



Holiday Inn Executive Center Columbia, MO

MAPA

BLACK - TO - BASICS
SPRING TRAINING




Best Practices Paving Small (Any) Parking Lot



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Crowd Participation with Smartphone

Presenter session:
Audience texts
ASPHALT1 to **22333** to join the
session, you will receive notice
"You've Joined"
[Poll Everywhere](#)



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Which of the following is the most correct for the origination of the State Name, Missouri?

- From Indian phrase meaning, Don't tell me, Show Me!
- Indian word Mi Soruri, meaning Land between rivers.
- From Indian wording meaning "town of the large canoes,"?
- Indian translation from term, MI Spor I, meaning Great Sports Teams!

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TEST

What is your favorite steak cut?

New York Strip	
Sirloin	
Filet	
T-Bone	
Rib Eye	
Flank	

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Have you ever built, maintained, resurfaced, designed, inspected a parking lot?

YES	
NO	

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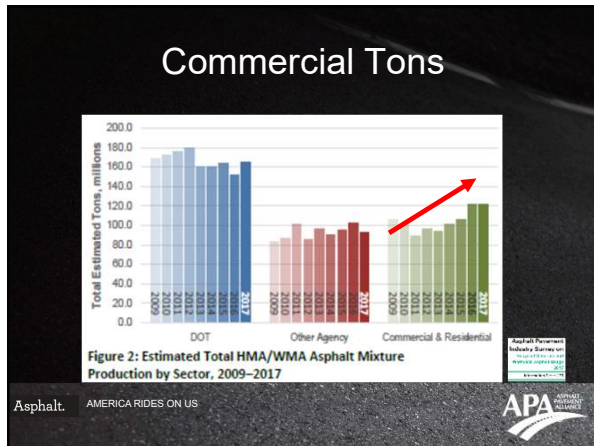
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What best describes your companies business?

Consultant	
Maintenance Contractor	
Building Owner / Developer	
Government or Public Agency	
Asphalt Producer / Contractor	
Asphalt Laydown Contractor	
Other	

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Big NEED

- As of 2015, the Bureau of Transportation Statistics estimates that there are over 250 million registered light vehicles (car, light trucks and motorcycles) in the United States. While estimates of parking totals have varied, most studies conclude that we have between 4 and 8 parking spaces per vehicles in this country. Perhaps that number isn't terribly surprising. After all, we park our cars at home, at work, at church, at the shopping mall, etc. But combined, that means we have between 1 billion and 2 billion parking spaces in America alone.
- Billions of parking spaces is a lot, but it can be tough to wrap your head around that number. So, if we were to build 1 billion parking spaces side by side, it would cover an area equivalent to the size of Connecticut.....




<https://www.future.com/impact/parking/>

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Have you ever heard this?

It's just a parking lot!
It IS a parking lot!



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7 Keys

Handout

- Pick your Mix
- Dig Deep
- Drain the Rain
- Build a Base
- Trucking Along
- The Green Scene
- Pave and Save

Pay attention to details

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Pick your Mix

- Parking vs. Highway
 - Static
 - Rolling

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The Glue that Binds!

- Asphalt Cement Binder - **Important**
 - What is PG
 - What grade and Where?

Viscoelastic = Materials that are time and temperature susceptible.

Table 3.1 Recommended Maximums for Traffic Grades					
Asphalt Binder Grade	Traffic Grade	Asphalt Binder Type	Asphalt Binder Grade		
			PG	PG	PG
+1 (Heavy)	Rolling	Superpave	PG 64	PG 68	PG 70
		Superpave	PG 64	PG 68	PG 70
	Static	Superpave	PG 64	PG 68	PG 70
		Superpave	PG 64	PG 68	PG 70
+2 (Medium)	Rolling	Superpave	PG 58	PG 62	PG 64
		Superpave	PG 58	PG 62	PG 64
	Static	Superpave	PG 58	PG 62	PG 64
		Superpave	PG 58	PG 62	PG 64
-1 (Light)	Rolling	Superpave	PG 52	PG 56	PG 58
		Superpave	PG 52	PG 56	PG 58
	Static	Superpave	PG 52	PG 56	PG 58
		Superpave	PG 52	PG 56	PG 58

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Dig Deep

- Subbase Platform
 - Understanding Support = Critical Part of Design




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Drain the Rain

- Moisture Bad
- Drainage System
- "Pay me now or Pay me later"
- Success starts from the ground up!

