

TOWNSHIP OF WILMOT

NEW HAMBURG NITH RIVER PROMINADE

Project No. 211-05070-00
SUMMER 2022



LOCATION KEY MAP:



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PREPARED BY:



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GENERAL NOTES:

- CONTRACTOR TO REMOVE AND DISPOSE OF OFF-SITE AT NO ADDITIONAL COST TO THE CONTRACT ITEMS NOTED FOR REMOVAL INCLUDING BUT NOT LIMITED TO ALL ASPHALT PAVING, CONCRETE CURBS, CONCRETE PAVING, STUMPS, SOD, TOPSOIL, SIGNAGE AND FILL AS REQUIRED TO FACILITATE THE IMPLEMENTATION OF CHANGES AS PER PLANS AND DETAILS. ANY SIGNAGE OR ANY OTHER ITEMS IDENTIFIED BY THE CLIENT TO BE SALVAGED, SHALL BE STORED AT A LOCATION ON-SITE AS IDENTIFIED BY THE CLIENT.
- CONTRACTOR TO MAKE GOOD TO CONTRACT ADMINISTRATOR'S APPROVAL ALL DAMAGES THAT OCCUR DURING CONSTRUCTION.
- CONTRACTOR TO REVIEW DRAWINGS AND REPORT ANY ERRORS, OMISSIONS, AND / OR DISCREPANCIES TO CONTRACT ADMINISTRATOR IN WRITING PRIOR TO CONSTRUCTION. PROPERTY LINES TO BE VERIFIED PRIOR TO INITIATING ANY CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY LOCATES. CONTRACTOR TO VERIFY LOCATION AND PROTECT ALL SERVICES PRIOR TO ANY EXCAVATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALL A PRIVATE LOCATING COMPANY AND PAY ALL COSTS RELATING TO ALL SERVICES NOT STAKED OUT BY GAS, HYDRO, BELL, AND CABLE.
- EXTENT OF WORK SHOWN IS TO CONVEY INTENT ONLY. EXTENT OF CONSTRUCTION IS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION. IF THERE IS AMBIGUITY OR LACK OF INFORMATION, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE CONTRACT ADMINISTRATOR. THE CONTRACTOR MAY BE HELD RESPONSIBLE TO REMOVE ANY CHANGES MADE WITHOUT WRITTEN PERMISSION OF THE CONTRACT ADMINISTRATOR.
- ALL CONSTRUCTION TO BE CARRIED OUT IN ACCORDANCE WITH THE MOST CURRENT DESIGN STANDARDS, CRITERIA, AND SPECIFICATIONS FORM THE ONTARIO BUILDING CODE, THE ONTARIO PROVINCIAL STANDARD DETAIL, THE ONTARIO PROVINCIAL STANDARD SPECIFICATION AND LANDSCAPE ONTARIO.
- CONTRACTOR TO ENSURE PROPER DEPTH OF EXCAVATIONS ACCOMMODATE HARD SURFACE AND LANDSCAPING AS SPECIFIED ON THESE DRAWINGS.
- CONTRACTOR IS RESPONSIBLE FOR ALL FEES ARISING FROM THE COMPLETION OF WORKS CONVEYED BY THESE DRAWINGS AND IN THE SPECIFICATION PACKAGE. FEES INCLUDE BUT ARE NOT LIMITED TO SECURITIES, PERMIT FEES, DEPOSITS, APPLICATION FEES, LETTERS OF CREDIT, OR ANY OTHER RELATED FUNDING REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ALL UNDERGROUND SERVICES INCLUDING LIGHT STANDARD ELECTRICAL LINES.
- QUALIFIED REGISTERED LAND SURVEYOR (OLS), ACCEPTABLE TO OWNER, TO LOCATE, CONFIRM AND PROTECT CONTROL POINTS PRIOR TO STARTING SITE WORK. PRESERVE PERMANENT REFERENCE POINTS DURING CONSTRUCTION.
- ESTABLISH TWO PERMANENT BENCH MARKS ON SITE, REFERENCED TO ESTABLISHED BENCH MARKS BY SURVEY CONTROL POINTS. RECORD LOCATIONS, WITH HORIZONTAL AND VERTICAL DATA IN PROJECT RECORD DOCUMENTS.
- ESTABLISH LINES AND LEVELS, LOCATED AND LAY OUT, BY INSTRUMENTATION.
- THE CONTRACTOR SHALL RETAIN AN INDEPENDENT INSPECTION AND TESTING COMPANY TO ENSURE THAT ALL WORK IS DONE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. TESTING SHALL INCLUDE REINFORCING STEEL PLACEMENT, CONCRETE TESTS, SOIL BEARING AND COMPACTION TESTS AND STRUCTURAL STEEL.
- SUBSTITUTIONS FROM SPECIFIED PRODUCTS AND MATERIALS MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR PRIOR TO THE ORDERING OF MATERIALS.
- THESE DESIGN DRAWINGS ARE PREPARED SOLELY FOR THE USE BY THE PARTY WITH WHOM THE DESIGN PROFESSIONAL HAS ENTERED INTO A CONTRACT WITH.

SITE PREPARATION NOTES:

- CONTRACTOR TO ENSURE POSITIVE DRAINAGE OF ALL AREAS WITHIN THE LIMIT OF THE CONTRACT.
- CONTRACTOR TO WORK WITHIN GUIDELINES FOR THE MUNICIPALITY'S NOISE BY-LAWS.
- ANY REFUSE, GARBAGE, OR OTHER DEBRIS ON SITE MUST BE REMOVED AND DISPOSED OF OFF SITE AT THE EXPENSE OF THE CONTRACTOR.
- AREAS TO BE SODDED SHALL BE BACKFILLED WITH NATIVE SOIL TO 150mm BELOW FINISHED GRADE TO ALLOW FOR TOPSOIL INSTALLATION.
- CONTRACTOR TO DETERMINE A SINGLE POINT OF CONSTRUCTION ACCESS AND RESTORE BOULEVARD TO EXISTING OR BETTER CONDITION AFTER THE COMPLETION OF CONSTRUCTION.
- ABSOLUTELY NO STORAGE OF EQUIPMENT OR MATERIALS OUTSIDE OF CONSTRUCTION FENCING.

TREE PROTECTION NOTES:

- WHERE TREES LOCATED WITHIN THE PROJECT AREA THAT IT HAS BEEN DETERMINED THE FEASIBILITY FOR PRESERVATION IS GOOD. TREE PROTECTION BARRIERS ARE PROPOSED TO ESTABLISH A TREE PROTECTION ZONE (REFER TO CONSTRUCTION DRAWINGS). ALL TREES LOCATED ON ADJACENT PROPERTIES SHALL BE PRESERVED.
- THE TREE PROTECTION ZONE SHALL BE ESTABLISHED BY THE INSTALLATION OF TREE PROTECTION FENCING. THE TREE PROTECTION FENCING SHALL FOLLOW MUNICIPAL GUIDELINES AND/OR REQUIREMENTS UNLESS STATED OTHERWISE WITHIN THE CONSTRUCTION DRAWINGS.
- TREE PROTECTION BARRIERS ARE TO BE ERECTED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION OR GRADING ACTIVITIES ON THE SITE AND ARE TO REMAIN IN PLACE THROUGHOUT THE ENTIRE DURATION OF THE PROJECT. THE APPLICANT SHALL NOTIFY THE MUNICIPALITY PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES TO CONFIRM THAT THE TREE PROTECTION BARRIERS ARE IN PLACE.
- ALL SUPPORTS AND BRACING USED TO SAFELY SECURE THE BARRIER SHOULD BE LOCATED OUTSIDE THE TREE PROTECTION ZONE. ALL SUPPORTS AND BRACING SHOULD MINIMIZE DAMAGE TO ROOTS.
- WHERE SOME FILL OR EXCAVATED MATERIAL MUST BE TEMPORARILY LOCATED NEAR THE TREE PROTECTION ZONE, A WOODEN BARRIER MUST BE USED TO ENSURE NO MATERIAL(S) ENTERS THE TREE PROTECTION ZONE.
- ALL TREES LOCATED WITHIN THE PROJECT AREA DESIGNATED FOR PRESERVATION, OR DENOTED EXISTING, AND ALL TREES LOCATED ON ADJACENT PROPERTIES SHALL BE PRESERVED. IN THE EVENT THAT ANY TREES DESIGNATED FOR PRESERVATION LOCATED WITHIN THE PROJECT AREA OR ON ADJACENT PROPERTIES ARE DAMAGED OR KILLED BY THE ACTIONS OF A CONTRACTOR OR THEIR AGENTS/SUB-CONTRACTORS, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REPLACEMENT OF THE DESTROYED PLANT MATERIAL WITH MATERIAL OF EQUAL VALUE AND COMPARABLE SPECIES TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AND/OR PROJECT ARBORIST.
- AREAS WITHIN THE DRIPLINE OF THE TREES DESIGNATED FOR PRESERVATION ARE NOT TO BE USED FOR ANY TYPE OF STORAGE (I.E. STORAGE OF DEBRIS, CONSTRUCTION MATERIAL, SURPLUS SOILS, AND CONSTRUCTION EQUIPMENT). NO TRENCHING OR TUNNELING FOR UNDERGROUND SERVICES SHALL BE LOCATED WITHIN THE TREE PROTECTION ZONE OR DRIPLINE OF TREES DESIGNATED FOR PRESERVATION WITHIN OR ADJACENT TO CONSTRUCTION ZONE.
- NO GRADE CHANGES SHALL OCCUR WITHIN TREE PROTECTION ZONE. IN THE EVENT THAT GRADE CHANGES MAY OCCUR THE CONSULTING ARBORIST MUST BE NOTIFIED SO THAT PRECAUTIONS TO PRESERVE THE TREE, SUCH DRY WELLING OR ROOT FEEDING CAN BE DETERMINED PRIOR TO THE PLACEMENT OF FILL OR EXCAVATION ACTIVITIES.
- TREES SHALL NOT HAVE ANY RIGGING CABLES OR HARDWARE OF ANY SORT ATTACHED OR WRAPPED AROUND THEM, NOR SHALL ANY CONTAMINANTS BE DUMPED WITHIN THE PROTECTIVE AREAS. FURTHERMORE, NO CONTAMINANTS SHALL BE DUMPED OR FLUSHED WHERE THEY MAY COME IN CONTACT WITH THE FEEDER ROOTS OF THE TREES.
- THE CONTRACTOR WILL TAKE EVERY PRECAUTION TO PREVENT DAMAGE TO TREES OR SHRUBS. THE CONTRACTOR WILL TAKE EVERY PRECAUTION TO PROTECT PLANT AND ROOT SYSTEMS FROM DAMAGE, COMPACTION AND CONTAMINATION RESULTING FROM THE CONSTRUCTION TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AND/OR CONSULTING ARBORIST.
- TREES THAT REQUIRE PRUNING PRIOR TO CONSTRUCTION TO PERMIT CONSTRUCTION ACTIVITIES, HAVE BEEN IDENTIFIED IN THE CONSTRUCTION DRAWINGS. IN THE EVENT THAT IT IS NECESSARY TO REMOVE ADDITIONAL LIMBS OR PORTIONS OF TREES AFTER CONSTRUCTION HAS COMMENCED, TO ACCOMMODATE CONSTRUCTION, THE CONTRACT ADMINISTRATOR AND/OR CONSULTING ARBORIST IS TO BE INFORMED AND THE REMOVAL IS TO BE EXECUTED CAREFULLY AND IN FULL ACCORDANCE WITH ARBORICULTURAL TECHNIQUES BY A CERTIFIED ARBORIST.
- DURING EXCAVATION OPERATIONS IN WHICH ROOTS ARE AFFECTED, THE CONTRACTOR IS TO PRUNE ALL EXPOSED ROOTS CLEANLY. PRUNE ENDS TO POINT OBLIQUELY DOWNWARDS. THE EXPOSED ROOTS SHOULD NOT BE ALLOWED TO DRY OUT, AND THE CONTRACTOR SHALL DISCUSS WATERING THE ROOTS WITH THE OWNER AND CONTRACT ADMINISTRATOR SO THAT THE ROOTS SHALL MAINTAIN OPTIMUM SOIL MOISTURE DURING CONSTRUCTION AND BACKFILLING OPERATIONS. BACKFILLING MUST BE WITH CLEAN UNCONTAMINATED TOPSOIL FROM AN APPROVED SOURCE.
- THE CONTRACTOR MUST REPORT IMMEDIATELY ANY DAMAGE TO TREES SUCH AS BROKEN LIMBS, DAMAGE TO ROOTS OR WOUNDS TO THE MAIN TURN OR STEM SYSTEMS SO THAT THE DAMAGE CAN BE ADDRESSED IMMEDIATELY.
- ANY ROOTS OR BRANCHES WHICH EXTEND BEYOND THE TREE PROTECTION ZONE(S) INDICATED ON THIS PLAN WHICH REQUIRE PRUNING, MUST BE PRUNED BY A CERTIFIED ARBORIST OR OTHER TREE PROFESSIONAL AS APPROVED BY THE GOVERNING MUNICIPALITY. ALL PRUNING OF TREE ROOTS AND BRANCHES MUST BE IN ACCORDANCE WITH GOOD ARBORICULTURAL STANDARDS.
- ALL TREE REMOVALS MUST BE COMPLETED PER THE MIGRATORY BIRD CONVENTION ACT (1994)

SEDIMENTATION CONTROL:

- ALL SILTATION CONTROL FENCING SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF EXCAVATION OR GRADING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SILTATION CONTROL DEVICES IN GOOD WORKING ORDER AT ALL TIMES. CONTRACTOR SHALL INSPECT SUCH DEVICES DAILY AND AFTER EACH RAINFALL EVENT.
- FOLLOWING COMPLETION OF CONSTRUCTION, COLLECTED SILT SHALL BE DISPOSED OFF-SITE, SILT FENCE SHALL BE REMOVED AND THE AFFECTED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DRAWINGS.
- ALL ON-SITE STORAGE OF GRANULAR MATERIALS WILL BE ISOLATED AND SECURED WITH SILT FENCING
- NO IN-WATER WORKS ARE PERMITTED.
- NO VEHICLES OR EQUIPMENT WILL BE REFUELLED WITHIN 30 METRES OF THE WATERCOURSE.
- NO MATERIAL WILL BE STOCKPILED ON THE WATERCOURSE BANKS.
- THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO PREVENT SEDIMENT RELEASES TO THE NATURAL ENVIRONMENT. THE CONTRACT ADMINISTRATOR ENFORCEMENT OFFICER SHOULD BE IMMEDIATELY CONTACTED SHOULD THE EROSION AND SEDIMENT CONTROL PLANS CHANGE FROM THE APPROVED PLANS. FAILED EROSION AND SEDIMENTATION CONTROL MEASURES SHOULD BE REPAIRED IMMEDIATELY.

UNDERGROUND SERVICING AND UTILITIES:

- ALL UNDERGROUND SERVICE INFORMATION IS DERIVED FROM RECORDS AND SERVICES HAVE NOT BEEN LOCATED BY THE UTILITY COMPANIES OR BY DAYLIGHTING. WSP GEOMATICS AND WSP CANADA GROUP LIMITED ASSUME NO RESPONSIBILITY AS TO THE ACCURACY, CORRECTNESS AND COMPLETENESS OF THE UNDERGROUND SERVICE INFORMATION SHOWN ON THE FACE OF THIS PLAN. UTILITIES MUST BE LOCATED BY THE UTILITY COMPANIES BEFORE CONSTRUCTION BEGINS. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES WHICH OCCUR TO EXISTING SERVICES DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES ON THE SITE.
- CONTRACTOR MUST CHECK & VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB, REPORTING ALL DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING SERVICES WHEN EXCAVATING.

GRADING NOTES:

- CONTRACTOR TO ENSURE POSITIVE DRAINAGE OF ALL AREAS WITHIN THE LIMIT OF THE CONTRACT.
- ENSURE TRANSITION OF EXISTING AND NEW GRAD ELEVATIONS IS SMOOTH.
- MINIMUM PERMITTED HARDSCAPE SLOPE IS 2%; MAXIMUM PERMITTED IS 5% UNLESS OTHERWISE NOTED.
- MINIMUM GROUND SLOPE TO BE 2%, MAXIMUM PERMITTED 33%.
- PROPOSED ELEVATIONS ALONG LIMIT OF CONTRACT MUST MATCH EXISTING ELEVATIONS.
- NOTIFY CONTRACT ADMINISTRATOR IMMEDIATELY, IN WRITING, IF ANY DISCREPANCIES WITH STATED REQUIREMENTS ARE DISCOVERED.

LAYOUT NOTES:

- LAYOUT MUST BE STAKED VIA SURVEY AND APPROVED BY THE CONTRACT ADMINISTRATOR.
- ALL PLANT MATERIAL TO BE INSPECTED BY CONTRACT ADMINISTRATOR PRIOR TO INSTALLATION. ALL PLANT MATERIAL MAY BE REJECTED AT ANY TIME DURING CONSTRUCTION AND WARRANTY PERIOD.
- CONTRACTOR TO REVIEW DRAWINGS AND REPORT ANY ERRORS, OMISSIONS, OR DISCREPANCIES TO THE CONTRACT ADMINISTRATOR IN WRITING.
- PROPERTY LINES TO BE VERIFIED PRIOR TO INITIATING CONSTRUCTION.
- SITE FURNISHINGS TO BE AS SPECIFIED UNLESS SUBSTITUTION IS APPROVED IN WRITING BY CONTRACT ADMINISTRATOR.
- NOTIFY CONTRACT ADMINISTRATOR IMMEDIATELY, IN WRITING, IF ANY DISCREPANCIES WITH STATED REQUIREMENTS ARE DISCOVERED.

