

May 2015

State Aid Manual



State Aid for Local Transportation

Minnesota Department of Transportation



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Chapter 1 Introduction

I. Overview

State Aid for Local Transportation (SALT) was established to administer the County State Aid Highway (CSAH) and Municipal State Aids Street (MSAS) portions of the Highway User Tax Distribution Fund (HUTDF) along with federal aid highway dollars and bond funds. The division also serves as the liaison between the Minnesota Department of Transportation (MnDOT) and the County and City Engineers through their Engineering associations. The strong supportive relationship between local governments and MnDOT is a key to the success of the state aid system.

II. Mission Statement

The purpose of the state aid program is to provide resources. Resources are mainly monetary, but also include services of the State Aid Division staff and research from the Local Road Research Board (LRRB), for example. Resources are provided from the HUTDF, which is the location for funds collected by the state according to the constitution and law, and then apportioned among the counties and cities. The apportioned funds assist counties and cities with their construction and maintenance of community interest highway and streets on the state aid system. The apportioned funds do not provide all of the resources required for the support of the state aid system, but assistance is provided because these routes function as an integrated network and provide more than only local access.

III. Program Goals

The goals of the state aid program are to provide users of secondary highways and streets with:

- Safe highways and streets
- Adequate mobility and structural capacity on highways and streets; and
- An integrated transportation network

IV. Key Program Concepts

Highways and streets of community interest are those highways and streets that function as an

integrated network and provide more than only local access. Secondary highways and streets are these routes of community interest that are not on the Trunk Highway (TH) system.

A highway or street of a community interest may be selected for the state aid system if it:

- Is projected to carry a relatively heavier traffic volume or is functionally classified as collector or arterial.
- Connects towns, communities, shipping points and markets within a county or in adjacent counties; provides access to rural churches, schools, community meeting halls, industrial areas, state institutions and recreational areas; serves as a principle rural mail route and school bus route; or connects the points of major traffic interest, parks, parkways or recreational areas within a urban municipality.
- Provides an integrated and coordinated highway and street system affording, within practical limits, a state aid highway network consistent with projected traffic demands.

The function of a road may change over time requiring periodic revisions to the state aid highway and street network.

State aid funds are the funds collected by the state according to the constitution and law, distributed from the HUTDF, apportioned among the counties and cities, and used by the counties and cities for aid in the construction, improvement and maintenance of CSAH and MSAS routes.

The Needs component of the distribution formula estimates the relative cost to build county highways or build and maintain city streets designed as state aid routes.

Both CSAH and MSAS systems utilize Needs as a portion of their funding formula. For the specifics of the formulas refer to [Chapter 2 Municipal State Aids Streets](#) or [Chapter 3 County State Aid Highways](#).

V. Roles and Responsibilities

The State Aid Division, along with the eight district offices and several functional area specialists, has the following roles and responsibilities within respect to the state aid program.

- Supervises the distribution of county and municipal state aid highway funds, federal funds and bond funds to counties and cities.
- Authorizes grants for bridge construction from the Minnesota State Transportation Fund.
- Helps coordinate local federal projects

- Provides technical assistance in the design, construction and maintenance of the county and municipal state aid and federal aid highway and street systems.
- Promulgates rules and procedures for management of the state aid system.

VI. Rules Governing State Aid

The primary authority for the Commissioner of the Transportation to promulgate rules affecting the state aid system comes from [Minnesota Statutes 162.155](#).

[Minnesota Rules 8820](#) are made and promulgated by the Commissioner of Transportation acting with advice of a Rules Committee composed of nine members selected by the county boards acting through the officers of the statewide association of county commissioners and twelve members selected by the governing bodies of cities acting through the officers of the statewide associate of municipal officials. In the event that agreement cannot be reached on any rules, the Commissioner's determination shall be final. The rules shall be printed and copies forwarded to the County and City Engineers. For the purposes of this section, the exempt process for adopting rules established in [Minnesota Statutes 14.386](#) may be used.

These rules have force of law.

VII. Variances to State Aid Rules

In this section:

- A. [General Requirements](#)
- B. [Administrative Variance Approval](#)

A. General Requirement

1. Where a local unit of government has determined that a variance from [Minnesota Rules 8820](#) for State Aid Operations Rules is justified, they shall submit a written request in the form of a resolution, passed by the pertinent political subdivision, to the Commissioner of MnDOT. As required in State Aid Operations Rules, [Minnesota Rules 8820.3300](#) the resolution shall identify the project by location and termini shall cite the specific rule or standard from which the variance is requested and describe the modification proposed.
2. The following shall be submitted as supplemental data with the written request:
 - 1) An index map showing the proposed location and limits;
 - 2) Where applicable, a typical section showing the in-place and proposed section, or plan and profile view showing present and proposed alignment;

- 3) Reasons for the request;
 - 4) The economic, social, safety, and environmental impacts which may result if the requested variance is granted or denied;
 - 5) The effectiveness of the project in eliminating an existing and projected deficiency in the transportation system;
 - 6) The effect on adjacent lands;
 - 7) The number of persons affected; and
 - 8) The safety considerations as they apply to pedestrians, bicyclists, motoring public and fire, police and emergency units
3. The Commissioner will convene a duly appointed Variance Advisory Committee to act upon the variance requests received as of March 1, June 1, September 1 and December 1. The committee after considering testimony and all other required pertinent information will recommend to the Commissioner to approve or deny the request, see [Design Element Variance Justification Checklist](#) (PDF).
 4. The local agency will be notified in writing of the approval, or denial, of the variance request. Approval of the variance may be conditioned upon receipt of a resolution passed by the local unit of government which indemnifies, saves, and holds harmless the state of Minnesota and its agents and employees of and from any claims, demands, actions, or causes of action arising out of or by reason of the granting of the variance. The recipient of the variance shall further agree to defend at its sole cost and expense any action or proceeding begun for asserting any claim of whatever character arising as a result of the granting of the variance.
 5. A note shall be shown on the plan title sheet explaining that a variance is granted. For example, "a variance to Minnesota Rules 8820.9920, dated March 2006, was granted by the Commissioner of Transportation on August 29, 2006 to allow a 30 mph vertical curve in lieu of the required minimum 40 mph curve between station 100+00 and station 225+00." The letter from the Commissioner granting the variance provides the relevant information.
 6. No variance request will be denied without the opportunity to be heard before a regular scheduled Variance Advisory Committee meeting.
 7. For additional information, refer to State Aid Operation Rules, [Minnesota Rules 8820.3300](#), adopted pursuant to [Minnesota Statutes 162](#).

B. Administrative Variance Approval

Administrative variance approval refers to the approval of a variance request by the Commissioner of Transportation, without the prior recommendation of a Variance Advisory Committee. For the purpose of this policy, the duties of the Commissioner shall be performed by the State Aid Operations Engineer, except for final approval, which shall be performed by the State Aid Engineer. All variances shall be requested by the same required procedure outlined in [Chapter 1 Introduction, VII. State Aid Rules, A. General Requirements](#). The State Aid Operations Engineer shall review each request and, after consultation with the District State Aid Engineer (DSAE), shall determine if the variance request fits within the scope to receive administrative approval. Administratively approved variances will be processed as they are received, and need not follow the quarterly schedule of the Variance Advisory Committee meetings. All variances granted administratively will be discussed at the next scheduled Variance Advisory Committee meeting. The Variance Advisory Committee may not revoke approval of a variance once it's granted; however, they may express a desire to make recommendations on similar requests in the future. Types of variances that may receive administrative approval are:

- Variances that have a consistent precedent of being recommended for approval by the Variance Advisory Committees;
- Variances for temporary, program-wide needs due to federal or state regulation or other sources not within the control of the local Engineer or the department;
- Variances to design standards, for which a design exception has been approved by the Federal Aid Project Development Engineer.

Chapter 2 Municipal State Aid Streets

I. Overview

The 1957 legislature, in response to a constitutional amendment passed during the November 1956 election, authorized the establishment of a MSAS system in all Minnesota cities with a population of 5,000 or greater. The MSAS system cannot exceed 20 percent of a city's improved local mileage notwithstanding TH, CSAH and county road turnback mileages. Designation of the system was made in accordance with rules and regulations for State Aid Operations under Chapter 943, Laws of 1957 (State Aid Rules are now identified as [Minnesota Rules 8820](#)).

II. Municipal Screening Board

A screening board, appointed by the Commissioner of Transportation, is composed of one City Engineer from each greater Minnesota district, two City Engineers from the metro district and one City Engineer from each city of the first class (100,000 population and over). This entity shall be responsible to review all information as to the mileage and money needs of the MSAS system and shall submit to the Commissioner, on or before the first day of November each year, its findings and recommendations as to each city's mileage and money needs.

III. Designations – Additions, Revisions and Revocations

A city's total mileage may increase or decrease because of new subdivisions, annexations, etc. Annually, before a MSAS system revision is approved, a city must submit a [Certification of Mileage form](#) (Excel) to the State Aid Division. This form will verify that the city stays within the statutory limitation of 20 percent of its improved local mileage plus county roads and county road turnbacks on its MSAS system.

Any change to the MSAS system which is contemplated must first be presented to the DSAE for review and comment and then, if appropriate, the request will be forwarded to the State Aid Division for preliminary approval along with a copy of [Approval for System Changes](#) (PDF).

Upon receipt of preliminary approval, a resolution for designation [Resolution Establishing MSAS](#) (Word) or revocation [Resolution Revoking MSAS](#) (Word) detailing the proposed changes shall be submitted by the city council to the State Aid Division and formal designation will be by official order of the MnDOT Commissioner of Transportation.

Any addition or revocation of the MSAS system within the corporate limits of a municipality must be approved by resolution of the governing body of the municipality. See [Concurring Resolution by Municipality New Designation](#) (Word) and [Concurring Resolution by Municipality Revocation](#) (Word).

If circumstances require the revocation of a route that had state aid monies expended for its improvement, then an adjustment will be imposed that will require an evaluation by the DSAE as to the value of the remaining life of the improvements that were made.

The adjustment will be made on the next authorized construction contract by withholding the value determined.

Former THs (turned back after July 1, 1965) and CSAHs and county roads (turned back after May 11, 1994) that have been designated as state aid routes may not be revoked and the mileage designated elsewhere. That mileage was authorized over and above the city's established allotment of state aid mileage and, if the former TH, CSAH or county road does not meet the criteria for state aid designation anymore, then that mileage will be relinquished (see [Minnesota Statutes 162.09, Subdivision 1](#)).

The governing bodies of two or more MSAS cities, with consent of the Commissioner, may establish and locate a MSAS along or near the common boundary line of the cities (see [Minnesota Statutes 162.09, Subdivision 10](#)).

When a MSAS route is so located that in order to achieve the designated objectives and the Commissioner determines that it is necessary to construct the street across a portion of another municipality or state, the municipality initiating the construction can designate the roadway as MSAS and spend MSAS funds on it (see [Minnesota Statutes 162.091](#)).

IV. Allocations

Allocation of state aid monies to the state aid municipalities is made on the basis of a legislative formula (see [Minnesota Statutes 162.13](#)).

Fifty percent of the monies are allocated according to a Needs study.

The remaining 50 percent is allocated based on population from the most recent U.S. Census or State Demographer's estimate (whichever is greater). Due to change populations, the number of cities that may be eligible for state aid funding may increase or decrease. The current list of MSAS cities can be found on the [MSAS webpage](#).

Not later than February 1 of each year, the Commissioner shall certify the annual apportionment to each of the urban municipalities.

The MSAS allocations to each city are further split into construction and maintenance. The percentage of each of these varies by city. A city may request a minimum of \$1,500 per improved mile up to a maximum of 35 percent of its total allocation to be deposited into its maintenance account. Any percentage greater than 25 percent must be accompanied by a [Maintenance Expenditure Report](#) (PDF). The remainder of its allocation goes into the construction account.

V. Needs

[Minnesota Statutes 162](#) provides that annually each City Engineer must submit all necessary information regarding the Needs for their state aid system to the Commissioner of Transportation. This information is used by the Municipal Screening Board in making its recommendations to the Commissioner as to the money Needs, populations and mileages of each urban municipality.

The Municipal Screening Board directs the State Aid Division as to the desirable contents of the Needs studies within the limits of the law, and determines the methods or procedures and limitations to be used in the measurement of Need. Each Engineer is furnished with a current copy of the Screening Board Resolutions.

It should be emphasized that the resulting Needs study is maintained for the primary purpose of apportioning state aid funds and deals with the measurement of needs only. It is not to be taken literally as a guide for actual design or construction of projects.

Each City Engineer shall report the data required to determine the 25 year money Needs estimate of its MSAS system. The reporting shall be completed according to this manual or the client computer-training manual and shall be maintained in current status by an annual update to reflect construction changes and/or system revisions.

[Minnesota Statutes 162.13](#) defines money Needs as the estimated total annual cost of constructing the MSAS system over a period of 25 years.

Communications from the State Aid Division or the DSAE inform the Engineer of the time element and the requirements of the Needs studies.

The Needs study procedures are not included in the manual but are described in the individual manuals that are furnished at the time of making the needs studies updates. Please see the [MSAS webpage](#) on the MnDOT State Aid website for the following:

- MSAS Needs update application and information
- MSAS guidelines for Needs updating
- MSAS Certification of Mileage form and instructions
- MSAS Maintenance requests and guidelines
- MSAS historical booklets
- Lists and maps
- Other miscellaneous information, documentation and forms

Chapter 3 County State Aid Highways

I. Overview

The 1957 legislature, in response to a constitutional amendment passed during the November 1956 election, authorized the establishment of a CSAH system not to exceed 30,000 miles notwithstanding TH turnback mileage. Recently, the 30,000 mile restriction was eliminated. Designation of the system was made in accordance with rules and regulations for State Aid Operations Rules under chapter 943, laws of 1957 (state aid rules are now identified as [Minnesota Rules 8820](#)).

II. County Screening Board

A screening board, appointed by the Commissioner of Transportation, is composed of one County Engineer from each greater Minnesota district, two County Engineers from the metro district and one County Engineer from each urban county (175,000 population and over). This entity shall be responsible to review all information as to the mileage, lane miles and money Needs of the CSAH system and shall submit to the Commissioner, on or before the first day of November each year, its findings and recommendations as to each county's mileage, lane miles and money Needs.

III. Designations-Additions, Revisions and Revocations

Any change to the CSAH system which is contemplated must first be presented to the District State Aid Engineer for review and comment and then, if appropriate, the request will be forwarded to the State Aid Division for preliminary approval along with a copy of [Approval for System Changes](#) (PDF).

Upon receipt of preliminary approval, a resolution for designation [Resolution Establishing CSAH](#) (Word) detailing the proposed changes shall be submitted by the county board to the State Aid Division and formal designation will be by official order of the MnDOT Commissioner of Transportation.

Any addition, revision or revocation of the CSAH system within the corporate limits of a municipality must be approved by resolution of the governing body of the municipality. See [Concurring Resolution by Municipality New Designation](#) (Word), [Concurring Resolution by Municipality](#) (Word) and [Resolution for Revocation](#) (Word).

If circumstances require the revocation of a route that had state aid monies expended for its improvement, then an adjustment will be imposed that will require an evaluation by the DSAE as to the value of the remaining life of the improvements that were made.

The adjustment will be made on the next authorized construction contract by withholding the value determined.

Former THs turned back after July 1, 1965 that have been designated as state aid routes may not be revoked and the mileage designated elsewhere. That mileage was authorized over and above the county's established allotment of state aid mileage and, if the former TH does not meet the criteria for state aid designation anymore, then that mileage will be relinquished (see [Minnesota Rules 8820](#)).

The county state aid mileage allowable in each county was determined in 1957 and no increase in size is permitted without approval of the county screening board except for TH turnbacks that revert back to local jurisdiction and become part of the state aid system, and former MSAS in municipalities which have fallen below 5,000 in population.

IV. Allocations

Allocation of state aid monies to the counties is made on the basis of a legislative formula (see [Minnesota Statutes 162.07](#)).

50 percent of the monies are allocated according to a Needs study.

The remaining 50 percent, allocated to the counties, is divided according to the legislative formula - 10 percent equally to every county, 10 percent based on vehicle registration, and 30 percent based on CSAH miles.

Not later than February 1 of each year, the Commissioner shall certify the annual apportionment to each of the 87 counties.

The apportionment sum allocated to each county in accordance with the provisions of the law will set forth that amount which has been set aside for the Municipal Account to be used exclusively within municipalities of less than 5,000 populations. The remaining portion will be identified as the Regular Account. The normal maintenance allocation to the Municipal Account and the Regular Account will be 40 percent of the total sum within each of the two accounts. The balance of 60 percent in each account will be available for approved construction projects.

The Commissioner may, at the recommendation of the County Screening Board, or upon receipt of a resolution from a county board, and for good cause shown, increase or decrease a

county's maintenance allocation. County board requests should clearly state the necessity or justification for the requested change.

V. Needs

[Minnesota Statutes 162](#) provides that annually each county Engineer must submit all necessary information regarding the Needs for their state aid system to the Commissioner of Transportation. This information is used by the county screening board in making its recommendations to the Commissioner as to the mileage, lane miles and money Needs of each county.

The screening board directs the State Aid Division as to the desirable contents of the Needs studies within the limits of the law, and determines the methods or procedures and limitations to be used in the measurement of Need. Each Engineer is furnished with a current copy of the Screening Board Resolutions.

It should be emphasized that the resulting Needs study is maintained for the primary purpose of apportioning state aid funds and deals with the measurement of needs only. It is not to be taken literally as a guide for actual design or construction of projects.

Each County Engineer shall report the data required to determine the 25 year money Needs estimate of the respective state aid system. The reporting shall be completed according to this manual or the client computer-training manual and shall be maintained in current status by an annual update to reflect construction changes and/or system revisions.

[Minnesota Statutes 162.07](#) defines money needs as the estimated total annual cost of constructing the CSAH system over a period of 25 years.

The formulas for the distribution of the funds dictate that 50 percent of the monies be allocated according to the money needs of the respective state aid systems in the counties.

Some of the items requested are not currently approved as Needs items for the determination of the money Needs apportionment. These items are included in summaries and listings of Total Needs but are specifically excluded from the Apportionment Needs until such time as the respective screening board approves inclusion of said item or items in the Apportionment Needs.

The Total Needs concept provides the Engineer with an estimate of the total cost of constructing his state aid system to state aid standards. It also provides the State Aid Needs Unit with more complete data for use in various summaries, estimates or studies that are required by the FHWA, the state legislature and other state departments.

Communications from the State Aid Division or DSAE inform the Engineer of the time element and the requirements of the needs studies.

The Needs study procedures are not included in the manual but are described in the individual manuals that are furnished at the time of making the needs studies updates. Please see the [CSAH webpage](#) on the MnDOT State Aid website for the following:

- CSAH Needs Update
- CSAH User Manual for Needs Updating
- CSAH Segment Listing and Excel Data
- CSAH Training Manual for CSAH Updates
- CSAH New Box Culvert Calculator

Chapter 4 Funding for Local Programs

I. Overview

In addition to the annual state aid allocations, local agencies may receive many other state and federal funds made available through a variety of programs. Each type or source of funds has unique criteria in how and when the funds become available and how they may be spent. The State Aid Division administers these programs by providing oversight and approval of all projects using funds in these programs.

Programs that currently exist are:

- Local Bridge Replacement Program
 - Federal Bridge Replacement or Bridge Replacement Off System Funds
 - State Transportation Fund (Bridge Bonds)
 - Town Bridge Program
- Local Road Improvement Program (LRIP)
- Safe Routes to School (SRTS)
- Town Road Account
- TH Turnback Program
- State Park Road Program
- State Aid Disaster Account
- Federal Emergency Relief (ER)
- Federal Aid (includes several federal programs)
- Comprehensive Highway Safety Program

II. Local Bridge Replacement Program

The State Aid Division administers three funding programs exclusively for local bridge projects: Federal Aid Bridge Replacement Program, Town Bridge Program and State Transportation Fund (Bridge Bonds).

Although these programs are administered through the State Aid Division, the funds made available through these programs are not state aid funds and must be applied for and approved on a project by project basis.

In this section:

- A. [Federal Highway Bridge Replacement and Rehabilitation Program \(HBRRP\)](#)
- B. [State Transportation Fund \(Bridge Bonds\)](#)

- C. [Town Bridge Program](#)
- D. [Selection of Bridge Projects and Application for Bridge Funds](#)
- E. [Plan and Grant Approval](#)
- F. [Eligible Costs and Cost Split Determination](#)
- G. [Payments](#)
- H. [Advancing Town Bridge Funds](#)

A. Federal Highway Bridge Replacement and Rehabilitation Program (HBRRP)

Federal bridge funds may be used to replace, rehabilitate or preserve a bridge. Federal bridge funds must be applied for through the Area Transportation Partnership (ATP) in the respective MnDOT district, and must be included in the Statewide Transportation Improvement Plan (STIP). In addition to whatever selection criteria are used by the ATP, each project must also meet the FHWA rules for eligibility.

To be eligible for replacement under the Federal HBRRP, the in-place structure must:

- 1) Have a clear span over 20 feet
- 2) Be classified as structurally deficient or functionally obsolete by federal rating criteria
- 3) Have a sufficiency rating of less than 50

To be eligible for rehabilitation under the HBRRP, the in-place structure must:

- 1) Have a clear span over 20 feet
- 2) Be classified as structurally deficient or functionally obsolete by federal rating criteria
- 3) Have a sufficiency rating of 80 or less

Criteria for determining structurally deficient or functionally obsolete bridges:

Structurally Deficient

Condition Rating of ≤ 4 for:

- Deck Condition, or
- Superstructure, or
- Substructure, or
- Culvert

or

Appraisal Rating of ≤ 2 for:

- Structure Evaluation, or
- Waterway Adequacy

Functionally Obsolete

Condition Rating of ≤ 3 for:

- Deck Geometry, or
- Underclearance, or
- Approach Roadway

or

Appraisal Rating = 3 for:

- Structure Evaluation, or
- Waterway Adequacy

*Note that a bridge is not automatically structurally deficient because it is posted for weight restrictions. Likewise, a bridge does not become functionally obsolete when the road is widened. The state aid rules for width of a bridge to remain in place are not the definition of functionally obsolete. Refer to the National Bridge Inventory coding guide for thresholds for those ratings. The status of a bridge can be found on the bridge inventory sheet.

HBRRP funds can be used for bridge preservation type activities regardless of their sufficiency rating or deficiency status.

Types of bridge preservation work may include:

- Bridge painting
- Expansion joint repair/replacement
- Bridge deck overlays
- Railing/barrier repair/replacement
- Partial deck replacement (to current width)
- Minor superstructure or substructure repair

Large bridges and bridges on regionally important routes often rank highly for federal funds. Local agencies should apply for federal funds first on these types of bridges. This will leave the state funds available for those projects that are less likely be selected by the ATPs for funding.

Generally, projects selected are funded with 80 percent federal funds, although the ATP may designate a smaller percentage less than 80 percent or cap the federal participation. If the project involves a township bridge, the matching monies are taken from the Town Bridge Account first, if available, and secondly from the State Transportation Fund. Matching monies for all other roadways may be from the State Transportation Fund if available or CSAH, MSAS or local funds as appropriate.

For additional guidelines on bridge preservation, improvement and rehabilitation or replacement, please refer to the [Bridge Preservation, Improvement, and Replacement Guidelines](#) (PDF).

B. State Transportation Fund (Bridge Bonds)

The Local Bridge Replacement Program is funded from the Minnesota State Transportation Fund. General obligation bonds typically fund the State Transportation Fund and are also commonly referred to as bridge bond funds. [Minnesota Statutes 174.50](#) and [Minnesota Rules 8810](#), along with the specific session law associated with each bond appropriation, govern what is an eligible use for State Transportation Funds. However, over the years, eligibility criteria have changed little.

State Transportation Funds may be used to replace, rehabilitate or remove a bridge. Bridges can be located on a CSAH, MSAS, county road, city street, or township road, but must be owned by the county, city or township. Bridges that carry private rail lines over highways can be eligible if the public agency is the owner of the bridge.

Cities with a population of 5,000 or less may use bridge bonds for 100 percent of the bridge construction work, 100 percent of the bridge approach costs that are in excess of \$10,000 and 100 percent of the design and Engineering costs that are in excess of \$10,000.

Eligibility criteria for replacement, rehabilitation or abandoning of a bridge, are the same. For the typical bridge project, **ALL** of the following must be satisfied:

- 1) The in-place structure is 10 feet or more in length, and
- 2) The in-place structure has a sufficiency rating of 80 or less, and
- 3) The in-place structure is classified as structurally deficient or functionally obsolete by federal rating criteria (see [criteria for determining structurally deficient or functionally obsolete bridges](#)).

If a project does not meet these three conditions, it still may be eligible if any one of the following is satisfied:

- The in-place structure is less than 10 feet long but a hydrological survey indicates that the replacement structure must be 10 feet or longer in length.
- A roadway is being constructed that will eliminate a bridge meeting the above three criteria. This includes installation of a less than 10 foot culvert or low water crossing in place of an existing eligible structure. Participation will be limited to the cost estimate for a replacement structure.
- An in-place structure meeting the above three criteria is being removed or abandoned. Participation will be limited to the cost estimate for a replacement structure.

Project costs of preliminary Engineering studies, up to \$300,000 for an eligible bridge replacement project crossing a river that requires extensive environmental evaluations may be eligible for state transportation funds.

Minnesota State Transportation Funds may be used at various percentages to fund local bridges.

The current guidance for bridges on the CSAH or MSAS system is to split the structure replacement cost 50/50 with state bridge bond and state aid funds.

Justification for a higher fund percentage of bond funds requires concurrence from the DSAE and approval by State Aid Programs Engineer.

When federal funds are used for eligible bridge costs, the federal funds will be applied to the state aid or local share first.

County and city bridges on county roads and city streets may be approved for up to 100 percent of the eligible items.

Township bridges can receive State Transportation Funds for up to 100 percent of the eligible items if the county's Town Bridge allotment and the Special Town Bridge funds are depleted. The State Transportation Fund may not pay for approach grading or engineering costs on township bridges.

C. Town Bridge Program

The Town Bridge Program is funded from a portion of the five percent deducted from the HUTDF, prior to the distribution to the TH and state aid funds. [Minnesota Statutes 161.082](#) and [Minnesota Rules 8820](#) govern the Town Bridge Program.

70 percent of the funds in the Town Bridge Account are annually apportioned to each county, in proportion to the number of deficient township bridges in their county. The remaining 30 percent is retained in the Special Town Bridge Account and used to fund township bridge projects when a county has depleted its own apportionment.

Town Bridge Program funds may be used to replace, rehabilitate or remove a bridge. Eligibility criteria for replacement or rehabilitation are the same. For the typical bridge project with an in-place structure of 10 feet or more in length, **one** of the following must be satisfied:

- The in-place structure has a sufficiency rating of 80 or less, or
- The in-place structure is classified as [structurally deficient or functionally obsolete](#) by federal rating criteria.

If a project does not meet the conditions above, it still may be eligible if any one of the following is satisfied:

- The in-place structure is less than 10 feet long but a hydrological survey indicates that the replacement structure must be 10 feet or longer in length.
- A roadway is being constructed that will eliminate a bridge meeting the above three criteria. This includes installation of a less than 10 foot culvert or low water crossing in place of an existing eligible structure. Participation will be limited to the cost estimate for a replacement structure.
- An in-place structure meeting the above three criteria is removed or abandoned. Participation will be limited to the cost estimate for the replacement structure.

- A deficient bridge is being replaced by a culvert and is a part of a comprehensive water plan approved by the Board of Water and Soil Resources and the Department of Natural Resources (DNR). Participation will be limited to the cost of the replacement structure.
- The in-place structure does not meet both criterion two and three of the above criteria, but there are special circumstances, and the project has been approved by the DSAE and the State Aid Programs Engineer. One example of such a project is a bridge narrower than 16 feet with an Average Daily Traffic (ADT) of less than 100, which will rate as adequate by Federal National Bridge Inspection Standards (NBIS).

Town Bridge Program funds may be used for up to 100 percent of the cost of eligible bridge construction items. In addition to the usual eligible items, Town Bridge Program funds may also be used to fund approach work and engineering costs.

Approach work is considered to be all the necessary grading work associated with the bridge construction, and Town Bridge Program funds can be used for costs in excess of \$10,000, if the work is included in the approved plan and if requested by the county.

Engineering costs in excess of \$10,000 may be reimbursed if requested by the county. Townships with a net tax capacity of less than \$300,000 are eligible for 100 percent of the engineering costs.

D. Selection of Bridge Projects and Application for Bridge Funds

Funding for all bridge projects must be applied for on a project by project basis.

Federal HBRRP funds must be applied for through the project solicitation process of each respective ATP. Questions should be directed to the DSAE.

State Transportation Fund and Town Bridge Program projects must follow this procedure to apply for funds and to be selected for a grant.

- 1) MnDOT's State Aid Division establishes criteria for a bridge to be considered eligible for a grant (see eligibility criteria in Sections A, B, C). Those criteria establish a pool of candidate bridge replacement projects.
- 2) Local agencies plan for and select candidate projects from their list of eligible bridge projects. The county board or city council passes a [bridge sample resolution](#) as placing those bridges on their agency bridge replacement priority list, and indicating a commitment to replacing those structures as soon as grant funds are available. Most agencies plan for two to five years ahead.
- 3) The local agency Engineer submits an [application for bridge funds form](#) (PDF) to the department through the DSAE, for each candidate bridge project. The application

contains all the information required by statute to be used to approve a project to receive a grant.

- 4) The DSAE reviews the application and may visit the bridge site to determine if the proposed replacement is the best use of taxpayer dollars. The DSAE may approve or deny the application, or may recommend that other options be considered such as building a smaller structure, building a road in lieu of replacing the bridge or removing the bridge and closing the crossing.
- 5) Approved applications are sent to the State Aid Division.

Once a project has passed through steps 1-5, it is considered eligible for funding and is placed on the Master Bridge Priority List, however, funding is not yet reserved.

The Master Bridge Priority list is the combination of all the individual agency bridge priority lists, and is primarily used to generate the capital budget request to the legislature. The list identifies each bridge project, the planned construction year, and a tentative cost split. For the purposes of that list, all township bridges are shown to use township bridge funds, regardless of what a county's balance might be. All county road or city street bridges are shown to use 100 percent bond funds. All CSAH and MSAS bridges are shown to use 50 percent bonds, even though they may later be funded at a higher amount.

Although the cost figures on the Master Bridge Priority List may not match the 5-year plan of an individual agency, after accounting for factors such as the use of the Special Town Bridge Account, project delays, and program revisions, this method produces an accurate prediction of the amount of State Transportation Funds needed for the capital improvements budgeting process.

E. Plan and Grant Approval

Plans for bridge structures, quadruple or greater box culverts and non-standard designs must be submitted to the State Aid Bridge Engineer early in the design phase for preliminary plan approval. Final construction plans should be submitted to the DSAE for approval.

Plan requirements for the bridge replacement program are the same as for any regular state aid plan (see [Chapter 5 Project Delivery](#)). If approval by the State Aid Bridge Engineer is required, the DSAE will forward the plan to the Bridge Office. Either the State Aid Division or the Metro District must approve federal aid plans.

After the plans have been approved, the DSAE or the SALT plan reviewer will request funding approval from the State Aid Program Engineer.

The District ATP will have notified local agencies if their project has been selected to receive Federal HBRRP funds. Selected projects will be listed in the STIP, usually at least three years

prior to the planned construction year. Federal funds are subject to availability and the STIP is subject to change, but federal funds can be considered designated for that project once it appears in the approved STIP. Federal funds, however, must still be authorized before a letting date can be established.

The State Aid Programs Engineer will notify the local agency directly or through the DSAE that either the grant has been approved, that the grant has not been approved and additional information is needed, or that there are insufficient funds available and the project has been placed on a waiting list. The local agency will also be provided with a tentative cost split based upon the Engineer's Estimate.

Either the DSAE or the State Aid Programs Engineer will provide written notification of the funding approval. Once this notification is received, the project may proceed to letting. Funds are not reserved for any bridge projects until written notification is received.

F. Eligible Costs and Cost Split Determination

Cost splits are calculated based upon the items that are eligible for the various funds and the Engineer's Estimate or bid abstract. In general, federal HBRRP, State Transportation Fund, and Town Bridge funds may be used for costs of construction of the bridge from abutment to abutment. Costs of grading and surfacing the approach roadway are not eligible, but are considered approach grading costs for purposes of the Town Bridge Program. Costs of purchasing right of way (R/W) are normally not eligible. [Table 1](#) contains a list of eligible costs for each of the three bridge programs.

For State Transportation Fund or Town Bridge projects, when a road-in-lieu-of-bridge project, a water retention project, or a bridge removal/abandonment project is being proposed, all costs of construction up to the cost of a replacement structure can be eligible, including grading, surfacing, R/W, and Engineering costs.

If a bridge is eligible for either Town Bridge or State Transportation funds, the following process is followed to determine which funding source will be used:

- 1) If a county's Town Bridge account has sufficient funds, those funds are used first. The account will be depleted completely before going to any other source.
- 2) When the county's Town Bridge account is depleted, the project may be funded from the Special Town Bridge account. Funds are encumbered from the account on a first come first served basis until it reaches a balance of about \$500,000. After that, the funds are reserved for paying approach grading and engineering costs and any other costs not payable with bond funds.

- 3) After the unallocated account is drawn down, the State Transportation Fund is used for the construction costs. Unallocated funds are still used for the approach grading, Engineering, and overrun costs.

For bridges on the state aid system, 50 percent of the eligible costs can be paid from the State Transportation Fund. Higher participation, up to 100 percent, may be approved if there is a financial need. Financial need is considered to exist in the following situations:

- County or city’s state aid account balance is negative due to advancing of state aid fund, or
- County or city’s state aid account balance has historically been drawn down to zero in recent past years, and the agency can document that the balance will be drawn down to zero again in the current year.

For bridges on private driveways approaching public roads, the following participation rules will apply:

- Existing approach road bridge must meet the applicable eligibility criteria (SR < 80, etc.),
- Existing approach road bridge must be within or partially within public road R/W, and
- New bridge must remain in public ownership after completion of the project.

The jurisdiction of the public road determines which funds the approach road bridge is eligible for. If a bridge is on a state aid route or a township road, state aid or Town Bridge funds must be used first before bond funds will be considered.

For bridges on the state aid system, 100 percent of the construction and engineering costs are eligible for payment with state aid funds. Typically, bridges on the state aid system are funded with a combination of state transportation bond fund and state aid funds. For bridges using Town Bridge funds, 100 percent of the structure costs, grading costs over \$10,000 and engineering costs as allowed are eligible.

Table 1: Bridge Funding Eligibility

| Item | FBF | TWN BR | SBB *(2) | SA | Condition |
|------------------------------|-----|--------|----------|----|------------------------------------------------------------------------------------------------------------------------------------------------------|
| General | | | | | |
| Mobilization | X | X | X | X | 100 percent eligible if approach grading is to the touchdown point. Pro-rated by participating bridge amount if grading goes beyond touchdown point. |
| Structure Excavation | X | X | X | X | |
| Engineering & Surveying | X | X | | X | See Tech Memos 93-SA-05 for eligibility of historical/archaeological review services with federal planning funds. |
| Bridge & Non-Bridge Removals | X | X* | | X | *See note (1) Approach Grading Cost |
| Salvage | | X* | | X | *See note (1) Approach Grading Cost |

| Item | FBF | TWN BR | SBB *(2) | SA | Condition |
|------------------------------------------------|-----|--------|----------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Traffic Control | X | X | X | X | 100 percent eligible if approach grading is to the touchdown point. Pro-rated by participating bridge amount if grading goes beyond touchdown point. |
| R/W | | X* | X* | X | *May be eligible on road-in-lieu of bridge projects |
| Utility Work | X | | | X | Whether electrical, gas, telephone not owned by subdivision of the State; or storm, sanitary owned by subdivision of the State. |
| Bridge Structures | | | | | |
| Granular Backfill for Abutment Drainage System | X | X | X | X | |
| Granular Bedding | X | X | X | X | |
| Bridge Foundation & Structure | X | X | X | X | Including piling, beams, joints, rebar, overlays, bearings... |
| Slope Preparation & Paving | X | X | X | X | |
| Concrete Sidewalk on Bridge | X | X(a) | X(a) | X | (a) if existing and/or urban sidewalk approaching bridge (up to 6' both sides; up to 8' if only on one side). Remaining width may be eligible for FBF, SA or FA funds, State Aid Manual 5.4 VI. |
| Path on Bridge | X | X(b) | X(b) | X | (b) if existing and/or urban sidewalk approaching bridge (maximum 8' if only on one side). See sidewalk funding conditions above if on both sides. Remaining width may be eligible for FBF, SA or FA funds, State Aid Manual 5.4 VI. |
| Drainage System | X | X | X | X | On the bridge and/or behind abutments. |
| Lighting System (including conduit) | X | X | X | X | If lighting is justified. Ornamental units prorated to standards. |
| Guard Rail | X | X | X | X | |
| Ornamental Metal Rail | X | X | X | X | Prorated to cost of standard railing or chain link fence. |
| Architectural Surface Treatment | X | | | X | Subject to 5 percent of annual construction allocation cap. See "landscape" guidance. |
| Culverts | | | | | |
| Culvert Pipes & Aprons | X | X | X | X | |
| Culvert Bedding | X | X | X | X | |
| Culvert Backfill (including granular) | X | X | X | X | Eligible to minimum depth of cover required (usually 2') |
| Approach Work | | | | | |
| Clearing & Grubbing | X | X* | | X | *See note (1) Approach Grading Cost. |
| Common Excavation for Approaches | X | X* | | X | *See note (1) Approach Grading Cost. |
| Topsoil Borrow | X | X* | | X | *See note (1) Approach Grading Cost. |
| Surfacing | X | X* | | X | Concrete, bituminous or aggregate. *See note (1) Approach Grading Cost. |
| Curb & Gutter | X | X* | | X | *See note (1) Approach Grading Cost. |
| Sidewalks Along Approaches | X | X* | | X | *See note (1) Approach Grading Cost. |
| Channel Excavation | X | X | X | X | To the touchdown point. |
| Approach Panels | X | X* | X* | X | *Eligible if included in the same plan as the bridge construction. |
| Erosion Control | | | | | |
| Riprap | X | X | X | X | Granular or geo filter incidental. |

| Item | FBF | TWN BR | SBB *(2) | SA | Condition |
|--------------------------|-----|--------|----------|----|--------------------------------------|
| Silt Fence | X | X* | | X | *See note (1) Approach Grading Cost. |
| Turf Establishment | X | X* | | X | *See note (1) Approach Grading Cost. |
| Other | | | | | |
| Water Retention Projects | X | X* | | X | *See note (1) Approach Grading Cost. |

*(1) Approach Grading Costs are those costs for grading & surfacing the roadway approaches to the bridge, from the bridge to the point where an alignment that meets design standards can match into the existing alignment. Bridge removal is an approach grading cost. For Town Bridge Funds only, costs in excess of \$10,000 are eligible.

*(2) Cities with a population of 5,000 or less may use bridge bonds for 100 percent of the bridge construction work, 100 percent of the bridge approach costs that are in excess of \$10,000 and 100 percent of the design and Engineering costs that are in excess of \$10,000.

Note this list represents the projects that commonly apply for bridge funds. If you have a project replacing a deficient bridge and/or would like more information on potential bridge funding, [contact Patti Loken](#).

G. Payments

When a local agency has been notified that the funding for a project has been approved, the funds are encumbered and held in reserve until payments are made. If after a project has been approved for funding, the project is delayed or cancelled, the local agency should immediately notify the State Aid Division, so that the funds can be released to other projects.

Funds are reserved based upon a tentative funding split of the Engineer’s Estimate. After letting, this amount will be revised based upon actual bid prices. The new amount may be higher or lower than the tentative amount.

To request payments on federal aid projects, follow the appropriate procedures for regular federal aid lettings. Payment of matching bond funds can be requested on the Delegated Contract Process (DCP) forms. Town Bridge or state aid funds must be requested separately using the State Aid Payment Request form. Federal aid funds may or may not be capped. Any increase from the STIP amount must be approved in the district.

To request payments on Town Bridge Fund projects, the local agency notifies SALT of the letting date and requests payment following the procedures for a regular state aid funded project using the State Aid Payment Request form. Town Bridge fund grants are not fixed or capped, and the amount may increase or decrease as needed to cover actual costs of the project, subject to availability of funds.

For State Transportation Fund projects, prior to the release of funds, the following steps must take place:

- 1) The local agency must notify the State Aid Division Payments Technician of the letting by submitting a copy of the bid abstract in excel format.
- 2) The amount of the grant must be recalculated using actual bid prices. The local agency may make this calculation or request assistance from the State Aid Division Payments Technician.
- 3) The revised grant amount will then be fixed for that project.
- 4) The county board or city council must prepare and execute a bond grant agreement for all projects approved for bridge bonds. The template for the grant agreement is provided to the agencies by the State Aid Programs Engineer. Three copies of the agreement must be submitted and signed by all parties before payments for work can be approved by the DSAE.
- 5) The county board or city council must prepare and execute a bond grant resolution for all projects approved for bridge bonds. The template for the [bridge sample resolution](#) is available on the website and is submitted to the State Aid Division.
- 6) Payments cannot be made until work is completed, but partial payment requests can be made as frequently as they are needed. Payment requests for State Transportation Fund projects without federal aid must be made using the State Aid Payment Request form.

In all other respects, bridge projects with these bridge funds are handled according to the appropriate federal aid or state aid procedures found elsewhere in this manual.

H. Advancing Town Bridge Funds

[Minnesota Rule 8820.1500, Subpart 9a](#) allows the Commissioner to approve requests for advance funding for town bridge projects when the county requires funds in excess of their individual Town Bridge Account balance.

If at the time of the approval of a township bridge plan, there are insufficient funds available to advance the project to letting, the county may choose to advance the project using local funds which will later be repaid from future allocations to the county's Town Bridge Account. At the discretion of the State Aid Programs Engineer, advances may also be repaid from future allocations to the Special Town Bridge Account.

The following procedure is used to advance local funds:

- 1) The county must notify the Program Delivery Engineer by written request (e-mail or letter) that the county intends to advance the project using local funds. A county board resolution is not necessary.

- 2) The Program Delivery Engineer will encumber any funds that are available, notify the county Engineer of that amount, and record that the project was advance funded.
- 3) The county must submit a payment request each year for the amount of their subsequent allocations that they wish to be released towards the advance.
- 4) At the discretion of the Program Delivery Engineer, Special Town Bridge Funds may be used to liquidate the outstanding balance, if so requested by the county.
- 5) There is no limit to the amount that may be advanced using local funds.

If at the time of the approval of a township bridge plan, there are insufficient funds available to advance the project to letting, the county may request to advance funds from the General Town Bridge Account. Advances will be repaid to the General Town Bridge Account from future allocations to the county's Town Bridge Account. At the discretion of the State Aid Programs Engineer, advances may also be repaid from future allocations to the Special Town Bridge Account.

The following procedure is used to advance funds from the General Town Bridge Account:

- 1) The county must notify the State Aid Program Engineer that they wish to advance funds from the General Town Bridge Account. The request must be in the form of a resolution stating the amount of the advance and the terms for repayment (see example, [County Town Bridge Advance Resolution](#) (PDF)).
- 2) In order to be considered for a general fund advance, the county must agree to let the project prior to the next Town Bridge Fund allocation.
- 3) Advances may be for no more than three times the previous year's apportionment **OR** \$200,000, whichever is more, but not more than \$1 million total; **AND** the county must reasonably anticipate receiving a town bridge apportionment in the future (i.e. if a county is replacing their last deficient township bridge(s), they will not receive a future apportionment and therefore cannot advance funds).
- 4) Repayment shall be no longer than three years **OR** the minimum amount of time required to repay the advance using 100 percent of future allotments if that is more than three years. If the payback period is more than five years, prior approval must be obtained from the State Aid Program Engineer, who will use Special Town Bridge Account funds to repay some or all-of-the advance. The repayment schedule must be in the resolution.
- 5) Requests to advance funds may be submitted at any time, but will not be acted upon prior to plan approval. Plans must still be approved prior to bid opening as required by state aid rules, but the advance funding resolution need not be submitted until payment of advanced funds is requested.

Upon approval of the fund advance, the State Aid Programs Engineer will encumber any funds that are available in the county's account or from other available funds and will reserve funds

from the General Town Bridge Account. The county will be notified in writing of the amount of the approved advance.

Repayments will occur automatically each January following the annual apportionments.

At the discretion of the State Aid Programs Engineer, Special Town Bridge Funds may be used to liquidate the outstanding advance balance, if so requested by the county.

Advance funding requests will be granted on a first come first served basis until the balance in the General Town Bridge Account reaches \$4 million. (The annual allotment is about \$14 million).

If necessary to increase the amount of the advance, the county may submit a resolution for a supplemental request to advance subject to the limitations above.

If after advanced funds have been reserved, a planned project letting is delayed until after the next allocation of funds, the county must notify the State Aid Programs Engineer of the delay so that funds may be released to other counties.

III. Local Road Improvement Program

In 2002, the legislature created the Local Road Improvement Program (LRIP) ([Minnesota Statutes 174.52](#)) and established two accounts to provide funding assistance to local agencies in construction, reconstruction or reconditioning projects with regional significance. The two accounts are the TH Corridor Projects Account and Local Road Account for Routes of Regional Significance. In 2005, the legislature created a third account called the Rural Road Safety Account.

In this section:

- A. [TH Corridor Account](#)
- B. [Routes of Regional Significance Account](#)
- C. [Rural Road Safety Account](#)
- D. [Criteria for Selecting Local Road Improvement Projects](#)
- E. [Selection of Local Road Projects and Application for Funds](#)

A. Trunk Highway Corridor Account

This account must be used as a loan or grant to cities, towns, and counties to assist in paying the local share of TH projects that have local costs related to the TH improvement and are not funded or are only partially funded with other state and federal funds. The legislature

authorized General Obligation Bonds for this account with the purpose to provide loans to local government to help them pay their cost participation share of MnDOT projects.

B. Routes of Regional Significance Account

This account must be used as grants for expenditures as specified to cities, towns and counties to assist in paying the costs of constructing or reconstructing city streets, county highways or town roads with statewide or regional significance that have not been fully funded through other state, federal or local funding sources. The State Aid Division will establish procedures for the solicitation and criteria for selection in consultation with representatives from the counties, cities and townships.

The consideration for determining project priority and the amount of the grant or loan is based upon the consideration of:

- the availability of other state, federal or local funds;
- the regional significance of the route;
- effectiveness of the proposed project in eliminating a transportation system deficiency;
- the number of persons who will be positively impacted by the project;
- the project's contribution to other local, regional or state economic development or redevelopment efforts; and
- the ability of the local unit of government to adequately provide for the safe operation and maintenance of the facility upon project completion.

