



Paving is Easy! (When You Plan)

By Jeff Truman

Paving is Simple, Right? Just rip up the old stuff, put down some new and everything is fine. Or is it?



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Replacing your asphalt is likely one of the most substantial expenses a town-home or commercial condominium will experience, along with roof replacement. Projects of this size affect the corporation's financial situation and must be included in reserve planning. Paving projects are disruptive and can negatively impact both the residents and site aesthetics if not done correctly. A well designed and executed paving project can significantly improve the aesthetics of a building site and enhance the value of each owner's property.

The driveway and landscaping are the first visual impacts for a visitor to your site and your reserve fund plan should consider this.

Key Components of a Successful Project

As with any project, careful planning, design, communication, control of the execution, and closeout are essential to its success. The Project Management Institute has codified a set of project processes that underpin this approach: Initiate, Plan, Execute, Control, Close. These are the five main project processes, and each contains further sub-processes adapted to each project type, but what does that mean for paving?

Initiate

Why is this project being done? Most often, it is because the asphalt has reached the end of its useful life and extensive repairs are becoming necessary. In other cases, the work is required to address trip hazards, poor drainage, or aesthetic concerns.

Will this work impact other areas like the landscaping? Maybe it makes sense to review site planters grading and other landscaping features that can be incorporated into the project, particularly

while heavy equipment is on-site. The board should be involved with landscaping decisions and may want to engage a landscape committee or a designer, given how landscape decisions impact all residents. Contractors and engineers are not landscapers!

Plan

Will the work also include the unit driveways? Generally, there are savings to do them at the same time due to set up costs for the contractor. However, given their differing use, staggering replacements may be possible, which limits the financial impact to the Reserve Fund.

Will this work impact access to the units? Temporary access and resident restrictions will be required, which requires good communication between property management and construction managers. Does unit access need improvement, such as adding ramps or more even steps?

Will the work include the curbs along the roadways and into the driveways?

In some developments, curbs were not initially installed. Curbs work to control the overland flow of water and can limit ice buildup on roadways in the spring-time. They also serve to border the roadways reducing the damage from snow removal activities and de-icing chemicals. In new developments, curbs are part of the municipal requirements so that fire trucks stay on the designated roadways adding curbs can make it safer for emergency services.

Since the roadways will be significantly disrupted, this is the time to execute any required watermain catch basin or weeper repairs. Are there sinkholes around the catch basins or near downspouts? These could be signs of broken pipes or loose fittings that can most easily be repaired while the asphalt is being replaced.

Depending on the size of the site, it may make sense to phase the work, in order to limit the financial burden to the reserve fund. Although doing the work in phases may take more time overall, breaking up and staggering major expenditures reduces the financial risk to the corporation and may limit the number of disruptions experienced by each resident.

A small but increasingly important consideration is accessible parking stalls. These stalls have specific design requirements and must be appropriately allocated to the property. The existing parking and painted lines should be mapped prior to starting work. Accessible stall counts and traffic flow issues are reviewed and the final painting plan provided to the contractor.

Execute

Once the final scope of the work has been decided, a design is needed. It is not enough to simply re-lay the asphalt

without consideration to stormwater management, whether or not there have been significant issues to date. Increasingly severe weather and insurance expenses require a condominium corporation to take all necessary steps to limit the impacts of flooding and other severe weather.

A properly developed grading plan will consider site-wide stormwater management, including the use of curbs to control overland flow. This plan is also easily used by professional paving contractors to accurately estimate project resources, including cut and fill requirements. Without precise control of this aspect of the work, costs can spiral, as excavation and backfill are expensive construction items.

Boreholes could help with the pavement design by determining the characteristics of the subgrade - the soils that support the pavement. For most newer developments, the subgrade will be compacted gravel. Older sites may have paved over the native soil, and additional gravel will be required to ensure a durable asphalt surface. If the subgrade is too soft, the asphalt will bend too much and break apart earlier than anticipated.

However, boreholes and geotechnical investigation may not always determine the total extent of any subgrade issues. A budget contingency for subgrade repairs, including up-front pricing for gravel supply, will help manage the project budget.

A note on successful tendering: pre-qualify the contractors based on job size, availability/company size, references and warranty support. Get 3-5 prices and tender early in the year for the best pricing and scheduling. Use CCDC contracts, amended by supplementary conditions.

Control

The single most important factor in obtaining client satisfaction is proper communication. From the formation and intent through to project close, keeping all stakeholders fully informed limits surprises and maintains a coherent project.

Once the asphalt has been removed, and the subgrade levelled, it will be inspected for non-conforming areas. Part of this inspection may include a proof roll, witnessed by the geotechnical engineer. This will identify any areas of weak subgrade requiring repair.

Asphalt placement and rolling should be supervised by the consultant. Samples of all asphalt should be taken by a certified testing laboratory, who will deliver a report on the asphalt characteristics, to ensure compliance with the project's specifications and a durable repair.

Close

The site clean-up from the paving contractor is expected. However, final cleaning and reinstatement of the landscaping are best left to the site maintenance contractor. A final walkthrough after rain will reveal the presence of any ponding that can be addressed by the contractor before the project close.

Paving onto the ground will not always result in a perfect surface, due to minor differences in the asphalt and soil conditions; minor ponding is expected.

Now you know. It is just that simple. ■

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