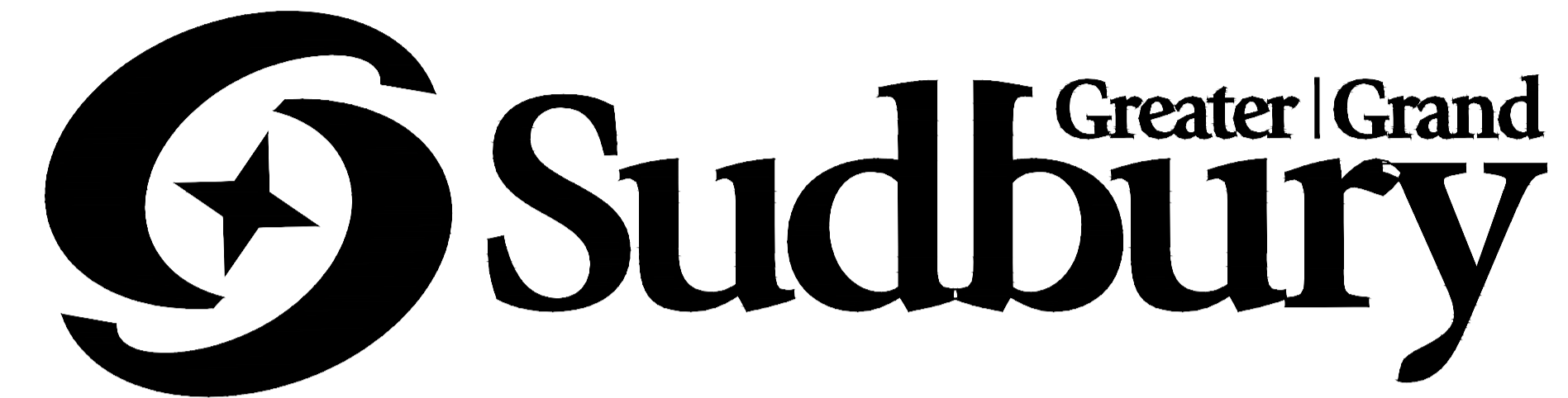
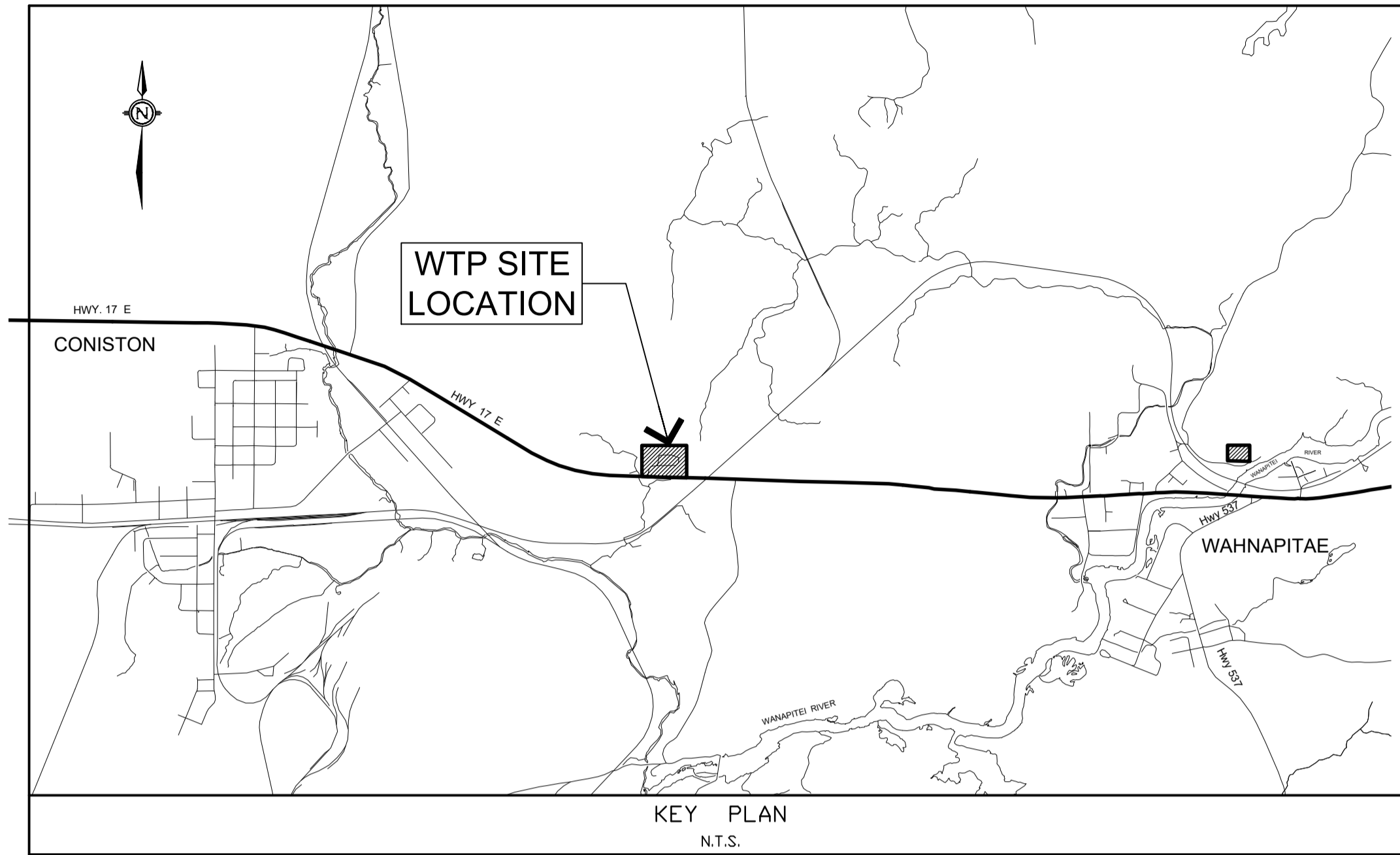


DWG NAME: c:\Users\lum\OneDrive - AECOM\DWG\mng\other\Wanapitei\WTP Filter Upgrades\DWG\C7151-1.dwg May 07/24 8:38am lum



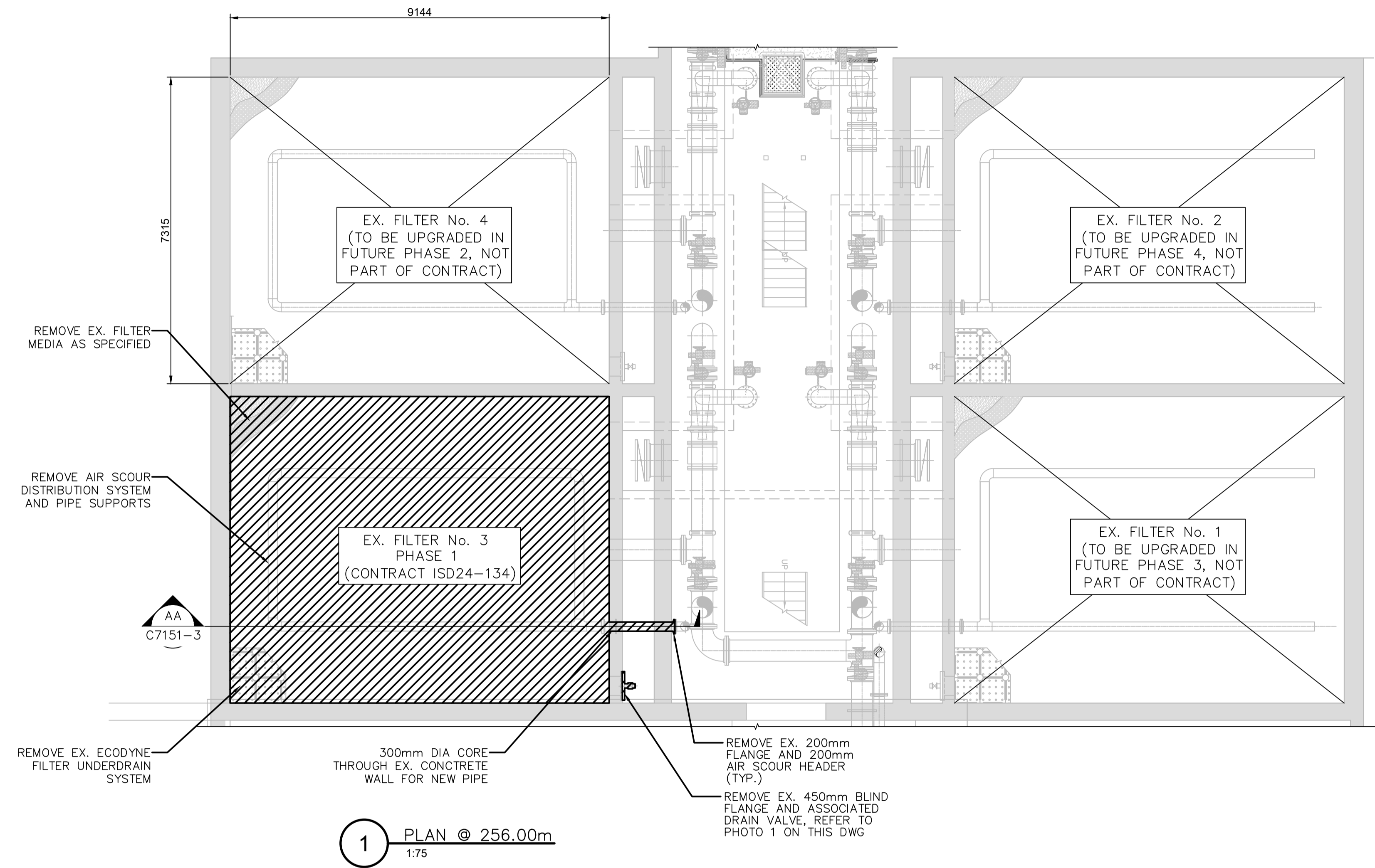
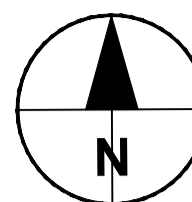
TONY CECUTTI, P. ENG., FEC
 GENERAL MANAGER OF GROWTH & INFRASTRUCTURE

INDEX TO PLANS		
PAGE	DESCRIPTION	FILE No.
1	FRONT COVER SHEET	C7151-1
2	GENERAL NOTES	C7151-2
3	DEMOLITION AND REMOVALS	C7151-3
4	PROCESS PLAN	C7151-4
5	PROCESS SECTIONS	C7151-5
6	PROCESS DETAILS	C7151-6
7	STRUCTURAL PLAN	C7151-7
8	STRUCTURAL DETAILS	C7151-8
9	BACK COVER SHEET	C7151-9

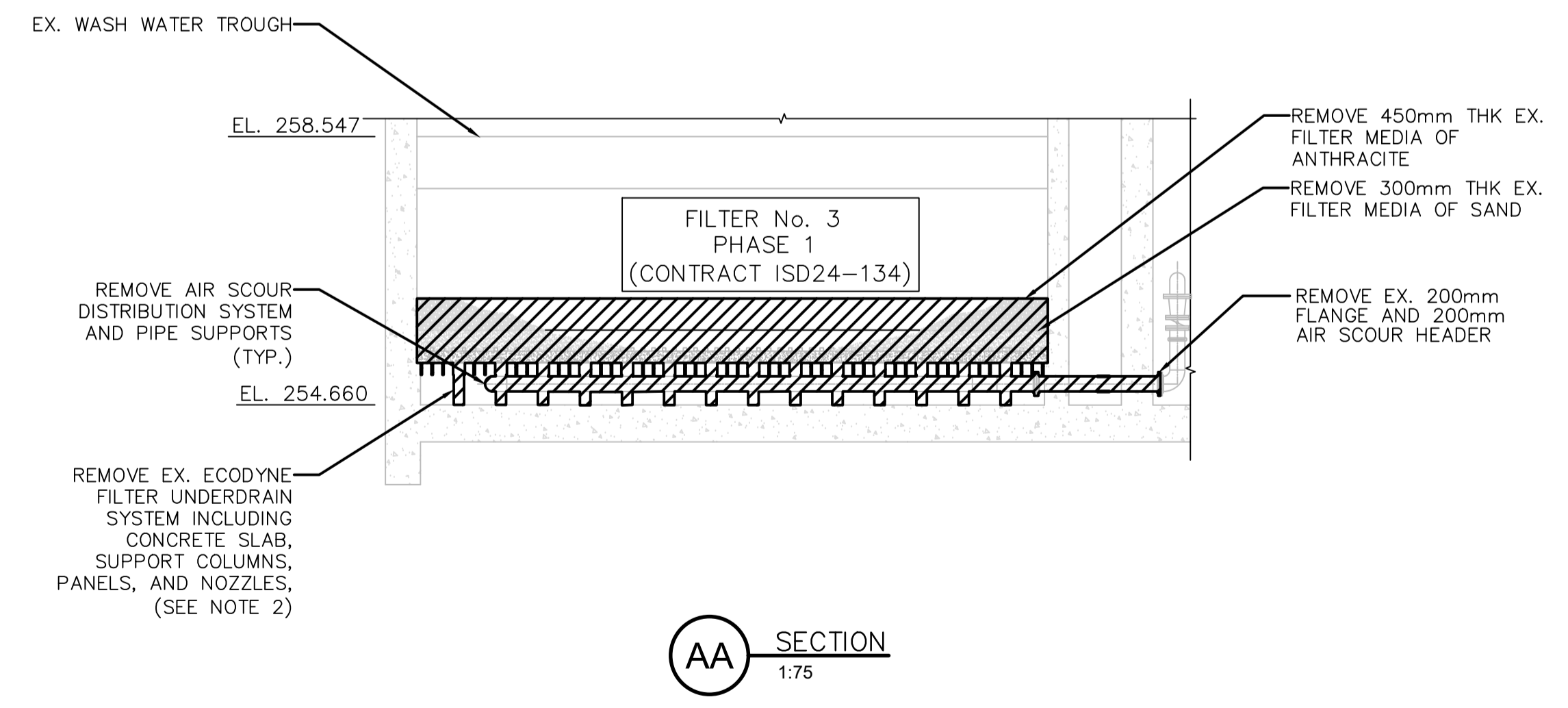
WANAPITEI WATER TREATMENT PLANT FILTER No. 3 UPGRADES

