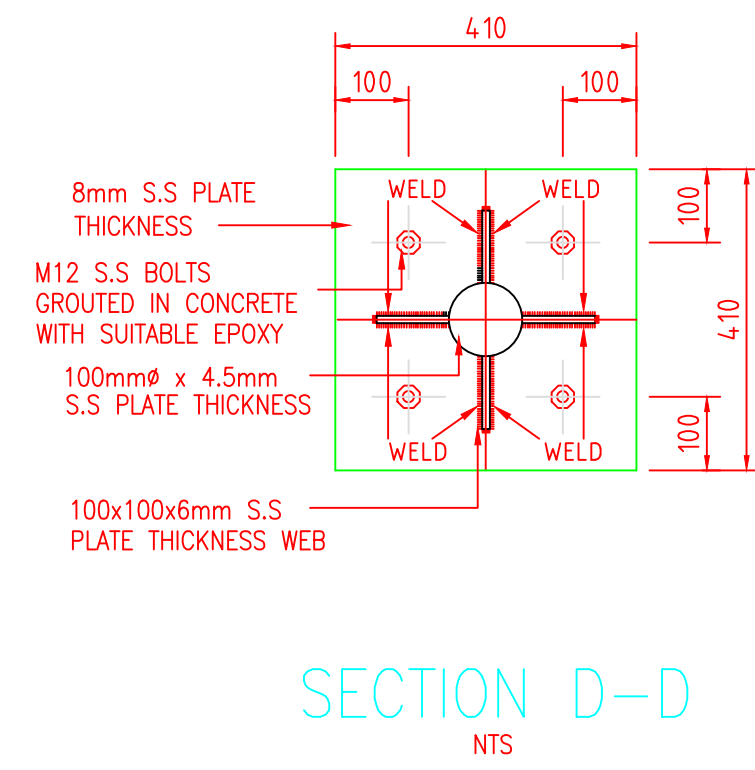
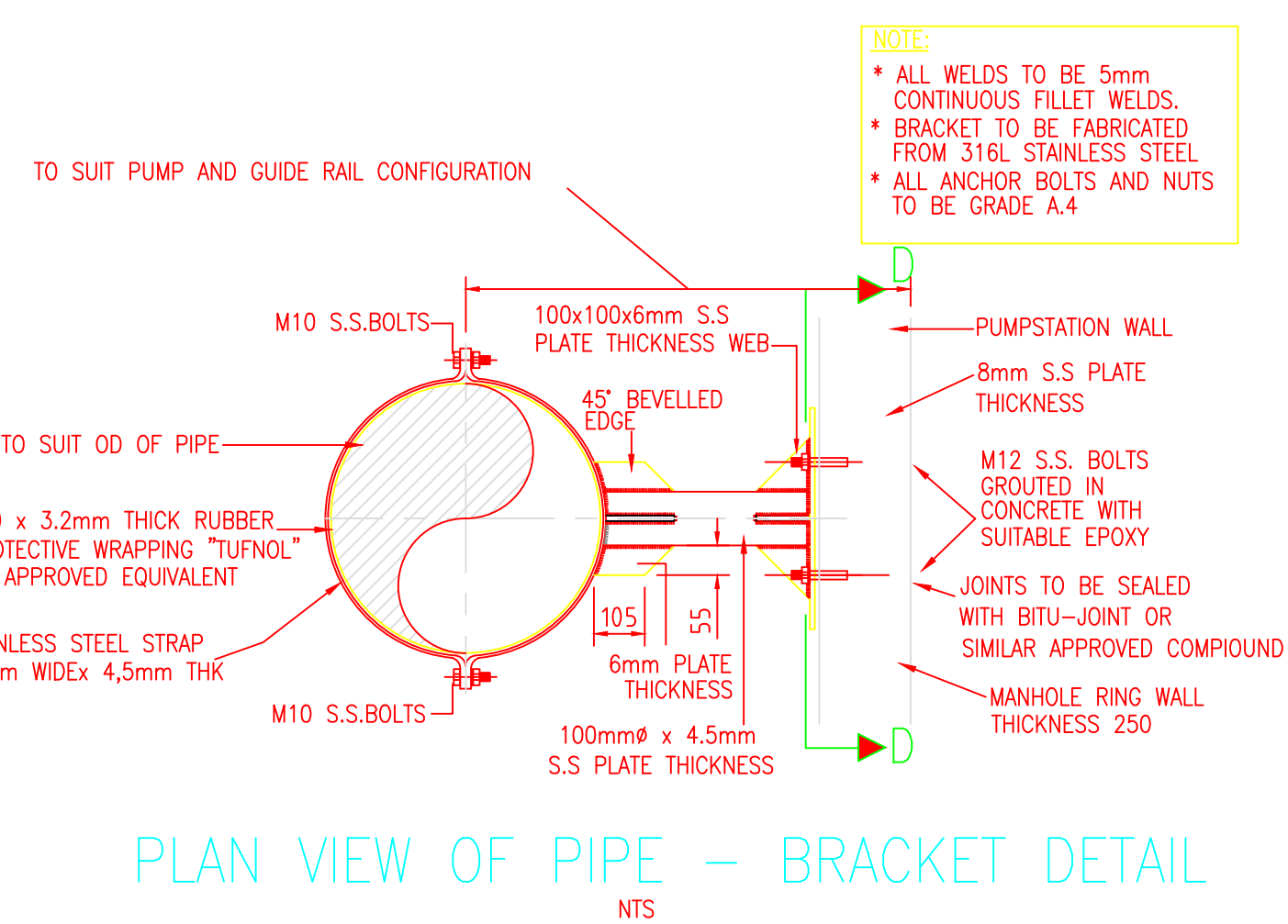
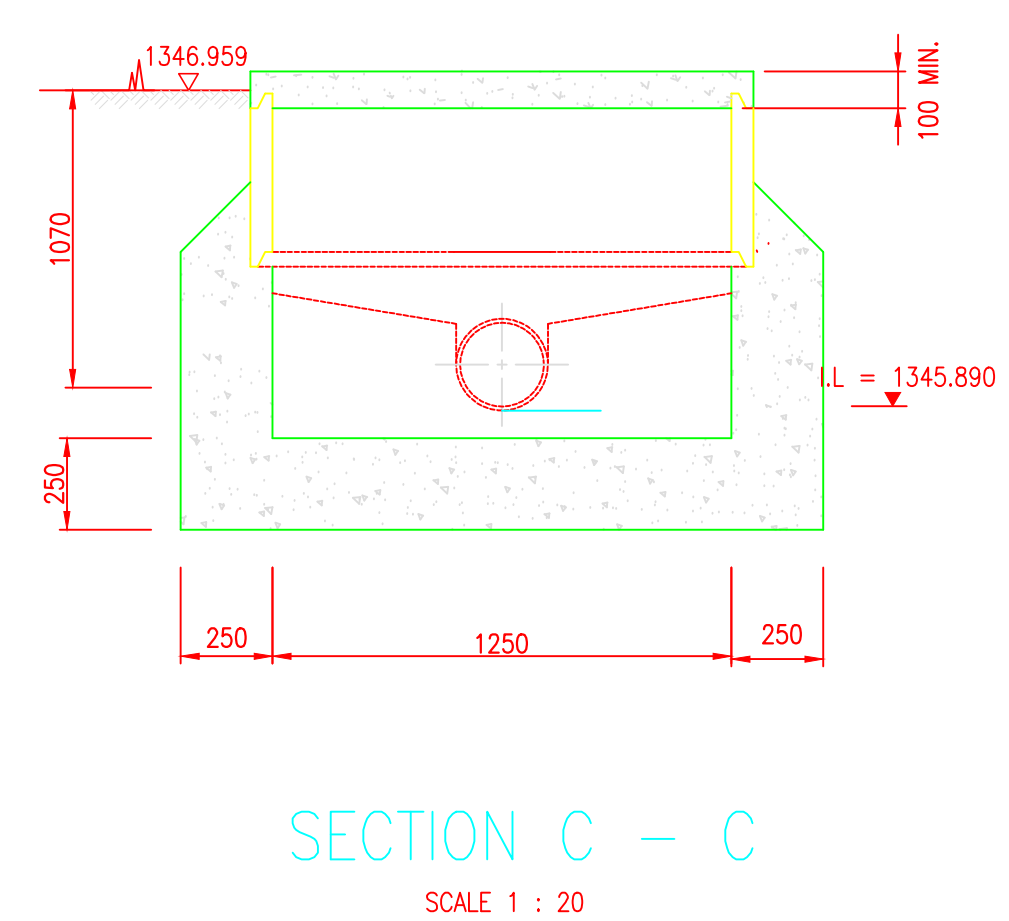
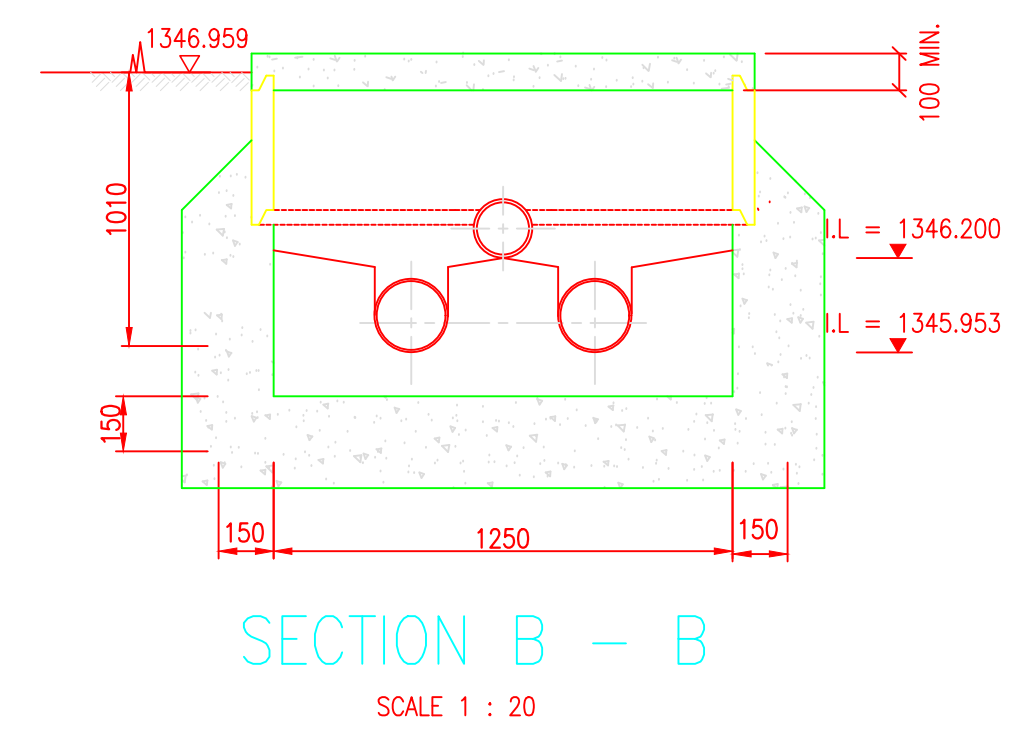
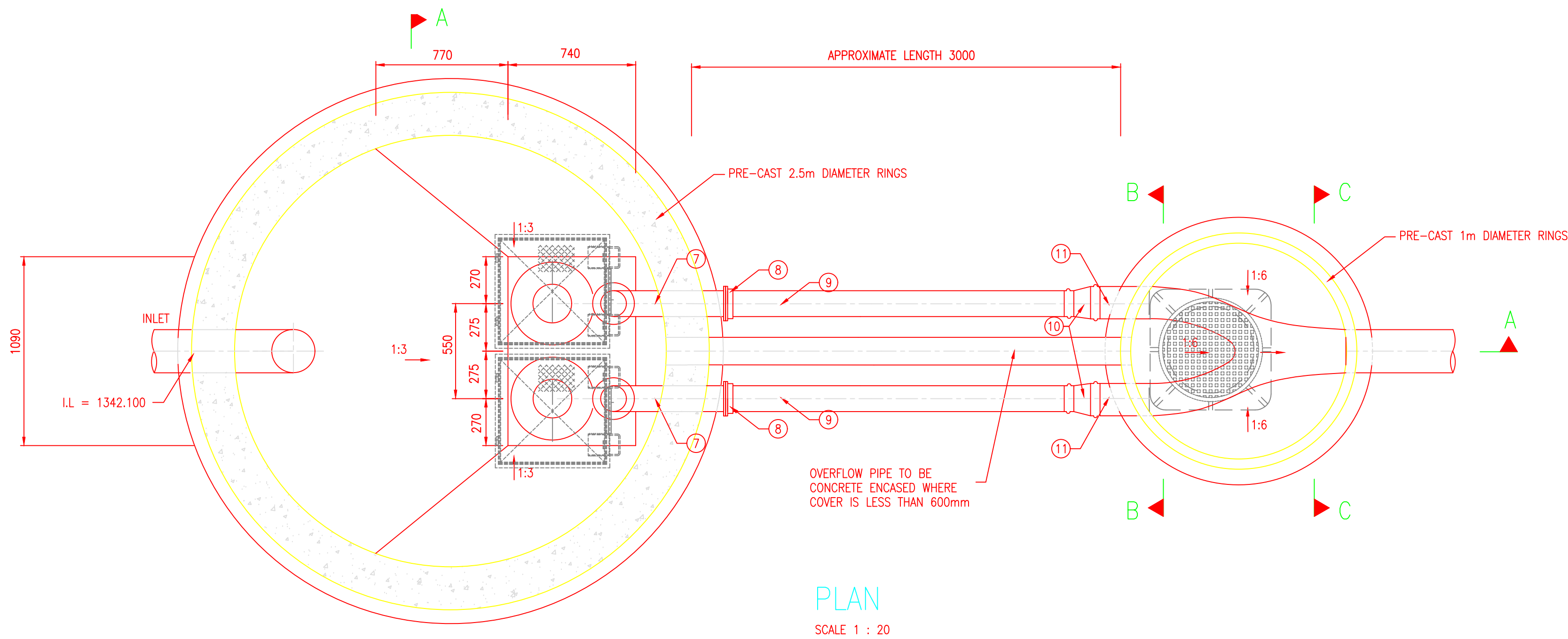
