193RD AVENUE N.W.

CONNECT TO EXISTING 8" PVC, REMOVE 8" PLUG AND FIELD VERIFY INV. – INV. 963.66 STA. 14+35

EX. SAN. MH
TOP 986.66
N INV. 975.76
S INV. 975.76
E INV. 963.11
W INV. 963.01

REMOVE 16" PLUG, INSTALL 16" VALVE AND EXTEND WATERMAIN AS SHOWN

PLACE 2" SERVICE RESTRAINED TAPPED PLUG FOR AIR VENT – SEE SPECIFICATIONS

15+40 ELEV. 970.7
138.0' TO MH 2
35.2' TO MH 1

16" 22 1/2" BEND

16+45
ELEV. 964.8
48.2' TO MH 2
102.0 TO MH 1

16" x 16" TEE
PLUG TO EAST

SEE SHEET 4

30' – 8" PVC @ 0.40%

8" PLUG

DENOTES SOIL BORING

HILLSIDE ESTATES

FIRST ADDITION

BALDWIN STREET N.W.

NOTES :

1. ALL GATE VALVES AND MANHOLES SHALL BE MARKED WITH A STRUCTURE MARKER, AS INCLUDED IN THE SPECIFICATIONS.
2. SANITARY SEWER SERVICE WYES SHALL BE PLACED FOR ALL FUTURE LOTS. WHERE THE SEWER IS GREATER THAN 14' DEEP, OR AS DIRECTED BY THE ENGINEER, THERE SHALL BE A RISER PIPE AS SHOWN BY THE TYPICAL DETAIL. ALL SERVICES INSTALLED SHALL EXTEND 10' BEYOND THE RIGHT–OF–WAY LINE.
3. NO RINGS OR STRUCTURES SHALL BE PLACED ON THE SANITARY MANHOLES. A STEEL PLATE SHALL BE PROVIDED 12" BELOW FINISHED CENTERLINE GRADE OVER ALL MANHOLES.

200.00' VC
HIGH PT. ELEV = 985.89
HIGH PT. STA = 13+86.34
PVI STA = 13+50
PVI ELEV = 986.71
A.D. = 3.77
m = 0.94

100.00' VC
PVI STA = 15+00
PVI ELEV = 984.91
A.D. = 4.45
m = 0.56

FINISHED ℄ GRADE

EXISTING ℄ PROFILE

EXISTING 16" WATERMAIN

EXISTING 8" PVC SDR 26 @ 0.42%

263 L.F. – 16" WATERMAIN

119
~~115'~~ – 8" PVC @ 0.40%

136'
~~142'~~ – 8" PVC @ 0.40% (SDR 35)

30' – 8" PVC @ 0.40%

7.5'MIN. COVER

5.65%

4.00%

0.73

964.94
INV. ~~965.01~~

DEFLECT WATERMAIN TO MAINTAIN 18" MINIMUM VERTICAL SEPARATION BELOW SANITARY SEWER AT CROSSING

TOP 18" W/M 963.80

INV. 963.66

CONNECT TO EX. SAN.

CONNECT TO EX. WM.

℄ BALDWIN STREET

+50.24

+35

+50 MH 1

+92.78 ℄ FUTURE STREET

GRADE BREAK

MH 2

E INV. ~~964.22~~ 3.82
W INV. ~~964.12~~ 3.82

.81 N INV. ~~964.89~~
.81 E INV. ~~964.89~~
.81 W INV. ~~964.79~~

18"

1000 995 990 985 980 975

985.88 985.89 985.87 985.75 985.51 985.07 984.35 983.36 ~~982.09~~ 980.83 979.26 976.44 973.73

TOP ~~982.04~~ TOP 973.97

13 14 15 16 17 18

ER190–4

RECORD PLAN
JUNE 1994

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Mark J. Graham
DATE 10/21/93 REG. NO. 19130

MSA CONSULTING ENGINEERS

1326 ENERGY PARK DRIVE
ST. PAUL, MINNESOTA 55108
(612) 644–4389

9800 SHELARD PARKWAY
MINNEAPOLIS, MINNESOTA 55441
(612) 546–0432

REVISIONS	DATE	DESCRIPTION

DESIGNED MJG
CHECKED BAI
DRAWN CLS
GRAPHIC SCALE 0 HORIZ. 20 0 VERT. 5

CITY OF ELK RIVER
SANITARY SEWER AND STORM SEWER
193RD AVENUE N.W. STA. 13+50.24 TO 17+91.18

DATE SEPT. 1993 | SHEET 3 OF 12 SHEETS | PROJECT NO. 230–190

709

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6592

DRAWING NUMBER
HILLSE3N.93
3

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6592