Anchorage Citizens Coalition

Your Voice for Responsible Growth

August 24, 2009

Julianne Hanson
HDR Alaska
2525 C Street, Suite 305
Anchorage, AK 99503

Dear Ms. Hanson:

Thank you for the opportunity to comment on the Highway to Highway project to improve mobility and access for people and goods in Anchorage. The Coalition greatly appreciates the ongoing public process, and we look forward to continuing discussion of this project.

The Anchorage Citizens Coalition was formed in 1998 to promote development that protects the community's livability and implements *Anchorage 2020,* the city's comprehensive plan, developed with the participation of thousands of citizens and adopted in 2001.

After reviewing project documents, we are concerned that a freeway connection of the New Seward and Glenn Highways through a low-income, downtown neighborhood will not provide long-term congestion relief or improve the neighborhood. Severe congestion through Fairview and midtown is predicted within 20 years after the freeway is built in Anchorage's 2007 Long Range Transportation Plan[1].

Furthermore, freeway as depicted in the Hyder alignment is not likely to make Fairview a better place to live or conduct business. The Long Range Transportation Plan predicted increased air pollution for Fairview after the freeway. We already know that Anchorage children living near high volume roads have almost three times the asthma as other children,[2] and this freeway would become Anchorage's highest volume road.

Drawing conclusions based on a vast number of examples around the United States, we question whether developers will be enticed to invest in areas adjacent to an urban freeway. Will families be drawn to live near the edges of a freeway, especially if they knew about the increased risk of asthma for their children?

[1] Table 7-17, Anchorage Bowl 2025 Long Range Transportation Plan with 2027 revisions

[2] *An investigation of the association between traffic exposure and the diagnosis of asthma in children,* MARY ELLEN GORDIAN,SEBASTIEN HANEUSE AND JONATHAN WAKEFIELD, Journal of Exposure Science and Environmental Epidemiology (2006) 16, 49–55

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We are also concerned that the high cost of the project will prevent progress on other important transportation projects, including roadway, bridge, trail and sidewalk maintenance and public transportation. National transportation policy is expected to shift funding towards walking, biking and public transportation in accord with infill and redevelopment and will reduce the need to drive to daily destinations. It is critically important that a project costing over $850 million[3] contribute in a significant way toward making Anchorage a better place to live, work and play, especially if state officials' statements are accurate that local government will be expected to bear most of the cost. Similarly, the environmental process for this project is budgeted at $18 million, including $10 million from the state's general fund. In this time of shrinking state dollars, we must do everything we can to make sure the public is getting good value for the dollars we spend.

In the attached comments, the Anchorage Citizens Coalition supports:

- Broadening the project's draft Purpose and Need statement to include key transportation related values from *Anchorage* 2020 such as economic growth, neighborhood integrity, infill and redevelopment, public transportation, air quality, public health, affordability;
- Relating draft Screening Criteria to both *Anchorage 2020* and "purpose and need;"
- Transit "alternatives" must be coupled with infill, redevelopment and transportation demand management to be effective.
- Studying land use, transit and air quality alternatives to a building freeway connection through downtown in scenarios that combine infill and redevelopment, improved public transportation and transportation demand management.

The Coalition is asking for at least three Land Use, Transportation, Air Quality (LUTRAQ) alternatives within the environmental process. We describe the process in some detail in the attached comments, and we are available to provide additional information to facilitate the process.

Developing alternatives to freeway construction is a very important element of the work that's being done and it is critically important that we have the advice of the best professionals we can find. For the LUTRAQ alternatives to be successful, key issues must be addressed:

- Which mix of infill and redevelopment, public transportation and redesigned streets will motivate a significant number of people to walk, bike and use public transportation?
- Alternatives should be developed through a process of open workshops, partnering with the general public and the advice of consultants who have had constructive, successful experiences in similar processes.

