September 19, 2002
SPECIAL MEETING –7:00 PM
City Council Conference Room
Civic Center, 1st Floor
250 Hamilton Avenue
Palo Alto, California  94301

ROLL CALL: 7:10 PM

Commissioners:
Annette Bialson, Chair - absent
Michael Griffin, Vice-Chair
Karen Holman
Patrick Burt
Bonnie Packer
Phyllis Cassel

Staff:
Joseph Kott, Chief Transportation Official
Lisa Grote, Chief Planning Official
Wynne Furth, Senior Assistant City Attorney
Carl Stoffel, Transportation Engineer
Julie Caporgno, Advance Planning Manager
Zariah Betten, Executive Secretary

Vice-Chair Griffin: I would like to start this special meeting of September 19, 2002. Would you take the roll, please Zariah? Thank you. I do not see any speaker cards for Oral Communications so we will proceed with the item that is before us tonight. Would staff like to make a presentation?

ORAL COMMUNICATIONS. Members of the public may speak to any item not on the agenda with a limitation of three (3) minutes per speaker. Those who desire to speak must complete a speaker request card available from the secretary of the Commission. The Planning and Transportation Commission reserves the right to limit the oral communications period to 15 minutes.

CONSENT CALENDAR. Items will be voted on in one motion unless removed from the calendar by a Commission Member.

AGENDA CHANGES, ADDITIONS AND DELETIONS. The agenda may have additional items added to it up until 72 hours prior to meeting time.

UNFINISHED BUSINESS.
Public Hearings: None.
**Other Items:** None.

**NEW BUSINESS.**

**Public Hearings:**

1. **Transportation Significance Thresholds:** Staff will present an overview of assumptions and methodologies for determination of traffic impacts of land development along with proposed revisions to current standards for determination of traffic impacts of land development for Commission's review and comment.

**Mr. Joseph Kott, Chief Transportation Official:** Thank you Vice-Chair Griffin and members of the Commission. To date, all of the assumptions in their work, and they are working on commissions so it's very important to have their work peer reviewed. And our brief, of course, is to look out after, you might say for the public interest as expressed by Council directives and the Comprehensive Plan. We evaluate mainly, this is also a [comp job] again to evaluate site access and how people of the vehicles are moving around and also get into and leave a proposed new site or re-draw up a developed site. We looked at circulation within that site and parking provision for that site. Again, the safety and efficiency are two of kind of guiding principles for us in those kind of work.

We participate very actively in our Congestion Management Agency, which is about transportation authority on several technical committees. One actually, it used to be called Level of Service Committee, it's changed and broadened and called Systems Operations and Management Committee. At least technical committees really do review the methodologies by which traffic impact studies are done, the methodologies by which computer traffic forecasts are made and the like.

We do either manage or prepare citywide traffic studies and as I mentioned earlier, have undertaken a major one. We're upgrading our citywide computer traffic model, which was developed initially for the Comprehensive Plan, EIR. We're updating that with new demographics since the company EIR was done and then some changes on the transportation that works it and then some more significant changes in Land Use and demographics. We're trying to take into account forecast future conditions from the past and in 20 years with Palo Alto. We were active in the Land Use and transportation study and also the Staff worked in preparing the transportation and the Comprehensive Plan. As part of what we do, I won't bore all of you with all the rest of it. There's a shuttle program.

**Vice-Chair Griffin:** Joe, as long as you're pausing here, I'm wondering if the folks along the back wall can see the screen.

**Mr. Kott:** I'm very sorry. That's the first principle of the speaker. A little bit of the Land Use and traffic and it may seem obvious but it's important to remind ourselves always, I think that transportation is really derived demand. It just doesn't spontaneously occur. It's induced by activities, those activities that occur in land. Those activities are expressed in land uses. In the activities, be they commercial, be they residential, be they industrial, recreational, either generate or attract or sometimes both traffic. And in contemporary America, if it's outside of our large central cities, this traffic is vehicular traffic and it tends to be prior to personal vehicular traffic.
So, we're left with our cities, the issue of dealing with the impacts of traffic generation, vehicular traffic. And the stress points for this traffic generation occur at the kind of the nexus nodes of the transportation network that is of the intersections typically. Intersections typically were the most constraints on movement and also at this safety issues as well.

Okay, traffic analysis has evolved in the last 40 years substantially. I think both in extent and in-depth. The newest issue so called Highway Capacity Manual, which this issue is actually called CMP, Congestion Management Program 2000, it was issued last year in 2001. That document reflects some of the changes that have evolved in traffic analysis due to a lot of research over the years. But I think in general, there's been a movement toward a more comprehensive framework in traffic analysis looking at ways, not only to accumulate but to accommodate and some way to expedite vehicular forward of throughput of vehicles particularly through intersections. But also these days, ways and means of accommodating even encouraging cycling, walking and transit use. And there's a whole, long list of reasons why the interest in these roads has increased over the years.

A lot of those reasons are contained in our Comprehensive Plan policies. A lot of them are based on their kind of very [blunt] facts that continually providing intersections improvements for their enhancements, more lanes and more complications at intersections makes it much more difficult for people using other modes to use those most strictly walking and cycling. And also there's cost and there's public access that are always constrained, I guess. But certainly they are very constrained right now. They also involve many environmental considerations, as you already know. And sometimes there's not enough land available to do these major improvements either. So there's a lot of interest in the ways and the means of managing travel demand more efficiently.

A big breakthrough, I think in the last ten years on this topic. They used to be very much supply side oriented. We just have to build more in order to accommodate the demand and the future demand. And it became kind of a spiral that led to some of the consequences. Some of them fiscal, I think some of them are environmental. So managing more efficiently means finding ways to induce, encourage folks to use transit, carpool, telecommute when possible, engage in flex time, if that's possible, at the work site, walk, if that's again, feasible and so forth.

Another broadening of the framework for traffic analysis, protecting residential streets, the tradition and the practice of doing that goes back quite a long time. There's much more interest these days in protecting our residential quality of life environment, you might say, particularly as it pertains to the ability to enjoy our homes, quiet neighborhood, the confidence that our kids can play outside have been impacted by traffic. So protecting residential streets for traffic infusion has become a topic for traffic impact analysis. It's not really expressed in the Highway Capacity Manual, that is there's no built-in methodology that's recommended for the analysis that impacts traffic, although there are methodologies apart from that by which we can do that.

Then, of course, we still have, we must have and always will have I think the need to move vehicles efficiently because we don't move them efficiently, then they tend to go other places and then they tend to actually get feed back into the problems with the residential street experience in terms of traffic confusion. So it's a complex balancing act. And it's so easy to talk about any problem when there's only one solution and there's only one way of going about that solution. In the case of traffic analysis these days, it's considerably more complex. We certainly do want to
induce more use of environmentally friendly modes of travel, but on the other hand, we have to be cognizant of the need to move traffic particularly in traffic streets or major streets.

So, basically that is kind of the framework to begin with and Carl Stoffel will now talk in more detail about the standards and significance that we use in the way we were talking about proposals for revisions of those standards and I'll be breaking it in a couple of points, too. So I don't know whether the Commission wish to ask questions now or later or during either one of our presentations?

Vice-Chair Griffin: Did you want to ask questions to Joe at this stage? Apparently not. Thank you.

Carl Stoffel, Transportation Engineer: So, Carl Stoffel, Transportation division. As you recall, this Commission requested information on these topics study session on transportation impacts came out of review many months ago, particularly development projects, I believe. So, if an interest of this topic of this specific assignment really, I think came out of some development project and reactions of our citizens.

So the Commission requested additional information in these five topics in the form of a study session. So we provided basically what I consider to be a reference document. We've put a lot of stuff in there, a lot of that is not necessary for making recommendations on changes and so on. But it's there, it's for background, for residents also and the idea is to kind of hang on to it, of course, read it. And for our study session tonight, that's what that material is for. And I couldn't possibly go into all of the details in there but I'll just go through a few of them.

The first three, the circled ones are the ones that you requested of some interim changes, in terms of the actual thresholds, which is part of this meeting at some point. The intersection Level of Service is the first topic and it's been the one that's been quite that one along with our residential street impacts, the one that's generated perhaps the most interest and conversation. Just in terms of what we do, we City's adopt a threshold, what's called a standard or a threshold and that's a Level of Service at intersections, that is the, let's say the worst acceptable. And any change beyond that then would be considered a significant impact, it would be subject to mitigation.

Most cities, a large number of cities have Level of Service D as the least acceptable and anything beyond that, E and F is not. Some cities have a Level Of Service C, we have Level of Service D in Palo Alto and it applies to all streets. Some cities have a Level of Service C, some cities apply the threshold or the standard differently to different streets. For instance, some intersections might be a C and other ones is a D and so on. Ours are the same across the board. There's also what I've termed the Incremental Significance Threshold and that's when you have your intersection already at an unacceptable Level of Service such as E. And we still add more traffic to them. We approve development projects or regional traffic increases or something else. So then we have to say, well, we're already essentially at capacity or very near it, so how much, we don't want to allow a particular, let's just use development projects because that's the usual thing we're looking at, we don't want to allow particular development project to come in and sort of eat up every little bit that they have left or overwhelm us that much because we know there probably will be more development projects. So there's this increment where we try to pick out what small amount can we allow that particular project, how much more small amount of traffic. That's what we call this Incremental Threshold and that's this where we get into the seconds of...
delay. This is the infamous 4-seconds of delay, critical movement of delay that we had been using and that’s our standard in Palo Alto. And that's been adopted from the fine work of our Congestion Management agency, not to say that we're going to continue with that. But they do a lot of research that we don't do in terms of, as Joe mentioned, they have a little committee that delves into this stuff and they do a lot of work to look and see what are some of the best ways to adopt standards and what the literature says and so on. We don't have to adopt those standards but it certainly is a good basis to use and that's where we came up with the 4-seconds of delay and actually replaced it earlier standard of change in the volume capacity ratio of .01. That change came about because the Level of Service methodology changed from the capacity to the delay method.

So at this time, anytime we have a Level of Service of E or F, then any additional increment of traffic that causes the delay which is measured to our software that calculates that, then anything over an additional 4 seconds of critical movement delay would be a significant impact with still a Service of Level E. In your Staff Report, you'll see in one of the Attachments an example of how many trips, what 4 seconds of delay means in terms of numbers of trips and we've picked out some actual development projects and some nearby intersections and ran them through the software. At this moment, I can't remember what Attachment that is.

We also have Congestion Management Program intersections. This is from the Congestion Management Agency. They basically oversee the more regional network and out of our 22 sort of key intersections that we're monitoring in the Comprehensive Plan, about half of those are the Congestion Management intersections. And these are the big ones on expressways and the main state highways, El Camino, Page Mill, those roads. We need to report to the Congestion Management Agency on the impacts on those facilities. Now they've adopted a Level of Service standard that's a little more lenient. They accept a Level of Service E, so they have a Level of Service E standard but going to F is unacceptable. So they're a little more lenient than we are. But that's only, in other words, we're stricter and we use our standards on all those intersections. But when we report to the Congestion Management folks, we need to tell them what's happening in terms of the E's and the F's and so on.

So, this gets a little complicated because on the bigger projects, we need to do a Traffic Impact Analysis submitted to them that covers impacts on their facilities so we have to talk about those impacts in terms of their standards for them. And then we also in Palo Alto, we've chosen to keep our standard for the same intersection so when we look at it and you folks look at it, we apply our standard. Some cities, I think, Mountain View has just deferred for all their Congestion Management Program intersections. They have adopted the CMP standard and not their own, whereas we have kept our own, as well as the Congestion Management Program standard.

Finally, there's perhaps a confusing area here of what we call, there's some exceptions to the Level of Service that were adopted by the City Council when they approved the Comprehensive Plan, the EIR. That there was four or five intersections that in 2010, even with mitigations they were going to be unacceptable Level of Service, in other words, E’s and F’s. And the City Council, along with a number of other environmental impacts adopted a statement of overriding considerations which meant we understand that the Comprehensive Plan, the project, the zoning that we’ve adopted is going to have certain impacts, it cannot be mitigated, we accept those impacts, we have to live with those in order to have our Comprehensive Plan. Now maybe
there's others on the Staff that can get into a little bit more detail about that. But there are four or
five of those intersections. Do you have a question?

Chairman Burt: On Attachment 4, are those the ones that are labeled SU?

Mr. Stoffel: Yes. This is something that's actually not that visible because we used to really
apply that fairly strictly on the Citywide Transportation Study many years ago. Since the
adoption of the Comp Plan, we at our office have pretty much stuck to our regular Level of
Service D standard and pretty much used our normal thresholds for evaluation. But through the
course of this action, we've realized that in fact, that is City Council policy and they have
specifically allowed a Level of Service E or F for these various locations. So unless we make
some changes next year through our remodeling and so on, we really need to consider that those
Level of Service at those locations are acceptable. Fortunately, those are at some of these big
intersections, some of which are away from residential areas but I think a couple of them are
nearby some of the residential areas that people are worried about.

Now again, I'm not going to point out all of the name, all of the intersections and all that stuff is
in the report. And I wouldn't know anyway until I open the Report, I don't have that all in my
head. Yes, Ma'am?

Commissioner Packer: Since we're talking about Level of Service, one of the things I've never
quite understood are the assumptions that go into developing the Level of Service, particularly
when it comes to figuring out for future projects, how many trips are going to be added to a
particular intersection. I can see one study being based on actual traffic counts and that I can
understand because that's real live data. But what concerns me is what assumptions go into
deciding what the trips are that add to the capacity.

Mr. Stoffel: In other words, how they get on the street that we say they’re going to go to?

Commissioner Packer: Yes.

Mr. Stoffel: From a proposed project?

Commissioner Burt: And how many? And Joe, feel free to jump in at any time.

Mr. Stoffel: Well, generally speaking, there's a 3-step process. First is trip generation, you have
to make some estimate of how many new trips, particular land use it's going to generate. All of
this stuff is a little esoteric sometimes but there's a big manual that is the County has officially
adopted to recognize this through the Transportation Engineer's Trip Generation manual. It tells
on an average basis, how many trips, certain number of square feet of new development it will
generate. And that would emanate from the site driveways and so on. And these are vehicle
trips, the studies are done in suburban areas, many of which will be similar to Palo Alto. There's
an inherent amount of other modes used. It's not that everybody is going to be driving cars. It's
just whatever kind of the standard is and a few people are walking, a few people are taking the
bus.

So then these trips, that's just a lump. And then the next is trip distribution. Where do those
people live? If it's a work site, where are they coming from and to? If it's a residential, then
where do they go to work and so on. In other words, there are different geographical areas to the
south, to the north, and in different cities and so on. And that generally comes about from zip
code data, especially if it's an existing use, it's expanding, they can do a survey of existing
employees to see and kind of assume. A lot of assumptions, as Joe said, kind of assumed that the
next batch will be kind of from a similar layout. Also that the Census provides quite a bit of
information about where different people live, how many people live in south San Jose and the
East Bay and that kind of thing.

