



Illinois Interchange



Illinois Technology Transfer Center

Vol. 2012-01

MIXED MESSAGES: STREET NAME SIGN CHANGES

Adapted from article by David Orr, P.E. Sr. Engineer, Cornell Local Roads Program, New York

In the 2009 National Manual on Uniform Traffic Control Devices (National MUTCD), some of the criteria for Street Name signs have changed. This has led to a lot of confusion, controversy and media coverage. Interestingly, some of the most controversial stuff has actually been the rule in the MUTCD for many years.

MUTCD Standard

The standard for Street Name signs (Designation D3-1) can be found in section 2D.43 Street Name Signs of the MUTCD. With the new MUTCD, the lettering style and allowable colors have changed. There are four significant aspects each agency needs to think about for any new or replace-

ment street name signs: mixed-case lettering style, lettering size, sign blank size, and allowable colors.

Mixed-case Lettering Style

With new signs, the lettering needs to be a mix of upper and lower-case letters. The first letter of each name or abbreviation SHALL be upper-case and the rest of the lettering in the name or abbreviation SHALL be lower-case.

Mixed-case lettering is easier to recognize. With ALL-CAPS, the letters can look like a big square block from a distance and it is hard to discern the different letters. Therefore, it takes longer to interpret the sign. An unfamiliar driver has less time to read and react to the sign. In the case of STOP or YIELD or many warning signs with text, we are also using color to help travellers to recognize the sign. Also, most of the words on these signs are so well known that users recognize them easily.



D3-1



D3-1a

Portion of MUTCD Figure 2D-10
Street Name and Parking Signs

Continued on page 2

INSIDE:

Adaptive Signal Control Technologies.....	4
Use of In-lieu Fee and Mitigation Banking.....	4
Engineer of the Year.....	6
Technician of the Year.....	7
IACE Engineers of the Year.....	8
FHWA Engineer of Year.....	9
U of I Scholarship Winners.....	9
APWA Professional Manager of the Year.....	10
T2 Training Class Survey.....	11

Please pass this on to other interested parties in your office.



Illinois Department of Transportation
Bureau of Local Roads and Streets



Federal Highway Administration

Continued from page 1

With lower-case letters, the shape of the letters changes depending upon the name and it is actually easier to tell one name from another. Think about the names Miller, Maple, and Monroe. Even with the small font of this article, it is easy to tell them apart. In lower-case, a word's shape is recognizable from a further distance and the driver does not need to slow down as much.

To help you remember which style to use, think about placing the words on the street name sign like you put your name in a letter with the caveat that periods are not normally used with any abbreviations. If I had a street named after me, it would be David P Orr Rd, not DAVID P ORR RD.

Lettering Size

For typical two-lane streets and roads, there are two lettering sizes that can be used: six inches (6") or four inches (4"). The lower-case letters are typically about $\frac{3}{4}$ the height of the upper-case letters, but in some cases the letters are the same height (b, d, f, h, k, l, and t) and in some cases go below the line defined by the bottom of the initial capital (g, j, p, q, and y). The choice of which to use depends upon the speed along the highway. If the speed is 25 mph or less, the smaller size is allowed. If the speed is 30 or more, the larger sign is required.

Editors Note:

Illinois Department of Transportation issued CL 2012-09 detailing street name sign requirements

Table 1 Sizes for Street Name Signs on Two-lane Highways

Speed Limit Along Highway	Sign Blade Height	Initial Upper-Case Lettering Size	Remaining Lower-case Lettering Size
30 mph or more	12 inches	6 inches	4½ inches
25 mph or less*	8 inches	4 inches	3 inches

Remember, the abbreviation for the name of the road label (road, street, avenue, ...) is $\frac{3}{4}$ the size of the main name letters. If there is an initial at the beginning for the cardinal direction of the road (such as North or East), the letter size will also be smaller. You may use the larger size letters if the word is an essential part of the name. If people would typically refer the road by just the name, an abbreviation such as 'N' or 'E' is all you need and the smaller size is good. On the other hand, if the direction is always part of the name (such as North Main St) then spell out the direction and use the larger letters.

