

NORFOLK COUNTY

ENGINEERS DEPT.

No. 450

F.B. 450

COUNTY OF NORFOLK  
ENGINEERING DEPT.  
649 HIGH STREET  
DEDHAM, MA 02026

1-781-461-6128



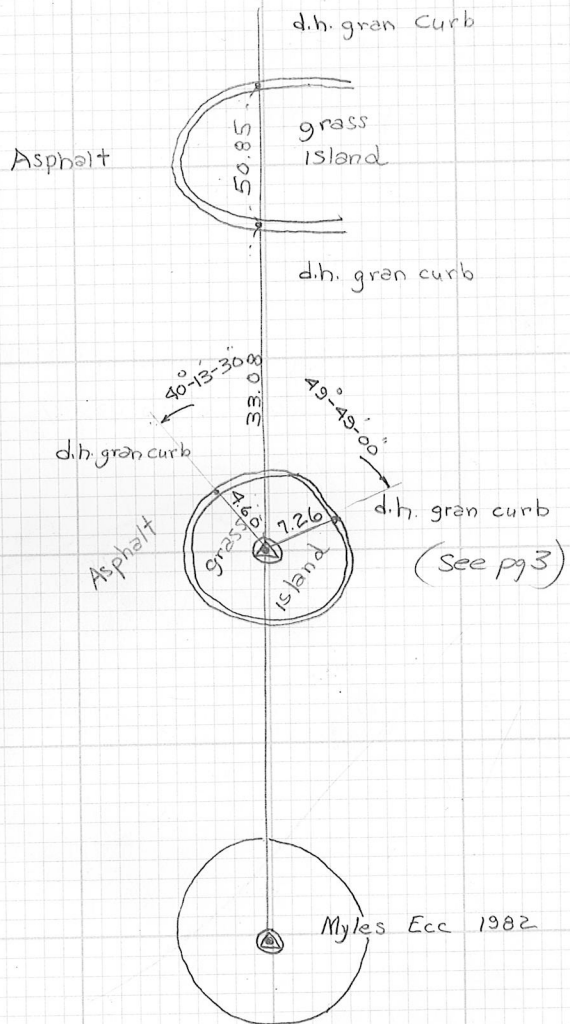
450/1

Inst.  
1

Tape

Wthr & Temp.  
clear 75°Date  
6/14/83

Crew



2 WEYMOUTH ~ HINGHAM  
AFP

NOTE:

FOR E.D.M. SEE ENV.  
No. 535 OBS. SHEETS

# SQUANTUM ELEVATED TANK

FORE MAGS  
1936 1981

6947.901 EV

00°-58'-19".3 02014/2

7015.502 GRID. AD  
(NOT USED)

# TOWN LINE SURVEY

FFB

450  
1982 3

[X] SIMPSON  
 [X] CROWLEY  
 KELLY  
 O'BRIEN

# NANTASKET TOWER

NOTE:

ANGLES MEAS.  
M.G.5. FIELD BK  
02017 in ENV. 535

see pg 1  
for ties

MYLES  
1933

SEE

131-53-368

$$240. - 42 = 45.8 \text{ m}$$

0

59.08-16.1

MYLES ECC 1982  
MGS DISK SET ON CONCRETE  
WATER TANK ON WEYMOUTH  
GREAT HILL 2/17/82

GREAT HILL  
WATER TANK

SEE ALSO Pg. 146  
FOR MAY 1983  
WORK

ELEV.  
TANK

SEE PG.  
5 FOR TIES  
C-10

STEEL  
BAR @ COMM.  
ST. & R.R.

#11300  
Pope Towers  
BLDG.

VERT. SPK.  
IN CLUMP  
OF 4-6"  
CHYS.



6

## WEYMOUTH - HINGHAM TOWN LINE

360  
220-10-22  
139-49-38

360  
295-14-01  
64-45-59

360  
267-20-03  
92-39-57

ROOF TOP  
OF #25 WATER ST.  
POPE TOWERS  
WEYMOUTH  
HOUSING  
AUTHORITY

TOP COR.  
OF PLUM. VENT

APPROX DIST.  
UP FROM  
ROOF LEVEL

COR. STUCCO  
2.6' UP FROM  
STONE  
1.35 down  
from  
TOP  
METAL  
COPING

STK. TACK SET  
IN STYROFOAM

#11300  
POPE

SEE PG. 128

C-50 spk. on  
COMM. ST. L.O.  
VICINITY OF HIGH ST.

13.857.627 Adj. Gr. (1984)

13.857.720 Adj. Gr.

← TO MYLES ECC 1982

Pg. 3

CORNER OF ALUM.  
HATCHWAY FRAME  
DOWN DIST. FROM TOP  
FRAME (COVER OPEN)

TO #11301  
807.325 Adj. Grid  
807.354 Adj. Grid  
(1984)

(FB. 02014/45)  
166° 17' 26.1" N.  
166° 17' 26.71" Adj. (1984)  
166° 17' 28.34" Adj.

## SURVEY

450/7

NOTE: FOR E.D.M. SEE ENV. NO. 535 OBS. SHEETS

Middle Cor.  
5th Brick up

Brennie's  
PLACE

35.86

#11301  
COUNTY Bd.  
USED AS END.

d.h. Gran  
CURB

807.325 Adj. Grid  
807.354 Adj. Grid (1984)

PLEASANT

TO POPE #11300

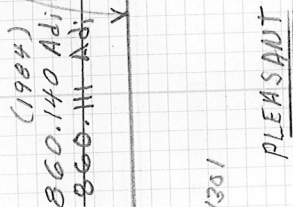
TO #11302

860.111 Adj. Grid  
860.140 Adj. Grid (1984)

167° 20' 24.8" N.  
167° 20' 25.25" Adj. (1984)  
167° 20' 26.31" Adj.

F. Bk. 02014/37

8  
FP

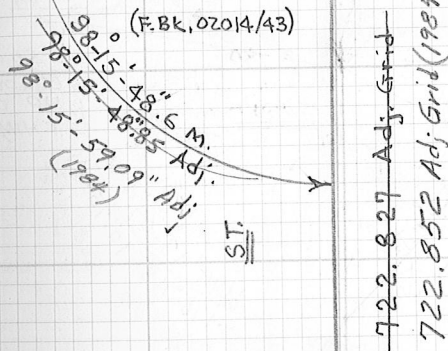


1511 # 01

# SURVEY

450/9

NOTE: FOR E.D.M. SEE ENY. No. 535 OBS. SHEETS

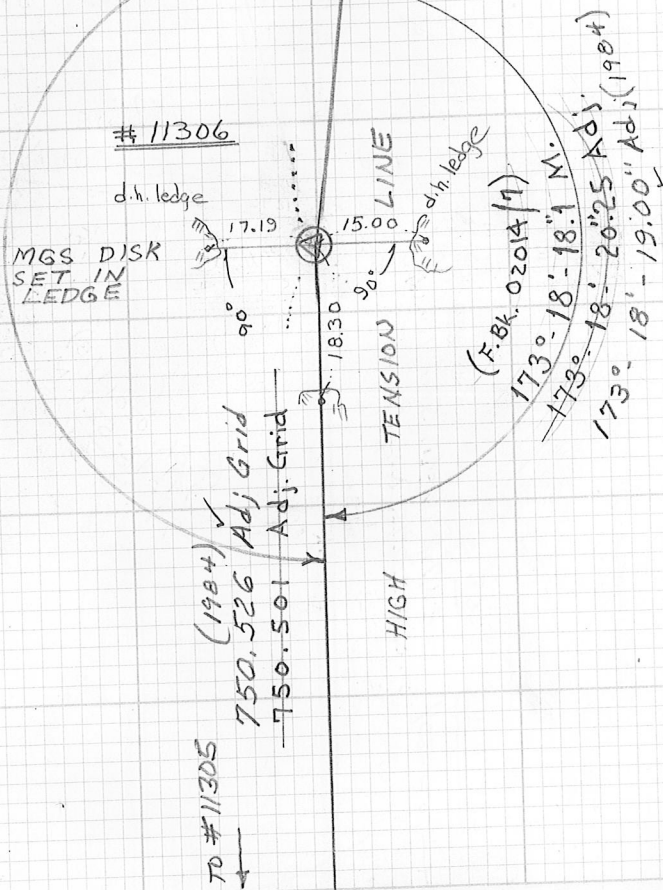




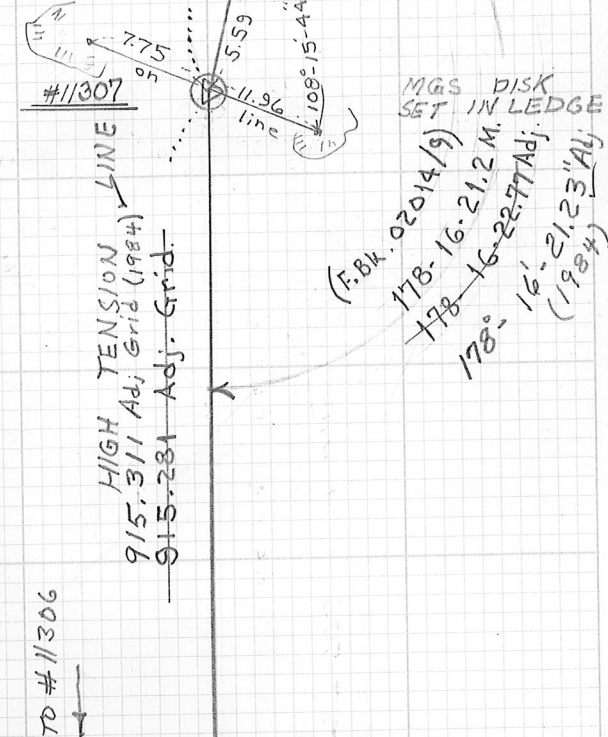


450

(NOTE: FOR E.D.M.)

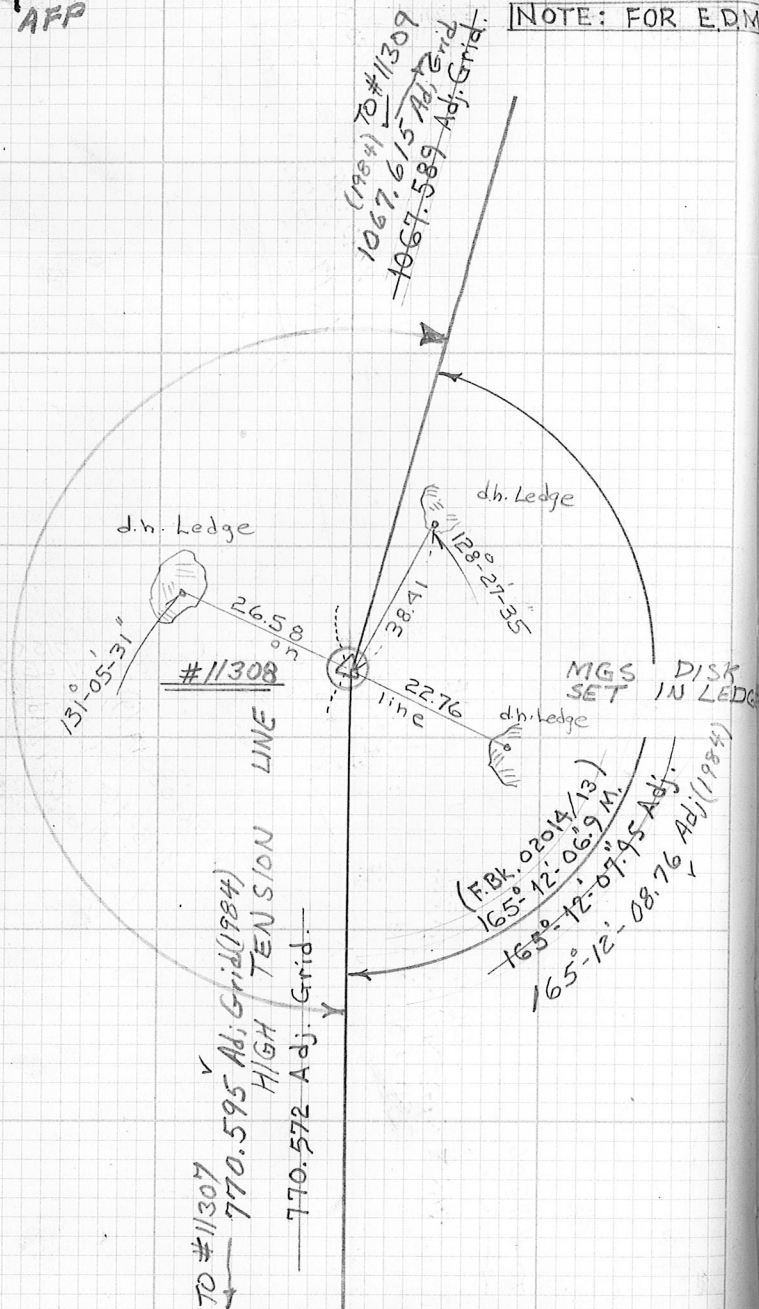


SEE ENV. No. 535 OBS. SHEETS

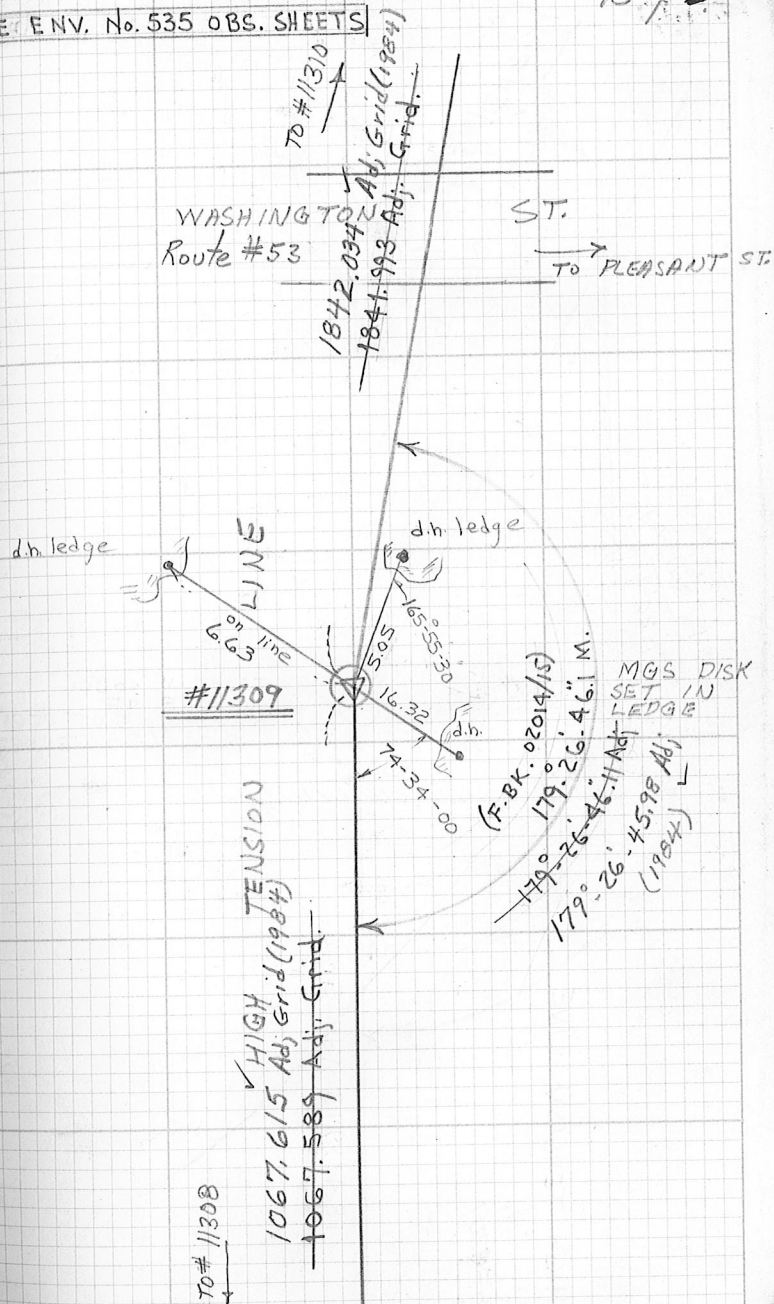


AFP

NOTE: FOR EDM



SEE ENV. No. 535 OBS. SHEETS



16 WEYMOUTH - HINGHAM TOWN  
AFP

NOTE: FOR E.D.M.

To #11311  
717.351 Adj. Grid (1984)  
717.322 Adj. Grid.

147° 57' 30.46" Adj. (1984)  
147° 57' 28.11" Adj.  
147° 57' 26.9" Adj.  
FBK. 02014/20 M.

#11310

TACK IN CONG.  
IN ROOF OF  
BRADY ENTERPRISE  
BLDG. (BARTENDERS)

HIGH TENSION LINE

To #11309

1841.993 Adj. Grid.  
1842.034 Adj. Grid (1984)

LINE SURVEY  
SEE ENV. No. 535 OBS. SHEETS

450/17

d.h.  
Ledge

6.27  
on line  
#11311

Spk  
8' Oak

03° 42'

HIGH TENSION LINE  
To #11312  
807.914 Adj. Grid.  
807.934 Adj. Grid (1984)

717.351 Adj. Grid (1984)  
717.322 Adj. Grid.

To #11310

7.78

03° 42'

FBK. 02014/22  
150° 58' 22.0" M.  
150° 58' 20.00"  
150° 58' 25.17"

Adj. (1984)  
NGS DISK  
SET IN  
LEDGE



18

WEYMOUTH - HINGHAM

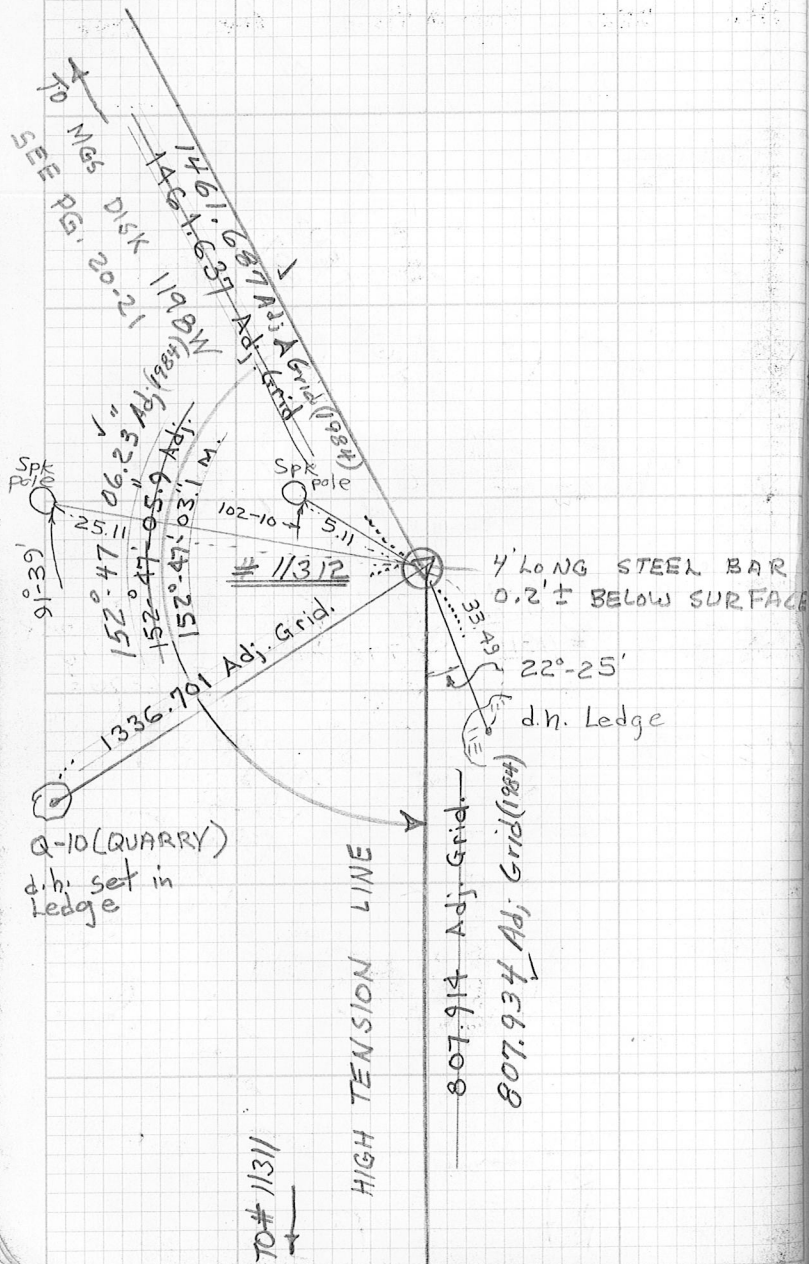
TOWN

LINE

SURVEY

450/19

AFP



Inst.

Tape

Wthr &amp; Temp.

Date

Crew



# 22 WEYMOUTH - HINGHAM

NOTE: FOR E.D.M.