[3] All projects needed to complete the Highway to Highway freeway total $863.2 million in the Anchorage Long Range Transportation Plan. All numbers are in millions of (2005) dollars: $575 Fairview freeway; $22.4 McCarrey toIngra-Gambell; $33.2 Bragaw Interchange; $65.3 Airport Heights Interchange, $26 extension to Whitney Rd; $49.5 Tudor to20th; $81.7 36th to OMalley; $60.6 OMalley Interchange; $9.5 Omalley to -Rabbit Creek. From April, 2009 project open house: CH2M Hill

- Elected officials who are finalizing the rewrite of Anchorage's land use laws and the city's Land Use Plan Map will benefit from information that identifies some parts of town for higher intensity development.
- The public should give constructive feedback about community preferences for infill, redevelopment (both commercial and residential,) public transportation and other transportation investments.
- Air quality is a marker for quality of life that represents desirable neighborhoods, attractive commercial districts, walkable streets and so forth. It is essential to include air quality in the study.
- Transportation demand management includes such variables as pricing and access to alternatives. Portland's LUTRAQ study assumed free transit passes for every downtown worker coupled with a $3 charge for parking each day.
- Constructing additional lanes of road increases the number of miles each person drives.
- Affordability and the long-term benefit of our investments should be part of the study.
- Anchorage's land use planners need sufficient resources to fully participate in this study.
- Besides construction costs, we should consider economic development, long term job creation, long term congestion, energy consumption, land values, air quality, public health as outcomes for transportation investments.
- Mat Su population growth rate should be a variable rather than an input into the model, as should Anchorage's growth rate.
- Consider the "density, diversity and design" of infill and redevelopment in the models as described in the LUTRAQ technical documents.
- Anchorage's computer travel model needs to be sensitive to changes in land use and non-motorized travel.
- Freeways are not cost effective for trips of less than five miles.
- A number of other scheduled projects will reduce travel demand through Fairview including the Dowling extension to Elmore.

On behalf of our board and our membership, thank you again for your continuing efforts for public participation in this important project. We look forward to exploring the opportunities this study will present. Please feel free to contact me with any questions.

Sincerely,

Michael Howard
President

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Anchorage Citizens Coalition comments on Highway to Highway
Purpose and Need, Screening Criteria and development of alternative scenarios
August 24, 2009

I. PURPOSE AND NEED WORKING DRAFT (AS OF MAY 2009)

The project's revised purpose and need statement, while improved, should be further broadened to meet the goals of *Anchorage 2020*. The statement and its supporting "needs" still support construction of a freeway through Fairview, and should incorporate critical community values for building an economical transportation system, relieving congestion over the long term, improving neighborhoods, strengthening employment centers, promoting infill and redevelopment with more homes near jobs, reducing energy consumption, increasing percent of trips taken by walking, biking and transit, cleaner air, less noise pollution and reducing reliance on autos.

The Coalition supports the following changes to the Purpose and Need working draft document in order to bring the purpose and need closer to *Anchorage 2020* values:

1) Modify the definition of **"accessibility"** in the working draft purpose and need to: "The ease of reaching desired goods, services, and activities," from "a feature of roads that serve the start and end of a trip, where access to adjacent property is the primary function."
2) Remove the words "using the **arterial connection**…" in the first sentence and replace it with "traveling to and from Anchorage's major employment centers." As written, the phrase limits the project to the connection between the two points of the Federal Highway System and restricts alternatives such as dispersing traffic or reducing demand. As written, the phrase may mean that the existing arterial connection must stay a part of any alternative and that travelers who benefit from the project must be using that corridor.
3) Under "Need 1. **Congestion,"** add Anchorage needs congestion relief over the long term, beyond the twenty year horizon of most transportation investments."
4) Under "Need 2. Improve **travel efficiency**", change "Safely and efficiently accommodate (1) mobility for longer trips," to "Safely and efficiently accommodate (1) through and non-through trips, and (2) ease of reaching desired destinations for multiple modes." The need for the project is not only to improve mobility for the small minority of trips that are traveling from Seward to Wasilla,[4] but more importantly to improve the ease of Anchorage residents in the project area to reach desired destinations.
5) Under "Need 4. **Safety**," add, "Improve the safety and connectivity of non-motorized travel throughout the project area, especially within employment centers and connections from residential areas. Increased access by bicycle, walking and skiing has many benefits including increased transportation savings for households and improved public health."

