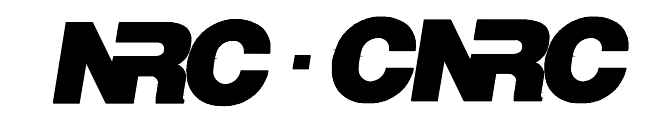


M-9 SITE PARKING AND SEWER UPGRADES NATIONAL RESEARCH COUNCIL CANADA MONTREAL ROAD CAMPUS



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.



KEY MAP
SCALE: N.T.S.

INDEX

5733-C101 - NOTES AND DETAILS 1
5733-C102 - NOTES AND DETAILS 2
5733-C103 - NOTES AND DETAILS 3

GRADING AND SERVICING PLANS

5734-C104 - SERVICING, GRADING AND GEOMETRY

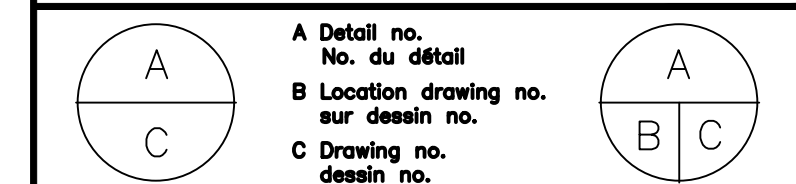
REMOVALS PLANS

5733-C105 - REMOVALS

No.	Date	Revision	By:
3	08-08-2019	ISSUED FOR TENDER	LPL
2	12-07-2019	RE-ISSUED FOR 90% DESIGN SUBMISSION	LPL
1	24-06-2019	ISSUED FOR 90% DESIGN REVIEW	LPL

Date Printed: _____ Date imprimée: _____

- o Verify all dimensions and site conditions and be responsible for same
- o Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



project: M-9 SITE PARKING AND SEWER UPGRADES
NATIONAL RESEARCH COUNCIL CANADA
MONTREAL ROAD CAMPUS
drawing: COVER SHEET

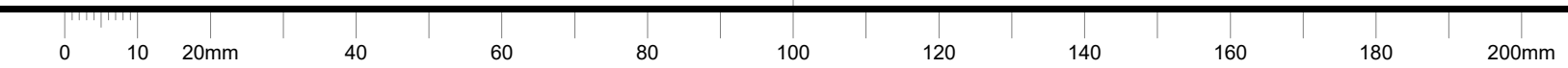
designed	conçu	date	date
LPL		JUNE 2019	
drawn	dessiné	scale	échelle
LPL		1:250	
checked	vérifié	sheet	of/de
KW/JX		1	of/de 6
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

5733-C100



PROJECT NO. 5733
AUGUST 8, 2019
ISSUED FOR TENDER

C



NOTES: GENERAL

- CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION
- ALL ELEVATIONS / DIMENSIONS ARE IN METRIC UNITS.
- JOB BENCH MARK – CONFIRM WITH NRC PRIOR TO UTILIZATION.
- ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCHBASIN OUTLETS ARE PROVIDED.
- ALL DISTURBED AREAS SHALL BE REINSTATED TO EQUAL OR BETTER CONDITION TO THE SATISFACTION OF THE NRC DEPARTMENTAL REPRESENTATIVE.
- ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT.
- ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. (CONSTRUCTION OPSS 206, 310 & 314 MATERIALS OPSS 1001, 1003 & 1010).
- REFER TO GEOMETRY LAYOUT DRAWINGS FOR ROAD AND PARKING LOT DIMENSIONS AND SITE LAYOUT. DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING, SUPPORT AND PROTECTION OF EXCAVATIONS.
- DESIGN ELEVATIONS AS GIVEN ON THIS PLAN ARE TO BE ADHERED TO WITH NO CHANGES WITHOUT PRIOR WRITTEN APPROVAL BY NRC DEPARTMENTAL REPRESENTATIVE.
- U/G CONTRACTOR TO INSTALL AND MAINTAIN A FILTER CLOTH "CATCH" ACROSS ALL MUD/CG LIDS TO PREVENT SEDIMENTS AND GRANULARS FROM ENTERING STRUCTURES UNTIL SOIL AND PAVING IS COMPLETE. ANY SEDIMENTS/GANULARS ENTERING STRUCTURES AND SEWERS SHALL BE IMMEDIATELY REMOVED.
- U/G CONTRACTOR TO CONFIRM LOCATION(S) AND ELEVATION(S) OF EXISTING SERVICES AND STRUCTURES TO BE CONNECTED TO AND EXISTING SERVICES THAT MAY CAUSE CONFLICTS PRIOR TO CONSTRUCTION OF ANY NEW SEWER AND/OR STORM WATER WORKS. THE ENGINEER SHALL BE INFORMED IMMEDIATELY OF ANY ERRORS, DISCREPANCIES, CONFLICTS, OMISSIONS ETC THAT ARE FOUND.
- THE CONTRACTOR SHALL VERIFY ALL SURFACE AND SUBSURFACE CONDITIONS PRIOR TO COMMENCING CONSTRUCTION BY REVIEWING THE GEOTECHNICAL INVESTIGATION REPORT "NATIONAL RESEARCH COUNCIL (NRC), OTTAWA, ON, ROAD RECONSTRUCTION – SOUTH END GEOTECHNICAL SUBSURFACE INVESTIGATION REPORT No. 19C140" PREPARED BY ST. LAWRENCE TESTING & INSPECTION Co. Ltd. DATED JUNE 30, 2019.
- THE CONTRACTOR SHALL APPRAISE HIS/HER SELF OF ALL SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED AND SHALL CARRY OUT THEIR OWN TEST PITS AS REQUIRED TO MAKE THEIR OWN INDEPENDENT ASSESSMENT OF GROUND CONDITIONS. THE CONTRACTOR SHALL NOT MAKE ANY CLAIM FOR ANY EXTRA COST DUE TO ANY SUCH GROUND CONDITIONS VARYING FROM THOSE ANTICIPATED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL COORDINATE AND PAY FOR ALL CONSTRUCTION RELATED PERMITS, FEES, INSPECTIONS AND APPROVALS REQUIRED.
- IN PREPARATION FOR THE CONSTRUCTION OF THE NEW ASPHALTIC CONCRETE SURFACED ROADWAYS AND PARKING AREAS, ALL TOPSOIL, ORGANIC MATERIAL AND ANY LOOSE/SOFT OR WET SOIL SHOULD BE REMOVED FROM THE PROPOSED SUBGRADE SURFACE AND REPLACED WITH SUITABLE COMPACTED EARTH BORROW OR GRANULAR FILL.
- PRIOR TO PLACING GRANULAR FILL FOR THE ROADWAYS AND PARKING AREAS, THE EXPOSED SUBGRADE SHOULD BE HEAVILY PROOF ROLLED WITH A LARGE (6 TONNE) VIBRATORY DRUM ROLLER UNDER DRY CONDITIONS. ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUBEXCAVATED AND REPLACED WITH SUITABLE, COMPACTED EARTH BORROW.
- ASPHALTIC CONCRETE SHALL NOT BE PLACED UNTIL FINAL CCTV INSPECTION OF THE SEWERS IN ACCORDANCE WITH OPSS 409 HAVE BEEN COMPLETED AND APPROVED BY THE NRC DEPARTMENTAL REPRESENTATIVE.
- OPSS 409 TO BE FOLLOWED AS CONSTRUCTION SPECIFICATION FOR CLOSED-CIRCUIT TELEVISION INSPECTION OF PIPELINES.
PRE-CONSTRUCTION INSPECTION:
PRIOR TO COMMENCING CONSTRUCTION, A PRE-CONSTRUCTION CCTV INSPECTION MUST BE COMPLETED ON ALL THE SEWERS WITHIN THE CONSTRUCTION LIMITS PLUS THE FIRST LENGTH OF EXISTING SEWER PIPES OUTSIDE OF THE CONTRACT LIMITS INCLUDING CROSS STREETS. WITH THE EXCEPTION OF ANY PIPES THAT ARE BEING REMOVED DURING CONSTRUCTION, WHICH DO NOT REQUIRE PRE-CONSTRUCTION CCTV INSPECTION.
POST-CONSTRUCTION INSPECTION:
UPON COMPLETION OF FINISH COURSE ASPHALT BUT BEFORE APPLYING THE FINAL COURSE OF ASPHALT, A POST-CONSTRUCTION CCTV INSPECTION MUST BE COMPLETED ON ALL THE SEWERS WITHIN THE CONSTRUCTION LIMITS PLUS THE FIRST LENGTH OF EXISTING SEWER PIPES OUTSIDE OF THE CONTRACT LIMITS INCLUDING CROSS STREETS.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL RE-CCTV RESULTING FROM DEFICIENCY REPAIRS AS DEEMED NECESSARY BY THE DEPARTMENTAL REPRESENTATIVE. CCTV INSPECTIONS WILL BE CONDUCTED UNTIL SUCH TIME AS THE RESULTS HAVE BEEN APPROVED BY THE ENGINEER AND/OR THE NRC DEPARTMENTAL REPRESENTATIVE AT NO ADDITIONAL COST TO THE CLIENT.
- CONTRACTOR SHALL MAINTAIN A CLEAN SITE AND KEEP ALL ROADS AND SIDEWALKS CLEAN AND FREE FROM DIRT AND MUD AT ALL TIMES. USE MECHANICAL SWEEPING/FLUSHING WHEN NECESSARY. IF THE CONTRACTOR REFUSES OR NEGLECTS TO CLEAN WHEN OR AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE, THE DEPARTMENTAL REPRESENTATIVE MAY ARRANGE FOR NECESSARY CLEANING, WITH COSTS BEING RECOVERED FROM PAYMENTS TO THE CONTRACTOR.
- THE CONTRACTOR SHALL AT ALL TIMES, KEEP THE WORK SITE FREE FROM ACCUMULATION OF WASTE MATERIALS AND RUBBISH DUE TO EMPLOYEES OR THE WORK. CLEANING, TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE SHALL BE A MANDATORY CONDITION TO THE FINAL ACCEPTANCE OF THE WORK.
- DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY BILINGUAL TRAFFIC SIGNAGE, INCLUDING TRAFFIC SIGNS, TRAFFIC MARKINGS AND TEMPORARY TRAFFIC LIGHTS, AND FLAGPERSONS, AS REQUIRED BY THE NRC DEPARTMENTAL REPRESENTATIVE.

NOTES: STEEL INTERLOCKING PEDESTRIAN BARRIERS

- SHALL BE APPROXIMATELY 1.8 METERS IN HEIGHT AND MANUFACTURED OF GALVANIZED STEEL.
- CONTRACTOR TO PROVIDE 80 LINEAR METERS OF FENCE INCLUSIVE OF ACTIONS TO SUPPLY, PLACE, MAINTAIN, FINAL REMOVAL AND THE RELOCATION OF STEEL INTERLOCKING PEDESTRIAN BARRIERS DURING THE PROJECT PERIOD.

NOTES: STORM SEWER AND CATCHBASIN

- ALL STORM SEWERS 375mm OR SMALLER SHALL BE PVC SDR 35. STORM SEWERS LARGER THAN 375mm SHALL BE CONCRETE CLASS 650, UNLESS OTHERWISE NOTED.
- THE BEDDING FOR THE PLANNED STORM SEWERS SHOULD CONSIST OF AT LEAST 300mm OF CRUSHED STONE MEETING OPSS REQUIREMENTS FOR GRANULAR 'A'. ALLOWANCE SHOULD BE MADE FOR A 150 TO 300 MILLIMETRE THICK SUBBEDDING LAYER OF OPSS GRANULAR 'B' TYPE II IF THE SUBGRADE SOIL BECOMES DISTURBED DURING EXCAVATION.
- COVER MATERIAL, FROM PIPE SPRING LINE TO AT LEAST 300mm ABOVE THE TOPS OF THE PIPES, SHOULD CONSIST OF OPSS GRANULAR 'A'. THE GRANULAR BEDDING AND COVER MATERIALS FOR THE SERVICE PIPES SHOULD BE COMPACTED IN MAXIMUM 150mm THICK LIFTS TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR DRY DENSITY VALUE.
- ALL WORK SHALL BE PERFORMED, AS APPLICABLE, IN ACCORDANCE WITH O.P.S.S. 407, AND 410.
- ALL CATCHBASIN MANHOLES TO BE PER OPSS 701.010. SIZE AS INDICATED C/W 300mm SUMP AND TO HAVE OPSS 400.070 COVERS.
- ALL STORM MANHOLES TO BE PER OPSS 701.010 TO 701.012. SIZE AS INDICATED C/W 300mm SUMP, FRAME AND COVERS TO BE PER PER OPSS 401.010 TYPE "B" OPEN COVER.
- ALL MANHOLES, CATCHBASINS AND CATCHBASIN MANHOLES TO BE BACKFILLED WITH MIN. 0.30m HORIZ. THICKNESS OF GRANULAR 'A'.
- ALL STORM SEWERS TO BE INSTALLED AT MINIMUM COVER OF 1.0m. IF COVER IS LESS THAN 1.0m, FROST PROTECTION MUST BE INSTALLED PER OPSS 1109.030.
- SERVICE CONNECTIONS TO RIGID MAIN STORM SEWER TO BE PER OPSS 1006.010 CONNECTIONS TO FLEXIBLE MAIN STORM SEWER TO BE PER OPSS 1006.020
- THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS AND COORDINATION FOR ALL INSPECTION AND TESTING.
- THE CONTRACTOR SHALL CONSTRUCT STORM SEWERS IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS 58. DURING CONSTRUCTION THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT AS PER OPSS 808.01.
- CONTRACTOR TO VERIFY THE EXACT LOCATION OF EX 975mmØ STORM SEWER, 250mmØ WATERMAIN AND EXISTING CONCRETE TUNNEL.

NOTES: REMOVAL

- REMOVALS SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 510.
- SEWER PIPES TO BE ABANDONED MUST BE CUT , FILLED WITH UNSHRINKABLE BACKFILL, CONFORMING TO OPSS 1359, AND CAPPED ALL IN ACCORDANCE WITH OPSS 510.
- EXISTING PAVERS TO BE REMOVED, PROTECTED AND STORED ON SITE UNTIL REINSTATEMENTS.
- EXISTING ASPHALT SHALL BE A MILLED 500mm WIDE STEP JOINT, TO A DEPTH OF 50mm(MIN) AT ALL THE IN LOCATIONS.
- FIELD VERIFY FOR ANY POTENTIAL CONFLICTS INCLUDING ALL EXISTING UTILITY POLE LOCATIONS AND OVERHEAD CABLES BEFORE COMMENCING CONSTRUCTION. ANY DISCREPANCIES, INTERPRETATIONS, CHANGES AND/OR ADDITIONS TO THESE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE NRC DEPARTMENTAL REPRESENTATIVE WHEN OBSERVED.
- ALL REGULATORY SIGNS WITHIN THE CONSTRUCTION LIMIT SHALL BE REMOVED AND RE-INSTALLED BY THE CONTRACTOR UPON COMPLETION OF PAVING WORKS.
- EXISTING MONITORING WELLS ARE TO BE ABANDONED IN ACCORDANCE WITH O.R.E.G. 903 AND, IF REQUIRED, BY A LICENSED WELL CONTRACTOR.
- AT B114 PEAT WAS ENCOUNTERED, THE CONTRACTOR IS TO EXCAVATE ANY ENCOUNTERED PEAT AND BACKFILL WITH COMPACTED GRANULAR B.

NOTES: EROSION AND SEDIMENT CONTROL

- SEDIMENT AND EROSION CONTROL MEASURES TO BE CONSTRUCTED AS PER OPSS 805.
- THE CONTRACTOR SHALL SUBMIT AN EROSION & SEDIMENT CONTROL PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND CONSTRUCTION OF ALL SEDIMENT AND EROSION CONTROL MEASURES TO ENSURE THAT SEDIMENT DOES NOT MIGRATE FROM THE CONSTRUCTION SITE. THE CONTRACTOR SHALL IMPLEMENT BEST PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSES, DURING CONSTRUCTION ACTIVITIES. THIS INCLUDES:
 - LIMITING THE AMOUNT OF EXPOSED SOIL
 - INSTALLING SILT FENCES (PER OPSS 219.110) AT THE CONSTRUCTION LIMIT.
 - INSTALLING STRAW BALE FLOW CHECK DAM (PER OPSS 219.180) ALONG ROADSIDE DITCHES/SWALES AT UPSTREAM OF CATCHBASINS.
 - OTHER EFFECTIVE SEDIMENT TRAPS.

THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

- IN ORDER TO AVOID POLLUTANTS FROM BEING DISCHARGED, THE CONTRACTOR MUST MINIMIZE THE GENERATION OF DUST THROUGH APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION MATERIAL.
- THE CONTRACTOR'S SUBCONTRACTOR ARE REQUIRED TO COMPLY WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- CONTRACTOR TO CONFIRM LOCATION(S) AND ELEVATION(S) OF EXISTING SUMP PUMPS TO BE DISCHARGED INTO NEARBY DITCHES OR SWALES. THE NRC DEPARTMENTAL REPRESENTATIVE SHALL BE INFORMED IMMEDIATELY OF ANY ERRORS, DISCREPANCIES, CONFLICTS, OMISSIONS etc THAT ARE FOUND.

NOTES: RE-INSTATEMENT

- ALL DISTURBED AREAS SHALL BE REINSTATED TO MATCH EXISTING CONDITIONS OR BETTER AS DIRECTED BY THE NRC DEPARTMENTAL REPRESENTATIVE.
- EXISTING TREES ARE TO BE PRESERVED AND PROTECTED DURING THE CONSTRUCTION AND REINSTATEMENT ACTIVITIES IN ACCORDANCE WITH OPSS 801 AND OPSS 220.010.
- PATHWAYS, WALKWAYS AND RELATED LANDSCAPE OR ASPHALT AREAS SHALL BE REINSTATED TO MATCH EXISTING MATERIAL IN TYPE AND THICKNESS.
- ASPHALT REINSTATEMENT MUST BE IN ACCORDANCE WITH OPSS 310.
- LANDSCAPE AREAS TO BE REINSTATED WITH 150mm OF TOPSOIL AND 500 IN ACCORDANCE WITH OPSS 802 AND OPSS 803.
- PAVEMENT MARKING REINSTATEMENT TO MATCH EXISTING IN ACCORDANCE WITH OPSS 710, EXCEPT AS OTHERWISE SHOWN ON DRAWINGS.
- WHERE REQUIRED, THE CONTRACTOR MUST ADJUST EXISTING STRUCTURES (VALVES, HYDRANTS, MANHOLES, CATCHBASINS, ETC) TO MATCH PROPOSED GRADE ELEVATIONS.
- PARKING PAVEMENT STRUCTURE: REFER TO NOTE 3 ON DRAWING 5733-C105
- ASPHALT WALKWAY STRUCTURE: REFER TO CITY OF OTTAWA STANDARD SC20.
- CONCRETE PAD STRUCTURE: REFER TO CITY OF OTTAWA STANDARD SC22.

NOTES: TUNNEL AND WATERMAIN CROSSINGS

- WHERE PROPOSED PIPES CROSS BELOW EXISTING TUNNELS AND/OR WATERMAIN, THE CONTRACTOR MUST PROVIDE UNDERCROSSING SHOP DRAWINGS AND METHODOLOGY FOR REVIEW AND APPROVAL BY THE DEPARTMENTAL REPRESENTATIVE TWO (2) WEEKS PRIOR TO THE START OF CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, TEMPORARY INFRASTRUCTURE AND MONITORING OF EXISTING INFRASTRUCTURE.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE STRUCTURAL INTEGRITY OF THE EXISTING TUNNELS AND LIVE WATERMANS.
- THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING, INSTALLING AND MAINTAINING APPROPRIATE EQUIPMENT FOR THE VIBRATION MONITORING OF WATERMAIN AND TUNNELS. GEOPHONE SENSORS MUST BE PLACED DIRECTLY ON THE TOP OF WATERMANS AND TUNNELS AT REGULAR INTERVALS TO PROVIDE REAL TIME WARNING SIGNALS WITH FLASHING LIGHT AND AIR HORN. THE TRIGGER LEVELS FOR MONITORING STATIONS OF THE WATERMANS AND TUNNELS SHALL BE PROGRAMMED AS FOLLOW:
 - 1ST TRIGGER LEVEL SET AT 5mm/S TO TRIGGER A FLASHING LIGHT;
 - 2ND TRIGGER LEVEL SET AT 15mm/S TO TRIGGER A FLASHING LIGHT AND AIR HORN.

NOTES: PRE-CONSTRUCTION INSPECTION

- THE CONTRACTOR ACKNOWLEDGES THAT THERE ARE EXISTING BUILDINGS AND STRUCTURES IN THE VICINITY OF THE WORK AREA, WHICH MAY BE AFFECTED BY THE CONSTRUCTION WORKS AND THAT THE CONTRACTOR IS TO COMPLETE THE PRE-CONSTRUCTION INSPECTION OF BUILDINGS AND STRUCTURES, FOR BOTH INTERIOR AND EXTERIOR CONDITIONS.
- THE CONTRACTOR IS TO SUPPLY THE SERVICES OF A REPUTABLE 3RD PARTY FIRM EXPERIENCED IN PRE-CONSTRUCTION INSPECTIONS.
- AS A MINIMUM, THE PRE-CONSTRUCTION INSPECTION SHALL BE DONE ON ALL STRUCTURES WITHIN 30m OF THE WORK ZONE.
- FOR EACH PROPERTY INSPECTED, A SEPARATE BUILDING/STRUCTURE PRE-CONSTRUCTION REPORT SHALL BE PREPARED, DATED AND SIGNED BY THE FIRM UNDERTAKING THE INSPECTION. THESE REPORTS ARE CONFIDENTIAL AND SHALL NOT BE SHARED WITH THE CONTRACTOR.
- THE PRE-CONSTRUCTION INSPECTION SHALL INDICATE IF SIGNS OF A BUILDING OR STRUCTURE SETTLEMENT ARE PRESENT. INCLUDE PHOTOGRAPHS OF ALL SIDES OF THE BUILDING EXTERIOR, A REPRESENTATIVE SAMPLING (DESCRIPTION AND PHOTOGRAPHS) OF VISIBLE CRACKS OR SETTLEMENT FROM BOTH THE INTERIOR AND EXTERIOR OF THE BUILDING, AND A REPRESENTATIVE SAMPLING (DESCRIPTION AND PHOTOGRAPHS) OF STAINING OR REPAIRS VISIBLE AT THE TIME OF INSPECTION
- THE PRE-CONSTRUCTION INSPECTION SHALL IDENTIFY ANY CONCERNS REGARDING SENSITIVE EQUIPMENT CONTAINED WITHIN THE BUILDINGS WHICH SHOULD BE TAKEN INTO ACCOUNT DURING POTENTIAL ROCK REMOVAL AND/OR EXCAVATION OPERATIONS.
- THE PROJECT PRE-CONSTRUCTION INSPECTION REPORT SHALL INCLUDE:
 - OVERVIEW OF THE INSPECTION PROCESS AND THE EQUIPMENT USED;
 - PIPEDA COMPLIANCE CONFIRMATION
 - LISTING OF PROPERTIES FOR WHICH INSPECTIONS WERE PERFORMED INCLUDING THE DATES OF THE INSPECTIONS
 - LISTING OF PROPERTIES FOR WHICH INSPECTIONS WERE NOT PERFORMED AND THE REASON.

NOTES: EARTH EXCAVATION, REMOVALS, WORK AROUND EXISTING UTILITIES

- THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND UNDERGROUND UTILITIES, AND WHEN CONSTRUCTION OPERATIONS ARE LIABLE TO DAMAGE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO ALTER HIS METHOD OF CONSTRUCTION AS DIRECTED BY THE NRC DEPARTMENTAL REPRESENTATIVE, OR UTILITY COMPANY IN ORDER TO AVOID ANY DAMAGE.
- THE CONTRACTOR IS REQUIRED TO PROTECT THE EXISTING UTILITIES DURING THE CONSTRUCTION. NO ADDITIONAL PAYMENT WILL BE DONE FOR THE INSTALLATION OF THE SEWERS AND WATERMANS BELOW, CROSSING OR ALONG THE EXISTING UTILITIES SHOWN ON THE CONSTRUCTION DRAWINGS.

NOTES: VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL MEASURES

- CONTRACTOR TO OBTAIN APPROVAL FOR HIS/HER TRAFFIC CONTROL PLAN (TCP) PRIOR TO COMMENCEMENT OF THE CONSTRUCTION.
- CONTRACTOR TO SUPPLY, INSTALL AND MAINTAIN ALL CONSTRUCTION AND TEMPORARY TRAFFIC SIGNS.

NOTES: ASPHALT SIDEWALK, MEDIANS, BOULEVARDS AND ISLANDS

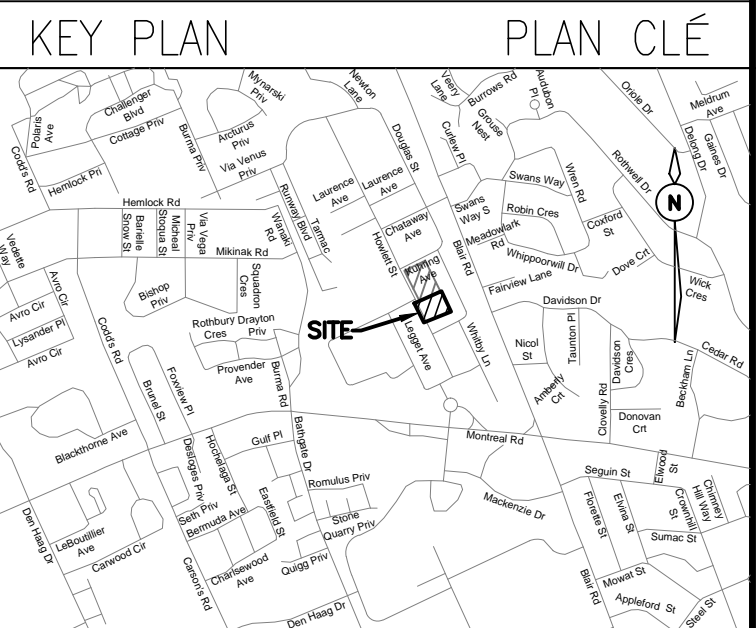
- 100mm GRANULAR 'A' AS BEDDING MATERIAL FOR ASPHALT SIDEWALKS, MEDIANS AND ISLANDS TO BE PLACED UNLESS SPECIFIED OTHERWISE IN THE CONTRACT.



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Inley GROUP
2724 Fenton Road
Ottawa, Ontario
K1T 3T7
Telephone: (613) 822-1052
Fax: (613) 822-1573



No.	Date	Revision	By:
5	19-08-2019	RE-ISSUED FOR TENDER	LPL
4	08-08-2019	ISSUED FOR TENDER	LPL
3	12-07-2019	RE-ISSUED FOR 90% DESIGN SUBMISSION	LPL
2	24-06-2019	ISSUED FOR 90% DESIGN REVIEW	LPL
1	04-06-2019	ISSUED FOR 60% DESIGN REVIEW	LPL

Date Printed	Date Imprimé

- Verify all dimensions and site conditions and be responsible for them
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

