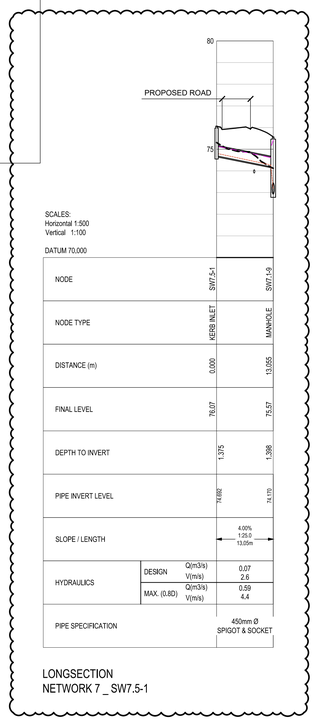
## STORMWATER LEGEND

- EXISTING STORMWATER
- NEW STORMWATER PIPE REFER TO LONG SECTION FOR PIPE TYPE & DIA
- NEW SUB-SOIL LINE
- NEW KERB INLET (DS:X / CP:X / US:X)
  - TRANSITION LENGTH UPSTREAM (US)
  - CATCHPIT LENGTH (CP)
  - TRANSITION LENGTH DOWNSTREAM (DS)
- GI — NEW GRID INLET
- JB — NEW JUNCTION BOX
- MH — NEW MANHOLE
- EXGI — EXISTING GRID INLET
- EXJB — EXISTING JUNCTION BOX
- EXMH — EXISTING MANHOLE




SCALES:
Horizontal 1:500
Vertical 1:100

DATUM 70.000

| | | | | |
|---|---|---|---|---|
| NODE | | SW7.5-1 | | SW7.1-9 |
| NODE TYPE | | KERB INLET | | MANHOLE |
| DISTANCE (m) | | 0.000 | | 13.055 |
| FINAL LEVEL | | 76.07 | | 75.57 |
| DEPTH TO INVERT | | 1.375 | | 1.398 |
| PIPE INVERT LEVEL | | 74.692 | | 74.170 |
| SLOPE / LENGTH | | | | 4.00% 1:25.0 13.05m |
| HYDRAULICS | DESIGN Q(m3/s) V(m/s) | | | 0.07 2.6 |
| | MAX. (0.8D) Q(m3/s) V(m/s) | | | 0.59 4.4 |
| PIPE SPECIFICATION | | | | 450mm Ø SPIGOT & SOCKET |

