### **Congestion Management Process** Draft CMP Congestion Analysis Handbook

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10/13/2022 – TPP Technical Working Group – Dave Burns and Tim Burkhardt





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#### Title

Purpose and Goals

Process and Contents

**CMP** Strategies

Sample Pages

Next Steps and Discussion

Slide
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6
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11
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## Handbook Purpose and Design

- Help stakeholder agencies and the Metropolitan Council collaboratively identify congestion problems and potential solutions within the context of the regional Congestion Management Process (CMP)
- Designed to simplify the process of assessing and managing congestion while promoting regional collaboration and consistency with the CMP
- Links regional congestion management policy and guidance to community context and transportation needs

## Handbook Goals

#### **Provide Guidance**

Provide guidance to stakeholder agencies to help implement the CMP, specifically with respect to assessing congestion problems and needs.

#### **Ensure Regional Consistency**

Provide a standardized process for assessing corridor congestion in the region. 

#### **Anticipate Multimodal Strategies**

Use a methodology that prepares users to develop and prioritize multimodal strategies consistent with the CMP and the TPP.

#### **Emphasize People**

Understand transportation needs of people who live in the corridor. Include traditionally underrepresented populations and those with limited access to cars.

#### Link to Funding

Prepare users to apply for Regional Solicitation and other competitive sources of funds by aligning with the priorities of those funding sources and programs.

## Approach

#### **Keep it Simple**

- Selected data only, GIS/map-based
- Transportation Travel Index (TTI)

#### **Integrate Lived Experience**

• Interpret, don't just report

#### **Screen for Possible Strategies**

Incorporation of Strategy Review Matrix

#### Validate with Sample Corridors

Range of geography and uses

#### **Living Document**

• Update as policy and resources change

## **Development Process**

#### **Consultant Team**

• Alliant Engineering + Community Design Group

#### **Project Management Team**

- Met Council, MnDOT, FHWA
- 10 meetings

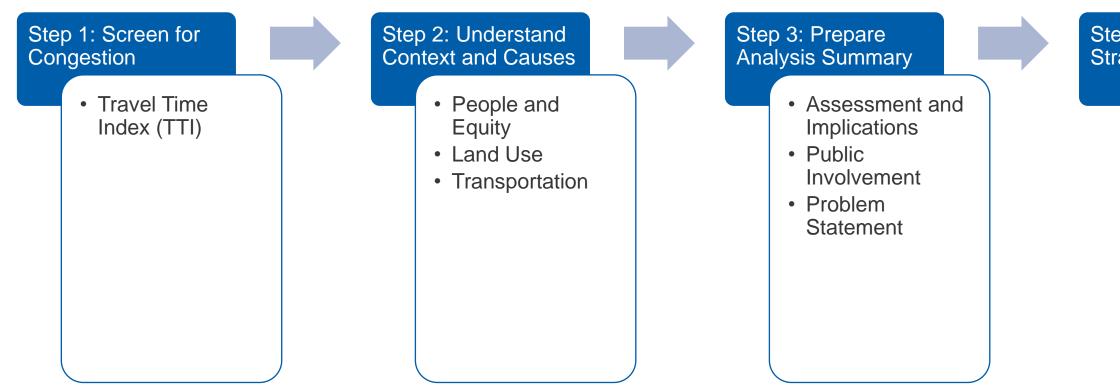
#### **CMP Advisory Committee**

- City and County staff representatives
- 5 meetings

#### Schedule

• 18 months

## **CMP Handbook: 4 Steps**

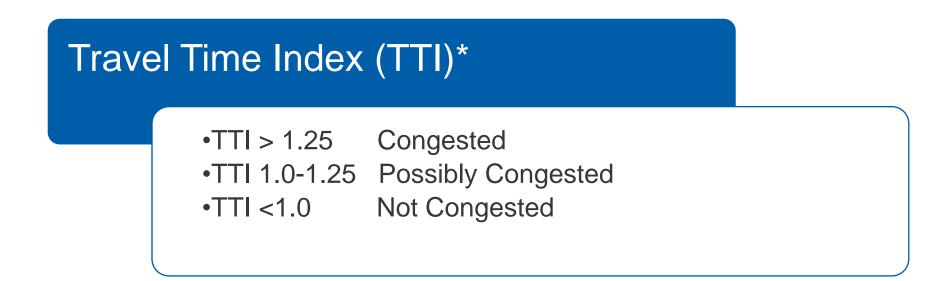


### Step 4: Review Strategies

Travel Demand Management (TDM)
Traffic Management Technologies
Spot Mobility
E-ZPASS
Strategic Capacity Enhancements

## **Step 1: Screen for Congestion**

#### Guides users to the Met Council Congestion Dashboard to look up **TTI values**

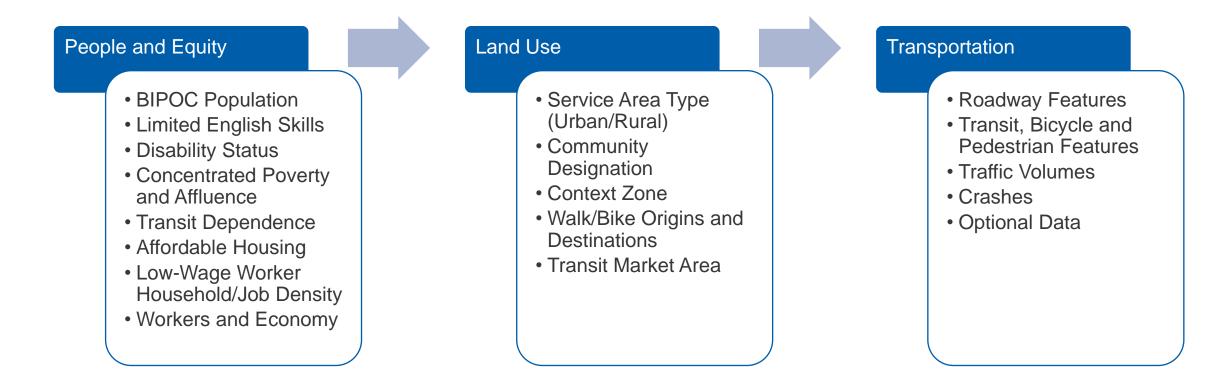


\*TTI: The ratio of actual travel time to free-flow travel time on a given roadway segment.



## **Step 2: Understand Context and Causes**

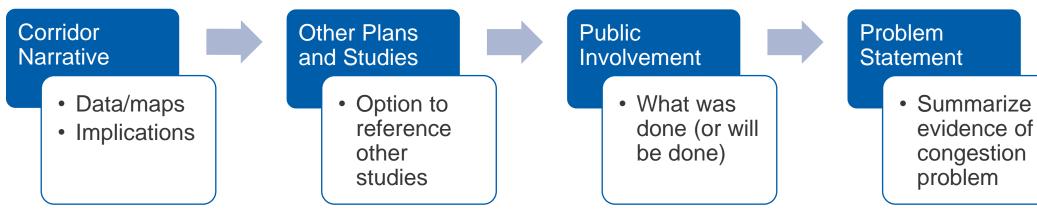
#### Collect, analyze, and document data to support multimodal strategies





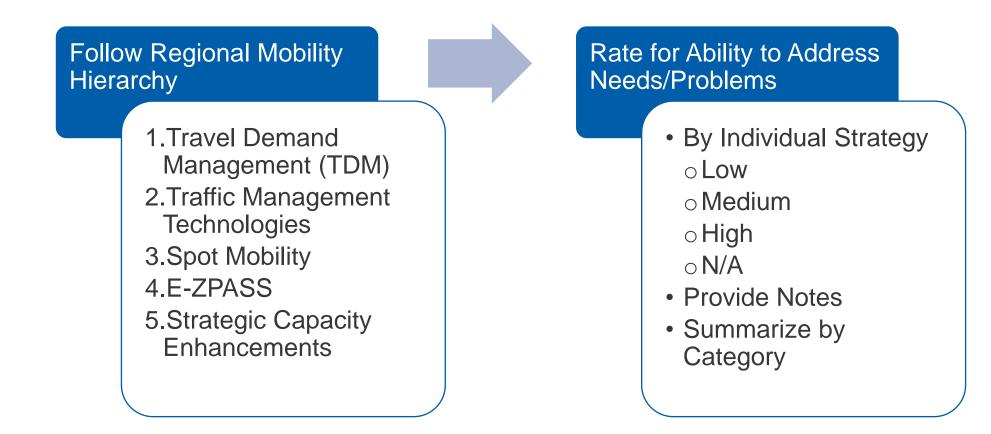
## **Step 3: Prepare Analysis Summary**

Summarize data and implications and prepare problem statement



## **Step 4: Consider Strategies**

#### **Review and rate potential strategies to address congestion (Excel tool)**





## Summary Checklist – Data and Exhibits

#### TWIN CITIES CONGESTION ANALYSIS HANDBOOK

#### Location and Congestion Screen Exhibits & Data Checklist METROPOLITAN

EXHIBIT	DATA ELEMENTS NEEDED
Exhibit 1: Project Location	Roadway ownership
	Functional classification
	CMP network group
	Corridor length
Exhibit 2: Traffic Operations and Mobility	Roadway capacity
	Existing AM + PM travel time indices (TTI)
	<ul> <li>Duration of congestion (hours per day TTI&gt;1.25)</li> </ul>
	Average AM + PM vehicle delay

