

CLOSING STATEMENT OF THE STOP COSTCO GAS COALITION

in the matter of

CASE NO. S-2863, OZAH NO. 13-12

I. SYNOPSIS

The elements of the Land Use Code (law) relevant to S-2863 include both general and specific ones (there is some overlap), of which the Hearing Examiner (HE) and all parties who participated in the hearings on S-2863 are fully aware. Rather than take up space unnecessarily, in this 'narrative' closing statement, to repeat and comment on each of the relevant Code elements, we have included the following series of succinct comments about each.

S-2863 should be denied because Applicant has failed to meet its burden of proof as to several elements of the Montgomery County Zoning Code as follows:

1. It has not satisfied General Conditions 59-G-1.21 (a) (2) because it has not satisfied various parts of the Specific Conditions 59-G-2.06 for an automobile filling station including, but not limited to: (1) the station will constitute a nuisance because of noise, fumes, odors and physical activity in the proposed location; and (2) the proposed use will constitute a traffic nuisance.

2. It has not satisfied General Conditions 59-G-1.21 (a) (3) because it has failed to demonstrate the proposed use (the mega gas station) is consistent with the intent of the Sector Plan, especially as it relates to Transportation Oriented Development.

3. It has not satisfied General Conditions 59-G-1.21 (a) (4) because it has failed to demonstrate the proposed use is in harmony with the specific character of the neighborhood, in that by its size and mode of operation it will have disruptive impacts by virtue of the additional traffic and traffic congestion it will impose on the neighborhood.

4. It has not satisfied General Conditions 59-G-1.21 (a) (6) because it has failed to prove the absence of adverse effects (inherent and/or non-inherent) with respect to noise, fumes, odors, and dust. The proposed mega gas station will have adverse effects on air quality, which includes fumes, odors and dust, specifically including but not limited to known airborne carcinogenic pollutants, soot and/or fine particulates.

5. It has not satisfied General Conditions 59-G-1.21 (a) (8) because it has failed to prove the absence of adverse effects (inherent and/or non-inherent) on the health, safety, and general welfare of residents, visitors, or workers. The air pollutants that will be generated by the proposed use will have adverse effects on residents, visitors to the neighborhood (including both the Mall and Kensington Heights), and workers. It will create a safety hazard for pedestrians walking through major portions of the southwest quadrant of the Mall, because traffic flow patterns and pedestrian paths are either too close or are in fact co-incident.

6. It has not satisfied General Conditions 59-G-1.21 (a) (9) because it has failed to prove that adequate public facilities (specifically police and fire protection) can be guaranteed. By failing to submit a Disaster Management Plan it has failed to provide first responders with any data upon which to base their assessment of the scope of additional levels of protection they may be required to provide.

7. It has not satisfied General Conditions 59-G-1.23 (d) because it has failed to provide a Forest Conservation plan and its Landscaping Plan includes elements that indicate it will in fact damage the Forest Buffer. [Its filed plans for landscaping constitute a de facto plan for Forest Conservation/Management and the exemptions granted - from filing an FCP - inherently preclude any certainty that the plantings will be guided by appropriate County agencies.]

8. It has not satisfied General Conditions 59-G-1.23 (e) because it has failed to prove the planned use will not impact groundwater quality in the neighborhood or the impacted watershed(s).

9. It has not satisfied General Conditions 59-G-1.24 (1) because it has failed to prove that a need exists for the proposed use to serve the population in the general neighborhood.

10. It has not satisfied the Conditions specific to automobile filling stations enumerated in 59-G-2.06. In particular it has failed to satisfy:

- a. Subsection (a) (1) as to fumes and odors,
- b. Subsection (a) (2) as to traffic hazard or traffic nuisance,
- c. Subsection (b) (2) because the proposed screen wall cannot protect the community from the airborne pollutants released by the proposed mega gas station.

II. Selected Specific Points

A. Rationale

As with our earlier filings (e.g. ZHE 87b), this document - although prepared primarily for the OZAH Hearing Examiner (HE) - is intended to inform others who may read it in an effort to understand the overall process by which the Applicant's Petition (S-2863) is being judged. Thus, the document is similar to ones which we submitted to the Technical Staff of the Planning Board and the Planning Board itself (***both of which have recommended denial of S-2863***). Since it is a closing statement of our assertions during the 36 hearings before the HE, it is intended to highlight the major points we hope the HE will consider as he reviews the voluminous records of those hearings, reaches his decision as to what he will recommend to the Board of Appeals, and writes the report by which he will explain his recommendation.

But this document is not simply intended for the use of the HE. We hope it will be read by the Board of Appeals as it attempts to decide - based on the

recommendations of the Technical Staff of the Planning Board, the Planning Board, and the Hearing Examiner - what decision it will reach in the matter of S-2863. Moreover, since either side (Applicant or Opposition) may decide to appeal the decision of the Board of Appeals to an appellate court (a situation the SCGC profoundly hopes does not occur), we presume this document may be considered in the deliberations of any such appellate court. Lastly, this document (as was true of our other filings) is intended to be readable - and intelligible - to members of the general public who, although they may be interested in this matter, might not have had the time to attend the hearings and/or read the various filings that have been submitted to the HE in an effort to convince him that S-2863 should/should not be approved.

B. Format

In preparing a closing statement that reflects the case we made, we were cognizant of the need to find an appropriate format, given that the available guidelines and regulations do not provide a 'template' for this statement. We note, first, that the SCGC is submitting this **written** closing statement, and will not make an **oral** closing statement. There are a number of reasons for our decision to forgo an oral statement, chief among them being the time limit set by the HE for oral closings and our perception that the available time should be ceded to the Counsel of Record for KHCA. Please note: The Kensington View Civic Association (KVCA) is signing on to the closing statements of both SCGC and KHCA and has indicated that they will also forgo an oral closing statement.

Our organization of this document reflects the fact that, during our testimony (ZHE 321a) on the Land Use Report (which was the Applicant's overall statement of the merits of its case), we were given to understand (by the HE and via objections from Applicant's Counsel) that many of the points we were making were more of the nature of a closing (or concluding) statement than a factual testimony. Although we disagreed with that suggestion (and still do), we accordingly curtailed our testimony and will make the specific points (albeit in somewhat altered form) here. The focus on a number of specific points should not in any way be construed as contradicting our overarching point, namely that the Applicant has failed to meet the burden of proof required to satisfy any of the relevant elements of the Code.

C. Context & History

Before discussing the following series of individual points, we choose to comment on several issues that, we assert, are generally relevant to the HE's consideration of our closing statement (and thus our case in chief):

1. There has been a significant and continuing effort by the Applicant to misstate the goals of the SCGC and the Opposition in general. The sole objective of the SCGC has always been to demonstrate that **the proposed gas station is not an appropriate use of the land where Applicant proposes to site it**. Applicant's misleading statements notwithstanding, the SCGC has never objected to the Warehouse Store nor in fact to the gas station *per se*. Our consistent objective has been to convince everyone involved in the process that the proposed location presented in S-2863 is an egregiously inappropriate site to place the gas station.

2. SCGC is one entity comprising the Opposition. The other components of the Opposition are KHCA and KVCA. Only KHCA was represented by a Counsel of Record. SCGC appeared before the HE *pro se* (as did KVCA, although its representatives rarely sat at the Counsel table). We believe it is important to state clearly that some of the points we make here were not in fact made by a member of SCGC. However we assert that it is appropriate for us to include such items in this document because we strongly concur with the points and because, while SCGC did not collaborate (*sensu stricto*) with KHCA or KVCA in preparing cross examination or direct testimony, we did confer from time to time to determine if there were significant differences in our positions on various issues and - for the most part - there were not.

3. S-2863 is the second application Applicant has filed requesting permission to construct the proposed mega gas station in the southwest quadrant of Westfield's Wheaton Mall (plaza). The first application (S-2794) was withdrawn after citizen objections (a) blocked efforts by the County Executive to ram a site specific ZTA (Zoning Text Amendment) through the County Council *and* (b) convinced the Council to pass ZTA 12-07, which mandated that, because of concerns about Health Risk, no such gas station could be constructed within 300 feet of a specified set of "sensitive land uses". The passage of ZTA 12-07 resulted in a change to the Land Use Code under which S-2863 is evaluated. It is characteristic of the campaign of **misinformation** Applicant has waged that Applicant continues to assert that ZTA 12-07 was in some way a Council decision to support approval of S-2863. Nothing could be further from the truth and Applicant's misrepresentation of the history of ZTA 12-07 is one example of how it has made misleading and/or inaccurate statements in an obvious effort to get what it wants. In fact, ZTA 12-07 (in its final form) was the result of a political process by which the Council reached a compromise after being aggressively lobbied. ZTA 12-07 says nothing about approving or denying S-2863; it provides a set of guidelines as to how concern about Health Risk to sensitive sites must be addressed. The guidelines set a 'safety net'. Any question about whether the level of the net should/should not be more stringent will be answered differently depending on the political stance of the Council Member questioned. **That the political process has repeatedly intruded into the matter of Applicant's request(s) is an unfortunate, but undeniable fact.**

4. The HE made it clear on numerous occasions that his recommendation would be '**fact-based**'. Given the number of hearings (36 - the most ever for a land use special exception case in Montgomery County), the amount of printed materials, photographs, and video segments in the record, (including the many hours of oral testimony), there is clearly no dearth of facts for the HE to evaluate. In fact, we assert that the sheer volume of factual material constitutes an impediment and that it will be a major challenge for the HE to decide which facts are substantive, which of those are probative, and which of those will form the basis of the conclusions he reaches.

This brings us to one of the most problematic factors in this case, i.e. how much weight the HE assigns to the various facts before him. It is conventional for Hearing Examiners to give special credence to the testimony of "expert witnesses" and this convention is reasonable when such witnesses are testifying on matters about which they have special expertise and/or experience, especially when they are

presenting facts in a manner that helps the hearing examiner understand those facts and see clearly how the facts presented support the assertions of whatever 'side' hired the expert witness. By extension, the HE would commonly give more weight to the opinion (as apposed to the knowledge) of an expert witness than to the opinion of a knowledgeable lay person who is not an expert witness. In the S-2863 case many critical issues of fact (or interpretation of fact) hang on the opinion of an expert witness, vs. the opinion of a knowledgeable non-expert. Thus it is absolutely critical that the HE make appropriate judgements in deciding what weight he will give to the various elements of the testimony (and supporting documents) brought forward by the Applicant and the Opposition. In a sense the exercise of assigning appropriate weight to various elements of testimony is the essence of the judicial role of the HE. But in this case the nearly overwhelming volume of facts and opinions (in the record) pose a special problem, one to which the HE has alluded on numerous occasions. While this problem is inherent in any special exception case, it is virtually unprecedented in scope in this particular case.

A central fact in this case is that, while the Applicant brought forward many "expert witnesses" (at least 10), the SCGC called only one expert witness, who was led in direct testimony by the Counsel for KHCA. [KHCA called 2 expert witnesses.] The fact that a main reason for this 'mismatch' was the great difference in the resources available to the two sides is not a basis for weighing the testimonies differently. However, the fact that much of the testimony of the Opposition was by 'non-experts' who demonstrated very detailed knowledge (and understanding) of the facts, suggests that the HE must give more weight to the testimony of such non-experts than might be appropriate in the 'usual' land use case. Our assertion in this regard is strengthened by the common observation that, when confronted with nearly unique variants of a common problem, it is often the case that the thoughtful non-expert is more likely to see the solution to the problem than is the expert. In common parlance, 'familiarity breeds contempt'; the expert may not in fact see the unusual situation as clearly as does the knowledgeable non-expert. We assert that, at numerous points in the hearings, non-expert witnesses called by the Opposition demonstrated an understanding of the facts that was at least as informed as the understanding demonstrated by the corresponding expert witness called by the Applicant - and in many instances the non-expert saw the implications of those facts more clearly than did the expert.

This point (about weight assigned various 'facts' can be extended to the testimony of various individual citizens who appeared at the hearings. While all parties agreed with the HE's assertion that the proceedings were not a plebiscite, the point should be made that the thoughtfulness of the citizens who testified varied widely. We assert that, while more citizens testified in support of the Applicant, those who testified in opposition were significantly more reasoned and thoughtful in what they said. We will mention some of those testimonies below, but the point here is that citizens who spoke thoughtfully and in a reasoned manner were expressing an opinion - to be sure - but their opinion should be given as much weight as the opinion of an expert witness who was not testifying as to hard facts but rather as to a general level of experience and/or 'common sense'.

