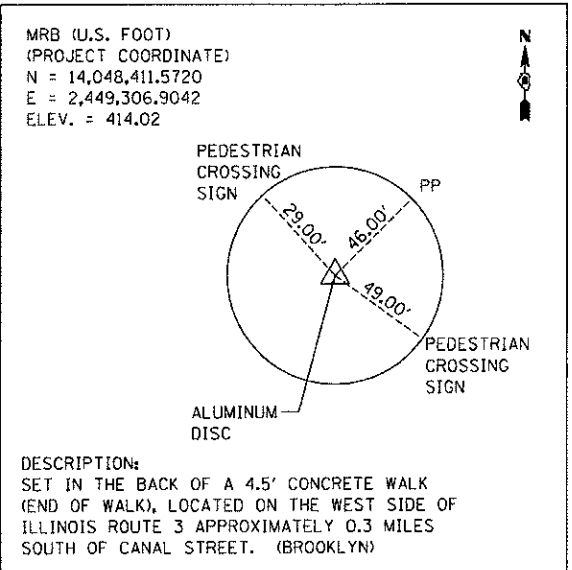
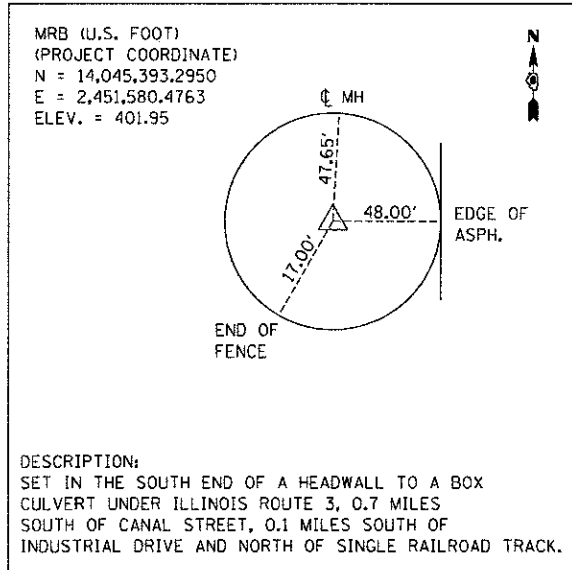


FOR CONTROL POINTS TIE SKETCHES, SEE SHEET 32

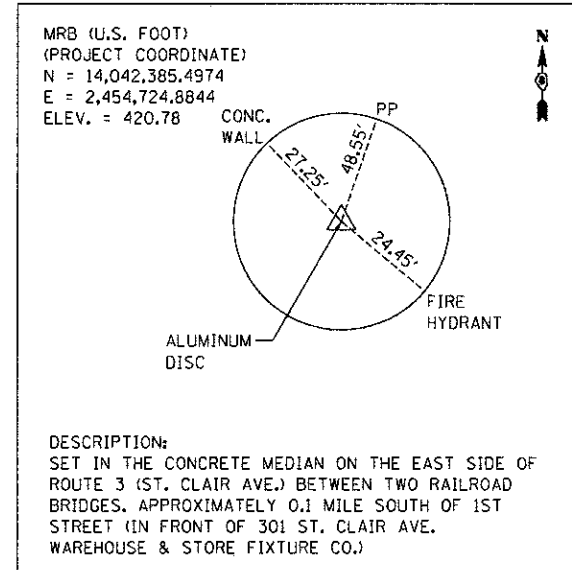
**MONUMENT NO. 11**



**MONUMENT NO. 8**



**MONUMENT NO. 10**



**COORDINATE SYSTEM**

THE MISSISSIPPI RIVER BRIDGE (MRB) PROJECT COORDINATE SYSTEM IS BASED ON A MODIFIED UNIVERSAL TRANSVERSE MERCATOR (UTM) SYSTEM. THE MRB PROJECT COORDINATE SYSTEM HAS CONVERTED FROM UTM ZONE 15 NORTH BY AN AVERAGE PROJECTION FACTOR AND ALSO CONVERTED FROM METERS TO U.S. SURVEY FEET.

**HORIZONTAL DATUM**

THE DATUM USED IS NAD-83  
THE MRB PROJECT COORDINATES HAVE BEEN TRANSFORMED FROM UTM BY USING AN AVERAGE PROJECTION FACTOR IN THE PROJECT AREA.

AVERAGE GRID FACTOR = 1.000339495  
PROJECTION FACTOR = 1/GRID = 0.999660620

THE BASE POINT THAT ALL UTM COORDINATES WERE SCALED FROM WAS THE CENTRALLY LOCATED MONUMENT NO. 10. EACH VECTOR FROM MONUMENT NO. 10 TO ALL OTHER MONUMENTS WAS MULTIPLIED BY THE PROJECTION FACTOR TO CALCULATE A SURFACE VECTOR AND THEN THIS SURFACE VECTOR WAS USED TO CALCULATE THE SURFACE COORDINATE (MRB). (NOTE: 1 METER EQUALS 3.28083333 U.S. SURVEY FOOT).

UTM ZONE 15 NORTH (METERS) = PROJECTED GRID COORDINATES  
MRB (FEET) = PROJECT SURFACE COORDINATES

**VERTICAL DATUM**

THE DATUM USED IS NAVD 1988

FILE NAME = USER NAME = #USER# DESIGNED - JB REVISED -  
 \$FILEL\$ DRAWN - JB REVISED -  
 PLOT SCALE = #SCALE# CHECKED - ACL REVISED -  
 PLOT DATE = #DATE# DATE - 06/29/12 REVISED -

<b>TENG</b> TENG & ASSOCIATES, INC. ENGINEERS ARCHITECTS PLANNERS CHICAGO, ILLINOIS	STATE OF ILLINOIS	<b>ALIGNMENTS, TIES &amp; BENCHMARKS 10</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DEPARTMENT OF TRANSPORTATION		998	82-1R	ST. CLAIR	294	33
	I-70 CONNECTION		SCALE: 1"=500'		SHEET NO. 10 OF 10 SHEETS	STA. TO STA.	CONTRACT NO. 76C43
			FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		