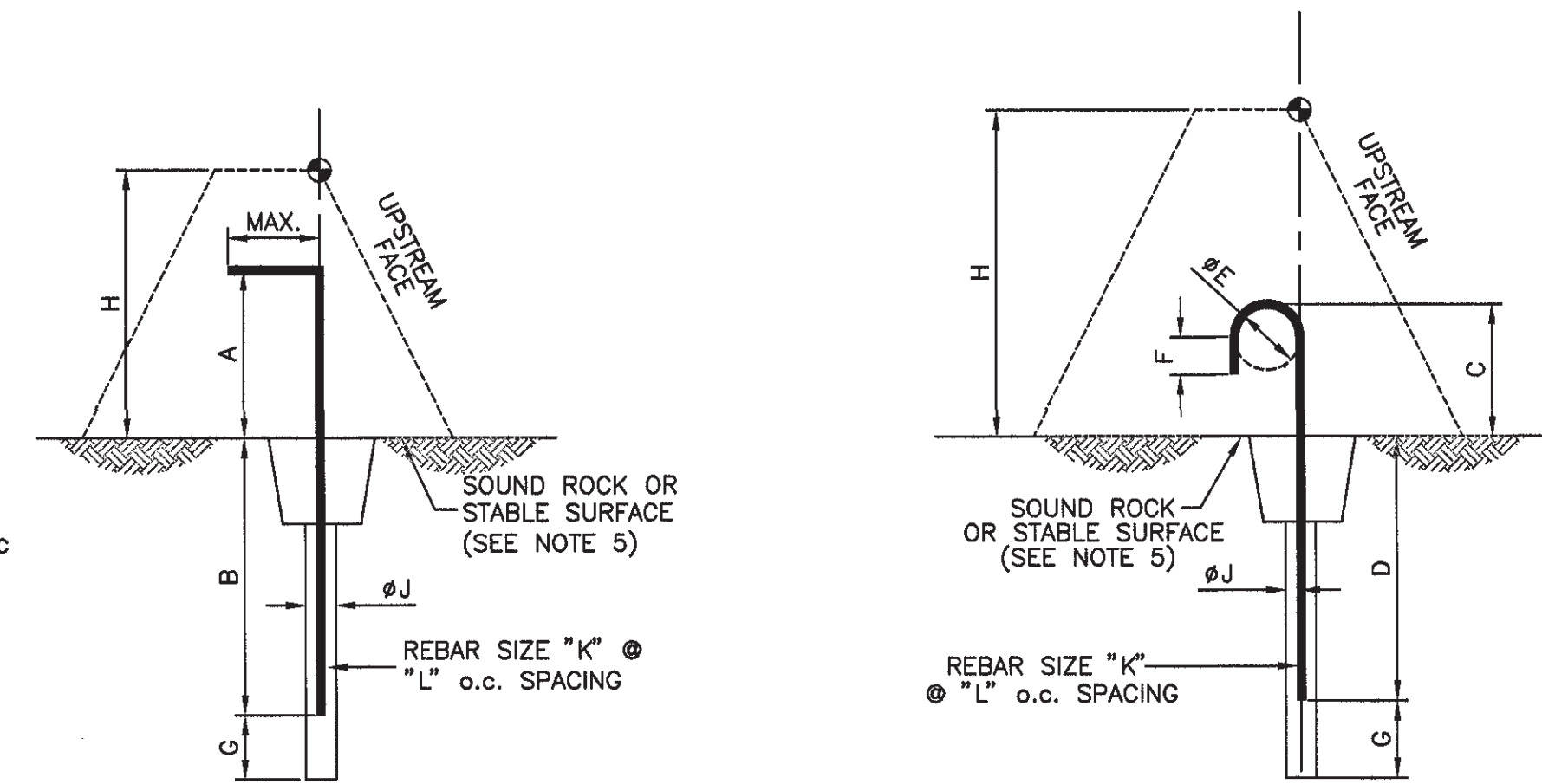


**1 TYPICAL CROSS SECTION**  
**4 4 - DIVERSION WALL DETAILS**  
SCALE: 1:25

**2 TYPICAL CROSS SECTION**  
**4 4 - DIVERSION WALL DETAILS**  
SCALE: 1:25

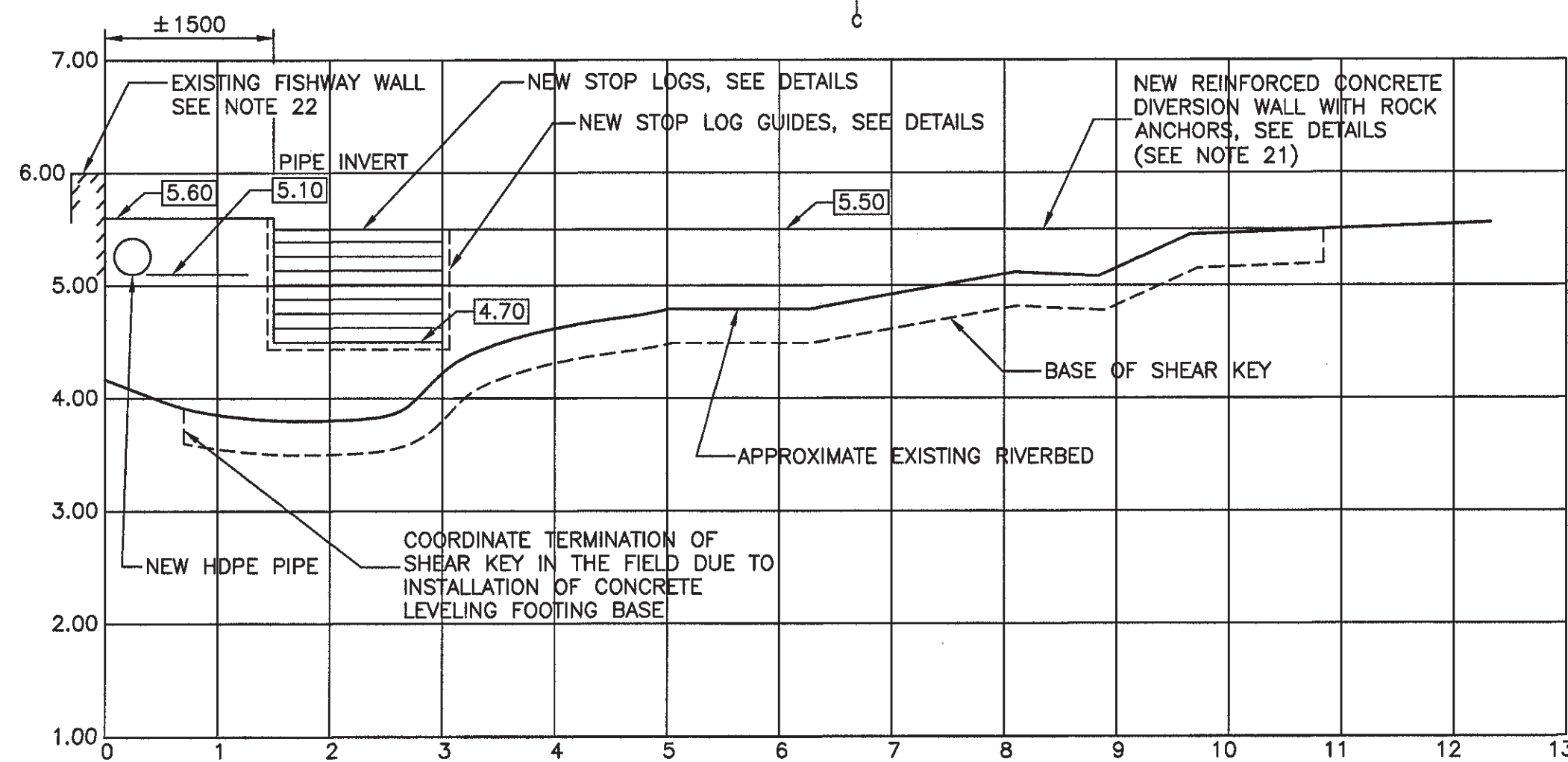


**TYPE I ANCHOR**

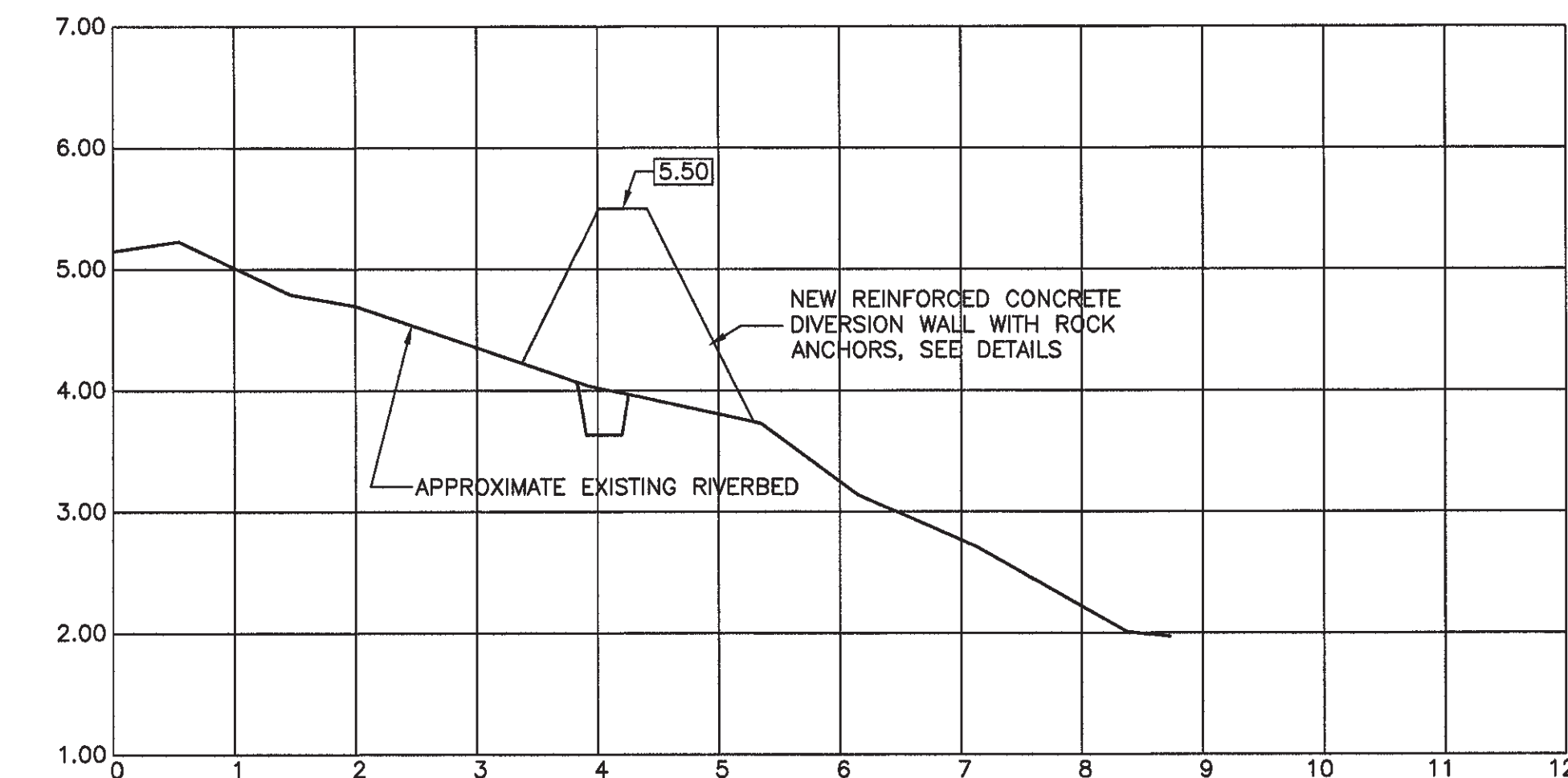
| TYPE | DIMENSIONS |        |       |        |     |       |     |            |    |     | REBAR |  |  |
|------|------------|--------|-------|--------|-----|-------|-----|------------|----|-----|-------|--|--|
|      | A          | B      | C     | D      | E   | F     | G   | H          | J  | K   | L     |  |  |
| I    | (200)      | (3300) | -     | -      | -   | -     | 200 | H<500      | 90 | 45M | 800   |  |  |
| II   | -          | -      | (400) | (3300) | 400 | (180) | 200 | 500≤H≤2000 | 90 | 45M | 800   |  |  |