[4] From April, 2009 project open house: CH2M HILL. February 2005. *Anchorage Travel Model Calibration and Validation Final Report.* Prepared for the Municipality of Anchorage Traffic Department. Nustats. 2002. Anchorage Household Travel Survey. Prepared for the Municipality of Anchorage Traffic Department.

Add the following Transportation Needs

6) **Economic:** Anchorage is striving to control governmental costs and maximize the benefits of its investments. Transportation investments should fulfill community goals to conserve financial and energy resources.

7) **Air quality:** Air pollution is a hidden cost that needs to be considered openly. Even as engines become more efficient and consume less fuel, increased per capita driving is expected to overwhelm gains from cleaner engines. This will increase pollution, including greenhouse gas emissions, and threaten public health. The 2005 Analysis of the Air Quality Impacts of the Anchorage Long Range Transportation Plan, shows that a freeway connection through Fairview would increase health threatening carbon monoxide, fine particle pollution and also coarser particle pollution from roadway grit and dust. Transportation investments should reduce the public exposure to air pollution and improve the public's health.

8) **Neighborhood protection:** Neighborhoods are threatened by transportation investments that create barriers and limit mobility for people who do not drive. Transportation investments should improve the desirability of neighborhood and help make Anchorage a more affordable place to live and raise families.

9) **Economic growth:** Transportation investments should maximize long term employment and the multiplier effect of investments throughout the community's economy.

10) **Infill and redevelopment:** Infill and redevelopment encourages more efficient use of developed lands, public infrastructure and utilities, generates employment, increases tax revenues, and is a major goal of *Anchorage 2020*. Transportation investments greatly influence land development patterns, and should implement *Anchorage 2020* by promoting infill and redevelopment.

Public Transportation: *Anchorage 2020* calls for public transportation to become a viable alternative to auto travel, and current transit service in terms of number of routes and frequency of service is significantly below national averages. Public transportation improvements should be developed in cooperation with goals for infill and redevelopment.

II. PRELIMINARY SCREENING CRITERIA (FROM APRIL 2009)

ACC supports changes to the draft purpose and need statement, and proposed screening criteria for selecting the preferred project also need to be revised in order to "balance community values" and "preserve or enhance community values," as stated in the project's mission statement.

As released in April 2009, seven of the thirteen proposed screening criteria focus on increased roadway capacity, reduced congestion and reduced travel time, presumably along the project route. At the same time, it's not clear how long the reduced congestion is expected to last. This is a concern because the city's Long Range Transportation Plan predicts severe congestion along the project route within twenty years even after building a freeway through Fairview.

Screening criteria should be balanced by adding criteria for selecting an economical alternative, promoting community infill and redevelopment, increasing the percent of trips taken by bicycle, walking or transit, reduced energy consumption, improved air quality, reduced noise pollution, reduced reliance on auto travel and finally, long term congestion relief.

The Coalition supports the proposed changes to be included in the initial screening criteria:

"Will the alternative...

Provide enough capacity to meet future travel demands?
Modify: Reduce congestion and accommodate population growth in the study area over the next fifty years?

Reduce congestion on nearby parallel routes?
Modify: Slow speeding traffic and reduce congestion throughout the study are?

Reduce the number of miles spent in over capacity conditions in the project area?
Modify: Provide multi modal alternatives to traveling by auto?

Reduce time spent in congested conditions (stop lights, slow traffic, etc.) in the project area?
Modify: Reduce time spent in congested conditions (stop lights, slow traffic, etc.) in the study area? (Or delete since it repeats the intent of #1)

Reduce the number of miles traveled in congestion?
Modify: Reduce overall Vehicle Miles Traveled per person?

Reduce the amount of time spent traveling?
Modify: Increase the percent of travelers who use public transportation, bicycling and walking?

Reduce time spent traveling to/from major destinations?
Modify: Increase access to/from major destinations?

Improve conditions for the neighborhoods in the project area?
Modify: Reduce carbon dioxide, carbon monoxide, PM2.5 and PM10 emissions in the study area?

Provide bike and pedestrian features?
Modify: Provide convenient and efficient linkages among public transportation, pedestrian and bicycle facilities and roadways?