C. Rural Road Safety Account

The legislature in the 2005 session amended the [Minnesota Statutes 174.52](#) by adding a subdivision called the Rural Road Safety Account. This account was established in the Local Road Improvement fund and is appropriated to the Commissioner of Transportation for expenditures to be used as grants. Money in the account must be used as grants to the counties to assist in paying the costs of capital improvement projects on CSAH that are intended primarily to reduce traffic crashes, deaths, injuries and property damage. Eligibility for project selection must be based on the ability of each proposed project to reduce the frequency and severity of crashes.

The legislature appropriates funds to the LRIP from the bond proceeds account in the Minnesota State Transportation Fund. The session law identifies specific dollar amounts and conditions for construction, reconstruction or reconditioning of local roads with statewide or regional significance for counties to assist in paying the costs of capital improvement projects on CSAHs that are intended primarily to reduce traffic crashes, deaths, injuries and property damage.

D. Criteria for Selecting Local Road Improvement Projects

1. Local Roads of Regional Significance Account must meet the following eligibility criteria:
 - Be a local road construction, reconstruction or reconditioning project.
 - Eliminate a transportation deficiency
 - Demonstrate the regional significance of the route by being classified as a minor collector or higher unless it meets one of the following criteria:
 - identified in a regional plan as a farm to market artery,
 - part of a 10 ton route system,
 - part of an economic development plan,
 - serves as a regional tourist destination,
 - provides capacity or congestion relief to a parallel TH or county road, and
 - connects to the IRC system, TH, or a county road.
 - Be supported by agency board or council and other local agencies impacted by the project.
 - Consider availability of other funding sources.
 - Have a minimum expected life of the project of 10 years.
 - Be located on a CSAH, MSAS, county road, city street or township road and owned by the county, city or township.
 - Provide letters of support from other local agencies or public/private parties impacted by the improvement. For example, letters of support from area businesses regarding the impact and benefit of constructing a road to a 10 ton design standard.

2. Rural Road Safety Account must meet the following eligibility criteria:
 - Is on a designated county state aid highway, as defined in the [Minnesota Rules 8820](#) for state aid operations.
 - Reduce or eliminate a safety related road transportation deficiency which will reduce traffic crashes, deaths, injuries or property damage.
 - Be supported by county board and other agencies if impacted by the project. Operate and maintain the highway for the useful life of the improvement.
 - Provide letters of support from other local agencies and public/private parties impacted by the improvement (desired, not required).

E. Selection of Local Road Projects and Application for Funds

Funding for all local road projects must be applied for and occurs when funding is appropriated by the legislature. The State Aid staff advertises when an open solicitation period begins and closes. The LRIP Advisory Committee provides guidance to the State Aid staff in the administration of the program. Local agencies apply for project funding by submitting an

application during an open solicitation period. Based on the established criteria for each account, projects are selected. The application can be found on the [LRIP webpage](#).

Local agencies that are not identified as a state aid city or county must be sponsored by the county in which they reside. The sponsor must complete these minimum requirements on behalf of a non state aid city or township - award of the contract, make payments to the Contractor, receive the funds for the project. The county board or city council must pass a resolution accepting the terms of the grant, agreeing to pay any costs in excess of the grant amount and to return any unused portion. A copy of the resolution must be submitted to SALT.

Projects are designed and processed through the DSAE and the normal state aid plan review and approval.

IV. Safe Routes to School

The Minnesota [SRTS Program](#) was created by the state legislature in 2012 under [Minnesota Statute 174.40](#). The program was created to supplement or replace aid for infrastructure projects under the federal SRTS program and provide assistance in capital investments for safe and appealing non-motorized transportation to and from a school.

A. Safe Routes to School Infrastructure Program

The State Aid Division administers the SRTS Infrastructure Program with the conditions and requirements in the legislation.

Projects funded under this program must provide the following information in their application:

- 1) a detailed and specific description of the project;
- 2) an estimate, along with necessary supporting evidence, of the total costs for the project and the allocation of identified and proposed funding sources for the project;
- 3) an assessment of the need for and benefits of the project;
- 4) a resolution adopted by the governing body of the school for which a safe routes to school grant is requested, certifying that: (i) the governing body of the school supports the project; and (ii) funds, if any, required to be supplied by the school to complete the project are available and committed;
- 5) a timeline indicating the major milestones of the project and their anticipated completion dates

Criteria for evaluation of applications include but are not limited to:

- infrastructure improvements that improves safety and encourages non-motorized transportation

- infrastructure improvements that are eligible under the federal SRTS program

B. Selection of Safe Routes to School Projects

The State Aid Division will solicit for projects when funding is appropriated by the legislature. Solicitation guidance will be established with criteria in the legislation and recommendation from the SRTS Steering Committee.

Projects are designed and processed through the District State Aid Office with the normal state aid plan review and approval and procedures.

V. State Programs

In this section:

- A. [Turnbacks](#)
- B. [State Park Projects](#)
- C. [Disaster Account](#)

A. Turnbacks

1. A county, city, or MnDOT may initiate turnback discussions. The MnDOT contact person is typically the DSAE. A common reason a county or city may initiate a TH turnback is that the city or county is interested in improving the roadway. A route on the TH system may play a significant local role, but may be a minor regional or inter-regional transportation route. Turning the road over to the appropriate jurisdiction allows the city or county to control improvements. In some cases, MnDOT may initiate an exchange of minor TH segments for higher functioning segments of a city or county system.
2. Eligibility for Turnback Funds: Turnback funds may only be used on released TH routes that have been added to a county's or municipality's state aid system. After the route has been released from the TH system, it is no longer eligible for TH funding. Turnback funds may pay for any costs that are eligible for regular state aid funding, such as road or bridge construction, R/W, Engineering, utility relocation, railroad adjustment, and locally furnished materials or labor.
3. Eligibility Time Frame: State Aid Operations Rules Chapter 8820.2900 states, "Approval of plans for the construction of a turnback project is limited to a period of 15 years from the date of reversion. Each approved project must be advanced to construction status within one year after notification to the county or urban municipality that sufficient funds are available for constructing the project. Payment for repair and restoration or

reconstruction and improvement of a section terminates eligibility for repair and restoration or reconstruction and improvement of that section with turnback funds.”

4. Lump Sum Payment: State Aid Operations Rule, [Minnesota Rules 8820.2300, Subpart 6a.](#) states "In lieu of contracting work or force account (FA) work, the commissioner, with concurrence of the receiving agency, may enter into an agreement to pay a lump sum payment from the turnback account to the receiving agency’s state aid allocation equal to the net value of eligible turnback costs for a project to be constructed within 20 years of the release date”.
5. This allows the receiving agency the option to use the additional funds to construct some other state aid route that may be in greater need than the route turned back. This way the receiving agency’s road system reconstruction priorities may be managed in the best possible way regardless of which account gas tax funds come from.
6. Turnback Maintenance Funds: counties and cities that include a TH turnback receive annual maintenance funds until turnback funds are expended on the route. The annual maintenance payments may continue up to a maximum of 15 years if no turnback construction project is started. The turnback maintenance payment is made each January.

For counties, maintenance is based on ADT and lane miles as follows:

| <u>Existing ADT</u> | <u>Turnback Maintenance/Lane Mile/Lane</u> |
|----------------------------|---------------------------------------------------|
| 0 – 999 | Current lane mileage apportionment/lane (\$1592) |
| 1000 – 4999 | 2 X current lane mileage apportionment/lane |
| For each additional 5000 | Add current lane mileage apportionment/lane |

(For example: 6,000 ADT would get three times the current lane mileage apportionment/lane)

For cities, maintenance is based on a fixed amount of \$7,200 per mile.

7. Drawing Needs in Lieu of a Construction Project: State Aid Operations Rules require that turnback projects begin within 15 years of the date of release of the roadway to the city or county. In cases where a road will not need a major repair within the 15 year limit, the city or county may simply add it to their system as a normal state aid road instead of receiving turnback funds for a construction project. In these cases, no turnback maintenance funds would be included in their apportionment.
8. Long Term Maintenance: the city or county is responsible for the ongoing maintenance of the routes.

B. State Park Projects

As provided by Law, a portion of the CSAH fund is set aside and used for the construction, reconstruction, and improvement of CSAH, county roads, city streets, and town roads that provide access to public lakes, rivers, state parks, state campgrounds, and other outdoor recreation units as defined in [Minnesota Statutes 86A.04](#). These funds may be expended for this purpose only on request from the Commissioner of Natural Resources. Projects so selected will be approved by the Commissioner of Transportation in accordance with the procedures established for other state aid projects, and must also receive the approval of the appropriate screening board if on the CSAH system.

C. Disaster Account

Each year the Commissioner, pursuant to law, shall set aside an amount equal to one percent of the county state aid apportionment sum and two percent of the Municipal State Aid apportionment sum to provide for a Disaster Account.; except that the total amount of money in either Disaster Account shall never exceed five percent of the total funds currently available for distribution to counties or urban municipalities.

The Disaster Accounts shall be used to provide aid to any county or urban municipality encountering floods or other disasters affecting the CSAH or MSAS systems. Damage estimates must exceed 10 percent of the county's or urban municipality's current annual state aid allotment before Disaster Account funds can be utilized.

Any county desiring aid by reason of disaster shall request such aid in writing, after which the Commissioner will appoint a Disaster Board consisting of two County Engineers or County Commissioners from other counties, if possible counties from outside the district and disaster event area, and one representative of the Commissioner. This board shall investigate the matter and report its findings and recommendations in writing to the Commissioner.

Any urban municipality desiring aid by reason of disaster shall request such aid in writing, after which the Commissioner will appoint a Disaster Board consisting of two City Engineers or members of the governing bodies of other cities having a population of over 5,000, if possible cities from outside the district and disaster event area, and one representative of the Commissioner. This board shall investigate the matter and report its findings and recommendations in writing to the Commissioner.

Any disaster appropriation approved by the Commissioner may be promptly paid to the county or urban municipality. The funds so allotted and paid can only be used for the purpose for which they were authorized and within a reasonable time period specified by the Commissioner. Immediately upon completion of the work or the expiration of the time

specified for doing the work, whichever occurs first, the county or urban municipality shall file a report certifying the extent of the work performed and the total expenditure made. If the total allotment was not required or used or if disaster aid from some other source is later received, the remainder shall be promptly returned to the Commissioner for re-deposit into the CSAH fund or MSAS fund and apportioned by law.

VI. Federal Funding

In this section:

- A. [Overview](#)
- B. [Formula Funds](#)
- C. [Allocation Funds Overview](#)
- D. [Miscellaneous Federal Funds](#)
- E. [Matching Funds](#)

A. Overview

All projects proposed to use federal funding must be listed in or amended into the current approved [STIP](#) in the correct fiscal year. Amendments are done by the MnDOT District Office in which the project is located. Projects which are in more than one district or statewide are listed in District C of the STIP. Projects listed in the STIP are those which are reasonably expected to occur within the timeline listed. The STIP is required to be financially constrained, meaning that the total cost of the projects listed should not exceed the amount of funding reasonably anticipated. All local federally funded projects must also be in the MnDOT Program and Project Management System. This is handled in the district planning unit. It is important to know what type of federal funding will be used on the project as certain funding programs have slightly different rules and conditions. In general, funds from the FHWA cannot be used as a local match to other FHWA federal funds. The local match (if required) and any cost overruns are the responsibility of the local agency that is proposing the project. The federal aid highway program is sometimes called a grant program, but is really a reimbursable program. Costs must be incurred and paid by the local agency before being reimbursed with federal funds. Federal aid construction projects are authorized, funds are obligated, costs are incurred, paid by the local agency, and billed to MnDOT, MnDOT then bills the FHWA; FHWA then reimburses the MnDOT for actual eligible costs that were billed.

B. Formula Funds

These are funds apportioned to each state by formulas established in federal law. In recent years this total amount has been highly variable. By federal law, the funds are to be allocated into specific categories.

1. [Surface Transportation Program Funds](#) - The bulk of federal funding available to local agencies is in this category. It is governed by [23 USC 104\(b\)\(3\)](#). After estimating the total amount of federal funds that will be received MnDOT, the Office of Transportation System Management subdivides the amount to a target for each ATP to use to program projects in their geographic area.
2. [Transportation Alternatives Program](#) - Eligible projects in in this category are defined in MAP-21 and include most of those projects formerly eligible as transportation enhancements, Scenic Byways, Safe Routes to School, Recreational Trails, Historic bridges and other non-traditional transportation projects. Projects scheduled after 2018 will be chosen by the ATP process. Each ATP will use the same application, but the ATP will pick scoring criteria to fit the regions priorities. The [Federal Recreational Trail Program](#) is managed by the Minnesota DNR and is a set-aside of \$2 million off the top of the TAP program funds.
3. [Highway Safety Improvement Program](#) was continued as a program under MAP-21. The intent is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads in the United States. Each state is required to have a Strategic Highway Safety Plan; MnDOT's plan is called the [Comprehensive Highway Safety Plan](#). It outlines strategies to improve safety on all types of roadways in Minnesota. These funds are awarded centrally by the Office of Traffic, Safety and Technology and SALT. The [Railway-Highway Crossing Program](#) (PDF) has also been added to this category of funding. This program is administered through the MnDOT Office of Freight, Rail, and Waterways.
4. [Congestion Mitigation and Air Quality Improvement Program](#) was established to fund programs and projects which reduce air pollution, mitigate congestion and improve air quality. In Minnesota, the only areas eligible to receive CMAQ funds are the Twin Cities, Duluth, and St. Cloud. All of the funds are distributed in the Twin Cities Metro area by the [Metropolitan Council](#).
5. [National Highway Performance Program](#) - There are currently a very limited number of miles of roadway owned by local agencies which are eligible for this type of funding. In MAP-21, the older programs of interstate maintenance, interstate bridge, and national highway system programs are combined in this new single program. Legislation requires that the state's system meet performance targets or the FHWA will be specifically designate where federal funds can be spent.

C. Allocation Funds Overview

1. Allocated funds are funds which are set aside specifically for certain types of projects which fit into the criteria. Most have a separate and distinct project selection process and are not included in the ATP target.
2. [Federal Lands Access Program](#), this program replaces the Forest Highway Program. Funds for these projects are intended to be used for projects which improve access to

federal lands, or improve or promote economic development for the areas around federal lands. Eligible projects can be roadways, trails, transit or improvements to any other mode which enhances access. These funds are allocated to Minnesota by formula based on the law by Eastern Federal Lands Highway. Projects are solicited through Eastern Federal Lands Highway but are chosen by a programming decisions committee made up of a state representative, a local agency representative and an FHWA representative.

3. [Federal Lands Transportation Program \(FLTP\)](#) was established in [23 USC 203](#) to improve multi-modal access within national parks, forests, wildlife refuges, Bureau of Land Management lands, and U.S. Army Corps of Engineers facilities. The FLTP complements the Federal Lands Access Program. Where the Access Program provides funds for State and local roads that access the Federal estate, the FLTP focuses on the transportation infrastructure owned and maintained by Federal lands management agencies. The use of the FLTP funds does not affect the overall responsibility for construction, maintenance, and operations of the facilities. That responsibility continues to lie with the owner of the facility. This program replaces the Public Lands Highways Program which was eliminated in MAP-21.
4. [Tribal Transportation Program \(TTP\)](#) was established in [23 USC 202](#) to address the transportation needs of Tribal governments throughout the United States. The purpose of the program is to provide safe and adequate transportation and public road access to and within Indian reservations, Indian lands, and Alaska Native Village communities. A prime objective of the TTP is to contribute to the economic development, self-determination, and employment of Indians and Native Americans. The Tribal Transportation Program is funded by contract authority from the Highway Trust Fund. Funds are subject to the overall Federal-aid obligation limitation. Funds will be allocated among the tribes using a new statutory formula based on tribal population, road mileage and average tribal shares of the former Tribal Transportation Allocation Methodology formula. This program replaces the Indian Reservation Roads Program which was eliminated in MAP-21.
5. [Ferry Boat Discretionary](#) program provides funding for ferry facilities (either vehicular or passenger) that are on a non-Interstate public road and are publicly owned, publicly operated, or majority publicly owned providing substantial public benefits. Eligible facilities receive a formula apportionment from FHWA. Currently the only eligible system in Minnesota is run by the Grand Portage Band of Lake Superior Chippewa from Grand Portage, MN to Isle Royal, Michigan.

D. Miscellaneous Federal Funds

1. [Emergency Relief \(ER\) Program](#) - Congress authorized in [23 USC 120\(e\)](#) and [23 USC 125](#), a special program from the Highway Trust Fund for the repair or reconstruction of

federal aid highways and roads on federal lands which have suffered serious damage as a result of (1) natural disasters or (2) catastrophic failures from an external cause. This program, supplements the commitment of resources by states, their political subdivisions, or other federal agencies to help pay for unusually heavy expenses resulting from extraordinary conditions. The applicability of the ER program to a natural disaster is based on the extent and intensity of the disaster. Damage to highways must be severe, occur over a wide area and result in unusually high expenses to the highway agency. Applicability of ER to a catastrophic failure due to an external cause is based on the criteria that the failure was not the result of an inherent flaw in the facility but was sudden, caused a disastrous impact on transportation services and resulted in unusually high expenses to the highway agency. Specific rules and procedures are covered in the [FHWA's ER Manual](#) (PDF). Damages must be either in an officially declared Gubernatorial State of Emergency or a Presidential Disaster and the estimate of the damages must exceed \$700,000. Damages which are covered by [Federal Emergency Management Agency \(FEMA\)](#) funds are not eligible for reimbursement with ER funds.

2. The FEMA program is handled through the Minnesota Department of Homeland Security and Emergency Management. FEMA funding is not handled by the State Aid Division. A Presidential Emergency Declaration is necessary to start the process and then damage estimates are compared to relative county population to make a determination of eligibility.
3. The [Transportation Revolving Loan Fund \(TRLF\)](#) was established as a State Infrastructure Bank (SIB) program in 1995 through the National Highway System Designation Act. A SIB is a state or multi-state fund that can be used by eligible borrowers to finance eligible transportation projects. Minnesota's SIB, TRLF, was established in 1997. The TRLF operates much like a commercial bank providing low interest loans to cities, counties, and other governmental entities for eligible transportation projects. When the loans are repaid, the funds are returned to the TRLF and used to finance additional transportation projects. Because the funds were initially Title 23 federal funds, the rules for use of these funds remains the same as regular Title 23 funds. Eligible projects are selected and jointly administered by MnDOT and the Minnesota Public Facilities Authority. [Minnesota Statutes 446A.085](#), authorizes the Minnesota Public Facilities Authority to manage and administer the fund and establishes the transportation committee of the Minnesota Public Facilities Authority to review and approve financial assistance to projects certified by the Commissioner of Transportation. [Minnesota Rules 7380.0705](#) to [Minnesota Rules 7380.0775](#) provide for the authority's administration of its duties under [Minnesota Statutes 446A.085](#). [Minnesota Rules 8805.0050](#) outlines MnDOT's responsibilities.

E. Matching Funds

1. In general, Federal Title 23 funds cannot be used to match other Federal Title 23 funds. There are some specific exceptions, but they are very limited. In general, other types of federal funds can be used to match Title 23 funds, but the legality of such a match should be confirmed before the project is very far along in the project development process.
2. A soft match may be used for the local share of a project when the project is using certain types of federal funds. Most commonly this type of federal funding is used for TAP projects. Soft matches must be approved by the FHWA and the ATP prior to authorization of the project. It is best to address any proposed soft match in the funding section of the project memorandum (PM). This generally allows time for FHWA approval of the proposed match prior to authorization. Soft matches may be provided by private donors, state, or local governments. Soft matches are not currently allowed by MnDOT under federal law. See [23 USC 133\(e\)\(5\)\(C\)](#) and [23 USC 323](#) for laws which define soft match.

Cash donation by public or private group or individual, R/W or other property donation, material donation, time value donation can be used as a soft match.

Table 2: Scenarios of Federal Match Requirements

| | No Soft Match | Partial Soft Match | Full Soft Match |
|-------------------------|---------------|--------------------|-----------------|
| Estimated Project Costs | \$ 100,000 | \$ 90,000 | \$ 80,000 |
| Soft Match | \$ 0 | \$ 10,000 | \$ 20,000 |
| Total Project Cost | \$ 100,000 | \$ 10,0000 | \$ 100,000 |
| Federal Funds | \$ 80,000 | \$ 80,000 | \$ 80,000 |
| Local Match Cash | \$ 20,000 | \$ 10,000* | \$ 0* |

(* cash match only does not include soft match amount)

It's important that the amount and types of soft match to be allowed on a project be approved by the FHWA prior to authorization of the project or the soft match may not be eligible to count toward the match. Soft match items donated prior to authorization and approval may not be credited to the project. Work with the DSAE, and State Aid Federal Aid section to determine eligibility while developing the project.

3. State funds (DNR, MnDOT, or other state agency funds) and state bonding, as well as, city or county state aid funds can be used to match federal funds. In cases where an item is not eligible for federal funds, the local agency will need to supply other funds to pay for that specific portion of the project. These funds must be eligible for the type of reimbursement they are being applied to.

Chapter 5 Project Delivery

I. Overview

Some of the core services of the State Aid Division are to provide guidance, assistance and oversight to counties and cities for their projects. The services encompass project finance and project development and delivery. Functional services provided include: funding sources and financial management for projects; agency agreements, environmental, pre-design, final design, R/W, bridge and construction. These services help ensure that projects are developed and built according to laws, rules, regulations and current engineering and financial practices. In addition, online tool “[Federal Aid Essentials for Local Public Agencies](#)” which was developed by the FHWA, offers a central online library of informational videos and resources, designed specifically for local public agencies. Each video addresses a single topic-condensing the complex regulations and requirements of the federal aid highway program into easy-to-understand concepts and illustrated examples. In addition, if you are planning an Intelligent Transportation System (ITS) project (electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system), you should use the [ITS guide](#) (PDF) or documents under “Subject guidance” on the [MnDOT Highway Project Development Process webpage](#).

Major sections in this chapter include:

- [5.1 Environmental and Design Studies](#)
- [5.2 Right of Way](#)
- [5.3 Agreements](#)
- [5.4 Plans and Proposals](#)
- [5.5 Drainage](#)

Chapter 5.1 Environmental and Design Studies

I. Overview

This chapter of the State Aid Manual provides guidance for the location, environmental and design study phases of project development to be used by local agencies and other approved organizations for local federal aid projects (not on THs) in Minnesota.

All applicable federal, state and local environmental regulations must be complied with on federal aid projects. Federal issues requiring compliance must be documented as described in this manual.

While state aid projects, those not utilizing federal funds, must also comply with all applicable federal, state and local regulations, responsibility for compliance rests entirely with the local unit of government. See [Minnesota Rules 8820.3000, Subpart 2](#). State environmental regulations and documentation requirements are covered in [Minnesota Rules 4410](#) Environmental Quality Board.

In this section:

- A. [Background](#)
- B. [Legal Basis/Federal Requirements](#)

A. Background

1. The [National Environmental Policy Act \(NEPA\) of 1969](#) was the culmination of the increasing environmental awareness during the 1960s. NEPA established a national environmental policy and stated that it is the "continuous responsibility" of the federal government to "use all practicable means" to "assure for all Americans safe, healthful, productive and aesthetically and culturally pleasing surroundings."

NEPA mandated that federal agencies:

- Consider the potential environmental consequences of their proposals
 - Evaluate the avoidance of potential impacts
 - Document the analysis
 - Make this information available to the public for comment prior to implementation.
2. The [FHWA Minnesota Division Office](#) is responsible and accountable for ensuring that the Federal Highway Program in Minnesota is delivered consistent with established

requirements. The [FHWA and MnDOT Letter of Agreement and Stewardship Plan](#) (PDF) outlines responsibilities and accountability for FHWA and MnDOT, as well as local agencies that choose to use federal funds on an approved project.

The [FHWA project development process](#) requires that transportation decisions be made in the best overall public interest, based upon a balanced consideration of:

- The need for safe and efficient transportation
- The social, economic, and environmental impacts of the project
- The national, state, and local environmental protection goals

B. Legal Basis/Federal Requirements

The legislation and regulations that apply to federal aid projects are listed on the [FHWA's legislation, regulations and guidance webpage](#), including but not limited to the following:

- [Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users](#)
- [Title 23, USC, Highways](#)
- [Title 49, USC, Transportation](#)
- [Title 23, Code of Federal Regulations \(CFR\), Highways](#)
- [Title 23 CFR Section 940](#) (PDF)
- [Title 49, CFR, Transportation](#)
- [FHWA Directives and Policy Memorandums](#)
- [Federal Aid Policy Guide](#)
- [FHWA Policy Memorandums](#)
- [FHWA Technical Advisories](#)

II. Project Development Process

In this section:

- [Timing of Studies](#)
- [Stage Construction](#)
- [Process and Documentation](#)
- [Related Information](#)

A. Timing and Studies

In concert with the FHWA Project Development Process and the MnDOT Highway Project Development Process, this section of the State Aid Manual covers the type of studies and

documentation required, the public involvement process and agency coordination required for local federal aid projects.

Often studies and documentation are considered as one, with studies not started until the preparation of the environmental document is initiated. The documentation (i.e., PM or EA) is meant to be a summary of the results of the studies (analyses & investigations), public involvement and agency coordination. Early review and identification of recreational and cultural resources, and endangered species can be crucial to maintaining a project schedule.

The environmental studies for projects using, or anticipating use of federal aid, should begin as early as possible in the process, at the latest, when the project is approved by the ATP for inclusion in STIP.

B. Stage Construction

Where projects are split into phases, i.e., the road is graded with state aid funds and the surfacing is constructed with federal funds at a later time (within five years or so), the environmental documents must be completed and approved by the FHWA before the earlier project (grading) is advertised for letting. Failure to do so may make the later project (paving) ineligible for federal funding.

C. Process and Documentation

Federal regulations do not have specific thresholds established which identify the process and documentation required. The extent of environmental studies and depth of analysis is dependent on the complexity of the project and its anticipated effects.

1. To the extent applicable, federal aid projects must cover the following:
 - Compliance with applicable environmental requirements
 - Identification of needs and deficiencies (safety, capacity, structure, land use)
 - Environmental investigations, reviews and consultations
 - Assessment of potential impacts
 - Evaluation of alternative courses of action
 - Mitigation of adverse impacts
 - Enhancement of the environment
 - Public involvement
 - Balancing community concerns and environmental values with traditional engineering requirements
 - Preparation of appropriate environmental documentation

2. Documentation may range from short environmental determination statements to extensive and complex studies with preparation of an Environmental Impact Statement (EIS). Three classes of actions (projects) and associated documentation are identified in [23 CFR 771.115](#):

- a. Class I actions are those that significantly affect the environment and require an [EIS](#). Actions normally requiring an EIS:
- A new controlled freeway
 - A highway project of four or more lanes on a new location
 - New construction or extension of fixed rail transit facilities
 - New construction or extension of a separate roadway for buses or high occupancy vehicles not located within an existing highway facility

Local agency federal aid projects processed through state aid are rarely of the type needing an EIS. The decision to prepare an EIS is made after discussions between the local agency, State Aid staff and the FHWA. If an EIS will be prepared, the [Highway Project Development Process EIS](#) document and public involvement information should be reviewed.

Note: For major transportation actions, a tiered EIS may be appropriate, with the first tier focusing on broad issues, and the second tier addressing site specific details. See [23 CFR 771.111\(g\)](#).

- b. Class II actions do not individually or cumulatively have significant environmental effects and are considered [Categorical Exclusions \(CE\)](#). Most of the federal aid projects processed through the State Aid Division are CEs, and a PM is normally prepared. Generally, no formal public involvement is required. Project types that may qualify as CEs are listed in [23 CFR 771.117\(c\) and \(d\)](#) and [Programmatic Categorical Exclusion Approval Agreement Attachment "A"](#) (Word).

The following PM templates may be used

- [PM Template](#) (Word)
- [PM for Preliminary or Construction Engineering](#) (Word)
- [PM for R/W](#) (Word)
- PM Writer (**in process of being updated**) – the State Aid Division’s web-based electronic PM preparation tool

- c. Class III actions are those not clearly Class I or Class II, where the significance of the environmental impacts is uncertain; they require the preparation of an [Environmental Assessment \(EA\)](#) to assist in determining the need for an EIS.

Projects in this class are generally new construction, reconstruction projects adding lanes, possibly with any of the following:

- Large amounts of R/W
- Access modifications
- Controversial environmental encroachments
- More than minimal channel change. This path requires, at a minimum, offering an opportunity for a public hearing, and may require a public hearing.

See the [Public Involvement Section](#) in this chapter for information and templates.

See the [SALT EA Process Guide](#) (PDF) for a discussion of the EA process through the SALT process.

The following environmental assessments templates may be used

- [EA Template](#) (Word)
- [EA Updated and Finding of No Significant Impact \(FONSI\) Request](#) (Word)

If an [Environmental Assessment Worksheet \(EAW\)](#) is also required to meet the state requirements, and the local agency wants to process the state EAW with the federal EA, it is preferred that the EAW be prepared as a separate document, rather than including the EAW in the body of the EA.

3. A re-evaluation is necessary whenever more than three years has gone by without a federal action on a project, and a federal action will be requested. Federal actions vary depending on whether the project is on the National Highway System or not, and includes (but is not limited to):
- FONSI
 - Authorization for preliminary engineering or R/W acquisition
 - Authorization to proceed to letting

D. Related Information

[FHWA Technical Advisory, T 6640.8A](#) provides guidance for the preparation and processing of environmental documents.

III. Location Study

The location study covers the existing roadway, its environment, deficiencies and needs.

In this section:

- A. [Highway Section](#)
- B. [Logical Termini](#)
- C. [Independent Utility](#)
- D. [Purpose and Need](#)
- E. [Alternatives](#)
- F. [Related Information](#)

A. Highway Section

1. The highway section (this being a length of highway, not a cross section) description should “paint a picture” of the existing highway section and the surrounding terrain. See the logical termini discussion for guidance on selection of termini.
2. Horizontal and vertical alignment should be described.
3. Adjacent land use should be described.
4. Bridge crossings should be identified, and any waterway designations noted.
5. Railroad crossings within 600 feet of the project must be identified and a project design review completed by MnDOT Office of Freight and Commercial Vehicle Operations (OFCVO) early in the project development process.

Additional information can be found in the [MnDOT Traffic Engineering Manual, Chapter 13](#) (PDF) in the following areas: section 13-5.07, table 13.1a, table 13.2 and table 13.3.

6. Construction projects within the area of influence of an airport must be reviewed by the MnDOT Office of Aeronautics. Projects should be checked with the Office of Aeronautics [area of influence maps](#). If the project is in the area of influence, contact the [MnDOT Office of Aeronautics](#).

B. Logical Termini

In order to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the project shall connect logical termini and be of sufficient length to address environmental matters on a broad scope.

Guidance on the selection of logical highway section termini and logical project termini is covered in the [Development of Logical Project Termini](#).

C. Independent Utility

Projects must have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements are made in the area, and do not force an undesirable outcome on another section.

D. Purpose and Need

The purpose and need section of the environmental document may be the most important section, as it provides justification for the expenditure of funds and environmental impacts, limits the range of alternatives which may be considered reasonable, prudent, and practicable, and demonstrates the problems that will result if the project is not implemented. See [Importance of Purpose and Need in Environmental Documents](#).

E. Alternatives

Alternatives analysis is key to the process and should lead to a solution that fits the purpose and need. See [Development and Evaluation of Alternatives](#).

F. Related Information

- [23 CFR 771.111\(f\)](#)

IV. Public Involvement

In this section:

- A. [Distribution of Project Study Results](#)
- B. [Public Hearings](#)
- C. [Related Information](#)

A. Distribution of Project Study Results

NEPA requires that the results of project studies and impacts be disclosed, and comments solicited from interested and affected parties. The purpose of documentation and distribution is to:

- Provide for complete disclosure to the public
- Allow others an opportunity to provide input and comment on proposals, alternatives and impacts
- Provide the appropriate information for a reasoned choice among alternatives

B. Public Hearings

1. A public hearing should be held or an opportunity for a public hearing offered if the project:
 - Requires an EA
 - Requires substantial amounts of R/W and relocations
 - Substantially changes the layout or functions of connecting roadways or of the facility being improved
 - Has a substantial adverse impact on abutting property
 - Has substantial social, economic, environmental or other effect
 - The FHWA determines that a public hearing is in the public interest

2. A public hearing should be held at a convenient time and place.

3. Public notice requirements:
 - Notice of EA availability minimum of 15 days in advance of the public hearing
 - State location of EA for viewing
 - Provide reasonable notice
 - Publish in local newspapers either an [Opportunity For A Public Hearing Notice](#) (Word) or [Public Hearing Notice](#) (Word)
 - Comment period of 30 days minimum
 - Comment requirement

4. Public hearing presentations should cover:
 - Project's purpose, need, and consistency with the goals and objectives of any local urban planning
 - Project's alternatives, and major design features
 - Social, economic, environmental, and other impacts
 - Relocation assistance program and the R/W acquisition process
 - Procedures for receiving both oral and written statements from the public

5. The following are required to be submitted with the PM (if required) or with the EA update:
 - Transcript of each public hearing
 - Copies of all written comments from the public/agencies
 - [Certification of Compliance](#) (Word)
 - Affidavit of Publication

C. Related Information

- [Project Public Involvement Plan Suggested Elements](#) (PDF)
- [23 CFR 771.111 FHWA Public Involvement Requirements](#)
- [23 CFR 771.119 Environmental Assessments Public Involvement](#)
- [FHWA Public Involvement](#)
- [Hear Every Voice Public Involvement Process Manual](#) (PDF)

V. Agency Coordination

In this section:

- A. [Coordination of Agencies](#)
- B. [List of Water Permitting Agencies](#)
- C. [Related Information](#)

A. Coordination of Agencies

Coordination with agencies with an interest in the project should begin early in the process. It should identify:

- Roles and responsibilities of agencies
- Special expertise and information
- Consultation and permitting
- Concurrence and agreements
- Issue resolution
- Input into project goals and alternatives development
- Solutions to avoid and minimize impacts

B. List of Water Permitting Agencies

See the [Water Permitting Agencies webpage](#) for a list of agencies and permits that may apply to the project.

- USACE Section 404
- Coast Guard
- DNR – Water
- MPCA – NPDES
- MPCA – Section 401
- Watershed District
- Wetland Conservation Act/Minnesota Board of Water and Soil Resources

C. Related Information

- [FHWA Interagency Coordination](#)

VI. Social, Economic and Environmental Study

Environmental studies must be conducted and findings/determinations, both beneficial and detrimental, must be documented for both temporary and permanent impacts, including offsite construction areas, i.e., temporary bypass and stormwater ponds.

The following sections include information regarding studies required. Prepared statements, documentation requirements, submittal procedures, and review timing can be found in the [PM Template](#) (Word) and [EA Template](#) (Word) templates on the SALT website.

In this section:

- A. [Section 4\(f\) of the Transportation Act of 1966](#)
- B. [Section 6\(f\) of the Land and Water Conservation Fund Act of 1965 \(LWCFA or LAWCON\)](#)
- C. [Section 106 of the National Historical Preservation Act of 1966](#)
- D. [Endangered Species Act of 1973](#)
- E. [R/W](#)
- F. [Farmland Protection Policy Act of 1981](#)
- G. [Highway Traffic Noise](#)
- H. [Construction Noise](#)
- I. [Floodplain Management](#)
- J. [Wetland Protection](#)
- K. [Section 404 of the Clean Water Act](#)
- L. [Water Pollution](#)
- M. [Air Quality](#)
- N. [Hazardous Materials](#)
- O. [Environmental Justice](#)
- P. [Controversial Issues](#)
- Q. [State Environmental Review \(Minnesota Environmental Quality Board\)](#)
- R. [Federal Action Determination Statement](#)
- S. [Related Information](#)

A. Section 4(f) of the Transportation Act of 1966

The project area must be reviewed to determine whether or not the project will impact a Section 4(f) property. Section 4(f) applies to the following properties:

- Public parks
- Public recreation areas
- Public wildlife and waterfowl refuges
- Public or private historic property

In accordance with statutes and regulations, the FHWA may not approve the use of land from a significant publicly owned public park, recreation area, or wildlife and waterfowl refuge, or any significant historic site unless a determination is made that:

- There is no feasible and prudent alternative to such use
- The project includes all possible planning to minimize harm

Use of a Section 4(f) property should be evaluated early in the development of the project when alternatives to the proposed action are still under study. The [FHWA Section 4\(f\) Policy Paper](#) provides comprehensive guidance on when and how to apply the provisions of Section 4(f). If unsure whether or not a property is covered by Section 4(f), and the situation or property does not fit those described in the FHWA Section 4(f) Policy Paper, contact your [DSAE](#) or [SALT Federal Project Development Engineer](#).

If there will be minor impacts to a Section 4(f) property, a Programmatic Section 4(f) Evaluation may be applicable. See the applicability criteria for the five Programmatic Section 4(f) Evaluations and the de minimis impact finding:

- 1) [Parks, Wildlife Refuges, etc.](#)
- 2) [Historic Sites](#)
- 3) [Historic Bridges](#)
- 4) [Independent Bikeways](#)
- 5) [Net Benefit](#)
- 6) [De Minimis](#) (this is an exemption in that an analysis of avoidance alternatives is not required for a de minimis finding)

Where there is more than minor 4(f) involvement on a project, a full Section 4(f) Evaluation will be required. This is initially processed as a draft Section 4(f) Evaluation and requires a 45 day review period by the Department of the Interior (in addition to SALT and FHWA review and processing time). This is followed by a final Section 4(f) Evaluation which requires a 30 day legal sufficiency review by the FHWA Resource Center (in addition to SALT and FHWA review and processing time).

The [Section 4\(f\) Evaluation Template](#) (Word) is provided as a guide when preparing a Section 4(f) Evaluation.

The officials having jurisdiction over the Section 4(f) property must agree, in writing, with the assessment of the impacts of the proposed project on, and the proposed mitigation for, the Section 4(f) property. See [Sample Language for Jurisdiction Letter](#) (Word).

Related Information

- [49 USC 303 Policy on lands, wildlife and waterfowl refuges and historic sites](#)
- [23 CFR 774 Section 4\(f\)](#)
- [FHWA Section 4\(f\) Information](#)
- [FHWA SAFETEA and Section 4\(f\)](#)
- [FHWA Section 4\(f\) Evaluation Overview](#)
- [FHWA Technical Advisory T 6640.8A](#)
- [FWHA Section 4\(f\) Policy Paper](#) (PDF)
- [HPDP Section 4\(f\)](#) (PDF)

B. Section 6(f) of the Land and Water Conservation Fund Act of 1965 - Land and Water Conservation Fund or Land and Water Conservation Fund Act

Land planned, developed or improved with Land and Water Conservation Fund (LAWCON) or Land and Water Conservation Fund Act (LWCFA) funds cannot be converted to other than outdoor recreational use unless replacement land of at least equal fair market value and reasonably equivalent usefulness is provided.

The [list of Minnesota Parks and Natural Areas Funded by LAWCON program](#) (PDF) should be reviewed to determine if there will be Section 6(f) properties that may be impacted by the project. The entire park is generally covered under the conversion restriction even though the grant may have been for only a small part of the park. The legal description of the land covered, in grant agreement, may be reviewed to make this determination.

Easements allowing the transportation agency to enter the property to undertake maintenance, slope easements, etc., which do not involve converting land to a non-outdoor recreation use are not subject to Section 6(f) requirements

If land will be acquired from a Section 6(f) property, see the [Section 6\(f\) Process Guide](#) (Word). The Section 6(f) process can be lengthy and should be started early in the project development process.

Related Information

- [36 CFR 59 Land and Water Conservation Fund Program](#) (PDF)
- [16 USC 2509 Conversion Of Recreation Property](#)

- [FHWA Section 4\(f\) Policy Paper](#) (PDF)
- [HPDP Section 4\(f\)](#) (PDF)

C. Section 106 of the National Historic Preservation Act of 1966

The historic and archaeological review and coordination process can be very lengthy. Contact MnDOT Cultural Resources Unit (CRU) early in your process to allow enough time for the unexpected field studies/surveys that may be necessary (ex. snow cover or frozen ground may delay surveys until spring).

Section 106 of the [National Historic Preservation Act of 1966](#) (PDF), requires federal agencies to review the effects of federal aid projects on properties “on or eligible for” the National Register of Historic Places, which is composed of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering and culture.

The [Advisory Council on Historic Preservation \(ACHP\)](#) administers the Section 106 process. The FHWA has legal responsibility for complying with Section 106 for projects using FHWA funds; however, the FHWA has delegated determination of eligibility and effects in accordance with Federal Law, to the [staff of MnDOT Cultural Resources Unit](#).

The CRU has a template for a [CRU Review Request Letter](#) (Word) which should be completed and submitted to the CRU at the address on the form.

The CRU staff will,

- 1) Review background
- 2) Assist in contracting for consultant field surveys, if necessary, to identify and evaluate historic properties
- 3) Determine effects (No Historic Properties Affected, No Adverse Effect, Adverse Effect)
- 4) Submit determination of the State Historic Preservation Officer (SHPO) for review
- 5) Facilitate consultation with FHWA, the SHPO, the Tribal Historical Preservation Officer (THPO), and the Advisory Council on Historic Preservation, as necessary
- 6) Process Memorandum of Agreement (MOA) (for adverse effects)

If the CRU determines that either there are no historic properties present, or there are historic properties present, but the undertaking will have no effect on them as defined in [36 CFR 800.16\(i\)](#), the CRU shall make a formal finding of **No Historic Properties Affected**. The CRU will send a determination memo to the project manager and the Section 106 review for the project will be complete (the memo will include wording to this effect). There will be no consultation with the SHPO, and no SHPO letter will be forwarded for inclusion in the environmental document.

If the CRU makes a determination of **No Adverse Effect**, the CRU will send a determination memo to the project manager, which will specify the conditions, if any, that shall be imposed to secure that finding, and state that the SHPO will have 30 days to review and comment on the CRU's determination. The CRU will forward a copy of the SHPO response letter to the project manager for inclusion in the environmental document.

An **Adverse Effect** is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

If the CRU makes a determination of Adverse Effect:

- The CRU, project manager and consulting parties will evaluate alternatives to avoid, minimize or mitigate adverse effects, per [36 CFR 800.6](#).
- The CRU and project manager will specify the conditions that may be imposed to secure the finding.
- The CRU forwards finding to SHPO/THPO, and other consulting parties (including Indian Tribes) for comment & approval.
- CRU and project manager assist FHWA in preparing Documentation of Adverse Effect for the ACHP; ACHP decides on whether to participate in the consultation process; ACHP has 15 days to respond.
- CRU negotiates MOA with SHPO/THPO, project manager and other consulting parties.
- CRU works with project manager to ensure mitigation measures are completed as stipulated in the MOA.

Depending on the geographic location of the project, Section 106 review may include consultation with federally recognized Minnesota tribes under agreements with the FHWA. Consultation with the THPO or a tribal group is an early step in the Section 106 review and is conducted by either the FHWA or the CRU. The primary purpose of the consultation is to help the FHWA and the CRU identify historic properties to which the tribe may attach religious or cultural significance. Tribes have either a 30 day or a 45 day period in which to comment on federally funded projects.

Section 106 determination cannot be completed until the tribes have responded or the review period has expired with no comment. Copies of the FHWA or CRU consultation letter to the tribe will be provided to the project manager for inclusion in the environmental document. Tribal response letters will also be forwarded for inclusion in the environmental document (unless they contain site-sensitive data).

In accordance with an agreement with the FHWA, the [U.S. Army Corps of Engineers \(USACE\)](#) will satisfy its Section 106 responsibilities for Federal aid projects by allowing the FHWA to be the lead agency in the review process. When submitting the permit application to the USACE, include a copy of the CRU Determination Letter and the SHPO letter, if applicable to demonstrate that the Section 106 review is complete.

Related Information

- [36 CFR 800 Protection of Historic Properties](#)
- [36 CFR 800.5\(A\) Assessment of Adverse Effects](#)
- [FHWA Historic Preservation](#)

D. Endangered Species Act of 1973

The [Endangered Species Act of 1973](#) (PDF) provides for the conservation of endangered and threatened species of fish, wildlife and plants which are of esthetic, ecological, educational, historical, recreational and scientific value to the nation and its people.

The project area must be reviewed to determine whether or not the project will impact threatened or endangered species or critical habitat.

The U.S. Fish & Wildlife Service (FWS) has responsibility for administration of the Endangered Species Act. For MnDOT and local agency federal aid projects, the FWS has delegated the review of Federally-listed Threatened and Endangered Species or critical habitat to MnDOT OES.

The [Threatened and Endangered Species Review Request](#) (Word) must be completed and submitted to the OES at the address on the form.

The OES will consult with FWS, if necessary.

If the OES makes a determination of no effect or may affect, but not likely to adversely affect, the OES will send a determination memo to the project manager.

If the project impacts are such that formal consultation and/or a biological opinion are required, OES will assist in coordination between the project manager, FHWA and the FWS.

Related Information

- [FWS Endangered Species Program](#)
- [FWS Consultation Handbook](#) (PDF)

E. Right of Way

The R/W and access impacts must be estimated. It is understood that at this point in the process the R/W needs will be approximate. The following information will be required:

- 1) _____ acres of permanent R/W acquisition from _____ parcels
- 2) _____ acres of permanent easement from _____ parcels.
- 3) _____ acres of temporary R/W acquisition from _____ parcels
- 4) _____ parcels secured by permit of agreement (limited use permits or agreements are typically used for trail projects constructed on another agency's R/W)
- 5) _____ changes in access
- 6) Relocation of _____ business and/or _____ residences

All relocations and R/W acquisitions must be in accordance with the [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970](#) as amended.

Business Relocation Impacts: When a proposed project will result in business displacements, the relocation information should be summarized in the environmental document in sufficient detail to adequately explain the relocation situation, including anticipated problems and proposed solutions.

The following information should be discussed for each alternative under consideration, commensurate with the level of impacts and to the extent they are likely to occur:

- Estimate of the numbers of businesses to be displaced
- Description of businesses
- Types of occupancy (owner/tenant)
- Sizes (number of employees)
- Sites available in the area to which the affected businesses may relocate
- Likelihood of businesses to remain in the community
- Potential impacts on individual businesses caused by displacement
- Results of discussions with local governments, organizations, groups, and individuals regarding business relocation impacts, including any measures or coordination needed to reduce general and/or specific impacts.
- Identify specific financial and incentive programs or opportunities (beyond those provided by the Uniform Relocation Act) to business relocatees to minimize impacts, if available through other agencies or organizations

Related Information

- FHWA Technical Advisory T6640.8A, Relocation Impacts

F. Farmland Protection Policy Act of 1981

Federal aid projects that require the acquisition of R/W must address the [Farmland Protection Policy Act](#).

Where no permanent R/W will be acquired or when R/W will be acquired, but the land is already in or committed to urban development or water storage, the Farmland Protection Policy Act does not apply.