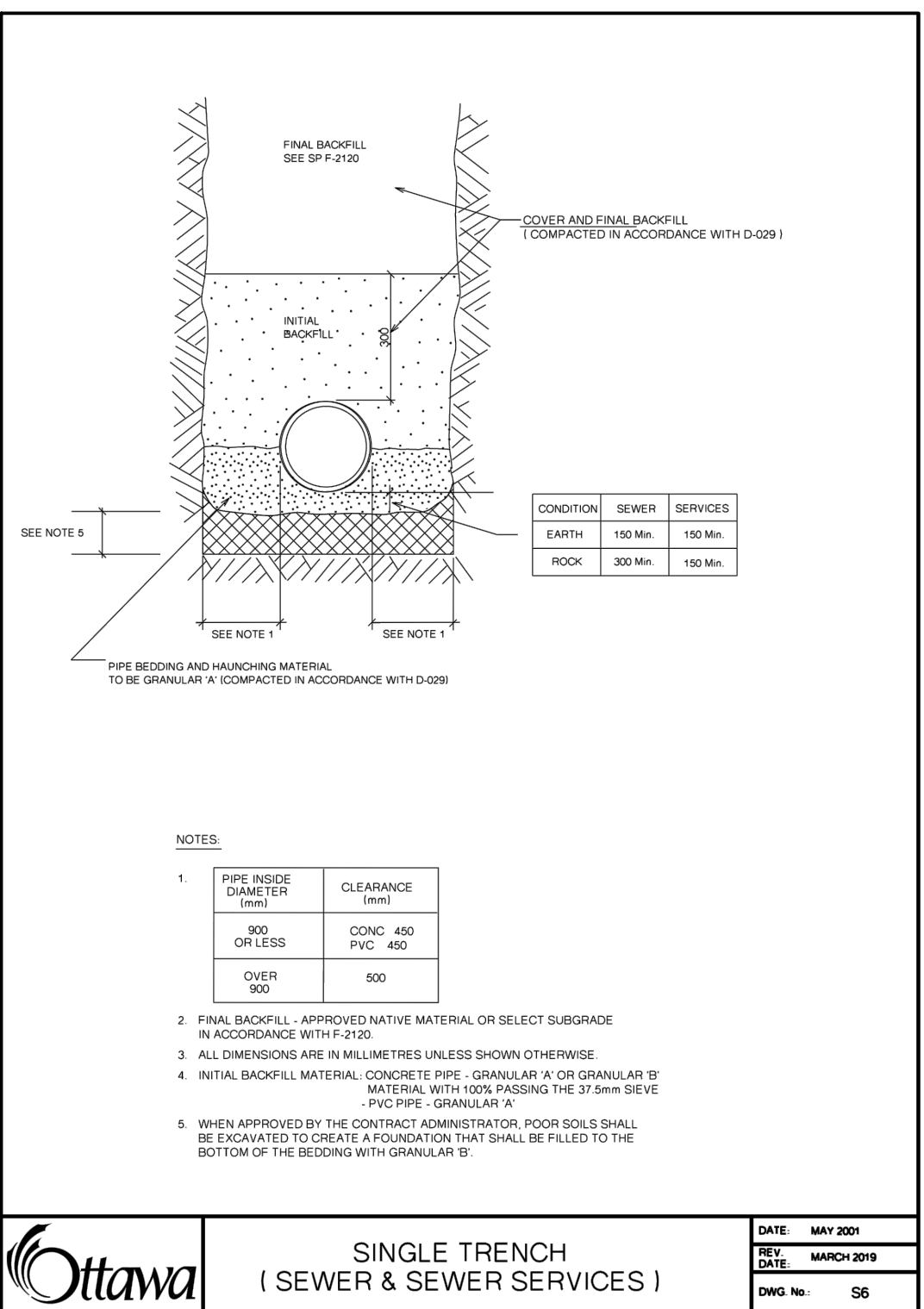
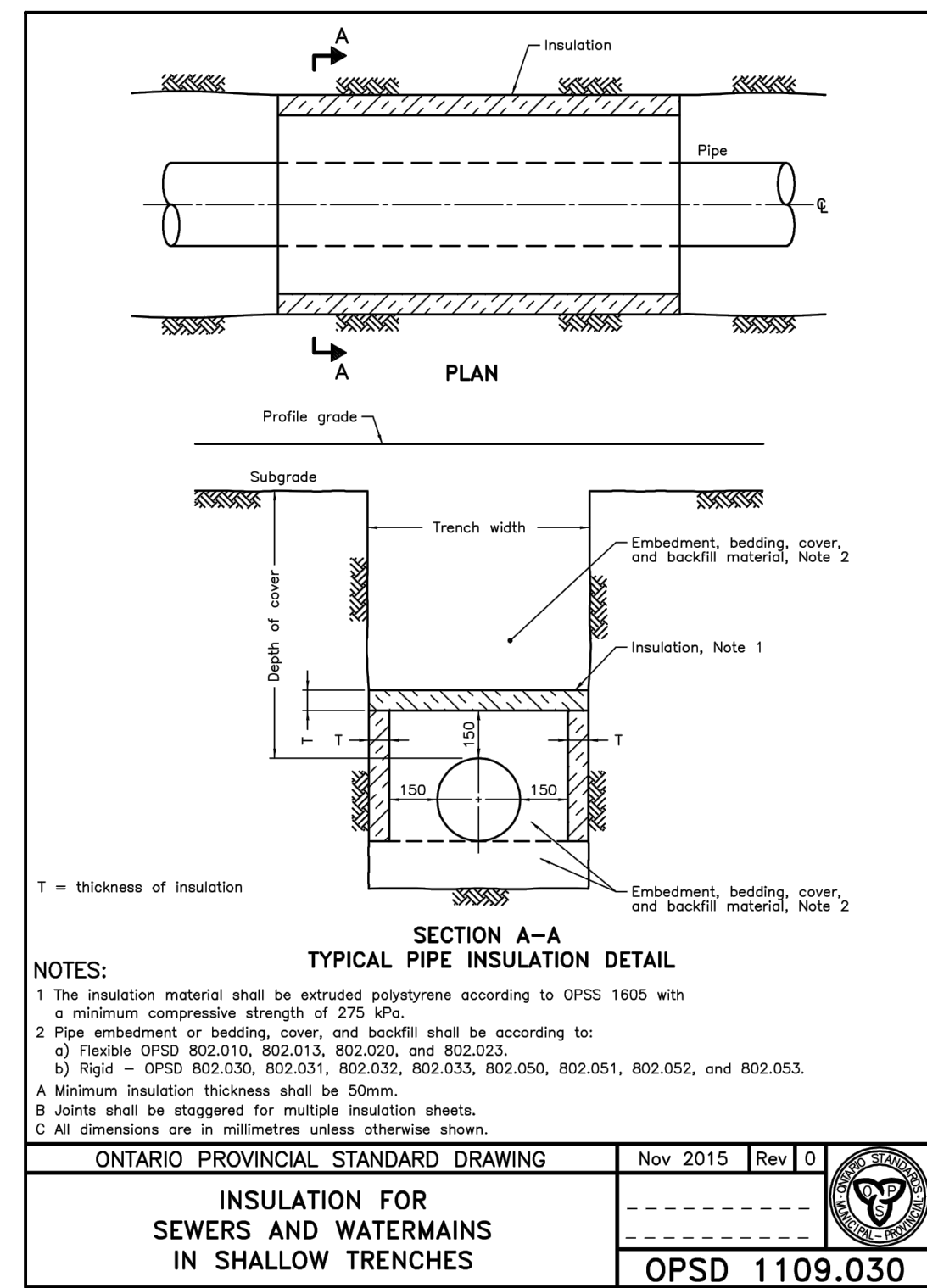
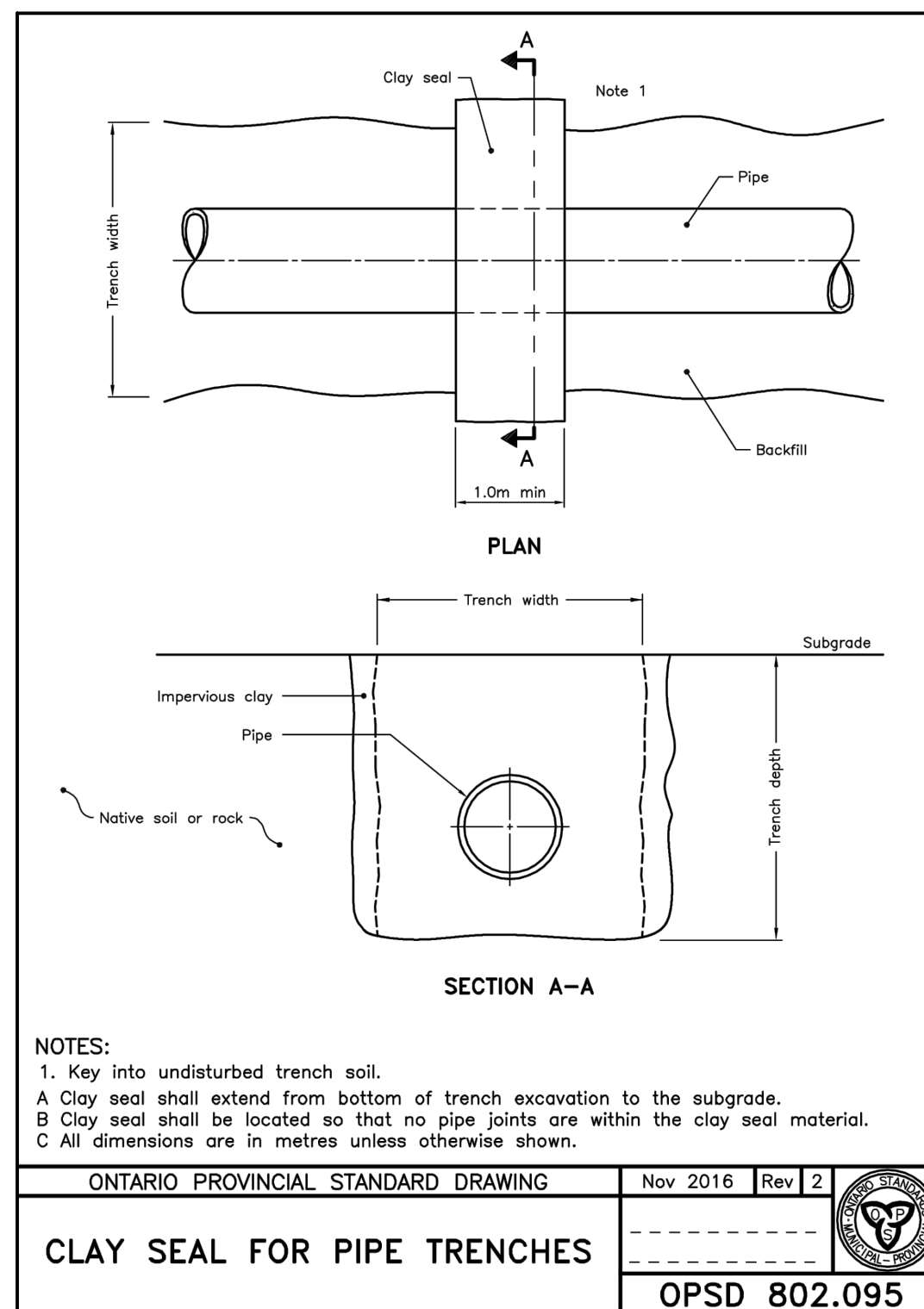
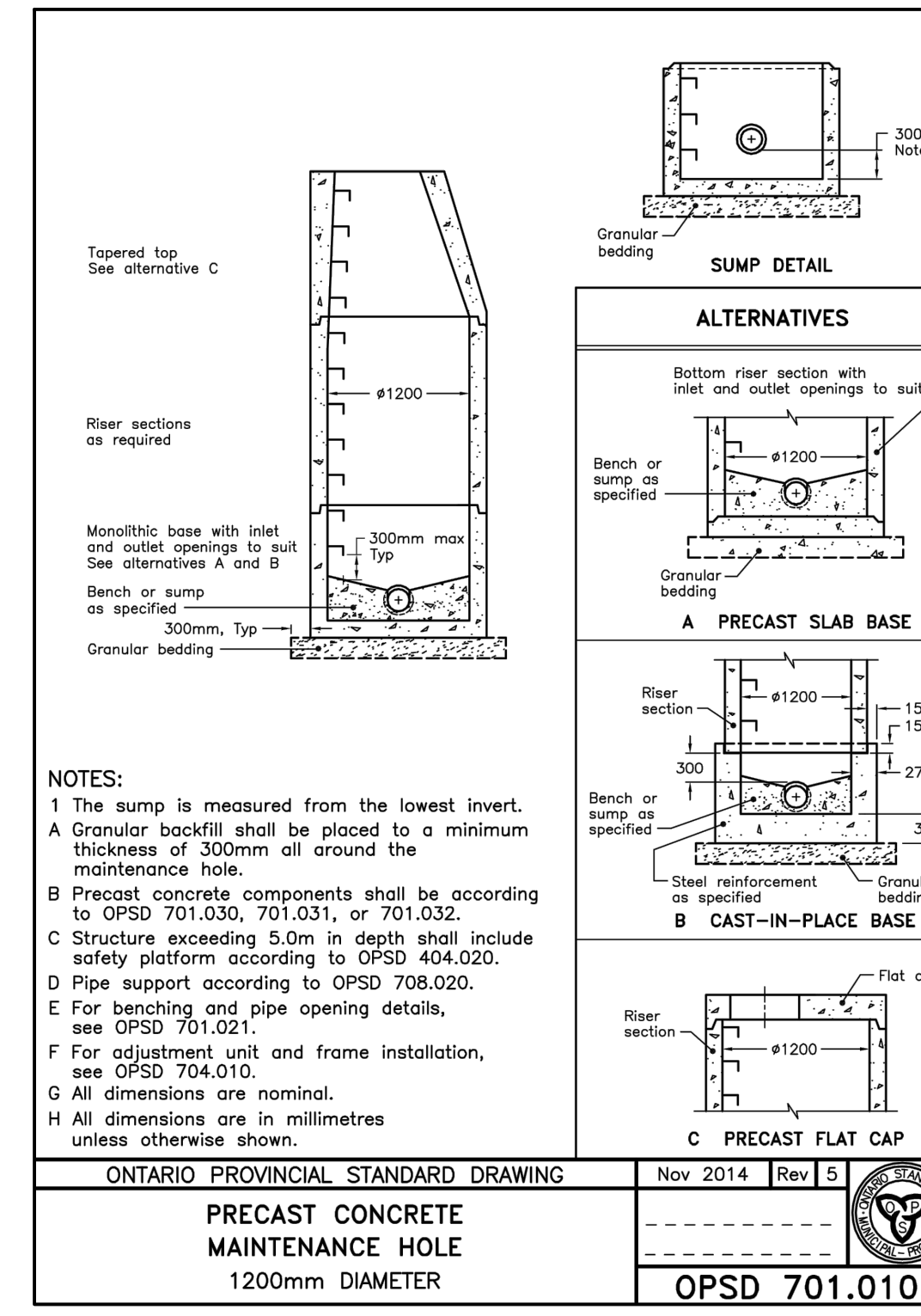
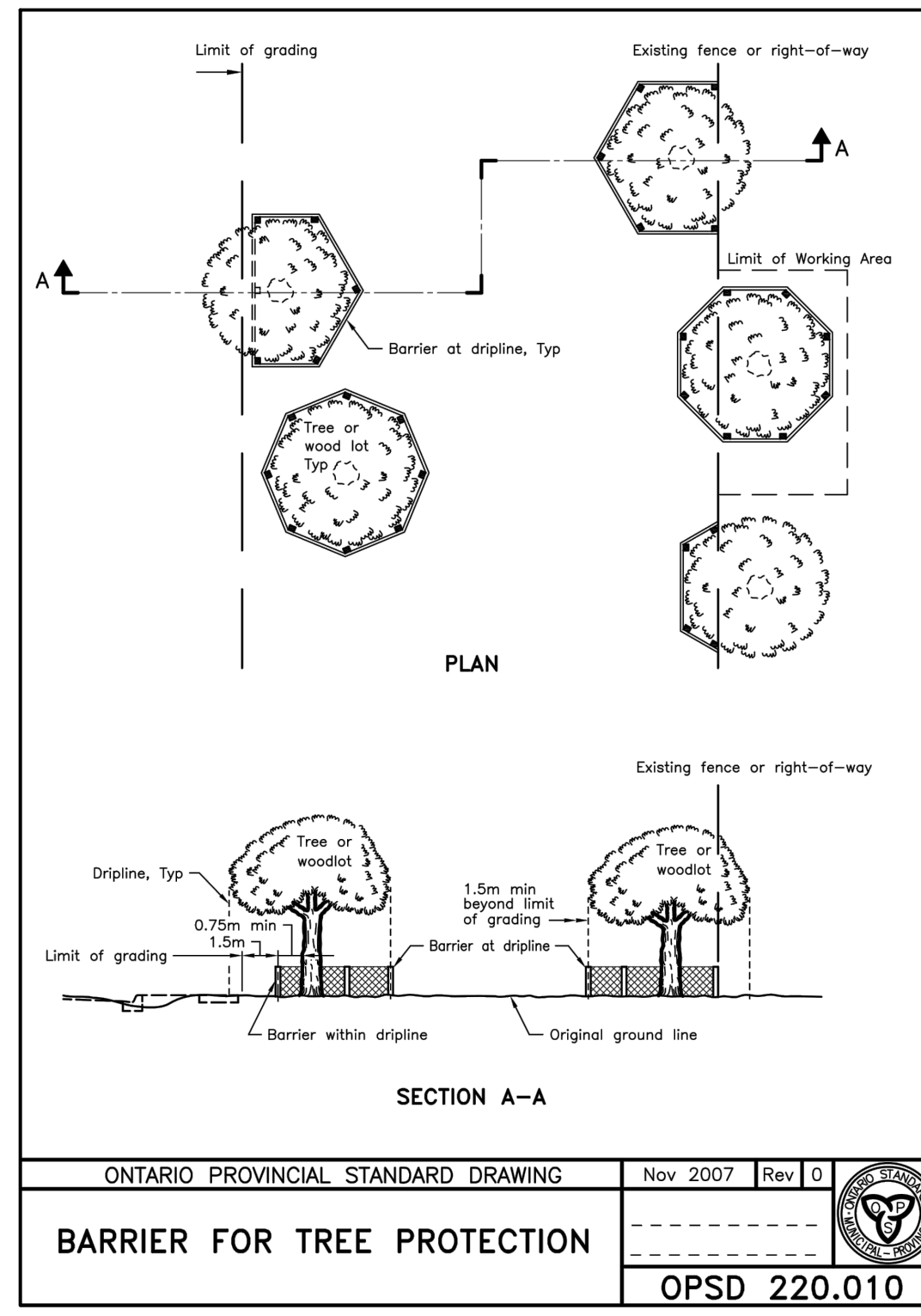
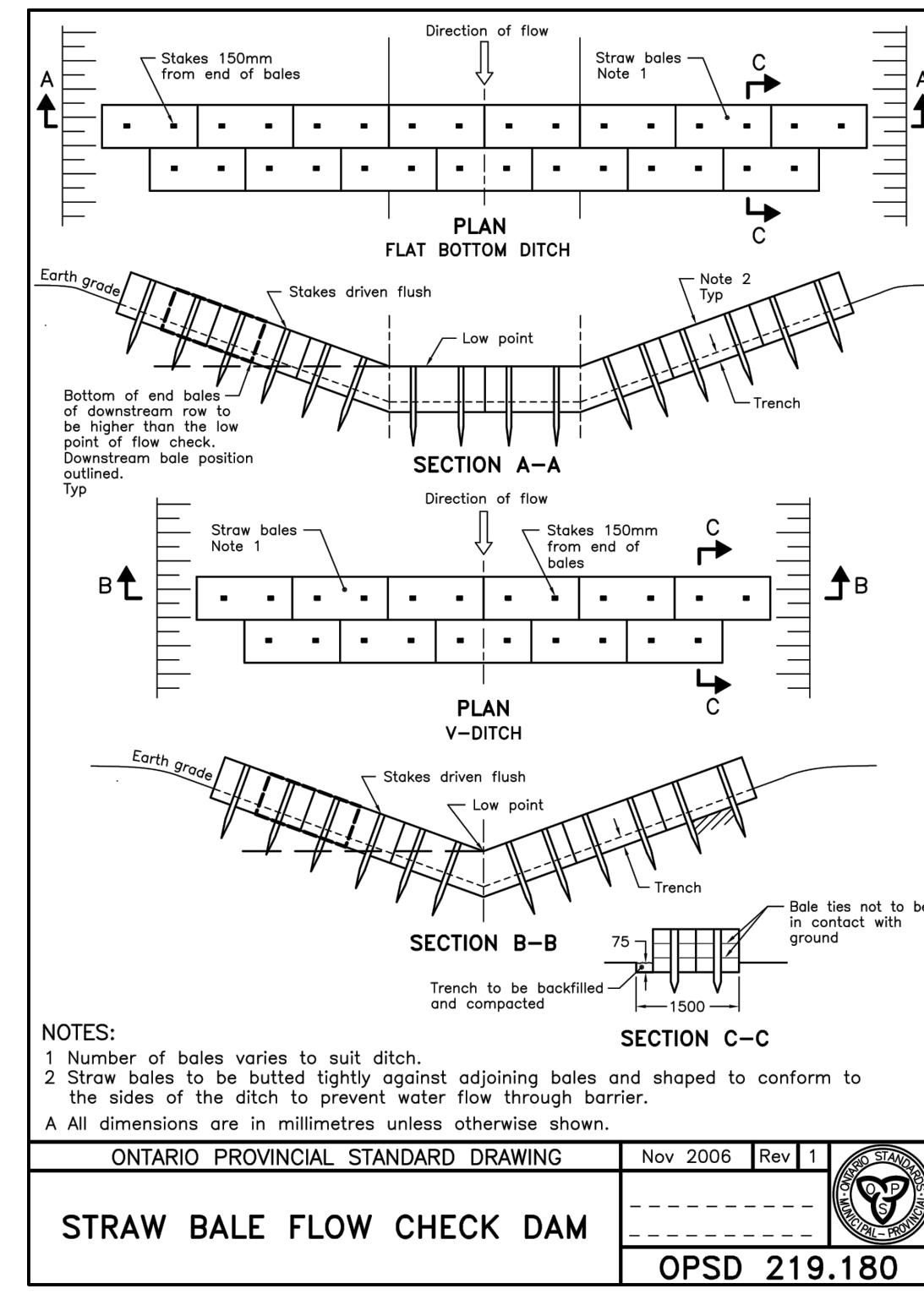
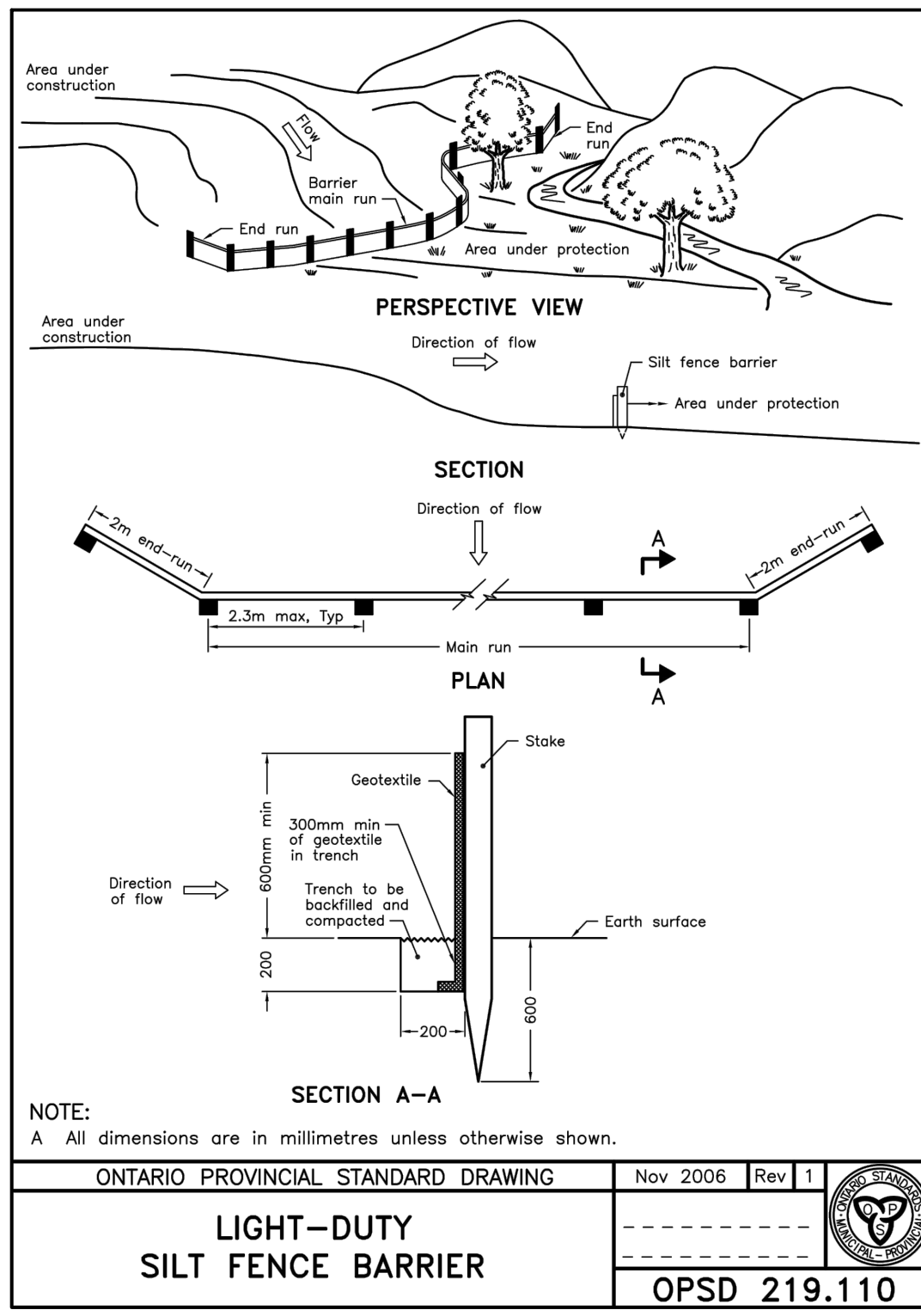
A C	A Detail no. No. du détail B Location drawing no. sur dessin no. C Drawing no. dessin no.	A B C
--------	---	-------------

project / projet
M-9 SITE PARKING AND SEWER UPGRADES
NATIONAL RESEARCH COUNCIL CANADA
MONTREAL ROAD CAMPUS
drawing / dessin
NOTES AND DETAILS 1

designed	conçu	date	date
LPL		JUNE 2019	
drawn	dessiné	scale	échelle
LPL		1:250	
checked	vérifié	sheet	feuille
KW/JX		2 of/da 6	
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

5733-C101

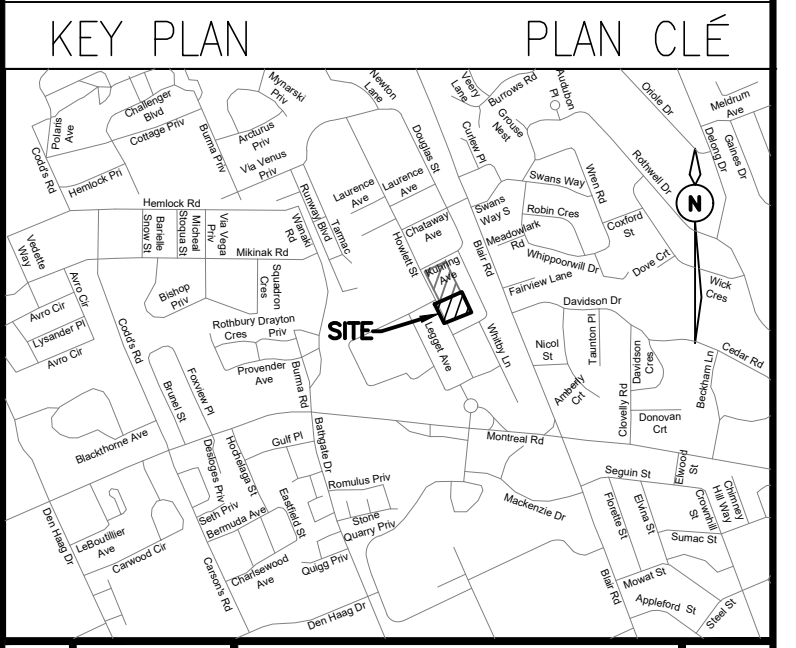




GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

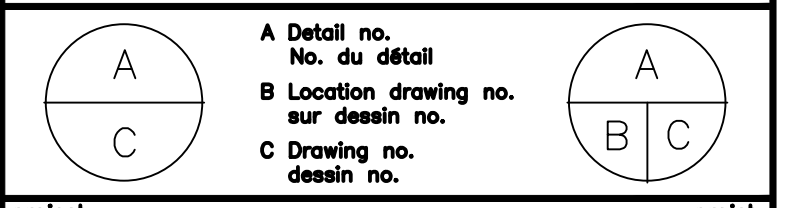
Ainley GROUP
2724 Fenton Road
Ottawa, Ontario
K1T 3T7
Telephone: (613) 822-1052
Fax: (613) 822-1573



No.	Date	Revision	By:
3	08-08-2019	ISSUED FOR TENDER	LPL
2	12-07-2019	RE-ISSUED FOR 90% DESIGN SUBMISSION	LPL
1	24-06-2019	ISSUED FOR 90% DESIGN REVIEW	LPL

Date Printed: _____ Date Imprime: _____

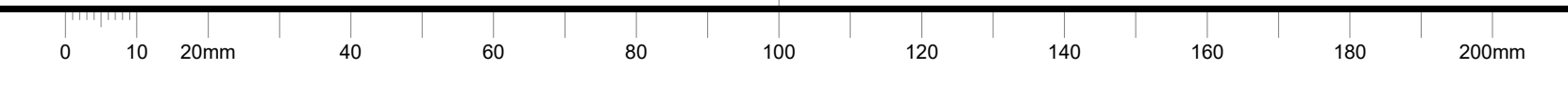
- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

