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MEMORANDUM

To: CMAP Transportation Committee

From: CMAP staff

Date: October 14, 2016

Re: Alternative Futures for Committee Consideration

As part of ON TO 2050 development, CMAP will undertake an "alternative futures" planning process that will assess macro-level trends in the region and identify strategies to address the potential future impacts of these trends. This memo summarizes the process of developing potential trends, recommends five futures to focus on over the remainder of the alternative futures process, defines background trends, and outlines next steps.

Development of alternative futures

In summer of 2016, the alternative futures project team convened a series of workshops with selected CMAP staff to discuss trends and topics related to demographics, environment and natural resources, governance, economic activity, land use and housing, and transportation. At these workshops, staff identified new or established trends that the region was experiencing (or could reasonably expect to experience) that will likely become more pronounced in the future. The in-house workshops resulted in 20 trends describing potential futures for the region (see attachment 1). Staff also presented the process and goals to the committees, and incorporated this feedback when developing the trends.

On August 30, 2016, 42 selected experts from public, private, and philanthropic organizations from a variety of fields attended a CMAP-hosted working session. The purpose of the working session was to gain a better understanding of the impacts and likelihood of the 20 trends and their connections to broader issues; identify missing trends; and begin the process of prioritizing and combining trends. Feedback from this workshop assisted development of the futures outlined in this memo.

Recommended alternative futures

CMAP staff has identified five futures on which to focus research, analysis, and public engagement for the alternative futures process. Based on internal discussions and feedback from working sessions, CMAP staff prioritized and aggregated trends to create the five futures

(see attachment 2). Each future represents one or more CMAP policy areas and is supported by corresponding strategy papers, snapshots, and other CMAP work. Given the challenge of gauging the characteristics and impacts of multiple trends that make up each future, CMAP will be analyzing each future independently. CMAP will, however, be prioritizing potential strategies that work across multiple futures.

Elements of the original 20 trends will be discussed in each of the futures, including trends that were not explicitly incorporated into the future. For example, the trend "preference for suburban lifestyle continues" may be reflected in a future where driverless cars encourage greenfield development. Certain elements of other trends will be treated as background trends, which are discussed later in the memo.

The titles of the following futures are expected to change based on research and feedback.

In the year 2050, what would happen to our region if….

… climate change impacts intensified?

Effects of climate change, including flooding, drought, and extreme temperatures, strain the region's infrastructure and natural systems and disproportionately impact our most vulnerable residents. While the region attracts residents and industries from other areas of the country more severely impacted by climate change, shifting habitats and agricultural zones, and water supply issues lead to economic and environmental challenges and opportunities. Technological and process innovations facilitate more efficient, low- and zero-emission energy generation and distribution systems that are resilient to climate impacts.

… technology enabled greater mobility?

Technological innovations in the transportation sector improve mobility of people and goods. Travelers, transportation agencies, and businesses have access to more accurate, real-time information to make smarter decisions. Households increasingly use on-demand retail delivery as well as on-demand products and services (car sharing, ride sourcing, and driverless cars), leading to changing land use patterns in the region. High-tech freight shipping that incorporates multiple modes of transportation (e.g., rail, shipping, and/or trucking) grows in prominence, resulting in changing freight traffic and industrial space needs. New technologies may not be accessible or affordable to everyone, and the extent of their impacts are uncertain. For example, driverless vehicles may assist with last mile connections to transit; alternatively, they may encourage lower density development as car travel becomes more convenient.

… more people chose urban living?

Marked consumer preference for walkable, mixed-use communities leads to increased investment in urban neighborhoods, significantly densifying suburban downtowns and commercial cores. Office jobs concentrate in downtown Chicago and denser suburban cores and consequently, disinvestment from auto-oriented suburban office parks, strip malls, and corporate headquarters occurs. Residents increasingly bike, walk, and use transit, leading to decreased demand for driving and parking. Residents also increasingly work from home, leading to increased demand for services and amenities in suburban cores. As demand for

urban living increases, affordable housing, particularly near amenities and transit, becomes scarcer.

… public resources are further depleted?

Ongoing fiscal problems constrain public budgets for service provision and infrastructure construction and maintenance. Federal and state sources of funding for infrastructure and services are reduced; in response, municipalities and transportation implementers depend on more local revenue sources, including taxes, fees, licenses, and fines, as well as grants from nonprofits and foundations. Limited resources and increased federal and philanthropic emphasis on cross-cutting programs demand smarter, more efficient, and more transparent spending, more intergovernmental cooperation, and greater use of performance-based programming. Public private partnerships and other creative financing structures are increasingly used to leverage limited revenues. Communities also become more economically stratified as local entities must become more financially self-reliant.

… economic restructuring continued?

