

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5289 Ph 77-133 Invercargill P.O. Box 576 Ph 83049
 Balclutha P.O. Box 220 Phone 1425
 Cromwell P.O. Box 82 Phone 96

NASEBY BOROUGH COUNCIL

**SANITARY SEWERAGE RETICULATION
 SEWER LAYOUT**

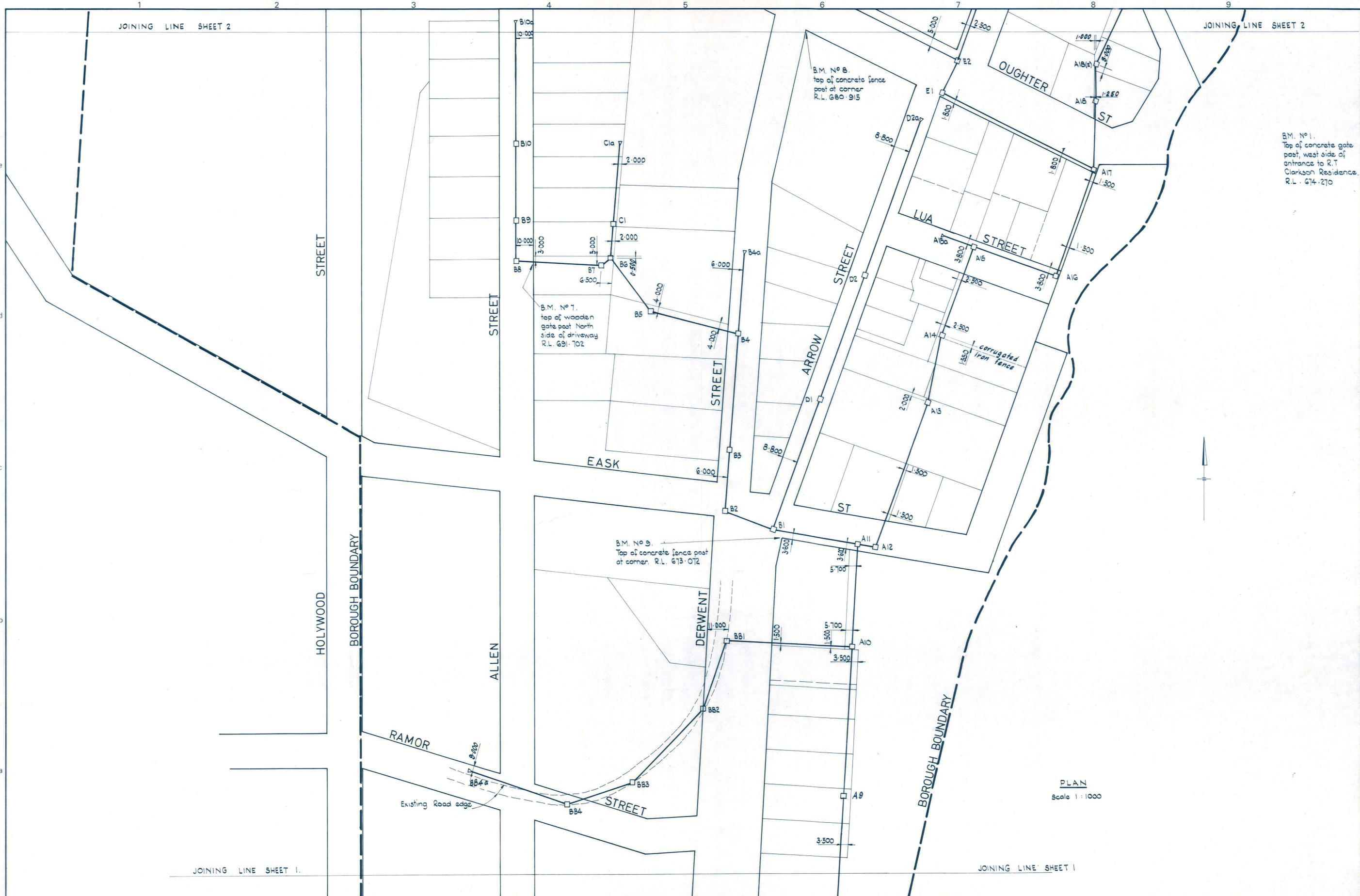
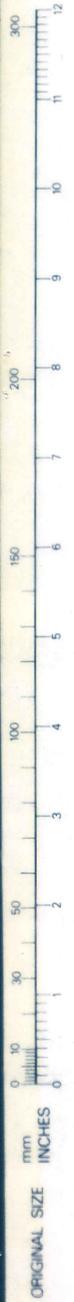


DATUM
M.S.L.
ORIGIN
TRIG X

| AMENDMENTS | | | |
|------------|----|------|--------|
| NO. | BY | DATE | Appvd. |
| | | | |
| | | | |
| | | | |

| NAME | DATE |
|-----------------------------|---------|
| Surveyed B.T. Kinston | Oct '76 |
| Drawn " " " " | " " " |
| Calculations " " " " | " " " |
| Traced A.H. Moore | Oct '76 |
| Checked " " " " | " " " |
| Approved <i>[Signature]</i> | Dec '76 |

| | | | |
|-------------|---------------|----------|------------|
| JOB NO. | 8 2 6 2 | Sheet No | 1 |
| File 26/3/3 | LB 326 327 | F.B. | of 18 shts |



DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5289 Ph 77-133 Invercargill P.O. Box 576 Ph 83049
 Balclutha P.O. Box 220 Phone 1425
 Cromwell P.O. Box 82 Phone 96

NASEBY BOROUGH COUNCIL

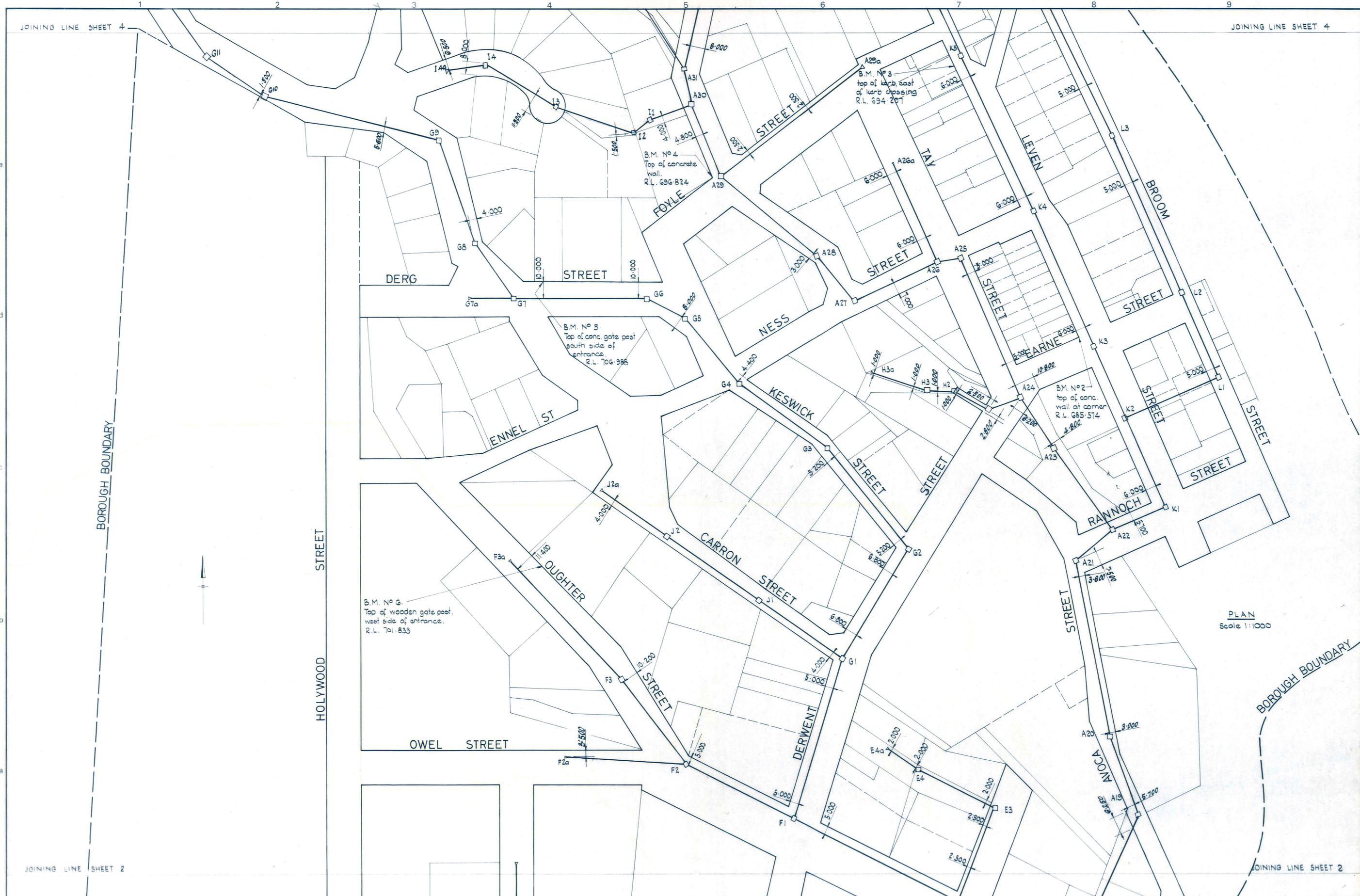
SANITARY SEWERAGE RETICULATION SEWER LAYOUT



DATUM
M. S. L.
ORIGIN
TRIG X

| AMENDMENTS | | | NAME | DATE |
|------------|----|------|---------------|---------|
| NO. | BY | DATE | | |
| | | | B.T. Kingston | Oct '76 |
| | | | " | " |
| | | | " | " |
| | | | A.H. Moore | Oct '76 |
| | | | | |
| | | | | |
| | | | | |

| | |
|--------------|-----------------|
| JOB NO. | Sheet No |
| 8262 | 2 |
| of 18 sheets | |
| File 26/3/3 | L.B. 320 327 |
| | F.B. |



INCHES 0 1 2 3 4 5 6 7 8 9 10 11 12

JOINING LINE SHEET 2

PLAN
Scale 1:1000

JOINING LINE SHEET 2

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Head Office: P.O. Box 8688, Rm. 77-133, Invercargill, P.O. Box 876, Ph. 83049
Blanchard: P.O. Box 250, Phone 1425
Visitors: P.O. Box 82, Phone 95

NASEBY BOROUGH COUNCIL

SANITARY SEWERAGE RETICULATION SEWER LAYOUT



DATUM
M.S.L.
ORIGIN
TRIG X

| AMENDMENTS | | |
|------------|----|------|
| NO. | BY | DATE |
| | | |
| | | |

| NAME | DATE |
|---------------|---------|
| B.T. Kingston | Oct '76 |
| A.H. Moore | Oct '76 |
| | |
| | |

| | |
|-------------|--------------|
| JOB NO. | Sheet No |
| 8 2 6 2 | 3 |
| File 26/3/3 | of 18 sheets |
| L.B. 327 | F.B. |

2

3

4

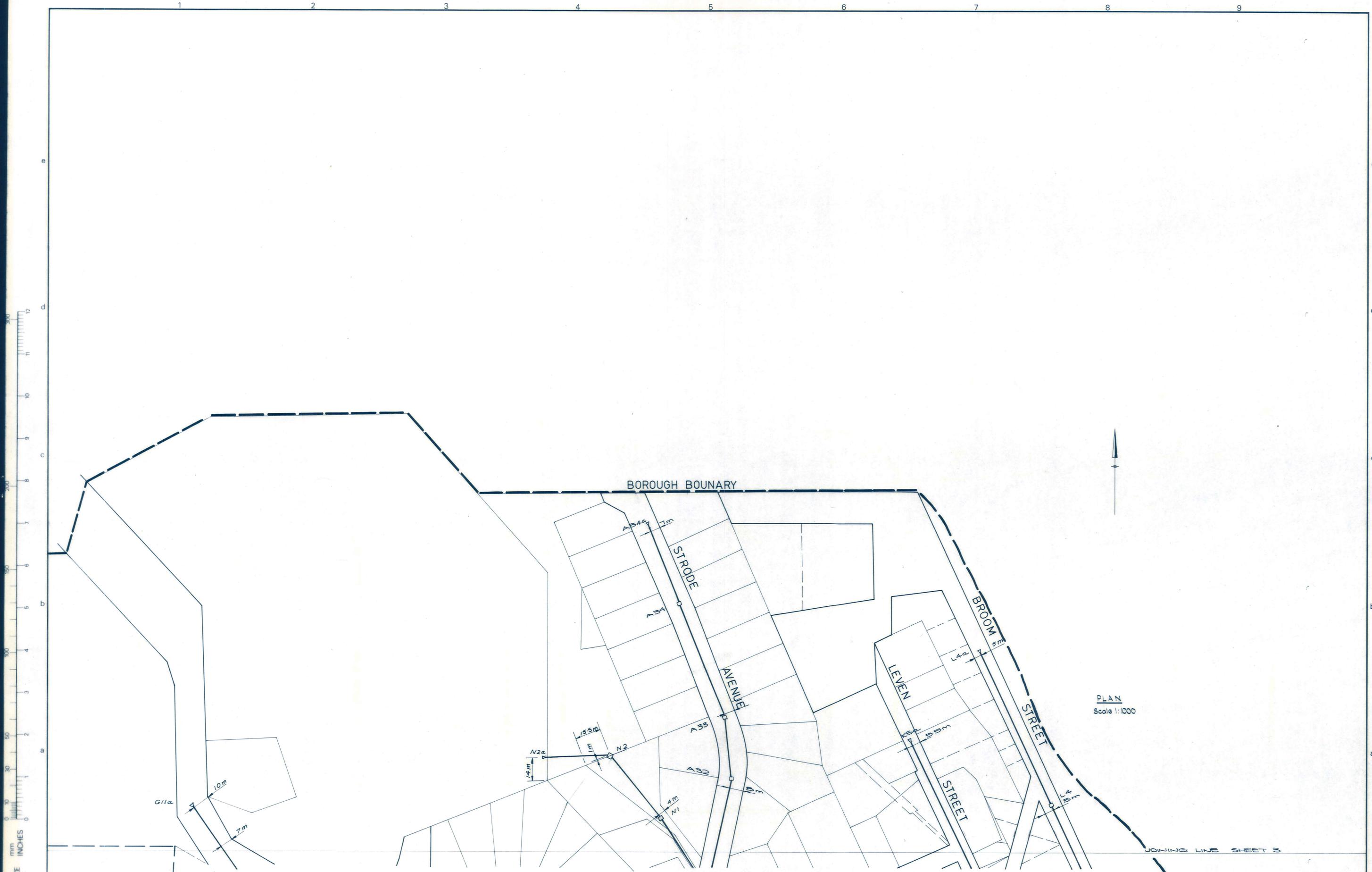
5

6

7

8

9



ORIGINAL SIZE INCHES
 0 10 20 30 40 50 60 70 80 90 100 110 120
 mm

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5269 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049
 Balclutha P.O. Box 220 Phone 1425
 Cromwell P.O. Box 82 Phone 96

