

CONSTRUCTION OF BOX CULVERT IN QUEENSLANDER CREEK, FORSAYTH, QLD 4871



LOCATION OF WORKS:
Queenslander Creek

PROPOSED
WORK SITE

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- SN02 GENERAL NOTES
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- SN04 PLAN
- SN05 ELEVATIONS AND SECTIONS
- SN05-1 ELEVATIONS AND SECTIONS
- SN06 CONNECTION DETAILS
- SN07 REINFORCEMENT DETAILS
- SN08 DETAIL OF FISH PASSAGE

FOR CONSTRUCTION



Rev	DATE	REVISION DETAILS	BY

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PROJECT TITLE:
**BOX CULVERT- QUEENSLANDER CRK
COBBOLD GORGE ROAD**

DRAWING DESCRIPTION:
DRAWING INDEX AND LOCALITY PLAN

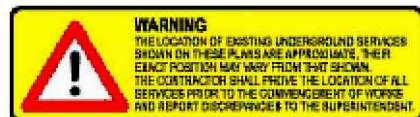
Etheridge Shire Council
P.O.BOX 12, ST.GEROGGE STREET
GEORGETOWN , QLD 4871

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DRAWN BY: RM	DATE: 15/03/2024	SURVEYED BY: RCE	DATE:
CHECKED BY: RR	DATE: 11/06/2024	JOB NO:	
APPROVED BY: RR	DATE: 11/06/2024	Sheet No 01	No In Set A3
DRAWING NUMBER: 202403		SIZE A3	REV 1

CONSTRUCTION OF BOX CULVERT IN QUEENSLANDER CREEK ,FORSAYTH,QLD

GENERAL NOTES

- ALL WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE CONDITIONS OF CONTRACT, THE CURRENT ETHERIDGE SHIRE COUNCIL AND THE DEPARTMENT OF TRANSPORT AND MAIN ROADS SPECIFICATIONS AND STANDARD DRAWINGS AND TO THE SATISFACTION OF THE CONTRACT SUPERINTENDENT.
- THE ETHERIDGE SHIRE COUNCIL AND ALL RELEVANT SERVICE AUTHORITIES SHALL BE NOTIFIED IN WRITING A MINIMUM OF SEVEN (7) DAYS PRIOR TO THE COMMENCEMENT OF WORKS.
- ALL LEVELS ARE TO A.H.D. AND DIMENSION ARE IN METERS UNLESS OTHERWISE STATED.
- UPON THE COMMENCEMENT OF CONSTRUCTION WORKS, THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE ENVIRONMENT PROTECTION AUTHORITY PUBLICATION 'CONSTRUCTION TECHNIQUES FOR SEDIMENT CONTROL'.
- THE LOCATION OF ALL EXISTING SERVICES SHOWN ON THESE PLANS ARE APPROXIMATE AND THEIR EXACT LOCATION SHALL BE PROVEN ON SITE BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY WORKS. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT.
- ANY DAMAGE CAUSED TO EXISTING SERVICES AND ANY COSTS ASSOCIATED WITH REPAIRS OR LOSS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- UNLESS OTHERWISE SHOWN, NO TREES SHALL BE REMOVED OR TRIMMED WITHOUT PRIOR CONSENT OF THE SUPERINTENDENT. TREES DESIGNATED FOR REMOVAL INCLUDE GRUBBING.
- PRIOR TO THE COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL PREPARE A SITE SPECIFIC ENVIRONMENTAL MANAGEMENT PLAN TO THE SATISFACTION OF THE SUPERINTENDENT.(NOT APPLICABLE FOR THIS CONTRACT)
- ALL STORM WATER AND CONDUIT TRENCHES UNDER ROAD PAVEMENT AND/ OR UNDER CONCRETE PAVING SHALL WITH APPROVED CRUSHED ROCK AND COMPACTED IN 200 mm LAYERS, ALL AS SPECIFIED.(NOT APPLICABLE FOR THIS CONTRACT)
- THE CONTRACTOR IS TO ENSURE THAT A MINIMUM OF 300mm DEPTH CRUSHED ROCK IS PLACED OVER ALL DRAINAGE PIPES UNDER TRAFFICABLE AREAS DURING CONSTRUCTION.
- ALL STORM WATER DRAINAGE PIPES SHOWN SHALL BE CLASS '4' RCP AND RUBBER RING JOINTED UNLESS OTHERWISE SPECIFIED (N/A FOR THIS CONTRACT)
- ALL STORM WATER DRAINAGE PITS AND PROPERTY CONNECTIONS, ETC, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ETHERIDGE SHIRE COUNCIL STANDARD PLANS (N/A)
- 100mmØ PVC CLASS 400 SUBSURFACE (A.G.) DRAINS SHALL BE LAID BEHIND ALL KERB AND CHANNEL AS DIRECTED. SUB SURFACE DRAINS SHALL BE LAID AT A DEPTH OF 750mm BELOW TOP OF KERB OR TO THE BOTTOM OF THE SUB-BASE PAVEMENT LAYER.(N/A)
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL RUBBISH AND SPOIL FROM THE SITE.
- NO TOPSOIL SHALL BE REMOVED FROM THE SITE WITHOUT CONSENT FROM THE SUPERINTENDENT.
- EARTHWORKS SHALL BE CARRIED OUT TO THE DESIGN LEVELS SHOWN ON CONSTRUCTION ISSUE PLANS.
- FILL MATERIAL IS TO BE PLACED IN 200 mm LAYERS AND BE COMPACTED TO MINIMUM 95% DRY DENSITY.
- STRUCTURAL FILL IS TO BE APPROVED BY THE SUPERINTENDENT PRIOR TO PLACEMENT. LEVEL 1 GEOTECHNICAL SUPERVISION IS TO BE MAINTAINED TO AS 3798-1996. STRUCTURAL FILL IS TO BE COMPACTED IN 200mm LAYERS ALL AS SPECIFIED.
- ALL FILL, NATURE STRIPS, VERGES, BATTERS AND DISTURBED AREAS SHALL BE TOP SOILED WITH 75mm MINIMUM DEPTH OF APPROVED LOAM AND SOWN WITH SEED, ALL AS SPECIFIED.
- EARTHWORKS WITHIN ROAD RESERVES SHALL BE TESTED TO THE REQUIREMENTS AND SATISFACTION OF THE ETHERIDGE SHIRE COUNCIL THE CONTRACTOR SHALL ENGAGE THEIR OWN 'NATA, REGISTERED GEOTECHNICAL ENGINEER TO CARRY OUT TESTS IN ACCORDANCE WITH AS 3798 AND AS 1289 AND SHALL SUPPLY TEST RESULTS CONFORMING WITH IN THE PROJECT SPECIFICATION. FREQUENCY OF TESTS SHALL BE PROVIDED IN ACCORDANCE WITH AS 3798. TEST RESULTS SHALL BE REVIEWED BY THE ETHERIDGE SHIRE COUNCIL , AND, IF NECESSARY, ADDITIONAL TEST WILL BE SUPPLIED TO THE SUPERINTENDENTS SATISFACTION.
- ALL PRE-MIX CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 32MPa UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL ERECT AND IS RESPONSIBLE FOR THE MAINTAINING ALL WORK SITE TRAFFIC MANAGEMENT SIGNS, WARNING SIGNS, SITE FENCING, BARRICADES, LIGHTS, SHORING, AND OTHER MEASURE NECESSARY TO KEEP THE WORK SITE SAFE AND TO PROTECT THE PUBLIC FROM THE WORKS.
- ALL LINE MARKING, RRPm AND SIGNAGE SHALL BE INSTALLED IN ACCORDANCE WITH AS 1742.1 AND AS 1742.2 UNLESS SHOWN OTHERWISE. LINE MARKING IS TO BE INSTALLED USING EXTRUDED LONG LIFE THERMOPLASTIC PAINT. SUPERFLUOUS LINE MARKING IS TO BE PERMANENTLY REMOVED. NEW LINE MARKING SHALL MATCH INTO EXISTING LINE MARKING. SUPPLY & INSTALL TACTILES SHOWN ON PLAN.- N/A
- SERVICE CONDUITS FOR GAS, WATER, AND ELECTRICITY ARE TO BE LOCATED IN THE POSITIONS AS SHOWN. THEY ARE TO BE LAID AT RIGHT ANGLES TO THE KERB AND SERVICE ALIGNMENT. THE CONDUITS ARE TO BE REFERENCED IN 50mm HIGH LETTERS ON THE FACE OF KERB AND CHANNEL MARKED WITH 'G', 'W' OR 'E' ACCORDINGLY.
- ALL ROADS AND HAUL ROUTES USED BY VEHICLE AND CONSTRUCTION EQUIPMENT ARE TO BE KEPT CLEAN AT ALL TIMES TO THE SATISFACTION OF THE SUPERINTENDENT.
- THE CONTRACTOR SHALL ENSURE THAT DUST PRODUCED FROM THE SITE SHALL BE KEPT TO A MINIMUM AND NOT CAUSE NUISANCE TO ANY THIRD PARTY.:
- APPLICATION OF HISEAL-TG HIGH PERFORMANCE, TWO COMPONENT POLYURETHANE SEALANT OR THE EQUIVALENT TO COMPLY WITH MANUFACTURER'S RECOMMENDATIONS.
- ROCKS IN RIP RAP SHALL CONSIST OF CLEAN, SOUND, HARD, TOUGH, QUARRIED ROCK OF UNIFORM QUALITY OF CRUSHING STRENGTH NOT LESS THAN 25 MPa. THE ROCKS SHALL BE WELL GRADED AND WITHIN THE SIZES RANGES OF 225MM AND 150MM.



