Subsec. (c)(3). Pub. L. 94–280, \$115(c), inserted "or later" after "earlier" in first sentence.

1973—Subsec. (a). Pub. L. 93-87, §113(a), substituted "ten" for "seven" years in last sentence.

Subsec. (c)(3). Pub. L. 93-87, §113(b), substituted "ten" for "seven" years in first sentence.

1968—Subsec. (b). Pub. L. 90–495, §7(a), substituted "subsection (a) of this section" for "this section".

Subsec. (c). Pub. L. 90-495, §7(b), added subsec. (c).

1959—Subsec. (a). Pub. L. 86–35 increased from five to seven years the period in which actual construction shall commence on rights-of-way acquired in anticipation of such construction.

EFFECTIVE DATE OF 1991 AMENDMENT

Amendment by Pub. L. 102–240 effective Dec. 18, 1991, and applicable to funds authorized to be appropriated or made available after Sept. 30, 1991, and, with certain exceptions, not applicable to funds appropriated or made available on or before Sept. 30, 1991, see section 1100 of Pub. L. 102–240, set out as a note under section

EFFECTIVE DATE OF 1968 AMENDMENT

Amendment by Pub. L. 90–495 effective Aug. 23, 1968, see section 37 of Pub. L. 90–495, set out as a note under section 101 of this title.

TRANSITION PROVISIONS

Pub. L. 105–178, title I, \$1211(e)(2), June 9, 1998, 112 Stat. 188, provided that:

"(A) IN GENERAL.—Funds advanced to a State by the Secretary from the right-of-way revolving fund established by section 108(c) of title 23, United States Code, prior to the date of enactment of this Act [June 9, 1998] shall remain available to the State for use on the projects for which the funds were advanced for a period of 20 years from the date on which the funds were advanced.

"(B) CREDIT TO HIGHWAY TRUST FUND.—With respect to a project for which funds have been advanced from the right-of-way revolving fund, upon the termination of the 20-year period referred to in subparagraph (A), when actual construction is commenced, or upon approval by the Secretary of the plans, specifications, and estimates for the actual construction of the project on the right-of-way, whichever occurs first—

"(i) the Highway Trust Fund (other than the Mass Transit Account) shall be credited with an amount equal to the Federal share of the funds advanced, as provided in section 120 of title 23, United States Code, out of any Federal-aid highway funds apportioned to the State in which the project is located and available for obligation for projects of the type funded; and

"(ii) the State shall reimburse the Secretary in an amount equal to the non-Federal share of the funds advanced for deposit in, and credit to, the Highway Trust Fund (other than the Mass Transit Account)"

PRESERVATION OF TRANSPORTATION CORRIDORS REPORT

Section 1017(c) of Pub. L. 102–240 provided that: "The Secretary, in consultation with the States, shall report to Congress within 2 years after the date of the enactment of this Act [Dec. 18, 1991], a national list of the rights-of-way identified by the metropolitan planning organizations and the States (under sections 134 and 135 of title 23, United States Code), including the total mileage involved, an estimate of the total costs, and a strategy for preventing further loss of rights-of-way including the desirability of creating a transportation right-of-way land bank to preserve vital corridors."

AUTHORIZATION OF APPROPRIATIONS TO RIGHT-OF-WAY REVOLVING FUND; APPORTIONMENT; REVERSION OF AMOUNTS NOT ADVANCED OR OBLIGATED

Section 7(c)—(e) of Pub. L. 90—495 provided that \$100,000,000 for the fiscal year ending June 30, 1970, \$100,000,000 for the fiscal year ending June 30, 1971, and

\$100,000,000 for the fiscal year ending June 30, 1972, be transferred from the highway trust fund to the right-of-way revolving fund established by subsec. (c) of this section, authorized the Secretary to apportion these funds and required that funds apportioned to a State remain available for obligation for advances until Oct. 1 of the fiscal year in which the apportionment was made and any funds not advanced or obligated by such date revert to the right-of-way revolving fund for distribution to other States.

STUDY OF ADVANCE ACQUISITION OF RIGHTS-OF-WAY

Pub. L. 89-574, §10, Sept. 13, 1966, 80 Stat. 769, as amended by Pub. L. 97-449, §2(a), Jan. 12, 1983, 96 Stat. 2439, directed the Secretary to make a full and complete investigation and study of the advance acquisition of rights-of-way for future construction of highways on the Federal-aid highway systems, with particular reference to the provision of adequate time for the removal and disposal of improvements located on rights-of-way and the relocation of affected individuals. businesses, institutions, and organizations, the tax status of such property after acquisition and before its use for highway purposes, and the methods for financing advance right-of-way acquisition by both the State governments and the Federal Government, including the possible creation of revolving funds for such purpose. The Secretary was required to submit a report of results of such study to Congress not later than July 1, 1967, together with his recommendations.

INCREASED LIMITATION PERIOD APPLICABLE TO CERTAIN CONTRACTS

Section 2 of Pub. L. 86-35 provided that agreements entered into before May 29, 1959 by the Secretary of Commerce and a State highway department under authority of section 110(a) of the Federal-Aid Highway Act of 1956, or section 108(a) of title 23 of the United States Code shall be deemed to provide for actual construction of a road on such rights-of-way within a period of seven years following the fiscal year in which such request was made.

