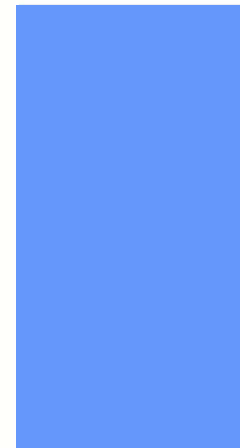




Public Building Commission of Chicago

Terms and Tools for Public Capital Development and
Financing
February 21, 2014





PUBLIC BUILDING COMMISSION OF CHICAGO

Terms and Tools for Public Capital Development & Financing

February 21, 2014

Terms and Tools for Public Capital Development & Financing

- Terms
 - Capital Project
 - Capital Program
 - Prioritized Capital Plan
 - Project Planning
 - Pre-Development Work
 - Project Development
- Tools / Project Delivery Methods
 - Traditional (Design Bid Build)
 - Construction Management
 - Job Order Contracting (JOC)
 - Performance Contracting
 - Design Build
 - Public Private Partnership (P3)
 - Public to Public Partnership (P2P)



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Terms and Tools for Public Capital Development & Financing

- Financing Options
 - Tax Exempt Bonding
 - Taxable Bonding
 - Performance Contracting
 - Availability Payment Model



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Terms in Capital Development

- **Capital Project**
A single instance initiative to develop an individual capital asset (police station, fire station, park district field house, library, infrastructure, etc.)
- **Capital Program**
A series of capital projects developed holistically to garner efficiencies in delivery (schedule, cost, standardized operations & maintenance, etc.)
- **Prioritized Capital Plan**
Long range assessment and capital planning initiative that identifies utilization and condition of existing facilities as well as new capital asset needs (repair versus replacement cost analyses, programmatic / spatial needs assessments, asset tagging and preventative maintenance plans, O&M staffing analysis, etc.)



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Terms in Capital Development

- Project Planning

Funding source analyses as well as scope, schedule, and budget development (through real property selection and due diligence, conceptual / spatial programming, feasibility studies, traffic studies, geotechnical analysis, environmental analysis, surveys, delivery methods assessment, etc.

- Pre-Development Work

Professional services and infrastructure work necessary to facilitate future development or public improvement initiatives (brownfield remediation, entitlement, land acquisition through eminent domain, abatement, demolition, entitlement, public right of way amendments, utilities, infrastructure, and project planning services).



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Terms in Capital Development

- **Project Development**
Procurement, design, and construction.
- **Facility O&M**
Operations and Maintenance, long term costs to maintain and operate a facility over the entire life cycle of a capital asset.

