

KMPO Metropolitan Transportation Plan

2020 DRAFT

250 Northwest Blvd
Coeur d'Alene, ID 83814

Table of Contents

Executive Summary

Executive Summary	vii
-------------------------	-----

Section 1 – Overview and Key Policy Issues

The Regional Transportation Planning Process	1-1
KMPO Planning Area and Funding Complexities	1-2
Major Policy and Planning Issues	1-5
Public Involvement in the MTP Process	1-23

Section 2 – Travel Demand Modeling Data and Analysis

KMPO Travel Demand Model	2-1
Modeling Analysis Years	2-5
Land Use Assumptions	2-6
Anticipating Growth Patterns	2-14

Section 3 – Existing Conditions

Roadways	3-1
Freight Mobility	3-60
Air Transportation	3-74
Passenger Rail	3-74
Public Transportation	3-74
Non-Motorized Transportation	3-79
Performance Management	3-90

Section 4 – Future Conditions

Projected Future Conditions Analysis	4-1
2040 No-Build Model	4-1
2040 Build Model	4-12
Findings	4-23

Section 5 – Financial Analysis

Regional Funding Opportunities	5-1
Financial Capacity Analysis	5-20

Section 6 – Planned Projects

Project Prioritization Process	6-1
Short-Term Projects (Through 2025)	6-4
Mid-Term Projection (Through 2030)	6-8
Long-Term Projects (Through 2040)	6-14
Project List Summary	6-20
Development-Driven Projects	6-21
Visualizations	6-23
Conclusion	6-29

List of Figures

Section 1

Figure 1.1 KMPO Planning Area	1-4
Figure 1.2 Priority Corridors	1-7
Figure 1.3 Proposed Huetter Bypass Alignment	1-9
Figure 1.4a Environmental Mitigation, Rural, Kootenai County	1-17
Figure 1.4b Environmental Mitigation, Urban, Coeur d'Alene.....	1-18
Figure 1.4c Environmental Mitigation, Urban, Post Falls.....	1-19
Figure 1.4d Environmental Mitigation, Urban, Hayden	1-20
Figure 1.4e Environmental Mitigation, Rural, Rathdrum.....	1-21

Section 2

Figure 2.1a Where People Live by Transportation Analysis Zone - 2018.....	2-9
Figure 2.1b Where People Live by TAZ - Urban Area, 2018	2-10
Figure 2.2a Where People Work by Transportation Analysis Zone - 2018.....	2-11
Figure 2.2b Where People Work by TAZ – Urban Area, 2018	2-12
Figure 2.3a Where People Shop by Transportation Analysis Zone - 2018.....	2-13
Figure 2.3a Where People Shop by TAZ – Urban Area, 2018	2-14
Figure 2.4 Kootenai County Existing and Projected Housing Density by TAZ.....	2-18
Figure 2.5 Kootenai County Existing and Projected Commercial and Industrial Density by TAZ.....	2-19

Section 3

Figure 3.1a 2025 Federal Functional Classification, Rural, Kootenai County.....	3-2
Figure 3.1b 2025 Federal Functional Classification, Urban, Coeur d'Alene	3-3
Figure 3.1c 2025 Federal Functional Classification, Urban, Post Falls	3-4
Figure 3.1d 2025 Federal Functional Classification, Urban, Hayden	3-5
Figure 3.1e 2025 Federal Functional Classification, Rural, Rathdrum	3-6
Figure 3.2a Number of Existing Lanes, Rural, Kootenai County	3-11
Figure 3.2b Number of Existing Lanes, Urban, Coeur d'Alene	3-12
Figure 3.2c Number of Existing Lanes, Urban, Post Falls	3-13
Figure 3.2d Number of Existing Lanes, Urban, Hayden	3-14
Figure 3.2e Number of Existing Lanes, Rural, Rathdrum	3-15
Figure 3.3a Existing Speed Limits, Rural, Kootenai County	3-16
Figure 3.3b Existing Speed Limits, Urban, Coeur d'Alene.....	3-17
Figure 3.3c Existing Speed Limits, Urban, Post Falls.....	3-18
Figure 3.3d Existing Speed Limits, Urban, Hayden.....	3-19
Figure 3.3e Existing Speed Limits, Rural, Rathdrum.....	3-20
Figure 3.4a Existing Intersection Control, Rural, Kootenai County.....	3-21
Figure 3.4b Existing Intersection Control, Urban, Coeur d'Alene	3-22
Figure 3.4c Existing Intersection Control, Urban, Post Falls	3-23
Figure 3.4d Existing Intersection Control, Urban, Hayden.....	3-24
Figure 3.4e Existing Intersection Control, Rural, Rathdrum	3-25
Figure 3.5a Traffic Count Locations, Rural, Kootenai County	3-26
Figure 3.5b Traffic Count Locations, Urban, Coeur d'Alene	3-27