- (\*) DENOTES MINIMUM DIMENSION
- IF THE HEIGHT OF THE DEFLECTION WALL VARIES FROM FRONT TO BACK, THE LARGEST HEIGHT SHALL GOVERN.
- THE CONTRACTOR SHALL CONFIRM LOCATIONS OF ROCK ANCHORS WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO ANY DRILLING.
- IN NO CASE SHALL THERE BE ANY LESS THAN TWO (2) ROCK ANCHORS FOR ONE COMPLETE SECTION OF WALL.

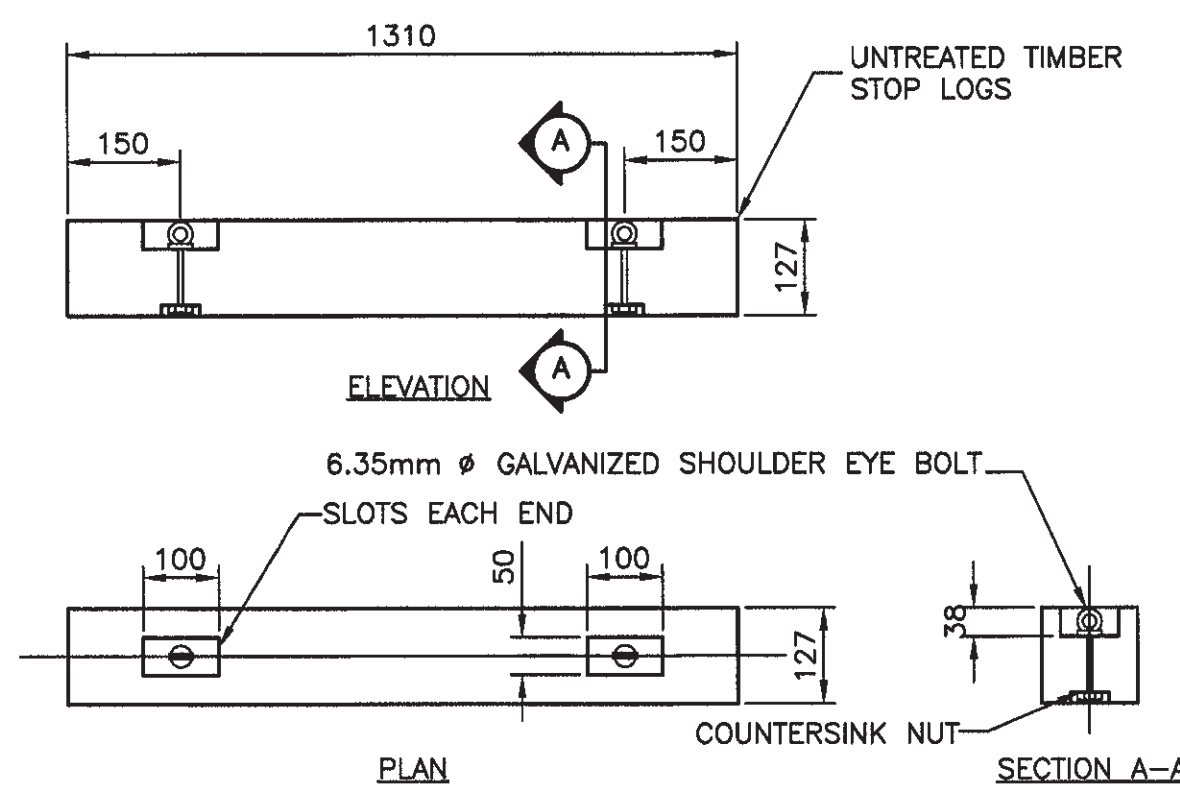
**3 ROCK ANCHOR DETAILS**  
**4 4**



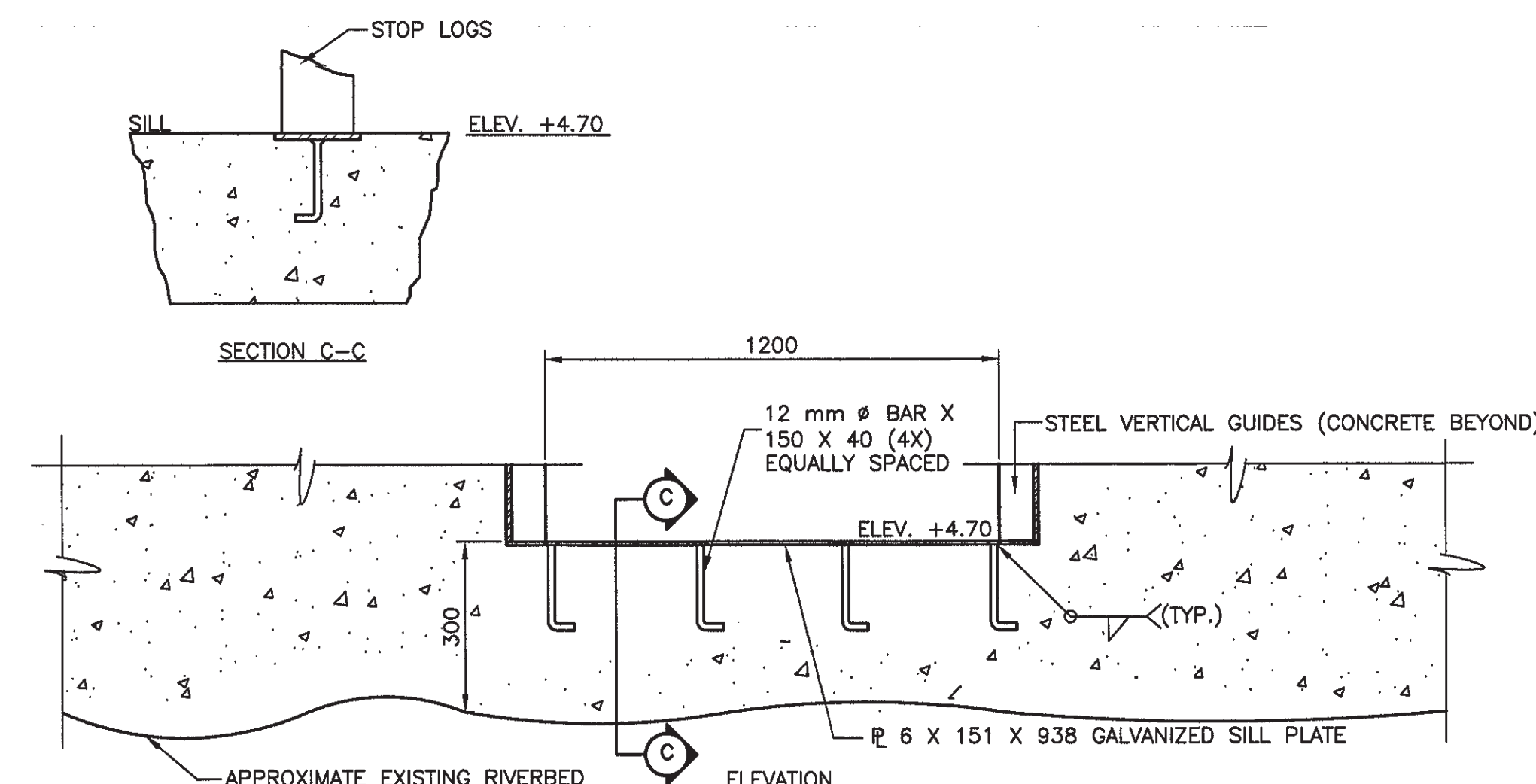
**4 DIVERSION WALL #2 - PROFILE**  
SCALE: 1:50



