



DuPage Mayors and Managers Conference

Surface Transportation Program

**Policies and Procedures of the
DuPage Council**

June 2009

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Introduction

National transportation and air quality legislation have combined to set the course for a comprehensive, multi-modal approach to maintaining and improving our urban transportation system.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), enacted on August 10, 2005, authorizes the federal Surface Transportation Program (STP) for highways, highway safety, and transit for the 5-year period 2005-2009. The intent of SAFETEA-LU closely follows that of its predecessor bill, the Transportation Equity Act for the 21st Century (TEA-21), which is to support an intermodal transportation system that is environmentally sound and moves people and goods in a safe and efficient manner.

The Clean Air Act Amendments of 1990 (CAAA90) established stricter clean air standards and specific timetables for achieving emissions reductions for non-attainment areas such as northeastern Illinois. Federal transportation legislation supports and encourages implementation of the Clean Air Act Amendments of 1990. The DuPage Mayors and Managers Conference, the agency responsible for programming STP funds in DuPage County, has incorporated such objectives as decreasing vehicle emissions and congestion through increased use of Transportation Control Measures (TCMs). The DuPage Mayors and Managers Conference has developed the DuPage Surface Transportation Program to help DuPage County and the region achieve compliance with national air quality and transportation objectives.

This manual is intended to assist project sponsors in understanding the policies, procedures and evaluation methodologies of the DuPage Council's Surface Transportation Program. The manual is periodically updated to reflect current legislation and new Council priorities.

Structure of Federal-Aid Programming in Northeastern Illinois

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005 retained the major federal-aid surface transportation programs that were established under the Transportation Equity Act for the 21st Century (TEA-21). Of the major federal-aid transportation programs in SAFETEA-LU, the Surface Transportation Program (STP) provides the most direct role for local governments. Municipalities and counties are on the frontline not only for project sponsorship, but also in the project selection and programming processes. Several other entities in northeastern Illinois also participate in the programming and implementation of local STP projects. These agencies are the Chicago Metropolitan Agency for Planning (CMAP), the CMAP Council of Mayors, the DuPage Mayors and Managers Conference and the Illinois Department of Transportation. A list of agency contacts is provided in Appendix A.

Chicago Metropolitan Agency for Planning (CMAP)

The Chicago Metropolitan Agency for Planning (CMAP) Policy Committee is designated by the Governor of Illinois as the Metropolitan Planning Organization (MPO) for the seven-county northeastern Illinois area. CMAP, formed in 2005, integrates planning for land use and transportation in the seven counties of northeastern Illinois. The new organization combined the region's two previously separate transportation and land-use planning organizations -- Chicago Area Transportation Study (CATS) and the Northeastern Illinois Planning Commission (NIPC) -- into a single agency. CMAP is a transportation and land use planning agency and does not itself sponsor or implement transportation improvement projects. Highway, transit and local agencies participate cooperatively through the CMAP Board, MPO Policy Committee and numerous coordinating and working committees. The MPO Policy Committee, the official MPO-designate, meets quarterly and is comprised of executive level representatives of various agencies and government bodies. More information about CMAP and the committee structure can be found at www.cmap.illinois.gov.

CMAP Council of Mayors

Local Surface Transportation Program (STP) projects are selected and programmed by eleven regional Councils of Mayors across the seven-county metropolitan area. The Council of Mayors is the umbrella organization for the regional Councils (refer to Appendix B for a map of the Council boundaries). Two mayors from each Council comprise the Executive Commit

tee, which meets approximately once a quarter to address STP policy issues, local planning liaison funding and other transportation issues.

DuPage Mayors and Managers Conference / DuPage Council of Mayors

As the DuPage Council of Mayors, the DuPage Mayors and Managers Conference is the body designated to select and program local STP projects in the DuPage County region. The Conference's Transportation Technical Committee meets regularly to program, manage and monitor the progress of STP projects in DuPage. Each year, the Transportation Technical Committee develops and approves a Multi-Year Program for the next six consecutive fiscal years into the future. The DuPage Mayors and Managers Conference gives final approval to the Multi-Year Program, prior to its submission to CMAP for inclusion in the regional Transportation Improvement Program (TIP).

Illinois Department of Transportation (IDOT)

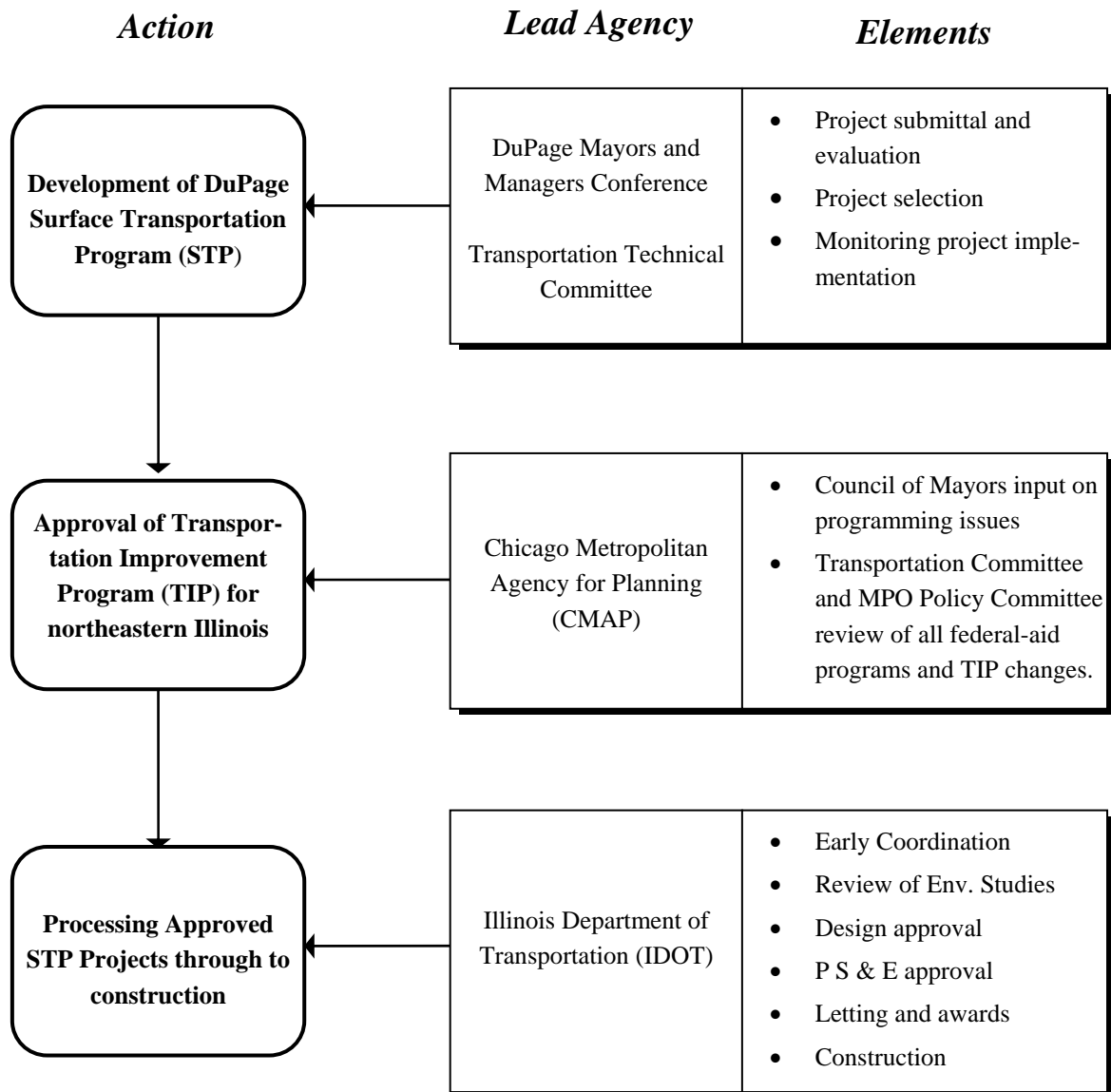
The Illinois Department of Transportation is responsible for processing projects in DuPage's approved STP Program. IDOT's procedures for processing STP projects and other federally funded projects are described in the manual, *Federal-Aid Procedures for Local Highway Improvements*. IDOT-Bureau of Local Roads and Streets (BLRS) staff from the District 1 office are assigned to DuPage County to coordinate with municipalities sponsoring STP projects. IDOT is responsible for the final review and approval of all components of a STP project before it can be sent to the Federal Highway Administration for authorization and published for contract bidding.

Transportation Improvement Program (TIP) Process

One of CMAP's major responsibilities as the MPO for the region is the development of the Transportation Improvement Program (TIP). The TIP is a fiscally constrained, five-year program of all federal-aid and regionally significant, non-federal-aid transportation projects programmed by transportation agencies in the seven-county Chicago metropolitan area, including Surface Transportation Program projects. The relationship between the DuPage Surface Transportation Program development and implementation structure and the TIP development process is shown on the following page.

Figure 1.