#### **People Exhibits & Data Elements Checklist**

EXHIBIT	DATA ELEMENTS NEEDED
Exhibit 3: Percent BIPOC Population	Percent non-white/BIPOC population
Exhibit 4: Percent of Residents with Limited English Skills	Percent of residents with limited English proficiency
Exhibit 5: Concentrated Poverty and Affluence	Concentrated poverty
	Concentrated affluence (optional)
	Regional environmental justice Areas
Exhibit 6: Transit Dependence	American Community Survey 5-Year summary file
Exhibit 7: Affordable Housing	Number of subsidized housing units
Exhibit 8: Low-Wage Workers	Low-wage worker household density
	Low-wage worker job density
Exhibit 9: Workers and the Regional Economy	Population and employment totals
	Postsecondary education centers

#### Land Use Exhibits & Data Elements Checklist

EXHIBIT	DATA ELEMENTS NEEDED
Exhibit 10: Service Area Type	Service area type
Exhibit 11: Community Designation	Community designation
Exhibit 12: Context Zone	<ul> <li>Aerial photography</li> <li>MnDOT land use context: types, identification, and use</li> </ul>
Exhibit 13: Walk/Bike Origins and Destinations	Regional bicycle transportation network destinations
Exhibit 14: Transit Market Area	Transit market areas

TWIN CITIES CONGESTION ANALYSIS HANDBOOK

#### **Transportation Exhibits & Data Elements Checklist**

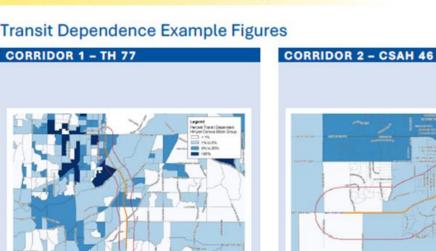
EXHIBIT	DATA ELEMENTS NEEDED
Exhibit 15: Roadway Features	<ul> <li>Interchange locations and types</li> <li>Intersection access locations and</li> <li>Rail crossings</li> <li>Typical section</li> <li>Posted speed</li> <li>Access spacing</li> <li>Frontage roads (if applicable)</li> </ul>
Exhibit 16: Transit, Bicycle and Features	<ul> <li>Existing and planned pedestrian f</li> <li>Existing and planned bicycle featu</li> <li>Transit characteristics (type, rout</li> <li>Transit frequency/volumes</li> </ul>
Exhibit 17: Traffic Volumes	AADT     Historical trends
Exhibit 18: Crashes	Number/location of crashes     Crash types     Crash severity
Optional	Pedestrian volumes      Bicycle volumes      Transit ridership      Person throughput      Daily traffic volume profile      Vehicle turning movements/ramp      Truck percentages      Forecast volumes      Forecast capacity      Trip types, speeds, origins & lengt



## Instruction Sheets and Figures

ransit Depender	ICE METROPOLITAN	
SUMMARY		
Prepare a map showing	thouseholds who lack regular access to a motor vehicle - also known as "transit- " for meeting their travel needs (please note these households may also rely on air travel).	
DATA ELEMENTS		
American Community Survey 5-Year Summary File	<ul> <li>Agency Providing: Metropolitan Council</li> <li>Location: Latest ACS 5 Year Summary File (currently the 2016 to 2020 file) available from the Minnesota Geospatial Commons (https://gisdata.mn.gov/dataset/us-mn-state-metc-society-census-acs)</li> <li>Data Interface: Shapefile</li> </ul>	
PROCESSING AND A	NALYSIS	
Transit-Dependent Households Per Census Block Group	<ul> <li>Step 1: <u>Number</u> of Transit-Dependent Households Per Block Group</li> <li>Use the variables included in the shapefile to develop this information layer         <ul> <li>"HH_NOVEH" (households with no vehicles)</li> </ul> </li> </ul>	
	Step 2: Percent of Transit-Dependent Households Per Block Group         • Use the variables included in the shapefile to develop this information layer         • "HH_NOVEH" (households with no vehicles) and         • "HHTOTAL (total number of households)         • The equation is "HH_NOVEH" / "HHTOTAL"	

accompanying text, in Appendix A.



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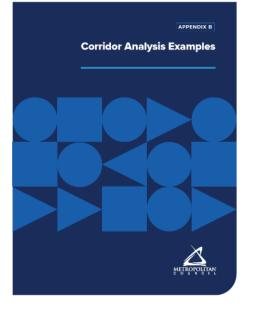
TWIN CITIES CONGESTION ANALYSIS HANDBOOK

#### CORRIDOR 3 - WEST BROADWAY





## Sample Write-ups for the 3 Corridors



#### WORKING DRAFT

Metropolitan Council Congestion Analysis Handbook

B-2

#### **Corridor Analysis Summary**

#### HWY 77: INTERSTATE 494 TO 138TH STREET

#### Introduction

This document contains the results of the congestion and characteristics analysis produced following the Congestion Analysis Handbook. The results are summarized in text below in three sections: People and Equity, Land Use, and Transportation. The text is supported by maps and other graphics illustrating each primary data item collected.

#### LOCATION

Minnesota Trunk Highway 77 (Hwy 77) between I-494 and 138th Street is owned at maintained by the Minnesota Department of Transportation (MnDOT). The corridor is 8.2 miles long and runs through Hennepin County (Bloomington) and Dakota County (Burnsville, Apple Valley, Eagan). It is classified as a Primary Arterial and is in CMP Network Group 2. (Figure 1)

#### CONGESTION

Based on the volume-to-capacity (V/C) ratio, the corridor operates at LOS B, C, or D, depending on the segment. The more congested areas are between the TH 13 and Killebrew Drive, and just south of 35E. The TTI congestion screening result places the Hwy 77 corridor in the "Possibly Congested" category (TTI between 1.0 and 1.25). (Figure 2)

#### Assessment

#### PEOPLE AND EQUITY

#### Demographics: Race and Ethnicity

According to Metropolitan Council data, the corridor is located within a variety of Census Tracts that have low, medium, high, and very high (greater than 50%) concentrations of Black, Indigenous, or People of Color (BIPOC) populations. (Figure 3)

Implications: Successful implementation of project-related communications (including social marketing campaigns and initiatives) and community outreach / engagement efforts should include the hiring or participation of community organizers or representatives from specific BIPOC communities. Consideration of specific culturally-appropriate approaches will be important for successful development of a project along this corridor.

#### Demographics: Language Spoken

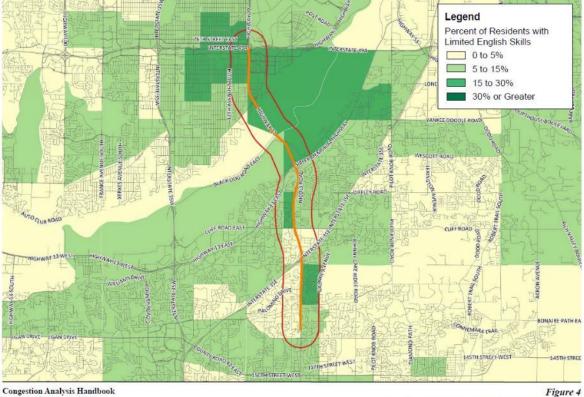
According to Metropolitan Council data, the corridor is located in an area with low, medium, and high presence of residents with limited English language skills. (Figure 4)

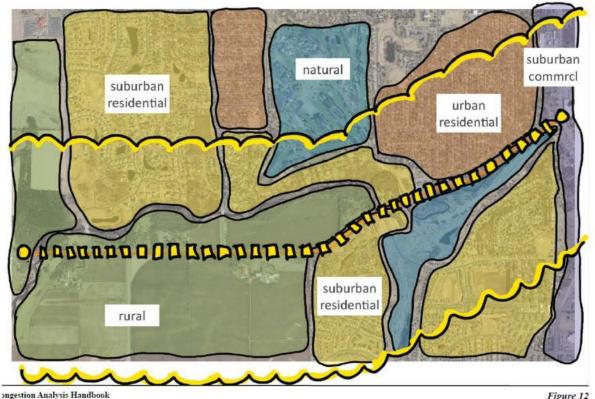
Implications: Successful implementation of project-related communications (including social marketing campaigns and initiatives) and community outreach / engagement efforts should include development of written and spoken materials in languages other than English. participation of interpreters, and other culture- and language-specific approaches.



