



Massachusetts Bay Transportation Authority

MBTA-UMass PM Training –ACEC Briefing Thursday, February 13, 2020

- **Purpose**
- **Overview of the Training Modules**
 - Purpose, Goals and Hot Topics
- **Summary of New & Revised Processes**
 - PMP & Stakeholder Engagement
 - Role of OCE from Initiation to Design
- **Questions & Discussion**

Purpose of PM Training



Significant Organizational Changes and Leadership and New Departments



OCE and Capital Delivery are staffing up



Need to effectively delivery significant programs and projects to meet growing demands and address critical safety and operational impediments to aging infrastructure and services.



As such, critical to address processes, policies and procedures that adversely encumber and impede effective delivery of projects.



Remove obstacles and refocus efforts for more collaborative partnerships using the resources in each group more efficiently.

The MBTA / UMass Boston PM Training – TWO Parts

- A. Morning Session – UMass Project Manager **Certificate Training** program – Course work required for certification exam

- B. Afternoon Session – **MBTA Training Focused** – current state of practice, roles and responsibilities of PMs in delivering MBTA projects and the where, what and how of forms, new processes and updated procedures to follow.



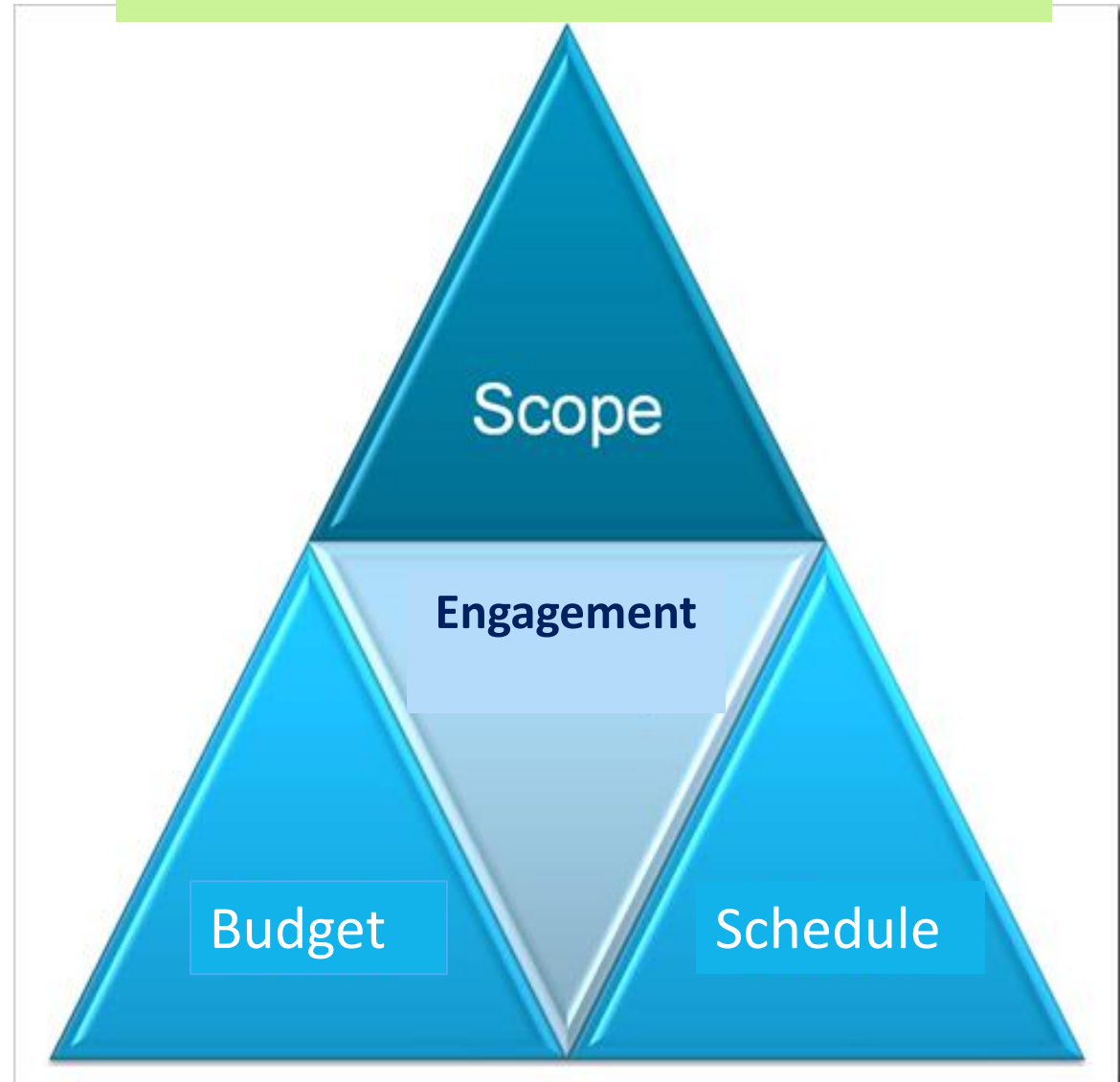
Goal of the PM Training - to Ensure Successful Delivery of Capital Projects

