

APA Update

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Asphalt Pavement Alliance



• **Financial status**

- \$3.1 Million Approved
- \$2.5 Million Spent
- 35 SAPAs Pledged in 2019

• **Deliverables status**

- 49 Projects Total
- 32 Projects are Complete
- 6 Near Completion





Mixture Quality & Performance



Life-Cycle Cost Analysis



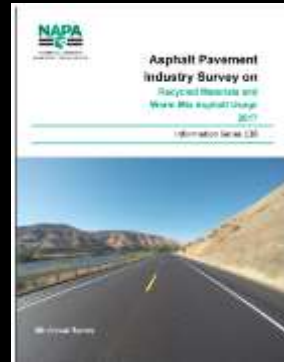
Legislative



Life Cycle Assessment

Key Research

- **LCCA Guidance Report** (Under FHWA Review)
- **Optimizing Flexible Pavement Design Project** (www.ncat.us)
- **Thinlay Guidance Document** (www.ThinlayAsphalt.com)
- **2017 RAP, RAS, WMA Survey** (www.asphaltpavement.org/recycling)
- **Effects of Asphalt and Concrete Pavement Rehabilitation on Users and Businesses During Construction** (<https://www.eng.auburn.edu/civil/research/>)



The Science: Pavement Economics Committee

- Optimizing Flexible Pavement Design and Material Selection
- Porous Pavement Structural Design
- Smoothness, Service Life and User Costs
- LCCA Guidance
- High Binder Replacement Mixes
- Balanced Mix Design Workshops (on-going)



POROUS ASPHALT PAVEMENTS

Porous asphalt is an environmentally friendly tool for stormwater management.

PaveXpress

A Simplified Pavement Design Tool



PAVEInstruct

www.PaveXpressDesign.com

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New Features Coming 2020:

- Simplified LCCA
- Metric units conversion
- PerRoad Embedded-
 - Perpetual pavement design software

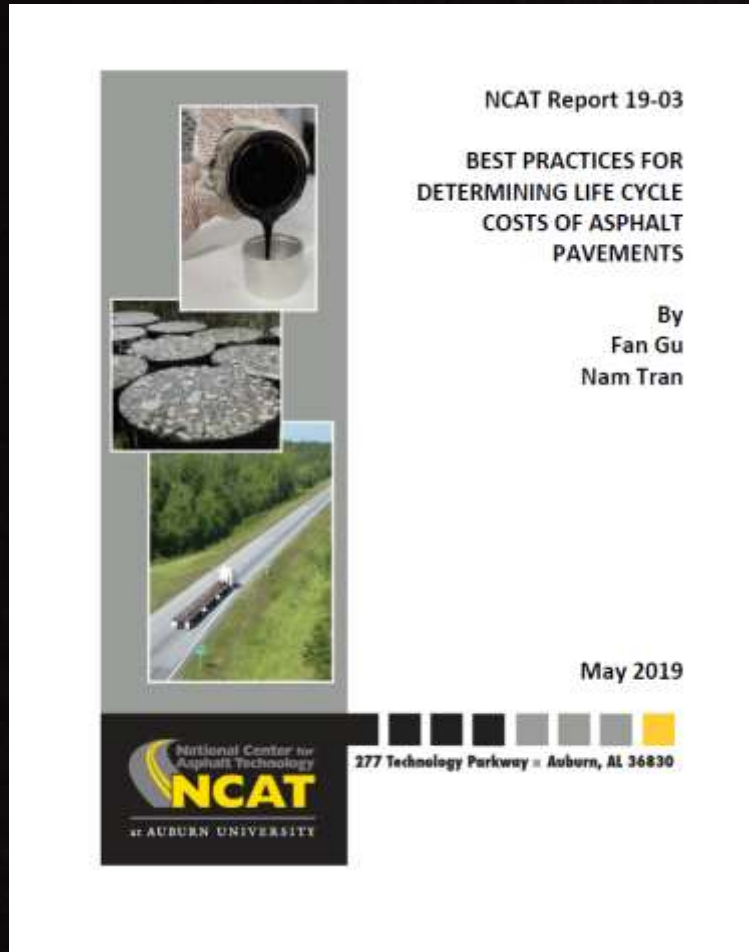


Mixture Performance



- Utilize Polymer Modified Asphalts
- Increase Binder Content
 - Lower design air voids,
 - air void regression
 - Increase minimum VMA
- Increase in place density.
 - lowering the Ndesign requirements