TOPSOIL PLANTING BED PREPARATION:

- MIX TOPSOIL AS RECOMMENDED BY SOIL TEST RESULTS AND RECOMMENDATIONS OF SOIL TESTING AGENCY.
 - TOPSOIL SHALL NOT BE USED TO CONSTRUCT PERMANENT BERMS.
 - ALL TOPSOIL SHOULD BE FREE OF SUBSOILS, CLAY, STONES, ROOTS, EXCESS WATER, FROST AND OTHER EXTRANEOUS MATTER.
 - PREPARE PLANTING BEDS PRIOR TO ARRIVAL OF PLANT MATERIAL ON SITE.
- EXCAVATE PER PLANTING DETAILS. THE FOREGOING PROPORTIONS ARE SUBJECT TO CHANGE UPON RECEIPT OF TOPSOIL ANALYSIS.
- PREPARE PLANTING SOIL BY EVENLY MIXING:
- 5 PARTS NATIVE SOIL
 - 1 PART SHARP SAND
 - 2 PARTS ½" SCREENED COMPOST
 - 500g OF BONE MEAL PER CUBIC METRE.
 - MIX THOROUGHLY

SODDING NOTES:

- ALL SOD SHALL BE GUARANTEED FOR 3 MONTHS FROM DATE OF SUBSTANTIAL PERFORMANCE.
- SODDING SHALL CONFORM TO LANDSCAPE ONTARIO'S 'GENERAL LANDSCAPE SPECIFICATIONS'.
- TOPSOIL SHALL BE EVENLY SPREAD OVER SUB-GRADE AND LOOSELY COMPACTED TO 150mm MINIMUM DEPTH.
- ALL STONES AND DEBRIS OVER 25mm DIA. SHALL BE REMOVED.
- TOPSOIL SHALL BE SUPPLEMENTED WITH A 10-6-4 FERTILIZER AND 20% SUPERPHOSPHATE APPLIED AT A RATE OF 5 KILOS PER 100 SQUARE METRES EACH, PRIOR TO PLACEMENT OF SOD.
- SOD SHALL BE PLACED WITH STAGGERED BUTT JOINTS, WATERED THOROUGHLY, AND ROLLED WHEN DRY.
- LAY SOD SECTIONS PERPENDICULAR ON SLOPES GREATER THAN 3:1 AND SECURE WITH WOODEN PEGS. WOODEN PEGS TO BE 17 X 17 X 300mm. PLACE PEGS 3 PER SQUARE METRE. 100mm BELOW TOP EDGE TO PREVENT SHIFTING OF SOD AND DRIVE PEGS FLUSH WITH TOP OF SOD SOIL. PROVIDE A MINIMUM OF 2 STAKES PER ROLL OF SOD.
- MAINTAIN SODDED AREA FROM THE TIME OF INSTALLATION UNTIL THIRTY (30) CALENDAR DAYS AFTER ALL SODDED AREAS HAVE BEEN INSPECTED BY THE CONTRACT ADMINISTRATOR AND A CERTIFICATE OF COMPLETION IS ISSUED. MINIMUM OF TWO CUTS.
- MAINTENANCE SHALL INCLUDE ALL NECESSARY MEASURES TO ESTABLISH AND MAINTAIN GRASS IN A HEALTHY, VIGOROUS GROWING CONDITION.
- MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING WORK:
 - MOWING AT REGULAR INTERVALS TO MAINTAIN A MAXIMUM HEIGHT OF 60MM. DO NOT CUT MORE THAN 1/3 OF THE GRASS HEIGHT AT ANY ONE MOWING. TRIM AND CLIP EDGES. REMOVE CLIPPINGS AFTER MOWING AND TRIMMING.
 - WATERING WHEN REQUIRED IN SUFFICIENT QUANTITIES AND AT A FREQUENCY TO PREVENT SOD FROM DRYING OUT AND TO MAINTAIN SOIL UNDER SOD CONTINUOUSLY MOIST TO A DEPTH OF 75 TO 100MM.
 - FERTILIZE SODDED AREAS ONE MONTH AFTER SODDING WITH 2:1:1 RATIO FERTILIZER. SPREAD EVENLY AT A RATE AS PER MANUFACTURER'S INSTRUCTIONS AND WATER IN WELL, WITH A MINIMUM OF 50CM INFILTRATION AS PREVIOUSLY MENTIONED.

TERRASEEDING:

TERRASEEDING SHALL BE APPLIED TO ALL AREAS DISTURBED BY THE CONSTRUCTION OPERATION THAT WILL NOT BE COVERED WITH ASPHALT OR MULCH/OTHER PATHWAY SURFACING. AT TIME OF TERRASEEDING, ALL SURFACE AREAS MUST BE UNIFORMLY GRADED AND SHALL BE FREE OF EROSION, STONES GREATER THAN 50mm IN DIAMETER, WEEDS AND ANY OTHER UNWANTED VEGETATION. EXISTING SURFACE SOIL SHALL BE UNIFORMLY CULTIVATED TO A MINIMUM DEPTH 50mm TO PROVIDE A LOOSE AND FRIABLE SEEDBED TO ACCELERATE GERMINATION OF SEED.

THE BLOWER TRUCK SHALL BE EQUIPPED WITH A COMPUTER-CALIBRATED SEED INJECTION SYSTEM AND SHALL BE CAPABLE OF UNIFORMLY APPLYING COMPOSTED TOPSOIL AND SEED AT A RATE GREATER THAN 0.25 m³ PER MINUTE. COMPOSTED TOPSOIL SHALL BE PRE-MIXED AND CONSIST OF A MINIMUM 60% COMPOST MATERIAL.

NOTE:

- SEEDING SHALL BE PLACED ON 150mm OF TOPSOIL.
- ALL SEED TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS FOR MULCH, TACKIFIER, AND SPECIFIC SEEDING RATE AND TIMING OF APPLICATION.
- CONTRACTOR TO VERIFY SEEDING RATES RELATIVE TO SOIL TYPE PRIOR TO INSTALLATION OF SEED.
- ALL SEEDING ON SLOPES GREATER THAN 3 (HORIZONTAL) : 1 (VERTICAL) SHALL BE PROTECTED WITH 'SOIL GUARD FIBRE MATRIX' TO MANUFACTURER'S SPECIFICATIONS.

PLANT MATERIAL ORDER, DELIVERY AND INSPECTION:

- CONTRACTOR TO CHECK ALL QUANTITIES AND REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR IN WRITING. THE QUANTITIES INDICATED ON THE PLAN SUPERCEDE THE TOTALS OF THE PLANT LIST.
- OBTAIN CONTRACT ADMINISTRATOR'S APPROVAL ON ALL PLANT MATERIAL AT SOURCE OR UPON DELIVERY, PRIOR TO COMMENCEMENT OF PLANTING WORK.
- APPROVAL OF PLANT MATERIAL PRIOR TO PLANTING SHALL NOT IMPAIR THE RIGHT OF THE CONTRACT ADMINISTRATOR TO REJECT PLANTS AFTER PLANTING, WHICH HAVE BEEN DAMAGED, OR WHICH IN ANY WAY DO NOT CONFORM TO THE SPECIFICATIONS.
- SUBSTITUTIONS OF SIZE, OR WITH OTHER PLANT MATERIAL WILL ONLY BE ALLOWED WITH THE WRITTEN APPROVAL OF THE CONTRACT ADMINISTRATOR.
- ALL MATERIAL MUST CONFORM TO THE SIZES SHOWN ON THE PLANT LIST, EXCEPT WHERE LARGER PLANT MATERIAL IS USED WHEN APPROVED BY THE CONTRACT ADMINISTRATOR. USE OF LARGER PLANTS WILL NOT INCREASE THE CONTRACT PRICE. UNDERSIZED MATERIAL WILL BE REJECTED.
- ALL SHRUBS AND TREES SHALL CONFORM TO THE PRESENT STANDARDS OF THE CANADIAN NURSERY TRADES ASSOCIATION FOR SIZE AND SPECIES.
- PLANTS ARE TO BE NURSERY GROWN UNDER PROPER CULTURAL CONDITIONS, IN PARTICULAR WITH RESPECT TO SPACING, PEST AND DISEASE CONTROL, AND BRANCH AND ROOT PRUNING.
- TREES ARE TO HAVE STRAIGHT STURDY TRUNKS.
- TREES SHALL BE WELL BRANCHED AND BALANCED WITH A STRONG CENTRAL LEADER.
- DECIDUOUS SHADE TREES SHALL BE FREE OF BRANCHES FROM GROUND LEVEL TO A HEIGHT OF 1.8M ABOVE THE GROUND.
- TREES WITH OPEN SCARS ARE NOT ACCEPTABLE.
- KEEP ALL ROOTS AND ROOTBALLS MOIST PRIOR TO PLANTING.

PLANT MATERIAL GUARANTEE AND FINAL INSPECTION:

- AT THE COMPLETION OF PLANTING OPERATIONS, REMOVE ALL SURPLUS MATERIAL FROM THE SITE AT NO EXTRA CHARGE TO THE PROJECT.
- MAKE GOOD ALL DAMAGE RESULTING FROM PLANTING OPERATIONS AT NO EXTRA CHARGE TO THE PROJECT.
- PLANT MATERIAL SHALL BE GUARANTEED FOR A MINIMUM OF TWO YEARS FROM THE ISSUE DATE OF THE CERTIFICATE OF COMPLETION.
- ALL PLANTS SHALL BE INSPECTED TWICE, ONCE HALFWAY THROUGH THE GUARANTEE PERIOD, AND AGAIN AT THE END OF THE GUARANTEE PERIOD. PLANTS WHICH, AT THAT TIME, ARE NOT IN HEALTHY VIGOROUS GROWING CONDITION, TO THE CONSULTANT'S APPROVAL, SHALL BE REPLACED AT NO EXTRA CHARGE TO THE PROJECT.
- CONTRACTOR TO CONTACT CONTRACT ADMINISTRATOR AND/OR APPROVAL AGENCY/MUNICIPALITY TO REVIEW PROJECT FOR GUARANTEE INSPECTIONS.

CONCRETE NOTES:

- ALL CONCRETE WORK SHALL CONFORM TO CSA STANDARDS A23.1, A23.2, & A23.3.
- CONFORM TO THE REQUIREMENTS OF CAN/CSA G30.18 SERIES OF REINFORCING STEEL. REINFORCING BARS SHALL BE DEFORMED HI-BOND HARD GRADE WITH MINIMUM YIELD STRENGTH OF FY = 400MPa. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
- CONFORM TO THE CONCRETE COVER REQUIREMENTS OF CSA A23.1 AND THE FOLLOWING, UNLESS OTHERWISE NOTED:
 - CONCRETE CAST AGAINST EARTH: 100mm (4")
 - PIERS AND WALL: 100mm (4")
 - EXPOSED TO DE-ICING CHEMICALS: 100mm (4")
- WELDING OF REINFORCING STEEL SHALL NOT BE PERMITTED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.
- ALL REINFORCING STEEL FABRICATION AND PLACEMENT DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.
- CONCRETE PROPERTIES:
 - EXPOSED CONCRETE TO BE CLASS C-2 CONCRETE (28 DAY COMPRESSIVE STRENGTH OF 32MPa) WITH AIR ENTRAINMENT.
 - FOUNDATION WALLS AND CONCRETE EXPOSED TO FREEZE THAW SHALL BE CLASS F-2. HAVE A 28 DAY COMPRESSIVE STRENGTH OF 25 MPa, 0.55 WATER-CEMENT RATIO WITH AIR ENTRAINMENT.
 - CONCRETE MIX DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO USE AT JOB SITE.
- ALL CONCRETE FORMS TO BE WET THOROUGHLY BEFORE POURING CONCRETE.
- DO NOT ADD WATER TO CONCRETE UNLESS WRITTEN APPROVAL GIVEN BY THE ENGINEER. IF HIGHER SLUMP CONCRETE IS DESIRED, CONCRETE SUPPLIER SHALL DESIGN AND SUPPLY ACCORDINGLY.
- SLUMP OF CONCRETE TO BE 75mm +/- 25mm (3" +/- 1") OR AS OTHERWISE SPECIFIED. CONCRETE WITH 110mm (4.5") SLUMP OR MORE IS TO BE REJECTED.
- WATER SURING OF CONCRETE IS RECOMMENDED. CURE ALL CONCRETE IN ACCORDANCE WITH CSA A23.1 SECTION 7.4
- ALL OIL, GREASE, MUD AND DEBRIS SHALL BE ENTIRELY REMOVED FROM THE REINFORCING STEEL AND ANCHOR BOLTS PRIOR TO THE PLACEMENT OF THE CONCRETE. REBAR REBAR SHALL BE STORED ON-SITE IN A MANNER TO BE KEPT CLEAN AND FREE FROM DELETERIOUS MATERIALS.
- REINFORCING BARS, DOWELS AND ANCHOR BOLTS SHALL BE SECURELY TIED IN PLACE SO AS TO MAINTAIN THEIR EXACT POSITION BEFORE AND DURING PLACEMENT OF THE CONCRETE. BAR SUPPORTS SHALL ONLY BE MADE OF PRECAST CONCRETE BLOCKS, PLASTIC OR WIRE.
- ALL CONCRETE EXCEPT SLABS ON GRADE 125mm THICK OR LESS SHALL BE MECHANICALLY VIBRATED SO AS TO COMPLETELY FILL THE FORM WITHOUT CAUSING UNDU SEGRIGATION. ANY DEFECTS IN THE HARDENED CONCRETE SHALL BE SATISFACTORY REPAIRED OR SHALL BE REPLACED.

KEY MAP

DIGITAL DATA DISCLAIMER

BY USING OR REFERENCING THIS DIGITAL DATA, THE RECIPIENT OR THEIR SUB-CONTRACTOR(S) WILL OBLIGE TO THE FOLLOWING TERMS:

- COMPUTER AIDED DRAFTING AND DESIGN (CADD) INFORMATION STORED IN ELECTRONIC FORM MUST NOT BE MODIFIED BY OTHER PARTIES, INTENTIONALLY OR OTHERWISE, WITHOUT NOTICE OR INDICATION OF SAID MODIFICATIONS TO WSP CANADA GROUP LIMITED (WSP).
- WSP RESERVES THE RIGHT TO REMOVE ALL INDICES OF ITS OWNERSHIP AND/OR INVOLVEMENT IN MATERIAL FROM EACH ELECTRONIC MEDIUM NOT HELD IN ITS POSSESSION.
- THIS MATERIAL SHALL NOT BE USED BY ANY UNAUTHORIZED PARTY OR TRANSFERRED TO ANY OTHER PARTY FOR USE IN ANY OTHER PROJECTS, ADDITIONS TO THE CURRENT PROJECT, OR FOR ANY OTHER PURPOSE FOR WHICH THE MATERIAL WAS NOT STRICTLY INTENDED BY WSP WITHOUT OUR EXPRESS WRITTEN PERMISSION.
- ANY UNAUTHORIZED MODIFICATION OR REUSE OF THE MATERIAL SHALL BE AT YOUR SOLE RISK, AND YOU AGREE TO DEFEND, INDEMNIFY, AND HOLD WSP HARMLESS FOR ALL CLAIMS, INJURIES, DAMAGES, LOSSES, EXPENSES, AND ATTORNEYS FEES ARISING OUT OF THE UNAUTHORIZED MODIFICATION OR USE OF THESE MATERIALS.
- WSP ASSUMES NO OBLIGATION OR LIABILITY FOR THE USE OF CADD INFORMATION AND MAKES NO REPRESENTATIONS OR WARRANTIES REGARDING THE COMPLETENESS OR ACCURACY OF THIS CADD INFORMATION.
- THE RECIPIENT UNDERSTANDS THAT THE USE OF ANY PROJECT RELATED DIGITAL DATA CONSTITUTES ACCEPTANCE OF THE ABOVE CONDITIONS.

DRAWING INFORMATION

ORIGINAL DESIGN AND/OR DRAWING BASE COMPLETED BY:
WSP CANADA INC.
YEAR: 2021
ADDRESS:582 LANCASTER ST W, KITCHENER, ON

NO	DATE	REVISION/ISSUED	BY	APPD
3	2022/06/10	ISSUED FOR TENDER	NM	BVV
2	2022/03/03	90% SUBMISSION	NM	BVV
1	2022/01/28	60% SUBMISSION	NM	BVV
NO	DATE	REVISION/ISSUED	BY	APPD



CLIENT:

TOWNSHIP OF WILMOT
60 SNYDER'S ROAD WEST
BADEN, ON N3A 1A1

PROJECT TITLE:

NEW HAMBURG
NITH RIVER PROMINADE
SP #

SITE ADDRESS:

**BETWEEN GRCA DAM
AND HARTMAN BRIDGE**

DRAWING TITLE:

NOTES

DESIGNED	BVV	DRAWN	NM	CHECKED	AG
SCALE	1:xxx	DATE	JANUARY 2022		
PROJECT NUMBER	211-05070-00		DWG. NUMBER	L-100	



LEGEND

-  EXISTING TREES TO BE REMOVED INCLUDING ALL ROOT STRUCTURES. BACKFILL AND COMPACT TO 100% SPD. TYPICAL
-  EXISTING TREES TO REMAIN
-  EXISTING LIGHT STANDARD TO BE REMOVED AND SALVAGED PER CONTRACT ADMINISTRATOR DIRECTION
-  SUPPLY AND INSTALL TREE PROTECTION FENCE PER DETAIL 1A-500
-  SUPPLY AND INSTALL SILT SOXX PER DETAIL 2A-500
-  PROPERTY LINE
-  HARDSCAPE TO BE REMOVED
-  AREA TO BE CLEARED AND GRUBBED. TOPSOIL TO BE STRIPPED AND STOCKPILED ON SITE.

