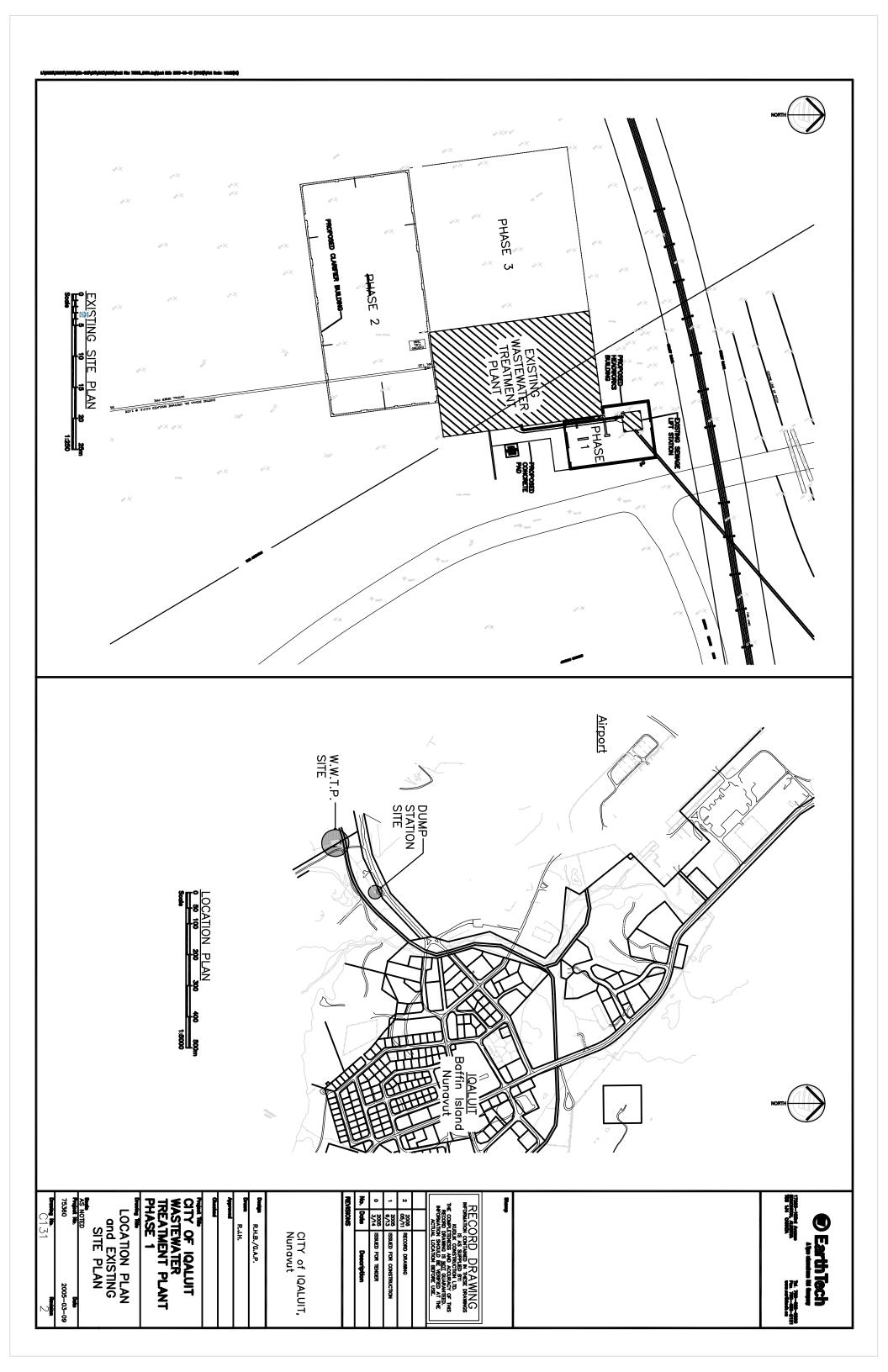


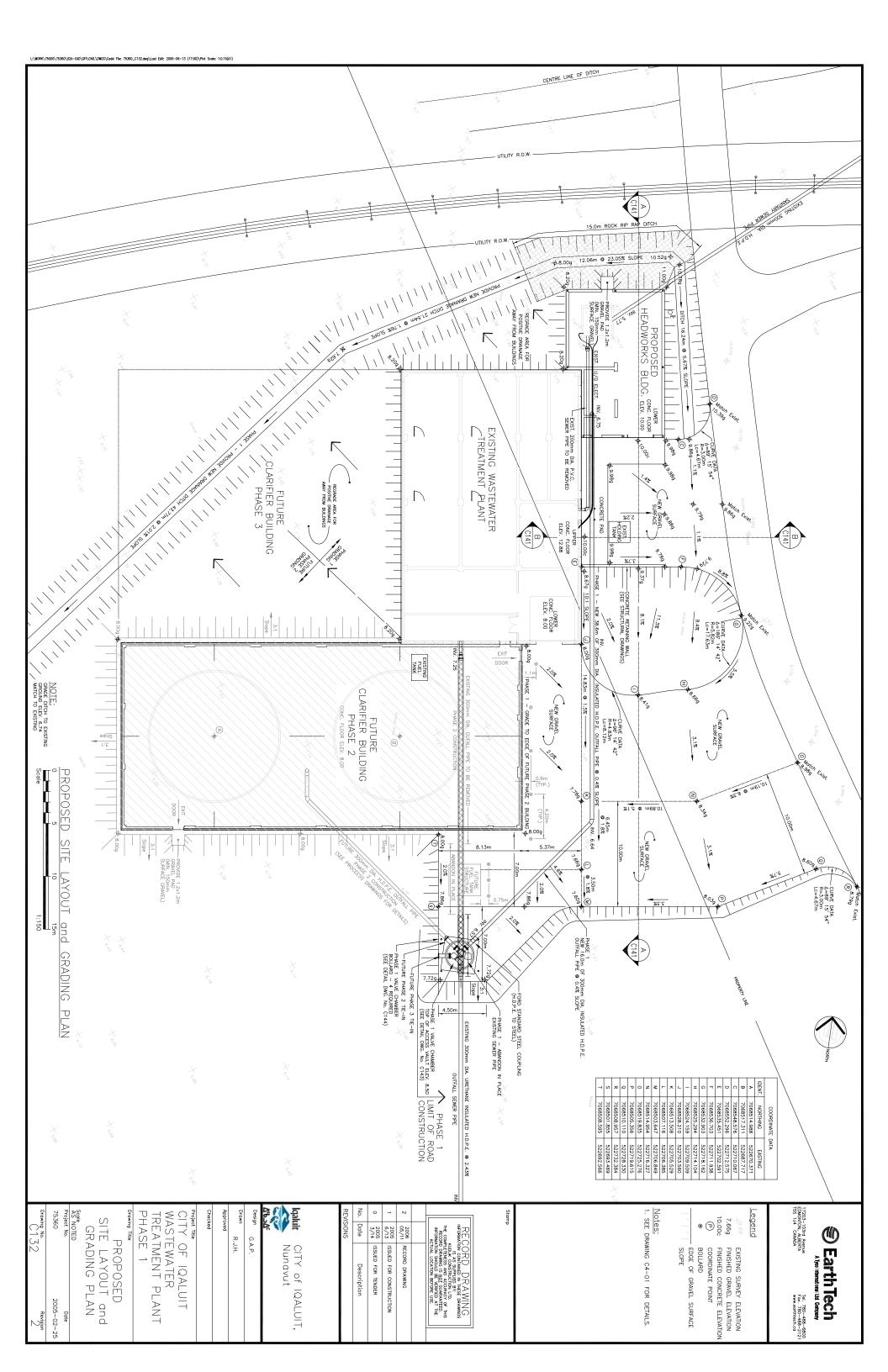
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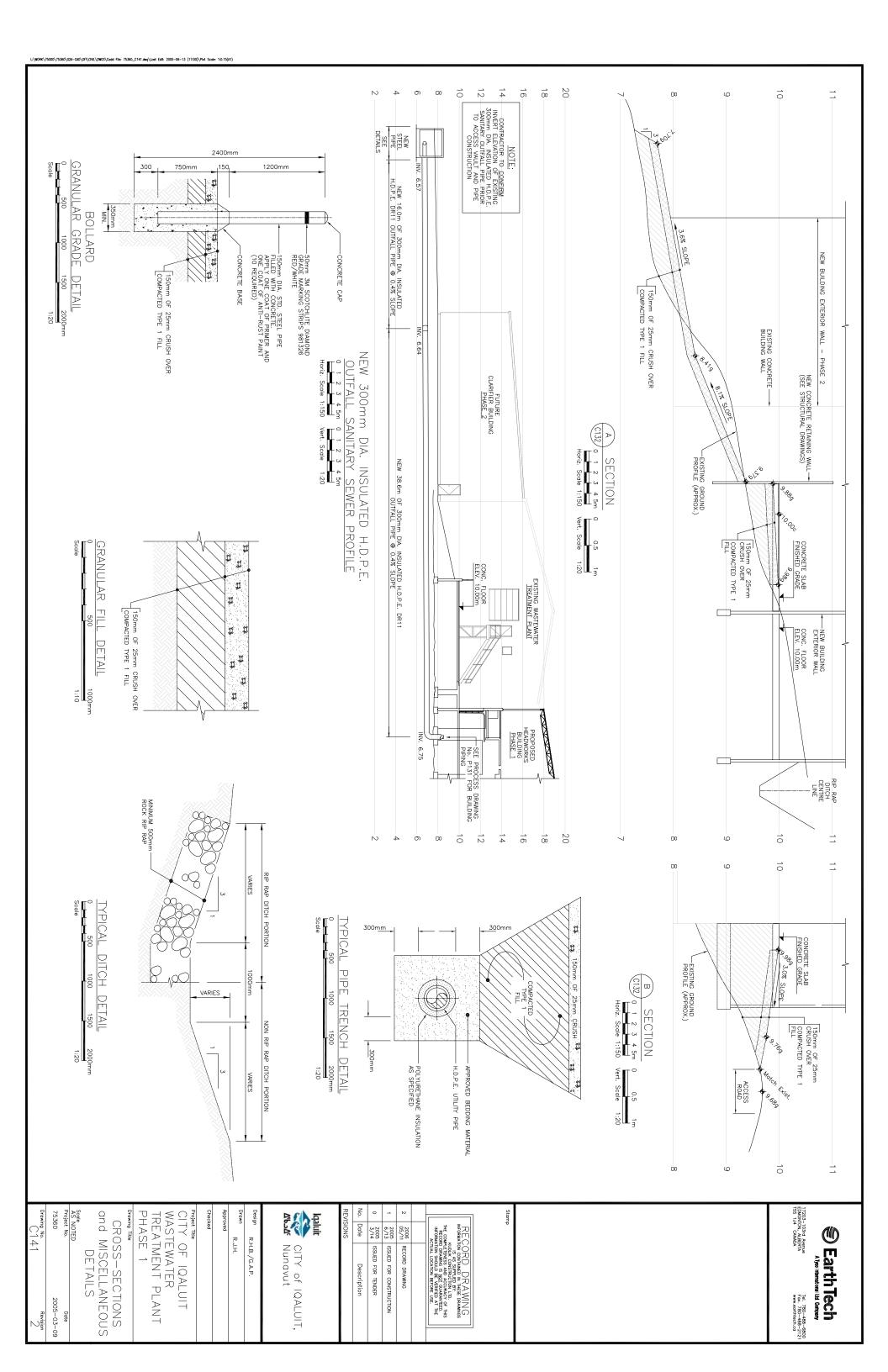
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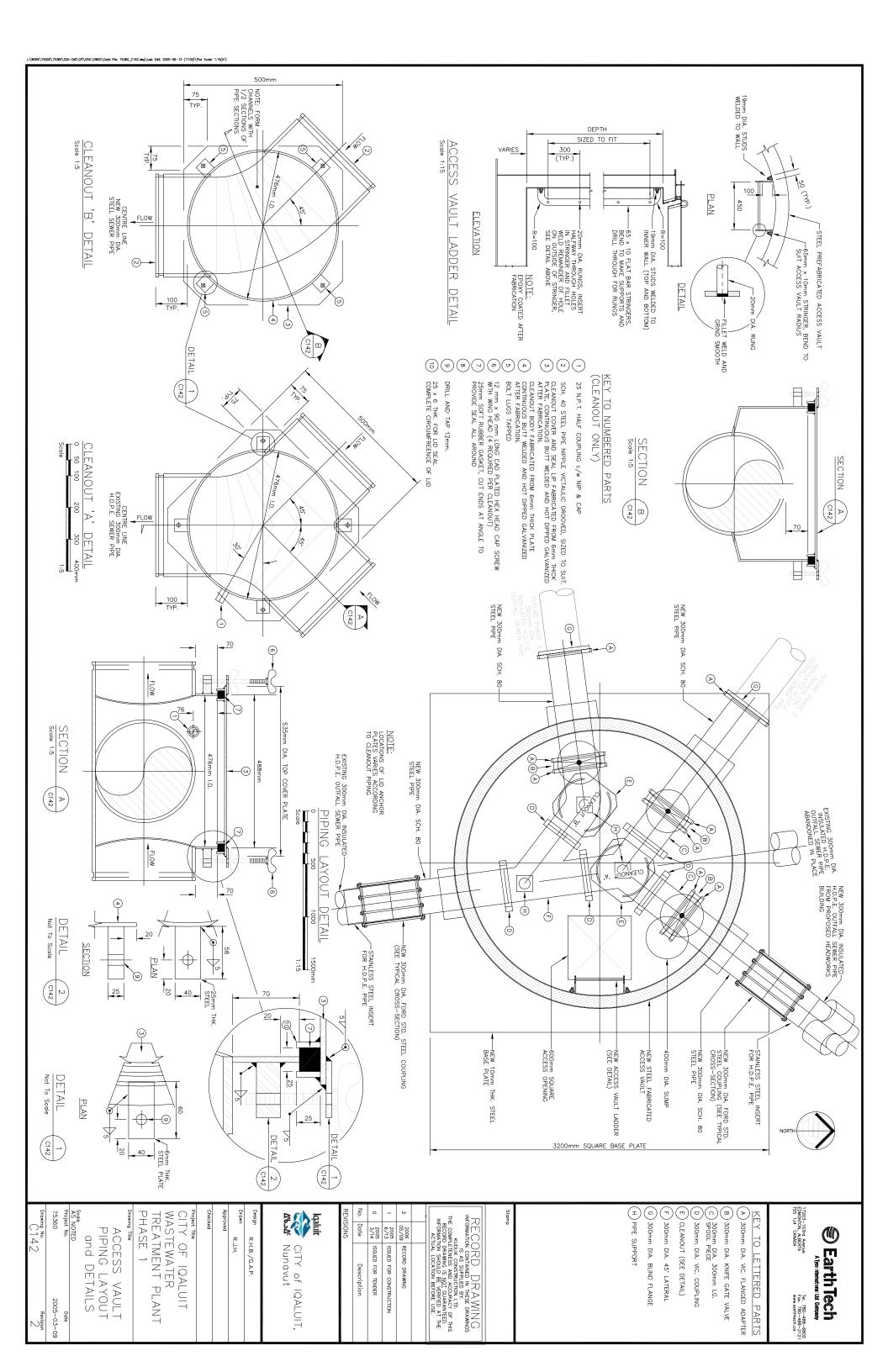
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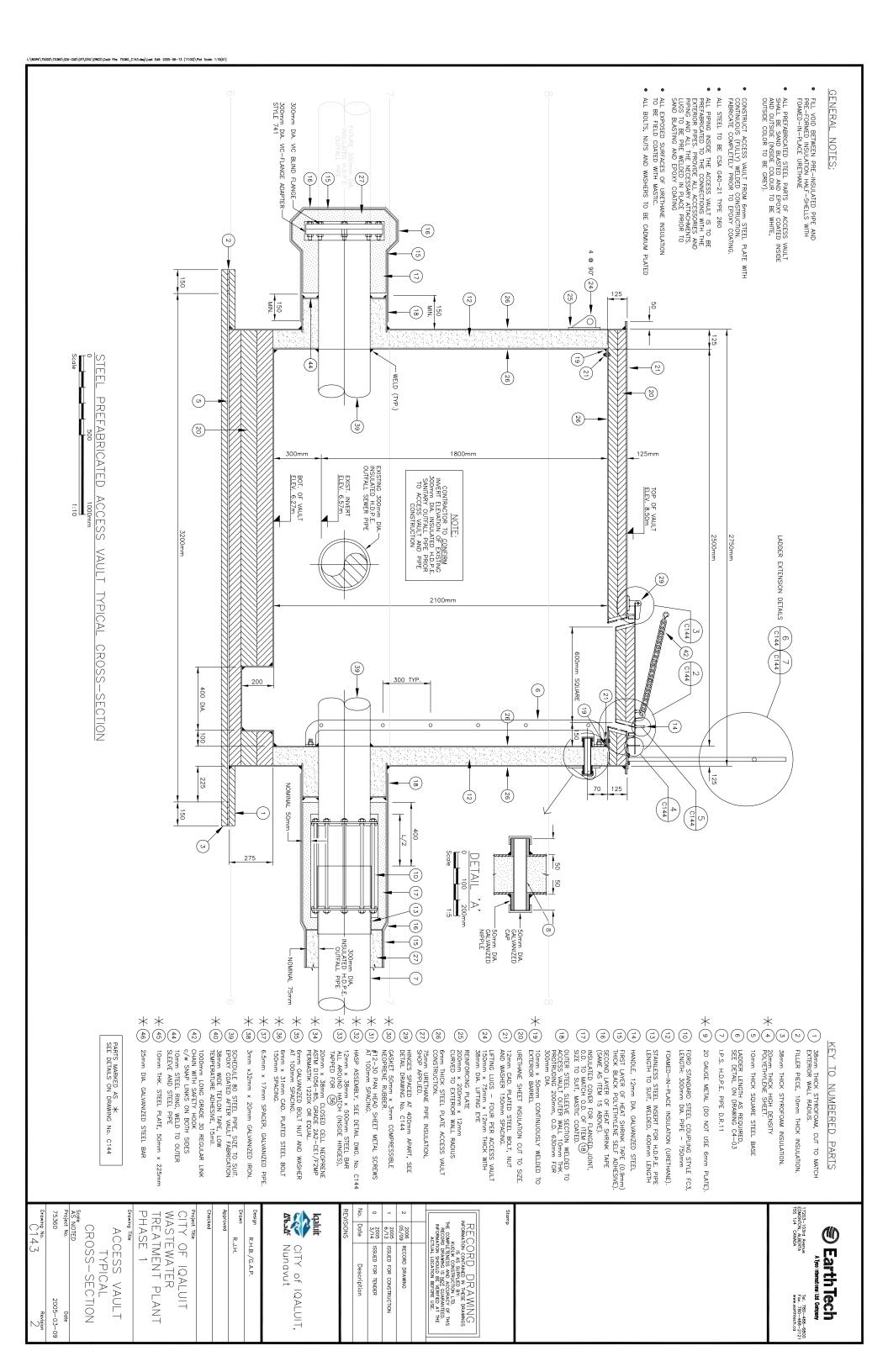
| S134 | S133 | S132 | S131 | S103 | S102 | S101 | | A152 | A151 | A142 | A141 | A132 | A131 | | C145 | C144 | C143 | C142 | C141 | C132 | C131 | - | | DWG. |
|---------------------------------------|--|---------------------------------------|---|--|---|--|---------------------------------|---------------------------------------|----------------------------------|--------------------------|-----------------------------|-------------------------------------|-------------------------------------|-----------------------------|-------------------------------------|-------------------------------|------------------------------------|--|--|---------------------------------------|--------------------------------------|---------|----------------------------------|-----------------|
| STRUCTURAL STAIR and HANDRAIL DETAILS | ROOF FRAMING | STRUCTURAL MAIN FLOOR PLAN | STRUCTURAL FOUNDATION PLAN | STRUCTURAL TYPICAL DETAILS | STRUCTURAL DEMOLITION PLANS | STRUCTURAL GENERAL NOTES | STRUCTURAL | MILL WORK, DOOR ELEV. and SCHEDULE | DETAILS | SECTIONS | ELEVATIONS | UPPER LEVEL PLANS and WALL ASSEMBLY | LOWER LEVEL PLANS and WALL ASSEMBLY | ARCHITECTURAL | EXISTING DUMP STATION MODIFICATIONS | ACCESS VAULT STANDARD DETAILS | ACCESS VAULT TYPICAL CROSS-SECTION | ACCESS VAULT PIPING LAYOUT and DETAILS | CROSS—SECTIONS and MISCELLANEOUS DETAILS | PROPOSED SITE LAYOUT and GRADING PLAN | LOCATION PLAN and EXISTING SITE PLAN | CIVIL | COVER SHEET and LIST OF DRAWINGS | DRAWING TITLE |
| 2 | 2 | 2 | 2 | 2 | | 4 | 4 | 4 | 4 | 4 | 4 | | 2 | 2 | 2 | | 3 | 2 | 2 | 2 | 2 | | | REV. |
| | | | | E141 | E132 | E131 | | M143 | M142 | M141 | M132 | M131 | M121 | M 1 1 1 | | | S130 | S145 | S144 | S143 | S142 | | | DWG. |
| | | | | SINGLE LINE DIAGRAM and MOTOR SCHEDULE | LOWER LEVEL POWER PLAN and MCC SCHEDULE | ELECTRICAL LOWER LEVEL LTG. and LUMINAIRE SCHEDULE | ELECTRICAL | MECHANICAL SCHEMATICS FUEL OIL SYSTEM | HEADWORKS SERVICE PIPING DETAILS | MECHANICAL SCHEMATICS | UPPER LEVEL MECHANICAL PLAN | LOWER LEVEL MECHANICAL PLAN | MECHANICAL DEMOLITION LOWER LEVEL | MECHANICAL LEGEND | MECHANICAL | | STRUCTURAL FOUNDATION PLAN | STRUCTURAL SECTIONS and DETAILS | STRUCTURAL SECTIONS and DETAILS | STRUCTURAL SECTIONS and DETAILS | STRUCTURAL SECTIONS and DETAILS | | | DRAWING TITLE R |
| | _ | _ | _ | 2 | 2 | 2 | | 0 | 0 | 2 F | 2 P | 2 F | 2 | 2 F | 77 | П | П | 2 F | 2 P | 2 P | 2 F | | | REV. D |
| | 1134 | 1133 F | 1132 | 1131 F | 1113 (| 1112 F | 11 11 1 F | _ | P154 | P153 | P152 | P151 | P142 | P141 | P133 | P132 | P131 | P121 | P113 | P112 | P111 | | | DWG. |
| | DRIVE CONTROL and GAS DETECTION LOOP DIAGRAM | PRIMARY INSTRUMENTATION LOCATION PLAN | SOLIDS HANDLING, PRIMARY FILTERING and OUTFALL P&ID | PUMPING and PRELIMINARY SCREENING P&ID | CONTROL SYSTEM SCHEMATICS and DETAILS | P&ID SYMBOLS and IDENTIFICATION | P&ID SYMBOLS and IDENTIFICATION | INSTRUMENTATION | PROCESS STANDARD DETAILS | PROCESS STANDARD DETAILS | PROCESS STANDARD DETAILS | PROCESS STANDARD DETAILS | PROCESS SECTIONS 3, 5 and 6 | PROCESS SECTIONS 1, 2 and 4 | PROCESSLAYOUT DETAILS | PROCESSUPPER FLOOR LAYOUT | PROCESS LOWER FLOOR LAYOUT | PROCESS DEMOLITION | PEAK and AVERAGE HYDRAULIC OPROFILE | PROCESS FLOW DIAGRAM | PROCESS LEGENDS, SYMBOLS and NOTES | PROCESS | | DRAWING TITLE |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | | REV. |

