

**DEPARTMENT OF TRANSPORTATION  
PROPOSED PERMANENT RULES RELATING TO STATE-AID OPERATIONS  
STATEMENT OF NEED AND REASONABLENESS**

The Commissioner of Transportation presents facts showing the need for and reasonableness of the proposed revisions to the rules governing state-aid operations.

**INTRODUCTION**

The Commissioner of Transportation (Commissioner), under Minnesota Statutes, Chapter 162, proposes to adopt revisions to rules governing the operation of the county state-aid highway and municipal state-aid street programs. Minnesota Statutes, Section 162.02, subdivision 2, and Minnesota Statutes, Section 162.09, subdivision 2 grant the Commissioner the authority to promulgate rules to govern these state-aid programs.

The State Constitution sets aside a percentage of the highway user fund to be used for the construction, reconstruction, and maintenance of a system of highways and streets under the jurisdiction of the counties and the cities with a population of more than 5000. Requirements for these state-aid systems are contained in Minnesota Statutes, Chapter 162, which also authorizes the Commissioner to adopt rules for the operation of the state-aid system.

The state-aid rules for operations are contained in Minnesota Rules, Chapter 8820. The rules in this chapter were last revised and updated in 1991, and since then only specific topics have been subject to rulemaking. Many parts of Minnesota Rules, Chapter 8820 were out of date and in need of revisions. Changes in state and federal law also needed to be reflected in the rules.

Notice of Solicitation of Outside Information and Opinion concerning the adoption of these rules was published in the State Register on Monday, July 25, 1994. In addition, input was solicited directly from all city and county engineers. Many responses were received from the cities, counties and internal staff of the Minnesota Department of Transportation (Department) and the Departments State Aid Division. Only one comment was received in response to the published notice.

Minnesota Statutes, sections 162.02 and 162.09, require revisions to the state-aid rules for operations to be considered by a committee of 21 city and county engineers and city and county elected officials, called the State Aid Rules Committee. This committee then in turn makes recommendations on revisions to the Commissioner.

The State Aid Rules Committee met for the first time on August 3, 1994. All written and oral comments received by the State Aid Division were taken to the State Aid Rules Committee for their consideration. A draft of the proposed revisions was prepared and mailed to all city and county engineers for additional comments in November of 1994. The State Aid Rules Committee met four additional times. On February 3, 1995, after considering all comments received, the said Rules Committee recommended a draft of these proposed rules to the Commissioner.

The Department believes these revisions are reasonable, and are necessary to effectively administer the county state-aid highway and municipal state-aid street programs, and proposes these rules for adoption.

#### **SMALL BUSINESS CONSIDERATIONS**

In proposing these rules, the Commissioner has considered the provisions of Minnesota Statutes, section 14.115, and finds that the proposed rules have no impact on small businesses.

#### **EXPENDITURE OF PUBLIC MONIES BY LOCAL PUBLIC BODIES**

The adoption of these proposed rules will not require any additional expenditure of local agency funds. All revisions to these rules that require additional expenditures are eligible to be paid from the local agencies state-aid construction account.

#### **NEED AND REASONABLENESS OF METRIC CONVERSION**

Throughout these rules, Minnesota Rules, Chapter 8820, revisions are made to convert english units of measurement to metric (SI) units of measurement. This change is necessary because of a federal government order requiring all contracts funded by federal-aid funds to utilize metric units of measurement. The order states that all contracts funded in whole or in part by federal-aid funds and let after September 30, 1996, must utilize metric units of measurement in the plans, contract documents, project development reports, and all correspondence with federal agencies.

In Minnesota, all Department construction plans are completed according to federal-aid requirements, regardless of the funding source, and consequently are being completed with metric units. In addition many local agency projects are federally funded, and therefore are required to have metric units. Since all state projects and many local agency projects are required by federal order to be in metric units, it is necessary that all highway construction projects in Minnesota be required to be in metric units so that all construction plans will be uniform.

Allowing state-aid funded projects to continue to use english units while federally funded projects used metric units would inevitably lead to confusion, mistakes, and inefficiency. These would result in unnecessary expenditures of state-aid dollars.

In some instances, only words in the rules are changed. For example, "mileage" was changed to "length" or "size". These changes are reasonable in that they do not change the intent of the rule, but make the language consistent with the metric units of measure. These changes make the rules more consistent and accurate, promote understanding, and make the rules easier to use.

In other instances, units of measure were changed. In these instances, rounded values were chosen that are considered functionally equivalent to the existing english unit values. No changes were made to any measurements beyond this rounding of values unless specifically noted in this document. These metric revisions are reasonable because they do not change the intent of the rule. Also these revisions provide consistency between state-aid funded and federally funded projects, which will lead to fewer errors and greater efficiency.

## **PART BY PART STATEMENT OF NEED AND REASONABLENESS**

### **8820.0100 DEFINITIONS**

Subpart 2. Advance Encumbrance. An advance encumbrance involved the commitment of a local agency's future state-aid allotments to repay a local agency for their expenditure of local funds for state-aid eligible items. Minnesota Statutes, sections 162.08 and 162.14 describe the conditions under which advances are allowed. An advance encumbrance is a specific case of a broader range of possible methods of advancing funds allowed by this statute.

Since the governing statute allowed other types of advances to occur beyond advance encumbrances, and these types of advances were being allowed to take place, the rules were revised to reflect the full range of methods to advance funds. In that process, the term "advance encumbrance" was removed from the rules and the more generic term "advance" was substituted.

This revision was necessary because a definition of the term "advance" is critical to ensure that these other advances would be clearly understood to be allowed and governed by the provisions of these rules.

It is reasonable that the term "advance" be defined in this manner because this is consistent with the governing statute.

Language was also added to reflect the fact that advances may occur between state-aid accounts and not just from local sources. This

type of transaction is allowed by the governing statutes, and it is necessary that this be included in the definition to make it clear that the term "advance" includes more than the previous term "advance encumbrance".

It is reasonable that the rules not unintentionally restrict this transaction through an inaccurate definition, and that they be consistent with statute.

Subpart 2b. [Renumbered as 2d]

Subpart 2c. Bridge. A bridge is a structure that carries a highway over a stream or other feature, and that has a clear span of 10 feet or more. This definition is found in Minnesota Rules, Part 8810.9000, subpart 2. In the existing rules, this definition is repeated at each critical occurrence of the word "bridge" (Part 8820.2300, subpart 1a, for example).

It was necessary to add this definition of bridge to these rules, and delete the previous definition at each occurrence elsewhere in the rules, because the metric definition of "bridge" has not yet been determined, and would not be determined within the time frame necessary for the adoption of these rules. Maintaining the existing language would have left one measurement in english units, which would have been inconsistent with the rest of the rules. It would also have required another rulemaking proceeding to revise the definition at such time as the metric definition was determined.

It is reasonable to refer to the source of the definition of the term "bridge", and to avoid the need to enter into another rulemaking proceeding at a future date to correct a redundant definition in this chapter of the rules.

Subpart 3b. City Streets. This term was introduced by a revision to Minnesota Statutes, section 162.09, subdivision 1. The term is used in Minnesota Rules, part 8820.0600, as the base of calculations to determine the size of an individual urban municipalities state-aid street system.

It is necessary to define this term, because it is a critical item in determining the size of an individual urban municipalities state-aid street system. System size is 20% of the total length of all city streets and county roads within the boundaries of an urban municipality. It is the intent of the statute revision that "city streets" not include trunk highways and county roads, however, taken out of context, it is not clear what is or is not considered a city street. In order for the statute to function as it was intended, it is necessary that this term to be clearly defined to not include trunk highways and county roads.

It is reasonable to exclude trunk highways and county roads from the base mileage of a city, because these type of roads are not their financial responsibility. Therefore, the length of trunk highways and county roads in a city should not influence the size of a city's state-aid system.

Subpart 4. Commissioner. The Commissioner is defined as the Commissioner of Transportation. The phrase "or a designated representative" was added to make it clear that tasks assigned to the Commissioner by the rules may be performed by a designated representative.

It is necessary to add this language to the definition to make it clear that representatives of the Commissioner have legal authority to act for the Commissioner.

It is reasonable to allow designated representatives to act on behalf of the Commissioner, because the Commissioner cannot personally handle all of the duties assigned by the rules.

Subpart 4a. Construction and reconstruction of town roads. Minnesota Statutes, section 162.081 does not require the rules to distinguish between roadway construction and roadway maintenance, and so this definition is not needed. It is reasonable to delete an unneeded definition to maintain the accuracy of the rules and thereby promote compliance.

Subpart 5. County highway engineer. The existing rule recognizes that county highway engineers may be officially referred to by other titles, such as public works director. The Minnesota County Engineers Association, the statewide association representing all of the county highway engineers in the State of Minnesota, has formally deleted the word "highway" from the organization's title.

Because of the prominence of the County Engineer's Association and the number of county highway engineers now officially known as county engineers, it was necessary to revise the definition. The definition was revised to reflect this change in title. It is reasonable to change the definition to promote accuracy and understanding of these rules.

Subpart 9. District engineer. This term does not appear in these rules, and so is not needed. It is reasonable to delete an unnecessary definition to avoid confusion and promote the accuracy of these rules.

Subpart 9a. District State-aid Engineer. This definition defines who the District State-aid Engineer is. The phrase "of the Minnesota Department of Transportation" was added to make it clear that the District State Aid Engineer is an employee of the Department, and to use the same language as is used in the

definitions of "Commissioner" (subpart 4) and State-Aid Engineer (subpart 15). This phrase was necessary so that the language of all of these definitions would be similar. It is reasonable for this phrase to be added because it adds clarity to the rules which aids in understanding and compliance with the rules.

The phrase "or a designated representative" was added to make it clear that an assistant to the District State-aid Engineer may act on his or her behalf. It is necessary to add this language to the definition to make it clear that representatives of the District State-Aid Engineer have legal authority to act for him or her.

It is reasonable to allow designated representatives to act on behalf of the District State-Aid Engineers, because they cannot personally handle all of the duties assigned to them in the rules.

Subpart 9b. Force account agreement. The term "city" as defined in subpart 2c, is used inappropriately in many locations in the existing rules in place of "urban municipality", as defined in subpart 21. The term "city" refers to any city in Minnesota, while "urban municipality" refers only to cities with a population of 5000 or more.

In this definition of a force account agreement (an agreement between Mn/DOT and a local agency for the local agency to perform work with local forces), the term "city" is intended to be "urban municipality", and the definition has been revised accordingly. It is necessary to revise the definition, because cities that are not urban municipalities cannot enter into a force account agreement with the Department. It is reasonable to change this definition to avoid confusion and to promote the accuracy of the rules.

Subpart 10a. Local Forces. Local forces are those that are allowed to perform work under a force account agreement (subpart 9b). The definition of "local forces" was revised to allow negotiated contracts where the size of the contract is less than the amount that Minnesota Statutes, section 471.645 requires for competitive bidding.

It is necessary to revise this definition because Minnesota Statutes, section 471.345 allows municipal governments to enter into contracts without soliciting competitive bids when contracts are less than a specified dollar amount. For these small contracts, it is not cost beneficial to solicit competitive bids. Therefore, it is reasonable to revise the definition so that state-aid funds are not spent unnecessarily for competitive bid solicitations.

Subpart 13a. Project development costs. This term was added to the rules to replace the previously used term "preliminary engineering". The change was made because the term "project development costs" reflects the greater scope and greater

eligibility allowed by revisions to 8820.1500, subpart 6, Engineering Costs.

"Project development costs" are a critical component of the rules, for which agencies receive state-aid funds. It is necessary that this new term be well defined so that it will be clearly understood to be different than "preliminary engineering".

It is reasonable to revise this definition in this manner, because it reflects the intent of the original rule. "Preliminary engineering" was intended to mean all costs of developing a project, but, over time, a host of other activities such as environmental studies and archeological reconnaissance have been introduced, and the term "preliminary engineering" now means something more narrow than originally intended. This revisions promotes accuracy of these rules and avoids confusion.

Subpart 14. Screening board. The screening board is given authority to govern the size of the state-aid system. The existing rule refers to this as the "mileage" of the system. The word "mileage" is inconsistent with the metric terminology used throughout these rules, and it was necessary to change the word to "size". The intent of the definition is not changed. (See page 2 for need and reasonableness of metrication.)

Subpart 14a. Special resurfacing project. The term "special resurfacing project" appears in 8820.0800, subpart 3, and is used to describe a type of project for which payback is not required upon revocation of a state-aid route.

It is necessary to have a definition of "special resurfacing project", because it is a critical item in determining the amount of payback required of an agency should a state-aid route be revoked. It is reasonable to define the term in this manner and not require payback for these projects, because the amount of the project has already been deducted from the agencies "needs" which determines the amount of money that is allocated to them. This definition is consistent with screening board resolutions which determine the needs deductions.

Subpart 15. State Aid Engineer. The State Aid Engineer is defined as the engineer employed by the Department as the state-aid engineer. The phrase "or a designated representative" was added to make it clear that tasks assigned to the State Aid Engineer by the rules may be performed by a designated representative.

It is necessary to add this language to the definition to make it clear that representatives of the State Aid Engineer have legal authority to act for the Commissioner.

It is reasonable to allow designated representatives to act on behalf of the State Aid Engineer, because the State Aid Engineer

cannot personally handle all of the duties assigned to him or her in the rules.

