



**COLORADO**  
Department of Transportation  
Division of Transit & Rail

# TRANSIT CAPITAL PROJECTS LOCAL AGENCY MANUAL





## Preface

As the backbone of a transit system, capital facilities provide space for vehicle maintenance, agency offices, bus/vehicle storage, parking, intermodal connectivity, and much more. While the intention of this manual is to provide guidance for larger-scale projects, such as maintenance facilities and park-n-rides, it is not limited to projects of that scale. Local agencies can apply most of this guidance, particularly regarding planning, funding, National Environmental Policy Act (NEPA), and land acquisition, to smaller capital facility projects, such as bus shelters.

This manual is intended for Colorado’s rural transit agencies (local agencies) that are within one of the 10 Colorado Department of Transportation (CDOT) rural Transportation Planning Regions (TPRs), participate in the statewide and regional planning process, and/or receive funding through the CDOT Division of Transit and Rail (DTR) for capital projects. This manual is primarily intended for rural local transit agencies, which are not a part of a Metropolitan Planning Organization (MPO) or an urban TPR, although agencies located in urban areas (MPOs) may find value in the information related to federal requirements for capital projects and ongoing project tasks and requirements, including project management and controls, record keeping, and third-party contracting.

The primary intent of this manual is to support rural transit agencies applying for, awarded, and using Federal Transit Administration (FTA) funds for capital projects that are distributed and applied for through CDOT. In this manual, local agencies that are awarded federal funds are referred to as “subrecipients” once they have received federal funding through CDOT; the wording change from “local agencies” to “subrecipients” is noticeable especially after **Chapter 1A Capital Projects Planning and Initiation**. **Chapter 1A** addresses several funding mechanisms, including state sources, but the manual primarily focuses on federal funding requirements. Transit agencies applying for only state funding may not find all the necessary information in this manual alone. For state funding inquiries, contact CDOT’s DTR.

Purpose	Description
Who	This manual is intended for rural local transit agencies that provide transit services for communities with typically fewer than 50,000 people. This manual is best suited for rural transit agency personnel but can be referenced by anyone.
What	This manual provides details on all stages of the transit capital facility lifecycle, including planning, environmental clearance, real estate and acquisition, design and engineering, construction, commissioning, and closeout. This manual will include contacts and resources. An accompanying executive summary will include flowcharts, checklists, and forms to help rural transit agencies know whom to contact, what steps to take next, and/or when to complete a given task.
When	This manual is current as of May 2024 and can be used at any point in the transit capital facility project process.
Where	The most current version of this manual will be available on Colorado Department of Transportation Division of Transit and Rail website.
Why	This manual is the central repository of information for local transit agencies to navigate the process to complete a capital project. It presents the transit capital facility lifecycle process and ensures essential knowledge is stored to create resiliency against lost knowledge in transit local agencies and Colorado Department of Transportation divisions.



## Summary of Each Chapter

**Chapter 1A Capital Projects Planning and Initiation** addresses project conception (planning, gaps and needs assessment, etc.), funding and getting a project into the Statewide Transportation Improvement Program, high level site assessments and feasibility studies, Title VI Equity Analysis, and initial grant development steps.

**Chapter 1B Project Lifecycle Reporting and Requirements** discusses project (scope, schedule, and cost) controls, grants management, procuring professionals, procurement and contractor administration, financial reporting, FTA oversight, civil rights requirements, facilities/equipment management, risk and safety, project administrative systems, communications, and records management.

**Chapter 2 Environmental Clearance** summarizes the required NEPA actions for a Categorical Exclusion (CE), including resource assessments for biological resources, water resources, hazardous materials, and cultural/historical resources. This manual describes the process for clearing a project with a CE. Local transit agencies whose projects require an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) should contact FTA for further information.

**Chapter 3 Acquisition and Real Estate** discusses the Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs, often referred to as the Uniform Act. The chapter covers Uniform Act requirements from acquisition planning to appraisals, just compensation offers (fair market value), negotiations, relocation, reestablishment, and special cases. It also addresses failed negotiations and advisory services to be provided to displaced persons (who either occupy dwellings or own businesses).

**Chapter 4 Design and Engineering** summarizes the full design timeline, which starts at project development and ends with final engineering. It also addresses other necessary design tasks and criteria from the roles and responsibilities during design, to scoping, reviews, quality assurance/quality control and risk assessment.

**Chapter 5 Construction** summarizes the procedures necessary to advance a capital facility project from the design phase through the construction phase. It covers contract award to a contractor, construction management roles and responsibilities, cost, schedule, budget, quality and change control, etc.

**Chapter 6 Commissioning** addresses commissioning requirements. Commissioning is the process of testing the completed project to ensure that all parts of the project work as expected. It is an essential step in validating building equipment and systems in coordination with operations personnel and third parties.

**Chapter 7 Project Closeout** addresses the steps necessary to close out a capital facility project. Topics include how to close out project contracts, titles, facilities and equipment, grants/financial management, and records.

**Worth Noting – Resources:** At the end of each chapter is a resources table. Resources are separated into at least two tables: “Essential Resources” and “Additional Information.” **Chapter 2 Environmental Clearance** includes an additional resource table specifically for “Environmental Resources,” and **Chapter 5 Construction** provides an additional table containing information about required construction and contracting forms.

A list that includes every resource is provided at the end of this manual.



## Note on Timelines

The amount of time it takes to complete a capital facility project is unique to each project; therefore, it is impractical, if not impossible, to set a standard timeline for each step for all facilities. The complexity of a capital facility project likely dictates timelines for each step. For example, a major transit facility with offices, bus bays, and a park-n-ride takes significantly longer to complete than a project involving a bus stop. Also, several project elements can impact schedule regardless of project size, such as impacts to critical resources (documented through the NEPA process) and public reception of the project. Therefore, this manual does not provide any “hard and fast” timelines required to complete each step. Timelines established by DTR, FTA, and/or federal law are included, but general timelines are not included.

Instead, this manual highlights the importance of early and ongoing communication with all project staff, including transit agency staff, CDOT/DTR/FTA staff, and any hired consultants or contractors throughout the project. Open communication is essential to ensure that federal requirements are met, to maintain project schedules, to manage budgets, and to deliver projects. Open communication with CDOT/DTR/FTA provides insight into how long reviews, approvals, and feedback from these governmental entities will take.

## Major Hurdles

The following represent potential hurdles to completing a transit capital project:

1. **Mountain Realities:** The Colorado Rocky Mountains, while beautiful (and a major draw for both residents and tourists), can present harsh realities for local transit agencies and their capital facility projects. For example, the mountainous climate often creates environments where local transit agencies need to A) invest in additional equipment to prevent operations from being delayed or ceasing during the winter and/or stormy months and B) anticipate that cold winter months will either significantly slow or cease construction activities. In addition, transporting materials through the mountains can create significant challenges. Transportation costs may increase significantly depending on where the local agency is located. Any major storms or events that either slow or shut down transportation systems may impact construction timelines.
2. **Local Government/Public Buy-In and Business Disruptions:** Local transit agencies must engage both the public and local governing bodies to build consensus around the project. Cities and towns that regularly elect new members to their city/town boards may face challenges; for example, a future board may vote down a project that a previous board supported. It is important to understand the local governing process and to ensure that the public supports the project. Furthermore, construction that disrupts local businesses can be a major hurdle. This may be particularly important in small or mountain towns, where a transit capital facility project could impact several businesses or residents or may affect area tourism. It is important to engage with businesses and residents that may be impacted early and often so that they understand the project, potential impacts, and how it may benefit them going forward.
3. **Title VI Equity Analysis:** Local transit agencies should complete the Title VI Equity Analysis as soon as feasible. Local transit agencies **MUST** complete a Title VI Equity Analysis before acquiring land or selecting a preferred site. The completion of the analysis is required for federal funding.
4. **Federal Grant Requirements**, such as the Davis-Bacon Act, Buy America, etc.: Past subrecipients have noted that complying with federal requirements for their awarded grants can be cumbersome and time-consuming, often requiring full-time support of additional local agency staff to ensure proper documentation. Subrecipients should prepare accordingly, whether by hiring additional consultants/staff or by adding additional existing staff to the project solely for federal requirement compliance and documentation. **Chapter 1B Project Lifecycle Reporting and Requirements** provides more information on federal requirements.





5. **NEPA:** In most cases, FTA clears transit capital facility projects through a Categorical Exclusion (CE). However, a review and analysis of key resources can greatly impact the CE clearance process if any significant findings are uncovered in the following resource areas:
  - ▶ Historic/cultural impacts
  - ▶ Section 4(f) impacts
  - ▶ Threatened & Endangered (T&E) species
  - ▶ Wetlands impacts
  - ▶ Hazardous materials

Significant impacts in these areas may affect the schedule and cost of the CE clearance process and may elevate the NEPA evaluation to an EA or EIS.
6. **Uniform Act Requirements:** Land acquisition can present a major hurdle for local transit agencies. For example, local transit agencies **must** environmentally clear (via NEPA) the project before any acquisition activities (detailed in **Chapter 3 Acquisition and Real Estate**) can occur. Delays in NEPA clearance can lead to delays in property acquisition. In addition, there can be a time lag between when an offer is made to a property owner and when the property is actually purchased (deed transferred). Some property owners may reconsider selling during this time or may have new information that may be presented to the transit agency that may change the fair market value (FMV) or settlements described in the original offer. A well-thought-out Acquisition Management Plan and Relocation and Assistance Management Plan can help a local transit agency navigate potential acquisition challenges.
7. **Cost Escalation and Inflation:** The construction phase of a transit capital facility project often provides a reality check for local transit agencies. Construction materials and equipment prices **and availability** can fluctuate greatly over the course of a project and sometimes even over the course of the construction phase.
8. **Business Disruptions:** A local transit agency may find that they are disrupting local businesses during the construction phase of the transit capital facility project. Disruptions to businesses may prevent project buy-in from local governing bodies and/or residents.

## Best Practices

The following best practices are recommended to successfully deliver capital projects:

1. Involve CDOT, local partners, FTA, and TPR as early as possible, particularly as hurdles arise or the project approaches major milestones (such as NEPA clearance or 90% design).
2. Keep and maintain plans and documents for all phases of the transit capital facility project process:
  - ▶ Project Management Plan (required for larger transit capital facility projects; optional but recommended for smaller transit capital facility projects)
  - ▶ Schedule tracker
  - ▶ Budget tracker
  - ▶ Stakeholder and public engagement plan
  - ▶ Quality control/quality assurance plans and related documents
  - ▶ Risk Management Plan
3. Keep multiple copies of records for audits—ideally, one paper and one electronic for three years after project completion.
4. Maintain open communications with all staff and personnel, whether from CDOT, FTA, transit agency, contractors, construction management, consultants, or others.
5. Hire qualified experts for design, NEPA, and Real Estate acquisitions, including licensed appraisers and review appraisers.



6. Use competitive selection processes to hire all consultants and contractors, even if federal funds are not used in the early project stages (planning, NEPA, acquisition, etc.). Using a competitive selection process for subject area experts allows the subrecipient to compare approaches by different firms to get the best work for the available funds. If there is a slight chance that federal funds will be used for a transit capital facility project, competitive selection of consultants or contractors is a federal requirement and will ensure compliance with procurement and contracting-related federal clauses.
7. Consult with your legal representatives throughout your project.
8. Use resources such as the National Rural Transportation Assistance Program’s ProcurementPRO, a free web-based application to guide rural and Tribal grantees and State DOTs through FTA procurement procedures. Using basic project information entered by the user, the program provides the required FTA clauses and certifications that must be included in procurement documents. The application also provides other helpful resources such as a procurement document template, checklists, and guidance for preparing procurement documents. ProcurementPRO does what it may have taken agencies days or weeks to do. The program is intended to offer guidance through a procurement process when using federal funding; it does not constitute full federal compliance. State and local procurement guidelines may supersede federal guidelines and should be reviewed for compliance. The clauses and certification downloaded from ProcurementPRO are for inclusion into procurement documents but may also be inserted into contractual agreements. However, additional clauses and certification may be required for contractual agreements. For more information, visit: <https://www.nationalrtap.org/Technology-Tools/ProcurementPRO>

## Consultants Overview

Transit capital facility projects will require the hiring of outside professionals, ranging from planners to construction managers (CMs). Local transit agencies should assess their project needs, along with staff capabilities, qualifications, and availability, before hiring outside professionals; however, certain project stages, such as NEPA, will require outside expertise even if the agency has qualified in-house staff.

Consultant Type	Description of Responsibilities	Chapter
Planning Consultants	Assists with initial project needs, such as where to site a facility, when to construct, what funds to use for the project, and communication/public outreach expertise. Can also assist with basic site assessments and project feasibility.	1A
Grants Advisory Services	Helps determine which grants to apply for. Assists with grant application and submission.	1A
NEPA Consultants	Assists with the initial environmental scan, and completes NEPA documentation, surveys, research and field work. Acts as a liaison between the local transit agency and other federal/state agencies, such as State Historic Preservation Officer and U.S. Army Corps of Engineers, etc.	2
Certified Appraiser	Performs the property appraisal to determine fair market value and assesses any additional factors related to the property (such as improvements, damage, etc.) that may impact the value. See <b>Section 3C</b> for more information.	3
Independent Appraisal Reviewer	Reviews the appraisal made by the certified appraiser.	3
Negotiation Specialist	Negotiates any terms with a property owner. Makes all reasonable efforts to personally contact each state-resident property owner or designated representative.	3



Consultant Type	Description of Responsibilities	Chapter
Real Estate Specialist	Provides relocation assistance and advisory services. Performs the decent, safe and sanitary inspection and the property closing. Maintains a relocation log throughout the relocation process. Explains relocation payments and other assistance offered by the subrecipient to each potential displaced person, including eligibility requirements and procedures for obtaining such assistance. Informs the displaced person in writing of the specific comparable replacement dwelling used as a basis to determine the maximum replacement housing payment and the dollar amount of the payment.	3
Relocation Specialist (also considered a Real Estate Specialist)	Explains the relocation services and appropriate relocation assistance payments. Determines eligibility for payments and services. Prepares a relocation determination. Makes every effort to help meet identified needs, while recognizing the importance of the displaced person's priorities and their desire, or lack of same, for assistance. Provides applicable real estate information, including current listings, prices or rents, that may serve as comparable dwellings/business sites. Provides information concerning federal and state housing and other programs offering relocation or related types of assistance. Assists in obtaining and completing application or claim forms for relocation payment or other related assistance, as needed. Provides transportation for all displaced persons to inspect potential relocation housing, when needed.	3
Project Manager (Design)	Manages a design consultant's scope of work and associated progress. Monitors consultant cost and schedule performance, and manages changes in the design contract as changes in design assumptions are identified. Reviews and approves design concepts, project development, and engineering. Provides and coordinates design review comments. Participates in value engineering and risk assessment sessions. Manages the design consultant's efforts. Monitors design costs and schedule, oversees quality assurance/quality control, approves baseline capital cost and schedule, and approves the construction bid package.	4
Design Consultant	Develops the design based on the defined requirements and prepares the construction bid package. Establishes design criteria and assesses and addresses project risks. Performs conceptual design and project development in support of environmental clearance documents. Performs technical studies, develops engineering criteria, and conducts value engineering and risk assessment. Estimates capital cost and construction schedule throughout the design process. Prepares engineering drawings and specifications and coordinates design submissions and reviews. Develops and applies internal quality assurance/quality control criteria for the review of deliverables. Updates capital cost estimates and construction schedule throughout the design process and produces final design drawings and specifications for the construction bid package.	4
Construction Manager (CM)	Acts as the subrecipient's representative with the contractors. Provides construction oversight of the work performed by the contractors. Observes the work to verify that it conforms to the requirements of the contract documents. Recommends the payment of progress payments and partners with the contractors with the shared goal of a successfully completed project. Note: Local transit agency staff may fill the CM role.	5
Colorado Professional Engineer (PE)	If the construction management team does not include a licensed PE, a separate, external Colorado PE would need to be hired.	5
Owner's Representatives	Local transit agencies may have policies about hiring an Owner's Representative. Note: The Consultant CM and the Owner's Representative are usually the same person or from the same consultant firm. If a subrecipient has staff with both time and expertise, then that employee can act as the CM (or Owner's Representative, depending on the title assigned to that individual).	5



## Preferred Communication Protocols

DTR is the CDOT division that works with rural transit agencies to plan, fund, and coordinate to complete transit capital facility projects in Colorado. Post-award DTR staff contacts for rural transit capital projects are listed in the following table.

Name	Title	Email
Paul DesRocher	Director - Transit and Rail	<a href="mailto:Paul.desrocher@state.co.us">Paul.desrocher@state.co.us</a>
Jan Rowe	Assistant Director - Planning & Operations	<a href="mailto:Jan.rowe@state.co.us">Jan.rowe@state.co.us</a>
Brian Saller	Senior CIP Planner	<a href="mailto:Brian.saller@state.co.us">Brian.saller@state.co.us</a>
Emily Barden	Transit Planner & STIP Coordinator	<a href="mailto:Emily.barden@state.co.us">Emily.barden@state.co.us</a>
George Gromke	Transit Planner	<a href="mailto:George.gromke@state.co.us">George.gromke@state.co.us</a>
Emily Crespin	Assistant Director - Transit Grants Program	<a href="mailto:Emily.crespin@state.co.us">Emily.crespin@state.co.us</a>
Audrey Dakan	Pre-Award Unit Manager and Senior COTRAMS Administrator	<a href="mailto:Audrey.dakan@state.co.us">Audrey.dakan@state.co.us</a>
Shilpa Kulkarni	Capital Specialist	<a href="mailto:Shilpa.kulkarni@state.co.us">Shilpa.kulkarni@state.co.us</a>
TJ Burr	Grants Manager & Region 5 Liaison	<a href="mailto:tj.burr@state.co.us">tj.burr@state.co.us</a>
Erin Kelican	Grants Manager	<a href="mailto:Erin.kelican@state.co.us">Erin.kelican@state.co.us</a>
Glenn Krause	Grants Manager	<a href="mailto:Glenn.krause@state.co.us">Glenn.krause@state.co.us</a>
Robin Rocke	Grants Manager	<a href="mailto:Robin.rocke@state.co.us">Robin.rocke@state.co.us</a>
TBD	Region 1 Liaison	TBD
Scott Skinner	Region 2 Liaison	<a href="mailto:Scott.skinner@state.co.us">Scott.skinner@state.co.us</a>
Angie Hainer	Region 3 Liaison	<a href="mailto:Anjie.hainer@state.co.us">Anjie.hainer@state.co.us</a>
TBD	Region 4 Liaison	TBD
Cody Hedges	Rail and Transit Planner	<a href="mailto:Cody.hedges@state.co.us">Cody.hedges@state.co.us</a>
Kelly Whaley	Transit Project Compliance and Nontraditional Project Innovation Specialist	<a href="mailto:kelly.whaley@state.co.us">kelly.whaley@state.co.us</a>



## Acronyms

Acronym	Definition
A&E	Architecture & Engineering
AASHTO	American Association of State Highway and Transportation Officials
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act of 1990
ADR	Alternative Dispute Resolution
APE	Area of Potential Effects
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASTM	American Society for Testing and Materials
CDs	Construction Documents
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CE	Categorical Exclusion
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CIG	Capital Investment Grants
CM	Construction Manager
CO	Colorado
CoO	Certificate of Occupancy
COTRAMS	Colorado Transit and Rail Awards Management System
CPW	Colorado Parks and Wildlife
CRBRC	Civil Rights and Business Resource Center
CRS	Colorado Revised Statutes
CTE	Clean Transit Enterprise
CUF	Commercially Useful Function
CWA	Clean Water Act
DBE	Disadvantaged Business Enterprise
DOI	U.S. Department of the Interior
DOL	Department of Labor
DOT/ USDOT	Department of Transportation
DSS	Decent, Safe and Sanitary
DTR	(CDOT) Division of Transit and Rail
EA	Environmental Assessment
ECHO/ ECHO2	(FTA) Electronic Clearinghouse Operation
EEO	Equal Employment Opportunity
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
EPLS	Excluded Parties List System
ESA	Environmental Site Assessment
FASTER	Funding Advancements for Surface Transportation and Economic Recovery Act



Acronym	Definition
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMCSA	Federal Motor Carrier Safety Administration
FMV	Fair Market Value
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
FTA CXXXX.XX	Federal Transit Administration Circular #
FY	Fiscal Year
HBU	Highest and Best Use
HLR	Housing of Last Resort
HVAC	Heating, Ventilation, Air Conditioning
IAEC	Inter-Agency Evaluation Committees
IAT	Independent Assurance Testing
ICE	Independent Cost Estimate
IEEE	Institute of Electrical and Electronics Engineers
iPaC	U.S. Fish and Wildlife Service Information, Planning and Consultation
ISI	Institute for Sustainable Infrastructure
LEED	Leadership in Energy and Environmental Design
LEP	Limited English Proficiency
LPA	Locally Preferred Alternative
MBTA	Migratory Bird Treaty Act
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act
NOFA/O	Notice of Funding Availability/Opportunity
NOI	Notice of Intent
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTD	National Transit Database
NTP	Notice to Proceed
O&M	Operations and Maintenance
OMB/OFMB	Office of Financial Management and Budget
OSHA	Occupational Safety and Health Administration
OWJ	Official with Jurisdiction
PA	Purchase Authorization
PCR	Procurement Concurrent Request
PE	Professional Engineer
PMC	Program Management Consultant
PMP	Project Management Plan
PRD	Project Requirements Definition
PTASP	Public Transportation Agency Safety Plan





Acronym	Definition
QA	Quality Assurance
QC	Quality Control
QMP	Quality Management Plan
R#	Region #
RAISE	Rebuilding American Infrastructure with Sustainability and Equity
RAMP	Real Estate Acquisition Management Plan
RFP	Request for Proposal
ROD	Record of Decision
ROW	Right-of-Way
RTP	Regional Transportation/Transit Plan
SAFETEA_LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SAM	System for Awards Management
SAP	Systems Applications and Products (CDOT's Financial System)
SAVE	Society of American Value Engineering
SHPO	State Historic Preservation Officer
SIR	Subrecipient Information Request
SMP	(CDOT) Statewide Management Plan
SOP	Standard Operating Procedures
SOW	Statement of Work
SSCP	Safety and Security Certification Plan
SSCVR	Safety and Security Certification Verification Report
STIP	Statewide Transportation Improvement Program
T&E	Threatened and Endangered
THPO	Tribal Historic Preservation Officer
TPR	Transportation Planning Region
TrAMS	Transit Award Management System
TVM	Transit Vehicle Manufacturer
UP	DBE Utilization Plan
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USGBC	United States Green Building Council
USGS	U.S. Geological Survey
USPAP	Uniform Standards of Professional Appraisal Practice
UZA	Urbanized Area
WOTUS	Waters of the United States



## Definitions

Term	Definition
Award	<p>Award means the federal assistance FTA has provided to the Recipient to carry out the Scope of Work that FTA has approved. The Award also includes the requirements of all documents, terms, and conditions incorporated by reference and made part of the Grant or Cooperative Agreement.</p> <p>Source: FTA Circular 5010.1E</p>
Capital Project	<p>Capital Project means a category of reimbursable projects that includes all activities identified in 49 USC § 5302(3).</p> <p>Source: FTA Circular 5010.1E</p>
Comparable Replacement Dwelling	<p>The term “Comparable Replacement Dwelling” means a dwelling that is:</p> <ul style="list-style-type: none"> <li>i. Decent, safe and sanitary as described in paragraph <a href="#">24.2(a)(8)</a> of this section;</li> <li>ii. Functionally equivalent to the displacement dwelling. The term “functionally equivalent” means that it performs the same function and provides the same utility. While a comparable replacement dwelling need not possess every feature of the displacement dwelling, the principal features must be present. Generally, functional equivalency is an objective standard, reflecting the range of purposes for which the various physical features of a dwelling may be used. However, in determining whether a replacement dwelling is functionally equivalent to the displacement dwelling, the Agency may consider reasonable trade-offs for specific features when the replacement unit is equal to or better than the displacement dwelling (See appendix A, <a href="#">§ 24.2(a)(6)</a>);</li> <li>iii. Adequate in size to accommodate the occupants;</li> <li>iv. In an area not subject to unreasonable adverse environmental conditions;</li> <li>v. In a location generally not less desirable than the location of the displaced person's dwelling with respect to public utilities and commercial and public facilities, and reasonably accessible to the person's place of employment;</li> <li>vi. On a site that is typical in size for residential development with normal site improvements, including customary landscaping. The site need not include special improvements such as outbuildings, swimming pools, or greenhouses. (See also <a href="#">§ 24.403(a)(2)</a>);</li> <li>vii. Currently available to the displaced person on the private market except as provided in <a href="#">paragraph (a)(6)(ix)</a> of this section (See appendix A, <a href="#">§ 24.2(a)(6)(vii)</a>); and</li> <li>viii. Within the financial means of the displaced person: <ul style="list-style-type: none"> <li>A. A replacement dwelling purchased by a homeowner in occupancy at the displacement dwelling for at least 180 days prior to initiation of negotiations (180-day homeowner) is considered to be within the homeowner's financial means if the homeowner will receive the full price differential as described in <a href="#">§ 24.401(c)</a>, all increased mortgage interest costs as described at <a href="#">§ 24.401(d)</a> and all incidental expenses as described at <a href="#">§ 24.401(e)</a>, plus any additional amount required to be paid under <a href="#">§ 24.404</a>, Replacement housing of last resort.</li> <li>B. A replacement dwelling rented by an eligible displaced person is considered to be within his or her financial means if, after receiving rental assistance under this part, the person's monthly rent and estimated average monthly utility costs for the replacement dwelling do not exceed the person's base monthly rental for the displacement dwelling as described at <a href="#">§ 24.402(b)(2)</a>.</li> <li>C. For a displaced person who is not eligible to receive a replacement housing payment because of the person's failure to meet length-of-occupancy requirements, comparable replacement rental housing is considered to be within the person's financial means if an Agency pays that portion of the monthly housing costs of a replacement dwelling which exceeds the person's base monthly rent for the displacement dwelling as described in <a href="#">§ 24.402(b)(2)</a>. Such rental assistance must be paid under <a href="#">§ 24.404</a>, Replacement housing of last resort.</li> </ul> </li> <li>ix. For a person receiving government housing assistance before displacement, a dwelling that may reflect similar government housing assistance. In such cases any requirements of the government housing assistance program relating to the size of the replacement dwelling shall apply. (See appendix A, <a href="#">§ 24.2(a)(6)(ix)</a>.)</li> </ul> <p>Source: 49 CFR 24.2(a)(6)</p>



Term	Definition
Decent, Safe and Sanitary Dwelling	<p>The term “Decent, Safe, and Sanitary Dwelling” means a dwelling that meets local housing and occupancy codes. However, any of the following standards that are not met by the local code shall apply unless waived for good cause by the Federal Agency funding the project. The dwelling shall:</p> <ul style="list-style-type: none"> <li>i. Be structurally sound, weather tight, and in good repair;</li> <li>ii. Contain a safe electrical wiring system adequate for lighting and other devices;</li> <li>iii. Contain a heating system capable of sustaining a healthful temperature (of approximately 70 degrees) for a displaced person, except in those areas where local climatic conditions do not require such a system;</li> <li>iv. Be adequate in size with respect to the number of rooms and area of living space needed to accommodate the displaced person. The number of persons occupying each habitable room used for sleeping purposes shall not exceed that permitted by local housing codes or, in the absence of local codes, the policies of the displacing Agency. In addition, the displacing Agency shall follow the requirements for separate bedrooms for children of the opposite gender included in local housing codes or in the absence of local codes, the policies of such Agencies;</li> <li>v. There shall be a separate, well lighted and ventilated bathroom that provides privacy to the user and contains a sink, bathtub or shower stall, and a toilet, all in good working order and properly connected to appropriate sources of water and to a sewage drainage system. In the case of a housekeeping dwelling, there shall be a kitchen area that contains a fully usable sink, properly connected to potable hot and cold water and to a sewage drainage system, and adequate space and utility service connections for a stove and refrigerator;</li> <li>vi. Contains unobstructed egress to safe, open space at ground level; and</li> <li>vii. For a displaced person with a disability, be free of any barriers which would preclude reasonable ingress, egress, or use of the dwelling by such displaced person. (See appendix A, § 24.2(a)(8)(vii).)</li> </ul> <p>Source: 49 CFR 24.2(a)(8)</p>
Direct Recipient	<p>Direct Recipient means an entity that receives funding directly from FTA. Source: FTA Circular 5010.1E</p>
Displaced Person	<ul style="list-style-type: none"> <li>i. General. The term “Displaced Person” means, except as provided in paragraph (a)(9)(ii) of this section, any person who moves from the real property or moves his or her personal property from the real property. (This includes a person who occupies the real property prior to its acquisition, but who does not meet the length of occupancy requirements of the Uniform Act as described at § 24.401(a) and § 24.402(a)):</li> <li>A. As a direct result of a written notice of intent to acquire (see § 24.203(d)), the initiation of negotiations for, or the acquisition of, such real property in whole or in part for a project;</li> <li>B. As a direct result of rehabilitation or demolition for a project; or</li> <li>C. As a direct result of a written notice of intent to acquire, or the acquisition, rehabilitation or demolition of, in whole or in part, other real property on which the person conducts a business or farm operation, for a project. However, eligibility for such person under this paragraph applies only for purposes of obtaining relocation assistance advisory services under § 24.205(c), and moving expenses under § 24.301, § 24.302 or § 24.303.</li> </ul> <p>Source: 49 CFR 24.2(a)(9)(i)</p>
Equipment	<p>Equipment means an article of nonexpendable, tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost that equals or exceeds the lesser of the capitalization level established by the recipient or subrecipient for financial statement purposes, or \$5,000. Equipment includes rolling stock, computing devices, information technology systems, and all other such property used in the provision of public transit service. Source: FTA Circular 5010.1E</p>
Facility, or Capital Facility	<p>Facilities mean all or any portion of a building or structure that is used in providing public transportation, including related roads, walks, parking lots and parking facilities. Source: FTA Circular 5010.1E</p>



Term	Definition
Federal Assistance	<p>Federal Assistance means federal funding that recipients and subrecipients receive or administer under Grant or Cooperative Agreements in the form of: (1) federal cash contributions, (2) non-cash contributions or donations of property (including donated surplus property), (3) direct appropriations, and (4) other financial assistance (except assistance listed in paragraph (2) of this definition).</p> <p>For 2 CFR part 200, subpart F—Audit Requirements, federal assistance also includes assistance that non-federal entities receive or administer in the form of: (1) loans, (2) loan guarantees, (3) interest subsidies, and (4) insurance. Federal assistance does not include amounts received as reimbursement for services provided to individuals as Medicare or Medicaid described in 2 CFR § 200.502(h) and (i). Federal assistance differs from the type of funding used for federal procurement contracts.</p> <p>Source: FTA Circular 5010.1E</p>
Federal Award	<p>Federal Award, depending on the context, has one of the following meanings: (1) the federal assistance that a recipient receives directly from a federal awarding agency or indirectly from a pass-through entity, as described in 2 CFR § 200.74, or (2) the FTA Award as described in the Grant or Cooperative Agreement setting forth the terms and conditions. A federal Award does not include other contracts that a federal agency uses to buy goods or services from a contractor or a contract to operate Federal Government-Owned Contractor Operated facilities (GOCOs). See also definitions of Federal Assistance, Grant Agreement, and Cooperative Agreement.</p> <p>Source: FTA Circular 5010.1E</p>
Grant or Grant Agreement	<p>Grant or Grant Agreement means a legal document in which FTA provides federal assistance to a recipient, consistent with 31 USC §§ 6302 and 6304, to carry out public purpose as authorized in 31 USC § 6101(3), and (1) not to be used to acquire property or services for FTA’s or the pass-through entity’s direct benefit or use, (2) is distinguished from a Cooperative Agreement in that it does not provide for substantial involvement between FTA and the recipient or pass-through entity in carrying out the activity contemplated by the Grant Agreement, and (3) does not include an agreement that provides only direct United States Government cash to an individual, a subsidy, a loan, a loan guarantee, or insurance.</p> <p>Source: FTA Circular 5010.1E</p>
Grantee	<p>Grantee means a recipient to which FTA Awards a grant directly to support a specific project in which FTA does not take an active role or retain substantial control, as set forth in 31 USC §§ 6302 and 6304. In this circular FTA uses the term “grantee” interchangeably with “recipient,” “grant recipient,” and “direct recipient.”</p> <p>Source: FTA Circular 5010.1E</p>
Highest and Best Use	<p>The reasonably probable and legal use of vacant land or an improved property that is physically possible, appropriately supported, financially feasible and that results in the highest value.</p> <p>Source: The Appraisal Institute</p>
Local Agency	<p>The term “Local Agency” refers to a public agency, local public agency, established publicly owned organization, or private interest that can legally enter into an agreement with CDOT for a transportation project.</p> <p>Source: 2022 Local Agency Project Desk Reference</p>
Major Capital Project	<p>Major Capital Project means a project that: (1) involves the construction of a new fixed guideway or extension of an existing fixed guideway, (2) involves the rehabilitation or modernization of an existing fixed guideway with a total project cost of \$100 million or more, or (3) a corridor-based rapid transit system with a total project cost of \$100 million or more, or (4) a project that the Federal Transit Administrator determines is a major capital project because the project management oversight program will benefit the recipient or FTA. Typically, a major capital project means a project that is generally expected to have a total project cost of \$100 million or more to construct, is not exclusively for the routine acquisition, maintenance, or rehabilitation of vehicles or other rolling stock, involves new technology, is unique for the recipient, or involves a recipient whose past experience indicates the appropriateness of the extension of the project management oversight program.</p> <p>Source: FTA Circular 5010.1E</p>



Term	Definition
Real Property	Real Property is land and anything permanently affixed to the land, such as buildings, fences, and those things attached to the buildings that, if removed, would deface the structure or integrity of the building, such as plumbing, heating fixtures, etc. Source: FTA Circular 5010.1E
Recipient	Recipient means an entity that is awarded funds directly from FTA to carry out an activity under a federal program. For purposes of this circular, a recipient can be a grant recipient, grantee, or a direct recipient but can also be a recipient of federal assistance through a cooperative agreement. The term recipient does not include subrecipient. Source: FTA Circular 5010.1E
Severely Damaged	Damage involving serious adverse changes, disruption or harm to any element of the environment, including grave impacts on human life, or natural, cultural or economic resources Source: <a href="https://www.lawinsider.com/dictionary/severe-damage#:~:text=Severe%20Damage%20means%20damage%20which,Sample%201">https://www.lawinsider.com/dictionary/severe-damage#:~:text=Severe%20Damage%20means%20damage%20which,Sample%201</a>
Subrecipient	Subrecipient means an entity that receives a subaward (or Subagreement) from a pass-through entity to carry out part of a federal program but does not include an individual that is a beneficiary of such program. A subrecipient may also be a recipient of other federal Awards directly from a federal awarding agency. Source: FTA Circular 5010.1E
Third-Party Contract	Third-Party Contract means a legal instrument by which a recipient or subrecipient purchases property or services needed to carry out the Grant or Cooperative Agreement. This does not include an instrument describing a transaction that meets the definition of a federal Award, Grant, Cooperative Agreement, Subaward, or Subagreement. Source: FTA Circular 5010.1E
Third-Party Contractor	Third-party Contractor means an entity that receives a third-party contract, as defined in the definition of “Third-Party Contract” above. Source: FTA Circular 5010.1E
Uneconomic Remnant	The term “Uneconomic Remnant” means a parcel of real property in which the owner is left with an interest after the partial acquisition of the owner’s property, and which the Agency has determined has little or no value or utility to the owner. Source: 49 CFR 24.2(a)(27)
Waiver Valuation	The term “Waiver Valuation” means the valuation process used and the product produced when the Agency determines that an appraisal is not required, pursuant to § 24.102(c)(2) appraisal waiver provisions. Source: 49 CFR 24.2(a)(33)



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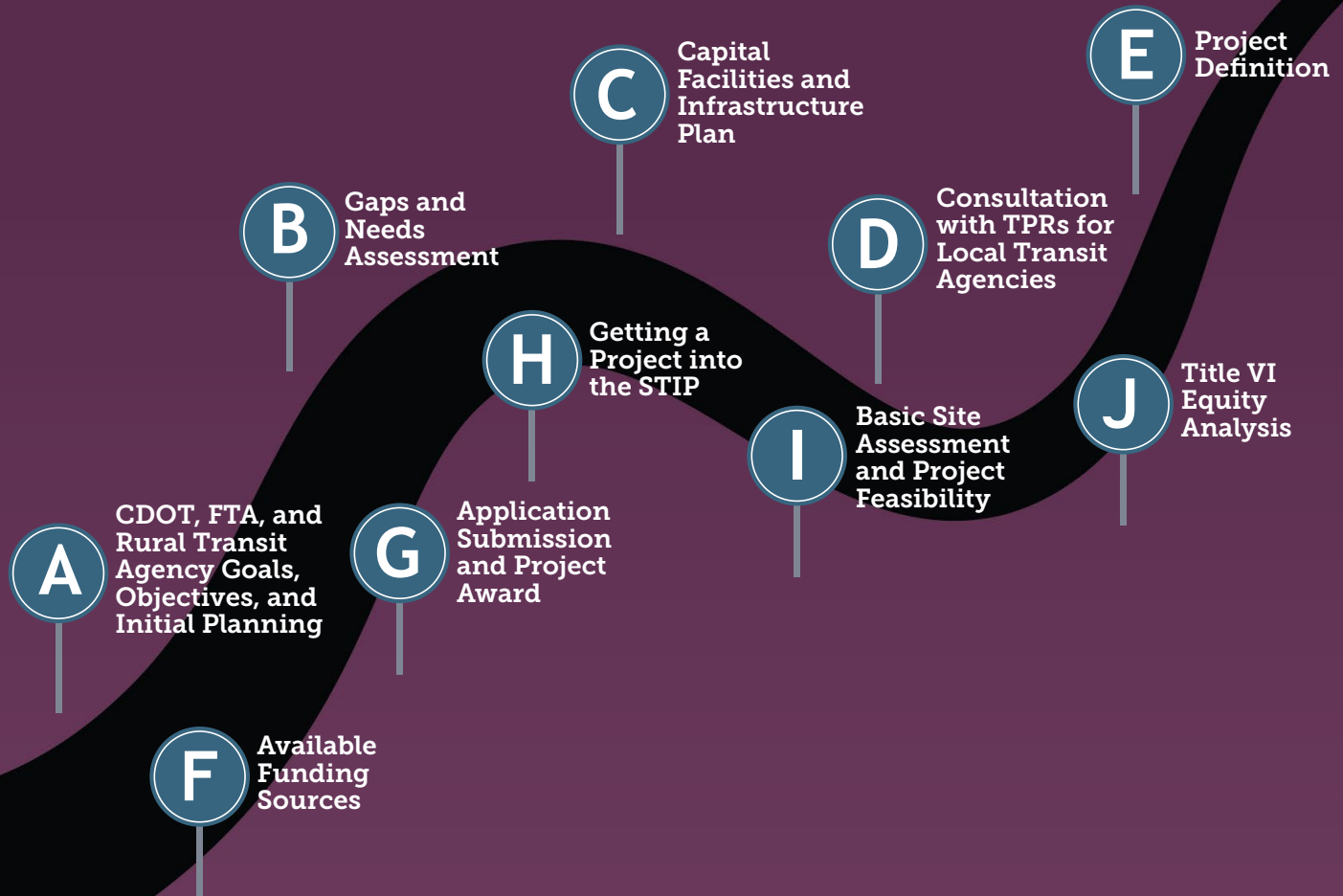
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# 1A CAPITAL PROJECTS PLANNING & INITIATION



## 1A. Capital Projects Planning and Initiation – Executive Summary

Capital Projects Planning and Initiation is the process of determining what capital projects a local (rural) transit agency may need; whether projects align with local, regional, and state goals; if projects are feasible; and whether projects can be funded. Project Initiation also involves budgeting, Statewide Transportation Improvement Program (STIP) inclusion, award, and project and grant setup. The Colorado Department of Transportation (CDOT) has its own process for determining whether a project should be prioritized at a statewide level (and thus funded via the STIP). Rural transit agencies are encouraged to participate in this process, in coordination with their Transportation Planning Regions (TPRs), Metropolitan Planning Organizations (MPOs), as applicable, and other local entities such as towns, cities, and regional transit providers.

The first step in the process involves the local transit agency setting goals and objectives for how they want their transit system to perform and operate. Goals and objectives can be broad or specific but should ultimately set a framework in which to identify and prioritize projects, including capital facilities and infrastructure. Developing a framework helps agencies create a prioritized list of projects, also known as a Capital Improvement Plan. Each TPR has a Regional Transit/Transportation Plan (RTP) that includes the prioritized transit projects for the region. TPRs can also prioritize projects to advance them into the STIP.

CDOT also has a statewide vision and associated goals and objectives for the state's transportation system, identified in the Statewide Transportation Plan and Statewide Transit Plan. CDOT then integrates these priorities into their 10-Year Vision Plan, which sets the vision for transportation across Colorado and explicitly identifies projects that support state goals in each CDOT region. The 10-Year Vision Plan establishes a Strategic Project Pipeline, which includes transportation and transit projects identified throughout the planning process, along with associated timelines and funding sources. **Section 1A.A** describes these plans in more detail, while **Resource 1A-A** provides a link to these plans.

Once gaps and needs are identified in local and regional planning documents, CDOT's Division of Transit and Rail (DTR) puts out a call for projects from local and regional transit agencies and partners. A local transit agency can apply for federal and state funds through various applications depending on the planned capital project. Once DTR selects projects and awards funding, the project must go through initial grant awarding and management steps and must be added to the STIP; at this point, the local transit agency becomes a subrecipient of Federal Transit Administration (FTA) funds. This step involves DTR and FTA concurrence that both the applicant (the local agency) and the project are eligible for funding. Once the project is placed in the STIP, a local DTR planning unit (Grants Manager) assists the subrecipient with grant management and administration. The Grants Manager serves as the first point of contact for local transit agencies regarding project questions and checkpoints.

After initial planning steps are complete, the local transit agency develops a request for proposal (RFP) for any work that must be outsourced. An RFP should include, at a minimum, a schedule, the work that needs to be performed (scope of work [SOW]), a cost/fee breakdown, how the contract will be awarded, the timeframe in which the contract stands (and when it expires), Disadvantaged Business Enterprise (DBE) goals, proposal due date, and any specific proposal instructions. An RFP must also include applicable federal requirements notices. **Chapter 1B Project Lifecycle Reporting and Requirements** provides additional information on RFPs and federal requirements.

The planning steps in this chapter do not sit in a void; a local transit agency must consider both the environmental clearance (National Environmental Policy Act [NEPA]) and design processes early on in planning efforts. While both NEPA and design have their own chapters in this manual (**Chapters 2 and 4**, respectively), a local transit agency must conduct a basic site assessment, understand project feasibility, and complete a Title VI Equity Analysis. These three steps provide crucial information needed for both NEPA and design and can help a local transit agency understand the complexities of their project early on. From there, a local transit agency should be mindful of any grant requirements and begin preliminary design and the FTA Region 8 NEPA process.

## 1A.A CDOT, FTA, and Rural Transit Agency Goals, Objectives, and Initial Planning

CDOT, FTA, and Colorado's rural transit agencies all have unique goals, objectives, and planning processes. Having a clear vision that aligns with local, regional, state, and federal goals helps get a project awarded (and, therefore, included in the STIP) and budgeted (via CDOT or FTA funds).

CDOT sets goals, objectives, and a vision in the long-range **Statewide Transportation Plan, Statewide Transit Plan, 10-Year Vision Plan, and RTPs**; these plans are all listed in **Resource 1A-A**. The **Statewide Transit Plan**, which is a part of the Statewide Transportation Plan, establishes a framework for creating an integrated statewide transit system and supporting transit investments. CDOT's 10-Year Vision Plan identifies projects to be funded in the next 10 years (and beyond, in some cases). The 10-Year Vision Plan also outlines goals for statewide transportation and lists projects and progress on improvements. CDOT's RTPs are individualized resources for each rural TPR (10 total). The RTPs are updated every four to five years and serve as the Coordinated Public Transit and Human Services Transportation Plan for each respective TPR. Each TPR uses their plan to prioritize transit investments and guide the long-term implementation of their identified vision, goals, and projects.

CDOT's 10-Year Vision Plan then sets the parameters for the Strategic Project Pipeline, which includes roadway, bridge, multimodal, and transit projects identified throughout the planning process based on data analysis, public engagement, and stakeholder input in each planning region across the state. The Strategic Project Pipeline is continuously updated, in coordination with TPR members and transit agencies, to ensure that funding needs are met and projects are advanced through the planning process. As of January 2024, the Strategic Project Pipeline is organized into three planning horizons: Fiscal Year (FY) 19-22, FY 23-26, and FY 27+. With Colorado's comprehensive multimodal approach to statewide transportation planning, implementation of strategic transit projects is critical for the state to reach its Mobility, Safety, and Asset Management goals and overarching statewide transportation vision.

**Worth Noting – Local Resources:** It is critical that local transit agencies participate in their regional transportation and transit planning processes as these processes identify projects and funding priorities for each region. The planning process occurs every four to five years.

FTA also has resources for local planning efforts, as listed in **Resource 1A-A**. For example, FTA's **Model Long-Range Transportation Plans: A Guide for Performance-Based Planning** features a checklist of considerations when developing goals and objectives. While the checklist is framed in a national context and is more specific to transportation planning, some of the considerations may be useful to local transit agencies. In addition, FTA developed a **Construction Project Management Handbook** in 2016 to provide guidance for federally funded projects.

A local transit agency can use the regional transit vision, goals, and objectives for their agency or create a local plan more tailored to the unique needs of their agency and community. Key steps in developing these goals, objectives, and a vision include:

- Step 1. Review the local transportation/transit context: What local transit gaps and needs currently exist?
- Step 2. Consider developing a vision statement to inform the development of goals and objectives.
- Step 3. Use public and stakeholder engagement to understand what is important, what the community perceives to be most pressing, and what the community desires for the future.
- Step 4. Review other relevant local or regional plans, such as CDOT's RTPs.
- Step 5. Review statewide plans, such as CDOT's Statewide Transit Plan and the 10-Year Vision Plan.
- Step 6. Develop supporting goals and objectives.



## 1A.B Gaps and Needs Assessment

Identifying gaps and needs at the local agency level is key to determining what capital improvements are needed to ensure an efficient, safe, and accessible transit network in the future. Capital improvement projects that fill these gaps and address the needs should also meet the goals and objectives set forth by the agency in **Section 1A.A**.

Key steps needed to identify gaps and needs include:

- Step 1. Determine if a list of gaps and needs already exists.
  - ▶ CDOT updated their 2045 Statewide Transit Plan in 2020, which lists known gaps and needs within the state. The Statewide Transit Plan is due for update in 2024. CDOT's RTPs contain information on gaps and needs for each TPR. A local transit agency should consult these resources first to help streamline any effort to identify gaps and needs. Some transit agencies may also have local plans that inform gaps and needs such as short- or long-range transit plans, community comprehensive plans, and/or transportation plans.
- Step 2. Confirm documented gaps and needs and/or identify existing transit gaps and needs with the following considerations in mind (NOTE: This is not an exhaustive list but a place to start):
  - ▶ **Geographic**
    - Do certain areas within a service boundary lack sufficient service?
    - Do vehicles operate too far from their existing maintenance facility/yard resulting in a significant amount of deadhead?
    - Are stops too far apart? Is service limited by trip length or headway considerations?
    - Is transit serving historically underrepresented populations? Are there additional activity centers/communities that should be served?
  - ▶ **Service Provision**
    - Is there a need for increased service frequency and/or service area expansion?
    - Has ridership recently increased? Has the population of an area recently increased? Is there new demand for transit as a result?
  - ▶ **Technology**
    - Is technology in existing vehicles and/or facilities outdated, preventing operational or maintenance efficiencies from being made?

The Northwest Colorado Council of Governments Transportation Gap Analysis Assessment listed and linked in **Resource 1A-A** is an example of a completed gaps and needs assessment report.

**Worth Noting – Outreach:** Public engagement can help create a more comprehensive list of known gaps and needs as stakeholders and community members may reveal gaps and needs not previously identified by a local transit agency.

## 1A.C Capital Facilities and Infrastructure Plan

Capital facilities and infrastructure planning provides a blueprint for transit improvements and helps an agency plan for transit facilities. This planning effort also guides an agency on how to prioritize and fund capital improvement projects. A local transit agency may opt to have their own plan related to when a capital facility is funded or constructed. Other agencies rely on a RTP to detail their capital facility needs; an effort coordinated by each TPR in conjunction with DTR/CDOT. Regardless, a capital facility project **must** be listed in a plan to be funded. **Resource 1A-A** provides a link to more information on capital facilities and infrastructure plans.

- Step 1. Consider the following metrics in project prioritization, either in a capital facilities plan or in the RTP. TPRs can establish their own ranking process for projects that they prioritize for funding.
- ▶ Have community members and/or stakeholders recognized or formerly petitioned for the project?
  - ▶ Does the project meet a perceived community need?
  - ▶ Have local and/or regional planning efforts previously identified the project? Has the project previously been identified for STIP inclusion?
  - ▶ Does the project result in maximum benefit to the community from the investment dollar?
  - ▶ Is the project in line with community goals and plans, such as climate action plans, RTP, etc.?
  - ▶ How quickly does the project need to be implemented to maximize value?
  - ▶ Does the project add value to agency operation by improving or expanding existing services?

**Worth Noting – Agency Values and Priorities:** Each agency should develop their own scoring criteria to ensure projects selected through this process meet their goals and needs.

- Step 2. Weight each category and tabulate the score. Determine what score range constitutes prioritization (for example, projects scoring 25 to 30 out of 30 points will be further considered).
- Step 3. Determine initial project costs.
- Step 4. Determine funding sources for the project. Determine if a proposed capital project qualifies for available state or federal funds. **Section 1A.G.2** provides more details on this process.

## 1A.D Consultation with TPRs for Local Transit Agencies

Consulting with TPRs is an essential step in project development and funding. Coordinating with TPRs to assess project needs and feasibility is crucial in garnering support for a project at the local, regional, and state level.

- Step 1. Identify your local DTR Transit Programs. Refer to the **Colorado TPRs 2022** and **RTPs** linked in **Resource 1A-A** to help identify your TPR.
- Step 2. Discuss identified gaps and needs and/or identified capital facilities projects, as applicable, with TPR staff.
  - ▶ Do the identified gaps and needs meet local, regional, and statewide goals and objectives?
  - ▶ Does the TPR (and DTR, by extension) concur with the need for the project?
  - ▶ Has your local TPR/DTR identified any concerns with the project?
- Step 3. Work with the CDOT staff identified in **Section 1A.D Step 1** to determine if the identified project meets local and regional goals and objectives and is physically/financially feasible.

## 1A.E Project Definition

Project definition is the process of determining what a project is. Depending on the local transit agency or anticipated project complexity, a project definition can be a few sentences or several detailed paragraphs. Regardless of the length and level of detail, the project definition should cover the following and be heavily informed by the information in **Sections 1A.A through 1A.D**:

- ▶ Why is the facility needed? What problems or deficiencies will it solve?
- ▶ What is the anticipated action: Is a capital facility being constructed? Is a building being refurbished to now serve as a transit facility?
- ▶ What essential function(s) does the facility need to serve?
- ▶ What will constructing a transit facility accomplish?
- ▶ What outcomes are expected after the facility is constructed, commissioned, and operational? The local transit agency must consider facility lifespan and plan for the facility to serve its intended purpose for several decades.

Washington State's Office of Financial Management released guidelines titled **Capital Projects Definition and Considerations**, describing how agencies in Washington can develop a capital project definition. While most of the information is not directly relevant to this manual, Part 2.3 provides an example of a project definition as listed in **Resource 1A-A**.

## 1A.F Available Funding Sources

Several funding sources are available for local transit projects. A local transit agency should investigate both federal and statewide funding sources to determine the best sources. Federal funding sources are broken down into formula and discretionary (competitive) grants. **Table 1A-1** highlights formula funds. **Table 1A-2** lists discretionary (competitive) sources that can fund the many phases of capital projects (i.e., planning, construction). **Table 1A-3** lists state sources, some of which are more relevant to capital facilities than others. Local transit agencies need to conduct their own research to determine agency and project eligibility. **Resource 1A-A** provides more information on federal formula and discretionary (competitive) funding sources, as well as state funding sources.

**STOP! All projects must be included in CDOT’s State Transportation Improvement Program (STIP) before grant award.**

A full list of eligibility requirements for the formula funding programs listed in **Table 1A-1** is found in the FTA Circulars hyperlinked under “Source.” Additional information for federal (FTA) discretionary and state funding programs can be found in the hyperlinked under “Source” in **Table 1A-2** and **Table 1A-3**.

**Table 1A-1. Federal Formula Funds**

Source	Description
<a href="#">5304 Statewide Planning</a>	Provides planning funds for multimodal transportation planning; long-range plans and short-range planning; and transit-related support activities, such as transit planning, technical assistance, route planning, research, and demonstration projects. FTA Section 5304 funds are available for planning projects in rural areas and for statewide projects and can be used to fund NEPA and design activities related to these projects.
<a href="#">5310 Enhanced Mobility of Seniors and Individuals with Disabilities</a>	Provides funds to improve mobility for seniors and individuals with disabilities by removing barriers to transportation service and expanding transportation mobility options. The program supports transportation services planned, designed, and carried out to meet the special transportation needs of seniors and individuals with disabilities in all areas—large urbanized (over 200,000), small urbanized (50,000 to 200,000), and rural (under 50,000). Eligible projects include both traditional capital investment and nontraditional investment beyond the Americans with Disabilities Act (ADA) complementary paratransit services. Projects must be open to the public, including seniors and individuals with disabilities. These funds are not intended for client-based services that serve only a given customer base.
<a href="#">5311 Formula Grants for Nonurbanized/Rural Areas</a>	Provides funds for any capital purpose eligible under 49 United States Code 5302(a)(1) for projects in rural and small urban areas (under 50,000 population), including activities such as vehicle replacements, facilities renovation or construction, preventive maintenance, and mobility management. A state may use up to 15 percent for program administration but must use at least 15 percent of the apportionment to support intercity bus service unless the governor has certified that the intercity bus needs of the state are adequately met, after consultation with intercity bus providers (Section 5311(f)).
<a href="#">5339(a) Bus and Bus Facilities</a>	Provides funding to states and transit agencies through a statutory formula to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities.

**Table 1A-2. Federal Discretionary Funds**

Source	Description
<a href="#">5339(b) Grants for Buses and Bus Facilities Programs</a>	Provides funding for capital projects to replace, rehabilitate, and purchase buses, vans, and related equipment and to construct bus-related facilities, including technological changes or innovations to modify low or no emission vehicles or facilities.
<a href="#">5339(c) Low or No Emission Grant Program</a>	Provides funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses, as well as the acquisition, construction, and leasing of required supporting facilities. Local transit agencies that intend to use 5339(c) funds must consider all fleet transition plan requirements.
<a href="#">Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Discretionary Grant Program</a>	Provides a unique opportunity for a department of transportation (DOT) to invest in road, rail, transit, and port projects that promise to achieve national objectives. RAISE eligibility requirements allow project sponsors at the state and local levels to obtain funding for multimodal, multijurisdictional projects that are more difficult to support through traditional DOT programs. RAISE can provide funding directly to any public entity, including municipalities, counties, port authorities, tribal governments, MPOs, or others in contrast to traditional federal programs that provide funding to specific groups of applicants (mostly state DOTs and transit agencies). This flexibility allows RAISE and traditional partners at the state and local levels to work directly with a host of entities that own, operate, and maintain much of the transportation infrastructure, but otherwise cannot turn to the federal government for support.

**Table 1A-3. State Funds**

Source	Description
<a href="#">Funding Advancements for Surface Transportation and Economic Recovery Act (FASTER) Transit Grant</a>	Provides local transit grants for statewide, interregional, and regional projects. DTR has competitively awarded \$5 million annually in local transit grants for statewide, interregional, and regional projects between FY 2010 and FY 2015. Approximately \$900,000 of these funds has been set aside for Transfort (Fort Collins) and Mountain Metro Transit (Colorado Springs). FASTER funds are competitive and allocated from the federal government to each state, and local recipients must provide a minimum 20 percent local match. Types of projects that have been awarded include the purchase or replacement of transit vehicles, construction of multimodal stations, and acquisition of equipment for consolidated call centers.
<a href="#">Clean Transit Enterprise (CTE) Zero Emission Vehicle (ZEV) Transition Planning Funds</a>	Funds and supports the replacement of existing gasoline and diesel public transit vehicles with electric motor vehicles, provides the associated recharging infrastructure for electric transit fleet motor vehicles, supports facility modifications that allow for the safe operation and maintenance of electric transit motor vehicles, and funds planning studies that enable transit agencies to plan for transit vehicle electrification. Funds are competitive and must be applied for.
<a href="#">SB-260</a>	Provides dedicated funding to preserve, improve, and expand existing transportation infrastructure; develop modernized infrastructure needed to support the widespread adoption of electric motor vehicles; and mitigate environmental and health impacts of transportation system use. Funds are competitive and must be applied for.

This manual focuses on funding sources for capital facilities in rural areas, which include FTA Sections 5310, 5311, and 5339(a) funds and state funding sources.

## 1A.F.1 FTA Section 5310 - Enhanced Mobility of Seniors and Individuals with Disabilities

### Program Purpose

FTA Section 5310 is a formula program that provides capital and operating assistance to states and designated recipients for services designed to improve mobility and meet the needs of seniors and persons with disabilities. Projects funded through this program must be targeted toward meeting the transportation needs of seniors and individuals with disabilities, although 5310-funded services may be used by the general public on an incidental basis. However, it is not sufficient that seniors and individuals with disabilities are included or assumed to be included among the people who will benefit from the project.

FTA 5310 funds are made available in three separate population categories: rural, small urban, and large urban. DTR administers funds for only rural and small urbanized areas. MPOs/Councils of Governments administer 5310 funds for large urbanized areas (UZAs). 5310 program legislation requires that at least 55 percent of 5310 funds be available for “traditional” Section 5310 projects (i.e., capital purchases and mobility management), while the remaining 45 percent can be used for other capital and operating projects previously associated with the New Freedom program.

The 5310 program also requires that projects funded through the program must be included in a coordinated public transit-human service transportation plan (coordinated plan).

### Eligibility

Eligible local transit agencies (subrecipients) of FTA Section 5310 funds are as follows:

- ▶ “Traditional” 5310 funds (e.g., Mobility Management and Capital projects)
  - A private nonprofit organization directly providing transportation services.
  - A local public body approved by the State (CDOT) to coordinate services for seniors and individuals with disabilities. Approval must be requested in advance and should demonstrate how the public body is coordinating with others in its area.

OR

- ▶ A local public body certifying that it serves a region where no nonprofit organization is available. Public bodies must seek this certification before applying and must demonstrate due diligence in attempting to identify any local private nonprofit entity that is or might be interested in providing services for seniors and individuals with disabilities.
- ▶ “Non-Traditional” Other 5310 funds (e.g., Operating projects):
  - A private nonprofit organization.
  - An operator of public transportation that receives a Section 5310 award indirectly through a recipient.

### Funding Details

CDOT, a direct recipient of FTA Section 5310 Rural funds, has the flexibility in how they select local transit agency (subrecipient) projects for funding, but CDOT’s decision process must be clearly noted in a state/program management plan. The selection process may be formula-based, competitive, or discretionary. Local transit agencies that are eligible for funds include local government authorities, private nonprofit organizations, and/or operators of public transportation.

[FTA Circular 9070.1G](#), which is available in **Resource 1A-A**, provides more information on Section 5310 Rural funds.



## 1A.F.2 FTA Section 5311 – Formula Grants for Rural Areas

### Program Purpose

Section 5311 funds provide capital, planning, and operating assistance to states to support public transportation with populations of less than 50,000.

### Eligibility

Local transit agencies that are eligible for FTA Section 5311 funds include federally recognized Indian Tribes or local government authorities, nonprofit organizations, and operators of public transportation. Eligible local transit agencies must also meet the following additional criteria:

- ▶ Operate a demand response and/or fixed-route service in rural areas of Colorado, clearly promoting the service as open to the public
- ▶ Sign annual Certifications and Assurances, certifying compliance with all applicable federal and state regulations
- ▶ Comply with federal drug and alcohol testing regulations and annual reporting requirements
- ▶ Create and/or maintain the following documents/policies/procedures:
  - Title VI plan
  - Limited English Proficiency (LEP) plan
  - Asset management plan
  - Service plan
  - Americans with Disabilities Act (ADA) plan
  - Department of Labor policies and procedures
  - Drug and alcohol policies and procedures
  - Procurement policies and procedures

### Funding Details

Section 5311 funds are available to states during the fiscal year of apportionment and two additional years. CDOT administers the funds to grant local transit agencies in accordance with the funding formula, which considers land area, population, revenue vehicle miles, and low-income individuals in rural areas. The federal share for capital projects is 80 percent.

[FTA Circular 9040.1G](#), which is available in **Resource 1A-A**, provides more information on Section 5311 funds.

### 1A.F.3 FTA Section 5339(a) – Grants for Buses and Bus Facilities Formula Program

#### Program Purpose

FTA Section 5339 is a formula program that provides capital funds to designated recipients in large UZAs and to states for the purpose of financing capital bus and bus related projects that will support the continuation and expansion of public transportation services. CDOT manages 5339 capital funds for only rural and small urbanized areas. FTA 5339 funds for the Denver, Fort Collins, and Colorado Springs large UZAs are administered by their designated recipient of FTA Section 5307 funds, not by CDOT. FTA-5307 designated recipients are Regional Transportation District (Denver), Transfort (Fort Collins), and Mountain Metro Transit (Colorado Springs).

#### Eligibility

Eligible applicants are public agencies or private nonprofit organizations engaged in public transportation, including those providing services open to a segment of the general public, as defined by age, disability, or low income. Applicants must also certify that they have established and implemented a drug and alcohol testing program in accordance with the conditions of FTA-5339 funding. Refer to 49 Code of Federal Regulations (CFR) Part 40 and Part 655.

Eligible applicants must meet a variety of eligibility criteria, including:

- ▶ Operate a demand response or fixed-route service in rural or small urbanized areas of Colorado, clearly promoting either service as open to the public
- ▶ Sign annual Certifications and Assurances, certifying compliance with all applicable federal and state regulations
- ▶ Comply with federal drug and alcohol testing regulations and annual reporting requirements
- ▶ Create and/or maintain the following documents:
  - Title VI plan
  - LEP plan
  - Asset management plan
  - Service plan
  - ADA plan
  - Department of Labor policies and procedures
  - Drug and alcohol policies and procedures
  - Procurement policies and procedures

#### Funding Details

As stated, Section 5339(a) funds are provided through both formula allocations and competitive grants. A subprogram (5339c) provides competitive grants for bus and bus facility projects that support low or no emission vehicles or facilities.

[FTA Circular 5100.1](#), which is available in **Resource 1A-A**, provides more information on Section 5339(a) funds.

## 1A.G Application Submission and Project Award

Project application submission and award are two important steps in a capital facilities project. Local transit agencies often need to apply for funding to complete a capital facility project from planning through construction and commissioning. All transit capital facility projects must start here with this discretionary funding process administered through CDOT.

The following steps provide a roadmap for how DTR solicits projects from local transit agencies, the required materials, the funding that a local transit agency can apply for, how projects are awarded, and more. Therefore, the application process will describe only DTR's application process; local agencies can learn more about the application process and timelines from DTR, their Grant Managers, or their TPRs.

### 1A.G.1 DTR Call for Projects

DTR releases calls for projects as federal funds become available and distributable through CDOT as follows:

- Step 1. DTR determines allocation and distribution of federal and state resources among local transit agencies, as well as other entities such as local governments not covered in this manual.
- Step 2. DTR conducts a call for projects and releases a Notice of Funding Availability/Opportunity (NOFA/O) for capital, administration, operating, and/or planning projects.

**Worth Noting – Timeline:** The timeline of the application and award process is subject to change annually, and this manual focuses on only capital facilities and infrastructure projects.

### 1A.G.2 Project Application Based on Funding Eligibility

To complete a successful grant application, a local agency must determine eligibility and which funding source is most applicable to their project. The following steps provide this guidance:

- Step 1. Local transit agency determines which funding source is best for the capital facility or infrastructure project based on project scope, eligibility, and funding availability. **Table 1A-1, Table 1A-2 and Table 1A-3** provide more information on funding sources.
- Step 2. Local transit agency completes a Pre-Application Agency Update form. (NOTE: A New Applicant Questionnaire is required of new applicants or those who have not received transit funds in the last three years.)

### **STOP! Have you confirmed Project Eligibility for funding?**

If not, local transit agencies may need to reevaluate project scope or determine alternative funding sources through another funding source. Refer to the links in **Table 1A-1, Table 1A-2, and Table 1A-3** in **Section 1A.F** to determine project eligibility.

### 1A.G.3 Applicant Minimum (Threshold) Requirements

- Step 1. Submit the following “Items to Establish Technical Capacity” to CDOT DTR via Colorado Transit and Rail Awards Management System (COTRAMS):
  - ▶ **Legal Standing:** Status of suspension or debarment, and false claims.
  - ▶ **Financial Management and Capacity:** Financial policies and procedures; an organizational structure that defines, assigns, and delegates authority; and financial management systems in place to match, manage, and charge only allowable cost(s) to the award. NOTE: Federal and state funds are awarded on a reimbursement basis; that is, the local transit agency must incur the project costs upfront and submit sufficient evidence of those project costs to DTR for reimbursement. Therefore, the local transit agency must

have the financial ability and cash flow to incur those costs upfront and wait for reimbursement from CDOT. Assuming a valid reimbursement request is submitted, it is DTR's goal to pay all reimbursement requests within 30 days, but CDOT is afforded 45 days statutorily to complete the reimbursement process.

- ▶ **Technical Capacity:** Staff responsibilities, training, and involvement in the most recent RTP.
- ▶ **Asset Management/Continuing Control:** Maintenance plan, vehicle replacement plan, asset management plan, and asset inventory.
- ▶ **Procurement:** Written procurement policy.
- ▶ **Civil Rights:** Acknowledgement of civil rights requirements and equity analysis on impacted populations regarding the transit project, when applicable. (Section 1A.J provides more information on the equity analysis component of this threshold.)
- ▶ **Timely implementation:** Local transit agencies will move promptly to procure and implement their projects, within guidelines and procedures provided by DTR. Local transit agencies that fail to implement projects on a timely basis may harm their chances for winning awards in future applications or may have funds withdrawn with adequate notice.

**Worth Noting – COTRAMS:** For more information on how to use COTRAMS, refer to Chapter 1B, Project Lifecycle Reporting and Requirements, and the COTRAMS Community User's Manual and Instructions listed in Resource 1A-A.

#### 1A.G.4 Application Submission via COTRAMS

- Step 1. For a local transit agency to be eligible to receive funds and to submit an application for a project, the local transit agency must update their profile within COTRAMS on an ongoing basis. The local transit agency enters and/or updates their information on the Agency Information tab. The local transit agency should keep the following information within COTRAMS up to date:
- ▶ Agency Information and Contacts
  - ▶ FTA Compliance—Annual Certifications and Assurances
  - ▶ Program Documents
  - ▶ Online Applications
  - ▶ Award Status
  - ▶ Milestones Reporting
  - ▶ Risk Assessment Tool
  - ▶ Online Reimbursement Requests
  - ▶ Online Procurement Requests
  - ▶ Online Quarterly FTA Section 5310 and Section 5311 Program Measure Reports
  - ▶ Online Grant Closeout Form
  - ▶ Capital Inventory/Accident Reporting
  - ▶ Vehicle Disposition
  - ▶ Reporting Function
  - ▶ Tracking and Monitoring Subrecipient (local transit agency) Title VI and Equal Employment Opportunity (EEO) plan submissions
- Step 2. The local agency must meet all application requirements in COTRAMS. On the Applications tab of COTRAMS, two sections note available applications and previous applications. Four types of applications are developed within COTRAMS:
- ▶ Vehicle Application
  - ▶ Facility and Equipment Application (focus of this manual)

- ▶ Admin/Operating Application
  - ▶ Mobility Management Application
- Step 3. Once eligibility is confirmed, the local agency submits applications electronically through COTRAMS on or before the due date as described in the NOFA/O. Applications are available on the local agency’s Home page under “Tasks Pending Action.”
- ▶ Submit one application for each project.
  - ▶ Include letters of support from other agencies or service partners, particularly for local match contributions. **Section 1A.G.8** provides more information on local match.
  - ▶ Refer to **Chapter 3 (Awards Management) of the State Management Plan in Resource 1A-A** for more information on typical application cycles.
  - ▶ Refer to the **NOFA/O (2024)** linked in **Resource 1A-A** for funding-specific application information and threshold (minimum) criteria for eligible local transit agencies.
- Step 4. The local transit agency fills out, edits, and submits applications for capital projects via the Applications tab. Information submitted in the Applications section of COTRAMS also ties into Agency Information, developing a SOW, setting up the project budget, and the reimbursement process sections. Local transit agency information and capital inventory sections must be up to date before applications are submitted.
- Step 5. The local agency is required to register on SAM.gov, which is a requirement for federal funding. FTA uses SAM.gov, a verification platform, to ensure that federal dollars are being awarded to the correct entity.
- Step 6. The local transit agency contacts their DTR Grant Manager to enable the release of multiple applications. Each request for capital assistance must have an individual application (for example, application for 5311 funds must be separate from an application for 5310 funds).
- Step 7. The local agency completes and submits the application(s). COTRAMS sends a confirmation email to the local transit agency verifying the submittal. The local transit agency can monitor application status (Draft, Submitted, Approved by Committee, or Rejected by Committee) through COTRAMS.

**Worth Noting – Indirect Costs:** If seeking reimbursement for indirect costs, the local agency should indicate this in the application and attach a current, approved Indirect Cost Rate Proposal or a Cost Allocation Plan from the CDOT Audit Office. For more information about audits, refer to **Chapter 1B, Project Lifecycle Reporting and Requirements**. A definition for “indirect costs” is provided in 2 CFR 200.1 – Indirect Costs Definition in **Resource 1A-A**.

### 1A.G.5 DTR Selection of Projects for Award

- Step 1. DTR convenes Inter-Agency Evaluation Committees (IAEC) to provide input on the process and to fairly evaluate all applications. The IAEC may consist of representatives from other CDOT Divisions, such as the Civil Rights Office and the Division of Transportation Development, and other state agencies, such as the Colorado Energy Office and Colorado Department of Public Health and Environment (CDPHE).
- Step 2. DTR staff review the applications to ensure that minimum eligibility requirements are met. Then DTR staff evaluate all eligible applications and projects based on the elements described in **Table 1A-4**.
- Step 3. DTR contacts any local transit agency not meeting the criteria and provides the opportunity to respond to any finding of ineligibility.

The criteria described in **Table 1A-4** reflect the requirements from the 2024 Call for Projects. For additional information on criteria, refer to **Chapter 3 of the State Management Plan** linked in **Resource 1A-A**.

**Table 1A-4. DTR Evaluation Criteria for Applications and Projects**

Criteria	Factor/Metrics/Descriptions
Application Completeness and Thoroughness	<ul style="list-style-type: none"> <li>■ The applicant provided answers, information, and attachments that are relevant, complete, thorough, and clearly and directly support the application. Incomplete applications or applications lacking enough information to be effectively evaluated will receive lower scores or may be deemed ineligible for funding without further evaluation.</li> <li>■ All questions asked in the application are answered, all information requested in the application is provided, and all required and necessary attachments to the application are included.</li> </ul>
Program Eligibility	The proposed project is eligible for the respective funding source.
Consistency with the Statewide Transit Plan or Regional Transit/Transportation Plan (RTP)	<ul style="list-style-type: none"> <li>■ The applicant provided answers, information, and attachments that effectively connect the proposed project to an identified implementation strategy.</li> <li>■ The proposed project is consistent with an implementation strategy identified in the applicant’s most recent RTP and/or in the Statewide Transit Plan.</li> </ul>
Readiness and Demonstrated Timetable	Higher priority is given to projects that are shovel ready (i.e., National Environmental Policy Act [NEPA] clearance is finalized, and at least 30 percent design completed), and to the completion of existing projects.
Project Purpose, Cost Savings, and Efficiency	Higher priority is given to those projects that have a high degree of local and regional support; are well-developed with a defensible business case; and support or provide significant transit operational and utilization benefits.
Special Considerations	Higher scoring in this area is given to those projects that demonstrate they were developed in partnership with the local community. In the case of requests for the expansion of existing facilities, higher scoring is applied if the project demonstrates the need for the facility and for growth in the program it supports. Agencies that adequately demonstrate institutional commitment, funding, financial capacity, and capability to sustain the service and project over time are also scored higher.
Civil Rights	In determining the site or location of facilities, an applicant may not make selections with the purpose or effect of excluding persons from, denying them the benefits of, or subjecting them to discrimination under any program to which this regulation applies, on the grounds of race, color, or national origin. Title 49 CFR part 21, Appendix C, Section (3)(iv) states, “The location of projects requiring land acquisition and the displacement of persons from their residences and businesses may not be determined on the basis of race, color, or national origin.” For purposes of this requirement, “facilities” does not include bus shelters, as these are transit amenities and are covered in Chapter IV (of FTA Circular 4702.1B), nor does it include transit stations, power substations, etc., as those are evaluated during project development and the NEPA process. Facilities included in this provision include, but are not limited to, storage facilities, maintenance facilities, operations centers, etc. To comply with the regulations, the recipient must complete a Title VI equity analysis during the planning stage in regard to where a project is located or sited to ensure that the location is selected without regard to race, color, or national origin. Applicants shall engage in outreach to persons potentially impacted by the siting of facilities. The Title VI equity analysis must compare the equity impacts of various siting alternatives, and the analysis must occur before the selection of the preferred site. More information on the equity analysis can be found in <b>Section 1A.J.</b>

Source: DTR Notice of Funding Opportunity



### 1A.G.6 Projects Awarded by DTR

- Step 1. DTR sorts all applications by “Project Type,” such as “capital construction.”
- Step 2. The DTR Director, all relevant evaluation committees (such as the IAEC as described previously, or Colorado Energy Office, Division of Transportation Development, CDPHE, etc.), and the Civil Rights and Business Resource Center (CRBRC) review all projects.
- Step 3. DTR and the evaluation committees review and score projects and submit ranked projects to DTR Programming.
- Step 4. DTR and the evaluation committees create a proposed award list that determines the funding amounts for the highest-ranked projects.
- Step 5. DTR staff send the proposed award list to the DTR Director for review. If a second opinion is needed, DTR consults the Colorado Association of Transit Agencies.
- Step 6. After the DTR Director approves the award list, DTR sends a proposed award letter with all required subaward agreement documents to each local transit agency via COTRAMS.
  - ▶ DTR notifies all local transit agencies that applied for funding regardless of whether the project was awarded funding.

**Worth Noting – Protest and Reapply:** Local transit agencies that did not receive an award may either protest that decision or wait for a different funding cycle to reapply. Refer to **Section 1A.G.9** for information on submitting a protest.

- Step 7. The local transit agency either accepts or rejects the award. Rejection of award results in an award amendment that must be reapproved by the DTR Director. Proceed to **Section 1A.G.10**.
- Step 8. DTR sends out a public notification of award and initiates the project budgeting process with the local transit agency, CRBRC, Accounting, and DTR Project Coordination Unit.
- Step 9. DTR builds the award in COTRAMS and executes the subaward agreement/contract.
- Step 10. DTR develops a Program of Projects for each FTA program. DTR assembles an award application in the FTA Award Management System (TrAMS).
  - ▶ DTR assists each agency in developing a SOW.
  - ▶ CDOT processes STIP amendments.
  - ▶ CDOT creates budgets in Systems Applications and Products (SAP) and COTRAMS.
  - ▶ CDOT Procurement and Contract Services Center prepares and finalizes subaward/grant agreements.
  - ▶ CDOT circulates DocuSign packages for signatures.
  - ▶ CDOT and local transit agencies execute subaward/grant agreements.
  - ▶ DTR executes the COTRAMS Project Budgets, making project funds available.
  - ▶ DTR issues Notice to Proceed to the local transit agency.
- Step 11. FTA reviews the Program of Projects and application for compliance, approves the application, and releases the funds to CDOT.

**Worth Noting – Reimbursement:** State and federal funds are awarded on a reimbursement basis; that is, the award recipient must first incur costs before being reimbursed by CDOT, after submitting sufficient documentation of such costs. Therefore, the applicant (local transit agency) must have the financial ability and cash flow to incur and pay such costs initially. Should an applicant not meet the requirements or has had difficulties managing previously awarded funds, DTR staff are available to work with the local transit agency to maintain eligibility to apply for funds. It is especially important that those applicants that have had delays or other problems implementing projects awarded funding by CDOT specifically address



financial and managerial capability. Local transit agencies must not only demonstrate their financial and project management capabilities and experience, but also describe the steps taken to correct any past problems.

**STOP! Designation as Subrecipients:** At this point in the process, local agencies are “subrecipients” of FTA funding. Local agencies will be referred to as “subrecipients” for all matters related to FTA funding, including grant management and administration, and obligation to comply with federal requirements.

### 1A.G.7 COTRAMS and Project Initiation

If a local transit agency’s application is approved, CDOT creates awards as outlined in **Section 1A.G.5**. The award(s) made to the local transit agency, award status, and other information are provided in COTRAMS. Each award is given a unique number, enabling the subrecipient to communicate with DTR about specific grant needs. An award’s Status Explanation tab in COTRAMS displays information about the key components of the award process, including:

- ▶ Update Milestones
- ▶ Complete Risk Assessment
- ▶ Pending CDOT Budget
- ▶ Budgeted, Withdrawn
- ▶ Funds Transferred to Region

**Chapter 1B Project Lifecycle Reporting and Requirements** provides more information on project administration systems.

### 1A.G.8 Local Match

CDOT and FTA often require a local match for capital facilities projects. The local match can come from various sources, including state or local appropriations, local tax revenues, local general operating budgets, private donations, revenue from service contracts, and income generated from advertising and concessions—provided that the funding source does not prohibit or disallow its use as a match. In-kind goods and services are also permitted as a local match, but the following must be considered:

- ▶ Local match for planning projects must be in cash, unless otherwise specified.
- ▶ Local or state in-kind property can be used for an in-kind match as long as the property is eligible, under federal law, for use as cost-sharing or matching funds for the Underlying Agreement.
- ▶ In-kind goods and services may be used for up to 50 percent of the local share. If in-kind goods and services are used for the local match, they must have direct relevance to the project being matched. Applicants contemplating using in-kind goods and services must identify them in their budgets, formally document the fair market value of each in-kind contribution, and ensure each in-kind contribution represents a cost that would otherwise be eligible under the project. DTR must approve all valuations of services and in-kind plans before a contract is issued.

