

Table of Contents

Introduction	i
Acknowledgments	ii
Acronyms.....	iv

Section 1 Scoping, Budgeting & Programming

1.01 Project Development Manual Purpose.....	1-1
1.02 Statewide Planning, Funding and Budget Process	1-5
1.03 Project Scope, Schedule and Budget.....	1-28
1.04 Consultant Selection and Contracting Process	1-60
1.05 Alternative Delivery.....	1-66
1.06 Entity Agreement (Local Agency and Publicly Owned Agencies).....	1-70
1.07 Post – Award.....	1-73
1.08 Form 895 – Force Account Construction Method – Finding in the Public Interest (FIFI).	1-73

Section 2 Project Development Process

2.01 Design Scoping Review	2-1
2.02 Staged Construction (Future Capacity Considerations).....	2-4
2.03 10-Year Vision Plan.....	2-4
2.04 Design Data (Form 463).....	2-4
2.05 Design Exception Variance Request (Form 464).....	2-10
2.06 Procedures for Addressing Safety Requirements on Resurfacing, Restoration, and Rehabilitation Projects.....	2-15
2.07 Safety Review (Including Clear Zone Decisions).....	2-20
2.08 Roadside Barrier Design & Review.....	2-21
2.09 Bicycle & Pedestrian Facilities	2-25
2.10 Culvert Pipe Material Selection	2-29
2.11 Colorado Department of Transportation (CDOT) Maintenance Input.....	2-30
2.12 Field Survey (Form 1217)	2-32
2.13 CDOT Design Phase Value Engineering (VE) Program	2-33
2.14 Design Project Management & Region Plan Status Review.....	2-41
2.15 Field Inspection Review (FIR)	2-45

Table of Contents		March, 2025
2.16	Constructability Reviews	2-54
2.17	Project Status Meetings	2-55
2.18	Design Decision Letter	2-55
2.19	On-the-Job Trainee Approval	2-59
2.20	Disadvantaged Business Enterprise Goals	2-59
2.21	Special Provisions	2-60
2.22	Proprietary Items	2-61
2.23	Project Information Technology Needs	2-63
2.24	Project Control Data (Form 859)	2-64
2.25	Estimate Review by Engineering Estimates & Market Analysis Unit	2-65
2.26	Final Office Review	2-67
2.27	Bid Package Review (Form 1299)	2-69
2.28	Plans, Specifications & Estimate Approval (Form 1180)	2-71
2.29	Shopping Cart for Construction Contract	2-73
2.30	Plans & Reproduction Processes	2-75
2.31	Advertisement	2-76
2.32	Plans, Specifications & Estimate (PS&E) Revisions Under Advertisement	2-80
2.33	Re-Advertisement	2-89
2.34	Retaining Bid Surplus Funds	2-90
2.35	Go Sheet	2-91
2.36	Mandatory Pre-Bid Conferences	2-92
2.37	Cut Back & Multiple Schedule Projects	2-93

Section 3 Environmental

3.01	Introduction	3-1
3.02	4(f) Properties	3-11
3.03	6(f)	3-13
3.04	Air Quality	3-15
3.05	Farmland	3-20
3.06	Floodplain	3-22
3.07	Hazardous Materials	3-23
3.08	Historic Properties Clearances (Archaeology, History, Historic Bridge)	3-26
3.09	Migratory Birds	3-29
3.10	Noise Analysis	3-31

Table of Contents	March, 2025
3.11 Noxious Weeds.....	3-35
3.12 Paleontology	3-36
3.13 Senate Bill 40 (SB 40)	3-37
3.14 Environmental Justice and Equity.....	3-39
3.15 Social Resources	3-41
3.16 Threatened and Endangered Species.....	3-42
3.17 Water Quality.....	3-44
3.18 What Is Permanent Water Quality?.....	3-47
3.19 Stormwater Management Plans (SWMP's).....	3-48
3.20 Wetlands	3-51

Section 4 Traffic

4.01 Traffic Data	4-1
4.02 Request and Analyze Crash Data.....	4-2
4.03 Turning Movements Request	4-3
4.04 Traffic Movement Diagram	4-4
4.05 Signal Warrants.....	4-4
4.06 Intersection and Interchange Design	4-5
4.07 Traffic Signal Plan	4-8
4.08 Lighting Plan	4-9
4.09 Permanent Signing and Pavement Marking.....	4-11
4.10 Construction Transportation Management Plans	4-12
4.11 Engineering Judgment and Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) Request Options	4-15
4.12 Operations Evaluation (Formerly TSM&O).	4-16
4.13 Systems Engineering Analysis (SEA).....	4-20

Section 5 Structures

5.01 Introduction.....	5-1
5.02 Major Structure (Bridge).....	5-1
5.03 Minor Structure (Culvert).....	5-3
5.04 Minor Structures – Unusual.....	5-5
5.05 Minor Structures.....	5-6

Table of Contents March, 2025

5.06	Pedestrian Overpasses & Underpasses.....	5-6
5.07	Architectural & Aesthetic Treatments.....	5-7
5.08	Foundation Investigation & Recommendation.....	5-8
5.09	Structure Selection Report.....	5-9
5.10	Retaining Walls.....	5-10
5.11	Noise Walls.....	5-11
5.12	Analysis of Structures to be Resurfaced.....	5-12
5.03	Determine Existing Structural Capacity.....	5-12
5.14	Crashworthy Bridge Rail.....	5-13
5.15	Vertical Clearance of Structure.....	5-14
5.16	Accelerated Bridge Construction (ABC).....	5-15

Section 6 Materials

6.01	Pavement Analysis For Distress.....	6-1
6.02	Preliminary Soil Survey	6-2
6.03	Geotechnical Services.....	6-3
6.04	Geohazard Services	6-6
6.05	Life Cycle Cost Analysis	6-8
6.06	Pavement Justification Report.....	6-9

Section 7 Right of Way & Utilities

7.01	Right of Way Involvement.....	7-1
7.02	Permits Required to Work on Government Land.....	7-10
7.03	Utility Involvement	7-12
7.04	Railroad Involvement.....	7-17

Section 8 Additional Project Development Considerations

8.01	Americans with Disabilities Act Standards.....	8-2
8.02	Airport & Heliport Clearances	8-3
8.03	Safety Rest Areas.....	8-5
8.04	Railroad Design	8-6
8.05	Transit Accomodations	8-9
8.06	Irrigation Company Agreement.....	8-13

Table of Contents

March, 2025

8.07	Stockpasses, Landowners' Access, Wildlife Crossings & Machine Passes.....	8-17
8.08	Experimental Items	8-18
8.09	Disposal of Excess Material Off Project Site	8-19
8.10	Mandatory Source of Materials or Materials Furnished by a Public Agency	8-20
8.11	Context Sensitive Solutions	8-23
8.12	Providing Supplemental Data to Contractors	8-24
8.13	Utility Account Matrix (UAM)	8-27