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### Sample Maps and Graphics (1)





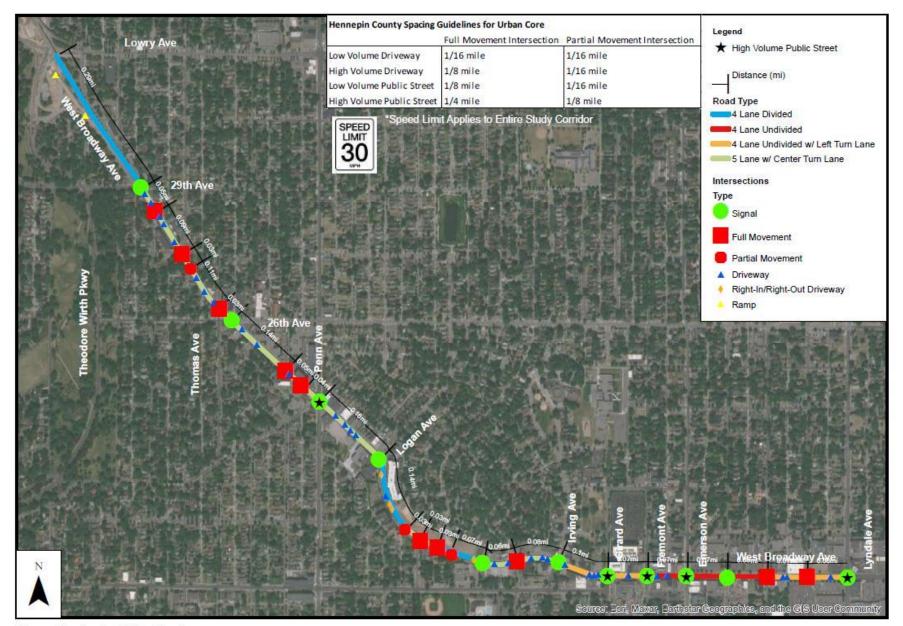
Congestion Analysis Handbook Example Corridor: TH 77

Percent of Residents with Limited English Skills

cample Corridor: CSAH 46

Figure 12 Context Zone

## Sample Maps and Graphics (2)



Congestion Analysis Handbook Example Corridor: West Broadway Avenue (County Road 81) Figure 15 Roadway Features

## Sample of Screening Tool (1)

OCTOBE	R 2022	Twin Cities	Congestion Analysis Har
Strat	egy Screening Tool		
ID # (1)	Strategy and Primary TPP Priority		of Strategy to lentified Problem(s)
Priority	1. Travel Demand Management	Roung	Notes
1.01	Congestion Pricing (MnPASS)		
1.02	Alternative Work Hours		
1.03	Telecommuting		
1.04	Guaranteed Ride Home Programs		
1.05	Alternative Mode Marketing and Education		
1.06	Safe Routes to School		
1.07	Preferential or Free Parking		
1.08	Event Transportation Management Plans		
1.09	Negotiated Demand Management Agreements		
1.10	Trip Reduction Ordinance		
1.11	Infill Developments		
	Transit Oriented Developments		
1.13	Design Guidelines for Pedestrian-Oriented Development		
	Mixed Use Development		
	Long-Range Comprehensive Land Use Planning		
	Transit Capacity Expansion		
	Increasing Bus Route Coverage and/or Frequencies		
	Implementing Regional Transitways		
	Providing Real-Time Information on Transit Routes		
	Reducing Transit Fares		
	Providing Transit Advantages		
	Provide Transit Signal Priority		
	Encourage Off-Board Fare Collection		
	Monitor Shifting Freight Numbers		
	New Sidewalk Connections		
	Enhanced Pedestrian Crossings		
	Designated Bicycle Facilities on Local Streets		
	Improved Bicycle Facilities at Transit Stations and		
	Other Destinations		
2.14	Improved Safety of Existing Bicycle and Pedestrian		
	Facilities		
2.15	Exclusive Non-Motorized ROW		
	Complete Streets		
	Preservation Projects with Multimodal Improvements		
	Park-and-Ride Lots		
	Ridesharing (Carpools & Vanpools)		
	Employer-Landlord Parking Agreements		
	Parking Management		
	Geometric Improvements for Transit		
	Shared Mobility		
	Parking Restrictions		

OCTOBE	2022	Twin Citie	s Congestion Analysis Handbo
			of Strategy to
ID # (1)	Strategy and Primary TPP Priority		dentified Problem(s)
		Rating	Notes
	2. Traffic Management Technologies		
	Dynamic Messaging		
	Advanced Traveler Information Systems (ATIS)		
	Integrated Corridor Management (ICM)		
	Automated and Connected Vehicles		
	Advanced Traffic Management System (ATMS)		
	Traffic Signal Coordination		
	Changeable Lane Assignment/Dynamic Lane Control		
	Vehicle Use Limitations and Restrictions		
	Improved Signage		
	Intermodal Enhancements		
	Goods Movement Management		
	Towing Improvements		
	Ramp Metering		
	Signal Timing		
	Network Management		
	Snow Removal		
	Pavement and Bridge Deicing		
	Incident Detection and Management Systems		
	Dynamic Access Changes		
	Access Management Policies		
	3. Spot Mobility Bottleneck Relief		
	Freeway Auxiliary Lanes that are Shorter than One Mile		
	Ramp Modifications		
	Interchange Removal		
	Superstreet Corridors		
	Alternative Intersection Design		
	Coordinated Preservation Projects		
	CMP Safety Mitigation		
_	Turn Lanes		
	Intersection Improvements		
	4. MnPASS (E-ZPass)		
e	High Occupancy Vehicle Lane Improvements		
	Managed Lanes		
	5. Strategic Capacity Enhancements		
	One-Way Conversions		
	Corridor Preservation		
	Reallocation of Current Right-of-Way Space		
	Interchange Configuration Modification		
	Additional General-Purpose Lanes		
	New Roadway Facilities		
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(1) "Strategy ID" numbers reference the Metropolitan Council Congestion Management Process Policy and Procedures Handbook (August 2020), including Appendix D (Congestion Management Strategies Matrix)



