

PROJECT MANAGEMENT OVERVIEW

Lessons from Day 1

The Caltrans Project Lifecycle

Project Initiation Document (PID)

In the PID component, the project manager (PM) leads the joint efforts of the project development team (PDT) and other project stakeholders to identify and agree on alternative solutions to the transportation need defined by the project “purpose and need” statement. The PM must consider all stakeholder needs and concerns.

All alternative solutions must:

- Align with the project’s purpose and need statement.
- Consider stakeholder needs and concerns.
- Not include work that is not explicitly required to fulfill the project’s purpose and need statement.

The PID component begins when the Deputy District Director for Program and Project Management assigns the project to a PM. This component ends when the DDD-PPM approves the PID.

The major deliverable for the PID component is the actual Project Initiation Document. The PID contains a defined project scope, and a reliable capital and support cost estimate and schedule (workplan) for the alternative recommended for programming (this is typically the most complex alternative).

Permits and Environmental Studies

After the PID component comes the Permits and Environmental Studies component. For a capital project to proceed, it must receive official federal, state, and environmental approvals as well as approval from all the stakeholders and the public. By the end of this component, the stakeholders should agree on a preferred alternative that has a minimal impact on the environment. The preferred alternative must satisfy the project’s purpose and need statement, and be the least damaging to the environment.

The main deliverables for the Permits and Environmental Studies component are:

- The Final Project Report — further refines the purpose and need, identifies the alternative selected, describes how that alternative was decided upon, and describes how consensus was reached between Caltrans and stakeholders. It also includes more detailed engineering designs required under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).
- The Final Environmental Document — contains required environmental approvals.

Plans, Specifications, and Estimate (PS&E)

Construction companies must know what a project requires in order to bid for the contract. The plans, specifications, and estimate created in this component provide companies with the information they need to develop an accurate bid.

During the PS&E component, the PM leads the efforts of the PDT to produce the PS&E package. This package includes:

- Detailed designs/plans for the preferred alternative identified in the Permits and Environmental Studies component
- Detailed project specifications (material to use, contract guidelines, permits needed, etc.)
- Estimates for the exact amounts of materials needed and their costs (capital costs only, not support costs)

When the PS&E package is complete, the project should be biddable and buildable. That is, contractors have enough information to bid accurately, and they can build what they bid to do.

Work on this component is often done at the same time as the Right of Way component.

Right of Way

Caltrans is required to obtain property rights for the construction of many of its transportation projects. The Right of Way component involves preparing maps and legal documents, preparing appraisals, obtaining legal and physical possession of property, relocating occupants, and clearing all physical obstructions, including utilities. Other required activities include managing properties, selling excess properties, monumentation of the right of way, relinquishments and vacations, and preparing right of way record maps.

The main deliverables for the Right of Way component are:

- The Right of Way Certification — summarizes the status of all right of way matters pertaining to a proposed construction project. The Right of Way Certification is included in the PS&E package.
- Legal right of way — secures all real property rights that are required for the project, and relocates occupants according to federal and state laws, regulations, and procedures.
- Clearance of physical obstructions from the right of way — removes improvements, relocates utilities, and executes all railroad agreements.

Work on this component is often done at the same time as the PS&E and Construction components.

Construction

After the construction contract for a Caltrans capital project has been awarded, construction can begin. In the Construction component, the construction contractor builds the actual physical improvement. The PM manages the project budget, addresses risks, and responds to changes that have significant effects on budget or schedule. The PM also ensures that the project, as built, conforms to the details and commitments made in the Final Project Report.

The major deliverable for this component is the constructed physical improvement. This component ends when construction is complete.

Work on this component is sometimes done at the same time as the Right of Way component. In rare instances, the Construction component is actually completed and closed **before** the Right of Way component. A project is not complete until **both** the Right of Way component and the Construction component are closed.

What Does “Scope” Mean in the Context of Project Management at Caltrans?

The term “scope” in project management refers to the work that must be done to deliver a product or service with specified features and functions. Scope definition starts with the project purpose and need

statement. A Work Breakdown Structure (WBS) is then developed which includes all the project features and functions. The WBS describes the work in terms of project deliverables and defines the project scope in detail.

The scope of the project becomes progressively more detailed over time, as the purpose and need statement and alternative solutions are further defined during the PID component and Permits and Environmental Studies component. The ultimate project scope is defined in the WBS for the preferred alternative selected in the Permits and Environmental Studies component.

