

1 Department of Transportation

2

3 Adopted Permanent Rules Relating to State-Aid Highway Operations

4

5 Rules as Adopted

6 8820.0100 DEFINITIONS.

7 [For text of subpart 1, see M.R.]

8 Subp. 1a. ADT. "ADT" means average daily traffic.

9 [For text of subps 2 and 2a, see M.R.]

10 Subp. 2b. City. "City" means a statutory or home rule
11 charter city.

12 [For text of subps 3 and 3a, see M.R.]

13 Subp. 4. Commissioner. "Commissioner" means the
14 commissioner of the Minnesota Department of Transportation.

15 [For text of subps 4a and 5, see M.R.]

16 Subp. 6. County-municipal account. "County-municipal
17 account" means a separate record of that portion of the county
18 state-aid highway funds allocated for expenditure on county
19 state-aid highways within cities having less than 5,000
20 population.

21 [For text of subps 7 and 8, see M.R.]

22 Subp. 9. District engineer. "District engineer" means a
23 district engineer of the Minnesota Department of Transportation.

24 [For text of subp 9a, see M.R.]

25 Subp. 9b. Force account agreement. "Force account
26 agreement" means an agreement between the Minnesota Department
27 of Transportation and a city or county for the city or county to
28 do state-aid funded construction projects with its-own local
29 forces, railroad-crossings-to-be-constructed-by-railroad-forces,
30 or-utility-work-to-be-done-by-public-utility-forces and for the
31 city or county to be reimbursed, based on established-item-costs
32 agreed unit prices.

33 [For text of subp 10, see M.R.]

34 Subp. 10a. Local forces. "Local forces" means railroad
35 forces when working on a railroad crossing, utility forces when

1 conducting utility work eligible under a force account
2 agreement, or the employees of a local unit of government needed
3 to perform a specific project for reasons of expertise or
4 necessary expediency.

5 [For text of subps 11 to 13, see M.R.]

6 Subp. 14. **Screening board.** "Screening board" means the
7 county screening board or municipal screening committee
8 appointed in accordance with law and authorized to recommend to
9 the commissioner the mileage and money needs for each of their
10 state-aid systems.

11 [For text of subps 15 and 15a, see M.R.]

12 Subp. 16. **Town bridge account.** "Town bridge account"
13 means the apportionment of county state-aid turnback funds for
14 use in the construction or reconstruction of bridges on town
15 roads.

16 [For text of subp 17, see M.R.]

17 Subp. 17a. **Town road account.** "Town road account" means
18 the apportionment of county state-aid turnback funds for use in
19 the construction, reconstruction, or gravel maintenance of town
20 roads.

21 [For text of subp 17b, see M.R.]

22 Subp. 18. **Town allotment.** "Town allotment" means the
23 county apportionment of county state-aid highway funds for use
24 in constructing town roads.

25 Subp. 19. **Trunk highway turnback.** "Trunk highway turnback"
26 means a trunk highway or portion of it that has been designated
27 at another location and the former trunk highway has reverted to
28 a county or municipality in accordance with law. The reverted
29 trunk highway or portion of it has become part of the state-aid
30 system.

31 Subp. 20. **Turnback account.** "Turnback account" means the
32 account provided by law for payment to the county or city for
33 the approved repair and restoration or reconstruction and
34 improvement of those former trunk highways that have reverted to
35 county or municipal jurisdiction and have become part of the
36 state-aid system.

1 [For text of subps 21 and 22, see M.R.]

2 8820.0600 SELECTION OF ROUTES.

3 Final selection of routes to be included in the respective
4 county state-aid and municipal state-aid systems are subject to
5 the approval of the commissioner. These routes may be
6 established on new locations where no existing roadway exists or
7 may be located upon or over an established roadway or specified
8 portion of a roadway.

9 The highway and street systems to be selected and
10 designated in accordance with law are:

11 A. a county state-aid highway system not exceeding
12 30,000 miles in extent, excluding trunk highway turnback mileage
13 and former municipal state-aid street mileage in cities whose
14 population fell below 5,000 under the 1980 federal census; and

15 B. a municipal state-aid street system not exceeding
16 2,500 miles in extent within urban municipalities, excluding
17 trunk highway turnback mileage.

18 For an undivided, one-way street with a minimum width of 26
19 feet and with no parking lane or with a maximum width of 46 feet
20 with parking on both sides, the chargeable mileage allowed for
21 municipal state-aid street mileage purposes is one-half of the
22 length of the one-way street.

23 8820.0700 SELECTION CRITERIA.

24 Subpart 1. **Basis.** A state-aid route must be selected on
25 the basis of all criteria in either subpart 2 or 3.

26 Subp. 2. **County state-aid highway.** A county state-aid
27 highway may be selected if it:

28 A. is projected to carry a relatively heavier traffic
29 volume or is functionally classified as collector or arterial as
30 identified on the county's functional classification plans as
31 approved by the county board;

32 B. connects towns, communities, shipping points, and
33 markets within a county or in adjacent counties; provides access
34 to rural churches, schools, community meeting halls, industrial
35 areas, state institutions, and recreational areas; or, serves as

1 a principal rural mail route and school bus route; and

2 C. provides an integrated and coordinated highway
3 system affording, within practical limits, a state-aid highway
4 network consistent with projected traffic demands.

5 Subp. 3. **Municipal state-aid street.** A municipal
6 state-aid street may be selected if it:

7 A. is projected to carry a relatively heavier traffic
8 volume or is functionally classified as collector or arterial as
9 identified on the urban municipality's functional classification
10 plan as approved by the urban municipality's governing body;

11 B. connects the points of major traffic interest
12 within an urban municipality; and

13 C. provides an integrated street system affording,
14 within practical limits, a state-aid street network consistent
15 with projected traffic demands.

16 8820.0800 ROUTE DESIGNATIONS.

17 Subpart 1. **Resolution and certification.** With regard to
18 route designations, county state-aid highways and municipal
19 state-aid streets must be selected by the respective boards of
20 county commissioners or governing bodies of urban
21 municipalities. The highway or street selections must be
22 reviewed by the district state-aid engineer of that area and the
23 engineer's recommendation must be filed with the commissioner.
24 Upon preliminary approval of the commissioner, the respective
25 boards or governing bodies shall establish the route by
26 designation. After receipt of each board action, the
27 commissioner shall approve all or part of the highway or street
28 designations that comply with the criteria set out in this
29 chapter. The commissioner shall certify to the respective
30 boards of county commissioners or governing bodies of urban
31 municipalities the approved portion of the highway or street
32 designation. Highways or streets so approved become a part of
33 the county state-aid highway system or the municipal state-aid
34 street system, subject to additions or revisions as may be, from
35 time to time, requested and approved.

1 [For text of subp 2, see M.R.]

