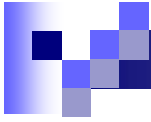


Mn/DOT Technical Certification Program



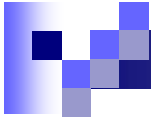
Office of Construction
and Innovative Contracting

2011-2012 Training Season



Technical Certification Program (TCP)

- Introduction
- Why do we do what we do?
- The Code of Federal Regulations (CFR) -The “Headwaters” of the TCP
- Description of the TCP processes
- Website and publications – past and present



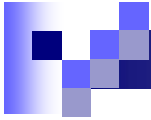
Introduction to TCP personnel

- New Tech Cert supervisor- John Micheau
 - Former Independent Assurance Inspector
- Tech Cert Technician - Michael Hogan
 - Desktop Publishing, Website, Class results processing
- Course Coordinator - Sue Rousseau
 - Makes schedule for new season, budgets and meeting organizer
- Database Administrator - Cheryl Jimenez
 - Programs database, enters classes for new season, works with people needing access in the field



CFR is The “Headwaters” of the TCP

- We are mandated by CFR 23 (Highways), Part 637 (Construction Inspection and Approval), Subpart B, (Quality Assurance Procedures for Construction) to have a QA/QC program in place.
- Each State Transportation Dept. (STD) were to have certification of personnel by June 2000.
- Mn/DOT has had a program in place since 1989
- Link to CFR 23 – Part 637 from TCP website:
<http://www.dot.state.mn.us/const/tcp/> under More Links



CFR 23 -Part 637

637.201 - Purpose

To prescribe policies, procedures, and guidelines to assure the quality of materials and construction in all Federal-aid highway projects on the National Highway System.

That's why we do what we do


Additional sections provide information in the following areas:

637.203 - Definitions

637.207 - Policy

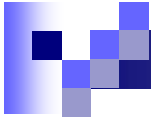
637.207 - Quality Assurance Program

637.209 Laboratory and sampling & testing personnel qualifications



While the format of a certification program was left to the States, certain components needed to include:

- Formal training
- Hands-on training in lab
- A period of on-the-job training
- A written examination
- Re-qualification at set intervals
- Process to remove non-performing personnel



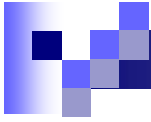
“Qualified personnel”

“Personnel capable of performing sampling and testing as established by each State Transportation Dept. (STD).” In Minnesota, certification authority has been delegated to the Office of Construction and Innovative Contracting.



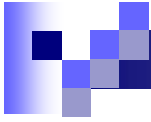
Who needs Mn/DOT Technical Certification?

- Personnel performing testing and sampling on Federal, State, and State-Aid projects on the trunk highway system.
- Includes Registered Professional Engineers (P.E.) performing QA/QC tests
- Others as prescribed by contract, supplemental agreement, etc.



Description of TCP processes

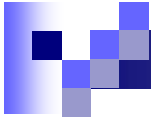
- Technical Certification Handbook - provides an overview of the TCP
- Training Season
 - Starts October 1 every year
- Certification classes offered:
 - 11 areas first time certification
 - 9 areas of recertification
 - Additional certifications to comply with the CFR
 - Strength Technician in lab for accreditation



Certification Levels

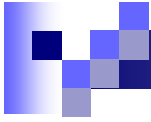
Mn/DOT's Technical Certification Program
has two levels:

- Level 1 – Tester
- Level 2 – Inspector



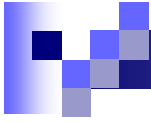
Certification Areas

- Aggregate Production
- Bituminous Plant
- Bituminous Street
- Bridge Construction Inspection (for new bridges)
- Concrete Field
- Concrete Plant
- Grading & Base



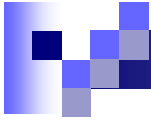
Bridge Inspection for In-place Bridges

- Overseen by Bridge Office to meet state statute
 - ☐ Bridge Safety 1
 - ☐ Bridge Safety 2
 - ☐ Other requirements including performance evaluation
 - ☐ This is done through LSC, NHI and the Bridge office



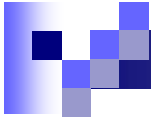
Program Updates

- Registration
- Website
- Publications
- New delivery of courses



Registration

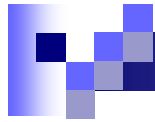
- Information goes online October 1 every year
- Last year we started “one stop shopping” registration
- All registrations are through Aggregate & Ready Mix of MN (ARM)
- One calendar
- One registration form
- Changes & cancellations handled by ARM
- Classes begin the middle of November and run through mid June.
- The new registration was a great success by all accounts



Certification Cross-section

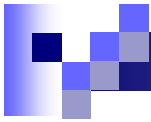
- Number of Classes
- Evaluations
- Number of Certified in each area both Mn/DOT & Private Sector

The number of classes has had peaks in the past but has become more consistent. We anticipate other means of delivery for certification and recertification this year and hope this will address the needs brought to our attention in evaluation feedback.

