



Western
UNIVERSITY • CANADA

Notice of Service Interruption/Area Closure Western University Facilities Management

Service Centre 519-661-3304 (fmhelp@uwo.ca)

Submit by E-mail

Print Form

Date of Interruption/Closure: 5/12/14 to 5/30/14

Time(s): 07:00 am to 4:30 pm

Building(s) Affected:

#1	Brescia College	#2	Access to Springette Parking Lot
#3	Brescia Lane	#4	

Areas/Rooms Affected Alternate Route/Service:

Brescia Lane will have temporary lane restrictions (NOT Closures). Heavy equipment and workers in close proximity to the roadway will have work area protection measures in place with flagmen as required to control traffic and protect the workers. Restrictions will be minimal as the majority of the work is in the boulevard adjacent to the roadway.

Service to be interrupted:

#1	Roadway temporary restrictions (Not Closures)	#2	
#3		#4	

Description/Reason for Project:

Nine new decorative roadway fixtures are being installed adjacent to Brescia Lane.

Requester: Dave Ostrom Date of Request: Apr 30, 2014

Supervising Tradesperson: N/A Unit: N/A

Trade Supervisor: N/A Unit: N/A Date:

Contractor: Southwold Diversified Phone #: +1 (519) 453-4181

Coordinator/Project Manager: Dave Ostrom Phone #: +1 (519) 636-3548 Date: Apr 30, 2014

Reviewed by Trade Supervisor(s)/Shop(s) Affected:

Name: Parking Services	Date:	Name:	Date:
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Signature/Stamp:

Signature/Stamp:

Reviewed by:

Name:	Date:
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Signature/Stamp:

Principal Occupants:

Name: Steve Hajpel	Ext. 28289	Date: Apr 30, 2014
Name:	Ext.	Date:
Name:	Ext.	Date:
Name:	Ext.	Date:

Approval to Proceed: Date:

Approval to Proceed: Date:

APPROVED
By Andrew (amerucci@uwo.ca) at 9:23 am, May 02, 2014

Notes:

- ELECTRICAL SPECIFICATIONS**
- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OR PROVISIONS OF THE ONTARIO HYDRO CODE, LOCAL INSPECTION, ONTARIO BUILDING CODE, AND ANY OTHER ORDINANCE, AND THEIR SUPPLEMENTS.
 - PRIOR TO TENDERING, DIVISION 16 SHALL EXAMINE THE SITE AND ALL DRAWINGS AND SPECIFICATIONS OF ALL TRADES AND BE FAMILIAR WITH THE WORK OF THIS TRADE IN ORDER THAT YOUR TENDER PRICE INCLUDES EVERYTHING NECESSARY FOR COMPLETION OF YOUR WORK. NO ALLOWANCE WILL BE MADE FOR THE FAILURE TO DO SO. NOTIFY ALL TRADES CONCERNED OF THE REQUIREMENTS FOR OPENINGS, SLEEVES, INSERTS AND OTHER HARDWARE NECESSARY IN THEIR WORK FOR THE INSTALLATION OF YOUR WORK.
 - DO NOT SCALE DRAWINGS FOR INSTALLATION PURPOSES. OBTAIN ALL DIMENSIONS FROM ARCHITECTURAL PLANS, MANUFACTURERS SHOP DRAWINGS AND ONSITE INSPECTIONS.
 - PROPERLY GROUND ALL SYSTEMS IN ACCORDANCE WITH ONTARIO ELECTRICAL SAFETY CODE AND TO THE SATISFACTION OF LOCAL INSPECTION AUTHORITIES WHETHER OR NOT SPECIFICALLY INDICATED ON DRAWINGS. ARRANGE GROUNDS SO THAT NO INJURIOUS AMOUNT OF CURRENT WILL FLOW IN ANY GROUNDING CONDUCTOR UNDER NORMAL OPERATING CONDITIONS.
 - ALL MATERIALS TO BE NEW AND C.S.A. APPROVED. ALL WORKMANSHIP SHALL BE FIRST CLASS IN REGARD TO STANDARD PRACTICES, SAFETY, ACCESSIBILITY, DURABILITY AND NEATNESS OF DETAIL FOR ACCEPTANCE BY THE OWNERS' REPRESENTATIVE.
 - ARRANGE AND PAY FOR ALL PERMITS AND INSPECTION FEES UTILITY CHARGES AS REQUIRED FOR THE WORK OF THIS TRADE. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO SUBMIT TO THE ELECTRICAL INSPECTION DEPARTMENT AND/OR SUPPLY AUTHORITY ANY AND ALL DRAWINGS AND SPECIFICATIONS REQUIRED FOR PERMITS, FEES, APPROVALS, EXAMINATIONS AND SERVICES, AND CONNECTION FEES.
 - PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR THE WORK OF THIS TRADE TO THE ENGINEER'S SATISFACTION. ALL SHOP PAINTED EQUIPMENT DAMAGED IN TRANSIT SHALL BE TOUCHED-UP TO MATCH EXISTING FINISH.
 - AVOID ACCUMULATION OF DEBRIS AS THE WORK PROGRESSES. ON COMPLETION OF THE WORK, CLEAN UP AND REMOVE FROM THE SITE ALL SCRAP MATERIALS RESULTING FROM THE WORK OF THIS TRADE.
 - NOT USED.
 - PRIOR TO FINAL INSPECTION, CLEAN ALL ELECTRICAL EQUIPMENT. CLEAN ALL CONSTRUCTION DUST AND DIRT FROM INSTALLED EQUIPMENT AT END OF JOB.
 - UPON COMPLETION OF THE WORK, PROVIDE THE FINAL UNCONDITIONAL CERTIFICATE OF ACCEPTANCE FROM THE ELECTRICAL SAFETY AUTHORITY
 - PROVIDE A ONE-YEAR GUARANTEE ON ALL MATERIALS, AND LABOUR FROM THE DATE OF ACCEPTANCE BY THE OWNER. MANUFACTURER WARRANTIES WHICH EXTEND BEYOND THIS PERIOD ARE TO BE INCLUDED IN MAINTENANCE MANUALS.
 - SUBMIT (7) SEVEN COPIES OF SHOP DRAWINGS FOR THE LIGHT FIXTURES, THE SHOP DRAWINGS SHALL BEAR THE NAME OF THE MANUFACTURER, THE MANUFACTURER'S CATALOGUE NUMBER, AND THE ENGINEER'S DESIGNATION, ALONG WITH ALL PERTINENT INFORMATION PERTAINING TO THAT SPECIFIC PIECE OF EQUIPMENT, FOR REVIEW BY ENGINEERS. STAMP EACH COPY WITH YOUR COMPANY NAME, DATE EACH COPY AND SIGN EACH COPY. FORWARD SAME WITH TRANSMITTAL.
 - NOT USED.
 - NOT USED.

