



Citizens for Appropriate Transportation

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This letter is intended for inclusion in the Public Record

November 30, 2011
Illinois Dept. of Transportation
c/o Mr. Peter Harmet and Mr. Mark Peterson
201 West Center Court
Schaumburg, IL 60196

SUBJECTS: (1) I-290 Draft Purpose and Need September 2011 and (2) Initial Combination Alternatives Rationale November 2011

Dear Mr. Harmet and Mr. Peterson:

This letter contains our comments on the September 2011 Draft Purpose and Need Statement and the November 2011 Initial Combination Alternatives Rationale. Our focus is on Purpose and Need.

We organized our major comments as follows:

Study Area

1. The proper shape for the Study Area is a trapezoid, not a rectangle.
2. The logical termini are not logical from a traffic viewpoint.
3. Good solutions include several important attributes.
4. The CMAP Travel Model is useful, but has some limitations.

Project Need

1. Improve Regional and Local Travel
2. Improve Access to Employment
3. Improve Safety for all Users
4. Improve Modal Connections and Opportunities
5. Improve Facility Deficiencies

Initial Combination Alternatives Rationale

1. IDOT is not considering all prudent and feasible alternatives.
2. Transit needs density.

Comments and Questions

DRAFT PURPOSE AND NEED – SEPTEMBER 2011

Study Area

1. The proper shape for the Study Area is a trapezoid, not a rectangle.

There are at least three reasons to use a trapezoid shape.

1. Downtown Chicago is much smaller in size than the northwest Cook County and DuPage County catchment area for the Eisenhower Expressway. I-290 funnels traffic from a large suburban area into a much smaller downtown. The expressways in the Chicago region are a radial – circumferential system focused on downtown. The radial expressways help define the trapezoid.
2. The same argument applies to the radial Metra and CTA rail lines. Metra's MD-W line to Elgin and Big Timber is a better northern boundary for the Study Area than North Avenue.
3. Land use patterns also suggest a trapezoid.

We raised the question of Study Area size previously. We are aware of your willingness to consider it as the study proceeds, but continue to believe you should expand it. The RTA's Cook – DuPage Corridor Study Area was a trapezoid.

2. The logical termini are not logical from a traffic viewpoint.

IDOT identifies the logical termini for the project based on the need to replace the original 50+ year old pavement and bridges and the need to make operational and safety improvements.¹ We agree with the need to replace old pavement and bridges, but are puzzled by the current (November 2011) Combination Alternatives, all of which add one lane in each direction. Why add lanes when replacing old pavement and bridges is the basis for the logical termini?

The Circle Interchange does not function at an acceptable Level of Service now and the Eisenhower Expressway ends at the Wells Street traffic light. An improvement that makes traffic flow slightly better in one section, but much worse in an adjacent section is not good planning. Most of the trips in the Study Area end in downtown Chicago to the east and well beyond Hillside to the west.

3. Good solutions include several important attributes.

IDOT should identify the attributes of good solutions in the Purpose and Need Statement, including:

1. Improve multi-modal access to jobs and other destinations
2. Improve transportation / land use relationships

¹ Ibid, Page 2.

3. Allow communities to change over time to meet future needs
4. Reduce negative environmental impacts
5. Reduce expressway accidents
6. Improve traffic flow for cars and trucks
7. Use the full range of tools in each combination alternative, including context-sensitive design, engineering, economic incentives and disincentives, and good management

4. The CMAP Travel Model is useful, but has some limitations.

IDOT relies heavily on output from the CMAP Travel Model. This reliance is understandable because the Travel Model provides useful insights and performs calculations faster than humans. However, there are some downsides. Too much reliance on travel demand models can discourage innovative ideas and suggest technical expertise that is misleading. CMAP designed its Travel Model for regional analysis, so it is less suitable for a corridor analysis.

Project Need

1. Improve Regional and Local Travel

IDOT calculates existing ideal capacity on the six-lane section of the expressway as 138,000 vehicles per day, and 187,000 vehicles per day on the eight-lane section. At least one combination alternative should be designed to divert all traffic above these two numbers to the CTA, Metra, PACE, or other roadways. The table below shows the need for an alternative to divert 54,500 vehicles a day (28.3 percent) on the six-lane section and 21,000 vehicles a day (10.1 percent) on the eight-lane section. Diverting trips to the CTA Blue Line or Metra commuter lines would reduce the accident rate on the expressway.

Average Daily Traffic (ADT) – 2009	6-Lane Section	8-Lane Section
Current	192,500	208,000
Ideal Capacity (Level of Service E)	138,000	187,000
Difference between Current and Ideal	54,500	21,000

There are some cautions in this calculation.

