



Citizens for Appropriate Transportation

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This letter is intended for inclusion in the Public Record

November 7, 2013
Illinois Dept. of Transportation
c/o Mr. Peter Harmet and Mr. Mark Peterson
201 West Center Court
Schaumburg, IL 60196

SUBJECT: Build Alternatives, Impact Scores, Evaluation, and IDOT's Planning Process

Dear Mr. Harmet and Mr. Peterson:

Thank you for the opportunity to submit comments, which we have grouped into four categories: Build Alternatives, Impact Scores, Evaluation, and IDOT's Planning Process.

A. BUILD ALTERNATIVES

1. IDOT has not considered some Build Alternatives.

Some Build Alternatives not considered are:

- Lower the expressway to bring the Austin and Harlem ramps down to grade level to improve the social and visual connections across the expressway. We understand IDOT is considering lowering the expressway, but we do not know by how much and have not seen any drawings to scale.
- Attract more riders to transit. The Forest Park Branch of the Blue Line has unused capacity. The O'Hare Branch, which carries more riders than the Forest Park Branch, dictates train headways. The CTA could attract more riders with lower fares on the Forest Park Branch until ridership increases. Empty seats do not add revenue to the CTA.
- Acquire one or two tracks from the CSX and shift the CTA to the south to provide space for IDOT to use 12-foot for all lanes at the Pinch Point just east of Oak Park Avenue instead of the four 11-foot lanes shown in the current Oak Park Avenue cross section.
- Consider truck lanes, especially if IDOT can acquire part of the CSX right-of-way.
- Make better use of the CTA Blue Line, Metra's three commuter lines (UP-W, BNSF, and MD-W), demand management, and information technology.

- Consider left-side ramps for Austin and Harlem based on current geometric design standards.
- Work with the communities and the CTA on Transit Oriented Design because it attracts more transit riders and lowers vehicle miles of travel.

2. Current IDOT proposals for right-hand side ramps at Austin and Harlem will bring the source of air and noise pollution closer to people's homes, weaken social and visual connections across the Corridor, and adversely affect property values and property tax revenues.

The problems with right-hand side in the Eisenhower Corridor are context-related as summarized above.

IDOT is comparing proposed right-hand side ramps with the existing center ramps. Highway design standards have changed since the 1950's. The state used center ramps in the 1950's for reasons that are still valid today, but IDOT rejects them before evaluating a design with center ramps using current geometric design standards and Crash Modification Factors adjusted for local conditions.

3. A small diversion of motorists to transit or to off-peak hours would reduce congestion.

"Because short distance trips represent a large proportion of vehicle miles traveled, eliminating even a small portion of trips can mean a significant reduction in highway vehicle miles traveled (VMT). Reductions in VMT can help reduce congestion and improve travel times, reduce crash rates, improve air quality and improve other aspects of an existing highway, thereby extending its life or reducing the size of a new highway footprint."¹

Level of Service E represents unstable traffic flow. Even a minor accident can increase travel time because of the high Volume-to-Capacity ratio. Because trip time reliability is important to many drivers, they allow extra time to be sure of arriving at their destination on time. Buffer time is not needed on some days, but drivers cannot determine which days will require it.

4. The crash analysis does not answer some questions.

IDOT attributes the high crash rates at Austin and Harlem to the center ramps. Because Mannheim Road also has a high crash rate, it is not clear center ramps are the primary cause of accidents at Austin and Harlem. There are several possible explanations for accidents at Austin and Harlem, including unfamiliarity with center ramps for some motorists, short weaving sections, weather, reflections from the sun, distracted driving, drugs or alcohol, and other factors. If some drivers who would normally use the expressway divert to arterial streets, causing the accident rates to increase on the arterials, then IDOT has just shifted the accident rate elsewhere.

5. IDOT's Build Alternatives create development opportunities.

¹ "Context Sensitive Solutions – Detailed Guidelines for Practice," Illinois Department of Transportation, Pages 3 and 4. This IDOT document does not have a date, but it was done when Timothy W. Martin was IDOT Secretary.

Corridor communities have land that could be developed or redeveloped. Major transportation facilities such as the expressway, CTA Blue Line, and Metra commuter rail lines can promote development, shape desirable land use patterns, and allow higher density. IDOT says it is not involved in land use, but IDOT's designs have a significant impact on what development or redevelopment is possible. IDOT should recognize the impact major transportation facilities have.

IDOT says, "any redevelopment of the land uses along the I-290 corridor is beyond the scope of this (or any) transportation project"², which illustrates one of our big problems with IDOT. Transportation and land use are closely linked. Having IDOT make land use changes is not appropriate, but having IDOT modify the design of the expressway to facilitate development is.