When R/W will be acquired outside land “in or committed to urban development or water storage” it should be addressed as farmland regardless of its present usage. Parts I and III of the [Farmland Conversion Impact Rating Form AD-1006](#) (PDF) must be completed and submitted to the [Natural Resource Conservation Service \(NRCS\)](#). It is not necessary to wait for a response from the NRCS.

Note: The federal agency referred to on Form AD-1006, is the city, county or other local agency acting as agent for the FHWA.

Larger projects requiring an EIS (or more complex EAs with various alternatives), should review the farmland requirements at the [FHWA Environmental website on Agricultural Land](#) and the [HPDP Farmland Subject Guidance](#) (PDF).

Related Information

- [US Department Of Agriculture \(USDA\) Homepage](#)
- [USDA Service Center Locator](#)
- [Farmland Protection Policy Act 7 CFR 658](#)

G. Highway Traffic Noise

Federal aid highway projects which are on a new location, or which have significant changes in either the horizontal or vertical alignment, or which increase the number of through traffic lanes, i.e., bringing traffic closer to receptors, are defined as a Type 1 projects relative to noise.

If the project is not a type one project, the federal procedures for abatement of highway traffic noise do not apply.

Most local agency projects are exempt from State Noise Standards under [Minnesota Statutes 116.07](#); however, when using federal funds, they are not exempt from FHWA noise abatement procedures, and if they meet the definition of a type one project, the FHWA traffic noise regulation [23 CFR 772](#) applies. These projects will require:

- A traffic noise analysis
- Evaluation of noise abatement measures

- Coordination with local planning officials regarding the potential noise impacts of the proposed project

The FHWA Minnesota Division has provided [Guidance for Evaluating Traffic Noise Impacts of Locally Federally Funded Projects that are exempt from State Noise Standards](#) (PDF). This guidance covers noise analysis and documentation requirements, and provides prepared statements where possible.

H. Construction Noise

Construction noise must be considered and discussed in the environmental document.

If land uses or activities which may be affected by construction noise identified, measures to minimize or eliminate adverse construction noise impacts should be considered, discussed in the environmental document, and included in the plans and specifications.

If the project includes bridge construction and is near residences or other noise sensitive facilities, consideration of whether or not pile driving will be allowed during nighttime hours.

Related Information

- Federal Construction Noise Regulations [23 CFR 772.19](#)

I. Floodplain Management

If the project crosses or lies adjacent to any floodplain area an impact may exist. Floodplain encroachment consists of placing any material below the base flood elevation (the 100 year highwater elevation), and can be either (or both) transverse (crossing a waterway) or longitudinal (running along a waterway).

In accordance with [Executive Order 11988](#), if there will be floodplain involvement, a floodplain assessment must be prepared. See [How to Prepare a Floodplain Assessment](#) (PDF). Include information on whether or not DNR and watershed district permits are required (DNR permits are not required at legal ditches).

Public hearing notices should mention the floodplain encroachment and the public availability of the floodplain assessment.

If it is determined there are significant impacts, contact the [SALT Federal Project Development Engineer](#) for coordination with the FHWA.

Related Information

- [State Aid Forms Risk Assessment](#) (Word)
- [State Aid Forms Hydraulic Flood Analysis](#) (Word)
- [HPDP Subject Guidance Floodplains](#) (PDF)

J. Wetland Protection

In accordance with [Executive Order 11990](#) and [DOT Order 5660.1A Preservation of the Nation's Wetlands](#) (PDF) impacts to wetlands must be identified and addressed in order to avoid adverse impacts if there is a practicable alternative, and to preserve and enhance the natural and beneficial values of wetlands without degradation and risk to health or safety.

Wetlands are defined as those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats and natural ponds.

Areas covered with water for such a short time that there is no effect on moist soil vegetation are not included in the definition, nor are the permanent waters of streams, reservoirs and deep lakes.

An activity may affect the wetlands indirectly by impacting regions up or down stream from the wetland or by disturbing the water table of the area in which the wetland lies.

Wetlands that are within or close to the potential project construction limits, including mitigation or detour/bypass areas, should be identified and the approximate boundaries delineated. This may include, but is not limited to, reviewing the following sources and conducting a field review:

- [USACE Wetland Delineation Manual](#) (PDF)
- Existing construction or R/W maps
- 7 ½ minute topographic maps
- [FWS National Wetland Inventory maps](#)
- Aerial photography
- County Soil Surveys
- NRCS wetland determinations (in agricultural areas)
- 1987 Federal Method for Identifying and Delineating Jurisdictional Wetlands
- Circular 39 and Cowardin classification systems

For projects that involve wetland, it is necessary to make a two part finding that:

- There is no practicable alternative to the proposed action
- The proposed action includes all practicable measures to minimize harm to the wetland

A [Wetland Assessment and Two Part Finding](#) (Word) must be prepared. Each wetland assessed must go through the mitigation sequencing process by addressing avoidance, minimization, and compensation (replacement & enhancement). In making a finding of no practicable alternative, economic, environmental and other factors may be taken into account. Additional cost alone will not necessarily render alternatives or minimization measures impractical since additional cost would normally be recognized as necessary and justified to meet national wetland policy objectives.

Public hearing notices should mention the wetland encroachment and the public availability of the Wetland Findings.

If it is determined there are significant impacts, contact the [SALT Federal Project Development Engineer](#) for coordination with the FHWA.

Related Information

- [Executive Order 11990](#)
- [FHWA Wetland and Highways](#)
- [DNR Protected Water Permits Info](#)
- [DNR Permit Applications](#)
- [Board of Water and Soil Resources](#)
 - [State Wetland Bank Application](#)
 - [Local/State/Federal Application Forms For Water/Wetland Projects](#)
- [Minnesota Rule 8420, Wetland Conservation](#)
- [HPDP Wetland Guidance](#) (PDF)
- [Wetland Assessment and Documentation](#) (Word)

K. Section 404 of the Clean Water Act

Under [Section 404](#), a USACE permit is required for the discharge of dredged or fill material into waters of the U.S. The definition of waters of the U.S. is covered in [33 CFR 328](#) or in [Appendix D](#) (PDF) on the USACE website.

Waterbodies are rivers, streams, legal ditches, lakes and wetlands. The designation as Navigable Waters of the U.S. is based on past, present, or potential use for transportation for interstate commerce. These waters include many of the larger rivers and lakes, such as the Minnesota, St. Croix, and Mississippi rivers; and Lake Superior and the Mississippi headwaters lakes.

Fill includes earth material, aggregates, riprap, poured concrete, etc. Fill does not include precast concrete items, such as precast culvert sections.

In accordance with the Clean Water Act, no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded.

The USACE generally covers all water and wetland areas, including those that are regulated by the DNR or subject to the Wetland Conservation Act. See the [USACE's Regulatory Program and Permits webpage](#) for a description of various permits and applications.

The USACE Regulatory Programs also include Section 10 of the Rivers and Harbors Act of 1899. Under Section 10, a USACE permit is required to do any work in, over or under a [navigable water of the U.S.](#) (PDF).

Related Information

- [33 CFR 323](#)
- [COE Permit Matrix for Section 404 activities in Minnesota](#) (PDF)
- [Section 404 and Section 10 Permit Reference Guide](#) (Word)

L. Water Pollution

If the project will disturb less than one acre of total land area, will not impact any public or private water supply, or allow contamination of free flowing water, a National Pollutant Discharge Elimination System (NPDES) permit is not required.

If the construction activities will disturb one or more acre(s) of land area (including clearing, grading & excavation) a [Phase II NPDES](#) permit is required. A [Storm Water Pollution Prevention Plan \(SWPPP\)](#) (PDF) must be included in the construction plan package. If the permit is obtained by the LPA, the permit must be submitted at any time before Award. If the LPA is not obtaining the NPDES Permit, refer to the DCP Checklist "IMMEDIATELY AFTER AWARD" section for permit submittal. An NPDES Permit must be acquired prior to the start of ANY construction.

If substantial additional impervious surface will be added, consider and discuss how the water will be handled.

Related Information

- [FHWA Water Quality](#)
- [FHWA Storm Water Management](#)
- [Impaired Waters List](#)

M. Air Quality

This section of the guidance is being revised

Related Information

- [FHWA Air Toxics](#)
- [HPDP Air Quality Subject Guidance](#) (PDF)

N. Hazardous Materials

Projects completely within the existing right of way, or that acquire right of way through rural open land, with no excavation adjacent to a high risk property, can generally be considered as having a low probability of encountering hazardous material.

Projects that require additional right of way that include high risk properties such as current or former gas stations, railroads, landfills, illegal dumping sites, industrial or commercial areas, etc, may need a Phase I Environmental Site Assessment and/or sampling and testing. The results of the site assessment and/or other contamination testing should be summarized in the project document. It is not usually necessary to attach the Phase I Environmental Site Assessment document to the PM or EA.

On projects that require the demolition or removal of a bridge or building, an assessment must be completed before any structure is demolished or relocated to determine whether asbestos containing materials or other regulated materials are present. Likewise, the appropriate notifications must be submitted to regulatory authorities prior to asbestos abatement, structure demolition or relocation activities, regardless of whether regulated waste or asbestos was discovered during the assessment.

The Contractor shall notify the MPCA and the Project Engineer a minimum of 10 working days before any move or demolition. Refer to the [MnDOT Building and Bridge Demolition and Relocation website](#) for appropriate assessment and notification information. The Contractor shall use a [MnDOT Approved Contractor](#) (PDF) for building and/or bridge assessments.

If any bridges or buildings on the job that are to be removed or demolished are found to contain asbestos, the Contractor shall:

- Use a Minnesota Department of Health (MDH) certified oversight contractor to oversee the MDH certified asbestos abatement contractor.
- Depending on the amounts and types of asbestos on the premises submit "Notification of Asbestos Related Work", to the Minnesota Pollution Control Agency (MPCA) and the MDH 10 working days prior to commencement of abatement activities. The Contractor

shall submit a copy of the completed notification/s to the Project Engineer at the same time.

- Submit all required documentation to the MPCA and the MDH and copy the Project Engineer on all submittals. Information on the requirements of MPCA can be found at: http://www.pca.state.mn.us/programs/asbestos_p.html. Information on the requirements of the Department of Health can be found at: <http://www.health.state.mn.us/divs/eh/asbestos/index.html>.
- Transport all asbestos containing waste in compliance with USDOT packaging and transportation requirements. The Contractor shall provide the Project Engineer with all Asbestos Containing Material Transportation shipping papers/manifests. Shipping paper guidance can be found at <http://www.dot.state.mn.us/environment/buildingbridge/disposal.html>.
- Dispose of all asbestos containing waste in a MPCA permitted mixed municipal solid waste or Industrial landfill (not demolition debris landfills) permitted to accept asbestos containing wastes. Provide the Project Engineer all landfill disposal receipts. A list of MPCA approved landfills permitted to accept asbestos containing wastes can be found at: <http://www.pca.state.mn.us/index.php/view-document.html?gid=4949>.

MPCA does not conduct hazardous materials or contaminated sites searches. A database search may be done by the local agency at [MPCA Searchable Inventory of Contaminated Properties](#).

Related Information

- [HPDP Contaminated Properties](#) (PDF)
- [Notification of Lead Paint Removal](#) (PDF)

O. Environmental Justice

The fundamental concepts of Environmental Justice and Title VI are to:

- Avoid, minimize, and mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations.
- Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

Any project not covered by the [Programmatic Categorical Exclusion Approval Agreement](#) (PDF) requires an environmental justice analysis.

If based on field reviews of the project area and discussions with (city) officials, it is determined that there are no minority and low income populations in the project area, or otherwise impacted by the project, further study is not required.

If it is determined that there are minority and low income populations in the project area, or otherwise impacted by the project, see the [HPDP Environmental Justice Subject Guidance](#) (PDF) for assistance.

Related Information

- [Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 1994](#) (PDF)
- [DOT Order 5610.2 DOT Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, April 1997](#)
- [FHWA Order 12898 FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations](#)
- [Environmental Justice](#)

P. Controversial Issues

Controversial issues should be discussed in the environmental document.

Q. State Environmental Review (Minnesota Environmental Quality Board)

Requirements under the State environmental regulations should be addressed.

- [Minnesota Rules, Chapter 4410.4600, Subpart 14. Exemption Category](#)
- [Minnesota Rules, Chapter 4410.4300, Subpart 22 Mandatory EAW Threshold](#)
- [Minnesota Rules, Chapter 4410.4400, Subpart 16 Mandatory EIS Threshold](#)

R. Federal Action Determination Statement

A statement is included in project memos identifying the categorical exclusion determination. See [PM](#) (Word).

S. Related Information

- [FHWA Environment](#)
- [Determination of Impacts](#)

VII. Design Study

In this section:

- A. [Design Study](#)
- B. [Design Memo \(aka Study Report\)](#)
- C. [Variance](#)
- D. [Design Exception](#)
- E. [Addendum](#)

A. Design Study

A PM includes a Design Study, which consists of:

- Design Standards
- Design Elements
- Design Exceptions, if any

See the Design Study section of the [PM](#) (Word).

An Environmental Assessment may include a design study if appropriate and efficient to do so. See Design Study section of the [EA](#) (Word).

B. Design Memo

A design memo (aka Study Report) is a separate document submitted after the FONSI has been issued. Depending on the period of time between the FONSI and the design memo, the design memo should include:

- Changes to the proposed project
- Updates to environmental impacts
- Permits received since the EA Update
- Design Standards
- Design Elements
- Design Exceptions, if any
- Environmental Mitigations (those discussed in the EA/EA update and any new)
- Signal Justification
- Intersection Control Evaluation
- Existing and Proposed Typical sections

C. Variance

When state aid funds (including state bridge bonding funds) are used on a project, in accordance with the State Aid Operation Rules, a variance is required for those design elements that do not meet state aid standards. The variance procedures are outlined in [Section 8820.3300 of the Rules](#) and include a peer review by a Variance Committee. Also see [Chapter I, VII. Variances to State Aid Rules](#).

D. Design Exception

When federal aid funds are used on a project, in accordance with federal regulations, a design exception is required for those design elements that do not meet federal standards. The federally approved standards are the state aid standards for local agency projects not on the National Highway System. See the [Design Exception Template](#) (Word) for the design exception request requirements and approval process.

When both state aid and federal aid funds are used on a project, both a variance and a design exception may be required for a non-conforming design element. Sometimes only one or the other is needed. Contact the [DSAE](#) or [SALT Federal Project Development Engineer](#) to discuss the appropriate process and document for the project circumstances.

E. Addendum

Addendums to the project memo or design memo are sometimes necessary if minor project design issues come up or design exceptions are needed. See the [Addendum Template](#) (Word) for the addendum requirements and approval process.

Chapter 5.2 Right of Way

I. Overview

In this section:

- A. [Introduction and Purpose](#)
- B. [Notification](#)
- C. [Records](#)
- D. [Timing and R/W Acquisition](#)
- E. [Hardship Acquisition](#)
- F. [Section 4\(f\) Properties](#)
- G. [Acquisition of Less Than Full Fee Interest](#)
- H. [Acquisition by Private Groups](#)
- I. [Environmental Due Diligence](#)

A. Introduction and Purpose

The purpose of this chapter is to provide a brief, easy to use summary on acquiring R/W in Minnesota. [Minnesota Statutes 117.51](#) and [Minnesota Statutes 117.52](#) require “acquiring authorities” to meet the provisions of federal law titled the [Uniform Relocation and Real Property Acquisition Policies Act of 1970](#), as amended (aka Uniform Act, or simply The Act), together with those regulations which implement The Act. Conformance with applicable federal policies and regulations are therefore required on all city and county acquisitions, regardless of funding sources.

All local agencies acquiring R/W should have available, as a reference, the Project Development Guide, prepared and made available by the FHWA. It contains The Uniform Act and 49CFR Part 24 (the Federal regulations which implement The Act), together with other guidance on how to acquire R/W.

This and other regulatory and guidance materials are available on the [FHWA Real Estate webpage](#). This site also contains links to [The Uniform Act](#) and to [49 CFR Part 24](#), which is the federal regulation issued to implement The Act.

[FHWA’s Real Estate Acquisition Guide for Local Public Agencies](#) (referred to hereafter as the U.S. DOT Guide) is another helpful reference manual. It has been revised and distributed by FHWA, and is also available on the FHWA’s website for viewing and download.

Relocation assistance and benefits are not specifically presented in this manual. Due to the extensive requirements and special knowledge necessary to perform relocation services, it is

recommended that agencies without a well-qualified relocation staff contact MnDOT regarding the handling of relocation and/or referral to a qualified consultant. The acquiring agency can contact its appropriate MnDOT District Land Management, R/W office, or it may choose to contact MnDOT Office of Land Management directly, through the Relocation Supervisor at 651-366-3481.

For all projects involving federal funds, following the approval of the project development report (environmental action), but prior to initiation of the R/W phase, the local agency should consult with the appropriate MnDOT District R/W, Land Management Engineer concerning qualifications of appraisers and reviewers, appraisal format, relocation assistance, etc. See timing guidance below.

B. Notification

On all projects, regardless of funding, the owner shall be notified as soon as feasible of the local agency's interest in acquiring the real property and the basic protections provided to the owner by the Uniform Act and 49 CFR Part 24. A sample guide which indicates the basic owners' protections is titled [Acquisition Information for Property Owners](#) (PDF). If the local agency wishes, it may provide its own documents for this purpose.

This notice can be served either personally or by mail. This notice must indicate the name and phone number of a person who may be contacted to answer questions (see [49 CFR Part 24 Section 24.102\(b\)](#)).

C. Records

The local agency shall maintain adequate records of its acquisition and displacement activities in sufficient detail to demonstrate compliance with the regulations. These records shall be retained for at least three years after each owner of a property and each person displaced from a property receives the final payment to which he or she is entitled under these regulations (see [49 CFR Part 24 Section 24.9](#)).

D. Timing of R/W Acquisition

R/W activities other than those necessary to complete environmental action should normally not be initiated until after environmental action has been completed. Exceptions to this policy are for "hardship" and "protective buying." Hardship and protective buying can be undertaken at any time, unless federal funds are to be used in the R/W acquisition. If there are federal funds in the R/W acquisition, hardships and protective buying cannot be undertaken until:

- 1) The project is included in the currently approved STIP;
- 2) The acquiring agency has complied with applicable public involvement requirements in [23 CFR 450](#) and [23 CFR 771](#); and

- 3) FHWA concurrence and authorization to incur an eligible federal expense have been obtained from the federal aid section of State Aid Division.

E. Hardship Acquisition

Guidelines for evaluating applications for hardship acquisition and protective buying are found in the MnDOT R/W Manual, Section 5-491.121. If these types of acquisitions occur, the acquiring agency must be able to substantiate that those parcels acquired were legitimate hardship or protective buying cases.

For any federal aid project, the acquisition of hardship and protective buying parcels shall not influence the eventual decisions regarding:

- The need to construct the project;
- The selection of a specific alternative; or
- The required assessment of environmental impacts.

F. Section 4(f) Properties

Section 4(f) properties are named from Section 4(f) of the Department of Transportation Act that defines these properties as a publicly owned park, recreation area or wildlife and waterfowl refuge or any significant historic site. Section 4(f) properties and properties on or eligible for inclusion on historical registers cannot be acquired as hardship or protective buying parcels.

G. Acquisition of Less Than Full Fee Interest

Acquisition requirements under state law and federal regulations apply to any agency acquisition of real property. This includes permanent and temporary easements, life estates and leases over 50 years.

H. Acquisition by Private Groups

If a private group is acquiring R/W for an enhancement project or for a wetlands bank, the Uniform Act and 49 CFR Part 24 apply as follows:

1. If the group is acting (acquiring) on behalf of the Governmental Agency
 - a. Uniform Act and 49 CFR Part 24 applies
2. If the group is not acting (acquiring) on behalf of the Governmental Agency
 - a. Binding offer occurs before federal approval of environmental documents
 - i. Uniform Act and 49 CFR Part 24 apply
 - b. Binding offer occurs after Federal approval of environmental document

- i. Only 49 CFR Part 24 Section 24.101(a)(2) applies, requiring the acquiring group to:
 - Inform the owner that the group cannot acquire by condemnation, and;
 - Inform the owner of the group's estimate of fair market value.

I. Environmental Due Diligence

Perform environmental due diligence in accordance with [MnDOT Technical Memorandum No. 13-12-ENV-02](#) (PDF) for federal aid, local initiated TH, cooperative and other types of partnership projects that include property acquisition that will become state property at any time during the project or after.

II. Pre-Acquisition

In this section:

- A. [General](#)
- B. [Appraisals](#)
- C. [Qualifications of Appraisers](#)
- D. [Appraisal Report Formats](#)
- E. [Minimum Damage Acquisition \(MDA\)](#)
- F. [Appraisal Review](#)
- G. [Agency Establishment of Just Compensation](#)
- H. [Relocation Assistance](#)
- I. [Appeals for Incidental and Litigation Expenses](#)

A. General

Owners, occupants and other parties of interest shall be determined by a title search and certificate and by a field title investigation. A R/W map and parcel sketches must be made. These activities must be completed before appraisals of the individual parcels of a project are begun. The information shall be supplied to the appraiser so that the proper individuals are contacted and the affected properties are correctly identified.

B. Appraisals

1. All appraisals shall be done in writing, dated, signed and retained. An appraiser with qualifications appropriate for the appraisal problem shall do them.
2. The owner or representative shall be given the opportunity to accompany the appraiser during the appraiser's inspection of the property.

3. Any increase or decrease in the market value of real property prior to the date of valuation that is caused by the public improvements for which the property is acquired shall be disregarded in determining the compensation for the property.
4. If information presented by the owner or a material change in the character or condition of the property indicates the need for new appraisal information, or if a significant delay has occurred since the time of the appraisal(s) of the property, the local agency shall have the appraisal updated or obtain a new appraisal(s). If the latest appraisal information indicates that a change in the purchase offer is warranted, the local agency shall promptly re-establish just compensation and offer a revised amount to the owner in writing.
5. Notwithstanding any other provision of law, if the local agency requires any interest in real property it shall acquire at least an equal interest in all buildings, structures, or other improvements located upon the real property acquired and which it requires to be removed from the real property or which it determines will be adversely affected by the use to which the real property will be put. This includes any improvement of a tenant who has the right or obligation to remove the improvement at the expiration of the lease. (See 49 CFR Part 24 Section 24.105)
6. Neither the appraiser nor the review appraiser can have any interest in the property being appraised that would conflict with their preparation or review of the appraisal.

C. Qualifications of Appraisers

1. **Qualification of Staff Appraisers** - Staff appraisers must possess the appropriate state appraisal license/certificate. Requirements are set out in Minnesota Statutes Chapter 82B (1994). The State of Minnesota Department of Commerce has established license classifications based on education, experience and examination requirements. The difficulty of the appraisal shall dictate who can appraise. For instance, on the simple widening jobs where there is little or no damage to the remainder, and no taking of substantial improvements, individuals with little appraisal experience may be qualified. For the higher valued takings and those involving substantial damages or the taking of substantial improvements, the above individuals may be qualified if they have previous experience in the type of appraisal involved. If not, it may be necessary to seek the services of fee appraisers.
2. **Qualifications of Fee Appraisers** - Fee appraisers for local acquiring agencies must possess an appropriate state appraisal license/certificate. Requirements are set out in Minnesota Statutes Chapter 82B (1994). The State of Minnesota Department of Commerce has established license classifications based on education, experience, and examination requirements. The acquiring agency shall secure the qualified appraisers for the particular assignment to be performed. It is necessary to secure properly

qualified appraisers to do more complex parcels and each appraiser's ability should be evaluated on an individual basis.

D. Appraisal Report Formats

The amount of analysis and documentation necessary to support an opinion of value varies as the complexities of the appraisal problem increases. Therefore, two different appraisal formats are recommended: the uncomplicated acquisition appraisal and the detailed appraisal report.

1. As many of the acquisitions are due to simple road widenings, the uncomplicated acquisition appraisal is recommended for use. The detailed appraisal report is required for the higher valued takings and for complex acquisitions where there are questions of highest and best use, severance damages, fixtures and equipment, mineral rights or other problems.
 - a. [Uncomplicated Acquisition Appraisal](#) (Word) - The Uncomplicated Acquisition Appraisal may be used for those acquisitions, which, because of their low value or simplicity, do not require the in-depth analysis and presentation necessary for a detailed “before and after” appraisal. These are simple total takings of low valued land, or partial acquisitions (strip takings). Minor damages are allowed. If the cost to cure method is used, the appraiser should support his/her figures.

The appraisal for this type of acquisition shall contain the following items:

- 1) A statement of the purpose and/or function of the appraisal (stated in the [Certificate of Appraiser](#) (Word)).
- 2) The identification of the estate being appraised, such as fee or easement (included on the appraisal form).
- 3) An [adequate description](#) (Word) of the physical characteristics of the property being appraised and, in the case of a partial acquisition, an adequate description of the remaining property, a statement of the highest and best use, the present use, and a five year sales history of the property.
- 4) In most cases, only the market approach needs to be used in an appraisal. A description of the comparable sales on the appropriate form shall include a description of all relevant physical, legal and economic factors such as the parties to the transaction, the source and method of financing, and a verification by a party involved in the transaction. A sales map showing the location of the comparable sales shall be included. A short explanation of values found for a unit of comparison such as square foot or acre should also be included (see [Comparable Sales forms for land only](#) (Word) and for [property with structures](#) (Word)).

- 5) Cost new less observed depreciation may be used for garages, sheds, fences, or other minor improvements being taken or affected.
 - 6) A statement of the value of real property to be acquired and for partial acquisitions, a statement pertaining to the remaining real property (included on the appraisal form).
 - 7) The effective date of valuation, the date of the appraisal, and the signature and certification of the appraiser shall be shown on the certificate of the appraiser.
 - 8) A parcel sketch or R/W map will be included in the material available for review showing the dimension of the property and the part taken.
- b. Detailed Appraisal Report - The detailed appraisal report is used for complex acquisitions whether of whole or partial acquisitions. The report should consider in depth, where appropriate, such things as the highest and best use, especially when such use is in transition or there will be a change in the highest and best use following the acquisition; severance damages; special benefits; and special purpose properties. Section 202.3, Recommended Format for Detailed Appraisal Reports, in the MnDOT R/W Manual, can be used as a guide in making this type of an appraisal.

The detailed appraisal shall also include the requirements one through eight listed above for Uncomplicated Acquisition Appraisals. The cost and/or income approaches to value should be used as they apply, in addition to the market approach.

In certain instances, the detailed appraisal may include the findings of a specialty report. A specialty report is a study of some aspect of a property that is unique, such as machinery or equipment, mineral rights or forestation, items that do not generally fall within the expertise of a real property appraiser.

The detailed report must contain complete documentation of the data in the report, and the appraiser's value conclusion must be adequately supported.

E. Minimum Damage Acquisition

Agencies may use an alternate acquisition procedure when they determine that the valuation problem is uncomplicated and the fair market value of the acquisition is estimated at \$25,000 or less, based on a review of available data. The use of Minimum Damage Acquisition (MDA)/Appraisal Waiver valuation process to acquire right of way, permanent or temporary easements, and/or access control can be used under the following conditions:

1. For properties with damages totaling \$10,000 or less
 - All transactions.
2. For properties with damages greater than \$10,000 and less than \$25,000
 - A transaction where the property owner has agreed to the MDA/Appraisal Waiver process. ([Owner Appraisal Waiver Form-SA \(Word\)](#)).

When these conditions exist, this acquisition procedure may be invoked at the discretion of the local agency. One of the primary benefits of the MDA procedure is that the valuation estimate of the acquisition need not be supported by a formal appraisal. The Local Agency Engineer or their designee who has real estate experience will make the determination on the use of the MDA/Appraisal Waiver process. This decision will be done prior to determining the value for the property being acquired.

When an MDA is used for a parcel valuation, someone from the acquiring agency knowledgeable in appraisal principles and real estate valuations may prepare the appropriate report. That individual need not be a state licensed or certified appraiser. However, the local agency may still opt to use a qualified, appropriately licensed staff or fee appraiser.

Even though the MDA procedure allows an agency to waive a formal appraisal report on specific parcels, the local agency must establish and offer an amount it believes represents just compensation for the property to be acquired. When using the MDA procedure, the criteria for appraisals do not apply. Therefore, local agencies should provide and retain documented support for the amount(s) offered, which should include sales and/or other market information. A written report and supporting documentation must be included in the project or parcel(s) file(s).

Use of the MDA procedure is entirely optional; acquiring agencies may for various reasons prefer the standard procedure.

1. Preparation
 - a. Each valuation report is referred to as, and should be titled, [Minimum Damage Acquisition](#) (PDF)
 - b. Comparable sales should be used in the valuation process, with a short statement showing how values were arrived at in the preparation of MDAs.
 - c. For minor takings on isolated acquisitions (i.e., bridge widening, cattle pass extinguishments, channel change easement), values could be assigned without comparable sales. Contact with real estate agents and/or assessors should be made for value guidance, and then documented.
 - d. The individual completing the MDA report(s) should make sure the values assigned are reasonably consistent with values assigned on other MDAs and appraisals on the project.

- e. The \$25,000 threshold may NOT be exceeded.
 - f. Owners should be contacted and offered the opportunity to discuss concerns with the individual preparing the MDA.
2. Approval
 - a. An appraisal review is not required for MDAs. However the acquiring agency must approve them. For the sake of consistency, all MDAs for a specific project should be examined and approved by the same agency officer. Approval actions must occur prior to offers being made. When a schedule of values is developed and used in a Comparable Sales Book, agency MDA approval could be of the schedule of values rather than of each individual MDA.
3. Offers
 - a. Purchase offers based on MDAs should be made either by the individual, who prepared the MDA, or other acquiring agency staff that possess adequate knowledge of the acquisition, the property in question, the project in general, and the MDA report and comparable sales used in preparing the MDA in order to be able to intelligently discuss the purchase offer.
 - b. To expedite acquisition, acquiring agencies should try to combine duties such as having the same individual do field title interviews, prepare the MDA reports, and make the purchase offers. Ideally, if an approved schedule of values has been prepared, then when owners are contacted and their opportunity to accompany the appraiser or MDA preparer is provided, the MDA can be drafted, the offer conditionally made based on the draft MDA, and the acquisition documents signed all during the one contact.
 - c. In the interest of good public relations, offers should be made as soon as possible after completion of the MDAs.
 - d. MDA reports do not replace the written offer to the owner, but may be used as the summary statement to the owner, itemizing the basis for the offer (see [III. Acquisition, B. Offer](#)).
4. Administrative Settlements
 - a. Settlements can be made over the \$10,000 thresholds without obtaining an appraisal.
5. Condemnation
 - a. If an owner refuses to accept an offer based on an MDA and the acquiring agency must file condemnation, then a complete before and after appraisal will be required prior to the first commissioner's hearing.
6. Sample
 - a. A [sample MDA](#) (PDF) is shown online

F. Appraisal Review

All appraisals and specialty reports must be reviewed to ensure that the estimate of market value is reasonable and adequately supported. Therefore, the acquiring agency shall have an appraisal review process.

An appraisal review in compliance with [49 CFR Part 24](#) is a technical review, performed by an experienced, qualified Review Appraiser who possesses the appropriate state appraisal license/certificate. The appraisal review is intended to be a comprehensive technical examination of the appraisal report, as presented by the appraiser. It is the Review Appraiser's responsibility to determine, among other things, whether the appraisal and appraiser's conclusions are adequately supported, comply with recognized appraisal principles and practices, and comply with the appraiser's contract and/or assignment.

A qualified Review Appraiser shall examine all appraisals to assure that they meet local agency appraisal requirements and shall, prior to certifying an appraisal, seek correction or revision of those that do not. If the Reviewer certifies a value different than the appraised value, his/her reasons must be thoroughly documented.

The Review Appraiser must sign a written statement that identifies appraisals reviewed and explains the basis for the certification. Damages shall be stated.

The Review Appraiser should attach to the appraisal a written review report or review analysis, acknowledged and dated, reporting the scope, analysis, conclusions, and recommendations of the reviewer, including a necessary "Review Appraiser Certification" as required under 49 CFR 24.104(c) and USPAP Standards Rule 3-2(f).

Appraisal review is not required on qualified parcels whose value estimates were documented by virtue of the MDA procedure (see [II. Pre-Acquisition; E. Minimum Damage Acquisition #2](#))

A sample [Appraisal Review Analysis](#) (Word) (for rural property) is shown online. It contains a form of the review appraiser's certification, which must be signed.

G. Agency Establishment of Just Compensation

Before the initiation of negotiations, the local agency shall establish and approve the amount it believes to be just compensation for the property to be acquired. The approved amount shall not be less than the review appraiser's certification of the fair market value, including damages or benefits to the remaining property. Local agency approval must be by local agency personnel having authority to make such approval. The [Appraisal Review Analysis](#) (Word) provides a space for the authorized signature approving the value or damage estimate.

H. Relocation Assistance

Title II of the [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970](#), as amended, and [49 CFR Part 24](#) establish and define relocation rights and benefits of persons displaced by land acquisition projects. A displacing local agency shall not propose or request that a displaced person waive his or her rights or entitlements to relocation assistance and benefits provided by the Uniform Act or other federal regulations.

The requirements for implementing Title II of The Uniform Act and the relocation provisions defined in [49 CFR Part 24](#) are lengthy and detailed. Therefore, whenever a local agency anticipates that there will be relocation on a project, the MnDOT District Land Management, R/W Office should be contacted for assistance and/or guidance in conducting its relocation program.

I. Appeals for Incidental and Litigation Expenses

A person may file a written appeal with the acquiring agency in any case in which the person believes that the local agency has failed to properly determine the person's eligibility for, or the amount of, a payment required for those expenses incidental to transfer of title to the local agency or certain litigation expenses. All written appeals, regardless of form, shall be considered by the acquiring agency.

The local agency is required to provide an opportunity for the prompt review of appeals in accordance with applicable laws and regulations. The time limit for a person to file an appeal shall be 60 days after the person receives written notification of the local agency's determination on the person's claim.

The appealable items are discussed elsewhere in this chapter, including [III Acquisition; E. Condemnations](#) and [G. Closing](#). For more details on this subject, refer to [49 CFR Part 24 Section 24.10 Appeals](#), and the [FHWA Project Development Guide, Section 3.8 Appeals](#).

III. Acquisition

In this section:

- A. [Acquisition by other means](#)
- B. [Offer](#)
- C. [Negotiation](#)
- D. [Settlements](#)
- E. [Condemnation](#)
- F. [Possession](#)

- G. [Closing](#)
- H. [IRS Form 1099](#)
- I. [Property Management](#)

A. Acquisition by other means

1. Donations – It's acceptable for a property owner whose real property is to be acquired for a highway project to make a donation or gift of the property, or a part of it, or of any of the compensation paid for it, to the acquiring agency. See [FHWA Project Development Guide - Section 6 Donations and Credits](#). The owner must be informed of the right to receive just compensation for the property and of the obligation of the local agency to provide him/her with an appraisal of the property.

The documentation of a donation should be done with a "Waiver of Compensation" form, such as this [sample waiver form](#) (Word).

The property owners may claim the donation as a charitable contribution on their federal income tax return. The Internal Revenue Service regulations exclude certain persons from qualifying as appraisers on deductions in excess of \$5000 claimed as charitable contributions of property. This regulation excludes staff appraisers from making these appraisals for the donor. The services of a qualified fee appraiser may be utilized in such instances provided that the acquiring agency is not the sole client of the fee appraiser.

2. Donations in Exchange for Construction Features - The acquiring agency may accept a property owner's offer to donate property (fee or easement) in exchange for the local agency providing a construction feature to benefit the owner. Examples would be an improved driveway, noise wall, landscaping, etc. When done, the value of property donated should approximate the value of the improvement provided. This should be documented by an appraisal, or MDA where appropriate, and an improvement cost estimate.
3. Plat Dedications - Property that is obtained for a project at the time an owner plats a piece of property is considered to have been acquired through police power and not subject to normal acquisition requirements. Acceptable documentation of this would include:
 - a. if the platting process is completed, a copy of the plat sheets showing the property dedicated and the sheet with the dedication statement and the recording number, or
 - b. if a plat is not yet approved, a copy of the proposed plat showing land proposed for highway dedication together with a copy of a request from the property owner for local

agency approval. In this case, the right to occupy the property must be obtained prior to submitting [R/W Certificate No. 1](#) (Word).

B. Offer

Promptly after local agency approval of just compensation, the approved amount must be offered to the owner in writing. Along with this offer, the owner must be given a written summary statement of the basis for the offer. Summary statements must also be given to tenants who own improvements affected by an acquisition. The summary statements shall include:

- 1) A statement of the amount offered as just compensation. Where there are damages to the remainder, they shall be separately stated. All amounts, other than those allowed for fee takings and permanent easements (including buildings located thereon) are considered to be damages to the remainder. In order to meet this requirement, it is advisable to give to property owners either a copy of the certified appraisal (or approved MDA) or an itemization of amounts allowed.
- 2) A description of the real property to be acquired and a statement of the interest being acquired.
- 3) An identification of improvements being acquired. Tenant owned improvements being acquired shall be identified along with the value placed on them.

The above written offer letter and summary statement can be combined into one document. Offer to [Purchase Statement of Compensation](#) (Word) is a suggested format.

Reasonable efforts must be made to contact owners to discuss the offer and explain the acquisition policies and procedures, including the payment of incidental expenses described in [I. Overview; B. Notification](#).

C. Negotiation

The negotiator shall not be the person who either appraised the property or served as the review appraiser. If the value of the acquisition was determined by an MDA, then the same person may both perform the valuation and negotiate.

Negotiations shall be conducted without any attempt to coerce the property owner into an agreement. Condemnation as a threat shall be avoided. The property owner shall be given a reasonable period to consider the offer and to obtain advice or assistance if needed. Sixty days is considered a reasonable period.

If an owner retains an improvement, its salvage value must be deducted from the acquisition price of the owner's entire interest.

If a partial acquisition creates an uneconomic remainder, the local agency shall offer to acquire it.

D. Settlements

[49 CFR Part 24 Section 24.102\(a\)](#) requires that acquiring agencies make a reasonable effort to avoid litigation and acquire R/W through negotiations. When it is impossible to acquire at the approved appraised value, it is sometimes appropriate to make settlements.

There are two types of settlements. Administrative Settlements are those made by acquiring officials prior to filing of eminent domain. Legal Settlements are those made by attorneys representing the acquiring authority, made after the filing of a condemnation action.

For both kinds of settlements, the local agency's designated official must give consideration to all pertinent information and prepare written justification stating that the available information supports a particular settlement amount (e.g., appraisals [including the owner's appraisal, if one is available], recent court awards, estimated trial costs, and valuation problems). The extent of written explanation is judgmental, but should be consistent with the situation, circumstances, and monetary amount involved.

E. Condemnation

Condemnation must not be advanced or delayed in order to coerce the owner into agreeing to the price offered.

If any interest in real property is to be acquired by the power of eminent domain, the local agency shall institute formal condemnation proceedings. No local agency shall intentionally make it necessary for an owner to institute legal proceedings to prove the fact of the taking of real property.

An owner's litigation expenses must be reimbursed if:

- It was ruled the local agency can't acquire;
- The case was dismissed; or
- Owner brought successful mandamus action.

F. Possession

No person (owner or tenant) lawfully occupying real property shall be required to move from a dwelling, or to move a business or farm operation, without at least 90 days written notice from the local agency of the date by which such move is required (see [49 CFR Part 24 Section 24.203\(c\)](#)).

No owner shall be required to surrender possession of real property before the local agency concerned pays the agreed purchase price, or deposits with the court, for the benefit of the owner, an amount not less than the local agency's approved appraisal of the fair market value of such property, or the amount of the award of compensation in the condemnation proceeding for such property. If a person is displaced from a dwelling, see [49 CFR Part 24 Section 24.204\(a\)](#).

When the acquiring agency makes a deposit with the court in a condemnation action, they should make the owner aware of the owner's right to withdraw the money.

G. Closing

When a government agency acquires private property by direct purchase, the owner is entitled to reimbursement of appraisal fees, reasonably incurred, not to exceed \$500 (see [Minnesota Statutes 117.232, Subdivision 1](#))

In eminent domain proceedings the court appointed commissioners may, at their discretion, allow and show separately, in addition to the award of damages, reasonable appraisal fees not to exceed \$1,500 for single or two family residential property or \$5,000 for other properties (see [Minnesota Statutes 117.085](#)).

The local agency shall inform the owners of the appraisal fee reimbursement procedures in advance of the acquisition.

The local agency may want to require the owner to provide a copy of the appraisal to insure the fee is reasonable.

Federal regulations provide that the acquiring agency will pay certain expenses incidental to the transfer of property such as recording fees, transfer taxes, penalty costs for pre-payment of any pre-existing recorded mortgage, and a pro rata share of prepaid property taxes (see [49 CFR Part 24 Section 24.106](#)).

The state law applicable to the payment of real estate taxes is found in [Minnesota Statute 272.02, Subdivision 4](#) and [Minnesota Statute 272.68, Subdivision 1](#). It applies to fee acquisitions; it does not apply when only a highway easement is acquired.

If the "date of acquisition" occurs before July 1, provision must be made for payment of taxes payable in the year of acquisition. If it occurs on July 1 or after, provision should be made for payment of taxes payable in the year of acquisition and for those payable in the following year. "Date of acquisition" is the date the acquiring agency can take legal possession.

It is up to the acquiring agency to determine how much of the tax payable in the year of acquisition must be paid by the owner. Taxes payable in the year following acquisition, if required to be paid, are the responsibility of the acquiring agency.

H. IRS Form 1099

Following acquisition, it may be necessary for the acquiring agency to send an IRS Form 1099 to property owners. They are required for reportable amounts of \$600 or more. They are not required when the owner is a corporation or a governmental agency.

- 1) Form 1099-S is used to indicate amounts paid for real property acquired (fee or permanent easements). This would also include the value of improvements located on fee and permanent easement areas.
- 2) Form 1099-Misc is used to indicate rental payments. If any payments made to property owners are considered “rents”, including the valuation of temporary (construction) easements, they must be reported in box one of this form.
- 3) Amounts paid for all other items such as severance damages, crop loss, fence allowance, etc., are considered “damages” for which preparation of a 1099 is not required.

If there are multiple owners on a parcel, the acquiring agency should indicate on Form 1099 amounts allocated to each owner based on advice from owners. The allocation would normally be consistent with an owner’s interest in the property.

If the owner is a partnership, only one 1099 needs to be sent to the partnership. No allocation is required.

For additional information, refer to the [IRS instructions for Form 1099](#).

I. Property Management

Property Management is the control and administration of properties acquired for R/W until physical construction of the roadway begins.

If the local agency permits an owner or tenant to occupy the real property acquired on a rental basis for a short term or for a period subject to termination by the local agency on short notice, the amount of rent required shall not exceed the fair rental value of the property to a short-term occupier.

IV. Right of Way Certification Requirements

In this section:

- A. [State Aid Projects](#)
- B. [Federal Aid Projects](#)

A. State Aid Projects

R/W acquisition for state aid projects is the responsibility of the city or county. Other than showing R/W on grading plans, no documentation is normally required for SALT approval.

B. Federal Aid Projects

Federal regulations require that before a contract for a federal aid project can be authorized, the acquiring agency must furnish suitable evidence that it has acquired the right to occupy and use all R/W required for the construction of the project, and that all property owners have been paid. R/W limits shall be shown on grading plans. A [R/W Certificate No. 1](#) (Word) or a [R/W Certificate No. 1-A](#) (Word) as appropriate for the project, must be on file in the State Aid Division office prior to authorization to advertise for bids.

Note: on staged construction projects where R/W is to be acquired and a subsequent stage is to be federally funded, the federal project development process shall be followed at all stages (Environmental Report, Public Hearings, Study Report, etc.).

1. R/W Certificate No. 1
 - a. The [R/W Certificate](#) (Word) covers the following:
 - 1) Acquired property (either by direct purchase or condemnation)
 - 2) Permanent easements (i.e., slope easements, ditches)
 - 3) Temporary easements (i.e., only encumbers the property during construction)
 - 4) Work covered by permits (one agency working on another agency's road, i.e., mill & overlay, work on railroad property--milling up to the tracks)
 - 5) Work covered by agreements (sometimes called a limited use permit--an agency building something on another agency's R/W, i.e., a bicycle/pedestrian trail, bus shelters)
 - b. The R/W Certificate No. 1 shall apply as follows:
 - 1) When all R/W and material pits have been fully acquired, property owners paid, and the R/W either cleared of all structures or structure removal is to be included in the contract work.
 - 2) When all R/W and material pits have not been fully acquired but the right to occupy all parcels has been obtained through condemnation, including legal and physical possession, and certified values have been made available to owners.

It is the city/county's responsibility to make arrangements for the MnDOT District R/W Engineer/Land Management Supervisor to have access to, and have adequate time for, the review of the project's R/W package including all plats,

plans, and acquisition and/or condemnation related documents. The agency shall also attach to the R/W Certificate No. 1 a completed and signed federal aid [R/W Certificate No. 1 Checklist](#) (Word).

It is the MnDOT District R/W Engineer/Land Management Supervisor's responsibility to review the project's R/W documents, including required R/W permits, in a timely manner, to certify that the agency has complied with applicable laws and regulations in acquiring the R/W, and that it has legal possession and right of entry prior to the approval of the No. 1 Certificate. If permits are required, it is the District R/W Engineer/Land Management Supervisor's responsibility to be checking for those permits.

2. R/W Certificate No. 1-A
 - a. [R/W Certificate No. 1-A](#) (Word) shall apply when the project is to be constructed within the existing R/W and no additional R/W or easements are needed.

Chapter 5.3 Agreements

I. Overview

Agreements are written to spell out roles and responsibilities of partners in a project. Agreements can be used as an instrument to collect and/or disburse funds needed for the project. SALT has an overall agency agreement with each State Aid agency. However agreements can also be written for individual projects. Agreements can be written between two or more partners on a project. Agreements can be written between MnDOT, other state agencies, counties, municipalities, federal agencies, Native American Tribes, Regional Development Commissions or other taxing authorities. The Minnesota State Attorney General requires that all agreements entered in by MnDOT are written by state employees.

II. Federal Agreements between the Minnesota Department of Transportation and Federal Highway Administration – Legal Basis

In this section:

- A. [Minnesota Stewardship Plan](#)
- B. [Federal Aid Funds](#)
- C. [Project Agreements](#)
- D. [Fund Availability](#)
- E. [Trunk Highway Funds](#)
- F. [Federal Road and Bridge Account](#)
- G. [Federal and State Regulations](#)
- H. [Location of Projects](#)

A. Minnesota Stewardship Plan

The main agreement between MnDOT and the FHWA is the Minnesota Stewardship Plan. Other influencing factors in the way a project is handled are Federal regulations, FHWA policies and FHWA guidance which may be developed for specific subjects areas. In addition there are state rules and statutes which must be followed. Where they differ or conflict, the most restrictive is to be followed.