The table above shows blade height and text heights for 2-lane highways. Use the posted speed limit to determine which size to use. For multi-lane highways, refer to the MUTCD for the required size of the lettering. In many cases, the minimum size will be larger.

If mounting a Street Name sign over a Stop sign, the smaller size may be used because the driver only needs to read the sign from a stopped position. However, make sure the sign is legible. Other Street Name signs at the intersection may need to have larger lettering.

Sign Blank Height

Part of the controversy on the new sizes is that many agencies used nine inch (9") blanks that are "no longer allowed". For a six inch (6") letters,

the blade needs to be twelve inches (12") in height. For a four inch (4") letters, the blade needs to be eight inches (8") in height.



Spongy St

Top: Sign Name on Properly Sized Blade

Bottom: Sign Name on $\frac{3}{4}$ " Height Blade – INCORRECT

There are some folks who still want to put the six inch letters on a nine inch (9") blank. However, in order to do this, any lower-case letters that drop below of the line, g, j, p, q, or y, would have to be slightly raised to have room for the border on the sign. The blade on the right is what Spongy St looks like when trying to put six inch letters on a nine inch blade. This makes the sign less legible and does not look respectable. A sufficient amount of "background space" around text is necessary for legibility. The MUTCD allows the border to be omitted on a street name sign, but the blade size does not change.

Continued on page 3

Continued from page 2

Allowable Colors.

Finally, with the new standards, there are only four allowable choices for the sign colors: white legend on a green, blue or brown background, or a black legend on a white background. Too many highway agencies had been using odd colors that were not high contrast or were already reserved for other signs.



Conclusion

All of these changes are for new and replaced signs. As you replace your existing signs, bring the new signs up to the MUTCD standards. Over time, all street name signs will be replaced with ones that meet the new MUTCD standards.

*Allowable Colors
4 Acceptable color combinations
for street name signs.*

Proven Safety Countermeasures Web Site

Scan the code at right
to go directly to the
Web site!

The NEW Proven Safety Countermeasures Web site is now available!

This Web site will be your one-stop shop for information on the **latest** FHWA-recommended set of research-proven safety countermeasures and FHWA **guidance** on countermeasure considerations. The updated list of proven countermeasures was developed based on recent safety research to address **intersection, roadway departure, and pedestrian** issues wherever they may occur.

Many of these countermeasures are low-cost solutions, and FHWA encourages its partners to consider implementing these countermeasures broadly, as appropriate, to reap the benefits of using solutions that are known to save lives.

UPDATED! FHWA-Recommended and Proven Countermeasures:

 Roundabouts	 Medians and Pedestrian Crossing Islands in Urban and Suburban Areas	 Longitudinal Rumble Strips and Stripes On Two-Lane Roads
 "Road Diet" (Roadway Reconfiguration)	 Corridor Access Management	 Safety Edge SM
 Pedestrian Hybrid Beacon	 Backplates with Retroreflective Borders	 Enhanced Delineation and Friction for Horizontal Curves

LEARN MORE TODAY!

<http://safety.fhwa.dot.gov/provencountermeasures>

U.S. Department of Transportation
Federal Highway Administration

Safe Roads for a Safer Future
Investment in roadway safety saves lives

ADAPTIVE SIGNAL CONTROL TECHNOLOGIES (ASCT)

The variability and unpredictability of traffic demand on arterial systems often outpace the ability of local and State agencies to update signal timings so that signalized intersections operate efficiently and do not cause congestion and delays to motorists and pedestrians. The 2012 National Traffic Signal Report Card rated the Nation's traffic signal management and operations practices with a letter grade of "D+" and estimated that poor traffic signal timing contributes to as much traffic congestion and more than 295 million vehicle-hours of delay on major roadways alone. Conventional signal systems use pre-programmed, daily signal timing schedules that do not monitor system performance, nor can they adjust automatically to accommodate traffic patterns that are different from the peak periods during which they were designed to operate. Adaptive signal control technologies adjust when green lights start and end to accommodate current traffic patterns to promote smooth flow and ease traffic congestion. The main benefits of adaptive signal control technology over conventional signal systems are that it can:



• Automatically adapt to unexpected changes in traffic conditions.
 • Improve travel time reliability.
 • Reduce congestion and fuel consumption.
 • Prolong the effectiveness of traffic signal timing.
 • Reduce the complaints that agencies receive in response to outdated signal timing.
 • Make traffic signal operations proactive by monitoring and responding to gaps in performance.