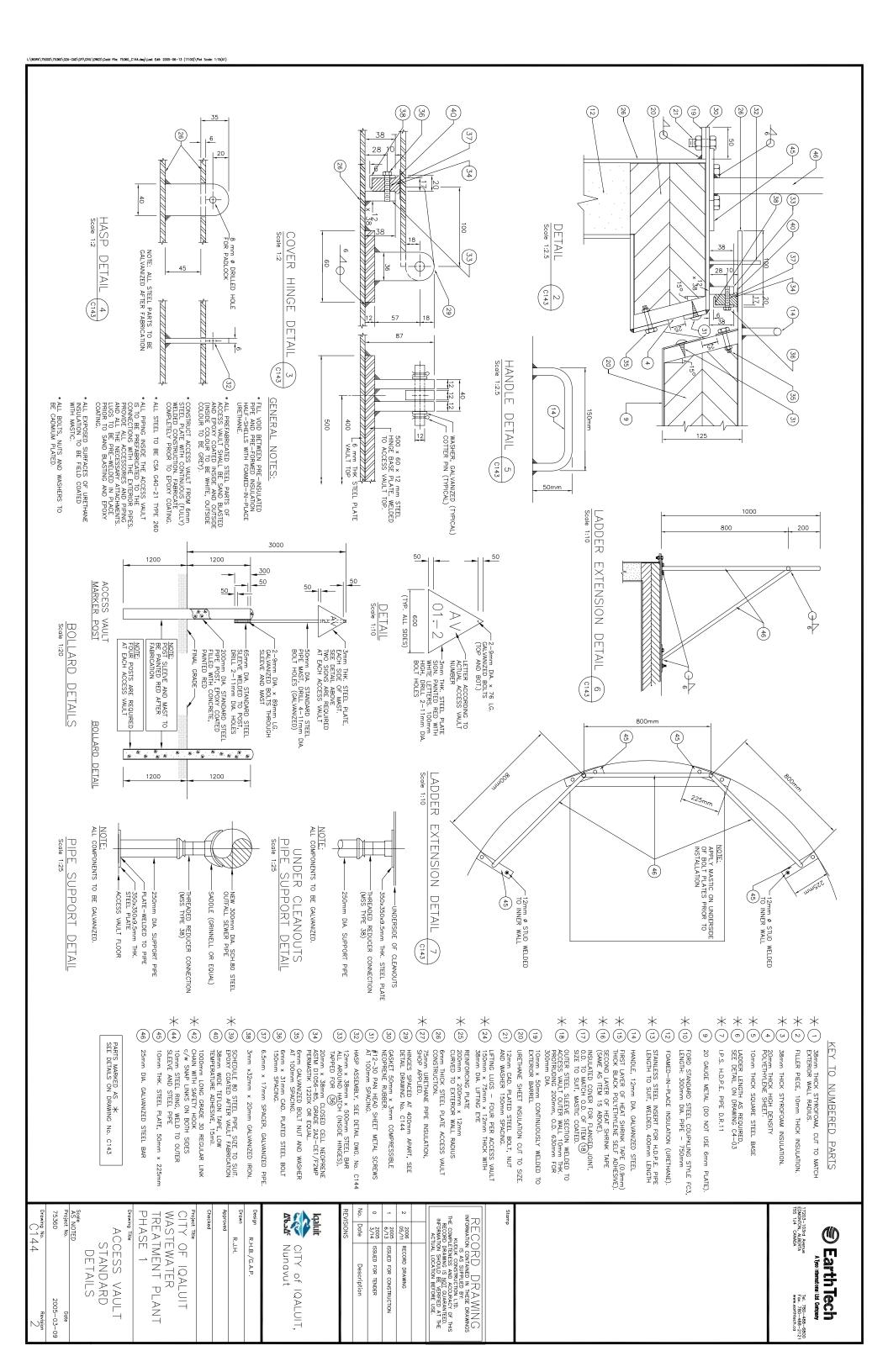


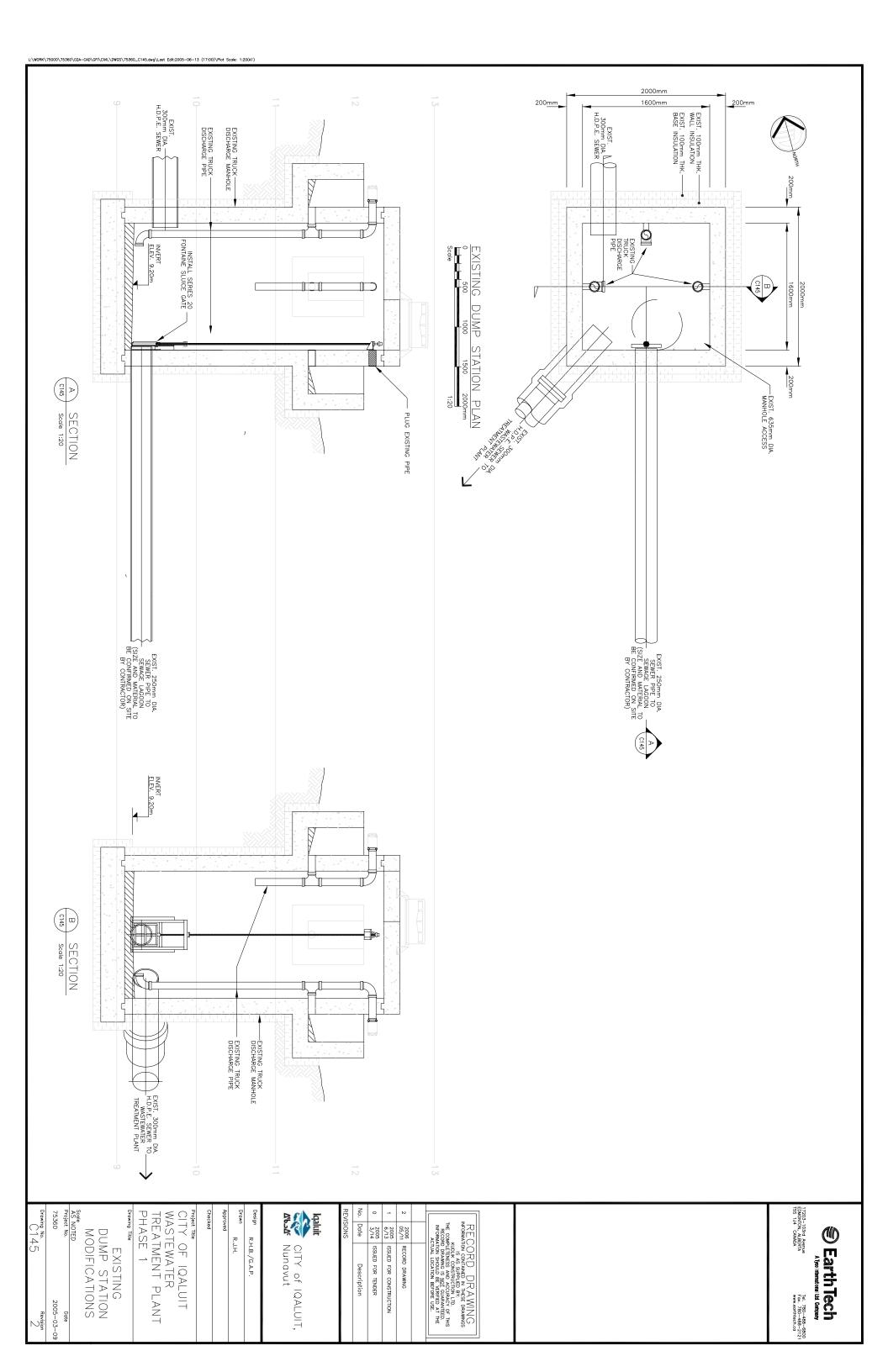


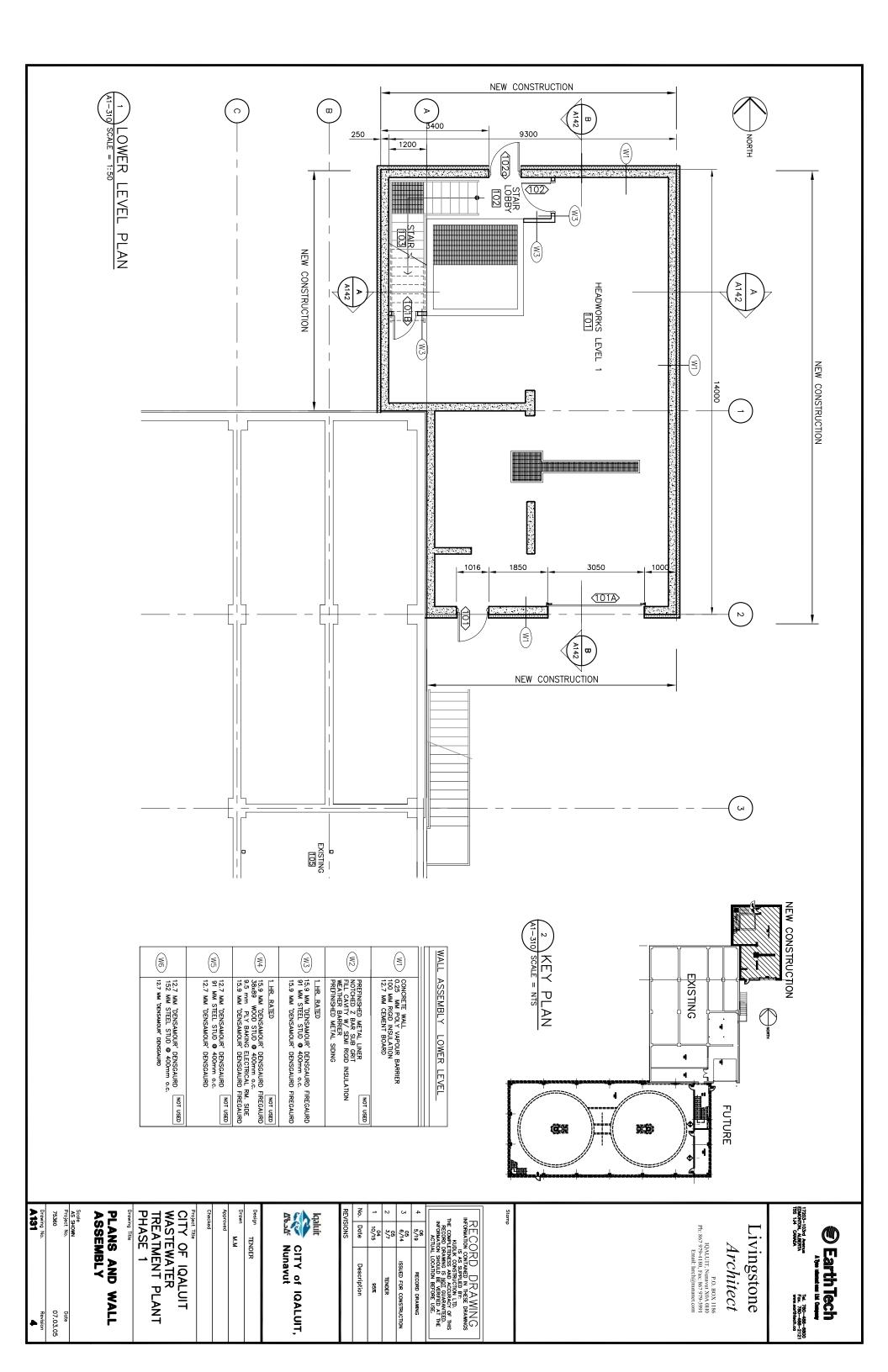


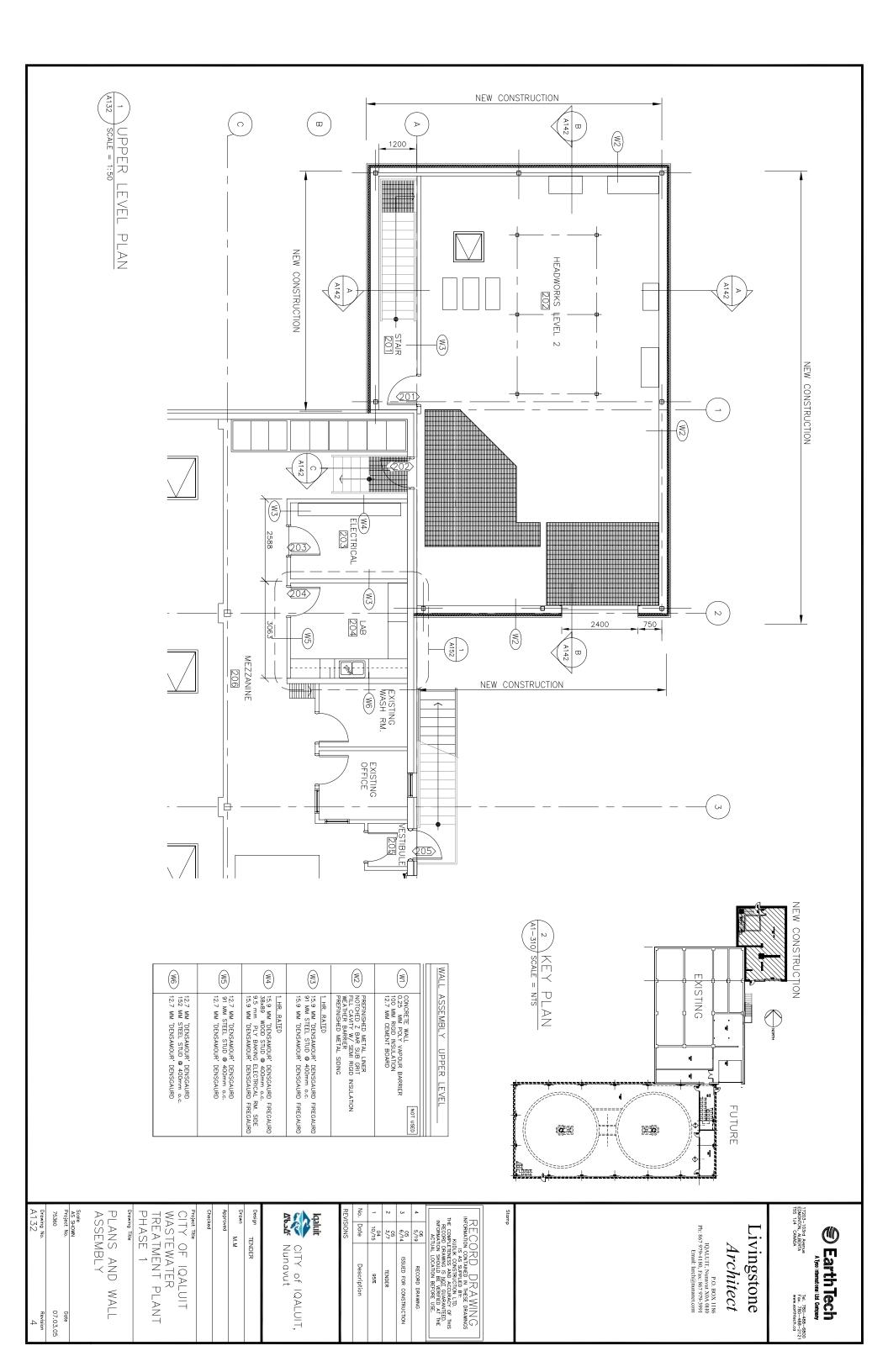


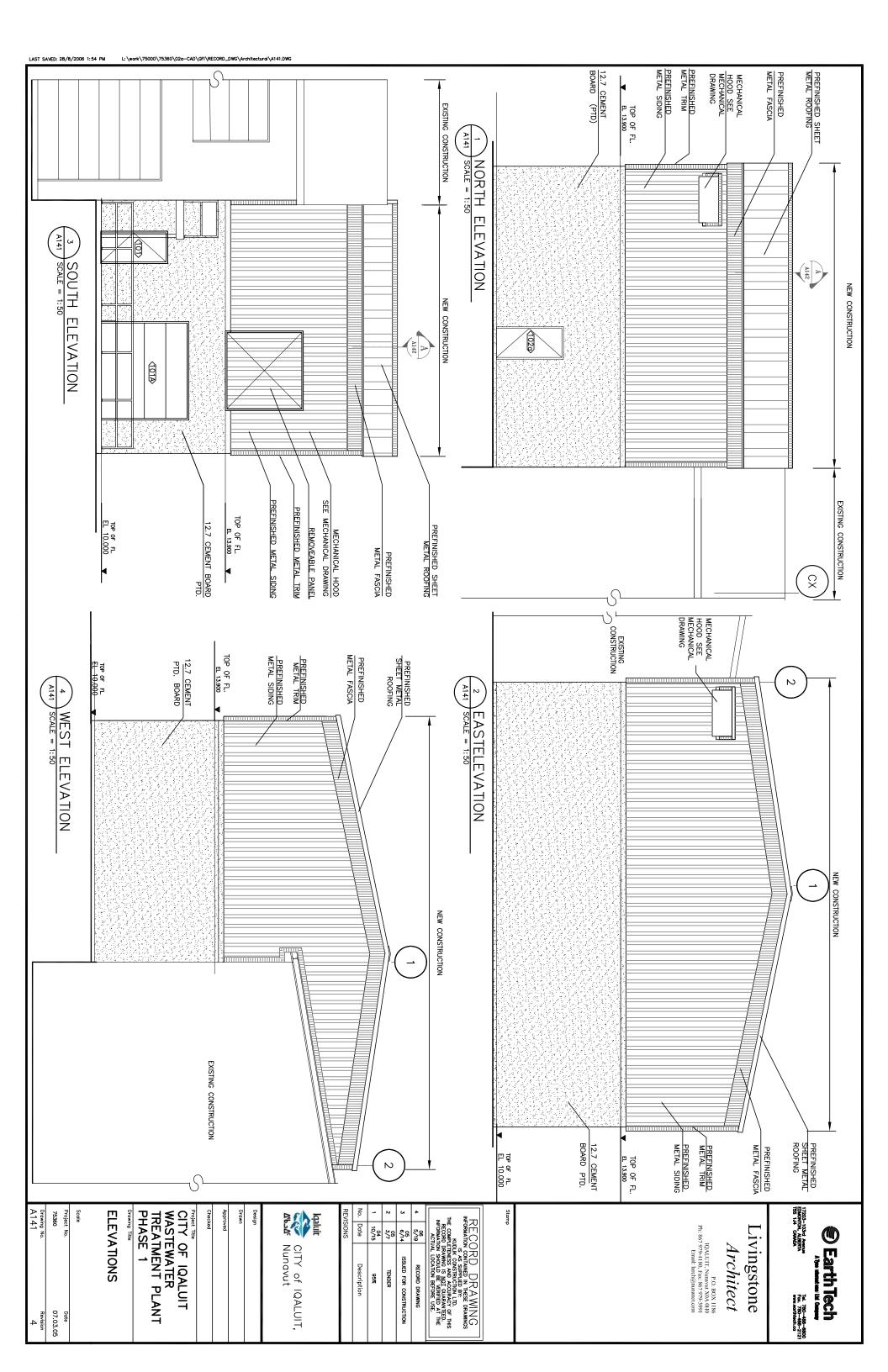


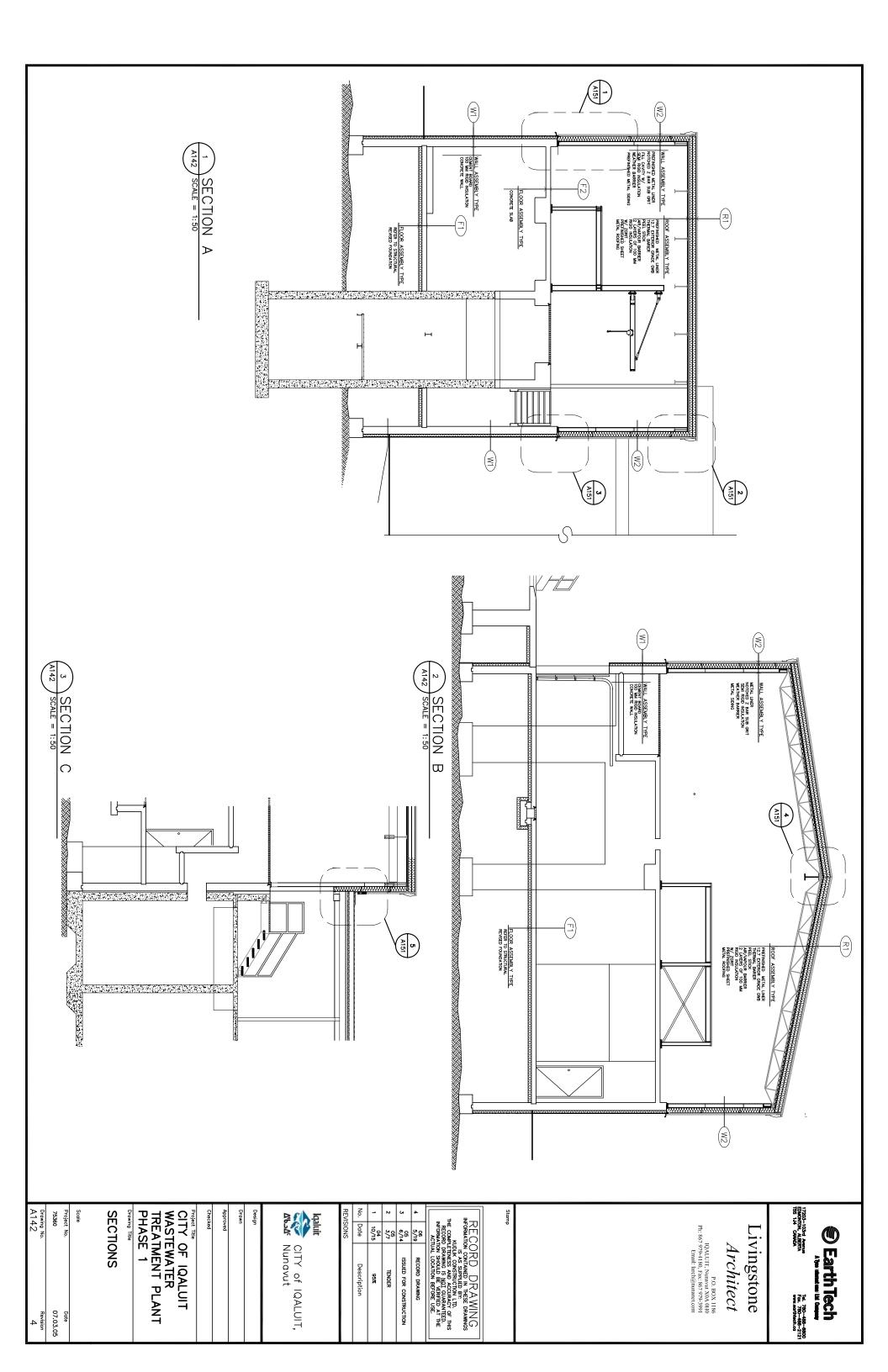


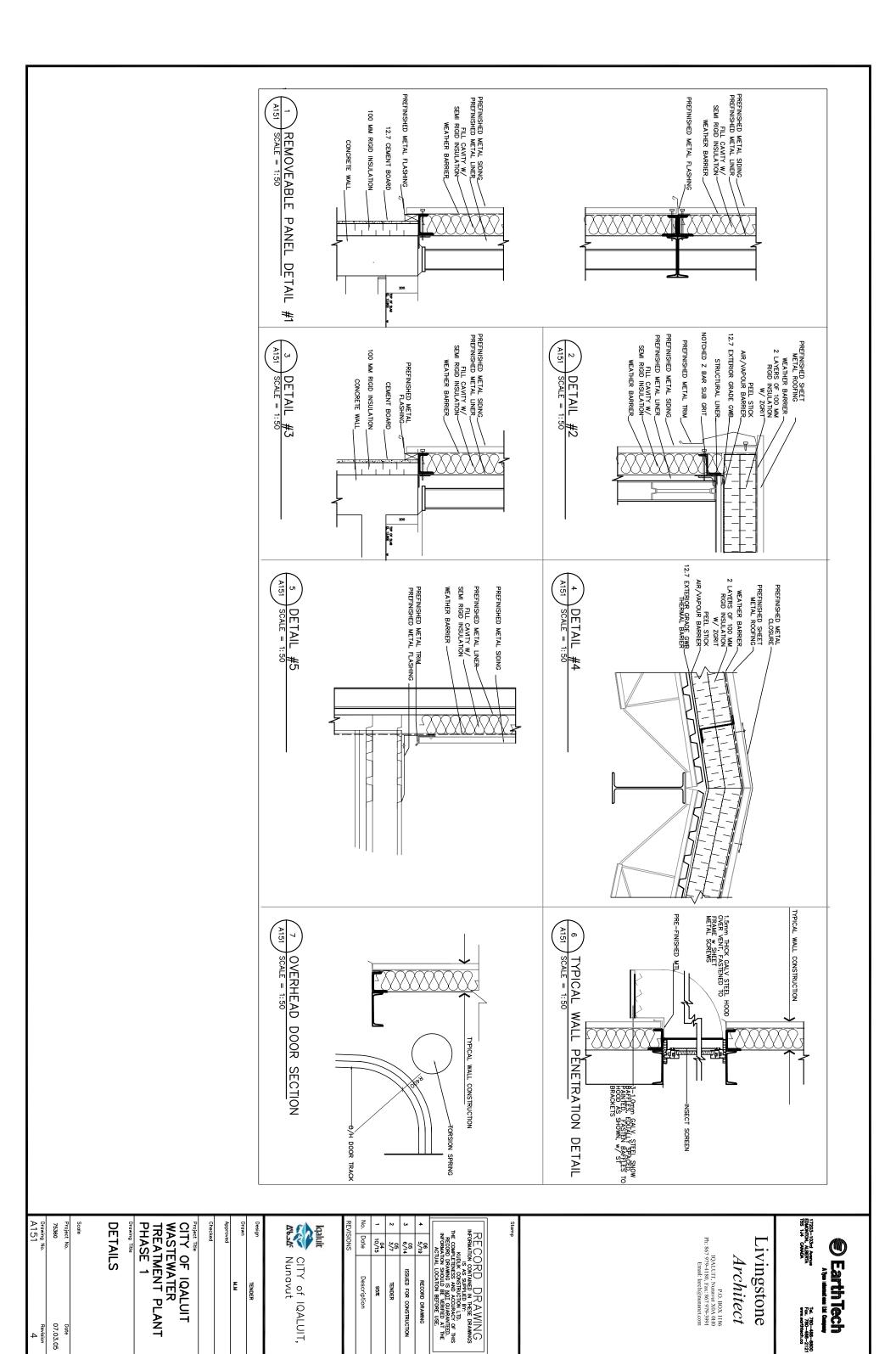


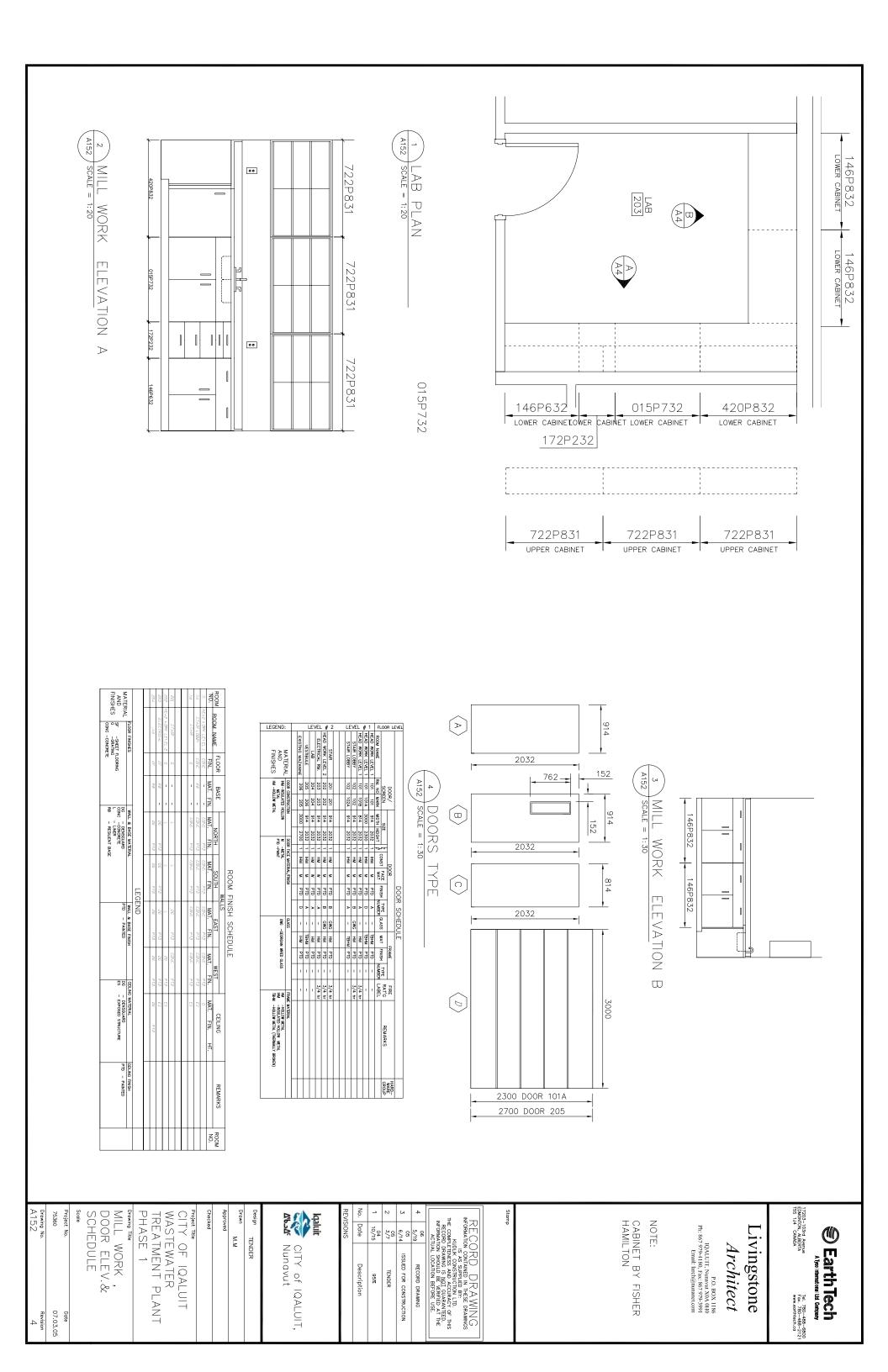












GENERAL NOTES

- READ THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER PERTINENT CONTRACT DOCUMENTS.
- ALL DIMENSONS ARE IN MILLIMETERS UNLESS NOTED. THE CONTRACTOR SHALL VERIFY DIMENSIONS BETORE CONSTRUCTION AND REPORT DISCREPANCIES BEFORE PROCEEDING WITHE WORK, DO NOT SCALE DRAWNIGS.
- THE DESIGN AND CONSTRUCTION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA 1985 AND REFERENCED STANDARDS THEREIN.
- CONTRACTOR TO COMPRIM WITH EQUIPMENT SUPPLIERS DIMENSIONS AND ALL CITHER CRITICAL DETAILS PRIOR TO CONSTRUCTION. REPORT DISCREPANCIES AND OBTAIN APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION. REFER TO THE ARCHITECTURAL, PROCESS, MECHANICAL AND ELECTRICAL DRAWNGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, SLEENES AND OTHER BUILDING COMPONENTS SHOWN ON THE STRUCTURAL DRAWNGS, REPORT DISCREPANCIES TO THE OWNER BEFORE PROCEDURG WITH THE WORK.
- PRAMINGS SHOW COMPLETED STRUCTURES ONLY. PROVIDE TEMPORARY BRACING FOR CONSTRUCTION ADDITIONS AND STABILITY OF THE STRUCTURE DURING CONDITIONS AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LOADS.
- CANSTRUCTION METHODS REQUIRING TEMPORARY SHORING, OR BRACING, SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER, REGISTED IN THE MORTHWEST TERRITORIES, NUMBER, AUTO, TO PERFORM AND TAKE RESPONSIBILITY FOR ANY SHORING OR OTHER DESIGNS REQUIRED TO COMPLETE THE CONSTRUCTION.
- VERIFY LOCATION OF UNDERGROUND SERVICES AND BE RESPONSIBLE FOR DISRUPTIONS.

