CHANGES FROM QUALITATIVE TO QUANTITATIVE AND GOING HIGHER.

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

A BASED ON THE -- THE RISK OF HAZARD FACTORS THAT I SEE AT THESE LOCATIONS: POTENTIAL FOR FAULTING, POTENTIAL FOR SETTLEMENT, POTENTIAL FOR MAINTAINING AND ENCOUNTERING AN ACCUMULATION, AND POTENTIAL FOR SUBSIDENCE, I THINK THE MOST PRUDENT WAY OF DOING THIS IS TO FIRST DO A QUALITATIVE EVALUATION TO FIND OUT WHICH OF THESE ARE OF GREATER CONCERN THAN OTHERS AND THEN PERFORM A MORE DETAILED PROBLEMISTIC QUANTITATIVE ANALYSIS ON THOSE SCENARIOS FOR THE SITE.

Q AND HAS THIS BEEN DONE FOR THIS CASE?

A ACTUALLY, FOR THIS CASE, BASED ON THE REPORTS I'VE SEEN, NO RISK ASSESSMENT HAS DONE. NEITHER A QUALITATIVE NOR A QUANTITATIVE RISK ASSESSMENT HAS BEEN PERFORMED AT THIS LOCATION.

Q IN YOUR EXPERIENCE IS THIS SOMETHING THAT WOULD BE TYPICAL OR APPROPRIATE TO BE DONE IN A CASE LIKE THAT?

A YES. IT WOULD BE HIGHLY APPROPRIATE THAT ONE SHOULD PERFORM A RISK ASSESSMENT TO EVALUATE WHAT RISKS CAN EXIST OR MAYBE THERE WHEN I'VE BEEN TO A STATION DOING TUNNELING ACTIVITY, TYPICALLY ENGINEERS WHEN THEY DESIGN A PROCESS, THEY -- THEY ARE TAUGHT HOW TO MAKE A SUCCESS PLAN. I WILL DO THIS. I WILL MAKE SURE THE CONSTRUCTION

STEP OCCURS.

IT TAKES MUCH MORE DISCIPLINE, AND A FORMAL RISK ASSESSMENT IS THE ONLY WAY THAT CAN -- THESE ENGINEERS CAN BE FORCED TO THINK OF ALL POSSIBLE WAYS THAT YOU CAN GET TO A FAILURE. IDENTIFY THE SCENARIO, IDENTIFY THE CONSEQUENCE OF IT, IDENTIFY THE LIKELIHOOD OF IT, AND THEN DECIDE HOW RISKY THAT WHOLE PROCESS IS.

Q HAVE YOU HAD A CHANCE TO REVIEW THE REPORTS BY THE METRO EXPERTS -- AND I'LL SORT OF COMBINE THEM TOGETHER -- THAT HAVE DISCUSSED THE RISKS ASSOCIATED WITH LOCATING A SUBWAY SITE OR STATION SITE AT CONSTELLATION BOULEVARD?

A YES. I HAVE REVIEWED THE REPORT, AND I'VE REVIEWED THE -- REVIEWED THE COMMENT.

WHEN WE FIRST SAID IN OUR REPORT THAT ONE SHOULD PERFORM QUANTITATIVE RISK ASSESSMENT FOR THIS, THEIR RESPONSE WAS, WELL, WE DON'T DO RISK ASSESSMENT, QUANTITATIVE RISK ASSESSMENTS, FOR ANY SUCH ACTIVITIES. ONLY NUCLEAR POWER PLANTS DO THAT.

IN A SUBSEQUENT RESPONSE TO THAT WE CITED A NUMBER OF DOCUMENTS INCLUDING TUNNELING ASSOCIATION GUIDELINES AND OTHER DOCUMENTS THAT KIND OF RECOMMEND WHAT WE ARE SUGGESTING.

AND THE SECOND RESPONSE I THINK WE JUST GOT TWO 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.

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

Q SO IN YOUR OPINION, HAS THERE BEEN SUFFICIENT SCIENTIFIC STUDY DONE IN ORDER TO JUSTIFY LOCATING THE SITE, SUBWAY SITE, AT THE CONSTELLATION BOULEVARD SITE?