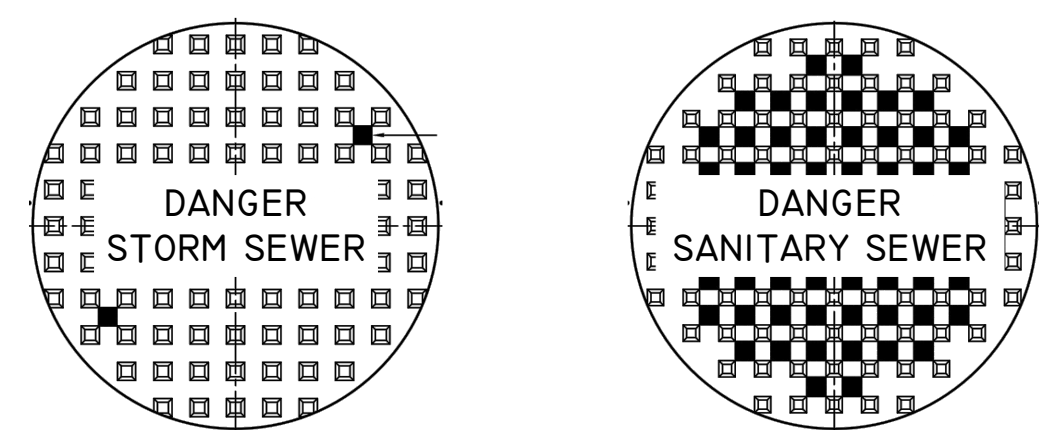
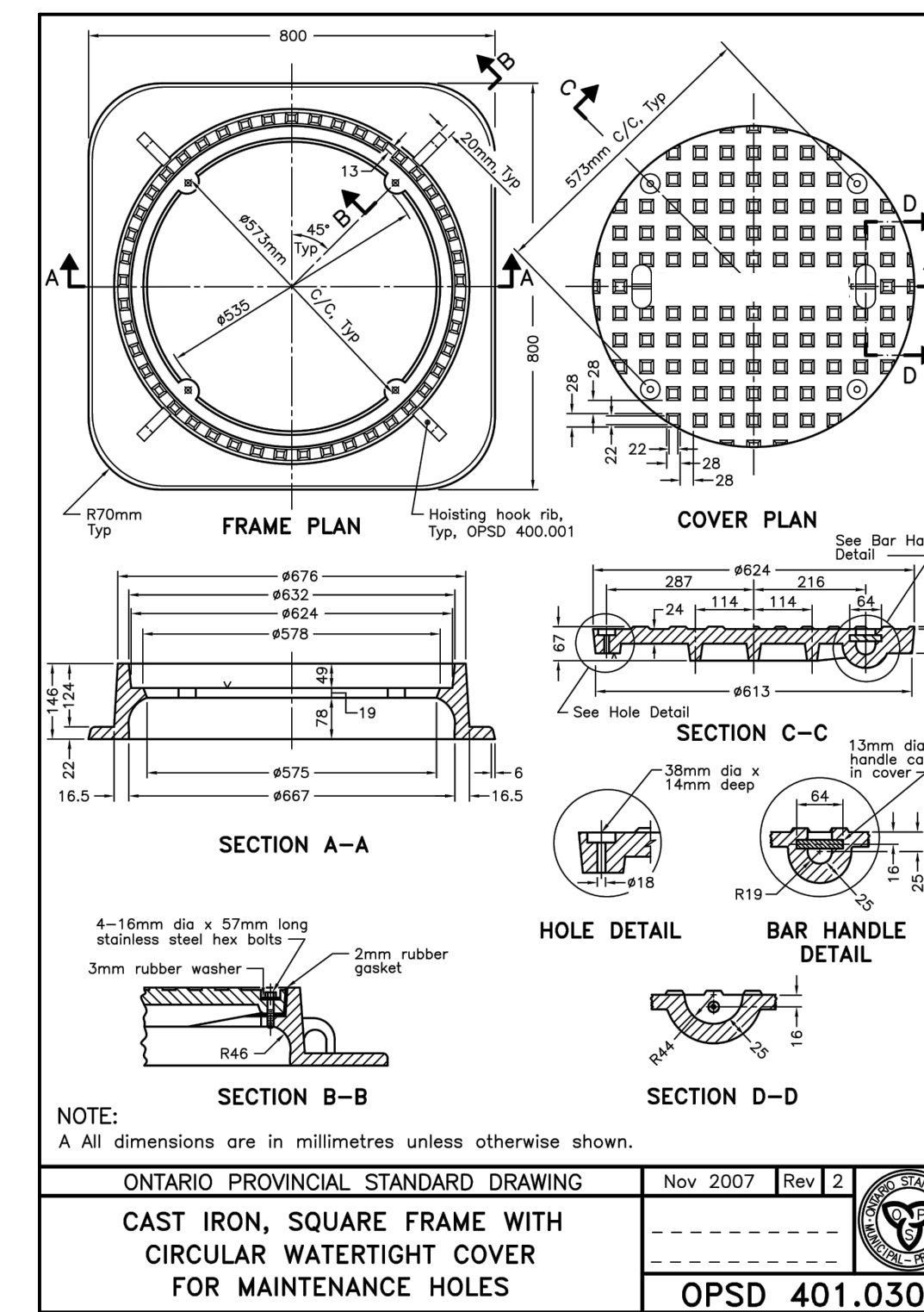
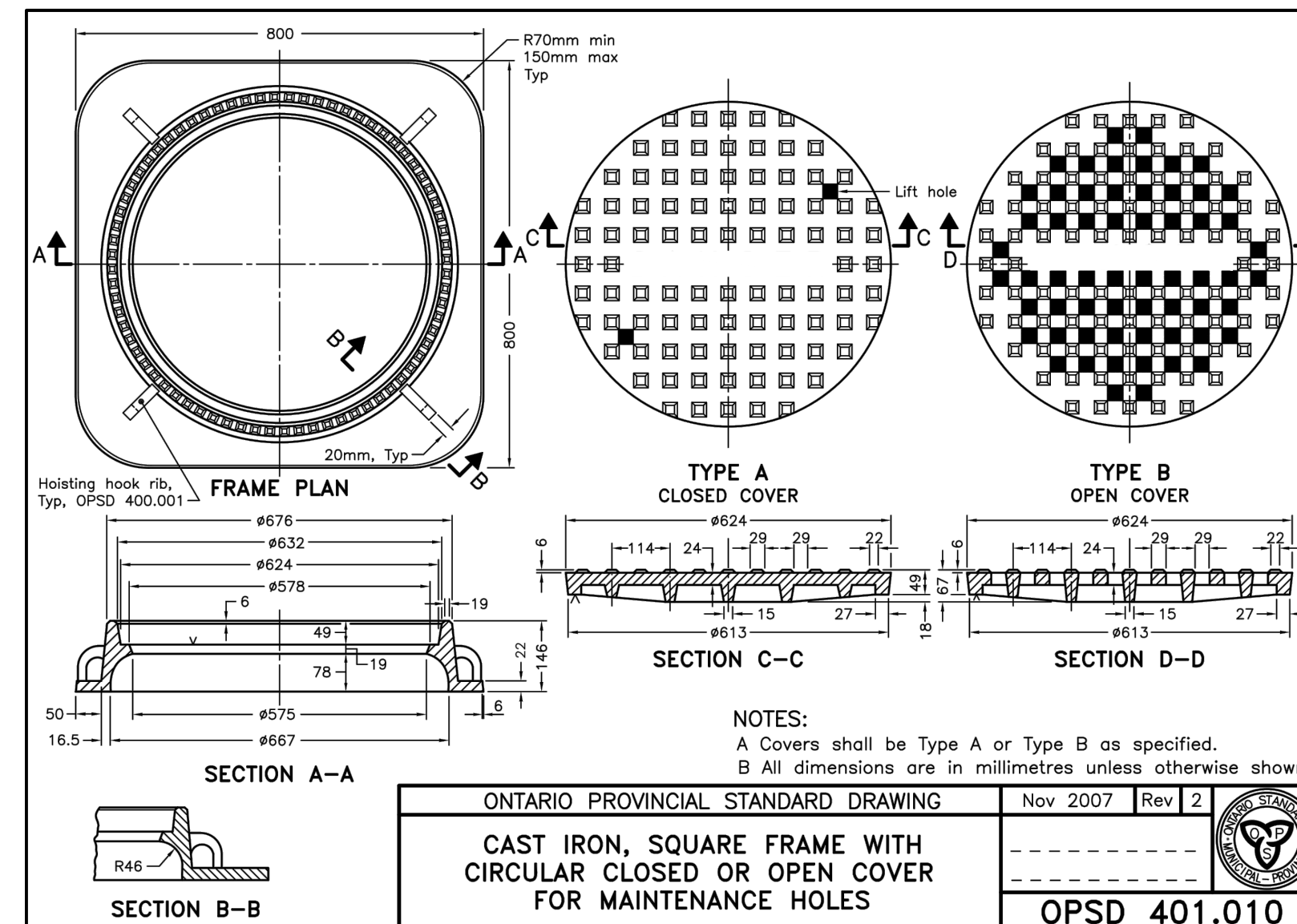
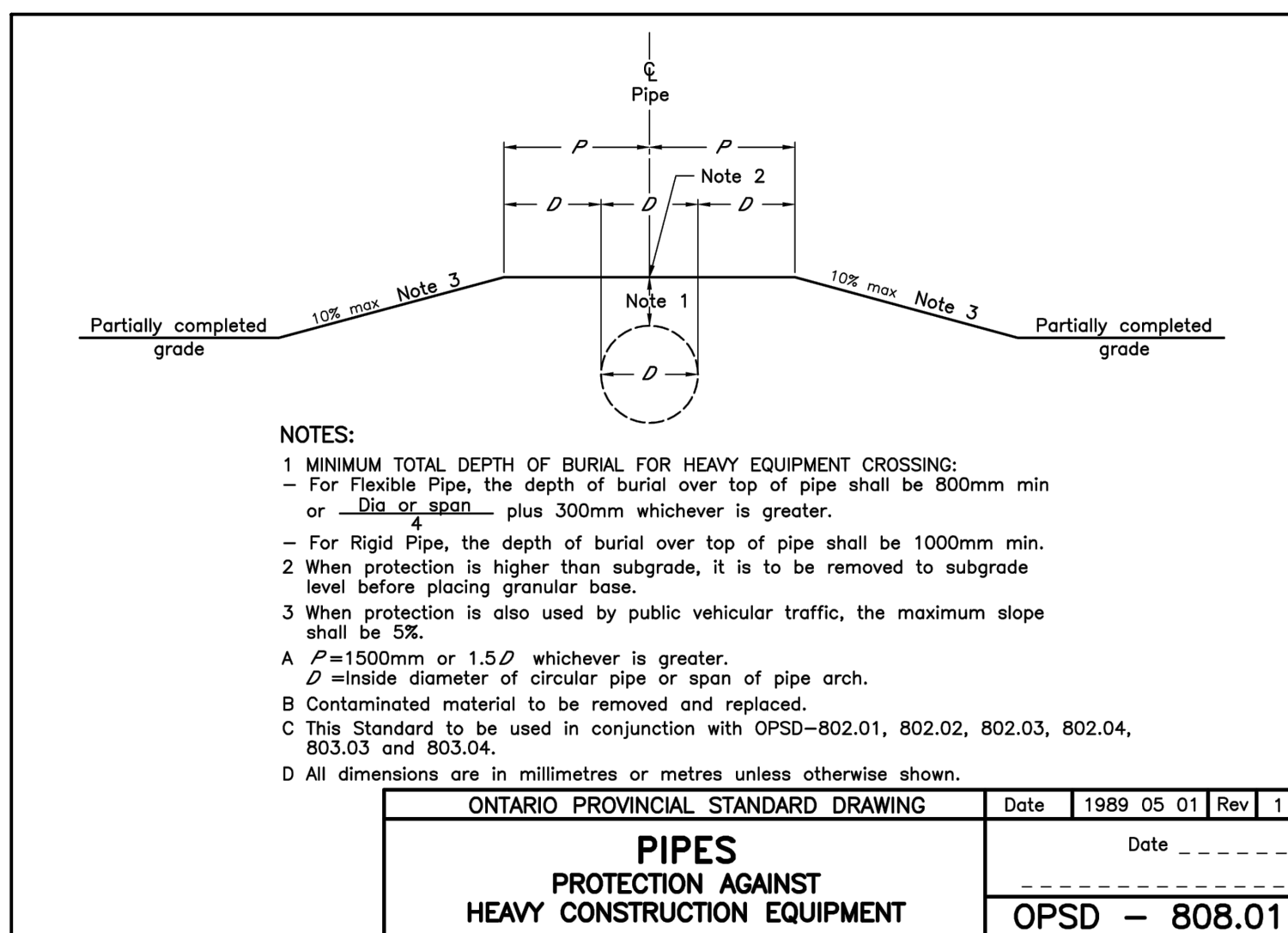
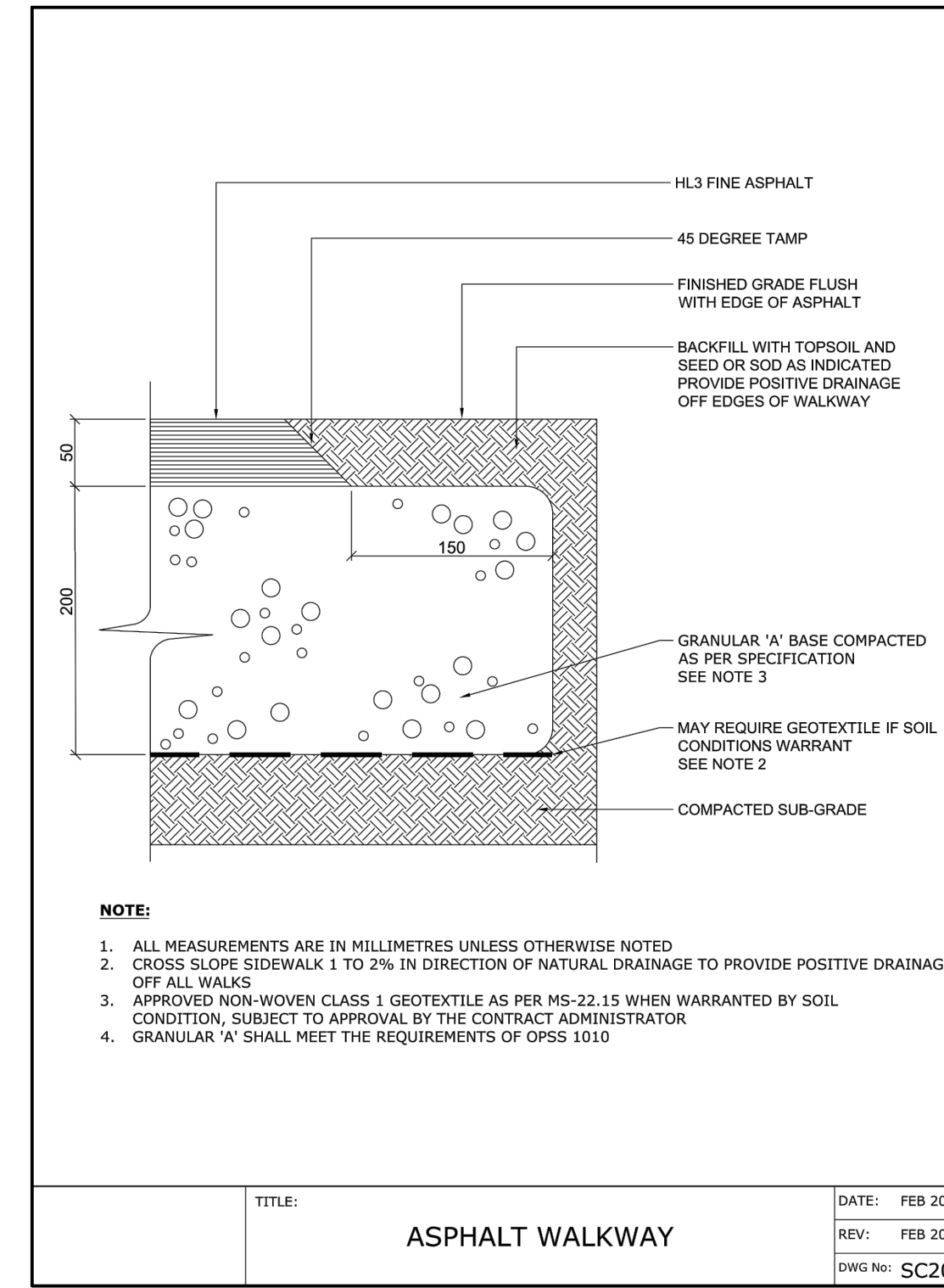
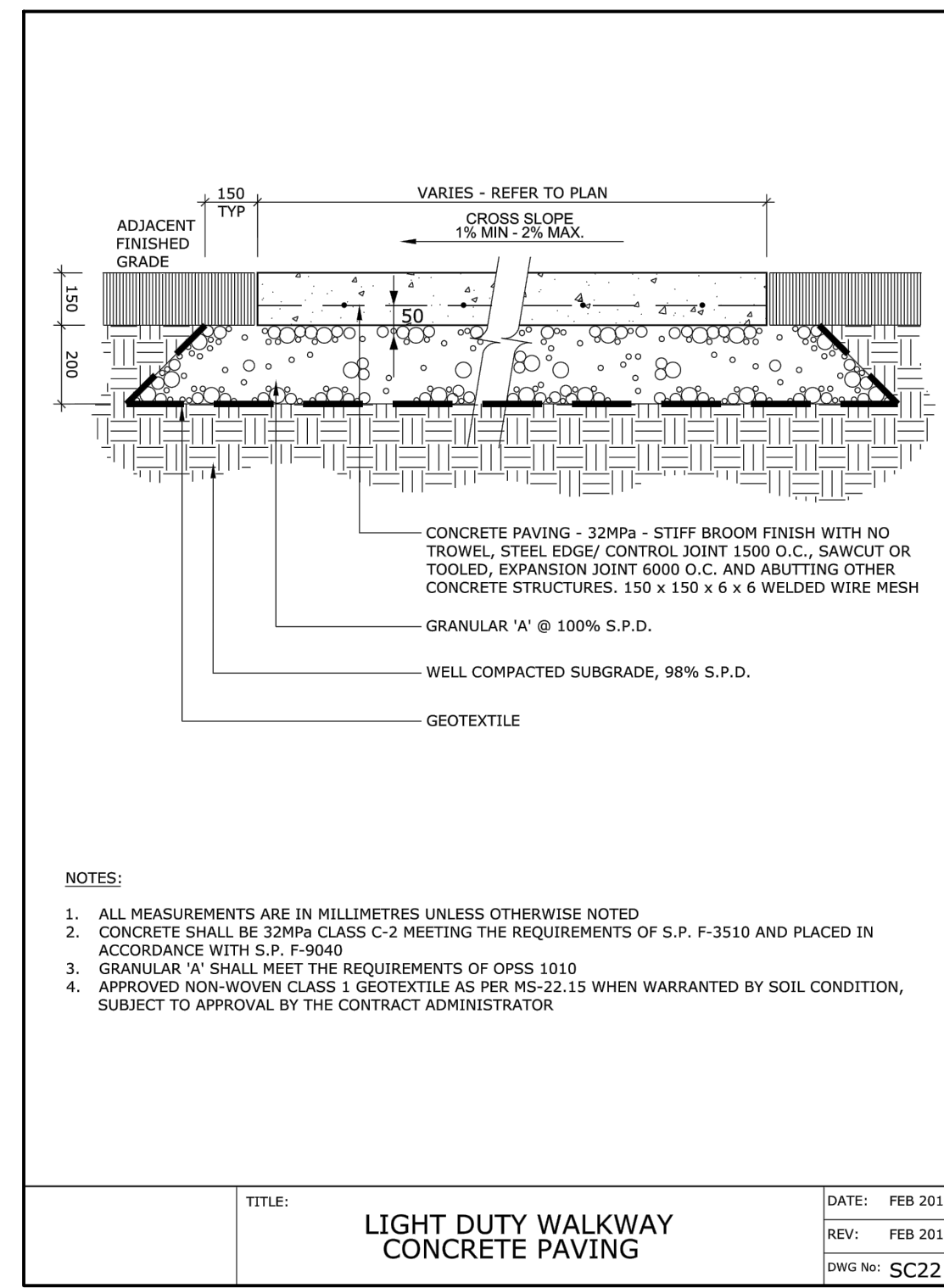
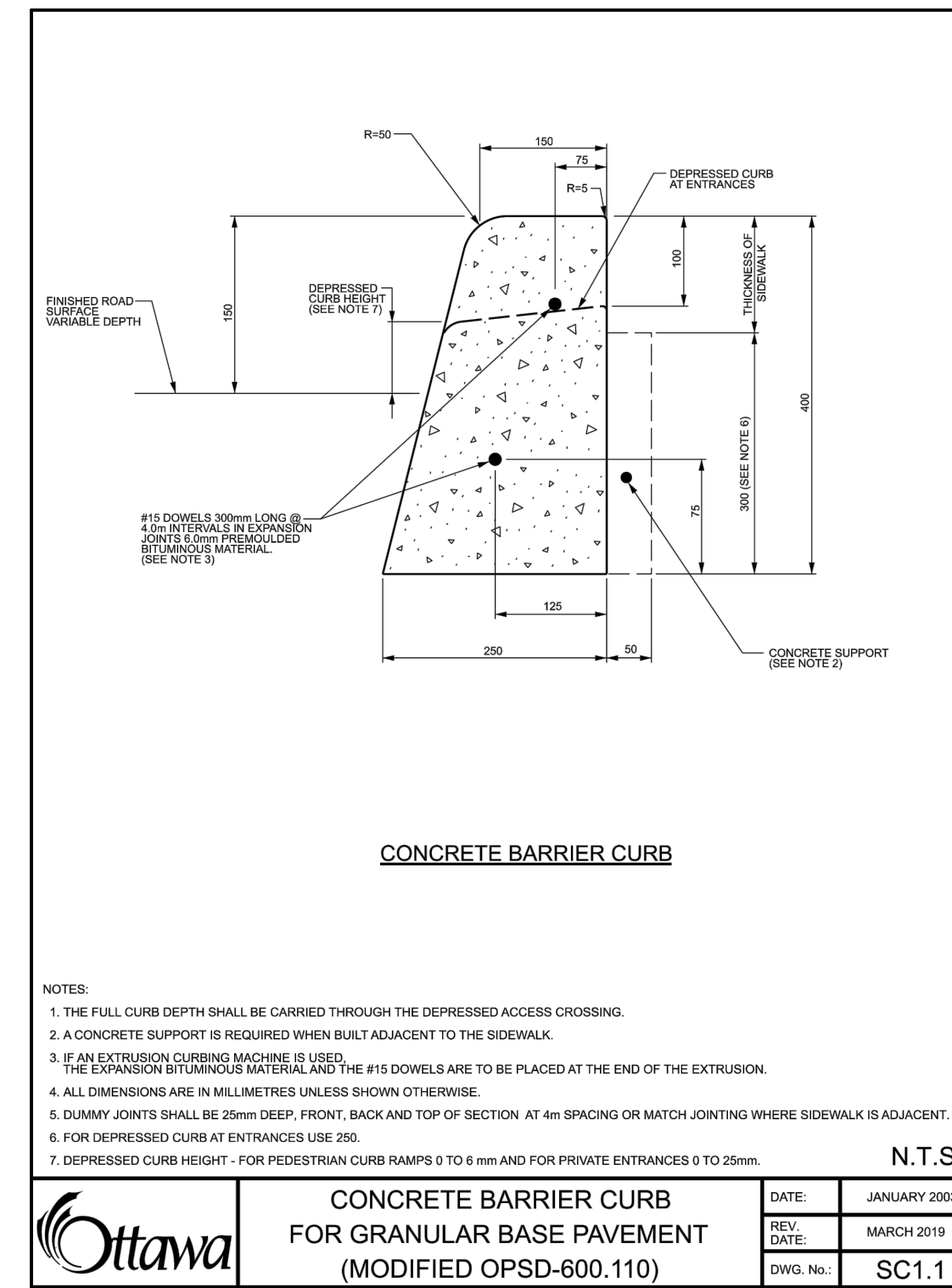
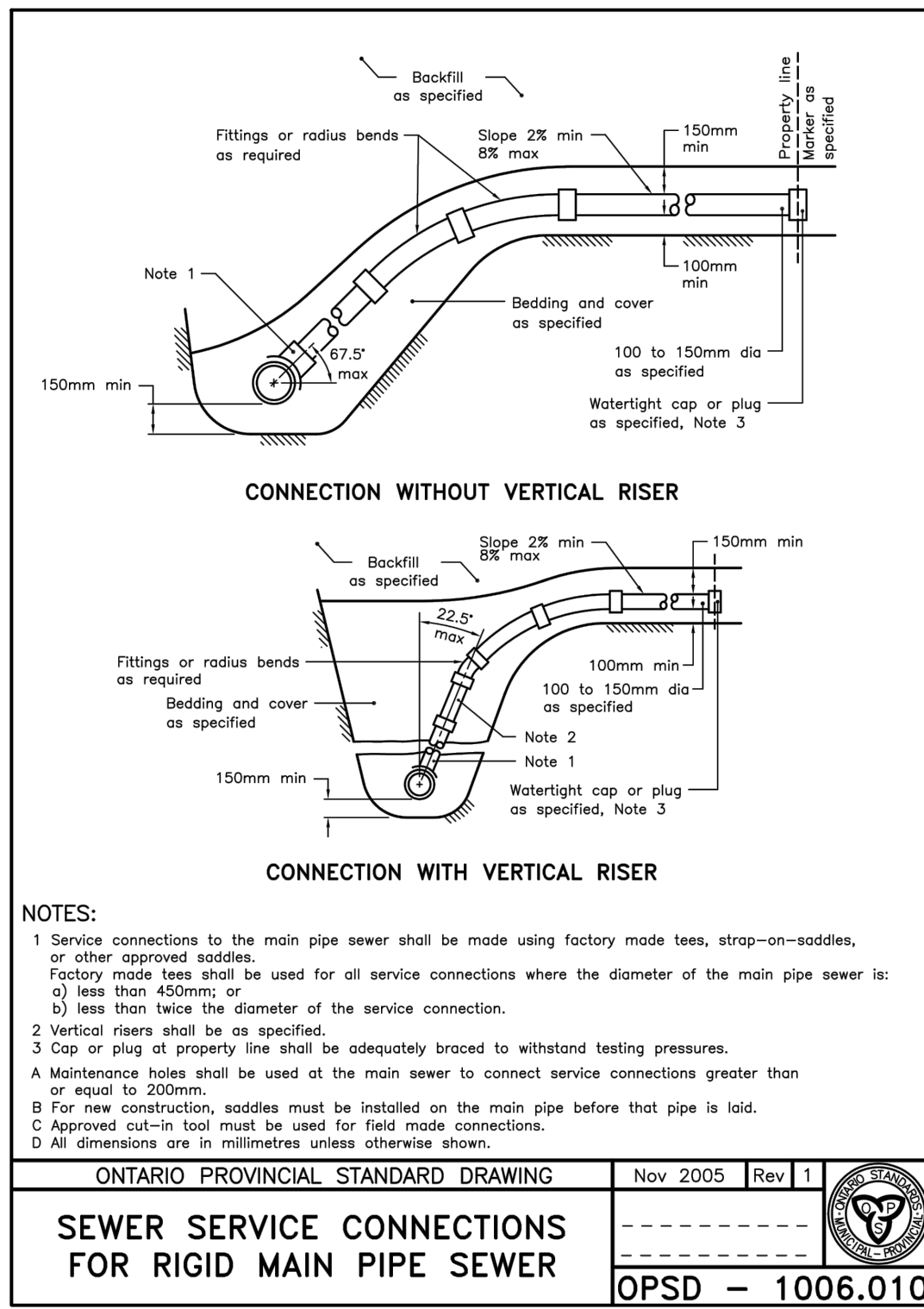


project / projet
M-9 SITE PARKING AND SEWER UPGRADES
NATIONAL RESEARCH COUNCIL CANADA
MONTREAL ROAD CAMPUS
drawing / dessin
NOTES AND DETAILS 2

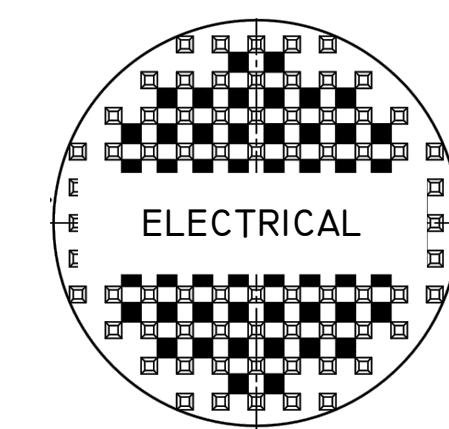
designed	conçu	date	date
LPL		JUNE 2019	
drawn	dessiné	scale	échelle
LPL		1:250	
checked	vérifié	sheet	feuille
KW/JX		3 of/da 6	
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

5733-C102





SPECIFIC MAINTENANCE HOLE COVER LABEL TO BE APPLIED



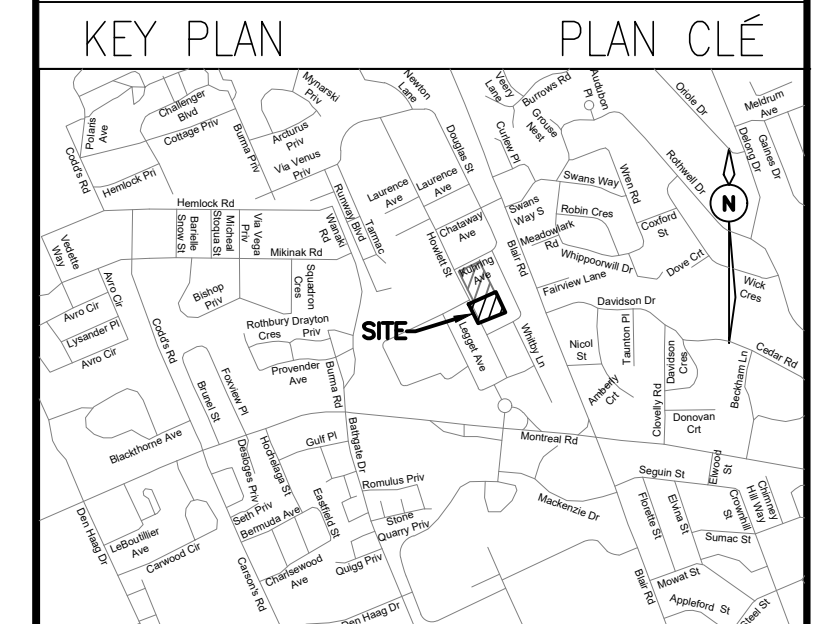
SPECIFIC ELECTRICAL MAINTENANCE HOLE COVER LABEL TO BE APPLIED



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

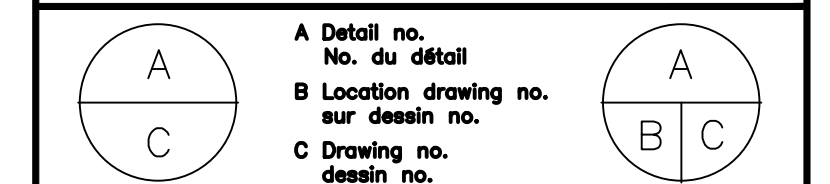
Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573



No.	Date	Revision	By:
3	08-08-2019	ISSUED FOR TENDER	LPL
2	12-07-2019	RE-ISSUED FOR 90% DESIGN SUBMISSION	LPL
1	24-06-2019	ISSUED FOR 90% DESIGN REVIEW	LPL

Date Printed	Date Imprime

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



project / projet
 M-9 SITE PARKING AND SEWER UPGRADES
 NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS
 drawing / dessin
 NOTES AND DETAILS 3

designed	conçu	date	date
LPL		JUNE 2019	
drawn	dessiné	scale	échelle
LPL		1:250	
checked	vérifié	sheet	feuille
KW/JX		4 of/da 6	
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

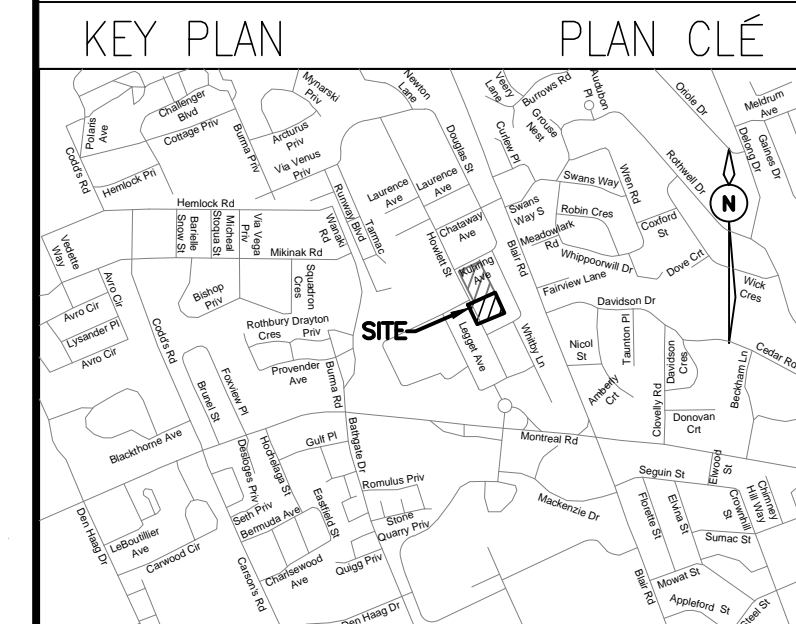
5733-C103



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

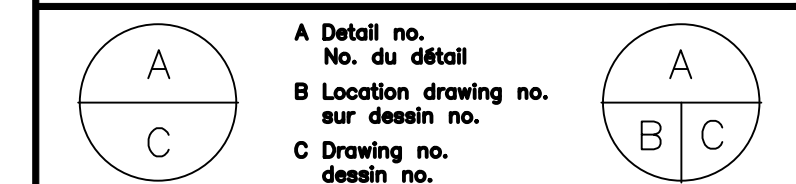
Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573



No.	Date	Revision	By:
5	19-08-2019	RE-ISSUED FOR TENDER	LPL
4	08-08-2019	ISSUED FOR TENDER	LPL
3	12-07-2019	RE-ISSUED FOR 90% DESIGN SUBMISSION	LPL
2	24-06-2019	ISSUED FOR 90% DESIGN REVIEW	LPL
1	04-06-2019	ISSUED FOR 66% DESIGN REVIEW	LPL

Date Printed	Date Imprime

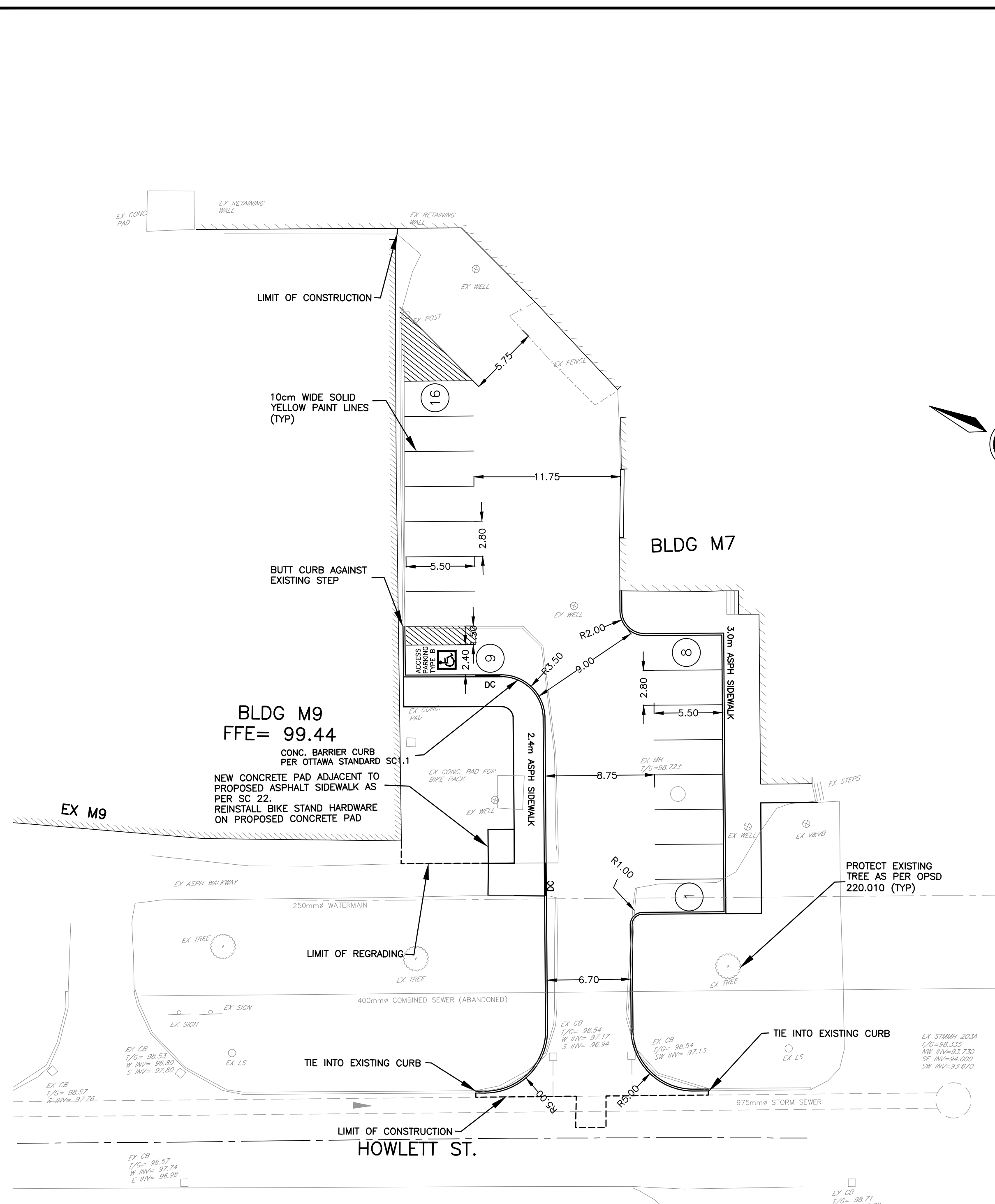
- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