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DEAD LOADS: STRUCTURE SELF WEIGHT PLUS:
ROOF LOAD
SUPERIMPOSED DEAD LOAD ROOF
FLOORS
 556
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- .1) GROUND SNOW LOAD — Ss = 2.7 KPA Sr = 0.2 KPg modify for exposure AND DRIFT PER AS NBC—1995.
- DAF TANK FLOOR
 WASH DOWN TANK IN-FILL
 WASH DOWN TANK IN-FILL
 CLARIFIER BLDG WALKWAY
 SLAB OVER AERATION TANKS
 CLARIFIER BLDG LOWER LEVEL 4.8 4.8 7.2 4.8 4.0 9.6 4.0

.3) SEISMIC

WIND LOAD

q(1:30) = 0.69 kPa q(1:100) = 0.84 kPa ZA = 1.0

ZV = 0

V = 0.05

MODIFY AS PER NBC 1995

- EXCAVATE TO LINES AND LEVELS NECESSARY TO PROPERLY COMPLETE THE WORK, MINIMUM SIDE SLOPE, OF TEMPORARY EXCAVATIONS SHALL NOT EXCEED 1 TO 1, OR AS RECOMMEDIED IN THE RECOTECNICAL REPORT, CONTROL EXCAVATION TO ENSURE BOTTOM OF EXCAVATION DOES NOT SOFTEN DUE TO EXCESS MOISTURE.
- ROCK EXCAVATION: SEE SPECIFICATION SECTION 02316
- DO NOT PLACE BACKFILL AGAINST WALLS RETAINING SOIL UNTIL THE FLOOR CONSTRUCTION IS COMPLETE. PROVIDE TEMPORARY SHORING TO PERIMETER WALLS PRIOR TO SLAB PLACEMENT.
- where backfill is required on both sides of a wall or structure, place simultaneously on each side.
- DO NOT PLACE BACKFILL ON FROZEN GROUND, NOR USE FROZEN MATERIAL
- DO NOT ALLOW COMPLETED WORK TO BE DAMAGED FROM FREEZING CONDITIONS
- UNDER INTERIOR GRADE SUPPORTED SLABS: USE TYPE 1 GRAVEL COMPACTED TO 88% SPD WITH LAYERS NOT EXCEEDING 150mm
- 2. UNDER INTEROR AND EXTERIOR STRUCTURAL SLABS. USE MATINE EXCAVATED METERIALS, OR ESCAVATED BOOK TO METHIN 250mm of PL/S SLAB. COMPACT TO 98% SPD WITH LAYEES NOT EXCEEDING 300mm. PLL NEXT 150mm WITH THE FIEL LOWFACTED TO 98% SPD. USE 100mm VOID FORM AND PL_WOOD FOR REMAINING 100mm
- UNDER EXTERIOR GRADES SUPPORTED SLABS. USE NATIVE EXCAVATED MATERIALS OR EXCELLIBED TO THE SOOM OF U/S SLA MATERIALS OF EXCELLIBED SOOM, USE TYPE 1 FILL FOR REMAINING 500mm, COMPACT TO 98% SPD IN LAYERS NOT EXCEEDING 150mm, USE TYPE 1 FILL FOR REMAINING 500mm, COMPACT TO 98% SPD IN LAYERS NOT EXCEEDING 150mm.
- Under PIPE BEDS. FILL BOTTOM WITH CLEAN COARSE SAND TO WITHIN 300mm of Surface, compact to 95% 95°D with Lycers not exceeding 150mm. USE Type 1 Fill for top 300mm. Compact to 96% 95°D in Layers not exceeding 150mm.
- UTILIZE EXCAVATED GRANULAR MATERIAL FOR BACKFILL ONLY WHEN APPROVED BY THE OWNER.

OUNDATION

- ALL FOUNDATION CONSTRUCTION TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS GIVEN IN ENGINEERING REPORT "RECOTECHNICAL INVESTIGATION PROPOSED ADDITION TO WASTE WATER TREATINGS PLANT, IQUALUT NUNAVUI." TROW ASSOCIATES INC. REPORT: OTGEODOT/181A, DATED JULY 22, 2004
- EISURE ALL LOOSE MATERIAL AND WATER IS THOROUGHLY REMOVED FROM PILE EXAMITIONS PRIOR TO PLACING REMOVEDCENT AND CONCRETE. CONCRETING OPERATIONS TO PROCEED WITHIN 3 HOURS OF EXCAMITION OR MANERALIELY IF GROUNDWATER EISETS. CASTING OF ALL PILES SHALL BE CONTRIUDUSS. CONSTRUCTION, OUNTS IN PILE SHAFTS SHALL NOT BE ALLONED WHEN A PLACE SHAFTS SHALL NOT BE ALLONED WHEN A PLACE SHAFTS SHALL NOT BE ALLONED.
- Provide Casing at all times on site and use if required due to water or sloughing soils.
- FOOTING FOUNDATIONS:

FOOTINGS TO BEAR ON SCARIFIED BEDROCK OR ON MAX 300mm GRAVEL FILL ABOVE BEDROCK

DESIGN ALLOW BEARING PRESSURE 480 KPa

- PROVIDE CONCRETE AND PERFORM WORK TO CSA CAN3-A23.1M90. THE CONTRACTOR SHALL HAVE A COPY OF THIS STANDARD ON SITE AT ALL TIMES.
- TEST CONCRETE IN ACCORDANCE CSA CAN3-A23.2-M90.
- CONCRETE REQUIREMENTS: INTERIOR CONCRETE 28 DAY STRENGTH Fc'(MPA)

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EXTERIOR CONCRETE MAX. (mm) AR TOTAL ¥8-9 NON

- SPECIFIED SLUMPS ARE PRIOR TO THE ADDITION OF ANY APPROVED PLASTICIZING ADMIXTURE WHEN CONCRETE IS PLACED BY PUMPING, THE USTED SLUMPS SHALL BE AT DISCHARGE
- ALL CONCRETE SHALL BE NORMAL WEIGHT 2400 KG/M3 UNLESS NOTED.

- PROVIDE 20mm CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
- VERIFY SIZE AND LOCATION OF ALL MECHANICAL OPENINGS, CURBS, EQUIPMENT PADS WITH MECHANICAL DRAWNIOS AND MECHANICAL CONTRACTOR, (MAJOR OPENINGS NOT SHOWN TO BE VERIFED WITH ENGINEER).
- 12.

- CONCRETE COVER TO REINFORCING STEEL LIEM COVERAGE (mm)

- NON-FEROUS GROUT: PRE-MINED, NON SHRINK, MASTER BILLDERS 71.3, STERNSON M-BED, OPD NON SHRINK RROUT, STEEL OI GROUT, MINIMUM 35 MPG COMPRESSIVE STRENGTH, OR EPOXY GROUT STERNSON TALTGROUT.
- EPONY ANCHORS: OF DIAMETER & PENETRATION SHOWN, SHEAR AND TENSION CAPACITES ARE BASED ON HIT HYTSO + HIT-HAS SUPER HARDWARE SUBMIT ANCHOR LOAD RESISTANCE DATA FROM INDEPENDANT TESTING FIRM FOR RENEW BY ENGNEER MIN 2 WEEKS PRIOR TO NITLANGED USE.
- EPOXY BONDING AGENTS: TWO COMPONENT, WATER BASED, EPOXY RESIN / CEMENT BONDING AGENT
- AGRYLIG BONDING AGENT: CPD AGRYLIG CONORETE ADHESVE, THROSYSTEMS AGRYL 60, STERNSON DURANELD C, ELSRO FLEX-CON 710, MIXED WITH CEMENT AS RECOMMENDED BY

- VOID FORM: 100 THICK EXPANDED OR EXTRUDED POLYSTYREME. TOP SHEET TO BE 12mm THICK PLYMOOD. COVER AND WRAP EDGES WITH 6 mil POLY.

- PLOYURETHANE SEALANT (VERTICAL JOINT): WITHSTAND A MAXIMUM OF 25% JOINT MOVEMENT SIKAFLEX 10, PRC 270, VULKEM 116
- INTERIOR SAM CUT JONIT OR CONTROL JONIT SEALANT: CAFLAYST CHEED EPOXY RUBBER, STERNISCN LOAD-LEX, SEALTIGHT BONDFLEX, CONCRETE CHEMICALS 9038 FLEXIBLE SEALANT. ALLED COMINGS AC-1210 FLEXIBLE EPOXY SEALANT
- PRIMERS: AS SUPPLIED BY SEALANT BY SEALANT MANUFACTURERS
- POZZOLANIC MINERAL: CONFORMING TO CAN/CSA-A23.5

CONCRETE REINFORCEMENT

- WELDABLE REINFORCING BARS SHALL CONFORM TO CSA 630.16 GRADE 400. WELDING OF REINFORCING SHALL CONFORM TO CSA W186.
- REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI DETAILING MANUAL OR THE REINFORCING STEEL INSTITUTE OF CANADA DETAILING MANUAL.

- DOWELS AND ANCHOR BOLTS SHALL BE SECURED IN POSITION BY MEANS OF TEMPLATES BEFORE CONCRETE IS POURED.
- MINIMUM REINFORCING AROUND OPENINGS LARGER THAN 300mm: 1-15M EACH SIDE AND EACH FACE OF OPENING, EXTENDED 600mm PAST CORNERS. PROVIDE DOWELS FROM CONCRETE BEAMS OR WALLS TO MATCH BLOCK REINFORCING.

- ALL CONCRETE USED FOR WATER OR SEWAGE CONTAINMENT TO CONTAIN STRENGTHENING/WATER RETAINING ENHANCEMENT ADMIXTURE SEE SPECIFICATIONS
- CONSTRUCTION JOINTS, KEYED AND DOWLED AS DIRECTED BY ENGINEER LINESS DETAILED DRAWNIGS, SUBMIT PROPOSED EITAIL AND LOCATION OF ALL CONSTRUCTION JOINTS NOT SHOWN ON DRAWNIGS, TO OWNER FOR APPROVAL.
- CONTROL JOINTS FOR SLAB ON GRADE: SAW CUT CONTROL JOINTS AS PER CSA CANZ-A23.1 LOCATIONS AS PER DRAWNOS OR MAXIMUM 4500mm ON CENTER. CLEAN AND FILL WITH SEALANT.
- PROVIDE RECESSES IN THE TOP OF FOUNDATION WALLS AND GRADE BEAMS AT ALL DOOR OPENINGS, TO ALLOW SLAB-ON-GRADE TO CONTINUE OVER.

- EXTERIOR SLABS, BEAMS OTHER INTERIOR SLABS, BEAMS, WALLS HEADWORKS CHANNELS AND WIRES **4** 8 8

ONCRETE ACCESSORIES

CONCRETE AGAINST EARTH

- EXPANSION ANCHORES OF DIAMETER & PENETRATION SHOWN, CAPACITIES ARE BASED ON HILT KIMK BOLTS. SUBHIT ANCHOR, DIAAD RESISTANCE DATA, FROM INDEPENDANT TESTING FIRM FOR REVIEW BY ENGINEER MIN 2 WEEKS PRIOR TO INTENDED USE.

- ASPHALTIC FIBREBOARD: ASPHALT SATURATED FIBRE BOARD CONFORMING TO ASTM D1751
- VNYL FOAM RODS: CLOSED CELL VNYL FOAM RODS AS REQUIRED BY DRAWNG DETAILS. 90% RECOVERY AFTER 50% COMPRESSION @ 380 KPa PRESSURE.
- HPE WATER STOPS: ONE COMPONENT, HYDROPHYLIC POLYURETHANE BASED EXTRUDABLE SWELLING PROFILE WATER STOP FOR CONSTRUCTION JOINTS.
- PVC WATER STOPS: HIGH STRENGTH POLY VINYLE CHLORIDE WATER STOP C/W PREWELDED JOINTS TO RESIST FLUID PRESSURES INDICATED.
- ō VAPOUR BARRIER, 0,25mm CLEAR, OR BLACK, POLYETHYLENE FLM, UN-RENVORGED, WITH SELF JOHESME POLYETHYLENE TIME FOR JOINTS, SUITABLE FOR BELOW GRADE USE, LAP-JOINTS & REPAIRS MIN JOOMEN
- HYDRAULIC CEMENT GROUT: FAST SETTING, NON SHRINK, HIGH STRENGTH, NON SOULUABLE CTRYSTALLINE HYDRAULIC CEMENT COMPOUND (XYPEX ADMIX APPROVED ALTERNATE)
- CRYSTALLINE CEMENT SLURRY; NON SOULABLE CTRYSTALLINE CEMENTITIOUS COMPOUND (XYPEX CONCENTRATE OR APPROVED ALTERNATE)
- SEALANTS POLYURETHANE SEALANT (HORZONTAL JOINT): WITHSTAND A MAXIMUM OF 25% JOINT MOVEMENT SIKAFLEX 12-SL, PRC 6006, VULKEM 45.

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ADMIXTURES

- CHEMICAL: CONFORMING TO CAN 3-A286.2 AIR ENTRAINMENT: CONFORMING TO CSA CAN 3-A266.1
- WATER SEALING ADMIXTURE: WATER BASED, HIGH POLYMER DISPERSION SPECIFICALLY DESIGNED TO FORTIFY PORTLAND CEMENT COMPOSITIONS, ENHANCE WATER RESISTANCE CAMACITERISTICS AND REDUCE CONCRETE SHRINKAGE (XYPEX ADMIX OR APPROVED ALTERNATE)

- DEFORMED BARS CONFORMING TO CSA 630.12M GRADE 400. TIES AND STIRRUPS TO CSA 630.12M GRADE 400.
- REINFORCING WORK SHALL BE IN ACCORDANCE WITH CSA CAN3-A23.1 AND CSA CAN3-A23.3.
- PREND'ACNO TO BE CONTINUOUS UNLESS NOTED. LAP TOP BAPS AT MIDSPAN, BOTTOM BARS AT SUPPORTS, MINIMUM LAP FOR TOM BARS TO BE 450 MM. MINIMUM LAPS FOR OTHER BARS TO BE CLASS B TRISKOM SPUCES. MEDER REINFROCEMENT LAPS ARE REQUIRED IN ADJACENT BARS, STAGGER LAPS MINIMUM 1200 UNLESS NOTED OTHERWISE.
- chair slab reinforcing not further than 1.0 metre in either direction. Supply support bars, chairs, and carriers as necessary.
- 90' HOOKS AND 180' HOOKS WHERE SHOWN SHALL BE DETAILED AS STANDARD HOOKS UNLESS NOTED OTHERWISE.

- = UNLESS OTHERWISE NOTED, ALL DOWELS TO PROJECT A MINIMUM OF 40 BAR DIAMETERS INTO SLAB OR WALL FROM FACE OF SUPPORT.
- SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION.

PROVIDE STRUCTURAL STEEL TO CSA G40.21-LATEST EDITION WITH THE FOLLOWING GRADES: FABRICATE AND ERECT STRUCTURAL STEEL TO CSA CAN3-16.1-LATEST EDITION.

- WIDE FLANGE BEAMS:
 CHANNELS AND ANGLES:
 HSS SECTIONS (CLASS "C"):
 STRUCTURAL BARS AND PLATES:
 MISCELLANGUS STEEL:
 ANCHOR BOLTS:
- DIMENSIONS SHOWN ARE TO CENTER LINES OF SECTIONS AND TO BACK OF CHANNELS OR ANGLES. ELEVATIONS SHOWN ARE TO TOP OF STEEL U/N.

 - FABRICATOR TO BE CERTIFIED AS A DIVISION 1 OR 2 COMPANY UNDER CSA W47.1. SUBMINISHOP DRAWNOS FOR REVIEW PRIOR TO FABRICATION.
- WELD TO CSA W59-M85 BY FABRICATORS QUALIFIED TO CSA W47.1-83. IELD WELDING AND FIELD MODIFICATION OF STRUCTURAL STEEL SHALL NOT BE ALLOWED WITHOUT PRIOR REVIEW AND APPROVAL BY THE ENGINEER.
- TIEMPORANY BRADNO DURING CONSTRUCTION TO BE DESIGNED BY CONTRACTOR, ERECTION BRADNO SHALL BE REBUOKED ONLY AFTER PERMANENT FLOOD DIAPHRADAIS, ROOF DIAPHRADAIS, ROOF DIAPHRADAIS, SHEAR WALLS AND PERMANENT BRACING ARE COMPLETED.
- CONNECTIONS NOT DETAILED ON THE STRUCTURAL DRAWNICS SHALL BE DESIGNED AND DETAILED BY THE STREET FABRICATOR. FACTORED (UNFACTORED) LOADS OFR THESE CONNECTIONS ARE SHOWN ON THE DRAWNICS. MOMENT IS DENOTED AL IN KIT-M. TENSON IS DENOTED IT. COMPRESSON IS DENOTED C. OTHERWISE LOADS ARE SHERE LOADS. LOADS ALLOWED IT. CONNECTION FOR THE ALLOWARD FOR THE PROPERTY OF THE CONNECTION.

 1. BOLTS A228 M20 (MIN.) MINIMAM 2 BOLTS FER CONNECTION.

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- MINIMUM WELDS FOR CONNECTIONS SHALL BE 5mm FILLET WELD AND WHERE EXPOSED IN FINISHED BUILDING WELD SHALL BE GROUND SMOOTH.
- PROVIDE SIPFEMER/BEANING PLATES ON BOTH SIDES OF W-SHAFE AND ON ONE SIDE OF C-SHAFE BEAMS AT ALL LICKLAINDIS WIEBER CONDESTRATED LOADS OCCUR (CICLUINING OWS). SEATS) AND AT BEARING SUPPORTS. EACH SIPFEMER SHALL EQUAL HALF THE BEAM WIDTH, BE PALL HEART BETTEN PLANCES, AND HAVE A MINIMUM THORNESS OF Brim BUT SHALL NOT BE THINNER THAN THE WES OF THE BEAM. PROVIDE BOLT HOLES IN STRUCTURAL STEEL WHERE SHOWN AND WHERE REQUIRED FOR THE ATTACHMENT OF BOLTED BLOCKING OR FASTENINGS BY OTHER TRADES.
- PROVIDE CLOSURE PLATES AT ALL OPEN ENDS OF ALL HSS MEMBERS AND SEAL WELD. PLATE THICKNESS TO EQUAL WALL THICKNESS OF HSS MEMBER.
- ជ FRAME ALL OPENINGS IN ROOF AND FLOOR DECK, ROUND AND RECTANDILIAR, THAT ARE LARGER THAN AGORM. CONTRIANCE WITH CONTRIANT DOCUMENTS. FRAME BACK TO STRUCTURE AS PER TYPICAL ROOF OPENING FRAMING DETAIL. GROUT UNDER BEARING PLATES INSTALLED IN ACCORDANCE WITH SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATION.
- CLEAN ALL STEL PRIOR TO PAINTING TO SSPC SURFACE PREPARATION SPECIFICATION NO. 7 "BRUSH-OFF BLAST CLEANING" EXCEPT STRUCTURAL STELL MEIBERS WHICH ARE EXPOSED IN THE COMPLETED STRUCTURE IN WHICH CASE CLEANING SHALL COMPORAL TO SSPC SURFACE PREPARATION SPECIFICATION NO. 6 "COMMERCIAL BLAST CLEANING".

- DESIGN AND FABRICATE OPEN WEB STEEL JOISTS TO CSA CAN3-S16.1 (LATEST EDITION) FOR DEPTHS, DETAILS, AND LOADING SHOWN ON THE DRAWINGS.
- SUBMIT SHOP DRAWNOS FOR REVIEW PRICE TO FABRICATION. SHOP DRAWNOS SHALL SHOW DETAILS, MATERIALS, UNIFORM AND CONCENTRATED DESIGN LICADS, BRIDGING AND ACCESSORIES. SHOP DRAWNOS SHALL BE SEALED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE NORTHWEST TERRITORIES, NUNAVUT.
- CAMBER REQUIREMENTS AND DEFLECTION LIMITATIONS TO CSA S16.1 UNLESS NOTED ON DRAWNGS.
- PROVIDE PERMANENT BRIDGING FOR ALL JOISTS IN ACCORDANCE WITH CSA CAN3—S16.1—(LATEST EDITION), UNLESS INDICATED OTHERWISE.
- CLEANING PREPARATION AND PAINTING SHALL CONFORM TO STRUCTURAL STEEL REQUIREMENTS. Steel Joist Supplier to coordinate owsj web configuration and bridging type and Locations with Mechanical contractor to ensure fitment of all duct and pipe runs.
- PROVIDE TEMPORARY BRACING AS REQUIRED DURING CONSTRUCTION.

design, fabricate and install steel deck to CSA S136-(Latest edition) and the canadian sheet steel building institute standards.

- ROOF DECKING PROFILE: 38mm DEEP MINIMUM 0.76mm (22 GA) ZINC COATED STEEL CONFORMING TO ASTM A446.
- FLOOR DECKING PROFILE: 38mm; 0.76 ZINC COATED CONFORMING TO ASTM A446.PROVIDE DEFORMED STEEL DECKING FOR COMPOSITE FLOORS WHERE SPECIFIED ON THE DRAWINGS.
- ZINC COATING TO ASTM A525 275 G/M. WIPE COAT GALVANIZING IS NOT ACCEPTABLE.
- NETALL DECKING CONTINUOUS OVER MINIMUM THREE SPANS EXCEPT WHERE OTHERWISE APPROVED. MINIMUM BEARING EQUAL TO DECK DEPTH, LAP JOINTS 75mm AT STRUCTURAL SUPPORTS.
- MELD BECK TO SUPPORTING STEEL MITH.

 20mm DUMETER TUSION MELDS USING MELD WASHERS MIERE NECESSARY, SIDE LAPS

 20mm DUMETER TUSION MELDS USING MELD WASHERS MIERE NECESSARY, SIDE LAPS

 7.54/TEND BY BUTTON PUNCHING, CLINCHING, TRANSFER MELDS, LONGTUDINAL MELDS AND

 FERMETER MELD GEOLOGICALINETIS AS PER DEPARMENTS, TRANSFERSE

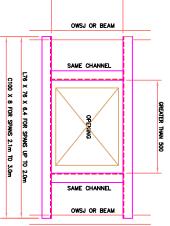
 MELDS PER SUPPORT (300 O.C. MAX) LONGTUDINAL MELDS 800 O.C. MAXIMUM BUTTON

 PUNCHING 800 O.C. MAXIMUM BUTTON
- PAINT ALL WELDS WITH GALVICON.
- cut openings in the decking where indicated on the drawings and in cooperation with other trades. Rediverge openings between 150mm and 400mm with 65 \times 65 \times 5 angle exprendingly at 70 puters, welded to deck and extended 2 flutes each side of opening. Openings larger than 500mm SUBMIT SHOP DRAWINGS SHOWING ALL DETAILS, MATERIAL SPECIFICATIONS AND DESIGN LOADS

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OPENINGS LA TO BE REINFO FLUTES WELD OF OPENING. OPENINGS UP TO 150mm DO NOT REQUIRE REINFORCING.

C150 X 10 FOR SPANS 3.1m TO 4.0m



FOR OPENING SHOWN ABOVE IS LARGER THAN 500mm REINFORCE OPENING AS IRGER THAN 150mm BUT LESS THAN 500mm ARE ORCED WITH L65 X 85 X 5 PERPENDICULAR TO DECK AND EXTENDED 2 FLUTES EACH SIDE

RECORD DRAWING INFORMATION CONTINUED IN THESE DRAWINGS INFORMATION TO THE COMPLETE AND INFORMATION TO THE COMPLETE AND INFORMATION OF THE RECORD DRAWING IS MOT CHARACTER INFORMATION ASSOCIATED THE ACTUMAL CONTINUE BEFORE USE. 2005 03/04 2006 05/11 RECORD DRAWING ISSUED FOR TENDER ISSUED FOR CONSTRUCTION

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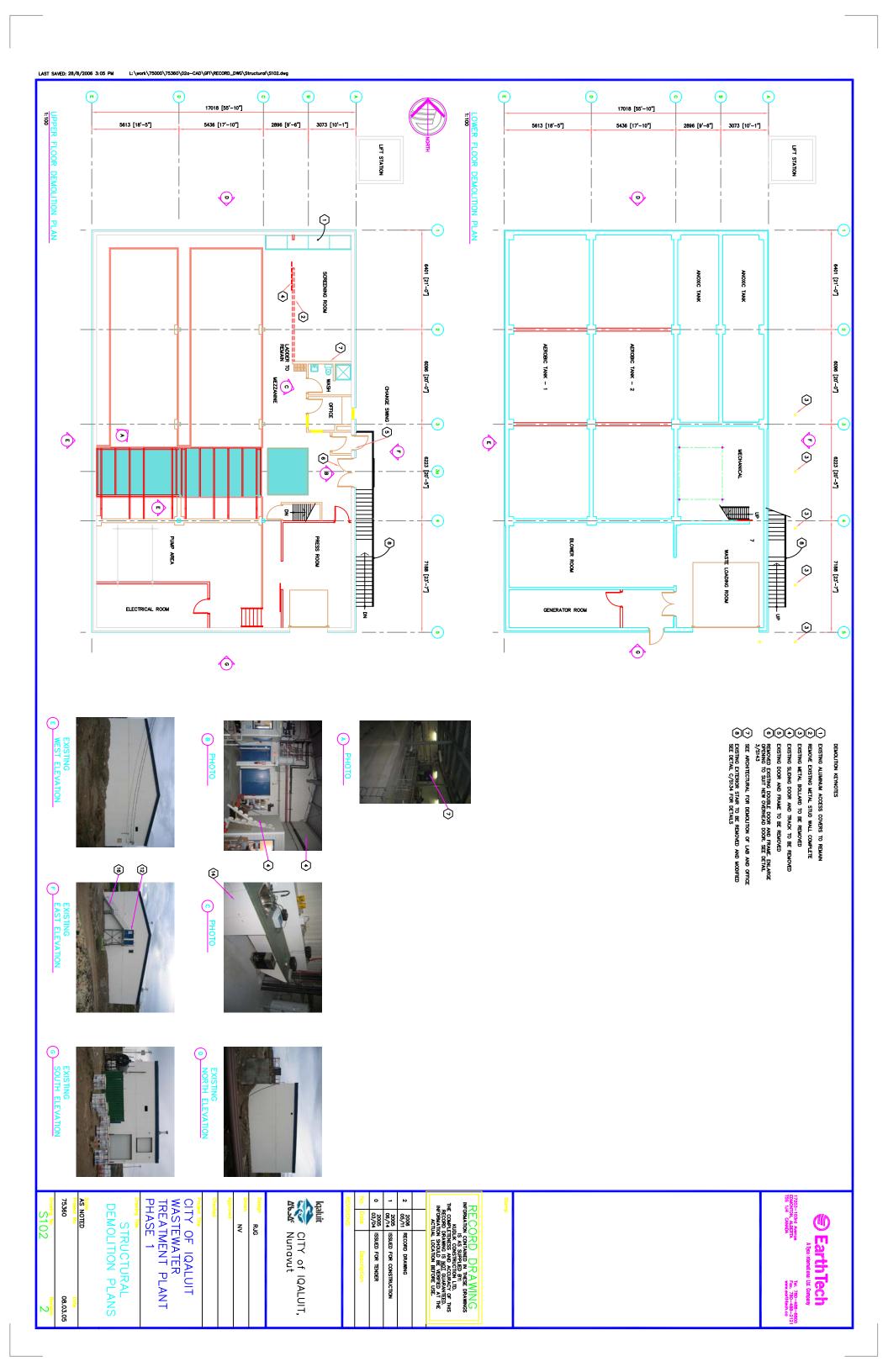
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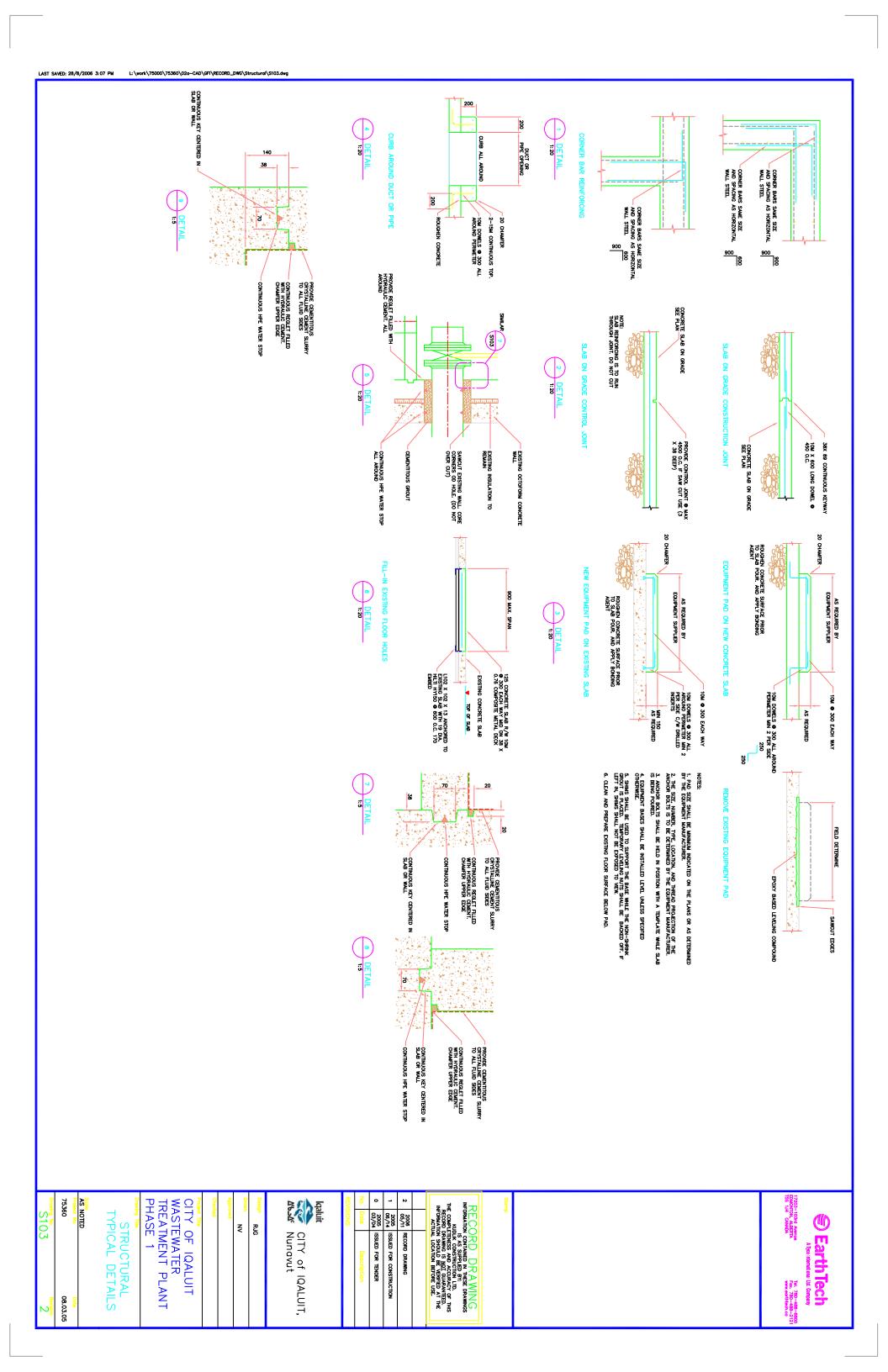
WASTEWATER
TREATMENT PLANT
PHASE 1 STRUCTURAL