USE OF IN-LIEU FEE AND MITIGATION BANKING

In projects that will impact waters of the United States (wetlands, for example), the permitting process under Section 404 of the Clean Water Act currently constitutes a major component of the project development and delivery process. This initiative proposes expanded use of in-lieu fees and mitigation banking currently allowed under existing statute, FHWA regulations, State law and court decisions in order to save time and expedite project delivery.





Adaptive Signal Control Technologies (ASCT) and Use of In-Lieu Fee and Mitigation Banking Training Classes

Every Day Counts (EDC)-Exchange will be a regularly scheduled series of “dynamic webinars”. The in-person learning sessions will describe effective project development and delivery practices, tools and “market ready” technologies that local transportation agencies can readily implement into their programs. FHWA national subject matter experts, in conjunction with FHWA and State DOT field office experts, will provide information and materials, and facilitate discussions designed specifically for the local transportation managers.

If you are interested in attending, please complete the registration form below and mail or fax to: Illinois Department of Transportation, Bureau of Local Roads and Streets, Technology Transfer Center, 2300 South Dirksen Parkway, Room 205, Springfield, IL 62764; phone 217/785-2350 or **FAX at 217/785-7296**.

Use of In-Lieu Fee and Mitigation Banking

FY2012-078	Collinsville	June 21, 2012	1:00 p.m. - 3:00 p.m.
FY2012-079	Schaumburg	June 21, 2012	1:00 p.m. - 3:00 p.m.
FY2012-080	Springfield	June 21, 2012	1:00 p.m. - 3:00 p.m.

Adaptive Signal Control Technologies (ASCT)

FY2013-100	Collinsville	August 16, 2012	1:00 p.m. - 3:00 p.m.
FY2013-101	Schaumburg	August 16, 2012	1:00 p.m. - 3:00 p.m.
FY2013-102	Springfield	August 16, 2012	1:00 p.m. - 3:00 p.m.

Contact Information (Please Print)

Name of Agency	Contact Person
Mailing Address	Telephone
City-State-Zip	Contact Person’s E-mail Address

Student Name	Student E-mail Address	Course Number
		FY _____ - _____
		FY _____ - _____
		FY _____ - _____
		FY _____ - _____

2011 IDOT ENGINEER OF THE YEAR



TOM HUFNAGEL

District 3 Operations

Tom was given the task of developing a multi-phased project to create an improved link between the Homeland Security camera and lighting project on the I-39 Abe Lincoln Bridge and the district office. Tom applied and received an additional \$378,000 of Homeland Security funding to improve the communications link. Tom received another \$1.8 million from FHWA for ITS improvements on the bridge and I-80/I-39 interchange.



ENGINEER OF THE YEAR NOMINEES

Steve Schilke, *Region 1/District 1*

Chad Pink, *Region 2/District 2*

Benjamin Tellefson, *Region 3/District 4*

Rustin Keys, *Region 3/District 5*

Steve Beran, *Region 4/District 6*

Doug Holland, *Region 4/District 7*

Gwen Lagemann, *Region 5/District 8*

Greg McLaughlin, *Region 5/District 9*

James Trepanier, *Central Bureau of Materials & Physical Research*

2011 IDOT TECHNICIAN OF THE YEAR

JASON L. JOHNSON

Central Bureau of
Local Roads and Streets

The GenSet locomotive program required Jason to draft agreements, resolve problems, process request for proposals, review billing, and perform final inspection for the purchase of 16 locomotives valued at \$17 million and reimburse rail companies 7 locomotives valued at \$7 million. Jason also accepted acting duties of the Rail Safety and Project Engineer.



