Technical Advisory Committee

Monday, April 9, 2018 Regular Session

Item H3

Approval Recommendation Final Draft Long Range Transportation Plan Amendment No. 4

Staff Contact: Allan Zafft, MPO Program Manager

April 9, 2018

ISSUE

VOTE: Amendment No. 4 to the Long Range Transportation Plan

BACKGROUND

In April 2016, the GIAMPO Policy Board approved the Journey 2040, the Grand Island metropolitan region's Long Range Transportation Plan (LRTP). It is a blueprint that describes how the region will invest in its multimodal transportation system over the next 25 years. The GIAMPO amends the LRTP to accommodate changes to projects in the LRTP.

The proposed Amendment No. 4 to the LRTP adjusts the anticipated project costs for three (1) Nebraska Department of Transportation project and adjusts the fiscal constraint of the plan to include additional anticipated federal revenue.

- State ID 42776 In Grand Island Bridges (US-30 Bridges)
 - Changes the project federal-aid amount from \$2.339 million to \$3.420 million and the project total estimate from \$2.924 million to \$4.648 million.
- State ID 42787 Cairo Grand Island (N-2 Resurfacing)
 - Changes the project federal-aid amount from \$3.002 million to \$7.292 million and the project total estimate from \$3,754 million to \$9.215 million.
- State ID 41704 US-281 West, Grand Island (US-30 Realignment)
 - Changes the project total estimate from \$29.681 million to \$30,693 million (no federal-aid).

Amendment No. 4 requires modifications in Chapter 7 – Financial Plan and Chapter 9 – Recommended Plan of the LRTP.

This amendment also includes a new section in Chapter 3 (section 3.4) of the LRTP relating to performance management.

POLICY CONSIDERATIONS/DISCUSSION

GIAMPO's Public Participation Plan requires that proposed amendments to the LRTP be released for public review and comment prior to Policy Board adoption.

BUDGET CONSIDERATIONS

None.

COMMITTEE ACTION

None.

RECOMMENDATION

Approve Amendment No. 4 to the Long Range Transportation Plan and release it for public review and comment.

STAFF CONTACTS

Allan Zafft

3.4 Performance Management

When Congress passed the federal transportation bill MAP-21 in July 2012, it included a series of provisions for Transportation Performance Management (TPM). In the intervening years, Congress passed the FAST Act in December 2015, which essentially maintained and reaffirmed the performance management provisions of MAP-21. Since the passage of MAP-21, USDOT has worked through the federal rulemaking process to establish a series of performance measures and corresponding target setting requirements. Generally, the performance measures relate to national goals of safety, infrastructure condition, air quality, and transportation system performance.

On May 20, 2017, USDOT implemented the final two performance measures rules, which effectively completes the rulemaking process for federally defined performance measures. With this implementation, the national performance measures and target setting requirements are final and work at the state DOT/transit provider level has begun. Once the states have set targets, MPOs like GIAMPO must establish performance targets at the regional level within 180 days. MPOs have the option to set its own regional targets, or to support the targets established by State DOTs/transit providers. Table 3-7 provides the timeline for each of the performance areas established by MAP-21 and the FAST Act.

Deadline for Setting Targets # of **Performance Area** Measures State DOT/Transit Provider MPO Transit State of Good Repair 4 January 1, 2017 June 30, 2017 Safety 5 August 31, 2017 February 27, 2018 6 Pavement and Bridge Condition May 20, 2018 November 16, 2018 System Performance / Freight / 6 May 20, 2018 November 16, 2018 CMAQ*

Table 3-7: Deadlines for Setting Performance Measures Targets

As indicated in Table 3-7, the Transit State of Good Repair (i.e. infrastructure condition) is the first performance area for which an MPO must establish targets. Based on collaboration with the City of Grand Island (transit operator) and NDOR, GIAMPO agreed to support the transit asset management targets established by the City which are the same targets as the State.

The second performance measure is safety for which an MPO must establish targets. GIAMPO has chosen to support NDOR's 2014-2018 safety targets as published in the NDOR Highway Safety Improvement Program 2017 Annual Report.

GIAMPO will support the established targets for Transit State of Good Repair and Safety and to be established targets for the remaining performance areas by the Journey 2040 policy recommendations and proposed capital projects within the Grand Island planning area.

