

ACTION TRANSMITTAL No. 2018-41

DATE: July 11, 2018

TO: TAC Funding and Programming Committee

PREPARED BY: Joe Barbeau, Senior Planner (651-602-1705)

SUBJECT: Scope Change Request for Dakota County's CSAH 50 Reconstruction

REQUESTED ACTION: Dakota County requests a scope change for its CSAH 50 reconstruction project (SP # 019-650-016) to add a roundabout at the project's western terminus.

RECOMMENDED ACTION: Recommend approval of Dakota County's scope change request for its CSAH 50 roadway reconstruction project (SP # 019-650-016) to add a roundabout at the project's western terminus.

BACKGROUND AND PURPOSE OF ACTION: Dakota County was awarded \$3,200,000 in Surface Transportation Block Grant funds for the 2020 fiscal year in the Roadway Reconstruction/Modernization category as part of the 2016 Regional Solicitation. The scope includes improvements to CSAH 50, installing a traffic signal at the CSAH 50 and CSAH 23 intersection, and providing a non-motorized grade-separated crossing. Through its preliminary design process, Dakota County determined that construction of a roundabout at Holyoke Avenue, the project's western terminus, should be added to reduce crashes.

The only part of the scope proposed to change is the addition of a roundabout to the western terminus. This includes the following elements:

- Construction of a two-lane by one-lane roundabout at the intersection of CSAH 50 and Holyoke Avenue.
 - Two lanes along CSAH 50
 - One lane along Holyoke Avenue.
- Expansion of the project's limits along CSAH 50 to 600 feet west of Holyoke Avenue to include work related to the proposed roundabout.
- Inclusion within the project limits, Holyoke Avenue between 256 feet north of CSAH 50 and 300 feet south of CSAH 50.

RELATIONSHIP TO REGIONAL POLICY: Projects that receive funding through the Regional Solicitation process are subject to the regional scope change policy. The purpose of this policy is to ensure that the project is designed and constructed according to the plans and intent described in the original application. Additionally, any federally-funded project scope change must go through a formal review and TIP amendment process if the project description or total project cost changes substantially. The scope change policy allows project sponsors to adjust their projects as needed while still providing substantially the same benefits described in their original project applications.

A TIP amendment accompanies this request.

STAFF ANALYSIS:

Approval/Denial of the Scope Change: Per the Process to Evaluate Scope Change Requests for Regionally-Selected Projects, staff attempted to determine whether the estimated score of the

revised project scope would have been high enough to have been awarded funds through the regional solicitation as the basis for approving or denying the scope change request. This process entailed approaching scorers to determine whether the score in their category would change based on this new information. Because it is difficult to determine whether the project would have been funded when compared to the highest unfunded project (there was only a 22-point difference between the two projects), staff and the applicant attempted to determine a more precise re-score.

Scorers noted that most of the sub-scores would not change as a result of the scope change. The following measures, however, would change based on feedback from scorers:

- Construction / Reconstruction Date (-5 points): The roadways being constructed for the roundabout are newer than the roadways already included in the project. The majority of the original roadway was constructed (or most-recently reconstructed) in 1959, with some in 1998. Roadway segments added to the project were constructed in the 1980s and 1990s. This brings the “average” date from 1964 to 1970, which makes a difference of five points.
- Vehicle Delay Reduction (+1 points): Addition of the roundabout brought total peak hour delay reduced (seconds) from 1,775 to 10,994, a 619% increase. However, the presence of some very high scores (outliers) from other submitted projects in the same application category renders this a modest increase in the scoring.
- Crash Reduction (+4 points): The addition of a roundabout added a \$524,000 crash savings benefit to the project, which led to an increase of four points.
- Cost Effectiveness (-21 points): The cost is increasing from \$4,000,000 to \$7,000,000. However, the below scoring analysis sets the cost at \$6,400,000, which negates \$600,000 for a watermain and a stormwater reuse system. The need for these items was discovered recently. Had the application included the roundabout in the first place this would not have been part of the total cost and points. It is very commonplace for new costs like this to be uncovered during project scoping and those instances do not result in re-scoring. This leads to a 21-point decrease in the cost effectiveness score.

