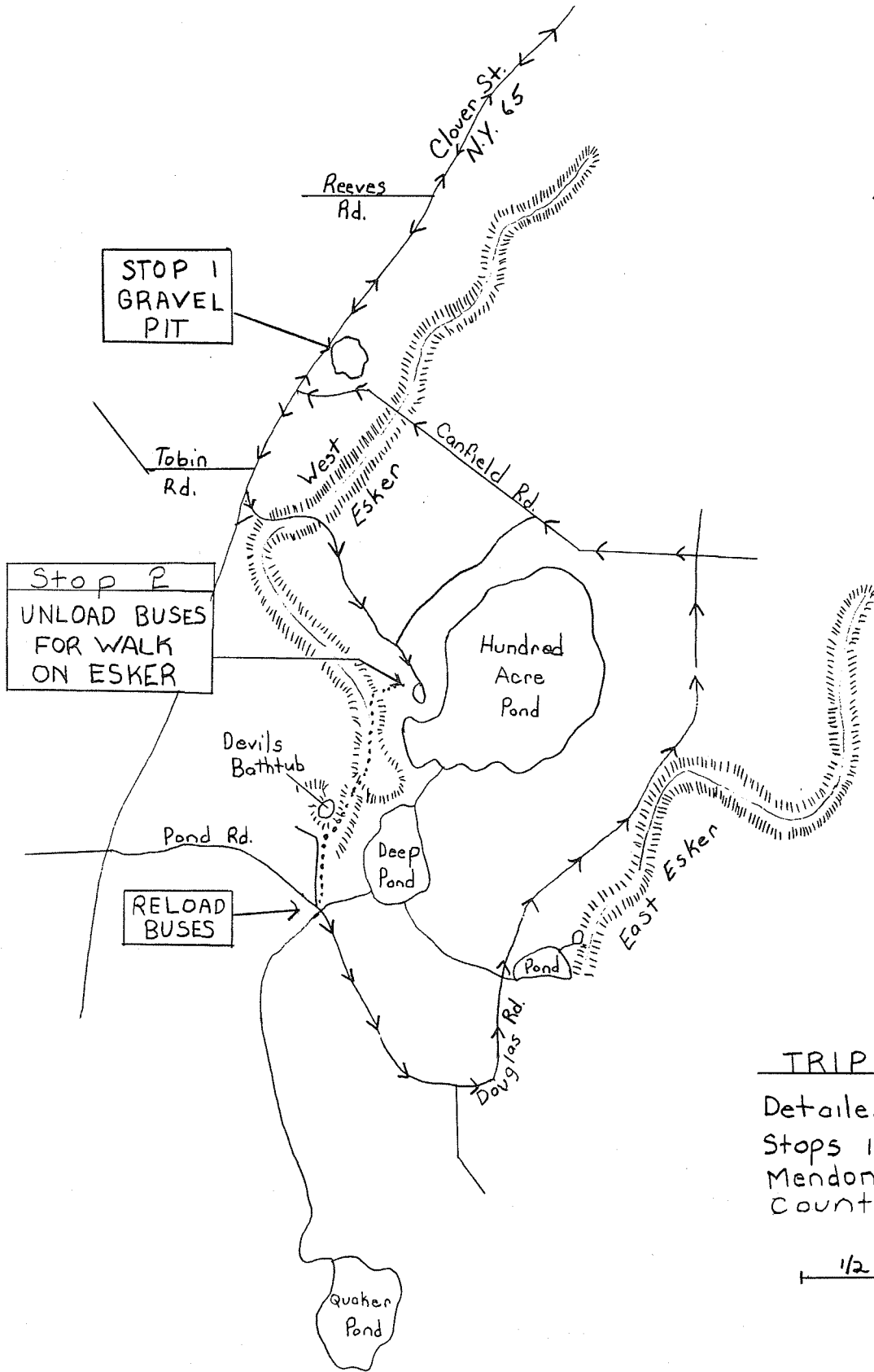


TRIP 1B ----- Glacial Geology

Stops on this trip will be in the Mendon Ponds kame and kettle area (see p. 55) and on the Pinnacle Range of kame moraine hills (see p. 56). The trip ends adjacent to the post-glacial lower gorge of the Genesee River.