ANGLE TO ROADSTONE BELOW

D 00-00-09 14.5

R 180-00-20 38.5

D 23-45-48 53

R 203-45-58

T: 72°

27.53

71.34

98.87

NC-13 TO B<sub>2</sub>

360

228-19-44

131-40-16

ANGLE TO TOWN LINE RD.

214-02-52

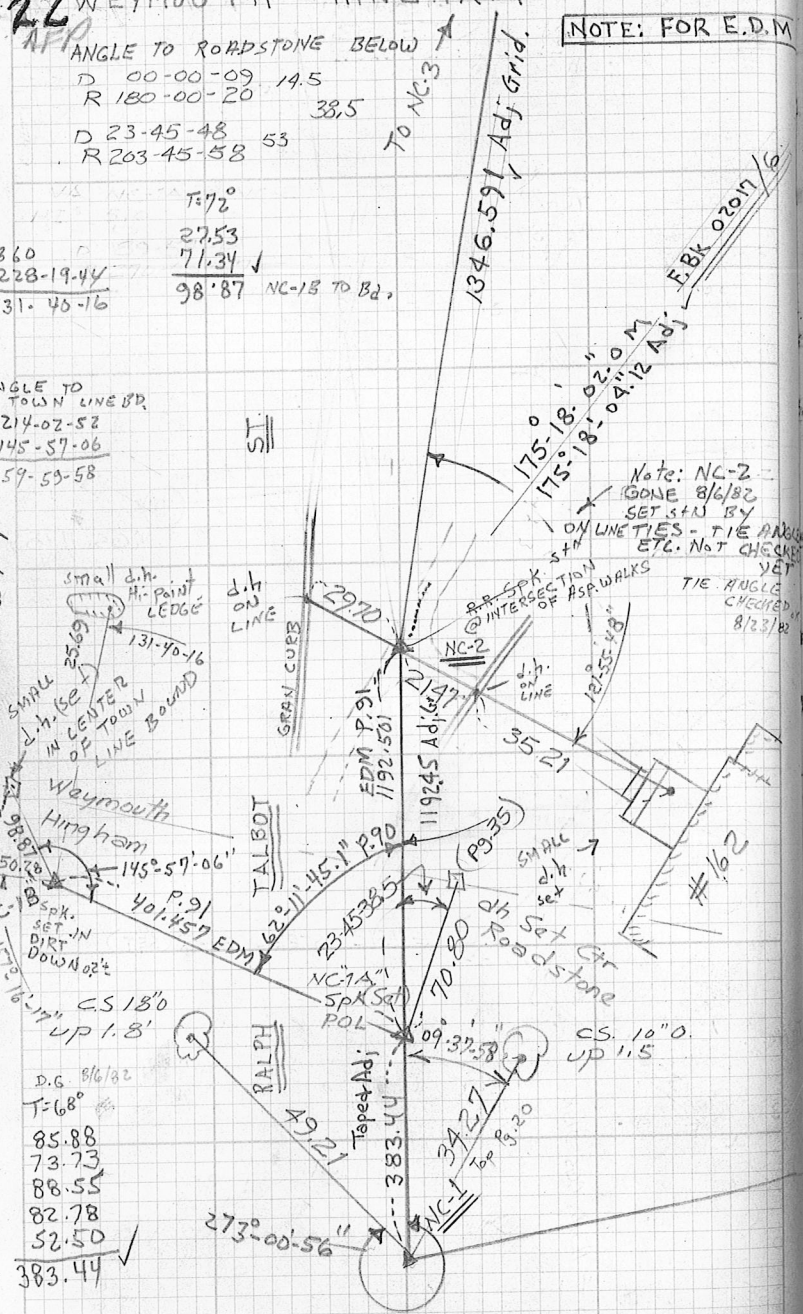
145-57-06

359-59-58

Bd. buried 6/20/83

Small d.h. point  
H. Point  
LEDGE

Small d.h. point  
H. Point  
LEDGE



# TOWN LINE SURVEY

450/23

SEE ENV. No. 535 OBS. SHEETS

360  
317-42-52

42-17-08

COR  
Stone & Mas  
Post up 2.3

185-34-05.8 Adj.

185-34-08.0 M

(F.B.K. 0207/10)

185-34-05.8 Adj.

185-34-08.0 M

(F.B.K. 0207/10)

185-34-05.8 Adj.

185-34-08.0 M

(F.B.K. 0207/10)

185-34-05.8 Adj.

185-34-08.0 M

(F.B.K. 0207/10)

185-34-05.8 Adj.

185-34-08.0 M

(F.B.K. 0207/10)

185-34-05.8 Adj.

185-34-08.0 M

(F.B.K. 0207/10)

185-34-05.8 Adj.

185-34-08.0 M

(F.B.K. 0207/10)

185-34-05.8 Adj.

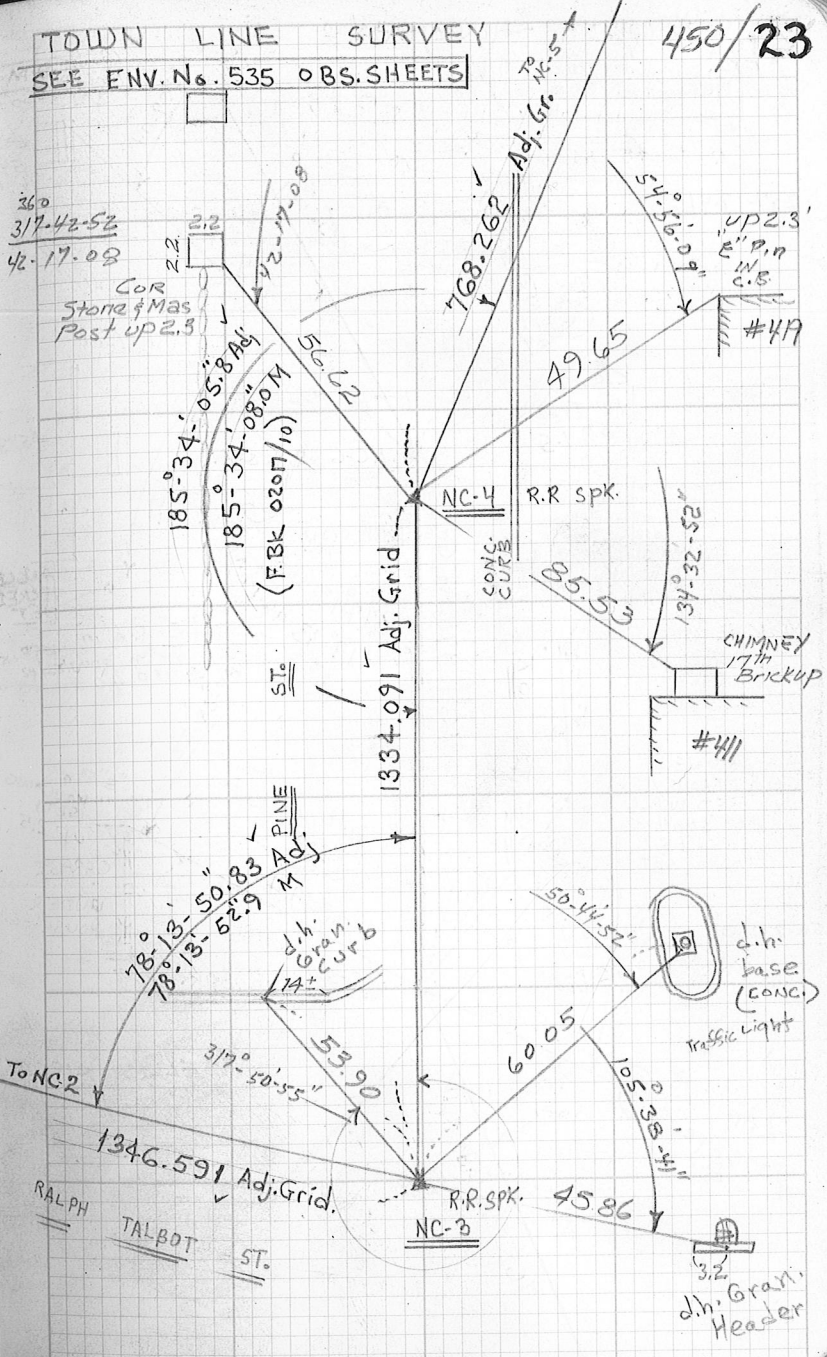
185-34-08.0 M

(F.B.K. 0207/10)

185-34-05.8 Adj.

185-34-08.0 M

(F.B.K. 0207/10)

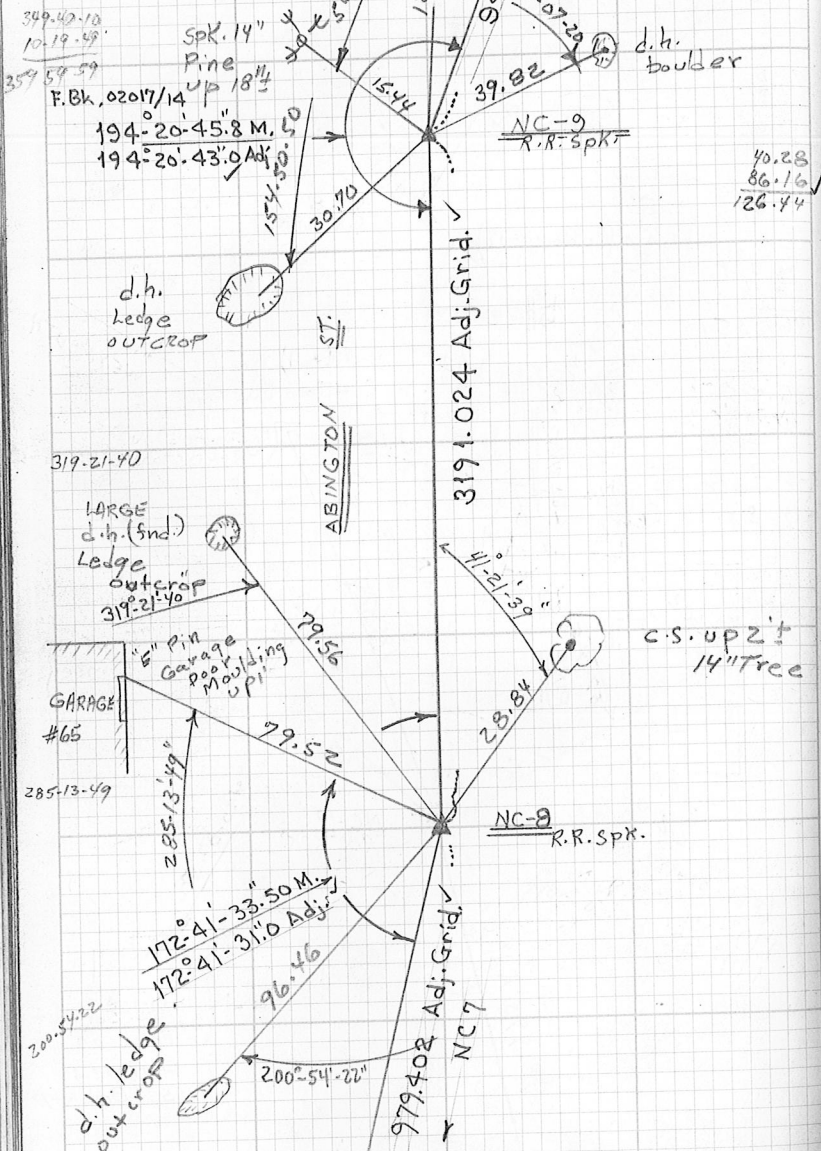




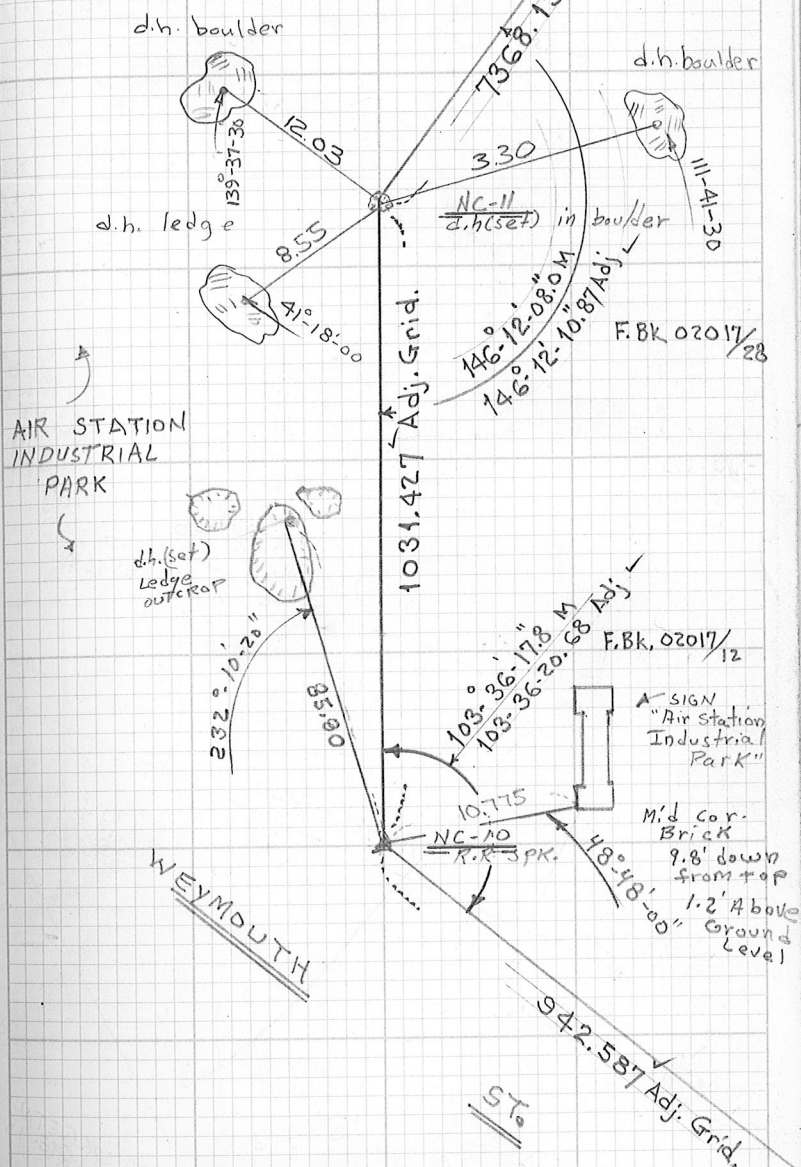


26

## WEYMOUTH - HINGHAM

HINGHAM-ROCKLAND  
TOWN LINE ROADSTONE

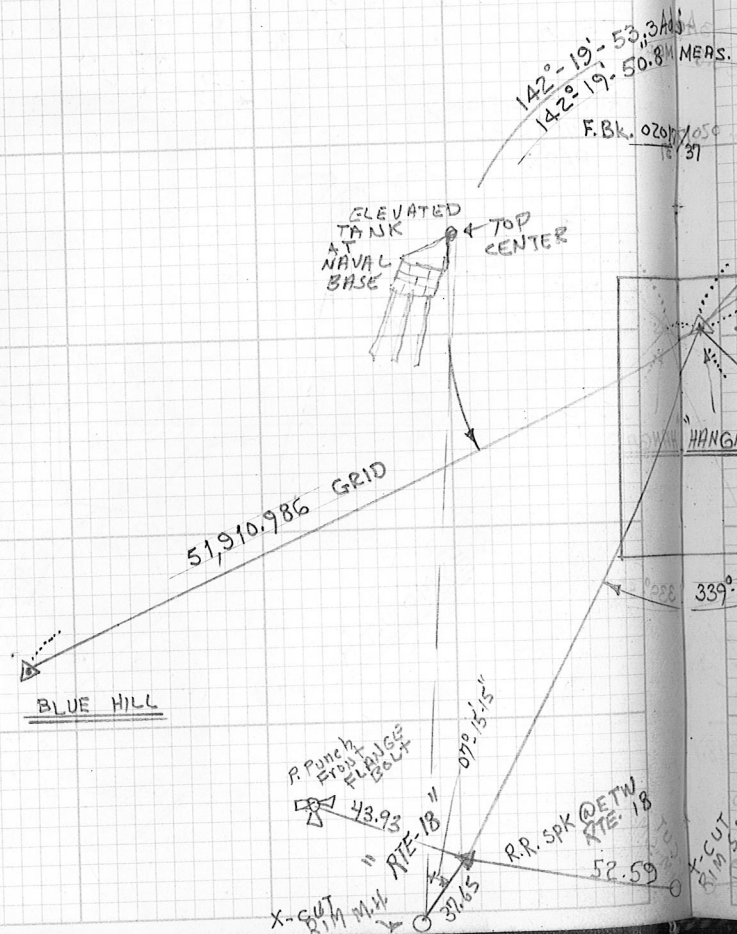
## LINE SURVEY

Note: FOR EDM SEE ENV  
No. 535 OBS. SHEETS

27

450

07-15-30  
14-30-30 ✓  
07-15-15



NC-20  
Jh. @EDGE CONG.  
TAXI. WAY  
SEE MAP OF AIR STATION  
IN ENV. #535



# 30 WEYMOUTH - HINGHAM TOWN

APP  
450

STATION Q-12

H.I. = 5.0'

SEE PG. 20

π J. CROWLEY  
W. SIMPSON

① 1198W D 00-00-10 15"  
H.I. = 5.0' R 180-00-20 19"

Q-11 D 129-11-30 34"  
STONE R 309-11-38 BOUND

② 1198W D 45-00-20 15.5"  
R 225-00-11 17"

Q-11 D 174-11-40 32.5"  
R 354-11-25

③ 1198W D 90-00-30 34"  
R 270-00-38 17.5"

Q-11 D 219-11-45 51.5"  
R 39-11-58

④ 1198W D 135-00-40 32.5"  
R 315-00-25 19"

Q-11 D 264-11-58 51.5"  
R 84-11-45

ANGLE 1198W - Q-12 - Q-11 =  
129° - 11' - 18.1" ✓

19  
17  
17.5  
19  
AVE = 18.1

# LINE SURVEY

APRIL 29, 1982 31

V.A. Q-12 TO 1198W 89°-27'-40"

SAME DATA (METEOROLOGICAL) AS ON P. 34

LASER @ Q-12 REFLEX @ 1198W

FEET METERS

|           |         |
|-----------|---------|
| 802.84    | 244.705 |
| .82       | .697    |
| .80       | .695    |
| .81       | .706    |
| .81       | .708    |
| .82       | .706    |
| .82       | .702    |
| .81       | .707    |
| .82       | .706    |
| .85       | .702    |
| 802.820 ✓ | .705    |

802.831  
802.820

802.826 = AVE. X SIN 89°-27'-40" = 802.790 (SEE PG. 20)

244.7035 ✓ x 3.280833

= 802.831 ✓

V.A. Q-11 TO Q-12 89°-13'-20"

SAME DATA (METEOROLOGICAL) AS ON P. 34

LASER ON Q-12 REFLEX ON Q-11

FEET METERS

|          |                      |
|----------|----------------------|
| 867.03   | 264.281              |
| .07      | .278                 |
| .05      | .276                 |
| .03      | .280                 |
| .02      | .272                 |
| .02      | .274                 |
| .02      | .283                 |
| .02      | .281                 |
| .04      | .283                 |
| 867.00   | .286                 |
| 867.03 ✓ | 264.279 ✓ x 3.280833 |

867.03  
867.055

867.043 = AVE. X SIN 89°-13'-20" = 866.963 Pg. 20

= 867.055

32 WEYMOUTH - HINGHAM  
STATION Q-11  
H.I. = 4.25

TOWN  
SEE PG. 20

J. CROWLEY  
W. SIMPSON

① Q-12 D = 00-00-10 17"  
H.I. = 4.25 R = 180-00-24

57"

Q-10 D = 151-55-11 14"  
R = 331-55-17

② Q-12 D = 45-00-20 13"  
R = 225-00-06

58"

Q-10 D = 196-55-16 11"  
R = 16-55-06

③ Q-12 D = 90-00-30 39"  
R = 270-00-48

55.5"

Q-10 D = 241-55-29 34.5"  
R = 61-55-40

④ Q-12 D = 135-00-40 32.5"  
R = 315-00-25

57"

Q-10 D = 286-55-36 29.5"  
R = 106-55-23

ANGLE Q-12 - Q-11 - Q-10 =

151° - 54' - 56.9" ✓

57

58

55.5

57

AVE = 56.9

SURVEY

APRIL 29, 1982 33

STATION Q-10

H.I. = 4.50

SEE PG. 21

① Q-11 D = 00-00-10 18"  
R = 180-00-26

03.5"

#11312 D = 85-51-14 21.5"  
H.I. = 4.5 R = 265.51-29

② Q-11 D = 45-00-20 13"  
R = 225-00-06

03.5"

#11312 D = 130-51-23 16.5"  
R = 310-51-10

③ Q-11 D = 90-00-30 34"  
R = 270-00-38

01.0"

#11312 D = 175-51-28 35"  
R = 355-51-42

④ Q-11 D = 135-00-40 31"  
R = 315-00-22

01.0"

