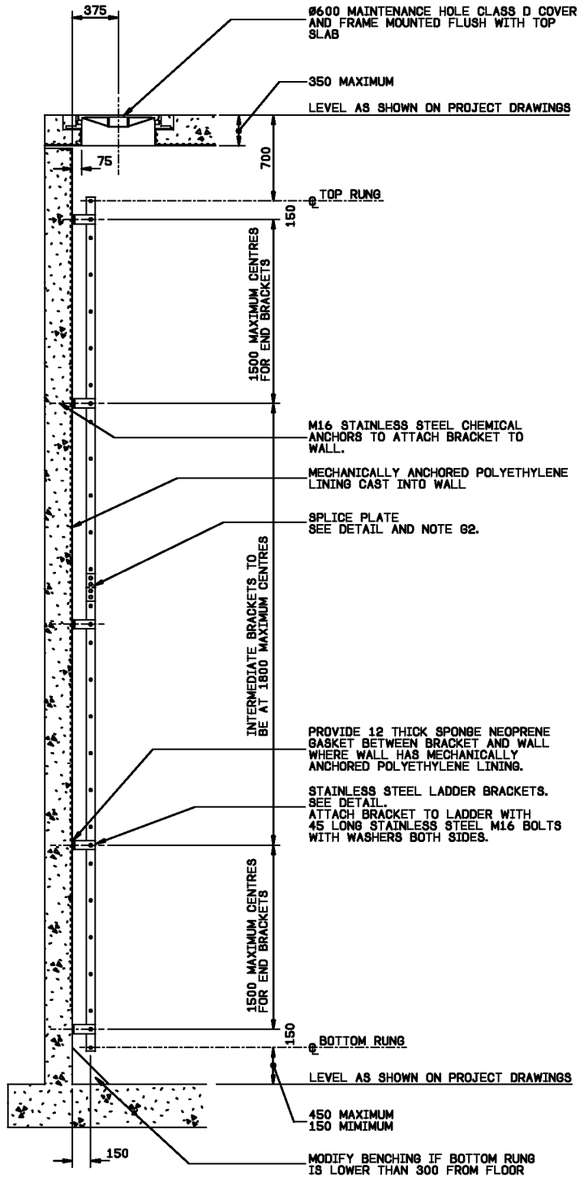
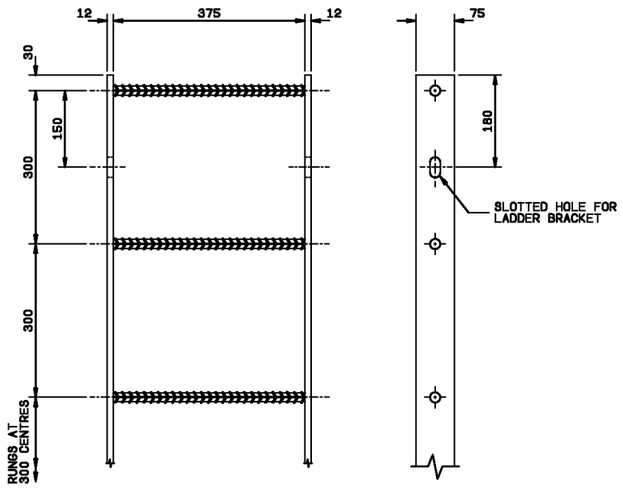
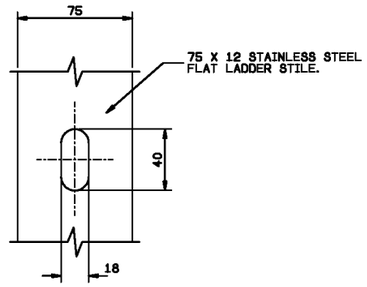