Surface Transportation Program Development and Implementation Structure



The TIP is structured to include a one-year Annual Element of projects in the current fiscal year and a Multi-Year Program of all funded transportation projects for the next five consecutive years. The region's TIP is developed by the CMAP Transportation Committee based upon the programs submitted from each of the individual agencies, with final approval required from the CMAP MPO Policy Committee. The entire compilation of transportation improvements are modeled and evaluated for net impact on air quality approximately twice per year, to ensure that air quality goals are being met.

Federal legislation requires submittal of the TIP's Annual Element, the Multi-Year Program and air quality conformity testing results to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) for their review and approval. After federal approval has been received, the region's TIP is submitted for inclusion in the development of the State Transportation Improvement Program (STIP).

Major changes to projects in DuPage's approved STP program are approved through resolution of the full Conference and submitted to CMAP in the form of a request to change the current TIP. Minor changes to projects in DuPage's approved STP program are reviewed by the DMMC Transportation Technical Committee prior to submittal to CMAP. TIP change requests are subject to the procedures currently in place at CMAP and may require approval by the CMAP Transportation Committee and in some cases, the MPO Policy Committee. In addition, a number of air quality-beneficial STP projects are submitted by CMAP for inclusion in the State Implementation Plan (SIP), with the consent of the project sponsor. Projects that are included in the SIP *must be constructed* in compliance with federal law.

STP Policies and Procedures of the DuPage Council

The DuPage Mayors and Managers Conference has three primary goals for the Surface Transportation Program:

- Fund the most effective projects in each funding cycle;
- Assure broad access to available funds for all members; and
- Utilize all funds available for projects in a timely manner.

DuPage STP Categories

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), marked a major shift in national transportation priorities with its strong emphasis on air quality improvements and congestion reduction that has continued in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). In order to advance the national objectives of congestion reduction and improved transportation efficiency and air quality, the policies of the DuPage STP program place particular emphasis on Transportation Control Measures (TCMs) and innovative solutions. TCMs are projects that reduce single-occupancy automobile travel and/or have a positive net impact on air quality.

Two funding components have been established for the DuPage STP program: a TCM component and a Highway component. The TCM component provides funding for stand-alone TCM projects (including Intelligent Transportation Systems and demonstration projects categories), and the Highway component funds traditional highway projects and highway-TCM combined projects.

The DuPage Council targets allocating 30% of the available STP funding in the six-year program to TCM projects. The total proportion of funding actually programmed for TCM projects in any given year may be higher or lower than 30%, depending on the quality and quantity of TCM and highway projects submitted and the accomplishments of the previous year. The 30% target is a guideline, not a requirement, and is subject to reevaluation annually.

DuPage STP Eligibility Guidelines

In 1977, the DuPage Council's Transportation Committee designated a system of federal-aid routes for DuPage, in cooperation with the Illinois Department of Transportation. In order to be eligible for STP Highway Component funding, the route involved must be included on the Federal-Aid System. Revised maps portraying current route designations are available for inspection at the IDOT District 1 offices. A process for adding new routes to or revising existing routes on the Federal-Aid System is described in Appendix C.

Eligible Highway Projects

The following are general types of highway projects eligible for STP funding as part of the Highway Component. A more detailed listing of eligible highway projects is provided in Appendix D.

- Rehabilitation, reconstruction and restoration
- Road widening/Add lanes
- Intersection improvements
- Traffic signal improvements

Project applications for a State route will not be considered for funding without prior review and approval by the Transportation Technical Committee. (This does not apply to an intersection leg of a State route that is the terminus for a municipal or county highway project.) The sponsoring municipality should appear before the Committee and demonstrate that all other funding mechanisms have been exhausted and document the project's local benefits. Final determination to recommend funding for improvements to a State route will be made by the Transportation Technical Committee. The Committee and the Conference make it a policy to actively advocate for State funding of State roads in DuPage County.

Eligible TCM Projects

The following are general types of TCM projects that are considered eligible for STP funding as part of the TCM Component:

- Transit improvements
- High-occupancy vehicle (HOV) programs
- Commuter parking
- Signal interconnects
- Pedestrian/bicycle facilities

A detailed listing of eligible TCM projects is provided in Appendix E.

Project Sponsorship

DuPage STP projects must be sponsored by a DuPage municipality, township or the County. STP highway projects submitted by DuPage County or any township must be co-sponsored by a member municipality(s), preferably by the municipality(s) affected by the project.

The multi-modal nature of TCM projects may require the participation of regional agencies. Regional transit agencies may submit projects for consideration; however the project must be sponsored by a member municipality. Transportation Management Associations (TMAs), employer associations and other groups may also submit a project in conjunction with one or more municipal sponsors.

DuPage STP Funding Policies

SAFETEA-LU retained the maximum federal share for local STP projects at 80% of the project cost. However, the DuPage STP program provides a lower federal match than legislatively allowed, in order to extend funding to a greater number of projects. The two components of the DuPage STP program, Highway and TCM, have different federal match ratios and eligibility features.

DuPage STP Funding Ratios

The DuPage STP program provides a 70/30% federal/local match ratio for highway projects and a higher 75/25% match ratio for TCM projects. The Conference's Transportation Technical Committee has adopted procedures to "reward" highway projects that contain TCM and emission reduction elements, as part of the Highway project evaluation methodology. In addition, there are two sub-classifications within the TCM component: Feasibility /Demonstration Studies, eligible for STP funding at a 70/30% ratio and Intelligent Transportation Systems (ITS) Projects, eligible at the higher 75/25% ratio.

Project sponsors are encouraged to seek funding from multiple sources and may provide additional local funding, or "over match", in order to improve a project's cost-effectiveness score. However, sponsors are reminded that federal funds cannot be used to match other federal funds and that each different federal fund type has its own rules and match requirements. Additionally, once a project is guaranteed funding at a specific STP match ratio, that ratio will be maintained for the life of the project and cannot be raised through a request for a cost increase, or through use of the DMMC buffer.

Eligible Participating Costs

With the exception of Intelligent Transportation System (ITS) projects in the TCM component, STP funds may be used for construction only, including street lighting, sidewalks, storm sewers and other right-of-way appurtenances, as well as wetland enhancements that

are an integral part of the project. **Right-of-way acquisition costs and engineering costs (including phase 3 construction engineering) are not eligible.** Every effort should be made to involve developers in the funding of STP projects.

For TCM-ITS projects, however, engineering *is eligible* for STP funding. SAFETEA-LU encourages the mainstreaming of ITS projects by making ITS traffic flow improvement strategies and infrastructure-based capital improvements eligible for federal funding through the STP program. To facilitate this mainstreaming and to encourage the use of ITS applications as a tool to mitigate congestion, the DuPage Program extends eligibility of STP funds to engineering for ITS projects, in recognition of the substantial engineering needs for these types of projects.

Non-Participating STP Costs

Non-participating costs are those which are paid 100% by a municipality or other agency and are not included in the STP (federal) portion of a project's cost. There are two reasons why an item may be considered non-participating:

- (1) the item is not eligible for STP funding [“required” non-participating], or
- (2) the item has been voluntarily identified for full funding by the sponsor or other agency [“optional” non-participating].

The following items are considered ineligible for STP funding, and are therefore **“required” non-participating** costs:

- Over-sizing of storm sewers¹
- Historic or decorative lighting

A project sponsor may chose to designate the following items as **“optional” non-participating** costs:

- Street lights
- Sidewalks
- Traffic signals²

¹ FHWA/IDOT will allow only a portion of storm sewer costs to be funded with STP dollars. STP funds will cover the cost of drainage for twice the width of the right-of-way only. The sponsor must pay for the cost of any additional drainage capacity. This additional expense is considered non-participating.