#11312 D = 220-51-36 32"  
R = 40-51-28

ANGLE

Q-11

Q-10

- #11312

85° - 51' - 02.3" ✓

03.5

03.5

01.0

01.0

AVE 02.3 ✓

# 34 WEYMOUTH - HINGHAM TOWN

V.A. Q-11 TO Q-10 91-10-01

SAME DATA AS BELOW

MAY 4, 1982

LASER @ Q-10 - REFLEX @ Q-11

| FEET           | METERS             |
|----------------|--------------------|
| 632.65         | 192.841            |
| .65            | .839               |
| .66            | .835               |
| .62            | .841               |
| .63            | .831               |
| .61            | .833               |
| .62            | .841               |
| .59            | .844               |
| .62            | .833               |
| .64            | .824               |
| <u>632.629</u> | <u>192.836</u>     |
|                | $\times 3.2808333$ |
|                | $= 632.663$        |

632.629  
632.663

$632.646 = \text{AVE} \cdot \sin 91^\circ 10' - 01'' = 632.515$  Pg. 20

V.A. Q-10 TO #11312 88-55-16

LASER @ Q-10 REFLEX @ #11312 MAY 4, 1982

T = 70°

Bar = 30.05

offset = +98 MM

SINGLE REFLEX W/FILTER

PPM = +29

| METERS         | FEET            |
|----------------|-----------------|
| 407.507        | 1336.98         |
| 407.520        | .95             |
| .521           | .98             |
| .521           | .97             |
| .509           | .99             |
| .513           | .96             |
| .516           | .98             |
| .519           | .95             |
| .507           |                 |
| .518           | 1337.02         |
| .516           |                 |
| <u>407.515</u> | <u>1336.916</u> |

$407.515 \times 3.2808333$   
 $= 1336.989$

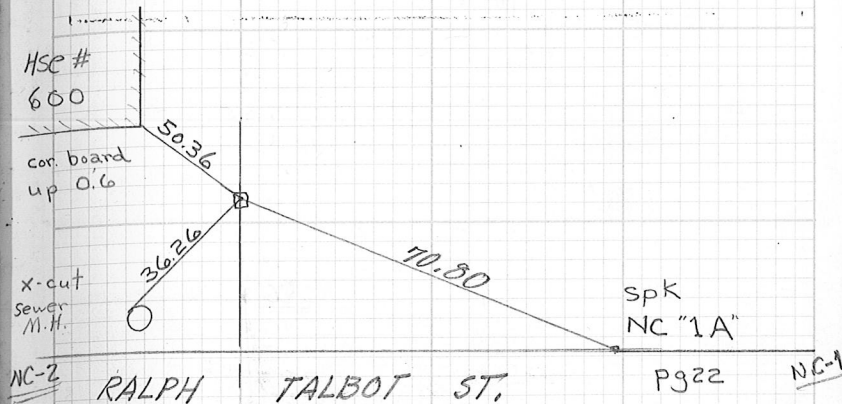
1336.976  
1336.989

$1336.983 = \text{AVE} \cdot \sin 88^\circ 55' - 16'' = 1336.746$  Pg. 21

## LINE SURVEY

450/35

Int. Tape Wthr & Temp. Date Crew



Line Bound

S.B. pg 22 buried 6/20/83



36/ WEYMOUTH-HINGHAM TOWN LINE  
 AEP SKETCH OF AUXILIARY TRAVERSE  
 450

North  
 ↑

← TO BLUE HILL

"HANGAR"

NC-26  
NC-25  
NC-24  
NC-23

NC-22

NC-21

NC-20

PROJECT TO LOCATE WEYMOUTH-HINGHAM, ROCKLAND CORNER

37

JUNE 3, 1982

NC-8

ABINGTON ST.

NC-9

5

WEYMOUTH

NC-10

WEYMOUTH ST.

NC-27

NC-11

17P  
1450

NC-23  
P.40

TO BLUE HILL



"HANGAR"

3883.552 EDM P.60  
3883.386 Adj-Grid.

429.329 Adj. Grid.

STN  
NC-22  
P.41

57° 12' 00.17 Adj.  
57° 11' 58.6'  
P.54

674.355 EDM

674.335 Adj. Grid.

17° 34' 06.8 Adj.  
17° 34' 05.1'  
P.56

SPK 36" P UP 2.7'

156° 19' 28"

32.57

UP 2.3

SPK Twin 24" P

51° 11' 26"

22.28

17° 14' 26"

STN SET R.O.L.  
NC-20A

455.43 EDM P.59

478.201 Adj-Grid

NC-20

d.h. @ edge  
CONC. Taxi Way

NOTE: SEE MAP OF  
SOUTH WEYMOUTH NAVAL  
AIR STATION IN ENV. 535  
FOR TIES TO THIS POINT

SPK 6" P  
UP 2.8

360  
257.44.40  
102.15.20

360  
342.45.34  
17.14.26

H.R. W. TOWN MON  
Shallow d.h. set  
IN CENTRE  
CHAIN LINK FENCE AROUND  
NAVAL AIR STATION

NC-11

APP

NC-25  
S+N

366.466 ✓ Adj. Grid.  
EDM  
366.477 PG

SPK 18" P  
up 1.5

D.H. SB

34.26

NC-24  
STN

554.711 EDM  
 Pg. 58  
 554.695 Adj Grid

24" P  
up 2.3

5PK 30" T  
up 2'

256-35.52

NC-23  
S+N

17.11

SPK  
30"  
up 2

SPK 2-6"MS up 2'

## LINE SURVEY

~~141°-50'-44.5" Pg. 52~~  
141-50-46.2" Adj;

38'-01.4" Pw  
38'-02.7" Adj

GONE  
5PK 2-6 M  
UP 1.5'

428 329 Adj. Grid  
701 LCOEDM  
347 - - 0-24  
R. 58 160-24

570-11-5816

5PK  
30" P  
UP 2.5'

#8

SMALL D.V. set in d  
4' High 12" SQUARE  
Rough cut Town Line

5PK  
36" O  
up 5.0'

~~NC-22~~  
~~8761~~

SPK  
WP 35  
18'0"

4

93

2

20

52'

36-71

51

↓

0.8

40

21 ✓

17



# WEYMOUTH - HINGHAM TOWN LINE

42  
APP  
450

3783.190 EDM.

3783.365 EDM (P. 4)

NC-26

729.129 Adj. Grid.  
729.152 EDM P. 42

Pg. 50  
84-02-38.5 M.  
84-02-40.2 Adj.

SPK 5-6" Chys  
up 5.0'

62.12  
93°55'-22"  
NC-25  
STN

66.75

90.50

P.P. Flange Bolt  
Hyd

0°15'-29"  
366.466 Adj. Grid.  
366.477 EDM.  
Pg. 47

183°-02'-14.8" M. P. 9.51  
183°-02'-15.7 Adj.

Porch  
Bot C.B.

360  
313.412 M  
46-18-36

# SURVEY

NC-8 ABINGTON S.T.

3191.024 Adj. Grid.

NC-9

NC-10  
942.587 Adj. Grid.

277°44'-01.4" M.  
Pg. 44  
277°43'-59.8 Adj.

388.484 Adj.  
388.499 EDM Pg. 16

62°07'5"

d.h. Granite Header

134°36'-45.2 Adj.  
134°36'-45.4" M.  
Pg. 45

R.R. SPK

NC-27

63.13

CUT SPK  
12" up 3.5'

290°03'-50"

3783.190 Adj. Grid.  
3783.365 EDM

WEYMOUTH

84°02'-38.3" M.  
Pg. 50  
84-02-40.2 Adj.  
up 2.5

360  
307°32'-35"  
52°27'-25"

9485

3783.190 Adj. Grid.  
3783.365 EDM

LIBERTY ST.

d.h. ledge (set)

P.P. Flange Bolt  
Hyd

360  
349°20'-01"  
10°39'-59"

NC-26

153.22-07

SPK 24" P

87.51

729.129 Adj. Grid.

32°23'-43"

SPK 18" P

NC-25

45

① NC-8 D 00-00-07 16  
R 180-00-25 16  
NC-27 D 277-44-10 16  
R 97-44-22 16

00

② NC-8 R 45-00-12 06  
D 225-00-00 06

03

NC-27 R 322-44-15 09  
D 142-44-03 09

③ NC-8 D 90-00-29 33.5  
R 270-00-38 33.5

02.5

NC-27 D 07-44-30 36  
R 187-44-42 36

④ NC-8 R 135-00-41 38  
D 315-00-35 38

00

NC-27 R 52-44-45 38  
D 232-44-31 38

00  
03  
02.5  
00

AVE. 01.4

ANGLE NC-8 - NC-9 - NC-27 = 277° 44' 01.4" PG. 43

JUNE 3, 1962  
K.S. DILLIS  
W. SIMPSON

① NC-26 D 00-00-11 16.5  
R 180-00-22 16.5

43

NC-9 D 134-36-57 59.5  
R 314-29-02 59.5

② NC-26 R 45-00-21 12  
D 225-00-03 12

41

NC-9 R 179-36-57 53  
D 359-36-49 53

③ NC-26 D 90-00-22 24  
R 270-00-26 24

46.5

NC-9 D 224-37-05 10.5  
R 44-37-16 10.5

④ NC-26 R 135-00-41 44.5  
D 315-00-48 44.5

51

NC-9 R 269-37-30 35.5  
D 89-37-41 35.5

43  
41  
46.5  
51  
45.4

ANGLE NC-26 - NC-27 - NC-9 = 134° 36' 45.4" PG. 43

# 46 WEYMOUTH - HINGHAM TOWN LINE

V.A. NC-27 TO NC-9

ADJ. = 89-28-40.5  
89-28-52  
270-31-31

LASER @ NC-27 REFL. @ NC-9 360-00-23  
23 = 11.5"  
SAME DATA AS BELOW EXCEPT USING FILTER

| FEET    | METERS                        |
|---------|-------------------------------|
| 388.49  | 118.426                       |
| .51     | .420                          |
| .51     | .418                          |
| .49     | .416                          |
| .52     | .423                          |
| .51     | .427                          |
| .51     | 118.422                       |
| 388.51  | 118.422 x 3.2808333 = 388.523 |
| 388.506 |                               |

388.506  
388.523

388.515 = AVE ✓

SIN 89-28-40.5" x 388.515 = 388.499 PG. 43

VA NC-27 TO NC-26

ADJ. = 90-31-44"  
90-31-56  
269-28-28  
360-00-24  
24 = 12"

LASER @ NC-27 REFL. @ NC-26

T=78° NO FILTER  
Bar. 29.9 SINGLE GLASS  
P.P.M. +37 OFFSET 98MM

INST. OFFSET = 128MM  
REFL. " " = 30MM  
98MM

| FT       | METERS                          |
|----------|---------------------------------|
| 3783.52  | 1153.228                        |
| .52      | .228                            |
| .53      | .217                            |
| .53      | .227                            |
| .50      | .219                            |
| .49      | .226                            |
| .52      | .221                            |
| 3783.51  | 1153.228                        |
| 3783.515 | 1153.224 x 3.2808333 = 3783.536 |

3783.515  
3783.536 90-31-44" SIN x 3783.526 = 3783.365 PG. 43  
3783.524 = AVE

# SURVEY

V.A. NC-25 TO NC-26

ADJ. = 91-28-42.5"  
D: 91-28-47  
R: 268-31-22  
360-00-09

LASER @ NC-25 REFL. @ NC-26

7/21/82

SIMPSON  
CROWLEY

| T=70°                                      | FEET    | METERS                        |
|--------------------------------------------|---------|-------------------------------|
| Bar. 29.82                                 | 729.42  | 222.320                       |
| P.P.M. +32                                 | .41     | .326                          |
| SINGLE GLASS REFL.                         | .39     | .317                          |
| FILTER USED                                | .37     | .316                          |
| ND. 1.0                                    | .38     | .321                          |
| OFFSET                                     | .39     | .323                          |
| 98MM                                       | .40     | .322                          |
|                                            | .37     | .320                          |
|                                            | .42     | .317                          |
|                                            | .40     | .316                          |
|                                            | 729.40  | 222.316                       |
| 729.397                                    | 729.397 | 222.319 x 3.2808333 = 729.392 |
| 729.392                                    |         |                               |
| 729.395 = AVE.                             |         |                               |
| SIN 91-28-42.5" x 729.395 = 729.152 PG. 42 |         |                               |

Y.A. NC-25 TO NC-24

ADJ. = 90-07-39"  
D: 90-07-45  
R: 269-52-27  
360-00-12

LASER @ NC-25 REFL. @ NC-24

SAME  
METEOROLOGICAL  
DATA AS ABOVE

| FEET    | METERS                        |
|---------|-------------------------------|
| 366.48  | 111.701                       |
| .48     | .704                          |
| .47     | .701                          |
| .47     | .704                          |
| .48     | .705                          |
| .48     | .706                          |
| .47     | .702                          |
| .47     | .704                          |
| .47     | .705                          |
| 366.477 | 111.704                       |
| 366.474 | 366.474 x 3.2808333 = 366.482 |
| 366.482 | 366.482 = AVE. = 366.482 ✓    |

SIN 90-07-39" x 366.478 = 366.477 PG. 40



48 Weymouth - Hingham TOWN LINE  
ESTABLISH ELEVATION OF NC-1 Pgs. 20 & 22

| STA. & OFFSET | +      | H.I. | -      | ELEV.   | ADJ. ELEV. |
|---------------|--------|------|--------|---------|------------|
|               |        |      |        | 146.803 |            |
| 6.08          | 152.88 |      |        |         |            |
| 5.36          | 155.10 | 3.14 | 149.74 |         |            |
| 4.51          | 156.46 | 3.15 | 151.95 |         |            |
| 4.22          | 158.41 | 2.27 | 154.19 |         |            |
| 4.95          | 158.14 | 5.22 | 153.19 |         |            |
| 4.67          | 157.67 | 5.14 | 153.00 |         |            |
| 5.00          | 155.94 | 6.73 | 150.94 |         |            |
| 5.42          | 155.49 | 5.87 | 150.07 |         |            |
| 6.06          | 157.22 | 4.33 | 151.16 |         |            |
| 5.43          | 157.54 | 5.11 | 152.11 |         |            |
| 5.31          | 157.03 | 5.82 | 151.72 | ✓       | ✓          |
|               |        | 5.67 | 151.36 | 151.35  |            |

49 SURVEY

6/9/82 49  
Dillis  
Roche  
450

REMARKS

MASS. DPW TRAVERSE DISK STAMPED 1198V

RR SPK "NC-1" Rte 3

TP SPK Pole # 52 Ralph Talbot St.

TP High Point S.B. in front of Hse # 568

TP High Point Gran Curb

RR SPK "NC-2"

TP High Point Gran Curb

TP High Point Gran Curb

ROC Gran Header Hse # 442

TP Gran Curb

RR SPK "NC-3"

TBM # 3061 Monel Rivet in S.B.

# 50 WEYMOUTH - HINGHAM TOWN

1450 STATION NC-26 Pg. 43

① NC-27 D 00-00-09 17  
R 180-00-25

39.5

264-03-04 NC-25 D 84-02-49 56.5  
R 264-02-64

② NC-27 R 45-00-21 12  
D 225-00-03

38.5

NC-25 R 129-02-57 50.5  
D 309-02-44

③ NC-27 D 90-00-32 37  
R 270-00-42

39

NC-25 D 174-03-10 16  
R 354-03-22

④ NC-27 R 135-00-42 36.5  
D 315-00-31

36

NC-25 R 219-03-21 12.5  
D 39-03-04

ANGLE NC-27 - NC-26 - NC-25

84°-02'-38.3" ✓

39.5  
38.5  
39  
36

Ave. = 38.3

# LINE SURVEY

STATION NC-25

7/20/82

51

Pg. 42

CLOUDY  
T: 70°

W. SIMPSON  
J. CROWLEY  
KERN DKM-ZAE  
THEODOLITE  
E. KELLY

① NC-26 D 00-00-09 10.5  
R 180-00-12

12.5

NC-24 D 183-02-17 23  
R 03-02-29

② NC-26 R 45-00-20 11  
D 225-00-02

16.5

NC-24 R 228-02-34 27.5  
D 48-02-21

③ NC-26 D 90-00-30 35  
R 270-00-40

16.5

NC-24 D 273-02-46 51.5  
R 93-02-57

④ NC-26 R 135-00-40 34  
D 315-00-20

13.5

NC-24 R 318-02-53 47.5  
D 138-02-42

12.5  
16.5  
16.5  
13.5

ANGLE NC-26 - NC-25 - NC-24

183°-02'-14.8" ✓

Ave. = 14.8 ✓

① NC-25  $P_R$  00-00-10 18.5  
180-00-27

NC-23  $P_R$  141-50-55 61.5  
321-51-08 321 50-68

② NC-25  $R_D$  45-00-20 13.5  
225-00-07

NC-23  $R_D$  186-51-06 59.5  
06-50-53 06-50-53

③ NC-25  $P_R$  90-00-32 30.5  
270-00-45

NC-23  $P_R$  231-51-15 22.5  
51-51-30

④ NC-25  $R_D$  135-00-41 32.5  
315-00-24

NC-23  $R_D$  276-51-23 17.5  
96-51-12

ANGLE NC-25 - NC-24 - NC-23  
= 141°-50'-44.5" ✓

43  
46  
44  
45 ✓  
44.5 AVE.

① NC-24  $D: R:$  00-00-10 15  
180-00-20

NC-22  $D: R:$  99-38-15 20.0  
279-38-25

② NC-24  $R: D:$  45-00-20 15.5  
225-00-11

NC-22  $R: D:$  144-38-21 15.0  
324-38-09

③ NC-24  $D: R:$  90-00-31 37  
270-00-43

NC-22  $P: R:$  189-38-28 35  
09-38-42

④ NC-24  $R: D:$  135-00-41 31  
315-00-27

NC-22  $R: D:$  234-38-39 34  
54-38-29

ANGLE NC-24 - NC-23 - NC-22 =  
99°-38'-01.4" ✓

65  
59.5  
58  
63  
61.4 ✓



# 54 WEYMOUTH - HINGHAM TOWN LINE

450

STATION NC-22

Pg. 41

① NC-21 D = 00-00-10  
R = 180-00-31 20.5

59

NC-23 D = 57-12-14 19.5  
R = 237-12-25

② NC-21 R = 45-00-21 18  
D = 225-00-15

57.5

NC-23 R = 102-12-21 15.5  
D = 282-12-10

③ NC-21 D = 90-00-30 36.5  
R = 270-00-43

59.5

NC-23 D = 147-12-31 36  
R = 327-12-41

④ NC-21 R = 135-00-40 32.5  
D = 315-00-25

58.5

NC-23 R = 192-12-39 31  
D = 12-12-23

59  
57.5  
59.5  
58.5  
58.6

ANGLE NC-21 - NC-22 - NC-23 =

57°-11'-58.6" Pg. 41

# SURVEY

55

STATION NC-21 PG. 39

① NC-20 D = 60-00-09 19.5  
R = 180-00-30

38.5

NC-22 D = 171-40-51 58  
R = 351-41-05

② NC-20 R = 45-00-21 13  
D = 225-00-05

38

NC-22 R = 216-40-55 51  
D = 36-40-47

③ NC-20 D = 90-00-30 37  
R = 270-00-44

37

NC-22 D = 261-41-12 14  
R = 81-41-16

④ NC-20 R = 135-00-39 30  
D = 315-00-21

40

NC-22 R = 206-41-16 10  
D = 126-41-04

38.5  
38  
37  
40  
38.4

ANGLE NC-20 - NC-21 - NC-22 =

171°-40'-38.4"

56 WEYMOUTH - HINGHAM TOWN  
1/450 STATION NC-20 Pg. 39

① "HANGAR" D= 00-00-10 10  
R= 180-00-10

02

NC-21 D= 117-34-08 12  
R= 297-34-16

② "HANGAR" R= 45-00-20 14  
D= 225-00-08

05.5

NC-21 R= 162-34-24 19.5  
D= 342-34-15

③ "HANGAR" D= 90-00-28 32  
R= 270-00-36

09

NC-21 D= 207-34-36 4  
R= 27-34-46

④ "HANGAR" R= 135-00-40 37.5  
D= 315-00-35

04

NC-21 R= 252-34-46 41.5  
D= 72-34-37

ANGLE "HANGAR" - NC-20 - NC-21 =

117°-34'-05.1" Pg. 39

02  
05.5  
09  
04  
05.1

LINE SURVEY

57

Incl. Tape Wtbl & Temp. Date Crow

# WYOMOUTH - HINGHAM TOWN

58/450

ADJ. = 88°-46'-35"

V.A. NC-23 TO NC-24 = D = 88°-46'-42"  
R = 271°-13'-32"

LASER @ NC-23 REFL. @ NC-24

| T = 73°          | FEET    | METERS                           |
|------------------|---------|----------------------------------|
| BAR. = 29.92     | 554.85  | 169.117                          |
| PPM = +33        | .84     | .119                             |
| SINGLE GLASS     | .83     | .116                             |
| +98MM OFFSET     | .83     | .119                             |
| FILTER           | .82     | .115                             |
|                  | .82     | .117                             |
|                  | .83     | .119                             |
|                  | .84     | .113                             |
|                  | .84     | .113                             |
|                  | .84     | .112                             |
|                  | .84     | .116                             |
| 554.835          |         |                                  |
| 554.841          |         |                                  |
| 554.838 X        | 554.84  |                                  |
| SIN. 88°-46'-35" | 554.835 | 167.116 X 3.2808333<br>= 554.844 |
| 554.711 PG. 40   |         |                                  |