Subpart 15a. Technical assistance agreement. "Technical assistance agreement" does not appear in these rules, and so is not needed. It is reasonable to delete this definition to remove unnecessary language from the rules which could otherwise cause confusion.

Subpart 17a. [Renumbered as subpart 17c.]

Subpart 17b. Town road. "Town road mileage" described those roads under the jurisdiction of the township that are eligible for use of town road account funds. the word "mileage" was inconsistent with the metrication changes made to the rest of the rules, and so the word "mileage" was deleted and grammatical corrections made so that the definition is now for "town roads". It was necessary to revise the definition for consistency with the metric terminology used throughout these rules. (See need and reasonableness for metrication on page 2).

Subpart 18. Town allotment. "Town allotment" was defined as the money set aside from the state-aid account for the construction of town roads. Since Minnesota Statutes section 162.081 also allows these funds to be used for maintenance, and townships are in need of these funds to perform maintenance, it was necessary to revise this definition. The phrase "and maintaining" was added to reflect the statute. It is reasonable that the definition reflect the intent in the statute to promote consistency in the rules and promote understanding.

Subpart 19. Trunk highway turnback. Part 8820.0600 was revised, and the portion of part 8820.0600 that contained this term was deleted. This definition is no longer necessary, and it is reasonable to delete it so that unnecessary language is removed that could otherwise cause confusion.

Subpart 20. Turnback account. The "turnback account" is defined as that account that is set aside to provide funds for the reconstruction of former trunk highways that have reverted to counties and urban municipalities. The present definition used the term "city" where "urban municipality" was intended. It is necessary to revise this definition, because cities that are not urban municipalities cannot receive turnback account funds, as stated in Minnesota Statutes section 161.083.

It is reasonable to revise this definition as it promotes clarity and accuracy of the rules, which will prevent confusion and misunderstandings.



## 8820.0600 SELECTION OF ROUTES

Item A. Several revisions were made in this paragraph. The mileage cap was deleted and replaced with a limit determined by the county screening board. The term "turnback" was deleted and replaced with the language from Minnesota Statutes, section 161.082 and 161.083, describing former trunk highways. Metrication changes were also made.

It was necessary to delete the mileage cap to allow the county state-aid system to grow (the system size was near the 30,000 mile cap). This is consistent with a recent change to Minnesota Statute, section 162.02 which no longer contains a mileage cap. It is reasonable to remove the mileage cap because development in fast growing areas of the state has created a need for additional miles that cannot be filled without deleting the cap. It also makes the rule consistent with the statute, which promotes accuracy and understanding of the rules, and reflects the intent of the legislature to remove the cap.

It was necessary because of the deletion of the mileage cap to add language that governed the size and rate of growth of the state-aid system. Unlimited or unmanaged growth would dilute the resources available, which would make it impossible for the state-aid program to provide an integrated transportation system, as Part 8820.0500 requires. It is reasonable to use the county screening board to determine the size of the system, because they already determine the allocation of the presently available mileage, and this is a closely related task.

The rule was revised to remove the term "trunk highway turnback" and replace it with the language from the Minnesota Statutes, section 161.082. This change was necessary to allow the fullest eligibility for former trunk highways allowed by statute. It is reasonable to make this change in eligibility because of the increasing number of former trunk highways reverting to local control that were not considered eligible for turnback account funds because of the restrictions placed by this rule.

Finally, the word "mileage" was deleted, and replaced with the word "length". This change was necessary because the word "mileage" is inconsistent with the metric terminology used throughout these rules. The reasonableness of the metrication changes are described on page 2.

Item B. This item was revised to reflect a 1994 change in Minnesota Statutes, section 162.09, modified to reflect the need for metrication. Also changed is the maximum allowable width for which one-way streets can be counted as one-half mileage towards the urban municipality's mileage cap, also modified for metrication.

It was necessary to delete the municipal state-aid street mileage cap and replace it with the formula because it was directed by Minnesota Statutes, section 162.09. It is reasonable that the rules conform to the statute so that the rules are accurate and enforceable, and so that confusion and misunderstandings are reduced. The added language was written with metric terminology.

It is necessary to change the allowable maximum width to make the rules in agreement with the municipal screening committee's recommendations for needs calculations, which are as proposed in these rules. The screening committee has determined that the higher value better reflects the needs for one-way streets, and it is reasonable that these two should agree to avoid confusion and promote accuracy and clarity in the rules. The changed values were converted to metric units of measure (see page 2 for need and reasonableness of metrication.)

#### 8820.0700 SELECTION CRITERIA

Subpart 2. County state-aid highway. This subpart contains the selection criteria for a county state-aid highway. Functional classification is one of the selection criteria used. Functional classification is determined by local agencies in cooperation with the Department, regional development commissions, and metropolitan planning organizations. Referring to an agency's functional classification plan or map, the phrase "as approved by the county board" was deleted from item A, because not all county boards approve their county's functional class maps, and some counties have more than one approved functional class map.

It is necessary to delete this phrase so that the Department can use the functional class plan that was prepared according to its requirements and is kept in the files of the Department, regardless of whether or not it was approved or if other approved maps exist. It is reasonable to delete this phrase because only the map prepared according to Department directions is useful to the Department as a selection criteria for state-aid highways.

Subpart 3. Municipal state-aid street. This subpart describes selection criteria for municipal state-aid streets, and is parallel to subpart 2. The same revision was made in this subpart as was made in subpart 2. See the discussion from subpart 2 for the need for and reasonableness of this revision.

In Item B, says that a state-aid street "connects points of major traffic interest". This phrase was amended to add "parks, parkways, and recreational areas". This addition recognizes parks, parkways, and recreational areas as legitimate points of connection for state-aid streets. This change was necessary to allow these types of street facilities to be included on the state-aid system. This change is reasonable because these types of streets often carry very high traffic volumes and provide important links in a

cities transportation network, even though they may be primarily of recreational interest, and state-aid streets should be the higher volume routes in a city.

#### 8820.0800 ROUTE DESIGNATIONS

Subpart 1a. Subpart 1 describes the process for locating and relocating state-aid routes. The process was intended to be used for new designations or for revoking routes and redesignating the mileage on another route. The process is cumbersome for minor revisions due to construction activity. This added subpart describes the process for altering the commissioner's orders (which describe the legal location of the designated state-aid route) when the route is relocated due to construction activity documented in a state-aid approved plan.

Frequently, minor revisions to location of a route are made as a result of construction. While it is plainly obvious that it is the same route, it may not conform to the commissioner's order that described its original location. For example, a highway may be located on a section line, terminating at a Trunk Highway intersection. The commissioner's order states that a route follows the section line and ends at the junction with Trunk Highway X. The intersection at T.H. X may need to be revised for safety, and the new location may be 200 feet away from the old location at the section line. Typically the previous location is obliterated in this type of improvement.

In this example, it is clearly evident that the route has not changed, only the location of the end point. However, because the new location does not conform to the legal commissioner's order, a revision is required. Current rules would require a county board resolution to relocate this intersection 200 feet from the section line. This proposed rule allows that revision to occur based on the approved construction plan.

It is necessary to revise this subpart so that commissioner's orders may be revised for minor technical corrections without requiring the action of a county board or city council. It is reasonable to add this subpart to relieve Department and local agency personnel of the administrative burden of processing governing body resolutions for trivial technical corrections to legal documents that can be adequately supported by existing documentation. This revision will result in more efficient government services, reduced expenditures of tax dollars, and will aid in the administration and enforcement of these rules.

Subpart 3. Payback on revoked state-aid routes. This subpart describes procedures for paying back funds that have been expended for improvement of a state-aid route in the case where the route has been revoked after construction. The last sentence of this subpart described the district state-aid engineer's role in the

process. Over time, the Department has developed administrative procedures which exceed the requirements of this rule. Also, since this rule governs internal functions of the Department, a rule is not necessary. Therefore, this sentence is deleted. It is reasonable to delete this sentence because it could cause confusion and make it more difficult to enforce the payback requirements.

#### 8820.1000 MONEY NEEDS AND APPORTIONMENT DETERMINATION

Subpart 2. Incidental Costs. This subpart describes incidental costs of construction that are eligible to be included in the needs analysis. Item C covers lighting. The existing item allows only intersection lighting. Revisions to part 8820.3100, subpart 2, expanded eligibility for lighting from intersection lighting to continuous roadway lighting in certain situations.

Roadway lighting is a necessary and important part of the street, and it is necessary to revise this subpart so that eligible construction costs are reflected in the needs study. It is reasonable to revise this subpart because this type of lighting is eligible for construction, and it is a necessary and important part of the street, and it should be reflected in the needs of an agency.

Subpart 3. Deductible items. This subpart directed the screening boards to consider deductions for certain types of state-aid fund expenditures. The rule was deleted because it grants discretionary authority on a specific topic to the screening board in an area where they already have been granted broad authority by Minnesota Statutes, section 162.07 and 162.13. Since the rule did not provide any particular instructions or clarification for the screening board, it is not necessary. It is reasonable to delete this rule because it does not contribute to the understanding or usefulness of the rules, and unnecessary rules can lead to confusion or misunderstandings.

#### 8820.1100 SCREENING BOARD REPORTS

Subpart 1. Annual reports. This subpart describes the responsibilities of the Commissioner to report to the screening boards on the status of the state-aid systems. In this subpart, the phrase "state-aid mileage" is used to refer to the size of the systems. This phrase is inconsistent with the metric terminology that is used throughout these rules. The phrase "state-aid mileage" was replaced with "length of the state-aid systems". This change is necessary for consistency and understanding of the rules. See page 2 for the need for and reasonableness of metrication.

#### 8820.1200 COMPILATION AND NOTICE OF APPORTIONMENT

Subpart 1a. State-aid apportionments. This subpart describes how state-aid apportionments are to be made. The second sentence was

deleted because in duplicated Part 8820.1400, subpart 4d, and so was not necessary. It is reasonable to delete repetitive language and to increase understanding for the reader.

8820.1400 MAINTENANCE, CONSTRUCTION, AND TURNBACK ACCOUNTS; STATE-AID PAYMENTS.

Subpart 3. Urban maintenance apportionment account. This subpart describes the amount of money to be allocated for urban maintenance. The minimum maintenance allocation was \$1500 per mile. The rate per mile was inconsistent with the metric terminology used throughout these rules, and the units were converted to kilometers. The value "1500" was rounded to the nearest even value of "\$1000 per kilometer". It was necessary to make these revisions to make this subpart consistent with the metric terminology used elsewhere in these rules. See page 2 for the need for and reasonableness of metrication.

This subpart also provides the Commissioner the authority adjust the minimum maintenance allocation for purposes of making bond interest payments. The word "minimum" was deleted to allow the Commissioner to modify the maximum as well as the minimum maintenance apportionment to accommodate bond interest payments that exceed the normal maintenance apportionment. This change was needed because, on occasions, the bonding limits allow bond interest payments that exceed a municipalities total maintenance allocation. It is reasonable to allow state-aid to raise the maximum allocation so that bond interest can be paid on a timely basis and not backlogged, which aids in the administration of the state-aid program.

Subpart 5. Payment Schedule. This subpart describes the schedule by which various funds are released to counties and urban municipalities. Item B(2) describes the release of the first 50% of the county municipal maintenance funds. The sentence requiring that a request be filed prior to release of the funds has been deleted. This change makes the release of the first 50% of the county municipal account funds automatic. There is no need to retain the county municipal maintenance funds any longer than any other type of maintenance, and so this rule is unnecessary. It is reasonable to delete this rule which places an unnecessary burden on counties.

Subpart 6. Additional advances. This subpart required 10% of the maintenance funds to be withheld until the annual maintenance report was filed to document their need for the full amount of the funds. It is not necessary to retain the final 10% for urban municipalities who receive the minimum maintenance allocation, because no documentation is required of them. It is reasonable to release the entire amount of the maintenance allocation to cities receiving the minimum allocation. Since they do not need to

justify the amount that they spend, it is an unnecessary burden to retain a portion as an incentive to submit a report.

Subpart 7. Remaining Maintenance Funds. This subpart describes the distribution of the maintenance funds that remain after the steps of subparts 5 and 6 are completed. The last phrase of this subpart is deleted as a result of the addition to subpart 6, which described the release of the remaining maintenance funds to minimum allocation urban municipalities. Since the addition to subpart 6 now deals with these funds, it is no longer necessary to maintain this portion of subpart 7.

It is necessary to delete this phrase so that subpart 7 does not contradict new subpart 6. It is reasonable to make this revision because it adds to the consistency of the rules which will aid in understanding and compliance.

Subpart 8. Unobligated maintenance account balance. This subpart describes the disposition of any unobligated maintenance funds. The subpart was revised by the addition of the word "urban" describing "municipality". This change was made to maintain consistency of terminology. Only urban municipalities have maintenance accounts. The term municipality alone is not a defined term in these rules.

It is necessary to make this revision to maintain consistency between subpart 8 and the rest of the rules. This revision is reasonable in that it improves the clarity of the rules which promotes understanding and compliance.

#### 8820.1500 CONSTRUCTION FUNDS

Subpart 3. Federal-aid contracts. This subpart describes the use of state-aid funds when a local agency is involved in a federal-aid contract. The rule also referred to other governmental units (other than state-aid agencies). Since the Commissioner's authority to create these rules only applies to the function of the state-aid program, it is inappropriate that rules be contained that govern other governmental units, not using or receiving state-aid funds.

