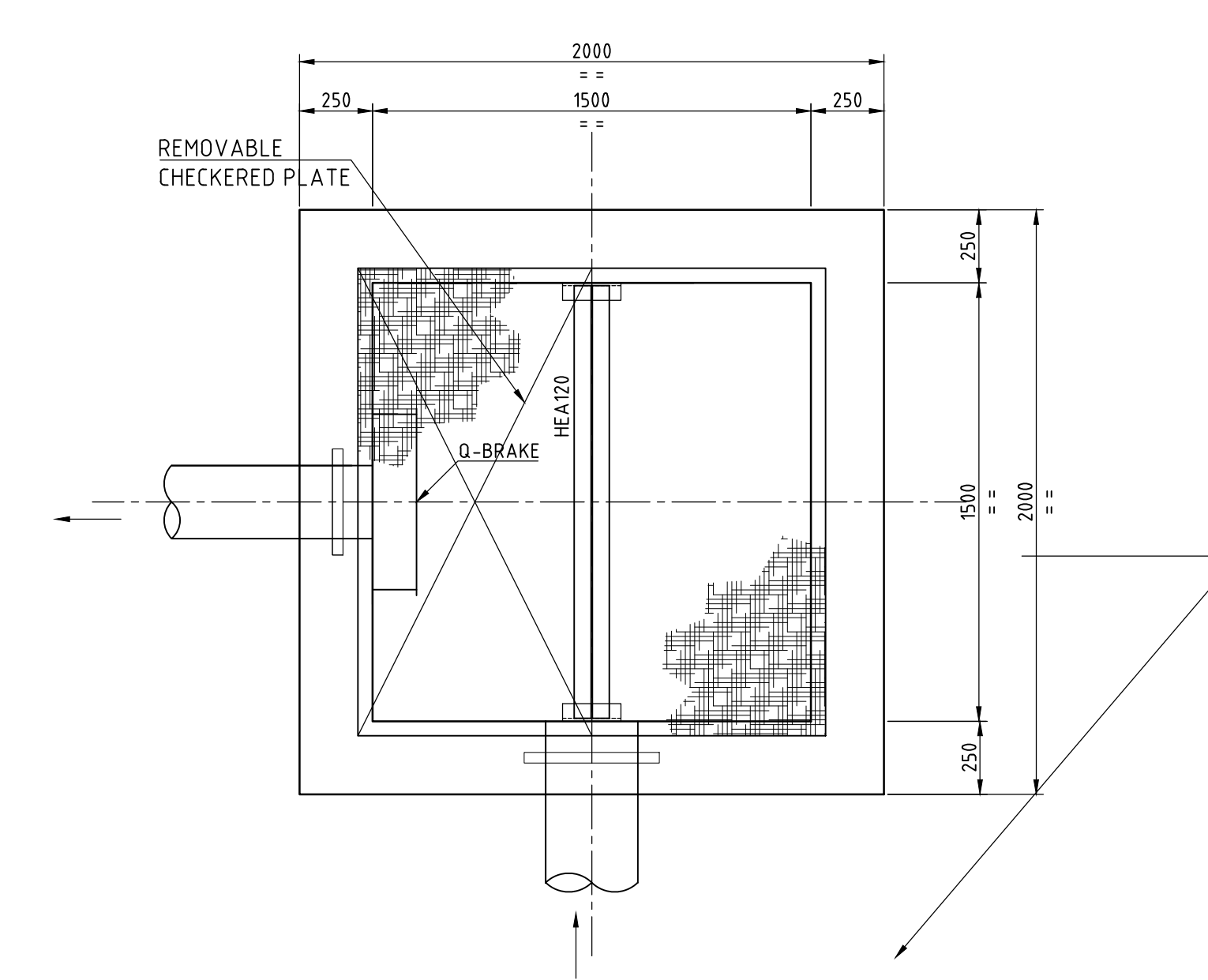
