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January 18, 2008

1-HUM-General  
Community Infrastructure & Services  
Technical Report

*John*  
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Community Development Services  
Planning Division--County of Humboldt  
3015 H Street  
Eureka, CA 95503

RECEIVED

FEB 05 2008

HUMBOLDT COUNTY  
PLANNING DIVISION

Dear Mr. Miller,

The comments in this letter pertain to the "Community Infrastructure and Services Technical Report" (November 2007). We are currently in the process of reviewing the Draft Community Infrastructure and Services Element, Draft Circulation Element of the General Plan, and we will be sending detailed comments on those documents in the near future.

**2.2 Roadway Budget**

This section of the report, as well as other sections, refers to the "Community Facilities Element" of the General Plan. We assume this should read "Community Infrastructure and Services Element." If not please explain.

**2.4.1 Roadway capacity estimates from the Greater Eureka Area Travel Model (GEATM)**

"Caltrans staff involved in model maintenance have cautioned against using the model too extensively, until it can be tested and operated more efficiently." We recommend that this sentence be revised to read: "Caltrans traffic modeling staff have pointed out that, while the model is a very effective tool for projecting future conditions, traffic flows, and areas of congestion based on different land use scenarios, other tools and methods are more appropriate for determining specific needed improvements."

**2.4.4 Existing and Projected Capacity Constraints**

As noted here and elsewhere in the report, the GEATM includes a future scenario (2030) based on land use assumptions from Sketch Plan 3, the "Focused Growth Scenario." The GEATM has been used effectively here to project future congestion and capacity constraints at a macro-level. The other proposed land-use scenarios under consideration in the General Plan could be applied to the GEATM, in order to give a side-by-side comparison of their respective differences.

**2.4.5 Maps of Roadways with Capacity Constraints**

It would be useful to have similar maps, showing model outputs (v/c) based on the other land-use scenarios under consideration in the General Plan, to provide a side-by-side comparison of the proposed alternatives.

### **2.7 Proposed Improvements**

"This list includes projects that will be further refined based upon additional analysis performed by using the GEATM." We recommend that this be revised to read: "This list will be further edited and refined, based on additional analysis using the GEATM, and other appropriate traffic analysis methods and tools."

It is important to note that a Travel Demand Model (TDM), such as the GEATM, should not be relied upon as a sole determinant in identifying future improvements. This process should involve input from engineering staff and the use of many different traffic engineering tools to select the particular improvements to each impacted roadway segment. In the case of the Greater Eureka Area, many of these improvements are likely to be removal of bottlenecks and intersection improvements to minimize queues, resulting in greater capacity for the particular roadway segment. Using A TDM to accurately quantify the effect of these kinds of improvements requires experience with TDM modeling in general and specific experience with the local GEATM.

If desired, a further step would confirm the effect of the improvements by re-running the GEATM with the improved segment roadway capacities and/or new links. This would require the calculation of the effect on segment capacity of all improvements along the roadway segment. The new roadway segment capacities would then be input into the GEATM.

### **Table 2.9. Planned or Proposed System Upgrades/ Expansion to Reduce Congestion; Preliminary Cost and Schedules where Defined by USA**

We recommend that the report include a more detailed description of the source of these projects and how they do or do not relate to the projected Capacity Constraints identified in 2.4.4 and 2.4.5.

#### **p. 2-24, Second Sentence**

Recommend revision to, "...additional analysis using the GEATM, as well as other appropriate traffic analysis methods and tools." (see comment on 2.7)

#### **Table 2-10.**

It should be noted that many of these projects have not been adequately analyzed to determine their need, effectiveness or feasibility. It should also be noted that cost estimates appear to be in 2007 dollars, and that they are likely to be revised, as they are very preliminary.