Now, most of that, that's step 2. And most of these 3 steps are that we used to do some of those
studies here and I used to have lots of tables and someone will go through that. Mostly now, our
consulting firms do that and as much as possible, they try to keep tabs on the different directions
when people come. And some of it is this kind of educated guess work, it's the best you can do
because when you have something that's not existing, you can't really be too exact about that.
But you certainly know where the bulk of people come, what the current patterns are, you know
a lot about the existing employees, the similar uses like a research park. So that tells you where
they're coming from to.

And then the 3rd step is, since if they're coming from the south, now are they going to come on
101 or they're going to come on 280 or they're going to come on Central Expressway? That's the
assignment and that's where, if you really get into all the detail, you do travel time runs and so
on and try to actually figure out, perhaps even a computer model to figure out what's the logical
way that people would drive to get there. Most of it though is done on, you kind of look existing
movements at intersections. You see what percentage of people go up to 280 or down to 101.
Or again, you look at some existing areas with you might be able to do a survey of a building
next door or that kind of thing.

So then the trips are assigned on to different streets and you have 5% of the people coming on,
panned over from the south or 10% from the north or whatever. So then they're on the street
system, they go through the different intersections and then we know if they're going to go to
280, they've got to make a right turn and so on. So pretty soon, you have all these added trips at
these study intersections in terms of how they [new] vehicles during the peak hours then that gets
plugged into the Level of Service analysis. And again all of that in many cases, it's the best we
can do in terms of averages in many cases.

So as far as recommend the changes, just a couple of bullet points and then I'm not sure what you
want to hit into the details of that but maybe I should go over all this stuff first and then in your
Report, you actually have a detailed table that shows the existing standard and the proposed
standard. But two basic changes are to look at what the basic Level of Service standard which is
D, how's that should we change it. We're recommending a change to a Level of Service C for
certain kinds of streets. In other words, getting into a little bit of hierarchy of streets instead of
just a blanket Level of Service D. The Level of Service C which means that the Level of Service
C would be the worst acceptable and going to a D would be unacceptable.

Frankly, to be honest, a Level of Service C is difficult to attain and to keep in Palo Alto, in this
kind of area. D is very common, it's congested, you have to wait but it's reasonably tolerable and
that's why a lot of cities have Level of Service D. Level of Service C in my opinion is a little bit
on the ideal side. But the streets that we've selected is local, any intersections that involve local
streets, collector streets or an existing or proposed school commute corridor. And for purposes
of what we're recommending, we're saying that all four legs of the intersection have to be those types of streets before the Level of Service C standard would be the one. And as it results, there aren't that many intersections to which the Level of Service C would apply. And I gave you some examples in the table there, which ones would fall under this new category, and which ones would stay under the Level of Service D. Because of this requirement that, for instance, Oregon and Bryant, Bryant is a local street, it's a Bike Boulevard but Oregon is not one of those streets. It's a regional thoroughfare so only half of the intersection is comprised of the local streets so the Level of Service C standard would not apply in it.

So you can see, in a sense, the Level of Service C is fairly pretty stringent when you actually get out on the field and I think you start applying it to intersections that will tend to be limited to those, the ones I've mentioned are kind of the more major intersections. And, of course, it applies to all lots of small ones but those we don't usually have that much trouble with anyway. And by the way, I should emphasize that these changes are interim changes. We didn't feel that at this time that we can really do a thorough overhaul or get too bold because we're working within the framework of the existing Comprehensive Plan. So even going to a Level of Service C is fairly bold but when you limit it like we are it's perhaps manageable, in terms of living with this.

Commissioner Burt: Carl, can you walk me through again what the limitation is? In the cover page of the Staff Report it says, "LOS C standard for local, collector and residential arterial street intersections. And then including any intersections along existing or proposed school commute corridor."

Mr. Stoffel: Now this is the point of which you can give me your guidance. Do you want to start delving into the detail recommended?

Commissioner Burt: I just want to understand it.

Mr. Stoffel: You were reading what, the first part?

Commissioner Burt: Yes. The one on the right side, yes.

Mr. Stoffel: Essentially it's what I said just now, what I'm saying it's a little tricky. We're proposing a Level of Service C standard to apply to intersections that have local, collector or residential arterial streets going through the intersection. It doesn't say right there but in the Staff Report, you will see it says, that the intersection has to have all four legs of the intersection. In other words, both cross streets have to be of that type of street at that intersection. There are two residential arterials or collector and a residential arterial and so on in order for that Level of Service C standard to apply. And the one exception is along, let's just say Charleston because at this point that's the only proposed school commute corridor. And any intersection along Charleston would be subject to the Level of Service C.

Commissioner Burt: Okay. So then I think I finally understand what you're saying. Perhaps, if it would be more clear if you say instead of including any intersection, plus any intersection, or plus any and all intersections along school commute corridors.
Mr. Stoffel: Yes, I guess I use the word including because there's school commute corridors already are residential arterials, so they're already included in a certain way. But here we’re saying even if the cross street is not one of those like Alma, but I don't want to use that because there's a couple of exceptions. But I think that change would be fine.

Commissioner Burt: I just wanted to understand the intent, okay.

Mr. Stoffel: Now there are a couple of exceptions to this and one of them is the overriding considerations intersections. Those that the Council has already said, we're going to live with an F or an E and it so happens that Charleston I believe, perhaps you'll find it in your table there, Charleston/El Camino and Charleston/Alma I think are both two of those intersections. So then they would not be subject to that.

Commissioner Burt: So then, it wouldn't be any intersections on the school commute corridors, it would be those three categories of intersections plus any intersections along school commute corridors with the exception of those in Table 12.

Mr. Stoffel: Yes. There's one I didn't say here was there was this understanding in the background that there are overriding, there's an exception for overriding considerations for everything we're talking about.

Commissioner Burt: I should have said, on Table 12 with the SU designation. So that gets a little complicated. I was struggling with it and if I had that much trouble reading it several times, I probably wasn't the only one.

Mr. Stoffel: Well, that's kind of what the purpose of this session is tonight. Yes, Bonnie?

Commissioner Packer: Have you gone and looked at all those potential intersections to see what their current Level of Service is? Because I'm sure there are many of them that are at D right now. So what would be accomplished to say, well there has to be a C when for years we've been living it with the intersection at a D? That's one part of my question. The other part of my question is, school commute corridors, I know we're only proposing Charleston but I'm thinking of another which is, I don't know why it isn't being proposed is East Meadow. And for 15 minutes or for a half hour in the morning, Waverly and East Meadow must be some God-awful because it's a school commute corridor that’s when people are coming in bringing their kids, and so you get a Catch 22. You have situations where you're going to have a high impact simply because it is a school commute corridor or whatever reason. And you'll never have a C there because it's impossible. So what do we accomplish?

Mr. Stoffel: Well, here's what you accomplish now. It's a little hard if you're just standing here but if you compare Table 2 where it lists those examples of Level of Service C intersections. It's on page 8. And then you look at our existing Levels of Service which covers a lot of those intersections and that's Attachment 6. I didn't list the Levels of Service because you've got A and B. So just for example, Middlefield and Colorado, the first one on the list for potential Level of Service C, its existing Level of Service now is B. If you look at Middlefield and Embarcadero, it's a D. We can go on down the list. Here's what you gain. There are Level of Service A, B or C then the standard that says it can't get any worse, considering whatever you want to consider, a new development or mitigations or so on. Now, if they are already D's, the current standard says
D you can go to E or you can get a lot worse. You can go all the way to E before it's an unacceptable impact. Now, under this new standard, even the Level of Service D intersection then would be subject to this incremental standard which means you can only increase by as well, later see, we're proposing one second of delay. So your Level of Service D then wouldn't be able to go to E, it only could change a little bit. So you're protecting the D a lot more than you would now.

**Commissioner Burt:** And if I might add for everybody, it's important I think to recognize that when we have a Level of Service C, we're saying that if it's at C and you have this impact, it's not significant. If it's at D, then it kicks in so the C is the acceptable level.

**Mr. Stoffel:** Well, unless if your impact causes to go to D, then it's understood.

**Commissioner Burt:** Yes. The other thing that I was noting, I had been looking at Attachment 4 which was the 1998 baseline for the Comp Plan update on the Final EIR. And as you were pointing out Attachment 6 which is a 2001 monitoring, there are differences.

**Mr. Stoffel:** Although I only look at the P.M. peak hour. The Attachment 4 is just the P.M. So when you look at Attachment 6, just look at the right hand column.

**Commissioner Burt:** Okay. Still the case, for instance, one you cited Middlefield/Colorado. In 1998, it was a C and in 2001, it was a D, but under Attachment 4, in 2010 it was not projected to go beyond C. That to me is really interesting. Basically, it repudiates some of the assumptions of our 1998 EIR. I don't know how many of these assumptions we've already found to be wrong. And that may be beyond the scope of this meeting but I would find that a very important analysis because what are we responding to?

**Wynne Furth, Senior Assistant City Attorney:** That maybe the case but you can't assume because 2010 is better than now that there's an error in the environmental analysis because one of the things that some of these projections indicated was that they would get worse and then would get better as various improvements were constructed. So they may or may not be incorrect.

**Commissioner Burt:** Possibly, possibly.

**Mr. Stoffel:** The yearly measurements bounce around. We used to keep under the Citywide study a graph and we actually set a Level of Service with just the volume, we add up all the volume coming into the intersection. You know, in one year it'd be up a little, the next year it would be down. But there's kind of a trend, but it bounces around so any one year is difficult to compare. You need to be really looking at the trend from 1998, 1999, 2000 and so on. But we do recognize that in some areas the traffic has gone beyond those projections and that's why we're embarking already, we're working on a new model to re-evaluate all of that. And to go through to redo the analysis essentially is what we're going to be doing. And that's what we'll be looking at different other threshold changes. But we're going to be redoing that.

**Commissioner Burt:** Would it be possible to have that comparison for our next meeting? Can we just see that 1998 assumptions, 2001 actuality, or 1998 baseline, 2001 baseline and versus what was the assumption fro 2010.
Mr. Stoffel: Yes. Maybe we could list our inter-measurements to see, just kind of give you a table showing 1999, 2000, 2001. In fact, by that time, if we're doing new counts I guess in sometime in October they probably won't be ready, the 2002 counts.

Commissioner Burt: I'll just make one more observation on that. Just as I was looking at the numbers, we've got for that particular intersection in seconds delay in 1998 it was 21 seconds. Projected for 2010, it was 24 seconds, and what we have right now, I don't know whether we use the average delay or average critical delay.

Mr. Stoffel: It's just the average delay.

Commissioner Burt: So it's 29½.

Mr. Stoffel: Which intersection is that?

Commissioner Burt: That's the Middlefield/Embarcadero.

Commissioner Cassel: It says critical delay.

Commissioner Burt: So I have no idea how many more of these show similar patterns. But I'd be surprised if it's going to drop back down to 24 seconds by 2010.

Commissioner Cassel: Are we measuring the same thing on this?

Mr. Stoffel: Well, in your Attachment 4, delay is in the footnotes, it says "delay is average delay for the whole intersection." And that's your average delay which is first delay after Level of Service, that's the same number.

Commissioner Cassel: Right. But on Attachment 6, it says critical delay.

Mr. Stoffel: Well, there's another column for critical delay.

Commissioner Cassel: That's 32.7 seconds, it's 29.5 on the apples to apples comparison.

Mr. Stoffel: If you compare to Attachment 4, you need to use the first column. Now actually over time, these are actually two different Levels of Service methodologies. They've changed since Attachment 4 was produced, we used an entirely different system. So Attachment 6 now we're using the new methods and they're changing all the time. So, for instance, the Congestion Management agency are the people who really delve into and choose the methodologies. They try to pick something that's going to not cause a big aberration and try to pick something that replicates for the most part are the higher one. Then in some cases, there's change of Level of Service. So they try to pick one that over the average causes the least dislocation from the prior methodology and those changes come about because the industry finds better ways to measure these things.

Commissioner Cassel: So it may not be a severe in change as it is an incorrect assumption in the first place?
Mr. Stoffel: Well, there's always errors in these things due to perhaps the change of methodology. And to be honest, these intersection measurements, if somebody goes out there for two hours one day a year and measures, and there could be something going on. I mean, they look at the numbers and see it's strange but there's always fluctuation going on and the manpower requirements is just prohibitive to go out and stand out there.

Vice-Chair Griffin: So you're saying you're never going to get it right?

Mr. Kott: I have to say we will one day move to a more continuous monitoring of traffic conditions and that's why the big interest in so called Intelligent Transportation Systems. Right now, as Carl says, we could get a great limited time on that which we take measurements. And there are a lot of variables on the effect of traffic on a day-to-day basis.

Vice-Chair Griffin: Right. That was quite clear. Karen, did you have a comment?

Commissioner Holman: Yes. For instance, the intersections that are at lower than C now or worse, is there some plan in the future to target those specific areas as funds become available for shuttles especially if there's school corridors so that that level can be raised from say a D up to a C?

Mr. Stoffel: We're not aware of any specific targets.

Mr. Kott: Well, we would like to improve all the intersections really. We're not at all in favor of degrading mobility in order to force people to travel differently. It is very difficult to do some ____. I was reading the other day that between 1990 and 1995, the best database for measuring persons traveling in the United States, the National Bayshore and Person and Transportation Survey show that our use of vehicles increased by about 33% in terms of trips per capita in those years from 1990 to 1995. I don't know whether that growth rate has continued and I think there may be some economic variables that were there too, between those two years. But we have become a very auto dependent society. Our Comprehensive Plan and Council direction and so forth seeks to begin to reverse some of these trends. And, of course, there are many policies and programs in place or one day we'll put in place that seek to do that.

Realistically, some intersections will have to be deficient for quite some time. Given the fact that it is very difficult to qualitatively improve very high demand locations without a very important financial commitments and really perhaps some philosophy.

Commissioner Packer: I have another technical question so I can understand it. On Attachment 3, describe the different Levels of Service and essentially increase with every .4 second of delay?

Mr. Stoffel: They give you the seconds range in the text area there.

Commissioner Packer: And that's for average delay. And what is the increment when you're looking at the critical delay? With different Levels of Service?

Mr. Stoffel: Well, the critical usually, the Level of Service is measured by the average delay and this table of, for instance, Level of Service A is anything up to 5 seconds, B is from 5 to 15 and so on. That's average delay. You only get into the critical movement delay, really it only seems
to come into play when we're talking about these increment, the folks who've chosen to use
critical movement delay to measure these increments because like I said, it's more representative
of the movements in the intersection, there are hours that really eat up the time.