FOR CONSTRUCTION

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 COBBOLD GOREGE ROAD**

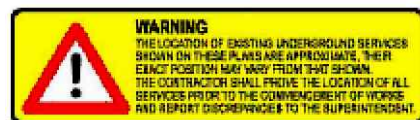
DRAWING DESCRIPTION:
GENERAL NOTES

Etheridge Shire Council
 P.O.BOX 12, St George Street
 Georgetwon Q 4871

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CHECKED BY: RR	DATE: 11/06/24	JOB NO:	
APPROVED BY: RR	DATE: 11/06/24	Sheet No 02	No In Set A3 1
DRAWING NUMBER: 202403			



LAYOUT PLAN
SCALE 1:1000



FOR CONSTRUCTION

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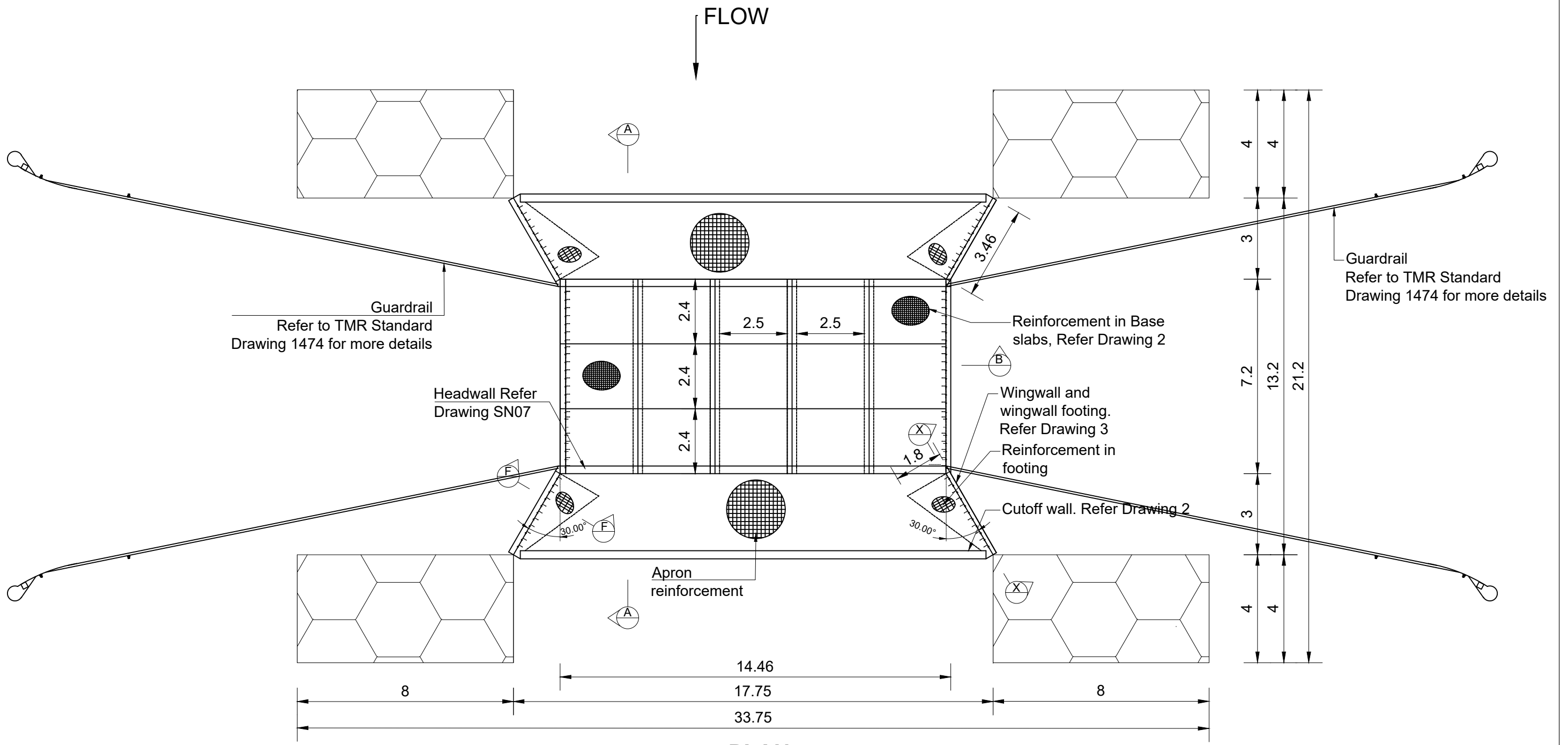
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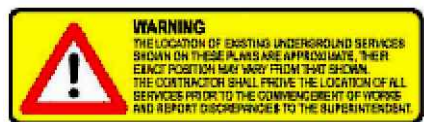
Etheridge Shire Council
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GEORGETOWN
QLD 4871

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APPROVED BY: RR	DATE: 11/06/024	Sheet No 03	No In Set A3
DRAWING NUMBER: 202403		SIZE 1	REV 1



PLAN
Scale 1:150

FOR CONSTRUCTION



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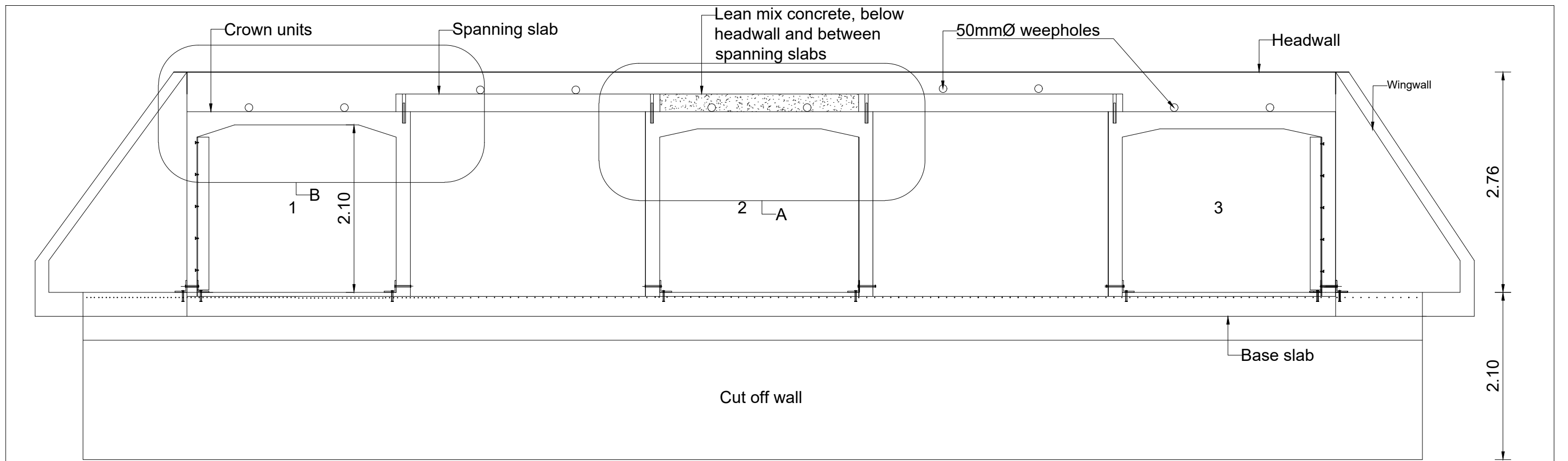
RID ENGINEERING CONSULTANCY PTY. LTD.
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PROJECT TITLE:
**Box Culvert -QUEENSLANDER CRK
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DRAWING DESCRIPTION:
Plan