Reduce crashes by diverting traffic to safer types of facilities?
Modify: Reduce the number and severity crashes?

Reduce travel time for public transportation traveling in the project area?
Modify: Reduce travel time for public transportation and for freight traveling in the study area?

Be technically practical or feasible to build?
Modify: Be practical, feasible and cost effective to implement?

Be affordable?
Modify: Be economically efficient and allow investments to be made over time as needed?

Pollution
Modify: Reduce energy consumption and greenhouse gas emissions while improving access and mobility.

New: Improve the livability of neighborhoods in the study area in terms of neighborhood character, affordability, public transportation, walkability access to jobs, safety, health, noise.

The outcomes of the revised criteria should be to:

- Improve mobility and access over the long term;
- Use transportation investments to improve, not injure neighborhoods;
- Promote jobs, housing and multimodal transportation in employment centers;
- Reduce transportation's share of energy consumption, greenhouse gas emissions, air and water pollution in Anchorage;
- Protect the public health and safety, with a special focus on families living near busy roadways;
- Reduce sprawl and promote infill and redevelopment;
- Protect neighborhoods from the negative effects of continuous growth in traffic, noise and pollution;
- Ensure people can get where they need to go (have access) regardless of vehicle ownership;
- Relieve congestion along a number of corridors not just a small section of one roadway;
- Avoid the growing congestion of Anchorage's roadways that frustrate drivers and threaten pedestrians and bikers;
- Work with land planners for transportation investments to advance the land development goals of Anchorage; and
- Work openly with citizens to build community understanding of land use and transportation alternatives and generate public support for the preferred alternative.

Finally, the coalition is concerned that the transit and Traffic Demand Management strategies presented as "alternatives" in May will fail to meet screening criteria. Professionals familiar with travel demand computer modeling understand that stand-alone transit alternatives, even when coupled with transportation demand management, typically do not compete favorably with a new freeway.

The public forcefully asked for more public transit at the Highway to Highway public meetings this past year. The NEPA process should thus provide them an alternative that maximizes the benefits of public transportation and offers them the opportunity to revise that alternative based on their experiences and visions of the future. For comparisons of freeway and public transit to be competitive, public transportation must be coupled with infill and redevelopment, improved walking and biking facilities, improved roadways and transportation demand management using policy variables of density, diversity and design.

III. COMMENTS ON MAY 2009 TRANSIT AND HIGHWAY ALTERNATIVES

The Highway to Highway project is a unique opportunity to develop a transportation system that is based on land use and works to further the goals articulated in the Anchorage Bowl 2025 Long-Range Transportation Plan (LRTP) as shown here:

- Goal 1: Health and Safety: "Provide a transportation system that moves people and goods safely throughout the Municipality."
- Goal 2: Build, Operate, and Maintain Quality, Affordable, and Attractive Improvements: "Develop an attractive and efficient transportation network that takes into account the cost of building, operating, and maintaining a system that considers the equity of all users, and the secondary costs associated with a all other community values."
- Goal 3: Economic Vitality: "A transportation system that supports a thriving, sustainable, broad-based economy for Anchorage by locating and using transportation infrastructure and facilities to enhance community development."
- Goal 4: Optimize Community Connectivity: "Establish community connectivity with safe, convenient, year-round auto and non-auto travel routes within and between neighborhoods, commercial centers, and public facilities."
- Goal 5: Improve Mobility and Access in Anchorage and Region: "Improve access to goods, jobs, services, housing, and other destinations. Provide mobility for people and goods throughout the region in a safe, affordable, efficient, and convenient manner."
- Goal 6: Transportation Choices: "Provide a transportation system that provides viable transportation choices among various modes."
- Goal 7: Preserve and Enhance the Natural and Developed Environment: "Design and maintain a transportation system that respects the integrity of Anchorage's natural and built environment and protects Anchorage's scenic vistas."

As we work from these goals, it is important to note that they do not implement *Anchorage 2020* insofar as they do not include language supporting

- Public health goals,
- Reduced air and noise pollution, and
- Infill and redevelopment goals.