1. IDOT used the methodologies in Highway Capacity Manual 2000, rather than Highway Capacity Manual 2010, which has the most recent accepted methodologies. We know IDOT plans to use HCM 2010.

2. IDOT used Level of Service (LOS) E to calculate the ideal capacity volumes, but IDOT's policy for interstates in urban areas is Level of Service C.² LOS E is unstable, because minor changes in traffic flow will result in LOS F. Your letter to us dated March 18, 2011 says LOS D "may be considered in major urban areas after additional study and justification is provided."³ If you have done the additional study, summarize it in the Purpose and Need Statement.
3. The explanation for Exhibit 13-6 in Highway Capacity Manual 2000, says, "The example service volumes in the exhibit are highly dependent on the assumptions given in the footnote."⁴ The footnote assumptions for Exhibit 13-6 for urban areas are a 70 mph base free-flow speed, 12-foot wide lanes, 6-foot wide shoulders, level terrain, 5 percent heavy vehicles, no driver population adjustment, 0.92 peak hour factor, and 1 interchange per mile.⁵ Some of these assumptions are not correct for the Eisenhower Expressway.

2. Improve Access to Employment

About the Traditional Commute, IDOT says, "60 percent of eastbound I-290 in the study area currently operates at LOS F in the morning peak period, and 71 percent of westbound I-290 in the study area operates at LOS F in the afternoon peak."⁶ Rail transit is especially good at serving the Home-to-Work trip, so better rail transit makes sense.

About the Reverse Commute, IDOT says, "80 percent of westbound I-290 in the study area operates at LOS F in the morning peak period and 65 percent of eastbound I-290 in the study area operates at LOS F in the afternoon peak."⁷ Rail transit can be effective at serving some of these trips when coupled with shuttle bus and/or feeder bus service at the suburban end of the trip.

Table 1-3 – Regional 2040 Jobs Accessible by Transit from the Study Area (Page 11) shows almost no difference in jobs accessible by transit for travel times under 45 minutes. This demonstrates the need to improve transit to attract more riders. IDOT is willing to consider HOT lanes and tolling for the expressway. Using the same logic, IDOT and the CTA should consider fare incentives for people to ride the Blue Line, especially the Forest Park branch. Combinations of the two are possible. For example, congestion tolling revenue could offset discounts for peak period commutes via the Blue Line.

² Page 4 of the September 2011 Draft Purpose and Need Statement says, "For urban freeways (such as the Eisenhower Expressway), IDOT policy indicates LOS C is desirable for interstate freeway operations."

³ Letter from Diane M. O'Keefe and Peter Harmet, Illinois Department of Transportation to Rick Kuner, Citizens for Appropriate Transportation, March 18, 2011, Page 4.

⁴ Highway Capacity Manual," Transportation Research Board, 2000, Page 13-13.

⁵ Ibid, Page 13-13.

⁶ Draft Purpose and Need, September 2011, Pages 8 and 9.

⁷ Ibid, Page 9.

3. Improve Safety for All Users

IDOT wants to reduce “the overall frequency and severity of vehicular crashes in the I-290 study area”⁸ – a laudable goal. Diverting drivers to transit is one good way to accomplish this. IDOT’s letter on October 6, 2011 effectively makes this point by saying, “Since rail and bus transit modes provide generally safer travel opportunities than other modes of travel, future safety evaluations will factor in the effect of traveler shifts between auto and transit as part of the overall safety performance of each alternatives.”⁹

Less traffic on the expressway would lead to longer gaps between vehicles on the expressway, which would reduce rear end crashes (now 64 percent overall on a 24-hour basis) and same direction sideswipe crashes (20 percent overall).¹⁰ Getting a small number of vehicles off the expressway during peak periods could lead to far fewer accidents.

On Page 13, it looks like IDOT calculated percentages for 9 Type K and 58 Type A crashes on I-290 for the years 2006 to 2008. Calculating percentages for such small numbers can be misleading, so we suggest IDOT either exclude the percentages or include some words of caution about using them.

4. Improve Modal Connections and Opportunities

IDOT says, “This project will coordinate with the transit agencies and other stakeholders in the planning, design, and potential construction of future transit opportunities.”¹¹ In the sentence just quoted, IDOT uses the word “coordinate.” When used as a verb, Webster’s Dictionary says coordinate means “to bring into a common action, movement, or condition,” and “to act together in a smooth concerted way.” We believe IDOT should enter into Interagency Agreements with the transit agencies to implement an effective and coordinated set of solutions. We agree with your desire to “position the study to consider all modes that can address these needs.”¹² We also agree that “any reconstruction of a major transportation facility requires close coordination of the various agencies that share the corridor – especially those that are integral with one another and share the same basic footprint. In addition, I-290 reconstruction may directly impact existing transit facilities and require IDOT to rebuild or cause the rebuilding of the Blue Line.”¹³

Pages 15 and 16 of the September 2011 Purpose and Need Statement talk about improving pedestrian, bicycle, bus transfer, and vehicular connections to transit. The

⁸ Ibid, Page 11.