NASEBY BOROUGH COUNCIL

**SANITARY SEWERAGE RETICULATION
 SEWER LAYOUT**



DATUM
 M.S.L.
 ORIGIN
 TRIG X

| AMENDMENTS | | | |
|------------|----|------|--------|
| NO. | BY | DATE | Appvd. |
| | | | |
| | | | |
| | | | |

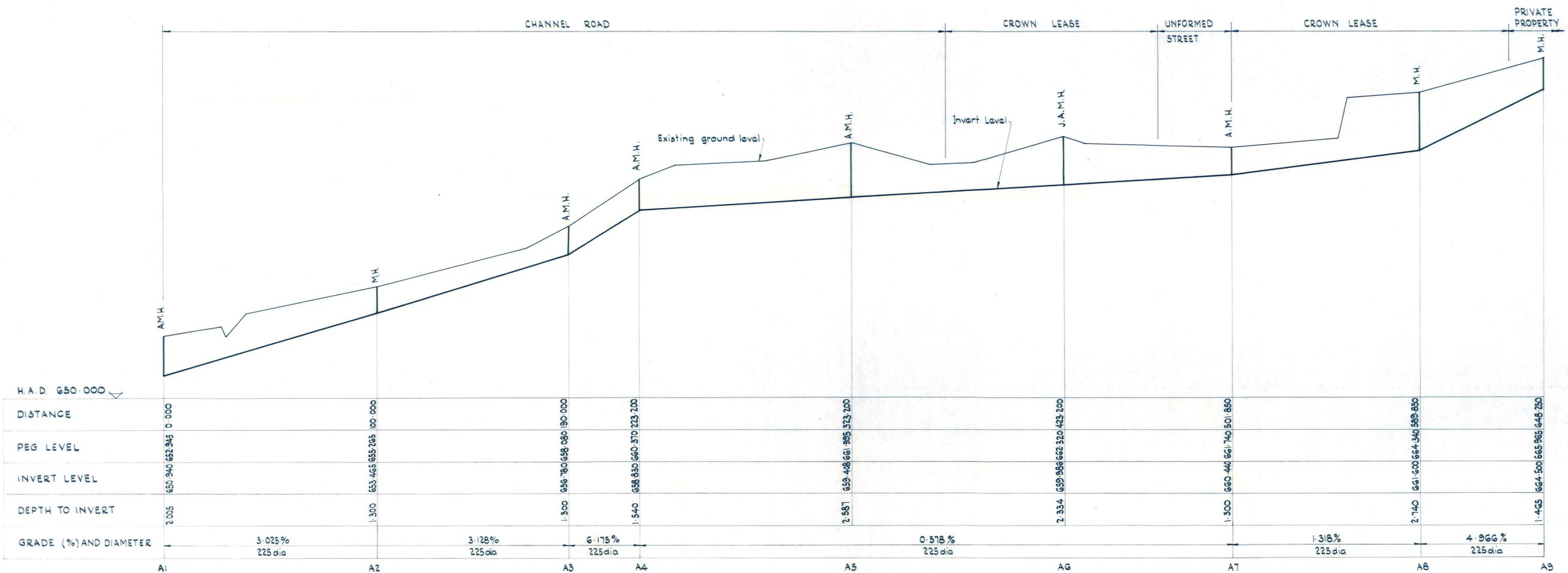
| NAME | DATE |
|--------------|---------------------|
| Surveyed | B. KINGSTON Oct '76 |
| Drawn | " " " " |
| Calculations | " " " " |
| Traced | E. HEWWOOD OCT '81 |
| Checked | " " " " |
| Approved | (Signature) Dec '76 |

| | | | |
|---------|---------|----------|------------|
| JOB NO. | 8 2 6 2 | Sheet No | 4 |
| File | 26/3/3 | L.B. | 326 327 |
| F.B. | | | |

PLAN
 Scale 1:1000

JOINING LINE SHEET 3

300
200
150
100
50
0
0 1 2 3 4 5 6 7 8 9 10 11 12
mm
INCHES



SANITARY SEWER PROFILES

Scales - Horizontal 1:1000
Vertical 1:100

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin P.O. Box 5289 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049
Balclutha P.O. Box 220 Phone 1425
Cromwell P.O. Box 82 Phone 96

**NASEBY
BOROUGH
COUNCIL**

**SANITARY SEWERAGE RETICULATION
SEWER PROFILES**



DATUM
ORIGIN

| AMENDMENTS | | |
|------------|----|------|
| NO | BY | DATE |
| | | |
| | | |
| | | |

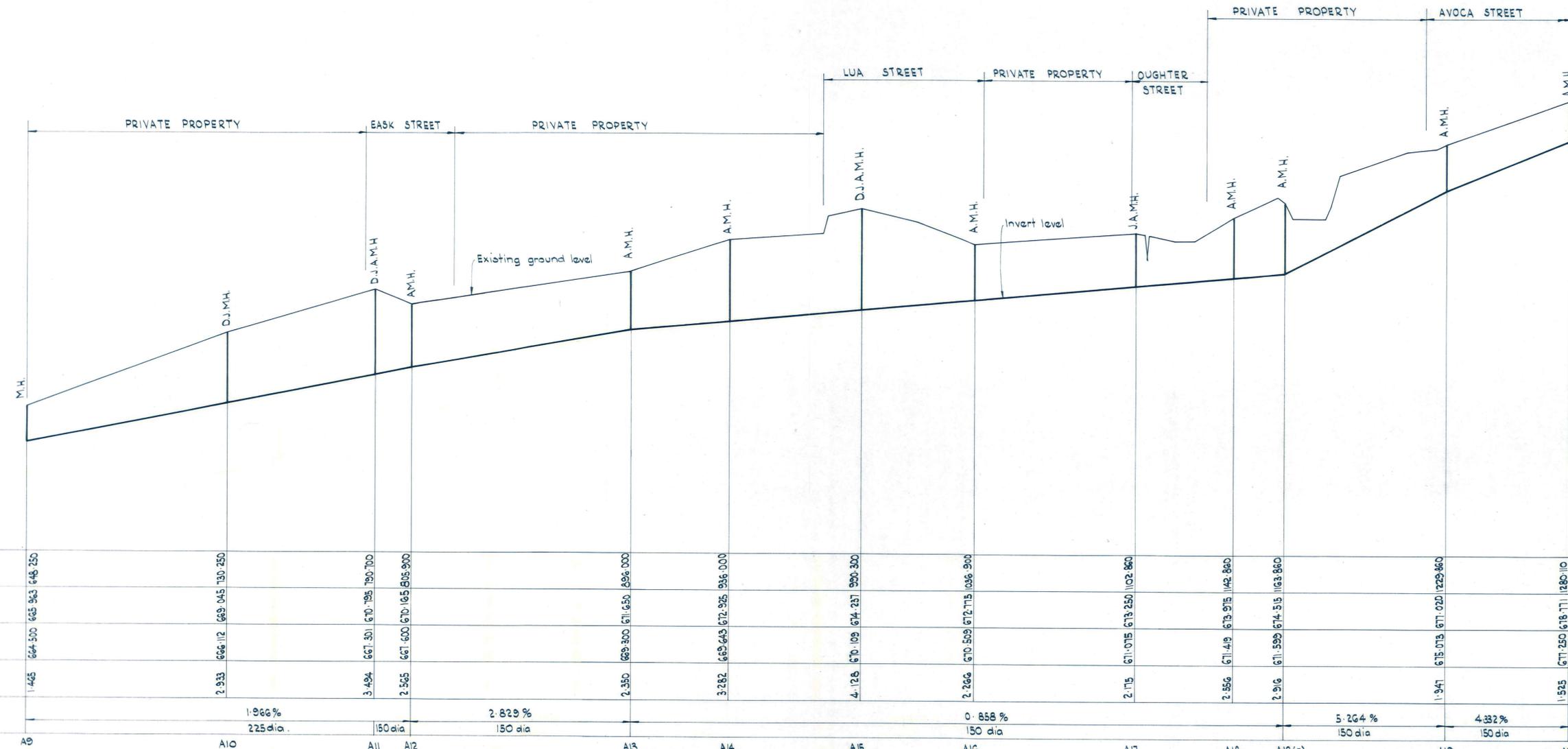
| NAME | DATE |
|------------------------|---------|
| Surveyed B.T. Kinaston | Oct '76 |
| Drawn " " | " " |
| Calculations " " | " " |
| Traced A.H. Moore | Oct '76 |
| Checked " " | " " |
| Approved Chamberlain | Dec '76 |

| | | | |
|-------------|-----------------|------------|------|
| JOB NO. | 8 2 6 2 | Sheet No | 5 |
| File 26/3/3 | L.B. 326 327 | of 18 shts | F.B. |

ORIGINAL SIZE

ORIGINAL SIZE
mm INCHES

1 2 3 4 5 6 7 8 9



SANITARY SEWER PROFILES
Scales: Horizontal 1:1000
Vertical 1:100

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin P.O. Box 5289 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049
Balclutha P.O. Box 220 Phone 1425
Cromwell P.O. Box 82 Phone 96

NASEBY
BOROUGH
COUNCIL

SANITARY SEWERAGE RETICULATION
SEWER PROFILES

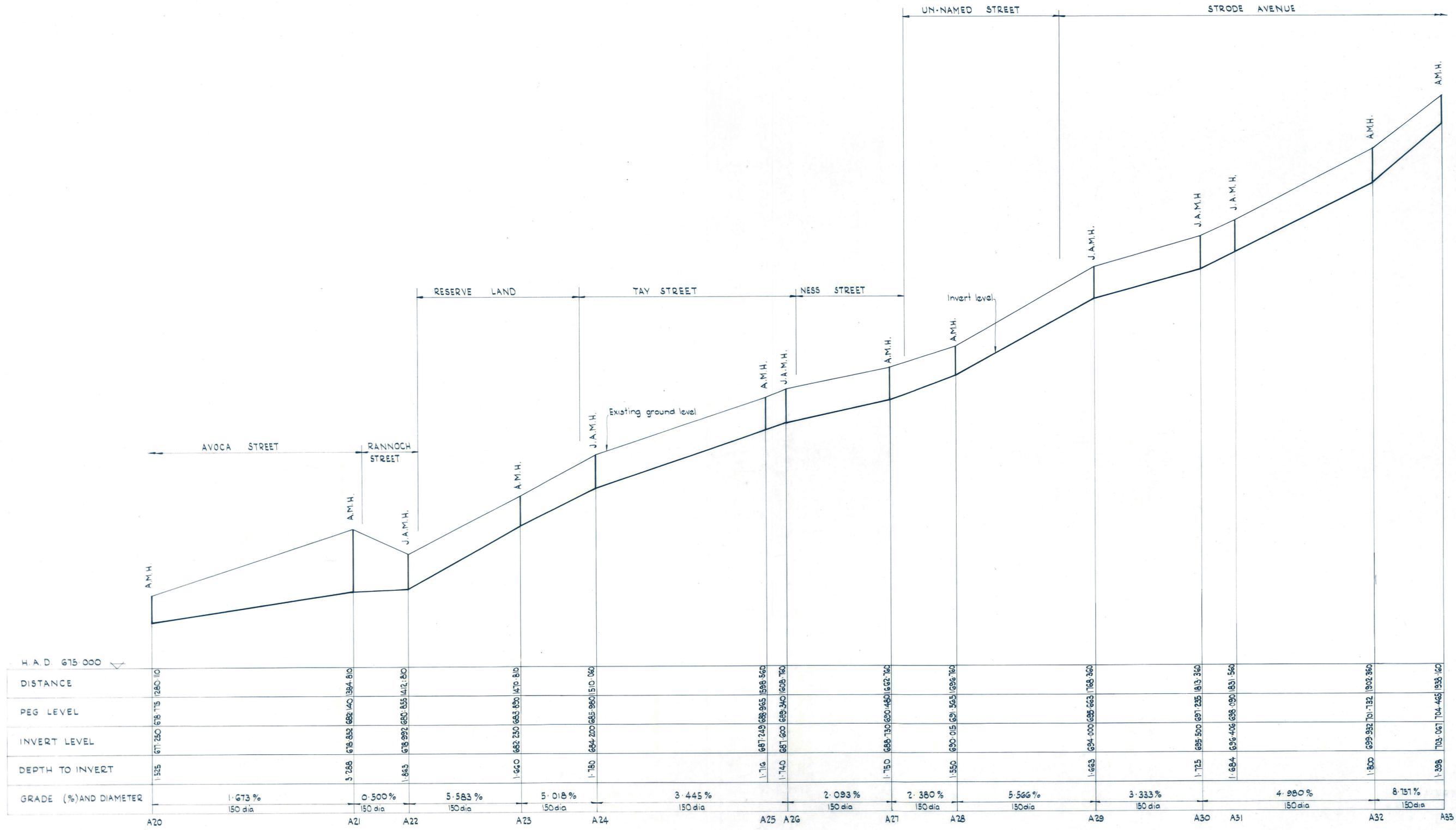


DATUM
M.S.L.
ORIGIN
TRIG X.

