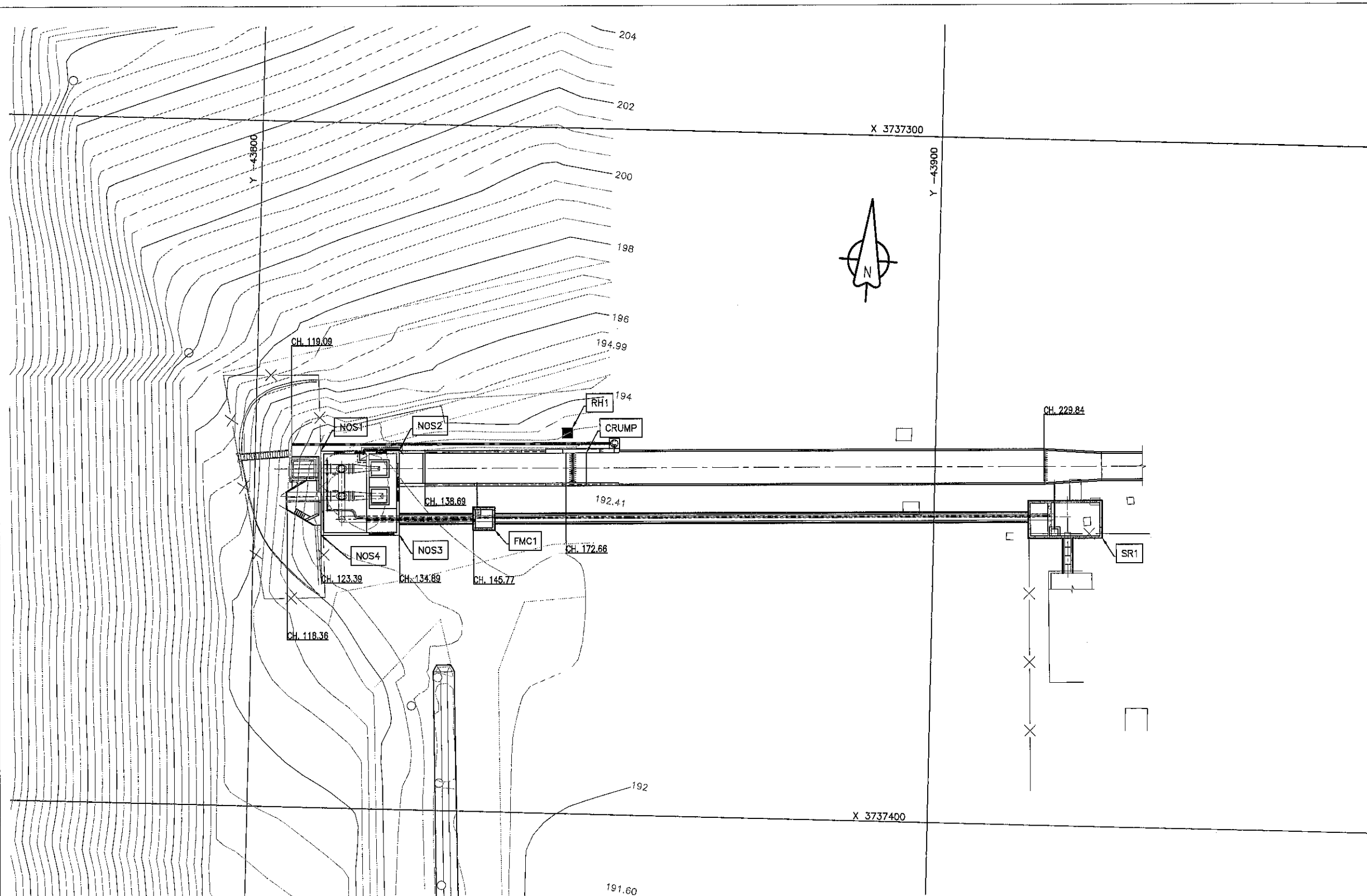


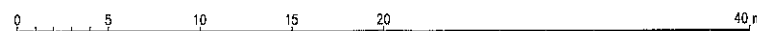


PLAN VIEW OF OUTLET WORKS STRUCTURES

SCALE 1:300

| POINT | Y         | X          |
|-------|-----------|------------|
| NOS1  | -43809.66 | 3737347.98 |
| NOS2  | -43821.16 | 3737347.67 |
| NOS3  | -43821.49 | 3737369.97 |
| NOS4  | -43809.99 | 3737360.24 |
| FMC1  | -43835.54 | 3737358.95 |
| SR1   | -43925.01 | 3737357.93 |
| RH1   | -43846.61 | 3737343.71 |
| CRUMP | -43846.59 | 3737347.32 |