Etheridge Shire Council
P.O.BOX 12, ST.GEORGE STREET
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QLD 4871

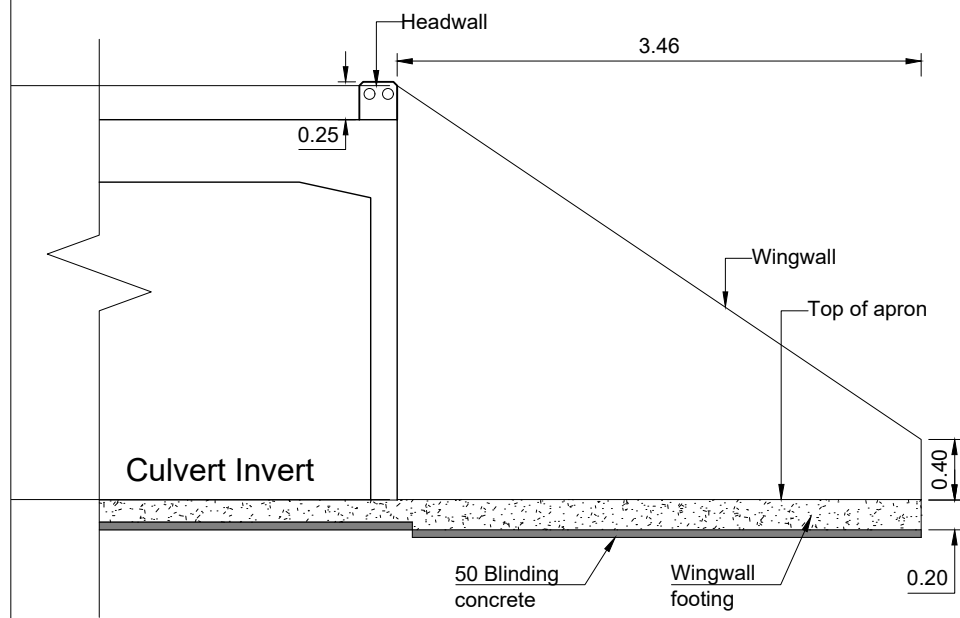
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ELEVATION

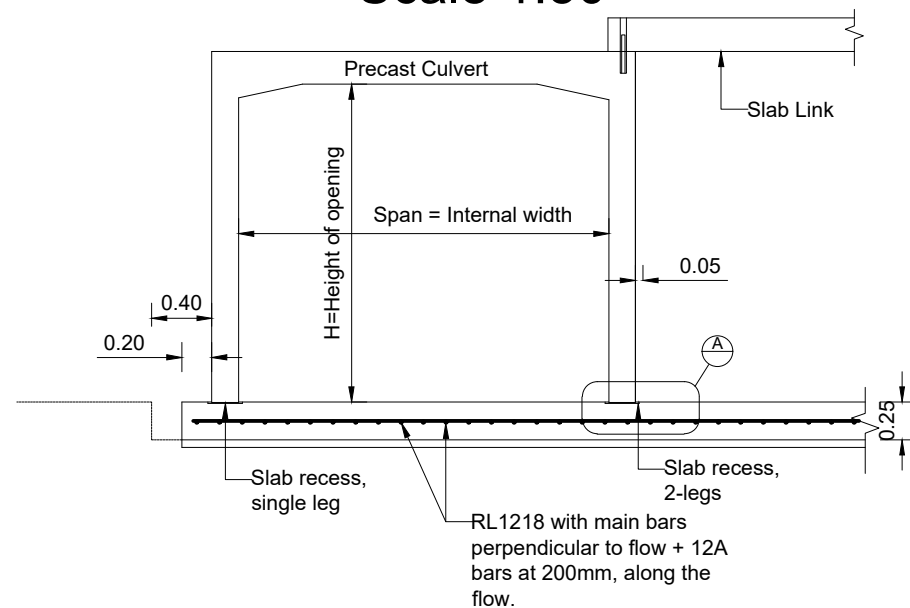
Arrangement of Slab Link Box Culvert

Scale 1:50



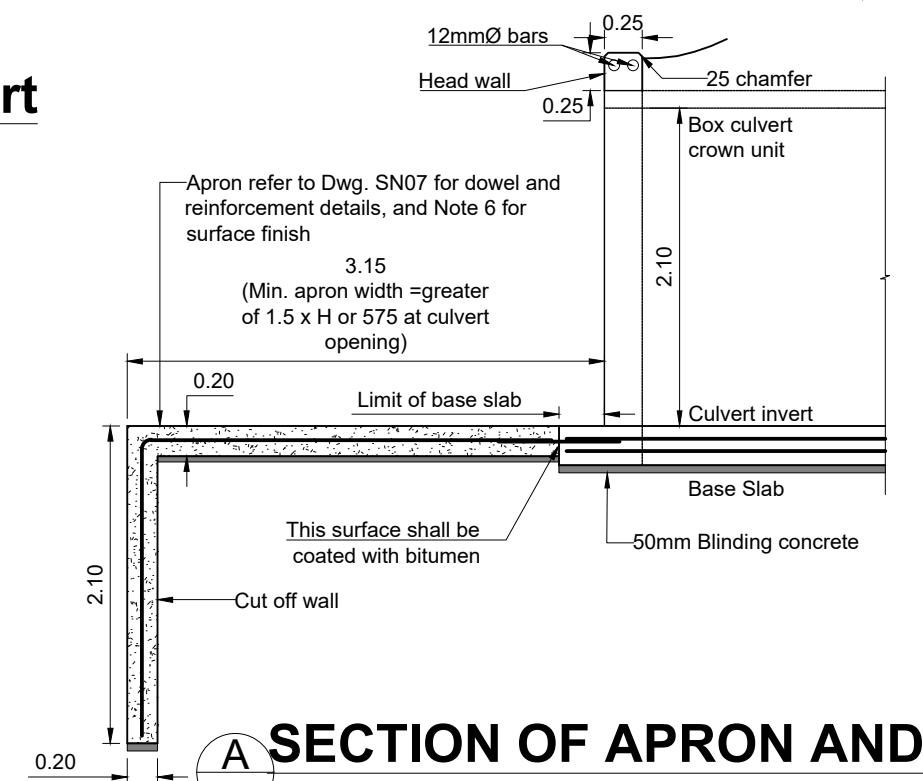
**X Elevation at Wingwall
Concrete Details**

