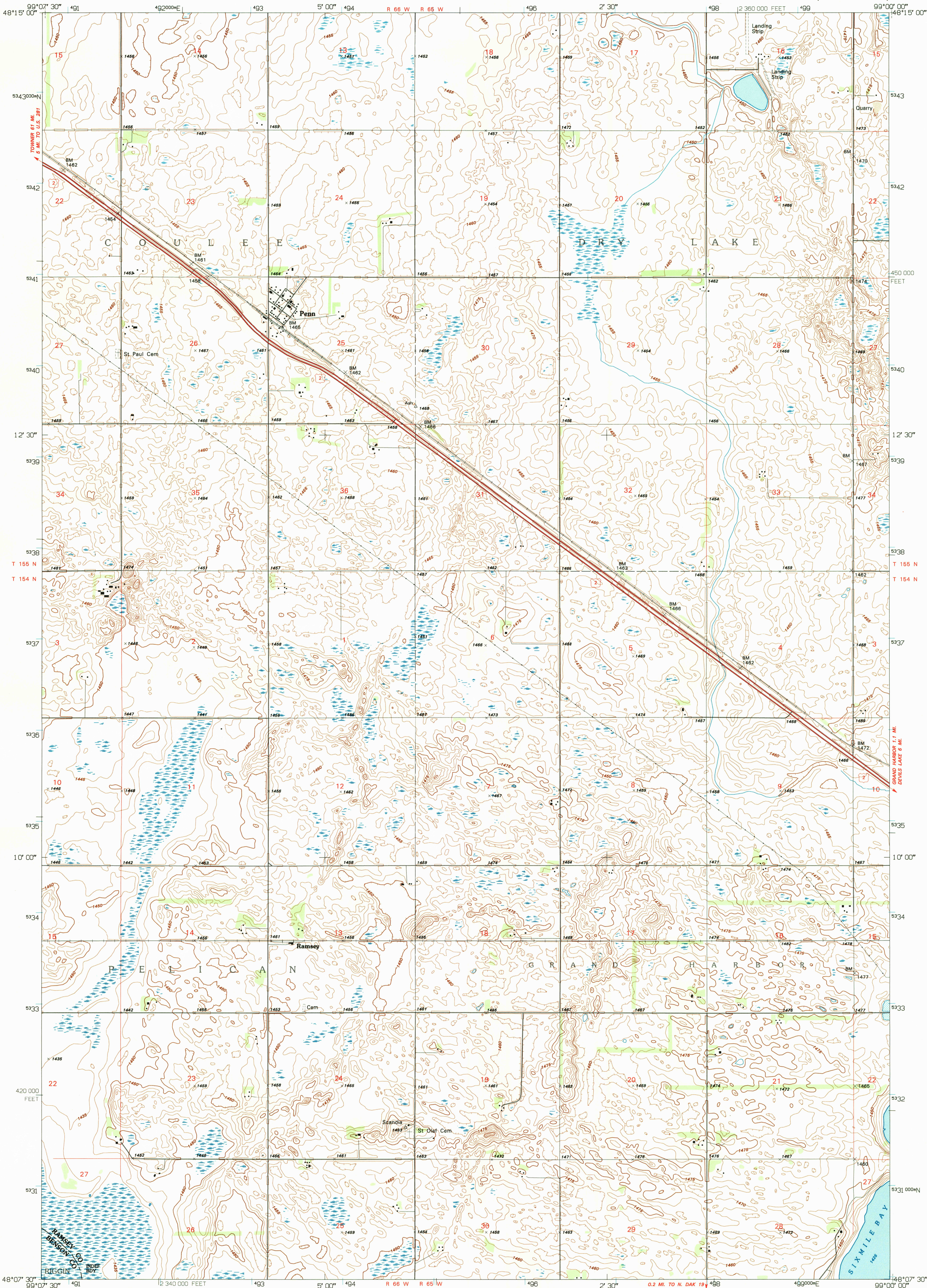


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PENN QUADRANGLE
NORTH DAKOTA
7.5 MINUTE SERIES (TOPOGRAPHIC)



Produced by the United States Geological Survey

Control by USGS and NOS/NOAA

Planimetry by photogrammetric methods from aerial photographs taken 1949. Topography by planetable surveys 1950. Revised from aerial photographs taken 1990. Field checked 1993. Map edited 1994

Universal Transverse Mercator projection

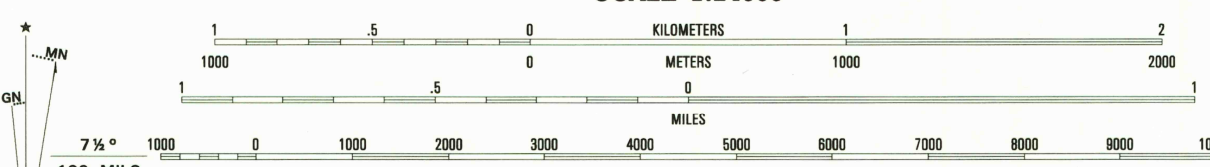
10,000-foot grid ticks: North Dakota coordinate system, north zone 1000-meter Universal Transverse Mercator grid ticks, zone 14, shown in blue

1927 North American Datum (NAD 27)

North American Datum of 1983 (NAD 83) is shown by dashed corner ticks

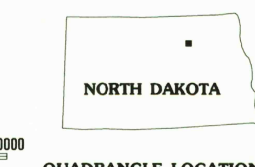
The values of the shift between NAD 27 and 83 for 7.5-minute intersections are given in USGS Bulletin 1875

UTM GRID AND 1994 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET



CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

COMPLIES WITH U.S. GEOLOGICAL SURVEY STANDARDS FOR SPATIAL ACCURACY - CLASS 2
FOR SALE BY U.S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
AND NORTH DAKOTA GEOLOGICAL SURVEY, BISMARCK, NORTH DAKOTA 58505
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



QUADRANGLE LOCATION

1	2	3
4	5	6
7	8	

1 Church Ferry
2 Cando SE
3 Webster
4 Tilden
5 Grand Harbor
6 Minnewauken East
7 Graham Island
8 Camp Graham

Primary highway
hard surface
Secondary highway
hard surface
Unimproved road

Light-duty road, hard or
improved surface
Unimproved road

Interstate Route U.S. Route State Route

PENN, N. DAK.
48099-B1-TF-024
1994

DMA 6180 II NE - SERIES W871