B. Federal Funds

Federal aid funds are distributed to the states through the state highway agency, in Minnesota that is MnDOT (see [23 CFR 1.3](#)). [Minnesota Statute 161.36, Subdivision 2](#) gives MnDOT this authority.

To be the recipient of federal funds, a local agency must request the MnDOT to act as its agent, and must enter into an agency agreement which describes the conditions of the agency as prescribed by federal laws.

C. Project Agreements

Federal regulations (see [23 CFR 630.112](#)) require the state enter into a project agreement for each project authorized for federal cost participation. In that agreement, the state accepts responsibility and the obligation to pay the any nonfederal portion of the costs.

D. Fund Availability

State statutes (see [Minnesota Statutes 16A.15](#)) require that MnDOT cannot enter into an agreement that obligates the state financially, unless there are funds available to fulfill that obligation.

E. Trunk Highway Funds

[Article 14 of the Minnesota State Constitution](#) does not allow MnDOT to use TH funds to pay for projects which are not on the TH System. Therefore the responsibility of payment for the nonfederal share must be covered by the local agency proposing the project or the project cannot occur.

F. Federal Road and Bridge Account

Projects utilizing federal funds are encumbered from the Federal Road and Bridge Account (finance) which is an allotment based upon the anticipated federal fund receipts. This is a state action which insures that the funds are available to pay for the project prior to starting it.

In a [traditional bid opening project](#) the local agency is required to provide the non-federal portion of the project agreement amount. MnDOT holds the contract with the Contractor. The local agency may use their state aid funds, if eligible or may provide other local funds to cover the non-federal portion of the project. These local funds are deposited into the Federal Road and Bridge Account to cover the cost of the proposed project. State aid funds may be taken from the local agency's state aid account under [Minnesota Rule 8820.1500](#) in order to pay for the project. The project cannot be awarded, nor can work start until the local share is deposited in the Federal Road and Bridge Account. This method is used on a very limited basis.

In a [DCP project](#) the local funds are not collected up front by MnDOT since the local agency holds the contract with the Contractor. Requests for payment of the federal portion are made by the local agency as outlined on the DCP process.

G. Federal and State Regulations

Due to the federal laws listed above, MnDOT has responsibilities to insure that the project is completed in accordance to with federal and state regulations. Federal regulations do allow MnDOT to delegate certain project delivery activities to local agencies; however this delegation does not remove MnDOT from responsibility (see [23 CFR 1.11](#) and [23 CFR 635.105](#)). These delegated roles are defined in the agreements written between MnDOT and the local agency.

H. Location of Projects

Projects on or affecting the [National Highway Performance Program](#) may not be delegated to a local agency without specific approval from the division FHWA office. A separate project-specific agreement is written when permission is granted for the local agency to hold the contract; however MnDOT may need to provide some construction oversight.

Projects proposed by local agencies that receive federal funding must be designed, operated and maintained in accordance with state laws. For roadway and bridge projects, [State Aid Rules](#) (PDF) must be followed. While Title 23 provisions do not apply for design, operations and maintenance, all other provisions of Title 23 and other federal requirements must be adhered to (see [23 CFR 625.3](#)).

III. Minnesota Department of Transportations’ Role

MnDOT’s role in federal aid projects is defined as agent. As the agent, MnDOT has no financial responsibility in the project unless it is spelled out specifically in the project agreement. MnDOT has placed the responsibility of complying with all of the federal regulations as agent in the [SALT Project Delivery Federal Aid Section](#). In many types of local projects there are no types of funds that MnDOT can legally use to pay for any financially liability created by the project.

IV. Federal Aid Agreements between the Minnesota Department of Transportation and other Project Partners

In this section:

- A. [Preliminary Engineering Agreements](#)
- B. [Right of Way Agreements](#)

- C. [Construction Engineering Agreements](#)
- D. [Federal Force Account Agreements](#)
- E. [Advance Construction Agreements](#)
- F. [Delegated Contract Process Agreements](#)
- G. [Fund Exchange Agreements](#)

A. Preliminary Engineering Agreements

Preliminary engineering agreements are written when federal funds will be used to pay for all or part of the costs of producing the project development reports, engineering studies related to the project or the actual plans and construction documents. Without the preliminary engineering agreements, federal funds cannot be transferred to the local agency from the FHWA through MnDOT.

Federal aid funds may be used for preliminary engineering costs if permitted by the APT or if the project has certain types of federal funding. Preliminary engineering can be paid for with [Emergency Relief](#), [Federal Lands Access Program](#) and others as permitted by federal legislation. Most Minnesota ATPs do not allow federal formula funds to be used for preliminary engineering; therefore projects chosen at the ATP level cannot use funds for R/W even though federal law allows it.

In order to use federal funds for preliminary engineering costs, there are specific tasks which must be followed in order to legally use the funds.

1. The project must be listed in the current [STIP](#) as using funds for preliminary engineering or the project must be amended into the current approved STIP.
2. A [PM](#) is required by SALT to describe the types of work to be done with federal funds, the amount of money to be spent, the project manager, the timeline of the project, and other pertinent details of the project. Preliminary engineering project memos may be combined with a R/W or construction engineering PM, but each type of work should have a unique state aid project number.
3. SALT will request authorization of the project by the FHWA after the approval of the project memo. Project must be authorized by the FHWA prior to the start of the work on the project which the local agency wishes to be reimbursed; this includes advertisement for consultants to perform the work of the contract. Any work done prior to authorization will not be reimbursed with federal funds.
4. If the work is to be performed by a consultant, the local agency must obey federal, state, and local laws in the selection of the consultant. In cases of conflicting regulations, the most restrictive rules should prevail. A Disadvantaged Business Enterprise (DBE) goal must be set by the [Office of Civil Rights \(OCR\)](#) of MnDOT and language outlining the DBE requirements must be included in the Request for

Qualifications. The consultant chosen by the local agency must be cleared by the OCR office prior to the local agency entering into a contract with the consultant. Also prior to entering into a contract, a [pre-award audit](#) (PDF) must be performed by MnDOT audit section if the contract exceeds \$50,000. The pre-award audit is performed to look at billing practices and procedures of the consultant.

5. If the work is to be performed by the local agency, a [public interest finding](#) (Word) must be completed and approved prior to the authorization of the project. This documents states that the work can be performed more economically and have just as much quality as if an outside consultant were hired.

SALT will write the Preliminary Engineering Agreements after the project is authorized using the information in the PM. The Preliminary Engineering Agreements will spell out the state and federal project numbers, the agencies involved in the project, the agency responsibilities, the types of work to be done, the location of the project, the cost and cost splits of the project, the type of work eligible for reimbursement, length of the agreement, payment request requirements, the local agency's project manager and other pertinent information.

Following authorization of the federal funds, MnDOT must encumber the funds on Preliminary Engineering Agreements. State Aid Finance sets up an account for the specific project and all payments are made from that account. A number of originals, generally three, are sent to the local agency for execution by their governing body. A [resolution](#) (Word) must be written and executed by the local agency's governing body and attached to the original contract documents. The original contracts are signed by the persons designated in the resolution and returned to SALT for the required state signatures. Following execution by the state, the agreement is in effect, unless otherwise stated in the agreement. An original is returned to the local agency for their use. The other originals kept by SALT file and MnDOT Audit. Copies of the original executed agreements are sent to MnDOT Finance, Office of Investment Management, and the DSAE. Copies are sent to other groups involved in the contract as needed.

Specific steps in the agreement processing project can be found in [Agency Agreement Steps](#) (PDF).

If both preliminary engineering and construction engineering costs are being reimbursed with federal funds on a specific project, the preliminary engineering contract ends when the construction engineering contract begins. The FHWA will not reimburse for preliminary and construction engineering costs at the same time for the same project.

B. Right of Way Agreements

R/W agreements are written when the cost of the R/W and other costs associated with R/W purchases are to be reimbursed in all or in part with federal funds. R/W purchased with federal

funds must be covered in an approved project development report or be determined to be a hardship taking. Without the R/W agreement, federal funds cannot be transferred to the local agency from the FHWA.

Federal aid funds may be used for R/W costs if permitted by the ATP or if the project has certain types of federal funding. R/W can be paid for with [Emergency Relief](#), [Federal Lands Access Program](#) and others as permitted by federal legislation. Most Minnesota ATPs do not allow federal formula funds to be used for R/W; therefore projects chosen at the ATP level cannot use funds for R/W even though federal law allows it.

In order to use federal funds for R/W costs, there specific tasks which must be followed in order to legally use the funds.

1. The project must be listed in the current [STIP](#) as using funds for R/W costs or the project must be amended into the current approved STIP.
2. The environmental document for the project must be completed and approved in addition (or concurrently) a R/W PM is required by SALT to describe the types of work to be done with federal funds, the amount of money to be spent, the project manager, the timeline of the project, and other pertinent details of the project. R/W PMs may be combined with preliminary or construction engineering PMs, but each type of work should have a unique state aid project number.
3. A R/W plan must be submitted and approved prior to authorization.
4. SALT will request authorization of the project by the FHWA after the approval of the project memo. Project must be authorized by the FHWA prior to the start of the work on the project which the local agency wishes to be reimbursed for, this includes advertisement for consultants to perform the work of the contract. Any work done prior to authorization will not be reimbursed with federal funds.
5. If the work is to be performed by a consultant, the local agency must obey federal, state, and local laws in the selection of the consultant. In cases of conflicting regulations, the most restrictive rules should prevail. A DBE goal must be set by the [OCR](#) of MnDOT and language outlining the DBE requirements must be included in the Request for Qualifications. The consultant chosen by the local agency must be cleared by the OCR prior to the local agency entering into a contract with the local agency. Also prior to entering into a contract, a [pre-award audit](#) (PDF) must be performed by MnDOT Audit Section if the contract exceeds \$50,000. The pre-award audit is performed to look at billing practices and procedures of the consultant.

SALT will write the R/W agreements after the project is authorized using the information in the R/W PM. The R/W agreements will spell out the state and federal project numbers, the agencies involved in the project, the agency responsibilities, the types of work to be done, the

location of the project, number of parcels to be purchased, the cost and cost splits of the project, the type of work eligible for reimbursement, length of the agreement, payment request requirements and other pertinent information.

Following authorization of the federal funds, MnDOT must encumber the funds on Preliminary Engineering Agreements. State Aid Finance sets up an account for the specific project and all payments are made from that account. A number of originals, generally three, are sent to the local agency for execution by their governing body. A [resolution](#) (Word) must be written and executed by the local agency's governing body and attached to the original contract documents. The original contracts are signed by the persons designated in the resolution and returned to SALT for the required state signatures. Following execution by the state, the agreement is in effect, unless otherwise stated in the agreement. An original is returned to the local agency for their use. The other originals kept by SALT file and MnDOT Audit. Copies of the original executed agreements are sent to MnDOT Finance, Office of Transportation System Management and the DSAE. Copies are sent to other groups involved in the contract as needed.

Specific steps in the agreement processing project can be found in [Agency Agreement Steps](#) (PDF).

C. Construction Engineering Agreements

Federal aid funds may be used for construction engineering costs if permitted by the ATP or if the project has certain types of federal funding. Construction engineering can be paid for with [Emergency Relief](#) funds, [Federal Lands Access Program](#) and others as permitted by federal legislation. Most Minnesota ATPs do not allow federal formula funds to be used for construction engineering; therefore projects chosen at the ATP level cannot use funds for construction engineering even though federal law allows it.

In order to use federal funds for construction engineering costs, there specific tasks which must be followed in order to legally use the funds.

1. The project must be listed in the current [STIP](#) as using funds for R/W costs or the project must be amended into the current approved STIP.
2. A CE PM is required by SALT to describe the type of work to be done with federal funds, the amount of money to be spent, the project manager, the timeline of the project, and other pertinent details of the project. This can be combined with the construction PM or a [separate document](#).
3. SALT will request authorization of the project by the FHWA after the approval of the project memo. Project must be authorized by the FHWA prior to the start of the work on the project which the local agency wishes to be reimbursed; this includes

advertisement for consultants to perform the work of the contract. Any work done prior to authorization will not be reimbursed with federal funds.

4. If the work is to be performed by a consultant, the local agency must obey federal, state and local laws in the selection of the consultant. In cases of conflicting regulations, the most restrictive rules should prevail. A DBE goal must be set by the [OCR](#) of MnDOT and language outlining the DBE requirements must be included in the Request for Qualifications. The consultant chosen by the local agency must be cleared by the OCR prior to the local agency entering into a contract with the local agency. Also prior to entering into a contract, a [pre-award audit](#) (PDF) be performed by MnDOT Audit Section if the contract exceeds \$50,000. The pre-award audit is performed to look at billing practices and procedures of the consultant.
5. If the work is to be performed by the local agency, a [public interest finding](#) (Word) must be completed and approved prior to the start of work. This document states that the work can be performed more economically and have just as much quality as if an outside consultant were hired.

SALT will write the Construction Engineering Agreement after the project is authorized using the information in the PM. The Construction Engineering Agreement will spell out the state and federal project numbers, the agencies involved in the project, the agency responsibilities, the type of work to be done, the location of the project, the cost and cost splits of the project for construction and construction engineering, the types of work eligible for reimbursement, length of the agreement, payment request requirements, and other pertinent information.

Following authorization of the federal funds, MnDOT must encumber the funds on a Construction Engineering Agreement. State Aid Finance sets up an account for the specific project and all payments are made from that account. A number of originals, generally three, are sent to the local agency for execution by their governing body. A [resolution](#) (Word) must be written and executed by the local agency and attached to the original contract documents. The original contracts are signed by the persons designated in the resolution and returned to SALT for the remaining state signatures. Following execution by the state, the agreement is in effect, unless otherwise stated in the agreement. An original is returned to the local agency. The other originals are maintained in the SALT file and at MnDOT Audit. Copies of the executed agreements are also sent to MnDOT Finance, Office of Transportation System Management and the DSAE. Copies are sent to other groups involved in the contract as needed.

Specific steps in the agreement processing project can be found in [Agency Agreement Steps](#) (PDF).

If both preliminary engineering and construction engineering costs are being reimbursed with federal funds on a specific project, the preliminary engineering contract ends when the

construction engineering contact begins. The FHWA will not reimburse for preliminary and construction engineering costs at the same time for the same project.

D. Federal Force Account Agreements

Force Accounts are written for work done on a federal aid project which is accomplished by someone other than the construction contractor or his subcontractors and is eligible for reimbursement with federal funds, but has not been competitively bid. Force account work is usually done by local agency employees, utility companies, or railroad authorities. A [public interest finding](#) (Word) must be written and approved to explain why it is more cost effective to perform said work as a force account than to put it out for competitive bidding. Without a force account agreement federal funds cannot be transferred to the local agency from the FHWA.

The construction project must be listed in the current [STIP](#) as using funds for R/W costs or the project must be amended into the current approved STIP.

The force account does not need to be mentioned as an individual line in the STIP, however, the project memo for the construction project must indicate what work and the estimated cost of said work to be included in the force account. The PM may include the, a public interest finding, or a separate letter may be written and approved by the DSAE.

Prior to the commencement of work, the force account work must be authorized by the FHWA. SALT will request authorization of the project by the FHWA after the approval of the construction PM. Work done prior to authorization will not be reimbursed with federal funds. The authorization will spell out the anticipated cost of the work as well as who will perform it.

SALT will write the force account agreement after the project is authorized using the information provided in the PM. The force account agreement will spell out the state and federal project numbers, the agencies involved in the project, the agency responsibilities, the type of work to be done by each party, the location of the project, the cost and cost splits of the project, the type of work eligible for reimbursement, length of the agreement, payment request requirements and other pertinent information.

Following authorization of the federal funds, MnDOT must encumber the funds on a force account agreement. State Aid Finance sets up an account for the specific project and all payments are made from that account. A number of originals, generally three, are sent to the local agency for execution by their governing body. A [resolution](#) (Word) must be written and executed by the local agency and attached to the original contract documents. The original contracts are signed by the persons designated in the resolution and returned to SALT for the remaining state signatures. Following execution by the state, the agreement is in effect, unless otherwise stated in the agreement. An original contract is returned to the local agency. The other originals are maintained in the SALT file and at MnDOT Audit. Copies of the executed

agreements are also sent to MnDOT Finance, Office of Transportation System Management and the DSAE. Copies are sent to other groups involved in the contract as needed.

Specific steps in the agreement processing project can be found in [Agency Agreement Steps](#) (PDF).

E. Advanced Construction Agreements

1. Traditional Advance Construction (AC) agreements are written when a project is ready to be advertised for bids and constructed in advance of the fiscal year that the ATP has designated the funds. The project must be listed in the current [STIP](#) in the year that it will be authorized in addition to the year that the federal funds are available. The federal fiscal year runs from October 1 (of the preceding year) to September 30 (of the current year). The state fiscal year runs from July 1 (of the preceding year) to June 30 (of the current year). AC may be done for any number of reasons unique to each project. While most types of federal funds are able to be advanced, there are some by federal regulation that cannot be advance constructed. The local agency also takes on a risk that the federal funds may not be available in the future year and thus not be reimbursed.

In order for a project to be advance constructed, it is the local agency's responsibility to cover the costs involved in the construction until the federal funds are available. The Contractor building the project must be paid even if federal funds are not immediately available. If the local agency is unable to upfront the money, then the project cannot be advance constructed and must wait until federal funds are available. Once the project is converted to federal funds, reimbursements are made as they are on a normal federal aid project. Requests for reimbursement may be sent in prior to conversion of the project to federal funds, but they will not be paid until the federal funds are available.

Preliminary engineering, R/W costs and construction engineering may be advance constructed if the type of federal funding proposed to be used allows for advance construction work.

SALT will request authorization of the project as an AC by the FHWA after the approval of the environmental document. A separate project memo is not needed for a project to be advance constructed, but the proposed project timeline should be outlined in the environmental document. Project must be authorized by the FHWA prior to the start of the work on the project which the local agency wishes to be reimbursed for, this includes advertisement for bid opening to perform the work of the contract. Any work done prior to authorization will not be reimbursed with federal funds.

2. Cashflow AC Agreements are used on large construction projects. These are projects which will last for more than one construction season or are over a set level in federal funds may need to be ACed for cash flow purposes. The project must be listed in the current [STIP](#). Normally, when projects are authorized by the FHWA, the funds are then tied up for that specific project and count against MnDOT's obligation authority. When projects are authorized as an advance construction project, the costs count against the obligation authority only once the payments are made with federal funds. The aggregate impact of multiple projects multiyear or larger projects counting against MnDOT's obligation authority could result in a project later in the fiscal year not being started due to lack of obligation authority even though there are federal funds that are not actually expended. This problem becomes more critical when obligation authorities are limited due to continuing funding resolutions by the U.S. Congress.

The Cashflow AC has a very small risk to the local agency if the anticipated obligation authority is not received. Generally the local agencies do not notice a change in receipt of payments over a project that is not ACed. [State Aid Finance](#) generally converts the entire project to federal funds, once the funding requests are received from the local agency. However, finance may choose to only convert portions of the project as the payment requests are received this decision will be made based on the obligation authority level remaining to MnDOT.

F. Delegated Contract Process Agreements

DCP agreements are written with each state aid agency which has a federally funded eligible construction project in the STIP. DCP agreements are intended to cover every federally funded construction project that the state aid agency is the lead agency or sponsor for and therefore have no expiration date. DCP agreements delegate the responsibility of the construction bid opening process to the local agency. This process, which must be followed, is outlined in the [DCP checklist](#) (PDF). At the onset of each project the local agency should look at the checklist online to see if any policies or procedures have been modified since their last federal aid project. A [DCP01](#) (Word) form must be filled out for each federally funded project. The DCP01 form should be submitted to the DSAE. If an agency does not have a DCP agreement with MnDOT the DCP01 form will trigger the agreement being written.

The DCP process is a process agreed upon by the FHWA and MnDOT which allows certain activities related to the project construction process to be delegated. These roles and responsibilities are outlined specifically in the [Minnesota Stewardship Plan](#) (PDF).

DCP agreements include the requirements for the advertising, bid opening, award, project oversight, reimbursement of federal funds by MnDOT, as well as project closeout procedures.

Projects not processed according to the [DCP process](#) will be traditional MnDOT bid openings or require special arrangements and agreements with the MnDOT and FHWA prior to bid opening. A [traditional MnDOT bid opening](#) is one where MnDOT holds the contract with the Contractor and totally oversees the bid opening and construction process. Any matching federal funds are collected from the local agency, prior to the execution of the construction contract with the Contractor.

DCP agreements were all rewritten in 2011 for all counties and state aid cities which had an old DCP agreement or had a project in the approved STIP at that time. As each new STIP is approved, cities that do not have an executed DCP agreement will be sent an agreement and asked to execute one in order to receive federal funding on their projects. If an agreement is not processed, the project will not be funded with federal funds.

Non state aid agencies may also use the [DCP process](#) on a limited basis for their federally funded projects, however the agreement is written specifically for the proposed project. A different agreement will be written for any other federal aid project that that agency may have in the future. The trigger for preparation of these project specific agreements is the [DCP01 form](#) (Word). DCP01 form is filled out by the non state aid agency and must be approved by the DSAE and the State Aid Engineer. Once signed an agreement is written and forwarded to the non state aid agency for execution. The agreement must be executed prior to the bid opening of the proposed project. If the DSAE does not feel the non state aid agency is qualified to perform the federal aid project the agency will be required to have a sponsor, generally the county that the project is located in. Requirements for sponsors are listed in [Chapter 5.3, X. Project Sponsors and Delegated Oversight for Federally Funded Projects](#) of this manual.

G. Fund Exchange Agreements

In an effort to streamline efforts and expenses in the development of Federal Aid projects SALT has developed a program where a local state aid agency can exchange the federal funds awarded to them by their ATP with another local state aid agency for a share of that agency's state aid funds. Federal fund exchange program is a voluntary program which allows state aid agencies, who have been selected to receive federal funds to trade them with other state aid agencies for state aid funds. This process may defederalize the project donating the federal funds and decreases the work for this Local Public Agency (LPA) (the donor) and brings the other project (the recipient) up closer to full federal participation levels. This results in a decrease in the total number of federal projects which need to be processed each year by SALT and decreases review queues for the remaining federal program. The fund swap program is not intended to circumvent the ATP process or the federal requirements it is intended to consolidate federal funds and streamline plan processing for all projects.

Local agencies who wish to be considered for a fund exchange fill out a [fund exchange application](#) (Word) and submit it to their DSAE. The DSAE, SALT and the Office of Transportation System Management will review and approve fund exchange application. An agreement is prepared by SALT to designate fund exchange amounts and timing and is sent to each agency involved in the swap. The agreement is executed by local agencies and SALT. State Aid Finance transfers state aid funds from Recipient Agency to the Donor Agency's State Aid Account. Donor Agency completes plans etc. and constructs their project. Recipient Agency completes federal process to receive funds for the project (NEPA process, plan approval, permits etc.). Recipient Agency receives federal funds when the project is constructed, following federal authorization and construction payment setup per the normal DCP process.

Exchanges must be county to county or city to city. Exchanges can occur within a district or be between two or more districts. Exchanges can involve more than two "like" state aid agencies. All projects must have federal funding and all must be eligible for state aid funds. Projects within an Metropolitan Planning Organization (MPO) must have approval of the MPO for the STIP amendment necessary to document the project exchange in the STIP.

An agreement is written between SALT and the State Aid agency wishing to give up their federal funds for someone else's state aid funds and a separate agreement is written between SALT and the state aid agency that is willing to transfer their state aid funds for the additional federal funds. The transfer of state aid funds will occur once all agency agreements are executed or on the date specified in the agreements if the exchange cross fiscal years. The exchanged federal funds are added when the federal project is authorized and awarded. In addition, the agreements will also spell out the amount of funds to be exchanged by the agencies.

V. Other types of Agreements written between Minnesota Department of Transportation and Project Partners

In this section:

- A. [Municipal Agreements](#)
- B. [Cooperative Construction Project Agreements](#)
- C. [Partnership and Reverse Partnership Agreements](#)
- D. [Federal Funds Transfer Agreements to Different Federal Agencies](#)

A. Municipal Agreements

Municipal agreements are written when the local agency proposing a project on MnDOT's roadway system and anticipating that MnDOT will play a role in the completion of the project. A

municipal agreement may also be written when the local agency is participating in a project that MnDOT is holding the contract with the Contractor. These agreements are written by the individual MnDOT district or by the agreement section in MnDOT Technical Support. MnDOT's formal policy statement on these types of agreements can be found in the [position statement](#) (PDF), as well as specifics on the [cost sharing policy guidelines](#) (PDF). On a case by case basis, agreements for federal funds may be combined with municipal agreements. This is determined by MnDOT and is dependent on timing and the specifics of both agreements.

B. Cooperative Construction Project Agreements

These types of agreements are written for projects that are proposed by a local agency. MnDOT has decided that there is some value to the TH system and there will be some cost participation, per the [cost participation policy](#) (PDF). These projects may or may not have federal funds involved as well. The agreement to pass state funds from MnDOT to the local agency for the project is written by the Municipal Agreements Section. The bids are opened and the project is administered by the local agency which proposed it.

If the project has even one dollar of federal funds in it must be processed in accordance to the DCP or traditional bid opening processes, including following all federal rules and regulations. If the project has only state, state aid, or local funds the project can be handled in the normal state aid process.

C. Partnership and Reverse Partnership Agreements

Partnership agreements are written when a local agency hires MnDOT to do work for them on a state aid project. All involve MnDOT doing something for the local agency in return for money or for in-kind benefits.

Reverse partnership agreements are written when MnDOT hires a local agency to do work for MnDOT.

D. Federal Funds Transfer Agreements to Different Federal Agencies

Federal law allows for transfer of Title 23 funds to other federal agencies. This is generally done when a project has two federal funds from two different agencies and when the projects which the other federal agency may be are better suited to administer. Many transit related projects can be transferred to the Federal Transit Administration and can be accomplished through their processes, which are slightly different than FHWA's.

The project must be listed in the STIP and then an agreement written between SALT and the federal agency that will accept the funds. Once the agreement is executed a transfer form is filled out and forwarded to the Project Authorization Unit along with the agreement.

VI. Payment Request and Retainage for Federally Funded Agreements

In this section:

- A. [Construction Payments \(Delegated Contract Process Projects\)](#)
- B. [Construction Payments \(Traditional Bid Openings\)](#)
- C. [Agreement Payments](#)
- D. [Retainage](#)

A. Construction Payments (Delegated Contract Process Projects)

Payment requests for construction projects should be submitted in accordance with the process outlined in the [DCP Checklist](#) (PDF).

B. Construction Payments (Traditional Bid Openings)

Since the construction contract is held by MnDOT in a [traditional bid opening](#), the federal funds are not transferred to the local agency. Instead the local agency must up front the local share for their portion of the project. The local share will be calculated per [MnDOT's cost share policy guidelines](#) (PDF) or as agreed upon in the agreement. The local share must be received from the local agency before the contract is awarded to the Contractor. Delays in receipt of the local share may result in cancellation of the bid prices and the project may need to be re-advertised if it's to proceed.

C. Agreement Payments

Agreement payment requests should be submitted as outlined in the payment section of the individual agreement. In most agreements payments can be requested not more than every thirty days. It is recommended that payment requests for small amounts on the same project be included with other payment requests for that project.

Local agencies should enclose all documentation for the expenses claimed for reimbursement. This could include copies of timesheets, invoices, consultant billings, etc., in general anything that documents the costs incurred by the local agency on the project. A [cover sheet](#) (Word) which contains the information shown should be attached to the documentation, signed and dated by the project manager, and sent to the DSAE. It will then be reviewed and signed by that person. The packet will then be forwarded to the SALT Agreements Engineer. It is then reviewed again and a payment request is submitted to State Aid Finance. The amount of reimbursement is transferred electronically. A copy of the documentation packet is sent to MnDOT Audit by the SALT Agreements Engineer for their use in closing out the contract at the appropriate time.

The amount shown on the payment cover sheet should be 100 percent of the eligible costs incurred by the local agency on the project even if the project is funded only in part by federal funds. The percentage of participation of federal funds will be applied by the SALT Agreements Engineer at the time the payment request is sent to finance. Requests for payment which are not signed by the project manager and the DSAE or that do not have sufficient documentation will be denied and returned to the local agency for revision and re-submittal until they contain the information necessary to process them for payment.

D. Retainage

Retainage is held per the agreement documents, but is generally held on the last 10 percent of the total project cost request rather than 10 percent each of the project cost requests. Retainage is held by MnDOT until the agreement is reviewed and a final audit certificate is issued by the MnDOT Audit section. Retainage is not required to be withheld from other state agencies that MnDOT may enter into agreements with, but is required for agreements written with non state agencies.

Requests for final payment should be clearly noted on the cover sheet so that the final audit process can be started as soon as possible to close out the agreement.

VII. Amendments

Amendments may be made to agreements any time prior to the expiration date of the agreement, see [sample amendment form](#) (PDF). If an agreement must be modified, but the previous agreement has expired, a new agreement must be executed to complete the project.

Amendments can be written to extend the duration of the agreement (up to five years per state law), to modify the amount of federal funds applied to the project, to reassign responsibilities previously outlined in the original agreement, or to make other changes which may have arisen since the execution of the original agreement.

Amendments must be executed by the same people or their successors in office who executed the original agreement. All signatures must be obtained prior to the expiration date of the original agreement or the agreement will be considered expired. Amendments must also have a [resolution](#) (PDF) similar to the original resolution authorizing the local agency to enter into the agreement, unless the resolution covers such a situation.

VIII. Agreement Finals

In this section:

- A. [Final Audit](#)
- B. [Audit Certificates](#)

A. Final Audit

The final audit is requested once the payment requests equal the amount that the agreement is written for or the local agency indicated that the project is 100 percent complete or the agreement has expired. The SALT Agreements Engineer alerts the MnDOT Audit section that the project is complete and that they may begin the final audit and copies the local project manager.

MnDOT Audit needs copies of any agreements related to the project including consultant and subconsultant agreements, copies of all payment requests and documentation, proof of federal authorization and state encumbrance. This documentation is then reviewed and compared. The Auditor may request additional information or documentation which is provided to complete the audit.

B. Audit Certificate

Upon completion of the audit, the auditor forwards the final audit certificate to the SALT Agreements Engineer. The SALT Agreements Engineer reviews the findings of the auditor and forwards a copy of the audit certificate to the local Project Manager. The local Project Manager is given approximately 30 days to review the certificate. If the local Project Manager does not agree with the audit findings he/she should contact the SALT Agreements Engineer. They will work out a resolution to the disagreement. If there is no response within the 30 days or the local Project Manager contacts the SALT Agreements Engineer to tell him that they agree with the Audit Certificate. The SALT Agreements Engineer signs the original Audit Certificate and returns it to MnDOT Audit. Audit indicates in their records that the project is completed. The Audit Certificate is then returned to the SALT Agreements Engineer who forwards the Audit Certificate along with a request for final payment to State Aid Finance.

Once final payment is made the project is completed, the SALT file is forwarded to the MnDOT Records Center for storage for seven years. The local agency must keep their project file for the length of time specified in the agreement in case of audit by federal auditors, upon which time it may be destroyed.

IX. Consultant Selection

Rules for consultant selection are not documented in any specific location, because consultant selection rules are subject to federal, state, and local regulations, whichever is the most restrictive. Consultants selected to perform preliminary engineering, construction engineering

and R/W acquisition must be selected in an open and competitive process per federal regulations. When consultants are selected for projects in which their work will be paid for with federal funds, they must be selected in accordance to the Brooks Act. [The Brooks Act](#) (PDF) requires that the consultant is selected based on their qualifications to do the work. Cost does not enter into the decision of the consultant selected to do the work. Once the local agency determines who they feel is the most qualified consultant to perform the work, they then enter into negotiations with the consultant on a price for the work. While this negotiation is happening, the DBE clearance can be reviewed by the OCR per the language in the specifications. In addition if the contract will be more than \$50,000 then [preaward audit](#) (PDF) information should be supplied to MnDOT Audit by the consultant and all of his proposed subconsultants.

If a price cannot be agreed upon by the local agency and the consultant, the local agency may choose to select the consultant that they feel is the next most qualified and negotiate a contract price with them.

According to state law if the amount of the contract is less than \$5,000 a consultant can be directly selected without a competitive process. Reasons for the selection of this particular consultant should be documented in the project file. Also according to state law if the amount of the contract is between \$5,000 and \$50,000, then the Project Manager may contact three consultants and decide from among the three whom, is the best qualified to perform the work. Cost cannot be used as a factor in the decision. Reasons for the selection of this particular consultant should be documented in the project file.

Additional guidance on consultant selection, contract negotiations, and sample contract documents can be found on the [MnDOT Contract Management website](#) or [MnDOT Consultant Services website](#).

X. Project Sponsors and Delegated Oversight for Federally Funded Projects

The provisions of MAP-21 allow for a wide variety of groups to develop and built transportation projects with federal funds. However the provisions of [23 CFR 1.3](#) indicate that all funds will be passed to the State Highway Agency (SHA), in Minnesota this is MnDOT.

MnDOT is allowed by state law ([Minnesota Statute 161.36 Subdivision 2](#)) to enter into agreements to act as an agent for groups receiving federal funds for transportation projects. MAP-21 allows the SHA to determine which agencies are qualified to administer federal aid construction contracts. To be qualified, the LPA must be adequately staffed and suitably equipped to undertake and satisfactorily complete the federally funded work. Projects must

receive adequate supervision and inspection to insure that projects are completed in conformance with approved plans and specifications.

MnDOT has deemed that cities with a population of over 5,000 persons as well as all 87 Minnesota counties in general are qualified to be project sponsors. It will be up to the DSAE to determine if a specific agency is qualified.

If a project sponsor elects to use consultants for engineering services, the LPA shall designate a qualified full-time employee of the LPA to be in responsible charge of the project. Consultants who are designated City Engineers cannot in this role for projects done by the consulting firm that they are employed by. Federal rulings and guidance do not allow a city to hire the firm that their designated Engineer is employed by to do preliminary engineering or construction engineering in addition to acting in a general oversight for the project.

For infrastructure projects or projects that involve relocating dirt, it is anticipated that the sponsor will assist in the preparation of and sign the environmental documents required for the project to meet any state and federal requirements. The sponsor will also aid in the preparation of and sign the construction plans as a registered professional Engineer as appropriate. The sponsor will act as the fiscal agent, fronting any necessary funds and passing through the federal funds from the FHWA and the DOT. A separate agreement between the project proposer and the sponsor is highly suggested to outline roles and responsibilities specific to the individual project.

For non-infrastructure projects, such as engineering studies, preliminary engineering, construction engineering, preparation of promotional or informational materials or other projects which do not relocate dirt, it is anticipated that the sponsor will assist in the preparation of and sign the environmental documents required for the project. In addition they will assist in the selection of consultants and suppliers for the project. It is anticipated that the sponsor will review and approve engineering plans as appropriate. The sponsor will act as the fiscal agent, fronting any necessary funds and passing through the federal funds from the FHWA and MnDOT to the project proposer. A separate agreement between the project proposer and the sponsor is highly recommended to outline roles and responsibilities specific to the individual project.

Chapter 5.4 Plans and Proposals

I. Overview

Every project that utilizes state aid or federal aid monies in the financing of the project must have a state aid project number assigned. To obtain project numbers, complete the [Request for State Aid Project Number form](#) (PDF) and submit to the DSAE, or to obtain the project number online use the [County or State Aid City Online Project Number Request](#).

New bridge or culvert numbers are obtained by filling out the [New Bridge Number Request form](#).

During the preparation of plans, this manual and the appropriate MnDOT manuals shall be referred to for guidance. Any projects that include work on a trunk highway must be formatted according to guidance found on the [MnDOT Design Guidance webpage](#). Plans with bridges, structures, retaining walls, or non-standard culverts should be coordinated with the State Aid Bridge Unit throughout plan preparation and approval.

Projects can be approved for construction only after submittal of suitable plans and required documentation. All plans are to be submitted to the DSAE for processing in advance of the desired bid opening date. Plans for most state aid projects may be approved in the district by the DSAE. [State Aid Rule 8820.2800](#) requires the approval of state aid funded plans by the State Aid Engineer, or designee, prior to bid opening. Plans that are to be approved by MnDOT (i.e. work on a trunk highway) shall be submitted with the [Quality Control Check Process Form](#) (Word).

Greater Minnesota DSAE's will forward all plans utilizing federal aid funds to the State Aid Division for processing and approval. The Metro District State Aid Office reviews and processes the federal aid plans for projects in the Metro District. Specially funded federal aid projects, such as emergency contracts, projects involving the National Highway System, Forest Highways, or as specified in the [FHWA and MnDOT Stewardship Plan](#) (PDF) will also require FHWA approval of the plans specifications and estimates (Plans Specifications and Engineering Estimate (PS&E)) prior to authorizing advertisement for bids.

II. Basic Plan Requirements

In this section:

- A. [General](#)
- B. [Title Sheet](#)

- C. [Estimated Quantities and Typical Section Sheet\(s\)](#)
- D. [General Layout Sheet\(s\)](#)
- E. [Plan and Profile Sheets](#)
- F. [Cross Section Sheets](#)
- G. [Borrow Pits](#)
- H. [Bridge Plan Sheets](#)

A. General

1. Any projects that include work on the TH must be formatted according to the guidance at <http://www.dot.state.mn.us/pre-letting/scene/index.html>.
2. Show all SP and SAP numbers in the lower right corner of all sheets. Show federal project numbers in the upper right corner of the title sheet only.
3. Either the [Plan Review Checklist - State Aid/Federal Aid/Bridge](#) (Word) or the [Plan Review Checklist - State Aid Only - No Bridge](#) (Word) shall be submitted with the plan.
4. Plans should be prepared with English units.
5. Original 11x17 plan sheets must be capable of making clear prints and be on either bond or vellum. Mylar may be used only for the title sheet. Any project containing work on the TH must have a vellum cover sheet.
6. All sheets shall be of uniform size (use standard 8.5x11 or 11x17 inch sheets). If sheets exceed these sizes, they must be trimmed to size before submittal.
7. Alignment and grades shall be submitted with each plan, except in cases where the alignment and grades have previously been approved as a state aid or federal aid project.
8. Use uniformly inked lettering so minor changes can be made by SALT staff instead of having to return them to the Design Engineer.
9. Show [Conventional Symbols](#) (PDF) on title sheet and hold to them throughout the plan. Symbols may be included elsewhere in the plan as legends on appropriate sheets.
10. Projects must address Americans with Disability Act (ADA) requirements and adhere to the LPA's ADA Transition Plan. Federal projects must conform to ADA standards. While [MnDOT's ADA Project Design Guide](#) (PDF) may be a useful tool on local projects, it must be followed for federal and projects within MnDOT's R/W.

B. Title Sheet

See [sample title sheet](#) (PDF).

1. Description Block (a separate one for each project) shall include:
 - a. Type of work covered by plans, e.g., grading, aggregate base, bituminous surfacing, etc. and must coincide with the STIP description if federally funded.
 - b. Highway (CSAH or MSAS) number.

- c. Project numbers.
 - d. Geographic location of each project - name, distance and direction from major intersecting highways and towns.
 - e. Length of each project in feet (indicating gross length, bridge lengths, exceptions, and net lengths). Carry feet to two decimal places. All bridges are considered exceptions if previously constructed.
2. Index maps shall clearly portray the project location and shall include:
 - a. Stationing and all project numbers at beginning and end of each project.
 - b. Distance and direction to at least one incorporated municipality.
 - c. A list of equations for each project.
 - d. Stationing and length in feet, of temporary connections and exceptions for each project.
 - e. Bridge number, stationing, and length in feet of each bridge.
 - f. Section, township, and range.
 - g. If a scale is shown, use a bar graph that will change when plan is changed by reduction process.
 3. Index of sheets. Title sheet shall be sheet number one. Sheets shall be numbered consecutively.
 4. Specification reference (latest edition of MnDOT Standard Specifications for Construction including any supplemental specifications).
 5. Design Designation Block for each project shall be shown, identifying pertinent information used in basis of project design or required by standards, including:
 - a. Project design speed and any exceptions to the design speed shown in stationing (not to be confused with posted speed). Note stationing of stop conditions.
 - b. Approved Variance – condition and date approved.
 - c. Present (current year) and projected (20 Year) ADT.
 - d. Structural design strength, soil factor or R-value used in the basis of design; where R-value design is used, show R-value and design Equivalent Single Axle Loads (ESAL) from the [ESAL Calculator](#) (Excel) spreadsheet instead of the Soil Factor. See [5.4 Plans and Proposals, III. Design Standards, B. Roadway Standards, #4](#) for staged construction policy.
 - e. 20 Year projected Heavy Commercial ADT.
 - f. Functional Classification.

6. Standard signature block and Engineer's Certification block shall use language as approved for state aid plans. The Engineer's Certification block is required on each engineering plan sheet except cross sections and unmodified standard plan sheets.

See [5.4 Plans and Proposals, V. Plan Approval, A. Overview,#4](#) for guidance.

Include only the signature blocks requiring signatures applicable to the project; i.e. if a plan does not include bridge structure construction, do not list a signature block for the State Bridge Engineer. Culvert structures less than 10 foot equivalent diameter and structures such as precast concrete box culverts designed using MnDOT Standard Design Sheets do not require signature by the State Bridge Engineer.

7. Gravel Pit Designations. Show pit numbers, description, and range, township, quarter section location. All pits shall be designated as either Mandatory Source or Possible Source. In preparing plans which involve aggregate pits, sources of aggregates should be shown as possible sources so far as practicable instead of Mandatory Sources. There may be cases where it is desirable to pay for the aggregates and the pit information shall be located in the plans after the typical section and tabulation sheets. The MnDOT CRU will not review contractor selected sites for Section 106 of the National Historic Preservation Act of 1966. The CRU will conduct Section 106 reviews of borrow and disposal sites that are actually or effectively dictated by the county or city in the construction contract.
8. All plans for projects with excavation must depict the [Utility Quality Level](#) (PDF) of the utility information (A, B, C, or D). The following note must be included on all construction plans for projects involving excavation:

The subsurface utility information in this plan is utility quality level “___”. This utility quality level was determined according to the guidelines of CI/ASCE 38-02, entitled “Standard Guidelines for the Collection and depiction of Existing Subsurface Utility Data.”

C. Estimated Quantities and Typical Section Sheet(s)

1. The Statement of Estimated Quantities shall follow the Title Sheet with project specific construction, funding and quantity information including:
 - a. List of estimated quantities, using separate columns to identify and separate construction quantities by proposed funding type; i.e., separate columns shall be shown for each: project number, proposed funding type, including project number, bridge number (separate for each structure), storm sewer, landscaping, non-

- participating, etc. Any non-participating items must be grouped (see attached [list of items](#) (PDF) not eligible for federal participation). Funding participation guidance can be found under [Chapter 5.4 Plans and Proposals, VII. Specific Plan Requirements, B. Traffic Sign Plans](#).
- b. On plans that will be processed through MnDOT's TH letting procedure and/or plans containing work on the TH funded by MnDOT, the numbers and wording of items shall be identical with those listed in the current standard specifications, and pay item description listing maintained by MnDOT Central Office. Contact the State Aid Division if any questions arise. Although this practice is desirable from the Contractors' perspective, it is not a strict requirement on state aid or locally let federal aid (DCP) projects.
 - c. Equipment rental items explained by adequate notes. It is not permissible to provide equipment rental items for emergencies.
 - d. Subnotes for base and surfacing quantities for entrances and road approaches; indicate number of entrances and approaches.
 - e. All items listed in the Statement of Estimated Quantities must be referred to elsewhere in the plans by notes, tabulation, sketch, detail, etc.
 - f. Statement of estimated topsoil quantities for information purposes.
 - g. Basis of estimated quantities.
 - h. List of Standard Plates applicable to project.
 - [Sample Estimated Quantities and Standard Plates](#) (PDF)
 - [Sample Estimated Quantities and Notes](#) (PDF)
 - [Sample Estimated Quantities and Earthwork](#) (PDF)
2. Typical sections should adequately describe work and include:
- a. Rounded ditch bottoms and tops of backslopes on grading sections (except in rock cuts).
 - b. Grading width, including cross slope, clear zone, and inslope ratio (rise/run).
 - c. Pavement width, shoulder width, traffic lane widths, face of curb to face of curb widths, parking lane width, reaction distance, depths of surfacing and base materials and pavement and shoulder cross slopes.
 - d. Clear zone width and inslope ratio as specified in the standards. Note that where curb and gutter may be used for drainage purposes within a portion of rural highway, the rural design clear zone must be maintained throughout the project's logical termini.
 - e. Exact point representing profile grade.
 - f. Topsoil requirements.

- g. For staged construction, show the future typical section, if applicable and note year work is to be performed. See [Chapter 5.4, III. Design Standards B. Roadway Standards, #4](#) for staged construction policy.
 - h. Adequate information so that the quantities of each type of construction can be accurately computed and constructed.
 - i. Applicable soils recommendation notes.
 - [Sample Mainline Typical Section](#) (PDF)
 - [Sample Urban Typical Section](#) (PDF)
 - [Sample Urban Typical Section--Divided](#) (PDF)
3. The use of design “R” soils values for pavement design is encouraged to provide more economical and appropriate surfacing structures required for all 10 ton designs. Use the MnDOT R-Value Chart from the MnDOT online [Pavement Design Tools](#).
 - a. The R-value shall be derived from soils tests conducted by professional soils engineering laboratories or from non-destructive testing methods such as Falling Weight Deflectometer. Where textural or American Association of State Highway & Transportation Officials (AASHTO) soil type classifications can be definitely determined from prior experience in the area, an “assumed” R-Value may be assigned for the project by the MnDOT District Materials and/or Soils Engineer.
 - b. A copy of the design R-Value recommendation shall be submitted with the plans.
 - c. A copy of the [ESAL Calculator](#) (Excel) computations showing the derivation of the Design ESAL’s shall be submitted with the plans.
 4. Bituminous surfacing should be design in accordance with the [Flexible Design Guidance](#) (PDF). Concrete surfacing should be design in accordance with the [Concrete Design Guidance](#).
 5. For low volume aggregate surfaced roadway thickness, refer to [Low Volume Aggregate Surface Roads Design Chart](#) (PDF).

D. General Layout Sheet(s)

For complex projects, General Layout Sheet(s) should follow the Estimated Quantities Sheet(s).

E. Plan and Profile Sheets

See [sample plan and profile](#) (PDF).