This subpart was revised to be exclusive to state-aid agencies. It is necessary to make this revision so that the rules do not exceed the Commissioner's authority. It is reasonable to make this change so that the rules are enforceable and accurate, and to promote compliance with the rules.

Subpart 4. Force account agreements. This subpart describes how payment shall be made for force account projects. Previously, funds were released as work progressed and was reported. This subpart was revised to allow release of 95% of the amount of a force account agreement upon commencement of work. The changes

make this section consistent with subpart 2, which is for contract work.

It is necessary to change this rule so that there would be equity in the rules between contract and force account work, and so that local agencies are not burdened carrying the costs of force account work while payment is requested and processed. It is reasonable to release 95% of the funds in advance, because the local agency incur the same type of expenses for force account work as for contract work. This situation has been allowed repeatedly in the past by the state-aid variance committee (see part 8820.3400).

Subpart 5. Payment limitations.. This subpart says that release of funds is limited to an agencies account balance, unless an advance is requested. The word "encumbrance" was deleted to be consistent with the definition change made in Part 8820.0100, subpart 2.

Subpart 6. Engineering costs. This subpart describes the engineering costs that are eligible for reimbursement with state-aid funds, and the terms and limits of the reimbursement. Numerous changes were made.

The term "preliminary engineering" was changed to "project development costs" to be consistent with the change in definition in Part 8820.0100, subpart 13a. (Refer to Part 8820.0100, subpart 13a, for need and reasonableness.) It is necessary and reasonable to make this change so that the rules are uniform, consistent, and understandable, which will promote compliance with the rules.

Changes were also made to allow project development costs to be claimed and paid prior to the award of a contract rather than only afterward. It was necessary to allow payments for project development costs to be made prior to the award of the contract because of the significant and growing costs of planning and designing a project. These costs were becoming burdensome to local agencies and were resulting in unrealistically high balances in the state-aid account as these dollars were being retained longer and longer until project award. It is reasonable to allow claims to be made prior to award, because it is the legislative intent of the state-aid fund to finance the development costs of state-aid projects, it reduces a heavy burden on local agencies, promotes improvements to the state-aid system, and promotes compliance with these rules.

Additional changes were made to remove the caps from project development costs and construction engineering costs and replace them with a single, higher cap. Previously, the rules contained a 10% cap on project development costs, and an 8-12% cap on construction engineering costs. This was changed to a single, combined cap of 25%. It was necessary to raise the cap on engineering and development costs because of the ever increasing

burdens placed on project developers and inspectors. The previous percentage limits no longer reflected the reality of present day government regulation, public involvement, and traffic demands. It is reasonable to use 25% as a cap, because records maintained by local agencies indicate that 25% will cover all but the most unusual project circumstances.

Previously, engineering costs were limited by a percentage of the actual project costs. The proposed rules base the percentage limit on the engineer's estimate for requests made prior to receiving bids. It is necessary to add this to the rule, because actual prices are not available prior to bid letting, and a substitute is necessary to enforce the 25% cap. It is reasonable to base the limit on an engineer's estimate when claim is made prior to bidding, since this is consistent with uses of the engineer's estimate for release of other types of funds. The engineer's estimate is the most accurate estimate available prior to bid letting.

Previously, payments were processed at the time of receipt of the report of state-aid contract and/or the final estimate. Language was added to say that, in addition to those times, requests submitted prior to those reports would be processed at least semi-annually (no request would require more than six months to be paid). Without a limitation such as this, local agencies could potentially submit monthly requests for reimbursement for each active project (over 1000 per year). It is necessary to limit the number of times in a year that payments are processed, to avoid flooding the state-aid payments personnel with small claims for reimbursement of costs. It is reasonable to process claims twice per year. This time period allows for efficient operation in the state-aid office while still reimbursing local agencies within a reasonable amount of time.

Subpart 8. Advance from county funds. This subpart was revised to be more generic and replaces the former purpose of subparts 8 and 9. Subpart 8 described the process for a county to utilize its own local funds for approved, state-aid eligible projects, and later receive reimbursement from their state-aid account (advance encumbering). Subpart 9 described the process by which a county could advance funds from its regular construction account to its municipal construction account (advance funding).

The revised subpart 8 takes advantage of the greater latitude available in Minnesota Statutes, section 162.08, subdivision 7, which speaks only of advancing from any available source. Existing subparts 8 and 9 referred to only two specific available sources. There are other available sources that the subparts 8 and 9 did not address. Proposed subpart 8 speaks of advances in general language. The intent of old subparts 8 and 9 is not changed, but proposed subpart 8 will now be applicable to all available sources.



It was necessary to revise these two subparts so that the rules did not unintentionally prohibit forms of advance funding that were allowed by statute, but not envisioned at the time the rules were developed, such as advances of regular construction account funds for turnback account funds. It is reasonable to revise the rule to allow all types of advances to promote the credibility, enforceability, and compliance with the rules. It is reasonable to combine existing subparts 8 and 9, because the mechanisms described in each are the same.

Subpart 9. Advance from the county state-aid highway fund. Old subpart 9 was deleted (see discussion for subpart 8). New subpart 9 adds language allowing counties to advance funds from the available balance of the state-aid account. The difference between subpart 8 and subpart 9, is that subpart 8 governs advances of funds already allocated to the county or county local funds. Subpart 9 allows counties to advance funds from the unencumbered balance of the state-aid account, which is in excess of their normal allocation. The language resembles that of subpart 8, with the additional controls that are the responsibility of the screening board.

It is necessary to allow funds to be advanced from the state-aid account to promote the use of the funds to advance projects, which is the intent of the account. Advancing funds allows agencies greater flexibility in timing their projects, without the added concern over account balances. It is reasonable to add this rule to reflect the authority to be granted by the legislature in Minnesota Statutes, section 162.08, and to promote the state-aid program by making unencumbered construction dollars available to agencies that can use them.

This subpart grants authority to determine priorities for selecting agencies to receive funds advances, and to determine a minimum account balance, below which, all requests would be denied. It is necessary to have controls on the amount of funds that can be advanced, and to prioritize the requests for advances in times of short funds. Since this is an allocation of resources, the responsibility was given to the screening board which is an existing entity which has authority over the needs system (see Part 8820.0100, subpart 14), which is also an allocation of resources. It is reasonable to require the screening board to set these priorities so that all state-aid funds are distributed in a fair and equitable manner.

Subpart 10. Advance from urban municipal funds. This subpart refers to advances by urban municipalities. Existing subpart 10 was parallel to existing subpart 8, and proposed subpart 10 was changed in an identical manner as in proposed subpart 8. Refer to Subpart 8 for the need and reasonableness.

Subpart 10a. Advance from town bridge account. Old subpart 10a is renumbered as 8a to place it in proper sequence with the other subparts. No revisions were made. It is necessary to renumber this subpart to keep it in sequence with the other subparts dealing with county advances. It is reasonable to renumber this subpart so that it can be easily found, which will avoid confusion and improve the understandability of the rules.

Subpart 10b. Advance from municipal state-aid street fund. This subpart was added, and is the urban municipal counterpart to subpart 9, which is for counties. The added language is the same, except that the maximum amount of the advance is limited to the greater of \$500,000 or one years allocation, never to exceed three years allocation as provided in the statute (Minnesota Statutes, section 162.14). Refer to subpart 9 for the need and reasonableness of advance funding.

Additionally, it was necessary to limit the amount that can be advanced to less than the 3 years allowed in statute to insure that a reasonable amount of funds would be available to a number of urban municipalities. One year's allocation was believed to be a reasonable amount for most cities (the same amount available for counties). For smaller cities, 1 years allocation may not be enough to finance an economically sized project, and so it was necessary to create an alternative cap of \$500,000, which would allow smaller cities to advance more than one years allocation (although by statue it may not exceed three years).

It is reasonable to restrict the advances of funds from the municipal state-aid street fund to less than that provided by statute so that large cities do not unfairly deplete the account and limit opportunities for smaller cities to receive a needed advance.

Subpart 12. Municipal state-aid funds; county or trunk highway projects. This subpart describes the ability of an urban municipality to spend its state-aid funds on the county state-aid or trunk highway systems. The rule required a city council resolution authorizing the expenditure prior to the approval of the release of funds. This requirement was deleted. Language was also added to clarify that funds spent by urban municipalities on county state-aid or trunk highways may include engineering and right-of-way costs.

The original intent of this requirement was to force consideration of the consequences of off-system spending by a local agency's governing body. This consideration takes place in the normal process of developing any project, and it is not necessary to require it in these rules. It is reasonable to delete this requirement, because it removes an unnecessary burden from local agencies and promotes compliance with the rules.

It was necessary to add specific clarification on eligibility of right-of-way and engineering, because it has been the historical interpretation of this rule that these items were not eligible. It is, however, reasonable that these items be eligible, because they are necessary and inseparable parts of highway construction. Since highway construction costs are eligible, these should be also.

The last sentence of this subpart disallowed interest payments for bonds sold under the authority of the Laws of Minnesota 1959, chapter 538. This law provided bonding authority for a specific cooperative construction project between the Department and a local agency. All of these bonds are now repaid, and no additional bonding is performed under this law. Therefore, this sentence is no longer necessary and is deleted.

It is necessary to delete this sentence because the law to which it refers is no longer in effect. It is reasonable to delete this sentence because it causes confusion and detracts from the accuracy and credibility of the rules by referring to an outdated law.

#### 8820.1600 ANNUAL STATEMENTS

This part establishes the deadline for the Commissioner to release account status statements to the local agencies. This part was revised to allow annual statements rather than semi-annual statements. Semi-annual statements were necessary to keep local agencies informed of the status of their accounts. Currently, this information is available at any time through computer access. Each city and county has been provided with suitable computer equipment and training to access this information.

It was necessary to revise the rule so that unnecessary statements were not mailed out. It is reasonable to relieve the Commissioner of this unnecessary requirement to reduce the burden and improve the efficiency of the state-aid program. It is reasonable to provide one copy annually so that each agency will have a permanent record of the end-of-year status of their accounts.

#### 8820.2000 CONSTRUCTING SELECTED STATE PARK PROJECTS

This part describes the purpose of the funds set aside from the state-aid account for the construction of roads to outdoor recreational areas. Minnesota Statutes, section 162.06, subdivision 5, says that these projects do not need to meet the requirements of state-aid projects. However, on occasion, these projects are authorized on state-aid routes, and the statute requires screening board approval of those projects.

The existing rule only applies to those projects on the state-aid system, however, it does not say that. To the reader, it implies that it applies to all park road account projects. To eliminate this confusion, it was necessary to add language to the rule to

specify that only projects on the state-aid systems required screening board approval. This addition did not change the intent of the existing rule. It was reasonable to add this clarification so that the rules did not cause confusion or appear to be in conflict with the statute.

Also revised was the description of facilities that these types of projects should serve. The old description was replaced with the language from Minnesota Statutes, section 162.06, subdivision 5. It was necessary to change this language so that the rule did not inadvertently prohibit certain projects because it used a different definition than the governing statute. It is reasonable to make this revision so that there is consistency between the rules and the statutes, which will promote compliance with the rules.

#### 8820.2100 DISASTER ACCOUNT

This part describes the process for releasing money from the state-aid disaster account. State-aid disaster funds are made available whenever an agency experiences a catastrophic failure of a state-aid structure or roadway, and the cost to replace that facility is at least 10% of their annual construction allocation. Federal-aid disaster funds are also made available when disasters strike a large area. The existing rule does not make any reference to any relationship between federal-aid and state-aid disaster funds. The proposed rule is revised to encourage the use of federal-aid funds prior to the use of state-aid funds.

The rule was modified to require that any state-aid disaster funds released to an agency be later repaid if that same project becomes eligible for and receives federal-aid disaster funds. This change is necessary to maximize the availability of state funds in a disaster. Because the disaster funds are in a common pool, available to any agency, it is fair and reasonable to require an agency to repay funds if they also receive reimbursement for the same costs from another source.

This part was also revised to require the disaster board (see Minnesota Statutes, section 162.06, subdivision 3, and section 162.12, subdivision 3) to consider the availability of federal emergency relief funds before making a recommendation on the release of state-aid disaster funds. It is the intent of this rule to deny the use of state-aid disaster funds to agencies that have not availed themselves of federal emergency relief funds.

It is necessary to have such a rule to maximize the use of available state-aid dollars (see the paragraph above). The federal-aid dollars require additional effort to obtain, and the tendency is to use state-aid funds where possible. This rule will require that federal sources be exhausted first. It is reasonable to require this because federal disaster zones are created for this specific purpose, and this rule will help to insure that there will

be sufficient funds for agencies that are not in a disaster zone. (The floods of 1993 drained the disaster account. Agencies not in the federal disaster zone had no access to relief funds.)

#### 8820.2200 RESEARCH ACCOUNT

This part describes the use of the research account funds. The existing rule required that unexpended balances at the end of each year revert back to the construction account. A revision to Minnesota Statutes, section 162.06, subdivision 4 and section 162.12, subdivision 4, allowed the funds to remain in the research account for two years. The last sentence was deleted because it conflicted with this statute. The disposition of excess funds is adequately addressed in statute, and this sentence is no longer necessary. It is reasonable to delete this sentence because it maintains the accuracy and credibility of the rules, and maintains consistency with statutes.

