

Garage Lighting & Garage Maintenance

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Garage Maintenance

- Establish priorities
- Create working model
- Planned maintenance
- Predict future costs



Service Life of Garage

- Environmental conditions
- Balance remaining life cycle with surrounding buildings
- Construction details
- Long-term maintenance history
- Implementation of maintenance program



Maintenance Program

- Purpose – Protect investment and minimize disruptions
- Reflect unique characteristics of facility
- Routine maintenance
- Preventative maintenance
- Condition study and assessment
- Replacement planning and maintenance
- Maintenance Budget



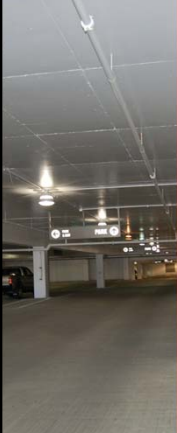
Routine Maintenance

- Housekeeping
 - Sweeping
 - Wash down
- Waterproofing
 - Visual review semi-annually
 - Life expectancy
- Plumbing
 - Storm drains
 - Fire systems
- Safety checks




Routine Maintenance

- Lighting
 - Replace burned out lamps
 - Clean lenses
 - Lighting operational controls
 - Conduit repairs




Preventative Maintenance

- Added protection to protect investment
- Yearly walk-through by maintenance staff
- Condition study every 3 to 5 years by parking consultant



Preventative Maintenance

- Installation of traffic membranes
- Upgrades to electrical system
- Re-lamping program
- Elevator inspections
- Parking control maintenance
- Painting



Condition Assessment

- Integral component of maintenance
- Determine current condition
- Options for repair and maintenance
- Component replacement time frame
- Probable cost estimates for maintenance, repair, and capital expenditures for 5 to 10 year time frame



Restoration

- Condition study recommendations
- Replacement of garage elements – end of service life
- Capital funding
- Phased repair project
- Disruptive to normal operation



Restoration

- Structural repairs
- Waterproofing
- Elevators
- Electrical systems
- Plumbing
- Parking control equipment



Lighting Considerations

- Safe movement of vehicles and pedestrians
- Safety and security
- Installation costs
- Maintenance costs
- Industry standards




Lighting Design

- Luminaire design
 - Cutoff
 - Non-cutoff
- Location of fixtures
- Lighting intensity
- Color
- Installation costs
- Maintenance

Lamp Life

Lamp Type	Burning Life	Annual Cost
150 watt High Pressure Sodium (HPS)	28,500 hours	\$132
150 watt Metal Halide (MH)	15,000 hours	\$133
T8 Fluorescent	30,000 hours	\$77
Light Emitting Diode (LED)	100,000 hours	\$90

Questions




Thank You!

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