| AMENDMENTS | | |
|------------|----|------|
| NO. | BY | DATE |
| | | |
| | | |
| | | |

| NAME | DATE |
|------------------------|---------|
| Surveyed B.T. Kinaston | Oct '76 |
| Drawn " " | " " |
| Calculations " " | " " |
| Traced A.H. Moore | Oct '76 |
| Checked " " | " " |
| Approved " " | Dec '76 |

JOB NO. 8262
Sheet No. 6 of 18 sheets
File 26/3/3 L.B. 326 327 F.B.



| | 1260.10 | 1364.810 | 1412.800 | 1470.810 | 1510.000 | 1598.560 | 1608.760 | 1662.760 | 1696.760 | 1768.360 | 1831.560 | 1902.360 | 1938.160 | |
|------------------------|---------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------|-----|
| DISTANCE | | | | | | | | | | | | | | |
| PEG LEVEL | 671.250 | 675.775 | 682.140 | 683.850 | 684.200 | 687.249 | 687.600 | 688.730 | 690.015 | 694.000 | 695.500 | 699.932 | 703.001 | |
| INVERT LEVEL | | 675.852 | 680.555 | 682.250 | 684.200 | 687.249 | 687.600 | 688.730 | 690.015 | 694.000 | 695.500 | 699.932 | 703.001 | |
| DEPTH TO INVERT | 1.525 | 3.266 | 1.663 | 1.660 | 1.780 | 1.716 | 1.740 | 1.750 | 1.550 | 1.663 | 1.725 | 1.684 | 1.800 | |
| GRADE (%) AND DIAMETER | | 1.673 % 150 dia | 0.500 % 150 dia | 5.583 % 150 dia | 5.018 % 150 dia | 3.445 % 150 dia | 2.093 % 150 dia | 2.380 % 150 dia | 5.566 % 150 dia | 3.333 % 150 dia | 4.980 % 150 dia | 8.151 % 150 dia | | |
| | A20 | A21 | A22 | A23 | A24 | A25 | A26 | A27 | A28 | A29 | A30 | A31 | A32 | A33 |

PROFILES
 Scales - Horizontal 1:1000
 Vertical 1:100

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5288 Ph 77-133 Invercargill P.O. Box 576 Ph 83049
 Balclutha P.O. Box 220 Phone 1425
 Cromwell P.O. Box 82 Phone 96

NASEBY BOROUGH COUNCIL

**SANITARY SEWERAGE RETICULATION
 SEWER PROFILE**



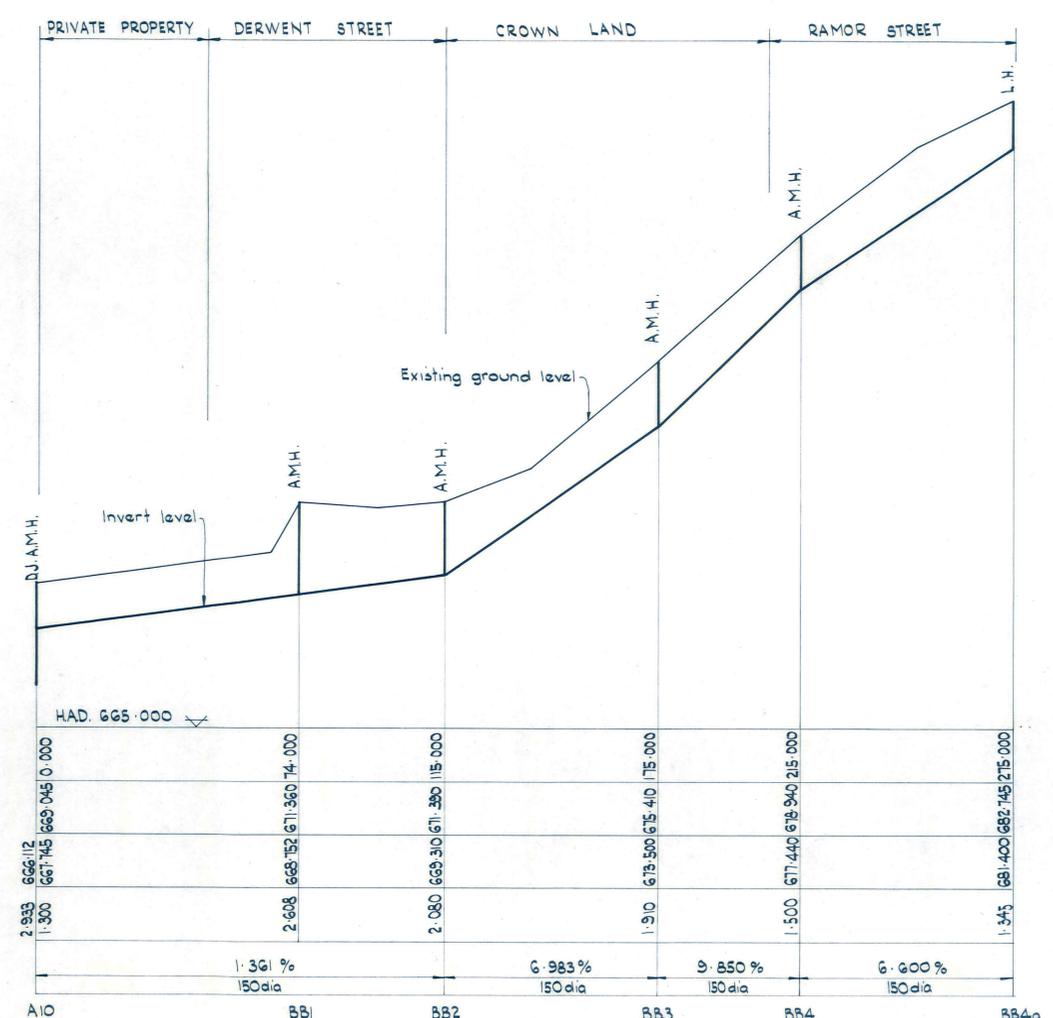
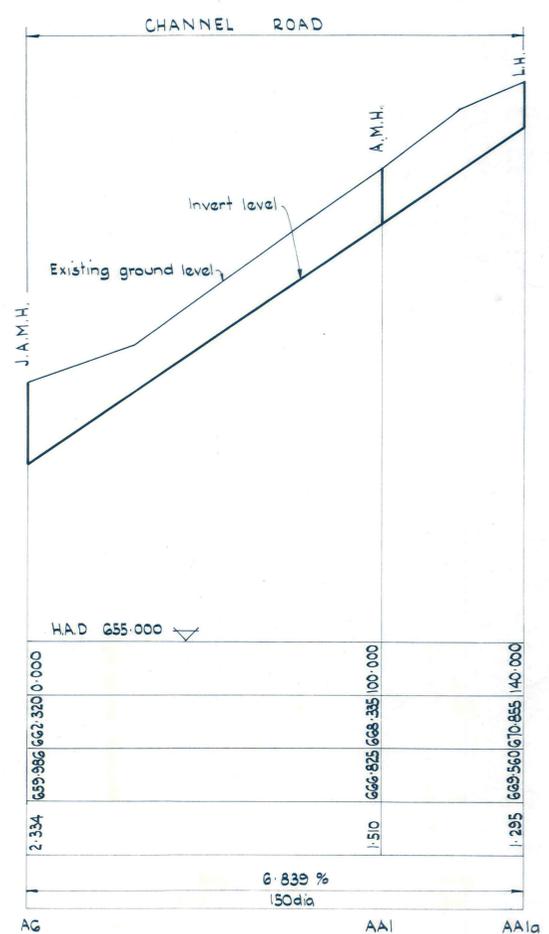
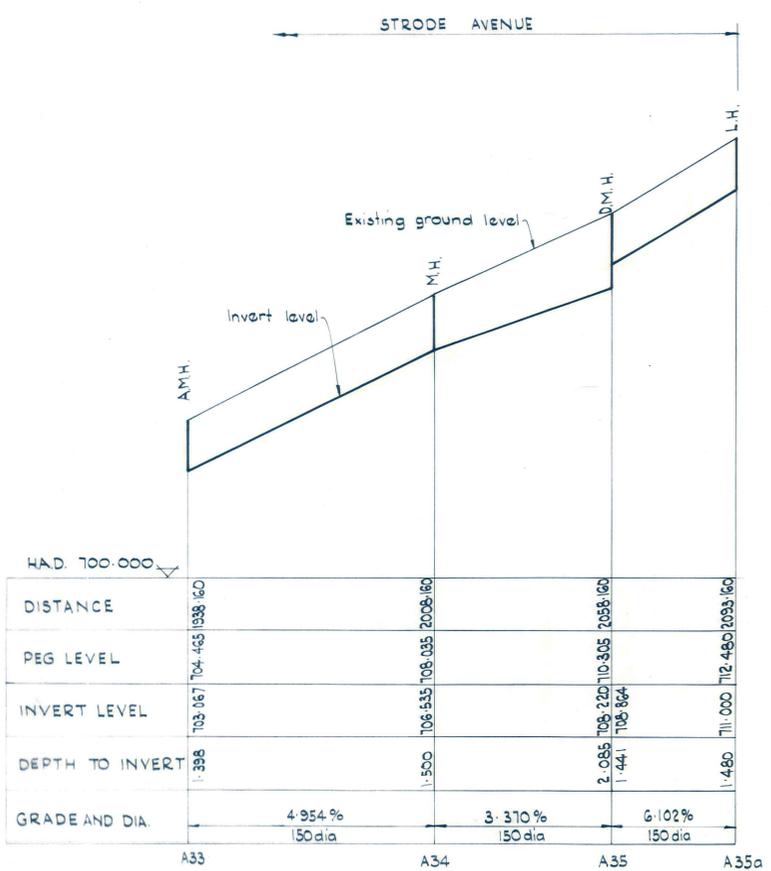
DATUM
 M.S.L.
ORIGIN
 TRIG X

| AMENDMENTS | | | Appvd. |
|------------|----|------|--------|
| NO. | BY | DATE | |
| | | | |
| | | | |

| NAME | DATE |
|--------------|----------------------------|
| Surveyed | B.T. Kingston Oct '76 |
| Drawn | " " " " |
| Calculations | " " " " |
| Traced | A.H. Moore Oct '76 |
| Checked | " " " " |
| Approved | <i>[Signature]</i> Dec '76 |

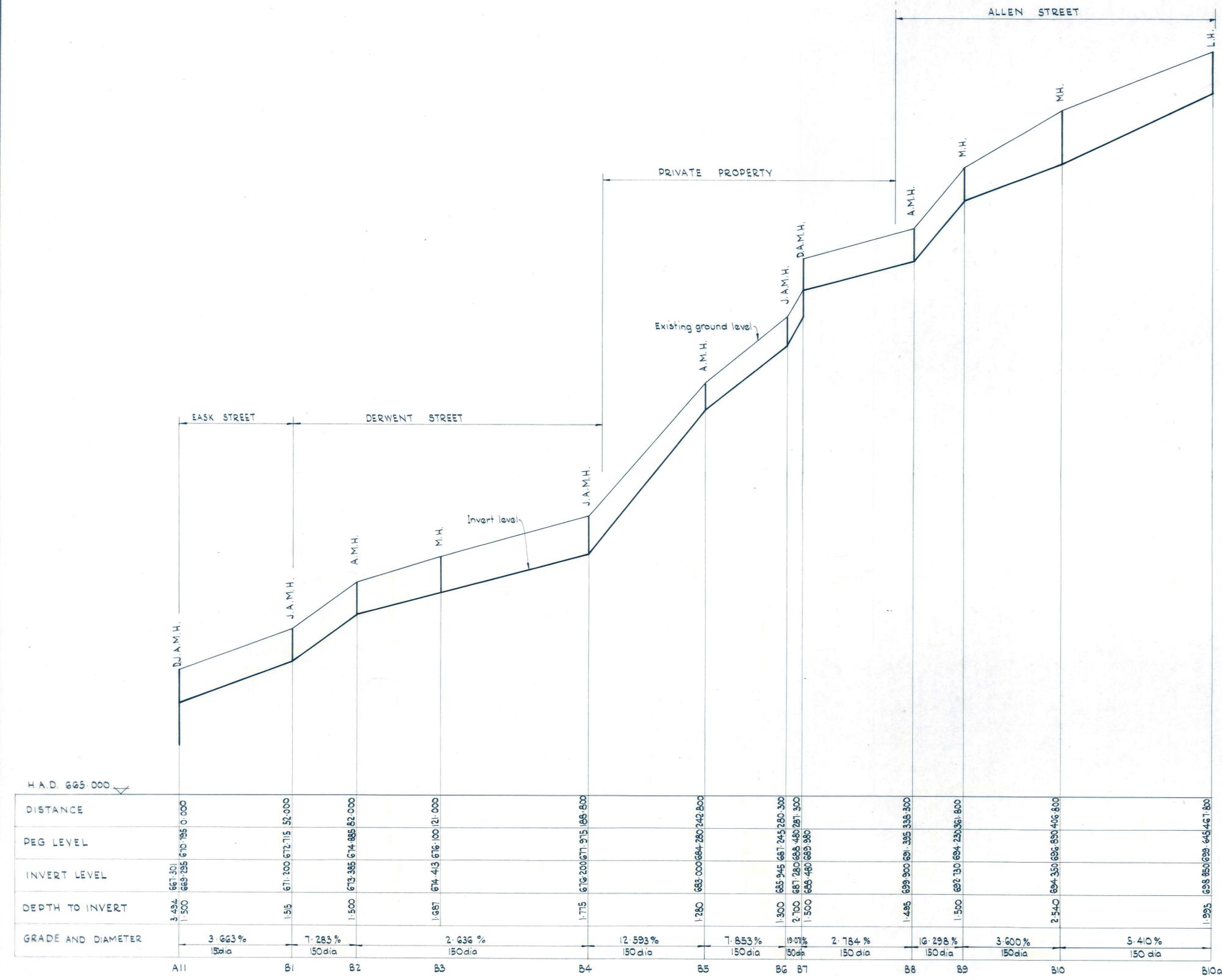
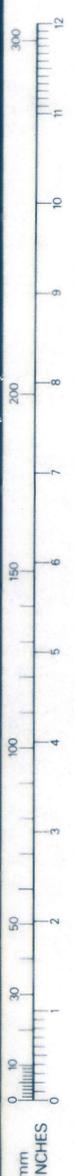
| | | | |
|---------|---------|-------------|------------|
| JOB NO. | 8 2 6 2 | Sheet No | 7 |
| | | of 18 shts. | |
| File | 26/3/3 | L.B. | 326 327 |
| | | F.B. | |