DRAWING INFORMATION

ORIGINAL DESIGN AND/OR DRAWING BASE COMPLETED BY:
 WSP CANADA INC.
 YEAR: 2021
 ADDRESS: 582 LANCASTER ST W. KITCHENER, ON

NO	DATE	REVISION/ISSUED	BY	APPD
3	2022/06/10	ISSUED FOR TENDER	NM	BVV
2	2022/03/03	90% SUBMISSION	NM	BVV
1	2022/01/28	60% SUBMISSION	NM	BVV



CLIENT:
TOWNSHIP OF WILMOT
 60 SNYDER'S ROAD WEST
 BADEN, ON N3A 1A1

PROJECT TITLE:
NEW HAMBURG
 NITH RIVER PROMINADE
 SP #

SITE ADDRESS:
 BETWEEN GRCA DAM
 AND HARTMAN BRIDGE

DRAWING TITLE:
SITE PREPARATION PLAN

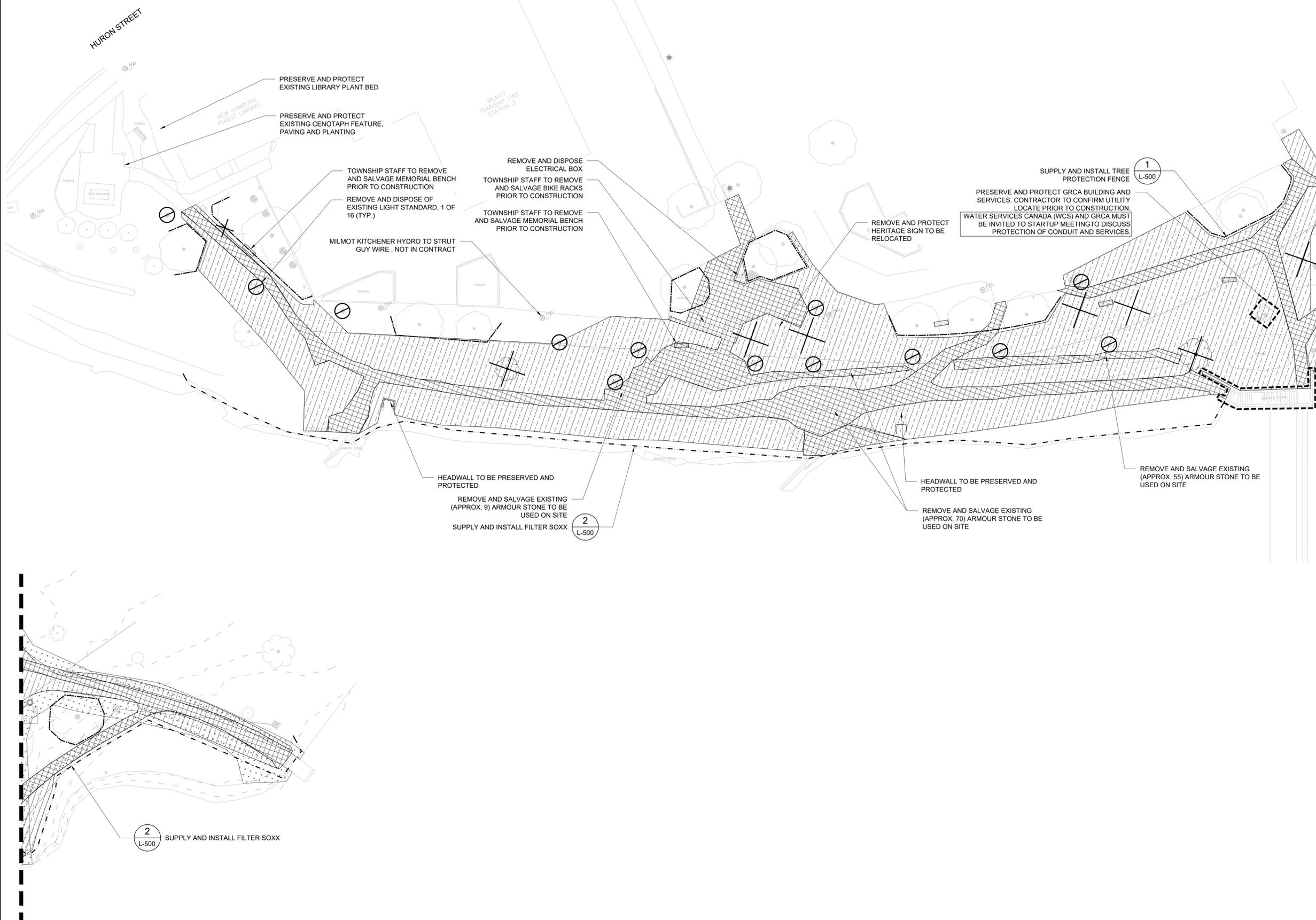
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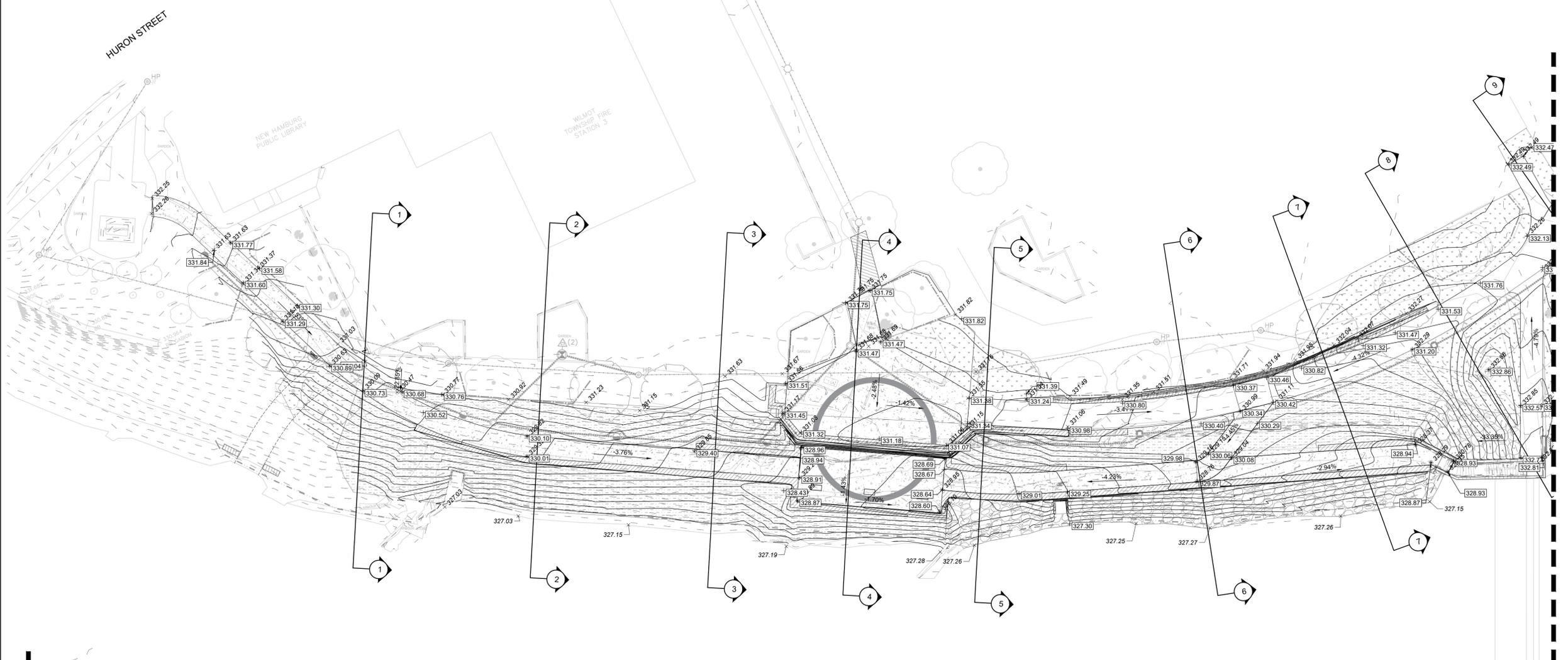
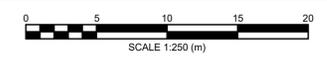
DESIGNED: BVV DRAWN: NM CHECKED: AG

SCALE: 1:250 DATE: JANUARY 2022

PROJECT NUMBER: **211-05070-00** DWG. NUMBER: **L-110**



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LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- PROPOSED ELEVATION
- EXISTING ELEVATION
- PROPOSED FENCING
- PROPERTY LINE
- PROPOSED IRRIGATION WATERMAIN (REFER TO IRRIGATION DRAWINGS)

EXISTING UTILITIES

- SANITARY SEWER LINE
- ABOVE GROUND HYDRO LINE
- CATCH BASIN
- FIRE HYDRANT
- GUY WIRE
- MANHOLE
- MANHOLE-HYDRO
- SINGLE POST SIGN
- LIGHT HYDRO POLE
- WATER VALVE

DRAWING INFORMATION

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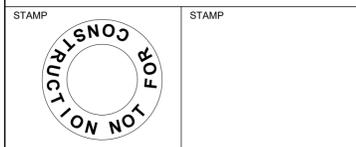


CLIENT:
TOWNSHIP OF WILMOT
 60 SNYDER'S ROAD WEST
 BADEN, ON N3A 1A1

PROJECT TITLE:
NEW HAMBURG
 NITH RIVER PROMINADE
 SP #

SITE ADDRESS:
 BETWEEN GRCA DAM
 AND HARTMAN BRIDGE

DRAWING TITLE:
GRADING PLAN



DESIGNED	BVV	DRAWN	NM	CHECKED	AG
SCALE	1:250	DATE	JANUARY 2022		
PROJECT NUMBER	211-05070-00	DWG. NUMBER	L-200		

Grading Review:

Based on review of existing and design grading and the proposed cut-fill balances, proposed grades are not anticipated to impact flooding within or beyond the study area.

Alyssa Mohino, P.Eng.
 Name, Title, Credentials

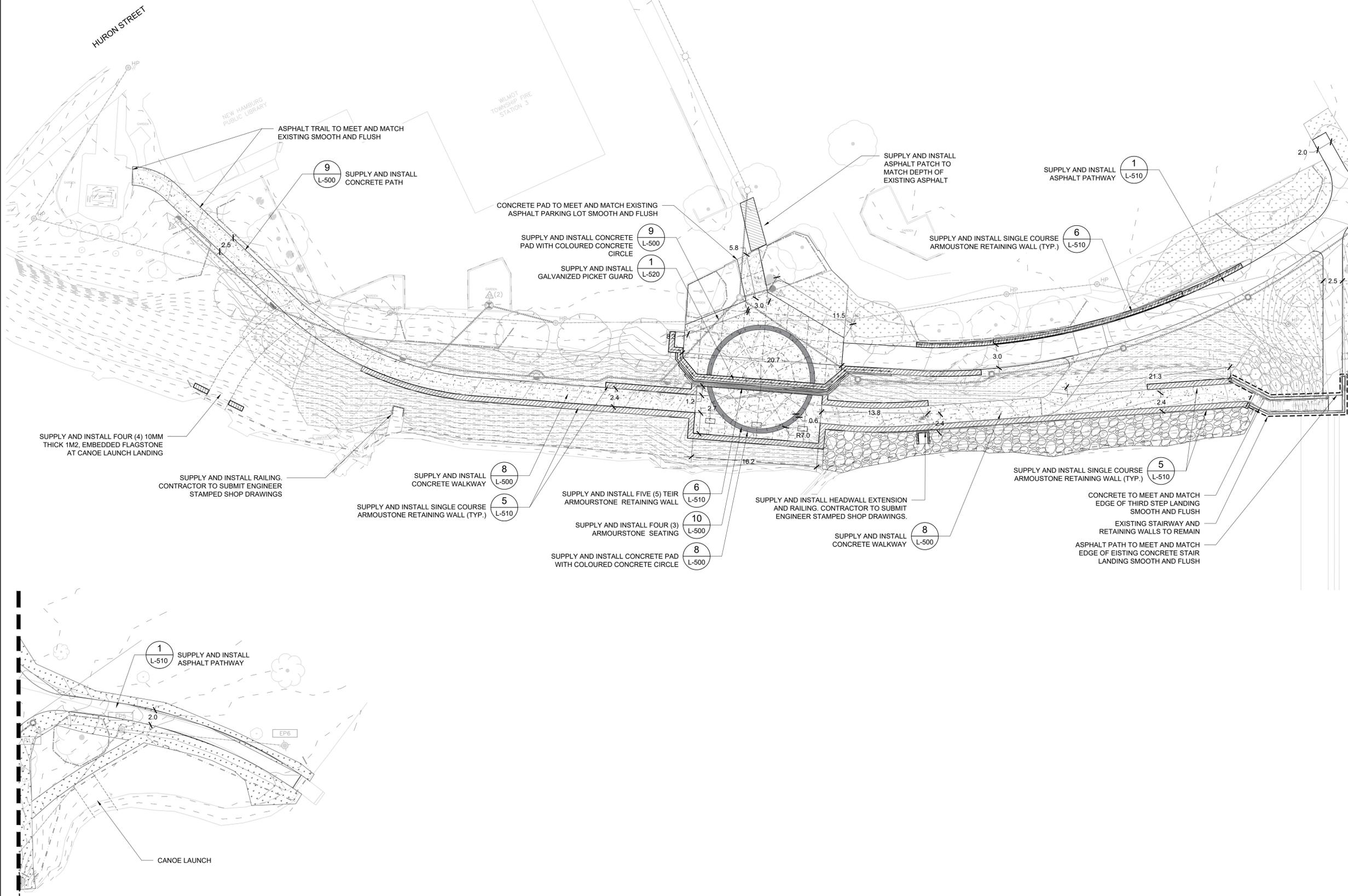
Alyssa Mohino
 Signature

June 10, 2022
 Date

CUT / FILL CALCULATION:

CUT = 580 m3
 FILL = 480 m3
 NET = (100m3)

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LEGEND

- PROPOSED TREES
- SUPPLY AND INSTALL TERRACESEEDING MIX 50% CVC SEED MIX 6 & 50% CVC SEED MIX 7.
- SUPPLY AND INSTALL SOD PER SPECIFICATIONS. CONTRACTOR TO ENSURE MINIMUM TOPSOIL REQUIREMENTS OF 150mm.
- SUPPLY AND INSTALL ASPHALT PATHWAY PER DETAIL 1L-510
- SUPPLY AND INSTALL CONCRETE PATHWAY PER DETAIL 8L-500
- SUPPLY AND INSTALL ARMORSTONE RIVERBANK STABILIZATION PER DETAIL 3L-510
- SUPPLY AND INSTALL ARMORSTONE RETAINING WALL PER DETAIL 7L-510 & 8L-510
- SILT FENCE
- TREE PROTECTION FENCE
- SUPPLY AND INSTALL HEADWALL RAILING PER DETAIL 2L-520
- SUPPLY AND INSTALL GALVANIZED PICKET GUARD PER DETAIL 1L-520
- EXISTING TREES TO REMAIN

DRAWING INFORMATION

ORIGINAL DESIGN AND/OR DRAWING BASE COMPLETED BY:
 WSP CANADA INC.
 YEAR: 2021
 ADDRESS: 582 LANCASTER ST W. KITCHENER, ON

NO	DATE	REVISION/ISSUED	BY	APPD
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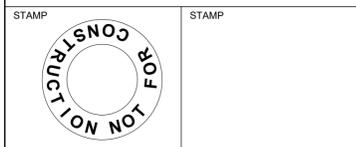