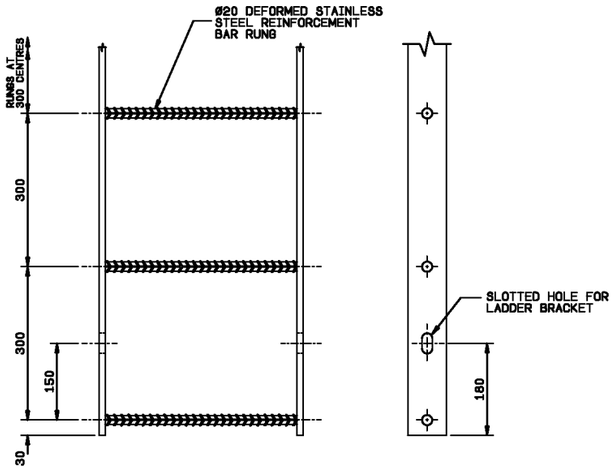

TYPICAL LADDER INSTALLATION FOR PUMP WELL AND GRIT COLLECTOR MAINTENANCE HOLE
NOT TO SCALE



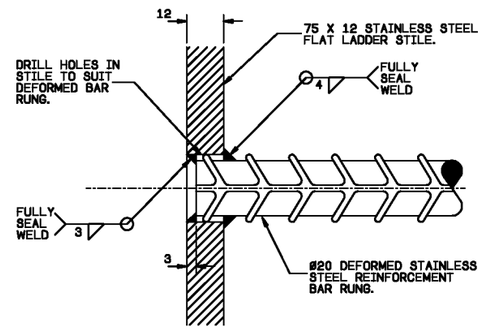

DETAIL OF TOP OF LADDER
NOT TO SCALE



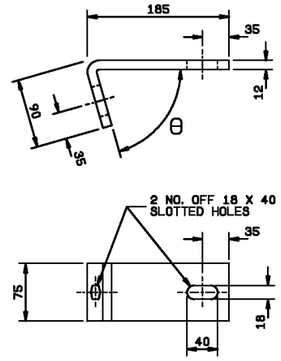

DETAIL OF SLOTTED HOLE IN STILE
NOT TO SCALE




DETAIL OF BOTTOM OF LADDER
NOT TO SCALE



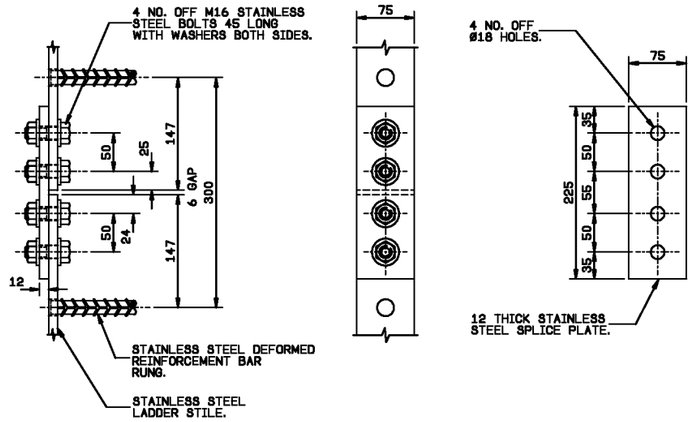

RUNG FIXING DETAIL
NOT TO SCALE




| WELL DIAMETER | ANGLE θ |
|---|---|
| Ø1200 | 66.2° |
| Ø1500 | 71.1° |
| Ø1800 | 74.3 |
| Ø2100 | 76.6° |
| Ø2400 | 78.6° |
| Ø2700 | 79.6° |
| Ø3000 | 80.6° |
| Ø3600 | 82.2° |
| Ø4000 | 83.0° |
| Ø4600 | 83.9° |
| Ø6000 | 85.3° |




DETAIL OF LADDER BRACKET
MATERIAL : 316 STAINLESS STEEL
NOT TO SCALE




DETAIL OF SPLICE IN LADDER STILE
SEE NOTE G2. FOR LOCATION DETAILS
NOT TO SCALE

## NOTES:

GENERAL

G1. THE FULL STAINLESS STEEL TO BE USED IN THE GRIT CO MAINTENANCE HOLE AND THE ONLY.