Provide a vertical and horizontal layout of the project, including the following:

1. A bar graph scale which will not require crowding of topography and notes.

2. All section corners, land ties, airports, etc. Provide at least one land tie per two miles of roadway.
3. All pertinent topography.
4. Show construction limits.
5. Show existing and proposed R/W, including permanent, temporary, and maintenance easements. All construction limits for state aid and federally eligible work must be within R/W.
6. All existing utilities, either aerial or underground. Projects involving federal aid funds shall include a Public Utilities chart, if applicable.
7. Location of in-place and proposed drainage structures showing:
 - a. Invert elevations (both inlet and outlet) for cross culverts, cattle passes, sewers, and subsurface drains.
 - b. Direction of flow.
 - c. End bevel of structural plate culverts.
 - d. Class of reinforced concrete pipe and gauge of metal pipe if other than standard.
 - e. Class of bedding for reinforced concrete pipe if other than standard.
 - f. The pertinent hydraulic information shall be shown for all drainage structures with a 48" or greater equivalent diameter. For information required on the plan, refer to [Hydraulic Flood Analysis](#) (Word). Required information for bridge structures shall be shown on Standard Bridge Survey Sheets whenever possible. The required information for centerline culvert installations with diameters less than 10 feet may be shown on the plan/profile sheets.
 - g. Unless bicycles are specifically excluded from a roadway all catch basin castings shall be "bicycle safe", such as casting No. 814 shown in [MnDOT Standard Plate 4152](#).
8. Grading balances which support the quantities shown on the cross sections and statement of estimated quantities.
9. Sources of selected material, locations of designated borrow pits, and balances showing where selected material or borrow material is to be placed.
10. All pertinent information concerning railroads adjacent to or crossing the project, including distances from highway, stationing, angles of intersection, grades, track elevation, appropriate construction details at the crossing, etc.
11. All pertinent information on bridges (bridge number, type, length, and width measured face-to-face of curb).
12. Stationing of corporate limits of municipalities.
13. Stationing of equations, exceptions, and temporary connections.
14. Elevation tie to Sea Level Datum (U.S. Coast and Geodetic Survey).
15. Indicate the direction of flow of all drainage with arrows. This includes areas where there is natural drainage and areas where drainage structures are not required.

16. Indicate present and proposed R/W with conventional symbols and widths in feet. Show slope easements with conventional symbols and widths in feet.
17. All removal and construction items shall be shown as notes or in tabulation form (buildings, bridges, culverts, storm sewer, clearing and grubbing, sodding, etc.).
18. All construction items not covered by MnDOT Standard Plates shall be detailed on appropriate plan sheets.
19. A north arrow on each plan and profile sheet.
20. On projects involving federal funds, proprietary references may be used, as long as three proprietary names and the phrase “or approved equal” is included for each item, otherwise a [Public Interest Finding](#) (Word) from the FHWA will be required.
21. Include superelevation rate with curve data.
22. All plans for concrete pavement shall include panel layouts details for the proposed pavement.
23. Wherever possible, the clear zone as shown in the [State Aid Rules 8820](#) shall be provided. Where the clear zone cannot be attained, the DSAE may allow guardrails to be placed in accordance with the MnDOT Road Design Manual and other applicable criteria. Where guardrail at bridges is required, it shall be in accordance with [MnDOT Standard Plan No. 5-297.601](#).
24. Roadway intersections will be designed at 90 degrees or as close as practical, and shall provide adequate sight distance. Right and/or left turn lanes shall be provided where traffic volumes warrant. When an intersection is controlled by a stop sign or signal, a flattened landing area of at least 50 feet in length or as long as necessary for predicted vehicle storage length shall be constructed to provide for vehicle traction during icy conditions.

F. Cross Section Sheets

Stationing and elevations shall be given at each cross section, see [Sample Cross Sections](#) (PDF). Cross sections shall be provided as necessary to perform accurate quantity calculation and illustrate the following: cross sections shall be provided as necessary to perform accurate quantity calculation and illustrate the following:

1. Subcuts, swamp excavation lines, anticipated subsidence lines, etc. Excavation and subsidence lines shall be substantiated with boring and sounding information on supplemental or additional sheets not to be reproduced as a part of the plans furnished to the Contractor.
2. Cross culverts, cattle passes, and subsurface drains. This gives a better picture of the planned drainage and provides an opportunity to check the structure for strength classification.

3. Road approaches and entrances where side culverts are required. This is an aid in determining the culvert strength classifications and adequacy of drainage.
4. Side slope ratios.
5. Cross section sheets shall include substation excavation and embankment quantities.
6. R/W lines, permanent easement and temporary easement lines shall be identified as such.

G. Borrow Pits

1. Gravel Pit Designations. All pits shall be designated as either Mandatory Source or Possible Source. In preparing plans which involve aggregate pits, sources of aggregates should be shown as possible sources so far as practicable instead of Mandatory Sources.

When federal project construction documents, special provisions, or other project documents specify an exact pit or location, it is considered ‘actually dictated’, and shall be submitted to MnDOT CRU for a Section 106 review. When the construction documents, special provisions, or other project documents specify material that is so narrowly defined and specified that such material can only be obtained from one source, it is considered an ‘effectively dictated’ source, and shall be submitted to MnDOT CRU for a Section 106 review. MnDOT CRU no longer reviews contractor selected sites. The [Borrow Disposal Area Form](#) (Word) should be completed by the city/county prior to construction. The form must to be completed and submitted prior to construction

2. When borrow pits are designated, the plans shall show the following:
 - a. Location of pit in relation to project, to land ties, or to cross roads,
 - b. Existing haul roads,
 - c. Dead haul distance to a point on the project,
 - d. Cross sections or typical section of pit indicating approximate grading limits and stripping requirements. The quantities and disposition of stripping should be indicated in the plans whether or not direct payment will be made for this part of the work.

H. Bridge Plan Sheets

Refer to [Chapter 5.4 VII. D. Bridge Plans](#) for bridge plan requirements.

III. Design Standards

In this section:

- A. [Overview](#)
- B. [Roadway Standards](#)
- C. [Bridge Standards](#)

A. Overview

Geometric Design Standards as adopted in the [State Aid Rules](#) shall apply on state aid and federal aid construction projects. The current [FHWA and MnDOT Stewardship Plan](#) (PDF) apply to federal aid projects.

Where the [State Aid Rules](#) or this manual does not contain specific requirements for a particular roadway feature, the [MnDOT Road Design Manual](#) should be followed. If the Road Design Manual does not adequately address a particular topic, then the guidance in A Policy on Geometric Design of Highway and Streets, published by AASHTO should be followed.

B. Roadway Standards

1. For information regarding pavement design, see [Flexible Pavement Design Chart](#) (PDF). For information regarding design of driveways, see [MnDOT Road Design Manual Chapter 5](#) (PDF). Also [Standard Plate 9000E](#) (PDF) may be referred to for approach and entrance guidance.
2. See the following tables for minimum rates of superelevation and calculated lengths of runoff:
 - [Superelevation Rates for Rural and High Speed Urban Roadways](#) (PDF) (table 3-3.02 A(English))
 - [Superelevation Rates for Urban Low Speed Roadways](#) (PDF) (table 3-3.02B(English) page 26 of 73)
 - [Low Speed Urban Horizontal Curve Design](#) (PDF)
3. Minimum lengths of [crest](#) (PDF) and [sag](#) (PDF) vertical curve tables were developed from AASHTO's A Policy on Geometric Design of Highways and Streets Manual. In certain restricted conditions, the AASHTO Geometric Design Manual allows reduced curve lengths. When using reduced curve lengths, provide documentation of the design to the DSAE prior to final design.
4. Staged Construction: The construction of projects may be phased over a few years. In this case, the placement of the bituminous surface must be within three years of completion of the grading.

One scenario is the placement of the bituminous surface over two consecutive

construction seasons with the final wearing course completed during the second season. In this case submit either a single plan showing the complete 9 ton or 10 ton paving with provisions for placing the final surface the following year under the same contract, or two plans simultaneously, one showing construction without the final wearing course and the other showing construction of the final wearing course. At the time of plan approval where two separate plans are approved, the agency's five year capital improvement plan must be submitted showing the final surfacing project in the year following the completion of initial surfacing.

Another common practice for constructing large projects with limited annual funding is to grade the project in stages over a few years, and then placing the final surfacing over the entire roadway after the grading is complete. In this case, plans for each stage may be approved separately, but at the time of the plan approval of the initial stage, the agency's five year capital improvement plan must include all subsequent stages, including the final surfacing project. The future typical section must be included in the grading plans along with the dates for placement of the bituminous surface, which must be within three years of completion of the grading of the final stage.

For CSAH and MSAS bridge projects, the surfacing and structural design strength requirements do apply, even if the rest of the roadway is not paved or does not meet structural strength requirements.

C. Bridge Standards

State Aid Geometric Design Standards apply to all bridge new, replacement or rehabilitation projects. See [State Aid Rules](#) for Geometric Design Standards.

The curb-to-curb minimum width for new or reconstructed bridges is dependent on a variety of factors, including ADT, lane and shoulder width, State Aid Rules and state statutes, and is summarized in the [Bridge Width Summary](#) (PDF) guidance under [Plan, Design and Preparation Tools](#) webpage. This guidance also includes the maximum widths eligible for Bridge Bond or Town Bridge funds.

Bridges shall be designed in accordance with the AASHTO LRFD Bridge Design Specifications, [MnDOT's LRFD Bridge Design Manual](#), and the current [MnDOT Standard Specifications for Construction](#). In addition, for pedestrian bridges, use AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges.

IV. Variances and Design Exceptions

In this section:

- A. [Variance General Requirements](#)
- B. [Design Exceptions](#)

A. Variance General Requirements

Where a local unit of government determines that a variance from the [State Aid Rules](#) is justified, they shall submit a variance request as described in [Chapter 1 Introduction, VII. Variances to State Aid Rules](#).

B. Design Exceptions

Federal aid projects off the National Highway System, whether on or off the state aid system are required to use the state aid standards and/or MnDOT Road Design Standards, or where silent, AASHTO. Deviations require design exceptions as described in [Chapter 5.1, VII. Design Studies, D. Design Exception](#).

V. Plan Approval

In this section:

- A. [Overview](#)
- B. [Plan Approval Procedure](#)

A. Overview

[State Aid Rule 8820.2800](#) requires the approval of state aid funded plans by the State Aid Engineer, or designee, prior to bid opening. Any LPA opening bids prior to approval of the plans by State Aid staff must submit a variance request as described in [Chapter 1, VII. Variances to State Aid Rules](#).

1. Plans are reviewed by the DSAE, State Aid Division and State Aid Bridge Unit (when applicable) to achieve the following objectives:
 - a. Ensure that the plans comply with the State Aid Rules. The State Aid Rules provide specific instruction for the design of and payment for state aid projects. Plan reviewers will check plans to ensure the minimum design standards are met, that only eligible items are reimbursed, and that the rules are adhered to in all respects.

- b. Establish a reasonable level of uniformity throughout the state for bidding and construction purposes. Uniformity should be addressed both in terms of uniformity of design features, and uniformity of plan appearance. Uniformity will be measured by comparison to MnDOT design practices, unless specific state aid practices have evolved.
 - c. Encourage the use of the highest practical level of design standards. Plan reviewers will encourage the use of “desirable” rather than “minimum” standards, and good engineering and design practices.
2. A Certified Acceptance process exists which authorizes pre-qualified cities and counties to internally review and approve their state aid plans as a designee of the State Aid Engineer. See State Aid Rule 8820.2800 Subpart 8. Contact your DSAE for further information.
3. Special attention should be used with Cooperative Agreement projects to obtain the State Aid Engineer’s plan approval. It should not be assumed that MnDOT staff will know that the plan must be approved by the State Aid Engineer, or designee, in order to be eligible for state aid funding. It is the City or County Engineer’s responsibility to assure that the plan is submitted to the DSAE for approval.
4. Specific signature blocks are required depending on the plan type. Use the legend on the [Plan Signature Block](#) (Word) and tips below to determine the appropriate signatures.

Tips

Signature Block Certification Stamp

- Refer to the [Plan Signature Block](#) (Word) for the signatures needed on federal aid, cooperative agreements and state aid projects. Place signatures in this order.
- The signatures contained on the title sheet need to follow a specific signature block format utilized on MnDOT projects.
- Only the title page of all final plans for engineering projects produced for MnDOT, counties and cities needs to be signed and dated by the licensed professional engineer or licensed landscape architect responsible for or under whose supervision the work is performed. All other sheets may be stamped or CADDSEALED, except that cross sections and standard plan drawing require no signature or stamp. These provisions also apply to plans

prepared by consultants for MnDOT, counties and cities. Refer to [Minnesota Statutes 326.12, Subdivision 3](#).

Bridges and Structures

- The bridge engineer’s signature is not needed on grading plans.
- If the box culverts are constructed from MnDOT standard sheets, then the plan set doesn't need the signature of the State Bridge Engineer (the standards are already signed).
- In the case of a bridge or custom-designed culvert, the Bridge Office would sign the bridge plan.

County and City Signatures

- See [Minnesota Statutes 162.08, Subdivision 8](#)
- CSAH statute says in part, that cities need to approve CSAH plans within their corporate limits if the county constructs, reconstructs or improves. For federal aid and cooperative projects, a city resolution or plan approval will be required with the submittal.

B. Plan Approval Procedure

1. Plans generally are reviewed on a first come first served basis. It is therefore advisable to allow sufficient time for review by the DSAE, the State Aid Division, and the State Aid Bridge Unit (if applicable).
2. [State Aid Rule 8820.2800](#) requires the approval of state aid funded plans by the State Aid Engineer, or designee, prior to bid opening.
3. See the [DCP Checklist](#) (PDF) for a more complete step by step guide to processing most federal aid projects.
4. Federal aid projects requiring a MnDOT contract (SP DOT), such as emergency contracts, projects including work on the interstate, projects not sponsored by agencies approved under the DCP process, will include the steps shown under the **SP DOT** column.

Table 3: Plan and Proposal Approval Procedures

| Typical State Aid and Federal Requirements | SAP | SP DCP | SP DOT |
|-------------------------------------------------------------------------------------------------------------------------------------|-----|--------|--------|
| Project must be listed in approved STIP | | x | x |
| Environmental and Design Studies must be completed and approved, see Chapter 5.1 Environmental and Design Studies | | x | X |
| Plans must be prepared under the supervision of the LPA Engineer, or under agreement with a consultant, or by another public agency | x | x | x |
| Railroad grade crossing information, see Chapter 5.4, VIII. D. Railroad Grade Crossings | x | | |

| | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| Railroad Crossing Data Sheet submitted to State Aid Division, see Chapter 5.4, VIII. D. Railroad Grade Crossings | | | |
| State Aid Rule 8820.2500 Subpart 2 requires the use of the latest approved MnDOT Standard Specifications for Construction and any supplemental specifications | | X | X |
| Plan Submittal | | | |
| Plans and special provisions for bridges, other structures, retaining walls, and non-standard culverts must be submitted to the State Aid Bridge Unit for review and approval See State Aid Bridge website for the complete bridge plan submittal and approval process (PDF) | X | X | X |
| Construction plans must be submitted to the DSAE with the following documents, as applicable For federal aid projects, required documents must be submitted before the project can be authorized for bid opening | X | X | X |
| Required Documents Submittal | | | |
| Engineer's Estimate See Chapter 5.4, VII. B. Engineer's Estimate | X | X | X |
| State Aid Plan Review Checklist (Word) | X | X | X |
| State Aid Plan with Bridges(s) Review Checklist (PDF) | X | X | X |
| R/W Certificate No. 1A (Word) or R/W Certificate No. 1 approved by DRWE | | X | X |
| Utility Relocations Certificate form (Word), see Chapter 5.4, VIII. E. Utility Relocations | | X | X |
| Detailed Traffic Control Plan (TCP), see Chapter 5.4, VII. H. Traffic Control Requirements | | X | X |
| Data for Special Provisions for Federal Aid Projects (PDF) | | | X |
| Documentation of project schedule – working days computation | | X | X |
| Documents Submittal, if applicable | | | |
| Force Account Agreement (PDF) (request for approval of State Aid Construction by local forces), if applicable, see Chapter 5.4, VIII.F. Force Account Projects | X | X | X |
| Resolution Approving State Aid Construction within City Limits (Word), if applicable. See Chapter 5.4, VIII.G. County Plan Approval by Municipality | X | X | X |
| Parking resolution, if applicable. See Chapter 5.4, VIII. A. Parking Restrictions and Resolutions | X | X | X |
| Erosion Control Plan, if applicable. See Chapter 5.4, VII. I. Erosion Control Plans | | X | X |
| Lab Testing and Inspection Services Request (Word), if applicable, see Chapter 5.4, VIII. C. Lab Services Request | X | X | X |
| Rail agreement (if required) | | X | X |
| Permits Submittal, if applicable | | | |

| | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---|---|
| Army Corps of Engineers 404 permit | | x | X |
| DNR permit | | x | x |
| NPDES completed permit application if contractor will be applying for the permit, or NPDES permit card if the local agency applies for permit before bid opening. | | x | X |
| Coast Guard | | x | x |
| Plan Approval | | | |
| State Bridge Engineer bridge plan approval, see State Aid Bridge Engineer approval requirements (PDF) | x | x | X |
| DSAE plan / force account approval | x | x | X |
| DSAE approves for State Aid Engineer | x | | |
| DSAE plan / force account submittal to State Aid Division | | x | x |
| State Aid Engineer (or Metro DSAE) plan / force account approval | | x | X |
| EEO review for DBE & OJT goals (requested by State Aid staff) | | x | x |
| Special Provisions | | | |
| Project Engineer prepares Special Provisions, see Chapter 5.4, VIII. K. Special Provisions | x | x | |
| State Aid Bridge Engineer prepares bridge special provisions | | | x |
| Proposals | | | |
| Project Engineer prepares Proposal, see Chapter 5.4, VIII. H. Proposals | x | x | |
| State Aid staff forwards a DCP "Proposal Packet" providing necessary federal components, to be included in the completed proposal by the Project Engineer. | | x | x |
| Bid Opening Process | | | |
| Project Engineer prepares advertisement | x | x | x |
| State Aid staff provides required ad language to Project Engineer | | x | x |
| Project Engineer schedules bid opening date | x | | |
| Authorization to Proceed approved by FHWA (requested by State Aid staff) | | x | x |
| Project Engineer schedules bid opening date in consultation with State Aid staff | | x | x |
| Agency Agreement executed | | x | x |
| Plans and proposal available at the Local Agency Office | x | x | x |
| Local agency publishes advertisement | x | x | x |
| Advertising construction projects, Chapter 5.4, VIII. K. Advertising Construction Projects | x | x | x |
| Project Engineer prepares & distributes addenda, if necessary | x | x | x |
| Local agency receives and opens bids | x | x | x |
| Local agency awards contract | x | x | x |
| Executed proposal submitted to State Aid. (1) As requested by DSAE | (1) | x | |
| Local agency recommends award of contract to FHWA | | | x |
| Construction | | | |
| See Chapter 6 Construction for construction requirements | x | x | x |

| | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| See the DCP Checklist (PDF) for construction and payment request requirements and required forms | | x | |
| See State Aid Finance website for the Payment Request form | x | x | |
| Release of state aid funds – 95 percent of the accepted bid price upon approval of payment request and required documentation. | x | | |
| Reimbursement of federal aid funds – reimbursement of eligible costs incurred, up to approved participation level, upon approval of payment request and required documentation and federal funds availability | | x | |
| Local agency sends local share to MnDOT before award of contract; MnDOT pays contractor and requests reimbursement of federal funds from FHWA | | | x |

VI. Eligibility

In this section:

- A. [Special Items](#)
- B. [Additional Guidance on Funding Eligibility](#)
- C. [Mailboxes](#)

A. Special Items

The extent of state aid participation on the special items is limited as described in the [State Aid Rules 8820.3100](#) regarding:

- Roadway lighting
- Traffic control signals
- [Intersection Eligibility Sketch](#) (PDF)
- R/W
- Bicycle paths and sidewalks
- Storm sewer, see [Chapter 5.5 Drainage, II. Storm Sewer Construction](#) for approved sharing factors and design guidance. The participation factor is established by the MnDOT Hydraulics Unit.
- Flexible or rigid pavement
- Landscaping

B. Additional Guidance on Funding Eligibility

Additional guidance on funding eligibility may be found at:

- [State Aid Funding Eligibility List](#) (PDF)

- [Federal Funding Eligibility List](#) (PDF)
- [Bridge Funding Eligibility List](#) (PDF)
- [Items NOT Eligible for Federal Participation](#) (PDF)

C. Mailboxes

The decision to replace supports or allow supports to remain in place rests with the local authority. Guidance may be found in the AASHTO Roadside Design Guide and the [MnDOT Road Design Manual](#). Essentially, the benefit of replacing the nonconforming support should be weighed against the replacement cost and the existence of other roadside hazards not being corrected.

- 1) Replacement mailbox supports shall be in conformance with the provisions of [Minnesota Rules, Chapter 8818](#).
- 2) Mailbox supports are an eligible state aid expense, but mailboxes are not. The decision on whether or not to charge owners is left to the local agency. Countywide mailbox support replacement projects are acceptable.
- 3) Local agencies should work closely with the local postmaster whenever mailboxes will be relocated or replaced.

VII. Specific Plan Requirements

In this section:

- A. [Right of Way Plans](#)
- B. [Traffic Signal Plans](#)
- C. [Reconditioning Plans](#)
- D. [Bridge Plans](#)
- E. [Certified Town Bridge Plans](#)
- F. [Park Road Account Plans](#)
- G. [Natural Preservation Routes](#)
- H. [Traffic Control Plan Requirements](#)
- I. [Erosion Control Plans](#)

A. Right of Way Plans

1. To obtain state aid payments for R/W acquisition, a plan must be submitted to the State Aid Division for review and approval. R/W payments may be based on the grading plan, or where R/W payments will be requested ding plan is submitted, a separate R/W plan may be submitted. This plan shall show the alignment, grades, typical section and proposed R/W limits.

2. Plans from which R/W payment will be requested prior to submitting a grading plan shall be accompanied by the Engineer's Estimate of R/W cost. No plan approval or payment for R/W will be made without the estimate.
3. The minimum widths of R/W for state aid routes must be at least 60 feet within cities and 66 feet in rural areas, except that the R/W may be less for routes that are within a city, that were constructed before November 11, 1995, and that can be reconstructed to new construction standards within the previously existing R/W. Before construction, the governing body shall acquire control of the additional widths of R/W as may be necessary to properly maintain the ditch section, drainage structures and clear zone. Permanent easements for highway purposes are considered to be R/W for the purposes of State Aid Rules standards.

B. Traffic Signal Plans

The electrical portion of traffic signals may be designed and certified by a master electrician licensed in the State of Minnesota, or by an electrical engineer registered in the State of Minnesota or by other persons adequately familiar with traffic signal design. Plans will be reviewed as follows:

1. Submit plans and signal warrants to the DSAE. The DSAE will review the plans and signal warrants and may forward to the District Traffic Engineer for technical review. However, plans having traffic signal work at THs must be reviewed and approved by the District Traffic Engineer.
2. Advance submittal of the signal warrants to the DSAE will expedite approval. For federal aid projects, signal warrants shall be in the form of a Signal Justification Report (SJR). A sample SJR may be viewed on the [Minnesota Traffic Engineering Manual](#).
3. Intersection Control Evaluations used in lieu of SJR's must be approved by the DSAE.

C. Reconditioning Plans

1. Reconditioning, as defined in [State Aid Rules 8820.0200 Subpart 30](#) includes resurfacing, replacement, or rehabilitation of the pavement structure to extend the life of the roadway and effectively address critical safety and operations needs through minor improvements to the existing facility. Reconditioning projects generally utilize the existing horizontal and vertical alignment, may entail minor widening or geometric improvement, and normally require little or no additional R/W. Replacement or rehabilitation of the pavement structure does not include significant subgrade correction. Reconditioning may include changes in vertical or horizontal alignment involving no more than 20 percent of the length of the project. Work does not normally extend beyond the existing ditch bottom.

2. Plans must be designed to the appropriate reconditioning standard for [Rural and Suburban Undivided](#) or [Urban designs](#). Basic information to be included is as shown in the General Plan Requirements section. These plans must be prepared to the same level of quality and show the same information as new construction plans. Care should be exercised that lettering does not become so crowded as to make reading the plan difficult. Alignment, grades and typical section of existing road, if not on file in the State Aid Division, must be submitted with the plans unless the highway was previously built to State Aid or State standards or is a TH turnback project.

D. Bridge Plans

1. General
 - a. Plans for all bridge construction, reconstruction, or rehabilitation projects involving state aid and/or federal aid funds or are locally funded and cross a TH shall be approved by the State Bridge Engineer prior to the approval by the State Aid Engineer.
 - b. Bridge reconstruction means the replacement of an existing bridge with a completely new bridge. Bridge rehabilitation means the partial reconstruction of an existing bridge to meet current curb-to-curb width standards, improve geometrics and bring load carrying capacity up to minimum standards per State Aid Rules Chapter 8820. Refer to [MnDOT Tech Memo on Bridge Preservation, Improvement and Replacement Guidelines](#) (PDF) for bridge rehabilitation guidance.
 - c. Bridge replacement funding program includes: Federal Bridge and Federal Off System Bridges, Town Bridge, state aid CSAH and MSAS, Minnesota State Transportation Fund (Local Bridge Replacement Program General Obligation Bonds, aka LBRP funds). The cost of abandoning deficient bridges or replacing deficient bridges with a road or street is eligible for funding with Minnesota State Transportation Fund monies where such action is feasible and cost efficient.
 - d. Submit [Application for Bridge Funds](#) (PDF) to the DSAE.
2. Plan Preparation and Review
 - a. Preliminary bridge plans must contain the information that is listed in the [Preliminary Bridge Plan Review Checklist](#) (PDF) and may contain additional information (aesthetic details, approach roadway details, etc.) should the structure warrant additional details. It is important that the preliminary plans include this information in order to determine if changes need to be made to the structure prior to proceeding with final plan preparation. The preparation of preliminary bridge plans must conform to the practices of the MnDOT Bridge

Office and these practices are discussed in [Chapter 2 of the MnDOT LRFD Bridge Design Manual](#) (PDF).

- b. Final bridge plans must contain the information that is listed in the [Final Bridge Plan Review Checklist](#) (PDF) and the plans must also conform to the practices of the MnDOT Bridge Office. These practices are discussed in [Chapter 2 of the MnDOT LRFD Bridge Design Manual](#) (PDF) and are also discussed in the [MnDOT Bridge Office Summary of Recommended Drafting Standards](#) (PDF).

The final plan review conducted by the State Aid Bridge Unit is discussed in the Final Bridge Plan Review Priority Checklist. In the cases where the structure(s) have no state funding involved, the State Aid Bridge Unit will conduct a courtesy review on behalf of the local agency to ensure that they will have a structure that will meet current standards for geometry and design.

3. Plan Content

- a. Bridge Surveys. A bridge field survey, including soil borings, will be required for all bridges including culverts with 10 feet or more total horizontal waterway opening, which are classified as bridges. In order to assure that all required information for a bridge survey is obtained, the field engineer shall prepare bridge survey sheets similar to that shown on the [Sample Bridge Survey Sheet](#) (PDF) in accordance with the following instructions:
 - 1) Show on contracted profile:
 - a) Present and proposed profile grades of roadway for at least 500 feet on each side of the proposed centerline of bridge and also the profile of natural surface of ground on centerline only. If the roadway is anticipated to be inundated by a flood with a frequency of less than or equal to 500 years, then the roadway profile should include the sag point. Show curve data for vertical curves, if any. Profiles should be plotted as a projection from the Plat.
 - b) Present and proposed grades at the top of bridge deck and elevation of bottom of old bridge superstructure.
 - c) State whether profile grade shown is subgrade or top of finished grade. If subgrade is shown, the vertical distance from subgrade to finished grade shall be shown.
 - d) In the case of grade separation of two highways, both the profile of the upper and lower grade shall be shown, the bridge grade being in the contracted profile space provided.
 - e) In the case of a grade separation between a railroad and a highway, the grade of the railroad track should be shown for a

distance of at least 600 feet on each side of the centerline of the highway. If the railroad passes under the proposed highway, the elevation of tops of rails shall be shown. Also, identify the superelevation rate between rails if applicable. If the proposed highway passes under the railroad, elevations of bases of rails shall be shown. The height of rail should also be noted.

- f) High and low water states. Give normal high water and extreme high and low water levels. If possible, give extreme high water elevations immediately upstream and downstream from the in-place structure and at other locations farther upstream and downstream to facilitate computation of high water flow gradient. High water elevations of the same date at nearby bridges should also be shown. State date of water levels and frequency of recurrence if possible.
- 2) Show on plat:
- a) New highway alignment in horizontal position, so that the tangent alignment for the contracted profile will be a direct projection above it. Show north arrow.
 - b) Course of stream above and below bridge site within the limits of the plat area and to include channel change termini.
 - c) When the limited area of the plat is too small to include, or clearly show the intentions of a channel improvement project, then the channel work shall be detailed on a separate sheet.
 - d) Direction of flow and location of points where flood waters are likely to scour (if any).
 - e) Location of existing and proposed highways, shoulder widths of existing and proposed highways and the stationing along centerline. Give the azimuth of the proposed centerline of highway. Show field ties necessary to establish line. If the railroad or proposed highway is on a horizontal curve, show curve data. Show existing and proposed R/W limits.
 - f) Description of present bridge. Specify the type of structure, number and lengths of spans, width of roadbed between curbs and total length. Specify the type of substructure units with brief description of each and state the condition of both substructure and superstructure. When there is a possibility of incorporating any portion of the present bridge into the new proposed construction or widening the present bridge, the above information, together with a sketch showing location of the

- present bridge with respect to the new centerline with all pertinent structural dimensions shown, shall be included on a separate sheet if necessary.
- g) Location of adjacent railroad or highway bridges. If within 300 feet of proposed centerline, ends of bridge shall be tied into said centerline by station and offset distances. Lengths of spans and locations of substructure units shall be shown.
 - h) Recommended change of channel, if any, with stations, alignment data and cross section of proposed channel.
 - i) Name of stream, stating whether it is a river, creek, drainage ditch, ravine or dry run, etc. Show direction of flow.
 - j) Small sketch of four sections; show course of stream, present and proposed location of highways, railroads, limits of towns or villages and the location of the proposed bridge. Indicate in place and proposed bridge replacement sites with arrow(s). Show all roads in the four sections. Show section, township and range numbers for the four sections.
 - k) Note directing contractor to call Gopher State One at 1-800-252-1166 for underground utility locations prior to any excavation work.
- 3) Typical sections and pertinent data should show:
- a) If a channel change is contemplated, a profile of the ground line along the centerline of the channel change and grade of the flow line of the proposed channel shall be shown. A channel cross section shall be shown for both upstream and downstream of the structure.
 - b) Profile grade of adjacent railroad or highway with elevation of bottom of superstructure of existing or proposed bridges. If within 300 feet of proposed bridge, show cross section of the stream bed under the centerline of structure with dotted line.
 - c) Typical highway section planned for roadway adjacent to proposed bridge; showing pitch of subgrade, future pavement cross section and point(s) where profile grade is established on the typical cross section.
 - d) Show adequate profile information for pedestrian trails, roadways or railways under bridge to be able to perform field checks on vertical and horizontal clearances.
- 4) Show on Engineer's Location Observation at bridge site:

- a) **Item No. 1:** It is important that this item be filled in, because the size and kind (or complete absence) of driftwood and debris may determine whether it will be necessary to provide a single span, or whether a series of spans with piers will be adequate. Anticipated ice conditions should always be mentioned and any instability of existing banks should be described, and the kind of soil in the banks noted (such as loam, sand, gravel, clay, etc.).
 - b) **Item No.2:** Should be filled out in detail in accordance with instructions given. Be sure to include the net extreme high water cross-sectional waterway area and the total cross-sectional waterway area in square feet. Use same extreme high water occurrence at a proposed site.
 - c) **Item No. 3:** Record visible evidence and consult local residents. Information regarding high water stages must be obtained from more than one person (if possible) in order to verify the high water elevations.
 - d) **Item No. 4:** Record the apparent stream velocity at the time of the survey.
 - e) **Item No. 5:** If a temporary bypass during construction is proposed, the engineer in charge of the survey should study the site in regard to providing for traffic during construction of the bridge and make a preliminary recommendation for location, type and waterway requirement.
- b. Hydraulic Flood Analysis and Risk Assessment. All plans shall show the water surface elevations for the design flood and the maximum flood of record on all bridge plans. Culverts with a diameter of 10 feet or greater equivalent are considered bridges.

The hydraulic capacity of the structure and any provision for overflow shall be based on a [Hydraulic Flood Analysis](#) (Word) and a [Risk Assessment for Encroachment Design](#) (Word) both prepared and signed by a professional engineer. The risk assessment shall be in accordance with the latest guidance published in the [MnDOT Drainage Manual](#). Overflow areas shall be appropriately signed to warn the motoring public. The overflow shall preferably not be located directly over the structure.

The hydraulic analysis shall include the following:

- a) The design flood

- b) The 100 year flood (also called the Base Flood, the flood having a 1.0 percent chance of being exceeded in any given year) in accordance with the Minnesota Flood Plain Management Act
 - c) The over-topping flood or 500 year flood (Greatest Flood), whichever is smaller
- c. Guidelines for Preparation of Hydraulic Flood Analysis. The following guidelines for preparation of hydraulic flood analysis and risk assessment for encroachment design should be used to insure that all required information is shown. The [MnDOT Drainage Manual](#) contains helpful information. The State Hydraulics Engineer or District Hydraulics Engineer may be consulted if there are problems on minor streams and the State Hydraulics Engineer may be consulted on problems of major waterways. The required information shall be included on the bridge survey sheets, or in the case of a major waterway, additional sheets may be necessary.
- 1) Site Data:
 - a) Location map: Show proposed highway alignment and reach of river. May be an aerial photo or U.S. Geological Survey quadrangle map.
 - b) Vicinity map: Show flood flow pattern, cross sections of stream, location of proposed bridge and relief openings and alignment of piers. If appropriate, provide a map showing 1 foot to 2 foot contours, stream meanders, vegetation, and man-made improvements. In some cases, cross sections perpendicular to the flood flow are acceptable in lieu of the aforementioned map. At least three cross sections are desirable; a typical cross section upstream of the crossing, at the crossing, and a typical or constricted cross section downstream. The location of the surveyed cross sections must be designated. The location and number of cross sections should be identified by an individual knowledgeable in the field of hydrology and hydraulics.
 - c) Existing bridges: Locate existing bridges, including relief or overflow structures, upstream and downstream from the proposed crossing on the vicinity map or location map. Describe fully each bridge, giving:
 - I. Type of bridge, including span lengths and pier orientation
 - II. Cross section beneath structure, noting stream clearance to superstructure and skew with direction of current during extreme floods

- III. All available flood history, high water marks and dates of occurrence, nature of flooding including overtopping of approach fills, damages and sources of information. Compare stream at existing bridge locations with proposed crossing
 - IV. High Water Elevations: Locate and determine elevations of all available high water marks along stream, giving dates of occurrence. Describe or list critical flood elevations of interest in evaluating possible damage (state datum used)
 - V. Streambed and bank conditions: Comment on driftwood, ice, nature of streambed and bank stability
 - VI. Photographs: Photographs showing existing bridges, past floods, main channel and flood plain are always helpful in evaluating a location and recording conditions existing before a new bridge is constructed
 - VII. Other factors affecting water stage: high water from other streams; reservoirs existing or proposed and approximate date of construction; flood control projects (give status); ties and other controls
- 2) Hydrological analysis. Site inspection should be made by the engineer preparing hydrological and hydraulic analysis.
- a) List flood records available on river being studied
 - b) Determine drainage area above proposed crossing from available maps
 - c) Compute flood-frequency curve for the site
 - d) Compute a stage-discharge-frequency curve for the site
 - e) Prepare charts showing distribution of flood flow and velocities for several discharges or stages in the natural channel (without the proposed bridge construction)
- d. Hydraulic Flood Analysis:
- 1. Bridge waterways
 - a) Design floods will be the lesser of the overtopping and 100 year floods. The overtopping floods shall be established predicated on a risk based assessment of local site conditions. They shall reflect consideration of traffic service, environmental impact, property damage, hazard to human life, and flood plain management criteria. Refer to [Risk Assessment for Encroachment Design](#) (Word) for

- the guidelines and constraints which may limit the selection of design frequency.
- b) Backwater and velocity for the following floods should be computed:
 - i. Design flood
 - ii. Basic flood (100 year)
 - iii. Over topping or 500 year flood; whichever is smaller
 - c) The stage increase generated by the proposed bridge should comply with the requirements set forth by the affected agencies
 - d) Estimate scour depth for proposed bridge piers using hydraulic data for the 100 year flood and the 500 year flood, or the overtopping flood, whichever is smaller
 - e) Show final layout in plan and profile
 - i. List the discharge, state and frequency for:
 - 1. Design flood
 - 2. Basic flood (100 year)
 - 3. Over topping or 500 year flood; whichever is smaller
 - ii. Show maximum pier scour elevation
 - f) Comment on:
 - i. Types of alignment of piers
 - ii. Need for spur dikes
 - iii. Channel changes
 - iv. Bank protection of riprap
2. Embankment encroachments paralleling flood plains:
- a) Evaluate the effect of encroachment on water stages. Compute water surface profile for waterway
 - b) Tabulate changes in stream velocities
 - c) Evaluate scour and erosion of roadway embankment and river channel
 - d) Describe bank and channel protection needed for stream flow or wave action from ponded water
3. Additional helpful information may be obtained by referring to the following publications which can be downloaded from the [FHWA Hydraulics Engineering website](#).
- a) "Hydraulic Design of Safe Bridges"(Hydraulic Design Series (HDS) 07), FHWA-HIF-12-018, April 2012.

- b) "Scour at Bridges" (Hydraulic Engineering Circular (HEC 18), 2012.
 - c) "Stream Stability at Highway Structures" (HEC 20), 2012.
 - d) "Bridge Scour and Stream Instability Countermeasures Experience, Selection, and Design Guidance" (HEC 23), 2009.
4. Also refer to prepared flood frequency analysis for the stream under study if available.

Foundations Engineer's Recommendations. Record recommendations from soil report if available.

- 1) Vertical control - Location, elevation and description of bench mark to be used for construction of proposed bridge. If the datum of benchmark is not U.S. Datum, 1929 Adjustment, it must be tied into a U.S. Bench Mark with equations and proper description to locate and identify such bench mark.
- 2) Show on plan and profile - Profile of cross section of stream, highway or railroad separation on centerline of proposed bridge (full black line), also profiles parallel to and 20 feet on each side of the centerline (dashed black line 20 feet right and dotted black line 20 feet left). Show sufficient length of profiles so that data is available for possible shift in bridge stationing;

In the case of irregular ground or where a wide roadbed or a double lane roadbed is contemplated on the bridge, additional profiles 40 feet right and left of centerline shall be shown and clearly identified.

If the ground is so irregular that longitudinal profiles do not show the actual conditions, cross sections at right angles to centerline of proposed bridge shall be submitted on a separate sheet or by cross section notes. In the case of grade separations, the cross sections should be at right angles to centerline of the upper highway or railroad.

In the case of grade separations, the profiles of the upper highway or railroad should be shown.

The elevations for the profile should be so arranged that there will be no interference between the plan view and the longitudinal view of the proposed structure when it is drawn in, with space allowed to plat sounding data.

A foundation investigation using split tube borings.

In the plan layout show station and distance from roadway centerline to all borings. Take at least one boring for each pier and abutment.

Inadequate boring depths and reporting have led to foundation cost over-runs that may become a financial burden to the governing local agency. Therefore, it is important that at least one boring must extend below the tip elevation of the longest test pile to ensure an accurate foundation recommendation.

The use of [MnDOT Consultant Specification for Subsurface Investigation and Geotechnical Analysis and Design Recommendations](#) (Word) is encouraged when planning your next bridge project. Use of this specification is recommended when developing plans for larger/higher profile bridge projects. Also, bridges over major rivers and the like will require a detailed boring plan to be reviewed and approved by the MnDOT Bridge Office.

Show boring numbers: B1, B2, etc. Plot borings in true elevation position on profile and show what materials are encountered in each boring and at what elevations the various materials are encountered. Show anticipated pile blow counts.

If the Standard Survey Sheet is not large enough, do not try to combine the Standard Survey Sheet with a Cross Section Sheet by pasting together. Use a separate sheet of

plain cross section paper to complete the Plan and Profile; and show location, type and extent of any proposed riprap work including R/W or permanent easement for this work.

- 3) General Requirements. Be sure to date survey in the title block at the lower right corner.

e. Design Standards

All bridges on the local system must conform to [State Aid Rules](#) and the design criteria found in the [MnDOT LRFD Bridge Design Manual](#). In cases of discrepancy, the State Aid Rules will govern.

Additional resources are available on the [State Aid Bridge website](#).

4. Additional plan information - Plans shall be in conformance with the requirements shown elsewhere in this manual and the following:
 - a. Estimated quantities shall have separate columns for participating and nonparticipating items. Culvert structures, culvert excavation, backfilling adjacent to and two feet above the culvert, bedding materials, riprap at culvert ends, etc. are eligible for funding. Removing the old structure and all associated regulated waste material such as lead paint and asbestos, embankment construction, roadway surfacing, field laboratories or offices, channel change work, traffic control, etc. are considered approach grading costs and are nonparticipating. Engineering costs are also nonparticipating. See the [Bridge Funding Eligibility List](#) (PDF) for further guidance.
 - b. Any structure not covered by Standard Plates shall be detailed in the plans. All such structures shall be checked by the State Aid Bridge Unit and require the signature of the State Bridge Engineer.
 - c. Typical section(s) of the approach roadway shall show the existing road, proposed construction in this contract and any future construction (including proposed surface as required by State Aid Operations Rules). Culvert plans shall include a typical section drawn to scale showing the culvert, embankment slopes, fill height, etc. at the culvert site. Also include a section perpendicular to the culvert showing excavation limits and backfill material. Minimum fill above the top of a culvert is 16 inches for rigid pavement and 20 inches for flexible surfaces. If surfacing is not part of the contract, a note should be added as to how much surfacing is being placed and by whom.
 - d. The plan view shall show topography (existing roads, waterways, drainage structures and adjacent buildings), proposed roadway alignment, any proposed channel change alignment and construction, new drainage structures, riprap, and R/W etc. Culverts, aprons, and riprap shall be placed on permanent R/W or permanent easement.

- e. Profile grade (contracted scale) extending at least 500 feet each way from the structure. Additional length may be required in some cases. Profile grade shall show existing ground line, proposed grade line with curve data, any future surfacing, proposed and existing drainage structure, low-water elevation, design high water elevation, extreme high-water elevation and any proposed overflow areas. If grading is to be done by others, a note to that effect should be included in the plans.

The approach grading for all township bridge replacement projects is the responsibility of the county and will be subject to the following special requirements:

The county shall include the approach grading portion of the project within the contract, or the county may allow the township to assume responsibility for the work. In this case, an agreement between the county and the township, or a town board resolution, will state that the grading must be completed within the same construction season or within 60 days of the completion of the bridge. If the grading is not completed within the specified time, the county will complete the work with their own forces or by contract.

If the approach grading work is not completed in a timely manner by either the township or the county, the unfinished approach grading work will be included in the contract of the next township bridge replacement project in that county, regardless of the township the next project is in (approach grading work is defined to include the earthwork beyond what is normally considered to be participating, surfacing, and erosion control items, as well as any related safety items).

- f. Any cross sections are required to show approach construction.
 - g. Show typical section and pertinent cross sections for channel change work.
 - h. Plans which involve a culvert replacement at the intersection of the two roads require a cross section taken at the end of the proposed culvert riprap to clearly indicate that the clear zone standard on the cross road is met.
 - i. Data from the hydraulic report shall be shown on the plan. Show data for the Design Flood; the Overtopping Flood or the Greatest Flood, whichever applies; and the Base Flood (100 year frequency). Standard bridge survey sheets will provide the best format for showing most of the above data.
5. Eligible grading costs. On town bridge projects where the local share exceeds \$10,000, the county may request town bridge funds for those costs over \$10,000. See the [Bridge Funding Eligibility List](#) (PDF) for further guidance.
 6. Miscellaneous. An engineer's cost estimate should be submitted with separate columns for participating and nonparticipating items for each project. Funds will not be released for any project receiving special bridge funds until the abstract of bids is received. Also a

[State Aid Plans with Bridge\(s\) Review Checklist](#) (Word) should be submitted with final bridge plans.

State law requires that the MPCA be notified prior to the demolition of any structure; see the [MPCA Notification of Intent to Perform a Demolition](#) (Word). Furthermore, if assessment of the structure discovers or suspects the presence of asbestos containing materials (asbestos containing materials) with one percent or greater asbestos, additional notification must be submitted to both the MPCA and the [MDH](#). Buildings and bridges are subject to these requirements. Refer to the State Aid Bridge website for information on the [Process for Assessment and Removal of Asbestos Containing Materials and Regulated Waste on Bridge Removal Projects](#).

A [DNR permit](#) is also required if the bridge is located over DNR waters.

E. Certified Town Bridge Plans

Town bridge projects less than \$20,000 may be certified by the County Engineer, and do not require State Aid staff plan review. For these types of projects, the County Engineer shall estimate the eligible costs. If the County Engineer estimates that the eligible costs will not exceed \$20,000, and the town board agrees to be responsible for all other costs, then the design and costs need not be approved by the State Aid Division, but may be approved and certified solely by the County Engineer.

The County Engineer must submit a letter certifying that the replacement culvert will meet State Aid standards both geometrically and structurally. The certification letter shall include the assigned project number, and shall be submitted to the State Aid Engineer, along with the Engineer's Estimate and a copy of the board resolution. An approval letter authorizing the use of town bridge funds will be issued. The approval must be received prior to the opening of bids.

Prior to release of funds, the county shall submit a copy of the bridge plan for state aid records. The plan may accompany the Payment Request Form, and both shall be labeled with the assigned project number. All other reporting requirements remain the same.

F. Park Road Account Plans

1. A portion of CSAH funds are set aside for the [State Park Road Account Program](#) to improve roads providing access to parks, water accesses, and other recreational facilities as per [Minnesota Statutes 162.06, Subdivision 5](#).
2. Plans shall be designed in accordance with the procedures for other CSAH funded plans described in this manual and as per State Aid Rules. Projects on township roads or city streets must be processed through the county. Plans must be approved by the DSAE prior to opening bids.

G. Natural Preservation Routes

1. A Natural Preservation Route is a roadway, designated under [State Aid Rules 8820.4000 through 8820.4090](#), that possesses sensitive or unique scenic, environmental, pastoral, or historical characteristics.
2. In order to become a natural preservation route, a request must be received from the county board in the form of a resolution. The request must be accompanied by the information required in [State Aid Rules 8820.4020](#). After considering all data pertinent to the request, the Commissioner shall approve or deny the request.
3. Natural preservation routes shall be designed in accordance with the standards as set forth in the State Aid Rules. The rules for natural preservation routes also require the designer to maintain the existing cross section and alignment to the greatest extent possible. This may require the introduction of design features such as curb and gutter, retaining walls, guardrail, or other measures to limit the impacts on the surrounding environment.