CLIENT:
TOWNSHIP OF WILMOT
 60 SNYDER'S ROAD WEST
 BADEN, ON N3A 1A1

PROJECT TITLE:
NEW HAMBURG
 NITH RIVER PROMINADE
 SP #

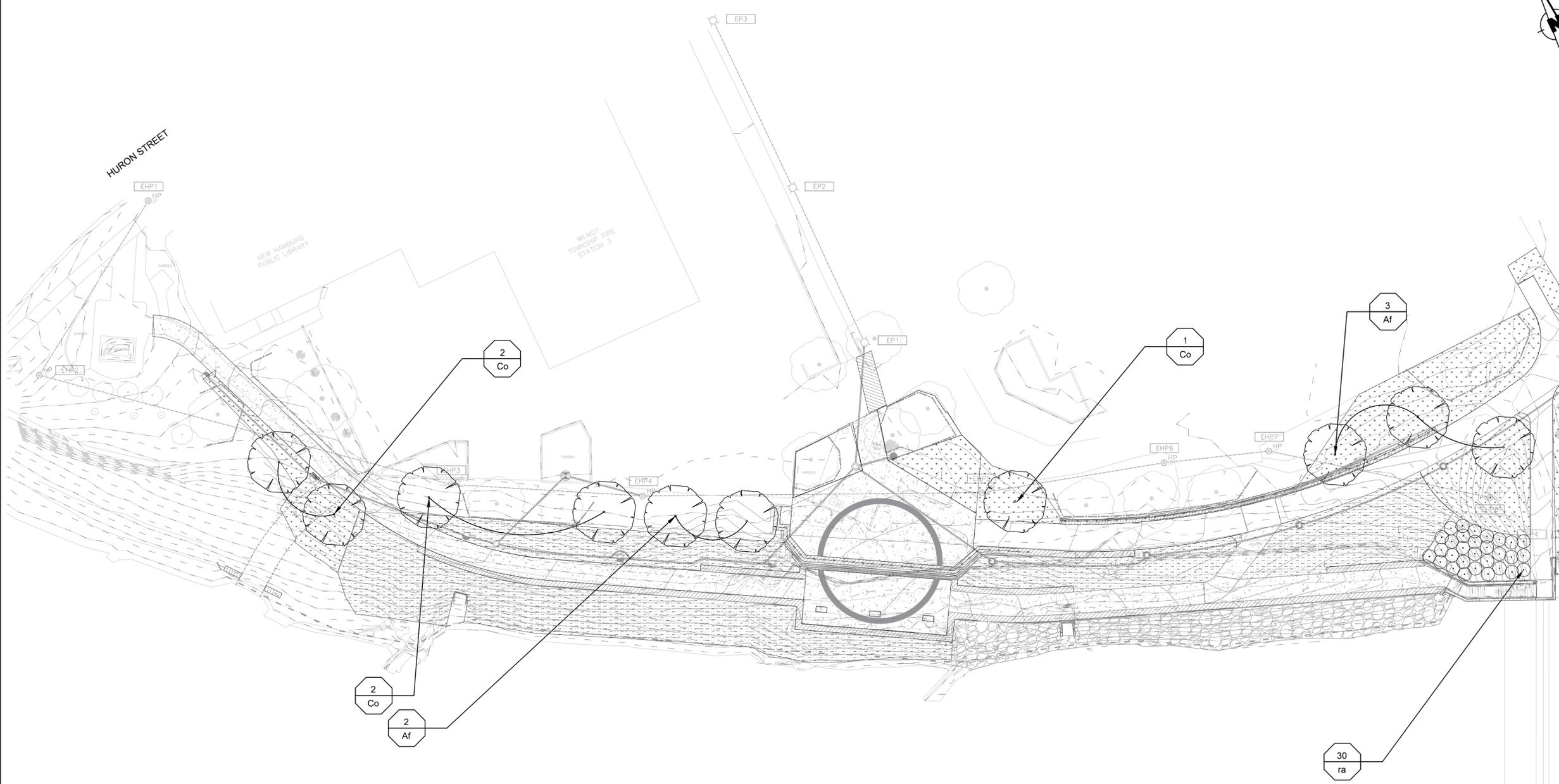
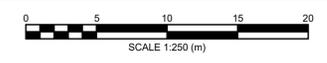
SITE ADDRESS:
 BETWEEN GRCA DAM
 AND HARTMAN BRIDGE

DRAWING TITLE:
LAYOUT PLAN



DESIGNED	BVV	DRAWN	NM	CHECKED	AG
SCALE	1:250	DATE	JANUARY 2022		
PROJECT NUMBER	211-05070-00	DWG. NUMBER	L-300		

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LEGEND

- PROPOSED TREES
- PROPOSED SHRUBS
- SUPPLY AND INSTALL TERRASEEDING MIX 50% CVC SEED MIX 6 & 50% CVC SEED MIX 7.
- SUPPLY AND INSTALL GARDEN BED FOR FUTURE PLANTING
- SUPPLY AND INSTALL SOD PER SPECIFICATIONS. CONTRACTOR TO ENSURE MINIMUM TOPSOIL REQUIREMENTS OF 150mm.
- SUPPLY INSTALL RIPRAP
- SUPPLY AND INSTALL CONCRETE PATHWAY
- EXISTING TREES TO REMAIN

DRAWING INFORMATION
 ORIGINAL DESIGN AND/OR DRAWING BASE COMPLETED BY:
 WSP CANADA INC.
 YEAR: 2021
 ADDRESS: 582 LANCASTER ST W. KITCHENER, ON

NO	DATE	REVISION/ISSUED	BY	APPD
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2	2022/03/03	90% SUBMISSION	NM	BVV
1	2022/01/28	60% SUBMISSION	NM	BVV

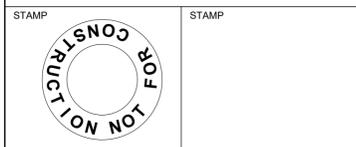


CLIENT:
TOWNSHIP OF WILNOT
 60 SNYDER'S ROAD WEST
 BADEN, ON N3A 1A1

PROJECT TITLE:
NEW HAMBURG
 NITH RIVER PROMINADE
 SP #

SITE ADDRESS:
 BETWEEN GRCA DAM
 AND HARTMAN BRIDGE

DRAWING TITLE:
PLANTING PLAN



DESIGNED	BVV	DRAWN	NM	CHECKED	AG
SCALE	1:250	DATE	JANUARY 2022		
PROJECT NUMBER	211-05070-00	DWG. NUMBER	L-400		

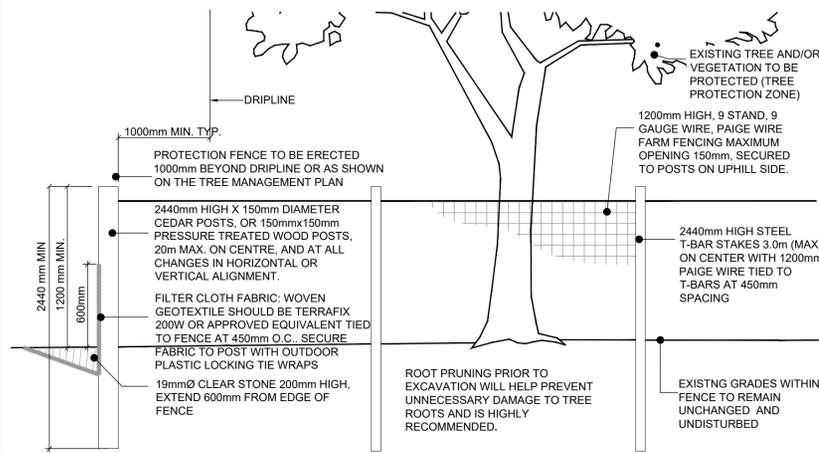
- NOTE:**
- CONTRACTOR TO RESTORE ALL DAMAGED SOFTSCAPE WITH SOD PER THE CONTRACT ADMINISTRATOR'S INSTRUCTIONS.
 - ALL TREES NOT IN CONTRACT AND TO BE PLANTED BY OTHERS
 - CONTRACTOR RESPONSIBLE FOR TERRA SEEDING

PLANT LIST - MASTER LIST

Key	Qty.	Botanical Name	Common Name	Condition	Spacing
Trees					
Deciduous					
Af	5	Acer freemanii	Freeman Maple	45mm Cal. W.B.	5.0m
Co	5	Celtis occidentalis	Hackberry	45mm Cal. W.B.	5.0m
Shrubs					
ra	30	Rhus amatica 'Gro-Low'	Gro-Low Fragrant Sumac	40cm. 3gal.	1.5m

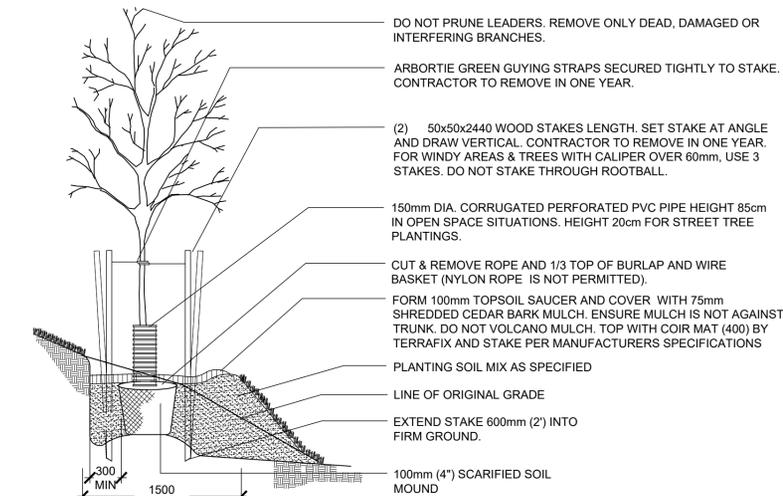
Note: Plant Quantities Indicated on the Planting Plan will Supersede the Quantities Listed Above.

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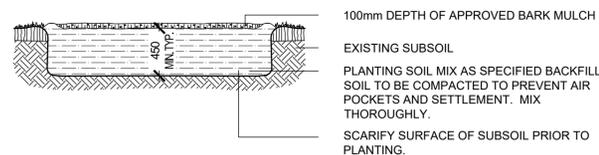
- NOTES:
- ATTACHMENT OF FENCE TO TREES WILL NOT BE PERMITTED.
 - ANY EXPOSED ROOTS ARE TO BE HAND PRUNED TO THE SATISFACTION OF THE PROJECT ARBORIST.
 - UNDER NO CIRCUMSTANCES SHALL ANY CONSTRUCTION MATERIALS, EQUIPMENT OR VEHICLES BE PLACED WITHIN THE TREE PROTECTION ZONE.
 - ALL TREE PROTECTION TO BE ERECTED PRIOR TO ANY CONSTRUCTION ACTIVITY AND IS TO REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS BEEN COMPLETED. OBTAIN WRITTEN APPROVAL FROM CONTRACT ADMINISTRATOR PRIOR TO REMOVAL OF FENCING.

1 TREE PROTECTION FENCE L-500 Scale: N.T.S.

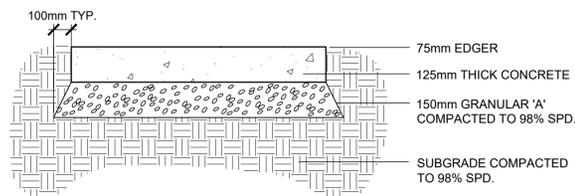


- NOTES:
- PLANT TREE NO HIGHER THAN 50mm ABOVE ORIGINAL GROUND GRADE TO ALLOW FOR SETTLEMENT.
 - WATER AT TIME OF PLANTING AND WHENEVER DEEMED NECESSARY TO MAINTAIN TREES IN A HEALTHY CONDITION.
 - ALL TAGS AND LABELS TO REMAIN UNTIL INSPECTION IS COMPLETE.
 - CONTRACTOR TO REMOVE ALL STAKES, TAGS AND LABELS AT THE END OF ONE YEAR.

2 FILTREX SILTSOXX ORIGINAL 12" L-500 Scale: N.T.S.



3 TREE PLANTING L-500 Scale: N.T.S.



- NOTES:
- PLANT TREE NO HIGHER THAN 50mm ABOVE ORIGINAL GROUND GRADE TO ALLOW FOR SETTLEMENT.
 - WATER AT TIME OF PLANTING AND WHENEVER DEEMED NECESSARY TO MAINTAIN TREES IN A HEALTHY CONDITION.
 - ALL TAGS AND LABELS TO REMAIN UNTIL INSPECTION IS COMPLETED.
 - CONTRACTOR TO REMOVE ALL TAGS, LABELS AND STAKES AT THE END OF ONE YEAR.

4 SHRUB PLANTING L-500 Scale: N.T.S.



5 SHRUB PLANTING ON A SLOPE L-500 Scale: N.T.S.

10 ARMOUR STONE BENCH L-500 Scale: N.T.S.

PRODUCT SPECIFICATIONS

Filtrex SiltSoxx ORIGINAL



PURPOSE & DESCRIPTION
Filtrex SiltSoxx ORIGINAL is a pre-filled compost filter sock comprised of mesh material and certified FilterMedia™. Filtrex SiltSoxx ORIGINAL strength mesh is the most widely recognized and used product in the industry. Available in green/black stripe or tan.

APPLICATIONS

- Erosion Control
- Inlet Protection
- Check Dams
- Slope Interruption

FOR ADDITIONAL INFORMATION
Refer to the Filtrex Catalog for full item listings.

Refer to Filtrex Design Specifications for complete application, design, installation, maintenance, and removal documentation at www.filtrex.com/specs

FIELD APPLICATION PHOTO REFERENCES

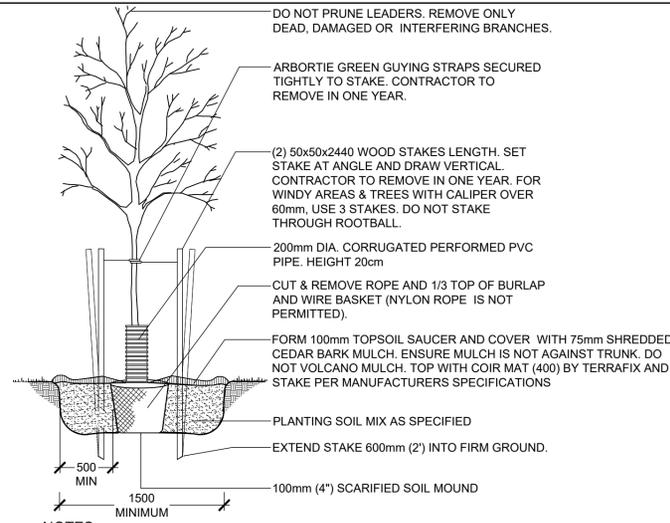


Filtrex SiltSoxx ORIGINAL used as Perimeter Control.

Filtrex SiltSoxx ORIGINAL Specifications

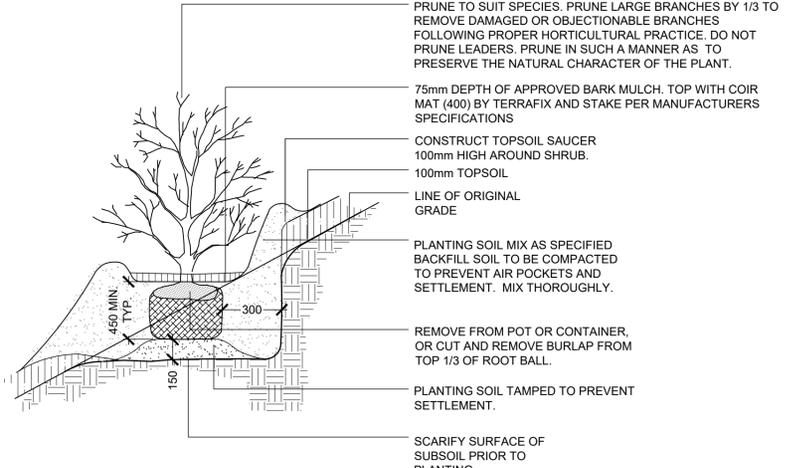
Product Name	SiltSoxx ORIGINAL
Mesh Material Type	Multi-Filament Polypropylene (MFPP) Photodegradable
Uses	standard sediment control applications
Mesh Opening Size	1/8"
Diameters	12"
Functional Longevity/Project Duration ¹	up to 5 yr
Tensile Strength (ASTM D4595) ²	MD: 670 lbs TD: 423 lbs
Fill Material	Locally sourced FilterMedia™
Mesh Color	green/thin black stripe
Mesh Sample	
FilterMedia Sample	

¹Functional longevity ranges are estimates only. Site specific environmental conditions may result in significantly shorter or longer time periods.
²Tensile Strength is based on 12" diameter using ASTM D4595. See Filtrex TechSpec #3342 for full tensile strength testing.



- NOTES:
- TO BE INSTALLED IN THE LOCATION NOTED IN THE DRAWINGS AND PER MANUFACTURERS SPECIFICATIONS.
 - CONTRACTOR RESPONSIBLE FOR UPKEEP OF EROSION CONTROL DURING PROJECT.
 - PLANT TREE NO HIGHER THAN 50mm ABOVE ORIGINAL GROUND GRADE TO ALLOW FOR SETTLEMENT.
 - WATER AT TIME OF PLANTING AND WHENEVER DEEMED NECESSARY TO MAINTAIN TREES IN A HEALTHY CONDITION.
 - ALL TAGS AND LABELS TO REMAIN UNTIL INSPECTION IS COMPLETED.
 - CONTRACTOR TO REMOVE ALL TAGS, LABELS AND STAKES AT THE END OF THE FIRST YEAR OF WARRANTY.

3 TREE PLANTING L-500 Scale: N.T.S.



- NOTES:
- PLANT TREE NO HIGHER THAN 50mm ABOVE ORIGINAL GROUND GRADE TO ALLOW FOR SETTLEMENT.
 - WATER AT TIME OF PLANTING AND WHENEVER DEEMED NECESSARY TO MAINTAIN TREES IN A HEALTHY CONDITION.
 - ALL TAGS AND LABELS TO REMAIN UNTIL INSPECTION IS COMPLETED.
 - CONTRACTOR TO REMOVE ALL TAGS, LABELS AND STAKES AT THE END OF ONE YEAR.