§ 109. Standards

- (a) IN GENERAL.—The Secretary shall ensure that the plans and specifications for each proposed highway project under this chapter provide for a facility that will—
 - (1) adequately serve the existing and planned future traffic of the highway in a manner that is conducive to safety, durability, and economy of maintenance; and
 - (2) be designed and constructed in accordance with criteria best suited to accomplish the objectives described in paragraph (1) and to conform to the particular needs of each locality.
- (b) The geometric and construction standards to be adopted for the Interstate System shall be those approved by the Secretary in cooperation with the State transportation departments. Such standards, as applied to each actual construction project, shall be adequate to enable such project to accommodate the types and volumes of traffic anticipated for such project for the twenty-year period commencing on the date of approval by the Secretary, under section 106 of this title, of the plans, specifications, and estimates for actual construction of such project. Such standards shall in all cases provide for at least four lanes of traffic. The right-of-way width of the Interstate System shall be adequate to permit construction of projects on the Interstate System to such standards. The Sec-

retary shall apply such standards uniformly throughout all the States.

- (c) DESIGN CRITERIA FOR NATIONAL HIGHWAY SYSTEM.—
 - (1) IN GENERAL.—A design for new construction, reconstruction, resurfacing (except for maintenance resurfacing), restoration, or rehabilitation of a highway on the National Highway System (other than a highway also on the Interstate System) may take into account, in addition to the criteria described in subsection (a)—
 - (A) the constructed and natural environment of the area;
 - (B) the environmental, scenic, aesthetic, historic, community, and preservation impacts of the activity; and
 - (C) access for other modes of transportation.
 - (2) DEVELOPMENT OF CRITERIA.—The Secretary, in cooperation with State transportation departments, may develop criteria to implement paragraph (1). In developing criteria under this paragraph, the Secretary shall consider—
 - (A) the results of the committee process of the American Association of State Highway and Transportation Officials as used in adopting and publishing "A Policy on Geometric Design of Highways and Streets", including comments submitted by interested parties as part of such process;
 - (B) the publication entitled "Flexibility in Highway Design" of the Federal Highway Administration;
 - (C) "Eight Characteristics of Process to Yield Excellence and the Seven Qualities of Excellence in Transportation Design" developed by the conference held during 1998 entitled "Thinking Beyond the Pavement National Workshop on Integrating Highway Development with Communities and the Environment while Maintaining Safety and Performance"; and
 - (D) any other material that the Secretary determines to be appropriate.
- (d) On any highway project in which Federal funds hereafter participate, or on any such project constructed since December 20, 1944, the location, form and character of informational, regulatory and warning signs, curb and pavement or other markings, and traffic signals installed or placed by any public authority or other agency, shall be subject to the approval of the State transportation department with the concurrence of the Secretary, who is directed to concur only in such installations as will promote the safe and efficient utilization of the highways.
 - (e) Installation of Safety Devices.—
 - (1) HIGHWAY AND RAILROAD GRADE CROSSINGS AND DRAWBRIDGES.—No funds shall be approved for expenditure on any Federal-aid highway, or highway affected under chapter 2 of this title, unless proper safety protective devices complying with safety standards determined by the Secretary at that time as being adequate shall be installed or be in operation at any highway and railroad grade crossing or drawbridge on that portion of the highway

- with respect to which such expenditures are to be made
- (2) TEMPORARY TRAFFIC CONTROL DEVICES.—No funds shall be approved for expenditure on any Federal-aid highway, or highway affected under chapter 2, unless proper temporary traffic control devices to improve safety in work zones will be installed and maintained during construction, utility, and maintenance operations on that portion of the highway with respect to which such expenditures are to be made. Installation and maintenance of the devices shall be in accordance with the Manual on Uniform Traffic Control Devices.
- (f) The Secretary shall not, as a condition precedent to his approval under section 106 of this title, require any State to acquire title to, or control of, any marginal land along the proposed highway in addition to that reasonably necessary for road surfaces, median strips, bikeways, gutters, ditches, and side slopes, and of sufficient width to provide service roads for adjacent property to permit safe access at controlled locations in order to expedite traffic, promote safety, and minimize roadside parking.
- (g) Not later than January 30, 1971, the Secretary shall issue guidelines for minimizing possible soil erosion from highway construction. Such guidelines shall apply to all proposed projects with respect to which plans, specifications, and estimates are approved by the Secretary after the issuance of such guidelines.
- (h) Not later than July 1, 1972, the Secretary, after consultation with appropriate Federal and State officials, shall submit to Congress, and not later than 90 days after such submission, promulgate guidelines designed to assure that possible adverse economic, social, and environmental effects relating to any proposed project on any Federal-aid system have been fully considered in developing such project, and that the final decisions on the project are made in the best overall public interest, taking into consideration the need for fast, safe and efficient transportation, public services, and the costs of eliminating or minimizing such adverse effects and the following:
 - (1) air, noise, and water pollution;
 - (2) destruction or disruption of man-made and natural resources, aesthetic values, community cohesion and the availability of public facilities and services;
 - (3) adverse employment effects, and tax and property value losses;
 - (4) injurious displacement of people, businesses and farms; and
 - (5) disruption of desirable community and regional growth.

Such guidelines shall apply to all proposed projects with respect to which plans, specifications, and estimates are approved by the Secretary after the issuance of such guidelines.