Address confusion on the who, what, when, where and how - Project Managers deliver MBTA capital projects.

Clarify roles and responsibilities relative to scoping, planning, managing and overseeing projects

Address critical problems: confusing terminology, poor scoping, unutilized project management plans, change orders, delayed delivery and costly project performance.

EFFECTIVELY MANAGE TO DELIVER:



Key Issues Addressed

- Terminology – Speak the Same Language
- Clarify Roles & Responsibilities of:
 - OCE
 - Capital Project Delivery PMs in all MBTA departments
 - Supporting Departments & Resources (e.g., OTP, OPMI, CX, SWA, ODCR, Environment)
- Role of Planning
- Who & How of Scoping
- Eye on Quality Deliverables – from Design Phases 0-100% & through Construction
- Refine and Update Processes:
 - EWOL
 - Estimating Project Budgets, ICE and costs
 - Project Management Plans (PMP)
 - Internal and External Engagement Plans & Resources (PDG, PPP & PEP)
 - Cardinal Change and CIP



Hot Topics



Overview Of Changing Landscape



**PM Role is
Delivering Capital
Projects from
Initiation to Close
Out**



**Project
Management Plan
– New Roadmap**



**Stakeholder
Engagement –
Resources and
Departments**



**Roles and
Responsibilities**

**Office of Chief
Engineer**

**Delivery Project
Managers**

Project Controls

**Capital Planning &
Oversight**

Customer Experience

Shared Services

Consultants



**Cost Estimating &
Cardinal Changes**

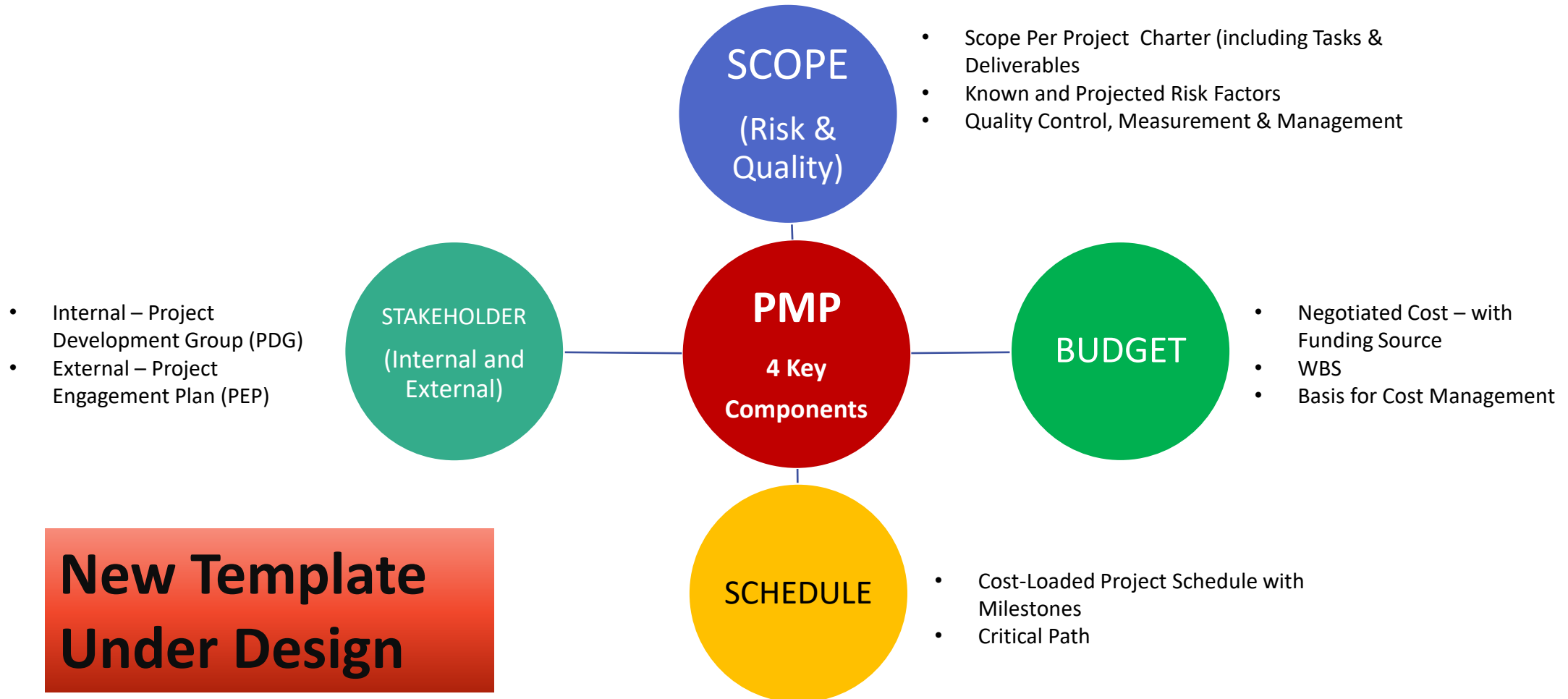


Current MBTA Project Management Plan Outline



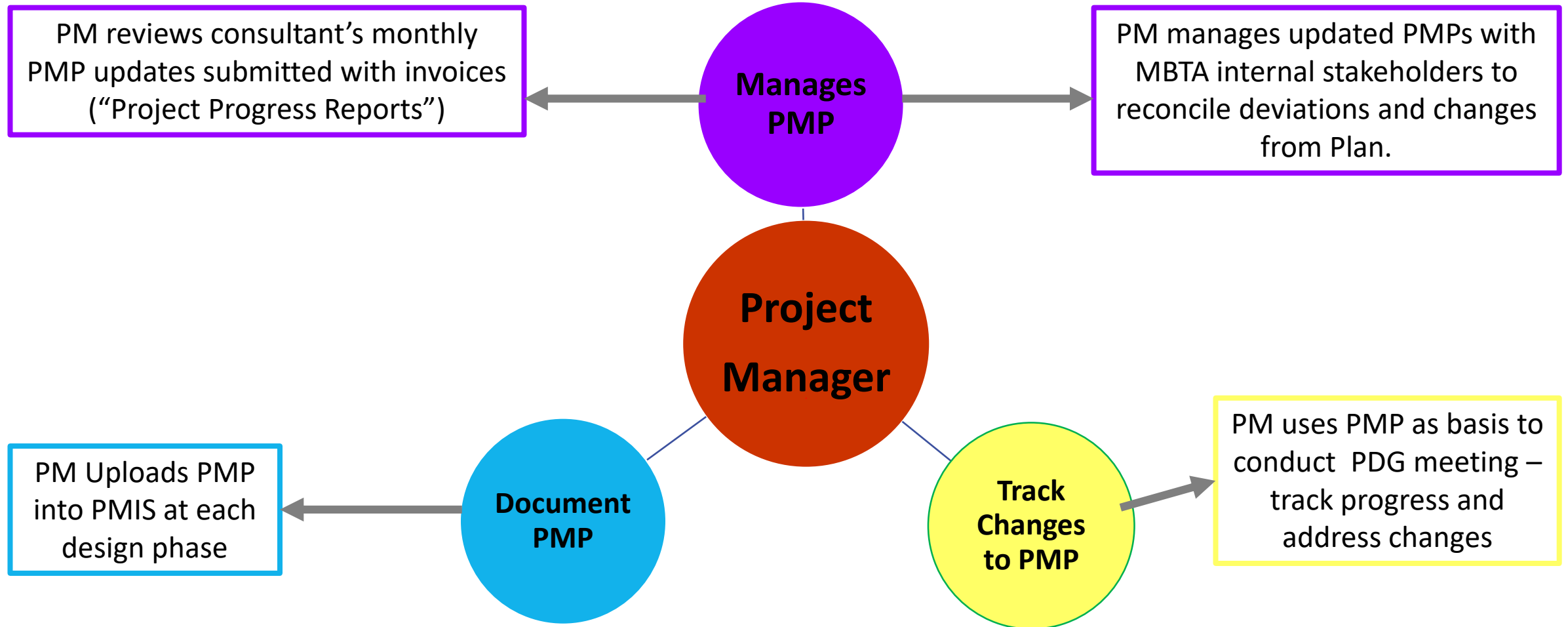
Simplified Project Management Plan Outline