2 Subp. 3. Payback on revoked state-aid routes. If a local
3 unit of government revokes a state-aid route for which state-aid
4 construction money has been spent, the district state-aid
5 engineer shall determine the remaining life of the project and
6 compute the value of the items that were financed with state-aid
7 money. This computed value must be subtracted from the next
8 state-aid contract let by the local unit of government. For
9 this determination, (1) the life of a construction project is 25
10 years, (2) the life of a bridge project is 35 years, and (3) the
11 life of a surfacing project is ten years. Payback is not
12 required if the state-aid construction was a special resurfacing
13 project.

14 The district state-aid engineer shall report the amount of
15 required payback to the office of state-aid immediately upon
16 receiving a copy of the commissioner's order revoking the
17 affected state-aid route.

18 8820.1000 MONEY NEEDS AND APPORTIONMENT DETERMINATION.

19 [For text of subpart 1, see M.R.]

20 Subp. 2. Incidental costs. In addition to the direct
21 construction or maintenance costs permitted under law, the cost
22 of the following incidental items ~~must-be-considered-as~~ is
23 eligible for inclusion in the total estimate of needs:

- 24 A. right-of-way;
25 B. automatic traffic control signals;
26 C. lighting of intersections and bridges within
27 approved standards; and
28 D. drainage costs.

29 Subp. 3. Deductible items. The respective screening
30 boards shall consider reports from the commissioner, consisting
31 of the county state-aid allotments to towns, or the municipal
32 state-aid payments for construction or right-of-way on state
33 trunk highways or county state-aid highways, covering allotments
34 or payments made during the preceding year; and shall recommend
35 to the commissioner the amount of deductions to be made in the

1 money, needs for each county or municipality, to equalize its
2 status with other counties or municipalities not making similar
3 expenditures.

4 8820.1400 MAINTENANCE, CONSTRUCTION, AND TURNBACK ACCOUNTS;
5 STATE-AID PAYMENTS.

6 Subpart 1. County maintenance apportionments. As soon as
7 the annual county and urban municipal state-aid allotments have
8 been determined, the commissioner shall apportion and set aside
9 the following amounts:

10 [For text of item A, see M.R.]

11 B. 40 percent of the county-municipal account
12 allotment for maintaining the county state-aid highways within
13 municipalities of less than 5,000 population;

14 [For text of subp 2, see M.R.]

15 Subp. 3. Urban maintenance apportionment account.
16 Twenty-five percent of the total allocation, if requested by the
17 urban municipality before December 16 preceding the annual
18 allocation, or \$1,500 per mile of improved municipal state-aid
19 streets, is the minimum allotment for the general maintenance of
20 the approved state-aid system. The commissioner may modify the
21 minimum payment allotment to finance the amount needed to pay
22 the interest due on municipal state-aid bonds and to accommodate
23 the screening board resolutions pertaining to trunk highway
24 turnback maintenance allowances.

25 Those municipalities desiring to receive an amount greater
26 than the established minimum, not to exceed 35 percent of the
27 total allocation, shall file a request with the commissioner
28 before December 16 preceding the annual allocation and shall
29 agree to file a detailed annual maintenance expenditure report
30 at the end of the year.

31 [For text of subps 4a to 8, see M.R.]

32 8820.1500 CONSTRUCTION FUNDS.

33 Subp. 2. State-aid contracts. Upon receipt of an abstract
34 of bids and a certification as to the execution of a contract
35 that includes a requirement for bond, the commissioner shall

1 promptly release from the funds available to the county or urban
2 municipality up to 95 percent of the state-aid portion of the
3 contract. The commissioner shall keep the remaining percentage
4 of the state-aid share of the contract, provided funds are
5 available, until the project is 95 percent or more completed as
6 substantiated and requested by the county or city engineer, or
7 until the final cost is determined and the project accepted by
8 the district state-aid engineer.

9 Subp. 3. Federal-aid contracts. Under authority of an
10 agency agreement with the governing body of a county, urban
11 municipality, or other governmental unit and acting as its agent
12 in federal-aid operations, the commissioner shall release from
13 available state-aid funds, 95 percent of the county's or urban
14 municipality's share of the entire contract obligation for
15 immediate transfer to the agency account, to be used in paying
16 the county's or urban municipality's eligible share of the
17 partial estimates and for advancing the federal share of those
18 estimate payments. The commissioner shall keep the remaining
19 percentage of the contract cost of the project until the final
20 cost is determined and the project accepted by the district
21 state-aid engineer. When other than state-aid funds are to be
22 used for depositing in the agency account, 100 percent of the
23 local governmental share of the contract amounts must be
24 deposited in the agency account before the contract is awarded.

25 Subp. 4. Force account agreements. Partial estimates must
26 be accepted on the projects approved for construction by local
27 forces using the agreed unit prices for determining the value of
28 the completed work. The commissioner shall promptly release
29 from funds available for these approved projects 95 percent of
30 the cost of current accomplishments as reported by the partial
31 estimates. Upon request of the county or urban municipality,
32 the commissioner shall set aside and keep its state-aid funds in
33 an amount equal to the agreed total cost of the entire project
34 to ensure final settlement of the completed construction when
35 the final estimate is submitted and upon acceptance by the
36 district state-aid engineer.

1 [For text of subp 5, see M.R.]

2 Subp. 6. Engineering costs. Requests for reimbursement of
3 preliminary engineering costs must be submitted with the report
4 of state-aid contract or with the initial partial estimate on an
5 approved force account project. The commissioner, upon receipt
6 of this request supplemented by documentation as may be
7 requested, shall authorize the reimbursement for actual
8 documented engineering costs, not to exceed ten percent of the
9 total eligible estimated contract or agreement amount.

10 Requests for payment of actual construction engineering
11 costs must be documented and submitted along with the final
12 estimate report. The commissioner, upon receipt of this
13 request, shall authorize a construction engineering payment that
14 must either be limited to eight percent of the eligible
15 construction costs when there are no unusual traffic or
16 construction problems, or that may at the commissioner's
17 discretion be paid in the maximum amount of 12 percent of the
18 construction costs on complex projects involving difficult
19 construction features or the continuous movement of dense
20 traffic.

21 [For text of subp 7, see M.R.]

22 Subp. 8. Advance from county funds. When the commissioner
23 approves a request from the county board for constructing an
24 approved county state-aid project requiring county state-aid
25 highway funds in excess of the available allotment, and these
26 excess costs are initially paid for from other local sources,
27 then the commissioner, to the extent authorized by law, shall
28 repay those locally financed expenditures out of subsequent
29 construction or turnback apportionments to the county's
30 state-aid accounts in accordance with the terms and conditions
31 specified in the approved request. The request for advance
32 encumbrance must be submitted with the report of state-aid
33 contract.