A NO. AT A MINIMUM I WOULD REQUEST THAT A -- AS A PRUDENT TASK THAT ONE SHOULD LOOK AT THE STATION, LOOK AT THE ACTIVITIES INVOLVED, AND PERFORM A RISK ASSESSMENT BEFORE YOU CAN MAKE A DECISION WHETHER IT'S SAFE ENOUGH TO DO THAT OR NOT.

Q WHAT SPECIFIC ACTIVITIES WOULD YOU ASK TO BE 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.

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

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

Q AND SPECIFICALLY, YOU MENTIONED IN YOUR REPORTS THE ISSUE AS TO SOIL GAS DATA AND THE GASSY GROUND CONDITIONS THAT ARE INVOLVED. COULD YOU EXPAND ON THAT 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.

Q AND DO YOU BELIEVE THAT THE POSSIBILITY OF ABANDONED OR UNCONFIRMED OIL WELLS IS A SIGNIFICANT POSSIBILITY? AND I THINK YOU MENTIONED THIS EARLIER.

A YES. I THINK THIS, AGAIN, GOES TO MY COLLEAGUES. THERE ARE OTHER PEOPLE WHO ALSO WORKED ON THIS WHO HAVE -- WHO HAVE REPORTED THAT THERE ARE MANY CASES, WELL CASES, OIL WELL CASES, WHERE PREDOMINANT FEATURE OF THAT AREA THAT ARE NOT KNOWN. AND THE CURRENT STUDY THAT WAS DONE WAS NOT COMPLETED SOON ENOUGH AND DID NOT HAVE THE RIGHT TOOLS TO IDENTIFY ALL OF THESE POTENTIAL OIL CASES.

IF YOU ENCOUNTER AN OIL CASING DURING THE ACTIVITY, IT COULD STOP THE ACTIVITY, TUNNELING ACTIVITY, CAUSING OTHER PROBLEMS THAT COULD MANIFEST. AGAIN, THIS WOULD BE -- SHOULD ALSO BE A PART OF EITHER BETTER UNDERSTANDING OF WHERE THESE ARE AND AN UNDERSTANDING OF WHAT RISK WOULD THEY POSE IF YOU DID ENCOUNTER SUCH CASES.

Q AND TO YOUR KNOWLEDGE, HAS THERE BEEN ANY STUDY OF ABANDONED OIL WELLS ON THE PROPERTIES INVOLVED FROM THE CONSTELLATION STATION UP THROUGH THE ALIGNMENT AND THE BEVERLY HILLS PROPERTY?

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

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

A NOT THAT I KNOW OF.

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

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

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?

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

SO I WOULD -- I WOULD -- FROM MY PERSPECTIVE, IT'S VERY IMPORTANT YOU DO A RISK ASSESSMENT. I WOULD RECOMMEND THAT YOU DO A QUALITATIVE RISK ASSESSMENT. IDENTIFY THE BIG HITTERS AND USE A MORE REFINED QUANTITATIVE RISK ASSESSMENT. IDENTIFY THOSE RISKS, AND THEN MAKE A DECISION WHETHER IT'S SAFE OR NOT SAFE.

Q THANK YOU FOR BEING CONCISE, DR. MEDHEKAR. I'LL TURN YOU OVER TO ANY QUESTIONS FROM THE BOARD, KEEPING IN MIND THAT SEVERAL OF THESE PEOPLE ARE VERY GOOD CROSS-EXAMINERS.

MR. MC MURRY: ARE THERE ANY QUESTION YOU'D LIKE TO --

HEARING OFFICER DROOYAN: ANY QUESTIONS?

MR. HUIZAR: SO IF NO RISK ASSESSMENT WAS DONE, ARE YOU SUGGESTING THAT WE CREATE A SEPARATE DOCUMENT AND CALL IT A RISK ASSESSMENT?

