

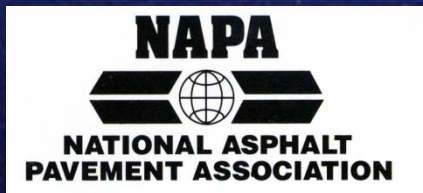
National Asphalt Roadmap

Dale Decker

Peterson Conference

Western Research Institute

Laramie, WY



Construction Definitions

- Contractor: a gambler who never gets to shuffle, cut or deal
- Bid Opening: a poker game in which the losing hand wins
- Bid: a wild guess carried out to two decimal points
- Low Bidder: a contractor who is wondering what he left out

Construction Definitions

- Project Manager: the conductor of an orchestra in which every musician is in a different union
- Strike: an effort to increase egg production by strangling the chicken
- Liquidated Damages: a penalty for failing to achieve the impossible

Construction Definitions

- Engineer's Estimate: the cost of construction in heaven
- Auditor: people who go in after the war is lost and bayonet the wounded
- Lawyer: people who go in after the auditors and strip the bodies



A Commitment to the Future

Asphalt Pavement
Research and Technology

Working Group

- Jon Epps (CART chair, Granite)
- Dave Newcomb (NAPA)
- Kent Hansen (NAPA)
- Steve Lenker (NSSGA)
- Ken Kobetsky (AASHTO)
- Tom Harman (FHWA)
- Mike Anderson (AI)
- Support: John D'Angelo, Katherine Petros, Bob Horan, Dale Decker

Working Group



VISION:

Develop improved asphalt pavement technologies that ensure the continued delivery of safe and economical pavements to satisfy our Nation's needs.

Asphalt Community

- Government agencies
- Industry
- Academia

All understand importance of HMA to the nation's transportation system

Asphalt Industry

- Hot Mix Asphalt producers
- Paving contractors
- Asphalt binder suppliers
- Equipment suppliers
- Consultants

Collaboration

- Joint discussions focus direction for innovation
- Research accomplished in collaboration is more easily implemented
 - Reaps far greater gains

Significant progress will be achieved through a nationally coordinated effort to complete major projects