We are concerned that the various conceptual highway routes that were introduced as preliminary alternatives at the May public scoping meeting fail to address:

- Opportunities for studying land use as a variable,
- Reducing congestion by reducing travel demand, and

- Long-term mobility and access for the vast majority of travelers, whose intended start and end point is not between the two points where the Federal Glenn and Seward Highways currently end.

Public transportation improvements should be studied in cooperation with infill and redevelopment and transportation demand management (TDM), rather than as stand alone alternatives.

The coalition supports transit improvements such as those that were presented in the "stand alone" transit alternative, however, it is our understanding that these strategies would be eliminated through screening criteria, as the alternatives do not necessarily meet the purpose and need as "stand alones."

We are very concerned that this would eliminate further consideration of robust transit investment or of significant TDM strategies.

Learning from the past experiences of cities throughout the United States, and based on reasonable methods for analyzing potential transportation and land use scenarios, the coalition supports including at least three land use, transportation, air quality alternatives in the range of potential alternatives along with the expected freeway alternative. Keith Bartholomew found, "A consensus appears to emerge from the literature that four scenarios is about the right number: not too many to confuse participants, but enough to allow for divergent thinking and coherent story telling."

IV. INTRODUCTION TO LAND USE, TRANSPORTATION, AIR QUALITY ALTERNATIVES

Anchorage Citizens Coalition believes that the best way for the Highway to Highway project to implement Anchorage 2020 will be to develop a set of four alternative scenarios including the probable freeway alternative. The purpose is to learn which combination of infill and redevelopment, transit oriented design (buildings, streets, sidewalks and pathways,) transportation demand management[5] and public transportation improvements will do the best job of reducing demand for auto travel. Scenarios will explore land use and transportation investments to most effectively implement *Anchorage 2020* and its key community values of a clean environment, public health, affordability, neighborhood integrity, access, mobility and so forth.

Urban models that are used to evaluate land use, transportation, and air quality systems can provide powerful insights into alternatives' futures. However, like most large-scale models, there is a large degree of uncertainty due to multiple variables. As a result, it is important for analysts to make the uncertainty in modeling analysis transparent to the public and

[5] . Todd Litman of the Victoria Transport Policy Institute provides an overview of Transportation Demand Management strategies at http://www.vtpi.org/tdm/tdm125.htm) For example, Portland Oregon's LUTRAQ relied on two TDM's: free transit passes along with parking charges of $3 per day for all downtown employees.

decision makers through an iterative, collaborative and open process with both experts and stakeholders and general interested public involved in identifying assumptions and inputs. Land use elements can vary in the overall magnitude of growth, the mix between jobs and households, the location, density, heterogeneity and/or design or the growth. Scenarios should treat Mat Su population growth as a variable rather than a static input. Anchorage may want to apply a "Pedestrian Environment Factor" where some neighborhoods and commercial areas are assumed to have superior pedestrian linkages, crosswalks, winter maintenance and so forth.

An iterative public process will ensure the public participates in developing scenario assumptions, identifying choice locations for infill and redevelopment, understanding tradeoffs and making the hard choices to recommend land development patterns and transportation investments. "Iterative" refers to the process of reexamining the computer model and the draft scenario after modeling produces unexpected results such as insignificant shifts from single occupant vehicles to transit, walking and biking or other unusual conclusions.

Traffic demand models typically use land use projections as "inputs." In general this supports the plumbing model of traffic demand: more people moving to a city will drive more miles and require more road lanes. Instead, land use should be studied as a variable within various development scenarios in order to develop alternatives that provide the optimum land development patterns (density, design, and heterogeneity) to support transit, biking and walking, reduce driving demand, and improve air quality.

Air quality is a key goal in scenario development, for a number of reasons. Transportation studies typically consider the costs of vehicle travel times, crashes and road construction. Impacts on air quality, noise pollution, non-motorized travel, public health and neighborhood integrity should also be studied. Air quality is a marker for these other "hidden" costs. Most air pollution cost studies focus on just a few impacts and so give an incomplete estimate of total pollution costs. (e.g. Often omitted are impacts on people without acute medical symptoms although residents of polluted cities suffer reduced lung capacity and are regularly instructed to limit their physical activities.)