C-3

## Sample of Screening Tool (2)

#### CMP Strategy Screening: TH 77 Example Corridor

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2.15     Injected production at Track Roots     April Section at Track Roots     April Section at Track Roots       2.16     Reducing Track Roots     April Section at Track Roots     April Section at Track Roots       2.16     Reducing Track Roots     Lee     More track fiderably and Roots Roots Track       2.17     Reducing Track Roots     Lee     More track fiderably and Roots Roots       2.18     Producing Construction at Track Roots     April Section Roots       2.19     Producing Construction Construction     April Section Roots       2.10     How States Constructions     April Figure Roots     Producing Construction Construction       2.11     Extract Roots     Lee     Producing Constructions     Figure Roots       2.12     Design and Roots April Roots     Lee     Producing Constructions     Figure Roots       2.13     Best Section Construction     Lee     Producing Construction Construction Construction     Figure Roots       2.13     Endergo and Roots April Roots April Roots April Roots April Roots April Roots April Roots     April Roots April Roots     Figure Roots       2.14     Endergo and Roots April Roots April Roots April Roots     April Roots April Roots     April Roots       2.15     Endergo and Roots April Roots April Roots April Roots April Roots April Roots     April Roots April Roots       2.15     Endergo and Roots April Roots April Roots </td <td></td> <td></td> <td></td> <td></td>					
2.26 Providing isad-Times Hornestics on Transit Rootes     opt     Sectors and y ends all stacks for all inclusions on Tar To					
2.86 Heducing Transf. Series     Like     Mone transf. discriptional discription 11177       2.86 Provide Transf. Manages     Like     Passibly could help with samity performance overall but not with highway congection.       2.86 Provide Transf. Manages     Like     Passibly could help with samity performance overall but not with highway congection.       2.86 Provide Transf. Manages     Like     Passibly could help with samity performance overall but not with highway congection.       2.86 Monitor Shifting Insulpt Manages     Like     Pageomed counsing over The 77 could help endoce trips on The 77       2.31 Ber Shored Predetrips Counsing     Like     Pageomed counsing over The 77 could help endoce trips on The 77       2.31 Ber Shored Predetrips Counsing     Like     Pageomed counsing over The 77 could help endoce trips on The 77       2.32 Height well Royck Facilities on Load Theorem     Like     Could be part of Diager types moletions but here to information on this.       2.33 Exclusive Non-Montored Roy     All     World apglicable to Thereasy confider       2.34 Provide Non-Montored Roy     All     World apglicable to Thereasy confider       2.35 Exclusive Non-Montored Roy     All     World apglicable to Thereasy confider       2.36 Preferencies     All     Not applicable to Thereasy confider       2.37 Preferencies     All     All     All       2.38 Preferencies     All     All     All       2.39 Preferencies     <					
2.66 Providing Transft Advances     Lee     Res only chould any share which on TH 77       2.67 Provide Transf Space Priority     Lee     Possible could be any share which the priority manage control but on which highway congection       2.68 Provide Transf Space Priority     Optimate New This result is the output of the priority manage control but on which highway congection       2.69 Monitor Shifting Reight Results     Optimate New This Transft Space Transft S					
2.29 Provide Transft Signal Priority     Leew     Possible could help with transft performance overall but not with highway congection       2.30 Monitor Shifting of Fried Signal Collection     a/b     Every the work Hould with the collection       2.31 Meson Signal Priority     a/b     Every the work Hould with the collection       2.32 Meson Signal Priority     b/b     Every the work Hould Produce Trips on TH 77       2.33 Meson Signal Priority     b/b     Every the coll signal Priority Coll Signal Priority Signal P					
2.18     Excursion (Pre-Stand Face Callection)     a/a     Deriv ser how this would help       2.20     Monther Strings Regist Humbers     a/a     bigst Humbers     a/a       2.31     Enhance Strings Regist Humbers     a/a     bigst Humbers     a/a       2.32     Bending Facetring Councilys     a/a     bigst Council Humbers     a/a       2.33     Enhance     a/a     Could be part of higger system solutions but have as information on this       2.34     Improved Recycle Facilities at Transit transits and Other Decisivations     a/a     a/a     b/a       2.34     Improved Recycle Facilities at Transit transits     a/a     would sport not-motorised tring (medical transits)     a/a       2.35     Enhance     a/a     Wood Algorithm (medical transits)     a/a     Wood Algorithm (medical transits)       2.36     Encluder Non-Motorithm (Mittim dal Improvements)     a/a     Mot applicable to Thereway confider       3.37     Preservation Projects with Multimodal Improvements     a/a     Mot applicable to Thereway confider       3.37     Preservation Projects with Multimodal Improvements     a/a     Mot applicable to Thereway confider       3.38     Anance Algory at Station Recitment     a/a     Mot applicable to Thereway confider       3.39     Anance Algory at Station Recitment     a/a     Anance Algory at the analish on the analish of th					
3.20 Works Shifting Project Numbers         0/k         Freight not a questification on TN 77           3.31 Bee Sheen3 Convections         Lee         Improved consings own TN 77 could belp indicate trips on TN 77           3.31 Beighness Convections         Lee         Improved consings own TN 77 could belp indicate trips on TN 77           3.32 Beighness Convections         Lee         Could be part of Flagger system solutions but have no information on this           3.32 Beighness Convections         Lee         Could be part of Flagger system solutions but have no information on this           3.33 Beighness Convections         Lee         Could be part of Flagger system solutions but have no information on this           3.33 Beighness Convections         Alw         Mode apport non-outbried trips condition           3.34 Beighness Convections         Alw         Mode apport non-outbried trips condition           3.35 Beighness Convections         Alw         Mode apport non-outbried trips condition           3.34 Beighness Convections         Alw         Mode apport non-outbried trips condition           3.35 Beighness Convections         Alw         Mode apport non-outbried trips condition           3.36 Beighness Convections         Alw         Alw         Alw           3.37 Beighness Convections         Alw         Alw         Alw           3.38 Beighness Convections         Alw					
2.32 Bes Sidewalk Constraints     Lee     Inproved consings own TH 77 coald/be product trips on TH 77       2.32 Behaved Reacting Consing     Lee     Endowed consings own TH 77 coald/behaved to the TAT       2.33 Behaved Riccie Facilities on Load Enters     Lee     Coald/be part of higger system solutions but have no information on this       2.34 Behaved Linkty of Subting Riccies and Medication Scatters     Lee     Coald/be part of higger system solutions but have no information on this       2.35 Behaved Linkty of Subting Riccies and Medication Scatters     Lee     Waid applicable to Theseasy confider       2.36 Behaved Linkty of Subting Riccies and Medication Scatters     n/k     Not applicable to Theseasy confider       2.36 Behaved Riccies Theseas     n/k     Not applicable to Theseasy confider       2.37 Behaved Kels to the State of Subting Riccies Theseasy confider     Not applicable to Theseasy confider       2.38 Behaved Kels to the State of Subting Riccies Theseasy confider     Not applicable to Theseasy confider       2.39 Behaved Kels to the State of Subting Riccies These Not State State Theseasy confider     Not applicable to Theseasy confider       2.39 Behaved Kels to the State of Subting Riccies Theseasy confider     Not applicable to Theseasy confider       2.40 Behaved Kels to the State of Subting Riccies These Not State State The State St					
21.21     Exhancel Federities Cookings     Lee     Unproved milling over 114 72 could be part of Digger system solutions but have no limburation on this       21.32     Desprechtiger of Kalding Roycle and Pederities relations     Lee     Could be part of Digger system solutions but have no limburation on this       21.34     Improved Silvey of Kalding Roycle and Pederities relations     Lee     Could be part of Digger system solutions but have no limburation on this       21.34     Improved Silvey of Kalding Roycle and Pederities relations     New     New Add Explored to the interaction of the interaction on the interaction of the interaction Project with Multimodal Improvements     New York applicable to the easy confider       21.35     Park-and-Roke Lots     New Add Explored to the sense confider     New Advectored to the part of Digger system solutions but have no limburation on this       21.36     Park-and-Roke Lots     New Advectored to the part of Digger system solutions but have no limburation on this       21.37     Park-and-Roke Lots     New Could be part of Digger system solutions but have no limburation on this       21.38     Farking Management     New Could be part of Digger system solutions but have no limburation on this       21.38     Farking Management     New Could be part of Digger system solutions but have no limburation on this       21.39     Farking Management     New Could be part of Digger system solutions but have no limburation on this       21.39     Stand Mobility     New Could be part of Digger syst					
12.15     Designated Biogle Facilities on Local Structures     Low     Could be part of Digger system solutions but have no Information on this       12.14     Exproved Safety of Eaching Biogles and Pedestrian Facilities     Low     Would support non-inclusted trips (needs to blees and pedestrian Facilities       12.15     Exproved Safety of Eaching Biogles and Pedestrian Facilities     Low     Would support non-inclusted trips (needs to blees and pedestrian Facilities       12.16     Explore Safety of Eaching Biogles and Pedestrian Facilities     Nat applicable to Thessay confider       12.17     Presentation Projects with Multimodal Improvements     N/k     Nat applicable to Thessay confider       12.17     Presentation Projects with Multimodal Improvements     N/k     Nat applicable to Thessay confider       12.18     Presentation Projects with Multimodal Improvements     N/k     Nat applicable to Thessay confider       12.18     Presentation Projects with Multimodal Improvements     N/k     Nat applicable to Thessay confider       12.18     Presentation Projects     Under beart of Digger system solutions but have no Information con this       12.18     Explore Andread Packing Agreements     N/k     Econd be part of Digger system solutions but have no Information and this       12.19     Project Agreements     N/k     Econd be part of Digger system solutions but have no Information and this       12.19     Presente Mobility     Econ     Confide be part o					