**Worth Noting – Local Match and Outreach:** Early engagement with local governmental officials and other stakeholders can help local transit agencies determine local match funding opportunities.

**STOP! Do you plan to use a noncash local match?** DTR (or the Clean Transit Enterprise [CTE] Board for Local Match Relief for CTE funded projects) must approve that match or match waiver.

Local match can also consist of any non-USDOT federal sources, such as Medicaid, Older Americans Act funding, or other funds that may be used for transportation. Local match may be used only once (for example, the same Older Americans Act funds may not be used for a 5311 grant application and a 5310 grant application). A local transit agency may choose to overmatch, meaning the portion of the total project budget from local match may exceed 50 percent for FTA 5310 and 5311 Operating or 20 percent for FTA 5310 Mobility Management and Capital Projects, FTA 5311 Admin, or FTA 5339 projects.

Table 1A-5 lists local match requirements for each funding type. NOTE: This match is specific to the 2024 NOFA, and these numbers may change. Refer to FTA’s website for the most up-to-date match information.

**Table 1A-5. Federal/State and Local Match Percentages for 2024 A/O/MM and Planning Call for Projects\***

Funding Program and Project Type	Federal/State Match	Local Match
FTA 5310 Mobility Management and Capital Projects	80%	20%
FTA 5310 and 5311 Operating	50%	50%
FTA 5311 Admin	80%	20%
FTA 5339	80%	20%

\* This match percentage table reflects the 2024 Call for Projects.  
Source: DTR Notice of Funding Opportunity

**Worth Noting – Local Match:** DTR requires written letters of support and commitment from project partners (that is, organizations providing some or all of the local match, providing land or right-of-way for a project, or agreeing to share a multimodal facility).

### 1A.G.9 Application Protest Process

DTR notifies both successful and unsuccessful applicants of DTR’s project awards, as mentioned previously in Section 1A.G.6 Step 5 through Step 8. DTR provides applicants with a list of selected projects and, for transparency purposes, comments indicating the primary reasons an application or a project may have received an insufficient score. Applicants not awarded funding may reapply for projects that were denied.

Recognizing the substantial financial impact its programs can have on organizations and individual applications, CDOT provides applicants the right to protest an award denial or award amount decision of DTR. This right ensures the proper administration of DTR’s programming, encourages thorough review of applications and denials, promotes a transparent exchange of information, and provides applicants an opportunity to avail themselves of CDOT. CDOT fully recognizes the important implications of its funding decisions, and it is CDOT’s firm belief that applicants whose requests are denied or whose award amounts are reduced should have the opportunity for further review and consideration.

CDOT’s policy regarding the application protest process is as follows.

- Step 1. Send a protest letter to the Director of the Division of Transit and Rail at the following address: 2829 W. Howard Ave., Denver, CO 80204.
- Step 2. State in the subject line of the letter that it is a protest of a decision requiring a response within 45 days. (This ensures CDOT staff are aware of the immediacy of the letter.)
- Step 3. Clearly state in the letter the application to which it applies and the grounds for protest.

- Step 4. Upon receipt of the protest letter, the Director of the DTR may contact the applicant to discuss the matter further.
- Step 5. If the DTR Director and the applicant are unable to resolve the issue upon contact, the DTR Director refers the protest to the Chief of the Office of Innovative Mobility.
- Step 6. The Chief of the Office of Innovative Mobility consults with appropriate executive management on the matter and, thereafter, issues a letter containing the final decision of the agency on the issue.
- Step 7. Unless extended by agreement of CDOT and the applicant, the Chief of the Office of Innovative Mobility issues a final agency decision no later than 45 days after CDOT's receipt of the protest letter.

Local transit agencies are encouraged to continue applying for any projects for which they may be eligible in the meantime.

**Worth Noting – Response to Protest: CDOT has no obligation to respond to any letter that fails to conform to their protest process requirements.**

### 1A.G.10 Award Amendments

A local transit agency may need to amend a project for various reasons. CDOT's amendment process is as follows:

- Step 1. Local transit agency submits amendments to DTR in writing with justifications.
- Step 2. DTR reviews the amendment request for tracking purposes and budget/financial implications. FTA approval of changes is also required.
- Step 3. The DTR Director either approves or rejects the justification for the amendment. If rejected, return to **Section 1A.G.10 Step 1**.
- Step 4. DTR, with the assistance of the local transit agency, revises or creates a new SOW. DTR then builds the shopping cart again in SAP.
- Step 5. Once the amendment is approved (has accurate amount, fund source, and SOW), the Business Office sends changes to the Procurement Office.
- Step 6. The Business Office updates the budget in SAP if the award budget is changed.
- Step 7. The local transit agency signs the changed award.
- Step 8. The Procurement Office then enters the changed agreement into SAP and routes the subaward agreement back to DTR. DTR then signs the award agreement. The controller signs the award agreement last.
- Step 9. DTR sends the revised subaward agreement to the local transit agency and notifies any DTR staff assigned to the project of the change. All parties (controller, local transit agency, and DTR) receive the fully executed agreement all at once via email.
- Step 10. Local transit agencies complete the following documents:
  - ▶ Award letter
  - ▶ Risk assessment
  - ▶ Certify milestones
  - ▶ Confirm SOW
  - ▶ Address protests (as applicable)
  - ▶ Execute contract

### 1A.G.11 Initial Grant Management Steps

Initial grant management ensures that awarded funds are successfully distributed from FTA through CDOT to the subrecipient. Initial steps include “building” the project into COTRAMS, which includes adding project information. DTR coordinates with other CDOT staff to ensure this process happens in a timely manner. In addition, the third-party procurement process, detailed in **Chapter 1B Project Lifecycle Reporting and Requirements**, is initiated for all capital facilities projects. This initial phase also establishes milestones for the project.

The most important initial step in grant management is the establishment of anticipated milestones. The subrecipient and DTR determine milestones per the SOW. The subrecipient then enters the finalized (agreed upon) milestones into COTRAMS. The subrecipient must periodically update milestones to maintain eligibility for grant reimbursement requests and for reporting purposes. Refer to **Chapter 1B Project Lifecycle Reporting and Requirements**, for more information on updating milestones.

## 1A.H Getting a Project into the STIP

Project inclusion in the STIP is a required step for project budgeting and contracting. A project that is being awarded (almost always) is automatically added to the STIP, assuming that an awarded subrecipient completes all award forms.

- Step 1. The project is awarded funds per **Section 1A.G.6.**
- Step 2. DTR builds the project in COTRAMS per **Section 1A.I.**
- Step 3. Local transit agency completes Award DocuSign Package from CDOT and Subaward/Grant Agreement as listed previously in **Section 1A.G.6.**
- Step 4. DTR STIP Coordinator adds project information into STIP.

### 1A.H.1 CDOT's "4Ps"

CDOT's 4Ps—Project Priority Programming Process—provides a framework for developing and amending the STIP as required by FTA for the programming of regionally significant transportation projects, within fiscal constraint and consistent with CDOT's related planning documents for a period of at least four years. While the 4P process does not directly impact how local transit agencies propose or develop projects, it provides valuable insight into CDOT's logic behind STIP development and project selection. Refer to CDOT's **STIP Development Guidance and 4P Process** listed in **Resource 1A-A** for more information about the 4Ps.

### 1A.H.2 Amending the STIP

The STIP is amended periodically to incorporate new projects and changes to currently programmed projects due to factors such as funding changes, project scope changes, or priority changes requested by a TPR. **CDOT Guidance for Processing TIP/STIP Amendments, Administrative Modifications and the Annual STIP Update** listed in **Resource 1A-A** provides more information about project changes that warrant a STIP amendment.

## 1A.I Basic Site Assessment and Project Feasibility

The subrecipient should conduct a basic site assessment and project feasibility assessment once they know that their project is funded, is in the STIP, and can come to fruition. A site assessment reveals any critical right-of-way or parcel issues that may impact NEPA. In addition, this high-level assessment aids the environmental and design stages, which rely on the subrecipient having a basic understanding of where they want to construct/refurbish a transit capital facility and what may be on or under that parcel.

The subrecipient should also assess project feasibility before advancing into the environmental and design stages. While project feasibility is also a phase during design (having its own steps, criteria, and requirements), it is crucial that the subrecipient understand whether a facility is feasible at a particular time or site. Both a basic site assessment and feasibility assessment can save the subrecipient, their staff, and their consultants/designers/environmental specialists time and budget.

Refer to **Resource 1A-A** for more information on resources related to site assessments and project feasibility.

### 1A.I.1 Basic Site Assessment and Environmental Scan

**STOP! At this point, subrecipients should create a basic conceptual design. If design consultants are needed, refer to Chapter 4 Design and Engineering.**

- Step 1. To select a suitable site, determine a general area where the facilities can be constructed, with consideration for natural features, site conditions, nearby residences/businesses and other facilities, structures on site, and more. Consider the following criteria in site selection:
  - ▶ The Equity Analysis in **Section 1A.J**
  - ▶ Consultation with local officials, such as town, county, or city public works staff
  - ▶ Consultation with utility providers to determine where above- and below-ground utilities may lie
- Step 2. It is **highly** recommended that an environmental scan is completed to assess the following red flag issues. These issues can prove difficult to overcome during the environmental clearance stage of the project if there is a chance of impact:
  - ▶ Historic/cultural impacts
  - ▶ Section 4(f) impacts
  - ▶ Threatened & Endangered (T&E) species impacts
  - ▶ Wetlands impacts
  - ▶ Hazardous materials
- Step 3. Use the analysis from **Step 1 and Step 2** to narrow down sites to those most suitable for the project. If all sites are eliminated, contact the DTR Grants Manager for additional consultation.
- Step 4. If multiple suitable sites pass the basic site assessment, develop a shortlist of sites to be studied further or determine additional criteria for elimination.

### 1A.I.2 Project Feasibility

The subrecipient should assess the following criteria to determine if a project is currently feasible, as well as feasible in a particular site:

- ▶ **Access and circulation:** Is the facility off of local roads? A state highway? What level of involvement is needed for a facility off of a CDOT-owned/maintained facility? What access permits are needed?
- ▶ **Space programming:** Is the parcel large enough to accommodate the fleet that the subrecipient (local transit agency) intends to serve? To accommodate the number of staff or employees who will work there? To accommodate several facility requirements, such as number of bus bays, wash bays, offices, bathrooms, etc.?
- ▶ **Materials:** Are the materials, equipment, etc. needed for the site available? If they are not immediately available, will they be available when required? Material availability may impact project feasibility, as well as the schedule, scope, and budget.



## 1A.J Title VI Equity Analysis

**STOP! Local transit agencies MUST complete a Title VI Equity Analysis before acquiring land or selecting a preferred site. The completion of the analysis is required for federal funding.**

To comply with regulations, a local transit agency must complete a Title VI Equity Analysis during the planning stage in regard to where a project is located or sited to ensure that the location is selected without regard to race, color, or national origin. The local transit agency shall engage in outreach to persons potentially impacted by the siting of facilities. Because a Title VI Equity Analysis must be completed before a local transit agency receives federal funding, the local transit agency is not considered a subrecipient at this point.

The Title VI Equity Analysis must compare the equity impacts of various siting alternatives and occur before the selection of the preferred site. **Resource 1A-A** provides more information about the Title VI Equity Analysis.

- Step 1. When DTR is contacted by, or made aware of, a local agency that is potentially interested in seeking FTA assistance, DTR provides application materials, as well as support, for the local transit agency as described in **Section 1A.G**.
- Step 2. The local transit agency completes the New Applicant Questionnaire provided by DTR, which highlights the following Civil Rights requirements (required regardless of whether the applicant is new):
  - ▶ Submit a Title VI Civil Rights Nondiscrimination Plan that conforms to FTA requirements in Circular 4702.1B within 30 days. A link to **FTA C4702.1B** is available in **Resource 1A-A**.
  - ▶ Have an EEO plan that conforms to FTA requirements in Circular 4704.1 within 30 days if their organization employs 50 or more transit-related employees and requests/receives over \$1 million in operating/capital or over \$250,000 in planning funds in the previous federal fiscal year. A link to **FTA Circular 4704.1** is available in **Resource 1A-A**.
  - ▶ Assess the need and impact of the project for which they intend to submit a funding request, including impacts on low-income and minority populations
  - ▶ Determine if the capital facility provides additional access to or hinders access to transit service for communities/neighborhoods where the predominant population consists of minority or low-income persons and provide a description regardless of impact
    - Include data about the population served through the local agency program (for example, number of elderly, disabled, minority, and low-income persons served).
  - ▶ Local transit agency must not discriminate against users or potential users of their service because of race, religion, color, sex, disability, national origin or ancestry, or age in the admission or access to, the programs or activities.
    - Track and report any future discrimination complaints if they receive an award
    - Disclose whether they have had any transit service-related discrimination complaints, investigations, or lawsuits in the last three years
    - Disclose whether they have had any discrimination complaints based on these EEO requirements within the last year



- Step 3. The local transit agency compiles the previous items, along with the following, in their equity analysis:
- ▶ Summary of the project and where it will be built
  - ▶ Source of funding, local match, and any partners in the project, including CDOT, FTA, Federal Railroad Administration, Federal Highway Administration (FHWA), etc.
  - ▶ Description of the analyzed site(s) and conclusions about the best site for the project
  - ▶ Whether construction on that site would impact or displace any residences or buildings
    - Consideration of environmental impacts of construction on the site separately in the NEPA document (as noted in **Chapter 2 Environmental Clearance**)
    - Whether the project would displace, or otherwise significantly impact, minority and/or low-income populations, as well as LEP individuals.

## Resource 1A-A – Capital Projects Planning and Initiation

### Essential Resources

Section	Source	Content	Website
1A.A	FTA	Transportation Planning Resources	<a href="https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/transportation-planning">https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/transportation-planning</a>
1A.A, 1A.B, 1A.C, 1A.D	CDOT	2045 Statewide Transit Plan	<a href="https://www.codot.gov/programs/yourtransportationpriorities/statewide-transit-plan">https://www.codot.gov/programs/yourtransportationpriorities/statewide-transit-plan</a>
1A.D	CDOT	Colorado Transportation Planning Regions (TPRs) 2022	<a href="https://dtdapps.coloradodot.info/staticdata/Downloads/StatewideMaps/TPR.pdf">https://dtdapps.coloradodot.info/staticdata/Downloads/StatewideMaps/TPR.pdf</a>
1A.F	FTA	5339 Bus and Bus Facilities	<a href="https://www.transit.dot.gov/bus-program">https://www.transit.dot.gov/bus-program</a>
1A.F	FTA	5309 Capital Investments Grants	<a href="https://www.transit.dot.gov/CIg">https://www.transit.dot.gov/CIg</a>
1A.F	FTA	5339(a) Bus and Bus Facilities	<a href="https://www.transit.dot.gov/funding/grants/busprogram">https://www.transit.dot.gov/funding/grants/busprogram</a>
1A.F	FTA	FTA Circular 5100.1	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Final_FTA_C_5100_4-16-15.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Final_FTA_C_5100_4-16-15.pdf</a>
1A.F	FTA	5337 State of Good Repair	<a href="https://www.transit.dot.gov/funding/grants/state-good-repair-grants-5337">https://www.transit.dot.gov/funding/grants/state-good-repair-grants-5337</a>
1A.F	FTA	FTA Circular 9070.1G	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/C9070_1G_FINAL_circular_4-20-15%281%29.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/C9070_1G_FINAL_circular_4-20-15%281%29.pdf</a>
1A.F	FTA	5311 Formula Grants for Nonurbanized/Rural Areas	<a href="https://www.transit.dot.gov/regulations-and-guidance/legislation/arra/non-urbanized-area-formula-section-5311">https://www.transit.dot.gov/regulations-and-guidance/legislation/arra/non-urbanized-area-formula-section-5311</a>
1A.F	FTA	FTA Circular 9040.1G	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Circular_9040_1Gwith_index_-_Final_Revised_-_vm_10-15-14%281%29.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Circular_9040_1Gwith_index_-_Final_Revised_-_vm_10-15-14%281%29.pdf</a>
1A.G	FTA	FTA Discretionary Funds - more information (Sort by "Competitive Grants" to find Competitive/ Discretionary Funding Sources)	<a href="https://www.transit.dot.gov/grants">https://www.transit.dot.gov/grants</a>
1A.G	CDOT - DTR	Notice of Funding Available (NOFA) (2024)	<a href="https://www.codot.gov/programs/transitandrail/assets/nofa-announcements">https://www.codot.gov/programs/transitandrail/assets/nofa-announcements</a>
1A.G	CDOT - DTR	NOFA Guidance for Admin, Operating, Mobility Management and Planning Projects (2024)	<a href="https://www.codot.gov/programs/transitandrail/assets/nofa-announcements/nofa_2024-a-o-mm-planning-call_final_5-22-23.pdf">https://www.codot.gov/programs/transitandrail/assets/nofa-announcements/nofa_2024-a-o-mm-planning-call_final_5-22-23.pdf</a>
1A.G	CDOT - DTR	Quick Procurement Guide	<a href="https://www.codot.gov/programs/transitandrail/assets/cdot-quick-procurement-guide">https://www.codot.gov/programs/transitandrail/assets/cdot-quick-procurement-guide</a>
1A.H	CDOT	General Statewide Transportation Improvement Plan (STIP) information	<a href="https://www.codot.gov/programs/planning/transportation-plans-and-studies/stip">https://www.codot.gov/programs/planning/transportation-plans-and-studies/stip</a>
1A.J	FTA	FTA Circular 4702.1B Title VI Requirements	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Title_VI_FINAL.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Title_VI_FINAL.pdf</a>
1A.J	FTA	FTA Circular 5010.1E	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E_1.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E_1.pdf</a>

## Additional Information

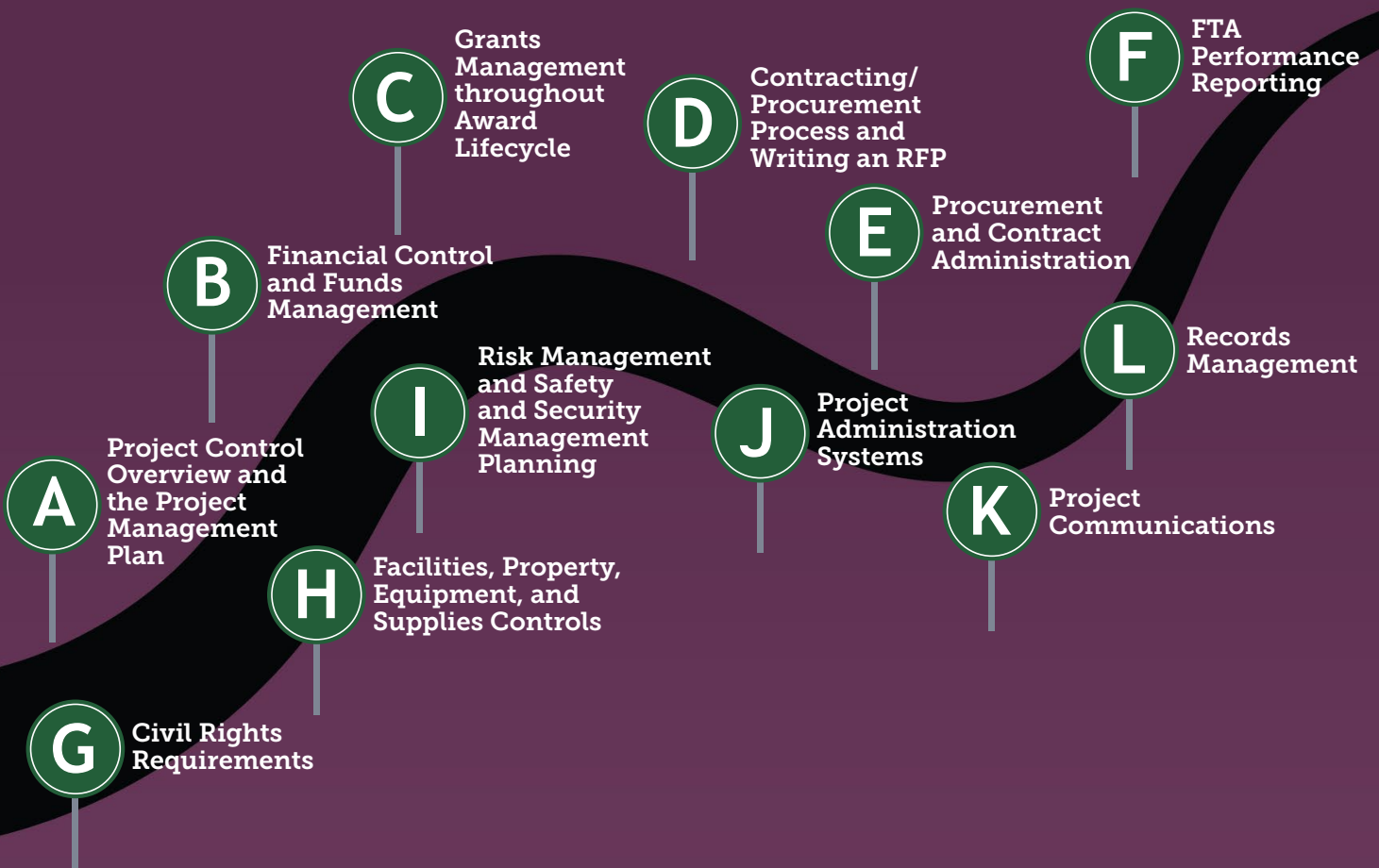
Section	Source	Content	Website
1A.A	CDOT	10-Year Vision Plan	<a href="https://www.codot.gov/programs/yourtransportationpriorities/your-transportation-plan">https://www.codot.gov/programs/yourtransportationpriorities/your-transportation-plan</a>
1A.A	FTA/FHWA	Model Long-Range Transportation Plans: A Guide for Performance-Based Planning*	<a href="https://www.fhwa.dot.gov/planning/performance_based_planning/mlrtp_guidebook/fhwahep23018.pdf?v=2">https://www.fhwa.dot.gov/planning/performance_based_planning/mlrtp_guidebook/fhwahep23018.pdf?v=2</a>
1A.A, 1A.B, 1A.C, 1A.D	CDOT	Regional Transit/Transportation Plans	<a href="https://www.codot.gov/programs/yourtransportationpriorities/regional-transportation-plans">https://www.codot.gov/programs/yourtransportationpriorities/regional-transportation-plans</a>
1A.B	Additional Sources	Northwest Colorado Council of Governments Transportation Gap Analysis Assessment	<a href="https://www.nwccog.org/wp-content/uploads/2021/11/Gap-Analysis-Report-Complete.pdf">https://www.nwccog.org/wp-content/uploads/2021/11/Gap-Analysis-Report-Complete.pdf</a>
1A.C	Additional Sources	Roaring Fork Transit Agency Proposed Transit and Multimodal Improvements	<a href="https://www.rfta.com/2040roadmap/">https://www.rfta.com/2040roadmap/</a>
1A.E	Additional Sources	Capital Projects Definition & Considerations	<a href="https://ofm.wa.gov/sites/default/files/public/legacy/budget/instructions/capinst/15-25capinstr/chapter2.pdf">https://ofm.wa.gov/sites/default/files/public/legacy/budget/instructions/capinst/15-25capinstr/chapter2.pdf</a>
1A.F	Additional Source	Senate Bill (SB)-260	<a href="https://leg.colorado.gov/sb21-260-bill-summary">https://leg.colorado.gov/sb21-260-bill-summary</a>
1A.F	Additional Source	Senate Bill (SB)-267	<a href="https://leg.colorado.gov/sites/default/files/cdot_qa_on_sb17-267s_effects_on_transportation_funding.pdf">https://leg.colorado.gov/sites/default/files/cdot_qa_on_sb17-267s_effects_on_transportation_funding.pdf</a>
1A.F	CDOT	Senate Bill (SB)-267 State Report	<a href="https://www.codot.gov/about/committees/trac/Agendas-and-Minutes/2022/may-13-2022/06e-sb-267-status-report_tc-may-2022.pdf">https://www.codot.gov/about/committees/trac/Agendas-and-Minutes/2022/may-13-2022/06e-sb-267-status-report_tc-may-2022.pdf</a>
1A.F	CDOT	Funding Advancements for Surface Transportation and Economic Recovery Act of 2009 (FASTER) Grants	<a href="https://www.codot.gov/projects/archived-project-sites/faster/faster-transit-grants">https://www.codot.gov/projects/archived-project-sites/faster/faster-transit-grants</a>
1A.F, 1A.G	CDOT	Clean Transit Enterprise (CTE) Zero Emission Vehicle (ZEV) Transition Planning Funds	<a href="https://www.codot.gov/programs/innovativemobility/cte">https://www.codot.gov/programs/innovativemobility/cte</a>
1A.G	CDOT	Local Match Waiver for Federally Funded Projects - Toll Credits**	<a href="https://www.codot.gov/business/budget/documents/hot-topics/toll-credits-for-local-agency-match-6-2020-1-1.pdf">https://www.codot.gov/business/budget/documents/hot-topics/toll-credits-for-local-agency-match-6-2020-1-1.pdf</a>
1A.G	CDOT - DTR	COTRAMS Community User's Manual and Instructions	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan/appendix-c-cotrams-system-community-user-manual.pdf">https://www.codot.gov/programs/transitandrail/assets/state-management-plan/appendix-c-cotrams-system-community-user-manual.pdf</a>
1A.G	CDOT - DTR	Chapter 3 - Award Management (State Management Plan)	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter3-awards-management">https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter3-awards-management</a>
1A.G	CDOT - DTR	COTRAMS instructions for Clean Transit Enterprise (CTE) applications	<a href="https://www.codot.gov/programs/transitandrail/assets/nofa-announcements/cotrams_create-cte-applications-instructions.pdf">https://www.codot.gov/programs/transitandrail/assets/nofa-announcements/cotrams_create-cte-applications-instructions.pdf</a>
1A.G	Federal Code of Registers	Title 49 CFR part 21, Appendix C, Section (3)(iv)	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-21">https://www.ecfr.gov/current/title-49/subtitle-A/part-21</a>
1A.G	Federal Code	2 CFR 200.1 - Indirect Costs Definition	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-A/subject-group-ECFR2a6a0087862fd2c/section-200.1#p-200.1">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-A/subject-group-ECFR2a6a0087862fd2c/section-200.1#p-200.1</a>

Section	Source	Content	Website
1A.G, 1A.J	CDOT	2020 FTA Title VI Guidance (CDOT form)	<a href="https://www.codot.gov/business/civilrights/titlevi/title-vi-assets/fta-title-vi-subrecipient-template-final-2020.docx">https://www.codot.gov/business/civilrights/titlevi/title-vi-assets/fta-title-vi-subrecipient-template-final-2020.docx</a>
1A.G, 1A.J	FTA	2020 FTA Title VI Guidance (CDOT Reference)	<a href="https://www.codot.gov/business/civilrights/titlevi/title-vi-assets/dtr-title-vi-plan_2020.pdf">https://www.codot.gov/business/civilrights/titlevi/title-vi-assets/dtr-title-vi-plan_2020.pdf</a>
1A.H	CDOT	CDOT Guidance for Processing Statewide Transportation Improvement Program (STIP) Amendments, Administrative Modifications and the Annual Statewide Transportation Improvement Program (STIP) Update	<a href="https://www.codot.gov/programs/planning/assets/stip/stip-amendment-guidelines-final-adopted.pdf">https://www.codot.gov/programs/planning/assets/stip/stip-amendment-guidelines-final-adopted.pdf</a>
1A.H	CDOT	Statewide Transportation Improvement Program (STIP) Development Guidance and 4P Process	<a href="https://www.codot.gov/programs/planning/assets/stip/stip-development-guidance-and-4p-process-updated-may-2022.pdf">https://www.codot.gov/programs/planning/assets/stip/stip-development-guidance-and-4p-process-updated-may-2022.pdf</a>
1A.I	Additional Sources	City of Eau Claire Transit Center Site Selection Study (example)	<a href="https://wisconsindot.gov/Documents/doing-bus/local-gov/astnce-pgms/transit/ec-site.pdf">https://wisconsindot.gov/Documents/doing-bus/local-gov/astnce-pgms/transit/ec-site.pdf</a>
1A.I	FTA	Transit Facilities “Checklist” for FTA-Funded Projects	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/Transit_Facility_Checklist_for_Grantees--3-6-09_revi_5010_1D.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/Transit_Facility_Checklist_for_Grantees--3-6-09_revi_5010_1D.pdf</a>
1A.I	FTA	FTA Circular 4704.1	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-guidance/civil-rights-ada/56501/eo-circular-c-47041a.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-guidance/civil-rights-ada/56501/eo-circular-c-47041a.pdf</a>

\*Joint resource for FTA and FHWA. Local agencies should note where resources are FHWA-specific.

\*\*CDOT last updated this toll credit document in 2020. Consult local grants manager and DTR for additional information.

# 1B PROJECT LIFECYCLE REPORTING & REQUIREMENTS



## 1B. Project Lifecycle Reporting and Requirements – Executive Summary

Subrecipients must complete a number of reporting tasks to comply with federal requirements throughout the lifecycle of a capital facility project. This chapter describes these requirements and the best practices related to project management and project control.

Project control throughout the life of a capital facility project is essential. Project control for subrecipients requires a clear understanding of project scope, schedule, budget, and federal requirements tied to Federal Transit Administration (FTA) funding. Ultimately, subrecipients oversee their own budget, scope, and schedule management, as well as that of any consultants or contractors. **Sections 1B.A** and **1B.B** discuss project control and best practices. **Section 1B.C** addresses grant management requirements for FTA grants. **Section 1B.H** discusses project control measures specific to facilities, property, equipment, and supplies. **Section 1B.I** addresses risk management.

Subrecipients may need to hire consultants for a number of tasks, from initial planning through construction and commissioning. **Section 1B.D** identifies how to hire consultants or contractors, what is in a Request for Proposal (RFP), and when an RFP is required. **Section 1B.E** more specifically covers contract administration, federal contract requirements, and what happens when contract disputes arise. While subrecipients may have their own internal RFP requirements, contract administration, and other procedures, they are nonetheless still tied to all Colorado Department of Transportation (CDOT) requirements. In addition, because subrecipients often receive funding from FTA, they are tied to a number of federal requirements related to reporting and more. **Sections 1B.F** and **1B.G** cover FTA requirements in terms of reporting and civil rights.

Finally, any project must have the proper management systems and communications protocols in place. **Section 1B.J** covers project administration systems, specifically the Colorado Transit & Rail Awards Management System (COTRAMS), which is used in several stages of capital facility projects. In addition, **Section 1B.K** addresses project communications, and **Section 1B.L** describes records management and disposal.



## 1B.A Project Control Overview and the Project Management Plan

Subrecipients should remain in the “captain’s seat” of any capital facility project to manage and maintain control of scope, schedule, and budget. Doing so allows subrecipients to track schedule and budget, hold to the pre-determined scope, and deliver the project timely and cost-effectively. Effective project control also ensures that any hired consultants or contractors also abide by project scope, schedule, and budget.

### 1B.A.1 Principles of Project Control

Generally, internal controls are a set of processes designed to provide reasonable assurance regarding the achievement of the following:

- ▶ The project team is operating effectively and efficiently.
- ▶ The project team is reliable regarding reporting for internal and external use.
- ▶ The project team and all aspects of the project comply with applicable laws and regulations.

Processes focused on achieving these goals are often **applied to the scope, schedule, and budget to ensure that the project stays on track, is completed as described in the scope of work (SOW), and is completed in a time- and budget-minded manner.**

In a similar way, a subrecipient implements project control related to a federal award to provide reasonable assurances that the following objectives for federal awards are achieved:

- ▶ Transactions are conducted in compliance with:
  - Federal statutes, regulations, and terms and conditions of the federal award that could have a direct and material effect on a federal program.
  - Any other federal statutes and regulations that are identified in the Office of Management and Budget (OMB) Compliance Supplement.
  - Federal requirements stating that funds, property, and other assets are safeguarded against loss from unauthorized use or disposition.
- ▶ Transactions are properly recorded and accounted for to:
  - Permit the preparation of reliable financial statements and federal reports.
  - Maintain accountability over assets.
  - Demonstrate compliance with federal statutes, regulations, and terms and conditions of the federal award.

Subrecipients are encouraged to follow these basic principles to effectively manage capital facilities projects:

- Step 1. Develop a Project Management Plan (PMP) as a project control document. **Section 4.A.4** describes this process in more detail.
  - ▶ The subrecipient and the project manager establish a management approach to project control via a PMP and ensure that the approach is followed during the execution of each project phase.
  - ▶ For larger projects, the subrecipient may retain the services of a program management or project controls consultant to provide staff with specialized expertise in scope, cost, and schedule controls.
- Step 2. Establish a control baseline. Establishing a baseline of when the project should be completed, how much the project should cost (budget), and what constitutes a “completed project” is essential. **Table 1B-1** illustrates the components of cost, scope, and schedule control.
- Step 3. Track project performance against the baseline. Are scope, schedule, and budget on track?
- Step 4. Continually evaluate scope, schedule, and budget against the established baseline.

**Worth Noting:** If project changes arise, assess the impact of those changes against the baseline (scope, schedule, budget) and take management action to avoid as much impact as possible on the scope, schedule, and/or budget.



A subrecipient should consider implementing the high-level control mechanisms as defined in **Table 1B-1**.

**Table 1B-1. Project Control Elements**

Element	Description
Scope	<ul style="list-style-type: none"> <li>■ Defines the project</li> <li>■ Identifies deliverables and controls deliverable changes</li> <li>■ Tracks impacts of any scope changes</li> </ul>
Schedule	<ul style="list-style-type: none"> <li>■ Defines critical path, defined as dates of activities and milestones</li> <li>■ Identifies activities that determine project duration</li> <li>■ Tracks and controls schedule changes</li> </ul>
Budget	<ul style="list-style-type: none"> <li>■ Defines budget and work breakdown structure</li> <li>■ Tracks actual costs</li> <li>■ Estimates costs at completion</li> <li>■ Controls changes to costs and variances of forecast costs</li> </ul>

### 1B.A.2 Technical Assistance for Subrecipients

FTA, CDOT and Division of Transit and Rail (DTR) staff seek to assist subrecipients with targeted technical services. FTA provides the following technical resources:

- ▶ Project Delivery Method Review (OP32D)
- ▶ Project Management Plan (PMP) Development
- ▶ Project Management Plan Review (OP20)
- ▶ Project Schedule Review (OP34)
- ▶ Project Scope Review (OP32C)

CDOT provides the following technical resources:

- ▶ Rural Planning Assistance Program
- ▶ Requirements for FTA Subrecipients
- ▶ CDOT Business Center - Scope Management Overview
- ▶ CDOT Business Center - Schedule Management Overview
- ▶ CDOT Business Center - Change Management Overview
- ▶ CDOT Business Center - Quality Management Overview

Chapter 6 of CDOT's **State Management Plan (SMP)** provides more information on technical assistance available to subrecipients. The SMP and other documents are listed in **Resource 1B-A**.

## 1B.B Financial Control and Funds Management

Subrecipients must maintain control and management of all project finances. Not only does FTA require financial control and management, but it is also considered good practice. Financial control and management allows agencies to effectively track budget, predict future budgetary constraints, and meet federal (FTA) requirements.

### 1B.B.1 Financial Management and Capacity

- Step 1. CDOT and FTA require subrecipients to develop and maintain financial management and capacity documentation to comply with financial tracking and reporting requirements outlined in **2 CFR 200, Subparts A-F** (refer to **Resource 1B-A**).
  - ▶ Financial management and capacity documentation is evaluated as part of the subrecipient's minimum threshold requirements to establish a local transit agency's eligibility for receiving funds. Refer to **Chapter 3 of the SMP** for additional information on financial management and minimum thresholds, as listed in **Resource 1B-A**.
- Step 2. CDOT conducts a pre-award review for all new applicants to determine the adequacy of the local transit agency's financial systems. Refer to **Chapter 3 of the SMP** for more details on the pre-award review, which is listed in **Resource 1B-A**.
- Step 3. After a local transit agency receives an award, DTR monitors the subrecipient's performance related to responsible management of the awarded funds and promptly takes action when noncompliance is identified through reimbursement requests, site visits, or audits.
- Step 4. Subrecipients maintain documentation for financial transactions in their files and make the documentation available for audit upon request. **Section 1B.B.5** and **Section 1B.L** provide more information on audits.

### 1B.B.2 Allowable Costs

Refer to Department of Transportation (DOT) Regulation "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards," **2 CFR 1201**, in **Resource 1B-A** for information on allowable costs for FTA-funded capital facility projects.

### 1B.B.3 Indirect Costs

**2 CFR 200.1** in **Resource 1B-A** states that indirect costs are defined as costs:

- ▶ Incurred for a common or joint purpose benefiting more than one project
- ▶ Not readily assignable to the budget of the capital project, yet the cost yields benefits where the effort is not disproportionate to the results achieved
- ▶ Simultaneously incurred by other entities in supplying goods, services, and facilities to the capital facility project

FTA and CDOT policies dictate that subrecipients must include indirect costs and cost rates in a Cost Allocation Plan or in an Independent Cost Rate Proposal, as stated in **Chapter 1A Capital Projects Planning and Initiation**.

### 1B.B.4 Program Income

Program income is used to offset program costs where appropriate. FTA's program income policies are included in the "Program Income" provisions of **2 CFR 1201.80** and the latest **FTA Master Agreement** linked in **Resource 1B-A**. CDOT must include start and end dates of the period of performance in its award.

Subrecipients may use program income earned during the period of performance of an FTA grant as follows:

- ▶ Retain the income for other capital or operating public transportation expenses. If the subrecipient chooses not to use program income for current or future FTA grants or for other public transportation purposes, then the amount of program income used for non-public transportation related purposes is deducted from the total allowable costs to determine the net allowable costs.

- ▶ Depending on federal statutory or regulatory restrictions, use the program income for the non-federal share for a future public transportation project that will receive federal assistance provided by FTA.

Additional program income considerations include:

- ▶ **Property:** Proceeds from the sale of real property or equipment are not considered program income. Such proceeds are handled in accordance with the requirements of **2 CFR 200, subpart D, 2 CFR 200.311 and 2 CFR 200.313**, provided as resources in **Resource 1B-A**.
- ▶ **Income after the Performance Period of an Award:** Except as otherwise determined in writing, the subrecipient has no obligation to FTA regarding the disposition of program income earned after the end of the period of performance of the award. FTA may negotiate agreements with CDOT and/or subrecipients regarding appropriate uses of program income earned after the period of performance as part of the closeout process for the grant award.
- ▶ **Farebox Revenue:** Farebox revenue may not be used as the non-federal share for any FTA grant program. Farebox revenue is used to determine “net project cost” for operating assistance grants only and is not considered program income for capital assistance grants. **FTA Circular 9040.1G** listed in **Resource 1B-A** provides more information on farebox revenue.

**Worth Noting – Additional Guidance:** Each FTA program may have its own guidance related to program income. Consult **FTA’s Grant Programs** linked in **Resource 1B-A** for more information on specific programs.

### 1B.B.5 Annual Financial Audit

Subrecipients that expend \$750,000 or more in a year in federal assistance from all sources must have a single audit conducted, except when they elect to have a program-specific audit conducted per **2 CFR 200.501(a)** through (c), which is linked in **Resource 1B-A**. The audit must be completed, and the data collection form and reporting package submitted within the earlier of 30 calendar days after receipt of the auditor’s report(s), or nine months of the end of the audit period. If the due date falls on a Saturday, Sunday, or federal holiday, the reporting package is due the next business day.

- Step 1. The subrecipient obtains the services of an independent auditor to conduct a single audit each year unless Colorado’s constitution says otherwise.
- Step 2. After the audit is completed, the subrecipient is required to submit a copy of their annual single audit report to FTA if the audit report contains any findings and recommendations related to the FTA program or other US Department of Transportation (USDOT) program findings.
- Step 3. If the audit report does not contain any FTA findings or recommendations, the subrecipient submits one copy of only the Federal Clearinghouse transmittal sheet, “Data Collection Form for Reporting on Audits of States, Local Governments, and Non-Profit Organizations, OMB Form SF-SAC,” to FTA Region 8.

**Worth Noting – Retention of Audit Files:** Subrecipient must keep one copy of the data collection form and one copy of the audit reporting package on file for three years from the date of submission to the Federal Clearinghouse. CDOT must keep subrecipient submissions on file for three years from date of receipt.

## 1B.B.6 Payment Procedures

Provisions in **2 CFR 200.305** and **31 CFR 205**, listed in **Resource 1B-A**, govern payments to the subrecipient for financing operations under federal assistance. These regulations require that advance payment to a subrecipient be limited to the minimum amount needed and timed to meet only the immediate cash requirements of the subrecipient. The amount and timing of advance payments must be as close as possible to the actual disbursements by CDOT for direct costs of the grant award and the proportionate share of any allowable indirect costs. The subrecipient must make timely payment to third-party contractors in accordance with the third-party contract provisions.

- Step 1. Subrecipient verifies that federal assistance is available. Before requesting federal assistance, subrecipient verifies in FTA's Transit Award Management System (TrAMS) that the amount of federal assistance to be accessed is available for the award. Subrecipient should not request federal assistance in amounts greater than the "Available Funds" reported in TrAMS. The **TrAMS Portal** is linked in **Resource 1B-A**.
- Step 2. FTA makes payments directly to CDOT through the FTA ECHO portal. The **ECHO Portal** linked in **Resource 1B-A**.
- Step 3. CDOT then disperses reimbursement to the subrecipient. **FTA Circular 5010.1E** in **Resource 1B-A** provides more information on disbursements.

## 1B.B.7 De-obligation of Federal Assistance, Debt Service Reserve, and Right to Termination

Subrecipients should note the following FTA policies and procedures in relation to de-obligation of federal assistance, debt service reserve, and right to termination:

- ▶ **De-obligation of Federal Assistance:** FTA reserves the right to de-obligate unspent federal assistance before closeout of an award.
- ▶ **Debt Service Reserve:** The terms of a Bond Indenture often require that a subrecipient using debt financing in the form of bonds establish a Debt Service Reserve (DSR). A DSR usually remains untouched for the term of the bond and is used to make a subsequent debt service payment only if the subrecipient has insufficient funds to do so. If the DSR is used in this way, the subrecipient must replenish the DSR from its own funds and within the timeframes outlined in the Bond Indenture or be in default. **FTA Circular 5010.1E** in **Resource 1B-A** provides more information on DSR.
- ▶ **Right to Termination:** Subrecipient agrees that, upon written notice, FTA may suspend or terminate all or part of the federal assistance if the subrecipient is, or has been, in violation of the terms of an award, or if FTA determines that the purposes of the project are no longer adequately served by continuing federal assistance for the award. **FTA Circular 5010.1E** in **Resource 1B-A** provides more information on FTA's right to termination.

## 1B.B.8 Federal Funds and Lobbying

Subrecipients are prohibited from using federal funds to lobby for federal funds. Subrecipients receiving federal funds in excess of \$100,000 must file a written certification annually stating that no federal funds have been paid for lobbying.

- Step 1. Office of Financial Management and Budget submits Standard Form LLL (Rev.7-97), Disclosure of Lobbying Activities, annually through TrAMS (omnibus and apportionments).
- Step 2. The subrecipient certifies through its executed subaward agreement that it shall not use federal assistance funds for publicity or propaganda purposes designed to support or defeat legislation or appropriations pending before Congress or a state legislature.

Additionally, DTR requires all applicants and all subrecipients to submit the Standard Form LLL through COTRAMS as part of the annual Certifications and Assurance submittals. **Section 1B.E.2** lists FTA's required annual certifications and assurances. CDOT requires firms that are awarded CDOT personal service/professional service contracts in excess of \$100,000 to submit lobbying certifications with their proposals or bids.

## 1B.B.9 Local Funds and Lobbying

Subrecipients are tied to the following regulations around lobbying:

- Step 1. If the subrecipient uses local funds to lobby for transit purposes, the subrecipient should submit disclosure form Standard Form LLL (Rev.7-97) as often as once per calendar quarter, depending on whether their lobbying activities change materially.
- Step 2. If during any given quarter there are material changes, the subrecipient files an updated form. DTR requires applicants to upload the lobbying disclosure form to COTRAMS annually. The subrecipient must upload quarterly disclosure forms if any of the following material changes occur:
  - ▶ A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a “covered Federal action”
  - ▶ A change in the person(s) attempting to influence such action
  - ▶ A change in the officer(s), employee(s), or member(s) contacted to attempt to influence such action

## 1B.B.10 Litigation, Breaches and Defaults

Subrecipients should be aware of the following steps that DTR takes in cases of project-related litigation, breaches, and defaults:

- Step 1. DTR promptly notifies the FTA Chief Counsel or FTA Regional Counsel for Region 8 of any current or prospective legal matters that may affect the federal government.
  - ▶ Types of legal matters requiring notification include, but are not limited to, a major dispute, breach, default, litigation, or naming of the federal government as a party to litigation or a legal disagreement in any forum for any reason.
- Step 2. At the same time, DTR notifies Colorado Attorney General's Office as CDOT's legal counsel, who handles the legal matter.
- Step 3. DTR updates FTA about any litigation, breaches, or defaults occurring during its State Management Review, which occurs every 3 years.

**FTA Master Agreement**, Section 39, details FTA requirements regarding disputes, breaches, defaults, or other litigation. The most current Master Agreement is listed in **Resource 1B-A. Sections 1B.E.8** through **1B.E.12** contain additional information on litigation, claims, settlements, and other legal/contractual concerns.

## 1B.C Grants Management throughout Award Lifecycle

Throughout the award lifecycle, subrecipients must comply with state and federal requirements. DTR works alongside subrecipients to ensure that they are adhering to project implementation, statutory and policy regulations, internal controls/accounting standards, and completing FTA reporting. **Table 1B-2** identifies compliance milestones led by DTR staff and those that are the subrecipient’s responsibility. **Section 1B.F.1** details the Milestones Progress Report, a formal document that details any subrecipient milestones.

**Table 1B-2. Compliance Milestones and Action Items**

Compliance Milestones	DTR Action Items	Subrecipient Action Items
Local Match Requirements	N/A	Ensure local match requirements are met, as applicable. <b>Chapter 1A Capital Project Planning and Initiation</b> provides more information.
Project Implementation	Comply with reporting requirements.	<ul style="list-style-type: none"> <li>■ Participate in Subrecipient Information Request (SIR).</li> <li>■ Participate in Site Review process. After the initial SIR and site visit, the frequency and level of oversight are based on the results of the scores of the Risk Assessment completed by the subrecipient and DTR in COTRAMS.</li> <li>■ Comply with reporting requirements. Refer to <b>Sections 1B.F, 1B.G.1 and 1B.G.2.</b></li> <li>■ Conduct third-party procurements according to FTA and state regulations. Refer to <b>Section 1B.E.</b></li> <li>■ Report to National Transit Database. Refer to <b>Section 1B.F.4.</b></li> </ul>
Statutory and Policy Requirements	N/A	Participate in a single audit if more than \$750,000 in federal assistance will be expended within 1 year. Refer to <b>Section 1B.B.5.</b>
Internal Controls/ Accounting Standards	<ul style="list-style-type: none"> <li>■ Assess internal control processes to provide reasonable assurance that subrecipient can perform effectiveness and efficiency of operations; reliability of reporting for internal and external use; compliance with applicable laws and regulations.</li> <li>■ Ensure that subrecipient has financial management and capacity to comply with financial tracking and reporting requirements outlined in <b>2 CFR 200, Subparts A-F.</b></li> <li>■ Monitor agency’s performance related to responsible management of awarded funds.</li> <li>■ Act in instances of noncompliance evaluated through reimbursement requests, site visits, or audits.</li> </ul>	<p>Ensure reporting requirements outlined in <b>2 CFR 200, Subparts A-F</b> can be met, including:</p> <ul style="list-style-type: none"> <li>■ Written financial policies and procedures.</li> <li>■ Defined agency organizational structure that assigns and delegates authority.</li> <li>■ Written financial plan that projects revenues and expenses for a minimum of 3 years.</li> <li>■ Record of annual budget to actual reconciliation reports for the current year.</li> </ul> <p><b>Section 1B.B.1</b> provides more information on financial management and capacity requirements for subrecipients. <b>Resource 1B-A</b> provides a link to <b>2 CFR 200, Subparts A-F.</b></p>
FTA Reporting	<ul style="list-style-type: none"> <li>■ Review quarterly reports produced by subrecipients. <b>These reports are required for FTA-funded projects involving construction activities.</b> If other funds are used for construction activities, quarterly reports may be needed depending on the discretionary grant used to fund the capital facility project.</li> <li>■ Review MPRs annually for submittal to the FTA on the project status.</li> </ul>	<ul style="list-style-type: none"> <li>■ Develop quarterly reports for FTA submittal. <b>These reports may or may not be necessary depending on what discretionary grant is used to fund the capital facility project.</b></li> <li>■ Develop annual reports for FTA submittal for other open projects.</li> <li>■ Develop annual MPRs for submittal to the FTA regarding project status.</li> </ul> <p><b>Section 1B.F</b> provides additional information related to FTA reporting.</p>



## 1B.D Contracting/Procurement Process and Writing a Request of Proposal

When developing an RFP, the subrecipient should consider several items beforehand to ensure that the writing and review process is streamlined. Preliminary elements of an RFP include determining the:

- ▶ Project priorities, including a clear project definition.
- ▶ Project background, including any potential project partners (such as a town, city, or other entity) and political circumstances.
- ▶ “Hard and fast requirements” that the subrecipient must have for bidders, including those that may be useful in vetting qualifications and providing the subrecipient with a clear evaluation process; **Section 1B.D.12, Step 5**, provides examples.

### 1B.D.1 Third-Party Contracting Overview

As recipients of federal funds used in third-party procurements, CDOT and subrecipients receiving federal funds must comply with all federal procurement standards outlined in **2 CFR 200.318 General Procurement Standards** through **2 CFR 200.326 Contract Provisions**, linked in **Resource 1B-A**.

CDOT and subrecipients receiving federal funds must ensure that all of their contracts or subcontracts made in connection with FTA transit funds comply with the provisions described in **Appendix II to 200—Contract Provisions for non-Federal Entity Contracts Under Federal Awards**, linked in **Resource 1B-A**. Subrecipients must track all prime contractors and subcontractors, including Disadvantaged Business Enterprises (DBEs), on all awarded, in process, and closed FTA-funded contracts.

- Step 1. DTR monitors and oversees subrecipient purchases of goods and/or services using FTA and state funds to confirm that the procurements comply with applicable state and federal regulations.
- Step 2. The subrecipient develops written procurement procedures that conform to applicable state and local regulations, as well as federal laws and standards set forth in **2 CFR 200.318 General Procurement Standards** through **2 CFR 200.326 Contract Provisions**. The subrecipient includes the following in their procurement procedures:
  - ▶ Identified dollar thresholds, specifically for sealed bids/competitive process
  - ▶ Description of management of payment to contractors
  - ▶ A protest and appeal process
  - ▶ Standards of conduct
  - ▶ Graduated purchasing authority (which employee can authorize what type of purchase)
  - ▶ Policy for documenting responsibility determinations (prior to the award, bidders are checked for integrity, compliance, past performance, etc.)

**Section 4.5.5.2 in the SMP in Resource 1B-A** provides more information on subrecipient procurement procedures.
- Step 3. DTR coordinates, as needed, with the CDOT Procurement and Contract Services Office throughout the procurement process.
- Step 4. The Procurement and Contract Services Office reviews the SOW/specifications; recommends the type of procurement; and drafts and reviews the procurement subaward agreements, purchase orders, and associated documentation.
- Step 5. The Procurement and Contract Services Office conducts annual training for subrecipients on CDOT procurement procedures.
- Step 6. The subrecipient submits required documentation in COTRAMS for the Grant Manager’s review and approval at each step of the third-party procurement process, including the following:
  - ▶ Independent Cost Estimate (ICE) (refer to **Section 1B.D.2**)
  - ▶ Procurement Method (refer to **Sections 1B.D.4** and **1B.D.5**)
  - ▶ Procurement Forms (refer to **Section 1B.D.7**)
  - ▶ Post Procurement Administrative Requirements (refer to **Section 1B.E**)
  - ▶ Retention Requirements (refer to **Sections 1B.H.6** and **1B.L**)



## 1B.D.2 High-Level Procurement Steps

The following steps provide a high level overview of DTR's procurement process. Additional details on each step are provided throughout this chapter.

- Step 1. Subrecipient prepares an ICE. **Section 1B.D.3** provides more information on the ICE.
- Step 2. Subrecipient determines the procurement method. **Sections 1B.D.4 and 1B.D.5** describe procurement methods.
- Step 3. The subrecipient submits project details to the Civil Rights and Business Resource Center (CRBRC) for DBE contract goal evaluation. More information on project details can be found in **Section 5.G.1** and **Section 5.G.2**.
- Step 4. Once DBE goals have been determined (if applicable) and a procurement method has been decided, the subrecipient submits a Procurement Concurrent Request (PCR) to DTR in COTRAMS.
- Step 5. DTR reviews all procurement information from **Step 2** and either approves or rejects the PCR.
- Step 6. The subrecipient goes out to bid using the procurement method agreed upon in the PCR.
- Step 7. The subrecipient submits the PCR.
- Step 8. DTR either approves or rejects the PCR. If rejected, the subrecipient must redo the PCR. If accepted, DTR generates the purchase authorization (PA) in COTRAMS.
- Step 9. The subrecipient checks SAM.gov for vendor registration and eligibility and captures a screen shot to send to DTR.
- Step 10. The subrecipient completes the PA in COTRAMS. If DTR rejects the PA, the subrecipient must redo the PA.
- Step 11. Once DTR approves the PA, the normal reimbursement process begins as project activities are completed.

## 1B.D.3 Independent Cost Estimate

An ICE is a tool to assist in determining the reasonableness or unreasonableness of the bid or proposal being evaluated and is required for all procurements regardless of the dollar amount. **FTA Circular 4220.1F**, which is available in **Resource 1B-A**, advises subrecipients to “perform a cost or price analysis in connection with every procurement action, including contract modifications...the starting point for these cost/price analyses is an independent cost estimate which is made before receiving bids or proposals.”

A subrecipient must prepare an ICE before conducting a procurement process. An independent estimate can range from a simple budgetary estimate to a complex estimate based on inspection of items like drawings, specifications, and previous procurement data. The independent estimate is especially critical when there is no price competition (for example, for architect-engineer procurements or where only one price proposal is received) or where offerors are submitting price proposals for goods or services that are not exactly comparable (for example, for procurements of high-technology items or professional services). An ICE is also useful in competitive procurements to alert the subrecipient when competitors are submitting unreasonably high cost proposals. An ICE can help determine the appropriate procurement method and the special requirements for it, as outlined in **2 CFR 200.320 - Procurement Methods** linked in **Resource 1B-A**.

## 1B.D.4 Procurement Methods and Thresholds

Procurement thresholds with accompanying procurement methods exist depending on the amount of federal funds being used. **Table 1B-3** shows how the specific procurement methods vary. Each procurement method includes several conditions and requirements for qualification. **FTA Circular 4220.1F** provides more information on micro-purchases and small purchases, **DTR's Quick Procurement Guide** provides information on procurements above small purchases, and **American Public Transportation Association Recommended Practice - The Process of Transit Procurement** provides more general information. All three of these resources are linked in **Resource 1B-A**.

**Table 1B-3. Federal Procurement Thresholds**

Threshold	Micro-Purchase \$0 to \$3,000	Small Purchase \$3,001 to \$250,000 (per 41 USC 1908)	Above Small Purchase >\$250,000
When Appropriate	<p>If permitted by state and local law, the subrecipient may acquire property and services valued at \$3,000 or less without obtaining competitive quotations. These purchases are exempt from FTA’s Buy America requirements and Davis-Bacon prevailing wage requirements; however, they will apply to construction contracts exceeding \$2,000, even though the subrecipient uses micro-purchase procurement procedures.</p> <p>FTA does not intend to imply that the subrecipient must treat any purchase of \$3,000 or less as a micro-purchase. The subrecipient may set lower thresholds for micro-purchases in compliance with state and local law, or otherwise as it considers appropriate.</p>	<p>Small purchase procedures may be used to acquire services, supplies, or other property valued at more than the micro-purchase threshold (currently, \$3,000) but less than the federal simplified acquisition threshold at 41 USC Section 403(11), currently \$100,000. (FTA recognizes the small purchase threshold to be the same as the simplified acquisition threshold.)</p>	<p>Any purchase greater than \$100,000 must use a competitive procurement process, such as a request of proposal. The procurement cannot be deemed an emergency procurement, and multiple bids must be received.</p>
Competition	<p>The subrecipient should distribute micro-purchases equitably among qualified suppliers.</p>	<p>The subrecipient must obtain price or rate quotations from an adequate number of qualified sources.</p>	<p>The subrecipient must obtain price or rate quotations from an adequate number of qualified sources.</p>
Prohibited Divisions	<p>The subrecipient may not divide or reduce the size of its procurement merely to come within the micro-purchase limit.</p>	<p>The subrecipient may not divide or reduce the size of its procurement to avoid the additional procurement requirements applicable to larger acquisitions.</p>	<p>The subrecipient may not divide or reduce the size of its procurement to avoid the additional procurement requirements applicable to larger acquisitions.</p>
Documentation	<p>FTA’s only documentation requirement for micro-purchases is a determination that the price is fair and reasonable and a description of how the subrecipient made its determination. FTA does not require the subrecipient to provide its rationale for the procurement method used, selection of contract type, or reasons for contractor selection or rejection.</p>	<p>N/A</p>	<p>Refer to <b>Sections 1B.D.12</b> through <b>1B.E.12</b>.</p>

**Worth Noting - Buy America Exemptions:** Small purchases are exempt from FTA's Buy America requirements. FTA does not intend to imply that any purchase of \$150,000 or less must be treated as a small purchase. A subrecipient may set lower thresholds for small purchases in compliance with state and local law, or otherwise as it considers appropriate.

In addition, as of August 16, 2023, certain *de minimis* costs and small grants have been exempted from Buy America requirements. USDOT finds that it is in the public interest to issue a waiver of Buy America's domestic preferences for iron and steel, manufactured products, and construction materials used in projects funded under USDOT-administered financial assistance programs for iron, steel, manufactured products, and construction materials under a single financial assistance award for which:

1. The total value of the non-compliant products is no more than the lesser of \$1,000,000 or 5 percent of total applicable costs for the project.
2. The total amount of federal financial assistance applied to the project, through awards or subawards, is below \$500,000.

The waiver applies only to awards that are obligated or subawards that are made on or after the effective date of the waiver. The waiver is applicable to subawards only if the subawards are made by a pass-through entity for a specific project.

In applying the waiver, the "total value of the non-compliant products" does not include the value of those products subject to a separate Buy America waiver. "Total applicable project costs" are defined as the cost of materials (including the cost of any manufactured products) used in the project that are subject to a domestic preference requirement, including materials that are within the scope of an existing waiver.

Refer to **Waiver of Buy America Requirements for *De Minimis* Costs and Small Grants in Resource 1B-A** for a definition and additional information on Buy America.

### 1B.D.5 Additional Procurement Methods

Several other procurement methods are available depending on the nature of a capital facility project, the anticipated budget, the award amount, and more. Other methods include:

- ▶ Architectural & Engineering (A&E) services
- ▶ Two-step procurement (Request for Qualifications [RFQ]/RFP, which are described in **Sections 1B.D.10 through 1B.D.13**)
- ▶ Sealed bids (Design-Bid-Build)
- ▶ Design-Build
- ▶ Construction Manager/General Contractor

FTA Circular 4220.1F (Chapter VI) in **Resource 1B-A** provides additional information on these procurement methods.

### 1B.D.6 Full and Open Competition

Subrecipients must provide full and open competition when soliciting bids or RFPs. The Common Grant Rules for governmental recipients, however, acknowledge that under certain circumstances, a subrecipient may conduct procurements without providing for full and open competition.

A subrecipient may use noncompetitive proposals only if at least one of the following circumstances is present:

- ▶ Adequate qualified competition and source
- ▶ Sole source
- ▶ Unusual and compelling urgency
- ▶ Associated capital maintenance item exception repealed

FTA must review all instances of noncompetitive proposals. Refer to **FTA Circular 4220.1F (Chapter VI(3)(i))** in **Resource 1B-A** for more information on circumstances warranting noncompetitive proposals.

The Common Grant Rules prohibit solicitation requirements that contain features that unduly restrict competition. **49 USC Section 5325(h)**, listed in **Resource 1B-A**, also prohibits FTA subrecipients from using FTA assistance to support an exclusionary or a discriminatory specification. Situations considered to be impermissibly restrictive of competition include, but are not limited to, the items listed in **Table 1B-4**, all of which are identified in one or both Common Grant Rules.

**Table 1B-4. Prohibited Request for Proposal Requirements**

Prohibited Requirement	Description
Excessive Qualifications	Imposing unreasonable business requirements for bidders or offerors.
Unnecessary Experience	Imposing unnecessary experience requirements for bidders and offerors.
Improper Prequalification	Using prequalification procedures that conflict with the prequalification standards described in <b>FTA Circular 4220.1F</b> linked in <b>Resource 1B-A</b> .
Retainer Contracts	Making a noncompetitive award to any person or firm on a retainer contract with the subrecipient if that award is not for the property or services specified for delivery under the retainer contract.
Excessive Bonding	Imposing bonding requirements on third-party contractors other than construction bonding specified by the <b>Common Grant Rules</b> and <b>FTA Circular 4220.1F</b> for construction linked in <b>Resource 1B-A</b> .
Brand Name Only	Specifying only a “brand name” product without allowing offers of “an equal” product or allowing “an equal” product without listing the salient characteristics that the “equal” product must meet to be acceptable for award.
In-State or Local Geographic Restrictions	Specifying in-state or local geographical preferences or evaluating bids or proposals in light of in-state or local geographic preferences, even if those preferences are imposed by state or local laws or regulations.
Organizational Conflicts of Interest	Engaging in practices that result in organizational conflicts of interest as prohibited by the <b>Common Grant Rules</b> .
Restraint of Trade	Supporting or acquiescing in noncompetitive pricing practices between firms or between affiliated companies. Refer to <b>FTA Circular 4220.1F</b> in <b>Resource 1B-A</b> for more details.

### 1B.D.7 Procurement Forms

Subrecipients complete a four-step procurement process in COTRAMS, where the following forms are collected:

- ▶ Procurement Concurrence Request (PCR): Will be approved by DTR in COTRAMS.
- ▶ Purchase Authorization (PA): Will be approved by DTR in COTRAMS.
- ▶ Security Agreement (SA): Completed by the subrecipient, but no formal approval by DTR is required.
- ▶ Notice of Acceptance (NA): Completed by the subrecipient, but no formal approval by DTR is required. Applicable to rolling stock and equipment purchases ONLY.

For more information about the procurement approval process, refer to **Attachment 4-5** in DTR's **Quick Procurement Guide** in **Resource 1B-A**.

### 1B.D.8 Cost and Price Analysis

Common Grant Rules require a subrecipient to perform a cost analysis or a price analysis in connection with every procurement action, including contract modifications. The method and degree of analysis depend on the facts and circumstances surrounding each procurement, but as a starting point, the subrecipient must make independent estimates before receiving bids or proposals. For more information about cost and price analyses, refer to **FTA Circular 4220.1F** in **Resource 1B-A**.

### 1B.D.9 Third Parties and DBE Requirements

A subrecipient must take all necessary affirmative steps to assure that minority businesses, women business enterprises, and labor surplus area firms are used when possible. **2 CFR 200.321 Contracting with Small and Minority Businesses**, in **Resource 1B-A**, spells out this policy. A subrecipients must incorporate Title VI, DBE goals or policies and DBE nondiscrimination language into procurement documents and awarded contracts. For more information or assistance with DBE and/or Civil Rights in procurement, contact the CDOT CRBRC team.

### 1B.D.10 Request for Proposal and Request for Qualifications Overview

As a subrecipient of federal dollars, local transit agencies must document the need for obtaining professional services. Prior to solicitation for consultant services, a subrecipient must develop a detailed SOW and a list of evaluation factors and their relative importance. The evaluation factors are those identified in **CRS 24-30-1403** which is linked in **Resource 1B-A**. A subrecipient must also prepare a detailed cost estimate for use during negotiations.

A subrecipient then must prepare a written RFP or RFQ to solicit proposals from consultants. The RFP must include the SOW, the evaluation factors and their relative importance, the method of payment, and the goal for DBE participation set by CDOT. CDOT's **Center for Procurement and Contract Services** remains a resource for subrecipients; a link to their homepage is provided in **Resource 1B-A**.

### 1B.D.11 When a Request for Proposal Is Appropriate

Common Grant Rules for governmental recipients acknowledge the use of competitive proposals as a generally accepted procurement method when the nature of the procurement does not lend itself to sealed bidding and the subrecipient expects that more than one source will be willing and able to submit an offer or a proposal. An RFP is typically appropriate when (any number of) the following circumstances are present:

- ▶ **Type of Specifications:** The property or services to be acquired are described in a performance or functional specification; or if described in detailed technical specifications, other circumstances such as the need for discussions or the importance of basing the contract award on factors other than price alone are present.
- ▶ **Uncertain Number of Sources:** Uncertainty about whether more than one bid will be submitted in response to an invitation for bids and the subrecipient lacks the authority or flexibility under state or local law to negotiate the contract price if it receives only a single bid.



- ▶ **Price Alone Not Determinative:** Due to the nature of the procurement, contract award need not be based exclusively on price or price-related factors. In different types of negotiated acquisitions, the relative importance of cost or price may vary. When the subrecipient's material requirements are clearly definable and the risk of unsuccessful contract performance is minimal, cost or price may play a dominant role in source selection. The less definitive the requirements, the more development work required, or the greater the performance risk, the more technical or past performance considerations may play a dominant role in source selection and supersede low price.
- ▶ **Discussions Expected:** Separate discussions with individual offeror(s) are expected to be necessary after they have submitted proposals. This contrasts with Sealed Bids (Formal Advertising) procedures in which discussions with individual bidders are not likely to be necessary, as award of the contract will be made based on price and price-related factors alone.

### 1B.D.12 Writing a Request for Proposal

The subrecipient should follow these steps for writing an RFP:

- Step 1. Because solicitation planning is a critical first step in writing an RFP, the subrecipient should organize tasks and identify staff responsible for the following duties:
  - ▶ Verifying who is authorized to award and execute the procurement
  - ▶ Developing a procurement schedule
  - ▶ Developing an Independent Cost Estimate (refer to **Section 1B.D.2**)
  - ▶ Verifying the project budget
  - ▶ Reviewing the SOW
- Step 2. The subrecipient determines and specifies all evaluation factors and their relative importance in the solicitation; numerical or percentage ratings or weights need not be disclosed.
- Step 3. After evaluation factor determinations are made, the subrecipient develops technical specifications, contract terms, and a solicitation evaluation process within the RFP. Typical activities for this step include revising/drafting a General Conditions section, revising/drafting Technical Specifications and/or Performance Specifications, revising/drafting Special provisions, and drafting a Source Selection Plan.
- Step 4. The subrecipient conducts an internal review of documentation and considers whether an external review is appropriate after this stage.
- Step 5. Because each subrecipient may have different requirements or needs to be addressed in an RFP, consultants, vendors, or contractors often find it helpful if the subrecipient includes project context and background, along with a clearly defined purpose and need for the project. In addition, the subrecipient considers the following key requirements in an RFP:
  - ▶ **Critical:** What deliverables must the consultant, vendor, or contractor absolutely achieve?
  - ▶ **Functional:** What functions must the consultant, vendor, or contractor fill?
  - ▶ **Technical:** What technical capabilities must the consultant, vendor, or contractor possess to successfully complete a SOW?
  - ▶ **Contractual:** What legal language needs to be included about contract starting and ending dates and any additional requirements set by the subrecipient, town, city or county attorney?
  - ▶ **Management:** Is the consultant, vendor, or contractor to take on the primary managerial responsibilities of the project or will subrecipient staff be the primary managerial party? Will they provide managerial support? Will they perform cost, schedule, and scope control? How much managerial experience does the agency require from a consultant, vendor, or contractor?
  - ▶ **Submission:** When is an RFP due? How is it due? By mail and/or electronically?
  - ▶ **Responsibility:** Is the consultant, vendor, or contractor being hired a reputable one?

- Step 6. The subrecipient identifies a proposed fee for the necessary work to be completed as a part of the RFP. The subrecipient considers the following when creating a project budget:
  - ▶ Management and progress reporting
  - ▶ Data collection needs
  - ▶ Public and/or stakeholder engagement
  - ▶ Analysis
  - ▶ Recommendations
  - ▶ Draft/final reports and/or presentations
- Step 7. The subrecipient includes in the RFP solicitation the following required items from **FTA Circular 4220.1F**, linked in **Resource 1B-A**:
  - ▶ Clear descriptions
  - ▶ Nonrestrictive specifications
  - ▶ Quality requirements
  - ▶ Preference for performance specifications
  - ▶ Brand name or equal
  - ▶ Evaluation factors on how bidders will be evaluated
- Step 8. When the RFP is finalized, the subrecipient issues and circulates the RFP to bidders, a proposers list, and/or a vendor roster.
- Step 9. The subrecipient evaluates proposals based on the identified selection criteria.

### 1B.D.13 Federal Requirements in Requests for Proposals

Each FTA fund has different requirements for RFPs, particularly what clauses must be included. FTA Circulars identify any federal requirements for an RFP (or any other procurement method), as well as federal requirements that must be obliged throughout the capital facility project process. **Table 1B-5** lists several FTA Circulars that are applicable to funding sources for capital facilities. The subrecipient shall contact the CDOT CRBRC to determine the appropriate type and date of the wage determination(s) required to be included in the RFP.

Local transit agencies can access more information (online) by clicking the hyperlinked grant name under “Source” in **Table 1B-5**.

**Table 1B-5. FTA Circulars for FTA Funds**

Source	FTA Circular
<a href="#">5311 Formula Grants for Nonurbanized/Rural Areas</a>	9040.1G
<a href="#">5339(a) Bus and Bus Facilities</a>	5100.1
<a href="#">Capital Investments Grants</a>	N/A

### 1B.D.14 Contract Award

Once proposals are received, the subrecipient has several options: 1) proposers can be shortlisted and more information or interviews can be requested, 2) proposals can be negotiated, or 3) a proposer can be awarded. The subrecipient selects a contract based on the following FTA-recommended methods:

- ▶ **Award to Other Than the Lowest Bidder or Offeror:** Federal transit law at **49 USC Section 5325(c)** linked in **Resource 1B-A** authorizes the subrecipient to award a contract to other than the lowest bidder if the award furthers an objective consistent with the purposes of 49 USC Chapter 53, including improved long-term operating efficiency and lower long-term costs. The subrecipient may also award a contract to other than the offeror whose proposal is lowest, when stated in the evaluation factors of the solicitation. In both cases, the subrecipient should include a statement in its solicitation document reserving the right to award the contract to other than the low bidder or offeror.



- ▶ **Award Only to a Responsible Bidder or Offeror:** 49 USC Section 5325 requires that FTA assisted contract awards be made only to “responsible” contractors possessing the ability, willingness, and integrity to perform successfully under the terms and conditions of the contract. Responsibility is a procurement issue determined by the subrecipient after receiving bids or proposals and before making a contract award. FTA expects prospective contractors to demonstrate affirmatively to the subrecipient that it qualifies as “responsible” under the standards of 49 USC Section 5325 and that its proposed subcontractors also qualify as “responsible.” To designate a prospective contractor “responsible” as required by 49 USC Section 5325, FTA expects the subrecipient, at a minimum, to determine and ensure that the prospective contractor satisfies the following criteria described herein. In addition to being otherwise qualified and eligible to receive the contract award under applicable laws and regulations, a responsible contractor must fulfill the following criteria:
  - Integrity and ethics
  - Debarment and suspension
  - Affirmative Action and DBE
  - Public policy
  - Administrative and technical capacity
  - Licensing and taxes
  - Financial resources
  - Production capability
  - Timeliness
  - Performance record

For more information on contract awards, refer to **FTA Circular 4220.1F** and **49 USC Section 5325** linked in **Resource 1B-A**. **Section 1B.L** provides post-procurement administrative requirements and retention requirements for documentation.

### 1B.D.15 Additional Procurement Information

The subrecipient may need more information about professional services contracts, small business contracts, and competitive procedures per direction of DTR/CDOT. The following resources are available in **Resource 1B-A**:

- ▶ Professional Services Contracts: Refer to **Chapter 3 of the SMP**.
- ▶ Contracting with Small and Minority Businesses, Women’s Business Enterprises, and Labor Surplus Area Firms: Refer to **Chapter 3 of the SMP**.
- ▶ Competitive Procurement Transactions: Refer to **Chapter 3 of the SMP**.
  - Unsolicited Proposals: Refer to **FTA Circular 4220.1F**.
  - Prequalification: Refer to **FTA Circular 4220.1F**.
  - Additional regulations and requirements for procurement: **FTA Circular 4220.1F** and **Section 1B.E** of this manual

## 1B.E Procurement and Contract Administration

Procurement and contract administration can be necessary at any stage in a capital facility project as a subrecipient may need to procure professional, design, architecture, and construction services in the process of constructing a facility. While **Section 1B.D** describes basic contracting requirements, how to write an RFP and more, this section describes several additional procurement-related requirements and tasks a subrecipient may encounter beyond those related to specific project activities.

FTA's Common Grant Rules<sup>1</sup> assigns the responsibility for resolving all contractual and administrative issues arising out of third-party procurements to the subrecipient. Refer to **FTA Circular 4220.1F** in **Resource 1B-A** for more information on Common Grant Rules and other procurement matters.

In general, FTA does not substitute its judgment for that of the subrecipient unless the matter is primarily a "federal concern." *Federal concerns* include, but are not limited to, situations "where a special Federal interest is declared because of program management concerns, possible mismanagement, impropriety, waste, or fraud." Nevertheless, FTA can become involved in the subrecipient's administrative decisions when a subrecipient's protest decision is appealed to FTA or when the subrecipient seeks to use FTA assistance to support the costs of settlements or other resolutions of protests, disputes, claims, and/or litigation.

### 1B.E.1 FTA's Procurement Systems Elements

The following elements are required as a part of a subrecipient's procurement process. **Table 1B-6** lists each element and identifies where that basic requirement can be found in **FTA Circular 4220.1F**, linked in **Resource 1B-A**.

**Worth Noting – Ongoing Addition of Elements:** The procurement systems elements listed in **Table 1B-6** may be added to or changed in the future. However, the requirements related to each element are unlikely to change unless **FTA Circular 4220.1F** changes.

### 1B.E.2 FTA List of Certifications and Assurances

FTA is required to post their list of certifications and assurances annually. Subrecipients should refer to FTA's **Annual List of Certifications and Assurances for FTA Grants and Cooperative Agreements** webpage linked in **Resource 1B-A** for the most up-to-date list.

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<sup>1</sup>Common Grant Rules, for purposes of **FTA Circular 4220.1F**, means: (1) DOT regulations, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments," 49 CFR Part 18, which apply to federal grants and cooperative agreements with governmental recipients of federal assistance including Indian tribal governments, and (2) DOT regulations, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations," 49 CFR Part 19, which apply to federal grants and cooperative agreements with non-governmental recipients of federal assistance.

**Table 1B-6. Procurement Systems Elements**

Element	Basic Requirement
1. Written Standards of Conduct	FTA C4220.1F, III, 1. a., b., c.
2. Contract Administration System	FTA C4220.1F, III, 3.
3. Written Protest Procedures	FTA C4220.1F, VII, 1.a.b.
4. Prequalification System	FTA 4220.1F, VI, 1.c.
5. Procedures for Ensuring Most Efficient and Economic Purchase	FTA C4220.1F, IV, 1.
6. Procurement Policies and Procedures	FTA C4220.1F, III, 3.a.
7. Independent Cost Estimate	FTA C4220.1F, VI, 6.
8. A&E Geographic Preference	FTA C4220.1F, VI, 2.a.(4)(g)(1)
9. Unreasonable Qualification Requirements	FTA C4220.1F, VI, 2.a.(4)
10. Unnecessary Experience and Excessive Bonding	FTA C4220.1F, VI, 2.(4)]; FTA C4220.1F, VI, 2.a.(4)(e)]
11. Organizational Conflict of Interest	FTA C4220.1F, VI, 2.a.(4)(h) 1., 2.
12. Arbitrary Action	FTA C4220.1F, VI, 2.a.(4)(j)
13. Brand Name Restrictions FTA C 4220.1F., VI, 4.	FTA C 4220.1F., VI, 4.
14. Geographic Preferences FTA C 4220.1F, VI, 2.(4)(g)	FTA C 4220.1F, VI, 2.(4)(g)
15. Contract Period of Performance Limitation	FTA C4220.1F, IV, 2.e.(10)
16. Written Procurement Selection Procedures	FTA C4220.1F, III, 3.a.; FTA C4220.1F, VI, 2.d.
17. Solicitation Prequalification Criteria	FTA C4220.1F, VI, 1.c.
18. Award to Responsible	FTA C4220.1F, IV, 2.a.1.
19. Sound and Complete Agreement	FTA C4220.1F, III, 3.b.
20. No Splitting [Micro-purchase]	FTA C4220.1F, VI, 3.a.(2)
21. Fair and Reasonable Price Determination [Micro-purchase]	FTA C4220.1F, VI, 3.a.
22. Micro-purchase Davis-Bacon	FTA C4220.1F, VI, 3.a.(1)
23. Price Quotations [Small Purchase]	FTA C4220.1F, VI, 3.b.(2)
24. Clear, Accurate, and Complete specification	FTA 4220.1F, VI, 2.a.
25. Adequate Competition - Two or More Competitors	FTA C4220.1F, VI, 3.c.(1)(b); FTA C4220.1F, VI, 3.d.2(c)
26. Firm Fixed Price [Sealed Bid]	FTA C4220.1F, VI, 3.c.(1)(c)
27. Selection on Price [Sealed Bid]	FTA C4220.1F, VI, 3.c.(d)
28. Discussions Unnecessary [Sealed Bid]	FTA C4220.1F, VI, 3.c.(1)(e)
29. Advertised/Publicized	FTA C4220.1F, VI, 3, c.(2)(a); FTA C4220.1F, VI, 3.d.(2)(a)
30. Adequate Number of Sources Solicited (Sealed Bid) (RFP)	FTA C4220.1F, VI, 3.c.(1)(b); FTA C4220.1F, VI, 3.d.(2)(c)
31. Sufficient Bid time [Sealed Bid]	FTA C4220.1F, VI, 3.c.(2)(d)
32. Bid Opening [Sealed Bid]	FTA C4220.1F, VI, 3.c.(2)(e)
33. Responsiveness [Sealed Bid]	FTA C4220.1F, VI, 3.c.(2)(f)
34. Lowest Price [Sealed Bid]	FTA C4220.1F, VI, 3.c.(2)(f)
35. Rejecting Bids [Sealed Bid]	FTA C4220.1F, VI, 3.c.(2)(g)
36. Evaluation [RFP]	FTA C4220.1F, VI, 3.d.(2)(b); FTA C4220.1F, VI, 3.d.(2)(d)
37. Price and Other Factors [RFP]	FTA C4220.1F, VI, 3.d.(2)(e)
38. Sole Source if Other Award is Infeasible	FTA C4220.1F, VI, 3.