- NOT USED.
- IN ADDITION TO THE MANUFACTURERS SPECIFIED OR NAMED AS ACCEPTABLE YOU MAY PROPOSE ALTERNATIVE MANUFACTURERS TO THE ENGINEER FOR ACCEPTANCE. LISTING IN EACH CASE A CORRESPONDING CREDIT. HOWEVER, YOUR TENDER PRICE MUST BE BASED ON EQUIPMENT OR MATERIAL SPECIFIED OR NAMED AS ACCEPTABLE.
- UPON COMPLETION OF PROJECT, TWO ACCURATE SETS OF AS-BUILT DRAWINGS MUST BE TURNED OVER TO THE ENGINEER.
- NOT USED.
- ALL EXTRAS OR CREDITS MUST BE ACCOMPANIED WITH A COMPLETE COST BREAK DOWN, MATERIALS, LABOUR HOURS AND UNIT COSTS, OVERHEAD AND PROFIT MARK-UPS.
- IF THERE IS A CONFLICT BETWEEN SPECIFICATIONS AND/OR DRAWINGS, DECISION OF CONSULTANT SHALL GOVERN, ALSO IF THERE IS A DISCREPANCY BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS THE MOST EXPENSIVE ALTERNATE MUST BE USED.
- THE PLANS AND SPECIFICATIONS MUST BE READ IN CONJUNCTION WITH THE LATEST ISSUE OF ENGINEERING DRAWINGS. ANY DISCREPANCIES/OMISSIONS MUST BE BROUGHT TO THE ATTENTION OF THE CONSULTING ENGINEER FOR HIS DIRECTION PRIOR TO TENDER CLOSING, NO EXTRAS OR COMPENSATION WILL BE PERMITTED FOR FAILURE TO DO SO.