2.3.1     Improved History Characteristics and Fundations     Lew     Could be apport on reading the point and the characteristics       3.3.1     Enclosed Safetry of Enclosed Media     All     Not applicable to thereasy confidor       3.3.1     Enclosed Safetry of Enclosed Media     All     Not applicable to thereasy confidor       3.3.1     Park-and-Refa Inth     All     Not applicable to thereasy confidor       3.3.1     Park-and-Refa Inth     All     Not applicable to thereasy confidor       3.3.1     Park-and-Refa Inth     All     Not applicable to thereasy confidor       3.3.1     Park-and-Refa Inth     All     All And Andreasy to confidor       3.3.2     Park-and-Refa Inth     All     All Andreasy confidor       3.3.3     Park-and-Refa Inth     All     All Andreasy confidor       3.4.2     Standard Standard Parking Agreements     Inthe     Confid the part of Digger system Subleme Subtraw on Information on this       3.4.3     Standard Mobility     Inthe     Confid the part of Digger system Subleme Subtraw on Information on this       4.3.1     Standard Mobility     Nalk     Don't use how thit would help       4.3.1     Standard Mobility     Nalk     Confid the part of Digger system Subleme Subtraw on Information on this       4.3.2     Standard Mobility     Nalk     Don't use how thit would help       4.3.3					
1.3.5         Improved Safety of Existing Biocha and Predestrian Facilities         Lew         World applicable to thereasy confider           2.3.5         Statuste Non-Motochad BOW         n/k         Not applicable to thereasy confider           2.3.6         Explore Size-Att         n/k         Not applicable to thereasy confider           2.3.6         Explore Attended Improvements         n/k         Not applicable to thereasy confider           3.3.7         Preventation Projects with Multimodal Improvements         n/k         Not applicable to thereasy confider           3.3.6         Anti-Atta Capoble         Name Atta Atta Capoble         Name Atta Atta Capoble         Name Atta Atta Capoble           3.3.6         Antion-Atta Capoble         Name Atta Atta Capoble         Name Atta Atta Capoble         Name Atta Capoble           3.3.6         Mandex-Atta Capoble         Name Atta Atta Capoble         Name Atta Capoble         Name Atta Capoble           3.4.7         Mandex-Atta Capoble         Name Atta Capoble         Name Atta Capoble         Name Atta Capoble           3.4.8         Mandex-Atta Capoble         Name Atta Capoble         Name Atta Capoble         Name Atta Capoble           3.4.9         Mandex Mandex-Atta Atta Capoble         Name Atta Capoble         Name Atta Capoble         Name Atta Capoble           3.5         Mande					
2.15     Surkave Non-Motorbad RDW     n/s     Not applicable to freeway conflor       2.16     Complete Site Minimum Antipacted Improvements     n/s     Not applicable to freeway conflor       3.17     Prevention Projects with Multimodal Improvements     n/s     Not applicable to freeway conflor       3.18     Prevention Projects with Multimodal Improvements     n/s     Not applicable to Theway conflor       3.18     Prevention Projects with Multimodal Improvements     n/s     Not applicable to Theway conflor       3.18     Prevention Projects with Multimodal Improvements     n/s     Not applicable to Theway conflor       3.18     Freedowich Intervention Provided Improvements     n/s     Not applicable to Theway conflor       3.19     Prevention Projects     Intervention Provided Improvements     n/s       3.16     Preventik Improvements for Transit     Not     Don't one how this would help       3.15     Preventik Improvements for Transit     n/s     Don't one how this would help       9     Providity 2.     Test Management Technologies     Prevention Provided Improvements       9     Providity 2.     Test Prevention Provided Provided Improvement NTS     Als       4.21     Preventik Improvement (CM)     n/s     Some already woldits, could support but don't think this a curvent issue       4.22     Preventik Improvements (ATBS)     n/s     Som					
2.35 Complete Streets     n/b     Not applicable to thewardy confider       2.31     Preservation Projects with Multimodel Improvements     n/b     Not applicable to thewardy confider       2.35     Preservation Projects with Multimodel Improvements     n/b     Alwardy wait in confider, do not believe this is a congection contributor       2.35     Relevant Head Head Configure Applicable to Thewardy wait in confider, do not believe this is a congection contributor       2.36     Single Applicable to Thewardy explane inclusion controls     Configure system solutions but have no information on this       2.37     Single Applicable to Thewardy explane inclusion controls     Configure system solutions but have no information on this       2.37     Revising Management     n/b     Configure system solutions but have no information on this       2.38     Revising Management     n/b     Configure system solutions but have no information on this       4.31     Parking Restrictions     n/b     Configure system solutions but have no information on this       4.39     Parking Restrictions     n/b     Configure system solutions       4.31     Parking Restrictions     n/b     Sea response to ATIS       4.32     Parking Restrictions     n/b     Sea response to ATIS       4.34     Managed Traveler information Systems (ATIS)     Line     Sone already existic, could explore but fort think this a current iscase       4.34     <					
2.13       Presentation Projects with Multimodal Improvements       n/b       Ad periodic to thereway confidor         2.13       Presend-Hide Lots       n/b       Ad periodic to thereway confidor         2.13       Presender Healer Strategy       Low       Could be part of bigger system solutions but have no information on this         3.15       MideAdming (Carposit & Vanpook)       Low       Could be part of bigger system solutions but have no information on this         3.16       MideAdming (Carposit & Vanpook)       Low       Could be part of bigger system solutions but have no information on this         3.16       MideAdming Management       n/b       Don't use how this would help         4.11       Seconstrik Improvements for Tranuit       n/b       Don't use how this would help         4.22       Parking Associations       n/b       Don't use how this would help         Photone Texture of Management Technologies       N/b       Seconstrik Improvements (LNB)         4.23       Parking Information Systems (LNB)       N/b       Seconstrik indon't think this a current issue         4.24       Integrated Corridor Management (LNB)       N/b       Seconstrik Improvements (LNB)         4.24       Automated and Connected Vehicles       n/b       Integrated sociation         4.25       Automated and Connected Vehicles       n/b       N/b </td <td></td> <td></td> <td></td> <td></td>					
2.21 Parkend-His Lots     n/b     Already each in cantidor, do not believe this is a congection contributor       2.32 Fackbaring (Carposit is Vanposit)     Law     Could be part of bigger system solutions but have no information on this       2.35 Facking Management     n/b     Don't see how this would help       4.31 Geometric improvements for transit     n/b     Don't see how this would help       4.32 Facking Restrictions     n/b     Don't see how this would help       4.33 Geometric improvements for transit     n/b     Don't see how this would help       4.34 Packing Restrictions     n/b     Don't see how this would help       700 Particle Restrictions     n/b     Don't see how this would help       Priority 2. Traffic Management Technologies       4.42 Packing Restrictions     n/b     Sear response to ATS       4.43 Manced Traveler Information Systems (ATS)     N/b     Sear response to ATS       4.40 Advanced Traveler Information Systems (ATS)     n/b     Some already existing could explore but don't think this a current issue       4.54 Intermedia of Concented Vehicles     n/b     In this Implementation (future) but not now       4.55 Intermedia of Concented Vehicles     n/b     In this Implementation (future) but not now       4.55 Intermedia (future)     n/b     Not applicable to fixeway contdor       4.55 Intermedia (future)     n/b     Not applicable to fixeway contdor					
kbt     Ridesharing (Carpools & Vanpools)     Law     Could be part of bigger system solutions but have no information on this       ADF     Perioding Management     n/le     Don't see how this would help       4.31     Generatic Improvements for Transit     n/le     Don't see how this would help       4.32     Stand Mobility     Law     Could be part of Suger system solutions but have no information on this       4.32     Stand Mobility     Law     Could be part of Suger system solutions but have no information on this       4.33     Stand Mobility     Law     Could be part of Suger system solutions but have no information on this       4.33     Parking Restrictions     n/le     Don't see how this would help       Priority 2. Traffic Management Technologies       Priority 2. Traffic Management (CM)       4.43     Advanced Transfer Information Systems (ATS)     Law     Con't see how this would help       4.44     Advanced Traffic Management (CM)     n/le     See response to ATS       4.45     Advanced Traffic Management (CM)     n/le     See response to ATS       4.46     Advanced Traffic Management (CM)     n/le     See response to ATS       4.47     Advanced Traffic Management (CM)     n/le     See response to ATS       4.48     Advanced Traffic Management (CM)     n/le     See response to ATS       4					
AEE Employee-Landlard Parking Agreements     Low     Could be part of bigger system solutions but have no information on this       AEE     Parking Management     n/b     Don't see how thit would help       AEE     Shaned Mobility     Low     Could be part of bigger system solutions but have no information on this       AEE     Parking Ascritctions     n/b     Don't see how thit would help       Priority 2. Traffic Management Technologies     N/b     Don't see how thit would help       Priority 2. Traffic Management Technologies     N/b     Don't see how thit would help       Priority 2. Traffic Management Technologies     N/b     Don't see how thit would help       Priority 2. Traffic Management Technologies     N/b     Don't see how thit would help       Priority 3. Automated and Connected Vehicles     N/b     Don't see how thit would help       Add Integrated Contriker Management (LMD)     N/b     Don't see how thit would help       Add Adanced Traffic Management (LMD)     N/b     Don't see how thit would help       Add Integrated Contriker Management (LMD)     N/b     Don't see how thit would help       Add Adanced Traffic Management (LMD)     N/b     Don't see how thit would help       Add Integrated Contribution (NTD)     N/b     Don't see how thit would help       Add Integrated Contribution (LMD)     N/b     Don't see how thit would help       Add Integrate (LMD)			_		
ALS     Parking Management     n/k     Don't see how this would help       4.11     Geometric Improvements for Transit     n/k     Don't see how this would help       4.12     Parking Actrictions     n/k     Don't see how this would help       9     Parking Actrictions     n/k     Don't see how this would help       9     Parking Actrictions     n/k     Don't see how this would help       9     Parking Actrictions     n/k     Ever regions to ATIS       4.01     Dynamic Messaging     n/k     See regionse to ATIS       4.02     Advanced Transfer Information Systems (ATIS)     Low     Some already excitic; could explore but don't think this a current issue       4.02     Advanced Transfer Information Systems (ATIS)     Low     Some already excit; could explore but don't think this a current issue       4.03     Automated and Connected Vehicles     n/k     Don't see how this would help       4.04     Automated Transfer Information     n/k     Not applicable to freeway confider       4.04     Automated Transfer Signal Coordination     n/k     Not applicable to freeway confider       4.05     Advanced Transfer Signal Coordination     n/k     Not applicable to freeway confider       4.04     Automated Transfer Signal Coordination     n/k     Not applicable to freeway confider       4.05     Traffic Signal Coordination </td <td></td> <td></td> <td></td> <td></td>					