6. Highway Capacity Manual 2010 methodologies assume clear weather and no incidents in calculating expressway capacity.

Assuming clear weather and no incidents does not represent real world conditions. Both Oak Park and Forest Park have many instances where traffic diverts from the expressway to Roosevelt, Jackson, Madison, Lake Street, and other streets during inclement weather and when crashes occur.

7. Because the Corridor is multi-modal, joint planning and coordination are essential.

Every transportation mode (expressway, rail transit, buses, pedestrians, and bicyclists) plays a role in transportation planning. When each mode is designed to do what it does best, the transportation system works better and is efficient. At the recent Town Hall Meeting, IDOT Secretary Ann Schneider stressed her interest in making IDOT more focused on being multi-modal.

For IDOT, reconstructing and widening the expressway in the six-lane section is a priority. For the CTA, rebuilding the existing Forest Park Branch of the CTA is a priority; extending the Blue Line is not. Because of different priorities and funding programs, we are looking at the possibility IDOT will improve the expressway years before any possible extension of the Blue Line takes place. IDOT's planning for the Build Alternatives and impacts they will have has not accounted for different construction schedules. Corridor residents and businesses may not see the full benefits from multi-modal planning for years.

8. IDOT should work with the communities in the Corridor to improve livability.

Other state departments of transportation, such as Pennsylvania and New Jersey, have included livability into their major projects. IDOT has not, other than to talk about wider bridges and sidewalks.

B. IMPACT SCORES

² Letter from John Fortmann and Peter Harmet at the Illinois Department of Transportation to Rick Kuner, Citizens for Appropriate Transportation, July 29, 2013, Page 4.

1. IDOT is making major transportation investment decisions that will affect the region and the communities in the Eisenhower Corridor for the next five or six decades based on many small differences in impact scores.

IDOT says, "... NEPA does not prescribe a threshold for travel performance; this is especially important with respect to transit, which typically has low performance in relation to the overall system. When comparing an 8 mile improvement to a very large regional network, small percentage differences should be expected."³ Does IDOT really think their projections to the year 2040 are accurate enough to make major transportation decisions based on small percentage differences?

2. Both Captive and Choice Transit Riders are important.

Captive Riders (sometimes called Transit-Dependent Riders) do not have access to a car. They may have a physical impairment, are too young or too old to drive, do not have enough income to buy a car, are paying off college debt, or choose to spend their money on other things.

Considering the needs of Choice Transit Riders is an important part of the Environmental Justice analysis.

3. Justifying the huge cost to rebuild and expand the expressway based on a rationale of no minimum performance threshold is troubling.

IDOT says, "NEPA does not prescribe a performance threshold,"⁴ but all four Build Alternatives IDOT wants to carry into Round 3 will cost a substantial amount. It concerns us that the expenditure of such a large sum will result in such a small improvement in performance.

4. The Travel Demand Models have limitations.

The Strategic Highway Research Program (SHRP) report on Congestion Pricing⁵ has some useful conclusions that affect IDOT's analysis. Some examples are:

- "... drivers perceive every minute driving in congested conditions at 1.5 to 2.0 times longer than free flow travel time."⁶
- There is a "toll aversion bias, representing a psychological perception over and above time-cost trade-offs. The toll aversion bias is equivalent to 15–20 minutes of travel time even in areas with a long history of toll roads"⁷

³ Ibid. Page 6.

⁴ Ibid. Page 2.

⁵ "Improving Our Understanding of How Highway Congestion and Pricing Affect Travel Demand," Parsons Brinckerhoff, Northwestern University, Mark Bradley Research & Consulting, University of California at Irvine, Resource System Group, University of Texas at Austin, Frank Koppelman and Geostarts, Transportation Research Board, 2013.

⁶ Ibid. Page vi.

⁷ Ibid. Page vi.

- “Drivers place a value on travel time across a wide range from \$5 to over \$50 per hour and approaching \$100 per hour when trip pressure is high. Therefore, toll levels have to be significant to influence congestion. Travelers’ responses to congestion and pricing are also dependent on the options available. Driver response to congestion and pricing usually escalates from changing a route or departure time, to switching to transit if available, to rescheduling trips, and finally moving or changing jobs. **Providing travel options is an important complement to a road pricing strategy that is aimed at reducing congestion.** Finally, improvements to travel time reliability are as important as improvements to average travel time. This implies that operational improvements and information provided to travelers may be as valuable as increases in speed.”⁸ (emphasis added)
- “Previous research identifies three major aspects of highway driving time that influence behavior and are perceived as important components of highway level of service (LOS): quantity (duration of time in the vehicle); quality (amount of stress or pleasure caused by the particular driving conditions); and reliability (level of uncertainty with respect to travel time and congestion levels).”⁹
- “Many drivers find driving in stop-and-go traffic more stressful than driving in free-flow conditions and would be willing to pay more to avoid time spent in driving in heavy traffic. For example, many drivers will drive a longer distance to avoid bottlenecks; they may spend the same amount of time or more in traveling, but in less stressful conditions.”¹⁰
- Travel Time Reliability is important to drivers for at least three reasons: (1) there are negative consequences for arriving late, (2) drivers add a buffer time to their estimated travel time to avoid arriving late, and (3) drivers do not like uncertainty about how long their trip will take.¹¹
- People tend to avoid tolls.