TECHNICIAN OF THE YEAR NOMINEES

Kathy Hutton, Region 1/District 1
Nick Richmond, Region 2/District 2
Bob Simpson, Region 2/District 3
David Kennedy, Region 3/District 4
Josh Lowry, Region 3/District 5

Stacey James, Region 3/District 6
Phil Boyer, Region 4/District 7
Chad Sanders, Region 5/District 8
Mark Wece, Region 5/District 9

IACE ENGINEERS OF THE YEAR

Each year the Illinois Association of County Engineers recognizes certain members who excel at being active in the Illinois Association of County Engineers, active in their community, and exemplary in their work for their county government. The selection for the award is based on a vote by the recipient's peers who are the IACE members in each respective zone. This year's awards were presented at the Annual T.H.E. Conference which was recently held at the U of I's Champaign-Urbana campus on February 28-29, 2012.



Zone 1 County Engineer of the Year - Tom Hickman - Logan County

The 2011 IACE Zone I Engineer is Tom Hickman. Tom is a 1976 graduate of the University of Maryland with a B.S. in Business and Management. He worked as an architectural draftsman in Silver Spring, MD from 1978 to 1982. In 1990 he received his B.S. in Civil Engineering from the University of Missouri at Rolla. He worked for Poepping, Stone & Bach, consulting engineers in Quincy from 1990 to 1997. He then went to work for the Logan County Highway Department in 1997 as Assistant County Engineer and then was appointed County Engineer in 1999. In 2005 he became the County Engineer for McDonough & Henderson Counties. Tom lives in Lincoln with his wife Sharon. They have two adult children. He enjoys fishing, playing tennis and shooting pool.



Zone 2 County Engineer of the Year – Tom Casson - Menard County

The 2011 IACE Zone II Engineer is Tom Casson. Tom received his B.S. in Civil Engineering from the University of Illinois at Urbana-Champaign in 1988. He worked alongside his dad at Casson Engineering Co. for 13 years beginning in 1978. He then worked for Crawford, Murphy & Tilly for 2 ½ years, then worked for the Illinois Department of Transportation, Bureau of Bridge and Structures for almost 3 years. He has been the County Engineer for Menard County since September 1996. He is a registered Professional Engineer and Structural Engineer in Illinois. He retired from the Illinois Air National Guard after 31 years of service and served our country in Iraq from September 2004 to January 2005. Tom and his wife Lori have been married for 30 years and are the proud parents of two sons – Tyler and Adam. He enjoys hunting and shooting.



Zone 3 County Engineer of the Year - Barry Webster - Calhoun County

The 2011 Zone III Engineer is Barry Webster. Barry received his B.S. in Mechanical Engineering from Southern Illinois University at Carbondale in 1973. Following graduation Barry worked his first 20 years in power production for two electrical utilities, Commonwealth Edison and Central Illinois Public Service Company. In 1993 he was appointed as County Engineer of Calhoun County. Barry lives in Fieldon with his wife, Tetyana and daughter, Indiana. Barry enjoys his dart league, traveling and history.



FHWA Illinois Division 2012 Engineer of the Year Award **DAN BRYDL**

From FHWA national and regional perspectives, Dan Brydl's assistance has been requested his help in guiding development and implementation of new and existing bridge programs and initiatives. Over the last year FHWA aggressively embarked on a new an assessment of the Federal National Bridge Inspection Standards (NBIS) based on a nationally developed compliance criteria of 23 different metrics of the Federal NBIS regulations. Dan's expertise and leadership have helped guide Illinois through this process that is setting an excellent foundation for improved information and management of the 25,000 bridges in Illinois.

IACE UNIVERSITY OF ILLINOIS SCHOLARSHIP WINNERS



Each year the Illinois Association of County Engineers awards scholarships to existing university of Illinois Civil Engineering students. The Transportation Group at UIUC is pleased to announce that the following four students have been selected as recipients for the 2011 IACE Scholarships

- Daniel Malsom**, Junior, CEE/Sustainability, Transportation
- Raphael Stern**, Junior, CEE/Structural, Transportation
- Matthew Jarrett**, Junior, CEE/Structures, Transportation
- Andrew Kimmle**, Senior, CEE/Structural, Transportation

APWA PROFESSIONAL MANAGER OF THE YEAR PUBLIC FLEET JD SCHULTE

On April 5, 2012, Mr. Jobst D. (J.D.) Schulte was selected as the Professional Manager of the Year – Public Fleet Award winner for 2012 by the American Public Works Association (APWA). J.D. was nominated for leadership and innovations as the City of Moline's Fleet Division Manager. J.D. has been invited to accept the award at APWA's International Public Works Congress and Exposition on August 27, 2012.