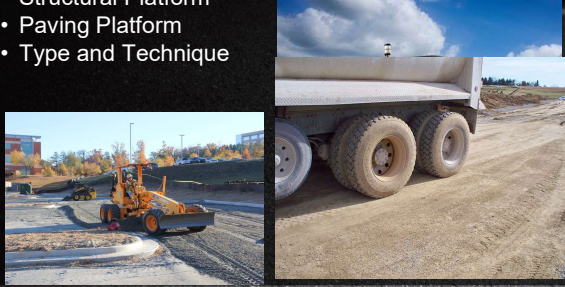


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Build A Base

- Structural Platform
- Paving Platform
- Type and Technique





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Trucking Along

- Nothing Temporary-Plan and design for the long term...
- 1 Loaded Semi = 3000 Cars
 - ESAL Calculation Pavement Interactive
- Cars Minimal Impact -
 - Design Minimum (See SAPA)



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Thickness Design Guides




PaveXpressdesign.com




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The Green Scene




- Asphalt Pavement #1 Recycled Material
- RAP = Recycle Asphalt Pavement
 - Resources Saved / 100% Reusable
 - Aggregate
 - Binder
- LEED v4
- EPD's = Environmental Product Declarations

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Pave and Save



- Select Qualified Contractor
 - SAPA List
- Inspect – Inspect – Inspect
 - Oversight = Sleep like a baby!
- Ask Questions

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Recap

- Pick your Mix
- Dig Deep
- Drain the Rain
- Build a Base
- Trucking Along
- The Green Scene
- Pave and Save

Pay attention to details

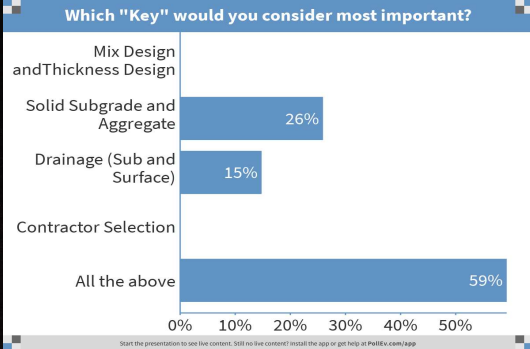


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Which "Key" would you consider most important?



Key	Percentage
Mix Design and Thickness Design	0%
Solid Subgrade and Aggregate	26%
Drainage (Sub and Surface)	15%
Contractor Selection	0%
All the above	59%

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Which of the 7 Keys could you use the most education or help with?

- Pick Your Mix
- Dig Deep (Subbase)
- Drain the Rain (Drainage)
- Build a Base (Aggregate Platform)
- Trucking Along (Pavement Thickness Design)
- The Green Scene (LEED, Porous, Sustainability)
- Pave and Save (Contractor Selection and Inspection)

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Handy Checklist

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Best Practices of Commercial Paving

Scott McLean
The McLean Company

Slides courtesy of Scott McLean, The McLean Company

Ohio Asphalt Expo 2019

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Project Planning

Take the time to mark your paving lanes.



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Project Planning

Do we need screed extensions?
Do we need auger extensions?



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Project Planning

Specifications

- Sensors
- Levelers



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Site Preparation



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Site Preparation



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Tack Coating

- Proper asphalt emulsions are essential to bonding old asphalt to new asphalt



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Starting Pad



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Starting Pad



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Proper Contact Between Truck and Paver is Essential



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Incorrect Extension Adjustment



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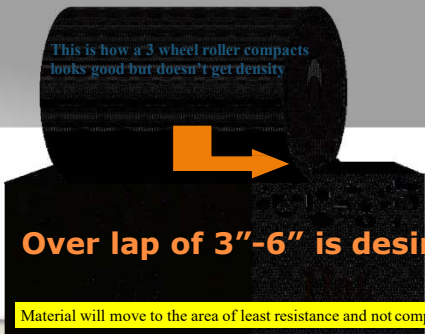
Correct Extension Adjustment



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JOINT CONSTRUCTION

This is how a 3 wheel roller compacts
looks good but doesn't get density



Over lap of 3"-6" is desired

Material will move to the area of least resistance and not compact

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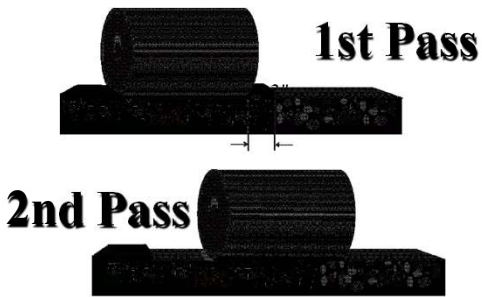
Unconfined edge or 1st Pass (Low side to high side or CL) Stay 6" away...