Commissioner Packer: But my question is if you have a certain plateau within let's say, the
Level D Level of Service for the average critical delay?

Mr. Stoffel: Well, we don't. It's defined by average delay, 25 seconds to 40 seconds. So I would
now know, there is not really a corresponding average, critical delay. You could calculate it for
different situations.

Commissioner Packer: I was trying to understand the magnitude of what is being proposed vis-
à-vis the increments between the Levels of Service.

Mr. Stoffel: We're not proposing, oh I see.

Commissioner Packer: The increment, the one-second in critical delay. How is that compared
with going from every 4 seconds?

Mr. Stoffel: I see what you mean, yes, I wouldn't be able to answer that. I can tell you how
much in terms of average delay. It's right on the table.

Commissioner Packer: But you're not proposing a change in the average. How would that
translate to proposal of one-second critical delay? How would that translate to an average?

Mr. Stoffel: Well, I wonder if we're getting something mixed up.

Ms. Furth: Our report indicates that the new standard you're proposing talks about an increase of
one second or more of critical delay when you're dealing with already badly, congested
intersections. And I think the question is, is there a way to understand what that means
compared to the change in average? Why did you choose critical, in other words?

Mr. Stoffel: Well, I don't really have an answer to that. Now maybe we can dig something out.
I don't know, Joe? He probably has something.

Vice-Chair Griffin: I like Wynn's question and it does appear that we're dealing with two
standards. One being that it's critical and the one of them being the average.

Mr. Stoffel: There's two measurement types, and if you're just talking about Level of Service C
and D and so on, it's defined in terms of average delay. And when you talk about the
incremental delay change when you're at an unacceptable Level of Service, it just so happens that
particular methodology has been defined in terms of looking at the critical movement change
because you're already in a bad situation and they want to look at delays caused by the worst
movements of the intersections. So they've chosen to look at that delay which the critical
movement delay is usually higher than those cases in the average.

Vice-Chair Griffin: And the movements that we're talking about here are straight ahead, left and
right?
Mr. Stoffel: Well, it depends at every intersection, but generally when you drive through, there is usually four or so movements that like, for instance, if you've got a lot of southbound traffic, it can't go until the northbound left turn traffic is out of the way. So those two together, they conflict. So those are the two critical movements in that case. Sometimes the heavy southbound may be corresponds with the heavy southbound left turn so that it's different. So it's the conflicting movements that need independent pieces of the green time that are critical. That's why you can add traffic to an intersection and right turn is a good example. You can have lots of right turn movements to an intersection, it doesn't affect the Level of Service often that much because so many of those can go anyway on a red light and so on. But other movements, it makes a big difference.

Vice-Chair Griffin: So frequently, the left turn arrow, for example, would be the critical movement? And that's the delay, that's the incremental delay that you're talking about?

Mr. Stoffel: Yes, in other words, incremental delay is looking at whatever the movement or it could be the left turn in one case and the other in the other case. But those usually four or so movements that are the ones that conflict with each other for any given direction.

Vice-Chair Griffin: All right, well, maybe we should let Carl continue here.

Mr. Stoffel: Well, so the other half of the proposed changes to Level of Service, many people have said, gee, 4 seconds of critical movement delay at a Level of Service E or so it seems like a lot. And other cities have a lot less, some cities say no more delay, no more cars. I think Menlo Park says half a second, and I think some cities like Los Gatos just don't change. So four seconds, that's a lot of additional traffic coming through. So I prepared a table, you'll also see in one of those attachments, for instance, Ricky's and some of these projects that have been here recently. Just hypothetically, running through the calculations to see how many trips didn't add to out of Charleston with 4 seconds of delay and then seeing how about two seconds of delay and then one. So you can see that it seems to be somewhat linear. So we thought as it says, based upon your discussion in what you were saying, let's make it a stricter standard, and we settled on one second. To a degree it's arbitrary.

Commissioner Cassel: I don't remember any discussion like that.

Mr. Stoffel: You don't?

Commissioner Cassel: No, I remember you asking us to do something to review and study but I don't remember.

Commissioner Packer: Yeah, I read over the minutes just before tonight from June 12th and there may have been comments from the public about that but we never discussed changing it.

Commissioner Cassel: We asked you to come back to the Commission.

Mr. Stoffel: Well, I think you wanted recommendations on possible in terms to changes to Levels of Service standard, right?
Commissioner Cassel: Right, you were recommending this.

Mr. Stoffel: So there's two parts to this. One is the basic standard and the other is more than the residents who have brought up the issue of the four seconds.

Commissioner Burt: And as long as we're referring to that previous meeting, I could not find my minutes. We didn't have the previous Staff Report attached nor our minutes from the last meeting. Can we get that prior to our follow up meeting on this? Didn't we have a brief Staff Report on June 12th?

Mr. Stoffel: What did we have on there?

Commissioner Burt: We normally get both of those.

Mr. Stoffel: So the other half then is to change, once you're at an unacceptable Level of Service already and a new project comes along, I guess of course, you could choose not to build the project, but if you do then it's going to have a certain impact and then that says, the added trips of the project caused the Level of Service to change by one second of critical movement delay or beyond that, that would be an unacceptable impact. So that's approximately one-fourth of what it is now. It seems to translate into roughly one-fourth the number of trips. And it does depends in which movements and so on but I just picked those examples there for you to see.

Commissioner Burt: You said unacceptable impact. Do you mean significant impact?

Mr. Stoffel: Yes, I use that interchangeably, the unacceptable would be significant and the significant is this CEQA definitions, significant impact needs to be mitigated or dealt with.

Commissioner Burt: I just want to make sure we weren't drifting into another terminology.

Mr. Stoffel: Yes, unacceptable is just my word for it.

Commissioner Burt: And I think the same clarifying language would be appropriate here that when we say that an increase of one second or more applicable to local, collector and residential streets plus any intersections along new corridors because they're not included in that other set. And then both for that and the following sentence, is as I understand it, it would be "except for those intersections noted as SU in Attachment 4. Is that correct?

Mr. Stoffel: Yes, those are always exceptions, or at least the Level of Service.

Commissioner Packer: I've got a question, a clarification on that Attachment 5 where you put out some numbers about the impact of square footage adding trips and the impact on the critical movement delay, the 1-second, 2-second, 4-second. Did you get the number of cars entering at those intersections from traffic study that had already been done and analyzed that trip distribution or is this something you just guessed that?

Mr. Stoffel: No, I just took the existing study, whatever the consultant prepared and we started with that.
Commissioner Packer: A traffic study that already had done a trip distribution?

Mr. Stoffel: Right. In other words, they had assigned a certain number of trips to Alma/Charleston, I didn't question that. I just used that and then I just did my own Level of Service analysis, sometimes it wasn't exactly what was in the EIR because there's different of a bunch of numbers to plug in and the base case was slightly different in some cases. But I tried to use close to the same base case. So then I just started cutting the numbers down and seeing what kind of delay it came out. Backing into it, so to speak. We started with those traffic reports because they had all those distributions and the assignments were there already.

Vice-Chair Griffin: For Ricky's and Hanover and the Library.

Commissioner Burt: That's very helpful.

Mr. Stoffel: So this is rough. The idea is to give you a little sense because I think citizens have said that 4 seconds of delay at Alma/Charleston is hundreds of additional cards or something like that. This tells you how many cars on some of these intersections. Those are just a few examples there. So, should we go on to the next one? So that's the Level of Service and as Joe said, the primary stress point.

Actually, residential streets are also a stress point and that's why we have traffic calming and a lot of concerns from the citizens. It's just that the stress point is not because of capacity and the congestion, it's due to the quality of life issues which typically the traffic engineers in the books and so on have dealt with so much of these, as Joe said they're getting around to that more. But as a result, there aren't really any common standards for measuring residential impacts. In fact, a lot of cities don't do it at all. We've been doing it. But because there wasn't much out there, we picked up several years or quite a while ago the TIRE index which was you've seen the reference there where it came from. They had been using that and what it really translates into is that a 25% increase in an existing volume is about the minimum noticeable of the average resident feels is happening. You can dispute that but that came from some research.

In fact, a lot of people are wondering what the TIRE Index is. It doesn't seem like other cities use it, it's got this funny name. So, that's what we're using now. And actually, we have not in the past defined a significant threshold. This TIRE doesn't do that, it just says what the different volume changes mean. But it doesn't say a certain point should be defined as unacceptable or significant. So we actually didn't do that for a long time. We didn't do it in the Comp Plan. But there's just been so much development affecting residential areas and kind of a demand just to say something about this so that's when we've been muddling around a little bit with a .2 change and then a .1 and we switched and so on. So until now, we don't really, we're just now saying that a .1 change is the place where the effect becomes significant.

Commissioner Burt: I have a question. It kind of goes back to your Section B under the recommendations as it ties into this. Actually two questions, I might as well go into it. One, on the second line it says, "Collector arterial streets up to the following maximum increase."

Mr. Stoffel: Well, tell you what, let me get to that point because that's the recommended change. Right now, let me just describe on what we have and then I'll tell you what that is. I just mentioned Environmental Capacity because that's just a point of information for you to study.
There is a term, a capacity of a two-lane street can be quite high and nobody would want to live on a street that has next to a number of cars going down. And so this term Environmental Capacity is about which puts the maximum on a local street that people can live with and still feel like they've got a good quality of life in the neighborhood. And it's obviously pretty subjective. But there seems to be some quite a bit of things in different areas of literature and as mentioned in your Staff Report. But there seems to be a feeling that around 1,200 - 1,500 vehicles per day would be the most acceptable, the highest number before you exceed this quality of life sort of threshold.

Commissioner Packer: Quick question on that one. How long of a segment of street is defined as local when you're doing this count? I was having a hard time picturing it because many of our local streets are very long. Is there any point?

Mr. Stoffel: Yeah, this is just a point measurement. Just the number of cars passing in front of your house per day.

Commissioner Packer: Oh, I see, so you're just picking an arbitrary point?

Mr. Stoffel: Yes, that's just like, it's an arbitrary point when you're doing a traffic count. Though we're always picking points that people have some interest in, in measuring. It doesn't have anything to do with length. So, it's just a reference point for me. We don't define unacceptable impact when we're already to that maximum and we're not proposing that either.

Vice-Chair Griffin: If somebody's complaining about cut-through traffic in their downtown north neighborhood, for example, you can go out in front of my house and do this kind of capacity analysis to see what the vehicles per day, do that count in front to determine.

Mr. Stoffel: Yes, you just go out and put the hose out and if you have done that you might on some of those major downtown north streets, 2,000 to, 2,500. We have quite a few local streets around town that have that but as you can see, it's quite a bit higher than what the people in the literature would feel would be of quality of maximum. There doesn't seem to be that much agreement on a number of like that for a collector street, although there is some indication that maybe around 4,500 or 5,000 ADT. But it's still residential but the idea the collector street is that people know when they live there it's supposed to carry more cars and generally a little bit faster and it's not quite as serene as the local streets. But that number Environmental Capacity has not been looked at too much for collector streets and not at all for arterials that I'm aware of.

And then different street classifications. You know, some cities and you have 3 different cities, we put the standards in there and you can look through there. I'm not really talking much about those but different cities have decided they have thresholds for their residential street impacts, different streets local streets are one thing, collectors are another and so on. So there's lots of different ways of doing it. And I think all 3 of those cities in the examples are very different.

So what we have now as I said is just we talked about how much change is acceptable and it's this .1 and it's on any kind of street, whether it's local or all the way up to residential arterial. And 25% of a large number like on an arterial that's got 25,000 cars. That's a pretty big number. On the local street, it's got 100 and maybe cul-de-sac or something and you just add 25 more cars
and maybe 2 houses, there you're already at this threshold but gee, it doesn't seem like much. The lower volume streets, the 25% change is pretty small and the bigger streets its pretty big.

So the recommended changes here just in summary form are to not use TIRE anymore. But essentially use the same equivalent, it's 25% which is close to what the .1 is. But just to talk about percentage change instead of something the people think they don't know where it came from. We also will adopt the significant threshold that would be the 25%.

The third one is to establish this maximum increase for each type of street. We don't have that now. It's just 25% change whatever it is in that we're saying here that we want to not let that just go on forever so we'll have this maximum there. So that's a little bit of a cap that we didn't have before.

And then finally, we've established an absolute maximum for just a local street because we just don't feel comfortable doing it for the other streets with numbers. We just don't have a good basis. So the number is definitely higher than this environmental threshold so now, I'll show you the table where the detailed changes that we're recommending is what you see on the first page of your report there.

What's under your first page of your report of recommendations is really a repetition of this but it doesn't have the side-by-side comparison to the existing standard so it's probably better to look at these tables. The first part there is move away from the TIRE Index and we'll just move to basically the same threshold at 25% increase but just talk about percents. But then we would establish these maximums for local street is 2,500 and 25% of that is whatever, 800. Then we would say, well, that's 25% is not acceptable, it's really 375. So we're limiting the 25% increase at a certain point. So each street type has a slightly higher maximum. Then were also establishing a floor which like on the little streets of 100 ADT, you know 25% is not very much so we're saying let's have a minimum that in any case, we can allow 150 which is not a big volume.

And then the final is just on a residential arterial where you often have the Levels of Service anyway, say, Middlefield and Embarcadero. We're just saying that whichever one turns out to be the most restrictive we'll use that method where there's the volume method or the Level of Service method. So these are not major changes but at least it can clarify those things. So Pat, in the maximums, did you have any questions?

**Commissioner Packer:** Yeah, I've been re-reading and trying to make sure I understood what was being said. One thing is that I think for each of these sections it might be more clear if, and tell me if this reflects what we're intending to say, there's this volume threshold for residential streets but in each section, do we mean impacts at intersections are considered significant if and the following.

**Mr. Stoffel:** Yes. Essentially what the word threshold means is that's the point above which you have a significant impact.

**Commissioner Burt:** Then when you, under this one where you're saying an increase in existing daily volume of 25% or more constitutes significant impact.
Mr. Stoffel: I guess it should be 25% because above that, you could go up to 25% and be okay but if it's higher then it's unacceptable.

Commissioner Burt: Well, that's what I'm trying to make sure that the verbiage is clear. So what you're intending to say is that if it's 25% or more then it's a significant increase?

Mr. Stoffel: Yes.

Commissioner Burt: Okay. And then second, that in any event, regardless of the percentage increase above 375 vehicles per day on a local street, etc. also constitutes a significant threshold?

Mr. Stoffel: Well, I can say that we maybe need to reword that. It could be worded a 25% increase or 375 vehicles per day, whichever is smaller.

Ms. Furth: If the City decides to adopt new interim standards and it has to be done even on an interim basis with the public hearing and with some formality, these turn into questions on the checklist. So the question would be, will this project increase traffic by more than 25% on a local street? And then the sub-question has to be, is it less than 150 trips, in which case it's not significant even if it's 100% increase, or is it more than one of those tiers thresholds? And if you check yes in the box, then you've got a potential significant increase.