Project Management Plan Key Components

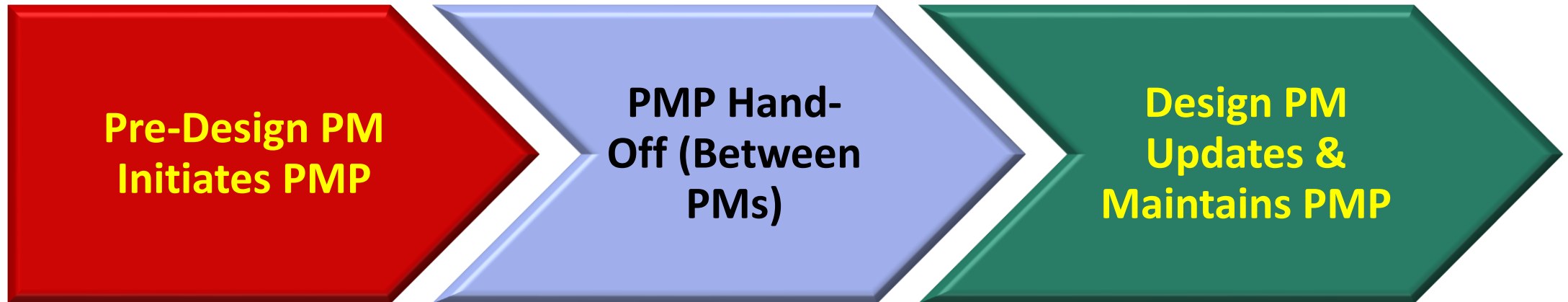


Simplified Project Management Plan Roadmap

Project Manager's (PM's) Responsibility



Simplified Project Management Plan Roadmap



Assistance from Pre-Design Consultant (optional)

Assistance from Existing Consultant (if Pre-Design & Design Consultants are same) or New Consultant (if Pre-Design & Design Consultants are different)

Design Consultant submits updated PMP monthly (with invoices) and uses the PMP at the PDG to review project progress

MBTA Stakeholder Engagement Process

OUTREACH

- Identify & Coordinate with Stakeholders
- Employ Planning Tools & Resources
- Prepare Engagement Plan

NOTIFY

- One-Way Communication
- Notify External Stakeholders of a service change, construction, safety issue (not engagement)

ENGAGE

- Dynamic & Collaborative – Soliciting Ideas
- Engage Internal MBTA Stakeholders – PDG to monitor project
- Engage External Stakeholders to refine project

Internal Stakeholders - PDG & Shared Services
**External Stakeholders – Legislative Affairs,
Press, Public (business, community and
advocacy)**