Element	Basic Requirement
39. Cost Analysis Required [Sole Source]	FTA C4220.1F, VI, 6.a.
40. Evaluation of Options	FTA C4220.1F, VI, 7.b.(1)
41. Exercise of Options	FTA C4220.1F, IV, 1.d.; FTA C4220.1F, V, 7.a.(1)
42. Cost or Price Analysis	FTA C4220. 1F, VI, 6.
43. Written Record of Procurement History	FTA C 4220.1F, III, 3.d.
44. Out of Scope Changes	FTA C4220.1F, VI, 3.i.(1)(b)
45. Tag-Ons	FTA C4220.1F, V,7. b.(2)
46. Advance Payments	FTA C4220.1F, IV, 2.b.(5)(b).1.2.; FTA C4220.1F, III, 3.d.(1)(c)(d)
47. Progress Payments	FTA C4220.1F, IV, 2.b.(5)(c)
48. Time and Materials Contracts	FTA C4220.1F, VI, 2.c.(2)(c)
49. Cost Plus Percentage of Cost	FTA C4220.1F, VI, 2.c.(2)(a)
50. Liquidated Damages Provisions	FTA C 4220.1F, IV, 2.b.(6)(b)1
51. Piggybacking	FTA C4220.1F, V, 7.a.(2)
52. Brooks Act/ Qualifications-based procurements	FTA C4220.1F, IV, 2.h.(1); (2) (a)
53. Qualifications Exclude Price [A&E and Other Services]	FTA C4220.1F, VI, 3.f.(3)(b)
54. Serial Price Negotiations [A&E and Other Services]	FTA C4220.1F, VI, 3.f.(3)
55. Design-Bid-Build	FTA C4220.1F, VI, 3.g.
56. Design-Build	FTA C4220.1F, VI, 3.h.
57. Veteran's Preference	FTA C4220.1F, IV, 2.c. (1)(c)
58. Bid Security [Construction over \$100,000]	FTA C4220.1F, IV,2.i.(1)(a)
59. Performance Security [Construction over \$100,000]	FTA C4220.1F, IV, 2.i.(1)b.
60. Payment Security [Construction over \$100,000]	FTA C4220.1F, IV, 2.i.(1)(c)
61. Federal Clauses (including Veteran's Preference)	FTA C4220.1F, VI, 2.
62. Certifications (TVM, Lobbying, Brooks Act)	TBD
63. SAM/EPLS (Debarment/Suspension)	FTA C4220.1F, IV, 2. a.(2)(b)
64. Buy America Pre-Award Review (Steel or manufactured products)	FTA C4220.1F, IV, 2.i.(9)
65. Vehicle Pre-Award Review	FTA C4220.1F, IV, 2. e. (6)
66. Vehicle Post-Delivery	FTA C4220.1F, IV, 2. e. (6)
67. Transit Vehicle Manufacturer Compliance w/DBE	FTA C4220.1F, IV, 2.e.(2)
68. Bus Testing	FTA C4220.1F, IV, 2. e. (7)
69. Change Orders	FTA C4220.1F, VII, 2.a.
70. Disputes/Breach	FTA C4220.1F, VII,3.a.; 4.a
71. Terminations	FTA C4220.1f, IV, 2. b (6) (b) 4
72. Federal Cost Principles	FTA C4220.1F, IV, 2. b. (4).
73. DBE	FTA C4220.1F, IV, 2.a.(6)(a)
74. State/Local Government Purchasing Schedules	FTA C 4220.1F, V, 4. a. b. c.
75. Revenue Contracts	FTA C4220.1F, II,b(4)
76. Single Bid	FTA C4220.1F, IV,3.i.(1)(b)2
77. Unsolicited Proposals	FTA C4220.1F, VI,1b
78. Oversight of subrecipients	FTA C4220.1F, I, z. (If applicable)
79. Signature Authority	Who is responsible for committing the agency to the FTA requirements and at what dollar threshold

### 1B.E.3 Written Standards of Conduct

FTA requires CDOT to oversee any subrecipient's written standards of conduct governing the performance of their employees engaged in, or otherwise involved in, the award or administration of third-party contracts as follows:

- ▶ No employee, officer, agent, or board member, or their immediate family member, partner, or organization that employs or is about to employ any of the foregoing individuals may participate in the selection, award, or administration of a contract supported with FTA assistance if a conflict of interest, real or apparent, is involved. Such a conflict arises when any of those individuals previously listed has a financial or other interest in the firm selected for an award.
- ▶ A subrecipient's officers, employees, agents, or board members may neither solicit nor accept gifts, gratuities, favors, or anything of monetary value from contractors, potential contractors, or parties to subcontracts. The subrecipient may set minimum rules when the financial interest is not substantial or when the gift is an unsolicited item of nominal intrinsic value.
- ▶ To the extent permitted by state or local laws or regulations, such standards of conduct provide for penalties, sanctions, or other disciplinary action for violation of such standards by the subrecipient's officers, employees, agents, board members or by contractors, subcontractors, or subrecipients or their agents.

### 1B.E.4 Self-Certification

FTA expects each subrecipient to self-certify that its procurement system complies with federal requirements for any FTA assisted third-party contract that the subrecipient undertakes and administers. Subrecipients must self-certify on **FTA's Procurement System Self-Assessment Guide** website, linked in **Resource 1B-A**. The self-assessment asks a series of questions related to deficiencies, such as inadequate procurement policies and procedures, lack of effective cost or price analysis, and more.

### 1B.E.5 Third Party Contracting Capacity

A subrecipient's third-party contracting capability must be adequate to undertake its procurements effectively and efficiently in compliance with applicable federal, state, and local requirements.

- Step 1. As required, the subrecipient must maintain a contract administration system to ensure that it and its third-party contractors comply with the terms, conditions, and specifications of their contracts or purchase orders and applicable federal, state, and local requirements.
- Step 2. If the subrecipient lacks qualified personnel within its organization to undertake the various procurement tasks, such as drafting specifications, evaluating contracts, or performing internal audits for the subrecipient, the subrecipient acquires the necessary services from sources outside the agency's organization.
  - ▶ When using outside sources, the subrecipient takes appropriate steps to prevent or mitigate organizational conflicts of interests that may result in conflicting roles that may bias a contractor's judgment or result in an unfair competitive advantage.

### 1B.E.6 Written Procurement Policy

The subrecipient must have a written procurement policy that addresses the following:

- ▶ **Solicitations:**
  - **Clear Descriptions:** A clear and accurate description of the technical requirements for the material, product, or service to be procured is required.
  - **Nonrestrictive Specifications:** In competitive procurements, the description may not contain features that unduly restrict competition. Notably, FTA may not finance procurements that use exclusionary or discriminatory specifications.
  - **Quality Requirements:** A description may include a statement of the qualitative nature of the material, product, or service to be procured and, when necessary, describe minimum essential characteristics and standards to which the property or services must conform if they are to satisfy the subrecipient's intended use.

- **Preference for Performance Specifications:** Common Grant Rules for nongovernmental recipients advise the subrecipient to describe technical requirements in terms of “functions to be performed or performance required, including the range of acceptable characteristics or minimum acceptable standards.”
- **Brand Name or Equal:** When it is impractical or uneconomical to write a clear and accurate description of the technical requirements of the property or services to be acquired, a “brand name or equal” description may be used to define the performance or other salient characteristics of the property or services sought.
- ▶ **Necessity:** The subrecipient’s need for the property or services.
- ▶ **Lease versus Purchase:** The use of lease or purchase alternatives to achieve an economical and a practical procurement.
- ▶ **Metric Usage:** The acceptance, to the extent practicable and economically feasible, of products and services dimensioned in the metric system of measurement.
- ▶ **Environmental and Energy Efficiency Preferences:** A preference, to the extent practicable and economically feasible, for products and services that conserve natural resources, protect the environment, and are energy efficient (discussed further in [FTA Circular 4220.1F Chapter IV](#) linked in [Resource 1B-A](#)).

The subrecipient’s procurement procedures must also address the following matters:

- ▶ **Procurement Methods:** Procurement methods that may be used
- ▶ **Legal Restrictions:** Any federal, state, or local restrictions on the subrecipient’s acquisitions
- ▶ **Third Party Contract Provisions:** The specific third-party contract provisions required for each third-party contract, including requirements that each third-party contractor extend those provisions to its subcontractors to the extent required. Refer to [FTA Circular 4220.1F Chapter IV](#) linked in [Resource 1B-A](#) for more information.
- ▶ **Source:** The availability and use of various sources of property and services
- ▶ **Resolution of Third Party Contracting Issues:** Refer to [Sections 1B.E.8 through 1B.E.12](#)

FTA requires that a subrecipient include provisions adequate to form a sound and complete agreement on all third-party contracts. Compliance with federal laws and regulations usually results in the addition of many other contract provisions to ensure compliance with those laws and regulations. Because bids and offers can at times be ambiguous, in its solicitation documents, the subrecipient reserves the right to request additional information before making an award. The subrecipient also reserves the right to seek clarification from any bidder or offeror about any statement in its bid or proposal that the subrecipient finds ambiguous. FTA advises subrecipients to use “industry forms, specifications or contracts” with caution—these forms may lack required federal provisions and may also be unfavorable to a subrecipient.

### 1B.E.7 Third-Party Contract Audits

A subrecipient may find it desirable to perform an audit on one or more specific third-party contracts as part of its own management process. The firm performing the subrecipient’s federally required single annual audit may also recommend the audit of a specific third-party contract. More information on third-party audits is provided in the [FTA Circular 4220.1F](#) link in [Resource 1B-A](#).

- ▶ **Subrecipient’s Auditors:** In some cases, a subrecipient has sufficiently qualified personnel to perform the third-party contract audits it needs. A subrecipient that lack these qualified staff members may engage a qualified independent accountant or accounting firm to perform its audit responsibilities.
- ▶ **Independent Auditors:** A subrecipient’s personnel are not able to perform certain audits required by the federal government, such as audits required by the Single Audit Act of 1984, as amended, [31 USC Sections 7501 et seq.](#) and [OMB Circular A-133, “Audits of States, Local Governments, and Non-Profit Organizations”](#) as revised. Both resources are listed in [Resource 1B-A](#).
  - If FTA requires additional audits, a subrecipient may engage independent auditors to perform those audits; these auditors may perform only these federally required audits and cannot perform any additional audit work simultaneously.



- ▶ **Federal Audit Agencies:** The federal government maintains a continuing federal audit capability at certain contractor locations. On occasion, these auditors may be used to audit a subrecipient’s third-party contracts.
  - In other circumstances, an audit by a federal agency may best serve the interests of the federal government and the subrecipient. This is true of audits to determine a contractor’s provisional overhead (burden) and General & Administrative rates that need to be verified by audit for specific contract periods.
  - Federal audit services, however, might not be available when needed. In this situation, a subrecipient must obtain the services of an independent private auditing firm that can perform the audit soon after an audit is requested.

### 1B.E.8 General Guidance for Protests, Disputes, and Claims

Protests, disputes, and claims are complex issues that a subrecipient may need to face during a capital facility project. **FTA Circular 4220.1F Chapter VII(1)(a)** requires that a subrecipient have clearly established protest procedures. If a protest, dispute, or claim arises, follow the guidance provided in **Sections 1B.E.8** through **1B.E.12** and consult **FTA Circular 4220.1F Chapter VII** in **Resource 1B-A** for additional details.

- Step 1. A subrecipient notifies FTA when it receives a third-party contract protest.
- Step 2. A subrecipient provides FTA the information identified in **Table 1B-7** when a protest, dispute, or claim becomes known during an FTA-funded capital facility project.

**Table 1B-7. Required Reporting Elements for Protests, Disputes, and Claims**

What to Report	Details	Thresholds
Subjects	A list of protests, disputes, and/or claims involving third-party contracts and potential third-party contracts that...	<ul style="list-style-type: none"> <li>▪ Have a value exceeding \$100,000.</li> <li>▪ Involve a controversial matter, irrespective of amount.</li> <li>▪ Involve a highly publicized matter, irrespective of amount.</li> </ul>
Details	The following information about each protest, dispute, and/or claim...	<ul style="list-style-type: none"> <li>▪ A brief description of the protest, dispute, and/or claim.</li> <li>▪ The basis of disagreement.</li> <li>▪ If open, how far the protest, dispute, and/or claim has proceeded.</li> <li>▪ If resolved, the agreement or decision reached.</li> <li>▪ Whether an appeal has been taken or is likely to be taken.</li> </ul>
When and Where	The subrecipient should provide this information...	<ul style="list-style-type: none"> <li>▪ In its next quarterly Milestone Progress Report.</li> <li>▪ At its next project management oversight review, if any. Smaller subrecipients may report less frequently if no protests, disputes, and/or claims are outstanding.</li> </ul>

- Step 3. **FTA Officials to Notify:** When a subrecipient denies a bid protest, and especially if an appeal to FTA is likely to occur, FTA expects the subrecipient to directly inform the FTA Region 8 Administrator or the FTA Associate Administrator for the program office administering a headquarters project. FTA also encourages the subrecipient to keep its FTA project manager informed about protests with which it is involved. In particular, the subrecipient should contact its project manager about any unusual activity.
- Step 4. FTA may intervene in a protest if:
  - ▶ A subrecipient:
    - Does not have protest procedures.
    - Has not complied with its protest procedures.
    - Has not reviewed the protest when presented an opportunity to do so.
  - ▶ Federal laws or regulations have been violated.
  - ▶ State or local laws have been violated. In this case, FTA refers protests to the state/local authorities having proper jurisdiction over the matter.



## 1B.E.9 Procurement-Related Changes and Modifications

- Step 1. A subrecipient issues, evaluates, and decides any change to its third-party contracts, as well as any change orders or modifications it may issue.
- Step 2. A subrecipient also evaluates and makes decisions involving any claim of a constructive change.
- Step 3. FTA requires a subrecipient to have cost justifications supporting each change order it issues. FTA also expects an authorized official to approve any proposed change order before it is issued.
- Step 4. To be eligible for FTA assistance, the cost of the change, modification, change order, or constructive change must be allowable, allocable, within the scope of its grant or cooperative agreement, and reasonable for the completion of project scope.

The **Changes and Modifications** section in FTA's **Best Practices Procurement Manual** linked in **Resource 1B-A** provides additional information related to contract changes and modifications.

## 1B.E.10 Procurement-Related Disputes

The subrecipient is responsible for evaluating and resolving third party contract disputes. If the subrecipient intends to request FTA's permission to use federal assistance to support payments to a third-party contractor to settle a dispute or intends to request increased federal assistance for that purpose, the subrecipient should adhere to the following steps:

- Step 1. The subrecipient notifies FTA when it receives a third-party contract dispute.
- Step 2. The subrecipient provides the information outlined in **Table 1B-7**.
- Step 3. The subrecipient keeps their FTA project manager or regional representative informed about any disputes. The subrecipient should contact its project manager about any unusual activity.
- Step 4. The subrecipient keeps and includes in its project files any adequate documentation of the facts, events, negotiations, applicable laws, and legal evaluation of the likelihood of success in any potential litigation involving the dispute as may be needed to justify FTA's concurrence in any compromise or settlement, should FTA concurrence become necessary.
- Step 5. The subrecipient considers an audit to help demonstrate that any settlement costs, if incurred, are necessary, reasonable, adequately documented, and appropriate for FTA support.
  - ▶ The subrecipient considers conducting or obtaining a formal audit to substantiate each part of a large contract dispute before entering into a settlement.
  - ▶ The audit is conducted in accordance with **Generally Accepted Auditing Standards** as defined by the American Institute of Certified Public Accountants (Refer to **Resource 1B-A**).
  - ▶ FTA also encourages a subrecipient to undertake an audit or a similar analysis before settlement of a small dispute.

### 1B.E.11 Procurement-Related Claims and Litigation

A subrecipient may face procurement-related claims and litigation, although this is unlikely. If a claim and/or litigation arises, the subrecipient must follow the guidance provided herein and consult **FTA Circular 4220.1F Chapter VII** linked in **Resource 1B-A** for additional details. A subrecipient provides the information outlined in **Table 1B-5**. FTA also encourages the subrecipient to keep its FTA project manager informed about claims and litigation with which it is involved. In particular, the subrecipient should contact its project manager about any unusual activity.

- Step 1. In resolving third-party contract claims, the subrecipient takes reasonable measures to pursue its rights and remedies available under law, including settlement, particularly if failure to do so jeopardizes the federal interest in the project or causes the subrecipient to seek additional federal assistance.
- Step 2. In support of its financial interest in the settlement of claims and litigation involving any federally assisted third-party contracts, FTA retains its discretion to assert the following rights:
  - ▶ **Proceeds Recovered:** FTA retains the right to a share of any net proceeds recovered through a third-party contract claim or litigation, in proportion to the amount FTA has committed to the project, unless FTA permits other uses of the proceeds recovered.
  - ▶ **Liquidated Damages:** If the third-party contract includes a liquidated damages provision, FTA expects the subrecipient to credit any liquidated damages recovered to the project, unless FTA permits other uses of the liquidated damages.

### 1B.E.12 Procurement-Related Settlements

- Step 1. A subrecipient's settlement arrangements must be reasonable:
  - ▶ FTA recognizes that a settlement may require the subrecipient to relinquish its rights to amounts it would otherwise be due, including amounts for liquidated damages and other matters, were it to prevail on all matters at issue.
  - ▶ FTA expects the subrecipient to enter into a settlement only if the subrecipient can justify its terms as reasonable. Reasonable settlement arrangements can take many forms.
  - ▶ In certain situations, an agreement by the contractor to provide extra property or services in lieu of payments or reduced payments for damages, including liquidated damages, may be reasonable.
- Step 2. The subrecipient maintains sufficient records to demonstrate that the agency has taken reasonable and prudent measures to prevent or offset the actions or circumstances resulting in the underlying protest, dispute, claim, or litigation.
- Step 3. When the subrecipient incurs costs due to binding arbitration or court decision, FTA expects the subrecipient to secure FTA review and its written concurrence in a proposed or final settlement involving a dispute, claim, or litigation before using federal assistance to support its costs if one of the following circumstances is present:
  - ▶ When the settlement exceeds \$100,000.
  - ▶ When the approved project lacks sufficient funds to cover the settlement costs.
  - ▶ When a special federal interest or federal concern is declared due to program management concerns, possible mismanagement, impropriety, waste, or fraud.

## 1B.F FTA Performance Reporting

FTA requires a number of progress reports throughout the lifecycle of a project. While most of these reports are sent to FTA via DTR, the subrecipient still needs to supply the necessary information to DTR/CDOT staff to deliver a complete and accurate report of project finances and milestones.

### 1B.F.1 Milestones Progress Report

DTR submits a Milestones Progress Report annually or quarterly for construction projects to FTA on the status of the projects under each federal award they hold. MPRs provide an update on the status of projects and are submitted 30 days after the end of each federal fiscal year, by October 31. DTR determines current status of projects, adjusts milestone dates when needed, and updates the narrative in the federal Program of Projects to describe the status and any changes to milestone dates.

Most capital projects will require the following milestones. The subrecipient should coordinate with DTR to determine all appropriate milestones.

- ▶ Procurement Concurrence Request (PCR) (Request for Proposal [RFP]/Invitation for Bid/Request for Quotation issued) (Refer to **Chapter 1A Capital Project Planning and Initiation** for more information)
- ▶ Procurement Authorization (Purchase Order issued after vendor selection): Contract awarded in TrAMS (refer to **Chapter 1A Capital Project Planning and Initiation** for more information)
- ▶ First/last invoice
- ▶ Project closeout: Contract complete in TrAMS

**Worth Noting – Reporting to DTR:** Subrecipients are required to report the above four milestones to DTR as a part of the annual FTA report.

### 1B.F.2 Federal Financial Reports

CDOT must report Federal Financial Reports (FFR) for FTA-funded construction projects. FFRs are used for various purposes, including:

- ▶ Reporting federal cash receipts and disbursements
- ▶ Explaining federal cash on hand
- ▶ Reporting unliquidated obligations
- ▶ Reporting indirect cost rates
- ▶ Responding to FTA comments on previous FFRs

- Step 1. DTR staff work to reconcile project budgets, expenses, and unliquidated obligations in SAP and COTRAMS each month.
- Step 2. DTR then provides the finalized FFRs to Grant Managers to use in MPRs that are submitted concurrently.
- Step 3. CDOT Accounting reports through TrAMS on the following schedule:
  - ▶ April 30 for period January to March
  - ▶ July 30 for period April to June
  - ▶ October 30 for period July to September
  - ▶ January 30 for period October to December

Refer to **Chapter 3 of the SMP in Resource 1B-A** for more information on FFRs.

### 1B.F.3 FTA Annual Certifications and Assurances

To ensure compliance with federal requirements, the subrecipient must comply with FTA's Federal Certifications and Assurances for FTA Assistance Programs, listed previously on **FTA's Certifications and Assurances website**, which is linked in **Resource 1B-A**. A subrecipient applying for assistance under any FTA program must submit Certifications and Assurances applicable to the subrecipient's award during the current federal fiscal year. The documentation for certifications and assurances should be maintained on file in COTRAMS, as Grant Managers can request these documents during the SIR and site review process.

### 1B.F.4 National Transit Database

FTA's **National Transit Database (NTD)** records the financial, operating, and asset condition of transit systems to track the industry and provide public information and statistics. Subrecipients receiving funding from Section 5311 must annually report to the NTD in uniform categories. A link to NTD can be found in **Resource 1B-A**. Reported items include:

- ▶ Sources of revenue (revenue vehicle hours)
- ▶ Total annual operating costs by source of revenue
- ▶ Total annual capital costs
- ▶ Fleet size, fleet type, and related facilities
- ▶ Revenue vehicle miles
- ▶ Ridership

As the state agency responsible for administering Section 5311 funds, CDOT ensures that subrecipient data are compiled and submitted to the NTD and reviews the reports for accuracy.

For those agencies receiving Section 5310 funds or Section 5339 funds, CDOT reports transit asset management State of Good Repair performance measures and targets on behalf of subrecipients. **Chapter 1A Capital Project Planning and Initiation** provides more information for each funding source, as well as links to those resources. For additional information, refer to **Chapter 2 of the SMP** and the **FTA NTD website** identified in **Resource 1B-A**.

## 1B.G Civil Rights Requirements

Both CDOT and FTA require subrecipients to have certain civil rights-related policies in place. Policies include requirements for Equal Employment Opportunity (EEO), DBEs, and more. In addition, DTR may perform regular oversight checks for subrecipients to ensure that they are in compliance. The CRBRC team can provide additional technical assistance. **Civil Rights Resources** can be found in **Resource 1B-A**.

### 1B.G.1 Equal Employment Opportunity Reporting and Compliance

Any subrecipient receiving a grant from FTA/CDOT that meets the thresholds spelled out in **Table 1B-8** must have an EEO program.

**Table 1B-8. Equal Employment Opportunity Program Thresholds**

Threshold	Full EEO Required	Abbreviated EEO Required
# of transit employees*	100 employees or more	50-99 employees
Requests/receives capital or operating assistance of...	\$1 million or more in the previous federal fiscal year, or requests or receives planning assistance in excess of \$250,000 in the previous federal fiscal year	\$1 million or more in the previous federal fiscal year, or requests or receives planning assistance in excess of \$250,000 in the previous federal fiscal year

\*When calculating the total number of transit-related employees, agencies are required to include all part-time employees and employees with collateral duties that support the transit program. For example, a budget analyst who processes payments for the transit program would be considered a transit-related employee.

FTA Circular 4704.1, Chapter 5 of the SMP, and Attachment 5-9 FTA EEO Program Review Checklist in the SMP outline requirements for both full and abbreviated EEO programs. **Resource 1B-A** provides links to all three resources.

### 1B.G.2 Disadvantaged Business Enterprise Reporting and Compliance

DBE regulation seeks to ensure nondiscrimination in the award and administration of FTA-assisted contracts, create a level playing field on which DBEs can compete fairly for DOT-assisted contracts, help remove barriers to the participation of DBEs in FTA-assisted contracts. DBE regulation also seeks to promote the use of DBEs in all types of federally assisted contracts and procurement activities conducted by subrecipients and to assist the development of firms that can compete successfully in the marketplace outside the DBE program. Subrecipients must meet the following requirements for DBEs as described in **Table 1B-9**. Additional information on **CDOT’s DBE Program Overview** can be found in **Resource 1B-A**.

In addition, CRBRC will meet with all subrecipients to ensure that an appropriate DBE goal is assigned to the project. Subrecipients

**Table 1B-9. Disadvantaged Business Enterprise Requirements for Subrecipients**

Requirement	Subrecipient
Covered by CDOT DBE program?	Yes - CDOT’s DBE program covers subrecipients. Subrecipients must follow CDOT’s DBE regulations. Refer to <b>Attachment 5-8 in the SMP</b> .
Disadvantaged Business Enterprise Liaison Office required?	No
Memorandum of Understanding required?	No
DBE plan submission required?	No
Expectation to include DBEs in competitive contracts?	Yes
Non-discriminatory language required in procurement documents?	Yes - Refer to <b>Attachment 5-8 in the SMP</b> for more information

CDOT currently has a race-neutral program to meet its DBE triennial goal. Therefore, a subrecipient receiving federal funds from CDOT should not set its own DBE goals. All subrecipients (regardless of whether they have their own approved DBE programs as direct recipients of FTA funding) are required to adhere to CDOT's DBE program.

A subrecipient cannot exclude any person from participation in, deny any person the benefits of, or otherwise discriminate against anyone in connection with the award and performance of any contract covered by **49 CFR 26** on the basis of race, color, sex, or national origin. A subrecipient must take all necessary and reasonable steps under 49 CFR 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. CDOT and its subrecipients must include contract provisions required by 49 CFR 26 regarding nondiscrimination, prompt payment, and release of retainage in all federally assisted project advertisements and contracts. **Resource 1B-A** provides more information on **49 CFR 26**.

### 1B.G.3 DTR and CRBRC Oversight of a Subrecipient Disadvantaged Business Enterprise Program

DTR and CRBRC jointly oversee subrecipients' implementation of the DBE program. In addition to tracking and reporting DBE participation, CDOT verifies that DBEs reported by subrecipients meet the criteria of **49 CFR 26**, which is linked in **Resource 1B-A**, and are certified by the Colorado Unified Certification Program agency (through CDOT).

**Worth Noting – List of DBE Firms: Resource 1B-A provides a list of currently certified DBE firms.**

Subrecipients receiving federal funds must track and report all bidders and contractors and subcontractors, including DBEs, that participate and seek to participate in its contracting opportunities.

- Step 1. The subrecipient must ensure that payment information is reported (and verified by the subcontractor) on the 15th of each month in B2GNow.
  - ▶ B2GNow is a grant, procurement, and diversity management software provider used by CDOT. B2GNow is used by the CRBRC to help subrecipients navigate the compliance and regulatory requirements of CDOT's DBE and other civil rights-related requirements.
- Step 2. CRBRC will then pull the information needed for the June 1 and December 1 FTA DBE reports from B2GNow.

### 1B.G.4 Additional Technical Assistance

CRBRC and DTR are available to assist a subrecipient in meeting the requirements of **49 CFR 26**. A Question and Answer (Q&A) document outlines subrecipient responsibilities regarding DBE participation. Refer to the link to the **SMP Attachment 5-8 DBE Q&A** in **Resource 1B-A** for more information.

CRBRC and DTR staff provide technical assistance to subrecipients in the following ways:

- ▶ To help remove barriers to the participation of DBEs in DOT-assisted contracts
- ▶ To promote the use of DBEs in all types of federally assisted contracts and procurement activities conducted by subrecipients
- ▶ To provide DBE-specific and periodic training through the Colorado Association of Transit Agencies
- ▶ To assist the development of agencies that can compete successfully in the marketplace outside the DBE program
- ▶ To provide appropriate flexibility to subrecipients in establishing and providing opportunities for DBEs



## 1B.H Facilities, Property, Equipment, and Supplies Controls

Capital facility projects often require the use, purchase, and/or lease of facilities, property, equipment, and supplies. Therefore, it is essential that the subrecipient understand federal rules and regulations around these facility elements. For acquisition-related information, refer to **Chapter 3 Acquisition and Real Estate**. For additional details on the information, refer to the resources in **Resource 1B-A**.

### 1B.H.1 Incidental Use

If a subrecipient has an incidental use for a property or a facility, the incidental use must be submitted to and approved by DTR according to the process shown in **Flowchart 6-1 Facility Incidental Use in the SMP** linked in **Resource 1B-A**.

Incidental use must be compatible with the approved purposes of the project award and may not interfere with either the intended uses of the property or the subrecipient's ability to maintain satisfactory continuing control. **FTA Circular 5010.1E** and **Chapter 6 of the SMP**, both of which are linked in **Resource 1B-A**, provide examples of and additional requirements related to incidental use.

### 1B.H.2 Facility and Equipment Inventory Requirements

A subrecipient must include inventory data on all facilities and equipment used to support transit services in the COTRAMS Inventory module, including, and in addition to, those purchased with federal or state funds. DTR consolidates the data in DTR's Statewide Asset Inventory. This is in addition to the other requirements of use, management, and disposal of special purpose equipment and supplies acquired under a project in accordance with **2 CFR 200.313 (Equipment)** and **2 CFR 200.314 (Supplies)**, respectively. Both codes are linked in **Resource 1B-A**.

A facility inventory should include the following (available module in COTRAMS Inventory):

- ▶ For all facilities and equipment:
  - Descriptive name of facility
  - Property location
  - Total square footage
  - Transit dedicated square footage
  - Original cost
  - Date purchased/constructed
  - Minimum useful life for facilities (as set forth in **FTA Circular 5010.1E** in **Resource 1B-A**)
  - Condition of the facility
  - Date removed from revenue service (if applicable)
  - Disposal method (if applicable)
  - Method to determine fair market value
  - Sale price
- ▶ A separate inventory should be conducted for all equipment valued over \$5,000. The following information is required:
  - Equipment type
  - Equipment description
  - Date purchased
  - Minimum useful life (DTR provides)
  - Funding source and percentage of federal/state participation in the cost
  - Date removed from revenue service (if applicable)
  - Disposal method (if applicable)
  - Method to determine fair market value
  - Sale price



### 1B.H.3 Facility Insurance

All major structures and facilities funded under state or federal programs must have adequate insurance and proper documentation of such coverage throughout the life of the facility. The level of insurance coverage should be commensurate with the cost and risk potential for replacing the facility and should cover all real property and equipment acquired or improved via state/federal funds. A subrecipient must immediately contact DTR in the event that a program-funded facility is severely damaged or destroyed from vandalism, fire, accident, or other causes.

- ▶ CDOT must be listed as the loss payee for the property and equipment.
- ▶ Insurance requirements are specified in the subaward agreement. In the event of damage or loss, a subrecipient must notify DTR staff and enter the incident into the inventory in COTRAMS.

**Worth Noting – Flood Hazard Coverage:** If the subrecipient has, or plans to construct, facilities in an area identified as having special flood hazards and in which the sale of flood insurance has been made available under the National Flood Insurance Act of 1968, the subrecipient must acknowledge this during the SIR and Site Review Process as described in **Chapter 4 of the SMP**. Both the text of the Flood Insurance Act and Chapter 4 of the SMP are linked in **Resource 1B-A**. For additional information on identifying flood hazards or other risks with a capital facility site, refer to **Chapter 2 Environmental Clearance**.

### 1B.H.4 Facility and Equipment Maintenance

All federally funded facilities must have a written facility and equipment maintenance plan. The subrecipient must develop and implement adequate maintenance procedures that keep the property in good condition.

Facility and equipment maintenance plans are collected in COTRAMS and reviewed during the SIR and Site Review Process. The plan should describe a system of periodic inspections and preventative measures to be performed at certain defined intervals.

As a best practice, a facility and equipment maintenance plan should include the following:

- ▶ A form or checklist, a schedule and dates of periodic inspection (typical inspection areas include roof, flooring, plumbing and electrical panels)
- ▶ A maintenance schedule for installed equipment, appliances, and furnishings based on manufacturer recommendations for each item or system (for example, heating, ventilation, and air conditioning [HVAC] equipment)
- ▶ A process for managing and monitoring any facility-related warranties, including installed equipment
- ▶ A procedure for follow-up repairs arising from building inspections, as well as for unplanned equipment breakdowns of installed equipment and documentation, such as a form (for example, work order) or online system for recording the repairs

### 1B.H.5 Facility Leasing

A subrecipient can use federal or state funds for leasing a facility with written authorization from DTR, in coordination with FTA, as long as their application mentioned that a facility would need to be leased. DTR may review the lease documents during the Site Review Process. Lease agreements should be submitted to DTR before executing any contract with service providers. It is the subrecipient's responsibility to ensure that contractors comply with all federal and state requirements. Refer to **Chapter 6 of the SMP** in **Resource 1B-A** for more information.

## 1B.H.6 Recordkeeping and Reporting Related to the Uniform Act

The subrecipient is responsible for any recordkeeping and reporting related to property acquisition. The subrecipient must maintain the following materials:

- ▶ **Records:** Include records of its acquisition and displacement activities in sufficient detail to demonstrate compliance with this part.
  - The subrecipient must retain records for at least 3 years after each owner of a property and each person displaced from the property receives the final payment to which they are entitled under this part or in accordance with the applicable FTA regulations.
- ▶ **Confidentiality of records:** Records maintained by a subrecipient in accordance with this part are confidential regarding their use as public information unless applicable law provides otherwise.
- ▶ **Reports:** A subrecipient must submit a report of its real property acquisition and displacement activities under this part if required by FTA.
  - A report is not required more frequently than every 3 years.
  - Subrecipient prepares and submits the report using the format provided in **49 CFR 24** linked in **Resource 1B-A**.

Refer to **Chapter 3 Acquisition and Real Estate** and **2 CFR 200 Uniform Act** in **Resource 1B-A** for more details on property acquisition.

## 1B.I Risk Management and Safety and Security Management Planning

All projects, regardless of size or complexity, have a risk component. The complexity and visibility of a project, coupled with the potential impacts of risks, determine the appropriate risk management strategy. The benefits of risk management include:

- ▶ Informs development of the preconstruction schedule and budget
- ▶ Applies methodology to calculating appropriate levels of schedule and budget contingency; thereby, allowing CDOT to allocate more dollars to programming
- ▶ Supports fact-based conversations with management when potential impacts of change need to be addressed

**Resource 1B-A** lists FTA resources related to safety and risk management.

### 1B.I.1 Risk Management Plan

The Risk Management Plan (RMP) includes a risk assessment and is a scalable process. The RMP should be developed as early as possible when risks can meaningfully be identified. Often, this is during Project Design, which is spelled out in **Chapter 4 Design and Engineering**. Less complex projects typically have fewer risks and the impacts are less significant. More complex projects generally have a longer list of risks that require more detailed planning to manage. Special circumstances can elevate even the simplest of projects to a higher level of complexity.

**Worth Noting – Risk Management:** The impacts and complexity specific to the project determine the risk management strategy rather than the type of project.

To complete an RMP, the subrecipient, potentially in coordination with hired consultants (contractors, design team, project management, etc.), conducts risk identification, analysis, and planning using the framework below:

- Step 1. **Risk/Hazard Identification:** What risks are associated with a project, an activity, a source of funding, a project location, etc.?
- Step 2. **Risk Analysis/Assessment:** What is the likelihood of that risk happening? What would the impact of that risk be to the project? What are the scope, budget, and schedule implications?
- Step 3. **Risk Response Planning:** How will the subrecipient respond to risk? How will the subrecipient respond to incidents related to anticipated risks if/when they happen?
- Step 4. **Risk Monitoring and Controlling:** How will risk be monitored and controlled?

Essential to the development of an RMP is a clear understanding of how events, hazards, risks, risk mitigation, and potential consequences are defined. These key terms are defined in **49 CFR 673**, linked in **Resource 1B-A**, and include:

- ▶ **Event:** Any accident, incident, or occurrence
- ▶ **Hazard:** Any real or potential condition that can cause injury, illness, or death; damage to or loss of the facility, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment
- ▶ **Risk:** Composite of predicted severity and likelihood of the potential effect of a hazard



Three elements are required to establish and implement a process for managing risk: risk identification, risk analysis, and risk mitigation (via planning, monitoring, and controlling):

- ▶ **Risk identification** is informed by data and information provided by an oversight authority, FTA, and potentially employee safety reporting programs, event investigations, monitoring of operations and maintenance procedures, or system changes. Risk identification informs the subrecipient of any hazards and their likelihood.
- ▶ **Risk assessments** establish methods or processes to assess the likelihood and severity of the consequences of hazards and to prioritize the hazards based on the safety risk. Subrecipients establish the likelihood of a hazard based on their assessment of how often they may experience the consequence of a hazard and the consequence's degree of harm or damage (severity). Subrecipients often use evaluation tools, such as risk matrices, to prioritize risks. The evaluation matrix approach combines assessed likelihood and severity into one visual, which helps decision-makers understand when actions are necessary to reduce or mitigate safety risk.
- ▶ **Risk mitigation** involves reducing the assessed risk rating to an acceptable level, as mitigation strategies do not eliminate the assessed risk. Subrecipients often choose to work with a subject matter expert to ensure the selected risk mitigation is suitable. Subrecipients are expected to control and monitor the effectiveness of risk mitigation and to make changes as needed.

For additional information on RMPs, refer to the following resources linked in **Resource 1B-A**:

- ▶ CDOT Overview - Risk Management
- ▶ Public Transportation Agency Safety Plan (PTASP)
- ▶ Risk and Contingency Review (OP40)
- ▶ Safety & Security Management Review (OP22)
- ▶ Safety Management Systems
- ▶ Safety Risk Management

### 1B.I.2 Storing State and Federally Funded Assets

A subrecipient must have procedures in place to securely store federal- and state funded assets. During a scheduled site visit, DTR staff review the subrecipient's procedures. DTR staff check to ensure that proper controls are in place to safeguard property against loss, damage, or theft through the use of locked fences or garages, lighting, security systems, etc. DTR staff may also check to ensure how and where keys are secured.

## 1B.J Project Administration Systems

CDOT manages funds in compliance with federal statutes, regulations, and terms and conditions. CDOT requires subrecipients to manage funds through several CDOT and FTA project administration systems. These internal controls also comply with guidance in **Standards for Internal Control in the Federal Government** issued by the Comptroller General or the **Internal Control Integrated Framework** issued by the Committee of Sponsoring Organizations of the Treadway Commission. Both resources can be found in **Resource 1B-A**.

**CDOT Policy Directives 703** and **State Financial Management** outline CDOT's internal control procedures. All of these resources are linked in **Resource 1B-A**.

### 1B.J.1 Budget Tracking and SAP

CDOT uses SAP, a commercial product customized to fit CDOT needs for project financial management that is consistent with OMB procedures. CDOT Division of Accounting & Finance maintains SAP. It tracks project budgets and issues reimbursements to subrecipients for funds expended.

### 1B.J.2 Colorado Transit & Rail Awards Management System

DTR's COTRAMS is a web-based tool for project administration. It is the main depository for documents and information related to applications, awards, project implementation, reporting, and reimbursement requests. The **COTRAMS website** and a more complete description of COTRAMS and its modules is included in the link to **Appendix C (SMP) - COTRAMS System Community User's Manual** in **Resource 1B-A**.

## 1B.K Project Communications

Communications management is the process that ensures consistent project information is distributed in a timely manner to the people who need it, in an appropriate format. Maintaining good communication across functional boundaries—as well as with consultants, contractors, outside agencies, and others—is critical to a project’s success. Good communication planning highlights the importance of timely change management and consistent communication, in both frequency and format, to relay critical information and maintain a positive relationship with stakeholders. **Resource 1B-A** provides resources from CDOT on project communications, including **Overview - Communications Management** and **Communications Management Training**.

### 1B.K.1 Communication Plan Development

In accordance with the PMP, the subrecipient’s project manager must prepare a communication plan, particularly if the project may be contentious among certain community members or stakeholders, if the project is anticipated to cause notable disruptions for residents of nearby dwelling units, and/or if the project is anticipated to be under construction/inoperable for a significant amount of time. A communication plan addresses the following:

- ▶ **Community Relations:** Most transit-related projects have an impact on the community. The subrecipient’s project manager informs the general public and stakeholders about project goals, facts, and progress. The subrecipient’s project manager encourages community input and comments during the project design and adheres to any local, state, or federal comment period regulations that apply to the project. Special considerations are made for residents, businesses, and the general public near project construction to keep them informed of the status of construction and its possible impact on the community.
- ▶ **Media Communications:** The subrecipient’s project manager is accessible and responsive to media requests for information and comment. However, communication with the media must be coordinated by and channeled through either subrecipient media staff or professional (hired) engagement staff. All media contacts are viewed as opportunities to get the subrecipient’s message out on project status through briefings and press releases covering project facts, events, and progress of interest to the media. Special events are a particularly good time for messages to the media and include ceremonies to mark groundbreaking, significant project achievements, dedication ceremonies upon the completion of project facilities, tours of the project, and local community events.
- ▶ **Government Relations:** A subrecipient makes full use of government relations staff to help keep government stakeholders fully informed.
- ▶ **Project Team Communications:** Internal project team communications are essential to project team building and to maintaining effective ongoing working relationships. The subrecipient’s project manager holds regular general team meetings to discuss the project status in addition to focused technical meetings on design, construction, and project control issues.
- ▶ **Agendas and Minutes:** The subrecipient provides an agenda or meeting minutes for meetings/communications described previously.

## 1B.L Records Management

Records management controls the distribution, storage, and retrieval of project records in both hard copy and electronic form. The subrecipient’s project manager ensures that incoming and outgoing correspondence and documents are transmitted through the project’s records management system as applicable. At a minimum, the subrecipient maintains both an electronic and a hard copy of all important project files, such as those listed in **Table 1B-10**, as well as all key deliverables and correspondence from construction contractors and professional services providers.

The subrecipient’s project manager should discourage project staff from keeping their own files of original project documents or correspondence, as this could create confusion between files and, at worst, the loss of information or spread of misinformation. Records management maintains the project’s active and historical records and files to provide efficient access and complete audit trails of the current status and record of revisions to the project design and baseline documentation and associated correspondence. Refer to **FTA 2016 Construction Management Handbook** in **Resource 1B-A** for more information about record and document control.

### 1B.L.1 Document Control

The subrecipient’s project manager makes certain that the project’s document control process identifies who on the project management team has the authority and accountability for ensuring that each baseline document is kept current in compliance with the project’s configuration management and document control procedures. **Table 1B-10** identifies baseline documents that are typical for an engineering/construction project, including transit capital facilities projects.

**Table 1B-10. Baseline Project Documentation**

Function	Website
Management and Control	Project Management Plan Project Budget Project Schedule Project Financial Plan (Funding and Cash Flow) Project Policies and Procedures
Quality	Quality Assurance/Quality Control Program Plan
Safety and Security	Risk Assessment/Management Plan
Design	Functional Analysis Design Standards and Criteria Technical Reports Contract Unit Descriptions
Contracts	Instructions to Bidders and Bid Forms Master Contract General Conditions Contract Drawings Contract Specifications Contract Terms and Conditions Federally-Required Clauses
Construction	Resident Engineer’s Manual
Operations and Maintenance	Facility Operating Plan Project Management Plan
Communications	Communications Plan
Administration	Project Status Reporting Configuration and Records Management Plan

\*May not be necessary depending on scope, size, or nature of project (whether or not it is likely to be unusually contentious or disruptive). When in doubt, consult your DTR Grants Manager.



### 1B.L.2 Procurement Records

FTA requires that a subrecipient prepare and maintain adequate and readily accessible project performance and financial records, covering procurement transactions and other aspects of project implementation. The subrecipient must maintain these records for 3 years after the subrecipient has made a final payment and all other pending matters are closed. The subrecipient must also prepare, maintain, and distribute the following procurement history documentation, as necessary:

- ▶ **Procurement Method:** Rationale for the method of procurement it used for each contract, including a sole source justification for any acquisition that does not qualify as competitive
- ▶ **Contract Type:** Reasons for selecting the contract type used (fixed price, cost reimbursement, etc.)
- ▶ **Contractor Selection:** Reasons for contractor selection or rejection (refer to the link to **FTA Circular 4220.1F** in **Resource 1B-A** for more information)
- ▶ **Cost or Price:** Justification for the contract cost or price
- ▶ **Reasonable Documentation:** Documents included in the procurement history are commensurate with the size and complexity of the procurement itself (FTA recognizes these written records will vary for different procurements)

FTA retains the right to access and inspect all records, documents, and papers related to any FTA-funded project. Refer to **Appendix A of the SMP (Retention Requirement for Procurement Documentation)** in **Resource 1B-A** for more information about procurement-related records.

### 1B.L.3 Post Closeout Records Maintenance

A subrecipient must keep written documentation of each procurement process for 3 years following completion of the project/procurement or project closeout. The **FTA’s Best Practices Procurement Manual** recommends that subrecipients maintain records for 3 years following project completion. In addition, **Appendix A in the State Management Plan (“Retention Requirement for Procurement Documentation”)** provides examples of documentation to maintain in a written record of procurement history. Both resources are listed in **Resource 1B-A**. Retention rates for different types of records are also listed in **Table 1B-11**.

As stated in 2 CFR 200.335 regarding the **2013 Executive Order 13642 on Making Open and Machine Readable the New Default for Government Information**, CDOT maintains project records in open and machine-readable formats; however, CDOT also transmits and accepts paper versions of award-related information when necessary. Executive Order 13642 can be found in **Resource 1B-A**. Records include any materials pertaining in any manner to the work or the delivery of services, including:

- ▶ Documents
- ▶ Communications
- ▶ Notes and other written materials
- ▶ Electronic media files

**Table 1B-11. General Requirements for Records Retention**

Record Type	Retention Requirements
Financial and programmatic records, supporting documents, statistical records, and other records	3 years after completion of any subaward agreement, litigation, claim, negotiation, audit, or other action involving the records and started before the expiration of the 3-year period and including resolution of all issues that arise from these actions
Facilities or Real Property	In perpetuity

**Worth Noting – Procurement Records:** Subrecipients are required to maintain and make available to FTA written records detailing the history of each procurement action for a period of 3 years after subrecipient has indicated that a reimbursement is final in COTRAMS. Different retention periods may apply in the event of litigation or in other limited circumstances. These records will include but are not necessarily limited to the following: rationale for the method of procurement, selection of contract type, contractor selection or rejection, and the basis for the contract price. More information can be found in **2 CFR 200.318(i)** and **200.333** and in **FTA Circular 4220.1F**, Chapter III, paragraph 3.d. – Record Keeping, both of which are linked in **Resource 1B-A**.

#### 1B.L.4 Inspection of Records

The subrecipient must permit CDOT to audit, inspect, examine, excerpt, copy, and transcribe any subrecipient records pertaining to a capital facility project. These records must be available during the 3-year Record Retention Period. A subrecipient must make records available during normal business hours at the subrecipient's office or place of business, or at other mutually agreed upon times or locations, upon no fewer than 2 business days' notice from CDOT, unless CDOT determines that a shorter period of notice, or no notice, is necessary to protect the interests of CDOT, FTA, and/or the State of Colorado.

#### 1B.L.5 Records Monitoring

CDOT monitors a subrecipient's performance of its obligations using procedures as determined by CDOT. The federal government and any other duly authorized agent of a governmental agency, in its discretion, may monitor a subrecipient's performance of its obligations using procedures as determined by that governmental entity. A subrecipient must allow CDOT to perform all monitoring required by **2 CFR 200, Subparts A-F** (commonly referred to as Uniform Guidance) based on CDOT's risk analysis of the subrecipient and the capital facility project. A link to **2 CFR 200, Subparts A-F** is provided in **Resource 1B-A**. CDOT has the right, in its sole discretion, to change its monitoring procedures and requirements at any time during the active life of the project. CDOT must monitor the subrecipient's performance in a manner that does not unduly interfere with the work related to the capital facility.

## Resource 1B-A – Project Lifecycle Reporting and Requirements

### Essential Resources

Section	Source	Content	Website
1B.A, 1B.B, 1B.D, 1B.F, 1B.G, 1B.H, 1B.J, 1B.L	CDOT - DTR	Statewide Management Plan (SMP)	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan">https://www.codot.gov/programs/transitandrail/assets/state-management-plan</a>
1B.B, 1B.C, 1B.H	Federal Code	2 CFR 200, Subparts A-F	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200?toc=1">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200?toc=1</a>
1B.B, 1B.H	FTA	Circular 5010.1E	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-guidance/fta-circulars/58051/5010-1e-circular-award-management-requirements-7-16-18.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-guidance/fta-circulars/58051/5010-1e-circular-award-management-requirements-7-16-18.pdf</a>
1B.D, 1B.E, 1B.L	FTA	Circular 4220.1F	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Third%20Party%20Contracting%20Guidance%20%28Circular%204220.1F%29.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Third%20Party%20Contracting%20Guidance%20%28Circular%204220.1F%29.pdf</a>
1B.E, 1B.F	FTA	Annual List of Certifications and Assurances for FTA Grants and Cooperative Agreements	<a href="https://www.transit.dot.gov/funding/grantee-resources/certifications-and-assurances/certifications-assurances">https://www.transit.dot.gov/funding/grantee-resources/certifications-and-assurances/certifications-assurances</a>
1B.G	State of Colorado	List of Disadvantaged Business Enterprise (DBE) Firms	<a href="https://coucp.dbesystem.com/FrontEnd/SearchCertifiedDirectory.asp?XID=8140&amp;TN=coucp">https://coucp.dbesystem.com/FrontEnd/SearchCertifiedDirectory.asp?XID=8140&amp;TN=coucp</a>
1B.G	CDOT	Disadvantaged Business Enterprise (DBE) Program Overview	<a href="https://www.codot.gov/business/civilrights/smallbusiness/dbe">https://www.codot.gov/business/civilrights/smallbusiness/dbe</a>

### Additional Information

Section	Source	Content	Website
1B.A	CDOT	Business Center - Change Management Overview	<a href="https://www.codot.gov/business/project-management/scoping/change-management">https://www.codot.gov/business/project-management/scoping/change-management</a>
1B.A	CDOT	Business Center - Quality Management Overview	<a href="https://www.codot.gov/business/project-management/scoping/quality-management">https://www.codot.gov/business/project-management/scoping/quality-management</a>
1B.A	CDOT	Business Center - Schedule Management Overview	<a href="https://www.codot.gov/business/project-management/scoping/schedule-management">https://www.codot.gov/business/project-management/scoping/schedule-management</a>
1B.A	CDOT	Business Center - Scope Management Overview	<a href="https://www.codot.gov/business/project-management/scoping/scope-management">https://www.codot.gov/business/project-management/scoping/scope-management</a>
1B.A	FTA	Project Delivery Method Review (OP32D)	<a href="https://www.transit.dot.gov/regulations-and-guidance/project-delivery-method-review-op32d">https://www.transit.dot.gov/regulations-and-guidance/project-delivery-method-review-op32d</a>
1B.A	FTA	Project Management Plan (PMP) Development	<a href="https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development">https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development</a>
1B.A	FTA	Project Management Plan Review (OP20)	<a href="https://www.transit.dot.gov/regulations-and-guidance/project-management-plan-review-op20">https://www.transit.dot.gov/regulations-and-guidance/project-management-plan-review-op20</a>
1B.A	FTA	Project Schedule Review (OP34)	<a href="https://www.transit.dot.gov/regulations-and-guidance/project-schedule-review-op34">https://www.transit.dot.gov/regulations-and-guidance/project-schedule-review-op34</a>
1B.A	FTA	Project Scope Review (OP32C)	<a href="https://www.transit.dot.gov/regulations-and-guidance/project-scope-review-op32c">https://www.transit.dot.gov/regulations-and-guidance/project-scope-review-op32c</a>
1B.A	CDOT	Requirements for FTA Subrecipients	<a href="https://www.codot.gov/business/civilrights/titlevi/fta-subrecipients">https://www.codot.gov/business/civilrights/titlevi/fta-subrecipients</a>

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1B.A	CDOT	Rural Planning Assistance	<a href="https://www.codot.gov/programs/planning/assets/planning-partners/rural-planning-assistance-rpa-program-guide">https://www.codot.gov/programs/planning/assets/planning-partners/rural-planning-assistance-rpa-program-guide</a>
1B.B	Federal Code	2 CFR 1201.80 - Program Income (PDF page 301)	<a href="https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201/section-1201.80">https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201/section-1201.80</a>
1B.B	Federal Code	2 CFR 200, Subpart D - Post Federal Award Requirements Property Standards (PDF page 260)	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D</a>
1B.B	Federal Code	2 CFR 200.1 - Indirect Costs Definition	<a href="https://www.ecfr.gov/current/title-2/part-200/section-200.1#p-200.1(Indirect%20(facilities%20%26amp%3B%20administrative%20(F%26amp%3BA))%20costs)">https://www.ecfr.gov/current/title-2/part-200/section-200.1#p-200.1(Indirect%20(facilities%20%26amp%3B%20administrative%20(F%26amp%3BA))%20costs)</a>
1B.B	Federal Code	2 CFR 200.305 - Federal Payments	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.305">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.305</a>
1B.B	Federal Code	2 CFR 200.311 - Real Property	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.311">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.311</a>
1B.B	Federal Code	2 CFR 200.501(a-c) - Audit Requirements	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-F/subject-group-ECFRfd0932e473d10ba/section-200.501">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-F/subject-group-ECFRfd0932e473d10ba/section-200.501</a>
1B.B	Federal Code	31 CFR 205 - Funds Transfers	<a href="https://www.ecfr.gov/current/title-31/subtitle-B/chapter-II/subchapter-A/part-205?toc=1">https://www.ecfr.gov/current/title-31/subtitle-B/chapter-II/subchapter-A/part-205?toc=1</a>
1B.B	DOT	Transit Award Management System (TrAMs) Portal	<a href="https://www.transit.dot.gov/funding/grantee-resources/teamtrams/transit-award-management-system-trams">https://www.transit.dot.gov/funding/grantee-resources/teamtrams/transit-award-management-system-trams</a>
1B.B	DOT	Electronic Clearing House Operation (ECHO) Portal	<a href="https://www.transit.dot.gov/funding/grantee-resources/echo/electronic-clearing-house-operation-echo">https://www.transit.dot.gov/funding/grantee-resources/echo/electronic-clearing-house-operation-echo</a>
1B.B	FTA	FTA Master (Grants) Agreements	<a href="https://www.transit.dot.gov/funding/grantee-resources/sample-fta-agreements/fta-grant-agreements">https://www.transit.dot.gov/funding/grantee-resources/sample-fta-agreements/fta-grant-agreements</a>
1B.B	Federal Laws	2 CFR 1201 Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards	<a href="https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201">https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201</a>
1B.B	Federal Laws	2 CFR 1201.80 Program Income	<a href="https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201/section-1201.80">https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201/section-1201.80</a>
1B.B	FTA	Circular 9040.1G	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Circular_9040_1Gwith_index_-_Final_Revised_-_vm_10-15-14%281%29_1.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Circular_9040_1Gwith_index_-_Final_Revised_-_vm_10-15-14%281%29_1.pdf</a>
1B.B	FTA	Grants Programs	<a href="https://www.transit.dot.gov/grants">https://www.transit.dot.gov/grants</a>
1B.B, 1B.H	Federal Code	2 CFR 200.313 - Equipment	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.313">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.313</a>

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1B.D	Federal Laws	2 CFR 200.321 Contracting with Small and Minority Businesses	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.321">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.321</a>
1B.D	Federal Laws	2 CFR 200.326 Contract Provisions	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.326#:~:text=%C2%A7%20200.326%20Bonding%20requirements.&amp;text=The%20E2%80%9Cbids%20guarantee%E2%80%9D%20must%20consist,required%20within%20the%20time%20specified.">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.326#:~:text=%C2%A7%20200.326%20Bonding%20requirements.&amp;text=The%20E2%80%9Cbids%20guarantee%E2%80%9D%20must%20consist,required%20within%20the%20time%20specified.</a>
1B.D	Federal Laws	2 CFR 200.320 Procurement Methods	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.320">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.320</a>
1B.D	Federal Laws	49 USC 5325 Contract Requirements	<a href="https://www.law.cornell.edu/uscode/text/49/5325#:~:text=Recipients%20of%20assistance%20under%20this,as%20determined%20by%20the%20Secretary.">https://www.law.cornell.edu/uscode/text/49/5325#:~:text=Recipients%20of%20assistance%20under%20this,as%20determined%20by%20the%20Secretary.</a>
1B.D	Federal Laws	Appendix II to 200—Contract Provisions for non-Federal Entity Contracts Under Federal Awards	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20II%20to%20Part%20200">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20II%20to%20Part%20200</a>
1B.D	Additional Sources	American Public Transportation Association’s Recommended Practice - The Process of Transit Procurement	<a href="https://www.apta.com/wp-content/uploads/Standards_Documents/APTA-PS-PP-RP-007-13.pdf">https://www.apta.com/wp-content/uploads/Standards_Documents/APTA-PS-PP-RP-007-13.pdf</a>
1B.D	DOT	Waiver of Buy America Requirements for <i>De Minimis</i> Costs and Small Grants	<a href="https://www.federalregister.gov/documents/2023/08/16/2023-17602/waiver-of-buy-america-requirements-for-de-minimis-costs-and-small-grants">https://www.federalregister.gov/documents/2023/08/16/2023-17602/waiver-of-buy-america-requirements-for-de-minimis-costs-and-small-grants</a>
1B.D	CDOT	Center for Procurement and Contract Services	<a href="https://www.codot.gov/business/procurement-and-contract-services">https://www.codot.gov/business/procurement-and-contract-services</a>
1B.D	CDOT - DTR	Quick Procurement Guide	<a href="https://www.codot.gov/programs/transitandrail/assets/cdot-quick-procurement-guide">https://www.codot.gov/programs/transitandrail/assets/cdot-quick-procurement-guide</a>
1B.D	Additional Sources	CRS 24-30-1403 Professional Services	<a href="https://colorado.public.law/statutes/crs_24-30-1403#:~:text=Any%20person%20desiring%20to%20provide,be%20required%20by%20the%20office">https://colorado.public.law/statutes/crs_24-30-1403#:~:text=Any%20person%20desiring%20to%20provide,be%20required%20by%20the%20office</a>
1B.D	Federal Laws	Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20II%20to%20Part%20200">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20II%20to%20Part%20200</a>
1B.D, 1B.L	Federal Laws	2 CFR 200.318 General Procurement Standards	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.318">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.318</a>
1B.E	Additional Sources	American Institute of Certified Public Accountants - Generally Accepted Auditing Standards	<a href="https://us.aicpa.org/content/dam/aicpa/research/standards/auditattest/downloadabledocuments/au-00150.pdf">https://us.aicpa.org/content/dam/aicpa/research/standards/auditattest/downloadabledocuments/au-00150.pdf</a>
1B.E	FTA	Procurement System Self-Assessment Guide	<a href="https://www.transit.dot.gov/funding/procurement-system-self-assessment-guide">https://www.transit.dot.gov/funding/procurement-system-self-assessment-guide</a>
1B.E	Federal Laws	USC Sections 7501 et seq.	<a href="https://www.law.cornell.edu/uscode/text/31/7501">https://www.law.cornell.edu/uscode/text/31/7501</a>

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1B.E	Additional Sources	OMB Circular A-133	<a href="https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/OMB/circulars/a133_compliance/2016/pt1.pdf">https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/OMB/circulars/a133_compliance/2016/pt1.pdf</a>
1B.E, 1B.L	FTA	2016 Best Practices Procurement & Lessons Learned Manual	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/procurement/8286/fta-best-practices-procurement-and-lessons-learned-manual-2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/procurement/8286/fta-best-practices-procurement-and-lessons-learned-manual-2016.pdf</a>
1B.F	FTA	National Transit Database	<a href="https://www.transit.dot.gov/ntd">https://www.transit.dot.gov/ntd</a>
1B.G	Federal Code	49 CFR 26, Participation by Disadvantaged Business Enterprises (DBEs) in Department of Transportation Financial Assistance Programs	<a href="https://www.ecfr.gov/cgi-bin/textidx?SID=53cd5c89e0e9bdcfc93bae3ae3efb10c&amp;mc=true&amp;node=pt49.1.26&amp;rgn=div5">https://www.ecfr.gov/cgi-bin/textidx?SID=53cd5c89e0e9bdcfc93bae3ae3efb10c&amp;mc=true&amp;node=pt49.1.26&amp;rgn=div5</a>
1B.G	FTA	Civil Rights Overview	<a href="https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/civil-rightsada">https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/civil-rightsada</a>
1B.G	FTA	Circular 4704.1	<a href="https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/eo-circular">https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/eo-circular</a>
1B.H	Federal Code	2 CFR 200.314 Supplies	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.314">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.314</a>
1B.H	Federal Code	49 CFR 24	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24">https://www.ecfr.gov/current/title-49/subtitle-A/part-24</a>
1B.H	Additional Sources	National Flood Insurance Act of 1968	<a href="https://www.fema.gov/sites/default/files/2020-07/national-flood-insurance-act-1968.pdf">https://www.fema.gov/sites/default/files/2020-07/national-flood-insurance-act-1968.pdf</a>
1B.I	Federal Code	49 CFR 673	<a href="https://www.ecfr.gov/current/title-49/subtitle-B/chapter-VI/part-673">https://www.ecfr.gov/current/title-49/subtitle-B/chapter-VI/part-673</a>
1B.I	CDOT	CDOT Overview - Risk Management	<a href="https://www.codot.gov/business/project-management/scoping/risk-management">https://www.codot.gov/business/project-management/scoping/risk-management</a>
1B.I	FTA	Public Transportation Agency Safety Plan (PTASP)	<a href="https://www.transit.dot.gov/PTASP">https://www.transit.dot.gov/PTASP</a>
1B.I	FTA	Risk and Contingency Review (OP40)	<a href="https://www.transit.dot.gov/regulations-and-guidance/risk-and-contingency-review-op40">https://www.transit.dot.gov/regulations-and-guidance/risk-and-contingency-review-op40</a>
1B.I	FTA	Safety & Security Management Review (OP22)	<a href="https://www.transit.dot.gov/regulations-and-guidance/safety-security-management-review-op22">https://www.transit.dot.gov/regulations-and-guidance/safety-security-management-review-op22</a>
1B.I	FTA	Safety Management Systems	<a href="https://www.transit.dot.gov/regulations-and-guidance/safety/public-transportation-agency-safety-program/safety-management">https://www.transit.dot.gov/regulations-and-guidance/safety/public-transportation-agency-safety-program/safety-management</a>
1B.I	FTA	Safety Risk Management	<a href="https://www.transit.dot.gov/regulations-and-programs/safety/safety-risk-management-process">https://www.transit.dot.gov/regulations-and-programs/safety/safety-risk-management-process</a>
1B.I	FTA	Safety Rulemaking Guidance	<a href="https://www.transit.dot.gov/regulations-and-guidance/safety/safety-rulemaking">https://www.transit.dot.gov/regulations-and-guidance/safety/safety-rulemaking</a>
1B.J	CDOT	COTRAMS	<a href="https://cdotdr.my.site.com/cdotcommunity/login?locale=us">https://cdotdr.my.site.com/cdotcommunity/login?locale=us</a>
1B.J	Additional Sources	Internal Control Integrated Framework	<a href="https://www.coso.org/guidance-on-ic">https://www.coso.org/guidance-on-ic</a>
1B.J	CDOT	Policy Directive 703	<a href="https://drive.google.com/file/d/1Tbp3TNaFUDar2d6H_qTLHcVLq5e9IFuu/view">https://drive.google.com/file/d/1Tbp3TNaFUDar2d6H_qTLHcVLq5e9IFuu/view</a>
1B.J	Additional Sources	Standards for Internal Control in the Federal Government	<a href="https://www.gao.gov/products/gao-14-704g">https://www.gao.gov/products/gao-14-704g</a>



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1B.J	CDOT	State Financial Management	<a href="https://www.codot.gov/business/budget">https://www.codot.gov/business/budget</a>
1B.K	CDOT - DTR	Communications Management Training	<a href="https://www.codot.gov/business/project-management/documents/x-pdp-section-8-communication-management.pdf">https://www.codot.gov/business/project-management/documents/x-pdp-section-8-communication-management.pdf</a>
1B.K	CDOT	Overview - Communications Management	<a href="https://www.codot.gov/business/project-management/scoping/project-communications">https://www.codot.gov/business/project-management/scoping/project-communications</a>
1B.L	Federal Laws	2 CFR 200.333 - Retention Requirements for Records	<a href="https://www.govinfo.gov/app/details/CFR-2014-title2-vol1/CFR-2014-title2-vol1-sec200-333">https://www.govinfo.gov/app/details/CFR-2014-title2-vol1/CFR-2014-title2-vol1-sec200-333</a>
1B.L	FTA	2016 Construction Management Handbook	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
1B.L	Additional Sources	2013 Executive Order 13642 on Making Open and Machine Readable the New Default for Government Information	<a href="https://obamawhitehouse.archives.gov/the-press-office/2013/05/09/executive-order-making-open-and-machine-readable-new-default-government-">https://obamawhitehouse.archives.gov/the-press-office/2013/05/09/executive-order-making-open-and-machine-readable-new-default-government-</a>

1A 1B 2 3 4 5 6 7

# 2

# ENVIRONMENTAL CLEARANCE

A

National Environmental Policy Act

B

Categorical Exclusion

C

Environmental Resources

## 2. Environmental Clearance – Executive Summary

**Chapter 2** provides guidance on preparing documents that comply with the National Environmental Policy Act of 1969 (NEPA) and other applicable federal environmental laws affecting Federal Transit Administration (FTA) projects in Region 8. This chapter provides references and links to related federal laws, executive orders, regulations, and policies. It also provides “best practice” examples for various compliance processes where appropriate. It is intended that Colorado Department of Transportation (CDOT) Division of Transportation and Rail (DTR) staff, local agencies, and consultants use this chapter to implement NEPA effectively, producing more consistent, improved environmental documents that decision-makers may use to make well-informed transportation decisions.

**Section 2.A** provides an overview of NEPA, specifically its applicability, compliance, and classes of action. Since many FTA projects that receive state and federal transit funds administered by DTR are categorical exclusions, **Section 2.B** discusses projects that fall under the categorical exclusion class of action.

For the evaluation of environmental resources, subrecipients should contract with an environmental consultant. **Section 2.C** discusses the environmental resources that may be present within a study area and the steps to evaluate and identify impacts to those resources.

## 2.A National Environmental Policy Act

Signed into law on January 1, 1970, NEPA provides a systematic and an interdisciplinary approach to guide decision-making when actions may affect the quality of the human environment. The purpose of NEPA is to:

- ▶ Encourage productive and enjoyable harmony between humans and their environment
- ▶ Promote efforts that prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humans
- ▶ Enrich the understanding of the ecological systems and natural resources important to the nation
- ▶ Establish a Council on Environmental Quality (CEQ)

NEPA is implemented through supporting federal regulations developed by the CEQ and other federal agencies. CEQ regulations establish requirements that must be followed for any project that is “financed, assisted, conducted, or approved by a Federal agency” (40 Code of Federal Regulation [CFR] 1500-1508). Before initiating a project, it is important to determine whether an action is involved and if and how NEPA is applicable to that project. NEPA covers a broad range of actions and includes making decisions on permit applications, adopting federal land management actions, and constructing highways and other publicly owned facilities.

**Worth Noting** – CDOT has committed to complying with the intent and requirements of NEPA for all transportation activities regardless of whether they are federally funded. Although nonfederal projects do not require federal agency approval, the NEPA process provides an excellent framework for ensuring environmental factors are considered consistent with CDOT’s environmental ethic. Thus, the guiding principles of NEPA have been incorporated into the CDOT transportation planning and project development process, as well as the maintenance and operations of the state transportation system.

The primary federal agency for most transit projects in Colorado is the FTA. The FTA works as a partner with CDOT and subrecipients to implement NEPA for projects that receive funding from FTA.

Environmental Protection Agency (EPA) has established basic guidelines on what NEPA is in their document “What is the National Environmental Policy Act?” **Resource 2-A** identifies EPA guidelines and other helpful resources related to NEPA.

### 2.A.1 When Does NEPA Apply to Your Project?

Under federal law, NEPA applies to any proposed action or transportation project that has a federal nexus, including, but not limited to, instances where:

- ▶ Federal funds or assistance will be used at some phase of project development
- ▶ Federal funding or assistance eligibility must be maintained
- ▶ Federal permits or approvals are required, such as the following:
  - Section 404 (Clean Water Act)
  - Section 106 (National Historic Preservation Act)
  - Section 4(f) (U.S. Department of Transportation [USDOT] Act of 1966)
  - Section 7 (Endangered Species Act)

A project is eligible for FTA funding if it has been adopted into the Colorado Statewide Transportation Improvement Program (STIP) as a planning study, environmental study, preliminary engineering project, capital facility project, or other phase of project development. **Chapter 1A Capital Project Planning and**

**Initiation** of this manual provides additional information on planning a capital facility, selecting adequate FTA funds, project application and award, and STIP inclusion.

## 2.A.2 FTA NEPA Compliance

Colorado is located within FTA Region 8, along with Wyoming, Montana, North Dakota, South Dakota, and Utah. Region 8 manages the environmental review process for projects that receive financial assistance from FTA. FTA Region 8 ensures compliance with NEPA and other relevant federal environmental laws, reviews and approves environmental documents, and issues decision documents. CDOT, the prime recipient, is considered the co-lead agency with FTA and works with local agencies (subrecipients) to ensure that the environmental review process is completed as detailed in this chapter.

Subrecipients often contract with an environmental consultant specializing in performing environmental evaluations, including conducting technical studies, leading public involvement, and preparing environmental documents.

Federal Highway Administration (FHWA) and FTA have jointly issued regulations, **Environmental Impact and Related Procedures** (23 CFR 771), to address NEPA responsibilities established by CEQ. The regulations set forth the agencies' policies of combining all environmental analyses and reviews into a single process. Regulations also define the roles and responsibilities of FTA and its grant recipients in preparing documents and managing the environmental process within the various project development phases. **Resource 2-A** identifies these regulations.

FTA determines the class of action and approves all categories of NEPA documentation. NEPA and any associated environmental documentation should be in process or completed prior to applying for or approval of federal assistance. All projects must meet fiscal constraint prior to completion of NEPA.

## 2.A.3 NEPA Classes of Action

Under NEPA, there are three levels of environmental review and documentation called classes of action. Based on the significance of the impacts of the proposed project, the classes of action determine how compliance with NEPA is carried out and documented. Classes of action include:

- ▶ Environmental Impact Statement (EIS) (Class I)
- ▶ Categorical Exclusion (CE) (Class II)
- ▶ Environmental Assessment (EA) (Class III)

An EIS is a detailed written statement for any major federal action that may significantly affect the quality of the human and natural environment. An EIS discusses a range of reasonable alternatives studied for the project and documents the potential impacts resulting from each alternative. In addition, an EIS demonstrates compliance with applicable environmental laws, executive orders, and regulations. The EIS process begins with a notice of intent (NOI), followed by a Draft EIS. FTA prepares a combined Final EIS/Record of Decision (FEIS/ROD), if possible. If a combined FEIS/ROD is not feasible, FTA follows the traditional approach of a separate FEIS followed by a ROD.

Executive Order (EO) 13807 requires federal agencies to process environmental reviews and authorization decisions for "major infrastructure projects" as *One Federal Decision*. EO 13807 sets a governmentwide goal of reducing the average time to complete required environmental review and authorizations for EISs to no more than two years from publication of a NOI or EO 13807 also requires all federal authorization decisions for the construction of these projects to be completed within 90 days of the issuance of a ROD. One of the goals of EO 13807 is to ensure that the federal environmental review and permitting process for infrastructure projects is coordinated, predictable, and transparent.

CEs include categories of actions that do not involve significant environmental impacts. Approximately 95 percent of FTA-funded transit projects are processed as CEs. There are two lists for the type of projects categorically excluded: C- and D-list projects. Refer to **Section 2.B.3, Table 2-1,** and **Section 2.B.4, Table 2-2,** respectively.

An EA is prepared when the significance of the potential social, economic, and environmental impacts is unknown or not clearly established. If FTA determines from an EA that the action will not have a significant effect on the environment, then a Finding of No Significant Impact (FONSI) is completed. If the FTA concludes that there will likely be a significant impact(s) that cannot be mitigated to a level below “significant,” an EIS is prepared.

Since most FTA projects are CEs, this manual focuses on the FTA process and procedures for CEs. NOTE: For all FTA-funded projects, NEPA approval is granted only by the lead agency, which, in most cases, will be the FTA.

**Resource 2-A** provides additional resources related to the environmental review process, including FTA’s **Environmental Review Process** and FHWA’s **Frequently Asked Questions on the Environmental Review Process**.

**STOP! Project activities, including property acquisition, demolition, site preparation, final design, and construction, may not begin until the environmental clearance process is complete.**



## 2.B Categorical Exclusion

### 2.B.1 Definitions of Categorical Exclusions and Determining Categorical Exclusions

CEs include a category of actions that typically do not result in any significant environmental impacts (individual or cumulative). Because of this, they are excluded from the requirement to prepare an EA or an EIS when there are no unusual circumstances; for example, substantial controversy on environmental grounds or a significant impact to properties protected under Section 4(f), and based on FTA's past experience with similar actions.

NOTE: CEs are not exempt from NEPA. Completing a CE is still considered a NEPA action, but the process requires less documentation and impacts assessment. A project may not require the higher level of NEPA analysis associated with an EA or an EIS but still requires analysis under other environmental laws, such as Section 106 or Section 4(f). If other environmental laws, regulations, executive orders, and/or permitting requirements apply, the subrecipient must apply and obtain the necessary permits and approvals prior to an FTA determination, regardless of whether the project may qualify as a CE. Compliance with these requirements does not necessarily elevate the project to an EA or an EIS.

A CE does not require a purpose and need statement or formal scoping. Instead, a CE should include an informal scoping process that considers any potential impacts to ensure that there are no unusual circumstances that would affect the application of a CE determination to the project (that is, are there potential impacts to resources in which a different NEPA class of action would be necessary?). Scoping may include limited consultation and outreach to other Colorado or federal agencies, such as State Historic Preservation Officer (SHPO) and U.S. Fish and Wildlife Service (USFWS). **Resource 2-A** provides more information on FTA scoping procedures.

The first type of action is known as a "C-list" CE. The other type of action is known as a "D-list" CE. The type of action known as a "D-list" CE requires additional documentation demonstrating that a CE is an appropriate classification, the specific conditions or criteria for the CE are satisfied, and significant environmental impacts will not occur as a result.

Refer to FTA's **Guidance for Implementation of FTA's Categorical Exclusions** in **Resource 2-A** for more information about the application of individual CEs.

The FTA Region 8 Administrator makes the CE determination, although the Administrator may delegate responsibility for some or all CE determinations to FTA Region 8 staff. FTA Region 8 staff review the project and proposed CE determination to ensure that a CE is appropriate and that the project description and documentation are adequate. FTA Region 8 staff also determine whether other environmental laws or requirements apply or if unusual circumstances exist.

### 2.B.2 Categorical Exclusion Worksheets and Templates

FTA Region 8 staff have created worksheets and templates to assist in determining whether a CE is the appropriate class of action for a project and can provide these to subrecipients. **Appendix A** includes the FTA Region 8 CE Worksheet, along with the instructions for completing the worksheet.

### 2.B.3 C-List Categorical Exclusions

Projects that are approved as C-list CEs must fit the description and conditions of, or be similar enough to, what is outlined in the specific CE’s language, as identified in **Table 2-1**. For the most up-to-date version of this guidance, refer to the link to **Guidance for Implementation of FTA’s Categorical Exclusions (23 CFR 771.118)** in **Resource 2-A**.