34 Subp. 9. Advance of county regular account funds. When
35 the commissioner approves a request from the county board for
36 the advance of county regular account funds for use on a

1 municipal section of an approved county state-aid highway
2 project, and when repayments to the county regular account fund
3 are to be made from subsequent accruals to the county municipal
4 account fund, the repayments must be made by the commissioner,
5 to the extent authorized by law, in the form of transfers from
6 the county municipal account fund to the county regular account
7 fund, in the amounts and when specified in the authorization.
8 The request for advance encumbrance must be submitted with the
9 report of state-aid contract.

10 Subp. 10. Advance from urban municipal funds. When the
11 commissioner approves a request from the governing body of an
12 eligible urban municipality for constructing an approved
13 municipal state-aid street project requiring funds in excess of
14 the available allotment, and these excess costs are initially
15 paid from other local sources, then the commissioner, to the
16 extent authorized by law, shall repay these locally financed
17 expenditures out of subsequent construction or turnback
18 apportionments to the urban municipal account of that
19 municipality in accordance with the terms and conditions
20 specified in the approved request. The request for advance
21 encumbrance must be submitted with the report of state-aid
22 contract.

23 Subp. 10a. Advance from town bridge account. When the
24 commissioner approves a request from the governing body of a
25 county for the replacement or reconstruction of a town bridge
26 requiring funds in excess of the county's available town bridge
27 account, and these excess costs are initially paid for from
28 other sources, then the commissioner shall reimburse those
29 locally financed expenditures out of subsequent apportionments
30 to the town bridge account in accordance with the terms and
31 conditions specified in the approved request. The total of
32 these advances to be reimbursed from the town bridge account
33 must not exceed 40 percent of the last town bridge
34 apportionment. Advances must be repaid in accordance with the
35 terms of the approved request from money accruing to the
36 respective town bridge accounts. The request for advance

1 encumbrance must be submitted with the report of state-aid
2 contract.

3 [For text of subp 11, see M.R.]

4 Subp. 12. **Municipal state-aid funds; county or trunk**
5 **highway projects.** The governing body of an urban municipality
6 desiring to use a portion of its state-aid funds for
7 improvements within its boundaries on a state trunk highway or
8 county state-aid highway, must have the plans approved by the
9 state-aid engineer before the contract is awarded and must have
10 a resolution requesting the off-system expenditure approved by
11 the commissioner before funds are released for these purposes.
12 This subpart does not apply to payments made for interest on
13 bonds sold under Laws of Minnesota 1959, chapter 538.

14 8820.1800 TRANSFERS FOR HARDSHIP CONDITIONS OR OTHER LOCAL USE.

15 Subpart 1. **Hardship.** When the county board or governing
16 body of an urban municipality~~7-for-good-cause-shown7~~ desires to
17 use a part of its state-aid allocation off an approved state-aid
18 system, it shall certify to the commissioner that it is
19 experiencing a hardship condition in regard to financing its
20 local roads or streets while holding its current road and bridge
21 levy or budget equal to or greater than the levy or budget for
22 previous years. Approval may be granted only if the county
23 board or governing body of an urban municipality demonstrates to
24 the commissioner that the request is made for good cause. If
25 the requested transfer is approved, the commissioner, without
26 requiring progress reports and within 30 days, shall authorize
27 either immediate payment of at least 50 percent of the total
28 amount authorized, with the balance to be paid within 90 days,
29 or schedule immediate payment of the entire amount authorized on
30 determining that sufficient funds are available.

31 Subp. 2. **Other local use.** When the county board or
32 governing body of an urban municipality desires to use a part of
33 its state-aid allocation on local roads or streets not on an
34 approved state-aid system, it shall certify to the commissioner
35 that its state-aid routes are improved to state-aid standards or

1 are in an adequate condition that does not have needs other than
2 additional surfacing or shouldering needs identified in its
3 respective state-aid needs report.

4 A construction plan for a local road or street not on an
5 approved state-aid system and not designed to state-aid
6 standards must not be given final approval by the office of
7 state aid unless the plan is accompanied by a resolution from
8 the respective county board or urban municipality that
9 indemnifies, saves, and holds harmless the state of Minnesota
10 and its agents and employees from claims, demands, actions, or
11 causes of action arising out of or by reason of a matter related
12 to constructing the local road or street as designed. The
13 resolution must be approved by the respective county board or
14 urban municipality and agree to defend at the sole cost of the
15 county or urban municipality any claim arising as a result of
16 constructing the local road or street.

17 Payment for the project must be made in accordance with
18 part 8820.1500, subparts 1 to 5.

19 8820.1900 TOWN ALLOTMENTS.

20 The commissioner shall authorize payment of the amount
21 requested for distribution by the county for constructing town
22 roads:

23 A. upon receipt of a certified copy of a county board
24 resolution allocating a specific amount of the county state-aid
25 construction funds for aid to the county's towns;

26 B. upon showing compliance with the law governing
27 these allocations; and

28 C. upon forwarding the resolution to the commissioner
29 on or before the second Tuesday in January of each year.

30 8820.2000 CONSTRUCTING SELECTED STATE PARK PROJECTS.

31 For constructing selected state park projects and as
32 provided by law, a portion of the county state-aid highway funds
33 must be set aside and used for constructing, reconstructing, and
34 improving county state-aid highways providing access to the
35 headquarters of or the principal parking lot located within a

1 state park. These funds set aside must be spent for this
2 purpose only on a request from the commissioner of natural
3 resources. Projects selected must be approved by the
4 commissioner of transportation in accordance with the procedure
5 established for other state-aid operations.

6 8820.2100 DISASTER ACCOUNT.

7 A disaster appropriation approved by the commissioner for a
8 county or urban municipality in accordance with law, must be
9 promptly paid to the county or urban municipality for which the
10 appropriation was authorized. The funds so allotted and paid to
11 the county or urban municipality may only be spent for the
12 purpose for which they were authorized, and within a reasonable
13 time specified by the commissioner. Immediately upon completion
14 of the work for which the disaster payment was made or the
15 expiration of the time specified for doing the work, whichever
16 occurs first, the county or urban municipality shall file a
17 report certifying the extent of the authorized work completed
18 and showing the total expenditure made. If the total disaster
19 allotment was not required or used for the purpose specified,
20 the remainder must be promptly returned to the commissioner for
21 redeposit in the county state-aid highway fund or the municipal
22 state-aid street fund, as the case may be, and apportioned by
23 law. Damage estimates submitted by a county or urban
24 municipality must exceed ten percent of the current annual
25 state-aid allotment to the county or urban municipality before
26 the commissioner shall authorize the disaster board to inspect
27 the disaster area.

28 8820.2300 TURNBACK ACCOUNTS.

29 [For text of subpart 1, see M.R.]

30 Subp. 1a. Town bridge account. Further, a percentage of
31 the county turnback account has been set aside and must be used
32 for replacement or reconstruction of town bridges ten feet or
33 more in length, in those counties that have two or more towns,
34 pursuant to the law. This latter account is known as the town
35 bridge account.