4.33 Geometrik improvements for Transit     n/n     Don't see how this would help       4.35 Shared Mobility     Law     Could be part of bigger system solutions but have no information on this       4.37 Periodity 2. Traffic Management Technologies     n/n     Don't see how this would help       4.61 Dynamic Messaging     n/n     See response to ATS       4.62 Dynamic Messaging     n/n     See response to ATS       4.61 Dynamic Messaging     n/n     See response to ATS       4.62 Advanced Traveler information Systems (ATS)     Law     Some atmach would help       4.64 Automated and Connected Vehicles     n/n     In full implementation (future) but not now       4.65 Advanced Traveler information systems (ATMS)     n/n     See response to ATS       4.66 Traffic Signal Connected Vehicles     n/n     In full implementation (future) but not now       4.66 Traffic Signal Connected Vehicles     n/n     N     Net applicable to threasy confider       4.69 Traffic Signal Connected Vehicles     n/n     Net applicable to threasy confider       4.69 Traffic Signal Connected Vehicles     n/n     Not applicable to threasy confider       4.69 Traffic Signal Connected Vehicles     n/n     Not applicable to threasy confider       4.61 Advanced Traffic Management (Low)     n/n     Not applicable to threasy confider       4.69 Traffic Signal Connected Networe Intercontion     n/n     Not an isoue					
4.35     Shared Mobility     Law     Could be part of bigger system solutions but have no information on this       4.31     Parking Restrictions     n/b     Don't see how thit would help       Priority 2. Traffic Management Technologies         4.61     Opmanic Messaging     n/b     See response to ATS       4.62     Advanced Traveler Information Systems (ATS)     Lew     Some already wolking road wolk help       4.63     Advanced Traveler Information Systems (ATS)     n/b     See response to ATS       4.63     Advanced Traveler Information Systems (ATS)     n/b     See response to ATS       4.64     Advanced Traffic Management (ICM)     n/b     See response to ATS       4.65     Advanced Traffic Management (ICM)     n/b     See response to ATS       4.66     Advanced Traffic Management (ICM)     n/b     See response to ATS       4.67     Advanced Traffic Management (ICM)     n/b     See response to ATS       4.68     Advanced Traffic Management (ICM)     n/b     See response to ATS       4.69     Advanced Traffic Management (ICM)     n/b     See response to ATS       4.64     Advanced Traffic Management (ICM)     n/b     See response to ATS       4.65     Advanced Traffic Management (ICM)     n/b     See response to ATS       4.66     Condit burster Adgement (ICM)					
4.32 Parking Rectrictions     n/k     Don't see how this would help       Priority 2. Traffic Management Technologies       4.65 Dynamic Messaging     n/k     Some already excite; could explore but don't think this a current issue       4.69 Advanced Traveler Information Systems (ATIS)     Low     Some already excite; could explore but don't think this a current issue       4.69 Integrated Corridor Management (ICM)     n/k     Don't see how this would help       4.60 Integrated Corridor Management (ICM)     n/k     Don't see how this would help       4.61 Advanced Traffic Management (ICM)     n/k     Don't see how this would help       4.62 Advanced Traffic Management Systems (ATIS)     n/k     Don't see how this would help       4.65 Advanced Traffic Management (ICM)     n/k     Don't see how this would help       4.66 Traffic Signal Coordination     n/k     Not applicable to freeway confider       4.69 Vericie Use Limitations and Rectrictions     n/k     Not applicable to freeway confider       4.60 Traffic Signal Coordination     n/k     Reversible hase previously studied and rejected       4.60 Traffic Signal Coordinations     n/k     Reversible hase previously studied and rejected       4.61 Management     n/k     Doet not appear to be an loave on TH 77       4.52 Management     n/k     Doet not appear to be an loave on TH 77       4.53 Now Management     n/k     Doet not appear to be an loave on TH 7					
Priority 2. Traffic Management Technologies           4.61 Dynamic Messaging         n/h         See response to ATS           4.62 Dynamic Messaging         n/h         See response to ATS           4.63 Advanced Traveler Information Systems (ATS)         Lew         See response to ATS           4.64 Advanced Traveler Information Systems (ATS)         N/h         See response to ATS           4.64 Automated and Connected Vehicles         n/h         In full Implementation (future) but not now           4.65 Advanced Traffic Management System (ATMS)         n/h         In full Implementation (future) but not now           4.65 Advanced Traffic Management System (ATMS)         n/h         In full Implementation (future) but not now           4.66 Chargeable Lane Assignment/Dynamic Lane Control         n/h         Net applicable to threaway confider           4.69 Chargeable Lane Assignment/Dynamic Lane Control         n/h         Reventible lane previously studied and rejected           4.69 Chargeable Lane Assignment/Dynamic Lane Control         n/h         Reventible lane previously studied and rejected           4.60 Chargeable Lane Assignment/Dynamic Lane Control         n/h         Reventible lane current issue           4.60 Chargeable Lane Assignment         n/h         Does not appear to be an locue on TH 77           4.51 Intermodal Enhancements         n/h         Does not appear to be an locue on TH 77					
4.61 Dynamic Messaging     N/N     See response to ATS       4.62 Dynamic Messaging     N/N     See response to ATS       4.63 Advanced Traveler Information Systems (ATS)     N/N     See response to ATS       4.64 Advanced Traveler Information Systems (ATS)     N/N     See response to ATS       4.64 Advanced Traveler Information Systems (ATMS)     N/N     In full Implementation (future) but not now       4.64 Advanced Traffic Management (JCM)     N/N     In full Implementation (future) but not now       4.65 Advanced Traffic Management (JCM)     N/N     Is enreptone to ATS       4.66 Traffic Management (JCM)     N/N     Not applicable to thewasy confider       4.66 Traffic Management (JCM)     N/N     Not applicable to thewasy confider       4.66 Traffic Management (JCM)     N/N     Not applicable to thewasy confider       4.68 Traffic Management (JCM)     N/N     Not applicable to thewasy confider       4.69 Traffic Management (JCM)     N/N     Reventible lane previously studied and rejected       4.60 Orthogene     N/N     Reventible lane previously studied and rejected       4.60 Orthogene     N/N     Reventible lane previously studied and rejected       4.60 Orthogene     N/N     Does not appear to be an locue on TN 77       4.51 Intermodal Enhancements     N/N     Does not appear to be an locue on TN 77       4.52 Remp Metering     N/N     Some					
4.00     Advanced Traveler Information Systems (ATIS)     Like     Some already existing could explore but don't think this a current issue       4.00     Advanced Traveler Information Systems (ATIS)     n/s     Is off independent (current issue)       4.00     Advanced Traveler Information Systems (ATIS)     n/s     Is off independent (current issue)       4.01     Advanced Traveler Information Systems (ATIMS)     n/s     Is off independent (current issue)       4.05     Advanced Traveler Information     n/s     Is erregonse to ATIS       4.06     Traveler Information     n/s     Not applicable to thready order and non-       4.06     Traveler Information     n/s     Not applicable to thready order and non-       4.06     Traveler Information     n/s     Not applicable to thready order and non-       4.06     Traveler Information     n/s     Not applicable to thready order and non-       4.06     Traveler Information     n/s     Not applicable to thready order and non-       4.06     Velocit Use Unitations and Netrictions     n/s     Does not appear to be an locue on Tix 77       4.10     Improved Signage     n/s     Does not appear to be an locue on Tix 77       4.21     Improved Signage     n/s     Does not appear to be an locue on Tix 77       4.23     Traveler Indicent Information     n/s     Does not appear to be an locue on Tix 77					
4.00     Integrated Corridor Management (ICM)     n/m     Don't see how this would help       4.00     Automated Tariff Management (ICM)     n/m     In full implementation (future) but not now       4.01     Automated Tariff Management System     n/m     In full implementation (future) but not now       4.02     Management System (XTMS)     n/m     Not applicable to theway confider       4.03     Management System (XTMS)     n/m     Not applicable to theway confider       4.04     Management System     n/m     Not applicable to theway confider       4.05     Management System     n/m     Not applicable to theway confider       4.05     Management System     n/m     Not applicable to theway confider       4.04     Management Management     n/m     Does not appear to be an locue on TM 77       4.14     Intermodal Infrancements     n/m     Does not appear to be an locue on TM 77       4.25     Runny Metoding     n/m     Not applicable to theway confider       4.26     Teeling Improvements     n/m     Does not appear to be an locue on TM 77       4.26     Runny Metoding     n/m     Not applicable to theway confider       4.26     Teeling Improvements     n/m     Not applicable to theway confider       4.23     Span Through     n/m     Not applicable to theway confider       4.2					
4.66     Automated and Connected Vehicles     n/k     in full implementation (future) but not now       4.66     Automated and Connected Vehicles     n/k     in full implementation (future) but not now       4.66     Automated Traffic Management System (ATMS)     n/k     in empores to ATS       4.66     Changeable Lane Automated Type     n/k     Not applicable to these systemic       4.66     Changeable Lane Automated Type     n/k     Not applicable to these systemic       4.66     Unitstont and Nettrictions     n/k     Reversible Lane previously studied and rejected       4.66     Unitstont and Nettrictions     n/k     Reversible Lane previously studied and rejected       4.66     Unitstont and Nettrictions     n/k     Reversible Lane control       4.66     Unitstont and Nettrictions     n/k     Does not appear to be an locue on TW 77       4.51     Intermodal Enhancements     n/k     Does not appear to be an locue on TW 77       4.52     Goods Mexement Management     n/k     Does not appear to be an locue on TW 77       4.53     Goods Mexement Management     n/k     Does not appear to be an locue on TW 77       4.54     Toeshing Improvements     n/k     Some almost on TW 77       4.55     Ramp Metering     n/k     Some almost working; could explore to be an locue on TW 77       4.54     Ramp Metering     <					