5. The protracted nature of the hearings in S-2863 was of concern to all parties, including the Hearing Examiner. We choose to comment on several points

related to the length of the hearing process because we assert that the duration of the process has implications that the HE must consider as he reaches his recommendation and prepares his report.

a. Counsel for the Applicant repeatedly stated (or suggested) that the Opposition was responsible for delaying/dragging-out the hearing process. The implication was that the Opposition was not making its case but simply 'stalling' the process. Nothing can be further from the truth. [The suggestion is in fact completely illogical because the Opposition had nothing to gain by extending the process - especially given that each extension cost Opposition members more and more of their very limited resources. In fact, given that Counsel for the Applicant is handsomely paid by the hour, it is more logical to suggest that Applicant had more to gain by delaying the process.] Applicant - via the actions of its Counsel and the testimony of its various witnesses - was primarily responsible for the extended duration of the hearings on S-2863. In the concluding section of this document we will attempt to explain this fact from a broader perspective. At this point we simply list a few of the factors, resulting from the actions/inactions of the Applicant, that lead to the extended hearings. [The list is not comprehensive; we could provide numerous additional examples.]

i. Much of the time taken up in cross examination of Applicant's various witnesses was necessitated because their testimony was either incorrect or misleading and the mechanism of the cross examination process is such that it takes much longer to draw out the flaws in testimony (assuming the witness is truthful) than it does to simply give flawed testimony.

ii. On those occasions when Opposition cross examination revealed frank errors in testimony of Applicant witnesses, Applicant response was, in essence, to deny the error, or to request time to study the data more carefully, or to present an altered version of the original testimony. This approach was especially egregious in the case of the various testimonies by their Environmental expert (Mr. Sullivan), but was also true to some extent with respect to their Traffic Impact expert (Mr. Guckert).

iii. There were a series of delays, of varying duration, because various Applicant documents were incomplete and/or misfiled. For example, the cross examination of the Geotechnical expert (Mr. Tucker) was interrupted when it became obvious that Applicant had filed the wrong version of Mr. Tucker's report. When the proper version was provided, Opposition stipulated to its content - thus avoiding the expenditure of more court time in an effort to demonstrate what the report did not (indeed could not by its very nature) show. Another example: when Opposition established that the report of the Home Values expert (Mr. Cronyn) was missing two maps (supposedly important), several hours were lost while the missing maps (which apparently were never filed) were located, duplicated, and distributed. Opposition did not request an extended delay (to examine the maps), as it could have, but rather examined them briefly and pointed out why they were not relevant to the points the witness had claimed to be making.

b. Of much greater importance than the matter of which side was most responsible for the extremely long hearing process, it should be noted that the

duration of the process makes it more difficult for the HE (and others) to tie all the facts together and come to a reasonable, fact-based, recommendation. There are two main reasons for this:

i. In part because of the long time frame and in part because of the enormous amount of material filed, it has become very difficult, even for the parties most involved in the process, to keep track of what facts were/were not actually 'proven' and what intermediate 'decisions' about those facts have/have not been reached. For example, during the purported Rebuttal phase, Applicant raised the specious suggestion of a re-design of intersection 16 (Valley View extended & the Ring Road). This elicited comments from Planning Staff (at the request of the HE) indicating that the re-design might be beneficial. Some (including some members of the Opposition) might construe this as indicating that Planning Staff would approve of S-2863 if the intersection re-design were a condition of approval. **In direct response to our question about this matter, Ms. Kamen stated that Planning Staff's recommendation remains the same as it was before the OZAH hearings began: S-2863 should be denied.** Those more knowledgeable about the process than we (SCGC) might in fact regard this as obvious and might assert that the HE not only knows this but would not allow this side-show (about the intersection) to affect his recommendation/report. But a significant amount of time and discussion was devoted to the matter - and this time was wasted on a matter that should not have been allowed into the discussion.

ii. The long duration of the hearing process has had a much more serious effect on the ability of 'the system' to come to a proper decision because of what we will call - for want of a better term - the "stove-piping effect". The various elements of the Code call out a series of factors, for each of which Applicant must meet "the burden of proof" that the proposed land use will not cause unacceptable non-inherent adverse impact. Because of the way the Code is written and the hearings proceed, there is a tendency to evaluate each of these factors as more-or-less independent of the other factors. Such a stove-piped evaluation ignores the obvious reality that many of the factors overlap and/or are interrelated - often in a very complex fashion (see below, e.g. the relationship between traffic, air quality, and health risk). When the process involves a small number of hearings over a period of several weeks (for example 8 hearings over a period of about one month as was originally projected for S-2863), it is fairly easy for all parties to remain acutely aware of the interrelationships between the various factors. In contrast, as the hearings on S-2863 played out, it became increasingly difficult for all parties to keep in 'active memory' the nuances of what had been said many hearings (and months) previously. For example, the initial discussion of Environmental Impact occurred many weeks after the initial discussion of Traffic Impact. Both threads were stretched out over many months and it required considerable Opposition effort (cross examination and direct testimony) to bring to the HE's attention the extent to which Mr. Sullivan's testimony was based in part on elements of Mr. Guckert's. Another - unfortunately unresolved - example of this stove-piping occurred during Mr. Flynn's testimony on the updated Needs Analysis. His report (ZHE 198 contained a table (#4), supplied by Mr. Agliota (who had testified previously) that appeared to contradict numbers in Mr. Gang's testimony. We attempted to call attention to the inconsistencies in the table which have a potentially significant effect on the Traffic Impact evaluation (see below), but our request for clarification was ignored (or at the

least received no response from the Applicant), presumably because it was seen as a challenge to the Needs Report (it was not) and all felt that the Needs issue had been thoroughly explored.

6. Given the large number of facts put into the record, it is perhaps difficult for anyone to believe there are critical facts that were NOT placed in the record. Some such facts are simply not available. Others are facts that Applicant could have provided, but did not. In some cases those facts were requested by the Opposition, but were not provided - or were provided many hearings after they had been requested and in a fashion that made it very difficult for the Opposition to introduce those facts into the hearing when they became available. We provide several examples of this; more could be given:

a. We repeatedly requested precise numbers for parking spaces allocated to Costco (the preferred term is, apparently, "preferred spaces"). After the third request, we were given a one page answer, with the numbers hand-written and barely legible. We do not know if the numbers were assigned a ZHE number. We therefore chose to "err on the side of caution" when discussing parking spaces as part of ZHE 358b.

b. The failure of Applicant to provide clarification of the numbers in the table in ZHE 198 (see above) prevented us from determining if there was an error in the projected number of customers of the proposed gas station (see below under Traffic Impact).

c. Mr. Sullivan chose to provide his backup data (when he actually provided it) in a needlessly complicated format. His digital files had folders within folders within folders, etc. and frequently the actual data files were provided in a format that would not allow Dr. Cole (or anyone else) to open and evaluate the data.

d. On several occasions Applicant's expert witness promised to provide information (Dr. Chase - 80 references he had studied) or corrected data sets (Mr. Guckert - the queuing data for Sterling, from which data for the proposed site were calculated) but never in fact provided that information.

D. NEED

The demonstration that there is a need for the proposed land use is a particularly important constraint, because a number of other factors raise questions about the extent to which a given non-inherent adverse impact is actually adverse. In essence the question becomes a sort of cost/benefit analysis in which the benefit (need) must out-weigh the cost (adverse impact). [This is clearly a simplification of the way the Code is written and is to be interpreted, but it gives some context for understanding why demonstration of need is so important.] The Code is quite precise as to Need, as Counsel for KHCA noted in her opening statement, which we quote here:

"The Applicant's statement in support of its application erroneously quotes the zoning ordinance as follows: "that a need exists for the proposed use to serve the population in the general neighborhood, considering the present availability

of identical or similar use in the neighborhood.” The correct legal standard is whether the proposed use is available to the neighborhood. We submit that the needs analysis evaluates need under the standard proposed by applicant, and not under the correct rubric, and has not met its burden of proof with respect to this standard.”

We concur with KHCA on this point and we also note that Applicant, for most of the proceedings insisted on a definition of neighborhood that included only the Mall and not the adjacent residential property. By that definition, only those who work or shop at stores in the Mall parcel could have any need for gas sold by the proposed station. Applicant eventually accepted the definition of Neighborhood that was used by Technical Staff of the Planning Board (and accepted by all Opposition parties).

The argument about need can be addressed in two ways - the 'simple' and the 'complex'. At a simple (common sense) level the assertion that there is a need for the proposed gas station is absurd, given the number (some 25) of existing gas stations within the 7 mile radius of the SE site. However the simple approach is not taken in Montgomery County land use cases, because of the perceived difficulty of getting agreement as to what constitutes common sense. Instead, in cases such as this (S-2863), the Special Exception process makes use of what is called a market analysis. In one of our filings (ZHE 87n) we referred to this as "a truly bizarre way in which to address the issue of need".

One of the KHCA team (Ms. Cordry) became thoroughly conversant with the market analysis method of assessing need. Her cross examination of Applicant's Need Analyst (Mr. Flynn) revealed the many flaws in his testimony. In her own testimony - as part of KHCA's case in chief - Ms. Cordry explained fully why Applicant's Needs analysis is fundamentally flawed and established that they have not met the burden of proof as to need, an assertion with which we presume the HE will concur.

But, even if the HE is not certain as to the relative merits of the positions (Applicant vs. Opposition) as to the Needs question, he is surely aware that any need that exists can only be satisfied for those who are members of Costco. By Applicant's own testimony, only approximately 25% of those in the market area are (or will become) members of Costco. Furthermore, it was also clearly established that not all Costco members purchase their gas at Costco; thus the percentage of potential customers for the gas to be sold at the proposed gas station is less than 25% of the total buying population in the market area - although the exact percentage is not known.

There are other points to be made about the issue of Need. The first is that it has been repeatedly suggested that Costco could satisfy the needs of its members for gas by building the proposed station in a location along the Veirs Mill Road side of the Westfield Mall. [A rather detailed discussion of this has been posted on the SCGC website for over a year.] While Applicant is entitled to file its petition/application with whatever specifics it chooses, Applicant has changed those specifics numerous times during the course of the hearings and it remains unclear why it has not chosen to make the change in location (of the proposed site) in a simple manner that would eliminate all (or essentially all) objections to S-2863.

Also, we note that Applicant's stated purpose in constructing the gas station as an accessory to the Warehouse is to satisfy the needs of its members.

[We introduce here a hypothetical, with the expectation that Applicant will object to its inclusion in this closing statement and that the HE may concur with that objection. But the HE has repeatedly pointed out that the quasi-judicial process over which he has been presiding for more than a year is structured in such a way that he can be rather flexible in what he admits into consideration, because he is gathering facts that will help him reach the most appropriate conclusion. Thus, when Applicant introduced documents to support its "rebuttal" testimonies and we objected that Applicant was not in fact rebutting any specific element of our case in chief, the HE overruled our objections and listened to extensive testimony (which was clearly in no way a rebuttal) in the hope it would help him decide whether to recommend that S-2863 be approved or denied.]

Applicant has stated that it sells gas to serve its customers (as a 'perk' of patronizing the Warehouse), that it does not do so because gasoline sales are a major source of profit, and it has argued that the demand for gasoline is steadily declining (and this decline is expected to continue). If all those points are true, then we ask the following hypothetical: Would it not be of equal or even greater benefit to its customers if Applicant used the proposed site for a station that sold electricity to charge the many vehicles that will be demanding charging stations in the near future? Such a charging station would probably be perceived as a need by many (not just Costco customers) and could be constructed in virtually the same site proposed in S-2863.

E. LAND USE REPORT

Although this document (ZHE 10, and the testimony by Mr. Gang) is an overview of many elements of Applicant's case in chief and thus is not one of the factors that the HE will (probably) evaluate as to meeting the burden of proof, we choose to make several comments about it (ZHE 10) and the corrected version (ZHE 249 g) for two major reasons. First, since it is an overview, it is logically the first of Applicant's filings that anyone (including the HE) would read and - as such - its tone and assertions will have an 'anchoring' effect on the reader. The other reason we repeat some of our testimonial elements about the Land Use Report is because the errors in both the original and the corrected version are illustrative of the sloppy and misleading filings that characterize so many of applicant's exhibits. In ZHE 87b and ZHE 321a we gave a detailed critique of such faults, so we choose here to repeat only a few of the many items, so as to establish some of the 'patterns' that show the Applicant's operational modality.

1. Factual errors include the inaccuracy as to how many points of ingress to/egress from the proposed site are on University Blvd. and how many are on Veirs Mill Road. More importantly, whereas the factual errors are obvious (once the Opposition called them out), the description of the significance of the erroneous 'facts' is often written so as to be misleading. In ZHE 321a we explained that even after correcting the factual errors as to points of ingress/egress, the Land Use Expert (Mr. Gang) continued (in ZHE 249g) to use language that suggests multiple points of

access to the gas station site, whereas, in actuality, the multiple points of access from arterial roads all funnel traffic to the proposed gas station site via only two intersections, both of them on the ring road, which was never projected (so far as any testimony has established) to handle the volume of traffic it now bears (since the Costco Warehouse Store opened), much less the incrementally increased volume of traffic that it will bear if S-2863 is approved and the gas station opens.

2. As we explained in ZHE 321a, it is not only words that Mr. Gang used in a misleading fashion, but also graphics, such as the labelled Google aerial view of the SE site and its vicinity. We explained the impact of such misleading graphics in some detail.

3. The Land Use Report refers to a nonexistent 'Health Analysis'. The actual document is a 1-1/2 page letter from Applicant's supposed Expert. We explained in some detail (ZHE 321a) why this was misleading and we place this in the context of the inadequate treatment of Health Risk provided by the Applicant when we discuss Health Risk (below).

When we filed ZHE 87b, we characterized the Land Use Report as "poorly written, riddled with factual errors and misleading statements, filled with sections that distract the reader from the issues at hand, and containing numerous inconsistencies both within the document and when compared to other filings in their submission packet." Having now read many more pages of written materials (and various pictorial exhibits) prepared by Applicant and listened to many hours of testimony by their "expert witnesses", we find our characterization not only accurate as to ZHE 10, but also as to the manner in which Applicant's team presented its entire case. We note that the title we gave to ZHE 87b may have seemed harsh; in fact it was entirely appropriate and even prescient as to how Applicant presented its case.