H. Traffic Control Plan Requirements

1. A TCP is required for all federal aid projects and is advisable for all other projects. The TCP shall be a plan for handling traffic through a specific highway or street, work zone, or project. The degree of detail in the TCP will depend on the project complexity and potential traffic interference with construction activity.

For all construction projects attention must be given to traffic control from the early stages of development of the project, through the completion of the actual construction, including the preliminary layout studies, detailed design, and the drafting of the special provisions. Thorough planning should provide a detailed set of guidelines and a checklist for consideration when developing a TCP for each construction project. Careful consideration of the TCP should result in minimizing confusion and delays to motorists and pedestrians including the handicapped as well as reduce accidents and provide greater safety to the various parties involved in the project.

2. The TCP for base and surfacing, or overlay projects should, as minimum, provide for advance warning signs at the ends of the project as well as for roads crossing the project, signs for lane closures and the signs required by the [Minnesota Manual on Uniform Traffic Control Devices \(MN MUTCD\) Field Manual](#).
3. The TCP for bridge replacement projects including those utilizing culverts as well as bridge structures shall include the general features of all TCP's and shall include a complete, detailed detour route with appropriate signing if traffic is to be maintained

over a detour. For special situations, TCP's should include traffic control devices for temporary bypasses and similar types of traffic diversions.

4. The TCP for more complex grading, surfacing, and bridge replacement project including those projects involving relatively higher volumes of traffic and/or detours shall be a complete, detailed description of the signing required for all stages of construction, and any detour routes needed to maintain traffic.
5. TCP's may provide for traffic control devices to be furnished, installed, maintained and removed by county or city forces in cases where the county or city is staffed and equipped to provide traffic control device installations meeting the requirements of the MN MUTCD, including the [Field Manual](#) most recent edition.

If county or city forces are to provide the traffic control, the TCP shall be prepared and certified by the appropriate engineer and shall not be made a part of the construction plan.

6. All other TCP's shall be provided for the Contractor to furnish, install, maintain and remove needed traffic control devices. These TCP's shall be made a part of the construction plan and shall be located in the plans after the typical section and tabulation sheets.
7. At a minimum, the traffic control devices shall be paid for as a lump sum under Item No. 2563.601 (Traffic Control).
8. On more complicated projects various stages of traffic control may be needed with different numbers and configuration of devices. On these projects each stage of traffic control shall be paid for as a separate, lump sum Item No.2563.601 (Traffic Control Stage 1), etc.
9. Additional 48" x 48" signs, Type I, II, or III barricades, impact barrels, and/or flashers, etc. that may be required due to changing project conditions shall be tabulated on the TCP and will be paid for as separate items by the unit day or each basis of measurement.

I. Erosion Control Plans

1. A MPCA permit to discharge stormwater from a construction site is required for every plan for construction that disturbs 1.0 or more acre of land. The area includes any temporary roads for equipment to get to the construction site. A SWPPP is required whenever an NPDES permit is needed. The terms of this permit require that a SWPPP for both temporary and permanent erosion control be incorporated into the plans and specifications for the project.
2. All federal aid projects are required to contain an erosion control plan meeting MnDOT standards in order to be approved. This shall include the appropriate special provisions.
3. For state aid plans, compliance with the erosion control permit requirements shall be the responsibility of the local agency. Construction plans submitted to the State Aid Division for approval that contain erosion control plans will be checked for accuracy against the tabulations, estimate of quantities, and Engineer's Estimate. It will also be checked for the existence of detail drawings for items not covered by standard plates or plan sheets. The adequacy of the erosion control and prevention measures will not be checked. The designer will be notified if it appears to the reviewer that a plan may be required, but is not included.
4. Erosion control plans do not need to be in any prescribed format; however, they should indicate the type of erosion control methods (mulching, seeding, bales, check dams, etc.), as well as installation details and locations. This information may be shown on the construction plan sheets, on separate plan sheets, in details or tabulations, or any combination of these methods. The SWPPP should include water quality calculations, impervious area calculations, treatment pond data and SWPPP implementation contacts, see [Sample SWPPP](#) (PDF).

Refer to the MPCA's General Permit for specific plan requirements.

VIII. Other Project Documents

In this section:

- A. [Parking Restrictions and Resolutions](#)
- B. [Engineer's Estimate](#)
- C. [Lab Services Request](#)
- D. [Railroad Grade Crossings](#)
- E. [Utility Relocations](#)
- F. [Force Account Projects](#)
- G. [County Plan Approval by Municipality](#)

- H. [Proposals](#)
- I. [Required Documents and Permits for Federal Aid Projects](#)
- J. [Specifications](#)
- K. [Advertising Construction Projects](#)
- L. [Special Provisions](#)

A. [Parking Restrictions and Resolutions](#)

All parking shall be parallel to the curb except as provided in paragraph section three below. The following parking resolutions for restricted parking will be required for curbed streets.

1. No Parking areas. Parking restrictions and resolutions are required where the proposed street width is not adequate for parallel parking on both sides of the street. For street width standards see [State Aid Rules 8820.9936](#) and [State Aid Rules 8820.9946](#). A resolution passed by the governing body of the municipality designating the parking restriction shall be submitted at the time the plans are submitted to the DSAE, see [Sample Resolution Relating to Parking Restrictions](#) (PDF).
2. Parallel-Parking Only areas. When an improvement is proposed in an incorporated city where diagonal parking has previously been permitted on the proposed area of improvement and where the provisions for diagonal parking within the project limits as described in section three below are not met, plan approval will be conditioned on parallel parking.

In this case a resolution adopted by the governing body of the municipality providing for parallel parking only will be required at the time the plans are submitted to the DSAE for review and approval, see [sample Resolution for Parallel Parking Only](#) (PDF).

3. Diagonal-Parking areas. Diagonal parking may be established by the local road authority if the street width and traffic volumes meet standards in [State Aid Rules 8820.9961](#) and the legal speed limit is 30 mph or less. This provision must be established by cooperative agreement between the local road authority and the Commissioner of Transportation.

The cooperative agreement shall be in the form of a plan and shall include the following:

- a. A typical state aid plan Title Sheet.
- b. A typical plan view showing the complete layout of the parking stalls including parking angle, stall dimensions, etc. for the project. All diagonal parking shall be between 45 to 60 degree angles to the curb.
- c. A list of notes specifying “no parking” areas required by statute.
- d. The current ADT with year shown, street width and legal speed limit.

- e. A note reading, “The City shall comply with any statute or rule hereafter adopted with respect to parking.”
- f. Approval of the Plan by the local governing body.
- g. Pay items for the pavement marking or a note how the marking will be accomplished.
- h. A copy of the adopted local ordinance allowing diagonal parking.

Pavement markings for parking stalls must be completed before final acceptance of the project.

- 4. Parking provisions shall be as adopted in:
 - a. [State Aid Rules 8820.9961](#)
 - b. [Minnesota Statutes, Highway Traffic Regulation 169.34 Prohibitions; Stopping and Parking](#)
 - c. [Minnesota Statutes, Highway Traffic Regulation 169.35 Parking](#)

B. Engineer’s Estimate

- 1. General. The County or City Engineer shall submit a detailed cost estimate along with the plans for each state aid or federal aid project. No project can be considered for approval without an Engineer’s Estimate. This estimate shall show:
 - a. Item number
 - b. Item name
 - c. Unit of measure
 - d. Quantity
 - e. Price per unit
 - f. Extension for each item
 - g. Nonparticipating items, landscaping, special bridge funded items and storm sewer items shall be listed separately on the Engineer’s Estimate as multiple project items.
 - h. Use standard pay items whenever possible.
 - a. Items that are pro-rated across all groups include mobilization and traffic control among others. These prorates are fixed by the Engineer’s Estimate for the duration of the project.
- 2. Federal aid projects. State Aid staff will submit the Engineer’s Estimate to the MnDOT Estimating Section for their review and approval. Revisions, as necessary, will be made to the Engineer’s Estimate by the MnDOT Estimating Section. After that a preliminary Engineer’s Estimate is prepared by the State Aid staff and distributed to: the County or City Engineer, various MnDOT offices and the FHWA (for emergency or plans specifications and engineering estimates (PS&E) projects).

When bid prices (of the lowest acceptable bidder) varies from the estimate by more than 10 percent and it is desired to award the contract, the Engineer must justify to the DSAE the bid prices before the contract can be awarded. Reasonable estimates eliminate the need to prepare these justifications. If requested, the MnDOT Estimating Section will assist the Engineer in the initial preparation of the Engineer's Estimate.

3. Tied projects. When more than one project are being let in one contract, Engineer's Estimates for each project may be kept separate if the schedule of prices is furnished for each individual project in the proposal. If all the items are combined in a single estimate, the schedule of prices must also combine the items accordingly so that only one bid price per unit item is received. Items such as traffic control and mobilization must be prorated over each project in the estimate; the prorata remains constant based on the estimate and is not revised post bid.

C. Lab Services Request

A [Laboratory Testing Services Request form](#) (Word) must be submitted with the project documents accompanying the plan to the DSAE. One request form should be used for each contract with all tied projects listed on the form. See the instructions for completing the form on page two of the request form.

D. Railroad Grade Crossing

1. Before any state aid plan can be approved that has a railroad grade crossing within its limits or close to its termini, the following information must be provided either in a letter or as part of the plan details:
 - a. The location of the crossing by engineer's stationing or other references
 - b. The widths of the existing crossing, roadway, paved surface and shoulders
 - c. The widths of the proposed crossing, roadway, paved surface and shoulders
 - d. The status of any negotiations with the railroad company concerning upgrading or removing the crossing
 - e. Details of the construction (if any) at the crossing
 - f. The existence of any parallel railroad tracks and the offset to any railroad grade crossing on public or private road approaches before and after construction.
2. Before any federal aid project is approved for advertising that has a railroad grade crossing within its limits or close to its termini, a project design review must be completed by MnDOT's OFCVO. A [Highway Railroad Crossing Data Sheet](#) (Word) must be submitted to the State Aid Division at the time of the PM submittal, for forwarding to the OFCVO.

This design review should be commenced as early as possible to avoid conflicts with the railroad and to ensure that the project budget includes any necessary costs for railroad crossing upgrades. The project design review will include a diagnostic review of the crossing, attended by representatives of the railroad, the local road authority and MnDOT. If an agreement is required from the railroad, it must be executed before the project can be advertised.

Recommended crossing protection must be accomplished prior to final acceptance of the project by MnDOT and/or FHWA.

E. Utility Relocations

A [Utility Relocation Certificate](#) (Word) shall be submitted for all federal aid projects. This statement shall be provided to the State Aid Division before the project is advertised. Projects that include work on MnDOT R/W may require the use of all or portions of [MnDOT's 15 Step Utility Coordination Process](#). All plans must identify the [Utility Information Quality Level](#) per [Minnesota Statutes, Sections 216D](#).

F. Force Account Projects

1. State aid projects. It is recommended that the construction of all state aid projects be done under contract and awarded on the basis of competitive bidding. [Force Account Agreements](#) (PDF) are also used for paying for work performed by a railroad or utility company where competitive bids cannot be taken. Force Account Agreements will be approved only where recommended by the DSAE and adequately justified to the satisfaction of the State Aid Engineer.

Engineer's Estimates for force account projects are checked by the MnDOT Estimating Section.

2. Federal aid projects. The construction of federal aid projects shall be done by the contract method based on competitive bidding unless an affirmative finding is made that construction by the force account method (or agreed upon unit prices) is in the public interest.

Construction by county/city forces on federal aid projects will generally be considered as being in the public interest when recommended by MnDOT with a showing that:

- a. The character of the work or circumstances surrounding the project makes it unsuitable for economical construction by the contract method.
 - b. The county/city is adequately organized and equipped to perform the work.
- Construction by county/city forces should not be recommended where it would be

necessary for the county/city to purchase construction equipment not required for its normal operations.

- c. The cost is reasonable. Only those projects fully meeting the above requirements and expressly recommended by the DSAE for construction by local forces will be approved on this basis.
3. Procedure. A [Request for Approval of State Aid Construction](#) (PDF) by local forces must be submitted with suitable plans and an Engineer's Estimate for review and approval prior to beginning any work. The work must receive federal authorization prior to commencing as well.

G. County Plan Approval by Municipality

1. General. Per [Minnesota Statutes 162.02, Subdivision 8](#), no portion of the CSAH system along or within the corporate limits of any municipality shall be constructed, reconstructed, or improved nor the grade thereof changed without the prior approval of the plans therefore (including the alignment, grades and cross sections) by the governing body of the municipality, unless approved through Minnesota Statute 162.02, Subdivision 8, "Dispute Resolution Board."
2. State aid projects. Obtaining approval of plans for CSAH projects involving proposed construction of CSAHs along or within the corporate limits of a municipality shall be the responsibility of the County Engineer. This approval shall be in a form of a [Resolution Approving State Aid Construction within Municipal Limits](#) (Word).
3. Federal aid projects. The approval form for federal aid projects involving proposed construction on CSAHs along or within the corporate limits of a municipality will be transmitted to the County Engineer by the State Aid Division for the necessary action in triplicate by the municipality if the county has not already received municipal approval via a [Resolution Approving State Aid Construction within Municipal Limits](#) (Word).

H. Proposals

1. State aid projects. Proposals for State aid projects are prepared and distributed by the city or county. Proposals shall include the Minnesota Department of Labor and Industry (Mn/DLI) "Prevailing Wage Rate" for the county in which the project is located as well as [State Truck Rental Rates](#) (line 15). [Special Provisions Division A for State Funded Contract](#) (PDF) shall also be included in the proposal.
2. Federal aid projects may only be administered by sponsoring counties and cities holding a current DCP Agreement. The full process is described in the [DCP Checklist](#) (PDF). This includes advertising, plan and proposal sales, addenda, receipt of bids, award and payments through to contract finals.

DCP proposal packets for federal aid projects where the local agency holds the contract are prepared by the Division Federal Aid Unit, and then sent to the local agency that is responsible for completing them. Plans and proposals are distributed to prospective bidders by the local agency. DCP proposal packets will contain the following:

- a. A front sheet giving project numbers and location, description of work, the date and hour of bid opening and the necessary stipulations.
- b. Federal wage rates, state wage rates and state truck rental rates
- c. [DBE Special Provisions for “Goal” or “Race Gender Neutral Goal” projects](#) (PDF)
- d. Special contract provisions as required by the federal government such as [EEO](#) requirements. The latest issue of these provisions will be furnished and inserted by the Division Federal Aid Unit and are available on the State Aid website
- e. Special Provisions Division A for Federal aid Contracts shall also be included in the proposal. Note: the Division A will be dependent on the funding scenario as described the [electronic proposal webpage](#).

Federal aid projects may only be administered by sponsoring counties and cities holding a current DCP Agreement. The full process is described

3. Bidding Document Alternatives

Contractors have obtained bid documents in a variety of formats ranging from paper copies of the entire proposal, to paper copies of a partial proposal with a Notice to Bidders referencing project specific sections to be downloaded from a project specific website, to entire electronic proposals to be downloaded from a project specific website. “Project specific website” means that the elements to be downloaded must be stored on the project owner’s website under the Specific project number and NOT from links to docs on the web at large.

The first type is an entire paper proposal which includes all the DCP documents furnished by SALT when the plan is signed and returned for advertising.

The second type of proposal – the partial proposal - requires the following items in hard copy - not referenced to an electronic project specific website:

- **Notice to Bidders** listing the docs to be downloaded from their website and the following statement with a signature line for the contract: **As bidder of this contract, I acknowledge that I (we) am (are) familiar with the above documents and that we will adhere to them.**
- **Division A** (applicable to funding – federal or state)
- **Federal Wage Rates** applicable to the contract
- **State Wage Rates** applicable to the contract
- **Minnesota Truck Rental Rates** applicable to the contract
- **Responsible Contractor Certification** for signature

- **EEO provisions** (on federally funded projects)

Bidders must submit either the entire proposal or the following with the Schedule of Prices to make a complete bid package.

- a) Federal Wage Rates applicable to the contract
- b) State Wage Rates applicable to the contract
- c) Minnesota Truck Rental Rates applicable to the contract
- d) Signed Responsible Contractor Certification
- e) Stipulation for Foreign Iron or Steel Materials
- f) Schedule of Materials Control Testing to be used on the contract
- g) EEO provisions
- h) Back page of proposal - Form 21126D
- i) Attachment Cm 32-34
- j) Non-Collusion Declaration

Signed affidavit stating that the bidder has downloaded the entire proposal and is familiar/responsible for the entire contents and any addenda issued.

At the time of award, a hard copy of the entire proposal must be given to the contractor including any addenda issued prior to letting.

The third type – Entire Electronic Proposal– the entire e-proposal must be dedicated to the specific project on the LPA’s website in a format that may not be revised by bidders.

Bidders must download and submit the entire proposal and any addenda issued with the bid abstract.

I. Required Documents and Permits for Federal Aid Projects

On federal aid projects the following items shall be on file in the State Aid Division before the project can be processed to bid opening:

1. Project shall be included in the approved STIP.
2. Project Development Report (PM, EIS, Environmental Assessment) approved by the FHWA (or by designated State Aid official).
3. Design Study Report (if necessary) approved by the State Aid Division.
4. Federal Authorization form
5. A Corps of Engineers 404 Permit (where required)
6. A [DNR permit](#) where required
7. A [R/W Certificate, No. 1](#) (Word) for projects requiring R/W acquisition or [R/W Certificate, No. 1A](#) (Word) for projects not requiring R/W acquisition

8. [Utility Relocations Certificate](#) (Word)
9. [Lab Testing and Plant Inspection Services Request](#) (Word)
10. Working Days computation
11. Bridge plans shall have been approved by the MnDOT Bridge Engineer
12. A bid opening date selected by the city or county and concurred in by the Division Federal Aid Unit
13. On projects requiring a NPDES permit, the NPDES permit application (filled out) if contractor will be applying for permit, or NPDES permit card if the local agency applies for it before bid opening.
14. Addenda processed during advertising period.

J. Specifications

1. State aid projects. The latest approved MnDOT Standard Specifications for Construction and any supplemental specifications shall govern except as modified by the special provisions. A statement to this effect shall be included in the plans and proposal.
2. Federal aid projects. The latest approved MnDOT Standard Specifications for Construction and any supplemental specifications together with the latest appropriate required contract provisions for federal aid construction contracts shall govern except as modified by special provisions. A reference statement shall be made to the standard specifications on the plans and to both the standard specifications and the required provisions for federal aid contracts in the proposal.

K. Advertising Construction Projects

Advertisement of a contract proposal can legally take the form of a classified ad in a newspaper or any other form that is permitted by state law or practice that is acceptable to the FHWA. Other forms to announce upcoming projects, which are deemed acceptable, can include advertisements in trade journals, bulletins, and mailed notices to potential bidders (i.e., from a mailing list). These other forms of advertisement can attract greater attention and, thereby, enhance competition.

The Internet has created another forum for advertising projects. Several counties and cities have now created a single website which posts project notices. Provided that the transportation agency notifies all interested bidders about the website and the website is readily accessible to all interested bidders, Internet advertising on a LPA's Official Website is acceptable for federal aid projects. As a result, you will need to follow state statutes at a minimum when advertising federally funded projects. These requirements vary depending on the contracting agency and the nature of the local funds being used. Local ordinances are allowed to be more restrictive than Minnesota statutes, but can't be less restrictive. Relevant statutes are listed below for your reference.

During an emergency or disaster, each political subdivision, notwithstanding any statutory or charter provision to the contrary, and through its governing body acting within or without the corporate limits of the political subdivision, may:

1. Enter into contracts and incur obligations necessary to combat the disaster by protecting the health and safety of persons and property and by providing emergency assistance to the victims of the disaster; and
2. Exercise the powers vested by this subdivision in the light of the exigencies of the disaster without compliance with time-consuming procedures and formalities prescribed by law pertaining to:
 - a. the performance of public work;
 - b. entering into contracts;
 - c. incurring of obligations;
 - d. employment of temporary workers;
 - e. rental of equipment;
 - f. purchase of supplies and materials;
 - g. limitations upon tax levies; and
 - h. the appropriation and expenditure of public funds, for example, but not limited to, publication of ordinances and resolutions, publication of calls for bids, provisions of civil service laws and rules, provisions relating to low bids, and requirements for budgets.

References

- [Minnesota Statutes 12.37](#)
- [Minnesota Statutes 471.345](#) (Uniform Municipal Contracting Law)
- [Minnesota Statutes 160.17](#) is for counties and towns (definition of town = township) when sealed bids required (advertise three successive weeks + 10 days for counties; advertise two successive weeks + 10 days for townships).
- [Minnesota Statutes 429.041](#) is for cities (advertise three weeks minimum if > \$100,000), when there is a special assessment.
- [23 CFR 635.112](#) governs advertising for federal projects (advertise three weeks minimum).
- [Minnesota Statutes 161.32](#) is for THs (advertise three weeks minimum).

Minnesota statutes are allowed to be more restrictive than CFR, but can't be less restrictive. Local ordinances are allowed to be more restrictive than Minnesota statutes, but can't be less restrictive.

Providing an affidavit of publication poses a challenge for agencies that have designated their websites as their official publication. One county has taken the initiative to address this by

appointing a website Administrator's Designated Agent to sign a notarized [affidavit](#) (Word) in order to prove compliance with the statute.

L. Special Provisions

Special provisions are specific clauses setting forth the conditions unique to the project under consideration and concerning the work and materials involved in the contract which are not covered by the standard specifications or supplemental specifications. These special provisions may be modifications of the standard specifications or supplemental specifications or they may be completely new specifications which are not included in the MnDOT standard specifications or supplemental specifications.

There is no definite rule or formula for writing special provisions. However, it is essential to become thoroughly familiar with the requirements of a particular specification before attempting to modify it with a special provision. The practice of repeating portions of the standard specifications or supplemental specifications should be avoided. This practice will make some parts of the standard specifications or supplemental specifications appear more important than others and may cause confusion.

1. State aid projects. Special provisions for state aid projects shall be prepared by or under the supervisor or the County or City Engineer. Normally these special provisions need be submitted to the State Aid Division only if the plans include traffic signals, lighting or bridges.

The following basic requirements should be considered in preparing these special provisions:

- a. The special provisions must contain a statement indicating which standard specifications apply. This statement is necessary because a special provision, in most cases, modifies a standard specification.
- b. Prevailing wage rates are mandatory and shall be included. Division A special provisions shall also be included.
- c. EEO special provisions are mandatory and shall be included in all contracts over \$50,000.
- d. Each special provision which modifies an existing standard specification shall contain a reference to that specification.
- e. Provisions for Railroad's Protective Liability Insurance and work on railroad R/W will be necessary if the contract requires work on railroad R/W outside the limits of the original highway R/W. Such provisions shall indicate:
 - 1) The name and address of the railroad affected and the limits of insurance liability (See 1708.2 of the specifications); and

- 2) The number and classification of flagmen, including hourly pay, location of headquarters, expenses, fringe benefits, etc. and the amount of guarantee bond required (See 1708.4 of the specifications).
2. A provision in regard to liquidated damages will be required if the conditions differ from those specified in 1807 of the specifications. The absence of a special provision in regard to liquidated damages will automatically make deductions on a per diem basis as provided in 1807 mandatory in the event that all work is not completed within the time specified in the contract.
3. The special provisions must provide for traffic if through traffic is to be diverted from the project or portions of the project. Traffic conditions may have considerable influence on construction costs.
4. The special provisions must provide for a time schedule, including starting and completion times or dates, and intermediate completion times or dates as may be necessary. Circumstances or conditions peculiar to a project may make it desirable to specify a sequence of operations.
5. The special provisions must include a [SWPPP](#) (PDF) if it is not included in a plan.
6. Federal aid projects. Special provisions for federal aid projects are basically the same as those for state aid projects. Statutory provisions control the minimum wage rates paid for labor on all federal aid projects awarded by the Commissioner of MnDOT. The minimum wage rates are those established by the U.S. Department of Labor (USDOL) and Mn/DLI, for the wage area. The State Aid Division will furnish wage rates for proposals prepared in the State Aid Division.
7. Traditional or full oversight projects refer to projects that require full PS&E approval along with federal authorization before the contract may be advertised for bids. The process applies to projects on the National Highway System (NHS) or that are being administered for another federal agency such as east regions FHWA for Forest Highway projects or as prescribed in the Stewardship Agreement between the FHWA and MnDOT. The FHWA may require a MnDOT engineer to be present during construction of projects on the NHS. The State Aid federal plans unit reviews the plan and accompanying required documents, and prepares a DCP packet for the LPA to use to complete the project specifications and draft advertisement. The approved plan, engineers estimate, specifications and advertisement (with a tentative bid opening date) is transmitted to the FHWA along with the authorization request. Once the FHWA

authorizes the project, it may be advertised and bid like a regular DCP project. All addenda to the bid package must be approved by the FHWA in advance of sending to plan holders. A representative from the FHWA may observe the bid opening. Any changes to the contract (CO's, SA's) must be approved in advance by the FHWA as well.

8. Special provisions for the federal aid projects will be prepared in the State Aid Division. Information for the special provisions shall be submitted on [MnDOT Form 30133, Data for Special Provisions for Federal Aid Projects](#) (PDF) well in advance of the proposed bid opening date. Usually data shall be submitted with the plans. It is essential that all information be complete. Lack of sufficient information results in costly delays and extra work.
9. DCP projects. A DCP packet containing required federal portions including DBE and On-the-Job Training (OJT) goals of the proposal, when required, will be furnished to the local agency to incorporate into the entire proposal prepared by the local agency.

Chapter 5.5 Drainage

I. Overview

Refer to [Drainage Manual](#) for guidance on the design of drainage structures and channels.

II. Storm Sewer Construction

In this section:

- A. [State Aid Policy](#)
- B. [Plan Requirements](#)
- C. [Approved Sharing Factors](#)
- D. [Sizing and Over-sizing](#)
- E. [Selection of Materials](#)
- F. [Maintenance](#)

A. State Aid Policy

The following policy shall be followed in determining the amounts of state aid and federal aid funds that can be approved for participation when requested in the construction of storm sewers on state aid and federal aid projects.

On federal aid projects, the actual federal aid participation is usually 80 percent of the eligible amount (the percentage may vary with the funding type). On combined state aid and federal aid projects, state aid funds may be used for the difference between participation of state aid eligible items and federal aid participation.

Sufficient data shall be submitted with each plan involving the construction of storm drains to assist in the determination of the sharing ratio, pipe sizing, and allowable credits for existing facilities. The data submitted should include the following:

1. A plat or drainage area map showing:
 - a. The outline of the drainage area to be served by the proposed system, subdivided into areas tributary to each structure or inlet (the catchment areas must be labelled according to structure/inlet I.D.)
 - b. Present land uses and estimated future land uses of the areas to be drained; i.e., roads, residential, industrial, commercial, etc.
 - c. Inplace underground utilities; i.e., sanitary and storm sewers, water, gas and steam mains, and electric and telephone cables

2. A copy of the Engineer's computations and any other information required for checking the design of the storm sewer.
3. A brief narrative describing the storm sewer project and a listing of criteria used (i.e. storm sewer event frequency).
4. Information showing the depth of pipe cover provided relevant to type of pavement (flexible or rigid) utilized.
5. An itemized cost estimate of the storm sewer system.
6. One print of the proposed construction plan.

B. Plan Requirements

There should be a separate tabulation in the plan of storm sewer items and their outlet pipe lengths located on state aid R/W for each state aid project number (with pipe subtotal for each project number).

There should also be a separate tabulation in the plan for all mainline storm sewer items located off of the state aid R/W which drain areas from the state aid R/W for each state aid route.

C. Approved Sharing Factors

1. Mainline storm sewer and catch basins and leads located on state aid R/W:

The construction of mainline storm sewer and catch basins and their outlet pipes located on the state aid system, and catch basin and leads located on intersecting streets immediately adjacent to and serving the state aid street, can be approved on the basis of the following equation:

$$\text{Percent eligible} = 25 \text{ percent} + \left\{ \frac{(\text{state aid R/W area drained})(F)}{\text{total area drained}} \right\} \times 100 \text{ (Eq.1)}$$

F = 1.0 when the adjacent area outside the R/W has runoff characteristics similar to the state aid street area. In this case, the adjacent areas will be predominately a closely built up commercial district, hard surface parking lots, school yards and streets.

F = 2.0 where the adjacent area outside the R/W is predominately residential. In this case, the adjacent area will be predominately residential with lawns and gardens, but scattered commercial development may be present.

There will be areas which fall between the two cases outlined above. Here, the state aid area should be multiplied by a factor between 1.0 and 2.0, the exact value to be determined by careful analysis of the area served.

The eligible percentage from equation one, for these items, shall not exceed 100 percent, nor be less than 55 percent.

Storm sewer systems containing only catch basins and leads shall be approved at 100 percent of cost.

If the storm sewer system, or elements thereof, does not meet the standards outlined in this policy, the State Hydraulic Engineer will recommend replacement of the substandard elements. If the LPA elects not to replace the substandard elements or system, none of the storm sewer items will be eligible for state aid funds, and the LPA will bear the liability.

If a new mainline storm sewer system is connected to an existing mainline storm sewer system and the LPA is not requesting credit for the existing system, it does not need to meet state aid standards or be reconstructed. Nonetheless, the LPA must bear this liability. If however, the LPA is seeking credit for the in-place system, see Section I.C.2 below.

The signature of the State Aid Engineer on the plan does not indicate approval of nonparticipating or substandard storm sewer.

2. Main trunk sewers, outlets and manholes which carry water from state aid R/W, but are located off of state aid R/W:
 - a. When no additional areas are being added to the system after it leaves the R/W, the eligibility of these items can be computed using equation one with a minimum of 55 percent and a maximum of 100 percent.
 - b. When there are additional areas draining into the system after it leaves the R/W, the eligibility of these items can be computed using an average of the percentages as determined using equation one with a minimum of 25 percent and a maximum of 100 percent.
 - c. When state aid storm sewers outlet all or part of the state aid street drainage into an in-place LPA storm sewer, a credit may be allowed if requested, subject to verification of hydraulic adequacy of the in-place system. Credit will be based on the ratio of area served. A drainage area map should be submitted showing how much state aid R/W

area and LPA area is flowing into the system. Credits will also be based on age, conditions and hydraulic adequacy of the in-place facility.

D. Sizing and Over-sizing

1. The design storm frequency for pavement drainage should be consistent with the frequency selected for other components of the drainage system. In order for it to be meaningful criteria, the design frequency must be tied to a design water spread. MnDOT State Aid has established criteria for maximum water spread and minimum design frequency as shown in the [Maximum Allowable Spread Table](#) (PDF).
2. The factor that governs how much water can be tolerated in the curb and gutter section and on the adjacent roadway is known as water spread or the width of the water surface. Water is allowed to spread onto the roadway area within tolerable limits because it is usually not economically feasible to keep it within a narrow gutter width. By setting the allowable water spread, the designer can keep track of the water spread by calculation, and when the allowable spread is reached, an inlet is proposed to intercept a portion of the flow to keep the water spread from exceeding the allowable. The limits of allowable water spread are specified in the design criteria in the [Maximum Allowable Spread Table](#) (PDF).
3. It is recommended that the minimum gradient for storm sewer mains provide at least three feet per second velocity for storm water, at full flow.
4. When a storm sewer system is oversized to accommodate areas outside the natural drainage area of the system, the additional cost of the storm sewer items on the state aid R/W will be paid entirely by the county or city. This over sizing policy also applies to mainline pipes located off of state aid R/W which carry water from state aid R/W.
5. It is recommended that after a state aid system has been constructed, no new city/county areas be permitted to be drained into the state aid system.
6. The city or county must obtain and pay for all easements and construction permits for construction outside the limits of state aid streets or other streets, together with all drainage outlet rights where necessary.

E. Selection of Materials

For state aid storm sewer projects designed, constructed and solely maintained by the county or city, no parts of which serve TH R/W, the type of pipe used shall be the choice of the County or City Engineer. The material selected should provide a minimum service life of 75 years.

For storm sewer projects designed, constructed and solely maintained by a county or city, parts of which serve and are located within TH R/W and for which the state will share in the cost through a cooperative agreement, the state will approve the type of pipe to be placed within the TH R/W.

F. Maintenance

No payments for sewer maintenance other than the regular state aid maintenance allotments will be made on state aid streets.

III. Agricultural Drainage

In this section:

- A. [Construction Tile Drain Cross Highway](#)
- B. [Requirements](#)

A. Construction Tile Drain Cross Highway

According to law, if any person desires during construction or reconstruction of a highway to install a tile drain for agricultural benefits in a natural drainage line in lands adjacent to any highway, and if a satisfactory outlet cannot be secured on the upper side of the R/W and the tile line must be projected across the R/W to a suitable outlet, the expense of both material and labor used in installing the tile drain across the roadbed shall be paid from funds available for the roads affected, provided the road authority is notified of the necessity of the tile drain in advance of the construction of the roadbed, so that the drain may be placed and the roadbed constructed in the same operation.

The application for drainage crossing is a suggested form of application and permit to be used in connection with the installation of a tile drain during the construction of a CSAH. The explanation and requirements of the form follow:

1. The length of drain conduit installed by the county shall be confined to the roadbed and defined as the distance center to center of roadside ditches or the distance between points five feet outside the toe of the embankment slope where roadside ditches are not provided.
2. Approval of this application and subsequent provision of the drainage crossing by the county does not grant permission to enter the highway R/W and connect a drainage system thereto. Permits for such work shall be issued in accordance with standard procedure prescribed by the County Engineer and subject to all requirements necessary for public safety and protection of the highway.

B. Requirements

This application shall be filed with the County Engineer of the county in which the proposed drainage crossing is located.

The application shall be filed with the County Engineer at least 60 days in advance of advertising for bids for the proposed highway construction.

1. The application shall be accompanied by a drainage plan prepared by a competent drainage engineer showing the lines and grades of the proposed drainage system tributary to the crossing and continuing to an adequate outlet below the highway.
2. Where time will not permit development of a drainage plan prior to construction of the highway the applicant shall submit a report prepared by a competent Drainage Engineer certifying as to the feasibility of a drainage system for the adjacent lands and recommending the exact location, size and flow line of the proposed drainage crossing.
3. The application shall be accompanied by proof:
 - a. That permission, in the form of land ownership agreements, easements, permits or other acceptable evidence, has been obtained to extend the drainage system to an outlet below the highway, and
 - b. That such outlet is hydraulically adequate.

IV. Stream Flow Investigation

Knowledge of the peak flow of floods of a given recurrence interval is essential for regulation and planning of water resources and for design of bridges, culverts and dams along Minnesota's rivers and streams. Statistical techniques are needed to estimate peak flow at ungaged sites because long-term stream flow records are available at relatively few places. Because of the need to have up-to-date peak-flow frequency information in order to estimate peak flows at ungaged sites, the U.S. Geological Survey (USGS) conducted a peak-flow frequency study in cooperation with MnDOT and the MPCA.

Estimates of peak-flow magnitudes for 1.5-, 2-, 5-, 10-, 25-, 50-, 100- and 500-year recurrence intervals are presented for 330 stream flow-gaging stations in Minnesota and adjacent areas in Iowa and South Dakota based on data through water year 2005. The peak-flow frequency information was subsequently used in regression analyses to develop equations relating peak flows for selected recurrence intervals to various basin and climatic characteristics. Additional information can be found at the [USGS StreamStats webpage](#).

If you need to relocate one of the gauging stations because of reconstruction or find one has been damaged or removed, please contact the [USGS Minnesota Water Science Center](#).

V. Permits for Construction of Bridges, Channel Changes and fill into Lakes

In this section:

- A. [DNR Permits](#)
- B. [Corps of Engineer's Permits](#)

A. DNR Permits

The construction of bridges or channel changes in public waters or placing of embankments through lakes is considered unlawful without previously obtaining a written permit from the Commissioner of Natural Resources. The laws of Minnesota require that a permit be obtained from the Commissioner of Natural Resources prior to changing the course, current or cross section of public waters. No bridge or culvert, public or private, shall be constructed or maintained in or across any public drainage ditch (as determined by the DNR) with less waterway opening than specified in the Drainage Engineer's report, except with the written approval of the Director of the Division of Waters in the DNR. If the Drainage Engineer's report does not specify the waterway opening, no bridge or culvert, public or private, in or across any public drainage ditch, may be constructed or reconstructed without approval of the dimensions of waterway opening by the Director of the Division of Waters. If the public ditch being bridged or furnished with a culvert is not a public water, then these approvals must be obtained from the Ditch Authority.

In the construction of projects where bridges, culverts or channel changes are to be built in public waters, where any part of piers or abutments are placed at an elevation below the ordinary high water elevation, or where the road is to be built into a lake and part of the embankment is placed at an elevation below the ordinary high water elevation of the lake, a permit from the DNR must be obtained prior to the Award of Contract.

Applications for [permits](#) to construct bridges, culverts, channel changes and embankments on federal aid and state aid projects where public waters or public drainage ditches are affected must be taken care of by the local contracting agency. These applications should be completed and mailed directly to the appropriate DNR regional office.

B. Corps of Engineers Permits

1. General. For construction work involving lakes, streams, or wetlands or other bodies of water that meet the definition of waters of the U.S., it is necessary to have a Corps of Engineers permit prior to any work in these lakes, streams, wetlands or water bodies.

These permits are in three general categories which are:

- a. Section 10, Navigable Waters of the United States;
 - b. Section 404, practically all other lakes and streams and water bodies including wetlands;
- and

- c. Federally constructed flood control projects.
2. Section 10. Section 10 of the Federal River and Harbors Act of 1899 authorizes the Corps of Engineers to issue permits for construction of any type of structure, other than bridges and causeways, in navigable waters of the U.S. Although bridges are accepted under this section, any fill in these waters will require a Section 10 permit from the Corps.

The following are the navigable waterways in the Corps of Engineers, St. Paul District located in Minnesota:

- a. Mississippi River Basin
 - 1) Mississippi River Main Stem—rises in Lake Itasca in Clearwater County, Minnesota, and flows generally southerly to the downstream limits of the St. Paul District at Guttenberg, Iowa, mile 611.0. Corps of Engineers maintains a 9 foot navigation channel downstream from the Soo Line Bridge in Minneapolis, mile 857.6. LIMITS OF NAVIGABILITY: within the St. Paul District, navigable upstream from Guttenberg, Iowa to the outlet of Lake Bemidji, mile 1314.
 - 2) St. Croix River—rises in central Douglas County, Wisconsin, near Solon Springs, and flows in generally a southerly direction to its junction within the Mississippi River at Prescott, Wisconsin. The Corps of Engineers maintains a 9 foot channel between Stillwater, Minnesota, and the river's mouth. LIMITS OF NAVIGABILITY: navigable from its mouth upstream to the mouth of the Namekagon River, mile 330.0.
 - 3) Minnesota River and Big Stone Lake—river rises in Big Stone Lake and flows southeasterly and northeasterly to its junction with the Mississippi River at Fort Snelling. The Corps of Engineers maintains a 9 foot navigation channel from the river's mouth upstream to Savage, Minnesota, mile 14.7. LIMITS OF NAVIGABILITY: Big Stone Lake and the Minnesota River are navigable throughout.
 - 4) Lake Minnetonka—located in west central Hennepin County, Minnesota, drained by Minnehaha Creek which flows easterly to the Mississippi River at mile 847.5. LIMITS OF NAVIGABILITY: Lake Minnetonka in its entirety and Minnehaha Creek from Gray's Bay downstream to Minnetonka Mills.
- b. Red River of the North Basin
 - 1) Bois de Sioux River and Lake Traverse—located on the Minnesota and South Dakota border flows northward to its junction with the Ottertail River, forming the Red River of the North. LIMITS OF NAVIGABILITY: both Lake Traverse and the Bois de Sioux River are navigable throughout.
 - 2) Red River of the North formed by the junction of the Bois de Sioux and Otter Tail Rivers and flows northward into Lake Winnipeg; and forms the boundary between

- Minnesota and North Dakota. LIMITS OF NAVIGABILITY: navigable throughout within limits of the U.S.
- 3) Red Lake and Red Lake River—source of the Red Lake River is Red Lake in Central Beltrami County, Minnesota; and the stream flows northwesterly to Thief River Falls, Minnesota and thence through Crookston, Minnesota, to its junction with the Red River of the North at East Grand Forks, Minnesota. LIMITS OF NAVIGABILITY: Upper and Lower Red Lake and Red Lake River navigable throughout.
- c. International Boundary Waters
- 1) International Boundary Waters between Canada and the U.S. (Ontario and Minnesota), consisting of a series of interconnected lakes including North Lake, Gunflint Lake, Saganaga Lake, Knife and Birch Lakes, Basswood Lake, Crooked Lake, Iron Lake, Lac La Croix, Crane Lake, Namakan and Kabetogama Lakes and Rainy Lake. LIMITS OF NAVIGABILITY: Those portions of these lakes within the United States are navigable throughout.
 - 2) Rainy River—drains a series of lakes and interconnecting streams along the International Boundary extending from North Lake on the east to Rainy Lake on the west, and flows westward into Lake of the Woods. LIMITS OF NAVIGABILITY: navigable throughout within limits of the United States.
 - 3) Lake of the Woods located on the Canadian/U.S. International Boundary, and bounded on the south by Lake of the Woods County, Minnesota; on the north by Kenora District, Ontario; and on the west by the province of Manitoba. LIMITS OF NAVIGABILITY: navigable throughout within the limits of the United States.
 - 4) Big Fork River—rises in north central Itasca County, Minnesota and flows northward through Koochiching County to its junction with Rainy River at a point approximately 33.8 km west of International Falls, Minnesota. LIMITS OF NAVIGABILITY: navigable throughout.
 - 5) Little Fork River—rises in St. Louis County, Minnesota, and flows west, northwest and north through Koochiching County to its junction with Rainy River near the village of Pollard, Minnesota. LIMITS OF NAVIGABILITY: navigable throughout.
 - 6) Lake Vermillion and Vermillion River—Lake Vermillion is located in north central St. Louis County, Minnesota and is drained by the Vermillion River which flows into Crane Lake which empties into Sand Point Lake, a part of the Namakan chain of lakes along the International Boundary. LIMITS OF NAVIGABILITY: Lake Vermillion and Vermillion River navigable throughout.
 - 7) Kawishiwi River—rises in northwestern Cook County, Minnesota, and flows westerly through a series of lakes and interconnecting streams and thence northerly to its point of discharge into Basswood Lake a part of the International Boundary Waters. LIMITS OF NAVIGABILITY: navigable from its mouth upstream to and including

Pipestone Bay, Fall Lake, Garden Lake, White Iron and Farm Lakes, Birch Lake and the north and south branches of the river.

- d. Lake Superior Basin
 - 1) Lake Superior—western-most of the Great Lakes bounded by the states of Minnesota, Wisconsin and Michigan, and by the Canadian province of Ontario. LIMITS OF NAVIGABILITY: within the limits of the U.S., navigable throughout.
 - 2) St. Louis River—rises on the border of Lake and St. Louis counties, Minnesota and flows generally southward, discharging into Lake Superior at the Duluth Superior Harbor. LIMITS OF NAVIGABILITY: from mouth of St. Louis River to mouth of Embarrass River.
 - 3) Pigeon River—rises in South Lake, and flows easterly into Lake Superior. Forms a part of the Canadian/U.S. boundary (Minnesota and Ontario). LIMITS OF NAVIGABILITY: navigable throughout within limits of the U.S.
3. Section 404. Section 404 of the Federal Water Pollution Control Act Amendments of 1972 gives the Corps of Engineers jurisdiction over practically all waters in the U.S. For a detailed description, please refer to the [St. Paul District's website](#).
 - a. General permit for DNR waters is described under the heading "GP-001-MN." This applies to waters and wetlands under DNR jurisdiction.
 - b. General permit for minor impacts to waters and wetlands (typically in the range of 400 square feet to 0.5 acre). Refer to the heading "RGP-003-MN."
 - c. Letter of Permission or LOP applies to transportation projects that impact up to 5.0 acres of waters and wetlands. Refer to the heading "LOP-05-MN."
 - d. Standard Individual Permit applies to transportation projects that exceed 5.0 acres of wetland impact. Refer to Corps Permit FAQ and the "Minnesota State-Federal Permit Applications Package link for more information.
4. Federally Constructed Flood Control Projects. It is the policy of the Corps of Engineers that no improvement, changes in the features, excavation or construction of any kind within the limits of federal constructed flood control projects be permitted without prior approval by the Corps of Engineers District Engineer.

The following are the waterways within the Corps of Engineers, St. Paul District located in Minnesota.

- a. Red River of the North Basin
 - 1) Red Lake River—from river mile 154.3 (approximately 5 miles downstream from High Landing, Minnesota) to river mile 178.8, Clearwater and Pennington counties, Minnesota. From outlet of Lower Red Lake, mile 185.2, to a point 3.3 miles downstream, mile 188.5, Clearwater County, Minnesota.