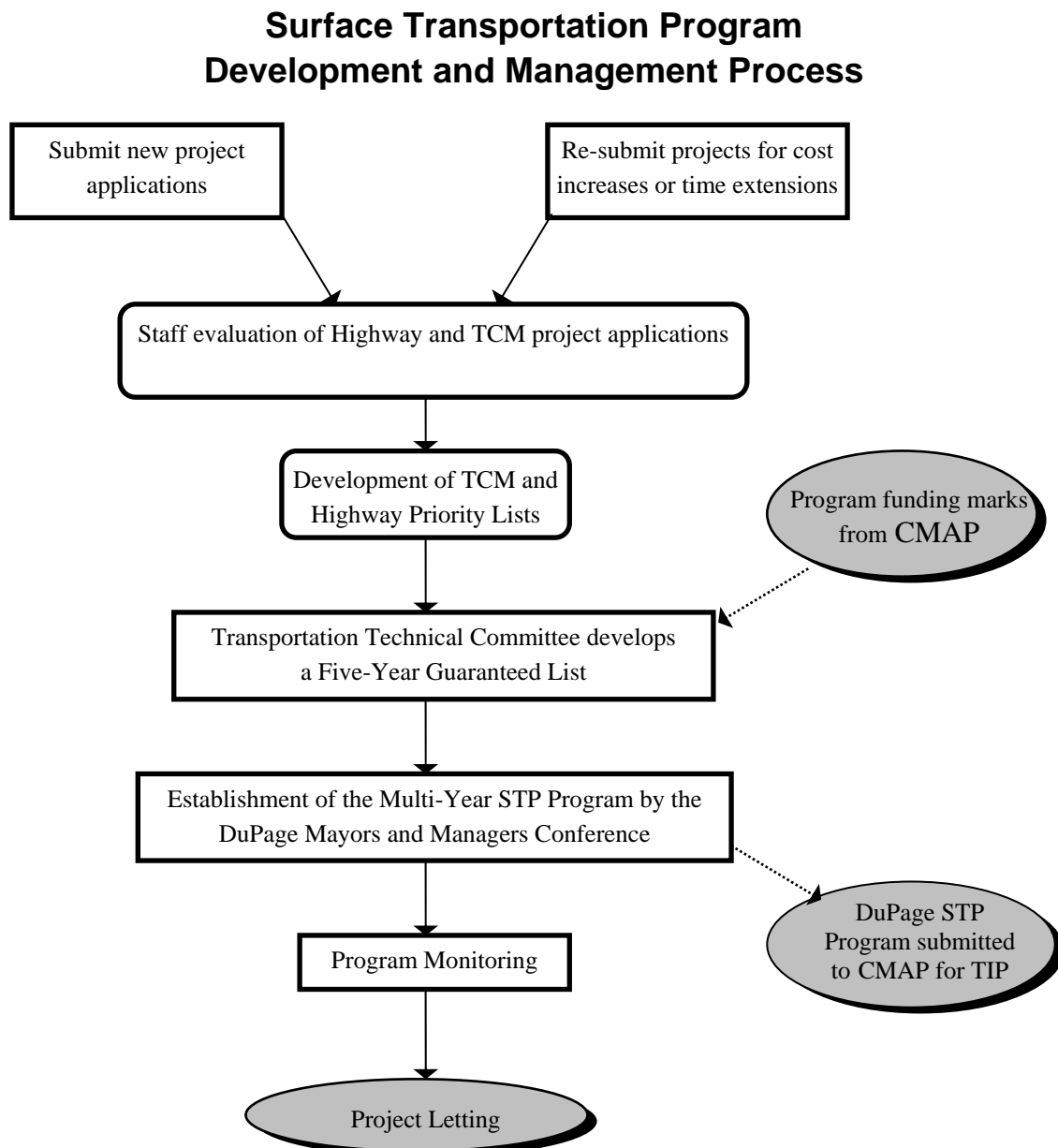
² Traffic signals may be funded by the sponsor or the sponsor may negotiate with the county or state for participation.

The purpose of designating an item as “optional” non-participating is typically to increase a project's cost effectiveness score in the project evaluation and project selection process. By opting to pay for specific items with low traffic benefits relative to the item's cost, a project's cost-effectiveness score may be increased.

STP Project Application and Selection Process

The DuPage Council's Transportation Technical Committee has developed the project selection and program development process depicted in Figure 2. The section that follows describes the components of this process in detail.

Figure 2.



New Project Application Review

To be considered for STP funding, sponsors must complete a current application form (either TCM or highway specific). The application cycle opens with a mandatory Annual STP Workshop and closes approximately 2 months later. All project applications must be submitted to the Conference by the announced deadline.

Each new STP application must be reviewed by the Illinois Department of Transportation-Bureau of Local Roads and Streets (IDOT-BLRS) staff, prior to submittal to the Conference. This mandatory IDOT review policy is intended to mitigate, to the extent possible, any future “unexpected” cost increases and to impart a greater knowledge among project sponsors regarding the time, cost and IDOT bureau review processes for each individual project proposal. It is the responsibility of the project sponsor to arrange this consultation and to fully review the scope of work and preliminary cost estimates. The consultation process may take place over the phone or in person, and more than one meeting may be necessary. Sponsors are strongly encouraged to schedule this review as soon as project parameters and application information are known, for maximum flexibility and effectiveness. Proposed STP projects should be coordinated with the Chicago Metropolitan Agency for Planning (CMAP) for design year traffic projections, prior to application submittal.

Project Resubmittals

Sponsors of programmed STP projects may request changes to a project’s guaranteed funding using a resubmittal form. A resubmittal may be to request additional funds for a project, and/or additional time to implement the project. Resubmittal does not affect the current guaranteed funding or schedule. The resubmittal form requires updated information, such as that related to project cost, traffic volumes, scope, accident data, etc. The Transportation Technical Committee or Conference may award a time extension without awarding additional funding.

Project Prioritization

Staff evaluates Highway and TCM projects as two separate categories using the respective evaluation methodologies established by the Transportation Technical Committee. Projects within the two STP categories are ranked relative to other projects within the same STP component. A project's ranking may change from year to year as new projects move into and out of the program. The two ranked “priority lists”, one for TCM projects and one for highway projects, are produced by staff to assist the Transportation Technical Committee and Conference in selecting new STP projects.

Program Funding Marks

A funding mark is the annual amount of STP dollars allocated to the DuPage Council for all projects. The Chicago Metropolitan Agency for Planning (CMAP) develops the program

funding mark for the annual element based upon congressional appropriations and provides an estimate for each year in the multi-year program. Program marks for current and future years may be revised by CMAP at any time. The annual element and multi-year program *must* be fiscally constrained to the most recent funding marks provided by CMAP, therefore the amount of funding available in any application cycle is dependent on the current mark *and* the current program.

It is a key principle of the DuPage Council to fund numerous STP projects each year, rather than to commit all available STP funds to an individual project. As part of the project selection and program development process, no more than 50% of the Council's STP funds available for new guarantees will be committed to an individual project. However, in any given year, should the total amount of funding requested by all projects be less than the amount of funding available for new guarantees, this policy will not apply.

Development of a Multi-Year Program

Within the framework of the federal requirements to develop an annual element and a multi-year program, a five-year Guaranteed List is formed by the Transportation Technical Committee, and approved by the Conference. The five-year Guaranteed List is established based upon the two ranked priority lists, the 70/30 highway/TCM guideline, and the funding marks received from CMAP for the first six years of the program. A "guarantee" assures that funding will be available to a project for a five-year period. This guarantee, however, is contingent upon the actual allocation and availability of STP dollars to the Conference. The projects on the Guaranteed List will make up the Multi-Year Program.

Due to fiscal constraint requirements of the CMAP TIP, projects will be programmed in the year they are likely to be constructed, as long as funds are available in that year. In the event projects are ready for construction before funds are available, DMMC will request Advanced Funding from the CMAP Council of Mayors Executive Committee. However, projects are not guaranteed funding in a specific year. The DMMC Multi-Year Program is continuously monitored and adjusted by staff and the Transportation Technical Committee to maintain fiscal constraint.

Policy on Funding Cost Increases

Significant cost increases among guaranteed projects pose difficulties for maintaining a fiscally constrained program. Project sponsors must inform Conference staff of changes in project cost as soon as the information becomes available. Sponsors must also inform the Transportation Technical Committee of any cost increase beyond 20% of the original project cost.

The 20% Rule

A project cost increase up to and including 20% of the original guaranteed cost will be automatically funded at the same match ratio the project was guaranteed. However, project sponsors are responsible for *all project cost increases (including inflation) in excess of 20%*.

A federal maximum participatory STP amount will be calculated for each project and submitted to IDOT on the project’s Job Request Form. Projects with cost increases exceeding 20% of the guaranteed amount can be treated in one of the following ways:

1. Sponsors may maintain their project’s funding guarantee in the STP program at the maximum federal participating level and increase the local match as necessary with municipal resources or other funding sources; or
2. Sponsors may resubmit the project in the next application cycle, in hopes of securing a new guarantee for funding at the revised cost estimate level.

Conference staff will continuously monitor bids, and should construction prices increase to a point where the 20% buffer is insufficient to cover increases, individual project sponsors may request additional increases, up to the 30% level, subject to the following guidelines:

Valid reasons to request an increase in the buffer percentage	Invalid reasons to request an increase in the buffer percentage
The cost of materials and/or labor has risen, as evidenced by recent bid lettings.	A cost increase was requested, but not awarded in the last STP application cycle.
Unanticipated items have been added to the project to meet new or revised federal or state standards and requirements since funding approval.	The scope of the project was changed or expanded to include additional work or pay items not included in the STP project application. (A cost increase should be requested in the next application cycle.)
Implementation of the project has been delayed by circumstances outside the control of the project sponsor, leading to inflation of costs. (These types of increases are best addressed by resubmitting the project as soon as delays are experienced.)	Implementation of the project has been delayed by the project sponsor for reasons such as changing local priorities, inability to provide local match, inability to fund engineering or right-of-ways phases, etc.

In addition to the above procedure, the Conference may revise the buffer percentage on an annual basis to account for long-term changes in the construction market.

The STP Project Implementation Process

Chapters 1 and 2 have outlined the process of developing the DuPage Surface Transportation Program. The implementation process starts with approval of the Multi-Year Program by the DuPage Mayors and Managers Conference and subsequent inclusion in the region's Transportation Improvement Program (TIP) by CMAP.

Once a project has been programmed by the Conference and CMAP, work can begin on engineering the improvement. To utilize STP funds, project design and construction must be in accordance with IDOT and Federal Highway Administration (FHWA) standards and criteria.