**Table 2-1. C-List Categories**

#	Category C Projects
1	Acquisition, installation, operation, evaluation, replacement, and improvement of discrete utilities and similar appurtenances (existing and new) within or adjacent to existing transportation right-of-way (ROW) (such as utility poles, underground wiring, cables, and information systems) and power substations and utility transfer stations.
2	Acquisition, construction, maintenance, rehabilitation, and improvement or limited expansion of stand-alone recreation, pedestrian, or bicycle facilities (such as a multiuse pathway, lane, trail, or pedestrian bridge) and transit plaza amenities.
3	Activities designed to mitigate environmental harm that cause no harm themselves or to maintain and enhance environmental quality and site aesthetics, and employ construction best management practices, such as noise mitigation activities; rehabilitation of public transportation buildings, structures, or facilities; retrofitting for energy or other resource conservation; and landscaping or revegetation.
4	Planning and administrative activities that do not involve or lead directly to construction, such as training, technical assistance and research; promulgation of rules, regulations, directives, or program guidance; approval of project concepts; engineering; and operating assistance to transit authorities to continue existing service or increase service to meet routine demand.
5	Activities, including repairs, replacements, and rehabilitations, designed to promote transportation safety, security, accessibility and effective communication within or adjacent to existing ROW, such as the deployment of Intelligent Transportation Systems and components; installation and improvement of safety and communications equipment, including hazard elimination and mitigation; installation of passenger amenities and traffic signals; and retrofitting existing transportation vehicles, facilities or structures, or upgrading to current standards.
6	Acquisition or transfer of an interest in real property that is not within or adjacent to recognized environmentally sensitive areas (e.g., wetlands, non-urban parks, wildlife management areas) and does not result in a substantial change in the functional use of the property or in substantial displacements, such as acquisition for scenic easements or historic sites for the purpose of preserving the site. This CE extends only to acquisitions and transfers that will not limit the evaluation of alternatives for future FTA assisted projects that make use of the acquired or transferred property.
7	Acquisition, installation, rehabilitation, replacement, and maintenance of vehicles or equipment, within or accommodated by existing facilities, that do not result in a change in functional use of the facilities, such as equipment to be located within existing facilities and with no substantial off-site impacts; and vehicles, including buses, rail cars, trolley cars, ferry boats, and people movers that can be accommodated by existing facilities or by new facilities that qualify for a categorical exclusion.
8	Maintenance, rehabilitation, and reconstruction of facilities that occupy substantially the same geographic footprint and do not result in a change in functional use, such as improvements to bridges, tunnels, storage yards, buildings, stations, and terminals; construction of platform extensions, passing track, and retaining walls; and improvements to tracks and railbeds.
9	Assembly or construction of facilities that is consistent with existing land use and zoning requirements (including floodplain regulations) and uses primarily land disturbed for transportation use, such as buildings and associated structures; bus transfer stations or intermodal centers; busways and streetcar lines or other transit investments within areas of the ROW occupied by the physical footprint of the existing facility or otherwise maintained or used for transportation operations; and parking facilities.
10	Development of facilities for transit and non-transit purposes, located on, above, or adjacent to existing transit facilities, that are not part of a larger transportation project and do not substantially enlarge such facilities, such as police facilities, daycare facilities, public service facilities, amenities, and commercial, retail, and residential development.

#	Category C Projects
11	<p>The following actions for transportation facilities damaged by an incident resulting in an emergency declared by the Governor of the State and concurred by the Secretary, or a disaster or emergency declared by the President pursuant to the Robert T. Stafford Act (42 United States Code [USC] 5121):</p> <ul style="list-style-type: none"> <li>■ Emergency repairs under 49 USC 5324.</li> <li>■ The repair, reconstruction, restoration, retrofitting, or replacement of any road, highway, bridge, tunnel, or transit facility (such as a ferry dock or a bus transfer station), including ancillary transportation facilities (such as pedestrian/bicycle paths and bike lanes), that is in operation or under construction when damaged and the action: <ul style="list-style-type: none"> <li>■ Occurs within the existing ROW and in a manner that substantially conforms to the preexisting design, function, and location as the original (which may include upgrades to meet existing codes and standards, as well as upgrades warranted to address conditions that have changed since the original construction).</li> <li>■ Is commenced within a 2-year period beginning on the date of the declaration.</li> </ul> </li> </ul>
12	<p>Projects, as defined in 23 USC 101, that would take place entirely within the existing operational ROW. Existing operational ROW refers to ROW that has been disturbed for an existing transportation facility or is maintained for a transportation purpose. This area includes the features associated with the physical footprint of the transportation facility (including the roadway, bridges, interchanges, culverts, drainage, fixed guideways, mitigation areas, etc.) and other areas maintained for transportation purposes such as clear zone, traffic control signage, landscaping, any rest areas with direct access to a controlled access highway, areas maintained for safety and security of a transportation facility, parking facilities with direct access to an existing transportation facility, transit power substations, transit venting structures, and transit maintenance facilities. Portions of the ROW that have not been disturbed or that are not maintained for transportation purposes are not in the existing operational ROW.</p>
13	<p>Federally funded projects:</p> <ul style="list-style-type: none"> <li>■ That receive less than \$5 million (as adjusted annually by the Secretary to reflect any increases in the <b>Consumer Price Index</b> prepared by the Department of Labor, refer to <b>Resource 2-A</b>) of federal funds.</li> <li>■ With a total estimated cost of not more than \$30 million (as adjusted annually by the Secretary to reflect any increases in the <b>Consumer Price Index</b> prepared by the Department of Labor, refer to <b>Resource 2-A</b> ) and federal funds representing less than 15 percent of the total estimated project cost.</li> </ul>
14	<p>Bridge removal and bridge removal related activities, such as in channel work, disposal of materials and debris in accordance with applicable regulations, and transportation facility realignment.</p>
15	<p>Preventative maintenance, including safety treatments, to culverts and channels within and adjacent to transportation ROW to prevent damage to the transportation facility and adjoining property, plus any necessary channel work such as restoring, replacing, reconstructing, and rehabilitating culverts and drainage pipes, and expanding existing culverts and drainage pipes.</p>
16	<p>Localized geotechnical and other investigations to provide information for preliminary design and for environmental analyses and permitting purposes, such as drilling test bores for soil sampling; archeological investigations for archeology resources assessment or similar survey; and wetland surveys.</p>

Source: 23 CFR 771.118(c)

## 2.B.4 D-List Categorical Exclusions

Similar to C-list CEs, projects approved as D-list CEs must fit the description and conditions of, or be similar enough to, what is outlined in the specific CE’s language as identified in **Table 2-2**.

**Table 2-2. D-List Categories**

#	Category D Projects
1	Modernization of a highway by resurfacing, restoring, rehabilitating, or reconstructing shoulders or auxiliary lanes (e.g., lanes for parking, weaving, turning, climbing).
2	Bridge replacement or the construction of grade separation to replace existing at-grade railroad crossings.
3	<p>Acquisition of land for hardship or protective purposes. Hardship and protective buying will be permitted for only a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.</p> <ul style="list-style-type: none"> <li>■ Hardship acquisition is early acquisition of property by the applicant at the property owner’s request to alleviate particular hardship to the owner, in contrast to others, because of an inability to sell his property. This is justified when the property owner can document on the basis of health, safety, or financial reasons that remaining in the property poses an undue hardship compared to others.</li> <li>■ Protective acquisition is done to prevent imminent development of a parcel that may be needed for a proposed transportation corridor or site. Documentation must clearly demonstrate that development of the land would preclude future transportation use and that such development is imminent. Advance acquisition is not permitted for the sole purpose of reducing the cost of property for a proposed project.</li> </ul>
4	Acquisition of ROW. No project development on the acquired ROW may proceed until the NEPA process for such project development, including the consideration of alternatives, has been completed.
5	[Reserved]
6	Facility modernization through construction or replacement of existing components.
7	Minor transportation facility realignment for rail safety reasons, such as improving vertical and horizontal alignment of railroad crossings and improving sight distance at railroad crossings.
8	Modernization or minor expansions of transit structures and facilities outside existing ROW, such as bridges, stations, or rail yards.

Source: 23 CFR 771.118(d)

## 2.B.5 Coordination for Categorical Exclusions

General consultation with other federal and state agencies may be appropriate for a CE. For example, when other environmental laws apply to a project, FTA Region 8 staff may need to consult with other agencies about the specific environmental impacts to ensure compliance with the other requirements.

**Worth Noting** – It is best practice to initiate all coordination efforts with other agencies before submitting a grant application to fund a capital facility project, including the environmental clearance (NEPA) portion of a project.

FTA Region 8 staff determine whether coordination with state and federal agencies is needed and record any coordination in the project file (such as when coordination took place and what resulted). Documenting coordination may be as simple as including a short note in the project file or grant application.

Other examples of interagency coordination for a CE include consultation with the following:

- ▶ SHPO, which must be done through FTA, pursuant to Section 106, regarding eligibility and effects to historic resources within the Area of Potential Effects (APE) for projects that have the potential to cause effects on historic properties.
  - This coordination also supports Section 4(f) compliance for applicable historic resources.
- ▶ Park or wildlife refuge officials, pursuant to Section 4(f), with an opportunity for public involvement for *de minimis* determinations.
- ▶ Appropriate state environmental agency on the appropriate remediation and construction techniques for a project on a brownfield site.
- ▶ U.S. Army Corps of Engineers (USACE) on the applicability of a Section 404 nationwide permit.
- ▶ Other DOT agencies (i.e., FHWA, Federal Railroad Administration, or Federal Aviation Administration) when the project involves the use of funds or approvals of another mode.

**Resource 2-A** provides more information on governmental coordination in FTA's **Environmental Standard Operating Procedures (SOP) No:20 - Agency Roles and Government-to-Government Coordination**.

## 2.B.6 Issuance of Categorical Exclusion Determination

When FTA Region 8 issues a CE determination for a project, it represents FTA's final agency NEPA action (that is, NEPA is considered to be complete). A finding/determination is a formal recognition by the appropriate agency (for example, FTA, USFWS) that the environmental documents are sufficient to analyze the proposed project and its potential environmental impacts. **Resource 2-A** provides a link to FTA's **SOP No 2 - Determining Class of Action**, which provides more information on determinations.

**STOP! If a concurrence by another agency is required for NEPA approval, such as Section 106 or Section 4(f), then that concurrence must be completed prior to issuance of the CE.**

## 2.B.7 Public Availability

CE documentation is not required to be publicly available but would need to be released if a request was made under the Freedom of Information Act or Colorado Open Records Act. In addition, CE documentation may need to be publicly available to comply with other environmental laws that have their own public involvement requirements, such as Section 106.

## 2.C Environmental Resources

Environmental resources are evaluated concurrently during the environmental review process. As previously stated, the subrecipient is encouraged to contract with an experienced environmental consultant to complete the environmental evaluation of the project. The following resource areas should be assessed by an experienced professional, such as a consultant. In addition, some resource areas, such as cultural, historic, and hazardous materials, are required to be assessed by a professional certified to complete the assessment.

### 2.C.1 Biological Resources

NEPA requires the assessment and consideration of any FTA-funded project's effects on the quality of the human environment, including protected wildlife and plant species and/or their habitats (that is, impacts to biological resources), regardless of the class of action (EA, EIS, or CE). These environmental reviews are typically conducted during the NEPA process.

FTA Region 8 staff are responsible for the following biological resource efforts:

- ▶ Making effects determinations under Section 7 of the Endangered Species Act
- ▶ Ensuring compliance with other biological resource-related requirements
- ▶ Ensuring interagency coordination
- ▶ Adequately analyzing potential impacts to biological resources
- ▶ Receiving and documenting applicable agency concurrence before NEPA is complete

### Endangered Species Act of 1973

The Endangered Species Act protects federally listed endangered or threatened species and their critical habitats. Per Section 7 of the Endangered Species Act, FTA is required to consult with the Secretary of the Interior on any actions that are likely to adversely affect or jeopardize federally listed species or their critical habitat. The subrecipient can use the language set forth in the **Endangered Species Act** and the USFWS's **Endangered Species Consultation Handbook** in **Resource 2-B** to assess endangered or threatened species.

**Worth Noting** – The Department of the Interior's U.S. Fish and Wildlife Service generally has jurisdiction over terrestrial species, bird species, freshwater species, and their critical habitats. Interagency cooperation is a joint regulation between USFWS and other federal agencies that provides procedures for agency coordination under Section 7 of the Endangered Species Act.

- Step 1. Identify listed endangered or threatened species.
- ▶ Consultant requests species lists and designated critical habitat areas from USFWS's **Information, Planning and Consultation System (IPaC) website** (as identified in **Resource 2-B**) upon identification of the study area.
  - ▶ Consultant reviews species lists provided by USFWS to evaluate if a proposed project area contains any listed species or critical habitat.
  - ▶ Consultant reviews the **Colorado Parks and Wildlife (CPW) natural resource agency website**, as identified in **Resource 2-B**.
  - ▶ In cooperation with FTA Region 8 staff, consultant uses the species list information to determine if a field survey is necessary to comply with Section 7 of the Endangered Species Act.
  - ▶ FTA Region 8 staff coordinate with tribal biologists for proposed projects on tribal lands.



- Step 2. FTA makes a Section 7 of the Endangered Species Act effects determination in coordination with the subrecipient and their consultant. The outcome of effects determinations dictates how FTA proceeds with Section 7 consultation.
- ▶ **No Effect:** If no listed species, critical or suitable habitat is expected to be impacted by the proposed action, FTA Region 8 staff make a “no effect” determination for the proposed project. Concurrence from the USFWS is not required, and no Biological Assessment is required.
  - ▶ **May affect, but is not likely to adversely affect/adversely modify critical habitat:** FTA Region 8 staff make this determination when effects to the species or critical habitat are expected to be discountable, insignificant, or completely beneficial. **Discountable** effects are those that are extremely unlikely to occur. **Insignificant** effects relate to the magnitude of the impact and include those effects that are undetectable, not measurable, or cannot be evaluated. **Beneficial** effects are contemporaneous positive effects without any adverse effects to the species or the habitat<sup>1</sup>. FTA Region 8 staff request written concurrence from USFWS for this determination unless another agreement is made with USFWS.
  - ▶ **May affect, and is likely to adversely affect/adversely modify critical habitat:** FTA Region 8 staff make this determination if any adverse effect to listed species or critical habitat may occur as a direct or an indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial. FTA Region 8 staff may request formal consultation with the USFWS.
- Step 3. If necessary, prepare a Biological Assessment or other review. NOTE: A Biological Assessment is typically not necessary for a CE. Usually, a report such as a Biological Resources Report is sufficient.
- ▶ During informal consultation with USFWS (**Step 2**), FTA Region 8 determines if the proposed action may affect a listed endangered or threatened species or designated critical habitat through a Biological Assessment or other review. The subrecipient’s consultant, who should be a qualified professional, should prepare the Biological Assessment or other review. If FTA determines that its action is likely to adversely affect a listed species or designated critical habitat, FTA should submit to the USFWS a request for formal consultation.
  - ▶ FTA Region 8 provides the Biological Assessment to the USFWS Director.
  - ▶ The USFWS Director has 45 days to request additional information from FTA.
  - ▶ The USFWS Director provides written concurrence of the findings within 90 days. After 90 days, USFWS will issue a Biological Opinion.
  - ▶ The type of Section 7 consultation depends on the status of the affected species or habitat and the severity of impacts. For more details on the different types of consultation, standard operating procedures, and interagency coordination, refer to **Resource 2-B**.

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<sup>1</sup> U.S. Fish and Wildlife Service, *Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act*. U.S. Fish and Wildlife Service and National Marine Fisheries Service, March 1998.

## Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits private entities and federal agencies from intentionally “taking or killing” migratory birds, their nests, or their eggs unless USFWS authorizes such activities under a special permit. 50 CFR 10.13 lists the bird species protected by MBTA, cited in **Resource 2-B**.

- Step 1. Consultant reviews USFWS online tools (**IPaC System and Avian Knowledge Network Histogram Tools**) and CPW’s websites to identify potential migratory bird occurrence within or near the project area and breeding season.
- Step 2. If necessary, consultant conducts field reconnaissance to identify protected birds and/or to confirm their presence and/or nesting habitats.
- Step 3. Consultant documents in the CE the identification methods used, specific project activities that may impact migratory birds or nesting habitats, and results of agency coordination.
- Step 4. FTA Region 8 staff coordinate with the respective regional USFWS offices regarding compliance with MBTA.
- Step 5. FTA Region 8 and USFWS discuss mitigation to avoid impact to migratory birds’ nesting and to ensure compliance with MBTA.

**Resource 2-B** identifies additional resources related to USFWS and CPW’s tools and websites.

**Worth Noting** – The MBTA states no grubbing or cutting of nesting habitat can occur during the nesting season, generally April 1 through August 31.

## Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone from “taking” bald or golden eagles, including their parts, nests, or eggs, unless allowed by a permit issued by the Secretary of the Interior. *Take* is defined as “purse, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest or disturb.” The identification, coordination, and documentation associated with potential impacts to bald or golden eagles should be similar to the process FTA uses for MBTA. Refer to the **Bald and Golden Eagle Protection Act** in **Resource 2-B** for more information.

## Invasive Species

**EO 13112** directs FTA to use relevant programs and authorities to prevent the introduction of invasive species, provide for their control, and restore native species and their habitat conditions in ecosystems that have been invaded. Refer to **Resource 2-B** for more information.

- Step 1. Consultant coordinates with CPW to identify any potential invasive species issues in the project area.
- Step 2. Consultant discusses in the CE the outcomes of any agency coordination.
- Step 3. Consultant identifies in the CE any measures or best management practices to prevent the introduction or spread of invasive species.

## 2.C.2 Water Resources

NEPA requires the analysis and consideration of the effects of a proposed project on water resources, including coastal zones, floodplains, wild and scenic rivers, navigable waterways, wetlands, and other waters of the U.S. The subrecipient’s consultant, in coordination with the subrecipient, should identify any impacts to water resources that apply to the FTA-funded project, regardless of the NEPA class of action.

The Clean Water Act (CWA) applies to “Waters of the United States (WOTUS),” which includes jurisdictional wetlands and navigable waters. Specifically, WOTUS includes:

- ▶ All waters currently used or used in the past that may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide
- ▶ All interstate waters, including interstate wetlands

- ▶ All other waters such as intrastate lakes, rivers, streams (including intermittent streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds), the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:
  - That are or could be used by interstate or foreign travelers for recreational or other purposes
  - From which fish or shellfish are or could be taken and sold in interstate or foreign commerce
  - That are used or could be used for industrial purposes by industries in interstate commerce
- ▶ All impoundments of waters otherwise defined as WOTUS under this definition
- ▶ Tributaries of waters
- ▶ The territorial sea
- ▶ Wetlands adjacent to waters (other than waters that are themselves wetlands)

Wetlands are defined as areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances, do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. EPA and USACE use the **1987 Corps Wetland Delineation Manual and its Regional Supplements (Corps Manual)** to define wetlands for the CWA Section 404 permit program. **Resource 2-B** includes a link to the Corps Manual, as well as other resources.

Navigable waters are defined as those waters that are subject to the ebb and flow of the tide and/or are used, have been used in the past, or may be susceptible to use to transport interstate or foreign commerce.

**Worth Noting** – The Supreme Court ruling in *EPA v. Sackett (2023)* resulted in the amendment of the definition of “Waters of the United States,” which revised the designation of waters and wetlands protected under federal law. Refer to EPA/USACE (88 FR 61964) and Colorado Department of Public Health and Environment (CDPHE) (Policy CW-17) for additional guidance on waters and wetlands. **Resource 2-B** provides a link to the summary of the Supreme Court ruling, as well as EPA/USACE and CDPHE materials.

- Step 1. Consultant reviews USFWS’s Wetland Inventory or the U.S. Geological Survey (USGS) topographic maps to identify any potential WOTUS, including wetlands, present in the project area.
- Step 2. FTA Region 8 staff, the subrecipient, and the consultant coordinate with agencies early in the environmental review process or during NEPA scoping if the proposed project may impact wetlands or other WOTUS:
  - ▶ **USACE:** This agency issues the CWA Section 404 permit, Section 10 permit, and Section 408 review and authorization.
  - ▶ **EPA:** This agency may veto a Section 404 permit issued by USACE under Section 404(b) of the CWA. For projects on tribal lands, EPA issues Section 401 certifications for Section 404 permits, unless the tribe has an EPA-certified water quality program.
  - ▶ **USFWS:** This agency would be consulted to determine how a project would affect aquatic habitats for protected species under the Endangered Species Act.
  - ▶ **Natural Resources Conservation Service (NRCS):** Coordination with NRCS is necessary if there are possible impacts to agricultural wetlands. The NRCS’s **Food Security Act Manual** link in **Resource 2-B** delineates agricultural wetlands whereas delineation of non-agricultural wetlands follows the USACE Corps Manual.
- Step 3. Consultant conducts site visits for jurisdictional wetland delineations using the USACE Corps Manual.
- Step 4. Consultant requests a jurisdictional determination from USACE.

- Step 5. USACE makes the jurisdictional determination based on the jurisdictional delineation by the subrecipient. USACE may also consult with EPA on this determination.
- Step 6. Consultant identifies impacts to WOTUS and any associated wetlands that cannot be avoided or minimized.
- Step 7. Consultant and FTA work with USACE to determine if the project qualifies for a Nationwide Permit. If a Nationwide Permit is not applicable, then an Individual Permit may be required. An Individual Permit could take 6 to 12 months to complete.

**STOP! The consultant should be sure to check for possible Colorado and local permit requirements at the beginning of the environmental review process when considering project locations.**

In the state of Colorado, when a Section 404 Nationwide Permit is issued, a Section 401 certification is also provided. If an Individual Section 404 permit is required, CDPHE requires a separate Section 401 certification.

Section 402 is a stormwater permit required for disturbances greater than one acre. Because these permits are highly situational, the subrecipient should coordinate closely with FTA Region 8 staff prior to application. The [FTA SOP No:22 on Water Resources](#) link in [Resource 2-B](#) provides more information on Section 404, Section 401, and Section 402 permits.

**Worth Noting** – Issuance of a Section 404 permit is not required to complete a NEPA document. However, the NEPA document should present the results of agency coordination and the subrecipient's Section 404 permit application status or plan. Projects with new construction in wetlands do not generally receive a CE determination.

## Floodplains

Per [Section 6 \(b\)-\(c\) of EO 11988](#), *floodplains* are defined as “the lowlands and relatively flat areas adjoining inland and coastal waters and include areas prone to a 100-year flood.” A *regulatory floodway* is defined as “the floodplain area that is reserved, meaning free of obstruction(s), by federal, state, or local requirements where a base flood will discharge to prevent the cumulative increase in water surface elevation.” The National Flood Insurance Program sets the upper limit of cumulative water increase due to a flood; typically, the cumulative water increase shall not exceed one foot. For more information about EO 11988 (Floodplain Management), refer to [Resource 2-B](#).

Subrecipients must avoid adverse impacts associated with the occupancy and modification of land within floodplains if a practicable alternative exists. If no practicable alternative exists, a project (capital facility) in a floodplain must be designed to minimize any adverse impacts to the floodplain's natural and beneficial values and to minimize the potential risks for flood-related property loss and the loss of human life.

To determine whether a proposed project encroaches on the floodplain, the Federal Emergency Management Agency developed the Flood Insurance Rate Map (FIRM). If a FIRM is not available, then the subrecipient should contact the USACE, NRCS, or local floodplain management agencies for assistance.

Significant encroachments on the floodplain are rare for transit projects. Expansion of a facility already located within a floodplain usually would not be considered a significant encroachment. A significant encroachment would result in one or more of the following construction or flood-related impacts:

- ▶ A considerable probability of loss of human life
- ▶ Likely future damage associated with the encroachment that could be substantial in cost or extent, including interruption of service on or loss of a vital transportation facility
- ▶ A notable adverse impact on natural and beneficial floodplain values

The subrecipient should try to avoid significant encroachment through early coordination with the local floodplain management agencies and/or through design modifications.

## Documentation

The floodplain section of the CE should describe the project location and activities within the limits of the base floodplain, type of floodplain, natural and beneficial values of the floodplain, and measures to minimize floodplain impacts or measures to restore and preserve natural and beneficial floodplain values.

### 2.C.3 Section 4(f) Evaluations

Section 4(f) applies to any federally funded project regardless of the NEPA class of action or the timing of the discovery of the Section 4(f) property. Section 4(f) analysis is required for DOT projects undergoing NEPA analysis and documentation if any properties protected by Section 4(f) would be “used”<sup>2</sup>. However, a Section 4(f) analysis may also be required for construction activities post-NEPA if there are either late discoveries or late designations of properties protected by Section 4(f).

Properties protected under Section 4(f) include:

- ▶ Historic properties listed or eligible on the National Register of Historic Places (NRHP), regardless of ownership, including archaeological sites that are important for preservation in place.
  - Section 4(f) does not typically apply to archaeological sites that are important for data recovery, whether data recovery is performed or not.
- ▶ Significant publicly owned parks and recreation areas that are also open to the public.
- ▶ Significant publicly owned wildlife or waterfowl refuges whether they are open to the public or not.
  - The Official with jurisdiction (OWJ) determines significance for parks, recreation areas, and wildlife/waterfowl refuges. When the OWJ determines that a park, recreation area, or wildlife/waterfowl refuge is not significant, FTA reviews the determination for reasonableness. In the absence of a significance determination by the OWJ, FTA assumes the resource is significant.

The subrecipient’s consultant identifies any Section 4(f) properties and coordinates with FTA on the local consultation required for a Section 4(f) analysis, such as coordination with local parks departments, and determination protocols. However, FTA Region 8 staff manage any coordination and findings that can be used in Section 4(f) associated with federal laws.

### Worth Noting – It is solely FTA’s responsibility to make Section 4(f) determinations.

Historic properties are treated differently in the Section 4(f) regulations than are non-historic properties. Refer to **SOP 18 (Section 4(f) Evaluations)** in **Resource 2-B** for more information on the federal, state, tribal, and subrecipient roles and responsibilities for each type of property.

OWJ for historic properties:

- ▶ State Historic Preservation Officer (SHPO)
- ▶ Tribal Historic Preservation Officer (THPO)
- ▶ Advisory Council on Historic Preservation (ACHP)
- ▶ U.S. Department of the Interior (DOI)

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<sup>2</sup> Use is defined as one of the following: “(1) permanent incorporation/permanent easement: land from a Section 4(f) property is permanently incorporated into the transportation system through fee simple acquisition or permanent easement; (2) temporary occupancy: land occupied for construction purposes is adverse in terms of the statute’s preservationist purposes; and (3) constructive use: proximity impacts of the transportation project (such as noise or visual) are so severe that the activities, features, or attributes that qualify the Section 4(f) property for protection are substantially impaired.”



OWJ for non-historic properties:

- ▶ For parks, recreation areas, and wildlife/waterfowl refuges that qualify under Section 4(f), FTA Region 8 must coordinate with the official(s) of the agency or agencies that own or administer the property in question.
- ▶ For Section 4(f) properties with federal encumbrances, such as easements or other use restrictions, FTA Region 8 must coordinate with the appropriate federal agency to ascertain its position on the proposed impact and to determine if any other federal requirements may apply to converting the Section 4(f) land to a different function.

The following procedure is listed as steps; however, it is important to note that there may be circumstances where a stepwise procedure is not followed to allow flexibility and efficiency in the process. The process is flexible and should be tailored depending on the project size and complexity for maximum efficiency while still meeting regulatory requirements. For more information about the Section 4(f) process, refer to **SOP 18 (Section 4(f) Evaluations)** in **Resource 2-B**.

- Step 1. Identify Section 4(f) properties in the vicinity of the project as early as practicable in the planning and project development process so that complete avoidance of the protected properties remains a viable option for the project, if possible.
- Step 2. Identify the OWJ for the Section 4(f) properties. If properties meet the criteria for protection under Section 4(f), FTA Region 8 staff must identify the OWJ of the resources as previously defined.
- Step 3. Determine whether there is a “use” of a Section 4(f) property. FTA Region 8 staff must determine if there is either a direct (permanent or temporary) or a constructive “use” of the Section 4(f) property.
- Step 4. Determine if the project will qualify for a Section 4(f) property.
  - ▶ Exceptions can be found at 23 CFR 774.13 in **Resource 2-B**.
- Step 5. Determine whether the physical incorporation of Section 4(f) land into the transportation project qualifies as a *de minimis* impact.
  - ▶ After considering avoidance, minimization, mitigation, and enhancement measures, and after the required coordination process, FTA Region 8 staff may determine that a use will result in only a *de minimis* impact to a Section 4(f) resource. The OWJ must concur with this determination.
- Step 6. Hold a public review and commenting period to give members of the public an opportunity to review the potential effects on the Section 4(f) property. Following public review and OWJ concurrence, the Section 4(f) *de minimis* evaluation is considered complete.

**Worth Noting** – The definition of *de minimis* impact and the consultation requirements differ among historic sites and parks, recreation, and wildlife/waterfowl refuges. Refer to the FTA/FHWA Section 4(f) Policy Paper in **Resource 2-B** for more information.

- Step 1. **If a project does not qualify for an exception**, determine whether the physical incorporation of Section 4(f) land into the transportation project qualifies as a *de minimis* impact to a Section 4(f) resource. The OWJ must concur with this determination.
  - ▶ After considering avoidance, minimization, mitigation, and enhancement measures, and after the required coordination process, FTA Region 8 staff may determine that a use will result in only a *de minimis* impact to a Section 4(f) resource. The OWJ must concur with this determination.
- Step 2. Hold a public review and commenting period to provide the public an opportunity to review the potential effects on the Section 4(f) property. Following public review and the OWJ concurrence, the Section 4(f) *de minimis* evaluation is considered complete.



- Step 3. If a project does not qualify as *de minimis*, evaluate whether a Section 4(f) programmatic agreement applies.
- ▶ In specific situations, there is a potential for a programmatic agreement from Section 4(f) approval. FTA Region 8 staff and the subrecipient, in cooperation with the subrecipient's consultant, should coordinate to ensure that all appropriate supporting documents are included in the project administrative record and adequately described in the CE.
- Step 4. Review the FHWA nationwide Section 4(f) programmatic evaluations for certain transportation projects adopted by FTA to evaluate if it qualifies. Programmatic exceptions include:
- ▶ Nationwide Net Benefit Programmatic Evaluation
  - ▶ Nationwide Historic Bridges Programmatic Evaluation
- For more information about the programmatic evaluations, refer to **Resource 2-B**.
- Step 5. Programmatic evaluations may be used only for projects where FTA Region 8 ensures that the proposed action includes all possible planning to minimize harm, as well as appropriate mitigation measures, and that the OWJ agrees to in writing.

**Worth Noting** – If an exception, a *de minimis* determination, or a programmatic agreement does not apply, then follow the steps below for an individual Section 4(f) evaluation. The steps below are necessary only if an individual Section 4(f) evaluation is conducted.

- Step 1. Identify whether there are feasible and prudent avoidance alternatives to each use of a Section 4(f) property.
- ▶ The subrecipient should identify whether there are alternatives to the use of a Section 4(f) property that would avoid using any Section 4(f) properties (that is, avoidance alternatives). If a feasible and prudent avoidance alternative exists, it must be chosen over the alternative that uses a Section 4(f) property.
- Step 2. If there are no feasible and prudent avoidance alternatives, (1) identify all possible planning to minimize harm and (2) conduct a least overall harm analysis.
- ▶ Consider minimization and mitigation as early in the process as practicable in coordination with OWJ over resources protected by Section 4(f). If no feasible and prudent alternatives exist, the alternative with the least overall harm to a Section 4(f) property must be selected.
- Step 3. Review with DOI and/or any federal agency with an encumbrance. FTA will send the draft document to the DOI and any entities with jurisdiction over a Section 4(f) resource will be included in the evaluation. DOI and any other federal agency with an encumbrance have 45 days to review the document.
- Step 4. FTA Region 8 staff review all Section 4(f) approvals for legal sufficiency.
- Step 5. For Section 4(f) evaluations in CEs, the approval of any Section 4(f) evaluation is concurrent with the approval of the CE.
- Step 6. Document Section 4(f) decisions. A separate Section 4(f) evaluation is required when the project is classified as a CE, or after the CE, FONSI, or ROD has been processed under the following conditions:
- ▶ A proposed modification of the alignment or design requires the use of a Section 4(f) resource.
  - ▶ FTA Region 8 determines that Section 4(f) applies to the use of a property.
  - ▶ A proposed modification of the alignment, design, or measure(s) to minimize harm (after original Section 4(f) approval) results in a substantial increase in the amount of Section 4(f) property used, a substantial increase in the adverse impacts, or a substantial reduction in the measure to minimize harm.



## 2.C.4 Section 106 Process

Section 106 of the National Historic Preservation Act is required when FTA Region 8 determines an undertaking has the potential to cause effects to historic properties, when a project involves the use of federal financial assistance, and/or when a federal permit, license, or approval is needed.

**Worth Noting – An undertaking is any project, activity, or program funded in whole or in part by FTA.**

The term “historic properties” includes districts, sites, buildings, structures, or objects that are included in, or eligible for inclusion in, the NRHP. This includes prehistoric archaeological sites and associated artifacts, records, and remains, as well as properties of traditional religious and cultural importance to Indian tribes and Native Hawaiian organizations.

**STOP! The Section 106 process must be completed before expending any federal funds for construction, issuing any license, or approving the final environmental document.**

If the undertaking (project) does not have the potential to affect historic properties, then there are no further obligations under Section 106. The subrecipient, in coordination with its consultant, should document in the CE that the undertaking has *no potential to cause effects*.

If the undertaking has the potential to cause effects on historic properties, the subrecipient should begin the process to consider program alternatives to the undertaking. The ACHP maintains a catalog of program alternatives.

- Step 1. Draft a letter on FTA letterhead to initiate consultation and include a description of the undertaking, project maps, and the proposed APE. NOTE: The APE should account for both direct and indirect effects of the undertaking.
- Step 2. Consultant identifies and reviews historic properties, including those previously surveyed and properties that are of “historic age” (at least 50 years of age) for NRHP eligibility.

**Worth Noting – The identification and evaluation of historic resources must be conducted by a person who meets the Secretary of the Interior’s Professional Qualification Standards.**

- Step 3. Identify properties in a cultural resources report as either “listed in the NRHP” or “eligible for listing in the NRHP” and note the Criteria of Eligibility for each property. Guidance on how to apply NRHP criteria for eligibility is posted on the **National Park Service** website linked in **Resource 2-B**.

**STOP! SHPO/THPO concurrence with the determination of eligibility is required. The SHPO/THPO has 30 calendar days (from receipt of a Section 106 cultural resources report) to respond to the request for concurrence. If there is no response, the duties to consult with the federal agency are considered to be fulfilled.**

- Step 4. Following SHPO/THPO concurrence regarding eligibility, the consultant makes an effects determination. Guidance on how to conduct an effects determination can be found in the FTA SOP No:21 - Section 106 Process linked in Resource 2-B. Effects determinations may result in *no historic properties affected*, an *adverse effect*, or *no adverse effect*.
- Step 5. If the undertaking has an *adverse effect* determination, alternatives should be considered. If the *adverse effects* cannot be avoided, consultation with all involved parties continues to resolve those effects. FTA SOP No:21 - Section 106 Process linked in Resource 2-B identifies required and suggested involved parties.
- Step 6. FTA Region 8 staff formally notify the ACHP (electronically) of the *adverse effect* finding.
- Step 7. Develop a Memoranda of Agreement (MOA) or a Programmatic Agreement once a specific resolution to the adverse effects has been agreed upon. Include provisions for subsequent (that is, post-review) discovery.
- Step 8. Once the terms and conditions of an MOA or a Programmatic Agreement are negotiated, signatories and consulting parties execute the MOA or Programmatic Agreement. An executed MOA or Programmatic Agreement is evidence of FTA's compliance with Section 106, and the CE can be approved. If the effects cannot be resolved after consultation and extensive efforts have been made, consultation may be terminated as a last resort.

The Section 106 process concludes if there are no objections from SHPO/THPO (or ACHP, if participating) within 30 days of receiving an adequate documented finding. Consultation to resolve any disagreements or a request for the ACHP's review is required if there are objections to the documented findings within the review period.

**Worth Noting** – The Section 106 process is conducted separately from the Section 4(f) historic process. Section 4(f) applies to the actual use or occupancy of a historic site, while Section 106 involves an assessment of adverse effects of an undertaking on historic properties. There is no direct correlation between “use” in the Section 4(f) context and “adverse effect” in the Section 106 context. Refer to Section 2.C.3 for more information on the Section 4(f) process.

### 2.C.5 Contaminated Properties Including Brownfields

The term *hazardous materials* is an all-inclusive term for “materials that are regulated as solid waste, hazardous waste, and other materials contaminated with hazardous substances, radioactive materials, petroleum products, and pollutants.” Because of their quantity, concentration, and/or physical or chemical characteristics, hazardous materials may pose a significant present or potential hazard to human health and safety or to the environment if released into the environment. **Resource 2-B** provides several resources related to contaminated properties, hazardous materials, and brownfields.

Hazardous materials assessments for site-specific projects identify the potential for encountering contamination during construction, determine whether materials management or worker health and safety may be impacted, and assess liability as part of acquisition. Accurately identifying potential concerns early is important for effective planning and efficient completion of a project.

Proposed properties being considered for acquisition for FTA-funded projects, especially if the property is or may be contaminated and/or is or may be considered a brownfield property, must be thoroughly assessed before approval of the final environmental document.

**Worth Noting** - A brownfield is a property in which the expansion, redevelopment, or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

- Step 1. Review readily available local, state, and federal environmental agency databases as dictated by **ASTM Standard E1527-21** and **EPA's Brownfields All Appropriate Inquiries (40 CFR Part 312)** (refer to **Resource 2-B**) and local agencies' records and other readily available records from state and federal agencies for the proposed project area and surrounding areas.
- Step 2. Review readily available standard historical sources, such as aerial photographs and USGS topographic maps, to identify historical uses of the proposed project area.
- Step 3. Perform a site reconnaissance of the proposed project area and surrounding areas from public ROW to identify site activities.

If property and/or easement acquisitions are necessary, the following should be completed:

- Step 1. Conduct a Phase I Environmental Site Assessment (Phase I ESA), in accordance with **ASTM Standard E1527-21** and **EPA's Brownfields All Appropriate Inquiries (40 CFR Part 312)** (refer to **Resource 2-B**), for any property considered for the project.
  - ▶ The Phase I ESA identifies the potential presence of contaminants on a property and provides potential defenses to liability if the project sponsor acquires the property.
  - ▶ A Phase I ESA evaluates prior uses and ownership of a property to assess conditions at the property that may indicate releases or threatened releases of hazardous substances at, on, in, or to the property, known as recognized environmental conditions.

**Worth Noting - A Phase I ESA should be conducted by a person who meets the criteria of a Certified Environmental Professional.**

- Step 2. Conduct a Phase II ESA if a property is suspected to have contaminants through the identification of recognized environmental conditions in the Phase I ESA and the subrecipient prefers to continue considering purchasing the property for the project.
  - ▶ A Phase II ESA consists of soil and/or groundwater sampling to confirm the presence or absence of contamination on the property.
- Step 3. If the presence of contamination is confirmed, develop a remediation plan and cost estimate of the remediation.
  - ▶ To encourage the complete assessment of contamination prior to project decision-making, FTA generally does not participate in the remediation of contamination discovered during construction.
  - ▶ FTA Region 8 encourages subrecipients to consider using brownfield sites when identifying project sites despite potential inhibiting factors (such as liability concerns, financial barriers, and cleanup timelines).
- Step 4. If contamination is encountered during a Phase II ESA, evaluate appropriate remediation, which may include consultation with the **CDPHE - Hazardous Materials and Waste Management Brownfields Program** in **Resource 2-B**.
  - ▶ The Brownfields Program, in combination with the Voluntary Cleanup Program, may assist with the following:
    - Environmental site assessments
    - Tax credits
    - Revolving loans
    - Up to \$250,000 a year in statewide project funding

## 2.C.6 Noise and Vibration Analysis

NEPA requires the assessment of noise and vibration on all federally funded projects. The subrecipient's consultant, in coordination with the subrecipient, should use the FTA's **Transit Noise and Vibration Impact Assessment Manual (Resource 2-B)** to determine the level of analysis for noise and vibration, regardless of the NEPA class of action.

Clearly understanding a project's proposed actions and its proximity to noise-sensitive land uses is essential to determining the level of analysis. If a proposed project is the type to cause noise impacts (for example, by adding a new facility or changing existing transit operations), identify any noise-sensitive receptors in the vicinity of the proposed project. If there are no noise-sensitive receptors within the applicable screening distance for the project type, no assessment is required. If there are noise-sensitive receptors within the screening distance, conduct a general noise assessment following the procedures in FTA's **Transit Noise and Vibration Impact Assessment Manual** (in **Resource 2-B**). Typically, a rubber tire project does not have vibration impacts. If the proposed project is a rubber tire project and/or there are no vibration-sensitive receptors within the screening distance as outlined in FTA guidance, no assessment is required.

If impact is identified through a general noise assessment and can be mitigated to a level of no impact using the noise reduction estimates included in the general noise assessment, a detailed noise analysis may not be needed. Mitigation assumed in the assessment used for the NEPA evaluation must be included in the project as a commitment. The subrecipient should consult with FTA Region 8 to determine if a detailed noise analysis is required for final mitigation measures.

### General Noise Impact Analysis

The following summarize the FTA Noise Impact Analysis steps. For more information, refer to FTA's **Transit Noise and Vibration Impact Assessment Manual (Resource 2-B)** and to any local noise ordinances for guidance on temporary construction noise.

- Step 1. Determine noise impact criteria.
  - ▶ Identify the type of project/dominant noise source (transit or multimodal).
  - ▶ Choose land use category for FTA criteria.
- Step 2. Determine the highest appropriate level of noise analysis for the current stage of project planning or development.
- Step 3. Evaluate for the potential of impact according to the noise screening procedure:
  - ▶ Identify project type.
  - ▶ Determine the screening distance.
  - ▶ Identify the study area.
  - ▶ Locate noise-sensitive land uses.
- Step 4. Evaluate impact according to the general noise assessment and evaluate preliminary mitigation options if impact is found.
  - ▶ Identify noise-sensitive receivers.
  - ▶ Determine the project noise source reference levels.
  - ▶ Estimate project noise exposure by distance.
  - ▶ Combine noise exposure from all sources.
  - ▶ Measure existing noise exposure.
  - ▶ Inventory noise impacts.
  - ▶ Determine noise mitigation needs
- Step 5. Evaluate for impact according to the detailed noise analysis and evaluate mitigation options if impact is found:
  - ▶ Identify noise-sensitive receivers.
  - ▶ Determine noise source levels for detailed analysis.
  - ▶ Combine noise exposure from all sources.
  - ▶ Determine existing noise exposure.
  - ▶ Assess noise impact.
  - ▶ Determine noise mitigation measures.



## Detailed Noise Analysis

The steps in the detailed noise analysis parallel those in the general noise impact analysis. NOTE: The detailed noise analysis uses equations for computations rather than graphs or tables. Each step in the detailed noise analysis is more refined in the prediction of project noise and subsequent evaluation of mitigation measures. Noise projections from the project must be determined for each receiver.

The following summarize the FTA detailed noise impact analysis steps. For more information, refer to FTA's **Transit Noise and Vibration Impact Assessment Manual (Resource 2-B)** and to any local noise ordinances for guidance on temporary construction noise.

- Step 1. Identify noise sensitive receivers of interest in the impact analysis study, including clustering noise-sensitive areas. The identification of these receivers is usually based on the screening procedure and general noise assessment previously conducted.
- Step 2. Determine project noise source reference levels.
  - ▶ Estimate the project noise exposure at the reference distance of 50 feet, considering operational characteristics.
  - ▶ When appropriate, use measurements to determine noise source reference levels.
- Step 3. Determine propagation characteristics.
  - ▶ Estimate project noise exposure as a function of distance, accounting for shielding and propagation along the path.
- Step 4. Combine noise exposure from all sources to predict the total project noise at receivers.
- Step 5. Determine existing noise exposure. Use measurements to determine the existing noise exposure. When measurements are unavailable, use a simplified procedure to estimate existing noise exposure with a clear justification to and approval by FTA Region 8.
- Step 6. Assess noise impact at each receiver of interest using separate procedures for transit only and multimodal transportation projects.
- Step 7. Determine noise mitigation measures. Evaluate the need for mitigation and repeat the detailed noise analysis with proposed mitigation.

**Worth Noting** – When situations arise that are not explicitly covered in the detailed noise analysis, professional judgment, in consultation with FTA Region 8, may be used to extend these methods to cover these unique cases.

## Vibration Impact Analysis

The FTA vibration impact analysis process is a multistep process to evaluate a project for potential vibration impacts. If impact is determined, measures necessary to mitigate adverse impacts are to be considered for incorporation into the project.

The following summarize the FTA vibration impact analysis steps. For more information, refer to FTA's **Transit Noise and Vibration Impact Assessment Manual (Resource 2-B)** and to any local noise ordinances for guidance on temporary construction noise.

- Step 1. Determine vibration analysis level.
- Step 2. Determine vibration impact criteria.
  - ▶ There are two options for the vibration impact criteria: (1) general vibration assessment criteria and (2) vibration impact criteria for a detailed vibration analysis.
- Step 3. Evaluate impact via the vibration screening procedure:
  - ▶ Classify project vehicles.
  - ▶ Determine project type.
  - ▶ Determine screening distance.
  - ▶ Identify vibration-sensitive land uses.



- Step 4. Evaluate impact via a general vibration assessment:
  - ▶ Select the base curve for the ground surface vibration level.
  - ▶ Apply adjustments.
  - ▶ Inventory vibration impact.
- Step 5. Evaluate impact via a detailed vibration analysis:
  - ▶ Characterize existing vibration.
  - ▶ Estimate vibration impact.
  - ▶ Assess vibration impacts.
  - ▶ Determine vibration mitigation measures.
- Step 6. After the noise and vibration analyses have been completed, assess construction noise and vibration according to the **FTA Transit Noise and Vibration Impact Assessment Manual (Resource 2-B)**.

## Construction Noise Assessment

The noise impacts from construction may vary greatly depending on the duration and complexity of the project. The following represent the key elements of the construction noise assessment procedure and recommended workflow. For more information, refer to FTA's **Transit Noise and Vibration Impact Assessment Manual (Resource 2-B)** and to any local noise ordinances for guidance on temporary construction noise.

- Step 1. Determine level of construction noise assessment.
- Step 2. Use a qualitative construction noise assessment to estimate construction noise.
- Step 3. Use a quantitative construction noise assessment to estimate construction noise.
- Step 4. Assess construction noise impact.
- Step 5. Determine construction noise mitigation measures.

## Construction Vibration Assessment

Construction activity can result in varying degrees of ground vibration depending on the equipment and methods employed. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings founded on the soil near the construction site respond to these vibrations with varying results, ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and slight damage at the highest levels.

While ground vibrations from construction activities do not often reach the levels that can damage structures, fragile buildings must receive special consideration. The construction vibration criteria include consideration of the building condition.

The following represent key elements of the construction vibration assessment procedure and recommended workflow. For more information, refer to FTA's **Transit Noise and Vibration Impact Assessment Manual (Resource 2-B)** and to any local noise ordinances for guidance on temporary construction noise.

- Step 1. Determine level of construction vibration assessment.
- Step 2. Use a qualitative construction vibration assessment.
- Step 3. Use a quantitative construction vibration assessment.
- Step 4. Assess construction vibration impact.
- Step 5. Determine construction vibration mitigation measures.

## Resource 2-A – Environmental Clearance

### Essential Resources

Section	Source	Content	Website
2.A	EPA	What is the National Environmental Policy Act?	<a href="https://www.epa.gov/nepa/what-national-environmental-policy-act">https://www.epa.gov/nepa/what-national-environmental-policy-act</a>
2.A	FHWA	Frequently Asked Questions on the Environmental Review Process	<a href="https://www.environment.fhwa.dot.gov/legislation/authorizations/safetealu/reviewProcess_faq.aspx">https://www.environment.fhwa.dot.gov/legislation/authorizations/safetealu/reviewProcess_faq.aspx</a>
2.A	FHWA/FTA	Environmental Impact and Related Procedures, Categorical Exclusions, and Guidance for Categorical Exclusions (CEs) (23 CFR 771)	<a href="https://www.ecfr.gov/current/title-23/chapter-I/subchapter-H/part-771">https://www.ecfr.gov/current/title-23/chapter-I/subchapter-H/part-771</a>
2.A	FTA	Environmental Standard Operating Procedures	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/environmental-standard-operating-procedures">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/environmental-standard-operating-procedures</a>
2.A	FTA	Environmental Review Process	<a href="https://www.transit.dot.gov/regulations-and-programs/environmental-programs/environmental-review-process#:~:text=NEPA%20is%20the%20primary%20law,projects%2C%20both%20large%20and%20small.">https://www.transit.dot.gov/regulations-and-programs/environmental-programs/environmental-review-process#:~:text=NEPA%20is%20the%20primary%20law,projects%2C%20both%20large%20and%20small.</a>
2.A	FTA	FTA Region 8 Bulletin No: 2016-12 FTA Environmental Standard Operating Procedures	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/2016-12%20FTA%20Environmental%20SOPs.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/2016-12%20FTA%20Environmental%20SOPs.pdf</a>
2.B	FTA	Guidance for Implementation of FTA's Categorical Exclusions	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/guidance-implementation-ftas-categorical-exclusions">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/guidance-implementation-ftas-categorical-exclusions</a>
2.B	FTA	Environmental Standard Operating Procedures: SOP No:20 - Agency Roles and Government-to-Government Coordination	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/agency-roles-and-government-government-coordination">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/agency-roles-and-government-government-coordination</a>
2.B	FTA	Environmental Standard Operating Procedures: SOP No:2 - Determining Class of Action	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/determining-class-action">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/determining-class-action</a>
2.B	FTA	Environmental Standard Operating Procedures: SOP No:3 - Early Scoping	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/early-scoping">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/early-scoping</a>

### Additional Information

Section	Source	Content	Website
2.A, 2.B	FTA	Environmental Standard Operating Procedure: SOP No:7 - Scoping	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/scoping">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/scoping</a>
2.B	Dept. of Labor	Consumer Price Index	<a href="https://www.bls.gov/cpi/data.htm">https://www.bls.gov/cpi/data.htm</a>

## Resource 2-B – Resource-Specific References

The following table identifies source information for biological resources.

Section	Source	Content	Website
2.C	Federal Laws	Bald and Golden Eagles Protection Act, 16 USC 668-668c. 1940	<a href="https://www.govinfo.gov/content/pkg/USCODE-2010-title16/pdf/USCODE-2010-title16-chap5A-subchapII.pdf">https://www.govinfo.gov/content/pkg/USCODE-2010-title16/pdf/USCODE-2010-title16-chap5A-subchapII.pdf</a>
2.C	Federal Laws	Eagle Permits, 50 CFR 22	<a href="https://www.ecfr.gov/current/title-50/chapter-I/subchapter-B/part-22">https://www.ecfr.gov/current/title-50/chapter-I/subchapter-B/part-22</a>
2.C	Federal Laws	Endangered Species Act, 16 USC 1531-1544. 1973	<a href="https://www.fws.gov/law/endangered-species-act">https://www.fws.gov/law/endangered-species-act</a>
2.C	Federal Laws	Executive Order 13112 - Invasive Species	<a href="https://www.invasivespeciesinfo.gov/executive-order-13112#:~:text=On%20Feb%203%2C%201999%2C%20Executive,with%20invasive%20species%20be%20created">https://www.invasivespeciesinfo.gov/executive-order-13112#:~:text=On%20Feb%203%2C%201999%2C%20Executive,with%20invasive%20species%20be%20created</a>
2.C	Federal Laws	Interagency Cooperation-Endangered Species Act of 1973, 50 CFR 402.1986.	<a href="https://www.ecfr.gov/current/title-50/chapter-IV/subchapter-A/part-402">https://www.ecfr.gov/current/title-50/chapter-IV/subchapter-A/part-402</a>
2.C	Federal Laws	Migratory Bird Treaty Act, 16 USC 703-712. 1918.	<a href="https://www.govinfo.gov/content/pkg/USCODE-2020-title16/pdf/USCODE-2020-title16-chap7-subchapII-sec703.pdf">https://www.govinfo.gov/content/pkg/USCODE-2020-title16/pdf/USCODE-2020-title16-chap7-subchapII-sec703.pdf</a>
2.C	FTA	Biological Resources (Part 4.1.5)	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-programs/environmental-programs/146751/23-biological-resources-sop-12-20-2019.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-programs/environmental-programs/146751/23-biological-resources-sop-12-20-2019.pdf</a>
2.C	FTA	Environmental Standard Operating Procedures: SOP No:23 - Biological Resources	<a href="https://www.transit.dot.gov/regulations-and-programs/environmental-programs/biological-resources-standard-operating-procedures">https://www.transit.dot.gov/regulations-and-programs/environmental-programs/biological-resources-standard-operating-procedures</a>
2.C	USFWS	Endangered Species Act Consultation Handbook - Procedures for Conducting Section 7 Consultations and Conferences	<a href="https://www.fws.gov/sites/default/files/document/s/endangered-species-consultation-handbook.pdf">https://www.fws.gov/sites/default/files/document/s/endangered-species-consultation-handbook.pdf</a>

The following table identifies source information for water resources.

Section	Source	Content	Website
2.C	CDPHE	Colorado Department of Public Health & Environment (CDPHE) (Policy CW-17) - Discharges of Dredged and Fill Material into State Waters	<a href="https://cdphe.colorado.gov/dredge-and-fill#:~:text=In%20accordance%20with%20Clean%20Water,conditions%20outlined%20in%20the%20policy">https://cdphe.colorado.gov/dredge-and-fill#:~:text=In%20accordance%20with%20Clean%20Water,conditions%20outlined%20in%20the%20policy</a>
2.C	EPA	Sackett v. Environmental Protection Agency (EPA)	<a href="https://www.supremecourt.gov/opinions/22pdf/21-454_4g15.pdf">https://www.supremecourt.gov/opinions/22pdf/21-454_4g15.pdf</a>
2.C	EPA/ USACE	Environmental Protection Agency (EPA)/US Army Corps of Engineers (USACE) (88 FR 61964) - Revised Definition of “Waters of the United States” Conforming	<a href="https://www.federalregister.gov/documents/2023/09/08/2023-18929/revised-definition-of-waters-of-the-united-states-conforming">https://www.federalregister.gov/documents/2023/09/08/2023-18929/revised-definition-of-waters-of-the-united-states-conforming</a>
2.C	Federal Laws	Section 6 (b)-(c) of Executive Order 11988 - Floodplain Management	<a href="https://www.archives.gov/federal-register/codification/executive-order/11988.html">https://www.archives.gov/federal-register/codification/executive-order/11988.html</a>

Section	Source	Content	Website
2.C	FTA	Environmental Standard Operating Procedures: SOP No:22 - Water Resources	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/water-resources-0">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/water-resources-0</a>
2.C	NRCS	National Food Security Act Manual, Fifth Edition	<a href="https://directives.sc.egov.usda.gov/rollupviewer.aspx?hid=29340">https://directives.sc.egov.usda.gov/rollupviewer.aspx?hid=29340</a>
2.C	USACE	Regional Supplements to Corps Delineation Manual (Corps Manual)	<a href="https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/">https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/</a>
2.C	USFWS	National Wetlands Inventory - Wetland Mapper	<a href="https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper">https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper</a>
2.C	USGS	Topographic Maps	<a href="https://www.usgs.gov/programs/national-geospatial-program/topographic-maps">https://www.usgs.gov/programs/national-geospatial-program/topographic-maps</a>

The following table identifies source information for Section 4(f) evaluations.

Section	Source	Content	Website
2.C	FHWA/FTA	Section 4(f) Policy Paper	<a href="https://www.environment.fhwa.dot.gov/legislation/section4f/4fpolicy.aspx#:~:text=This%20Section%204(f)%20Policy,sites%20for%20Federal%20highway%20p rojects.">https://www.environment.fhwa.dot.gov/legislation/section4f/4fpolicy.aspx#:~:text=This%20Section%204(f)%20Policy,sites%20for%20Federal%20highway%20p rojects.</a>
2.C	FTA	Environmental Standard Operating Procedures: SOP No:18 - Section 4(f) Evaluations	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-4f-evaluations">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-4f-evaluations</a>
2.C	FTA	Section 4(f) Evaluation and Approval for Transportation Projects That Have a Net Benefit to a Section 4(f) Property	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-06/Nationwide-Net-Benefit-Programmatic-Evaluation.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-06/Nationwide-Net-Benefit-Programmatic-Evaluation.pdf</a>
2.C	FTA	Programmatic Section 4(f) Evaluation and Approval for FRA or FTA Projects that Necessitate the Use of Historic Bridges	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-06/Nationwide-Historic-Bridges-Programmatic-Evaluation.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-06/Nationwide-Historic-Bridges-Programmatic-Evaluation.pdf</a>
2.C	FHWA	Section 4(f) Exceptions (23 CFR 774.13)	<a href="https://www.ecfr.gov/current/title-23/chapter-I/subchapter-H/part-774/section-774.13">https://www.ecfr.gov/current/title-23/chapter-I/subchapter-H/part-774/section-774.13</a>

The following table identifies source information for Section 106 evaluations.

Section	Source	Content	Website
2.C	ACHP	Guidance on Section 106 Agreement Documents	<a href="https://www.achp.gov/initiatives/guidance-agreement-documents">https://www.achp.gov/initiatives/guidance-agreement-documents</a>
2.C	ACHP	Guidance on Meeting the “Reasonable and Good Faith” Identification Standards	<a href="https://www.energy.gov/sites/prod/files/2016/02/f29/rgfe_guidance.pdf">https://www.energy.gov/sites/prod/files/2016/02/f29/rgfe_guidance.pdf</a>
2.C	ACHP	Program Alternatives	<a href="https://www.achp.gov/program_alternatives">https://www.achp.gov/program_alternatives</a>
2.C	FTA	Environmental Standard Operating Procedures: SOP No:21 - Section 106 Process	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-106-process-standard-operating-procedures">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-106-process-standard-operating-procedures</a>
2.C	NPS	How to Apply the National Register Criteria for Evaluation	<a href="https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf">https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf</a>

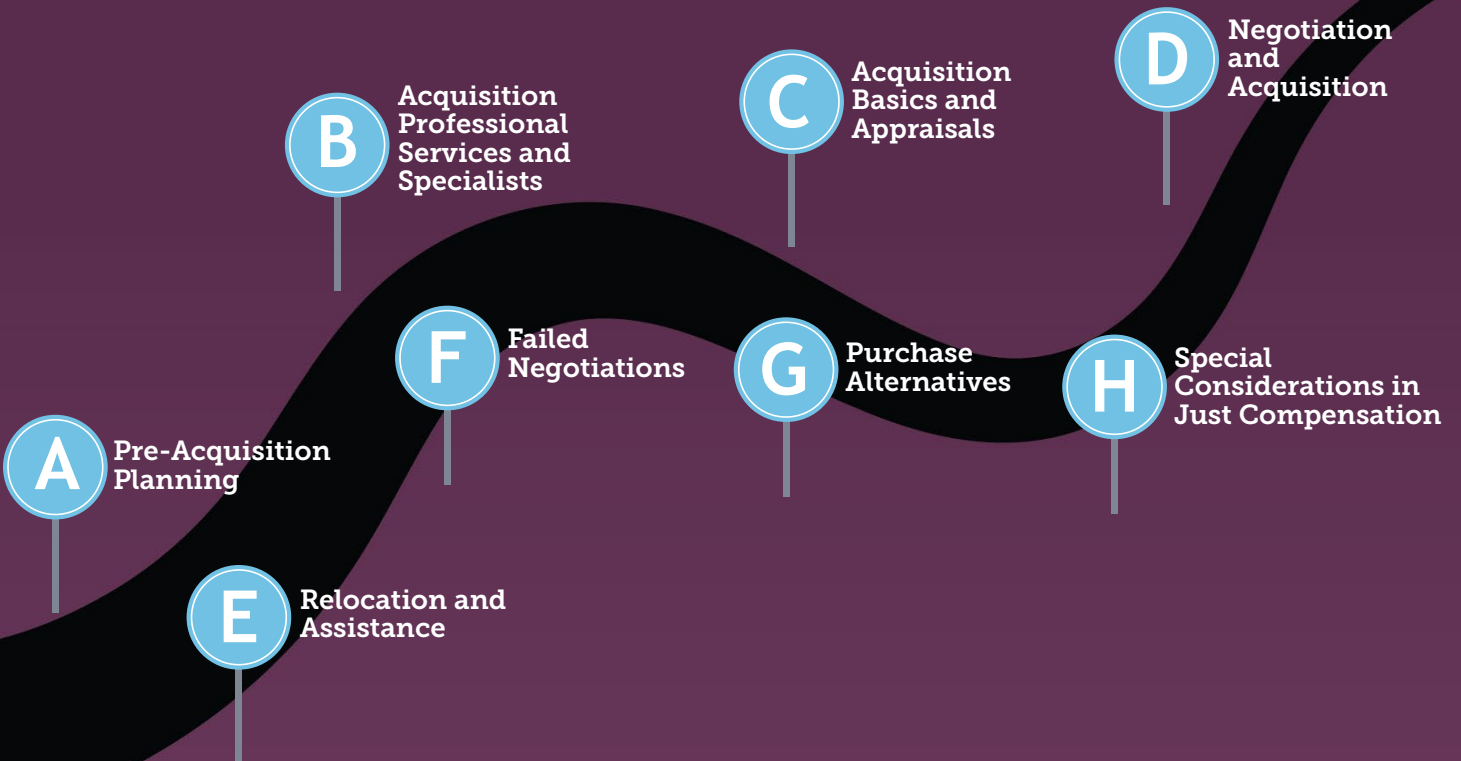
The following table identifies source information for hazardous materials resources.

Section	Source	Content	Website
2.C	ASTM	ASTM Standard E1527-21	<a href="https://www.astm.org/e1527-21.html">https://www.astm.org/e1527-21.html</a>
2.C	CDPHE	Hazardous Materials and Waste Management Division - Brownfields Program	<a href="https://cdphe.colorado.gov/hm/brownfields">https://cdphe.colorado.gov/hm/brownfields</a>
2.C	EPA	Brownfields All Appropriate Inquiries	<a href="https://www.epa.gov/brownfields/brownfields-all-appropriate-inquiries">https://www.epa.gov/brownfields/brownfields-all-appropriate-inquiries</a>
2.C	EPA	Overview of Environmental Protection Agency's (EPAs) Brownfields Program	<a href="https://www.epa.gov/brownfields/overview-epas-brownfields-program">https://www.epa.gov/brownfields/overview-epas-brownfields-program</a>
2.C	EPA	Revitalization Handbook	<a href="https://www.epa.gov/enforcement/revitalization-handbook">https://www.epa.gov/enforcement/revitalization-handbook</a>
2.C	FTA	FTA Environmental Standard Operating Procedures: SOP No:19 - Consideration of Contaminated Properties including Brownfields	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/SOP%2019.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/SOP%2019.pdf</a>
2.C	FTA	Hazardous Materials & Brownfields	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/hazardous-materials-brownfields">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/hazardous-materials-brownfields</a>

The following table identifies source information for noise and vibration resources.

Section	Source	Content	Website
2.C	FTA	Transit Noise and Vibration Impact Assessment Manual	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf</a>

# 3 ACQUISITION & REAL ESTATE





### 3. Acquisition and Real Estate – Executive Summary

Every capital facility project must consider its real estate needs. Regardless of whether a capital facility is renovated from an existing structure or is built new, knowing where that facility will be built, who owns the land, and what is on (and beneath) the land are vital. **Chapter 3** outlines how and when to identify needed properties and what activities must, can, and *cannot* be done before the National Environmental Policy Act (NEPA) process is complete. The chapter also discusses the processes for appraising property and relocating and assisting tenants/landowners and what happens if a normal appraisal process fails. In addition, **Chapter 3** identifies a few unique circumstances that should be considered within the appraisal process.

Understanding real estate needs starts long before land is acquired and/or purchased. A subrecipient may have an initial idea of where a facility can be constructed/renovated during both the NEPA process and the early stages of design (“conceptual design”). If the facility is large or complex enough where it may require an extraordinary amount of land (or land with historical, cultural, equity, biological or waters of the United States concerns *known* before NEPA starts), a subrecipient must consider identifying properties, but not appraising or contacting the owners, before NEPA. Regardless of the complexity of the potential land acquisition, a subrecipient must strongly consider assessing project feasibility, analyzing site alternatives, conducting a few key pre-NEPA studies, and exploring government-owned land options before NEPA concludes. Per both Colorado Department of Transportation (CDOT) and Federal Transit Administration (FTA) regulations, a Title VI Equity Analysis is required before NEPA is complete. These steps are described in more detail in **Chapter 1A Capital Projects Planning and Initiation**.

A subrecipient is able to acquire property only *after* NEPA is completed. This process begins with confirming what properties need to be acquired for a transit capital facility project, as well as any property needed for permanent or temporary easements. From there, the subrecipient works with a certified appraiser to determine the value of all needed property, as well as the dollar value of any owner improvements, partial takes, or damages. Once the subrecipient has signed off on an appraisal, an offer of “just compensation” is made to the property owner. If the owner agrees to the proposed amount, even after additional negotiation, the subrecipient takes the next steps to acquire the title, ensures that all taxes and liens are accounted for, and formally takes over the property. If the owner does not agree, the subrecipient initiates the process for failed negotiations. Subrecipients, who are local transit agencies per this manual, cannot use condemnation or eminent domain actions against unwilling property owners.

The subrecipient and property owner may also decide on purchase alternatives, which include donations, land exchanges, and functional replacement. The property owner may also ask the subrecipient to consider payment for special considerations, such as uneconomic remnants, tenant-owned improvements, and owner retention. If these unique circumstances arise, the subrecipient should contact DTR for further guidance.

A crucial part of land acquisition is how property purchase will be funded. Subrecipients (local agencies) can acquire properties via discretionary funding from FTA *only* if federal requirements, including the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), have been met. Local transit agencies may also use certain state funds for acquisition. A local transit agency may also use local dollars, such as local (county/town/city) taxes, levy mills, certain fees, etc. to finance acquisition efforts as a part of the larger capital facility project.

Finally, a subrecipient may be required to hire consultants to assist with the environmental, equity, and acquisition efforts involved in purchasing right of way (ROW). **Section 3.B** provides more information on the personnel that a subrecipient may need to hire or involve for any acquisition and real estate-related needs

## 3.A Pre-Acquisition Planning

The subrecipient must understand any land acquisition-related issues as early as possible in the transit capital facility project process. **Chapter 1A Capital Project Planning and Initiation** discusses several initial steps that inform pre-acquisition planning, including how and when the subrecipient should conduct a basic site assessment (**Section 1A.I**), how the subrecipient should assess project feasibility (**Section 1A.I**), and what must be included in a Title VI Equity Analysis (**Section 1A.J**). Once all natural features, site constraints, and opportunities have been identified, the subrecipient may undertake a more detailed study of the preferred site(s). Additional activities at this stage should include:

- ▶ Surveying properties
- ▶ Identifying impacts and solutions for potential acquisition issues identified throughout the process
- ▶ Coordinating with any existing utilities on identified properties

From there, the subrecipient must determine the initial costs of property acquisition, including appraisal valuation, relocation assistance, or additional property considerations like uneconomic remnants or owner-retention. **Section 3.H** provides more information on acquisition costs.

**STOP! The subrecipient is NOT allowed to directly engage property owners at this point in the process. NEPA MUST be completed BEFORE any direct engagement with home/property/business owners.**

**Worth Noting – NEPA and Design:** It may be beneficial at this point to confirm that conceptual design is complete, as this design is needed to check that any chosen site is feasible with the building's dimensions and will not significantly impact the environment, historical/cultural/archeological features, etc.

### 3.A.1 Identifying Right-of-Way Needs

- Step 1. Through NEPA, initial design, and the Equity Analysis, the subrecipient identifies properties that they may need to acquire for a capital facility project (refer to **Chapter 1A Capital Project Planning and Initiation, Section 1A.J**, for more information).
- ▶ The subrecipient determines the kind of acquisition that they need:
    - **Fee Simple Absolute:** Occurs when land is purchased and includes a complete transfer of ownership rights and all associated privileges
    - **Easement:** Occurs when land is leased, but the property owner maintains all ownership rights and privileges
    - **Temporary Easement:** Occurs when land is temporarily leased, usually as a temporary construction staging site
  - ▶ The subrecipient considers all land needs for the entire life cycle of the project: construction, operation, and maintenance.
- Step 2. In some cases, the subrecipient may determine that they do not need to purchase (acquire land) via ownership, lease, or temporary easement. If this is the case, proceed to **Chapter 4 Design and Engineering**.

**STOP! The subrecipient may be able to use purchase alternatives as described in Sections 3.A.2 and 3.G. DO NOT proceed with a finalized list of properties unless all acquisition alternatives have been explored.**

### 3.A.2 Using Government-Owned Property

In some cases, the subrecipient can use property already owned by a governmental body, such as a county, city, or town. Doing so may eliminate the need to purchase additional property. In addition, governmental bodies and the subrecipient may be able to develop an agreement where that property can be either bought or leased for less money when compared to purchasing property available on the market.

### 3.A.3 Funding an Acquisition – Additional Considerations

The subrecipient must ensure that acquisition and related expenses are considered “eligible” activities per the grant or funding requirements. Table 1A-1 through Table 1A-3 in Chapter 1A Capital Project Planning and Initiation, Section 1A.F, provide links to the FTA Circulars for each capital facility funding source.

**STOP! While the subrecipient will need to ensure that acquisition activities are eligible expenses, no federal funds may be used for those activities until NEPA is completed!**

The subrecipient may continue to use federal funds for other activities while waiting for NEPA to be completed, such as initial design steps, assuming those activities are considered “eligible” per grant or funding requirements.

### 3.A.4 Developing a Real Estate Acquisition Management Plan and a Relocation Plan

FTA requires the subrecipient to develop a Real Estate Acquisition Management Plan (RAMP) for each major capital project within an FTA award as a part of the Project Management Plan under 49 Code of Federal Regulations (CFR) 633.25 and the Relocation Plan in accordance with 49 CFR 24.205. FTA Circular 5010.1E in Resource 3-A defines *major projects*.

**Worth Noting – When is a RAMP necessary? A RAMP is not required for smaller capital projects; however, all capital projects must be in compliance with 49 CFR 24.205 if real estate acquisition or relocation assistance is involved.**

**STOP! An FTA headquarters real estate representative must approve the RAMP prior to entry into final design.**

Before commencing acquisition, the subrecipient should prepare an Acquisition Stage Relocation Plan that includes information for each specific relocation effort that will take place. Information is collected by interviewing all persons who will be displaced; ideally, interviews should be held in person at the displaced person's residence or place of business. These interviews must take place before initiating negotiations to acquire the property. Interviews will help the subrecipient identify any potential problems to determine the relocation services necessary to minimize the adverse impacts of displacement. The subrecipient should aim to gather information on the length of occupancy on the property, number and characteristics of the family members, habitable living area, household income, and other information needed to determine the relocation needs and payment eligibility of the displaced person. The **Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** in Resource 3-A provides more information.

Documentation for the Acquisition Stage Relocation Plan will vary depending on project complexity. For smaller projects, a formal document will not typically be prepared, although relevant information must be in the project file. For large or complex projects, a formal document should be prepared summarizing all relevant information. For more information, refer to **Acquisition Stage Relocation Plan** in Resource 3-A.

### 3.A.5 Relocation Planning

During the early stages of development, the subrecipient must plan for any potential displacement and relocation of individuals, families, businesses, farms, and nonprofit organizations and develop solutions to minimize the adverse impacts of displacement. Planning efforts, where appropriate, shall precede any subrecipient action that will cause displacement and should be scoped to the complexity and nature of the anticipated displacing activity, including an evaluation of program resources available to carry out timely and orderly relocations. Planning may involve a relocation survey or study, which may include the following:

- ▶ An estimate of the number of households to be displaced, including information such as owner/tenant status, estimated value and rental rates of properties to be acquired, family characteristics, and special consideration of the impacts on minorities, the elderly, large families, and persons with disabilities, when applicable.
- ▶ An estimate of the number of comparable replacement dwellings in the area (including price ranges and rental rates) expected to be available to fulfill the needs of displaced households. When an adequate supply of comparable housing is not expected to be available, the subrecipient should consider housing of last resort actions.
- ▶ An estimate of the number, type, and size of the businesses, farms, and nonprofit organizations to be displaced and the approximate number of employees who may be affected.
- ▶ An estimate of the availability of replacement business sites. When an adequate supply of replacement business sites is not expected to be available, the subrecipient should consider and address impacts of displacing the businesses. Planning for displaced businesses reasonably expected to involve complex or lengthy moving processes or small businesses with limited financial resources and/or few alternative relocation sites should include an analysis of business moving problems.

For more information, refer to **49 CFR 24.205(a)**, linked in **Resource 3-A**.

### 3.B Acquisition Professional Services and Specialists

The subrecipient may need to rely on professional services and specialists when performing property acquisition. Regardless of the complexity of an acquisition, a certified appraiser is required to complete an acquisition per the Uniform Act. CDOT’s **Certified Appraisers List** is linked in **Resource 3-A**. Theoretically the subrecipient can perform the other specialist roles (real estate, negotiation, and relocation), although these roles may be time and energy intensive. For projects requiring complex acquisitions (several properties taken, large properties taken, land use concerns, additional complications, etc.), the subrecipient should strongly consider hiring additional specialists, as noted in **Table 3-1**, in addition to the team of environmental professionals hired during the NEPA process, as outlined in **Chapter 2 Environmental Clearance**. Refer to the resources in **Resource 3-A** for more information.

**Table 3-1. Acquisition Professional Services and Specialists**

Criteria	Responsibilities
Certified appraiser	<ul style="list-style-type: none"> <li>Performs the property appraisal to determine fair market value (FMV) and to assess any additional factors related to the property (such as improvements, damage, etc.) that may impact the value. Refer to <b>Section 3.C</b> for more information.</li> </ul>
Independent appraisal reviewer	<ul style="list-style-type: none"> <li>Reviews the appraisal made by the certified appraiser.</li> </ul>
Negotiation specialist	<ul style="list-style-type: none"> <li>Negotiates any terms with a property owner.</li> <li>Makes all reasonable efforts to personally contact each state-resident property owner or designated representative.</li> </ul>
Real estate specialist	<ul style="list-style-type: none"> <li>Provides relocation assistance and advisory services. A separate specialist should prepare a relocation determination.</li> <li>Performs the decent, safe and sanitary (DSS) inspection and the property closing.</li> <li>Maintains a relocation log throughout the relocation process.</li> <li>Explains relocation payments and other assistance offered by the subrecipient to each potential displaced person, including eligibility requirements and procedures for obtaining such assistance.</li> <li>Informs the displaced person in writing of the specific comparable replacement dwelling used as a basis to determine the maximum replacement housing payment and the dollar amount of the payment.</li> </ul>
Relocation specialist (also considered a real estate specialist)	<ul style="list-style-type: none"> <li>Explains the relocation services and appropriate relocation assistance payments.</li> <li>Determines eligibility for payments and services.</li> <li>Makes every effort to help meet the identified needs, while recognizing the importance of the displaced person's priorities and their desire, or lack of same, for assistance.</li> <li>Provides applicable real estate information, including current listings, prices or rents, that may serve as comparable dwellings/business sites.</li> <li>Provides information concerning federal and state housing and other programs offering relocation or related types of assistance.</li> <li>Assists in obtaining and completing application or claim forms for relocation payment or other related assistance, as needed.</li> <li>Provides transportation for all displaced persons to inspect potential relocation housing, when needed.</li> </ul>



## 3.C Acquisition Basics and Appraisals

**STOP! The subrecipient MUST complete NEPA before starting the process as outlined below.** As a rule, the subrecipient cannot do any of the following before receiving final FTA clearance of NEPA documentation. Engaging in ANY of the following activities before environmental clearance renders the subrecipient **AUTOMATICALLY DISQUALIFIED FOR FEDERAL FUNDS, as these actions could constitute a violation of the Uniform Act:**

1. Initiate an appraisal, engage the property owner, or offer compensation OR
2. Acquire the property or engage in negotiation OR
3. Assist with relocation of occupants

Any subrecipient using FTA funding, including local share funds, to acquire real property or provide relocation assistance necessary to secure property for the award must comply with the requirements in the Uniform Act. **49 CFR 24** implements the Uniform Act. Refer to **Resource 3-A** for more information on this regulation, as well as other helpful resources regarding the Uniform Act.

The objective of the Uniform Act is to ensure:

- ▶ Equitable treatment of property owners of real property to be acquired under the federally assisted award
- ▶ People displaced by a federally assisted award are treated fairly, consistently, and equitably
- ▶ Acquiring agencies implement the regulations efficiently and cost-effectively

**Worth Noting – When does the Uniform Act apply?** The Uniform Act applies any time real property is acquired or any property owners/tenants are displaced for projects funded in any part by federal dollars. The Uniform Act also applies to any project where federal dollars may be used in the future.

CDOT maintains a general policy that all projects should comply with the Uniform Act regardless of intention to use federal funds, as noncompliance automatically disqualifies a subrecipient from using federal funds during the project lifecycle.

**When in doubt, COMPLY WITH THE UNIFORM ACT!**

### 3.C.1 Notice of Intent to Acquire and General Information Notice

Once properties that need to be acquired for a capital facility project are identified, the subrecipient sends out the following notices. The subrecipient shall personally serve or send each notice by certified or registered first-class mail, return receipt requested, and documented in subrecipient files. Each notice shall be written in plain understandable language. The subrecipient must provide anyone who is unable to read and understand the notice with appropriate translation and counseling. Each notice shall indicate the name and telephone number of a person who may be contacted for answers to questions or other needed assistance.

- ▶ **Notice of Intent to Acquire:** A notice of intent to acquire is a subrecipient's written communication provided to a person they may be displacing, including those to be displaced by rehabilitation or demolition activities from property acquired before the commitment of federal financial assistance to the activity, which clearly sets forth that the subrecipient intends to acquire the property. A notice of intent to acquire establishes eligibility for relocation assistance before the initiation of negotiations and/or before the commitment of federal financial assistance. For more information, refer to **49 CFR 24.2(a)(9)**, linked in **Resource 3-A**.



- ▶ **General Information Notice:** As soon as feasible, the subrecipient shall provide the person scheduled to be displaced with a general written description of the subrecipient's relocation program, which does at least the following:
  - Informs the person that they may be displaced for the project and generally describes the relocation payment(s) for which the person may be eligible, the basic conditions of eligibility, and the procedures for obtaining the payment(s).
  - Informs the displaced person that they will be given reasonable relocation advisory services, including referrals to replacement properties, help in filing payment claims, and other necessary assistance to help the displaced person successfully relocate.
  - Informs the displaced person that they will not be required to move without at least 90 days' advance written notice (as stipulated in **49 CFR 24.203(c)**, linked in **Resource 3-A**, and informs any person to be displaced from a dwelling that they cannot be required to move permanently unless at least one comparable replacement dwelling has been made available.
  - Informs the displaced person that any person who is an alien not lawfully present in the United States is ineligible for relocation advisory services and relocation payments, unless such ineligibility would result in exceptional and extremely unusual hardship to a qualifying spouse, parent, or child, as defined in **49 CFR 24.208(h)**, linked in **Resource 3-A**.
  - Describes the displaced person's right to appeal the subrecipient's determination. The real estate specialist should provide assistance with this appeal if needed.