LCCA Best Practices



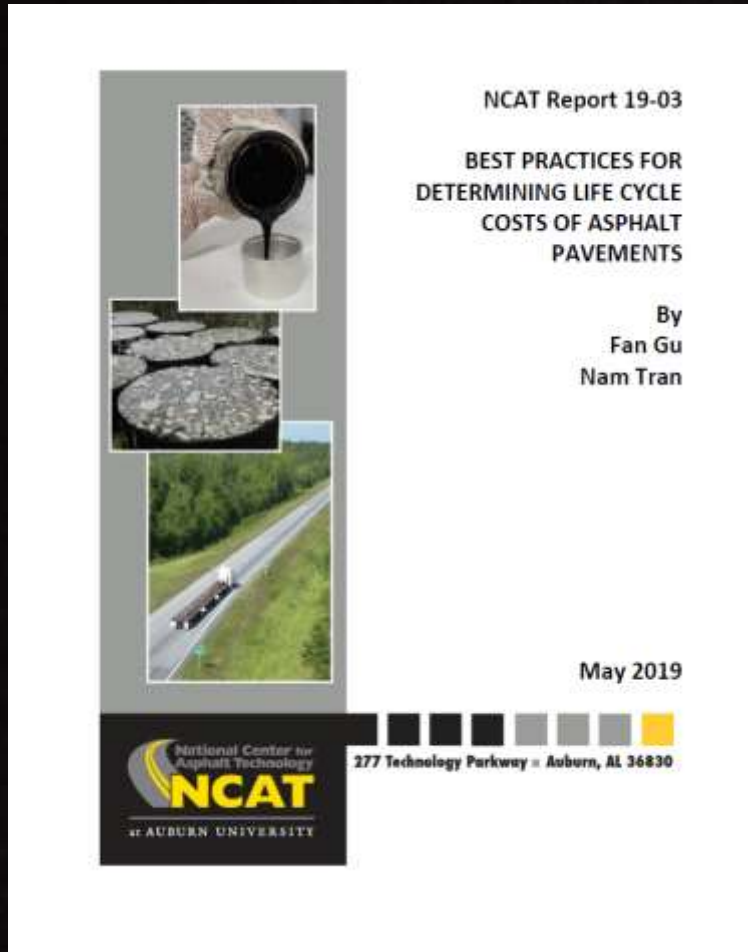
Highlights

- Analysis period 35-40 yrs
– include maintenance and major rehabilitation
- Performance periods- use current pavement data
- Using multiple-year cost data- yields stable trend

LCCA Best Practices

Highlights

- Discount Rate- A 10-year moving average interest rates issued by OMB
- User Costs – Difficult but analyze/ review
- Salvage Value and Remaining Service Life





ASPHALT VALUE PROPOSITION:

SALVAGE VALUE

KNOWING A PAVEMENT'S VALUE AT ITS END OF LIFE

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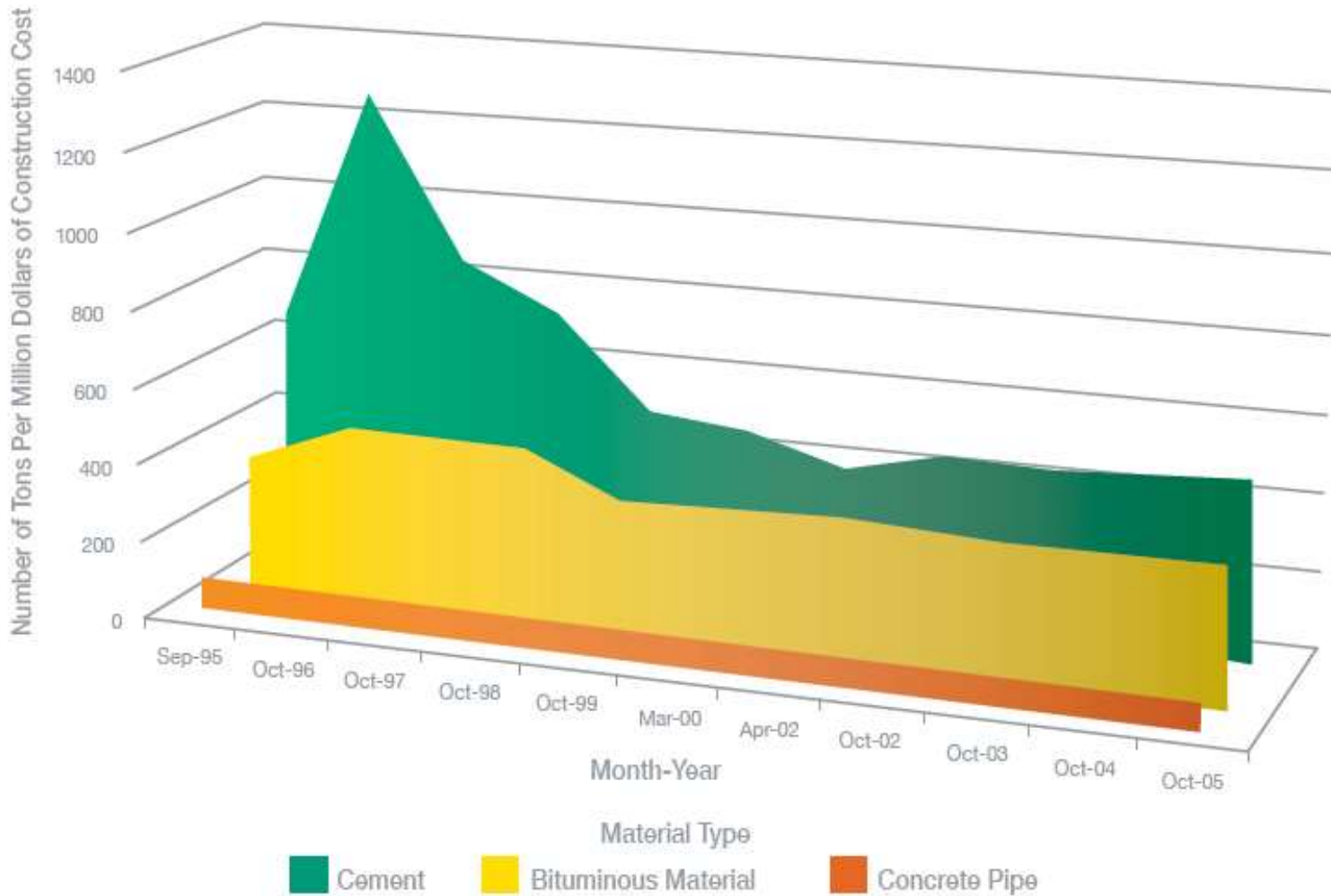
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DCC Industry Mandates

FHWA Usage Factors for Major Highway Construction Materials: 1995-2005

Data from: <https://www.fhwa.dot.gov/policyinformation/quickfinddata/qffinance.cfm>



As stewards of public roads, including the Interstate Highway System, FHWA taxpayers get a good deal in America's Interstate Highway System — the Office of Management and Enterprise Operations, which handles high-level issues, and the FHWA Delivery — have done a lot to aid states in estimating construction costs. Association of State Highway Officials (ASHO) Cost Estimating, which as construction costs ensure public funds.