BASIC MATERIALS AND METHODS

- ALL WIRING, UNLESS OTHERWISE NOTED, TO BE C.S.A. APPROVED SOFT COPPER. MAXIMUM VOLTAGE DROP AT MOST REMOTE OUTLET NOT TO EXCEED 3% AND IN ACCORDANCE WITH OEC #8-102.
 - USE COPPER CONDUCTORS WHERE SHOWN ON THE DRAWINGS. ALUMINUM CONDUCTORS MAY BE USED FOR FEEDERS 1/0 AWG OR LARGER AND SIZE TO THE AMPACITY OF COPPER CONDUCTORS.
 - TERMINATE ALUMINUM FEEDER CONDUCTORS WITH PRESSURE CONNECTORS, AND UTILIZE AN OXIDE PREVENTATIVE SOLUTION "PENETROX" ON ALL BARE SURFACES.
 - ALL WIRING TO BE INSTALLED IN CONDUIT UNLESS OTHERWISE NOTED.
 - NOT USED.
 - ADJUST BRANCH CIRCUITS TO OBTAIN A BALANCE OF CURRENT BETWEEN PHASES OF NOT MORE THAN 5%.
 - NOT USED.
 - TEST ALL DEVICES TO ENSURE THAT THERE ARE NO LEAKS, GROUNDS OR SHORTS.
 - NOT USED.
 - MATERIALS SUPPLIED TO CONFORM TO MINIMUM PUBLISHED REQUIREMENTS AND RECOMMENDATIONS, OR BETTER, OF APPLICABLE STANDARDS OF:
- CSA - CANADIAN STANDARDS ASSOCIATION
 EEMAC - ELECTRICAL AND ELECTRONIC MANUFACTURERS' ASSOCIATION OF CANADA
 ULC - UNDERWRITERS LABORATORIES OF CANADA LTD.
 OEC - ONTARIO ELECTRICAL CODE
 OBC - ONTARIO BUILDING CODE

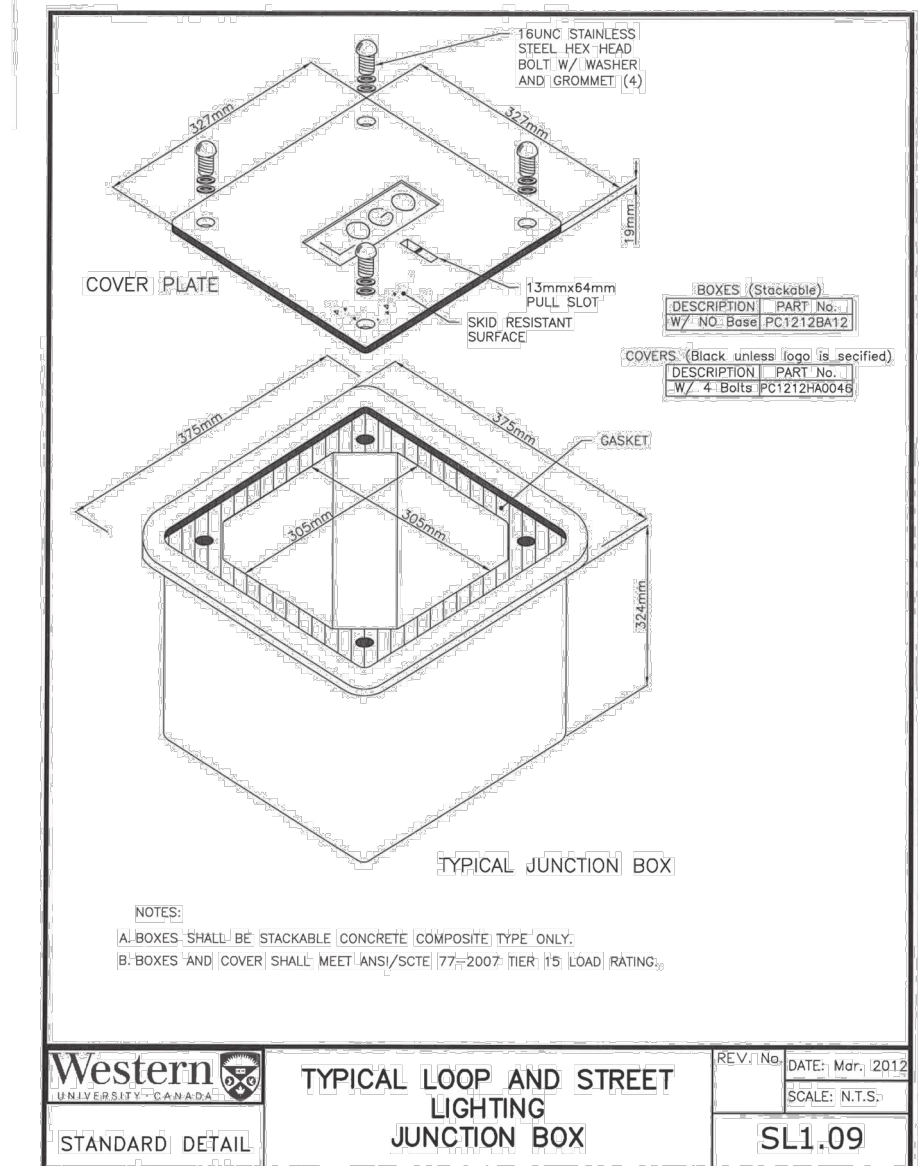
TRENCHLESS TECHNOLOGY: HORIZONTAL DIRECTIONAL DRILL (HDD) NOTES & SPECIFICATIONS

