

# CITY OF ELK RIVER

## SECTIONS 34 & 35, T33N, R26W

### GRADING, AGGREGATE BASE, BITUMINOUS, CONCRETE CURB & GUTTER, STORM SEWER, AND SIGNAL

## MAIN STREET AT T.H. 169

M.S.A.S. S.A.P. 204-113-05

BETWEEN EVANS AVENUE AND COUNTY ROAD 13

|                  |      |      |       |       |
|------------------|------|------|-------|-------|
| GROSS LENGTH     | 2150 | FEET | 0.407 | MILES |
| BRIDGE LENGTH    | 0    | FEET | 0     | MILES |
| EXCEPTION LENGTH | 0    | FEET | 0     | MILES |
| NET LENGTH       | 2150 | FEET | 0.407 | MILES |

SCALES: PLAN 1" = 20'

PROFILE

HORIZONTAL 1" = 20'  
VERTICAL 1" = 5'

CROSS SECTIONS

HORIZONTAL 1" = 10'  
VERTICAL 1" = 5'

#### INDEX OF SHEETS

- 1 TITLE SHEET AND LAYOUT MAP
- 2 ESTIMATED QUANTITIES, STREET SECTIONS, AND NOTES
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- 9-10 PROPOSED SIGNAL SYSTEM
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- 15-17 SIGN DETAILS

TOTAL NUMBER OF PLAN SHEETS - 19

I HEREBY CERTIFY THAT PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Paul E. Bretcher 13929 9/25/91  
REG. NO. DATE

APPROVED Terry Maurer 9/25/91  
CITY ENGINEER DATE

RECOMMENDED FOR APPROVAL Don O'Neil 9/30/91  
DISTRICT STATE AID ENGINEER DATE

RECOMMENDED FOR APPROVAL Mark Janku 3/10/92  
STATE PLANS & SPEC. ENGINEER DATE

APPROVED Dennis C. Parker 9/10/92  
STATE AID DIRECTOR DATE

RIGHT-OF-WAY APPROVAL KT Ras mussen 4/8/92  
DIRECTOR, RIGHT-OF-WAY OPERATIONS DATE

RECOMMENDED FOR APPROVAL GM Kreter 10/2/91  
DISTRICT ENGINEER DATE

RECOMMENDED FOR APPROVAL Michael D. Robinson 3/9/92  
MN/DOT TRAFFIC ENGINEER DATE

RECOMMENDED FOR APPROVAL Robert H. Carsted 4-7-92  
DIRECTOR, PRE-LETING ENGINEERING DATE

RECOMMENDED FOR APPROVAL B. M. Hill 4-7-92  
DIRECTOR, OFFICE OF TECHNICAL SUPPORT DATE

APPROVED John E. Sandahl 4/8/92  
DIRECTOR, ENGINEERING SERVICES ASSISTANT CHIEF ENGINEER DATE

RECORD PLAN  
JUNE 1994

SHEET 1 OF 17

S.P. 7106-56 (TH 169)  
S.A.P. 204-113-05

#### PLAN SYMBOLS

|                |           |                 |  |
|----------------|-----------|-----------------|--|
| SECTION LINE   | ---       | TREES           |  |
| QUARTER LINE   | - - - -   | BRUSH OR SHRUBS |  |
| SIXTEENTH LINE | - - - - - | HEDGE           |  |
| RIGHT OF WAY   | =====     | CONIFERS        |  |
| CENTER LINE    | - - - - - | SWAMP           |  |
| FENCE LINE     | -x-x-     | MAILBOX         |  |
| RIVER OR CREEK |           | SIGN            |  |
| LAKE OR POND   |           |                 |  |
| CULVERT        |           |                 |  |
| BRIDGE         |           |                 |  |
| RETAINING WALL |           |                 |  |

#### UTILITIES SYMBOLS

|                |  |                         |  |
|----------------|--|-------------------------|--|
| SANITARY SEWER |  | HYDRANT                 |  |
| STORM SEWER    |  | POWER OR TELEPHONE POLE |  |
| WATERMAIN      |  | LIGHT POLE              |  |
| GAS LINE       |  | ANCHOR                  |  |
| POWER LINE     |  | SOIL BORING             |  |
| MANHOLE        |  |                         |  |
| CATCH BASIN    |  |                         |  |
| VALVE          |  |                         |  |