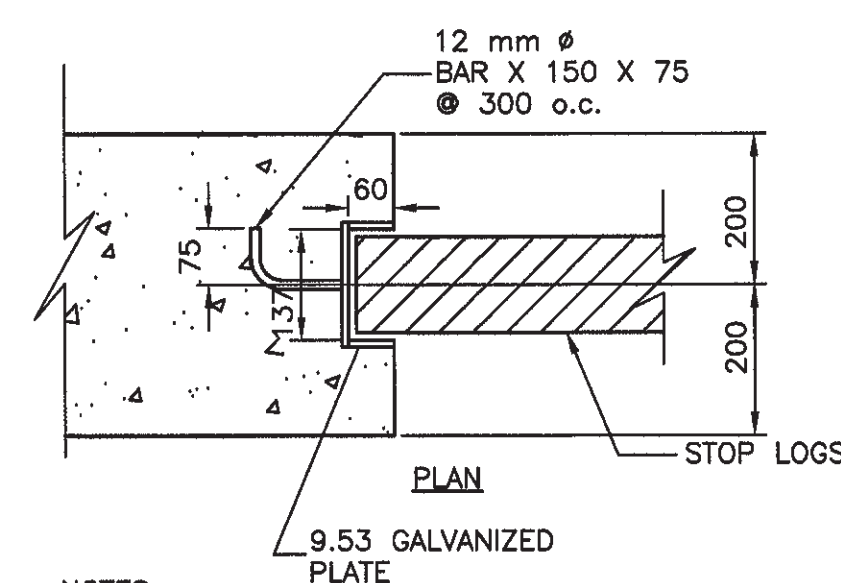
**5 DIVERSION WALL #2 - SECTION**  
SCALE: 1:50



**6 STOP LOG DETAILS**  
SCALE: 1:10



**7 STOP LOGS BASE PLATE DETAILS**  
SCALE: 1:10



- NOTES:**
- ALLOW 5mm CLEARANCE, EACH SIDE AND ENDS, BETWEEN STOP LOGS WITH VERTICAL GUIDES.