Here we have sketched some elements of a Land Use, Transit, Air Quality scenario. For a more complete and technical analysis of one of the first LUTRAQ studies, see Volumes 1-8 of Making the Land Use, Transportation, Air Quality Connection produced by 1000 Friends of Oregon between 1991 and 1997. For an excellent review of scenario development in the U.S., see Keith Bartholomew's *Integrating Land Use Issues into Transportation Planning: Scenario Planning, 2005* at www.arch.utah.edu/bartholomew. We also recommend Todd Litman's review, *Multi-Modal Transportation Planning,* Victoria Transport Policy Institute, found at www.vtpi.org/multimodal_planning.pdf.

We appreciate that more than one member of the environmental team are familiar with elements of Portland's LUTRAQ study. It is critically important that outside expertise be brought to this process, as Anchorage has not yet successfully modeled a land use and transportation, air quality scenario. In the past, at least two significant land use alternatives

have been developed without success: 1) As a part of the East Anchorage Study of Transportation and 2) In the Long Range Transportation Plan. In prior years, the Glenn Highway Major Investment Study "proved" that transit could not accommodate the expected growth in traffic along the Glenn.

To be successful, a land use-transit scenario should illustrate the benefits of compact land development coupled with public transportation, transit oriented development and transportation demand management in reducing demand for auto travel and increasing the proportion of bike, walk and public transportation trips. Society's costs are especially high with Highway to Highway, and it is critical that a land use, transit, air quality scenario be given a fair chance for success.

Since CH2MHill will apparently conduct the travel demand modeling, we ask that Sam Seskin be assigned to this project to educate local planners about the range of assumptions and strategies that can be used to successfully. Sam was the technical manager of Portland's famed LUTRAQ study, completed in the mid 1990's. Another alternative is to bring in an independent contractor who has had success in conducting similar scenario development in other regions. Whichever experts are brought in for the process, we ask that they help develop the study process, and report periodically to the general public throughout the study.

A. GOALS OF THIS LAND USE ALTERNATIVE

- Advise decision makers on the most effective ways to implement *Anchorage 2020*.
- Decrease congestion by decreasing demand for auto travel, encouraging use of existing networks, and encouraging travel by non-auto modes through infill and redevelopment as well as investments in walking and biking facilities.
- Test the effectiveness of alternatives to road building. One example: examine the effectiveness of a new goal for how all new commuter trips into/out of midtown, downtown, and other major employment centers in Anchorage be via transit, biking, or walking would affect congestion in the study area.
- Work to implement Anchorage 2020 by increasing housing and commercial density in targeted locations to support public transportation, walking and biking. The range of density among the scenarios should be wide, 30 to 50 percent, to illustrate the relative importance of this factor. One scenario should assume current trends.
- Incorporate policies of "density, diversity and design" needed for success in Transit Oriented Design development.
- Engage the public in this discussion through a series of iterative public workshops that inform them of the costs and benefits of various alternatives, and result in consensus about the preferred locations for infill and redevelopment. Citizens should be given a central role in crafting, developing and assessing the study goals, selecting the preferred scenario and developing implementation tools and timeline.
- It will be especially important to ensure Anchorage's land use planners can afford the time to participate fully in this study. In the past it has been proposed to provide remuneration to Anchorage's planning department to allow them add transportation planning to their duties and not neglect their ongoing duties

If we achieve these goals by taking the actions outlined below, this alternative will meet the Purpose and Need to "…improve mobility and access for people and goods…reducing congestion and improving travel efficiency, and improving neighborhood connections, safety, and intermodal relationships."[6] In addition, this alternative should encourage infill and redevelopment, improve air quality, reduce energy consumption, improve public health, and promote economic growth and efficiency – all key elements of a healthy, thriving city.