6 SHRUB PLANTING ON A SLOPE L-500 Scale: N.T.S.



LEGEND

NO	DATE	REVISION/ISSUED	BY	APPD
3	2022/06/10	ISSUED FOR TENDER	NM	BVV
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1	2022/01/28	60% SUBMISSION	NM	BVV

Scale: N.T.S.



- NOTES:
- CONCRETE TO BE 35MPa COMPRESSIVE STRENGTH AT 28 DAYS WITH 6% TO 8% AIR ENTERTAINMENT (FIBREMESH INFORCE E3 FIBRILLATED POLYPROPYLENE FIBRE TO ADD TO MIXTURE AT .9KG PER CUBIC METRE).
 - EXPANSION JOINTS SHALL BE LOCATED AT A MAXIMUM 4.0m ON CENTRE AND WHERE CONCRETE MEETS OTHER HARD SURFACES AND STRUCTURES
 - CONTRACTION JOINTS WITH DOUBLE EDGER IN FRESH CONCRETE THEN SAWCUT TO A DEPTH OF 30mm. WHEN THE SIDEWALK WIDTH IS 2.0 M OR GREATER, A LONGITUDINAL CONTRACTION JOINT SHALL BE SAWN OR FORMED AT A MAXIMUM SPACING INTERVAL OF 1.5 M.

7 PLANTING BED (FOR FUTURE PLANTING) L-500 Scale: N.T.S.

8 CONCRETE PAD L-500 Scale: N.T.S.



Landscape Architecture
582 Lancaster Street West
Kitchener, ON N2K 1M3
1.519-743-8777
www.wsp.com

CLIENT:
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60 SNYDER'S ROAD WEST
BADEN, ON N3A 1A1

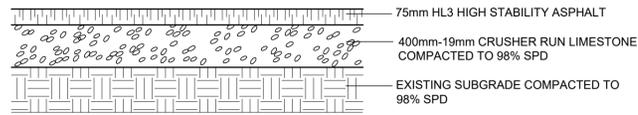
PROJECT TITLE:
NEW HAMBURG
NITH RIVER PROMINADE
SP #

SITE ADDRESS:
BETWEEN GRCA DAM
AND HARTMAN BRIDGE

DRAWING TITLE:
DETAILS

DESIGNED	BVV	DRAWN	NM	CHECKED	AG
SCALE(S) SHOWN		DATE	JANUARY 2022		
PROJECT NUMBER	211-05070-00	DWG. NUMBER	L-500		

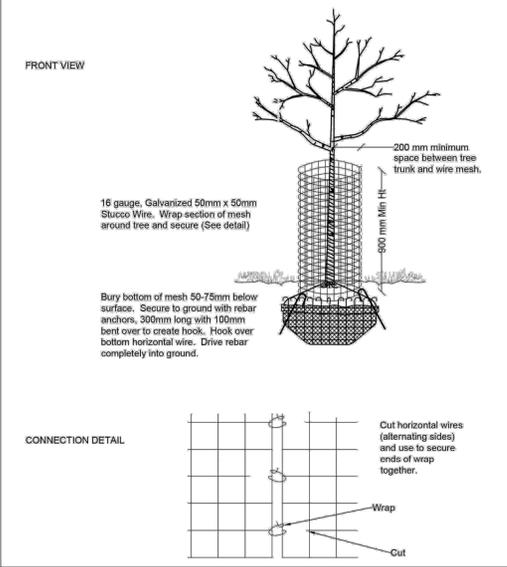
STAMP
CONTRACT NOT FOR CONSTRUCTION



- NOTES :
- PROOF ROLLING OF SUBGRADE SHALL BE INSPECTED BY THE GEOTECHNICAL CONSULTANT.
 - EXISTING GRANULAR MATERIAL SHALL NOT BE UTILIZED WITHIN THE NEW PAVEMENT STRUCTURE.
 - ASPHALT MATERIALS SHALL BE ROLLED AND COMPACTED TO A MINIMUM OF 97 PERCENT MBD. PROOF ROLLING OF ASPHALT SHALL BE INSPECTED BY THE GEOTECHNICAL CONSULTANT.
 - IF PAVEMENT CONSTRUCTION OCCURS IN WET, INCLEMENT WEATHER THE CONTRACTOR SHALL DISCUSS ADDITIONAL SUBGRADE SUPPORT WITH THE GEOTECHNICAL CONSULTANT AND PROVIDE ADDITIONAL GRANULAR SUBBASE BASED ON THE GEOTECHNICAL CONSULTANT'S RECOMMENDATIONS.

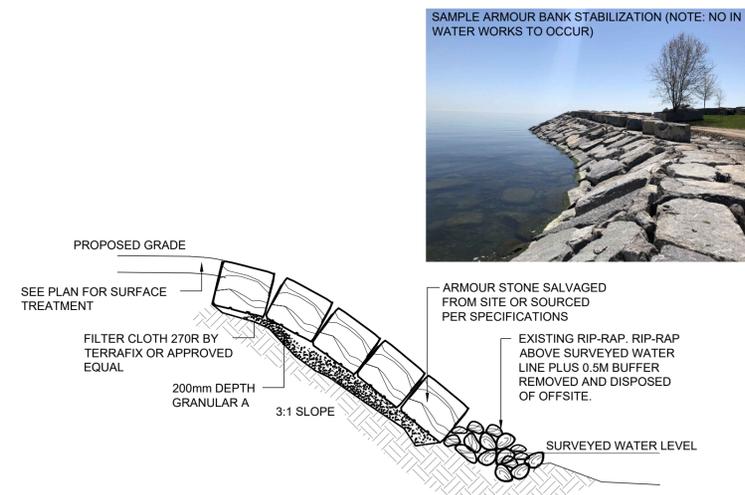
1 ASPHALT PATH
L-510

Scale: N.T.S.



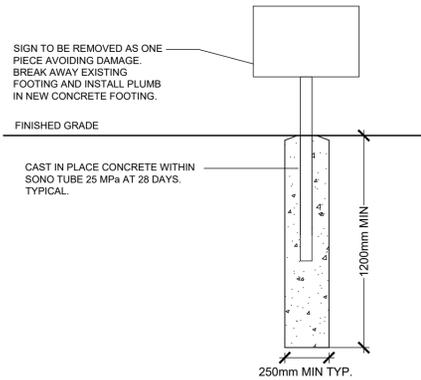
2 DECIDUOUS TREE BEAVER GUARD
L-510

Scale: N.T.S.



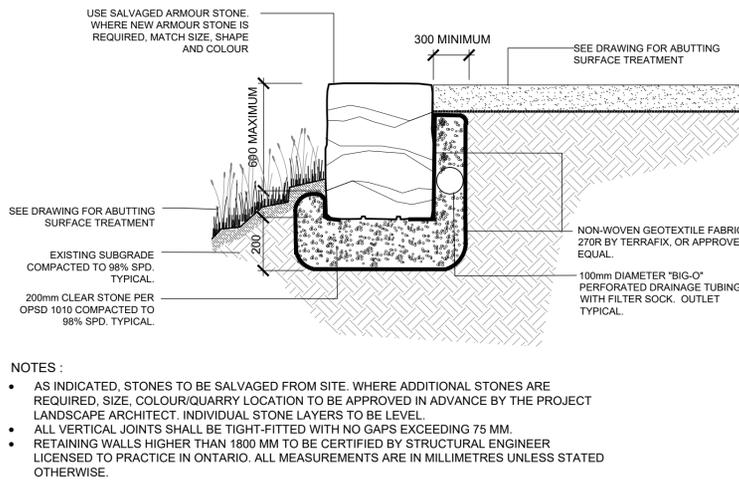
3 ARMOUR STONE BANK STABILIZATION
L-510

Scale: N.T.S.



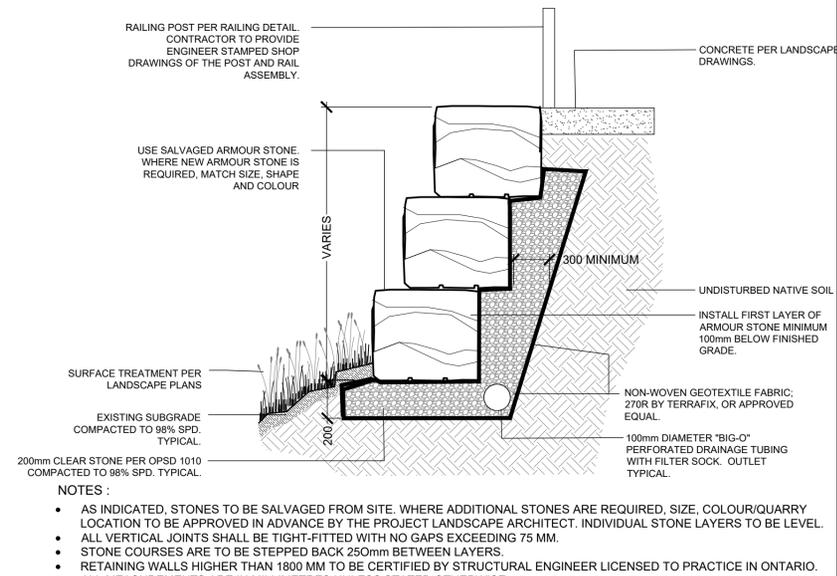
4 CHRS HERITAGE SIGN SALVAGE AND REINSTALL
L-510

Scale: N.T.S.



5 SINGLE LAYER ARMOUR STONE WALL
L-510

Scale: N.T.S.



6 MULTI-LAYER ARMOUR STONE WALL WITH FENCE/RAIL
L-510

Scale: N.T.S.



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PROJECT TITLE:
NEW HAMBURG
NITH RIVER PROMINADE
SP #

SITE ADDRESS:
BETWEEN GRCA DAM
AND HARTMAN BRIDGE

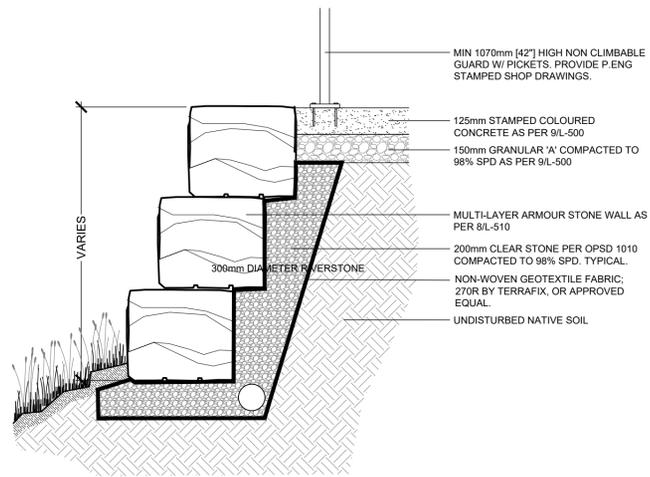
DRAWING TITLE:
DETAILS

STAMP

STAMP

DESIGNED	BVV	DRAWN	NM	CHECKED	AG
SCALE(S) SHOWN		DATE	JANUARY 2022		
PROJECT NUMBER	211-05070-00		DWG. NUMBER	L-510	

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MIN 1070mm (42") HIGH NON CLIMBABLE GUARD W/ PICKETS. PROVIDE P.ENG STAMPED SHOP DRAWINGS.

125mm STAMPED COLOURED CONCRETE AS PER 9/L-500

150mm GRANULAR 'A' COMPACTED TO 98% SPD AS PER 9/L-500

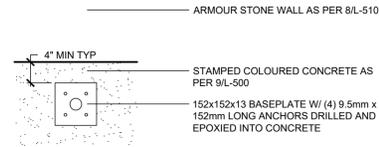
MULTI-LAYER ARMOUR STONE WALL AS PER 8/L-510

200mm CLEAR STONE PER OPSD 1010 COMPACTED TO 98% SPD. TYPICAL.

300mm DIA RIVERSTONE

NON-WOVEN GEOTEXTILE FABRIC; 270g BY TERRAFIX, OR APPROVED EQUAL.

UNDISTURBED NATIVE SOIL



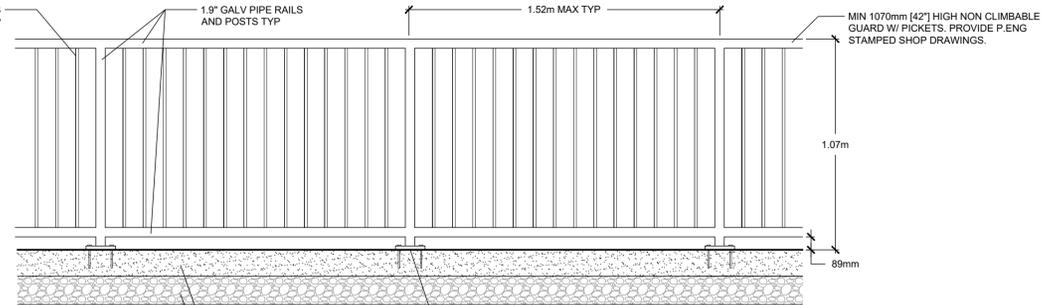
4" MIN TYP

ARMOUR STONE WALL AS PER 8/L-510

STAMPED COLOURED CONCRETE AS PER 9/L-500

152x152x13 BASEPLATE W/ (4) 9.5mm x 152mm LONG ANCHORS DRILLED AND EPOXYIED INTO CONCRETE

1/2" GALV PICKETS AT 4" O.C. MAX TYP



1.9" GALV PIPE RAILS AND POSTS TYP

1.52m MAX TYP

MIN 1070mm (42") HIGH NON CLIMBABLE GUARD W/ PICKETS. PROVIDE P.ENG STAMPED SHOP DRAWINGS.

1.07m

88mm

125mm STAMPED COLOURED CONCRETE AS PER 9/L-500

152x152x13 BASEPLATE W/ (4) 9.5mm x 152mm LONG ANCHORS DRILLED AND EPOXYIED INTO CONCRETE

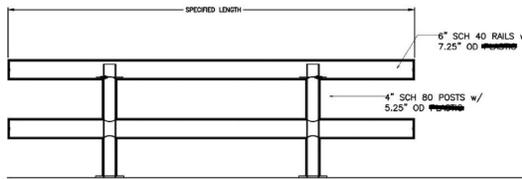
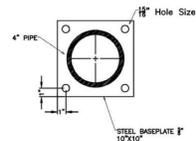
NOTES:
CONTRACTOR TO PROVIDE ENGINEER STAMPED SHOP DRAWINGS ON RAIL AND ARMOUR WALL.

1 GUARD RAIL & ANCHORING
L-520

Scale: N.T.S.

Heavy Duty Guard Rail - HDGR

STANDARD LENGTHS	STANDARD HEIGHTS
48", 72", 96", 120", 144"	27", 36", 42"



6" SCH 40 RAILS w/ 7.25" OD

4" SCH 80 POSTS w/ 5.25" OD

Vestil Manufacturing Company
2999 North Wayne Street, P.O. Box 570, Angola Indiana 46703
Telephone (360) 665-7586 * Fax (360) 665-1339

NOTES:
• ALL MATERIAL TO BE HOT DIP GALVANIZED STEEL
• CONTRACTOR TO SUPPLY ENGINEER STAMPED SHOP DRAWINGS FOR RAILING AND FASTENING TO HEADWALL

2 GALVANIZED GUARD RAIL FOR HEADWALL
L-520

Scale: N.T.S.



