

# The Maryland Quality Initiative (MdQI) Fourteen Years of MdQI Continuous Quality Improvement



## Agenda

- Why Maryland Quality Initiative?
- History of MdQI
- Mission Statement
- Organization & Structure
- Achievements
- 2006 and Beyond
- Lessons Learned

## Why Maryland Quality Initiative?

- Many organizations were meeting independently to address quality issues
- Needed forum for the exchange of ideas and cooperation within the highway industry
- Quality cannot be achieved without the commitment of all stakeholders
- Quality Strategies as a way of doing business

## History of MdQI

Late  
1980's

- Maryland Highway Contractor's Meetings

1990

- Development of "Maryland With Pride" Awards Program

1992

- Agreement made among Maryland's key highway organizations to hold a statewide conference
- Initial charter signed & steering committee formed with the five sponsoring agencies



## History of MdQI

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1994

- Maryland's first NQI "Road to Quality" Conference/Workshop
- Some of the early initiatives
  - Performance evaluation for contractors
  - Performance evaluation for consultants
  - Performance evaluation for SHA
  - Reduced retainage
  - Re-wrote Specification Book 1993-1994 with contractor input

## 1996 MdQI Mission Statement

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"To provide the Maryland highway industry a forum that fosters coordinated and continuous quality improvement in order to ensure safe, efficient, and environmentally sensitive highways which meets the needs of all transportation stakeholders"

## History of MdQI

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1998

- Six sub-committees were formed to consolidate the activities of the highway industry
  - Highway Operations
  - Project Development
  - Conference
  - Partnering
  - Training & Recruitment
  - Public Relations/Marketing
  - Safety (2005)
- MdQI Steering Committee meets monthly to address issues arising from our Annual Conference as well as new issues. Teams formed within Subcommittees.

## History of MdQI

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- Maintain relationship with National Partnership For Highway Quality (NPHQ) Throughout our History
- Participate in NPHQ National Awards
- NPHQ Lead State
- NPHQ State Quality Partnership Accreditation Tier I & II (2006)

# Growth of Sponsoring Agencies

1992



Signed 3 New Charters To Incorporate New Members

1996



1999



2002



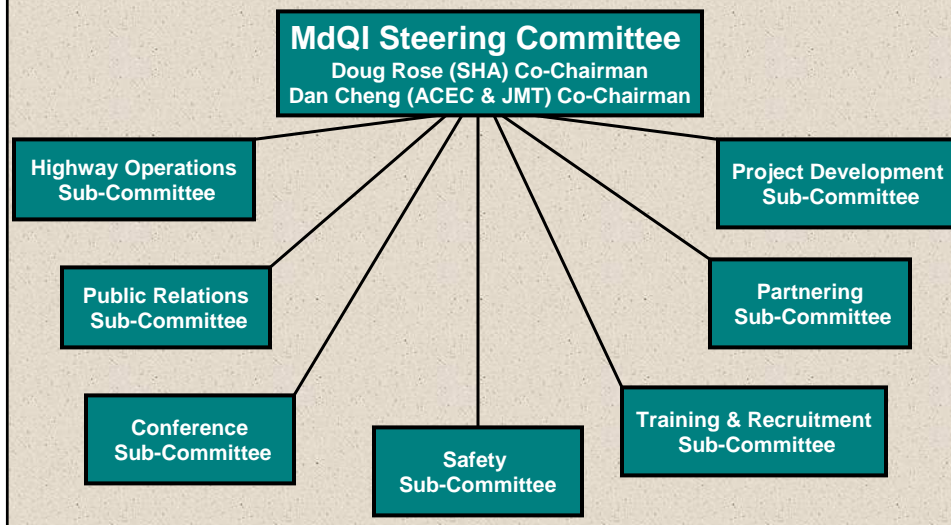
2002



2002



# Current MdQI Structure





## Subcommittees

- **Highway Operations:** Innovative contract, maintenance, materials, specifications and construction issues
- **Project Development:** Planning, design, project delivery & environmental stewardship
- **Partnering:** Improve/enhance partnering process
- **Training & Recruitment:** Promote careers in engineering and construction, student outreach
- **Public Relations:** Promotes awareness of MdQI through media, newsletters and website ([www.mdqi.org](http://www.mdqi.org))
- **Safety:** Promotes work zone safety
- **Conference:** Organizes annual conference & Awards Banquet

## Annual Conference

- Two Days in January
- Day One
  - Luncheon
  - Vendor and Technology Exhibits
  - Interactive Workshops
- Day Two
  - CEO Breakfast with Key Officials
  - Vendor and Technology Exhibits
  - Opening Session and Keynote Speaker
  - Technical Presentations
  - Luncheon
  - Technical Presentations
  - Training Opportunities
  - Banquet with Key Officials
  - Recognition of 20+ Awards of Excellence
    - Concrete & Asphalt Plants
    - DBE/Sub-Contractors
    - Unique Projects – Roundabouts
- 2006 - Largest conference to date with 550 participants and 750 attendees for the Awards Ceremony