Pneumatic compactors always stay at least 15 cm (6") from unconfined edges.

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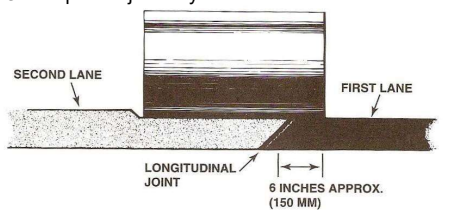
Joint Construction



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Joint Construction

Rolled or "Cold" Joint - Allow 1/4" per Inch for compaction
• Overlap cold joint by 2"



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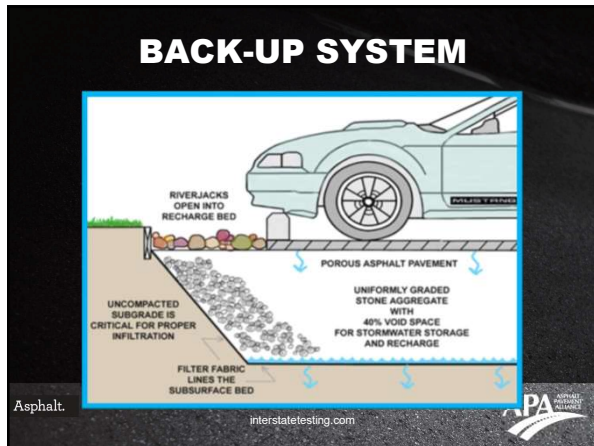
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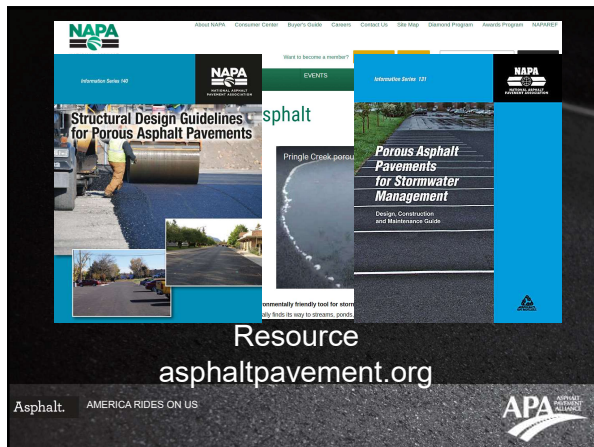
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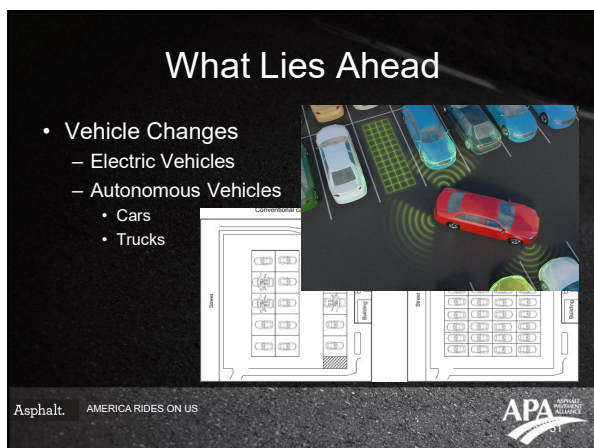
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MY POINT – What Lies Ahead!

Build for Today with your EYE on Tomorrow!


- Build Flexible
- Watch for Change
- Understand Performance
- Seek Knowledge
- Look for Information
- Ask Questions

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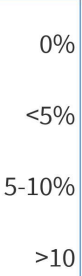
Which of the following companies do you believe to be the most cost conscious?



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What percentage of WalMarts have Concrete Parking Lots?



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Walmart

Used Google Earth
Sample Info = Largest Metro in Each State

Most appear to be built in last 15-20 Years. Many Super Walmarks!

Less than 5% total Parking lots were PCC.

Average SY @ 45K SY

Site Average HMA tons 15 M Tons (6")

Walmart sees value in ASPHALT!

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Total ACC	Total PCC	Total	Average Size SY
260.07	12.93	273	43,795
Percent PCC			
			4.7%

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Which Approach?

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Which One?


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APA


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Asphalt Benefits

- Versatile
- Adaptable to change
- Fast
- Smooth
- Aesthetically pleasing
- Durable
- Rehabilitation Option!



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Thank You

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