Commissioner Burt: So for purposes of our discussion tonight, I just was struggling to understand what was even intended.

Ms. Furth: Right. It's not the way we usually state thresholds.

Commissioner Burt: Okay. And then finally, I just want to make sure I understand this. It says, "in all cases, a minimum increase of 150 vehicles per day is acceptable."

Ms. Furth: It's a maximum is we would usually use.

Commissioner Burt: Right. That anything less than 150 vehicles per day will not be significant regardless of whether it needs any of the others.

Ms. Furth: They have a very low baseline and so it's 100% increase, it's still not significant. It doesn't meet the CEQA standards which requires significant impact on the physical environment, in Staff's opinion.

Mr. Stoffel: Yes, I can see why that would be confusing.

Vice-Chair Griffin: Just reading these recommendations cold, it was pretty daunting before reading the rest of the report, which finally, after you get all of the background then you can go back and re-read that first page and it starts to make sense.

Commissioner Burt: If I might make a suggestion, if you look at, this is an example of how it was done in Attachment 2 which was the Comp Plan supplemental EIR, that introduction was more easy to follow. And that might be a format that would be helpful.
Mr. Stoffel: Any other questions on this area because we want to get into other areas?

Commissioner Packer: On page 10 of the Staff Report, you talked about how the traffic calming program defines 2,500 vpd as a maximum acceptable volume on local street. But you decided to kind of cap it at 1,500 for the purpose of defining a threshold? Is that what I'm understanding?

Mr. Stoffel: No. And since you mentioned the traffic calming program, some of this with the exception of these maximums, was already in the traffic calming program. But the Environmental Capacity, the 1,500 that's just the point of information. It has nothing to do with this maximum, as you can see, this is a much larger number and I picked that number for the traffic calming as well as here. After looking at some of the volumes on the residential streets, there are a lot of them that are up in that area and it's sort of a fact of life. So we're saying that our maximum needs to set some basis in the reality of our streets. This is my point of view. You may want to take a different one. But if we set a much lower cap, then we have a lot of streets that we couldn't have any increases for any purpose.

Commissioner Cassel: I was trying to go and do the philosophical stuff a little later and let you go through your presentation.

Commissioner Packer: It's just that you have this 375 that's based on 25% of 1,500.

Mr. Stoffel: I just picked a way to calculate the maximum and I chose the Environmental Capacity in each case to set the maximum, but we still have an ultimate maximum of 2,500. So if you have a street that's got 2,400 cars on it now and you have a 25% increase, you're going to go over the 2,500 and so the 2,500 would be the ruling maximum.

Commissioner Packer: All right, we'll have to go back to that.

Mr. Stoffel: The third area that you wanted to look at was the pedestrian and bicycle impacts. So Joe took care of that.

Mr. Kott: Well, there's been some concern and we really don't have a very empirical threshold for bicycle and pedestrian impacts. More it's like substantial, the word like substantial isn't really well-defined in our current standard. So we've decided to do something about that and we're adopting right now, I call it like a binary approach either something is there or it's not there. If you remove a bike lane and it's not there, that is a significant impact. If you remove a sidewalk segment, if you remove a planning strip that separates the sidewalk from the street, if you narrow traffic lanes forcing cyclists to merge into motor vehicle traffic, if you reduce the bike lane to minimum standards.

Secondarily, if we did some research on cycling, pedestrian methodologies that are emerging in the United States and there's some very good work going on now. I particularly recommend the work on bicycle Level of Service. The one I believe is the best one in the country right now is propagated by the Federal Highway Administration based on research done through the University of North Carolina, it's a fine institution. You see in North Carolina, that it's called the Bicycle Compatibility Index. We've got a lot of material in the Staff Report, which described that methodology and some outtakes when people use bicycle services. We have proposed a Level of Service C, that is there's an impact, the traffic impact development that would take a
street section below the Level of Service C standard as defined by Bicycle Compatibility Index methodology. That would be a significant impact.

A little bit about the cycling. It's very interesting, it's only the Highway Capacity Manual of 2000. Highway Capacity Manuals have been involved in a total of four decades now. Only the HCM 2000 has chosen to address for the first time, cycling Level of Service methodologies. It had done a pretty good job but it's really not quite there yet, in terms of defining what makes a facility cyclable or not. As I said in the Staff Report, the Highway Capacity Manual methodology really has determined the Level of Service and that methodology determined by delay cyclists experience at signals, not through the control delay, the operation of the signal itself. The amount of red time that you see has nothing to do with the amount of the experienced cyclists have and the freedom to maneuver comfort and so forth.

As we all know, even in Palo Alto which has very high cycling rates we never really reached a saturation point at intersections of bicycles. We do with our very congested intersections at times during peak hours, but in terms of cycling, it's really a matter of how compatible or how comfortable a facility is for cyclists. And if it's not, you will in effect, deter cycling, degrade the cycling experience if you fall below thresholds. And the variables here are really pretty clear. I think the most people who do cycle, whether or not you've got a bicycle lane, with that lane or if you don't have a lane, you have a wide curb lane available. There's sufficient space for bicycles, even if there's parking in the curb side, as long as there's enough width and so cyclists can avoid the on sweep of the door. The vehicle speeds that prevail on the street, truck lines is a variable, turning volume is a variable, as we all know right turn is sometimes do cut off cyclists and parking occupancy. And it's scalable, not so much in terms of delay in travel, the way the vehicular trips determine but it's scalable based on ratings. The ratings themselves which really is a formula that's based on some multi variant analysis that was done through the University of North Carolina. But it's sponsored by the Federal Highway Administration. But it's scalable A through F in terms of the ratings, and again there's a lot of documentation in the Staff Report on those ratings and how they are derived.

We think it's very important for Palo Alto to innovate. We have cycling for many, many years beginning with our bicycle boulevard and really setting a standard for bicycle facilities. We think it's a quite defensible standard. In fact, we highly recommend other communities to consider this.

Vice-Chair Griffin: I'm just wondering before Carl sets up here for his continuation, at this stage, I now have six cards. If people in the audience would like to start thinking about whether you'd like to sign up for this, it gives us an idea of how to arrange the timing for the rest of the session.

Mr. Stoffel: I don't think it will take this long. So we've gone through the three areas that you wanted to strengthen. I don't think we've gone into detail about some of the other things you were interested in—TDM. It's there for you to read. There are implications to adopting stricter thresholds even the ones that we're proposing which are somewhat moderate. Perhaps you can think of others. But a primary one which I'm not an expert on but other Staff members could comment on is we have an existing Comprehensive Plan and EIR that we're working under at least until next year when we redo our traffic analysis. We need to stay somewhat within bounds
of that so we don't totally invalidate all of those conclusions. So we think these that we've
proposed stay within that so there are some limit as to how far we thought we could go.

Another is, of course, you're going to find more significant impacts when you go and look at
development projects so that then you have to worry about mitigating those. First of all, actually
you need to possibly get into EIR as a Mitigated Negative Declaration for you wouldn't have
before which is a lot more work and time in the whole process. And then out of that comes
possibly mitigations and as you know, those are usually pretty hard to find, especially if you're
talking about intersections and Levels of Service D and E and so on. We don't have a policy
here of doing a lot of widening of the intersections, and in some cases it doesn't help it anyway.

So it makes the whole process considerably more difficult. We've had to use a little bit of
creativity and look at some corridor mitigations instead of an intersection in the past but more of
that will have to be dealt with when we have more impacts, meaning we’ll have to find some
kind of substitutes. Some of these are things that the Congestion Management Program people
have been looking into, such as the deficiency plan. It's been floating around for a long time. It's
a way of mitigating impacts without actually having to go in and do a lot of work at
intersections. You may look at area wide mitigations, other modes and substitute mitigations, it
gets a little complex and I think there are some legal issues there with how far away the
mitigation gets from the actual impact, both physically and in terms of what caused it in the first
place.

Of course, one way to mitigate the impact is you have less development or you have less dense
development so that's one way to reduce the trips. Another is that, if possible you can have
development where fewer trips are produced. Somehow maybe it's limitations on parking, TDM
programs this is rather difficult but that's the way to still have the same amount of development
and not have the significant impacts because those impacts in most cases all cases are caused by
car traffic.

So, and that's the last point is you keep the same level of development that's why TDM is in
there. I call it a soft mitigation because it's only there as long as somebody keeps pushing at it
and somebody keeps watching them to make sure they're doing it. It's difficult for us to keep
monitoring these kinds of things. And it's behavioral based and people may not want to change.
So, these are some of the things to consider when you adopt stricter thresholds now, and in the
future too.

And then the last item here is not really a threshold that's why it comes after all the rest of this
and that is the traffic impact studies. When do we do them and when do we require them?
These are information tools, it's a report that tells us where all these trips are going and what
intersections are going through and what Levels of Service are and all these impacts. The
Congestion Management program folks, for any project that generates over 100 P.M. peak hour
trips, they want to know about that project because they're trying to keep their land use model up
to date and they're just trying to keep track of all these regional impacts, and then they, of course,
feed that back to us in different ways. So it's a state law, state congestion management law that
we're required to do these studies, report to them, they approve it, they give us feedback about
mitigation and so on. And we're only reporting on their facilities which of those are 10 or 11 big
intersections and on the freeways and the expressways. We use their methodology to report to
them. So that's their threshold and it's a big project, 100 peak hour trips is fairly pretty big. So
it's not an environmental threshold, it's just an informational threshold to the point we've got to
give them some information.

We don't have at this point any strict requirement for when to do traffic impact studies because
typically, that's why we did our Citywide study many ago and the Comprehensive Plan EIR is to
forecast everything we think is going to happen and then when projects come in to follow the
zoning that the plan is based on, we've already said certain Levels of Service are expected and
acceptable and so we don't do the traffic impact studies unless these general areas here were as
controversial as many projects are. They're unusually large or they're not consistent with the
Comp Plan, so we have quite a few of those. And also a lot of the applicants have been doing
traffic impact studies anyway just it gives the public more information and they know that we
may want one. So we do have a lot of TIA's as we call them even though we don't necessarily
require them. But we thought it would be good to propose a change in that regard and that was
to start requiring traffic impact studies so it needs now just across the board for any project of
this size and there's a table in your staff report that shows roughly what size projects that might
be for different uses.

So we'll being a lot more of these if we do this change. It's more work for of course for the
applicant, more time for us to review it, just adds more work in the process but we'll get more
information out of it, so that's what our recommendation is there. I think that's it. So that covers
our recommendations and then there's a lot of material in there that backs up all of that and goes
into more detail on even some side topics. That's our presentation and its is over after an hour
and a half.

Vice-Chair Griffin: That was a good clarification of a lot of items that I think we all on the
commission had. Are there any further questions that commissioners would like to close to Carl
or Joe before we open some to the public?

Ms. Furth: Should we do it right now?

Vice-Chair Griffin: We have to break at 9:00 for changing the tape so that's for sure anyway.

Ms. Furth: I do have one comment a little further back which of course is that what you're
talking about here is setting thresholds so that we can understand when we should do
Environmental Impact Reports or seek to mitigate the effects of projects. So I was just going to
read you the state directions on what to do. Each city is encouraged to develop and publish
thresholds of significance that the city uses in determination of the significance of environmental
effects. A threshold of significance is an identifiable, quantitative, qualitative or performance
level of a particular environmental effect, non-compliance of which means the effect will
normally be significant in compliance with which means it won't. Thresholds is significance to
be adopted for general use as part of the city's environmental review process, must be adopted by
ordinance, resolution or rule developed through a public review process and be support by
substantial evidence.

And then it goes on to say, remember we're talking about significant effects on the environment
and that means to substantial or potentially substantial adverse change in any of the physical
conditions within the area affected by the project including land, air, water, minerals, flora fauna,
ambient noise and objects of historical or aesthetic significance and economic or social change
by itself is not a significant effect on the environment through a social or economic change
related to a physical change may be considered.

So you're trying to set an appropriate level taking into consideration the physical ambient world
that we exist in to say these are levels of change that are physically significant or significant in
our physical world and these are appropriate and obviously there's a range of things that that
could be and you try to set them at the level so that we get the most environmental improvement
for our buck knowing that there are a lot of different ways to invest the city's time and money
and research and you're trying to hit a level which you think will get good results. Whether it's
further research, further mitigation or working on other programs.

Vice-Chair Griffin: All right, thank you. Karen, do you have any questions you want to pose?

Commissioner Holman: Not now.

Vice-Chair Griffin: Pat? Anyone else? Bonnie?

Commissioner Packer: I didn't have question.

Vice-Chair Griffin: I know, all right, well then I'm going to ask one question before we break
and Carl if you could refer to page 3 of your report and I must say I eventually got to the point
that I liked your report Carl. I had to read through it twice but anyway, there's a lot of
information in here and it was excellent background.

In the paragraph under the topic discussion you're talking about the general statement of the
existing transportation significance threshold which you've listed in attachment 1 and then you
talk about that there is a substantially more detailed statement for the Comprehensive Plan which
is listed in attachment 2 and then you say however these thresholds are not included in the comp
plan document itself and council has not specifically adopted these thresholds as official for all
transportation impact analysis. I guess my question is why hasn't counsel or do you know why
hasn't council adopted these thresholds. Wynne, you want to go ahead.

Ms. Furth: Because it hasn't adopted any thresholds officially. The city has, most cities in
California don't have an official list of their CEQA standards, their thresholds. Staff puts
together lists using CEQA standards that are in the comp plan, CEQA standards that have been
used before, using regional standards, things like using the CMA standard but cities are
encouraged to put together all their threshold standards and put them in one place and adopt them
and more and more cities are and some other local cities on the Peninsula have.

So it's not that they rejected them. I mean they impliedly said yeah this is, every time they
certify an Environmental Impact Report they're saying these are acceptable threshold standard
that you use in doing the study but we've never prepared a separate document which lists all the
city standards and that's what we're moving towards doing. That's what we've been directed to
do.

Commissioner Cassel: And that's what City Council has asked us to work on?

Ms. Furth: That's right.
Vice-Chair Griffin: All right. If there are no other comments, then we've been at this for an hour and a half so let's do take a break and we'll come back for the public comment.

[break period]

Vice-Chair Griffin: All right, ladies and gentlemen, we're going to reconvene. I've got about 9 cards here and what I'd like to do is encourage anyone else that would like to speak to go ahead and fill out a card here so that we know what we've got here. At this stage, we're going to allow speakers 5 minutes. And we'll get under way here with Therese Brekke. Good evening, Therese.