^{*} CMAQ is not applicable to GIAMPO.



Table 7-1: Total Available Roadway Funds (2016-2040)

	Total Available Roadway Funds (\$1,000)									
Time Period	Local	Total Revenues								
2016-2025	\$37,660	\$109,366	\$42,430	\$189,456						
2026-2040	TBD ⁹	\$169,495	\$89,952	\$259,447						
Total	\$37,660	\$278,861	\$132,382	\$448,903						

Table 7-2 on the following page shows the amount of funding available for constructing new projects after the costs for personnel, operations, maintenance, reconstruction, and equipment, plus projects that have already been programed, are subtracted. This funding balance is assumed to be available to construct new projects in the GIAMPO Area based upon a conservative forecast of future operations and maintenance costs and revenue generation. Assumptions relating to the forecasts and detailed tables are shown in Appendix C.

⁹ To Be determined (TBD): Federal revenue estimates for NDOR projects in the GIAMPO planning area will be determined as the MPO's needs are assessed and funding targets are established. At this time, NDOR is still assessing the need for specific projects of regional significance in the Grand Island Area MPO planning area for the period of 2020-2040. NDOR has established revenue projections within the timeframe of the NDOR Surface Transportation Program Book, a six-year document that outlines NDOR's projects and future expenditures. NDOR recognizes an ongoing and long-term need to monitor, evaluate and upgrade the state highway and interstate highway system in the Grand Island Area MPO planning area as well as the State of Nebraska at large. NDOR will continue to monitor the existing conditions and proposed future changes to the state highway system with the continuing cooperation, coordination and assistance of GIAMPO and local partners. As future needs are identified with regard to infrastructure condition, safety, roadway capacity or transit service, NDOR will work to address these needs and include them through update or amendment in the GIAMPO Long Range Plan, TIP and the NDOR Surface Transportation Program Book and STIP as required by State and Federal regulation.

Table 7-2: Funds Available for New Roadway Projects

	New Roadway Project Revenue (\$1,000)									
Time	Federal	Local / State	Total							
Period	reuerai	Local / State	Revenues							
2016-2025	\$0	\$47,280	\$47,280							
2026-2040	TBD ¹⁰	\$113,236	\$113,236							
Total	\$0	\$160,516	\$160,516							

Funding for transit service was also examined through the 2040 horizon year. Transit service in the GIAMPO area is expected to continue but will be subject to the availability of local matching funds. A detailed breakdown of transit funding sources, assumptions and year-to-year forecasts for available revenue is shown in Appendix C. It is assumed that Grand Island will provide service only up to the budget that is available through a combination of Federal Transit funding and local matching dollars. A summary of the available transit revenue is shown below in Table 7-3.

Table 7-3: Transit Revenue and Expenditures (2016-2040)

	Transit Revenue/Expenditure (\$1,000)									
Time Period	Federal	Local / State	Total Revenue							
2016-2025	\$5,762	\$2,839	\$8,602							
2026-2040	\$11,193	\$5,765	\$16,958							
Total	\$16,956	\$8,604	\$25,560							

¹⁰ To Be determined (TBD): Federal revenue estimates for NDOR projects in the GIAMPO planning area will be determined as the MPO's needs are assessed and funding targets are established. At this time, NDOR is still assessing the need for specific projects of regional significance in the Grand Island Area MPO planning area for the period of 2020-2040. NDOR has established revenue projections within the timeframe of the NDOR Surface Transportation Program Book, a six-year document that outlines NDOR's projects and future expenditures. NDOR recognizes an ongoing and long-term need to monitor, evaluate and upgrade the state highway and interstate highway system in the Grand Island Area MPO planning area as well as the State of Nebraska at large. NDOR will continue to monitor the existing conditions and proposed future changes to the state highway system with the continuing cooperation, coordination and assistance of GIAMPO and local partners. As future needs are identified with regard to infrastructure condition, safety, roadway capacity or transit service, NDOR will work to address these needs and include them through update or amendment in the GIAMPO Long Range Plan, TIP and the NDOR Surface Transportation Program Book and STIP as required by State and Federal regulation.