(i) The Secretary, after consultation with appropriate Federal, State, and local officials, shall develop and promulgate standards for highway noise levels compatible with different land uses and after July 1, 1972, shall not approve plans and specifications for any proposed project on any Federal-aid system for which location approval has not yet been secured unless

he determines that such plans and specifications include adequate measures to implement the appropriate noise level standards. The Secretary, after consultation with the Administrator of the Environmental Protection Agency and appropriate Federal, State, and local officials, may promulgate standards for the control of highway noise levels for highways on any Federal-aid system for which project approval has been secured prior to July 1, 1972. The Secretary may approve any project on a Federal-aid system to which noise-level standards are made applicable under the preceding sentence for the purpose of carrying out such standards. Such project may include, but is not limited to, the acquisition of additional rights-of-way, the construction of physical barriers, and landscaping. Sums apportioned for the Federal-aid system on which such project will be located shall be available to finance the Federal share of such project. Such project shall be deemed a highway project for all purposes of this title.

- (j) The Secretary, after consultation with the Administrator of the Environmental Protection Agency, shall develop and promulgate guidelines to assure that highways constructed pursuant to this title are consistent with any approved plan for—
 - (1) the implementation of a national ambient air quality standard for each pollutant for which an area is designated as a nonattainment area under section 107(d) of the Clean Air Act (42 U.S.C. 7407(d)); or
- (2) the maintenance of a national ambient air quality standard in an area that was designated as a nonattainment area but that was later redesignated by the Administrator as an attainment area for the standard and that is required to develop a maintenance plan under section 175A of the Clean Air Act (42 U.S.C. 7505a).
- (k) The Secretary shall not approve any project involving approaches to a bridge under this title, if such project and bridge will significantly affect the traffic volume and the highway system of a contiguous State without first taking into full consideration the views of that State.
- (l)(1) In determining whether any right-of-way on any Federal-aid highway should be used for accommodating any utility facility, the Secretary shall—
 - (Å) first ascertain the effect such use will have on highway and traffic safety, since in no case shall any use be authorized or otherwise permitted, under this or any other provision of law, which would adversely affect safety;
 - (B) evaluate the direct and indirect environmental and economic effects of any loss of productive agricultural land or any impairment of the productivity of any agricultural land which would result from the disapproval of the use of such right-of-way for the accommodation of such utility facility; and
 - (C) consider such environmental and economic effects together with any interference with or impairment of the use of the highway in such right-of-way which would result from the use of such right-of-way for the accommodation of such utility facility.
 - (2) For the purpose of this subsection—

- (A) the term "utility facility" means any privately, publicly, or cooperatively owned line, facility, or system for producing, transmitting, or distributing communications, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, storm water not connected with highway drainage, or any other similar commodity, including any fire or police signal system or street lighting system, which directly or indirectly serves the public; and
- (B) the term "right-of-way" means any real property, or interest therein, acquired, dedicated, or reserved for the construction, operation, and maintenance of a highway.
- (m) Protection of Nonmotorized Transportation Traffic.—The Secretary shall not approve any project or take any regulatory action under this title that will result in the severance of an existing major route or have significant adverse impact on the safety for nonmotorized transportation traffic and light motorcycles, unless such project or regulatory action provides for a reasonable alternate route or such a route exists.
- (n) It is the intent of Congress that any project for resurfacing, restoring, or rehabilitating any highway, other than a highway access to which is fully controlled, in which Federal funds participate shall be constructed in accordance with standards to preserve and extend the service life of highways and enhance highway safety.
- (0) COMPLIANCE WITH STATE LAWS FOR NONNHS PROJECTS.—Projects (other than highway projects on the National Highway System) shall be designed, constructed, operated, and maintained in accordance with State laws, regulations, directives, safety standards, design standards, and construction standards.
- (p) SCENIC AND HISTORIC VALUES.—Notwithstanding subsections (b) and (c), the Secretary may approve a project for the National Highway System if the project is designed to—
 - (1) allow for the preservation of environmental, scenic, or historic values;
 - (2) ensure safe use of the facility; and
 - (3) comply with subsection (a).
- (q) Phase Construction.—Safety considerations for a project under this title may be met by phase construction consistent with the operative safety management system established in accordance with section 303 or in accordance with a statewide transportation improvement program approved by the Secretary.
- (Pub. L. 85–767, Aug. 27, 1958, 72 Stat. 894; Pub. L. 88–157, §4, Oct. 24, 1963, 77 Stat. 277; Pub. L. 89–574, §§5(a), 14, Sept. 13, 1966, 80 Stat. 767, 771; Pub. L. 91–605, title I, §136(a), (b), Dec. 31, 1970, 84 Stat. 1734; Pub. L. 93–87, title I, §§114, 152(2), 156, Aug. 13, 1973, 87 Stat. 257, 276, 277; Pub. L. 95–599, title I, §§113, 116(d), 141(f), (g), Nov. 6, 1978, 92 Stat. 2696, 2699, 2711; Pub. L. 96–106, §3, Nov. 9, 1979, 93 Stat. 797; Pub. L. 97–424, title I, §110(a), Jan. 6, 1983, 96 Stat. 2105; Pub. L. 102–240, title I, §1016(c)–(f)(1), Dec. 18, 1991, 105 Stat. 1946; Pub. L. 104–59, title III, §\$304, 305(a), Nov. 28, 1995, 109 Stat. 579, 580; Pub. L. 105–178, title I, §\$1202(c), 1212(a)(2)(A), 1306, June 9, 1998, 112 Stat. 169, 193, 229; Pub. L. 109–59, title I, §1110(a), (c), title VI, §6008, Aug. 10, 2005, 119 Stat. 1170, 1171, 1874.)