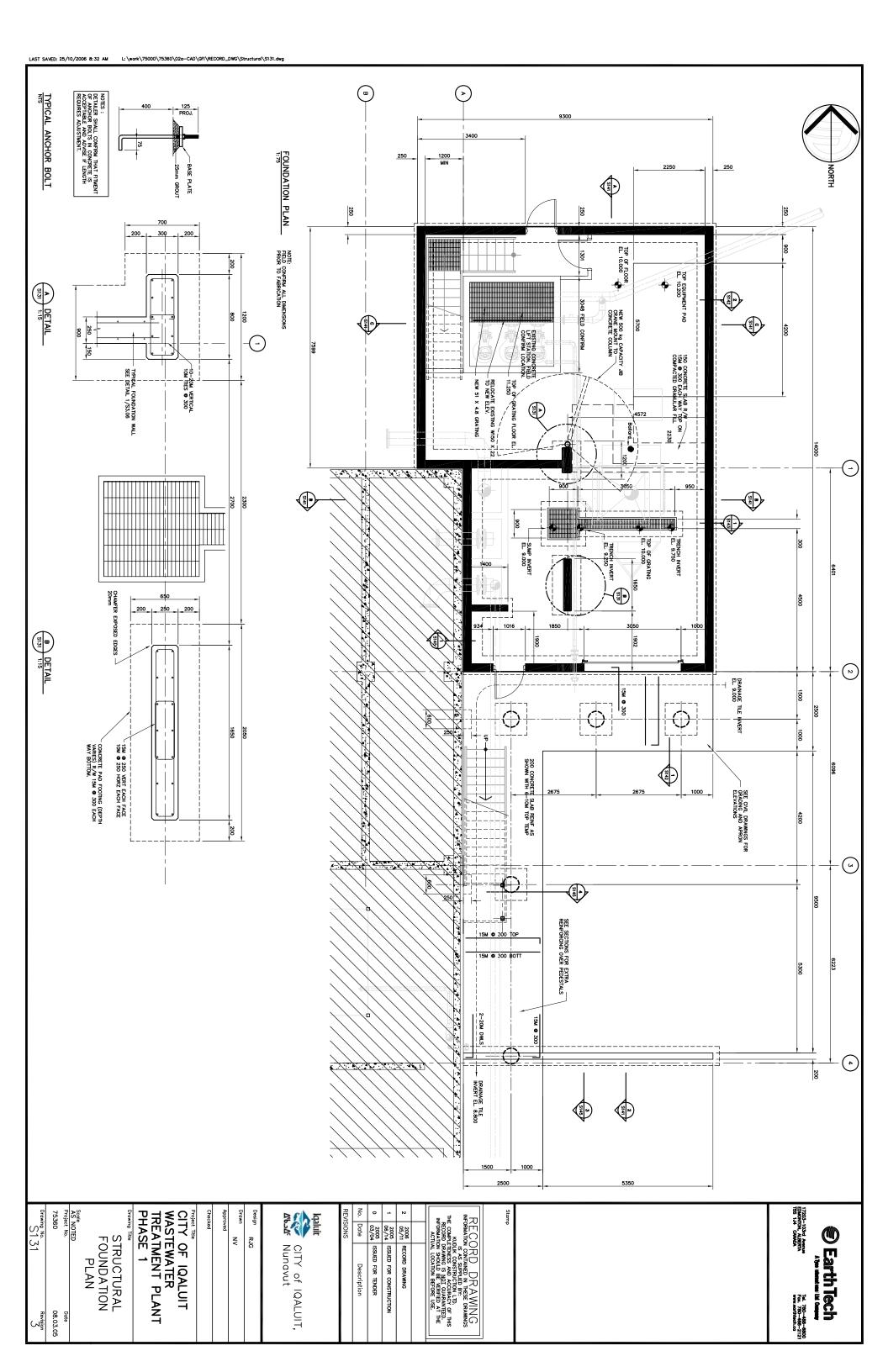
GENERAL NOTES

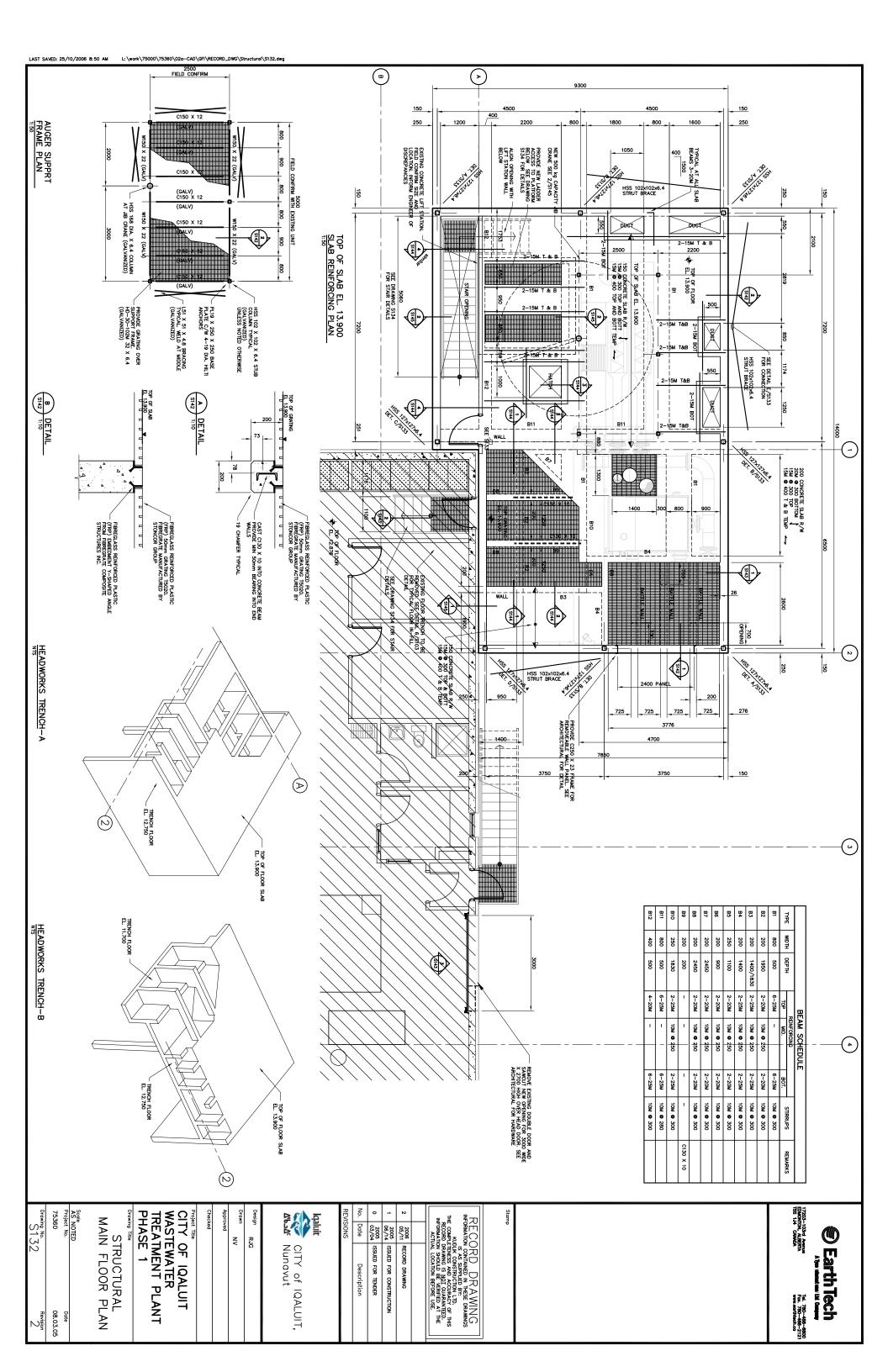
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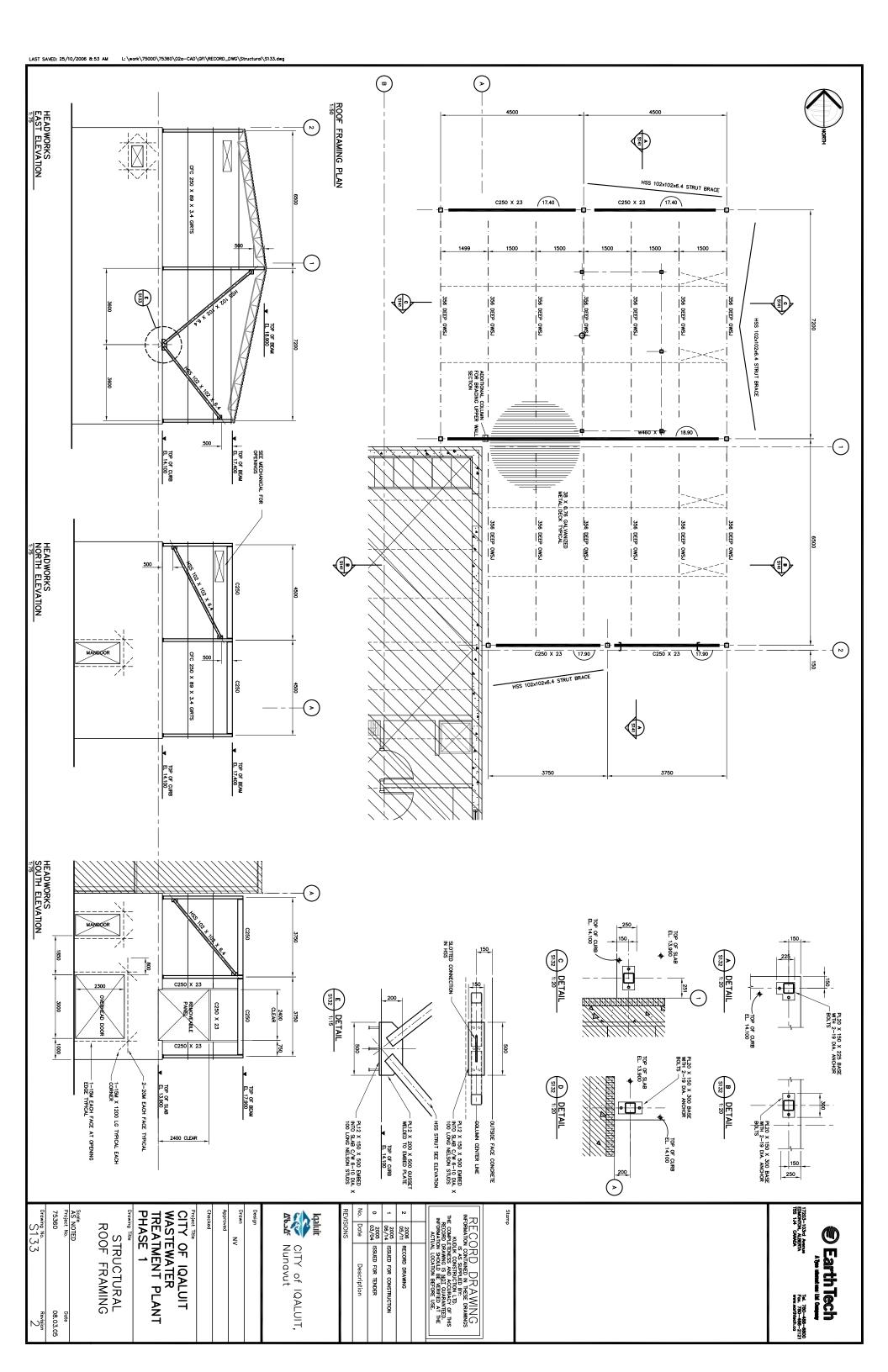
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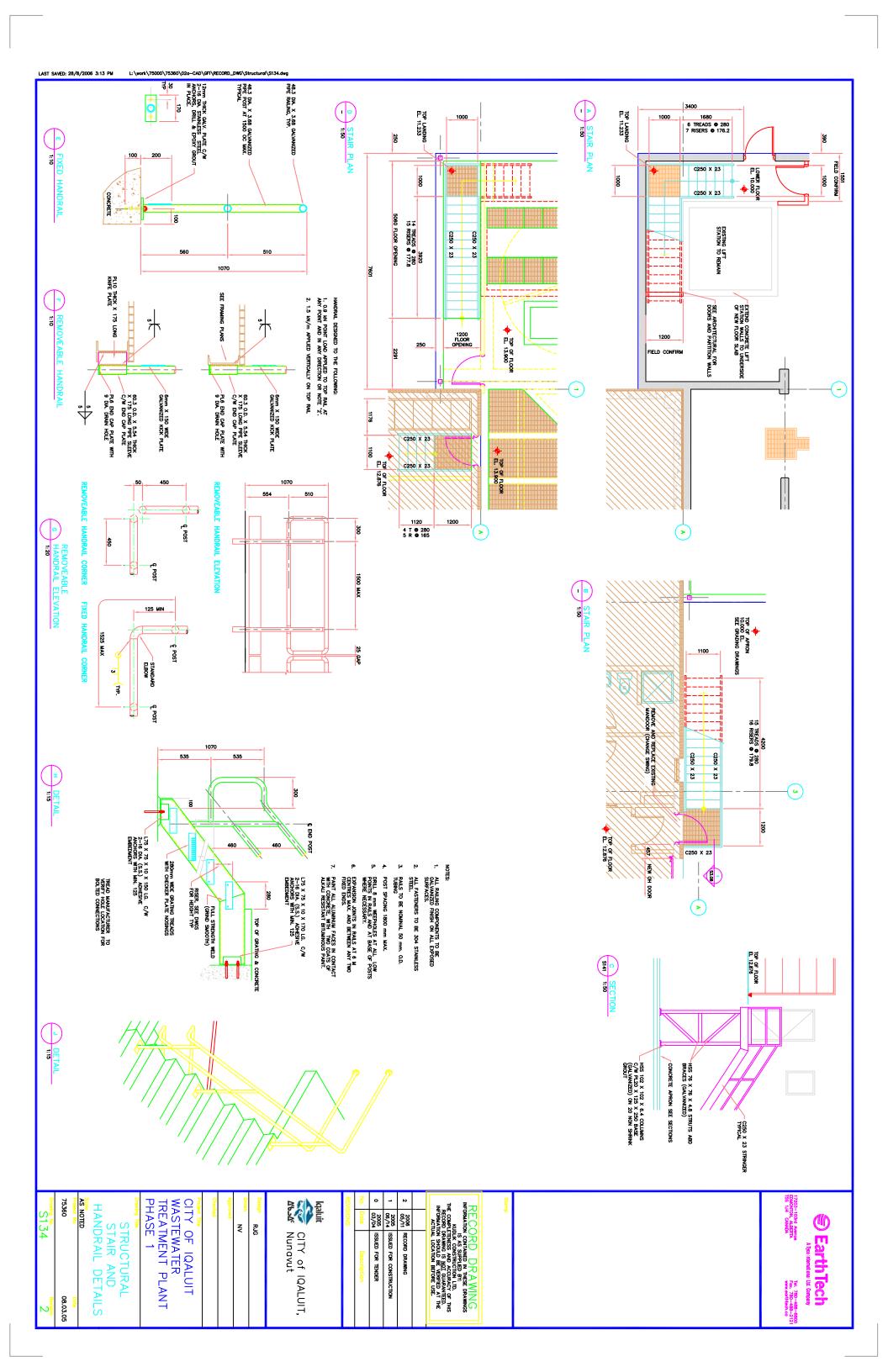