4.05     Advanced Traffic Management System (ATMS)     n/k     See response to ATE       4.05     Traffic Signal Coordination     n/k     Not applicable to theway condor       4.06     Changeable Line Assignment/Dynamic Line Control     n/k     Not applicable to theway condor       4.06     Changeable Line Assignment/Dynamic Line Control     n/k     Not applicable to theway condor       4.09     Weicle Use Limitations and Retrictions     n/k     Does not appear to be an locue on TW 77       4.10     Improved Signage     n/k     Does not appear to be an locue on TW 77       4.12     Improved Signage     n/k     Does not appear to be an locue on TW 77       4.13     Improved Signage     n/k     Does not appear to be an locue on TW 77       4.14     Goods Movement     n/k     Does not appear to be an locue on TW 77       4.15     Ramp Metering     n/k     Does not appear to be an locue on TW 77       4.14     Towing Improvements     n/k     Does not appear to be an locue on TW 77       4.15     Ramp Metering     n/k     Does not appear to be an locue on TW 77       4.16     Signal Timing     n/k     Does not appear to be an locue on TW 77       4.17     Not applicable to thereway confide     Mot applicable to thereway confide       4.18     Signal Timing     n/k     Not applicable to thereway confide					
4.65     Traffic Signal Coordination     n/a     Not applicable to theway confider       4.66     Changeable Lane Audgment/Synamic Lane Control     n/a     Not applicable to theway confider       4.69     Vehicle Use initiations and Nextrictions     n/a     Does not appear to be an issue on TH 77       4.50     improved Signage     n/a     Does not appear to be an issue on TH 77       4.51     improved Signage     n/a     Does not appear to be an issue on TH 77       4.52     improved Signage     n/a     Does not appear to be an issue on TH 77       4.53     Towing improvements     n/a     Does not appear to be an issue on TH 77       4.54     Towing improvements     n/a     Does not appear to be an issue on TH 77       4.55     Ramp Metering     n/a     Does not appear to be an issue on TH 77       4.56     Ramp Metering     n/a     Not applicable to theeway confider       4.50     Not applicable to theeway confider     Not applicable to theeway confider       4.50     Not applicable to theeway confider     Not applicable to theeway confider       4.51     Not applicable to theeway confider     Not applicable to theeway confider       4.52     Not applicable to theeway confider     Not applicable to theeway confider       4.53     Not applicable to theeway confider     Not applicable to theeway confider       4.54 <td></td> <td></td> <td></td> <td></td>					
4.55     Changeable Lane Assignment/Epinamic Lane Control     n/s     Reventible lane previously studied and rejected       4.50     Vehicle Use Limitations and Restrictions     n/s     Door to appear to be an losue on TW 77       4.50     Informodal Enhancements     n/s     Door to appear to be an losue on TW 77       4.51     Intermodal Enhancements     n/s     Door to appear to be an losue on TW 77       4.52     Intermodal Enhancements     n/s     Does not appear to be an losue on TW 77       4.53     Goods Netwenett Management     n/s     Does not appear to be an losue on TW 77       4.54     Togeting improvements     n/s     Does not appear to be an losue on TW 77       4.55     Remp Metering     n/s     Does net appear to be an losue on TW 77       4.56     Not applicable to thereasy confider     N/s     Does net appear to be an losue on TW 77       4.56     Signal Timing     n/s     Some almedy existing could explore but don't think this an current issue       4.58     Not applicable to thereasy confider     n/s     Not applicable to thereasy confider       4.58     Not applicable to thereasy confider     N/s     Does net appear to be an losue on TW 77       4.59     Not applicable to thereasy confider     N/s     Does net appear to be an losue on TW 77       4.59     Not applicable to thereasy con the 77     Does net appear to be an losue on T					
4.09 Vehicle Use Limitations and Restrictions     n/a     Does not appear to be an issue on TH 77       4.00 improved Signage     n/a     Does not appear to be an issue on TH 77       4.10 intermodal Enhancements     n/a     Does not appear to be an issue on TH 77       4.11 intermodal Enhancements     n/a     Does not appear to be an issue on TH 77       4.12 intermodal Enhancements     n/a     Does not appear to be an issue on TH 77       4.14 Towing improvements     n/a     Does not appear to be an issue on TH 77       4.16 Ramp Metering     n/a     Does not appear to be an issue on TH 77       4.16 Ramp Metering     n/a     Does not appear to be an issue on TH 77       4.16 Signage     n/a     Does not appear to be an issue on TH 77       4.16 Signage Metering     n/a     Does not appear to be an issue on TH 77       4.17 Signage Metering     n/a     Not speciable to these sty confidor       4.18 Since Removal     n/a     Not sure what this means/relevance       4.19 Signage Metering     n/a     Not specia to be an issue on TH 77       4.29 Retwork Management     n/a     Not sure what this means/relevance       4.20 Signage Metering     n/a     Don't believe to the is a current issue       4.29 Retwork Management     n/a     Don't believe to the issue on TH 77       4.29 Retwork Management     n/a     Don't believe to the issue on TH 77   <					
4.30 improved Signage     n/a     Don't believe this is a current issue       4.32 intermodal forhancements     n/a     Does not appear to be an issue on TN 77       4.34 Goods Movement Management     n/a     Does not appear to be an issue on TN 77       4.35 Towing improvements     n/a     Does not appear to be an issue on TN 77       4.36 Goods Movement Management     n/a     Does not appear to be an issue on TN 77       4.36 Famp Metering     n/a     Does not appear to be an issue on TN 77       4.36 Signal Timing     n/a     Not applicable to freewave y confider       4.39 Signal Timing     n/a     Not applicable to freewave y confider       4.38 Signal Timing     n/a     Not applicable to freewave y confider       4.39 Signal Timing     n/a     Not applicable to freewave y confider       4.39 Signal Timing     n/a     Not applicable to freewave y confider       4.39 Signal Timing     n/a     Not applicable to freewave y confider       4.39 Signal Timing     n/a     Not applicable to freewave y confider       4.39 Signal Timing     n/a     Not applicable to freewave y confider       4.39 Signal Timing     n/a     Not applicable to freewave confider       4.39 Signal Timing     n/a     Not applicable to freewave confider       4.39 Indext Detection and Wanagement Systems     n/a     Doet not appear to be an issue       4.39					
4.12 intermodal forhancements     n/ls     Does not appear to be an issue on TH 77       4.13 Goods Mevement Management     n/ls     Does not appear to be an issue on TH 77       4.14 Towing improvements     n/ls     Does not appear to be an issue on TH 77       4.15 Towing improvements     n/ls     Does not appear to be an issue on TH 77       4.16 Towing improvements     n/ls     Does not appear to be an issue on TH 77       4.17 Meeting     n/ls     Some almost working; could explore but don't think this an current issue       4.18 Towing Meeting     n/ls     Not applicable to thereasy confider       4.18 Next Management     n/ls     Not applicable to thereasy confider       4.18 Next Management     n/ls     Does not appear to be an issue on TH 77       4.29 Prevenent and Bridge Desing     n/ls     Does not appear to be an issue on TH 77       4.29 Prevenent and Bridge Desing     n/ls     Doe't believe thic is a current issue       4.20 Indeet Detection and Management Systems     n/ls     Dor't believe incident are significant congection cause					
4.33 Goods Mavement Management     n/a     Does not appear to be an issue on TW 77       4.34 Towing improvements     n/a     Does not appear to be an issue on TW 77       4.35 Ramp Metering     n/a     Some already existing could explore but don't think this an current issue       4.36 Signal Tuning     n/a     Not curre what this means/neisy source       4.36 Since Removal     n/a     Not curre what this means/neisy source       4.36 Since Removal     n/a     Doe't believe this is a current issue       4.37 Systement and Bridge Deking     n/a     Don't believe this is a current issue       4.30 Indirect Detection and Management Systems     n/a     Don't believe incident are significant congection cause					
4.34 Towing improvements     n/a     Does not appear to be an issue on TW 77       4.36 Rang Metering     n/a     Some already existing could explore but don't think this an current issue       4.30 Signal Tuning     n/a     Not papicable to thereway confide       4.31 Network Management     n/a     Not curre what this means/heivrance       4.32 Signal Reling     n/a     Not curre what this means/heivrance       4.33 Network Management     n/a     Does not appear to be an issue on TW 77       4.39 Favement and Bridge Deking     n/a     Don't believe this is a current issue       4.30 Indeet Detection and Management Systems     n/a     Don't believe incidents are dignificant congection cause					
4.35 Ramp Metering     n/a     Some already working; could explore but don't think this an current issue       4.36 Signal Timing     n/a     Not applicable to thereary confider       4.38 Network Management     n/a     Not curre what this mean/velvance       4.38 Note Removal     n/a     Not curre what this mean/velvance       4.39 Network Management     n/a     Does not appear to be an issue on TH 77       4.39 Revenent and Bridge Deking     n/a     Don't believe this is a current issue       4.39 Incident Detection and Management Systems     n/a     Don't believe incident are significant congection cause					
4.30 Signal Timing         n/a         Not applicable to freeway confidor           4.30 Network Management         n/a         Not cure what this means/relevance           4.35 Snow Removal         n/a         Door to applicable to freeway confidor           4.35 Snow Removal         n/a         Door to applicable to an issue on TW 77           4.37 Preventent and Bridge Deking         n/a         Door't believe this is a current issue           4.38 Indident Detection and Management Systems         n/a         Don't believe incidents are significant congection cause			n/a		
4.28 Network Management         n/s         Not ours what this means/relevance           4.36 Snow Removal         n/s         Does not appear to be an issue on TN 77           4.29 Revenuent and Bridge Deking         n/s         Don't believe this is a current issue           4.30 Indext Detection and Management Systems         n/s         Don't believe indicent are significant congection cause			_		
4.35 Snow Removal         n/s         Does not appear to be an issue on Tie 77           4.32 Payement and Bridge Deking         n/s         Don't belave this is a surrent issue           4.38 (indext Detection and Management Systems         n/s         Don't belave incident are significant congection cause					
4.22 Pavement and Bridge Deking n/a Don't belave this is a current issue 4.28 indident Detection and Management Systems n/a Don't belave incidents are significant congection cause					
4.28 Indident Detection and Management Systems n/a Don't believe incidents are significant congection cause			_		
4.29 Dynamic Access Changes n/s Don't see how this would help					
	4.29	Dynamic Access Changes	n/a	Don't see how this would help	

