

Improvement Type Definitions

Table 12-1: Improvement Types

Imp. Type Code	Improvement Type	Description
01	New Construction Roadway	Construction of a new roadway that will not replace an existing roadway. A new roadway will provide: (1) a roadway where none existed, or (2) an additional and alternate roadway to an existing roadway that will remain open and continue to serve through traffic.
03	4R - Reconstruction, Added Capacity	Construction on approximate alignment of an existing route where the old pavement structure is substantially removed and replaced. Such reconstruction includes widening to provide continuous additional through lane(s), or adding, or revising interchanges, replacing other highway elements such as a grade separation to replace an existing grade intersection. Also included, where necessary, are other incidental improvements such as drainage and shoulder improvements.
04	4R Reconstruction, No Added Capacity	Widening the lanes and/or shoulders of an existing roadway without adding through lanes. This may include reconstructing the existing pavement and other incidental improvements such as shoulder and drainage improvements.
05	4R Maintenance Resurfacing	Placement of additional surface material over the existing roadway to improve serviceability or to provide additional strength. There may be some upgrading of unsafe features and other incidental work in conjunction with resurfacing. Where surfacing is constructed by a separate project as a final stage of construction, the type of improvement should be the same as that of the preceding stage B new route, relocation, reconstruction, minor widening, etc.
06	4R Restoration and Rehabilitation	Work required to return existing pavement (including shoulders) to a condition of adequate structural support or to a condition adequate for placement of an additional stage of construction. There may be some upgrading of unsafe features or other incidental work in conjunction with restoration and rehabilitation. Typical improvements would include replacing spalled or malfunctioning joints; substantial pavement stabilization prior to resurfacing; grinding/grooving of rigid pavements; replacing deteriorated materials; reworking or strengthening bases or sub-bases, and adding under-drains.

07	4R Maintenance Relocation	Construction of a roadway at a new location that replaces an existing roadway. The new roadway carries all the through traffic with the previous facility closed or retained as a land-service road only.
08	New Bridge	Construction of a new bridge that does not replace or relocate an existing bridge.
*10	Bridge Replacement	<p>Highway Bridge Program Funds: Total replacement of a structurally inadequate or functionally obsolete bridge with a new structure that adds capacity with additional lanes in the same general traffic corridor to current geometric construction standards. A bridge removed and replaced with a lesser facility is considered a bridge replacement. Incidental roadway approach work is included.</p> <p>MAP-21 Funds: Total replacement of a bridge with a new structure.</p>
*11	Bridge Replacement, No Added Capacity	Total replacement of a structurally inadequate or functionally obsolete bridge with a new structure without adding lanes constructed in the same general traffic corridor to current geometric construction standards. A bridge removed and replaced with a lesser facility is considered a bridge replacement. Incidental roadway approach work is included.
*13	Bridge Rehabilitation	<p>Highway Bridge Program Funds: For the major work required to restore structural integrity of a bridge, add capacity (i.e., through lanes), and to correct major safety defects. Bridge deck replacement (both partial and complete) and widening of bridges including addition of through lanes to specified standards are included. Construction of a dual structure to alleviate a capacity deficiency is also included. Work required to correct minor structure and safety defects or deficiencies, such as deck patching, resurfacing, protective systems, upgrading railings, curbs and gutters, and other minor bridge work is not included.</p> <p>MAP-21 Funds: Major work required to restore the structural integrity of bridge as well as work necessary to correct major safety defects.</p>
*14	Bridge Rehabilitation, No Added Capacity	For the major work required to restore structural integrity of a bridge as well as work necessary to correct major safety defects. Bridge deck replacement (both partial and complete) and widening of bridges without adding through lanes to specified standards are included. Work required to correct minor structure and safety defects or deficiencies, such as deck patching, resurfacing, protective systems, upgrading railings, curbs, or other preventative maintenance items are not included.

**15	Preliminary Engineering	For the preparation of plans, specifications, and estimates (PS&E), traffic, and related studies including field inspections, surveys, material testing, and borings.
16	Right of Way	For purchase of land, improvements and easements, in addition to the cost of moving and relocating buildings, businesses, and persons.
**17	Construction Engineering	Oversight of construction of roadways, structures, and traffic services facilities including additional design work after construction project is let.
18	Planning	For Planning related purposes.
19	Research	For Research related purposes.
20	Environmental Only	For improvements that do not provide any increase in the level of service, in the condition of the facility or in safety features. Typical improvements, which would fall in this category, would be noise barriers, beautification and other environmentally related features not built as a part of any other improvement type. If environmental mitigation is needed as the result of a bridge project, and it is confined to the reasonable touchdown and the bridge itself, then this is allowable with HBRRP Funds. Outside the reasonable touchdown would not be considered eligible.
21	Safety	For projects or a significant portion of a project that provides features or devices to enhance safety. For example, expenditures on projects designed to improve the safety of at-grade railroad crossings or for the construction of facilities dedicated to the enforcement of vehicle weight regulations.
22	Rail/Highway Crossing	Improvements to crossing warning Protective Devices such as signs, markings, and cross bucks; flashing light additions/improvements; and improvements to track circuitry.
23	Transit	For transit and transit-related purposes.
24	Traffic Management/Engineering - HOV	Traffic operation improvements that are designed to reduce traffic congestion and to facilitate the flow of traffic, both people and vehicles, on existing systems, or to conserve motor fuels. Include automated toll collection equipment, road and bridge surveillance and control systems, etc.
25	Vehicle Weight Enforcement Program	Vehicle Weight Enforcement
26	Ferry Boats	Ferry Boats
27	Administration	Administration for National Recreational Trails Projects, Commercial Vehicles, and other similar projects.
**28	Provision of facilities for pedestrians and bicycles.	New or reconstructed sidewalks, walkways, or curb ramps; wide paved shoulders for non-motorized use, bike