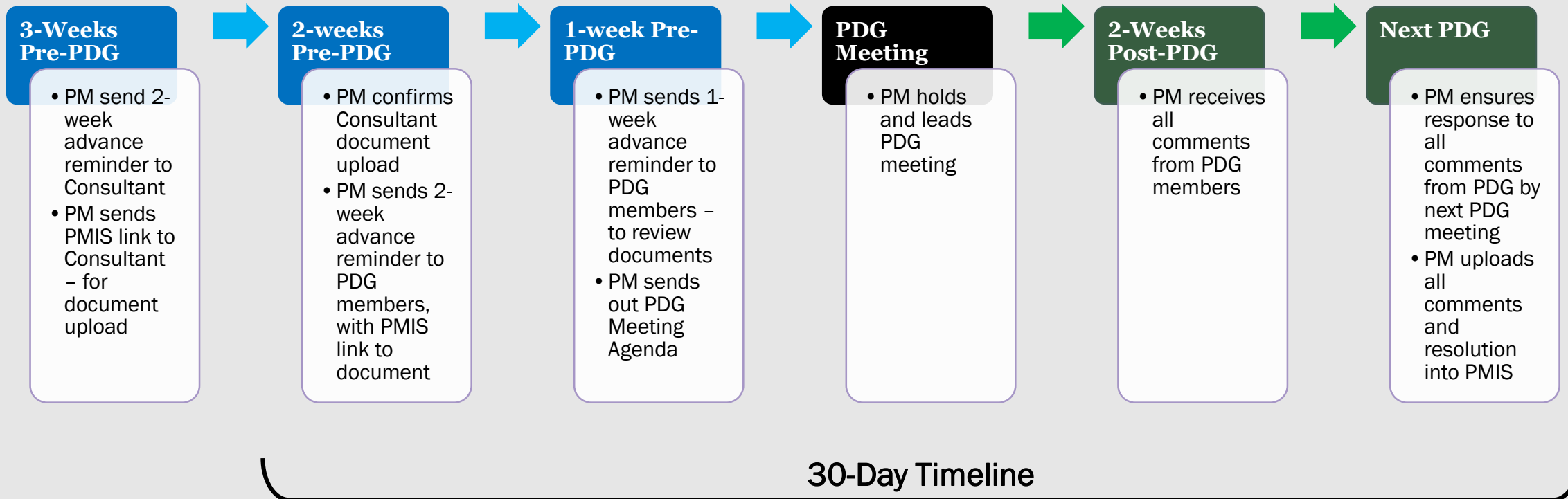
***Internal MBTA
Coordination for
Review of Projects
in a Timely Manner***

***The Project
Development Group
(PDG)***

Purpose - Predictable Schedule – Control Costs

- Required at Each Design Phase – 15, 30, 75 & 100%
- Should be clearly stated in scope with defined deliverables at each phase
- Coordinated internal review of the relevant operating departments is critical to managing scope, cost, schedule and addressing external stakeholder input on a timely manner

Illustration of the PDG 30-Day Review Timetable



Public Engagement Early and Often (as necessary)

Each phase of the Capital Delivery process has an opportunity for public engagement. Some projects warrant different levels of engagement and *have a rich history of engagement*. IMPORTANT TO KNOW.....

Capital Project Delivery Phase	Tracking Public Engagement
Long Range Planning	The Public is engaged in Long-Range planning (e.g., Focus40 and Rail Vision). Input is provided into long-term visions to inform the planning of projects.
Capital Investment Plan (CIP)	Public weighs in on specific projects and their relative priorities during the state-wide CIP roadshow.
Design	Public often is engaged in project scoping to inform early phase designs. Public engagement around milestones, coordinated with the Project Development Groups (PDGs)
Construction	During construction, the general public, business and customers need to know how construction might impact them, from noise to travel diversions.
Operations & Maintenance	As needed, customers shall be notified of maintenance.

What is a Project Engagement Plan (PEP)?