ADJ. = 91°-28'-55"

V.A. NC-23 TO NC-22 = D = 91°-28'-58"  
R = 268°-31'-08"

LASER @ NC-23 REFL. @ NC-22

| SAME DATA AS ABOVE    | FEET    | METERS                         |
|-----------------------|---------|--------------------------------|
|                       | 429.49  | 130.911                        |
|                       | .49     | .912                           |
|                       | .49     | .908                           |
|                       | .50     | .911                           |
|                       | .48     | .907                           |
|                       | .48     | .908                           |
|                       | .49     | .909                           |
|                       | .48     | .911                           |
|                       | .49     |                                |
| 429.488               | 429.49  | 130.910                        |
| 429.494               |         | 130.910 X 3.2808333<br>429.494 |
| 429.491 X             | 429.488 |                                |
| SIN. 91°-28'-55"      |         |                                |
| = 429.347 PG. 40 & 41 |         |                                |

# LINE SURVEY

ADJ. = 90°-34'-52" 59

V.A. NC-21 TO NC-22 = D = 90°-35'-03"

R = 269°-25'-19"

LASER @ NC-21 REFL. @ NC-22

| T = 81°                    | FEET    | METERS                         |
|----------------------------|---------|--------------------------------|
| BAR. = 29.8                | 674.40  | 205.555                        |
| P.P.M. = +38               | .39     | .553                           |
| USING N.D. 1.0             | .40     | .555                           |
| FILTER                     | .39     | .556                           |
| OFFSET 98 MM               | .38     | .558                           |
| SINGLE GLASS               | .38     | .553                           |
| +128                       | .40     | .553                           |
| -30                        | .40     | .558                           |
| +98 MM                     | .38     | .554                           |
|                            | .41     | .552                           |
|                            | .38     | .551                           |
| 674.392                    | 674.392 | 205.554 X 3.2808333<br>674.388 |
| 674.388                    |         |                                |
| 674.390 X SIN. 90°-34'-52" |         |                                |
| = 674.355 P. 39            |         |                                |

V.A. NC-20 TO NC-20A

ADJ. = 91°-11'-30"

268°-48'-40"

LASER @ NC-20 REFL. @ NC-20A

360.00-20

7/26/82

| SAME METEOROLOGICAL DATA AS TOP OF P. 60 EXCEPT USING N.D. 1.0 FILTER | FEET   | METERS    |
|-----------------------------------------------------------------------|--------|-----------|
|                                                                       | 455.53 | 138.858   |
|                                                                       | .53    | .850      |
|                                                                       | .54    | .852      |
|                                                                       | .53    | .856      |
|                                                                       | .51    | .844      |
|                                                                       | .51    | .848      |
|                                                                       | .51    | .852      |
|                                                                       | .52    | .853      |
|                                                                       | .53    | .849      |
|                                                                       | .50    | .848      |
|                                                                       | .52    | .855      |
|                                                                       | .53    | .854      |
|                                                                       | .51    | 138.854   |
| 455.521                                                               |        |           |
| 455.550                                                               |        |           |
| 455.536                                                               |        |           |
|                                                                       | .54    | 138.852 X |
|                                                                       | .52    | 3.2808333 |
|                                                                       | .50    | = 455.550 |
| 455.521                                                               |        |           |

455.536 X SIN. 91°-11'-30" = 455.437 PG. 39



660 WEYMOUTH - HINGHAM TOWN

ADJ. = 88.44-45.5"  
88-44.56  
271-15.25

V.A. NC-20 TO "HANGAR" 271-15.25  
LASER @ NC-20 REFL. @ "HANGAR" 360-00-21

T = 90° 7/26/82

|              | FEET     | METERS   |
|--------------|----------|----------|
| Bar = 29.92  | 3884.46  | 1184.006 |
| P.P.M. 144   | .42      | .013     |
|              | .43      |          |
| OFFSET 98MM  | .44      | 1183.993 |
|              | .47      | 1183.989 |
| NO FILTER    | .46      | 1183.991 |
|              | .46      | 1183.995 |
| SINGLE GLASS | .46      | 1184.004 |
| REFL.        | .45      | 1184.017 |
|              | .44      | 1184.004 |
|              | .43      | 1184.006 |
| 3884.448     | .44      | 1184.004 |
| 3884.516     | 3884.448 | 1184.014 |
| 3884.482     | 3884.448 | 1184.009 |

$$3884.482 \times \sin 88^{\circ} 44' 45.5'' = 3883.552$$

$$1184.003 \times 3.2808333 = 3884.516$$

P.38

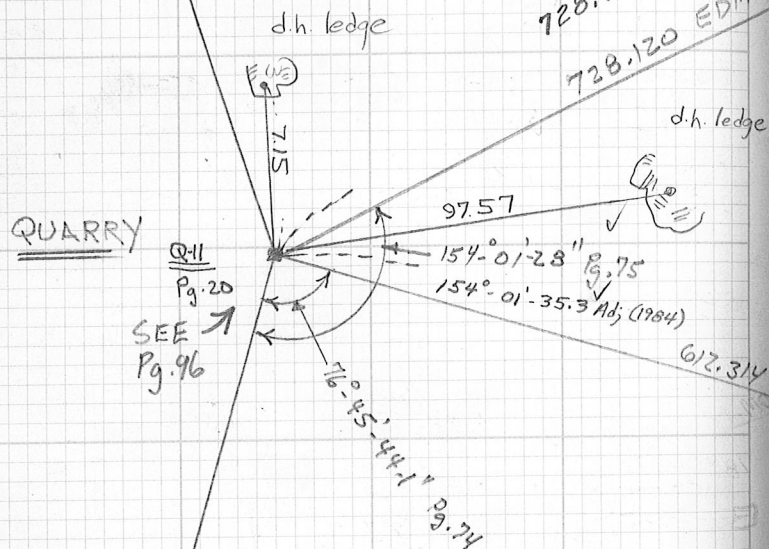
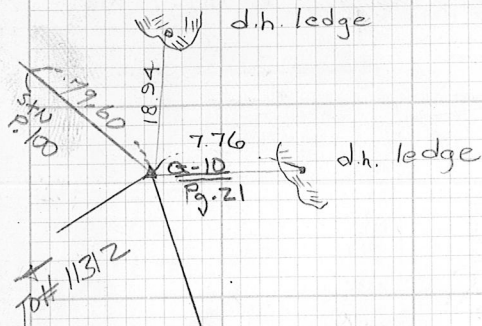
LINE SURVEY

450/61

Last. Tape Wthr & Temp. Date Crow

# WEYMOUTH - HINGHAM TOWN

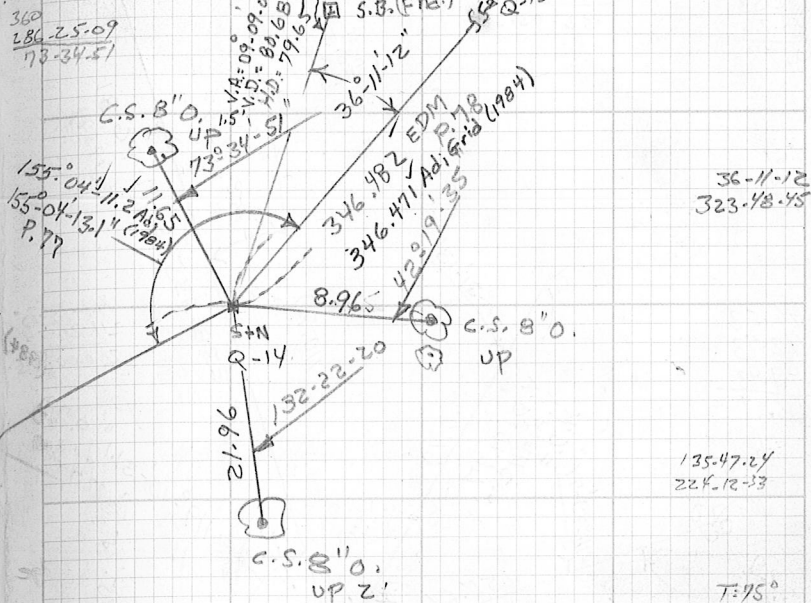
## SURVEY TO LOCATE POINTS



Q-12  
Pg. 20

# LINE SURVEY

## ON LAND COURT PLAN



19.87  
82.635  
102.505

Small d.h.  
set in CENTER  
OF Broken S.B.

d.h. set in  
Large Ledge outcrop  
Q-13

69.89  
64.61  
22.92  
19.35  
176.77  
176.78

341.47 28  
18-12-34

# 64 WEYMOUTH - HINGHAM TOWN

LINE SURVEY 2 AUG. 6, 1982 65

182  
92.53  
18.26  
110.79

360  
207-56-28  
152-03-32

73.61  
84.00  
57.161

d.h. in  
Rocks  
(Fnd.)

46.53  
42.73  
49.43  
138.69

d.h. in  
Rocks  
(Fnd.)

148°-38'-35"

157.61

152°-03'-32"

C.S.  
2-4' 0"  
UP 1.0'

d.h.  
Stone  
Bnd (Fnd.)

15-56-14  
344-03-46  
359-59-10

278-28-46  
81-31-13  
354-59-59

248-10-19  
111-49-44  
360-00-03

d.h. in  
Rocks  
(Fnd.)

110.79

15°-56'-14"  
238.335 EDM PG. 81  
238.320 Adj Grid (1984)

143-38-35  
211-21-28  
360-00-03

119°-10'-31.1"  
119°-10'-32.4"  
P. 179  
Adj (1984)

8.97

106°-54'-18"

C.S. 6" 0"  
UP 1.5'

346.471 Adj Grid (1984)

346.482 EDM. P. 178

457.234 Adj Grid (1984)  
P. 81  
457.246 EDM

C.S. 4" 0"  
UP 1'

108°-43'-36"

3.62

14.83

79°-22'-04"

C.S. 8" 0"  
UP 1.5'

94°-52'-13.0"  
94°-52'-16.1"  
P. 80

238.335 EDM.  
P. 81

238.320 Adj Grid (1984)

182°-56'-26"

193°-25'-10"

68.37

6.42

C.S. 6" 0"  
UP 1'

182°-56'-26"

193°-25'-10"

68.37

6.42

C.S. 6" 0"  
UP 1'

182°-56'-26"

193°-25'-10"

68.37

6.42

C.S. 6" 0"  
UP 1'



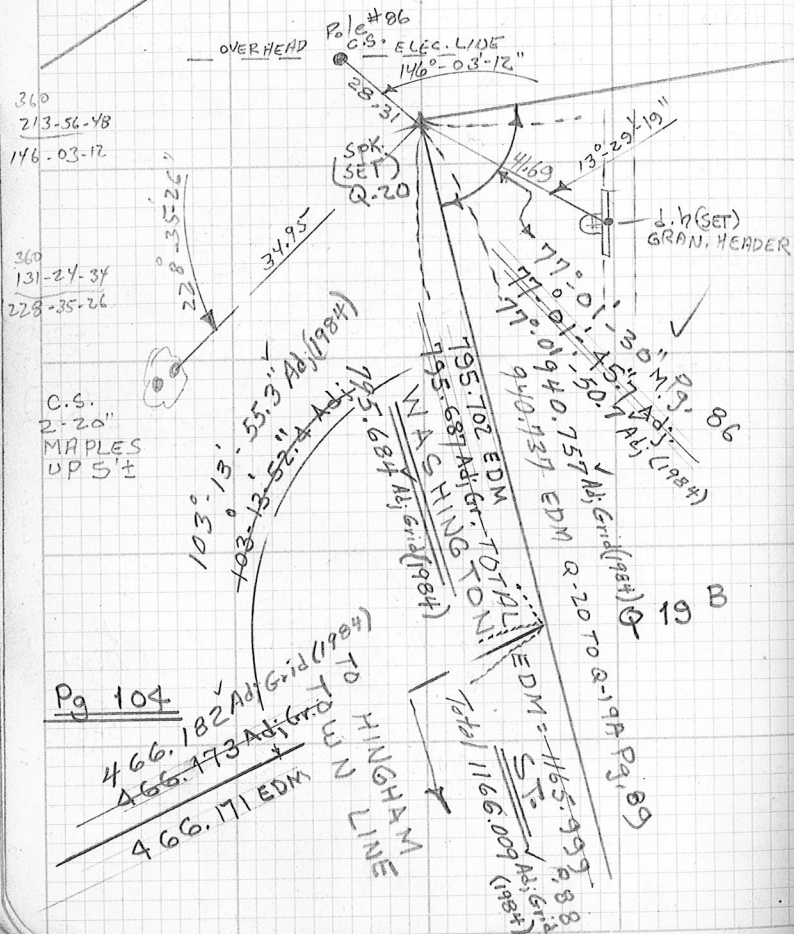
12

# 68 WEYMOUTH - HINGHAM TOWN

450

HIGH

#11310 P.16



# LINE SURVEY 2 AUG 6, 1982 69

W. SIMPSON

TENSION LINE  
1842.034 Adj. Grid  
1841.993 Adj. Grid

MGS DISK # 11369 P.15  
TO #11308  
1067.615 Adj. Grid (1984)  
1067.589 Adj. Grid

1127.902 EDM P.88  
1127.893 Adj. Grid  
1127.920 Adj. Grid (1984)

180°-09'-35.8" M.  
P.87  
180°-09'-30.9 Adj.  
180°-09'-28.9 Adj. (1984)

19 B

Pg 104

466.182 Adj. Grid (1984)  
466.173 Adj. Grid  
466.171 EDM

HINGHAM  
TOWN  
LINE

EDM = 1165.999  
Sto. 1166.009 (1984)

70/450

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

71



72/490

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

73

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

# 74 WEYMOUTH - HINGHAM TOWN

450

STATION Q-11 Pg. 62

① Q-13 P<sub>R</sub> 00-00-11 / 180-00-34 22.5

45

Q-12 P<sub>R</sub> 76-46-02 / 256-46-13 07.5

② Q-13 R<sub>D</sub> 45-00-21 / 224-59-53 07

224-59-53

45.5

Q-12 R<sub>D</sub> 121-46-00 / 301-45-45 52.5

301-45-45

③ Q-13 P<sub>R</sub> 90-00-33 / 270-00-44 38.5

42

Q-12 P<sub>R</sub> 166-46-15 / 346-46-26 20.5

④ Q-13 R<sub>D</sub> 135-00-40 / 315-00-19 29.5

44

Q-12 R<sub>D</sub> 211-46-18 / 31-46-09 13.5

45  
45.5  
42  
44  
44.1

ANGLE Q-13 - Q-11 - Q-12 =

76°-45'-44.1" Pg. 62

## LINE

## SURVEY

AUG. 4, 1982

W. SIMPSON  
J. CROWLEY  
KERN DKM-2  
THEODOLITE

STATION Q-11 Pg. 62

① Q-14 P<sub>R</sub> 00-00-10 / 180-00-19 14.5

28

Q-12 P<sub>R</sub> 154-01-36 / 334-01-49 42.5

② Q-14 R<sub>D</sub> 45-00-21 / 225-00-10 15.5

27

Q-12 R<sub>D</sub> 199-01-49 / 19-01-36 42.5

③ Q-14 P<sub>R</sub> 90-00-29 / 270-00-38 33.5

27.5

Q-12 P<sub>R</sub> 244-01-54 / 64-01-68 61

④ Q-14 R<sub>D</sub> 135-00-40 / 315-00-31 35.5

29.5

Q-12 R<sub>D</sub> 289-02-09 / 109-02-01 05

28  
27  
27.5  
29.5  
28

ANGLE Q-14 - Q-11 - Q-12 =

154°-01'-28" Pg. 62

# 76 WEYMOUTH - HINGHAM TOWN

V.A. Q-13 TO Q-11

92.15.58  
267.44-20  $\text{Adj.} = 92^{\circ}15'49''$

LASER @ Q-13 REFL. @ Q-11

Pg. 62 and 63

| TEMP $75^{\circ}$ | FEET                                                     | METERS                               |
|-------------------|----------------------------------------------------------|--------------------------------------|
| BAR. 29.9         | 612.80                                                   | 186.781                              |
| P.P.M. +35        | .79                                                      | .786                                 |
| USING             | .78                                                      | .782                                 |
| FILTER            | .77                                                      | .779                                 |
| SINGLE            | .77                                                      | .784                                 |
| GLASS             | .77                                                      | .782                                 |
| REFLECTOR         | .79                                                      | .785                                 |
| OFF SET           | .78                                                      | .784                                 |
| 98 MM             | .78                                                      | .786                                 |
|                   | 612.78                                                   | 186.778                              |
|                   | 612.782                                                  | 186.782 $\times 3.2808333 = 612.801$ |
|                   | 612.782                                                  |                                      |
|                   | 612.801                                                  |                                      |
|                   | 612.792 = AVE. $\times \sin 92^{\circ}15'49'' = 612.314$ |                                      |
|                   |                                                          | Pg. 62 & 63                          |

LINE SURVEY 2 AUG. 4, 1982 77

STATION Q-14 P.63 450

W. SIMPSON  
J. CROWLEY  
KERN D.M.-2 THEO.  
E. KELLY

① Q-11 D R 00-00-09 19  
180-00-29 19

12.5

Q-15 D R 155-04-26  
335-04-37 34.5

② Q-11 R D 45-00-20 07.5  
224-59-55

16.5

Q-15 R D 200-04-29 24  
20-04-19

③ Q-11 D R 90-00-29 30  
270-00-31

09.5

Q-15 D R 245-04-37 39.5  
65-04-42

④ Q-11 R D 135-00-41 36  
315-00-31

14

Q-14 R D 290-04-59 50  
110-04-41

ANGLE Q-11 - Q-14 - Q-15 =

155-04-13.1" P.63

12.5  
16.5  
09.5  
14

52.5  
AVE. = 13.1



# 18 WEYMOUTH - HINGHAM TOWN

ADJ. = 88°-56'-07.5"

| V.A. Q-14 TO Q-11           | FEET    | METER               |
|-----------------------------|---------|---------------------|
| LASER @ Q-14 REFLECT @ Q-11 |         |                     |
| 78°                         |         |                     |
| BAR = 29.9                  | 728.23  | 221.971             |
| P.M. +35                    | .25     | .973                |
| OFFSET                      | .24     | .972                |
| 0.78MM                      | .24     | .970                |
| USING                       | .25     | .971                |
| FILTER                      | .24     | .972                |
|                             | .24     | .970                |
|                             | .25     |                     |
|                             | 728.24  | 221.972             |
|                             | 728.242 | 221.971 X           |
|                             |         | 3.2808333 = 728.250 |

728.242  
728.250  
728.246 X SIN. 88°-56'-07.5" = 728.120 P.62

ADJ. = 89°-05'-46"

SAME DATA AS ABOVE

| V.A. Q-14 TO Q-15           | FEET | METER |
|-----------------------------|------|-------|
| LASER @ Q-14 REFLECT @ Q-15 |      |       |
| 89°-05'-55"                 |      |       |
| 272°-54'-23"                |      |       |
| 360°-00'-18"                |      |       |

|                    |             |
|--------------------|-------------|
| 346.52             | 105.624     |
| .53                | .624        |
| .53                | .621        |
| .53                | .620        |
| .52                | .622        |
| .52                | .620        |
| .52                | .621        |
| .51                | .622        |
| .51                | .625        |
| .52                |             |
| .53                | 105.620     |
| 346.522            | 105.622 X   |
| 346.528            | 3.2808333 = |
| 346.523            | 346.528     |
| X SIN. 89°-05'-46" |             |
| = 346.482 P.63     |             |

# LINE SURVEY STATION Q-15 PG.64 79

W. SIMPSON  
D. O'BRIEN  
KERN DKM-2  
THE DO LITE  
E. KELLY

① Q-16 D 00-00-11 17.5  
R 180-00-24 32.5

Q-14 D 119-10-45 50  
R 299-10-55

② Q-16 R 45-00-21 16  
D 225-00-11 32

Q-14 R 164-10-53 48  
D 344-10-43

③ Q-16 D 90-00-29 34  
R 270-00-39 27.5

Q-14 D 209-10-55 61.5  
R 29-11-08 29-10-68

④ Q-16 R 135-00-40 33.5  
D 315-00-27 32.5

Q-14 R 254-11-15 0.6  
D 74-10-57

ANGLE Q-16 - Q-15 - Q-14  
= 119°-10'-31.1" P.64

32.5  
32.  
27.5  
32.5  
31.1

80 Weymouth - Hingham TOWN  
STATION Q-16 P.65  
/450

① Q-15 D 00-00-13 18.5  
R 180-00-24 16

Q-17 D 94-52-31 34.5  
R 274-52-38

② Q-15 R 45-00-22 17  
D 225-00-12 19

Q-17 R 139-52-41 36  
D 319-52-31

③ Q-15 D 90-00-30 37.5  
R 270-00-45 15

Q-17 D 184-52-46 52.5  
R 04-52-59

④ Q-15 R 135-00-40 35  
D 315-00-30 14.5

Q-17 R 229-52-52 49.5  
D 49-52-47

ANGLE Q-15 - Q-16 - Q-17  
= 94°-52'-16.1" P.65  
16  
19  
15  
14.5  
16.1

LINE SURVEY

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V.A. Q-16 TO Q-17 91-12-59 ADJ. 91°-12'-54"  
LASER @ Q-16 REFL. @ Q-17 268.47.11  
360-00-10

|                    | FEET      | METERS      |
|--------------------|-----------|-------------|
| SAME DATA AS BELOW | 457.34    | 139.400     |
|                    | .35       | .402        |
|                    | .34       | .399        |
|                    | .34       | .404        |
|                    | .35       | .403        |
|                    | .34       | .402        |
|                    | .34       | .403        |
|                    | .34       | .403        |
|                    | .32       | .404        |
|                    | .35       | .404        |
|                    | .34       | .404        |
| 457.340            | 457.33    | 139.406     |
| 457.358            | 457.340   | 139.403 X   |
| 457.349            |           | 3.2808333 = |
| SIN. 91°-12'-54"   |           | 457.358     |
| = 457.246          | P.65 ± 66 |             |

