

## SCHEDULING CAPABILITY STATEMENT

### Core Competencies

P&M offers specialized and value added integrated project delivery services, project management and program controls services. Clients include owners, architects, engineers, and construction contractors. Our staff bring extensive background as a general contractor with expertise in alternative as well as traditional design-bid-build project delivery.

#### OUR APPROACH:

We provide the expertise in support of the project schedule and construction schedule development and controls as a key to successful project delivery.

P&M's team of professional schedulers will ensure the application of best practices in CPM scheduling, phasing, sequencing and facilitation of schedule workshops to develop realistic planning level schedules or detailed project and/or construction implementation schedules.

We utilize variety of tools in the planning of projects including linear scheduling, pull planning, GIS, BIM (4D scheduling), CPM methodology, resource and cost loading as well as multiple construction management tools like Primavera (P6), Microsoft Project and others.

In addition to performing schedule progress analysis using the critical path methodology, we supplement our progress tracking and forecasting analysis with advanced performance and productivity tracking, sometimes called earned value management.

Furthermore, we augment our scheduling support with risk assessments and stochastic Monte Carlo analysis as well as constructability and productivity analysis in support of optimal schedule sequencing and reasonable activity durations.

#### Strengths and Capabilities:

- **Professional Schedulers** for complex projects and programs in public and private sector capital construction projects.
- **Background** as design-build and general contractors with strong abilities in construction management and understanding of how the contractor will plan, build and manage a project.
- **Breadth of Experience** with decades of work in variety of disciplines such as: civil, structural, equipment's, architectural, mechanical, electrical and controls.
- **Experts** in constructability, risk assessment, time impact analysis as well as claims avoidance and expert witness capabilities.
- **Cradle-to-grave** schedules are our forte.

#### Tools:

- Primavera (P6), Microsoft Project (MSP), GSI, Excel
- WBS Chart Pro
- Primavera Risk Analysis (Pertmaster)
- Linear Scheduling and Pull Planning
- Myriad™ - Total Cost Management Enterprise Software
- Historical Information

OUR VALUES AND GOALS ARE TO CONTRIBUTE TO THE SUCCESS OF OUR CLIENTS THROUGH DEMONSTRATED INTEGRITY, PROFESSIONALISM AND LONGTIME RELATIONSHIPS.

### Differentiators

## SCHEDULING CAPABILITY STATEMENT

- We use the best practices in planning & CPM scheduling, including stochastic Monte Carlo analysis in support of float and contingency analysis.
- Thorough knowledge of the unique complexity of planning, CPM scheduling and delivering airport, mass-transit, wastewater, energy and utility Projects.
- Extensive experience as the lead scheduler for majority of major capital projects for SeaTac airport as well as for Sound Transit.
- P&M staff draws on experience from multiple market sectors, enabling the application of industry best practices for project delivery.
- Fostering collaborative relationships by listening and learning about client needs and performing with utmost character and ethics.
- Certifications in industry best practices such as: Project Management Institute and Association for the Advancement of Cost Engineering.
- Capacity with dedicated professional schedulers.
- Majority of P&M consultants have an extensive background as a general contractor.

### Services

#### Planning & Schedule Development

We approach planning with methodologies such as: linear scheduling, pull planning and CPM scheduling. We facilitate schedule development from a “best practices” standpoint including:

- Breakdown Scope and Develop WBS
- Breakdown Organization and Develop Phasing and Execution Strategy
- Develop Work Packages and Activities
- Develop Sequencing & Estimate Durations
- Allocate Resources and Costs
- Risk Assessments and probabilistic outcomes using Stochastic Monte Carlo Simulation

#### Baseline Schedule

Schedules are typically complex compilations of input from multiple stakeholders. A baseline schedule seeks to ensure that the schedule reflects the defined scope, is suitable for control purposes, meets the stakeholder’s milestone & contractual requirements, and all parties agree on and understand its content, including its probabilistic nature in relation to various agreements made. We also validate schedules for sound activity logic; allocated resources; critical path and other important planning elements necessary to deliver the project as planned. These schedules will become the baseline for the project and then all work on the project is measured against them.

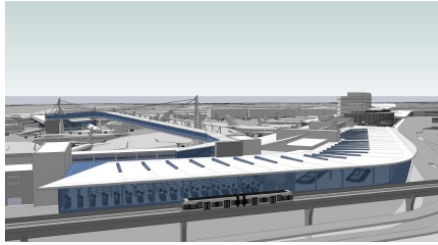
#### Progress Update

In tracking the results as the project progresses, we will alert management to any critical variances and threats that occur. In addition, we will then document the reasons for any delays and help determine who is ultimately responsible for the delay. Our performance and productivity tracking do measure physical progress of installed work, actual hours as well as cost of work which then is measured against baseline key performance indicators and plans. As a result, our schedule analysis and tracking will enable the project team to measure performance to-date and forecast remainder of project schedule.

#### Delay & Time impact Analysis

We provide forensic analysis of time impacts and evaluations of entitlements for additional time and money.

**PROJECT REFERENCES**



**Port of Seattle, International Arrivals Facility**

This \$1B program involves 385,000 sf expanded International Arrivals Facility with an aerial walkway connecting Concourse A and South Satellite. Project delivery is through Progressive Design/Build. As a key program management team member, P&M is responsible for the integrated project controls team including development of conceptual schedules for prospective and new projects; schedule validation during stages of design & construction, including schedule changes associated with cost trends; monitoring of monthly progress schedules and developing monthly progress reports and monthly forecast analysis.