300
200
150
100
50
30
10
0
0 1 2 3 4 5 6 7 8 9 10 11 12
mm
INCHES

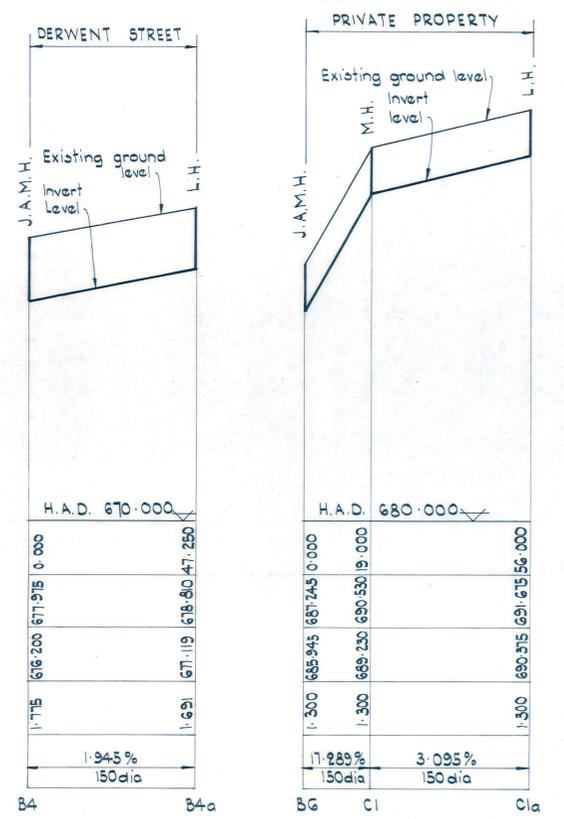


PROFILES
Scales - Horizontal 1:1000
Vertical 1:100

| DUFFILL WATTS & KING LTD CONSULTING CIVIL & STRUCTURAL ENGINEERS <small>Dunedin P.O. Box 5289 Ph. 77 133 Invercargill P.O. Box 676 Ph. 83049 Balclutha P.O. Box 220 Phone 1425 Cromwell P.O. Box 82 Phone 96</small> | NASEBY BOROUGH COUNCIL | SANITARY SEWERAGE RETICULATION SEWER PROFILES | | DATUM M.S.L. ORIGIN TRIG X | AMENDMENTS <table border="1"> <thead> <tr> <th>NO.</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> | | | NO. | BY | DATE | | | | | | | | | | NAME DATE Surveyed B.T. Kingston Oct '76 Drawn " " " Calculations " " " Traced A.H. Moore Oct '76 Checked " " " Approved " " " | | JOB NO. 8262 | Sheet No 8 <small>of 18 sheets</small> |
|---|-------------------------------|--|--|---|---|----|------|-----|----|------|--|--|--|--|--|--|--|--|--|--|--|------------------------|---|
| | | | | | NO. | BY | DATE | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| File 26/3/3 L.B. 326 F.B. 327 | | | | | | | | | | | | | | | | | | | | | | | |



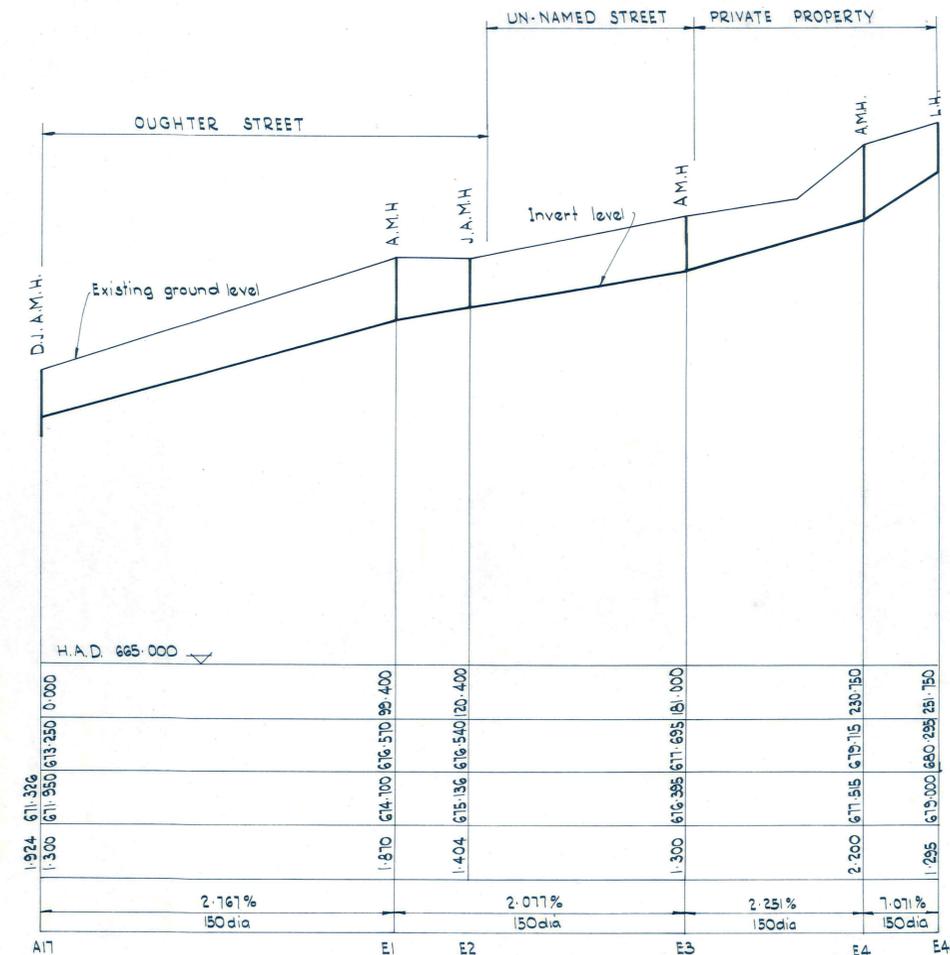
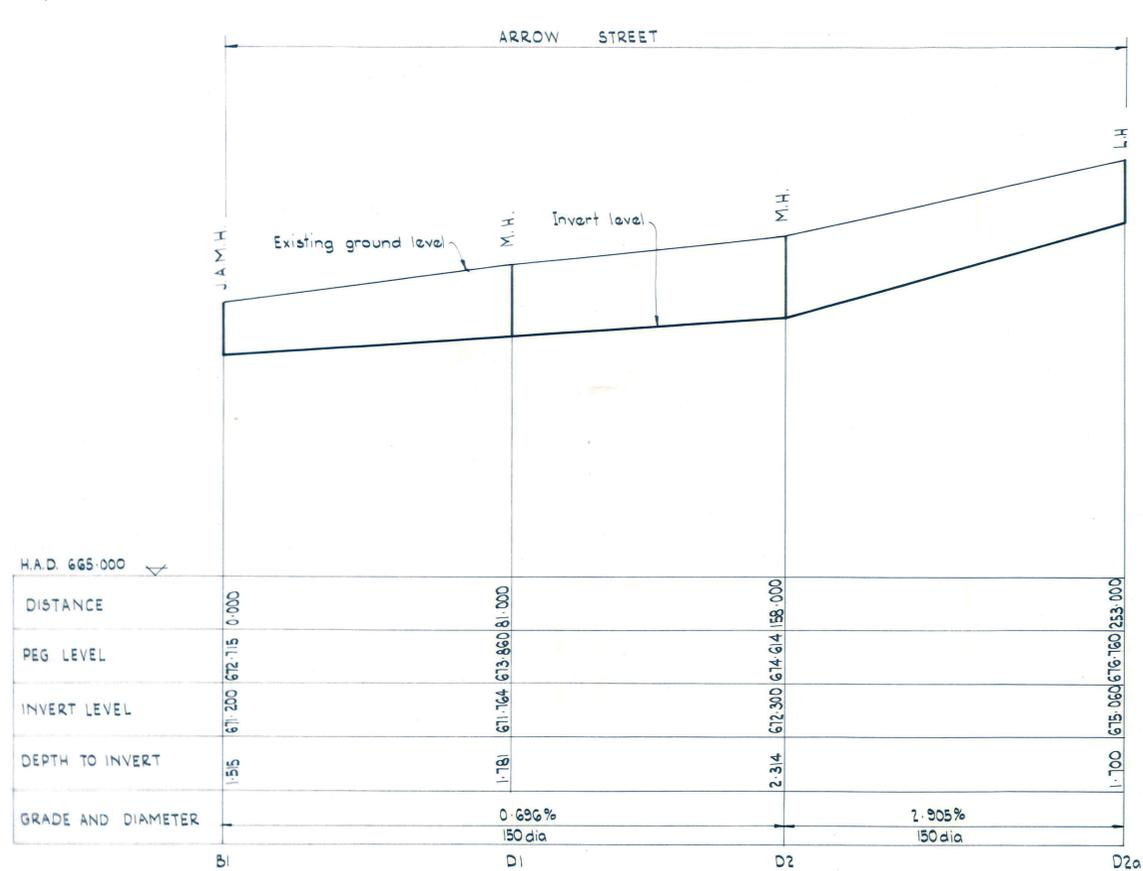
| DISTANCE | PEG LEVEL | INVERT LEVEL | DEPTH TO INVERT | GRADE AND DIAMETER |
|----------|-----------|--------------|-----------------|--------------------|
| 3.434 | 667.301 | 667.301 | 1.500 | 3.663% 150 dia |
| 671.200 | 672.715 | 672.715 | 1.515 | 7.283% 150 dia |
| 673.385 | 674.885 | 674.885 | 1.500 | 2.636% 150 dia |
| 674.413 | 676.100 | 676.100 | 1.687 | 12.593% 150 dia |
| 676.200 | 677.915 | 677.915 | 1.715 | 7.853% 150 dia |
| 684.280 | 684.280 | 684.280 | 1.280 | 19.01% 50 dia |
| 687.245 | 687.245 | 687.245 | 1.300 | 2.784% 150 dia |
| 687.281 | 687.281 | 687.281 | 1.500 | 16.298% 150 dia |
| 691.335 | 691.335 | 691.335 | 1.485 | 3.600% 150 dia |
| 694.230 | 694.230 | 694.230 | 1.500 | 5.410% 150 dia |
| 694.406 | 694.406 | 694.406 | 2.540 | |
| 695.457 | 695.457 | 695.457 | 1.995 | |



PROFILES
 Scales - Horizontal 1:1000
 Vertical 1:100

| | | | | | | | | | | |
|--|-------------------------------|---|--|-------------------------|--------------------|--|---------------------------------------|---------------------------------|------------------------|----------------------|
| DUFFILL WATTS & KING LTD CONSULTING CIVIL & STRUCTURAL ENGINEERS Dunedin P.O. Box 5289 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049 Balclutha P.O. Box 220 Phone 1425 Cromwell P.O. Box 82 Phone 96 | NASEBY BOROUGH COUNCIL | SANITARY SEWERAGE RETICULATION SEWER PROFILES | | DATUM M.S.L. | AMENDMENTS | | NAME B.T. Kinaston | DATE Oct '76 | JOB NO. 8262 | Sheet No 9 |
| | | | | ORIGIN TRIG X | NO. BY DATE Appvd. | Surveyed Drawn Calculations Traced Checked Approved | DATE Oct '76 Oct '76 Dec '76 | of 18 sheets L.B. 326 327 | | |

ORIGINAL SIZE INCHES



PROFILES
 Scales Horizontal 1:1000
 Vertical 1:100

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dundee P.O. Box 5289 Ph 77-133 Invercargill P.O. Box 676 Ph 83049
 Balclutha P.O. Box 220 Phone 1425
 Cromwell P.O. Box 82 Phone 96