#### 8820.2300 TURNBACK, TOWN BRIDGE, AND TOWN ROAD ACCOUNTS.

The title was changed to reflect all of the accounts described in this part.

Subpart 1a. Town bridge account. This subpart describes the purpose of the town bridge account. The description of what qualified as a bridge was deleted, because it was replaced by a new definition in Part 8820.0100, subpart 2b. The requirement that a county have two or more towns was also deleted, because of a change to Minnesota Statutes, section 161.082, allowed this change.

It was necessary to delete the old definition of bridge, because it could not be converted to metric units. It could not be converted because the source of the definition is in Minnesota Rules Chapter 8810, which are not subject to this rulemaking. It is reasonable to delete this definition and rely on a definition by reference to maintain consistency between rules, which promotes understanding and credibility of the rules.

It was necessary to delete the requirement for two or more towns in a county because it conflicts with statute change, and is no longer necessary. It is reasonable to delete this requirement because it promotes the accuracy of the rules, promotes compliance, and maintains consistency with the statutes.

Subpart 2a. Town road account allocation. This subpart describes how funds are distributed in the town road account. One factor in the formula was the mileage of roads in a town. The term "mileage" is inconsistent with the metric terminology used throughout these rules. Refer to page 2 for the need for and reasonableness of metrication. It is reasonable to make this revision so that consistency is maintained, which will promote understanding and compliance with the rules.

## 8820.2500 MINIMUM STATE-AID STANDARDS

Subpart 1. Applicability of standards. Old subpart 1 was renumbered subpart 1a. New subpart 1 is a statement as to the applicability of state-aid standards. It was necessary to declare that these standards only applied when construction was taking place, and did not apply to routine maintenance so that readers of these rules would understand when the standards needed to be met and applied. This is consistent with the previous intent of Part 8820.2500. It is reasonable to only require compliance with standards at the time of construction activity. Maintaining a highway facility in constant compliance with the minimum geometric standards would require continual incremental improvements to roadways which is financially and administratively impossible.

Subpart 1a. Geometric design standards. This subpart describes which of the standards in Parts 8820.9920 through .9995 apply to various types of construction projects.

For the ease of the revisor, all of the existing parts from 8820.9910 through .9985 were repealed and new parts 8820.9920 through 9986 were introduced. This is necessary since the metrication revisions changed every number in the charts, making it impractical to describe revisions. It is reasonable to repeal and reintroduce these parts because it is most efficient and will make it clear that these are the metric standards which will aid in understanding and compliance with the rules.

References to the appropriate design standards charts were revised to reflect the following changes in the charts:

- a. The two urban, new construction charts were combined into a single chart under part 8820.9936. Part 8820.9940 is deleted.
- b. The old standards for highways in national forests, etc. have been deleted (parts 8820.9965 and .9970), and the Natural Preservation Route standards are referenced in their place.
- c. The urban roadway classification chart, part 8820.9950, has been deleted and its function incorporated into the other urban charts.
- d. Standards for off-road bicycle paths have been added.

It was necessary to make these revisions because of deletions made in the referenced standards. It is reasonable to make these revisions so that this part does not refer to deleted part, which promotes the accuracy and understanding of the rules. The need for and reasonableness of the deletions of specific charts will be discussed in those sections of this document.

Subpart 3. Right-of-way. This subpart describe the minimum widths required for right-of-way for state-aid routes. This subpart was changed for metrication, inconsistent language, a reduction in urban width requirements, and clarification on features to be contained within the right-of-way.

The widths of 60 feet and 66 feet, were revised to 18 meters and 20 meters respectively. It was necessary to revise these units of measure so that they would be consistent with the metric units of measure used elsewhere in these rules. Refer to page 2 for the need for and reasonableness of metrication.

The word "municipalities" was revised to "cities". The use of the word "municipalities" implied that the 60 foot right-of-way width only applied within a city with more than 5000 population, when in fact, it is allowed within the limits of any city, as defined in Part 8820.0100, subpart 2c. It was necessary to change this word so that the rule accurately reflected the intent. It is reasonable that the rules accurately reflect intent to promote compliance with the rules., and so that the rules do not inadvertently prohibit an acceptable condition.

Also changed is the addition of provisions allowing less than minimum right-of-way widths when the street can be reconstructed to standards within the previously existing right-of-way. It is necessary to add this rule because many cities developed their street systems prior to the existence of state-aid, and do not have the minimum right-of-way widths, and cannot obtain the right-of-way without destroying the property alongside the street. Also, a rulemaking proceeding in 1988 reduced required street widths, making it possible to construct streets to acceptable standards in less right-of-way. It is reasonable to allow streets to be reconstructed within old right-of-way lines when the street can be constructed to full standards within that right-of-way, because adding the extra right-of-way, in these cases, provides no benefit to the street, and avoids damaging or destroying adjacent property.

"Drainage structures" was added to the list of items that must be within the right-of-way. It is necessary to have control of all drainage structures so that a local highway agency can maintain the integrity of the street or highway drainage facilities. It is reasonable to require drainage structures within the public right-of-way so that private owners do not disrupt the highway drainage, and which preserves the integrity of the highway facility.

Also added is a sentence allowing permanent easements in place of right-of-way. Permanent easements are functionally equivalent to right-of-way, and are often easier to obtain. It is necessary to add this sentence of clarification, because right-of-way and easement are legally different terms, yet either is acceptable for state-aid purposes. Adding this sentence will clearly state this fact. It is reasonable to allow local agencies to use permanent easements to fulfill the width requirements for right-of-way, since they are functionally equivalent, and it is reasonable to add this to the rule so that the rules are clear and consistent with practice, which promotes compliance with the rules.

## 8820.2700 MAINTENANCE REQUIREMENTS

Subpart 1. Standards. This subpart describes standards required for proper maintenance of a state-aid route. In Items D and F, dimensions with english units of measure were converted to an equivalent metric value. This is necessary so that these units of measure are consistent with those used elsewhere in these proposed rules. It is reasonable that the rules have a common measurement system for clear understanding of the rules. Refer to page 2 for the need for and reasonableness of metrication.

In Item F, The word "or" was added between sentences (1) and (2). This addition is needed to make it clear that only one sign or the other is required. It is reasonable to only require one route marker sign on a route so that the driving public is not confused by oversigning. It is reasonable to only require one sign, because the public will only identify with the commonly used route definition. Numbers used only for state-aid reporting purposes would have no meaning to the public. It is reasonable to add this word so that the rules clearly and accurately reflect the intent, which will promote understanding and compliance with the rules.

## 8820.2800 CONSTRUCTION REQUIREMENTS

Subpart 1. Engineer's duties. This subpart describes the duties that must be performed by the local engineer for construction projects. The sentence grammar was changed to allow for the addition of "construction inspection" to the list of duties to be performed in accordance with the standards of the commissioner. The words "preparation of" were added to plans and estimates, and the word "made" was changed to "performed" to maintain proper grammar.

It is necessary to include construction inspection so that the proper project inspection and documentation can be completed in a consistent format, and to insure that the intent of the approved plans is actually incorporated into the completed product. It is reasonable to have this requirement, because Minnesota Statutes, section 162.08, subdivision 4, and section 162.14, subdivision 2, require that state-aid funds be used for construction of roadways, and construction inspection is the final step in completing a construction project. Without this requirement, the Commissioner would have no means to verify that the project was completed in accordance with the approved plans, and he could not perform his statutory duty.

Subpart 2. Plans and estimates. This subpart describes the required content of plans and estimates, and also the requirement for approval of plans and estimates prior to award of a contract. A reference to an exception to approval by the state-aid engineer, contained in subpart 8, is added. It is necessary to add this reference so that the reader will understand that there are exceptions to the requirement of state-aid engineer approval.



It is reasonable to add this reference, because this exception is newly added, and it could cause misunderstandings if exceptions were not noted within the same subpart as the requirement. See subpart 8 for need and reasonableness of the exception process.

Subpart 5. Force account. This subpart describes requirements and procedures for performing work on state-aid projects by the force account method. This subpart includes a list of costs that must be deducted from bid price estimates to determine force account unit costs, so that force account prices are "equivalent" to bid prices. These items are costs that a contractor would incur, but a local agency would not, such as profit, etc. "Taxes" was deleted from the list of items.

It is necessary to delete "taxes" because local agencies are no longer exempt from paying state sales taxes, and so the deduction is no longer fair, and is not necessary. It is reasonable delete taxes, because it maintains equity between contract and force account construction by not unfairly giving advantage to one method or the other.

Subpart 8. Certified acceptance. This section is entirely new. It allows the commissioner to establish a program for certified acceptance of construction plans and final acceptance of construction projects. The subpart describes qualification criteria and subcategories in which local agencies can become certified. The subpart requires a certified acceptance agreement to be executed between the agency and the commissioner.

The state-aid engineer's duty of plan review and approval (see subpart 2), occurs at the most critical time of a project, those days prior to construction beginning. Poor quality plans force the state-aid engineer to return the plans, which may delay projects. Also, the review process itself, even for good quality plans, consumes precious time. A pilot study conducted by the state-aid engineer has demonstrated that, at least some local agencies, have the staff and expertise to certify that their plans and projects conform to these rules. Such a certification requires the local agency to produce quality plans up front, and eliminates the delay of review and approval by the state-aid engineer.

It is necessary to establish a certified acceptance program to allow and encourage local agencies with the needed expertise to be responsible for the content and quality of their plans. It is also necessary to reduce the amount of time required to receive plan approval, and to relieve excess workload on plan review staff. It is reasonable to establish this program because it takes advantage of considerable expertise present in local agencies, eliminates redundant government review of state-aid projects, and overall improves the efficiency and effectiveness of the state-aid construction program, which will promote compliance with these rules.

Compliance with the requirements of Minnesota Statutes, section 162.08, subdivision 10, and section 162.14, subdivision 4, is maintained through the use of a "Notification of State Aid Project" form and by continued requirements for the "Report of State Aid Contract", both of which are required prior to the release of funds for any state-aid project.

The subpart also allows for cancellation of the agreement in the event of repeated non-compliance. This is necessary to insure that the commissioner maintains control of his statutory responsibility to enforce the state-aid rules. It is reasonable to allow the commissioner to cancel an agreement when the local agency disregards the terms of the agreement, so the state-aid funds are not used improperly.

#### 8820.2900 TURNBACK AND TOWN BRIDGE ACCOUNT EXPENDITURES

Subpart 1. Eligibility; former trunk highways. Existing subpart 1 described the uses for turnback account funds, and concluded with a reference to subpart 2, which defined conditions for eligibility. Rather than maintain this reference, subpart 2 was combined with subpart 1 to improve the clarity and reduce redundant language. The substance of subparts 1 and 2 is not changed. It is reasonable to revise and combine these two subparts because it will improve the understanding of and aid in compliance with these rules. The revised subpart 1 carries the title of the former subpart 2.

Subpart 1a. Requirements; town bridge account. This subpart describes the use of funds in the town bridge account. Existing subpart 1a was a duplicate of 8820.2300, subpart 1a, and is not necessary. Subpart 1a is deleted. It is reasonable to delete this redundant language because it improves the clarity of the rules which will aid in compliance.

Subpart 2. Existing subpart 2 was combined with subpart 1 (see discussion for subpart 1). As a result, subpart 2 is repealed.

Subpart 2a. Eligibility; town bridges. This subpart describes which bridges are eligible to receive town bridge account funds. The definition of "bridge" was included in part 8820.0100, subpart 2b, and is unnecessary here. It is reasonable to delete this phrase to remove the redundant language, which will promote clarity and compliance with these rules. (See discussion on part 8820.0100, subpart 2b, for need and reasonableness of adding the definition).

A phrase was added that 100% of bridge costs are eligible in some cases. This is to reflect changes made to the Minnesota Statutes, section 161.082, subdivision 2a. It is necessary to revise the rule so that the rules are in conformance with the governing statute. It is reasonable to make this revision because it improves the accuracy of the rules, which will promote compliance.

Subpart 4. Construction authorization. This subpart describes when an agency is authorized to proceed with projects funded by turnback or town bridge account funds. The word "local" was deleted from the sentence discussing projects for which funds had been advanced from another source. This is to reflect changes made to Parts 8820.1500, subparts 8-11, where advances are now allowed from other than local sources. It is necessary to change this subpart to be in conformance with changes in Part 8820.1500. It is reasonable that these two parts be in agreement, so that confusion is not created, to promote the accuracy of the rules, and to aid in compliance.

Also, the references to other subparts in this part were revised to reflect the renumbering. It is necessary to make this revision so that accurate references are maintained. It is reasonable to make these revisions because it promotes the accuracy of the rules which aids in understanding and compliance.

#### 8820.3100 GENERAL STATE-AID LIMITATIONS

Subpart 2. Lighting hazardous areas. This subpart describes the conditions under which lighting is eligible. This subpart was revised to specify that only roadway lighting is eligible, and to allow any roadway lighting within the limits of a city to be eligible.

The word "roadway" was inserted to modify "lighting" to specify that only lighting that lights the roadway is eligible. The existence of federal programs for other types of facilities, such as bike paths, has made it necessary to add this clarification. It is reasonable that only lighting that lights the roadway be eligible, because the purpose of state-aid funds is to construct streets and highways, and all features closely associated with streets and highways. Features so far removed from the roadway that they cannot be lit by a common roadway lighting system, are not considered part of the roadway.