F. CONFORMANCE WITH THE SECTOR PLAN

One section of Applicant's Land Use Report that is an extremely significant factor in the process by which the HE must reach his recommendation is the extent to which S-2863 does or does not conform to the relevant sector plan. It is our understanding that this factor was given even more weight by virtue of the fact that the basis for the Planning Board's *recommendation of denial* was the finding that S-2863 is not in conformance with the Sector Plan. In ZHE 321a we presented the argument in terms of two specific issues, which we restate here.

1. The Sector Plan is designed to move the use of land (near the proposed site of S-2863) in the direction of a more 'desirable' balance between the existing level of dependence on private automobiles and the desired higher level of 'transit oriented development' (TOD). Applicant has argued that the Mall is an autocentric reality. But realities change and the sector plan is, in part, a statement of the goal of reducing autocentricity by encouraging the use of mass transportation (buses and the Metro station close to the site). It can be argued that, having built the Warehouse Store, the community has accepted that those who shop at that store will be more likely to arrive by car, than by Metro (in part because carrying large bulk purchases home on Metro is not realistic). But not all patrons of the store make such large purchases that they must use automobiles. In any case, the issue here is not

the store, but the proposal to add a mega gas station to the parking lot in which that store is located. The gas station will encourage more cars to come to the Mall, even if the patron coming to the Mall was primarily planning to shop for some other product and could have used Metro (or buses). Thus the addition of the proposed gas station will cause an incremental increase in autocentricity that is neither necessary nor in conformity with the Section Plan goal of achieving a more acceptable balance between use of automobiles and use of mass transit. Nothing proffered by Applicant by way of arguing the contrary can be construed as having met the burden of proof.

[We note that Ms. Sheard, speaking as an individual witness, demonstrated very detailed knowledge of Zoning Code and the Sector Plan; her testimony was largely in agreement with the above point(s).]

2. Our second point is actually related to both the Sector Plan and the concerns we raised about Applicant's Landscaping Plan. The notion that protecting the Green Forest Buffer (called for by the Sector Plan) is independent of Applicant's Landscaping Plan is an example of how 'stove-piping' can be used to justify treating, as separate matters, two issues that are in fact intimately interrelated. To make this point as strongly as possible, we restate, in the following section - as a landscaping issue - the points we made about the Green Forest Buffer, which is a Sector Plan issue.

G. LANDSCAPING

Applicant's Landscaping plan raises the distinct possibility that it will do damage to the Green Forest Buffer, protection of which is mandated by the Sector Plan. [The fact that a permit was issued so that no plan for protecting the Forest Buffer was required is irrelevant: whether or not a plan is filed, Applicant is required to protect the Forest Buffer.] Given that Applicant's Landscaping Plan involves drilling holes for sono-tubes (to support the perimeter fence) and planting of shrubs and trees in the sloped Forest Buffer, care will be required to assure that no damage is done to the Forest Buffer. Can that be done? Yes. Will it be done? We doubt it. [This point is related to the discussion of 'conditions' that we include in the later under "Other".] The track record suggests that proper care will not be taken.

Here we raise a tangential matter by asserting that, *de facto*, the Applicants for S-2863 are Costco **and** Westfield. It does not matter what name is on the actual petition. Costco has repeatedly danced around the issue of Westfield's role in this process. One need only recall the discussions about the pedestrian path and the 'resolution' by which Westfield and Costco agreed that Costco would build the pedestrian path **only if** S-2863 is approved. More recently, during the supposed 'Rebuttal' phase, when Costco raised a new red-herring of improving intersection 16, it introduced drawings not initiated by Westfield, ignoring the fact that initiating modifications to the ring road (and its intersections) is a Westfield responsibility, not a Costco option. The fact is that the storm water management system (constructed by Westfield at neighborhood insistence that Westfield replace the then-existing failed system), runs through the Forest Buffer and is already failing. It is causing damage to the root systems of at least some trees in the Forest Buffer. The fact is that Westfield agreed to conditions set by Planning Staff (that no heavy equipment

be used in doing the work on the storm water system, to minimize damage to tree root systems), but proceeded to use at least one bulldozer-like equipment item. How can anyone, the HE included, be reasonably certain that when the proposed landscaping work is done, there will not be damage to the Forest Buffer?

H. ENGINEERING REPORTS

Four expert witnesses were called to testify (for Applicant) on engineering matters. Some brief comments on their testimonies follow:

1. Mr. Duke (Civil Engineer) provided diagrams of the layout of the site and its positioning in the parking lot. He was questioned closely about the drive aisles by which tractor-trailer delivery trucks would reach/leave the Warehouse loading docks (about 40 feet from the SE site) and the drive aisles by which gasoline delivery trucks would reach/leave the gas station (very close to many patron parking spaces). Diagrams of the details of the drive aisles and truck turning radii were requested - repeatedly - and eventually supplied by Applicant. They served as the basis of extended cross-examination, the basic intent of which was to show that delivery trucks (to the store and to the gas station) would - with no margin for error - have barely enough space to enter, make their deliveries (to the store or the gas station) and leave. They will share the drive aisles with patron vehicles and it will be an exceedingly tight fit. We predict that cars and trucks will often be in conflict, thus exacerbating the congestion discussed below (Traffic Impact). To be sure, that is just a projection, but the HE was provided factual evidence of our ability to project/predict occupancy/usage (and thus congestion) of the parking lot (see ZHE 358b).

2. Mr. Hurlocher (Costco's Director of Gasoline Station Operations) was flown in to testify as to the functionality of the site design presented by Mr. Duke. He arrived in the evening before the day of the hearing at which he was to testify. He was driven to the site, which he had never seen before. Since he saw it the site at night - on a weekday - he did not see any of the traffic congestion that characterizes the parking lot in the daytime - especially on a Saturday or Sunday. He testified, in essence, that while then site layout was a bit unusual, it would work. When Counsel for Applicant asked Mr. Hurlocher his opinion about moving the station a few feet closer to the Warehouse loading docks (so as to provide a bit more space for the gasoline delivery trucks, he seemed (to us) a bit surprised, but found no reason to object to the suggestion. Of course, Mr. Hurlocher is an upper level manager in the Costco corporation and must be aware how important it is to the Applicant to gain this foothold in Montgomery County.

3. Mr. Goalwin testified as an architect with experience in petroleum services. It was not clear what level of technical expertise he had as regards underground gasoline storage tanks and he testified based on a document entitled "Operations Safety Training". This training manual was a bit thin as to how safe it is to install such underground tanks in a region known to be a maze of underground seeps and streams (and which has been impacted by an earthquake in the very recent past), especially since the area is now covered with asphalt and the actual state of the ground is unknown [a point that applies to the report of Mr. Tucker (see following)]. As we stated in ZHE 321a, Mr. Goalwin provided essentially no information on

possible impacts on ground water quality except to state that the gasoline storage tanks are unlikely to leak because they are designed with numerous levels of safety features. That may in fact be the case, but anyone who has read "The Black Swan" (by N. N. Taleb; subtitled "The Impact of the Highly Improbable") understands that one should proceed with an abundance of caution when contemplating actions with a very low risk but a very high cost if the risky 'thing' happens. One is talking essentially about multiplying a probability that approaches zero times a risk that approaches infinity and this is a very difficult calculation indeed. [We comment further about the Black Swan Effect in the final part of this section (Other).] More to the point about Mr. Goalwin's testimony, it was one of the few that had anything at all to say about environmental impact involving ground water. Our concerns about impact on water quality are discussed in ZHE 87k. We chose here to elaborate:

If the gas station is built, the underground tanks are NOT the only potential source of contamination of groundwater. Operation/usage of the actual dispensing tanks does produce some spillage [why else would Costco have the eyewash stations (see Other) and why else would the safety training manual contain details of how occasional spills are mopped up]. But no mopping up can scrub the asphalt/concrete surface completely clean of gasoline spills (whatever the source) and the large size of the proposed station (in terms of gasoline sold and cars coming to the station) make it likely that significantly more surface remnants of spills will be generated by the Applicant's proposed station than by any 'large' gas station in the region. When it rains (it does rain in Montgomery County - as Mr. Sullivan knows because he had to turn off his noise meters when it rained in order to get a 'conservative' estimate of the background noise), any gasoline (or by-products of the idling cars) will be washed from the surface and collected by the storm water management system. That system, as we have pointed out, was not well constructed and is already failing (ZHE 87j). Its effluent will be funneled into the stream buffer at the base of the slope (the Green Forest Buffer). That effluent goes directly into Silver Creek (which runs near houses in the neighborhood, and eventually to the Chesapeake Bay). Each of these adverse impacts are, arguably, incremental. But do we know the size(s) of the increment(s) and can we justify ignoring them given the fact (we assert) that the need for the station is questionable?

The ground water planning for the proposed project, like other environmental aspects of this proposal, is shoddy. Mr. Sullivan testified that Montgomery Ward auto center that previously existed at the Mall is a very likely source of toxic contamination. There is no proof of this assertion. In any case, the source of existing deposits of toxic materials is, of course NOT the issue: the question is, what may happen to them if the proposed gas station is placed into operation. Applicant's geology consultant, Mr. Tucker, provided no factual evidence of an investigation of hazardous chemical risk. The Phase I study that Costco commissioned likewise indicated that no physical investigation of hazardous material potential was instituted before Costco signed the lease. The fact that the old Montgomery Ward facility was not at the exact location of the proposed gas station is immaterial. There was testimony and reports indicating unknown networks of ground water, which is likely capable of conveying toxic materials very widely.

A gasoline spill at the site would contaminate both ground water and surface streams. The streams in the immediate impacted area are small: Silver Creek, and

adjacent to homes and to areas where people recreate, Sligo Creek. Any accidental spill would likely have a significant impact on the water resources and the people who live and play near them.

As we have already mentioned, the water resource management projects put in place by the Applicants engineers do not inspire confidence. The outfall pipe in the Forest Buffer is already eroding away. Storm water facilities for the Warehouse do not conform to latest technology. The new storm water facilities interfere with truck turning areas and drive aisles and may not be in place for very long. There is evidence in the case that the storm water system is resulting in flooding at the Warehouse location. While the Hearing Examiner is not an Ombudsman, it is not unreasonable to expect that he will use past performance as some indication of future problems.

Costco's ground water protection plan relies entirely on the structure of the tanks. There is no plan for avoiding the consequences of accidents due to human negligence, such as occurred in Jacksonville, MD.

The Opposition is aware the HE is not inclined to base a decision of denial on water pollution concerns. We did want to register our concerns, nonetheless, so that if and when an accident occurs with dire consequences to streams and people, there will be a record to show that decision makers were warned.

4. Finally, we comment on the testimony of Mr. Tucker (Applicant's Geotechnical Expert). That is the testimony he gave after Applicant finally found and filed the correct report (ZHE 239). ZHE 239 is, in our opinion (and we have experience reading technical documents) an excellent one. It explains precisely what was/was not done to evaluate the site and describes the steps applicant should take to be sure, if/when construction is allowed, that what is found when the excavation (needed to build the support for the gas station and prepare the ground underneath the existing asphalt for the gasoline holding tanks) is undertaken, it is dealt with properly. It is in essence an instruction manual on how to proceed if the limited data collected in preparing ZHE 239 proves to be a non-random sample of the ground below the site. The report is, in fact, so well written that we stipulated to it, reasoning that any cross examination would not prove anything to the HE (about the risk inherent in the installation/operation of the proposed gas station). We made those points in our own testimony (ZHE 321a) and we repeat them here for emphasis - because so little attention was devoted to the implications of Applicant's limited knowledge of the ground beneath the parking lot surface during the hearings.

In essence, we assert that there are at least two events that might occur if S-2863 is approved, both of which are related to potential problems with the installation of the tanks and/or the actual pump islands.

a. Once construction begins, excavation might reveal that the soil below the asphalt at the site will not support the planned installation. Given Applicant's resources, it is likely that Applicant would have the construction team remove all the problematic soil and replace it. But such an extensive remedy would take significant time and would be disruptive to the patrons of the stores bordering on the parking lot, thus constituting a "nuisance" distinct from the nuisance that the

increased traffic is highly likely to cause (see below).

b. The pump islands will be anchored into a concrete pad. Given the many recent instances in Montgomery County involving defective pouring of concrete, it is certainly NOT a wild speculation to suggest that, if/when the station has been put into operation, cracks might appear in the concrete pad. Again, the logical remedy would be to repair/replace the pad. But given the location of the SE site, this sort of repair construction would be disruptive to functioning of the parking lot and thus a nuisance to Mall patrons.