The Importance of Defining Scope for a Project

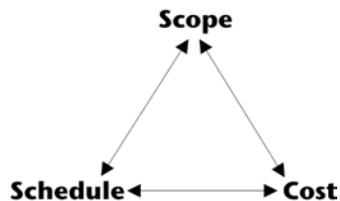
Scope provides the basis for all decision making on the project. A well-defined scope helps stakeholders to understand the project requirements and limits. Scope defines the standard against which the success of the project is measured. For a project to be considered successful:

- The end product must fulfill the purpose and need statement and product description defined in the scope.
- The work required to produce the product must match the project workplan.

Poor scope definition results in more changes being required later in the project lifecycle. These changes require rework, which increases project time (schedule delays) and costs.

Once a project's scope has been set, the PM must control any attempts to change it.

Consequences of Mid-Project Changes to the Project Scope



This diagram illustrates the relationship between scope, schedule, and cost. Changes to one of these elements necessarily causes changes to the other two. Thus, changes to the scope affect both the project schedule and the project costs. Narrowing the scope reduces both costs (work and materials required) and schedule (less work takes less time). Expanding the scope has the opposite effect.

For example, Caltrans is in the Permits and Environmental Studies component for a project that involves widening a two-lane road into a four-lane road. The project engineers realize that the road may need to be raised 20 feet to protect against flooding. Unfortunately, no flood/hydraulics analysis was done during the PID component and none of the existing alternatives address this issue. Addressing this issue would require a change to the scope to include an additional alternative solution. That scope change would increase the project cost (extra work to produce the new alternative) and schedule (more time to evaluate the new alternative).

What Does “Stakeholder” Mean in the Context of Project Management at Caltrans?

A “stakeholder” is anyone who has a vested interest in the project. Stakeholders may be individuals or organizations who are actively involved in the project, or whose interests may be positively or negatively affected by project execution or successful project completion.

Internal stakeholders are stakeholders within Caltrans; external stakeholders are stakeholders outside of Caltrans.

Common Types of External Stakeholders on Caltrans Projects

External stakeholders may include:

- Other state agencies
- Local stakeholders, such as:
 - Elected representatives of the public (senators, representatives, assemblymen, etc.)
 - Authorities (city council, mayor, fire, police)
 - Landowners
 - Grassroots organizations (homeowner's associations, parent associations, etc.)
 - Business owners
- Special interest groups (environmental groups, animal protection groups, etc.)

External Stakeholders Have Legitimate Concerns and Needs

Funding for all Caltrans projects comes from taxpayer dollars. Therefore, Caltrans exists to serve the public and respond to their needs. Also, state law (CEQA/NEPA) dictates that Caltrans' project development process provides for broad, community-wide involvement in project decision making.

Why You Need to Develop Consensus Among Stakeholders

Stakeholders often have conflicting objectives, needs, and expectations. Finding appropriate resolutions can be one of the major challenges of project management. The PM (with help from the project team) must identify the stakeholders on a project, determine what their needs and expectations are, and then manage and influence those expectations throughout the project lifecycle to ensure a successful project.

External stakeholders cannot and should not be ignored. External stakeholders have the power to either help a project or hurt it. If external stakeholders are opposed to a project, they can make it very difficult for Caltrans to complete the project. In some cases, they can stop the project entirely.

Bringing stakeholders to consensus simply means getting agreement that the project should go forward in a specific way. During the early components of a project, a PM should formally solicit stakeholder input into the planning, development, and evaluation of solutions. Stakeholders are part of the project development team and play an active role in solving their own problems.