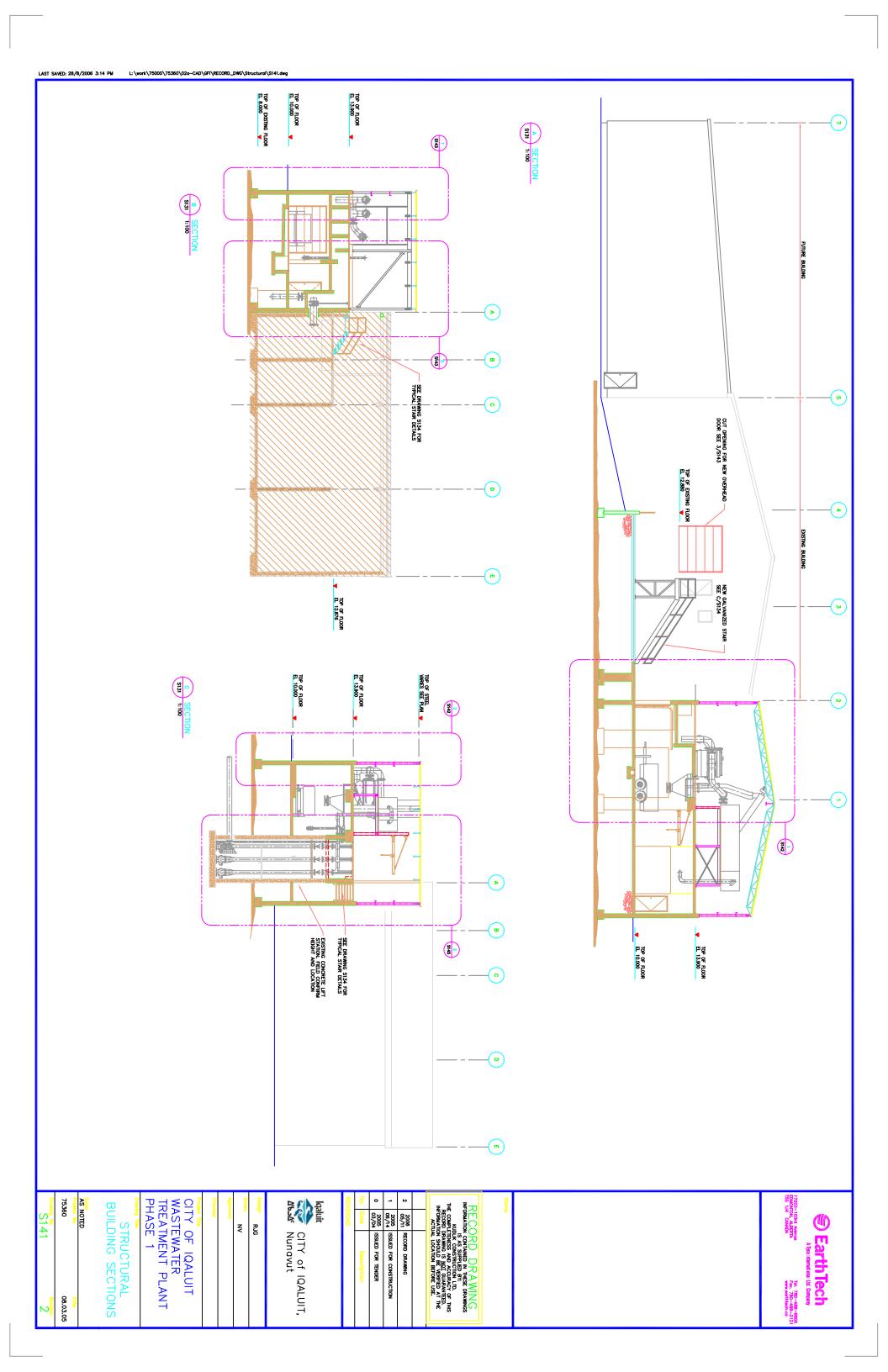


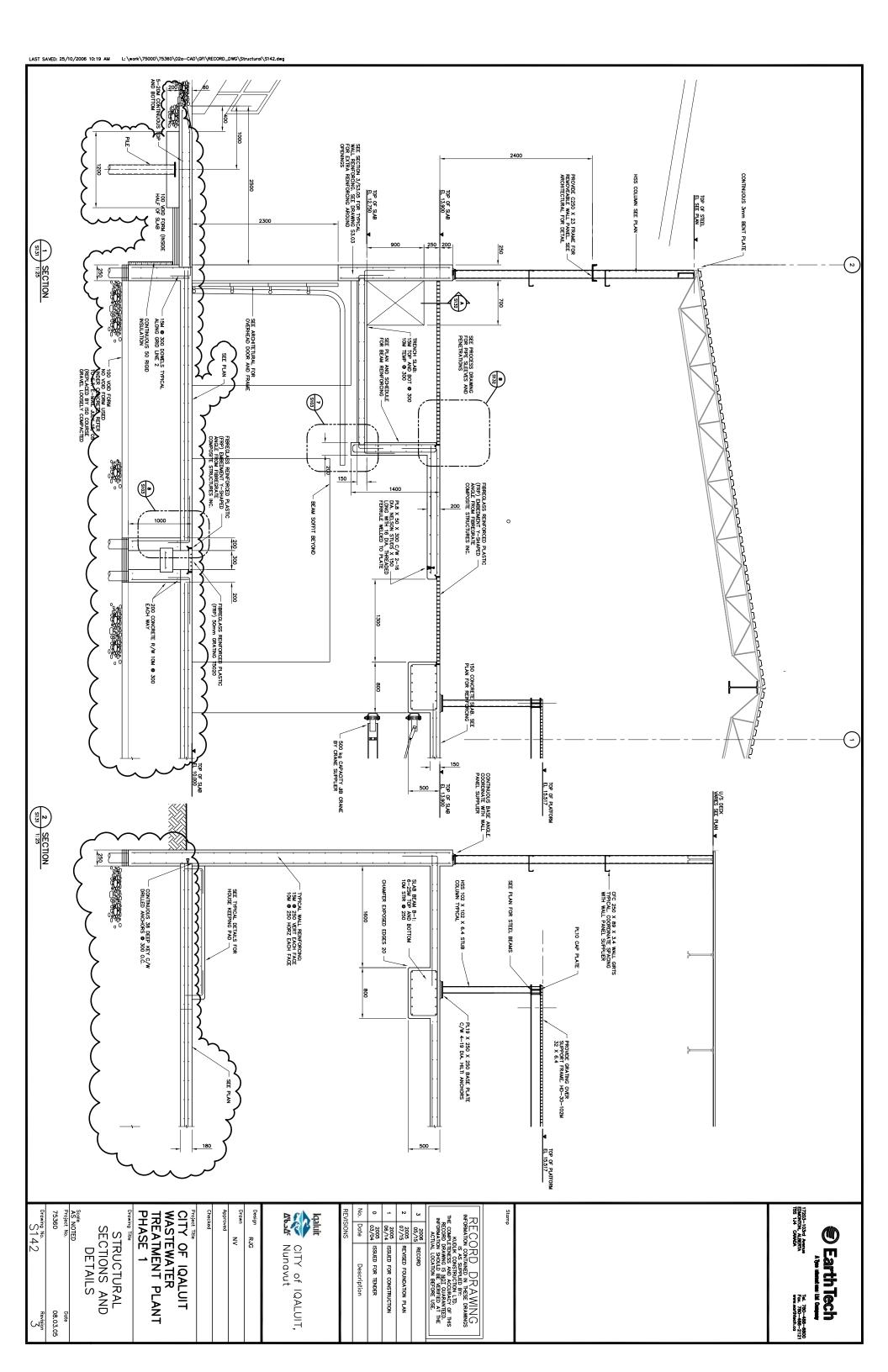


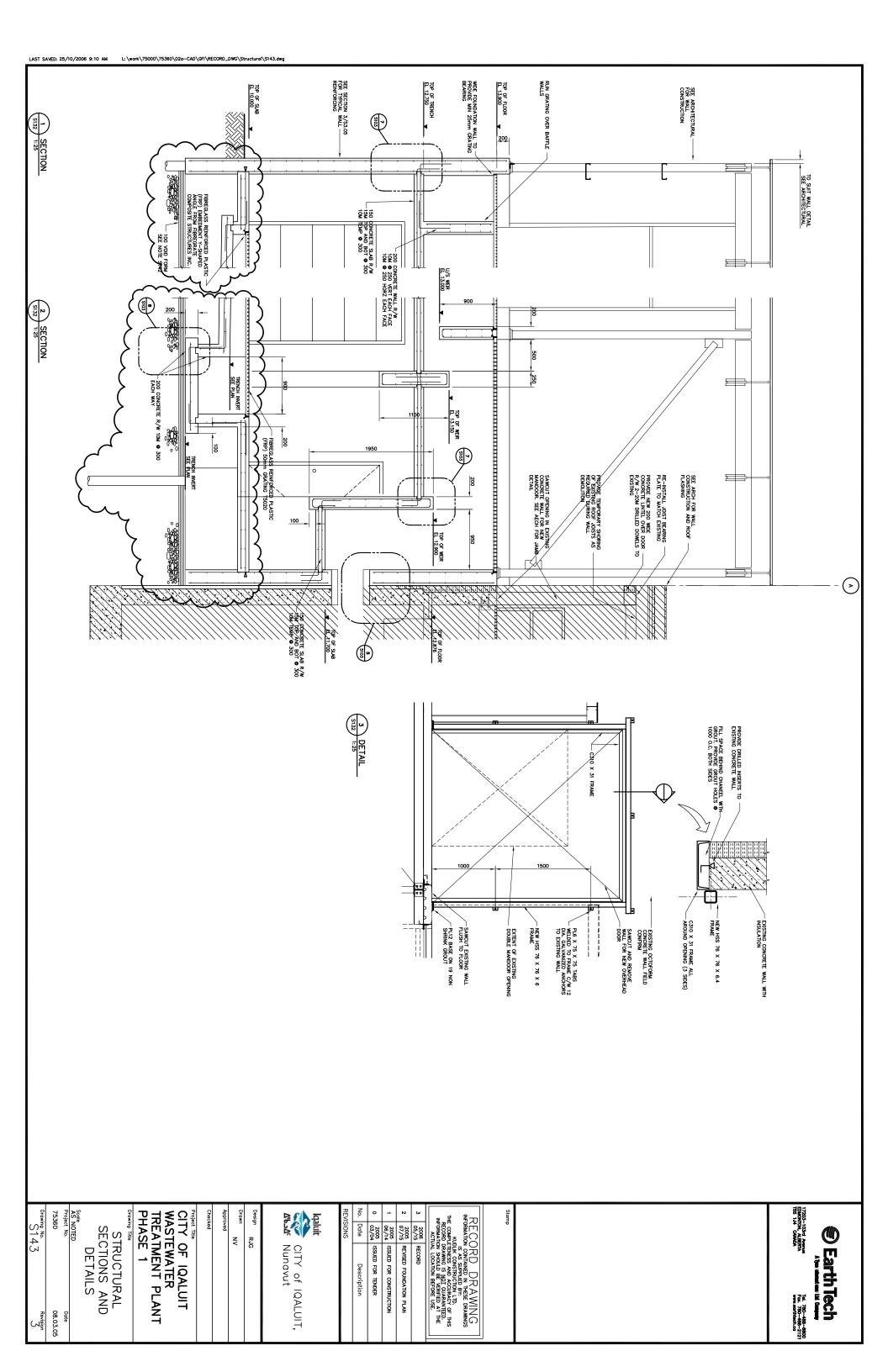


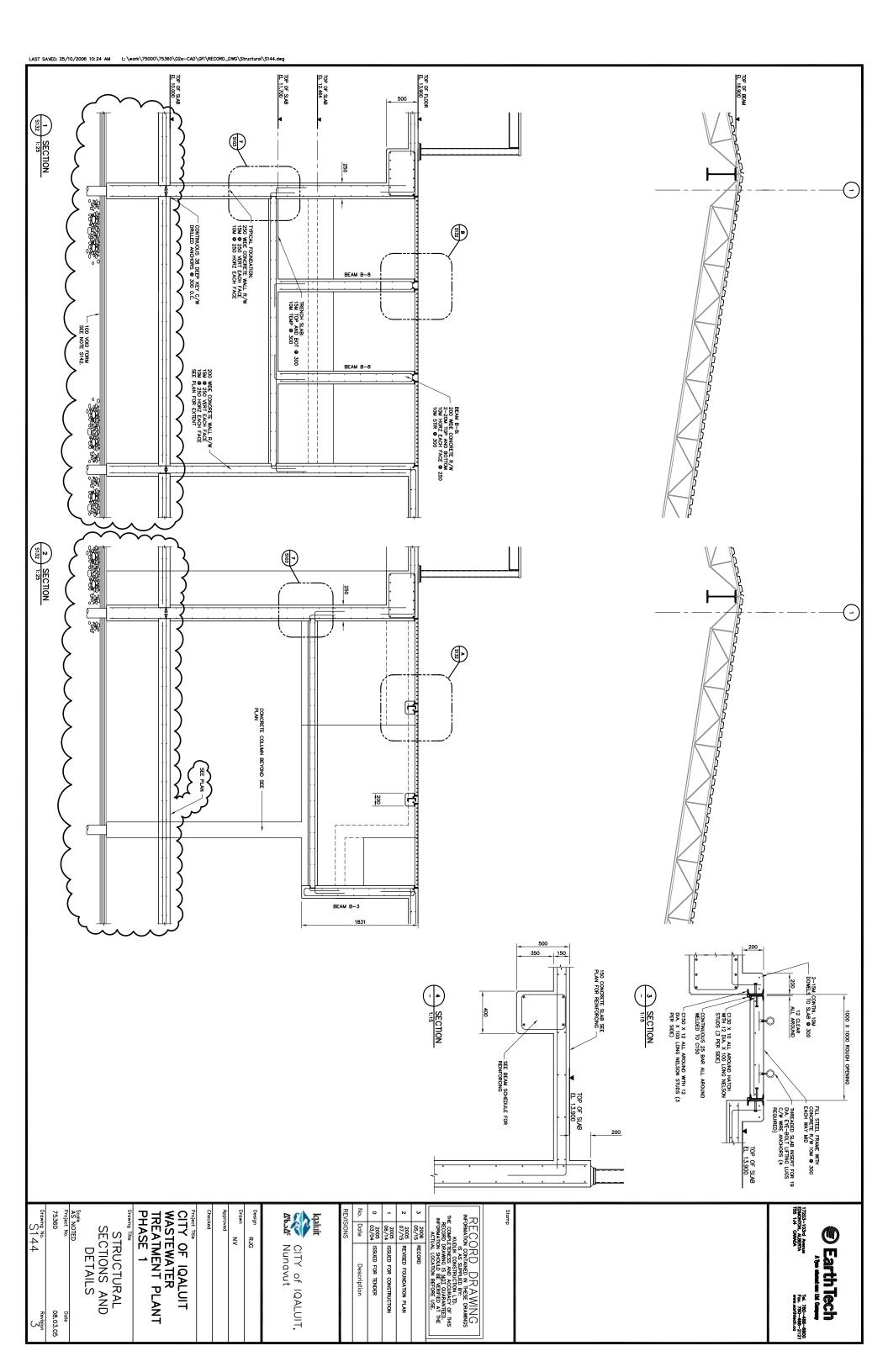


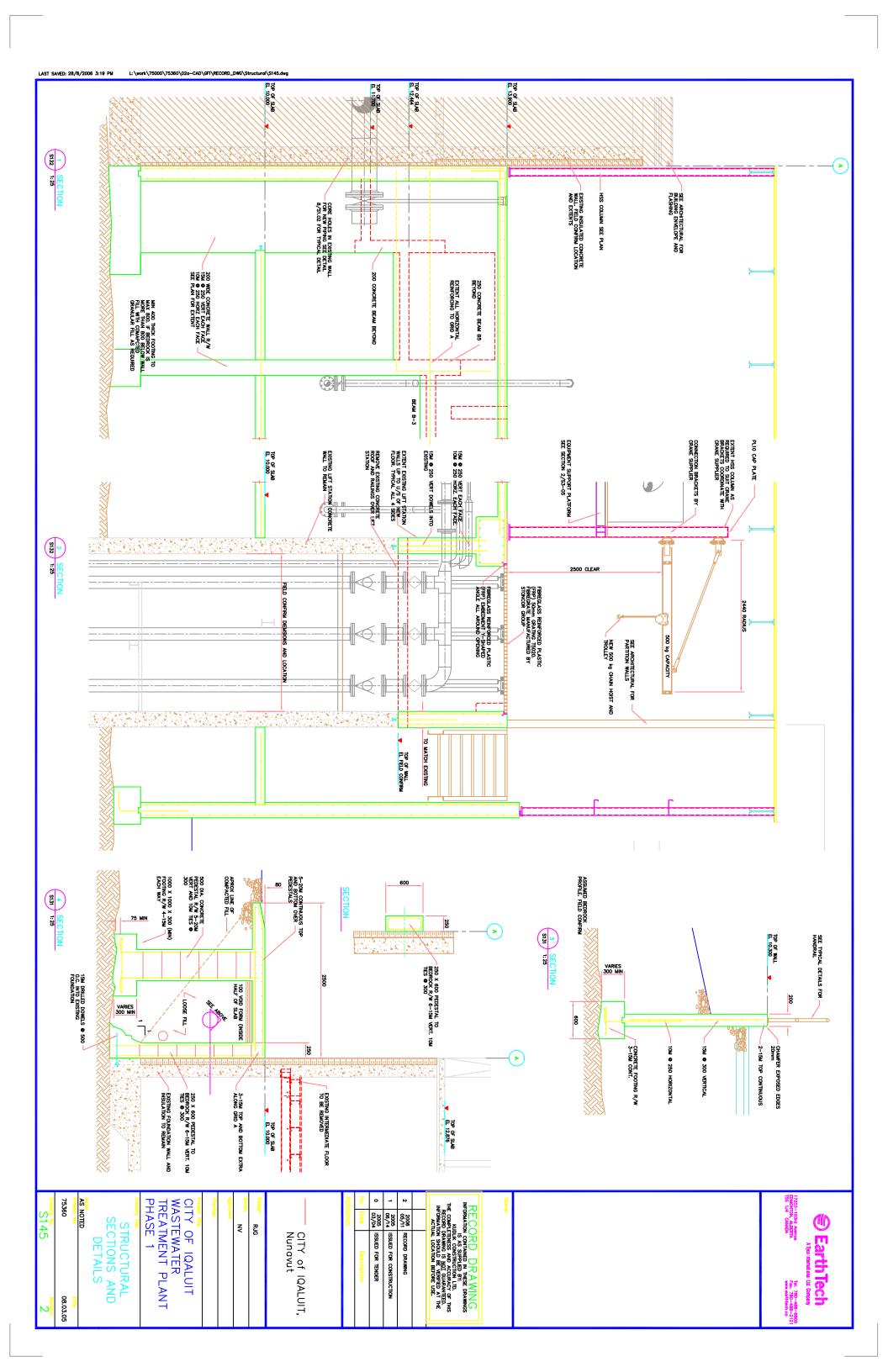


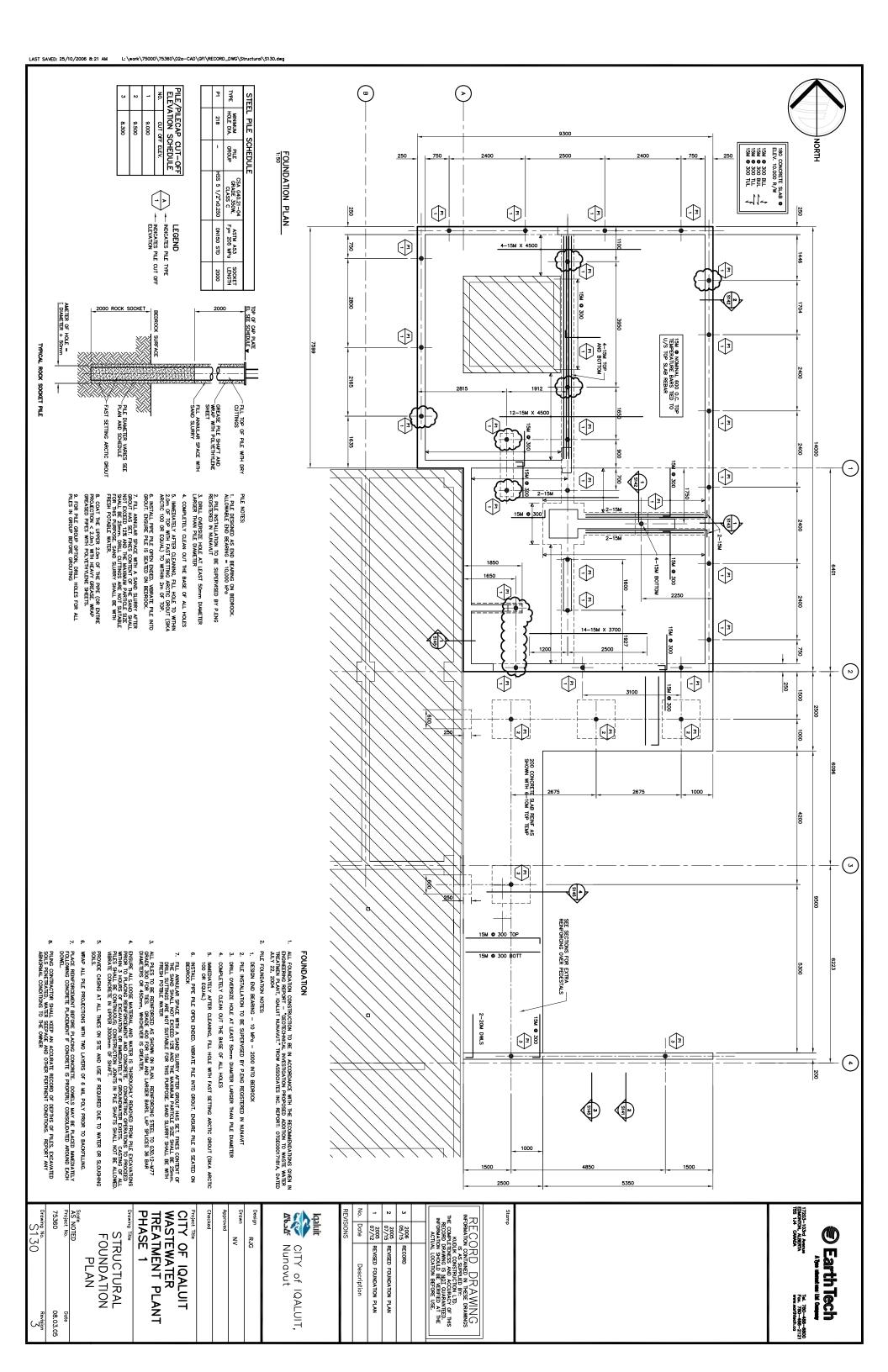












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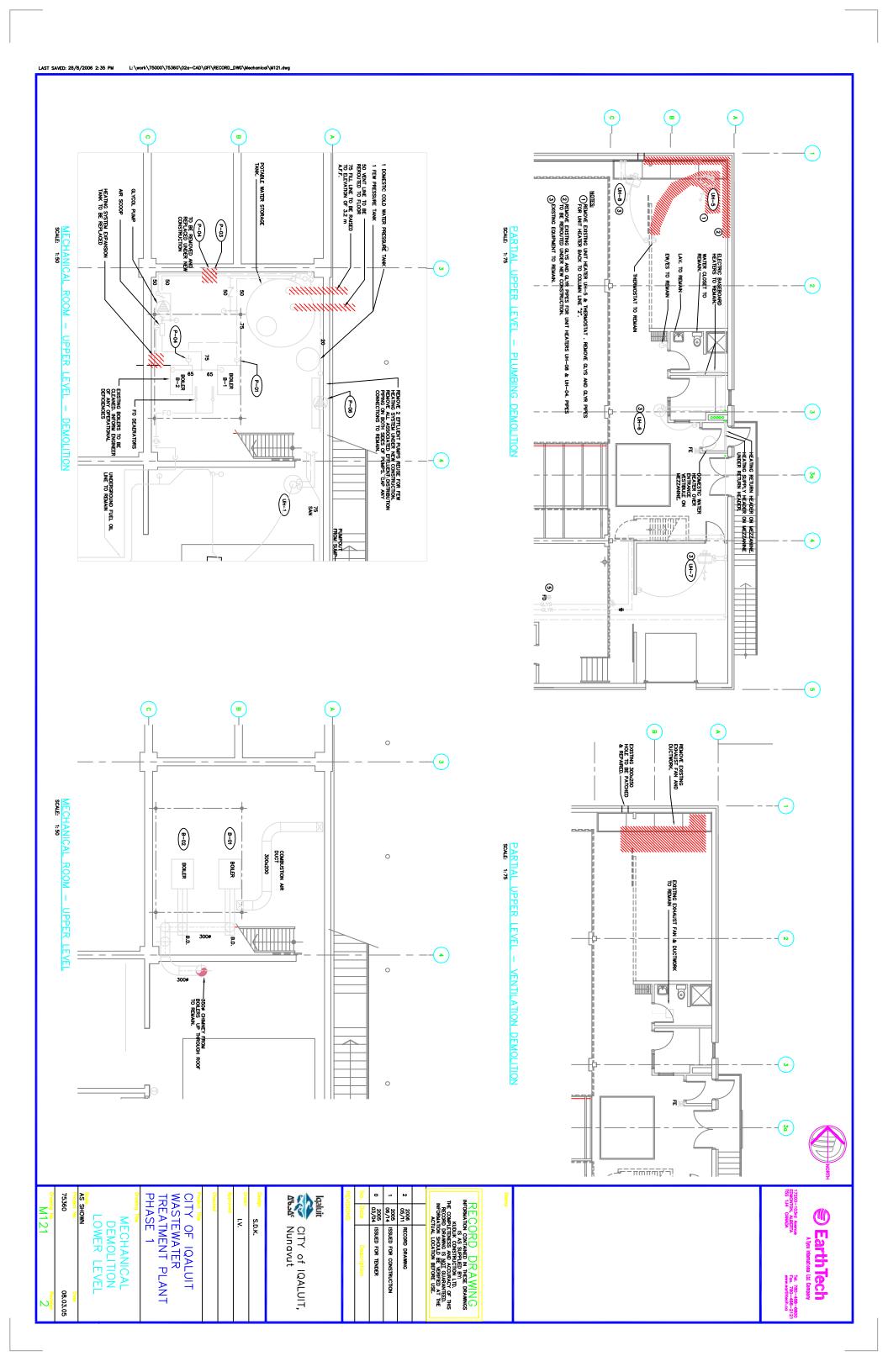
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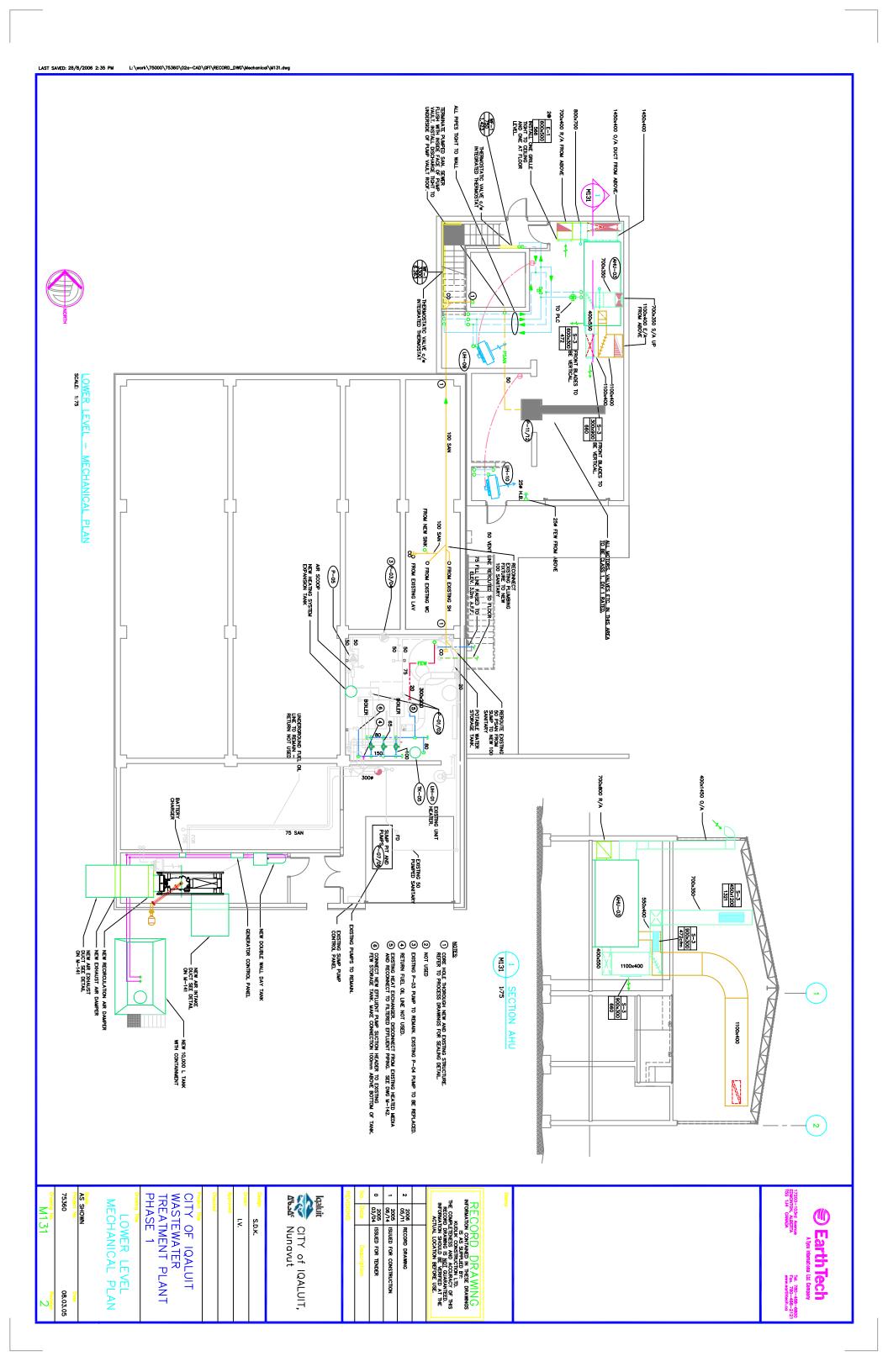
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WASTEWATER
TREATMENT PLANT
PHASE 1

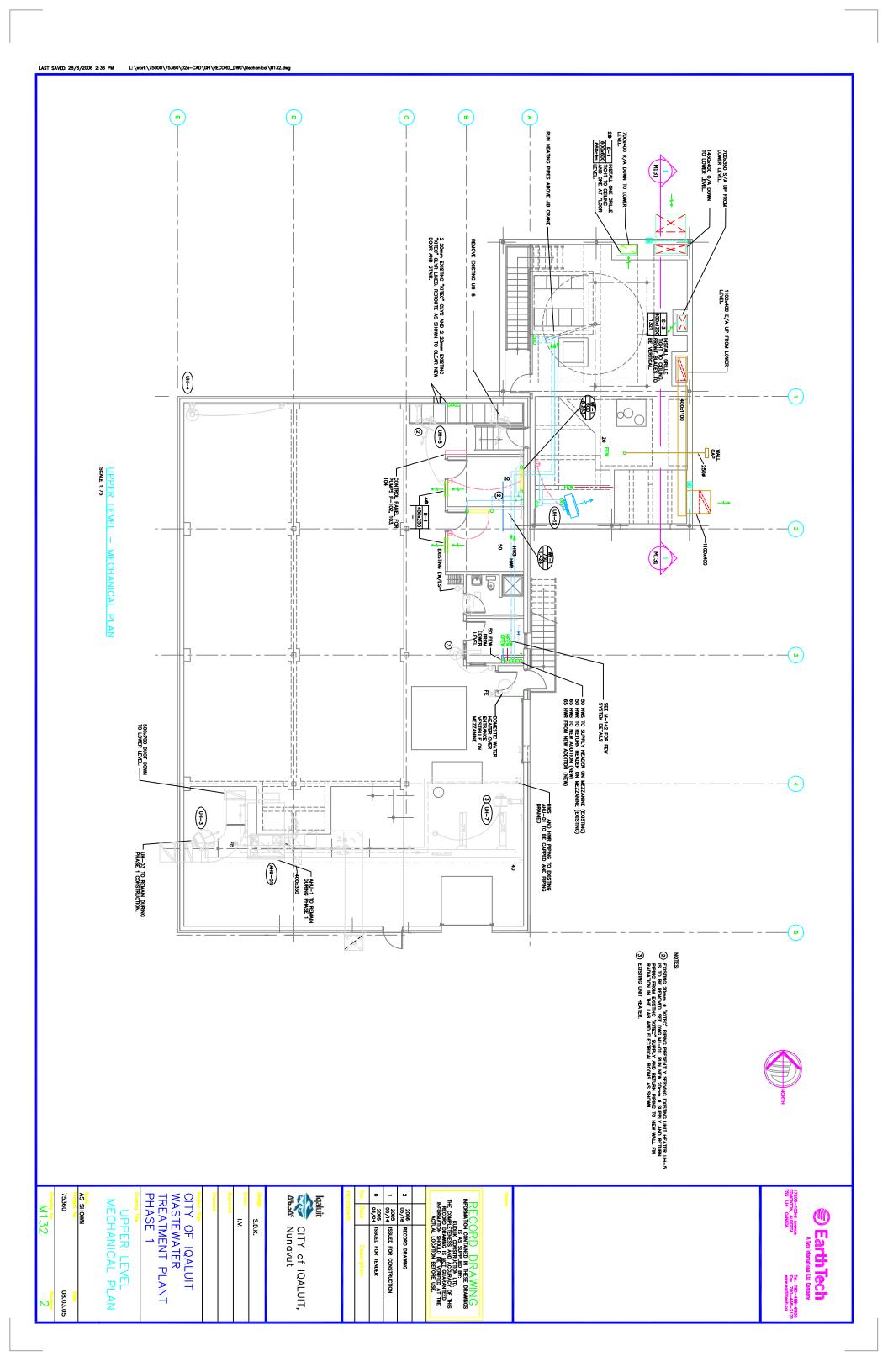
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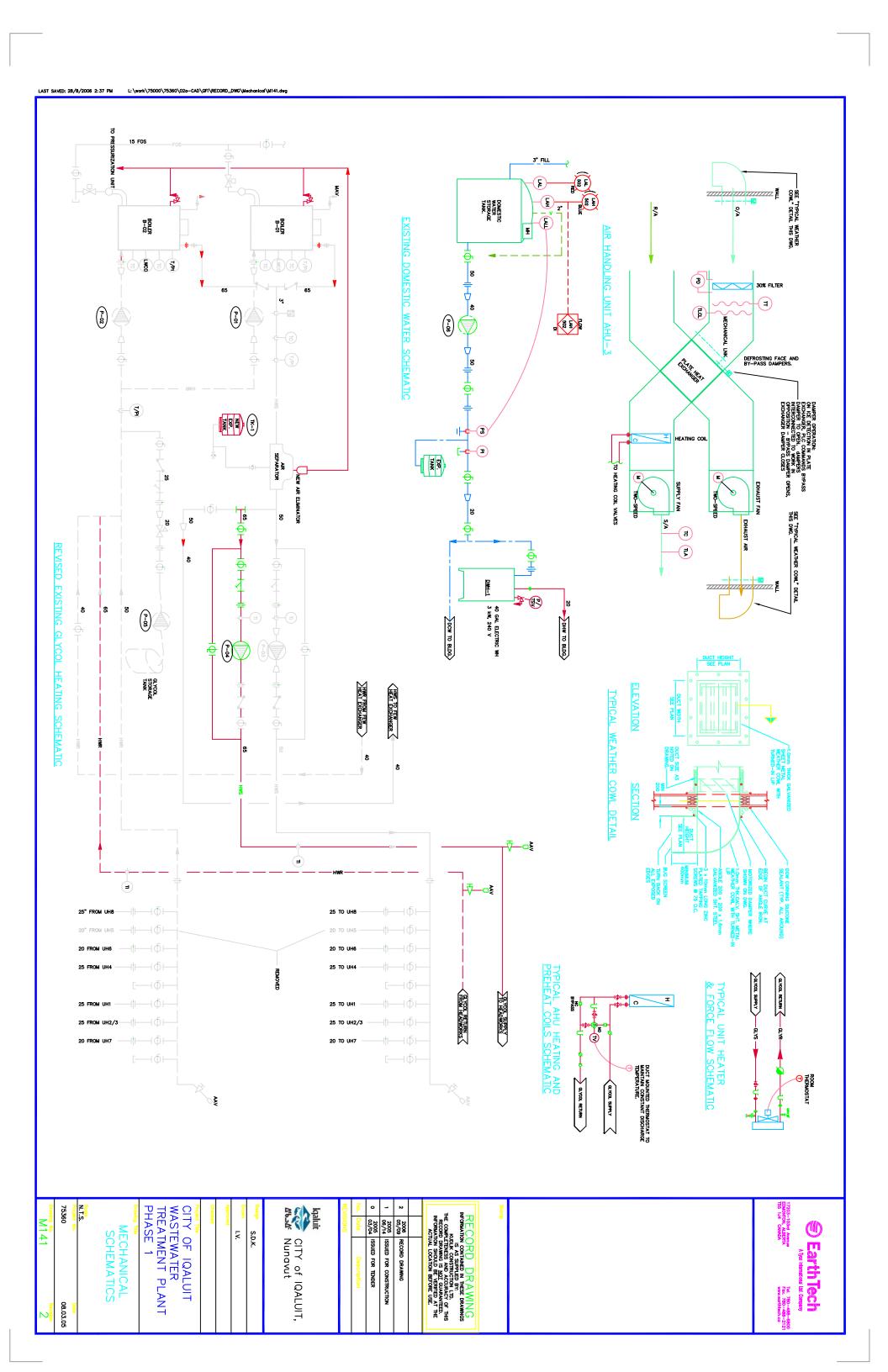
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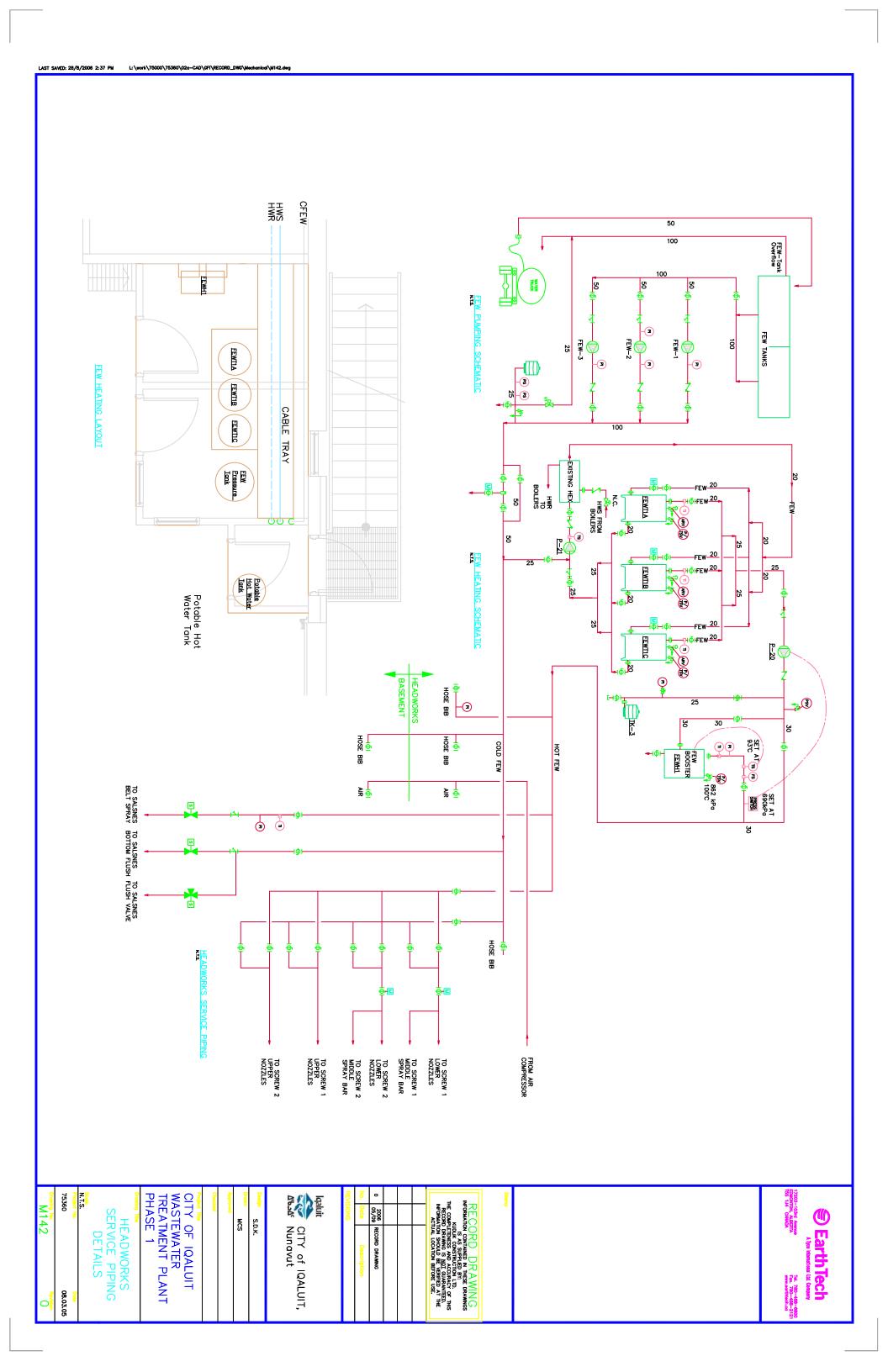
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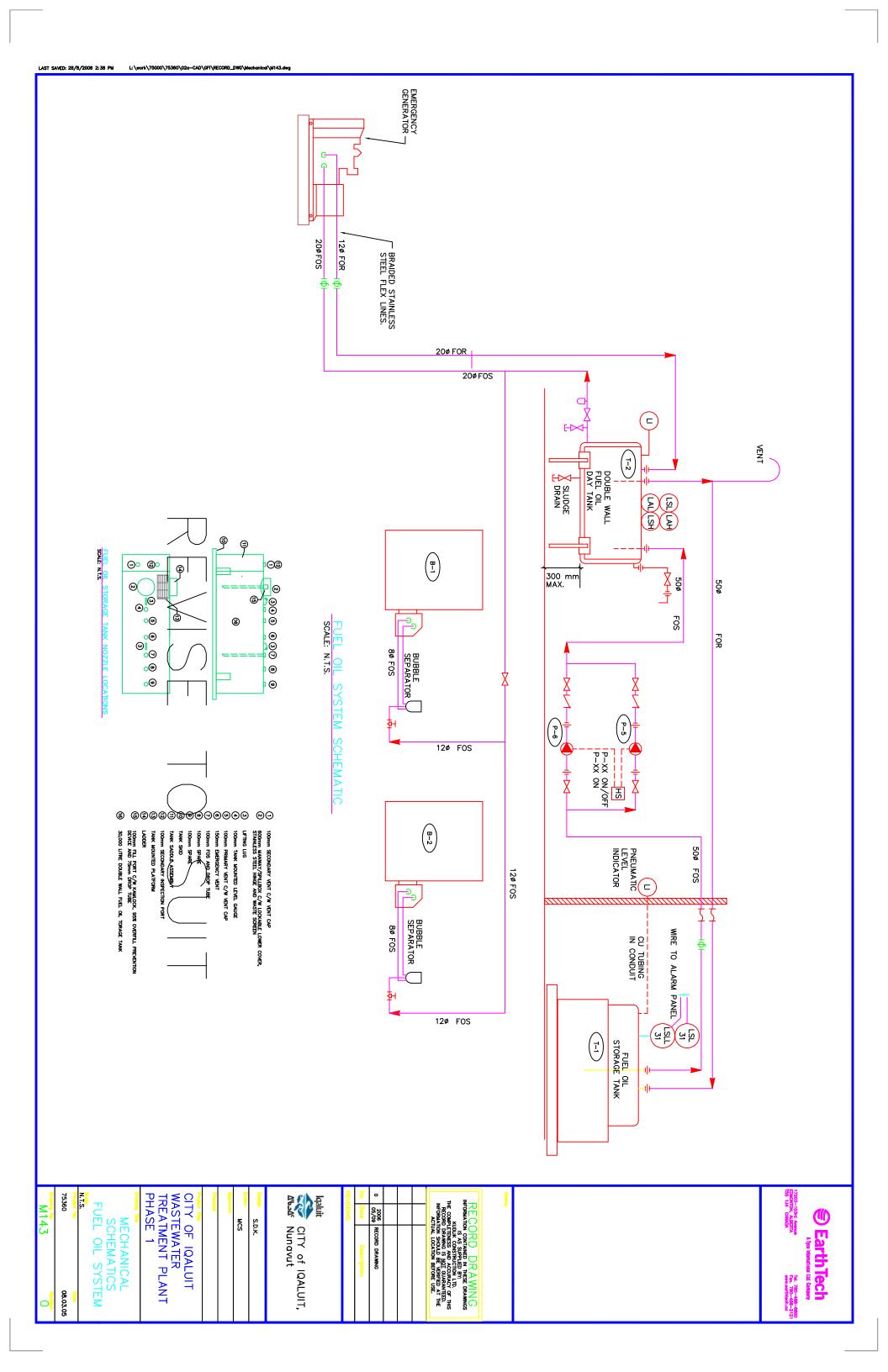