AMENDMENTS

2005—Subsec. (c)(2). Pub. L. 109-59, §6008, inserted dash after "Secretary shall consider" and subpar. (A) designation before "the results", substituted semicolon for period, and added subpars. (B) to (D).

Subsec. (e). Pub. L. 109–59, §1110(a), inserted subsec. heading, designated existing provisions as par. (1), inserted par. heading, and added par. (2).

Subsec. (g). Pub. L. 109-59, §1110(c), substituted "Not later than January 30, 1971, the Secretary shall issue' for "The Secretary shall issue within 30 days after the day of enactment of the Federal-Aid Highway Act of

1998—Subsecs. (b), (c)(2).Pub. §1212(a)(2)(A)(ii), substituted "State transportation departments" for "State highway departments"

Subsec. (d). Pub. L. 105-178, §1212(a)(2)(A)(i), substituted "State transportation department" for "State highway department'

Subsec. (m). Pub. L. 105-178, §1306(a), redesignated subsec. (n) as (m) and struck out former subsec. (m) which read as follows: "The Secretary shall issue guidelines describing the criteria applicable to the Interstate System in order to insure that the condition of these routes is maintained at the level required by the purposes for which they were designed. The initial guidelines shall be issued no later than October 1,

Subsec. (n). Pub. L. 105-178, §1306(a)(2), redesignated subsec. (o) as (n). Former subsec. (n) redesignated (m).

Pub. L. 105-178, §1202(c), inserted heading and amended text of subsec. (n) generally. Prior to amendment, text read as follows: "The Secretary shall not approve any project under this title that will result in the severance or destruction of an existing major route for nonmotorized transportation traffic and light motorcycles, unless such project provides a reasonably alternate route or such a route exists.

Subsecs. (a) to (q). Pub. L. 105-178, 1306(a)(2), (b), added subsec. (q) and redesignated former subsecs. (p) and (q) as (o) and (p), respectively. Former subsec. (o) redesignated (n).

1995—Subsec. (a). Pub. L. 104-59, §304(1), added subsec. (a) and struck out former subsec. (a) which read as follows: "The Secretary shall not approve plans and specifications for proposed highway projects under this chapter if they fail to provide for a facility (1) that will adequately meet the existing and probable future traffic needs and conditions in a manner conducive to safety, durability, and economy of maintenance; (2) that will be designed and constructed in accordance with standards best suited to accomplish the foregoing objectives and to conform to the particular needs of each locality."

Subsec. (c). Pub. L. 104-59, §304(2), added subsec. (c) and struck out former subsec. (c) which read as follows: "(c) DESIGN AND CONSTRUCTION STANDARDS FOR NHS.—Design and construction standards to be adopted for new construction on the National Highway System, for reconstruction on the National Highway System, and for resurfacing, restoring, and rehabilitating multilane limited access highways on the National

Highway System shall be those approved by the Secretary in cooperation with the State highway departments. All eligible work for such projects shall meet or exceed such standards."

Subsec. (j). Pub. L. 104-59, §305(a), substituted "plan for-" and pars. (1) and (2) for "plan for the implementation of any ambient air quality standard for any air quality control region designated pursuant to the Clean Air Act, as amended.'

Subsec. (q). Pub. L. 104-59, §304(3), added subsec. (q) and struck out former subsec. (q) which read as follows: "(q) HISTORIC AND SCENIC VALUES.—If a proposed

project under sections 103(e)(4), 133, or 144 involves a historic facility or is located in an area of historic or scenic value, the Secretary may approve such project notwithstanding the requirements of subsections (a) and (b) of this section and section 133(c) if such project

is designed to standards that allow for the preservation of such historic or scenic value and such project is designed with mitigation measures to allow preservation of such value and ensure safe use of the facility.

1991—Subsec. (a). Pub. L. 102-240, §1016(f)(1)(A), substituted "highway projects under this chapter" for

"projects on any Federal-aid system". Subsec. (c). Pub. L. 102–240, §1016(c), amended subsec. (c) generally. Prior to amendment, subsec. (c) read as follows: "Projects on the Federal-aid secondary system in which Federal funds participate shall be constructed according to specifications that will provide all-weather service and permit maintenance at a reasonable cost,

Subsec. (l)(1). Pub. L. 102-240, §1016(f)(1)(B), substituted "highway" for "system" in introductory pro-

Subsecs. (p), (q). Pub. L. 102-240, §1016(d), (e), added subsecs. (p) and (q).

1983—Subsec. (a). Pub. L. 97–424 added subsec. (a). 1979—Subsec. (l)(1)(A). Pub. L. 96–106 struck out "any aspect of" after "adversely affect".

1978—Subsec. (f). Pub. L. 95-599, §141(f), inserted

1978—Subsec. (I). Pub. L. 95-999, §141(1), Inserved "bikeways" after "surfaces, median strips,".
Subsec. (I). Pub. L. 95-599, §113, added subsec. (I).
Subsec. (m). Pub. L. 95-599, §141(g), added subsec. (m).
Subsec. (n). Pub. L. 95-599, §141(g), added subsec. (n).
1973—Subsec. (g). Pub. L. 93-87, §152(2), substituted "Act" for "Rct", thus correcting the popular name to read "Endown! Aid Highway Act of 1979"

read "Federal-Aid Highway Act of 1970". Subsec. (i). Pub. L. 93-87, §114, authorized promulgation of noise-level standards for highways on any Federal-aid system for which project approval has been secured prior to July 1, 1972, and approval of any project on a Federal-aid system to which noise-level standards are made applicable, described the range of the projects, made money available for financing Federal share of the project, and deemed such project a highway project for all purposes of this title.

ay project to all purposes of this state. Subsec. (k). Pub. L. 93-87, §156, added subsec. (k). 1970—Subsec. (g). Pub. L. 91-605, §136(a), substituted provisions ordering the Secretary to issue within 30 days after Dec. 31, 1970, guidelines, which will apply to all proposed projects approved by the Secretary after their issuance, for minimizing soil erosion from highway construction for provisions authorizing the Secretary to consult with the Secretary of Agriculture respecting guidelines for minimizing soil erosion from highway construction and report such guidelines to Congress not later than July 1, 1967.