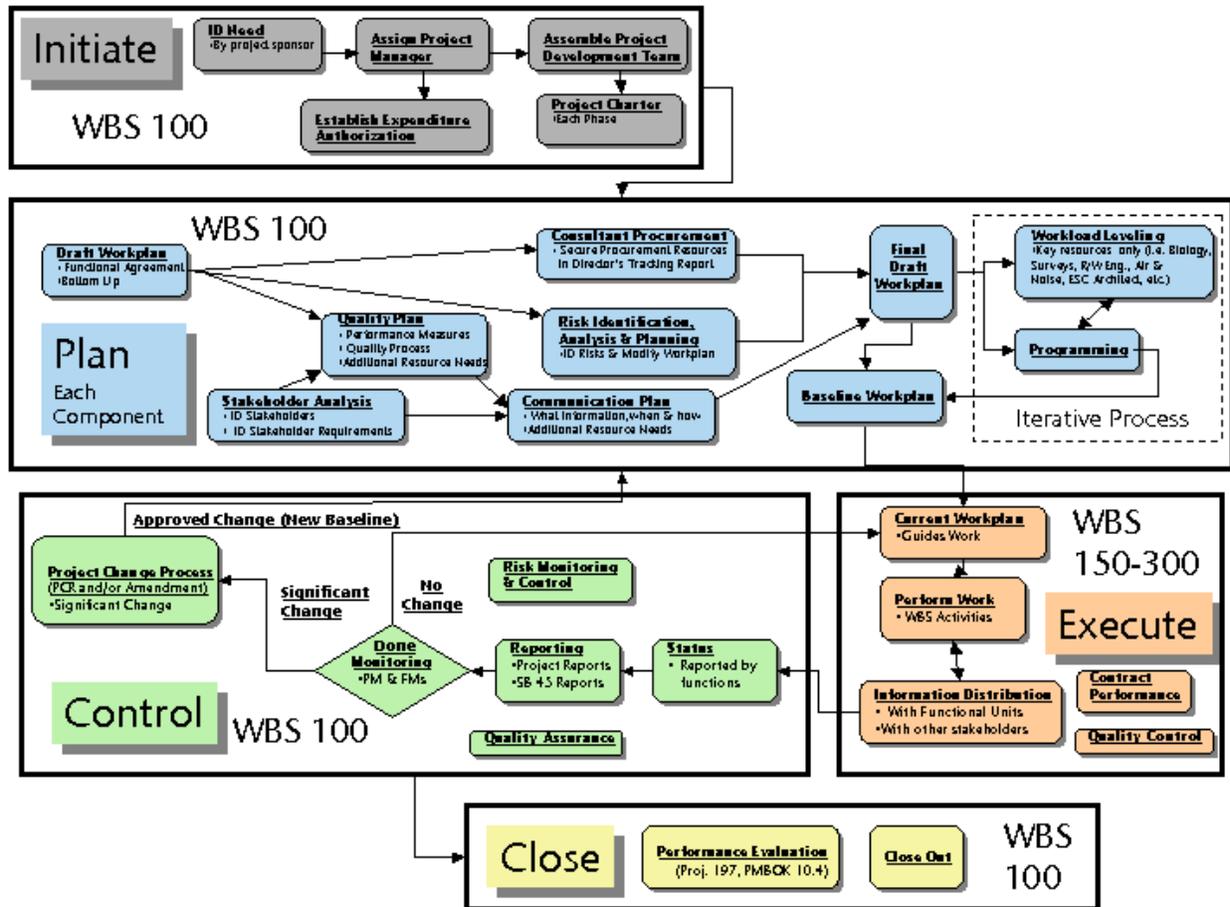
In general, differences between internal and external stakeholders should be resolved in favor of the external stakeholder, if possible. Often, it's not possible to please all stakeholders, but the PM must try to build a consensus that, on balance, will satisfy most stakeholder needs.

Lessons From Day 2

PMBOK* Process Groups

- **Initiating** involves recognizing that a project or component should begin and committing to move forward. Normally, you initiate one component after the previous component is complete.

- **Planning** processes involve developing and maintaining a scheme to achieve the desired result of the project or component. You plan before you begin the real work.
- **Executing** processes involve coordinating people and other resources to carry out the project plan.
- **Controlling** processes monitor and measure progress to ensure that project objectives are being met. If necessary, the PM may have to take corrective actions to get the project back on track.
- **Closing** processes formalize the conclusion of the project or component, bringing it to an orderly end. If you prepare reports or progress statements, these usually feed into the initiating process of the next project component.



* Project Management Body of Knowledge, Project Management Institute®

Sequence of Process Groups

At the most basic level, the process groups occur in this order:

- Initiating
- Planning
- Executing
- Controlling
- Closing

However, planning, executing, and controlling processes can overlap and reoccur within any lifecycle component. See the diagram in the previous section.