NO	DATE	REVISION/ISSUED	BY	APPD
3	2022/06/10	ISSUED FOR TENDER	NM	BVV
2	2022/03/03	90% SUBMISSION	NM	BVV
1	2022/01/28	60% SUBMISSION	NM	BVV



CLIENT:
TOWNSHIP OF WILMOT
60 SNYDER'S ROAD WEST
BADEN, ON N3A 1A1

PROJECT TITLE:
NEW HAMBURG
NITH RIVER PROMINADE
SP #

SITE ADDRESS:
BETWEEN GRCA DAM
AND HARTMAN BRIDGE

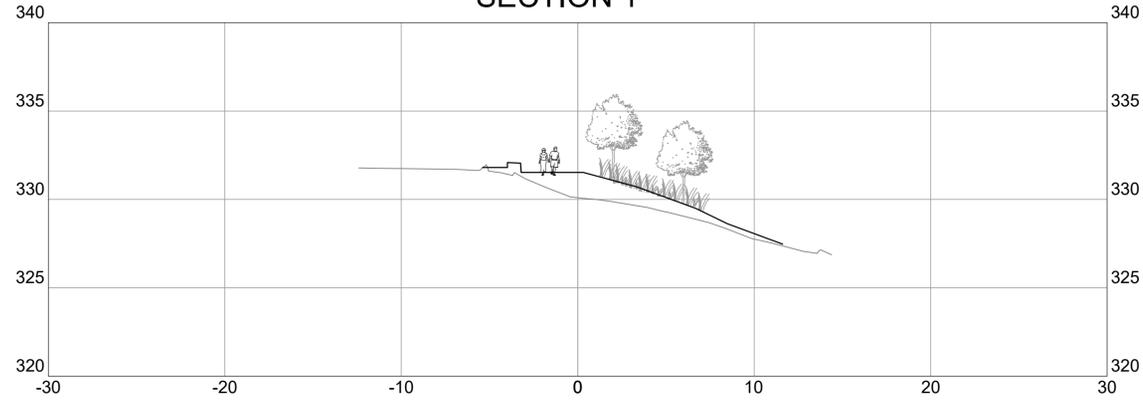
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DETAILS

STAMP

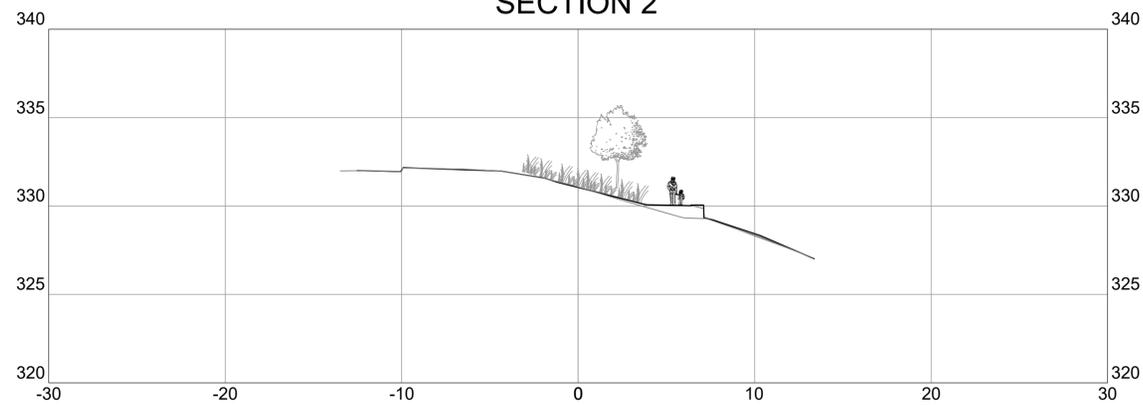
DESIGNED BVV DRAWN NM CHECKED AG
SCALE(S) SHOWN DATE JANUARY 2022
PROJECT NUMBER DWG. NUMBER
211-05070-00 L-520

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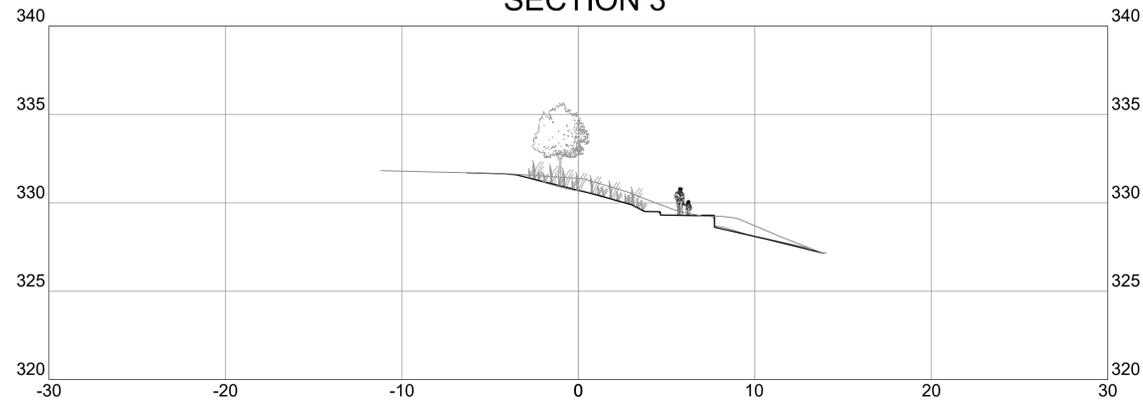
SECTION 1



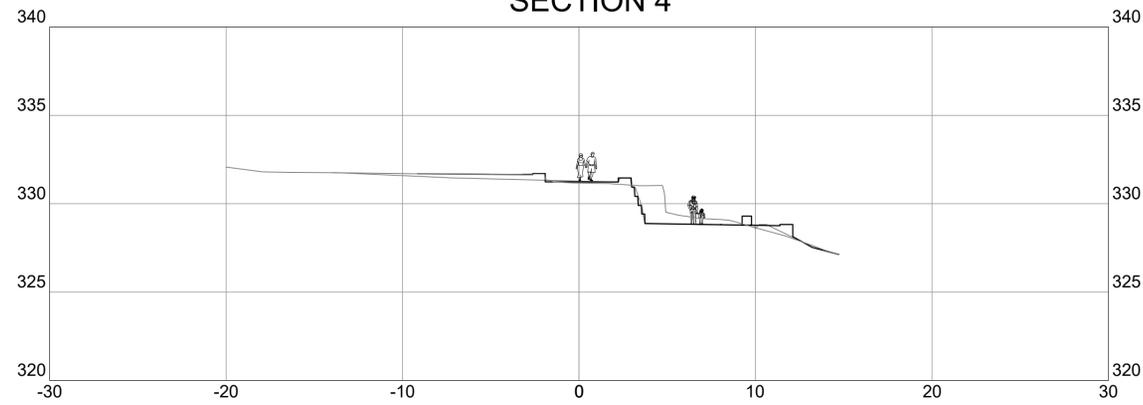
SECTION 2



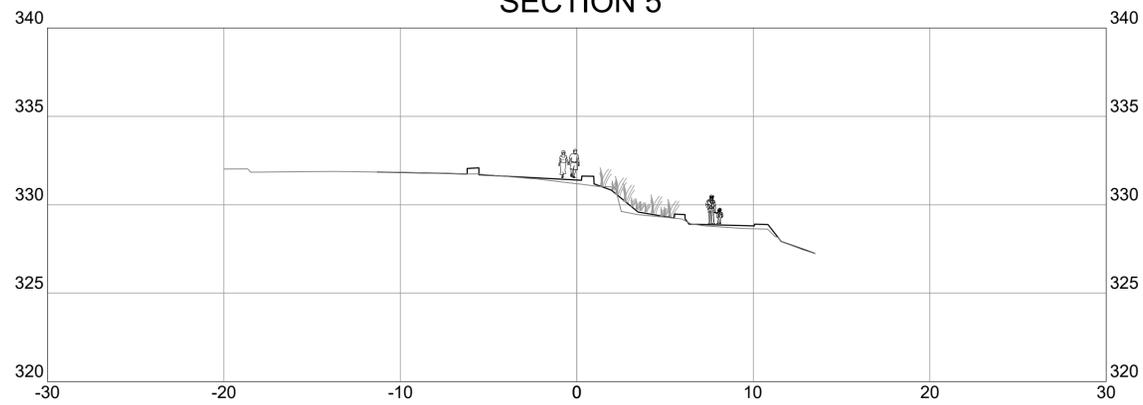
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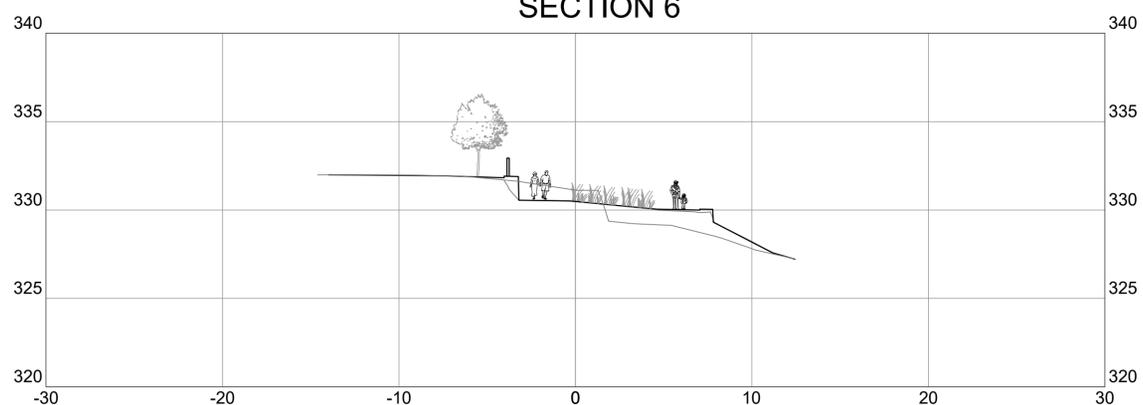
SECTION 4



SECTION 5



SECTION 6



LEGEND

DRAWING INFORMATION

ORIGINAL DESIGN AND/OR DRAWING BASE COMPLETED BY:
 WSP CANADA INC.
 YEAR: 2021
 ADDRESS: 582 LANCASTER ST W, KITCHENER, ON

NO	DATE	REVISION/ISSUED	BY	APPD
3	2022/06/10	ISSUED FOR TENDER	NM	BVV
2	2022/03/03	90% SUBMISSION	NM	BVV
1	2022/01/28	60% SUBMISSION	NM	BVV

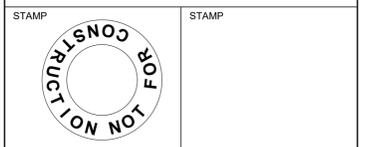


CLIENT:
TOWNSHIP OF WILMOT
 60 SNYDER'S ROAD WEST
 BADEN, ON N3A 1A1

PROJECT TITLE:
NEW HAMBURG
 NITH RIVER PROMINADE
 SP #

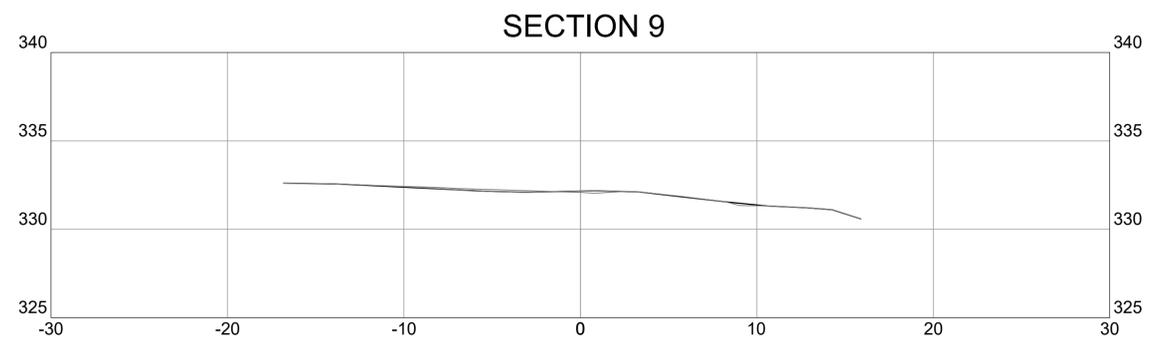
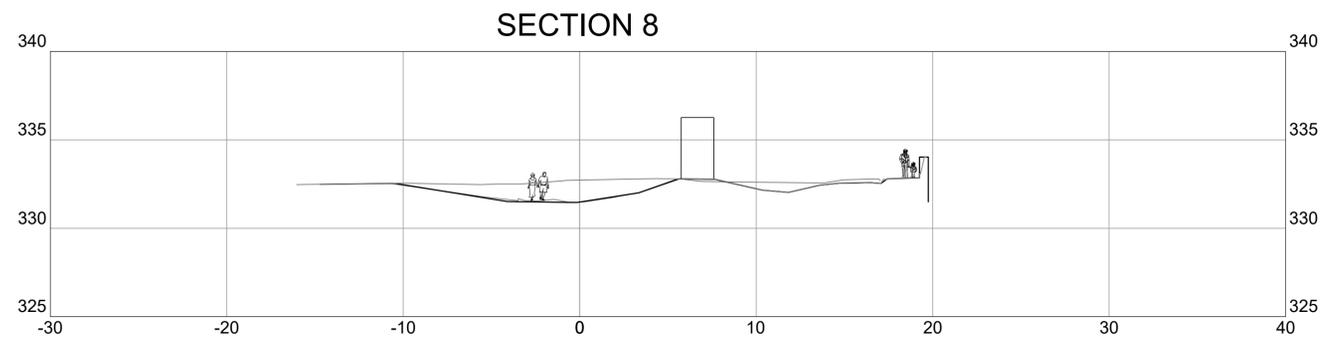
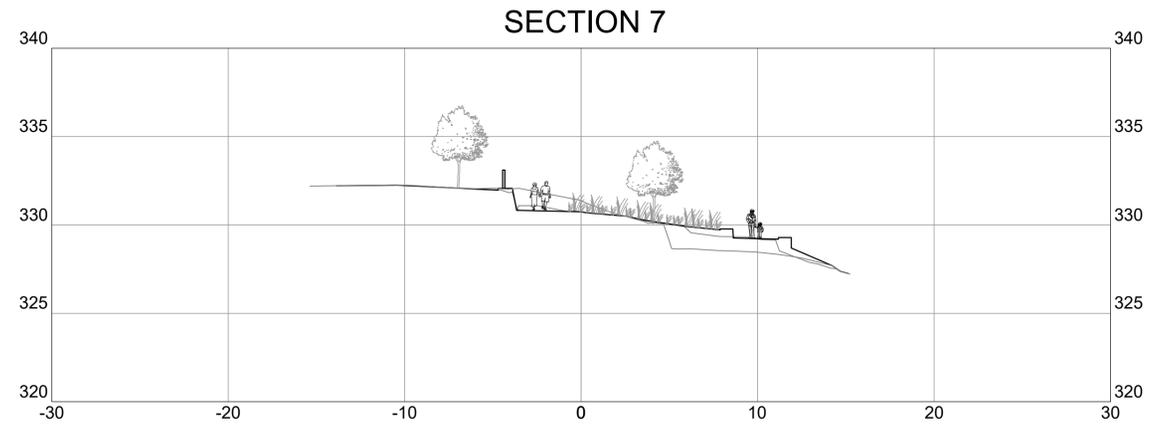
SITE ADDRESS:
 BETWEEN GRCA DAM
 AND HARTMAN BRIDGE

DRAWING TITLE:
SECTIONS



DESIGNED	BVV	DRAWN	NM	CHECKED	AG
SCALE	1:200	DATE	JANUARY 2022		
PROJECT NUMBER	211-05070-00	DWG. NUMBER	L-600		

Y:\MMD\211-05070-00\Township of Wilmot - New Hamburg Nith River Promenade\CAD\PRODUCTION\New Hamburg Promenade_R3.dwg



LEGEND

DRAWING INFORMATION

ORIGINAL DESIGN AND/OR DRAWING BASE COMPLETED BY:
 WSP CANADA INC.
 YEAR: 2021
 ADDRESS: 582 LANCASTER ST W, KITCHENER, ON

NO	DATE	REVISION/ISSUED	BY	APPD
3	2022/06/10	ISSUED FOR TENDER	NM	BVV
2	2022/03/03	90% SUBMISSION	NM	BVV
1	2022/01/28	60% SUBMISSION	NM	BVV

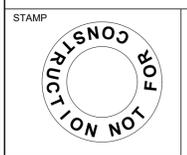


CLIENT:
TOWNSHIP OF WILMOT
 60 SNYDER'S ROAD WEST
 BADEN, ON N3A 1A1

PROJECT TITLE:
NEW HAMBURG
 NITH RIVER PROMINADE
 SP #

SITE ADDRESS:
 BETWEEN GRCA DAM
 AND HARTMAN BRIDGE

DRAWING TITLE:
SECTIONS



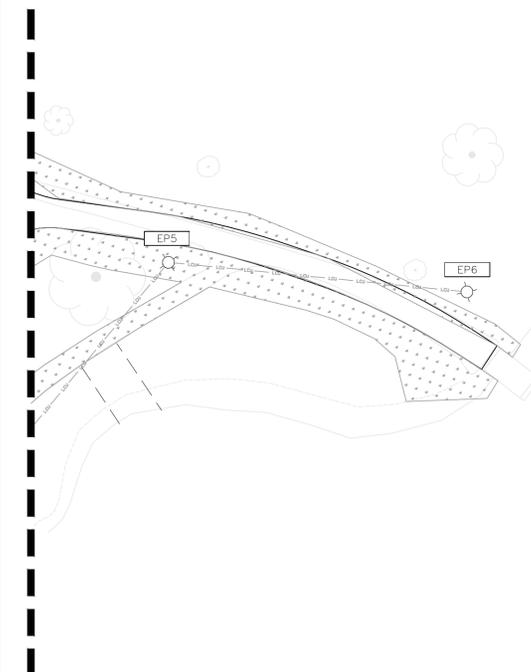
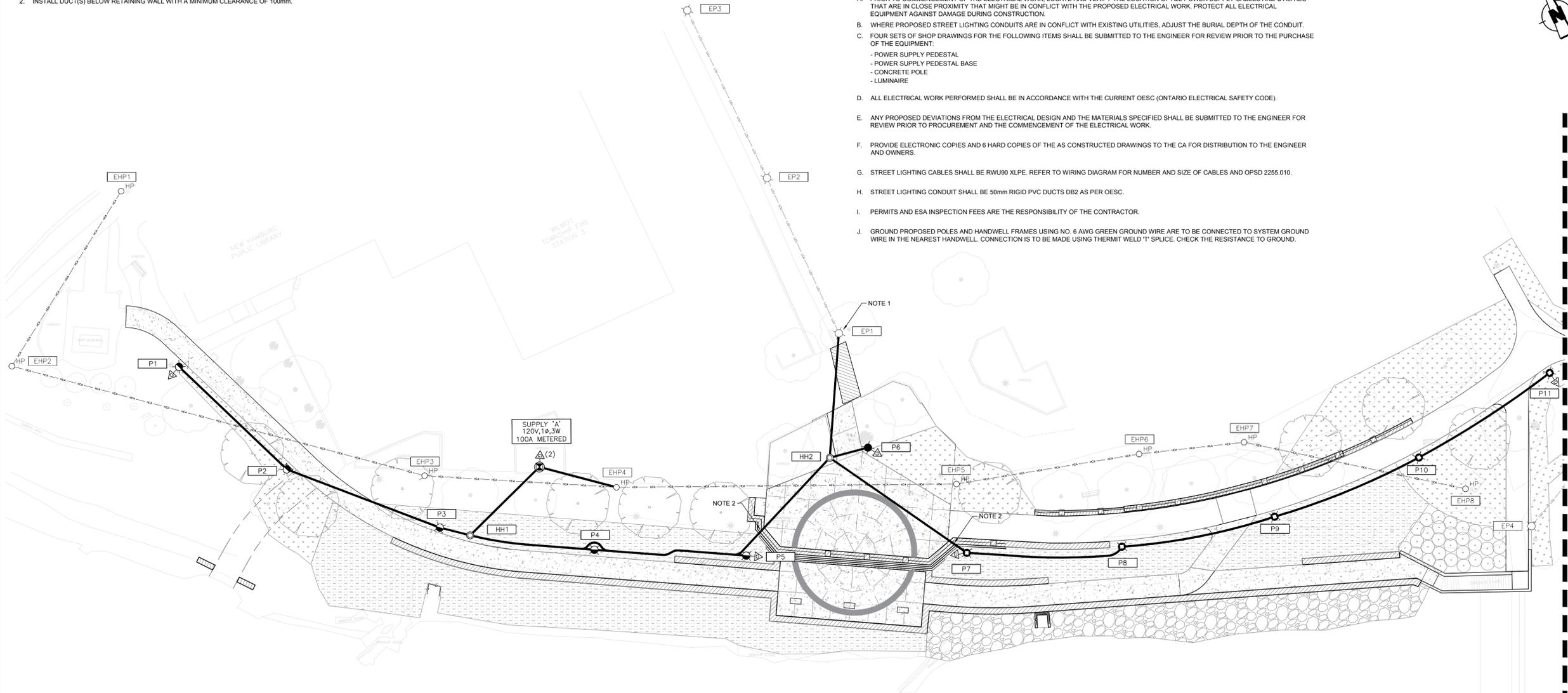
DESIGNED	BVV	DRAWN	NM	CHECKED	AG
SCALE	1:200	DATE	JANUARY 2022		
PROJECT NUMBER	211-05070-00	DWG. NUMBER	L-610		