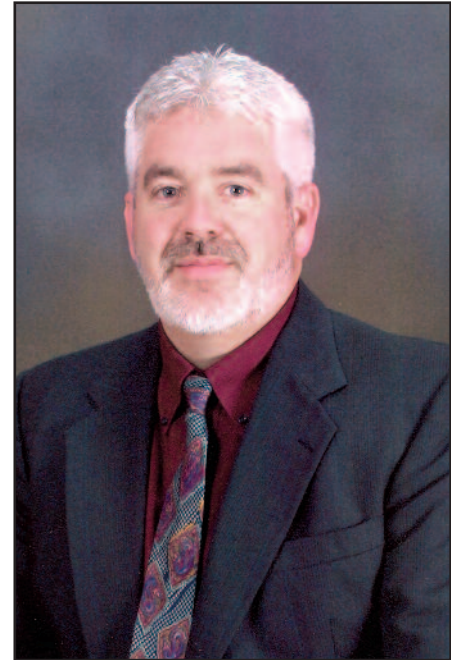
In 2006, J.D. became one of the first public fleet managers to sell advertising space on newly purchased automated garbage trucks. This generated new revenue that has helped pay for tires, brakes, and routine service. J.D. also identified other cost saving measures by identifying major budget expenditure categories such as large truck tires. He then researched ways to improve performance and reduce costs.

J.D. also recognized the importance of having a skilled and trained fleet workforce. Therefore, he and most of the other mechanics acquired ASE certification and the Fleet Division has been recognized as an ASE Blue Seal facility. After achieving the certifications, J.D. was able to in-source fleet management from several other governmental units including other municipalities and a federal military installation. Repair costs have been reduced significantly because of the training and certifications obtained under J.D.'s leadership.

J.D. also improved the division's inventory system by working with parts suppliers to reduce the cost of idle inventory. He also began hire entry level personnel for a night shift to perform scheduled maintenance and reduce vehicle down time during critical hours. These changes improved the level of customer service, reduced maintenance costs, and increased other division's productivity.

J.D. has recognized the importance of environmental accountability. He has actively pursued grants and funding to purchase hybrid vehicles and install LED lights in the city's fueling island. Fuel management and purchasing is also imperative to the city's eco-friendly operations. Due to J.D.'s efforts, the City of Moline has been recognized as the #11 Green Fleet in the nation.

J.D. is a great example of the dedicated public work employees in Illinois. Congratulations on this award.



T2 TRAINING CLASS SURVEY

It's Time to Plan the 2012-2013 Training Program

The Bureau of Local Roads and Streets' Technology Transfer Center is soliciting local agency interest in classes for the October 2012 to April 2013 training program. Please look over the list and indicate those classes of interest to you or your personnel by filling in the blank with an approximate number of attendees your agency would send if the classes were available in your area. This solicitation will be used by the Center in scheduling the 2012-2013 training program. Every effort will be made to locate specific classes in areas showing the most interest. Classes lacking in interest will be dropped from this year's schedule.

Please complete this class interest survey and mail or fax it to the Center at (217) 785-7296 by **July 20, 2012**. If you have questions regarding class content, please call the Center at (217) 785-2350.