Relationships Between Process Groups

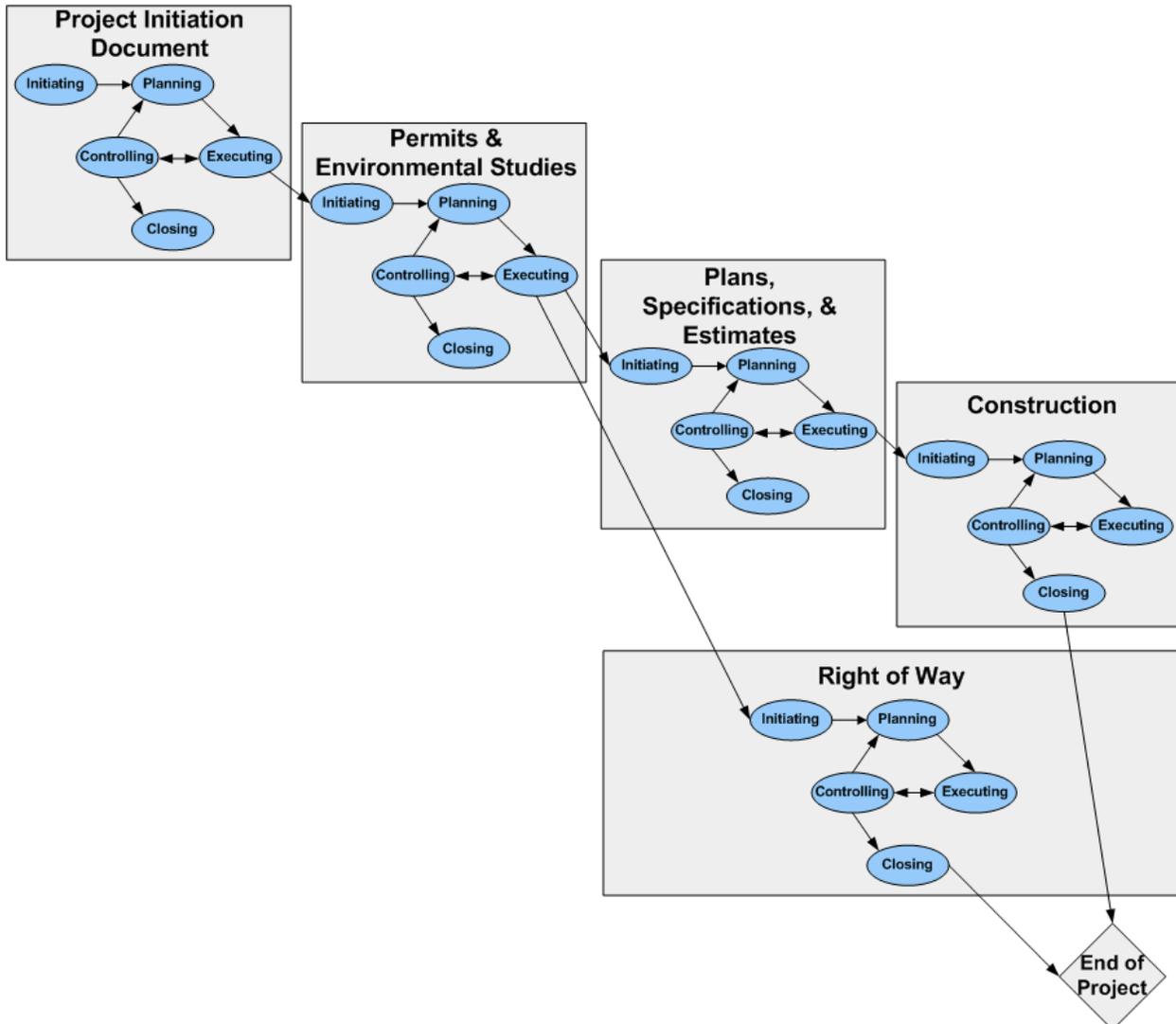
Process groups link to each other by the results they produce — the outcome of one process group usually becomes an input to another. For example, planning processes produce a workplan that the project team must execute; the team executes the workplan; the project manager controls the team's efforts.

How Process Groups Relate to Lifecycle Components

Process groups overlap at varying levels of intensity throughout each component of the project. For example, the PM performs executing processes to guide the team's efforts at the same time that he/she performs controlling processes to monitor those efforts.

Process groups cross project lifecycle components such that the closing of one component often initiates the beginning of the next component. For example, the plan for the Permits and Environmental Studies component is a product of the PID component.

The following diagram shows the components in the project lifecycle and a generic representation of how the process groups occur/reoccur in each.



What Does “Resource” Mean in the Context of this Training?

For the purposes of this training, resources are people and, by extension, their time (hours, workload, availability, etc.).