V.A. Q-16 TO Q-15 89-39-45 ADJ. 89°-39'-38"  
LASER @ Q-16 REFL. @ Q-15 270-20-29  
360-00-14

|                  | FEET      | METERS      |
|------------------|-----------|-------------|
| T = 70°F         | 238.33    | 72.651      |
| BAR = 30.00      | .33       | .650        |
| P.P.M. = +30     | .33       | .647        |
| OFFSET = 0.98 MM | .33       | .647        |
| SINGLE GLASS     | .33       | .648        |
| REFL.            | .33       | .649        |
| USING FILTER     | .34       | .647        |
|                  | .33       | .648        |
|                  | .33       | .650        |
|                  | .33       | .648        |
|                  | .33       | .646        |
| 238.332          | 238.34    | 72.644      |
| 238.346          | 238.332   |             |
| 238.1339 X SIN.  |           | 72.648      |
| / 89°-39'-38"    |           | X 3.2808333 |
| = 238.335        | P.65 ± 64 | = 238.346   |

# Weymouth - Hingham Town

82/450

Q-17 P.66

W. SIMPSON  
A. PRISCO  
KERO DKM-2  
THEODOLITE  
E. KELLY  
M. ROACH

① Q-18 P<sub>R</sub> 00-00-11 18.5  
180-00-26 26

12.5

Q-16 P<sub>R</sub> 148-25-25 31  
328-25-37 37

② Q-18 R 45-00-21 23.5  
D 225-00-26 26

10.5

Q-16 R 193-25-28 34  
D 13-25-40 40

③ Q-18 P<sub>R</sub> 90-00-32 26  
R 270-00-20 20

12

Q-16 P<sub>R</sub> 238-25-44 38  
R 58-25-32 32

④ Q-18 R 135-00-35 37.5  
D 315-00-40 40

8.5

Q-16 R 283-25-43 46  
D 103-25-49 49

ANGLE Q-18 - Q-17 - Q-16

= 148° 25' - 10.9" P.66

12.5  
10.5  
12  
8.5  
10.9

# LINE SURVEY - AUG 17, 1982 83

Q-18 P.66

① Q-17 P<sub>R</sub> 00-00-11 17  
180-00-23 23

36.5

Q-19 P<sub>R</sub> 89-34-48 53.5  
269-34-59 59

② Q-17 R<sub>D</sub> 45-00-25 19  
225-00-13 13

34

Q-19 R<sub>D</sub> 134-25-01 53  
314-34-45 45

③ Q-17 P<sub>R</sub> 90-00-33 36  
270-00-39 39

34.5

Q-19 P<sub>R</sub> 179-35-08 10.5  
359-35-13 13

④ Q-17 R<sub>D</sub> 135-00-40 36  
315-00-32 32

39

Q-19 R<sub>D</sub> 224-35-20 15  
44-35-10 10

ANGLE Q-17 - Q-18 - Q-19

= 89° 34' - 36" P.66

36.5  
34  
34.5  
39  
36.0



$$\begin{array}{r} 43.5 \\ 42 \\ 43.5 \\ 42 \\ \hline 42.8 \end{array}$$

86 Weymouth - Hingham TOWN

STATION Q-20 P.68

① MGS DISK' D 00-00-10 18.5  
#11309 R 180-00-27

30

Q-19 D 77-01-40 48.5  
R 257-01-57

② #11309 R 45-00-20 14.5  
D 225-00-09

28.5

Q-19 R 122-01-49 43  
D 302-01-37

③ #11309 D 90-00-29 37  
R 270-00-45

30.0

Q-19 D 167-02-00 07  
R 347-02-14

④ #11309 R 135-00-40 33.5  
D 315-00-27

31.5

Q-19 R 212-02-11 05  
D 32-07-59

ANGLE #11309 - Q-20 - Q-19 =

77°-01'-30" Pg.68

30  
28.5  
30.0  
31.5  
30 = AVE.

LINE SURVEY - AUG. 18, 1982 87

STATION #11309 P.69

① #11308 D 00-00-12 16  
R 180-00-20

32.5

Q-20 D 180-09-42 48.5  
R 00-09-55

② #11308 R 45-00-20 13.5  
D 225-00-07

33.5

Q-20 R 225-09-55 47  
D 45-09-39

③ #11308 D 90-00-30 35.5  
R 270-00-41

38.5

Q-20 D 270-10-06 14  
R 90-10-22

④ #11308 R 135-00-42 36.5  
D 315-00-31

38.5

Q-20 R 315-10-20 15  
D 135-10-10

ANGLE #11308 - #11309 - Q-20 =  
180°-09'-35.8" Pg.69

32.5  
33.5  
38.5  
38.5  
35.8

# SURVEY

V.A. Q-20 TO Q-19A - D 88-22-58  
LASER @ Q-20 REFL. @ Q-19A R271-37-16  
360-00-14

FEE T

METER

[illegible][illegible]
$$\begin{array}{r} 1166.618 \\ 1166.635 \\ \hline 1166.627 = \text{AVE. XSIN } 88^{\circ} 07' 12.5'' \\ = 1165.999 \quad P.67568 \end{array}$$

941 : 10  
 : 11  
 : 10  
 : 11  
 : 10  
 : 09  
 : 10  
 : 10  
 : 11  
 : 10  
941 : 10  
 941 : 10

286

$$286,855 \times 3,2808333 = 941,123$$

941.103  
941.123

$$941.113 \times \sin 88^\circ 22' 51'' = 940.737 \quad P.67 \text{ 68}$$

FEET

METERS

1128.92  
 .93  
 .89  
 .91  
 .93  
 .94  
 .91  
 .90  
 .91  
 .89  
 .91  
 .91  
 .93  
1128.92  
 1128.914

$344 \cdot 101$   
 $\cdot 099$   
 $\cdot 098$   
 $\cdot 102$   
 $\cdot 106$   
 $\cdot 104$   
 $\cdot 099$   
 $\cdot 101$   
 $\cdot 099$   
 $\cdot 100$   
 $\cdot 102$   
 $\cdot 105$   
 $\cdot 106$   
 $344 \cdot 104$   


---

 $344 \cdot 102 \times 3.2008333$   
 $= 1128.941$



# WEYMOUTH - HINGHAM TOWN

STATION NC-1A PG. 22

① NC-1B D 00-00-00 16.5  
R 180-00-24

45.5

NC-2 D 62-11-57 02  
R 242-12-07

② NC-1B R 45-00-22 14.5  
D 225-00-07

44

NC-2 R 107-12-07 58.5  
D 287-11-50

③ NC-1B D 90-00-31 38  
R 270-00-45

45.5

NC-2 D 152-12-18 23.5  
R 332-12-29

④ NC-1B R 135-00-41 34  
D 315-00-27

45.5

NC-2 R 197-12-25 19.5  
D 17-12-14

ANGLE NC-1B - NC-1A - NC-2 =

62° - 11' - 45.1" PG. 22

45.5

44

45.5

45.5

45.1

# LINE SURVEY

AUG. 24, 1982 01

V.A. NC-1A TO NC-2 =  
PG. 22

ADJ. = 89°-55'-47.5"  
D = 89-55-55  
R = 270-04-20  
360-00-15

LASER AT NC-1A REFL. @ NC-2

T = 72°

FEET

METERS

BAR = 29.8

1192.50

263.475

P.P.M. = +33

.50

.477

OFFSET = 98MM

.49

.476

SINGLE GLASS

.51

.480

REFL.

.48

.476

USING FILTER

.51

.473

.49

.479

.51

.476

1192.499

.50

.473

1192.504

.49

.483

1192.502

.51

.475

X SIN. 89°-55'-47.5"

1192.50

363.473

= 1192.501 ✓

1192.499

363.476 X

P.22

3.2808333 =

1192.504

ADJ. = 88°-44'-04.5" AUG. 24, 1982

V.A. NC-1A TO NC-1B = D 88-44-12  
PG. 22

W. SIMPSON

R 271-16-03

360-00-15

LASER @ NC-1A

REFL. @ NC-1B

SAME DATA  
AS ABOVE

FEET

METER

401.55

122.397

.54

.397

.54

.399

.54

.394

.53

.404

.54

.394

.54

.398

.55

.399

.55

.398

.55

.399

401.543

401.53

122.396

401.567

401.543

122.398 ✓

401.555

X SIN 88°-44'-04.5"

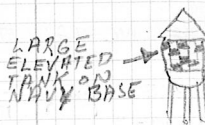
= 401.457 ✓ P.22

X 3.2808333

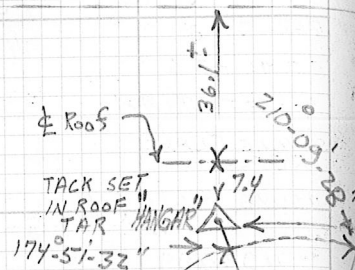
= 401.567

92/450 Weymouth - Hingham TOWN

TIE TO POINT ON ROOF  
OF S. WEYMOUTH NAVAL  
AIR STATION HANGAR NO. 1



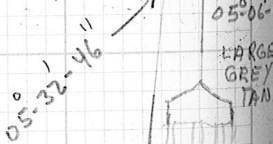
WESTERLY  
END  
HANGAR



UPPER MOST  
STEP



Punch set in  
support base for  
METAL STAIRWAY



LARGE  
WHITE  
TANK



LINE SURVEY



TOP CHURCH STEEPLE

ASPHALT SHINGLES

48' ±

TAR &  
GRAVEL

ASPHALT SHINGLES

TOP & CROSS ON  
CHURCH STEEPLE

AVG. 24, 1983 93

W. SIMPSON  
E. KELLY  
J. CROWLEY



EASTERLY  
END  
HANGAR

# 94/ WEYMOUTH - HINGHAM

Inst. Tape Wthr & Temp. Date Crew  
 CLOUDY 44° 3/7/83  
 OBTAIN DISTANCE NAVAL AIR STATION  
 SEE SKETCH P.29

V.A. (ZENITH) ① 85-37-49 ② 85-37-47 ③ 85-37-50  
 274-22-44 274-22-44 274-22-44

LASER @ TOWN Bd. IN M.H. - Reflect @ HANGAR

3/7/83  
 W/F  
 T=44°  
 BAR=30.16  
 PPM=+16  
 SINGLE GLASS REFL  
 OFFSET 98 M.H.

## FEET

1034.25  
 .25  
 .26  
 .25  
 .25  
 .23  
 .26  
 .26  
 .26  
 .25  
 1034.24

## METERS

315.244  
 .243  
 .237  
 .239  
 .239  
 .242  
 .242  
 .241  
 .244  
 315.244

# TOWN LINE SURVEY

450/95

Inst. Tape Wthr & Temp. Date Crew  
 W. SIMPSON  
 A. LEONE  
 J. CROWLEY  
 D. O'BRIEN  
 E. SLY

H.I. INFO. = @ TOWN Bd. IN M.H. H.I. THEODOLITE = 1.856 METERS

H.I. LASER = 1.908 METERS

@ HANGAR = H.I. OF TARGET (FOR ZENITH AND IN THIS  
 CASE 1/2 GLASS REFLECTOR) = 1.301 METERS  
 H.I. OF REFLECTOR (FOR DISTANCE) = 1.301 METERS



# 96 WEYMOUTH - HINGHAM TOWN

450

| Inst. | Tape | Wthr & Temp.     | Date   | Crew                                 |
|-------|------|------------------|--------|--------------------------------------|
| #5    | #3   | F. Cloudy T: 25° | 3/2/84 | W. SIMPSON<br>J. CROWLEY<br>E. KELLY |

TIE TO POINT  
Q-11 P. 20 - P. 62

d.h. Q-10

79.13  
87.70  

---

166.83  
.04  

---

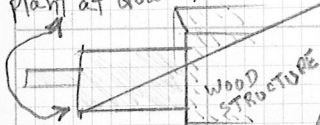
166.79

80-33-55  
279-26-10  

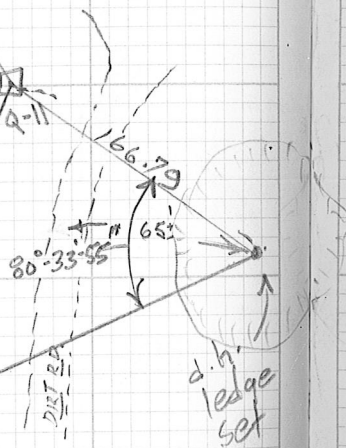
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359-59-65  
360-00-05

upper left Hand  
edge of white  
Tank at conc. batching  
Plant at Quarry



d.h. Q-12



# LINE SURVEY

97

| Inst. | Tape | Wthr & Temp. | Date | Crew |
|-------|------|--------------|------|------|
|       |      |              |      |      |

Inst. 450

Tape

Wthr &amp; Temp.

Date

Crew

Inst.  
#2Tape  
#3Wthr & Temp.  
WINDY T=35°Date  
2/29/84Crew  
W. SIMPSON  
J. CROWLEY  
E. KELLYCHECKING  $\nabla$  Q-22 TO Q-23 PG. 101  
T=26° 1/1/84  $\leftrightarrow$  see Note next Pg. CONCERNING Q-23

J. CROWLEY

W. SIMPSON

81.72

81.76

77.17

77.17

96.86

96.88

75.75

75.74

76.85

76.85

408.35

408.40

408.24

408.20

Note: This time  
is in SWAMP -  
Most of SWAMP  
has 1' of water  
in it - Difficult  
TapingCHECKING  $\nabla$  MEASURE Q-21 - Q22 P. 100  
T=35°

W. SIMPSON

J. CROWLEY

V.D. = 81.99

V.D. = 81.98

V.A. = 10

V.A. = 10°

H.D. = 80.74

H.D. = 80.73

(69.53) LEVEL

(69.52) LEVEL

80.74

80.73

69.53

69.52

150.27

150.25

150.24

150.22

CHECKING  $\nabla$  MEASURE Q-23 TO Q-24 (Pg. 101-102)  
T=26° P. CLOUDY LIGHT WIND

J. CROWLEY

W. SIMPSON

43.28

43.29

56.65

85.63

37.52

37.52

85.64

56.65

223.09

223.09

- .06

- .06

223.03

223.03

Note: Q-23 P. 101  
UNDER 1' of WATER  
SET THEODOLITE OVER  
checked Angles  
Ties OK 1/1/84  
W. SimpsonCHECKING  $\nabla$  MEASURE Q-10 to Q-21 P. 100

2-29-84 Tape #3 T=35°

W. SIMPSON

J. CROWLEY

75.11 V.D.

06-35 V.A.

04-00 V.A.

91.48 V.D.

H.D. = 74.93

90.88 H.D.

75.21 = V.D.

(74.92) LEVEL

05-00 = V.A.

90.88

74.92 = H.D.

74.92

V.D. = 91.50

165.80

V.A. = 06-35

165.76

H.D. = 90.90

74.92

90.90

165.82

165.78

11/450

T=59°

96.85  
53.35  
150.20  
150.19

SPK 10" 0  
UP 5.7

SEE PG. 98  
FOR 1984 REMEASURE

Q-21  
STN (set)

T=59°

VA: 98°-15'-12"  
V.D: 87.03  
H.D: 86.13

T=59°

86.13  
79.60  
165.73  
165.72

T=59°

VA: 94°-17'-52"  
V.D: 79.82  
H.D: 79.60

174°-24'-44.2" Adj. Grd (1984)  
174°-24'-25"

1336.746  
1336.702 Adj. Grd (1984)

174-24-24  
185-35-34  
359-59-58

STN (set)

165.797 Adj. Grd (1984)

dh. (set)  
BOULDER

SEE PG. 99 for  
1984 REMEASURE

Q-10  
dh. (P. 21)

TO Q-11 (P. 20)  
632.515

632.493 Adj. Grd (1984)

LEONE  
CROWLEY  
KELLY

SEE PG. 99  
FOR 1984  
REMEASURE

223.052 Adj. Grd (1984)  
222.98

SPK 11" 0  
6.18

Q-23  
STN (set)

85°-06'-37"

6.04

SPK 6" 0  
6.04

174°-55'-20"

408.332 Adj. Grd (1984)

408.29

T=54°

99.42  
89.70  
91.22  
79.30  
48.69  
408.33  
408.29

SEE PG. 98  
FOR 1984  
REMEASURE

151°-45'-36.5" Adj. (1984)

151-45-19  
208-14-37  
359-59-56

Q-22

1848

151°-45'-21"

151-45-19

SPK 14" 0  
14.20

87°-51'-57"

Q-22A  
dh. (End)

LEDGE

29°-55' Vert  
SPK 16" 0

dh. (End)  
Field stone

3.43

1848

151°-45'-21"

151-45-19

SPK 14" 0  
14.20

87°-51'-57"

Q-22A  
dh. (End)

LEDGE

Field  
STONE (End  
BOUND.  
to Mid.  
of Loose  
Bound  
UP 1.5

331-06-57  
28-53-04  
360-00-01

203-12-15  
156-47-40  
359-59-55

272-08-02  
87-51-56  
359-59-58





# 104 WEYMOUTH - HINGHAM

Pg 68

T=20  
61.67  
83.44  
145.13  
145.08

WASHINGTON ST.

WHITING ST.

To Q-20 Pg 68

To Q-19 Pg 67

795.702 EDM Pg 105  
795.687 Adj. GN  
775.684 Adj. Grid (1984)  
103-13-41 M.

145.08 T  
145.074 Adj.  
145.073 Adj. Grid (1984)  
103-13-55.3 Adj. Grid (1984)  
103-13-53.4 Adj. Grid (1984)

X 256-46-17  
103-13-39  
359-59-56

466.182 Adj. Grid (1984)  
466.173 Adj. Grid (1984)  
466.171 EDM Pg 105

1st 144-24-50  
2nd 215-35-14  
360 00-04

144-24-48 M.  
144-24-54.5 Adj. Grid (1984)  
144-24-55.9 Adj. Grid (1984)  
154-08-154-08  
see Pg 109

D.H. (set)  
LEDGE

Q-27

S+N (set)

D.H. (set)  
LEDGE

T=44°  
99.71  
69.60  
169.31  
103

469.29  
169.28

D.H. (set)  
LEDGE

# TOWN LINE SURVEY 1/5/82 105

DIS. SPK to S+N Pg. 104

VA = 87°-20'-26"

OFFSET=0.98  
BAR=29.8  
T=40°  
PPM=+15  
W/F

| FEET               | METERS        |
|--------------------|---------------|
| 466.67             | 142.246       |
| .67                | .245          |
| .66                | .244          |
| .66                | .246          |
| 466.67             | 142.243       |
| 466.666            | 142.245       |
| 466.682            |               |
| 466.674 AVE.       |               |
| X SIN. 87°-20'-26" | X 3.2808333 = |
| = 466.171          | 466.682       |

DIS. = 466.171 Pg. 104

DIS. SPK Pg 104 to Q-20 Pg 68

V.A. = 91°-27'-27"

| FEET              | METERS        |
|-------------------|---------------|
| 795.96            | 242.612       |
| .97               | .609          |
| .96               | .606          |
| .97               | .607          |
| 795.96            | 242.608       |
| 795.964           |               |
| 795.956           |               |
| 795.960 AVE.      |               |
| X SIN 91°-27'-27" | X 3.2808333 = |
| = 795.702         | 795.956       |

(SAME INFO AS ABOVE)

DIS. = 795.702 Pg. 104

# 106 WEYMOUTH - HINGHAM TOWN

1450

Inst. Tape Wthr & Temp. Date Crew

# LINE SURVEY

107

Inst. 5 Tape 3 Wthr & Temp. MISTY 67° Date 5/20/83 Crew SIMPSON MERITHREW KELLY  
LASER @ C-21 REFL @ C-50  
ZENITH = 90-03-32 ADJ. = 90-03-25  
269.56-42

394.96

.98

.98

.96

.95

395.01

.01

.02

.02

394.98

395.01

394.97

395.02

394.990

120.402

.399

.400

.403

.400

.386

.399

.399

.399

.405

.403

120.397

120.399 X 3.2808 333 = 395.009

SAME EXACT  
DATA AS  
Rot Right  
of Page 161

C-21 TO C-50 = 395.000  
C-50 TO C-21 = 394.975  
AVE. = 394.988

394.990

395.009

395.000

SEE PG. 156

AVE. = X SIN 90-03-25 = 395.000

LASER @ C-50 REFL @ C-21

5/20/83

ZENITH = 90-09-02

ADJ. = 90-08-51

269-51-20

Bar. 30.2

T = 70

PPM = 729

SINGLE

GLASS

REFLEC.

