

## CONSTRUCTION GENERALLY

### **SET OUT:**

SET OUT THE RETAINING WALL LINE AND MARK THE POSITIONS OF STEEL POSTS AT 1 METRE CENTRES.

### **CLEARING:**

EXCEPT TREES OR SHRUBS TO BE RETAINED, CLEAR VEGETATION WITHIN 1 METRE OF THE WALL ALIGNMENT. GRUB OUT THE STUMPS AND ROOTS OF REMOVED TREES OR SHRUBS AND TRIM THE GRASS TO GROUND LEVEL, BUT DO NOT REMOVE THE TOPSOIL. REQUIRE A MINIMUM OF 700mm CLEARANCE BEHIND CUTTING OF EXCAVATION & RETAINING WALL ALIGNMENT.

### **EXCAVATION:**

EXCAVATE POST HOLES SO THAT THEY HAVE VERTICAL SIDES AND A FIRM BASE.

### **LINE AND LEVEL:**

ERECT STEEL POSTS VERTICALLY.

### **CONCRETE FOOTING:**

IN GROUND: PLACE MASS CONCRETE AROUND STEEL POSTS AND FINISH WITH A WEATHERED TOP FALLING 25mm FROM THE POST TO GROUND LEVEL. CONCRETE TO BE MINIMUM 20MPa STRENGTH WITH 20mm NOMINAL AGGREGATE.  
 - Cu DENOTES UNCONFINED SHEAR STRENGTH OF SOIL.  
 - PIERS TO BE MASS CONCRETE 300 MIN. DIAMETER

### **GALVANISED TUBE**

ALL SIDES OF GALVANISED TUBE TO BE COATED TO A LEVEL OF 150mm ABOVE FINISHED CONCRETE FOOTING LEVEL WITH BITUMINOUS PAINT.

### **STEEL MESH WALL:**

PLACE AND FIX GALVANIZED STEEL MESH ON RETAINING FACE OF VERTICAL STEEL POSTS AND FIX USING GALVANIZED 'U' CLIP AND DEEP SELF DRILLING HEX METAL 'CLASS 3' 12-24x32 TEK SCREWS.  
 'U' CLIP TO BE FIXED & SCREWED TO MESH AT ALL SUPPORTING EDGES OF MESH & POST.

### **HEBEL PANELS**

- CSR HEBEL LIGHT WEIGHT AAC MASONRY PANELS IN CONTACT WITH GROUND TO BE COATED ON ALL SIDES WITH BITUMINOUS PAINT TO A LEVEL 50mm ABOVE FINISHED GROUND LEVEL.

### **SUB SOIL DRAINS & FILTER FABRIC:**

PLACE NICOTARP 200 REINFORCED WATERPROOF MEMBRANE BEHIND WELDED STEEL MESH AND SUPPORT PRIOR TO BACK FILLING BEHIND WALL.  
 LAPPING OF WATER PROOF MEMBRANE OF A MINIMUM 300mm IS REQUIRED WHEN JOINING SECTIONS OF MEMBRANE.

## SUBSOIL DRAINS

### **GENERAL:**

PROVIDE SUBSOIL DRAINS TO INTERCEPT GROUNDWATER SEEPAGE AND PREVENT WATER BUILD-UP BEHIND WALLS. CONNECT SUBSOIL DRAINS TO SURFACE DRAINS OR TO THE STORM WATER DRAINAGE SYSTEM AS APPLICABLE.

### **PIPE DEPTH:**

PROVIDE THE FOLLOWING MINIMUM CLEAR DEPTHS, MEASURED TO THE CROWN OF THE PIPE, WHERE THE PIPE PASSES BELOW THE FOLLOWING ELEMENTS:  
 - 100mm BELOW THE AVERAGE GRADIENT OF THE BOTTOM OF WALL.

### **JOINTING:**

AT JUNCTIONS OF SUBSOIL PIPES PROVIDE TEES, COUPLINGS OR ADAPTERS TO AS 2439.1.