- 2) Clearwater River—from river mile 31.8 (near Plummer, Minnesota) to mile 79.1 (1.3 miles upstream from south boundary of Red Lake Indian Reservation), Clearwater, Polk and Red Lake Counties, Minnesota.
 - 3) Sand Hill River—from river mile 12.6 (section corner 3.48 miles south and 2.0 miles east of Climax, Minnesota to river mile 31.4 (0.5 miles upstream from mouth of Kittleson Creek, about 6 miles east and 1 mile south of Beltrami, Minnesota), Beltrami and Polk counties Minnesota.
 - 4) Kittelson Creek—from junction with Sand Hill River to 1 mile upstream there from, T. 147 N., R. 45 W., 5th Principal Meridian, Polk County, Minnesota.
 - 5) Wild Rice River—from river mile 27.3 to mile 42.8 (about .5 miles upstream from source of Marsh River), Norman County, Minnesota.
 - 6) Marsh River—from river mile 20.8 (15.2 miles upstream of State Highway 75 bridge south of Shelly, Minnesota) to mile 45.1 (source of river, east of Ada, Minnesota) Norman County, Minnesota.
 - 7) Otter Tail River—from mile 9.7 (first bridge crossing upstream from Lake Breckenridge) to mile 21.1 (2.4 miles downstream from state aid road No. 1 bridge), Wilkin County, Minnesota.
 - 8) Orwell Reservoir, Otter Tail River—extending northeastward from the dam, in Otter Tail County, Minnesota.
 - 9) Mustinka River—from 4.7 miles upstream from the mouth to 25.3 miles (Great Northern Railway Bridge north of Norcrosse, Minnesota), Grant and Traverse counties, Minnesota. County ditch No. 42 from mouth at 12th Mile Creek to the junction with 5 Mile Creek, Traverse County, Minnesota.
 - 10) Bois de Sioux River—from White Rock Dam downstream or northward for a distance of 24.0 miles, Traverse and Wilkin Counties, Minnesota, Richland County, North Dakota and Roberts County, South Dakota.
 - 11) Lake Traverse, Minnesota and South Dakota—from mile 59.0 at Browns Valley, Minnesota, to mile 33.7 at White Rock Dam, Roberts County, South Dakota and Traverse County, Minnesota.
 - 12) Lost River, Minnesota—from outlet into Clearwater River northeast of Terrebonne, Minnesota, upstream to about mile 46.0, at section line between sec. 27 and 28, T. 150 N., R. 38 W., about 3.0 miles north of Gonvick, Minnesota.
- b. Upper Mississippi River Basin
- 1) Mississippi River—Tow Head Rapids Division Channel, north of Rabbit Lake, Crow Wing County, Minnesota.
 - 2) Mississippi River—Pine Knoll Diversion Channel in the vicinity of Wakefield Creek, immediately east of the west line of Aitkin County, Minnesota.
 - 3) Mississippi River—Aitkin Flood Control Diversion Channel including Little Willow River and Wakefield Creek from downstream end of Pine Knoll Diversion Channel

- upstream approximately 6.0 miles to its inlet on the Mississippi River, Aitkin County, Minnesota.
- 4) Mississippi River at St. Paul, Minnesota—Entire length of the flood barrier (levee and flood wall) starting about 100 feet landward of Water Street at river el 1352.3, on the right or east bank, and extending downstream to the highway 56 embankment. Also a section of flood barrier approximately 2000 feet long, parallel to the river downstream from highway 56 embankment, and thence extending landward about 5,000 feet.
 - 5) Mississippi River at South St. Paul, Minnesota—Levee and flood control wall on right or west bank parallel to river, between mile 832.2 and mile 834.5 with closing structures at upstream and downstream ends.
 - 6) Mississippi River at Winona, Minnesota—entire length of the earth levee on the right or west bank, extending from the high ground in the vicinity of Minnesota City downstream to midway between Huff and Harriet Streets river-ward of Second St.
 - 7) Big Stone Lake and Whetstone River, Minnesota and South Dakota—on Minnesota River, Grant County, South Dakota and Big Stone County, Minnesota, consisting of modification of existing dam, construction of bank protection on Whetstone River, and channel improvement on Minnesota River from three miles downstream from outlet control dam.
 - 8) Mankato and North Mankato, Minnesota River, Nicollet and Blue Earth counties, Minnesota—Consists of raising existing dikes, building new levees, constructing a flood wall, enlarging existing channels, modifying interior drainage and appurtenant works.
 - 9) Red River of the North at Oslo, Minnesota—flood protection by levees and flood walls.
 - 10) Mississippi River at Elk River, Wright County, Minnesota—provides for a 3,400 foot riprap protected levee on the right riverbank along the upstream side of a horseshoe.
5. The following is a list of Wild and Scenic Rivers in Minnesota (as of November 2006). Any work on these rivers will require a 404 Permit. The Nationwide Permit does not apply to these rivers.
- St. Croix River
 - Kettle River (all in Pine County)
 - Mississippi River from city of St. Cloud to the city of Anoka
 - North Fork of Crow River (all in Meeker County)
 - Minnesota River from Lac Qui Parle dam to city of Franklin
 - Rum River from Mille Lacs Lake to city of Anoka

- Cannon River from Faribault to its confluence with the Mississippi River
6. Corps of Engineers office location

The Corps of Engineers office should be contacted for information when applying for Section 10 and Section 404 Permits and for approval of proposed work on federally constructed flood control projects. If your proposed work is covered under the nationwide permit, no permit application is needed.

Corps of Engineers
General Regulatory Branch
St. Paul District
Attention CO-R
190 5th St. E
St. Paul, MN 55101-1638
Fax: 651-290-5330

When making contact with the Corps, be sure to include detailed location maps, project number and a good description or plans of the proposed construction.

It is assumed that the foregoing Section 10 and Section 404 Permit process concerning work in lakes, streams, or wetlands will not involve a major and significant federal action which would require the preparation of an EIS.

In the infrequent instance of a major or significant federal action, please contact the State Aid Division for information. Processing of these actions is somewhat more involved and can best be handled on a project-by-project basis.

7. Storm Sewer. Any storm sewer outlet in public waters will require a DNR permit and a Corps Section 10 or Section 404 Permit where applicable.
8. Division of State Aid Requirements. For any proposed project involving lakes, streams or wetlands under jurisdiction of the Corps of Engineers using federal funds, please send to the State Aid Division office either evidence of a Corps permit or a letter signed by the county or City Engineer stating that the proposed project is authorized by the Corps Nationwide Permit. This data must be received in the State Aid Division prior to setting a bid opening date.

When federal aid funds are not involved in a proposed project, it will not be necessary to send this data to the State Aid Division.

Chapter 6 Construction

I. Overview

In this section:

- A. [Scope](#)
- B. [Project Engineer](#)
- C. [Construction Procedures Summary](#)
- D. [Pre-Construction Conference](#)
- E. [Audit](#)

A. Scope

1. The requirements and procedures discussed in this chapter apply to projects utilizing either state aid or federal funds being constructed on roadways or other facilities under local agency jurisdiction, where the local agency is the contracting agency.
2. The differences between state aid and federal aid requirements are noted throughout the chapter.
3. On federal aid projects, where MnDOT is the contracting agency (aka the Traditional Process), construction procedures are outlined in the [MnDOT Contract Administration Manual](#) and information on the [MnDOT Construction website](#) must be followed.
4. See the [State Aid Construction webpage](#) for resource materials to assist in the construction process.

B. Project Engineer

The Project Engineer (Engineer) is the City or County Engineer, or other professional engineer registered in Minnesota delegated by the City or County Engineer, to have responsible charge of the project. The Engineer is responsible to ensure that:

1. The work required by the contract is completed in accordance with the terms of the contract. This includes, but is not limited to the following:
 - a. Materials are sampled and tested in accordance with the Project Schedule of Materials Control.
 - b. State and federal prevailing wage rates specified in the project contract equal or exceed the minimum hourly rates required by the contract.
2. Inspection is performed by certified personnel.
3. Work is performed in a manner safe for the traveling public.
4. Accurate and complete records are maintained for all construction project work.

C. Construction Procedures Summary

Table 4: Construction Procedures - Typical State Aid and Federal Requirements, Bid Opening through Final Payment. This summary is not all inclusive.

| Item or Task (L = Local Agency, M = MnDOT) | SAP | SP DCP |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------|
| DCP Checklist (PDF) | | L |
| Advertising | L | L |
| Bid Opening <ul style="list-style-type: none"> Conducted by governing body of Local Agency. Federal and state laws and rules adhered to in conducting bid opening Bid Opening Procedures for Local Government Agency Projects (Word) | L | L |
| Abstract of Bids | L | L |
| MnDOT Civil Rights Office certifies DBE participation. | | M |
| Ensure Contractor meets responsible contractor requirements and is not on debarment list. | L | L |
| Award of Bid *Bid justification is required if bid is 10 percent over or under Engineer's Estimate. | L | L* |
| Award of bid for Projects of Divisional Interest <ul style="list-style-type: none"> FHWA must concur in award in all cases, and in bid justification when bid is 10 percent over or under Engineer's Estimate. | | M |
| NPDES permit, if required | L | L |
| Contract Execution | L | L |
| Award Bid Tabulation/Spreadsheet <ul style="list-style-type: none"> Required ALL projects (whether or not requesting funding) Spreadsheet <u>must</u> be in Excel format (no macros). PDFs or other document formats will not be accepted. Files that are emailed should be smaller than 5 MB. If file is larger, it's recommended to use State Aid's FTP site (PDF) to load file. Include detail cost split: breakdown of federal participating and non-participating for each group/funding category. | L | L |
| Bridge Bond Funds Resolution. | L | L |
| Hold Pre-Construction Conference <ul style="list-style-type: none"> Notify DSE and State Aid Construction Engineer. Notify Labor Compliance Office. | L | L |
| Hold Pre-Construction Conference (Federal) <ul style="list-style-type: none"> Notify MnDOT Civil Rights Office. Notify District Material Office. | | L |
| Require Contractor to post Labor Compliance Forms and Posters . | L | L |

| Item or Task (L = Local Agency, M = MnDOT) | SAP | SP DCP |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------|
| Submit Change of Contract Construction Status (Word) to DSAE. | L | L |
| Supervise construction, surveying and inspection. | L | L |
| Notify MnDOT Independent Assurance Inspector of project schedule. | | L |
| Inspection performed by qualified personnel (see III. Materials) | L | L |
| Field tests performed in accordance with Project Schedule of Materials Control and performed by certified technicians. | L | L |
| Contractor officially notifies MPCA at least 10 working days in advance of any building or bridge demolition or relocation (see Hazardous Materials section for more information). | L | L |
| Review Contractor payrolls for compliance with Prevailing Wage Rates (see V. Subletting and Labor). | L | L |
| Perform field wage checks. | L | L |
| Submit Weekly Construction Diary (Word) to DSAE (as frequently as required by DSAE). | L | L |
| Ensure that work is performed in accordance with the Best Practices for Meeting DNR General Public Waters Work Permit GP 2004-0001 . | L | L |
| Prepare Partial Estimate at least monthly. | L | L |
| Pay Contractor at least monthly. | L | L |
| State Aid Payment Request (see VI. Payment Provisions) <ul style="list-style-type: none"> • Construction costs • R/W costs • Engineering costs | L | L |
| Federal Funds Reimbursement Request (see VI. Payment Provisions) | | L |
| Approve Request to Sublet Forms in accordance with Specification 1801. | L | L |
| Submit EEO documentation to the MnDOT Civil Rights Office. | L | L |
| Complete and submit DBE Exhibit A part E for each DBE Subcontractor for projects with DBE goal other than Race Gender Neutral. | | L |
| Submit Change Orders (Word), Supplemental Agreements (Word) and Work Orders (Word) to DSAE for funding approval. | L | L |
| For Projects of Divisional Interest, submit contract changes to FHWA for approval. | | M |
| For Projects of Divisional Interest, submit contract changes greater than \$100,000 to FHWA for approval prior to execution. | | M |
| Submit Overrun Justification (Word) | | L |
| Notify DSAE that project is near completion and ready for inspection. | L | L |
| DSAE performs final inspection. | M | M |
| Submit Materials Certification Exception Summary (PDF) to DSAE. | L | L |
| Assess Liquidated Damages, if appropriate. | L | L |
| Check for Labor Hold. Contact Labor Compliance Unit. | L | L |
| Request DBE Final Contract Clearance from Office of Civil Rights. | | L |

| Item or Task (L = Local Agency, M = MnDOT) | SAP | SP DCP |
|---------------------------------------------------------------------------------------------------------------------------|-----|--------|
| Prepare Final Estimate/Voucher. | L | L |
| Contractor submits IC 134 Withholding Affidavit for Contractors (PDF) to Minnesota Department of Revenue. | X | X |
| Contractor submits Certificate of Final Contract Acceptance (Word). | | X |
| Make final payment to Contractor. | L | L |
| Make State Aid Payment Request (see VI. Payment Provisions). | L | L |
| Make Federal Funds Reimbursement Request (see VI. Payment Provisions). | | L |
| DSAE recommends final acceptance and final payment to State Aid Finance. | M | M |
| State Aid Finance pays the balance of the project cost and construction engineering, if requested. | M | M |

D. Pre-Construction Conference

A meeting between the Engineer and the Contractor's representatives prior to commencing construction operations is very important and should not be neglected. A pre-construction conference promotes a better understanding between the Engineer and the Contractor.

The local agency is required to conduct one or more preconstruction meetings on projects where potential impacts to existing private and public utility facilities exist. Per [Minnesota Statute 216D.04](#), utility owner(s) shall be notified and invited to attend preconstruction/planning meeting(s) to discuss potential impacts to their facilities associated with the work proposed.

1. Notice of the meeting should be sent to, but not limited to, the following:
 - a. DSAE
 - b. State Aid Construction Engineer and/or Specialist
 - c. MnDOT Civil Rights Office (for federal aid projects)
 - d. MnDOT Labor Compliance Unit
 - e. All utility companies that are impacted by the project
 - f. Others with interest in project (MnDOT, city, county, adjacent stakeholders)
 - g. Agency may invite District Materials Engineer.
2. Primary Purposes
 - a. Determine the Contractor's proposed sequence of operations. Per Specification 1803.1, the Contractor shall have a current progress schedule approved by the Engineer before partial estimates are processed and paid.
 - b. Review important aspects of the Contract and any unusual work or conditions.
 - c. Review requirements for:

- I. Respective responsibilities for tests and inspection of materials.
 - II. Start, intermediate and final completion dates and resultant liquidated damages.
 - III. Traffic.
 - IV. Safety. (The [MnDOT Pre-construction Safety Checklist](#) (Word) may be used.)
 - V. Obtaining permits and licenses.
 - VI. Labor compliance. [State Funded](#) (PDF), [State and Federal Funded](#) (PDF) and [Federal Funded](#) (PDF).
 - Notify all contractors of state and federal prevailing wage schedules; pass out schedules if needed.
 - Discuss whether additional classification wage determinations are needed (federal aid projects only).
 - If the project is funded by state and federal funds and/or is in multiple counties, work with the Contractor to determine the highest wage rate for each classification of labor.
 - Gather information regarding any off-site facilities that provides materials to the project (borrow pits, batch plants, etc.) to help determine if they are commercial establishments or dedicated to the project ([Minnesota Statute 177.44, Subdivision 2](#) and [Minnesota Rule 5200.1106](#)).
 - VII. Poster Board
 - Inform the Contractor that legible poster boards must be up on the first day of work and must be in a conspicuous location on the project worksite. It is unacceptable to erect the poster board at an off-site facility.
 - VIII. Subcontracting requirements
 - IX. Compliance to all laws and regulations
3. The Engineer shall prepare conference minutes for the file, and send copies to:
- a. DSAE
 - b. Contractor
 - c. All meeting attendees and appropriate impacted agencies.

E. Audit

Audits may be conducted at any time on any project which contains federal or state aid funds. The FHWA and MnDOT perform periodic audits to verify compliance with Project Specifications, current policies, rules, statutes and regulations. In the event that your project is selected for an audit, please notify your DSAE so they can provide any information or documentation that may be required. Please contact your DSAE and the State Aid Construction Practices Engineer or Specialist for your area with questions.

II. Documentation and Reports

In this section:

- A. [Forms Requirements](#)
- B. [Change in Contract Construction Status](#)
- C. [Weekly Construction Diary and Statement of Working Days](#)
- D. [Project and/or Daily Diary](#)
- E. [Photography and Videography](#)
- F. [Document of Pay Items](#)
- G. [Orders and Agreements](#)
- H. [Final Documentation](#)
- I. [Retention Schedule](#)

A. Forms Requirements

1. Contract records and documentation must be sufficiently detailed and maintained in a manner that will withstand an audit, and be clear enough to be read and understood by anyone unfamiliar with the project.
2. It is acceptable to replace any of the forms required of this manual with other DSAE approved methods. However, all of the information and documentation requested by the original form must be accurately included in the alternate version.

B. Change in Contract Construction Status

1. The Engineer shall submit a notice of Change in Contract Construction Status to DSAE on each state aid and federal aid contract for:
 - a. Starting work
 - b. Suspension and Resumption of Work
 - c. Completion of work
2. On federal aid projects, the Engineer must use the [Change in Contract Construction Status](#) (Word) form.
3. On state aid projects, the Engineer may use the Change in Contract Construction Status form or other form selected by the city/county.
4. Changes in status for the entire contract and for intermediate completion date portions that occur on the same date may be reported on the same report.
5. Reports that correct a previous report should be marked “Revised Report” in the upper right corner, with revisions explained in “Remarks” section.
6. Enter on the report the date after which the Engineer is waiving Liquidated Damages because the work on the project is **substantially completed** and the project is in

condition for the safe and convenient use by the traveling public, or is available for next-stage construction.

7. For the **final** report, show all dates on which the status changed, providing a rapid chronological summary of the Contract.
8. As part of the finals packet, one copy of each status report should be submitted to the DSAE, unless given other direction.

C. Weekly Construction Diary and Statement of Working Days

1. A [Weekly Construction Diary and Statement of Working Days](#) (Word) shall be prepared on all projects.
 - a. It is the only record of working day charges.
 - b. May be in handwritten form—must be legible and copies readable.
 - c. May be computer generated and printed via the field computer application.
2. Engineer is to furnish Contractor with a [Weekly Construction Diary and Statement of Working Days](#) (Word).
3. Exceptions: The only instances when it is not necessary to furnish these reports to the Contractor are:
 - a. During authorized suspensions of work for which a [Change in Contract Construction Status](#) (Word) form has been submitted.
 - b. During ordered suspensions of work, provided:
 - I. The ordered suspension is for reasons beyond the control of the Contractor.
 - II. No working days are being charged.
 - III. Change in Contract Construction Status form has been completed.
 - c. When liquidated damages have been waived, provided:
 - I. All work except vegetation maintenance has been completed.
 - II. Change in Contract Construction Status form has been completed showing the projected expiration date of the maintenance period.
 - d. When the contract provides that all work, except maintenance and cleanup, be completed by the completion date, and/or when waiting for warranty time to expire, provided:
 - I. All work except vegetation maintenance has been completed.
 - II. Change in Contract Construction Status form has been completed showing:
 - The semifinal completion date.
 - The projected expiration date of the maintenance period.
 - e. In cases "c" and "d" above, a final diary covering the work performed during the maintenance or warranty period must be completed in conjunction with the final

Change in Contract Construction Status report.

4. All Weekly Construction Diary forms selected for use by the Engineer will be subject to the following definitions:
 - a. Project Information: The Type of Contract (number of working days or completion date) and information on Intermediate Completion Times are to be reported as found in the special provisions of the contract.
 - b. Contract Start Date: The latest date on which the Contractor can start work as provided by the specifications and special provisions. This is the first date the Project Engineer must charge working day assessments, unless work started prior to the Contract Start Date results in traffic restrictions.
 - c. Actual Starting Date: The first day any work is performed on the project. It is also the date reported on the [Change in Contract Construction Status](#) (Word) form.
 - d. Critical Activities: A Critical Activity is defined as an activity with zero or negative total float. A Near-Critical Activity is defined as an activity with total float equal to or less than ten days. This will change during the term of the contract. When the Contractor's schedule and work force varies during the week, enter the minimum and maximum number of hours and men scheduled for each operation reported. This information is intended as a guide in determining the workdays and the Contractor's efforts; therefore, reasonable estimates should be used rather than detailed extractions from the Contractor's payrolls.
 - e. Weather Conditions reported should be as factual as possible and all conditions that might affect progress on the project should be reported. For example, wind or humidity conditions may be affecting the rate of drying. Weather conditions such as temperature or amount of rainfall taken from newspapers, radio and television reports do not necessarily reflect weather conditions on the job site.
 - f. Hours Worked column is used to report the hours actually worked on each of the operations for that week. Identify progress made on Critical Activates for each day.
 - g. Hours Delayed column is used to report delays in the progress of the operations by recording the difference between the hours worked and the hours scheduled for each operation.
 - h. Delays are classified **Excusable Non-Compensable, Excusable Compensable, Non-Excusable, or Concurrent**.

Excusable, Non-Compensable Delays

- Excusable, non-compensable delays are neither the Contractor's nor the agency's fault or responsibility, and could not have been foreseen by the Contractor. The Contractor will not be compensated for excusable, non-compensable delays.

Excusable, Compensable Delays

- Excusable, compensable delays are not the Contractor's fault or responsibility, but are the agency's fault or responsibility, or are determined by judicial proceeding to be the agency's sole responsibility. The Contractor will be compensated for excusable, compensable delays.

Non-Excusable Delays

- Non-excusable delays are the Contractor's fault or responsibility. All non-excusable delays are non-compensable.

Concurrent Delays

- Concurrent delays are separate delays to Critical Activities that occur at the same time.
 - When a non-excusable delay is concurrent with an excusable delay, the Contractor is not entitled to an extension of Contract Time for the period the non-excusable delay is concurrent with the excusable delay.
 - When a non-compensable delay is concurrent with a compensable delay, the Contractor is entitled to an extension of Contract Time, but not entitled to compensation for the period the non-compensable delay is concurrent with the compensable delay.

Examples of delays are described in more detail in Specification 1806.2.

- i. Holiday charges: No working days are charged on legal holidays of the State regardless of whether the contractor works or not. As this is neither an avoidable nor an unavoidable delay, the 0.0 workday charges is explained by placing the word "HOLIDAY" in the hours delayed line for that day.
- j. Recording Working Days: One working day or a fraction thereof is recorded for each day the Contractor is able to work on one or more Critical Activities within the limits of the specifications and special provisions. Refer to [IV. Contract Time and Changes, B. Working Day Charges](#) for more information on calculating working days.
- k. Remarks and Daily Explanations: Summarize the weekly accomplishments, problem areas and overall progress of the work. Report, as they occur, all pertinent dates such as suspension and resumption dates, date liquidated damages started, dates of major traffic changes, date liquidated damages are waived and pertinent completion dates. Finally, report any revisions of the number of working days as a result of Supplemental Agreements, Change Orders and correction of working day charges as these changes occur.

- I. Working Day Summary: Enter "Total Working Days Charged This Week" and subtract these figures from "Total Working Days Previously Remaining" to obtain the "Total Working Days Remaining to Complete Work". This portion of the form need not be completed for completion date contracts.
- m. Contractors and Subcontractors Who Worked This Week: List the firm names of the Contractor and all authorized subcontractors who worked during the reporting period.
- n. Daily Comments and Explanation of Delays: Include remarks covering
 - I. The overall progress of the work.
 - II. Any inadequacies in the Contractor's forces or equipment.
 - III. Proposed plan changes.
 - IV. Unusual instructions given to authorized representatives of the Contractor.
 - V. Note location where major operations were performed,
 - VI. Pertinent information on special construction procedures or methods used.
 - VII. Explain any delays reported earlier in the report.
 - VIII. Include brief comments on the status of bridge construction, if any.
 - IX. Include a statement that all work, except maintenance of vegetation, has been completed, when applicable.
 - X. If more room is needed, use a plain sheet of paper and attach it to the report.

D. Project and/or Daily Diary

- 1. The preparation and preservation of the project/daily diary is considered to be one of the most important duties and responsibilities of the project staff.
 - a. In maintaining these diaries, project personnel must be consistent in recording the events and activities on the job.
 - b. The diaries provide valuable information necessary to accurately reconstruct the events of the project and are crucial to claims avoidance and mitigating damages.
 - c. The failure to record an event carries with it the implication that the event did not occur or was insignificant, and also threatens the credibility of the entire log.
 - d. These diaries will become an important part of the project records if the project is subjected to audit, investigation, or litigation.
- 2. Project Diary. When a project is small or will only require a minimum amount of staking, supervision or inspection, all entries may be made in one book.
- 3. Inspector's Daily Diary. Each technician assigned to a supervisory position or as inspector of a major phase of a contract such as grading, bridge, base and surfacing construction, plant production of aggregates, concrete and bituminous mixtures and specialty items, such as, fencing, lighting and signing, is required to keep a Daily Diary.
 - a. Entries are to be made each day the diarist is on or involved with the project.

- b. When the Contractor operates on a multiple shift basis the entry for each succeeding shift is made in the same diary under the date on which the shift started. The Inspector on each shift is responsible for making and signing his or her own record.
4. An engineer or project supervisor exercising supervision of a project need not maintain a separate daily diary; however, he or she should make signed and dated entries in an inspector's diary whenever an event occurs that is likely to require personal involvement at a later date.
5. Diary Type and Format. Diaries must be kept for each separate contract even though there may be two or more contracts within the same general area that involves the same contractor and engineering personnel.
 - a. Keep in bound field notebooks or in an approved electronic format.
 - b. Each book should be labeled and indexed.
 - c. Front cover should include:
 - I. Project, highway, and contract numbers.
 - II. Information indicating the scope and contents of each book.
 - d. Pages need not be numbered.
 - e. When one individual makes all entries in a diary, a statement to this effect, along with that individual's signature, may be placed on the front page of the diary; otherwise, the person making the entry must sign each entry.
 - f. Complete set of diaries should be labeled uniformly.
 - g. Diaries should be retained with project records upon completion of the contract work.
 - h. Diaries and other reports are meant to supplement each other and do not need to contain identical information.
6. Entries
 - a. Entries should be accurate and concise yet complete enough so that the writer can recall the events easily.
 - b. The diaries are public record and should only contain factual information.
 - c. No personal opinions or editorial comments should be made.
 - d. Entry for each day must include date and year.
 - e. Entries should be referenced to the appropriate stationing or other convenient reference.
 - f. Describe weather conditions.
 - I. Critical changes and time of change
 - II. Conditions affecting operations
 - III. Temperature range

- IV. Days when crews were sent home or were unable to work due to weather or field conditions
- g. Describe Contractor's work force and equipment.
 - I. All companies working on the project
 - II. Number of employees working for each company
 - III. Hours worked (start/stop times)
 - IV. Materials used
 - V. Types of equipment
 - VI. Inefficient operations
 - VII. Poorly maintained equipment
- h. Describe major construction activity.
 - I. Work performed
 - II. Include locations and approximate quantities.
 - III. Inspection checks, tests and samplings
 - IV. Material accepted on visual inspection or material rejected
 - V. Time, materials, working force and equipment used for authorized extra work (i.e. claims, force account)
 - VI. Contractor compliance with specifications
 - VII. Controlling item(s) of work
 - VIII. Any extraordinary work being performed
 - IX. Progress of operations compared to the Contractor's approved schedule
 - X. Unusual or materially different physical working conditions from those expected under the contract
 - XI. Major discrepancies in the plans or contract
 - Necessary changes
 - Actions taken to correct the situation
- i. Describe delays.
 - I. Reasons, factors or conditions that may hinder the Contractor's operations
 - II. Type of delay
 - III. Percent of delay
 - IV. Subsequent corrections by the Contractor
- j. Note suspensions and resumptions of Contractor operations.
 - I. Causes
 - II. Dates
- k. Describe utility operations.
 - I. Progress
 - II. Conflicts with Contractor operations and resultant delays
 - III. Quality of workmanship as it affects the project
- l. Summarize significant conversations.

- I. Orders to the Contractor, especially pertaining to work schedule, work methods, materials or payment
 - II. Extra work order agreements made
 - III. Directions and advice from supervisor
 - IV. Discussions with FHWA and MnDOT representatives and local officials
 - V. Contact with property owners, utility and railroad representatives
 - VI. Sources of dispute and subsequent decisions
 - VII. Disagreements with the Contractor
 - Work quality or performance
 - Rejected work or materials and reasons
 - VIII. Requests from the Contractor and disposition of those requests
 - IX. Comments on construction safety hazards and corrective measures
 - m. Summarize meetings and conferences.
 - n. Describe accidents, utility damages, and other unusual conditions.
 - o. Describe lane closures, traffic disruptions, etc.
 - p. Note days charged and days worked. If no day is being charged, note the reason for lost time days or periods when no work was in progress or no work was accomplished.
 - q. Describe significant information on other work operations not recorded in a separate field inspection diary.
7. If a diary is lost, stolen or otherwise misplaced, a new diary should be started immediately.
- a. The first entry should document the conditions relative to the loss of the original diary.
 - b. Then continue with the usual diary entries for the remainder of the project.
8. Survey Chief's Diary. If kept, should include:
- a. Date
 - b. Weather
 - c. Temperature data
 - d. Names of the individuals working in the survey party
 - I. Brief listing of the survey crew activities for each day
 - II. Progress of staking operations
 - III. Difficulties encountered
 - IV. Resetting of any stakes
 - e. Contact with the Contractor
 - f. Person making the entry must sign each daily entry, unless one individual makes all entries, in which case that person should sign the diary on the front page.

E. Photography and Videography

1. Job photos are an important element in the presentation of facts surrounding the details of a claim.
 - a. Photographs provide excellent evidence.
 - One of the least challenged tools used to document a case.
 - b. Take a lot of high quality pictures.
 - I. Illustrate the facts of the site as accurately as possible.
 - II. Know what the issue is that you're trying to document.
 - III. Tell the story with as little need for narrative as possible.
2. Photographic Media
 - a. Types of cameras acceptable for use in the field:
 - I. Digital camera
 - II. 35 mm still camera
 - III. Video camera
 - b. Do not use Polaroid.
 - I. Not useful for evidentiary purposes
 - II. Poor quality enlargement or duplication
3. Suggestions for pictures or video
 - a. Give a sense of scale to objects in the picture by including a reference point.
 - I. Include a person, notebook, pen, or ruler.
 - II. Size and distance of objects can be deceiving.
 - III. Photographs can also distort or understate.
 - b. Take a series of photos from varying perspectives, from the perimeter of the area in toward the center in increasingly close shots.
 - I. Distance shots
 - Show the subject in reference to one or more permanent landmarks.
 - If helpful, show the compass orientation of the subject.
 - II. Medium shots
 - Depict the object or event in context of the immediate surroundings.
 - Shoot a series of shots from all angles.
 - Capture objects and markings thoroughly so they can be identified later.
 - III. Tight or detail shots
 - Focus on the issue under review.
 - Identify the specific item or event in question.
 - c. Use natural light wherever possible, even if you must use fast film.
 - d. Never videotape a violation scene with the recording microphone turned on.

- I. Easy to reach erroneous conclusions and verbal mistakes cannot be erased
 - II. Possible disparaging or prejudicial comments during a live narration
 - III. Video should be supported by live testimony later in the case, without any taped comments that conflict with sworn testimony.
 - e. When applicable, obtain permission to record people.
4. Identifying information should be included with each digital picture and video.
 - a. This includes date of photograph and project number.
 - b. Geotagging should be enabled for each digital photo and video.
 5. Storage of Photographs/Videos
 - a. Keep photographs and videos in a secure physical and/or electronic file location
 - b. Retain photographs and videos in accordance with [II. Documentation and Reports, H. Retention Schedule](#).

F. Documentation of Pay Items

1. The Engineer is responsible for ensuring that all quantity measurements are made and documented in accordance with the specifications and instructions included in this manual. Please refer to the [SALT Documentation Manual](#) (PDF) for additional guidance.
2. The Special Provisions and Project Plans may address specific methods of measurement and payment requirements for certain pay items that supersede the Standard Specifications.
3. Documentation may be by Item Record Accounts or other methods approved by the DSAE. Throughout the following discussion, reference to the Item Record Account shall also include other approved digital methods such as One Office.
4. An Item Record Account is a document used to record pay quantities and note location and documentation type. See [Item Record Account Sample](#) (Word).
 - a. Each pay item has an Item Record Account.
 - b. Pay quantities may be entered directly on the Item Record Account or transferred from other records.
 - c. Quantities should only be entered on the Item Record Account when they are satisfactorily furnished and installed and become eligible for payment.
 - d. The quantity entries, including supporting documentation, serve as both partial and final verification that correct payments are made on all vouchers.
 - e. Contract Bid Pay Items (“body” items)
 - I. These are defined as contract pay items with a unit bid price.

- II. See Method of Measurement for documentation requirements.
 - f. Back Sheet Items
 - I. Back Sheet Items allow for additional payment or deduction authorized by the Standard Specifications, Special Provisions, and other authorizations.
 - II. Reference the appropriate specification, special provision or other document that authorizes the payment or deduction.
 - III. Examples of Back Sheet Payments or deductions and authorizations:
 - Deduction for out of tolerance Curb & Gutter as per Standard Specification 2531
 - Water for Dust Control as per Standard Specification 2130
 - Items for additional traffic control that may be required as per Standard Specification 1404.
 - Incentives/Disincentives as per Standard Specification 2360
 - g. Distribution of Pay Quantities by Group/Funding Category
 - I. Group splits are required in order to account for separate costs such as federal funds, state aid funds, local costs that will be borne by other agencies, and other unique situations.
 - II. An Item Record Account should be made for each group in which a pay item is included.
 - III. The Engineer is responsible for appropriate pay group distribution of all contract and back sheet pay items.
5. Change in the Method of Measurement of a Contract Pay Item
- a. Any change from the method of measurement specified in the specifications or special provisions shall be clearly documented either by Change Order or by entering an explanation of the change on the applicable Item Record Account.
 - b. The unit of measure, for payment purposes, must remain the same as the original contract item, and may require a conversion factor to accomplish. Any conversion factor(s) that will be used must be included either by Change Order, on the supporting documentation, or with the explanation in the "Remarks" field of the Item Record Account.
- Refer to page 11 in the [SALT Documentation Manual](#) (PDF) for more detail on how to note this in the Item Record Account.
- c. In all cases, whenever a change in the method of measurement occurs, the new method of measurement will dictate the "Supporting Documentation" that must be properly referenced on the Item Record Account or other documentation method.
6. Supporting Documentation

- a. Supporting documentation is any physical record that was created to serve as verification of either a partial or final pay quantity of a pay item. It includes, but is not limited to:
 - I. Various books
 - II. Booklets
 - III. Envelopes
 - IV. Forms
 - V. Packets
 - VI. Quantity tabulations
 - VII. Data collection forms
 - VIII. Other field measurements/computations
- b. For daily update entries, the record must be entered on the Item Record Account in the appropriate field.

Example: *Concrete Measurement Book*

7. Source Documentation
 - a. Source documentation is used when “Supporting Documentation” is nonexistent and was at no time ever created to document the quantity.
 - b. All source documentation entries must be entered directly on to the Item Record Account or other documentation method (i.e. One Office).
 - c. All source documentation must be accompanied by an explanation of how the quantity being entered is verified (i.e. actual field measure, field count, date completed, etc.).
 - d. For daily update entries, this verification must be entered on the Item Record Account in the appropriate field.
 - e. The use of source documentation does not relieve the Engineer from meeting any of the quantity verification requirements.
8. (P) Plan Quantity Documentation
 - a. (P) Plan Quantity Item designations are found only in the Statement of Estimated Quantities contained in the project plans.
 - b. In order to provide flexibility for increases or decreases, (P) items are bid by a measurable unit and price (such as \$4.00 per cubic yard).
 - c. The Engineer and the Contractor may agree to change the method of measurement from (P) Plan Quantity to an actual field measured item.
 - d. The Engineer and the Contractor may agree to designate any pay item as a (P) Plan Quantity item even if it is not so designated in the Statement of Estimated Quantities.
 - e. If no change in the contract proposal quantity occurs, final documentation of a (P) Plan Quantity is accomplished by completing the following Plan Quantity Statement:

"The finished product is in close conformity with the specified dimensions as verified by the _____ method."

- I. Indicate in the blank space the method of checking used in lieu of actual field measurement to verify that the specified dimensions used to originally establish the contract proposal (P) Quantity were attained.

Examples: *Form check, depth check, length / width / depth, stake check, etc.*

- II. These check measurements will be retained in the Engineer's project records to substantiate the validity of the Plan Quantity Statement.
- f. Computed Only Change (New (P) Plan Quantity)
 - I. If the contract proposal quantity of a (P) item is changed based on computation only, (either in part or as a whole), the single "Plan Quantity Statement" and "Source Documentation" will then apply to the New (P) Quantity. This quantity is arrived at by applying the difference of the computed changed portion of the final pay quantity to the original contract proposal quantity.
 - II. These computations should remain in the Engineer's files.
 - g. Actual Field Measured Change [(P) Plan Quantity Plus]
 - I. Any actual field measured additions or subtractions to the (P) Plan Quantity must include all "Supporting Documentation" with the final records.
 - II. On the Item Record Account, **any actual field measured** change must be documented separately from the **computed only** changes portion of the final pay quantity.
 - h. It is recommended to document changes to (P) Plan Quantity via Change Order. This is especially true when dealing with (P) items that have a large quantity.

Example: *Item 2105.501 Common Excavation 785,000 Cubic Yard (P).*

It is not unusual for an item such as Common Excavation to undergo both computed and actual field measured changes several times throughout the life of a contract. In these cases, the Change Order is a good tool to document each change, step-by-step.

- i. In all cases, the following information is required to document any change to a (P) Plan quantity:
 - I. Reason for change
 - II. Location
 - III. Specific increase / decrease in quantity

IV. Method of measurement – computed only or actual field measured

9. Standard Plate Items

Quantities for pay items placed in accordance with a MnDOT Standard Plate, which has predetermined quantities or formula for such quantities, will be accepted in lieu of measurements or computations, provided a statement on the Item Record Account (or other supporting documentation) confirms that the item was placed in accordance with the provisions of said Standard Plate.

Example: *Class 11 Riprap placed in accordance with Standard Plate No. 3133C*

10. Special Pay Items

Special pay items, not specifically covered by the Standard Specifications, shall be measured and documented in accordance with the method of measurement and basis of payment outlined in the Contract Special Provisions.

- a. If a special pay item is not addressed in the Contract Special Provisions, measurement and payment shall be made in accordance with a similar or "like" pay item in the Standard Specifications.
- b. Special pay items are typically listed in the Contract Special Provisions using a .600 suffix after the four digits item number.

Example: Item 2506.603 L.P. Catch Basin Design Special

11. Invoice Documentation (Non-Force Account)

- a. When shipments are received on the project and the Contractor's invoice will serve as documentation of a Contract pay item, the Inspector shall make certain that the material furnished is indicative of the quantities shown on the invoice.
- b. The Inspector shall initial the invoices to verify the quantity of material used and identify the project numbers (SP/SAP) on each invoice.

12. Vehicular Measure

- a. The hauling capacity of trucks, trailers and semi-trailers shall be documented. The [Computation of Truck Box Capacities \(MnDOT 2141\) form](#) (Word) or other DSAE approved method may be used.
- b. The hauling capacity of scrapers shall be documented by listing the make and model number and manufacturers rated struck capacity. The [Quantity Tally Sheets \(MnDOT 28266\) form](#) (PDF) or other DSAE approved method may be used.

- c. If sideboards are added, measure and compute the added capacity and add it to the manufacturer's rated struck capacity. The [Computation of Truck Box Capacities \(MnDOT 2141\) form](#) (Word) or other DSAE approved method may be used.
 - d. Heaped capacity is restricted to elevating scrapers only.
13. Uniform Loads
- a. Quantity Verification. The Engineer will prepare a short memorandum addressed to the project file that explains the specific steps taken in both the establishment and the verification of loads where methods are not readily evident by the documentation.
 - b. Documentation of Uniform Loads shall be accomplished on Weigh Tickets and the daily spot checks. The [Quantity Tally Sheets \(MnDOT 28266\) form](#) (PDF) may be used.
 - c. Weight and Volume spot checks will be performed as determined by the Engineer.
 - d. All spot check records shall be referenced on the applicable Item Record Account.
14. Rounding Procedures
- a. The objective of the rounding procedures is to create a fair payment for any pay item. Consistent math rounding procedures should be used in all intermediate measurements leading up to the final pay quantity for an item.
 - b. Pay items will be paid to the closest whole unit (cubic yard, linear foot, etc.) as shown in the "Unit" column, unless designated as a fraction of a unit in the "Unit" column.
 - c. Pay items shown as fractional quantities in the "Estimated Quantity" column should be rounded-off and paid as fractional quantities.
 - d. Exceeding the accuracy of the requirements shown in the "Unit" column will be acceptable for all pay items.
 - e. No pay item used may be rounded to a "0" (zero) final pay quantity.
 - f. Rounding Exception
 - I. When a pay item has a substantial Unit Price, paying to the closest whole unit can at times cause undue overpayment or underpayment to the Contractor. In this case, the Engineer may at his or her discretion invoke a rounding exception.

Example: Structural Concrete at \$300.00 per cubic yard. The Engineer may want to pay to the closest 0.1 of a cubic yard rather than to the closest 1.0 cubic yard.
 - II. This rounding exception can be used on all pay items except those items that are to be measured as Each, Lump Sum or (P) Plan Quantity.
 - III. No special notation on the Item Record Account will be required when this rounding exception is used.
15. Pay Items Eliminated, Not Used or Not Needed.

Pay items eliminated by the Engineer or not used, should show a final pay quantity of "0" (zero) on the Item Record Account, and an explanation of why the item was not used should be noted in the "Remarks" field of the Item Record Account.

Examples: *Item not used; Item eliminated by Engineer or similar statement*

G. Final Documentation

State Aid Projects:

- 1) Completed Final Inspection Report/Memo
- 2) Final [Change in Contract Construction Status form](#) (Word)
- 3) Final [State Aid Payment Request form](#) (Excel)

Federal aid (DCP) Projects:

- 1) Refer to the [DCP Checklist](#) (PDF).
- 2) Any additional documentation that may be required for other funding sources (i.e. state aid funds, Safe Routes to Schools, etc.).

H. Retention Schedule

LPA must retain records for seven years from date of final federal action. A project has not been officially finalized if it appears on the **Construction Aging Report under State Aid County and Municipality Reports** in [SAAS Web Reporting](#).

III. Materials

In this section:

- A. [Materials Specifications](#)
- B. [Quality Assurance \(QA\) Program](#)
- C. [Materials Testing Requirements](#)
- D. [Certified Inspectors](#)
- E. [Shop Drawing Review](#)
- F. [Materials Certification](#)
- G. [Project Compliance Reviews](#)

A. Materials Specifications

1. The [State Aid Rule 8820.2500, Subpart 2](#) requires the specifications for construction to be the latest approved MnDOT specifications, except as modified by special provisions

which set forth conditions or requirements for work or materials not covered by the approved specifications.

2. For federal aid projects, the [DCP Agency Agreement](#) (Word) states that the standard specifications will be the latest edition of the MnDOT Standard Specifications for Construction and all amendments thereto.
3. Material specifications are contained in Division III of the [Standard Specifications for Construction](#).

B. Quality Assurance Program

The Quality Assurance (QA) Program consists of planned and systematic actions necessary to provide confidence that a product or service provided by a highway construction contractor or a construction product vendor meets the requirements for quality. This includes Acceptance, Materials Certification and Independent Assurance.

1. **Acceptance and Materials Certification** verifies material quality as materials are incorporated into a project, and applies to all state aid and federal aid projects.

Requirements include:

- a. Technician Certification
- b. Schedule of Materials Control
- c. Acceptance Sampling and Testing
 - I. Field sampling and testing, “Field Tests,” are taken by project personnel and commonly run in the field or in a field laboratory, but may be run at any qualified laboratory.
 - II. Laboratory Testing or field companion testing is performed at a laboratory on a companion sample to the field test, not performed by the same person and/or equipment as the field test.
- d. Quality Control (QC) Testing—process control testing performed by the Contractor on samples taken by the Contractor. A MnDOT representative is required to observe a minimum number of some types of QC samples and tests.
- e. QA Testing—QC companion testing performed by project personnel on companion samples to the Contractor’s or vendor’s QC samples.
- f. Verification Testing is a sample taken and tested by project personnel to assure compliance of the Contractor’s QC program. (QA)
- g. Verification Companion is a companion sample to the verification sample taken by the project personnel, and is provided to the Contractor for testing. (QC)
- h. Small Quantity Acceptance
- i. Qualified Laboratories (Central, District and Field)
- j. AASHTO Materials Reference Laboratory (AMRL) Accreditation

- k. Plant Monitoring
 - l. Certified Plants
 - m. Equipment Calibration
 - n. Approved Products are those that can be accepted based upon a manufacturer's representation that a product complies with all contract requirements, usually identified by a product name. Common examples are concrete admixtures, joint sealers, raised pavement markers and sign sheeting.
 - o. Certified Products are those that can be accepted based upon a manufacturer's certificate of compliance. Certified products are sometimes referred to as from "certified sources" or "approved manufacturers." Common examples are asphalt, cement, fly ash, paint and seed.
 - p. Pre-Cast Plant Inspection
 - q. Dispute Resolution
2. **Independent Assurance** provides for unbiased and independent evaluation, and applies to federal aid projects. Requirements include:
- a. Independent Assurance Inspector
 - b. Evaluations and Reviews
 - c. [Schedule of Independent Assurance Sampling and Testing](#) — assures testers are sampling and testing properly and that equipment is calibrated correctly
 - d. Laboratory Companion Samples (from Schedule of Materials Control)
 - e. Proficiency Samples - two or more homogenous samples called "companion samples" created by splitting a larger sample are tested by two or more laboratories and test results are compared to assure that the laboratories are obtaining the same results.
 - f. Contact the MnDOT District Independent Assurance Inspector when project starts to provide the proper servicing of your federal aid project.

C. Materials Testing Requirements

MnDOT Standard Specification 1603 requires sampling and testing of materials to be in accordance with the Project Schedule of Materials Control.

- 1. The Schedule of Materials Control is required on federal aid, state funds, county/municipal federal aid projects and state aid projects, and outlines the minimum sampling and testing required for most materials used for roadway construction.
- 2. The [MnDOT Materials Engineering website](#) maintains a list of current and previous Materials Control Schedules.
- 3. The Schedule of Materials Control must be included in the project Special Provisions.

4. The Engineer is responsible for compliance with the Project Schedule of Materials Control, and should contact the [MnDOT Office of Materials](#) with any questions regarding Plant Inspection or Materials Testing before the work is started.

D. Certified Inspectors

1. Certification of all county, city and contractor inspection and testing personnel is required on all state aid and federal aid construction projects.
2. For state aid and local federal aid projects neither on the National Highway System nor the Trunk Highway System, appropriately experienced Licensed Professional Engineers may perform inspection or testing without certification.
3. For state aid and local federal aid projects not on the Trunk Highway System, an appropriately certified inspector may be in charge of or available to several projects concurrently in a “chief inspector” capacity for operations relating to their areas of certification.
4. MnDOT provides [Technical Certification classes](#) for county or city personnel. It is the responsibility of the Local Agency to enroll its staff in these courses.
5. Seasonal or temporary employees who will be performing materials testing must be provisionally certified by the [MnDOT District Independent Assurance Sampler](#) (PDF).
6. The Engineer shall make certain that all required testing is performed by a certified or provisionally certified tester as described in Project Schedule of Materials Control.

E. Shop Drawing Review and Shop Inspection

1. All federal aid city/county/township bridge projects containing structural metals will require shop drawing review and fabrication inspection by MnDOT personnel or by a properly certified independent inspection consultant at MnDOT discretion.

This is due to:

- Increasing complexity of bridge welding code requirements.
- Emphasis by FHWA on the importance of welded connection detailing.
- The desirability of avoiding changes during the fabrication process.

This policy will help to assure:

- Full federal aid participation.
 - Compliance with required specifications.
2. For city/county/township bridge projects involving only state and/or local funding, shop drawing review and fabrication inspection are the responsibility of the owner or consultant representing the owner. The LPA may request the services of MnDOT for

shop drawing review and /or shop inspection, or hire a properly certified independent inspection consultant.

3. A [Laboratory Testing and Plant Inspection Services Request form](#) (Word) must be completed for all federal aid projects and for state aid projects where MnDOT Fabrication Methods Shop Drawing Review and/or Structural Metals Inspection services are being requested.

F. Materials Certification

Materials certification provides reasonable assurance that all aspects of the Acceptance Program have been satisfactorily completed and the materials incorporated are in close conformance to the contract specifications.