Table 9-1: Total Available Roadway Revenue (2016-2040)

	Total Available Roadway Funds (\$1,000)										
Time Period	Federal	State	Local	Total Revenues							
2016-2025	\$37,660	\$109,366	\$42,430	\$189,456							
2026-2040	TBD ¹⁴	\$169,495	\$89,952	\$259,447							
Total	\$37,660	\$278,861	\$132,382	\$448,903							

Committed Costs

Committed projects are defined to include those projects currently programmed or now under construction. The first step in identifying the amount of funds available for new construction was to subtract the cost of these projects from the estimated total revenues from 2016 through 2040. A number of major projects have been programmed for the Grand Island area. Many of the committed projects are being completed by NDOR utilizing federal funding from a number of sources. The specific construction year and funding by source can be found in the GIAMPO Transportation Improvement Programs (TIP) 2016-2020, 2018-2022, and 2019-2023.

Between 2016 and 2022, NDOR will complete a major reconstruction on I-80 in the GIAMPO study area, the reconstruction of U.S.-281 between U.S.-30 and Broadwell, and replacement of three bridges on U.S.-30. NDOR has also committed to construct a U.S.-30 west bypass from west of US-281 to near County Road 20 and then also install automated gates at I-80 interchanges. The total cost of these projects, shown in Table 9-2, is estimated at \$80 million.

¹⁴ To Be determined (TBD): Federal revenue estimates for NDOR projects in the GIAMPO planning area will be determined as the MPO's needs are assessed and funding targets are established. At this time, NDOR is still assessing the need for specific projects of regional significance in the Grand Island Area MPO planning area for the period of 2020-2040. NDOR has established revenue projections within the timeframe of the NDOR Surface Transportation Program Book, a six-year document that outlines NDOR's projects and future expenditures. NDOR recognizes an ongoing and long-term need to monitor, evaluate and upgrade the state highway and interstate highway system in the Grand Island Area MPO planning area as well as the State of Nebraska at large. NDOR will continue to monitor the existing conditions and proposed future changes to the state highway system with the continuing cooperation, coordination and assistance of GIAMPO and local partners. As future needs are identified with regard to infrastructure condition, safety, roadway capacity or transit service, NDOR will work to address these needs and include them through update or amendment in the GIAMPO Long Range Plan, TIP and the NDOR Surface Transportation Program Book and STIP as required by State and Federal regulation.





Table 9-2: Committed Project Cost

	Committed Project Cost (\$1,000)									
Time Period	Federal	State	Local	Total Costs						
2016-2025	2016-2025 \$37,660 \$36,598 \$5,709 \$79,967									

Note: Project Costs have been inflated to Year of Expenditure by sponsoring jurisdictions at a 4 percent increase per year per US DOT recommendations.

Operation & Maintenance & Reconstruction Costs

The City of Grand Island and Hall County in the GIAMPO study area have an annual Operation and Maintenance budget to maintain the existing transportation infrastructure. It includes personnel, equipment, and materials cost of maintenance. It also includes funds for more extensive maintenance projects such as resurfacing, replacing curbs, signs, signal maintenance, and other similar activities.

NDOR contracts with the local governments to complete routine maintenance. Table 9-3 presents the combined local and state maintenance costs. Operation and Maintenance costs, also presented in Table 9-3, were projected for the next 25 years. These costs are shown on an annual basis in Appendix C. In addition, a general estimate of reconstruction costs for projects not yet determined was included in these cost estimates. The funds for operations, maintenance, and reconstruction are shown in Table 9-3. The inflation rate for the future year of expenditure is based upon past trends for each specific line item. These assumptions and rates are documented in Appendix C.

Table 9-3: Operation and Maintenance Budget

•	Operation & Maintenance Expenditures (\$1,000)						
Local Operation &							
Time Period Maintenance							
2016-2025	\$62,209						
2026-2040	\$146,211						
Total \$208,420							

Table 9-4 on the following page shows the remaining funds available after committed project costs, operations and maintenance costs are subtracted from the total revenues. In summary, the table shows anticipated revenues for available for programming new construction projects in the GIAMPO area for the remaining portion of the plan.



Table 9-4: Available Roadway Revenue

	Available New Project Revenue (\$1,000)									
Time	Federal	Local / State	Total							
Period	reuerai	Local / State	Revenue							
2016-2025	\$0	\$47,280	\$47,280							
2026-2040	TBD ¹⁵	\$113,236	\$113,236							
Total	\$0	\$160,516	\$160,516							

9.2 Project Priority Process

The projects were evaluated and prioritized based upon the funds and in what time period the project would be proposed. This process took three steps: project evaluation, public input, and MPO Technical Committee review.