The regional economy continues to transition from production to service-based, while retaining global prominence in logistics and freight due in part to innovations such as on-demand and internet-based technology. Demand for computer science, engineering, and other specialized skills increases as unemployment rates increase among the lower skilled workforce. Historically-marginalized communities continue to suffer from the effects of cyclical poverty and segregation, and disparate educational, employment and health outcomes. Climbing the economic ladder becomes increasingly difficult for lower income and lower skilled residents. College educated residents earning higher incomes make up a larger portion of the urban core, leading to higher prices in urban areas and contributing to suburbanization of poverty.

Background trends

Internal and external experts confirmed that demographic shifts, such as the region's aging and diversifying population, and the proliferation of data and information technology are important trends to highlight across various potential futures. However, these trends are hard to evaluate independently from the five trends detailed above. Demographic trends are embedded in the regional population forecasts on which much of the technical analysis for these futures will be based. Experts also anticipate that increased transparency about the performance of programs, policies, and agencies, coupled with the development of more powerful tools and software, will lead to improvements in data accuracy and information sharing abilities. Thoughtful and strategic use of data and information technology will be an important strategy for understanding and responding to all futures.

As a result, demographic shifts and the proliferation of more accurate data will be treated as background trends. The analysis supporting each future will explicitly incorporate information on these background trends. For example, the urban living future will consider specific impacts of the trend on an aging population and their needs.

Next steps

CMAP staff will incorporate working committee feedback into the proposed five alternative futures. Over the fall and winter, staff will develop memos on each future, which will be circulated for internal and committee feedback. These memos will provide further detail on the potential impacts and opportunities of each trend, and the key strategies that can respond to them. Staff will evaluate how each trend affects our ability to achieve regional goals related to inclusive growth, environmental quality, economic development, transportation, and land use.

CMAP staff will evaluate potential trends primarily through qualitative research, including interviews with experts and literature review. When possible and most useful, staff will conduct quantitative and spatial analysis (e.g., modeling of transportation outcomes based on assumptions of varying socioeconomic trends and commuting habits). From the trend-specific strategies identified in the memos, staff will identify universal strategies that will help the region prepare for the challenges and capitalize on the opportunities presented by multiple futures. The alternative futures project will culminate in an intensive public engagement period over the summer of 2017. These public engagement activities will be developed in tandem with the memos and will be ready for initial launch in the spring of 2017.

CMAP staff requests discussion on the futures presented above. In addition, CMAP staff would like to pose the following questions to the committee:

- For these futures, what are the most compelling impacts?
    - What are you, as an individual, most wary about or excited for?
    - What futures will have the greatest impact on your area of work, and how?
- When discussing these futures, do you have suggestions on ways to engage with the general public?

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Attachment 1: Initial 20 trends

Environment
1. Intensified climate change impacts
2. Constrained water supply
3. Efficient and resilient energy system

Land Use
4. Transitioning agricultural and natural lands
5. Continued preference for suburban lifestyle
6. Investment in mixed-use centers
7. Smarter, more responsive infrastructure and land use planning

Governance
8. Diminished public resources
9. Politically gridlocked region
10. Tech-enhanced active citizenship
11. More regional planning

Demographics
12. Aging region
13. Diversified region

Regional Economy
14. Economically stratified region
15. Economic restructuring
16. Stagnant regional growth

Transportation
17. Increased freight intermodalism
18. Increase transit use, bicycling, and walking
19. Smarter auto-oriented mobility
20. Driverless vehicles

Attachment 2: Alternative Futures for Committee Consideration

Futures for consideration	Futures are made up of multiple trends	Futures address CMAP topic areas	Futures are supported by ON TO 2050 products
Climate change impacts intensified	• Intensified climate change impacts • Constrained water supply • Efficient and resilient energy system	Environment	Climate resilience, energy, and water strategy papers
Technology enabled greater mobility	• Increased freight intermodalism • Driverless vehicles • Smarter auto-oriented mobility • Increase in use of transit, bicycling, and walking	Transportation	Transit modernization, highway operations, transportation technology, and asset management strategy papers; freight snapshot
More people chose urban living	• Investment in mixed-use centers • Increase in use of transit, bicycling, and walking	Land use	Reinvestment and infill, housing choice, and disinvestment strategy papers; infill and TOD and non-motorized transportation snapshots
Public resources are further depleted	• Diminished public resources • More regional planning • Stagnant regional growth	Governance	Reinvestment and infill, municipal capacity, and transportation funding concepts strategy papers; public-private-partnerships memo; and performance-based programming
Economic restructuring continued	• Economic restructuring • Economically stratified region	Regional economy	Inclusive growth, reinvestment and infill, housing choice, and municipal capacity strategy papers; regional economic clusters snapshot