CONTRACT No. ISD24-134

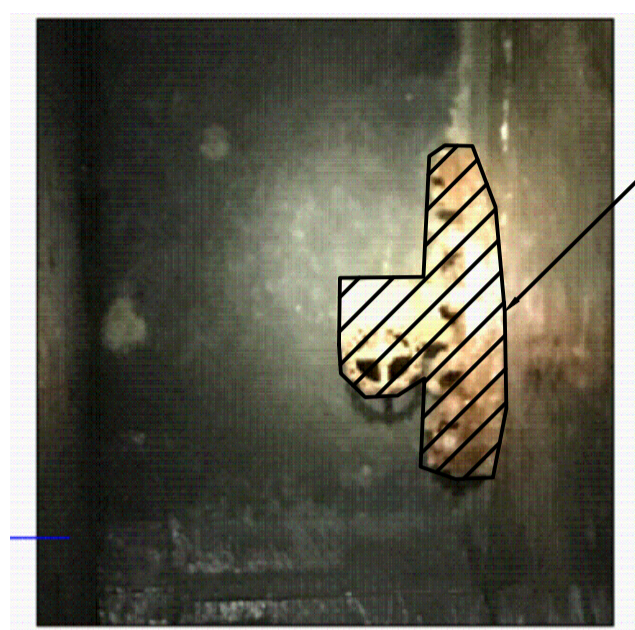
DWG NAME / FILE NO. CXXX-X CITY OF GREATER SUDBURY AREA - COMMUNITY
 5. All sanitary sewer connections are 100mm PVC SDR28 unless otherwise noted.
 6. All sanitary and storm sewer elevations are inverts unless otherwise noted.
 NOTES: 1. All dimensions are in metres unless otherwise noted.
 2. All elevations are in metres unless otherwise noted.
 3. All work is to be done in accordance with the City of Greater Sudbury.
 4. All water connections are 20mm Cu, unless otherwise noted.
 COPYRIGHT: All rights are reserved. No part of the supplied data may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, without the prior written permission of the City of Greater Sudbury.
 DISCLAIMER OF WARRANTY: The data is provided "as is", without warranty of any kind either expressed or implied, and the user assumes full responsibility of the data and its use.



1 PLAN @ 256.00m
1:75



AA SECTION
1:75



REMOVE AND REPLACE EX. BLIND FLANGE AND ASSOCIATED VALVE

PHOTO 1
NTS

LEGEND:
 REMOVAL

- NOTES:
- REMOVAL OF EXISTING UNDERDRAIN CONCRETE SLAB AND SUPPORTING COLUMNS SHALL BE COMPLETED WITH SAW-CUTTING ONLY. DO NOT DAMAGE EXISTING CONCRETE / REBAR DURING CONCRETE REMOVAL.
 - AFTER CONCRETE REMOVAL, CUT BACK ANY EXPOSED REBAR OR ANCHOR BOLTS FROM CONCRETE SURFACE AND PATCH SURFACE WITH GROUT AS PER DETAIL ON DRAWING C7151-8.

REVISIONS

DATE	DETAILS	BY
2024 JULY 02	ISSUED FOR TENDER	CC

CAUTION

- ALL UTILITIES ARE NOT NECESSARILY SHOWN ON THIS DRAWING.
- WHERE UTILITIES ARE SHOWN, LOCATIONS ARE NOT GUARANTEED
- LOCATION & SIZE OF ALL UTILITIES MUST BE VERIFIED IN THE FIELD.



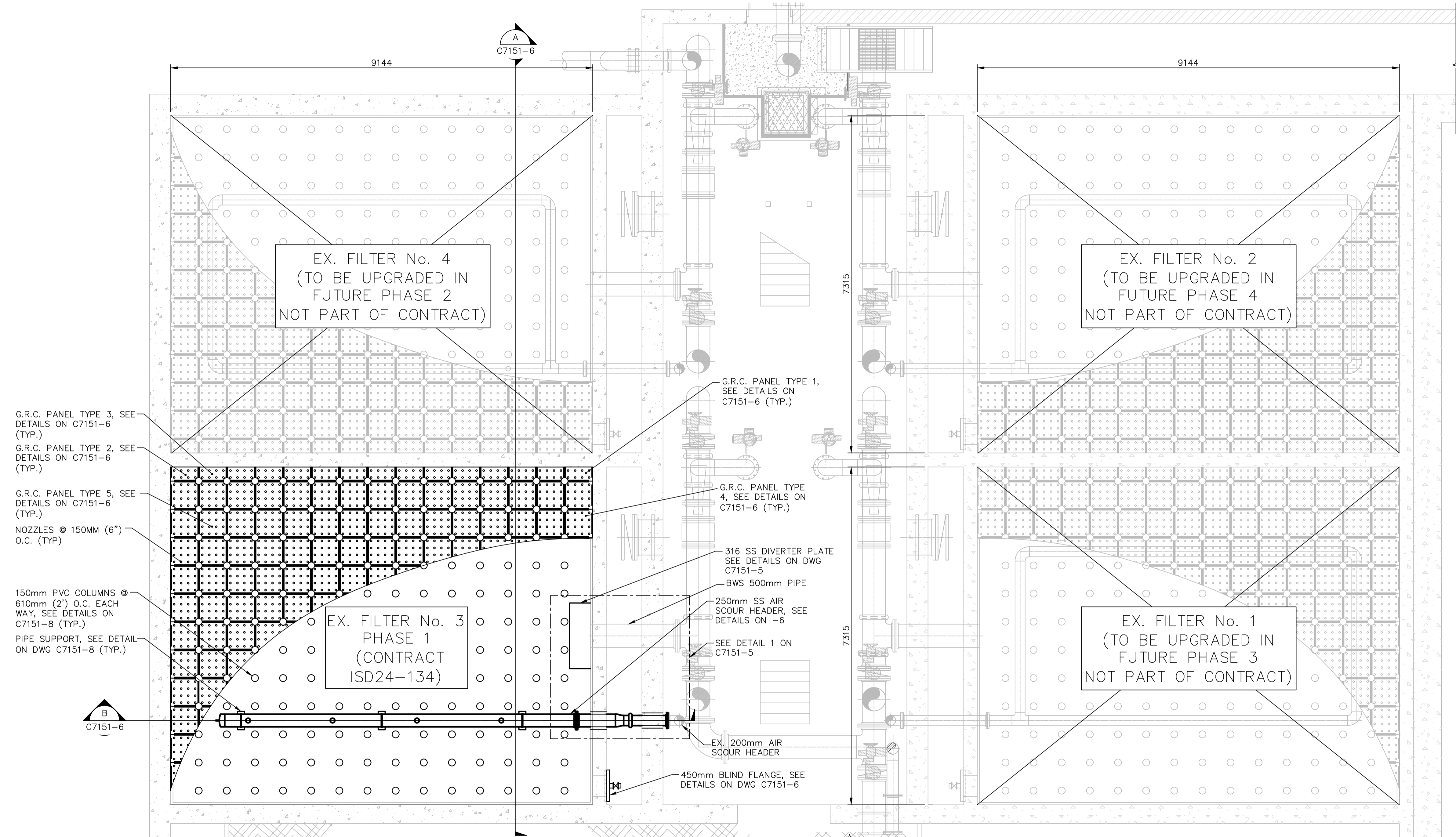
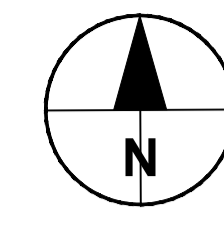
DATE:	2024 04 10
DRAWN:	ML
DESIGNED:	HE
CHECKED:	CC/HE
ENGINEER:	HE
APPROVED:	CC



DEMOLITION AND REMOVALS
 WANAPITEI WATER TREATMENT PLANT
 FILTER No. 3 UPGRADES
 SUDBURY AREA

SCALE:	AS SHOWN
CONTRACT NO.:	ISD24-134
CAD/FILE NUMBER:	C7151-3
PAGE NO.:	3 of 9

DWG NAME / FILE NO. CXXX-X CITY OF GREATER SUDBURY AREA - COMMUNITY
 5. All sanitary sewer connections are 100mm PVC SR28
 6. All sanitary and storm sewer elevations are inverts unless otherwise noted.
 NOTES: 1. All dimensions are in metres unless otherwise noted.
 2. All elevations are in metres unless otherwise noted.
 3. All elevations are in metres unless otherwise noted.
 4. All water connections are 20mm Cu, unless otherwise noted.
 COPYRIGHT: The data is provided "as is", without warranty of any kind either expressed or implied, and the user assumes full responsibility for the use of the data. No part of the supplied data may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, without the prior written permission of the City of Greater Sudbury.



2 PLAN @ 256.00m
1:50

- NOTES:
- UNDERDRAIN G.R.C PANELS, NOZZLES AND RELATED COMPONENTS LISTED BELOW TO BE SUPPLIED BY ORTHOS LIQUID SYSTEM:
 - GRC PANELS (CORNER & SIDE TRIMMING AT FIELD BY CONTRACTOR)
 - LEDGE SUPPORT 316 SS ANGLE, 1.5" X 1.5" X 0.25" WITH 0.5" DIAMETER INCH HOLES AT 22" O.C. OF ONE LEG FOR SECURING TO CONCRETE WALLS WITH WEDGE ANCHORS.
 - 316 SS WEDGE ANCHORS, 3/8" X 3" FOR SECURING 316 SS ANGLE IRON SUPPORT TO CONCRETE WALL.
 - PP CONCRETE SLEEVE INSERTS B32/150 TO THREAD INTO THE PANEL INSERT NUTS.
 - FILTER NOZZLES MODEL TYPE D-36X0.30-1 1/4 WW-30-300-013-PP-NSF61.
 - 13 MM Ø ID TAILPIPPES FOR NOZZLES.
 - PP CAPS TO PROTECT THE CONCRETE SLEEVE INSERTS DURING THE CONCRETE POUR.
 - PVC SUPPORT COLUMNS, 160MM-DIAMETER, APPROX. 540MM LONG.
 - SHIMS FOR LEVELING AND 20 OZ. SEALANT ADHESIVE TUBES WITH 2 APPLICATION GUNS (1 MANUAL AND 1 RECHARGEABL).
 - ALL INSTALLATIONS SHALL BE COORDINATED WITH UNDERDRAIN VENDOR. REFER TO SECTION 11530 FOR UNDERDRAIN DETAILS

REVISIONS		
DATE	DETAILS	BY
2024 JULY 02	ISSUED FOR TENDER	CC

CAUTION

- ALL UTILITIES ARE NOT NECESSARILY SHOWN ON THIS DRAWING.
- WHERE UTILITIES ARE SHOWN, LOCATIONS ARE NOT GUARANTEED
- LOCATION & SIZE OF ALL UTILITIES MUST BE VERIFIED IN THE FIELD.



