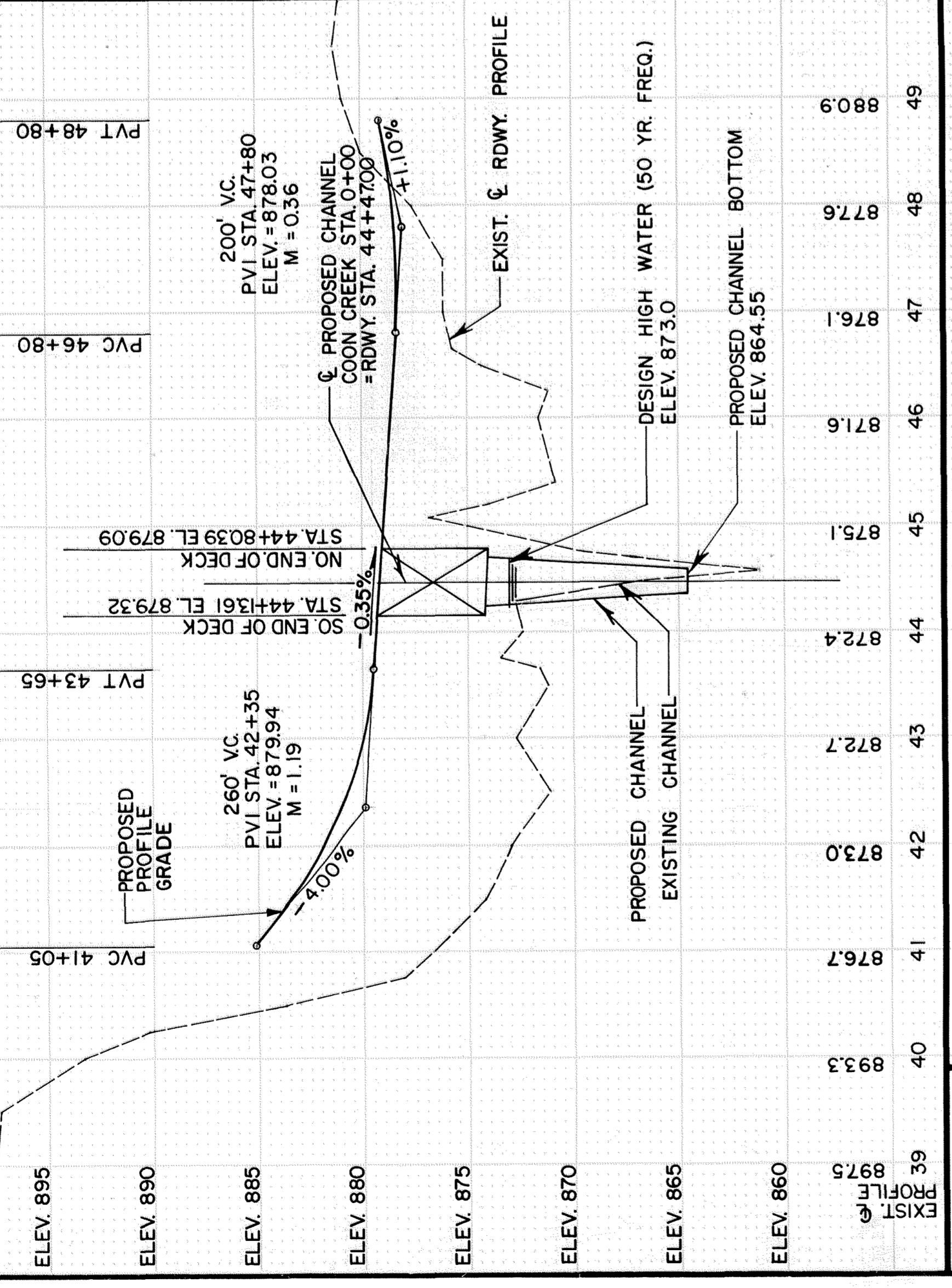


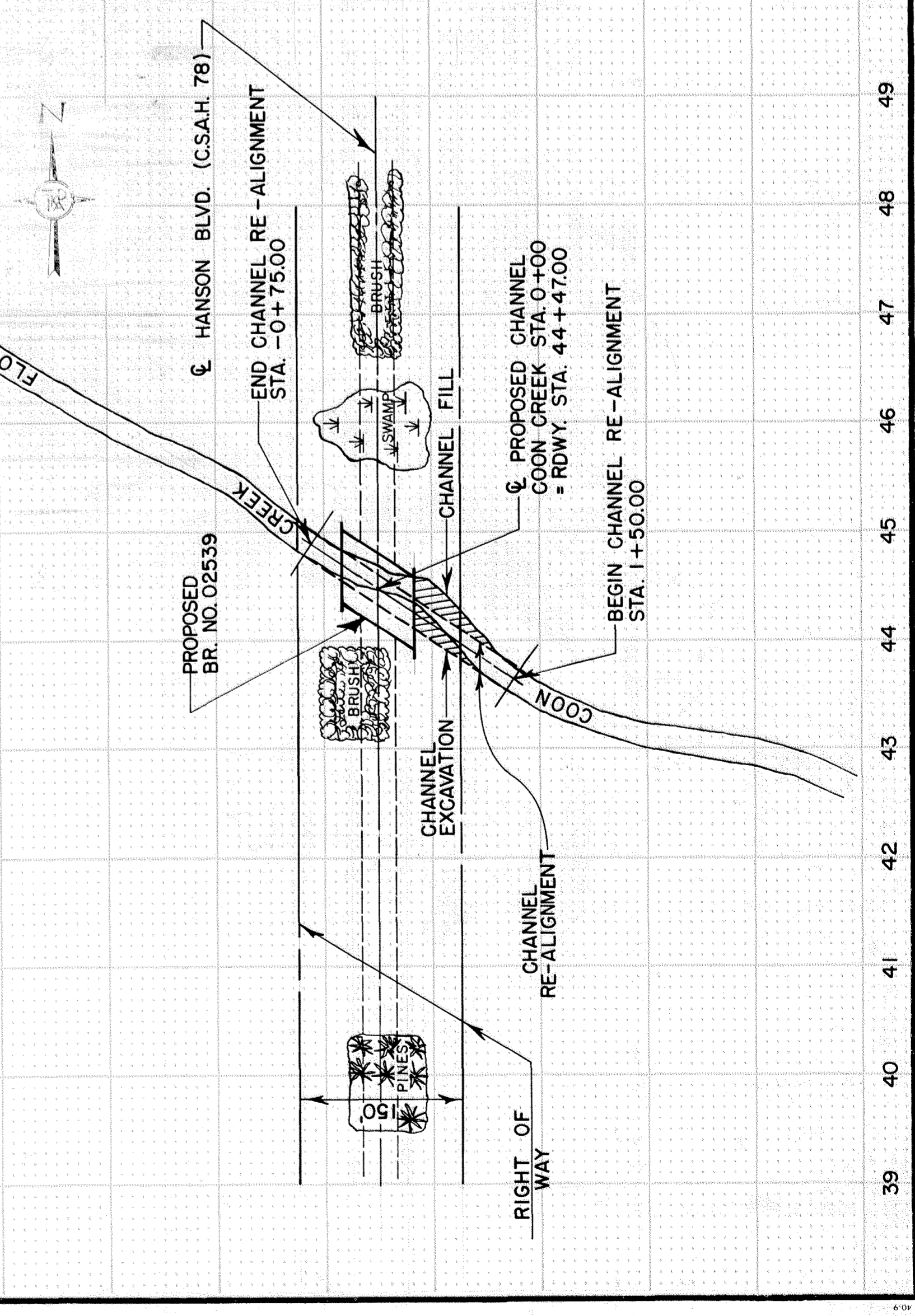
CONTRACTED PROFILE