B. PROPOSED ACTIONS TO BE TAKEN TOGETHER, NOT AS STAND-ALONE ALTERNATIVES, FOR ANALYSIS

1. Identify land use development patterns and densities that support transportation alternatives:
    - Consider various land use development patterns, transportation and air quality scenarios.
    - Use transportation demand model along with an iterative public process to identify an optimum mix of density, transit, walking and biking to minimize demand for auto travel. Engage the public in the aforementioned "iterative" process to identify the most acceptable alternatives to be brought forward.
2. Significantly increase public transportation: increase the frequency of buses and number and distribution of routes, (per the LRTP, and earlier plans dating back to the 1970's, with adjustments for today's conditions) and provide express buses. Base these increases on the optimum mix of infill, redevelopment and transportation improvements to reduce transportation demand.
3. Reserve right of way for use by HOVs, express buses, and potentially, in the future, a light rail: along any major highway studied as an element.
4. Consider shifting a percent of freight movement to rail.
5. Implement a package of transportation system management, travel demand management, and intelligent transportation system (ITS) actions: (i.e. implement "limited construction" activities to maximize the efficiency of the existing transportation system.)
    - Upgrade bicycle/pedestrian facilities within and across the project area to provide improved access to midtown, downtown and the UMed District, safer conditions for all users, completed bicycle/pedestrian linkages, and provide better connections among transportation modes.
    - Increase safety by widening sidewalks along Gambell and Ingra, and along targeted streets.
    - Reduce demand, slow traffic in the presence of bikes and pedestrians, encourage shifts in mode or time and so forth, while improving mobility and safety for pedestrians, cyclists, and buses.
    - Incorporate information on lane widths and vehicle speeds, crosswalk frequency, education promoting alternate transportation, parking management, induced travel demand, elasticities, pollution, pricing, and other strategies that affect travel behavior.

[6] See additional comments on Purpose and Need Working Draft. (included)

C. ASSUMPTIONS

- Highway to Highway will be the largest urban infrastructure project in Alaska's history. Anchorage 2020 is our current comprehensive plan and H2H alternatives must conform to the transportation and land use goals in Anchorage 2020
    - A freeway may not be needed for trips less than 5 miles.
    - A land use and transportation alternative may likely be the most reasonable and cost effective strategy for relieving congestion and implementing *Anchorage 2020.*
    - Travel times may be reduced by dispersing traffic, instead of routing traffic onto a single corridor - and ultimately limiting use of alternate routes.
- Approximately 9.5% of the trips along the proposed alternative routes are "through-traffic" as identified in the LRTP; the remainder of "non-through" trips, and the vast majority, are traveling within and between major employment and commercial centers in Anchorage. (i.e. not between two points where the Federal Highway System ends.)
- Initial scoping materials for H2H alluded that a lack of system capacity is causing "driver frustration", which results in traffic accidents. It cannot be assumed that failing LOS results in road rage - which results in accidents.
    - National studies show that as VMT and speeds increase, so do the number and severity of accidents. Thus, it cannot be assumed that the objective to improve LOS will achieve the desired outcome of "improved safety" and "reduced number of accidents."
    - LOS F used to represent a delay of more than 60 seconds, but that in the 2000 Highway Capacity Manual it was revised to 80 seconds. Motorist behavior studies since have shown that inconvenience with delay can depend on numerous factors and differ dramatically between drivers.
    - The greatest throughput of vehicles occurs at 25-30 mph.
- There are many new and proposed road connections that may reduce demand for travel along the Seward/Glenn
- Traditional "four step" computer models are relatively incapable of reflecting differences in travel patterns associated with variations in land use patterns, especially patterns intended to facilitate non-motorized travel. This concern was raised during the "peer review" of Anchorage's transportation demand model for the Long Range Transportation Plan. It will be important to ensure Anchorage's model is sufficiently sensitive to the variables.
    - Changes will occur due to Elmore/Tudor to Boniface connection
    - Traffic may increase use of Muldoon to get to the Glenn as a result of recent retail developments.
    - When Boniface is extended to the new MLK/E 48th and then to Dowling, that is expected to take even more pressure off the Seward Hwy/Glenn. The Dowling connection may become the route of choice for many travelers.
    - If people shopping at the new malls on the Glenn are coming from north of town, then those malls have decreased demand for a H2H connection. As those malls fill up, they will have more of an impact, and this should be factored into traffic analyses.

- Modeling must consider what changes in travel demand along Gambell/Ingra and elsewhere will occur once these connections and the malls have had a chance to show what impact they have on travel patterns.
- Building additional road lanes induces additional driving beyond population growth and accelerates congestion.