1 Subp. 1b. Town road account. Further, a percentage of the
2 county turnback account must be apportioned to the counties for
3 the construction, reconstruction, and gravel maintenance of town
4 roads. This account is known as the town road account.

5 [For text of subp 2, see M.R.]

6 Subp. 2a. Town road account allocation. The amounts to be
7 distributed to the counties from the town road account must be
8 determined according to the formula prescribed by Minnesota
9 Statutes, section 162.081, subdivisions 2 and 4.

10 [For text of item A, see M.R.]

11 B. If a county board does not adopt a distribution
12 formula, the funds must be distributed to the town according to
13 subitems (1) to (4).

14 (1) The county auditor shall certify to the
15 commissioner the name of each town that has levied 0.04835
16 percent of taxable market value of the town for road and bridge
17 purposes in the year preceding the allocation year.

18 (2) The county auditor shall certify to the
19 commissioner the name of each unorganized town in which the
20 county has levied 0.04835 percent of taxable market value of the
21 unorganized town for town road and bridge purposes in the year
22 preceding the allocation year.

23 (3) Fifty percent of the funds apportioned to a
24 county must be distributed to an eligible town based upon the
25 percentage that its population bears to the total population of
26 the eligible towns in the county.

27 (4) Fifty percent of the funds apportioned to a
28 county must be distributed to eligible towns based upon the
29 percentage of the town road mileage of each town to the total
30 town road mileage of eligible towns in the county.

31 [For text of subp 3, see M.R.]

32 Subp. 6. Release of turnback account funds. Upon receipt
33 of an abstract of bids and a certification as to the execution
34 of a contract and bond on an eligible project, the commissioner
35 shall release to a county or urban municipality from turnback
36 account funds up to 95 percent of the turnback share of the

1 contract. The commissioner shall keep the remaining percentage
2 of the turnback share of the contract until the final cost is
3 determined and the project accepted by the district state-aid
4 engineer.

5 On force account agreements, partial estimates must be
6 accepted on turnback projects approved for construction by local
7 forces, using the agreed unit prices for determining the value
8 of the completed work.

9 The commissioner shall release from the respective turnback
10 account 95 percent of the value as reported by partial estimates
11 on an eligible turnback project.

12 Requests for reimbursement of preliminary and construction
13 engineering costs on an eligible turnback project must be
14 submitted and payment must be authorized in accordance with part
15 8820.1500, subpart 6.

16 Subp. 7. Release of town bridge account funds. Upon
17 receipt of an abstract of bids and a certification as to the
18 execution of a contract and bond on an eligible project, the
19 commissioner shall release to a county, from town bridge account
20 funds, up to 95 percent of the town bridge account share of the
21 contract. The commissioner shall keep the remaining five
22 percent until the final cost is determined and the project is
23 accepted by the district state-aid engineer.

24 8820.2400 TRANSFER OF ACCUMULATED COUNTY-MUNICIPAL ACCOUNT FUNDS
25 TO COUNTY REGULAR ACCOUNT FUND.

26 Upon receipt of a certified copy of a county board
27 resolution requesting the transfer of part or all of the total
28 accumulated amount in the county municipal account fund, to the
29 county regular account fund, the commissioner shall transfer the
30 funds, provided the county submits a written request to the
31 commissioner and holds a public hearing within 30 days of the
32 request to receive and consider objections by the governing body
33 of a city within the county, having a population of less than
34 5,000, and:

35 A. no written objection is filed with the

1 commissioner within 14 days of that hearing; or

2 B. within 14 days of the public hearing held by the
3 county, a city having a population of less than 5,000 files a
4 written objection with the commissioner identifying a specific
5 county state-aid highway within the city which is requested for
6 improvement and the commissioner investigates the nature of the
7 requested improvement and finds:

8 (1) the identified highway is not deficient in
9 meeting minimum state-aid street standards;

10 (2) the county has shown evidence that the
11 identified highway has been programmed for construction in the
12 county's five-year capital improvement budget in a manner
13 consistent with the county's transportation plan; or

14 (3) there are conditions created by or within the
15 city beyond the control of the county that prohibit programming
16 or reconstruction of the identified highway.

17 8820.2500 MINIMUM STATE-AID STANDARDS.

18 Subpart 1. **Geometric design standards.** The standards in
19 part 8820.9910 apply to rural design undivided roadways, new or
20 reconstruction.

21 The standards in part 8820.9930 apply to suburban design
22 roadways that meet indicated conditions, new or reconstruction.

23 The standards in parts 8820.9935 and 8820.9940 apply to
24 urban design roadways, new or reconstruction.

25 The requirements in parts 8820.9925, 8820.9945, and
26 8820.9970 apply to resurfacing projects.

27 The roadway classifications in part 8820.9950 apply to
28 urban roadways.

29 The vertical clearances for underpasses in part 8820.9955
30 apply.

31 The standards in part 8820.9965 apply to designated forest
32 highways within national forests and state park access roads
33 within state parks, new or reconstruction.

34 [For text of subp 2, see M.R.]

35 Subp. 3. **Right-of-way.** The minimum widths of right-of-way

1 for state-aid routes must be at least 60 feet within
2 municipalities and 66 feet in rural areas. Before construction,
3 the governing body shall acquire control of the additional
4 widths of right-of-way for rural design as may be necessary to
5 properly maintain the ditch section and the recovery area.

6 Subp. 4. **Parking provisions.** The criteria in part
7 8820.9960 must be used in establishing diagonal parking. The
8 criteria in parts 8820.9935, 8820.9940, and 8820.9945 must be
9 used where parallel parking is used.

10 8820.2700 **MAINTENANCE REQUIREMENTS.**

11 Subpart 1. **Standards.** The commissioner shall require a
12 reasonable standard of maintenance on state-aid routes within
13 the county or urban municipality, consistent with available
14 funds, the existing street or road condition, and the traffic
15 being served. This maintenance must be considered to include:

16 [For text of items A to E, see M.R.]

17 F. the installation of route markers on county
18 state-aid highways as follows:

19 (1) Route markers must be a minimum of 16 inches
20 by 16 inches square with black letters or numerals on a white
21 background.

22 (2) Wherever county road authorities elect to
23 establish and identify a special system of important county
24 roads, the route marker must be of a pentagonal shape and must
25 consist of a reflectorized yellow legend with county name, route
26 letter, and number, and a border on a blue background of a size
27 compatible with other route markers.

28 Subp. 2. **Unsatisfactory maintenance.** On determining that
29 the maintenance of a county or municipal state-aid route is
30 unsatisfactory, the commissioner shall keep up to ten percent of
31 the current annual maintenance apportionment to the responsible
32 county or urban municipality. Funds kept must be held to the
33 credit of that county or urban municipality until the
34 unsatisfactory condition has been corrected and a reasonable
35 standard of maintenance is provided.

1 [For text of subp 3, see M.R.]