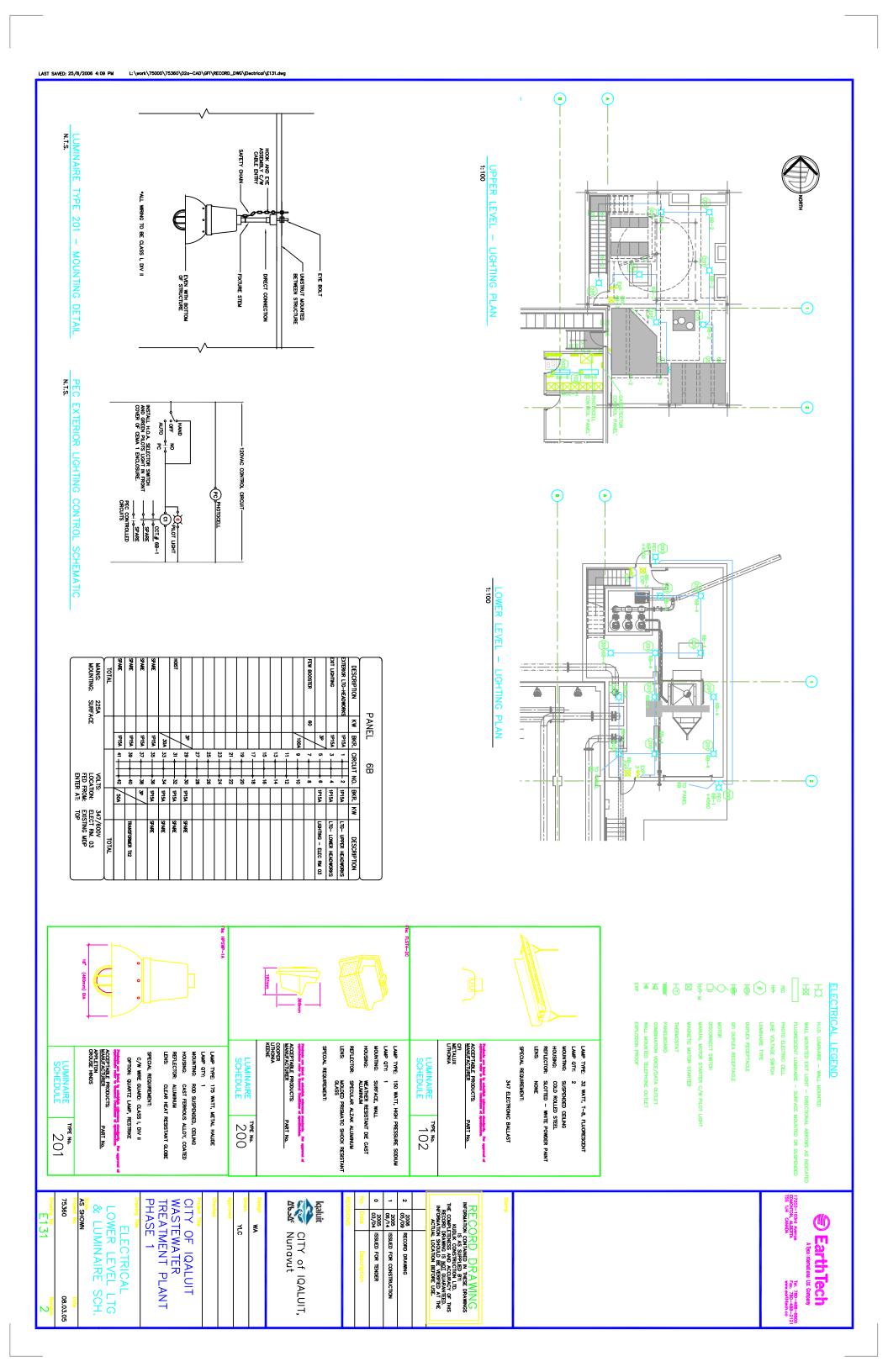


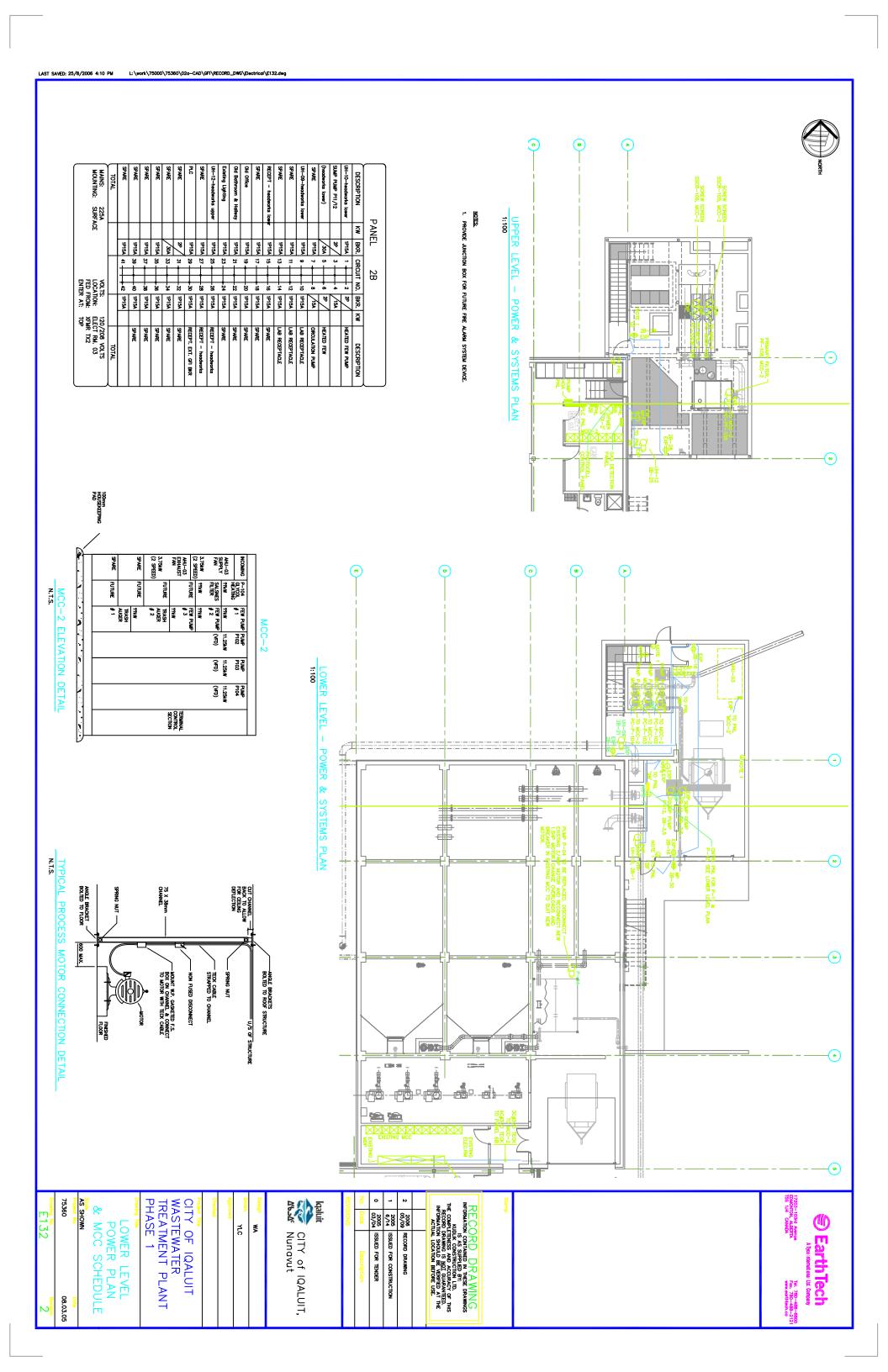


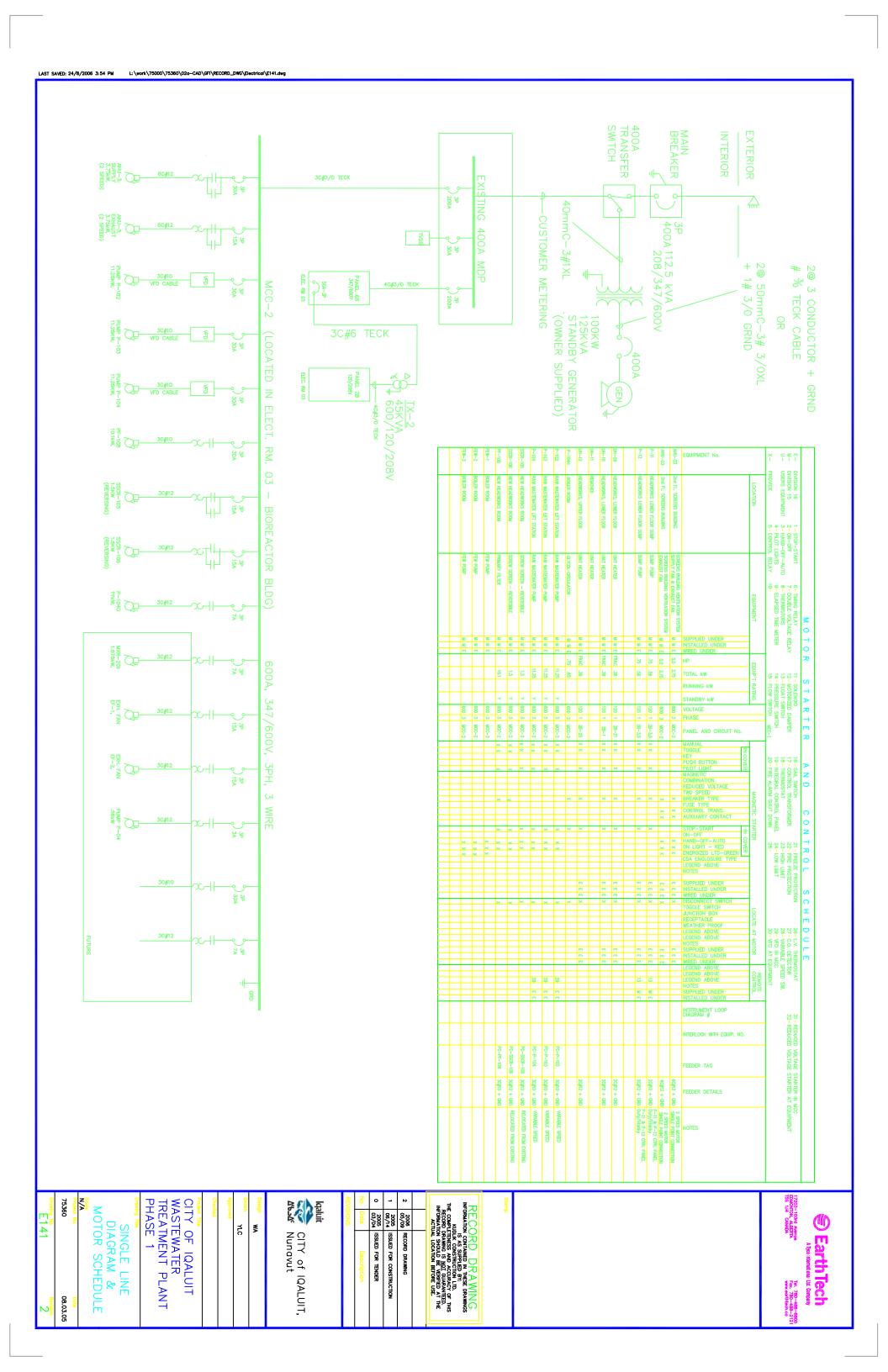


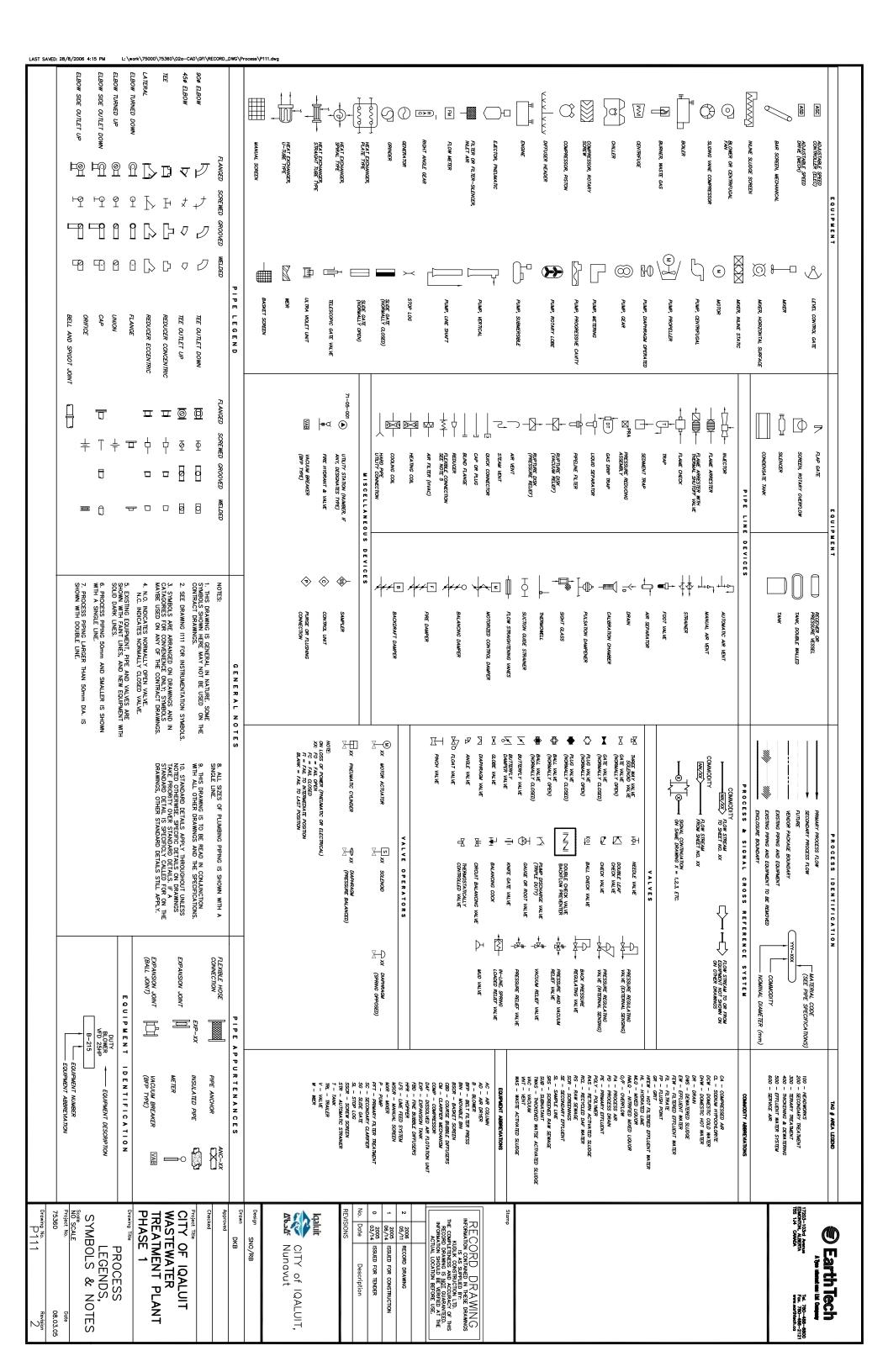


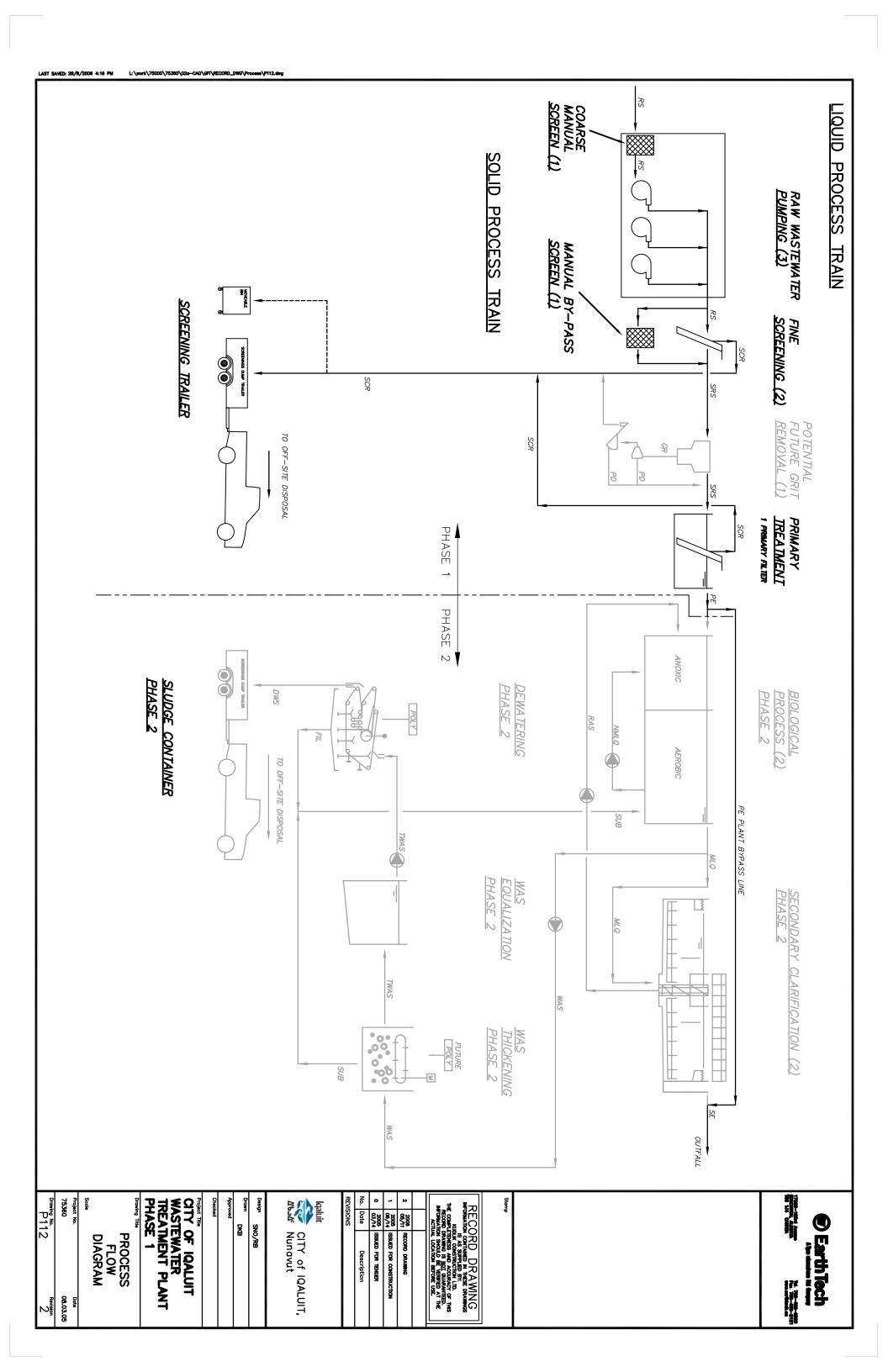


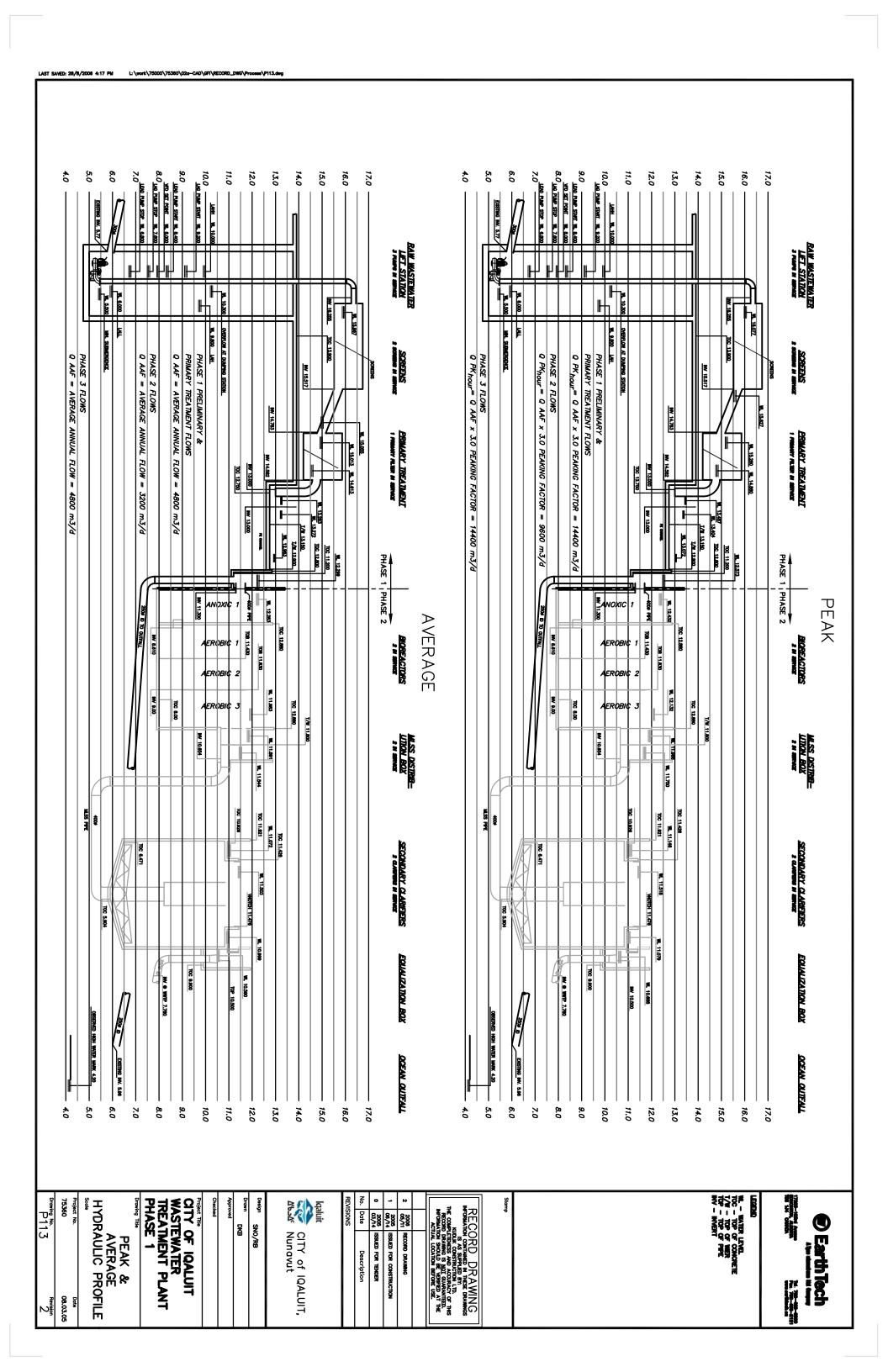


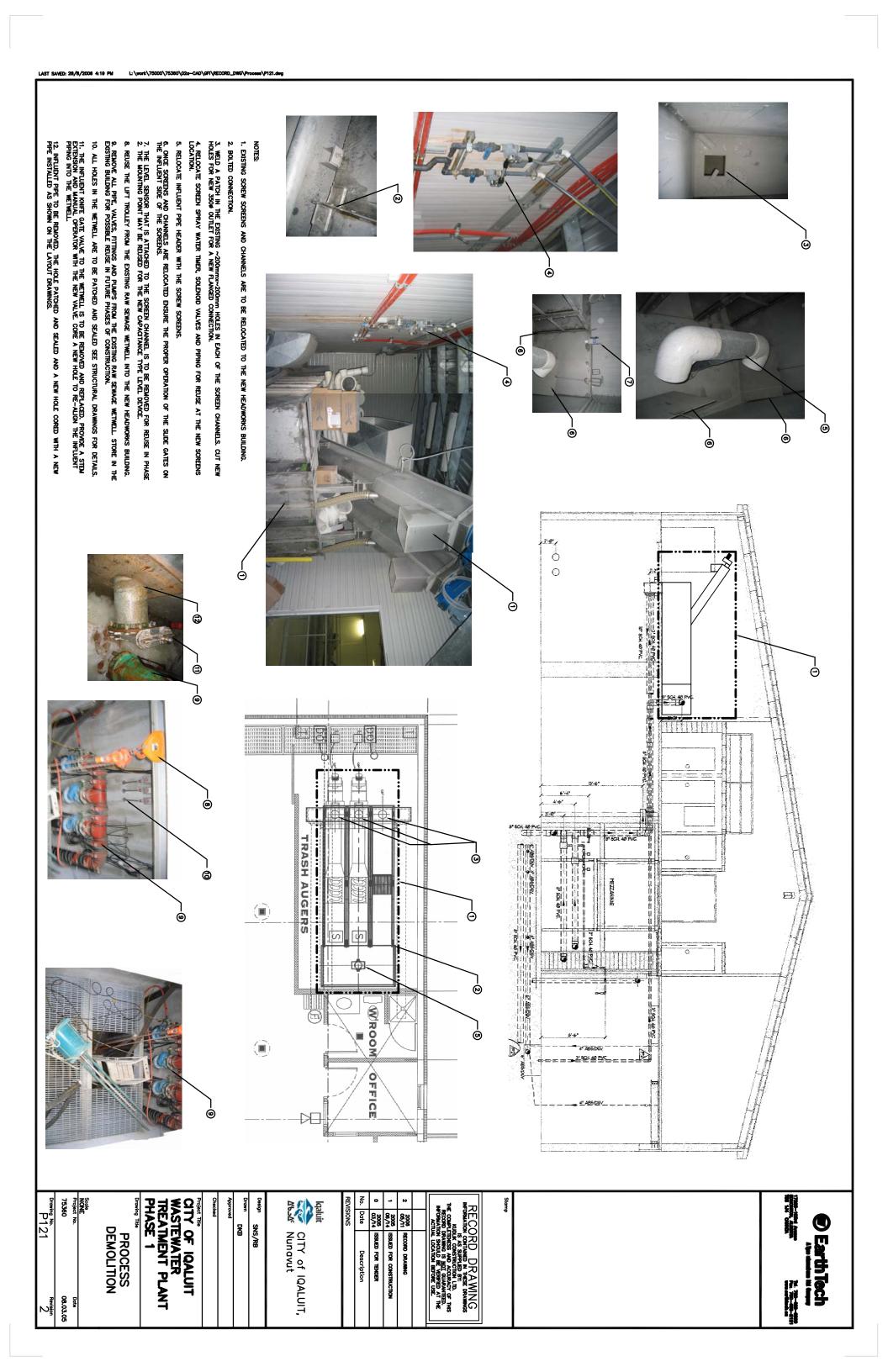


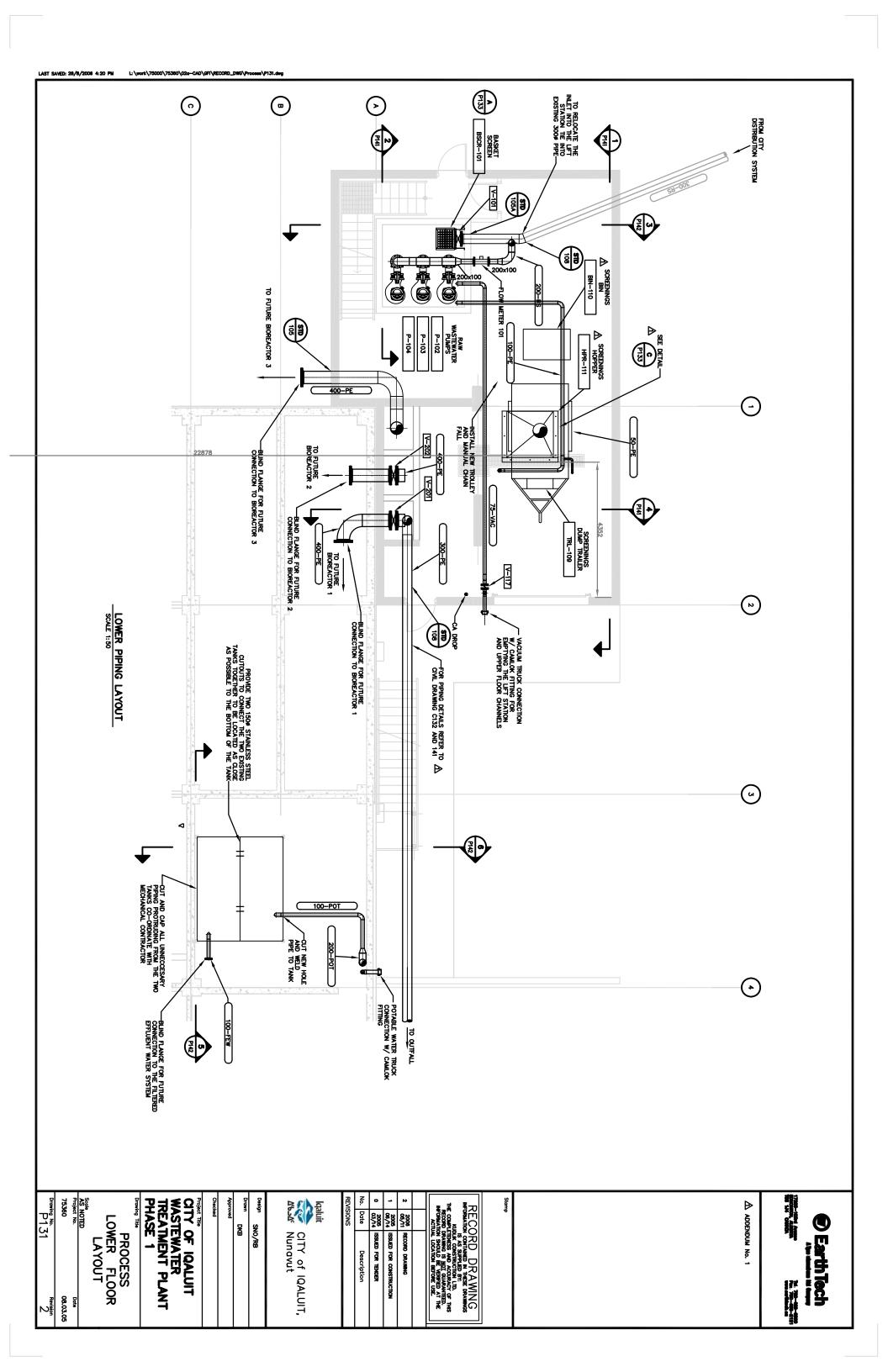


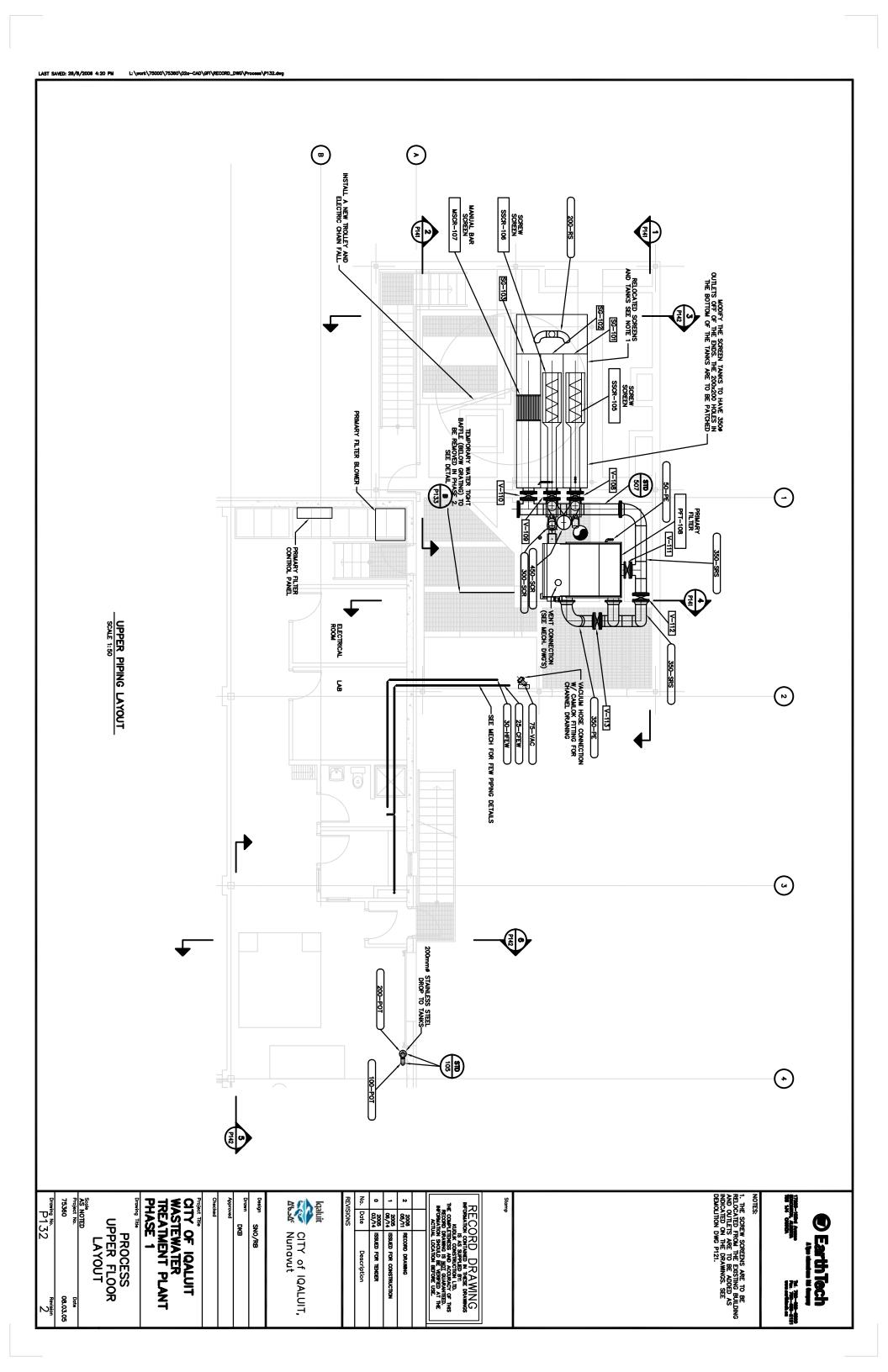


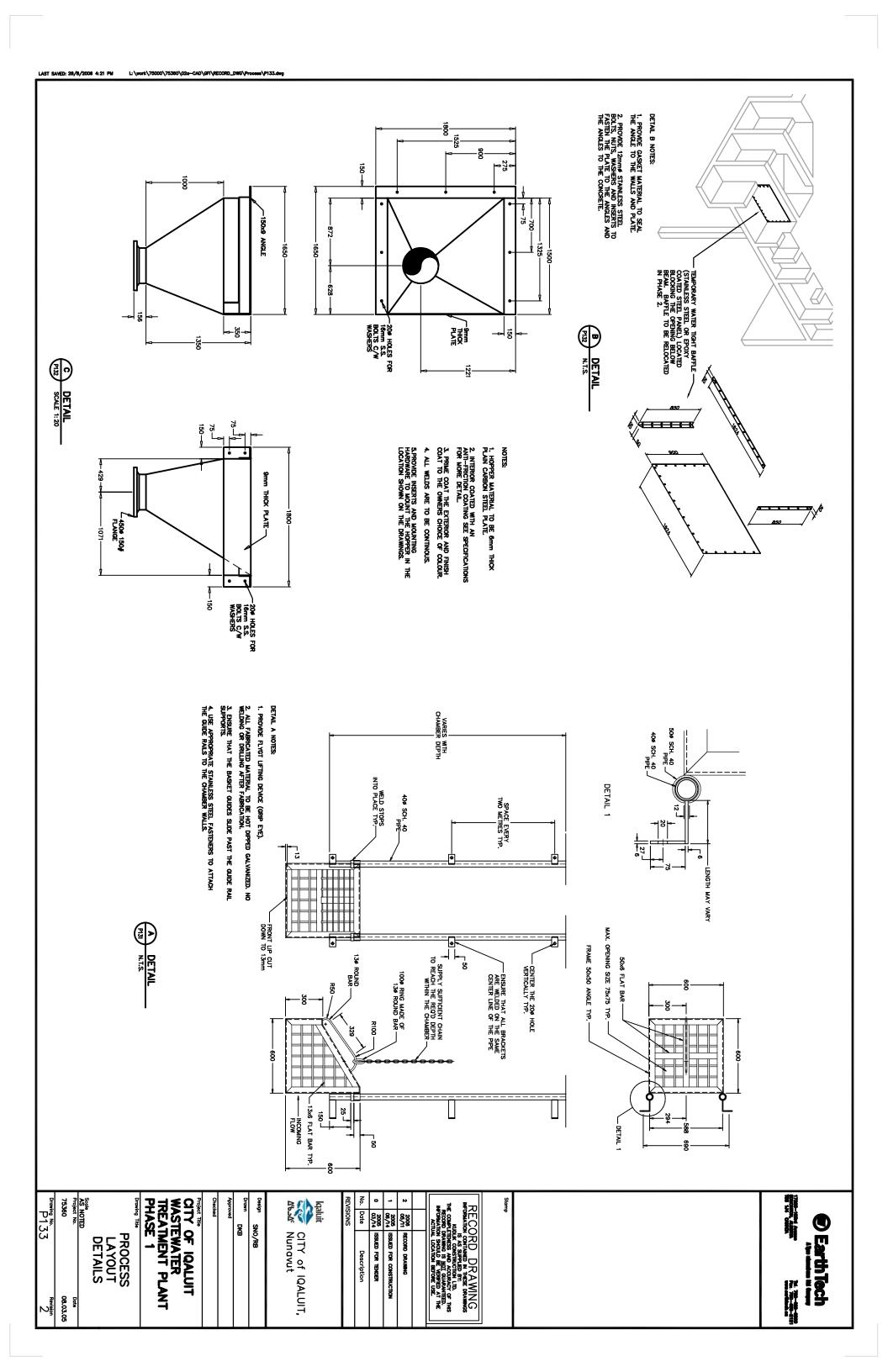


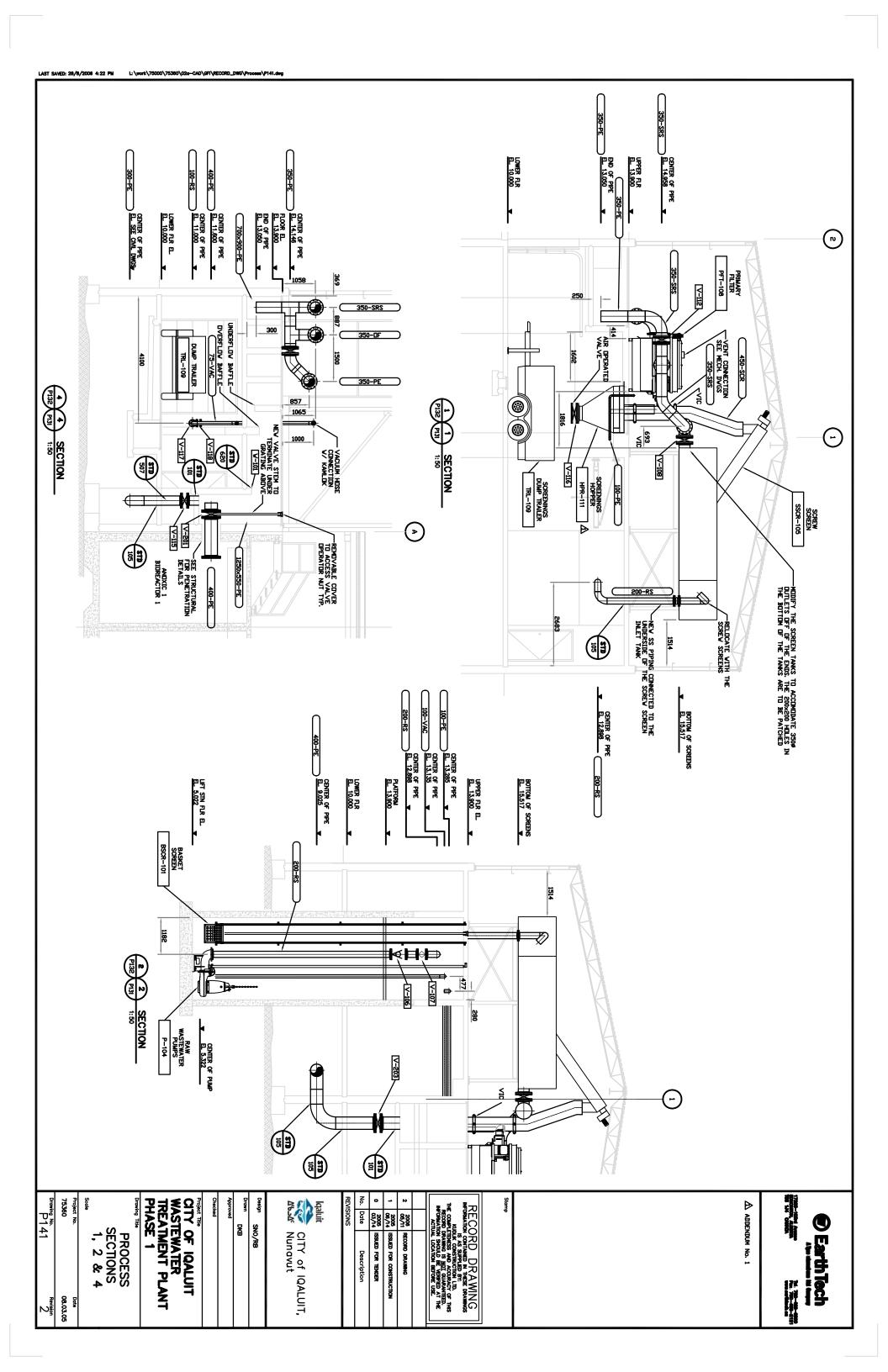


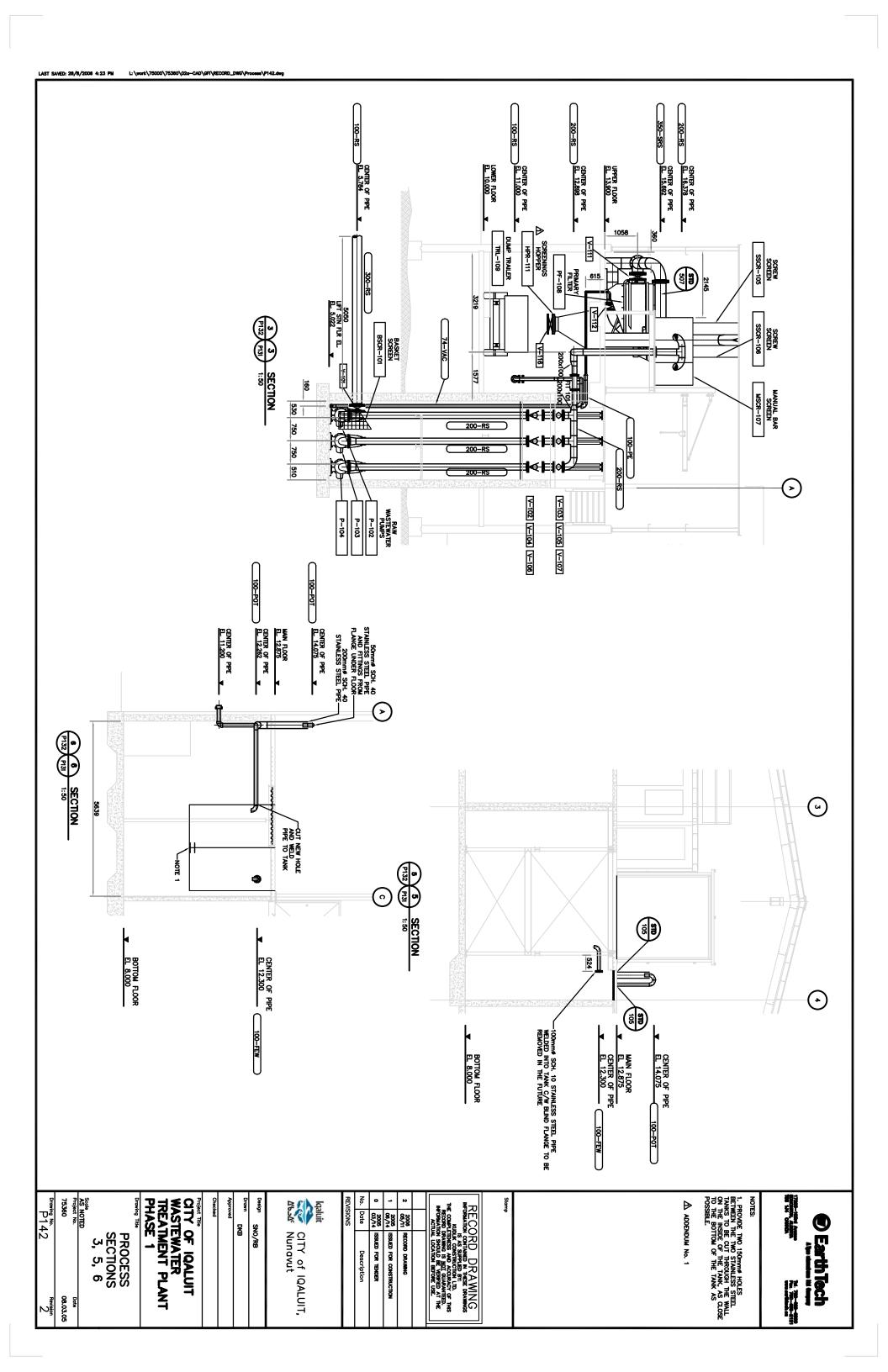


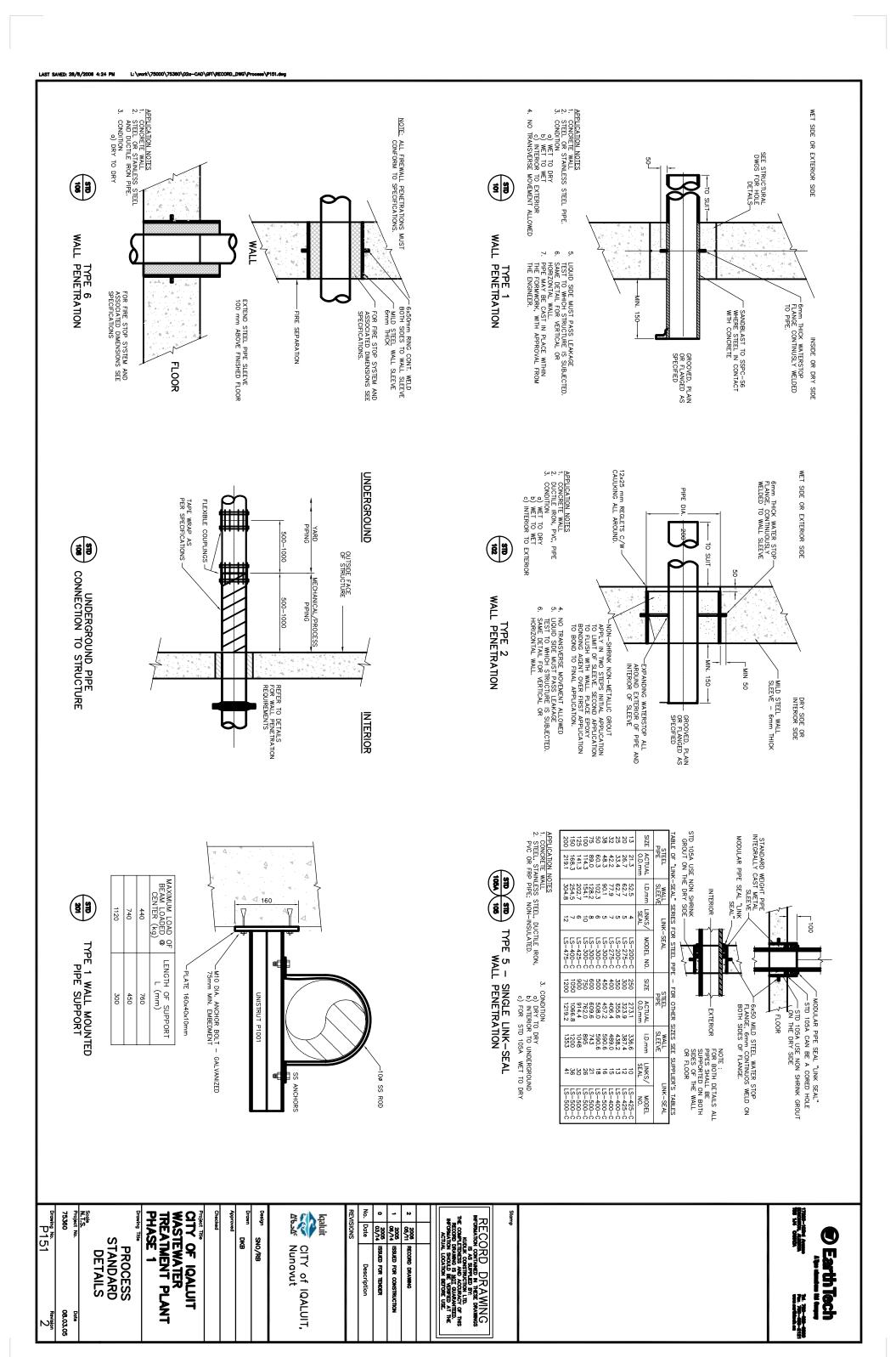








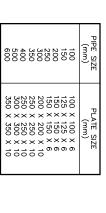






FLANGED PIPE SUPPORT

- ANCHOR BOLT (4 REQUIRED)



GROUT TO SUIT (25mm MIN)

r10mm THICK M.S. BTM. PLATE WELDED TO PIPE SUPPORT.

(mm)

SUPPORT PIPE (mm)