Project Evaluation

Each of the proposed projects presented in the Long-Range Transportation Plan was evaluated based on the GIAMPO 2040 project goals and evaluation criteria presented in Chapter 3. Each criterion was transparent. Base factors and criteria were developed for each project goal. A composite score was calculated for each project based on the goal score multiplied by the goal weight, which was developed as part of the public involvement process. The priorities are discussed in Chapter 5, with detailed project scoring shown in the Appendices.

Public Input

Public input was sought on project priorities. As part of the second public meeting, participants scored a high, medium, or low prioritization to each project type. They also provided input on specific projects

NDOR will continue to monitor the existing conditions and proposed future changes to the state highway system with the continuing cooperation, coordination and assistance of GIAMPO and local partners. As future needs are identified with regard to infrastructure condition, safety, roadway capacity or transit service, NDOR will work to address these needs and include them through update or amendment in the GIAMPO Long Range Plan, TIP and the NDOR Surface Transportation Program Book and STIP as required by State and Federal regulation.

¹⁵ To Be determined (TBD): Federal revenue estimates for NDOR projects in the GIAMPO planning area will be determined as the MPO's needs are assessed and funding targets are established. At this time, NDOR is still assessing the need for specific projects of regional significance in the Grand Island Area MPO planning area for the period of 2020-2040. NDOR has established revenue projections within the timeframe of the NDOR Surface Transportation Program Book, a six-year document that outlines NDOR's projects and future expenditures. NDOR recognizes an ongoing and long-term need to monitor, evaluate and upgrade the state highway and interstate highway system in the Grand Island Area MPO planning area as well as the State of Nebraska at large.





Table 9-5: Fiscally Constrained Project Plan

		Grand Island Area	a MPO Tra	nsportatio	on Improveme	ent Program FY	2016-202	0 / FY 2018-2022		
State ID	Project Name	Project Description	A/Q Status	Length (SLM)	Total Project Est.	Phase	YOE	Fund Type	Fund Description	TIP Estimate by Phase Amount (\$1,000)
						PE	2018	City	Grand Island	\$158
						PE	2018	State	Build Nebraska	\$2,096
						ROW	2019	City	Grand Island	\$508
		4 lane divided roadway on new				ROW	2019	State	Build Nebraska	\$3,863
		alignment				Const/CE	2019	City	Grand Island	\$1,525
41704	US-281 West, Grand Island	US-30 from 1.4 mi west of Grand Island to 0.4 mi west of US-281, Begin Ramp - 308.64	Exempt	3.9 mi	\$30,693	Const/CE	2019	State	Build Nebraska	\$22,543
						PE	2017	State	NDOR	\$45
	Platte River -	Mill, concrete repair, resurface 4-lane dual roadway and shoulders, bridge repair I-80 from Platte River west of Grand Island to Phillips, Beginning RP -				Const/CE	2018	NHPP	National Highway Performance Program	\$11,396
42674	Phillips	310.88	Exempt	7.7 mi	\$12,708	Const/CE	2018	State	NDOR	\$1,267

Journey 2040



State ID	Project Name	Project Description	A/Q Status	Length (SLM)	Total Project Est.	Phase	YOE	Fund Type	Fund Description	TIP Estimate by Phase Amount (\$1,000)
						PE	2015	State	NDOR	\$779
						Const/CE	2017	City	Grand Island	\$3,126
		Resurf existing roadway & US- 281/N-2 ramps, concrete repair, bridge repair, add subdrains				Const/CE	2017	NHPP	National Highway Performance Program	\$11,450
	In Grand Island	US-281 from Old US-30 Viaduct over UPRR, North to 1.8 mi South of Howard County Line				Const/CE	2017	SFTY	Nation Safety Improve. Program	\$585
42690	& North	Beginning RP - 68.90	Exempt	9.6 mi	\$18,707	Const/CE	2017	State	NDOR	\$2,767
						PE	2016	State	NDOR	\$39
						Const/CE	2017	EM	Earmark	\$355
	Grand Island -	Deploy automated gate systems and CCTV Cameras Several I-80 interchanges in				Const/CE	2017	NHPP	National Highway Performance Program	\$949
42773	WACO	District 4	Exempt	0	\$1,537	Const/CE	2017	State	NDOR	\$194
						PE	2019	State	NDOR	\$227
						ROW	2021	State	NDOR	\$5
		3-bridge repair/overlays,				Const/CE	2022	Local	Grand Island National Highway	\$60
	In Grand Island	sealing, new approach, slabs, mill, resurface roadway Three US-30 Bridges in Grand Island (Jct US-30/US-281/N-2 bridge and Old Lincoln Hwy to Grand St), Beginning RP -				Const/CE	2022	NHPP	Performance Program	\$3,420
42776	Bridges	313.66	Exempt	0	\$4,648	Const/CE	2022	State	NDOR	\$936