2 8820.2800 CONSTRUCTION REQUIREMENTS.

3 Subpart 1. Engineer's duties. Surveys, plans, and
4 estimates for state-aid projects must be made by or under the
5 supervision of the county highway or city engineer in accordance
6 with standards for form and arrangement prescribed by the
7 commissioner.

8 Subp. 2. Plans and estimates. Plans and estimates for
9 each state-aid construction project must be submitted for
10 review. Each plan must show the subsequent stages required for
11 the completion of the improvement, portions of which may be
12 covered by later contracts or agreements. Only those projects
13 for which final plans are approved by the state-aid engineer
14 before awarding a contract or approving a force account
15 agreement are eligible for state-aid construction funds.

16 Subp. 3. Project identification numbers. Projects must be
17 assigned state-aid project numbers and must be so identified in
18 records of the Minnesota Department of Transportation and the
19 local governmental unit.

20 Subp. 4. Contract information. Upon award of a state-aid
21 contract by a county or urban municipality, the county highway
22 engineer or city engineer shall furnish the commissioner with an
23 abstract of bids and a certification as to the specific contract
24 and bond executed for the approved construction work.

25 Subp. 5. Force account. A county or urban municipality
26 desiring to use funds credited to it on a force account basis
27 must have its engineer file a request with the commissioner for
28 each construction project to be built by the county or urban
29 municipality at agreed unit prices. The unit prices must be
30 based upon estimated prices for contract work, less a reasonable
31 percentage to compensate for move-in, move-out, taxes, and
32 contractor's profit. These requests must contain a complete
33 list of pay items and the unit prices at which it proposes to do
34 the work. Before approval by the commissioner, the district
35 state-aid engineer shall file recommendations with the

1 commissioner concerning the request and the cost estimate.
2 Items of work other than those listed as a pay item or approved
3 by supplemental agreements must be considered incidental work
4 not eligible for state-aid payment.

5 [For text of subps 6 and 7, see M.R.]

6 8820.2900 TURNBACK ACCOUNT EXPENDITURES.

7 Subpart 1. **Requirements; turnback accounts.** The funds in
8 the county and municipal turnback accounts must be spent only as
9 payments to a county or urban municipality for the approved
10 repair and restoration or reconstruction and improvement of
11 those former trunk highways that have reverted to county or
12 municipal jurisdiction and that meet the eligibility requirement
13 as set forth in subpart 2.

14 Subp. 1a. **Requirements; town bridge account.** Further, a
15 percentage of the county turnback account has been set aside, as
16 provided by law, and must be used for replacement or
17 reconstruction of town road bridges that are ten feet or more in
18 length in those counties that have two or more towns. This
19 account is known as the town bridge account.

20 Subp. 2. **Eligibility; former trunk highways.** A former
21 trunk highway that has reverted to county or urban municipal
22 jurisdiction after July 1, 1965, and that is part of the county
23 state-aid highway or municipal state-aid street system, is
24 eligible for payment from the respective turnback account for
25 costs covering the repair and restoration or the reconstruction
26 and improvement of those highways as detailed on approved
27 plans. Approval of plans for the initial construction of a
28 turnback project is limited to a period of five years from the
29 date of reversion. After plan approval for constructing the
30 initial part of a turnback project, plans for other portions of
31 the same route must be approved within ten years from the date
32 of reversion to be eligible for turnback funds. Each approved
33 project must be advanced to construction status within one year
34 after notification to the county or urban municipality that
35 sufficient funds are available for constructing the project.

1 Payment for repair and restoration or reconstruction and
 2 improvement of a section terminates eligibility for repair and
 3 restoration or reconstruction and improvement of that section
 4 with turnback funds.

5 Subp. 2a. Eligibility; town bridges. A town bridge that
 6 is ten feet or more in length is eligible for replacement or
 7 reconstruction after the county board reviews the pertinent data
 8 supplied by local citizenry, local units of government, the
 9 regional development commission, or the metropolitan council,
 10 and adopts a formal resolution identifying the town bridge or
 11 bridges to be replaced or reconstructed. Payment to the
 12 counties is limited to 90 percent of the cost of the bridge, and
 13 must be made in accordance with part 8820.2300, subpart 7.

14 [For text of subps 3 and 4, see M.R.]

15 8820.3100 GENERAL STATE-AID LIMITATIONS.

16 Subpart 1. Extent of state aid. The extent of state-aid
 17 participation on special items is limited as follows in subparts
 18 2 to 10.

19 Subp. 2. Lighting hazardous areas. ~~The lighting of~~
 20 ~~hazardous locations or locations where accidents are prone to~~
 21 ~~occur must be considered an eligible expense as follows:~~

22 A. ~~the cost of complete lighting on four or more~~
 23 ~~lanes;~~

24 B. ~~the cost of lighting intersections;~~

25 C. ~~to the extent that the county or urban~~
 26 ~~municipality has furnished traffic information or other needed~~
 27 ~~data to support its request for funding of additional locations;~~
 28 and

29 D. ~~for reconstruction, the costs incidental to the~~
 30 ~~necessary revision or relocation of existing lighting facilities.~~

31 ~~Additional locations where the county or urban municipality~~
 32 ~~would normally install lighting units are not considered an~~
 33 ~~eligible expense. The cost of lighting of locations at which~~
 34 ~~accidents are likely to occur or are otherwise hazardous is an~~
 35 ~~eligible expense if that lighting:~~

1 A. meets one or more of the following criteria:

2 (1) is intended for four or more lanes (complete
3 cost eligible);

4 (2) is intended for lighting intersections; or

5 (3) is a cost incidental to the necessary
6 revision or relocation of existing lighting facilities on
7 reconstruction projects; and

8 B. is not for a location where lighting would
9 normally have been installed by the county or urban municipality.

10 For the funding of additional locations, lighting expenses
11 are eligible only to the extent that the county or urban
12 municipality has furnished traffic information or other needed
13 data to support its request.

14 Subp. 3. Traffic control signals: state-aid projects.

15 For state-aid projects, plans for constructing or reconstructing
16 the electrical portion of traffic control signals must be (1)
17 designed or (2) reviewed and approved by a master electrician
18 licensed in Minnesota or by an electrical engineer registered in
19 Minnesota.

20 The district state-aid engineer shall review these plans
21 upon submittal by the local engineer and make recommendations to
22 the state-aid engineer.

23 The state-aid engineer shall approve the electrical portion
24 of these plans based on the certification of the master
25 electrician or electrical engineer and the rest of the plan
26 based on the certification of a registered professional civil or
27 highway engineer.

28 Plans for the construction or reconstruction of the
29 electrical portion of traffic control signals not certified by a
30 master electrician or electrical engineer, or plans involving
31 traffic control signals on a trunk highway must be approved by
32 the traffic engineer of the Minnesota Department of
33 Transportation before approval by the state-aid engineer.