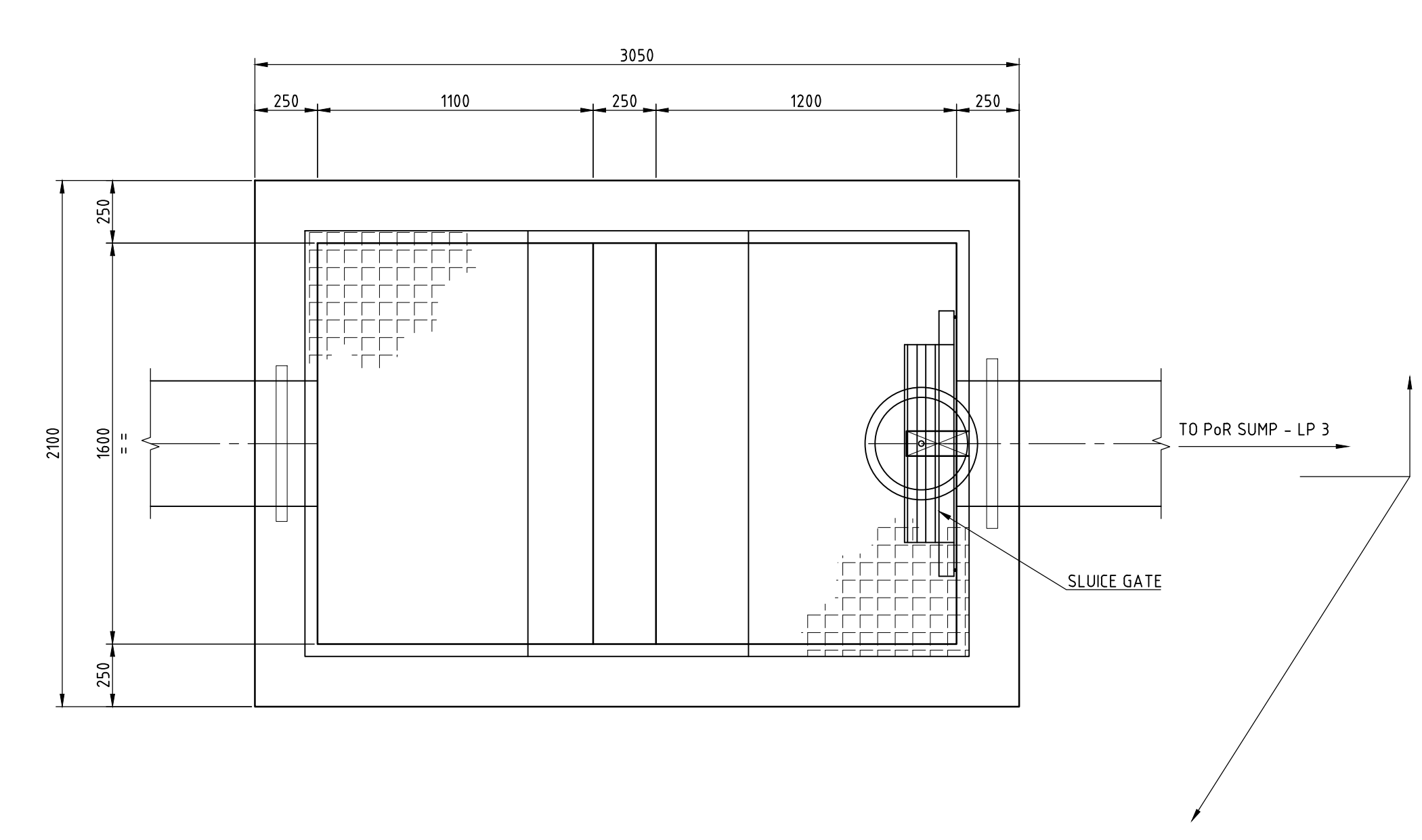


