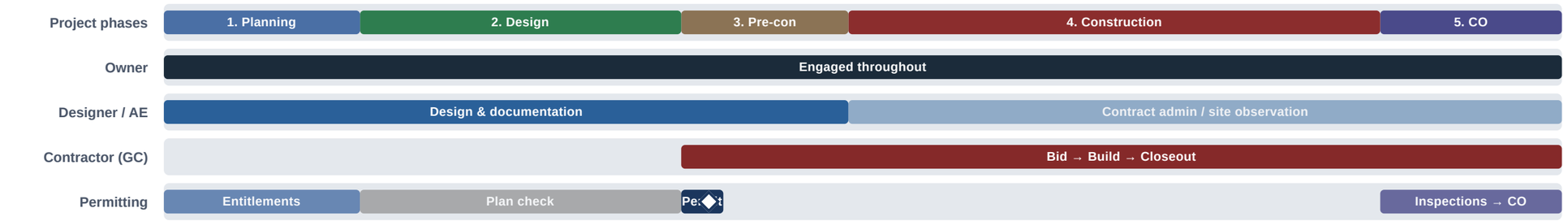
Construction Delivery Models: Phase Overlap & Key Distinctions

Companion to the Lifecycle Matrix. Swim-lane timelines showing when each party engages and how phases compress under Design-Build (DB) and Construction Manager at Risk (CMAR) versus the traditional Design-Bid-Build (DBB) baseline. Code adoption, permitting, and delivery requirements vary by jurisdiction, funding source, and asset class.

PHASE & ENGAGEMENT TIMELINES — RELATIVE DURATION & OVERLAP

Design-Bid-Build (DBB)

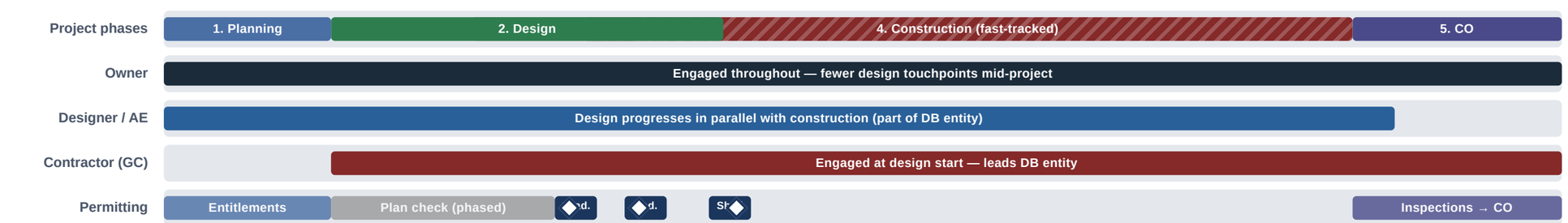
Traditional linear sequence — design 100% complete before contractor is selected



◇ Permit issuance milestone **Key characteristic:** No contractor input during design. Cost certainty only at bid. Post-bid changes are owner-funded change orders. Commonly used for public projects with prescriptive procurement laws.

Design-Build (DB)

Single entity responsible for both design and construction — significant phase compression and fast-tracking

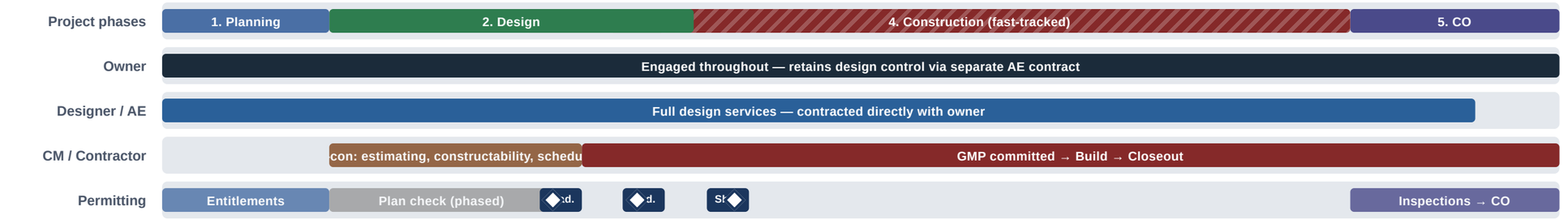


Fast-tracked construction (~30–50% design completion) ◇ Phased permit milestones (grading → foundation → shell)

Key characteristic: Single point of responsibility. Often delivers the shortest schedule. Owner has less design control. Lump-sum price set early on design assumptions. Best for schedule-critical or repetitive building types.