34 [For text of subps 4 and 5, see M.R.]

35 Subp. 6. Right-of-way. The cost of lands and properties
36 required for right-of-way to accommodate the design width of the

1 street or highway as governed by the state-aid standards,
 2 including necessary width for sidewalks, is considered an
 3 eligible expense. This cost includes relocation and moving
 4 costs as provided by law and includes damages to other lands if
 5 reasonably justified to the satisfaction of the commissioner.
 6 Receipts from the rental or sale of excess properties paid for
 7 with state-aid funds must be placed in the local agency's road
 8 and bridge account to be used on the next state-aid project
 9 constructed.

10 [For text of subp 7, see M.R.]

11 Subp. 8. **Storm sewers.** Plans containing items for storm
 12 drainage must be reviewed by the hydraulics engineer for the
 13 Minnesota Department of Transportation and the engineer's
 14 recommendations obtained concerning design features and the
 15 proportionate share chargeable to the state-aid system. These
 16 recommendations along with those of the district state-aid
 17 engineer must be considered in determining the maximum state-aid
 18 participation in this work.

19 Subp. 9. **Flexible or rigid pavement.** The use of state-aid
 20 construction funds to finance the initial surfacing of rural
 21 roadways with aggregate base, in excess of six inches, and
 22 flexible or rigid pavement materials is limited to the following
 23 costs participation:

Projected ADT*	Percent of Participation
100 and over	100
75 to 99	80
50 to 74	40
0 to 49	0

24
 25
 26
 27
 28
 29 * If the next traffic count scheduled by the Minnesota
 30 Department of Transportation shows an increase in traffic, the
 31 percentage participation on an approved project must be adjusted
 32 to reflect the revised projected ADT if the county requests
 33 reimbursement at the increased percentage rate.

34 Subp. 10. **Landscaping.** The extent of state-aid
 35 participation in landscaping is limited to one percent of the
 36 total construction allocation in any year. Participation is

1 generally limited to items such as trees when exceeding
2 two-to-one replacement, shrubs, ground covers, and mulch.
3 Irrigation systems are not eligible. Seeding, with mulch and
4 fertilizer, and sodding are considered normal grading items.

5 8820.3300 VARIANCE.

6 Subpart 1. **Written requests.** A formal request by a
7 political subdivision for a variance from this chapter must:

8 [For text of items A and B, see M.R.]

9 C. cite the specific part or standard for which the
10 variance is requested and describe the modification proposed.

11 [For text of subps 1a and 2, see M.R.]

12 Subp. 3. **Decision.** The commissioner shall base the
13 decision on the criteria in part 8820.3400, subpart 3 and shall
14 notify the political subdivision in writing of the decision.
15 The commissioner shall require a resolution by the recipient of
16 the variance that indemnifies, saves, and holds harmless the
17 state and its agents and employees of and from claims, demands,
18 actions, or causes of action arising out of or by reason of the
19 granting of the variance. The recipient of the variance shall
20 further agree to defend at its sole cost and expense any action
21 or proceeding begun for asserting any claim of whatever
22 character arising as a result of the granting of the variance.

23 [For text of subp 4, see M.R.]

24 8820.3400 ADVISORY COMMITTEE ON VARIANCES.

25 Subpart 1. **Appointment.** The commissioner may appoint a
26 committee to serve as required to investigate and determine a
27 recommendation for each variance. No elected or appointed
28 official that represents a political subdivision requesting a
29 variance may serve on the committee.

30 Subp. 2. **Membership.** The committee shall consist of any
31 five of the following persons: not more than two county highway
32 engineers, only one of whom may be from a county containing a
33 city of the first class; not more than two city engineers, only
34 one of whom may be from a city of the first class; not more than
35 two county officials, only one of whom may be from a county

1 containing a city of the first class; and not more than two city
 2 officials, only one of whom may be from a city of the first
 3 class. The committee must have at least two elected officials
 4 as members.

5 [For text of subps 3 and 4, see M.R.]

6 8820.9910 GEOMETRIC DESIGN STANDARDS; RURAL UNDIVIDED (9); NEW
 7 OR RECONSTRUCTION.

Projected ADT (6)	Lane Width	Shoulder Width	(1) Inslope	(2) Recovery Area	(3) Design Speed	Surfacing	Structural Design Strength	(4) New and Rehabilitated Bridge Width Curb-Curb	Bridges to Remain	
									Width Curb-Curb	Structural Capacity (8)
0-49	11'	1'	3:1	7'	30-60	Aggregate	—	28'	22'	H-15
50-149	11'	3'	4:1	9'	40-60 (7)	Aggregate	—	32'	22'	H-15
150-399	12'	4' (5)	4:1	15'	40-60	Paved	7-ton ult. 9-ton	36'	28'	H-15
400-749	12'	4'	4:1	20'	40-60	Paved	9-ton	36'	28'	H-15
750-1499	12'	6'	4:1	25'	40-60	Paved	9-ton	40'	28'	H-15
1500 & Over	12'	8'	4:1	30'	40-60	Paved	10-ton	44'	30'	H-15

16
 17 (1) Applies to slope within recovery area only.

18 (2) Obstacle-free area (measured from edge of traffic
 19 lane). Culverts with less than 27" vertical height allowed
 20 without protection in recovery area.

21 (3) Subject to terrain. Based on stopping sight distance.

22 (4) HS-25 loading is required.

23 (5) Initial roadbed width must be adequate to provide a
 24 finished roadbed width for nine-ton design.

25 (6) Use the existing traffic for highways not on the
 26 state-aid or federal-aid secondary (FAS) systems.

27 (7) Design speed of 30 miles per hour allowed off of the
 28 state-aid or FAS systems.

29 (8) Inventory design rating.

30 (9) Use the geometric design standards of the MN/DOT Road
 31 Design Manual for rural divided roadways. Minimum ten-ton
 32 structural design and 40 miles per hour design speed are
 33 required.

34 8820.9925 GEOMETRIC DESIGN STANDARDS: RURAL UNDIVIDED;
 35 RESURFACING.

Present ADT	Proposed Structural Design Strength	Pavement Width	Shoulder-Shoulder Width	Design Speed
Under 100	7-ton	22'	26'	30
100-749	7-ton	22'	26'	40
750-999	7-ton	22'	30'	40
1,000 and over	7-ton	24'	30'	40

Widths of bridges to remain in place must equal roadway pavement width. H-15 loading is required.

8820.9930 GEOMETRIC DESIGN STANDARDS: SUBURBAN; NEW OR RECONSTRUCTION.

Projected ADT	Lane Width	Shoulder Width	(1) Inslope	(2) Recovery Area	(4) Design Speed	Structural Design Strength	(3) New and Rehabilitated Bridges Width Curb-Curb	Bridges to Remain	
								Width Curb-Curb	Structural Capacity (5)
Less than 1,000	12'	6'	4:1	20'	30-50	9-ton	40'	28'	H-15
Over 1,000	12'	8'	4:1	20'	30-50	9-ton	44'	30'	H-15

(1) Applies to slope within the recovery area only.