Miles

- 0.0 Zero miles at River Boulevard entrance to main quadrangle of River Campus. Proceed south on River Blvd. River here is in post-glacial course.
- 0.25 Elmwood Ave. (N.Y. 47). Turn left and pass under tracks of Lehigh Valley and Erie railroads.
- 0.35 Road fork. Bear left on Elmwood Ave. (N.Y. 47). For first 3.5 miles, route nearly parallels the Pinnacle Range (see p. 56) of kame moraine hills. Route is on outwash plain and lake beds. U of R River Campus is on west end of range.
- 0.5 U of R Atomic Energy Project building to left (N); U of R Medical Center to right (S).
- 0.9 Mt. Hope Cemetery to left (N). Northwestern portion of cemetery, adjoining campus, is an area of spectacular kame and kettle topography.
- 1.1 Mt. Hope Ave. (U.S. 15). Keep straight.
- 1.4 View to left (N) of Pinnacle Range, now about a half-mile to the north.
- 1.8 Enter Town of Brighton. Colgate-Rochester Divinity School on crest of Pinnacle Range to left (N).
- 2.3 Clinton Ave. Keep straight. Highest point on Pinnacle Range (749 feet) is just west of radio and telephone towers visible here to the left (N).
- 3.7 Winton Rd. (N.Y. 47) turns left. Keep straight.
- 3.8 Monroe Ave. (N.Y. 31). Turn right (SE).
- 5.2 Clover St. (N.Y. 65). Turn right (S).
- 5.5 Enter Town of Pittsford.
- 6.7 Erie Canal Lock 32.
- 6.8 New York Central railroad branch line.
- 7.0 Jefferson Rd. (N.Y. 252). Keep straight; at fork beyond, bear right on N.Y. 65.
- 8.3 N.Y. 253 joins from left (E).
- 9.2 N.Y. 253 leaves to right (W). Note drumlins elongated parallel to N.Y. 65 both east and west of route.
- 10.3 Pass over New York State Thruway.