		lane striping, bike parking, and bus racks; construction or major rehabilitation of off-road shared use paths (non-motorized transportation trails); trailside and trailhead facilities for shared use paths; bridges and underpasses for pedestrians and bicyclists and for trails.
**29	Acquisition of scenic easements and scenic or historic sites (including historic battlefields).	Acquisition of scenic land easements, vistas, and landscapes; acquisition of buildings in historic districts or historic properties, including historic battlefields.
**30	Scenic or historic highway programs (including the provision of tourist and welcome center facilities).	For projects related to scenic or historic highway programs: Construction of turnouts, overlooks, and viewing areas; construction of visitor and welcome centers; designation signs and markers.
**31	Landscaping and other scenic beautification.	Landscaping, street furniture, lighting, public art, and gateways along highways, streets, historic highways, trails, and waterfronts. Landscaping recommendation: see FHWA's Roadside Vegetation Management website .
**32	Historic preservation.	Preservation of buildings in historic districts; restoration and reuse of historic buildings for transportation-related purposes.
**33	Rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals).	Restoration of historic railroad depots, bus stations, ferry terminals and piers, and lighthouses; rehabilitation of rail trestles, tunnels, and bridges; restoration of historic canals, canal towpaths, and historic canal bridges.
**34	Preservation of abandoned railway corridors (including the conversion and use of the corridors for pedestrian or bicycle trails).	Acquiring railroad rights-of-way; planning, designing, and constructing multiuse trails; developing rail-with-trail projects.
**35	Inventory, control, and removal of outdoor advertising.	Billboard inventories and removal of illegal and nonconforming billboards. Inventory control may include, but not be limited to, data collection, acquisition and maintenance of digital aerial photography, video logging, scanning and imaging of data, developing and maintaining an inventory and control database, and hiring of outside legal counsel.
**36	Archaeological planning and research.	Research, preservation planning, and interpretation of archaeological artifacts; curation for artifacts related to surface transportation and artifacts recovered from locations within or along surface transportation corridors.
**37	Environmental mitigation-- (i) to address water pollution due to highway runoff; or (ii) reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.	For existing highway runoff: soil erosion controls, detention and sediment basins, and river clean-ups. Wildlife underpasses or other measures to reduce vehicle caused wildlife mortality and/or to maintain wildlife habitat connectivity.
**38	Provision of safety and educational activities for pedestrians and bicyclists.	Educational activities to encourage safe walking and bicycling.

**39	Establishment of transportation museums.	Construction of new transportation museums; additions to existing museums for a transportation section; conversion of railroad stations.
**40	Special Bridge	Highway Bridge Program Funds: Includes bridge inventory, inspection and classification and other special bridge projects, such as load posting, not covered by another type of improvement code. Also includes application of calcium magnesium acetate, sodium acetate/formate, or other environmentally acceptable, minimally corrosive anti-icing and deicing compositions. MAP-21 Funds: Includes low water crossing replacement, application of calcium magnesium acetate, sodium acetate/formate, or other environmentally acceptable, minimally corrosive anti-icing and deicing compositions, and other eligible bridge projects not covered by another type of improvement type code.
**41	Youth Conservation Service	The Youth Conservation Service
42	Training	Training; Supportive Services; TRAC; On the Job Training
43	Utilities	Utilities
44	Other	Miscellaneous work such as National Recreational Trails construction, noise barriers, etc.
45	Debt Service	Interest payments and retirement of principal under an eligible bond issue (including capitalized interest) and any other cost incidental to the sale of an eligible bond issue (including issuance costs, insurance or other credit enhancement fees, and other bond-related costs as determined).
*47	Bridge Preservation	Highway Bridge Program Funds: Preventive maintenance activities that are cost effective means of extending the service life of a bridge. MAP-21 Funds: Activities that prevent, delay, or reduce deterioration of bridges or bridge elements, restore the function of existing bridges, keep bridges in good condition and extend their life.
*48	Bridge Protection	Includes scour countermeasures, seismic retrofits, impact protection measures, security countermeasures, and protection against extreme events.
49	Bridge Inspection and Bridge Related Training	Bridge inspection and evaluation activities, including in-depth and special inspections. Bridge inspection related training.
50	New Tunnel	Construction of a new tunnel that does not replace or relocate an existing tunnel.
51	Tunnel Replacement	Total replacement of a tunnel with a new structure constructed with additional lanes in the same general traffic corridor.
52	Tunnel Rehabilitation	For the work required to restore structural integrity of a