ASHO/FHWA 2012
Transportation Officials

ASPHALT
PAVEMENT
ALLIANCE



HD Design / Webinars



PERFORMANCE UNDER PRESSURE

Heavy Duty Pavements Series

Perpetual Pavements

Dr. Dave Timm

Brasfield & Gorrie Professor of Civil Engineering
Auburn University

PERFORMANCE UNDER PRESSURE

Heavy Duty Pavements Series

Materials Selection

Brian Prowell, Principal Engineer

Advanced Materials Services

Ron Corun, Specialty Products Sales & Marketing Manager
Associated Asphalt



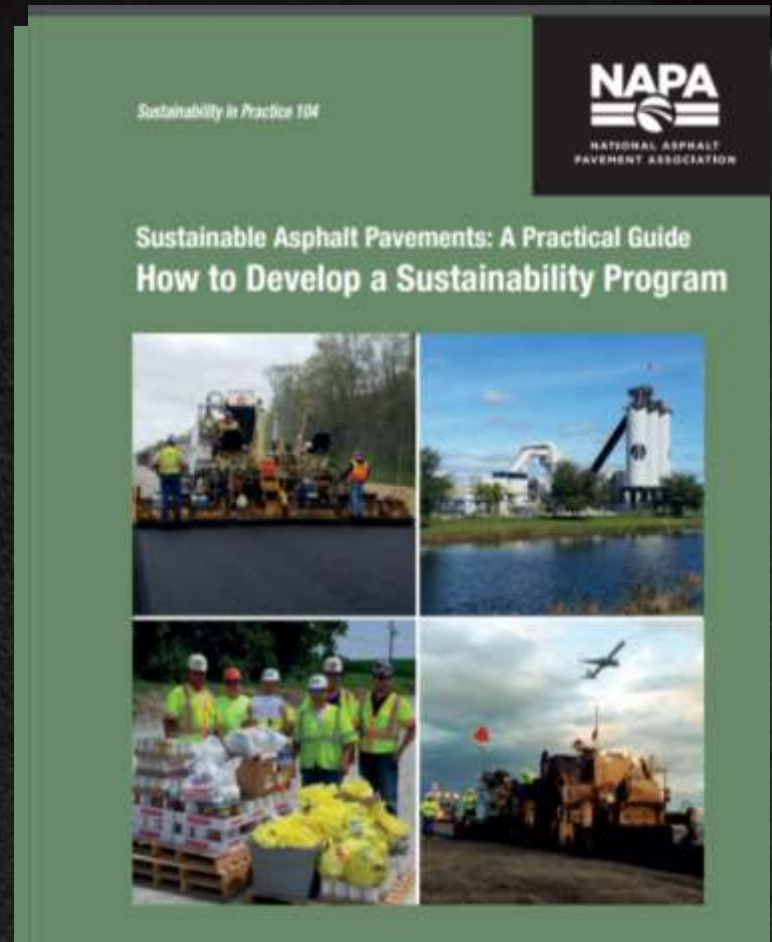
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Sustainable Guide

- [SIP 101: Sustainability Overview.](#)
- [SIP 102: Sustainability Specifics.](#)
- [SIP 103: Procuring and Evaluating Sustainability.](#)
- [SIP 104: How to Develop a Sustainability Program.](#)



