COVER TYPE WN

230 BRICK

PLAN

TWN-B & SWN-B

REFERENCE POINT

PLAN

SRN-B

FINISHED SURFACE LEVEL

SECTION B

PIPE TO BE FINISHED FLUSH WITH INSIDE OF STRUCTURE AND SEAL WITH MORTAR OR APPROVED EPOXY

INLET/OUTLET PIPES

CONCRETE BASE SLAB CAST IN-SITU OR SIMILAR APPROVED PRECAST TO AVOID PONDING SIDE PERMEABLE BASE SLAB. FOR DETAILS REFER TO DWG NUMBER 200231-4045

SECTION B

TABLE 1

<table>
<thead>
<tr>
<th>STRUCTURE TYPE</th>
<th>PIT DEPTH</th>
<th>COVER TYPE</th>
<th>MAX Ø PIPE CONNECTING TO PIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWN-B</td>
<td>400-500</td>
<td>WN</td>
<td>NRM. #725</td>
</tr>
<tr>
<td>SWN-B</td>
<td>1200-1800</td>
<td>WN</td>
<td>NRM. #925</td>
</tr>
<tr>
<td>SRN-B</td>
<td>1800-3600</td>
<td>RN</td>
<td>NRM. #925</td>
</tr>
</tbody>
</table>

NOTES

GENERAL
1. ELEVATION AND REFERENCE POINT DATA ARE SPECIFIED IN THE DESIGN DRAWINGS.
2. INLET/OUTLET PIPES MAY JOIN STRUCTURE AT SWINE ANGLES.
3. THIS STRUCTURE IS NOT APPROPRIATE FOR DIRECT CONNECTION TO WATER CORPORATION DRAIN UNLESS PROVIDED WITH SALT TRAP OR HOPPING SURFACE DRAINAGE HAS BEEN TRAPPED UPSTREAM.
4. FOR INFORMATION RELATING TO GROUND PREPARATION OF STRUCTURES REFER TO MAIN ROADS SPECIFICATION NO. 445 DRAINAGE STRUCTURES.

CONCRETE & REINFORCEMENT
5. ALL IN-SITU CONCRETE SHALL BE CLASS R2 IN ACCORDANCE WITH AS 1991.
6. ALL IN-SITU CONCRETE CORNERS SHALL HAVE A 20 CHAMFER UNLESS OTHERWISE NOTED.
7. CONCRETE SLAB SHALL CONSIST OF ONE PART PORTLAND CEMENT OR CEMENT AND THREE PARTS SAND.
8. REINFORCEMENT SHALL COMPLY WITH HARD DRAWN STEEL TO AS/NZS 4441.
9. MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 50.

BRICKWORK
10. BRICKWORK TO BE RENOVATED EVERY THIRD COURSE WITH ARMS AMB-1/2/4-6/8/10 OR SIMILAR APPROVED TYPE A CAVITY WALL TO BE IN ACCORDANCE WITH AS 2401.1 AND AS 3788.
11. BRICKWORK SHALL BE 280 SERIES 100mm SIZE. HARDWARE WILL BE BENT AND TRUE TO SHAPE AND DIMENSIONS AND SHALL BE OF "EXPOSURE" DURABILITY CLASS IN ACCORDANCE WITH AS/NZS 4453.
12. BRICKWORK SHALL BE SOLID AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 15MPA IN ACCORDANCE WITH AS/NZS 4453.1.
13. ALL GAPS AND Voids BETWEEN AND/OR AROUND THE LINER AND COVER SLAB SHALL BE SEAL WITH NRM CONCRETE. SENSOR PAYING TAPE SHALL BE USED WHERE THE CONCRETE IS UNDER THE ROAD SEALED SURFACE. REFER TO DWG NO. 200231-522 FOR DETAILS.

STEP IRONS
14. FOR STRUCTURES DEEPER THAN 900, STEP IRONS OR PREFABRICATED GALVANISED STEEL LADDER SHALL BE FITTED THE LADDER SHALL BE FIXED WITH STAINLESS STEEL MASONRY ANCHORS IN ACCORDANCE WITH AS 3273.
15. ORIENTATE STEP IRONS OR LADDER TO ENABLE EASY ACCESS AND TO FACE ONCOMING TRAFFIC.

SUPERSEDED DRAWINGS

DRAWING REFERENCES

<table>
<thead>
<tr>
<th>STRUCTURE SELECTION GUIDE</th>
<th>200231-084</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVER TYPE WN RECTANGULAR</td>
<td>200231-107</td>
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<tr>
<td>COVER TYPE RN RECTANGULAR</td>
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<tr>
<td>COVER TYPE RN ROUNDED</td>
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<tr>
<td>STEP IRON DETAILS</td>
<td>200231-116</td>
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<tr>
<td>PIT SALT TRAP (RF)</td>
<td>200231-121</td>
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</table>

DRAINAGE STANDARD DRAWINGS

TWN-B, SWN-B & SRN-B STRUCTURES CONSTRUCTED WITH BRICKS

ALL UNITS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

AMENDMENTS

APPROVED & DATE No. DESCRIPTION
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TECHNOLOGY AND ENVIRONMENT OFFICE WESTERN AUSTRALIA
ROAD AND TRAFFIC ENGINEERING BRANCH
MAIN ROADS 9006 9090
TECHNICAL MANUALS 768-60-52