NASEBY BOROUGH COUNCIL

**SANITARY SEWERAGE RETICULATION
 SEWER PROFILES**



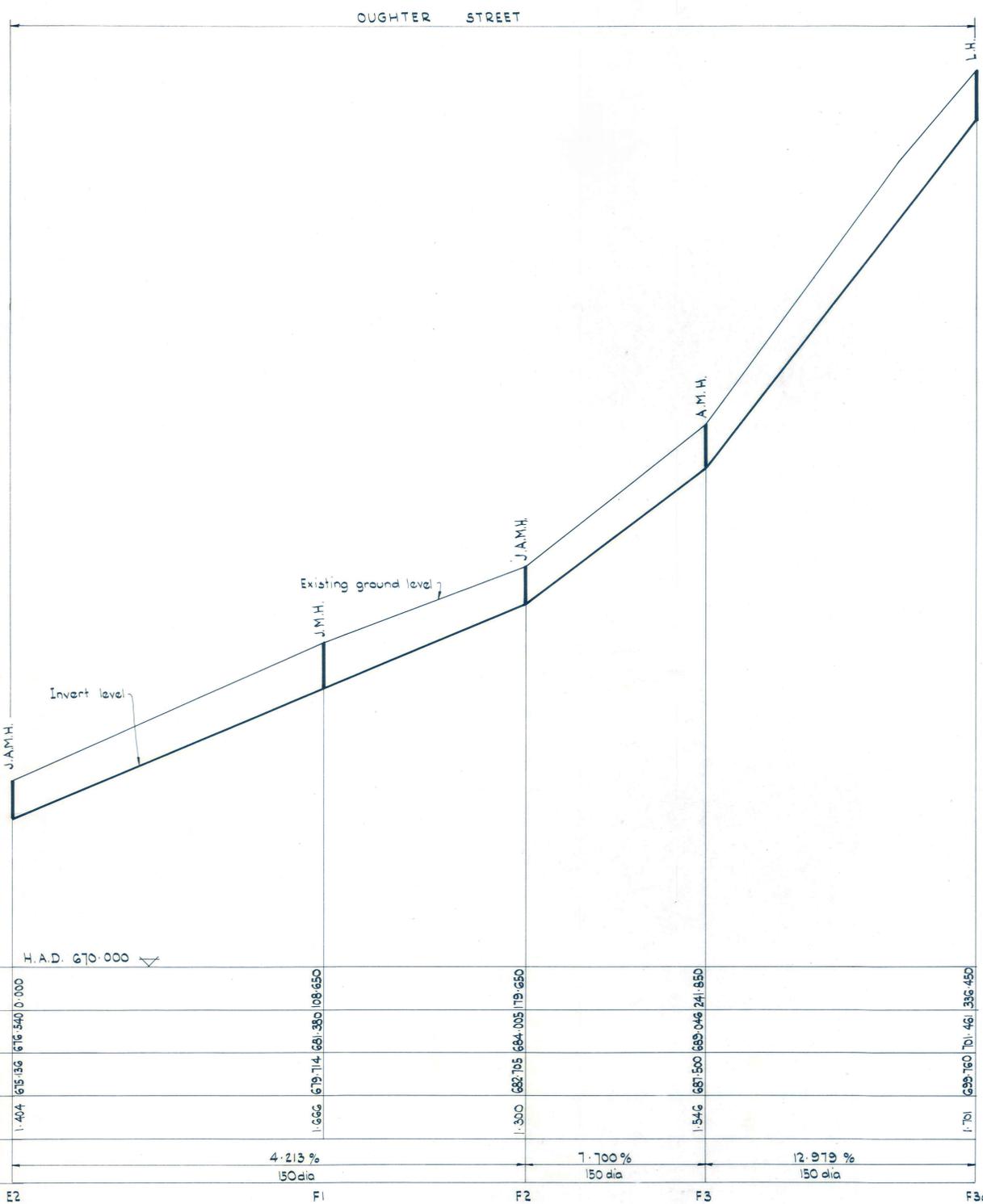
DATUM
 M.S.L.
 ORIGIN
 TRIG X

| AMENDMENTS | | | Appvd. | NAME | DATE |
|------------|----|------|--------|------|------|
| NO. | BY | DATE | | | |

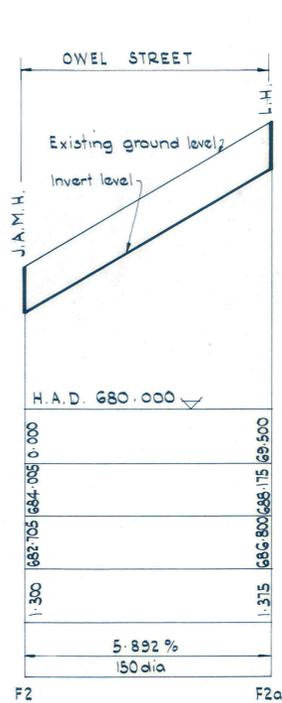
| NO. | BY | DATE | NAME | DATE |
|--------------|--------------------|---------|---------------|---------|
| Surveyed | * | * | B.T. Kingston | Oct '74 |
| Drawn | * | * | * | * |
| Calculations | * | * | * | * |
| Traced | A.H. Moore | Oct '74 | | |
| Checked | | | | |
| Approved | <i>Chamberlain</i> | Dec '76 | | |

JOB NO. **8 2 6 2** Sheet No **10**
 of 16 shts
 File 26/3/3 L.B. 326/327 F.B.

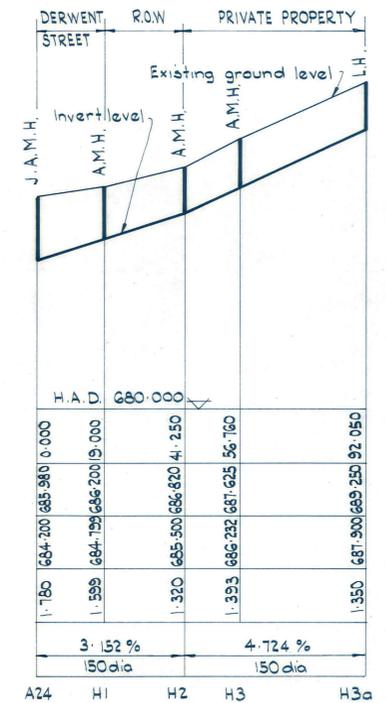
ORIGINAL SIZE mm INCHES
 0 10 20 30 40 50 60 70 80 90 100 150 200 300
 0 1 2 3 4 5 6 7 8 9 10 11 12



| | E2 | F1 | F2 | F3 | F3a |
|--------------------|---------|--------------------|--------------------|---------------------|---------|
| DISTANCE | | | | | |
| PEG LEVEL | 670.000 | 679.650 | 684.005 | 689.046 | 693.450 |
| INVERT LEVEL | 671.56 | 679.714 | 682.705 | 687.500 | 692.160 |
| DEPTH TO INVERT | 1.404 | 1.666 | 1.300 | 1.546 | 1.701 |
| GRADE AND DIAMETER | | 4.213 % 150 dia | 7.700 % 150 dia | 12.919 % 150 dia | |



| | F2 | F2a |
|--------------------|---------|--------------------|
| DISTANCE | | |
| PEG LEVEL | 680.000 | 689.500 |
| INVERT LEVEL | 682.705 | 686.881 |
| DEPTH TO INVERT | 1.300 | 1.315 |
| GRADE AND DIAMETER | | 5.892 % 150 dia |



| | A24 | H1 | H2 | H3 | H3a |
|--------------------|---------|--------------------|---------|--------------------|---------|
| DISTANCE | | | | | |
| PEG LEVEL | 680.000 | 684.200 | 686.420 | 687.625 | 689.250 |
| INVERT LEVEL | 684.300 | 684.758 | 685.500 | 686.232 | 687.500 |
| DEPTH TO INVERT | 1.780 | 1.598 | 1.320 | 1.393 | 1.350 |
| GRADE AND DIAMETER | | 3.152 % 150 dia | | 4.724 % 150 dia | |

PROFILES
 Scales - Horizontal 1:1000
 Vertical 1:100

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5268 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049
 Balclutha P.O. Box 220 Phone 1425
 Cromwell P.O. Box 82 Phone 96

NASEBY
 BOROUGH
 COUNCIL

SANITARY SEWERAGE RETICULATION
 SEWER PROFILES



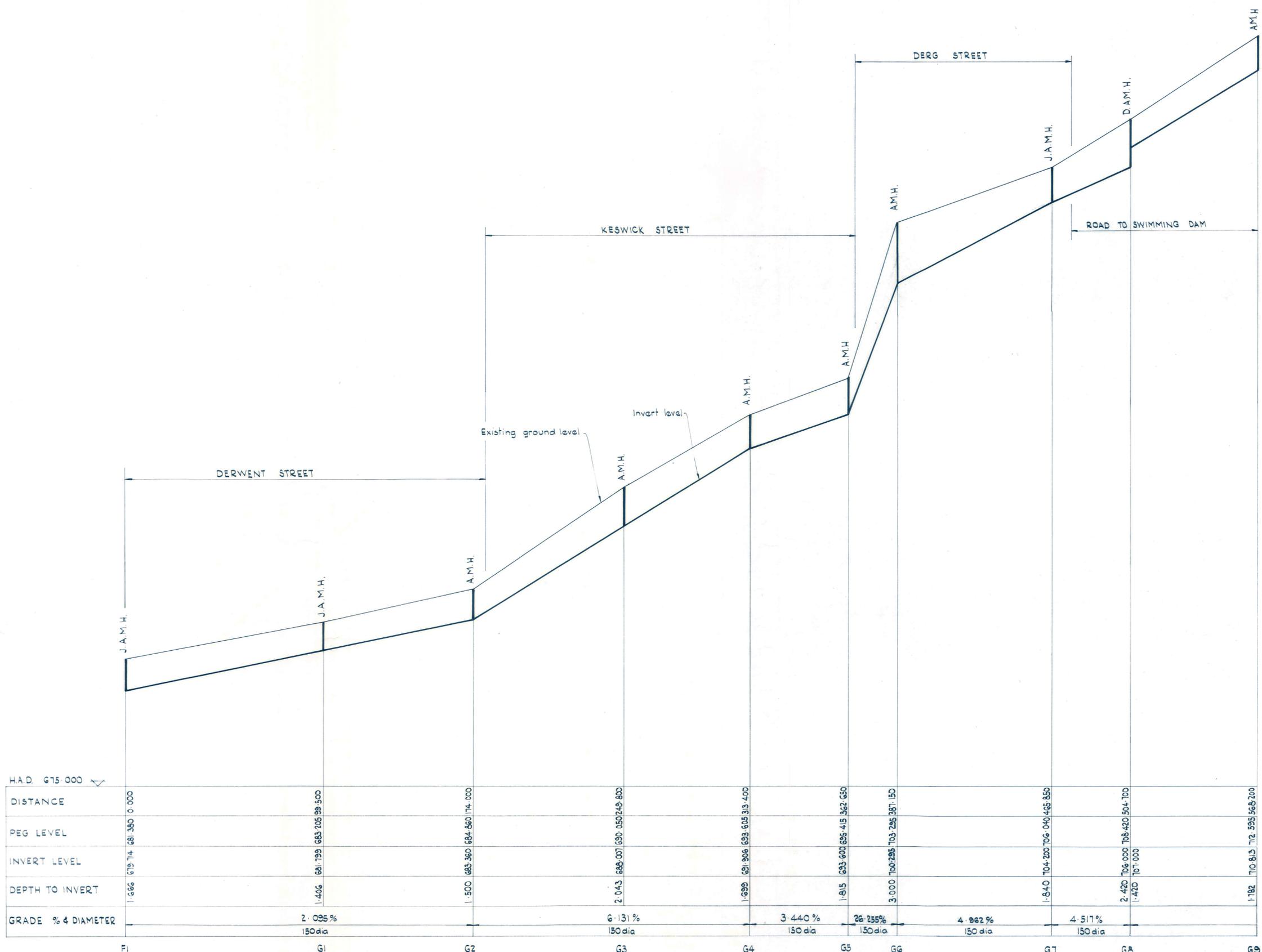
DATUM
 M.S.L.
 ORIGIN
 TRIG X

| AMENDMENTS | | | Appvd | Surveyed | NAME | DATE |
|------------|----|------|-------|----------|---------------|---------|
| NO. | BY | DATE | | | B.T. Kingston | Oct '76 |
| | | | | | " | " |
| | | | | | " | " |
| | | | | | " | " |
| | | | | | A.H.M. & C.H. | Oct '76 |
| | | | | | Checked | |
| | | | | | Approved | |

JOB NO.
 8 262
 File 26/3/3
 L.B. 327

Sheet No
 11
 of 18 shts
 F.B.

ORIGINAL SIZE
mm INCHES



| DISTANCE | 0 000 | 1500 | 3000 | 4500 | 6000 | 7500 | 8000 | 8500 | 9000 | |
|--------------------|---------|-------------------|---------|-------------------|---------|-------------------|--------------------|-------------------|-------------------|----|
| PEG LEVEL | 681.360 | 683.205 | 684.860 | 686.007 | 688.605 | 691.285 | 693.285 | 696.040 | 698.420 | |
| INVERT LEVEL | 679.714 | 681.753 | 683.360 | 685.007 | 687.905 | 690.415 | 692.987 | 695.550 | 698.100 | |
| DEPTH TO INVERT | 1.646 | 1.406 | 1.500 | 2.043 | 1.899 | 1.815 | 3.000 | 1.840 | 2.420 | |
| GRADE % & DIAMETER | | 2.025% 150 dia | | 6.131% 150 dia | | 3.440% 150 dia | 26.255% 150 dia | 4.982% 150 dia | 4.517% 150 dia | |
| | F1 | G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 |

PROFILES
Scales: Horizontal 1:1000
Vertical 1:100

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin P.O. Box 5269 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049
Balclutha P.O. Box 220 Phone 1425
Cromwell P.O. Box 82 Phone 96