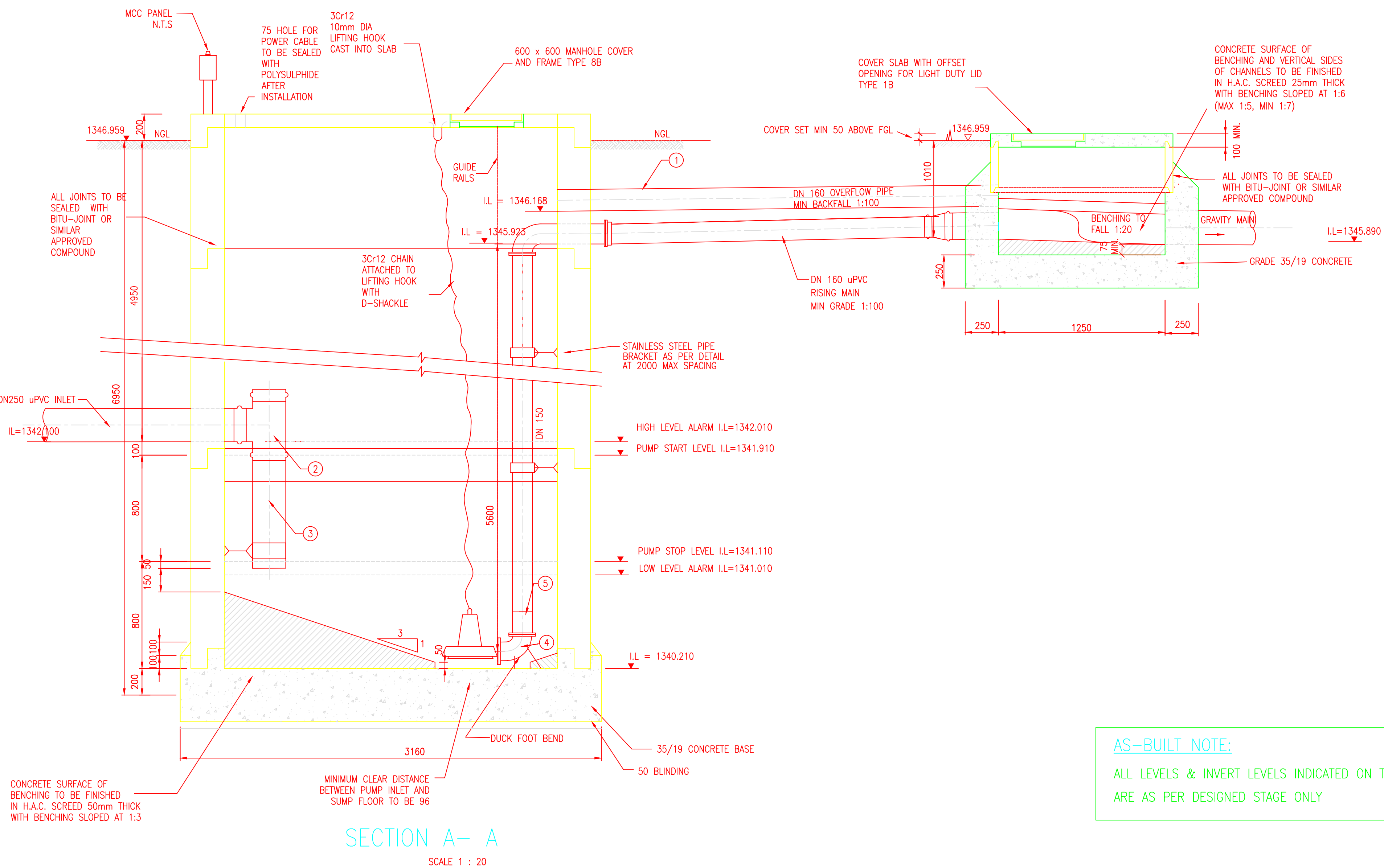




- NOTES:**
- PIPEWORK
 - ALL PIPEWORK INSIDE MANHOLE TO BE STAINLESS STEEL WITH FLANGED ENDS
 - ALL FLANGES TO BE SABS 1123 TABLE 1000/3
 - ALL BURIED INTER CONNECTING PIPEWORK TO BE CLASS 9 uPVC
 - ALL PIPEWORK DIMENSIONS TO BE CHECKED ON SITE PRIOR TO FABRICATION
 - ALL BURIED FLANGES TO BE WRAPPED WITH APPROVED MASTIC AND BITUMASTIC TAPE
 - BEDDING AND BACKFILL TO BE COMPACTED TO 93% MOD AASHTO
 - BEDDING AND BACKFILL UNDERNEATH ROADS TO BE COMPACTED TO 95% MOD AASHTO
 - PUMPS
 - SUBMERSIBLE PUMPS TO SUIT PERFORMANCE SPECIFICATION OF $Q=40/l/s$ AND $H=6m$ (KSB AMAREX KRT F 150-315 @ 960rpm OR SIMILAR APPROVED)
 - PUMPS TO OPERATE ON A SINGLE DUTY AND STANDBY BASIS
 - ELECTRICAL
 - GENERAL MCC REQUIREMENTS:
 - CONTRACTOR RESPONSIBLE FOR THE DESIGN OF THE PANEL, IN ACCORDANCE WITH PUMP SIZES, FAULT LEVELS, ETC.