⁹ Letter from Diane O’Keefe and Peter Harmet, Illinois Department of Transportation to Rick Kuner, Citizens for Appropriate transportation, October 6, 2011, Page 1.

¹⁰ Draft Purpose and Need, September 2011, Page 12.

¹¹ Ibid, Page 16 and 17.

¹² Letter from Diane O’Keefe and Peter Harmet, Illinois Department of Transportation to Rick Kuner, Citizens for Appropriate Transportation, March 18, 2011, Page 1.

¹³ Ibid, Page 2.

options now under consideration do not include proposals to accomplish this. IDOT should say it will add such proposals later in the Alternatives Development process.

5. Improve Facility Deficiencies

IDOT has made the case for the existence of facility deficiencies for the expressway. The CTA can make an equally important case for the Blue Line. Good planning suggests doing this and the federal code says, “not restrict consideration of alternatives or other reasonably foreseeable transportation improvements” (23 CFR § 771.111).

INITIAL COMBINATION ALTERNATIVES RATIONALE – NOVEMBER 2011

The key question for us is: Will the West Cook communities get a good multi-modal transportation solution for many or a roadway solution that will only make things slightly better for a few?

1. IDOT is not considering all prudent and feasible alternatives.

When every alternative except the No Build 2040 adds two lanes, IDOT is not considering all prudent and feasible alternatives. Eight lanes do not provide enough capacity to meet either existing or projected traffic demand. Large numbers of people need to travel to downtown Chicago, but it is not important they travel by car to get there. Indeed, it is unlikely that downtown Chicago has or will have the parking capacity to accommodate a significant increase in the number of vehicles. This suggests IDOT has under designed some of the combination alternatives.

2. Transit needs density.

Development density helps determine the level of transit service to provide. Heavy rail transit works best in high-density areas with a concentration of people and jobs near stations. Commuter rail works well for long distance home-to-work trips. Bus service headways and stop spacing can be varied based on density. IDOT is a transportation agency, but good solutions require coordination of transportation and land use planning.

COMMENTS AND QUESTIONS

1. Why has IDOT been developing alternatives over the last several months when the two Joint Lead Agencies (IDOT and FHWA) must agree on Purpose and Need before proceeding further? A guidance document issued by the U.S. Federal Highway Administration (FHWA) has a general statement that says, “If the lead agencies do not agree on a particular matter under their joint authority, then they must work out their differences because that particular matter cannot progress until the lead agencies reach agreement.”¹⁴ More specifically, the same document says the lead agencies must agree on the project’s Purpose and Need and work out their differences before proceeding.¹⁵
2. What is “a trend and market-based constraint scenario?” (Page 2)

¹⁴ “The Environmental Review Process – Section 60002 – SAFETEA-LU Environmental Review Process – Final Guidance FHWA, Page 1.

¹⁵ Ibid, Page 12, Answer to Question 32.

3. CAT has sent six prior letters to IDOT on this project. Excluding the time in the U.S. Mail system, the average response time is 80 days, well above the one week IDOT mentions in the Stakeholder Involvement Plan. The range is 47 to 128 days. We raise a number of points, and the issues are complicated, so a response time longer than one week is understandable. A response time of more than two months seems too long.
4. As part of the EIS chapter on the Affected Environment, IDOT should include language on the condition of the Blue Line and the need to upgrade it. Respectfully, we disagree with IDOT's statement that this "is beyond the Purpose and Need portion of the NEPA process."¹⁶ What happens to the Blue Line has major impacts on the expressway, so considering them together is good planning.

We appreciate the care and thought IDOT demonstrated in both of the October 2011 letters sent to us. IDOT made two good decisions in keeping the Forest Park Branch of the Blue Line rather than convert it to Bus Rapid Transit, and excluding the Prairie Path for extended transit service.

If you need further information or want to meet to discuss these issues further, please feel free to contact us by telephone or e-mail. Thank you.

Sincerely,

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IDOT Study\CAT2011\CAT Ltr to IDOT Nov 2011

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

Sent by e-mail attachment

¹⁶ IDOT's October 6, 2011 letter to Citizens for Appropriate Transportation says, "As mentioned in previous responses, the alternatives evaluation process may yield options that necessitate improvements to the Blue Line, potentially with IDOT funding, but this is beyond the Purpose and Need portion of the NEPA process." – Page 2.