

Introduction:

The Federal Highway Administration has mandated that a new standard in sign reflectivity be implemented. Agencies have until January 2012 to establish and implement a sign assessment / management plan to maintain minimum levels of reflectivity. The manual of the sign specifications is known as the “Manual on Uniform Traffic Control Devices” (MUTCD). Incorrectly installed, missing, damaged or low reflect ability have been a liability concern of the Town for the past several years. There have been many requests to Townships by attorneys asking when a sign at an accident location was last inspected.

The Plan:

Guthrie Township would like meet the mandate by the “Blanket Replacement” method as outlined in the management methods of the MUTCD manual (excepting a few recent signs). The Board would like to start the replacement in 2010.

Installation:

Guthrie Township has approximately 70 road signs and is in need of approximately 40 culvert post signs. A company called M& R signs of Fergus Falls, Minnesota have provided the attached estimates of the sign replacement plan. The Board would like to use local labor to install the signs. The Cemetery is also in need of new signage as well as the Town for emergency road closures.

Sign Details:

The attached spreadsheet details the required signs, locations and descriptions. The last attachment details the proper installation of signage.



Culvert
CM-3S TLW Vertical



Stop
R1-1



Left Turn
W1-1L YLW



Right Turn
W1-1R YLW



Double Arrow
W1-7 YLW



Cross Road
W2-1 YLW



Left/Right Intersection
W2-2 YLW



Horse
W1-X1 YLW



Stop Ahead
W3-1A



Trail Crossing
W11-X7



Dead End
W14-1 YLW



Minimum Maintenance
W21-X8



Dangerous Intersection
W17-1 YLW

Property of Guthrie Township	09	10	11
	12	13	14
It is unlawful to deface, detach or remove road signs. Report violations to Hubbard Cty. Police Dept.	15	16	17
	01	02	03
	04	05	06
	07	08	09
	10	11	12