NASEBY BOROUGHCOUNCIL

**SANITARY SEWERAGE RETICULATION
SEWER PROFILES**



DATUM
M.S.L.
ORIGIN
TRIG X

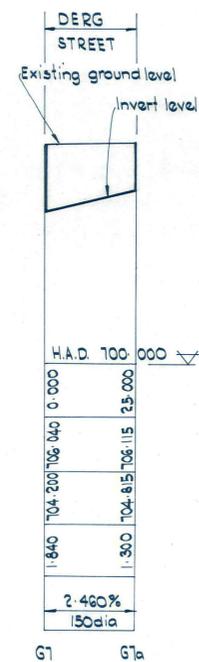
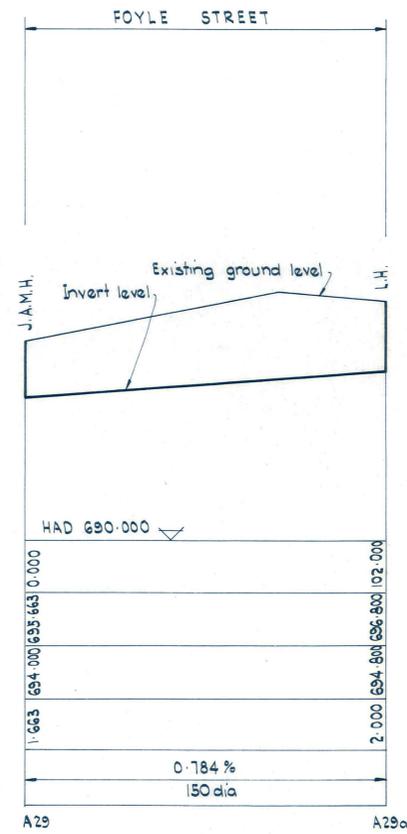
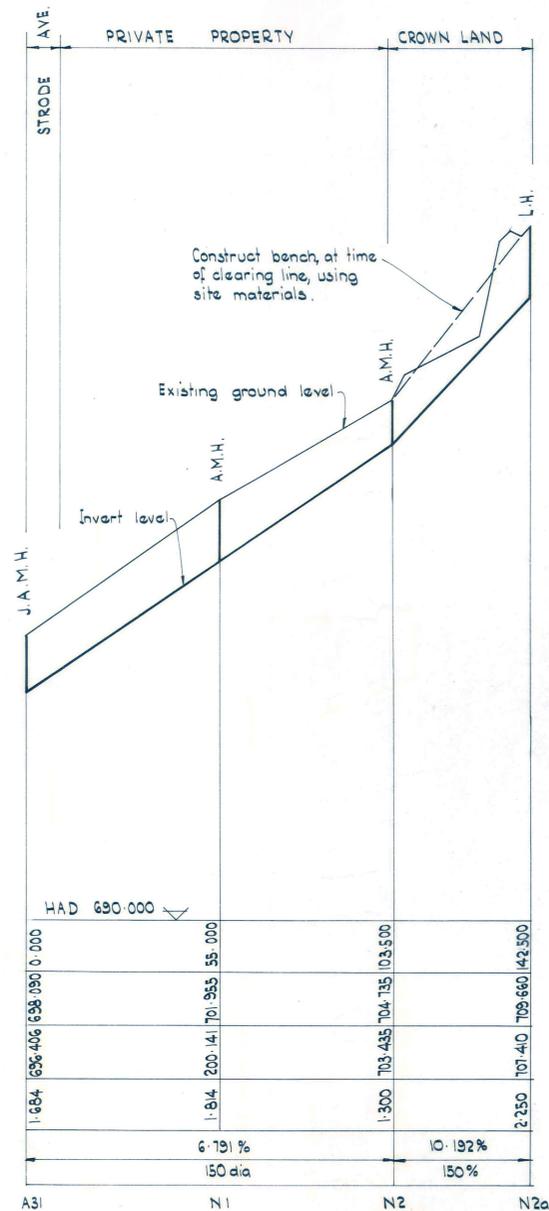
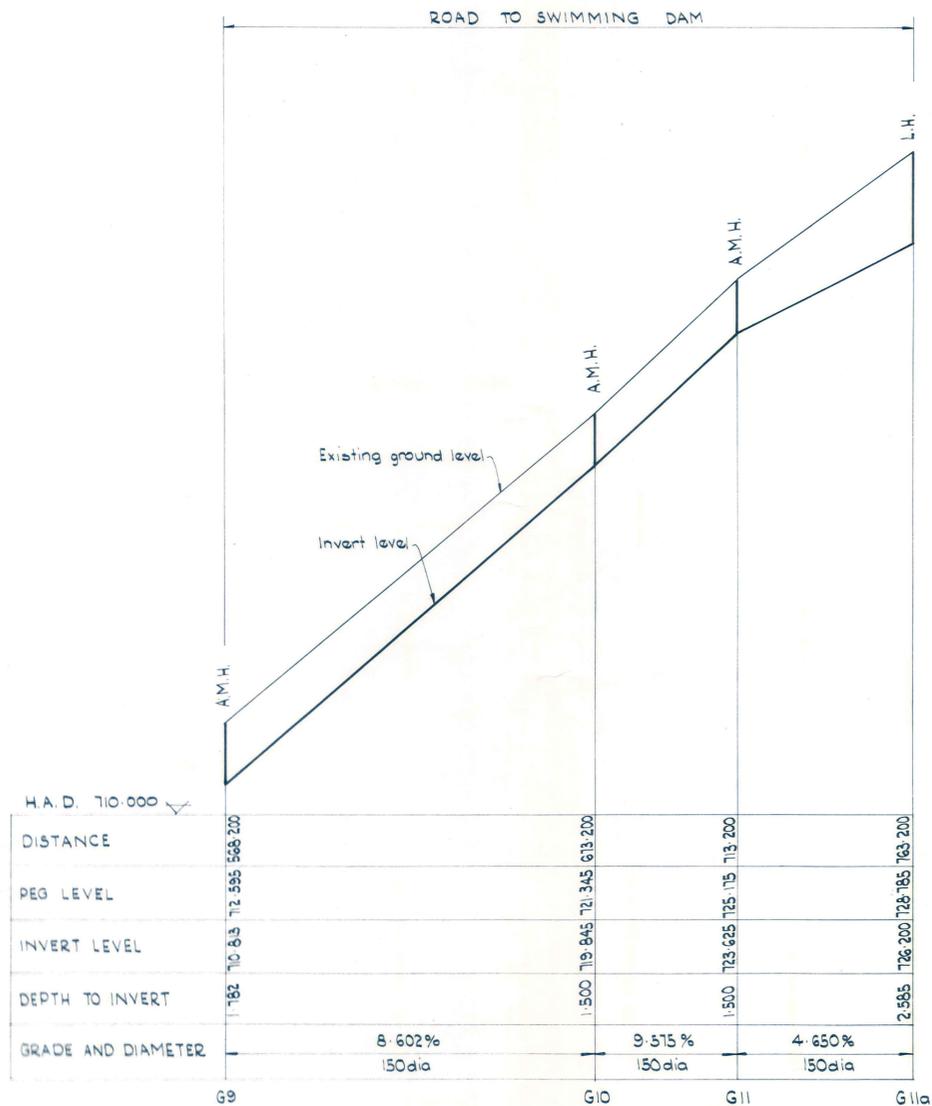
| AMENDMENTS | | |
|------------|----|------|
| NO. | BY | DATE |
| | | |
| | | |
| | | |

| NAME | DATE |
|-----------------------------|---------|
| Surveyed B.T. Kinaston | Oct '76 |
| Drawn " " | " " |
| Calculations " " | " " |
| Traced A.H.M. & C.H. | Oct '76 |
| Checked " " | " " |
| Approved <i>[Signature]</i> | Dec '76 |

| | | | |
|-------------|----------|--------------|----|
| JOB NO. | 8 262 | Sheet No | 12 |
| | | of 18 sheets | |
| File 26/3/3 | L.B. 326 | F.B. | |

2 3 4 5 6 7 8 9 G

ORIGINAL SIZE INCHES



PROFILES
 Scales - Horizontal 1:1000
 Vertical 1:100

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dunedin P.O. Box 5269 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049
 Balclutha P.O. Box 220 Phone 1425
 Cromwell P.O. Box 82 Phone 96

NASEBY
 BOROUGH
 COUNCIL

SANITARY SEWERAGE RETICULATION
 SEWER PROFILES



DATUM
 M.S.L.
 ORIGIN
 TRIG X

| AMENDMENTS | | | NAME | | DATE | |
|------------|----|------|--------|----------------|-------|--------------|
| NO. | BY | DATE | Appvd. | Surveyed | Drawn | Calculations |
| | | | | B. T. Kinaston | | Oct '76 |
| | | | | " | " | " |
| | | | | A. H. Moore | | Oct '76 |
| | | | | Checked | | |
| | | | | Approved | | |

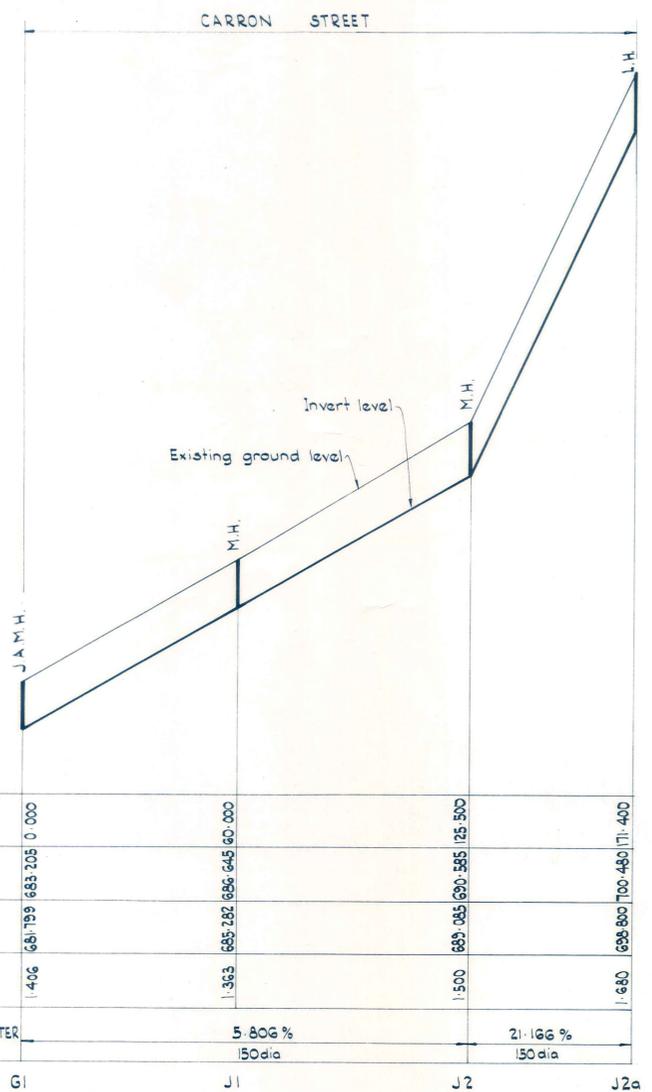
File 26/3/3
 L.B. 326
 327

JOB NO.
 8262

Sheet No
 13
 of 18 shts
 F.B.

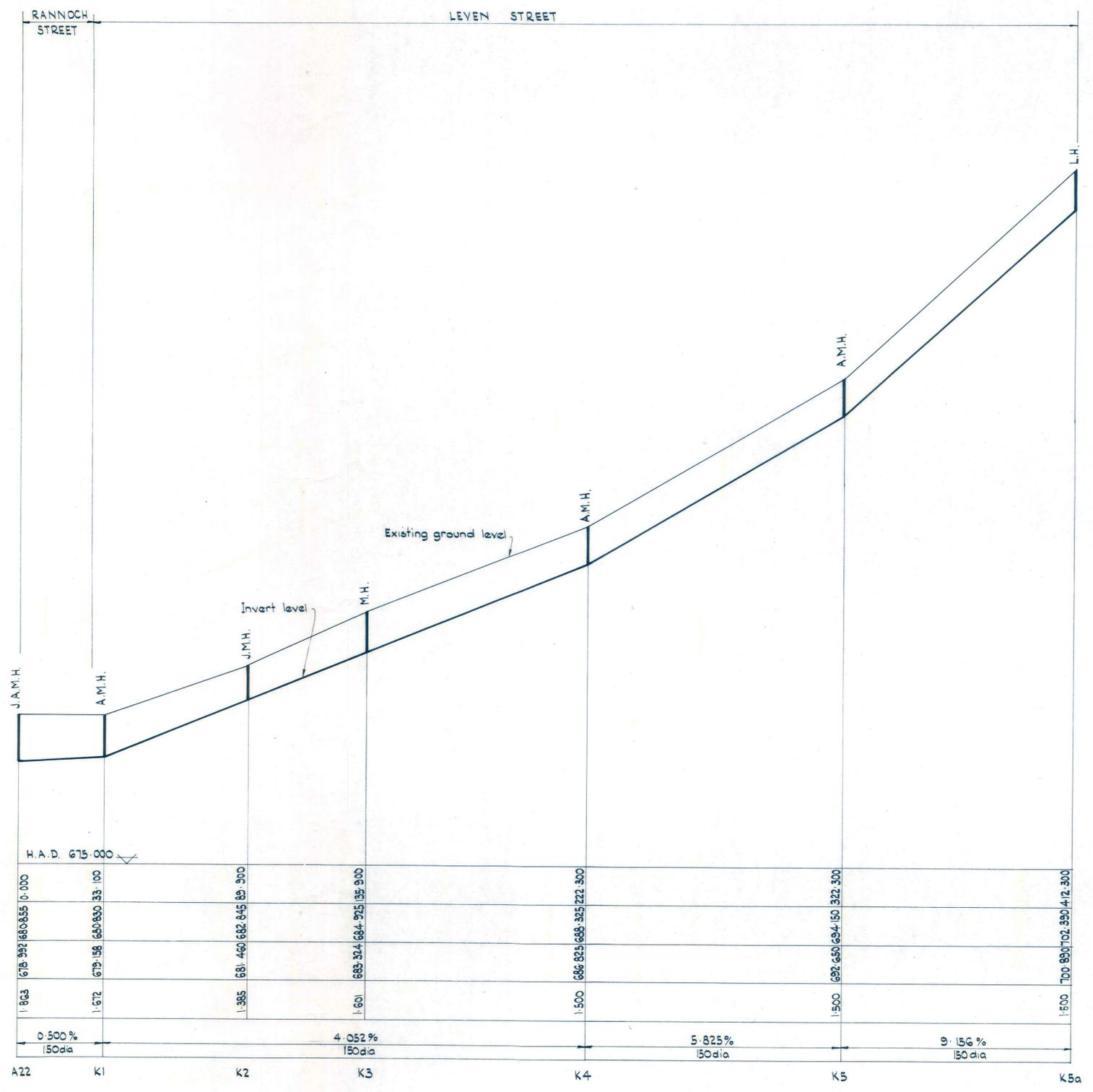
G, N, A,

ORIGINAL SIZE INCHES



H.A.D. 680 000

| DISTANCE | PEG LEVEL | INVERT LEVEL | DEPTH TO INVERT | GRADE (%) AND DIAMETER |
|----------|-----------|--------------|-----------------|------------------------|
| G1 | 681 795 | 683 205 | 1 406 | |
| J1 | 685 282 | 686 645 | 1 363 | 5.806% 150 dia |
| J2 | 689 085 | 690 585 | 1 500 | 21.166% 150 dia |
| J2a | 698 800 | 700 480 | 1 680 | |