 - PANEL TO BE OF THE OUTDOOR, WEATHERPROOF, PLINTH MOUNTED, IP65, DOUBLE DOOR SYSTEM TYPE
 - PANEL TO BE MANUFACTURED FROM 3CR12, 1.6MM, POWDER COATED ELECTRIC ORANGE
 - MCC TO BE OF FORM 3B OR 4A
 - ENGINEER TO APPROVE SHOP DRAWINGS (TO BE SUBMITTED BY CONTRACTOR) PRIOR TO MANUFACTURE
 - COMPARTMENTS REQUIRED
 - INCOMER COMPARTMENT
 - PUMP 1 COMPARTMENT
 - PUMP 2 COMPARTMENT
 - CONTROLS COMPARTMENT
 - CLASS 1 AND 2 SURGE PROTECTION DEVICES TO BE INSTALLED IN INCOMER
 - STARTER REQUIREMENTS (FOR EACH PUMP):
 - DOL WITH THERMAL OVERLOAD PROTECTION, INCORPORATING PHASE
 - EARTH LEAKAGE PROTECTION REQUIRED
 - CONTROLS:
 - MANUAL/OFF/AUTO SELECTION
 - MANUAL: CONTROL VIA START AND STOP PUSH BUTTONS
 - AUTO: CONTROL VIA LEVEL ELECTRODES AND LEVEL CONTROLLER
 - DUTY SELECTOR SWITCH
 - INDICATIONS
 - INCOMER COMPARTMENT
 - MAINS ON (WHITE)
 - PHASE FAILURE (BLUE)
 - 96 X 96 VOLTMETER WITH 7 WAY SELECTOR SWITCH
 - 3 OFF 96 X 96 AMMETER FOR EACH PHASE
 - PUMP COMPARTMENT
 - PUMP RUNNING
 - PUMP OFF
 - PUMP TRIPPED
 - MOISTURE INGRESS
 - RUN HOUR METER
 - 72 X 72 AMMETER
 - GENERAL
 - STROBOSCOPIC ALARMS INDICATOR WITH SIREN FOR ALL FAULTS AND TRIPS
 - INSTRUMENTATION
 - THREE LEVEL SS316 LEVEL ELECTRODES TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR (COMMON, LOW, HIGH)
 - CONTRACTOR TO PROVIDE CERTIFICATE OF COMPLIANCE ON COMPLETION OF INSTALLATION



AS-BUILT NOTE:
ALL LEVELS & INVERT LEVELS INDICATED ON THIS DRAWING ARE AS PER DESIGNED STAGE ONLY

No.	DATE	REVISION	CONSULT. ENG.
12	13/5/2014	CONSTRUCTION RECORD DRAWING	THUSSO CONSULTING
13	15/02/2015	REVISED LEVELS	
14	07/12/2015	ISSUED FOR CONSTRUCTION	
15	02/7/2019	ISSUED FOR TENDER PURPOSES	



DESIGNED BY
SSI ENGINEERS AND ENVIRONMENTAL CONSULTANTS (Pty) Ltd TRADING AS ROYAL HASKONINGDHV
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DESIGNED BY	APPROVED
S.S.	Name : DOMINIC COLLETT Prof. Reg. No. : 200170097 Date : FEB 2013
DRAWN BY	CONSTRUCTION RECORD DRAWING
R.M.	Name : Prof. Reg. No. : Date :
CHECKED BY	
D.C.	



ACCEPTANCE
THIS ACCEPTANCE IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OR LIABILITY OF ANY KIND FROM WHATSOEVER CAUSE OR HOWEVER ARISING
AIRPORTS COMPANY SOUTH AFRICA Date:

PROJECT DESCRIPTION
CONSTRUCTION OF NEW WATER AND DRAINAGE SERVICES AT BLOEMFONTEIN AIRPORT

DRAWING DESCRIPTION
SEWER PUMP STATION NO.3

CONTRACT NUMBER	BL13/29/AU/02	
DRAWING LOCATION DATA	START	END
ROUTE	-	-
SECTION	-	-
DRAWING - km DISTANCE	-	-
DRAWING TYPE	WATER RELATED	
DRAWING NUMBER	TBFN90 DP 04 S	REV