Figure 3.5c Traffic Count Locations, Urban, Post Falls	3-28
Figure 3.5d Traffic Count Locations, Urban, Hayden	3-29
Figure 3.5e Traffic Count Locations, Rural, Rathdrum	3-30
Figure 3.6a Existing State Highway Travel Times, I 90	3-32
Figure 3.6b Existing State Highway Travel Times, US 95	3-33
Figure 3.6c Existing State Highway Travel Times, SH 41	3-34
Figure 3.6d Existing State Highway Travel Times, SH 53	3-35
Figure 3.7a Existing Conditions 2018 Base, AM Pk LOS, Rural, Kootenai County ...	3-40
Figure 3.7b Existing Conditions 2018 Base, PM Pk LOS, Rural, Kootenai County ...	3-41
Figure 3.8a Existing Conditions 2018 Base, AM Pk LOS, Urban, Coeur d'Alene.....	3-42
Figure 3.8b Existing Conditions 2018 Base, PM Pk LOS, Urban, Coeur d'Alene.....	3-43
Figure 3.9a Existing Conditions 2018 Base, AM Pk LOS, Urban, Post Falls.....	3-44
Figure 3.9b Existing Conditions 2018 Base, PM Pk LOS, Urban, Post Falls.....	3-45
Figure 3.10a Existing Conditions 2018 Base, AM Pk LOS, Urban, Hayden	3-46
Figure 3.10b Existing Conditions 2018 Base, PM Pk LOS, Urban, Hayden	3-47
Figure 3.11a Existing Conditions 2018 Base, AM Pk LOS, Rural, Rathdrum.....	3-48
Figure 3.11b Existing Conditions 2018 Base, PM Pk LOS, Rural, Rathdrum.....	3-49
Figure 3.12a Accident Data 2009-2018, Rural, Kootenai County	3-51
Figure 3.12b Accident Data 2009-2018, Urban, Coeur d'Alene	3-52
Figure 3.12c Accident Data 2009-2018, Urban, Post Falls.....	3-53
Figure 3.12d Accident Data 2009-2018, Urban, Hayden.....	3-54
Figure 3.12e Accident Data 2009-2018, Rural, Rathdrum.....	3-55
Figure 3.13 Existing At-Grade Rail Crossings, Kootenai County.....	3-59
Figure 3.14 Central Counties Top Ten Inbound Commodities, 2007 and 2027.....	3-60
Figure 3.15 Central Counties Top Ten Outbound Commodities, 2007 and 2027.....	3-61
Figure 3.16 Idaho Top Commodities by Tonnage, 2012 and 2040	3-61
Figure 3.17 Idaho Freight Mode Split by Tonnage and Value, 2012	3-62
Figure 3.18 Congressionally Designated National Highway Freight Network.....	3-63
Figure 3.19 Locations of Truck Parking Problems Reported by States, 2014	3-66
Figure 3.20a Existing Truck Routes, Rural, Kootenai County	3-68
Figure 3.20b Existing Truck Routes, Urban, Coeur d'Alene	3-69
Figure 3.20c Existing Truck Routes, Urban, Post Falls	3-70
Figure 3.20d Existing Truck Routes, Urban, Hayden	3-71
Figure 3.20e Existing Truck Routes, Rural, Rathdrum	3-72
Figure 3.21 Existing Transit Service, Urban Area	3-78
Figure 3.22a Non-Motorized Facilities, Rural, Kootenai County	3-81
Figure 3.22b Non-Motorized Facilities, Urban, Coeur d'Alene	3-82
Figure 3.22c Non-Motorized Facilities, Urban, Post Falls.....	3-83
Figure 3.22d Non-Motorized Facilities, Urban, Hayden.....	3-84
Figure 3.22e Non-Motorized Facilities, Rural, Rathdrum.....	3-85
Figure 3.23 Total Fatalities and Serious Injuries by Year	3-92
Figure 3.24 Five-Year Fatality Rate.....	3-92
Figure 3.25 Five-Year Serious Injury Rate	3-93
Figure 3.26 Five-Year Average of Non-motorized Fatal and Serious Injuries	3-93
Figure 3.27 Interstate Pavement Condition, Good	3-95
Figure 3.28 Interstate Pavement Condition, Poor	3-95