H.A.D. 675 000

| DISTANCE | PEG LEVEL | INVERT LEVEL | DEPTH TO INVERT | GRADE (%) AND DIAMETER |
|----------|-----------|--------------|-----------------|------------------------|
| A22 | 678 997 | 680 855 | 1 858 | 0.500% 150 dia |
| K1 | 679 198 | 680 890 | 1 672 | |
| K2 | 681 460 | 682 845 | 1 385 | |
| K3 | 688 374 | 684 975 | 1 601 | 4.052% 150 dia |
| K4 | 686 825 | 688 325 | 1 500 | 5.825% 150 dia |
| K5 | 692 680 | 694 150 | 1 500 | 9.156% 150 dia |
| K5a | 700 890 | 702 390 | 1 500 | |

PROFILES
 Scales Horizontal 1:1000
 Vertical 1:100

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dundee P.O. Box 5269 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049
 Balclutha P.O. Box 220 Phone 1425
 Cromwell P.O. Box 82 Phone 96

NASEBY BOROUGH COUNCIL

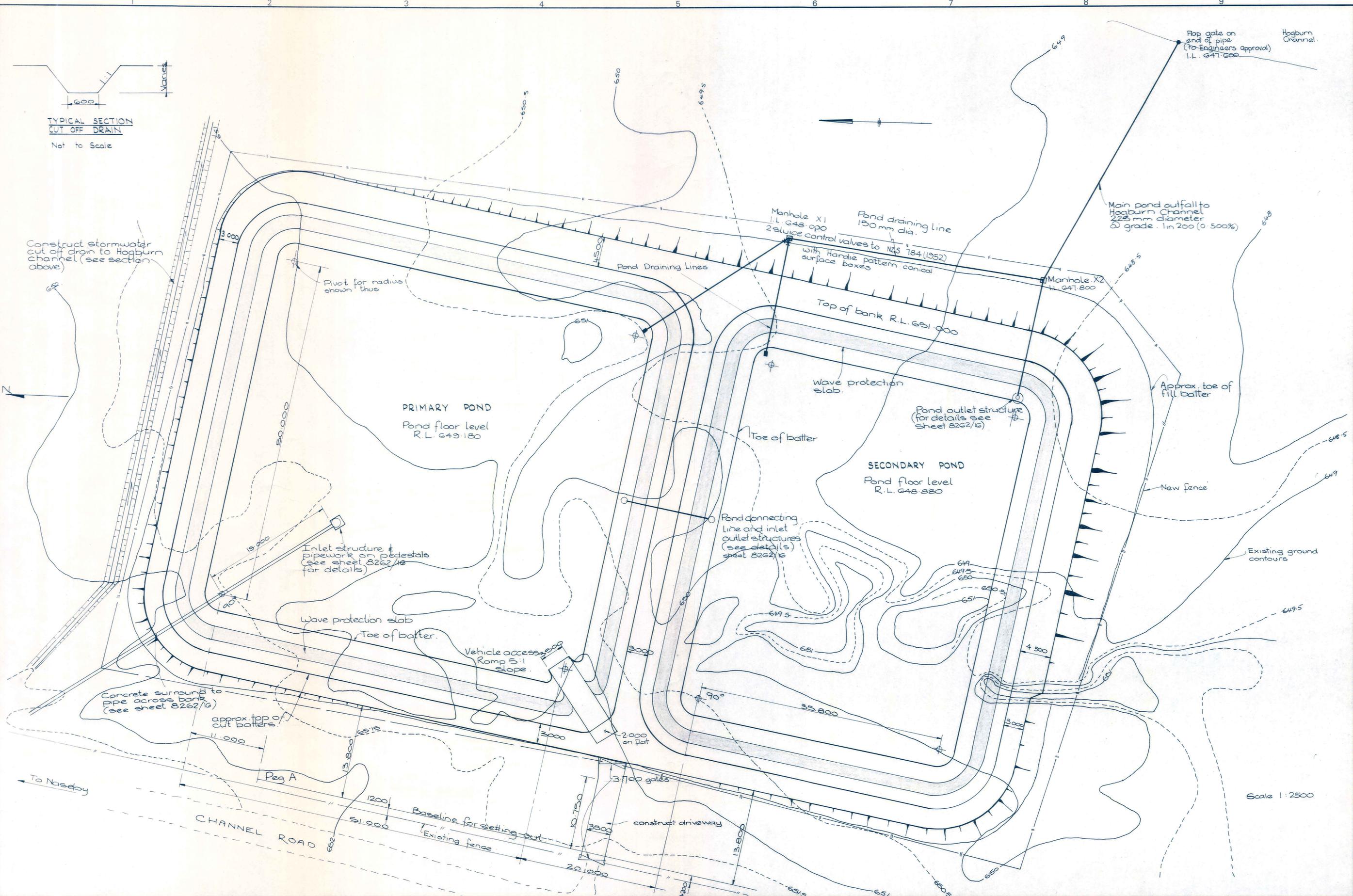
**SANITARY SEWERAGE RETICULATION
 SEWER PROFILES**



DATUM
 M.S.L.
 ORIGIN
 TRIG X

| AMENDMENTS | | | NAME | DATE |
|------------|----|------|---------------|---------|
| NO. | BY | DATE | | |
| | | | B.T. Kinaston | Oct '76 |
| | | | " | " |
| | | | A.H.M. & CH. | Oct '76 |
| | | | Shambhala | Dec '76 |

| | | | | | | | | |
|--------|----------|-------|--------------|--------|---------|----------|-----------------|------------|
| Appvd. | Surveyed | Drawn | Calculations | Traced | Checked | Approved | JOB NO. | Sheet No. |
| | | | | | | | 8 262 | 14 |
| | | | | | | | File 26/3/3 | of 18 shts |
| | | | | | | | L.B. 326 327 | F.B. |



**TYPICAL SECTION
CUT OFF DRAIN**
Not to Scale

ORIGINAL SIZE
mm INCHES

Scale 1:2500

DUFFILL WATTS & KING LTD
CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin P.O. Box 5289 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049
Balclutha P.O. Box 220 Phone 1425
Cromwell P.O. Box 82 Phone 96

**NASEBY
BOROUGH
COUNCIL**

**SEWAGE TREATMENT
OXIDATION POND LAYOUT**

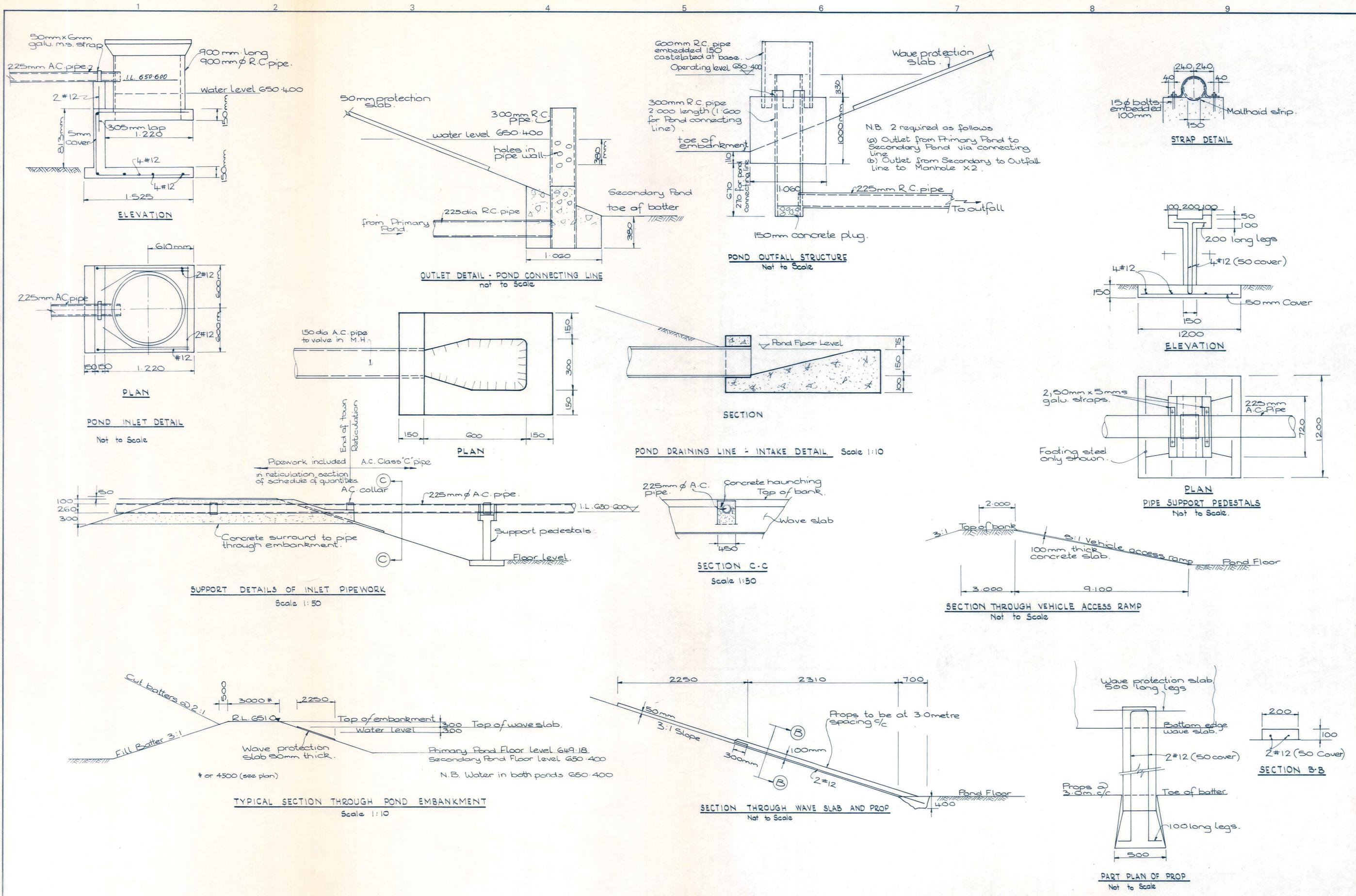


DATUM
M.S.L.
ORIGIN
TRIG X

| AMENDMENTS | | | |
|------------|----|------|--------|
| NO. | BY | DATE | Appvd. |
| | | | |
| | | | |
| | | | |

| NAME | DATE |
|------------------------|---------|
| Surveyed B.T. Kinaston | Oct '76 |
| Drawn G.R. Gillespie | Oct '76 |
| Calculations " " | " " |
| Traced M.E. Gill | Oct '76 |
| Checked " " | " " |
| Approved " " | Dec '76 |

| | |
|----------------------|-----------------|
| JOB NO. | Sheet No |
| 8262 | 16 |
| File 2G/3/3 L.B. 327 | of 18 shts |
| F.B. | |



DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dundee P.O. Box 5269 Ph 77.133 Invercargill P.O. Box 576 Ph 83049
 Raletuha P.O. Box 220 Phone 1425
 Cromwell P.O. Box 82 Phone 96