LAYOUT NOTES:

- BREAK INTO EXISTING POLE FOOTING AND CONNECT NEW DUCT. SPLICE CABLES IN POLE HANDHOLE.
- INSTALL DUCT(S) BELOW RETAINING WALL WITH A MINIMUM CLEARANCE OF 100mm.

GENERAL NOTES:

- PRIOR TO COMMENCEMENT OF THE ELECTRICAL WORK, LOCATE AND VERIFY THE LOCATION OF ALL POWER SUPPLY CABLES AND UTILITIES THAT ARE IN CLOSE PROXIMITY THAT MIGHT BE IN CONFLICT WITH THE PROPOSED ELECTRICAL WORK. PROTECT ALL ELECTRICAL EQUIPMENT AGAINST DAMAGE DURING CONSTRUCTION.
- WHERE PROPOSED STREET LIGHTING CONDUITS ARE IN CONFLICT WITH EXISTING UTILITIES, ADJUST THE BURIAL DEPTH OF THE CONDUIT.
- FOUR SETS OF SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO THE PURCHASE OF THE EQUIPMENT:
 - POWER SUPPLY PEDESTAL
 - POWER SUPPLY PEDESTAL BASE
 - CONCRETE POLE
 - LUMINAIRE
- ALL ELECTRICAL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE CURRENT OESC (ONTARIO ELECTRICAL SAFETY CODE).
- ANY PROPOSED DEVIATIONS FROM THE ELECTRICAL DESIGN AND THE MATERIALS SPECIFIED SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO PROCUREMENT AND THE COMMENCEMENT OF THE ELECTRICAL WORK.
- PROVIDE ELECTRONIC COPIES AND 6 HARD COPIES OF THE AS CONSTRUCTED DRAWINGS TO THE CA FOR DISTRIBUTION TO THE ENGINEER AND OWNERS.
- STREET LIGHTING CABLES SHALL BE RWU90 XLPE. REFER TO WIRING DIAGRAM FOR NUMBER AND SIZE OF CABLES AND OPSD 2255.010.
- STREET LIGHTING CONDUIT SHALL BE 50mm RIGID PVC DUCTS DB2 AS PER OESC.
- PERMITS AND ESA INSPECTION FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- GROUND PROPOSED POLES AND HANDWELL FRAMES USING NO. 6 AWG GREEN GROUND WIRE ARE TO BE CONNECTED TO SYSTEM GROUND WIRE IN THE NEAREST HANDWELL. CONNECTION IS TO BE MADE USING THERMIT WELD 'T' SPLICE. CHECK THE RESISTANCE TO GROUND.



KEY MAP

LEGEND

- 25W LED, 3000K, TYPE III, COLOUR BLACK, POST TOP LUMINAIRE C/W PHOTO RECEPTACLE BY KING LUMINAIRE CATALOG NO: K118R-B2AR-III-25 (SSL)-1042-120-K13-PR-3K-BK MH: 4.3m LFL: 0.80 19R OCTAGONAL CONCRETE, POLISHED, COLOUR ECLIPSE, DIRECT BURIED POLE, BY STRESSCRETE
- 40W LED, 3000K, TYPE V, COLOUR BLACK, POST TOP LUMINAIRE C/W PHOTO RECEPTACLE BY KING LUMINAIRE CATALOG NO: K118R-B3AR-V-40 (SSL)-1036-120-K13-PR-3K-BK MH: 4.3m LFL: 0.80 19R OCTAGONAL CONCRETE, POLISHED, COLOUR ECLIPSE, DIRECT BURIED POLE, BY STRESSCRETE
- 60W LED, 3000K, TYPE V, COLOUR BLACK, POST TOP LUMINAIRE C/W PHOTO RECEPTACLE BY KING LUMINAIRE CATALOG NO: K118R-B3AR-V-60 (SSL)-1036-120-K13-PR-3K-BK MH: 4.3m LFL: 0.80 19R OCTAGONAL CONCRETE, POLISHED, COLOUR ECLIPSE, DIRECT BURIED POLE, BY STRESSCRETE
- EXISTING LIGHTING POLE AND LUMINAIRE
- EXISTING HYDRO POLE
- PROPOSED ELECTRICAL HANDHOLE
- PROPOSED PAD-MOUNTED POWER SUPPLY CABINET
- EXISTING POWER SUPPLY CABINET
- PROPOSED GROUND ROD
- PROPOSED LIGHTING CABLES IN DUCT(S)
- EXISTING UNDERGROUND LIGHTING CABLES
- EXISTING AERIAL HYDRO CABLES
- EXISTING UNDERGROUND POWER CABLES
- P POLE IDENTIFICATION NUMBER
- R1 REMOVAL IDENTIFICATION NUMBER
- X ELECTRICAL REMOVAL

NO	DATE	REVISION/ISSUED	BY	APPD
2	2022/06/10	100% SUBMISSION	RL	TT
1	2022/03/03	90% SUBMISSION	RL	TT

LOCATION	POLE OR STRUCT. No.	COORDINATES		COMMENTS
		NORTHING	EASTING	
NEW HAMBURG TRAIL	P1	4802832.9498	523291.0610	GROUND ROD
NEW HAMBURG TRAIL	P2	4802817.4500	523297.0330	-
NEW HAMBURG TRAIL	P3	4802804.2552	523309.6837	-
NEW HAMBURG TRAIL	P4	4802794.6190	523324.2189	-
NEW HAMBURG TRAIL	P5	4802786.7580	523339.2580	GROUND ROD
NEW HAMBURG TRAIL	P6	4802791.7990	523356.7010	GROUND ROD
NEW HAMBURG TRAIL	P7	4802776.4750	523361.6410	GROUND ROD
NEW HAMBURG TRAIL	P8	4802769.6530	523377.5850	-
NEW HAMBURG TRAIL	P9	4802765.3570	523394.4170	-
NEW HAMBURG TRAIL	P10	4802764.4020	523411.8070	-
NEW HAMBURG TRAIL	P11	4802766.6570	523429.0390	GROUND ROD
NEW HAMBURG TRAIL	HH1	4802802.0322	523312.3779	-
NEW HAMBURG TRAIL	HH2	4802790.1238	523357.8048	-
NEW HAMBURG TRAIL	SUPPLY 'A'	4802805.5887	523322.6292	GROUND ROD (2)

POLE NO.	POLE DESCRIPTION	LUMINAIRE BRACKET	LUMINAIRE	COMMENTS
P1	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B2AR-III-25 (SSL)-1042-120-K13-PR-3K-BK	-
P2	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B2AR-III-25 (SSL)-1042-120-K13-PR-3K-BK	-
P3	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B2AR-III-25 (SSL)-1042-120-K13-PR-3K-BK	-
P4	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B2AR-III-25 (SSL)-1042-120-K13-PR-3K-BK	-
P5	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B2AR-III-25 (SSL)-1042-120-K13-PR-3K-BK	-
P6	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B3AR-V-60 (SSL)-1036-120-K13-PR-3K-BK	-
P7	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B3AR-V-40 (SSL)-1036-120-K13-PR-3K-BK	-
P8	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B3AR-V-40 (SSL)-1036-120-K13-PR-3K-BK	-
P9	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B3AR-V-40 (SSL)-1036-120-K13-PR-3K-BK	-
P10	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B3AR-V-40 (SSL)-1036-120-K13-PR-3K-BK	-
P11	KBH14-G-S11 C/W 140-30/30	POST TOP	K118R-B3AR-V-40 (SSL)-1036-120-K13-PR-3K-BK	-



CLIENT: **TOWNSHIP OF WILMOT**
60 SNYDER'S ROAD WEST
BADEN, ON N3A 1A1

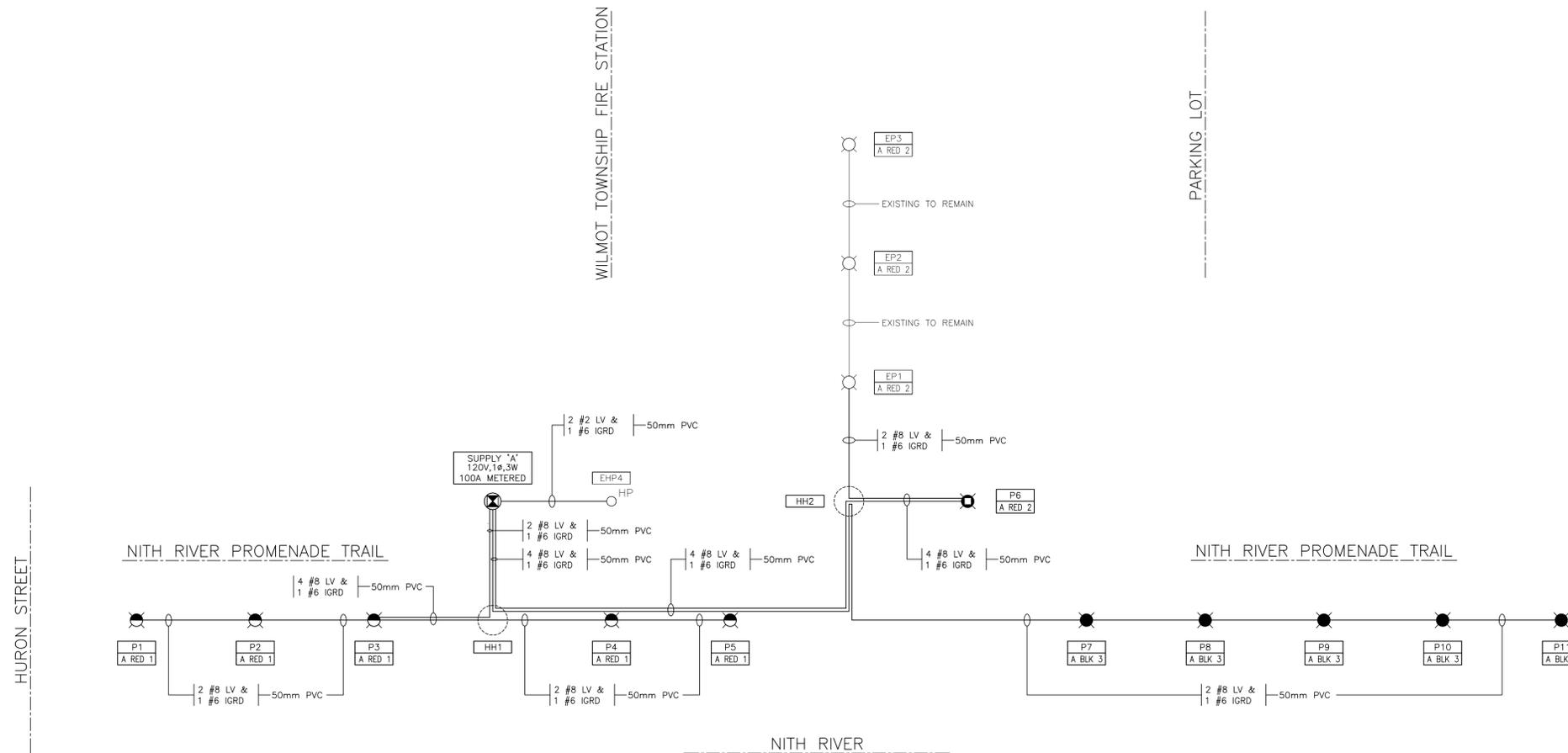
PROJECT TITLE: **NEW HAMBURG**
NITH RIVER PROMENADE
SP #

SITE ADDRESS: **BETWEEN GRCA DAM**
AND HARTMAN BRIDGE

DRAWING TITLE: **ELECTRICAL LAYOUT**

DESIGNED	RL	DRAWN	JS	CHECKED	TT
SCALE	1:250	DATE	JUNE 2022		
PROJECT NUMBER	211-05070-00		DWG. NUMBER	E-100	

2022/06/10 12:11:05:00 New Hamburg Promenade -MUP-CAD100- E211-05070- N01.dwg



KEY MAP



LEGEND

- 25W LED, 3000K, TYPE III, COLOUR BLACK, POST TOP LUMINAIRE C/W PHOTO RECEPTACLE BY KING LUMINAIRE CATALOG NO: K118R-B2AR-III-25 (SSL)-1042-120-K13-PR-3K-BK MH: 4.3m LFF: 0.80
 19R OCTAGONAL CONCRETE, POLISHED, COLOUR ECLIPSE, DIRECT BURIED POLE, BY STRESSCRETE
- 40W LED, 3000K, TYPE V, COLOUR BLACK, POST TOP LUMINAIRE C/W PHOTO RECEPTACLE BY KING LUMINAIRE CATALOG NO: K118R-B3AR-V-40 (SSL)-1036-120-K13-PR-3K-BK MH: 4.3m LFF: 0.80
 19R OCTAGONAL CONCRETE, POLISHED, COLOUR ECLIPSE, DIRECT BURIED POLE, BY STRESSCRETE
- 60W LED, 3000K, TYPE V, COLOUR BLACK, POST TOP LUMINAIRE C/W PHOTO RECEPTACLE BY KING LUMINAIRE CATALOG NO: K118R-B3AR-V-60 (SSL)-1036-120-K13-PR-3K-BK MH: 4.3m LFF: 0.80
 19R OCTAGONAL CONCRETE, POLISHED, COLOUR ECLIPSE, DIRECT BURIED POLE, BY STRESSCRETE
- EXISTING LIGHTING POLE AND LUMINAIRE
- EXISTING HYDRO POLE
- PROPOSED ELECTRICAL HANDHOLE
- PROPOSED PAD-MOUNTED POWER SUPPLY CABINET
- EXISTING POWER SUPPLY CABINET
- PROPOSED GROUND ROD
- PROPOSED LIGHTING CABLES IN DUCT(S)
- EXISTING UNDERGROUND LIGHTING CABLES
- EXISTING AERIAL HYDRO CABLES
- EXISTING UNDERGROUND POWER CABLES
- POLE IDENTIFICATION NUMBER
- REMOVAL IDENTIFICATION NUMBER
- ELECTRICAL REMOVAL