ADA/PROWAG (1 day)	_____	Highway Signing (1 day)	_____
ArcGIS-Introduction (3 days)	_____	Highway Engineering Principles (1 day)	_____
ArcGIS-Building a Map Document (1 day)	_____	Low Cost Safety Improvement Workshop (1 day)	_____
ArcGIS-Labeling/Annotation Layers (1 day)	_____	MFT Accounting and Auditing (1 day)	_____
ArcGIS-Queries (1 day)	_____	MUTCD (1 day)	_____
Asset Management (1 day)	_____	NHI-3-Day Bridge Insp. Refresher Training (3 days)	_____
Bridge Calibration (1½ days)	_____	NHI-Bridge Inspection Calibration Class (2 days)	_____
Bridge Construction Inspection (3 days)	_____	NHI-Safety Insp. of In-Service Bridges (10 days)	_____
Bridge Piling (1 day)	_____	OSHA 10-Hour General Industry (1½ days)	_____
Bridge Repair (1 day)	_____	Pavement Construction Inspection (3 days)	_____
Bridge Safety Inspection (1 day)	_____	Pavement Maintenance (1 day)	_____
Colors (1 day) (prerequisite before taking classes below)	_____	Retroreflectivity (½ day)	_____
• Managing People Effectively (1 day)	_____	Road Safety Assessment (1 day)	_____
• Team Building (1 day)	_____	Seal Coats (1 day)	_____
• Cultural Diversity (1 day)	_____	Small Drainage Structure Const. Insp. (2 days)	_____
• Conflict Resolution (1 day)	_____	Snow & Ice Control (½ day)	_____
Confined Space Awareness (2 hours)	_____	Surveying I-Beginning (3 days)	_____
Context Sensitive Solutions (1/2 day)	_____	Surveying II-Intermediate (4 days)	_____
Erosion Control (1 day)	_____	Trenching & Shoring Safety (2 hours)	_____
Flagger Training (1/2 day)	_____	Work Zone Safety-Crews (½ day)	_____
Hazardous Material-First Responder Awareness (1 day)	_____	Work Zone Safety-Design (1 day)	_____
HEC-RAS (3 days)	_____	Understanding Specifications (1 day)	_____
Highway Jurisdictional Transfers (1 day)	_____	You and the Media	_____
Highway Safety Improvement Workshop (1 day)	_____	Additional Classes _____	_____

Contact Person _____ Phone Number _____

Agency _____

E-mail _____ Zip _____ Agency Willing to Host? yes no



The Technology Transfer (T2) Program is a nationwide effort financed jointly by the Federal Highway Administration and individual state departments of transportation. Its purpose is to transfer the latest state-of-the-art technology in the areas of roads and bridges by translating the technology into terms understood by local and state highway or transportation personnel.

The Illinois Interchange is published quarterly by the Illinois Technology Transfer Center at the Illinois Department of Transportation. Any opinions, findings, conclusions, or recommendations presented in this newsletter are those of the authors and do not necessarily reflect views of the Illinois Department of Transportation, or the Federal Highway Administration. Any product mentioned in the Illinois Interchange is for informational purposes only and should not be considered a product endorsement.

Illinois Technology Transfer Center
Illinois Department of Transportation
2300 South Dirksen Parkway - Room 205, Springfield, IL 62764
Fax (217) 785-7296
E-mail us at T2LRSDOT@dot.il.gov

Local Policy & Technology Engineer

KEVIN BURKE

Kevin.BurkeIII@illinois.gov • (217) 785-5048

Technology Transfer Program Manager

GWEN MONTGOMERY

Gwen.Montgomery@illinois.gov • (217) 785-2350

Graphics & Training Specialist

VACANT

Training Development Technician

VACANT

Visit our website at www.dot.il.gov/blr/t2center.html

T2 ADVISORY COMMITTEE

Thomas E. Klasner

(Chairman)

County Engineer, Jersey County
201 West Pearl, P.O. Box 427, Jerseyville, IL 62025
(618) 498-5571

Douglas Bishop

County Engineer, Perry County

3698 State Route 13/127, Pinckneyville, IL 62274
(618) 357-6556

Ron Johnson

Highway Commissioner

St. Charles Township (Kane County)
1725 Dean Street, St. Charles, IL 60174
(630) 584-3496

Olen Kibler

Highway Commissioner

Newman Township (Douglas County)
608 North Howard, Newman, IL 61942
(217) 837-2723

Pam Broviak

Asst. Director of Public Works/City Engineer

City of Geneva
1800 South Street, Geneva, IL 60134
(630) 232-1539

Vacant

Director of Public Works

Brian A. Pfeifer

Asset Management Program Specialist

Federal Highway Administration
3250 Executive Park Drive, Springfield, IL 62703
(217) 492-4281