Category	Original	Updated	Change
Non-changing scoring measures	405	405	0
Construction/Reconstruction Date	38	33	-5
Vehicle Delay Reduction	4	5	+1
Crash Reduction	32	36	+4
PRELIMINARY TOTAL	479	479	0
Cost Effectiveness	55	34	-21
TOTAL	534	513	-21

The project’s original score of 534 points landed it 10th among the 34 applications in the Roadway Reconstruction/Modernization funding category. The adjusted score of 513, lands it at 12th, one point above the highest unfunded project. The below table shows the impact on the rankings:

Project	Sponsor	Score	Funded?
202 ND STREET RECONSTRUCTION (Original)	DAKOTA COUNTY	534	YES
Hanson Blvd Reconstruction in Coon Rapid	Anoka County	530	Yes
I-394/Plymouth Rd Ramp	Minnetonka	525	Yes
202 ND STREET RECONSTRUCTION (Updated)	DAKOTA COUNTY	513	Proposed
37 th Ave Recon in C. Heights/MPLS	Minneapolis	512	No

The Process to Evaluate Scope Change Requests for Regionally-Selected Projects says that “the TAC F&PC will base their recommendation on whether the estimated score of the revised project scope would have been high enough to have been awarded funds through the regional solicitation.” The newly-scored project would have scored one point higher than the highest unfunded project. However, staff cannot say with certainty whether the project would have been funded or not as a result of the rescoring. The 34 projects in the Roadway Reconstruction/ Modernization application category were compared against one another in 2016. Projects that were funded continued on the project development process and many added costs like the watermain and stormwater reuse system or new project elements like the roundabout. If the unfunded projects would have received funding, their project costs would have also likely increased too, in most cases. Therefore, it is difficult to make a recommendation on the scope change based on cost effectiveness changes alone.

On the whole, the addition of the roundabout provides increased benefit to the region in terms of reduced congestion and crashes. Completing the roundabout element at the same time as the rest of the project also reduces the construction impacts on travelers relative to two separate projects at two separate times.

Funding: No elements are being removed from the project. Therefore, staff sees no reason to suggest removing federal funds, should the scope change be granted.

ROUTING

TO	ACTION REQUESTED	COMPLETION DATE
TAC Funding & Programming Committee	Review & Recommend	-
Technical Advisory Committee	Review & Recommend	-
Transportation Advisory Board	Review & Approve	-



Physical Development Division
Steven C. Mielke, Director

June 7, 2018

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Environmental Resources
Land Conservation
Groundwater Protection
Vermillion River Watershed
Waste Regulation
Water Resources
Environmental Initiatives

Office of Planning

Operations Management
Facilities Management
Fleet Management
Parks

Transportation
Highways
Surveyor's Office
Transit Office

Mr. Paul Oehme
Chair, TAC Funding and Programming Committee
Metropolitan Council
390 Robert Street North
Saint Paul, MN 55101

RE: Scope Change Request
SP 019-650-016
CSAH 50

Dear Mr. Oehme:

Dakota County respectfully request that the Metropolitan Council TAC Funding and Programming Committee consider the attached Scope Change request for the above referenced project.

Due to preliminary design and a review of the traffic operations along CSAH 50, there is a need to submit a scope change request. The traffic intersection review at the intersection of CSAH 50 and Holyoke Avenue shows a higher than state average for crash rates. The intersection control evaluation concluded that a 2 by 1 roundabout would best address the crashes. With safety and mobility a goal for the County, including this intersection improvement will improve safety along the CSAH 50 corridor.

Please consider the requested scope change at your next available TAC Funding and Programming Committee meeting.