TYPICAL PLAN DISCHARGE SEWER / OBAS-3
SCALE 1:50

TO OBAS 3
Q-BRAKE COLLECTION PIT SCHEDULE

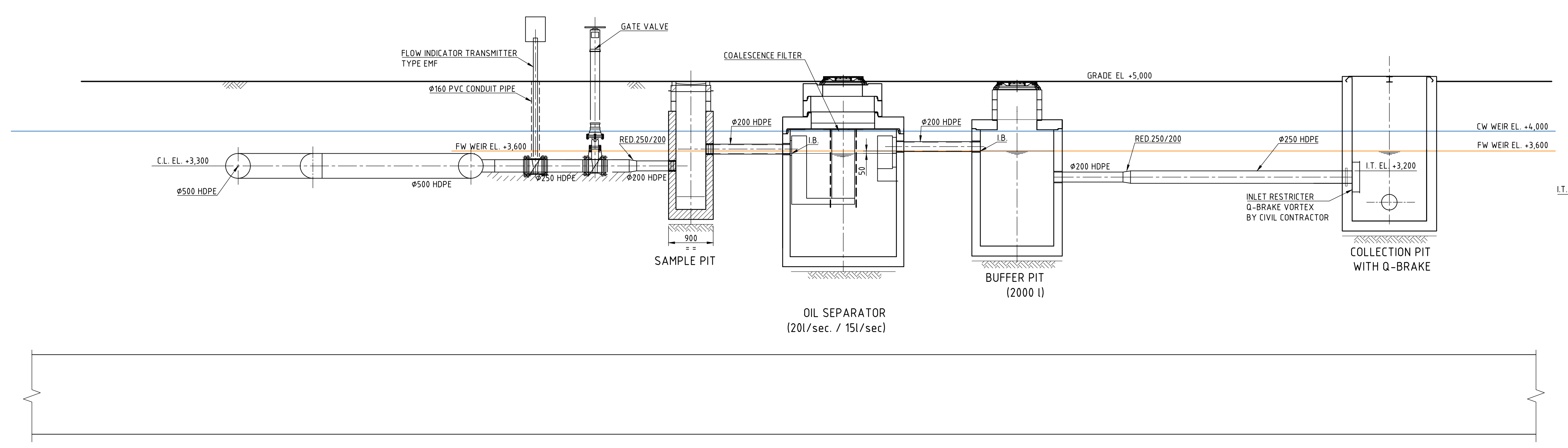


Q-BRAKE COLLECTION PIT
SCALE 1:20

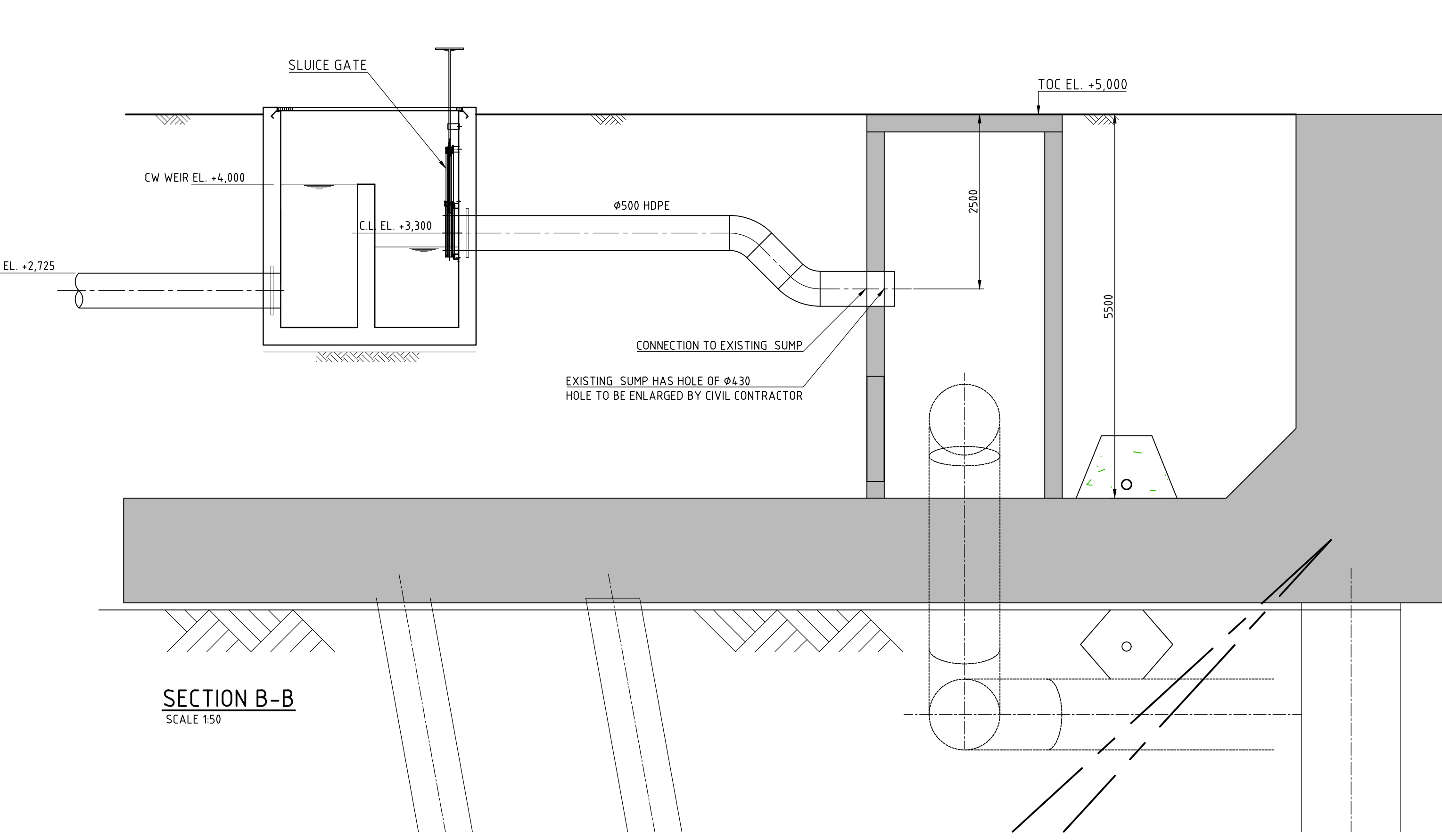


OVERFLOW PIT
SCALE 1:20

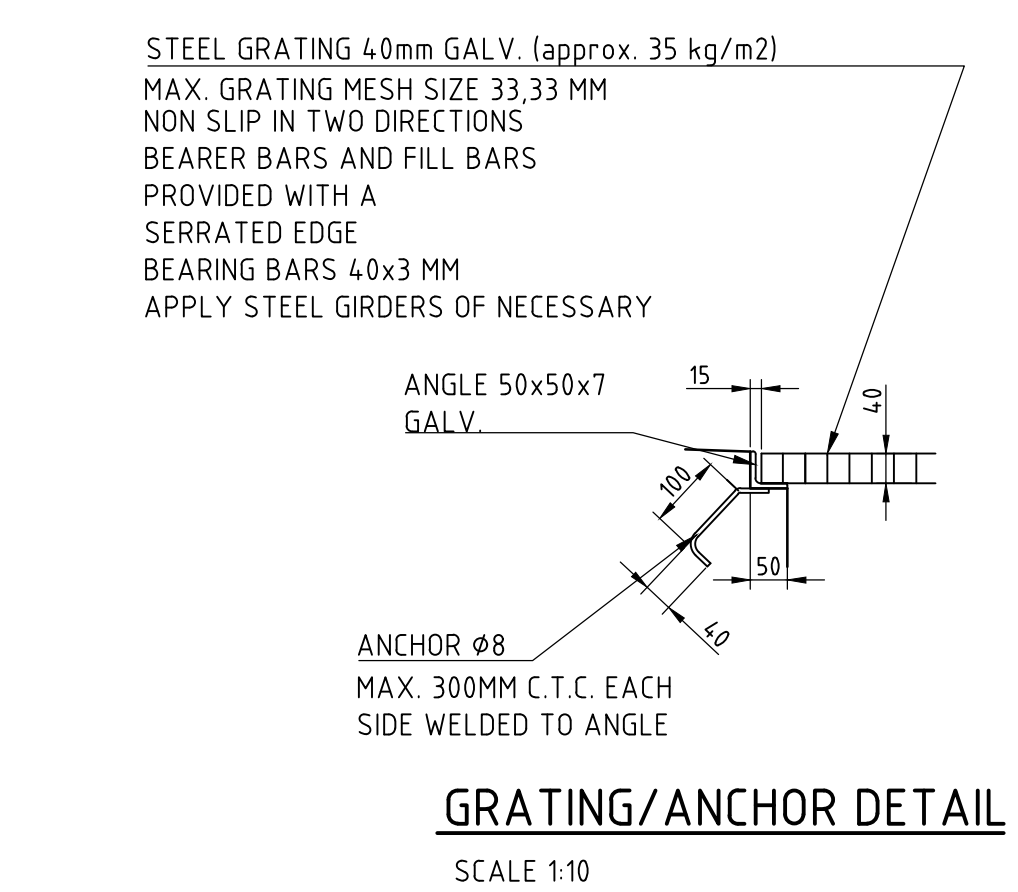