(2) Obstacle-free area, measured from edge of traffic lane.

Culverts with less than 27-inch vertical height are allowed without protection in the recovery area.

(3) HS-25 loading is required.

(4) Design speed is based on stopping sight distance.

(5) Inventory design rating.

This standard applies only when the project is both located in a platted area or an area in a detailed development process, and physical restraints are present that prevent reasonable application of the rural design standards.

1 8820.9935 GEOMETRIC DESIGN STANDARDS: URBAN; 30 to 35 M.P.H.
 2 DESIGN SPEED; NEW OR RECONSTRUCTION.

3 Subpart 1. Two-way streets. In the following table, total
 4 width is in feet, face-to-face of curbs.

5 TWO-WAY STREETS

Number of Through Lanes	Density	No Parking Both Sides	Parking One Side	Parking Both Sides
2-Lane Collector	Low or High	26' (2-11-11-2)	32' (8-11-11-2)	38' (8-11-11-8)
4-Lane Collector	Low or High	48' (2-11-11-11-11-2)	54' (8-11-11-11-11-2)	60' (8-11-11-11-11-8)
2-Lane Arterial	Low	30' (4-11-11-4)	36' (4-11-11-10)	42' (10-11-11-10)
4-Lane Arterial	Low or High	48' (2-11-11-11-11-2)	56' (10-11-11-11-11-2)	64' (10-11-11-11-11-10)
6-Lane Arterial	High	70' (2-11-11-11-11-11-11-2)	None	None

16 When a median is included in the design of the two-way
 17 roadway, add two feet to the dimension shown. This provides a
 18 one-foot reaction area on either side of the median. Minimum
 19 median width is four feet.

1 Subp. 2. One-way streets. In the following table, total
2 width is in feet, face-to-face of curbs.

3 ONE-WAY STREETS

4

Number of Through Lanes	Density	No Parking Both Sides	Parking One Side	Parking Both Sides
1-Lane Collector	Low or High	None	None	None
2-Lane Collector	Low or High	26' (2-11-11-2)	32' (2-11-11-8)	38' (8-11-11-8)
1-Lane Arterial	Low	None	None	None
2-Lane Arterial	Low or High	26' (2-11-11-2)	34' (2-11-11-10)	42' (10-11-11-10)
3-Lane Arterial	High	37' (2-11-11-11-2)	45' (2-11-11-11-10)	53' (10-11-11-11-10)

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14 Subp. 3. Requirements common to both. Urban design
15 roadways must be a minimum nine-ton structural design. A new or
16 rehabilitated bridge must have a curb-to-curb width equal to the
17 required street width. HS-25 loading is required. Design speed
18 is based on stopping sight distance. Wherever possible, lane
19 widths of 12 feet, rather than 11 feet, should be used.

20 Refer to table 8820.9950 for classification, capacity, and
21 peak-hour relationship.

1 8820.9940 GEOMETRIC DESIGN STANDARDS: URBAN; GREATER THAN 35
2 M.P.H. DESIGN SPEED; NEW OR RECONSTRUCTION.

3 Subpart 1. Two-way streets. In the following table, total
4 width is in feet, face-to-face of curbs.

5 TWO-WAY STREETS

Number of Through Lanes	Density	No Parking Both Sides	Parking One Side *	Parking Both Sides *
2-Lane Collector	Low or High	28' (2-12-12-2)	36' (10-12-12-2)	44' (10-12-12-10)
4-Lane Collector	Low or High	52' (2-12-12-12-2)	60' (10-12-12-12-2)	68' (10-12-12-12-10)
2-Lane Arterial	Low	32' (4-12-12-4)	38' (4-12-12-10)	44' (10-12-12-10)
4-Lane Arterial	Low or High	52' (2-12-12-12-2)	60' (10-12-12-12-2)	68' (10-12-12-12-10)
6-Lane Arterial	High	76' (2-12-12-12-12-2)	None	None

16 * No parking is allowed when the posted speed exceeds 45
17 miles per hour.

18 When a median is included in the design of the two-way
19 roadway, add two feet to the dimension shown. This provides a
20 one-foot reaction area on either side of the median. Minimum
21 median width is four feet.

1 Subp. 2. One-way streets. In the following table, total
2 width is in feet, face-to-face of curbs.

3 ONE-WAY STREETS

Number of Through Lanes	Density	No Parking Both Sides	Parking One Side *	Parking Both Sides *
1-Lane Collector	Low or High	None	None	None
2-Lane Collector	Low or High	28' (2-12-12-2)	36' (2-12-12-10)	44' (10-12-12-10)
1-Lane Arterial	Low	None	None	None
2-Lane Arterial	Low or High	28' (2-12-12-2)	37' (2-12-12-11)	46' (11-12-12-11)
3-Lane Arterial	High	40' (2-12-12-12-2)	49' (2-12-12-12-11)	58' (11-12-12-12-11)

14 * No parking is allowed when the posted speed exceeds 45
15 miles per hour.

1 Subp. 3. Requirements common to both. Urban design
2 roadways must be a minimum nine-ton structural design. A new or
3 rehabilitated bridge must have a curb-to-curb width equal to the
4 required street width. HS-25 loading is required. Provide one
5 and one-half feet of clearance from the face of the curb to
6 fixed objects when the posted speed is 40 to 45 miles per hour.
7 Provide a ten-foot clearance from the driving lane when the
8 posted speed exceeds 45 miles per hour. Design speed is based
9 on stopping sight distance.

10 Refer to table 8820.9950 for classification, capacity, and
11 peak-hour relationship.

1 8820.9945 GEOMETRIC DESIGN STANDARDS: URBAN; RESURFACING.

2 Subpart 1. Two-way streets. In this table, total width is
3 in feet, face-to-face of curbs.

4 TWO-WAY STREETS

Number of Through Lanes	Density	No Parking Both Sides	Parking One Side	Parking Both Sides	Proposed Structural Design Strength
2-Lane Collector	Low	26'	32'	38'	7-ton
	High	26'	32'	38'	9-ton
4-Lane Collector	Low	44'	52'	60'	7-ton
	High	44'	52'	60'	9-ton
2-Lane Arterial	Low	26'	32'	42'	9-ton
4-Lane Arterial	Low	44'	54'	64'	9-ton
	High	44'	54'	64'	9-ton
6-Lane Arterial	High	66'	None	None	9-ton

14 When a median is included in the two-way roadway, add two
15 feet plus the width of the median to the dimension shown. This
16 allows for a one-foot reaction area on either side of the median.