- GENERAL
 - PRIOR TO UNDERTAKING WORK BY HDD METHOD, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PROXIMAL TO THE WORK ZONE PRIOR TO CONSTRUCTION. SHOULD ANY DISCREPANCIES BE DISCOVERED IN RELATION TO THE CONTRACT DRAWINGS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
 - ADDITIONALLY, THE CONTRACTOR SHALL CONFIRM BORE AND RECEIVING PIT GEOMETRY, TARGET DEPTHS AND GRADES PRIOR TO CONSTRUCTION. ALL EQUIPMENT SHALL BE CALIBRATED TO THE SATISFACTION OF THE ENGINEER.
 - REFER TO APPLICABLE GEOTECHNICAL SITE INFORMATION TO CONFIRM PROPER EQUIPMENT AND MATERIAL SPECIFICATIONS. (DRILLING MIXES, SOIL TYPES ENCOUNTERED OR EQUIPMENT USED.)
 - THE CONTRACTOR SHALL UNDERTAKE HDD WORKS IN CONFORMANCE WITH OPSS 450 (NOVEMBER 2012) - CONSTRUCTION SPECIFICATION FOR PIPELINE AND UTILITY INSTALLATION IN SOIL BY HORIZONTAL DIRECTIONAL DRILLING.
- WORKS & LAYOUT

THE EXTENT OF SURFACE DISTURBANCE SHOWN ON THE PLANS IS BASED UPON AN ASSUMED BORE PIT CONFIGURATION; PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN FOR REVIEW AND APPROVAL BY THE ENGINEER WHICH CONSIDERS THE DEPTHS, CONSTRUCTION AND REINFORCEMENT METHODS, EQUIPMENT, AND GENERAL APPROACH TO DIRECTIONAL DRILL LAYOUT AS PROPOSED BY THE CONTRACTOR DURING CONSTRUCTION OF THE WORKS.