How Resources Are Estimated, Approved, and Authorized

The first step is **estimating**. During the PID component, the PM has Functional Managers (FMs) estimate the resources for specific deliverables in the project workplan. These estimates are refined later on, and updated as the workplan changes. When the PM needs **approval** for resources, usually at the start and end of the PID component, the PM goes to the Deputy District Director for Program and Project Management (DDD-PPM). The DDD-PPM can help the PM connect to the correct FMs when he/she needs help. **Authorization** is a different matter. At the end of the PID component, the PM can authorize

each FM to go ahead at the appropriate time. Then, each FM is responsible for managing resources in order to get the individual tasks done.

Who Approves Resources?

Who: The Deputy District Director for Program and Project Management

When:

- At the start of the PID component
- Verified at the end of the PID component

The DDD-PM also verifies resource assignments across projects at the start of each budget cycle, and revises resource assignments if conflicts arise at any time during the project lifecycle.

At the start of the PID component, the DDD-PM selects FMs to assist the PM in identifying the types of work that will need to be done on the project (for example, civil engineering, landscape design, and right of way). The DDD-PM uses this information to determine which functional units are available to do the work to complete the PID component. The FMs and their units help the PM complete the PID. When the PID is done, it includes a workplan for the alternative selected for programming. The DDD-PM reviews the workplan and makes sure that the resources identified in it will be available when the schedule dictates they'll be needed.

Who Authorizes Resources?

Authorization refers to the FM being told that his/her functional unit can begin the work they are scheduled to perform.

Who: The PM

When: At the start of each lifecycle component. However, the most important authorization occurs when the project is programmed at the end of the PID component.

Technically, the PM authorizes the FM throughout the project lifecycle by scheduling him/her to complete certain tasks and regularly communicating the project status to the project team. If the PM communicates to the team as he should, the FM will know if he can proceed (project is on track) or not (project is stalled, hasn't been programmed, on hold due to an unforeseen problem or other FMs not completing their tasks on time, etc.).

For example, the workplan for the alternative selected for programming was completed in January. It's now March, and Ben, one of the FMs, is scheduled to start engineering work for the Permits and Environmental Studies component. However, he hasn't heard if the project's been programmed, and so is not authorized to begin the next part of his work. When the PM is informed that the project has been programmed, he must authorize all relevant FMs to begin or continue their work on the project.

Who Manages Resources?

Each FM manages the resources (people) in his/her functional unit. The PM has no direct supervision of the resources completing the actual work (the product-oriented WBS elements). Project management is a non-supervisory leadership role.

The Need for Objective Data Reporting

It is the FM's responsibility to objectively report accurate data to the PM. The FM must do this not only because other team members are relying on him/her to do so, but also to maintain his/her own credibility as a trusted source of information.

The PM cannot effectively manage a project if he/she receives inaccurate data from an FM. The PM uses the data provided by the FM to:

- Track project expenditures and make sure the project stays within budget.
- Track project status and completion.
- Communicate with stakeholders and other project team members.
- Make commitments to stakeholders and other project team members.
- Identify project issues and implement control processes to address those issues.

To do all of these things and ensure the project's success, the PM must be able to rely on the data provided by the FM. In addition, the work of other functional units may depend on the FM completing his/her portion of the project. The FMs for those other units may need to adjust their internal schedules and workloads, based on the data reported by the first FM.

The PM's goal is to facilitate open communication and honest discussion of issues, not place blame or "punish" the FM if the project gets off track. Unless the FM repeatedly reports inaccurate data, the PM will not initiate corrective action against the FM. Instead, the PM will work with the FM to correct the problem, usually without involving the FM's supervisor, at least the first few times there's a problem.

Consequences of Inaccurate Data Reporting

It's the PM's job to address problems and communicate them to the rest of the project team so that the team can adjust accordingly.

If the FM reports that his/her unit has completed **less** work than they actually have, the PM will unnecessarily go into problem-solving mode. When the PM discovers that no problems actually exist, everyone who's tried to accommodate the problem will feel that they have wasted a lot of time. They may even need to perform more work to readjust back to the original schedule. This stresses everyone unnecessarily.

If a FM reports that his/her unit has completed **more** work than they actually have, it can lead to serious problems. This kind of inaccurate reporting can occur intentionally if the FM is running behind and afraid to admit it, or unintentionally if the FM miscalculates. If the FM's unit is running behind schedule, the FM needs to be honest with the PM so that the PM can:

- 1) Address the issues that are causing the delay.
- 2) Initiate problem-solving processes and work with the FM to get the project back on track.
- 3) Communicate the potential delay to the rest of the project team so that they can adjust their schedules accordingly.