Subsecs. (h) to (j). Pub. L. 91-605, §136(b), added subsecs. (h) to (j). 1966—Subsec. (b). Pub. L. 89-574, §5(a), required that

in all cases the standards provide for at least four lanes of traffic.

Subsec. (g). Pub. L. 89–574, §14, added subsec. (g). 1963—Subsec. (b). Pub. L. 88–157 substituted "Such standards, as applied to each actual construction project, shall be adequate to enable such project to accommodate the types and volumes of traffic anticipated for such project for the twenty-year period commencing on the date of approval by the Secretary, under section 106 of this title, of the plans, specifications, and estimates for actual construction of such project" for "Such standards shall be adequate to accommodate the types and volumes of traffic forecast for the year 1975", struck out "up" before "to such standards" and inserted "all" in phrase "throughout all the States"

EFFECTIVE DATE OF 1991 AMENDMENT

Amendment by Pub. L. 102-240 effective Dec. 18, 1991, and applicable to funds authorized to be appropriated or made available after Sept. 30, 1991, and, with certain exceptions, not applicable to funds appropriated or made available on or before Sept. 30, 1991, see section 1100 of Pub. L. 102-240, set out as a note under section 104 of this title.

HIGHWAY SIGNS RELATING TO VETERANS CEMETERIES

Pub. L. 108-29, §3, May 29, 2003, 117 Stat. 772, provided

"(a) IN GENERAL.—Notwithstanding the terms of any agreement entered into by the Secretary of Transportation and a State under section 109(d) or 402(a) of title 23, United States Code, a veterans cemetery shall be treated as a site for which a supplemental guide sign may be placed on any Federal-aid highway.

'(b) APPLICABILITY.—Subsection (a) shall apply to an agreement entered into before, on, or after the date of the enactment of this Act [May 29, 2003].'

INTERNATIONAL ROUGHNESS INDEX

Pub. L. 105-178, title I, §1213(b), June 9, 1998, 112 Stat.

200, provided that:
"(1) STUDY.—The Comptroller General of the United States shall conduct a study on the international roughness index that is used as an indicator of pavement quality on the Federal-aid highway system.

(2) REQUIRED ELEMENTS.—The study shall specify the extent of usage of the index and the extent to which the international roughness index measurement is reliable across different manufacturers and types of pave-

"(3) REPORT TO CONGRESS.—Not later than 2 years after the date of enactment of this Act [June 9, 1998], the Comptroller General shall submit to Congress a report on the results of the study.'

ENVIRONMENTAL STREAMLINING

Pub. L. 105-178, title I, §1309, June 9, 1998, 112 Stat. 232, as amended by Pub. L. 105-206, title IX, §9004(c), July 22, 1998, 112 Stat. 843, which directed the Secretary of Transportation to develop and implement a coordinated environmental review process for highway construction and mass transit projects, was repealed by Pub. L. 109-59, title VI, §6002(d), Aug. 10, 2005, 119 Stat.

ROADSIDE SAFETY TECHNOLOGIES

Pub. L. 105–178, title I, \$1402, June 9, 1998, 112 Stat. 236, as amended by Pub. L. 105-206, title IX, §9005(c), July 22, 1998, 112 Stat. 848, provided that:

- '(a) CRASH CUSHIONS.—
 "(1) GUIDANCE.—Not later than 18 months after the date of enactment of this Act [June 9, 1998], the Secretary shall issue guidance regarding the benefits and safety performance of redirective and nonredirective crash cushions in different road applications, taking into consideration roadway conditions, operating speed limits, the location of the crash cushion in the right-of-way, and any other relevant factors. The guidance shall include recommendations on the most appropriate circumstances for utilization of redirective and nonredirective crash cushions.
- "(2) Use of guidance.—States shall use the guidance issued under this subsection in evaluating the safety and cost-effectiveness of utilizing different crash cushion designs and determining whether redirective or nonredirective crash cushions or other safety appurtenances should be installed at specific highway locations.

"(b) TRAFFIC FLOW AND SAFETY APPLICATIONS OF ROAD BARRIERS.-

"(1) STUDY.—The Secretary shall conduct a study on the technologies and methods to enhance safety, streamline construction, and improve capacity by providing positive separation at all times between traffic, equipment, and workers on highway construction projects. The study shall also address how such technologies can be used to improve capacity and safety at those specific highway, bridge, and other appropriate locations where reversible lane, contraflow, and high occupancy vehicle lane operations are implemented during peak traffic periods.