Figure 3.29 Non-Interstate Pavement Condition, Good.....	3-96
Figure 3.30 Non-Interstate Pavement Condition, Poor.....	3-96
Figure 3.31 Bridge Condition, Good	3-97
Figure 3.32 Bridge Condition, Poor	3-98
Figure 3.33 Level of Travel Time Reliability, Interstate.....	3-99
Figure 3.34 Level of Travel Time Reliability, Non-Interstate.....	3-100
Figure 3.35 Truck Travel Time Reliability, Interstate	3-101

Section 4

Figure 4.1a Future Conditions 2040 No-Build, AM Peak, LOS, Rural, Kootenai County	4-2
Figure 4.1b Future Conditions 2040 No-Build, PM Peak, LOS, Rural, Kootenai County	4-3
Figure 4.2a Future Conditions 2040 No-Build, AM Peak, LOS, Urban, Coeur d'Alene.....	4-4
Figure 4.2b Future Conditions 2040 No-Build, PM Peak, LOS, Urban, Coeur d'Alene.....	4-5
Figure 4.3a Future Conditions 2040 No-Build, AM Peak, LOS, Urban, Post Falls	4-6
Figure 4.3b Future Conditions 2040 No-Build, PM Peak, LOS, Urban, Post Falls	4-7
Figure 4.4a Future Conditions 2040 No-Build, AM Peak, LOS, Urban, Hayden.....	4-8
Figure 4.4b Future Conditions 2040 No-Build, PM Peak, LOS, Urban, Hayden.....	4-9
Figure 4.5a Future Conditions 2040 No-Build, AM Peak, LOS, Rural, Rathdrum	4-10
Figure 4.5b Future Conditions 2040 No-Build, PM Peak, LOS, Rural, Rathdrum	4-11
Figure 4.6a Future Conditions 2040 Build, AM Peak, LOS, Rural, Kootenai County	4-13
Figure 4.6b Future Conditions 2040 Build, PM Peak, LOS, Rural, Kootenai County	4-14
Figure 4.7a Future Conditions 2040 Build, AM Peak, LOS, Urban, Coeur d'Alene ...	4-15
Figure 4.7b Future Conditions 2040 Build, PM Peak, LOS, Urban, Coeur d'Alene ...	4-16
Figure 4.8a Future Conditions 2040 Build, AM Peak, LOS, Urban, Post Falls	4-17
Figure 4.8b Future Conditions 2040 Build, PM Peak, LOS, Urban, Post Falls	4-18
Figure 4.9a Future Conditions 2040 Build, AM Peak, LOS, Urban, Hayden	4-19
Figure 4.9b Future Conditions 2040 Build, PM Peak, LOS, Urban, Hayden	4-20
Figure 4.10a Future Conditions 2040 Build, AM Peak, LOS, Rural, Rathdrum	4-21
Figure 4.10b Future Conditions 2040 Build, PM Peak, LOS, Rural, Rathdrum	4-22
Figure 4.11 Number of Congested Road Segments by Percent of Capacity Used, 2040 No Build	4-24
Figure 4.12 Number of Congested Road Segments by Percent of Capacity Used, 2040 Build	4-24
Figure 4.13 Number of Congested Intersections by Percent of Capacity Used, 2040 No Build	4-25
Figure 4.14 Number of Congested Intersections by Percent of Capacity Used, 2040 Build	4-25

Section 5

Figure 5.1 KMPO Area Local Transportation Revenue, All Sources 2018	5-2
Figure 5.2 KMPO Area Annual Expenditures by Cost Item, 2018	5-4
Figure 5.3 Idaho Distribution Account Sources and Distribution	5-13

Figure 5.4 Total Revenue from Idaho Highway Distribution Account, Jurisdictions in Kootenai County 2007-2018	5-17
Figure 5.5 Local Option Vehicle Registration Fee Annual Revenue Forecast, 2020-2040	5-25