Sincerely,

Mark J. Krebsbach
Dakota County Transportation Director/ County Engineer

Scope Change Request CSAH 50 – FY 2020

Location Map

A location map of the project is attached as Exhibit A.

Project Layout

A layout showing the original application is attached as Exhibit B.

A layout showing the revised project is attached as Exhibit C.

Current TIP Description

CSAH 50 (202ND ST) FROM HOLYOKE AVE TO CSAH 23 (CEDAR AVE) IN LAKEVILLE, RECONSTRUCT FROM TWO-LANE UNDIVIDED TO DIVIDED WITH CONCRETE MEDIAN, CONSTRUCT MULTIUSE TRAILS, PEDESTRIAN TUNNEL & SIGNAL AT CSAH 23.

Background

Dakota County was awarded funding for CSAH 50 from Holyoke Ave. to CSAH 23 in the 2016 Regional Solicitation under the Reconstruction category. CSAH 50 is an A Minor Arterial roadway from its intersection with Interstate 35 to CSAH 23 (Cedar Avenue). The project involves improving CSAH 50, installing a traffic signal at the CSAH 50 and CSAH 23 intersection, and providing a non-motorized grade separated crossing. CSAH 50 is currently a rural undivided two lane roadway and will be reconstructed as a divided two lane roadway with turn lanes at public road intersections.

Intersection Improvement

Upon receiving funding, the County started the project's preliminary design. The County conducted a traffic assessment at the CSAH 50 & Holyoke Avenue intersection. Both the intersection crash rate and severity rates were higher than the statewide averages, with a critical crash rate index of 1.0. The assessment determined a 2 by 1 roundabout would best improve the intersection operations and addresses the crashes occurring at the intersection.

The County determined that constructing the proposed roundabout with the proposed project would reduce costs and minimize construction disturbances to the traveling public. CSAH 50 west of Holyoke Avenue is a four lane divided roadway. The proposed project would be reconstructing CSAH 50 on alignment and a portion of CSAH 50 would need to be reconstructed in the future to address the curvature of the entrance and exits on the east leg of the roundabout.

Scope Change Elements

The requested elements for the scope are the following:

- Include the construction of a 2 x 1 roundabout at the intersection of CSAH 50 and Holyoke Ave. (2 lanes along CSAH 50)
- Increase project limits along CSAH 50 to include work related to the proposed roundabout to 600 feet west of Holyoke Ave.
- Include Holyoke Avenue project limits to include work related to the proposed roundabout to 265 feet north of CSAH 50 and 300 feet south of CSAH 50.

Proposed TIP Description Changes

CSAH 50 (202ND ST) FROM 600 FEET WEST OF HOLYOKE AVE TO CSAH 23 (CEDAR AVE) IN LAKEVILLE, RECONSTRUCT FROM TWO-LANE UNDIVIDED TO DIVIDED WITH CONCRETE MEDIAN, CONSTRUCT MULTIUSE TRAILS, PEDESTRIAN TUNNEL, & SIGNAL AT CSAH 23 AND A ROUNDABOUT AT HOLYOKE AVE.

Summary

This project still completes the work within the original application. The County does not request additional Federal funds. The project does change the scope to include a 2 by 1 roundabout, increase limits due to pavement needs at the roundabout and estimate for the project. During preliminary design, it was determined that modifications to Aronson Park were needed to maintain access, the City will be installing watermain on the Hamburg Avenue to CSAH 23 portion and the City will be constructing a storm water reuse system. These items contributed to the increased cost estimate of \$7 million. The two City improvements are not federally eligible but will be included as part of the project.