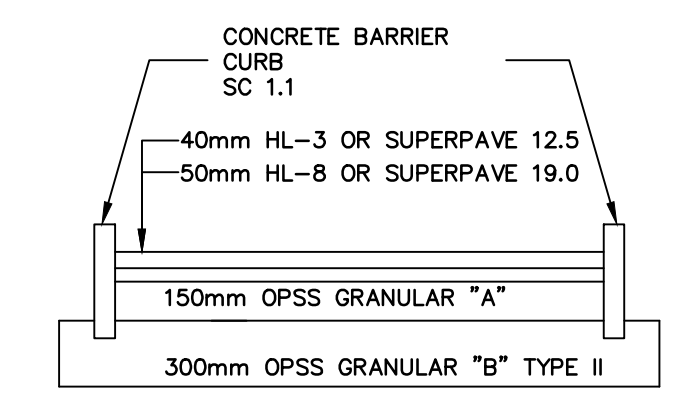
project: M-9 SITE PARKING AND SEWER UPGRADES
 NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS
 drawing: SERVICING, GRADING, AND GEOMETRY PLAN

designed	conçu	date	date
LPL		JUNE 2019	
drawn	dessiné	scale	échelle
LPL		1:250	
checked	vérifié	sheet	feuille
KW/JX		6 of/da 6	
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

5733-C104



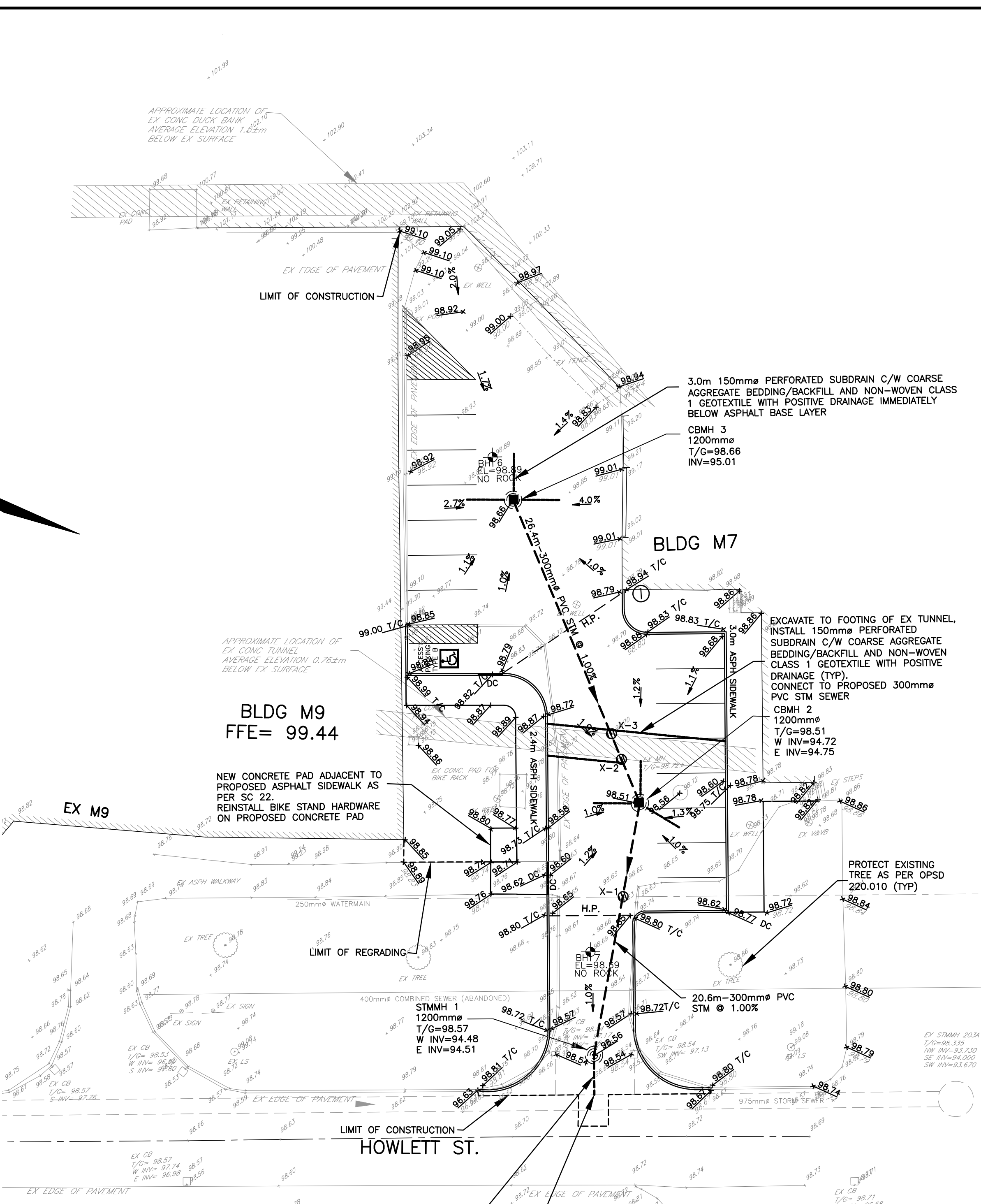
1 GEOMETRY PLAN
 C105 SCALE = 1:250



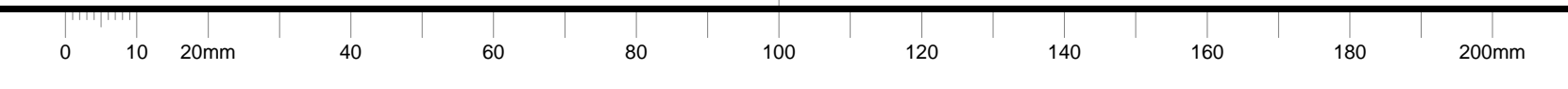
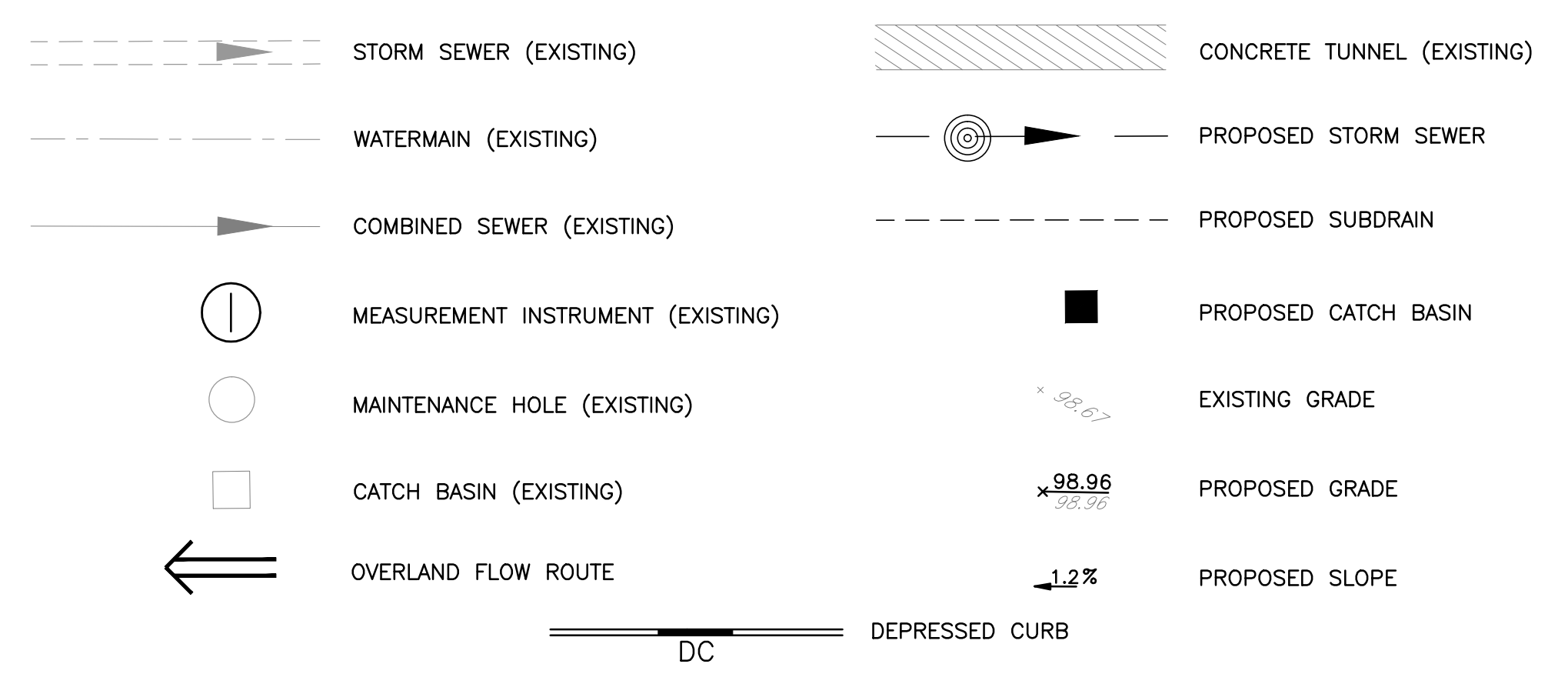
3 PAVEMENT STRUCTURE
 C105 SCALE = NTS

SEWER CROSSING TABLE

LOCATION	EX 250mm ϕ WATER MAIN	EX TUNNEL (WEST SIDE)	EX TUNNEL (EAST SIDE)	PROPOSED 300mm ϕ STORM SEWER
X-1	INV=96.45 \pm			OBV=94.94 \pm
X-2		USF=95.70 \pm		OBV=95.09 \pm
X-3			USF=95.70 \pm	OBV=95.11 \pm



2 GRADING AND SERVICING PLAN
 C105 SCALE = 1:250

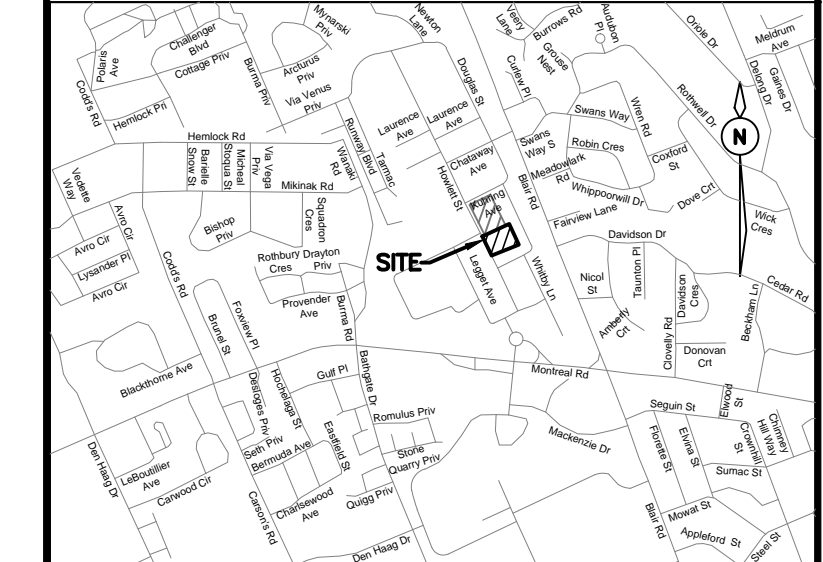


GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.



KEY PLAN / PLAN CLÉ



No.	Date	Revision	By:
5	19-08-2019	RE-ISSUED FOR TENDER	LPL
4	08-08-2019	ISSUED FOR TENDER	LPL
3	12-07-2019	RE-ISSUED FOR 90% DESIGN SUBMISSION	LPL
2	24-06-2019	ISSUED FOR 90% DESIGN REVIEW	LPL
1	04-06-2019	ISSUED FOR 68% DESIGN REVIEW	LPL

Date Printed / Date imprimée

- o Verify all dimensions and site conditions and be responsible for same
- o Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

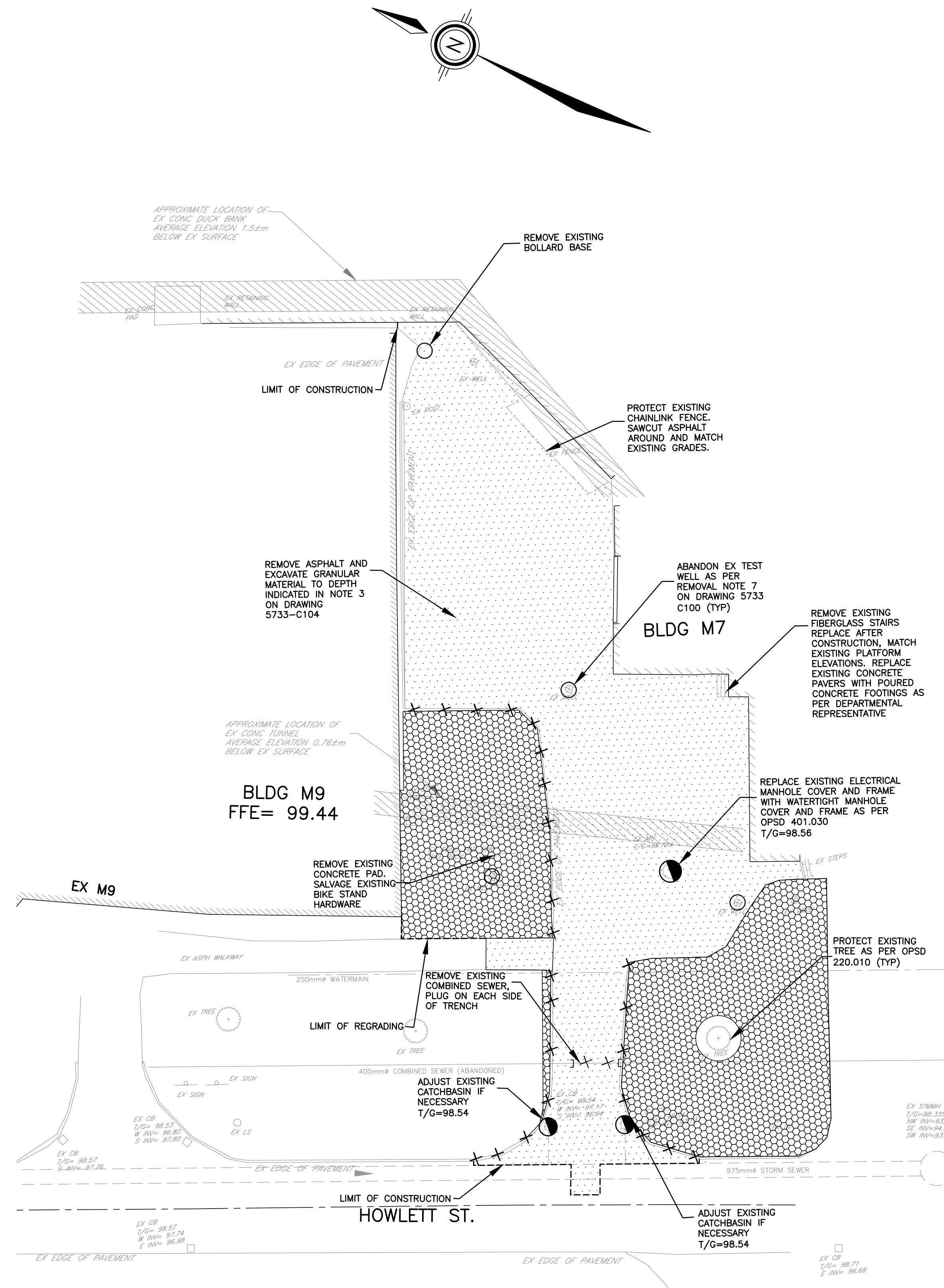
A	A Detail no. / No. du détail	A
B	B Location drawing no. / sur dessin no.	B
C	C Drawing no. / dessin no.	C

project / projet
 M-9 SITE PARKING AND SEWER UPGRADES
 NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS
 drawing / dessin
 REMOVALS DRAWING

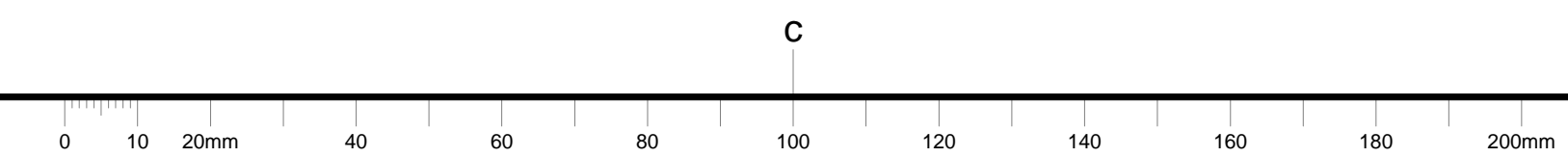
designed / conçu	LPL	date / date	JUNE 2019
drawn / dessiné	LPL	scale / échelle	1:250
checked / vérifié	KW/JX	sheet / feuille	5 of / de 6
approved / approuvé	KW	W.O.no. / D.T.no.	-
dwg.no. / dessin no.	5733-C105		

REMOVALS LEGEND

- ASPHALT GRANULAR BASE AND UNSUITABLE SUBBASE REMOVAL (ROAD, DRIVEWAYS, PARKING AREAS, SIDEWALK)
- FULL DEPTH EARTH REMOVAL (DEPTH FOR REGRADING LIMITS AS PER RE-INSTATEMENT NOTE 8 ON 5377-C100, ASPHALT AS PER DETAIL 3 ON 5377-C104)
- REMOVE MANHOLE, CATCHBASIN, VALVE, HYDRANT, ETC.
- REMOVE EX WELL, BOLLARD & CONCRETE BASE
- ADJUST MANHOLE
- REMOVE EXISTING COMBINED SEWER
- REMOVE EXISTING CONCRETE CURB



1 REMOVALS PLAN
 C104 SCALE = 1:250



M-12 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION NATIONAL RESEARCH COUNCIL CANADA MONTREAL ROAD CAMPUS



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.



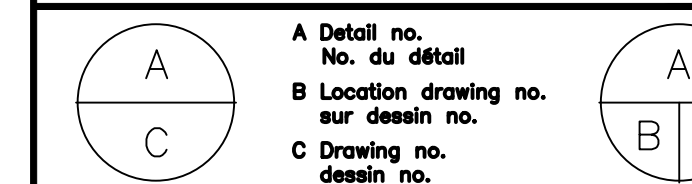
KEY MAP
SCALE: N.T.S.

INDEX	
5734-C101	- LEGEND, NOTES AND DETAILS
5734-C102	- DETAILS
5734-C103	- DETAILS
REMOVAL AND ADJUSTMENT	
5734-C104	- WHITBY LANE & PARKING LOT
GEOMETRY LAYOUT	
5734-C105	- WHITBY LANE & PARKING LOT
GRADING PLANS	
5734-C106	- WHITBY LANE & PARKING LOT
SITE SERVICING PLANS	
5734-C107	- WHITBY LANE & PARKING LOT
REINSTATEMENT LAYOUT	
5734-C108	- WHITBY LANE & PARKING LOT

No.	Date	Revision	By:
3	20-08-2019	ISSUED FOR TENDER	KW
2	19-07-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW
1	24-06-2019	ISSUED FOR 66% DESIGN REVIEW	KW

Date Printed: _____ Date imprimée: _____

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



project
M-12 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
NATIONAL RESEARCH COUNCIL CANADA

MONTREAL ROAD CAMPUS

drawing
COVER SHEET

designed	conçu	date	date
JX/MH		APRIL 2019	

drawn	dessiné	scale	échelle
MH		1:250	

checked	vérifié	sheet	of/de	feuille
KW/JX		-	-	-

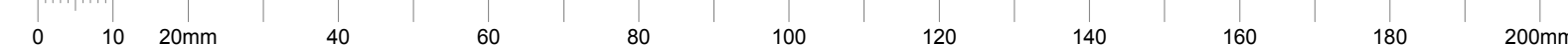
approved	approuvé	W.O.no.	D.T.no.
KW		-	-

dwg.no.	dessin no.
5734-C100	



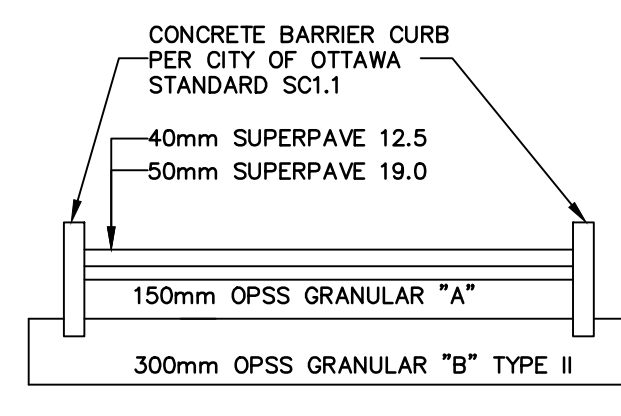
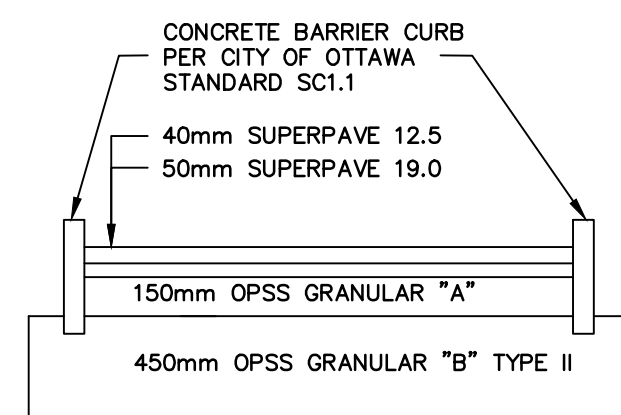
PROJECT NO. 5734
AUGUST 20, 2019
ISSUED FOR TENDER

C



LEGEND

- PROPERTY LINE
- EXISTING ELEVATION
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- EXISTING FENCE
- EXISTING HYDRO POLE
- EXISTING CATCHBASIN
- GAS --- GAS EXISTING GASMAIN
- EXISTING STREET LINE
- EXISTING HYDRANT
- EXISTING V&VB, V&VC
- × 97.55 PROPOSED GRADE
- 2.0% DIRECTION AND SLOPE
- (98.20) PROPOSED CENTERLINE ROAD GRADE
- ← OVERLAND FLOW ROUTE
- PROPOSED CATCHBASIN
- PROPOSED STORM MANHOLE
- DEPRESSED CURB
- STREET CATCHBASIN (200mm LEAD)
- CB 3 CATCHBASIN OUTLETTING DIRECTLY TO STORM SEWER
- 7/6=97.31 TOP OF GRATE ELEVATION FOR CATCH BASINS
- PROPOSED STORM SEWER



NOTES: EROSION AND SEDIMENT CONTROL

1. SEDIMENT AND EROSION CONTROL MEASURES TO BE CONSTRUCTED AS PER OPSS 805.
2. THE CONTRACTOR SHALL SUBMIT AN EROSION & SEDIMENT CONTROL PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND CONSTRUCTION OF ALL SEDIMENT AND EROSION CONTROL MEASURES TO ENSURE THAT SEDIMENT DOES NOT MIGRATE FROM THE CONSTRUCTION SITE. THE CONTRACTOR SHALL IMPLEMENT BEST PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSES, DURING CONSTRUCTION ACTIVITIES. THIS INCLUDES:
 - a. LIMITING THE AMOUNT OF EXPOSED SOIL
 - b. INSTALLING SILT FENCES (PER OPSS 219.110) AT THE CONSTRUCTION LIMIT.
 - c. INSTALLING STRAW BALE FLOW CHECK DAM (PER OPSS 219.180) ALONG ROADSIDE DITCHES/SWALES AT UPSTREAM OF CATCHBASINS.
 - d. OTHER EFFECTIVE SEDIMENT TRAPS.
3. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
4. IN ORDER TO AVOID POLLUTANTS FROM BEING DISCHARGED, THE CONTRACTOR MUST MINIMIZE THE GENERATION OF DUST THROUGH APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION MATERIAL.
5. THE CONTRACTOR'S SUBCONTRACTOR ARE REQUIRED TO COMPLY WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

NOTES: REMOVAL

1. REMOVALS SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 510.
2. SEWER PIPES TO BE ABANDONED MUST BE CUT , FILLED WITH UNSHRINKABLE BACKFILL CONFORMING TO OPSS 1359, AND CAPPED ALL IN ACCORDANCE WITH OPSS 510.
3. EXISTING PAVERS TO BE REMOVED, PROTECTED AND STORED ON SITE UNTIL REINSTATEMENTS.
4. EXISTING ASPHALT SHALL BE A MILLED 500mm WIDE STEP JOINT, TO A DEPTH OF 50mm(MIN.) AT ALL THE LOCATIONS.
5. FIELD VERIFY FOR ANY POTENTIAL CONFLICTS INCLUDING ALL EXISTING UTILITY POLE LOCATIONS AND OVERHEAD CABLES BEFORE COMMENCING CONSTRUCTION. ANY DISCREPANCIES, INTERPRETATIONS, CHANGES AND/OR ADDITIONS TO THESE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE NRC DEPARTMENTAL REPRESENTATIVE WHEN OBSERVED.
6. ALL REGULATORY SIGNS WITHIN THE CONSTRUCTION LIMIT SHALL BE REMOVED AND RE-INSTALLED BY THE CONTRACTOR UPON COMPLETION OF PAVING WORKS.
7. LIMIT OF REMOVAL FOR DRIVEWAYS AND WALKWAYS TO BE CONFIRMED WITH THE NRC DEPARTMENTAL REPRESENTATIVE.

NOTES: GENERAL

1. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION
2. ALL ELEVATIONS / DIMENSIONS ARE IN METRIC UNITS.
3. JOB BENCH MARK – CONFIRM WITH NRC PRIOR TO UTILIZATION.
4. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCHBASIN OUTLETS ARE PROVIDED.
5. ALL DISTURBED AREAS SHALL BE REINSTATED TO EQUAL OR BETTER CONDITION TO THE SATISFACTION OF THE NRC DEPARTMENTAL REPRESENTATIVE.
6. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAU CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT.
7. ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. (CONSTRUCTION OPSS 206, 310 & 314 MATERIALS OPSS 1001, 1003 & 1010).
8. REFER TO GEOMETRY LAYOUT DRAWINGS FOR ROAD AND PARKING LOT DIMENSIONS AND SITE LAYOUT. DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
9. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING, SUPPORT AND PROTECTION OF EXCAVATIONS.
10. DESIGN ELEVATIONS AS GIVEN ON THIS PLAN ARE TO BE ADHERED TO WITH NO CHANGES WITHOUT PRIOR WRITTEN APPROVAL BY NRC DEPARTMENTAL REPRESENTATIVE.
11. CONTRACTOR TO INSTALL AND MAINTAIN A FILTER CLOTH "CATOCH" ACROSS ALL MH/CB LIDS TO PREVENT SEDIMENTS AND GRANULARS FROM ENTERING STRUCTURES UNTIL SOIL AND PAVING IS COMPLETE. ANY SEDIMENTS/GANULARS ENTERING STRUCTURES AND SEWERS SHALL BE IMMEDIATELY REMOVED.
12. CONTRACTOR TO CONFIRM LOCATION(S) AND ELEVATION(S) OF EXISTING SERVICES AND STRUCTURES TO BE CONNECTED TO AND EXISTING SERVICES THAT MAY CAUSE CONFLICTS PRIOR TO CONSTRUCTION OF ANY NEW SEWER AND/OR STORM WATER WORKS. THE ENGINEER SHALL BE INFORMED IMMEDIATELY OF ANY ERRORS, DISCREPANCIES, CONFLICTS, OMISSIONS ETC THAT ARE FOUND.
13. THE CONTRACTOR SHALL VERIFY ALL SURFACE AND SUBSURFACE CONDITIONS PRIOR TO COMMENCING CONSTRUCTION BY REVIEWING THE GEOTECHNICAL INVESTIGATION REPORT "NATIONAL RESEARCH COUNCIL (NRC), OTTAWA, ON, ROAD RECONSTRUCTION – SOUTH END GEOTECHNICAL SUBSURFACE INVESTIGATION REPORT NO. 190140" PREPARED BY ST. LAWRENCE TESTING & INSPECTION CO. LTD. DATED JUNE 20, 2018.
14. THE CONTRACTOR SHALL APPRAISE HIS/HER SELF OF ALL SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED AND SHALL CARRY OUT THEIR OWN TEST PITS AS REQUIRED TO MAKE THEIR OWN INDEPENDENT ASSESSMENT OF GROUND CONDITIONS. THE CONTRACTOR SHALL NOT MAKE ANY CLAIM FOR ANY EXTRA COST DUE TO ANY SUCH GROUND CONDITIONS VARYING FROM THOSE ANTICIPATED BY THE CONTRACTOR.
15. THE CONTRACTOR SHALL COORDINATE AND PAY FOR ALL CONSTRUCTION RELATED PERMITS, FEES, INSPECTIONS AND APPROVALS REQUIRED.
16. IN PREPARATION FOR THE CONSTRUCTION OF THE NEW ASPHALTIC CONCRETE SURFACED ROADWAYS AND PARKING AREAS, ALL TOPSOIL, ORGANIC MATERIAL AND ANY LOOSE/SOFT OR WET SOIL SHOULD BE REMOVED FROM THE PROPOSED SUBGRADE SURFACE AND REPLACED WITH SUITABLE COMPACTED EARTH BORROW OR GRANULAR FILL.
17. PRIOR TO PLACING GRANULAR FILL FOR THE ROADWAYS AND PARKING AREAS, THE EXPOSED SUBGRADE SHOULD BE HEAVILY PROOF ROLLED WITH A LARGE (6 TONNE) VIBRATORY DRUM ROLLER UNDER DRY CONDITIONS. ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUBEXCAVATED AND REPLACED WITH SUITABLE, COMPACTED EARTH BORROW.
18. ASPHALTIC CONCRETE SHALL NOT BE PLACED UNTIL FINAL CCTV INSPECTION OF THE SEWERS IN ACCORDANCE WITH OPSS 409 HAVE BEEN COMPLETED AND APPROVED BY THE NRC DEPARTMENTAL REPRESENTATIVE.
19. OPSS 409 TO BE FOLLOWED AS CONSTRUCTION SPECIFICATION FOR CLOSED-CIRCUIT TELEVISION INSPECTION OF PIPELINES.