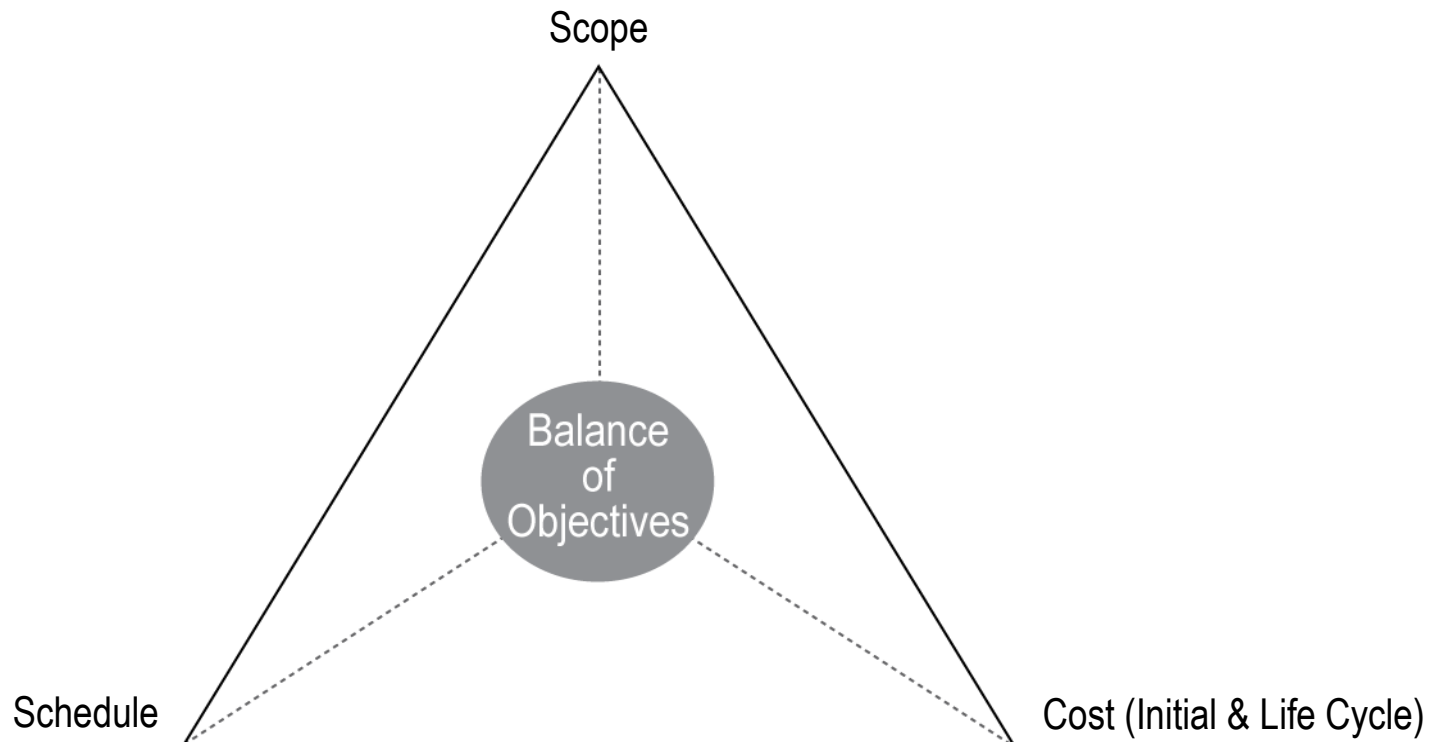


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Project Delivery Objectives



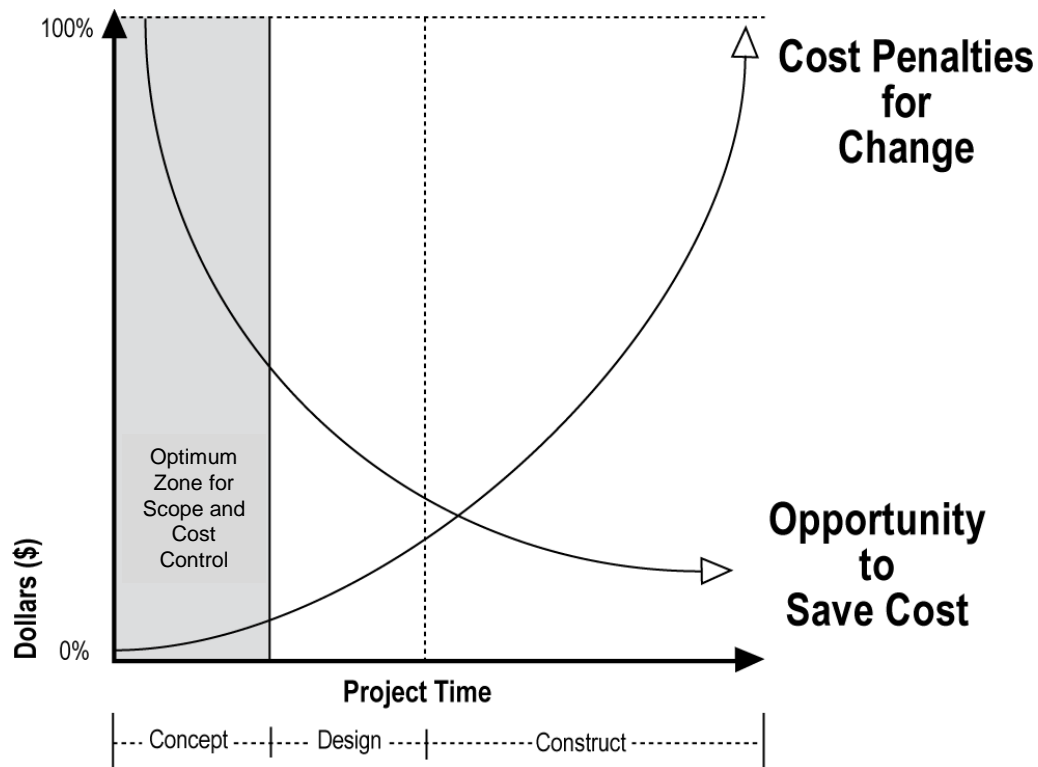


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Project Costs as Related to Delivery Schedule & Timely Scope Revisions



In general, decisions with the highest impact to project cost occur early in the project timeline. The risks of change are increased in certain delivery methods.