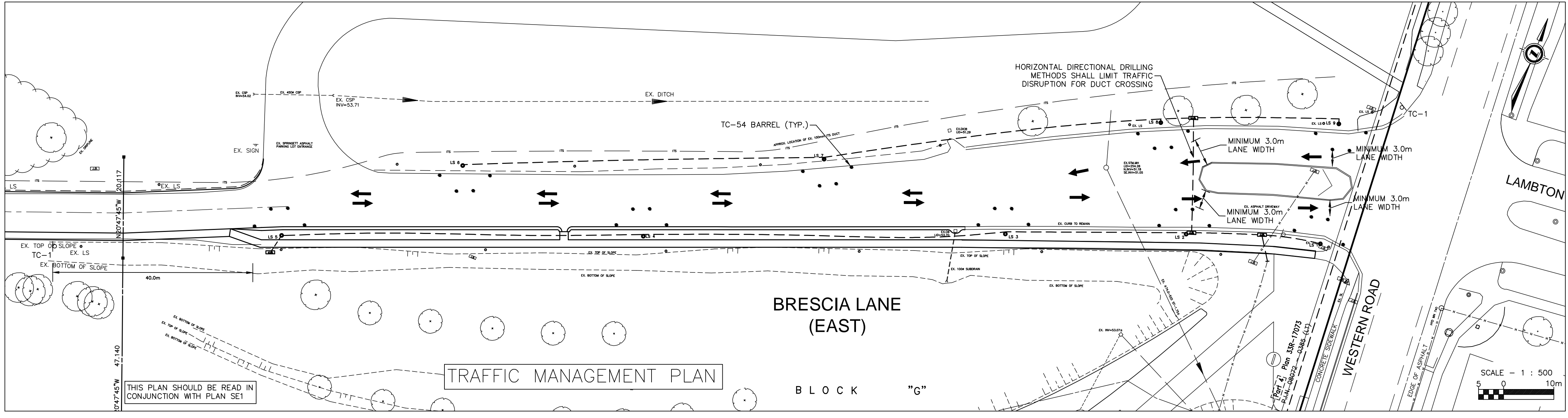
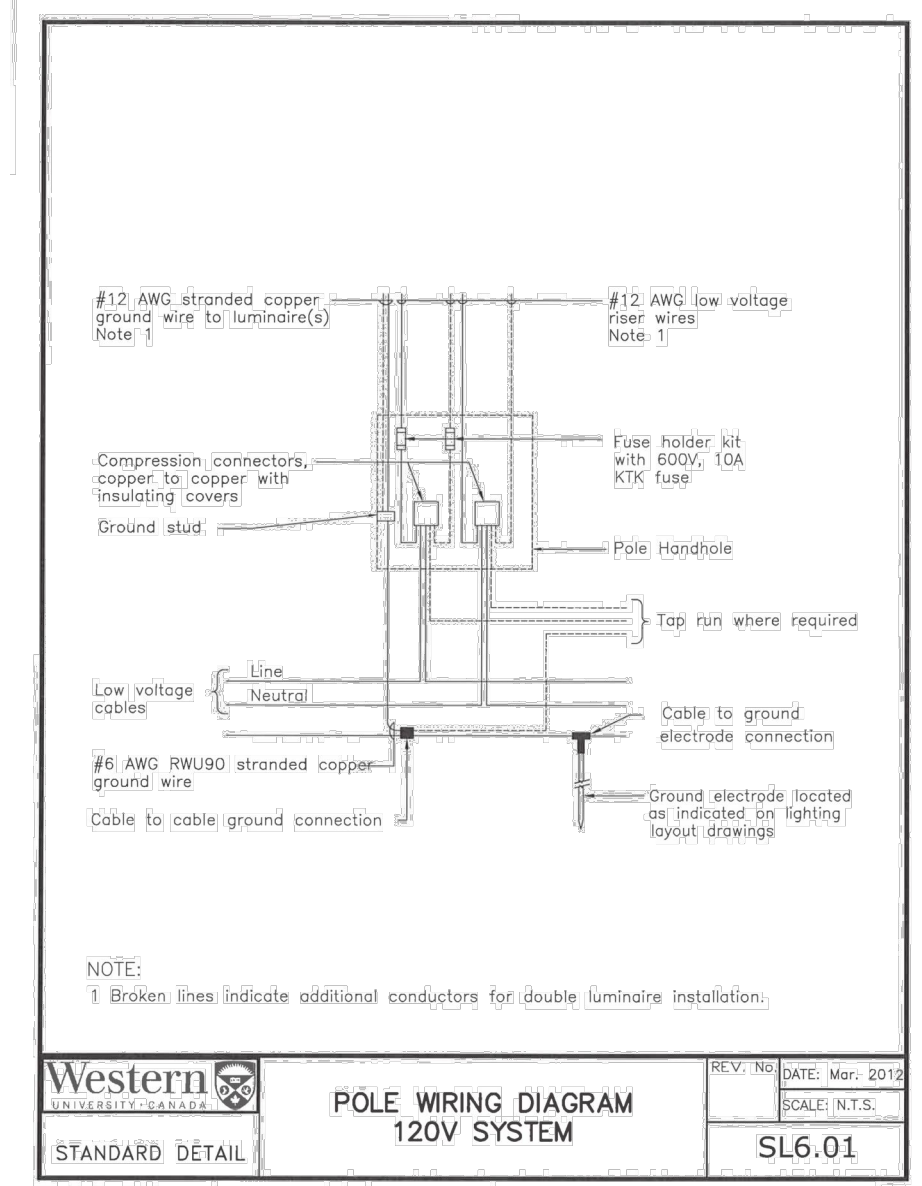
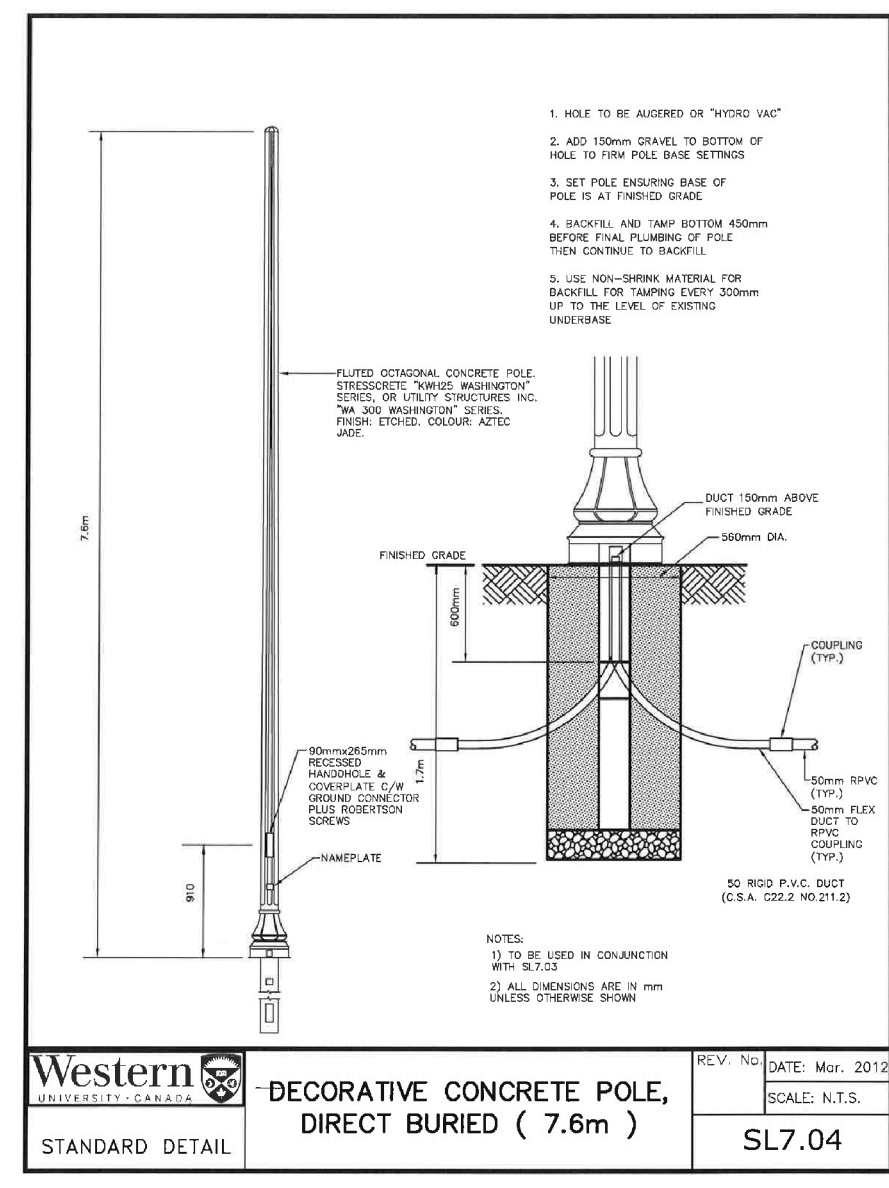
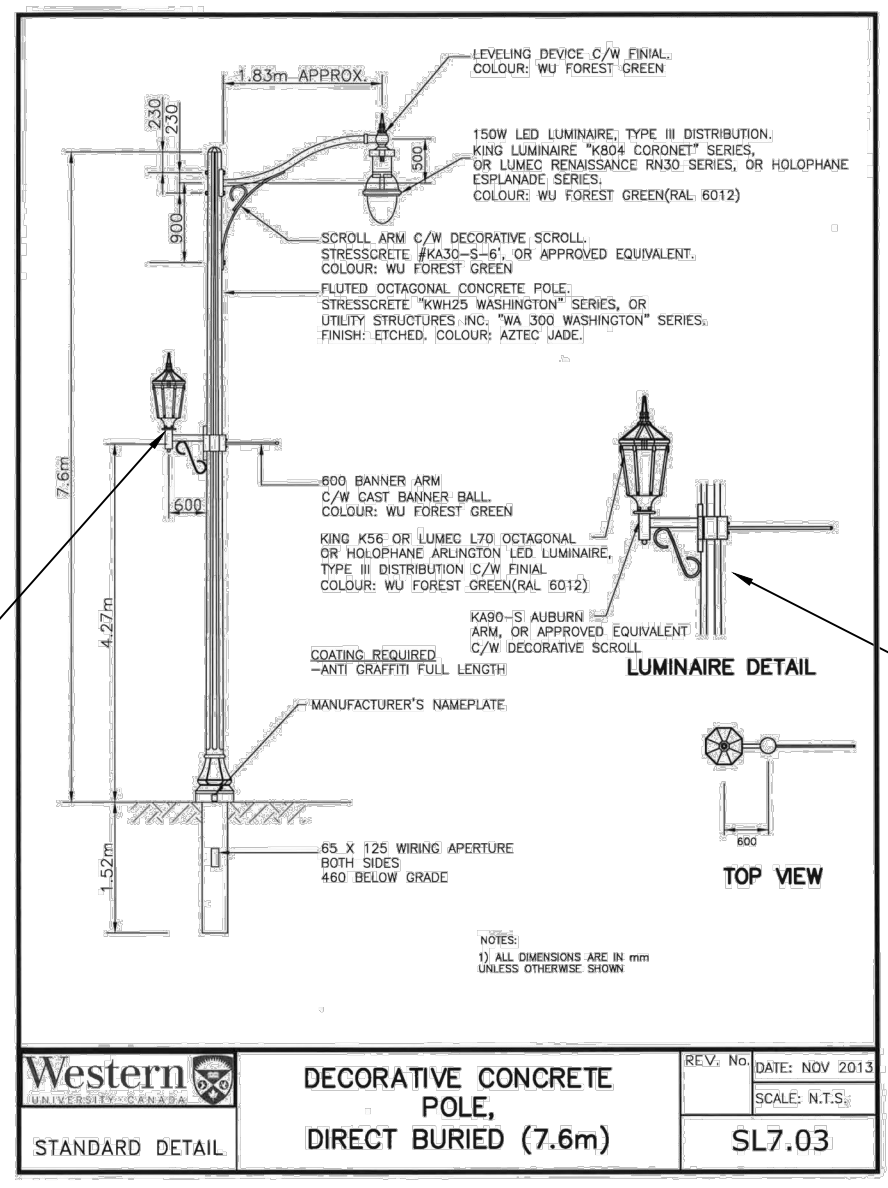
 - BORING AND RECEIVING PITS SHALL BE OF SUFFICIENT SIZE TO CONTAIN THE DRILLING MUD AND SPOILS;
 - VERTICAL AND HORIZONTAL DRILL HEAD COORDINATES SHALL BE MONITORED AND LOCATION MAPPED DURING THE DRILLING OPERATION TO CONFIRM LINE AND GRADE.
 - THE BACKREAM HOLE DIAMETER SHOULD BE SUFFICIENT TO PERMIT PASSAGE OF THE
- MATERIALS & METHODOLOGY
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- PIPELINE O.D. AND JOINTS WHERE BUTT FUSION WELDING IS APPLICABLE; THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF EXCESS DRILLING FLUID, SPOILS AND DRILLING FLUID ARE NOT PERMITTED TO BE DISPOSED OF INTO STREAMS OR INTO STORM, SANITARY OR OTHER DRAINAGE SYSTEMS; DISPOSAL SHALL COMPLY WITH LOCAL BYLAWS, REGULATIONS AND BEST MANAGEMENT PRACTICES;
 - THE CONTRACTOR SHALL PROVIDE A WRITTEN CONTINGENCY PLAN FOR CLEAN UP OF SURFACE SEEPAGE OF DRILLING FLUID BEFORE UNDERTAKING ANY SITE WORKS;
 - IF A DRILL HOLE MUST BE ABANDONED, THE CONTRACTOR SHALL FILL IT WITH GROUT OR CEMENT TO PREVENT FUTURE SUBSIDENCE;
 - TWO (2) TRACER WIRES SHALL BE INSTALLED ALONG THE DIRECTIONALLY BORED PIPE SEGMENTS IN ACCORDANCE WITH MUNICIPAL STANDARDS;
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ANY SUBSURFACE UTILITIES OR SERVICES THAT ARE DAMAGED DURING BORING, BACKREAMING OR OTHER ASSOCIATED OPERATIONS;