DATE: 2023 01 04
 DRAWN: M.L.
 DESIGNED: HE
 CHECKED: CC/HE
 ENGINEER: HE
 APPROVED: CC



PROCESS PLAN

WANAPITEI WATER TREATMENT PLANT
 FILTER No. 3 UPGRADES

SUDBURY AREA

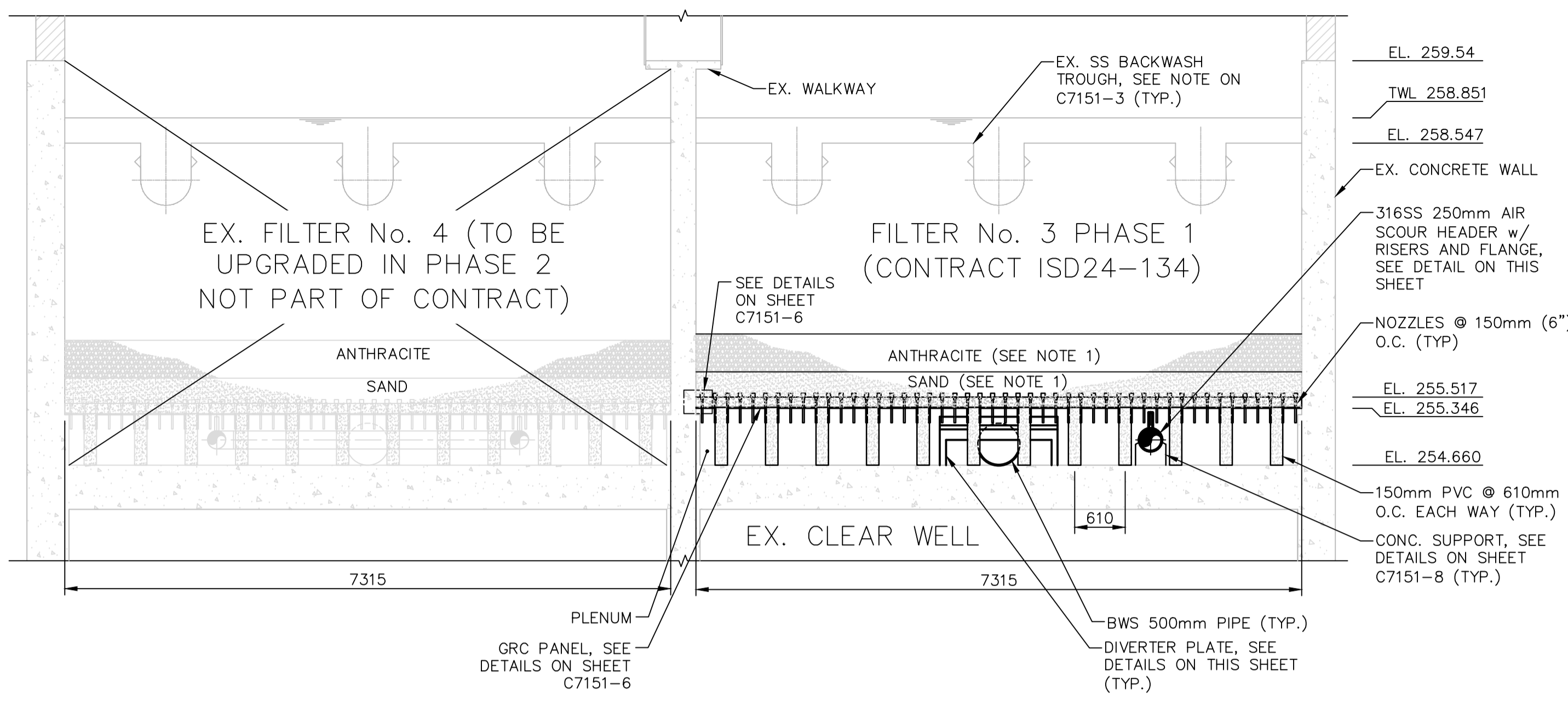
SCALE: 1:50
 CONTRACT NO.: ISD24-134
 CAD/FILE NUMBER: C7151-4
 PAGE NO.: **4** of 9

DWG NAME / FILE NO. CXXX-X
 CITY OF GREATER SUDBURY
 AREA - COMMUNITY

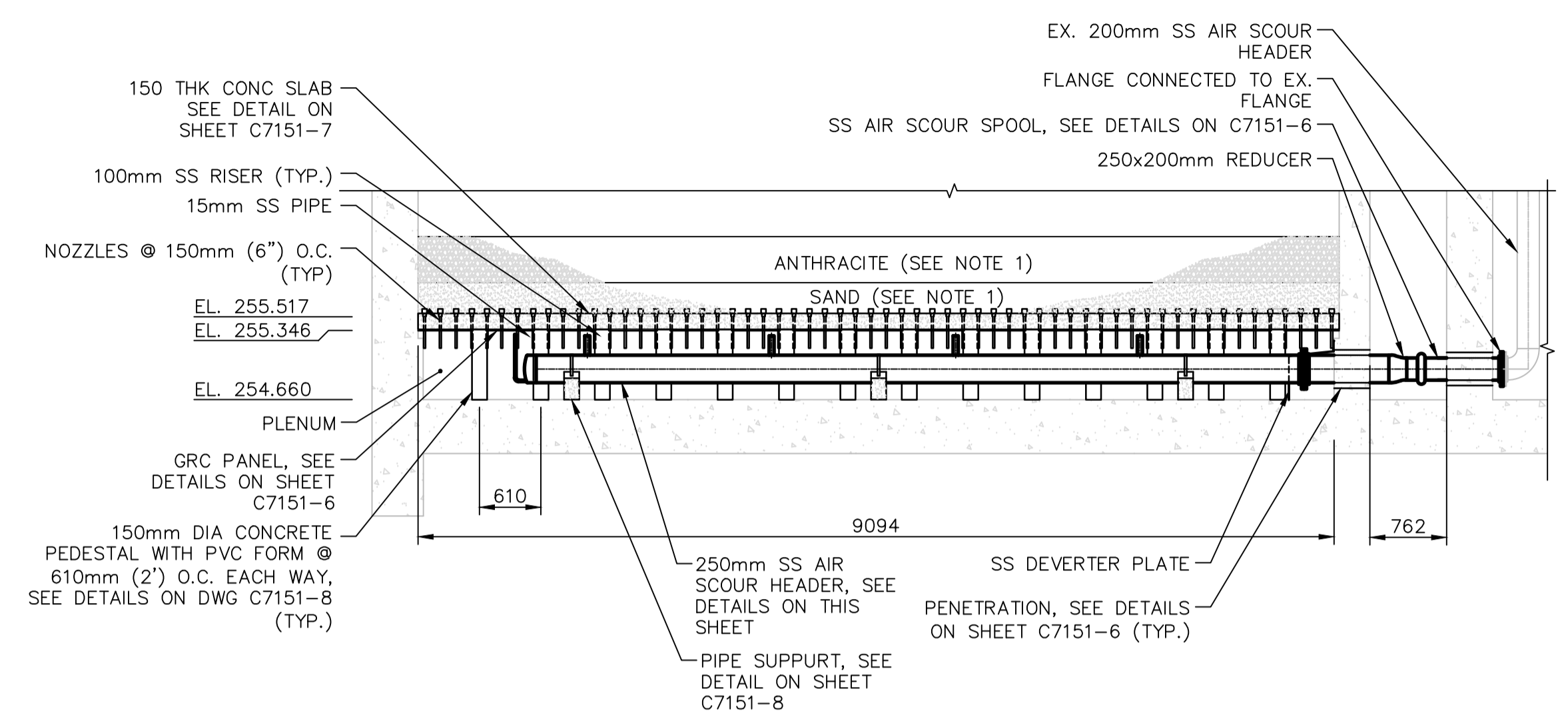
5. All sanitary sewer connections are 100mm PVC SR28
 6. All sanitary and storm sewer elevations are toverts unless otherwise noted.

NOTES: 1. All dimensions are in metres unless otherwise noted.
 2. All dimensions are in millimetres unless otherwise noted.
 3. All dimensions are in millimetres unless otherwise noted.
 4. All water connections are 20mm Cu, unless otherwise noted.

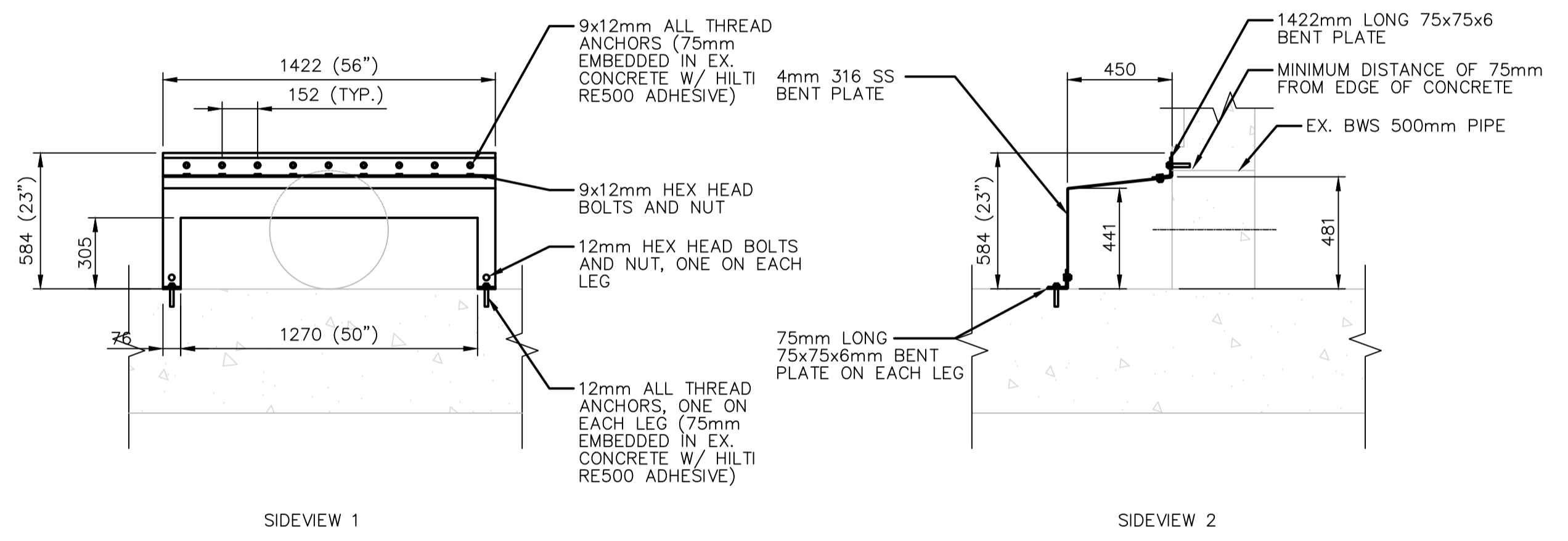
COPYRIGHT: The data is provided "as is", without warranty of any kind either expressed or implied, and the user assumes full responsibility of the data and its use. The user shall indemnify and hold the City of Greater Sudbury harmless from and against all claims, damages, losses and expenses, including reasonable attorneys' fees, arising from or due to the use of the data.