Work Zone Safety Campaign



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Value



Sustainability



Innovation

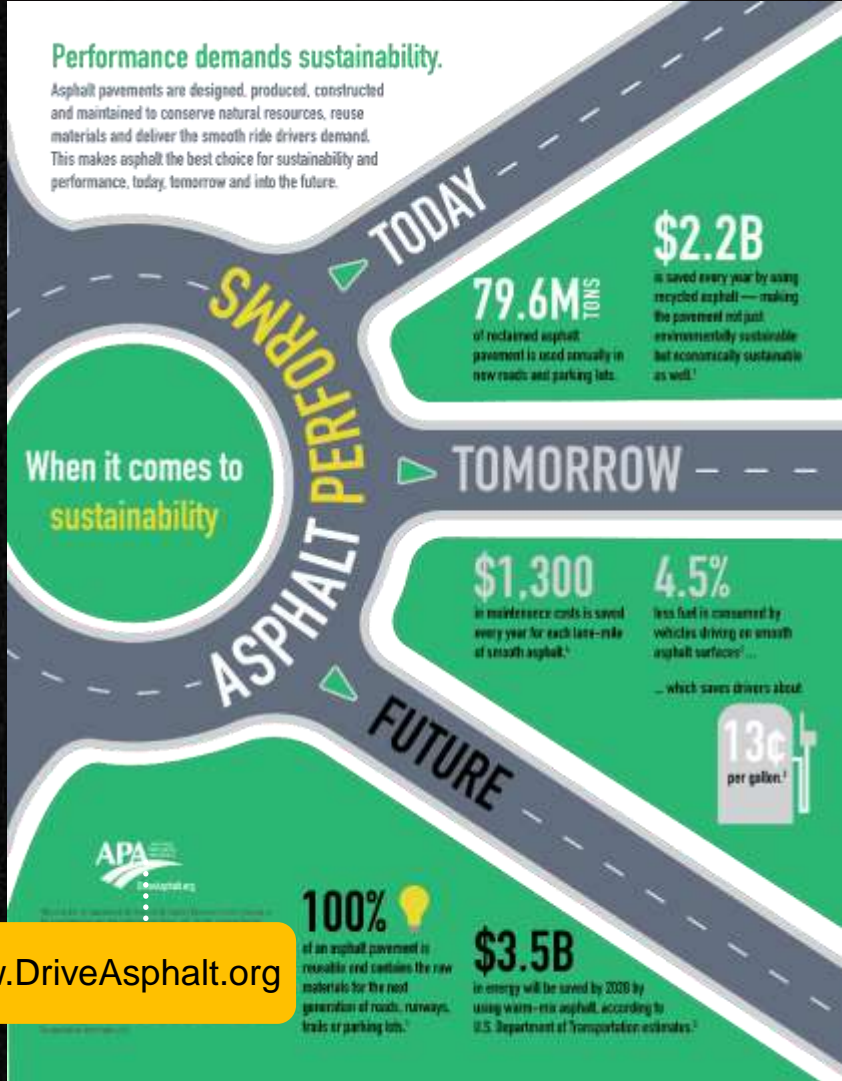


Flexibility

2019 Performance for a Lifetime

Performance demands sustainability.

Asphalt pavements are designed, produced, constructed and maintained to conserve natural resources, reuse materials and deliver the smooth ride drivers demand. This makes asphalt the best choice for sustainability and performance, today, tomorrow and into the future.



TODAY

79.6M TONS of reclaimed asphalt pavement is used annually in new roads and parking lots.

\$2.2B is saved every year by using recycled asphalt — making the pavement not just environmentally sustainable but economically sustainable as well!

TOMORROW

\$1,300 in maintenance costs is saved every year for each lane-mile of smooth asphalt.¹

4.5% less fuel is consumed by vehicles driving on smooth asphalt surfaces²... which saves drivers about

13¢ per gallon.³

FUTURE

100% of an asphalt pavement is reusable and contains the raw materials for the next generation of roads, runways, trails or parking lots.⁴

\$3.5B in energy will be saved by 2020 by using warm-mix asphalt, according to U.S. Department of Transportation estimates.⁵



www.DriveAsphalt.org

TODAY

94% of U.S. roads are surfaced with asphalt!¹

Asphalt contractors are in every community.

≈ 3,500 asphalt plants operate in the U.S.

400K jobs connected to asphalt across the country!²

TOMORROW

12+ year gain in service life from a thin asphalt overlay at an annualized cost* as low as

25¢ PER SQUARE YARD

A 2 inch asphalt overlay can improve IRI by:

100 in/mi

When it comes to long-term

value

ASPHALT PERFORMS

FUTURE

18 YEARS is the average service life for new asphalt pavements!¹

∞ INFINITE The structural life of a properly designed, constructed and maintained Perpetual Pavement!²

Asphalt's superior performance and value make it today's pavement of choice across America. With local producers in every community, road owners have a competitive marketplace for the smooth, long-lasting pavements drivers demand. Asphalt is the best choice for value and performance, today, tomorrow and into the future.



1. American Road & Builders Builders' Bureau, "Asphalt Pavement: The Nation's Most Versatile Surface," 2010. 2. American Road & Builders Builders' Bureau, "Asphalt Pavement: The Nation's Most Versatile Surface," 2010. 3. American Road & Builders Builders' Bureau, "Asphalt Pavement: The Nation's Most Versatile Surface," 2010. 4. American Road & Builders Builders' Bureau, "Asphalt Pavement: The Nation's Most Versatile Surface," 2010. 5. American Road & Builders Builders' Bureau, "Asphalt Pavement: The Nation's Most Versatile Surface," 2010.

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Toolkits/Strategic Documents

DAVE Express



Life-Cycle Cost Analysis Toolkit

Table of Contents

Life-Cycle Cost Analysis Overview	1
Life-Cycle Cost Analysis Education	3
Software Programs Available to Design LCCA	3
User Delay Costs	5
Material-Specific Discount Rate	5
General LCCA Guidance	9
Advocacy Material	14
Future Projects (2019)	15

Launch:
December, 2018

THE



Perpetual Pavement Award Toolkit

Table of Contents

Campaign Overview & Nomination Forms	1
Traditional PowerPoint	2
PowerPoint-Based "Hype Video"	3
Additional Materials	5
Perpetual Pavement Synthesis	5
Perpetual Pavement Infographic	5
How to Design a Road Video	6

Launch:
August 6, 2018

2020 Trade Shows

TRADE SHOW	DATE	LOCATION
ConExpo	March 10-14	Las Vegas, NV
NACE	April 9-23	Gulf Shores, AL
ACEC*	April, 26-29	Washington, DC
ASHE	May 8-12	Nashville, TN
ReCon	May 17-20	Las Vegas, NV
ASCE	Oct	Anaheim, California
AASHTO COMP	August 2-6	Miami, FL
LTAP/TTPA	July 27-30	Seattle, WA
PWX	Aug 30-Sept 2	New Orleans, LA
GREENBUILD	November 3-6	San Diego, CA