## Achievements: Key Initiatives of Recent Years

- Partnering in Design/Construction
- Construction & Engineering Career Day
- Industry/SHA Technical Team
- Superpave Implementation
- NPHQ Lead State
- Partnering-Training Boot Camp
- Pavement Selection Program



## Achievements

- Implemented contractor/consultant evaluation forms
- Implemented reduced retainage process
- Implemented appeal process for consultant errors and omissions
- Developed formal partnering guidelines for construction
- Developed 2nd Manual for Partnering in Design and Construction
- Established teams to reduce change orders
- Promoted ITS technology in incident management and work zones
- Improved project closeout and materials clearance
- Implemented District special projects guidelines

# Achievements

- Developed ADA Training Program
- Implemented "Thinking Beyond the Pavement" Concepts (1999) which is now called "Context Sensitive Solutions"
- Implemented QC/QA measures and specifications
- Improved SHA's technology transfer program
- Executive leadership team
- Provided context sensitive design training
- MdQI newsletter and webpage: [www.mdqi.org](http://www.mdqi.org)
- Implemented design build/best value/PPP
- Implemented safety team
- Introduction of construction mediation
- CPM specification rewrite
- Implementation of SHRP in Maryland
- Implemented Ride Smoothness Incentive

# Benefits to Construction Program

- Partnering
  - Improves communication
  - Eliminates adversarial relationships
  - Streamlines project closeout (100 days on average)
  - Eliminates or minimizes delays
  - Reduced claims on construction projects
  - Reduces change orders
  - 91% or 118 out of 130 active construction projects were partnered as of June 2006. Represents 98% of all construction funds
  - Measurement of partnering
  - Value engineering
  - Expedited Material clearance





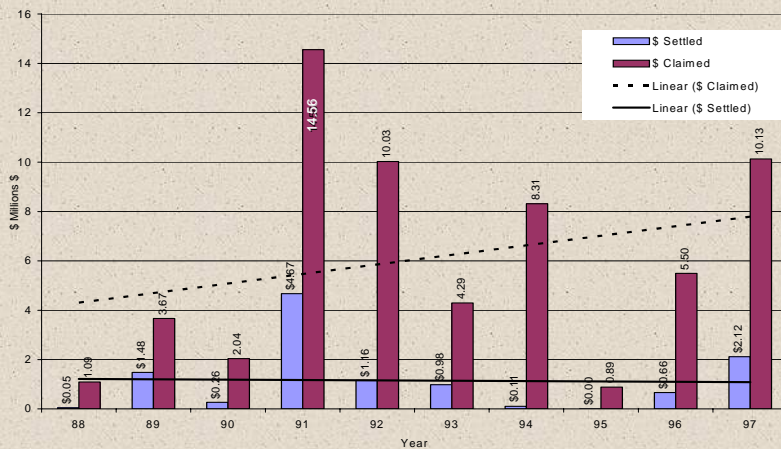
# Benefits to Construction Program

1994-1999 Change Orders Averaged 11.4 %

FY 2000-2004 Change Order Totals:

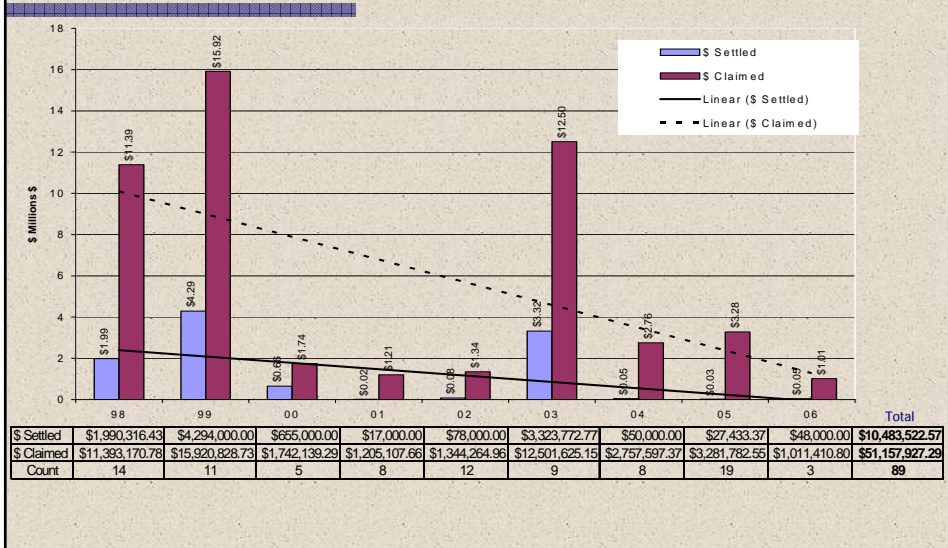
	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
<b>Number</b>	510	424	416	486	476
<b>Change Order Cost</b>	\$19,603,949 5.45%	\$24,344,298 5.07%	\$18,329,000 3.06%	\$22,579,395 4.20%	\$24,880,545 4.62%
<b>Expenditures</b>	\$359,503,036	\$480,604,849	\$599,750,463	\$538,077,917	\$636,261,110