Street lighting on collector and arterial streets has become commonplace, and is considered a necessary an integral part of an urban street. Because the state-aid program is intended for the construction of highways and streets, and because street lighting is an inseparable component of streets, the rules should reflect this need for lighting by allowing it as an eligible item. Therefore, Item B, was revised to allow eligibility for roadway lighting in any instance within the limits of a city.

It is necessary to revise this rule in order to make this essential component of the street eligible for funding. It is reasonable to allow reimbursement for city street lighting, because it is an integral component of the state-aid street, and fulfills the purpose of state-aid funds.

A paragraph was added to describe payment for ornamental light poles. This sentence describes how the Department has historically interpreted this subpart to apply to ornamental light poles. The previous rule was interpreted to mean that the type of light pole that was required, either for function or, by city policy, for aesthetics, would be 100% eligible for state-aid. interpretation of lighting eligibility for state-aid funds.

It is necessary to include this in the rules so that this interpretation is clearly understood by the reader. It also provides the clarification needed to apply the proposed landscaping rules from subpart 10 to light poles. It is reasonable to add this sentence, because it improves the clarity and accuracy of the rules, and will promote compliance.

Subpart 3. Traffic control signals; state-aid projects. This subpart described requirements for the review and approval of traffic signal plans.

Paragraph 1 requires that plans be certified by a registered electrical engineer or master electrician. This certification exempted the plan from further review. Since electrical engineers and master electricians have no expertise in matters of traffic control, it was improper to allow plans to be certified on their signature. It was necessary, therefore, to delete this paragraph. It is reasonable to delete this paragraph because it will remove an improper requirement, which will promote the credibility of the rules and improve compliance.

Paragraph 2 required the District State Aid Engineer to make recommendations to the State Aid Engineer. Since both of these people are employed by the Department and are responsible to the Commissioner, it is not necessary for the Commissioner to establish rules to govern their duties. It is reasonable to delete this rule because it does not add to the clarity of these rules and may lead to non-compliance.

Paragraph 3 describes the certified acceptance of traffic signal plans by the State Aid Engineer. The function of this paragraph is replaced with Part 8820.2800, subpart 8, which describes certified acceptance for all types of plans, including traffic signals. It was necessary to delete this paragraph so that it would not be repetitive of Part 8820.2800. It is reasonable to delete this paragraph, because it adds to the clarity of the rules, reduces the probability of confusion, and aids in compliance.

Paragraph 4 describes those plans which required approval of the State Traffic Engineer. It is the intent of the Department to handle traffic signal approvals through the general plan approval authority granted to the state-aid engineer in Part 8820.2800, subpart 2. This arrangement allows greater flexibility, and should actually improve signal plan quality because all plans will now be

reviewed. Since this function can be better handled through other existing rules, this paragraph is unnecessary and is deleted. It is reasonable to delete this paragraph, because it is not consistent with other existing and proposed rules for plan approval, and could cause confusion, and detract from compliance.

Subpart 4. Traffic control signals; federal-aid projects. This subpart describes the approval process for signals funded with federal funds. Since funding source makes no difference in how a signal project is approved, a separate rule for federal-aid signal plans is not necessary. This entire subpart, therefore, was deleted. It is necessary to delete this subpart, because it is redundant, and falsely implies a different approval process. It is reasonable to delete this subpart because it is incorrect, which would lead to confusion and possible non-compliance with these rules.

Subpart 5. Traffic control signals. This subpart described the extent of participation in traffic control signals. Since this is the only remaining subpart dealing with signals, a grammatical change to the title was made, reducing it to simply "traffic control signals". The eligibility for signals has been revised so that an agency may use its state-aid funds for all approaching routes under its own jurisdiction, regardless of state-aid designation, provided it has at least one eligible route.

This revision is necessary to avoid undue burden on local agencies who must install signals at local street crossings of major state-aid street and highway facilities. It is reasonable to pay the costs of signals serving all public roads, because the signal is necessitated by the high traffic volumes present on the state-aid route. Because the traffic on the state-aid route necessitated the signal, it is therefore justifiable that the state-aid system bear the cost.

Subpart 6. Right-of-way. This subpart describes the type of right-of-way acquisition costs that are eligible for state-aid reimbursement.

This subpart was revised to include "bicycle paths" along with sidewalks as an item that justifies right-of-way. This is necessary because bicycles are being seen increasingly as a form of transportation, and the state-aid system needs the flexibility to accommodate them. It is reasonable to pay for off-road bikeways because it removes traffic from the roadway and improves safety.

The description of eligible right-of-way costs was also expanded to include costs associated with title searches and condemnation proceedings. It is necessary to make this change, because condemnation is an increasingly necessary way to acquire right-of-way, and it is appropriate for state-aid funds to pay for this cost. It is reasonable to make this change so that costs necessary

to construct the state-aid system are reimbursed so that the program can accomplish its purpose.

Subpart 7. Sidewalks. This subpart described limits on eligibility for sidewalk construction.

Sidewalks are a necessary safety feature on streets and highways. It is no longer appropriate or necessary to limit an agency's use of its state-aid funds for sidewalk construction, and therefore, the existing rule is deleted. It is reasonable to delete this subpart, because it restricts the construction of necessary safety features.

Deletion of this subpart is also intended to delete the five foot width restriction that has been enforced administratively in the past. It is necessary to delete this restriction, because sidewalks are used for more than only pedestrian traffic, and wider widths are needed for safety. It is reasonable to delete this restriction, because it discourages the construction of a necessary safety feature.

Subpart 7a. Bicycle paths. This subpart addresses bicycle paths (see the discussion in subpart 6). It is necessary to describe some restrictions on the use of state-aid funds for bicycle paths because of their nature. Often bicycle paths do not follow any particular street (recreational bike trails, for example). Because state-aid funds are intended to be used only on state-aid routes, it is necessary to restrict their use to bicycle paths that are within a state-aid corridor.

Restricting eligibility for cities to bikeways adjacent to state-aid routes is reasonable, because the intent of the state-aid fund is to provide for transportation on the county and city collector/minor arterial systems. To the extent that bikeways remove traffic from those corridors, they are a component of the state-aid system. Bikeways that do not serve a transportation purpose for the state-aid system should not be eligible.

In the same way, restricting eligibility for counties is reasonable, because in typical county highway settings, bicycle paths are only needed where bicycle routes are designated. Also, federal-aid bicycle path projects can be a burden to counties, because when local agencies accept federal-aid, they are required to provide 20% of the cost from local sources, and so it is reasonable to provide a source of matching funds for what the federal government deems to be a transportation purpose.

Subpart 8. Storm Sewers. This subpart describes the requirements for the design of storm sewer systems. In describing items for storm drainage, the word "drainage" was replaced with "sewer construction" to more accurately describe the types of plans the hydraulics engineer should review.

It is necessary to have storm sewer plans reviewed, and not all drainage plans, because of the increased complexity of storm sewer design and the increased cost of storm sewer construction. Storm sewer design requires greater expertise, and a review by a design expert is helpful to the local agency, and assures the proper expenditure of state-aid funds. Also storm sewers frequently carry drainage from more area than just the state-aid roadway, and it is necessary to determine the proportion of the drainage that is eligible for state-aid funds.

It is reasonable to have the hydraulics engineer review only storm sewer plans, because it assists the Commissioner in administering the state-aid program by assuring a design that is adequate to serve the state-aid route under construction and by determining the proportion of the cost eligible for state-aid funds. Other types of drainage structures, such as culverts, can be adequately reviewed by the normal plans review staff.

The term "design features" was replaced with "compliance with adopted state-aid storm sewer standards". The intent of this change is to remove the vague term "design features" and replace it with a clear set of standards, developed through an internal process and included in the State Aid Manual. It is necessary to revise this rule, so that local agencies clearly understand what design requirements they will be held accountable for on state-aid projects. It is reasonable to have design standards, so that the local agencies can design features to meet these requirements. This change promotes uniform enforcement of the rules and better understanding of design requirements, which will aid in the compliance with these rules.

Subpart 9. Flexible or rigid pavement. This subpart contains a schedule for reductions in state-aid participation on routes that have extremely low traffic or where unusually thick aggregate base courses are used in lieu of a required pavement. This subpart was deleted by the revisor and replaced with subpart 9a, because of the extent of the modifications to the chart describing participation. Refer to subpart 9a for the need for and reasonableness of these changes.

Subpart 9a. Flexible or rigid pavement. This subpart contains a schedule for reductions in state-aid participation on routes that have extremely low traffic where pavement is used that is not warranted by traffic volumes.

Since the rules were last revised, research has been performed that has developed a aggregate surfacing thickness design method. This method provides reasonable thicknesses for aggregates, and makes the arbitrary six inch thickness unnecessary. It is necessary to delete the aggregate base reference to thickness, because the newly developed design method recommends thicknesses greater than six inches in some cases. It is reasonable to delete this reference

when there is better information available which will provide aggregate surfaces that adequately serve the needs of traffic using the state-aid system.

The cost participation schedule in the chart was revised to allow higher cost participation at lower traffic volumes. This was necessary to accommodate mainly logging roads in northern Minnesota where paving is necessary, even though traffic volumes are very low because much of the traffic is logging trucks. It is reasonable to lower the thresholds for participation because it is more economical to maintain these types of roads if they are paved, and state-aid should encourage the most economical construction.

Note number 2 was added to provide for a payment equivalent to an aggregate surface for the lowest traffic category rather than zero as existed previously. A road of such a low volume would at least require an aggregate surface, and it is reasonable for state-aid to pay for the equivalent of that cost.

Subpart 10. Landscaping. This subpart describes the limits for state-aid funds to be used for landscaping items. It also defines what is considered to be landscaping. The rule was revised to raise the limit for landscaping eligibility to 5%. Also, items that previously were considered non-participating are now eligible as landscaping items.

It is necessary to raise the landscaping limit and to allow more items to be eligible, because local agencies are facing serious public opposition to street and highway improvements. The inclusion of landscaping or other aesthetic items can soften the resistance to these improvements and allow projects to be completed. The list of items includes plants, trees, fences, and retaining walls. It is reasonable to allow more state-aid funds to be expended on landscaping items to overcome public opposition which will allow projects to be completed, and to minimize environmental impacts, which is often required by law. These revisions will enhance the ability of local agencies to utilize their state-aid funds, which will promote construction, which assists the state-aid program in accomplishing its purpose.

The rule was also revised to allow the excess costs of certain types of decorative but functional items to be considered landscaping. Such items might be decorative light poles or bridge railings, colored sidewalks or brick pavers, or textured walls and surfaces. These types of items provide an essential function, but at a much greater cost, to make them aesthetically pleasing. In the past these items have been considered ineligible or only eligible up to the cost of a functional item. This revision will make these items eligible as landscaping costs.



It is necessary and reasonable to make these items eligible for landscaping for the same reasons as described for other non-functional landscaping items (see preceding discussion).

#### 8820.3200 LOCAL ROAD RESEARCH BOARD

Subpart 1. Appointment. This subpart describes the membership of the Local Road Research Board (LRRB). The word "road" was added to the first sentence for consistency with the title. It is necessary to take this change, so that the rule is consistent with the commonly known title of this board. It is reasonable to make this change so that it is clear that it is the LRRB that is being referenced, which will reduce the possibility of confusion and will promote understanding and compliance with these rules.

Also The University of Minnesota representative is no longer required to be an engineer due to restructuring at the University, and so the words "staff engineer" were replaced with "representative". It is necessary to change the rule so that the Director of the Center for Transportation Studies (CTS) may be a member of the board. The CTS is a recently created research body created at the University to serve the research needs of transportation. The CTS is headed by an appointed individual who may or may not be a registered engineer. It is reasonable that the CTS director be on the board because of the influential position and association they have with local research.

#### 8820.3300 VARIANCE

Subpart 3. Decision. This subpart describes the requirements for the Commissioner in making decisions on variance requests. The word "shall" was changed to "may" regarding the requirement for a hold harmless resolution. Many variance requests have no risk, but are simply procedural variances. Since there is no risk, it is unnecessary to require a hold harmless. It is necessary to revise this rule so that the Commissioner is not required to request hold harmless resolutions, when there is no risk which requires the State to be held harmless. This change gives the Commissioner the discretion on when to ask for a hold harmless.

It is reasonable to not require a hold harmless in all instances, and to allow the commissioner the discretion to choose when a hold harmless is necessary, because it removes an unnecessary burden from local agencies, which will improve the utility of these rules and aid in their compliance.

For example, Part 8820.1500, subpart 6, limits participating in engineering costs to 25% of the project construction costs. In an extreme situation, a local agency may find that it has exceeded this limitation, and is unable to fund the additional costs from local sources. They may request a variance to exceed this cap. The granting of this variance by the Commissioner does not place

the State at any risk of lawsuit, as might be the case if the Commissioner were to grant a variance to Part 8820.9910, and allow a 10 foot lane in lieu of the required 12 foot lane for example.

#### 8820.3400 ADVISORY COMMITTEE ON VARIANCES

Subpart 2.Membership. This subpart describes the required membership on the variance committee. The word "city" describing city officials, was changed to "urban municipality". The membership is further defined by adding the requirement that at least one member, but not all members be from the metropolitan area.