FILTER

OFFSET

= 0.98MM

FEET

METERS

394.99

120.393

.97

.388

.99

.391

.99

.380

.98

.387

.98

.390

.98

.393

.97

.391

.96

.383

.97

.388

.96

.392

.97

120.386

.96

120.389 X 3.2808 333 = 394.976

.96

394.99

394.977

394.976

394.977

394.975 AVE. X SIN

90-08-51

= 394.975



1450

4. 1st 212-02-17  
2nd 147-57-38  
359-59-55

$T = 38^{\circ}$   
87.71  
21.74  

---

109.45  
1.02  

---

109.43

D.H.  
GRAN.  
Bound  
(End)

D.H. (set) LEDGE

4.14

131-35-45"

D.H.  
LEDGE  
(set)

D.H.  
(set) LEDGE

D.M.  
(set)  
LEDGE

Cont. from Pg. 103  
98.19

$$\begin{array}{r} T = 38^{\circ} \\ 76.41 \\ 21.80 \\ \hline 98.21 \\ .02 \\ \hline 98.19 \end{array}$$

196.716 Ad; Grid  
196.71

Stone (set)  
D.H.  
Pg 103

131.392 Adj. Grid  
131.39

TOWN LINE SURVEY

1/11/83 109

LEONE  
CROWLEY  
O'BRIEN

spk 8" Twin 0

122° 24' 01"

DH (set) IN LEDGE

134° 06' 32"

(SET)<sup>D.H.</sup>  
IN  
LEDGE

$$T = 43''$$
$$\begin{array}{r} 85.80 \\ 30.67 \\ 37.63 \\ \hline 154.10 \\ .02 \\ \hline 154.08 \end{array}$$

D.H. on  
(set) line  
IN LEDGE

39-44-45  
466.182 Adj. Grid  
466.171 E.D.R.

$$\begin{array}{r}
 39-44-45 \\
 320-15-15 \\
 \hline
 360-00-00
 \end{array}$$

STN  
Pg. 104  
Q27

# 110 WEYMOUTH - HINGHAM TOWN

14.50

Inst. 5 Tape 3 Wthr & Temp. CLOUDY Date 5/20/83 Crew J. SIMPSON \* MERITHEW KELLY  
STATION C-21 Pg. 156

① C-50 D: 00°-00'-18 R: 180-00-40 29 VERY WINDY  
34.5

C-20 D: 161-36-57 03.5  
R: 341-36-10

② C-50 R: 45-00-51 44  
D: 225-00-37

C-20 R: 206-46-27 19.5  
D: 26-46-12 35.5"

③ C-50 D: 90-46-19 R: 270-46-42 30.5

C-20 D: 252-23-00 08.5  
R: 72-23-17 38

④ C-50 R: 135-34-22 D: 315-34-09 14.5

C-20 R: 297-10-56 49  
D: 117-10-42 34.5

ANGLE C-50 - C-21 - C-20 =

161°-36'-36.5"

SEE PG. 156

34.5  
35.5  
38  
34.5  
AVE = 35.6

# LINE SURVEY

111

Inst. 5 Tape 3 Wthr & Temp. P. SUNNY 66° Date 5/19/83 Crew J. SIMPSON \* MERITHEW KELLY  
STATION POPE #11300  
SEE Pg. 156 For Sketch

① MYLES ECC D: 00-00-07 R: 180-00-14 10.5  
982  
USED LIGHT FOR SIGHT

C-20 D: 41-25-01 R: 221-25-11 06  
55.5

② MYLES ECC R: 45-03-08 D: 225-02-57 02.5

C-20 R: 86-28-05 57.5  
D: 266-27-50 55

③ MYLES ECC D: 90-28-28 R: 270-28-36 32

C-20 D: 131-53-25 32  
R: 311-53-39 60

④ MYLES ECC R: 135-50-35 D: 315-50-25 30

C-20 R: 177-15-33 24  
D: 357-15-15 54

55.5  
55  
60  
54  
AVE = 56.1

ANGLE: MYLES ECC - POPE #11300 - C-20

=  
41°-24'-56.1"

SEE PG. 156

Inst. #5 Tape RANGER Wthr & Temp. 54° Date 2/28/83 Crew LEONE CROWLEY O'BRIEN SLY

Dist Q-27 - Q-19 Pg 104

V.A. 92° 46' 24"

T=54° BAR 30.1 PPM 21 OFFSET 0.98

W/F

FEET METERS

466.71 142.258

.70 .252

.71 .249

.70 .255

.70 .251

466.70 142.252

466.703 142.255 X 3.2808333 =

466.715

466.703

AVE = 466.709

X SIN 92° 46' 24"

= 466.162

Dis = 466.162 Pg 104

466.160

DIS. Q-27 - Q-26 Pg 103 &amp; 104

V.A. 93° 41' 33" SAME INFO. AS ABOVE

FEET METERS

169.66 51.713

.65 .710

.66 .707

.65 .709

169.65 51.708

169.654 51.706

51.709 X 3.2808333 =

169.649

169.654

169.651 AVE

X SIN 93° 41' 33"

= 169.299

Dis = 169.299 Pg 103

Inst. #5 Tape #4 Wthr & Temp. 48° Date 2/28/83 Crew LEONE CROWLEY O'BRIEN SLY

DIS. Q-26 - Q-25 Pg 103

T=48°

35.63

64.44

45.24

31.45

196.76

- .03

196.73 ✓

DIS. Q-25 - Q-24 Pg 102

T=48°

25.24

72.93

33.26

131.43

.02

131.41 ✓

DIS. Q-24 - Q-23 Pg 101

T=54°

56.56

37.40

85.62

43.44

223.02

.02

223.00 ✓

DIS. Q-23 - Q-22 Pg 101

T=54°

79.70

78.11

76.03

97.58

56.90

408.32

.04

408.28 ✓



114/450

WEYMOUTH - HINGHAM

Inst.  
#5Tape  
#4Wthr & Temp.  
CLEAR 54°Date  
2/28/83Crew  
LEONE  
CROWLEY  
O'BRIEN  
Sly

DIS. Q21-Q22 P3 100

T=54°

9.54

13.07

34.66

92.94

150.21

.01

150.20 ✓

DIS Q21-Q10 P3 100

V.A. 96°-45'-32"

T=54°

DIS. 89.66

76.68

89.04

165.72

.01

165.71

165.72

DIS. Q21-Q10 P3 100

V.A. 96°-24'-00"

DIS 89.60

T=54°

76.68

89.04

165.72

.01

165.71

165.70 ✓

TOWN LINE

115

Inst.

Tape

Wthr &amp; Temp.

Date

Crew



# 118 WEYMOUTH - HINGHAM TOWN

Inst. #5 Tape #46 LASER Wthr & Temp. CLOUDY - 37° Date 3/4/83 Crew W. SIMPSON

LASER @ Q-18A REFLECT @ Q-19

V.A. = 90°-51'-57"  
269-08-15

360-00-12

90°-51'-51"

FEET

959.27  
.27  
.27  
.27  
.27  
.25  
.27  
.27  
.27  
.27  
959.25

959.2566

METERS

292.389  
.395  
.390  
.387  
.391  
.388  
.391  
.389  
.387  
292.397

292.3906

X FT/M

959.2848

959.2566

959.2707 x VA = 959.162

3/4/83

W/F

OFF SET 98MM

T = 37°

BAR 29.97

PPM + 11

SINGLE GLASS

REFL.

SEE PGS.

116 & 117

LASER @ Q-18A

V.A. = 89°-46'-42"  
270-13-27

360-00-09

89°-46'-38"

FEET

432.45  
.43  
.44  
.43  
.44  
.43  
.42  
.45  
.45  
432.43

432.437

METERS

131.808  
.810  
.808  
.812  
.809  
.806  
.805  
.805  
.807  
131.809

131.8079

X FT/M

432.4397

432.437

432.438 x VA

= 432.435

SEE PG. 117

SAME INFO. AS ABOVE

SEE PG. 117

# LINE SURVEY

119

Inst. Tape Wthr & Temp. Date 3/4/83 Crew Q18

LASER @ Q-18A REFLECT @ 18B

V.A. = 89°-15'-23"  
270-44-44

360-00-07

89°-15'-20"

FEET

337.41  
.40  
.39  
.40  
.40  
.39  
.39  
.39  
337.38

337.395

METERS

102.843  
.840  
.852  
.840  
.837  
.841  
.844  
.842  
102.843

102.8425

X FT/M

337.409

3/4/83

W/F

OFF SET 98MM

T = 37°

BAR 29.97

PPM + 11

SINGLE GLASS REFL.

SEE PG. 117

337.409

337.395

337.402

X VA

337.374

SEE PG. 117

337.409

LASER @ Q-18B

V.A. = 90°-46'-55"  
269-13-08

360-00-03

90°-46'-54"

SAME INFO. AS ABOVE

SEE PG. 117

FEET

432.44  
.42  
.41  
.41  
.42  
.39  
.41  
.39  
432.43

432.413

METERS

131.799  
.806  
.797  
.803  
.803  
.805  
.801  
.804  
131.802

131.8022

X FT/M

432.421

432.413

432.417 x VA

= 432.377

SEE PG. 117

432.417 x VA

= 432.377



120

## WEYMOUTH - HINGHAM

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

#5

#4 GLASER

CLOUDY 40°

3/4/83

W. SIMPSON

LASER @ Q-18B REFLECT @ Q-24

VA = 90-16-36

269-43-27

360-00-03

90-16-35

3/4/83

W/F

OFFSET 98MM

T = 37°

BAR. 29.97

PPM +11

SINGLE GLASS

REFL.

SEE PGS. 116 &amp; 117

| FEET    | FEET    | METERS        |
|---------|---------|---------------|
| 649.07  | 648.97  | 197.839       |
| .07     | .98     | .843          |
| .08     | 649.00  | .840          |
| .09     | 648.96  | .844          |
| .07     | .98     | .841          |
| .05     | .96     | .840          |
| .07     | .99     | .841          |
| .08     | .96     | .840          |
| .07     | 649.07  | .841          |
| 649.06  | 648.983 | 197.841       |
| 649.071 |         | 197.841 x F/M |

LASER @ Q-24 REFLECT @ Q-18B

VA = 89-43-42

270-16-26

360-00-03

89-43-38

| FEET    | METERS  |
|---------|---------|
| 649.01  | 197.832 |
| .00     | .838    |
| .02     | .835    |
| .03     | .838    |
| .04     | .835    |
| .02     | .841    |
| 648.98  | .835    |
| 649.02  | .835    |
| .01     | .844    |
| 648.99  | .831    |
| 649.012 | .835    |

197.8364

x 3.2808333

649.068

649.012

649.090 x VA =

649.033

3/4/83

W/F

OFFSET 98MM

T = 46°

BAR. 29.95

PPM +16

SINGLE GLASS REFL.

SEE PGS. 116 &amp; 117

## TOWN LINE SURVEY

121

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

3/4/83

STATION Q-18A

Q-18B D = 00°-00'-09" 19

R = 180°-00'-29" 18.5

Q-19 D = 52°-12'-30" 37.5

R = 232°-12'-45" Pg. 117

STATION Q-18B

Q-24 D = 00°-00'-10" 18.5

R = 180°-00'-27" 11.5

Q-18A D = 178°-58'-21" 30

R = 358°-58'-39" Pg. 117

STATION Q-24

Q-18B D = 00°-00'-14" 22

R = 180°-00'-30" 122°-13'-16"

Q-23 D = 122°-13'-28" 38

R = 302°-13'-48" 287°-33'-47"

Q-25 D = 287°-34'-06" 9

R = 107°-34'-12" SEE Pg. 116

1450  
Inst. #5

Tape

Wthr &amp; Temp.

Date

Crew

CLOUDY-COOL-39°  
DAMP-DRIZZLE

3/8/83

W. SIMPSON  
J. CROWLEY  
D. BRIEN  
E. SLY

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

STATION Q-10 P.122

#11312

D = 00°-00'-12"  
R = 180°-00'-32" 22"

Q-10A

D = 61°-52'-06"  
R = 241°-52'-23" 145"

52.5"

61°-51'-52.5"  
P.122

LASER @ Q-10 Reflec. @ Q-10A

V.A. (ZENITH) = 90°-10'-52"  
269°-49'-11" 90°-10'-51"  
360°-00'-03"T = 39°  
BAR = 30.0  
PPM = +12  
OFFSET = 098MM  
SINGLE  
GLASS REFL.  
USING FILTER

FEET

559.65  
.65  
.63  
.64  
.65  
.64  
.65  
.67  
.64  
.65  
.67  
.64  
559.64

METERS

170.586  
.582  
.594  
.581  
.590  
.588  
.587  
.593  
.591  
.591  
.586  
170.589

Q10-Q10A 559.657

Q10-Q10 = 559.660

AVR: 559.6585

559.648

170.5882

X FT/M

559.671

559.648

559.650

XVA = 559.657

STATION Q-10A

Q-24

D = 00°-00'-10"  
R = 180°-00'-29" 19.5

Q-22

D = 77°-46'-58"  
R = 257°-47'-15" 06.577°-46'-47"  
49" P.122

Q-10

D = 109°-01'-53"  
R = 289°-02'-10" 01.5109°-01'-42"  
42" P.122





1450

Inst. Tape Wthr &amp; Temp. Date Crow

LASER @ Q-10A

REFLEX @ Q-24

V.A.(ZENITH)=

89-35-15-5"  
270-24-567-40"  
BAR 29.6  
PPM +17OFFSET 0.98MM  
USING FILTER

FEET

576.92  
.92  
.92  
.92  
.92  
.92  
.92  
.92  
.92  
576.93

576.922

METERS

175.852  
.854  
.851  
.852  
.849  
.855  
.859  
.856  
.856

175.857

175.854

M/F = 576.948

89-35-10

576.935 Ave.

X V.A. =

576.920

AVE.

576.935

SEE PGS. 122 &amp; 124

LASER @ Q-24

REFLEX @ Q-10A

V.A.(ZENITH)=

90-26-07(-6")  
269-34-05INFO  
SAME AS ABOVE

FEET

576.91  
.92  
.91  
.91  
.92  
.91  
.91  
.92  
.92  
576.91

576.914

METERS

175.853  
.849  
.849  
.849  
.848  
.848  
.853  
.853  
175.854

175.849 M/F =

576.932

576.923 X V.A. = 576.906

Q 24 - Q 10A = 576.906

Q 10A - Q 24 = 576.920

A.V.R. = 576.913

(Pg 122)

Inst. Tape Wthr &amp; Temp. Date Crow

STATION Q-22 Pg. 122

Q-10A D= 00°-00'-09"

R= 180°-00'-31" 20"

15"

Q-23 D= 57°-21'-25"

R= 237°-21'-45" 35"

57°-21'-15"

Pg 122

Q-22A D= 177°-44'-39"

(P.101) R= 359-45-05 52"

32"

177°-44'-32"

Pg 122

STATION Q-24 Pg. 124

Q-18B D= 00°-00'-08"

R= 180°-00'-27" 17.5"

21"

Q-10A D= 143°-53'-31"

R= 323°-53'-47" 39"

143°-53'-21" Pg 124

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

#5

#4

54°

3/14/83

SIMPLE  
LEADS  
CROCODILE  
SLYP.I.  
R.R. SPK.

L.O. 78

325/134

59.95

SPK. 442/18

SEE Pg. 156

171.92

SPK. 442/17

32.81

SPK.

SPK 442/16

SPK 442/16

26.01

SPK 442/16

24.34

1.77

COMMERCIAL ST.

Inst.

Tape

Wthr &amp; Temp.

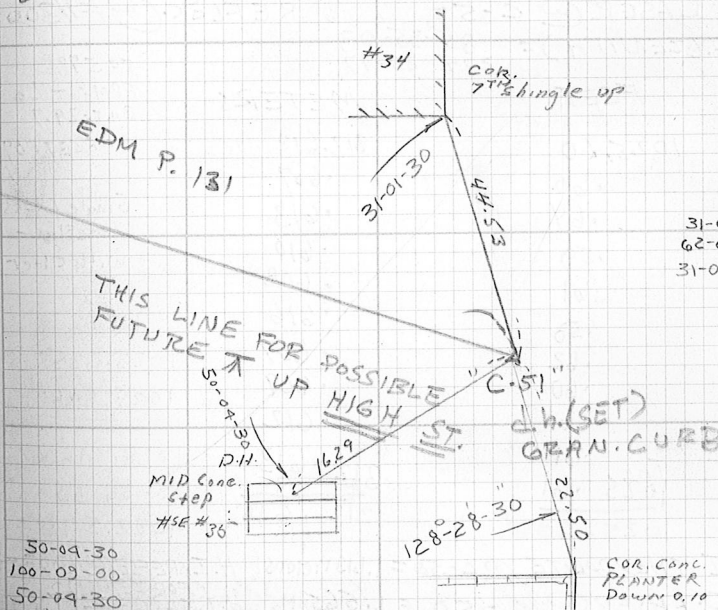
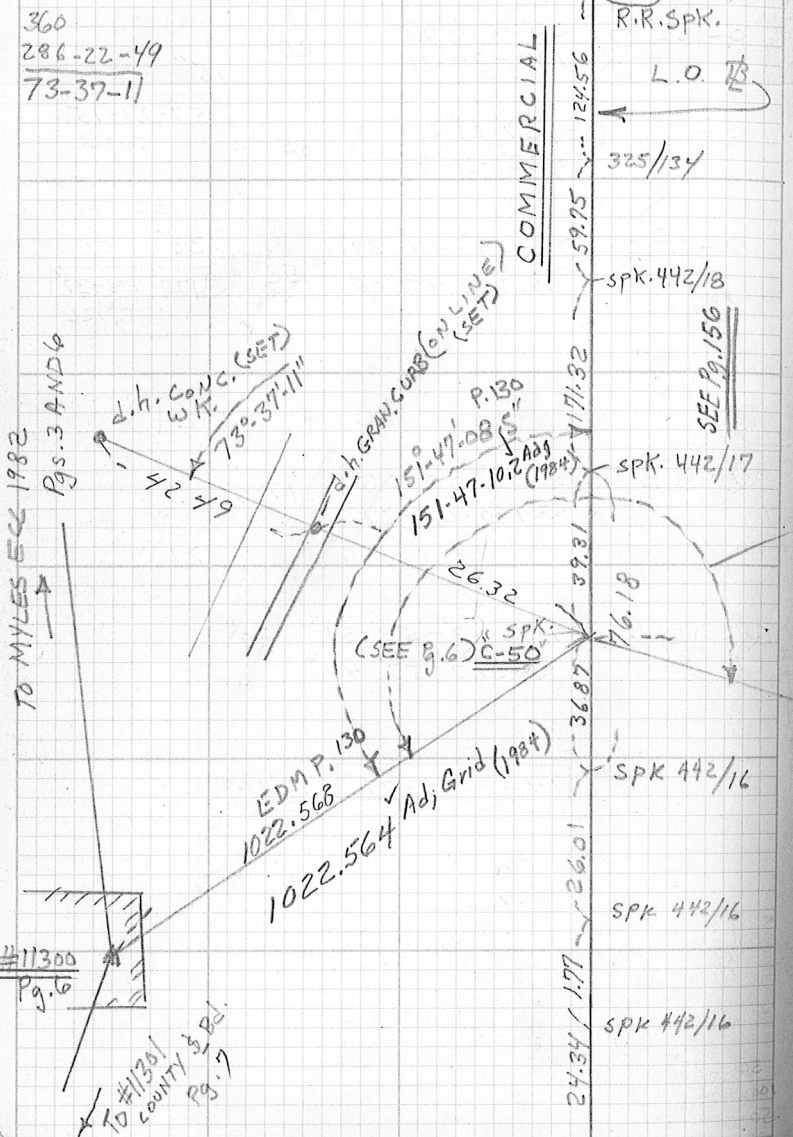
Date

Crew

CONNECTION OF GEODETIC  
TRAVERSE TO COMMERCIAL ST. L.O.  
@ VICINITY OF HIGH ST.128-28-30  
256-57-00  
128-28-30

259°-38'-14.0" P. 130

EDM P. 131

THIS LINE FOR POSSIBLE  
FUTURE UP HIGH ST.MID CONC.  
STEP  
#SE #3650-09-30  
100-09-00  
50-09-30#34  
COR.  
7" shingle up  
31-01-30  
44.5331-01-30  
62-03-00  
31-01-38128°-28'-30"  
COR. CONC.  
PLANTER  
DOWN 0.10

130/450

Inst.  
#5Tape  
#4Wthr & Temp.  
54°Date  
3/14/83Crew  
SIMPSON  
LEONE  
CROWLEY

STATION C-50 Pg. 128

Pope Bldg.  
#11300D = 00°-00'-11"  
R = 180°-00'-21"

16"

08.5"

Pg. 128 (P.I.)