 - PRIOR TO UNDERTAKING DIRECTIONAL DRILL OPERATIONS, THE CONTRACTOR SHALL PREPARE AND SUBMIT A DETAILED WORK PLAN, A LIST OF EXPERIENCED PERSONNEL, A DRILLING FLUID MANAGEMENT PLAN AND A SAFETY PLAN FOR REVIEW BY THE ENGINEER.
 - DEWATERING SHALL BE ACCORDING TO OPSS 517.
 - CONTRACTOR SHALL ENSURE HDD OPERATIONS ARE UNDERTAKEN SO AS NOT TO EXCEED AN ALLOWABLE TENSILE LOAD (ATL) OR THE MIN. BEND RADIUS.
 - CONTRACTOR SHALL USE A PIPE LOAD MEASURING DEVICE TO ENSURE THAT THE MANUFACTURER'S RECOMMENDED PULLBACK FORCE IS NOT EXCEEDED.
 - PIPE ROLLERS, SKATES OR OTHER PROTECTIVE DEVICES SHALL BE USED TO PREVENT DAMAGE TO THE PIPE FROM THE EDGES OF THE PIT OR SUB-STRUCTURES DURING PULL-IN. ROLLERS SHALL BE USED UNDER PIPE TO PROTECT AGAINST GOUGES, ELIMINATE GROUND DRAG, AND REDUCE PULL-IN FORCE.
 - THE CONTRACTOR SHALL ENSURE THE HDD PRESSURES DO NOT INDUCE HYDRAULIC FRACTURING OF THE OVERBURDEN.
 - FOR FUSIBLE PIPE PRODUCTS, THE PIPE SHOULD BE COMPLETELY JOINTED PRIOR TO THE PULL BACK OPERATION TO AVOID DELAYS DURING INSTALLATION. ALL PIPE JOINTING SHALL BE TO MANUFACTURER RECOMMENDATIONS.
- COMPLETION
 - UPON COMPLETION OF THE HDD OPERATION, THE CONTRACTOR SHALL PROVIDE COPIES OF THE VERIFICATION RECORDS AS CONSTRUCTED TO THE ENGINEER. AN AS-CONSTRUCTED PLAN AND PROFILE OF THE DIRECTIONAL BORE SHALL BE SUPPLIED TO THE ENGINEER;