Ms. Therese Brekke, Stanford Planning: Good evening, Vice-Chair Griffin and Planning Commission members. My name is Therese Brekke. I'm here with the Stanford University Planning Office. There are 4 items that I want to draw your attention to this evening before I begin my points though I first want to say a big thanks to Mr. Stoffel and Joe for what I think is an excellent Staff Report. I think as was mentioned earlier, this is pretty dense material and you found a way to make it intelligible for all of us and I really do appreciate that.

My first point has to do with the reliance on rather precise measures and they're really are being used now to predict rather variable phenomena. I think Carl as you yourself know that these are traffic counts that are done two hours, one day a year. And they are counts that, in fact, do bounce around and there is a great deal of variability in these counts. And so to use such exacting measures, such as 1-second of delay gives a false sense of accuracy and can lead to a rather protracted debate over [minutia]. So that's my first concern that I wanted to bring to the attention here.

My second concern really has to do with consistency with the Comprehensive Plan and the analysis that was conducted under the EIR. I think it's already been noted there are six intersections that, in fact, were exempted with statements of overriding consideration. And one of the questions I have is that with this new standard, there may, in fact, be many more intersections that will not meet this new current standard and those may, in fact, have been intersections that the Council in the Planning Commission would have considered also for overriding considerations. However, not given the opportunity to do so in the ongoing debate that occurred at the time the Comprehensive Plan was being prepared and approved. One of the things I think that Commissioner Burt you had noticed is that when you examine the existing conditions under the 1996 EIR analysis and compare that with the existing conditions, Levels of Service 2001 and those predicted under 2010, you'll find some real variability. And, in fact, as I did my own analysis I found that there were 4 intersections that, in fact, are less now than they were in 1996.

I do note that you are going to be updating your traffic model in 2003 and so rather than rushing to judgment at this time with interim thresholds, I'm urging that you consider waiting until that traffic model is, in fact, updated. And then the last point I do really wish to make and stress is that I do encourage you to take a progressive viewpoint in the way that you have done on many other issues. Instead of looking only at Levels of Service, you're looking at Intermodal Transit improvements and I think that's very important. You're looking at the smoothness of travel along
El Camino Real and the entire corridor and not specifically as it relates to discrete intersections. I appreciate your attention, I hope you do give considerations to all of those issues. Thank you.

Vice-Chair Griffin: Thanks. Our next speaker is Larry Mitchell.

Larry Mitchell, 3888 [Govis] Avenue, Palo Alto: My name is Larry Mitchell. I live on Charleston and Middlefield and just a couple of points I would like to again, maybe questions more than anything else. Maybe we should wait before we think about how we do some traffic studies until that 2003 model. We still haven't seen the effects of I think the multiple projects that are outside of our control such as Stanford and I think IKEA is going to be the thing that's going to set this thing in all in disarray as well. You want to wait until that building comes in, see what the traffic models are like at that point, do your traffic measurements on University Avenue at that point. I think Stanford might not be able to build as much as they want to build at that point anyway because traffic will just be too bad in the middle of Palo Alto. It will affect Embarcadero and we still might have and, in fact, down as far as Oregon Expressway, which will further pressure the Charleston corridor.

So at this point right now to talk about traffic and levels at this stage, I don't think we've seen the worse of it yet. But I think we're really going to be in for. The other thing I think we should also take in effect is the Elks Lodge, which will probably be developed the same as the Hyatt will be developed. If you can only study one item and then the next item comes right behind it, we're not going to take a break. And that's going to effect I think of how you develop south Palo Alto. I know we can't discuss certain issues such as again, schools. I don't find developers encouraging us and giving us land to build schools, more problems. The next big thing that we're going to talk about with transportation and that has to be affected as how we're going to develop our fields. What happens to our soccer programs? What happens to our Little League? We're putting more portables on our classrooms, on our schools already we have no fields.

The other point you might want to also take in consideration is the railroad. They're building a third line. We can't overpass and underpass we have in Charleston, we can't overpass and underpass on East Meadow. We can't do in San Antonio Road, we might not be able to do a thing about ______, we have residents out there right next door to the trains. Those crossings are going to go up and down and up and down as they increase. What's the prediction? Another fifty percent? So maybe we should wait. Maybe should we discourage all developers right now from doing things until we figure out what's going to be like when we get those big projects and they're outside of our control. We're unfortunate that we have to be involved with that. So maybe we again, maybe we should take a wait and see attitude at this point and just go through some developments and some studies at this point until we really know what's going on. Thank you.

Vice-Chair Griffin: Thanks. Our next speaker is Dorothy Bender.

Dorothy Bender, 591 Military Way, Palo Alto: Hi, my name is Dorothy Bender and I live in Palo Alto, 591 Military Way. Last January, City Council directed the Staff to bring forth some guidelines. There were projects that were before Council and without clear guidelines, they could not really understand whether it was 4 seconds or .01. There is a V over C ratio that was very, very unclear so the Traffic Staff I think has done an excellent job in following through on what Council directed them to do. Without such guidelines, I believe that it does a disservice to
the community and to the developer. So I think we should go forward with these interim
standards. In fact, I think we should go even further.

A couple of points I have, I think a Traffic Study should be required, if the Level of Service goes
from A, B, C to something that's significant like D, E, F, whether or not it's 30 cars, I think 30
cars is a good standard. But I think if you're going to an unacceptable Level of Service, there
should be a Traffic Study and maybe it should be in the judgment of the Transportation Staff but
as we said before, maybe we need because there's so much guesswork and many assumptions
that I think doing the Traffic Study is just something that would assist in our environmental
analysis.

One of the things that came up a year ago was the baseline. Well, how do we measure a
baseline? You have a new project and you have a baseline and that delta or that difference
becomes those figures that you need to study. And so, when we were doing baseline a year ago,
we've looked at the type of use that was in place at baseline. We looked at the date of the
baseline and we looked at square footage. And then we have this new project and we looked at
what's the increase in the square footage and when you take the increase minus the current, you
come up with a number and then you multiply that by that factor that ITE number that Carl
talked about. I'd like those numbers actually it's not that complicated and I've done a lot of these
formulas and I've worked on them a whole lot last year. I suggest that those ITE numbers that
are used to come up with the 30 trips and that you should 17,000. If there is a 17,000 square foot
building and you multiply it by 1.78, you come out with these 30 trips. I think that would be
useful to put things into this report so that people who are studying this can understand some
examples and I actually have a few because we were working on these last year when we were
looking at the 2475 Hanover project, which I think resulted in this discussion right now.

The other thing that I've heard Wynne talk about is I think she said that these guidelines should
be reviewed by Council or adopted by Ordinance with input from the public. And I think that
that's the direction I hope we go. Instead of what we've seen in Palo Alto over the last several
years is that the Traffic Staff has made adjustments as they get new data and some other software
becomes more sophisticated. But I think when they do make a change from let's say, 4 seconds
to 3 seconds or 1 second, that should go back to Council for their input and approval. So that
was my third comment.

Trip Generation. One of the things we saw when we looked at studies that were done by, the
Traffic studies that we've looked at last year that were done by Fehr and Peers and Korve, those
are the two traffic engineers that have been employed by various developers in Palo Alto. We
saw that there's some difference in their judgments that whether cars go 20% down and I actually
did a study and met the different ways in which two traffic engineers can come out with different
numbers, which will then result in maybe 95 trips. During the past 7 or 8 years as I've watched
the development in the Research Park, most of the studies, most of the numbers came out to be a
little under 100. They were in the 70's, 80's, 90's. Palo Alto is always using the 100-car
threshold and that was their test to decide whether or not to do a Traffic Study. Going down to
30 is wonderful. I think that will really help again, in us managing these projects in Palo Alto.

Commissioner Burt: Dorothy, for some reason, it's not buzzing so if you could wrap up?
Ms. Bender: Okay. Overriding considerations. My understanding of overriding considerations is that the developers will put monies into a traffic fund and that will go towards perhaps widening the road. And are we really wanting to widen roads in Palo Alto? Can we at this time review overriding considerations? One more point about the 1 second, Menlo Park uses a half a second. What Menlo Park is saying is that, once the road is at capacity, we don't want to have any more cars and I think that's what we should strive for in Palo Alto.

Vice-Chair Griffin: Thanks. Let's go with Angelica Volterra, is our next speaker while we fish around in the carrying case for a spare bulb.

Angelica Volterra: My name is Angelica Volterra and thank you very much for the opportunity in speaking here this evening. First, I'd like to thank the Department of Planning and Transportation and specifically Carl Stoffel, Joe Kott and Steve Emslie for working so hard to ensure that these very important traffic standards receive careful study and review. As we consider these standards in our community, I think it is imperative that we remember how critical a role traffic and traffic issues including traffic noise and construction impacts play in our lives. The quality of life we enjoy here in Palo Alto is fundamentally affected by traffic. Traffic effects is both consciously as well as unconsciously. Traffic effects are general health and subtle and not so subtle ways. It affects our sense of well-being, our moods, the quality and depth of our sleep, our performance, our behavior, our blood pressure, our safety and the safety of our City's children, pedestrians and cyclists. I ask you to think about these health issues as you consider these standards that are being discussed.

We need traffic standards that are consistent with our community standards for quality of life that ensures our community's health and safety. While I acknowledge that the proposed standards are a significant improvement over previous ones, I believe that they would actually allow very significant increases in traffic buy-ins before triggering findings of significance. For example, proposed a significance threshold for local, collector and residential arterial streets that intersections are operating at LOS's of A, B or C would have to degenerate to a Level of Service D, E or F before triggering a finding of significance. Under these proposed standards, local intersections that operate reasonably well, for example, an LOS A and B, would have to degenerate considerably to D, E or F before the traffic increase would trigger a finding of significance. This would result in longer queue lines, traffic back ups along street segments and congestion at other intersections. Los Gatos considers a change of one Level of Service to be a significant impact. I believe that that would perhaps be consistent with Palo Alto's values and community standards. In other words, the traffic impact would be considered significant if it causes the LOS to drop from A to B or worse, from B to C or worse, or from C to D or worse.

Importantly, for some of these categories of existing LOS D through F, the proposed standards recognize an increase of 1 second or more critical movement of delay. That was summarized in Attachment 5 of the Staff Report, that 1 second translates into 95 additional apartments with 26,000 square feet. I've added office space, which is a tremendous amount of development before finding it's figured. Menlo Park previously used a half second standard. Importantly, last month, Menlo Park City Council approved updated traffic impact and analysis guidelines, copies of which I'll provide for you. Menlo Park now uses HCM 2000 criteria--controlled delay instead of stopped delay in determining LOS for intersections. Controlled delay includes deceleration delay, queue move up times, stop delay and acceleration delay and is a broader definition of delay. Therefore, it's believed to deliver results that more accurately
described intersection Levels of Service. As Palo Alto moves forward with studies to determine final standards next year, it might be worth examining this methodology to see if it would be applicable to Palo Alto.

Next, with respect to impacts on residential streets, Staff proposes the "the significance threshold for increased volume on a residential street would be a 25% increase in existing volume or the maximum absolute increase whichever is smaller." With the maximum increase as being 375, 1,250 and 5,000 vehicles per day for local streets, collectors and residential arterials respectively, these are very large numbers. I'm concerned as to whether the standard adequately reflects this community standards and sensitivity to increase traffic. For example, Channing, which is a collector. In a number of locations has already exceeded the environmental capacity, which is defined in the Staff Report as "the maximum daily traffic volume at which residential activities become difficult or unpleasant and safety hazards are expected." Although the record acknowledges that there is less information and literature about such a capacity for residential collector streets, the data that is available indicates a value of up to 4,500 to 5,000 vehicles per day for a collector. To add up to 1,250 trips before a finding of significance is made would be a very significant increase of traffic on a street that already exceeds environmental capacity. Moreover, Channing has two schools and a park along its course as well as bicycle lanes. It serves as an important East/West bicycle corridor.

Also the Comp Plan recognizes motor vehicles as "probably the most pervasive source of noise in Palo Alto." And yet, traffic standards often do not include discussions of noise impacts. Noise standards in Pall Alto will apparently be considered separately at another time. However, excessive noise may result in profound adverse health effects and natural health hazards. Some not readily recognizable. For example, sleep disruptions, adverse effects on cardiovascular health, adverse effects on performance and behavior, may cause increase annoyance, stress and tension, etc. Also residential streets in Palo Alto contain many older homes that were built without sound insulating materials when code requirements in building material were vastly different. These older homes are much more vulnerable to noise impacts even subtle ones than more recently constructed structures. Also, small property lot sizes with less setback ensure greater noise impacts. I also believe that we need to define and acknowledge more school corridors, for example, Channing and Churchill and protect these corridors from significant increases.

**Commissioner Burt:** Excuse me, are you wrapping up? Our beeper is not working so it just goes by the red light.

**Ms. Volterra:** Last two sentences then. According to the Comp Plan EIR, page 147, "Impacts on residential streets are considered significant if implementation of the proposed project would cause a substantial change in the character and/or safety of the residential street environment." I'm concerned that these proposed standards while representing significant improvement may not go far enough to ensure preservation of residential street safety and character. Thank you.

**Commissioner Burt:** I had a question. Do you know the vehicles per day on Channing in your area?

**Ms. Volterra:** Yeah, in Channing at Greer, the counts, these were Comp Plan counts that were attained between 1993 and 1995. They had them estimated at 5,740 daily traffic. Now the
Comp Plan also predicted traffic of 6,300 for 2010. But if you take an increase of 1,250 as an allowable, that would allow 6,990, well above the predicted 2010 figures. So it's again, in 1993 and 1995 it was 5,740.

Commissioner Burt: Thank you.

Vice Chair Griffin: We'll bring up another speaker in the interim. Deborah Ju. If you're still here?

Commissioner Burt: So since our beeper is not working, if you folks could pay attention to the light.

Deborah Ju, 371 Whitclem, Palo Alto: Good evening. I want to echo what Angie was saying about quality of life because after all, that's why we're here tonight, that's why I believe Joe and Carl were directed to look at these things because the quality of life in our community is being degraded, eroded by the traffic that we all face on our streets day after day. And I really appreciate Angie's directing our focus on some of the health hazards which people may not be aware of. But I think they're very significant. I'm just going to hit on some few points in summary fashion.

The 4-second delay. I've looked at some EIRs in our community and I find that it's nearly impossible to trigger a 4-second delay. It also allows at increase traffic and it doesn't find them significant. I think we're out of step with other communities. As I said in my letter dated June 10th, we need to have a standard that reflects our community value of quality of life and with Menlo Park having looked at a half a second and we were at 4 seconds. Los Gatos was saying that they are at LOS D, any increase is significant. I think what we have right now is very unacceptable.