(2) Uses to consider.—In conducting the study, the Secretary shall consider, at a minimum, uses of positive separation technologies related to-

"(A) separating workers from traffic flow when work is in progress;

'(B) providing additional safe work space by utilizing adjacent and available traffic lanes during off-peak hours:

"(C) rapid deployment to allow for daily or periodic restoration of lanes for use by traffic during peak hours as needed;

"(D) mitigating congestion caused by construc-

tion by—
"(i) opening all adjacent and available lanes to traffic during peak traffic hours; or

"(ii) using reversible lanes to optimize capacity of the highway by adjusting to directional traffic flow; and

"(E) permanent use of positive separation technologies to create contraflow or reversible lanes to increase the capacity of congested highways, bridges, and tunnels.

"(3) REPORT.—Not later than 18 months after the date of enactment of this Act [June 9, 1998], the Secretary shall submit to Congress a report on the results of the study. The report shall include findings and recommendations for the use of the technologies referred to in paragraph (2) to provide positive separation on appropriate projects.'

METRIC REQUIREMENTS

Pub. L. 104-59, title II, §205(c), Nov. 28, 1995, 109 Stat. 577, as amended by Pub. L. 105-178, title I, §1211(d), June 9, 1998, 112 Stat. 188, provided that:

"(1) PLACEMENT AND MODIFICATION OF SIGNS.—The Secretary shall not require the States to expend any Federal or State funds to construct, erect, or otherwise place or to modify any sign relating to a speed limit, distance, or other measurement on a highway for the purpose of having such sign establish such speed limit. distance, or other measurement using the metric sys-

"(2) OTHER ACTIONS.—The Secretary shall not require that any State use or plan to use the metric system with respect to designing or advertising, or preparing plans, specifications, estimates, or other documents, for a Federal-aid highway project eligible for assistance under title 23, United States Code.

'(3) DEFINITIONS.—In this subsection, the following definitions apply:

'(A) HIGHWAY.—The term 'highway' has the meaning such term has under section 101 of title 23, United States Code.

"(B) METRIC SYSTEM.—The term 'metric system' has the meaning the term 'metric system of measurement' has under section 4 of the Metric Conversion Act of 1975 (15 U.S.C. 205c)."

Type II Noise Barriers

Section 339(b) of Pub. L. 104-59 provided that:

"(1) GENERAL RULE.—No funds made available out of the Highway Trust Fund may be used to construct Type II noise barriers (as defined by section 772.5(i) of title 23, Code of Federal Regulations) pursuant to subsections (h) and (i) of section 109 of title 23, United States Code, if such barriers were not part of a project approved by the Secretary before the date of the enactment of this Act [Nov. 28, 1995].
"(2) EXCEPTIONS.—Paragraph (1) shall not apply to

construction of Type II noise barriers along lands that were developed or were under substantial construction before approval of the acquisition of the rights-of-ways for, or construction of, the existing highway.

HIGHWAY SIGNS FOR NATIONAL HIGHWAY SYSTEM

Section 359(b) of Pub. L. 104-59 provided that:

(1) STUDY.—The Secretary shall conduct a study to determine the cost, need, and efficacy of establishing a highway sign for identifying routes on the National Highway System. In conducting the study, the Secretary shall make a determination concerning whether to identify National Highway System route numbers.

"(2) REPORT.—Not later than March 1, 1997, the Secretary shall transmit to Congress a report on the results of the study.

USE OF RECYCLED PAVING MATERIAL

Section 1038 of Pub. L. 102-240, as amended by Pub. L. 104-59, title II, §205(b), title III, §327, Nov. 28, 1995, 109 Stat. 577, 592, provided that:

"(a) ASPHALT PAVEMENT CONTAINING RECYCLED RUB-BER DEMONSTRATION PROGRAM.—Notwithstanding any other provision of title 23, United States Code, or regulation or policy of the Department of Transportation, the Secretary (or a State acting as the Department's agent) may not disapprove a highway project under chapter 1 of title 23, United States Code, on the ground that the project includes the use of asphalt pavement containing recycled rubber. Under this subsection, a patented application process for recycled rubber shall be eligible for approval under the same conditions that an unpatented process is eligible for approval.

"(b) STUDIES.—

"(1) IN GENERAL.—The Secretary and the Administrator of the Environmental Protection Agency shall coordinate and conduct, in cooperation with the States, a study to determine—

"(A) the threat to human health and the environment associated with the production and use of asphalt pavement containing recycled rubber;

"(B) the degree to which asphalt pavement containing recycled rubber can be recycled; and

"(C) the performance of the asphalt pavement containing recycled rubber under various climate and use conditions.

"(2) DIVISION OF RESPONSIBILITIES.—The Administrator shall conduct the part of the study relating to paragraph (1)(A) and the Secretary shall conduct the part of the study relating to paragraph (1)(C). The Administrator and the Secretary shall jointly conduct the study relating to paragraph (1)(B).

duct the study relating to paragraph (1)(B).

"(3) ADDITIONAL STUDY.—The Secretary and the Administrator, in cooperation with the States, shall jointly conduct a study to determine the economic savings, technical performance qualities, threats to human health and the environment, and environmental benefits of using recycled materials in highway devices and appurtenances and highway projects, including asphalt containing over 80 percent reclaimed asphalt, asphalt containing recycled glass, and asphalt containing recycled plastic.

"(4) ADDITIONAL ELEMENTS.—In conducting the study under paragraph (3), the Secretary and the Administrator shall examine utilization of various technologies by States and shall examine the current practices of all States relating to the reuse and disposal of materials used in federally assisted highway projects.