Scale 1:50



B SECTION WITH RECESSES

Scale 1:50



**A SECTION OF APRON AND
BASE SLAB**

Scale 1:50

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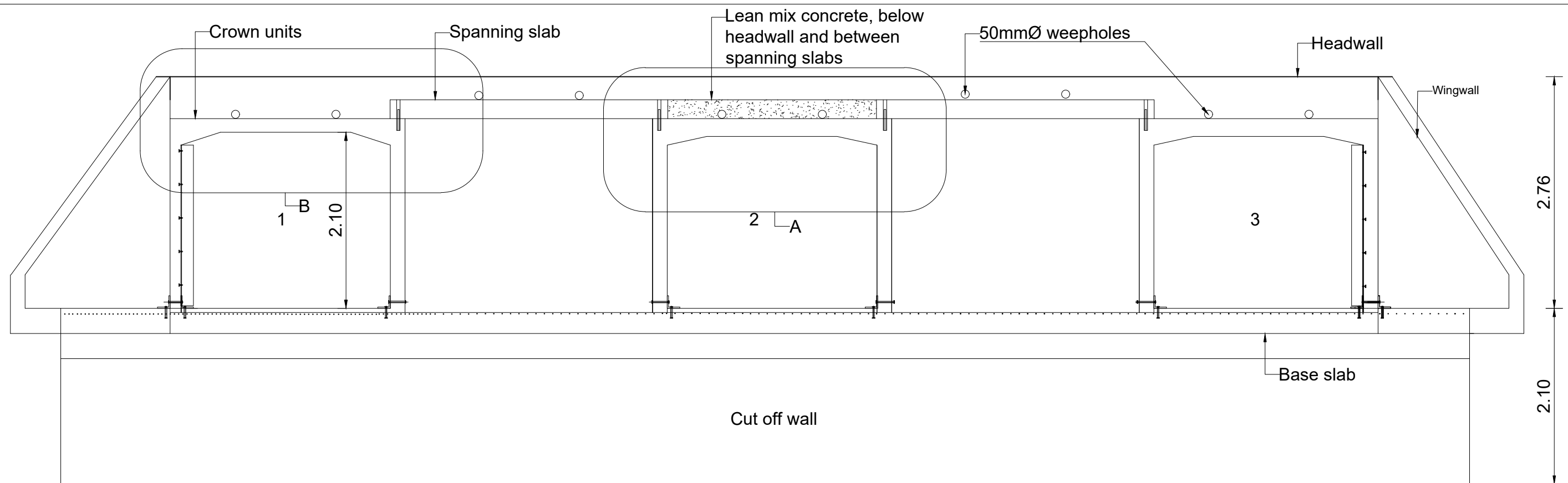
RID ENGINEERING CONSULTANCY PTY. LTD.
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DRAWING DESCRIPTION:
ELEVATIONS AND SECTIONS

Etheridge Shire Council
P.O.BOX 12, ST.GEORGE STREET
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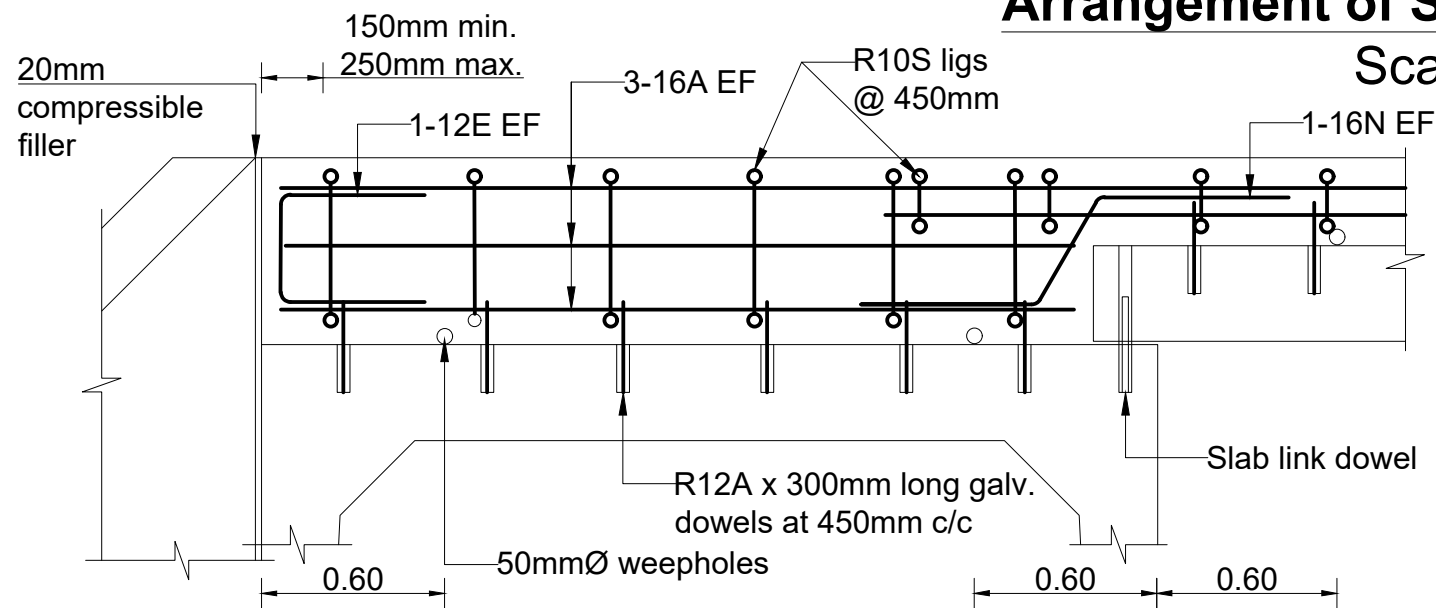
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CHECKED BY: RR	DATE: 11/06/024	JOB NO:	
APPROVED BY: RR	DATE: 11/06/024	Sheet No 05	No In Set A3
DRAWING NUMBER: 202403		SIZE A3	REV 1