The earlier the PM is made aware of problems, the better. If everyone believes that the project is going along just fine, the actual issues will remain buried until they just can't be hidden any longer. But then the PM's options for solving the problem are often limited to the least desirable ones (change the entire project schedule, escalate the problem to the FM's Functional Deputy District Director who'll make the FM and his staff work overtime to catch up or who may reassign the FM).

Finally, if an FM consistently reports inaccurate data, his/her credibility will suffer and he/she could potentially face corrective action from his/her supervisor.

Lessons From Day 3

Internal Project Team Members Roles

The project team includes every person who works on a project. This includes State employees, consultants, contractors, utility companies, resource agencies, and property owners. For the purposes of this training, internal project team members are the Caltrans employees (or contractors) involved in the project, such as:

- Project Sponsors
- Deputy District Directors for Program and Project Management
- Functional Deputy District Directors
- Project Managers
- Functional Managers
- Task Managers
- Staff

Responsibilities of Each Internal Project Team Member

The following table describes the responsibilities for each project team role.

Role	Responsibilities
Project Sponsor	<p>Identifies and prioritizes projects for which he/she is the sponsor.</p> <p>Sets goals for the project and works toward agreement on the charter.</p> <p>Serves as advocate for his/her projects and solicits funding from the various funding programs (STIP, SHOPP, Minor, Congestion Mitigation and Air Quality (CMAQ), Toll, Sales Tax, etc.).</p> <p>Arranges funding for projects — for external sponsors, this includes working with the CTC to arrange funding for STIP projects.</p> <p>Establishes performance measures for evaluating the quality of capital improvements.</p>

Role	Responsibilities
<p>Deputy District Director for Program and Project Management</p> <p><i>Has overall responsibility for the management of the capital program in a district or region</i></p>	<p>Manages delivery of the district's portfolio of state highway projects.</p> <p>Ensures that his/her district meets the programmed project delivery performance measures.</p> <p>Identifies delivery trends and takes corrective action to improve delivery.</p> <p>Works with RTPAs concerning changes to externally sponsored projects.</p> <p>Manages capital outlay support resources.</p> <p>Makes decisions on how to apply resources, staff, overtime, and consultants.</p> <p>Maintains staff/supervisor/manager ratios.</p> <p>Manages his/her district's project management plan.</p> <p>Makes decisions on which projects to implement, tools to use in managing projects, and business processes to implement for effective project management.</p> <p>Works with other managers to establish priorities and manage production of project delivery.</p> <p>Ensures that business processes and procedures are in place to meet delivery objectives.</p> <p>Directs project managers, the project management support unit (PMSU), and the consultant services unit.</p> <p>Assigns workload and resources to project managers.</p> <p>Provides project managers with training and direction in the use of resources.</p> <p>Sets priorities between competing resource demands.</p>
<p>Functional Deputy District Director</p>	<p>Manages functional managers.</p> <p>Facilitates interaction between project managers and functional managers.</p> <p>Provides functional managers with training and direction in the use of resources.</p>

Role	Responsibilities
<p>Project Manager</p> <p><i>Has full authority, delegated from the DDD-PPM, to produce the intended results, on schedule and within budget, and to keep the project sponsors and customers satisfied.</i></p>	<p>Identifies the needs and expectations of the project sponsors.</p> <p>Leads the project team in the development of a project management plan that defines the project scope, schedule, cost, resource needs, risk, and communication needs.</p> <p>Ensures that the project management plan includes all the work required, and only the work required, to produce the product.</p> <p>Assigns resources in the following order:</p> <ul style="list-style-type: none"> ▪ First, assigns WBS elements to FMs in his/her own district or region. ▪ Second, brokers WBS elements to FMs in other districts, regions or divisions, if FMs in his/her own district or region are unable to meet the delivery requirements. ▪ Third, uses consultants to produce work elements, if neither local district or region staff nor brokering will meet the delivery requirements. <p>Modifies workplans to account for the use of project-specific consultant contracts.</p> <p>Coordinates and facilitates the work performed throughout the project lifecycle.</p> <p>Monitors project performance and takes corrective action if necessary.</p> <p>Communicates sensitive issues and project progress to district management, the sponsors, and the project team.</p> <p>Provides input into the performance evaluation of project team members, and recommends changes to the project team membership when necessary.</p> <p>Serves as the single point of contact on matters involving overall project scope, cost, or schedule.</p> <p>Resolves problems that affect project scope, cost, or schedule.</p> <p>Controls change to the project scope, cost, or schedule throughout the project lifecycle.</p> <p>Manages the interaction between task managers, ensuring that they know who will receive and use their products.</p> <p>Coordinates the efforts of the overall team, including the Division of Engineering Services.</p> <p>Chairs project team meetings.</p> <p>Controls the project budget (both support and capital).</p> <p>Provides timely project completion.</p> <p>Ensures that the final product meets the needs of the project customers.</p> <p>Discusses the final product with sponsors to gauge their level of satisfaction.</p> <p>Prepares a final report on the project, with recommendations for improvement.</p> <p>Provides feedback to the team on lessons learned.</p>

