

**BOARD OF PUBLIC WORKS AND SAFETY**  
**Agenda Request Form**

(Form B-01-2012)

*Organizations and individuals are asked to submit a request form and supporting documents to be placed on the agenda. You will be contacted by the City confirming the date of the meeting in which your request will be heard.*

*Please make sure that your contact information is accurate in case we need to get in touch with you. The Board of Works meets on the 1st and 3rd Monday of each month at 5:00 p.m. in City Hall located at 70 E. Monroe Street.*

Date Submitted:	01-02-2013	Requested Meeting Date:	01-07-2013
		Confirmed Meeting Date:	
Received by:			

**Contact Information: Please provide all requested information in the fields below. (Print or Type)**

On Behalf of Organization or Individual:		Franklin Planning and Engineering	
Name:	Travis Underhill	Telephone:	736-3631
Title or Position:	City Engineer		
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Address:	70 E. Monroe Street		
City:	Franklin	State:	IN
		ZIP:	46131

**Who will attend the meeting and present the request?**

Name:	Travis Underhill and Trent Newport	Telephone:	736-3631
Title or Position:	City Engineer and Project Manager		
E-Mail:	<a href="mailto:tunderhill@franklin.in.gov">tunderhill@franklin.in.gov</a> ; <a href="mailto:tnewport@crossroadengineers.com">tnewport@crossroadengineers.com</a>		

**Please describe the purpose or title of your presentation.**

Discuss the selection of pavers vs. pavement on the Downtown Parking Lot Project based on a recommendation from the RDC that they would prefer using impervious pavers.

**Supporting documents: All supporting documents should be submitted with the request form.**

- |                                      |
|--------------------------------------|
| 1. Commentary on Pavers vs. Pavement |
| 2.                                   |
| 3.                                   |
| 4.                                   |

## Pervious Pavers vs. Asphalt Pavement Analysis

### Items for consideration:

1. Aesthetics
2. Construction Cost
3. Surface Drainage
4. Short Term Maintenance
5. Long Term Maintenance
6. Winter Treatment
7. Subsurface Characteristics

### Aesthetics

- Without a doubt, from an aesthetics standpoint, nearly anyone would prefer the Concrete Pavers that are proposed as compared to Asphalt Pavement. There are very few other ways to make such a drastic improvement in aesthetics in a downtown area.

### Construction Cost

- This item is purely informational. These figures include all materials and installation from surface through subbase.
- Parking Lots (in front of City and County buildings)
  - Concrete Pavers = \$46.50/SYD
  - Asphalt Pavement = \$17.03/SYD
- Streets (East and West Court Street)
  - Concrete Pavers = \$53.98/SYD
  - Asphalt Pavement = \$39.00/SYD
- Analysis also indicates that it would appear that over the expected life of these types of pavements, our short term maintenance for asphalt would likely make up for any savings in construction over the expected life of the concrete pavers.

### Surface Drainage

- It is understood that initially the pervious system was desirable to alleviate 'bird baths' and other ponding issues in the subject area.
  - Much of these problems will be solved simply by reconstructing the area and adding drainage that is already proposed.
  - It is likely that a paver system (pervious or otherwise) will roll and deflect like a flexible pavement over time and these issues may arise again.
    - Pervious pavement would provide a means to mitigate this, considering short term maintenance is adhered to.
  - Given the existing grades in the surrounding area, this issue will most likely arise at some point regardless of the type of pavement. The area is simply too flat to guarantee otherwise.
    - Any new construction of any kind will greatly improve this problem.

## Short Term Maintenance

- Pervious Pavement requires regular maintenance with specialized equipment.
  - This surface needs to be cleaned on a regular basis by a vacuum truck. This is different than the sweeper trucks that the city owns and operates. If the proper equipment is not used on a regular basis this surface can begin to fail from a drainage standpoint within 3 years.
  - Generally speaking, this maintenance is recommended at least twice a year. With one of those times being after the last snowfall or by April 30<sup>th</sup>.
    - Given the investment, I would recommend that this maintenance be performed quarterly to increase longevity when considering the amount of use the subject area sees.
    - Research indicates that for a quarterly cleaning contract, we would be looking at a quarterly cost of \$1200 to \$1500 expense. A monthly cleaning would be a \$500 to \$600 monthly expense.
      - The yearly cost is nearly the same, so we would recommend strongly considering the monthly program to ensure our investment is protected and functions at its highest levels.
- A Non Pervious Paver system would only require the same maintenance that is performed on other asphalt or concrete surfaces throughout the city.

## Long Term Maintenance

- Pervious Pavement, if properly designed and constructed, can actually provide somewhat of a savings in the Long Term Maintenance arena.
  - Generally speaking we would anticipate the need for long term maintenance in asphalt pavements on or around the 15-20 year mark, while the life cycle of a concrete surface is often double, or the 30-40 year timeline.
  - The city currently has, and is improving their, capabilities at repairing asphalt pavements. While at this time, the city has no training or equipment for long term maintenance or repair of Pervious Pavement.
    - Given current design including pavers, this work would need to be contracted for in the future. There may be some consideration to this maintenance be regularly included in the budget projections for years to come once long term maintenance issues become prevalent.

## Winter Treatment

- Pervious Pavement requires special winter maintenance.
  - Generally speaking, winter maintenance can be less intensive from a salting and plowing standpoint. If the surface is kept clean and porous, the subsurface aggregate can aid in snow and ice melting characteristics. This is typical for low impact winter events like a light dusting of snow or ice.
  - For heavier snows and ice, pervious pavement requires special consideration for winter maintenance.
    - Abrasives such as sand or cinders can NOT be used.
    - Salt is NOT to be used.
    - Any De-icing agents shall be used in moderation if at all.
    - Plowing is acceptable.