SCALE 1:200



## NOTES:

### GENERAL DESCRIPTION OF CIVIL WORKS:

- CORE DRILL/CHIP OR OTHER (SUBJECT TO APPROVAL OF EMPLOYERS AGENT), WITHIN THE EXISTING INTAKE TOWER FLOOR TO CREATE SUMP. SEE MECHANICAL DRAWING NUMBER 174581/16 ME FOR DETAILS.
- DISMANTLE AND REMOVE THE EXISTING DN700 OUTLET PIPE WITHIN THE RIGHT OUTLET GALLERY, FROM CHAINAGE 48.386m TO 123.390m. BACKFILL AROUND NEWLY PLACED DN1200 OUTLET PIPE TO EXISTING GALLERY WITH PUMPCRETE OR EQUIVALENT.
- DEMOLISH AND REMOVE EXISTING FENCING AND MONITORING INSTRUMENTATION HUT, AFTER BACKFILLING THE GALLERY, ALSO BACKFILL THE EXISTING OPEN CULVERT OUTLET STRUCTURE WITH PUMPCRETE OR EQUIVALENT.
- EXCAVATE A TRENCH AND REMOVE THE EXISTING UNDERGROUND DN700 OUTLET PIPE RUNNING FROM CHAINAGE 123.900m TO 233.267m AND TURNING TO THE PUMP STATION FOR 6.8m. ALSO REMOVE CONCRETE MANHOLES AND THRUST BLOCK ACCORDING TO PROJECT SPECIFICATIONS. BACKFILL AND REINSTATE SURFACES.
- DEMOLISH AND REMOVE SECTIONS OF EXISTING STILLING BASIN AND CANAL TO MAKE PROVISION FOR THE NEW OUTLET STRUCTURE. CONSTRUCT NEW OUTLET STRUCTURE, STILLING BASIN AND VERTICAL WALL (SEE BLOCK 1, DRAWING NUMBERS 174850/16 TO 174859/16).
- RAISE CANAL BY PLACING A NEW CONCRETE WALL OVER THE EXISTING CANAL.
  - ON THE LEFT SIDE RAISE CANAL FROM CHAINAGE 138.690m TO 169.660m.
  - ON THE RIGHT SIDE RAISE CANAL FROM CHAINAGE 138.690m TO 180.560m.
  - BREAKOUT EXISTING CANAL ON THE LEFT SIDE FROM CHAINAGE 169.660m TO 180.560m TO ACCOMMODATE FOR NEW INSTRUMENTATION.
- CONSTRUCT CRUMP WEIR WITHIN CANAL FROM CHAINAGE 172.660m TO 175.660m.
- SUPPLY AND INSTALL INSTRUMENTATION AND RELATED ITEMS AND CONSTRUCT INSTRUMENTATION HUT ADJACENT TO THE CANAL.
- DEMOLISH EXISTING PARSHALL FLUME WALLS AND FLOOR FROM CHAINAGE 229.840m TO CHAINAGE 238.340m AND RECONSTRUCT SECTION OF THE CANAL.
- EXCAVATE TRENCH FOR PLACEMENT OF NEW DN800 OUTLET PIPE FROM NEW OUTLET STRUCTURE TO PUMP STATION, RUNNING PARALLEL TO CANAL. AFTER PLACEMENT, ENCASE THE NEW DN800 OUTLET PIPE IN CONCRETE AND BACKFILL AND REINSTATE SURFACES. SEE BLOCK 4 DRAWING NUMBERS 174883/16 TO 174886/16.
- AT CHAINAGE 145.765m CONSTRUCT FLOW METER CHAMBER FOR THE NEW DN800 OUTLET PIPE WITH EARTHMAT PLACED BELOW FLOW METER CHAMBER. SEE BLOCK 5 DRAWING NUMBERS 174887/16 TO 174889/16.
- AT CHAINAGE 227.452m CONSTRUCT STRAINER ROOM FOR DN900 OUTLET PIPE AND STRAINER. SEE BLOCK 6 DRAWING NUMBERS 174894/16 TO 174900/16.
- REFER TO MECHANICAL, ELECTRICAL AND DE-WATERING EQUIPMENT DRAWINGS FOR THE FOLLOWING DETAILS:
  - PIPES AND SPECIALS.
  - VALVES
  - CRANE
  - MISCELLANEOUS (GRATINGS, BEAMS, LADDERS, MANHOLE COVERS, VENTILATORS, LOUVERED VENTS, WINDOW GUARDS, ACCESS DOORS AND CLADDING PLATES).
  - ELECTRICAL WORKS (LIGHTS, CABLING, DUCTS, DISTRIBUTION BOARDS, ETC).
  - DE-WATERING EQUIPMENT (SUMP PUMPS, DRAINAGE PIPES).
- CONTRACTOR TO PROVIDE EMPLOYER'S AGENT WITH METHOD STATEMENTS FOR APPROVAL PRIOR TO ANY DEMOLITION, EXCAVATION, FOUNDATION PREPARATION, SURFACE PREPARATION (FROM NEW TO EXISTING STRUCTURES) AND CONSTRUCTION.
- THE DEPTH AND NATURE OF THE EXISTING FOUNDATION MATERIAL IS UNKNOWN AND WILL BE DETERMINED ON SITE. THE EMPLOYER'S AGENT WILL APPROVE THE FOUNDATION AND SURFACE BEFORE ANY CONSTRUCTION WILL COMMENCE.
- CONTRACTOR TO TAKE INTO ACCOUNT ALL INFORMATION INCLUDED IN THE CONTRACT, INCLUDING BUT NOT LIMITED TO CONTRACT DATA, PRICING DATA, SCOPE OF WORKS WITH SPECIFICATIONS AND SITE INFORMATION.