C. EVALUATION

1. IDOT still has Ranking System problems.

In our May 20, 2013 letter to IDOT, we recommended three ways to solve IDOT’s Ranking System problems: (1) Normalize Impact Scores, (2) Prepare Comparison Tables to highlight trade-offs among the Build Alternatives, and (3) Do Sensitivity Analysis to make informed judgments whether differences among alternatives are significant (Page 9).

The worksheet IDOT prepared using Normalized Scores based on 100 is an improvement over the Ordinal Scale Ranking. IDOT concluded the analysis of normalized impact scores “confirms

⁸ Ibid. Page vii.

⁹ Ibid. Page 3.

¹⁰ Ibid. Page 4.

¹¹ Ibid. Page 4.

the soundness of our ordinal scoring system” about which alternatives to carry forward based on ordinal scales. Calculating averages, which involves addition and division, is not sound! We strongly disagree with your conclusion.

IDOT rejected the use of Comparison Tables without giving them full consideration. IDOT has a responsibility to help citizens understand the trade-offs. Comparison Tables are an effective way to meet this responsibility.

We recommended sensitivity analysis in our letter to IDOT dated May 20, 2013. Sensitivity analysis examines the extent to which changes affect the results. Given the many small differences among alternatives, we continue to believe sensitivity analysis would add value to IDOT’s analyses.

IDOT’s predecessor agency designed the Eisenhower Expressway in the 1950’s for up to 100,000 vehicles a day. The expressway now has 180,000 to 200,000 vehicles a day, so the projections (in hindsight) were incorrect. Therefore, IDOT should be willing to do sensitivity analyses to account for the strong possibility the projections to the Year 2040 will be wrong, perhaps by a big margin.

2. When IDOT uses incomplete evaluation criteria, decisions on which Build Alternatives to carry forward are flawed.

IDOT’s recommendations need to balance many factors. By excluding social, economic, and environmental effects, IDOT excludes Build Alternatives based on a limited set of criteria.

D. IDOT’S PLANNING PROCESS

1. IDOT should do a Trends Analysis

Trends change over time. Predicting the future is difficult. A Trends Analysis would help all of us understand how well (or poorly) IDOT’s Build Alternatives will work as trends change.

IDOT used a Market-Based Population and Employment Forecast in contrast to the Scenario-Based Forecast used by the Chicago Metropolitan Agency for Planning (CMAP) to prepare the Go to 2040 Plan. IDOT’s Build Alternatives could undermine the CMAP Recommendations in the Go To 2040 Plan.

IDOT should consider demographic and technology trends, such as

- Changes in trip generation rates
- Collision avoidance technology in new vehicles
- Baby Boomers retiring and driving less
- Reduction in Vehicle Miles of Travel
- Recent college graduates who are avoiding purchasing a car to pay down college debt
- Increasing fuel cost
- Growth in transit ridership, walking, bicycling
- More single driver trips
- Better parking management
- Growth in social media and networks

- Innovative car, taxi, and bicycle sharing using social networks
- Real time information
- Variable managed lane and parking pricing policies
- Changes in goods movement technologies

2. IDOT should do Scenario Planning

Scenario Planning is intended to make long-term plans flexible by considering alternative futures, the consequences of each future, and how to respond to different futures.

IDOT's modeling efforts assume extension of the Blue Line to Mannheim Road. Because of different priorities and funding sources, one possible future is having the expressway work completed years before the CTA extends the Blue Line. IDOT's modeling does not account for this. Based on the modeling analysis, IDOT believes that Build Alternatives with High Capacity Transit will work better than Build Alternatives without High Capacity Transit. So do we.

IDOT's Round 2 – Combination Mode Alternatives, Purpose and Need Evaluation Measures Worksheet indicate small differences (many less than one percent) among the Build Alternatives. Making billion plus dollar investments based on such small differences is risky. IDOT can reduce the risk by considering plausible scenarios and how to deal with them.

IDOT can manage lanes to optimize traffic flow on the managed lanes or optimize revenues. Ideally, IDOT will optimize traffic and your public comments indicate a commitment to optimize traffic flow. However, we are concerned financial considerations will force IDOT to optimize revenues.

3. There is nothing in NEPA law that says IDOT cannot do better than the law specifies.

Mostly the law identifies minimum requirements.

Thank you for the opportunity to provide comments.

Sincerely,

Citizens for Appropriate Transportation

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COPY TO: U.S. Federal Highway Administration – Illinois Division Office
U. S. Federal Transit Administration
Chicago Transit Authority