Cost Estimate

CSAH 50 corridor: \$5,300,000
CSAH 50 & Holyoke Ave. Intersection: \$1,700,000

Current TIP Funding:

Total: \$4,320,000
FHWA: \$3,200,000
Other: \$1,120,000

Proposed TIP Funding:

Total: \$7,000,000
FHWA: \$3,200,000
Other: \$3,800,000

SP 019-650-016

CSAH 50 Reconstruction from Holyoke Ave. to CSAH 26 in Lakeville
Scope Change Request - Updated Estimate

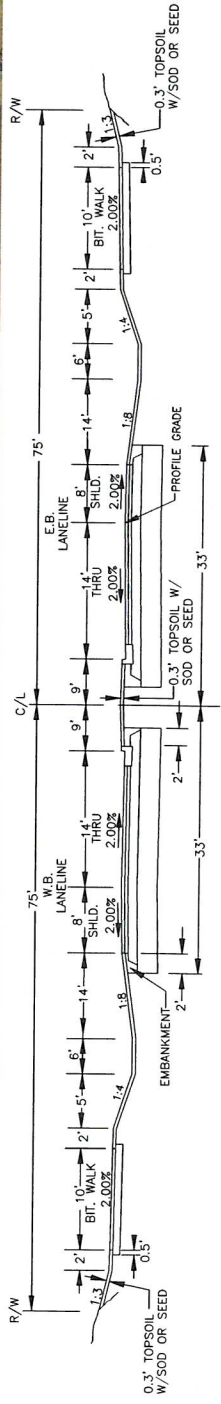
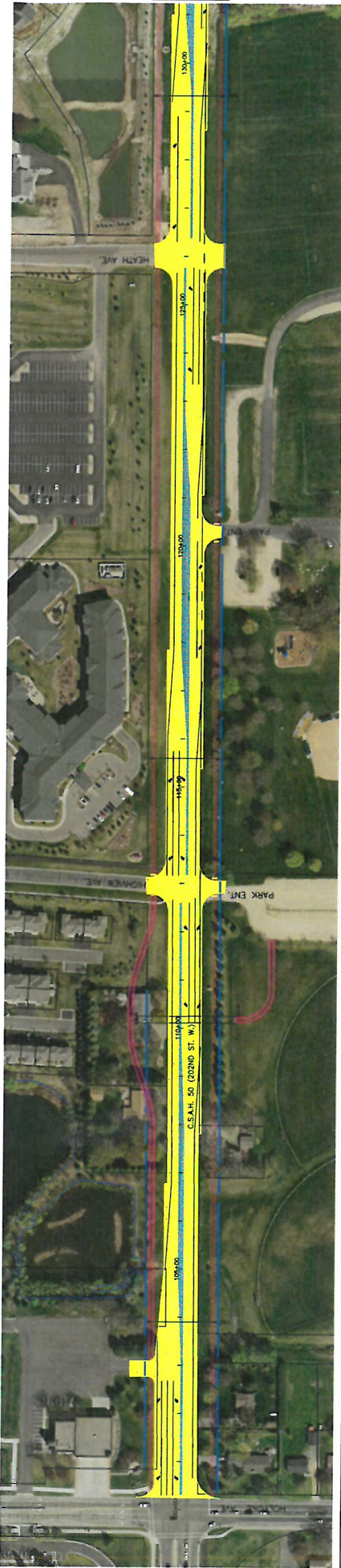
Estimated Costs

Item	Original	Scope Change Request
Roadway	\$4,320,000	\$4,700,000
Proposed Roundabout	\$0	\$1,700,000
City Watermain Work	\$0	\$250,000
City Storm Water Reuse	\$0	\$350,000
Total	\$4,320,000	\$7,000,000

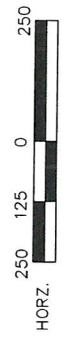
TIP Funding

Funding Source	Original	Scope Change Request
FHWA	\$ 3,200,000	\$ 3,200,000
Other	\$ 1,120,000	\$ 3,800,000
Total	\$ 4,320,000	\$ 7,000,000

C.S.A.H. 50 (202ND ST. W.)
 HOLYOKE AVE. TO C.S.A.H. 23 (CEDAR AVE.)

