

Attachment C: CMGC Capital Project Lifecycle

INITIATE	PRELIMINARY ENGINEERING & ENVIRONMENTAL APPROVAL		ROW ACQUISITION & CMGC PROCUREMENT	FINAL DESIGN & EARLY WORKS	MAIN CONSTRUCTION	PROJECT CLOSEOUT
STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7
Project Initiation	Identify Preferred Alternative & Begin Preliminary Design	Environmental Clearance, Prepare for Construction	Right-of-Way Acquisition & CMGC Procurements	Final Design & Early Construction	Main Construction, Testing & Commissioning	Project Closeout
Define initial concept, framework, cost and schedule	15% Preliminary Engineering	35% Preliminary Engineering	Right-of-Way Acquisition/Early Demolition	Final Design (Constructability, Value Engineering, Building Information Model)	Start of Main Construction	Construction completed and transfer completed project from contractor to Agency
Initial scope evaluated in programmatic environmental impact statement with 5%	Risk Assessment, define preliminary scope, cost and schedule Draft Environmental Impact Report (EIR/EIS)	Final (EIR/EIS) Environmental Clearance Determine and Seek Approval of Project Delivery Method	Procure CMGC Contractor & CMGC Support Services (RFQ/RFP/Award) Third party agreements/work - railroads, local jurisdictions, utilities	Site Investigation, Construction Phasing Plan and subcontracting plan Design/Construction Schedule & Cost Estimates for each design milestone	Manage shared risks, cost and schedule Minimize scope creep, change order and/claims	Detailed project documentation complete Revenue Service
Identify potential Risk	Evaluate Range of Alternatives & Identify Preferred Alternative	Identify Right of Way and Utility Relocations Risk Assessment, Scope, cost, schedule	Environmental permits - federal agencies Risk assessment Refine Scope, cost, schedule	Independent Cost Estimates to validate cost estimates & shared risk assessment Third Party Agreement & Work and Advance utility relocation Negotiate Firm Fixed Price (FFP) for Early & Main Construction. If negotiation for FFP is successful, award early and main construction work within Board approved LOP *If negotiation of FFP is unsuccessful, pivot to Design Bid Build or other project delivery method	Substantial Completion Ready for track and systems Track & Systems Testing and Commissioning Pre-revenue testing	

Pre-Construction Phase

Construction Phase