PLATE SIZE (mm)

MAXIMUM SUPPORT PIPE LENGTH (mm)

6mm

VENT HOLE

- M.S. PLATE
BOLTED TO FLOOR WITH
4-16 Ø CADMIUM PLATED
BOLTS C/W ANCHORS

SROUT TO SUIT (25mm MIN)

SUPPORT PIPE

REINFORCING PLATE FOR STAINLESS STEEL PIPE ONLY

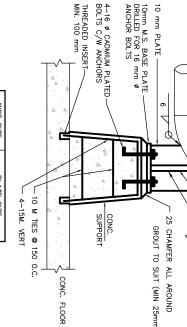
- 90* VIC. ELBOW OR BUTT-WELDED ELBOW

100 150 200 250 300 350 350 400 500 600 750

50 SCH 40 50 SCH 40 100 SCH 40 100 SCH 40 150 SCH 40 200 SCH 40 200 SCH 40 200 SCH 40 250 SCH 40 250 SCH 40 300 SCH 40 300 SCH 40

200 × 200 × 6 200 × 250 × 6 250 × 250 × 6 250 × 250 × 6 300 × 350 × 10 350 × 350 × 10 350 × 350 × 10 450 × 450 × 10 450 × 450 × 10

(205) TYPE 1 BASE ELBOW SUPPORT FOR STEEL PIPE



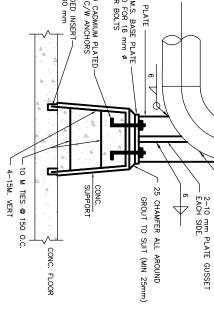
PIPE DIA. TO SUIT

ē

WELD TO TOP PLATE.