CART

- Roadmap builds on significant effort for last 10 years by NAPA's committee

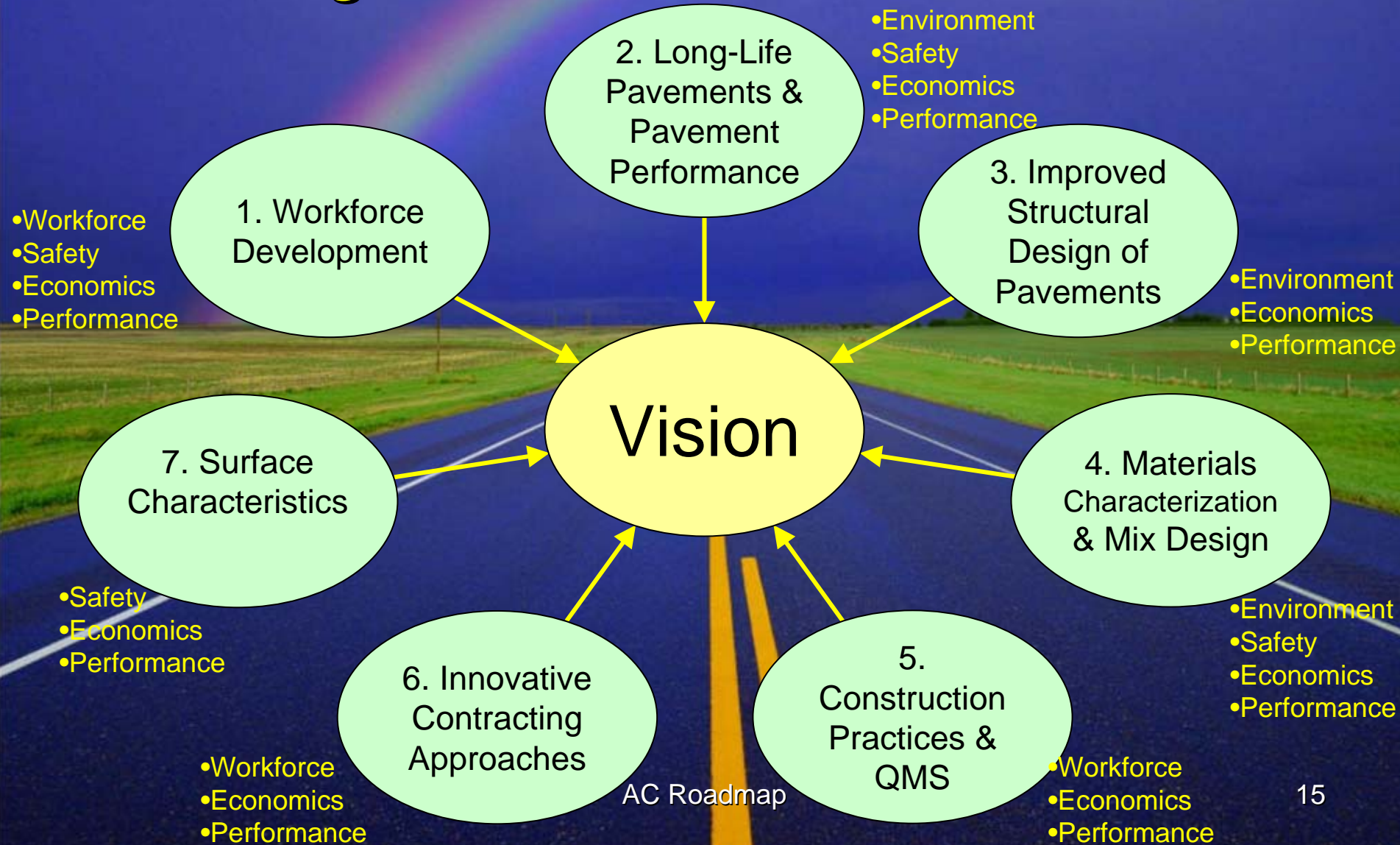
Overarching Themes

- Safety
- Environmental Stewardship
- Pavement Performance
- Economics

Program Areas

1. Workforce Development
2. Long-life Pavements and Pavement Performance
3. Improved Design of Pavements
4. Materials Characterization and Mix Design
5. Construction Practices and Quality Management
6. Innovative Contracting Practices
7. Surface Characteristics

Relationships between the Vision, Program Areas, and Themes





Program 1

Workforce Development

Develop strategies to recruit, retain and develop the HMA workforce.



Program 2

Long-Life Pavements and Pavement Performance


Verify and improve technology for long-life pavement structural design, materials optimization, life cycle cost analysis and data collection techniques for pavement evaluation.



Program 3

Improved Structural Design of Pavements


Develop improved design methods which will optimize HMA pavements to accommodate future changes in traffic and materials while accounting for environmental effects.



Program 4

Materials Characterization and Mix Design

Develop test methods, specifications, and performance relationships which will lead to optimization of materials and mix design for asphalt pavements.



