

TORNADO PROJECT SUMMARY SHEET

F=0

ONT

1. DATE AND TIME SAT JULY 18, 1981 1800 EST

2. LOCATION OR PATH (attach map) VCNTY BOND HEAD (± 2 mins) 0698113

3. PATH LENGTH ☐ NOT KNOWN ☐ <1 mi; ☒ 1-4 mi; ☐ 5-10 mi; ☐ 11-50 mi; ☐ LENGTH IF > 50 3.6 km

4. PATH WIDTH 5. TORNADO PART OF SQUALL LINE? ☐ YES; ☐ NO; ☐ UNKNOWN

6. ANY UNUSUAL COLORATION? ☐ YES; ☐ NO; ☐ UNKNOWN

7. ANY UNUSUAL SOUND? ☐ YES; ☐ NO; ☐ UNKNOWN

8. IF ANSWER TO 6 OR 7 YES, ELABORATE;

9. LIST ANY ASSOCIATED PHENOMENA (Such as hail, vivid lightning heavy rain, no rain, etc.) HAIL (AT THE END OF THE TRACK)

10. TOTAL DAMAGE ESTIMATE \$ UNK 11. TOTAL DEATHS NONE

12. TOTAL INJURED NONE 13. TOTAL HOMELESS NONE

14. LIST ALL REFERENCES
M.J. Newark + P.J. Elms. 1981: Report on the storm near Bond Head Ont., of Saturday July 18, 1981. Unpublished report.
② Free Press, Midland, Ont, July 22, 1981.

15. SUMMARIZE REMARKS PERTAINING TO (a) FUNNEL; (b) INTERESTING OR CAPRICIOUS EVENTS.
(a) none seen
(b) Corn and wheat flattened. Trees uprooted and snapped. Camper trailers flipped over.

WORKSHEET
IDTO

① ORIGIN x 17608500
 y 4883450

⑤ Standard Error S_x 200C

② LIFT-OFF x_1 17612100
 y_1 4883200

⑥ Standard Error S_y 200C

③ $(x_1 - x) = 3600$

④ $(y - y_1) = 250$

⑦ DAMAGE LENGTH

$L = [(x_1 - x)^2 + (y - y_1)^2]^{1/2}$ ⑧ $\alpha = \tan^{-1} \frac{|y - y_1|}{|x - x_1|}$