SCALE: HOR. 1" = 100' VERT. 1" = 5'



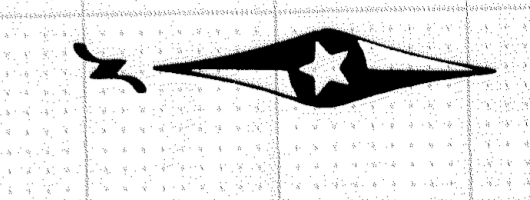
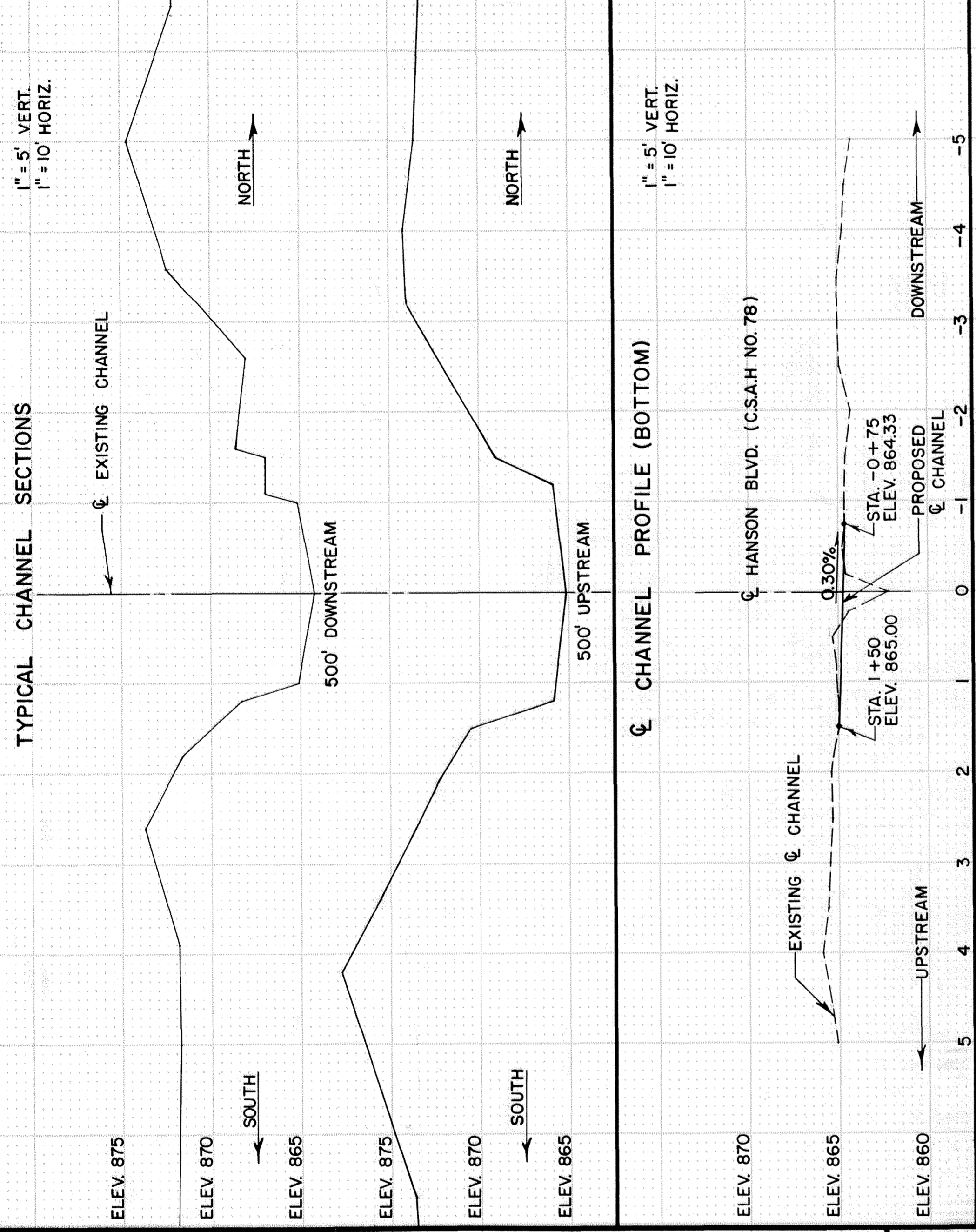
PLAT