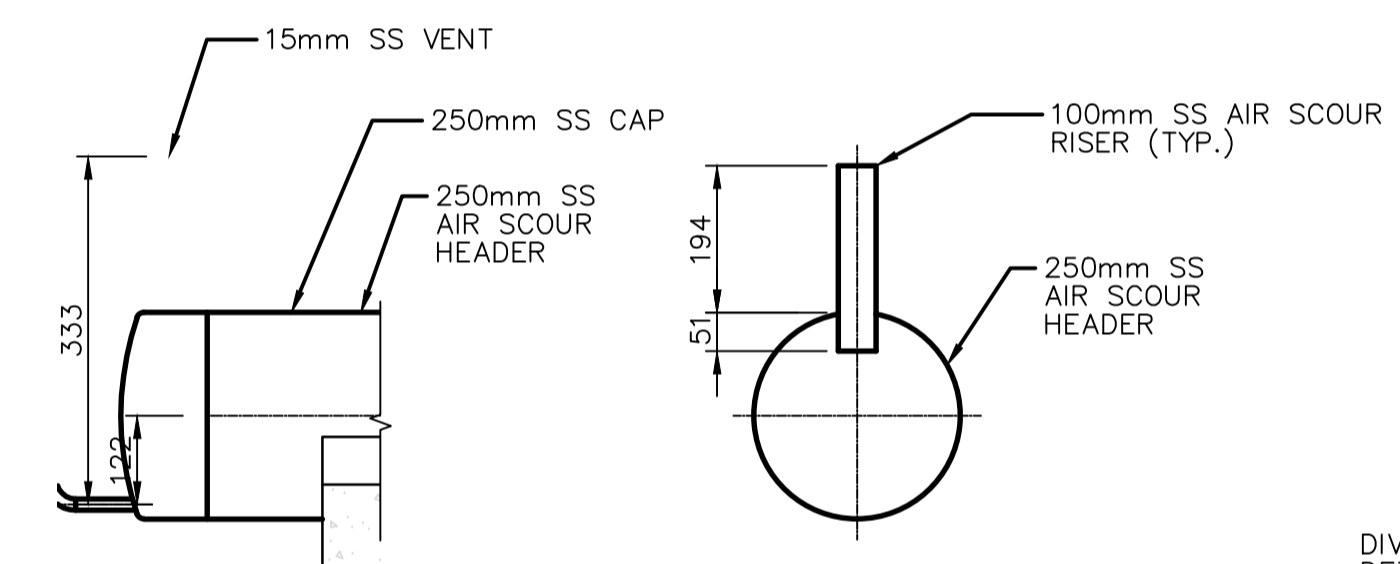
A SECTION
1:50



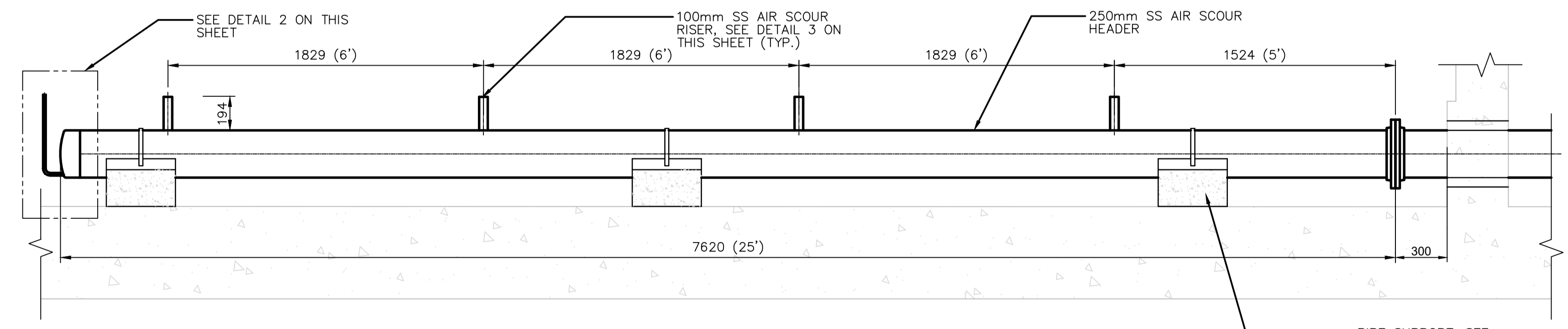
B SECTION
1:50



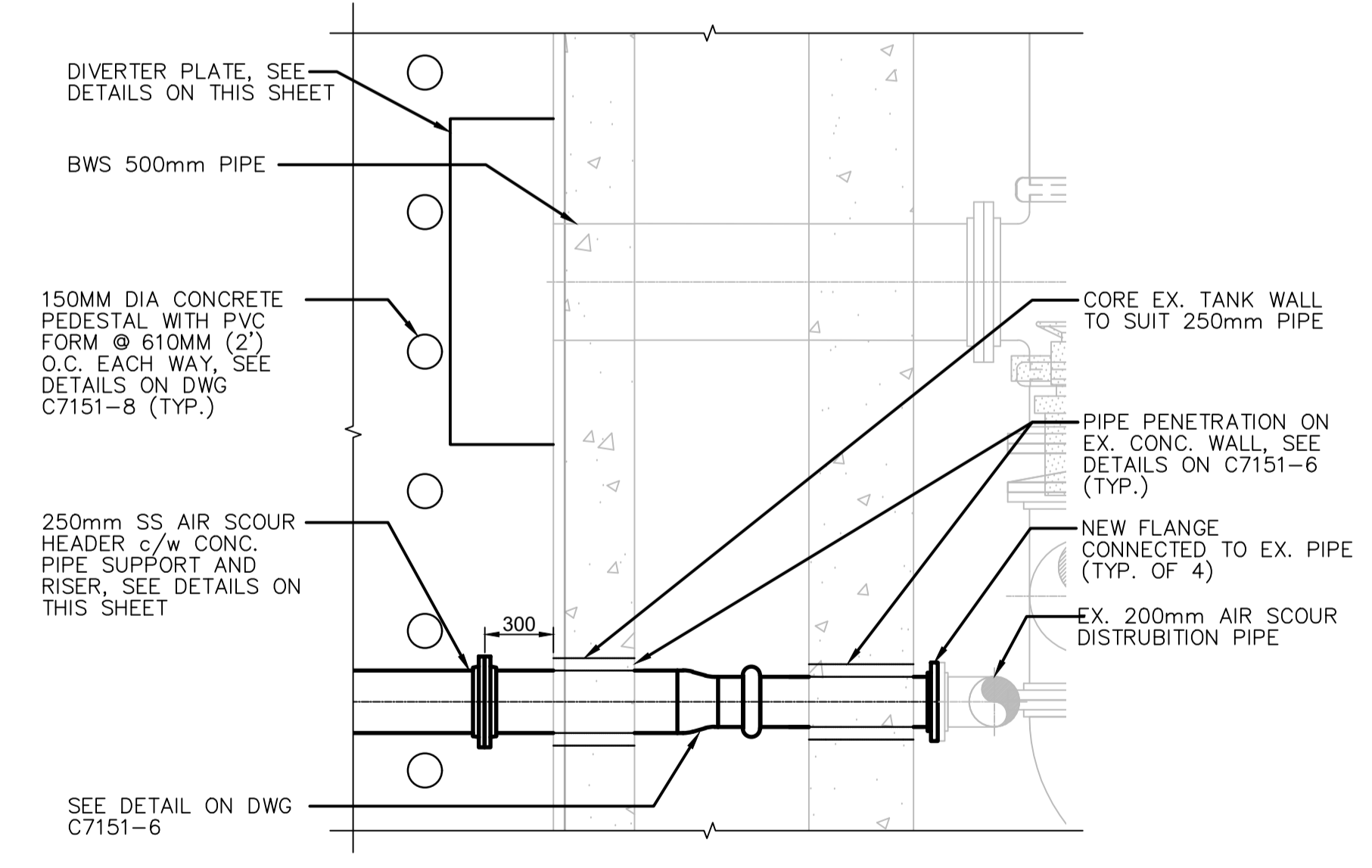
DIVERTER PLATE DETAILS
SCALE 1:20



DETAIL 2 SCALE 1:10
DETAIL 3 SCALE 1:10



AIR SCOUR HEADER DETAILS
SCALE 1:20



DETAIL 1
SCALE 1:25

NOTE:
1. INSTALL FILTER MEDIA AS SPECIFIED

REVISIONS		
DATE	DETAILS	BY
2024 JULY 02	ISSUED FOR TENDER	CC

CAUTION

- ALL UTILITIES ARE NOT NECESSARILY SHOWN ON THIS DRAWING.
- WHERE UTILITIES ARE SHOWN, LOCATIONS ARE NOT GUARANTEED
- LOCATION & SIZE OF ALL UTILITIES MUST BE VERIFIED IN THE FIELD.



DATE:	2023 01 04
DRAWN:	M.L.
DESIGNED:	HE
CHECKED:	CC/HE
ENGINEER:	HE
APPROVED:	CC



PROCESS SECTIONS
WANAPITEI WATER TREATMENT PLANT
FILTER No. 3 UPGRADES
 SUDBURY AREA

SCALE:	AS NOTED
CONTRACT NO.:	ISD24-134
CAD/FILE NUMBER:	C7151-5
PAGE NO.:	5 of 9

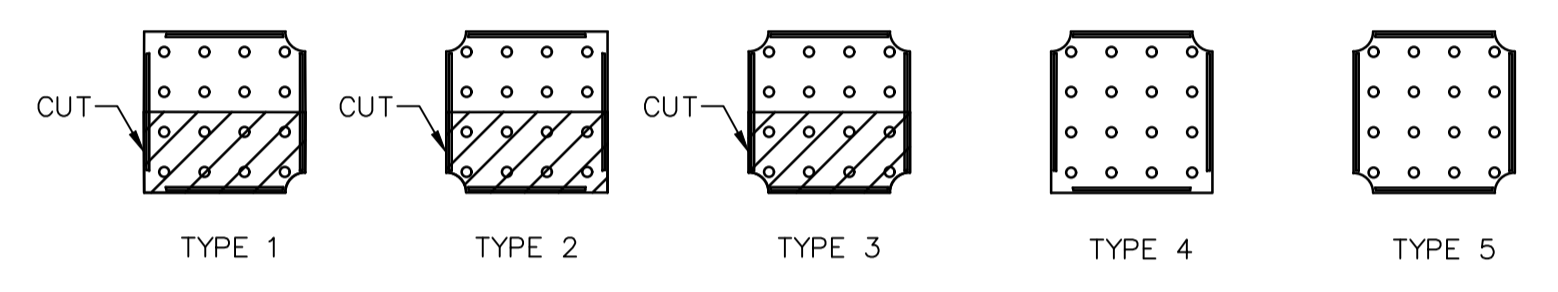
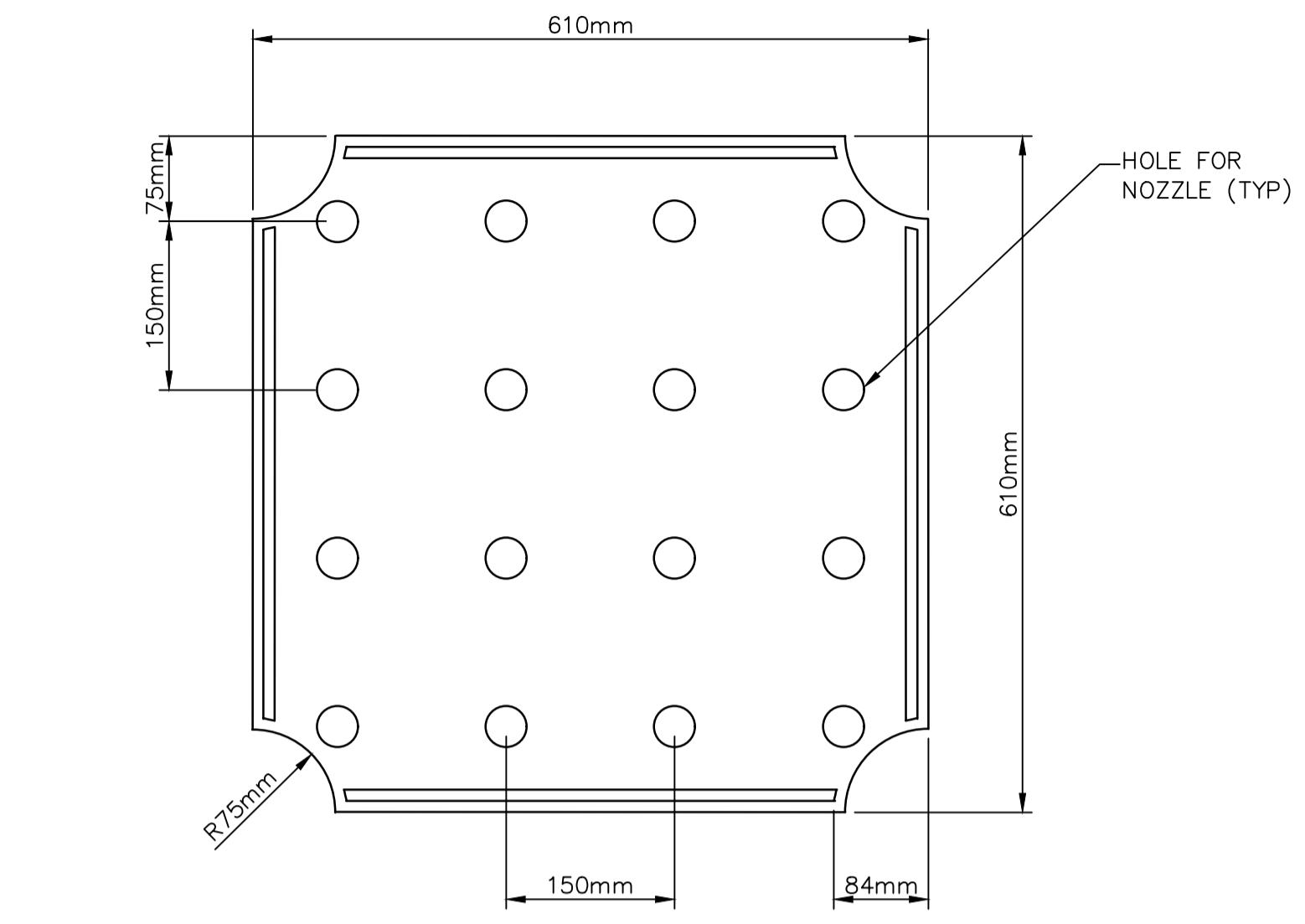
DWG NAME / FILE NO. CXXX-X
 CITY OF GREATER SUDBURY
 AREA - COMMUNITY

5. All sanitary sewer connections are 100mm PVC SDR28
 6. All sanitary and storm sewer elevations are inverts unless otherwise noted.