I. HOME VALUES

Applicant's 'expert' witness as to Home Values should NOT have been accepted by the HE; we argued that, KHCA argued it, but the HE - who maintained a consistent policy of allowing testimony that might be helpful to him - allowed Mr. Cronyn to testify as an expert. This was unfortunate (but not as unfortunate as the decision to allow the testimony of Dr. Chase (see below), because Mr. Cronyn manifested a number of 'limitations'. He did not seem to understand that a market analysis (even the flawed one he presented) is not the way to evaluate Home Value in a situation such as what was being studied in S-2863. If a home owner is thinking of selling their home, they want the opinion (hopefully substantiated by appropriate data) of a licensed, knowledgeable real estate appraiser. They are not interested in market trends (especially trends for segments of the market that are not really comparable to the segment of the market in which their house exists). Mr. Core explained this with remarkable clarity (despite the fact that he is not an expert in such matters), so we need not repeat his arguments. We do wish to remind the HE of the time lost (to him and everyone else) while Applicant's team scrambled to find those 'important' maps/graphics that were never in fact filed and were not in fact very convincing. In fact, Mr. Sharman (another non-expert who saw things rather clearly) explained rather clearly what was 'wrong' with those maps.

Anticipating a thread we will explain in more detail below, we note that Mr. Cronyn had a serious attitude problem: he did not respect the Opposition. In fact, it was manifestly obvious that he held us in contempt. This was manifested by his words (for example the scornful tone with which he spit out the word "drama". And his annoyance at being asked to define some words (like negative externality). And the speed with which he responded to the last question of our cross examination by saying that yes, he regarded the Opposition representative as a "negative externality".

J. TRAFFIC IMPACT

This subsection and the next two (Environmental Impact and Health Risk) are intricately intertwined in a way that is - in our opinion - rather straightforward but has been made needlessly complex during the hearing process. Hence we are faced with attempting to untangle a knot that is not very hard to untangle but about which the HE has heard an extraordinary amount of testimony, much of which did not clarify the issue(s). One of our early filings (ZHE 87m) is a very concise statement of the most important aspects of the linkage between traffic, air quality, and health risk. Our testimony about traffic impact (ZHE 358b) goes into great detail, but we do not

intend to restate all the points. Instead we here present the argument (that Applicant has not met the burden of proof) from a somewhat different perspective, by discussing certain facts from a different point of view.

In essence, we challenged the results of the Traffic Impact presented by Mr. Guckert on three grounds:

1. If the gas station is approved, constructed, and put into operation it will by virtue of its incremental increase in traffic cause an incremental increase in nuisance. [The HE understood our point and asked, in question #5 of his initial set of 20 questions (ZHE 105), that Applicant respond to the point.]

2. If the gas station is approved, constructed, and put into operation it will by virtue of its incremental increase in traffic cause an incremental increase in exposure to unsafe conditions (primarily in the parking lot) experienced by those who use the parking lot (primarily pedestrians traversing the lot).

3. If the gas station is approved, constructed, and put into operation it will by virtue of its incremental increase in traffic cause an incremental increase in congestion-based idling cars, whose tail-pipe emissions will cause additional air pollution, which air pollution will cause additional health risk for those who work in, patronize, and/or live near the SE site.

In a sense, all three of the above matters (nuisance, safety, increased idling) are caused by congestion. [It should be noted that many people confuse **congestion** with **crowding**. A parking lot may be completely full (crowded) but not congested. If none of the cars is moving - say because all the owners are at work and are not attempting to enter/leave the parking lot - there is no congestion because there is no attempt to move the cars.] We presented evidence of the congested nature of the parking lot (since the Warehouse store opened) and used a simple hand-drawn graph (ZHE 358c) to address the obvious question of how the incremental increase in congestion that will be caused (if the gas station is added to the parking lot) will cause an unacceptable increase in congestion-related effects - primarily the time cars are moving slowly, or idling while waiting to move, and thus generating the toxic materials that are the products of the incomplete combustion which characterizes slow-moving/idling cars. The graph was crudely drawn and its simple labeling appeared to confuse the HE because he asked why the curve we had drawn was not a straight line. The answer is very simple and we presume the HE has in fact answered it himself. The curve is a simple x-y plot (as taught in all high-school and college courses on math and/or basic physics). It showed the expected relationship between "Per Cent Occupancy" (x axis) and "Congestion (or Queuing)" (y axis). The labels of the axis were not as clear as they might have been: it would have been better to find some label for the x axis that indicated that all occupancy in the lot is inherently transient, i.e. that one was not talking about crowding because essentially all the cars using the lot spend a limited amount of time parked, perhaps on the order of 30 minutes to one hour. Similarly, it would have been better to chose a label for the y axis indicating that what was being measured was the congestion/idling which lead to the tail-pipe emissions which (and so on). In fact, such complexity would be best dealt with in a proper caption. The HE's question as to why the curve was not drawn as a straight line is answered by saying that this was a linear plot and it was intended to show that, under the conditions extant in the lot, the 'response' - to per cent occupancy - of the congestion/idling level is NOT linear: it is exponential, because the capacity of the lot is limited. The curvilinear nature of the curve can be justified in words, but is a bit

cumbersome (recall the saying that a picture is worth a thousand words) by observing the following:

a. At very low levels of occupancy there is little if any congestion/idling because any cars whose drivers wish to move the car can do so with no constraints (other than speed limit and prudence).

b. At moderate levels of occupancy (say 50% usage of the spaces available and a significant number of drivers/vehicles attempting to enter/leave), congestion/idling increases, but the level is only a modest problem - a minor nuisance or inconvenience.

c. As occupancy increases to approach the capacity of the lot, the level of congestion/idling rises very steeply (in terms of the curve). It is a non-linear response - an exponential response. If the graph had shown data of the actual situation (this was not based on data because virtually none was available in a form that could be used to construct a real graph) and had been displayed on semi-log paper, the data would have fallen on a straight line (or perhaps two straight-line segments - given that the actual behavior of drivers in a parking lot changes from calm to less calm when the lot becomes more congested), with the slope of the line being a numerical value - the exponent of the relationship of y to x . The actual value of the exponent cannot be predicted (and probably not even modeled - we have searched the literature for such information, but the fluid dynamics of flow in a parking lot are extremely complex and have not, to the best of our ability to determine, been studied, much less successfully modeled, although computer simulations are now being used to study how the problems in such situations - or at least the simpler version of a network of roads - can be mitigated).

d. When Dr. Cole testified, about air quality, he clarified the point we were making with ZHE 358c by showing ZHE 404b (from the FHA) and pointing out that Figure 2.4 has a curve ("Bottleneck") that is nearly identical to ZHE 358c. The two curves are nearly identical because, although they are addressing two different sorts of traffic congestion, they are focussing on the same underlying reality - that such systems display non-linear x - y relationships that, while the exact value of the exponent may not be measurable, all 'mean' the same thing: the response of the system to the 'stress' is slow at first but increases steeply as the stress reaches a point at which the system can no longer 'respond'

Applicant's Traffic Impact expert (Mr. Guckert), testified (several times, including his purported 'rebuttal'), was cross-examined, and his 'analysis' was challenged by SCGC (as well as others in the Opposition). *In toto* the discussion of Traffic Impact took up a very large portion of the hearing process. We believe it is most efficient to comment on Mr. Guckert's 'analyses' and opinions sequentially as they relate to the three 'grounds' specified above.

1a. Mr. Guckert either did not understand our points about nuisance, or he chose to apply a rather inappropriate definition of the term, nuisance, which, as we pointed out, is defined in legal dictionaries in terms of "inconvenience". Mr. Guckert,, of course, presented no facts as to nuisance that might/might not be caused by the incremental increase in traffic generated by the proposed gas station. He expressed the **opinion** that there would be no nuisance. We had clearly stipulated that the nuisance to which we referred was to be understood as having two components: (a) nuisance affecting those within the immediate vicinity of the SE site (i.e. those who work near, shop near, and/or pass through the parking lot and/or

the portions of the ring road in close proximity to the SE site *and* (b) nuisance caused those in the Kensington Heights neighborhood at points more distant from the SE site, such as the intersection of Drumm and University (which intersection was not included in either the original TIA nor in the supplemental study - carried out after the Warehouse store had been opened).

1b. As to the possibility of nuisance near the SE site, Mr. Guckert's opinion was, in essence that anyone who shops in a busy Mall obviously expects some inconvenience because of traffic. What he did not discuss is if/how he would quantitate the impact of additional nuisance due to increased traffic caused by the proposed gas station. His only comments on this point seem to suggest that he would only regard such incremental traffic as a nuisance if the increased traffic caused sustained gridlock (see Endnote 1). We reject his opinion as a gross distortion of what we said. As to the possibility of nuisance outside the Mall (i. somewhat distant from the SE site), Mr. Guckert's opinion was extremely puzzling: he simply ignored our clear reference to the intersection of Drumm and University. He chose to comment on the possibility of cut-through traffic on McComas. [Although KHCA may have raised the issue of cut-through traffic, SCGC never intimated that was the nuisance to which we were referring.] If the expert witness does not address the issue raised by the opposition either because he does not understand it or because he chooses to ignore it), how could anyone (including the HE) conclude that Applicant has met the burden of proof?

2. We next consider Mr. Guckert's discussion of the impact, on safety, of the incremental traffic that will be generated if the gas station is approved. Initially, he simply ignored the entire issue. This is not surprising because the safety issue to which we were referring is (and was) safety of pedestrians in the increasingly congested parking lot. Mr. Guckert consistently opined that, in essence, the gas station is just a gas station and it is to be sited in a parking lot, which is just a parking lot. In essence, he regarded the parking lot as not being a basis for argument, whereas we regard it as THE basis for numerous points of the argument. [In fact, we made the point - in ZHE 358b - that Applicant had provided essentially **NO FACTS** about the parking lot and thus - applying strict logic and Occam's Razor - could not be judged to have met the burden of proof because 51% of nothing is nothing.] In any case, by his own admission, Mr. Guckert is not an expert as to matters of safety in parking lots (indeed he seems to have many opinions but no facts about parking lots). He chose to dismiss the fact that Montgomery County government (which has collected some facts about such matters) is concerned enough about safety in parking lots to have mounted a campaign to improve the situation. But Mr. Guckert, who presented no evidence whatsoever on this matter (except to comment that in his field it is not regarded as a problem), chose to dismiss the findings of people who do know something about such matters (see endnote 1).

3. We now turn to the third 'grounds' (see above) for dismissing the Traffic Impact component of Applicant's case in chief: congestion *per se* and how the incremental increase in congestion will impact air quality and thus health risk. Here again, Mr. Guckert was curiously uninformative (and unformed) about the matter. While he may at some time in the past have been an expert on Traffic Impact Analysis, he was almost certainly never any kind of expert on traffic in parking lots. In fact, until we pushed him on this matter, he could not come up with any numbers

as to the traffic in the parking lot, even though the numbers (or a few of them) were carefully buried in his own TIA report (ZHE 11a). [It became manifestly obvious, at several points, that we and others in the Opposition were better versed in the contents of his TIA (as well as his supplemental study, ZHE 128) than was Mr. Guckert. We found errors in the use/presentation of the data of which he was - as was painfully obvious - unaware (see endnote 1, as well as our discussion later on of the question of Perjury).] Rather than attempt to rehash all of the facts we (SCGC) presented (ZHE 358b), or link them to related facts presented by others in the Opposition, we chose to discuss, briefly, a few points:

a. The entire evaluation of S-2863 is, of course, an exercise in projections. A very large percentage (we do not proffer an estimate of the percentage) of the '**facts**' are in fact **projections**. Hence the weight the HE will assign to the various facts he uses in reaching (and justifying) his conclusion(s) will be based on how credible he finds those projections. We presented the HE with two projections, one made by Mr. Guckert (a supposed TIA expert) and one made by members of the SCGC. We showed the HE that our graphic projection of occupancy of the parking spaces in the parking lot (made well before the Warehouse store opened), which was intended - for purposes of credibility - to be rather conservative, was in fact extremely accurate. [Mr. Guckert's supplemental traffic studies - which he did NOT evaluate in terms of parking lot usage - allowed **us** to give a more realistic assessment of use of the parking lot. In peak hours/days, the lot is even busier than shown in our graphic projection (from ZHE 87e), a point of which we were aware when we made the projection. In fact, we stated (ZHE 87e) in connection with that projection "On busy days the lot will probably be more full than in this image and some will use other lots, but this will remain the most popular place to park....."]. For comparison, we did some data collection, and analysis of the data, at intersection 16 (Valley View extended and the Ring Road). We explained in detail why we chose that intersection (16), how we collected the data, how we analyzed the data (using the CLV methodology, to mimic what Mr. Guckert had done, despite the fact that we asserted - and continue to assert - that **it is not appropriate to use the CLV algorithm at intersections such as 16**), and what we had found.