### 3.C.2 Appraisal

After initial contact through interviews, planning efforts, and required notice, the subrecipient will then obtain appraisals for all identified parcels for acquisition.

- Step 1. The subrecipient hires an outside qualified appraiser to complete the necessary property valuation. A qualified appraiser is defined in **26 CFR 1.170A-17**, linked in **Resource 3-A**.

**Worth Noting – Qualified Appraisers:** CDOT maintains a qualified appraisers list, which is available in **Resource 3-A**. All appraisers from this point forward **MUST BE QUALIFIED**.

- Step 2. The appraiser uses all available information to determine an FMV for the property, as well as any additional components that may have value. **Section 3.H** provides more information on additional valuation considerations.
- ▶ The owner, or the owner's designated representative, shall be given an opportunity to accompany the appraiser during the appraiser's inspection of the property. Refer to **49 CFR 24.102**, linked in **Resource 3-A**.
- Step 3. The appraiser determines what category is appropriate for the valuation based on the property valuation's complexity:
- ▶ **Waiver valuation:** If the appraiser determines that a waiver valuation is appropriate, then proceed to **Step 4**.
  - ▶ **Simple valuation:** Used for uncomplicated valuations, where recent property sales can be used for comparison, where highest and best use (HBU) is apparent and easily implemented, and where there is limited damage to the property.
  - ▶ **Complex valuation:** Used for complicated valuations, with which there are limited data/property sales to compare, where HBU is not apparent or is difficult to implement, and where there is damage to the property. Complex valuations usually occur when properties include public goods, such as parks, firehouses, schools or libraries, cemeteries, environmentally/historically sensitive lands/structures, or uneconomic remains. For more information on uneconomic remains, refer to **Section 3.H**.

- Step 4. If the appraiser determines that a waiver valuation is appropriate, then an appraisal is not necessary. The following substeps must be completed and/or considered in the determination of a waiver:
- ▶ An appraiser must determine that an appraisal is unnecessary because the valuation problem is uncomplicated and the anticipated value of the proposed acquisition is estimated at \$10,000 or less based on a review of available data. An appraiser assists in making that determination.
  - ▶ When an appraisal is determined to be unnecessary, the appraiser prepares a waiver valuation.
  - ▶ The person performing the waiver valuation must have sufficient understanding of the local real estate market to be qualified to make the waiver valuation.
  - ▶ All waiver valuation activities must comply with **49 CFR 24.102(c)(2)**, linked in **Resource 3-A**.
- Step 5. FTA may approve exceeding the \$10,000 threshold, up to a maximum of \$25,000, if the subrecipient acquiring the real property offers the property owner the option of having the subrecipient appraise the property. If the property owner elects to have the subrecipient appraise the property, the subrecipient shall obtain an appraisal and not use the procedures described previously (in Step 4). **Resource 3-A** provides more information on appraisals in **49 CFR 24.102(c)(2)**.
- Step 6. The subrecipient must offer to acquire the following features of a property:
- ▶ **Improvements:** The subrecipient shall offer to acquire at least an equal interest in all buildings, structures, or other improvements located on the real property to be acquired, which it requires to be removed or which it determines will be adversely affected by the use to which such real property will be put, including any improvement of a tenant-owner who has the right or obligation to remove the improvement at the expiration of the lease term.
  - ▶ **Improvements that are considered to be real property:** Any building, structure, or other improvement, which would be considered to be real property if owned by the owner of the real property on which it is located, shall be considered to be real property.
  - ▶ **Tenant-owned improvements:** Just compensation for a tenant-owned improvement is the amount that the improvement contributes to the FMV of the whole property or its salvage value, whichever is greater. Salvage value is defined in **49 CFR 24.2(a)(23)**. More details on special conditions for tenant-owned improvements are provided in **49 CFR 24.105(c)**. **Resource 3-A** provides links to both regulations.
  - ▶ **Alternative compensation:** Nothing in this step shall be construed to deprive the tenant-owner of any right to reject payment and to obtain payment for such property interests in accordance with other applicable law.
- Step 7. The appraiser completes the report and provides it to the subrecipient for review and approval.

### 3.C.3 Appraisal Review

The subrecipient shall have an appraisal review process and, at a minimum:

- Step 1. A qualified review appraiser (defined in **49 CFR 24.103(d)(1)**) shall examine the presentation and analysis of market information in all appraisals to assure that they meet the definition of appraisal found in **49 CFR 24.2(a)(3)**, appraisal requirements found in **49 CFR 24.103** and other applicable requirements, including, to the extent appropriate, the Uniform Appraisal Standards for Federal Land Acquisition, and support the appraiser's opinion of value. The level of review analysis depends on the complexity of the appraisal problem.
- Step 2. As needed, the review appraiser shall, prior to acceptance, seek necessary corrections or revisions. A second reviewer may also review and approve the appraisal as the basis for the establishment of the amount believed to be just compensation.
- Step 3. The review appraiser shall identify each appraisal report as:

- ▶ **Recommended:** Documented and unbiased basis for the FMV.
  - ▶ **Accepted:** Meets all basic appraisal requirements but not recommended as FMV.
  - ▶ **Not Accepted:** Does not meet minimum appraisal standards and might be egregious in appraisal error or advocacy or bias, or all of these and more. An appraisal that is “Not Accepted” is one where it might be questionable whether it is appropriate to pay the appraisal fee.
- Step 4. If the review appraiser is unable to recommend (or approve) an appraisal as an adequate basis for the establishment of the offer of just compensation, and the subrecipient determines that it is not practical to obtain an additional appraisal, the review appraiser may, as part of the review, present and analyze market information in conformance with § 24.103 to support a recommended (or approved) value. (Refer to **appendix A, § 24.104(b).**)
- Step 5. The review appraiser shall prepare a written report that identifies the appraisal reports reviewed and documents the findings and conclusions arrived at during the review of the appraisal(s). The review appraiser’s report shall identify any damages or benefits to any remaining property. The review appraiser shall also prepare a signed certification stating the parameters of the review. The certification shall state the approved value, and, if the review appraiser is authorized to do so, the amount believed to be just compensation for the acquisition. (Refer to **appendix A, § 24.104(c).**)

**Worth Noting – Establishment and Offer of Just Compensation:** Before initiating negotiations, the subrecipient shall establish an amount it believes is just compensation for the real property. The amount shall not be less than the approved appraisal of the FMV of the property, taking into account the value of allowable damages or benefits to any remaining property. The subrecipient must establish the amount believed to be just compensation. (Refer to § 24.104.) Promptly thereafter, the subrecipient shall make a written offer to the owner to acquire the property for the full amount believed to be just compensation. (Refer to appendix A, § 24.102(d).)

**STOP! If an appraisal finds one or more of the following, FTA concurrence for that appraisal to be finalized is required:**

1. A property is appraised at or over \$1 million.
2. A land exchange will take place.
3. In-kind contributions will be made.
4. A condemnation of a property at or over \$1 million will take place.
5. An administrative settlement of over \$50,000 will take place.

Contact your FTA Region 8 Coordinator if any of these circumstances take place during the acquisition process.

### 3.C.4 Initial Offer of Just Compensation

- Step 1. Before the initiation of negotiations, the subrecipient shall establish an amount it believes is just compensation for the real property. The amount shall not be less than the approved appraisal of the FMV of the property as determined by the appraisal, taking into account the value of allowable damages or benefits to any remaining property.
- Step 2. A subrecipient official must establish the amount believed to be just compensation. (Refer to **49 CFR 24.104.**)
- Step 3. Promptly thereafter, the subrecipient shall make a written offer to the owner to acquire the property for the full amount believed to be just compensation. The subrecipient must write

and send this written offer as soon as the amount determined to be just compensation has been established.

- ▶ Such a procedure ensures that the compensation offered is based on current value. The timeliness and completeness of this document is important in that it begins the timeframe on which the other members of CDOT and the public, including the owner, await the project completion, and it ensures that the owner has all of the knowledge possible.

Step 4. The offer of just compensation must include the following information:

- ▶ **The offer letter:** Contains the initial written purchase offer and includes the dollar amount that the subrecipient has found to be fair for the property.
- ▶ **Summary statement:** Includes a written statement of the basis for the offer of just compensation, which includes:
  - A statement of the amount offered as just compensation. In the case of a partial acquisition, the compensation for the real property to be acquired and the compensation for damages, if any, to the remaining real property shall be separately stated.
  - A description and location identification of the real property and the interest in the real property to be acquired.
  - An identification of the buildings, structures, and other improvements (including removable building equipment and trade fixtures) included as part of the offer of just compensation. Where appropriate, the statement must identify any other separately held ownership interest in the property, for example, a tenant-owned improvement, and indicate that such interest is not covered by the offer.

Step 5. The subrecipient should also prepare the following documentation or have the following information available to inform the appraisal and negotiation processes:

- ▶ An adequate description of the physical characteristics of the property being appraised (and, in the case of a partial acquisition, an adequate description of the remaining property), including items identified as personal property, a statement of the known and observed encumbrances, if any, title information, location, zoning, present use, an analysis of highest and best use, and at least a 5-year sales history of the property. (Refer to **appendix A, § 24.103(a)(1)**.)
- ▶ All relevant and reliable approaches to value consistent with established federal and federally assisted program appraisal practices. If the appraiser uses more than one approach, there shall be an analysis and reconciliation of approaches to value used that is sufficient to support the appraiser's opinion of value. (Refer to **appendix A, § 24.103(a)**.) Before initiating negotiations related to the real property to be acquired, subrecipient must give the owner, or the owner's designated representative, an opportunity to accompany the appraiser during the appraiser's inspection of the property.
- ▶ A description of comparable sales, including a description of all relevant physical, legal, and economic factors such as parties to the transaction, source and method of financing, and verification by a party involved in the transaction.
- ▶ A statement of the value of the real property to be acquired and, for a partial acquisition, a statement of the value of the damages and benefits, if any, to the remaining real property, where appropriate.
- ▶ The effective date of valuation, date of appraisal, signature, and certification of the appraiser.



**Worth Noting – Offer to Acquire:** The delivery of the initial written offer of just compensation to the owner or the owner’s representative to purchase the real property for the project establishes the date of initiation of negotiation. The Uniform Act requires that the property owner be provided with a written statement of the amount established by CDOT as just compensation, along with a summary of the basis of the offer. In addition, in cases where only a portion of the property is to be acquired, the statement must separately indicate the amount of compensation being offered for the property.

## 3.D Negotiation and Acquisition

Negotiation is the process of delivering an offer of just compensation and preparing for potential negotiations with the property owner. The subrecipient must follow the process for negotiating set forth by FTA and 49 CFR 24. The goal of the negotiation process envisioned by the Uniform Act is consistent and fair treatment of all property owners to reach purchase agreements for the property that is needed in the subrecipient's project. The subrecipient must demonstrate reasonable effort to negotiate acquisition of the property. The FTA is required to provide oversight of Uniform Act compliance.

Acquisition is the process of taking ownership of the property. In cases where the subrecipient must take residential properties, the subrecipient may not complete the acquisition of a property until comparable replacement housing is made available. For more information on negotiations, refer to the **Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A**.

### 3.D.1 Entering Negotiations

- Step 1. The subrecipient involved in negotiations or hired consultants that specialize in negotiations abide by the following negotiation requirements. For additional information on negotiation requirements, refer to the **Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A**:
- ▶ Negotiations must not commence until the subrecipient has established its estimate of just compensation by an appraisal. The initiation of negotiations establishes the date of relocation eligibility.
  - ▶ The role of “negotiator” may be filled by the appraiser, review appraiser, or waiver valuation preparer for acquisitions involving real property appraised at \$10,000, or less.
  - ▶ All reasonable efforts must be made to acquire, expeditiously, the real property by negotiations.
  - ▶ The negotiator must be careful not to imply that the negotiation is a “take it or leave it” situation. Negative actions against the property owner(s) as a threat must be avoided. The subrecipient must not advance the timeline allocated to property owners to make decisions.
  - ▶ The negotiator must make all reasonable efforts to personally contact each property owner or designated representative .
- Step 2. The subrecipient and specialized negotiation consultants enter into negotiations with property owner(s).
- ▶ The owners and subrecipient may negotiate on price, terms, closing date, and possession date at this time.
  - ▶ Reasonable period: The subrecipient must give the property owner at least 30 days in which to decide. The owner must have time to consider the offer.
  - ▶ The subrecipient must make every effort to make in-person contact with the property owner.
    - Negotiations by mail are permitted. Follow-up by phone must take place if the subrecipient does not receive a response in a timely manner.
    - The property owner can select an in-person appointment after receiving mail related to the acquisition. If personal contact is required, negotiations must follow the normal negotiation process. The subrecipient should honor reasonable requests for personal contact by the property owner. Having the written offer beforehand allows discussions to focus on substantial issues when personal contact is necessary.
- Step 3. The subrecipient may make a revised offer to the property owner after initial negotiations if either party decides to negotiate the first offer of just compensation made. The subrecipient must give the property owner a reasonable opportunity to consider the subrecipient's revised offer and to present relevant material to the subrecipient. Coercive action or any action that prevents the owner from having adequate time to review any revisions is strictly prohibited.



- ▶ If the information presented by the owner or a material change in the character or condition of the property indicates the need for new appraisal information, or if a significant delay has occurred since the time of the appraisal(s) of the property, the subrecipient shall have the appraisal(s) updated or obtain a new appraisal(s). If the latest appraisal information indicates that a change in the purchase offer is warranted, the subrecipient shall promptly reestablish just compensation and offer that amount to the owner in writing.
  - ▶ The subrecipient must consider any information presented to them by property owner related to the appraisal offer. Any information that the appraiser deems accurate and appropriate must be incorporated into the offer. The appraiser should document any revision due to owner information providing an explanation of the reasons. The subrecipient then promptly makes a revised written offer to the property owner.
- Step 4. The property owner either A) accepts terms and appraisal and goes into settlement or B) rejects terms and appraisal and no agreement can be met. If an agreement is reached, proceed to **Sections 3.D.4** and **3.E.**
- ▶ Before requiring the owner to surrender possession of the real property, the subrecipient shall pay the agreed purchase price to the owner, or in the case of a condemnation, deposit with the court, for the benefit of the owner, an amount not less than the subrecipient's approved appraisal of the FMV of such property, or the court award of compensation in the condemnation proceeding for the property. In exceptional circumstances, with the prior approval of the owner, the subrecipient may obtain a right-of-entry for construction purposes before making payment available to the owner. (Refer to appendix A, [§ 24.102\(j\).](#))
- Step 5. If no agreement is reached, the subrecipient may not engage in condemnation actions, per **Section 3.F.4.** The subrecipient may send a final offer letter, but this is not required per the Uniform Act. The letter may include information on the subrecipient's "best and final offer." No action or communication on the part of the occupant is an indicator of unwillingness to sell or relocate, and the subrecipient must then select an alternative site.
- ▶ In situations where the occupant and subrecipient disagree to the point of potential legal action, the subrecipient can attempt to engage in alternative dispute resolution (ADR) with the occupant. Proceed to **Section 3.F.3** for more information on ADR.

**Worth Noting – Negotiation Records:** A subrecipient is responsible for recording all negotiation activities during the negotiation process, including keeping a negotiator's log on a property basis.

### 3.D.2 Keeping Negotiation Logs

The negotiator must keep an appropriately documented diary or log with all information pertinent to the negotiations (for example, initiation of negotiation date, amount of offer, counter offers, summary of discussion, information requested and provided). The file documentation should tell the story of the negotiations from the beginning of acquisition to settlement and should include all correspondence by the negotiator, including emails. The negotiator's log should be written in ink or typewritten in permanent form. The log must be maintained with the subrecipient's permanent parcel files. Project files should be maintained on or near the project site. A typical log includes, but is not limited to:

- ▶ Name, address, and telephone number of the property owner(s) or their representative(s)
- ▶ Date of all contacts or correspondence
- ▶ Type of contact (phone, in-person, email, etc.)
- ▶ Date notices or letters mailed (certified number)
- ▶ Date items received from the property owner(s) or their representative(s)
- ▶ Brochure(s) provided
- ▶ Offers and the basis for the offer

- ▶ Agreement and all considerations agreed upon for the purchase
- ▶ Counteroffer
- ▶ Date of settlement
- ▶ If no settlement can be reached, then the reason settlement cannot be reached
- ▶ Payments made
- ▶ Any issues of concerns from the property owner(s) or representative(s)

### 3.D.3 Updating an Offer of Just Compensation

During negotiations, the offer of just compensation should be updated when:

- ▶ The property owner provides creditable valuation information.
- ▶ There is a material change in the character or condition of the property that indicates the need for new appraisal information.
- ▶ A significant delay has occurred since the date of value of the subrecipient's appraisal; the subrecipient shall have the existing appraisals updated or new appraisals secured.
- ▶ The appraisal information and/or revised appraisals shall be submitted to the review appraiser and, if warranted, the review appraiser should recommend a revised estimate of just compensation.

Once a revised offer has been made, the subrecipient shall promptly offer the revised amount to the property owner.

### 3.D.4 Acquisition – Subrecipient Takes Ownership of the Property

**STOP! In cases where the subrecipient must take residential properties, the subrecipient may not complete the acquisition of a property until comparable replacement housing is made available.**

- Step 1. The subrecipient and property owner sign an agreement for possession and use. The agreement documents the offer of just compensation and any other agreements that are a part of the settlement. The subrecipient should maintain the following documentation to ensure compliance with the Uniform Act.
- ▶ Agreement for possession and use
  - ▶ FMV or waiver valuation
  - ▶ Agent log
  - ▶ Offer letter

**STOP! Both Colorado law and the Uniform Act state that no owner shall be required to surrender possession of real property before being paid the agreed purchase price by the subrecipient or deposits (with the Title Company as Escrow Agent or a court for the benefit of the owner) an amount not less than the approved appraisal of the FMV of such property or the amount of the award of compensation in the condemnation proceeding for such property. More information can be found in 49 CFR 24.102(j) linked in Resource 3-A.**

- Step 2. The subrecipient may have to pay incidental costs associated with the acquisition. The transfer of the title may require the owner to pay for certain incidental expenses related to title transfer.
- ▶ Incidental expenses are reimbursable under federal regulations. Federal regulations governing incidental expenses are found in **49 CFR 24.106** linked in **Resource 3-A**.
  - ▶ The regulation also states that “whenever feasible, the agency (subrecipient) shall pay these costs directly so that the owner will not have to pay such costs and then seek reimbursement from the agency.”
  - ▶ **Section 3.10 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A** provides more information.
- Step 3. A negotiator or title company then closes the acquisition. The acquisition can be fully closed only when all proper documents have been executed, taxes have been paid, and closing statements and receipts are signed by both the subrecipient and property owner. These signed and notarized documents must be recorded as soon as possible.
- Step 4. The property is considered in the possession of the subrecipient.

## 3.E Relocation and Assistance

Relocation is the process of moving the owner or renter of a dwelling unit, business, nonprofit organization, or farm from their property to a different location. Relocation for the residents of a dwelling unit is a substantially more complicated process because both the United States and the State of Colorado have robust laws in place to protect residents. In addition, the subrecipient is required to provide relocation-related assistance. Assistance includes consulting services, transportation to view and inspect replacement properties, and more. For more information on relocation and assistance, refer to the **Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A**.

### 3.E.1 Colorado Department of Transportation Relocation Policies

CDOT has the following relocation policies in place:

- ▶ No person shall receive duplicate relocation payments. If a property owner receives a payment from a federal, state, local, or insurance entity for the same purpose (purchase of property), that owner shall not receive payment for property twice.
- ▶ The subrecipient is required to provide proper notices to any property owners or occupants. Notices shall be personally served or sent by certified or registered first-class mail, return receipt requested, and documented in CDOT's files. Each notice shall be written in plain understandable language. Property owners who are unable to read and understand the notice must be provided with appropriate translation and counseling. Each notice shall indicate the name and telephone number of a person who may be contacted for answers to questions or other needed assistance.
- ▶ The subrecipient must comply with both the Uniform Act and all CDOT Title VI requirements. Refer to **Chapter 1A Capital Project Planning and Initiation, Section 1A.J**, for more information.
- ▶ A real estate specialist is required to maintain a relocation log throughout the relocation process.
- ▶ The subrecipient should prepare an Acquisition Stage Relocation Plan before they begin acquiring property. **Section 3.A.5** provides more information on the Acquisition Stage Relocation Plan.

### 3.E.2 Qualification for Advisory Services and Relocation Assistance

The subrecipient is required to provide advisory services and relocation assistance as needed by displaced people, businesses, farms, and nonprofits. The term "displaced person" as defined in 49 CFR 24.203(d) means any person who moves from the real property or moves personal property from the real property as a direct result of:

- ▶ A written notice of intent to acquire, the initiation of negotiations for, or the acquisition of, such real property in whole or in part for a project.
- ▶ Rehabilitation or demolition for a project.
- ▶ A written notice of intent to acquire, or the acquisition, rehabilitation or demolition of, in whole or in part, other real property on which the person conducts a business or farm operation, for a project. However, eligibility for such person applies only for purposes of obtaining relocation assistance advisory services and moving expenses.

**Section 4.1.2** of the **Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A** defines persons who are not considered to be "displaced."

**Worth Noting – Qualification for Services:** Regardless of which of the four criteria that a person meets, a person, family, or person(s) who own a displaced business, farm, or nonprofit must be either a citizen or national of the United States, or an alien who is lawfully present in the United States. For incorporated businesses, farms, or nonprofits, the corporation must be authorized to conduct business within the United States.

### 3.E.3 Advisory Services and Relocation Assistance to Be Provided

The subrecipient, or a relocation agent representing the subrecipient, must provide the following services to all eligible people and businesses displaced by a capital facility project:

- ▶ Determine the relocation needs and preferences of each person to be displaced and explain the relocation payments and other assistance for which the person may be eligible, the related eligibility requirements, and the procedures for obtaining such assistance. Include a personal interview with each person and business owner.
- ▶ Provide current and continuing information on the availability, purchase prices, and rental costs of comparable replacement dwellings and explain that a person cannot be required to move unless at least one comparable replacement dwelling is made available.
- ▶ As soon as feasible, inform the person in writing of the specific comparable replacement dwelling and the price or rent used to establish the upper limit of the replacement housing payment. Where feasible, inspect selected replacement housing before being made available to ensure that it meets comparability requirements and DSS standards. If an inspection is not made, notify the person to be displaced that a replacement housing payment may not be made unless the replacement dwelling to be purchased is subsequently inspected and determined to be DSS.
- ▶ Whenever possible, provide people with minority status reasonable opportunities to relocate to DSS replacement dwellings, not located in an area of minority concentration, that are within their financial means. This policy, however, does not require a larger payment than is necessary to enable that person to relocate to a comparable replacement dwelling.
- ▶ Offer all persons transportation to inspect housing to which they are referred.
- ▶ Provide current and continuing information on the availability, purchase prices, and rental costs of suitable commercial and farm properties and locations. Assist any person displaced from a business or farm operation to obtain and become established in a suitable replacement location.
- ▶ Supply persons to be displaced with appropriate information concerning federal and state housing programs, disaster loans, programs administered by the Small Business Administration, and other federal and state programs offering assistance to displaced persons. Provide technical help to those persons applying for such assistance.
- ▶ Minimize hardships to persons in adjusting to relocation by providing counseling and advice for other available sources of assistance and such other help as may be appropriate.
- ▶ Provide that any person who occupies property acquired by the subrecipient, when such occupancy began subsequent to the acquisition of the property, and the occupancy is permitted by a short-term rental agreement or an agreement subject to termination when the property is needed for a program or project, will be eligible for advisory services, as determined by the subrecipient.

### 3.E.4 Noticing Requirements

The subrecipient shall personally serve relocation notices or send relocation notices by certified or registered first-class mail, return receipt requested, and documented in the subrecipient's files. The subrecipient will provide notices with appropriate language translation or with adequate interpretative assistance to those displaced persons who may be unable to understand a written English language notice. Each notice shall indicate the name and telephone number of the person who may be contacted for answers to questions or other needed help. **Section 4.2.2 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A** provides examples of notice letters.

Notice requirements include the following:

- ▶ The subrecipient will distribute an information packet free of charge explaining the relocation program for FTA-assisted projects to each displaced person. The packet may include a brochure or other printed materials. The subrecipient will also distribute the information at public hearings and provide the information to any prospective displaced person upon request.
- ▶ At or promptly following the initiation of negotiations, the subrecipient will notify all occupants in writing of their eligibility for applicable relocation assistance and payments. The notice shall cite the

specific relocation payment eligibility for the displaced person and identify and offer relocation assistance to the displaced person.

- ▶ No lawful occupant shall be required to move unless they have received at least 90 days' advance written notice of the earliest date by which they may be required to move. The 90-day notice will either state a specific date as this earliest date or state that the occupant will receive a further notice indicating, at least 30 days in advance, the specific date to vacate the property. For residential property, if the 90-day notice is issued before a comparable replacement dwelling is made available, the notice shall state the occupant will not have to move earlier than 90 days after such a dwelling is made available.

### **STOP! No person is required to move from a dwelling without at least 90 days' advanced notice.**

This is one of the most important protections provided by the Uniform Act and regulations. A 90-day notice is not effective for a residential occupant unless a comparable replacement dwelling has been made. Realistically, a residential occupant does not have to move until at least 90 days after receipt of notice of replacement housing availability. For more information on 90-day relocations, refer to **49 CFR 24** and the **Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A**.

### 3.E.5 Reestablishing a Dwelling or Business

Depending on the nature of who is being moved (residents of a dwelling/mobile home or owners of a business), different standards related to moving and reestablishment may apply. **Section 3.E.2** provides a list of qualification requirements for relocation assistance, and **Chapter 5** of the **Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A** provides details on relocation expenses and moves of persons, businesses, farms, and nonprofits.

**STOP! The subrecipients is NOT required to find replacement sites for businesses. They are required only to provide financial support and relocation advisory services and assistance. Only in situations of displacing dwellings is the subrecipient required to locate replacement housing.**

### Key Considerations for Moving a Dwelling Resident

- ▶ A real estate specialist should inspect any replacement dwelling to ensure that the replacement dwelling meets the standard "equal or better" to the dwelling from which residents are being relocated.
- ▶ Dwellings must be DSS as defined by **49 CFR 24.2(a)(8)**. **Resource 3-A** provides a link to this federal code. The term DSS refers to the physical condition of the replacement dwelling and its effect on the health and safety of the occupants. Basically, a dwelling that meets the requirements of a local housing and/or occupancy code will be DSS.
- ▶ A real estate specialist should look for the following:
  - Functional equivalence
  - Adequate in size to accommodate the number of occupants
  - In an area not subject to unreasonable adverse conditions
  - In an area of "similar desirability" in regard to public facilities and utilities
  - Proximity to places of employment
  - Within the financial means of the displaced and currently available on the private market



- ▶ Displaced residents may face higher mortgages, downpayments, utilities, and incidental costs in their new dwelling compared to the one from which they were displaced. In this scenario, refer to **Section 6.2.6.4 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A**.
- ▶ Displaced residents may opt to rent a replacement dwelling. For more information, refer to **Section 6.1.7 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A**.

## Moving Expenses

Any displaced owner- or tenant-occupant, business, farm operation, or nonprofit organization that qualifies as a displaced person is entitled to payment of actual moving and related expenses that the subrecipient determines to be reasonable and necessary for the moving of personal property, as shown in **Table 3-2**.

**Table 3-2. Eligible Moving Expenses**

Category	Owner- or Tenant-Occupant	Business, Farm Operation or Nonprofit Organization
Transportation	Transportation of the displaced person and personal property. Transportation costs for a distance beyond 50 miles are not eligible unless the subrecipient determines that relocation beyond 50 miles is justified.	Transportation of personal property. Transportation costs for a distance beyond 50 miles are not eligible unless the subrecipient determines that relocation beyond 50 miles is justified.
Packing	Packing, crating, unpacking, and uncrating of the personal property.	Packing, crating, unpacking, and uncrating of the personal property.
Appliances/Equipment	Disconnecting, dismantling, removing, reassembling, and reinstalling relocated household appliances and other personal property.	Disconnecting, dismantling, removing, reassembling, and reinstalling relocated machinery, equipment, and other personal property, including substitute personal property. This includes connection to existing utilities within the building on the property. It also includes modifications to the personal property to adapt it to the replacement structure, the replacement site or the utilities at the replacement site, and modifications necessary to adapt utilities at the replacement site to the personal property.
Storage	Storage of personal property for a period not to exceed 12 months unless the subrecipient determines that a longer period is necessary.	Storage of personal property for a period not to exceed 12 months unless the subrecipient determines that a longer period is necessary.
Insurance	Insurance for the replacement value of the property in connection with the move and necessary storage. Displaced occupants should be advised to specifically request full replacement value insurance when contracting with a commercial moving and storage company for the move.	Insurance for the replacement value of the personal property in connection with the move and necessary storage.

Category	Owner- or Tenant-Occupant	Business, Farm Operation or Nonprofit Organization
Lost Property	The replacement value of property lost, stolen, or damaged in the process of moving (not through the fault or negligence of the displaced person, his or her agent, or employee) where insurance covering such loss, theft, or damage is not reasonably available.	The replacement value of property lost, stolen, or damaged in the process of moving (not through the fault or negligence of the displaced person, his or her agent, or employee) where insurance covering such loss, theft, or damage is not reasonably available.
License	N/A	Any license, permit, or certification required of the displaced person at the replacement location. However, the payment may be based on the remaining useful life of the existing license, permit or certification.
Professional Services	N/A	Professional services necessary for planning the move of personal property, moving the personal property, and/or installing the relocated personal property at the replacement site. Professional services performed before the purchase or lease of a replacement site to determine its suitability for the displaced person's business operation including, but not limited to, soil testing, feasibility and marketing studies, excluding any fees or commissions directly related to the purchase or lease of such site. At the discretion of the subrecipient, a reasonable preapproved hourly rate may be established.
Signs	N/A	Relettering signs and replacing stationary on hand at the time of displacement that are made obsolete as a result of the move.
Utilities	N/A	Connection to available nearby utilities from the right-of-way to improvements at the replacement site.
Impact Fee	N/A	Impact fees or one-time assessments for anticipated heavy utility usage, as determined necessary by the subrecipient.
Other	Other actual moving-related expenses that are not listed as ineligible under <b>Section 5.1.2 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide</b> , as the subrecipient determines to be reasonable and necessary.	Other actual moving-related expenses that are not listed as ineligible under <b>Section 5.1.2 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide</b> , as the subrecipient determines to be reasonable and necessary.

Source: FTA Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide

## Replacement Housing Payments

**Chapter 6 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A** provides extensive details on housing payments for displaced owner- or tenant-occupants.

## Replacement Housing Last Resort

The Uniform Act requires that comparable DSS replacement housing within a person's financial means be made available before that person may be displaced by a federal or federally assisted program or project. When such housing cannot be provided under the provisions for replacement housing payments, the Act provides for Housing of Last Resort (HLR). HLR involves the use of payments in excess of statutory maximums



or the use of other unusual methods of providing comparable housing. If HLR is applied to any acquisition and relocation of residents, the subrecipient, in coordination with DTR, must determine that there is a reasonable likelihood that the project cannot proceed to construction in a timely manner because a comparable replacement dwelling(s) will not be available to a person(s) to be displaced.

## Mobile Homes

Chapter 7 of the **Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A** provides extensive details on the relocation of mobile home tenants or owners.

## 3.F Failed Negotiations

Occasionally, the subrecipient and property owner cannot agree on property value, replacement properties, and more. At this point, an administrative settlement, which includes legal settlements, or attempts at resolution (via ADR) can be made. CDOT only permits “voluntary acquisitions,” and, therefore, does not permit condemnation (eminent domain) actions to acquire properties from unwilling property owners.

### 3.F.1 Administrative Settlements

Administrative settlements consist of two segments: negotiated settlements and legal settlements. A negotiated settlement is an amount that exceeds the acquiring agency's approved offer of just compensation. Where circumstances indicate that it is reasonable, prudent, and in the public interest, an administrative settlement should be used as a means of effecting amicable settlements. Administrative settlements may have significant benefits, when justified, for acquisitions made under threat of condemnation. However, settlements should not be accepted simply to avoid the costs of litigation, without adequate consideration of the risk of increased costs on the remaining properties to be acquired on the project.

### 3.F.2 Legal Settlements

Legal settlements are another option if negotiations fail. Legal settlements include all settlements that take place before a trial between the subrecipient and the property owner. FTA has oversight responsibility of the parcel during the legal settlement process. Because CDOT prohibits condemnation actions, a subrecipient must back out of an acquisition if a legal settlement fails. If a subrecipient believes that a legal settlement is likely, contact FTA Region 8 for further assistance.

### FTA Participation in Settlements

FTA participation in administrative settlements depends on adequate documentation and justification of the settlement as being in the public interest. The extent of documented justification shall be commensurate with the dollar amount of property owner compensation. Documentation should lead a reader to conclude that the administrative settlement was prudent and in the public interest. Issues to be discussed in the documentation include:

- ▶ The probable range of testimony in litigation, including the subrecipient's approved appraisals and the property owner's appraisals
- ▶ The type of property involved and damages if any
- ▶ Recent court awards in the vicinity, particularly involving similar property
- ▶ A summary of the negotiation effort and the recommendation of the negotiator
- ▶ The estimate of trial costs, including preparations
- ▶ The advice and opinion of legal counsel

The settlement shall ultimately be approved by the appropriate transit agency official with management responsibility for the acquisition project. Unless alternative concurrence levels are approved, FTA must concur in proposed settlements that are \$50,000 more than the offer amount.

### 3.F.3 Alternative Dispute Resolution

ADR is a way for parties to work through and resolve problems, conflicts, and disputes short of litigation. Formal dispute resolution can take several forms, the most common being mediation.

Mediation is an informal, yet structured, process in which a neutral third person (or persons), known as a mediator, helps parties to reach a mutually acceptable solution to issues causing conflict between them. All parties to the dispute are given a full opportunity to be heard and to share their perspectives on the situation. The mediator summarizes the information shared by each party and assists the parties in defining the issues in dispute. The mediator does not decide how the dispute should be resolved but instead guides the parties through a process in which they discuss the issues, generate options for resolving the dispute, and design their agreement. Mediations can result in a resolution reached in an hour or two or can involve



multiple sessions and occur over a period of several months. Mediation solutions are non-binding. For assistance with mediation, contact DTR.

### 3.F.4 Voluntary Acquisition and Condemnation

#### **STOP! Do not use or initiate the condemnation process for failed negotiations!**

CDOT's policy is that all acquisitions for transit capital facility projects made by subrecipients are considered "voluntary acquisitions." Local transit agencies, who are subrecipients by this point in the process, technically have eminent domain authority if they are a regional transit authority (*Sos v. Roaring Fork Transp. Auth.*, 2017) or are a part of a local governing body. However, CDOT does not permit such actions, which aligns with 49 CFR 24.101(b)(1). It should be noted that the application of this provision effectively forecloses the ability of the subrecipient to acquire the property if negotiations fail to result in amicable agreement. **Resource 3-A** provides a link to Colorado's **Eminent Domain law**.

## 3.G Purchase Alternatives

The subrecipient can acquire land through a number of avenues: purchase is not the only option. Donation, donation in exchange for features, land exchanges, and functional replacement are options that a subrecipient can explore when assessing property needs for a capital facility project. Ideally, this step is completed early in the acquisition process, and opportunities for purchase alternatives should be identified in the pre-acquisition planning phase, as described in **Section 3.A**.

### 3.G.1 Donation

A non-governmental owner whose real property is required for a capital facility project may donate the property. Donations may be made at any time during the development of a project. At the time of the donation, the donor of the property is subject to applicable state laws. Refer to **Resource 3-A** for more information on all federal codes.

- Step 1. Before accepting the property, the subrecipient must inform the owner in writing of their right to receive just compensation for the property, the right to an appraisal or waiver valuation of the real property, and all other applicable financial and non-financial assistance provided under **49 CFR 24** and applicable state law.
- Step 2. All donations of property received before the approval of the NEPA document for the project must meet the requirements specified in **23 USC 323(d)**.
- Step 3. CDOT requires that an appraisal of the donated property's FMV be conducted unless the owner releases CDOT from such obligation in writing.
  - ▶ A qualified appraiser must estimate the value of the donated property. The date of value is the same as the date of donation; that is, the date the donation becomes effective, or when equitable title vests in the state, whichever is earlier. The appraiser must appraise the property in conformity with the provisions of **49 CFR 24.103** and **24.104** subject to the following conditions:
    - Increases and decreases in the value of the donated property caused by the project are to be excluded.
    - The appraisal shall not reflect damages or benefits to the remaining property.
    - The value of the donated property includes the contributory value of any improvements.
- Step 4. Before accepting a donation, the subrecipient must verify the ownership of the property through the title and must verify that the property is not subject to hazardous waste contamination and/or cleanup liability that may exceed the value of the property.

**Worth Noting – Local Match Credits:** Many donations may involve damages to the remnant, access control, construction features, even airspace leases and, while these may not be eligible for a donation credit, they are still considered donations under **49 CFR 24.108**.



### 3.G.2 Land Exchange

The subrecipient may find during the development of a capital facility project that better uses of federally assisted property can be achieved by exchanging parts or properties with neighboring property owners, sometimes called a land swap or a land exchange. FTA does not have a separate process for these transactions and follows this process:

- Step 1. The subrecipient determines the current FMV, by appraisal, of the property to be acquired.
- Step 2. Since the land exchange process is in lieu of a typical acquisition, all Uniform Act requirements apply.
- Step 3. If the FTA grant used for the land swap is still open, and the part to be disposed is more valuable than the part acquired, the net proceeds must be credited to the open award.
- Step 4. If the FTA grant used for the land swap is closed, or not yet developed, the subrecipient must follow other disposition methods as outlined in **FTA Circular 5010.1E** linked in **Resource 3-A**.

### 3.G.3 Functional Replacement

Functional replacement provides a method of paying the cost necessary to replace a publicly owned facility (for example, a fire station or a public school) being acquired with a similarly needed facility. FTA Region 8 or DTR should be contacted for further information.

A determination to use functional replacement should be made early in the development process for the project(s) using an FTA grant. The use of this approach is generally addressed during the environmental review phase preceding the grant and is presented as a mitigation measure to be undertaken under the grant.

## 3.H Special Considerations in Just Compensation

Occasionally, the subrecipient may be required to at least investigate, if not purchase, additional property from a landowner, such as uneconomic remnants or tenant-owned improvements. In addition, the subrecipient may need to explore the option of owner retention. In any special consideration related to just compensation, the subrecipient must coordinate with CDOT, as these circumstances may present extra documentation, sign-off from CDOT related to compensation, and more.

### 3.H.1 Uneconomic Remnants

Uneconomic remnant means a parcel of real property in which the owner is left with an interest after the partial acquisition of the owner's property, and which the Agency has determined has little or no value or utility to the owner. If the acquisition leaves the owner with an uneconomic remnant, the appraiser or review appraiser may be assigned to make this determination and appraise the FMV of the remnant. For more information, refer to **49 CFR 24.102(k)** linked in **Resource 3-A**.

Uneconomic remnants may have utility and/or value; a test of this is whether these remnants have utility or value to the present owner. CDOT is obligated to make an offer to purchase the uneconomic remnant, although the owner may decline CDOT's purchase offer. The Uniform Act only requires that CDOT offer to acquire an uneconomic remnant.

### 3.H.2 Tenant-Owned Improvements

When acquiring any interest in real property, the subrecipient must offer to acquire at least an equal interest in all buildings, structures, or other improvements located on the real property to be acquired, which they require to be removed or which they determine will be adversely affected by the use to which such real property will be put. This shall include any improvement of a tenant-owner who has the right or obligation to remove the improvement at the expiration of the lease term. Tenant-owned improvements shall be appraised and acquired through the following process. More details can be found in **Section 3.3** of the **Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide** linked in **Resource 3-A**

- Step 1. Determine if the tenant-owned improvements need to be removed.
- Step 2. Determine contributory value during appraisal. The contributory value consists of:
  - ▶ The value in place of a building, structure, or other improvement, the present use of which is the HBU or the land to be acquired, for its remaining economic life.
  - ▶ The interim use value of a building, structure, or other improvement, the present use of which is not the projected HBU of the land to be acquired, for a specified interim time period longer than the remaining term of the lease.
  - ▶ The value in place of a building, structure, or other improvement, the present use of which is not the HBU of the land to be acquired, for the remaining term of the lease, plus the worth of its salvage value at the end of the lease term.
- Step 3. The Uniform Act requires that if the subrecipient acquires any interest in real property, then it shall acquire at least an equal interest in all buildings, structures, or improvements located on the real property acquired that will have to be removed from the real property or that will be adversely affected by the use to which the real property will be put.
- Step 4. During the appraisal of a property, the appraiser has the initial responsibility to determine the existence of and valuation of tenant-owned improvements.
  - ▶ The review appraiser has the ultimate responsibility to see that the recommended or approved estimate of just compensation has the appropriate allocation of value between the fee and tenant owners.
  - ▶ Tenant-owners are entitled to a summary statement and an offer of just compensation.
- Step 5. No payment shall be made to a tenant-owner for any improvements unless:
  - ▶ The tenant-owner, in consideration for the payment, assigns, transfers, and releases to the subrecipient all of the tenant-owner's rights, title, and interest in the improvement.



- ▶ The owner of the real property on which the improvement is located disclaims all interest in the improvement.
- ▶ The payment does not result in the duplication of any compensation otherwise authorized by the law.

**Worth Noting – Rights to Reject Payment:** The above provisions must not be construed to deprive the tenant-owner of any rights to reject payment under this provision and to obtain payment for such property interests in accordance with other applicable law.

- Step 6. The subrecipient and acquisition specialists must determine the likelihood of any tenant-owned improvements being contaminated. Ideally, any potential contamination of property is identified early, during the NEPA process, as described in **Chapter 2 Environmental Clearance**.
- ▶ If there is known contamination on the property or improvements, the agent, in conjunction with CDOT and FTA Region 8, must coordinate with the local health department, fire marshal, or state environmental agencies.

### 3.H.3 Owner Retention

The payment, when based on the cost of relocating the retained dwelling, may not exceed the displaced person's calculated eligibility for the purchase of the selected comparable dwelling. If the owner retains ownership of their dwelling, moves it from the displacement site, and reoccupies it on a replacement site, the purchase price of the replacement dwelling shall be the sum of the following:

- ▶ The cost of moving and restoring the dwelling to a condition comparable to that prior to the move.
- ▶ The cost of making the unit a DSS replacement dwelling.
- ▶ The current FMV for residential use of the replacement site unless the claimant rented the displacement site and there is a reasonable opportunity for the claimant to rent a suitable replacement site.
- ▶ The retention value of the dwelling, if such retention value is reflected in the acquisition cost used when computing the replacement housing payment.

## Resource 3-A – Acquisition and Real Estate

### Essential Resources

Section	Source	Content	Website
3.A, 3.D, 3.E, 3.H	FTA	Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide	<a href="https://apps.itd.idaho.gov/apps/pt/capital/FTAURAGuide.pdf">https://apps.itd.idaho.gov/apps/pt/capital/FTAURAGuide.pdf</a>
3.A, 3.G	FTA	Circular 5010.1E	<a href="https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/award-management-requirements-circular-50101e">https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/award-management-requirements-circular-50101e</a>
3.B	CDOT	Certified Appraisers List	<a href="https://www.codot.gov/business/manuals/right-of-way-manual/supplemental-information/CDOT-approved-appraiser-list.pdf">https://www.codot.gov/business/manuals/right-of-way-manual/supplemental-information/CDOT-approved-appraiser-list.pdf</a>
3.C, 3.E, 3.G	Federal Code/Laws	49 CFR 24 - Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs	<a href="https://www.law.cornell.edu/cfr/text/49/part-24">https://www.law.cornell.edu/cfr/text/49/part-24</a>

### Additional Information

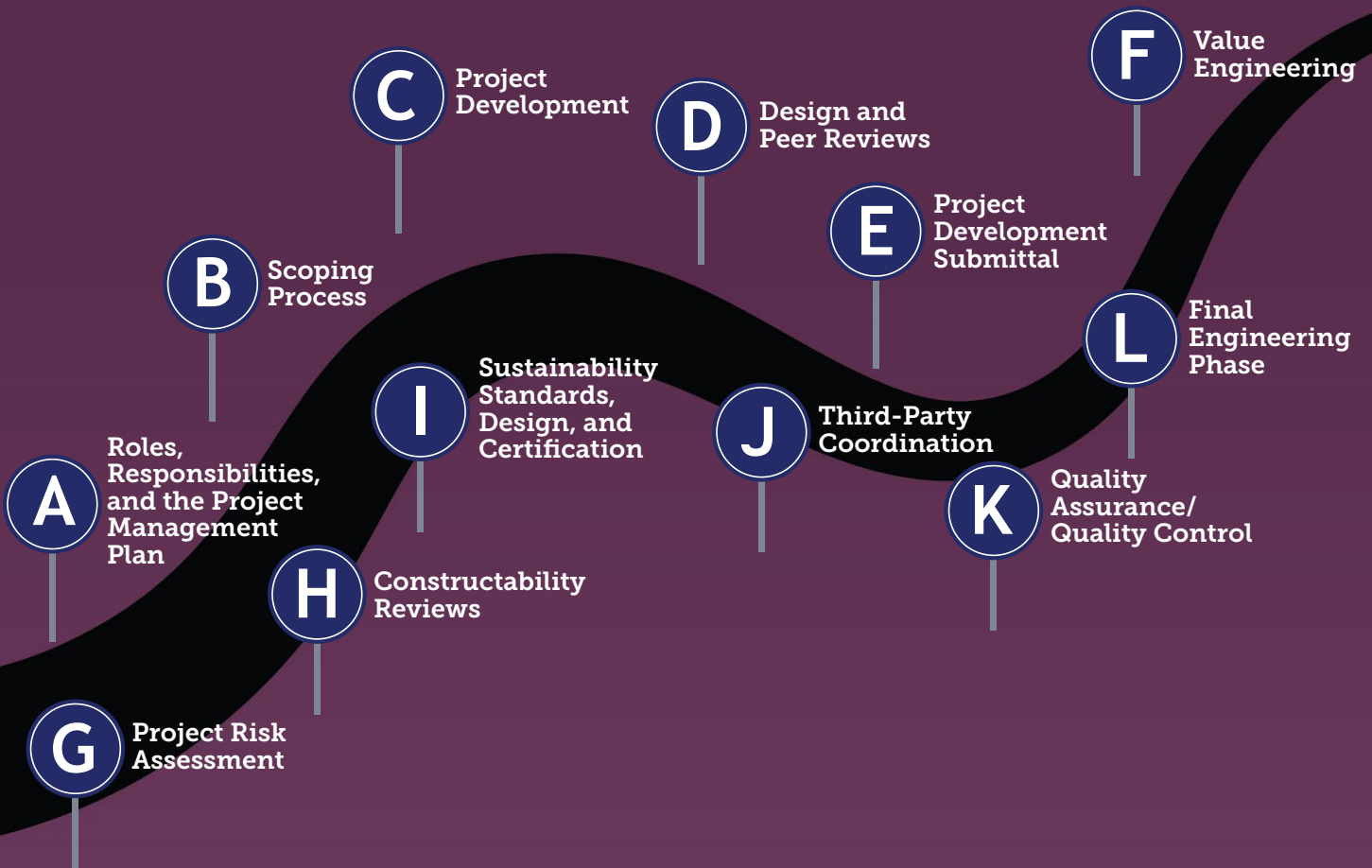
Section	Source	Content	Website
3.A	CDOT	Acquisition Stage Relocation Plan	<a href="https://www.codot.gov/business/manuals/right-of-way-manual/Chapter%205%20-%20Relocation/Chapter%205%20-%20Exhibits/Chapter%205%20-%20Exhibits%20A-EE/exhibit-a-ch-5-form-557-acquisition-stage-relocation-plan.pdf">https://www.codot.gov/business/manuals/right-of-way-manual/Chapter%205%20-%20Relocation/Chapter%205%20-%20Exhibits/Chapter%205%20-%20Exhibits%20A-EE/exhibit-a-ch-5-form-557-acquisition-stage-relocation-plan.pdf</a>
3.A	Federal Code/Laws	49 CFR 24.205 - Relocation planning, advisory services, and coordination	<a href="https://www.ecfr.gov/current/title-49/section-24.205">https://www.ecfr.gov/current/title-49/section-24.205</a>
3.A	Federal Code/Laws	49 CFR 633.25 - Contents of the Project Management Plan	<a href="https://www.law.cornell.edu/cfr/text/49/633.25">https://www.law.cornell.edu/cfr/text/49/633.25</a>
3.A	FTA	RAMP Plan Outline	<a href="https://www.transit.dot.gov/funding/grant-programs/capital-investments/real-estate-acquisition-management-plan-ramp-outline">https://www.transit.dot.gov/funding/grant-programs/capital-investments/real-estate-acquisition-management-plan-ramp-outline</a>
3.C	Federal Code/Laws	26 CFR 1.170A-17- Definition of a Qualified Appraiser	<a href="https://www.law.cornell.edu/cfr/text/26/1.170A-17#:~:text=The%20qualified%20appraisal%20must%20be,case%20of%20a%20deduction%20first">https://www.law.cornell.edu/cfr/text/26/1.170A-17#:~:text=The%20qualified%20appraisal%20must%20be,case%20of%20a%20deduction%20first</a>
3.C	Federal Code/Laws	49 CFR 24.2(a)(3) - Definition of a Displaced Person	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(3)">https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(3)</a>
3.C	Federal Code/Laws	49 CFR 24.2(a)(9) - Definition of a Displaced Person	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(9)">https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(9)</a>
3.C	Federal Code/Laws	49 CFR 24.2(a)(23) - Salvage Value Definition	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(23)">https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(23)</a>
3.C	Federal Code/Laws	49 CFR 24.102 - Basic Acquisition Policies	<a href="https://www.ecfr.gov/current/title-49/section-24.102">https://www.ecfr.gov/current/title-49/section-24.102</a>

Section	Source	Content	Website
3.C	Federal Code/Laws	49 CFR 24.102(c)(2) - When an appraisal is not required.	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.102#p-24.102(c)(2)">https://www.ecfr.gov/current/title-49/part-24/section-24.102#p-24.102(c)(2)</a>
3.C	Federal Code/Laws	49 CFR 24.102(d) (Appendix) - Establishment and offer of just compensation	<a href="https://www.ecfr.gov/current/title-49/section-24.102#p-24.102(d)">https://www.ecfr.gov/current/title-49/section-24.102#p-24.102(d)</a>
3.D	Federal Code/Laws	49 CFR 24.102(j) (Appendix A) - Payment before possession	<a href="https://www.ecfr.gov/current/title-49/section-24.102#p-24.102(j)">https://www.ecfr.gov/current/title-49/section-24.102#p-24.102(j)</a>
3.C	Federal Code/Laws	49 CFR 24.103 - Criteria for appraisals	<a href="https://www.ecfr.gov/current/title-49/section-24.103">https://www.ecfr.gov/current/title-49/section-24.103</a>
3.C	Federal Code/Laws	49 CFR 24.103(a) - Appraisal requirements	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)">https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)</a>
3.C	Federal Code/Laws	49 CFR 24.103(a)(1) - Agency role in appraisal	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)(1)">https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)(1)</a>
3.C	Federal Code/Laws	49 CFR 24.104 - Review of appraisals	<a href="https://www.ecfr.gov/current/title-49/section-24.104">https://www.ecfr.gov/current/title-49/section-24.104</a>
3.C	Federal Code/Laws	49 CFR 24.104(b) (Appendix) - Appraiser recommendation	<a href="https://www.ecfr.gov/current/title-49/section-24.104#p-24.104(b)">https://www.ecfr.gov/current/title-49/section-24.104#p-24.104(b)</a>
3.C	Federal Code/Laws	49 CFR 24.105(c) - Appraisal and Establishment of Just Compensation for a Tenant-Owned Improvement	<a href="https://www.ecfr.gov/current/title-49/part-24/subpart-B#p-24.105(c)">https://www.ecfr.gov/current/title-49/part-24/subpart-B#p-24.105(c)</a>
3.C	Federal Code/Laws	49 CFR 24.203(c) - Ninety-day Notice	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.203#p-24.203(c)">https://www.ecfr.gov/current/title-49/part-24/section-24.203#p-24.203(c)</a>
3.C	Federal Code/Laws	49 CFR 24.208(h) - Aliens not lawfully present in the United States	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.208#p-24.208(h)">https://www.ecfr.gov/current/title-49/part-24/section-24.208#p-24.208(h)</a>
3.C	Federal Code/Laws	Appendix A 24.103(a)(1) - Criteria for appraisals	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)(1)">https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)(1)</a>
3.C	Federal Code/Laws	Appendix A, 24.104(c) - Review of Appraisals	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.104#p-24.104(c)">https://www.ecfr.gov/current/title-49/part-24/section-24.104#p-24.104(c)</a>
3.C	Additional Sources	Uniform Appraisal Standards for Federal Land Acquisition (UASFLA)	<a href="https://www.appraisalfoundation.org/imis/TAF/Standards/Appraisal_Standards/Uniform_Appraisal_Standards_for_Federal_Land_Acquisitions/TAF/Yellow_Book.aspx?hkey=77e5c6a0-ff07-4aa0-be1b-b7e0f0fa0360">https://www.appraisalfoundation.org/imis/TAF/Standards/Appraisal_Standards/Uniform_Appraisal_Standards_for_Federal_Land_Acquisitions/TAF/Yellow_Book.aspx?hkey=77e5c6a0-ff07-4aa0-be1b-b7e0f0fa0360</a>
3.D	Federal Code/Laws	49 CFR 24.106 - Expenses incidental to the transfer of title to the Agency	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.106#:~:text=%C2%A7%2024.106%20Expenses%20incidental%20to%20transfer%20of%20title%20to%20the%20Agency.&amp;text=(3)%20The%20pro%20rata%20portion,of%20it%2C%20whichever%20is%20earlier.">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.106#:~:text=%C2%A7%2024.106%20Expenses%20incidental%20to%20transfer%20of%20title%20to%20the%20Agency.&amp;text=(3)%20The%20pro%20rata%20portion,of%20it%2C%20whichever%20is%20earlier.</a>
3.E	Federal Code/Laws	49 CFR 24.2(a)(8) - DSS Definition	<a href="https://www.ecfr.gov/current/title-49/part-24#p-24.2(a)(8)">https://www.ecfr.gov/current/title-49/part-24#p-24.2(a)(8)</a>

Section	Source	Content	Website
3.F	Federal Code/Laws	49 CFR 24.101(b)(1) - Programs and projects receiving Federal financial assistance	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.101#p-24.101(b)(1)">https://www.ecfr.gov/current/title-49/part-24/section-24.101#p-24.101(b)(1)</a>
3.F	Federal Code/Laws	49 CFR 24.404 - Replacement HLR	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-E/section-24.404">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-E/section-24.404</a>
3.F	FTA	Real Estate Information	<a href="https://www.transit.dot.gov/RealEstate">https://www.transit.dot.gov/RealEstate</a>
3.F	Other	Sos v. Roaring Fork Transp. Auth., 2017	<a href="https://casetext.com/case/sos-v-roaring-fork-transp-auth-1">https://casetext.com/case/sos-v-roaring-fork-transp-auth-1</a>
3.G	Colorado DLA	Land Use Dispute Resolution	<a href="https://dlg.colorado.gov/land-use-dispute-resolution">https://dlg.colorado.gov/land-use-dispute-resolution</a>
3.G	Colorado DLA	List of Qualified Alternative Dispute Resolution Professionals	<a href="https://drive.google.com/open?id=0B2oqdPZKJqK7bWg2V2FRYndNQnc&amp;authuser=0">https://drive.google.com/open?id=0B2oqdPZKJqK7bWg2V2FRYndNQnc&amp;authuser=0</a>
3.G	Colorado DLA	Local Government Guide to Selecting an ADR Professional	<a href="https://drive.google.com/open?id=0B2oqdPZKJqK7ek5GV0lXUkduRk0&amp;authuser=0">https://drive.google.com/open?id=0B2oqdPZKJqK7ek5GV0lXUkduRk0&amp;authuser=0</a>
3.H	Federal Code/Laws	23 USC 323(d)	<a href="https://www.law.cornell.edu/uscode/text/23/323">https://www.law.cornell.edu/uscode/text/23/323</a>
3.H	Federal Code/Laws	49 CFR 24.102(k) - Uneconomic Remnants	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.102">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.102</a>
3.H	Federal Code/Laws	49 CFR 24.103 - Criteria for Appraisals	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.103">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.103</a>
3.H	Federal Code/Laws	49 CFR 24.104 - Review for Appraisals	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.104">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.104</a>
3.H	Federal Code/Laws	49 CFR 24.108 - Donations	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.108">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.108</a>



# 4 DESIGN & ENGINEERING



## 4. Design and Engineering – Executive Summary

**Chapter 4** provides the subrecipient with key concepts regarding management of the design phase. During the design phase, the subrecipient oversees the translation of the project requirements into detailed drawings and specifications to be used for construction contract documents. This chapter addresses the key points regarding oversight of project development and engineering, management of the project schedule, constructability reviews, value engineering, peer reviews, and quality control (QC) and quality assurance (QA) for the design phase.

The design phase uses the project requirements to develop design criteria and move into project development and engineering to create construction documents (CDs) for a contractor to bid on. As discussed in **Chapter 1A Capital Project Planning and Initiation** and **Chapter 2 Environmental Clearance**, certain design subphases, such as site selection, project feasibility, alternatives analysis, and project development, are interrelated with the environmental clearance process. The design phase involves interaction with the real property acquisition and third-party coordination processes.

During the design and engineering phases, the subrecipient, likely in coordination with a consultant, prepares the drawings, specifications, and bid documents required for awarding facility construction, equipment fabrication, and installation contracts.

The design phase includes the following:

- ▶ Defining roles and responsibilities and organizing the design team (in-house or design consultant)
- ▶ Scoping the project
- ▶ Developing project requirements and design criteria
- ▶ Performing project development tasks
- ▶ Performing conceptual design
- ▶ Incorporating design and peer review processes
- ▶ Conducting peer and design reviews
- ▶ Performing QA/QC reviews
- ▶ Incorporating value engineering processes
- ▶ Developing, assessing, and addressing project risks
- ▶ Performing preliminary and final engineering
- ▶ Obtaining appropriate permits
- ▶ Assuring third-party coordination
- ▶ Performing constructability reviews
- ▶ Completing construction bid documents

The process outlined in this chapter is described in further detail in the **Federal Transit Administration (FTA) 2016 Construction Project Management Handbook**, linked in **Resource 4-A**.

**Worth Noting – Design Steps for Smaller Projects:** FTA does not have strict requirements for any of the design stages for small projects; that is, non-Capital Investment Grants (GIG) projects receiving less than \$300 million in federal funding. This chapter presents common sense steps, but the subrecipient does not need to submit documentation to FTA Region 8 for concurrence. FTA requires the completion of the National Environmental Policy Act (NEPA) process before beginning final design. However, the subrecipient must coordinate with local governing bodies, who may require the submission of documentation for permits. If in doubt, contact Colorado Department of Transportation (CDOT).

## 4.A Roles, Responsibilities, and the Project Management Plan

### 4.A.1 Role of the Project Manager in Design

For the design phase to be successful, the project manager must have an appropriate understanding of the project's scope and the ability to commit the time and resources necessary to complete the project. As part of this effort, a project manager will need to manage a design consultant, if one is hired. Occasionally, the subrecipient has the time and personnel to complete the necessary design steps in house. The subrecipient project manager will need to manage the scope of work (SOW) and associated progress. Management activities will include monitoring consultant cost and schedule performance against the agreed upon SOW. Activities may require managing changes in the design contract as changes in design assumptions are identified. To minimize impacts to the design consultant's efforts, timely reviews and approvals must be provided to avoid delay to the project development process.

The project manager may come from within the subrecipient itself or from outside personnel. For larger projects, the subrecipient may also depend on a separate design manager. Whereas the project manager is responsible for the entire project, the design manager is responsible for only the design phase of the project. The design manager may come from in-house staff if the subrecipient has the resources to complete the work or from a Program Management Consultant (PMC) contract. The design manager assists in the timely review of key components delivered by the design consultant.

Typical project manager responsibilities include, but are not limited to:

- ▶ Reviewing and approving design concepts, project development, and engineering
- ▶ Providing and coordinating design review comments
- ▶ Participating in value engineering and risk assessment sessions
- ▶ Managing the design consultant's efforts
- ▶ Monitoring design costs and schedule
- ▶ Overseeing QA/QC
- ▶ Approving baseline capital cost and schedule
- ▶ Approving the construction bid package

In addition, as construction capital cost estimates are developed during design, the project manager and other subrecipient staff must review the estimates, including the constraints of inflation and price uncertainties, and compare the cost estimates with the budget.

### 4.A.2 Role of Agency or PMC Design Consultants

The subrecipient's design manager role is to develop the design based on the defined requirements and the eventually approved environmental document, as discussed in **Chapter 2 Environmental Clearance**. Another role is to prepare the construction bid package. The SOW will identify efforts for conceptual design, project development, and engineering. The SOW must also be consistent with the Project Management Plan (PMP), which should be updated before beginning the design phase.

Typically, the design consultant's role is to:

- ▶ Establish design criteria and assess and address project risks
- ▶ Perform conceptual design and project development in support of environmental clearance documents
- ▶ Perform technical studies, develop engineering criteria, and conduct value engineering and risk assessment
- ▶ Estimate capital cost and construction schedule throughout the design process
- ▶ Prepare engineering drawings and specifications and coordinate design submissions and reviews
- ▶ Develop and apply internal QA/QC criteria for the review of deliverables
- ▶ Update capital cost estimates and construction schedule throughout the design process
- ▶ Produce final design drawings and specifications for the construction bid package

### 4.A.3 Design Management

Design management involves overseeing design phase activities. The subrecipient project manager oversees and manages design, including project development and engineering as defined by both the Project Requirements Definition (PRD), which defines what the project will accomplish, and the associated PMP, as discussed in **Chapter 1B Project Lifecycle Reporting and Requirements**. The subrecipient should initially determine whether design management will be performed internally (with subrecipient staff) or by a PMC procured for the design management task. The subrecipient should base this determination on current capacity, current capabilities, and the project scope. **Chapter 1B Project Lifecycle Reporting and Requirements, Section 1B.E**, provides more details on the consultant procurement process.

Even if a PMC is hired for the design management task, subrecipient staff will still oversee the efforts of the PMC. The designer of record (Engineer in Responsible Charge who signs and seals the plans) can take on project management of the design phase on less complex projects. Regardless, the subrecipient's project manager will still be involved and most likely lead coordination with third parties, including environmental agencies, municipal officials, municipal authorities, and utility companies. Overall, the person in charge of design management is essential in that they are tasked with guiding the project to a successful conclusion. Typical duties and responsibilities of the design phase project manager include:

- ▶ Finalizing the project SOW and budget
- ▶ Ensuring that the design team performs the work and services required by the design phase SOW
- ▶ Assisting and guiding the design consultant
- ▶ Preparing and monitoring the project schedule
- ▶ Monitoring project costs, including cost of design, right-of-way (ROW) acquisition, utility relocations, construction, etc., to keep costs within budget
- ▶ Reviewing and coordinating reviews of all design submissions, preliminary and final real property and ROW plans, design drawings, special provisions, specifications, and estimates
- ▶ Accepting and evaluating the quality of deliverables and verifying adherence of the design consultant to the QA/QC plan
- ▶ Coordinating and overseeing design review meetings, constructability reviews, and plan checks

### 4.A.4 Project Management Plan

Effective project management is an important element of project control. A PMP that is regularly reviewed helps to maintain control of the scope, budget, and schedule. While a PMP is required for major capital facility projects, smaller projects may not need a detailed plan. The **Preface** of this manual provides a definition for *major capital facility project*. Regardless, the subrecipient may adjust the PMP according to project size, complexity, and phase.

**Worth Noting – Project Management Plan for Smaller Projects:** A PMP can be helpful for capital facility projects, as it lays out the steps and schedule to complete the project to ensure that no crucial steps or details are missed. However, FTA does not require a PMP for projects that have been awarded less than \$300 million in federal funds. The subrecipient completing a capital facility project, such as a bus stop, may skip this step.

A PMP, regardless of project complexity, should address the following:

- ▶ Project scope, budget, and schedule
- ▶ Project goals, project objectives, and any associated baselines (baselines are defined in the **2016 FTA Construction Project Management Handbook** listed in **Resource 4-A**)
- ▶ The roles and responsibilities of subrecipient staff, managers, subconsultants, etc.



- ▶ How decisions related to project delivery strategy, organization and management structure, and assignment of responsibilities are made
- ▶ All required subplans, including quality management, risk and contingency management, and document control

A PMP documenting project roles and responsibilities must be developed for any capital facility project. The PMP defines deliverables and identifies roles and responsibilities for the project manager, subrecipient, design staff, and consultants. For information about how to develop a PMP, refer to **Chapter 1B Project Lifecycle Reporting and Requirements, Section 1B.E**, or refer to the **FTA 2016 Construction Project Management Handbook**. The FTA Handbook is linked in **Resource 4-A**.

The PMP and subplans are treated as “living” documents and, therefore, should be updated as the project progresses, usually as the project enters a new phase, such as moving from design into construction. Updating and revising the PMP requires the project manager to add details on how a new phase will be managed, to note any changes to the project scope, and to forecast project costs and schedule against the baselines. For more information about how to develop a PMP, refer to **FTA Project Management Plan (PMP) Development** and the **2016 FTA Construction Project Management Handbook**, both of which are listed in **Resource 4-A**.

## 4.B Scoping Process

Scoping involves the review of a project before concept and preliminary design. Initial scoping typically involves an on-site review of the project site. The scoping process ensures that the development of a SOW will be consistent with planning and design characteristics. The scoping process will establish the:

- ▶ Project objectives and goals, which should be described in the PMP (refer to **Section 4.A.3** and **Chapter 1B Project Lifecycle Tasks and Requirements** for more information on PMP development and contents)
- ▶ SOW, what will be completed and by whom, as reflected in the PMP as described in **Chapter 1B Project Lifecycle Tasks and Requirements**
- ▶ Identification of the standards (e.g., design, code) (refer to **Section 4.B.2** for more information)
- ▶ Project requirements and design criteria
- ▶ Environmental considerations and requirements (refer to **Chapter 2 Environmental Clearance** for more information)
- ▶ Design schedule
- ▶ Project costs and budget, detailed in **Section 4.B.1**

**Worth Noting – Scoping Process for Smaller Projects:** The scoping process should be completed for all projects regardless of project size. Larger projects may require a more complex scoping process.

### 4.B.1 Project Cost

The various design phases (scoping, conceptual design, preliminary design, and final design) are intended to help develop and refine the project requirements and assess the project costs.

- Step 1. During project scoping, the design team will develop an initial project cost estimate and compare it to the programmed budget identified during the earlier stages of the capital facility project as detailed in **Chapter 1A Capital Projects Planning and Initiation**. An effective way of containing project costs is to control the project scope during the initial scoping process and during each design review phase discussed in this section.
- Step 2. The design team will then develop project costs and budget based on all costs associated with project initiation, planning, environmental, design, and construction. Include this information in the PMP as described in **Section 4.A.3** and **Chapter 1B Project Lifecycle Tasks and Requirements**.
- Step 3. The design team should specifically consider the cost to initiate and complete design through 90-100%, construction costs, ROW, permitting, and any other costs to complete the project. Costs may also include operations and maintenance costs in perpetuity.
- Step 4. The design team should consider and refine the following costs throughout the design process:
 

<ul style="list-style-type: none"> <li>▶ Subrecipient project administration</li> <li>▶ Surveys - topographical and boundary</li> <li>▶ Real property and ROW acquisition (<b>Chapter 3 Acquisition and Real Estate</b>)</li> <li>▶ Geotechnical investigation</li> <li>▶ Consultant support for design and construction</li> <li>▶ Cost estimation</li> </ul>	<ul style="list-style-type: none"> <li>▶ Value engineering</li> <li>▶ Peer reviews</li> <li>▶ Utility services to site</li> <li>▶ Construction</li> <li>▶ Construction inspection/management</li> <li>▶ Owner-furnished equipment</li> <li>▶ Maintenance costs</li> </ul>
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Refer to **Cost Estimation for FTA Funded Transit Projects** in **Resource 4-A** for more information about cost estimation for FTA funded projects.

## 4.B.2 Project Considerations/Requirements and Design Criteria

When developing project considerations, project requirements, and design criteria during the scoping process, the subrecipient should consider the following:

- ▶ Project considerations:
  - Site conditions and constraints
  - Off-site conditions
  - Facility type being considered
  - Local codes
- ▶ Requirements:
  - State or federal design standards
  - Document standards: drawings, specifications, estimate, schedule, and calculations
  - Project requirements definition
  - Anticipated design schedule
  - Project budget

- Step 1. The design team will develop the design criteria for the project based on the SOW provided. The design process will establish a range of acceptable criteria or project standards. Categories to consider include site work, facility type, building, structures, utilities, mechanical equipment needs, and lighting facility.

**Worth Noting – Project Manager Reviews:** The project manager will review the design criteria and site constraints provided by the design team to ensure that they satisfy the needs of the PRD.

- Step 2. The project manager will seek input from all stakeholders. Based on stakeholder comments, the subrecipient will either approve or alter the design criteria in a timely manner.
- Step 3. Once determined, design criteria must not change unless otherwise approved by both the project manager and the design team. A change of design criteria during later stages of project development or engineering may have significant implications on the design budget and schedule, as well as on the construction budget and schedule.

## 4.C Project Development

FTA defines design and engineering phases as project development and engineering. Project development represents the development of enough design to support the approval of the environmental document.

**Worth Noting – Design and NEPA:** The project development phase includes the completion of NEPA requirements. A completed NEPA decision document must be submitted to and approved by FTA before the project can proceed into the engineering phase.

The project development and design steps/tasks included in this chapter provide guidance to complete small projects. Many of the tasks are not required by FTA. FTA only requires projects complete enough design to obtain the NEPA clearance document and final engineering to produce CDs and cost estimates. Each subrecipient must determine which tasks are necessary to complete the design, including the number and types of reviews, to obtain the required permits.

Overall, the project development phase begins with scoping and ends roughly at 30% design. The project development phase includes the following:

- ▶ Concept design
- ▶ Alternative selection
- ▶ Preliminary design
- ▶ Submit project development

The subrecipient, in coordination with the PMC and/or design team, moves toward final design. The term *sufficient level of engineering* is defined as follows for each phase of development:

- ▶ **Prior to Completion of NEPA Process:** Adequate level of engineering and design to identify and define all mitigation measures and to prepare a complete mitigation monitoring plan and a cost estimate with an adequate level of contingency to allow changes due to design development.
- ▶ **Concurrent with the Completion of NEPA but before Entry into Engineering (New Starts and Core Capacity):** At least 30% design and engineering, including documents at the level of detail described in the FTA January 2023 **Capital Investment Grants (CIG) Policy Guidance** linked in **Resource 4-A**. This includes an adequate level of engineering to define key project design features, including satisfactory progress in advancing the project design and a corresponding and up-to-date cost estimate and schedule. The supporting capital cost estimate must be based on quantities of work established in the drawings and a substantial level of cost line-item detail and backup for all other costs (vehicles, equipment, real estate, professional services, unallocated allocated contingency, and financing costs).
- ▶ **Completion of NEPA Before a Small Starts Grant Agreement:** Consistent with FTA's **Final Interim Policy Guidance -CIG of January 2023** (linked in **Resource 4-A**), an adequate level of engineering shall be completed to define key project design features appropriate for the designated delivery method (Design/Build, Design/Bid/Build, and/or Construction Manager/General Contractor), including satisfactory progress in advancing the project design and corresponding and up-to-date cost estimate and schedule.

The design team will use the project requirements, as defined in the PRD, and design criteria in **Section 4.B.2** during the project development design phase.

Once these steps are complete, the design team can advance into project development and engineering, which leads to the creation of CDs on which contractors can bid.

As discussed in **Chapter 1A Capital Project Planning and Initiation**, the design subphases of alternatives analysis and project development are interrelated with the environmental clearance process. The project development design phase will involve interaction with the real property acquisition and third-party coordination processes discussed in **Chapter 3 Acquisition and Real Estate**.

Project development is kicked off with the establishment of a conceptual design. The subrecipient should consider the following elements for project development. This list is primarily geared toward maintenance facilities and bus bays. Other elements may need to be considered for other facility types.

- ▶ How fleet size will change over time, as well as what types of vehicles will make up a future fleet
- ▶ Space requirements for general bus maintenance, fare removal, fueling, exterior washing, interior cleaning, and bus storage
- ▶ Space requirements for administrative and operating staff offices, training rooms, lunchrooms, locker rooms, and associated toilet facilities
- ▶ Space requirements for parts storage, body and paint shops, tire shops, and heavy repair areas
- ▶ Location and number of on-site parking spaces for employees and vendors
- ▶ Where landscaping, site security, stormwater management facilities, and potentially, water treatment facilities will be located
- ▶ Overall site layout considerations for daily operations at the bus maintenance facility, including queuing space for buses during the mid-day and evening pull-in, bus circulation and storage space prior to maintenance and servicing, and circulation area for buses to move to and from storage on the site
- ▶ Entrance and exit locations to and from the site to adjacent streets

During the project development phase, the design team will finalize the conceptual design for the facility and any associated equipment, design criteria, property/ROW requirements, and third-party coordination work that will be used for final design. Different facility types may have different concept requirements, and the subrecipient should coordinate those with the project manager, design (consultant) team, and design manager to ensure that all facility design requirements are met.

The goal of project development is to design a capital facility to the point where the baseline capital cost and construction schedule can be crafted. This progress is generally commensurate with the 30% level design. Refer to **Section 4.C.2** for more information on advancing project development to 30% design.

Project development deliverables include:

- ▶ Project design requirements
- ▶ Physical design features
- ▶ Infrastructure user interfaces, such as coordination among roadways, utilities, and facility features
- ▶ Landscaping
- ▶ Construction requirements
- ▶ Environmental issues and clearance
- ▶ ROW needs and clearance
- ▶ Topographic survey
- ▶ Utility and contract requirements and clearances
- ▶ Coordination between internal and external agency disciplines
- ▶ Rights of entry, environmental and construction permits

**Worth Noting – Project development is the development of enough design to support the approval of the environmental clearance document.**

FTA defines the design and engineering steps between project development and final engineering. Project development can be done in-house or with consultant support. The final product of this phase is a complete set of plans to 30% design, as well as specifications and cost estimates. The engineering phase begins at the conclusion of the project development phase and concludes with final 100% CDs.

Development and building type projects generally are completed differently from flat or linear projects, whether they are private or public. Generally, local government codes and requirements govern the process to complete these projects. Commonly, the goal for these types of projects is to obtain site plan approval and a construction permit from the local government.

#### 4.C.1 Concept Development – Alternatives Analysis

Alternatives analysis is used to identify potential concepts for project development analysis.

- Step 1. The design team will develop project concepts within the identified design criteria. The team will also develop attributes for each alternative to allow the subrecipient to perform the analysis and prioritization of the options. **Chapter 1A Capital Project Planning and Initiation** discusses the evaluation and selection of a feasible site based on alternatives analysis.
- Step 2. The design team will then move the identified preferred alternative into conceptual design. The Infrastructure Investment and Jobs Act specifies that during project development, and no later than two years after the date that the project enters project development, the subrecipient must complete the following activities:
  - ▶ Select a locally preferred alternative (LPA).
  - ▶ Get the LPA adopted into the Statewide Transportation Improvement Program.
  - ▶ Complete the required environmental review process as signified by a final FTA environmental decision (that is, Categorical Exclusion, Finding of No Significant Impact, combined Final Environmental Impact Statement/Record of Decision, or Record of Decision) covering all aspects of the project proposed for FTA funding.
  - ▶ Develop sufficient information for FTA to develop a project rating.
- Step 3. **Design of the Preferred Alternative Advances to 30% Design:** The design of the selected or preferred alternative will then advance in conjunction with the environmental clearance process as defined in **Chapter 2 Environmental Clearance** to an adequate level of engineering and design. This process will define all mitigation measures and complete a mitigation monitoring plan and a cost estimate for all remaining design, environmental, mitigation, utilities, ROW, construction, and real estate costs. The budget should include an adequate level of contingency to account for changes that may occur during design development.

**Worth Noting – Permits:** Any environmental-related permits should be obtained at this point in time.

- Step 4. **Design Prior to the Completion of NEPA:** The design consultant will then develop graphic plans based on functional requirements and safety as identified in the LPA. In addition, they will analyze the project site(s) to determine the initial “look and feel” of the project once completed. The conceptual design results in a set of architectural plans, elevations, landscaping plan, site boundary, and topographic surveys. Depending on site complexity, the design may include other drawings such as grading, utility, and drainage plans.
- Step 5. **Design Concurrent with Completion of NEPA Before Entry into Engineering:** After initial project development, the design team will take the project from the conceptual design to a level of design that supports the environmental application and defines all significant elements to enable a more accurate estimate of the construction project costs and impacts. The developed technical and cost information will serve as the basis for subsequent funding and implementation decisions.
- Step 6. Project manager oversight of the design team is crucial at this point to confirm that all configurations and designs are sound. Confirmation requires an in-depth analysis of all components, their interrelationships, and their costs. In addition, environmental impacts and mitigation requirements are completed per **Chapter 2 Environmental Clearance** of this manual.
- Step 7. Once the design team advances the design from conceptual design to 30% design, the project can move through the final engineering phases. At this point, all documents should reflect the

level of design as described in the **FTA Capital Investments Grants (CIG) Policy Guidance 2023**, in **Resource 4-A**. These documents should be completed with an adequate level of design to define key project design features and reflect satisfactory progress in advancing the project design and corresponding, up-to-date cost estimate and schedule. The supporting capital cost estimate must be based on quantities of work established in the drawings and a substantial level of cost line-item detail and backup for all other costs (vehicles, equipment, real estate, professional services, unallocated allocated contingency, and financing costs). **Section 4.L** provides details on all other steps needed to complete final engineering.