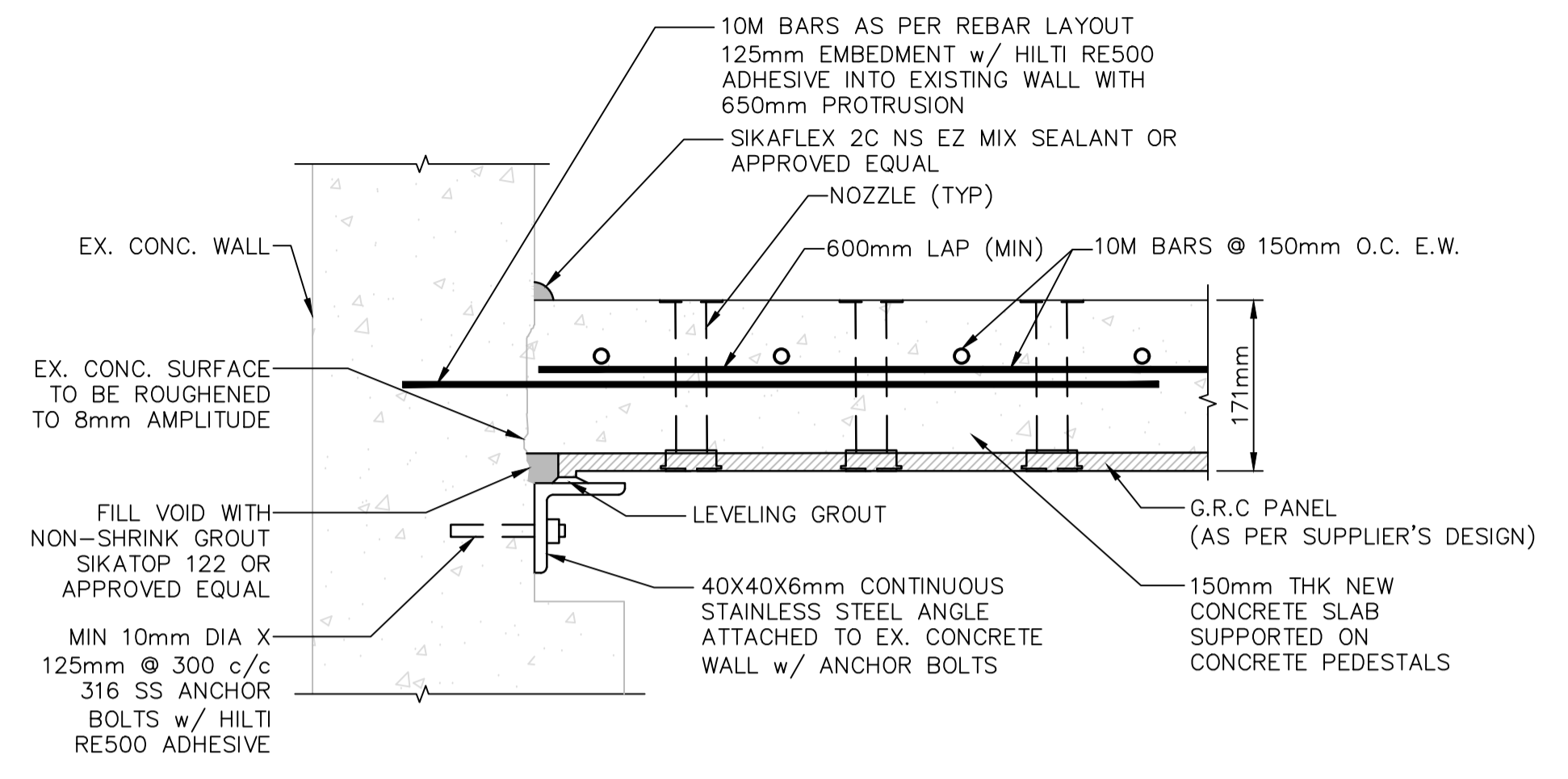
NOTES: 1. All dimensions are in metres unless otherwise noted.
 2. All dimensions are in millimetres unless otherwise noted.
 3. All dimensions are in millimetres unless otherwise noted.
 4. All water connections are 20mm Cu, unless otherwise noted.

COPYRIGHT: All rights are reserved. No part of the supplied data may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, without the prior written permission of the City of Greater Sudbury.

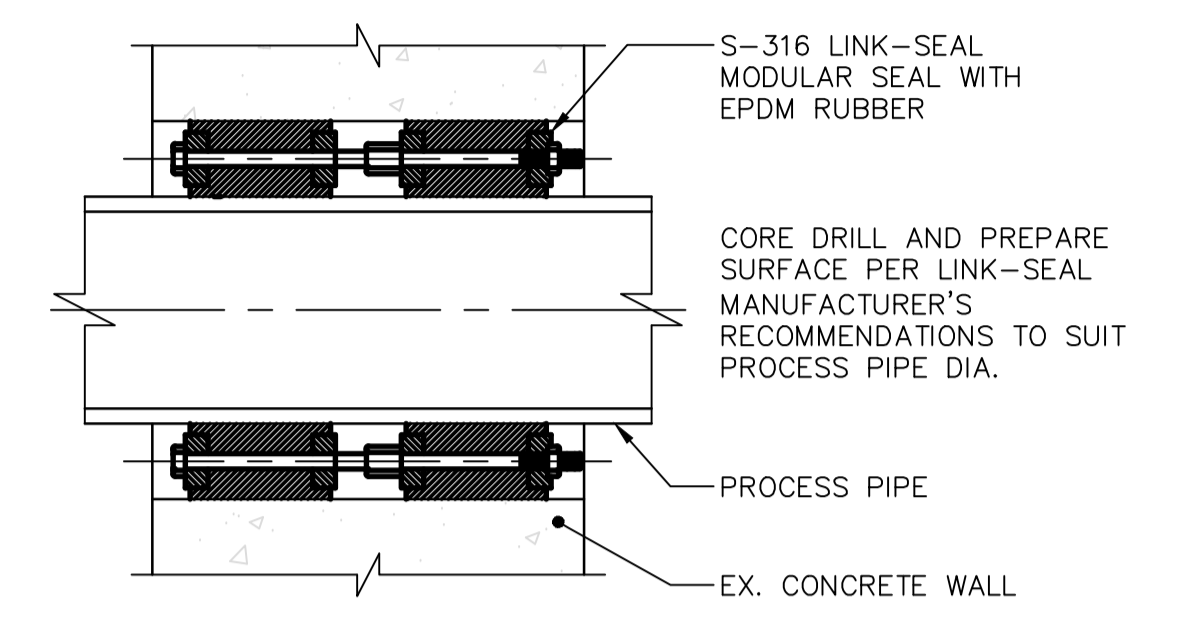
DISCLAIMER OF WARRANTY: The data is provided "as is", without warranty of any kind either expressed or implied, including but not limited to the accuracy and completeness of the data and the responsibility of the user for the use of the data.



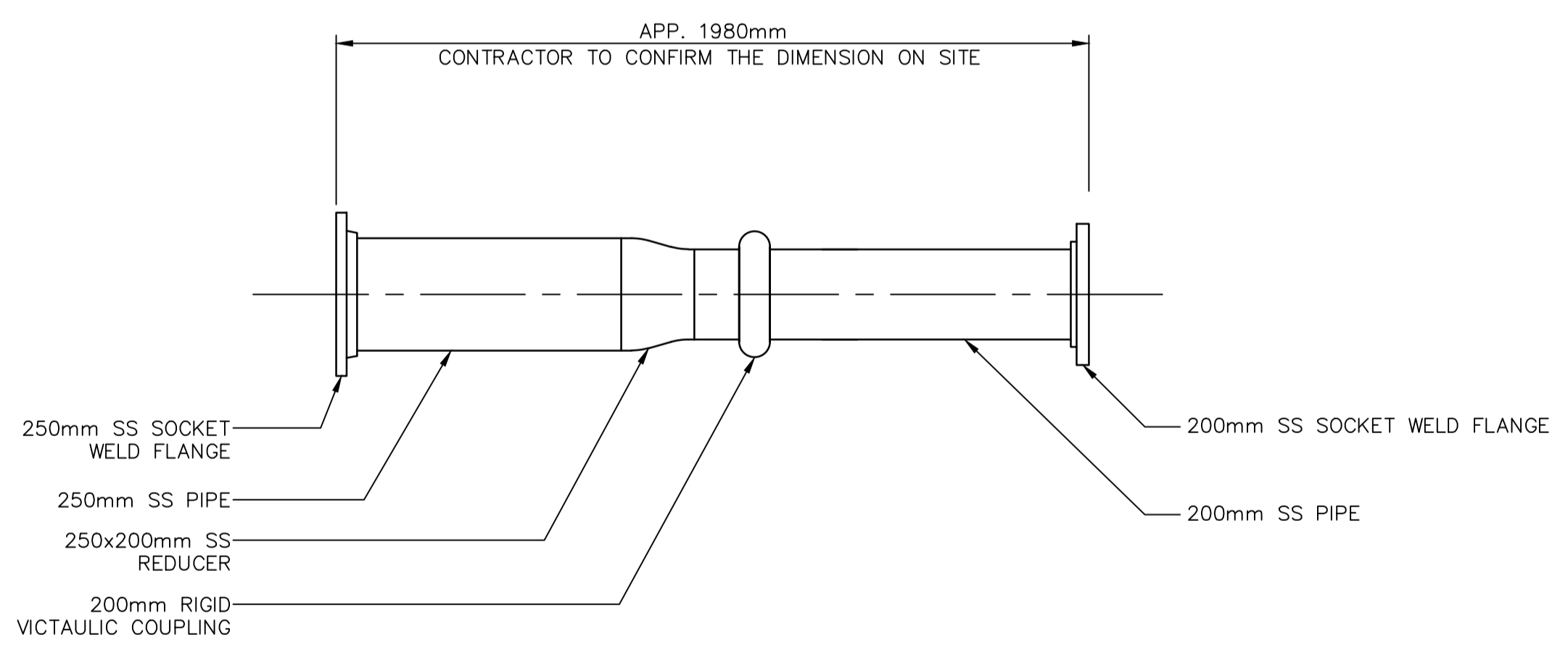
610mm X 610mm (2' X 2') G.R.C. FORM PANEL (TYPICAL)
N.T.S.