TRIP 1 B  
Detailed Map for  
Stops 1 and 2 in  
Mendon Ponds  
County Park

1/2 mile

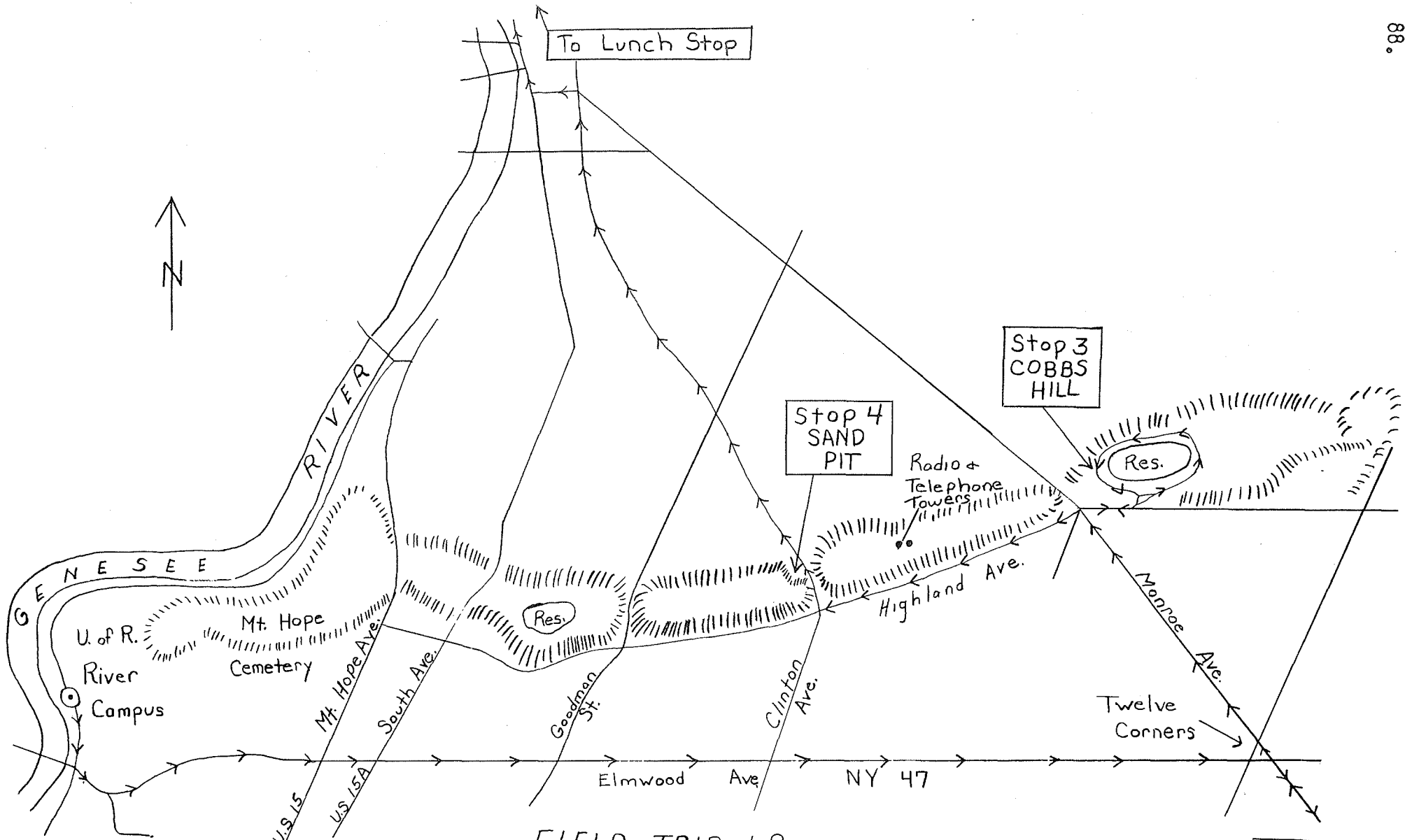
Miles

- 10.6 STOP 1.— Gravel pit in kame moraine, exposing features typical of such deposits in this area. Lenses of sand and gravel show great variety of sedimentary features. The sediments are displaced along small normal faults in places. The gravel lenses tend to be cemented with calcareous material probably derived from pebbles and cobbles of Lockport dolomite. Most abundant pebbles are of red Grimsby sandstone; however, representatives of all formations of the local Lower and Middle Silurian section can be found. In addition there are Ordovician limestones (some fossiliferous) and crystallines from Canada.
- 10.9 Mendon Ponds County Park, Canfield Rd. entrance. Keep straight.
- 11.2 Mendon Ponds County Park, entrance. Turn left (E).
- 11.8 Road to left. Bear right.
- 12.0 Parking area. Buses will meet group on Pond Rd., at mile 14.2.

STOP 2 — In Mendon Ponds County Park are to be seen excellent examples of kame hills, kettles, eskers, and lakes and swamps in poorly drained morainal ground. For general glacial history see pages 47-60; for more specific comments on this park, see page 55.

There are two prominent eskers in the park, one east and one west of Hundred Acre Pond which is the largest of several ponds. The recognizable portion of the western esker extends, with only slight interruptions, for a little over two miles. The group will walk along about 0.3 mile of this esker, from a point behind (S) of the park buildings to a conspicuous kettle known as Devil's Bathtub, at which point the esker deposits fan out, apparently at the mouth of the stream responsible for the deposit.