It was necessary to revise the rule to require that city officials be officials of urban municipalities, so that city representatives on the committee would be from cities receiving state-aid. IT is reasonable to require that a member of committee granting variances to rules be from a city that is familiar with and subject to those rules, so that they have some basis for understanding the implications of the variance requests. Officials from non-state-aid cities would not be familiar with state-aid issues and requirements, and could not make informed decisions on variance requests.

It is necessary to revise the rule to require that at least one member of the committee be from the metro area or from a rural area, to insure that there is at least one member of the committee that can identify with issues that only metro area cities and counties or only rural cities and counties face. It is reasonable that the committee have representation from both metro and rural areas, because requestors of variances may come from any of the state-aid agencies across the state, and it would be unfair if the committee had no representative that could identify with their particular situations.

Subpart 3. Operating procedure. This subpart describes the operating procedure for the variance committee. A sentence was added that the variance committee should be given an orientation prior to each meeting to insure that all members are aware of their responsibilities. Since the membership on the committee can change from one time to the next, it is important and necessary to assure that the members are always up to date on their responsibilities and authority. It is reasonable to provide some orientation prior to each meeting so that consistency is maintained.

#### 8820.4000 through 8820.4090

These parts of the rules deal exclusively with Natural Preservation Routes. The titles were changed to include the words "Natural Preservation Route" in all the titles to distinguish them from other sections. It is reasonable to make this change to avoid

confusing these requirements with those of regular state-aid routes.

#### 8820.4030 NATURAL PRESERVATION ROUTE ADVISORY COMMITTEE

Subpart 2. Operating procedure. This subpart describes the operating procedure for the advisory committee. A requirement for orientation was added. Since the membership on the committee can change from one time to the next, it is important and necessary to assure that the members are always up to date on their responsibilities and authority. It is reasonable to provide some orientation prior to each meeting so that consistency is maintained.

#### 8820.4050 EXTENT OF STATE AID FOR NATURAL PRESERVATION ROUTES

This part defines the extent of participation for state-aid funds in the construction of natural preservation routes. All participation is the same as for regular construction, except that an additional amount is allowed for landscaping because of the unique and sensitive surroundings. A clarification was added to note that the 2% landscaping allowed for NPR routes is above the 5% allowed for regular landscaping in part 8820.3100 subpart 10.

This revision is necessary to make it clear how this 2% relates to the 5% that is allowed for general construction. It is reasonable to make this revision so that confusion is avoided, which will promote compliance with these rules.

#### 8820.4070 RECONSTRUCTION NOTIFICATION FOR NATURAL PRESERVATION ROUTES

This part describes the county engineers responsibilities for notifying the public whenever their is construction on an NPR route. The word "highway" was added to engineer to make it consistent with the definition in Part 8820.0100, subpart 5. This revision is necessary for the accuracy and consistency of the rules. It is reasonable to make this change so that confusion is avoided, which will aid in the compliance with these rules.

#### 8820.9910 through .9985

These parts contain the geometric design standards for state-aid construction. due primarily to metrication, there were changes made to nearly every number in these charts. For ease of revision, the revisor has repealed all of these parts and reintroduced them with new part numbers. There were no changes made to any of these parts other than those described in the following discussions. These deletions and additions were made by the revisor for his convenience.

8820.9920 GEOMETRIC DESIGN STANDARDS; RURAL UNDIVIDED; NEW OR RECONSTRUCTION

This part contains the minimum design standards for rural two-lane roadways.

Metrication changes were made to this chart and the notes. (see page 2).

The notes were reordered and identified by letters rather than numbers. The notes were reordered to match the order that they appeared in the chart. This was done to make the charts more readable, and reduce confusion. The numbers were changed to letters, because the numbers in parentheses were sometimes mistaken for dual units (metric values with english in parentheses). Both these revisions add to the clarity of the rules. It is reasonable to make these revisions because it avoids confusion and aids with the compliance with these rules.

In the 150-399 Average Daily Traffic (ADT) category, the ultimate design strength of 8.2 metric tons was deleted. Because the standards are minimums, the concept of an ultimate design strength was not meaningful or consistent. Note (h) adequately conveys the intent that the roadway be graded to sufficient width to allow for a future 8.2 ton design. This change adds to the clarity and consistency of the rules. It is reasonable to make this revision because it avoids confusion and aids with the compliance with these rules.

NOTE (D). Note (d) provides a description of the requirements for the area within the distance of the recovery area. A requirement for guardrail at bridge railing ends was added to this note. The standards call for all hazards in the recovery area to be removed. If they cannot be removed, they must be shielded with guardrail. All bridge rail ends are within the required recovery areas, but it is not desirable to shield all bridge rail ends. Accidents at bridge rail ends are rare on very low volume roads, and it is not justified to install expensive guardrail, which creates another hazard and is a maintenance problem.

Therefore, it is necessary to create a rule that describes when and where guardrail should be required. It is reasonable to require guardrail at 400 ADT because accident statistics indicate that at volumes less than 400 ADT, accident frequency is too low to justify the expense of guardrail. It is also reasonable to require guardrail where the bridge is not as wide as the approach roadway so that a vehicle approaching the bridge will not unexpectedly strike the bridge rail while their car is still on top of the roadway.

A second paragraph was added to note (d) which references the recently adopted rules concerning hazardous mailbox supports,

Minnesota Rules, Chapter 8818. Chapter 8818 describes what types of mailbox supports are considered hazardous, and grants local agencies the authority to remove those that are hazardous. These rules are closely related to recovery area requirements, and this paragraph assists readers of the rules in locating pertinent information. This paragraph is reasonable, because it assists local agencies to comply with both these chapters of the rules.

NOTE (E). Note (e) modifies and defines the "design speed" requirement. Previously the rule stated that design speed was "based on stopping sight distance". Stopping sight distance is an important item of information when determining lengths of curves on roadways, but has nothing to do with the selection of the design speed. It is inaccurate to say the design speed is based on stopping sight distance, and so it was deleted from note (e). "Subject to terrain" is sufficient to describe design speed. It is reasonable to delete this sentence, because it is inaccurate and may lead to confusion and non-compliance with these rules.

NOTE (F). Note (f) describes characteristics of bridges allowed to remain in place. A sentence was added to note (f) allowing bridges narrower than the required minimums to remain in place if they do not qualify for federal bridge funds. Bridges qualify for replacement funds if they have a sufficiency rating below 50. The formula to determine this rating includes the width of the bridge and other factors. The formula, in certain instances, can allow a bridge narrower than these specified minimum widths to have a rating higher than 50, which disqualifies it for funds.

It is necessary to add this note so that bridges not eligible for funding are not required to be replaced. It is not reasonable to require bridges to be replaced and also deny funding to replace them. It is reasonable to revise this rule so that local agencies are not burdened with the expense of widening bridges that are considered adequate for service.

NOTE (G). Note (g) allows a lower design speed in the 50-149 ADT category when the road is not a part of the federal-aid or state-aid systems. The word "or" was changed to "and" in note (g). A roadway must be off both systems to use a design speed of 50 km/h, not one or the other. It is necessary to revise this rule to reflect the original intent. It is reasonable to revise this rule to avoid confusion, which aids in the compliance with these rules.

ENTRANCE SIDESLOPES. A paragraph was added to this part describing a requirement for the approach sideslope ratio. Sideslopes of entrances are an important safety factor not currently addressed by the state-aid rules. 1:6 sideslopes are the standard for state highways. Absence of a state-aid standard may lead to imposition of the state highway standard to state-aid routes. This would be inappropriate, because state highway standards are intended for routes with considerably higher traffic

volumes, and its application to lower volume state-aid routes would lead to unnecessary expense or unfair liabilities.

It is necessary that the rules address sideslopes so that lower volume roads are not held to the higher trunk highway standards. This paragraph is necessary to provide that standard. IT is reasonable to add this paragraph, because it clarifies the rules by providing language concerning sideslopes. This additional language will lead to greater compliance with the rules.

**MINIMUM BRIDGE WIDTHS.** The previous rule contained a column in the chart for bridge width. The column for new bridge width requirements was removed from the chart and replaced by an additional paragraph in this part. The note produces the same minimum width requirement as previously contained in the chart whenever minimum lane and shoulder widths are used. The note results in wider minimums if the lanes or shoulders are constructed wider than the minimums shown in the chart.

The intent of the old chart was that the bridge be 4 feet (1.2 meters) wider than the roadway. This was represented in the chart as a number, four feet (1.2 meters) more than the sum of the minimum lane and shoulder widths. The chart was not able to address the circumstance of a designer using wider than minimum lane or shoulder widths. The paragraph is an accurate statement of the intent of the old chart.

It was necessary to add this paragraph so that bridges less than the necessary width would not be allowed to be constructed by the standards of this part. It is reasonable to add this paragraph because it removes a loophole in the existing rules that could have led to the construction of unsafe bridges, and will result in less confusion and greater compliance with these rules.

Also added in the same paragraph is a new strength requirement for rehabilitated bridges. This was necessary because the existing rules required strengths equal to new bridges which was unwarranted, and exceeded requirements that the Department applied to trunk highway bridges. It was necessary to add this sentence so that rehabilitated bridges would not be unnecessarily required to have strengths equal to new bridges. It is reasonable to allow a reduced strength (MS16 rather than MS 22.5) because it allows bridges considered to be adequate by Department standards to remain in service, which results in more efficient use of the state-aid funds.

Finally, in the same paragraph, the option to use Load and Resistance Factors Design (LRFD) design is included. The American Association of State Highway and Transportation Officials (AASHTO), a nationally recognized authority on bridge and roadway standards, has developed an alternative method for computing design strength of bridges. This new method has advantages for low volume

applications, in that it allows the strength of the bridge to be tailored to the type of traffic using the bridge.

It is necessary to add this note so that this new design method can be used. It is reasonable to allow this method to be used, because it will result in lower strength requirements for certain types of bridges, which will result in lower costs and more efficient use of the state-aid funds.

#### 8820.9926 GEOMETRIC DESIGN STANDARDS; RURAL UNDIVIDED; RESURFACING

Subpart 1. Minimum resurfacing standards. The previously existing part 8820.9925 is now included entirely in subpart 1, and is titled "minimum resurfacing standards". This was done, because another subpart was added (see discussion to follow).

BRIDGE WIDTHS. A paragraph was added allowing bridges narrower than the minimum width to remain in place if they do not qualify for federal bridge replacement funds. It was necessary to add this note because bridges narrower than these widths can, in some instances, still be considered adequate for service and not eligible for replacement funds. Refer to the discussion for part 8820.9920 for further explanation of the need for and the reasonableness of this addition.

ALIGNMENT REQUIREMENTS. Another paragraph was added allowing vertical and horizontal alignment previously constructed to state-aid standards to remain in place even if it does not meet current requirements. Approximately ten years ago, nationwide changes were made in some of the parameters used to determine the required lengths of vertical curves. This change resulted in curves that previously met standards, now being a few feet short of the required lengths. Even though these changes were small, it still left these curves substandard, and resulted in significant costs to correct or requests for variances. The change to metric units will have a similar effect. The slight rounding that occurred will make some curves that previously met standards now slightly substandard.

It is therefore necessary to allow this exception in the rules to avoid numerous minor variance requests, or expensive reconstruction. It is reasonable to allow these curves to remain in place because they are often only a few feet short of meeting standards (a few feet out of a few hundred feet, varying depending on speed). This difference is not likely to be perceptible to a driver. Adding this paragraph will result in cheaper construction and reduced variance requests, which will result in more efficient use of state-aid funds and less administrative burden on local agencies.

Subpart 2. Selected improvements. This subpart is a new addition. The purpose of this subpart is to allow local agencies

to make improvements to selected roadway elements, that may not meet all of the requirements for new construction. For example, an agency may wish to widen the shoulders on a narrow roadway to extend the life of a still serviceable pavement, but not as wide as required by Part 8820.9920. Or, an agency may wish to flatten the inslopes and provide a recovery area in locations that do not meet shoulder width or design speed requirements.

This subpart was included in response to a need for greater flexibility in providing serviceable and safe transportation facilities with fewer resources. It is necessary to add this subpart to allow these types of selected improvements, because they were not allowed under either Part 8820.9920 or the existing Part 8820.9925. It is reasonable to allow selected improvements where a safety problem can be corrected or where there is compelling economic justification to not reconstruct the entire roadway to new standards, because it extends the life of existing facilities, resulting in a more efficient use of state-aid funds.

This subpart provides limitations on cases where this subpart applies. The limitations restrict this subpart to instances where much of the in-place roadway structure is salvaged, and the life of the roadway extended. It is not appropriate to use the flexibility provided in this subpart when all or nearly all elements of the roadway are being improved, because that would be considered reconstruction, which is governed by Part 8820.9920. It is therefore necessary to include restrictions that limit the applicability of this subpart. It is reasonable to limit its applicability to instances where it is safe and economically justified.

This subpart requires written justification and concurrence by the state-aid engineer. Since the use of these standards will be based upon engineering judgement, it is necessary to have the approval of the state-aid engineer. Having approval by the state-aid engineer allows the commissioner to maintain his responsibility for enforcement of the state-aid standards. The criteria the judgement is based on are the same criteria used by the commissioner to evaluate requests for variances (see Part 8820.3300 and .3400). It is reasonable to require the state-aid engineer's approval and to use the variance criteria, so that all instances will be evaluated by the same set of criteria when deviating from the standards for new construction or resurfacing. This will make the rules easier to understand and aid in compliance.