Journey 2040

A Long-range Transportation Plan FOR GRAND ISLAND

	State ID	Project Name	Project Description	A/Q Status	Length (SLM)	Total Project Est.	Phase	YOE	Fund Type	Fund Description	TIP Estimate by Phase Amount (\$1,000)
							PE	2016	SFTY	Nation Safety Improve. Program	\$100
							PE	2016	Local	Grand Island	\$10
		Grand Island - Stolley Park	Reconfigure Stolley Park Road to 3,4 and 5 lane sections - FHWA Road Diet Initiative				Const./CE	2017	SFTY	Nation Safety Improve. Program	\$1,115
	42812	Reconfiguration	From Webb Road to S. Locust St	Exempt	2.04 mi	\$1,349	Const./CE	2017	Local	Grand Island	\$124
							PE	2016	State	NDOR	\$1
							Const/CE	2016	State	NDOR	\$111
	42828	District 4 - Districtwide striping	Install durable pavement markings	Exempt	0	\$1,110	Const/CE	2016	SFTY	Nation Safety Improve. Program	\$998
F	42020	Surping	motali durable pavement markings	Exempt	U	φ1,110	COHSICE				
		Transit Needs	Feasibility Study to identify Transit					2016	FTA	Sec. 5307	\$100
L		Analysis	Needs	Exempt		\$125		2016	Local	Grand Island	\$25

Journey 2040

A Long-range Transportation Plan FOR GRAND ISLAND

State ID	Project Name	Project Description	A/Q Status	Length (SLM)	Total Project Est.	Phase	YOE	Fund Type	Fund Description	TIP Estimate by Phase Amount (\$1,000)
						PE	2019	State	NDOR	\$53
						ROW	2020	State	NDOR	\$10
40707	Cairo - Grand	Resurfacing N-2 from Cairo southeast to US- 281 in Grand Island, Begin RP -		40.0 mi	\$0.045	Const/CE Const/CE	2021	Local	Grand Island National Highway Performance Program	\$198 \$7,292
42787	Island	343.73	Exempt	12.3 mi	\$9,215	Const/CE	2021	State	NDOR	\$1,662
									Total	\$80,092





Table 9-5: Fiscally Constrained Project Plan (Continued)

			GIAMPO Pro	oject Listing 2021	-2025			
Project ID	Project Name	Project Description	From	То	Jurisdiction	Total Cost (\$1,000) Current Year	Total Cost (\$1,000) Future Year	Available Fiscal Constrained (\$1,000)
			2016 - 2025					\$47,280
	Intersection Improvements	Improvements at various intersections	Various	Various	Grand Island	\$3,500	\$4,606	\$42,674
В-3а	Stuhr Road	Widen to 3 lanes	US-30	BNSF RR	Grand Island	\$9,656	\$12,707	\$29,967
B-2a	Old Potash Highway	Widen to 5 lanes	Claude Road	Webb Road	Grand Island	\$4,307	\$5,668	\$24,299
B-8	Husker Highway	Widen to 3 lanes	US-281	North Road	Grand Island	\$4,947	\$6,510	\$17,789
B-7	Stolley Park Road	Widen to 3 lanes	Fair Ground Entrance	Stuhr Road	Grand Island	\$2,183	\$2,872	\$14,917
B-1a	Capital Avenue	Widen to 5 lanes	Broadwell Avenue	BNSF RR/Oak Street	Grand Island	\$3,438	\$4,524	\$10,393
B-6	13th Street	Widen to 3 lanes	West of US-281	Independence Avenue	Grand Island	\$4,193	\$5,517	\$4,876
					Total 2021-2025	\$32,224	\$42,404	\$4,876