"(5) REPORT.—Not later than 18 months after the date of the enactment of this Act [Dec. 18, 1991], the Secretary and the Administrator shall transmit to Congress a report on the results of the studies conducted under this subsection, including a detailed analysis of the economic savings and technical performance qualities of using such recycled materials in federally assisted highway projects and the environmental benefits of using such recycled materials in such highway projects in terms of reducing air emissions, conserving natural resources, and reducing disposal of the materials in landfills.

"(c) DOT GUIDANCE.—

"(1) INFORMATION GATHERING AND DISTRIBUTION.— The Secretary shall gather information and recommendations concerning the use of asphalt containing recycled rubber in highway projects from those States that have extensively evaluated and experimented with the use of such asphalt and implemented such projects and shall make available such information and recommendations on the use of such asphalt to those States which indicate an interest in the use of such asphalt.

"(2) ENCOURAGEMENT OF USE.—The Secretary should encourage the use of recycled materials determined to be appropriate by the studies pursuant to subsection (b) in federally assisted highway projects. Procuring agencies shall comply with all applicable guidelines or regulations issued by the Administrator of the Environmental Protection Agency.

''(d) Asphalt Pavement Containing Recycled Rubber.—

"(1) CRUMB RUBBER MODIFIER RESEARCH.—Not later than 180 days after the date of the enactment of the National Highway System Designation Act of 1995 [Nov. 28, 1995], the Secretary shall develop testing procedures and conduct research to develop performance grade classifications, in accordance with the strategic highway research program carried out under section 307(d) of title 23, United States Code, for crumb rubber modifier binders. The testing procedures and performance grade classifications should be developed in consultation with representatives of the crumb rubber modifier industry and other interested parties (including the asphalt paving industry) with experience in the development of the procedures and classifications.

''(2) CRUMB RUBBER MODIFIER PROGRAM DEVELOP-MENT.—

"(A) IN GENERAL.—The Secretary may make grants to States to develop programs to use crumb rubber from scrap tires to modify asphalt pavements

"(B) USE OF GRANT FUNDS.—Grant funds made available to States under this paragraph shall be used...

"(i) to develop mix designs for crumb rubber modified asphalt pavements;

"(ii) for the placement and evaluation of crumb rubber modified asphalt pavement field tests; and "(iii) for the expansion of State crumb rubber modifier programs in existence on the date the grant is made available.

"(e) DEFINITIONS.—For purpose of this section—

"(1) the term 'asphalt pavement containing recycled rubber' means any mixture of asphalt and crumb rubber derived from whole scrap tires, such that the physical properties of the asphalt are modified through the mixture, for use in pavement maintenance, rehabilitation, or construction applications; and

"(2) the term 'recycled rubber' is any crumb rubber derived from processing whole scrap tires or shredded tire material taken from automobiles, trucks, or other equipment owned and operated in the United States."

SURVEY AND REPORT ON UPGRADING OF DESIGN STANDARDS

Section 1049 of Pub. L. 102–240 directed Secretary to conduct a survey to identify current State standards relating to geometric design, traffic control devices, roadside safety, safety appurtenance design, uniform traffic control devices, and sign legibility and directional clarity for all Federal-aid highways and, not later than 2 years after Dec. 18, 1991, to transmit to Congress a report on the results of the survey and the crashworthiness of traffic lights, traffic signs, guardrails, impact attenuators, concrete barrier treatments, and breakaway utility poles for bridges and roadways currently used by States.

EROSION CONTROL GUIDELINES

Section 1057 of title I of Pub. L. 102–240 provided that: "(a) DEVELOPMENT.—The Secretary shall develop erosion control guidelines for States to follow in carrying out construction projects funded in whole or in part under this title [see Tables for classification].

"(b) MORE STRINGENT STATE REQUIREMENTS.—Guidelines developed under subsection (a) shall not preempt any requirement made by or under State law if such requirement is more stringent than the guidelines.

quirement is more stringent than the guidelines. "(c) CONSISTENCY WITH OTHER PROGRAMS.—Guidelines developed under subsection (a) shall be consistent with nonpoint source management programs under section 319 of the Federal Water Pollution Control Act [33 U.S.C. 1329] and coastal nonpoint pollution control guidance under section 6217(g) of the Omnibus Budget Reconciliation Act of 1990 [16 U.S.C. 1455b(g)]."

ROADSIDE BARRIER TECHNOLOGY

Section 1058 of Pub. L. 102-240, as amended by Pub. L. 104-59, title III, §328, Nov. 28, 1995, 109 Stat. 593, provided that:

"(a) REQUIREMENT FOR INNOVATIVE BARRIERS.—Not less than 2½ percent of the mileage of new or replacement permanent or temporary crashworthy barriers included in awarded contracts along Federal-aid highways within the boundaries of a State in each calendar year shall be innovative crashworthy safety barriers.

"(b) CERTIFICATION.—Each State shall annually certify to the Secretary its compliance with the requirements of this section.

"(c) DEFINITION OF INNOVATIVE CRASHWORTHY SAFETY BARRIER.—For purposes of this section, the term 'innovative crashworthy safety barrier' means a barrier, other than a guardrail or guiderail, classified by the Federal Highway Administration as 'experimental' or that was classified as 'operational' after January 1, 1985, and that meets or surpasses the requirements of the National Cooperative Highway Research Program 350 for longitudinal barriers."