1 Subp. 2. One-way streets. In this table, total width is
2 in feet, face-to-face of curbs.

3 ONE-WAY STREETS

Number of Through Lanes	Density	No Parking Both Sides	Parking One Side	Parking Both Sides	Proposed Structural Design Strength
1-Lane Collector	Low	None	None	None	7-ton
	High	None	None	None	9-ton
2-Lane Collector	Low	21'	29'	37'	7-ton
	High	23'	31'	39'	9-ton
1-Lane Arterial	Low	None	None	None	9-ton
	High	23'	31'	39'	9-ton
2-Lane Arterial	Low	23'	31'	39'	9-ton
	High	24'	32'	40'	9-ton
3-Lane Arterial	High	34'	42'	50'	9-ton

13 Subp. 3. Requirements common to both. Recovery area
14 standards are not applicable. Minimum design speed is 30 miles
15 per hour based on stopping sight distance.

16 For urban roadway classification, see parts 8820.2500,
17 subpart 1; and 8820.9950 substituting present ADT for the
18 projected ADT shown.

1 8820.9950 URBAN ROADWAY CLASSIFICATION.

2

3 Classification	4 Facility Function	5 Design Character	6 *Projected ADT Range
7 Collector (low density)	8 Serves as a feeder facility from neighborhood and local streets to the collector/arterial network. Also serves as access for business and residential development.	9 Low to moderate operating speeds.	10 200-5,000 ADT
11 Collector (high density)	12 Collects traffic from local and feeder streets and connects with arterials. Can serve local business districts.	13 Moderate operating speed provides access and traffic mobility.	14 1,000-10,000 ADT
15 Arterial (low density)	16 Serves intracommunity travel. Augments high-density arterial system.	17 Some access control with emphasis on traffic mobility.	18 5,000-15,000 ADT
19 Arterial (high density)	20 Forms backbone of urban network. Serves as through facility.	21 Provides for through traffic and turning movements. May provide divided roadway and access control.	22 12,000 & up ADT

23 * Additional average daily traffic may be allowed in a
 24 classification if a capacity analysis demonstrates that "level
 25 of service D" or better is achieved at the higher traffic volume.
 26 If the capacity analysis demonstrates that additional lanes are
 27 required only during peak traffic hours, then each additional
 28 driving lane may be used as a parking lane during nonpeak hours.

29 "Level of service" has the meaning given it in the Highway
 30 Capacity Manual, Special Report 209, as revised and published by
 31 the Transportation Research Board of the National Research
 32 Council (Washington, D.C.). The definition is incorporated by
 33 reference, is not subject to frequent change, and is located at
 34 the Minnesota State Law Library, 117 University Avenue, St.
 35 Paul, Minnesota.

36 8820.9955 VERTICAL CLEARANCES FOR UNDERPASSES.

37

38	39 Rural-Suburban Design, Vertical Clearance	40 Urban Design, Vertical Clearance
41 Highway under roadway bridge	42 16'4"	43 14'6"
44 Highway under railroad bridge	45 16'4"	46 14'6"
47 Highway under pedestrian bridge	48 17'4"	49 14'6"
50 Highway under sign structure	51 17'4"	52 14'6"
53 Railroad under roadway bridge*	54 22'0"	55 22'0"

56 *Variances to the required minimum may be granted by the
 57 Minnesota Transportation Regulation Board. That approval
 58 eliminates the need for a state-aid variance.

1 8820.9960 MINIMUM DESIGN STANDARDS FOR 45-DEGREE AND 60-DEGREE
 2 DIAGONAL PARKING.

Parking Angle	Stall Width	Stall Depth	Traffic Aisle Width	Length Along Curb	1/2 Roadway Width (Minimum)	Present ADT	Legal Speed Limit
45 Degrees	9'	19.8'	13.2'	12.7'	33'	Less than 3,000	30 MPH or less
60 Degrees	9'	21.0'	18.0'	10.4'	39'	Less than 3,000	30 MPH or less
45 Degrees	9'	19.8'	25.2'	12.7'	45'	3,000 and over	30 MPH or less
60 Degrees	9'	21.0'	30.0'	10.4'	51'	3,000 and over	30 MPH or less

10 Diagonal parking provisions must be established by
 11 cooperative agreement between the local road authority and the
 12 commissioner.

13 The cooperative agreement must show the angle of parking,
 14 provide for pavement marking of the parking lanes, and provide
 15 that the road authority may alter parking provisions if traffic
 16 volumes exceed the design criteria.

17 Minnesota Statutes, section 169.34, must be adhered to in
 18 determining diagonal parking spacing.

19 Provide a two-foot clearance from the face of the curb to
 20 fixed objects. Parking meters, when spaced so as to not
 21 interfere with vehicle operation, are exempt.

22 8820.9965 GEOMETRIC DESIGN STANDARDS: DESIGNATED NATIONAL
 23 FOREST HIGHWAYS WITHIN NATIONAL FORESTS AND STATE PARK ACCESS
 24 ROADS WITHIN STATE PARKS; NEW OR RECONSTRUCTION.

Projected ADT	Lane Width	(3) Shoulder Width	(1) Inslope	(2) Recovery Area	(5) Design Speed	Surfacing	Structural Design Strength	(4) New and Rehabilitated Bridges, Width Curb-Curb	Bridges to Remain	
									Width Curb-Curb	Structural Capacity
0-99	11'	2'	3:1	9'	30-50	Aggregate	—	28'	24'	H-15
100-749	12'	2'	3:1	15'	35-50	Paved	9-ton	32'	24'	H-15
750-999	12'	4'	3:1	15'	35-50	Paved	9-ton	36'	28'	H-15
1,000 and over	12'	6'	4:1	20'	40-50	Paved	9-ton	40'	30'	H-15

- 30 (1) Applies to slope within recovery area only.
 31 (2) Obstacle-free area, measured from edge of traffic
 32 lane. Culverts with less than a 27-inch vertical height are
 33 allowed without protection in the recovery area.
 34 (3) When bicycle paths use a shoulder, the shoulder must be
 35 a minimum of four feet and must be paved.

1 (4) HS-25 loading is required.

2 (5) Design speed is based on stopping sight distance.

3 8820.9970 GEOMETRIC DESIGN STANDARDS: DESIGNATED NATIONAL
4 FOREST HIGHWAYS WITHIN NATIONAL FORESTS AND STATE PARK ACCESS
5 ROADS WITHIN STATE PARKS; RESURFACING.

Present ADT	Proposed Structural Design Strength	Pavement Width	Shoulder-Shoulder Width	Design Speed
0-1000	7-ton	22'	26'	30
Over 1000	7-ton	24'	28'	35

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9
10 Bridges to remain in place must be at least equal in width
11 to the pavement width. H-15 loading is required. Design speed
12 is based on stopping sight distance.

13
14 REPEALER. Minnesota Rules, parts 8820.9911, 8820.9912,
15 8820.9913, 8820.9914, 8820.9915, 8820.9916, 8820.9917,
16 8820.9918, and 8820.9919 are repealed.