ELEVATION

Arrangement of Slab Link Box Culvert

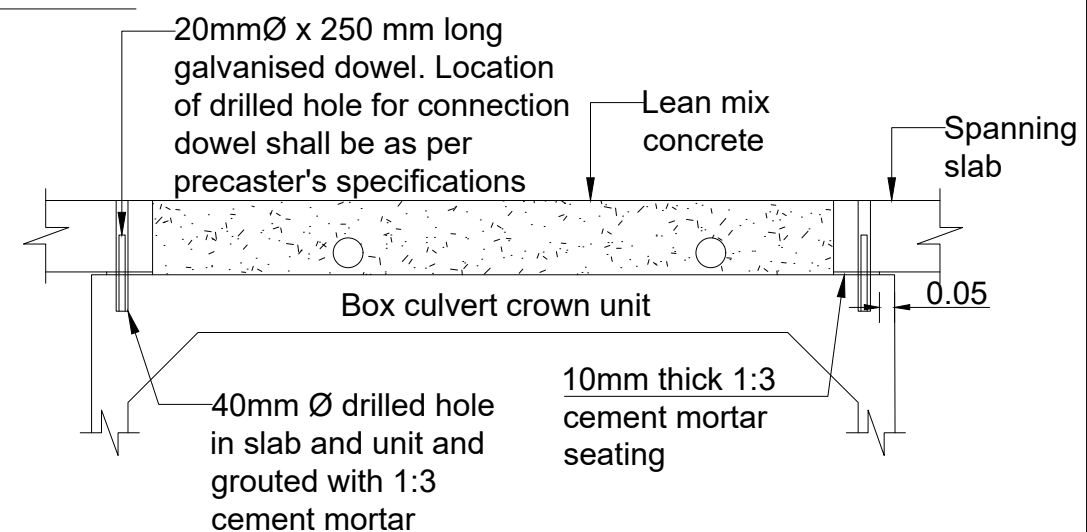
Scale 1:50



DETAIL @ B

Headwall for Slab Link Culverts

Scale 1:25



DETAIL @ A

Spanning Slab Support and Lean Mix Concrete Fill Details

Scale 1:25

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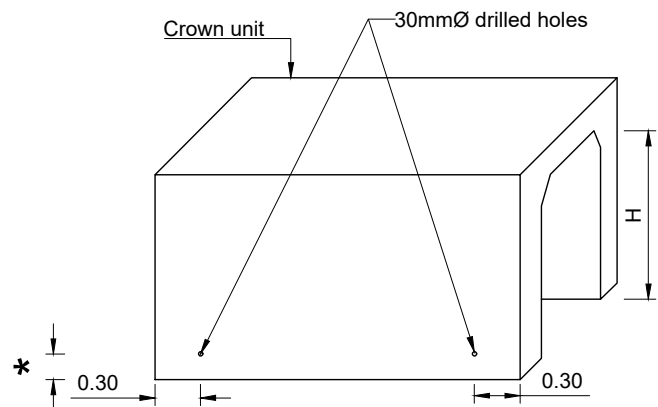
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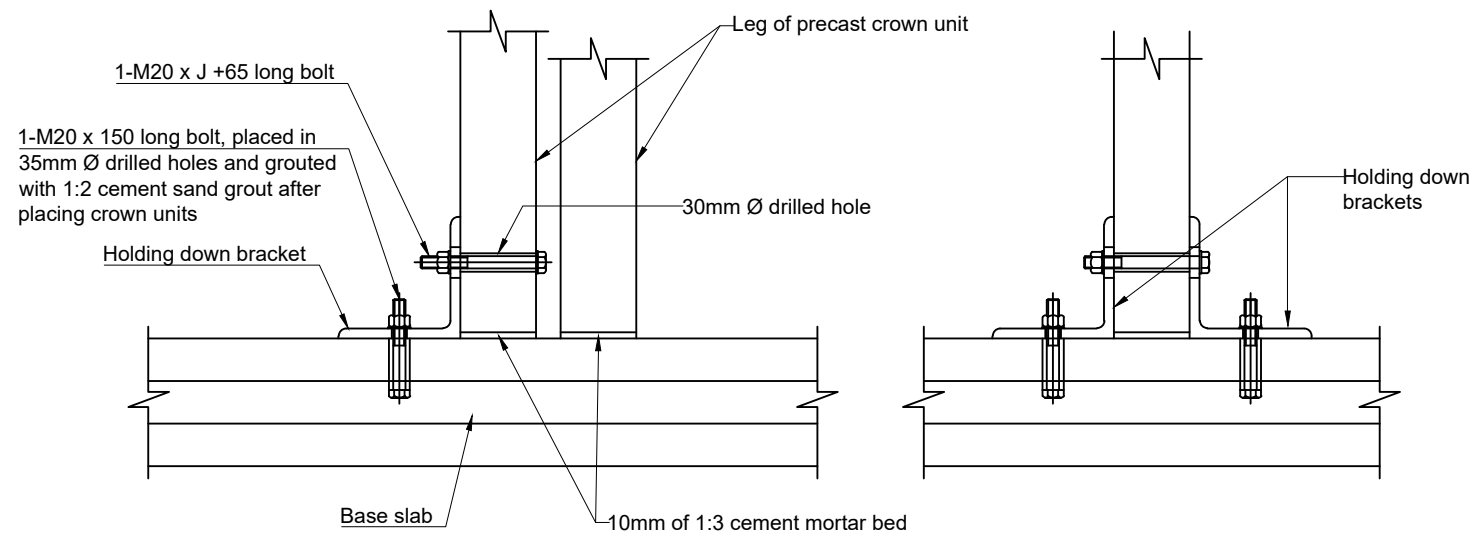
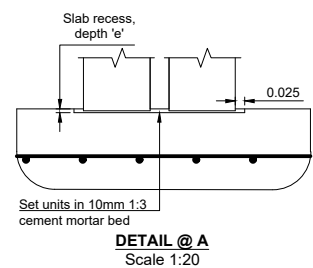
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- * 130mm when used with cast in situ base slab without recesses.
- * For use with cast in situ base slab with recesses, 150mm when H<1500, 170 when H>1500

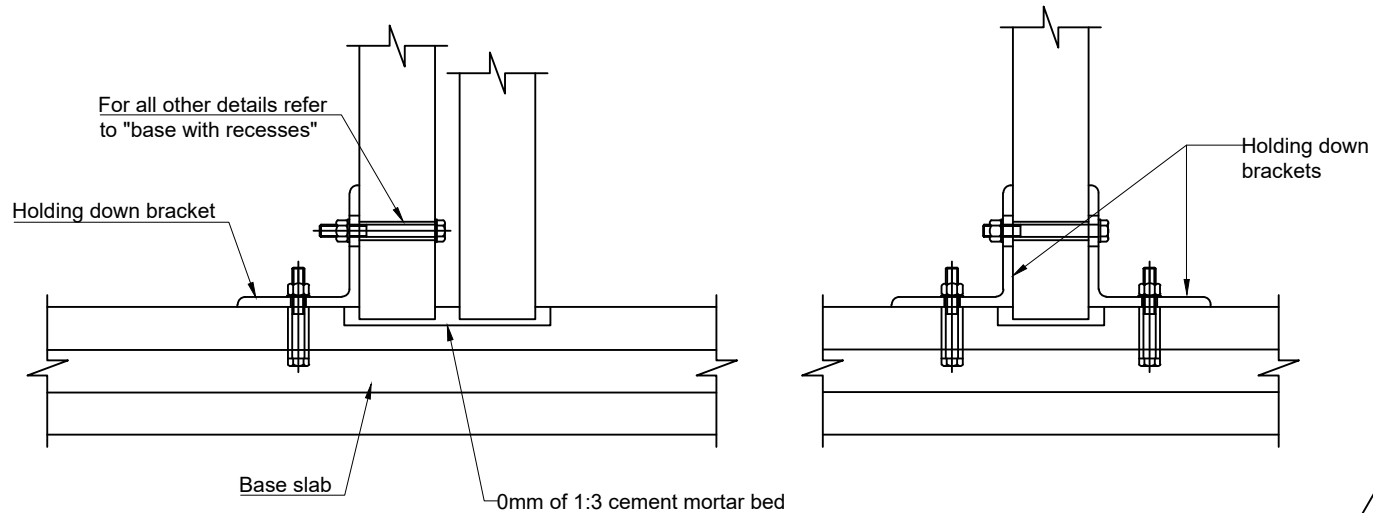
Skewed culverts only
DRILLED HOLES IN CROWN UNITS FOR HOLDING DOWN ANCHORS