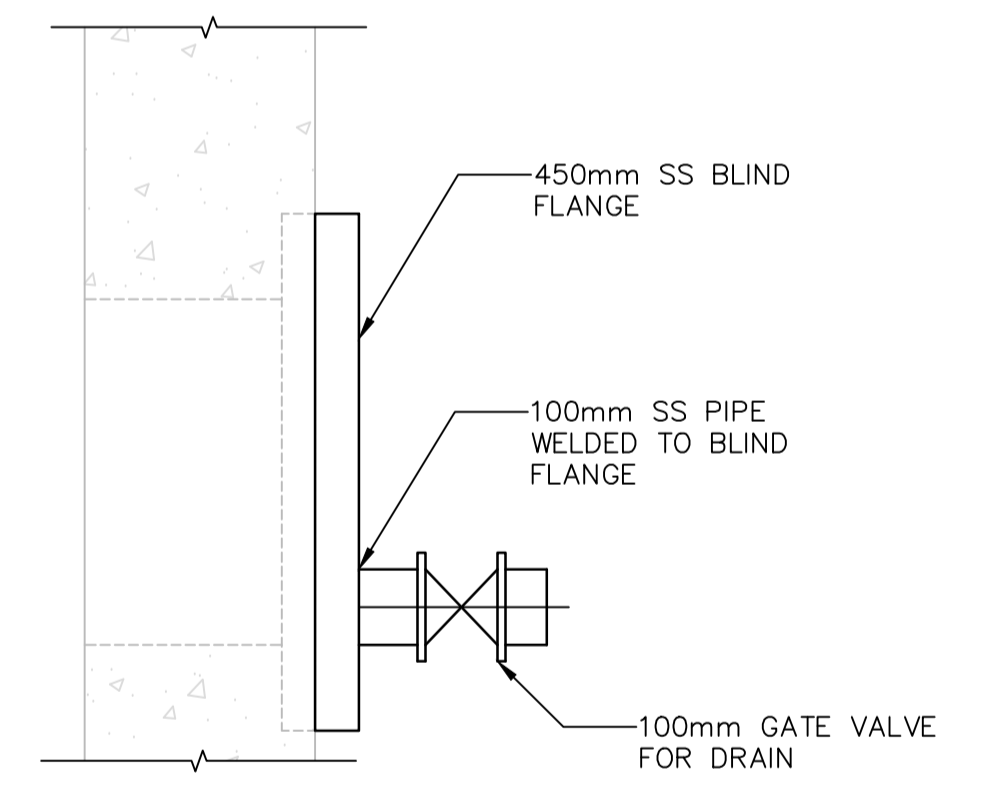
CONNECTION DETAIL OF NEW SUBDRAIN CONCRETE SLAB TO EX. CONCRETE WALL
N.T.S.



PENETRATION DETAIL ON EXISTING WALL
N.T.S.



AIR SCOUR CONNECTING SPOOL DETAILS
N.T.S.



NOTE:
1. REMOVE THE EXISTING BLIND FLANGE. SANDBLAST EMBEDDED FLANGED PIPE IN PLACE. EPOXY COAT AND INSTALL NEW EPOXY COATED BLIND FLANGE WITH SS 316 BOLTS AND NUTS.

450mm ACCESS BLIND FLANGE DETAILS
N.T.S.

REVISIONS		
DATE	DETAILS	BY
2024 JULY 02	ISSUED FOR TENDER	CC

CAUTION

- ALL UTILITIES ARE NOT NECESSARILY SHOWN ON THIS DRAWING.
- WHERE UTILITIES ARE SHOWN, LOCATIONS ARE NOT GUARANTEED
- LOCATION & SIZE OF ALL UTILITIES MUST BE VERIFIED IN THE FIELD.



DATE:	2023 01 04
DRAWN:	M.L.
DESIGNED:	HE/LA
CHECKED:	CC/HE
ENGINEER:	HE/LA
APPROVED:	CC



PROCESS DETAILS
WANAPITEI WATER TREATMENT PLANT
FILTER No. 3 UPGRADES
 SUDBURY AREA

SCALE:	N.T.S.
CONTRACT NO.:	ISD24-134
CAD/FILE NUMBER:	C7151-6
PAGE NO.:	6 of 9

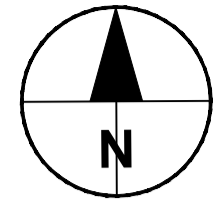
DWG NAME / FILE NO. CXXX-X
 CITY OF GREATER SUDBURY
 AREA - COMMUNITY

5. All sanitary sewer connections are 100mm PVC SDR28
 6. All sanitary and storm sewer elevations are inverts unless otherwise noted.

NOTES: 1. All dimensions are in metres unless otherwise noted.
 2. All dimensions are to the face of the structure unless otherwise noted.
 3. All dimensions are to the centerline of the structure unless otherwise noted.
 4. All water connections are 20mm Cu, unless otherwise noted.

COPYRIGHT: All rights are reserved. No part of the supplied data may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, without the prior written permission of the City of Greater Sudbury.

DISCLAIMER OF WARRANTY: The data is provided "as is", without warranty of any kind either expressed or implied, and the user assumes full responsibility for the use of the data.

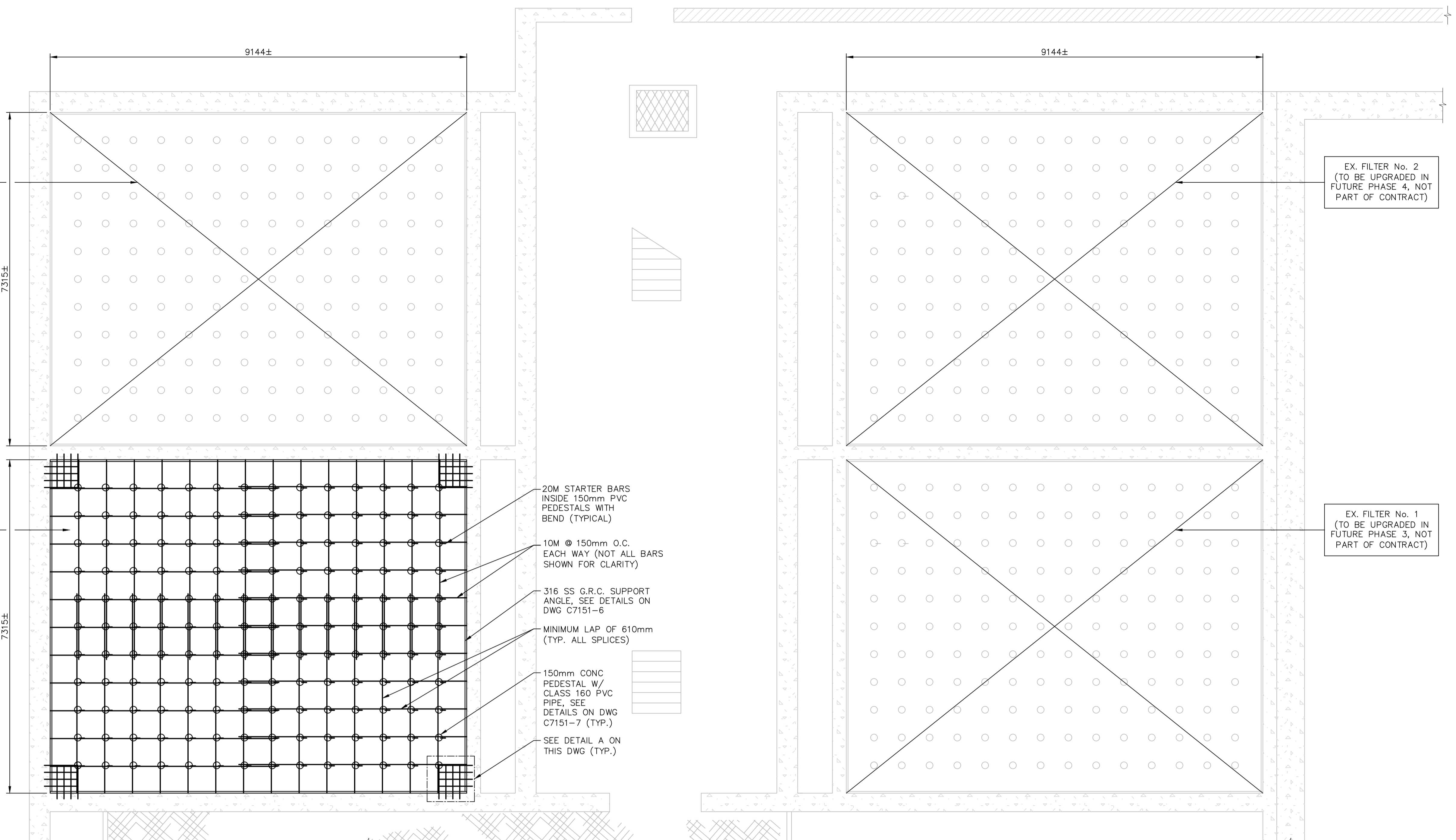


EX. FILTER No. 4
(TO BE UPGRADED IN FUTURE PHASE 2, NOT PART OF CONTRACT)

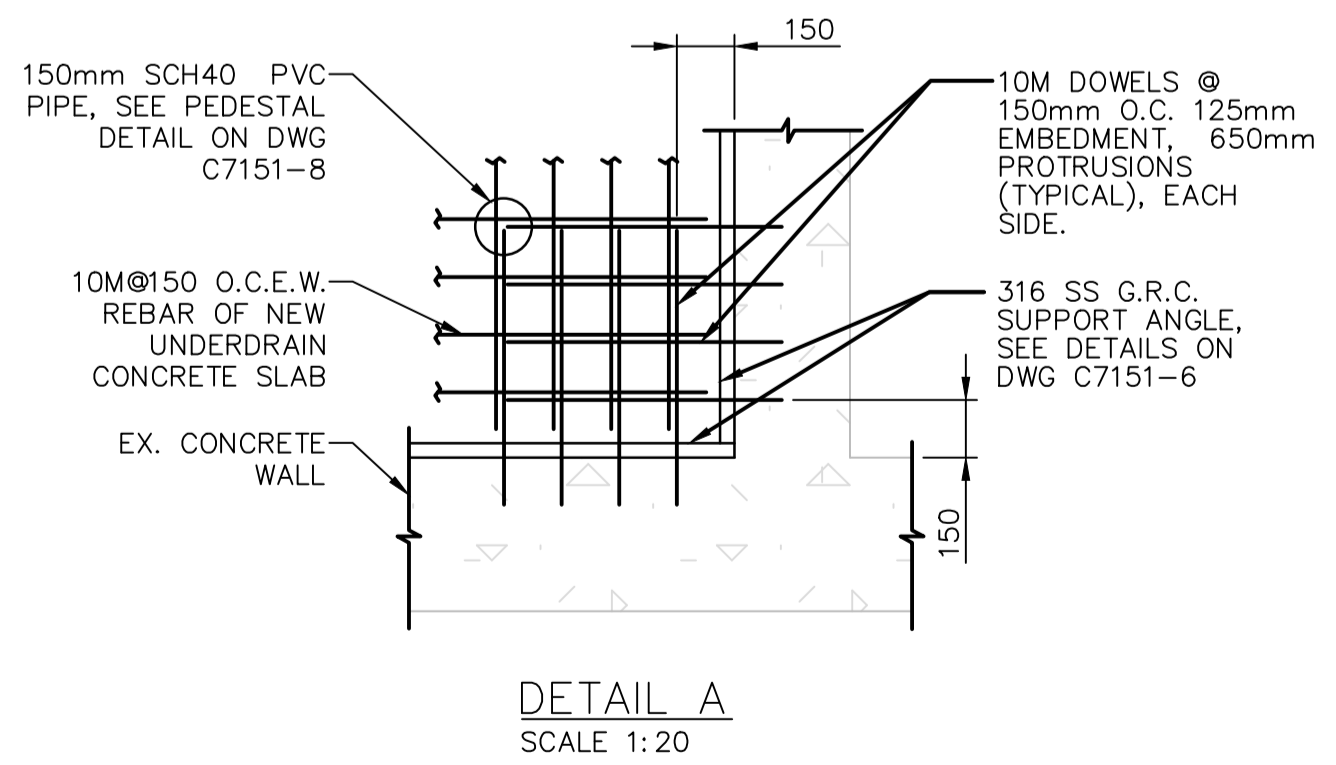
EX. FILTER # 3
PHASE 1
(CONTRACT ISD24-134)

EX. FILTER No. 2
(TO BE UPGRADED IN FUTURE PHASE 4, NOT PART OF CONTRACT)

EX. FILTER No. 1
(TO BE UPGRADED IN FUTURE PHASE 3, NOT PART OF CONTRACT)