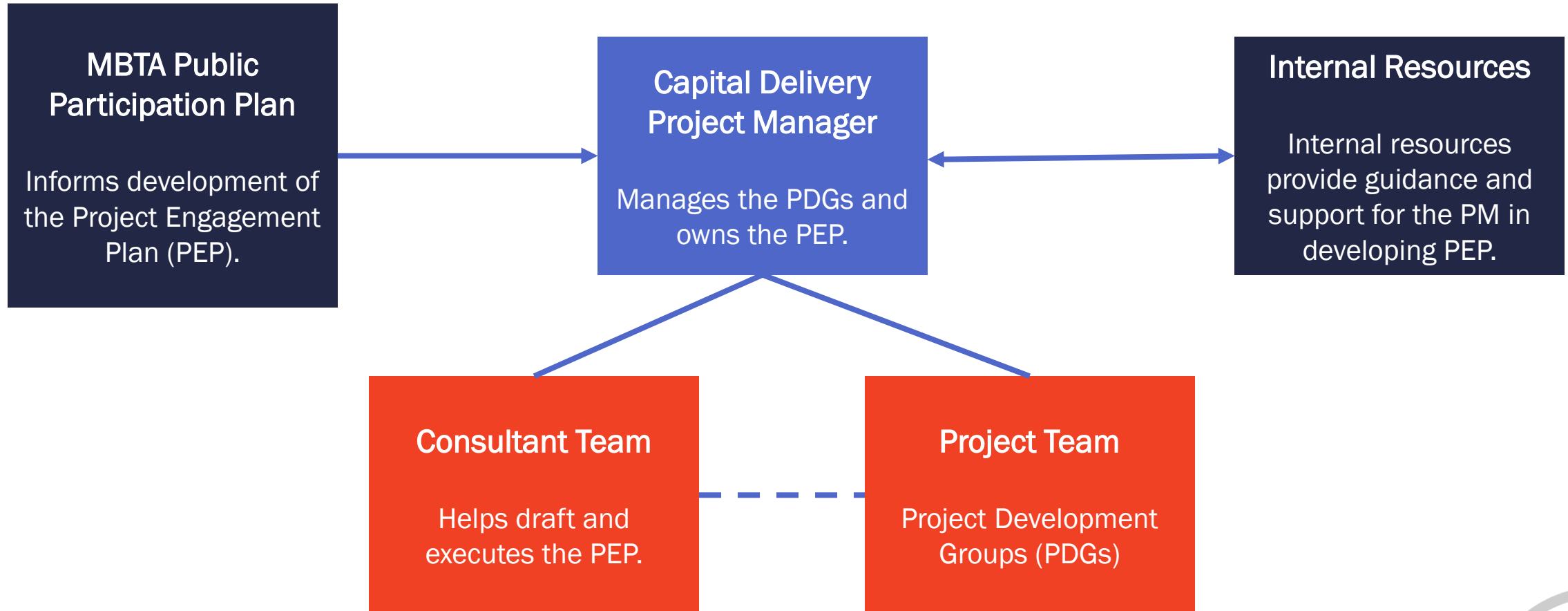
- Once the consultant is on board, during the Pre-design stage, OCE and the PM will identify key external stakeholders to engage during the design phase of the project.
- Utilizing the tools and processes of the MBTA Public Participation Plan (PPP), the Project Engagement Plan (PEP) will:
 - Identify priority groups to reach (*who*);
 - Identify which components of the project are subject to public feedback (*what*);
 - Determine the approximate schedule for engagement (*when*); and,
 - Select mechanisms for notice and engagement (*how*).
- The PEP will be incorporated into the Project Management Plan (PMP) and be updated at each Project Development Group (PDG) meeting.
- The input from external stakeholder meetings will be used to guide the PDG review of the project – scope, budget and schedule as well as to advise on any course correction due to additional public engagement requests.



External Stakeholder Meeting



Public Participation “Org-Chart” for Capital Projects



Information learned through execution of the PEP should flow into project development through the PDGs.



Office of the Chief Engineer

Who We Are

OCE is a department within the MBTA that includes the following units:

- Reliability Engineering / Quality Management
- Infrastructure Planning and Engineering
- Vehicle Engineering



Why OCE?

The MBTA established the OCE for medium and long-term planning and standards setting, to:

- Create an Operations team with a strategic view of asset performance to inform the CIP
- Establish asset management strategies and tools to provide meaningful asset performance information based on SGR standards
- Establish consistent design standards and specifications
- Establish lifecycle quality performance and maintenance standards for all asset classes
- Fully define scope early on in design process and ensure early coordination with internal stakeholders