THE WITNESS: WELL, A RISK ASSESSMENT INVOLVES -- COMES IN SOME STEPS, WHICH IS LOOKING AT THE PROCESS, IDENTIFYING DIFFERENT SCENARIOS, IDENTIFYING -- IF YOU'RE DOING IT CALLING IT A RISK ASSESSMENT, IDENTIFYING CATEGORIES FOR THOSE SCENARIOS. WHAT ARE THE CONSEQUENCES? AND MAYBE GIVE A GRADATION OF CONSEQUENCES OR ASSIGNING LIKELIHOODS TO THE SCENARIOS MAYBE ONCE A YEAR, ONCE IN TEN YEARS, ONCE IN HUNDRED YEARS. AND THEN COME IN WITH A RISK MATRIX TO GIVE A RISK LINE.

THIS HAS NOT BEEN DONE. AND SO I WOULD SAY, YES A SEPARATE RISK ASSESSMENT SHOULD BE PERFORMED.

MR. HUIZAR: COULD IT BE THAT IT'S JUST THE DOCUMENTS THAT WERE PREPARED? IT'S JUST A DIFFERENT METHODOLOGY TO GET TO THE SAME TYPE OF CONCLUSION?

THE WITNESS I HAVE NOT SEEN ANY DOCUMENT THAT EVEN QUANTITATIVELY ADDRESSES THIS FORMAT OF RISK DOING RISK ASSESSMENT. IF THERE IS ONE -- AND I HOPE THERE IS ONE -- THEN I HAVE NOT SEEN IT.

MR. HUIZAR: OR EVEN IN THE DOCUMENTS THAT WE'RE PREPARING INHERENT IN THAT, THERE IS A RISK ASSESSMENT. WE MAY NOT CALL IT A RISK ASSESSMENT, BUT THERE IS A RISK ASSESSMENT.

THE WITNESS: I WOULD NOT CALL IT A RISK ASSESSMENT.

MR. HUIZAR: OKAY. THANKS.

MR. MC MURRY: ANY OTHER QUESTIONS?

HEARING OFFICER DROOYAN: ANY OTHER QUESTIONS?

THANK YOU VERY MUCH.

MR. MC MURRY: THANK YOU, DR. MEDHEKAR.

HEARING OFFICER DROOYAN: MR. MC MURRY, MR. WIENER, ANYTHING FURTHER FROM THE CITY OF BEVERLY HILLS?

MR. MC MURRY: YES, YOUR HONOR. WE DO HAVE -- EXCUSE ME. FORCE OF HABIT.

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

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

HEARING OFFICER DROOYAN: NOT WISDOM. GO AHEAD.

MR. MC MURRY: YES. WE DO HAVE ONE MORE DOCUMENT WHICH IS -- IT ENDED UP BEING HANDED OUT RIGHT NOW. IT'S SIMPLY AN EXPOSITORY DOCUMENT THAT EXPLAINS CERTAIN POTENTIAL ALIGNMENTS AND DIAGRAMS. IT DOESN'T HAVE EVIDENTIARY VALUE.

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

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

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

MR. MC MURRY: YES.

HEARING OFFICER DROOYAN: SO THAT WILL BE PART OF THE RECORD AS WELL.

MR. MC MURRY: WE THANK YOU.

HEARING OFFICER DROOYAN: GO AHEAD.

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

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

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

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

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

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

-- UNDER BEVERLY HILLS HIGH SCHOOL.

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

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

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

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

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

MR. YAROSLAVSKY: SPEAK FOR YOURSELF.

MR. MC MURRY: I DID.

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

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

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

BUILDING 4 IS THE PARKING STRUCTURE, AGAIN, ABOUT 2 1/2 STORIES UNDERGROUND WHICH SERVES THIS BUILDING.

BUILDING 8 IS ABOUT A 20-PLUS STORY OFFICE BUILDING. AGAIN, IT HAS UNDERGROUND PARKING WITH THAT LIMIT.

THIS IS 3. THAT IS AN UNDERGROUND PARKING -- THAT IS AN ABOVE-GROUND PARKING STRUCTURE.

1 AND 2 ARE THE ABOVE-GROUND PARKING STRUCTURES FOR THE BEVERLY HILLS HIGH SCHOOL. THEY ARE ACTUALLY PART OF OUR LAND. BUILDING 6 -- SCHOOL DISTRICT. I'M SORRY. PART OF THE BEVERLY HILLS HIGH SCHOOL PROPERTY.