1. **State Aid** Funded Projects (No federal funds)
 - a. Upon completion of the project, the City/County Engineer must certify on the [State Aid Payment Request form](#) (Excel) that all field tests required by the Schedule of Materials Control were performed by certified or provisional testers.
 - b. The State Aid Division may do annual reviews of a small sampling of projects for conformance with these requirements. Results of such reviews are used by the State Aid Division and cities/counties for training and guidance for state aid policy.
 - c. A separate form documenting exceptions is not required; however, it is expected that exceptions will be properly resolved and supporting documentation placed in the agency's project file.

2. Federal Aid Funded Projects

- a. Upon completion of the project, the city or County Engineer must certify on the [DCP Final Payment Request form](#) (PDF) that:
 - I. *Materials used in the federal aid and state funded portions of this project were sampled and tested in accordance with the Project Schedule of Materials Control.*

[Required number of observations were made and/or samples taken, tested and compared to companion sample test results, where applicable.]

- II. *Inspection on the federal aid and state funded portions of this project was performed by personnel certified in accordance with state aid directives.*

[Local agency and contractor personnel performing acceptance testing were certified at the appropriate level for the tests performed. All acceptance tests not performed by project personnel were performed by a qualified laboratory or by MnDOT central or plant inspection.]

III. *The work required by this contract was completed in accordance with and pursuant to the terms of this contract.*

[Materials were in conformance with the approved plans, special provisions, specifications, and approved changes.]

- b. A Certificate of Final Contract Acceptance (Word) must be completed by the Contractor and submitted with the DCP Final Payment Request.
- c. Materials certification exceptions and resolutions must be documented on the [Materials Certification Exceptions Summary](#) (PDF) and accompanied by applicable Supplemental Agreements, Change Orders or Back Sheet Items and submitted with the DCP Final Payment Request.
 - I. Examples of Exceptions:
 - Failing field test, QC test, or verification companion test
 - Missing field test, QC test, or verification test, including required observations of QC tests
 - Tolerance failure between an acceptance test and the corresponding companion proficiency or Independent Assurance sample test

Companion sample tests are performed between:

- Field and laboratory samples
 - QC and QA samples
 - Verification and verification companion samples
 - Field and Independent Assurance samples
 - QC and Independent Assurance samples
 - Plant observer's QA or verification samples and Independent Assurance samples
- Independent Assurance test fails and is out of tolerance.
 - Samples taken or tests performed by non-certified or under-certified testers, including Contractor QC tests when used for acceptance and agency verification tests
 - Tests not performed in a qualified laboratory
 - Material accepted from a non-approved source, missing certificates of compliance, etc.
 - Individual test out of tolerance, but moving average within limits
 - Paving without a Mixture Design Report/Recommendation

- II. The following are **not** considered to be exceptions:
- Field QC test passes, lab QA test fails and the tests are within tolerance.
 - Independent Assurance test fails, and is within tolerance of a passing field test.
 - QA test does not meet Job Mix Formula/broadband requirements, QC test meets requirements and the tests are within tolerance.
 - Out of tolerance test on bituminous summary sheet, with a retest that is within tolerance
 - Low concrete cylinder strength (unless cylinder strength is specified on the project)
 - Bituminous gradation tests outside the current Mixture Design Report/Job Mix Formula but within a requested and approved mix adjustment
 - This should be considered effective from the time the request was made and noted on the daily summary sheet.
 - Missed Independent Assurance tests do not need to be listed as an exception.
- III. Resolutions:
- Appropriate corrective measures must have been taken.
 - Resolution statements briefly describe the action taken:
 - Standard deduct applied
 - Money per unit deduct applied
 - Mix change made and testing rate increased
 - Testing equipment recalibrated, test rerun and passed
 - No actions taken (For minor test failure, or omission of a few out of many required tests; include rationale on form or attach)
 - Substantial compliance
 - In close conformity
- IV. Supporting documentation should be contained in the file.
- V. May request input from District Materials Engineer during determination of resolution.

G. Project Compliance Reviews

1. Project Compliance Reviews may be conducted by the State Aid Division and by other specialty offices. (The Federal Single Audit is a separate process conducted independently by the MnDOT Office of Audit).
2. SALT will determine review rates and project categories. The rate may vary from category to category of project, and complex project categories may be reviewed at a higher rate. SALT may adjust the rates as deemed necessary to provide reasonable assurance that the Materials Certification process is in compliance.

3. Both irregularities and areas of outstanding performance found during reviews will be reported back to the City or County Engineer and DSAE.
4. The City/County Engineer, with the cooperation of the DSAE, will address irregularities if requested by the State Aid Construction Engineer/Specialist.
5. If requested, the [DSAE](#) and [State Aid Construction Engineer and/or Specialist](#) will receive a copy of the City/County Engineer's explanations.

IV. Contract Time and Changes

In this section:

- A. [Contract Time](#)
- B. [Working Day Charges](#)
- C. [Suspension of Work](#)
- D. [Contract Changes](#)
- E. [Liquidated Damages](#)
- F. [Claims](#)

A. Contract Time

Contract Time is the time allowed for completion of all work required by the Contract as stated in the Special Provisions, including authorized time extensions and is expressed as either:

- 1) Working Days
- 2) Completion Date
- 3) Calendar Days

MnDOT Specifications 1806 "Determination and Extension of Contract Time" and 1807 "Failure to Complete the Work on Time" cover the administration of Contract Time.

B. Working Day Charges

1. Working day charges are assessed on both working day contracts and completion date contracts.
2. Working day charges must also be accounted for on each intermediate completion date, whether it is a working day or completion date contract.
3. The special provisions and addenda frequently alter the requirements of the specifications; therefore, applicable special provisions should be reviewed prior to making any working day charges.
4. Working days must be charged in an equitable manner based on the information available at the time of charges.

- a. This information determines the contract time and will be used to assess monetary damages if the Contractor does not complete the required work within the allotted time on a working day contract.
- b. The information will be required in justification of any time extensions that might be warranted on completion date contracts.
- 5. Working day charges will start on the Contract Starting Date specified in the Proposal. Exception: In accordance with Specification 1806, working day charges will be made for any work conducted prior to the Contract Starting Date when the operations result in a traffic restriction.
- 6. Working Day assessments will be in accordance with Specification 1806:
 - a. One whole working day will be assessed:
 - I. For each day the Engineer determines that the Contractor could have worked effectively on one or more Critical Activities for at least six continuous hours.
 - II. When the Engineer orders work suspended due to reasons of the Contractor’s fault or negligence.
 - III. For Non-Excusable Delays as defined in Specification 1806.2C.
 - b. One half (1/2) working day will be assessed:
 - I. When work on one or more Critical Activities can be effectively prosecuted for at least two hours but fewer than six hours of the daily work schedule.
 - II. When conditions beyond the control of and unknown to the Contractor at the time of bidding make it impossible to prosecute work on one or more Critical Activities with full efficiency for at least eight hours of the daily work schedule.
 - c. No working day charge will be made:
 - I. When work on a Critical Activity cannot be effectively prosecuted for at least two hours of the daily work schedule, due to:
 - a. Excusable, Non-Compensable Delays.
 - b. Excusable, Compensable Days.
 - c. Concurrent Delays.
 - II. On Saturday, Sundays and legal Holidays, unless otherwise noted in contract provisions
 - III. During the inclusive period from November 15 through April 15, unless work causes a traffic restriction.
 - IV. During periods of authorized work suspension, except when suspension is ordered for reasons of fault or negligence on the part of the Contractor.
 - d. Working Day charges are assessed based on the following:

| Hours Worked | Working Day Charge |
|-----------------------------|--------------------|
| 6 or more | 1.0 |
| At least 2, but less than 6 | 0.5 |

| Hours Worked | Working Day Charge |
|--------------|--------------------|
| Less than 2 | 0.0 |

- e. It is critical that day-by-day explanations of delays are entered on the [Weekly Construction Diary and Statement of Working Days](#) (Word).
7. Revisions of Working Day Charges
- a. The Contractor may contest working day charges, providing dates and justification in writing.
 - b. A review of working day charges is permissible only in the event that conditions unforeseen at the time certain working day charges were made controlled the progress and completion of the entire project.
 - c. If the Engineer finds a revision is justified to a previously completed Weekly Construction Diary and Statement of Working Days, a memo must be prepared setting forth the dates and justification, and showing the effect of the revisions on the **Total Working Days Charge to Date**.
 - d. The first Weekly Construction Diary completed subsequent to the approval of the revision memo should show the revised **Total Working Days Previously Remaining** in the Working Day Summary portion of the Weekly Construction Diary.

C. Suspension of Work

1. Per Specification 1501.2, the Engineer may suspend the Contractor's operation:
 - a. If the Contractor fails to:
 - I. Correct unsafe conditions.
 - II. Carry out provisions of the contract.
 - III. Carry out orders.
 - IV. Comply with permit requirements.
 - b. If necessary due to:
 - I. Adverse weather conditions.
 - II. Conditions unsuitable for prosecution of the work.
 - III. Conditions deemed to be in the public interest.
 - c. When the Engineer desires to make further studies or changes prior to proceeding with the work.
2. Suspension should only be resorted to when the Contractor has failed to take remedial action within a reasonable time after being notified to do so. It may result in:
 - a. Delaying completion of the Contract.
 - b. Considerable cost to the Contractor.

3. Suspension should only be ordered by the Engineer on the project. However, if necessary by the Inspector, he/she must notify the Engineer of this action as soon as possible, with the information necessary to support it.
4. Suspension orders should be in writing, except when work must be stopped at once and time does not permit issuance of a written order. A written order confirming the verbal order must be issued at the earliest possible time. The order must state:
 - a. The specific reason for the suspension.
 - b. Refer to the specification(s) under which the action is taken.
 - c. What actions, if any, the Contractor must take before resuming work.
 - d. The conditions under which the suspension will be revoked.
5. A [Change in Contract Construction Status form](#) (Word) should be issued as soon as conditions are favorable for resuming work.

D. Contract Changes

Change Orders, Work Orders and Supplemental Agreements are all types of Contract Changes. Notification requirements and timelines for contract revisions are outlined in 1403.

1. Change Order
 - a. A [Change Order](#) (Word) is a written order issued by the Engineer to the Contractor covering permissible adjustments, minor plan changes or corrections, and rulings with respect to omissions, discrepancies and intent of the plans and specifications.
 - b. May not be used to revise the terms of the contract, such as:
 - I. Contract Specifications or Special Provisions, including contract time
 - II. Character of the work
 - c. The following are some typical uses of Change Orders:
 - I. Revising the method of measurement as per Specification 1901.
 - II. Waiving liquidated damages after the project is in condition for safe and convenient use by the traveling public, or is otherwise available for next-stage construction without restriction.
 - III. Unacceptable work or materials.
 - IV. Bonus payments to the Contractor for exceeding established pavement ride quality, quality standards or early completion as provided in the Contract.
 - V. Changes in the original plan (P) quantity due to re-measurement or re-computation.
 - VI. Substitution of materials.
 - VII. Substitutions of methods or equipment at the Contractor's request.
 - VIII. Changes resulting from adoption of new standards.
 - IX. Quantity increase or decrease of a Contract item.

- X. Minor grades changes, subgrade excavation changes (such as adding, lengthening or deepening), and structure excavation changes (such as enlarging or deepening).
 - XI. Item overruns in accordance with Specification 1903.
 - XII. Time extensions for late contract approval for completion date contracts.
 - XIII. Final pay quantities for landscape items.
 - d. Submit the Change Order to DSAE for approval of state aid or federal aid participation.
 - e. When requesting additional federal funds and on Projects of Divisional Interest, an [Overrun Justification](#) (Word) must be submitted to the DSAE to encumber funds for Contract cost overruns resulting from a Change Order.
2. Work Order for Minor Extra Work
- a. The Engineer may order minor extra work necessary to complete the Contract as originally intended, where there is no contract unit price for the work or work item.
 - b. A Work Order for Minor Extra Work may not be used to add working days to contract time or extend completion dates.
 - c. Minor extra work shall not exceed \$50,000 per individual occurrence.
 - d. Payment for minor extra work may be made by negotiated unit price or by force account.
 - e. Each method of payment within the same Work Order will have a separate Item Record Account.
 - f. A [Work Order for Minor Extra Work](#) (Word) need not be written in formal language or typed, but must be legible, clearly state work to be accomplished, and include a total estimated cost.
 - g. Submit the Work Order to the DSAE for approval of state aid or federal aid participation.
 - h. The DSAE must sign all Work Orders that have a value greater than \$25,000.
 - i. When requesting additional federal funds and on Projects of Divisional Interest, an [Overrun Justification](#) (Word) must be submitted to the DSAE to encumber funds for Contract cost overruns resulting from a Work Order.
3. Supplemental Agreement
- a. A [Supplemental Agreement](#) (Word) is a legal and binding document that modifies the original contract as executed and approved. Only a Supplemental Agreement can revise the terms of a contract.
 - b. The following are changes that must be made by Supplemental Agreement:
 - I. Performance of "Extra Work" as defined in Specification 1402.5.
 - II. Alterations in special provisions and specifications, including Contract Time.
 - III. Alterations in the scope of the contract or character of the work.
 - IV. Experimental work or procedures.
 - V. Revisions in the structural section above the sub-base.

- VI. Major revisions in geometric design of the mainline roadway, ramps, frontage roads, or crossovers and additions/deletions.
- VII. Additions, deletions or relocations of bridges or other structures that would affect the functional scope and intent of the approved design.
- VIII. Price adjustments in accordance with Specification 1402.
- c. Preparing the Supplemental Agreement
 - I. Engineer and the Contractor discuss and consider possible solutions and initiate price negotiations.
 - II. Engineer analyzes the possible solutions and solicits recommendations from the DSAE as needed.
 - III. Engineer works with the Contractor to determine justifiable unit prices.
 - IV. On federal aid projects, an independent cost estimate is required on all negotiated costs. The Engineer may utilize MnDOT Estimating for recommendations on unit prices.
 - V. Format and sample language are included in the [Supplemental Agreement](#) (Word).
 - VI. Contractors sometimes elect to cross out the disclaimer statement. The Contractor may not cross out the disclaimer if the Agreement is a claim settlement, nor if the Agreement is being executed at the request of the Contractor.
 - VII. Engineer has the DSAE review the Supplemental Agreement.
 - VIII. Agreement is signed by the Engineer, Contractor and the DSAE (for funding purposes only). All parties must sign the last page of the Supplemental Agreement; however, all pages of the Supplemental Agreement may be signed, if desired.
 - IX. When requesting additional federal funds and on Projects of Divisional Interest, an [Overrun Justification](#) (Word) must be submitted to the DSAE to encumber funds for Contract cost overruns resulting from a Supplemental Agreement.
- 4. The [Contract Change Flow Chart](#) (Word) provides assistance in determining the type of document to use to document a change in the contract.
- 5. Method of Payment Options
 - a. Overrun paid at Contract Unit price
 - b. Negotiated Prices
 - I. Unit Price
 - II. Lump sum
 - III. Criteria used to justify negotiated prices in accordance with Specification 1904.3
 - c. Force Account
 - I. Force Account is used for extra work if the Contractor and the Engineer cannot agree on a unit price or lump sum amount, or if those methods are impracticable.

- II. Force Account is a method of accounting and paying for contract work done on the basis of time and materials expended by the Contractors' forces. [Not to be confused with the [State Aid Force Account Agreement](#) (PDF), that is submitted by a city/county to State Aid when work is being done by city or county local forces, or a railroad or utility company].
- III. The work must be performed in accordance with Specification 1904.4 "Force Account."
- IV. Documentation of Force Account work includes:
 - [Daily Equipment & Labor Rental Record](#) (PDF)
 - Completed each day equipment, labor, or material is used on the Force Account work.
 - Brief description of the equipment and the rental rate to be used.
 - Only the hours the equipment was actually used for the Force Account work are entered for each piece of equipment.
 - The additional transportation costs associated with hauling the equipment to the project are entered as a separate line.
 - Name and position of each individual working on the Force Account work.
 - Pay rate is taken from the Contractor's payrolls when rates are not specified in the agreement.
 - The overtime hours the employee actually works on the project work is recorded in the overtime column.
 - All materials used in Force Account work are recorded daily in the "Remarks" section of the form. Invoices showing material and associated costs must be attached for documentation.
 - Contractor and Engineer review and sign agreeing to the information.
 - [Summary of Daily Force Account](#) (PDF)
 - The Contractor is required to submit itemized statements of cost in accordance with Specification 1904.4.
 - This form summarizes all the labor, equipment and material costs recorded on the Daily Equipment and Labor Rental Records after the Force Account work has been completed.
 - A separate line is used to total the number of employees, hours and pay amount for each class of labor with the same pay rate.
 - The total of both regular and overtime hours are multiplied by the regular pay rate to determine the total dollars paid for each class of labor.
 - The amount of overtime-premium pay for all employees is listed as one entry labeled "Total Overtime."

- An overhead compensation rate per Specification 1904.4 is applied to "taxable wages" and material.
 - The materials section is a summation of all the materials costs documented in the "Remarks" portion of the Daily Equipment and Labor Rental Records.
 - No overhead compensation percentage is added to equipment rentals unless provided for in the agreement.
 - Contractor and Engineer review and sign agreeing to the information.
 - Engineer shall keep the original copy containing signatures from all parties, and submit a copy to the Contractor.
- V. Payment for work performed under Force Account is made each month in the partial estimates.
- VI. Supporting records are not submitted with the partial estimates but are included with the final record.

E. Liquidated Damage

1. Liquidated damages may be assessed to the Contractor for each calendar day the work remains uncompleted after expiration of the contract time, in accordance with Specification 1807, unless superseded by the Special Provisions.
2. Time extensions must be computed and added to the contract time before liquidated damages are assessed.

F. Claims

1. The Contractor shall not file a claim until the Contractor has exhausted the requirements of Specification 1402, "Contract Revisions," and Specification 1403, "Notification for Contract Revisions." The [Contract Revisions flowchart](#) (PDF) provides guidance in determining the steps required before a claim may be filed.
2. Claims for Compensation Adjustment must be made by the Contractor in accordance with Specification 1517.
3. The Engineer should contact the MnDOT Claims Engineer in the Office of Construction and Innovative Contracting, the DSAE and the State Aid Construction Engineer/Specialist for assistance on large or controversial claims as soon as possible.
4. The Engineer may want to keep force account type records on the disputed work to verify the validity of the claims.

V. Subletting and Labor

In this section:

- A. [Subletting](#)
- B. [Labor Requirements](#)
- C. [Labor Classifications](#)
- D. [Prevailing Wages](#)
- E. [Certified Payroll](#)
- F. [Poster Board](#)

A. Subletting

1. The Contractor shall not sublet any portion of the work under the Contract without written consent of the Engineer.
2. Specification 1801 "Subletting of Contract" explains the allowable limits and requirements for subletting contract work. In order to ensure compliance, the Contractor will utilize the [Request to Sublet form](#) (Word) and submit to the Engineer 10 business days before the subcontractor intends to start work.
3. The Engineer is responsible for checking subcontracts for compliance with the requirements of the Contract.
4. For federal aid projects, the Engineer should be aware that DBE requirements and designated "specialty items" will impact the percentage of subcontract work. Questions related to the DBE subcontracting rules should be directed to the [MnDOT Civil Rights Office](#).

B. Labor Requirements

1. Any project funded in whole or part with state aid funds must conform to wages and policies determined by the Minnesota Department of Labor and Industry as defined by State of Minnesota Prevailing Wage Law ([Minnesota Statute, Sect 177.41 – 177.44](#)) and Minnesota Rules, [5200.1000](#) to [5200.1120](#).
2. Any project funded in whole or part with federal aid funds must conform to the federal wages and policies determined by the U.S. Department of Labor conforming to the Davis-Bacon and Related Acts (29 Code of Federal Regulations Parts [1](#), [3](#) and [5](#)) and the 1968 Federal Aid Highway Act, Section 12 ([40 U.S.C. Section 3141](#)).
3. The courts and the state and federal Departments of Labor are continually making rulings; therefore, the application of the state and federal prevailing wage laws may vary from year to year.
4. All labor provisions outlined in the Contract Proposal must be followed.

5. All written subcontract agreements and purchase orders must include provisions that require the subcontractors or agents of to adhere to all contract provisions contained in the original Contract.
6. A copy of the labor provisions should be kept on file at the job headquarters.
7. Engineer has primary compliance assurance duties, and as such:
 - a. Must be familiar with the Contract Labor Provisions.
 - b. Must ensure the Contractor fully complies with Contract Labor Provisions.
 - I. Randomly interview employees throughout the month.
 - II. Complete [Field Compliance Review on Labor Provisions form](#) (PDF).
 - III. Address all wage complaints or discrepancies.
 - c. Must ensure prevailing wages are paid on the project.
 - d. Must ensure employee confidentiality is maintained when dealing with all labor complaints, unless the employee has given permission to use her/his name.
 - e. Provides additional copies of labor provisions as requested by the Contractor or subcontractor.
8. The [MnDOT Labor Compliance Unit](#) provides investigative and enforcement assistance to the Engineer, Contractor, and employees.
 - a. Contact the MnDOT Labor Compliance Unit for help in determining prevailing wage coverage for truckers, borrow pits, off-site facilities, commercial establishments or other coverage related issues.
 - b. The [Labor Compliance website](#) lists support services and provides guidance on prevailing wage issues.
 - c. If a contractor who has not complied with written requests to resolve issues involving contract labor provisions (e.g. payrolls issues, wage rates, misclassification, etc.), the Engineer should complete the [Investigation Request Letter](#) (PDF). The letter should be signed, scanned and submitted by email along with all appropriate documentation and correspondence surrounding the issue(s) to the Labor Compliance Unit. The Labor Compliance Unit would like the documents individually scanned and labeled, as this information will be uploaded into their electronic Case Management System and used by the investigators in resolving the issues on your contracts. Once the investigation is resolved, the Labor Compliance Unit will notify you that the Labor Hold can be removed. **Please follow your normal retainage and contract closeout processes but do not final your contract until the Labor Hold is removed.**
 - d. The Engineer should contact the Labor Compliance Unit for assistance if he or she is having problems in achieving compliance with the Contract Labor Provisions. The

Engineer may also contact the Labor Compliance Unit to ask for an official investigation of the Contractor.

C. Labor Classifications

1. The Contractor and Subcontractor should determine the proper state or federal labor classifications as early as possible, using:
 - a. State: [Master Job Classifications List \(Minnesota Rule 5200.1100\)](#).
 - b. Federal: Federal General Decision in the project Contract.
2. For any work activity that does not correspond to a job classification contained in the above lists:
 - a. State: the Contractor or Engineer completes a [Classification Clarification Request form \(PDF\)](#) and submits to the Minnesota Department of Labor and Industry.
 - b. Federal: the Contractor completes a [Request for Authorization of Additional Classification and Rate \(PDF\)](#), and the Engineer submits the form to Labor Compliance Unit for processing with the U.S. Department of Labor.

Note: All workers on a federal aid project are required to be paid at the federal wage rate or greater for their classification.

- c. If a dispute arises concerning the appropriate classification of labor, the Engineer may consult the Labor Compliance Unit, the Minnesota Department of Labor and Industry, or the U.S. Department of Labor for advice to help determine the most similar classification.
3. Apprentices must be registered with the Minnesota Department of Labor and Industry, Apprenticeship Division, or the Federal Bureau of Apprenticeship.
 - a. These are the only two agencies apprenticeship programs that MnDOT recognizes for purposes prevailing wage enforcement.
 - b. The ratio of apprentice to journeyman level employees on the project job site must not be greater than the ratio permitted for the Contractor's entire workforce under the registered program.
4. Trainees working on federal aid contracts must be approved by the [MNDOT Civil Rights Office](#) prior to working on the project. The designation "Trainee" is specific to the person and to the federal aid contract.
5. See the [MnDOT Labor Compliance – Labor Classification Requirements webpage](#) for additional guidance and forms.

D. Prevailing Wages

1. It is the Contractor's responsibility to determine the proper wage rates to be paid for each class of work on the Contract.
2. The prevailing wages listed in the Contract are the minimum hourly wages to be paid for all hours worked on the project and include:
 - a. Hourly basic rate-- hourly wage paid to any employee
 - b. Fringe rate
3. Overtime:
 - a. State law requires one-and-one-half times the hourly basic rate for all hours worked in excess of the prevailing hours of labor. The prevailing hours of labor are eight hours per day and 40 hours per week.
 - b. Federal law requires one-and-one-half times the basic rate plus the remaining fringe rate for work performed after 40 hours per week.
4. If a project has both state aid and federal aid funding, the Contractor must meet the minimum guidelines for each law in order to be in compliance with the Contract Labor Provisions, and therefore, is required to pay the higher of either the state or federal wage rates.
5. If the Contract contains two or more State Regional Highway and Heavy Wage Determinations, the highest classification wage rate between the determinations shall govern.
6. If the Contract contains two or more Federal General Wage Decisions, the rate established by the U.S. Department of Labor for each area is the federal rate that applies to that area. Federal rates do not cross county or state lines.
7. See the [MnDOT Labor Compliance – Wage and Fringe Benefit Requirements webpage](#) for additional guidance and forms.

E. Certified Payroll

1. The Contractor is required to submit certified payrolls to the Engineer on a weekly basis.
 - a. Contractor must complete and sign the [Statement of Compliance \(MnDOT 21658\)](#) (PDF) form and submit along with the payroll records for all workers on the project.
 - b. Subcontractors must also complete and sign the [Statement of Compliance \(MnDOT 21658\)](#) (PDF) form and submit along with their payroll information to the Contractor. The Contractor shall certify the payroll information for each Subcontractor.

- I. Refer to the [Statement of Compliance Form Guide](#) (PDF) for detailed guidance on how to fill out the form.
 - c. If the Contractor or Subcontractor uses a computer generated form, the form must contain all language on the Statement of Compliance, [MnDOT 21658](#) (PDF) form. A copy of the computer generated form should be submitted to the Labor Compliance Unit by the Engineer.
 - d. The payroll records must provide all the information specified in the [USDOL WH-347 Payroll form](#) (PDF) or [MnDOT Payroll form](#) (Excel).
 - e. Apprentice registration numbers should accompany the payrolls for verification purposes.
2. The Engineer shall ensure all payroll information is filled out properly, and if incorrect, send a copy of the payrolls to the Contractor with an explanation of the corrections required.
 - a. Compare Daily Diaries and Field [Compliance Review on Labor Provisions](#) (PDF) to the payroll records.
 - b. Compare fringe benefit information giving special attention to employees who claim not to be receiving fringe benefits. Discrepancies should be reported to the Labor Compliance Unit.
3. The Engineer may withhold partial payments until all payroll requirements are met, including timely submission, labor disputes, poster board disputes and underpayments.
4. All certified payrolls must be maintained, at both the Engineer's and Contractor's offices, for a period of at least three years after the final contract voucher has been issued. For federal aid projects, the certified payrolls must be retained for seven years after the final federal action.
5. See [MnDOT's Labor Compliance – Certified Payrolls webpage](#) for additional guidance and forms.
6. All payroll information should be kept in a secure location.

F. Poster Board

1. The Contractor must place a poster board in a conspicuous location on the project work site, where all workers have access, from the first day of work until the project is 100 percent complete.
2. All the information must be accurate, accessible, legible and protected from the weather.

3. Contract wage decisions are required to be posted. These include:
 - a. State Wage Determination(s).
 - b. State Truck Rental Rate.
 - c. Federal General Wage Determination(s).
4. Required downloadable posters are located at the [MnDOT Labor Compliance – Poster Boards webpage](#).
5. The NPDES permit card, if applicable, must be posted.

VI. Payment Provisions

In this section:

- A. [Partial Contractor Payment](#)
- B. [Partial Reimbursement Request](#)
- C. [Overruns](#)
- D. [Final Payment to Contractor](#)
- E. [Final Reimbursement Request](#)

A. Partial Contractor Payment

1. The Engineer must prepare a partial estimate at least monthly. The estimate shall:
 - a. Contain an estimate of the value of the work completed to date.
 - b. Be based on documentation of quantities and other contract work.
 - c. Be in Engineer’s Estimate format.
 - d. Show the breakdown of federal participating and non-participating items for each category or group.
 - e. Be certified by Engineer and Contractor.
2. Material on Hand
 - a. In accordance with Specification 1906.2, a payment may be made for acceptable material produced or furnished for incorporation as a permanent part of the work yet to be completed, if the following conditions are met:
 - I. Payment request must be at least \$5,000.
 - II. Acceptable provisions have been made for storage.
 - III. Items specifically manufactured or produced for the project.
 - IV. Irrevocably assigned to the Contract.
 - V. Invoices contain complete material description and identification data.
 - VI. Vendor to be paid by Contractor within 30 days of receipt of partial payment voucher.

- b. No Material on Hand payment will be made for living plant materials until planted, except as provided for in Specification 2571.5, Basis of Payment.
- c. Materials produced by the Contractor
 - I. Engineer determines the amount of payment.
 - II. May use itemized list showing the cost of producing the materials submitted by Contractor
- d. The partial payment may not exceed the value of work the materials will be used in.
- e. Material on Hand will be paid for as a Back Sheet Item.
- f. Each item should have a separate Material on Hand payment. Do not combine several pay items into one Material on Hand payment.
- g. Engineer reduces Material on Hand payments from the pay voucher as the actual pay items, represented by the Material on Hand, are placed and paid for under the Contract items.

B. Partial Reimbursement Request

- 1. Request for State Aid Reimbursement
 - a. State aid city or county prepares [State Aid Payment Request](#) (Excel) after contract execution.
 - I. A separate payment request must be completed for each project number.
 - II. For County State Aid Municipal work, submit a detailed cost split itemizing state aid participating and nonparticipating items and any pro rata calculation.
 - III. Project development and right of way reimbursement
 - Requests may be submitted any time after the costs incurred.
 - Project development reimbursement based on eligible contract construction costs (or Engineer's Estimate before bid opening).
 - Right of Way reimbursement requires an approved Right of Way plan, or Right of Way shown on an approved construction plan, before payment will be made.
 - Request for construction engineering reimbursement must be submitted with the Final [State Aid Payment Request](#) (Excel).
 - Submittal of documentation of costs may be required.
 - IV. Submits to DSAE with copy of Bid Abstract (all bidders).
 - b. Awarded Bid Spreadsheet (or Bid Abstract) must be submitted electronically in Excel format to saltprojectfiles.dot@state.mn.us before reimbursements will be processed.
 - c. DSAE reviews/approves/submits [State Aid Payment Request](#) (Excel) to State Aid Finance.
 - d. SAF releases funds in accordance with [State Aid Rules](#).
 - I. Up to 95 percent of state aid contract costs
 - II. One hundred percent of project development costs

- III. One hundred percent of actual expenditures for Right of way costs, or 95 percent of appraised costs
2. Request for Federal Aid and Bridge Bonding Reimbursement
 - a. The LPA is encouraged to review the **Funding Participation Distribution** spreadsheet received from SALT, and the **Project Setup** found under **Federal Aid Projects and Agreements Reports** in [SAAS Web Reporting](#). Notify State Aid Finance of any disagreements with the setup.
 - b. LPA prepares a DCP (Partial) Payment Request on the State Aid Finance [SAAS Web Reporting](#) website.
 - I. See [DCP Payment Request Guide](#) (PDF) for preparation guidance.
 - II. This is required within 11 months of FHWA project authorization. (Project authorization date can be found on the Project Setup Report for Federal County Road and Bridge.)
 - III. A multi-page payment detail report will print.
 - IV. Sign and submit only the first page to State Aid Finance. (Your DSAE may request all pages).
 - V. Attach a copy of the Partial Estimate.
 - VI. Send copy to DSAE.
 - c. The use of federal funds for project development, right of way and construction engineering costs is discussed in [Chapter 5.3. IV. Federal Aid Agreements](#).

C. Overruns

On Federal Aid projects:

1. If additional federal funds are available, the Engineer must submit an [Overrun Justification](#) (Word) to the DSAE.
 - a. Include pay items documented by Change Order, Work Order, Supplemental Agreement and Back Sheet Item entries.
 - b. List the items and increases/decreases by group/funding category.
 - c. The DSAE will review and if approved, submit the Overrun Justification to State Aid Finance for encumbrance of additional funds.
2. The Engineer may submit as many requests for encumbrance as are needed.
3. On Projects of Divisional Interest, whether or not additional federal funds are being requested, the Engineer must document Contract cost overruns on an [Overrun Justification](#) (Word) and submit it to the DSAE.

D. Final Payment to Contractor

1. For state aid and federal aid projects:

- a. Engineer shall give advance notice to the DSAE that the project is complete and ready for inspection.
- b. DSAE conducts final inspection and prepares [Final Inspection Report](#) (Word).
- c. Engineer prepares the Final Estimate.
 - I. Final statement of the value of the work completed
 - II. Based on documentation of quantities and other contract work
 - III. Must be in Engineer's Estimate format
 - IV. Must show the breakdown of federal participating and non-participating items for each category or group
 - V. Documented and adjusted for:
 - Liquidated damages
 - Surplus materials
 - Materials failures
 - Incentives/disincentives
 - VI. The [Final Voucher](#) (PDF) must be certified by Engineer and Contractor.

"I hereby certify that a final examination has been made of the noted Contract, that the Contract has been completed, that the entire amount of Work Shown in this Final Voucher has been performed and the Total Value of the Work Performed in accordance with, and pursuant to, the terms of the Contract is as shown in this Final Voucher."

- d. Engineer completes [Materials Certification Exceptions Summary](#) (PDF), see [Section III.F. Materials Certification](#).
 - e. For State Aid projects, the LPA may make final payment to Contractor at this point.
2. Additional Requirements for federal aid projects.
 - a. Contractor submits [DBE Total Payment Affidavit](#) (PDF) to the MnDOT Civil Rights Office.
 - I. Contractor shall also submit a copy to Engineer.
 - II. Civil Rights Office notifies Engineer and SALT with the Final Contract Clearance Letter that final payment can or cannot be made.
 - b. Engineer checks with MnDOT Labor Compliance Unit for any labor holds.
 - c. Contractor submits [Contractor Certificate of Final Contract Acceptance](#) (Word) to Engineer.
 - d. LPA makes final payment to Contractor.
 3. Note: [Minnesota Statute 160.17, Subdivision 3](#) requires that a county or town board shall not make final payment on any road construction or improvement contract, the amount for which sealed bids are required under [section 471.345](#), until the Engineer or

person in charge of the work has certified to the county board or the town board, as the case may be, that the work has been done and performed according to contract and the certificate has been filed in the office of the county auditor or town clerk.

E. Final Reimbursement Request

1. Final release of state aid and federal aid funds for a project is dependent on final inspection and acceptance of the project by the DSAE and the determination of the final cost of the project.
2. Request for State Aid Reimbursement
 - a. State aid city/county prepares [State Aid Payment Request](#) (Excel)
 - I. A separate payment request must be completed for each project number.
 - II. Submits to DSAE with copy of Final Estimate adjusted as described above.
 - III. On a federal aid project, submit with the DCP Final Payment Request.
 - b. DSAE reviews/approves/submits [State Aid Payment Request](#) (Excel) to State Aid Finance.
 - c. State Aid Finance releases funds in accordance with State Aid Rules:
 - I. Remaining portion of State Aid share
 - II. Project development costs
 - III. Right of Way costs
3. Request for Federal Aid and Bridge Bonding Reimbursement.
 - a. LPA prepares a **DCP (Final) Payment Request** on the State Aid Finance [SAAS Web Reporting website](#).
 - I. See [DCP Payment Request Guide](#) (PDF) for preparation guidance.
 - II. See [DCP Final Payment Request Sample Packet](#) (PDF) for additional preparation guidance and required documentation.
 - III. Submit **complete DCP Final Payment Request Packet** to the DSAE.
4. DSAE reviews/approves/submits DCP Final Payment Request packet, including a signed copy of the Final Inspection Report, to SALT.
5. SALT reviews/approves/forwards DCP Final Payment Request to State Aid Finance.
6. State Aid Finance reimburses the LPA for the final federal aid and bridge bonding share.

Chapter 7 Bridge Maintenance

I. Bridge Inspection and Inventory

The requirements for the inspection and inventory of in-service bridges are outlined in the NBIS, [Minnesota Statute 165.03](#) and the [MnDOT Bridge and Structure Inspection Program Manual \(BSIPM\)](#) (PDF).

In this section:

- A. [Responsibility for Inspection and Inventory](#)
- B. [Qualification of Personnel](#)
- C. [Frequency of Inspections](#)
- D. [Annual Certification of Bridge Inspections](#)

A. Responsibility for Inspection and Inventory

The Commissioner of Transportation is responsible for all bridges on the state TH system and the Federal Interstate Highway system. The County Highway Engineer is responsible for all county bridges, township bridges and city bridges within cities that do not have a regularly employed City Engineer. The City Engineer is responsible for all bridges on the city street system.

B. Qualification of Personnel

Each agency with responsibility for bridge inspection and inventory must designate a Program Administrator (PA) to oversee the bridge inspection program. This will typically be the County Engineer or the City Engineer, but could be a private consultant Engineer (appointed by the agency). A PA must be certified as a professional engineer in the state of Minnesota, and must regularly attend bridge inspection refresher seminars (conducted by the MnDOT Bridge Office). A PA may (or may not be) certified as a Bridge Inspection Team Leader. When a new PA is appointed, a [MnDOT Bridge Safety Inspection Appointment Form for PA](#) (Word) shall be submitted to the MnDOT Bridge Office.

A certified Bridge Inspection Team Leader must be present during inspections of in-service bridges and culverts on the state, county and local highway system. The five ways to qualify as a Bridge Inspection Team Leader:

1. Be a registered professional engineer in the state of Minnesota, successfully complete a FHWA approved comprehensive bridge inspection training course, and **pass a field proficiency test** (administered by the MnDOT Bridge Office).

2. Have five years bridge inspection experience, successfully complete a FHWA approved comprehensive bridge inspection training course, **and pass a field proficiency test** (administered by the MnDOT Bridge Office).
3. Be certified by the National Institute for Certification in Engineering Technologies as a Level III or IV Bridge Safety Inspector, successfully complete an FHWA approved comprehensive bridge inspection training course, **and pass a field proficiency test** (administered by the MnDOT Bridge Office).
4. Have a bachelor's degree in Engineering from an accredited college or university, successfully pass the Fundamentals of Engineering or Engineer in Training examination, have two years of bridge inspection experience, successfully complete an FHWA approved comprehensive bridge inspection training course, **and pass a field proficiency test** (administered by the MnDOT Bridge Office).
5. Have an associate's degree in Engineering or Engineering technology from an accredited college or university, have four years of bridge inspection experience, successfully complete an FHWA approved comprehensive bridge inspection training course, **and pass a field proficiency test** (administered by the MnDOT Bridge Office).

Certification must be renewed every four years. To maintain certification, Bridge Inspection Team Leaders must remain active in bridge inspection and attend at least two bridge inspection refresher seminars (conducted by the MnDOT Bridge Office) during the four preceding years.

C. Frequency of Inspections

Bridges and culverts must be inspected annually (12 month interval), unless a two year (24 month) interval or four year (48 month) interval (for some culverts), is authorized by the Commissioner. Refer to [MnDOT Technical Memorandum No. 11-06-B-03](#) (PDF) on bridge and culvert inspection frequencies for more information. Each county or municipal authority responsible for inspection of bridges must submit all required inspection data (and updated inventory data) to the Commissioner of Transportation by February 15 annually. Refer to [BSIPM](#) (PDF) for more information.

D. Annual Certification of Bridge Inspections

Each highway agency responsible for bridge inspection shall certify to the Commissioner of Transportation annually that all bridges have been inspected, that qualified personnel were used to perform these inspections, and (if applicable) that inspection reports were filed with: (a) the County Auditor, (b) township clerk, or (c) governing body of the municipality in those cities which do not employ an engineer to perform such inspections. The Certificate of Bridge Inspection form is available on the [Bridge Inspection webpage](#) (PDF).

II. Rating Local Bridges

For guidance on rating new and existing local bridges please reference the [State Aid Bridge website](#).

III. Restricting Traffic on State Aid Routes

Cities and counties are authorized by [Minnesota Statute 169.87](#), to prohibit vehicles or to impose vehicle weight restrictions on any street or highway under their jurisdiction, whenever a street or highway will be seriously damaged or destroyed unless the use by vehicles is prohibited or the permissible weights of vehicles reduced. Legal vehicles may not be prohibited from state aid routes for any other reasons. Signs indicating the restrictions must be placed at each end of the portion of street or highway that is affected.

Chapter 8 Finance

I. Overview

State Aid Finance has developed a webpage containing common form templates, contact information and an accounting manual intended to provide guidance and accepted practices for local road and bridge accounting transactions. In an effort to retain consistency and avoid storing information in two different online locations please go to the [State Aid Finance website](#).

If you have additional questions or information that is not available on the webpage feel free to contact Ann McLellan at 651-366-4877 or ann.mclellan@state.mn.us.

Abbreviations

A

| | |
|--------|------------------------------------------------------------------|
| AASHTO | American Association of State Highway & Transportation Officials |
| AC | Advanced Construction |
| ACHP | Advisory Council on Historic Preservation |
| ADT | Average Daily Traffic |
| APT | Area Transportation Partnership |

B

| | |
|-------|------------------------------------------------|
| BSIPM | Bridge and Structure Inspection Program Manual |
|-------|------------------------------------------------|

C

| | |
|------|----------------------------------------|
| CCCS | Change in Contract Construction Status |
| CE | Categorical Exclusions |
| CFR | Code of Federal Regulations |
| CO | Change Order |
| CRU | Cultural Resource Unit |
| CSAH | County State Aid Highway |

D

| | |
|------|-----------------------------------|
| DBE | Disadvantaged Business Enterprise |
| DCP | Delegated Contract Process |
| DNR | Department of Natural Resources |
| DSAE | District State Aid Engineer |

E

| | |
|-----|------------------------------------|
| EA | Environmental Assessment |
| EAW | Environmental Assessment Worksheet |

EIS Environmental Impact Statement

ER Emergency Relief

ESAL Equivalent Single Axle Load

F

FA Force Account

FEMA Federal Emergency Management Agency

FHWA Federal Highway Administration

FLTP Federal Lands Transportation Program

FONSI Finding of No Significant Impact

FWS U.S. Fish & Wildlife Service

H

HBRRP Highway Bridge Replacement and Rehabilitation Program

HDS Hydraulic Design Series

HEC Hydraulic Engineering Circular

HUTDF Highway User Tax Distribution Fund

I

IRA Item Record Account

ITS Intelligent Transportation System

L

LAWCON Land and Water Conservation Fund

LCU Labor Compliance Unit

LPA Local Public Agency

LRFD Load and Resistance Factor Design Manual

LRRB Local Road Research Board

LWCFA Land and Water Conservation Fund Act

M

MDA Minimum Damage Acquisition

MDH Minnesota Department of Health

MnDOT Minnesota Department of Transportation

Mn/DLI Minnesota Department of Labor and Industry

MN MUTCD Minnesota Manual on Uniform Traffic Control Devices

MOA Memorandum of Agreement

MOH Material on Hand

MPCA Minnesota Pollution Control Agency

MSAS Municipal State Aid Streets

N

NBIS National Bridge Inspection Standards

NEPA National Environmental Policy Act

NHS National Highway System

NPDES National Pollutant Discharge Elimination System

NRCS Natural Resource Conservation Service

O

OCR Office of Civil Rights

OES Office of Environmental Services

OFCVO Office of Freight and Commercial Vehicle Operations

OJT On-the-Job Training

P

PM Project Memorandum

| | |
|------|------------------------------------|
| PoCI | Project of Corporate Interest |
| PoDI | Project of Divisional Interest |
| PS&E | Plans Specifications and Estimates |

Q

| | |
|----|-------------------|
| QA | Quality Assurance |
| QC | Quality Control |

R

| | |
|-----|--------------|
| R/W | Right of Way |
|-----|--------------|

S

| | |
|-------|-------------------------------------------|
| SA | Supplemental Agreement |
| SALT | State Aid for Local Transportation |
| SIB | State Infrastructure Bank |
| SJR | Signal Justification Report |
| SHPO | State Historic Presentation Officer |
| SRTS | Safe Routes to School |
| STIP | Statewide Transportation Improvement Plan |
| SWPPP | Storm Water Pollution Prevention Plan |

T

| | |
|------|--------------------------------------|
| TCP | Traffic Control Plan |
| TH | Trunk Highway |
| THPO | Tribal Historic Preservation Officer |
| TRLF | Transportation Revolving Loan Fund |
| TTP | Tribal Transportation Program |

U

| | |
|-------|--------------------------------|
| USACE | U.S. Army Corps of Engineers |
| USDA | U.S. Department of Agriculture |
| USDOL | U.S. Department of Labor |
| USGS | U.S. Geological Survey |

W

| | |
|--------|---------------------------------|
| WO/MEW | Work Order for Minor Extra Work |
|--------|---------------------------------|

Revisions

2016

- [12/7](#) (PDF)
 - Add bullet to 5.4, VI. Eligibility, A. Special Items and modify section 5.2, II. Pre-Acquisition, E. Minimum Damage Acquisition
- [10/13](#) (PDF)
 - Update and remove items from “D. Endangered Species Act of 1973” because it is no longer relevant.
- [10/6](#) (PDF)
 - Change URLs for the two links in Chapter 5.4 Plans and Proposals, III. Design Standards, B. Roadway Standards #2
- [9/29](#) (PDF)
 - Delete #3 R/W Certification No. 2 section from Chapter 5.2 Right of Way, IV. Right of Way Certification Requirements.
- [6/20](#) (PDF)
 - Adding new section (#3) in 5.4 Plans and Proposals, VIII. Other Project Documents H. Proposals
- [6/7](#) (PDF)
 - Update link for “MnDOT Tech Memo on Bridge Preservation, Improvement and Replacement Guidelines” in Chapter 5.4, Plans and Proposals, VII. Specific Plan Requirements
 - Additions/deletions to Chapter 5.4 Plans and Proposals, VIII. Other Project Documents, A. Parking Restrictions and Resolutions #3
- [3/16](#) (PDF)
 - Additions/deletions to Chapter 5.4 Plans and Proposals: I. Overview, II. Basic Plan Requirements and V. Plan Approval
- [2/10](#) (PDF)
 - Add item to numerical list (new #1) in Chapter 5.4 Plans and Proposals, II. Basic Plan Requirements, A. General

2015

- [10/26](#) (PDF)
 - Delete MnDOT Railroad Administration Manager contact information.
- [10/19](#) (PDF)
 - Change location of link (FHWA and MnDOT Stewardship Plan).
- [10/8](#) (PDF)

- Change text in second paragraph under L. Water Pollution.
- [7/29](#) (PDF)
 - Additional text to Ch. 5, I. Overview and 5.1, Overview, B. Legal Basis/Federal Requirements.
- [7/15](#) (PDF)
 - Change contact name in Ch. 8 Finance to Ann McLellan (new State Aid Accounting Supervisor).
- [6/24](#) (PDF)
 - Minnesota Administrative Rule renumbered, 8820.0100 Subpart 13b to 8820.0200 Subpart 30