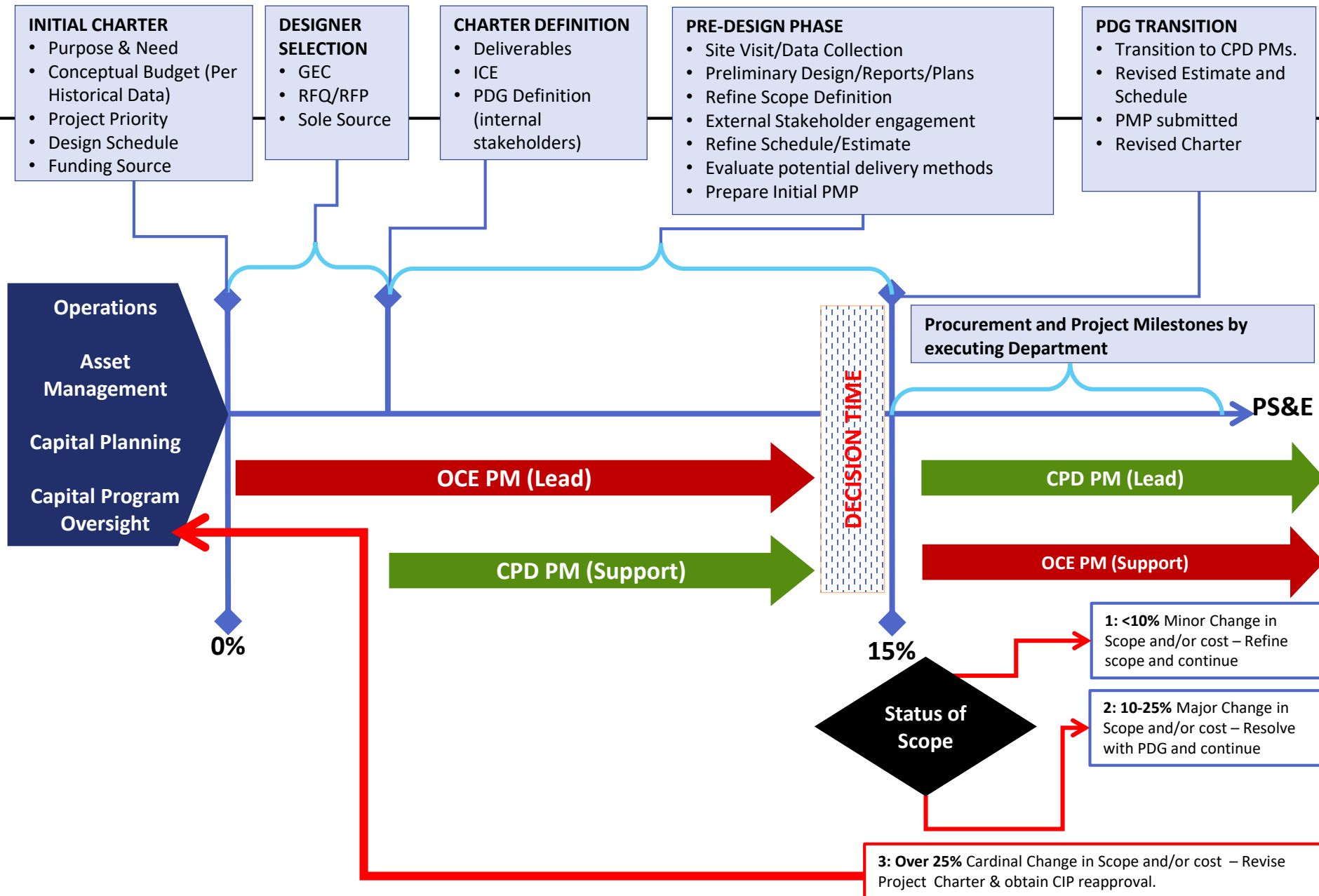
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What We Do

The Office of the Chief Engineer

- Inform the CIP program based on operational needs and asset performance needs to ensure service reliability
- Define asset engineering and design criteria
- Manage Revenue Vehicle Procurements, including Warranty work and outsourced capital maintenance programs
- Manage infrastructure project scope, cost and schedule to a 15% level
- Manage project scope and design criteria throughout project design and closeout

OCE PRE-DESIGN PROCESS FLOW DIAGRAM



QUESTIONS & DISCUSSION



Critical Internal Resources

MassDOT Office of Transportation Planning (OTP)

- Transfer of documents
- Geospatial data & analysis

MassDOT/MBTA Office of Performance Management & Innovation (OPMI)

- Data & analysis to inform internal and external parties

Systemwide Accessibility (SWA) and Office of Diversity & Civil Rights (ODCR)

- Guidance and tools for diversity, inclusion, and accessibility

Customer Experience Department (CX) & Customer Technology Department (CTD)

- Tools for customer notification (flyers, screens, social media)

External and Legislative Affairs

- Knowledge of the press and municipal and state leaders