Role	Responsibilities
Functional Manager	<p>Prepares and reviews project resource estimates.</p> <p>Assigns an equitable workload to individual employees.</p> <p>Assigns project team members when requested by the project manager or task manager by:</p> <ul style="list-style-type: none"> ▪ Determining his/her functional unit's ability to meet project delivery schedules using in-house staff ▪ Using "on-call" consultant resources when his/her functional unit is unable to meet its delivery commitments with in-house staff <p>Modifies workplans to account for the use of "on call" consultant contracts.</p> <p>Directs project team members in the delivery of products within the timeframe agreed in the project management plan.</p> <p>Supervises a functional unit.</p> <p>Acts as the immediate supervisor of the staff who work on the project.</p> <p>Provides opportunities for staff members to strengthen their skills.</p> <p>Empowers staff to do their jobs with the minimum supervision necessary according to each individual's capabilities.</p> <p>Provides technical and procedural direction to staff performing the work.</p> <p>Approves staff and other project expenditures.</p> <p>Ensures that there are adequate quality control and quality assurance processes in place for deliverables.</p> <p>Provides quality assurance on contract and cooperative agreement work.</p> <p>Monitors and provides feedback to staff.</p> <p>Ensures that intermediate products (including reports, estimates, environmental documents, etc) meet the needs of internal customers and have the required features to comply with all applicable standards, regulations, and policies.</p>

Role	Responsibilities
<p>Task Manager</p> <p><i>Assumes both project manager and functional manager responsibilities for the production of particular WBS elements; may have a title such as "Project Engineer," "Project Coordinator, etc.</i></p>	<p>Is appointed by the FM (if the WBS elements are produced entirely by one functional unit) or by the lowest-level supervisor or manager who manages all the involved functional units (if the WBS elements are shared among several functional units).</p> <p>Participates in the development of the project management plan.</p> <p>Provides expert knowledge and analysis for the preparation of the project scope, schedule, and resource estimates.</p> <p>Commits to the scope, schedule, and resource estimates of his/her portion of the project management plan.</p> <p>Commits to delivery of his/her portion of the project workplan.</p> <p>Leads project team members in the delivery of products within the timeframe agreed in the project management plan.</p> <p>Provides activity status information to the project manager (e.g. start date, remaining duration, finish date, percent complete, and hours at completion).</p> <p>Coordinates with other functional areas on planned products.</p> <p>Communicates sensitive project problems, issues, conflicts, or changes to the project manager and the functional manager.</p> <p>Resolves technical problems, issues, or conflicts raised by staff so that the overall project scope, cost, schedule, and product quality are not compromised.</p> <p>Provides feedback to staff, functional managers, and the project manager on lessons learned.</p> <p>Provides early identification to the project manager of issues that might impact the budget or scheduled delivery.</p> <p>Provides products on time and within budget.</p> <p>Ensures that products meet all applicable standards, regulations, and policies.</p>
<p>Functional Coordinator</p> <p><i>Appointed by a Functional Deputy District Director or by a Deputy Division Chief in the Division of Engineering Services</i></p>	<p>Coordinates the work of several functional units.</p> <p>Performs full-time task management duties.</p> <p>Takes responsibility for WBS elements that are shared among several functional units.</p> <p>Monitors project performance and cost, and takes corrective action if necessary.</p> <p>Provides input into the performance evaluation of project team members and recommends changes to the project team membership when necessary.</p> <p>Coordinates the efforts of the members of the project team.</p> <p>Assists the project manager to resolve problems that affect project scope, cost, or schedule.</p> <p>Provides feedback to the project manager on lessons learned.</p>
<p>Project Team</p>	<p>Provides input into the development of the project management plan.</p> <p>Delivers products within the timeframe agreed in the project management plan.</p> <p>Works together in a team environment.</p> <p>Monitors production and progress.</p> <p>Communicates sensitive issues and project progress to task managers.</p> <p>Controls change to activities and products.</p> <p>Provides feedback to functional managers on how work can be done more effectively and efficiently.</p>

The Differences Between the Project Manager and Functional Manager Roles

The main differences are:

Project Manager	Functional Manager
Consolidates resource estimates from multiple functional units to produce an overall project schedule and cost estimate.	Prepares and reviews project resource estimates for his unit.
Leads the project team, coordinates their efforts, and manages the overall project schedule and budget. The PM does not manage individuals or their efforts.	Directly supervises, controls, and manages the staff in his/her unit.
Ensures that the entire project is completed on time and meets the needs of the project customers.	Ensures that his/her unit delivers the required products within the timeframe agreed in the project management plan.