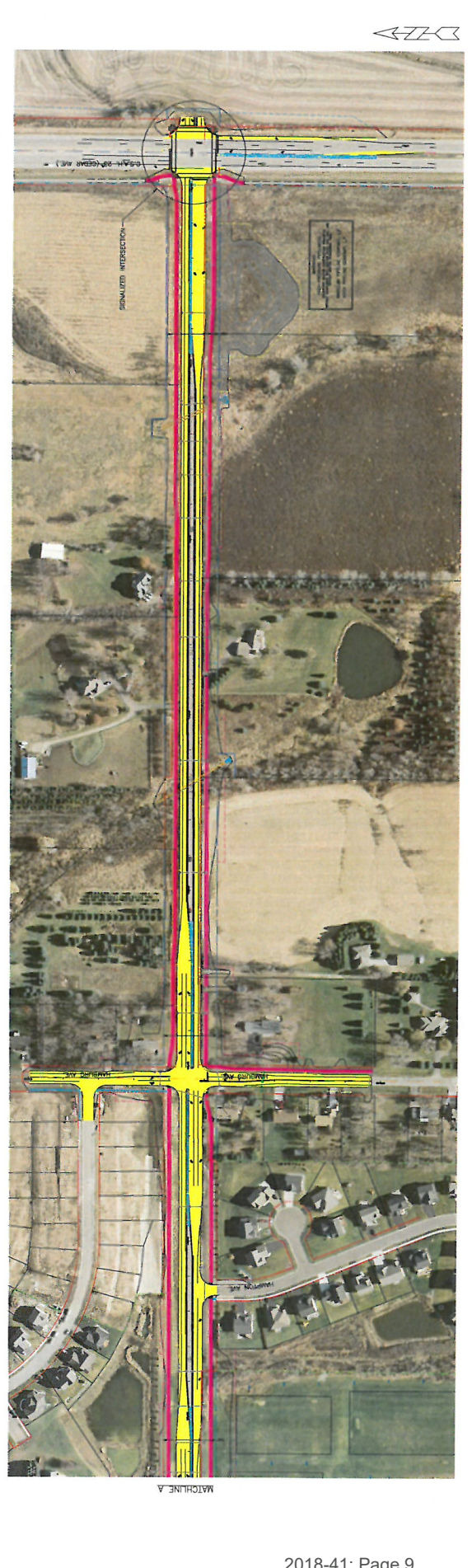
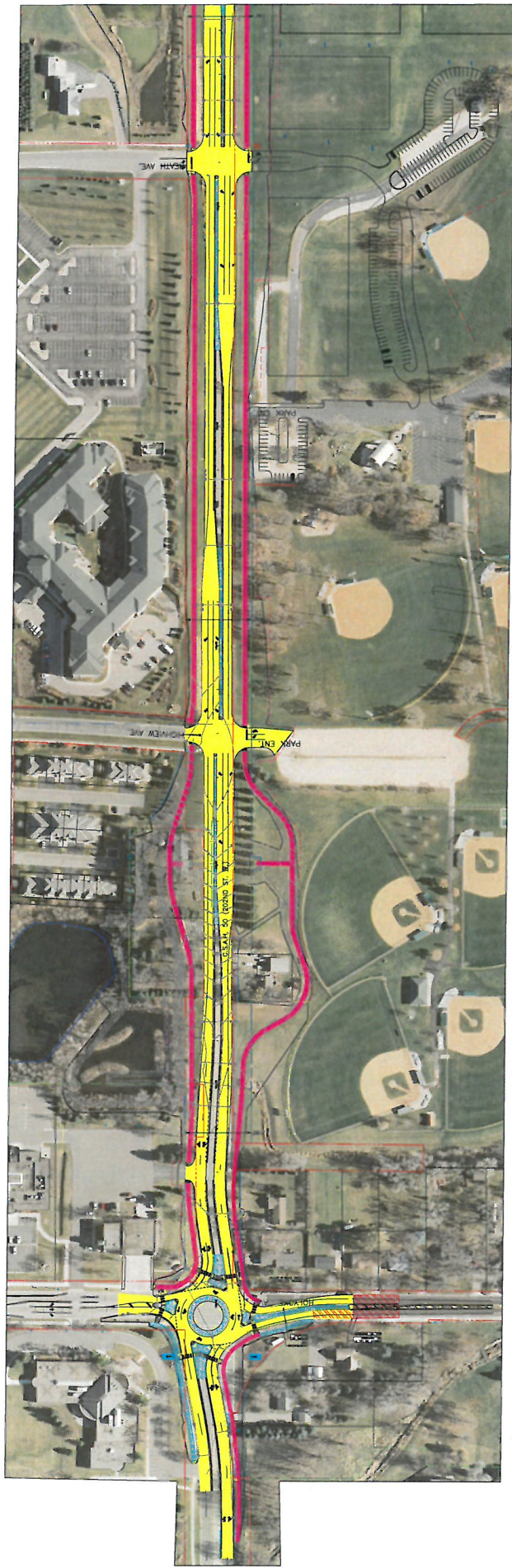