③ + ④ $\rightarrow r, \theta = 3609 \text{ m}$

$x \leftrightarrow y = 4^\circ$

⑨ Standard Error $S_L = (S_x^2 + S_y^2)^{1/2}$

⑤ + ⑥ $\rightarrow r, \theta = 283 \text{ m C}$

⑩ $\beta = \frac{\tan^{-1} S_L}{L}$

⑦ + ⑨ $\rightarrow r, \theta$
 $x \leftrightarrow y = 4^\circ$

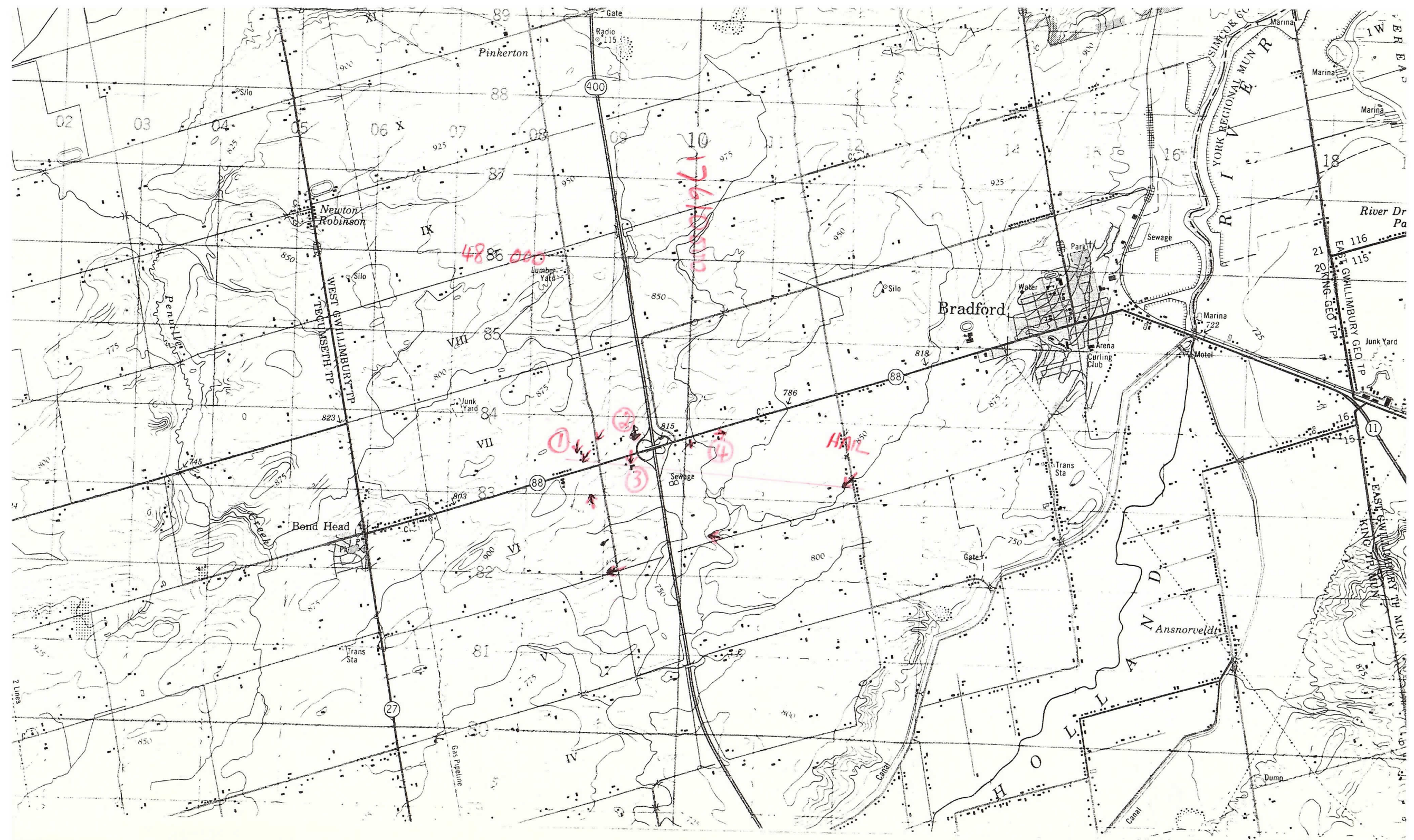
NE Quad $\phi = 90 - \alpha$

NW Quad $\phi = 270 + \alpha$

SW Quad $\phi = 270 - \alpha$

SE Quad $\phi = 90 + \alpha$

⑪ $\phi = 274^\circ$



1900 GST (Good Time)
NO MAIL

LOCATION 2

TORONTO NORTH KOA

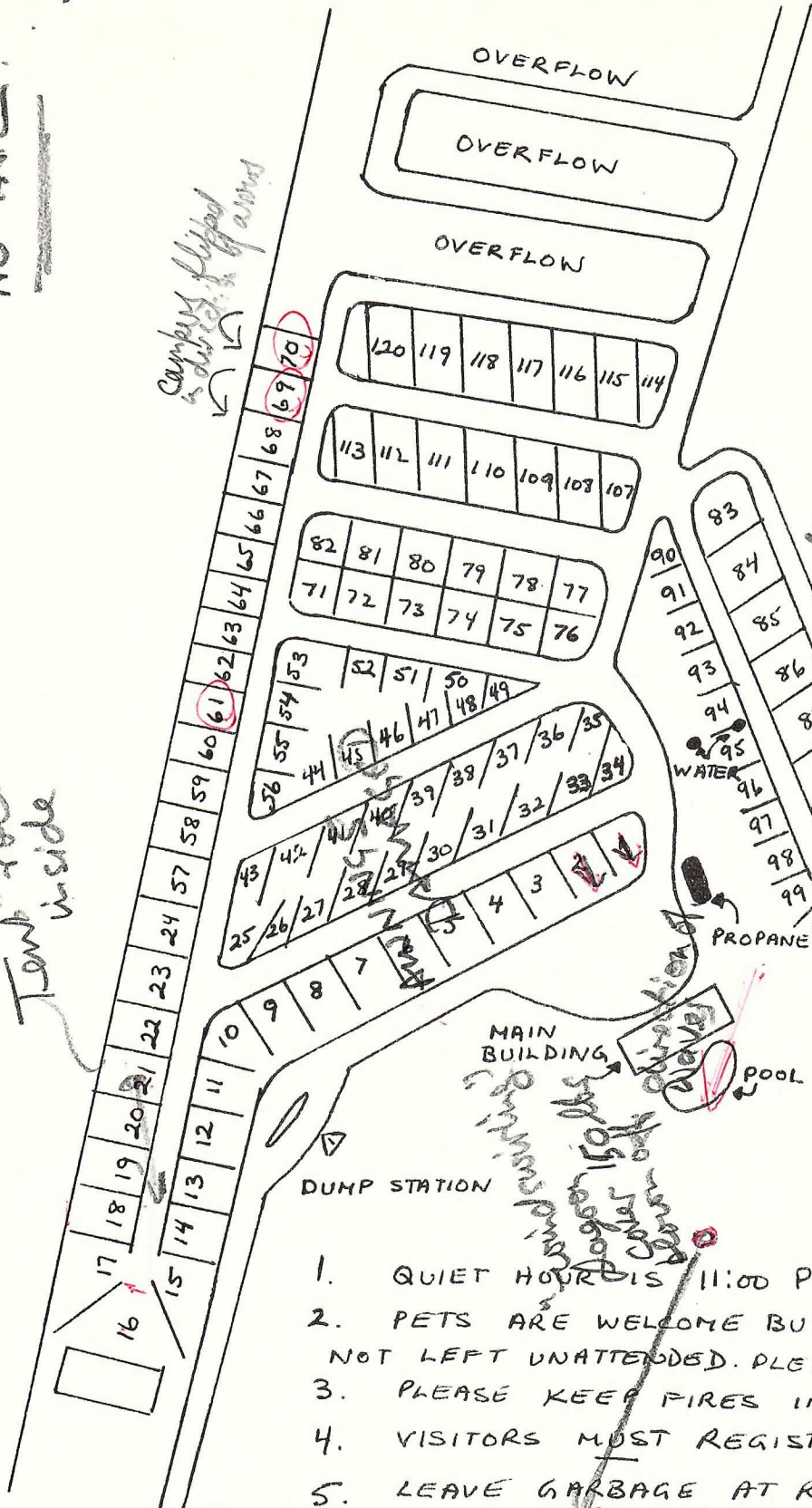
PHONE (416) 775-5494

SITE NUMBER

Tent rolled 15'12" man inside

Campers flipped a direct 1/2 of arrow

Don't write all tent contents blown its contents blown to the Highway down off-ramp.



1. QUIET HOURS IS 11:00 P.M.
2. PETS ARE WELCOME BUT MUST BE ON A LEASH AND NOT LEFT UNATTENDED. PLEASE PICK UP AFTER YOUR PET
3. PLEASE KEEP FIRES IN FIRE RIMS
4. VISITORS MUST REGISTER
5. LEAVE GARBAGE AT ROADSIDE
6. CHECK OUT TIME IS 12:00 NOON
7. OVER FLOW AREA IS NOT EQUIPPED WITH TABLES OR FIRE RIMS
8. SMALL CHILDREN (UNDER 10 YEARS OF AGE) MUST BE ACCOMPANIED BY A PARENT IN THE PLAYGROUND, POOL AND WASHEROOMS.

Report on the storm near Bond Head, Ont., of
Saturday July 18, 1981.