D = 151°-47'-18"  
R = 331°-47'-31"151°-47'-08.5"  
24.5"14.0  
14.5"

Pg. 129 C-51"

D = 259°-38'-22"  
R = 79°-38'-38"259°-38'-14.5"  
30"  
259°-38'-14"

SEE PG. 128

SEE PG. 128

LASER @ C-50 REFLEC. @ #11300

V.A. (ZENITH) = 85°-35'-03"  
274°-25'-17"

FEET

METERS

1025.60

312.613

.60

.607

.64

.613

.59

.610

.61

.608

.58

.616

.62

.607

.60

.609

.61

.612

.61

1025.61

312.613

1025.606

312.611

T = 57°

PPM = +26

Bar = 29.9

Offset = .098

MM

Single Glass

Reflex =

with Filter

1025.625

1025.606

1025.616

85-34-53

1022.568

H.I. THEODOLITE @ C-50 = 1.613 meters H.I. REFLEX @ #11300 = 1.424 meters

H.I. LASER @ C-50 = 1.665 meters H.I. TARGET = 1.424 meters

(FOR ZENITH)  
AT #11300

131

Inst.

Tape

Wthr &amp; Temp.

Date  
3/14/83

Crew

SEE PGS: 128 AND 129

LASER @ C-50 REFLEX @ C-51

V.A. (ZENITH) = 88°-37'-54" +24"  
271°-22'-30"

FEET

METERS

437.46

133.353

.48

.355

.50

.354

.48

.360

.49

.352

.50

.360

.47

.358

.48

.357

.49

.362

.48

437.49

133.357

437.484

133.357

x 3.2808333 = 437.522

437.484

437.522

875.006

Z ÷

437.503 x

Sine

88-37-42 = 437.378

SAME  
METEOROLOGICAL  
DATA  
AS P. 131



132/450

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

133

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

134

## WEYMOUTH - HINGHAM TOWN

Inst.

Tape

Wthr &amp; Temp.

Date

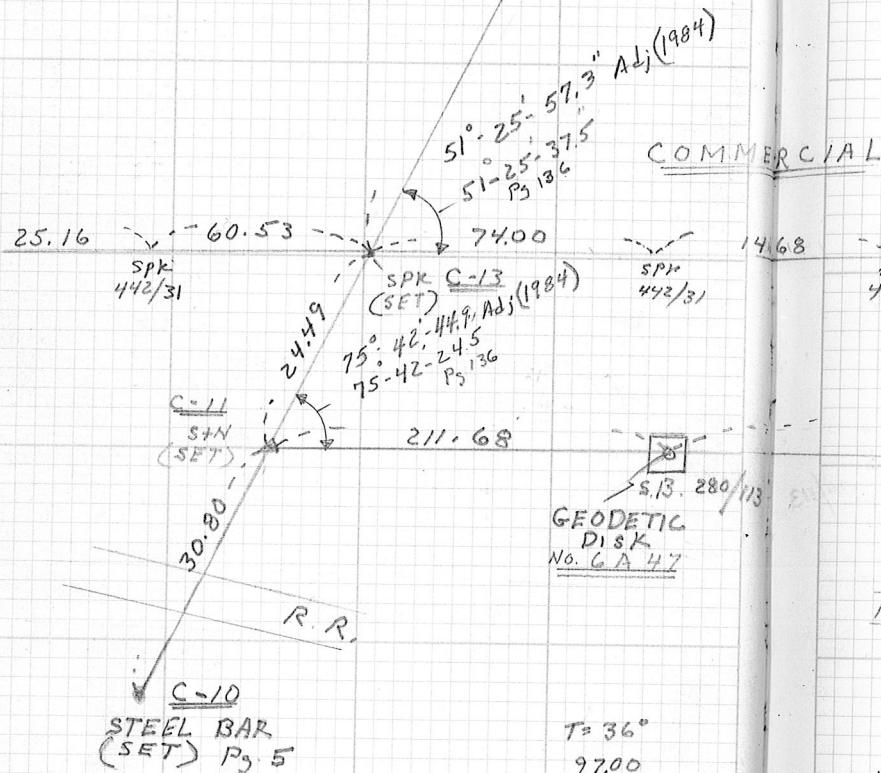
Crew

#5

#4

CLOUDY 36°

3/24/83

A. LEONE  
J. CROWLEY  
D. O'BRIENMVLES  
ECC  
MGS DISK  
Pg. 3GREAT HILL  
WATER TANK

$T = 36^{\circ}$   
 97.00  
 84.51  
 30.21  
 211.72 ✓  
 .04  
 211.68 ✓

## LINE SURVEY

135

Inst.

Tape

Wthr &amp; Temp.

Date

Crew

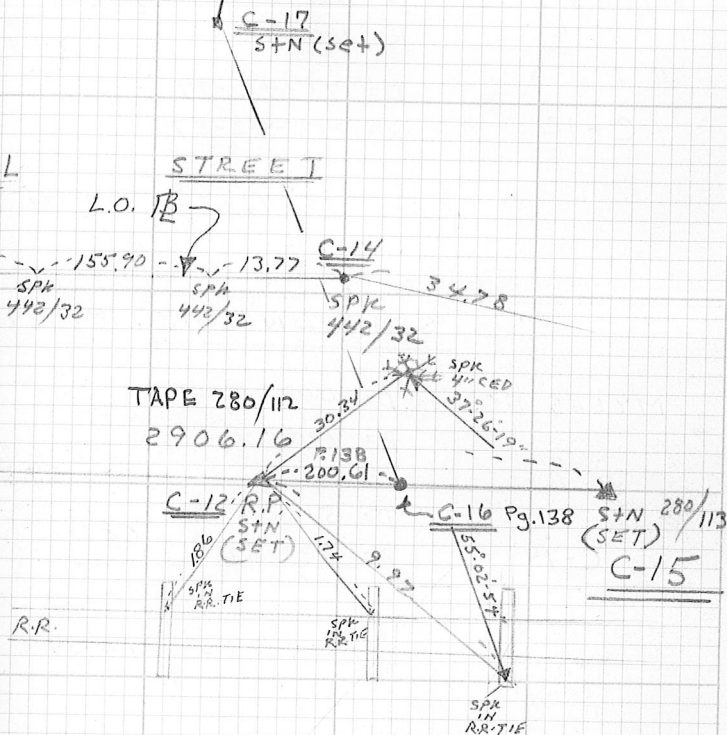
#5

#4

PARTLY  
CLOUDY 36°

3/24/83

3/25/83

LEONE  
CROWLEY  
KELLY

Note: See Pg. 138 for  $\pi$  to locate  
 Witness Mon. @ BACK RIVER

136/450

## WEYMOUTH - HINGHAM

| Inst. | Tape | Wthr & Temp. | Date    | Crow |
|-------|------|--------------|---------|------|
|       |      |              | 3/24/83 |      |

STATION C-11 Pg 134

MYLES ECC

D: 00-00-10 22.5"

R: 180-00-35 24.5"

D: 75-42-37 47"

C-12

R: 255-42-57 ✓

75°-42'-24.5"

 Pg 134
STATION C-13 Pg 134

MYLES ECC

D: 00-00-09 20.5"

R: 180-00-32 37.5"

D: 51-25-47 58"

C-14

R: 231-26-09 ✓

51°-25'-37.5"

 Pg 134

## TOWN LINE SURVEY

137

| Inst. | Tape | Wthr & Temp. | Date | Crow |
|-------|------|--------------|------|------|
|       |      |              |      |      |



THE SIMPSON  
KMERITHEN  
SLY

P. Pynch in  
Bolt of  
R.R. Signal  
Sign

TO C-17 (S+N)  
8140 EDM  
27

S+N)  
EDM. P. 141 AND 145  
627.275 Adj Grid (1984)  
627.321 EDM Pg. 145

64° 03' 47.8" Ad (1984)  
64° 03' 54" ✓  
2.143

1755.893 ✓ Adj. Grid (1984)

EDM P. 139 AND 141

150.117 EDM

STN

C-  
P  
& F

15  
3.135  
9.14

SL  
5 AN  
1

c.  
up  
c

280  
S.  
2:5

P. PUNCH IN FLANG  
C-16 OF R.R.  
RAIL  
(set)  
R.P.

C-12  
Pg. 135  
R.P.

$$T = 50^\circ$$
$$\begin{array}{r} 96.12 \\ 70.23 \\ 34.28 \\ \hline 200.63 \\ \text{Temp} - 0.023 \\ \hline 200.61 \end{array}$$

DISK 6A 4'  
Pg. 134 AND  
280/113

211.68  
p.134

450/139

$$T = 5 \times 10^6$$
$$BPR = 30.2$$

OFFSET = 0.98 MM  
P.P.M. = +17  
SINGLE  
GLASS REFL.  
USING FILTER.

$$\begin{array}{r} 1150.133 \\ 1150.158 \\ \hline 1150.146 \text{ AV} \end{array}$$
$$1150.146 \times 89-40-04 =$$

1150.127

(SEE PG. 141)

SEE P. 138

 $+16'$ 

SAME DATA  
AS ABOVE

FEET

METER C

1756.02  
1756.00  
1756.00  
1756.00  
1756.00  
1756.00  
1756.00  
1756.00  
1756.00  
1756.00

535.239  
 .239  
 .247  
 .240  
 .236  
 .235  
 .237  
 .235  
 .236  
 .240  
 535.237

1756.01 ✓

1756.01  
1756.023

$$AV = 1756.017$$

SEE P. 138

$1756.008 \text{ Pg. 145}$   
 $Av = \frac{1755.998 \text{ USL}}{1756.012}$

# 140 WEYMOUTH - HINGHAM TOWN

Inst. 5 Tape 3 Wthr & Temp. P. Sunny 60°

Date 5/12/83

Crow SIMPSON  
MERITHEW  
SLY

67.19  
82.13  
149.32  
1.01  
149.31

85.78

D 00-00-02  
R 180-00-15 08.5

D 08-17-51  
R 188-18-10 0.5

ANGLE: 08° 17' 51"

D 00-00-03  
R 180-00-14 08.5

D 14-33-20  
R 194-33-42 31

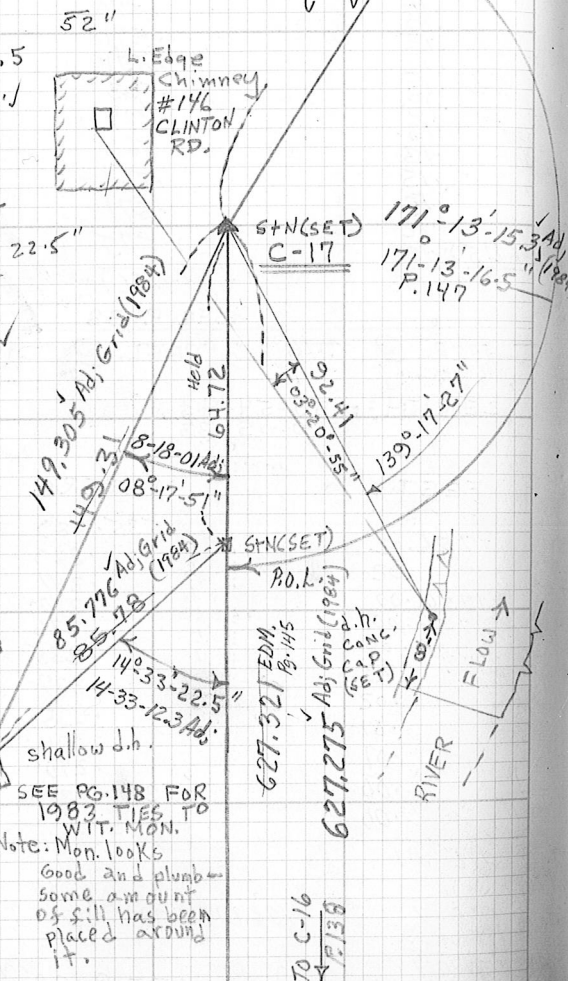
Angle = 14° 33' 22.5"

Note: Did not  
spend time to  
try to see if  
Mon. has moved  
from original loc.  
See original  
Loc. 325/50  
W.A.S.  
5/12/83

WEYMOUTH  
Witness Mon.  
HINGHAM

SEE PG. 148 FOR  
1983 TIES TO  
WIT. MON.

Note: Mon. looks  
good and plumb -  
some amount  
of sill has been  
placed around  
it.



# LINE SURVEY

141

Inst. Tape Wthr & Temp. Date 5/12/83 Crow

LASER @ C-16 REFL @ C-17

ZENITH = 91° 16' 48"  
268° 43' 12"

SAME  
METEOROLOGICAL  
DATA AS P. 139

SINGLE GLASS  
REFL.  
USING FILTER

| FEET   | METERS                        |
|--------|-------------------------------|
| 627.46 | 191.258                       |
| .46    | .255                          |
| .46    | .243                          |
| .46    | .250                          |
| .46    | .258                          |
| .45    | .250                          |
| .45    | .252                          |
| .45    | .258                          |
| .47    | .247                          |
| .47    | .254                          |
| 627.46 | 191.260                       |
| 627.46 | 191.253 x 3.2808333 = 627.467 |

627.460  
627.467  
AV = 627.4645  
x 91° 16' 48"

627.308

SEE P. 138

LASER @ C-15 REFL @ C-16

ZENITH = 90° 21' 55"  
269° 38' 12"

+07"

T = 51°

Bar. = 30.15  
P.P.M. + 18  
SINGLE GLASS  
REFL. - USING  
FILTER  
OFFSET 0.98 MM

| FEET     | METERS                         |
|----------|--------------------------------|
| 1150.14  | 350.566                        |
| .13      | .561                           |
| .11      | .557                           |
| .12      | .558                           |
| .12      | .561                           |
| .11      | .566                           |
| .13      | .560                           |
| .13      | .564                           |
| .12      | .563                           |
| .13      | .565                           |
| .13      | .563                           |
| .13      | 350.563                        |
| 1150.14  | 350.562 x 3.2808333 = 1150.135 |
| 1150.126 |                                |

1150.126  
1150.135

AV = 1150.1305 x 90° 21' 51.5" = 1150.107

1150.107  
1150.127 P. 139  
AV = 1150.117 USE

SEE P. 138

Inst. 5

Tape 3

Wthr &amp; Temp. SHOWERS 50°

Date 5/11/83

Crown SIMPSON MERITHEW SLY

36.0  
290-32-08  
69-27-52

C.S. 2-6"0.  
UP 2-3-52"  
69-27-52"

EDM Pg 150

EDM. Pg. 152 AND 150  
3151.964 EDM  
3152.021 Adj Grid

STN C-20 SEE Pg. 151

© R.R. TRACKS  
WHARF ST.

198°-10'-49.5" Adj (1984)  
198°-10'-45.1"  
Pg. 151

EDM Pg. 149

2141.294 Adj Grid (1984)

2141.167 EDM

TO C-17

Inst.

Tape

Wthr &amp; Temp.

Date

143  
Crown

5/11/83

STATION C-16 Pg. 138

① DISK  
6A 47

D 00-00-13  
R 180-00-27 20

53'

C-17

D 64-04-04  
R 244-04-22 13

② 6A 47

R 45-10-18  
D 255-10-05 11.5

52.5'

C-17

R 109-14-13  
D 289-13-54 04

③ 6A 47

D 90-30-41  
R 270-30-58 49.5

51.5'

C-17

D 154-34-31 41  
R 334-34-51

④ 6A 47

R 135-19-58 48  
D 315-19-38 48

59'

C-17

R 199-23-54 47  
D 19-23-40

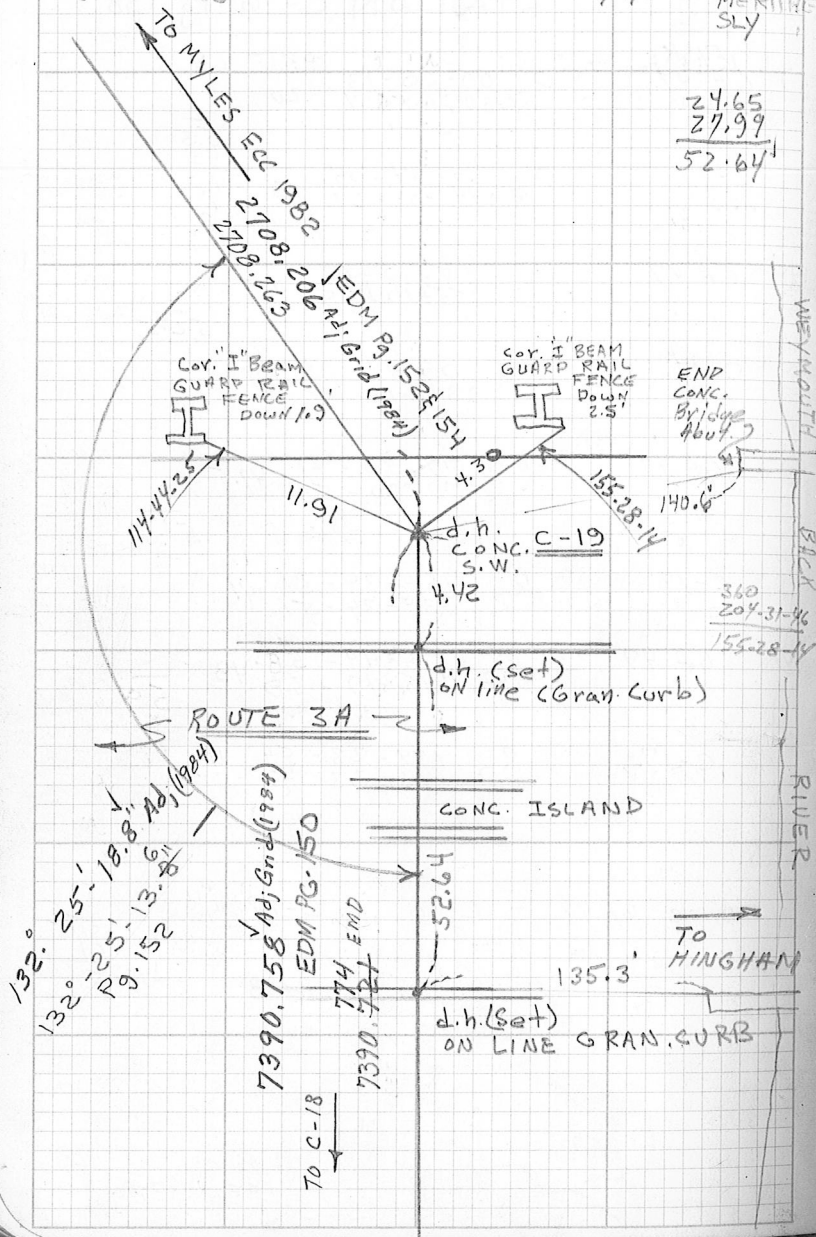
Angle 6A 47 - C-16 - C-17

64°-03'-54" P. 138

53  
52.5  
51.5  
59  
AVE = 54



Inst. 5 Tape 3 Wthr &amp; Temp. SHOWERS 50°F Date 5/11/83 Crew SIMPLY MERTHEM SLY

24.65  
27.99  
52.64


Inst. 5 Tape 3 Wthr &amp; Temp. SHOWERS 50°F Date 5/11/83 Crew SIMPLY MERTHEM SLY

LASER @ DISK 6A47 REFL. @ C-16

ZENITH = 90-06-58 +19"

FEET METERS

1756.00 535.230  
1756.00 535.236  
1756.00 535.236  
1756.00 535.234  
1756.00 535.232  
1756.00 535.235  
1756.00 535.236  
1756.00 535.239  
1756.00 535.240  
1756.00 535.243  
1756.00 535.234  
1756.00 535.236

SAME  
METEOROLOGICAL  
DATA AS  
Bot. P.141

1756.002 1756.020  
1756.002 1756.020  
AV = 1756.011 1756.011 x 90-06-48.5 = 1756.008  
SEE P.138+139

LASER @ C-17 REFL @ C-16

ZENITH = 88-45-38 +17"

FEET METERS

627.57 191.253  
627.58 191.260  
627.59 191.264  
627.60 191.263  
627.61 191.248  
627.62 191.261  
627.63 191.259  
627.64 191.259  
627.65 191.255  
627.66 191.257  
627.67 191.257  
627.68 191.257  
627.69 191.257  
627.70 191.257  
627.71 191.257  
627.72 191.257  
627.73 191.257  
627.74 191.257  
627.75 191.257  
627.76 191.257  
627.77 191.257  
627.78 191.257  
627.79 191.257  
627.80 191.257  
627.81 191.257  
627.82 191.257  
627.83 191.257  
627.84 191.257  
627.85 191.257  
627.86 191.257  
627.87 191.257  
627.88 191.257  
627.89 191.257  
627.90 191.257  
627.91 191.257  
627.92 191.257  
627.93 191.257  
627.94 191.257  
627.95 191.257  
627.96 191.257  
627.97 191.257  
627.98 191.257  
627.99 191.257  
628.00 191.257

5/12/83  
Bar. = 30.15  
T = 60°  
P.P.M. = +22  
OFFSET = 098  
MM  
SINGLE  
GLASS. REFL.