**Worth Noting – Alternatives Analysis for Smaller Projects:** An alternatives analysis can be helpful for capital facility projects when multiple alternatives will meet project goals. This analysis will help subrecipients select a preferred alternative to be advanced through the NEPA process and the engineering phase. However, FTA does not require alternative analysis for projects that have been awarded less than \$300 million in federal funds. The subrecipient completing a capital facility project, such as a bus stop, may skip this step.

#### 4.C.2 Project Development and Initial Review Steps

Several reviews occur during the project development and engineering phases. The typical scope of these reviews during project development and engineering is as follows:

- ▶ **First Review:** The project manager and/or design manager will ensure that all major design features are progressing in accordance with design criteria, major engineering, and value engineering decisions and ensure that most drawings, specifications, and other documents are well advanced (roughly 60% complete). Usually, a constructability review is conducted at this point.
- ▶ **Second Review:** The drawings and specifications provided by the design team are nearly complete (roughly 90%) and checked. The project manager and the design manager must perform an extensive review as this will be the last major design review. In addition, the project manager and the design manager must verify that comments from the first review have been addressed. In addition, the subrecipient, in coordination with the design manager, should send these drawings to any permitting agencies for a plan check, if applicable. At this point, the construction cost estimate should be verified against the budget established for the project.
- ▶ **Third Review:** At this stage, the design team has completed and checked the drawings and specifications. In addition, the project manager and/or design manager must verify that comments from the second review have been addressed. Only incorporation of comments arising from this review, plus any signoffs and approvals, is required to complete the construction bid documents.
- ▶ **Bid Document Verification and Delivery Review:** After the design consultant delivers all completed, signed, and sealed original drawings, the project manager and the design manager must verify that comments from the third review have been satisfactorily resolved; construction cost estimates are in line with budgets; and appropriate local, state, and/or federal agency approvals can be given. At this point, subrecipient staff responsible for procurement will add the necessary contractual provisions to the final plans, specifications, and estimates package.

**Worth Noting – Additional Third Review Comments:** Any comments that do not pertain to the third review should not be considered unless the design is in error because of an unsafe condition, non-constructability of work as shown, or new work that was not previously shown.



The subrecipient typically follows this process:

- Step 1. The subrecipient will initiate the planning review/site plan approval processes with their local planning department by notifying the department of the planned capital facility project.
- Step 2. From there, the subrecipient will identify an ideal site for the project based on feasibility.
- Step 3. The subrecipient will then verify that the zoning of the identified parcel(s) matches the intended use (transit capital facility project).
- Step 4. Once the site is deemed viable, the subrecipient can consider moving the project into design.

**STOP! Although the subrecipient may identify parcels for the site, no land acquisition may be made before the completion of NEPA. Chapter 3 Acquisition and Real Estate details the acquisition process.**

The subrecipient must verify site plans and design concepts with the public and any local governing authority, such as a town council, board of trustees, and/or planning commission. The approval of one or more of these authorities is required to move any capital facility project forward through design and construction. These authorities will likely consider project size, scale, impacts, rezoning needs, etc. as a part of any decision to issue building permits.

- Step 1. The subrecipient will typically need to go through a public process at this phase to engage the public on the project and gather feedback from neighborhood groups, stakeholders, and other parties that may have an interest in where the project is being proposed.
- Step 2. The planning department, or other permitting authority, will then determine if the transit capital facility project can move into design and if any project modifications are required.
- Step 3. The subrecipient must initiate the civil engineering design phase by first coordinating with local public works departments to gain drainage approvals. The subrecipient can check the site for utilities, including drainage, by referring to drainage reports or a drainage master plan.
- Step 4. Once an initial review of drainage plans is complete, the subrecipient must submit plans to local public works/engineering divisions for review of 100% civil engineering design plans. NOTE: Public works/engineering divisions, and local governments more broadly, typically do not review anything less than 100% design for building projects. Designs are expected to be essentially complete by the time they are submitted for the initial review.
- Step 5. The subrecipient will then submit all civil engineering plans, including site plans and details, grading plans, ROW plans, existing and proposed utility plans, drainage, erosion control, landscaping, irrigation, lighting (with photometrics), retaining walls and site structures, signing/stripping, traffic control, and other relevant civil drawings.
- Step 6. The subrecipient should then expect to take on between two and three rounds of revisions/reviews before the public works/engineering divisions approve the plans and release the building permit.
- Step 7. In addition, a local building department will review all building design submittals, including the 100% architectural, structural, HVAC, plumbing, electrical, life safety and security plans. All of these plans are also expected to be complete, and often building departments insist they be signed/stamped at the time of the submittal. These plans may also require two to three revisions/reviews before final approval and release for permit.



## 4.D Design and Peer Reviews

Design and peer reviews are essential to the design process for any capital facility project. These reviews provide opportunities for collaboration within the design team and with outside partners such as peer transit agencies. In addition, these reviews ensure that design documents meet the standards set forth in previous steps and that all necessary plans and documents have been produced. Refer to **Chapter 5** of the **FTA 2016 Construction Project Management Handbook**, linked in **Resource 4-A**, for more information about reviews.

**Worth Noting – Design and Peer Reviews** included in this section are not required by FTA for small projects but are recommended for complex projects to take advantage of lessons learned, which may add value to the project. These reviews help ensure that project goals are completed, project milestones are reached, and the project is completed within budget.

The steps included in this section are recommended best practices during the design phase of a project. The number and types of reviews are subject to the nature and complexity of the project and the governing state or local jurisdiction.

### 4.D.1 Design Reviews

Design reviews provide a formalized, structured approach to assure interdisciplinary coordination and compliance with design criteria and environmental, site, and operational constraints. Design reviews are often conducted to ensure quality of products in development. **Table 4-1** lists when design reviews typically occur given project type. NOTE: For smaller projects, CDOT/Department of Transit and Rail may opt for fewer reviews.

Design reviews should:

- ▶ Define the impact of construction on all affected parties, including utilities, railroads, governmental agencies, commercial properties, and residential areas
- ▶ Define the SOW for engineering of the project
- ▶ Provide a satisfactory basis for a realistic estimate of the cost of construction, which will serve as a budget
- ▶ Establish the project scope, or limits, with respect to real property and ROW
- ▶ Confirm compliance with the NEPA determination
- ▶ Conduct a recommended risk assessment study before the engineering phase is completed

**Table 4-1. Design Review Timelines**

Project Type	Design Reviews Occur at	Plans Reviewed
Parking facility	<ul style="list-style-type: none"> <li>▪ Design criteria</li> <li>▪ Conceptual design</li> <li>▪ 30%</li> <li>▪ 60%</li> <li>▪ 90%</li> <li>▪ 100%</li> <li>▪ Bid documents</li> </ul>	<ul style="list-style-type: none"> <li>▪ Site plans and details</li> <li>▪ Grading plans</li> <li>▪ ROW plans</li> <li>▪ Existing and proposed utility plans</li> <li>▪ Drainage</li> <li>▪ Erosion control</li> <li>▪ Landscaping irrigation</li> <li>▪ Lighting</li> <li>▪ Structures</li> <li>▪ Traffic or street signing, striping and traffic control</li> </ul>
Vertical/ Architectural (buildings and maintenance facilities)	<ul style="list-style-type: none"> <li>▪ Subrecipient development process, as needed, to acquire a building permit</li> <li>▪ 100% civil engineering and building design plans for permit review and approval</li> <li>▪ Local government planning/public works departments typically insist that plans are 100% complete and signed and sealed by the engineer of record</li> </ul>	<ul style="list-style-type: none"> <li>▪ Site plans and details</li> <li>▪ Grading plans</li> <li>▪ ROW plans</li> <li>▪ Existing and proposed utility plans</li> <li>▪ Drainage</li> <li>▪ Erosion control</li> <li>▪ Landscaping irrigation</li> <li>▪ Lighting</li> <li>▪ Structures</li> <li>▪ Traffic or street signs, striping and traffic control</li> <li>▪ Architectural plans                             <ul style="list-style-type: none"> <li>▪ Structural</li> <li>▪ Heating, Ventilation, Air Conditioning (HVAC)</li> <li>▪ Plumbing</li> <li>▪ Electrical</li> <li>▪ Life safety and security</li> </ul> </li> </ul>

Many design reviews occur throughout the design process. The number and types of reviews depend on the type of project and the agencies involved. For a design/bid/build project, the project manager coordinates and oversees reviews at the design criteria, conceptual, project development, engineering, and bid documents stages. Many projects may have additional reviews in between these stages. Reviews at these key design points are important control points in the design management process. These reviews ensure that the project goals are identified in the PRD and SOW, design criteria are being met, project costs are consistent with the budget, and the project is on schedule.

Design reviews use a detailed, analytical, and unbiased approach to verify that the appropriate deliverables (that is, studies, final drawings, technical specifications, and construction bid documents) are being prepared and that the design consultant is maintaining pace with the budget and project schedule. In addition, during each review, current construction cost estimates are reviewed and compared against the anticipated cost.

For each design review, the subrecipient must oversee the design manager to ensure that the following key objectives are accomplished, as applicable to the particular review:

- ▶ Adherence to design criteria and environmental documents
- ▶ Design that is consistent with the requirements of the agency for which they are being prepared
- ▶ Identification of errors and omissions
- ▶ Compliance with building codes
- ▶ Operational and functional objectives are met
- ▶ Coordination among design disciplines involved in the project, including environmental, drainage, structures, construction
- ▶ Adherence of cost estimates to the budget
- ▶ Biddable, constructable, and cost-effective design

- ▶ **Interface compatibility:** the design is compatible with adjacent project elements and/or the existing or future transit system
- ▶ **Final construction contract document compliance** with design criteria, environmental document, codes, and regulations

The following In-Progress Project Development Submittal and the Project Development Submittal should be accomplished during project development and engineering of the project:

- Step 1. Provide the **In-Progress Project Development Submittal:** This preliminary submittal facilitates the review of a recommended approach and evaluates the rejected alternatives with the design team. As such, the plans and design report must address the recommended approach. It is recommended that value engineering be conducted at this point. This review submittal involves 15% plans level submittal near the beginning of the project development phase.
- Step 2. Provide the **Project Development Submittal:** This submittal marks the division between project development and engineering and is the project manager's and/or design manager's last review in the project development phase. The review demonstrates that the selected approach to all major design concepts and value engineering recommendations and other design features have been resolved and that final design can proceed without delay. This review is roughly based on the 30% plans level and coincides with the identification of the environmental impact.

**Worth Noting – In-Progress Project Development Submittal:** This preliminary submittal is a 15% plan level submittal near the beginning of the project development phase.

**Project Development Submittal:** This 30% plan level submittal coincides with the identification of the environmental resource impacts, mitigation plan, and determination of the anticipated level of clearance document, for example, Categorical Exclusion, Environmental Assessment, or Environmental Impact Statement.

#### 4.D.2 Peer Reviews

Peer reviews can be applied to any problem or situation where a second opinion may prove useful. Peer reviews take advantage of the lessons learned by other agencies having done similar work in the past.

- ▶ Peer reviews should be an early step in the design process, as they add an external perspective that often enhances the functionality of design, construction, and operation. Peer reviews not only require a subrecipient to ask itself: "Can we do this better?" but can be used to provide an independent critique of the design phase. Peer reviews ensure that capital facilities are effectively designed to maximize a transit agency's operations and use of the structure.
- ▶ A peer review of plans at the completion of preliminary design should be conducted by subrecipient peers who may have undergone similar projects. At this point, the subrecipient's capital facility project team should contact other transit operations and maintenance experts, or PMCs, regardless of whether the team has previous experience with the overall design process or not. Other agencies and PMCs often bring expertise from other projects, and the subrecipient constructing the capital facility may benefit from other agencies' experiences with similar design efforts. Peer reviews may also be coordinated with a value engineering study, which usually occurs later in the design process.



**STOP!** All subrecipients are encouraged to conduct a peer review for all capital projects. However, not all FTA grants require this step. FTA requires any subrecipient using funds via the 49 USC. Section 5309 discretionary program to complete the peer review process. A peer review should also be coordinated with FTA's Regional Engineer.

**Worth Noting – Third-party agreements** should be in place as early as possible but no later than completion of the project development phase to help minimize delays or cost growth during the engineering or construction phases.

## 4.E Project Development Submittal

The project development submittal marks the division between the project development phase and the final engineering phase. It represents the project manager's and/or design manager's last review in the project development phase. For more information on the project development submittal, refer to **FTA 2016 Construction Project Management Handbook, Chapter 5, Page 64**, as shown in **Resource 4-A**.

The submittal should:

- ▶ Define the impact of construction on all affected parties, including utilities, railroads, governmental agencies, commercial properties, and residential areas
- ▶ Define the SOW to describe the remaining tasks required to complete the final engineering phase required for the project
- ▶ Provide a satisfactory basis for a realistic estimate of the cost of construction, which will serve as a budget
- ▶ Establish the project scope, or limits, with respect to real property and ROW
- ▶ Confirm compliance with the NEPA determination

**Worth Noting – Value engineering and the risk assessment study are not required for small projects but should be considered for complex projects to add value and avoid risks. If these tasks are completed, they should be conducted at this point. Proceed to Section 4.F for information about value engineering and Section 4.G for information about risk assessment.**

The subrecipient should complete the following tasks at the end of the project development phase or preliminary engineering phase before entering into the final engineering phase:

- ▶ Refine layout
- ▶ Analyze available utility service
- ▶ Define architectural and engineering systems definition
- ▶ Complete preliminary plans, elevations, sections, schedules
- ▶ Coordinate disciplines
- ▶ Outline technical specifications
- ▶ Complete preliminary analyses and calculations
- ▶ Complete preliminary construction schedule
- ▶ Complete preliminary staging plans
- ▶ Complete preliminary cost estimate
- ▶ Complete site surveys and ROW certificates
- ▶ Finalize geotechnical investigations
- ▶ Finalize environmental investigations
- ▶ Complete the NEPA process

For more information, refer to the **FTA 2016 Construction Project Management Handbook**, listed in **Resource 4-A**.

## 4.F Value Engineering

**Worth Noting – Value engineering is not required by FTA for small projects but should be considered for complex projects to add value to the project.**

A value engineering study should be conducted before project development is completed to confirm that the project development phase effort has fully evaluated all feasible and reasonable configurations and design options. The subrecipient should document the design and configuration alternatives developed during the value engineering study, as well as its own process for evaluating and accepting or rejecting the value engineering proposals. **Resource 4-A** provides several resources on the value engineering process.

Value engineering involves a multidiscipline team of professionals not involved in the project who follow a systematic process of review and analysis. Value engineering should occur during the concept and design phases and provide recommendations for:

- ▶ Providing the needed functions safely, reliably, efficiently, and at the lowest overall cost
- ▶ Improving the value and quality of the project
- ▶ Reducing the time to complete the project

Simply stated, value engineering is an organized application of common sense and technical knowledge directed at finding and eliminating unnecessary project costs. To accomplish this goal, an independent team of architects and/or engineers identify, analyze, and establish a value associated with the function of an item or a system. Value can include both monetary savings and overall improved functionality. The purpose of value engineering is to design a capital facility so that it satisfies all required functions at the lowest total cost (capital, operating, and maintenance) over the life of a project. It also ensures that facility features and operations are consistent with performance, reliability, maintainability, safety, and aesthetics requirements. The value engineering process should review all project components to optimize the project and provide the best overall value. The approach should also seek to minimize impacts to the environment, adjacent property owners, and the public. The value of an item or a component is defined as the most cost-effective way to produce an item without taking away from its purpose.

Value engineering should be performed early in the design process before major decisions are made and ideally at or near the end of project development. Any value engineering needs to be completely incorporated into design before any final decisions are made regarding civil, systems, and architectural features.

**Worth Noting – Reviews:** Value engineering reviews could change the project significantly and may result in changes to the project function, cost, and schedule.

**Value Engineering Timelines:** The project manager or the design manager will ensure that value engineering is accomplished at or before the end of project development or before completion of 30% design.

### 4.F.1 How to Perform Value Engineering

The subrecipient's project manager arranges and coordinates the value engineering session. Ideally, the session consists of a multidisciplinary team of professionals, rather than the project design team itself. Value engineering personnel may include electrical, mechanical, civil/structural, and construction engineers and specialists in architecture, cost estimation, construction management, and transit operations and management. The designer of record is the engineer who oversees the design, is responsible for the design, and signs and seals the plans. The designer of record provides support to the value engineering team. The value engineering session team leader could be a certified value specialist depending on the size of the project.



At a high level, value engineering professionals should take the following steps to ensure a successful process:

- Step 1. **Gather information.**
- Step 2. **Conduct a function analysis:** Analyze functions, worth, cost, performance, and quality.
- Step 3. **Encourage creative thinking:** Brainstorm ideas and possible solutions to improve the project.
- Step 4. **Evaluate** the best and lowest lifecycle cost alternatives to develop further.
- Step 5. **Conduct** in-depth analysis and **develop** alternatives into fully supported recommendations.
- Step 6. **Present** value engineering recommendations to key stakeholders for review and approval.
- Step 7. **Implement** the chosen recommendations.

Major capital projects may require a full and formal workshop as outlined in **Step 1** through **Step 3** below. Major capital projects are defined in the **Preface**. A formal value engineering workshop typically consists of the following steps:

- Step 1. Perform the following tasks before the workshop.
  - ▶ Plan the value engineering study, obtain documents, prepare the outline, develop the schedule, and set requirements.
  - ▶ Prepare for the workshop and distribute project documents to team members to review and become familiar with the project.
  - ▶ Prepare costs, including lifecycle costs and energy model.
- Step 2. Conduct a three- to five-day workshop:
  - ▶ **Information phase:** Present project and review requirements and costs.
  - ▶ **Speculation phase:** Generate a list of ideas to meet requirements and better the project.
  - ▶ **Analysis phase:** Evaluate each idea for advantages/disadvantages and rank ideas.
  - ▶ **Development phase:** Develop alternatives, sketches, and cost estimates.
  - ▶ **Presentation phase:** Summarize the findings and provide and present written alternatives for consideration.
- Step 3. Perform the following tasks after the workshop:
  - ▶ **Implementation phase:** Prepare draft value engineering report, within two weeks.
  - ▶ **Owners review:** Owners meet to accept, reject, further study, or modify recommendations.
  - ▶ **Value engineering report:** Prepare final value engineering report with results.

For additional information value engineering workshops, visit the **Society of American Value Engineering (SAVE) website** linked in **Resource 4-A**.

#### 4.F.2 Implementation of Value Engineering Recommendations

- Step 1. The project manager determines whether to adopt and/or reject the various value engineering options after the design team reviews these options.
- Step 2. The design team then finalizes the value engineering response report, which reflects these options. The final report should summarize accepted value engineering options with revised capital and implementation costs, as well as list rejected options and the reasons for their rejection.
- Step 3. Based on the value engineering options that will be incorporated into the project, the subrecipient may need to provide the design team with additional funds to implement the identified design enhancements.



## 4.G Project Risk Assessment

**Worth Noting – A risk assessment study is not required by FTA for small projects but should be considered for complex projects to avoid risks.**

During the design phase, early in the project development process, and preferably before the completion of project development, the project manager must facilitate the completion of a risk assessment. A risk assessment determines whether there are circumstances that could occur that will have a direct impact on the project’s schedule and associated cost. Project risk is defined as an unexpected event or circumstance that has a chance of occurring and may prevent a project from meeting its schedule and cost estimate/budget. This particular risk assessment is specific to the design phase of a capital facility project. Refer to the **FTA 2016 Construction Project Management Handbook, Chapter 5 in Resource 4-A** for more information on risk assessments. The subrecipient should complete the following steps during project risk assessment:

- Step 1. Divide project risks into two categories:
  - ▶ **Design/construction risks:** Includes weather conditions, contractors’ inability to carry out the project, unforeseen site conditions, permitting delays, and so forth.
  - ▶ **Financial risks:** Includes revenue shortfalls, changes in the project cash demands, changes in interest rates, among other things.
- Step 2. Consider the following when identifying a risk and determining its potential impact on project scope, schedule, and budget:
  - ▶ Determine risk in terms of an event (what may occur to the detriment of the project), its probability (how likely it is to occur), and the amount at risk (dollars of maximum possible loss or delay).
  - ▶ Evaluate the ability of the contractor to obtain and provide materials, equipment, services, and utility connections in a timely manner to meet the schedule.
  - ▶ Ensure that designs can be constructed using methods, materials, and equipment common to the construction industry.
  - ▶ Pay attention to the requirements of the public, including adjacent land use functions, existing transit patrons, and persons with disabilities.
  - ▶ Coordinate with all operating elements of the existing transit system. Evaluate project risks that may affect the existing system during and post construction.
  - ▶ Provide adequate access, staging, storage of waste and supplies, parking for workers and construction vehicles, and mitigation of environmental impacts during construction.

**Worth Noting – Amplified Risks: As the design of the project is refined and nears completion of the drawings and specifications, the more costly an unexpected event will be in terms of money and schedule.**

- Step 3. Periodically update any risk assessment created by the subrecipient and any design staff/consultants throughout the design phases of the project, with the final update occurring prior to construction.



- Step 4. Complete the risk assessment through the risk register process. A risk register helps the project team capture the risks associated with the project and quantify the potential project impacts. To develop a risk register, the subrecipient should coordinate with key stakeholders and all relevant staff to identify:
- ▶ Each project risk, such as availability of materials, third-party agency reviews and approvals, seasonal constraints, utility relocation constraints, ROW acquisition process
  - ▶ Description of the risk
  - ▶ Impacted project activities
  - ▶ Probability of occurrence
  - ▶ Potential cost impact
  - ▶ Potential schedule impact

During the design phase, the subrecipient can monitor the project's risks through peer reviews (as described in **Section 4.D.2**), value engineering studies (as described in **Section 4.F**), and constructability reviews (as described in **Section 4.H**) to keep the project within budget and schedule given the inevitability of unknowns.



## 4.H Constructability Reviews

**Worth Noting – Constructability reviews are not required by FTA for small projects but are recommended during the design phase to ensure that the project can be constructed.**

As soon as the design has been developed with a sufficient level of detail to evaluate how the project will be constructed, the design team must perform constructability reviews. Refer to the **FTA 2016 Construction Project Management Handbook** in **Resource 4-A** for more information related to constructability reviews.

Constructability reviews:

- ▶ Eliminate construction requirements that are impossible or impractical to build
- ▶ Maximize constructability, recognizing the availability and suitability of materials, the capability of labor resources, and the standards of practice of the construction
- ▶ Verify accurate depictions of site conditions, considering access, utilities, and general configuration
- ▶ Ensure that features and structures work well within the site conditions and constraints
- ▶ Determine the availability of sufficient staging and work areas and the ability to maintain traffic and pedestrian operations
- ▶ Determine appropriate construction durations and milestones
- ▶ Verify QA/QC requirements during construction
- ▶ Clearly define procedures for scheduling outages and utility interruptions

**Worth Noting – Constructability reviews are preferred early in the design process, perhaps during project development, and no later than early engineering, to ensure what is depicted on the final drawings, technical specifications, and construction bid documents can be built.**

Reviewers may include subrecipient staff, the design team, other peer transit agencies that have implemented similar projects, code officials, independent consultants, or contractors. The first constructability reviews should take place before the engineering phase of design. Any follow-up constructability reviews should be performed near completion of design or before CDs are completed.



## 4.I Sustainability Standards, Design, and Certification

Constructing a sustainable transit facility may result in several benefits and cost savings for both the subrecipient using the facility and the surrounding community. Environmental, economic, and quality of life benefits may include:

- ▶ Enhanced and protected ecosystems and biodiversity
- ▶ Improved air and water quality
- ▶ Reduced solid waste
- ▶ Conserved natural resources
- ▶ Reduced operating costs
- ▶ Enhanced asset value and profits
- ▶ Improved employee productivity and satisfaction
- ▶ Optimized lifecycle economic performance
- ▶ Improved air, thermal, and acoustic environments
- ▶ Enhanced occupant comfort and health
- ▶ Minimized strain on local infrastructure
- ▶ Increased quality of life

### 4.I.1 Leadership in Energy and Environmental Design

One tool for evaluating green design is the Leadership in Energy and Environmental Design (LEED) program. The United States Green Building Council (USGBC) created LEED as a tool to provide third-party validation of green building design. The LEED (V4) rating system has four levels of certification, which are achieved by collecting design points. Refer to the **USGBC LEED Rating System** website in **Resource 4-A** for a description of the LEED rating system. Rating system points are assigned to a design in nine categories:

- ▶ Integrative process
- ▶ Location and transportation
- ▶ Material and resources
- ▶ Water efficiency
- ▶ Energy and atmosphere
- ▶ Sustainable sites
- ▶ Indoor environmental quality
- ▶ Innovation
- ▶ Regional priority

Certification levels are achieved by scoring points within these categories for various subcategories, using a scorecard that details the scores for each subcategory. The scorecard is a checklist that can be used during initial design activities to help establish the possible level of LEED certification for the building project. In addition, the checklist can serve as a guide to evaluating potential sustainability features that could be incorporated into the design of a new or a renovated capital facility.

While the LEED rating system primarily focuses on building construction, other similar systems have been developed for transportation projects, such as the Envision sustainable infrastructure rating system of the Institute for Sustainable Infrastructure (ISI). The Envision framework is an effective project planning and design tool, third-party project verification and awards program to confirm that a project meets the sustainability criteria in the Envision framework. Agencies may pursue verification for the public recognition it brings to their commitment to sustainable infrastructure. Refer to the **USGBC and ISI websites** in **Resource 4-A** for more information.

Going with LEED or similar certifications may add supplementary costs to the design and construction budget in the form of design costs, commissioning, energy modeling, and LEED certification/documentation. Design costs attributed to LEED are typically associated with the additional architectural and engineering work required to assess the design features and determine how they relate to the LEED design credit system. This additional effort may include a meeting with team members and with the building owner to determine design features and establish the level of certification desired based on the credits available for the project scope. LEED certification also requires additional time and effort to create design and specification of systems for the project. Both the cost and schedule implications of LEED certification must be built into any project budget and schedule.



Commissioning is the “compliance check” that the design and building process meets the LEED guidelines selected for the project. An outside party, independent of the design and construction teams, typically handles this. Refer to **Chapter 6 Commissioning** in this manual for more information.

When incorporating sustainable design, each system affects the other: removing or changing one system during value engineering can affect other systems. However, neglecting to evaluate the systems together may result in additional costs down the line. During a value engineering study, the commissioning agent works with the construction manager to evaluate sustainable materials and their cost impacts on the project. The commissioning agent maintains a key role during construction, as well as design. The agent is tasked with ensuring that the contractors understand what information they need to submit for the LEED documentation for the project to receive its final LEED certification.

There is some uncertainty about how much of the costs are truly incremental to the LEED process. Even though all the costs to implement the LEED certification can be attributed to LEED, some of the costs may also be reflected in standard construction practices in certain regions or in compliance with local codes and standards. Thus, they are not necessarily an additional cost to the project due to the decision to seek LEED certification.



## 4.J Third-Party Coordination

Third-party coordination should be initiated as early as possible during the project development phase. During the project development and engineering phases, the design consultant may find it necessary to relocate or rearrange existing facilities or structures either before or during the construction phase. Refer to the **FTA 2016 Construction Project Management Handbook** website in **Resource 4-A** for more information about third-party coordination.

The subrecipient may need to coordinate with a third party to facilitate the relocation or rearrangement of existing facilities that impact project construction, including:

- ▶ Utilities (electric power, gas, telephone, cable, etc.)
- ▶ Public infrastructure (highways, roads, bridges, streets, drainage, sewer, water, etc.)
- ▶ Railroads
- ▶ Easements and ROW acquisitions (refer to **Chapter 3 Acquisition and Real Estate** for more information)

Coordination with third parties requires careful planning, negotiation, and execution. In particular, the subrecipient should have a firm understanding of how any third-party coordination might impact schedule and/or budget. Because the subrecipient often has limited influence over the work of a third party, schedule impacts are likely. These risks will need to be identified as part of the risk assessment described in **Section 4.G**. These impacts often result from third parties needing significant lead time to perform the necessary design and relocation of facilities or structures. In addition, third parties may need lead time to determine improvements or relocations of the third-party elements that may be incorporated into the project and included in the contract provisions. Therefore, the earlier that a third-party agreement can be negotiated, the better the project manager and the design consultant will understand the impacts of third-party coordination to the overall schedule.

**Worth Noting – Third Party Coordination:** The subrecipient should always initiate coordination with third parties regardless of the size of the transit capital facility project.

## 4.K Quality Assurance/Quality Control

Quality Assurance/Quality Control (QA/QC) is the process of assuring that all project documents are accurate, are understandable, and meet the standards set by project requirements, design criteria, and subrecipient input. QA usually occurs at specific intervals, such as during 30%, 90%, and 100% design reviews. The timing and frequency of these reviews may change depending on the nature of the project, such as the size of the capital facility or complexity of project requirements/design criteria. Design team staff and subrecipient staff should have an open channel of communication as to when QA should occur. QC, on the other hand, ideally is a constant process to ensure that quality is being implemented during the entire lifecycle of design, from project development through final engineering.

QA includes:

- ▶ Making certain project requirements are developed to meet the needs of all relevant internal and external agencies
- ▶ Planning the processes needed to assure quality of the project
- ▶ Ensuring that equipment and staffing can perform tasks related to project quality
- ▶ Ensuring that contractors can meet and do carry out quality requirements
- ▶ Documenting the quality efforts

QC includes:

- ▶ Measuring, testing, and inspecting a process or a product to ensure that it meets local, state, or federal standards and specifications as defined in the development of the project requirements and design criteria (for more information, refer to **Section 4.C**)
- ▶ Those performing the work taking action to control the quality of the work
- ▶ Ensuring that products, design drawings and specifications, manufactured equipment to be used in the project, or constructed items meet quality and design requirements
- ▶ Witnessing or attesting to and documenting actions such as quality reviews

**Worth Noting – QA/QC for Smaller Projects:** The QA/QC process should be completed for all project sizes; however, larger projects may require more complex or time-consuming QA/QC processes.

### 4.K.1 QA/QC Subrecipient Oversight

The project manager ensures that FTA capital funds are spent wisely. As part of the PMP discussed in **Section 4.A.3**, the quality requirements for the project must be addressed in the Quality Management Plan (QMP) portion. While some subrecipients may be able to support or have QC staff, this is not the reality for every subrecipient. When the subrecipient cannot or does not want to hire staff for QA/QC, they should investigate hiring consultants. Refer to the **2019 Quality Management Systems Guidelines** in **Resource 4-A** for more information.

Once the PMP is accepted, the QMP is set in place for the design portion of the project. The plan should address who is responsible for quality matters and define when the QA/QC checks should occur. More importantly, the QMP must be updated throughout the design phase to document what was checked, who checked it, and that corrections were completed. Since the primary product of the design phase is construction contract documents, decisions about quality requirements for construction and manufacturing need to be planned and included in these contract documents. Therefore, during the design phase of the project, the subrecipient will follow the design control portion of the quality management system put in place as part of the PMP for the entire project.



## 4.K.2 Quality Assurance in Design

The design manager oversees design QA. The design team can accomplish QA by setting up an in-house QA system for the project and having the design manager perform the QA by overseeing the design consultant's QC efforts. The project manager must maintain an oversight role to ensure that the quality management system for design is achieving the project quality objectives.

## 4.K.3 Quality Control in Design

QC during the design phase of projects is an important part of a project-related quality program. The design team is responsible for its own QC. The design team shall provide a QMP before initiating design activities to identify how they will achieve QC for the project. The QMP describes the procedures that are to be followed for design changes, including sign-off and documentation. In addition, the QMP must state any contract quality requirements for design reviews and sign-off from other local agency departments, such as construction and operations, and other relevant agencies. A procedure for the control of project documents should also be specified and:

- ▶ Include qualified personnel not normally associated with the preparation check calculations, drawings, and specifications
- ▶ Verify the design against the scope
- ▶ Perform constructability reviews to ensure that the design applies sound construction principles consistent with operating and maintenance requirements and includes accepted value engineering design reviews to ensure cost effectiveness
- ▶ Validate the design to ensure that the project conforms to the requirements of its intended use



## 4.L Final Engineering Phase

**STOP! Federal law requires that final engineering cannot begin before NEPA completion as denoted by an FTA Record of Decision, Finding of No Significant Impact, or a Categorical Exclusion determination. DO NOT PROCEED if NEPA has not been completed (no Record of Decision, Finding of No Significant Impact, or Categorical Exclusion determination has been issued).**

**Worth Noting – Final Engineering:** Engineering develops the project development design into the construction bid package containing the final drawings and specifications.

The engineering phase of design moves a capital facility project from the project development phase (as described in **Section 4.C**) into the construction bid package containing the final drawings and specifications. Final engineering begins after 30% preliminary design is completed and concludes once the final construction bid package is finalized for advertisement. The engineering design team will develop the construction bid package containing the final drawings and specifications for the project required to solicit and obtain construction contract bids. Refer to the **FTA 2016 Construction Project Management Handbook** website in **Resource 4-A** for more information.

The final drawings and specifications will also detail the property or ROW needed to accommodate the project, include the appropriate permits and associated conditions from other agencies, and identify any coordination of work with or by third parties (such as utility companies) discussed in **Section 4.J**.

In addition, several reviews usually occur during the project development and engineering phase. **Section 4.C.2** provides a list of these reviews.

- ▶ Final plans, elevations, sections, quantities
- ▶ Final technical specifications
- ▶ Final reports, drainage, environmental, geotechnical
- ▶ Final ROW plans, legal descriptions and clearances
- ▶ Final utility clearances and agreements
- ▶ Temporary facilities and controls defined
- ▶ Final design calculations
- ▶ Final construction schedule
- ▶ Final construction phasing plans
- ▶ Final construction cost estimate
- ▶ Environmental permits
- ▶ Final document checking and coordination
- ▶ Signed and sealed CDs
- ▶ Final legal requirements (bid forms, bonds, prevailing wages)
- ▶ Plan checks and building permits.
- ▶ Federal, state, and local legal requirements (bid forms, bonds, prevailing wages, etc.)

## Resource 4-A – Design and Engineering

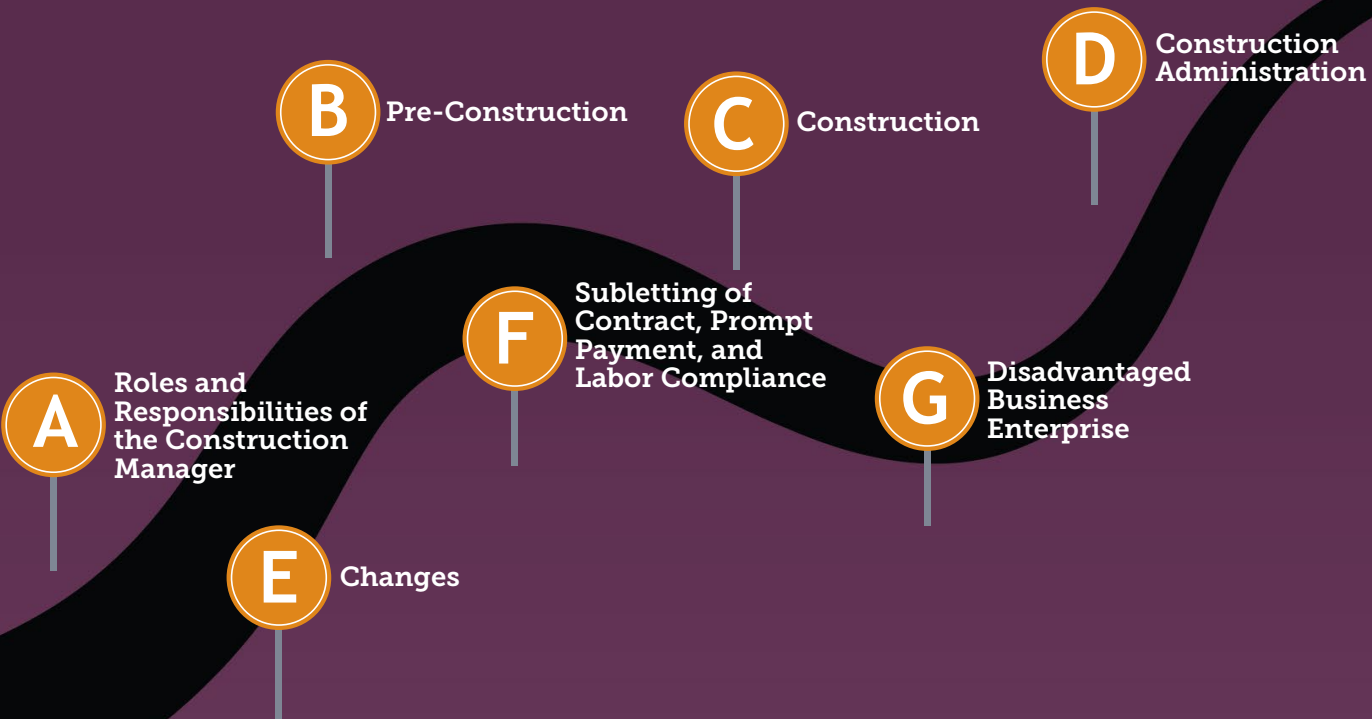
### Essential Resources

Section	Source	Content	Website
4.A, 4.D, 4.E, 4.G, 4.H, 4.J, 4.L	FTA	2016 Construction Project Management Handbook	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
4.A	FTA	Project Management Plan (PMP) Development	<a href="https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development">https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development</a>
4.B	FTA	Cost Estimation for FTA Funded Transit Projects	<a href="https://www.transit.dot.gov/regulations-and-guidance/cost-estimation-fta-funded-transit-projects">https://www.transit.dot.gov/regulations-and-guidance/cost-estimation-fta-funded-transit-projects</a>
4.C	FTA	Capital Investment Grants Policy Guidance 2023	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-01/CIG-Policy-Guidance-January-2023.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-01/CIG-Policy-Guidance-January-2023.pdf</a>
4.C	FTA	Final Interim Policy Guidance - FTA Capital Investment Grant Program January 2023	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-01/CIG-Policy-Guidance-January-2023.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-01/CIG-Policy-Guidance-January-2023.pdf</a>
4.D, 4.E, 4.G	FTA	2016 Construction Project Management Handbook, Chapter 5 (4.D - pg. 68; 4.E - pg. 64; 4.G - pg. 69)	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
4.K	FTA	2019 Quality Management System Guidelines	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/grant-programs/capital-investments/8536/final-qms-guidelines-2019_1.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/grant-programs/capital-investments/8536/final-qms-guidelines-2019_1.pdf</a>

### Additional Information

Section	Source	Content	Website
4.E	FHWA	Value Engineering Process and Job Plan	<a href="https://www.fhwa.dot.gov/ve/veproc.cfm">https://www.fhwa.dot.gov/ve/veproc.cfm</a>
4.E	SAVE	Society of American Value Engineering (SAVE)	<a href="https://www.value-eng.org/">https://www.value-eng.org/</a>
4.I	ISI	Institute for Sustainable Infrastructure (ISI)	<a href="https://sustainableinfrastructure.org/">https://sustainableinfrastructure.org/</a>
4.I	ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) 90.1	<a href="https://www.ashrae.org/technical-resources/bookstore/standard-90-1">https://www.ashrae.org/technical-resources/bookstore/standard-90-1</a>
4.I	FTA	Environmental and Sustainability Management Systems	<a href="https://www.transit.dot.gov/regulations-and-programs/environmental-programs/environmental-and-sustainability-management-systems">https://www.transit.dot.gov/regulations-and-programs/environmental-programs/environmental-and-sustainability-management-systems</a>
4.I	FTA	Transit and Sustainability	<a href="https://www.transit.dot.gov/regulations-and-programs/environmental-programs/transit-and-sustainability">https://www.transit.dot.gov/regulations-and-programs/environmental-programs/transit-and-sustainability</a>
4.I	USGBC	US Green Building Council (USGBC)	<a href="https://www.usgbc.org/">https://www.usgbc.org/</a>
4.I	USGBC	USGBC Leadership in Energy and Environmental Design (LEED) rating system	<a href="https://www.usgbc.org/leed">https://www.usgbc.org/leed</a>

# 5 CONSTRUCTION





## 5. Construction – Executive Summary

**Chapter 5** addresses the procedures to advance a capital facility project from the design phase to and through the construction phase. During the construction phase, the subrecipient must ensure that the project is properly awarded to a construction contractor and that the successful contractor constructs the improvements in accordance with the contract documents. The subrecipient is responsible for controlling the cost, changes, quality, and time of a construction project. Refer to **Chapter 1B Project Lifecycle Reporting and Requirements** for more information on project control.

Construction management is defined here as the project management of the construction phase, with the following goals:

- ▶ Promote safety for all by providing the contractor with project-specific best practices
- ▶ Construct the improvements to the specified quality levels
- ▶ Complete the work within the allotted schedule and budget

The design phase ends when construction documents (CDs) have been completed, as described in **Chapter 4 Design and Engineering**. After CDs have been completed, the subrecipient must acquire a qualified contractor to construct the project.

The bid phase of a project begins with the advertisement for construction, bidding, and award and ends with the eventual completion of the contract. Upon successful execution of a contract, the bid phase ends with the subrecipient issuing a Notice to Proceed (NTP) to the construction contractor. Upon receipt of the NTP, the construction contractor may begin work on the project, marking the beginning of the construction phase. During the pre-construction phase, the construction manager (CM) will assist the subrecipient with the pre-construction meeting, pre-survey meeting, pre-environmental meeting, utility coordination meeting, and all other relevant pre-activity meetings to ensure success using a proactive approach to construction.

During the construction phase, the construction management team will work with the subrecipient to develop Colorado Department of Transportation (CDOT) Form 266s to justify monthly payments to the contractor. The construction management team will use CDOT Form 103 to prepare daily reports for all days the CM provides services to the project. The reports should describe the consultant's activities and the contractor's activities as observed by the consultant.

The construction management team shall review and approve the following:

- ▶ Concrete and asphalt mix design submittals using the CDOT Approved Products List(s)
- ▶ Contractor submitted shop/working drawings ensuring conformance to CDOT Specifications Section 105.02 requirements
- ▶ Methods of Handling Traffic ensuring conformance to CDOT best practices and the Manual on Uniform Traffic Control Devices
- ▶ Contractor submitted Certificates of Compliance, Certified Test Results (CTRs), and Buy America Statements

The construction management team also assists CDOT with all meetings including pre-activity, safety critical, structural concrete, bi-weekly progress meetings, as well as concrete pre-pours, review, and pending conformity. The construction management team also assists in approving contractor submitted Critical Path Method (CPM) schedules using Microsoft Project or P6 Primavera.

During construction, the construction management team shall verify that all civil rights and labor compliance is met, including:

- ▶ CDOT Transit Form 205 Sublet Permit Application
- ▶ CDOT Form 1420 Disadvantaged Business Enterprise (DBE) Commitment (used only on projects with a DBE contract goal)
- ▶ CDOT Form 1425 (Subcontractor Application)
- ▶ CDOT Form 1415 DBE Commitment Confirmation (used only on projects with a DBE contract goal)
- ▶ CDOT Form 1416 DBE Good Faith Effort (used only on projects with a DBE contract goal)
- ▶ CDOT Form 1432 Commercially Useful Function Questionnaire (used on all projects)

## 5.A Roles and Responsibilities of the Construction Manager

The subrecipient needs project staff with expertise and experience in construction management to successfully manage a project through the construction phase. If the subrecipient lacks staff experienced in construction management, the subrecipient will need to retain a construction manager. Regardless of whether the CM role is filled by a consultant or the subrecipient's own personnel, the CM:

- ▶ Acts as the subrecipient's representative with the contractors
- ▶ Provides construction oversight of the work performed by the contractors
- ▶ Observes the work to verify that the work conforms to contract document requirements
- ▶ Recommends the payment of progress payments
- ▶ Partners with the contractors with the shared goal of a successfully completed project

In Colorado, **Colorado Revised Statutes (CRS) Section 12-120-202(6)** defines the observation of construction to evaluate compliance with the plans and specifications as a practice of engineering. **Resource 5-A** provides a link to CRS 12-120-202(6). While subrecipients are not required to have a licensed professional engineer (PE) perform construction management duties for transit capital facility projects, CDOT requires that subrecipients employ a Colorado PE to oversee construction supervision and to ensure that all work and materials used on the project and all applicable project documentation conform to contract requirements and established policies and practices. In essence, the construction management team performs the inspection and observation of the work under the supervision of a licensed PE. The PE is responsible for all work performed, but typically the CM ensures the onsite day-to-day quality.

- Step 1. Subrecipient designates a full-time Project Manager in Responsible Charge of the project. This person must be an employee of the subrecipient and is responsible for managing the project, including the construction management consultant and contractor, on behalf of the subrecipient.
- Step 2. Subrecipient identifies a licensed Colorado PE who will be in "responsible charge of construction supervision" to ensure that all work and materials used on the project and all applicable project documentation conform to contract requirements and established policies and practices. The Colorado PE:
  - ▶ Acts as a liaison between the contractor and local agency
  - ▶ Manages the project within the current approved construction budget
  - ▶ Authorizes or approves budget changes
  - ▶ Ensures the timely completion of the project based on the original project schedule and approved schedule revisions
  - ▶ Ensures that the work is inspected daily and as required to confirm reasonable conformance to the contract and to verify that all safety protocols are followed
  - ▶ Reviews and provides supportive data to justify potential change orders
  - ▶ Reviews contractor submitted Requests for Information and provides official responses
  - ▶ Ensures that project records and other documentation are proper and current

The CM is a key team member who should be present on the project on a full-time basis. The CM should have an exclusive field office for larger projects. On smaller projects, the CM may perform the work on a part-time intermittent basis with site visits conducted at appropriate times to observe key construction events.

**Resource 5-A** provides additional resources related to CM, Colorado PE, and other key personnel.



**Worth Noting – Consultant CM vs. Subrecipient Staff:** A hired consultant CM is considered an agent of the subrecipient for the construction phase. The subrecipient and the CM are contractually one in the same as far as the contractor and Federal Transit Administration (FTA)/CDOT are concerned.

A well-staffed subrecipient may have their own internal staff who can fill the role of CM. In this scenario, there may not be a consultant CM. Subrecipients that are short staffed or do not have staff with the expertise of a consultant CM will need to hire one. Regardless, the subrecipient should be involved in every step even if the CM is technically the lead on a particular phase or step.

**Owner’s Representatives:** Subrecipients may have policies about hiring an Owner’s Representative. Note: The consultant CM and the Owner’s Representative are usually the same person or from the same consultant firm. If a subrecipient has staff with both time and expertise, then that employee can act as the CM.

**Colorado PEs:** In some cases, the construction management team will include a licensed PE. In those cases, a separate external Colorado PE would not need to be hired.

## 5.B Pre-Construction

Upon completion of the design and preparation of the bid documents, the subrecipient begins the pre-construction phase of the project. A construction contractor is selected to construct the improvements and the legal contracting work is completed.

### 5.B.1 Advertisement

The subrecipient uses a competitive process to select a construction contractor, **Chapter 1B Project Lifecycle Reporting and Requirements**.

**STOP! CDOT concurrence to advertise a project must be received before the subrecipient advertises a project for bid.**

The subrecipient must include specific CDOT forms in the package of bidding documents provided to all bidders. **Table 5-1** describes those forms. Bidders are expected to include and submit these forms when they submit their bids. Failure by bidders to include these CDOT forms shall be grounds for rejection of their bid as non-responsive. **Resource 5-B** provides links to the forms listed in **Table 5-1** and more information on federal requirements.

**Table 5-1. Required Forms for Bidding Documents**

Source	Form #	Form Name or Requirement	Description
CDOT	606	Anti-Collusion Affidavit	Bidder certification that the bid price is independently derived without knowledge of another bidder's pricing.
CDOT	1414	Anticipated DBE Participation Plan	For use on projects with a DBE contract goal only. The bidder declares which DBE subcontractors will be used on the project and what amount is being committed to pay the DBE subcontractors. CDOT Form 1414 allows the subrecipient to determine if an apparent low bid is responsive to the DBE contract goal required on the project.
CDOT	DBE Goal	DBE Contract Goal Worksheet	Worksheet specifying DBE contract goal, if applicable.
CDOT	DBE Requirements	Civil Rights, Labor Compliance, Disadvantaged Business Enterprise Requirements for FTA-Assisted Subrecipient Contracts (either Race-Neutral or Race-Conscious)	Provisions detailing DBE utilization requirements. The requirements outlined in the contract will vary based on whether there is a DBE contract goal (race-conscious) or no DBE contract goal (race-neutral).
DOL	Davis Bacon	Latest Department of Labor (DOL) Wage Determination(s)	Specifies minimum prevailing wages that contractors must include in their bid price and all subcontracts.
CDOT	Revision of 103	Standard Special Provision	Colorado resident bid preference requirements.
CDOT	Prompt Payment/ B2GNow	Civil Rights, Labor Compliance, and Disadvantaged Business Enterprise Requirements for FTA-Assisted Subrecipient Contracts	Prompt Payment and requirement to use B2GNow.
Subrecipient	Bonding Requirements	Subrecipient's Procurement Rules	Requirements to furnish Bid, Performance and Payment Bonds with the contractor's bid as established by the subrecipient's procurement policies.
Subrecipient	COI	Certificate of Insurance	Contractor names CDOT as additional insured on general and auto liability policies as established by the subrecipient's procurement policies.

## Requirements for Publicly Advertising a Bid

The following public notice (advertisement) requirements apply:

- ▶ The advertisement period shall be for a minimum of three weeks (15 business days).
- ▶ The advertisement can be published in a newspaper of general circulation, the official county paper where the work is being done, or electronically on a bidding website of widespread knowledge to the contractors (as approved by CDOT). If the advertisement is by official county paper, in those instances where a project spans several counties, the subrecipient places the advertisement in the official newspaper of each county. It is highly recommended that the advertisement be published once in a newspaper of statewide circulation.
- ▶ If the subrecipient has established a project number different from the State's, the advertisement and bidding documents must show both project numbers.
- ▶ The advertisement must show the DBE goal established for the project.
- ▶ Projects on CDOT right-of-way (ROW) require CDOT contractor prequalification. For roadway projects not within CDOT ROW, prequalification is recommended. The advertisement shall state prequalification requirements. The [CDOT Prequalified Contractor List](#) is linked in [Resource 5-A](#).

**Worth Noting** – The advertisement for bids shall include the following language:

"The [insert *subrecipient's* name], in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, DBEs will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for any award."

**Resource 5-A** provides a link to the text of Title VI of the Civil Rights Act of 1964.

While the project is under advertisement, the subrecipient must provide all bidders with an equal opportunity to view the proposed construction site and conduct job showings equally to all bidders.

### 5.B.2 Pre-Bid Meetings

Bidders will likely need to visit the project site before submitting a bid. Site conditions and local considerations that may materially affect how the project is constructed can often be ascertained from visiting the site in person. Project construction specifications should include clauses that are similar to CDOT Standard Specification 102.05, which establishes the expectation that bidders will visit the site and combine the information that is able to be acquired during a site examination with the contract documents to formulate an educated bid price.

A pre-bid conference should be held so that the CM may show the project to the prospective bidders and to hold a question-and-answer session with all bidders present and obtain the same information. Pre-bid conferences may be held with the condition of the bidder's attendance being mandatory for their bid to be considered as responsive.

Optional pre-bid conferences may also be held. If the subrecipient provides individual site investigations one bidder at a time, the same person should conduct all site investigations to ensure that identical information is provided to all bidders. If the subrecipient shows the project site to individual bidders and the bidders ask questions, the subrecipient must publish questions and answers for all bidders' benefit in an addendum under advertisement. No bidder may receive information that the other bidders do not have.

### 5.B.3 Bidding

Bidding is the process of consultants or contractors submitting a response to a solicitation, including a proposal under a negotiated acquisition according to Federal Acquisition Regulation (FAR) 28.001. The subrecipient must take the following steps related to opening and selecting bids:

- Step 1. Subrecipient opens publicly all sealed bids submitted by the deadline and reads them aloud at the location described in the Invitation to Bid and in accordance with **CDOT Standard Specification Section 103**, which is linked in **Resource 5-A**. Subrecipient selects no bidder at the bid opening. Subrecipient should hold bid openings on a Wednesday or a Thursday.
- Step 2. Immediately after bid opening, subrecipient must provide to the apparent low bidder the CDOT forms listed in **Table 5-2**. The apparent low bidder must submit completed forms to the subrecipient by 4:30 pm Mountain Standard Time (MST) on the 5<sup>th</sup> calendar day after the date of bid opening.

The forms identified in **Table 5-2** are required during the bidding process. NOTE: **CDOT Form 1415** must be obtained from every DBE listed on **CDOT Form 1414**. The bidder must complete Section 1 and the DBE must complete Section 2 of CDOT Form 1415. The apparent low responsible bidder, who will become the awarded contractor once a contract is signed, must not terminate, reduce, or substitute a commitment listed on CDOT Form 1414 without following the procedures outlined in the Civil Rights Labor Compliance and DBE Requirements. These forms and others can be found in **Resource 5-B**.

**Table 5-2. Forms Provided by the Apparent Low Bidder**

Source	Form #	Form Name or Requirement	Description
CDOT	605	Contractor’s Performance Capability Statement	Lists all contractor partnerships and any changes in workmanship qualifications.
CDOT	621	Assignment of Anti-Trust Claims	Certifies that the contract complies with CDOT’s antitrust practices.
CDOT	1415	Commitment Confirmation, if DBE goals are greater than zero, or if the bidder has voluntarily made commitments	For use on projects with a DBE contract goal only. Outlines the DBE commitment(s) on the contract for each DBE listed on CDOT Form 1414. To be submitted to the Civil Rights and Business Resource Center (CRBRC) for review.
CDOT	1416	Good Faith Effort Report if the DBE goal is not met	For use on projects with a DBE contract goal only. Explains the actions being taken to meet DBE goals if the commitment(s) do not meet the contract DBE goal. To be submitted to the CRBRC for review.

- Step 3. After the bid opening, the subrecipient CM reviews and evaluates the bids for responsiveness and irregularities before contract award. The subrecipient’s project manager should request that both the design team and the CM assist in the review of bids to benefit from their individual experiences and knowledge of the project details.
- Step 4. Subrecipient must review bids for reasonable conformance with the estimate and for unbalancing. Unbalanced bids occur when the contractor artificially inflates the prices of work that will be completed early and reduces the prices of the work that will be completed late in the project. This example is known as front-loading a contract. The contractor’s intent is to improve their cash flow on the project and for the subrecipient to effectively advance payment.



**Worth Noting – Agency Risk:** Unbalancing can lead to serious risks to the subrecipient. If a front-loading contractor were to default on the contract, the subrecipient will have expended more funds than the value of the completed work, leaving the subrecipient with insufficient funds to have another contractor complete the work. While performance bonds help to protect the subrecipient against contractors defaulting on the contract, good bid price reviewing is imperative. It is in the subrecipient’s best interest to ensure that the late work has value to the contractor. CDOT’s policy is to ensure that late work has value (monetary gains) to the contractor to prevent them from abandoning the project.

### 5.B.4 Award

**STOP! The subrecipient must obtain CDOT’s concurrence before awarding the project to the selected contractor.**

- Step 1. Subrecipient makes the final decision on award; however, because the project is awarded with federal dollars, subrecipient must coordinate and obtain concurrence from CDOT, who acts as FTA’s liaison in this matter. Subrecipient must include the following in their letter requesting concurrence to award the project:
  - ▶ Documentation of bid review and analysis
  - ▶ Budget status of the project and the means of resolving any budget deficits
  - ▶ Details on which bidder is recommended for award of the project
  - ▶ Any applicable civil rights documentation
  - ▶ Review of the project schedule, which lists:
    - Intergovernmental Agreement (IGA) expiration date
    - Construction performance period end date
    - Evaluation determining whether the time frame of the construction project can be accomplished within the IGA period
- Step 2. Subrecipient sends the bid review letter, construction timeline evaluation, and the documents listed in **Table 5-3** in electronic format to the CDOT Project Manager, who reviews the information and forwards it to Engineering Contract Services.
- Step 3. CDOT’s Engineering Contract Services then issues a letter to the subrecipient stating either their concurrence or their non-concurrence in the award of the project once all requirements and documents are submitted to Engineering Contract Services.

**Table 5-3. Submittals by Apparent Low Bidder Required Within 5 Days of Bid Opening**

Source	Form #	Form Name or Requirement	Description
CDOT	605	Contractor’s Performance Capability Statement	Lists all contractor partnerships and any changes in workmanship qualifications.
CDOT	621	Assignment of Anti-Trust Claims	Certifies that the contract complies with CDOT’s antitrust practices.
Subrecipient	N/A	Financial Statement and Schedule Review on subrecipient letterhead	A balance sheet showing that the project has the funds available (federal, state, and local) to award the project to the selected contractor and that the work can be completed in the time allotted.
Subrecipient	N/A	Bid Tabulation	A spreadsheet with all the bidders’ bid prices, including the detail of all bid items’ bid prices and total line item costs.

### 5.B.5 Rejection of Low Bid

Under certain circumstances, the subrecipient may reject the low bid. In these cases, the subrecipient must obtain CDOT concurrence before issuing the rejection notice to the low bidder. In requesting CDOT's concurrence to reject the lowest bid, the subrecipient must include the following in a letter to the CDOT Project Manager:

- ▶ A copy of the bid solicitation and bid documents.
- ▶ A cover letter identifying the project and pertinent background supported by written justification for the subrecipient's determination to reject the low bid proposal and/or bidder. The letter must document the reason for the determination and state whether the bidder was non-responsive or non-responsible.

### 5.B.6 Post-Award Concurrence Steps

- Step 1. Following the concurrence of the CDOT Award Officer in Engineering Contract Services, subrecipient sends a letter to the successful bidder (contractor) issuing the Notice of Award, along with the invitation to the pre-construction conference, as described in **Section 5.C.3**. Subrecipient sends electronic copies of the letter and invitation to the conference to the CDOT Project Manager and Resident Engineer.
- Step 2. Subrecipient prepares an "Award Set" of the plans and specifications that are properly signed and sealed to include with the Notice of Award.
  - ▶ The Award Set of plans and specifications are considered the Bid Set and must include all the addenda under advertisement inserted with revised sheets replacing superseded sheets.
  - ▶ The Award Set of CDs is considered the issued/released for construction set of documents. Any changes to be made to the Award Set of documents require a change order, Value Engineering Change Proposal, or Request for Information.
- Step 3. Once subrecipient receives the concurrence letter of award from Engineering Contract Services, subrecipient drafts a contract for the project work.
- Step 4. If subrecipient uses the **CDOT Standard Specifications for Road and Bridge Construction**, which is linked in **Resource 5-A**, the subrecipient must also obtain performance and payment bonds from the successful bidder.
  - ▶ Each bond must be in a penal sum equal to the nearest integral one hundred dollars in excess of the sum of the original bid items, plus all force account items specified by an asterisk in the project special provisions to be included in the payment and performance bonds.
  - ▶ In addition, the successful bidder must provide a certificate of insurance indicating coverage in the types and limits described in subsection **Standard Specification 107.15** linked in **Resource 5-A**.
- Step 5. The successful bidder signs and returns the contract, along with the contract bonds and certificate of insurance (if using CDOT specifications).
  - ▶ The contract is not considered effective until it has been fully executed by all parties to the contract.
  - ▶ Subrecipient retains an executed original contract and provides another executed original to the successful bidder (contractor).
  - ▶ Subrecipient sends an electronic copy to the CDOT Project Manager.

## 5.C Construction

### 5.C.1 Notice To Proceed

- Step 1. The signing of the contract between the subrecipient and contractor acts as a Notice to Proceed (NTP). An NTP should not be issued before a contract is signed.
- Step 2. Immediately after the contract is awarded to the contractor, the CM schedules a pre-construction conference, as described in **Section 5.C.3**. This step marks the end of the pre-construction phase and the beginning of the construction phase.

### 5.C.2 Pre-Construction Documentation

The contractor must complete the following steps after they have a contract.

- Step 1. Contractor completes Safety Management Plan and submits to the CM. The Project Safety Management Plan must be submitted in accordance with **Standard Specification 107.06**, linked in **Resource 5-A**.
  - ▶ The contractor is the controlling contractor of the site with overall responsibility for the safety of the site in accordance with Occupational Safety and Health Administration (OSHA) regulations. The CM enforces the specifications and provides assurance that the contractor follows the specification and its Safety Management Plan. The CM is not responsible for performing inspections of the safety of the site but must notify the contractor of any observed site conditions that (in the opinion of the CM) may need the contractor's immediate attention. For more information, refer to Project Safety Management Plans linked in **Resource 5-A**.
- Step 2. Contractor completes a **CDOT Transit Form 205 Sublet Permit Application** and submits to the CM. If contractor is subcontracting any work, contractor must submit CDOT Transit Form 205 electronically to subrecipient for approval before any subcontractors can mobilize on the project.
  - ▶ Contractor completes a separate CDOT Transit Form 205 for each subcontractor, including all professional services and trucking companies (that are acting as subcontractors). The form is available in **Resource 5-B**.
- Step 3. Once initial subcontracting forms are completed (Project Safety Management Plan and CDOT Transit Form 205), contractor must begin to track compliance with these forms in the B2GNow system, CDOT's civil rights compliance software system. **Resource 5-A** provides a link to B2GNow. Contractor submits CDOT Transit Form 205 into B2GNow, and subrecipient recommends approval in B2GNow.
  - ▶ This form requests permission for any subcontractor to work on CDOT's project and property. It includes information on pricing, which is then used to determine if the prime contractor meets the established DBE goal.
- Step 4. Once subrecipient has recommended CDOT Transit Form 205 for approval, subrecipient notifies the CDOT Civil Rights Office and copies the CDOT Project Manager. Using the B2GNow system, the Civil Rights Office approves, denies, or returns CDOT Transit Form 205 for updates.
  - ▶ CDOT and subrecipient may request physical subcontracts. If any discrepancies or issues arise during the review of CDOT Transit Form 205, the Region Civil Rights Office notifies the subrecipient and contractor for corrections or stoppage of work.

**STOP! Subcontractors may not begin work on the project until a CDOT Transit Form 205 has been approved in the B2GNow system.**

- Step 5. CDOT Project Manager provides subrecipient with a Project Documentation Checklist that includes a list of all required CDOT forms and contractor submittals that the CM must collect and submit to the CDOT Project Manager.



- Step 6. The CM uses the Project Documentation Checklist to ensure that all required documentation is provided to CDOT at the appropriate time. The CDOT Local Agency Manual shall be used with this checklist as a tool for final project documentation acceptance. The collection of documentation occurs throughout the construction phase and may not be deferred to the end of the project. Due to the potential for contractor staff turnover on the project, documentation is best collected as soon as possible.
- Step 7. The CDOT Project Manager then establishes a procedure for submitting documentation. The subrecipient manager shall send documents to CDOT via email or downloaded link, and CDOT shall upload project documentation internally to a file sharing site such as Google Drive. CDOT may also grant the subrecipient access to their document control software to which subrecipient can store or upload files for sharing.

**Worth Noting – Communications:** When communicating with the CDOT Project Manager via email, always include the 5-digit project code number for the project first on the subject line.

### 5.C.3 Pre-Construction Conference

A pre-construction conference is required to be held with the subrecipient, CM, contractor, and CDOT. Additional invitations should be extended to any utility companies that will work on and/or be impacted by the construction. Fire department representatives should also be invited if there are anticipated road or street closures, as this will impact emergency response.

The **CDOT Construction Manual** includes a sample pre-construction agenda that may be used or modified. The CDOT agenda addresses the items that CDOT will discuss with the contractor regarding documentation and civil rights. **Resource 5-A** provides a link to this manual.

Other pre-construction conferences with more specific agenda items may be required. For example, a pre-survey conference may be needed to allow the design survey and construction surveyor to coordinate their work on the project control. In addition, on projects with special environmental aspects, such as a project with an Army Corps of Engineers (USACE) 404 permit, it may be beneficial to hold an environmental-specific pre-construction conference.

## 5.D Construction Administration

### 5.D.1 Project Control and Local Agency Observation

The subrecipient administers the construction contract to control cost, quality, and schedule. For more information on project control, refer to **Chapter 1B Project Lifecycle Reporting and Requirements**. The CM performs construction observation of the work and ensures that the work conforms to the approved plans. The contractor is not permitted to perform extra work without written authorization from the subrecipient. Any work performed without written authorization is considered at the contractor's risk of the subrecipient not compensating them for the extra work.

- ▶ The subrecipient ("owner") will itemize the work as pay items. Each pay item has a specification establishing the basis of payment and the method of measurement for payment. Some items will not be remeasured as constructed, and the contractor will be paid the quantity included in the bid tabulation for the pay item. Items that are to be measured must be measured in the specified manner.
- ▶ The CM observes the work being constructed to ensure that the measurements of the work performed conform to the measurements in the plans and to ensure that the contractor has not under- or over-built the work without written approval. Work performed beyond plan requirements shall be measured and paid for only upon approval by the Engineer with proper justification.
- ▶ The CM evaluates the contractor's work and decides if the under-run needs to have additional work performed or if the over-run work needs to be removed or may be allowed to remain in place.

### 5.D.2 Source Document for Payments

- Step 1. The CM prepares a source document for all payments made to the contractor. This document thoroughly shows the work that was completed with its location and the measurements that support the quantity to be paid. **CDOT Form 266**, which is linked in **Resource 5-B**, may be used for this purpose, or other forms may be used.
- Step 2. For pay documents, the CM should always include the location of the project where the work was completed in the project's positioning system (station and offset).
- Step 3. The CM includes sketches and copies of the plan sheets with markups to illustrate where the work being paid for was completed. Photos should be attached to the pay documentation to further support the justification for the payment.

### 5.D.3 Quality Assurance

- Step 1. Subrecipient performs construction inspection and materials testing to verify and ensure that the work completed and the materials furnished conform to contract requirements. The CM also participates in this inspection if one is hired as a consultant.
  - ▶ The contractor is responsible for the control of the quality of the work performed and the materials furnished.
- Step 2. Subrecipient then performs inspections as owner verification and for acceptance of the work. CDOT's materials lab personnel should provide subrecipient with the required minimum number of tests that must be performed on the project to assure that the work is adequately supervised. CDOT also indicates how much Independent Assurance Testing (IAT) is required to periodically verify the accuracy of the results of the project's quality control and owner verification testers. CDOT's materials lab personnel may perform IAT testing, or CDOT may require the subrecipient to engage an additional materials testing consulting firm to perform IAT tests.
- Step 3. Finally, CDOT issues a **CDOT Form 250**, which is linked in **Resource 5-B**, with the testing frequencies required. The materials testing firm, which is a subconsultant to the prime construction management team, fills out CDOT Form 250. CDOT Form 250 is an owner acceptance frequency guideline for materials testing.
- Step 4. The CM documents all tests on CDOT Form 250. At the end of the project, the subrecipient's PE signs and seals CDOT Form 250.

### 5.D.4 Shop and Working Drawing Submittals

The CM reviews all submittals of materials and equipment permanently included in the work. There are different classifications of submittals:

- ▶ Shop drawings and working drawings are detailed drawings that the contractor produces, usually to complete the design details for the purposes of fabricating the materials. Each contract has special requirements for shop drawings versus working drawings. The design engineer (who is a part of the design team) specifies which submittals need to be submitted for review and approval and which may be submitted for information only.
- ▶ Working drawings require CM review to verify that the contractor intends to furnish materials or equipment meeting contract requirements. Even though **CDOT Standard Specification 105.02(d)** states that working drawings will not be formally reviewed and returned to the contractor, in the spirit of collaboration, the CM should review working drawings and notify the contractor as early as the CM is aware that non-conforming materials will be provided. Non-conforming materials include any substandard and unacceptable work, as well as out-of-spec work that does not meet the CD's requirements. CDOT specifications require the CM to affix a review stamp to the submittals after they are reviewed and before they are returned to the contractor.

**Worth Noting – Drawing Submissions:** Shop drawings are required to be submitted for review and approval, while working drawings are submitted for the CM's information only without a formal review returned to the contractor.

### 5.D.5 Schedule and Time Control

Depending on contract terms, the subrecipient is responsible for managing the project so that the work is completed within the allotted time.

- ▶ Certain funding sources, including federal grants, have dates by which all work is required to be completed. It is imperative that the work is completed diligently toward meeting the specified completion date. Contract time may be in terms of working days, calendar days, or a fixed completion date.
- ▶ The CM is required to maintain a time count. **CDOT Form 262** for working day contracts and **CDOT Form 263** for calendar day contracts may be used to document the contract time on the project. **Resource 5-B** contains links to both forms.
- ▶ When days are counted on a project, the CM evaluates potential non-working time with the current activity that is controlling the completion of the work. Non-working days are often counted differently. Some contracts count all working days; some count all days minus bad weather days and weekends; some count all days even bad weather days and weekends. The controlling activity on a project is the current activity that is on the critical path.
- ▶ If time spent working cannot be attributed to the current controlling critical path activity, no progress toward completion of the project is counted regardless of how many resources are working on the project. Therefore, the CM may grant the contractor a non-working day provided that the lack of progress on the controlling critical activity is due to no fault of the contractor.
- ▶ If work on one or more non-critical items is performed on any day because the work on the critical activity cannot be performed through no fault of the contractor, the day should not be charged as a working day.



**Worth Noting – Working Days:** A working day is not simply a day that the contractor worked on the project. A CM must have the construction management skill to understand the critical path schedules and activities to determine whether a day is chargeable or not.

As part of the control of the construction time, the CM requires the contractor to submit construction schedules in accordance with the specifications.

- ▶ The contractor submits a preliminary schedule to be reviewed by the CM and a baseline schedule after the preliminary schedule is reviewed. The baseline schedule establishes the contractor's plan to successfully complete the scope of work of the project in the allowed time.
- ▶ The contractor submits to the CM monthly schedule updates that show impacts to the baseline schedule.
- ▶ The CM shall withhold payment to the contractor if the contractor fails to submit a monthly schedule update.
- ▶ The CM also evaluates the impacts to the schedule associated with each change order. Time extensions may be granted only when additional contract time is warranted.

For more information about schedule control, refer to **Chapter 1B Project Lifecycle Reporting and Requirements**.

## 5.E Changes

It is likely that change orders will be needed to modify the Award Set of plans. The contractor must understand that no extra work may be performed without the subrecipient's approval. The contractor must identify when work is not included in the current scope of work of the plans and provide notice of the potential extra work before performed. Once the contractor identifies the potential for extra work resulting from changes to the Award Set of plans, the CM must provide the contractor with direction on how to proceed.

- Step 1. Subrecipient provides written direction to the contractor on either subrecipient's own Work Change Directive form or **CDOT Form 105**. **Resource 5-B** provides a link to CDOT Form 105.
- Step 2. If subrecipient gives direction to proceed with the extra work, the CM provides the contractor with a design change on which to submit a cost proposal to complete the extra work.
- Step 3. Once the contractor submits the cost proposal, the CM reviews the proposal for fairness and reasonableness.

The **CDOT Construction Manual** includes information that details the acceptable methods that CDOT uses to determine if a contractor's cost proposal is fair and reasonable and may be accepted. **Resource 5-A** provides a link to the **CDOT Construction Manual**.

### 5.E.1 Change Orders

The CM shall submit change orders to the CDOT Project Manager before they are executed between the subrecipient and the contractor. CDOT reviews the change order to verify that the extra work is compatible with the funding and decides if a change order can or should be funded by the awarded federal grant.

**Worth Noting – Any proposed changes that will make the project ineligible for federal funding may not be made. In addition, any proposed changes that, if proposed at the start of the project, would have deemed the project ineligible for federal funding, also may not be made.**

- ▶ Pricing must be demonstrated to be fair and reasonable for project changes to be acceptable for federal participation.
- ▶ The PE must sign and seal a change order that requires revisions to the approved plans or the addition of new plan sheets.

The CM prepares a letter of explanation for the change order and submits it along with the change order. The letter describes the change in its entirety, why it is necessary, and how much the change will cost. The letter also provides cost analyses to demonstrate that costs are fair and reasonable and provides a thorough analysis of the change's impact on the construction schedule.

The contractor may not proceed with the extra work until the change order is fully executed with approvals from the contractor, subrecipient, and CDOT. If the work must be completed urgently, the subrecipient provides the contractor with written direction to proceed with the extra work stating the terms and conditions of the work, including the basis of payment and method of measurement.

**STOP! In the case of an urgent change, the subrecipient authorizes only the work that MUST be performed prior to the execution of a change order.**

### 5.E.2 Cost Associated with Change Orders

The cost of extra work is negotiated to a fair and reasonable amount. When the subrecipient and the contractor cannot reach an agreement on pricing, the subrecipient is entitled under the contract to require the contractor to do the work on a force account basis. Under this method, the contractor performs the work and all agreed time spent and materials provided are compensated by the method established in the contract by **CDOT Standard Specification 109.04**, which is linked in **Resource 5-A**. When work is performed at force account, the CM must observe the work closely and thoroughly document the contractor's effort, including monitoring the amount of labor provided, the equipment provided to do the work, and the materials that are needed. A **CDOT Form 10**, which is linked in **Resource 5-B**, may be used to document all labor, equipment, and materials used on force account work on a daily basis. The inspector and contractor agree on the work details, which include the amount of labor, equipment, and materials used, on a daily basis. The CM may direct work that is performed at force account and ensure that the amount of labor and the types of equipment are necessary for the work.

### 5.E.3 Equipment Associated with Change Orders

In accordance with **CDOT Standard Specifications 109.04**, which is linked in **Resource 5-A**, equipment used on extra work that is paid at force account may be compensated only by paying the **Blue Book of Rental Rates for Construction Equipment rates**, or rented equipment is paid using the certified rental invoice. **Resource 5-A** provides a link to the Blue Book of Rental Rates. Equipment owned by the same corporate entity may not be rented internally from one corporate unit to another corporate unit and paid using an invoice. Equipment in this case is considered to be owned or leased equipment. The CDOT Project Manager provides the Blue Book rates that CDOT will accept with the CM submitting a **CDOT Form 580**, which is linked in **Resource 5-B**, requesting the approved rate. The CM verifies the rates paid for the force account work against the certified payrolls to ensure that the proper rate is included in the contractor's extra work billings.

## 5.F Subletting of Contract, Prompt Payment, and Labor Compliance

The CM enforces the provisions outlined in **Civil Rights, Labor Compliance, and Disadvantaged Business Enterprise Requirements for FTA-Assisted Subrecipient Contracts**, linked in **Resource 5-A**. The following actions are required as a part of both federal and CDOT civil rights compliance.

### 5.F.1 Subletting of Contract

The prime contractor shall not sublet, sell, transfer, assign, or dispose of the contract, or any portion thereof without written permission of the CM. All firms to which the prime contractor will be subletting a portion of the contract shall have an account created in the B2GNow software system. Before the subcontractor begins any work, the prime contractor shall receive approval from the subrecipient by submitting a Sublet Permit Application, CDOT Transit Form 205, via the B2GNow software system. The CM completes the sublet request approval within B2GNow.

The prime contractor must execute with the subcontractor a written agreement that includes all relevant state and federal provisions before the CDOT Transit Form 205 is submitted in B2GNow. The prime contractor shall submit a revised CDOT Transit Form 205 if items of work are added to the subcontract. It is unnecessary to revise the CDOT Transit Form 205 for over-runs or under-runs.

### 5.F.2 Reporting of Suppliers

All rental equipment companies and all entities that meet the supplier definition as outlined below, in which the written agreement exceeds \$10,000, shall create an account in the B2GNow software system. The prime contractor shall submit a completed CDOT Form 1425 in the B2GNow software system at such time that the \$10,000 amount is known to be exceeded and/or before the following occurs on the contract:

- ▶ The supplier's upper tier begins work, or
- ▶ Rental equipment is being used, or
- ▶ Incorporating materials into the contract

The prime contractor shall request approval of suppliers and rental equipment companies, with written agreements in excess of \$10,000, by submitting a CDOT Form 1425 in B2GNow. The CM completes the supplier approval within B2GNow. **CDOT Form 1425** is linked in **Resource 5-B**.

**Worth Noting – Supplier Definition:** An individual, firm, or corporation that meets all of the following criteria:

- a) Sells manufactured material as a broker, distributor, dealer, manufacturer, or wholesaler who may or may not deliver the materials to the site of work.
- b) The manufacturing of the materials, articles, supplies, or equipment used for the contract that is being supplied shall come from a facility or facilities that:
  - i) Is not located on, nor does itself constitute, the project or contract's primary construction site or secondary construction site as defined in 29 Code of Federal Regulations (CFR) 5.2; and
  - ii) Either was established before the opening of bids on the contract, or is not dedicated exclusively, or nearly so, to the performance of the contract.
- c) The supplier's only obligations for activity on the contract is the delivery of materials, articles, supplies, or equipment, which may include pickup of the same in addition to, but not exclusive of, delivery, and which may also include activities incidental to such delivery and pickup, such as loading, unloading, or waiting for materials to be loaded or unloaded; and

If an entity, in addition to being engaged in the activities specified in paragraph (c) of this definition, also engages in other construction, prosecution, completion, or repair on the site of the work, then this entity is not a supplier but a contractor.

### 5.F.3 Prompt Payment

Prompt payment is a requirement that the prime contractor and all contractors/suppliers with lower-tier subcontractors or suppliers are contractually obligated to pay their subcontractors and suppliers for all work that has been satisfactorily completed within seven (7) calendar days after receiving payment for that work from the subrecipient, the prime contractor, or other subprime contractor. The CM ensures that all contractors comply with prompt payment requirements. If the prime contractor, subcontractors, and/or suppliers fail to comply with the prompt payment requirements of the contract, the CM may not authorize further progress payments for work performed directly by the prime contractor or the noncompliant subcontractor and/or supplier until the required payments have been made. The CM will continue to authorize progress payments for work performed by compliant subcontractors and/or suppliers.