THE FOLLOWING WESTERN UNIVERSITY STANDARD STREET LIGHTING DETAILS SHALL BE USED ON THIS PROJECT:

- SL 1.01 DUCT INSTALLATION AT UTILITY CROSSING
- SL 1.02 DUCT INSTALLATION IN EXISTING PAVED AREA
- SL 1.03 UNDERGROUND RIGID DUCT CONNECTION AT CONCRETE STRUCTURE
- SL 1.04 ELECTRICAL VAULTS ENTRY OF ENCASED DUCTS
- SL 1.05 ELECTRICAL HANDHOLES - GENERAL INSTALLATION REQUIREMENTS
- SL 1.06 ELECTRICAL HANDHOLES - ENTRY OF DIRECT BURIED AND ENCASED DUCTS
- SL 1.07 ELECTRICAL HANDHOLE - PRECAST CONCRETE (600x600mm)
- SL 1.09 TYPICAL LOOP AND STREET LIGHTING JUNCTION BOX
- SL 5.04 LOCAL GRADING AT POLE FOUNDATIONS
- SL 5.05 INSTALLATION OF DIRECT BURIED POLES IN SLOPES
- SL 6.01 POLE WIRING DIAGRAM - 120V SYSTEM
- SL 7.03 DECORATIVE CONCRETE POLE, DIRECT BURIED (7.6m)
- SL 7.04 DECORATIVE CONCRETE POLE, DIRECT BURIED (7.6m)