G2. SPLICES ARE TO BE PROVIDED IN THE LADDER STILES AT POSITIONS THAT LIMIT THE LENGTH OF ANY LADDER SEGMENT TO A MAXIMUM OF 6000mm.

G3. THE LADDER IS TO BE CONTINUOUS OVER THE FULL DEPTH OF THE WELL. NO INTERMEDIATE PLATFORMS OR LADDER CAGES ARE PERMITTED.

STAINLESS STEEL

SS1. STAINLESS STEELWORK SHALL COMPLY TO AS/NZS 1554.6-1994 AND AS 2837-1986 OR APPROVED EQUIVALENT.

SS2. STAINLESS STEEL MATERIALS SHALL BE SUPPLIED TO AISI GRADE 316 OR GRADE 316L.

SS3. WELDING SHALL COMPLY TO AUSTRALIAN WELDING RESEARCH ASSOCIATION TECHNICAL NOTE 16 - WELDING STAINLESS STEELS. WELDS SHALL BE 4mm CONTINUOUS FILLET WELDS (AWS E316L ELECTRODE), UNLESS NOTED OTHERWISE.

SS4. ALL WELDS ARE TO BE AS SHOWN AND ARE TO BE CONTINUOUS SEAL WELDS.

SS5. ALL STORAGE, FABRICATION AND WELDING OF STAINLESS STEEL SHALL BE CARRIED OUT IN AN AREA SPECIFICALLY DEDICATED TO THE PARTICULAR GRADE OF STAINLESS STEEL BEING USED.

SS6. ALL FABRICATED STAINLESS STEELWORK IS TO BE PASSIVATED.

SS7. ALL STAINLESS STEEL BOLTS ARE TO BE ASSEMBLED WITH ANTI GALLING COMPOUND "DURALAC" OR QUEENSLAND URBAN UTILITIES APPROVED EQUIVALENT.

MATERIAL: GRADE 316 STAINLESS STEEL

| NO. | DATE | AMENDMENT | DRAFTED | APPROVED |
|---|---|---|---|---|
| A | 2/12/10 | UPDATED TO QUU REQUIREMENTS | I.G.B. | ORIG. C.J.E. |

THIS DRAWING SETS OUT THE GENERAL REQUIREMENTS FOR A STANDARD SEWERAGE PUMPING STATION. THE PROJECT SPECIFIC DESIGNING ENGINEER IS RESPONSIBLE FOR ENSURING ALL LEGISLATION AND OBLIGATIONS ARE FOLLOWED AND THE DESIGN MEETS THE FUNCTIONAL REQUIREMENTS SET OUT BY QUEENSLAND URBAN UTILITIES. ANY VARIATIONS FROM THE REQUIREMENTS SHOWN ON THIS DRAWING WILL REQUIRE QUEENSLAND URBAN UTILITIES APPROVAL.

| | | | |
|---|---|---|---|
| ORIGINAL SIGNED I. G. BRUMBY | 19/2/09 | ORIGINAL SIGNED K. VAHEESAN | 24/2/09 |
| DESIGN RPEQ No. | DATE | MANAGER ENGINEERING SERVICES | DATE |
| ORIGINAL SIGNED C. J. EATON 6511 | 23/2/09 | ORIGINAL SIGNED A. KRUMINS | 23/2/09 |
| DESIGN CHECK RPEQ No. | DATE | MANAGER INFRASTRUCTURE PLANNING & SERVICES | DATE |

QUEENSLAND Urban Utilities

PROJECT
STANDARD DRAWING
SUBMERSIBLE
SEWERAGE PUMPING STATION

TITLE
LADDERS FOR
GRIT COLLECTOR MAINTENANCE HOLE AND PUMP WELL INSTALLATION AND DETAILS

SHEET No. OF SHEETS

QUEENSLAND URBAN UTILITIES DWG. No. 486/5/25-0003-631

AMEND. A



FILE: EGS0003&31*BORDER
DATE: 15FEB11
TIME: 14:46:04