### **Appendix A. Figures**

The legend information for the V/C maps is inconsistent throughout Appendix A. For example: The Freshwater Road map displays V/C ranges of 0.1990-0.900 and 0.9001-1.1621. The F Street map has a different range of V/C ratios displayed in its legend, 0.9650-1.4436, 0.0059-0.9000, and 0.9001-2.2406. The Harris Street V/C map displays an entirely different range of V/C ratios in the legend that are not consistent with the other maps. For comparison purposes it is important that the thresholds shown in the maps be consistent.

Although we have not yet completed a comprehensive review of the maps in Appendix A, we have noted several discrepancies between the information contained in them and the output of the GEATM. The maps in Appendix A show several road segments operating with volumes beyond capacity that were not confirmed by the Model. Among the noted differences:

- The roadway segment on Harris St. located approximately between the intersections of Harris/I Street and Harris/S Street is operating at a V/C range of 0.6000-0.8900 as indicated by the GEATM. The Appendix A map displays this same segment as operating at a V/C range of 0.9789-1.5334.
- Similarly, the Harrison Avenue Appendix A map shows a V/C ratio range of 0.9809-1.2933 in 2005 on the roadway segment between the intersections of Harrison/Buhne and Harrison/Harris, while the Model output for 2005 shows this same roadway segment as operating at a V/C ratio range of (0.6000-8.900).
- The Capital Facilities map focusing on the Humboldt Hill area displays Purdue Drive and Stanford Dr. as operating beyond a 90% V/C ratio in the 2030 scenario. The GEATM reflects a V/C ratio of 0.6000 to 0.8900 for these streets.
- The V/C ratios displayed for Route 101 on the Capital Facilities map do not agree with the GEATM 2030 scenario output. The GEATM shows the same segment of Route 101 as operating entirely beyond the 90% V/C ratio, while the Appendix A map shows intermittent segments on Route 101 where the V/C ratio is below 90%.

#### **General Comments**

As noted in many sections of the report, development of non-motorized and transit facilities are essential components in the transportation network. We support the County's efforts to develop a transportation network that facilitates all modes of travel, including goods movement, bicycles, pedestrians and transit. Context Sensitive Solutions can help create more livable, walkable communities. Development of bicycle and pedestrian facilities, higher density mixed use/ walkable neighborhoods, traffic calming measures (where appropriate), community open-space/ recreation areas, and other measures can reduce the need for motorized vehicles and the problems associated with their increasing use. We encourage planning for self-sufficient neighborhoods as a means of reducing motor-vehicle trips. We recommend that the report include additional language to emphasize this point. We look forward to working closely with County staff to encourage projects related to these concepts.

p. 1-19 Footnote 5: It appears that this note was meant to appear on a different page or reference a different section.

We support land use policies that promote greater connectivity of local streets in order to relieve congestion on collectors and arterials.

John Miller  
1/18/2008  
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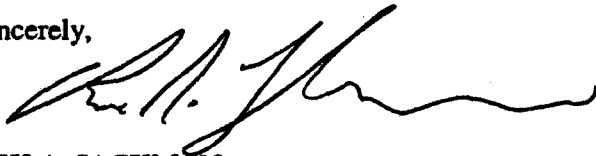
We support the County in the development of region-wide traffic impact fees as a means to finance transportation improvement projects throughout the County.

We request that the County continue to consider traffic impacts to the State Highway System when considering development proposals with the potential to generate significant trips to the road network. For more information about thresholds of significance for traffic impacts to State highways and when traffic impact studies should be requested for development proposals, please see the Caltrans Guide for the Preparation of Traffic Impact Studies. The guide is available online at: <<http://www.dot.ca.gov/dist1/d1transplan/tisguide-Dec02.pdf>>.

While we have been notified of past hearings and other events related to the development of the General Plan, we were not notified of the availability for comment of this document and the Administrative Draft Elements of the General Plan. Please ensure that we are added to notification lists for future document review, as we value the collaborative planning process.

We look forward to continued work with the County to develop and maintain a safe and efficient transportation network at the local and regional level. If you have questions or need further assistance, please feel free to contact me at the number above.

Sincerely,



REX A. JACKMAN  
Chief, District 1 System & Community Planning