- TMP NOTES:**
- CONTRACTOR TO COMPLY WITH MINISTRY OF LABOUR DIRECTIVES AND ONTARIO TRAFFIC MANUAL BOOK 7 AS A MINIMUM FOR SITE SPECIFIC TRAFFIC CONTROL.
 - ALL WORKS SHALL BE CONDUCTED WITHIN THE MISTRY OF LABOUR, OPSS AND MINISTRY OF TRANSPORTATION STANDARDS
 - CONTRACTOR TO MAINTAIN PRIVATE DRIVEWAY ACCESS AT ALL TIMES.
 - SPOTTER/FLAGMAN SHALL BE USED FOR HEAVY EQUIPMENT ACTIVITY SUCH AS MATERIAL AND MACHINERY DELIVERY, LOADING AND UNLOADING, ETC., OR ANY OTHER ACTIVITY WITHIN ANY CITY STREET R.O.W. THAT WILL INTERRUPT OR IMPEDE NORMAL TRAFFIC FLOW.

- TMP LEGEND:**
- - DENOTES DIRECTION OF TRAFFIC FLOW
 - ⊙ - DENOTES SIGN FACING SIDE OF SIGN(S)

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION	DETAILS	No.	REVISIONS	DATE	CONSULTANT
					DESIGN BY SD	1	FOR ELECTRICAL COORDINATION	JUN. 03/13	D.E.L.L.
					DRAWN BY SD	2	ISSUED FOR TENDER	DEC. 2/13	D.E.L.L.
					CHECKED BY RMH				
					P.B.K. 929				

CONSULTANT OR DIVISION

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development engineering
 (London) Limited
 CONSULTING CIVIL ENGINEERS

ENGINEER'S STAMP

R. A. HERN
 ENGINEER OF ONTARIO

Western UNIVERSITY - CANADA

SCALE: NTS

TITLE: **BRESCIA LANE IMPROVEMENTS 2013**

STREETLIGHTING DETAILS

PROJECT No: DEL13-043

SHEET No: SE2

PLAN FILE No:

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