I want to talk about the local standards. I think that the proposed standards of an increase of 25% allows too much additional traffic on local streets. If you're purporting to measure what an average person would consider a significant increase, that is not 25%. In my letter, I don't know if you all had a chance to look at my e-mail today but I recognize that there could be different standards for local streets, collector streets and arterial streets, either a 5% increase would be significant or depending on the category: 50 additional daily trips for local streets, 100 daily trips for collectors or 300 for arterials. And I won't go into that detail because it is in the letter that I passed out today.

I really like the bicycle standards that they've worked out and then they put in their draft, the only thing I would like to add is I think it should be a significant impact if there is an increase in the number or usage of driveways or access roads which cut through a bicycle lane. I think if you have kids traveling to school on a bike lane and all of a sudden you have driveways cutting right across the bike lane, that's a significant impact that we need to worry about and study.

And I want to address timing. I don't think we should wait until 2003. There are big developments moving forward in our City. And the standards that we have right now are very, very inadequate and delay means that we will do irreparable harm and I think we can't afford to wait. Thank you.
Vice-Chair Griffin: Thank you, Deborah. We're stalling here for a little change of equipment. Kerry Yarkin is our next speaker.

Kerry Yarkin, 135 Churchill, Palo Alto: Hello, I'm Kerry Yarkin, good evening. I know I've talked to you before about specific traffic impacts on Churchill. And I really wanted you to see the sheet I brought because I actually looked up the EIR for the Stanford/Sand Hill project and their analysis of how much traffic would be on intersections that impact our street, Churchill. And it was very interesting, I've looked at the Draft EIR for the Stanford/Sand Hill project and their projections for 2000. I'm bringing this up because arterials are now so overcrowded and congested that collector streets are now in the role of arterials and I wanted you to see this, the Stanford/Sand Hill LOS figures because Alma Street at Churchill, they predicted a Level of D and I just was at that intersection at 5:30 tonight and it took me two minutes and five seconds to go through that intersection. On El Camino and Churchill, they had it at a Level C, after the Sand Hill project went through and it took me two minutes to go through a light cycle at El Camino Real and Churchill. And then the other street was El Camino, Embarcadero and Galvez which after Sand Hill was done, it's supposed to be a Level D and it took me one minute and twenty seconds to go through the light cycle.

So, another interesting aspect that you might want to know about just as a review, for Stanford/Sand Hill corridor that there were no less than significant impacts for all residential street impacts. They said the development of the proposed projects could degrade the quality of traffic while in safety on residential streets and they said there was less than significant for all projects, if I'm reading this correctly. But I did pick up at the Library and I was reading through the comments because I wasn't involved at that time. But now living on Churchill where we've gone through on this segment of our block over a 40% increase in the last two years of traffic, I think you really need to take practice steps to get an interim traffic thresholds through to stop this from happening all over town and every single collector street in the City of Palo Alto. I want to commence that for really working diligently to put this together.

There are a few areas that I think should be revised and passed out and I think I've passed out a copy. Basically, I have a little picture of our street so you can see what the congestion looks like. We face that every morning, it's about at least an hour and a half every morning. The traffic backs up for a whole block. I see people waiting through two light cycles sometimes to get across the intersection at Alma so I know it's really bad and I see the back up all around Alma, all the way to [Mole].

Commissioner Cassel: This is Alma?

Ms. Yarkin: That's Churchill between our house backed up to Bryant. And it goes all the way through one and a half blocks. And so, the problem is all these collector streets which you have done to traffic to are now becoming major arterials to connect people from 101 to however they can get through to Stanford, to the Industrial Park to their places of work and vice versa going home at night. We're just inundated and I think the traffic confusion has completely deteriorated the quality of life in our certain little few block area in Palo Alto. I also want to say that the increase thresholds at 25% of daily volume for local collector and arterials I think are too high. One thing that I think you need to be aware of the baseline, if our baseline has gone up over 40% in two years, so we're looking at a baseline that's going to have to go up maybe 100% if you adopt the standards now in another two years. So we're looking at complete deterioration of
street such as ours and other collector. And if you look at the collector list of volumes of
3,000/5,000/8,000 cars a day on a local residential street, I mean I think collectors are residential
streets. They're not physically different from any other street. Our street does not differ from
Coleridge, from Lowell, from Seale, we have a light that our physical layout of our street is no
different but we're being dumped and we're being used as an arterial.

I think you need thresholds for cut through traffic. I think you need to analyze all these cut-
through traffic that's generated and how it impacts other City neighborhoods, not just necessarily
one little area of town. I mean Stanford Industrial Park could have various impacts not just on
Page Mill but in the other parts of Palo Alto. I think one important aspect is the cumulative
impacts of development. The IKEA is going to be enormous. Stanford is enormous, even
though they had their GUP. The Bayshore development project is enormous. Hyatt, we're not
even taking into account what's going to go on with IKEA and it's going to be enormous. I've
gone there many times to Berkeley. And I think also the Menlo Park where they have the LOS,
they use that controlled delay standard, is very important to adopt.

And my last comment will be mitigation of many should be the last resort. I feel that all
developments need to abide by a strict set of traffic thresholds. I feel there should be no
exceptions. If the project goes over it, the project should not go through. Thank you very much.

Vice-Chair Griffin: Thank you, Kerry.

Commissioner Burt: Kerry, we had previously added interest in the impact of the Stanford
development on Churchill. Can you share that copy with Staff so that maybe we can be copied
as a Commission later? Thank you.

Vice-Chair Griffin: Our next speaker will be Bob Moss.

Bob Moss, 4010 Orme, Palo Alto: Thank you. First of all, I'd like to compliment the Staff in an
interesting report. After I've read it two or three times as you all have, maybe I'll understand it
better. I have a number of comments. One is once upon time, the City Council and the Planning
Commission and Planning Staff had a limit deterioration of intersection LOS. The rule was
nothing was going to be allowed to go to Level F or worse. This was in the previous
Comprehensive Plan adopted some 20 years ago. In intersections which was at Level E was not
going to be allowed to go to Level F and intersections that was at Level F was not going to be
allowed to get any worse. And it seems to have been lost in the history of time. I'd like to see
that re-instituted. I'd like to see the City Council directed to go back to all those intersections
which were listed at SU, especially anything which is currently operating at Level E and take the
SU off and prohibit deterioration of Level of Service in any intersection in Palo Alto for any
reason. Period. There is no justification for allowing any intersection go to Level F.

And I think the 1-second increase in impact in tying the impacts to intersections not street
segments as was proposed by the Stanford representative is the way to go. We have literally
decades of history of the LOS at intersections. That's something we should not give up lightly
and I'd like to see that continued. It also is quantifiable and it gives us something we can talk
about with other jurisdictions.
Talking about some other specifics, I also think a 25% increase in traffic in local streets is far too much. There is definitely going to be noticed in people and they're going to be very unhappy with it. And there's a comment about collector streets where the sanction is at 5,000 cars is about the maximum on the collector street. Not necessarily true, it also depends on where on the collector street, I'll give you an example on Los Robles, if you take your traffic count about where the [Turner] court is, it's about 7,200 to 7,600 cars. Go down to La Donna, it's about 5,900. You go down to my driveway and it's about 2,700. So there's a big difference in that particular street.

Another comment, this should have been out to everybody. If you look at the table, Attachment 5 which talks about how many trips are generated are different types of development. And it says, for example, for properties of 190 apartments will have 55 trips. All added trips at intersections are not equal. There's a much greater impact for cars that are going left turning right or going straight at intersection. A couple of days ago, we saw a traffic simulation, computerized traffic simulation at El Camino and Stanford Avenue, for example. And traffic along Stanford Avenue backed up way back and one of the reasons was there were cars wanting to make left turns. The left turning cars, preventing cars from going straight across or going right. If you have a significant number of cars and you're making turns and if you don't have a deep left turn bay, that backs up traffic. That's not taking into account the number of trips that are generated. So gross number of trips is not the whole story. Where are the cars going? That's the story.

Another thing that's not taken into account is the difference at different times of the year. Not just different times of the day but different times of the year. For example, if you want to see absolute gridlock, try driving down Meadow on a rainy day during school. You cannot drive that street. You can walk from El Camino to Middlefield faster than you can drive it. On the other hand, if you were to go down there, say, in July, no problem. So you have to look at the entire environment you're talking about. If the worst thing you can do is have a traffic count taken at a non-specific time or a time which is not considered a worst case and say this development is not going to have any impacts.

And the final thing I'll leave you with is that I don't think in the time I've been following traffic impact analysis, I've never seen a project which actually provides the trip generation that is predicted. It's always different. Sometimes better, sometimes worse. It's always different. And there are ways to mitigate those trips but you have to think about in advance. Thank you.

Vice-Chair Griffin: Thank you, Bob. Our next speaker is Florence Keller.

Florence Keller, 4124 Wilkie Way, Palo Alto: Good evening. I'm really impressed with the level of sophistication of everybody here. I'm not at that level, nowhere near that level. I just have two questions and they will take anywhere near 5 minutes and I'm wondering, I don't know the format. I wonder if I could actually have answers to the questions.

One, what are the implications of an exempt secondary to overriding considerations? What does that mean practically? Are there no thresholds for these intersections? Can they just go on like mushrooms indefinitely? And my next question is, if I understand correctly, a large development assuming it meets all the other guidelines, it can be allowed to increase the traffic by 25%. If hypothetically, a nearby development were to come a year later and met all the other guidelines,
could they then also increase the traffic by yet another 25%? So, is there anything built into
these systems that takes into consideration cumulative effects? So those are my questions. I
would love answers.

Vice-Chair Griffin: Joe, you wish to respond?

Mr. Kott: Well, as Carl described in his presentation, the intersections that are failing or
performing poorly will be only allowed a very small increment of additional delay.

Ms. Keller: Even the overridden?

Mr. Kott: Yes, but just a very small amount which have the effect of limiting any development
that would be impacting those intersections. And the second point on the cumulative, there's
some maximums or cap set on the volumes on local and collector streets that are being proposed
here, so that the cumulative effects will be taken into account by these caps by these maximums.

Vice-Chair Griffin: Our last speaker is Lee Wieder.

Lee Wieder, 637 Middlefield Road, Palo Alto: Good evening, Chair Member Griffin and
members of the Planning Commission. Lee Wieder at 637 Middlefield Road in Palo Alto. I
think we all know that the Bay Area in general is growing. More people are coming to it and
more people are coming to our City of Palo Alto. And I think as Traffic Staff has indicated, one
of the big issues is how to manage this. And in trying to manage it, I'd like to suggest not that it
hasn't been suggested but that we approach it as trying to be as inclusive as we can.

The issue of quality of life, it gets defined in many different ways, and certainly traffic is right at
the top of the list, there's no question. Diversity is a big issue with me as well, economic
diversity. And there are other issues, if we went around this room everybody else would list as
well.

But the issue at hand is definitely the traffic and I've seen very definite questions I would like to
ask whether the speaker just recently said that gross number of trips is not the whole story and I
completely agree. And Table 5 that was cited in which one of the examples that was used was
Hyatt Rickey's on that. And one impression I have related to that is if you look across, there are
really two variables. So those two variables are the difference in the delay movements. One,
two and four seconds and then also density and their different densities and I wish this list would
give a flavor of what it would be like but I don't understand the reasons for varying the densities,
keep the densities all the same. If it's 302 units, look throughout and show what the differences
would be in delay. I think that would help me understand the point that's being made.

Whatever the thresholds that are passed, will they need to be done in an environmental review of
those thresholds? So things that are in the Level of D throughout the City, could they go to C
and what are the environmental impacts from those? Traffic may move around in different ways,
does there have to be an environmental analysis done? How might the passage of Senate Bill
SB1636 impact those transportation thresholds? That particular set of bills talks about infill
development, it was just passed by the governor on September 12th. So those are particular
areas and in that bill it says that thresholds are not to be affected, so it's a question that I'd like
some clarity on. And I'd like to - I see my time is up, and how are such projects, as the Hyatt
Rickey's impacted by any pending interim standards that are set up, and it's just the Hyatt, any
other projects that are already in the works, what does that mean? As we all know, there's been
an environmental review done drafted in EIR, we're waiting for comments back, those were all
done on certain standards and there are a number of us in this room, and I'll included myself, that
are critical about some of the evaluation and had comments to make to their EIR. It's been a
long night, and thank you for your attention.

Vice-Chair Griffin: Thank you. What do you have there, Carl? The public comment section is
going to be continued as you know to October 9th. In the meantime, it's closed for this evening
on a temporary basis. I will stand by for any corrections to the terminology required to pull that
off. In the meantime, we are now to the part of the agenda where members can ask their
questions of staff. Bonnie, would you like to start?

Commissioner Packer: Yeah, I think we were going to get an explanation of the possible impact
of the SB-1636.

Mr. Kott: Yes, commissioner, I drew the legislation down from the state senate Web site.
Apparently it's been signed by the governor and charters so it's the law. Apparently - we have
not discussed this model with either the VTA which is our management program or with the
City's legal staff, so I'm winging it now. Apparently it applies to CMP intersections. Cities and
counties as part of CMP can designate so-called in field opportunity zones. And in those infill
opportunity zones, they can exempt CMP exceptions from the CMP global services standard
which is, as you know from our discussions, therefore an intersection can degrade further than
that and the reasoning behind it, there's quite a bit of verbiage in the bill, but the reasoning
behind it is that certain locations may be particularly promising for alternative modes that is to
shift the trips from private personal motor vehicles say to rail transit or bus transit or bike or
walk. In practical terms, it probably is most pertinent to areas around the train stations with
fairly high levels of passenger rail service where you'd expect a fair amount of commercial
development nearby and also the availability of effective public transit. But if the cities don't
adopt these so-called in field opportunities on, as I read this paper, in any case, then the
legislation would not apply.

Vice-Chair Griffin: This law being brand new, we're going to have some additional commentary
on it as time goes by. Wynne?

Ms. Furth: Well, I would just comment that this is one of a series of bills which is trying to
support the construction in field, of housing with existing cities and urbanized areas rather
than in central valley or other open places and there exists right now a number of exceptions to
CEQA review. For example, there's one for in field low and moderate income housing that is
consistent with the existing zoning and Comprehensive Plan. CEQA does not apply to that kind
of project and I think it's important to keep in mind that what you're talking about today are not
zoning standards or development standards.

They're standards for document preparation, so to say that we will do environmental review, if a
project generates a certain kind of traffic isn't to say that it will or will not be permitted. It's to
say that the form of documentation you read when you're making those decisions, or when the
director is making the decision, or the city council is making the decision, will be more
extensive.
Vice-Chair Griffin: So it triggers the study, it does not?

Ms. Furth: It does not dictate decision. I also have some comments about the SU intersections when you want to get to that.

Vice-Chair Griffin: Well actually, we have a lot of interest in that, so why don't you have at it.

