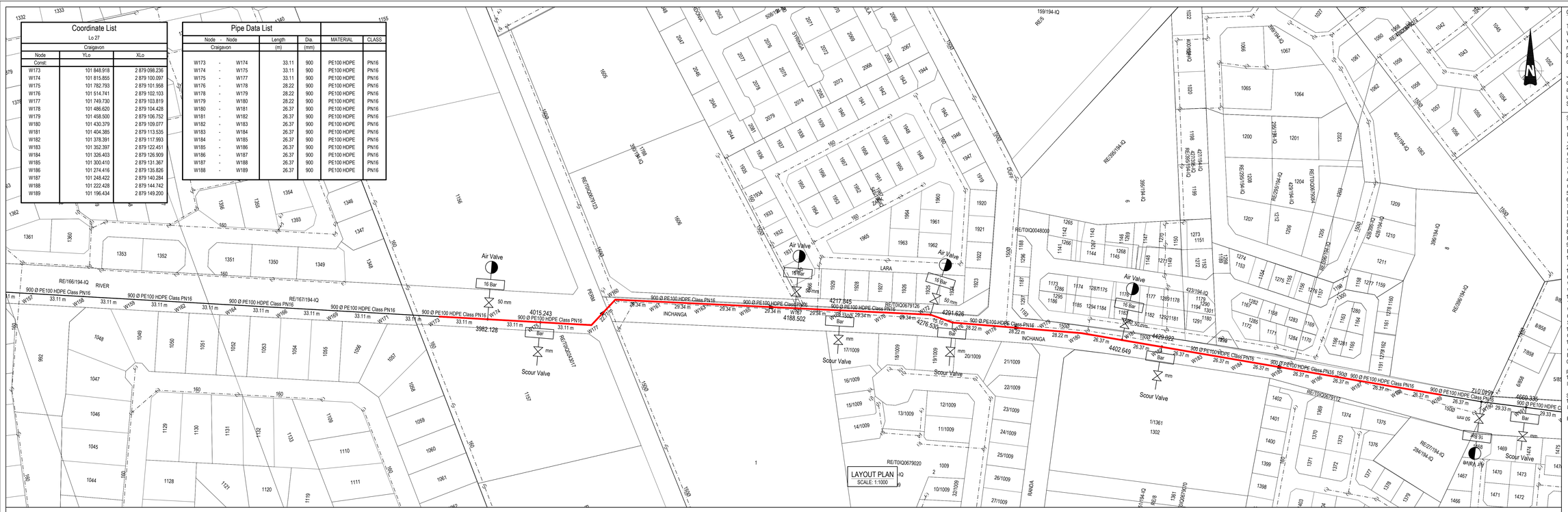
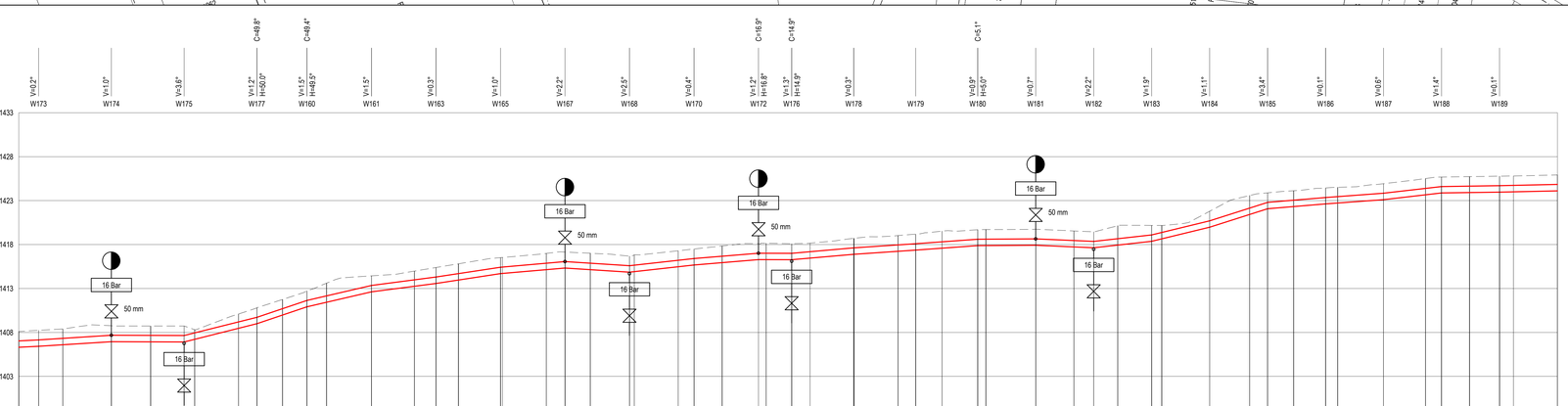
## Coordinate List