PRE-CONSTRUCTION INSPECTION:
PRIOR TO COMMENCING CONSTRUCTION, A PRE-CONSTRUCTION CCTV INSPECTION MUST BE COMPLETED ON ALL THE SEWERS WITHIN THE CONSTRUCTION LIMITS PLUS THE FIRST LENGTH OF EXISTING SEWER PIPES OUTSIDE OF THE CONTRACT LIMITS INCLUDING CROSS STREETS, WITH THE EXCEPTION OF ANY PIPES THAT ARE BEING REMOVED DURING CONSTRUCTION, WHICH DO NOT REQUIRE PRE-CONSTRUCTION CCTV INSPECTION.

POST-CONSTRUCTION INSPECTION:
UPON COMPLETION OF BINDER COURSE ASPHALT BUT BEFORE APPLYING THE FINAL COURSE OF ASPHALT, A POST-CONSTRUCTION CCTV INSPECTION MUST BE COMPLETED ON ALL THE SEWERS WITHIN THE CONSTRUCTION LIMITS PLUS THE FIRST LENGTH OF EXISTING SEWER PIPES OUTSIDE OF THE CONTRACT LIMITS INCLUDING CROSS STREETS.

20. THE CONTRACTOR IS RESPONSIBLE FOR ALL RE-CCTV RESULTING FROM DEFICIENCY REPAIRS AS DEMAED NECESSARY BY THE NRC DEPARTMENTAL REPRESENTATIVE. CCTV INSPECTIONS WILL BE CONDUCTED UNTIL SUCH TIME AS THE RESULTS HAVE BEEN APPROVED BY THE ENGINEER AND/OR THE NRC DEPARTMENTAL REPRESENTATIVE AT NO ADDITIONAL COST TO THE CLIENT.
21. CONTRACTOR SHALL MAINTAIN A CLEAN SITE AND KEEP ALL ROADS AND SIDEWALKS CLEAN AND FREE FROM DIRT AND MUD AT ALL TIMES. USE MECHANICAL SWEEPING/FLUSHING WHEN NECESSARY. IF THE CONTRACTOR REFUSES OR NEGLECTS TO CLEAN WHEN OR AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE, THE DEPARTMENTAL REPRESENTATIVE MAY ARRANGE FOR NECESSARY CLEANING, WITH COSTS BEING RECOVERED FROM PAYMENTS TO THE CONTRACTOR.
22. THE CONTRACTOR SHALL AT ALL TIMES, KEEP THE WORK SITE FREE FROM ACCUMULATION OF WASTE MATERIALS AND RUBBISH DUE TO EMPLOYEES OR THE WORK. CLEANING, TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE SHALL BE A MANDATORY CONDITION TO THE FINAL ACCEPTANCE OF THE WORK.

NOTES: ROADWAYS, PARKING LOTS, SIDEWALKS & CURBS

1. ALL CURB TO BE 150mm ABOVE FINISHED ASPHALT GRADE UNLESS OTHERWISE NOTED. ALL CURBS MUST CONFIRM TO OPSS 353 ALL CURBS TO BE CONSTRUCTED PER CITY OF OTTAWA STANDARD SC1.1
2. ASPHALT SIDEWALKS MUST CONFORM TO OPSS 311 AND HAVE A 2.4M WIDTH (MIN.), UNLESS STATED OTHERWISE. ASPHALT SIDEWALKS TO BE CONSTRUCTED AS PER CITY OF OTTAWA STANDARD SC20.
3. ROADWAYS AND PARKING AREAS TO BE CONSTRUCTED AS PER PAVEMENT STRUCTURE DETAILS FOR LIGHT DUTY AND HEAVY DUTY DESIGN.

NOTES: RE-INSTALLMENT

1. ALL DISTURBED AREAS SHALL BE REINSTATED TO MATCH EXISTING CONDITIONS OR BETTER AS DIRECTED BY THE NRC DEPARTMENTAL REPRESENTATIVE.
2. EXISTING TREES ARE TO BE PRESERVED AND PROTECTED DURING THE CONSTRUCTION AND REINSTATEMENT ACTIVITIES IN ACCORDANCE WITH OPSS 801 AND OPSS 220.010.
3. ASPHALT REINSTATEMENT MUST BE IN ACCORDANCE WITH OPSS 310.
4. LANDSCAPE AREAS TO BE REINSTATED WITH 150mm OF TOPSOIL AND 500 IN ACCORDANCE WITH OPSS 802 AND OPSS 803.
5. PAVEMENT MARKING REINSTATEMENT TO MATCH EXISTING IN ACCORDANCE WITH OPSS 710, EXCEPT AS OTHERWISE SHOWN ON DRAWINGS.
6. WHERE REQUIRED, THE CONTRACTOR MUST ADJUST EXISTING STRUCTURES (VALVES, HYDRANTS, MANHOLES, CATCHBASINS, ETC) TO MATCH PROPOSED GRADE ELEVATIONS

NOTES: STORM SEWER AND CATCHBASIN

1. ALL STORM SEWERS 375mm OR SMALLER SHALL BE PVC SDR 35. STORM SEWERS LARGER THAN 375mm SHALL BE CONCRETE CLASS 650. UNLESS OTHERWISE NOTED.
2. THE BEDDING FOR THE PLANNED STORM SEWERS SHOULD CONSIST OF AT LEAST 300mm OF CRUSHED STONE MEETING OPSS REQUIREMENTS FOR GRANULAR 'A'. ALLOWANCE SHOULD BE MADE FOR A 150 TO 300 MILLIMETRE THICK SUBBEDDING LAYER OF OPSS GRANULAR 'B' TYPE II IF THE SUBGRADE SOIL BECOMES DISTURBED DURING EXCAVATION.
3. COVER MATERIAL, FROM PIPE SPRING LINE TO AT LEAST 300mm ABOVE THE TOPS OF THE PIPES, SHOULD CONSIST OF OPSS GRANULAR 'A'. THE GRANULAR BEDDING AND COVER MATERIALS FOR THE SERVICE PIPES SHOULD BE COMPACTED IN MAXIMUM 150mm THICK LIFTS TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR DRY DENSITY VALUE.
4. ALL WORK SHALL BE PERFORMED, AS APPLICABLE, IN ACCORDANCE WITH O.P.S.S. 407, AND 410.
5. ALL CATCHBASIN MANHOLES TO BE PER OPSS 701.010. SIZE AS INDICATED C/W 300mm SLUMP AND TO HAVE OPSS 400.070 COVERS.
6. ALL STORM MANHOLES TO BE PER OPSS 701.010 TO 701.012. SIZE AS INDICATED C/W 300mm SLUMP AND TO HAVE OPSS 400.070 TYPE "B" OPEN COVER COVER TO BE LABELLED "DANGER" AND "STORM".
7. ALL MANHOLES, CATCHBASINS AND CATCHBASIN MANHOLES TO BE BACKFILLED WITH MIN. 0.3m HORIZ. THICKNESS OF GRANULAR "A".
8. ALL STORM SEWERS TO BE INSTALLED AT MINIMUM COVER OF 1.0m. IF COVER IS LESS THAN 1.0m, Frost PROTECTION MUST BE INSTALLED PER OPSS 1109.030.
9. SERVICE CONNECTIONS TO RIGID MAIN STORM SEWER TO BE PER OPSS 1006.010 CONNECTIONS TO FLEXIBLE MAIN STORM SEWER TO BE PER OPSS 1006.020
10. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS AND COORDINATION FOR ALL INSPECTION AND TESTING
11. ALL CATCHBASINS SHALL BE PRECAST 600x600 C/W 600mm SLUMP AS PER OPSS 705.010.
12. ALL CATCHBASINS ALONG ROADWAY TO HAVE OPSS 400.020 FRAME & COVERS. ALL CATCHBASINS IN GRASS AREA AND PARKING LOT TO HAVE OPSS 400.070 FRAME & COVERS.
13. STREET CATCHBASIN LEADS TO BE 200mm# PVC SDR 35 AT A MINIMUM GRADE OF 1.00% (UNLESS OTHERWISE NOTED).
14. THE CONTRACTOR SHALL CONSTRUCT STORM SEWERS IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DRAWINGS S6 AND S7. DURING CONSTRUCTION THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT AS PER OPSS 808.01.
15. CLAY SEAL MUST BE PROVIDED IN THE SERVICE TRENCHES AS PER OPSS 1205 AND OPSS 802.095. SEALS MUST BE LOCATED AT A HORIZONTAL SPACE OF 100M AND MUST BE AT LEAST OF 1.5M LONG AND EXTEND FROM TRENCH WALL TO TRENCH WALL. THE SEAL MUST ALSO EXTEND FROM THE SUBGRADE LEVEL TO THE BOTTOM OF TRENCH.
16. ABANDONED SEWERS TO BE CAPPED AND FILLED WITH UNSHRINKABLE FILL.

NOTES: TUNNEL AND WATERMAIN CROSSINGS

1. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE STRUCTURAL INTEGRITY OF THE EXISTING TUNNELS AND LIVE WATERMANS.
2. THE CONTRACTOR MUST SUBMIT A DETAILED WORK METHOD FOR APPROVAL TO THE NRC DEPARTMENTAL REPRESENTATIVE, INCLUDING, BUT NOT LIMITED TO, SHOP DRAWINGS FOR TEMPORARY WORKS AND MONITORING OF EXISTING INFRASTRUCTURE.
3. THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING, INSTALLING AND MAINTAINING APPROPRIATE EQUIPMENT FOR THE VIBRATION MONITORING OF WATERMAIN AND TUNNELS. GEOPHONE SENSORS MUST BE PLACED DIRECTLY ON THE TOP OF WATERMANS AND TUNNELS AT REGULAR INTERVALS TO PROVIDE REAL TIME WARNING SIGNALS WITH FLASHING LIGHT AND AIR HORN. THE TRIGGER LEVELS FOR MONITORING STATIONS OF THE WATERMANS AND TUNNELS SHALL BE PROGRAMMED AS FOLLOW:
 - 1ST TRIGGER LEVEL SET AT 5mm/s TO TRIGGER A FLASHING LIGHT;
 - 2ND TRIGGER LEVEL SET AT 15mm/s TO TRIGGER A FLASHING LIGHT AND AIR HORN.

EARTH EXCAVATION, REMOVALS, WORK AROUND EXISTING UTILITIES

1. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND UNDERGROUND UTILITIES, AND WHEN CONSTRUCTION OPERATIONS ARE LIABLE TO DAMAGE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO ALTER HIS METHOD OF CONSTRUCTION AS DIRECTED BY THE NRC DEPARTMENTAL REPRESENTATIVE OR UTILITY COMPANY IN ORDER TO AVOID ANY DAMAGE.
2. THE CONTRACTOR IS REQUIRED TO PROTECT THE EXISTING UTILITIES DURING THE CONSTRUCTION. NO ADDITIONAL PAYMENT WILL BE DONE FOR THE INSTALLATION OF THE SEWERS AND WATERMANS BELOW, CROSSING OR ALONG THE EXISTING UTILITIES SHOWN ON THE CONSTRUCTION DRAWINGS.

NOTES: VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL MEASURES

1. CONTRACTOR TO OBTAIN APPROVAL FOR HIS/HER TRAFFIC CONTROL PLAN (TCP) PRIOR TO COMMENCEMENT OF THE CONSTRUCTION.
2. CONTRACTOR TO SUPPLY, INSTALL AND MAINTAIN ALL CONSTRUCTION AND TEMPORARY TRAFFIC SIGNS
3. DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY BILINGUAL TRAFFIC SIGNAGE, INCLUDING TRAFFIC SIGNS, TRAFFIC MARKINGS AND TEMPORARY TRAFFIC LIGHTS, AND FLAGMEN, AS REQUIRED BY THE NRC.

STEEL INTERLOCKING PEDESTRIAN BARRIERS

1. SHALL BE APPROXIMATELY 1.8 METERS IN HEIGHT AND MANUFACTURED OF GALVANIZED STEEL.
2. CONTRACTOR TO PROVIDE 100 LINEAR METERS OF FENCE INCLUSIVE OF ACTIONS TO SUPPLY, PLACE, MAINTAIN, FINAL REMOVAL AND THE RELOCATION OF STEEL INTERLOCKING PEDESTRIAN BARRIERS DURING THE PROJECT PERIOD.

ASPHALT SIDEWALK, MEDIANS, BOULEVARDS AND ISLANDS

1. 100mm GRANULAR 'A' AS BEDDING MATERIAL FOR ASPHALT SIDEWALKS, MEDIANS AND ISLANDS TO BE PLACED UNLESS SPECIFIED OTHERWISE IN THE CONTRACT.

EQUIPMENT RENTAL

1. OPSS 127

NOTES: PRE-CONSTRUCTION INSPECTION

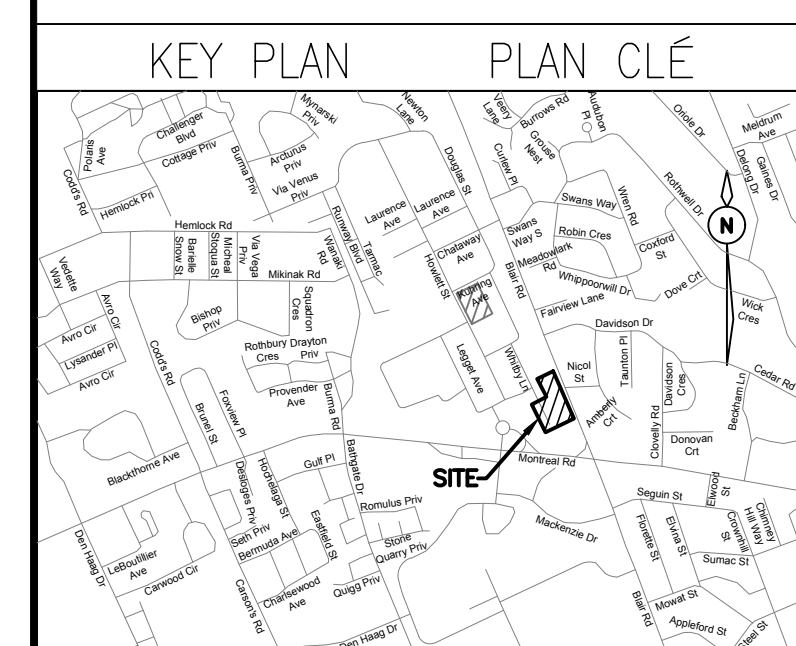
1. THE CONTRACTOR ACKNOWLEDGES THAT THERE ARE EXISTING BUILDINGS AND STRUCTURES IN THE VICINITY OF THE WORK AREA, WHICH MAY BE AFFECTED BY THE CONSTRUCTION WORKS AND THAT THE CONTRACTOR IS TO COMPLETE THE PRE-CONSTRUCTION INSPECTION OF BUILDINGS AND STRUCTURES, FOR BOTH INTERIOR AND EXTERIOR CONDITIONS.
2. THE CONTRACTOR IS TO SUPPLY THE SERVICES OF A REPUTABLE 3RD PARTY FIRM EXPERIENCED IN PRE-CONSTRUCTION INSPECTIONS.
3. AS A MINIMUM, THE PRE-CONSTRUCTION INSPECTION SHALL BE DONE ON ALL STRUCTURES WITHIN 30m OF THE WORK ZONE.
4. FOR EACH PROPERTY INSPECTED, A SEPARATE BUILDING/STRUCTURE PRE-CONSTRUCTION REPORT SHALL BE PREPARED, DATED AND SIGNED BY THE FIRM UNDERTAKING THE INSPECTION. THESE REPORTS ARE CONFIDENTIAL AND SHALL NOT BE SHARED WITH THE CONTRACTOR.
5. THE PRE-CONSTRUCTION INSPECTION SHALL INDICATE IF SIGNS OF A BUILDING OR STRUCTURE SETTLEMENT ARE PRESENT, INCLUDE PHOTOGRAPHS OF ALL SIDES OF THE BUILDING EXTERIOR, A REPRESENTATIVE SAMPLING (DESCRIPTION AND PHOTOGRAPHS) OF VISIBLE CRACKS OR SETTLEMENT FROM BOTH THE INTERIOR AND EXTERIOR OF THE BUILDING, AND A REPRESENTATIVE SAMPLING (DESCRIPTION AND PHOTOGRAPHS) OF STAINING OR REPAIRS VISIBLE AT THE TIME OF INSPECTION
6. THE PRE-CONSTRUCTION INSPECTION SHALL IDENTIFY ANY CONCERNS REGARDING SENSITIVE EQUIPMENT CONTAINED WITHIN THE BUILDINGS WHICH SHOULD BE TAKEN INTO ACCOUNT DURING POTENTIAL ROCK REMOVAL AND/OR EXCAVATION OPERATIONS.
7. THE PROJECT PRE-CONSTRUCTION INSPECTION REPORT SHALL INCLUDE:
 - a. OVERVIEW OF THE INSPECTION PROCESS AND THE EQUIPMENT USED;
 - b. PIPEDA COMPLIANCE CONFIRMATION
 - c. LISTING OF PROPERTIES FOR WHICH INSPECTIONS WERE PERFORMED INCLUDING THE DATES OF THE INSPECTIONS
 - d. LISTING OF PROPERTIES FOR WHICH INSPECTIONS WERE NOT PERFORMED AND THE REASON.



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

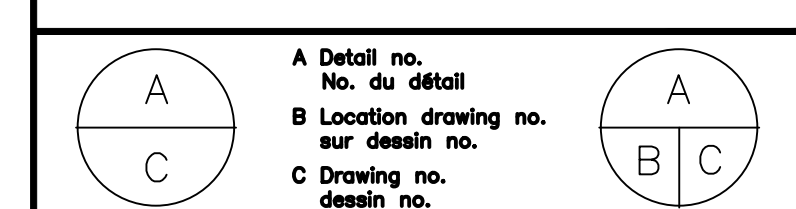
Anley GROUP
2724 Fenton Road
Ottawa, Ontario
K1T 3T7
Telephone: (613) 822-1052
Fax: (613) 822-1573



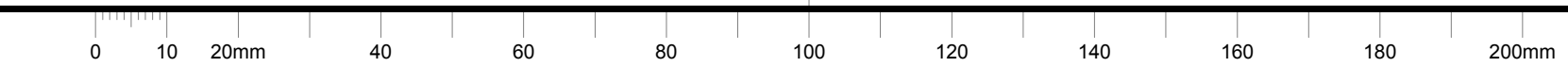
No.	Date	Revision	By:
3	20-08-2019	ISSUED FOR TENDER	KW
2	19-07-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW
1	24-06-2019	ISSUED FOR 60% DESIGN REVIEW	KW

Date Printed		Date imprimé	

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

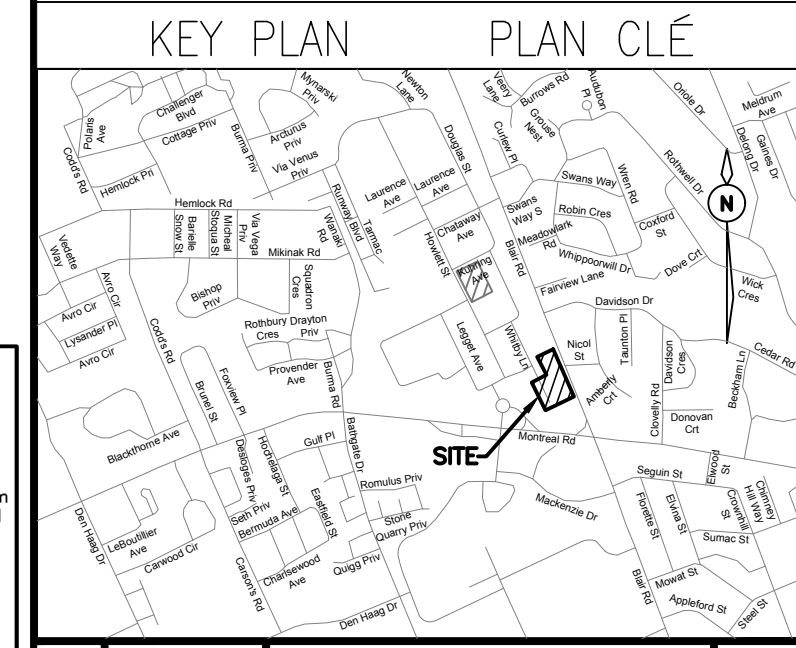


project / projet			
M-12 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION NATIONAL RESEARCH COUNCIL CANADA			
MONTREAL ROAD CAMPUS			
drawing / dessin			
LEGEND, NOTES AND DETAILS			
designed / conçu	JX/MH	date / date	APRIL 2019
drawn / dessiné	MH	scale / échelle	1:250
checked / vérifié	KW/JX	sheet / feuille	1 of/de 8
approved / approuvé	KW	W.O.no.	-
dwg.no.	5734-C101	D.T.no.	-
		dessin no.	



- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573



No.	Date	Revision	By:
3	20-08-2019	ISSUED FOR TENDER	KW
2	26-07-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW
1	24-06-2019	ISSUED FOR 66% DESIGN REVIEW	KW

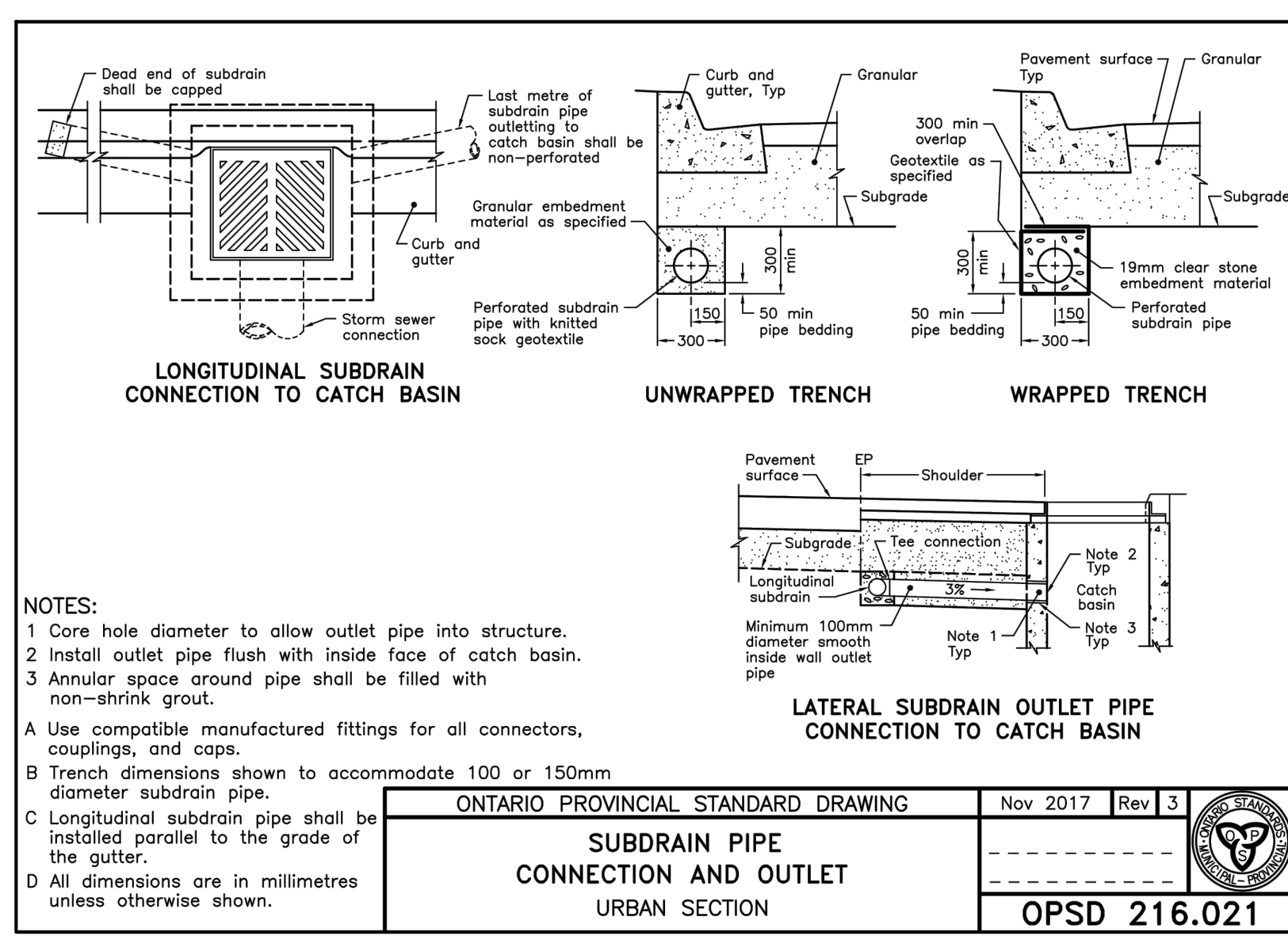
Date Printed: _____ Date Imprime: _____

o Verify all dimensions and site conditions and be responsible for same	
o Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité	
A C	A B C

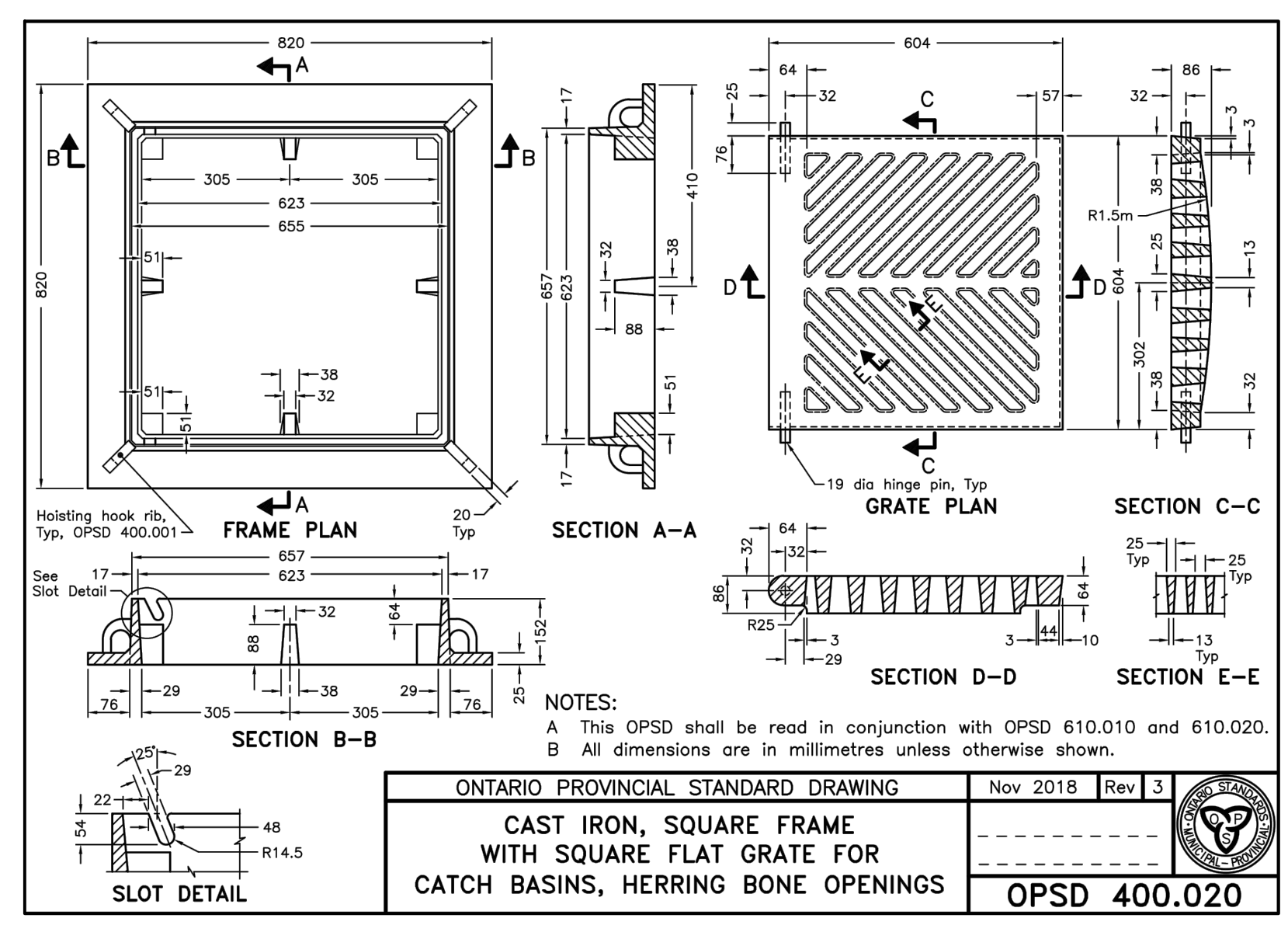
project / projet
 M-12 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS

drawing / dessin
 DETAILS

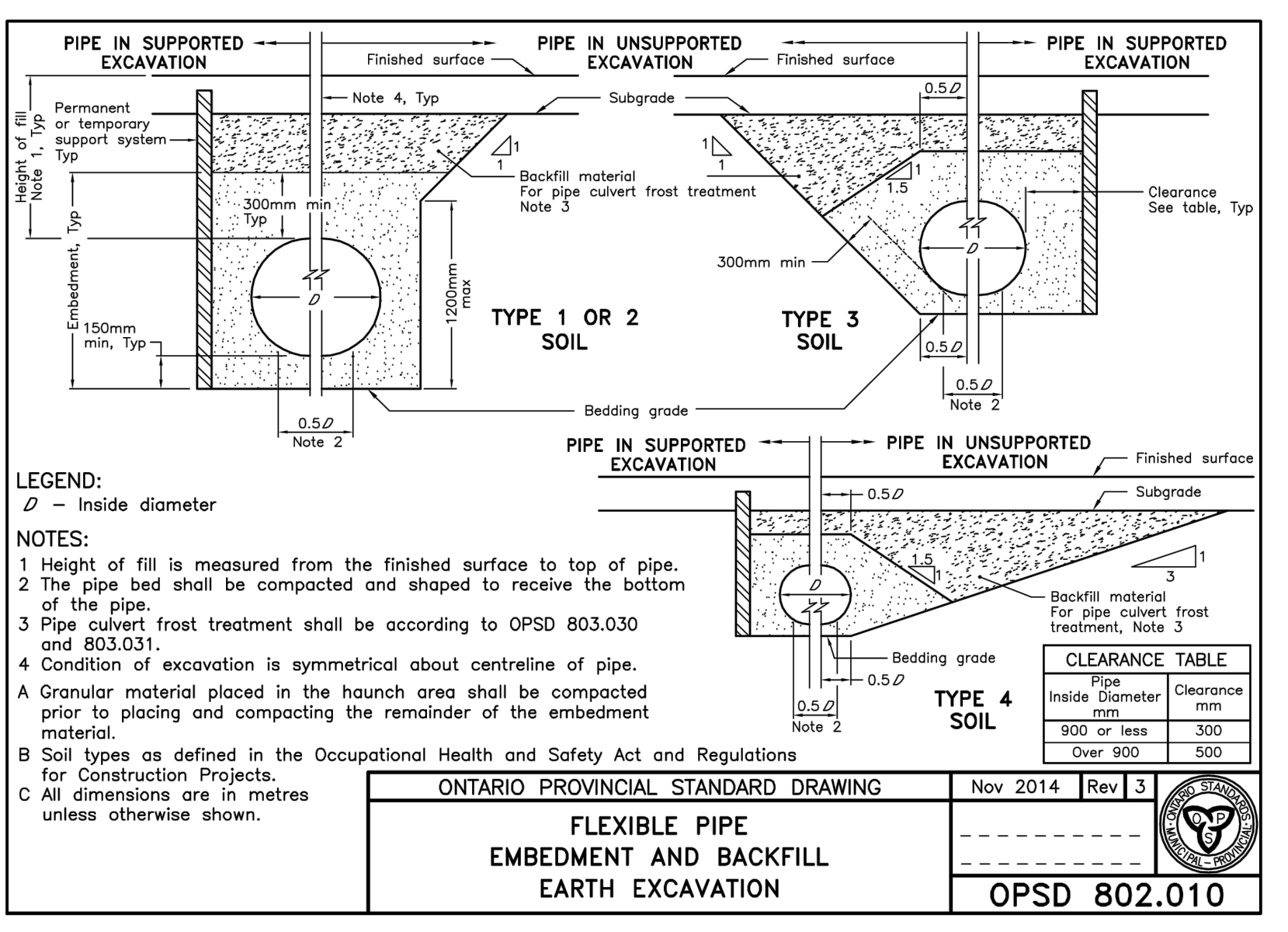
designed / conçu	date	scale / échelle
JX/MH	APRIL 2019	1:250
drawn / dessiné	sheet / feuille	of / de
MH	2	8
checked / vérifié	W.O.no. / D.T.no.	
KW/JX	-	
approved / approuvé	dwg.no. / dessin no.	
KW	5734-C102	