Public information meetings and formal public hearings should be utilized throughout the course of the project to facilitate community understanding of the project, as well as to comply with State and Federal rules and regulations, where applicable. For projects requiring land acquisition, a formal public hearing process is required.

STP Project Implementation

STP project implementation is a very involved and complex process consisting of the following steps:

- 1) Project Application, Prioritization and Inclusion in the Multi-Year Program
- 2) Consultant Selection
- 3) Kick-off Meeting
- 4) Environmental Determination and FHWA Review
- 5) Phase 1 Engineering and Project Development Report
- 6) Illinois Project Review System
- 7) Public Involvement Requirements
- 8) Design Approval
- 9) Land Acquisition
- 10) Phase 2 Engineering and Plans, Specifications, and Estimates (P S & E)
- 11) Final processing for letting and award of contracts

A brief description of each step is summarized in this chapter. This summary does not and should not substitute for a complete review of the IDOT BLRS Manual, *Part III – POLICIES AND PROCEDURES for FEDERAL-AID PROJECTS* published by the Illinois Department of Transportation, as well as on-going coordination with Conference and IDOT Local Roads staff.

1. Project Application, Prioritization and Inclusion in the Multi-Year Program

Project applications must be submitted as directed by the Conference and the Transportation Technical Committee for annual STP funding consideration. The application process requires that project sponsors contact IDOT Local Roads staff to review the project application, especially with regard to preliminary cost estimates and project scope. Project applications will be evaluated and prioritized as described in Chapter 2.

Project review and program development will generally occur during the months of August - October, with adoption of the Multi-Year Program by the Transportation Technical Committee and full Conference. The five year STP program is typically submitted to CMAP for inclusion in the TIP in November.

2. Consultant Selection

Though the Conference does not allow STP funds to be used for any phase of engineering, DuPage sponsors submitting projects are still bound by many of the IDOT requirements for consultant selection. IDOT staff can provide valuable insight and guidance in this process; their procedures are designed to make consultant selection as smooth and as timely as possible. Note that if Motor Fuel Tax (MFT) funds or another federal fund source (such as CMAQ, HPP, etc.) are used for STP project engineering, an Engineering Services Agreement (BLR 05510 or 05610) with IDOT is required. Also, a publicly employed resident engineer is required to be “in responsible charge” of construction for federally-funded projects, regardless of whether federal participation in construction engineering is involved.

Because the processing of STP projects is so specialized and time consuming, it is highly recommended that municipalities consider hiring a consultant, particularly one knowledgeable of the federal process and IDOT requirements. This outside expertise may result in a more timely completion of the STP project and minimize delay and disruption to a municipality’s normal engineering work schedule.

3. Kick-Off Meeting

A formal kick-off meeting between the project sponsor, consultant, IDOT District 1 Local Roads staff and a representative(s) of the DuPage Mayors and Managers Conference (DMMC) should precede the start of preliminary engineering for all STP projects. Other agencies or IDOT staff may require contact or notification, including FHWA, CMAP, Corps of Engineers and affected local jurisdictions. The project sponsor or consultant should contact DMMC staff to schedule the kick-off meeting.

The purpose of the kick-off meeting is to introduce the project to meeting attendees. The location, scope and termini will be reviewed and a section number assigned. The potential for environmental impacts will be discussed and a preliminary determination of the environmental processing (CE 1, CE 2, EA, etc.) will be made. This preliminary determination will

be used to establish project milestones. Following the kick-off meeting, a Job Request Form can be submitted through DMMC and the project will be entered into the IDOT program.

4. Environmental Determination and FHWA Review

Based on the preliminary scope of work for the project, FHWA rules and regulations, and the requirements of the National Environmental Policy Act (NEPA), a project may fall into one of three categories of potential environmental impact and corresponding intensity and review of environmental studies:

- *Categorical Exclusions (CE)*
Actions which individually or cumulatively do not have a significant effect on the environment are Categorical Exclusions. An action may be classified as one of two types:
 - CE Group 1 are projects that do not have any potential for unusual circumstances, as described in the CE Agreement between FHWA and IDOT, and do not require approval by FHWA. Certain Group 1 projects do not require a Project Development Report (PDR), including traffic signal modifications, new signals, LAPP projects, resurfacing from face-of-curb to face-of-curb, lighting and electrical work, landscaping on existing right-of-way and bridge rehabilitation. Group 1 projects that require a PDR include bike/ped paths with no unusual circumstances, highway/railroad grade crossing improvements, and parking and turning lanes within existing right-of-way. See BLRS Manual Section 19-1.03(b) for further detail.
 - CE Group 2 projects have the potential for unusual circumstances and require FHWA approval and completion of a PDR. Unusual circumstances include significant environmental impacts, substantial controversy on environmental grounds, significant 4(f) impacts or inconsistencies with any federal, state or local law or requirement relating to the environmental aspects of the project.
- *Environmental Assessment (EA)*
A project in this category is of such magnitude that historically, the potential for environmental impact is present. The findings of this type of study will determine if an Environmental Impact Statement must be prepared or if a Finding of No Significant Impact (FONSI) can be granted. Examples of projects in this category include interchanges, bypasses, and those involving public opposition or substantial controversy on environmental grounds.
- *Environmental Impact Statement (EIS)*
The most detailed review and of any environmental study, emphasizing alternatives analysis, including the No-Build Alternative and measures to mitigate harm or nega-

tive impact. An EIS will be required if a project is expected to have significant adverse impact on the natural, historic, or cultural resources, flood plains or wetlands, and disruption to homes and businesses. In general, projects requiring an EIS will be of such scope or magnitude to generate area-wide controversy.

Most STP projects in DuPage will be Categorical Exclusions. Projects which have the potential to be processed as CEs, but which generally have been processed with EAs in the past (i.e., add lanes projects) are eligible for Environmental Class of Action Determination (ECAD) procedures. The implementation of the ECAD procedures does not change any of the procedures or requirements for EISs, EAs, or CEs; it leads to the decision on whether an eligible project should be processed as a CE or with an EA or EIS and provides a structure for evaluating and documenting the basis for that decision.

Generally, CE determination is made by IDOT District 1 staff in consultation with Central Office. In cases where IDOT staff is unable to provide a determination, the project sponsor or consultant will be required to present the project at one or more federal coordination meetings for a determination. These meetings are scheduled monthly and IDOT staff will advise the project team of the schedule. FHWA may request additional coordination meetings based on individual project circumstances.

5. Phase I Engineering and Project Development Report

Phase I primarily involves completion of the appropriate design and environmental studies to develop a Project Development Report (PDR) and receive Design Approval. Some projects classified as CE 1 may not require a PDR.

Specific elements of Phase I Engineering include:

- *Data Collection*
Review relevant studies, traffic and accident history, current land use and zoning information, FEMA and other floodplain information, etc.
- *Environmental Studies*
Inventory all significant social, economic, and environmental features or conditions which may be impacted by the project, including air quality, traffic and construction noise, wetlands and other ecologically sensitive features, adjacent homes and businesses, etc. and submit an Environmental Survey Request (ESR) if needed.

- *Preliminary Design Studies*
Develop alternative plans, where appropriate, including a preferred alternative, identifying pavement cross-section, utility location/relocation, street lights and traffic signals, etc. Preliminary cost estimates would be developed at this time. A Bridge Inspection Report and type, size and location (T, S, and L) drawing must be prepared where bridge structures are involved.
- *Project Development Report*
If required, a Project Development Report must be prepared which summarizes the major elements described above.

6. Illinois Project Review System

In accordance with Circular A-95, FHWA formerly required that State and sub-state (regional) clearinghouses review projects in order to qualify for federal funding. Although federal requirements for A-95 no longer exist, Illinois has "continued" the A-95 review, under what is now called the Illinois Project Review System. The Chicago Metropolitan Agency for Planning (CMAP) is the Sub-state Clearinghouse agency for Northeastern Illinois. All STP projects are required to go through the clearinghouse review. CMAP may determine that certain minor improvement types (i.e., resurfacing) do not require a full review.

Generally the following two stages of review are adequate for most projects:

- *Early Warning Stage*
Early Warning notification is currently done only for projects involving a new road alignment or where the scope of work at this early stage is undetermined. If required, this early review should be started as soon as possible after inclusion in the DMMC Multi-Year program. This allows a quick review and incorporation of resultant comments and suggestions into the Phase I Engineering stage of the project. Serious problems can therefore usually be resolved prior to the design stage notification that follows.
- *Design Stage*
Additional elements required for the project documentation at this stage of review are a more complete description of work, a summary of comments from public hearings or meetings on the project, a summary of contacts and responses of various public agencies on the project. This review is required and must be completed prior to design approval for the project.

Applications for clearinghouse review should include a project summary, site maps, and a standard Form 424 for all proposals where Federal assistance is sought. Requests for forms and additional information can be directed to CMAP's Planning & Programming Group.

It is recommended that only a design stage notification be done for all projects. An early warning should only be done for special cases, such as a new roadway.

7. Public Involvement Requirements

Closely related to the level of environmental study required is the corresponding degree of Public Involvement. Minimum requirements for Public Involvement are clearly established by the FHWA. A public hearing is required for all Federal-Aid projects which involve the preparation of an Environmental Impact Statement. Public hearings are also required for Categorical Exclusions (CE's) and Environmental Assessments (EA's) when significant amounts of right-of-way are required (ten or more property owners), significant adverse effects on abutting real property is expected, or there is known public opposition.