PRESENT ADT (1990) 13,040 PROJ. ADT (2010) 23,472

FUNCTIONAL CLASSIFICATION HIGH DENSITY ARTERIAL

NO. OF TRAFFIC LANES 4 NO. OF PARKING LANES 0

SHOULDER WIDTH N/A

9 TON DESIGN

SOIL FACTOR 50 PROJ. HCA DT (2010) 587  
OR

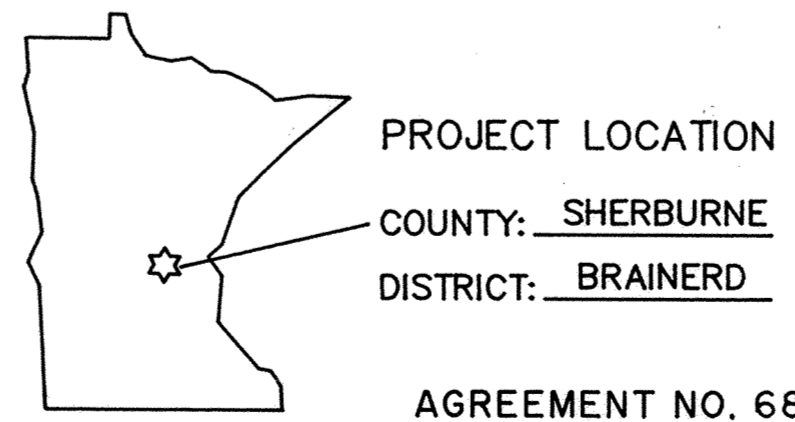
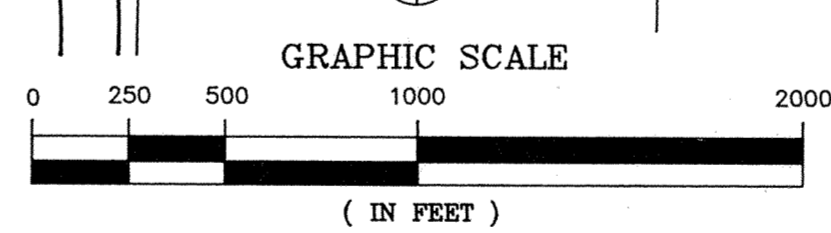
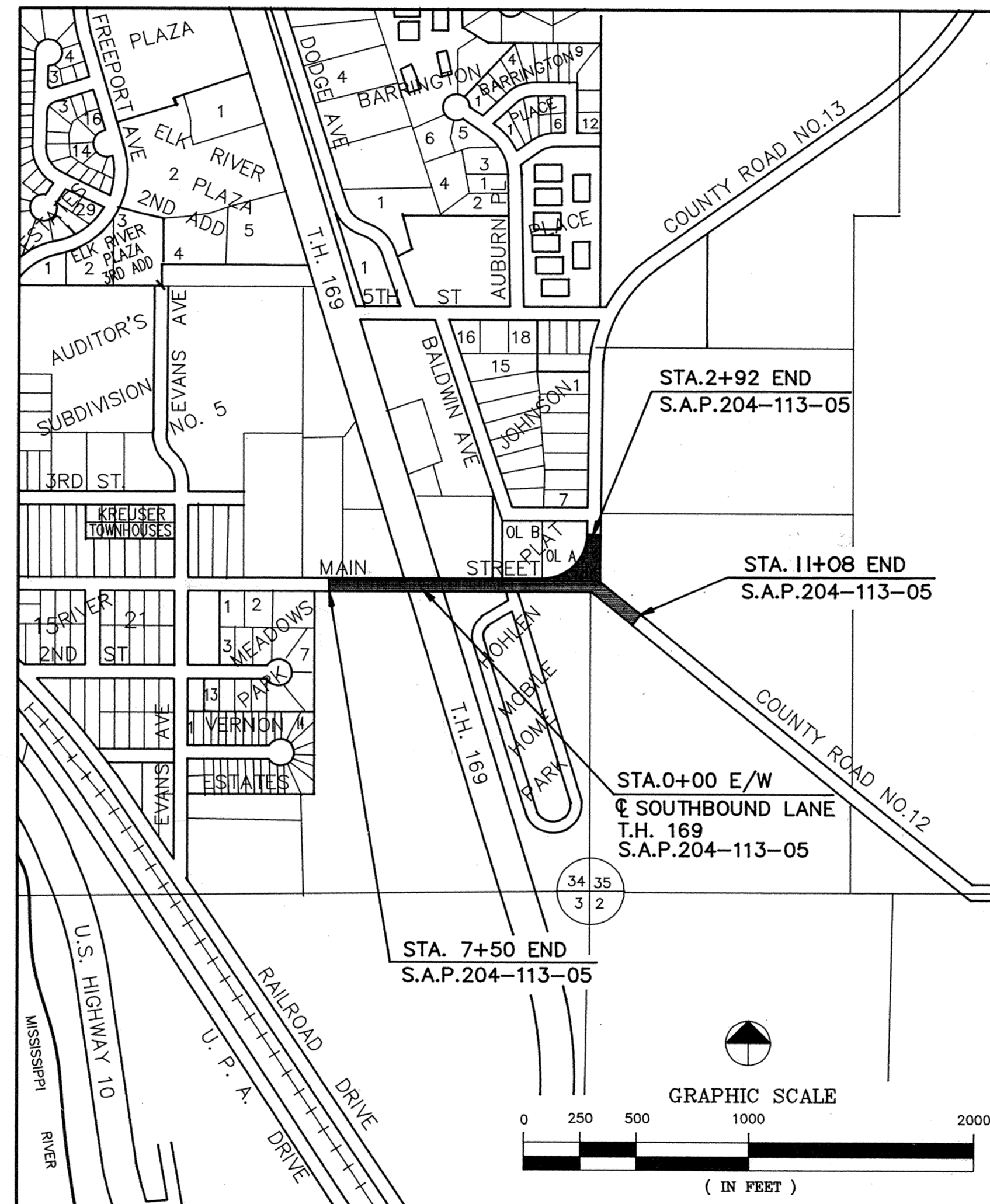
R-VALUE N/A N18 FACTOR N/A

DESIGN SPEED 40 MPH

DESIGN SPEED NOT ACHIEVED AT:  
STA. N/A TO STA. N/A MPH

STOPPING SITE DISTANCE BASED ON:  
3.5' HEIGHT OF EYE  
0.5' HEIGHT OF OBJECT

THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION  
"STANDARD SPECIFICATION FOR CONSTRUCTION" TOGETHER WITH  
"SUPPLEMENTAL SPECIFICATIONS" DATED JANUARY 2, 1991, SHALL GOVERN.



COUNTY: SHERBURNE  
DISTRICT: BRAINERD

AGREEMENT NO. 68943  
CITY OF ELK RIVER  
S.P. 7106-56 T.H. 169=18)  
STATE FUNDS  
BRAINERD DIST. 3

PREPARED BY:

**MSA** CONSULTING ENGINEERS  
Maier Stewart & Associates Inc.