Scale 1:50



DETAILS FOR BASE WITHOUT RECESSES

Scale 1:50

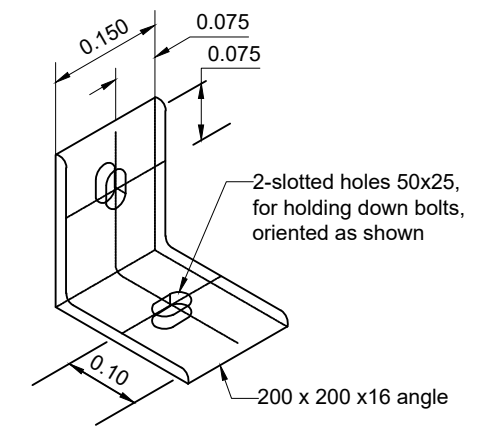


DETAILS FOR BASE WITH RECESSES

Scale 1:50

HOLDING DOWN ANCHORS

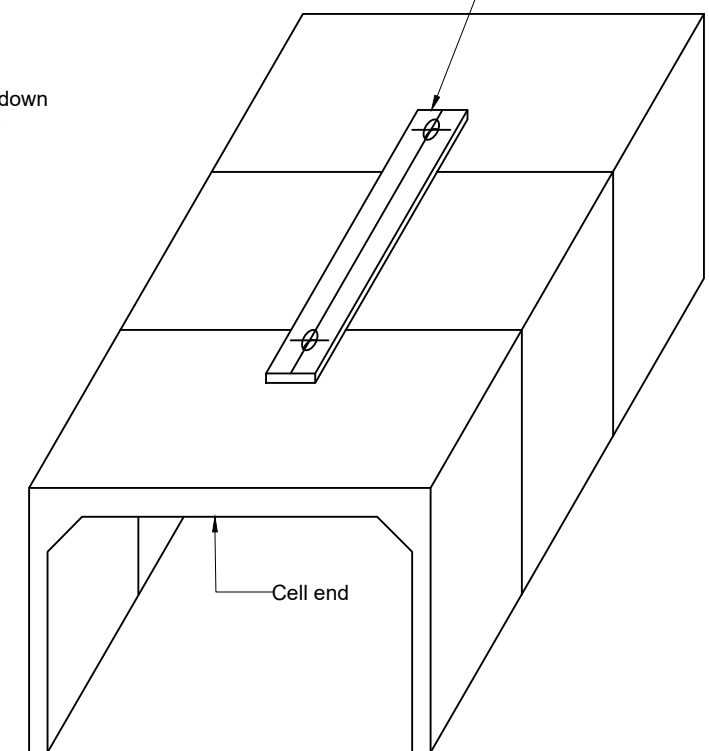
Scale 1:50



HOLDING DOWN BRACKET

Isometric view

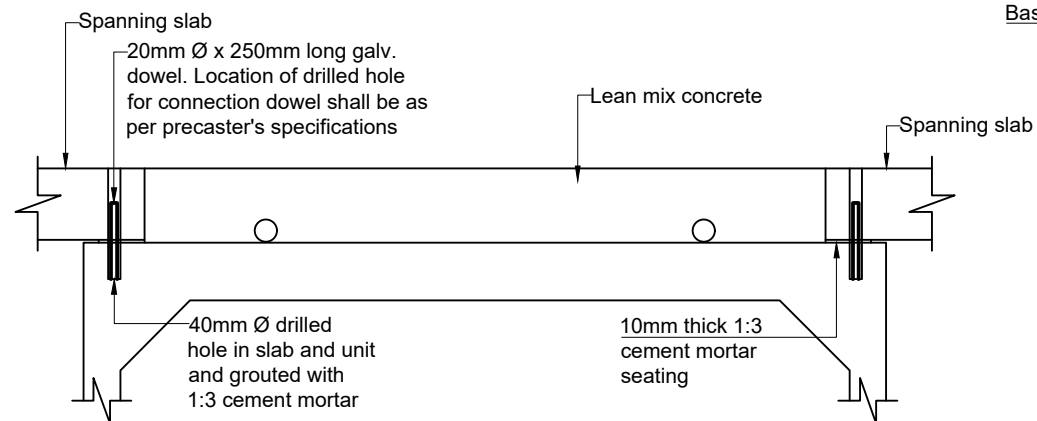
Restraining plate, 2000 x 65 x 6 flat with 2-18mm diameter drilled holes. Restraining plate fixed with M12 x 58 expanding sleeve anchors



RESTRAINING PLATE

FOR USE WITH SLAB LINK BOX CULVERT
 1200 LONG CROWN UNITS ONLY

Scale 1:50



SPANNING SLAB SUPPORT AND LEAN MIX CONCRETE FILL DETAILS

Scale 1:50

FOR CONSTRUCTION

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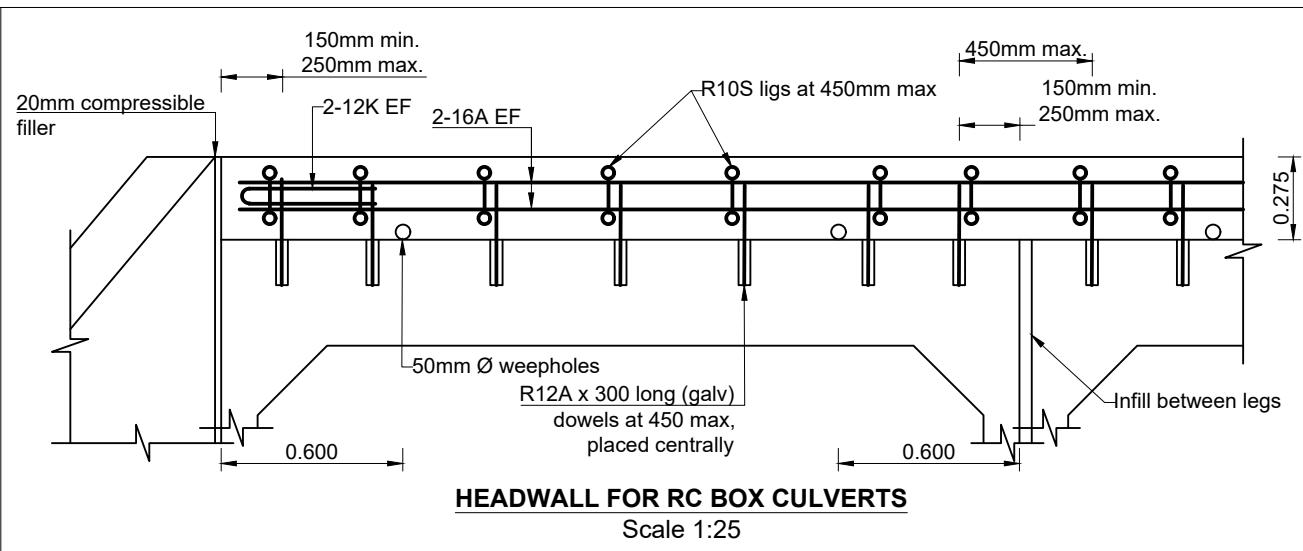
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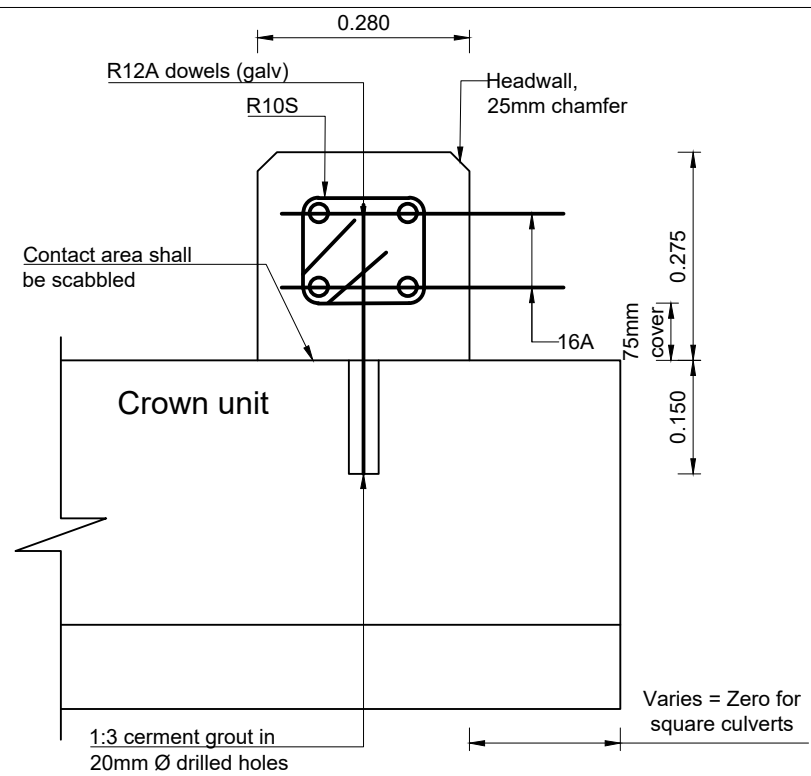
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CONNECTION DETAILS