Program 5

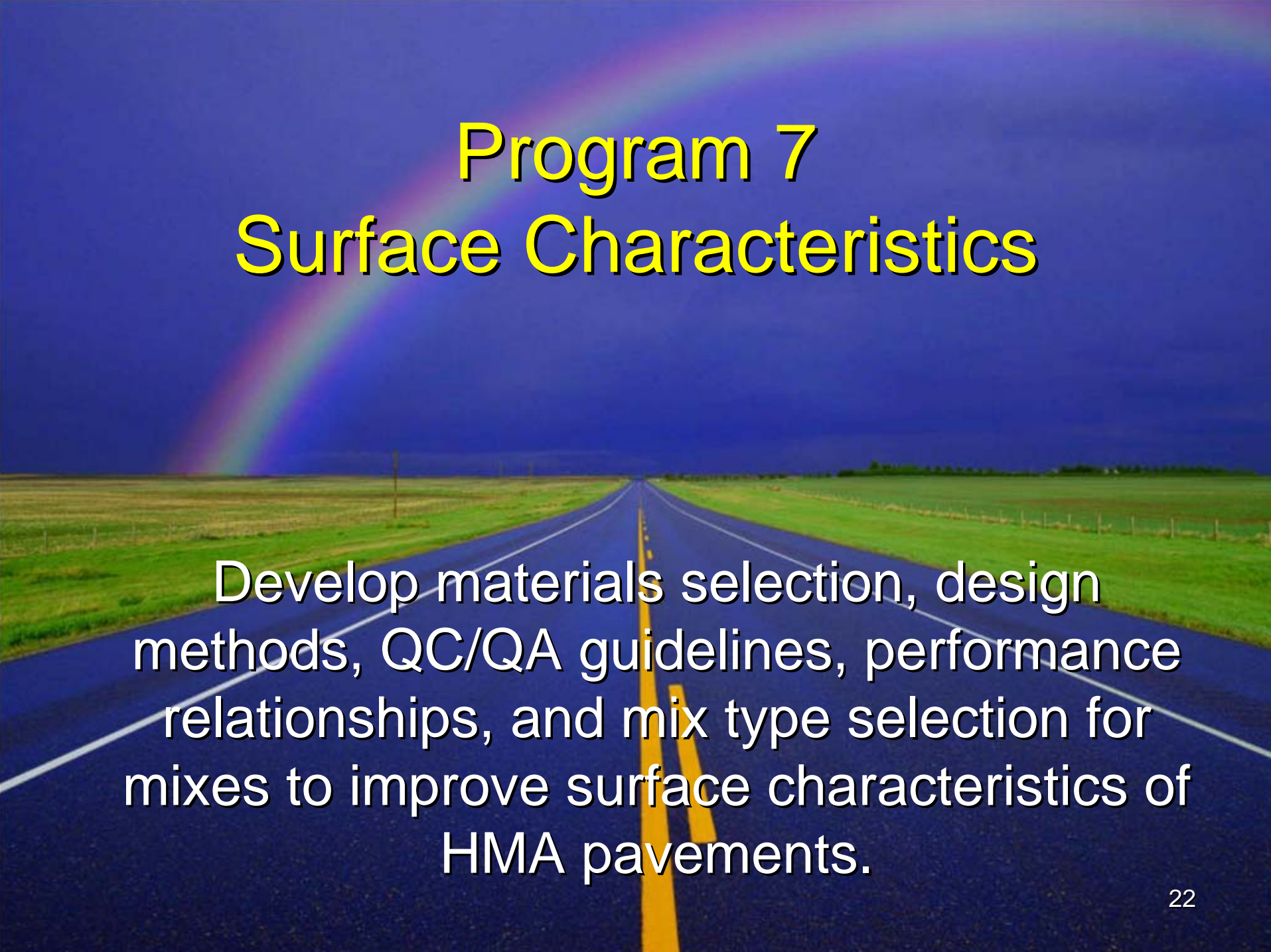
Construction Practices and Quality Management Systems

Develop construction practices to
improve quality, increase
productivity, improve safety, and
extend pavement life



Program 6 Innovative Contracting Approaches

Evaluate advantages and disadvantages of non-traditional financing and contracting approaches used for HMA projects.

A photograph of a two-lane asphalt road stretching into the distance under a dark blue sky. A vibrant rainbow is visible on the left side of the road. The road has a yellow center line and white edge lines. The surrounding landscape is green and flat.

Program 7

Surface Characteristics

Develop materials selection, design methods, QC/QA guidelines, performance relationships, and mix type selection for mixes to improve surface characteristics of HMA pavements.

HMA Industry Priorities Identified by CART

- Long-Life Pavements
- Mix Design
- Performance Based Specifications
- Quality Management Systems
- Resource Availability and Cost Containment

Roadmap

- 69 Projects
- 2 to 3 page “problem statement” for each
 - Introduction
 - Background
 - Overview of research topic
- Wide variety of general subject areas
- Various research approaches may be used
 - Other research may be in progress



roadmap

[HMA Roadmap](#)

NAPA in association with FHWA and AASHTO are developing the HMA Roadmap which will outline needed research for the HMA community in the near future. This Roadmap has been revised. To download the revised Roadmap and submit comments to the please [click here](#).

Purpose of the Roadmap...

- This document is the result of public-private partnership and encapsulates the **shared vision** of the Asphalt Community for research and technology.

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- Many individuals and groups provided direct input to the Roadmap.

Purpose of the Roadmap...

- Purpose is to serve as a **guiding document to research and technology transfer** organizations in formulation and identification of programs and projects.
- Individuals and groups are encouraged to draw upon and share this document.

Purpose of the Roadmap.

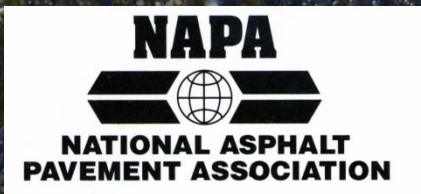
- Roadmap vision is to foster collaboration, partnership, and cooperation within Asphalt Community to **ensure continued delivery of safe and economical pavements to satisfy our Nation's needs.**



Asphalt Roadmap

**Shared Vision
“Living Document”**

Thank You!



NATIONAL STONE, SAND & GRAVEL ASSOCIATION



Natural building blocks for quality of life