TO LP 2
OVERFLOW PIT SCHEDULE



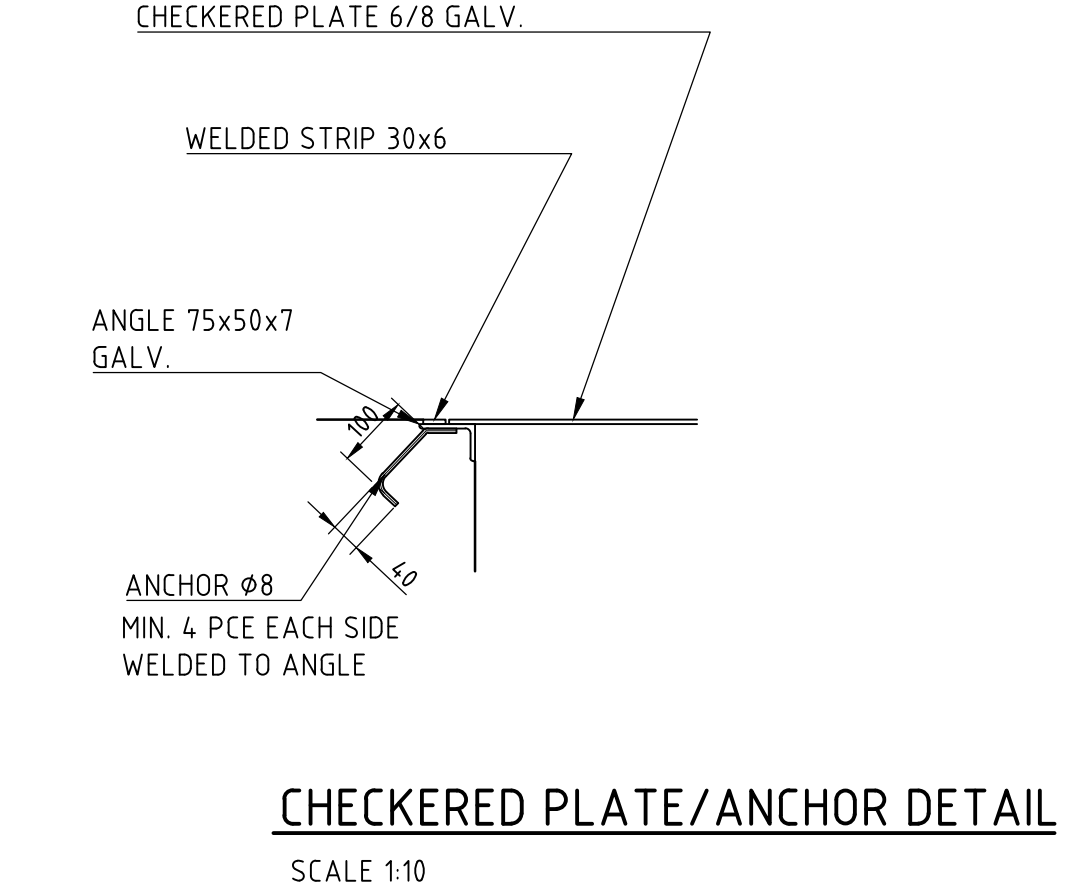
SECTION A-A
SCALE 1:50



SECTION B-B
SCALE 1:50

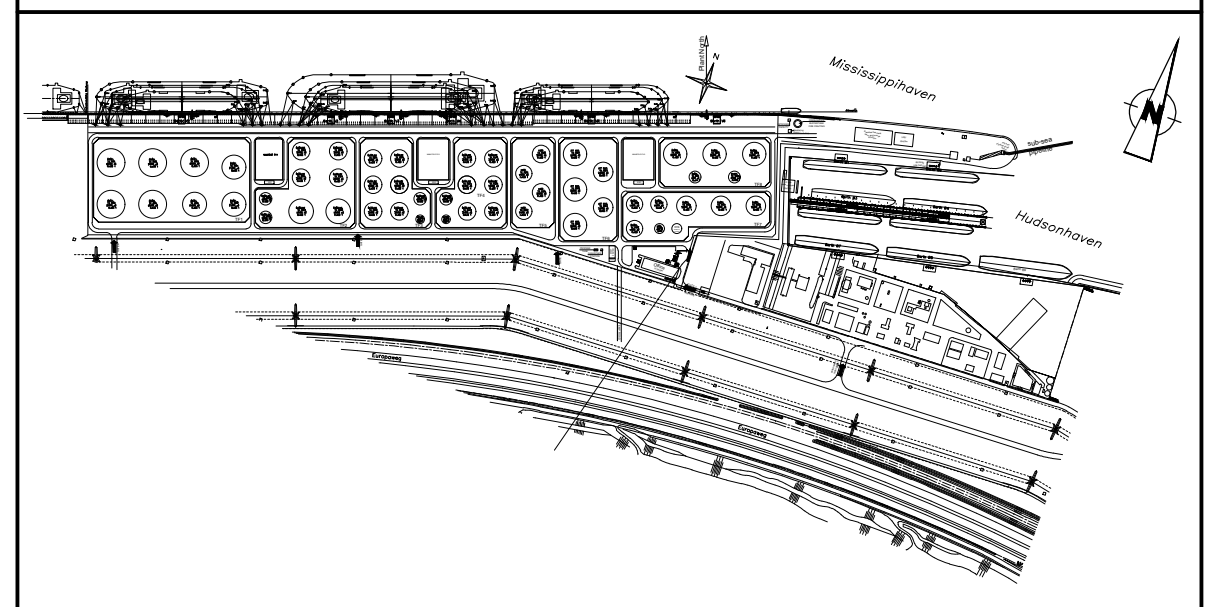


GRATING/ANCHOR DETAIL
SCALE 1:10



CHECKED PLATE/ANCHOR DETAIL
SCALE 1:10

KEY-PLAN



GENERAL NOTES

- ALL DIMENSIONS IN MM
- ELEVATION IN M ACC. TO N.A.P.
- (B) INTERN BOTTOM ELEVATION IN M ACC. TO N.A.P.
- (T) INTERN TOP ELEVATION IN M ACC. TO N.A.P.
- FOR COATING AND PAINTING STANDPIPE / INDICATOR SEE PAINTING SPECIFICATION
- CLEAN WATER DISCHARGE POINT (LOADINGPUNTI)

CONCRETE

- CONCRETE ACCORDING TO NEN-EN 206-1, NEN 8095, NEN-EN 1992-1-1
- DELIVERY OF CONCRETE WITH KOMO CERTIFICATE ACC. TO NEN 8095
- REINFORCEMENT ACCORDING TO NEN-EN 10080, NEN 6008
- DELIVERY OF REINFORCEMENT WITH KOMO CERTIFICATE ACC. TO BR-0501

