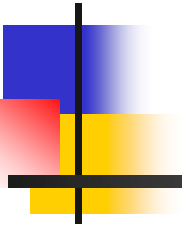


ASTM D04 Workshop on Sustainability Issues



ASTM Meeting
Tampa, FL
December 6, 2011
Frank Fee



ASTM D04 "Sustainability"

- Background
 - Committee E60 on Sustainability
- Significance for D04
 - Committee relationships
 - Committee / subcommittee jurisdictions
- Establishment of Subcommittee D04.99
 - Scope
 - Function



Defining “Sustainability”

- Sustainability is a complex subject in that it involves environmental, economic and social considerations.
- This can be challenging for ASTM committees to understand and meet the standards development needs in this very broad but important area.



Defining “Sustainability”

- A leader in ASTM on this subject is Committee E60 on Sustainability (formally E06 on Performance of Buildings) which has addressed this for the building industry
- Established in 2008 , 580 members, 12 Standards, 11 countries represented



Background

- E60 Scope
 - The acquisition, promotion, and dissemination of knowledge, stimulation of research and the development of standards relating to sustainability and sustainable development.
 - The committee shall include environmental, social, economic, and other issues relating to sustainability.



Background - E60 Scope

- This committee shall support and serve as a resource for other ASTM committees in their activities that include sustainability issues.
- May include dissemination of specific requests for standards throughout ASTM's existing committee base
- Include the maintenance of appropriate liaison relationships (internal and external) related to this subject area.



Background – E60

- The committee will not duplicate the efforts of existing ASTM technical committees. The work of this committee will be coordinated with other ASTM committees and other organizations having mutual interest.



Background E60

- Subcommittees
 - E60.01 Buildings and Construction
 - E60.02 Hospitality
 - E60.80 General Sustainability Standards
 - E60.90 Executive
 - E60.91 Strategic Planning



Example of E60 - Standards

- E 60.01 Buildings and Construction
 - E2635-08 Standard Practice for Water Conservation in Buildings Through In-Situ Water Reclamation
 - WK23556 New Practice for Minimum Environmental, Social and Economic Requirements for a Building Promoting Sustainability



Example of E60 - Standards

- E 60.01 Buildings and Construction
 - E2728-11 Standard Guide for Water Stewardship in the Design, Construction, and Operation of Buildings
 - E2396-11 Standard Test Method for Saturated Water Permeability of Granular Drainage Media [Falling-Head Method] for Vegetative (Green) Roof Systems



Significance for D04

- “Sustainability” Standards generally more global and non-specific
- Consider “environmental, social, economic issues” in terms of “Practices” to meet the goal
- And then there is D18 on Soil and Rock which formed a new subcommittee (D18.14) on Geotechnics of Sustainable Construction (2008)

Significance for D04



- D18.14 – “...main charge is to develop standards, guidelines, product specs, etc regarding recycled materials and aid removing barriers to their wide spread adoption in construction.”
- “...products under consideration are... tire chips... fly ash... foundry sand... crushed concrete... RAP... RAS...etc...”



Significance for D04 – our view

- Need to be involved so that alternate or redundant Standards are not created in other Committees
- Need to insure the viability of “sustainable” Standards related to D04 scope
 - Relevant and effective Test Methods
 - Performance based Specifications



Significance for D04

- Committee relationship – while recognizing and embracing the concepts of Sustainability –
- Need to maintain technology to insure performance of materials and construction
 - D04 needs to establish a liaison with E60 and other committees for the interaction related to this subject
 - D04 need to work with other committees concerning appropriate jurisdiction for Standards



Establish - D04.99 subcommittee

- “Sustainable Asphalt Pavement Materials and Construction” (2009)
 - Scope - The responsibility of this subcommittee will be to develop, coordinate, and reference Standards involving sustainable bituminous materials and construction that consider and improve the impact on the environment



D04.99 - Function

- First effort – develop a new Standard
 - “Standard Guide for Managing Standards related to the Sustainability of Asphalt Pavements”
 - Define ‘sustainability’
 - Formalize interaction with the subcommittees and other committees
 - Develop and maintain a data base of D04 standards involving sustainable concepts



D04.99 - Future

- Provide a structure and focal point for handling sustainability in D04 Standards
- Embrace and define the concept
- Provide flexibility for adapting new approaches, materials, and practices
- While still providing a sound technical foundation for the product criteria



D04.99 - Future

- Will require more interaction with other ASTM committees and D04 subcommittees
- Potentially develop searchable data base for web based access
- Keep an open mind – much more to learn