

NOTES

- ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED
- THIS DRAWING IS ONLY INDICATIVE, CONTRACTOR SHALL PREPARE & SUBMIT DETAILED DRAWING SHOWING PIPING, REINFORCEMENT BARS, EXACT LOCATION OF DUCT, DETAILS OF WATER PROOFING, AND REQUIRED STRUCTURAL CALCULATIONS FOR APPROVAL BY THE ENGINEER
- SPECIFICATION OF G.R.P PIPE :-
 - MINIMUM STIFFNESS 1500 N/m^2
 - MINIMUM WALL THICKNESS,

4.0mm	FOR $\phi 300$
5.2mm	FOR $\phi 450$
7.0mm	FOR $\phi 600$
8.9mm	FOR $\phi 800$
10.7mm	FOR $\phi 1000$
- DUCTS SHALL BE PAINTED EXTERNALLY WITH TWO COATS OF BITUMINOUS PAINT (TOTAL 300 MICRONS)
- DUCT TO BE SEALED AT EACH END
- LOWER DUCT IF EXISTING OR FUTURE SERVICES ARE OBSTRUCTING DUCT ENTRANCE.
- DUCT CROSSINGS ARE DENOTED BY SYMBOL
- REINFORCEMENT BARS SHALL BE HIGH YIELD STEEL BARS (DEFORMED TYPE-II) WITH A CHARACTERISTIC STRENGTH OF $f_y=460 \text{ N/mm}^2$ (BS 4449).
- MINIMUM OVERLAP LENGTH OF REINFORCEMENT BARS SHALL BE $45 \times \text{DIA. OF BAR}$.
- CONCRETE GRADE SHALL BE C40 (BS 8110) WITH A MINIMUM CUBE STRENGTH OF 40 N/mm^2 AT 28 DAYS.
- CONCRETE FOR BLINDING SHALL BE GRADE C20, WITH A MINIMUM CUBE STRENGTH OF 20 N/mm^2 .
- ALL CONCRETE EXTERNAL SURFACE SHALL BE PAINTED WITH TWO LAYERS OF BITUMINOUS PAINT (TOTAL OF 300 MICRONS)
- GRP SPLIT DUCT SHALL BE FLANGED AT THE END JOINTS AS WELL AS AT THE LONGITUDINAL JOINTS.
- EACH HALF OF GRP SPLIT DUCT SHALL BE BOLTED TOGETHER, DISTANCE BETWEEN EACH BOLTS SHALL BE AS PER SUPPLIER'S RECOMMENDATION. AT SPLIT DUCT END, THE GAP BETWEEN PIPE & DUCT SHALL BE SEALED WITH APPROVED SEALING MATERIAL TO HAVE A WATER TIGHT (DRY) DUCT.
- SPLIT DUCT SHALL BE CAST IN SECTIONS SUBJECT TO SITE CONDITION AND AS APPROVED BY ADWEA/ENGINEER.

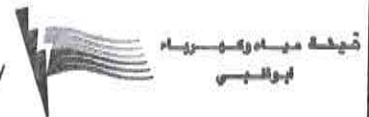
LEGEND

T GRADE 460 TYPE 2 REINFORCEMENT STEEL.

REFERENCE DRAWINGS

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	4-2-2013	First Issue				

Abu Dhabi
Water & Electricity Authority
United Arab Emirates



DRAWING TITLE

PIPE PROTECTION / CROSSING DUCTS
($\phi 300, \phi 450, \phi 600, \phi 800, \phi 1000$ & 1000mm SPLIT DUCTS)

CAD-FILE	SCALE	SIZE	DOCUMENT NO.	REV
W-P-TD-100	N.T.S	A3	W-P-TD-100	0