Warning Label
WD-8



No Overnight Parking
X3-2



Left Curve
W1-2L YLW



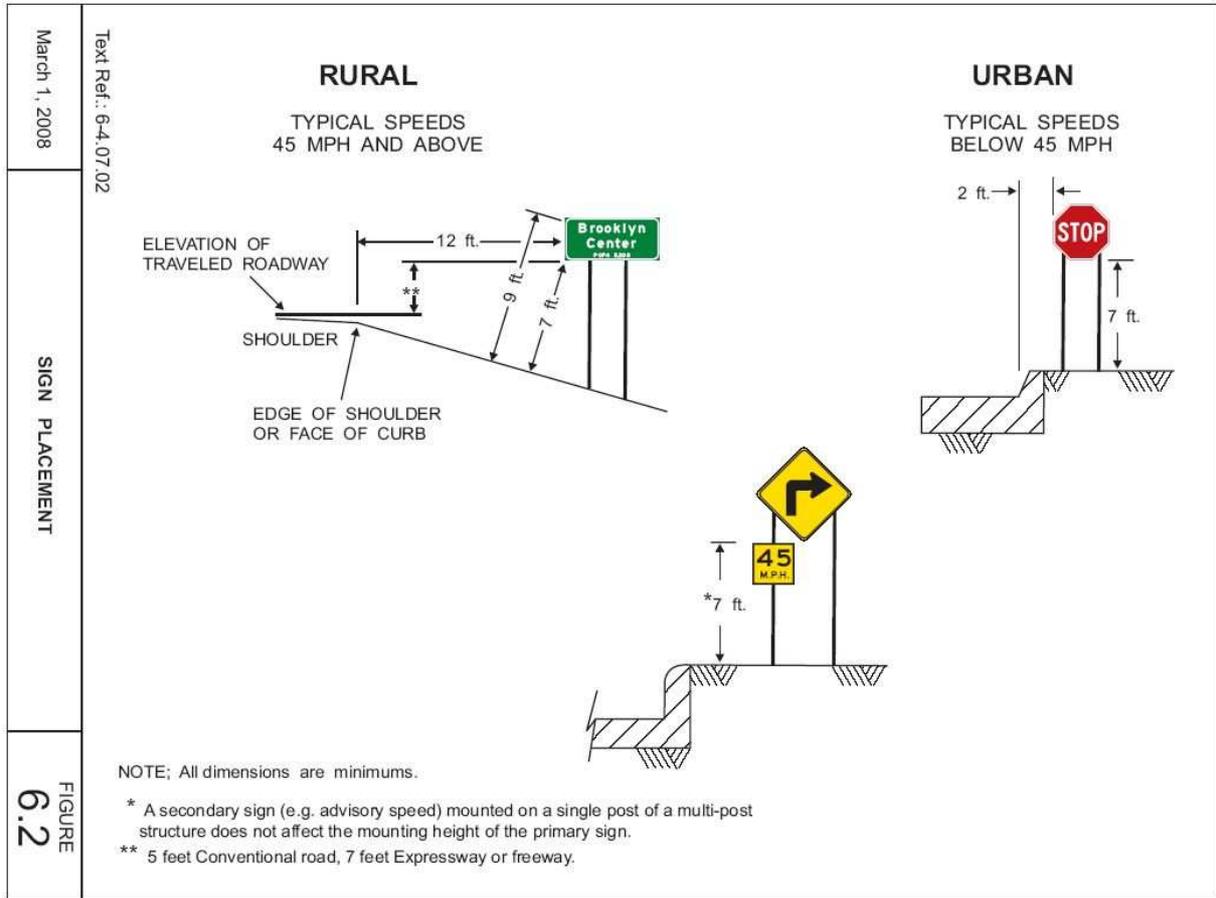
Right Curve
W1-2R TLW

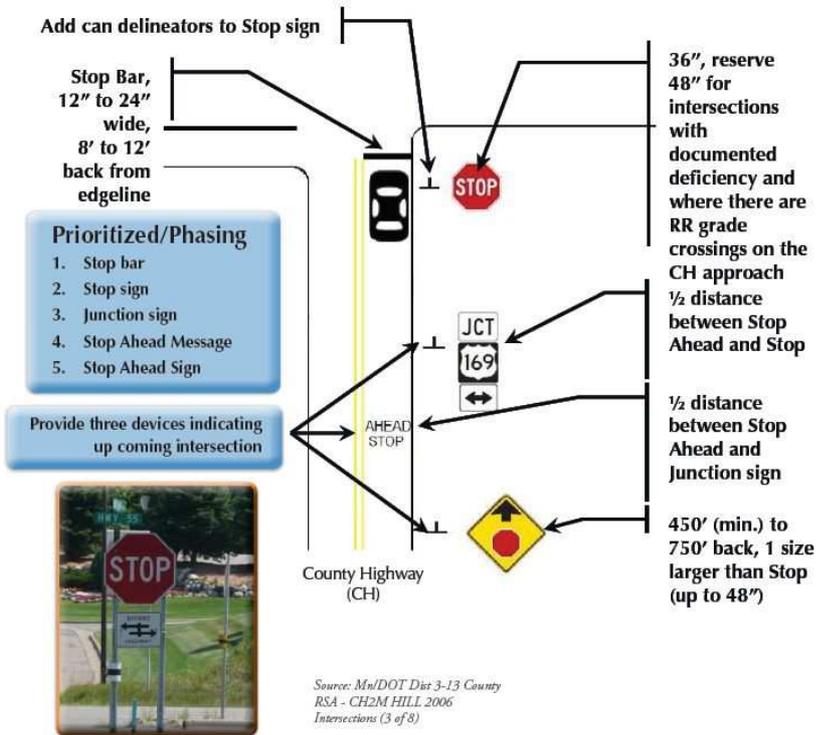


Exit
M-07



Enter
M-08





Highlights

- The most common type of crash at STOP controlled intersections is a right angle crash.
- Research performed in Minnesota (Reducing Crashes at Controlled Rural Intersections – Mn/DOT No. 2003-15) found that approximately 60% of these angle crashes involved vehicles on the minor road stopping and then pulling out and 26% involved vehicles running through the STOP sign.
- This same study also found that increasing the conspicuity of traffic control devices by using bigger, brighter or additional signs and markings (such as the STOP AHEAD message and a STOP bar) are associated with decreasing Run the STOP crashes.
- A more recent – Safety Evaluation of STOP AHEAD Pavement Markings (FHWA-HRT-08-043) – documents the effects of adding STOP AHEAD pavement markings. The study looked at 175 sites in Arkansas, Maryland and Minnesota. The study found crash reductions in the range of 20 to 40%, benefit/cost ratios greater than 2 to 1 and concluded that this strategy has the potential to reduce crashes at signalized intersections.

Guthrie Township Sign Plan
Hubbard County Minnesota

Inventory Number	Install and Manf. Year	Location / Street	Sign Type	Sign Code	Inspected On	Reflectivity Type
1	2010	245th / S of 16	Stop Ahead	W3-1A	9/24/2011	High Int.
2	2010	420th W / E of 71	Stop Ahead	W3-1A	9/24/2011	High Int.