NO	DATE	REVISION/ISSUED	BY	APPD
2	2022/06/10	100% SUBMISSION	RL	TT
1	2022/03/03	90% SUBMISSION	RL	TT

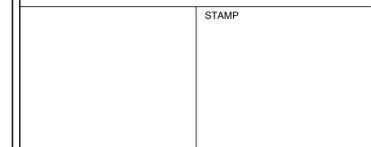


CLIENT: **TOWNSHIP OF WILMOT**
 60 SNYDER'S ROAD WEST
 BADEN, ON N3A 1A1

PROJECT TITLE:
NEW HAMBURG
 NITH RIVER PROMENADE
 SP #

SITE ADDRESS:
 BETWEEN GRCA DAM
 AND HARTMAN BRIDGE

WIRING DIAGRAM



DESIGNED	RL	DRAWN	JS	CHECKED	TT
SCALE	N.T.S.	DATE	JUNE 2022		
PROJECT NUMBER	211-05070-00		DWG. NUMBER	E-200	

SUB-TOTAL LOAD * (WATTS)	LOAD (WATTS)	LOAD DESCRIPTION	CIRCUIT NUMBER	BREAKER AMPERE RATING	BREAKER AMPERE RATING	CIRCUIT NUMBER	LOAD DESCRIPTION	LOAD (WATTS)	SUB-TOTAL LOAD * (WATTS)
125	5x25	P1, P2, P3, P4, P5	RED 1	30A	30A	RED 2	EP1, EP2, EP3, P6	(3x50)+(1x60)	210
200	5x40	P7, P8, P9, P10, P11	BLK 3	30A	30A	BLK 4	SPARE	-	-
-	-	SPARE	RED 5	30A	30A	RED 6	SPARE	-	-
-	-	SPARE	BLK 7	30A	30A	BLK 8	SPARE	-	-
SUB TOTAL RED PHASE = 335W			SUB TOTAL BLACK PHASE = 200W						
TOTAL LOAD = 535W									

MINIMUM TRENCH WIDTH FOR ONE LAYER AND TWO LAYER DUCT ARRANGEMENT

No. OF 100 mm DUCTS	No. OF LAYERS	NUMBER OF 50 mm DUCTS										
		0	1	2	3	4	5	6	7	8	9	10
0	1	N/A	150	205	300	460	610	N/A	N/A	N/A	N/A	N/A
	2	N/A	N/A	N/A	N/A	205	300	350	460	610	610	
1	1	150	255	460	610	610	N/A	N/A	N/A	N/A	N/A	N/A
	2	N/A	N/A	205	255	300	460	460	610	610	N/A	N/A
2	1	300	460	610	N/A							
	2	150	255	255	460	460	610	610	610	N/A	N/A	N/A
3	1	460	610	N/A								
	2	300	300	460	460	610	610	610	N/A	N/A	N/A	N/A
4	1	610	N/A									
	2	300	460	460	610	610	N/A	N/A	N/A	N/A	N/A	N/A

IN ROCK

ONE LAYER ARRANGEMENT IN EARTH

TWO LAYER ARRANGEMENT IN EARTH

NOTES:
 1 Ground wire shall be installed in the duct or trench as specified in the Contract Documents.
 2 Depth of marker tape shall be as specified in the Ontario Electrical Safety Code.
 A Cable brick or concrete slab shall be installed where specified in the Contract Documents. See OPSD 2100.050.
 B This OPSD shall be read in conjunction with OPSD 2103.02.
 C Contractor has the option of installing one or two layer duct arrangement.
 D N/A - Not Applicable, undesirable or exceeding equipment limits.
 E All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING **Nov 2013** **Rev 1**

DUCT INSTALLATION IN TRENCHES

ONTARIO PROVINCIAL STANDARD DRAWING **Nov 2013** **Rev 1**

CROSSING OVER UTILITY

CROSSING OVER CONCRETE ENCASED UTILITY

CROSSING UNDER UTILITY

CROSSING UNDER CONCRETE ENCASED UTILITY

NOTES:
 A The required clearance between the utility and the ducts or concrete encasement shall be as follows:

UTILITY	X mm min
Ducts, direct buried or encased	100
All other pipes	300
High voltage cables	300
All other cables	300

B Trench widths shall be kept to the minimum required for working space. Manual excavation and backfill methods shall be used with the utility supported in place, when required, when crossing under a utility is necessary.
 C All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING **Nov 2015** **Rev 0**

DUCT INSTALLATION AT UTILITY CROSSINGS

ONTARIO PROVINCIAL STANDARD DRAWING **Nov 2015** **Rev 0**

NOTE:
 1 Broken lines indicate additional conductors for double luminaire installation.

ONTARIO PROVINCIAL STANDARD DRAWING **Nov 2013** **Rev 1**

POLE WIRING DIAGRAM

120V SYSTEM

ONTARIO PROVINCIAL STANDARD DRAWING **Nov 2013** **Rev 1**

DIRECT BURIED CABLE IN ROCK OR IN EARTH

DUCT IN ROCK

DUCT IN EARTH

CABLE BRICK

NOTES:
 1 Depth of cable or duct shall be as specified in the Ontario Electrical Safety Code.
 2 Depth of marker tape shall be as specified in the Ontario Electrical Safety Code.
 A This OPSD shall be read in conjunction with OPSD 2100.010 and 2101.01.
 B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING **Nov 2013** **Rev 0**

CABLE AND DUCT PROTECTION AND MARKING

ONTARIO PROVINCIAL STANDARD DRAWING **Nov 2013** **Rev 0**

FLAT GROUND

SLOPED GROUND

UNEVEN GROUND

OPEN TRENCH METHOD ACROSS ROADWAYS
NOTE 5

NOTES:
 1 Type and size of electrical chambers shall be as specified.
 2 For duct connection to electrical maintenance hole see OPSD 2123.01 and 2123.02.
 3 For duct connection to electrical handholes see OPSD 2123.03.
 4 Depth of cover specified shall be to top of direct buried ducts or to top of concrete encasement.
 5 For subsurface and underpavement installation, the cover shall be 1000mm minimum and 1450mm maximum measured from the top of steel encasement or duct to the finished grade.
 6 For treatment at utility crossings see OPSD 2103.050.
 A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING **Nov 2015** **Rev 1**

DUCT INSTALLATION PROFILES

ONTARIO PROVINCIAL STANDARD DRAWING **Nov 2015** **Rev 1**

KEY MAP

LEGEND

- 25W LED, 3000K, TYPE III, COLOUR BLACK, POST TOP LUMINAIRE CW PHOTO RECEPTACLE BY KING LUMINAIRE CATALOG NO: K118R-B2AR-III-25 (SSL)-1042-120-K13-PR-3K-BK MH: 4.3m LLF: 0.80
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- EXISTING LIGHTING POLE AND LUMINAIRE
- EXISTING HYDRO POLE
- PROPOSED ELECTRICAL HANDHOLE
- PROPOSED PAD-MOUNTED POWER SUPPLY CABINET
- EXISTING POWER SUPPLY CABINET
- PROPOSED GROUND ROD
- PROPOSED LIGHTING CABLES IN DUCT(S)
- EXISTING UNDERGROUND LIGHTING CABLES
- EXISTING AERIAL HYDRO CABLES
- EXISTING UNDERGROUND POWER CABLES
- POLE IDENTIFICATION NUMBER
- REMOVAL IDENTIFICATION NUMBER
- ELECTRICAL REMOVAL

NO	DATE	REVISION/ISSUED	BY	APPD
2	2022/06/10	100% SUBMISSION	RL	TT
1	2022/03/03	90% SUBMISSION	RL	TT

Landscape Architecture
582 Lancaster Street West
Kitchener, ON N2K 1M3
1.519-743-8777
www.wsp.com

CLIENT:
TOWNSHIP OF WILMOT
 60 SNYDER'S ROAD WEST
 BADEN, ON N3A 1A1

PROJECT TITLE:
NEW HAMBURG
 NITH RIVER PROMENADE
 SP #

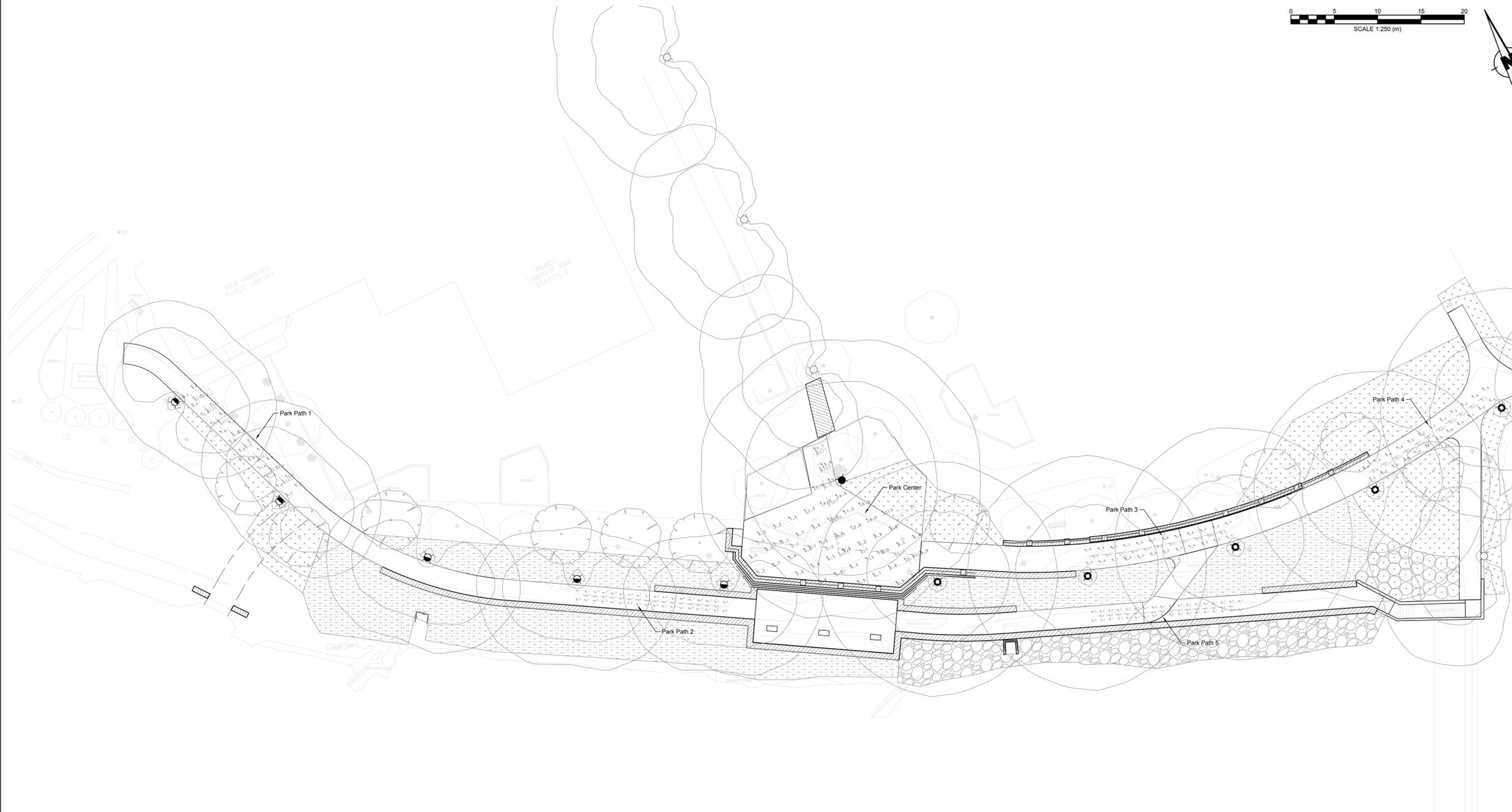
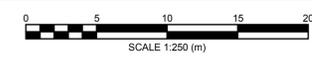
SITE ADDRESS:
 BETWEEN GRCA DAM
 AND HARTMAN BRIDGE

ELECTRICAL DETAILS - I

STAMP

DESIGNED	RL	DRAWN	JS	CHECKED	TT
SCALE	N.T.S.	DATE	JUNE 2022		
PROJECT NUMBER	211-05070-00		DWG. NUMBER	E-300	

2022/06/10 11:52:02 1211-05070-00 New Hamburg Promenade - MJP/CAD/300 - E211-05070 - D01.dwg



KEY MAP

LEGEND

- 
 25W LED, 3000K, TYPE III, COLOUR BLACK, POST TOP LUMINAIRE CW PHOTO RECEPTACLE BY KING LUMINAIRE CATALOG NO: K118R-B2AR-III-25 (SSL)-1042-120-K13-PR-3K-BK MH: 4.3m LLF: 0.80
 19R OCTAGONAL CONCRETE, POLISHED, COLOUR ECLIPSE, DIRECT BURIED POLE, BY STRESSCRETE
- 
 40W LED, 3000K, TYPE V, COLOUR BLACK, POST TOP LUMINAIRE CW PHOTO RECEPTACLE BY KING LUMINAIRE CATALOG NO: K118R-B3AR-V-40 (SSL)-1036-120-K13-PR-3K-BK MH: 4.3m LLF: 0.80
 19R OCTAGONAL CONCRETE, POLISHED, COLOUR ECLIPSE, DIRECT BURIED POLE, BY STRESSCRETE
- 
 60W LED, 3000K, TYPE V, COLOUR BLACK, POST TOP LUMINAIRE CW PHOTO RECEPTACLE BY KING LUMINAIRE CATALOG NO: K118R-B3AR-V-60 (SSL)-1036-120-K13-PR-3K-BK MH: 4.3m LLF: 0.80
 19R OCTAGONAL CONCRETE, POLISHED, COLOUR ECLIPSE, DIRECT BURIED POLE, BY STRESSCRETE
- 
 EXISTING LIGHTING POLE AND LUMINAIRE
- 
 EXISTING HYDRO POLE
- 
 PROPOSED ELECTRICAL HANDHOLE
- 
 PROPOSED PAD-MOUNTED POWER SUPPLY CABINET
- 
 EXISTING POWER SUPPLY CABINET
- 
 PROPOSED GROUND ROD
- 
 PROPOSED LIGHTING CABLES IN DUCT(S)
- 
 EXISTING UNDERGROUND LIGHTING CABLES
- 
 EXISTING AERIAL HYDRO CABLES
- 
 EXISTING UNDERGROUND POWER CABLES
- 
 POLE IDENTIFICATION NUMBER
- 
 REMOVAL IDENTIFICATION NUMBER
- 
 ELECTRICAL REMOVAL

NO	DATE	REVISION/ISSUED	BY	APPD
3	2022/06/10	100% SUBMISSION	RL	TT
2	2022/03/03	90% SUBMISSION	RL	TT
1	2022/01/28	60% SUBMISSION	RL	TT

Horizontal Illuminance						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
Park Center	Illuminance	Lux	9.1	17.7	4.0	2.3
Park Path 1	Illuminance	Lux	8.4	11.4	4.0	2.1
Park Path 2	Illuminance	Lux	8.8	13.1	5.7	1.6
Park Path 3	Illuminance	Lux	7.1	9.2	5.6	1.3
Park Path 4	Illuminance	Lux	7.6	9.6	6.2	1.2
Park Path 5	Illuminance	Lux	4.6	7.9	3.5	1.3

Vertical Illuminance					
Label	CalcType	Units	Avg	Max	Min
Park Center Vertical [E]	Illuminance	Lux	8.0	12.3	4.6
Park Center Vertical [N]	Illuminance	Lux	14.5	29.9	4.1
Park Center Vertical [S]	Illuminance	Lux	8.9	27.9	1.5
Park Center Vertical [W]	Illuminance	Lux	3.2	7.2	0.9
Park Path 1 Vertical [E]	Illuminance	Lux	7.3	20.7	0.6
Park Path 1 Vertical [W]	Illuminance	Lux	7.4	21.5	0.4
Park Path 2 Vertical [E]	Illuminance	Lux	7.2	19.2	0.9
Park Path 2 Vertical [W]	Illuminance	Lux	7.4	21.9	0.4
Park Path 3 Vertical [E]	Illuminance	Lux	8.0	14.1	2.2
Park Path 3 Vertical [W]	Illuminance	Lux	7.9	14.5	2.1
Park Path 4 Vertical [E]	Illuminance	Lux	7.8	14.0	2.6
Park Path 4 Vertical [W]	Illuminance	Lux	8.4	15.0	2.7
Park Path 5 Vertical [E]	Illuminance	Lux	3.3	4.8	1.6
Park Path 5 Vertical [W]	Illuminance	Lux	4.8	7.6	1.7

DESIGN CRITERIA - MEDIUM PEDESTRIAN CONFLICT AREAS			
STANDARD: IES RP-8-21, CHAPTER 11, SECTION 11.6.3, TABLE 11-2			
RECOMMENDED DESIGN CRITERIA FOR WALKWAYS WITHIN ROAD RIGHT OF WAY			
LOCATION: NEW HAMBURG PROMENADE			
CONDITION	MINIMUM MAINTAINED AVERAGE HORIZONTAL ILLUMINANCE (LUX)	AVERAGE VERTICAL ILLUMINANCE AT 1.5M ABOVE PAVEMENT (LUX)	UNIFORMITY RATIO (AVG./MIN.)*
MEDIUM PEDESTRIAN ACTIVITY LEVEL	5	2	5.0
* HORIZONTAL ONLY			



CLIENT: **TOWNSHIP OF WILMOT**
 60 SNYDER'S ROAD WEST
 BADEN, ON N3A 1A1

PROJECT TITLE: **NEW HAMBURG**
 NITH RIVER PROMENADE
 SP #

SITE ADDRESS: **BETWEEN GRCA DAM AND HARTMAN BRIDGE**

DRAWING TITLE: **LIGHTING CALCULATIONS**

DESIGNED	RL	DRAWN	JS	CHECKED	TT
SCALE	1:250	DATE	JUNE 2022		
PROJECT NUMBER	211-05070-00		DWG. NUMBER	E-600	

2022/06/10 11:51:52 211-05070-00 New Hamburg Promenade - MJP/CAD/860 - E211-05070 - LC1.dwg