NASEBY
 BOROUGH
 COUNCIL

SEWAGE TREATMENT
 OXIDATION POND LAYOUT

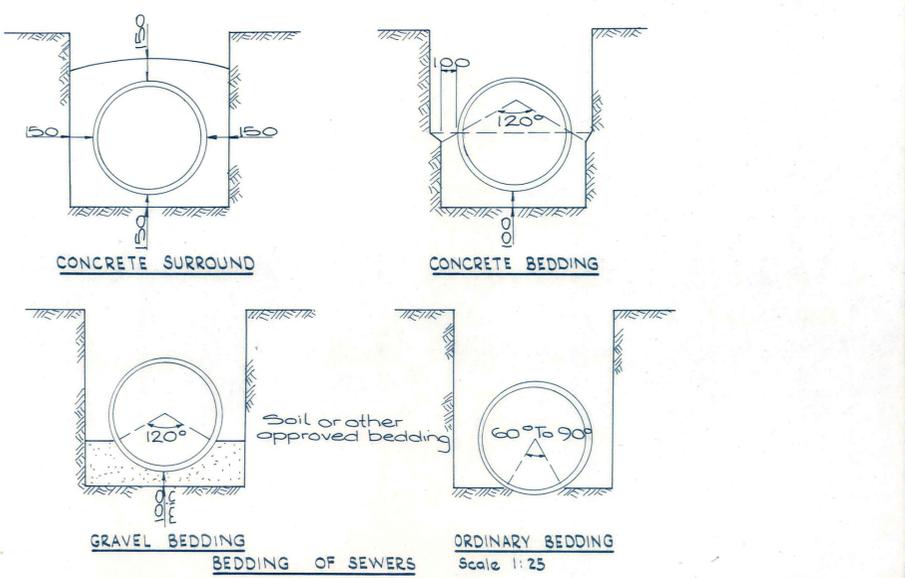
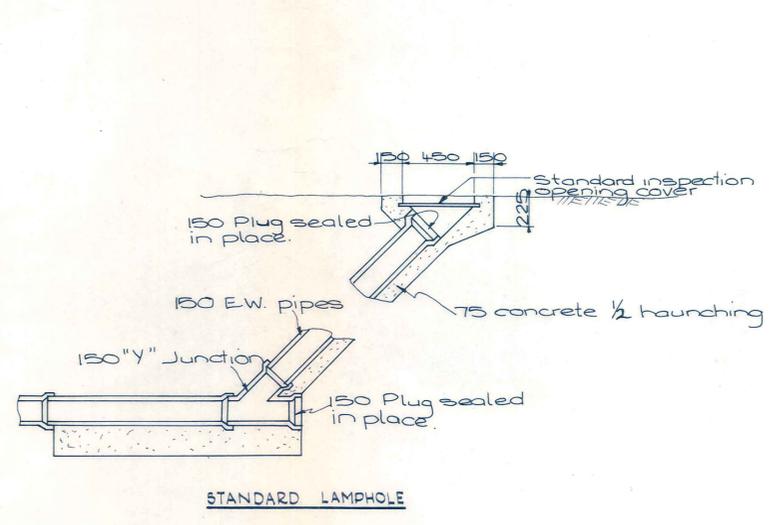
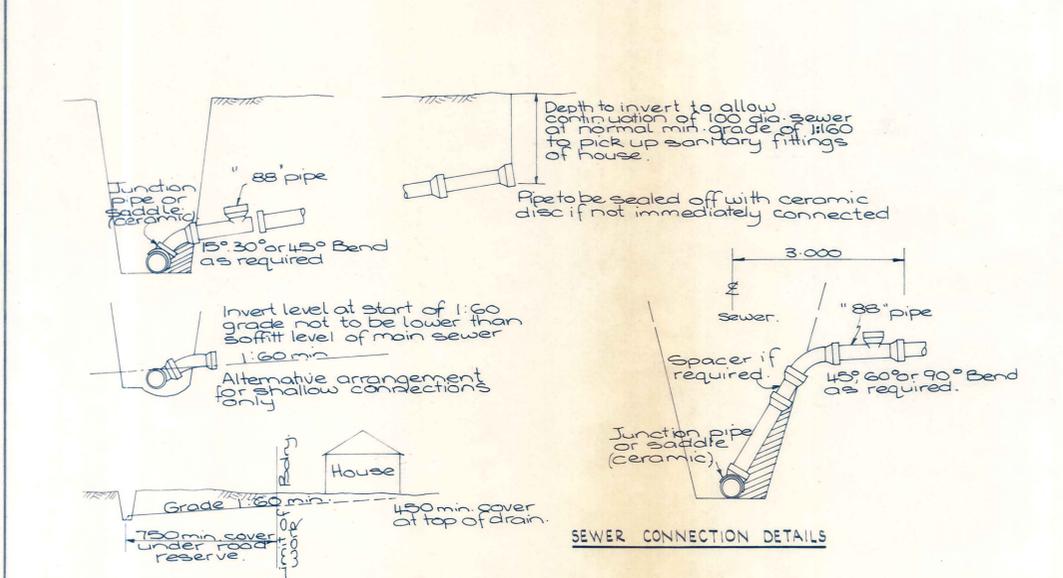
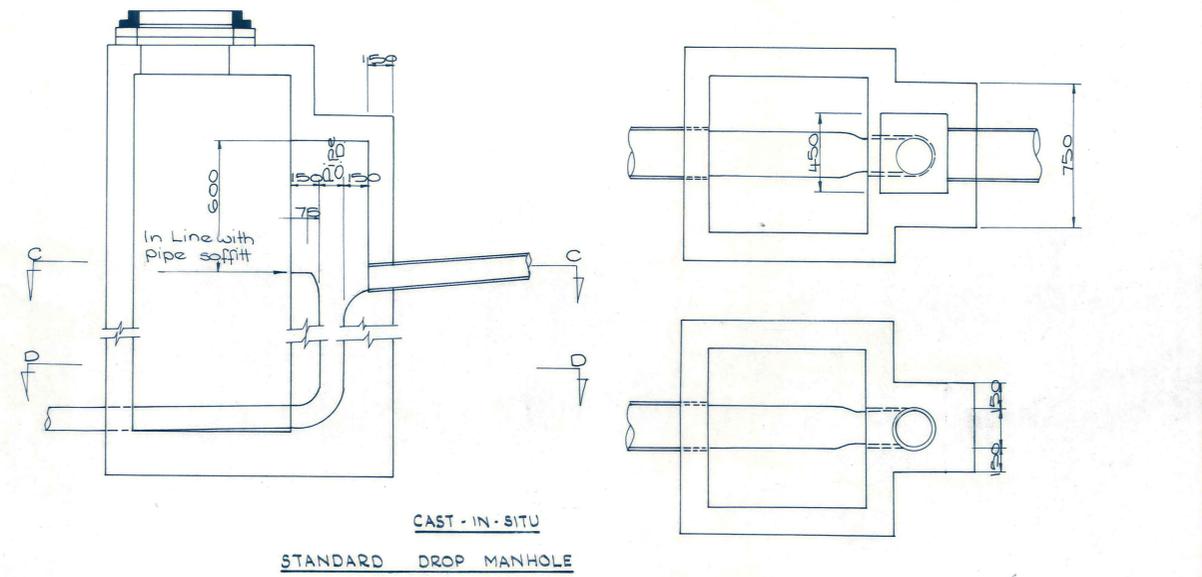
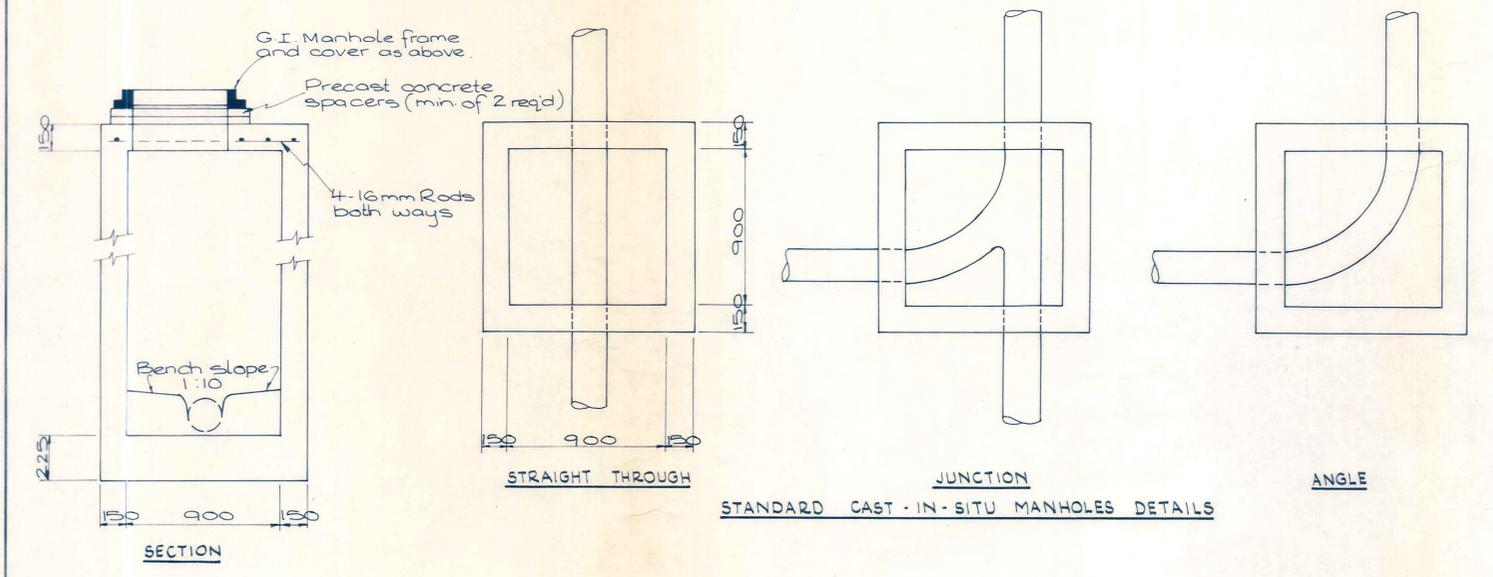
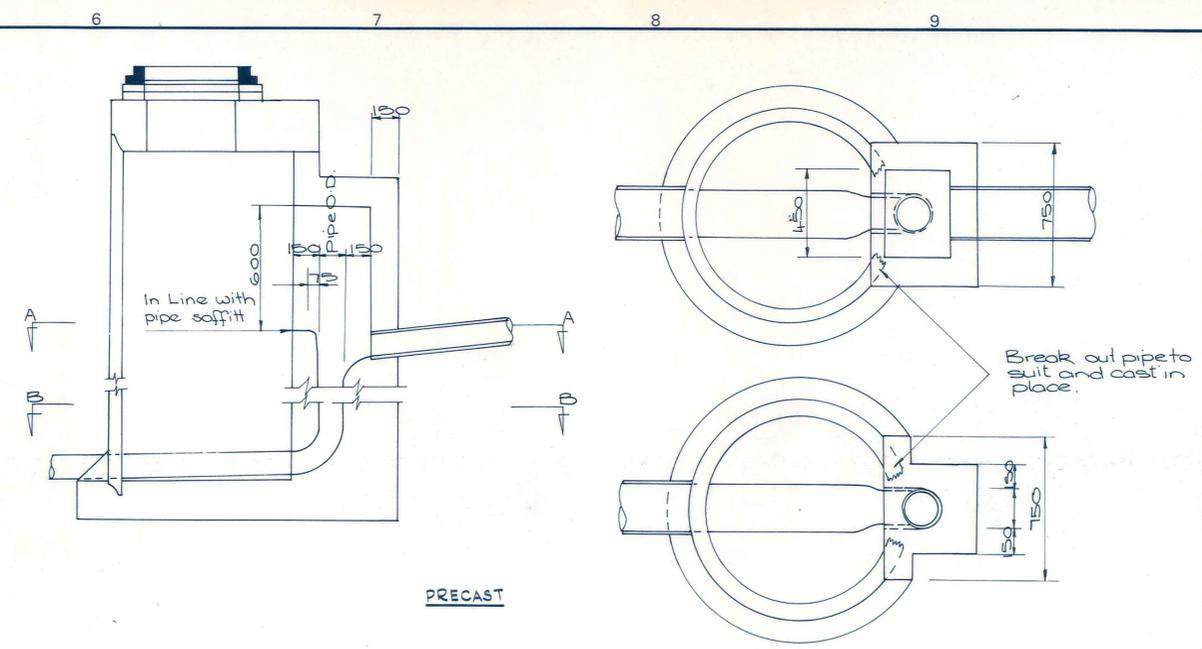
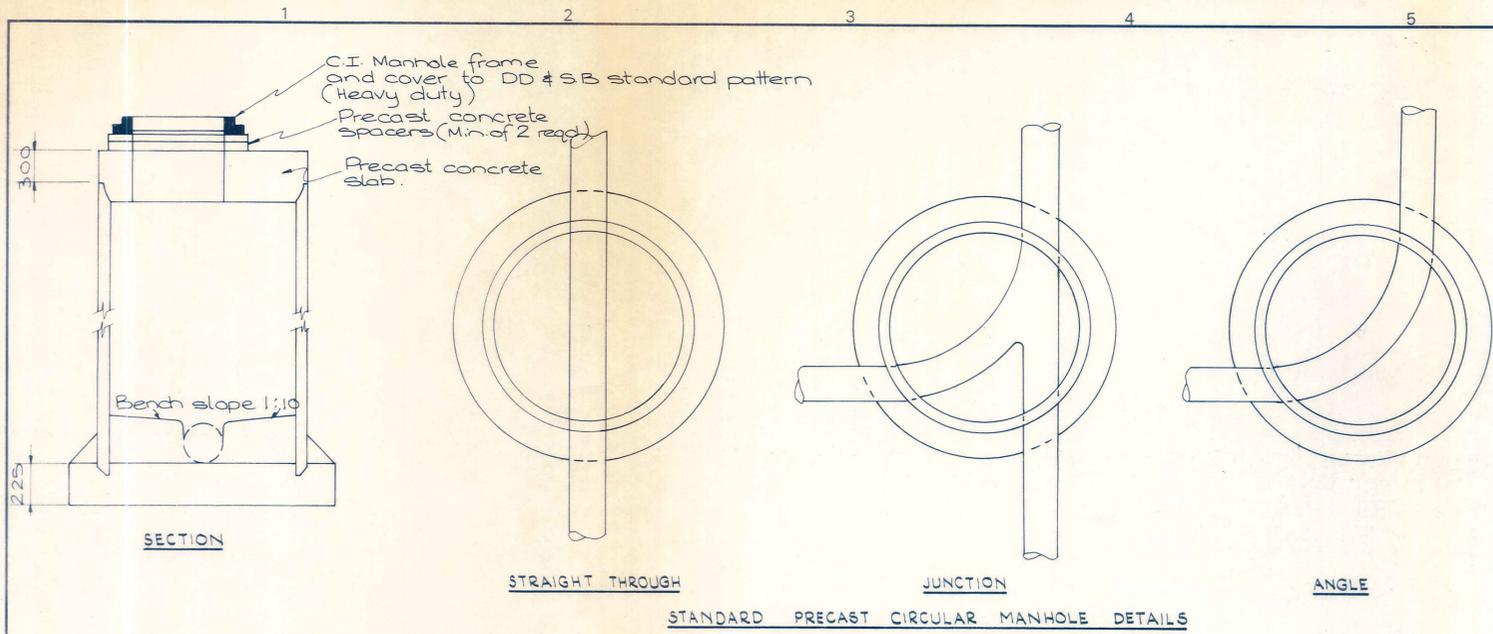


DATUM
 M.S.L.
 ORIGIN
 TRIG X

| AMENDMENTS | | |
|------------|----|------|
| NO. | BY | DATE |
| | | |
| | | |
| | | |

| NAME | DATE |
|------------------------|---------|
| Surveyed B.T. Kinaston | Oct '76 |
| Drawn G.R. Gillespie | " |
| Calculations " " | " |
| Traced M.E. Gill | Oct '76 |
| Checked " " | " |
| Approved Chamberlain | Dec '76 |

| | | | |
|-------------|----------|--------------|-----|
| JOB NO. | 8262 | Sheet No | 17 |
| File 26/3/3 | L.B. 326 | F.B. | 317 |
| | | of 18 sheets | |



ORIGINAL SIZE INCHES

0 1 2 3 4 5 6 7 8 9 10 11 12

DUFFILL WATTS & KING LTD
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 Dundee P.O. Box 5269 Ph. 77-133 Invercargill P.O. Box 576 Ph. 83049
 Balclutha P.O. Box 220 Phone 1425
 Cromwell P.O. Box 82 Phone 98

NASEBY BOROUGH COUNCIL

**SANITARY SEWERAGE RETICULATION
 STANDARD PIPEWORK DETAILS**

DATUM
 M.S.L.

ORIGIN
 TRIG X

| AMENDMENTS | | |
|------------|----|------|
| NO | BY | DATE |
| | | |
| | | |
| | | |

| NAME | DATE |
|------------------------|----------|
| Surveyed B.T. Kingston | Oct '76 |
| Drawn G.R. Gillespie | " |
| Calculations M.E. Gill | Oct. '76 |
| Traced | |
| Checked | |
| Approved | |

| | |
|--------------|----------|
| JOB NO. | Sheet No |
| 8262 | 18 |
| of 18 sheets | F.B. |