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Tools / Delivery Methods in Capital Development

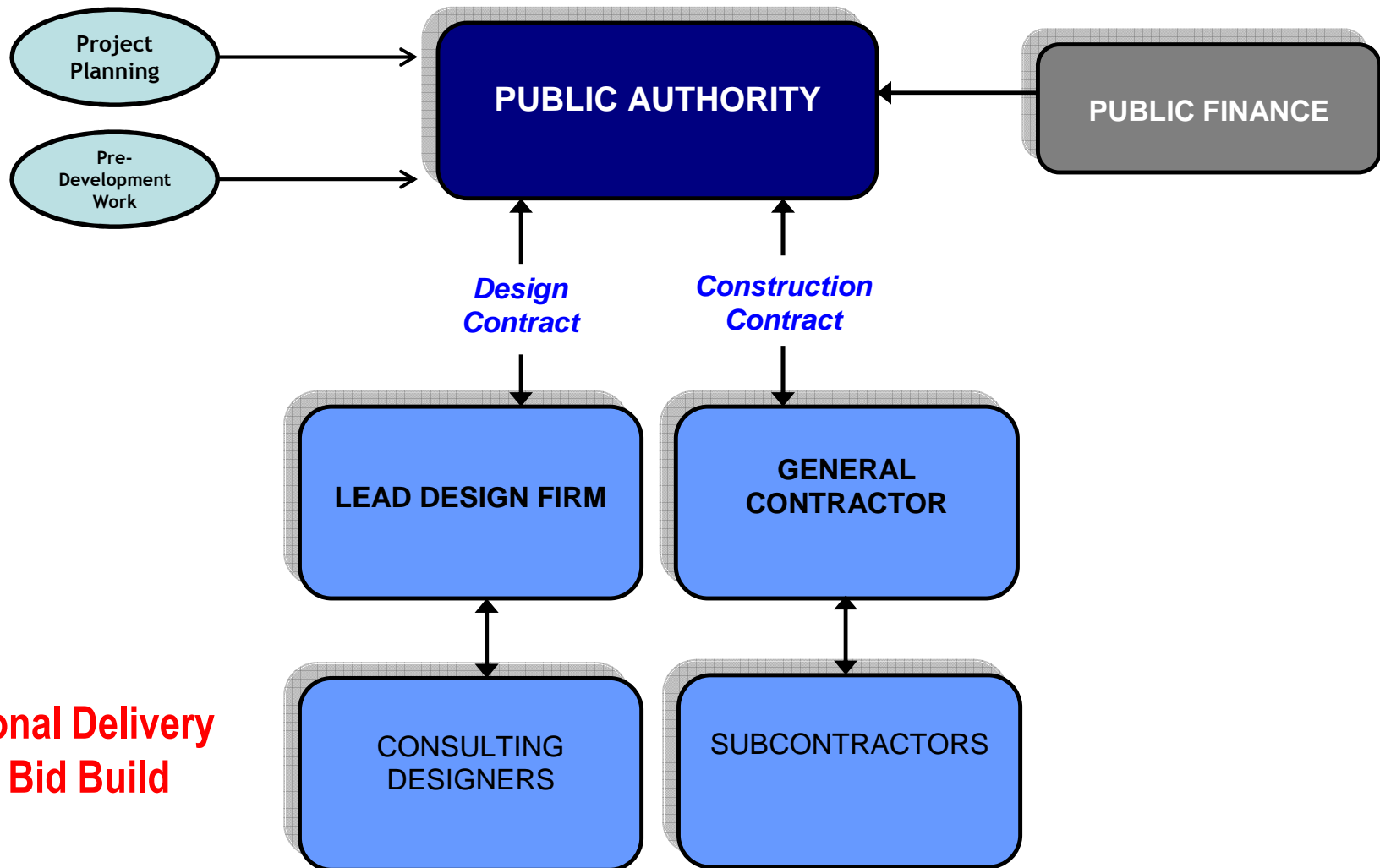
- Traditional Delivery (Design – Bid – Build)
- Construction Management
- Job Order Contracting (JOC)
- Energy Performance Contracting
- Design Build
- Public-Private Partnership (P3)
- Public to Public (P2P)



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**Traditional Delivery
Design Bid Build**



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Design Bid Build Characteristics

Award construction contract to lowest responsive responsible bidder:

- Three linear phases (Planning, Design, Construction)
- Three key players (Owner, Designer, Contractor)
- Compensation - Lump Sum
- Construction Cost Certainty determined after design at time of bid

Pros:

- Most transparent
- Competitive bidding
- Strong Owner/Designer relationship

Cons:

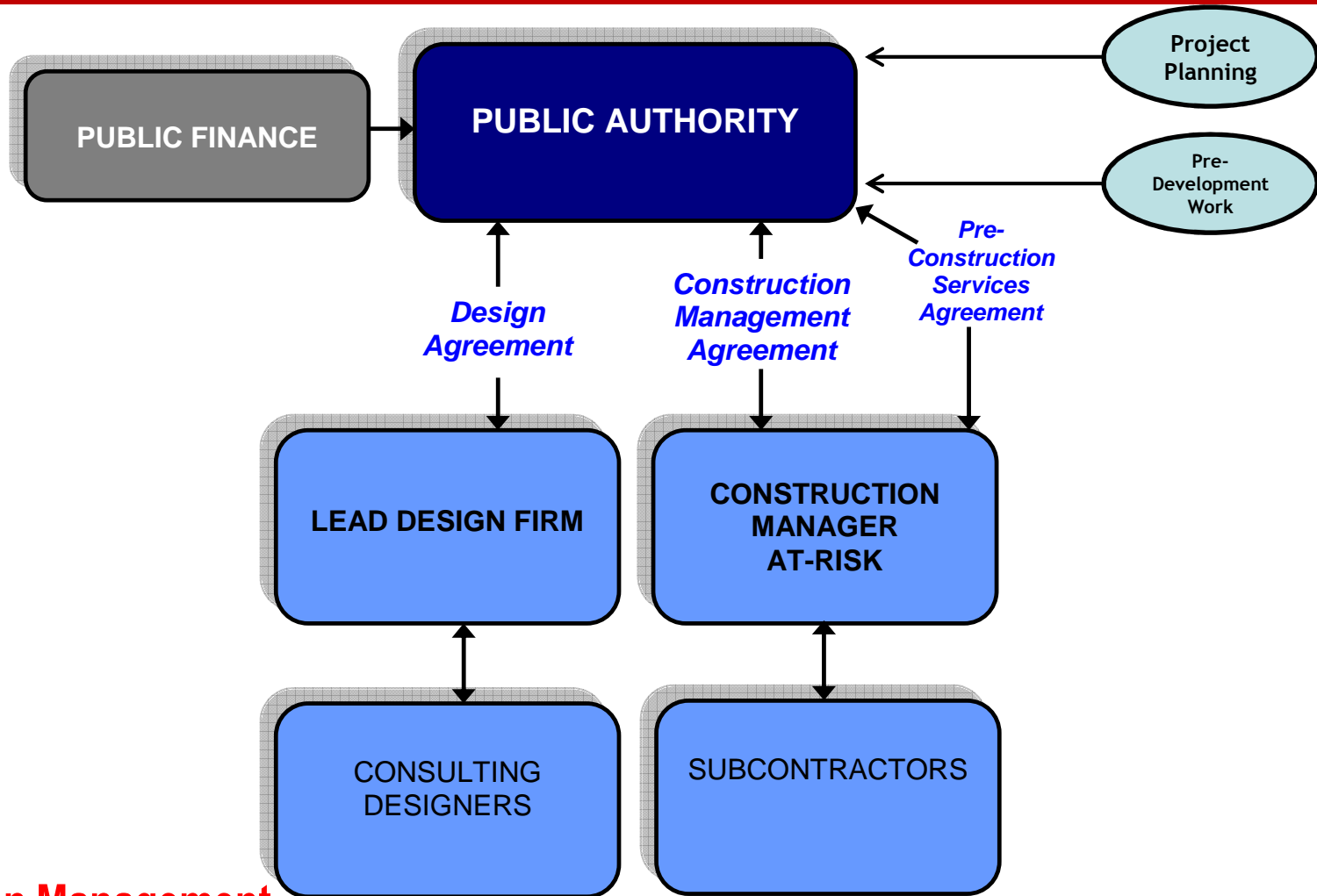
- Project cost confirmation is post bids
- Contractor not involved in design
- Owner must arbitrate between designer and General Contractor (or hire Owner's Representative)
- Owner carries risk of quality of design and post-bid change orders



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Construction Management



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Construction Management Characteristics

A technical and cost advisor during design and transitions into the role of the contractor. This method frequently includes the establishment of a guaranteed maximum price. (GMP)

- Three phases with overlapping design and construction
- Three key players
- Compensation – Negotiated Pre-Construction Services Fee & Fixed/Guaranteed Maximum Construction Price (GMP)
- Construction cost certainty achieved early in construction when GMP is established.

Pros:

- More professional relationship with contractor
- Pre-Construction Services
 - Construction Input in Design
 - Early cost and schedule information
 - Construction Logistics planning
- Pre-Qualification of subcontractors
- Shorter overall design-construction duration

Cons:

- Construction cost not finalized until GMP
- Multiple bid packages



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Job Order Contracting (JOC)

- Utilize Job Order Contracting (JOC) on:
 - Smaller capital construction work
 - Infrastructure work and repairs
 - Demolition and site preparation work
 - Building renovation and repair services
 - Well-suited to emergency repair work

Pros:

- Competitively Bid Contracts
- Bid an adjustment factor to pre-established, pre-priced work Competitive bidding
- Multiple projects on multiple sites simultaneously

Cons:

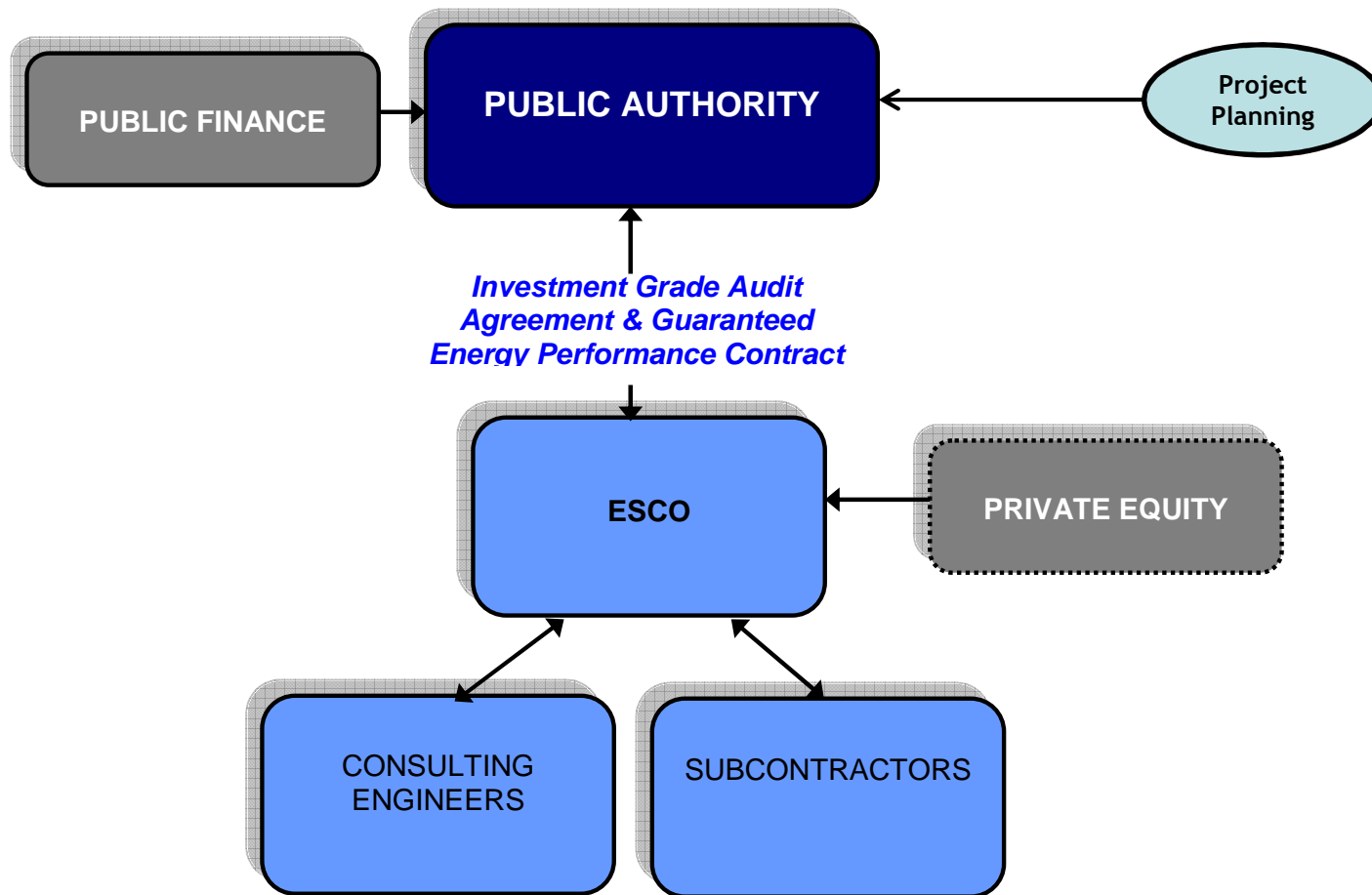
- Delivery method most appropriate on smaller scale projects



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Energy Performance Contracting



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Energy Performance Contracting

Contractual arrangement between public entity and private entity (ESCO-Energy Service Company) to design, install, and guarantee Energy Conservation Measures (ECM).

- ESCO investment grade audits fully specify recommended ECMs.
- Self Financing - guaranteed energy savings pay project financing.
- Turn key project – audit, engineering, install, commissioning, & long term M&V
- Compensation – ESCO Fees are fully defined in EPC contract.