* Attendance not yet determined

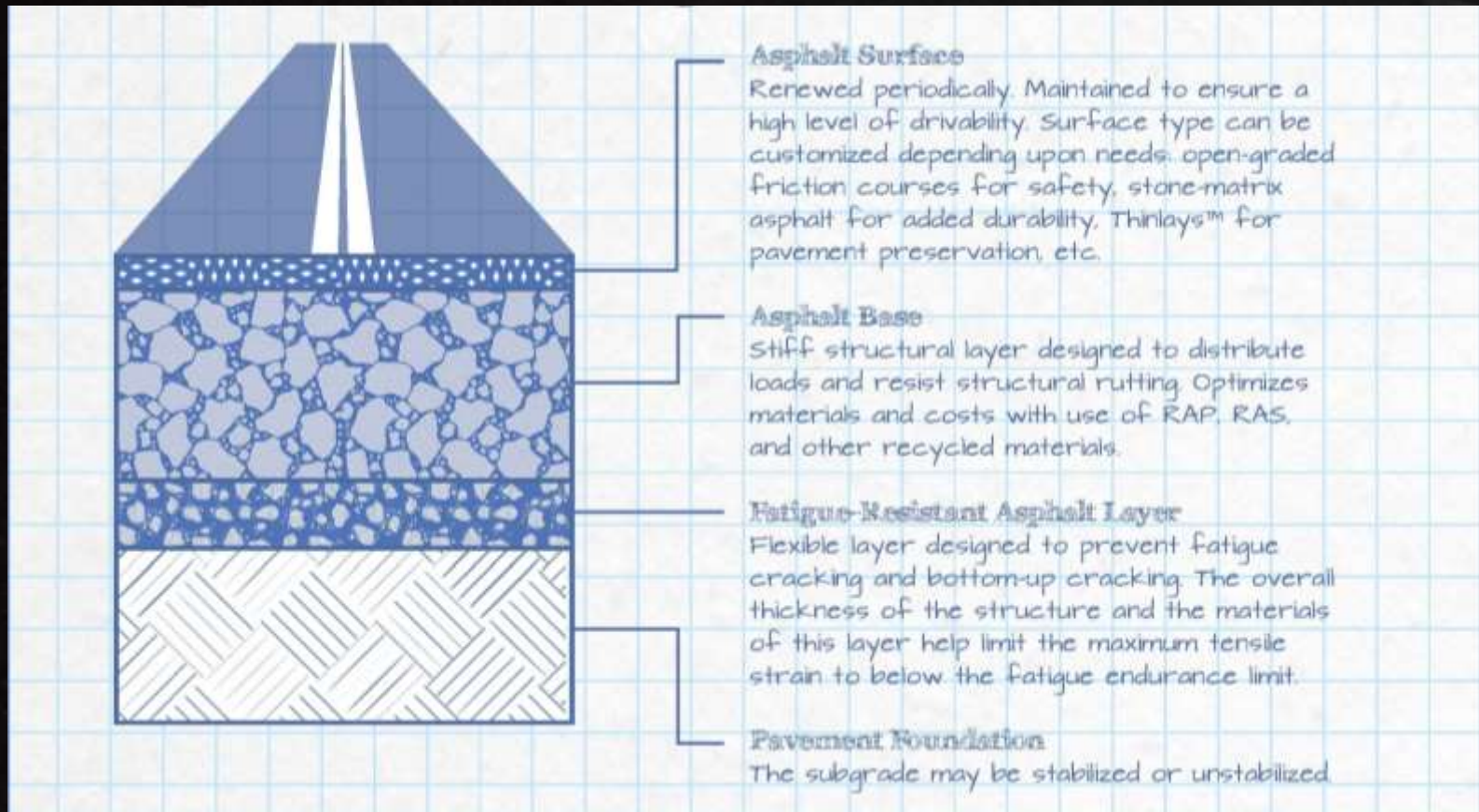


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Perpetual Pavement Design





Criteria:

- 35+ years old
- 13+ years between overlays (average)
- No increase > 4"