## SECTION

SECTION  
NUMBER  
01  
02  
SHEET  
NUMBER

### STATUS:

FOR CONSTRUCTION

|                  |                                                                               |                   |
|------------------|-------------------------------------------------------------------------------|-------------------|
| 2 OF 55          | GENERAL LAYOUT OF OUTLET WORKS (KEY PLAN)                                     | 174849/16         |
| 1 OF 55          | LIST OF DRAWINGS SERIES 0600 OUTLET WORKS: CONCRETE AND REINFORCEMENT DETAILS | 174848/16         |
| SHEET            | DESCRIPTION                                                                   | OTHER No. REG No. |
| LIST OF DRAWINGS |                                                                               |                   |

| REVISION |      |             |     |     |
|----------|------|-------------|-----|-----|
| MOD No.  | DATE | DESCRIPTION | FOR | DWA |
|          |      |             |     |     |
|          |      |             |     |     |
|          |      |             |     |     |

|                                                                                 |                                                                             |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| DEPARTMENT OF WATER AND SANITATION<br>REPUBLIC OF SOUTH AFRICA                  |                                                                             |
| HEAD OFFICE<br>STRATEGIC ASSET MANAGEMENT<br>PRIVATE BAG X 313<br>PRETORIA 0001 | SEDIBENG BUILDING<br>185 FRANCIS BARD STREET<br>PRETORIA<br>012 336 7500    |
| CHECKED: T. MABALE<br>ENGINEER: C. MABALE<br>CHIEF ENG/ APP (PR. ENG)           | DESIGNED: S. REYNOLDS<br>DRAWN: N. MADONSELA<br>EXTERNAL APPROVAL: 17/08/22 |

|                                              |                       |
|----------------------------------------------|-----------------------|
| DAM SAFETY REHABILITATION PROJECT            |                       |
| KWAGGASKLOOF DAM REHABILITATION PROJECT      |                       |
| GENERAL LAYOUT OF OUTLET WORKS (GRID POINTS) |                       |
| PROVINCE: WESTERN CAPE                       | DISTRICT: WORCESTER   |
| LOCALITY No: H100-08                         | TENDER/ CONTRACTS No. |
| KEY CODES: LYO GAR KPL                       | OTHER No. XXX         |
| SHEET 3 OF 55                                | REG. No. 174850/16    |
| CALCULATION FILE:                            | REV. 00               |