Etheridge Shire Council
 P.O. BOX 12, ST. GEORGE STREET
 GEORGETOWN
 QLD 4871

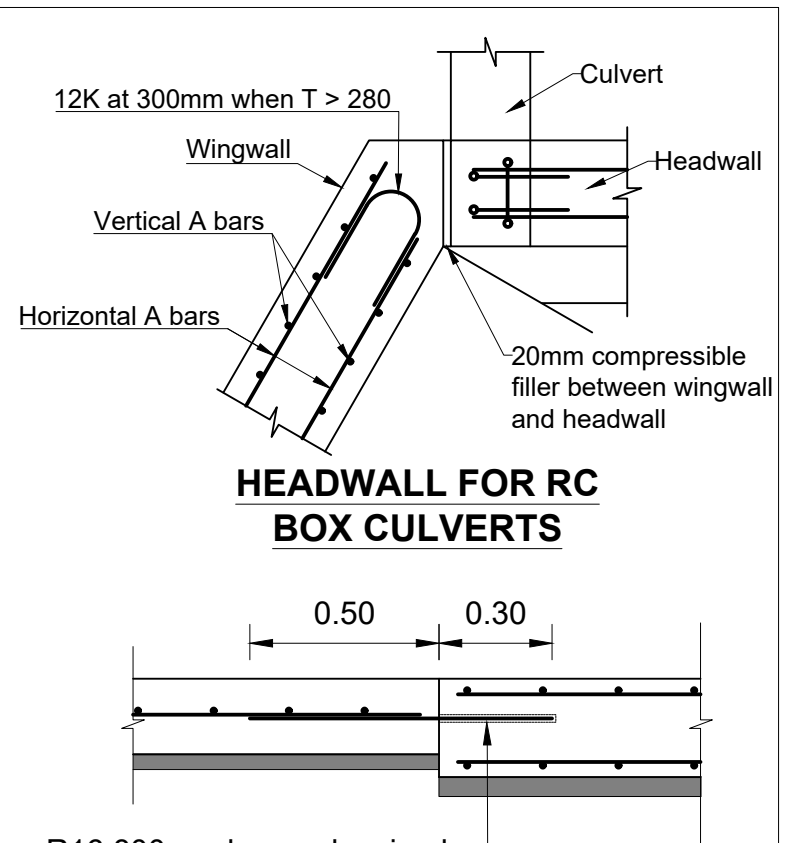
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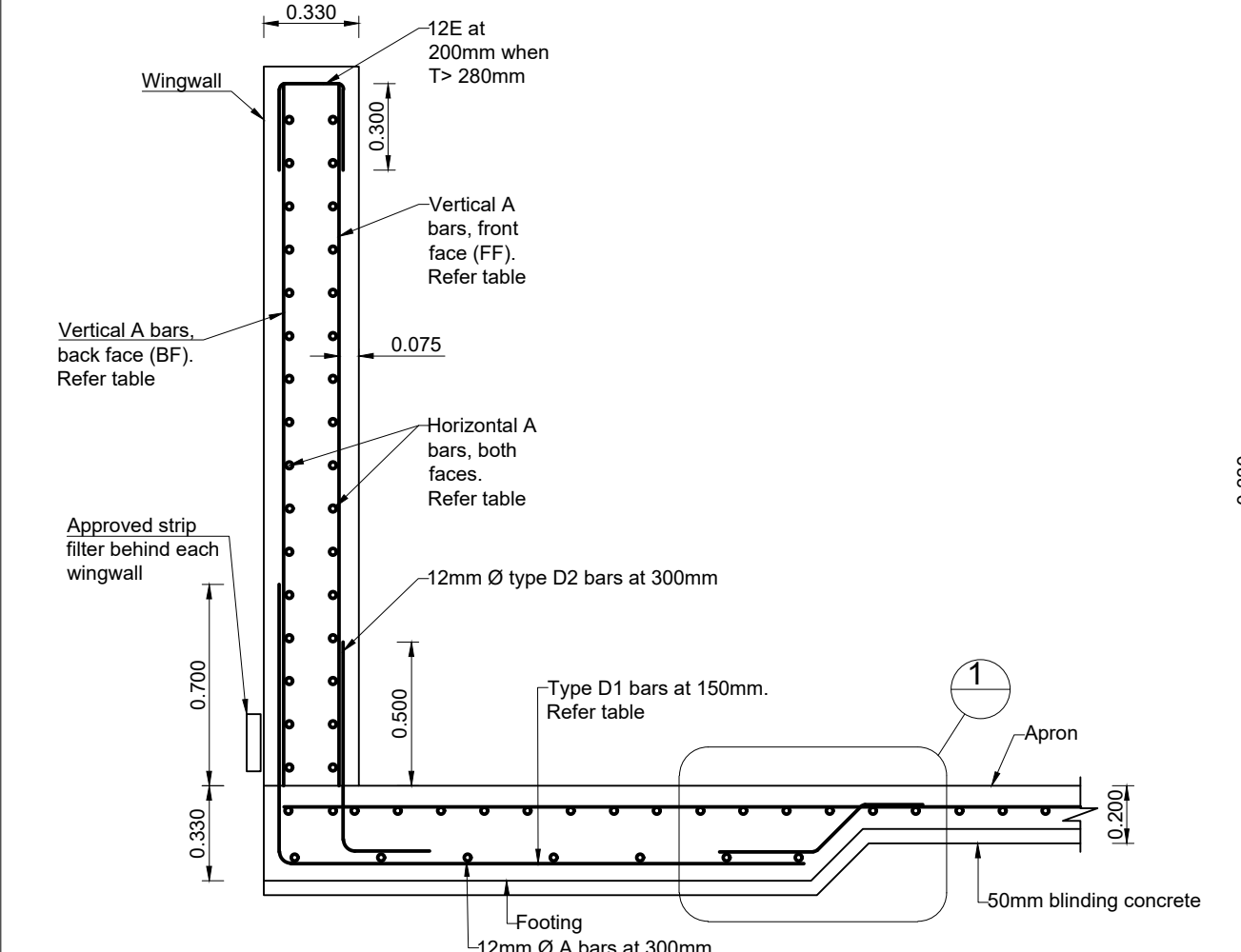
HEADWALL FOR RC BOX CULVERTS
Scale 1:25