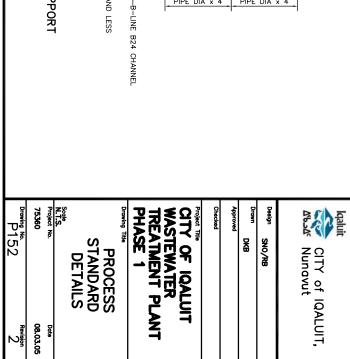
-4 — MOUNTING HOLES DRILLED TO MATCH FLANGE HOLES

VENT HOLE







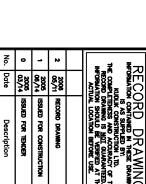


PIPE DIA x 4

PIPE DIA x 4

HV ANCHOR

-B-LINE FIGURE B2417 STRUT MOUNTED PIPE GUIDE

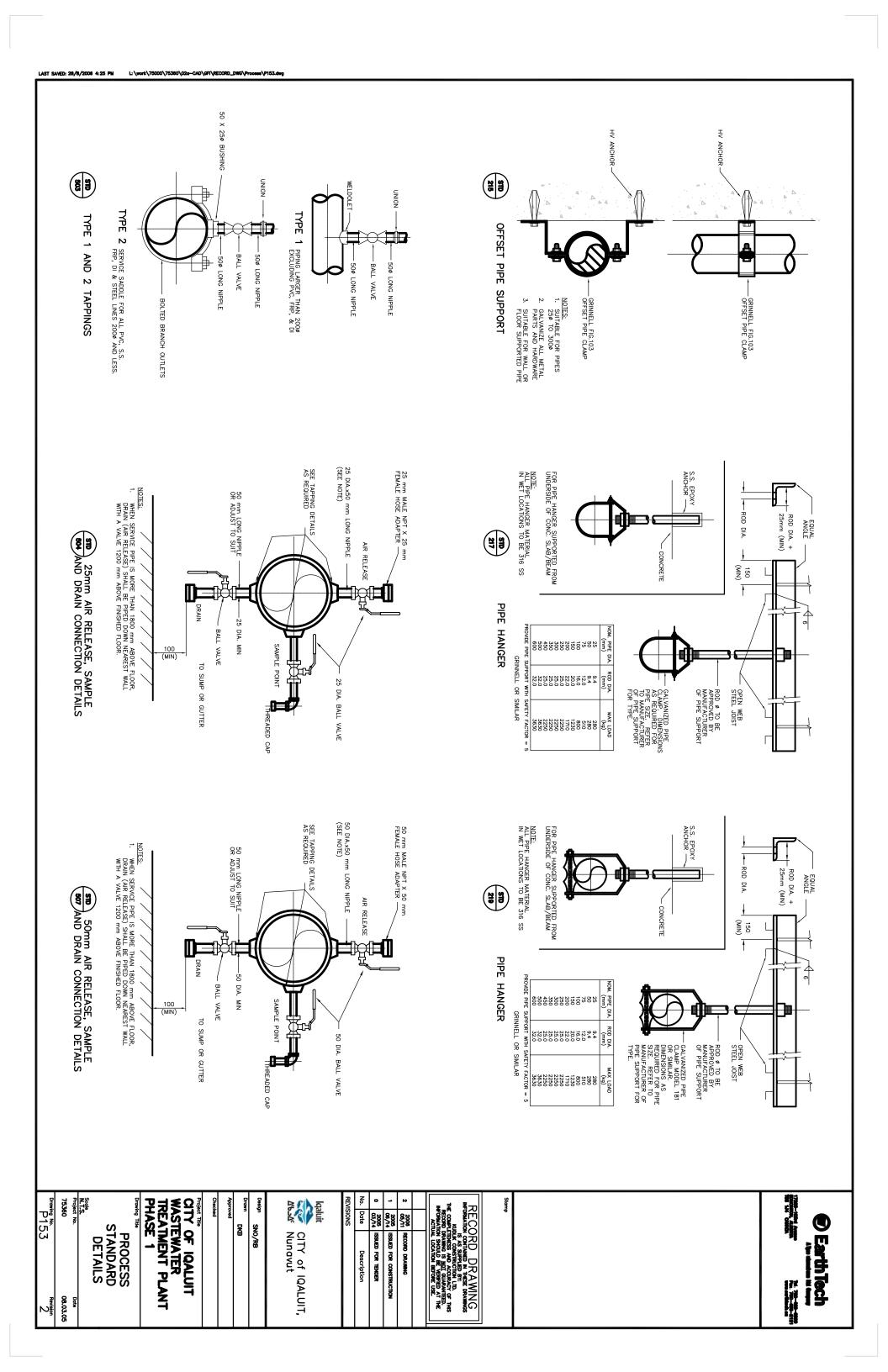


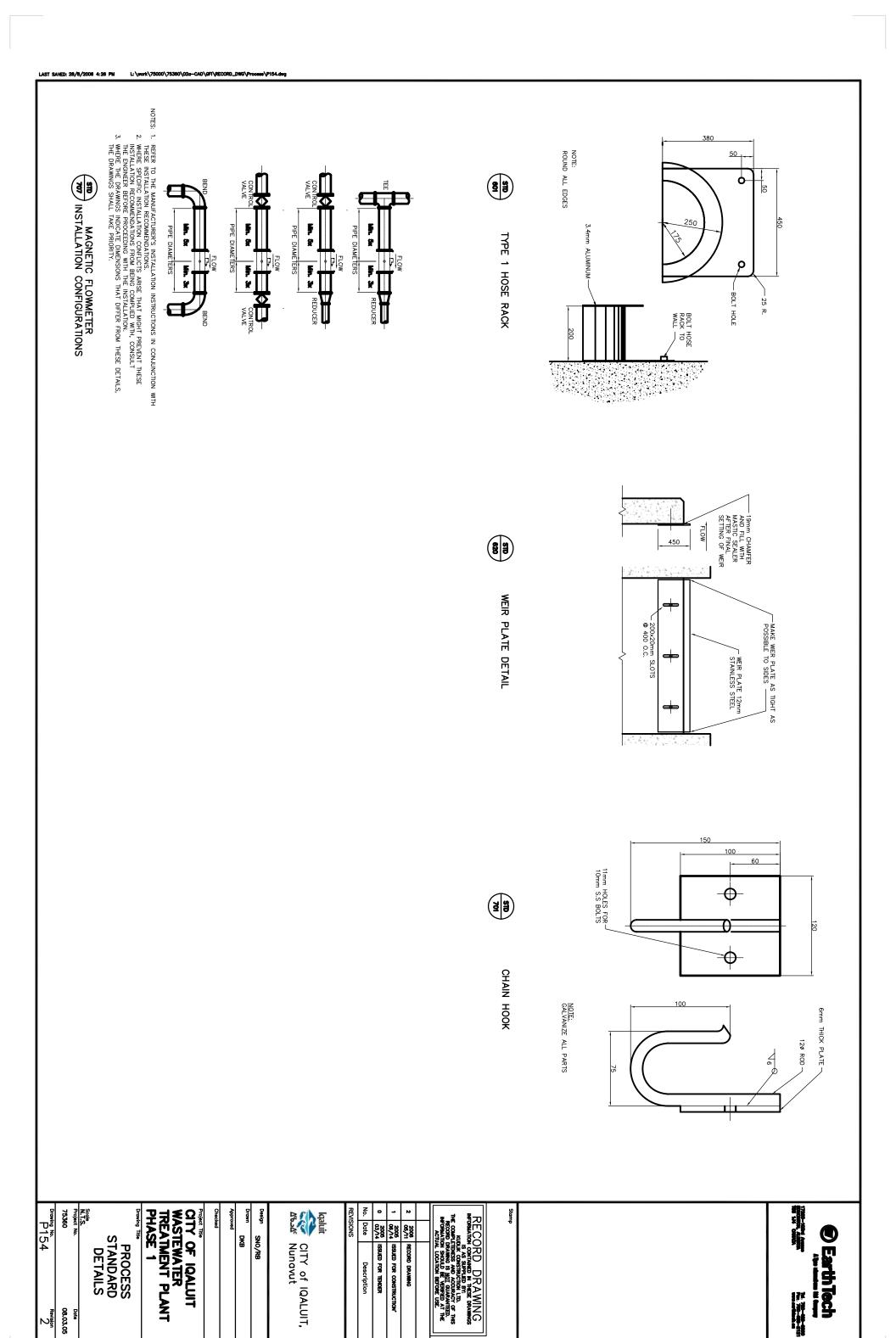
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LAST SAVED: 28/8/2006 12:42 PM L:\work\75000\75360\02a-CAD\GFI\RECORD_DWG\ins POSITION MECHANICAL ANALYSIS

WEIGHT, FORCE
ON/OFF
EVENT, STATE, RADIATION
SPEED, FREQUENCY, SOLENOID
TEMPERATURE MNEMONIC (3 CHARACTERS) MULTIVARIABLE VIBRATION, PRESSURE, VACUUM MOTOR LEVEL HAND GAS QUANTITY UNCLASSIFIED POSITION, DIMENSION TIME, TIME FLOW RATE VOL TAGE BURNER, COMBUSTION
CONDUCTION, PH (ACIDITY)
DENSITY EVENT, STATE, PRESENCE FIRST LETTER (4)
MEASURED OR
INITIATING VARIABLE POSITION FIELD TAG IDENTIFICATION NOTE: 1234 5678 I/O POINT NAMING CONVENTION b) PROCESS IDENTIFIER — (3 NUMBERALS AND 1 CHARACTER)

— REFER TO DRAWING STD 1 FOR PROCESS IDENTIFIER NUMBERING CONVENTION.

— CHARACTER SUFFIX IN POSITION 8 DIFFERENTIATES SIMILAR DEVICES WITHIN A LOOP PROVIDED THAT THEY ARE NOT WIRED INTO SCADA — REFER TO SCADA POINT NAMING CONVENTION. o) FUNCTIONAL IDENTIFICATION CODE - (UP TO 4 CHARACTERS) *
 - * REFER TO DRAWMIG STD 1 FOR LISTING
 - * NOTE THAT SCADA POINTS CAN ONLY HAVE 3 CHARACTERS SCHEDULE FUNCTIONAL IDENTIFICATION CODE IN ADDITION TO THE REQUIREMENTS DETAILED BELOW, REFER TO SCADA POINT NAMING CONVENTIONS WHEN INSTRUMENT INTERFACES TO SCADA. ř 2 3 4 DEVICES INTERFACED WITH SCADA MUST FOLLOW THE SCADA POINT NAMING CONVENTION. TYPICAL INSTRUMENT IDENTIFICATION -- PROCESS IDENTIFIER -IF REQUIRED 3 CHARACTER FUNCTIONAL IDENTIFIER PROCESS IDENTIFIER
(AS DETAILED RIGHT) Z AXIS SAFETY SCAN TIME RATE OF CHANGE Y AXIS INTEGRATE, TOTALIZE **WOMENTARY** RAПО (FRACПON, AXIS MODIFIER FUNCTIONAL IDENTIFICATION 123A 1 LP2 TUPTUO NPUT PDT CONVENTION READOUT OR PASSIVE FUNCTION ALARM RECORD OPEN ORIFICE,
RESTRICTION POINT
TEST) CONNECTION GLASS VIEWING DEVICE ON OR OPERATE SENSOR (PRIMARY ELEMENT) MULTIFUNCTION LIGHT CLOSE SCHEMATIC IDENTIFICATION TSH 100 SCHEMATIC IDENTIFICATION BASIC INSTRUMENT FUNCTIONAL IDENTIFICATION CODE PANEL LOCATION (OPTIONAL) OPERATING FUNCTION (OPTIONAL) PROCESS IDENTIFIER CONVERT

DRIVER, ACTUATOR,

UNCLASSIFIED — FINAL

CONTROL ELEMENT UNCLASSIFIED
RELAY, COMPUTE, NULTIFUNCTION
VALVE, DAMPER,
LOUVRE FUNCTIONAL IDENTIFICATION CLOSE—STOP DECREASE
CONTROL OR CONTROLLER
OPEN—START—INCREASE SMTCH, OR SAFETY TRANSMIT CONTROL INTEGRATE OR TOTALIZE OUTPUT FUNCTION STATION DING-LETTERS (3) L-LOW-(ALARM)
LL-LOW(SHUTDOWN)
MIDDLE,
INTERMEDIATE MULTIFUNCTION H-HIGH-(ALARM) HH-HIGH-(SHUTDOWN) OVERLOAD MODIFIER INSTRUMENT OPERATING RES CI₂
SO₂
COMB
H₂S
PH
DO
O₂ SWITCHING FUNCTIONS

A HAND-AUTO SELECTION

OA HAND-OFF-AUTO SELECTION

A JOG-OFF-AUTO SELECTION

S START-STOP

L LEAD-LAG SELECTION

S FAST-SLOW SELECTION

C OPEN-CLOSE-AUTO SELECTION

C OPEN-CLOSE-AUTO SELECTION

C OPEN-CLOSE SELECTION

SELECTOR SWITCH ANALYTICAL FUNCTIONS OTHER FUNCTIONS DIFFERENTIAL PRESSURE
CURRENT TO PRESSURE
INBOARD BEARING
OUTBOARD BEARING ON-OFF SELECTION

MANUAL-AUTO SELECTION

LOCAL-REMOTE SELECTION

EMERGENCY SUIT TOURN

ACKNOMLEDGE (ALARM)

FORWARD-OFF-REVERSE

LOWER-OFF-REVERSE RESIDUAL CHLORINE SULFUR DIOXIDE COMBUSTIBLE GAS HYDROGEN SULFIDE PH DISSOLVED OXYGEN OXYGEN SELECTOR SMITCH TYPICAL ASSOCIATED CDACS DESCRIPTION DI/DO DI/DO Al ₽ D0/A0 DI/AI 8 ₽ ₽ INSTRUMENT XXXX XXXX (x, x)XXX XXXX (XXX) (X XX SCADA XXXX SCADA XXXX (XXX) (XXX) (XXXX) XXXX (XXXX) (X XX (XX COMPUTER - INTERNAL SYSTEM FUNCTION NORMALLY ACCESSIBLE TO OPERATOR SPECIAL PURPOSE DIGITAL DEVICE FOR PROCESSING MAINLY ANALOG INFORMATION. ACCESSIBLE SPECIAL PURPOSE DIGITAL DEVICE FOR PROCESSING MAINLY ANALOG INFORMATION. EG. SLDC (SINGLE LOOP DIGITAL CONTROLLER) INSTRUMENT MOUNTED ON MAIN PANEL. ACCESSIBLE INSTRUMENT MOUNTED BEHIND LOCAL CONTROL PANEL. NOT READILY ACCESSIBLE COMPUTER — INTERNAL SYSTEM FUNCTION (i.e. COMPUTATION/SIGNAL CONDITIONING) SPECIAL PURPOSE DIGITAL DEVICE FOR PROCESSING MAINLY DIGITAL INFORMATION. EG. PLC (PROGRAMMABLE LOGIC CONTROLLER) SCADA (SUPERVISORY CONTROL AND DATA ACQUISTION SYSTEM) INPUT, OUTPUT, OR FUNCTION. LOCAL FIELD MOUNT ANNUNCIATOR POINT (OPTIONAL ARROW TO INDICATE ROTATING BEACON) INSTRUMENT MOUNTED BEHIND MAIN PANEL. NOT READILY ACCESSIBLE SCADA NNPUT, OUTPUT, OR FUNCTION. ACCESSIBLE MAIN PANEL MOUNT ANNUNCIATOR POINT INSTRUMENT WITH TWO SERVICE OR FUNCTION SPECIAL PURPOSE DIGITAL DEVICE FOR PROCESSING MAINLY DIGITAL INFORMATION ACCESSIBLE MOUNTED INSTRUMENT PANEL MOUNT ANNUNCIATOR FUNCTION NSTRUMENT SIGNAL SYMB H 4 I Z # 4 SA/ €S⁄ C2> ❖ -5 L N DESIGNATIONS FLUME SONIC FLOWMETER (DOPPLER OR TRANSIT TIME) VENTURI OR FLOW TUBE PITOT TUBE AVERAGING PITOT TUBE THERMAL MASS FLOW ELEMEN POSITIVE DISPLACEMENT METER IN-LINE PRESSURE SENSOR DIAPHRAGM SEAL FLOW ELEMENT INTEGRAL MITH TRANSMITTER (MASS FLOW, ETC) MAGNETIC FLOWMETER IN-LINE CAPACITANCE FLOW ELEMENT VORTEX FLOW SENSOR VARIABLE AREA FLOW INDICATOR (ROTAMETER) WEIR ORIFICE PLATE ELECTROMAGNETIC OR SONIC SIGNAL (UNGUIDED) SOFTWARE OR DATA LINK WATER SUPPLY C1, C2, C3, ETC ELECTRIC POWER SUPPLY
120 VAC 60 HZ
(UNLESS OTHERWISE NOTED) INSTRUMENT QUALITY AIR SUPPLY ELECTROMAGNETIC OR SONIC SIGNAL (GUIDED CAPILLARY TUBE OR FILLED SYSTEM ELECTRIC SIGNAL PNEUMATIC SIGNAL INSTRUMENT SUPPLY, PROCESS TAPS SERVICE AIR SUPPLY HYDRAULIC MECHANICAL LINK S 10 LEMENT MISCELLANEOUS SYMBOLS <u>(8</u> F) Ħ) ∄) REFER TO DRAWING EICO1-01 FOR, EQUIPMENT AND PIPE COMMODITY DESIGNATIONS. SYMBOLS GENERAL NOTES BOND INSTRUMENT LOOP SHIELD GROUND RESET FOR LATCH-TYPE OPERATOR INTERLOCK - SEE CONTROL STRATEGY DESCRIPTION ANNUNCIATIOR HORN RADIO FREQUENCY LEVEL ELEMENT CORIOLIS MASS FLOWMETER VIBRATING TUNING FORK ULTRASONIC/MICROWAVE BUBBLER LEVEL TUBE DISPLACEMENT LEVEL ELEMENT THERMAL SENSING RTD STRIP FLOAT LEVEL CITY of IQALUIT, Design RECORD DRAWING
INFORMATION CONTINUED IN THESE DRAWINGS
INFORMATION CONTINUED IN THE CONFERENCES AND ACCUPACY OF THIS
RECORD DRAWING IS NOT CHARACTED.
INFORMATION SOULD BE KERSTED AT THE
ACTUAL LOCATION BEFORE USE. 75360 CITY OF IQALUIT WASTEWATER
TREATMENT PLANT PHASE 1 Date P&ID SYMBOLS AND IDENTIFICATION 2005 03/07 ISSUED FOR TENDER 2006 05/11 RECORD DRAWING **EarthTech** ъc 유 ISSUED FOR CONSTRUCTION 08.03.05 Revision

Tel. 780-488-6800 Fax. 780-488-2121 www.earthtech.ca

LAST SAVED: 28/8/2006 1:59 PM L: \work\75000\75360\02a-CAD\GFI\RECORD_DWG\In: N. W. 88 (Rea) () BLOWER OR CENTRIFUGAL FAN DIFFUSER HEADER CHILLER ADJUSTABLE SPEED DRIVE (MECH) ADJUSTABLE SPEED CONTROLLER (ELEC) HEAT EXCHANGER, STRAIGHT TUBE TYPE GENERA TOR RIGHT ANGLE GEAR FLOW METER INLET AIR EJECTOR, PNEUMATIC COMPRESSOR, PISTON COMPRESSOR, ROTARY SCREW CENTRIFUCE SLIDING VANE COMPRESSOR BAR SCREEN, MECHANICA HEAT EXCHANGER, SPIRAL TYPE HEAT EXCHANGER, PLATE TYPE GRINDER BURNER, WASTE GAS INLINE SLUDGE SCREEN HEAT EXCHANGER, U-TUBE TYPE X (Z \bigcirc \bigcirc $-\Box$ ₽ \Rightarrow MELESCOPIC GATE VALVE SLIDE GATE (NORMALLY OPEN) ULTRA BASKET SCREEN SLIDE GATE (NORMALLY CLOSED) STOP LOG PUMP, LINE SHAFT PUMP. PUMP, PROGRESSIVE CANTY PUMP, METERING PUMP, PUMP, DIAPHRAGM PUMP, PROPELLER MIXER, HORIZONTAL MIXER LEVEL CONTROL PUMP, CENTRIFUGAL MIXER, INLINE STATIC VERTICAL GEAR. SUBMERSIBLE ROTARY LOBE GA TE OPERATED NOTES:

1. THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS SHOWN HERE MAY NOT BE USED ON THE CONTRACT DRAWINGS.

2. SEE BRAWING G-1 FOR EQUIPMENT AND PIPE COMMODITY DESIGNATION SYSTEMS.

3. SEE DRAWING GI-1 FOR INSTRUMENTATION SYMBOLS. 71-05-001 + 1 Å VAB **18**•⊄ **●** FLAP GATE REDUCER AIR VENT FLAME CHECK FLAME ARRESTER WITH THERMAL SHUTOFF VAL INJECTOR CONDENSATE TANK SCREEN, ROTARY UTILITY STATION (NUMBER, ANY, DESIGNATES TYPE) COOLING COIL PRESSURE REDUCING ASSEMBLY TRAP FLAME ARRESTER FIRE HYDRANT & VALVE HEATING COIL AIR FILTER (HVAC) FLEXIBLE CONNECTION SEE NOTE 5 BLIND FLANGE CAP OR PLUG QUICK CONNECTOR STEAM VENT RUPTURE DISK (PRESSURE RELIEF) RUPTURE DISK (VACUUM RELIEF) PIPELINE FILTER LIQUID SEPARATOR GAS DRIP TRAP SEDIMENT TRAP HARD PIPE UTILITY CONNECTION MISCELLANEOUS DEVICES ◈ \Diamond **⊗**≻ AND AND DAYO 7 ₫ф **⊢ □** -∰ -FOOT VALVE SAMPLER DRAIN SUCTION PULSATION DAMPENER AIR SEPARATOR PURGE OR FLUSHING CONNECTION CONTROL UNIT FIRE DAMPER BALANCING DAMPER MOTORIZED CONTROL DAMPER FLOW STRAIGHTENING VANES CALIBRATION STRAINER MANUAL AIR VENT TANK BACKDRAFT DAMPER AUTOMATIC AIR VENT TANK, DOUBLE WALLED RECEIVER OR PRESSURE VESSEL HERMOWELL GUIDE STRAINER \overline{Z} ፟ \Diamond X X FLOAT WILVE Ø \mathbb{Z} ⅀ ₩ ¥ **∑ ₹** NO TE 4. SYMBOLS ARE ARRANGED ON DRAWNOS AND IN CATEGORIES FOR CONVENIENCE ONLY, SYMBOLS MAY BE USED ANY OF THE CONTRACT DRAWNOS.
5. REFER TO MECHANICAL DRAWNOS FOR SPECIFIC TYPE OF CONNECTOR. LOSS OF POWER (PNEUMATIC OR ELECTRICAL)
FO = FAIL
FC = FAIL TO INTERMEDIATE POSITION
BLANK = FAIL TO LAST POSITION GATE VALVE (NORMALLY CLOSED) BUTTERFLY DAMPER VALVE PLUG VALVE (NORMALLY OPEN) THREE WAY VALVE
SOLENOID VALVE
GATE VALVE
(NORMALLY OPEN) PINCH VALVE BALL VALVE (NORMALLY OPEN) PLUG VALVE (NORMALLY CLOSED) m xxx DIAPHRAGM VALVE GLOBE VALVE BUTTERFLY VALVE BALL VALVE (NORMALLY CLOSED) ANGLE VALVE XX/NN PNEUMATIC CYLINDER MOTOR SIGNAL CONTINUATION ON SAME DRAWING X = 1,2,3, ETC. ACTUATOR PROCESS & SIGNAL NN/XX FLOW STREAM NO. NN EXISTING PIPING AND EQUIPMENT TO BE ENCLOSURE BOUNDARY VENDOR PACKAGE BOUNDARY PRIMARY PROCESS FLOW
SECONDARY PROCESS FLOW SIGNAL NO. NN FROM SHEET NO. XX <u>Z</u> $\boxtimes \mathbb{H}$ ŀô Z PROCESS IDENTIFICATION ⊭ VALVE OPERATORS **H** DOUBLE LEAF BALL CHECK VALVE CHECK VALVE DOUBLE CHECK VALVE BACKFLOW PREVENTER NEEDLE VALVE PUMP DISCHARGE VALVE (TRIPLE DUTY) PRESSURE GAUGE SOLATION VALVE & SEA THERMOSTATICALLY CIRCUIT BALANCING VALVE BALANCING COCK KNIFE GATE VALVE SAUGE OR ROOT VALVE SOLENOID DIAPHRAGM (PRESSURE BALANCED) VALVES FLOW STREAM TO OR FROM EQUIPMENT NOT SHOWN ON ON OTHER DRAWNGS NOTE: YYY = NOMINAL PIPE DIAMTER (mm XXX = COMMODITY OR FLOW STREAU **** **→** ⋬ **₩** IN-LINE, SPRING LOADED RELIEF V PRESSURE AND VACUUM RELIEF VALVE BACK PRESSURE REGULATING VALVE PRESSURE REGULATING VALVE (INTERNAL SENSING) PRESSURE REGULATING VALVE (EXTERNAL SENSING) PRESSURE RELIEF VACUUM RELIEF VALVE DIAPHRAGM (SPRING OPPOSED) CA — COMPRESSED AIR
CL — SODIUM HYPOCHLORIE
DOW — DOMESTIC COLD MATER
DHW — DOMESTIC HOT WATER
DHW — DOMESTIC HOT WATER
DR — DEFAUENT WATER
EW — EFFLUENT WATER
FEW — FILTERED EFFLUENT WATER
FL — FLUSH POINT
HEW — HOT FALTERED EFFLUENT WATER
HL — HYDRATED LIME
MLO — MITTERED WIND LIQUOR
NALO — MITTERED WIND LIQUOR
NALO — NUTRIEDE MITTIEDE MITTIED LIQUOR
NALO — NUTRIEDE MITTIEDE MITTIEDE MITTIEDE MITTIEDE
NALO — NUTRIEDE MITTIEDE M PA — PROCESS AIR
PE — PRIMARY EFFLENT
POLY — POLYMET
RAS — RETURN ACTIVATED SLUDGE
RCL — RECYCLED DAF WATER
RS — RAW SEWAGE
SCR — SCOREDWAS
SE — SCOREDWAS
SE — SCOREDWAS
SE — SCOREDED RAW SEWAGE
SUB — SUBMATANT
TWAS — THICKENED WATSE ACTIVATEL
WAS — MASTE ACTIVATED SLUDGE 100 – HEADWORKS
200 – SECONDARY TREATMENT
300 – TERLAR TREATMENT
400 – THICKENING & DEWATERING
500 – EFFLUENT WATER SYSTEM
600 – SERVICE AIR AC - AIR COLUMN AD - AIR DRYER P - PUMP TRL - TRAILER STR – AUTOMATIC STRAINER T – TANK SSCR - SCREW SCREEN SC - SECONDARY CLARIFIER PFT – PRIMARY FILTER TREATMENT MSCR - MANUAL SCREEN LFS - LIME FEED SYSTEM FBO — FINE BUBBLE DIFFUSERS EXP - EXPANSION TANK DAF - DISSOLVED AIR FLOTATION UNIT COMP - COMPRESSOR CBD — COURSE BUBBLE DIFFUSERS CM — CLARIFIER MECHANISM BSCR - BASKET SCREEN BFP - BELT FILTER PRESS B - BLOWER EQUIPMENT ABBREVIATIONS - SUBNATANT
- THOKENED WATSE ACTIVATED SLUDGE
- VACUUM
- VENT
- WASTE ACTIVATED SLUDGE COMMODITY ABBREVIATIONS AREA LEGEND Drawing No. 1112 WASTEWATER
TREATMENT PLANT
PHASE 1 75360 Design Iqaluit RECORD DRAWING
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