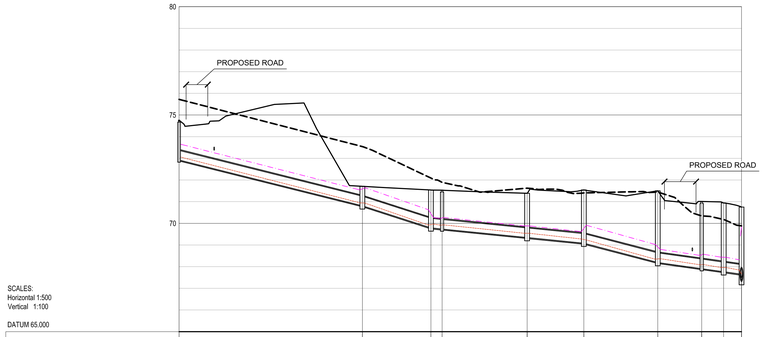
LONGSECTION
NETWORK 7 _ SW7.5-1


SCALES:
Horizontal 1:500
Vertical 1:100

DATUM 65.000

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NODE | | SW7.6-1 | SW7.6-2 | SW7.6-3 | SW7.6-4 | SW7.6-5 | SW7.6-6 | SW7.6-7 | SW7.6-8 | SW7.6-9 | SW7.6-10 | SW7.1-13 | |
| NODE TYPE | | KERB INLET | JUNCTION BOX | MANHOLE | JUNCTION BOX | KERB INLET | JUNCTION BOX | MANHOLE | JUNCTION BOX | KERB INLET | JUNCTION BOX | JUNCTION BOX | |
| DISTANCE (m) | | 0.000 | 18.525 | 32.861 | 53.883 | 75.918 | 86.883 | 99.003 | 109.885 | 129.899 | 149.023 | 178.943 | |
| FINAL LEVEL | | 75.26 | 75.21 | 74.40 | 73.62 | 72.71 | 72.40 | 72.31 | 71.95 | 71.19 | 70.68 | 70.75 | |
| DEPTH TO INVERT | | 1.515 | 2.025 2.025 | 1.576 1.576 | 1.317 1.317 | 1.295 1.295 | 1.389 1.389 | 1.755 1.755 | 1.798 1.798 | 1.776 1.776 | 2.346 2.346 | 3.357 | |
| PIPE INVERT LEVEL | | 73.745 | 73.183 73.183 | 73.925 73.925 | 72.564 72.564 | 71.415 71.415 | 71.009 71.009 | 70.680 70.680 | 70.157 70.157 | 69.416 69.416 | 68.537 68.537 | 67.493 | |
| SLOPE / LENGTH | | | 3.03% 1:33.0 18.53m | 2.50% 1:40.0 14.34m | 2.50% 1:40.0 20.82m | 4.00% 1:25.0 22.24m | 3.70% 1:27.0 10.96m | 3.70% 1:27.0 12.12m | 3.70% 1:27.0 10.88m | 3.70% 1:27.0 20.01m | 3.70% 1:27.0 29.12m | 4.37% 1:22.9 19.32m | |
| HYDRAULICS | DESIGN Q(m3/s) V(m/s) | | 0.03 1.8 | 0.03 1.6 | 0.03 1.6 | 0.03 1.9 | 0.11 2.8 | 0.11 2.8 | 0.11 2.8 | 0.11 2.8 | 0.16 3.2 | 0.30 4.0 | |
| | MAX. (0.8D) Q(m3/s) V(m/s) | | 0.51 3.8 | 0.46 3.5 | 0.46 3.5 | 0.59 4.4 | 0.56 4.2 | 0.56 4.2 | 0.56 4.2 | 0.56 4.2 | 0.56 4.2 | 0.61 4.6 | |
| PIPE SPECIFICATION | | | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | |

LONGSECTION
NETWORK 7 _ SW7.6-1

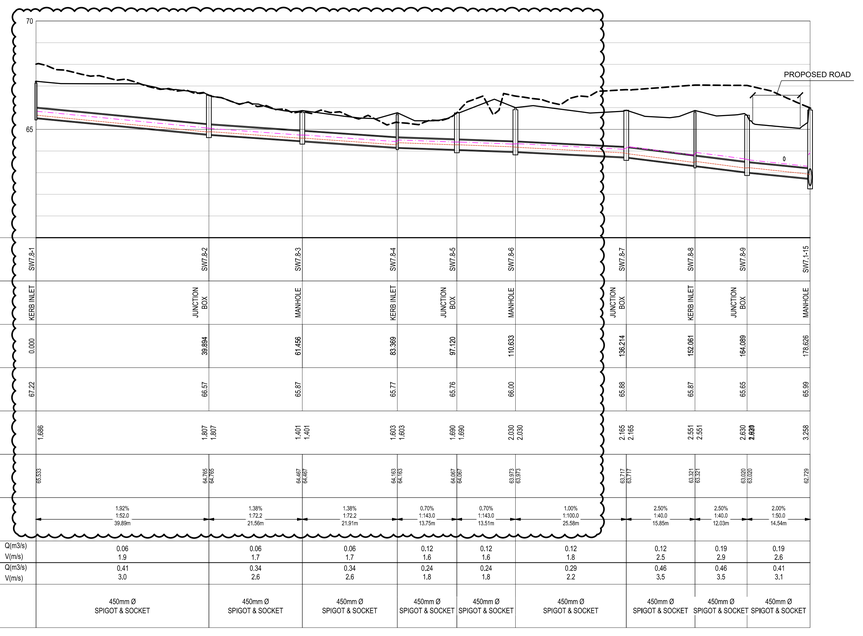



SCALES:
Horizontal 1:500
Vertical 1:100

DATUM 65.000

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NODE | | SW7.7-1 | SW7.7-2 | SW7.7-3 | SW7.7-4 | SW7.7-5 | SW7.7-6 | SW7.7-7 | SW7.7-8 | SW7.7-9 | SW7.1-12 | | | | |
| NODE TYPE | | KERB INLET | JUNCTION BOX | JUNCTION BOX | KERB INLET | JUNCTION BOX | JUNCTION BOX | JUNCTION BOX | KERB INLET | JUNCTION BOX | JUNCTION BOX | | | | |
| DISTANCE (m) | | 0.000 | 42.284 | 58.116 | 69.686 | 89.307 | 99.402 | 110.452 | 120.597 | 125.864 | 129.776 | | | | |
| FINAL LEVEL | | 74.76 | 71.71 | 71.54 | 71.53 | 71.39 | 71.55 | 71.50 | 71.01 | 70.94 | 70.75 | | | | |
| DEPTH TO INVERT | | 1.839 | 0.899 0.899 | 1.752 1.797 | | 2.043 2.043 | 2.464 2.464 | 3.310 3.310 | 3.105 3.105 | 3.178 3.178 | 3.102 | | | | |
| PIPE INVERT LEVEL | | 72.920 | 70.808 70.808 | 69.787 69.787 | 69.736 69.736 | 69.343 69.343 | 68.991 68.991 | 68.191 68.191 | 67.907 67.907 | 67.764 67.764 | 67.648 | | | | |
| SLOPE / LENGTH | | | 5.00% 1:20.0 42.28m | 6.46% 1:15.5 15.82m | 2.00% 1:50.0 11.57m | 2.00% 1:50.0 19.62m | 2.00% 1:50.0 13.10m | 5.22% 1:19.2 17.05m | 2.81% 1:35.6 10.14m | 2.81% 1:35.6 5.07m | 2.81% 1:35.6 3.91m | | | | |
| HYDRAULICS | DESIGN Q(m3/s) V(m/s) | | 0.14 3.4 | 0.14 3.7 | 0.14 2.4 | 0.17 2.6 | 0.17 2.6 | 0.17 3.6 | 0.17 2.9 | 0.20 3.0 | 0.20 3.0 | | | | |
| | MAX. (0.8D) Q(m3/s) V(m/s) | | 0.66 4.9 | 0.74 5.6 | 0.41 3.1 | 0.41 3.1 | 0.41 3.1 | 0.67 5.0 | 0.49 3.7 | 0.49 3.7 | 0.49 3.7 | | | | |
| PIPE SPECIFICATION | | | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 50mm Ø T & SOCK | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | | | | |

LONGSECTION
NETWORK 7 _ SW7.7-1




SCALES:
Horizontal 1:500
Vertical 1:100

DATUM 60.000

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NODE | | SW7.8-1 | SW7.8-2 | SW7.8-3 | SW7.8-4 | SW7.8-5 | SW7.8-6 | SW7.8-7 | SW7.8-8 | SW7.8-9 | SW7.1-15 | | | | |
| NODE TYPE | | KERB INLET | JUNCTION BOX | MANHOLE | KERB INLET | JUNCTION BOX | MANHOLE | JUNCTION BOX | KERB INLET | JUNCTION BOX | MANHOLE | | | | |
| DISTANCE (m) | | 0.000 | 39.884 | 61.456 | 83.369 | 97.100 | 119.633 | 136.214 | 152.961 | 164.099 | 178.626 | | | | |
| FINAL LEVEL | | 67.22 | 66.57 | 65.87 | 65.77 | 65.76 | 66.00 | 65.68 | 65.67 | 65.65 | 65.99 | | | | |
| DEPTH TO INVERT | | 1.686 | 1.807 1.807 | 1.401 1.401 | 1.603 1.603 | 1.690 1.690 | 2.030 2.030 | 2.165 2.165 | 2.551 2.551 | 2.630 2.620 | 3.258 | | | | |
| PIPE INVERT LEVEL | | 65.533 | 64.765 64.765 | 64.467 64.467 | 64.163 64.163 | 64.067 64.067 | 63.970 63.970 | 63.517 63.517 | 63.321 63.321 | 63.020 63.020 | 62.729 | | | | |
| SLOPE / LENGTH | | | 1.92% 1:52.0 39.89m | 1.38% 1:72.2 21.56m | 1.38% 1:72.2 21.91m | 0.70% 1:143.0 13.75m | 0.70% 1:143.0 13.51m | 1.00% 1:100.0 25.58m | 2.50% 1:40.0 15.85m | 2.50% 1:40.0 12.03m | 2.00% 1:50.0 14.54m | | | | |
| HYDRAULICS | DESIGN Q(m3/s) V(m/s) | | 0.06 1.9 | 0.06 1.7 | 0.06 1.7 | 0.12 1.6 | 0.12 1.6 | 0.12 1.8 | 0.12 2.5 | 0.19 2.9 | 0.19 2.6 | | | | |
| | MAX. (0.8D) Q(m3/s) V(m/s) | | 0.41 3.0 | 0.34 2.6 | 0.34 2.6 | 0.24 1.8 | 0.24 1.8 | 0.29 2.2 | 0.46 3.5 | 0.46 3.5 | 0.41 3.1 | | | | |
| PIPE SPECIFICATION | | | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | 450mm Ø SPIGOT & SOCKET | | | | |