| Lo 27 | | |
|---|---|---|
| Craigavon | | |
| Node | Y:Lo | X:Lo |
| Const: | | |
| W173 | 101 848.918 | 2 879 098.236 |
| W174 | 101 815.855 | 2 879 100.097 |
| W175 | 101 782.793 | 2 879 101.958 |
| W176 | 101 514.741 | 2 879 102.103 |
| W177 | 101 749.730 | 2 879 103.819 |
| W178 | 101 486.620 | 2 879 104.428 |
| W179 | 101 458.500 | 2 879 106.752 |
| W180 | 101 430.379 | 2 879 109.077 |
| W181 | 101 404.385 | 2 879 113.535 |
| W182 | 101 378.391 | 2 879 117.993 |
| W183 | 101 352.397 | 2 879 122.451 |
| W184 | 101 326.403 | 2 879 126.909 |
| W185 | 101 300.410 | 2 879 131.367 |
| W186 | 101 274.416 | 2 879 135.826 |
| W187 | 101 248.422 | 2 879 140.284 |
| W188 | 101 222.428 | 2 879 144.742 |
| W189 | 101 196.434 | 2 879 149.200 |

## Pipe Data List

| Node | - | Node | Length (m) | Dia. (mm) | MATERIAL | CLASS |
|---|---|---|---|---|---|---|
| Craigavon | | | | | | |
| W173 | - | W174 | 33.11 | 900 | PE100 HDPE | PN16 |
| W174 | - | W175 | 33.11 | 900 | PE100 HDPE | PN16 |
| W175 | - | W177 | 33.11 | 900 | PE100 HDPE | PN16 |
| W176 | - | W178 | 28.22 | 900 | PE100 HDPE | PN16 |
| W178 | - | W179 | 28.22 | 900 | PE100 HDPE | PN16 |
| W179 | - | W180 | 28.22 | 900 | PE100 HDPE | PN16 |
| W180 | - | W181 | 26.37 | 900 | PE100 HDPE | PN16 |
| W181 | - | W182 | 26.37 | 900 | PE100 HDPE | PN16 |
| W182 | - | W183 | 26.37 | 900 | PE100 HDPE | PN16 |
| W183 | - | W184 | 26.37 | 900 | PE100 HDPE | PN16 |
| W184 | - | W185 | 26.37 | 900 | PE100 HDPE | PN16 |
| W185 | - | W186 | 26.37 | 900 | PE100 HDPE | PN16 |
| W186 | - | W187 | 26.37 | 900 | PE100 HDPE | PN16 |
| W187 | - | W188 | 26.37 | 900 | PE100 HDPE | PN16 |
| W188 | - | W189 | 26.37 | 900 | PE100 HDPE | PN16 |




SCALES:
Horizontal 1:1000
Vertical 1:250

Datum : 1398 m

| | |
|---|---|
| DEPTH TO INVERT | |
| COVER TO TOP OF PIPE | |
| INVERT LEVEL | |
| GROUND LEVEL | |
| CHAINAGE (m) | |
| SLOPE DISTANCE (m) | |
| PIPE GRADES | |
| PIPE DETAILS | |
| HYDRAULICS | Hydraulic GL<br>Static GL<br>Q (l/s)<br>V (m/s) |

Craingavon Rising Main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SEWER:

1. ALL PIPES TO BE LAID IN ACCORDANCE WITH SANS 1200, LATEST REVISION AND THE REQUIREMENTS OF JOHANNESBURG WATER SOC LTD.
2. ALL PIPES TO LAID UNDER TRENCH CONDITIONS UNLESS OTHERWISE SHOWN.
3. ALL CONSTRUCTION WORK TO BE CARRIED OUT IN STRICT ACCORDANCE WITH REQUIREMENTS OF JOHANNESBURG WATER.
4. SEWERS GENERALLY 1,5m FROM BOUNDARIES UNLESS OTHERWISE SHOWN.
5. DO NOT SCALE FROM THESE DRAWINGS.
6. THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS.
7. THE FINAL PIPE ROUTE TO BE DETERMINED ON SITE AFTER EXPOSING OF EXISTING SERVICES.
8. ALL WORKS TO BE APPROVED BY EMPLOYEE AGENT REPRESENTATIVE BEFORE CONSTRUCTION.
9. CONTRACTOR TO CONFIRM LEVELS OF EXISTING PIPES BEFORE COMMENCING CONSTRUCTION.
10. POSITIONS OF ALL EXISTING SERVICES ARE APPROXIMATED AND MUST BE VERIFIED ON SITE.
11. ALL MATERIALS USED IN INSTALLING SEWER MAINS SHALL COMPLY WITH THE RELEVANT SABS SPECIFICATION AND WITH THE MINIMUM REQUIREMENTS OF JOHANNESBURG WATER (SOC) LTD.
12. THE POSITION AND DEPTH OF ALL EXISTING SERVICES ON THE SITE AND OFF THE SITE WHERE AFFECTED BY THE WORKS SHALL BE CONFIRMED PRIOR TO ANY CONSTRUCTION WORK ON THE INSTALLATION OF WATER OR SEWER MAINS BEING COMMENCED.
13. THE CONTRACTOR SHALL CARRY OUT WORKS TO TIE-IN CONNECTIONS TO EXISTING SEWER MANHOLES AND MAINS.
14. POSITIONS OF ALL EXISTING SERVICES ARE APPROXIMATED AND MUST BE VERIFIED ON SITE BY ENGINEER REPRESENTATIVE AND CONTRACTOR.