627.477  
627.486  
AV = 627.4815  
x 88-45-29.5 =  
627.334  
627.308 P.141  
AV = 627.321

191.257 191.258 x 8.2808333 = 627.486

SEE P.138

# 146 WEYMOUTH - HINGHAM TOWN

Inst.  
5

Tape  
3

Wthr & Temp.  
P. sunny 50°±

Date  
5/12/83

Crew  
E. SIMPSON  
MERITHEW  
SLY

FORE  
MAGS  
1926-1981  
Pg. 2

SQUANTO  
ELEV. TANK

OLD  
JOHN  
HANGCOCK

MYLES 1938

MYLES ECC  
1982

(SEE PGS 2 AND 3)

NANTASKET  
TOWER

BPE  
#1300

143°-58'-49.3"  
Pg. 155

143°-58'-40.9" Ad. (1984)  
2708.2631  
2708.2064 Adj Grid

EDM Pg. 152 & 154

C-19  
Pg. 144

ELEV.  
TANK

# LINE SURVEY

Inst.

Tape

Wthr & Temp.

Date  
5/12/83

Crew

STATION C-17 Pg. 140

① C-18 D 00-00-08 23'  
R 180-00-38

18" v

C-16 D 171-13-29 41'  
R 351-13-53

② C-18 R 45-09-38 27'  
D 225-09-16

20" v

C-16 R D 216-23-00 47'  
36-22-34

③ C-18 D 90-39-15 26'  
R 270-39-37

16" v

C-16 D R 261-52-31 42'  
81-52-53

④ C-18 R D 135-30-20 11.5'  
315-30-03

12" v

C-16 R D 306-43-32 23.5'  
126-43-15

ANGLE C-18 - C-17 - C-16  
=

171°-13'-16.5" v  
P. 140

① 18  
② 20  
③ 16  
④ 12  
AVE. 16.5 v

# 148 WEYMOUTH - HINGHAM TOWN

Inst.  
5

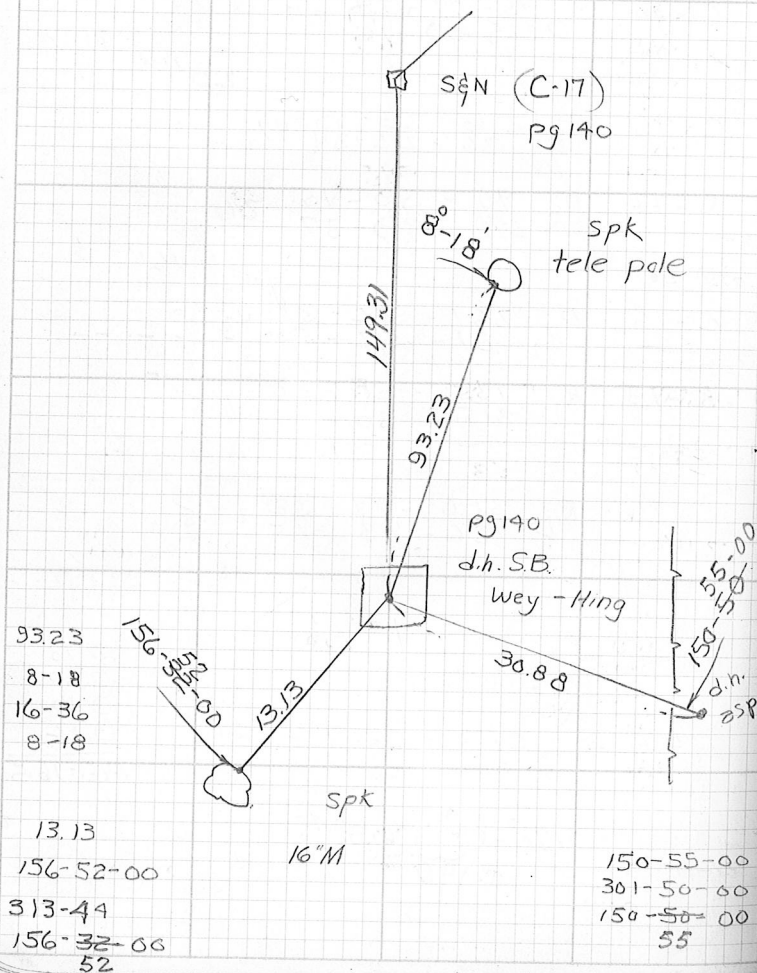
Tape  
3

Wthr & Temp.  
P. SUNNY 60°

Date  
5/12/83

Crow  
SIMPSON  
MERITHEW  
SLY

1983 TIES TO WEYMOUTH-HINGHAM  
WITNESS MON. @ BACK RIVER  
REAR YARD OF C. SPIRITO INC.  
# 43 FRESH RIVER AVE  
HINGHAM - LOCATED ON PG. 140



# LINE SURVEY

Inst.

Tape

Wthr & Temp.

Date

Crow

149

LASER @ C-17 REFL. @ C-18

ZENITH = 89-35-51  
270-24-37 +28"

FEET

METERS

2141.48

652.740

.49

.744

.47

.738

.49

.749

.48

.751

.48

.747

.53

.749

.53

.747

.50

.745

.52

.746

2141.52

652.747

2141.499

652.746 x 3.2808333 = 2141.551

5/12/83

SAME  
METEOROLOGICAL  
DATA AS  
Bot. P. 145

2141.499  
2141.551  
AV = 2141.525 x

89-35-37 = 2141.471

SEE BELOW

SEE PGS. 140 & 142

LASER @ C-18

REFL. @ C-17

ZENITH = 90-25-13  
269-34-53

+06"

5/13/83

USED FILTER  
SINGLE GLASS  
REFLEC.  
USE SAME  
METEOROLOGICAL  
DATA AS  
Top Pg. 150

FEET

METERS

2141.51

652.736

.52

.744

.51

.741

.50

.739

.49

.739

.52

.737

.51

.738

.51

.737

2141.51

652.741

2141.510

652.739

652.739 x 3.2808333 = 2141.528

2141.510  
2141.528  
AV = 2141.519 x  
90-25-10 =

2141.462

2141.471  
2141.462  
AV = 2141.467 USE

SEE PGS. 140 & 142



# 150 WEYMOUTH - HINGHAM TOWN

Inst. 1 Tape 3 Wthr & Temp. RAINY Date 5/13/83 Crew SIMPSON MERITHEW SLY

LASER @ C-18 REFLEC. @ C-19

ZENITH = 89-53-14 +14"  
270-07-00

5/13/83

Bar. = 30.1

Temp = 49°

PPM = 118

OFFSET 098MM

No Filter

3 Glass Reflex

SEE CHECK MEAS  
OF THIS LINE ON  
P. 154 5/17/83

FEET METERS

7390.70 2252.697

.69 .694

.70 .700

.71 .700 (SEE P. 154)

.73 .701 ALSO

.70 .702

.71 .699

.71 .690

.70 .696

7390.69

2252.692

7390.704

2252.697 x 3.2808333 = 7390.723

7390.704

7390.723

AV. = 7390.714 x

89-53-07 =

7390.699

SEE PGS. 142 AND 144

LASER @ C-19 REFLEC. @ C-18

ZENITH = 90-08-47 +13"  
269-51-26

5/17/83

T = 54°

BAR = 30.1

PPM = +2.0

OFFSET 098MM

No Filter

2 GLASS

REFLEX

P. Cloudy

FEET

METERS

7390.92 2252.758

.90 .753

.90 .756

.72 .760 (SEE P. 154)

.88 .746 ALSO

.91 .754

.87 .758

.88 .755

.89 .753

.89 .753

.88 .753

7390.895

2252.748

2252.754 x 3.2808333 = 7390.910

7390.743 P. 154

7390.880

7390.699

7390.774

7390.895

7390.910

AV. = 7390.903 x

90-08-40.5 =

7390.880

SEE PGS. 142 AND 144

# LINE SURVEY

Inst. Tape Wthr & Temp. Date 5/13/83 Crew

STATION C-18 Pg. 142

① C-19 D = 00-00-10  
R = 180-00-33 21.5

C-17 D = 138-39-30 16.5"  
R = 318-39-46 38

C-20 D = 198-11-00 44"  
R = 18-11-11 05.5

② C-19 R = 45-12-09 56"  
D = 225-11-43

C-17 R = 183-51-20 15.5"  
D = 03-51-03 11.5

C-20 R = 243-22-50 45.5"  
D = 63-22-33 41.5

③ C-19 D = 90-21-30 38.5  
R = 270-21-47

C-17 D = 229-00-47 15"  
R = 49-01-00 53.5

C-20 D = 288-32-16 45"  
R = 108-32-31 23.5

④ C-19 R = 135-31-42 36.5  
D = 315-31-31

C-17 R = 274-11-01 18.5"  
D = 94-10-49 55"

C-20 R = 333-42-31 46"  
D = 153-42-14 22.5

ANGLE C-19 - C-18 - C-17 = 138°-39'-16.4" P. 142

ANGLE C-19 - C-18 - C-20 = 198°-10'-45.1" P. 142

44  
45.5  
45  
46  
AVE. = 45.1  
16.5  
15.5  
15  
18.5  
AVE. = 16.4

# 152 WEYMOUTH - HINGHAM TOWN

Inst. 5 Tape 3 Wthr & Temp. Cloudy 50° Date 5/13/83 Crew SIMPSON MERITHREW  
LASER @ C-18 REFL @ C-20

ZENITH = 89-51-58 +14"  
270-08-16

FEET METERS

3151.99 960.728  
.96 .728  
.99 .731  
.97 .736  
.97 .736  
.97 .739  
.97 .737  
.99 .729  
.98 .731  
.99 .739  
3151.98 960.733  
3151.979

No Filter  
3 GLASS  
REFLEX  
USE SAME  
DATA AS  
Top P. 150

3151.979  
3152.008  
AV = 3151.994  
x 89-51-51 =

3151.985

3151.985  
3151.942 B. 159

AV = 3151.964 USE

960.734 x 3.2808333 = 3152.008

SEE PGS. 157 AND 142

LASER @ C-19 REFLEX @ MYLES  
ECC 1982

ZENITH = 87-36-07 +24"  
272-24-17

FEET METERS

2710.64 826.205  
.62 .206  
.62 .199  
.65 .207  
.60 .196  
.60 .201  
.63 .205  
.64 .198  
.65 .199  
2710.62 826.195  
2710.627

5/17/83  
USE SAME  
DATA AS  
Bot. P. 150  
EXCEPT USING  
1 GLASS REFLEX

AV = 2710.628 x  
87-35-55 =

2708.248

2708.248  
2708.278 B. 154

AV = 2708.263 USE

826.201 x 3.2808333 = 2710.628

SEE PGS. 144 AND 146

# LINE SURVEY

Inst. 5 Tape 3 Wthr & Temp. P. CLOUDY 50° Date 5/17/83 Crew SIMPSON MERITHREW  
STATION C-19  
(Route 3A) P. 144

① C-18 D 00-00-04  
(BEAR COVE) R 180-00-12 08'

MYLES ECC D 132-25-12 19.5  
1982 P. 3 R 312-25-27 19.5

② C-18 R D 45-10-28 35'  
225-10-42 11.5"

MYLES R D 177-35-44 47.5  
357-35-51 13"

③ C-18 D R 90-41-11 18'  
270-41-25 14.5"

MYLES D R 223-06-23 32.5'  
13-06-42 16"

④ C-18 R D 135-32-48 39'  
315-32-30 11.5

MYLES R D 267-58-05 55'  
87-57-45 12.513

ANGLE C-18 - C-19 - MYLES ECC

= 132°-25'-13.8" Pg. 144

AVE +3.8" 13.6

# 154 WEYMOUTH - HINGHAM TOWN LINE

Inst. 5 Tape 3 Wthr & Temp. 55° P.CLOUDY Date 5/17/83 Crew SIMPSON  
LASER @ C-18 REFLEX @ C-19 MERITHOU  
CHECK MEAS. GENITTI  
KELLY

ZENITH =  $\frac{89-53-19}{270-06-58}$   
 $\frac{360-00-27}{}$

(SEE ALSO P. 150)  
FEET METERS

7390.77 2252.700

.83 .702

.87 .708

.80 .703

.75 .709

.74 .710

.78 .705

.75 .703

.69 .710

.74 .710

.70 2252.702

.72 2252.706

7390.76  
7390.762

5/17/83

T=60°

BAR=30.1

P.P.M. +24

ZGLASS

REFLEX

NO FILTER

OFFSET=0.98 MM

7390.762

7390.753

AV. = 7390.758

X 89-53-05.5"

7390.743

SEE PGS. 142 AND 144

LASER @ MYLES ECC 1982 - REFLEX @ C-19

ZENITH =  $\frac{92-25-55}{267-30-37}$  +32"

FEET METERS

2710.69 826.230

.68 .231

.69 .222

.70 .218

.68 .225

.69 .231

.74 .227

.71 .237

.68 .224

.74 .229

.73 826.219

2710.706

826.227 X 3.2808333 = 2710.713

SEE PGS. 144 AND 146

5/17/83

T=54°

BAR=30.0

SINGLE REFL.

0.98 MM OFFSET

NO FILTER

P.P.M. = +24

2708.278

# SURVEY

450/155

Inst. 5 Tape 3 Wthr & Temp. P.SUNNY Date 5/17/83 Crew SIMPSON  
STATION MYLES ECC 1982  
SEE PG. 146

① C-19 D R 00-00-08 19'

\* USED LIGHT FOR SIGHT DUE TO HEAT WAVES ETC.  
→ FORE MAGS 1936 1981  
D R 143-58-57 48'  
323-59-17 07'

② C-19 R D 45-10-28 20.5'

FORE R D 189-09-21 47'  
09-08-54 07.5'

③ C-19 D R 90-41-57 51.5'  
270-42-21 09'

FORE D R 234-40-48 0.5'  
54-41-13

④ C-19 R D 135-22-20 11.5'  
315-22-03

FORE R D 279-21-19 50.5'  
99-20-45 02'

ANGLE C-19 - MYLES ECC 1982 - FORE MAGS  
1936 + 1981 49.3

=  $\frac{143-58-50}{49.3}$   
Pg. 146





# 158 WEYMOUTH - HINGHAM TOWN

Inst. 5 Tape 3 Wthr & Temp. SUNNY 60°F Date 5/18/83 Crow SIMPSON  
\* MENITHEW  
KELLY  
GENITI

STATION

C-20

Page 157

① C-18 D<sub>R</sub> 00-00-05 180-00-14 09.5'

C-21 D<sub>R</sub> 182-54-16 02-54-26 21' 11.5"

POPE D<sub>R</sub> #11300 205-29-03 25-29-26 14.5' 05"

② C-18 R<sub>D</sub> 45-11-37 225-11-30 33.5'

C-21 R<sub>D</sub> 228-05-56 48-05-45 50.5' 17"

POPE R<sub>D</sub> 250-40-56 70-40-34 45' 11.5"

③ C-18 D<sub>R</sub> 90-22-11 270-22-25 18'

C-21 D<sub>R</sub> 273-16-18 93-16-43 30.5' 12.5'

POPE D<sub>R</sub> 295-51-12 115-51-38 25' 07"

④ C-18 R<sub>D</sub> 135-42-40 315-42-18 29'

C-21 R<sub>D</sub> 318-36-56 138-36-39 47.5' 18.5"

POPE R<sub>D</sub> 341-11-53 161-11-31 42' 13"

ANGLE C-18 - C-20 - C-21 = 182°-54'-14.9"✓ P.157

ANGLE C-18 - C-20 - POPE = 205°-29'-09.1"✓ Pg.157

# LINE SURVEY

450/159

Inst. Tape Wthr & Temp. Date 5/18/83 Crow  
LASER @ C-20 REFL @ C-18

ZENITH = 90°-08-11 269-52-02 +13"

FEET METERS

3151.92 960.726

.93 .722

.91 .725

.97 .726

.92 .719

.95 .733

.96 .729

.93 .717

.91 .717

.90 .726

3151.93 960.718

3151.930 ✓

SAME DATA  
AS TOP Pg. 160  
EXCEPT  
USING ZGLASS  
REFL.  
3151.930  
3151.972  
AV = 3151.951 x  
90-08-04.5 =  
3151.942 ✓

SEE PGS. 142 AND 157

LASER @ C-20 REFL @ C-21 COMM. ST.  
ZENITH = 90-44-11 P.I.

269-16-11 5/18/83

FEET METERS

1009.09 307.589

.10 .591

.12 .584

.12 .593

.10 .595

.12 .596

.12 .592

.12 .589

.12 .591

.13 .598

.13 .596

1009.12 307.591

1009.115 ✓

SAME DATA  
AS TOP P. 160  
EXCEPT USING  
FILTER  
1009.115  
1009.158  
AV = 1009.137 x  
90-44-00 =  
1009.054 ✓

307.592 x 3.2808333 =  
1009.158 ✓

SEE PGS. 156 AND 157

# WEYMOUTH - HINGHAM TOWN LINE SURVEY

Inst. 5 Tape 3 Wthr & Temp. SUNNY 58° Date 5/18/83 Crew / SIMPSON MERITHEW

LASER @ C-20 REFL @ POPE #11300

ZENITH = 88-18-39 +34  
271-41-55

T = 58  
BAR = 30.42  
CPM = +20  
OFFSET = 0.98MM  
SINGLE GLASS REFL.  
No Filter  
INST. OFFSET = +128MM  
REFL. = 30MM  
OFF = 0.98MM  
SET = 0.98MM  
OFFSET

| FEET     | METERS  |
|----------|---------|
| 2260.57  | 689.045 |
| 52       | .047    |
| 59       | .058    |
| 58       | .040    |
| 58       | .045    |
| 58       | .036    |
| 62       | .041    |
| 59       | .044    |
| 61       | .044    |
| 57       | .046    |
| 59       | .034    |
| 2260.59  | 689.039 |
| 2260.588 | 689.043 |

2260.588  
2260.635  
AV = 2260.612 x 88-18-22 =

2259.624

689.043 x 3.2808333 = 2260.635

SEE PGS. 156 AND 157

LASER @ POPE #11300 REFL @ C-20 (WHARF ST.)

ZENITH = 91-43-08 +32"  
FEET 268-17-24 METERS

|          |         |
|----------|---------|
| 2260.62  | 689.050 |
| 59       | .035    |
| 58       | .035    |
| 61       | .038    |
| 58       | .034    |
| 60       | .039    |
| 61       | .033    |
| 57       | .031    |
| 60       | .031    |
| 63       | .039    |
| 60       | .025    |
| 59       | .034    |
| 2260.59  | 689.028 |
| 2260.598 | 689.035 |

5/19/83  
BAR 30.45  
T = 66°  
P.P.M. = +24  
No Filter  
Single Glass Refl.  
INST. OFFSET = 0.98MM

2260.598  
2260.609  
AV = 2260.604 x  
91-42-52 =

689.035 x 3.2808333 = 2260.609  
2259.592

SEE PGS. 156 AND 157

# END OF F.B. 450

450/161  
SIMPSON  
MERITHEW  
KELLY

5/19/83

KELLY  
GENNITI

LASER @ C-10 REFL @ MYLES ECC 1982

ZENITH = 89-25-15 +20"  
270-35-05

| FEET         | METERS                |
|--------------|-----------------------|
| 12247.29     | 3732.986              |
| 23           | .973                  |
| 30           | .970                  |
| 29           | .975                  |
| 41           | .996                  |
| 28           | .999                  |
| 31           | 3733.002              |
| 40           | .001                  |
| 36           | .011                  |
| 23           | 3732.987              |
| 12247.35     | .987                  |
| 12247.314    | 3733.006              |
| 12247.321    | 3732.991              |
| AV 12247.318 | 3.2808333 = 12247.321 |

T = 70°  
Bar = 30.5  
P.P.M. = +25  
No Filter  
6 Glass Refl.  
OFFSET  
0.98MM

Note:  
SLIGHTLY WINDY  
AND POSSIBLY SOME  
BRANCHES MIGHT  
BE ON LINE NOW.  
DISTANCE WAS  
DIFFICULT TO  
MEASURE

AV = 12247.318 x  
89-25-05 =

12246.686

5/20/83

LASER @ C-21 REFL @ C-20  
ZENITH = 89-18-32 +13"  
270-41-41 METERS

|          |                      |
|----------|----------------------|
| 1009.14  | 307.594              |
| 13       | .603                 |
| 15       | .591                 |
| 18       | .614                 |
| 14       | .600                 |
| 14       | .600                 |
| 18       | .601                 |
| 14       | .601                 |
| 18       | .595                 |
| 14       | .598                 |
| 15       | .595                 |
| 16       | 307.607              |
| 1009.15  | 307.600              |
| 1009.150 | 3.2808333 = 1009.184 |

SIMPSON  
MERITHEW  
KELLY

T = 67°  
Bar = 30.22  
P.P.M. = +26  
FILTER  
SINGLE GLASS  
REFL.  
OFFSET  
0.98MM  
VERY VERY  
WINDY

1009.150  
1009.184  
AV = 1009.167 x  
89-18-25.5 =

1009.093

SEE PGS. 156 AND 157