SCALE: 1" = 100'



TYPICAL SECTIONS & PERTINENT DATA

SCALES AS SHOWN



INDEX MAP (FOUR SECTIONS)
PROPOSED BRIDGE NO. 02539

LOCATION ENGINEER'S OBSERVATIONS AT BRIDGE SITE

1. Special Features: Waterfalls, dams, floods, ice, debris, sliding banks, recreational boating.
.....NONE.....

2. Other bridges or culverts over the same stream (particularly structures which carry high water without overflow of roadway): Given location, type, length, height above high water, cross-sectional area etc.
BR. NO. 02528 IS 1.5 MILES UPSTREAM.
SINGLE SPAN (65') CONCRETE. MAINTAINS A 3.35' FREE BOARD AND A WATER WAY AREA OF 320 SQ. FT. BELOW ELEV. 876.0 (50 YR. FREQ.)

3. Apparent highwater elevation: N/A Obtained from:

4. Other data: Approx. velocity of water at time of survey.
.....N/A.....

HYDRAULIC ENGINEERS RECOMMENDATION
DATE JUNE 17, 1981

Stream or ditch designation: COON CREEK.
Drainage area: 55 SQ. MILES.
Max. flood on record: N/A Design flood (..... Yr. freq.) 664 C.F.S.
Max. observed highwater elevation: N/A Design highwater elevation: 873.0.
Design mean velocity through structure: 2.2 F.P.S.
Low superstructure at or above elevation: 874.0
Flowline elevation: 864.5 Skew angle: 33°
Waterway area req'd. below elevation 873.0 = 305 Sq. Ft. at Rt. angles to channel

In the interest of flood plain zoning the regional flood (100 yr. freq.) is 812 C.F.S. at stage 873.7 and mean velocity of 2.4 F.P.S. with 0.0 Ft. swellhead. The above recommendation will provide a structure of adequate waterway to pass the regional flood within criteria established by the Dept. of Natural Resources.

TKDA REPORT
FOUNDATION ENGINEERS RECOMMENDATION
DATE MAY 22, 1981

"WE RECOMMEND PILE LOADS OF UP TO 30 TONS PER PILE, BASED ON THE SOIL BORINGS, PILE LENGTHS ON THE ORDER OF 30' TO 35' BELOW EXISTING GRADE SHOULD BE ANTICIPATED."

SOIL EXPLORATION CO. REPORT
BRIDGE survey sheets made from: 5/81 TKDA SURVEY
DINNORE, WICKE, RYLANDER
Bench mark elevation: 879.09 (M.S.L. 1928 Ad.)
Location: SE COR. BASE PLATE OF TRANS. POLE
95 LT. STA. 41+50

MINNESOTA
DEPARTMENT OF TRANSPORTATION

BRIDGE SURVEY
ON EXTENSION OF C.S.A.H. 78
PROPOSED BRIDGE LOCATED 0.7 MILES NO. OF C.R. 116 IN THE CITY OF ANDOVER
SEC. 26, TWP. 32 N., R. 24 W.
CITY: ANDOVER COUNTY: ANOKA
BRIDGE NO. 02539