**8 STOP LOGS SLOT DETAILS**  
SCALE: 1:10

**NOTES:**

- ALL DIMENSIONS IN MILLIMETERS UNLESS SPECIFIED OTHERWISE.
- ALL ELEVATIONS IN METERS.
- DO NOT SCALE FROM DRAWINGS, USE DIMENSIONS AS SHOWN.
- ICE AND DEBRIS LOADING FOR DIVERSION WALLS AND CONTROL STRUCTURE DESIGN IS 65 kN/m (FACTORED) ACTING AT TOP OF WALL.
- REMOVE LOOSE AND FRAGMENTED ROCK TO EXPOSE A SOUND COMPETENT BEDROCK SURFACE TO ACCEPTANCE OF THE DEPARTMENTAL REPRESENTATIVE PRIOR TO THE PLACEMENT OF CONCRETE ON ROCK. APPLY BONDING AGENT "WELDCRETE" OR APPROVED EQUAL TO ALL CONCRETE/ROCK INTERFACES.
- ALL EDGES OF CONCRETE TO BE PROVIDED WITH A ROUNDED CHAMFER TO ELIMINATE ALL SHARP EDGES.
- PROVIDE REINFORCEMENT AT ALL CORNERS AND INTERSECTIONS TO BE SAME BAR SIZE AND SPACING AS MAIN REINFORCEMENT.
- MINIMUM SPLICE LENGTHS IN ACCORDANCE WITH CSA STANDARD A23.3-04.
- CONCRETE COVER TO BE 75mm ALL AREAS, ALL CONDITIONS.
- MINIMUM 28 DAY CONCRETE STRENGTH = 35 MPa.
- REINFORCING STEEL YIELD STRENGTH = 400 MPa.
- REINFORCEMENT AND ROCK ANCHORS OMITTED ON SOME DETAILS FOR CLARITY. REFER TO APPROPRIATE DETAILS ACCORDINGLY.
- ALL CONCRETE CONSTRUCTION JOINTS TO BE FORMED WITH A KEYWAY, THE BONDING SURFACES INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF 5mm.
- BONDING AGENT TO BE "WELDCRETE" OR APPROVED EQUAL, BONDING AGENT TO BE APPLIED TO ALL EXISTING CONCRETE AND ROCK INTERFACES.
- MINIMUM STRENGTH OF GROUT TO BE 40 MPa.
- CONTRACTOR TO CONFIRM ALL DIMENSIONS PRIOR TO START OF CONSTRUCTION AND NOTIFY DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES.
- DEPARTMENTAL REPRESENTATIVE TO INSPECT ALL ROCK ANCHOR LOCATIONS PRIOR TO DRILLING.
- CONFIRM EXACT LOCATION OF NEW DIVERSION WALLS ON-SITE WITH THE DEPARTMENTAL REPRESENTATIVE AFTER DE-WATERING OF THE WORK AREAS IS COMPLETED. THE LOCATION AND/OR ELEVATION OF THE NEW CONCRETE STRUCTURES MAY REQUIRE SOME ADJUSTMENTS TO THAT SHOWN ON THESE DRAWINGS. PROVIDE ADEQUATE NOTICE TO THE DEPARTMENTAL REPRESENTATIVE TO COORDINATE A SITE VISIT.
- ALL NEW PLACED CONCRETE TO BE TINTED TO MATCH THE EXISTING TERRAIN AND LOOK AS AS NATURAL AS POSSIBLE. CONTRACTOR SHALL PROVIDE SAMPLES AND COORDINATE IN THE FIELD WITH THE DEPARTMENTAL REPRESENTATIVE PRIOR TO POURING.
- CONSTRUCT FORMWORK SUCH THAT THE NEWLY PLACED CONCRETE MATCHES THE EXISTING TERRAIN AND LOOKS AS NATURAL AS POSSIBLE. COORDINATE IN THE FIELD WITH DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR SHALL SUPPLY AND INSTALL FOUR (4) EYE BOLTS, DRILLED AND EMBEDDED INTO THE NEW REINFORCED CONCRETE DIVERSION WALL #2. EYE BOLTS AND EMBEDMENT DEPTH TO BE RATED FOR FALL ARREST. CONTRACTOR TO CONFIRM EXACT LOCATIONS IN THE FIELD WITH DEPARTMENTAL REPRESENTATIVE AND SUBMIT SHOP DRAWINGS FOR APPROVAL.
- CONTRACTOR TO CONFIRM TIE IN LOCATION OF DIVERSION WALL #2 INTO THE EXISTING FISHWAY WALL WITH THE DEPARTMENTAL REPRESENTATIVE. CONTRACTOR SHALL CONFIRM ALL EXISTING ELEVATIONS SHOWN ON THE DRAWINGS INCLUDING THE EXISTING FISHWAY STRUCTURE AND SURROUNDING ROCK IN THE AREA OF NEW WORK. FOLLOWING SURVEY CONFIRMATION, CONTRACTOR SHALL COORDINATE EXACT LOCATION OF THE WALL AND LOCATION AND ELEVATION OF THE PIPE INVERT TO ENSURE THE PIPE IS SLOPED TOWARDS THE FISHWAY POOL AND THE UPSTREAM TOPOGRAPHY/FEATURES WILL ALLOW FREE FLOW OF WATER TO THE PIPE WITHOUT ANY OBSTRUCTIONS. COORDINATE WITH THE DEPARTMENTAL REPRESENTATIVE AND OBTAIN APPROVAL IF FIELD ADJUSTMENTS ARE REQUIRED.

|           |                       |          |
|-----------|-----------------------|----------|
| C         | ISSUED FOR TENDER     | 17/02/22 |
| B         | ISSUED FOR 99% REVIEW | 16/12/02 |
| A         | ISSUED FOR 33% REVIEW | 16/11/08 |
| revisions |                       | date     |
| project   |                       | project  |

**FISHWAY ENHANCEMENT  
ROCKY RIVER 2017  
COLINET, NL**

**DIVERSION WALL -  
PROFILE, SECTION  
AND DETAILS**

|                     |               |                               |
|---------------------|---------------|-------------------------------|
| designed            | C. FISHER     | concu                         |
| date                | OCTOBER, 2016 |                               |
| drawn               | R. SNOW       | dessine                       |
| date                | OCTOBER, 2016 |                               |
| approved            |               | approve                       |
| date                |               |                               |
| Tender              |               | Submission                    |
| DFO Project Manager | M. G. 17      | Administrateur de projets MPO |
| project number      |               | no. du projet                 |
|                     | F6879- 171001 |                               |
| drawing no.         |               | no. du dessin                 |
|                     | C4 OF 5       |                               |