# Settled vs. Claimed 1988 thru 1997



	88	89	90	91	92	93	94	95	96	97	Total
\$ Settled	\$50,830.16	\$1,483,762.39	\$264,273.07	\$4,673,944.03	\$1,162,720.79	\$980,627.57	\$109,181.49	\$2,945.00	\$669,821.27	\$2,116,197.31	\$11,453,472.86
\$ Claimed	\$1,091,707.77	\$3,668,740.15	\$2,039,423.38	\$14,557,739.00	\$10,026,675.97	\$4,291,638.48	\$8,311,452.23	\$887,063.72	\$5,497,364.03	\$10,131,146.23	\$59,411,243.19
Count	12	9	21	28	31	10	12	6	10	12	130

## Settled vs. Claimed 1998 thru Oct. 2006



## Annual Construction Career Day



- This year we held our 3rd Annual Highway Construction & Engineering Career Day

# Annual Construction Career Day

- Over 500 high school students in search of a rewarding career
- College-bound and non college-bound students
- Teachers, counselors, and other education officials
- Community college students, Urban Youth League, Job Corps., etc.



# Communication

Website: [www.mdqi.org](http://www.mdqi.org)



## PARTNERS IN QUALITY

A PUBLICATION OF THE MARYLAND QUALITY INITIATIVE STEERING COMMITTEE (MDQI)

**MARYLAND'S HIGHWAY INDUSTRY STRIVES FOR 'PROGRESS THROUGH PARTNERSHIPS'**

As the industry's largest highway contractor, the Maryland Department of Transportation (MDOT) is committed to providing the highest quality of service to the state's citizens. This commitment is reflected in the state's highway program, which is a key element of the state's economic development strategy. The state's highway program is a key element of the state's economic development strategy. The state's highway program is a key element of the state's economic development strategy.

Spring/Summer 2006 Learn More about MdQI at [www.mdqi.org](http://www.mdqi.org)

Semi-Annual Newsletter with Industry Briefs

## MdQI National Awards

- **I-270 Design and Interstate Reconstruction**
  - NQI Achievement Award - 1995
- **MD 450/US Naval Academy Bridge**
  - NQI Achievement Award – National Finalist 1997
- **I-695 Baltimore Beltway Widening**
  - NQI Achievement Winner - Gold Level Award - 1999
- **Making a Difference State Quality Initiative**
  - Gold Level Award - 2000
- **US 113 Phase I**
  - NPHQ Recognition Award For Quality In A Small Project - 2001
- **Making a Difference Partnering - Silver Level Award - 2002**
- **Canal Parkway**
  - NPHQ Achievement Winner- Gold Level Award - 2003
- **Woodrow Wilson Bridge –Air Bubble Curtain System (“ABCS”)**
  - NPHQ - Gold Level Award - 2004
- **Woodrow Wilson Bridge – Making a Difference**
  - Risk Taking NPHQ - Silver Level Award - 2004
- **I-270 - Rockledge Drive & MD187 Interchange Project**
  - NPHQ - Partnering Gold Level Award - 2004

## 2006 and Beyond

- Increase industry involvement and participation
- Increase membership - MSP, MDE, MOSH & Academia
- Partnering with utility companies
- Contract administration methods
  - G.E.C. construction management by consultants
- E&S specifications
- Technologies and innovations
  - Stakeless grading
  - Intelligent Compaction Program
  - Moveable Traffic Barriers
  - Concrete Maturity Meter Pilot
- Recycled Materials Specification



## 2006 and Beyond

- Mega projects
  - Woodrow Wilson Bridge – \$2.5 billion est.
  - I-95/Section 100 – \$850 million est.
  - Intercounty Connector – \$2.4 billion est.
- Managed lanes/express toll lanes
- Performance specifications
  - Warranties
- Best value



## Lessons Learned

- Commitment From the Top
- Evolutionary Process
- Monthly Steering Committee Meetings
  - Advance Agendas
  - Good Note Taking
  - Develop Action Items
  - Chief Engineer Rotation
- Contractors hard to get to table
- Assure Sponsoring Agencies, Contractors and Consultants are on each sub-committee. 2 Chairs for each sub-committee.

# QUESTIONS