Construction Manager at Risk (CMAR)

CM engaged during design as advisor; commits to Guaranteed Maximum Price (GMP) before construction



Fast-tracked construction (~60–70% design completion — later than DB) ◇ Phased permit milestones

Key characteristic: Owner retains full design control. CM provides pre-construction cost & constructability input. GMP provides a cost ceiling. Frequently used for complex institutional & large commercial projects.

KEY DIMENSION COMPARISON

DIMENSION	Design-Bid-Build (DBB)	Design-Build (DB)	Construction Manager at Risk (CMAR)
Contractor selection timing	After design is 100% complete. Competitive low-bid or best-value selection.	Early — at or shortly after project programming. DB entity selected on qualifications + price.	During design (Phase 2). Selected on qualifications & fee; GMP negotiated at ~60–70% design.
Design completion at construction start	100% Full construction documents issued for bid before any work begins.	30–50% Early packages (site, foundation) begin while design continues in parallel.	60–70% GMP set; phased packages released as design progresses.
Owner design control	High — Owner contracts directly with AE. Full control over design throughout.	Lower — Design is part of DB entity. Owner influence reduced post-contract. Requires strong bridging documents.	High — Owner retains direct AE contract. CM provides input but does not control design.
Cost certainty & risk allocation	Cost known only at bid. Post-bid changes are owner-funded change orders.	Lump sum set early — DB entity absorbs design development risk within contract price.	GMP = cost ceiling — Savings may be shared. Owner exposed above GMP for scope changes.
Schedule advantage	Slowest — Sequential phases. No construction until full design & bid complete.	Often fastest — Maximum phase compression. Favoured when schedule is the primary driver.	Moderate compression — Early CM allows long-lead procurement & phased permitting during design.
Long-lead procurement	Cannot begin until after bid award. Risk of escalation between design and procurement.	DB entity can procure long-lead items as design progresses — significant schedule & cost risk reduction.	CM can identify and procure long-lead items (switchgear, elevators, curtain wall) during pre-construction, before GMP is set.
Phased permitting approach	Typically single permit after 100% design. Phased permits possible but less common.	Phased permitting standard. Grading, foundation, shell permits issued in sequence as design packages complete.	Phased permitting common. CM coordinates permit sequencing with AE during pre-construction.
Typical best-fit project types	Public projects with prescriptive procurement rules. Straightforward scope. Budget-driven with adequate schedule.	Schedule-critical projects. Repetitive types (hotels, multifamily, warehouses, data centers). Strong owner performance-spec capability.	Complex institutional (hospitals, universities), large commercial, projects needing design quality with schedule compression. Often seen on projects over $50M.

DIMENSION	Design-Bid-Build (DBB)	Design-Build (DB)	Construction Manager at Risk (CMAR)
Common sectors (from matrix)	Residential (all). Public institutional (many states require DBB for public funds). Small-to-mid commercial.	Industrial, warehouse, data centers, multifamily, hospitality. Growing use in heavy civil & public infrastructure.	Hospitals, K-12 & higher education, large office & mixed-use, airports, transit facilities.

Abbreviations: AE = Architect/Engineer · GC = General Contractor · GMP = Guaranteed Maximum Price · CA = Contract Administration
DBB = Design-Bid-Build · DB = Design-Build · CMAR = Construction Manager at Risk (also referred to as CM/GC in some states)
Phase overlap percentages are illustrative. Delivery model selection, phase timing, and permitting approach vary by jurisdiction, funding source, project type, and owner requirements.

+1 408 500 3500
→ Lifecycle Matrix