CMP Strategy Screening: CSAH 46 Example Corridor

CMP ppen-Strategy BLD		Potential of Strategy to Address Identified Problem(s)		
	Reling	Notes		
nority 2. Traffic Management Technol	ogies			
4.01 Dynamic Messaging		not applicable to (SAH 46		
4.02 Advanced Traveler information Systems (ATIS)	o/a	not applicable to CSAH 46		
4.0.3 Integrated Corridor Management (ICM)	o/a	not applicable to CSAH 46		
4.04 Automated and Connected Vehicles	ala	Don't see how this would help		
4.05 Advanced Traffic Management System (ATMS)	aja	not applicable to CSAH 46		
4.06 Traffic Signal Coordination	aja	currently only one signal (at TH 61)		
4.00 Changeable Lane Assignment/Dynamic Lane Contri	ol ala	not applicable to CSAH 46		
6.09 Vehicle Use Limitations and Restrictions	aja	not applicable to CSAH 46		
4.10 Improved Signage	n/a	Does not appear to be relevant to CSAH 46 koules		
4.12 Internodal Enhancements	n/a	not applicable to CAH 45		
4.13 Goods Movement Management	n/a	not applicable to CSAH 46		
4.14 Towing Improvements	aja	not applicable to CSAH 46		
4.16 Famp Metering	oja.	not applicable to CSAH 46		
4.20 Sgnai Timing	Medium	possibly, if there are losses at TH 61 signal - need more information - suplore		
4.23 Network Management	aja	not applicable to CSAH 46		
6.26 Snow Removal	aja	not applicable to CSAH 46		
6.27 Pavement and Bridge Deiking	nja	not applicable to CSAH 46		
4.25 Incident Detection and Management Systems	nja	not applicable to CSAH 46		
4.29 Dynamic Access Changes	aja	not applicable to CSAH 46		
4.30 Access Management Policies	High	Access spacing does not meet guidelines; issue for safety and congection		
nority 3. Spot Mobility				
4.07 Bottleweck Relief	n/a	Opes not appear to be relevant to CSAH 45 koues		
4.17 Freeway Auxiliary Janes that are Shorter than One	Mie o/a	not applicable to CSAH 46		
4.18 Ramp Modifications	ala	not applicable to (SAH 46		
4.19 Interchange Removal	n/a	not applicable to (SAH 46		
4.24 Superstreet Corridors	n/a	not applicable to CSAH 65/no right-of-way		
4.25 Alternative Intersection Design	High	consider roundabout(x)		
4.31 Coordinated Preservation Projects	n/a	not applicable to CSAH 46		
4.12 CMP Safety Mitigation	a/a	not applicable to CSAH 45		
5.02 Tum Lanes	High	possibly - need more information - explore		
5.04 Intersection improvements	High	intersection improvements appear to be needed and will help with traffic flow and safety		
nority 4. MnPASS (E-ZPass)				
5.05 High Occupancy Whide Lane Improvements	a/a	not applicable to CSAH 45		
5.06 Managed Lanes	oj'a	not applicable to CSAH 46		
iority 5. Strategic Capacity Enhancem	ents			
4.22 One-Way Conversions	a/a	not applicable to CSAH 45		
5.01 Contidor Preservation	ala	not sure what this means/how relevant to CAH 45		
5.03 Reallocation of Current Right-of-Way Space	o/a	g/w not needd for lanes		
5.07 Interchange Configuration Modification	n/a	not applicable to CSAH 46		
5.08 Additional General-Purpose Lanes	0/a	mainline capacity does not appear to be a constraint currently		
5.09 New Roadway Facilities	ala	Con't see how this would help		

For strategy definitions, see CMP Folicy and Procedures Handbook Appendix D:

https://wetrocondl.org/Tropportation/Plansing-Differ-Transportation-Plansing-Documents/Congestion-Management-Process/ConDocs/OMP-AccessRiv-Dasce

## Next Steps

- Finalize and release Handbook/tool
- New contract to test tool within more corridor contexts (on demand)
- Gain input from stakeholders/refine as needed
- Update/refine as CMP Policies and Procedures Handbook is refined



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