What we found was that Mr. Guckert's projection was low by about 15%. When the HE asked us, in essence, what to make of that finding, we were - to put it mildly - flabbergasted. Not being experts about testifying, we did not know how to answer the HE without appearing to be disrespectful. We will attempt to answer the question here, with the hope that our words will seem less harsh on paper than they might have seemed if spoken. The HE should use our finding as a **fact** establishing that we know quite a bit about TIA methodology, that we can use it effectively to gather and report **credibly**, which is how Mr. Guckert should have reported his study, and that his projection does not paint as rosy a picture of the intersection as he would have the HE believe. There is an incremental difference between what Mr. Guckert projected and what actually happened. We came closer (in our various testimonies and filings) than did Applicant's Traffic Expert. What the HE should make of our finding is that it is at least as likely that we are correct in projecting the traffic impact of approving the gas station as is Mr. Guckert. Given the various errors than have been made clear by Opposition testimony and cross examination of Mr. Guckert (see, again, endnote 1), the HE should take our projections quite seriously. Applicant certainly did. Why else did they present the specious rebuttal that they did

(see our discussion of that rebuttal below)? Why else did they disrupt the proper process of the hearings with the "hail Mary" of proposing an improvement of Intersection 16?

b. An essential thread in our argument is that adding the proposed gas station to the parking lot site will cause an unacceptable non-inherent adverse impact, by virtue of the incremental increase in the amount of idling of vehicles in the vicinity of the proposed gas station. By vicinity we mean, of course, the SE site, the parking lot, and the portions of the ring road nearest the SE site. That is, the SE site is the center (or "hot spot") of a focal increase in congestion-driven idling. The following calculations will illustrate the fact that **the increment in idling caused by the proposed gas station will be on the order of 300% of the idling that now exists on a busy weekend day:**

i. We used ZHE 456a to arrive at a value for the total amount of time that cars coming to the proposed gas station would be idling during one peak hour on a busy Saturday. [We used ZHE 456a rather than the spread sheet from which it was generated because it has been shown that the data in the spreadsheet was in part incorrect (e.g.gaps where the queuing number dropped to zero in a patently impossible fashion) and a corrected version was not available. ZHE 456a has the gaps, but it is a simple matter to ignore them and see the average value over a one hour time period. If the HE has any confusion about this, we would be happy to show him the process.] The total peak time period can be as little as 6 hours (say 12-6) or as much as 10 hours (say 9-7), but the one hour considered here is somewhere around 2 to 5 PM. The exact hour does not matter. From Exhibit 456a, approximately 32 cars (+/-10%) are queued at any time. These cars are distributed amongst 8 lanes, so approximately 4 cars per lane. Any car entering the queue idles as it moves forward, toward the dispensing pump. The stated time for a car to fuel (at the pump) is approximately 4 minutes. So each car takes approximately 16 minutes to move from the end of the queue to the pump, whereupon it turns off its engine, fuels, pays and exits.

[A small amount of additional time (some seconds, possibly more) is involved as the car slowly exits the gas station, transits through some portion of the adjacent parking lot, and reaches normal speed as it leaves the parking lot and exits via the ring road. This additional time is difficult to estimate, so it is not counted here, which makes the overall calculation of idling time a conservative one. However we do wish to note that Mr. Guckert's TIA stated that the 90th percentile time for total time in queue was 12 minutes per vehicle, based on three stores in California. The value of 16 minutes, calculated above, is based on data from Sterling (corrected for application to the proposed gas station in Wheaton, and is higher by 25% or 33% - depending on how one does the calculation. This yet another illustration of the point we have made repeatedly, i.e. that Applicant has used a number of different Costco stations to support its assertions. None of those stations are truly comparable to the Wheaton station and Applicant has - obviously - used different stations to 'cherry-pick' numbers that support its assertions.]

Thus an average of 32 cars each spends about 16 minutes idling while it moves through the queueing area. This process occurs steadily and happens roughly 3.5 times per hour. [Obviously there are variations in the rates of transit,

etc.; the numbers are averages.] **Thus the total time spent by cars idling = $32 \times 16 \times 3.5 = 1792$ minutes during a one hour time period. This number is valid for any of the peak hours.**

ii. We then calculated the total time spent by cars moving at slow/idling speed as they either enter/park or exit a given parking space on a busy Saturday during a one hour period (same 'typical' one hour period as above for the gas station calculation). The total number of cars entering/leaving the parking lot was computed (from Exhibit 128a) to be approximately 550 cars/hour (see ZHE 358b). Each car spends some amount of time moving slowly as it navigates the parking lot to either find a spot and park, or leave a spot and exit. An estimate of this slow moving time period is about 1 minute (subject to considerable error and possible data collection). [When we cross-examined Mr. Guckert (regarding his supposed rebuttal - of our case in chief) to give us his opinion as to this number, but he refused to do so (see our assessment of his supposed rebuttal under M. Other, 3. Rebuttal) so we were forced to make an estimate. Our own observations indicate (to us) that the 1 minute estimate is reasonable, but we acknowledge that there is uncertainty. [One could in principle collect data on this, but the methodology and the sampling criteria would be quite complex. Our best estimate as to the uncertainty is that the idling time estimate of 1 minute is extremely unlikely to be less than 30 seconds or more than 2 minutes. And the errors have impacts on our main point that are counterintuitive: if one argues that the amount of time spent idling is lower, then the ratio of idling due to cars in the gas station queue to cars in the parking lot goes UP.] This means that the total amount of time per hour that cars using the parking lot spend moving slowly/idling time spent is approximately 550 minutes, during a peak hour on a busy Saturday.

iii. Thus the addition of the gas station to the existing situation will increase the amount of time (during peak hours) in which cars are moving very slowly, or are idling, by a factor of approximately 3.5. The number calculated in A is accurate to approximately 10% (probably better). The number calculated in B is subject to greater uncertainty because no firm value for the time cars spend moving slowly as drivers either look for a spot and park, or exit a parking space and navigate out of the parking lot. The value of 1 minute could be off by a factor of 2 either way (although this seems unlikely). If the 1 minute estimate is too high, the increment caused by the gas station is LARGER. If the 1 minute estimate is too low, the increment caused by the gas station is smaller. **It does not seem possible to conclude other than that the gas station will at least double the amount of idling and it is more likely that it will triple or even quadruple the idling in the parking lot.**

c. We turn now to the question (alluded to previously) about the numbers in table 4 of ZHE 198. To simplify, the question is: Does the HE really know how many vehicles will be buying gas at the proposed gas station? We have already stated that the 'stove piping' of facts presents a very real problem. Table 4 is a very striking example because it is part of Mr. Flynn's supplemental Needs Analysis. When we attempted to call attention to the inconsistencies in Table 4, we were ignored - albeit not totally because Applicant's Counsel did deign to inform us that the table had been provided to Mr. Flynn by Mr. Agliota (and reflected data collected in the period between May 1, 2013 and May 31, 2013). To restate: we are **not** using this

discussion to argue about Needs. We are using it to demonstrate that the numbers in Table 4 do not make sense and they raise the possibility that despite all the discussion (during the hearings) about the incremental traffic that will result from opening the proposed gas station, the HE has **NOT** been given a basic fact: how many vehicles will use the station. Our analysis of Table 4 is inconclusive. We have placed the analysis at the end of this closing statement (as an Appendix), because the HE has repeatedly said that he will base his decision on facts that are relevant and helpful to him. Our analysis of Table 4 provides no such facts. However, what it does provide is a clear example of how, using the scientific method, we were able to conclude that our original hypothesis about the meaning of Table 4 was **probably** wrong. Our hypothesis was that the numbers in Table 4 indicate that patronage of the gas station has been consistently underestimated. We believe we have disproven that hypothesis, but we cannot be certain (because of flaws in the table) and we urge the HE to look at Endnote 2 and ask himself the following question: **Does he in fact have reason to believe that the projected patronage of the proposed gas station has been accurately presented?**

d. Finally, we refer the HE to the section, under "Other" in which we discuss the flaws in Mr. Guckert's supposed 'rebuttal', in particular as they relate to our continued assertion that it is not appropriate to use the CLV algorithm for intersections like 16 (or the various intersections of the ring road with the parking lot) and that the HCM method is also not appropriate. In addition, we include our answer to the HE's question about cars leaving the gas station vs. cars leaving a slot in the parking lot (see the section, indented, beginning with "[**Interestingly**, by using the Brandywine example,...").

K. ENVIRONMENTAL IMPACT

Ignoring, for this closing statement, issues of noise, fumes, lighting, etc., the discussion of Environmental Impact focussed primarily on Air Quality. Both sides called Experts with degrees in Meteorology to discuss the Air Quality Impacts issue. This is an exceedingly complex field (it is, for a physicist, a branch of the field of hydrodynamics - or fluid dynamics - a field in which deciding what data to use, how to model the predictions that data allows, and how to weigh the reliability of the predictions is a very serious and challenging matter). Hence the documents filed, as well as the testimonies and cross-examinations, were often very abstruse. Keeping track of the meaning of "isopleths" and the relative merits of various modes of modeling (using computer programs with rather strange names) is not for the faint of heart! We therefore will not even attempt a synopsis of the technical aspects of the argument about air quality; the HE has more than enough material to evaluate. Instead, we chose to make a few comments of a general nature - as an attempt to put all the technical argument in a proper perspective

We assert that our expert (Dr. Cole) was more correct than Applicant's expert (Mr. Sullivan). This is not simply a matter of what degrees they hold (Ph.D. vs. M.S), because what matters is the degree to which they used their knowledge and experience to make credible cases for their clients. And the issue of credibility includes the issue of the regulations (or standards) that should/should not be applied to the results of the air quality data/modeling/predictions.

1. Mr. Sullivan was not nearly as credible as Dr. Cole. We showed that Mr. Sullivan did not utilize data the way a true scientist uses it. He graphed his data so as to make a point which was only partially true, in the sense that it was misleading (for example as to the trends in air pollutants). He explained his data/modeling/predictions in a way that was unclear and even unnecessarily confusing. He filed numerous revised versions of his reports, supposedly to clarify points, but in many cases, he did not so much clarify as change his basic assumptions.

Of particular concern was the way Mr. Sullivan handled his mistakes. Any credible scientist makes any number of mistakes: that is the nature of the scientific endeavor. Sometimes the mistakes are actually astonishingly simple, like dividing when one should multiply (or the converse). A true scientist acknowledges his/her mistakes, evaluates the significance of the mistakes, corrects them, and moves on (hopefully having learned not to make a similar mistake again). A true scientist does not claim to need many days to 'analyze' whether or not he/she has in fact divided when multiplication was the appropriate arithmetic function. The error, in such a case is obvious; the main question is how significant an effect the error has had on the conclusions the scientist has drawn. When Mr. Sullivan made such a 'simple' error (which had very considerable significance), he did none of the things a credible scientist does. At that point he lost an enormous fraction of his credibility - and his subsequent testimony, while very smooth and professional, was clearly the output of an expert at testifying about air quality rather than the testimony of an air quality expert.

2. In contrast, Dr. Cole **is** a credible scientist. He explained calmly and clearly the flaws in Mr. Sullivan's testimony. He did not attempt to make an abstruse matter seem more abstruse; in fact he made every attempt to clarify, without being misleadingly 'simple'. It was not his job to show what Mr. Sullivan should have done, but rather to show that Mr. Sullivan could have done X or Y and that his (Mr. Sullivan's) failure to do X or Y had vitiated the credibility of Mr. Sullivan's conclusions. He did this repeatedly and convincingly. For a true scientist, like Dr. Cole, the goal is to get closer and closer to the truth.

3. The extensive argument about what rules/regulations have been promulgated, the relationships of those rules/regulations to recommendations of other bodies, and the meaning(s) of those rules/regulations to S-2863 must have been a matter of both interest and concern to the HE. He has been cast as the interpreter of some exceedingly complex scientific matters, without any real guidance from the Code. [This is yet another example of how nearly unique S-2863 is.] He has repeatedly stated/implied that he must connect his recommendation (on the air quality issue) to regulations/guidelines that are extant. But he surely sees the limitations of that part of the process:

i. The rules and guidelines are in constant flux (acceptable levels seem only to go down, not up) and they have changed significantly during the course of the hearings. How much weight can one attach to 'facts' that are steadily changing, especially when the 'facts' are - in so many instances - determined not simply by scientists, but also by committees of scientists that are trying to find a

consensus?

ii. The HE may feel he must use EPA standards in reaching his recommendation. The various regulations/standards were promulgated for situations where the source of the possible toxin is very large compared to the SE site. And MUCH larger than the true 'point source' of each in this case (i.e. the tailpipe of an automobile). The meteorologists have testified, in extensive detail about levels of NOx and PM 2.5. They have testified about dispersal patterns. But have any of Mr. Sullivan's graphs shown the levels of those toxins in the center of the 'hot spot' - i.e. the center of the parking lot site where the gas station is to be placed? We assert that this situation is quite analogous to the situation whereby Mr. Guckert chose to testify about traffic impact but simply ignored (at least until we pushed him to opine) the traffic IN the parking lot. How could he do that? Quite easily: because it really has not been studied. We urge the HE, while he is reviewing the multiple filings made by Mr. Sullivan (for the Applicant) to see if he can find one rule or regulation or standard that stipulates it is to be applied to a real person walking through the parking lot, in proximity to the SE site. That person will be breathing in the tailpipe emissions of some 30 or more idling cars. And will be doing so for the time (a minute?) that they walk past the gas station - if it is built. This is a perfect example of when erring on the side of caution is warranted.

4. Mr. Sullivan, like Mr. Guckert, was called by the Applicant to give what we have asserted is a rebuttal that rebuts nothing. Our brief comments about Mr. Sullivan's supposed 'rebuttal' are below (under Other in the section on Rebuttal).

