SURFICIAL GEOLOGY OF THE ROYAL OAK, MICHIGAN QUADRANGLE

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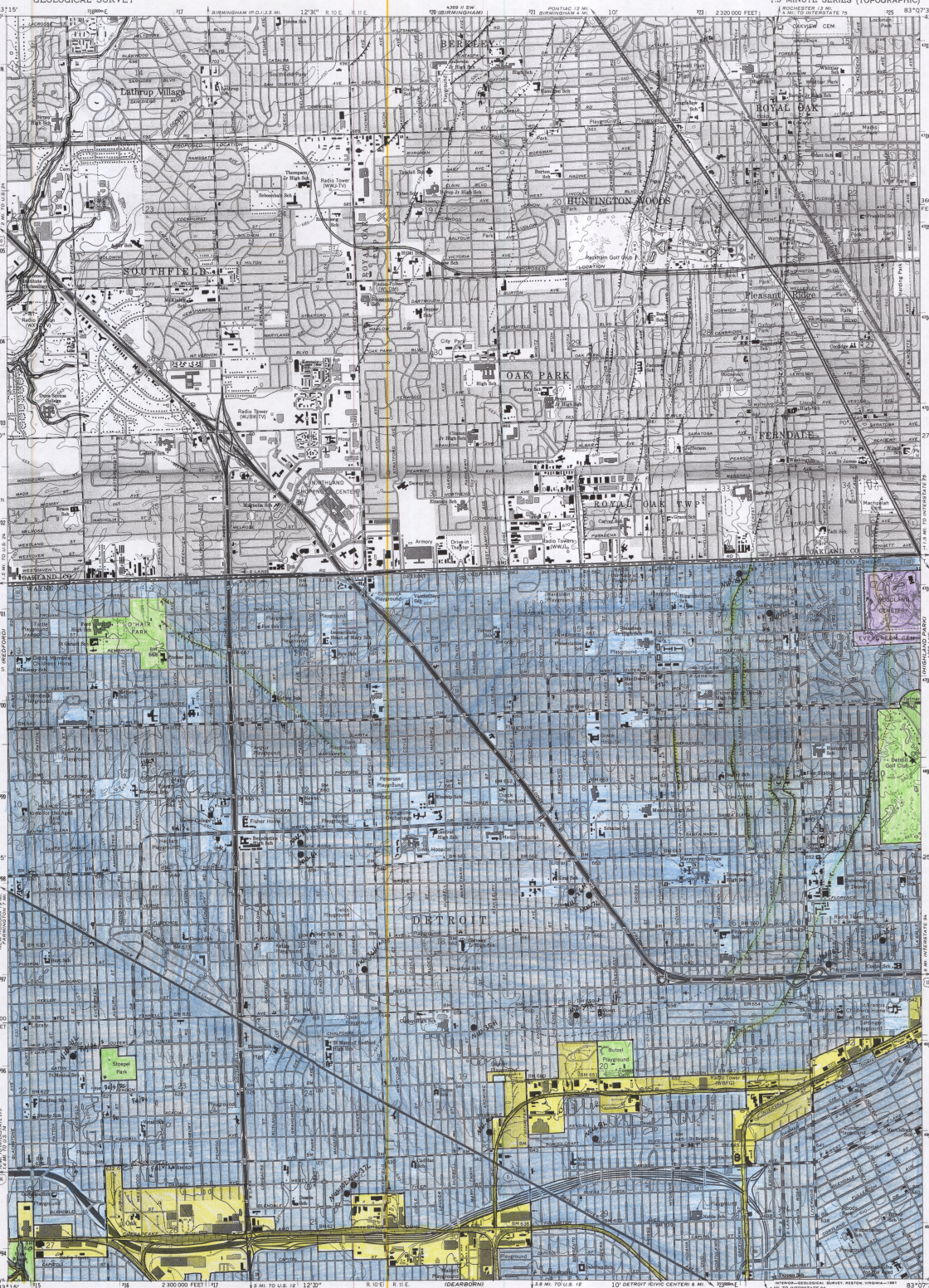
GEOLOGICAL SURVEY

ROYAL OAK QUADRANGLE
MICHIGAN
7.5 MINUTE SERIES (TOPOGRAPHIC)



EXPLANATION

ANTHROPOCENE

QaP - Park Land

In situ glacial sediments and native soil parent materials with rare artifacts and minimal human disturbance.

QaR2 – Residential Land Zone 2

In situ glacial sediments and earth materials mixed by human activity during building construction or demolition. 20th century artifacts common.

QaR1 – Residential Land Zone 1

Earth materials mixed during multiple demolition cycles. 19th century artifacts common.

QaM – Manufactured Land

Land covered and sealed by concrete, asphaltic pavement, etc.

Qal – Industrial Land

Earth materials mixed by human activity related to manufacturing and power-generation industries, airports, marinas, railroads and dredgings. Coal-related and iron smelting artifacts common.

QaC – Cemeteries

Earth materials mixed during human burial activities.

HOLOCENE

Qha – Recent Alluvium

Stratified sediments of active stream channels and floodplains. Highly variable texture. May contain appreciable organic matter

LATE PLEISTOCENE

Qpr – River Rouge Till

Unstratified, calcareous, clayey diamicton. Locally bouldery. Striated and faceted clasts common.

Lacustrine Paleoshoreline

Hatchured where geomorphically well defined. Dashed where approximate.

X

Shallow hand-auger boring.

●

Surface soil sample site.

Mapped, edited, and published by the Geological Survey in cooperation with State of Michigan agencies

Control by USGS, USC&GS, and City of Detroit

Planimetry by photogrammetric methods from aerial photographs
Topography by planetable surveys 1939. Revised from aerial photographs taken 1967. Field checked 1968

Polyconic projection. 1927 North American datum
10,000-foot grid based on Michigan coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks, zone 17, shown in blue

Red tint indicates areas in which only landmark buildings are shown

To place on the predicted North American Datum 1983 move the projection lines 7 meters west as shown by dashed corner ticks

SCALE 1:24 000

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

UTM GRID AND 1981 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
AND GEOLOGICAL SURVEY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES, LANSING, MICHIGAN 48909
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

Revisions shown in purple compiled from aerial photographs taken 1973 and 1981. Map edited 1981
This information not field checked

ROAD CLASSIFICATION

Primary highway, all weather, hard surface — Light-duty road, all weather, improved surface
Secondary highway, all weather, hard surface — Unimproved road, fair or dry weather
Interstate Route — U. S. Route — State Route

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1968
PHOTOREVISED 1981
DMA 4368 I NW—SERIES V882

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