Perpetual Pavement Awards

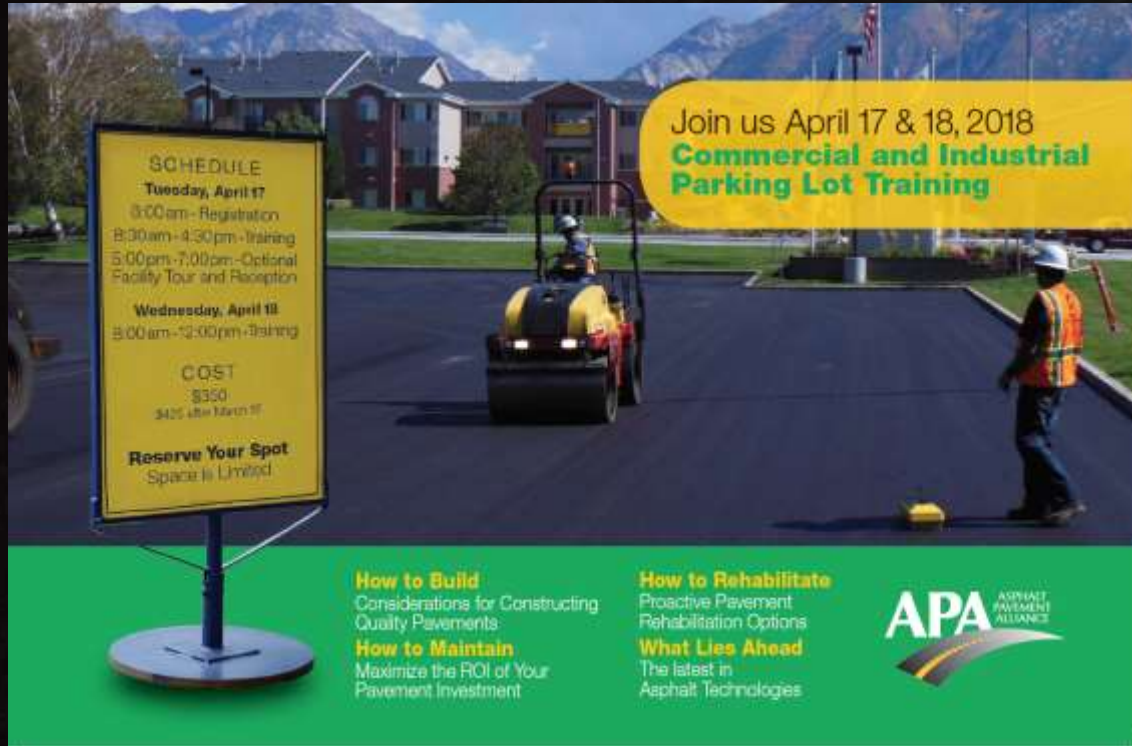


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Commercial Markets- Kickoff Chicago, 2018



Join us April 17 & 18, 2018
**Commercial and Industrial
Parking Lot Training**

SCHEDULE
Tuesday, April 17
8:00am - Registration
8:30am - 4:30pm - Training
5:00pm - 7:00pm - Optional
Facility Tour and Reception

Wednesday, April 18
8:00am - 12:00pm - Training

COST
\$350
\$425 after March 31

Reserve Your Spot
Space is Limited

How to Build
Considerations for Constructing
Quality Pavements

How to Maintain
Maximize the ROI of Your
Pavement Investment

How to Rehabilitate
Proactive Pavement
Rehabilitation Options

What Lies Ahead
The latest in
Asphalt Technologies

APA ASPHALT
PAVEMENT
ALLIANCE



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Modification for Market



- Full Deal 1 ½ Day course
- Modified
 1. 1 Day
 2. 6 Hr – Exec Summary & Lunch
 3. 4 Lunch and Learn

Commercial Parking Lot Course

Upcoming:

Regional and National

- Kansas City – TBD
- NC Regional TBD



Asphalt Performance for a Lifetime



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Life Cycle Cost Analysis for Pavements



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LCCA - Rules to Live By

According to
Dan



Marketing Asphalt #101



MN ASPHALT CONFERENCE 2019

PRESENTED BY MAPA AND MAAPT

DECEMBER 4-5, 2019 | MARRIOTT NORTHWEST, BROOKLYN PARK

Minnesota Asphalt Pavement Association

December 2019

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One Thing

- *City Slickers.....Curly....."Secret to Life"*



**JUST
ONE
THING**

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Thank You!

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