The last sentence of this subpart adds an inslope requirement and a minimum recovery area which must be provided or maintained. In subpart 1 (the old resurfacing rules) no modifications were allowed to the inslopes or clear zones. Under selected improvements, modifications such as inslope flattening or shoulder widening are possible. These types of improvements are likely to alter the inslope and/or reduce the recovery area, which could result in a



more hazardous condition. Therefore, certain minimums must be maintained to protect the travelling public from the introduction of these new hazardous conditions.

It is necessary to add this sentence so that some measure of safety is ensured. A 3 meter recovery area is reasonable for a paved roadway with a function similar to most state-aid routes, and is the recommended minimum by AASHTO, which provides nationwide standards and is the recommended practice in the industry. 1:3 inslopes are a reasonable minimum for preservation projects, because steeper than 1:3 is extremely hazardous and difficult to maintain.

8820.9931 GEOMETRIC DESIGN STANDARDS; SUBURBAN; NEW OR RECONSTRUCTION

Metrication changes were made (see page 2). Also the notes were reordered and labelled with letters (a) through (e) (see discussion in 8820.9920).

The minimum recovery area for traffic volumes less than 1000, the first level in the chart, was reduced from 6 meters to 3 meters (20 feet to 10 feet). This change was based upon research that indicated that a 10 foot clear zone was adequate for low volume, low speed situations. It was necessary to reduce this clear zone, because the intent of this rule is to allow lower standards where restriction conditions exist in a suburban environment. It was reasonable to reduce this standard, because research indicated that a lesser amount of recovery area was adequate. This change helps this rule to accomplish its purpose of providing minimum standards in restricted suburban areas.

Note (a) was modified to include a sentence about entrance sideslopes. This sentence was added because entrance sideslopes are an important factor in the safety of highway roadsides. The same sentence was added as a new paragraph in Part 8820.9920. Refer to Part 8820.9920 for the need for and reasonableness of this addition.

Note (b) was modified with the addition of requirements for guardrail installation and a reference to Minnesota Rules Chapter 8818. Identical changes were made to Part 8820.9920, note (d). Refer to that discussion for the need for and reasonableness of this addition.

Note (c) was modified with the deletion of the last sentence regarding the use of stopping sight distance to determine design speed. The identical change was made to Part 8820.9920, note (e). Refer to that discussion for the need for and reasonableness of this addition.

Note (d) was modified to include a sentence allowing bridges narrower than the minimum width to remain in place when the bridge is ineligible for replacement funding. The identical change was made to Part 8820.9920, note (f). Refer to that discussion for the need for and reasonableness of this addition.

Note (e) was added to allow the recovery area to be reduced to 3 meters when the speed limit is low. This change was made for the same reason as the change to recovery area for traffic volumes less than 1000 (see previous discussion). Refer to the previous discussion for the need for and reasonableness of this addition.

In the first paragraph, the word "platted" was changed to "subdivided" because some developments occur in areas that are not legally platted, but are just as heavily developed as platted areas. It is necessary to change this word, because the term "platted" carried a legal definition that was more restrictive than its intended use in these rules. The term "subdivided" more accurately describes the intent of the rule. It is reasonable to make this change, because it promotes the use of this rule in areas where it was intended, which will aid in compliance with these rules.

This paragraph was also changed to allow its application in areas where the legal speed limit is 60 km/h or less (30 mph). The posted speed limit is a good surrogate measure for the amount of development and congestion around a street, and is easy to identify. Also, "the posted speed" is less likely to be misinterpreted than "an area in a detailed development process". This addition is necessary to aid the readers in determining if these rules can be applied to a particular situation. It is reasonable to add make this addition to promote understanding of the rules.

The last paragraph was modified with the addition of a sentence that replaced the column for new bridge width which had been in the chart. The column was deleted with the addition of this paragraph. This change is identical to the addition made to the last paragraph of Part 8820.9920. Refer to the same discussion in 8820.9920 for the need for and reasonableness of this addition.

#### 8820.9936 GEOMETRIC DESIGN STANDARDS; URBAN; NEW OR RECONSTRUCTION

This part is a combination of the old parts 8820.9935, .9940. and .9950. These parts described standards for low speed urban streets, standards for high speed urban streets, and classifications of urban roadways respectively. The content and original intent of these parts is not changed, but they were reduced to a single part and a single chart for ease of use and reduced confusion. The title has been changed to reflect the new content. Following is a brief listing of the major format changes.

In the existing standards charts, required street widths are given as a total width, with component widths in parentheses. The proposed chart lists only the component part widths. Total width is determined by addition of the required number and combination of component widths.

In the existing rules, part .9935 was for low speed streets and part .9940 was for high speed streets. These two parts are now reflected in this single part, by adding a column to the chart for design speed.

Existing part .9950 defined "urban roadway classification" which was in turn used to select the appropriate design standard level in parts .9935 and .9940. The definition of urban roadway class was incorporated into the structure of the proposed chart in part .9936 by the replacement of the "urban roadway classification" column in the chart with functional classification and traffic volume (ADT) (refer to the discussion of part 8820.9950 for more information).

Metrickation changes were also made (see page 2 for need for and reasonableness of metrickation).

It is necessary to combine these parts together because the existing rules were redundant, were cumbersome to use, and caused confusion. It is reasonable to combine these parts together because it will reduce confusion and aid in the compliance with these rules.

As a part of the combination of Parts 8820.9935, .9940, and .9950, the footnotes to the chart were reordered and identified with letters rather than numbers (see discussion of this revision in Part .9920). The footnotes were revised in the following manner.

Note (a) is added to define the required width of one-way turn lanes. One-way turn lanes are a common feature of urban streets, however, the width of turn lanes was not specifically addressed by the existing rules, and the widths for "lanes" exceeded what was reasonable for these types of turn lanes. The note requires turn-lanes to be 3 meters wide at low speeds and 3.3 meters wide at higher speeds. These widths are 0.3 meters (one foot) less than the required lane widths at the same speeds.

It is necessary to add this note so that turn lanes are adequately designed, and not required to be wider than necessary. These values are reasonable in that they provide sufficient space for most vehicles to leave the through lane and make a right of left turn without blocking traffic, which is the function of a turn lane. It is reasonable to add this note so that the rules clearly address turn lanes, which will reduce confusion, and result in safer, more efficient turn lane designs because excess width is not required.

Note (b) instructs the reader to use 3.6 meter wide lanes rather than 3.3 meter lanes wherever possible. This note was not revised.

Note (c) allows the curb reaction distance for the high volume design level to be reduced from 1.2 meters to 0.6 meters when there exists four or more lanes of traffic and on one-way streets. This note duplicates one of the features of the existing parts .9935 and .9940 that could not be portrayed in the new chart format. The intent of the rules remains the same. It is necessary to add this note to maintain the intent of the original rules. It is reasonable to add this note, because this brief note replaces the function of two separate charts, which will reduce confusion and promote compliance with these rules.

Note (d) disallows parking on streets with six or more lanes of traffic or speeds greater than 70 km/h. This note reflects the intent of the existing rules. It is necessary to add this note to maintain the intent of the original rules. It is reasonable to add this note, because this brief note replaces the function of two separate charts, which will reduce confusion and promote compliance with these rules.

The paragraphs following the footnotes are either carried over from the existing rules or were added as a result of the elimination of parts 8820 9940 and .9950. Following is a description of those paragraphs.

The first paragraph requires at least two through lanes on a one-way street. This paragraph was added to maintain the intent of the existing rules. It is necessary to add this paragraph to maintain the intent of the original rules. It is reasonable to add this paragraph, because this brief paragraph replaces the function of two separate charts, which will reduce confusion and promote compliance with these rules.

The second paragraph describes required median widths. This paragraph is not revised from the existing rules.

The third paragraph defines the minimum required design strength. This paragraph is not revised from the existing rules.

The fourth paragraph defines bridge width and strength requirements. The bridge width requirements are not revised from the existing rules. Bridge strength requirements are modified to allow LRFD design and MS16 for rehabilitated bridges, as was done in 8820.9920 (refer to 8820.9920 for need and reasonableness).

The fifth paragraph describes clear zone requirements. This paragraph is not revised from the existing rules.

The last paragraph requires four or more through-lanes when traffic volumes exceed 15000 ADT. This paragraph duplicates the function

of the existing rule 8820.9950 which was deleted. It is necessary to add this paragraph to maintain the intent of the original rules. It is reasonable to add this paragraph, because this brief paragraph replaces the function of two separate charts, which will reduce confusion and promote compliance with these rules.

The asterisked note at the end of this part was located in part 8820.9950 of the existing rules. It is located here because of the deletion of Part .9950, but the intent and content is not changed.

8820.9940 GEOMETRIC DESIGN STANDARDS; URBAN; GREATER THAN 35 MPH DESIGN SPEED; NEW OR RECONSTRUCTION

This part has been deleted and its content combined with 8820.9935. It is necessary to delete this part, because it is essentially identical to .9935, and can be easily described along with the rules in part .9935 in a single chart and set of notes. It is reasonable to delete this subpart because it was redundant, and it is desirable to remove redundant language from the rules to make them clear and to promote compliance.

8820.9946 GEOMETRIC DESIGN STANDARDS; URBAN; RESURFACING

Subpart 1. Two-way streets. This subpart describes the minimum design requirements for resurfacing projects on two-way streets. Slight revisions were made to the chart and notes to reflect the deletion of Part 8820.9950, and metrication changes were made (see page 2 for the need for and reasonableness of metrication). As in other charts, the notes were reordered and identified by letters.

Changes were made in the chart to accommodate the deletion of part 8820.9950. The "urban roadway classification" was replaced with the functional classification and traffic volume, which was how "urban roadway classification" was determined. It is necessary to make this revision because of the deletion of part 8820.9950. It is reasonable to make this revision so that the original intent of the rule is maintained.

Note (a) allows the two-lane arterial to exist only if the traffic volume is less than 15000. This note is necessary because of the deletion of Part 8820.9950. It is necessary to add this note to maintain the intent of the original rules. It is reasonable to add this note, because this brief note replaces the function of two separate charts, which will reduce confusion and promote compliance with these rules.

Note (b) allows lower design strengths for certain low-volume conditions. This note is added due to the restructuring of the chart made necessary by the deletion of Part 8820.9950. It is necessary to add this note to maintain the intent of the original rules. It is reasonable to add this note, because this brief note

replaces the function of two separate charts, which will reduce confusion and promote compliance with these rules.

Note (c) states that no parking is allowed for six lane configurations. The existing rules have dashes in these boxes of the chart. The note was added to make it clear that the dashes meant that this condition could not exist. It is necessary to add this note so that the intent of the rule is clearly stated and not implied. It is reasonable to add this note to promote understanding of this rule which improves compliance.

Subpart 2. One-way streets. This subpart describes the minimum design requirements for resurfacing projects on one-way streets. Slight revisions were made to the chart and notes to reflect the deletion of Part 8820.9950 as described for subpart 1, and metrication changes were made (see page 2 for the need for and reasonableness of metrication).

Subpart 3. Exceptions. This subpart was added to allow the maintenance of streets built to state-aid standards previously. Traffic growth or revisions to standards may cause design standards to increase for a street after it is constructed, but before it reaches the end of its useful life, requiring reconstruction. If reconstruction is not warranted, then it is necessary to allow a street to be maintained through resurfacing provided it met all design requirements at the time it was constructed. Not allowing resurfacing when a street still has useful life remaining is wasteful of limited state-aid funds.

Therefore, it is necessary to add this subpart to allow exceptions to the requirements of subparts 1 and 2. It is reasonable to add this subpart because it promotes the efficient and effective use of state-aid funds.

8820.9950

This part was used to identify an "urban roadway classification" for urban streets, which was in turn used to identify the proper design standards in Parts 8820.9935 and .9940. The "urban roadway classification" has frequently been mistaken for the more common term "functional classification" which is used elsewhere in these rules and is commonly used throughout the transportation industry. Also, by using the term "functional classification" which is already defined in Part 8820.0100, subpart 10, then this part becomes unnecessary, because functional classification has been incorporated into the proposed changes to Parts 8820.9936 and .9946.

It is necessary to delete this part because it has been proven to be confusing, and is unnecessary. It is reasonable to delete this part to remove unnecessary and confusing language from the rules, which will promote understanding and compliance with these rules.

8820.9956 VERTICAL CLEARANCES FOR UNDERPASSES

This part defines the requirements for clearances and bridges. Only metrication changes were made (see page 2).

8820.9961 MINIMUM DESIGN STANDARDS FOR 45-DEGREE AND 60-DEGREE DIAGONAL PARKING

This part contains design standards for diagonal parking configurations. Only metrication changes were made (see page 2).

8820.9965 MINIMUM GEOMETRIC DESIGN STANDARDS: DESIGNATED NATIONAL FOREST HIGHWAYS WITHIN NATIONAL FORESTS, AND STATE PARK ACCESS ROADS WITHIN STATE PARKS; NEW OR RECONSTRUCTION.

This part contains standards for certain state-aid routes in national forests and state parks. The routes covered by this standard are very similar in character to those covered by part 8820.9981 (natural preservation routes) and it is not necessary to have two separate standards for the same function.