L. HEALTH RISK

Early in the Special Exception process, Costco defined the 'neighborhood' of their Special Exception application, S-2863, as the boundaries of Wheaton Westfield Mall. In January of 2013, the professional Planning Staff expanded Costco's definition of neighborhood to include impacted housing from the southern Mall boundary to the northern side of McComas Avenue and the first ring of properties to the west of the Mall. With their consistent disregard and disdain for the public health of families residing in extant housing as close as 118 feet from the site of the proposed 16 pump gas station, Costco rejected the Planning Staff definition and clung to their original definition. Essentially all of their case in chief expert testimony was based on their definition of neighborhood as the Mall only. Eventually, Costco had change of heart and Costco Counsel whispered into the record that Costco agreed to accept the Staff definition of neighborhood.

1. Health

In discussion of potential adverse public health effects on residential housing proximal to the proposed gas station site as well potential adverse health effects on visitors and workers at the Mall, the Opposition presented 2 health experts:

Dr. Maria Jison, A practicing physician, Board Certified in Internal Medicine and Pulmonary Disease and Critical Care Medicine, and

Dr. Patrick Breysee, Johns Hopkins Bloomberg School of Public Health Professor, Department of Environmental Health Sciences; Professor, Johns Hopkins School of Medicine, Division of Pulmonary and Critical Care Medicine, and the Johns

Hopkins School of Engineering, Department of Chemical and Biomolecular Engineering.

Both Opposition Health Experts provided extensive literature and professional knowledge of the harmful health effects on children, adults and the elderly when exposed to a source of toxic air pollutants such as PM_{2.5} that is associated with vehicle fueling and slow moving and idling vehicle queues attendant with mega gas stations.

Dr. Jison, testifying on Asthma, noted that 1 in 12 people; 1 in 11 children are affected by this disease posing a country wide large health care burden. Dr. Jison continued that as a physician she is very concerned about the likely adverse effects on asthma that will be incurred from the increased pollution of a large gas station so close to a neighborhood and a school stating that PM_{2.5}, a toxic tail pipe pollutant, is the perfect size to be inhaled deeply into the lungs. The more chronic the exposure, the more frequent the exposure, the result is a cumulative dose.

Dr. Breysee also testified on Asthma expressing concern on the size and location of the gas station adjacent to local housing and the nearby Stephen Knolls School. Additionally, Dr Breysee explained accepted scientific method. He noted for instance that the insistence by Mr. Sullivan on a single number (however often modified) is not acceptable science. There should be a range quoted for each pollutant measured as that would be more representative of actual conditions. Scientists involved throughout this hearing: Dr Henry Cole, Meteorologist; Dr. Mark Adelman, Biophysicist and Ms. Abigail Adelman, Descriptive Morphologist, support Dr. Breysee's explanation as one practiced throughout the scientific community. Dr. Breysee also noted that current EPA air quality standards are acknowledged to be behind current science as studies and testing are a continuum while EPA standards represent knowledge at a stated cutoff. Putting forth common sense thinking, Dr. Breysee notes that in the face of concern, prudence is always recommended.

Ms. Barbara Gottlieb (Director for Environment and Health at Physicians for Social Responsibility and author of several peer reviewed publications on PM_{2.5}), testified as an individual. She knowledgeably discussed the harm from tail-pipe emissions caused in various target populations.

The Applicant produced a Health Report done by a Dr. Kenneth Chase, whose medical practice is focused on consulting for large corporations on OSHA regulations. Dr Chase was not aware that the gas station, if built, would sell gasoline only and not diesel fuel. He also accepted Costco's initial definition of neighborhood as solely the Mall, ignoring the health and safety of proximal residents. When apprised of Costco's later acceptance of Staff's definition of neighborhood, he again rejected the possibility that there would be any adverse health effects on anyone. It is telling that Costco chose not include Dr. Chase in its rebuttal.

The 15 references attached to Dr. Chase's one and a half page dismissive review of the potential health effects of the proposed station, focused only on diesel fuel with the exception of an article by Morales et al which studied the impact of petrol stations on their immediate surroundings. The Morales study, provided by Dr. Chase, **supported the Opposition position** that a buffer of at least 300 feet should

exist between gas stations and sensitive sites such as housing.

Dr. Chase also introduced in his testimony the CASAC committee which advises the Environmental Protection Agency on specific air pollutants. The CASAC committee urged the EPA to reduce the previous 15 ug/m³ standard for PM_{2.5} to 10 ug/m³, although it did suggest a range of 10-13 ug/m³. [10 ug/m³ is 2 ug/m³ lower than the 12 ug/m³ standard EPA codified in March 2013.] The reason for the push for 10 ug/m³? CASAC's concerns about the known danger of proximity to the pollutant PM_{2.5} and their awareness that there is no known absolute number below which there will be no health risk. Again, Dr. Chase provided **support for the Opposition position** that the proposed station location so close to existing housing is a potential a health risk to families. This concern about the lack of an identified safety threshold has been expressed by the Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the World Health Organization (WHO).

Mr. Sullivan's monitor reading of 10.9 ug/m³ for PM_{2.5} is a mere 1.1 ug/m³ below the 12 ug/m³ EPA standard. Not 5 ugs or 3 ugs but only 1.1 ug/m³ and this number was obtained after one of Mr. Sullivan's "revisions". In other words, original monitoring numbers were adjusted to enable Mr. Sullivan to bring the site into compliance with current EPA standards.

2. Public Health Standards

Costco contends that the Opposition produced no applicative alternative public health standards. As the record shows, the Opposition discussed in detail the World Health Organization guidelines as well as explaining the reason for the use of the term, 'guidelines'. In order to address all countries worldwide, WHO's guidelines are to be considered as standards for developed countries such as the United States and are to be seen as attainment goals by undeveloped countries who are urged to set and meet interim targets as they move toward attainment. Not too difficult to understand.

The United States EPA standard for PM_{2.5}, at 12ug/m³, is not compliant with the WHO PM_{2.5} guideline of 10 ug/m³. This is of concern as again WHO notes the lack of a certain safety threshold even at their lower guideline of 10 ug/m³ for PM_{2.5}. It is to be noted that Mr. Sullivan's revised numbers fail to meet the WHO guideline for PM_{2.5}.

Opposition testified that the Metropolitan Washington Council of Governments (COG) finds that our region is a 'non-attainment' area for ground level ozone and the EPA standard for PM_{2.5}. The Opposition entered into the record monthly graphs produced by the Metropolitan COG showing days that, for PM_{2.5}, our region is out of compliance and frequently of concern for people with compromised health. It is no surprise that the summer months are of greatest concern. With green days being healthy, yellow days indicating a moderate health danger for sensitive or health compromised people, orange days as unhealthy for sensitive groups and red days as unhealthy for all; Summer of 2013 found COG ratings for our region as follows:

June: over 50% of days were yellow moderate caution days and 1 day as orange unhealthy for sensitive groups

July : 50% of days were yellow and an additional 3 days were orange
August: 60% of the month were yellow cautionary days.

Why would one add another proven pollution source to this existing pollution level?

3. Stephen Knolls School

The nearby Stephen Knolls School, the down county school for severely disabled and medically fragile children, is located just off the ring road. Dr. Jison testified that a mega gas station and the additional pollution it will bring if located 825 feet from the school was of grave concern. The medically fragile pupil population has a high incidence of Asthma, other respiratory diseases and respiratory complications. The impact on the severely compromised pupils attending the school could be catastrophic.

In testimony, the past and current Presidents of Stephen Knolls School PTSA , advocated for the health and safety of their children and all the pupils who attend the school. Admirably and passionately, with their children, they spoke of the serious adverse health risk they perceive the SKS students will experience should this Special Exception location be allowed.

4. Montgomery County Public Schools

Costco states that Montgomery County Public Schools (MCPS) did not express opposition to this Special Exception application. It is important to note that **MCPS did not express support for this Special Exception**. Why not? Muzzled by County politics, MCPS chose to be silence. To their shame.

5. Safety Buffer Recommendations

A 300 foot minimum buffer is recommended by the Environmental Protection Agency, the California Air Resources Board, scientists in Murcia, Spain, Dr. Henry Cole and other air quality experts, and health professionals such as Drs. Jison and Breysee to protect sensitive sites, including residential housing, from gas stations dispensing 3.6 million gallons per year. This proposed Special Exception gas station will be over three times larger and located a mere 118 feet from residential housing - violating the above recommendation by 182 feet.

Mr. Angelo Bianca, the Air Quality expert at the Maryland Department of the Environment (MDE), in his letter commenting on this Special Exception application, notes that models have their limitations in that their accuracy is only as good as the inputs used. Continuing, he notes models often do not have, available for input, meteorological data that closely represent long term conditions at or near the site. He adds when referring to the 300 foot setback recommended for smaller gas stations noted above that larger stations would conceivably warrant a larger setback. Dr. Breysee concurs saying that the excess risk for a 12 million gallons per year throughput facility is three-fold.

6. Conclusion as to Health Risk

All the evidence provided by both expert and lay Opposition testimony proves that Costco has not met the Burden of Proof required by 59-G-1.21 General Conditions (a) (8) which states that the Special Exception will not adversely affect the health, safety, security, morals or general welfare of residents, visitors or workers in the area at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.

Both the professional Planning Staff and the Planning Board recommended denial of Special Exception Application S-2863.

The Hearing Examiner for Special Exception, S-2863, holds the power to protect the health, safety and welfare of our community as well as visitors and workers at the Mall..

The Applicant has not met the Burden of Proof . We, the Stop Costco Gas Coalition, urge a recommendation of **denial**.

M. OTHER

1. Services offered by the proposed gas station: There were two themes that ran through Applicant's testimonies and the comments of citizens who testified in support of S-2863 - themes that seem tangentially related to the Needs argument but reveal internal inconsistencies in Applicant's reasoning. The first is the theme that the station is needed because it will constitute a safe, clean, convenient, high quality source of affordable gas. None of these terms was ever actually defined by Applicant. The safety of operation of gas stations in Maryland is assured by the equipment regulations set forth by the the Maryland Department of the Environment (MDE) and the proposed station would be no different than any existing station in this regard. As to cleanliness, what is being put forward as unique to the proposed station? The affordability of Costco gas has been questioned by several of those who testified for the opposition. As to convenience, it is not clear what convenience is being discussed. The fact that about two-thirds of customers of the store are not expected to buy gas at the station suggests they do not necessarily find the station convenient as to location. Applicant repeatedly proffered - in support of the notion that the proposed station is a desirable land use - the 'fact' that the station offered no services other than the sale of gasoline. While some might find this a convenience (efficiency?), others might argue that, for example, the lack of air tanks to fill up tires is inconvenient. Or that the fact that the station will not be open at night is inconvenient. At some point, midway through the hearings Applicant testimonies began referring to the fact that Costco stations all have eyewashes. Aside from the fact that the Applicant appears to want to "have it both ways" (no services except gas, but Oh, we also have eyewashes), one gas station owner who testified in opposition to S-2863 stated that his stations also have eyewashes; hence to what extent is the 'fact' that Costco stations have eyewashes a distinctive feature which supports the application? Also, if the proposed gas station is to be so safe, why does applicant choose to stress the availability of eyewashes?

2. No planning for the highly unlikely: We raised the issue of the lack of an adequate disaster and emergency management plan (ZHE 87h). Any application such as S-2863 must be 'approved' by first responders. [As best we can tell, first

responder officials - fire and police - sent extremely brief letters giving their 'OK' to S-2863, but we have been unable to find these letters in the ZHE list and the versions we saw are so short (much less than one page each) that is hard to believe the proposal was examined carefully. It was seen as 'business as usual'.] The essential point of the 'Black Swan Effect' (our term - see above) is that people - including knowledgeable officials - tend to regard certain events as so unlikely as to be 'impossible' - until they occur. Shootings at Malls, fires in movie theaters, hostage taking, etc. are all examples of things that 'can't happen here' - but in fact do happen. When they happen, it is vital that first responders have defined and rapid access to the site. People who view our comments in this regard as 'hysterical' are missing the point. The gas station is to be situated in a location that is a made to order 'access blocker'. At some point in the future an event WILL occur. How serious it will be, how long it will last, how much the extant situation in the vicinity of the gas station will impede access - these factors are all not predictable. A company like Costco, which prides it self on being a good corporate partner, has a moral obligation to have serious, detailed Disaster Management Plans in advance. When Mr. Brann testified (April 26, 2013) about the generosity of Costco, he was speaking about a matter that was totally irrelevant to the issues on which S-2863 turns. But he was allowed to testify about donations made by Costco. We assert that the need for disaster management planning is far more relevant (and important) to the recommendation the HE must make than is Costco's record on charitable donations.