What Does “Schedule” Mean in the Context of Project Management?

At the simplest level, the schedule defines the period of time, in calendar days, in which the project team will complete the project tasks.

Who Defines the Schedule for a Project?

The PM defines the project schedule based on external constraints and input from FMs and stakeholders.

How the Project Schedule Is Defined

The PM tells the DDD-PM what types of resources he needs. The DDD-PM assigns FMs to the project. The PM tells each FM what is needed. Each FM provides the PM with resource estimates and time windows. The PM consolidates all the FM estimates and open time into a comprehensive schedule, preferably in a meeting with all the FMs so that they can collectively discuss and resolve conflicts and make adjustments.

Why You Need to Adhere to the Project Schedule

FM's have a professional responsibility to meet their commitments and make sure their units complete the work they've committed to by the date they committed to do it. Often, the FM is producing products needed by other functional units. The FMs for the other units rely on the FM to produce products on time so that they can, in turn, produce their products on time. The PM relies on the FM to meet his/her commitments so that the project stays on schedule and in budget.

Consequences of Failing to Adhere to the Project Schedule

If an FM's unit misses a deadline for product completion, this has a ripple effect on everything downstream in the project schedule. The result of the FM's **individual** action has a global **team** consequence. The other units relying on that product cannot start their work when scheduled, which places an unfair burden on them to either work harder to make up for the FM's delay or miss their own deadlines. The PM may be able to accommodate for the schedule delay by implementing contingency

measures, but those measures are usually unattractive, resulting in longer hours for the FM's staff and increased project costs.

If an FM repeatedly misses deadlines, his/her credibility will suffer and he/she could potentially face corrective action.

Typical Behavioral Styles Encountered During Project Management

Category	Description	Possible Strategy
Negotiators	Always negotiates even when it is not appropriate or productive.	Discuss upfront that negotiation isn't productive. Keep negotiation to, at most, the process to be used. If negotiates regardless, point out the tactics, then ignore and focus on the outcome.
Passive/aggressive	Will comply but will sabotage in order to gain advantage.	Avoid if possible. Don't let them "get" to you. Provide clear updates and expectations. Provide clear milestones and cc: to appropriate supervisors. Any problems should be similarly cc:d, including all communications, immediately.
Introvert/non-volunteer	Has considerable expertise and resources but will not volunteer them (you must drag it out of him). Resists contributing, but when he/she does, it is really productive.	Looking for recognition of talent. Flatter beforehand and praise afterward. Develop relationship as regular "conspirator."
Dominator	His/her function rules and is more important than the project itself.	Be clear, specific, brief, and to the point. Be well-organized and focus on business. Present the facts logically and concisely. Ask specific questions ("what" questions are best). Provide choices to decide among. Give facts and figures to help with choices. If you argue, argue about the facts. To be convincing, refer to objectives and results. Leave promptly when business is completed.

Treating People Differently Based on Their Behavioral Styles

A PM does not need to treat everyone in exactly the same manner. It is not only acceptable for a PM to adapt his/her actions to an individual's behavioral style, it is actually the PM's responsibility to recognize different behavioral styles among individuals and adapt his/her behavior accordingly. By doing so, the PM can reward individuals with what's important to them so that they can accomplish their personal goals.

Project development at Caltrans occurs within a democratic system where teamwork is highly valued and, therefore, rewarded. Individuals who display a team attitude, exhibit team behavior, work with others toward a common goal, and meet their commitments will be more successful than those who do not. Reliable, diligent, team-oriented individuals will find they're rewarded with more interesting work on better projects.

On the other hand, if the PM consistently has problems with a particular FM, it is acceptable for the PM to attempt to not work with that FM on future projects. The PM's ultimate goal is the same as Caltrans': successful project completion. If an FM's behavioral style and resulting actions makes it more difficult for the PM to reach that goal, the PM will justifiably be less inclined to work with that FM.