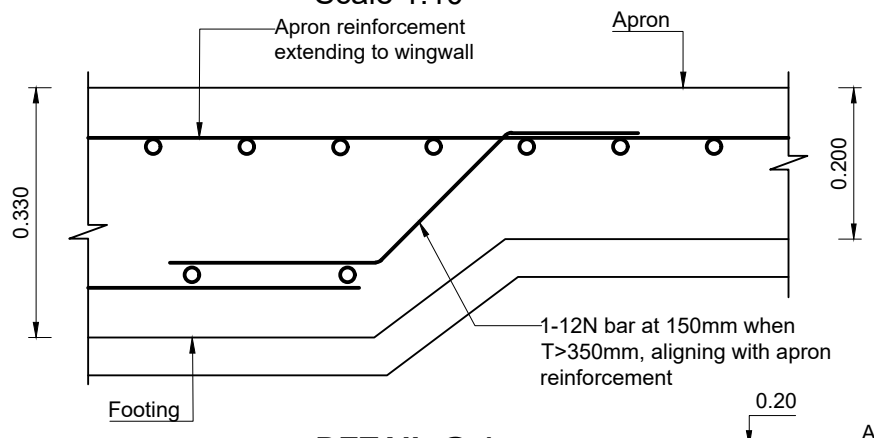
HEADWALL DETAILS
Scale 1:10



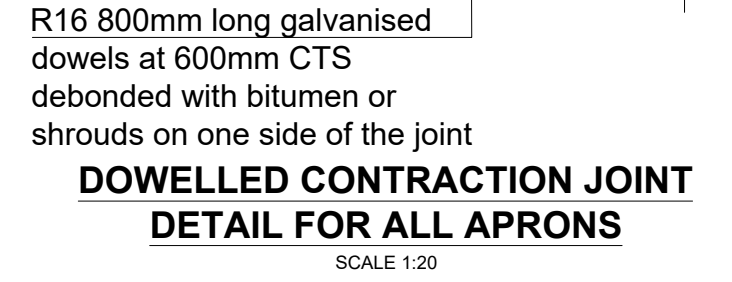
HEADWALL FOR RC BOX CULVERTS



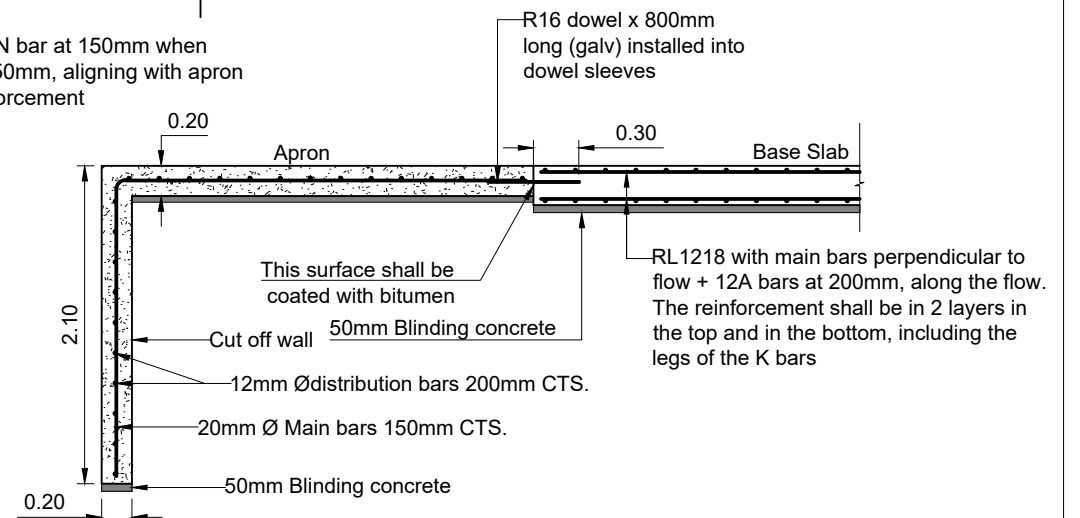
WINGWALL AND FOOTING REINFORCEMENT DETAILS
Scale 1:25



DETAIL @ 1
Scale 1:10



DOWELLED CONTRACTION JOINT DETAIL FOR ALL APRONS
SCALE 1:20



REINFORCEMENT DETAIL OF APRON AND BASE SLAB
Scale 1:50

FOR CONSTRUCTION

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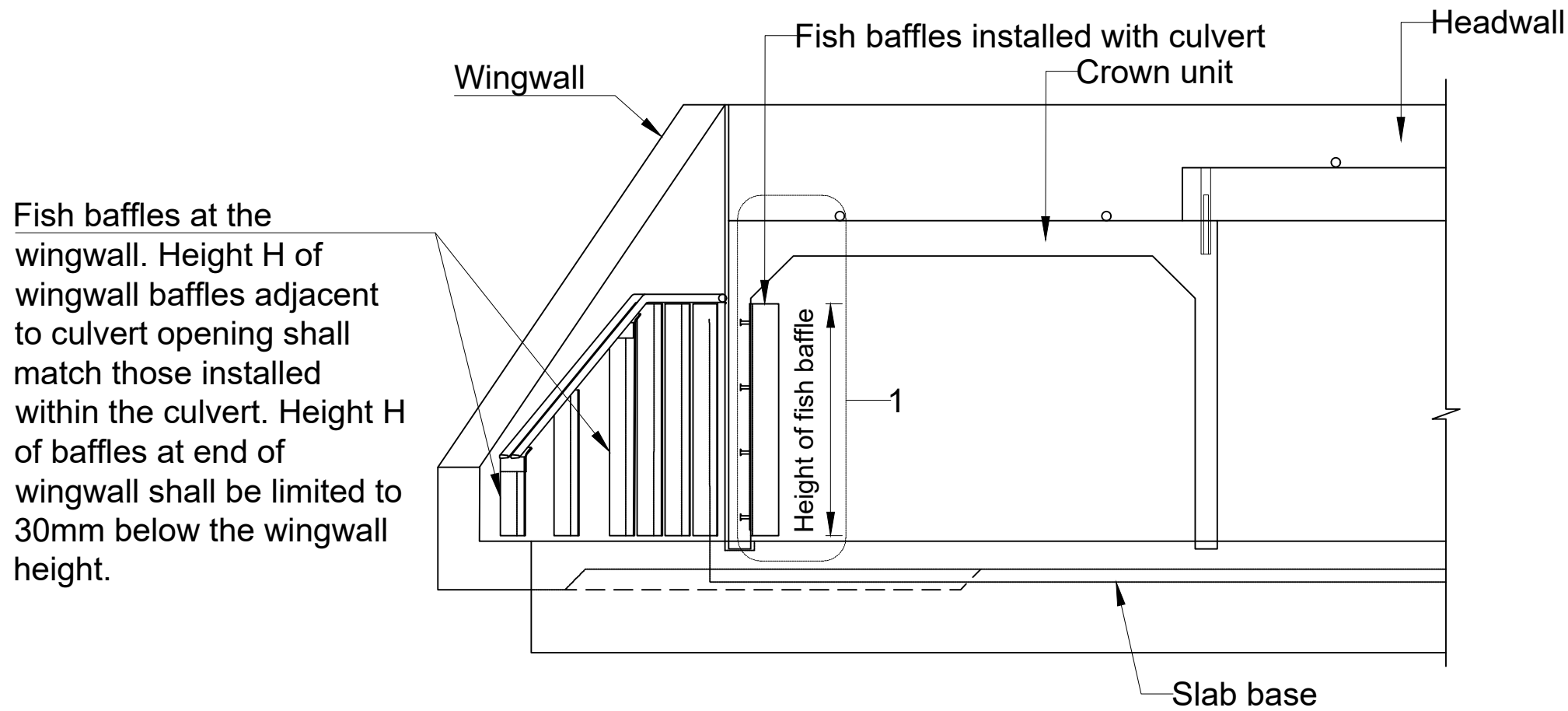
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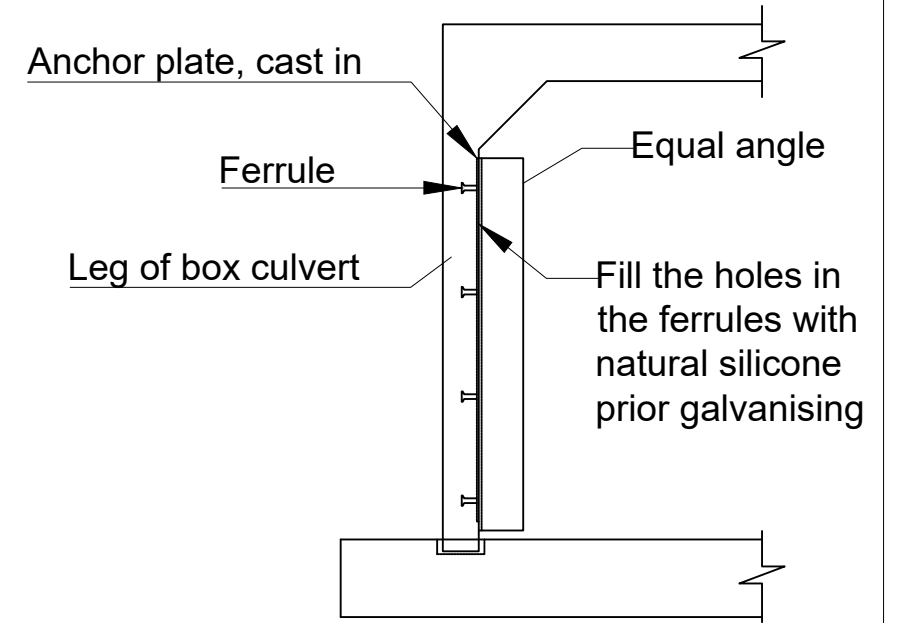
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Fish baffles at the wingwall. Height H of wingwall baffles adjacent to culvert opening shall match those installed within the culvert. Height H of baffles at end of wingwall shall be limited to 30mm below the wingwall height.



DETAIL @1

GENERAL ARRANGEMENT

Note:

1. Pedestrian Safety

WARNING SIGNAGE and SAFETY RAILS shall be provided for all culverts with fish baffles where the site may be exposed to pedestrian activity and for all urban sites.

2-SAFETY RAILS shall be located immediately above the wingwall baffles. For all sites exposed to pedestrian activity, a risk assessment shall be carried out to determine the appropriateness of the details, a project specific design shall be developed and RPEQ certified is not appropriate.

2. Refer to TMR Standard Drawing 1270 for more details

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