3. Rebuttal: We reserve special displeasure at the way Applicant's 'rebuttal' was structured and about the HE's decision to allow Costco to proceed. The transcript of the hearing at which we raised our objections - and discussed the issue of reversible error - speaks for us. As does the fact that Costco established so little with its trumped up rebuttals - and so much time was wasted hearing the testimonies of Mr. Guckert and Mr. Sullivan, cross examining them (or attempting to) and then giving 'sur-rebuttal'. We refused to participate in the sur-rebuttal of Mr. Guckert because his testimony was so blatantly NOT a rebuttal of anything we said during presentation of our case-in-chief. With respect to Mr. Guckert's 'rebuttal testimony we note the following:

a. Mr. Guckert was on a rather tight tether. Applicant's Counsel had him sit beside her at the Counsel table (rather than up in the witness chair close to the HE). He was frequently observed to be reading from a script and made frequent eye contact with Applicant's Counsel. We cannot say for certain that he was being coached, but the 'directness' of his direct testimony was far more 'directed' than when he testified earlier (Spring 2013) in the hearings. Could it be that the Applicant team was concerned Mr. Guckert might be shredded by the Opposition (as he in fact was)?

b. Few if any of the exhibits from which he testified had - as far as we could tell - been selected by him. [In fact, during cross examination he essentially said he did not know where they came from; thus we had an expert witness who did not know the source of his material but was quite comfortable explaining why he was certain it meant what he said - although at times he stated he did not remember what he meant.] We presume they were selected by Applicant's Counsel.

c. One reason we believe Applicant's Counsel defined the parameters

of Mr. Guckert's 'rebuttal' and selected the supporting exhibits is that whoever selected the exhibits showed the same tin ear that Applicant's Counsel had shown in, for example, proposing so many hearings early on that it became virtually certain that the Warehouse Store would open before the hearings could conclude and thus all would see that the traffic baseline had changed - VERY significantly. In any case, whoever chose to submit ZHE 456a made a rather large tactical error and gave the Opposition an important tool in its arsenal and one for which it had been waiting since ZHE 110 had been withdrawn (see discussion above under Traffic Impact).

d. Not only did Mr. Guckert fail to rebut one single point (from our case in chief about traffic impact), he actually bolstered our arguments by deliberately misconstruing what we said and then pretending to rebut it by in fact making the same error we had criticized, but in a different flavor. Two examples will suffice:

i. In our earlier cross examination and in our own testimony we made it clear that Applicant was basing much of its argument (that the proposed gas station would not have any non-inherent adverse impacts) on comparisons with other Costco gas stations that - it alleged - are comparable. We pointed out in considerable detail the various ways in which the supposedly-comparable gas stations were NOT comparable. In some cases the differences are very clear and have direct implications as to the adverse impacts that WILL result if S-2863 is approved. Mr. Guckert showed several exhibits regarding Costco's Brandywine gas station, a siting that in fact is one of the LEAST comparable of all the 'comparable' Applicant has used. Purporting to rebut our assertions by showing an example that in fact demonstrates the substance of our assertions was an egregious example of why we insist that Applicant (via the supposed testimony of its supposed expert) was NOT rebutting our case in chief.

[Interestingly, by using the Brandywine example, Mr. Guckert presented us with an especially useful set of data that form part of our response to a very penetrating question that the HE had posed several hearings previously. Because this will serve both as an example of how Applicant often helped us by virtue of its incompetence and will answer the HE's question, we chose to digress here to explain the question and our answer.

The HE asked, in essence, why/how a car leaving the proposed gas station site would be materially different from a car leaving one of the parking spaces in the adjacent parking lot, in so far as impact on nuisance, safety, and congestion (our foci with respect to Traffic Impact). The question was as insightful as the 20 questions the HE asked at the start of the hearings (as well as others he asked as the hearings proceeded) and it gave us pause. We were working on our answer when Mr. Guckert helped us by presenting data - including a video segment - about cars leaving the Brandywine station. This helped us crystallize the answer, which comes in two parts:

a. It depends on where the gas station is in relationship to the store (again the centrality of the issue of siting) and how busy the station and the parking lot(s) are. If the gas station is relatively far from the store(s) and/or if the combined level of activity of the parking lot and the gas station is relatively low, there is no essential difference between a car leaving the gas station and a car leaving a parking slot in the parking lot. However, if the station is relatively close to the store(s) - and the parking lot spaces used by patrons of the store(s) - then there is a

VERY big difference.

b. Consider the Brandywine gas station data that Mr. Guckert presented. On average a car leaves the station every 3 minutes (ZHE 456c). That is for a station with six exit lanes. The exiting cars traverse a drive lane that separates them from a small parking lot adjacent to the gas station (no width data was provided but it looks to as as though the drive lane the exiting cars cross is wider at the Brandywine station than will be the case for the proposed station), and then leave the area via one of several routes. The Brandywine gas station and the adjacent parking lot are, unlike the situation that will exist if S-2863 is approved, well-separated from the Costco Warehouse store. The Warehouse store in Brandywine (unlike the one in S-2863) does not share its preferred parking spaces with other stores, nor are its loading docks adjacent to the main part of the parking lot, nor are its customers in any way inconvenienced when trucks deliver gas to the gas station which is, relatively speaking, rather far away. None of this is of course relevant when patronage is low. In contrast, consider the situation that will exist in Westfield's Mall if S-2863 is approved. On many days and for many hours the parking lot will be heavily used with at least 75% of the parking spaces used, and an even higher percentage of those close to the Warehouse store. From the very busy gas station, the 8 exit lanes will disgorge not 179 cars as at Brandywine, but somewhere around 230 cars per hour. Perhaps one car every three minutes. All of those cars will be emerging from what is in essence the equivalent of about 8-10 **adjacent** parking spaces in the adjacent lot. Did Mr. Guckert provide any information on the probability that, from 8 adjacent parking spots in that parking lot a car would exit every 3 minutes? Would he answer our question as to how long such cars would be idling as they exited and how long it would take them to navigate away from the parking spot? The answer to that last question is: NO. And this digression is our answer to the HE's question: Cars exiting the gas station may or may not be different from cars exiting a parking lot spot. But no matter how you see it, the cars exiting the gas station will constitute a relative phalanx of exiting cars (one every 3 minutes or so) and Applicant provided NO facts as to how many cars will exit a row of 8 adjacent parking spots in the lot. So the full answer to the HE's question cannot be given in terms of a number. But anyone who has stood in the parking lot in question already knows the answer: There is a very big difference!]

ii. Returning to the main thread, i.e. that Mr. Guckert purported to 'rebut' our arguments but in fact did so by proffering yet another example of what we had in fact criticized, we turn to his introduction of the usage of the HCA method to characterize Traffic Impact. Mr. Guckert obviously either did not read our written testimony, or listen to our oral testimony very carefully. We said that the CLV method was not intended to be used for intersections such as intersection 16 (much less the various intersections by which cars travel from the ring road into/out of the parking lot where the SE site is to be placed). We asserted it was NOT appropriate to use the CLV algorithm and we attempted to explain why not. We were unable to find any literature (of any sort) stating that the CLV algorithm could be used with 'minor intersections'. [The HE may recall our questioning Mr. Guckert about this in his first appearance (May 1, 2013); Mr. Guckert was of course more than skilled enough to deflect our question rather than answer it.] Had Mr. Guckert wished to rebut us he could simply have provided a page reference to how CLV methodology should be used for such intersections. If such a page exists, why didn't Mr. Guckert provide that page and prove us wrong? Instead, he chose to use the much more

complex HCM methodology (whose algorithms he never even claimed to explain) to provide an alternative evaluation of intersection 16, quite ignoring the fact that we had testified that none of the other available algorithms (including HCM) seemed applicable to such intersections. [We ignore for now the fact that Mr. Guckert seemed unable to get consistent results from his HCM analysis.] We assert he chose this approach because he knew that the complexity of HCM might cost us additional time, etc., as we tried to counter his 'non-rebuttal'. [He even commented that we could have our analyst check the calculations, thus demonstrating that he was either thumbing his nose because he knew we had no such analyst, or demonstrating his inability to comprehend that a non-expert could have so carefully read his original report - and understood its flaws - that he (Mr. Guckert) had been forced to 'up the ante'.] So we will up the ante in this game (the entire Applicant case in chief is, after all, a house of cards): if Mr. Guckert is so certain that the HCM approach is applicable to intersection 16 (and the ones between the ring road and the parking lot, including the ones that the math challenged expert was unable to count), why did he not simply cite the relevant section of the HCM manual? Could it be that the vaunted expert (and his team of sub-experts) don't know what page that is? Or could it be that they know that no such page/section exists because, as we assert, neither HCM nor CLV approaches are appropriate for characterizing the situation at intersection 16 and the others we have mentioned?

e. Turning now to the supposed 'rebuttal' that Mr. Sullivan, we will be brief. Reading about Mr. Sullivan's multiple revisions is tiring. [We digress here briefly to note that Applicant could have pretended to rebut many other points of our case in chief, but chose only to attempt rebuttal of our Traffic Impact and Environmental Impact assertions. Might it be that even Applicant's vaunted team understood that they could not even pretend to rebut our case as to say Needs or say Health Risk?]

Actually, we need to make only one main point here, to completely discredit Mr. Sullivan's 'rebuttal'. After choosing to misconstrue what Dr. Cole said, he decided to use a 'more appropriate' means of doing his calculations. Since he could not find such a better alternative, he invented one. In this instance he chose to invent a new method, one that did not come even close to the rules as set forth by the EPA, which Mr. Sullivan repeatedly claimed to be following - conservatively.

4. Perjury: All parties who testified at the hearings took an oath to "tell the truth, the whole truth, and nothing but the truth - under penalty of perjury". We often wondered what the penalty for perjury is in such hearings. In addition, we sometimes discussed our perception(s) that a given witness had been guilty of perjury. In discussion with a knowledgeable lawyer we learned that charges of perjury were rarely brought and almost never upheld: in essence it was exceedingly difficult to 'prove' such charges. We came to realize that one reason why charges of perjury are so difficult to 'prove' is actually rather simple: if you do not know the truth, then you cannot be charged with not telling the truth. This seems to us a variant on the notion of 'plausible deniability'. In any case, it helped us understand why a number of Applicant's Expert Witnesses answered so many of our questions with phrases like "I don't know", "I can't recall", and (our favorite) "I don't remember what I meant". Most of us recall our parents' admonition that it is always best to tell the truth, for various reasons, including the fact that, if you tell a lie it is often difficult

to remember exactly how you lied but if you tell the truth you really don't have to remember very much.

5. Polite Fictions: This phrase refers to several notions.

a. When we were objecting to allowing Applicant's so-called rebuttal, we indelicately raised the question of 'reversible error', arguing that - if the HE allowed such testimony - it would be extremely difficult for the HE to actively forget such testimony. The HE responded, in essence, that we were operating under the 'polite fiction' that experienced judges like the HE were capable of doing what others might find almost impossible.

b. Another 'polite fiction' under which - as we see it - we operated is that expert witnesses are inherently more credible than are non-expert witnesses (no matter how much expertise they demonstrate). We have come to realize that several of Applicant's 'expert witnesses' were actually experts about testifying as expert witnesses, rather than actually being expert witnesses. The HE would presumably regard this as 'a distinction without a difference', whereas we would maintain that the difference is real, but the distinction may be rather subtle.

c. A third 'polite fiction' is that members of the Applicant's team and members of the Opposition were 'friendly adversaries'. We firmly dispute this fiction. Many of us found members of the Applicant's team to be quite pleasant, when 'court was not in session'. But once we went back on the record, Applicant's team repeatedly demonstrated contempt for our position and our arguments. In some cases that was manifestly obvious (Mr. Cronyn), whereas in other cases it was more subtly revealed by what they said - or did not say.

6. Applicant's Closing Statement: This document is filled with lawyerly irrelevances couched as certainties, so-called facts that are not indeed factually accurate, and mis-uses of language that constitute abuse of the language. Adding a single word ("the") to a sentence about unused parking spaces, so as to mis-lead the reader as to how many spaces are in fact not used. The insulting (and irrelevant) characterization of Dr. Cole as an environmental activist, thus denigrating his obviously scientific testimony, which stands in stark contrast to the supposed expert testimony of the supposed scientist that Applicant called to mis-lead the HE as to Environmental Impact. In short, a document designed to nail their case down. But their nails (throughout the endless hearings) rarely came to a valid point and they should know that "for want of a nail the kingdom was lost". In short, the Applicant's 'team' (which never did manage to coordinate their attack) continued to the end to play the game of 'slight of hand' - as lawyers and expert testifiers so often do.

7. Conditions: Why SCGC accepts no conditions: We chose not to participate in the discussion of 'conditions', for a very simple reason. None of the conditions discussed (nor any of which we could think) can mitigate the adverse impact(s) of the proposed gas station if approval is given to placing it at the proposed site. Furthermore, most of the conditions that were being discussed are in reality either not enforceable or, given realities, will not be enforced.

III. Conclusion

As we have repeated over and over, Applicant has not met the burden of proof in a single one of the elements of the Code that are relevant in the case of S-2863. Applicant's argument is, in essence, a pastiche of inaccurate, irrelevant, and/or misleading statements. The 'facts' presented by its various 'expert witnesses' are either not facts or were presented in such a way as to mislead the HE. Applicant's various 'expert witnesses' are experts in testifying in land use cases but - in numerous instances - they demonstrated less knowledge of the issues than did the knowledgeable witnesses who testified for the Opposition. Applicant would have the HE accept the premise that S-2863 is simply about a gas station whose construction in a parking lot is nothing unusual. In fact, Applicant proposes to build a very large gas station (a mega gas station) that is at least three times as large as the typical large gas station currently operating in Montgomery County. It proposes to site that gas station in a parking lot that is very close to the Costco Warehouse (as well as other stores and nearby homes), whose patrons, collectively and frequently fill most of the available parking spaces in the preferred 'surface' parking lot. Since the Costco store opened in April, 2013, occupancy of the parking lot has increased considerably, as has congestion, slow-moving (i.e. idling) cars, and the risk to safety and health of those who work in or patronize the various stores near the proposed SE site. Applicant's various 'experts' have not introduced any facts that contradict the above assessment of the situation. Nor have they introduced a single fact that contradicts the assertion that constructing and operating the proposed gas station in the parking lot satisfies no real need but will result in several non-inherent adverse impacts. They have expressed their expert opinions, but not provided any facts. To paraphrase an old saying, "everyone is entitled to his own opinion, but no one is entitled to his own facts".