PIPE ANCHOR
1. GRADE: BETWEEN 1:10 AND 1:6: ANCHOR BLOCKS SHALL BE INSTALLED AT INTERVALS NOT EXCEEDING 12 METERS.

SEWER MANHOLES
1. SEWER MANHOLES ARE TO BE SPACED AT A MAXIMUM OF 80 METERS.

PLEASE NOTE:
- STREET NAMES EXTRACTED FROM IMQS.

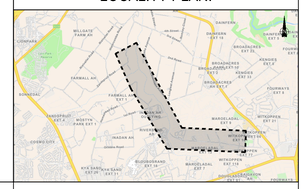
## LEGEND

- NEW SEWER PIPE
- NEW SEWER MANHOLE
- DIRECTION OF FLOW
- NEW SEWER PIPE AND MANHOLE NOT WITHIN INDICATED LONG SECTION'S
- EXISTING SEWER PIPE
- EXISTING SEWER MANHOLE
- CONTOURS
- 1:100yr FLOOD LINE
- PACKAGE BOUNDARY

## DRAWING REFERENCE:

| | |
|---|---|
| JW14460-CRA-GACLP-S01: | GENERAL LAYOUT PLAN |
| JW14460-CRA-COR-S01: | COORDINATES TABLE |
| JW14460-CRA-LAY-S01: | LAYOUT PLAN PACKAGE 1 SHEET 1 |
| | LAYOUT PLAN PACKAGE 1 SHEET 2 |
| JW14460-CRA-LAY-S02: | LAYOUT PLAN PACKAGE 2 SHEET 1 |
| | LAYOUT PLAN PACKAGE 2 SHEET 2 |
| | LAYOUT PLAN PACKAGE 2 SHEET 3 |
| JW14460-CRA-LS-S01: | PACKAGE 1 LONG SECTION SHEET 1 |
| | PACKAGE 1 LONG SECTION SHEET 2 |
| | PACKAGE 1 LONG SECTION SHEET 3 |
| JW14460-CRA-LS-S02: | PACKAGE 2 LONG SECTION SHEET 1 |
| | PACKAGE 2 LONG SECTION SHEET 2 |
| | PACKAGE 2 LONG SECTION SHEET 3 |
| | PACKAGE 2 LONG SECTION SHEET 4 |
| | PACKAGE 2 LONG SECTION SHEET 5 |
| JW14460-CRA-VCD-S01: | TYPICAL AIR VALVE CHAMBER DETAIL |
| JW14460-CRA-VCD-S02: | TYPICAL SCOUR VALVE CHAMBER DETAIL |
| JW100-DET02-W01: | BEDDING DETAIL |
| JW100-DET01-S01: | MANHOLE DETAILS FOR SEWER |
| JW100-DET02-S01: | SEWER ERF CONNECTIONS |
| JW100-DET01.1-W01: | NAMEBOARD |

## LOCALITY PLAN:



ISSUE FOR TENDER


CONSULTING ENGINEERS
CAPEX - ENGINEERING SERVICE UNIT
TURBINE HALL - 3RD FLOOR
65 NTEMI PILISO STREET
NEWTOWN
JOHANNESBURG
2113


| | | |
|---|---|---|
| DESIGNED | N.NKOSI | 16/09/2024 |
| | SIGNATURE: | |
| DRAWN | M.I.BALLIM | 25/09/2024 |
| | SIGNATURE: | |
| CHECKED | N.NKOSI | 25/09/2024 |
| | SIGNATURE: | |
| APPROVED BY: | T.MPANDAGUTA | |
| | SIGNATURE: | 201170150 ECSA REG. No: |

Johannesburg Water


JOHANNESBURG WATER SOC Ltd
TURBINE HALL
65 NTEMI PILISO STREET
NEWTOWN
JOHANNESBURG
2113
TEL: +27 (0)11 688 1400
FAX: +27(0)11 688-1528


Municipality:

Joburg — a world class African city

Project description:

UPGRADING OF INCHANGA SEWER RISING MAIN
PACKAGE 1
LAYOUT AND LONG SECTION
W 173 - W 189

SCALE: AS SHOWN

AMENDMENTS

| REV | DESCRIPTION | DATE | BY | APV |
|---|---|---|---|---|
| A | PRELIMINARY DESIGN REPORT | 2023/03/03 | MIB | T.M |
| B | DETAILED DESIGN REPORT | 2024/06/10 | MIB | T.M |
| C | ISSUE FOR TENDER | 2024/09/10 | MIB | T.M |

DRAWING No: JW14460-CRA-LS-S01

UR1404 — PROJECT No.
SEWER — DISCIPLINARY
C — REV.
A0 — ORIGINAL PAGE SIZE
SHEET 2 OF 3
FILE No.