EXPLANATION FOR GEOLOGIC MAP AND CROSS SECTION

QUATERNARY

- **Qal** — **Alluvium**. Unconsolidated quartz silt, sand, and gravel containing clasts of local bedrock. Mapped only along larger streams.

UPPER MISSISSIPPIAN AND LOWER PENNSYLVANIAN — POTTSVILLE FORMATION

- **IPpv** — **Pottsville Formation undifferentiated**. Dark-gray silty shale containing intervals of light- to medium-gray lithic sandstone and minor interbeds of coal and underclay; predominantly dark-gray shale between lower quartzose sandstone members. Includes intervals of grayish-red mudstone.
- **IPpvsr** — **Straight Ridge Sandstone Member.** Predominantly light-brownish-gray to grayish-orange quartzose sandstone weathered reddish-orange.
- **IPpvwr** — **Wolf Ridge Sandstone Member.** White to very pale-orange quartzose sandstone.
- **IPpvp** — **Pine Sandstone Member.** Very light-gray quartzose sandstone containing scattered quartz pebbles and quartz pebble conglomerate. Wavy bedded sandstone and mudstone common near top.
- **IPpvs** — **Shades Sandstone Member.** Very light-gray quartzose sandstone containing scattered quartz pebbles and quartz pebble conglomerate. Includes a middle interval of dark-gray shale.

UPPER MISSISSIPPIAN AND LOWER PENNSYLVANIAN

- **IPMpwf** — **Parkwood Formation and Floyd Shale undifferentiated.** Medium-gray to black partly sideritic shale containing intervals of light- to medium-gray lithic sandstone.
- **IPMpw** — **Parkwood Formation.** Medium- to dark-gray shale containing intervals of light- to medium-gray lithic sandstone.

MISSISSIPPIAN

- **Mf** — **Floyd Shale.** Dark-gray to black shale containing siderite nodules; locally containing very minor sandstone.
- **Mfp** — **Fort Payne Chert.** Grayish-orange bedded fossiliferous chert.

DEVONIAN

- **Dfm** — **Frog Mountain Sandstone.** Moderate yellowish-brown slightly feldspathic sandstone.

MIDDLE ORDOVICIAN

- **Olol** — **Little Oak and Lenoir Limestones undifferentiated.** Dark-gray partly fossiliferous stylonodular limestone locally containing chert nodules; medium- to dark-gray fenestral limestone at base (Mosheim Limestone Member of Lenoir Limestone); upper part relatively argillaceous, bioturbated, and fossiliferous (Little Oak Limestone).

LOWER ORDOVICIAN — KNOX GROUP

- **Oo** — **Odenville Limestone.** Dark-gray, mottled dolomitic limestone overlain by dark-gray fossiliferous stylonodular limestone, locally containing chert nodules.
- **On** — **Newala Limestone.** Light- to medium-bluish-gray chert-free micritic limestone containing minor interbeds of light- to light-bluish-gray dolomite and medium- to dark-gray bioturbated dolomitic limestone.
- **Olv** — **Longview Limestone.** Interbedded light-medium-gray micritic and partly sandy limestone and light-gray dolomite; commonly contains thin interbeds and nodules of chert.

UPPER CAMBRIAN — KNOX GROUP

- **O€ch** — **Chepultepec Dolomite.** Light- to dark-gray dolomite containing intervals of interbedded light- to medium-bluish-gray limestone; produces abundant predominantly cavernous chert.
- **€cr** — **Copper Ridge Dolomite.** Light- to medium-gray dolomite producing abundant predominantly dense chert containing common stromatolites.
- **O€k** — **Knox Group undifferentiated.** Light-gray, dense, small chert fragments.

MIDDLE TO UPPER CAMBRIAN

- **€k** — **Ketona Dolomite.** Light- to dark-gray chert-free dolomite.

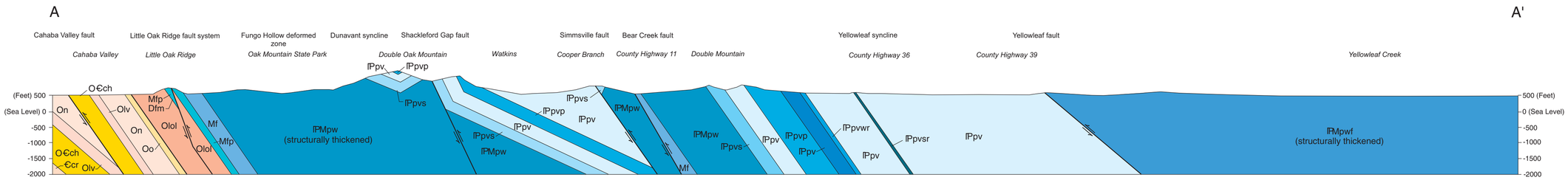
SYMBOLS FOR GEOLOGIC MAP

- Contact, approximately located, showing location of control point (contact exposed or closely located)
- Contact, located very approximately
- Contact or fault, concealed beneath mapped units
- Thrust fault, located very approximately, sawteeth on upper plate
- 45 — Strike and dip of beds
- Strike of vertical beds
- 75 — Strike and dip of overturned beds
- Anticline, showing trace and direction of plunge
- Overturned anticline, showing trace and direction of plunge
- Syncline, showing trace and direction of plunge

SYMBOLS FOR CROSS SECTION A-A'

- Stratigraphic contact
- Thrust fault, showing relative movement

CROSS SECTION A-A'



CROSS SECTION A-A' AND EXPLANATION FOR THE GEOLOGIC MAP AND CROSS SECTION OF THE CHELSEA 7.5-MINUTE QUADRANGLE, SHELBY COUNTY, ALABAMA

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