3 STRUCTURAL PLAN
1:50



- NOTE:
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND REQUIRED CONNECTIONS OF NEW CONCRETE SLAB AND PEDESTALS.
 - G.R.C. FORMING PANELS AND PVC PEDESTALS SHALL BE DESIGNED BY SUPPLIER. NOT ALL STEEL REBAR AND G.R.C. FORMING PANELS ARE SHOWN ON PLANS FOR CLARITY.
 - SPECIAL CONSTRUCTION PROCEDURES (DURING PLACEMENT OF THE 150MM UNDERDRAIN SLAB OVER THE G.R.C. FORM PANELS) ARE TO BE IMPLEMENTED PER SUPPLIER'S DESIGN REQUIREMENTS INCLUDING THE FOLLOWING:
 - CONSTRUCTION LIVE LOAD IS TO BE LIMITED TO 1.75 kPa.
 - CONCENTRATED WORKER LOADS ARE TO BE LOCATED ONLY DIRECTLY ABOVE THE PVC PIPE PEDESTALS.
 - GRAVITY LOAD ON CONCRETE SLAB = 76 kPa (SLS) INCLUDING CONCRETE SLAB, WATER AND MEDIA MATERIAL WEIGHT.
 - NET UPLIFT LOAD ON SLAB = 67 kPa (SLS) (BACKWASH WATER PRESSURE).
 - MINIMUM CONCRETE COVER FOR REBAR SHALL BE 50mm.
 - ALL REBAR TO CONFORM TO CSA G30.18 STANDARDS WITH GRADE OF 400W DEFORMED BARS.
 - ALL CONCRETE FOR NEW SLAB, PEDESTALS AND PIPE SUPPORTS SHALL BE CLASS F1 AS PER CSA A23.1 WITH COMPRESSIVE STRENGTH OF 30MPa AT 28 DAYS.
 - COORDINATE WITH PROCESS DRAWINGS FOR PIPE SUPPORT EXACT LOCATION AND SIZE.
 - SCAN EXISTING CONCRETE STRUCTURE FOR REBAR AND EMBEDDED SERVICES PRIOR TO DRILL FOR NEW DOWELS/ANCHOR BOLTS TO AVOID ANY DAMAGE TO EXISTING ITEMS.
 - PERFORM PULL-OUT TEST FOR AT LEAST 10% OF ALL INSTALLED 20M DRILLED-IN BARS IN TANK FLOOR FOR TENSION FORCE OF 50KN PER BAR. PULL-OUT TESTING TO BE COORDINATED WITH SUBDRAIN SUPPLIER DESIGN REQUIREMENTS TO ENSURE NO CONFLICT OF TESTED REBAR DOWELS WITH PVC PEDESTAL OR THE REST OF REBAR. IF TESTING WILL REQUIRE CUTTING OF THE L-SHAPE REBAR, ALLOW FOR USING REBAR COUPLERS (OR FULL WELDING) TO SPLICE AFFECTED DOWELS AS REQUIRED.
 - SUBMIT SHOP DRAWINGS WITH ALL NECESSARY STRUCTURAL DETAILS, ANCHORAGE TO CONCRETE, DESIGN ASSUMPTIONS AND LOADING FOR REVIEW FOR THE FOLLOWING:
 - REBAR SHOP DRAWINGS FOR CAST-IN-PLACE CONCRETE ELEMENTS
 - CONCRETE MIX DESIGN
 - REFER TO SPECIFICATIONS FOR OTHER SUBMITTALS.

REVISIONS

DATE	DETAILS	BY
2024 JULY 02	ISSUED FOR TENDER	CC

CAUTION

- ALL UTILITIES ARE NOT NECESSARILY SHOWN ON THIS DRAWING.
- WHERE UTILITIES ARE SHOWN, LOCATIONS ARE NOT GUARANTEED
- LOCATION & SIZE OF ALL UTILITIES MUST BE VERIFIED IN THE FIELD.



DATE:	2023 01 04
DRAWN:	M.L.
DESIGNED:	LA/HE
CHECKED:	CC/HE
ENGINEER:	LA/HE
APPROVED:	CC



STRUCTURAL PLAN
WANAPITEI WATER TREATMENT PLANT
FILTER No. 3 UPGRADES
 SUDBURY AREA

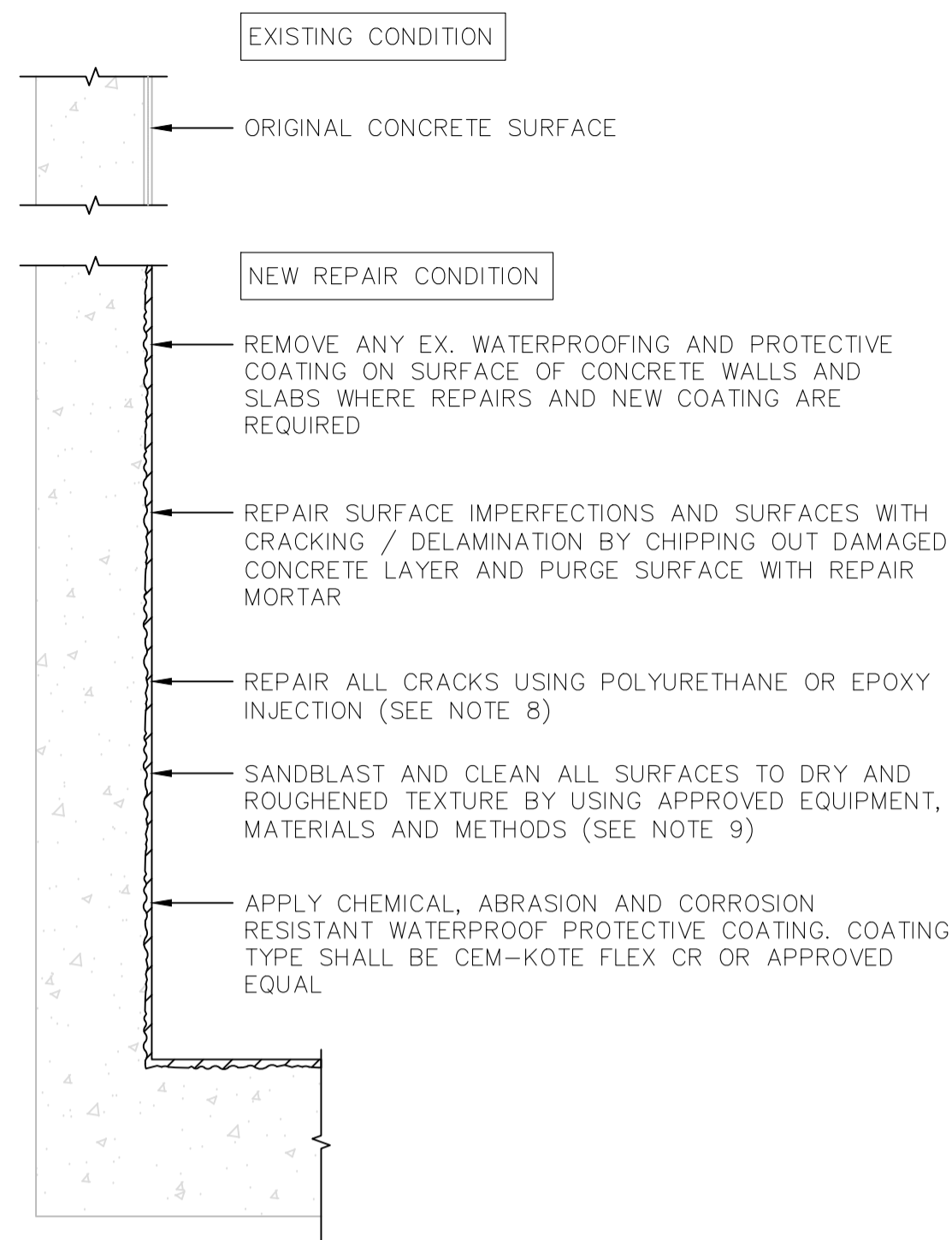
SCALE:	AS NOTED
CONTRACT NO.:	ISD24-134
CAD/FILE NUMBER:	C7151-7
PAGE NO.:	7 of 9

DWG NAME / FILE NO. CXXX-X
 CITY OF GREATER SUDBURY
 AREA - COMMUNITY

5. All sanitary sewer connections are 100mm PVC SR28
 6. All sanitary and storm sewer elevations are Inverts
 unless otherwise noted.

NOTES:
 1. All dimensions are in metres unless otherwise noted.
 2. All dimensions are in millimetres unless otherwise noted.
 3. All dimensions are in millimetres unless otherwise noted.
 4. All dimensions are in millimetres unless otherwise noted.
 5. All dimensions are in millimetres unless otherwise noted.
 6. All dimensions are in millimetres unless otherwise noted.

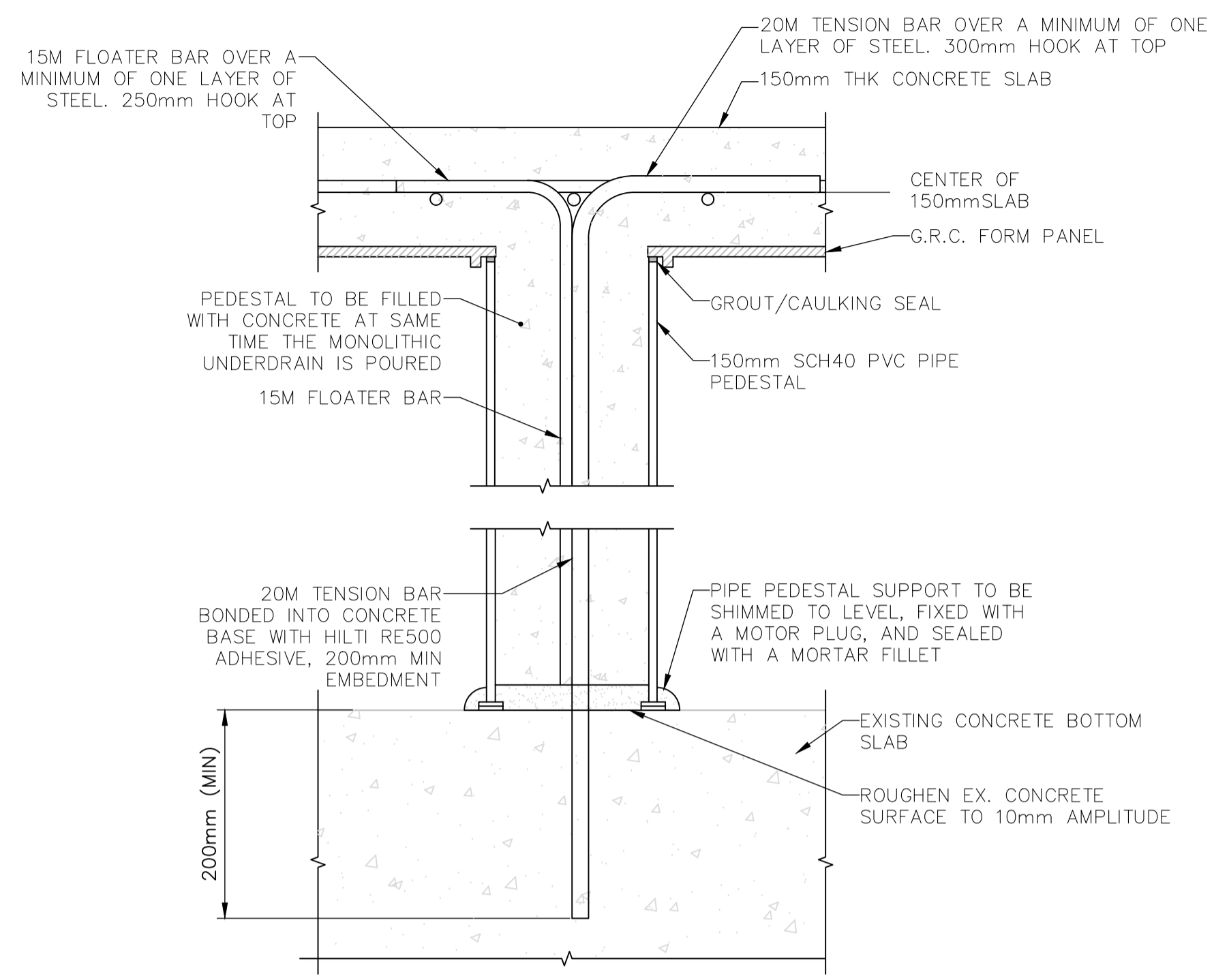
COPYRIGHT: The data is provided "as is", without warranty of any kind either expressed or implied, and the user assumes full responsibility of the data resulting from any use of the supplied data. The data is provided for the use of the user and is not to be used for any other purpose.