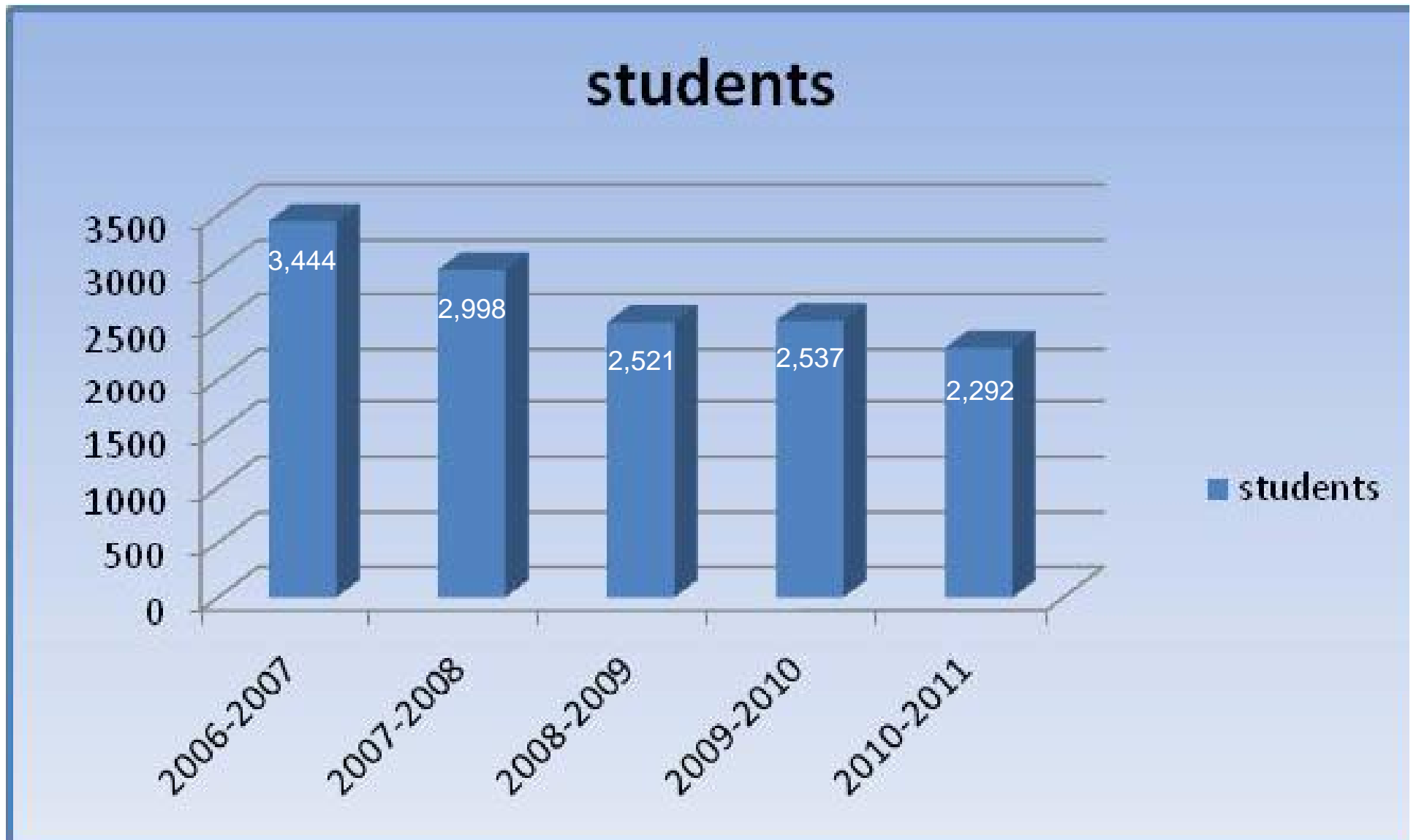


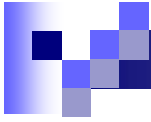
Number of classes held each season from 2006 - 2011