THIS IS BUILDING 6, WHICH AGAIN IS A LOWER LEVEL OFFICE BUILDING.

AND THIS IS THE NEW 10000 WILSHIRE -- 10000 SANTA MONICA CONDOMINIUM SITE WHICH WAS JUST APPROVED BY THE CITY OF LOS ANGELES, I BELIEVE, LAST MONTH. NO COMMENT ON THAT FACT THAT A 39-STORY STRUCTURE WAS APPROVED WITHOUT ANY CONCERN ABOUT AND WITH A SIGNIFICANT STUDY SHOWING THAT THERE WAS NO DANGER OF FAULT ACTIVITY ON THAT LOCATION.

NOW, LET ME SUGGEST THAT IT IS NOT ONLY POSSIBLE BUT FEASIBLE, AS BEST WE CAN TELL -- AND SURELY THIS IS SUBJECT TO FURTHER INVESTIGATION -- TO PUT A STATION SITE ON CENTURY CITY AND STILL NOT HAVE TO GO THROUGH BEVERLY HILLS HIGH SCHOOL. WE HAVE THREE ALIGNMENTS THAT WE CAN

DRAW THAT WILL WORK OUT.

FIRST OF ALL, THIS IS ALIGNMENT OPTION NUMBER 1. YOU'LL NOTICE THAT THE STATION HAS BEEN MOVED SOMEWHAT TO THE WEST BUT STILL INTERSECTS WITH AVENUE OF THE STARS, AND THEN IT CURVES UPWARD -- AND I WILL EMPHASIZE THAT IT CURVES IN A WAY THAT IS SATISFACTORY FOR METRO STANDARDS -- MISSES THE WATT TOWERS SO THAT ONE DOES NOT HAVE TO TUNNEL UNDERNEATH THEM, GOES THROUGH BUILDING 12, WHICH AS I SAID IS SIMPLY A PARKING STRUCTURE WITH ONLY 2 1/2 STORIES UNDERGROUND. I KNOW BECAUSE I DROVE UP AND DOWN IT TO MAKE SURE. THE THINGS I DO FOR THE QUEEN.

IT MISSES BUILDING D COMPLETELY. IT MISSES BUILDING 6 COMPLETELY. IT MISSES THE 39-STORY TOWER WHICH PROBABLY HAS DEEP FOUNDATION. IT MISSES THE HIGH SCHOOL SITE COMPLETELY. AND IT CURVES OVER AND JOINS ONTO SANTA MONICA BOULEVARD AT A LOCATION THAT IS EAST OF ALL OF THE IDENTIFIED SANTA MONICA FAULT ZONE STRUCTURES.

IN SHORT, THE ANALYSIS OF ALIGNMENT NUMBER 1 SHOWS YOU THAT IT AVOIDS ALL THE STRUCTURES EXCEPT FOR A PARKING STRUCTURE. ASIDE FROM BUILDING 12, THE PARKING STRUCTURE, IT GOES ONLY VACANT LAND, OPEN SPACE, LANDSCAPING, AND/OR MAJOR ROADWAYS WHICH SURELY WILL REDUCE THE ACQUISITION COST. IT COMPLIES WITH ALL METRO REQUIREMENTS FOR TUNNELS -- AND, AGAIN, WE'VE HAD THIS EXAMINED BY SEVERAL EXPERTS. THIS IS NOT JUST ME

TALKING -- INCLUDING THE CURVED RADIUS RESTRICTIONS.

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

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

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

IF YOU LOOK AT THE DIAGRAMS, YOU WILL SEE THAT WHEN YOU REACH THE BEVERLY HILLS LINEAMENT AREA, THE STRUCTURE IS RUNNING VIRTUALLY PERPENDICULAR AND THEREFORE 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.