D. EVALUATING SCENARIOS

Some indices available for evaluating scenarios include:
Transportation:

- Vehicle Miles of Travel
- Vehicle trips
- Vehicle hours of travel
- Mode shares
- Transit ridership
- Households served by transit
- Non-motorized trips and lengths
- Number of homes within walking distance of jobs

Land Use

- Amount of developed land
- Amount of open space and parks

Air Quality

- Carbon monoxide and particle emissions
- Energy consumption (buildings and transportation)
- Greenhouse gas emissions

Addressing Induced Travel/Induced Demand

- The term, induced travel, generally refers to the observed increase in vehicle travel that occurs as a result of some economic or convenience factor or factors that encourage travel. (i.e. When gas prices go down, people drive more.) When a highway is widened or a new highway is built, the observed increase in traffic soon thereafter is an example of induced travel.

Current models commonly used to address induced travel/induced demand allow for significant bias in the evaluation of alternative scenarios when a model does not represent induced travel effects. This step in the process should be made transparent.

Consider the Federal Highway Administration's position that induced travel *is "…the cumulative result of individual traveler choices and land development decisions made in response to an improved level of transportation service."* [7]

Principle to this land use alternative is the understanding that properly addressing induced demand is necessary in order for modeling to produce a scenario that will reduce congestion,

[7] *http://www.fhwa.dot.gov/planning/itfaq.htm*

improve to air quality, allow for density to encouraging use of transit, facilitate mobility and safety for multiple modes, and facilitate local economic.

Evaluating Transit

Transit does not have to support itself (or at least no more than roads do). Roads draw heavily from the general taxpayer in terms of operations and maintenance. Thus transit should not be dismissed as an unreasonable alternative due to cost.

The Anchorage Citizens Coalition proposes a more comprehensive approach to evaluation transport costs and benefits. Information on methods for measuring transport, including data sources, may be referenced at: http://www.vtpi.org/tdm/tdm66.htm#_Toc18284947

Additional information on evaluating transit may be accessed in the **Transportation Cost and Benefit Analysis Guidebook,** produced by the Victoria Transport Policy Institute at: www.vtpi.org/tca.

In brief, a comprehensive approach to cost analyses should be taken when analyzing transit, and comparing benefits, as an element of any H2H alternative. The many costs of vehicle ownership and automobile travel, parking, ROW, and other societal costs should be incorporated into this analysis. These costs, in order of magnitude[8], are:

1) Vehicle ownership (direct user financial expenses for vehicles. These are often divided into *vehicle ownership* (fixed) and **vehicle operating* (variable) costs)
2) Crash damages (deaths, injuries, pain, disabilities, lost productivity, grief, material damage, and crash prevention expenses)
3) Parking subsidies
4) Vehicle operation*
5) Roadway costs
6) Traffic congestion (incremental delay, stress, vehicle operating costs and pollution that results from each additional vehicle added to the traffic stream)
7) Environmental costs (air, noise and water pollution, waste disposal and the environmental impacts associated with transportation facilities)
8) Roadway lane value
9) Residential parking
10) Fuel externalities (including national security risks and macroeconomic impacts on individual economies that import fuel, depletion of non-renewable resources, various financial subsidies, and environmental damages (including greenhouse gas emissions). Put another way, there may be benefits to society from increased energy efficiency and conservation.)
11) Traffic services (traffic police, street lighting, planning, and emergency services - largely funded by local taxes)

[8] Litman, T. (2007) "Smart Transportation Investments II: Reevaluating the Role of Public Transit for Improving Urban Transportation." Victoria Transport Policy Institute: Victoria, B.C. p 7.

A congestion reduction strategy will provide far more benefit to Anchorage if it helps reduce these other costs, even by a small amount. For example, it would not be cost effective to construct the proposed Highway to Highway connection if it could *reduce traffic congestion* costs by 10% but *increased other transportation costs*, such as vehicle expenses, roadway expenses, crashes or environmental damages, by just 3% each.

We understand that significant technical consideration as well as flexibility is necessary in order for this LUTRAQ alternative to be feasible. The coalition will make ourselves available to provide any information and resources in order to facilitate the development of this LUTRAQ alternative.