B2GNow is the system for managing prompt payment on FTA-funded capital construction projects. By the 15th of each month, the prime contractor and all subcontractor/supplier payers shall record all payments to subcontractors and suppliers by completing an audit in the B2GNow system. If the prime contractor and all subcontractor/supplier payers have good cause to delay payment, the applicable contractor shall include the justification in the monthly audit. If the subcontractor/supplier does not report a discrepancy or response in B2GNow within fifteen (15) days from the payers' monthly reporting, CDOT CRBRC will close the audits.

The CM shall monitor B2GNow monthly to ensure that the prime contractor complies with the Colorado prompt payment law (CRS 24-91-103(2)) and 49 CFR 26.29. This process includes reviewing past due and incomplete audits, reported discrepancies, and other compliance issues related to prompt payment. Payments made during a month shall be reported in the following month. For example, the audit period for October shall be opened for reporting on November 1 and reported by the 15th of November by the prime contractor and all subcontractor/supplier payers. In this example, audit reporting shall reflect all payments made during the month of October regardless of when the work was actually performed.

### 5.F.4 Labor Compliance and Certified Payrolls

All applicable contractors subject to Davis-Bacon and Related Acts requirements shall submit certified payrolls weekly into LCPtracker at least every 7 days. The Prime Approver is the role of the prime contractor that reviews and approves or rejects all payrolls submitted by their own company, as well as all subcontractors, within 7 days after submission into LCPtracker. The CM or designee shall accept or reject all submitted certified payrolls. Using the payroll review checklist, the CM or designee will review 100 percent of the first four performing payroll submissions of the prime contractor and each subcontractor. If the CM or designee has determined that the firm has demonstrated compliance in payroll submission, they may determine to reduce reviews to 10 percent of each firm's payrolls submitted thereafter. If the firm does not demonstrate compliance, the CM or designee may determine to increase the percentage of reviews. The CM or designee shall accept or reject all submitted payrolls in the LCPtracker system within 14 days of approval from the Prime Approver. CRBRC provides additional resources related to labor compliance and certified payrolls, including Guidance for Frequently Asked Questions, Guidance on Deductions, and Payroll Checklist. Please contact CRBRC for more information.

### 5.F.5 Project Bulletin Board

Before beginning work, the prime contractor shall install a project bulletin board (protected from the weather) in a prominent and accessible location where all employees may easily see it. All employees shall be informed of the location of the bulletin board. All required posters can be found at the CDOT website. A binder of required posters, by itself, is not an acceptable format for the posters to be displayed. The CM shall not approve the first pay application until the prime contractor installs the bulletin board and all required posters are posted and present. Using the Jobsite Bulletin Board Inspection (FTA Funded), the CM should review the project bulletin board to ensure that the board is in compliance.



## 5.G Disadvantaged Business Enterprise

### 5.G.1 DBE Contract Goal (Race-Conscious)

The DBE program is a federally mandated program that seeks to ensure non-discrimination in the award of U.S. Department of Transportation (DOT)-assisted contracts and to create a level playing field on which DBEs can complete fairly for DOT-assisted contracts. Where appropriate as determined by the CRBRC, a goal for DBE participation may be set on a contract. DBE contract goals are set only when there are subcontracting possibilities on the contract. The DBE contract goal signifies reasonable participation by DBEs on the contract based on the availability of subcontracting opportunities and the DBEs ready to perform those needed services. To properly evaluate the contract for any DBE goals, the subrecipient will provide the CRBRC with the following prior to its procurement concurrent record (PCR) submission in Colorado Transit and Rail Awards Management System (COTRAMS):

- ▶ Information as to whether the contract will be partially or fully funded with FTA funding passed through from CDOT
- ▶ Detailed information on the scope of work and estimated cost of the contract (for example, Engineer's estimate, independent cost estimate, etc.)
- ▶ Location of the work
- ▶ Anticipated schedule or timeline for the contract; that is, advertisement date, bid letting date, date of contract award, number of working days (if applicable), any significant contract milestones, and contract start and end dates
- ▶ Any other information that the subrecipient believes may impact the DBE goal, such as specialized work, emergency project status, etc.

When a contract goal for DBE participation has been set, the DBE contract goal should be listed in the solicitation and included with the subrecipient's PCR submission via COTRAMS. The subrecipient may not award the contract until the bidder/proposer has sufficiently demonstrated with their bid and/or proposal that they have made binding commitments to DBEs sufficient to meet the DBE goal or else have made good faith efforts to do so despite falling short. The subrecipient and CDOT will monitor the prime contractor's progress toward meeting its commitments to DBEs and the contract goal throughout the contract. Final payment to the prime contractor may be reduced if the prime contractor has failed to fulfill DBE commitments and/or does not make good faith efforts to meet the contract goal following an increase in the amount of the contract. The requirements outlined in the following subsections are specific to contracts that have a DBE contract goal.

### Utilization Plan

For all FTA federal-aid capital construction contracts with a contract DBE goal greater than zero, the prime contractor shall have an approved DBE Utilization Plan (UP) prior to contract award. The UP lists the DBE commitments that the prime contractor shall use to meet the DBE contract goal. The CM staff can view the UP in B2GNow under Proposals.

### Sublet Permit Application

The prime contractor may add new DBEs to the contract by using the CDOT Transit Form 205 and adding them into B2GNow. When CDOT Transit Form 205 is used with a DBE that does not have a DBE commitment, the DBE is not subject to the termination and reduction procedures as outlined in **Civil Rights, Labor Compliance, and Disadvantaged Business Enterprise Requirements for FTA-Assisted Subrecipient Contracts (Race-Conscious)**, linked in **Resource 5-A**. A DBE functioning as a subcontractor (without a commitment) has the same rights and responsibilities as any other (non-DBE) subcontractor on the contract.

In terms of the DBE's participation on the contract, the CM will review CDOT Transit Form 205 to verify that the DBE's participation is eligible to count toward the DBE contract goal. To complete this verification check, the CM shall review the work type listed on CDOT Transit Form 205 to make sure that the work listed matches the work listed in the UP and the DBE is still certified to perform the work. If the DBE subcontractor cannot





count as eligible participation, as written on CDOT Transit Form 205, the CM shall return the 205 to the prime contractor for updates, where they will correct and resubmit into B2GNow. If the prime contractor indicates that the CDOT Transit Form 205 is correct, but the amounts or the listed work (for credit) on the UP and the 205 are still not aligned, then the CM shall contact the Regional Civil Rights Office or CRBRC for resolution. . A link to the **CDOT Form 205** is provided in **Resource 5-B**.

## Utilization Plan Modifications

The prime contractor must make good faith efforts to meet the DBE contract goal and to fulfill each separate DBE commitment listed in the UP. Regardless of whether the goal is met, if the prime contractor does not use the listed DBE to perform the work listed in the commitment, CDOT cannot pay the prime contractor for the work performed unless the termination and reduction processes were followed. The prime contractor also cannot modify the DBE commitments without CM and RCRO approval.

If the prime contractor seeks to terminate, reduce, modify, or make a substitution to the DBE commitment, the prime contractor shall submit good cause reasoning on CDOT Form 1420 to the CM, who will then provide the form to the RCRO for review and recommendations. One CDOT Form 1420 may include multiple commitment modification requests and must be submitted to the CM at the time of occurrence, or if that is not possible, within a reasonable time of the occurrence requiring a termination, reduction, and/or substitution. If received by the CM, this form must be submitted to the CRBRC for recommendation of approval/rejection. The CM has the final approval of the firm and shall provide notice to the prime contractor. The prime contractor shall notify the DBE in writing of the prime contractor's intent to terminate, reduce, or substitute, and the underlying reason(s) before submitting CDOT Form 1420 requesting the proposed commitment modification. In the notice of intent, the prime contractor shall provide the DBE at least five days to respond to the notice and inform the prime contractor of the reasons, if any, why the DBE objects to the proposed commitment modification. Race-neutral participation (DBE participation not included in the commitment) may count as substitute participation under certain circumstances. Refer to the **Civil Rights, Labor Compliance, and Disadvantaged Business Enterprise Requirements for FTA-Assisted Subrecipient Contracts (Race-Conscious)**, linked in **Resource 5-A**, contract provisions and the CRBRC for more information. When CDOT Forms 1415 and 1420 are approved, the DBE commitment becomes subject to contract requirements.

The RCRO will review CDOT Form 1420 and recommend approval or rejection to the CM. The RCRO will amend the commitment modifications in B2GNow and upload all CDOT Form 1420s into the system. In the case of a prime contractor dispute over the DBE requirements, the RCRO shall be consulted. Prime contractors, CMs, and the RCRO shall use B2GNow to track the progress of the prime contractor's DBE commitments and goal fulfillment. A link to the **CDOT Form 1420** is provided in **Resource 5-B**.

## Change Orders

At the end of the project, the calculation of whether the prime contractor has met the goal is based on the Total Earnings Amount. This includes all work issued via change orders. Therefore, if the prime contractor receives change orders that increase the dollar amount of the work to be performed during the contract, the prime contractor must ensure that it makes good faith efforts to obtain additional DBE participation.

## Commercially Useful Function

It is essential that the project team monitor the daily activities of DBE firms to ensure that DBEs are performing a commercially useful function (CUF) to count as eligible participation toward the DBE contract goal. Within 45 days of the DBE beginning work on a contract, the DBE must complete their section of CDOT Form 1432. The DBE section of the form shall be completed before the DBE completes work per its subcontract. Within ten (10) days of receipt of CDOT Form 1432, the prime contractor shall provide the completed form to the CM for approval or denial. Section F of the form provides guidance to the CM for their CUF evaluation. DBE participation cannot count toward the contract goal unless there is an approved CDOT Form 1432. The CM may conduct additional field CUF reviews. The CM shall send the completed form to the CRBRC to be uploaded into B2GNow. The CM shall notify the CRBRC of any potential CUF issues. A link to the **CDOT Form 1432** is provided in **Resource 5-B**.



## DBE—Payment Reduction

The CM shall not release retainage or withheld amounts until the CRBRC has determined whether the prime contractor shall be subject to a payment reduction. If the amount of payment reduction exceeds the amount withheld, CDOT shall seek reimbursement from the prime contractor for the balance of the reduced payment amount.

Per the **Civil Rights, Labor Compliance, and Disadvantaged Business Enterprise Requirements for FTA-Assisted Subrecipient Contracts (Race-Conscious)**, which is linked in **Resource 5-A**, the prime contractor's retainage will not be released until a determination is made as to whether the prime contractor will be subject to a payment reduction. The prime contractor will be subject to a payment reduction for any unapproved termination, reduction, and/or substitution. Additionally, the prime contractor will be subject to a payment reduction for any portion of a commitment that was not fulfilled. The prime contractor will not be subject to duplicate payment reductions for the same offense. The amount of the payment reduction may be adjusted if the prime contractor demonstrates that a failure to fulfill a commitment or otherwise meet their obligations under these contract requirements was due to circumstances outside their control.

### 5.G.2 No DBE Contract Goal (Race-Neutral)

According to the provisions outlined in the **Civil Rights, Labor Compliance, and Disadvantaged Business Enterprise Requirements for FTA-Assisted Subrecipient Contracts (Race-Neutral)**, all bidders and participants on the contract are strongly encouraged to solicit and use certified DBE firms for any available contracting opportunities. The requirements outlined in the following subsections are specific to contracts with no DBE contract goal (race-neutral).

### Sublet Permit Application

The prime contractor may add new DBEs to the contract by using CDOT Transit Form 205 and adding them into B2GNow. When CDOT Transit Form 205 is used with a DBE on a contract with no contract DBE goal, the DBE functioning as a subcontractor has the same rights and responsibilities as any other (non-DBE) subcontractor.

### Commercially Useful Function

It is essential that the project team monitor daily activities of DBE firms to ensure that DBEs are performing a CUF to count as eligible participation toward the CDOT statewide DBE goal. Within 45 days of the DBE beginning work on the contract, the DBE must complete Section B of CDOT Form 1432. The DBE section of the form shall be completed before the DBE completes work per its subcontract. Within ten (10) days of receipt of CDOT Form 1432, the prime contractor shall provide the completed form to the CM for approval or denial. Section F of the form provides guidance to the CM for their CUF evaluation. DBE participation cannot count as eligible participation unless there is a CDOT Form 1432 for each DBE firm. The CM may conduct additional field CUF reviews. The CM shall send the completed form to the CRBRC to be uploaded into B2GNow. The CM shall notify the CRBRC of any potential CUF issues.

## Resource 5-A – Construction

### Essential Resources

Section	Source	Content	Website
5.A	FTA	2016 Construction Project Management Handbook	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
5.B	CDOT	2022 Standard Specifications for Road and Bridge Construction	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</a>
5.B	CDOT	Disadvantaged Business Enterprise (DBE) Compliance Overview	<a href="https://www.codot.gov/business/civilrights/compliance/construction/dbe-compliance/dbe-overview">https://www.codot.gov/business/civilrights/compliance/construction/dbe-compliance/dbe-overview</a>
5.B	CDOT	Prequalified Contractor List	<a href="https://www.codot.gov/business/bidding/Prequalified%20Contractors">https://www.codot.gov/business/bidding/Prequalified%20Contractors</a>
5.B	CDOT	Standard Specification 107.15 - Responsibility for Damage Claims, Insurance Types and Coverage Limits	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</a>
5.B	DOL (Federal)	Davis Bacon and Related Acts	<a href="https://www.dol.gov/agencies/whd/government-contracts/construction">https://www.dol.gov/agencies/whd/government-contracts/construction</a>
5.B, 5.F, 5.G	CDOT	Civil Rights, Labor Compliance, and Disadvantaged Business Enterprise Requirements for FTA Assisted Subrecipient Contracts	<a href="https://www.codot.gov/business/civilrights/titlevi/fta-subrecipients">https://www.codot.gov/business/civilrights/titlevi/fta-subrecipients</a>
5.C	CDOT	Standard Specification 107.06 - Safety, Health, and Sanitation and Performance of Safety Critical Work	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</a>
5.C	CDOT	Standard Specification 108.02 - Notice to Proceed (NTP) (PDF page 127)	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</a>
5.C, 5.E	CDOT	2019 Construction Manual	<a href="https://www.codot.gov/business/designsupport/bulletins_manuals/construction-manual/construction-manual.pdf">https://www.codot.gov/business/designsupport/bulletins_manuals/construction-manual/construction-manual.pdf</a>
5.E	CDOT	Standard Specification 109.04 - Notice to Proceed (NTP) (PDF page 142)	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</a>
5.E	CDOT	Civil Rights Program	<a href="https://www.codot.gov/business/civilrights">https://www.codot.gov/business/civilrights</a>
5.E	CDOT	Prompt Payment	<a href="https://www.codot.gov/business/civilrights/compliance/construction/ payroll/prompt-payment">https://www.codot.gov/business/civilrights/compliance/construction/ payroll/prompt-payment</a>

## Additional Information

Section	Source	Content	Website
5.A	Colorado Laws/Code	CRS 12-120-202(6)	<a href="https://casetext.com/statute/colorado-revised-statutes/title-12-professions-and-occupations/business-professions-and-occupations/article-120-engineers-surveyors-and-architects/part-2-engineers/section-12-120-202-definitions">https://casetext.com/statute/colorado-revised-statutes/title-12-professions-and-occupations/business-professions-and-occupations/article-120-engineers-surveyors-and-architects/part-2-engineers/section-12-120-202-definitions</a>
5.B	Federal Code/Laws	Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4)	<a href="https://www.justice.gov/crt/fcs/TitleVI">https://www.justice.gov/crt/fcs/TitleVI</a>
5.B	CDOT	Standard Specification 102.05 - Examination of Plans, Specifications, Special Provisions, and Site of Work	<a href="https://www.codot.gov/business/designsupport/cdot-construction-specifications/2023-construction-specifications/2023-specs-book/2023-cdot-specs-book.pdf">https://www.codot.gov/business/designsupport/cdot-construction-specifications/2023-construction-specifications/2023-specs-book/2023-cdot-specs-book.pdf</a> (PDF pg. 32)
5.B	CDOT	Standard Specification 103 - Award and Execution of Contract	<a href="https://www.codot.gov/business/designsupport/cdot-construction-specifications/2023-construction-specifications/2023-specs-book/2023-cdot-specs-book.pdf">https://www.codot.gov/business/designsupport/cdot-construction-specifications/2023-construction-specifications/2023-specs-book/2023-cdot-specs-book.pdf</a> (PDF pg. 35)
5.C	CDOT	Getting Started with B2GNow	<a href="https://www.codot.gov/business/civilrights/compliance/systems/b2g">https://www.codot.gov/business/civilrights/compliance/systems/b2g</a>
5.C	CDOT	B2GNow	<a href="https://b2gnow.com/">https://b2gnow.com/</a>
5.C	Other Sources	OSHA Laws & Regulations	<a href="https://www.osha.gov/laws-regs">https://www.osha.gov/laws-regs</a>
5.D	Other Sources	Blue Book of Rental Rates for Construction Equipment Rates	<a href="https://equipmentwatch.com/retail-rental-rates/">https://equipmentwatch.com/retail-rental-rates/</a>

## Resource 5-B – CDOT Forms

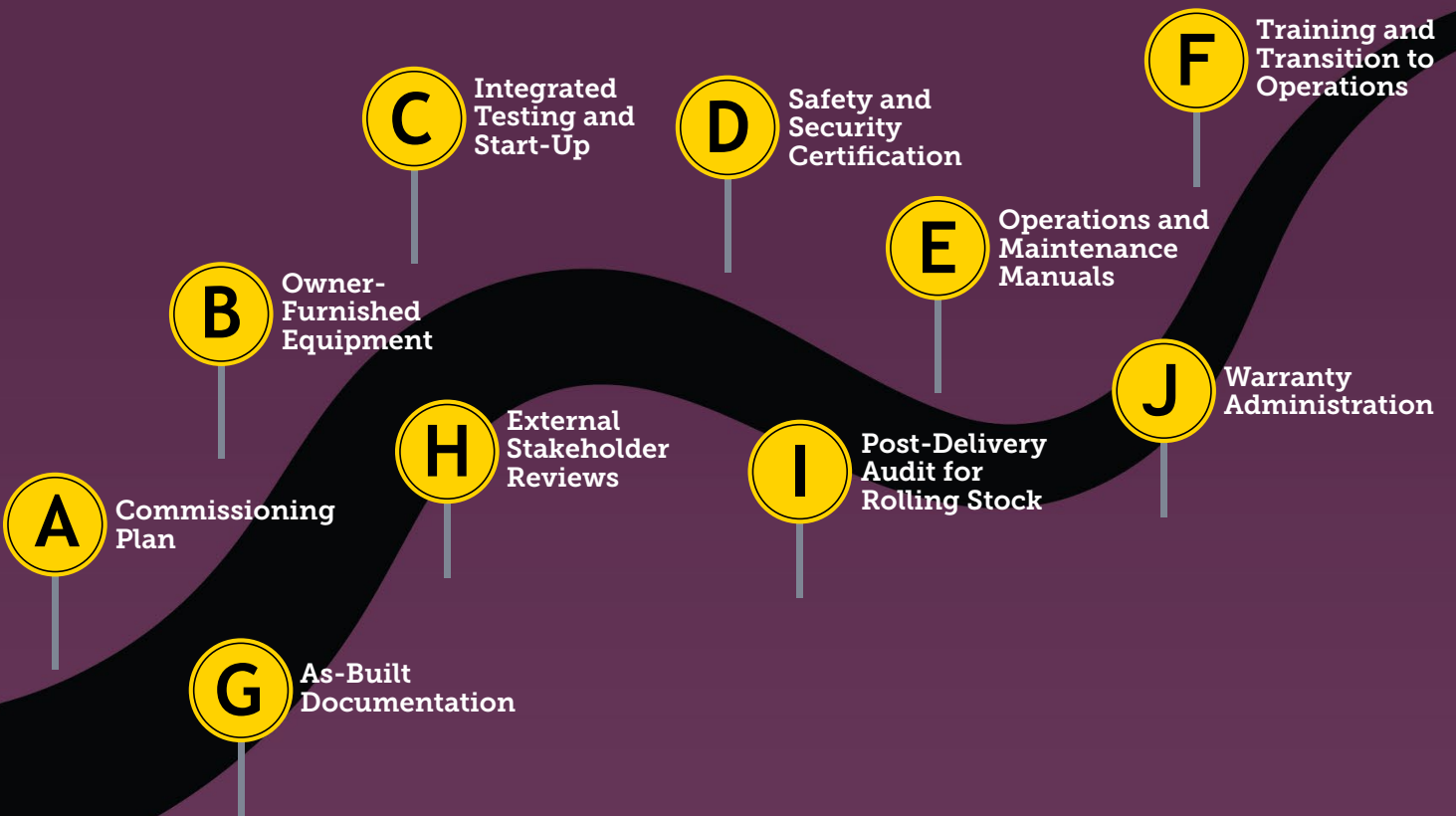
The following table lists source information for the forms mentioned in **Table 5-1**, **Table 5-2**, and **Table 5-3**.

Section	Source	Content	Website
5.B	CDOT	Form 1413 - Bidders List	<a href="https://www.codot.gov/about/forms/CDOT1413.xlsx">https://www.codot.gov/about/forms/CDOT1413.xlsx</a>
5.B	CDOT	Form 1414 - Anticipated DBE Participation Plan	<a href="https://www.codot.gov/about/forms/CDOT1414.xlsx">https://www.codot.gov/about/forms/CDOT1414.xlsx</a>
5.B	CDOT	Form 1415 - Commitment Confirmation, if Disadvantaged Business Enterprise (DBE) goals are greater than zero, or if the bidder has voluntarily made commitments	<a href="https://www.codot.gov/about/forms/CDOT1415.xlsx">https://www.codot.gov/about/forms/CDOT1415.xlsx</a>
5.B	CDOT	Form 1416 - Good Faith Effort Report, if DBE goals are not met	<a href="https://www.codot.gov/about/forms/CDOT1416.xlsx">https://www.codot.gov/about/forms/CDOT1416.xlsx</a>
5.B	CDOT	Form 605 - Contractor's Performance Capability Statement	<a href="https://www.codot.gov/about/forms/CDOT0605.pdf">https://www.codot.gov/about/forms/CDOT0605.pdf</a>
5.B	CDOT	Form 606 - Anti-Collusion Affidavit	<a href="https://www.codot.gov/about/forms/CDOT0606.pdf">https://www.codot.gov/about/forms/CDOT0606.pdf</a>
5.B	CDOT	Form 621 - Assignment of Anti-Trust Claims	<a href="https://www.codot.gov/about/forms/CDOT0621.pdf">https://www.codot.gov/about/forms/CDOT0621.pdf</a>
5.B	CDOT	Revision of 103 - Standard Special Provision	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2023-construction-specifications/rev-ssp/rev-sec100-ssp/rev-sec-103crbp.docx">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2023-construction-specifications/rev-ssp/rev-sec100-ssp/rev-sec-103crbp.docx</a>
5.B	CDOT	Revision of 109 - Standard Special Provision	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/recently-issued-special-provisions/2022-12-09/rev_sec_109-measurement_payment.docx">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/recently-issued-special-provisions/2022-12-09/rev_sec_109-measurement_payment.docx</a>
5.B, 5.F	CDOT	Form 103 - Project Diary Construction	<a href="https://www.codot.gov/about/forms/cdot0103.pdf">https://www.codot.gov/about/forms/cdot0103.pdf</a>
5.C, 5.F, 5.G	CDOT	CDOT Transit Form 205 - Sublet Permit Application	<a href="https://www.codot.gov/about/forms/cdot0205.xlsx">https://www.codot.gov/about/forms/cdot0205.xlsx</a>
5.D	CDOT	Form 262 - Weekly Time Count Report	<a href="https://www.codot.gov/about/forms/CDOT0262.pdf">https://www.codot.gov/about/forms/CDOT0262.pdf</a>
5.D	CDOT	Form 263 - Weekly Time Count Report, Calendar Days	<a href="https://www.codot.gov/about/forms/CDOT0263.pdf">https://www.codot.gov/about/forms/CDOT0263.pdf</a>
5.D	CDOT	Form 266 - Inspectors Progress Report	<a href="https://www.codot.gov/about/forms/CDOT0266.pdf">https://www.codot.gov/about/forms/CDOT0266.pdf</a>
5.E	CDOT	Form 10 - Inspectors Report for Force Account Work	<a href="https://www.codot.gov/about/forms/CDOT0010.pdf">https://www.codot.gov/about/forms/CDOT0010.pdf</a>
5.E	CDOT	Form 105 - Speed Memo	<a href="https://www.codot.gov/about/forms/CDOT0105.pdf">https://www.codot.gov/about/forms/CDOT0105.pdf</a>
5.E	CDOT	Form 580 - Equipment Rental Rate Determination Request Form	<a href="https://www.codot.gov/about/forms/CDOT0580.pdf">https://www.codot.gov/about/forms/CDOT0580.pdf</a>
5.F	CDOT	Form 1425 - Determine if Company will be Performing as a Supplier	<a href="https://www.codot.gov/about/forms/cdot1425.xlsx">https://www.codot.gov/about/forms/cdot1425.xlsx</a>

Section	Source	Content	Website
5.G	CDOT	Form 1420 - DBE Participation Plan Modification Request	<a href="https://www.codot.gov/about/forms/cdot1420.xlsx">https://www.codot.gov/about/forms/cdot1420.xlsx</a>
5.G	CDOT	Form 1432 - Commercially Useful Function Questionnaire	<a href="https://www.codot.gov/about/forms/cdot1420.xlsx">https://www.codot.gov/about/forms/cdot1420.xlsx</a>



# 6 COMMISSIONING



## 6. Commissioning – Executive Summary

Commissioning is the process of testing the completed project to ensure that all parts of the project work as expected. Commissioning is an essential step in validating building equipment and systems in coordination with operations personnel and third parties. The Construction Manager (CM) will administer the commissioning process in accordance with the specifications required for the project. The designer of record, who is a part of the design team, specifies the process required to commission each element.

Contract documents will specify whether the commissioning may begin before substantial completion of the work or if it will take place once all construction is complete. Various project components may be completed and commissioned before other parts of the project as approved by the CM.

## 6.A Commissioning Plan

A commissioning plan is a supporting document to the Project Management Plan (PMP). The commissioning plan is developed early in the design phase and further refined with additional details as information becomes available with the completion of design. The commissioning plan must be finalized well before construction is complete. In addition, the commissioning plan provides guidance and details the key elements of the commissioning process, including roles and responsibilities, critical equipment list, owner furnished equipment (OFE) integrated testing, safety and security and emergency preparedness, Operations & Maintenance (O&M) manuals, training, as-built drawings, and warranty administration.

The commissioning plan is prepared with significant input from all internal and external stakeholders, although the Commissioning Manager is ultimately responsible for preparing the plan. The Commissioning Manager receives direction and oversight from the CM and completes the commissioning plan in close coordination with the design and construction teams. Prepared properly and used as a living document, the plan assures that all requirements are accurately incorporated in the design and construction bid documents and executed during construction and commissioning.

The subrecipient CM should manage the commissioning process. As part of the subrecipient requirements, the subrecipient's professional engineer must verify that the work was completed in accordance with the contract documents and specifications, which includes the acceptance of the commissioning process. For more information on the commissioning plan and the PMP, refer to **FTA 2016 Construction Project Management Handbook**, along with other resources identified in **Resource 6-A**.

## 6.B Owner-Furnished Equipment

Transit capital facilities may have some level of OFE due to long lead procurement cycles of equipment, when a high level of specialty is involved, or when equipment requirements are not known during the engineering phase. The subrecipient must fully integrate and account for the OFE in construction project work schedules and budget. The OFE can be:

- ▶ Any equipment that is not furnished by the contractor but will require installation facilities by the contractor.
- ▶ Any equipment that is not furnished and installed by the contractor but is required by the project to be fully operational to be accepted.

The CM ensures that the equipment is ordered and delivered in time for installation and that the contractor has the necessary facilities ready for operation of the OFE. The contractor must show owner furnished materials and equipment on their baseline schedule so that all related work is properly sequenced.

**Worth Noting – Traffic Signal Poles and Mast Arms:** Subrecipients regularly furnish traffic signal poles and mast arms. The lead time for these items is commonly long, and ordering the materials early may save significant amounts of time. If the subrecipient furnishes traffic signal poles and mast arms, the risk of underground utilities preventing a pole from being installed at the preferred location must be mitigated. Underground exploration for utilities needs to be performed in conjunction with the subrecipient furnishing the signal poles and mast arms. Knowing where existing utilities are allows a signal pole to be located in the clear and the mast arm sized to fit the preferred location.

For more information on risk mitigation *and* utilities coordination related to traffic signal poles and mast arms, refer to **Chapter 1B Project Lifecycle Reporting and Requirements** and **Chapter 4 Design and Engineering**.

## 6.C Integrated Testing and Start-up

Objectives of integrated testing are to:

- ▶ Verify all proof of design and construction tests performed by the contractor. The CM must observe all proof of design and construction tests. Usually, the contractor makes copies of these test reports available to the CM and for viewing by the Colorado Department of Transportation (CDOT) project manager.
- ▶ Ensure compliance with system performance requirements as a whole.
- ▶ Coordinate and comply with third-party requirements such as fire, police, etc.
- ▶ Document integrated testing results for safety and security certification.

An Integrated Test Plan (ITP) describing the test program is essential to fulfilling the previously identified objectives. The ITP supports the activities to verify compatibility of all new and old system elements and must encompass:

- ▶ Organizational roles and responsibilities
- ▶ Testing objectives
- ▶ Test approval process
- ▶ All planned tests and schedule
- ▶ Test procedures
- ▶ Test reports
- ▶ Documentation requirements

Test types include:

- ▶ Proof of construction tests
- ▶ Contractual material tests
- ▶ Factory/plant tests
- ▶ System tests
- ▶ Installation checkout tests
- ▶ Inspections
- ▶ Acceptance tests to provide verification of functional performance and contract compliance

These tests provide verification, validation, and documentation of system performance and operational characteristics. Finally, the subrecipient may want simulated operations tests to develop operating procedures, training, and familiarization among O&M staff. **Federal Transit Administration (FTA) Circular 5800.1**, linked in **Resource 6-A**, provides further detail on verification of operational readiness and verification of hazard and vulnerability resolution (discussed in further detail in **Section 6.D**).

## 6.D Safety and Security Certification

*Safety* is used to describe hazards (due to unintentional acts), while *security* is used to address vulnerabilities (due to intentional acts). While both terms apply to transit capital facility construction, the projects that are the subject of the **FTA Construction Project Management Handbook** fall mainly under bus transit mode (refer to the link in **Resource 6-A**). Standards that apply include:

- ▶ American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)
- ▶ Institute of Electrical and Electronics Engineers (IEEE)
- ▶ State of Colorado Building Codes and Standards

In addition, the CM should consider the following regulations by:

- ▶ Federal Motor Carrier Safety Administration (FMCSA)
- ▶ Occupational Safety and Health Administration (OSHA)
- ▶ FTA Drug & Alcohol Program
- ▶ Colorado Department of Motor Vehicles

Refer to **Resource 6-A** for more information about standards and regulations.

The CM, in coordination with safety and security personnel, typically self-certifies the transit capital facility project by developing and implementing a Safety and Security Certification Plan (SSCP). The SSCP specifies the process and activities to ensure that all safety and security requirements have been met and are documented to achieve operational readiness through final certification. It serves as the subrecipient's tool for managing an effective certification program and includes the following activities:

- ▶ Develop a certifiable elements list.
- ▶ Develop safety and security design criteria to identify project concerns.
- ▶ Develop and complete design checklists to verify that contract specifications and safety and security criteria are met.
- ▶ Develop and complete construction checklists to verify components, construction, and installation requirements are in accordance with design.
- ▶ Identify and monitor integrated tests.
- ▶ Provide safety, security, and emergency preparedness training classes to transit O&M staff.
- ▶ Provide or develop O&M manuals.
- ▶ Provide rules and procedures training to O&M staff.
- ▶ Provide training to emergency response personnel and conduct necessary emergency drills.
- ▶ Prepare and transmit the Safety and Security Certification Verification Report (SSCVR) to management and oversight personnel.

The SSCVR documents the final safety and security certification of conformance of the project acknowledging it is ready for operation and use. The SSCVR confirms that all formal safety and security certification documentation has been reviewed and work has been completed in conformance with criteria or a work-around has been effectively developed so that project safety or security is not hindered. All workarounds require a hazard analysis before operation and use to assess and effectively mitigate the hazard to an acceptable risk level for a defined period. The subrecipient's project manager approves and signs the final SSCVR.

**Worth Noting – Emergency Response Agencies:** The subrecipient should establish strong ties with emergency response agencies and resources to provide mutual assistance in major emergencies on or near the project. Emergency preparedness requires working with local emergency management groups to develop procedures and contingency plans specific to the project's location and nature and to perform specific drills to simulate emergencies.



## 6.E Operations and Maintenance Manuals

The contractor prepares and submits O&M manuals in accordance with specification requirements. Specifications address the systems and subsystems for which manuals are required. O&M manuals outline the media (bound hard copy, PDF, etc.), quantities, formatting, and schedule for all deliverables and documentation. The contractor shall assess liquidated damages if O&M manuals and follow-up training are not provided within the specified period well in advance of the operations by the construction management team. The CM ensures that the designers of record address all technical requirements for O&M manuals. In addition, the CM must also ensure that the designers of record specify schedule requirements for submitting O&M manuals well in advance of construction completion.

O&M manuals typically address the following items:

- ▶ Inspection maintenance and troubleshooting
- ▶ Required forms to document maintenance
- ▶ Authorized factory representative contact information for technical support and replacement parts
- ▶ Warranty
- ▶ Renewal parts listing and views
- ▶ Equipment ratings and specifications, including specific product data sheets
- ▶ Standards/code compliance
- ▶ Training and safe practices
- ▶ Receiving and handling
- ▶ Inspection and installation
- ▶ Description and operation
- ▶ Factory specified tests
- ▶ Control descriptions
- ▶ Environmental considerations

## 6.F Training and Transition to Operations

Under general direction of the subrecipient's project manager and supervision of the CM, the subrecipient may develop a training plan summarizing all needed training and listing employees subject to training requirements. The contractor or their subcontractors or suppliers typically provide equipment training, which takes place after the subrecipient's acceptance of the equipment and O&M manuals but before operations begin.

The CM works closely with the contractor to schedule personnel training classes. When a large number of personnel are involved, the subrecipient's project manager may choose to task experienced personnel with completing train-the-trainer sessions (if available) so that they may train others. The contractor must submit a detailed outline of the training program with the O&M manuals. The CM reviews the material for compliance with construction specifications and seeks input from the group being trained, as applicable.

Similarly, training must also be developed and delivered for new or updated plans, procedures, or rules applicable to a transit capital facility project. Training programs should be developed to support the effective and safe implementation of operation and use through standard O&M practices.

In addition, training programs for critical safety and security practices must include qualification components, such as exams or field practicals, to verify participants have retained and can skillfully execute assigned tasks. The contractor must maintain training documentation to ensure that all employees have met and continue to meet training requirements while employed by the subrecipient. Section 6.D provides additional information.

**STOP! The CM, in coordination with the contractor and training manager, must ensure that all training requirements are met and training material is turned over to the subrecipient.**

## 6.G As-Built Documentation

*As-built documentation* refers to “a set of drawings marked-up by the contractor building a facility or fabricating a piece of equipment that shows how the item or facility was actually built versus the way it was originally designed. At the completion of a project, the as-built drawings describe what was actually built”<sup>1</sup>. For additional information on as-built documentation, refer to **Chapter 5 Construction**.

For the purposes of commissioning, the **CDOT Standard Specifications Section 105.02(f)**, linked in **Resource 6-A**, requires that the contractor prepare a set of construction drawings noting all changes and deviations.

The CM verifies that the construction contractor is keeping drawings up to date and may require a review each month as a condition for processing monthly progress payments.

**Worth Noting – Designer of Record Scope:** The subrecipient must ensure that the scope of the contract stipulates the review, approval, and production of final as-built drawings with the designer of record. The scope of the contract must also define the format of as-built drawings. If the project’s CAD drawings must be updated with the contractor’s as-built information, the designer must provide this service. Field notes in the construction as-built set may be drawn by hand or provided as a markup in a PDF software package but are not likely to be in a CAD format.

The CM uses the as-built documentation as necessary to commission the project. As-built drawings save significant project costs and help local agencies avoid potential safety hazards during the operation and life of a facility. The CM reviews the final as-built drawings and checks that they are a part of the final commissioning report.

<sup>1</sup> [https://www.directives.doe.gov/terms\\_definitions/as-built-drawings-prior-to-and-after-construction#:~:text=Definition,describe%20what%20was%20actually%20built](https://www.directives.doe.gov/terms_definitions/as-built-drawings-prior-to-and-after-construction#:~:text=Definition,describe%20what%20was%20actually%20built).



## 6.H External Stakeholder Reviews

Prior to operation and use, the subrecipient may be subject to reviews by FTA, a project management oversight contractor, a state safety oversight agency, or other external agencies. The scope of these reviews should be coordinated with the external stakeholders and documented in the Safety and Security Maintenance Plan before project operation and use or after operation and use if proposed workarounds are approved. The corrective action plans must be developed, communicated, and implemented as directed by the external stakeholder.

For more information on audits and reviews, refer to **Chapter 1B Project Lifecycle Reporting and Requirements**.



## 6.I Post-Delivery Audit for Rolling Stock

Before transferring title for operation and use vehicles, **Buy America** regulations require the subrecipient to conduct a post-delivery audit to verify manufacturer compliance. The subrecipient or its construction management consultant may conduct this audit. Requirements for post-delivery audit are stipulated in **49 CFR 663**, and additional guidance is provided on **FTA's website**. **Resource 6-A** provides more information on Buy America, 49 CFR 663, and FTA guidance on post-delivery audits for rolling stock.

## 6.J Warranty Administration

A warranty is a manufacturer's written assurance to the subrecipient whereby the manufacturer assumes responsibility for the performance of equipment for a specified period after acceptance. The CM should not accept a piece of equipment before it is ready for overall operations. The CM should consider provisions for an extended warranty when equipment arrives. All equipment must be accepted well in advance of total operations, defined as the state of the transit capital facility where construction has completely ceased, and operations at the fullest level can commence. The CM should check the equipment warranties against any contractual requirements for warranties when equipment submittals are provided.



## Resource 6-A – Commissioning

### Essential Resources

Section	Source	Content	Website
All	FTA	2016 Construction Project Management Handbook	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
6.A	FTA	Project Management Plan (PMP) Development	<a href="https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development">https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development</a>
6.C	FTA	Circular 5800.1	<a href="https://www.transit.dot.gov/regulations-and-guidance/circular-final-fta-c-58001-safety-and-security-management-guidance-major">https://www.transit.dot.gov/regulations-and-guidance/circular-final-fta-c-58001-safety-and-security-management-guidance-major</a>
6.G	CDOT	Standard Specifications Section 105.02(f) (page I-18)	<a href="https://www.codot.gov/business/designsupport/C-DOT-construction-specifications/2019-construction-specifications/2019-specs-book/2019-standard-specifications">https://www.codot.gov/business/designsupport/C-DOT-construction-specifications/2019-construction-specifications/2019-specs-book/2019-standard-specifications</a>

### Additional Information

Section	Source	Content	Website
6.D	FTA	Drug & Alcohol Program	<a href="https://www.transit.dot.gov/drug-alcohol-program">https://www.transit.dot.gov/drug-alcohol-program</a>
6.D	Other Sources	American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)	<a href="https://www.ashrae.org/">https://www.ashrae.org/</a>
6.D	Other Sources	Institute of Electrical and Electronics Engineers (IEEE)	<a href="https://www.ieee.org/">https://www.ieee.org/</a>
6.D	Other Sources	State of Colorado Building Codes and Standards	<a href="https://cdola.colorado.gov/office-of-regulatory-oversight/building-codes-and-standards">https://cdola.colorado.gov/office-of-regulatory-oversight/building-codes-and-standards</a>
6.D	Other Sources	Federal Motor Carrier Safety Administration (FMCSA)	<a href="https://www.fmcsa.dot.gov/">https://www.fmcsa.dot.gov/</a>
6.D	Other Sources	Occupational Safety and Health Administration (OSHA)	<a href="https://www.osha.gov/">https://www.osha.gov/</a>
6.D	Other Sources	Colorado Department of Motor Vehicles	<a href="https://dmv.colorado.gov/">https://dmv.colorado.gov/</a>
6.I	Federal Law/Codes	49 CFR 663 - Pre-Award and Post Delivery Audits of Rolling Stock Purchases	<a href="https://www.ecfr.gov/current/title-49/subtitle-B/chapter-VI/part-663">https://www.ecfr.gov/current/title-49/subtitle-B/chapter-VI/part-663</a>
6.I	FTA	Buy America	<a href="https://www.transit.dot.gov/buyamerica">https://www.transit.dot.gov/buyamerica</a>
6.I	FTA	Conducting Pre-Award and Post-Delivery Audits for Rolling Stock Procurements	<a href="https://www.transit.dot.gov/regulations-and-guidance/buy-america/conducting-pre-award-and-post-delivery-audits-rolling-stock">https://www.transit.dot.gov/regulations-and-guidance/buy-america/conducting-pre-award-and-post-delivery-audits-rolling-stock</a>

# 7 PROJECT CLOSEOUT

**A** Project, Contractual, and Administrative Closeout

**B** Title, Real Property, Facilities, and Equipment Closeout

**C** Grants and Financial Closeout

**D** Records Closeout and Final Audit Report

## 7. Project Closeout – Executive Summary

Project closeout, in general, is the term used to signify the process by which a subrecipient, Colorado Department of Transportation (CDOT), and Federal Transit Administration (FTA) agree that all activities approved for the award have been completed and/or the federal assistance awarded has been expended for eligible costs. Project closeout involves wrapping up construction and professional services contracts, ensuring that stakeholders are engaged before the project wraps up, demobilizing subrecipient staff from the effort, and evaluating all project components to ensure that they meet agency standards.

In addition, the subrecipient must determine how to best store any information or property related to the project until records are no longer required and how to close out any financial obligations for FTA grants. FTA requires that a subrecipient maintain records related to the project for at least three years should any post-closeout activities, disputes, or other matters arise. Any subrecipient that has purchased property or holds other titles in their possession first needs to determine what to do with those assets. Coordination with the Department of Transit and Rail (DTR) during this step is essential.

Grants and financial closeout include submittals via the Colorado Transit and Rail Awards Management System (COTRAMS) for the subrecipient. DTR and other CDOT divisions mostly handle formal closeout and post-closeout reporting with FTA.

## 7.A Project, Contractual and Administrative Closeout

### 7.A.1 Construction Contracts

A subrecipient must close out a capital facility's construction contract agreements. For a typical construction contract, a subrecipient must confirm the completion and acceptability of the following activities:

- Step 1. The construction contractor delivers any operations and maintenance manuals for the facilities constructed and equipment installed and provides any associated training of subrecipient staff. Handover documentation from the contractor to the subrecipient may include the following depending on project complexity. For more information on final documentation, refer to the **2016 FTA 2016 Construction Manual** linked in **Resource 7-A**.
  - ▶ Final reports
  - ▶ Final payroll records and wage rate certifications
  - ▶ Spare parts list
  - ▶ Manufacturer's guarantees and warranties (refer to **Section 7.A.1, Step 4**)
  - ▶ Final corrected shop drawings (refer to **Section 7.A.1, Step 5**)
  - ▶ Operations and maintenance manuals
  - ▶ Catalogues and brochures
  - ▶ Invention disclosure (if applicable)
  - ▶ Property report (if there was government-furnished property)
  - ▶ Resolution of final quantities (construction contracts)
  - ▶ Final invoice and consent of Surety to release final payment to contractor
  - ▶ Contractor's Affidavit of Release of Liens
  - ▶ Contractor's General Release (releasing the subrecipient/CDOT from any further liabilities/claims under the contract)
  - ▶ Maintenance bond (if required)
- Step 2. The project architect issues a punch list to the general contractor before a Certificate of Occupancy (CoO) is requested from a local permitting authority. Note: The completion of the punch list may impact the as-built documentation as noted in **Step 6 of Section 7.A.1**.
- Step 3. FTA requires that the subrecipient obtain a CoO from their local permitting agency before the subrecipient occupies and begins using the facility and equipment. Local governments may have additional requirements related to CoO, but, at a minimum, this FTA requirement must be completed. At this point, the contract is substantially complete.

**Worth Noting – Contractor Responsibility:** Upon taking on CoO, the construction manager/engineer (whether a contracted person or in-house staff) must prepare a punch list of open items for the contractor to complete.

- Step 4. The subrecipient confirms that the contractor has initiated the guaranties and warranties associated with the facility and equipment.
- Step 5. The subrecipient confirms that the contractor has submitted the drawings of record that show the as-built condition of the constructed facility and installed equipment.
- Step 6. The subrecipient conducts a final walk-through inspection of the facility to confirm that the contractor has completed the open punch list items and all work has been completed correctly and satisfactorily.
- Step 7. The subrecipient resolves any outstanding change/claim disputes, as well as the determination/recovery of liquidated damages (as applicable).
- Step 8. With the previous activities satisfactorily completed, the subrecipient approves the final payment to the contractor and closes the contract.

For more information on construction and construction contracts, refer to **Chapter 5 Construction**.

### 7.A.2 Professional Services Contracts

Closing a professional services contract for projects involving design or management services does not involve as many milestones and activities as for a construction contract.

The following closeout activities are typical for a professional services contract:

- Step 1. The subrecipient confirms that the professional services contractor has satisfactorily delivered the services called for in the contract scope of work (SOW).
  - ▶ The subrecipient meets with the employed professional services firm to reach agreement on a timetable for closing down their services as the project concludes.
- Step 2. Where contract payments are on a cost plus fee basis, the contract provisions give the subrecipient the right to audit the contractor's costs. The audit must verify items such as direct labor rates, support for time charges, support for other direct costs, and justification for overhead rates.
- Step 3. Once the scope is satisfactorily completed and an audit is completed (as applicable), the subrecipient approves the final payment and releases any retention held back from previous contract payments.

### 7.A.3 Project Demobilization

Project demobilization is the process of reassigning staff from a transit capital facility project to new projects or responsibilities. Some subrecipients may need to complete these steps, while others may not. The following steps represent guidelines for agencies that may need to reallocate staff, rather than requirements for every subrecipient.

- Step 1. Subrecipient develops a staffing plan for the final phase of the project to account for any reduction in the subrecipient's workforce and those of the professional services consultants.
- Step 2. Subrecipient then works with their human resources department to help manage the transition of subrecipient staff off the project.

### 7.A.4 Project Evaluation

The subrecipient works with their finance staff to close out project funding. If a project receives FTA funds, the subrecipient should refer to **FTA Circular 5010.1E**, which sets out the required activities to satisfy FTA requirements that all project responsibilities and work are complete and the associated financial records are closed. Refer to **FTA Circular 5010.1E** and other resources listed in **Resource 7-A**. For more information on records closure, refer to **Section 7.D**.

### 7.A.5 Stakeholder Closure

An important aspect of project completion involves engaging any project stakeholders, project sponsors, or future users of the facilities and equipment on final project accomplishments and closeout. Documents such as a SOW or an engagement plan may formally set closure expectations for a project. Once the project team hands over the project deliverables to the operational users, the subrecipient project manager and any consultant team working on the project receive formal confirmation that a director or other person in charge of the local agency has officially accepted the project. Acceptance may include events such as approvals by town boards in official town meetings. This formal acceptance also provides an opportunity to celebrate project success with a public ceremony to mark the opening of a new facility.

## 7.B Title, Real Property, Facilities and Equipment Closeout

### 7.B.1 Title

- Step 1. Subrecipient staff, a hired acquisition specialist, and CDOT determine the value of real property.
- Step 2. If a subrecipient uses federal or state funding to purchase real property or facilities valued at \$5,000 or more, CDOT is listed as the first lienholder on the title.
- Step 3. If a title is available for equipment and supplies that exceed \$5,000 in value, the title stays with the subrecipient and CDOT is not listed as a lienholder.

### 7.B.2 Real Property

As defined in **2 Code of Federal Regulations (CFR) 200.311**, *real property* means “land, including land improvements, structures, and appurtenances thereto, but excludes movable machinery and equipment.”

**Resource 7-A** provides a link to this definition. Real property includes anything permanently affixed to the land, such as buildings, fences, and those things attached to the buildings that, if removed, would deface the structure or integrality of the building, such as plumbing, heating fixtures, etc. Except as otherwise provided by federal or state statutes or by DTR, real property must be used for the originally authorized purpose as long as needed for that purpose, during which time the subrecipient must not dispose of or encumber its title or other interests. Refer to **Chapter 6 of CDOT’s Statewide Management Plan (SMP)** linked in **Resource 7-A** for more details on real property.

- Step 1. When real property is no longer needed for the originally authorized purpose, the subrecipient obtains disposition instructions from DTR.
- Step 2. When directed to sell the property, the subrecipient follows sales procedures that provide for competition to the extent practicable and result in the highest possible return.
- Step 3. The subrecipient contacts DTR for sales procedures related to real property.
- Step 4. As required by DTR, the subrecipient submits, at least annually, reports on the status of real property in which the FTA retains an interest, unless the federal interest in the real property extends 15 years or longer. The subrecipient must update inventory annually, including facilities, in COTRAMS. The subrecipient should contact DTR for more information on this report.

Refer to **Chapter 3 Acquisition and Real Estate** for more information on what constitutes real property and how it can be used (or not used).

### 7.B.3 Facilities and Equipment Disposition

The subrecipient should follow DTR’s four-step disposition process, which is completed in COTRAMS:

- Step 1. The subrecipient submits a Disposition Concurrence Request (DCR) for their related capital inventory record.
- Step 2. The subrecipient receives Disposition Authorization from DTR.
- Step 3. DTR completes a Lien record release, as needed.
- Step 4. The subrecipient receives a Notice of Disposition when all items are completed in COTRAMS.

**Worth Noting – Minimum Useful Life Standards:** Federal- or state-funded facilities and equipment must meet or exceed established minimum useful life standards to qualify for disposition. **FTA Circular 5010.1E**, available in **Resource 7-A**, outlines minimum useful life standards. Before initiating disposal, the subrecipient must contact DTR to confirm that the asset is eligible for disposition and to confirm the process and requirements for disposal of facilities and equipment.





## 7.C Grants and Financial Closeout

The subrecipient initiates closeout of the award, within 90 days after the end of the period of performance or after all approved activities are completed and/or the applicable federal assistance has been expended for all eligible costs. The subrecipient must document any deviation from the approved award in a closeout amendment.

**Worth Noting – Closeout Timeline: Agencies must initiate closeout within 90 days after the end of the period of performance.**

### 7.C.1 Award Closeout in COTRAMS and SAP

To closeout an award in COTRAMS, follow these steps:

- Step 1. The award closeout process begins when a subrecipient marks a reimbursement request as “final.”
- Step 2. This triggers a Grant Closeout Liquidation Request in COTRAMS, and additional “tasks pending action” modules are automatically created in COTRAMS. The subrecipient must complete these modules.
- Step 3. The subrecipient submits Grant Closeout notice within 15 days in COTRAMS.
- Step 4. DTR reviews the Grant Closeout Liquidation Request and either accepts or rejects the request.
  - ▶ CDOT may request documentation from the subrecipient for records retention and auditing purposes.
  - ▶ CDOT Business Office ensures that all payments are cleared before any additional project closure takes place.
- Step 5. CDOT Procurement Office closes the project in SAP.
- Step 6. CDOT Business Office verifies that any purchase orders are closed.
- Step 7. CDOT Accounting submits any remaining reimbursement requests to FTA Electronic Clearing House Operation (ECHO).

### 7.C.2 Awards Closeout in FTA TrAMS

After all projects (subawards) are closed in a particular award, the DTR Project Coordination Unit Manager notifies the Business Office, Accounting Office, and Procurement Office through COTRAMS that all activities in the award are complete. Refer to **Flowchart 3-16** in **Chapter 3 of the SMP** listed in **Resource 7-A** for more information about closing out an FTA award.

DTR submits the following information to FTA’s Transit Award Management System (TrAMS). DTR may call on the subrecipient for help with the following information:

- ▶ Confirmation that activities are complete
- ▶ Determination if any closeout amendments de-obligate any unexpended balance of federal assistance
- ▶ List of property acquired or improved in support of the award that will continue to be within the purview of the Grant or Cooperative Agreement
- ▶ A final reconciled award budget reflecting actual project costs by scope code and activity, reflecting adjustments to the federal and non-federal amounts
- ▶ A final Federal Financial Report, consistent with the reconciled award budget (e.g., de-obligation)
- ▶ A final narrative Milestones Progress Report indicating the actual completion date of each activity line item and discussion of each activity line item contained in the final award budget
- ▶ Any other documentation or reports required as part of the terms and conditions of the Grant or Cooperative Agreement
- ▶ Project closeout form on COTRAMS



**Worth Noting – Records Retention:** CDOT retains all financial records of project activities on file for a minimum of 3 years from the project closeout date.

### 7.C.3 Adjustments to the Federal Share of Costs

FTA makes necessary adjustments to the federal share of the costs of the award after FTA receives and reviews the required closeout information. Adjustments may also be necessary after the “Single Audit” required by 2 CFR 200 and 2 CFR 200.501 is performed.

**Worth Noting – Returning Funds to FTA:** The subrecipient/CDOT must return to FTA any federal assistance received but not used. For additional information about the required audit and returning federal assistance to FTA, refer to **Chapter VI, “Financial Management,”** in **FTA Circular 5010.1E**, listed in **Resource 7-A**.

In addition, closeout of the award does not alter the subrecipient’s/CDOT’s obligation to return any federal assistance due to FTA as a result of later refunds, corrections, or other transactions. Closeout of the award does not alter FTA’s right to disallow costs and recover federal assistance on the basis of a later audit or other review. Unless prohibited by law, FTA may offset any federal assistance to be made available under its award necessary to satisfy any outstanding monetary claims that FTA may have against the subrecipient/CDOT. FTA directives or other written federal guidance sets forth exceptions pertaining to disallowed costs.

### 7.C.4 FTA Closeout Procedures

FTA follows their own protocol internally for project closeout. For more information, refer to **FTA Circular 5010.1E** in **Resource 7-A**.

### 7.C.5 Reporting Income after Closeout

Except as otherwise determined in writing, a subrecipient has no obligation to FTA regarding the disposition of program income earned after the end of the period of performance of the award. FTA may negotiate agreements with local agencies regarding appropriate uses of program income earned after the period of performance as part of the closeout process for the award. For more information on project income, refer to **Chapter 1B Project Lifecycle Reporting and Requirements**.

In some cases, the subrecipient must report income after an award is closed. When there is such a requirement, the retention period for the records pertaining to the earning of the income starts from the end of the subrecipient’s fiscal year (FY) in which the income is earned, even if it falls after the date of the closeout of the award. For example, if closeout occurs on September 5 and the subrecipient’s FY ends on June 30 of the following year, record retention begins the next day, on July 1.

### 7.C.6 Final Financial Audit

Before final acceptance of the contract work, CDOT’s External Audit Branch may perform a closing audit. This final closeout audit is performed upon completion of the contract to verify the accuracy of the billings and compliance with contract provisions.

CDOT will need to complete the following tasks related to financial documents:

- ▶ Sample a few financial transactions for accuracy, completeness, and review of source documentation (receipts), especially the appropriate use of funds.
- ▶ Determine that accounting transactions are recorded in a timely manner.
- ▶ Ask the Business Office if they have any concerns.
- ▶ Review where records are kept and how they are secured.



For more information, refer to **Appendix A of the SMP, “Retention Requirement for Procurement Documentation,”** listed in **Resource 7-A.**

The subrecipient must retain all procurement documents for at least three years. Procurement documents include solicitation copies, notice of award, notice to proceed, etc. for the final financial, and any future, audit. These documents are uploaded to COTRAMS as a part of the facility record.

For additional auditing information, refer to **Chapter 1B Project Lifecycle Reporting and Requirements.**



## 7.D Records Closeout and Final Audit Report

The subrecipient must keep written documentation of each procurement process for 3 years following completion of the project/procurement or project closeout, as recommended in **FTA’s Procurement Best Practices Manual** and **FTA Circular 4220.1F**, linked in **Resource 7-A**. For more information on records retention, refer to **Chapter 1B Project Lifecycle Reporting and Requirements** and **FTA Circular 5010**.

The subrecipient should promptly submit to CDOT a copy of any final report of an audit performed on their records relating to or affecting the capital facility project, regardless of whether the audit is conducted by the subrecipient or a third party. Also, if the subrecipient must perform a single audit under **2 CFR 200.501**, then the subrecipient must submit a copy of the audit results to CDOT within the same timeline as the submission to the federal government. **Appendix A of the SMP, “Retention Requirement for Procurement Documentation,”** provides more information on the disposal of records and other sensitive information related to the capital facility project. Instructions and details can be found in this CDOT resource listed in **Resource 7-A**.

## Resource 7-A – Project Closeout

### Essential Resources

Section	Source	Content	Website
7.A	FTA	2016 Construction Manual	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
7.A, 7.B, 7.C	FTA	Circular 5010.1E	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E.pdf</a>
7.B	CDOT	Statewide Management Plan, Chapter 6	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter6-program-management">https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter6-program-management</a>
7.C	CDOT	Flowchart 3-16 - Project and Award Closeout	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter3-awards-managementPDF_p.117">https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter3-awards-managementPDF_p.117</a>
7.C	Federal Code/Laws	2 CFR 200 - Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200?toc=1">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200?toc=1</a>
7.C	FTA	Chapter VI, Financial Management (Circular 5010.1E)	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E.pdf</a>
7.C, 7.D	CDOT	Statewide Management Plan, Appendix A, Retention Requirement for Procurement Documentation	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan/appendix-a-federal-funds.pdf">https://www.codot.gov/programs/transitandrail/assets/state-management-plan/appendix-a-federal-funds.pdf</a>
7.D	FTA	Circular 4220 1.F	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Third%20Party%20Contracting%20Guidance%20%28Circular%204220.1F%29.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Third%20Party%20Contracting%20Guidance%20%28Circular%204220.1F%29.pdf</a>
7.D	FTA	Best Practices/Lessons Learned Manual	<a href="https://www.transit.dot.gov/funding/procurement/third-party-procurement/best-practices-procurement-manual">https://www.transit.dot.gov/funding/procurement/third-party-procurement/best-practices-procurement-manual</a>

### Additional Information

Section	Source	Content	Website
7.B	Federal Code/Laws	2 CFR 200.311 - Real Property	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.311">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.311</a>
7.C, 7.D	Federal Code/Laws	2 CFR 200.501 - Audit Requirements	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-F/subject-group-ECFRfd0932e473d10ba/section-200.501">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-F/subject-group-ECFRfd0932e473d10ba/section-200.501</a>



## List of Resources

### Resource A - Essential Resources

Section	Source	Content	Website
1A.A	FTA	Transportation Planning Resources	<a href="https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/transportation-planning">https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/transportation-planning</a>
1A.A, 1A.B, 1A.C, 1A.D	CDOT	2045 Statewide Transit Plan	<a href="https://www.codot.gov/programs/yourtransportationpriorities/statewide-transit-plan">https://www.codot.gov/programs/yourtransportationpriorities/statewide-transit-plan</a>
1A.D	CDOT	Colorado Transportation Planning Regions (TPRs) 2022	<a href="https://dtdapps.coloradodot.info/staticdata/Downloads/StatewideMaps/TPR.pdf">https://dtdapps.coloradodot.info/staticdata/Downloads/StatewideMaps/TPR.pdf</a>
1A.F	FTA	5339 Bus and Bus Facilities	<a href="https://www.transit.dot.gov/bus-program">https://www.transit.dot.gov/bus-program</a>
1A.F	FTA	5309 Capital Investments Grants	<a href="https://www.transit.dot.gov/CIG">https://www.transit.dot.gov/CIG</a>
1A.F	FTA	5339(a) Bus and Bus Facilities	<a href="https://www.transit.dot.gov/funding/grants/busprogram">https://www.transit.dot.gov/funding/grants/busprogram</a>
1A.F	FTA	FTA Circular 5100.1	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Final_FTA_C_5100_4-16-15.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Final_FTA_C_5100_4-16-15.pdf</a>
1A.F	FTA	5337 State of Good Repair	<a href="https://www.transit.dot.gov/funding/grants/state-good-repair-grants-5337">https://www.transit.dot.gov/funding/grants/state-good-repair-grants-5337</a>
1A.F	FTA	FTA Circular 9070.1G	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/C9070_1G_FINAL_circular_4-20-15%281%29.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/C9070_1G_FINAL_circular_4-20-15%281%29.pdf</a>
1A.F	FTA	5311 Formula Grants for Nonurbanized/Rural Areas	<a href="https://www.transit.dot.gov/regulations-and-guidance/legislation/arra/non-urbanized-area-formula-section-5311">https://www.transit.dot.gov/regulations-and-guidance/legislation/arra/non-urbanized-area-formula-section-5311</a>
1A.F	FTA	FTA Circular 9040.1G	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Circular_9040_1Gwith_index_-_Final_Revised_-_vm_10-15-14%281%29.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Circular_9040_1Gwith_index_-_Final_Revised_-_vm_10-15-14%281%29.pdf</a>
1A.G	FTA	FTA Discretionary Funds - more information (Sort by "Competitive Grants" to find Competitive/ Discretionary Funding Sources)	<a href="https://www.transit.dot.gov/grants">https://www.transit.dot.gov/grants</a>
1A.G	CDOT - DTR	Notice of Funding Available (NOFA) (2024)	<a href="https://www.codot.gov/programs/transitandrail/assets/nofa-announcements">https://www.codot.gov/programs/transitandrail/assets/nofa-announcements</a>
1A.G	CDOT - DTR	NOFA Guidance for Admin, Operating, Mobility Management and Planning Projects (2024)	<a href="https://www.codot.gov/programs/transitandrail/assets/nofa-announcements/nofa_2024-a-o-mm-planning-call_final_5-22-23.pdf">https://www.codot.gov/programs/transitandrail/assets/nofa-announcements/nofa_2024-a-o-mm-planning-call_final_5-22-23.pdf</a>
1A.G	CDOT - DTR	Quick Procurement Guide	<a href="https://www.codot.gov/programs/transitandrail/assets/cdot-quick-procurement-guide">https://www.codot.gov/programs/transitandrail/assets/cdot-quick-procurement-guide</a>
1A.H	CDOT	General Statewide Transportation Improvement Plan (STIP) information	<a href="https://www.codot.gov/programs/planning/transportation-plans-and-studies/stip">https://www.codot.gov/programs/planning/transportation-plans-and-studies/stip</a>
1A.J	FTA	FTA Circular 4702.1B Title VI Requirements	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Title_VI_FINAL.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Title_VI_FINAL.pdf</a>





Section	Source	Content	Website
1A.J	FTA	FTA Circular 5010.1E	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E_1.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E_1.pdf</a>
1B.A, 1B.B, 1B.D, 1B.F, 1B.G, 1B.H, 1B.J, 1B.L	CDOT - DTR	Statewide Management Plan (SMP)	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan">https://www.codot.gov/programs/transitandrail/assets/state-management-plan</a>
1B.B, 1B.C, 1B.H	Federal Code	2 CFR 200, Subparts A-F	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200?toc=1">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200?toc=1</a>
1B.B, 1B.H	FTA	Circular 5010.1E	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-guidance/fta-circulars/58051/5010-1e-circular-award-management-requirements-7-16-18.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-guidance/fta-circulars/58051/5010-1e-circular-award-management-requirements-7-16-18.pdf</a>
1B.D, 1B.E, 1B.L	FTA	Circular 4220.1F	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/ThirdParty%20Contracting%20Guidance%20%28Circular%204220.1F%29.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/ThirdParty%20Contracting%20Guidance%20%28Circular%204220.1F%29.pdf</a>
1B.E, 1B.F	FTA	Annual List of Certifications and Assurances for FTA Grants and Cooperative Agreements	<a href="https://www.transit.dot.gov/funding/grantee-resources/certifications-and-assurances/certifications-assurances">https://www.transit.dot.gov/funding/grantee-resources/certifications-and-assurances/certifications-assurances</a>
1B.G	State of Colorado	List of Disadvantaged Business Enterprise (DBE) Firms	<a href="https://coucp.dbesystem.com/FrontEnd/SearchCertifiedDirectory.asp?XID=8140&amp;TN=coucp">https://coucp.dbesystem.com/FrontEnd/SearchCertifiedDirectory.asp?XID=8140&amp;TN=coucp</a>
1B.G	CDOT	Disadvantaged Business Enterprise (DBE) Program Overview	<a href="https://www.codot.gov/business/civilrights/smallbusiness/dbe">https://www.codot.gov/business/civilrights/smallbusiness/dbe</a>
2.A	EPA	What is the National Environmental Policy Act?	<a href="https://www.epa.gov/nepa/what-national-environmental-policy-act">https://www.epa.gov/nepa/what-national-environmental-policy-act</a>
2.A	FHWA	Frequently Asked Questions on the Environmental Review Process	<a href="https://www.environment.fhwa.dot.gov/legislation/authorizations/safetealu/reviewProcess_faq.aspx">https://www.environment.fhwa.dot.gov/legislation/authorizations/safetealu/reviewProcess_faq.aspx</a>
2.A	FHWA/FTA	Environmental Impact and Related Procedures, Categorical Exclusions, and Guidance for Categorical Exclusions (CEs) (23 CFR 771)	<a href="https://www.ecfr.gov/current/title-23/chapter-I/subchapter-H/part-771">https://www.ecfr.gov/current/title-23/chapter-I/subchapter-H/part-771</a>
2.A	FTA	Environmental Standard Operating Procedures	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/environmental-standard-operating-procedures">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/environmental-standard-operating-procedures</a>
2.A	FTA	Environmental Review Process	<a href="https://www.transit.dot.gov/regulations-and-programs/environmental-programs/environmental-review-process#:~:text=NEPA%20is%20the%20primary%20law,projects%2C%20both%20large%20and%20small.">https://www.transit.dot.gov/regulations-and-programs/environmental-programs/environmental-review-process#:~:text=NEPA%20is%20the%20primary%20law,projects%2C%20both%20large%20and%20small.</a>
2.A	FTA	FTA Region 8 Bulletin No: 2016-12 FTA Environmental Standard Operating Procedures	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/2016-12%20FTA%20Environmental%20SOPs.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/2016-12%20FTA%20Environmental%20SOPs.pdf</a>
2.B	FTA	Guidance for Implementation of FTA's Categorical Exclusions	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/guidance-implementation-ftas-categorical-exclusions">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/guidance-implementation-ftas-categorical-exclusions</a>



Section	Source	Content	Website
2.B	FTA	Environmental Standard Operating Procedures: SOP No:20 - Agency Roles and Government-to-Government Coordination	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/agency-roles-and-government-government-coordination">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/agency-roles-and-government-government-coordination</a>
2.B	FTA	Environmental Standard Operating Procedures: SOP No:2 - Determining Class of Action	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/determining-class-action">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/determining-class-action</a>
2.B	FTA	Environmental Standard Operating Procedures: SOP No:3 - Early Scoping	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/early-scoping">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/early-scoping</a>
3.A, 3.D, 3.E, 3.H	FTA	Uniform Relocation Assistance and Real Property Acquisition Policies Act Guide	<a href="https://apps.itd.idaho.gov/apps/pt/capital/FTAURAGuide.pdf">https://apps.itd.idaho.gov/apps/pt/capital/FTAURAGuide.pdf</a>
3.A, 3.G	FTA	Circular 5010.1E	<a href="https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/award-management-requirements-circular-50101e">https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/award-management-requirements-circular-50101e</a>
3.B	CDOT	Certified Appraisers List	<a href="https://www.codot.gov/business/manuals/right-of-way-manual/supplemental-information/CDOT-approved-appraiser-list.pdf">https://www.codot.gov/business/manuals/right-of-way-manual/supplemental-information/CDOT-approved-appraiser-list.pdf</a>
3.C, 3.E, 3.G	Federal Code/Laws	49 CFR 24 - Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs	<a href="https://www.law.cornell.edu/cfr/text/49/part-24">https://www.law.cornell.edu/cfr/text/49/part-24</a>
4.A, 4.D, 4.E, 4.G, 4.H, 4.J, 4.L	FTA	2016 Construction Project Management Handbook	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
4.A	FTA	Project Management Plan (PMP) Development	<a href="https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development">https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development</a>
4.B	FTA	Cost Estimation for FTA Funded Transit Projects	<a href="https://www.transit.dot.gov/regulations-and-guidance/cost-estimation-fta-funded-transit-projects">https://www.transit.dot.gov/regulations-and-guidance/cost-estimation-fta-funded-transit-projects</a>
4.C	FTA	Capital Investment Grants Policy Guidance 2023	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-01/CIG-Policy-Guidance-January-2023.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-01/CIG-Policy-Guidance-January-2023.pdf</a>
4.C	FTA	Final Interim Policy Guidance - FTA Capital Investment Grant Program January 2023	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-01/CIG-Policy-Guidance-January-2023.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-01/CIG-Policy-Guidance-January-2023.pdf</a>
4.D, 4.E, 4.G	FTA	2016 Construction Project Management Handbook, Chapter 5 (4.D - pg. 68; 4.E - pg. 64; 4.G - pg. 69)	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
4.K	FTA	2019 Quality Management System Guidelines	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/grant-programs/capital-investments/8536/final-qms-guidelines-2019_1.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/grant-programs/capital-investments/8536/final-qms-guidelines-2019_1.pdf</a>
5.A	Federal Transit Agency (FTA)	2016 Construction Project Management Handbook	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>



Section	Source	Content	Website
5.B	CDOT	2022 Standard Specifications for Road and Bridge Construction	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</a>
5.B	CDOT	Disadvantaged Business Enterprise (DBE) Compliance Overview	<a href="https://www.codot.gov/business/civilrights/compliance/construction/dbe-compliance/dbe-overview">https://www.codot.gov/business/civilrights/compliance/construction/dbe-compliance/dbe-overview</a>
5.B	CDOT	Prequalified Contractor List	<a href="https://www.codot.gov/business/bidding/Prequalified%20Contractors">https://www.codot.gov/business/bidding/Prequalified%20Contractors</a>
5.B	CDOT	Standard Specification 107.15- Responsibility for Damage Claims, Insurance Types and Coverage Limits (PDF page 118)	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</a>
5.B	DOL (Federal)	Davis-Bacon and Related Acts	<a href="https://www.dol.gov/agencies/whd/government-contracts/construction">https://www.dol.gov/agencies/whd/government-contracts/construction</a>
5.B, 5.F, 5.G	CDOT	Civil Rights, Labor Compliance, and Disadvantaged Business Enterprise Requirements for FTA Assisted Subrecipient Contracts	<a href="https://www.codot.gov/business/civilrights/titlevi/fta-subrecipients">https://www.codot.gov/business/civilrights/titlevi/fta-subrecipients</a>
5.C	CDOT	Standard Specification 107.06 - Safety, Health, and Sanitation and Performance of Safety Critical Work	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</a>
5.C	CDOT	Standard Specification 108.02 - Notice to Proceed (NTP) (PDF page 127)	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</a>
5.C, 5.E	CDOT	2019 Construction Manual	<a href="https://www.codot.gov/business/designsupport/bulletins_manuals/construction-manual/construction-manual.pdf">https://www.codot.gov/business/designsupport/bulletins_manuals/construction-manual/construction-manual.pdf</a>
5.E	CDOT	Standard Specification 109.04 - Notice to Proceed (NTP) (PDF page 142)	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</a>
5.E	CDOT	Civil Rights Programs	<a href="https://www.codot.gov/business/civilrights">https://www.codot.gov/business/civilrights</a>
5.E	CDOT	Prompt Payment	<a href="https://www.codot.gov/business/civilrights/compliance/construction/payroll/prompt-payment#:~:text=What%20are%20CDOT's%20Prompt%20Payment,of%20receiving%20payment%20from%20CDOT">https://www.codot.gov/business/civilrights/compliance/construction/payroll/prompt-payment#:~:text=What%20are%20CDOT's%20Prompt%20Payment,of%20receiving%20payment%20from%20CDOT</a>
6.A, 6.B, 6.C, 6.D, 6.E, 6.F, 6.G, 6.H, 6.I, 6.J	FTA	2016 Construction Project Management Handbook	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
6.A	FTA	Project Management Plan (PMP) Development	<a href="https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development">https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development</a>



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6.C	FTA	Circular 5800.1	<a href="https://www.transit.dot.gov/regulations-and-guidance/circular-final-fta-c-58001-safety-and-security-management-guidance-major">https://www.transit.dot.gov/regulations-and-guidance/circular-final-fta-c-58001-safety-and-security-management-guidance-major</a>
6.G	CDOT	Standard Specifications Section 105.02(f) (page I-18)	<a href="https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2019-construction-specifications/2019-specs-book/2019-standard-specifications">https://www.codot.gov/business/designsupport/CDOT-construction-specifications/2019-construction-specifications/2019-specs-book/2019-standard-specifications</a>
7.A	FTA	2016 Construction Manual	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
7.A, 7.B, 7.C	FTA	Circular 5010.1E	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E.pdf</a>
7.B	CDOT	Statewide Management Plan, Chapter 6	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter6-program-management">https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter6-program-management</a>
7.C	CDOT	Flowchart 3-16 - Project and Award Closeout	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter3-awards-managementPDF_p.117">https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter3-awards-managementPDF_p.117</a>
7.C	Federal Code/Laws	2 CFR 200 - Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200?toc=1">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200?toc=1</a>
7.C	FTA	Chapter VI, Financial Management (Circular 5010.1E)	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Grant%20Management%20Requirements%20Circular_5010-1E.pdf</a>
7.C, 7.D	CDOT	Statewide Management Plan, Appendix A, Retention Requirement for Procurement Documentation	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan/appendix-a-federal-funds.pdf">https://www.codot.gov/programs/transitandrail/assets/state-management-plan/appendix-a-federal-funds.pdf</a>
7.D	FTA	Circular 4220 1.F	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/ThirdParty%20Contracting%20Guidance%20%28Circular%204220.1F%29.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/ThirdParty%20Contracting%20Guidance%20%28Circular%204220.1F%29.pdf</a>
7.D	FTA	Best Practices/Lessons Learned Manual	<a href="https://www.transit.dot.gov/funding/procurement/third-party-procurement/best-practices-procurement-manual">https://www.transit.dot.gov/funding/procurement/third-party-procurement/best-practices-procurement-manual</a>



## Resource B - Additional Information

Section	Source	Content	Website
1A.A	CDOT	10-Year Vision Plan	<a href="https://www.codot.gov/programs/yourtransportationpriorities/your-transportation-plan">https://www.codot.gov/programs/yourtransportationpriorities/your-transportation-plan</a>
1A.A	FTA/FHWA	Model Long-Range Transportation Plans: A Guide for Performance-Based Planning*	<a href="https://www.fhwa.dot.gov/planning/performance_based_planning/mlrtp_guidebook/fhwahep23018.pdf?v=2">https://www.fhwa.dot.gov/planning/performance_based_planning/mlrtp_guidebook/fhwahep23018.pdf?v=2</a>
1A.A, 1A.B, 1A.C, 1A.D	CDOT	Regional Transit/Transportation Plans	<a href="https://www.codot.gov/programs/yourtransportationpriorities/regional-transportation-plans">https://www.codot.gov/programs/yourtransportationpriorities/regional-transportation-plans</a>
1A.B	Additional Sources	Northwest Colorado Council of Governments Transportation Gap Analysis Assessment	<a href="https://www.nwccog.org/wp-content/uploads/2021/11/Gap-Analysis-Report-Complete.pdf">https://www.nwccog.org/wp-content/uploads/2021/11/Gap-Analysis-Report-Complete.pdf</a>
1A.C	Additional Sources	Roaring Fork Transit Agency Proposed Transit and Multimodal Improvements	<a href="https://www.rfta.com/2040roadmap/">https://www.rfta.com/2040roadmap/</a>
1A.E	Additional Sources	Capital Projects Definition & Considerations	<a href="https://ofm.wa.gov/sites/default/files/public/legacy/budget/instructions/capinst/15-25capinstr/chapter2.pdf">https://ofm.wa.gov/sites/default/files/public/legacy/budget/instructions/capinst/15-25capinstr/chapter2.pdf</a>
1A.F	Additional Source	Senate Bill (SB)-260	<a href="https://leg.colorado.gov/sb21-260-bill-summary">https://leg.colorado.gov/sb21-260-bill-summary</a>
1A.F	Additional Source	Senate Bill (SB)-267	<a href="https://leg.colorado.gov/sites/default/files/cdot_ga_on_sb17-267s_effects_on_transportation_funding.pdf">https://leg.colorado.gov/sites/default/files/cdot_ga_on_sb17-267s_effects_on_transportation_funding.pdf</a>
1A.F	CDOT	Senate Bill (SB)-267 State Report	<a href="https://www.codot.gov/about/committees/trac/Agendas-and-Minutes/2022/may-13-2022/06e-sb-267-status-report_tc-may-2022.pdf">https://www.codot.gov/about/committees/trac/Agendas-and-Minutes/2022/may-13-2022/06e-sb-267-status-report_tc-may-2022.pdf</a>
1A.F	CDOT	Funding Advancements for Surface Transportation and Economic Recovery Act of 2009 (FASTER) Grants	<a href="https://www.codot.gov/projects/archived-project-sites/faster/faster-transit-grants">https://www.codot.gov/projects/archived-project-sites/faster/faster-transit-grants</a>
1A.F, 1A.G	CDOT	Clean Transit Enterprise (CTE) Zero Emission Vehicle (ZEV) Transition Planning Funds	<a href="https://www.codot.gov/programs/innovativemobility/cte">https://www.codot.gov/programs/innovativemobility/cte</a>
1A.G	CDOT	Local Match Waiver for Federally Funded Projects - Toll Credits**	<a href="https://www.codot.gov/business/budget/documents/hot-topics/toll-credits-for-local-agency-match-6-2020-1-1.pdf">https://www.codot.gov/business/budget/documents/hot-topics/toll-credits-for-local-agency-match-6-2020-1-1.pdf</a>
1A.G	CDOT - DTR	COTRAMS Community User's Manual and Instructions	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan/appendix-c-cotrams-system-community-user-manual.pdf">https://www.codot.gov/programs/transitandrail/assets/state-management-plan/appendix-c-cotrams-system-community-user-manual.pdf</a>
1A.G	CDOT - DTR	Chapter 3 - Award Management (State Management Plan)	<a href="https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter3-awards-management">https://www.codot.gov/programs/transitandrail/assets/state-management-plan/chapter3-awards-management</a>
1A.G	CDOT - DTR	COTRAMS instructions for Clean Transit Enterprise (CTE) applications	<a href="https://www.codot.gov/programs/transitandrail/assets/nofa-announcements/cotrams_create-cte-applications-instructions.pdf">https://www.codot.gov/programs/transitandrail/assets/nofa-announcements/cotrams_create-cte-applications-instructions.pdf</a>