CONCRETE EXECUTION CLASS

- EXECUTION CLASS 3 IN ACCORDANCE WITH NEN-EN 19670

CONCRETE SPECIFICATION

- CONCRETE STRENGTH CLASS: C30/37
- CONCRETE EXPOSURE CLASSES: XC3, XF1, XD2, XA2, XF1
- STEEL REINFORCEMENT: S400B
- CONCRETE COVER: 50MM
- CHLORIDE CLASS: CL 0.20
- CONSISTENCY CLASS: BY CONTRACTOR
- SLAG CEMENT: CEM III/B 42.5N (H SR HEAT OF HYDRATION 4245 KJ/KG)
- MAX. AGGREGATE SIZE: Ø MAX = 37.5 MM
- MAX. CONCRETE TEMPERATURE: 45°C (FIELD CONCRETE CORE TEMPERATURE PEAK DURING HARDENING)
- MAX. INTERNAL TEMP. GRADIENT: 15°C BETWEEN CONCRETE CORE AND SURFACE LAYER
- CONCRETE CURING TIME: CURING CLASS 3 IN ACCORDANCE WITH NEN-EN 19670, TABLE F.2

ANCHORAGE AND LAP LENGTH

| BAR SIZE | Ø8 | Ø10 | Ø12 | Ø16 | Ø20 | Ø25 | Ø32 |
|---------------------------------|-----|-----|-----|------|------|------|------|
| ANCHORAGE LENGTH L _a | 200 | 260 | 330 | 580 | 720 | 900 | 1100 |
| LAP LENGTH L _l | 400 | 520 | 660 | 1160 | 1440 | 1800 | 2200 |

- ANCHORAGE AND LAP LENGTH WILL BE MULTIPLIED WITH 1.4 FOR BARS WITH POOR BOND CONDITIONS
- LAPS SHALL BE STAGGERED WITH A MAXIMUM OF 50% LAPS BETWEEN 1.3x LAP LENGTH ACCORDING TO THE CENTER OF A LAP LENGTH TO BE MULTIPLIED BY 1.1 IF NOT STAGGERED
- LAPS SHALL NOT BE PLACED IN THE "x" AREAS



REFERENCE DRAWINGS

- HHTT-KH-09351 UNDERGROUND CLEAN WATER SEWER LAYOUT PART 1
- HHTT-KH-09352 UNDERGROUND CLEAN WATER SEWER LAYOUT PART 2
- HHTT-KH-09353 UNDERGROUND CLEAN WATER SEWER LAYOUT PART 3
- HHTT-KH-09354 UNDERGROUND CLEAN WATER SEWER LAYOUT PART 4
- HHTT-KH-09361 UNDERGROUND FOUL WATER SEWER LAYOUT PART 1
- HHTT-KH-09362 UNDERGROUND FOUL WATER SEWER LAYOUT PART 2
- HHTT-KH-09363 UNDERGROUND FOUL WATER SEWER LAYOUT PART 3
- HHTT-KH-09364 UNDERGROUND FOUL WATER SEWER LAYOUT PART 4
- HHTT-KH-09375 UNDERGROUND INFRASTRUCTURE SEWER DETAILS 1 - OBAS 1
- HHTT-KH-09376 UNDERGROUND INFRASTRUCTURE SEWER DETAILS 1 - OBAS 2

FOR DETAIL DESIGN

KH Engineering 67620-D-1416-1100-319

HES
Released for Detail Design
16 October 2019
HHTT Document Control

| REV. | DATE | DESCRIPTION | DES. | CHK. | APP'D. |
|------|------------|-------------------|------|------|--------|
| 0 | 16-10-2019 | FOR DETAIL DESIGN | BIS | RW | RW |

CLIENT: HES Harbel Tank Terminal B.V.
PROJECT: HHTT
TITLE: UNDERGROUND INFRASTRUCTURE SEWER DETAILS 4 - OBAS-3
SCALE: 1:50
SHEET: 1/1
DRAWING No: HHTT-KH-016319