Section 6

Figure 6.1a Short Range 2015 Transportation Plan, Rural, Kootenai County	6-3
Figure 6.1b Short Range 2015 Transportation Plan, Coeur d'Alene Area.....	6-4
Figure 6.1c Short Range 2015 Transportation Plan, Post Falls Area.....	6-5
Figure 6.1d Short Range 2015 Transportation Plan, Hayden Area	6-6
Figure 6.1e Short Range 2015 Transportation Plan, Rathdrum Area	6-7
Figure 6.2a Long Range 2030 Transportation Plan, Rural, Kootenai County.....	6-9
Figure 6.2b Long Range 2030 Transportation Plan, Coeur d'Alene Area	6-10
Figure 6.2c Long Range 2030 Transportation Plan, Post Falls Area	6-11
Figure 6.2d Long Range 2030 Transportation Plan, Hayden Area.....	6-12
Figure 6.2e Long Range 2030 Transportation Plan, Rathdrum Area	6-13
Figure 6.3a Long Range 2040 Transportation Plan, Rural, Kootenai County.....	6-15
Figure 6.3b Long Range 2040 Transportation Plan, Coeur d'Alene Area	6-16
Figure 6.3c Long Range 2040 Transportation Plan, Post Falls Area	6-17
Figure 6.3d Long Range 2040 Transportation Plan, Hayden Area.....	6-18
Figure 6.3e Long Range 2040 Transportation Plan, Rathdrum Area	6-19
Figure 6.4 Development-Driven Transportation Plan	6-22

List of Tables

Section 2

Table 2.1 2018 AM PK HR Model Trip Generation Results Comparison	2-3
Table 2.2 2018 PM PK HR Model Trip Generation Results Comparison	2-3
Table 2.3 Land Use Categories.....	2-5
Table 2.4 Population Estimates, 2018-2040.....	2-11

Section 3

Table 3.1 KMPO Regional Demand Model Street Typology	3-8
Table 3.2 Major Corridor Travel Times.....	3-31
Table 3.3 General Roadway Capacities	3-37
Table 3.4 Roadway Segment and Intersection Hourly Level of Service Criteria	3-37
Table 3.5 Roadway Segments by Jurisdiction with LOS C – F	3-38
Table 3.6 Intersections by Jurisdiction with LOS D – F	3-39
Table 3.7 Fatality and Injury Rates in 2018	3-50
Table 3.8 Collision History, 2016-2018.....	3-50
Table 3.9 Kootenai County High Accident Locations, 2009-2018	3-56
Table 3.10 Grade Crossing Collision Summary, 2010-2019	3-57
Table 3.11 Kootenai County Outbound Distribution, 2007 and 2027	3-61

Table 3.12 National Statistics on Truck Travel	3-63
Table 3.13 Regionally Significant Urban Freight Corridors in Kootenai County	3-64
Table 3.14 Regionally Significant Rural Freight Corridors in Kootenai County.....	3-64
Table 3.15 Recommended Freight Performance Measures on Idaho Highways	3-67
Table 3.16 Non-Motorized Transportation Priority Network.....	3-88
Table 3.17 ITD Safety Targets and Kootenai County Existing Conditions, 2019.....	3-91
Table 3.18 ITD Pavement Condition Targets and Kootenai County Existing Conditions, 2019.....	3-94
Table 3.19 ITD Bridge Condition Targets and Kootenai County Existing Conditions, 2019.....	3-97
Table 3.20 ITD System Reliability Targets and Kootenai County Existing Conditions, 2019.....	3-99
Table 3.21 ITD System Reliability Targets and Kootenai County Existing Conditions, 2019.....	3-100
Table 3.22 Transit Asset Management Performance Measures	3-102

Section 4

Table 4.1 Changes in PM Peak Hour Conditions, 2018 to 2040	4-23
--	------

Section 5

Table 5.1 City/County/Highway District Funding Options	5-6
Table 5.2 Funding Categories for Federal-Aid Formula Programs.....	5-11
Table 5.3 Percentage of Local Jurisdiction Revenue by Category	5-21
Table 5.4 Anticipated Revenue for Cities as a Group 2015-2040	5-21
Table 5.5 Historical Breakdown of Revenues and Expenditures for Highway Distribution Account.....	5-22
Table 5.6 Anticipated Highway District Revenue 2015-2040.....	5-23
Table 5.7 Anticipated Financial Resources for Public Transportation, 2017-2040 ...	5-24

Section 6

Table 6.1 Priority Array Scoring Criteria	6-3
---	-----

Visualizations

Huetter Road from Seltice Way to Lancaster (Post Falls Highway District).....	6-24
Meyer Road from Lancaster to Boekel (Lakes Highway District)	6-25
Kidd Island Bay Road (Worley Highway District).....	6-26
Meyer Road (City of Rathdrum)	6-27
Fernan Hill Rd (East Side Highway District)	6-28

Appendices

- Appendix A** KMPO Public Involvement Policies
- Appendix B** KMPO VISUM Travel Demand Model Documentation
- Appendix C** KMPO Population Growth Forecasts, 2040
- Appendix D** Modeled Roadway and Intersection Levels of Service, 2018 & 2040
- Appendix E** Detailed Project Expenditures
- Appendix F** Public Comments