		tunnel, as well as, work necessary to correct major safety defects.
53	Tunnel Preventative Maintenance	Activities that prevent, delay, or reduce deterioration of tunnels or tunnel elements, restore the function of existing tunnels, keep tunnels in good condition and extend their life.
54	Tunnel Protection	Includes impact protection measures, security countermeasures, and protection against extreme events.
55	Tunnel Inspection and Tunnel Related Training	Tunnel inspection and evaluation, including in-depth and other special inspections. Tunnel inspection related training.
56	Other Asset Inspection	Inspection and evaluation of infrastructure assets other than bridges or tunnels, including signs and sign-structures, earth retaining walls and drainage structures. Inspection related training for signs and sign-structure, earth retaining walls and drainage structures.
57	Safety Non-Infrastructure	Safety Non-Infrastructure
58	Freight	Freight
*59	Bridge Resurfacing	Includes installation of deck overlays, asphalt wearing surfaces.
60	Highway Infrastructure Preventive Maintenance	Preventive maintenance activities determined to be a cost-effective means of extending the useful life of a highway and such facilities. This improvement type does not include preventive maintenance for bridges and tunnels.
61	Routine Maintenance	Work that is performed in reaction to an event, season, or over all deterioration of the transportation asset.
62	Operations	Costs related to transportation system management and necessary equipment and installation.
63	Electric Vehicle & Charging Infrastructure	Electric Vehicle & Charging Infrastructure
64	Other Alternative Fuel Vehicles & Infrastructure	Other Alternative Fuel Vehicles & Infrastructure
65	Resilience Planning	Developing a Resilience Improvement Plan; resilience planning, predesign, design, or the development of data tools to simulate transportation disruption scenarios, including vulnerability assessments; technical capacity building to facilitate the assessment of the vulnerabilities of surface transportation assets and community response strategies under current conditions and a range of potential future conditions; or evacuation planning and preparation.
66	Resilience Improvement – Highway Project	Highway projects to improve the ability of an existing surface transportation asset to withstand one or more elements of a weather event or natural disaster, or to

		increase the resilience of surface transportation infrastructure from the impacts of changing conditions, such as sea level rise, flooding, wildfires, extreme weather events, and other natural disasters.
67	Resilience Improvement – Transit or Port Projects	Activities conducted on public transportation facilities or services, or port facilities, to improve the ability of an existing surface transportation asset to withstand one or more elements of a weather event or natural disaster, or to increase the resilience of surface transportation infrastructure from the impacts of changing conditions, such as sea level rise, flooding, wildfires, extreme weather events, and other natural disasters.
68	Resilience Improvement – Natural Infrastructure	Activities utilizing natural infrastructure to improve the ability of an existing surface transportation asset to withstand one or more elements of a weather event or natural disaster, or to increase the resilience of surface transportation infrastructure from the impacts of changing conditions, such as sea level rise, flooding, wildfires, extreme weather events, and other natural disasters.
69	Community Resilience and Evacuation Routes	Activities to strengthen and protect evacuation routes that are essential for providing and supporting evacuations caused by emergency events.
70	At-Risk Coastal Infrastructure – Highway Project	Highway projects to strengthen, stabilize, harden, elevate, relocate, or otherwise enhance the resilience of at-risk coastal infrastructure that are subject to, or face increased long-term future risks of, a weather event, a natural disaster, or changing conditions, including coastal flooding, coastal erosion, wave action, storm surge, or sea level rise, in order to improve transportation and public safety and to reduce costs by avoiding larger future maintenance or rebuilding costs.
71	At-Risk Coastal Infrastructure – Transit or Port Projects	Activities conducted on public transportation facilities or services, or port facilities to strengthen, stabilize, harden, elevate, relocate, or otherwise enhance the resilience of at-risk coastal infrastructure that are subject to, or face increased long-term future risks of, a weather event, a natural disaster, or changing conditions, including coastal flooding, coastal erosion, wave action, storm surge, or sea level rise, in order to improve transportation and public safety and to reduce costs by avoiding larger future maintenance or rebuilding costs.
72	At-Risk Coastal Infrastructure – Natural Infrastructure	Activities utilizing natural infrastructure to enhance the resilience of at-risk coastal infrastructure that are subject to, or face increased long-term future risks of, a weather event, a natural disaster, or changing conditions, including coastal flooding, coastal erosion, wave action, storm surge, or sea level rise, in order to improve transportation and public safety and to reduce costs by avoiding larger future maintenance or rebuilding costs.

* Projects using these Types of Improvement must report a National Bridge Inventory Structure Number.

** Transportation Enhancement Projects (Program Codes with fund source 33B0, Q220) must use these Types of Improvement.