Number of students each season from 2006 - 2011





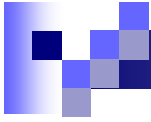
Evaluations

- Student Evaluation Forms are sent to each class session
- Students rank the Instructor, Learning Material, Facilities and the Course overall on a scale of 1-5. We target a rating of 4.0 and above for all areas.
- All instructors, specialty offices, training partners and management get the evaluations at the end of the season when we do our “rollup”.
- Evaluations are invaluable for getting and responding to feedback from classes.



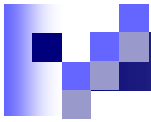
Testing

- Exams are given at the end of each class. Must also complete Performance Review for some classes.
- Students are notified of their grade by postcard (over 60%) or letter (under 60%)
- Certification requires a minimum grade of 70%
- **Retest** is given one time if score is 60-69% at no additional charge. Student must pursue the process through our office.

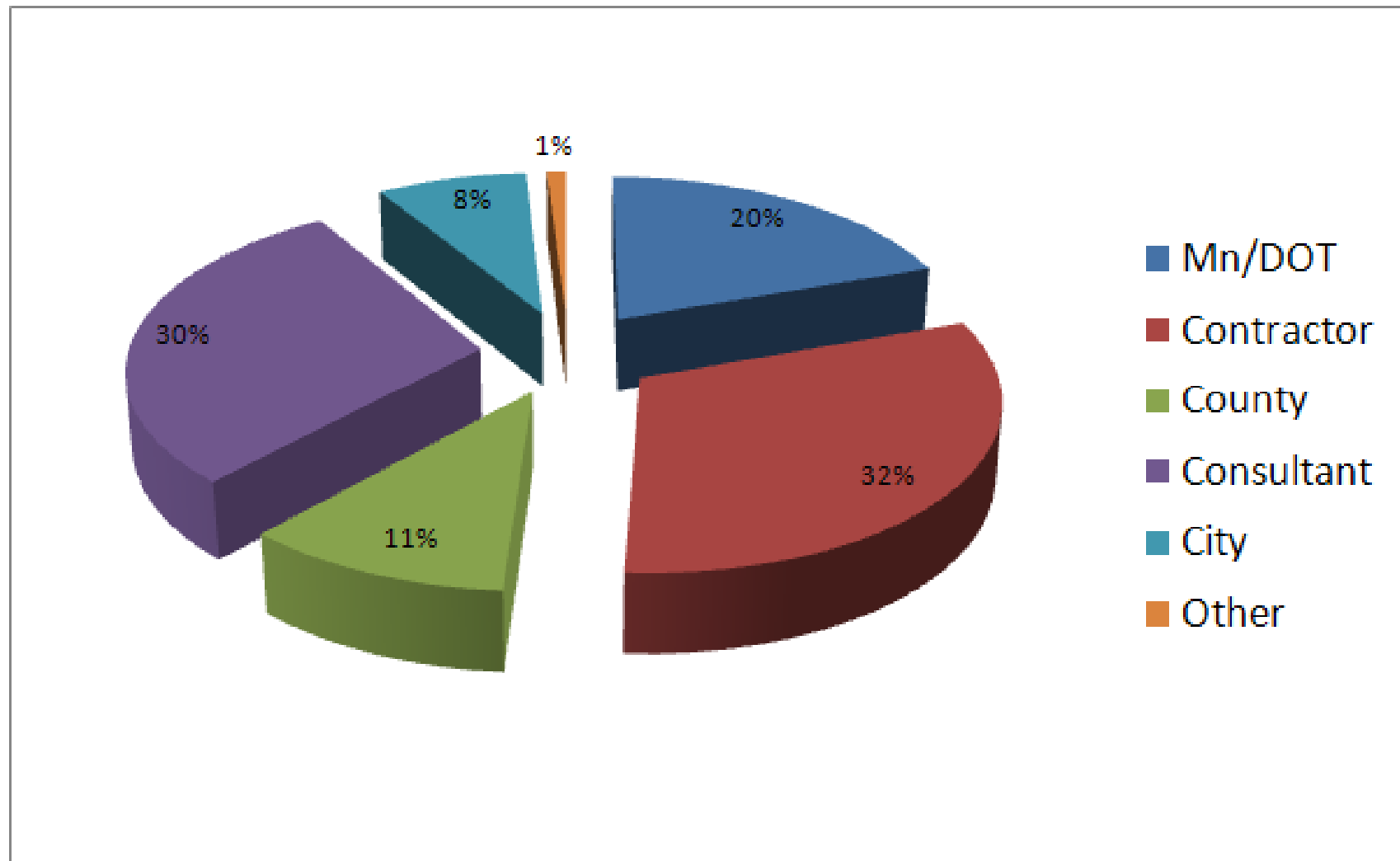


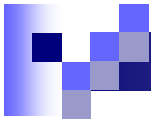
Mn/DOT Certification

- Formal certification lasts for 5 years
- Must successfully complete class, all prerequisites, and a performance review (if required) to gain certification.
- Certifications are held by a broad range of agency and private construction technicians

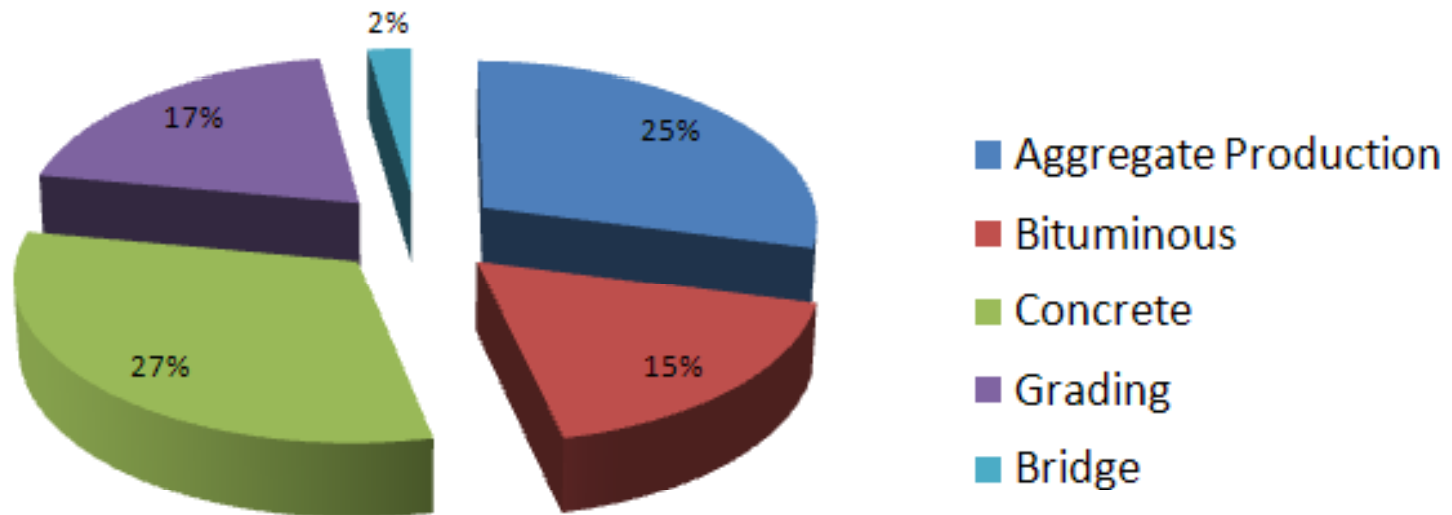


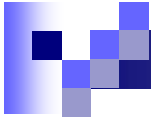
Sources of Student Enrollment





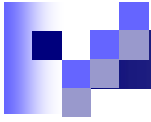
Areas of Certification - Enrollment





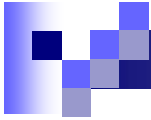
Re-certification

- Formal certification lasts 5 years
- Need to re-certify before certification expires
- Re-certification courses held every year
- Expired certifications ineligible for re-cert
- Currently no re-certification required for Agg. Prod.