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

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

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

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

SO IT'S ESSENTIALLY THE CONSTELLATION STATION THAT HAS BEEN PROPOSED BY METRO. IT THEN CURVES UP THROUGH HERE, GOING THROUGH BUILDING 9 WHICH IS -- WE SAID, DOES NOT HAVE A GREAT DEAL OF SUBTERRANEAN CLEARANCE AND THEN BUILDING 4 WHICH IS THE PARKING STRUCTURE, BUILDING 8 WHICH SIMILARLY HAS 2 1/2 STORIES. BUILDING 3 WAS SUCH A PARKING STRUCTURE. AND ALTHOUGH IT APPEARS TO CLIP THE 10000 SANTA MONICA SITE, IN FACT, IT CAN BE DESIGNED SUCH THAT IT DOES NOT DO SO.

HEARING OFFICER DROOYAN: LET'S BACK UP TO THAT LAST SLIDE.

MR. MC MURRY: THIS WAS NOT SUPPOSED TO BE HERE. THIS IS MY IDEA OF AN EXAMPLE OF GOOD ALIGNMENT. AND RICK WAS SUPPOSED TO TAKE THAT SLIDE OUT, AND HE DIDN'T.

RICK: SORRY, SIR.

MR. MC MURRY: THAT'S OKAY. IT IS A 1984 WINNER OF THE POSTER CONTEST AT THE UNIVERSITY OF WASHINGTON PRIOR TO THE GAME. WE LOST THE HOMECOMING GAME, BUT I GOT TO MARRY THE GIRL, SO IT WORKED OUT FINE.

NEXT, GO ON TO MORE SERIOUS MATTERS. LET ME TELL YOU WHAT WE BELIEVE THE BOARD SHOULD DO AT THIS POINT. RIGHT NOW YOU'RE BEING ASKED TO DECIDE WHERE THE SUBWAY SHOULD GO. THAT'S A CRITICAL CHOICE THAT AFFECTS BUSINESS; RESIDENTS; BEVERLY HILLS HIGH SCHOOL STUDENTS FACULTY, STAFF; ALL OF US, AS YOU CAN SEE FROM THE FACT

THAT THERE IS A SIGNIFICANT TURNOUT OF CONCERNED PEOPLE HERE.

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

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

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

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

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

THE POINT IS NOBODY EVER CAME UP WITH THEM.

AND WE BELIEVE THAT THOSE QUESTIONS SHOULD BE ANSWERED BEFORE YOU HAVE TO MAKE A DECISION, AND NOW IS NOT THE TIME TO MAKE THAT DECISION. OTHERWISE YOU'RE GOING TO SHORTCHANGE US. YOU'RE GOING TO SUBJECT METRO TO GREATER DELAYS DUE TO LITIGATION, AND EVEN WORSE CONSEQUENCE IS IF YOU LOSE THE LITIGATION.

ALL TOLD, IT'S A BETTER DECISION, IT SEEMS TO US, TO CHOOSE ONE OF THE ALTERNATIVES. AND IF YOU WANT TO 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.

THAT CONCLUDES OUR PRESENTATION UNLESS ANYBODY HAS ANY QUESTIONS.

HEARING OFFICER DROOYAN: MR. WIENER.

MR. WIENER: I WILL WRAP UP IN THE NEXT MINUTE AND A HALF --

HEARING OFFICER DROOYAN: OKAY.

MR. WIENER: -- BY 5:15.

WE THANK YOU FOR YOUR TIME AND ATTENTION TODAY. WE REALIZE IT WAS A LENGTHY HEARING. WE BELIEVE IT WAS AN IMPORTANT PRESENTATION TO PRESENT.

WHAT DID WE HEAR? WE HEARD THAT IT APPEARS THE WEST BEVERLY HILLS LINEAMENT IS NOT A FAULT. IT APPEARS THAT THERE IS STRONG EVIDENCE THAT THE SANTA MONICA BOULEVARD LINEAMENT, AS DR. KENNEY REFERRED TO IT, IS NOT

AN ACTIVE FAULT.

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

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

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

AN ACTIVE FAULT UNDER SANTA MONICA BOULEVARD AND WHETHER OR NOT ONE OF THE ALTERNATIVE ROUTES THAT WE HAVE SUGGESTED COULD REACH CONSTELLATION BOULEVARD AND AVOID BEVERLY HILLS HIGH SCHOOL AND PERHAPS EVEN AVOID THE ISSUE OF WHETHER OR NOT THERE IS A SEISMIC RISK TO PUTTING A STATION AT SANTA MONICA BOULEVARD.