3	2010	420th / E of 245th	Crossroad	W2-1	9/24/2011	High Int.
4	2010	245th / N of 420	Stop	R1-1	9/24/2011	High Int.
5	2010	245th / N of 420	Stop Ahead	W3-1A	9/24/2011	High Int.
6	2010	245th / S of 420th	Stop	R1-1	9/24/2011	High Int.
7	2010	245th / S of 420th	Stop Ahead	W3-1A	9/24/2011	High Int.
8	2010	420th / E of 245th	Crossroad	W2-1	9/24/2011	High Int.
9	2010	420th / W of 255th S	Intersection Right	W2-2	9/24/2011	High Int.
10	2010	255th S / N of 420th	Double Arrow	W1-7	9/24/2011	High Int.
11	2010	420th / E of 255th S	Intersection Left	W2-2	9/24/2011	High Int.
12	2010	255th / S of 420th	Stop	R1-1	9/24/2011	High Int.
13	2010	255th / S of 420th	Stop Ahead	W3-1A	9/24/2011	High Int.
14	2010	420th / W of 36	Stop Ahead	W3-1A	9/24/2011	High Int.
15	2010	420th / E of 36	Stop Ahead	W3-1A	9/24/2011	High Int.
16	2010	420th / W of 275th	Stop Ahead	W3-1A	9/24/2011	High Int.
17	2010	275th / S of 420th	Dead End	W14-1	9/24/2011	High Int.
18	2010	460th / N of 255th	Double Arrow	W1-7	9/24/2011	High Int.
19	2010	275th / N of 414th	Left Turn	W1-1L	9/24/2011	High Int.
20	2010	245th / N of 410th	Left Curve	W1-2L	9/24/2011	High Int.
21	2010	410th / S of 245th	Right Curve	W1-2R	9/24/2011	High Int.
22	2010	410th / E of 255th	Intersection Left	W2-2	9/24/2011	High Int.
23	2010	255th S / N of 410th	Stop Ahead	W3-1A	9/24/2011	High Int.
24	2010	255th S / N of 410th	Stop	R1-1	9/24/2011	High Int.
25	2010	255th S / S of 410th	Double Arrow	W1-7	9/24/2011	High Int.
26	2010	410th / E of 255th	Intersection Right	W2-2	9/24/2011	High Int.
27	2010	410th / W of Palomino	Intersection Left	W2-2	9/24/2011	High Int.