Website & publications- what's new

- Website is now ADA compliant.
- Website redesigned at beginning and end of training season
- We don't post the training calendar on our website anymore but provide a link to the ARM website
- ARM handles all registrations, payments and cancellations.
- Handbook is updated as needed.
- Inspectors Job Guide will be updated for 2011.
- New MnDOT Spec is being written for 2011



TCP Website

www.dot.state.mn.us/const/tcp or Google “MnDOT Technical Certification”

- Get Tech ID number
- Maps, addresses for training facilities and lodging
- Contact information
- Links to Training Partners, Industry Groups, Specialty Offices, NHI website, and other training resources.
- Forms & Publications and FAQ page
- Annual Certification card information

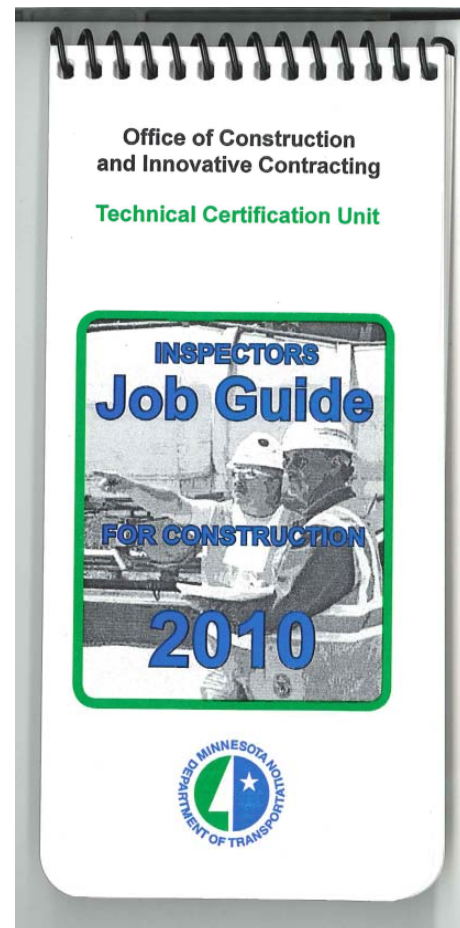


Annual Certification Cards

- Mailed out at end of training season in May
- Shows all current certifications and those that have or will expire the next year
- Student breakdown - 20% Mn/DOT, 80% non-Mn/DOT
- Approximately 5,000 certification cards mailed annually
- Approximately 2,500 personnel trained annually

■ Inspectors Job Guide

- Current edition - 2009-2010
- New edition in 2011



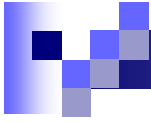
CONTENTS	
GENERAL INSTRUCTIONS	1
PERSONAL SAFETY	4
TRAFFIC CONTROL	6
SCALE OPERATION	7
EROSION AND SEDIMENT CONTROL	8
TREE PROTECTION	12
DISPOSAL OF WASTES	13
GRADING	14
GEOTEXTILES	17
BASE CONSTRUCTION	21
CULVERT PIPE INSTALLATION	23
STORM SEWER INSTALLATION	25
PLANT MIX BITUMINOUS PAVING	27
READY-MIX PLANT MONITOR-AGENCY	34
READY-MIX PLANT MONITOR-PRODUCER ...	38
MISCELLANEOUS CONCRETE	
CONSTRUCTION	41
CONCRETE PAVING PLANT MONITOR	45
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PAVING	49
PAVING INSPECTION - DURING SLIPFORM	
PAVING	51
PAVING INSPECTION - FIXED FORM	
PAVING	57
PAVING INSPECTION - UNBOUNDED	
OVERLAYS	59
CONCRETE PAVEMENT REHABILITATION	60
BRIDGES AND STRUCTURES	63
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SEEDING, FINISHING, ETC.	74
LANDSCAPE PLANTING	77
LABOR COMPLIANCE	82
DOCUMENTATION OF QUANTITIES	83
COMPLETION OF SAMPLE CARDS FOR	
SAMPLE SUBMITTAL	84
CONTACTS	91



New Course Delivery Method

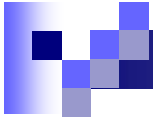
- Bituminous Street Recertification Online Course for 2011-2012 Season
- Students will get URL for online course when they register
- They will register to test at a certain time and location
- Must show ID at testing center
- Will get 1 hour and exam score when they finish exam
- They will be invited to fill out a course survey via Survey Monkey
- Grade reporting won't be through LMS. Will be emailed to Tech cert by course development team.

<http://www.dot.state.mn.us/elearning/bituminousDemo/>



TCP Training Partners

- Aggregate and Ready Mix Assoc. of MN (ARM)
- Lake Superior College (LSC)
- South Central College (SCC)
- Central Lakes College (CLC)
- Mn/DOT Specialty Offices



Thank you