A public informational meeting is recommended as soon as the scope of project is determined. In most cases, early notification can be provided by the inclusion of proposed project application on a local council/board agenda; this would provide sufficient opportunity to communicate the intent of the sponsor regarding the project. Such public review at this early stage helps insure that citizens do not feel left out of the decision-making process, and may save time and reduce delays at later, more critical stages of project development.

8. Design Approval

All projects that require the preparation of a PDR or a design report will require design approval. For all CE Group I projects, design approval is given by District 1. For all CE Group II projects, design approval will be given by the Central BLRS after environmental and public hearing requirements have been completed and the project has been determined to have no unusual circumstances. FHWA approval may be required in cases where there is public controversy, limited environmental impact, deviation from design standards, and other non-routine aspects to the project. Projects involving bridge structures will require additional time to process through the Springfield office.

9. Land Acquisition

If right-of-way is required, the acquisition process may not be started until after the project has received Design Approval and must follow federal guidelines. See the IDOT BLRS Manual for more information on right-of-way plans, appraisal, etc. Right-of-way certification by IDOT is required approximately 6 weeks prior to the project letting date.

10. Phase 2 Engineering and Plans, Specifications and Estimates

Upon design approval, project plans, specifications and estimates (PS&E) are to be prepared. This Phase II engineering will provide the more detailed information necessary to construct the project and will incorporate environmental and design commitments made at earlier

stages of project development (e.g., mitigation for impacts, revised lane widths based on IDOT/FHWA review, etc.). The PS&E becomes the basis for contract bids at a later date. The elements of this phase of project development are:

- *Plans*
Plans are working drawings showing the location, character, and dimensions of the proposed work, including layouts, profiles, structures, cross-sections and other details. As such, the term Plans will actually incorporate the following specific documents:
 - ❖ Plan and profile drawings
 - ❖ Bridge plans
 - ❖ Traffic control plans
 - ❖ Cross-sections
 - ❖ Right-of-way plans
 - ❖ Railroad/utility plans

- *Specifications*
"Specifications" are the detailed instructions for constructing highway projects, including a description of the work, materials, construction materials, method of measurement, basis of payment and the pay item for each item of work. Specifications shall conform to the Standard Specifications for Road and Bridge Construction published by IDOT.

- *Estimates*
An "estimate" is the predicted project cost at time of receipt of bids, developed from knowledge regarding the costs for materials, labor and equipment required to perform the necessary work. Incidental and overhead costs, as well as a statement of profit are also included in the project cost estimate. Standard forms are available from each District Office for use in preparing cost estimates for pay items normally encountered during project construction.

11. Final Processing for Letting/Award of Contracts

This is the most critical step of the entire process. All of the preceding steps, plus those enumerated below, are brought together and processed so that the construction estimates (including any special provisions), agreements, bid advertising and contract award may be completed.

A joint agreement for funding between the State and local agency (municipal or county) involved will be required for all Surface Transportation Program improvements. The joint agreement should also resolve questions of maintenance, parking, storm sewer pollution, encroachment, approval of plans, etc.

Projects are let and awarded by IDOT on the basis of competitive bidding. IDOT will advertise proposed projects in its Service Bulletin. This bulletin is the official publication and sole criterion of bids for Federal-Aid and State road work and is sent to each contractor on IDOT's pre-qualified list. At the time and place specified in the State's Service Bulletin, the total amount of each bid is read aloud to those present. The award of contract will be made within 45 days after the letting to the lowest responsible qualified bidder where the proposal complies with all prescribed requirements. A concurrence in the low bid is part of the joint agreement. When a project is awarded, a contract is prepared and sent to the low bidder for execution in accordance with the Bureau of Design "Instructions for Executing Contracts and Bonds".

As soon as practicable after a contract is awarded, the District Office shall arrange a conference with the contractor and local agency prior to execution of the work (Standard Specification - Article 108,03). The purpose of this "pre-construction" conference is to discuss the plans and specifications of the project, unusual conditions, methods and schedule of operation, mobilization of equipment, labor requirements, traffic, and Federal requirements.

The following items will be discussed at the meeting:

- Order of work (progress schedule)
- Utilities and railroads
- Sub-contractors and agents
- Records and reports
- Traffic control and safety
- General construction discussion

Completion of each of the steps discussed will lead up to actual construction of the project.

Highlights of STP Design/Improvement Standards

All STP projects must be designed according to state/federal standards as contained in documents such as the IDOT BLRS Manual and IDOT BDE Manual. Sponsors submitting STP project applications should review and familiarize themselves with the design standards contained in these documents before determining preliminary project design or cost estimates. Submittal of projects not designed according to these standards may result in unanticipated cost increases, delay in project implementation withdrawal of STP funds. To prevent such circumstances from arising, early coordination with IDOT is essential.

Following is a list of IDOT/FHWA design standards and requirements that are commonly overlooked in the development of preliminary project design or cost estimates:

- A 30-foot minimum (face-to-face of curb) cross-section for two-lane urban collector streets.
- Storm sewers designed for a 10-year storm; where storm sewer outlets are restricted a design frequency less than 10 years may be approved.
- Storm sewers must be an integral part of the highway improvement and should be documented as such. STP funding can be utilized only for storm sewer and other drainage work that is within the road right-of-way.
- Storm sewers must be built entirely within the limits of the project, except in the case of outfalls.
- Angled parking will generally not be approved unless an auxiliary lane is provided to prevent conflict between parking maneuvers and through traffic.
- IDOT and the Federal Highway Administration will look beyond the immediate scope or limits of the project in order to incorporate solutions to other safety or operational problems currently experienced. This should be anticipated in the design of the project.
- Project design should be based on a twenty-year design traffic projection.
- Twelve-foot lane widths are generally required for widening of urban streets. Where right-of-way is restricted, lane widths of a minimum of 10 feet will be considered on resurfacing projects.
- High accident locations must be identified and improved on all projects. Wet weather accident analysis is also required.
- Pavement overlays should be based on the structural adequacy of existing pavement.
- Early coordination with utility companies is essential.
- Pavement marking, signing, striping, and traffic control on resurfacing, reconstruction, widening and other projects must conform to the Illinois Manual on Uniform Traffic Control Devices.
- Road cross-sections must be continuous for STP projects. (e.g. 12 foot lanes with curb and gutter cannot be built "around" a section with 10 foot lanes and no curb and gutter even if the pavement condition for that section is good).
- Railroad-highway grade crossings must be included (if not improved) in the project scope of work.
- Intersections/pedestrian crossings within the limits of the project must be brought up to current ADA standards if disturbed by the project.

APPENDICES

Appendix A

STP Project Development Contacts

DUPAGE MAYORS AND MANAGERS CONFERENCE
1220 Oak Brook Road
Oak Brook, IL 60523
(630) 571-0480 FAX (630) 571-0484

Kama Dobbs, Transportation Project Manager
Tam Kutzmark, Transportation and Planning Director
Daniel Wennerholm, Director, Transportation Technical Committee
Brent Coulter, Consulting Engineer

CHICAGO METROPOLITAN AGENCY FOR PLANNING (CMAP)
AND/OR CMAP COUNCIL OF MAYORS
233 South Wacker Drive, Suite 800
Chicago, Illinois 60606
(312) 454-0400 FAX (312) 454-0411