by M.J. Newark + P.J. Elms.

Damage surveyed on Sunday July 19, 1981.

LOCATION 1. Joe Woods Farm. Lot 5, Conc 7, W. Gwillimbury
Tp. (416) 775-2267. Hydro and clock off at 1900 EST
($\pm$ 2 minutes). Storm lasted only a minute or two.
Trees were broken and snapped towards the south and
southwest. Several hay wagons were pushed from
the north but not upset. No property damage.

LOCATION 2. KOA, Toronto North. (416) 775-5494. The
storm was observed approaching and struck the
campground at 1900 EST. Five 2000 lb tent
trailers were flipped over, 2 travel trailers were
moved off their blocks. Tents were blown down, in
one case "rolled" along with a man inside.
Awning damaged. See diagram. No hail.

LOCATION 3. Bateman Farm. North $\frac{1}{2}$ lot 6, conc 6,
W. Gwillimbury Tp. No hail. Hay rack pushed
from north to south. No property damage.

LOCATION 4. Ralph Williams Farm. N $\frac{1}{2}$, lot 8, conc 6, W. Gwilembury Tp. 11 mm of rain measured. no hail. Corn flattened towards the south. A hay wagon pushed from west to east about 100 m and ended in a fence. A heavy manure spreader was moved a little. No property damage. At his other farm fields. (N $\frac{1}{2}$ lot 8, conc 5,) corn and wheat was flattened towards the west.