- 12.2 Road to right. Bear left.
- 12.8 Clover St. Turn left (S).
- 13.7 Mendon Ponds County Park, Pond Rd. entrance. Turn left (E).
- 14.2 Dirt road up hill to left (N) to Devil's Bathtub. Group will reboard buses here.
- 14.7 Swamp-filled depression to left (N) here continues north to Hundred Acre Pond.
- 14.9 Pond Rd. turns to right. Keep left on Douglas Rd.
- 15.0-16.2 At sharp left curve begins extensive kame-kettle area east of Hundred Acre Pond depression.
- 15.3 Prominent water-filled kettle to right (E) of road.
- 16.0 Steep slope east (right) of route is eastern esker. Hundred Acre Pond to left (W).
- 16.6 Canfield Rd. Turn left (W).



FIELD TRIP 1B

Pinnacle Range and Stops 3 and 4

1/2 mile

Miles

- 17.5 Road crosses small swampy area here, then rises abruptly, cutting through the western esker at point about 0.8 mile north of where group climbed upon it at Stop 2.
- 17.7 Clover St. (N.Y. 65). Turn right. Follow N.Y. 65 to Monroe Ave. (N.Y. 31) retracing part of earlier route.
- 23.3 Monroe Ave. (N.Y. 31). Turn left (NW).
- 24.7 Elmwood Ave. Keep straight.
- 24.8 Winton Road (N.Y. 47). Keep straight.
- 25.6 Highland Ave. Turn sharply right (E).
- 25.7 Turn obliquely left up hill to Cobbs Hill Reservoir. Circle reservoir.
- 26.4 West end of reservoir.

STOP 3 — Cobbs Hill is the easternmost prominent hill of the Pinnacle Range (see p. 56). In clear weather an excellent view may be obtained from here. Water elevation 633 feet, about 130 feet above plain to north and south. Water in reservoir is from Hemlock Lake, about 30 miles south of Rochester. To south lie outwash plains and glacial lake beds, with occasional drumlins. Bedrock hills (Bristol Hills, Middle Devonian) rise in distance; Onondaga escarpment not prominent here. To north lies city of Rochester on thin veneer of lake beds and till above Lockport dolomite and Rochester shale. Lake Ontario in distance. To west Pinnacle Range continues toward U of R River Campus. Radio and telephone towers are on the Pinnacle, highest of the Pinnacle Hills, just east of summit.

- 26.7 Stop sign. Highland Ave. Turn right (W)
- 26.8 Monroe Ave. (N.Y. 31). Keep straight. Route follows along south foot of Pinnacle Range.
- 27.6 Clinton Ave. Turn right (N) up hill.
- 27.8 Turn left into ball park.

STOP 4 — Sand and gravel quarry in Pinnacle Range kame moraine. The lower part of the cut exposes uniform, well-sorted and stratified sands; bedding southwest at 25-28 degrees. At the upper part of the cut there is a thin covering of till, evidencing brief ice readvance after kame formation. Fabric studies of the orientation of the long axes of pebbles in the hill show, at the east end of the exposure, an 11% concentration with a plunge of 10 degrees and a southward strike, and at the west end, a dominant plunge of 20-25 degrees and strike concentration in the sector from S30°W to S15°E. The low ridge bordering the ball park on the northwest (old cemetery beyond the concessions stand) is also composed of till.

- 29.0 Cross Rochester subway in old Erie Canal bed.

Miles

- 29.2 Howell St. Keep straight.
- 29.3 Monroe Ave. Turn left (W).
- 29.4 South Ave. Turn right (N) and keep in right lane to go straight through next intersection.
- 29.7 Main St. Keep straight. South Ave. becomes St. Paul Street north of Main St.
- 30.1 Cross Cumberland St., bear left to go under New York Central overpass.
- 30.7 Pass between two major buildings of Bausch and Lomb Optical Company.
- 31.8 Avenue E. Hawk-Eye Works (camera mfr.) of Eastman Kodak Company.
- 32.7 Traffic circle. Keep on St. Paul St. (third street to right).
- 33.1 Turn left into Seneca Park. Bear right at road forks.
- 33.8 Parking area for Seneca Park Zoo.
- 34.1 Road fork. Bear right.
- 34.5 LUNCH STOP at park pavilions. Park is on east bank of lower gorge (post-glacial) of the Genesee River downstream from lowest falls. See pages 4-8.

END OF TRIP 1B