Pros:

- Building upgrades without raising new capital
- On going savings guaranteed by ESCOs
- M&V process promotes proper maintenance
- Helps bridge gap between first cost and life cycle cost perspectives
- Qualifies for energy incentives, grants, rebates and tax credits

Cons:

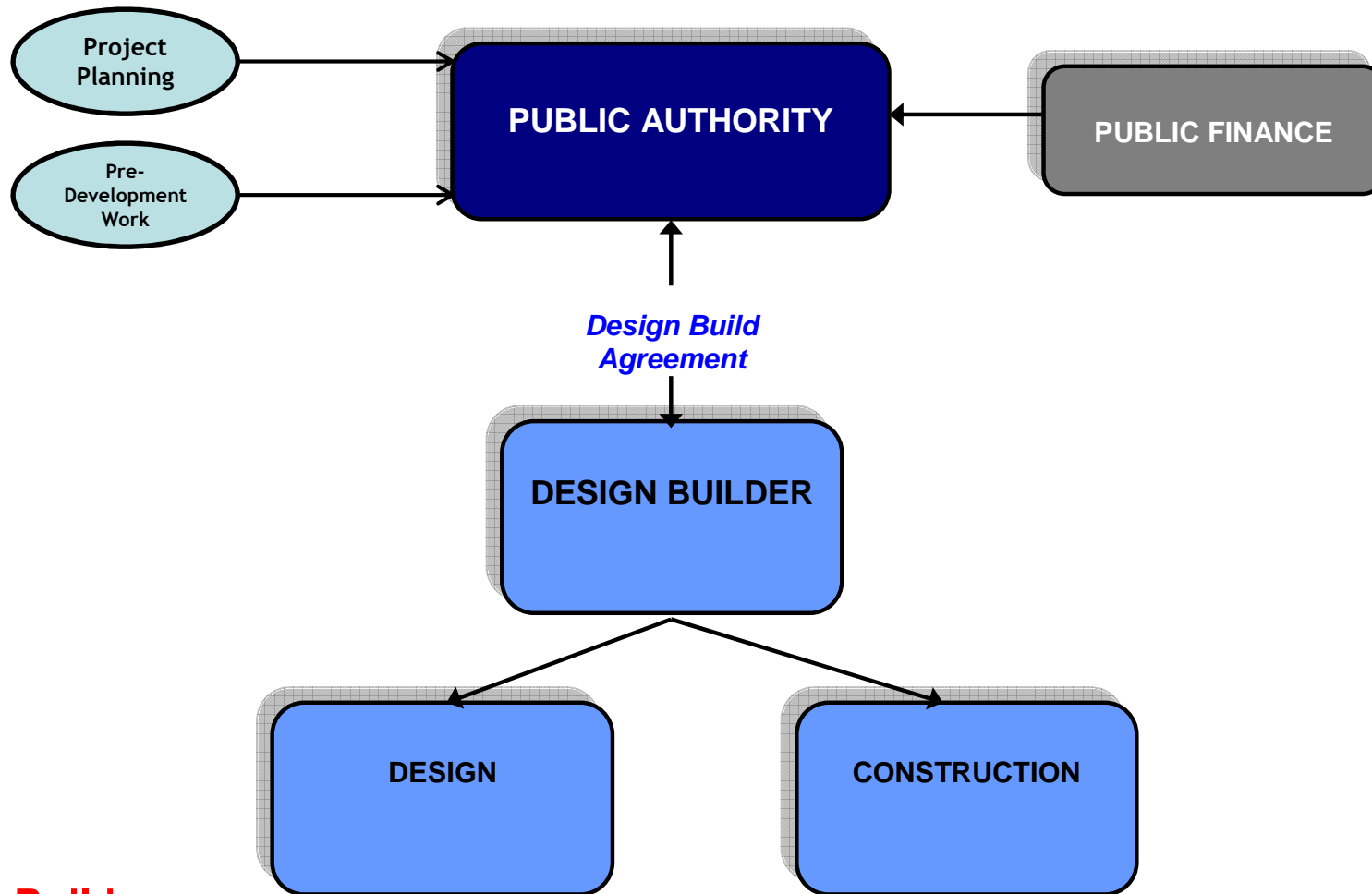
- Complexity of arrangement
- High transaction costs
- Tracking savings may not be cost effective



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Design Build



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Design Build Characteristics

Single point of responsibility for both design and construction. Forces cooperation and coordination between designer and contractor.

- Design and Construction overlap
- Compensation - Lump Sum
- Construction cost certainty achieved earlier in project timeline as design and construction cost are established upon award of the Design Build agreement
- Two key players

Pros:

- Allows for maximum shift of risk from owner to Design Builder
- Earliest cost identification
- Single point of responsibility
- Designer and Contractor provide unified recommendations
- Preconstruction services (i.e. construction logistics)
- Potentially faster delivery system
- Design liability stays with design builder

Cons:

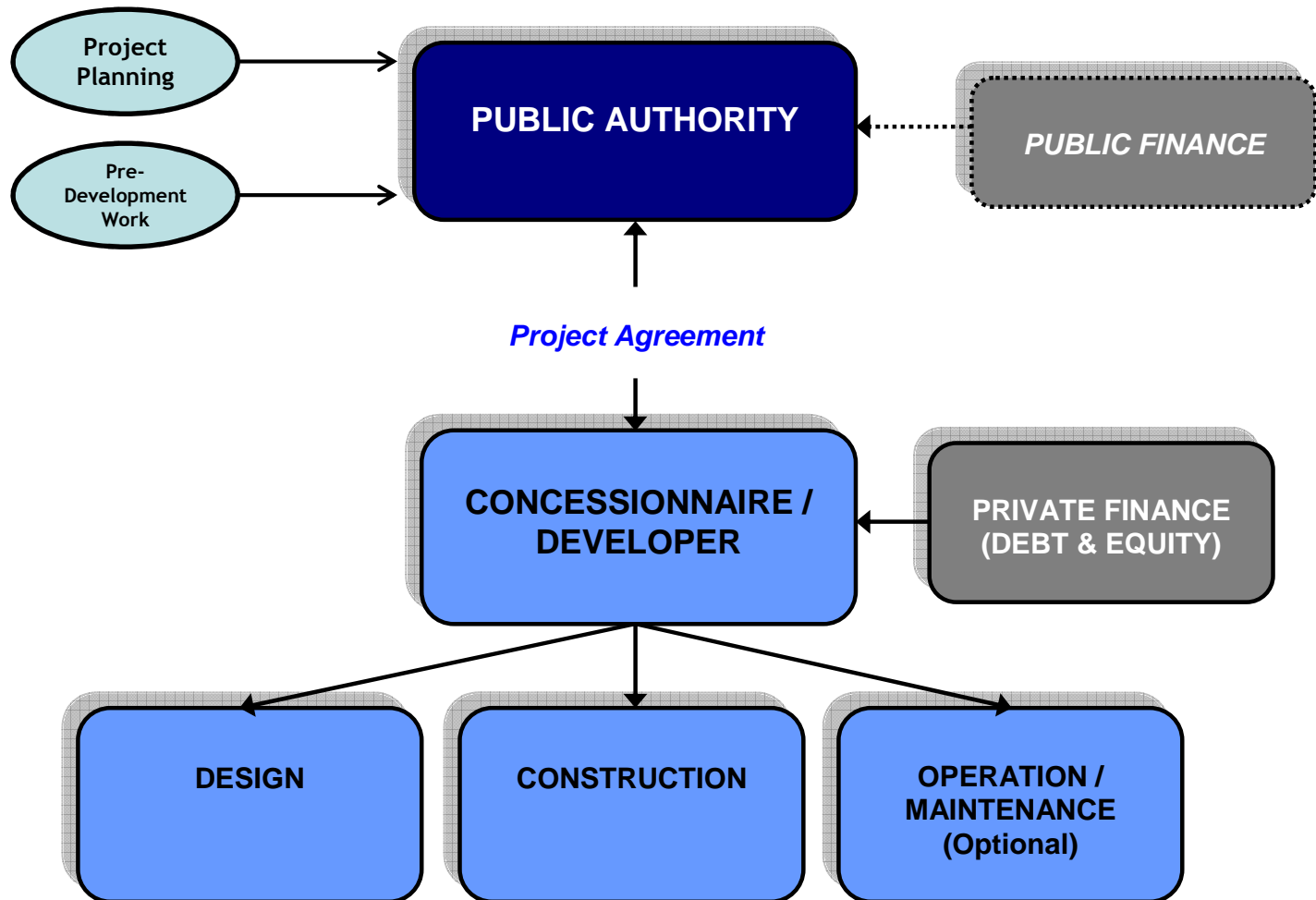
- Potentially less owner involvement in design process
- Requires solid performance specification up front for selection and pricing
- Design changes after D/B award can be more expensive



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**Public/Private
Partnership (P3)**



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Public Private Partnership (P3) Characteristics

Contractual arrangement between public entity and private sector for the delivery of a public project that can involve design/construction and potentially finance & operations as well.

- Concessionaire can be responsible for full life cycle of project
- Project cost certainty achieved upon award of concession agreement
- Two key players
- Compensation – Concession Agreement can provide for periodic or other payment structures (availability, lump sum, etc.)

Pros:

- Useful if public sector financing cannot be provided
- Some risk transfer to private sector
- May offer better value for money over the full life cycle of the project
- Reinforces discipline to properly maintain facilities
- Economic development tool

Cons:

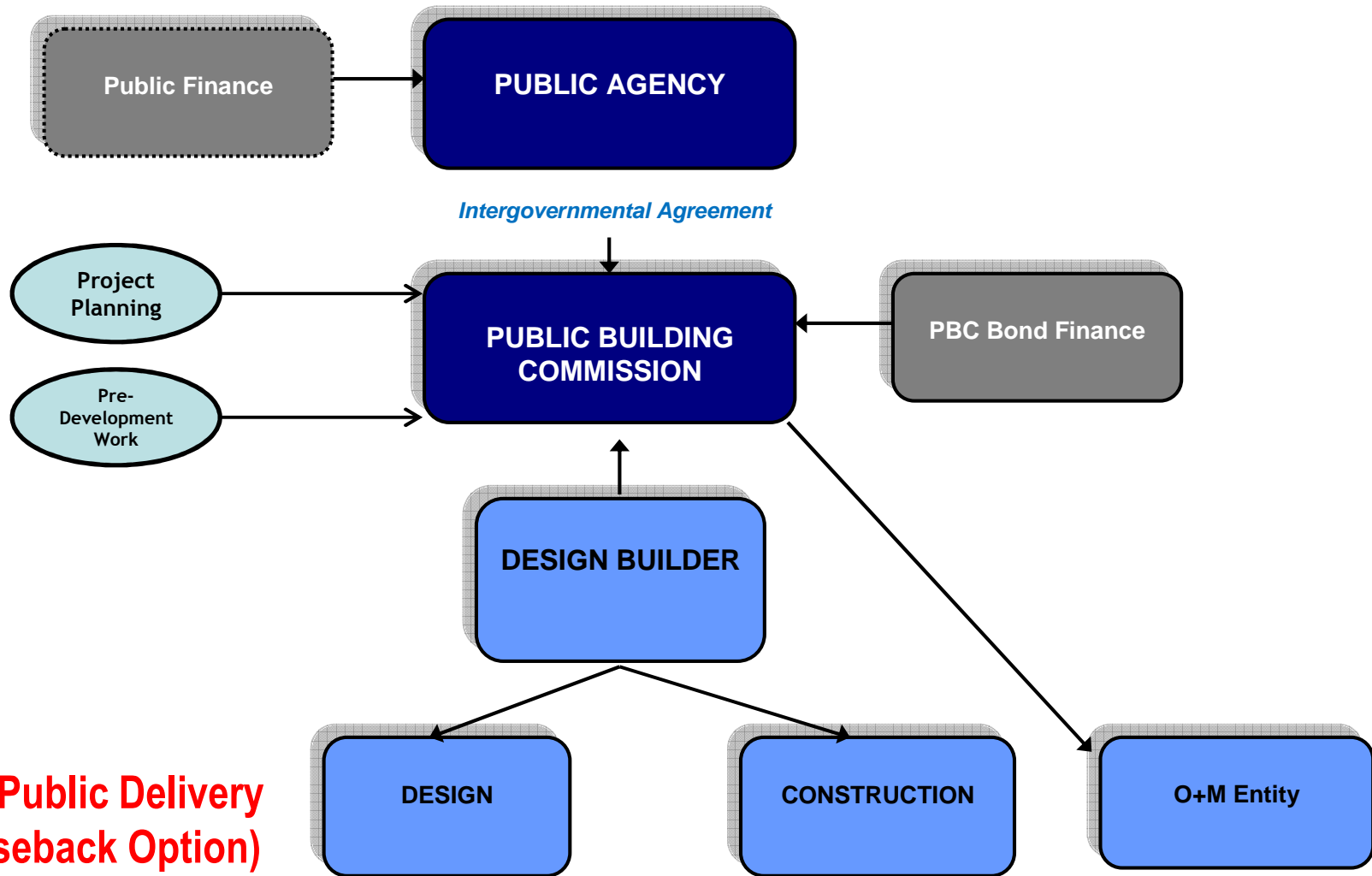
- Longer procurement period
- Can require long term financial obligation by public entity
- Up front cost of financing may be greater than public (tax exempt) debt structure



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P2P
Public to Public Delivery
(with Leaseback Option)



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Public to Public (P2P) Characteristics

Public Entity (Public Building Commission) arranges financing based on the commitment of lease payments from another public body. The PBC then designs and constructs the asset to be leased to the other public entity in return for lease payments.

- PBC can be responsible for operating building as well.
- Project cost certainty achieved upon agreement by PBC.
- Two key players
- Compensation – Lease Agreement for public entity to pay PBC

Pros:

- Transfers financing risk away from user agency
- May offer better value for money over the full life cycle of the project
- Reinforces discipline to properly maintain facilities

Cons:

- Requires long term financial obligation by public entity for whom asset is being built



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Financing Options

- Tax Exempt Bonding
Financing for public purposes, with very limited private use (e.g. retail coffee & sundry)
- Taxable Bonding
Private equity for any purpose
- Performance Contracting
Private equity option for energy related projects
- Availability Payment Model
Public entity payments do not begin until asset is available



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Conclusions

- Select the delivery method that fits the requirements of the project
- Carefully evaluate project constraints and risk tolerance before selecting delivery method
 - Funding Availability
 - Schedule
 - Cost
 - Scope
 - Quality
 - Land Acquisition – Access to start work
 - Availability of qualified designers, contractors, design/builders or concessionaires for the type project
 - Risk Transfer
- Maintain proficiency in multiple delivery methods to best meet project requirements, user agency needs and make efficient use of public funds