LONGSECTION
NETWORK 7 _ SW7.8-1

## CONSTRUCTION NOTES: STORMWATER

1. CONSTRUCTION:

1.1. ALL CONSTRUCTION, TESTING AND MATERIALS TO COMPLY WITH 1200 SERIES OF SPECIFICATIONS.
1.2. PIPE BEDDING TO BE CLASS B AS PER SABS 1200 LB WITH BEDDING CRADLE OF SELECTED FILL QUALITY.
1.3. PIPES AS PER DRAWING.
1.4. WHERE STORMWATER PIPES CROSS THE SEWER LINE A CLASS 'A' BEDDING MUST BE PROVIDED 2.0m EACH WAY UNDER THE STORMWATER LINE.
1.5. MINIMUM FALLS ON ALL PIPES = 1:100 U.O.S.

2. MATERIALS:

2.1. ALL BRICKS TO BE ENGINEERING UNITS TYPE NFXE-14 AS PER SABS 227 & 285.
2.2. MANHOLE COVERS IN ROADWAYS TO BE STANDARD D.C HEAVY DUTY CAST IRON COVERS AND FRAMES IN ACCORDANCE WITH SABS 558 TYPE 2B. IN WALKWAYS AND WHERE POTENTIAL TRAFFIC CAN OCCUR HEAVY DUTY PRECAST COVERS TO BE USED AND IN ALL OTHER AREAS LIGHT DUTY PRECAST CONCRETE CAN BE USED.
2.3. STORMWATER PIPES TO BE SPIGOT AND SOCKET, CLASS 100D TO BE USED UNDER ROADWAYS AND 50D IN NON-TRAFFICKED AREAS.
2.4. HDPE STORMWATER PIPES TO BE 8KN/m² RING STIFFNESS CORRUGATED PIPES AS SUPPLIED BY MAGNUM OR SIMILAR APPROVED.
2.5. STEP IRONS TO COMPLY WITH SABS 1247.
2.6. DUE TO THE CORROSIVE NATURE OF THE SOIL NO GALVANISED MATERIAL MAY BE USED.

3. NOTE ON STORMWATER CONNECTIONS:

3.1. CONTRACTOR TO LOCATE THE EXISTING STORMWATER PIPES ON SITE AND VERIFY ALL INVERT LEVELS WITH THE ENGINEER PRIOR TO ANY CONSTRUCTION.
3.2. THE EXSTING SERVICES ARE TO ADEQUATELY PROTECTED AND ANY DAMAGE IS TO REPAIRED AT THE CONTRACTORS COST.
3.3. ALL NEW STROMWATER PIPES MUST BE LAID AT AN ANGLE OF NOT LESS THAN 30 DEG. AND NOT MORE THAN 60 DEG. TO THE EXISTING PIPE.
3.4. ALL PIPES MUST BE LAID SOFFIT TO SOFFIT.


**ISSUE / REVISION**

| I/R | DATE | DESCRIPTION | ISS BY |
|---|---|---|---|
| 4 | 2021-10-06 | FOR CONSTRUCTION | DVDM |
| 3 | 2021-07-29 | BIM 360 REVISION | DVDM |
| 1 | 2021-06-21 | FOR CONSTRUCTION | DVDM |
| 0 | 2021-04-16 | FOR CONSTRUCTION | DVDM |

**DRAWING STATUS**
FOR CONSTRUCTION

STRUXIT PROJECTS

**ARCHITECT**
COA

**CLIENT**
DEVMCO

**PROJECT**
SALTA INFRASTRUCTURE

**DRAWING CHECKS**
DESIGNED BY: D. vd MERWE
DRAWN BY: J. OOSTHUIZEN
CHECKED BY: D. vd MERWE
APPROVED BY: D. vd MERWE

**DRAWING TITLE**
STORMWATER LONGSECTIONS
NETWORK 7 SHEET 2

**SCALE** As indicated

DRAWING NUMBER: 2019-0173-C-5863
REV: 4



ISO FULL BLEED A0 (841.00 X 1189.00 MM)