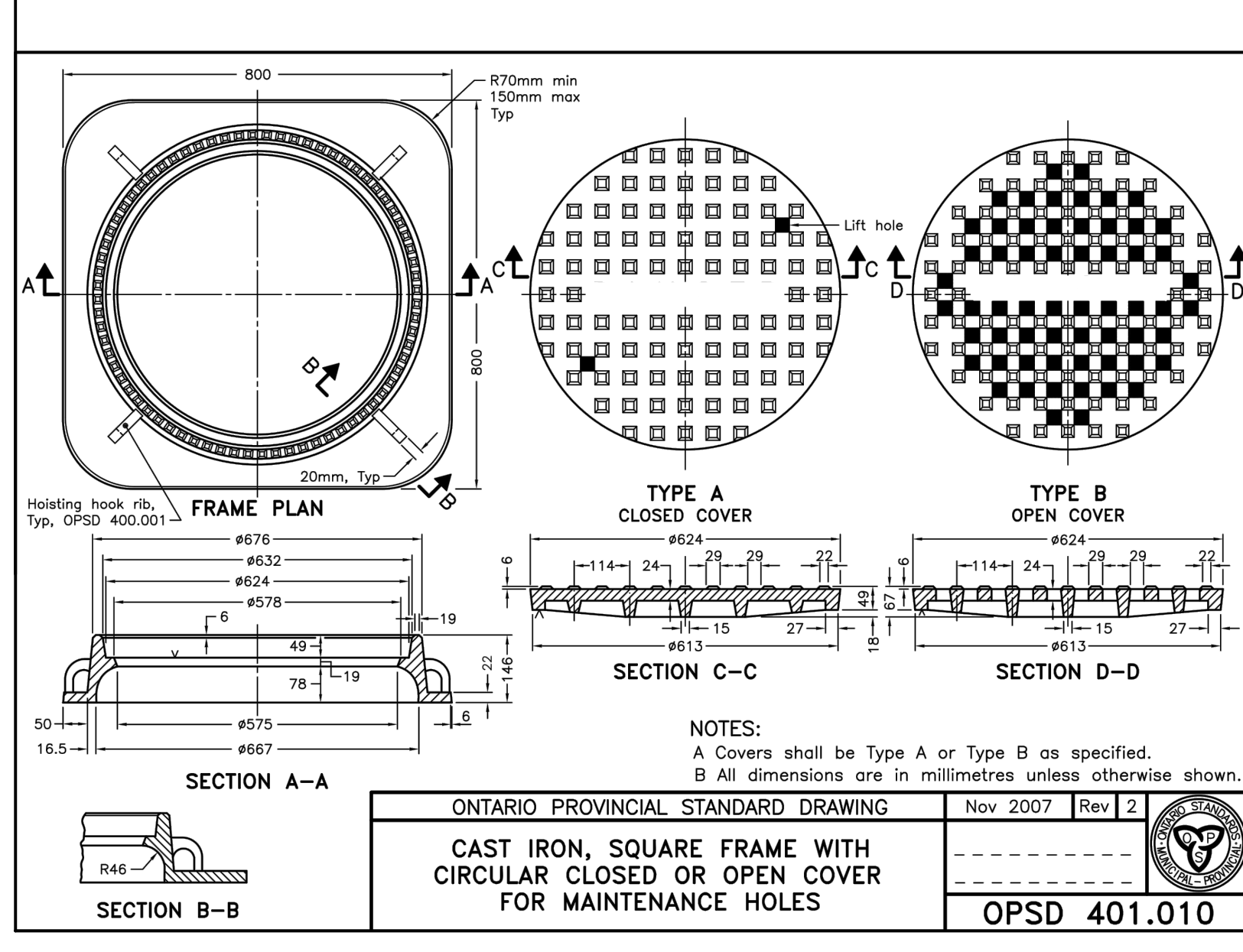
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2017	Rev 3
SUBDRAIN PIPE CONNECTION AND OUTLET URBAN SECTION		
		OPSD 216.021



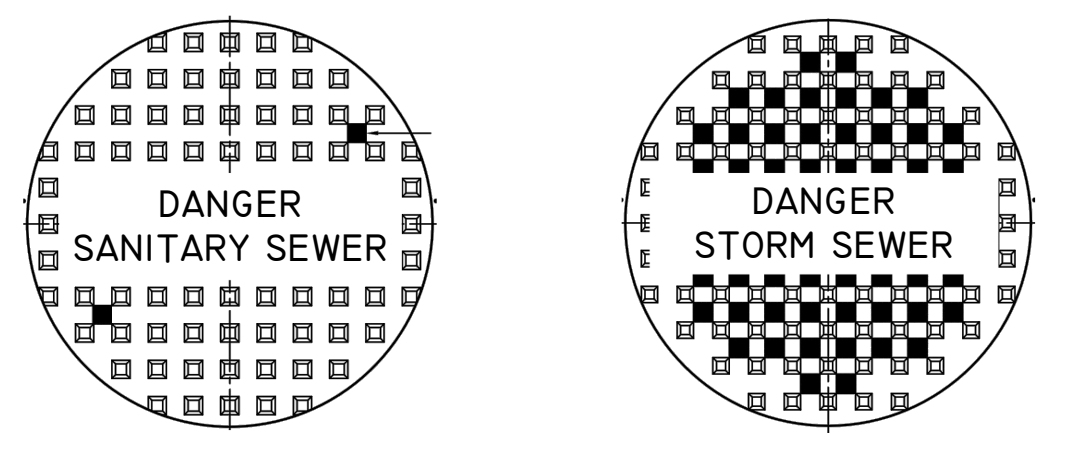
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 3
CAST IRON, SQUARE FRAME WITH SQUARE FLAT GRATE FOR CATCH BASINS, HERRING BONE OPENINGS		
		OPSD 400.020



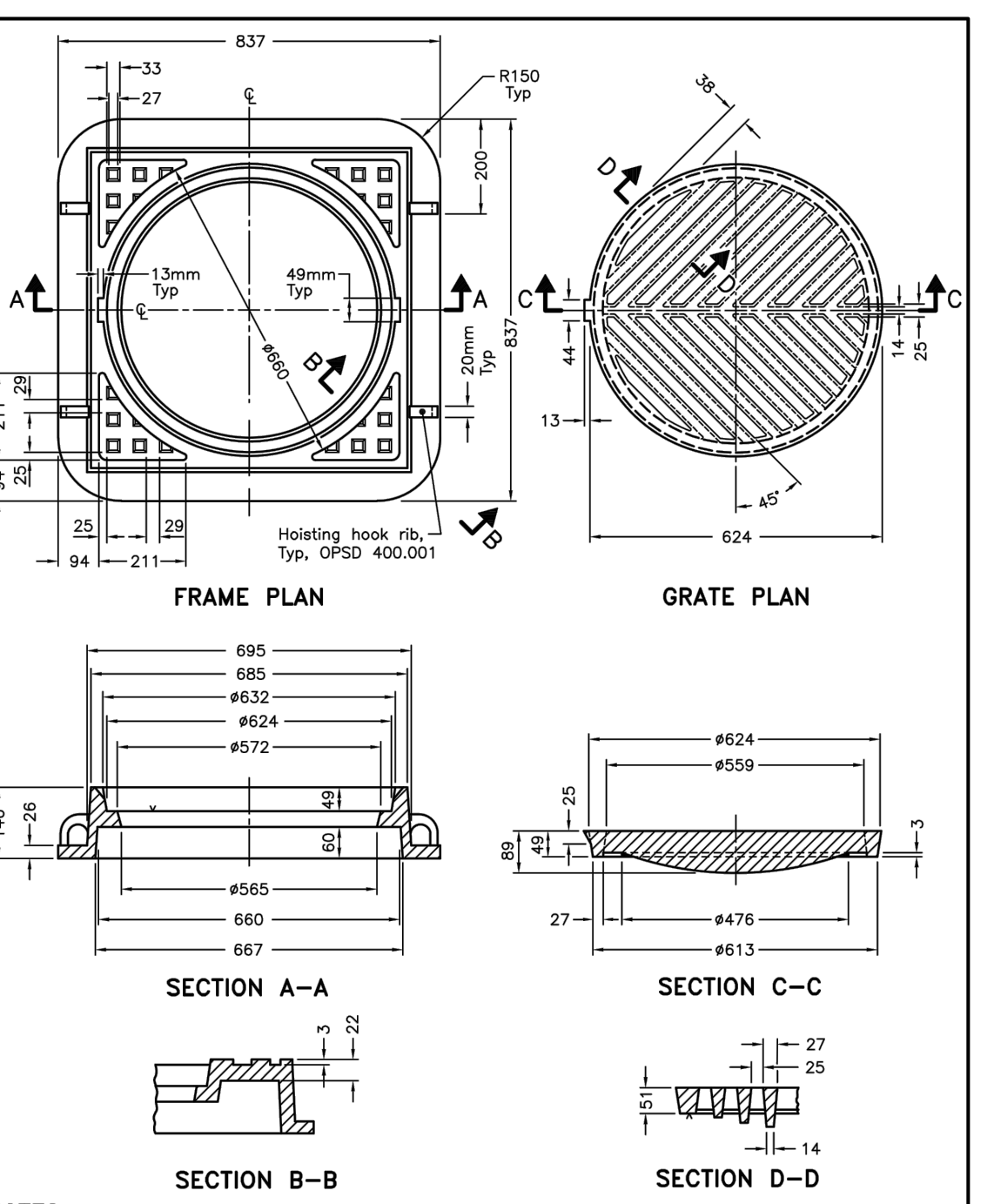
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 3
FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION		
		OPSD 802.010



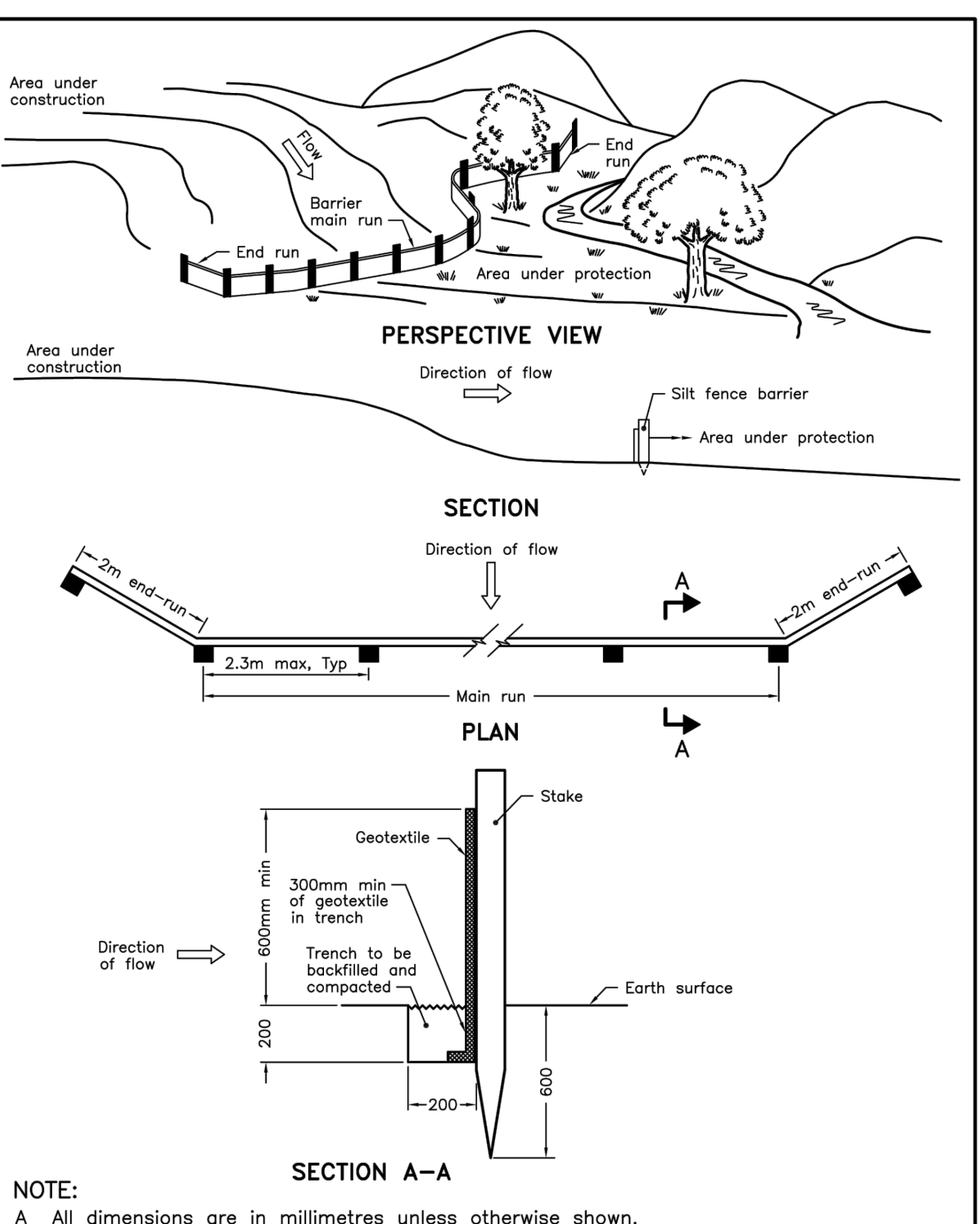
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2007	Rev 2
CAST IRON, SQUARE FRAME WITH CIRCULAR CLOSED OR OPEN COVER FOR MAINTENANCE HOLES		
		OPSD 401.010



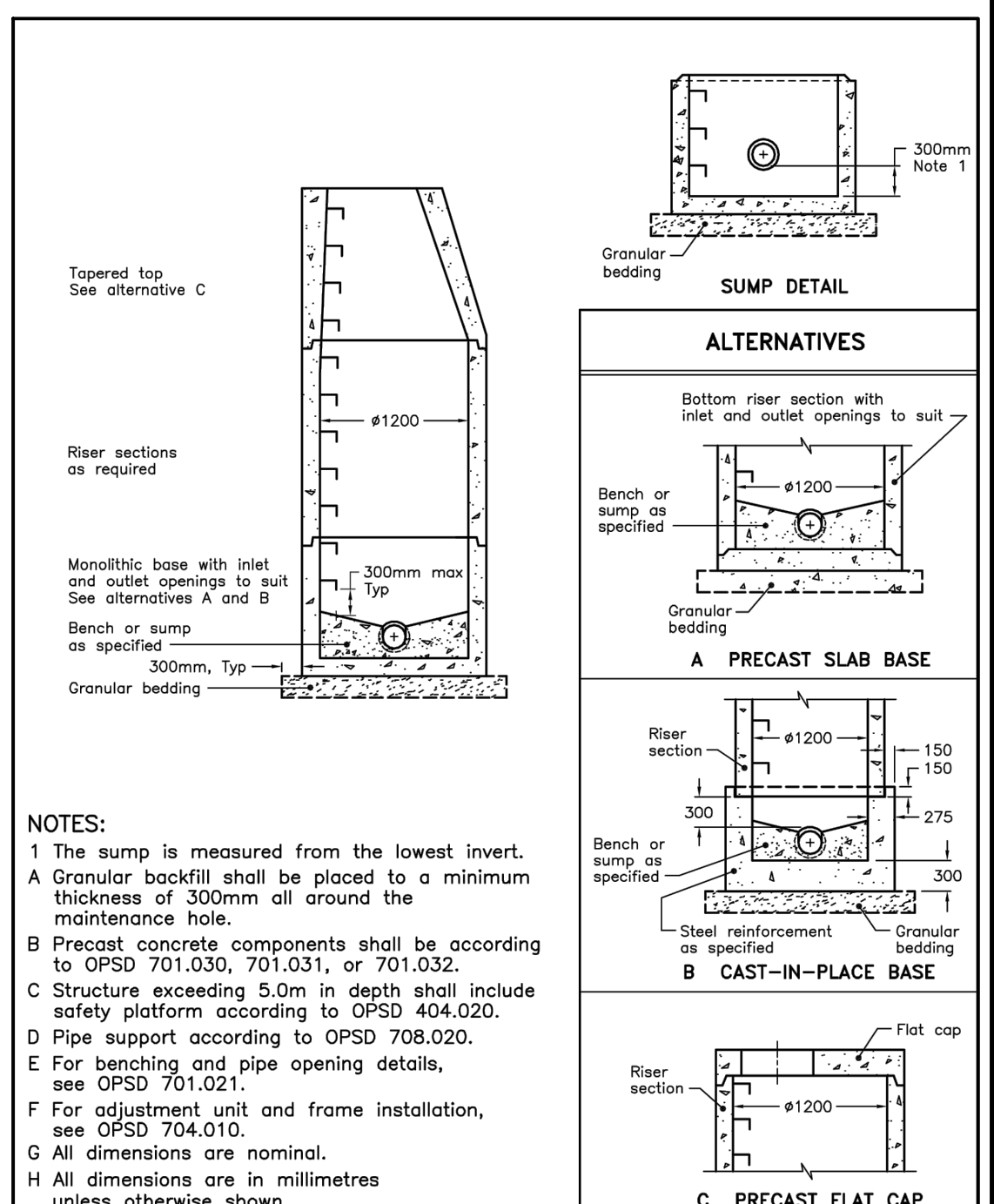
SPECIFIC MAINTENANCE HOLE COVER LABEL TO BE APPLIED



ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 5
CAST IRON, RAISED SQUARE FRAME WITH CIRCULAR FLAT GRATE FOR CATCH BASINS, HERRING BONE OPENINGS		
		OPSD 400.070



ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2006	Rev 1
LIGHT-DUTY SILT FENCE BARRIER		
		OPSD 219.110



ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 5
PRECAST CONCRETE MAINTENANCE HOLE 1200mm DIAMETER		
		OPSD 701.010

ALTERNATE STANDARD HEIGHTS	ALTERNATIVE	DIMENSION
A	1560	
B	1530	
C	1520	
D	1380	

NOTES:

- Outlet hole size 525mm diameter maximum, location as required.
- 200mm diameter knockout to accommodate subdrain. Knockout shall be 60mm deep.
- Centre reinforcing in base slab and walls 2.5mm.
- Granular backfill shall be placed to a minimum thickness of 300mm all around the catch basin.
- Frame, grate, and adjustment units shall be installed according to OPSD 704.010.
- Pipe support shall be according to OPSD 708.020.
- All dimensions are nominal.
- All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2014 Rev 3
PRECAST CONCRETE CATCH BASIN
 600x600mm
 OPSD 705.010

NOTES:

- Key into undisturbed trench soil.
- A Clay seal shall extend from bottom of trench excavation to the subgrade.
- B Clay seal shall be located so that no pipe joints are within the clay seal material.
- C All dimensions are in metres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2016 Rev 2
CLAY SEAL FOR PIPE TRENCHES
 OPSD 802.095

NOTES:

- The insulation material shall be extruded polystyrene according to OPSD 1605 with a minimum compressive strength of 275 kPa.
- Pipe embedding or bedding, cover, and backfill shall be according to:
 - Flexible OPSD 802.010, 802.013, 802.020, and 802.023.
 - Rigid - OPSD 802.030, 802.031, 802.032, 802.033, 802.050, 802.051, 802.052, and 802.053.
- Minimum insulation thickness shall be 50mm.
- Joints shall be staggered for multiple insulation sheets.
- All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 0
INSULATION FOR SEWERS AND WATERMAINS IN SHALLOW TRENCHES
 OPSD 1109.030

NOTES:

- For catch basin connections 300mm in diameter or less, factory made tees shall be used.
- For catch basin connections greater than 300mm in diameter, maintenance holes shall be used at the main sewer.
- All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2016 Rev 3
CATCH BASIN CONNECTION FOR FLEXIBLE MAIN PIPE SEWER
 OPSD 708.030

NOTES:

- FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-3100
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE
- INITIAL BACKFILL MATERIAL - CONCRETE PIPE - GRANULAR A OR GRANULAR B MATERIAL WITH 100% PASSING THE 37.5mm SIEVE PVC PIPE - GRANULAR A
- WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR B

PIPE INSIDE DIAMETER (mm)	CLEARANCE (mm)
900 OR LESS	CONC 450 PVC 450
OVER 900	500

ONTARIO PROVINCIAL STANDARD DRAWING May 2001 Rev 1
SINGLE TRENCH (SEWER & SEWER SERVICES)
 OPSD 705.010

NOTES:

- THE FULL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSED ACCESS CROSSING.
- A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK.
- IF AN EXTRUSION CURBING MACHINE IS USED, THE EXPANSION BIT/JENNIS MATERIAL AND THE #16 DOWELS ARE TO BE PLACED AT THE END OF THE EXTRUSION.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
- DUMMY JOINTS SHALL BE 25mm DEEP. FRONT, BACK AND TOP OF SECTION. AT 4m SPACING OR MATCH JOINTING WHERE SIDEWALK IS ADJACENT.
- FOR DEPRESSED CURB AT ENTRANCES USE 250.
- DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 25mm.

ONTARIO PROVINCIAL STANDARD DRAWING JANUARY 2003 Rev 1
CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT (MODIFIED OPSD-600.110)
 OPSD 705.010

NOTE:

- ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
- CROSS SLOPE SIDEWALK 1 TO 2% IN DIRECTION OF NATURAL DRAINAGE TO PROVIDE POSITIVE DRAINAGE OFF ALL WALKS
- APPROVED NON-WOVEN CLASS 1 GEOTEXTILE AS PER MS-22.15 WHEN WARRANTED BY SOIL CONDITION. SUBJECT TO APPROVAL BY THE CONTRACT ADMINISTRATOR
- GRANULAR 'A' SHALL MEET THE REQUIREMENTS OF OPSD 1010

ONTARIO PROVINCIAL STANDARD DRAWING FEB 2013 Rev 1
ASPHALT WALKWAY
 OPSD 705.010

NOTES:

- ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
- CONCRETE SHALL BE 32MPa CLASS C-2 MEETING THE REQUIREMENTS OF S.P. F-3510 AND PLACED IN ACCORDANCE WITH S.P. F-3040
- GRANULAR 'A' SHALL MEET THE REQUIREMENTS OF OPSD 1010
- APPROVED NON-WOVEN CLASS 1 GEOTEXTILE AS PER MS-22.15 WHEN WARRANTED BY SOIL CONDITION. SUBJECT TO APPROVAL BY THE CONTRACT ADMINISTRATOR

ONTARIO PROVINCIAL STANDARD DRAWING FEB 2013 Rev 1
LIGHT DUTY WALKWAY CONCRETE PAVING
 OPSD 705.010

ASP M A1 (841x594)

ONTARIO PROVINCIAL STANDARD DRAWING

ONTARIO PROVINCIAL STANDARD DRAWING

ONTARIO PROVINCIAL STANDARD DRAWING

National Research Council Canada / Conseil national de recherches Canada
 Administrative Services and Property Management Branch / Division des services administratifs et gestion de l'immobilier

NRC-CMRC

GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573

KEY PLAN / PLAN CLÉ

No.	Date	Revision	By:	Par:
3	20-08-2019	ISSUED FOR TENDER	KW	
2	26-07-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW	
1	24-06-2019	ISSUED FOR 66% DESIGN REVIEW	KW	

Date Printed: _____ Date Imprime: _____

Verify all dimensions and site conditions and be responsible for same / Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

A Detail no. / No. du détail
 B Location drawing no. / sur dessin no.
 C Drawing no. / dessin no.

project / projet
M-12 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA

designing / dessiné
JX/MH

conqu / conçu
APRIL 2019

date / date

drawn / dessiné
MH

scale / échelle
1:250

checked / vérifié
KW/JX

sheet / feuille
3 of / de 8

approved / approuvé
KW

W.O.no. / D.T.no.
-

dwg.no. / dessin no.
5734-C103

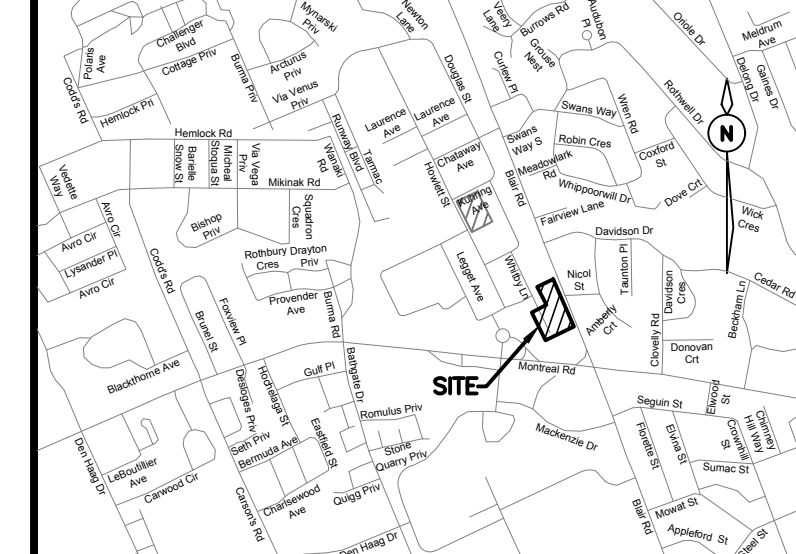


GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573

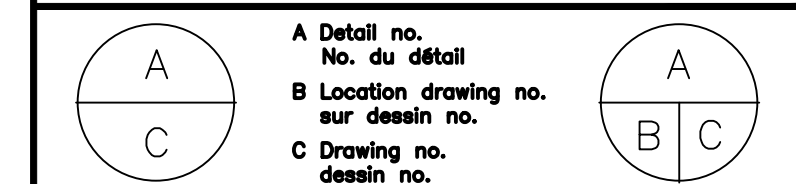
KEY PLAN / PLAN CLÉ



No.	Date	Revision	By:
3	20-08-2019	ISSUED FOR TENDER	KW
2	26-07-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW
1	24-06-2019	ISSUED FOR 66% DESIGN REVIEW	KW

Date Printed	Date imprimée
--------------	---------------

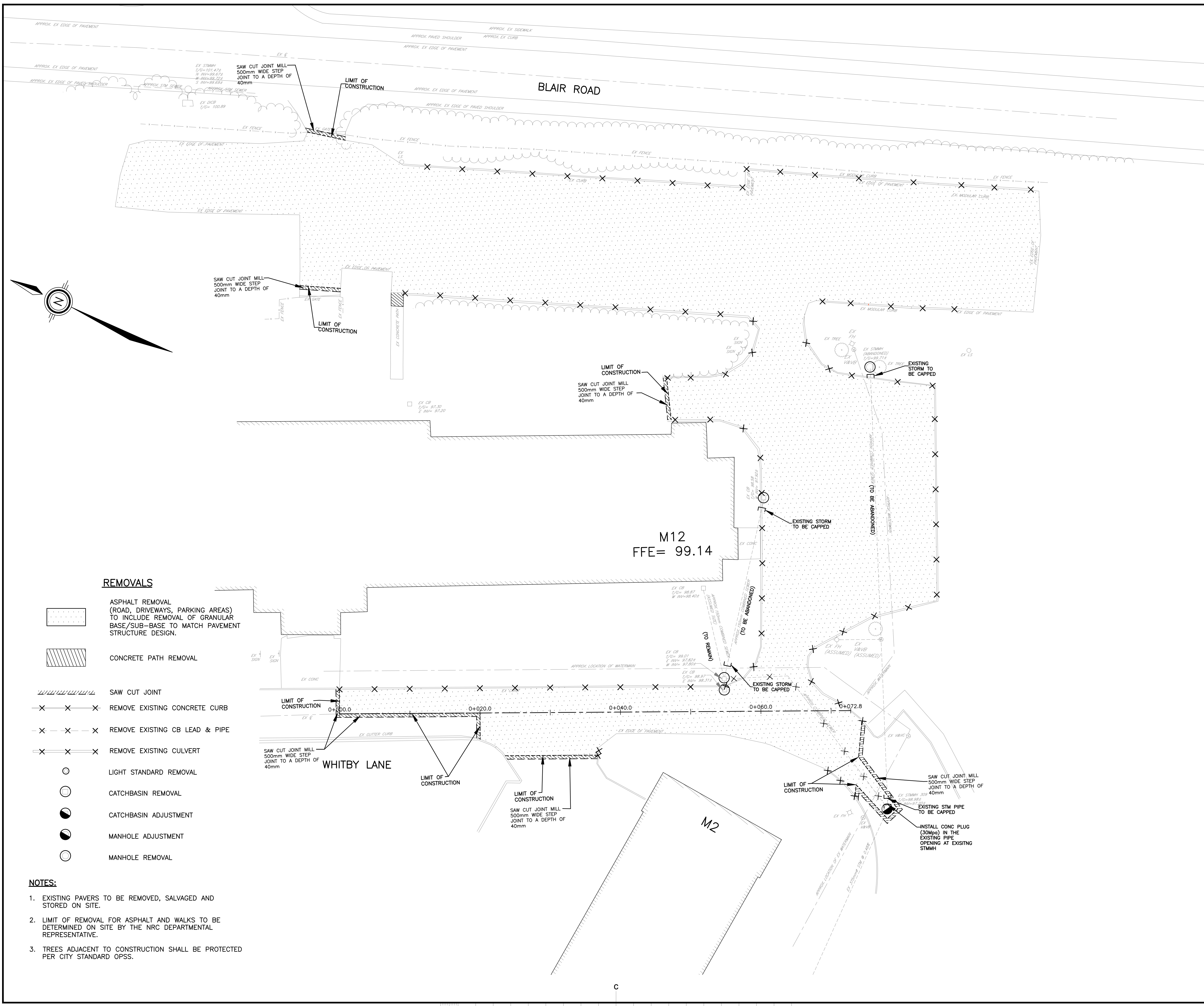
- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



project / projet
 M-12 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS
 drawing / dessin
 REMOVALS

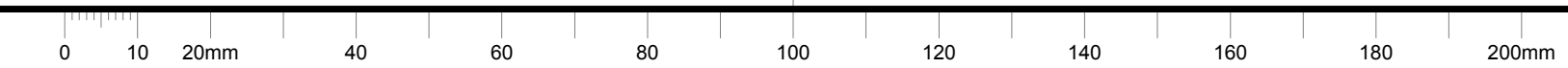
designed / conçu	JX/MH	date	APRIL 2019
drawn / dessiné	MH	scale / échelle	1:250
checked / vérifié	KW/JX	sheet / feuille	4 of / de 8
approved / approuvé	KW	W.O.no.	-
D.T.no.			

dwg.no. / dessin no.
 5734-C104



- REMOVALS**
- ASPHALT REMOVAL (ROAD, DRIVEWAYS, PARKING AREAS) TO INCLUDE REMOVAL OF GRANULAR BASE/SUB-BASE TO MATCH PAVEMENT STRUCTURE DESIGN.
 - CONCRETE PATH REMOVAL
 - SAW CUT JOINT
 - REMOVE EXISTING CONCRETE CURB
 - REMOVE EXISTING CB LEAD & PIPE
 - REMOVE EXISTING CULVERT
 - LIGHT STANDARD REMOVAL
 - CATCHBASIN REMOVAL
 - CATCHBASIN ADJUSTMENT
 - MANHOLE ADJUSTMENT
 - MANHOLE REMOVAL

- NOTES:**
- EXISTING PAVERS TO BE REMOVED, SALVAGED AND STORED ON SITE.
 - LIMIT OF REMOVAL FOR ASPHALT AND WALKS TO BE DETERMINED ON SITE BY THE NRC DEPARTMENTAL REPRESENTATIVE.
 - TREES ADJACENT TO CONSTRUCTION SHALL BE PROTECTED PER CITY STANDARD OPSS.