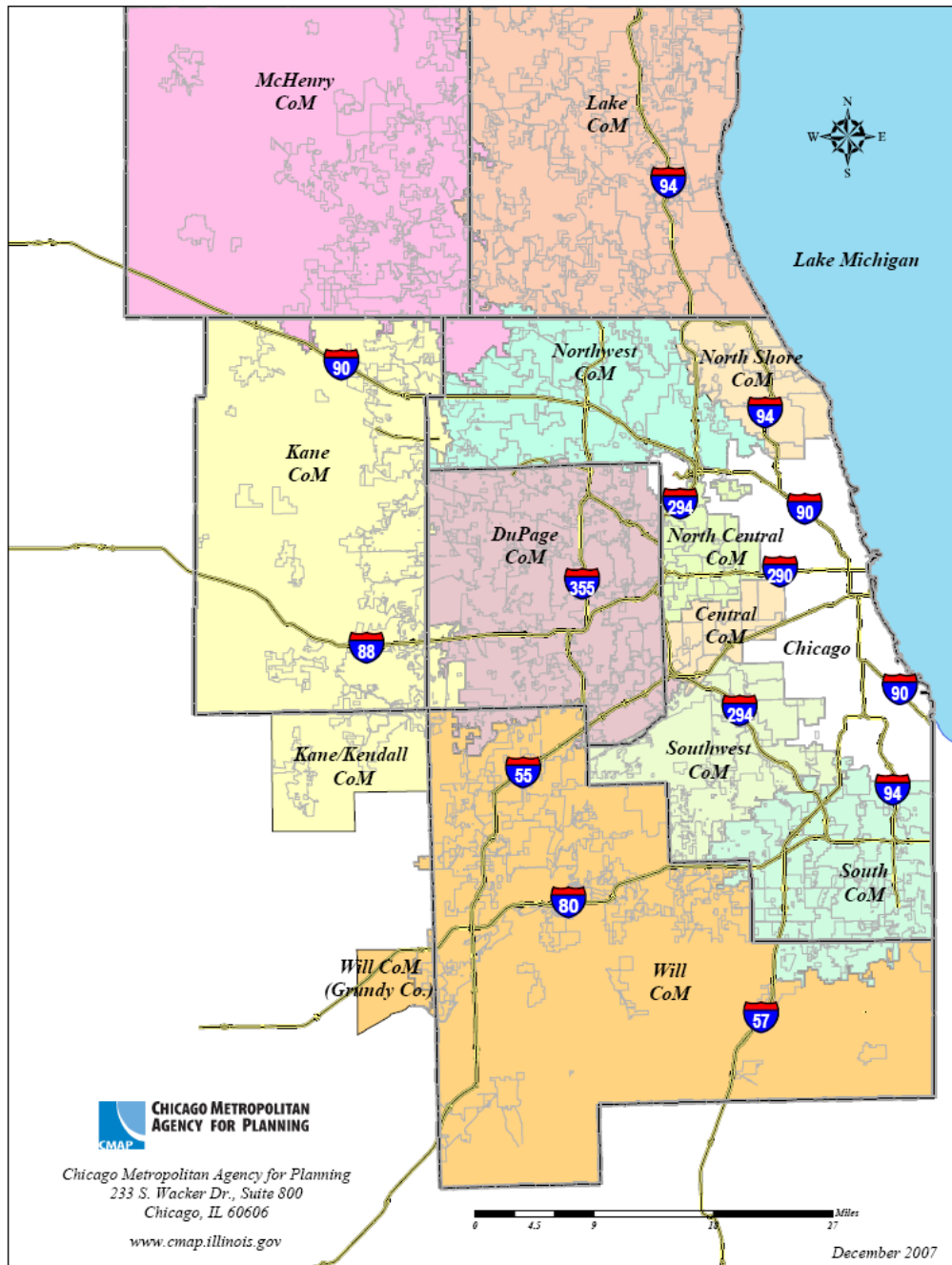
Holly Ostdick, Associate Planner (Planning & Programming, TIP Procedures)
Teri Dixon, Senior Planner (Planning & Programming, TIP Procedures)
Patricia Berry, Principal Planner (Planning & Programming)
Don Kopec, Deputy Executive Director for Planning & Programming

ILLINOIS DEPARTMENT OF TRANSPORTATION/DISTRICT 1
201 West Center Court
Schaumburg, IL 60196-1096
(847) 705-4201

Marilyn Solomon, P.E., Field Engineer- Bureau of Local Roads and Streets (Project Coordination)
Chad Riddle, P.E., Federal Aid Program Engineer – Bureau of Local Roads and Streets (Review Verification Form)

Appendix B

Council of Mayors Boundaries



Appendix C

Addition of Streets to the Federal-Aid Highway System

Introduction

Prior to 1995, Federal Aid Primary (FAP), Federal Aid Secondary (FAS) and Federal Aid Urban (FAU) were designations that referred to what type of funds a route was eligible to receive. In 1995, the FHWA made changes and these designations no longer referred to a funding type, and a roadway became eligible for federal funding based on its classification as a collector or above.

Definitions - Urban

Local Street

The local street system comprises all facilities not on one of the higher systems. Local streets:

- Primarily provide direct access to adjacent land;
- Provide access to the higher order systems;
- Offer the lowest level of mobility; and
- Deliberately discourage service to through traffic movement.

Collector Roads

Collectors provide less direct land access than local streets, and serve to gather traffic from local streets and other collectors and channel it onto the arterial system. Trips on collectors typically occur within a small region, such as within a large municipality or within a county.

Minor and Principal Arterials

The primary purpose of the arterial system is to move traffic over longer distances, therefore arterials provide minimal or no access to adjacent land. Trips on arterials are often regional or longer trips.

Justification for Adding Routes

Streets may be added to the Federal-Aid Highway System if they meet the following criteria:

- Present or future average daily traffic greater than 3000 vehicles per day.
- Classification of the route as a major collector street or arterial on a local Comprehensive Plan or Thoroughfare Plan.

- Terminus on another Federal-Aid route, a major employment center, or other major traffic generator.
- Contributes to the overall effectiveness of the countywide transportation network, as shown in the County’s highway improvement plan.

Please note that justification for a change is NOT that it is necessary to acquire STP funding. A road is added to the system because it meets the criteria to be classified as a collector or above, NOT to satisfy a funding requirement.

The Transportation Technical Committee will decide, based upon these criteria, whether to recommend the addition of a proposed route to the Conference. The Conference recommendation will be in the form of a resolution and will be forwarded to IDOT for consideration. Generally, IDOT will accept the recommendation of the Conference and will forward a map amendment to the FHWA for final approval.

Procedures For Adding Routes

The local government wishing to designate a roadway as part of the federal-aid eligible system of roads (FAU System) must submit the following to DMMC:

1. Justification Form (attached) including:
 - Appropriate Endpoints
 - Current Classification with Functional Classification Numbers (FAU)
 - AADT and Projected AADT
 - Any other information justifying the change
2. Location Map(s)
 - Indicate the desired change, drawn in color (codes below), on a relevant part of IDOT’s current township Functional Classification map (available from DMMC) or CMAP Functional Classification map (www.cmap.illinois.gov/fauinfo.aspx) .
 - A general location map is also helpful

Functional Classification Color Codes Chart

Solid – Existing, Future - Dashed	
(Urban or Rural) Interstate Highways	Blue
(Urban) Other Freeways and Expressways	Brown
(Urban or Rural) Other Principal Arterial	Red
(Urban or Rural) Minor Arterial	Green
(Rural) Major Collectors	Purple
(Rural) Minor Collectors	Yellow
(Urban) Collectors	Pink
Local Streets or Roads	All routes not colored

3. Local Government Resolution requesting the change based upon one or more of the criteria for federal-aid designation. (See attached model resolution.)

Upon receipt of the above items, the request will be considered by the Transportation Technical Committee and if approved, be forwarded to the Conference for a resolution. The Conference resolution and supporting documents will be forwarded to IDOT District 1 for review and approval. District 1 will then submit the request to IDOT's Central Office in Springfield where the request will be reviewed and, if worthy, formally submitted to the FHWA for approval.

After their review, FHWA representatives inform IDOT of their decision. IDOT's Central Office will inform the District 1 who will inform DMMC and the route will be added to the FAU list if eligible, and the Functional Classification will be changed.

**FUNCTIONAL CLASSIFICATION REVISION
DUPAGE COUNCIL OF MAYORS**

The **DuPage Council of Mayors** requests approval of the addition of the following roadway to the FAU system. A **Resolution** approving/requesting the change, two copies of a **Color-Coded Map** excerpted from the [IDOT current township Functional Classification map or CMAP Functional Classification map], a **Resolution** from the affected local government and a **General Location Map** are attached. Additional information follows.

Name of Jurisdiction Requesting Revision:

Township of Jurisdiction/Roadway:

Name of Roadway:

Municipal Roadway Classification:

Endpoints of Roadway	North/East Endpoint (name):
	FAU/FAP #:
	South/West Endpoint (name):
	FAU/FAP #:

AADT (current and future):

Spacing (to adjacent FAU routes):

Route Continuity:

Route Length:

Signalization Along Route (describe/indicate on location map):

Stop Sign Control of Cross-Streets (describe/indicate on location map):

Access to Traffic Generators:

Other Information:

Contact: Kama Dobbs, Transportation Project Manager
DuPage Mayors and Managers Conference
1220 Oak Brook Road
Oak Brook, IL 60523
630-571-0480, x. 232
kdobbs@dmmc-cog.org

RESOLUTION NO. _____

RESOLUTION REQUESTING THE DESIGNATION
OF [ROUTE] IN THE [VILLAGE/CITY OF]
AS FEDERAL AID URBAN ROUTES

WHEREAS, the [Village/City of] is a member of the DuPage Council of Mayors; and;

WHEREAS, the DuPage Council of Mayors has adopted policies for the functional classification of roadways within the County subject to approval by the Illinois Department of Transportation (IDOT) and concurrence from the Federal Highway Administration (FHWA) in accordance with the SAFETEA-LU Act of 2005, and;

WHEREAS, the SAFETEA-LU Act of 2005 has adopted criteria to functionally classify a roadway, including analysis of the operational characteristics, location and connection to existing functionally classified roadways, through an engineering study, and;

WHEREAS, the [Village/City] has [completed *OR* has directed its consultant, _____, to complete] an engineering study to determine if [route] satisfies the above stated criteria to functionally classify as an [classification (urban collector, arterial, etc.)], and;

WHEREAS, [The Village/City/Cosultant] has completed the necessary engineering study and compiled documents for submittal to the DuPage Council of Mayors which states [Route] satisfies the functional classification criteria of an [classification].