TYPICAL - 2 LANE DIVIDED SECTION





C.S.A.H. 50 (202ND ST. W.)
HOLYOKE AVE. TO C.S.A.H. 23 (CEDAR AVE.)



Process to evaluate scope change requests for regionally-selected projects.

Adopted by the Transportation Advisory Board on March 16, 2011

ACTION TRANSMITTAL 2011-35

Projects submitted for consideration through the regional solicitation are often just concepts or unrefined ideas. Project sponsors work on the preliminary and final design, environmental studies etc... after the TAB awards funds to the project. Sometimes during project development the project sponsor has to make significant design changes or finds that the construction cost was underestimated. When that happens, project sponsors may be required to request a scope change and TIP/STIP amendment because the scope and cost in the TIP/STIP has to be consistent with final project documentation that is sent to the FHWA.

Projects sponsors, Met Council and TAB staff, the TAC Funding & Programming Committee (F&PC) and the region would benefit from an adopted methodology to evaluate requested project scope changes. MN/DOT Metro State Aid has been very good at sorting out the significant scope changes that require action from the TAB. The FHWA has provided guidance on when a cost increase triggers a TIP/STIP amendment, and when a change in a project's design requires a scope change and TIP/STIP amendment (attached). The TAC and TAB want to be comfortable that the revised project scope of a regionally-selected project still provides about the same benefits as the original project scope and would have scored high enough to have been selected like the original project scope – to be fair to the other projects not selected. Below is a proposed outline of a process and guidelines for scope change requests.

- 1) Any construction elements added to the project scope must be eligible according to the solicitation criteria used to evaluate the original project submittal, unless the additional elements are already programmed in the STIP.
- 2) Additional federal funds will not be provided and federal funds cannot be swapped between projects of the same or different sponsor.
- 3) Met Council and TAB staff will provide data on the original project to the TAC F&PC, including cover page, project description, location map, layouts, sketches or schematics, and the original project cost estimate.
- 4) The project sponsor must provide data on the revised project scope to the TAC F&PC, including a complete project description, location map, project layout or sketches or schematics, checklist of work that still needs to be done and a revised project cost estimate.
- 5) The project sponsor must also recalculate the responses to certain key criteria based on the revised project scope and provide them to the TAC F&PC. Met Council and TAB staff may consult with the scoring group chair and individual project scorers if necessary to evaluate the recalculated responses and estimate the change in the original project score.
- 6) The TAC F&PC will base their recommendation on whether the estimated score of the revised project scope would have been high enough to have been awarded funds through the regional solicitation. A recommendation to approve the scope change and adopt a TIP amendment will go before the TAC, TAB Programming Committee and full TAB for adoption, then to the Metropolitan Council for concurrence. A recommendation to reject the scope change and TIP amendment will go before the TAC, TAB Programming Committee and full TAB for approval.