Table 9-5 Fiscally Constrained Project Plan (Continued)

Project ID	Project Name	Project Description	From	То	Jurisdiction	Total Cost (\$1,000) Current Year	Total Cost (\$1,000) Future Year	Available Fiscal Constrained (\$1,000)
			2026-2040					\$118,112*
B-4	North Road	Widen to 3 lanes	Highway 2	Old Potash Highway	Grand Island	\$11,081	\$14,582	\$103,530
	Intersection Improvements	Improvements at various intersections	Various	Various	Grand Island	\$3,764	\$7,332	\$96,198
2	Stuhr Bridges over BNSF and UPRR	Engineering			Grand Island	\$2,048	\$3,989	\$92,209
	Stuhr Road	Widen to 3 lanes	BNSF RR	US-34	Grand Island	\$9,656	\$18,809	\$73,400
B-1b	Capital Avenue	Widen to 3 lanes	BNSF RR/Oak Street	St Paul Road	Grand Island	\$1,781	\$3,470	\$69,930
B-1c	Capital Avenue	Widen to 3 lanes	Dairy Queen	Engleman Road	Grand Island	\$5,700	\$11,103	\$58,827
B-2b	Old Potash Highway	Widen to 3 lanes	Engleman Road	Claude Road	Grand Island	\$5,269	\$10,264	\$48,563
4	Broadwell over UPRR and Broadwell Extension	Broadwell Avenue Widening (5-lane)	Faidley Avenue	Third Street		\$3,900	\$7,597	\$40,966
5		Broadwell UPRR bridge			Grand Island	\$13,000	\$25,323	\$15,643
6		Broadwell Extension (3-lane)	Anna Street	Adams Street		\$4,900	\$9,545	\$6,098
11	13th St. – 10th St. Connector	Reconstruct	W 13th Street	10th Street	Grand Island	\$600	\$1,169	\$4,929
				-	otal 2026-2040	\$53,768	\$104,735	\$4,929

^{*}Note: includes \$4,876 of FY2016-2025 carryover plus forecast \$113,236.



Table 9-6: Illustrative Project Plan

			GIAMPO Illustrative Proj	ects				
Project ID	Project Name	Project Description	From	То	Jurisdiction	Total Cost (\$1,000) Current Year	Total Cost (\$1,000) Future Year	Available Fiscal Constrained (\$1,000)
		Illustr	ative Project 2040+					\$4,929
B-5	Swift Road	New 2-lane road	Talc Road	Shady Bend Road	Grand Island	\$3,150	5,209	
7	North Road and UPRR Bridge	Widen to 3 lanes; new 2-lane bridge	Old Potash Hwy	Husker Hwy	Grand Island	\$16,200	\$26,776	
	Broadwell over BNSF	Widen to 5 lanes	Capital Avenue	Airport Road	Grand Island	\$14,300	\$23,636	
9		Realign Old Highway 2 to connect Custer Avenue;						
		New 4-lane bridge						
3	Eddy Street Extension	New 2-lane Road	Phoenix Avenue	Locust Street	Grand Island	\$3,300	\$5,454	
12	Alda Road and UPRR Bridge	New 2-lane bridge	Apollo Street	Hwy 30	Grand Island	\$11,300	\$18,677	
	East Bypass (5- lanes)	5-lane Stolley Park Road *	Locust Street	Stuhr Road	Grand Island	\$2,500	\$4,132	
15		5-Lane Stuhr Road / Sky Park Road *	US-34	Capital Avenue		\$11,875	\$19,628	
		5-lane Husker Hwy	US-281	Stuhr Road		\$18,750	\$30,991	
		5=lane Captial Avenue	BNSF RR/Oak Street	Sky Park Road		\$20,375	\$33,677	
16	East Bypass US- 281 to I-80	4-lane Expressway	I-80	US 281	Grand Island	\$78,750	\$130,162	
2	Stuhr Road bridge over UPRR	New 4-lane bridges	- Highway 30	4th Street	Grand Island	\$15,952	\$26,366	
2	Stuhr Road bridge over BNSF	New 4-lane bridge			Grand Island	\$11,000	\$18,181	

^{*}expand 3-lane to 5-lane