NOW, THEREFORE, be it resolved by the [Board/Council] of the [Village/City], DuPage County, Illinois, that the [Village/City] hereby submits its application for functional classification of [Route] as an [classification], located within the limits of the [Village/City], and otherwise qualifying for said designation under the standards of the Illinois Department of Transportation, and respectfully requests approval of said application.

Adopted by the [Village/City Board/Council] this ___ day of ____, 20__.

ATTEST

[Mayor/President]

[Clerk or other official]

Appendix D

Highway Component – Eligible Projects and Evaluation Methodology

Eligible Projects

- Channelization of intersections
- Widening of traffic lanes
- Traffic signals (installation, modernization and modification)
- Signing and pavement marking
- Other operational improvements
- Widening to provide additional traffic lanes
- Widening and resurfacing of existing streets
- Structures (highway-waterway, highway-railroad, highway-highway and pedestrian-highway grade separations)
- Construction on new locations
- Rehabilitation, Reconstruction, and Restoration Projects

Evaluation Methodology for Highway Projects

The Transportation Technical Committee has developed an evaluation procedure to prioritize proposed Highway Component projects on the basis of their relative cost-effectiveness. A set of evaluation criteria has been established by the committee to measure the relative benefits that would result from the implementation of these projects. This information is combined with the cost of each project to develop a cost-effectiveness ratio for each project. In developing the Program, the Transportation Technical Committee gives first consideration to the highest-ranking projects, in order of cost-effectiveness.

Project benefits are evaluated among five evaluation categories for build and no-build scenarios. Benefits are evaluated for the existing year, as well as a forecasted year (20 years into the future). The weight attributed to each criterion in determining the overall project score is established by the Transportation Technical Committee and reflects the relative value or priority of potential benefits. A descriptive list of the evaluation criteria for Highway Component projects and their assigned weight values are provided on the following pages. (Note that the weights total 100 points, so that each category weight value is its percentage of total "importance.")

The steps to calculating the total benefits for a project are as follows:

1. Determine absolute benefits for each project;
2. Scale project benefits relative to values for each project submitted;
3. Weight scaled benefits; and
4. Sum weighted/scaled benefits for existing year and forecast year.

HIGHWAY PROJECT BENEFIT CRITERIA	ASSIGNED WEIGHTS	
	<i>Existing Year</i>	<i>Future Year</i>
<i>(1) Change in Peak-hour Travel Time</i>	20.9	20.9

Travel times for street segments are based on an algorithm that combines the effects of pavement riding condition (based on field observations) and volume/capacity ratio. HCS, SYNCHRO and other pertinent software is used to analyze capacity and delay for unsignalized and signalized intersections based on the methods of the Highway Capacity Manual.

<i>(2) Change in Off-Peak Hour Travel Time</i>	14.6	14.6
--	------	------

Same as above, except mid-morning or mid-afternoon hours are used.

<i>(3) Change in Accident Experience</i>	24.7	24.7
--	------	------

A three year history of accident experience and existing traffic volumes determine an accident rate used for no-build conditions for existing and future year evaluation. Accidents are weighted by the seriousness of involvement with each fatal accident and each personal injury accident equal to nine property damage accidents. The accident reduction impact of the project is determined based on before-and-after accident experience for similar types of improvements.

HIGHWAY PROJECT BENEFIT CRITERIA

(Cont'd)

ASSIGNED WEIGHTS
Existing Year Future Year

(4) Change in Average Daily Congestion

25.0

25.0

Average daily congestion is a weighted average of volume/capacity ratio over a 12 hour period of the day (6 a.m. to 6 p.m.) for the length of the project. The Average Daily Congestion ratio is in turn weighted by average daily traffic for each project being evaluated.

(5) Emissions Reductions

14.8

14.8

Improvements in vehicle speed and reductions in intersection delay can result in significant reductions in tailpipe pollutant emissions. Vehicle tailpipe emission rates are applied to peak and off-peak speeds for highway segments (or generated directly via capacity software for intersections), in order to estimate ~~s~~ of total tailpipe pollution reductions for build versus no-build conditions.

TCM Component – Eligible Projects and Evaluation Methodology

Eligible Projects

- Programs for improved public transit (capital only);
- Restriction of certain roads or lanes to or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;
- Employer-based transportation management plans, including incentives**;
- Trip reduction ordinances**;
- Traffic flow improvement programs that achieve emission reductions;
- Fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit service;
- Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use**;
- Programs to provide all forms of high occupancy, shared-ride services**;
- Programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place**;
- Programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;
- Programs to control extended idling of vehicles**;
- Employer-sponsored programs to benefit flexible work schedules**;
- Programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity**;
- Programs for new construction and major reconstruction of paths, tracks or areas solely for use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest;
- Highway and transit safety improvements and programs, hazard elimination, projects to mitigate hazards caused by wildlife, and railway-highway grade crossings, when these projects contribute to air quality and/or congestion reduction;

- Highway and transit research and development and technology transfer programs**;
- Capital and operating costs for traffic monitoring, management, and control facilities and programs.

*** While these projects are an eligible use of STP funds, IDOT prefers to direct STP funds to capital projects, as there are other sources of funding in the region for non-capital projects. If a sponsor wishes to pursue one of these types of projects with STP funds, IDOT would like to discuss these with the sponsor and the Conference on a case-by-case basis.*

Evaluation Methodology for TCM Projects

Annual application forms are available from Conference staff to facilitate the submission of TCM projects and provide consistency between project submittals for review. Each project application must meet the following minimum criteria:

- Have a municipal or DuPage County sponsor;
- Have secured a commitment for local match;
- Have secured a commitment for on-going maintenance/operations;
- Be consistent with adopted local, county, or regional agency plans;
- Meet TCM eligibility criteria specified in federal legislation; and
- Satisfy minimum design criteria and justification warrants that may be used by federal, state, regional agencies or the Conference.
- Not be a recurring, area-wide project/program (example: city-wide ADA sidewalk ramp compliance).

The Transportation Technical Committee has established a point system and score weighting methodology to evaluate TCM Component projects. The resulting score is used as a guide to select projects for the Annual Element. The seven evaluation factors for TCM Component projects and associated point values are described below.

(1) Emissions Cost-Effectiveness

The annualized cost-effectiveness of each project in reducing emissions and congestion will be calculated. Each benefit category will be given equal weight in determining a composite benefit "quartile" rank for each project, with each quartile rank corresponding to a specific award of points (e.g. top or 1st Quartile projects would receive 4 points, and bottom or 4th Quartile projects would receive 1 point). The following emissions and congestion reduction factors will be evaluated:

- Auto Trips Diverted - Diversion to non-auto modes has the benefit of easing traffic congestion and reducing tailpipe emissions (VOC and NO_x).
- Vehicle Miles of Travel - Reduced auto travel mileage will reduce tailpipe emissions (VOC and NO_x).
- VOC - Volatile organic compound (non-methane hydrocarbon) tailpipe emissions react with oxides of nitrogen and sunlight to form ozone. The rate of emissions increases uniformly as average highway speed decreases to approximately 20 mph. Below 20 mph, the emission rate increases disproportionately to the reduction in speed.
- NO_x - Oxides of nitrogen tailpipe emissions react with hydrocarbons and sunlight to form ozone. The emissions rate increases uniformly as average highway speed decreases in the 2 mph to 40 mph range.

(2) Benefit Time Horizon

TCMs differ in requirements for advance planning and engineering and, once constructed, may have different temporal expectations for realizing emissions and/or congestion reduction. The Clean Air Act Amendments of 1990 stress the importance of near-term air quality improvements in non-attainment areas.

- Short - less than 2 years (+2 points)
These projects require minimal engineering and environmental review with no right-of-way acquisition (e.g. Categorical Exclusion) and achieve almost immediate benefits once implemented. Construction can generally be accomplished in one season.
- Medium - 2 to 4 years (+1 point)
These projects require more lead time for preliminary planning engineering and perhaps environmental assessment, and would include all projects involving land acquisition. In some cases due to project size or scope, construction may extend over two seasons.
- Long - greater than 4 years (+0 points)
These projects require significant lead-time for feasibility planning, engineering, land

acquisition and environmental review. Construction may be phased or staged over two or more seasons. Realization of project benefit may depend on construction of other phases/stages or complimentary projects, or may require a significant change in travel behavior.

(3) Congestion Mitigation

TCM projects can help mitigate congestion and improve highway or intersection level of service from the substandard "E" and "F" range or on highway segments that they impact. The impact may be direct (improving the efficiency of highway operations) or indirect (reducing the number of auto trips on the highway network).

- Existing LOS E/F (+2 points) One or more street segments or intersections impacted by the project are currently operating at Level of Service (LOS) E or F.
- 10-Year Projected LOS E/F (+1 point) One or more highway segments or intersections impacted by the project are forecast to operate at LOS E/F within the next ten years.
- Existing/Projected LOS A-D (+0 points)
- Highway segments or intersections affected by the project are forecast to operate within the acceptable LOS A-D range over the next ten years.