### **PIPE UNDERLAY:**

GENERAL: GRADE THE TRENCH FLOOR EVENLY TO THE GRADIENT OF THE PIPELINE. IF THE TRENCH FLOOR IS ROCK, CORRECT ANY IRREGULARITIES WITH COMPACTED BEDDING MATERIAL. BED PIPING ON A CONTINUOUS UNDERLAY OF BEDDING MATERIAL, AT LEAST 75mm THICK AFTER COMPACTING  
 CHASES: IF NECESSARY, FORM CHASES TO PREVENT PROJECTIONS SUCH AS SOCKETS AND FLANGES FROM BEARING ON THE TRENCH BOTTOM OR UNDERLAY.

### **PIPE SURROUNDS:**

GENERAL: PLACE THE MATERIAL IN THE PIPE SURROUND IN LAYERS 200mm LOOSE THICKNESS, AND COMPACT WITHOUT DAMAGING OR DISPLACING THE PIPING.

### **DEPTH OF OVERLAY:**

- TO THE UNDERSIDE OF THE BASES OF OVERLYING STRUCTURES SUCH AS PAVEMENTS, SLABS AND CHANNELS.  
 - TO WITHIN 150mm OF THE FINISHED SURFACE OF UNPAVED OR LANDSCAPED AREAS.

### **FILTER SOCKS**

PROVIDE POLYESTER PERMEABLE SOCKS CAPABLE OF RETAINING PARTICLES OF 0.25mm SIZE. SECURELY FIT OR JOIN THE SOCK AT EACH JOINT.


## BACK FILL

PROVIDE COARSE GRAINED SOIL WITHOUT ADMIXTURE OF FINE SOIL PARTICLES BACK FILL TYPE: CLEAN SAND OR GRAVEL.


## STRUCTURAL STEEL

- ALL STEEL TO BE GALVANISED.  
 AREAS OF SPECIAL CORROSIONIVITY WITH HIGH TO VERY HIGH CORROSION RATES OCCUR IN MARINE, UNDERWATER, IN SPLASH ZONES, INDUSTRIAL ZONES AND IN CHEMICAL PLANTS. FOR THESE AREAS, SPECIFICATION PROTECTION FROM THE AGGRESSIVE CONDITIONS IS ESSENTIAL. THE SELECTION OF A COATING SYSTEM FOR ANY OF THESE CONDITIONS IS OUTSIDE THE SCOPE OF THIS GUIDE CONSULT YOUR PAINT COMPANY OR OTHER EXPERT FOR FURTHER DETAILS.  
 - ALL DIMENSIONS IN (mm) U.N.O.  
 - ALL ANGLES, CLIPS, BOLTS, NUTS AND WASHERS USED SHALL BE GALVANISED.

ISSUE	NOTES	DATE
A	ISSUED FOR CONSTRUCTION	28/02/05
B	RE-ISSUED FOR CONSTRUCTION	11/03/05
C	RE-ISSUED FOR CONSTRUCTION	11/04/05
D	RE-ISSUED FOR CONSTRUCTION	25/05/05
E	RE-ISSUED FOR CONSTRUCTION	2/06/05
F	RE-ISSUED FOR CONSTRUCTION	03/08/05



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<p><b>PROJECT</b></p> <p style="text-align: center;"><b>BRAACE RETAINING SYSTEM</b></p>	<p><b>CLIENT</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>NUMBER IN SET</td> <td style="text-align: center;">-</td> <td>JOB NO.</td> <td style="text-align: center;">P798</td> </tr> <tr> <td>SCALE</td> <td style="text-align: center;">-</td> <td>SHEET NUMBER</td> <td style="text-align: center;">S-01</td> </tr> <tr> <td>DESIGN</td> <td style="text-align: center;">P.M</td> <td>CHECK</td> <td style="text-align: center;">D.D</td> </tr> <tr> <td>DRAWN</td> <td style="text-align: center;">V.C &amp; K.T.</td> <td>DATE</td> <td style="text-align: center;">03/08/05</td> </tr> </table>	NUMBER IN SET	-	JOB NO.	P798	SCALE	-	SHEET NUMBER	S-01	DESIGN	P.M	CHECK	D.D	DRAWN	V.C & K.T.	DATE	03/08/05
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<p><b>DRAWING TITLE</b></p> <p style="text-align: center;"><b>CONSTRUCTION NOTE</b></p>	<p><b>PRODUCT</b></p>																

DO NOT SCALE OFF DRAWINGS

FIGURED DIMENSIONS TO BE USED. ALL DIMENSIONS TO BE CHECKED ON SITE