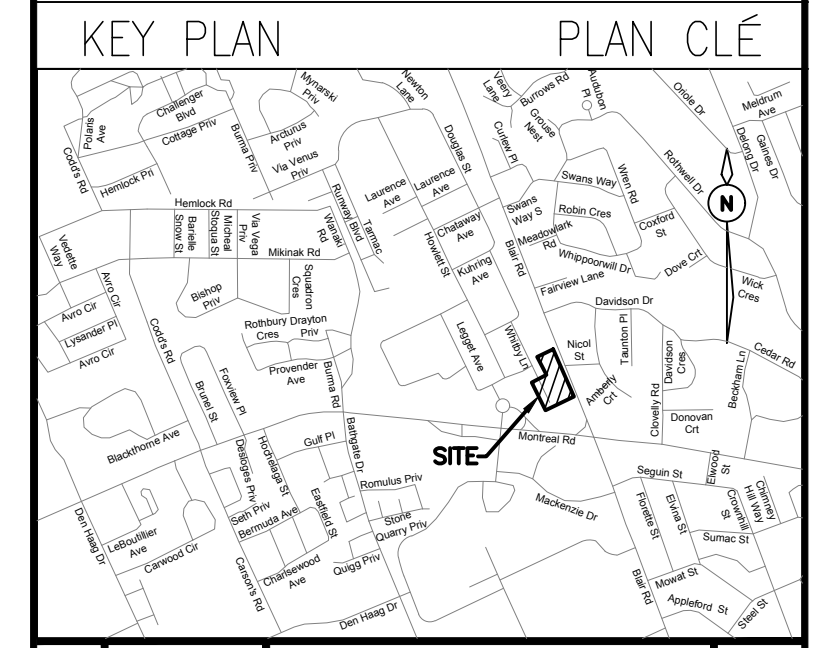




GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573



No.	Date	Revision	By:
3	20-08-2019	ISSUED FOR TENDER	KW
2	26-07-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW
1	24-06-2019	ISSUED FOR 66% DESIGN REVIEW	KW

Date Printed: _____ Date imprimée: _____

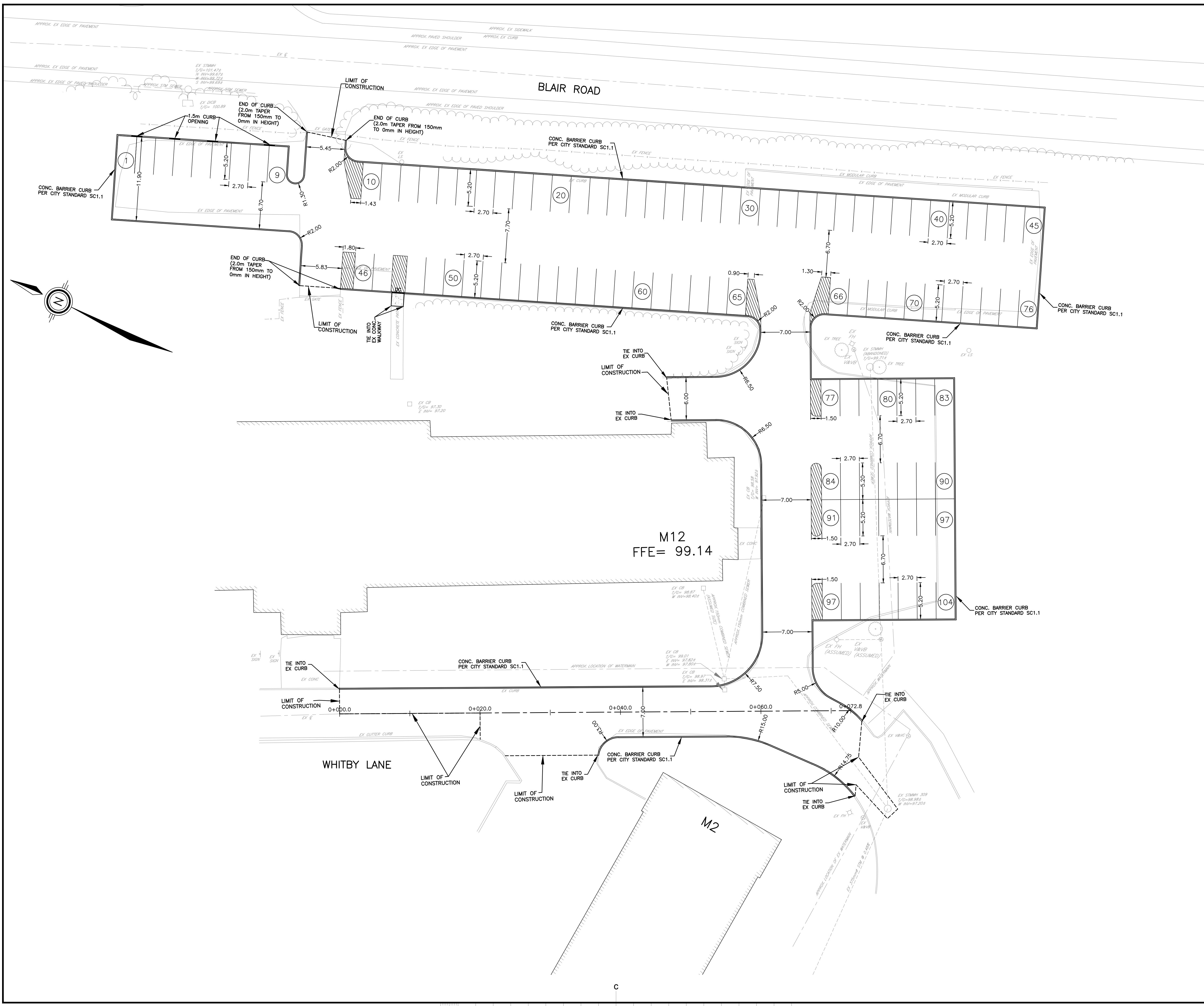
- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

A	A Detail no. No. de détail	A
B	B Location drawing no. sur dessin no.	B
C	C Drawing no. dessin no.	C

project: M-12 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS
 drawing: GEOMETRY LAYOUT

designed	conçu	date	date
JX/MH		APRIL 2019	
drawn	dessiné	scale	échelle
MH		1:250	
checked	vérifié	sheet	feuille
KW/JX		5 of/ de 8	
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

5734-C105

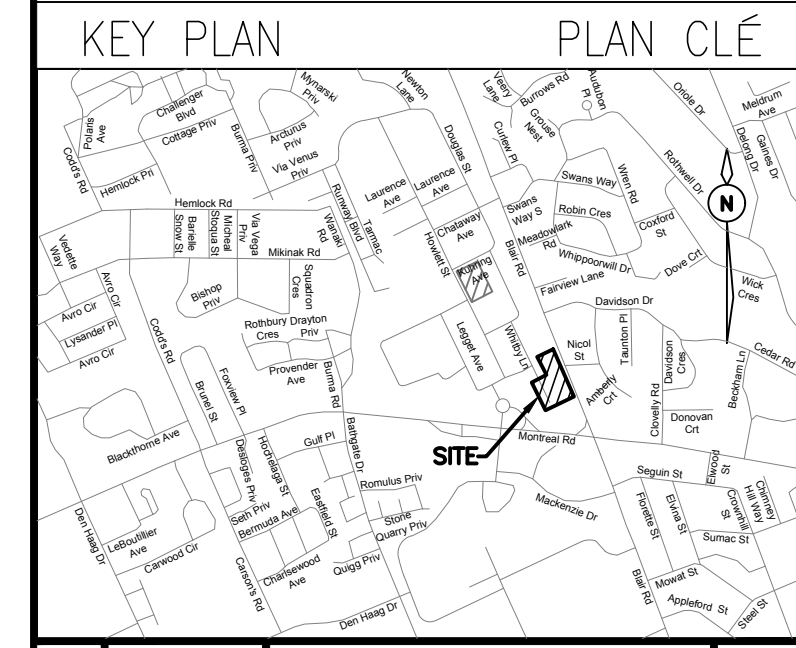




GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

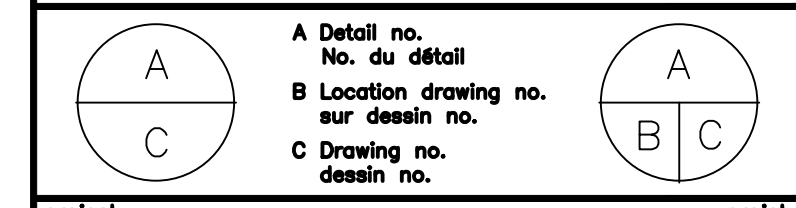
Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573



No.	Date	Revision	By:
3	20-08-2019	ISSUED FOR TENDER	KW
2	26-07-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW
1	24-06-2019	ISSUED FOR 66% DESIGN REVIEW	KW

Date Printed: _____ Date imprimée: _____

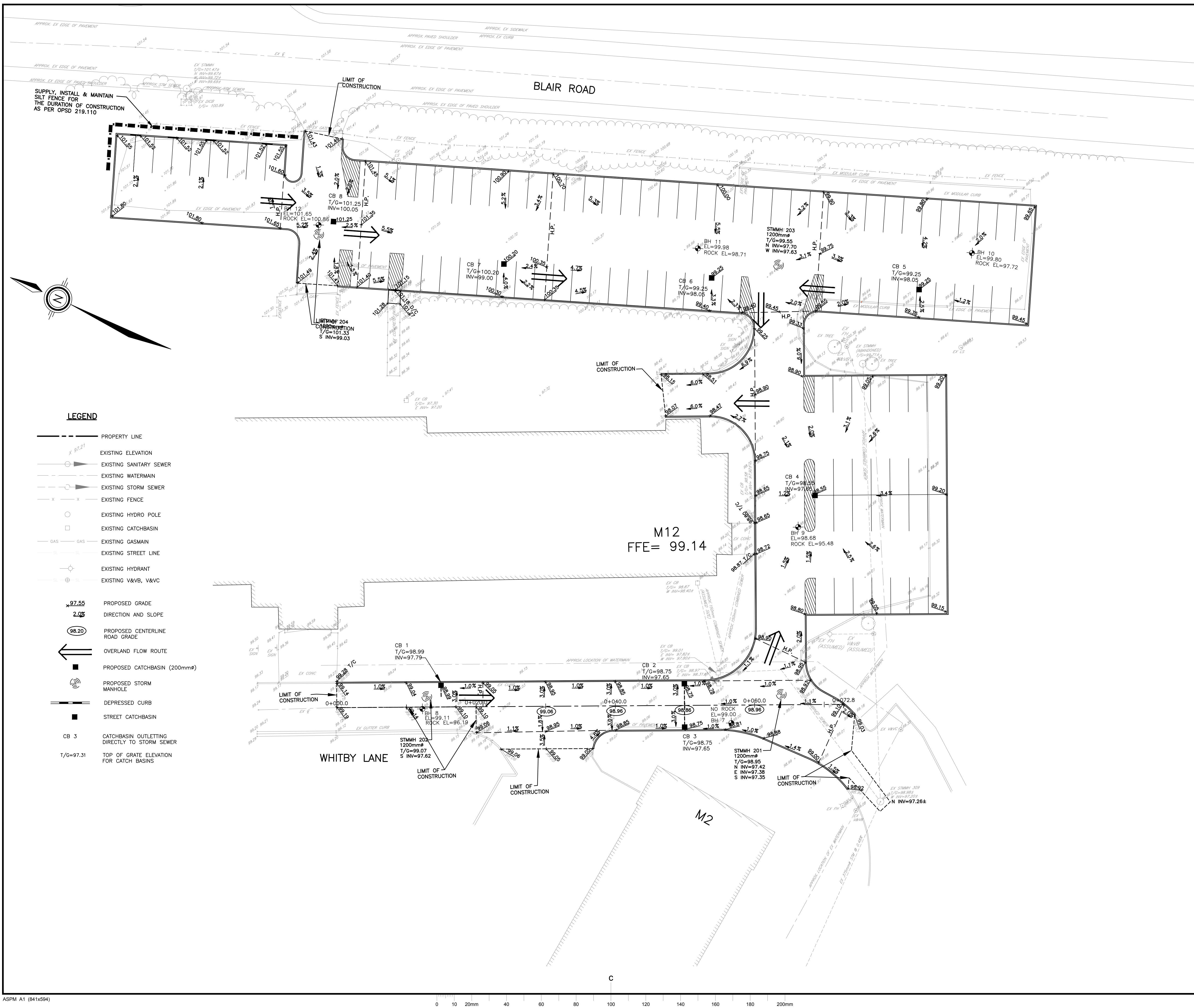
- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



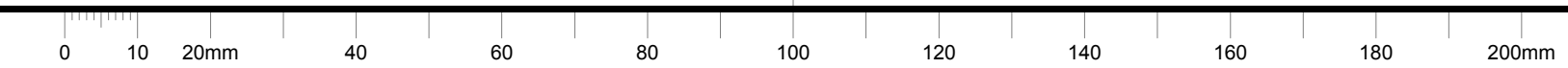
project: M-12 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS
 drawing: GRADING PLAN

designed	conçu	date	date
JX/MH		APRIL 2019	
drawn	dessiné	scale	échelle
MH		1:250	
checked	vérifié	sheet	feuille
KW/JX		6 of/ de 8	
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

5734-C106



- LEGEND**
- PROPERTY LINE
 - EXISTING ELEVATION
 - EXISTING SANITARY SEWER
 - EXISTING WATERMAIN
 - EXISTING STORM SEWER
 - EXISTING FENCE
 - EXISTING HYDRO POLE
 - EXISTING CATCHBASIN
 - EXISTING GASMAIN
 - EXISTING STREET LINE
 - EXISTING HYDRANT
 - EXISTING V&VB, V&VC
 - PROPOSED GRADE
 - DIRECTION AND SLOPE
 - PROPOSED CENTERLINE ROAD GRADE
 - OVERLAND FLOW ROUTE
 - PROPOSED CATCHBASIN (200mm#)
 - PROPOSED STORM MANHOLE
 - DEPRESSED CURB
 - STREET CATCHBASIN
 - CATCHBASIN OUTLETTING DIRECTLY TO STORM SEWER
 - TOP OF GRATE ELEVATION FOR CATCH BASINS



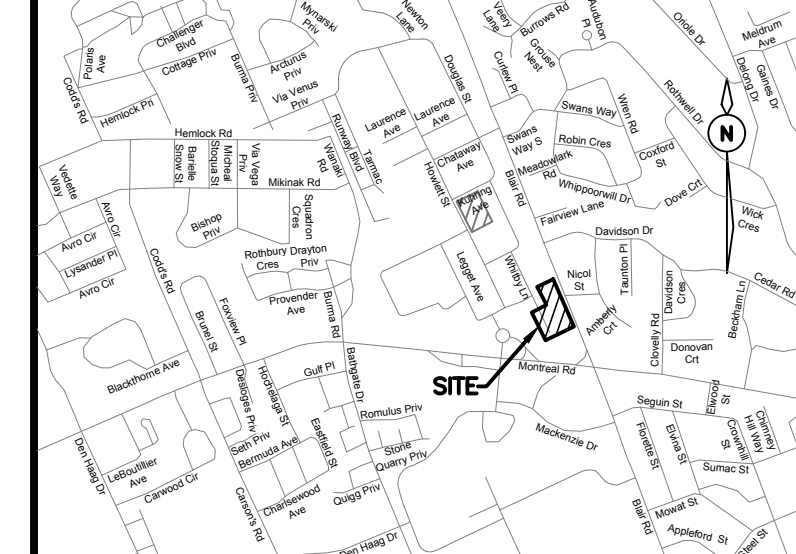


GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573

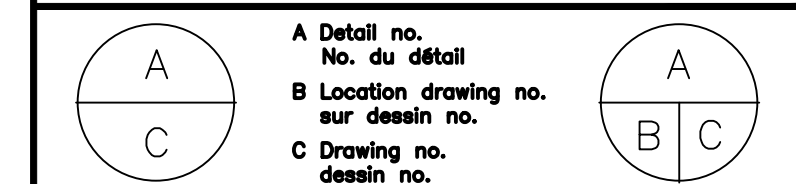
KEY PLAN / PLAN CLÉ



No.	Date	Revision	By:
3	20-08-2019	ISSUED FOR TENDER	KW
2	26-07-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW
1	24-06-2019	ISSUED FOR 66% DESIGN REVIEW	KW

Date Printed: _____ Date imprimée: _____

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



project: M-12 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION NATIONAL RESEARCH COUNCIL CANADA

designed: JX/MH conçu: JX/MH date: APRIL 2019

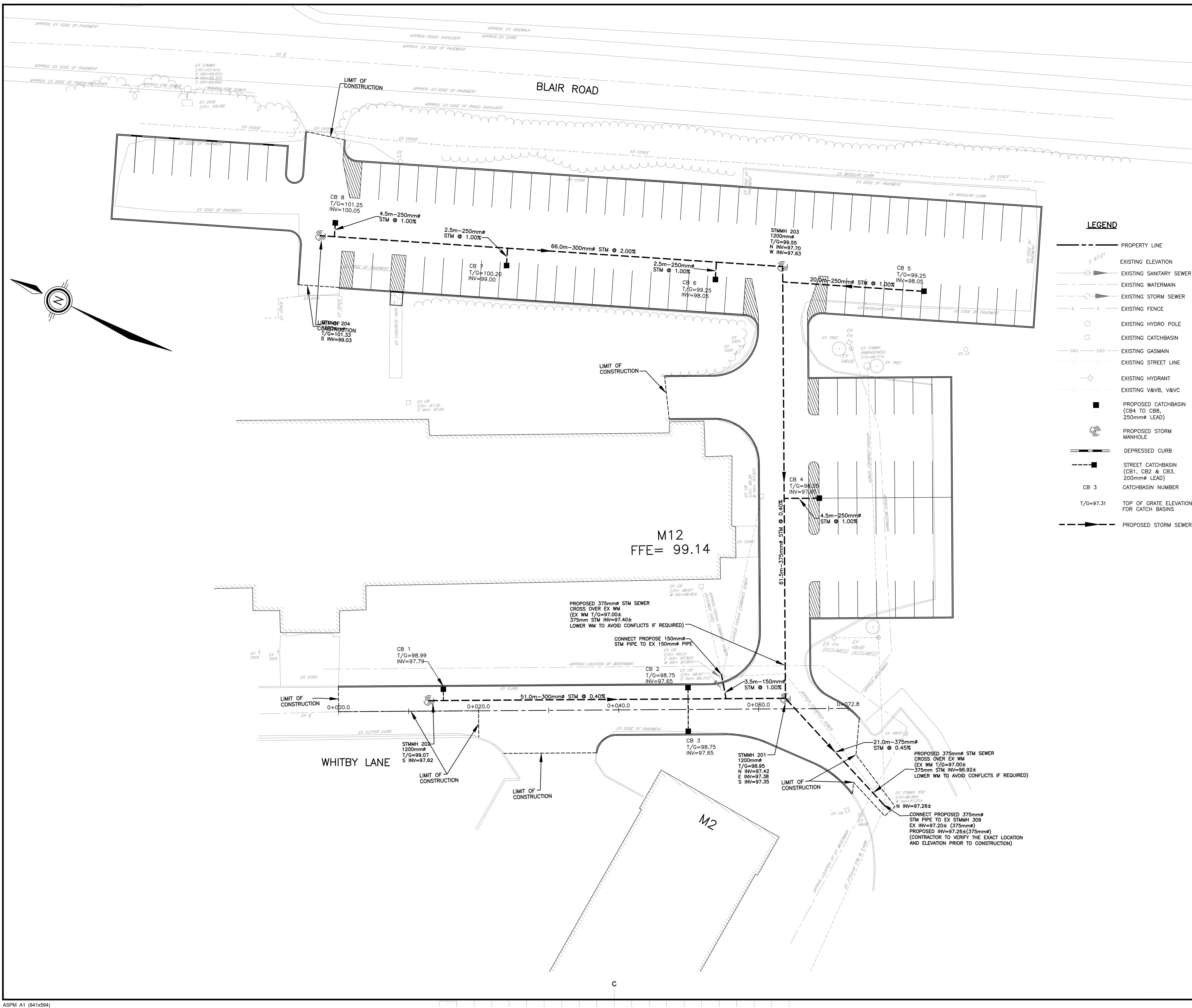
drawing: SITE SERVICING PLAN

drawn: MH dessiné: MH scale: 1:250 échelle: 1:250

checked: KW/JX vérifié: KW/JX sheet: 7 of/da 8 feuille: 7 of/da 8

approved: KW approuvé: KW W.O.no.: - D.T.no.: -

dwg.no.: 5734-C107 dessin no.: 5734-C107



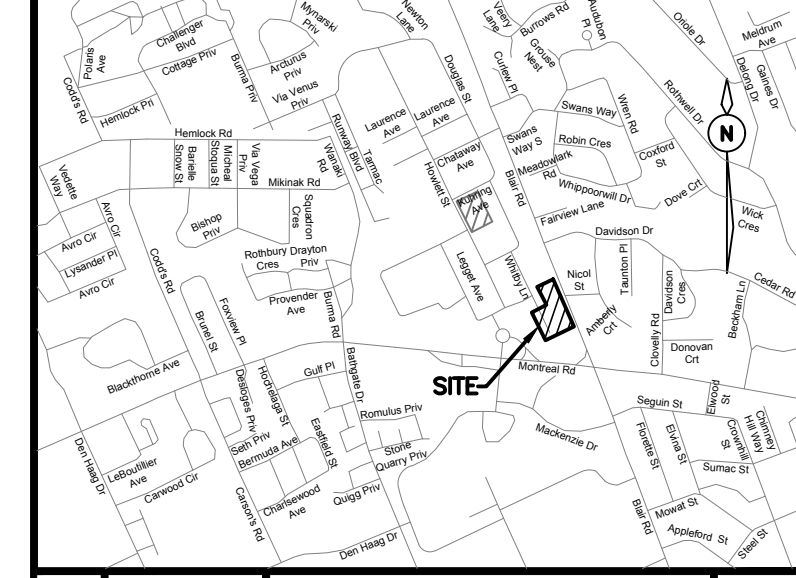


GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573

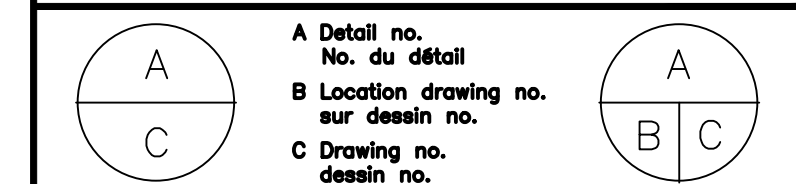
KEY PLAN / PLAN CLÉ



No.	Date	Revision	By:
3	20-08-2019	ISSUED FOR TENDER	KW
2	26-07-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW
1	24-06-2019	ISSUED FOR 66% DESIGN REVIEW	KW

Date Printed / Date imprimée

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



project / projet
 M-12 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA

MONTREAL ROAD CAMPUS

drawing / dessin
 REINSTATEMENTS

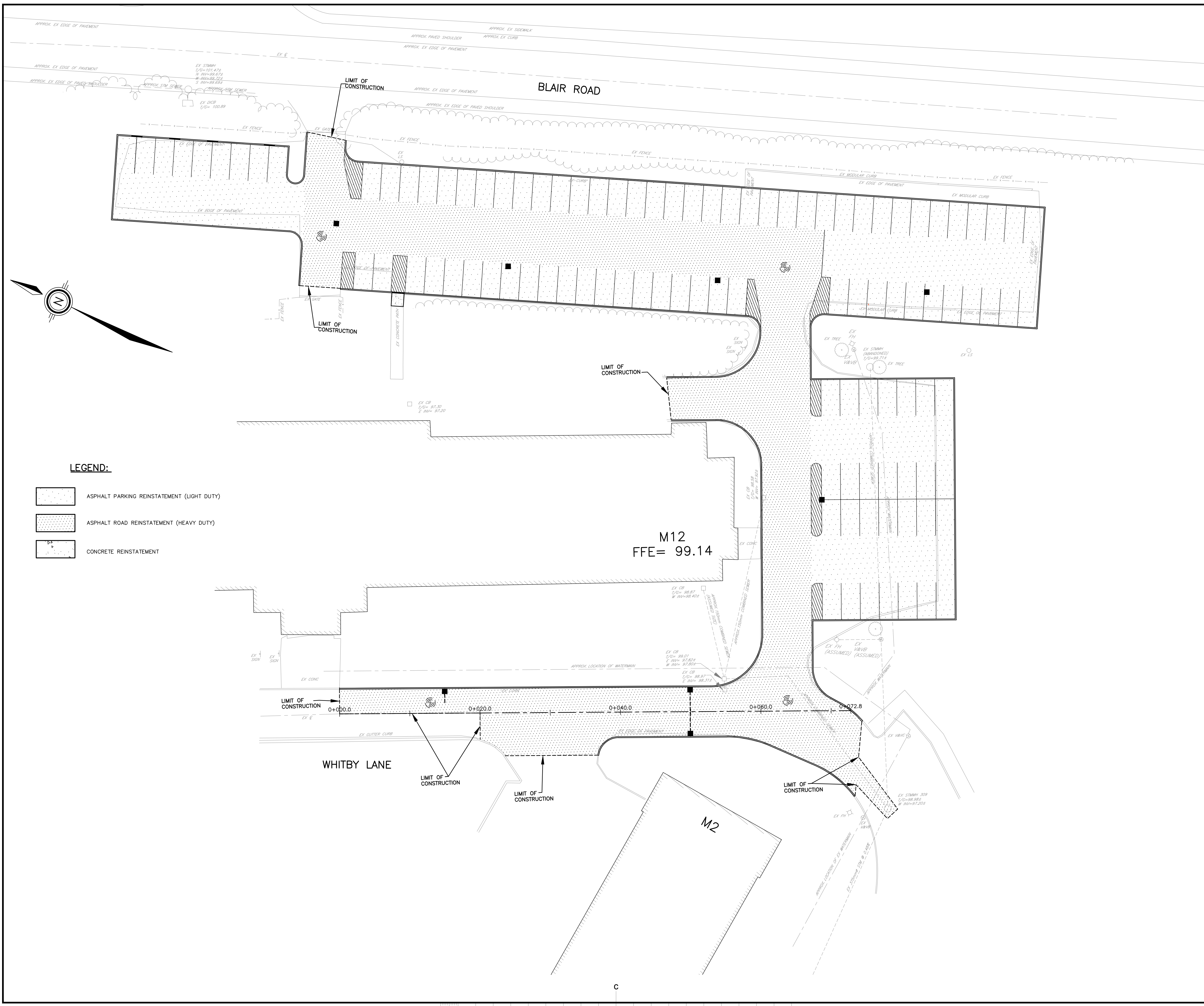
designed / conçu JX/MH date / date APRIL 2019

drawn / dessiné MH scale / échelle 1:250

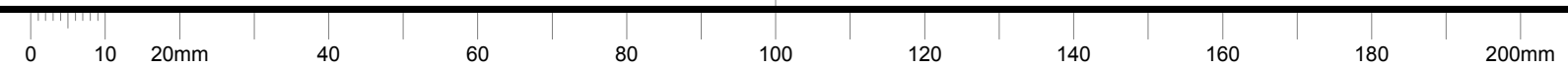
checked / vérifié KW/JX sheet / feuille 8 of / de 8

approved / approuvé KW W.O.no. / D.T.no. -

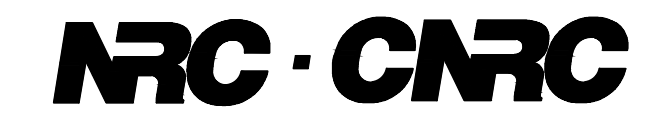
dwg.no. / dessin no. 5734-C108



- LEGEND:
- ASPHALT PARKING REINSTATEMENT (LIGHT DUTY)
 - ASPHALT ROAD REINSTATEMENT (HEAVY DUTY)
 - CONCRETE REINSTATEMENT



M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION NATIONAL RESEARCH COUNCIL CANADA MONTREAL ROAD CAMPUS



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.



KEY MAP
SCALE: N.T.S.