(4) Benefit Area

It is desirable to maximize the extent of a project's impact in terms of both geographic coverage and user market served. Therefore, projects that have inter-community or greater impact will be awarded more points than a project that benefits only a single community. The following categories and minimum criteria will be considered in the awarding of evaluation points:

- Regional/Countywide (+2 points)
 - ◇ Primarily addresses countywide or regional transportation/air quality needs.
 - ◇ Project impacts a highway corridor classified as a Principal Arterial or above on the current year Street and Highway Plan for DuPage County.
 - ◇ Project is included in a countywide or regional plan or program, or expands upon a facility contained therein.
- Inter-Community (+1 point)
 - ◇ Primarily impacts 2 or more communities.
 - ◇ Project impacts a highway corridor classified as a Major Collector or above on the current year Street and Highway Plan for DuPage County.
 - ◇ Project is funded by more than one community.

- Intra-Community (+0 points)
 - ◊ Primarily impacts a single community.
 - ◊ Project impacts a highway corridor classified below a Major Collector on the current year Street and Highway Plan for DuPage County.

(5) Project Innovation

Innovative ideas are necessary to help lessen reliance on single-occupancy auto travel and are encouraged by the Conference and the Transportation Technical Committee.

- Demonstrates New Service/Approach (+1 point)

The project is a new concept, approach or technology for addressing the problems of reducing reliance on the single-occupant automobile or optimizing the efficiency of existing highway facilities that may have application beyond the immediate project area.
- Routine Service of Approach (+0 points)

The project implements existing service types or solutions that have a proven performance "track record".

(6) Priority Target Area

The Conference, at its discretion, may identify one or more project categories to target for implementation in any given program year in order to better coordinate with the programs of other agencies, to help comply with legislative or regulatory intent, or to address the general goals and objectives of its members. Evaluation category weighting and specific point values are determined when a priority target area has been selected.

The Transportation Technical Committee has determined that TCM projects that support the DuPage Area Transit Plan in some way will receive 1 or 2 bonus points, depending on the degree of support.

A weighting scheme is applied to the evaluation criteria to reflect the relative priority of each criterion. The weighting scheme currently employed doubles the value of the emissions cost-effectiveness score, making this criterion the most significant of the seven listed above. The TCM Component Evaluation Criteria Matrix depicted in Figure 3 summarizes the point values and weighting factor assigned to each of the seven TCM evaluation criteria.

Figure E-1.

Transportation Control Measure (TCM) Evaluation Criteria Matrix

<i>Evaluation Category</i>	<i>Multiplier</i>	<i>Point Value</i>				
		+4	+3	+2	+1	+0
1. Emissions Cost-effectiveness	x2	<< Combined Auto Trip Diversion, VMT, VOC & No _x reductions >>				
2. Benefit Time Horizon	x1	NA	NA	Short (<2 yrs.)	Medium (2-4 yrs.)	Long (>4 yrs)
3. Congestion Mitigation	x1	NA	NA	Existing LOS E/F	10 yr. Proj. LOS E/F	Exist- ing/Proj.LOS A - D
4. Benefit Area	x2	NA	NA	Regional/ County- wide	Inter- Community	Intra- Community
5. Project Innovation	x1	NA	NA	NA	Demonst. New Service/ Approach	Routine Service or Approach
6. Priority Target Area	x1	<< Project type(s) & value/weight (if selected) could vary each year >>				

Intelligent Transportation Systems (ITS) Project Evaluation

Intelligent Transportation System (ITS) projects are those that apply computer or advanced electronic/communications technology to the transportation system to increase its efficiency, reliability and safety. The federal government requires that all ITS projects and ITS components of traditional projects must comply with national ITS protocols and architecture.

TEA-21 specifies that STP funds may be used for ITS infrastructure-based capital improvements. An ITS category has been added to the TCM component of the DuPage STP program to facilitate the mainstreaming of ITS projects and to encourage the use of ITS applications as

a tool for mitigating congestion and improving the performance of the regional transportation system. In recognition of the significant engineering and technical requirements for ITS project implementation, projects designated as ITS are eligible to receive STP funding for engineering, as well as construction/ implementation, at the 75% (federal)/ 25% (local) match ratio. The ITS category in the STP program is intended for larger scale projects, as ITS applications generally increase in effectiveness when applied on a broad basis.

ITS Eligibility Criteria

To be eligible for the ITS designation in the DuPage STP program, ITS projects must ensure a *technically integrated and jurisdictionally-coordinated approach* to the application of advanced communications, control and electronics technologies to the transportation system. In addition to compliance with national protocols and architecture, ITS projects in the DuPage STP program must also comply with regional architecture and any additional protocols/specifications established by the DuPage Council. ITS projects typically will have significant project cost allocated for engineering, technical analysis, software development and equipment adaptation. ITS projects must be stand-alone projects, as opposed to a traditional project with an ITS component.

ITS is generally defined by following categories:

- Traffic signal control systems
- Freeway management systems
- Transit management systems
- Incident management programs
- Emergency management systems
- Electronic toll collection/fare payment systems
- Multi-modal regional traveler information centers

- Highway/rail intersection safety systems

Examples of STP eligible projects include multi-jurisdictional signal coordination and timing optimization plans, remote video surveillance, remote pavement sensing (deicing), transit/transportation system kiosks and real-time traffic information centers. Conference staff will make the final determination regarding the eligibility of a project to be designated as ITS.

Additional Eligibility Criteria for ITS Projects

In addition to the eligibility criteria described above, ITS projects must meet the following minimum criteria in order to be considered for STP funding:

- Not design-only;
- Satisfy minimum standards and guidelines that may be used by federal, state, and regional agencies or the Conference; and
- Not duplicative, redundant or otherwise conflict with the goals and objectives of other planned or programmed ITS projects, or other projects funded or sponsored by the DuPage Mayors and Managers Conference.

ITS Evaluation Criteria

To the extent possible, Intelligent Transportation Systems (ITS) projects will be evaluated through the general TCM evaluation criteria. However, some benefits of ITS projects that are not traditionally considered in the TCM evaluation process (such as safety benefits) or that are not easily determined, may require additional staff analysis. The results of any additional staff evaluation will be provided to the Transportation Technical Committee for consideration in the project selection process. The input of CATS, IDOT or transit agency ITS experts may be sought by Conference staff for some ITS projects. Additionally, the DuPage Council intends to review the ITS Deployment Analysis System (IDAS)³ project findings for potential incorporation into the DuPage ITS project evaluation methodology, when results are available. The IDAS project, a joint effort by the Oak Ridge National Laboratories and the FHWA, is only just underway and the products of which will not likely be known for several years.

Feasibility/Demonstration Project Evaluation

To the extent possible, "soft" TCM projects which result in one or more operational improve-

³ The objective of the IDAS project is to develop, test and apply technical procedures and transportation models to analyze ITS projects and strategies.

ments with known or predictable benefits (e.g. signal coordination timing, rideshare matching) will be evaluated through the TCM Evaluation Criteria noted above. However, some TCM projects classified as "feasibility" or "demonstration" studies may not generate tangible operating benefits. Other projects, because they test a new or innovative approach, may be impossible to model.

Feasibility or concept studies generally involve an analysis of the potential benefit/costs and overall feasibility of implementing a TCM project. Further, positive results would normally lead to project programming and the funding of engineering and construction (e.g., the city of Wheaton's train station/TIF District coordination study).

Demonstration/Pilot projects test a project concept on a small scale to assess the feasibility of application on a broader basis (e.g., the village of Addison's residence-based ridesharing program).

Feasibility Study/Demonstration Project Eligibility Criteria

In addition to the TCM eligibility criteria, feasibility studies and demonstration projects must meet the following minimum criteria in order to be considered for STP funding:

- Is not a "stand-alone" design or construction engineering project
- Satisfies minimum standards and guidelines that may be used by Federal, State, Regional Agencies or the Conference
- Meets a minimum point-value criteria that may be established by the DMMC Transportation Technical Committee

Feasibility Study/Demonstration Project Evaluation Criteria

Points are awarded to a project on a scale of 1 to 5 corresponding to the degree to which it achieves each of the evaluation criteria. The average point value for each project is calculated and totaled to give a composite score for that project. Projects are then ranked in order of their composite point total.

(1) Project Innovation

The project tests a new and innovative idea to help lessen reliance on single-occupant auto travel, as opposed to solutions which already have a proven "track record".

<i>Proven Performance</i>					<i>New Concept/ Approach</i>
1	2	3	4	5	

(2) Application for Other Areas

The project's findings or work products are applicable to other municipalities or agencies for implementation, as opposed to being project or site specific, or the initial project has multi-agency benefits.

<i>Site Specific</i>					<i>Universal Application</i>
1	2	3	4	5	

(3) Implementation Potential

By their very nature, most demonstration projects, feasibility studies, etc. test the potential or workability of a future operational or infrastructure construction program or the desirability of continuing operations. Projects are rated on their degree of implementation potential based on funding commitment (plan/program status), funding leverage for future project stages or related projects, extent of regulatory and environmental constraints, etc.

<i>Low Implementation Potential</i>					<i>High Implementation Potential</i>
1	2	3	4	5	

(4) Priority Target Area

The Conference, at its discretion, may identify one or more project category to target for implementation in any given program year in order to better coordinate with the programs of other agencies, help comply with legislative or regulatory intent, or to address the general goals and objectives of its members. Evaluation category weighting and specific point values are determined at the time that a priority target area is selected.