Ms. Furth: Well, some of you lived through this. I was actually in town the day they adopted the Comprehensive Plan, but I was just in town to take a job and so I didn't live through it, but I got a flavor, a sense of what it might have been like. If you look at Attachment 4, which is from the EIR for the Comprehensive Plan, it categorizes these intersections and as LTS or SU, and what that means is the change in the level of service there is seen as less than significant, that is under the threshold that they used at that time, or significant and unavoidable. And these SU's are the intersections where the city council and the planning commission said, we have adopted a Comprehensive Plan that is to govern the city's development until 2010 and it's not a no-growth plan.

And we also are a city existing within a sea of other cities and they don't have no-growth plans either and they're going to generate increasing traffic and that's going to have an impact. And there are, in some cases, steps that we could take. We could widen intersections, we could give even more deference to certain kinds of traffic, we could condemn houses and create underpasses, but we choose not to do so. We choose to live with cars moving less quickly, but not widening the intersections and not freezing all development in town. We believe some development is appropriate. So that was a policy decision that the city made after, to put it mildly, an extensive public review process of the Comprehensive Plan and that's what we're governed by. As we do all these secondary decisions unless and until the city council amends that Comprehensive Plan.

So we can't really re-classify these intersections and deterioration of them as significant impacts unless the council changes the approach that it adopted earlier and that's why, if you look at Carl's Staff Report, he talks about being careful not to consider, it's on page 6 and 7 of the Staff Report, about being careful to acknowledge that the city made and the highest level of land use decision making, we do around here which is the Comprehensive Plan, made a decision to live with those qualities, those deteriorated qualities, those crummy intersections, those tied up intersections because the alternatives were seen as worse. So, when you talk about a statement of overriding consideration, I think sometimes people confuse it with mitigation measures, which is all part of CEQA jargon.

A mitigation measure is something that takes a bad situation and makes it better. And we, for example, hope and believe that Transportation Demand Management programs can improve the situation for existing or new development because it will reduce the number of single occupancy vehicle trips and since single occupancy vehicle trips are our biggest problem in traffic and they create all the problems that people have discussed, that's one of our goals. That's a mitigation measure. An intersection widening is a mitigation measure. A shuttle is a mitigation measure and so on and so forth.

City of Palo Alto
Sometimes we use impact fees as the mitigation measure. We say, we can't really address these problems on each little project as it comes in so we'll have an overall program where we'll collect money from everybody for their new developments. We do this for Libraries, parks and in some areas for traffic, we collect that money and then we spend it at the moment in traffic on intersection improvements that maybe left turn pockets, maybe radius changes and we hope when we get our new transportation study done, also on non-pouring concrete improvements like shuttles. Those are mitigation measures. And the fees that people pay when they build new development, those are called impact fees because they're supposed to address the impact of the new development on the community.

A statement of overriding considerations is a statement by the decision maker which in this City it's usually the City Council because all the Commissions and Advisory that we've done an Environmental Impact Report and it has demonstrated to us that if we approve or build certain project, it won't be all good. There will be bad environmental effects. It might be more noise, it might be more traffic, it might be deterioration in air quality. But on balance, considering all the possible alternatives or a reasonable range of them actually, we believe this is worth doing. It's that important to have whatever it is that's proposed. And so, even though we know that there will be adverse environmental consequences, we propose to do this for the following specific reasons and then they identify those reasons. And I'll give you an entirely theoretical though historic example. When the City Council adopted a historic preservation ordinance, they said, we know we're only seeking to protect National Register properties. That all the California Register properties may still be demolished. But on balance, this is balancing the desire and value of having homeowners able to alter California registered houses without complying with the Secretary of the Interior Standards, this is what we choose to do. Now as it happened, the voters chose not even to do that. But that's an example of a statement of overriding considerations. You don't do the best thing possible.

The third, from an environmental point of view because that's just one of the factors you have to consider. And I have forgotten my third point.

Vice-Chair Griffin: Well then let me ask you a question. Taking as an example, the El Camino Real at Charleston intersection. That is an overridden intersection. It's exempt from these LOS D or C levels.

Ms. Furth: It's an intersection where the Council said we're approving intensities of development in the City in general that are going to make that intersection really bad and we know it.

Vice-Chair Griffin: Okay. Now, how bad can it get? Is there any limit to how impacted that intersection can become or is it a total permanent wild card that can be impacted until the traffic is totally cement?

Ms. Furth: Unlikely event.

Mr. Stoffel: As far as I know it's limited to that.

Ms. Furth: But I know very little about the traffic.
Mr. Stoffel: I think it means that they have accepted that Level of Service E, 59 seconds of delay as acceptable but not beyond.

Ms. Furth: But some of these show F as acceptable, is that right?

Mr. Stoffel: Some of them, but we're talking about this particular one.

Ms. Furth: And I think the question is if F is an infinite category, right?

Mr. Stoffel: It's possible that some of these have already been surpassed.

Ms. Furth: So I don't know as to whether they capped the F.

Commissioner Burt: And I see that where we do reference F, there is a delay number noted there. It's not a blank in that category. So I think that would be very important to know the intent of the Council if it wasn't clarified.

Ms. Furth: Oh, I'm sorry, then I've assumed the 76 is what they're talking about.

Commissioner Burt: Okay, and I had not understood that the F implied that there was a cap on the F.

Commissioner Packer: It's because of what goes from D to E in 2010 is a significant impact, it changes. And then they said no mitigation.

Ms. Furth: Well, here what we have is projections here, guesses as to what it might be in 2010. And they said, for example, to take Middlefield and San Antonio, number 6 (tell me if I'm reading this correctly, Carl) that when they looked at it in 1996, it was a Level of Service D and specifically with a 36 second delay, which is somewhere in the D range. And their projection said, we think it's going to go Level of Service F and particularly 76 seconds of delay. We heard that those numbers have to be taken with the margin of error. But I would presume that that means that that's the Level of F they expected, not 5 minutes.

Mr. Stoffel: Yes, I wouldn't think that means you can go over the 76 seconds of delay. Beyond that is not overridden.

Vice-Chair Griffin: Does anyone know for sure or are feeling pretty confident with that?

Ms. Furth: Well, why don't you let us re-read the document. But I think that's right.

Commissioner Cassel: I understand that there were several intersections that if they reached a certain Level of delay, these were Stanford intersections and if they reach a certain level of delay then the plan wants that they would, in fact, widen those intersections. And that was already in place prior to, not recently, prior to the Comp Plan and they were monitoring those intersections. And if they reach a certain stage, then they're going to be widened. And that will lower the LOS to D without the problem of the widening in it there, Foothill Expressway and Page Mill, for instance that in fact has happened is they have widened that intersection. It reached the triggering point. And that's my understanding.
Mr. Stoffel: I think when you say it's Stanford intersections, I'm presuming you mean the ones that are affected by the Stanford Research Park?

Commissioner Cassel: Whatever the mitigation was, the Plan wants it.

Mr. Stoffel: Well, in this document, you see the column on the far right, the big column is 2010 project after mitigation. So there we assume that there were some 4 or 5 intersections where we apply the mitigation is actually in our Comp Plan. El Camino/Page Mill, for instance, you're going to add a right-hand turn lane on all the approaches and link with the left turn. So we did that mitigation in the computer analysis and came out with the numbers on the right. So we assumed that by 2010, all those mitigations would be done and we still have significant and unavoidable impacts in some areas that we're part of the override. So we're assuming those will be done at some point.

Commissioner Cassel: Well, for instance, Middlefield and Oregon, go through E to D and you've done some mitigations on Middlefield and Oregon already and you can go from all the way back to the first if you're going north on Middlefield, the pull on that when you go through if you're stopped for quite a ways back in the morning, you get through that intersection when that thing turns green.

Mr. Stoffel: Well, see, Middlefield - Oregon, the existing was E and that was projected to go to F in 2010. But then after mitigation was projected, it'd go back down to D. That's not the mitigation that we did. We did one little thing. The big mitigation you might not want to see but that's in the Comp Plan and we haven't done it yet but that's what we're making to go back down to the D. But I think it's in an E right now.

Commissioner Burt: So, in just trying to follow this table first, is the baseline for this table 1996 data?

Mr. Stoffel: It's thereabouts, I believe. Some of those counts may or may have been before then.

Commissioner Burt: Okay. And the second, if you take the example of item #14 and just for future reference, I'll make one more comment. If you compare this to Attachment 6, Attachment 6 has numbers to the intersections. And evidently, we have our intersections numbered throughout the City. Table 12 doesn't have those. It'd be great if we could use the same thing. But my key question had to do with on what's number 14 on Table 12, which is Foothill and Page Mill. It shows current level, current as of 1998 or 1996, have it up at 74 delay. And before mitigation, it says it drops to E at 46. When we had a major mitigation that went on there, expansion of that intersection, I'm trying to understand how that is accounted for in this table.

Mr. Stoffel: I lost track. What table are you reading from?

Commissioner Burt: Table 12 which is Attachment 4, what we have there, item #14, Junipero Serra and Page Mill. And it says it would go from an F to an E to a drop from a delay of 74 to delay of 46.

Mr. Stoffel: That's an improvement.
Commissioner Burt: An improvement, it says no mitigation required.

Mr. Stoffel: I think the reason is that when this EIR was done, the improvement that you saw that was done recently was already in process or approved.

Commissioner Burt: So the additional mitigation that was already there?

Ms. Furth: Right, these are mitigation measures that were included in the Comp Plan and that's all it's talking about. So if this was a CMP intersection with a plan already underway, that would be part of the baseline.

Mr. Stoffel: In the report of that EIR I think it says the status of that.

Commissioner Burt: And that mitigation was completed when?

Mr. Stoffel: A year or so ago.

Commissioner Burt: So over a year, I think. And I just would like to know that on Attachment 6 where we have down third from the bottom, 5205 which is the same interchange, it shows that instead of going from an F to a D, it went from an F to an E minus.

Commissioner Cassel: This doesn't have a date on this, it tells us when it was done is the problem.

Mr. Stoffel: Are you referring to Attachment 6? We do all our counts in October of the year, so it's October 2001, almost a year ago. And PM peak hours, it's Level of Service E minus, almost an F.

Commissioner Burt: And my understanding is it's with mitigation so just as we are trying to look at the hypothetical impacts and then we have a few cases where we can look at what are the trends of actual impacts, I think it's important for us to just compare those.

Mr. Stoffel: Right. Now, you have the same letter grade here that says, it's going to be E but that's, of course, 2010. That intersection actually is a bad example because that one has really been hit hard and even with that improvement I think there was a couple of years ago when it was worse. It just made the Level of Service F a little better. Still an F before and an F afterwards with less delay. And now it's gotten a little bit better I think because of the recession. But those intersection improvements as extensive as they seem they got swallowed up by lots of cars that go up there.

Commissioner Burt: And I also took this Attachment 6 as in October 2001, I'm assuming that that is essentially capturing the time period in our downturn. And our peak was probably in 2000. And 2001 and 2002 are roughly in the same sort of traffic levels.

Commissioner Holman: Attachment 6, you guys are talking about 2000/2001 but at the bottom of the page it says Copyright 1998.

City of Palo Alto
Mr. Stoffel: That's the program.

Commissioner Holman: That's just the program, okay.

Vice-Chair Griffin: Wynn, did you have a comment?

Ms. Furth: Well, I thought of the third point. The reason you do these statement of overriding considerations, of course, is to approve the Comprehensive Plan. And the Comprehensive Plan had a bunch of density, land use designations with accompanying densities. And basically, CEQA says, I'm going to do a project that's consistent with the Comp Plan and consistent with the Zoning, I don’t need to do any environmental review of the issues that were addressed in the Comp Plan. I might have to deal with site specific problems, toxics on the site, trees on the site, very local traffic issues. But these big issues, they were dealt with on a citywide program basis with a Comprehensive Plan. In other words, when the City approved that general land patent, it was saying, we understand, it has some undesirable traffic consequences. We've already done that. We said it's okay. Now let's look at the site specific aspects of our plan. So that's how these things relate and that's why we shouldn't confuse CEQA thresholds with regulatory outcomes.

Now somebody remarked that the traffic impacts were too low because some pretty big projects in her view wouldn't require an environmental analysis. Well, that's an important way of expressing how these things are perceived but it's not the way that you can analyze when you're doing your job as the Commission to make recommendations to the Council. It has to go the other way around. If a very big project doesn't create a significant impact, then it doesn’t create a significant impact. You might still decide that it's undesirable because it's not something you want in your City. But you wouldn't say, well, that must then be a significant impact.

Commissioner Holman: We've touched a little bit on mitigations and I'm trusting that I would to hear what Staff would consider appropriate mitigations. What I'm really trying to get at is I don't think we would consider street widenings as mitigation. Maybe left turn lanes but not street widenings. I just want to make sure that that's what the Staff would be considering as well.

Mr. Kott: Well, I think they range, of course, if you consider mitigations with physical changes, operational changes, additional turning lanes for example, which can be done through re-striping or can re-allocated road space for parking, to create a new turning bay, those kinds of things. All the way to putting signal timing changes, more efficient allocation of green time to the approach that needs it and so forth. To Travel Demand Management activities including inducing more transit use to provision shows or to provision of ecopasses or encouragement of people to provide these ecopasses, to include working with employers. In our City division we do have a Travel Demand Management coordinator who has a dual role. One is to manage our own City employee TDM program and make that exemplary so we are not subject to the criticism and your preaching what we're not doing. But also and outreach to employers, not only downtown but Citywide to adopt incentive programs, big ones and little ones, day-care centers, preferential parking, other incentives to give people to move out of single occupant vehicles into transit, carpool, walking, biking, encouraging telecommuting for these days to deliver. It's difficult to do, there have been some successes around the country that have very strong employer action to make it work. One of the most effective TDM measures is changing work hours. Moving start
times and beginning times just off the peak, that can have a dramatic local effect on traffic congestion.

Commissioner Holman: Would you or would you not consider that providing more through lanes, widening of streets as being a mitigation? It seems to be a lot of consideration that just adding more lanes just creates more opportunity for more cars so I'm thinking that that would not be considered a mitigation.

Mr. Kott: Strictly speaking, it is a mitigation.

Commissioner Holman: Strictly speaking, yes, but what would be promoted in this community?

Mr. Kott: We follow policy guidelines and a policy decision is to be made about whether or not we add new travel lanes, whether we widen streets, whether we create new street to street under crossings or grade separations. Those kinds of investments are policy decisions. They certainly do or can be majorly important to mitigate traffic congestion. They have many, many, many other consequences and those are matters for the community decision-makers to weigh out. Our brief has been pretty much to work out ways in which we can make our transportation system more efficient without swamping the community with undesirable side effects. Undesirable, you might argue unintended consequences that we're not strictly tunnel-visioned about moving cars. We have to be worried about moving cars, too.