- NOTES:
- COMPLETE VISUAL EXAMINATION AND DELAMINATING SURVEY ON SITE IN THE PRESENCE OF THE ENGINEER TO EVALUATE THE EXISTING CONDITIONS. THE EXACT LOCATION AND EXTENT OF CONCRETE REPAIRS WILL BE DETERMINED AND DESIGNATED BY THE ENGINEER.
 - SAW-CUT EDGES AROUND THE REPAIR AREA TO FORM SQUARE EDGES FROM THE SURFACE TO THE DEPTH OF THE REMOVED CONCRETE OR 10MM SHORTER THAN ANY REBAR WHICHEVER IS SHORTER. DO NOT DAMAGE ANY EXISTING REBAR.
 - WHERE CONCRETE SURFACE IMPERFECTIONS ARE EXTENDED TILL REINFORCEMENT REBAR, CLEAN EXPOSED REBAR WITH SAND BLASTING TO REMOVE ANY RUST OR LOSE CONCRETE. APPLY ZINC-RICH COATING TO EXPOSED REBAR PRIOR TO ANY MORTAR APPLICATIONS.
 - FILL REPAIR AREAS WITH APPROVED REPAIR MORTAR OR GROUT AS APPLICABLE.
 - APPLICATION OF CONCRETE REPAIR MORTAR AND COATING MATERIALS SHALL CONFORM TO THE MANUFACTURER'S INSTRUCTIONS.
 - PROTECT REPAIR AREAS FROM SNOW OR RAIN DURING EXECUTION OF THE WORK. REPAIR WORK SHALL NOT BE UNDERTAKEN DURING RAIN, SNOW OR FREEZING CONDITIONS.
 - DISPOSE ANY WASTE MATERIALS AS A RESULT OF SAND BLASTING OR COATING REMOVAL OUTSIDE CONSTRUCTION SITE.
 - REPAIR ALL CRACKS IN CONCRETE WALLS AND SLABS BY INJECTION WITH APPROVED MATERIALS AS PER PROJECT SPECIFICATIONS AND AS DIRECTED BY THE PROJECT ENGINEER.
 - PROFILE OF CONCRETE SURFACE (ROUGHNESS) TO MEET THE REQUIREMENT OF THE APPROVED SELECTED PROTECTIVE COATING.
 - PROTECTIVE COATING TO BE APPLIED ALONG CONCRETE AND BACKWASH TROUGH INTERFACE. FILL ANY VOIDS/CRACKS WITH APPROVED NSF61 CERTIFIED GROUT/EPOXY AS SPECIFIED AND APPROVED BY THE ENGINEER PRIOR THE COATINGS APPLICATION

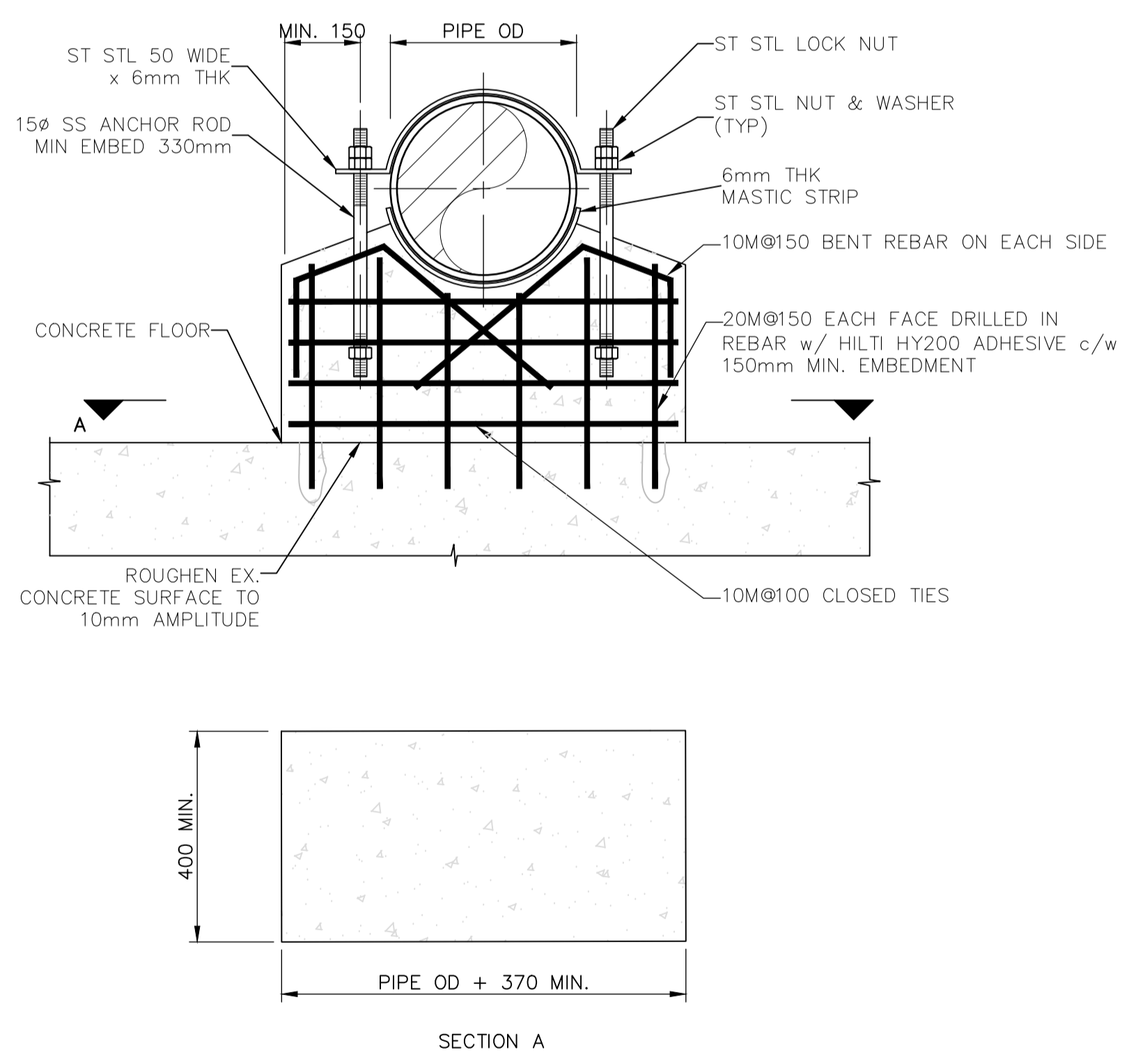
TYPICAL DETAIL FOR CONCRETE REPAIRS AND APPLICATION OF PROTECTIVE COATING

N.T.S.



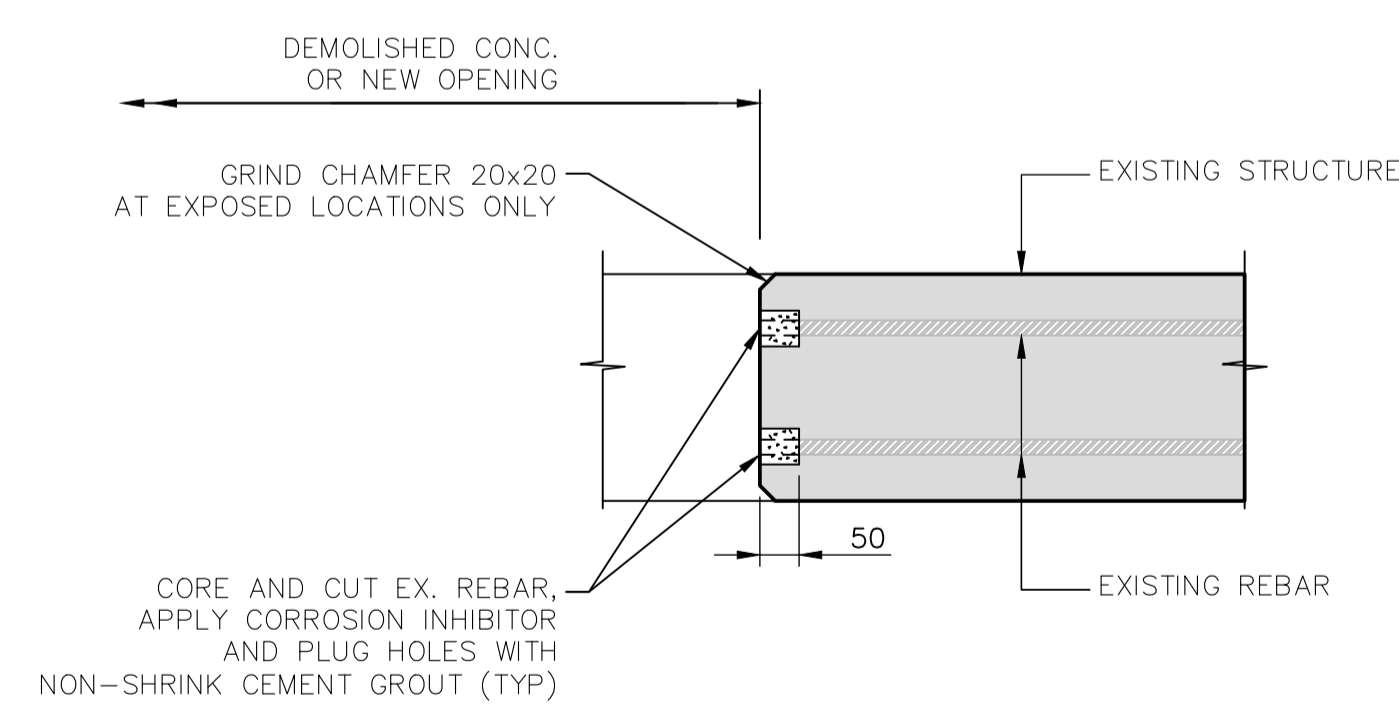
TYPICAL DETAIL OF SUBRAIN CONCRETE SLAB AND PEDESTAL

N.T.S.



CONCRETE PIPE SUPPORT DETAIL

N.T.S.



TYPICAL DETAIL OF NEW CUT AT EXISTING CONCRETE

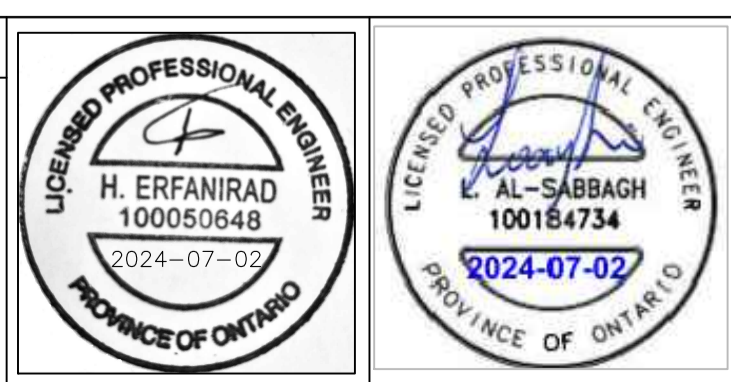
N.T.S.

NOTE:
DETAIL IS ALSO APPLICABLE AT REMOVAL OF ANY ABANDONED METAL, REBAR, ANCHOR BOLTS AND PIPES FROM EXISTING CONCRETE SURFACES.

REVISIONS		
DATE	DETAILS	BY
2024 JULY 02	ISSUED FOR TENDER	CC

CAUTION

- ALL UTILITIES ARE NOT NECESSARILY SHOWN ON THIS DRAWING.
- WHERE UTILITIES ARE SHOWN, LOCATIONS ARE NOT GUARANTEED
- LOCATION & SIZE OF ALL UTILITIES MUST BE VERIFIED IN THE FIELD.



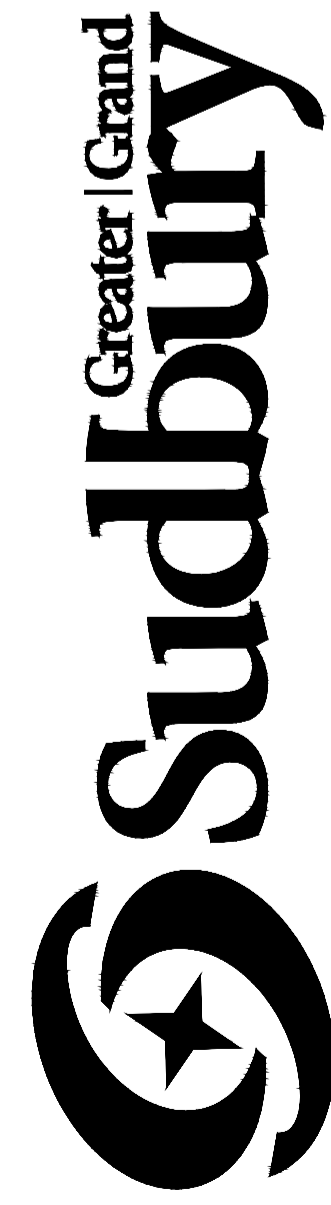
DATE:	2024 04 15
DRAWN:	M.L.
DESIGNED:	LA/HE
CHECKED:	CC/HE
ENGINEER:	LA/HE
APPROVED:	CC



STRUCTURAL DETAILS

WANAPITEI WATER TREATMENT PLANT
FILTER No. 3 UPGRADES
SUDBURY AREA

SCALE:	AS NOTED
CONTRACT NO.:	ISD24-134
CAD/FILE NUMBER:	C7151-8
PAGE NO.:	8 of 9



**WANAPITEI WATER TREATMENT PLANT
FILTER NO. 3 UPGRADES**

CONTRACT No. ISD24-134