



MAIN INFRASTRUCTURE
MAINTENANCE & CONSTRUCTION

PAVEMENT MANAGEMENT PLANNING



RESTORING
THE PAST
BUILDING
THE FUTURE



PMP-PAVEMENT MANAGEMENT PLANNING

Main Infrastructure has implemented pavement management planning (PMP) for many customers over the years. This process employs a proactive approach to pavement maintenance. In effect, by planning for routine maintenance, facility managers are proactively reducing potential liabilities and last-minute emergencies rather than reacting after damage is already done. Furthermore, this powerful technique stretches maintenance dollars, as it operates based on the principle that the timing of the repair is as important as the repair procedure.

DEFINITION

Pavement management planning or PMP is a systematic, long-term approach (we recommend looking anywhere from two to five years down the line) in optimizing pavement maintenance that ties together various maintenance options in one plan based on available funding. With PMP, several maintenance procedures are used together, one to support the other. The resulting outcome compounds the advantages of each singular approach and significantly extends the life of the pavement.

“WE GIVE OUR SITE TEAMS, DRIVERS, SUPPORT STAFF AND EVERYONE ELSE IN THE BUSINESS THE TOOLS AND TRAINING THEY NEED TO IDENTIFY AND MITIGATE RISKS AND PROTECT THEMSELVES, THEIR COLLEAGUES AND THE PUBLIC FROM HARM.”

APPROACH

Pavements in different condition ranges require different types of maintenance and rehabilitation activities. Applicable procedures range from minor routine maintenance to total reconstruction depending on pavement condition. Specific procedures selected may vary depending on performance levels in different areas and for different functions. Each procedure used in PMP has an associated cost, pavement condition improvement level, and life cycle.



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PROCEDURES



SITE INSPECTION

Initially, a physical inventory is conducted of each site. Careful consideration is given to areas of automotive and pedestrian traffic flow, entrances and exits, drainage, islands, delivery zones, and dumpsters. Depressions, rutting, cracking by type and severity, potholes, and saw cut repairs are also noted. If necessary, pictures and detailed maps are also produced and provided to the client.

CONSULTING

This phase identifies the pavement condition of each section. Next, defects and recommended repairs are ranked from the most to least cost-effective repair (i.e. repairs in high traffic areas, regardless of severity, should take priority over fixing a defect in an isolated area).



STRATEGY EVALUATION

Armed with a pavement inventory and maintenance alternatives, it is then possible to model pavement condition based on various rehabilitation strategies (preventative and/or structural maintenance and timing) to determine future pavement condition and associated cost to reach the desired outcome. Strategies are further adapted according to goals and funding unique to each property.

UNDERSTAND THE FAILURE MECHANISM

This could be due to poor design or lack of maintenance; but, it can also result from excessive sprinkling, traffic, or salting; snow plow damage; or poor drainage.

OPERATE THE SYSTEM

In this phase, work schedules are produced and priorities and budgets are set. Pavement maintenance and rehabilitation procedures are then performed as scheduled.

MONITOR EFFECTIVENESS

Once a PMP is in place and operating, condition data is collected and updated on an annual basis to monitor and verify if rehabilitation strategies are producing predicted results. At any point during the plan, strategies can be adjusted to meet specific needs.





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