ROADSIDE BARRIERS AND SAFETY APPURTENANCES

Section 1073 of Pub. L. 102-240 provided that:

"(a) INITIATION OF RULEMAKING PROCEEDING.—Not later than 30 days after the date of the enactment of this Act [Dec. 18, 1991], the Secretary shall initiate a rulemaking proceeding to revise the guidelines and establish standards for installation of roadside barriers and other safety appurtenances, including longitudinal barriers, end terminals, and crash cushions. Such rulemaking shall reflect state-of-the-art designs, testing, and evaluation criteria contained in the National Cooperative Highway Research Program Report 230, relating to approval standards which provide an enhanced level of crashworthy performance to accommodate vans, mini-vans, pickup trucks, and 4-wheel drive vehicles.

"(b) Final Rule.—Not later than 1 year after the date of the enactment of this Act [Dec. 18, 1991], the Secretary shall complete the rulemaking proceeding initiated under subsection (a), and issue a final rule regarding the implementation of revised guidelines and standards for acceptable roadside barriers and other safety appurtenances, including longitudinal barriers, end terminals, and crash cushions. Such revised guidelines and standards shall accommodate vans, minivans, pickup trucks, and 4-wheel drive vehicles and shall be applicable to the refurbishment and replacement of existing roadside barriers and safety appurtenances as well as to the installation of new roadside barriers and safety appurtenances."

STUDIES RELATING TO ESTABLISHMENT OF STANDARDS FOR RESURFACING, RESTORATION, AND REHABILITA-TION OF HIGHWAYS AND TO ESTABLISHMENT OF UNI-FORM STANDARDS AND CRITERIA FOR TESTING AND IN-SPECTING HIGHWAYS AND BRIDGES

Section 110(b), (c) of Pub. L. 97-424 provided that:

"(b) The Secretary of Transportation shall enter into appropriate arrangements with the National Academy of Sciences (1) to conduct a study of the safety cost-effectiveness of geometric design criteria of standards currently in effect for construction and reconstruction of highways, other than highways access to which is fully controlled, to determine the most appropriate minimum standards to apply to resurfacing, restoration, and rehabilitation projects on such highways, which study shall include a study of the cost effectiveness of the hot dip galvanizing process for the installation, repair, or replacement of exposed structural and miscellaneous steel, and (2) to propose standards to preserve and extend the service life of such highways and enhance highway safety. The National Academy of Sciences shall conduct such study in cooperation with the National Transportation Safety Board, the Congressional Budget Office, and the American Association of State Highway and Transportation Officials. Upon completion of such study, the National Academy of Sciences shall submit such study and its proposed standards to the Secretary of Transportation for review. Within ninety days after submission of such standards to the Secretary of Transportation, the Secretary shall

submit such study and the proposed standards of the National Academy of Sciences, together with the recommendations of the Secretary, to Congress for approval.

"(c)(1) The Secretary of Transportation is directed to coordinate a study with the National Bureau of Standards, the American Society for Testing and Materials, and other organizations as deemed appropriate, (A) to determine the existing quality of design, construction, products, use, and systems for highways and bridges; (B) to determine the need for uniform standards and criteria for design, processing, products, and applications, including personnel training and implementation of enforcement techniques; and (C) to determine the manpower needs and costs of developing a national system for the evaluation and accreditation of testing and inspection agencies.

"(2) The Secretary shall submit such study to the Congress not later than one year after the date of enactment of this section [Jan. 6, 1983]."

EXPENDITURE OF FEDERAL FUNDS FOR HIGHWAY SIGNS USING METRIC SYSTEM

Section 144 of Pub. L. 95-599, as amended by Pub. L. 96-106, §14, Nov. 9, 1979, 93 Stat. 798, which prohibited use of Federal funds for signing solely in the metric system, was repealed by Pub. L. 102-240, title I, §1053, Dec. 18, 1991, 105 Stat. 2001.

MODIFICATION OF PROJECT AGREEMENTS TO EFFECTUATE REQUIREMENT OF FOUR-LANES OF TRAFFIC

Authorization to modify projects agreements entered into prior to September 13, 1966, to effectuate the amendment of this section by Pub. L. 89–574 which added the requirement of four-lanes of traffic, see section 5(b) of Pub. L. 89–574, set out as a note under section 106 of this title.

§ 110. Revenue aligned budget authority

(a) IN GENERAL.—

(1) ALLOCATION.—On October 15 of fiscal year 2007 and each fiscal year thereafter, the Secretary shall allocate for such fiscal year and the succeeding fiscal year an amount of funds equal to the amount determined pursuant to section 251(b)(1)(B)(ii)(I)(cc) of the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C 901(b)(2)(B)(ii)(I)(cc))¹ if the amount determined pursuant to such section for such fiscal year is greater than zero.

(2) REDUCTION.—If the amount determined pursuant to section 251(b)(1)(B)(ii)(I)(cc) of the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C 901(b)(2)(B)(ii)(I)(cc))1 for fiscal year 2007 or any fiscal year thereafter is less than zero, the Secretary on October 15 of such fiscal year shall reduce proportionately the amount of sums authorized to be appropriated from the Highway Trust Fund (other than the Mass Transit Account) for such fiscal year and the succeeding fiscal year to carry out each of the Federal-aid highway and highway safety construction programs (other than emergency relief) and the motor carrier safety grant program by an aggregate amount equal to the amount determined pursuant to such section. No reduction under this paragraph and no reduction under section 1102(h), and no reduction under title VIII or any amendment made by title VIII, of the SAFETEA-LU shall be made for a fiscal year

 $^{^1}So$ in original. Probably should be ''(2 U.S.C. 901(b)(1)(B)(ii)(I)(cc))''. See References in Text note below.