Commissioner Cassel: I think the policy decision we made with the Comprehensive Plan was to widen streets. What we're getting now is response from, I'm hearing from people and the community saying, well, that means that we don't add any development and that's how we're going to do the mitigations. We won't allow any development, we won't allow any more people because if we do that then we're going to have an over impacted street. I think it's part of our policy discussion and part of the recommendations we make to City Council is to how/what we're going to recommend.

Vice-Chair Griffin: Wynne?

Ms. Furth: The Comprehensive Plan transportation, I'm just checking this with Carl doesn't actually say no street widening, but it does say, no big street projects are planned except mostly around Stanford that most of our street projects will take place within the existing right of way and that when you're thinking about street widening, don't do it in a way that makes bicycle and pedestrian traffic less possible. And so that's a lot of constraints, but it doesn’t say under no circumstances would you widen the street. There may be cases where it would work and be desirable.

Commissioner Packer: I have a question to follow up on something that you said about employers changing work hours which would spread the peak hours. And there's a point in the Staff Report on page 5, where you say generally speaking, adding traffic to an intersection, operating at the E or F will cause some degree of spreading the peak or diversion to other routes. And your report implied that that was a bad thing and I just wanted to get some feeling from you, is it bad or is it good to spread in which people travel?
Mr. Kott: Well, spreading the peak is usually considered okay as long as people are standing on the traffic routes. Now a specific example of changing start times or end times for work shifts or school start times and end times are staggering by grade a little bit. There are all kinds of things you can do. What that does is theoretically keep the cars on the same route but it reduces the stiffness of the peak and the spike in demand that's the peak is what causes the critical movement delay to lengthen. But if we end up having people being diverted frustration on to other streets including some of our collectors, that's certainly is a bad thing.

Commissioner Packer: Oh, diversion would be bad. It's just that spreading the peak.

Mr. Kott: Well, you know, we discussed that because conventionally spreading the peak is considered okay as long as you don't have basically the same level along and a higher, the entire range of the very long peak period.

Mr. Stoffel: Because I wrote that, I can see why Joe is using it as a mitigation. Spreading gets trips out of the peak hours so it helps as a mitigation. When I wrote it I took the viewpoint that peak hour levels of traffic was what most people don't like, and now its getting spread into hours that you use to be able to drive comfortably and now it's also pretty bad. So I saw it as more of a negative effect. So it could be both.

Ms. Furth: I finally found the policy I was looking for the first time. It says, "Avoid major increases in street capacity unless necessary to remedy severe traffic congestion or critical neighborhood traffic problems. And if we increase the capacity, balance the needs of motor vehicles for those of pedestrians and bicyclists."

Vice-Chair Griffin: So it’s pretty qualitative.

Ms. Furth: Right. So it does not say, it says, you don't go around increasing street capacity unless you really have a problem.

Vice-Chair Griffin: Bonnie?

Commissioner Packer: This is kind of a difficult question. I know that when the intersections are congested, then the traffic backs up. But it also means that the traffic isn't going very fast. And I wondered whether in the traffic and transportation world, there is relationship between that slow traffic and safety. And I'm thinking of school corridors, because if the traffic can go through intersections real quickly and the cars are going too fast, does it promote speeding. In other words, what is the relationship between LOS, Levels of Service and speed and safety? Is there a relationship?

Mr. Kott: Well, like a lot of these topics, it's pretty tangled. Clearly, there is a relationship between speed and crashes, the severity of crashes. It's very well documented. When you move outside of the freeway system, you move on to all kinds of local streets all the way to arterials, the slower the traffic, the lower the crash rate and the lower is the severity, as long as you're at the beginning with equal volumes of traffic as the rates go down and speed.

But in terms of these high congested intersections, there are a lot of things to consider about that. They're very difficult to cycle along and through, very difficult to walk across. You get some
erratic behavior on the part of drivers wishing to change lanes at the last moment to seek very
small gaps, much smaller gaps than they would ordinarily do in more prudent driving. You get
incidents and this may be somewhat overblown in my opinion, but incidents of road rage. I don't
think there's been a really rigorous analysis of the relationships, statistically speaking between
LOS and crash rates. It'd be very interesting to study and to check.

Vice-Chair Griffin: Pat, do you have a follow up question to Bonnie's comment?

Commissioner Burt: In addition to some trade-offs that we have on safety impacts due to
congestion, there's also environmental impacts of congestion. I think the Staff Report correctly
noted that congestion actually helps drive use of efficient alternative transportation if the
difference between driving by car and taking alternative transportation is narrowed or even
favors the alternative transportation and people choose that.

On the other hand, there's some other environmental trade-offs that I would like to hear about.
When we have congestion and we have cars idling for long periods of time, what are the impacts
on pollution from that? And so it seems that we have two competing environmental interest over
this broad issue is, in what ways are or is congestion good and bad for the community?

Mr. Kott: Well, these are all hard questions. There's a tremendous book that I would
recommend about the environmental effects of our transportation system called "Steering a New
Course." It was done under the auspices of the Union of Concerned Scientists. It was done by a
woman named Deborah Gordon. She goes into this with a lot of detail. The very worse effects
have to do again, starting or what you initially begin with, if you happen to drive a vehicle that
does emit air pollution. But once you do turn the key ignition, if you're stuck in traffic, if you are
in gridlock, I might have to defer to this more modern books, a Deborah Gordon book. It seems
like the slow but steady model works the best. The speed range, I don't recall right now that
range but in the 20's to 30's at a steady pace, in urban traffic is the most desirable. But
something like 90% of air emissions occur either from hot start or cool starting vehicles. Cold
start or hot start. So that's why the big interest and two things, one is reducing the number of
vehicle trips from an environmental standpoint and also moving toward zero or variable emission
vehicles. The latter seems to be something of a receding mirage unfortunately.

Commissioner Burt: Joe, it strikes me that when we had previous discussions on the pros and
cons of modern roundabouts, the environmental impact of not idling at an intersection wasn't
included in that discussion and it may be a pertinent aspect.

Mr. Kott: Yes. Everyone knows I'm very keen about roundabouts and I still am. I think there
are many, many safety benefits and many other environmental benefits so we definitely stand by
those but they're well documented. The slow but steady analogy really does work all across the
board. It kind of reminds of a Roman philosopher, he said, "Moderation in driving has many
good benefits."

Vice-Chair Griffin: Karen, would you like to contribute?

Commissioner Holman: I have a question about Table 6 on page 21. And that's the 30 peak
hour trip generations. And it says a trip generation is based on the Institute of Transportation
Engineers, the ITE. And could you tell me like from what they derived their statistics because in
this community I don't see a 17,000 square foot Stanford Research Park building or a general
office building of 19,000 square feet generating 30 peak hour trips. I would think it would be
much more significant than that. It's on page 21, Joe or Carl.

Mr. Stoffel: Well, the ITE studies, this is a collection of national studies. People go out to these
sites and they count these things but it's national. They're generally suburban, they're not like
downtown CBD's like San Francisco but they're all over the country and there's regional
differences. And of course, remember that's peak hour trips and peak hours, perhaps 10 to 20
kind of the daily. I can't really say how well that corresponds to Stanford Research Park. We do
have other trip generation studies. Caltrans, quite a while ago has done trip generation studies
right here in the Research Park and we used to use that data but it's getting pretty old now plus
the CMA, as most people, have standardized on ITE. San Diego has a very extensive trip
generator catalog. We have stopped using that mostly because the County wants to standardize
on ITE and when we do reports for them, it gets complicated to switch around. I think it'd be
better to use California studies but we don't.

Mr. Kott: This may be a good time to promote our annual lecture on sustainable transportation
this year. It's presented by Donald Shoup. He's a professor of Urban Planning in UCLA and
he'll be talking about trip generation rates and parking generation rates and their very weak
statistical validity. Now that's essentially his pitch. And I haven't really read his papers on the
topic. I have heard very good things about him but it would be a good thing I think to attend. In
fact, in relation to that, these are case studies, ITE publishes a manual which is really a
compendium of case studies on trip generation, different kinds of developments across the
country. So some manuals category a certain number of case studies behind them and others
don't. Schoup will make the argument that most don't have enough for first statistical validity
purposes.

Mr. Stoffel: I've got one more comment on that. If you might think of even about your own
habits. I mean, right here in City Hall, peak hour is one hour. Let's say, 5:00 to 6:00. We have a
lot of people here at City Hall, leaving at 3:30, they come in at 6:30, they leave at 3:30, people
leave at 7:00. So there's a lot of people in these buildings that are not leaving and moving during
that peak hour. So that's one hour of the day is what that number refers to. Now there maybe
another 30 people in the next hour so that's a one hour number.

Commissioner Holman: I would agree with you. I think that we would be smarter to use more
local numbers to determine the number of peak hour trips. Some of these like the, especially the
retail centers, of course, those the size of that and the time of the trips is going to vary quite a bit.
But I think our situation here is quite different than any national average is going to indicate for
our trip generation purposes.

Vice-Chair Griffin: Phyllis?

Commissioner Cassel: I want to go back to this comment you made earlier in the evening. I
didn't get the exact percentage. But that between 1990 and I don't know, was it 1994, 1995,
traffic increased by a certain percentage that had nothing to do with other development? Or
maybe it did?
Mr. Kott: Well, now transportation studies have statistical validity problems. One is, most definitely is called the Nationwide Personal Transportation Survey. It's a very extensive survey of the nation's travel patterns and habits. A very large sample of people are asked about how they go about. What mode do they take? How often do they travel? When they travel? Why they travel? And much of their demographics, too, are reported out.

The 2000 data is not available yet. There's always a big lag in reporting out these big surveys as there is with the census, every 10 years. But the last two complete NPTS's 1995 and 1990 and the growth rate trips per capita in the United States, this is across the whole country was around about 33% in trips per capita. It's very well documented.

Commissioner Cassel: My question follows that. We have a baseline that has done, today's date. And in 3 years, there's been no development but the trips go up. How do we base that any other significant factors around that or what happens?

Mr. Kott: That's a problem. There is basically a secular increase in travel. All of us who work in transportation have been extremely frustrated about this, as you might expect. We are continuing to see rises in vehicle ownership and operation rates. And believe me, for 20 years people have been forecasting so called saturation of motor vehicles and it hasn't happened yet. But we were very keen on establishing a much more reliable database in Palo Alto. One day or another, we'll have a wherewithal to do a citywide statistically valid sample of Palo Altons actual travel behavior. And by the way, with the same model that the NPTS does.

Vice-Chair Griffin: The Griffin theorem is that with the arrival of cell phones and e-mail, we are more efficient in the way that we carry out our lives and I am a traveling salesman and I know I am involved in far more things now than I was 10 years ago and it is largely because I have e-mail and instantaneous communication with the outside world wherever. And it absolutely correlates to more activity, my activity behind the wheel.

Commissioner Cassel: And more trips?

Vice-Chair Griffin: Yes. Now, Pat?

Commissioner Burt: A comment and a question. Because we basically are going to have some important sociological trends that will affect us, we've also have from the advent of the Internet, we have some very strong potentials for trip reductions per capita.

Commissioner Cassel: But they haven't happened yet.

Commissioner Burt: You don't know that, I don't know that. And the other question I have is that does the EIR include any assumptions about per capita trends in trips? This is the Comp Plan EIR.

Mr. Stoffel: I don't know at this point.

Ms. Furth: I think it does some alternative analysis, which I think shows some background trip, traffic increase even if there's no growth in Palo Alto.
Mr. Stoffel: Well, that could just come from other cities. I would have to go back and look at, there's description of the model and it maybe they're all or some of those kind of assumptions may not even be in the EIR. They may be in some of the other technical stuff. But I think it'd be a little hard to find. But next year, maybe we have the chance on the new model to see what gets in there, as far as those kinds of assumptions.

Commissioner Packer: This is kind of a follow up, too. This discussion that Cathy Durham likes to quote how kids used to ride bikes a lot more and the statistics say now they don't ride their bikes. And the irony of it is, is there's probably a fear of parents who let their kids ride their bikes because of the traffic conditions and so the parents drive their kids, creating the traffic conditions that they didn't want to have. And there's a smaller school population, too, and there's more school vehicle trips. So it's another one of these sociological things. But do you want to call an end to our meeting?

Vice-Chair Griffin: I am trying to do that.

Commissioner Burt: Just a quick follow-on to Bonnie's because there's a second component to that is not only do we have a reduction in bike trips to school, we have it concurrently in the same timeframe that we eliminated the public transit to school. The school buses. And it's an irony, we would normally assume it would go the opposite direction, that the elimination of school buses would cause more kids to ride their bikes to school or the opposite happened simultaneously. And I would just like to toss on the table that I think one of the things we need to do as a Transportation Commission is consider a recommendation to the Council that there be a greater engagement with the school district on addressing public transit as it pertains to school. As we heard from speakers earlier today, we have a seasonal difference that is striking in peak hour congestion and it has to do with a very strong trend that has occurred over the last 15 years in this regard.

Commissioner Holman: I'm not going to drag this out. I'm just wondering how we should proceed because I do have other questions but I think we're all wearing out. I have questions about the cumulative impact and determining baselines and such. So we can continue the study session as well as any action we'll take to the October 9th meeting. Okay. I just want to make sure.

Ms. Furth: And you're welcome to submit your questions to Staff, which we'll try to have written answers before the next meeting.

Vice-Chair Griffin: Do we need to do anything else about approving minutes?

Ms. Furth: Yes.

Vice-Chair Griffin: So this agenda item is now finished. Thank you for your participation, one and all.

Ms. Furth: And we're back for public hearing?

Vice-Chair Griffin: On October 9th.
Other Items:

REPORTS FROM COMMITTEES.

REPORTS FROM OFFICIALS.

Vice-Chair Griffin: We do not have any reports from Committees or Officials. So therefore, we are going to ask for approval of the minutes of the meeting of August 28th. Do I have a comment?

APPROVAL OF MINUTES. Minutes of Special Meeting of August 21 and 28, 2002.

Commissioner Holman: I had a number of corrections and only one of them was substantive because on page 3, the word "waive" is used on line 17 and on line 20, instead of "wave." And other than that, they're just typographical things I'll go over with Zariah.

MOTION

Vice-Chair Griffin: Do I have a motion for approval?

Commissioner Packer: Are we approving the 21st and the 28th?

Vice-Chair Griffin: Yes, we are, indeed.

Commissioner Packer: For August 21st and August 28th.

SECOND

Commissioner Burt: Second.

MOTION PASSED

Vice-Chair Griffin: In favor?

All: Aye.

Vice-Chair Griffin: All right. Unanimously approved.

Commissioner Holman: With the corrections.

Vice-Chair Griffin: With the corrections of Commissioner Holman.

NEXT MEETING: Special Meeting of September 25, 2002.

Vice-Chair Griffin: All right. Our next meeting will be on September 25th, and this meeting is now adjourned. Thank you.

ADJOURNED: 10:35 p.m.