Section	Source	Content	Website
1A.G	Federal Code of Registers	Title 49 CFR part 21, Appendix C, Section (3)(iv)	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-21">https://www.ecfr.gov/current/title-49/subtitle-A/part-21</a>
1A.G	Federal Code	2 CFR 200.1 - Indirect Costs Definition	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-A/subject-group-ECFR2a6a0087862fd2c/section-200.1#p-200.1">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-A/subject-group-ECFR2a6a0087862fd2c/section-200.1#p-200.1</a>
1A.G, 1A.J	CDOT	2020 FTA Title VI Guidance (CDOT form)	<a href="https://www.codot.gov/business/civilrights/titlevi/title-vi-assets/fta-title-vi-subrecipient-template-final-2020.docx">https://www.codot.gov/business/civilrights/titlevi/title-vi-assets/fta-title-vi-subrecipient-template-final-2020.docx</a>
1A.G, 1A.J	FTA	2020 FTA Title VI Guidance (CDOT Reference)	<a href="https://www.codot.gov/business/civilrights/titlevi/title-vi-assets/dtr-title-vi-plan_2020.pdf">https://www.codot.gov/business/civilrights/titlevi/title-vi-assets/dtr-title-vi-plan_2020.pdf</a>
1A.H	CDOT	CDOT Guidance for Processing Statewide Transportation Improvement Program (STIP) Amendments, Administrative Modifications and the Annual Statewide Transportation Improvement Program (STIP) Update	<a href="https://www.codot.gov/programs/planning/assets/statewide-transportation-improvement-program-stip/stip-amendment-guidelines-final-adopted.pdf">https://www.codot.gov/programs/planning/assets/statewide-transportation-improvement-program-stip/stip-amendment-guidelines-final-adopted.pdf</a>
1A.H	CDOT	Statewide Transportation Improvement Program (STIP) Development Guidance and 4P Process	<a href="https://www.codot.gov/programs/planning/assets/statewide-transportation-improvement-program-stip/stip-development-guidance-and-4p-process-updated-may-2022.pdf">https://www.codot.gov/programs/planning/assets/statewide-transportation-improvement-program-stip/stip-development-guidance-and-4p-process-updated-may-2022.pdf</a>
1A.I	Additional Sources	City of Eau Claire Transit Center Site Selection Study (example)	<a href="https://wisconsin.dot.gov/Documents/doing-bus/local-gov/astnce-pgms/transit/ec-site.pdf">https://wisconsin.dot.gov/Documents/doing-bus/local-gov/astnce-pgms/transit/ec-site.pdf</a>
1A.I	FTA	Transit Facilities “Checklist” for FTA-Funded Projects	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/Transit_Facility_Checklist_for_Grantees--3-6-09_revi_5010_1D.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/Transit_Facility_Checklist_for_Grantees--3-6-09_revi_5010_1D.pdf</a>
1A.I	FTA	FTA Circular 4704.1	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-guidance/civil-rights-ada/56501/eeo-circular-c-47041a.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-guidance/civil-rights-ada/56501/eeo-circular-c-47041a.pdf</a>
1B.A	CDOT	Business Center - Change Management Overview	<a href="https://www.codot.gov/business/project-management/scoping/change-management">https://www.codot.gov/business/project-management/scoping/change-management</a>
1B.A	CDOT	Business Center - Quality Management Overview	<a href="https://www.codot.gov/business/project-management/scoping/quality-management">https://www.codot.gov/business/project-management/scoping/quality-management</a>
1B.A	CDOT	Business Center - Schedule Management Overview	<a href="https://www.codot.gov/business/project-management/scoping/schedule-management">https://www.codot.gov/business/project-management/scoping/schedule-management</a>
1B.A	CDOT	Business Center - Scope Management Overview	<a href="https://www.codot.gov/business/project-management/scoping/scope-management">https://www.codot.gov/business/project-management/scoping/scope-management</a>
1B.A	FTA	Project Delivery Method Review (OP32D)	<a href="https://www.transit.dot.gov/regulations-and-guidance/project-delivery-method-review-op32d">https://www.transit.dot.gov/regulations-and-guidance/project-delivery-method-review-op32d</a>
1B.A	FTA	Project Management Plan (PMP) Development	<a href="https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development">https://www.transit.dot.gov/funding/procurement/project-management-plan-pmp-development</a>
1B.A	FTA	Project Management Plan Review (OP20)	<a href="https://www.transit.dot.gov/regulations-and-guidance/project-management-plan-review-op20">https://www.transit.dot.gov/regulations-and-guidance/project-management-plan-review-op20</a>
1B.A	FTA	Project Schedule Review (OP34)	<a href="https://www.transit.dot.gov/regulations-and-guidance/project-schedule-review-op34">https://www.transit.dot.gov/regulations-and-guidance/project-schedule-review-op34</a>





Section	Source	Content	Website
1B.A	FTA	Project Scope Review (OP32C)	<a href="https://www.transit.dot.gov/regulations-and-guidance/project-scope-review-op32c">https://www.transit.dot.gov/regulations-and-guidance/project-scope-review-op32c</a>
1B.A	CDOT	Requirements for FTA Subrecipients	<a href="https://www.codot.gov/business/civilrights/titlevi/fta-subrecipients">https://www.codot.gov/business/civilrights/titlevi/fta-subrecipients</a>
1B.A	CDOT	Rural Planning Assistance	<a href="https://www.codot.gov/programs/planning/assets/planning-partners/rural-planning-assistance-rpa-program-guide">https://www.codot.gov/programs/planning/assets/planning-partners/rural-planning-assistance-rpa-program-guide</a>
1B.B	Federal Code	2 CFR 1201.80 - Program Income (PDF page 301)	<a href="https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201/section-1201.80">https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201/section-1201.80</a>
1B.B	Federal Code	2 CFR 200, Subpart D - Post Federal Award Requirements Property Standards (PDF page 260)	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D</a>
1B.B	Federal Code	2 CFR 200.1 - Indirect Costs Definition	<a href="https://www.ecfr.gov/current/title-2/part-200/section-200.1#p-200.1(Indirect%20(facilities%20%26amp%3B%20administrative%20(F%26amp%3BA))%20costs)">https://www.ecfr.gov/current/title-2/part-200/section-200.1#p-200.1(Indirect%20(facilities%20%26amp%3B%20administrative%20(F%26amp%3BA))%20costs)</a>
1B.B	Federal Code	2 CFR 200.305 - Federal Payments	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.305">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.305</a>
1B.B	Federal Code	2 CFR 200.311 - Real Property	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.311">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.311</a>
1B.B	Federal Code	2 CFR 200.501(a-c) - Audit Requirements	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-F/subject-group-ECFRfd0932e473d10ba/section-200.501">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-F/subject-group-ECFRfd0932e473d10ba/section-200.501</a>
1B.B	Federal Code	31 CFR 205 - Funds Transfers	<a href="https://www.ecfr.gov/current/title-31/subtitle-B/chapter-II/subchapter-A/part-205?toc=1">https://www.ecfr.gov/current/title-31/subtitle-B/chapter-II/subchapter-A/part-205?toc=1</a>
1B.B	DOT	Transit Award Management System (TrAMs) Portal	<a href="https://www.transit.dot.gov/funding/grantee-resources/teamtrams/transit-award-management-system-trams">https://www.transit.dot.gov/funding/grantee-resources/teamtrams/transit-award-management-system-trams</a>
1B.B	DOT	Electronic Clearing House Operation (ECHO) Portal	<a href="https://www.transit.dot.gov/funding/grantee-resources/echo/electronic-clearing-house-operation-echo">https://www.transit.dot.gov/funding/grantee-resources/echo/electronic-clearing-house-operation-echo</a>
1B.B	FTA	FTA Master (Grants) Agreements	<a href="https://www.transit.dot.gov/funding/grantee-resources/sample-fta-agreements/fta-grant-agreements">https://www.transit.dot.gov/funding/grantee-resources/sample-fta-agreements/fta-grant-agreements</a>
1B.B	Federal Laws	2 CFR 1201 Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards	<a href="https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201">https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201</a>
1B.B	Federal Laws	2 CFR 1201.80 Program Income	<a href="https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201/section-1201.80">https://www.ecfr.gov/current/title-2/subtitle-B/chapter-XII/part-1201/section-1201.80</a>
1B.B	FTA	Circular 9040.1G	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Circular_9040_1Gwith_index_-_Final_Revised_-_vm_10-15-14%281%29_1.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Circular_9040_1Gwith_index_-_Final_Revised_-_vm_10-15-14%281%29_1.pdf</a>
1B.B	FTA	Grants Programs	<a href="https://www.transit.dot.gov/grants">https://www.transit.dot.gov/grants</a>
1B.B, 1B.H	Federal Code	2 CFR 200.313 - Equipment	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.313">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.313</a>



Section	Source	Content	Website
1B.D	Federal Laws	2 CFR 200.321 Contracting with Small and Minority Businesses	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.321">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.321</a>
1B.D	Federal Laws	2 CFR 200.326 Contract Provisions	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.326#:~:text=C2%A7%20200.326%20Bonding%20requirements.&amp;text=The%20E2%80%9Cbid%20guarantee%E2%80%9D%20must%20consist,required%20within%20the%20time%20specified.">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.326#:~:text=C2%A7%20200.326%20Bonding%20requirements.&amp;text=The%20E2%80%9Cbid%20guarantee%E2%80%9D%20must%20consist,required%20within%20the%20time%20specified.</a>
1B.D	Federal Laws	2 CFR 200.320 Procurement Methods	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.320">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.320</a>
1B.D	Federal Laws	49 USC 5325 Contract Requirements	<a href="https://www.law.cornell.edu/uscode/text/49/5325#:~:text=Recipients%20of%20assistance%20under%20this,as%20determined%20by%20the%20Secretary.">https://www.law.cornell.edu/uscode/text/49/5325#:~:text=Recipients%20of%20assistance%20under%20this,as%20determined%20by%20the%20Secretary.</a>
1B.D	Federal Laws	Appendix II to 200– Contract Provisions for non-Federal Entity Contracts Under Federal Awards	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20II%20to%20Part%20200">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20II%20to%20Part%20200</a>
1B.D	Additional Sources	American Public Transportation Association’s Recommended Practice - The Process of Transit Procurement	<a href="https://www.apta.com/wp-content/uploads/Standards_Documents/APTA-PS-PP-RP-007-13.pdf">https://www.apta.com/wp-content/uploads/Standards_Documents/APTA-PS-PP-RP-007-13.pdf</a>
1B.D	DOT	Waiver of Buy America Requirements for <i>De Minimis</i> Costs and Small Grants	<a href="https://www.federalregister.gov/documents/2023/08/16/2023-17602/waiver-of-buy-america-requirements-for-de-minimis-costs-and-small-grants">https://www.federalregister.gov/documents/2023/08/16/2023-17602/waiver-of-buy-america-requirements-for-de-minimis-costs-and-small-grants</a>
1B.D	CDOT	Center for Procurement and Contract Services	<a href="https://www.codot.gov/business/procurement-and-contract-services">https://www.codot.gov/business/procurement-and-contract-services</a>
1B.D	CDOT - DTR	Quick Procurement Guide	<a href="https://www.codot.gov/programs/transitandrail/assets/cdot-quick-procurement-guide">https://www.codot.gov/programs/transitandrail/assets/cdot-quick-procurement-guide</a>
1B.D	Additional Sources	CRS 24-30-1403 Professional Services	<a href="https://colorado.public.law/statutes/crs_24-30-1403#:~:text=Any%20person%20desiring%20to%20provide,be%20required%20by%20the%20office">https://colorado.public.law/statutes/crs_24-30-1403#:~:text=Any%20person%20desiring%20to%20provide,be%20required%20by%20the%20office</a>
1B.D	Federal Laws	Appendix II to Part 200– Contract Provisions for Non-Federal Entity Contracts Under Federal Awards	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20II%20to%20Part%20200">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20II%20to%20Part%20200</a>
1B.D, 1B.L	Federal Laws	2 CFR 200.318 General Procurement Standards	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.318">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR45ddd4419ad436d/section-200.318</a>
1B.E	Additional Sources	American Institute of Certified Public Accountants - Generally Accepted Auditing Standards	<a href="https://us.aicpa.org/content/dam/aicpa/research/standards/auditattest/downloadabledocuments/au-00150.pdf">https://us.aicpa.org/content/dam/aicpa/research/standards/auditattest/downloadabledocuments/au-00150.pdf</a>
1B.E	FTA	Procurement System Self-Assessment Guide	<a href="https://www.transit.dot.gov/funding/procurement-system-self-assessment-guide">https://www.transit.dot.gov/funding/procurement-system-self-assessment-guide</a>



Section	Source	Content	Website
1B.E	Federal Laws	USC Sections 7501 et seq.	<a href="https://www.law.cornell.edu/uscode/text/31/7501">https://www.law.cornell.edu/uscode/text/31/7501</a>
1B.E	Additional Sources	OMB Circular A-133	<a href="https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/OMB/circulars/a133_compliance/2016/pt1.pdf">https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/OMB/circulars/a133_compliance/2016/pt1.pdf</a>
1B.E, 1B.L	FTA	2016 Best Practices Procurement & Lessons Learned Manual	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/procurement/8286/fta-best-practices-procurement-and-lessons-learned-manual-2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/procurement/8286/fta-best-practices-procurement-and-lessons-learned-manual-2016.pdf</a>
1B.F	FTA	National Transit Database	<a href="https://www.transit.dot.gov/ntd">https://www.transit.dot.gov/ntd</a>
1B.G	Federal Code	49 CFR 26, Participation by Disadvantaged Business Enterprises (DBEs) in Department of Transportation Financial Assistance Programs	<a href="https://www.ecfr.gov/cgi-bin/textidx?SID=53cd5c89e0e9bdcfc93bae3ae3efb10c&amp;mc=true&amp;node=pt49.1.26&amp;rqn=div5">https://www.ecfr.gov/cgi-bin/textidx?SID=53cd5c89e0e9bdcfc93bae3ae3efb10c&amp;mc=true&amp;node=pt49.1.26&amp;rqn=div5</a>
1B.G	FTA	Civil Rights Overview	<a href="https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/civil-rightsada">https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/civil-rightsada</a>
1B.G	FTA	Circular 4704.1	<a href="https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/eo-circular">https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/eo-circular</a>
1B.H	Federal Code	2 CFR 200.314 Supplies	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.314">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.314</a>
1B.H	Federal Code	49 CFR 24	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24">https://www.ecfr.gov/current/title-49/subtitle-A/part-24</a>
1B.H	Additional Sources	National Flood Insurance Act of 1968	<a href="https://www.fema.gov/sites/default/files/2020-07/national-flood-insurance-act-1968.pdf">https://www.fema.gov/sites/default/files/2020-07/national-flood-insurance-act-1968.pdf</a>
1B.I	Federal Code	49 CFR 673	<a href="https://www.ecfr.gov/current/title-49/subtitle-B/chapter-VI/part-673">https://www.ecfr.gov/current/title-49/subtitle-B/chapter-VI/part-673</a>
1B.I	CDOT	CDOT Overview - Risk Management	<a href="https://www.codot.gov/business/project-management/scoping/risk-management">https://www.codot.gov/business/project-management/scoping/risk-management</a>
1B.I	FTA	Public Transportation Agency Safety Plan (PTASP)	<a href="https://www.transit.dot.gov/PTASP">https://www.transit.dot.gov/PTASP</a>
1B.I	FTA	Risk and Contingency Review (OP40)	<a href="https://www.transit.dot.gov/regulations-and-guidance/risk-and-contingency-review-op40">https://www.transit.dot.gov/regulations-and-guidance/risk-and-contingency-review-op40</a>
1B.I	FTA	Safety & Security Management Review (OP22)	<a href="https://www.transit.dot.gov/regulations-and-guidance/safety-security-management-review-op22">https://www.transit.dot.gov/regulations-and-guidance/safety-security-management-review-op22</a>
1B.I	FTA	Safety Management Systems	<a href="https://www.transit.dot.gov/regulations-and-guidance/safety/public-transportation-agency-safety-program/safety-management">https://www.transit.dot.gov/regulations-and-guidance/safety/public-transportation-agency-safety-program/safety-management</a>
1B.I	FTA	Safety Risk Management	<a href="https://www.transit.dot.gov/regulations-and-programs/safety/safety-risk-management-process">https://www.transit.dot.gov/regulations-and-programs/safety/safety-risk-management-process</a>
1B.I	FTA	Safety Rulemaking Guidance	<a href="https://www.transit.dot.gov/regulations-and-guidance/safety/safety-rulemaking">https://www.transit.dot.gov/regulations-and-guidance/safety/safety-rulemaking</a>
1B.J	CDOT	COTRAMS	<a href="https://cdotdr.my.site.com/cdotcommunity/login?locale=us">https://cdotdr.my.site.com/cdotcommunity/login?locale=us</a>
1B.J	Additional Sources	Internal Control Integrated Framework	<a href="https://www.coso.org/guidance-on-ic">https://www.coso.org/guidance-on-ic</a>
1B.J	CDOT	Policy Directive 703	<a href="https://drive.google.com/file/d/1Tbp3TNaFUDar2d6H_qTLHcVLq5e9IFuu/view">https://drive.google.com/file/d/1Tbp3TNaFUDar2d6H_qTLHcVLq5e9IFuu/view</a>



Section	Source	Content	Website
1B.J	Additional Sources	Standards for Internal Control in the Federal Government	<a href="https://www.gao.gov/products/gao-14-704g">https://www.gao.gov/products/gao-14-704g</a>
1B.J	CDOT	State Financial Management	<a href="https://www.codot.gov/business/budget">https://www.codot.gov/business/budget</a>
1B.K	CDOT - DTR	Communications Management Training	<a href="https://www.codot.gov/business/project-management/documents/x-pdp-section-8-communication-management.pdf">https://www.codot.gov/business/project-management/documents/x-pdp-section-8-communication-management.pdf</a>
1B.K	CDOT	Overview - Communications Management	<a href="https://www.codot.gov/business/project-management/scoping/project-communications">https://www.codot.gov/business/project-management/scoping/project-communications</a>
1B.L	Federal Laws	2 CFR 200.333 - Retention Requirements for Records	<a href="https://www.govinfo.gov/app/details/CFR-2014-title2-vol1/CFR-2014-title2-vol1-sec200-333">https://www.govinfo.gov/app/details/CFR-2014-title2-vol1/CFR-2014-title2-vol1-sec200-333</a>
1B.L	FTA	2016 Construction Management Handbook	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Construction_Project_Management_Handbook_2016.pdf</a>
1B.L	Additional Sources	2013 Executive Order 13642 on Making Open and Machine Readable the New Default for Government Information	<a href="https://obamawhitehouse.archives.gov/the-press-office/2013/05/09/executive-order-making-open-and-machine-readable-new-default-government">https://obamawhitehouse.archives.gov/the-press-office/2013/05/09/executive-order-making-open-and-machine-readable-new-default-government</a>
2.A, 2.B	FTA	Environmental Standard Operating Procedure: SOP No:7 - Scoping	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/scoping">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/scoping</a>
2.B	Dept. of Labor	Consumer Price Index	<a href="https://www.bls.gov/cpi/data.htm">https://www.bls.gov/cpi/data.htm</a>
2.C	Federal Laws	Bald and Golden Eagles Protection Act, 16 USC 668-668c. 1940	<a href="https://www.govinfo.gov/content/pkg/USCODE-2010-title16/pdf/USCODE-2010-title16-chap5A-subchapII.pdf">https://www.govinfo.gov/content/pkg/USCODE-2010-title16/pdf/USCODE-2010-title16-chap5A-subchapII.pdf</a>
2.C	ACHP	Guidance on Section 106 Agreement Documents	<a href="https://www.achp.gov/initiatives/guidance-agreement-documents">https://www.achp.gov/initiatives/guidance-agreement-documents</a>
2.C	ACHP	Guidance on Meeting the “Reasonable and Good Faith” Identification Standards	<a href="https://www.energy.gov/sites/prod/files/2016/02/f29/rgfe_guidance.pdf">https://www.energy.gov/sites/prod/files/2016/02/f29/rgfe_guidance.pdf</a>
2.C	ACHP	Program Alternatives	<a href="https://www.achp.gov/program_alternatives">https://www.achp.gov/program_alternatives</a>
2.C	ASTM	ASTM Standard E1527-21	<a href="https://www.astm.org/e1527-21.html">https://www.astm.org/e1527-21.html</a>
2.C	CDPHE	Hazardous Materials and Waste Management Division - Brownfields Program	<a href="https://cdphe.colorado.gov/hm/brownfields">https://cdphe.colorado.gov/hm/brownfields</a>
2.C	EPA	Sackett v. Environmental Protection Agency (EPA)	<a href="https://www.supremecourt.gov/opinions/22pdf/21-454_4g15.pdf">https://www.supremecourt.gov/opinions/22pdf/21-454_4g15.pdf</a>
2.C	CDPHE	Colorado Department of Public Health & Environment (CDPHE) (Policy CW-17) - Discharges of Dredged and Fill Material into State Waters	<a href="https://cdphe.colorado.gov/dredge-and-fill#:~:text=In%20accordance%20with%20Clean%20Water,conditions%20outlined%20in%20the%20policy">https://cdphe.colorado.gov/dredge-and-fill#:~:text=In%20accordance%20with%20Clean%20Water,conditions%20outlined%20in%20the%20policy</a>
2.C	EPA	Brownfields All Appropriate Inquiries	<a href="https://www.epa.gov/brownfields/brownfields-all-appropriate-inquiries">https://www.epa.gov/brownfields/brownfields-all-appropriate-inquiries</a>



Section	Source	Content	Website
2.C	EPA	Overview of Environmental Protection Agency's (EPAs) Brownfields Program	<a href="https://www.epa.gov/brownfields/overview-epas-brownfields-program">https://www.epa.gov/brownfields/overview-epas-brownfields-program</a>
2.C	EPA	Revitalization Handbook	<a href="https://www.epa.gov/enforcement/revitalization-handbook">https://www.epa.gov/enforcement/revitalization-handbook</a>
2.C	EPA/USACE	Environmental Protection Agency (EPA)/US Army Corps of Engineers (USACE) (88 FR 61964) - Revised Definition of "Waters of the United States" Conforming	<a href="https://www.federalregister.gov/documents/2023/09/08/2023-18929/revised-definition-of-waters-of-the-united-states-conforming">https://www.federalregister.gov/documents/2023/09/08/2023-18929/revised-definition-of-waters-of-the-united-states-conforming</a>
2.C	Federal Laws	Eagle Permits, 50 CFR 22	<a href="https://www.ecfr.gov/current/title-50/chapter-I/subchapter-B/part-22">https://www.ecfr.gov/current/title-50/chapter-I/subchapter-B/part-22</a>
2.C	Federal Laws	Endangered Species Act, 16 USC 1531-1544. 1973	<a href="https://www.fws.gov/law/endangered-species-act">https://www.fws.gov/law/endangered-species-act</a>
2.C	Federal Laws	Executive Order 13112 - Invasive Species	<a href="https://www.invasivespeciesinfo.gov/executive-order-13112#:~:text=On%20Feb%203%2C%201999%2C%20Executive,with%20invasive%20species%20be%20created">https://www.invasivespeciesinfo.gov/executive-order-13112#:~:text=On%20Feb%203%2C%201999%2C%20Executive,with%20invasive%20species%20be%20created</a>
2.C	Federal Laws	Interagency Cooperation-Endangered Species Act of 1973, 50 CFR 402.1986.	<a href="https://www.ecfr.gov/current/title-50/chapter-IV/subchapter-A/part-402">https://www.ecfr.gov/current/title-50/chapter-IV/subchapter-A/part-402</a>
2.C	Federal Laws	Migratory Bird Treaty Act, 16 USC 703-712. 1918.	<a href="https://www.govinfo.gov/content/pkg/USCODE-2020-title16/pdf/USCODE-2020-title16-chap7-subchaplI-sec703.pdf">https://www.govinfo.gov/content/pkg/USCODE-2020-title16/pdf/USCODE-2020-title16-chap7-subchaplI-sec703.pdf</a>
2.C	Federal Laws	Section 6 (b)-(c) of Executive Order 11988 - Floodplain Management	<a href="https://www.archives.gov/federal-register/codification/executive-order/11988.html">https://www.archives.gov/federal-register/codification/executive-order/11988.html</a>
2.C	FHWA	Section 4(f) Exceptions (23 CFR 774.13)	<a href="https://www.ecfr.gov/current/title-23/chapter-I/subchapter-H/part-774/section-774.13">https://www.ecfr.gov/current/title-23/chapter-I/subchapter-H/part-774/section-774.13</a>
2.C	FHWA/FTA	Section 4(f) Policy Paper	<a href="https://www.environment.fhwa.dot.gov/legislation/section4f/4fpolicy.aspx#:~:text=This%20Section%204(f)%20Policy,sites%20for%20Federal%20highway%20projects.">https://www.environment.fhwa.dot.gov/legislation/section4f/4fpolicy.aspx#:~:text=This%20Section%204(f)%20Policy,sites%20for%20Federal%20highway%20projects.</a>
2.C	FTA	Biological Resources (Part 4.1.5)	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-programs/environmental-programs/146751/23-biological-resources-sop-12-20-2019.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/regulations-and-programs/environmental-programs/146751/23-biological-resources-sop-12-20-2019.pdf</a>
2.C	FTA	Environmental Standard Operating Procedures: SOP No:18 - Section 4(f) Evaluations	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-4f-evaluations">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-4f-evaluations</a>
2.C	FTA	FTA Environmental Standard Operating Procedures: SOP No:19 - Consideration of Contaminated Properties including Brownfields	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/SOP%2019.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/SOP%2019.pdf</a>
2.C	FTA	Environmental Standard Operating Procedures: SOP No:21 - Section 106 Process	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-106-process-standard-operating-procedures">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-106-process-standard-operating-procedures</a>



Section	Source	Content	Website
2.C	FTA	Environmental Standard Operating Procedures: SOP No:22 - Water Resources	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/water-resources-0">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/water-resources-0</a>
2.C	FTA	Environmental Standard Operating Procedures: SOP No:23 - Biological Resources	<a href="https://www.transit.dot.gov/regulations-and-programs/environmental-programs/biological-resources-standard-operating-procedures">https://www.transit.dot.gov/regulations-and-programs/environmental-programs/biological-resources-standard-operating-procedures</a>
2.C	FTA	Hazardous Materials & Brownfields	<a href="https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/hazardous-materials-brownfields">https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/hazardous-materials-brownfields</a>
2.C	FTA	Programmatic Section 4(f) Evaluation and Approval for FRA or FTA Projects that Necessitate the Use of Historic Bridges	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-06/Nationwide-Historic-Bridges-Programmatic-Evaluation.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-06/Nationwide-Historic-Bridges-Programmatic-Evaluation.pdf</a>
2.C	FTA	Section 4(f) Evaluation and Approval for Transportation Projects That Have a Net Benefit to a Section 4(f) Property	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-06/Nationwide-Net-Benefit-Programmatic-Evaluation.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-06/Nationwide-Net-Benefit-Programmatic-Evaluation.pdf</a>
2.C	FTA	Transit Noise and Vibration Impact Assessment Manual	<a href="https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf">https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf</a>
2.C	NPS	How to Apply the National Register Criteria for Evaluation	<a href="https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf">https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf</a>
2.C	NRCS	National Food Security Act Manual, Fifth Edition	<a href="https://directives.sc.egov.usda.gov/rollupviewer.aspx?hid=29340">https://directives.sc.egov.usda.gov/rollupviewer.aspx?hid=29340</a>
2.C	USACE	Regional Supplements to Corps Delineation Manual (Corps Manual)	<a href="https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/">https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/</a>
2.C	USFWS	Endangered Species Act Consultation Handbook - Procedures for Conducting Section 7 Consultations and Conferences	<a href="https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf">https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf</a>
2.C	USFWS	National Wetlands Inventory - Wetland Mapper	<a href="https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper">https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper</a>
2.C	USGS	Topographic Maps	<a href="https://www.usgs.gov/programs/national-geospatial-program/topographic-maps">https://www.usgs.gov/programs/national-geospatial-program/topographic-maps</a>
3.A	CDOT	Acquisition Stage Relocation Plan	<a href="https://www.codot.gov/business/manuals/right-of-way-manual/Chapter%205%20-%20Relocation/Chapter%205%20-%20Exhibits/Chapter%205%20-%20Exhibit%20A-EE/exhibit-a-ch-5-form-557-acquisition-stage-relocation-plan.pdf">https://www.codot.gov/business/manuals/right-of-way-manual/Chapter%205%20-%20Relocation/Chapter%205%20-%20Exhibits/Chapter%205%20-%20Exhibit%20A-EE/exhibit-a-ch-5-form-557-acquisition-stage-relocation-plan.pdf</a>
3.A	Federal Code/Laws	49 CFR 24.205 - Relocation planning, advisory services, and coordination	<a href="https://www.ecfr.gov/current/title-49/section-24.205">https://www.ecfr.gov/current/title-49/section-24.205</a>





Section	Source	Content	Website
3.A	Federal Code/Laws	49 CFR 633.25 - Contents of the Project Management Plan	<a href="https://www.law.cornell.edu/cfr/text/49/633.25">https://www.law.cornell.edu/cfr/text/49/633.25</a>
3.A	FTA	RAMP Plan Outline	<a href="https://www.transit.dot.gov/funding/grant-programs/capital-investments/real-estate-acquisition-management-plan-ramp-outline">https://www.transit.dot.gov/funding/grant-programs/capital-investments/real-estate-acquisition-management-plan-ramp-outline</a>
3.C	Federal Code/Laws	26 CFR 1.170A-17- Definition of a Qualified Appraiser	<a href="https://www.law.cornell.edu/cfr/text/26/1.170A-17#:~:text=The%20qualified%20appraisal%20must%20be,case%20of%20a%20deduction%20first">https://www.law.cornell.edu/cfr/text/26/1.170A-17#:~:text=The%20qualified%20appraisal%20must%20be,case%20of%20a%20deduction%20first</a>
3.C	Federal Code/Laws	49 CFR 24.2(a)(3) - Definition of a Displaced Person	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(3)">https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(3)</a>
3.C	Federal Code/Laws	49 CFR 24.2(a)(9) - Definition of a Displaced Person	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(9)">https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(9)</a>
3.C	Federal Code/Laws	49 CFR 24.2(a)(23) - Salvage Value Definition	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(23)">https://www.ecfr.gov/current/title-49/part-24/section-24.2#p-24.2(a)(23)</a>
3.C	Federal Code/Laws	49 CFR 24.102 - Basic Acquisition Policies	<a href="https://www.ecfr.gov/current/title-49/section-24.102">https://www.ecfr.gov/current/title-49/section-24.102</a>
3.C	Federal Code/Laws	49 CFR 24.102(c)(2) - When an appraisal is not required.	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.102#p-24.102(c)(2)">https://www.ecfr.gov/current/title-49/part-24/section-24.102#p-24.102(c)(2)</a>
3.C	Federal Code/Laws	49 CFR 24.102(d) (Appendix) - Establishment and offer of just compensation	<a href="https://www.ecfr.gov/current/title-49/section-24.102#p-24.102(d)">https://www.ecfr.gov/current/title-49/section-24.102#p-24.102(d)</a>
3.D	Federal Code/Laws	49 CFR 24.102(j) (Appendix A) - Payment before possession	<a href="https://www.ecfr.gov/current/title-49/section-24.102#p-24.102(j)">https://www.ecfr.gov/current/title-49/section-24.102#p-24.102(j)</a>
3.C	Federal Code/Laws	49 CFR 24.103 - Criteria for appraisals	<a href="https://www.ecfr.gov/current/title-49/section-24.103">https://www.ecfr.gov/current/title-49/section-24.103</a>
3.C	Federal Code/Laws	49 CFR 24.103(a) - Appraisal requirements	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)">https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)</a>
3.C	Federal Code/Laws	49 CFR 24.103(a)(1) - Agency role in appraisal	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)(1)">https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)(1)</a>
3.C	Federal Code/Laws	49 CFR 24.104 - Review of appraisals	<a href="https://www.ecfr.gov/current/title-49/section-24.104">https://www.ecfr.gov/current/title-49/section-24.104</a>
3.C	Federal Code/Laws	49 CFR 24.104(b) (Appendix) - Appraiser recommendation	<a href="https://www.ecfr.gov/current/title-49/section-24.104#p-24.104(b)">https://www.ecfr.gov/current/title-49/section-24.104#p-24.104(b)</a>
3.C	Federal Code/Laws	49 CFR 24.105(c) - Appraisal and Establishment of Just Compensation for a Tenant-Owned Improvement	<a href="https://www.ecfr.gov/current/title-49/part-24/subpart-B#p-24.105(c)">https://www.ecfr.gov/current/title-49/part-24/subpart-B#p-24.105(c)</a>
3.C	Federal Code/Laws	49 CFR 24.203(c) - Ninety-day Notice	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.203#p-24.203(c)">https://www.ecfr.gov/current/title-49/part-24/section-24.203#p-24.203(c)</a>
3.C	Federal Code/Laws	49 CFR 24.208(h) - Aliens not lawfully present in the United States	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.208#p-24.208(h)">https://www.ecfr.gov/current/title-49/part-24/section-24.208#p-24.208(h)</a>



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3.C	Federal Code/Laws	Appendix A 24.103(a)(1) - Criteria for appraisals	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)(1)">https://www.ecfr.gov/current/title-49/part-24/section-24.103#p-24.103(a)(1)</a>
3.C	Federal Code/Laws	Appendix A, 24.104(c) - Review of Appraisals	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.104#p-24.104(c)">https://www.ecfr.gov/current/title-49/part-24/section-24.104#p-24.104(c)</a>
3.C	Additional Sources	Uniform Appraisal Standards for Federal Land Acquisition (UASFLA)	<a href="https://www.appraisalfoundation.org/imis/TAF/Standards/Appraisal_Standards/Uniform_Appraisal_Standards_for_Federal_Land_Acquisitions/TAF/Yellow_Book.aspx?hkey=77e5c6a0-ff07-4aa0-be1b-b7e0f0fa0360">https://www.appraisalfoundation.org/imis/TAF/Standards/Appraisal_Standards/Uniform_Appraisal_Standards_for_Federal_Land_Acquisitions/TAF/Yellow_Book.aspx?hkey=77e5c6a0-ff07-4aa0-be1b-b7e0f0fa0360</a>
3.D	Federal Code/Laws	49 CFR 24.106 - Expenses incidental to the transfer of title to the Agency	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.106#:~:text=%C2%A7%2024.106%20Expenses%20incidental%20to%20transfer%20of%20title%20to%20the%20Agency.&amp;text=(3)%20The%20pro%20rata%20portion,of%20it%2C%20whichever%20is%20earlier.">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.106#:~:text=%C2%A7%2024.106%20Expenses%20incidental%20to%20transfer%20of%20title%20to%20the%20Agency.&amp;text=(3)%20The%20pro%20rata%20portion,of%20it%2C%20whichever%20is%20earlier.</a>
3.E	Federal Code/Laws	49 CFR 24.2(a)(8) - DSS Definition	<a href="https://www.ecfr.gov/current/title-49/part-24#p-24.2(a)(8)">https://www.ecfr.gov/current/title-49/part-24#p-24.2(a)(8)</a>
3.F	Federal Code/Laws	49 CFR 24.101(b)(1) - Programs and projects receiving Federal financial assistance	<a href="https://www.ecfr.gov/current/title-49/part-24/section-24.101#p-24.101(b)(1)">https://www.ecfr.gov/current/title-49/part-24/section-24.101#p-24.101(b)(1)</a>
3.F	Federal Code/Laws	49 CFR 24.404 - Replacement HLR	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-E/section-24.404">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-E/section-24.404</a>
3.F	FTA	Real Estate Information	<a href="https://www.transit.dot.gov/RealEstate">https://www.transit.dot.gov/RealEstate</a>
3.F	Other	Sos v. Roaring Fork Transp. Auth., 2017	<a href="https://casetext.com/case/sos-v-roaring-fork-transp-auth-1">https://casetext.com/case/sos-v-roaring-fork-transp-auth-1</a>
3.G	Colorado DLA	Land Use Dispute Resolution	<a href="https://dlg.colorado.gov/land-use-dispute-resolution">https://dlg.colorado.gov/land-use-dispute-resolution</a>
3.G	Colorado DLA	List of Qualified Alternative Dispute Resolution Professionals	<a href="https://drive.google.com/open?id=0B2oqdPZKJqK7bWg2V2FRYndNQnc&amp;authuser=0">https://drive.google.com/open?id=0B2oqdPZKJqK7bWg2V2FRYndNQnc&amp;authuser=0</a>
3.G	Colorado DLA	Local Government Guide to Selecting an ADR Professional	<a href="https://drive.google.com/open?id=0B2oqdPZKJqK7ek5GV0lXUkduRk0&amp;authuser=0">https://drive.google.com/open?id=0B2oqdPZKJqK7ek5GV0lXUkduRk0&amp;authuser=0</a>
3.H	Federal Code/Laws	23 USC 323(d)	<a href="https://www.law.cornell.edu/uscode/text/23/323">https://www.law.cornell.edu/uscode/text/23/323</a>
3.H	Federal Code/Laws	49 CFR 24.102(k) - Uneconomic Remnants	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.102">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.102</a>
3.H	Federal Code/Laws	49 CFR 24.103 - Criteria for Appraisals	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.103">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.103</a>
3.H	Federal Code/Laws	49 CFR 24.104 - Review for Appraisals	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.104">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.104</a>
3.H	Federal Code/Laws	49 CFR 24.108 - Donations	<a href="https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.108">https://www.ecfr.gov/current/title-49/subtitle-A/part-24/subpart-B/section-24.108</a>
4.E	FHWA	Value Engineering Process and Job Plan	<a href="https://www.fhwa.dot.gov/ve/veproc.cfm">https://www.fhwa.dot.gov/ve/veproc.cfm</a>
4.E	SAVE	Society of American Value Engineering (SAVE)	<a href="https://www.value-eng.org/">https://www.value-eng.org/</a>
4.I	ISI	Institute for Sustainable Infrastructure (ISI)	<a href="https://sustainableinfrastructure.org/">https://sustainableinfrastructure.org/</a>



Section	Source	Content	Website
4.I	ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) 90.1	<a href="https://www.ashrae.org/technical-resources/bookstore/standard-90-1">https://www.ashrae.org/technical-resources/bookstore/standard-90-1</a>
4.I	FTA	Environmental and Sustainability Management Systems	<a href="https://www.transit.dot.gov/regulations-and-programs/environmental-programs/environmental-and-sustainability-management-systems">https://www.transit.dot.gov/regulations-and-programs/environmental-programs/environmental-and-sustainability-management-systems</a>
4.I	FTA	Transit and Sustainability	<a href="https://www.transit.dot.gov/regulations-and-programs/environmental-programs/transit-and-sustainability">https://www.transit.dot.gov/regulations-and-programs/environmental-programs/transit-and-sustainability</a>
4.I	USGBC	US Green Building Council (USGBC)	<a href="https://www.usgbc.org/">https://www.usgbc.org/</a>
4.I	USGBC	USGBC Leadership in Energy and Environmental Design (LEED) rating system	<a href="https://www.usgbc.org/leed">https://www.usgbc.org/leed</a>
5.A	Colorado Laws/Code	CRS 12-120-202(6)	<a href="https://casetext.com/statute/colorado-revised-statutes/title-12-professions-and-occupations/business-professions-and-occupations/article-120-engineers-surveyors-and-architects/part-2-engineers/section-12-120-202-definitions">https://casetext.com/statute/colorado-revised-statutes/title-12-professions-and-occupations/business-professions-and-occupations/article-120-engineers-surveyors-and-architects/part-2-engineers/section-12-120-202-definitions</a>
5.B	Federal Code/Laws	Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4)	<a href="https://www.justice.gov/crt/fcs/TitleVI">https://www.justice.gov/crt/fcs/TitleVI</a>
5.B	CDOT	Standard Specification 102.05 - Examination of Plans, Specifications, Special Provisions, and Site of Work	<a href="https://www.codot.gov/business/designsupport/cdot-construction-specifications/2023-construction-specifications/2023-specs-book/2023-cdot-specs-book.pdf">https://www.codot.gov/business/designsupport/cdot-construction-specifications/2023-construction-specifications/2023-specs-book/2023-cdot-specs-book.pdf</a> (PDF pg. 32)
5.B	CDOT	Standard Specification 103 - Award and Execution of Contract	<a href="https://www.codot.gov/business/designsupport/cdot-construction-specifications/2023-construction-specifications/2023-specs-book/2023-cdot-specs-book.pdf">https://www.codot.gov/business/designsupport/cdot-construction-specifications/2023-construction-specifications/2023-specs-book/2023-cdot-specs-book.pdf</a> (PDF pg. 35)
5.C	CDOT	Getting Started with B2GNow	<a href="https://www.codot.gov/business/civilrights/compliance/systems/b2g">https://www.codot.gov/business/civilrights/compliance/systems/b2g</a>
5.C	Other Sources	B2GNow	<a href="https://b2gnow.com/">https://b2gnow.com/</a>
5.C	Other Sources	OSHA Laws & Regulations	<a href="https://www.osha.gov/laws-regs">https://www.osha.gov/laws-regs</a>
5.D	Other Sources	Blue Book of Rental Rates for Construction Equipment rates	<a href="https://equipmentwatch.com/retail-rental-rates/">https://equipmentwatch.com/retail-rental-rates/</a>
5.B	CDOT	Form 1413 - Bidders List	<a href="https://www.codot.gov/about/forms/CDOT1413.xlsx">https://www.codot.gov/about/forms/CDOT1413.xlsx</a>
5.B	CDOT	Form 1414 - Anticipated DBE Participation Plan	<a href="https://www.codot.gov/about/forms/CDOT1414.xlsx">https://www.codot.gov/about/forms/CDOT1414.xlsx</a>
5.B	CDOT	Form 1415 - Commitment Confirmation, if Disadvantaged Business Enterprise (DBE) goals are greater than zero, or if the bidder has voluntarily made commitments	<a href="https://www.codot.gov/about/forms/CDOT1415.xlsx">https://www.codot.gov/about/forms/CDOT1415.xlsx</a>



Section	Source	Content	Website
5.B	CDOT	Form 1416 - Good Faith Effort Report, if DBE goals are not met	<a href="https://www.codot.gov/about/forms/CDOT1416.xlsx">https://www.codot.gov/about/forms/CDOT1416.xlsx</a>
5.B	CDOT	Form 605 - Contractor's Performance Capability Statement	<a href="https://www.codot.gov/about/forms/CDOT0605.pdf">https://www.codot.gov/about/forms/CDOT0605.pdf</a>
5.B	CDOT	Form 606 - Anti-Collusion Affidavit	<a href="https://www.codot.gov/about/forms/CDOT0606.pdf">https://www.codot.gov/about/forms/CDOT0606.pdf</a>
6.D	FTA	Drug & Alcohol Program	<a href="https://www.transit.dot.gov/drug-alcohol-program">https://www.transit.dot.gov/drug-alcohol-program</a>
6.D	Other Sources	American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)	<a href="https://www.ashrae.org/">https://www.ashrae.org/</a>
6.D	Other Sources	Institute of Electrical and Electronics Engineers (IEEE)	<a href="https://www.ieee.org/">https://www.ieee.org/</a>
6.D	Other Sources	State of Colorado Building Codes and Standards	<a href="https://cdola.colorado.gov/office-of-regulatory-oversight/building-codes-and-standards">https://cdola.colorado.gov/office-of-regulatory-oversight/building-codes-and-standards</a>
6.D	Other Sources	Federal Motor Carrier Safety Administration (FMCSA)	<a href="https://www.fmcsa.dot.gov/">https://www.fmcsa.dot.gov/</a>
6.D	Other Sources	Occupational Safety and Health Administration (OSHA)	<a href="https://www.osha.gov/">https://www.osha.gov/</a>
6.D	Other Sources	Colorado Department of Motor Vehicles	<a href="https://dmv.colorado.gov/">https://dmv.colorado.gov/</a>
6.l	Federal Law/Codes	49 CFR 663 - Pre-Award and Post Delivery Audits of Rolling Stock Purchases	<a href="https://www.ecfr.gov/current/title-49/subtitle-B/chapter-VI/part-663">https://www.ecfr.gov/current/title-49/subtitle-B/chapter-VI/part-663</a>
6.l	FTA	Buy America	<a href="https://www.transit.dot.gov/buyamerica">https://www.transit.dot.gov/buyamerica</a>
6.l	FTA	Conducting Pre-Award and Post-Delivery Audits for Rolling Stock Procurements	<a href="https://www.transit.dot.gov/regulations-and-guidance/buy-america/conducting-pre-award-and-post-delivery-audits-rolling-stock">https://www.transit.dot.gov/regulations-and-guidance/buy-america/conducting-pre-award-and-post-delivery-audits-rolling-stock</a>
7.B	Federal Code/Laws	2 CFR 200.311 - Real Property	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.311">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/subject-group-ECFR8feb98c2e3e5ad2/section-200.311</a>
7.C, 7.D	Federal Code/Laws	2 CFR 200.501 - Audit Requirements	<a href="https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-F/subject-group-ECFRfd0932e473d10ba/section-200.501">https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-F/subject-group-ECFRfd0932e473d10ba/section-200.501</a>

\*Joint resource for FTA and FHWA. Local agencies should note where resources are FHWA-specific.

\*\*CDOT last updated this toll credit document in 2020. Consult local grants manager and DTR for additional information.

# Appendix A. FTA Region 8 Categorical Exclusion Worksheet

## FTA Region 8 Categorical Exclusion Worksheet Instructions and Environmental Resources Information

The purpose of the Categorical Exclusion (CE) Worksheet is to assist project sponsors (grantees) in providing sufficient documentation in compliance with FTA's regulations implementing the [National Environmental Policy Act of 1969 \(NEPA\)](#) and other environmental laws, regulations and executive orders, as applicable. The worksheet can be used in gathering and organizing materials for environmental analysis and in determining if the proposed action (project) qualifies as a CE as described in 23 CFR 771.118.

This worksheet should be used for category C (c-list) CE projects involving construction and for category D (d-list) CE projects. This includes construction of new facilities as well as projects involving rehabilitation, renovation, reconstruction, improvement, expansion, and modification of an existing facility (e.g., bus storage, maintenance facility, passenger shelters and amenities, transit center) or an existing transportation structure (e.g., bridges, tunnels, sidewalks, ADA ramps).

Submission of the worksheet does not constitute an environmental finding for your project. FTA must make the final determination whether a project meets the criteria for a CE. FTA will provide a CE determination approval letter for all c-list construction projects and all d-list projects that meet the requisite criteria. **Project activities, including property acquisition, demolition, site preparation, final design and construction, may not begin until the environmental process is complete.** There are some circumstances where prior property acquisition can occur, such as for corridor preservation. In addition, certain pre-award authority activities cannot be undertaken, prior to completion of NEPA. Contact the FTA Region 8 Environmental Protection Specialist (EPS) if you have any questions or require assistance.

While all federally-funded actions require a determination under NEPA, you do not need to complete the CE Worksheet for non-construction projects that qualify as a c-list CE. This includes, but is not limited to, purchase, rehabilitation or replacement of vehicles or equipment; installation of new or replacement equipment within an existing facility; preventative maintenance of vehicles, equipment or facilities; repair, replacement or rehabilitation of transportation safety, security, accessibility and communication systems; and planning, administrative or operations activities. For these types of projects, the CE determination is made in TrAMS with FTA's concurrence; no letter will be provided for c-list non-construction projects. Contact the Region 8 EPS if you have questions on whether or not your project is considered a non-construction project.

Please discuss planned construction projects with your FTA grant development POC (Pre-Award Manager) early in the year so (s)he can coordinate with the Region 8 EPS. The completed CE Worksheet should then be submitted to the Region 8 EPS ([tracey.macdonald@dot.gov](mailto:tracey.macdonald@dot.gov)) to allow sufficient time for review, especially if other environmental laws or permits apply, prior to submitting a grant application. We expect the level of information to be consistent with the complexity of the project. Please do not include extraneous information. Once approved by FTA, the CE Worksheet should be attached to the grant application during its development in TrAMS to demonstrate completion of the NEPA process.

### **PART I: PROJECT INFORMATION**

Project Description: Provide a description of the proposed project with enough detail that describes what the project entails, why the project is needed, what the proposed use is, and what activities you are proposing to



pay for with FTA funds. The description should also include how the project meets the conditions listed in the particular CE being proposed (e.g., uses primarily land disturbed for a transportation use). The physical location (e.g., address or intersection) of the proposed project also should be provided and be consistent with what is provided in TrAMS. Other information to provide includes, but is not limited to:

- Description of the scope of work (e.g., remove and replace x, construct y, modify z, extent of excavation, etc.)
- Indication of whether it is a new facility, an expansion/extension of an existing facility, rehabilitation of an existing facility, etc.
- Details pertaining to depth of soil excavation and note any previous soil disturbance from prior construction or other activity
- Parcel ownership and size and if the project is within existing right-of-way or parcel boundaries
- Size/dimension (square feet or acres) of new facilities and facility expansions
- Description of all phases of the project, if applicable, regardless of federal funding
- Any previous consultations that might be relevant with other agencies or relevant correspondence
- A project vicinity map, a basic site plan showing access points and project boundaries, photographs, etc. This will provide information on adjacent protected and/or sensitive resources, such as schools, residences, parks and recreation areas, historic properties, wetlands, etc.

Indicate whether the proposed project is included in the current TIP and/or STIP, including page number, project identifier, or other reference. Note: The project must be programmed in the year in which FTA would award the grant.

Indicate if this is a re-evaluation of a previously approved and/or funded project. If YES, provide information on the previous project, changes in the project, and the grant number.

## **PART II: CATEGORICAL EXCLUSION DETERMINATION**

Typically, a CE is for an action that does not individually or cumulatively result in any significant environmental impacts and for which an Environmental Assessment (EA) or Environmental Impact Statement (EIS) is not required. It is NOT an exemption from NEPA or other applicable federal environmental laws, regulations, executive orders, and/or permits that also may apply to the project.

A project may not require the higher level of NEPA analysis associated with an EA or EIS and still require analysis under other environmental laws such as Section 106 of the National Historic Preservation Act, Section 404 of the Clean Water Act, Section 7 of the Endangered Species Act, or Section 4(f) of the DOT Act. If other environmental laws, regulations, executive orders, and/or permitting requirements are applicable, applicants need to apply for and obtain the necessary permits and approvals prior to an FTA determination, regardless of whether the project may qualify as a CE. Compliance with these requirements does not necessarily elevate the project to an EA or EIS.

If your project has significant environmental impacts or other unusual circumstances, or you are not sure, please contact the Region 8 EPS. If there is the potential for significant environmental impacts FTA may require the preparation of an EA or EIS even for project types normally approved with a CE.

## FTA CATEGORICAL EXCLUSIONS

FTA's CEs can be found in 23 CFR 771.118 and are described below. FTA's June 2016 ["Guidance for Implementation of FTA's Categorical Exclusions \(23 CFR 771.118\)"](#) provides more information on each of the CE activities. Please note that FHWA CEs (23 CFR 771.117) are no longer valid for FTA.

### 23 CFR 771.118

- (a) *Categorical exclusions (CEs) are actions which meet the definition contained in [40 CFR 1508.4](#), and, based on past experience with similar actions, do not involve significant environmental impacts. They are actions which: do not induce significant impacts to planned growth or land use for the area; do not require relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; or do not otherwise, either individually or cumulatively, have any significant environmental impacts.*
- (b) *Any action which normally would be classified as a CE but could involve unusual circumstances will require FTA, in cooperation with the applicant, to conduct appropriate environmental studies to determine if the CE classification is proper. Such unusual circumstances include:*
  - (1) *Significant environmental impacts;*
  - (2) *Substantial controversy on environmental grounds;*
  - (3) *Significant impact on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act; or*
  - (4) *Inconsistencies with any federal, state, or local law, requirement or administrative determination relating to the environmental aspects of the action.*

**Please select, from the descriptions below, the category (only one) that most appropriately describes the activities you are planning to undertake with federal funds.**

**Category C Projects:** Projects listed in 23 CFR 771.118(c), known as c-list CEs, usually require minimal documentation in order to approve, unless certain unusual circumstances exist. Impacts, if any, should be minor in nature. Remember other environmental laws may apply. These CEs cover the following types of projects.

- (1) Acquisition, installation, operation, evaluation, replacement, and improvement of discrete utilities and similar appurtenances (existing and new) within or adjacent to existing transportation right-of-way, such as: utility poles, underground wiring, cables, and information systems; and power substations and utility transfer stations.
- (2) Acquisition, construction, maintenance, rehabilitation, and improvement or limited expansion of stand-alone recreation, pedestrian, or bicycle facilities, such as: a multiuse pathway, lane, trail, or pedestrian bridge; and transit plaza amenities.
- (3) Activities designed to mitigate environmental harm that cause no harm themselves or to maintain and enhance environmental quality and site aesthetics, and employ construction best management practices, such as: noise mitigation activities; rehabilitation of public transportation buildings, structures, or facilities; retrofitting for energy or other resource conservation; and landscaping or re-vegetation.
- (4) Planning and administrative activities which do not involve or lead directly to construction, such as: training, technical assistance and research; promulgation of rules, regulations, directives, or program guidance; approval of project concepts; engineering; and operating assistance to transit authorities to continue existing service or increase service to meet routine demand.

(5) Activities, including repairs, replacements, and rehabilitations, designed to promote transportation safety, security, accessibility and effective communication within or adjacent to existing right-of-way, such as: the deployment of Intelligent Transportation Systems and components; installation and improvement of safety and communications equipment, including hazard elimination and mitigation; installation of passenger amenities and traffic signals; and retrofitting existing transportation vehicles, facilities or structures, or upgrading to current standards.

(6) Acquisition or transfer of an interest in real property that is not within or adjacent to recognized environmentally sensitive areas (e.g., wetlands, non-urban parks, wildlife management areas) and does not result in a substantial change in the functional use of the property or in substantial displacements, such as: acquisition for scenic easements or historic sites for the purpose of preserving the site. This CE extends only to acquisitions and transfers that will not limit the evaluation of alternatives for future FTA-assisted projects that make use of the acquired or transferred property.

(7) Acquisition, installation, rehabilitation, replacement, and maintenance of vehicles or equipment, within or accommodated by existing facilities, that does not result in a change in functional use of the facilities, such as: equipment to be located within existing facilities and with no substantial off-site impacts; and vehicles, including buses, rail cars, trolley cars, ferry boats and people movers that can be accommodated by existing facilities or by new facilities that qualify for a categorical exclusion.

(8) Maintenance, rehabilitation, and reconstruction of facilities that occupy substantially the same geographic footprint and do not result in a change in functional use, such as: improvements to bridges, tunnels, storage yards, buildings, stations, and terminals; construction of platform extensions, passing track, and retaining walls; and improvements to tracks and railbeds.

(9) Assembly or construction of facilities that is consistent with existing land use and zoning requirements (including floodplain regulations) and uses primarily land disturbed for transportation use, such as: buildings and associated structures; bus transfer stations or intermodal centers; busways and streetcar lines or other transit investments within areas of the right-of-way occupied by the physical footprint of the existing facility or otherwise maintained or used for transportation operations; and parking facilities.

(10) Development of facilities for transit and non-transit purposes, located on, above, or adjacent to existing transit facilities, that are not part of a larger transportation project and do not substantially enlarge such facilities, such as: police facilities, daycare facilities, public service facilities, amenities, and commercial, retail, and residential development.

(11) The following actions for transportation facilities damaged by an incident resulting in an emergency declared by the Governor of the State and concurred in by the Secretary, or a disaster or emergency declared by the President pursuant to the Robert T. Stafford Act (42 U.S.C. 5121):

(i) Emergency repairs under 49 U.S.C. 5324; and

(ii) The repair, reconstruction, restoration, retrofitting, or replacement of any road, highway, bridge, tunnel, or transit facility (such as a ferry dock or bus transfer station), including ancillary transportation facilities (such as pedestrian/bicycle paths and bike lanes), that is in operation or under construction when damaged and the action:

(A) Occurs within the existing right-of-way and in a manner that substantially conforms to the preexisting design, function, and location as the original (which may include upgrades to meet

existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction); and

(B) Is commenced within a 2-year period beginning on the date of the declaration.

(12) Projects, as defined in 23 U.S.C. 101, that would take place entirely within the existing operational right-of-way. Existing operational right-of-way refers to right-of-way that has been disturbed for an existing transportation facility or is maintained for a transportation purpose. This area includes the features associated with the physical footprint of the transportation facility (including the roadway, bridges, interchanges, culverts, drainage, fixed guideways, mitigation areas, etc.) and other areas maintained for transportation purposes such as clear zone, traffic control signage, landscaping, any rest areas with direct access to a controlled access highway, areas maintained for safety and security of a transportation facility, parking facilities with direct access to an existing transportation facility, transit power substations, transit venting structures, and transit maintenance facilities. Portions of the right-of-way that have not been disturbed or that are not maintained for transportation purposes are not in the existing operational right-of-way.

(13) Federally-funded projects:

(i) That receive less than \$5,000,000 (as adjusted annually by the Secretary to reflect any increases in the Consumer Price Index prepared by the Department of Labor, see [www.fhwa.dot.gov](http://www.fhwa.dot.gov) or [www.fta.dot.gov](http://www.fta.dot.gov)) of Federal funds; or

(ii) With a total estimated cost of not more than \$30,000,000 (as adjusted annually by the Secretary to reflect any increases in the Consumer Price Index prepared by the Department of Labor, see [www.fhwa.dot.gov](http://www.fhwa.dot.gov) or [www.fta.dot.gov](http://www.fta.dot.gov)) and Federal funds comprising less than 15 percent of the total estimated project cost.

(14) Bridge removal and bridge removal related activities, such as in channel work, disposal of materials and debris in accordance with applicable regulations, and transportation facility realignment.

(15) Preventative maintenance, including safety treatments, to culverts and channels within and adjacent to transportation right-of-way to prevent damage to the transportation facility and adjoining property, plus any necessary channel work, such as restoring, replacing, reconstructing, and rehabilitating culverts and drainage pipes; and, expanding existing culverts and drainage pipes.

(16) Localized geotechnical and other investigations to provide information for preliminary design and for environmental analyses and permitting purposes, such as drilling test bores for soil sampling; archeological investigations for archeology resources assessment or similar survey; and wetland surveys.

**Category D Projects:** The projects listed below may be CEs under 23 CFR § 771.118(d), known as d-list CEs. D-list CEs require additional documentation demonstrating that a CE is an appropriate classification, that the specific conditions or criteria for the CE are satisfied, and that significant environmental impacts will not occur as a result of the project. This is not an exhaustive list of all actions that may qualify as a d-list CE. Contact the FTA Region 8 EPS if your project does not fit under any one of these categories.

(1) Modernization of a highway by resurfacing, restoring, rehabilitating, or reconstructing shoulders or auxiliary lanes (e.g., lanes for parking, weaving, turning, climbing).

(2) Bridge replacement or the construction of grade separation to replace existing at-grade railroad crossings.

(3) Acquisition of land for hardship or protective purposes. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.

(i) Hardship acquisition is early acquisition of property by the applicant at the property owner's request to alleviate particular hardship to the owner, in contrast to others, because of an inability to sell his property. This is justified when the property owner can document on the basis of health, safety or financial reasons that remaining in the property poses an undue hardship compared to others.

(ii) Protective acquisition is done to prevent imminent development of a parcel which may be needed for a proposed transportation corridor or site. Documentation must clearly demonstrate that development of the land would preclude future transportation use and that such development is imminent. Advance acquisition is not permitted for the sole purpose of reducing the cost of property for a proposed project.

(4) Acquisition of right-of-way. No project development on the acquired right-of-way may proceed until the NEPA process for such project development, including the consideration of alternatives, has been completed.

(5) [RESERVED]

(6) Facility modernization through construction or replacement of existing components.

(7) Minor transportation facility realignment for rail safety reasons, such as improving vertical and horizontal alignment of railroad crossings, and improving sight distance at railroad crossings.

(8) Modernization or minor expansions of transit structures and facilities outside existing right-of-way, such as bridges, stations, or rail yards.

### **PART III: ENVIRONMENTAL EVALUATION**

While the list of topics for consideration in the CE Worksheet is extensive, the impacts resulting from a project that qualifies for a CE should be minimal. Some projects may be the type for which permanent environmental impacts would not result due to the nature of the project. The intent of Part III is to make sure that potential impacts to all resources are considered, especially if other environmental requirements apply (e.g., Section 106 of the National Historic Preservation Act). As discussed above, compliance with these other environmental requirements must be completed before FTA will make a final determination and approval under NEPA.

To guide you in your environmental review and to assist FTA in determining if a CE is an appropriate class of action for your project or if any unusual circumstances or significant environmental impacts exist, provide a response for items A through X on the CE Worksheet.

For additional resource information, visit FTA's [Environmental Resource Information](#) webpage or FHWA's [Environmental Review Toolkit](#) webpage.

#### **A. LAND USE AND ZONING IMPACTS**

Determine whether or not the proposed project is consistent with surrounding land use and zoning. Information on land use and zoning in the project area can be found through local city and/or county planning departments or assessor's office. This information is used to determine the probability of impact on existing and future land uses and zoning, sensitive receptors (such as schools, hospitals, parks, and residences), and protected resources (parks, wetlands, historic properties, etc.). Transportation must be a compatible land use within the project area. If the proposed project is consistent with surrounding land use and zoning briefly state this and provide a site map identifying the proposed project's location with the surrounding land use and zoning.

If the proposed project is incompatible or inconsistent with existing or future land use and/or zoning in the project area, briefly describe the existing and future land uses and zoning within the area. Describe any steps to be taken to address this. Attach a site map identifying the proposed project's location with the surrounding land uses and zoning.

#### **B. TRAFFIC AND PARKING IMPACTS**

If applicable to the proposed project, assess and describe any potential permanent traffic/parking impacts. This includes, but is not limited to ingress and egress, whether the existing roadways have adequate capacity to handle increased bus and other vehicular traffic, and if there is a permanent loss of parking. Identify if travel patterns or access would be affected or changed, and if additional capacity and/or traffic signaling are required. Describe connectivity to other transportation facilities and modes (including bicycles and pedestrians), and coordination with relevant agencies. If the proposed project will modify an existing roadway configuration include a map/diagram. You may provide a letter from the traffic engineer or other appropriate official verifying the traffic impacts. If parking is being reduced or eliminated, determine the number of parking spaces that would be affected and whether replacement parking spaces would be constructed at an alternate location (onsite or offsite).

#### **C. VISUAL/AESTHETICS IMPACTS**

Assess whether the proposed project substantially degrades the existing visual/aesthetic character or quality of the site, its surroundings, and/or recognized view sheds. Visual resources can be natural features, vistas, view sheds, community features, such as skylines, settings, monuments, architecture, historic properties or other visual characteristics that create a sense of place of an area. Consider whether the project creates a new source of light or glare that may affect day or nighttime views in the area. Some communities may have design or aesthetic guidelines or objectives that must be followed when designing facilities.

#### **D. FARMLAND IMPACTS**

Prime farmland, unique farmland and land of local or statewide importance are protected under the [Farmland Protection Policy Act](#). If any portion of the proposed project occurs on farmland, consultation with the Natural Resources Conservation Service (NRCS) should be conducted to determine if it is prime or unique. If the project results in an impact to farmland, and can't be avoided, contact the Region 8 EPS for additional guidance on coordination with the NRCS.

#### **E. ENVIRONMENTAL JUSTICE (EJ) IMPACTS**

US Census Bureau data, in particular [American Community Survey data](#) can be used to determine the presence of minority and/or low-income populations (business owners, landowners, and residents) within the vicinity of the proposed project. If there are EJ populations present, discuss whether the proposed project will have disproportionately high and adverse impacts. Generally speaking a project which qualifies for CE is unlikely to



have disproportionate adverse effects, but be aware of the potential for cumulative effects of multiple projects in a single community and address as needed. Common impacts to EJ populations include, but are not limited to, property acquisition and relocation, potential changes in ambient air quality and water quality, noise, vibration and construction. For more information on Environmental Justice see [Executive Order 12898](#) and [FTA Circular C 4703.1, "Environmental Justice Policy Guidance for FTA Recipients"](#). The [EPA's EJScreen](#) is also a useful tool.

#### **F. FLOODPLAIN IMPACTS**

[Executive Order 11988-Floodplain Management](#) recognizes the importance of floodplains and directs federal agencies to avoid conducting, allowing or supporting actions on a floodplain/floodway. It must be determined whether the proposed project is located within a floodplain or floodway. If the proposed project is located within the 100-year floodplain, provide the appropriate Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) from [FEMA's Flood Map Service Center](#) with the project location identified to support the determination. If a FEMA FIRM is not available, contact the local flood control district or floodplain manager to determine if the project is located in a flood hazard area. Local jurisdictions may also have ordinances and regulations regarding construction within floodplains, in addition to federal and state laws and regulations. [US DOT Order 5650.2, Floodplain Management and Protection](#), provides information on how to conduct a detailed floodplain analysis. In addition to FEMA, the US Army Corps of Engineers (USACE) should be consulted on projects constructed within a floodplain.

#### **G. AIR QUALITY IMPACTS**

Proposed transit projects must meet the requirements of the Clean Air Act (42 USC 85). The Act addresses six criteria air pollutants established under the National Ambient Air Quality Standards (NAAQS). The Environmental Protection Agency (EPA) has the authority to designate nonattainment and maintenance areas where air pollution levels for criteria pollutants exceed or have exceeded in the past the NAAQS.

Project sponsors should indicate whether their proposed project is located in a nonattainment or maintenance area and for which criteria pollutant(s) (see [EPA Greenbook](#)). Nonattainment areas must adhere to emission control requirements identified in State Implementation Plans (SIPs) and are subject to the Transportation Conformity Rule ([40 CFR Part 93](#)). Typically, projects requiring analysis include those that are funded and/or approved by a federal agency, and are considered regionally significant by the state or metropolitan planning organization (MPO). Some types of projects are exempt from air quality conformity regardless of location ([40 CFR 93.126](#) and [93.127](#)). If a project is exempt from air quality conformity or outside of a nonattainment or maintenance area, air quality analysis is not required. Also, some types of projects are not considered a concern for air quality and do not require analysis even if located in a nonattainment or maintenance area. Project sponsors can contact their state DOT or MPO for information on air quality status and conformity analysis.

The primary transportation-related pollutants include carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>) and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). These pollutants may be an issue at both the regional and local levels, and may require hot spot (project specific location such as an intersection) analysis ([40 CFR 93.116](#)), except for ozone. Ozone is a regional concern and is not analyzed at the local level and, therefore, no hot spot analysis is required. To determine if a hot spot analysis for carbon monoxide is required, see [40 CFR 93.123\(a\)](#) or if a project may be of concern for particulate matter, see [40 CFR 93.123\(b\)](#). Describe any potential impacts to air quality as a result of the proposed project.

For information on greenhouse gas emissions see FTA's [Greenhouse Gas Emissions from Transit Projects: Programmatic Assessment](#).

## **H. HAZARDOUS MATERIALS IMPACTS**

Determine if there are hazardous materials in the project area by conducting a desktop survey, and/or reviewing public records and environmental databases. Hazardous materials may include lead/asbestos, above/underground storage tanks, or a history of industrial sites.

If no hazardous materials are present, briefly describe the analysis used to determine this. Was an Initial Site Assessment or Phase I Environmental Site Assessment (ESA) performed? If a Phase II ESA is recommended, was it performed? Valid ESAs are typically conducted by for-hire environmental contractors.

If hazardous materials are present, state how those materials will be treated and/or disposed. Discuss any mitigation and clean-up measures to be taken to remove hazardous materials. Identify what steps will be taken to ensure that the community in which the proposed project is located is protected from contamination during construction and operation of the proposed project. State the results of consultation with the appropriate state agency regarding the proposed remediation. Discuss process for unanticipated discoveries during construction.

If the project involves land acquisition, consult with the Region 8 EPS on conducting a Phase I ESA for the land to be acquired prior to completion of the CE, and following proper due diligence procedures. It may be necessary to demonstrate that real property previously acquired and currently owned by the project sponsor is not contaminated prior to construction and use of FTA funds at the site. Certain liability concerns and cleanup considerations may render a proposed project ineligible for FTA funds.

## **I. VIBRATION IMPACTS**

Depending on the proposed project site and the surrounding land use, a vibration assessment may be needed. Please refer to the FTA's [Transit Noise and Vibration Impact Assessment](#) guidance. Typically, a rubber tire project does not have vibration impacts. If the proposed project is a rubber tire project and/or there are no vibration-sensitive receptors within the screening distance as outlined in the FTA guidance, no assessment is required.

If a vibration assessment is needed, follow the FTA guidance and describe potential impacts and provide a map identifying vibration-sensitive receptors such as vibration-sensitive research and manufacturing, hospitals, universities, etc. Discuss any proposed mitigation measures.

## **J. NOISE IMPACTS**

If the proposed project is the type of project to cause noise impacts, identify any noise-sensitive receptors in the vicinity of the proposed project. If there are no noise-sensitive receptors within the applicable screening distance for the type of project, no assessment is required.

If there are noise-sensitive receptors within the screening distance, identify the noise-sensitive receptors such as schools, hospitals, parks, churches and residences. Conduct a general noise assessment following the procedures in FTA's [Transit Noise and Vibration Impact Assessment](#) guidance and attach. Describe any impacts, include a map of noise-sensitive receptors, discuss proposed mitigation measures, and any remaining impacts after mitigation.

## **K. WATER QUALITY IMPACTS**

Water resources and quality are protected under the Clean Water Act. Water resources to consider include surface water (including Waters of the US), groundwater and/or drinking water supply sources, such as [EPA-designated sole source aquifers \(SSA\)](#). Impacts can occur to water resources used for drinking, agriculture, recreation and wildlife habitat, and can occur during construction, operation and maintenance. Determine if

there are any water resources present in the surrounding area and if the proposed project has the potential to affect water quality, including during construction. Indicate if there would be an increase in impervious surface area and how much. Describe best management practices (BMPs) to be implemented, if needed. Other considerations include, but are not limited to, stream/river modification, stream/river crossings, presence of sensitive/protected water resources, such as Gold Metal Trout Streams, sole source aquifers, [wild and scenic rivers](#), and impaired water bodies.

If there is stormwater and/or sediment runoff, or an increase in impervious surface area associated with the proposed project, including runoff during construction, which would not be controlled through use of BMPs and involves more than one acre of ground disturbance, a stormwater permit may be needed. Please indicate if a permit is needed and that it will be acquired prior to construction.

#### **L. PROPERTY/LAND ACQUISITION, RELOCATION, LEASES AND EASEMENTS**

If property/land is to be acquired for the proposed project, indicate whether acquisition will result in relocation of businesses or individuals. Provide the amount of acquisition in terms of acreage or square footage. Provide information on any residential or business relocations and how many. Indicate full or partial acquisitions, easements or leases.

All property/land acquisition and/or relocation must comply with the [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970](#), as amended (42 USC Chapter 61).

**Note:** For more information see [49 CFR Part 24](#). Chapter IV of [FTA Circular 5010.1D](#) provides guidance on FTA requirements for real property, including relocation and appraisal requirements under the Uniform Act. For acquisitions over \$500,000, FTA concurrence in the property's valuation is also required. FTA final [Guidance on Corridor Preservation](#) also provides information on acquisition of right-of-way for corridor preservation.

#### **M. WETLAND IMPACTS**

Determine if there are any wetlands on or adjacent to the proposed project site through review of the USFWS National Wetlands Inventory (NWI), NRCS soil map (for hydric soil), and/or by conducting a site visit. This may include Waters of the US.

Show potential wetlands on or adjacent to the proposed project area. Describe potential temporary and/or permanent impacts, including any discharge of dredged or fill material. Attach correspondence with the US Army Corps of Engineers (USACE) and/or any 404 permit requirements, as well as minimization and mitigation efforts. For assistance with which USACE District covers your project and any impacts, contact the Region 8 EPS.

#### **N. NATURAL RESOURCE IMPACTS**

Identify if any natural areas (designated wildlife or waterfowl refuges, woodlands, prairies, and geological formations) are present on or near the proposed project area. Indicate whether the proposed project requires any mature tree removal. Tree removal and/or trimming may require consultation under the Migratory Bird Treaty Act (MBTA). If the proposed project has the potential to impact a publicly-owned wildlife or waterfowl refuge of national, state or local significance and open to the public, a Section 4(f) evaluation may be required. See [23 CFR Part 774](#) and the [FHWA Section 4\(f\) Policy Paper, July 2012](#).

#### **O. HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCE IMPACTS**

Conduct a database or archival search through your State Historic Preservation Office and/or local preservation office (local historical society) to determine the presence of any historic, cultural or archaeological resource(s), including any linear resources (e.g., canals, railroads, etc.) located on or in the immediate vicinity of the

proposed project. Describe any resources present and the potential for the proposed project to affect these resources. Determining the presence of these resources also may require coordination with the State Historic Preservation Officer, Tribes, and consulting parties. Discuss process for unanticipated discoveries during construction.

Contact the Region 8 EPS early in the project to determine the level of Section 106 review ([36 CFR Part 800](#)) required. If the proposed project has the potential to affect historic resources, the [Section 106](#) process must be followed. A Section 4(f) evaluation per joint FTA/FHWA regulations ([23 CFR Part 774](#)) also may be required. Please contact the Region 8 EPS for assistance. For additional information and guidance on the Section 4(f) requirements and process, see [FHWA's Section 4\(f\) Policy Paper, July 2012](#), which can also be used as a guide for FTA funded projects.

All relevant correspondence must be attached. All correspondence must come from FTA, though a draft should be prepared by the project sponsor for FTA review.

**P. BIOLOGICAL RESOURCE IMPACTS**

Identify any aquatic (fish) and/or terrestrial (wildlife) animal species of interest, biologically sensitive areas, designated critical habitat, wildlife corridors, essential fish habitat, or other sensitive habitat on or in the vicinity of the proposed project. Describe any impacts that would occur as a result of construction and implementation of the proposed project. Identify mitigation measures if applicable.

**Q. THREATENED AND/OR ENDANGERED SPECIES IMPACTS**

Identify any threatened and/or endangered species (plant or animal) and/or critical habitat present on or in the vicinity of the proposed project. A list of threatened and endangered species can be obtained from the US Fish and Wildlife Service ([USFWS](#)) and from a state department of natural resources for species within the state. Consult with federal and state agencies to identify any ecologically sensitive areas, federal and/or state listed species or their suitable habitat in the project area.

If there are any species or habitat present in the project area, determine if the proposed project would have an impact. State the results of consultation with the USFWS and state department of natural resources on the impacts to threatened and endangered fauna and flora or their habitat. Provide correspondence substantiating consultation and results. Identify mitigation measures if applicable. Contact the Region 8 EPS to initiate Section 7 interagency consultation with USFWS.

**R. RECREATION AND PARK RESOURCE IMPACTS**

Identify and describe any recreation areas and/or parks in the vicinity of the proposed project. This includes parks and recreation areas funded from the Land & Water Conservation Fund (LWCF) Act, as they are protected under Section 6(f), which prohibits the conversion of property acquired or developed with these grants to a non-recreational purpose without approval of the National Park Service. Publicly owned parks and recreation areas that are open to the general public, are protected under Section 4(f). If any are present in the proposed project area and/or the proposed project involves a potential "use" of the property, contact the Region 8 EPS for guidance.

**S. SAFETY AND SECURITY**

If required, describe all measures that would need to be taken to provide for the safe and secure operation of the proposed project after its construction (e.g., pedestrian safety, ADA facilities, lighting, signing, rail at-grade crossings, fencing, secured access, cameras, etc.).

#### **T. CONSTRUCTION IMPACTS**

Describe any impacts that would result during construction of the proposed project. This includes the construction plan and duration, impacts due to construction noise, utility disruption, debris dust, soil disposal, and staging areas. Address any air and water quality impacts, safety and security issues, disruptions to traffic (e.g., lane closures, detours) and access to property. Describe mitigation and BMPs to be followed. Describe any traffic management plans, if applicable.

#### **U. UTILITY IMPACTS**

Identify any existing and proposed utilities in the construction area for the proposed project. If utility impacts would occur (e.g., utility relocations, service disruption) due to the construction, describe the impacts and mitigation measures, as applicable.

#### **V. CUMULATIVE AND INDIRECT IMPACTS**

While very rare on a project that qualifies as a CE, there is the potential for cumulative and/or indirect impacts to environmental resources present in the vicinity of the project. The proposed project should be reviewed to determine whether the impacts resulting from its construction and operation would result in future impacts to a particular resource(s) or in conjunction with impacts from other activities, would result in the loss of a resource due to the additive effect of the impacts. Describe any potential for cumulative or indirect impacts as a result of the proposed project. Cumulative and indirect impacts are defined as follows:

- a) [Cumulative Impacts](#) result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.
- b) [Indirect impacts](#) are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air, water and other natural systems, including ecosystems.

#### **W. PUBLIC OUTREACH AND AGENCY COORDINATION**

Briefly describe public outreach efforts and/or federal/state/local agency coordination undertaken for the proposed project. Indicate opportunities for public meetings, hearings, (e.g., board meetings, open houses, special hearings) and summarize public comments received. Indicate any significant concerns expressed by the public or agencies regarding the proposed project. Describe any notifications made locally; including if information available on a website. Note: FTA does not have standards for public notification for CE projects. Typically a c-list CE does not require public outreach, unless there is strong public interest and/or its required under another environmental law (e.g., Section 106).

#### **X. STATE AND LOCAL PERMITS, POLICIES AND ORDINANCES**

Identify any state and/or local policies, ordinance, permits, etc. that must be followed or obtained prior to construction. Indicate the timeframe for compliance.