**Port of Seattle – Project Controls Services IDIQ**

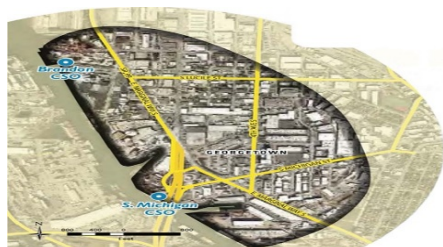
P&M is providing co-located staff for program and project support with integrated cost controls & scheduling services for various capital and construction projects at the airport and the seaport. Services being provided include developing and monitoring project and program level schedules and budget controls. P&M is also tasked to maintain asset management plans, update GIS construction reporting system and to assist the Port in the implementation of project management software and systems.



**Port of Seattle – Terminal 5 Berth Modernization Program**

The project work includes multiple interconnected terminal development elements; waterside and landside crane rail reconstruction; rehabilitation of existing distressed dock structural elements; fender system replacement; underwater retaining wall construction; berth deepening; ground improvement; supply of electrical power and communication for new cranes and reefers; replacement of existing dock utilities; and, additional modifications based on future tenant agreement.

P&M is responsible for the program controls: developing and updating project and construction schedules; cost controls and reporting of cash flow (planned vs. actual); risk management support; and, progress tracking and reporting. P&M performed comprehensive risk analysis of the project including facilitation of risk workshops to assess qualitative risks that combined with stochastic Monte Carlo simulations supported probabilistic cost & contingency analysis and reports.



**King County Georgetown Wet Weather Treatment Station**

The project entails comprehensive engineering and consulting for the design, environmental compliance, construction, permitting and commissioning of the wet weather treatment station. P&M developed conceptual (level 2) as well as detailed (level 3) construction schedules in addition to maintaining project master schedule.

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### Sound Transit - Federal Way Link Design-Build

P&M is supporting the Kiewit/Parsons design-build team with engineering management project delivery services including:

- **Cost Engineering** (perform earned value management; cash-flow analysis; trending and change management & progress reporting)
- **Scheduling** (develop baseline cost loaded schedule; update progress schedule and perform what-if analysis)
- **Document Controls & Specifications coordination**



### Sound Transit - South Parking Garages D/B Program Management

P&M's services as a subcontractor to HNTB (prime), is centered around supporting these projects with:

- Schedule development and oversight
- Change Management
- Cost estimating
- Document Controls and Project Administration Support



### Sound Transit – Construction Management Services for Sounder Commuter Rail (Multiple Projects)

P&M with HNTB as prime was awarded this contract to support Sound Transit's (ST) Construction Manager. P&M provided construction scheduling and was tasked to review the General Contractor baseline and monthly progress CPM schedules, monitor construction progress in the field, validate progress payment request and perform time impact analysis (TIA) on multiple projects. Projects included the Lakewood Layover Expansion Design-Build, the Tacoma Trestle Track & Signal Replacement, and the Point Defiance Rail Line Upgrade between Lakewood and Nisqually.



### City of Seattle Public Utilities (SPU) - Project Planning & Control On-Call Consultant Support Services

Specific services being provided included project controls for combined sewer, water and inter-agency projects. Developing and updating cost loaded schedules using information obtained from SPU systems and inputs from project managers. Providing monthly updates and status reports on project schedule, cash flow, change management and risk register. In addition, the P&M team streamlined systems and processes to meet client's needs and assisting in developing criteria and requirements for selecting a cost management tool.

## OTHER PROJECT REFERENCES

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| <ul style="list-style-type: none"> <li>• Port of Seattle - South Satellite Renovations Project</li> <li>• Port of Seattle - North SeaTac Airport Renovations (NSTAR) Program Management and Controls Service</li> <li>• Port of Seattle - Scheduling Services for Terminal</li> </ul> | <ul style="list-style-type: none"> <li>• City of Seattle Public Utilities (SPU) - Combined Sewer Overflow (CSO) Program Management Services</li> <li>• PSE - Master Scheduling &amp; Cost Estimating Services</li> <li>• King County WTD - North Mercer Island Interceptor and Enatai Interceptor Upgrade Project</li> </ul> |
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## SCHEDULING CAPABILITY STATEMENT

- Escalator Modernization Design/Build Project
- Port of Seattle - Terminal 30 Container Reactivation and Terminal 91 Cruise Terminal Relocation
- Port of Seattle - Claims Analysis
- Port of Seattle - Seaport Program Management
- Sound Transit - East Link High Capacity Transit Corridor Final Design
- King County WTD - Kent/Auburn Conveyance System Improvements Project (CM services)
- Canpotex - White Potash Storage Shed
- Westrock - Tacoma

## CLIENTS

### Owners

- Port of Seattle (Airport/Seaport)
- Port of Tacoma
- City of Seattle
- King County
- Sound Transit (Light Rail)
- Puget Sound Energy
- City of Bellevue
- Jefferson County

### Partners

- Brown and Caldwell
- HNTB
- Jacobs
- Parametrix
- Parsons
- SNC-Lavalin
- Tetra Tech
- WSP Engineering

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### Awards:

2013 WTS Puget Sound Employer of the Year  
-Small Business Category

### Primary Contact:

Hreinn Thormar, President / COO  
Teresa Thormar, CEO  
Tel: 253.248.0038 - E-mail: main@pmsvs.com

- DUNS No. 131846532
- NAICS:541611,541512, 541519, 541618, 541330, 541690, 541990, 236220
- Cage Code: 3HU74
- King County Small Contractors & Supplier Firm (SCS # 174)

*P&M has strong record as an equal opportunity employer with diverse inclusion of woman and minorities in its consultant key staff and ownership!*