28	2010	410th / Palamino Intersection	Double Arrow	W1-7	9/24/2011	High Int.
29	2010	Palomino Dr / N of 410th	Stop	R1-1	9/24/2011	High Int.
30	2010	Palomino Dr / N of 410th	Dead End	W14-1	9/24/2011	High Int.
31	2010	410th / E of Palomino	Intersection Right	W2-2	9/24/2011	High Int.
32	2010	410th / West of 36	Stop Ahead	W3-1A	9/24/2011	High Int.
33	2010	400th W / W of 36	Left Turn	W1-1L	9/24/2011	High Int.
34	2010	400th W / W of 36	Stop Ahead	W3-1A	9/24/2011	High Int.
35	2010	400th E / E of 36	Stop Ahead	W3-1A	9/24/2011	High Int.
36	2010	400th E / E of 36	Minimum Maint. Rd	W21-X8	9/24/2011	High Int.
37	2010	255th N / S of 16	Dead End	W14-1	9/24/2011	High Int.
38	2010	255th N / S of 16	Stop Ahead	W3-1A	9/24/2011	High Int.
39	2010	450th E of Rocky Meadows	Horse	W10-X1	9/24/2011	High Int.
40	2010	450th W of Rocky Meadows	Horse	W10-X1	9/24/2011	High Int.
41	2010	460th / S of 255th	Intersection Right	W2-2	9/24/2011	High Int.
42	2010	460th / W of 36	Dead End	W14-1	9/24/2011	High Int.
43	2010	460th / W of 36	Stop Ahead & Left Curve	W3-1A	9/24/2011	High Int.
44	2010	Rea Dr. / E of 36	Stop Ahead	W3-1A	9/24/2011	High Int.
45	2010	Rea Dr. / E of 36	Dead End	W14-1	9/24/2011	High Int.
46	2010	450th / W of 36	Stop Ahead	W3-1A	9/24/2011	High Int.
47	2010	450th / E of 71	Stop Ahead	W3-1A	9/24/2011	High Int.
48	2010	440th / W of 71	Dead End	W14-1	9/24/2011	High Int.
49	2010	440th / W of 71	Stop Ahead	W3-1A	9/24/2011	High Int.
50	2010	444th / W of 36	Stop Ahead	W3-1A	9/24/2011	High Int.
51	2010	275th N / N of 450th	Dead End	W14-1	9/24/2011	High Int.
52	2010	275th N / N of 450th	Stop Ahead	W3-1A	9/24/2011	High Int.
53	2010	275th N / N of 450th	Blind Intersection	W10-X2	9/24/2011	High Int.
54	2010	444th at Trail	Trail Crossing	W11-X7	9/24/2011	High Int.
55	2010	444th / W of Rail Rd.	Intersection Right & Trail Crossing	W2-2	9/24/2011	High Int.
56	2010	444th / E of Rail Rd.	Intersection Left	W2-2	9/24/2011	High Int.
57	2010	Rail Road / S of 444th	Stop	R1-1	9/24/2011	High Int.
58	2010	Rail Road / S of 444th	Stop Ahead	W3-1A	9/24/2011	High Int.

59	2010	Rail Road / N of Raven Road	Intersection Left	W2-2	9/24/2011	High Int.
60	2010	444th / W of 100	Stop Ahead	W3-1A	9/24/2011	High Int.
61	2010	Raven Road / E of Rail Rd	Stop	R1-1	9/24/2011	High Int.
62	2010	Raven Road / E of Rail Rd	Stop Ahead	W3-1A	9/24/2011	High Int.
63	2010	Raven Road / W of 100	Stop Ahead	W3-1A	9/24/2011	High Int.
64	2010	Rail Road / N of Town Hall	Curve Left	W1-2L	9/24/2011	High Int.
65	2010	Rail Road / E of Town Hall	Curve Right	W1-2R	9/24/2011	High Int.
66	2010	Rail Road / W of 100	Stop Ahead	W3-1A	9/24/2011	High Int.
67	2010	Rail Road / Town Hall	Enter	M-08	9/24/2011	High Int.
68	2010	Rail Road / Town Hall	No Overnight Parking	X3-2	9/24/2011	High Int.
69	2010	Rail Road / Town Hall	Exit	M-07	9/24/2011	High Int.
70	2011	Town Hall Parking Lot	Township Parking Only		9/24/2011	High Int.
	2011	Bump signs X 2			9/24/2011	