To conclude, the SCGC asserts that Applicant proposes to build a mega gas station in a location that is not appropriate. If the gas station is built and operated in the proposed location it will cause a series of incremental changes in the vicinity of the location that will have significant non-inherent adverse impacts. Applicant knows the relevant elements of the Code, but has not met the burden of proof with respect to any of those elements.

We have made the case that Applicant has failed to make its case. The Hearing Examiner should join the Technical Staff and the Planning Board in recommending denial of S-2863.

Respectfully submitted,

Abigail B. Adelman
Chair, the Stop Costco Gas Coalition

Appendix

As we stated in section II.J.3.c, when we initially examined Table 4 (of ZHE 198) we formed the hypothesis that the numbers it contained indicated that projected patronage of the proposed gas station has been underestimated in Applicant's various filings and testimony. Since such an underestimate would, in all probability,

impact the HE's conclusions on S-2863, we asked for clarification of the contents of Table 4, because it is very difficult to understand (see below). We never received any kind of response to our request for clarification, so we spent a considerable amount of time (the HE has referred to this as "whiling away the hours") trying to understand it. In essence, we approached this in the manner that a scientist would use, i.e. the scientific method.

The scientific method is widely misunderstood. To be both brief and precise, the scientific method consists of formulating [usually from some chance observation(s)] an hypothesis as to the 'meaning' of the observation(s) and then studying the matter in more detail, attempting to **disprove** the hypothesis. This is in distinct contrast to the way in which most non-scientists approach such matters. Mr. Cronyn, for example, stated that he formulated a model (hypothesis) and then searched for facts to prove his model. That is a very common approach, but it is the exact opposite of what a true scientist does, because, by looking for facts that do **not** conform to the hypothesis (i.e. for facts that disprove it), the scientist maximizes the chance of finding facts that 'do not fit' and those facts are the most useful in refining the model (hypothesis) so that, after many iterations, the scientist comes increasingly closer to 'the truth'.

The question of how many cars will visit the proposed gas station has obvious relevance to the questions of Traffic Impact, Environmental Impact, and Health Risk (as well as other elements called out in the relevant sections of the Land Use Code). The number (cars visiting the station) can, of course only be estimated (projected). During the OZAH Hearings it was projected in two distinct ways.

a. In ZHE 87e (later repeated in ZHE 358b) we stated that, based on expected sales of 12 million gallons of gas per year, and assuming an average fill-up of 12 gallons, the gas station would have 1 million 'visits' per year, which translates to ca. 2800 visits per day. Neither the 12 million gallon figure, nor the 12 gallons per fill-up can be regarded as fact, although all parties seem to have agreed to them, and Applicant did not challenge our use of those values or our calculation of 2800 visits/day. One of the reasons we asked for the spreadsheet containing the data for ZHE 356c (the Brandywine transactions data) was that we wanted to see if the average fill-up was indeed 12 gallons (and, if not, what the actual number was). Applicant ignored our repeated requests for the spreadsheet (which we knew existed - see following), and no 'clarification' was given for ignoring us. We attempted to recreate (from ZHE 356c) the spreadsheet column with the gallons/fill-up information, but we abandoned that effort when we realized that the column contained no numbers with digits after the decimal point. We immediately realized that the print parameters had been set so the column width was narrow and the spreadsheet software (presumably Microsoft Excel) truncated all numbers. So we could not recreate the data column and thus could not determine the actual number of gallons per fill-up. That data might have been helpful to the HE, but the 'fact' (number of gallons/sale) now falls into either category c. or category d. (see ZHE 321a) of our discussion of facts. That is the number 12 is either a fact whose accuracy is questionable or a fact that was not proffered. [We note that ZHE 198 uses the value of 12 gallons per visit.] Table 4 shows an estimated total sales per year of 6.44 million gallons. This is different from the value of 12 million gallons, presumably because of the way in which Mr. Flynn projected it (the definition of

neighborhood he used and the way in which he arrived at a value of 1% capture for non-Costco purchasers), but his numbers are otherwise questionable since it is not clear he took into account the undisputed fact that only members of Costco will be able to buy gas at the gas station. We point out that the HE cannot truly regard the value of 12 million gallons/year as a fact; it is a reasonable projection, but there is essentially no factual basis for establishing that the amount sold will not be lower (which would please the Opposition) or higher (which would please the Applicant and would mean either more gallons per fill-up or more vehicles visiting the station).

b. The alternative method for estimating the number of vehicles that will come to the station for gas is to start with the number of patrons of the store and use that number to determine - in part - the patronage of the gas station. This calculation involves several approximations, so it is important to consider what is/is not 'known'. One can calculate a minimal value of the number of cars expected to come to the station based on two other numbers: the number of patrons of the store and the expected 'capture rate'. [We use the word minimal in the sense that it does not include Costco members who only come to buy gas; their patronage is calculated separately.] Mr. Guckert's calculations were based on patronage at the reference stores (comparables) and a capture rate of 30% (i.e. 30% of those members shopping at the store were projected as also (on the same trip) patronizing the gas station. His numbers were for AM/PM peak hours - which is how TIAs are calculated - and thus did not give estimates for peak business hours, nor for the entire day; hence it is difficult to compare his numbers with those one can calculate for the total number of cars projected to patronize the proposed gas station. We took a slightly different approach (fully explained in ZHE 87e and then summarized in ZHE 358b). We explained that while Applicant had not provided any projections as to patronage of the Wheaton store (it had not yet opened when ZHE 87e was filed), various newspaper articles indicated Costco representatives were projecting patronage levels of 4,000-5,000 per day. Recognizing that such reports can hardly be regarded by the HE as solid facts, we nonetheless calculated (based on a slightly higher capture rate than that used by Mr. Guckert, but still quite conservative as defined by his usage of the word), that patronage by members who shop at the store and the gas station on the same trip would be 1120/day. We note that, table 4 (ZHE 198), the number calculated is 1244/day. This difference (1120 vs. 1244, is about 10% and presumably reflects the different values assumed for store patronage and for capture rate). Of course the TOTAL projected patronage of the proposed gas station must include customers who patronize the gas station, but do not patronize the store (at least not on the same trip). That number can only be arrived at by either knowing actual transaction numbers (at the gas station) or projecting those numbers based on other Costco locations that have both a Warehouse store and a gas station. [This is why we referred to the estimate based on store patrons as a minimal value.] However, one can get some sense of this value (patronage of the gas station by Costco members who only by gas on a given trip) by comparing the estimate of total patronage (of the gas station) - from part a. above - with the estimate of 'capture' patronage calculated in this section. Assuming that the value of 2800 cars/day (from part a. above is correct) and taking the value of 1200/day (a rounding of the average of our estimate and the number in Table 4 (ZHE 198) we can tentatively conclude that approximately 60% of the patronage of the gas station is 'non-capture' patronage, whereas approximately 40% is capture patronage. These numbers are clearly subject to some error and we guesstimate it to be about 10%. But no matter

how one does the calculation, it is clear that a very significant percentage of the patronage of the gas station is due to patronage of the store (at a bare minimum, using Mr. Guckert's most conservative numbers, at least 30%).

c. The fact that at least 30% of the patronage of the gas station comes from patronage of the store, made us especially interested in the numbers on the left side of Table 4 (ZHE 198) because, as best we can determine, this table is the only source (in the ZHE record) of **actual** patronage of the Warehouse store, i.e. the number(s) for Costco Daily Visitations is not an estimate or a projection, but is "based on actual transactions" (we are quoting the legend to the table). We were immediately struck by the fact that the numbers under the heading "No." (which we took to mean number) appeared not to make sense. The number for Costco is 4146 (which is on the low side of what the various newspaper reports had given) whereas the number for the Mall (24,500) is significantly higher than the numbers given by Mr. Gang (ZHE 10, corrected version = ZHE 249g); these were 13,500 per day for weekdays and 17,500 per day for weekends (the numbers were not changed from the original values when the corrected Land Use Report was filed). Since the original Land Use Report was filed in November, 2012 (we do not have a date for the corrected version) and since the opening of the Costco Warehouse was in April, 2013, it would appear from these numbers that patronage of the Mall had increased by some 8,000 to 10,000 (depending on how one weights weekday and weekend numbers) over a time period in which the most obvious change was the opening of the Costco Warehouse. Yet the number of transactions for the Warehouse was given as 4,146, which is on the low side of the range of the only projections of store patronage (prior to its opening) that we had been able to find. **We hypothesized that the actual patronage of the store was in fact higher than indicated in Table 4, and thus that the projected patronage of the proposed gas station has been consistently underestimated. Since we could not get any clarification as to the contents of Table 4, we attempted to 'sort it out' using the scientific method.**

[Note: We initially were comparing the value of 44,202 (final entry under "No.") with the numbers from the Land Use Report, but we quickly realized that the total includes "Non-mall retail" and that the 15,556 for Non-mall retail should not be included in our evaluation.]

d. We first asked whether the number 4146 (Daily Visitation at the Costco store) was suspect in the context of the table. The first - most obvious puzzle was that the same number was given in three columns ("No.", "Households", and "Vehicles"). Obviously the three entries cannot be the same. We presume the value in the third column is the correct one (cash register receipts cannot give any indication of the number of people who came to the Warehouse store) and that whoever made the Table (we only were told that the numbers came from Mr. Agliata) had constructed the table without giving any thought to clarity. We believe that the number is an average for all days from May 1, 2013 to May 31, 2013 (based on our scribbled notes of what Applicant's Counsel said). [We have not found this information in the transcript, but our experience is that the transcripts frequently do not capture comments that are made in a low voice, especially if the person speaking is not facing the microphone and/or the microphone is covered by papers, etc.)] But we do not know that and, if it is not an average, was it from a single day or an average of several. If from several, how many and which days of the week? In

addition, we note that whatever the answer to the last few questions, the data was captured during May, i.e. shortly after the Warehouse opened. That is within the time period when patronage is expected to be unusually high (the 'novelty effect'). But the number given is 4146, which is on the very low end of the few estimates of patronage we were able to find - although none admittedly were proffered into evidence by the Applicant.

e. We then examined the entries for Mall shoppers. There are three entries (ignoring for now the entry under "Range") and it is extremely difficult to make sense of them. On the face of it, the 'cleanest number' is the value under "Vehicles" because, we presume that Mr. Agliota's data did not actually come from counts of vehicles (it is difficult to picture how that might have been done). Hence it seems likely that the number came from some sort of tally of cash register transactions. If that is so, the number 13,883 is only slightly larger than the value provided by Mr. Gang for weekdays (13,500) and significantly lower than any average (properly weighted) of his values for weekday and weekend (17,500). If we, nonetheless, accept the value of 13,883, then the value to its immediate left ("Households" makes no sense because it is NOT 1.5 times 13,883 (it would be 20,825, not 16,333) and, in any case, how could Mr. Agliota have gathered data on the number of households? Even more puzzling is the fact that the number under "No." is 24,500, which is 1.5 times the value in the "Households" column. Does this mean that the value under "No." was calculated from the "Households" value? And what exactly does the value under "No." mean? The heading is not defined anywhere that we can find.

f. For a scientist, the above would constitute an unsuccessful attempt to prove the hypothesis. But it would NOT be viewed as a proof of the contrary (i.e. it would NOT be regarded as proof that patronage of the Mall, including the Warehouse, has been correctly enumerated. A scientist would conclude that the data are not internally consistent and are presented in such a way as to raise more 'questions' than they 'answer'. A scientist would say that the attempt to get a 'better' estimate of that portion of the gas station patronage which comes from 'capture' has failed and that, therefore, he (the scientist) does not know what the patronage of the gas station will be. He has some estimates, but he cannot decide which estimate (projection) is closest to the truth. The scientist would acknowledge that he has spent a considerable amount of time testing his hypothesis, that he thinks he may be wrong, but he cannot be 'sure'.

g. Which brings us to the obvious set of questions:

i. How certain is the HE that he has facts of sufficient quality to say that he knows how many cars will visit the station?

ii. Does the HE agree that the most accurate fact regarding the number of cars that will visit the station is approximately 2800 per day, based on the projected total sales of 12 million gallons per year and the presumption that each visit results in the sale of 12 gallons of gas?

iii. If the HE agrees with ii. above, what weight does he give to the fact that there is no guarantee that the station will sell no more than 12 million gallons and, similarly - given the trend toward smaller cars - there is no guarantee that each sale will be 12 gallons?

iv. What probability would the HE attach to the hypothesis that the

station will sell 13 million gallons per year and that the average fill-up would be 11 gallons? That would yield an estimate, for the total visitation to the proposed station, of 3300 cars per day. Would that much of an increase in the number of cars coming to the station constitute a sufficient increment in traffic impact (especially the amount of noxious emissions) to justify recommending denial of S-2863? Given that the Code provides NO guidance in such a question, and leaves it up to the HE, does he feel he knows the number of cars that will come to the proposed station with sufficient accuracy to recommend that S2863 should be approved?