WE IMPLORE YOU TO TAKE THE TIME BECAUSE YOU HAVE THE TIME TO MAKE THE RIGHT CHOICE.

AND WE THANK YOU FOR TAKING THAT UNDER CONSIDERATION AND YOUR ATTENTION TODAY.

HEARING OFFICER DROOYAN: THANK YOU, MR. WIENER.

MADAM SECRETARY, DO YOU HAVE --

THAT IS THE END OF YOUR PRESENTATION, I TAKE IT?

MR. WIENER: YES.

MR. FASANA: DOES THAT CONCLUDE THE HEARING? I NEED TO LEAVE IMMEDIATELY.

HEARING OFFICER DROOYAN: WE'RE JUST ABOUT READY TO CONCLUDE IT. ONE QUESTION, AND THEN THE SECRETARY'S IS GOING TO READ --

MR. ANTONOVICH: QUESTION FOR MTA STAFF. IF THE MTA DID BUILD A TUNNEL UNDER THE HIGH SCHOOL, WHAT TYPE OF APPROVAL DOES THE SCHOOL DISTRICT NEED FROM MTA TO CONSTRUCT ABOVE OR ADJACENT TO THE TUNNELS? AND HOW CLEAR ARE THOSE REQUIREMENTS FOR APPROVAL IF THEY ARE ARBITRARY OR DEFINED?

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

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

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.

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

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

THAT MTA BILLED THE PROPERTY OWNERS TO GO THROUGH THAT PROCESS AND ANY ADDITIONAL CONSTRUCTION COSTS THAT THESE PROPERTY OWNERS INCURRED DUE TO THAT REQUIREMENT. SO THOSE QUESTIONS.

HEARING OFFICER DROOYAN: THANK YOU. OKAY. THAT'S GOING TO CONCLUDE THE HEARING.

MADAM SECRETARY, WOULD YOU PLEASE READ YOUR STATEMENT.

MS. JACKSON: THE NOTICE OF INTENT TO HOLD THE PUBLIC WAS MAILED TO ALL 88 CITIES WITHIN LOS ANGELES COUNTY; THE BOARD OF SUPERVISORS OFFICES FOR LOS ANGELES, ORANGE, SAN BERNARDINO, RIVERSIDE, AND VENTURA COUNTIES; AND PUBLISHED ON THE INTERNET.

AFFIDAVITS OF PUBLICATION WILL BE FILED WITH THE METRO SECRETARY AND MADE AVAILABLE IN THE SECRETARY'S OFFICE FOR REVIEW.

HEARING OFFICER DROOYAN: THANK YOU. I WILL MAKE SURE THAT THIS ALL GETS IN AS PART OF THE RECORD. THAT CONCLUDES THE HEARING.

(WHEREUPON THE PROCEEDINGS WERE ADJOURNED AT 5:19 P.M.)

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STATE OF CALIFORNIA)
) SS.
COUNTY OF LOS ANGELES)

I, MARCIA S. MC ENTEE, A CERTIFIED SHORTHAND REPORTER IN AND FOR THE STATE OF CALIFORNIA, DO HEREBY CERTIFY:

THAT ON THURSDAY, MAY 17, 2012, I DID REPORT IN STENOGRAPHIC WRITING ALL OF THE TESTIMONY AND PROCEEDINGS IN THE FOREGOING PROCEEDINGS;

THAT SAID PROCEEDINGS WERE THEREAFTER REDUCED TO A TRANSCRIPT UNDER MY DIRECTION;

I FURTHER CERTIFY THAT THE FOREGOING IS A FULL, TRUE, AND CORRECT TRANSCRIPT OF SAID TESTIMONY AND PROCEEDINGS.

I FURTHER CERTIFY THAT I AM NEITHER COUNSEL FOR NOR RELATED TO ANY PARTY TO SAID ACTION, NOR IN ANYWISE INTERESTED IN THE OUTCOME THEREOF.

IN WITNESS WHEREOF, I HAVE HEREUNTO SUBSCRIBED MY NAME THIS 21ST DAY OF MAY, 2012.

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MARCIA S. MC ENTEE, CSR NO. 13399