Therefore, this part is deleted. It is necessary to delete this part because it is unnecessary, and is duplicated by the more recently added part 8820.9981. It is reasonable to delete this subpart and retain 8820.9981 because 8820.9981 was more recently developed and reflects recent changes in nationwide standards and better addresses environmental concerns. It is reasonable to delete this subpart because it reduces redundancy in the rules which will promote understanding and compliance with these rules.

8820.9970 MINIMUM GEOMETRIC DESIGN STANDARDS: DESIGNATED NATIONAL FOREST HIGHWAYS WITHIN NATIONAL FORESTS, AND STATE PARK ACCESS ROADS WITHIN STATE PARKS; RESURFACING.

This part contains resurfacing standards for routes covered by Part 8820.9965. This part is also deleted. Refer to the discussion in Part 8820.9965 for the need for and reasonableness of this deletion.

8820.9981 MINIMUM GEOMETRIC DESIGN STANDARDS: NATURAL PRESERVATION ROUTES, DESIGNATED NATIONAL FOREST HIGHWAYS WITHIN NATIONAL FORESTS, AND STATE PARK ACCESS ROADS WITHIN STATE PARKS; NEW OR RECONSTRUCTION.

The title was changed to reflect the deletion of part 8820.9965. It was necessary to change the title so that it indicated that the types of roads covered by existing part 8820.9965 are now covered by this part. It is reasonable to make this change so that readers will understand that forest highways and state park roads are now covered by this part, which will promote understanding and compliance with these rules.

Subpart 1. Type 1 route. The title was changed to reflect the deletion of part 8820.9965. Metrication changes were also made (see page 2).

The notes were reordered and identified by letters to improve the readability of the chart and footnotes as has been done in preceding parts (refer to Part 8820.9920 for more discussion).

Note (c) was revised to include requirements for guardrail and a reference to Chapter 8818. Refer to Part 8820.9920, note (d) for the need for and reasonableness of this revision.

Note (d) was revised to allow bridges narrower than those listed in the chart to remain in place. Refer to Part 8820.9920, note (f) for the need for and reasonableness of this revision.

The first paragraph after the notes was revised to allow the LRFD design method. Refer to Part 8820.9920, last paragraph, for the need for and reasonableness of this revision.

The last paragraph was added to reflect the deletion of part 8820.9965. This paragraph adds a traffic volume requirement to the charts for routes that qualify as forest highways or state park access roads, but are not designated natural preservation routes. Traffic volumes are a vital factor in determining the appropriate design standard. The NPR standards considered traffic volume in the designation process, and so it was not necessary to include in the design standards.

Since forest highways and state park access roads may not be designated as NPRs, it is necessary to add a requirement for traffic volume for those types of roads. It is reasonable to use 100 ADT, because this volume closely reflects the original intent of Part 8820.9965. It is reasonable to add this paragraph so that proper design standards are used for forest highways and state park roads, which will improve driver safety on these routes.

Subpart 2. Type II route. The title was changed to reflect the deletion of part 8820.9965. Metrication changes were also made (see page 2).

The notes were reordered and identified by letters to improve the readability of the chart and footnotes as has been done in preceding parts (refer to Part 8820.9920 for more discussion).

Note (b) was revised to include a requirement for approach sideslopes. This addition is necessary here because recovery area requirements are wider than in subpart 1, and will include the sideslope of approaches, and traffic volumes are higher, requiring a greater measure of safety. Refer to Part 8820.9920, paragraph (1), for the need for and reasonableness of this addition.



Note (c) was revised to include requirements for guardrail and a reference to Chapter 8818. Refer to Part 8820.9920, note (d) for the need for and reasonableness of this revision.

Note (d) was revised to allow bridges narrower than those listed in the chart to remain in place. Refer to Part 8820.9920, note (f) for the need for and reasonableness of this revision.

The first paragraph after the notes was revised to allow the LRFD design method. Also, the required width is described in this paragraph rather than in the chart to accommodate bridge width requirements when greater than minimum widths are used. Refer to Part 8820.9920, last paragraph, for the need for and reasonableness of this revision.

The last paragraph was added to reflect the deletion of part 8820.9965. This paragraph adds a traffic volume requirement to the charts for routes that qualify as forest highways or state park access roads, but are not designated natural preservation routes. Traffic volumes are a vital factor in determining the appropriate design standard. The NPR standards considered traffic volume in the designation process, and so it was not necessary to include in the design standards.

Since forest highways and state park access roads may not be designated as NPRs, it is necessary to add a requirement for traffic volume for those types of roads. It is reasonable to use 300 ADT, because this volume closely reflects the original intent of Part 8820.9965, and matches the guideline for a Type II Natural Preservation Route (Part 8820.4010, subpart 2). It is reasonable to add this paragraph so that proper design standards are used for forest highways and state park roads, which will improve driver safety on these routes.

Subpart 3. Type III route. The title was changed to reflect the deletion of part 8820.9965. Metrication changes were also made (see page 2).

The notes were reordered and identified by letters to improve the readability of the chart and footnotes as has been done in preceding parts (refer to Part 8820.9920 for more discussion).

Note (b) was revised to include a requirement for approach sideslopes. This addition is necessary here because recovery area requirements are wider than in subpart 1, and will include the sideslope of approaches, and traffic volumes are higher, requiring a greater measure of safety. Refer to Part 8820.9920, paragraph (1), for the need for and reasonableness of this addition.

Note (c) was revised to include requirements for guardrail and a reference to Chapter 8818. Refer to Part 8820.9920, note (d) for the need for and reasonableness of this revision.

Note (d) was revised to allow bridges narrower than those listed in the chart to remain in place. Refer to Part 8820.9920, note (f) for the need for and reasonableness of this revision.

The first paragraph after the notes was revised to allow the LRFD design method. Also, the required width is described in this paragraph rather than in the chart to accommodate bridge width requirements when greater than minimum widths are used. Refer to Part 8820.9920, last paragraph, for the need for and reasonableness of this revision.

#### 8820.9986 MINIMUM GEOMETRIC DESIGN STANDARDS: NATURAL PRESERVATION ROUTES, DESIGNATED NATIONAL FOREST HIGHWAYS WITHIN NATIONAL FORESTS, AND STATE PARK ACCESS ROADS WITHIN STATE PARKS; RESURFACING.

The title was changed to reflect the deletion of part 8820.9970. It was necessary to change the title so that it indicated that the types of roads covered by existing part 8820.9970 are now covered by this part. It is reasonable to make this change so that readers will understand that forest highways and state park roads are now covered by this part, which will promote understanding and compliance with these rules. Metrication changes were also made (see page 2).

The first paragraph was revised to allow bridges narrower than those listed in the chart to remain in place. Refer to Part 8820.9920, note (f) for the need for and reasonableness of this revision.

#### 8820.9990 ROUTE MARKER

This part contains the standard sign design that denotes a Natural Preservation Route. The dimensions of the sign were revised to metric units (see page 2 for the need for and reasonableness of metrication). No other changes were made.

#### 8820.9995 BICYCLE PATH STANDARDS

This part is new. Recent changes in federal-aid programs have created a large number of bicycle path projects, many of them in state-aid route corridors. Although there are a number of sources for design guidance for bicycle paths, they are not considered standards, are difficult for the Department to enforce, and are difficult for designers to interpret. A short, clear listing of the critical elements of a bicycle path along with minimum acceptable standards was necessary. It is reasonable to add bicycle path standards to the state-aid rules to assist local agencies in determining the critical and minimum design standards for bicycle paths. This will improve the safety of bicycle paths in state-aid corridors.

This part applies only to off-road facilities. On-road facilities do not need a separate standard, because most of the design elements are dictated by the needs of the road, and these rules already contain sufficient standards for roads that might include bicycle facilities. Note (a) refers the reader to other sources of information for these types of facilities. It is sufficient to include this note, because the standards in Part 8820.9936 are minimums, and already allow for the inclusion of on-road bicycle paths, whereas, the rules are silent on off-road facilities. It is reasonable to not create on-road standards, because such standards would be redundant and confusing, and may lead to non-compliance with the rules.

**Minimum Surfacing Width.** A standard for width is necessary for the safe use of the path. 2.5 meters (8 feet) is a reasonable minimum because it allows for the two-way operation of the path. This value is supported by nationwide standards publications from the American Association of Transportation Officials (AASHTO) and the Federal Highway Administration (FHWA). A lower value would not allow safe passage of two bicycles, and a greater value is not necessary for this function. It is reasonable to provide this standard because it is in agreement with other national publications which will improve understanding and aid in compliance.

This item is footnoted by note (b), which requires a 3 meter (10 feet) wide path when pedestrians are present. This width is considered adequate also for multiple purpose use of a path by AASHTO and FHWA. It is reasonable to provide this standard because it is in agreement with other national publications which will improve understanding and aid in compliance.

**Shoulder/Clear Zone.** A clear area adjacent to the paved surface of the path is necessary for the path to function. Obstacles at the edge of the surface will cause riders to shy away from the object, reducing the effective width of the path. It is necessary to provide a standard for this clear zone so that the required surfacing width is fully useable. This clear zone width is supported by AASHTO and FHWA publications. It is reasonable to provide this standard because it is in agreement with other national publications which will improve understanding and aid in compliance.

Note (c) recommends that clear zones be carried across bridges and through underpasses, except that a minimum of 3 meters must be maintained. It is best to provide the clear zone at all times, however, a 3 meter path with two 0.5 meter clear zones (one on each side) has a total width of 4 meters, slightly more than 12 feet, which is the widest available precast underpass, and more than the 10 feet which is typical of railroad bridges retrofitted as bicycle paths. Three meters is acceptable in both of these instances.

It is necessary to allow 3 meters at overpasses and underpasses because it is prohibitively expensive to require more than 3 meters due to available construction materials and the common practice of retrofitting railroad bridges. This width allows the full path width to be maintained through or across the structure. It is reasonable to provide this note so that bicycle overpasses and underpasses can be built safely and economically. This will promote the efficient use of state-aid funds.

Inslope. The inslope is the area beyond the shoulder, between the shoulder and the natural ground or ditch. A minimum inslope requirement is necessary to prevent steeper slopes from being used. It is reasonable to include this requirement because steeper slopes are a safety hazard, and could cause injury to a cyclist that left the path. Flatter inslopes are more desirable, and so a requirement for a minimum is sufficient.

Design Speed. Design speed on a bicycle path determines other design features such as horizontal and vertical curvature. A minimum design speed of 30 km/h (20 mph) will allow safe operation of bicycles on the path. It is necessary to require a minimum design speed so that riders can safely negotiate the curves and hills on the path. It is reasonable to provide this standard because it is in agreement with other national publications which will improve understanding and aid in compliance.

Note (d) describes where higher design speeds are required at steep, long hills. It is necessary to provide this note so that a higher design speed will be required at hills. This is reasonable because bicycles travel much faster going downhill than on level ground, and this will insure a safe design.

Note (d) also provides a maximum grade. This is included primarily for ease of reference because this is the maximum grade allowed by the Federal Americans with Disabilities Act (ADA). It is necessary to comply with the ADA, and it is reasonable to include this maximum grade in conjunction with the other requirements for grade so that it is not overlooked. This will promote better efficiency and compliance with these rules.

Vertical Clearance. This standard requires 3 meters of clearance for the bicycle path under any overhead obstacle. This standard is necessary so that riders can safely pass under these obstacles without risk of collision. It is necessary to require a minimum clearance so that riders can expect to be able to pass under vertical obstacles. It is reasonable to provide this standard because it is in agreement with other national publications which will improve understanding and aid in compliance.

## WITNESSES AND SUMMARY OF TESTIMONY

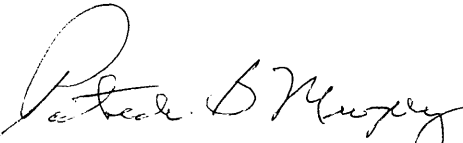
If a hearing is required, the Department will introduce its Statement of Need and Reasonableness as an exhibit into the record in accordance with Minnesota Rules, part 1400.0500, subpart 3. The following Department personnel will be available at the hearing, if one is required, for questioning by the Administrative Law Judge and other interested persons, or to briefly summarize all or a portion of the Statement of Need and Reasonableness if requested by the Administrative Law Judge.

1. Patrick B. Murphy. Mr. Murphy is the Director for the Department's Division of State Aid for Local Transportation (State Aid Engineer), and the chairperson of the State Aid Rules Committee.
2. Julie Skallman. Ms. Skallman is the Assistant State Aid Engineer and served with the State Aid Rules Committee that developed these rules.
3. Mark Gieseke. Mr. Gieseke is the State Aid Plans Engineer and has been responsible for drafting the rules and rulemaking documents, and also served with the State Aid Rules Committee.
4. Debra Ledvina. Ms. Ledvina is the rulemaking advisor for the Department. She will be responsible for presenting the exhibits at the hearing.

## CONCLUSION

Based on the above part-by part justification, these revisions to the state-aid rules for operations are needed to effectively carry-out the Departments responsibilities under Minnesota Statutes, chapter 162. The Department's proposed rules revisions are reasonable for providing safe and efficient transportation facilities for the people of Minnesota.

DATE:



Patrick B. Murphy, Director  
Division of State Aid for Local Transportation  
Department of Transportation