INDEX

5735-C101 - LEGEND, NOTES AND DETAILS
5735-C102 - DETAILS
5735-C103 - DETAILS

REMOVAL AND ADJUSTMENT

5735-C104 - LAURENCE AVENUE
5735-C105 - LAURENCE AVENUE

GEOMETRY LAYOUT

5735-C106 - LAURENCE AVENUE
5735-C107 - LAURENCE AVENUE

GRADING PLANS

5735-C108 - LAURENCE AVENUE
5735-C109 - LAURENCE AVENUE

SITE SERVICING PLANS

5735-C110 - LAURENCE AVENUE
5735-C111 - LAURENCE AVENUE

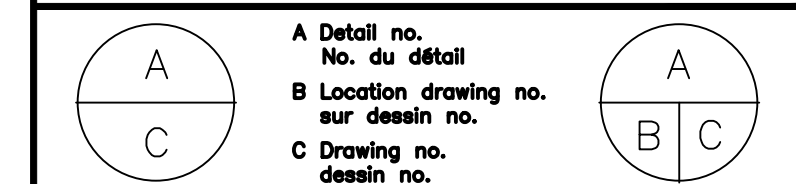
REINSTATEMENTS

5735-C112 - LAURENCE AVENUE
5735-C113 - LAURENCE AVENUE

No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed: _____ Date imprimée: _____

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



project: M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
NATIONAL RESEARCH COUNCIL CANADA
MONTREAL ROAD CAMPUS

drawing: COVER SHEET

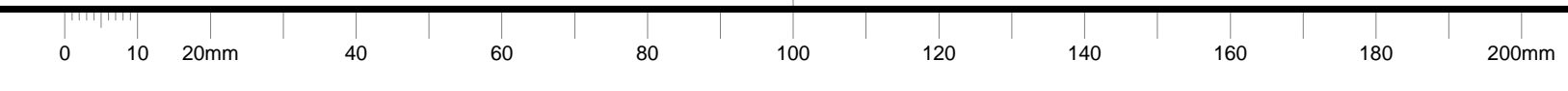
designed	conçu	date	date
JX		OCT 2019	
drawn	dessiné	scale	échelle
MH		1:250	
checked	vérifié	sheet	feuille
KW/JX		- of/de -	
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

5735-C100



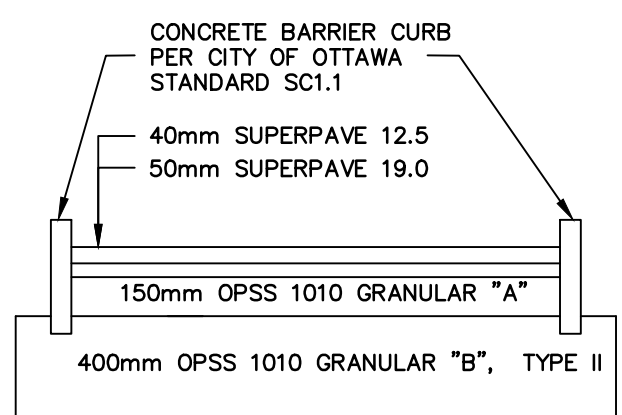
PROJECT NO. 5735
OCTOBER 25, 2019
ISSUED FOR TENDER

C

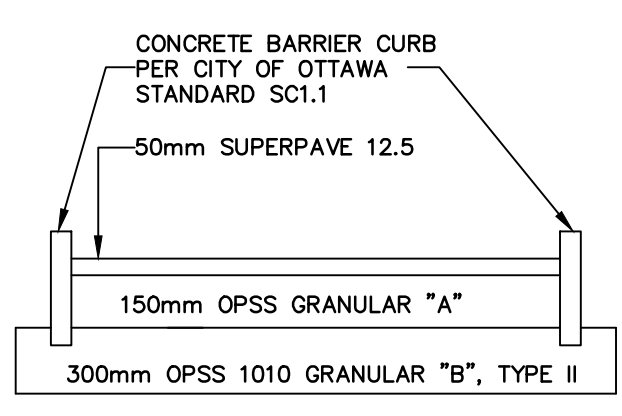


LEGEND

- PROPERTY LINE
- EXISTING ELEVATION
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- EXISTING FENCE
- EXISTING HYDRO POLE
- EXISTING CATCHBASIN
- GAS --- GAS EXISTING GASMAIN
- EXISTING STREET LINE
- ⊕ EXISTING HYDRANT
- EXISTING V&VB, V&VC
- × 97.21 PROPOSED GRADE
- 2.0% DIRECTION AND SLOPE
- 98.20 PROPOSED CENTERLINE ROAD GRADE
- ← OVERLAND FLOW ROUTE
- PROPOSED CATCHBASIN
- ⊙ PROPOSED STORM MANHOLE
- DEPRESSED CURB
- CB 3 CATCHBASIN OUTLETTING DIRECTLY TO STORM SEWER
- 1/6=97.31 TOP OF GATE ELEVATION FOR CATCH BASINS
- PROPOSED STORM SEWER
- SILT FENCE



PAVEMENT STRUCTURE (HEAVY DUTY) N.T.S.



PAVEMENT STRUCTURE (LIGHT DUTY) N.T.S.

NOTES: EROSION AND SEDIMENT CONTROL

- SEDIMENT AND EROSION CONTROL MEASURES TO BE CONSTRUCTED AS PER OPSS 805.
- THE CONTRACTOR SHALL SUBMIT AN EROSION & SEDIMENT CONTROL PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND CONSTRUCTION OF ALL SEDIMENT AND EROSION CONTROL MEASURES TO ENSURE THAT SEDIMENT DOES NOT MIGRATE FROM THE CONSTRUCTION SITE. THE CONTRACTOR SHALL IMPLEMENT BEST PRACTICES, TO PROVIDE PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSES, DURING CONSTRUCTION ACTIVITIES. THIS INCLUDES:
 - a. LIMITING THE AMOUNT OF EXPOSED SOIL
 - b. INSTALLING SILT FENCES (PER OPSS 219.110) AT THE CONSTRUCTION LIMIT.
 - c. OTHER EFFECTIVE SEDIMENT TRAPS.
- THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
- IN ORDER TO AVOID POLLUTANTS FROM BEING DISCHARGED, THE CONTRACTOR MUST MINIMIZE THE GENERATION OF DUST THROUGH APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION MATERIAL.
- THE CONTRACTOR'S SUBCONTRACTORS ARE REQUIRED TO COMPLY WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

NOTES: REMOVAL

- REMOVALS SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 510.
- SEWER PIPES TO BE ABANDONED MUST BE CUT, FILLED WITH UNSHRINKABLE BACKFILL CONFORMING TO OPSS 1359, AND CAPPED ALL IN ACCORDANCE WITH OPSS 510.
- EXISTING PAVERS TO BE REMOVED, PROTECTED AND STORED ON SITE UNTIL REINSTATEMENTS.
- EXISTING ASPHALT SHALL BE A MILLED 50mm WIDE STEP JOINT, TO A DEPTH OF 50mm(MIN.) AT ALL TIE IN LOCATIONS.
- FIELD VERIFY FOR ANY POTENTIAL CONFLICTS INCLUDING ALL EXISTING UTILITY POLE LOCATIONS AND OVERHEAD CABLES BEFORE COMMENCING CONSTRUCTION. ANY DISCREPANCIES, INTERPRETATIONS, CHANGES AND/OR ADDITIONS TO THESE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE NRC DEPARTMENTAL REPRESENTATIVE WHEN OBSERVED.
- ALL REGULATORY SIGNS WITHIN THE CONSTRUCTION LIMIT SHALL BE REMOVED AND RE-INSTALLED BY THE CONTRACTOR UPON COMPLETION OF PAVING WORKS.
- LIMIT OF REMOVAL FOR DRIVEWAYS AND WALKWAYS TO BE CONFIRMED WITH THE NRC DEPARTMENTAL REPRESENTATIVE.

NOTES: GENERAL

- CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION
- ALL ELEVATIONS / DIMENSIONS ARE IN METRIC UNITS.
- JOB BENCH MARK – CONFIRM WITH NRC PRIOR TO UTILIZATION.
- ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCHBASIN OUTLETS ARE PROVIDED.
- ALL DISTURBED AREAS SHALL BE REINSTATED TO EQUAL OR BETTER CONDITION TO THE SATISFACTION OF THE NRC DEPARTMENTAL REPRESENTATIVE.
- ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT.
- ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. (CONSTRUCTION OPSS 206, 310 & 314 MATERIALS OPSS 1001, 1003 & 1010).
- REFER TO GEOMETRY LAYOUT DRAWINGS FOR ROAD AND PARKING LOT DIMENSIONS AND SITE LAYOUT. DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING, SUPPORT AND PROTECTION OF EXCAVATIONS.
- DESIGN ELEVATIONS AS GIVEN ON THIS PLAN ARE TO BE ADHERED TO WITH NO CHANGES WITHOUT PRIOR WRITTEN APPROVAL BY NRC DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR TO INSTALL AND MAINTAIN A FILTER CLOTH "CATCH" ACROSS ALL MH/CB LIDS TO PREVENT SEDIMENTS AND GRANULARS FROM ENTERING STRUCTURES UNTIL SOD AND PAVING IS COMPLETE. ANY SEDIMENTS/GANULARS ENTERING STRUCTURES AND SEWERS SHALL BE IMMEDIATELY REMOVED.
- CONTRACTOR TO CONFIRM LOCATION(S) AND ELEVATION(S) OF EXISTING SERVICES AND STRUCTURES TO BE CONNECTED TO AND EXISTING SERVICES THAT MAY CAUSE CONFLICTS PRIOR TO CONSTRUCTION OF ANY NEW SEWER AND/OR STORM WATER WORKS. THE ENGINEER SHALL BE INFORMED IMMEDIATELY OF ANY ERRORS, DISCREPANCIES, CONFLICTS, OMISSIONS ETC THAT ARE FOUND.
- THE CONTRACTOR SHALL VERIFY ALL SURFACE AND SUBSURFACE CONDITIONS PRIOR TO COMMENCING CONSTRUCTION BY REVIEWING THE GEOTECHNICAL INVESTIGATION REPORT "NATIONAL RESEARCH COUNCIL (NRC), OTTAWA, ON, GEOTECHNICAL INVESTIGATION REPORT – M36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION" PREPARED BY ANILEY GROUP, DATED JUNE 07, 2019.
- THE CONTRACTOR SHALL APPRAISE HIS/HER SELF OF ALL SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED AND SHALL CARRY OUT THEIR OWN TEST PITS AS REQUIRED TO MAKE THEIR OWN INDEPENDENT ASSESSMENT OF GROUND CONDITIONS. THE CONTRACTOR SHALL NOT MAKE ANY CLAIM FOR ANY EXTRA COST DUE TO ANY SUCH GROUND CONDITIONS VARYING FROM THOSE ANTICIPATED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL COORDINATE AND PAY FOR ALL CONSTRUCTION RELATED PERMITS, FEES, INSPECTIONS AND APPROVALS REQUIRED.
- IN PREPARATION FOR THE CONSTRUCTION OF THE NEW ASPHALTIC CONCRETE SURFACED ROADWAYS AND PARKING AREAS, ALL TOPSOIL, ORGANIC MATERIAL AND ANY LOOSE/SOFT OR WET SOIL SHOULD BE REMOVED FROM THE PROPOSED SUBGRADE SURFACE AND REPLACED WITH SUITABLE COMPACTED EARTH BORROW OR GRANULAR FILL.
- PRIOR TO PLACING GRANULAR FILL FOR THE ROADWAYS AND PARKING AREAS, THE EXPOSED SUBGRADE SHOULD BE HEAVILY PROOF ROLLED WITH A LARGE (6 TONNE) VIBRATORY DRUM ROLLER UNDER DRY CONDITIONS. ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUBEXCAVATED AND REPLACED WITH SUITABLE, COMPACTED EARTH BORROW.
- ASPHALTIC CONCRETE SHALL NOT BE PLACED UNTIL FINAL CCTV INSPECTION OF THE SEWERS IN ACCORDANCE WITH OPSS 409 HAVE BEEN COMPLETED AND APPROVED BY THE NRC DEPARTMENTAL REPRESENTATIVE.
- OPSS 409 TO BE FOLLOWED AS CONSTRUCTION SPECIFICATION FOR CLOSED-CIRCUIT TELEVISION INSPECTION OF PIPELINES.
 - PRE-CONSTRUCTION INSPECTION: PRIOR TO COMMENCING CONSTRUCTION, A PRE-CONSTRUCTION CCTV INSPECTION MUST BE COMPLETED ON ALL THE SEWERS WITHIN THE CONSTRUCTION LIMITS PLUS THE FIRST LENGTH OF EXISTING SEWER PIPES OUTSIDE OF THE CONTRACT LIMITS INCLUDING CROSS STREETS. WITH THE EXCEPTION OF ANY PIPES THAT ARE BEING REMOVED DURING CONSTRUCTION, WHICH DO NOT REQUIRE PRE-CONSTRUCTION CCTV INSPECTION.
 - POST-CONSTRUCTION INSPECTION: UPON COMPLETION OF BINDER COURSE ASPHALT BUT BEFORE APPLYING THE FINAL COURSE OF ASPHALT, A POST-CONSTRUCTION CCTV INSPECTION MUST BE COMPLETED ON ALL THE SEWERS WITHIN THE CONSTRUCTION LIMITS PLUS THE FIRST LENGTH OF EXISTING SEWER PIPES OUTSIDE OF THE CONTRACT LIMITS INCLUDING CROSS STREETS.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL RE-CCTV RESULTING FROM DEFICIENCY REPAIRS AS DEEMED NECESSARY BY THE NRC DEPARTMENTAL REPRESENTATIVE. CCTV INSPECTIONS WILL BE CONDUCTED UNTIL SUCH TIME AS THE RESULTS HAVE BEEN APPROVED BY THE ENGINEER AND/OR THE NRC DEPARTMENTAL REPRESENTATIVE AT NO ADDITIONAL COST TO THE CLIENT.
- CONTRACTOR SHALL MAINTAIN A CLEAN SITE AND KEEP ALL ROADS AND SIDEWALKS CLEAN AND FREE FROM DIRT AND MUD AT ALL TIMES. USE MECHANICAL SWEEPING/FLUSHING WHEN NECESSARY. IF THE CONTRACTOR REFUSES OR NEGLECTS TO CLEAN WHEN OR AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE, THE DEPARTMENTAL REPRESENTATIVE MAY ARRANGE FOR NECESSARY CLEANING, WITH COSTS BEING RECOVERED FROM PAYMENTS TO THE CONTRACTOR.
- THE CONTRACTOR SHALL AT ALL TIMES, KEEP THE WORK SITE FREE FROM ACCUMULATION OF WASTE MATERIALS AND RUBBISH DUE TO EMPLOYEES OR THE WORK. CLEANING, TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE SHALL BE A MANDATORY CONDITION TO THE FINAL ACCEPTANCE OF THE WORK.

NOTES: RE-INSTATEMENT

- ALL DISTURBED AREAS SHALL BE REINSTATED TO MATCH EXISTING CONDITIONS OR BETTER AS DIRECTED BY THE NRC DEPARTMENTAL REPRESENTATIVE.
- EXISTING TREES ARE TO BE PRESERVED AND PROTECTED DURING THE CONSTRUCTION AND REINSTATEMENT ACTIVITIES IN ACCORDANCE WITH OPSS 801 AND OPSS 220.010.
- PATHWAYS, WALKWAYS AND RELATED LANDSCAPE OR ASPHALT AREAS SHALL BE REINSTATED TO MATCH EXISTING MATERIAL IN TYPE AND THICKNESS.
- ASPHALT REINSTATEMENT MUST BE IN ACCORDANCE WITH OPSS 310.
- LANDSCAPE AREAS TO BE REINSTATED WITH 150mm OF TOPSOIL AND SOD IN ACCORDANCE WITH OPSS 802 AND OPSS 803.
- PAVEMENT MARKING REINSTATEMENT TO MATCH EXISTING IN ACCORDANCE WITH OPSS 710, EXCEPT AS OTHERWISE SHOWN ON DRAWINGS.
- WHERE REQUIRED, THE CONTRACTOR MUST ADJUST EXISTING STRUCTURES (VALVES, HYDRANTS, MANHOLES, CATCHBASINS, ETC) TO MATCH PROPOSED GRADE ELEVATIONS.

NOTES: STORM SEWER AND CATCHBASIN

- ALL STORM SEWERS 375mm OR SMALLER SHALL BE PVC SDR 35. STORM SEWERS LARGER THAN 375mm SHALL BE CONCRETE CLASS 650. UNLESS OTHERWISE NOTED.
- THE BEDDING FOR THE PLANNED STORM SEWERS SHOULD CONSIST OF AT LEAST 300mm OF CRUSHED STONE MEETING OPSS REQUIREMENTS FOR GRANULAR 'A'. ALLOWANCE SHOULD BE MADE FOR A 150 TO 300 MILLIMETER THICK SUBBEDDING LAYER OF OPSS GRANULAR 'B' TYPE II IF THE SUBGRADE SOIL BECOMES DISTURBED DURING EXCAVATION.
- COVER MATERIAL, FROM PIPE SPRING LINE TO AT LEAST 300mm ABOVE THE TOPS OF THE PIPES, SHOULD CONSIST OF OPSS GRANULAR 'A'. THE GRANULAR BEDDING AND COVER MATERIALS FOR THE SERVICE PIPES SHOULD BE COMPACTED IN MAXIMUM 150mm THICK LIFTS TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR DRY DENSITY VALUE.
- ALL WORK SHALL BE PERFORMED, AS APPLICABLE, IN ACCORDANCE WITH O.P.S.S. 407, AND 410.
- ALL STORM MANHOLES AND CBMH TO BE PER OPSS 701.010 TO 701.011. SIZE AS INDICATED C/W 300mm SUMP. FRAME AND COVERS TO BE PER PER OPSS 401.010 TYPE "B" OPEN COVER COVER TO BE LABELLED "DANGER" AND "STORM".
- ALL MANHOLES, CATCHBASINS AND CATCHBASIN MANHOLES TO BE BACKFILLED WITH MIN. 0.3m HORIZ. THICKNESS OF GRANULAR "A".
- ALL STORM SEWERS TO BE INSTALLED AT MINIMUM COVER OF 1.0m. IF COVER IS LESS THAN 1.0m, FROST PROTECTION MUST BE INSTALLED PER OPSS 1109.030.
- SERVICE CONNECTIONS TO RIGID MAIN STORM SEWER TO BE PER OPSS 1006.010 CONNECTIONS TO FLEXIBLE MAIN STORM SEWER TO BE PER OPSS 1006.020
- THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS AND COORDINATION FOR ALL INSPECTION AND TESTING
- ALL CATCHBASINS SHALL BE PRECAST 600X600 C/W 600mm SUMP AS PER OPSS 705.010.
- ALL DOUBLE CATCHBASINS SHALL BE PRECAST 600X1450 C/W 600mm SUMP AS PER OPSS 705.020.
- ALL CATCHBASINS TO HAVE OPSS 400.020 FRAME & COVERS.
- THE CONTRACTOR SHALL CONSTRUCT STORM SEWERS IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DRAWINGS S6. DURING CONSTRUCTION THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT AS PER OPSS 808.01.
- CLAY SEAL MUST BE PROVIDED IN THE SERVICE TRENCHES AS PER OPSS 1205 AND OPSS 802.095. SEALS MUST BE LOCATED AT A HORIZONTAL SPACE OF 100M AND MUST BE AT LEAST OF 1.5M LONG AND EXTEND FROM TRENCH WALL TO TRENCH WALL. THE SEAL MUST ALSO EXTEND FROM THE SUBGRADE LEVEL TO THE BOTTOM OF TRENCH.
- ABANDONED SEWERS TO BE CAPPED AND FILLED WITH UNSHRINKABLE FILL.
- STORM BACKWATER VALVES OR BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED ON TRENCH DRAIN.

NOTES: TUNNEL AND WATERMAIN CROSSINGS

- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE STRUCTURAL INTEGRITY OF THE EXISTING TUNNELS AND LIVE WATERMAINS.
- THE CONTRACTOR MUST SUBMIT A DETAILED WORK METHOD FOR APPROVAL TO THE NRC DEPARTMENTAL REPRESENTATIVE, INCLUDING, BUT NOT LIMITED TO, SHOP DRAWINGS FOR TEMPORARY WORKS AND MONITORING OF EXISTING INFRASTRUCTURE.
- THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING, INSTALLING AND MAINTAINING APPROPRIATE EQUIPMENT FOR THE VIBRATION MONITORING OF WATERMAIN AND TUNNELS. GEOPHONE SENSORS MUST BE PLACED DIRECTLY ON THE TOP OF WATERMAINS AND TUNNELS AT REGULAR INTERVALS TO PROVIDE REAL TIME WARNING SIGNALS WITH FLASHING LIGHT AND AIR HORN. THE TRIGGER LEVELS FOR MONITORING STATIONS OF THE WATERMAINS AND TUNNELS SHALL BE PROGRAMMED AS FOLLOWS:
 - 1ST TRIGGER LEVEL SET AT 5mm/S TO TRIGGER A FLASHING LIGHT.
 - 2ND TRIGGER LEVEL SET AT 15mm/S TO TRIGGER A FLASHING LIGHT AND AIR HORN.
- HYDROVAC ALL CROSSINGS OF PROPOSED STORM SEWERS AND DOWNSTREAM CONNECTION POINTS PRIOR TO COMMENCING CONSTRUCTION TO CONFIRM ELEVATIONS AND LOCATIONS OF EXISTING INFRASTRUCTURE.

NOTES: ROADWAYS, PARKING LOTS, SIDEWALKS & CURBS

- ALL CURB TO BE 150mm ABOVE FINISHED ASPHALT GRADE UNLESS OTHERWISE NOTED. ALL CURBS MUST CONFORM TO OPSS 353 ALL CURBS TO BE CONSTRUCTED PER CITY OF OTTAWA STANDARD SC1.1
- ASPHALT SIDEWALKS MUST CONFORM TO OPSS 311 AND HAVE A 2.4M WIDTH (MIN.), UNLESS STATED OTHERWISE. ASPHALT SIDEWALKS TO BE CONSTRUCTED AS PER CITY OF OTTAWA STANDARD SC20.
- ROADWAYS AND PARKING AREAS TO BE CONSTRUCTED AS PER PAVEMENT STRUCTURE DETAILS FOR LIGHT DUTY AND HEAVY DUTY DESIGN.

FARTH EXCAVATION, REMOVALS, WORK AROUND EXISTING UTILITIES

- THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND UNDERGROUND UTILITIES, AND WHEN CONSTRUCTION OPERATIONS ARE LIABLE TO DAMAGE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO ALTER HIS METHOD OF CONSTRUCTION AS DIRECTED BY THE NRC DEPARTMENTAL REPRESENTATIVE OR UTILITY COMPANY IN ORDER TO AVOID ANY DAMAGE.
- THE CONTRACTOR IS REQUIRED TO PROTECT THE EXISTING UTILITIES DURING THE CONSTRUCTION. NO ADDITIONAL PAYMENT WILL BE DONE FOR THE INSTALLATION OF THE SEWERS AND WATERMAINS BELOW, CROSSING OR ALONG THE EXISTING UTILITIES SHOWN ON THE CONSTRUCTION DRAWINGS.

NOTES: VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL MEASURES

- CONTRACTOR TO OBTAIN APPROVAL FOR HIS/HER TRAFFIC CONTROL PLAN (TCP) PRIOR TO COMMENCEMENT OF THE CONSTRUCTION.
- CONTRACTOR TO SUPPLY, INSTALL AND MAINTAIN ALL CONSTRUCTION AND TEMPORARY TRAFFIC SIGNS
- DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY BILINGUAL TRAFFIC SIGNAGE, INCLUDING TRAFFIC SIGNS, TRAFFIC MARKINGS AND TEMPORARY TRAFFIC LIGHTS, AND FLAGMEN, AS REQUIRED BY THE NRC.

STEEL INTERLOCKING PEDESTRIAN BARRIERS

- SHALL BE APPROXIMATELY 1.8 METERS IN HEIGHT AND MANUFACTURED OF GALVANIZED STEEL.
- CONTRACTOR TO PROVIDE 100 LINEAR METERS OF FENCE INCLUSIVE OF ACTIONS TO SUPPLY, PLACE, MAINTAIN, FINAL REMOVAL AND THE RELOCATION OF STEEL INTERLOCKING PEDESTRIAN BARRIERS DURING THE PROJECT PERIOD.

ASPHALT SIDEWALK, MEDIANS, BOULEVARDS AND ISLANDS

- 200mm GRANULAR 'A' AS BEDDING MATERIAL FOR ASPHALT SIDEWALKS, MEDIANS AND ISLANDS TO BE PLACED UNLESS SPECIFIED OTHERWISE IN THE CONTRACT.

EQUIPMENT RENTAL

- OPSS 127

NOTES: PRE-CONSTRUCTION INSPECTION

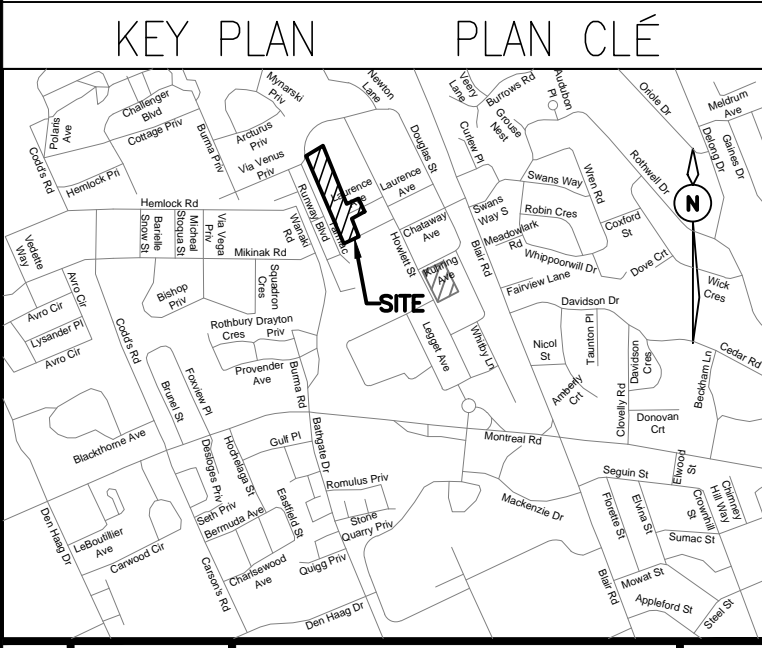
- THE CONTRACTOR ACKNOWLEDGES THAT THERE ARE EXISTING BUILDINGS AND STRUCTURES IN THE VICINITY OF THE WORK AREA, WHICH MAY BE AFFECTED BY THE CONSTRUCTION WORKS AND THAT THE CONTRACTOR IS TO COMPLETE THE PRE-CONSTRUCTION INSPECTION OF BUILDINGS AND STRUCTURES, FOR BOTH INTERIOR AND EXTERIOR CONDITIONS.
- THE CONTRACTOR IS TO SUPPLY THE SERVICES OF A REPUTABLE 3RD PARTY FIRM EXPERIENCED IN PRE-CONSTRUCTION INSPECTIONS.
- AS A MINIMUM, THE PRE-CONSTRUCTION INSPECTION SHALL BE DONE ON ALL STRUCTURES WITHIN 30m OF THE WORK ZONE.
- FOR EACH PROPERTY INSPECTED, A SEPARATE BUILDING/STRUCTURE PRE-CONSTRUCTION REPORT SHALL BE PREPARED, DATED AND SIGNED BY THE FIRM UNDERTAKING THE INSPECTION. THESE REPORTS ARE CONFIDENTIAL AND SHALL NOT BE SHARED WITH THE CONTRACTOR.
- THE PRE-CONSTRUCTION INSPECTION SHALL INDICATE IF SIGNS OF A BUILDING OR STRUCTURE SETTLEMENT ARE PRESENT. INCLUDE PHOTOGRAPHS OF ALL SIDES OF THE BUILDING EXTERIOR, A REPRESENTATIVE SAMPLING (DESCRIPTION AND PHOTOGRAPHS) OF VISIBLE CRACKS OR SETTLEMENT FROM BOTH THE INTERIOR AND EXTERIOR OF THE BUILDING, AND A REPRESENTATIVE SAMPLING (DESCRIPTION AND PHOTOGRAPHS) OF STAINING OR REPAIRS VISIBLE AT THE TIME OF INSPECTION
- THE PRE-CONSTRUCTION INSPECTION SHALL IDENTIFY ANY CONCERNS REGARDING SENSITIVE EQUIPMENT CONTAINED WITHIN THE BUILDINGS WHICH SHOULD BE TAKEN INTO ACCOUNT DURING POTENTIAL ROCK REMOVAL AND/OR EXCAVATION OPERATIONS.
 - a. OVERVIEW OF THE INSPECTION PROCESS AND THE EQUIPMENT USED;
 - b. PIPEDA COMPLIANCE CONFIRMATION
 - c. LISTING OF PROPERTIES FOR WHICH INSPECTIONS WERE PERFORMED INCLUDING THE DATES OF THE INSPECTIONS
 - d. LISTING OF PROPERTIES FOR WHICH INSPECTIONS WERE NOT PERFORMED AND THE REASON.



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

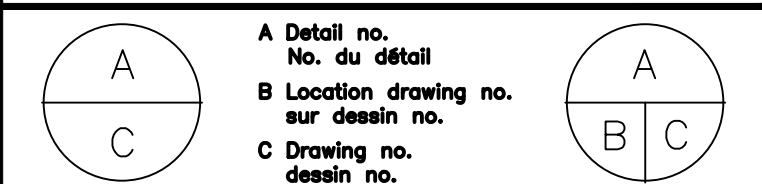
Aniley GROUP
2724 Fenton Road
Ottawa, Ontario
K1T 3T7
Telephone: (613) 822-1052
Fax: (613) 822-1573



No.	Date	Revision	By:	Par:
3	15-11-2019	ISSUED FOR TENDER		KW
2	01-11-2019	REVISED PER CLIENT COMMENTS		KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION		KW

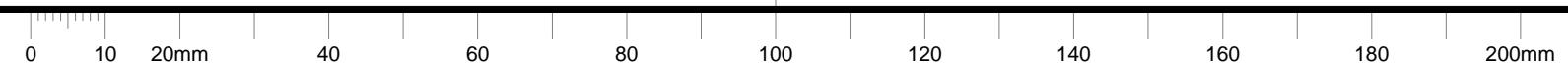
Date Printed	Date imprimé

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



project / projet
M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
NATIONAL RESEARCH COUNCIL CANADA / MONTREAL ROAD CAMPUS
drawing / dessin
LEGEND, NOTES AND DETAILS

designed	conçu	date	date
JX/MH		OCT 2019	
drawn	dessiné	scale	échelle
MH		1:250	
checked	vérifié	sheet	1 of / de 13
KW/JX			
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.	5735-C101	

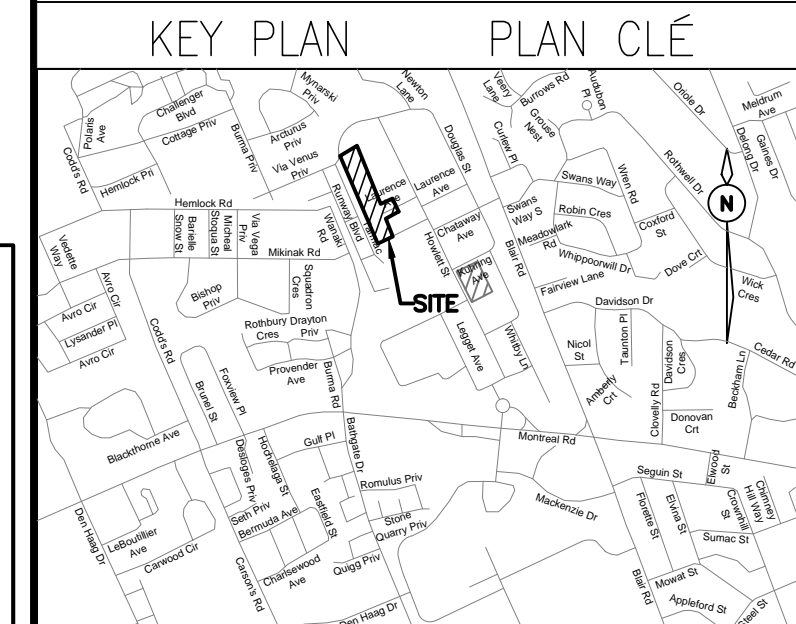




GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed: _____ Date imprimée: _____

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

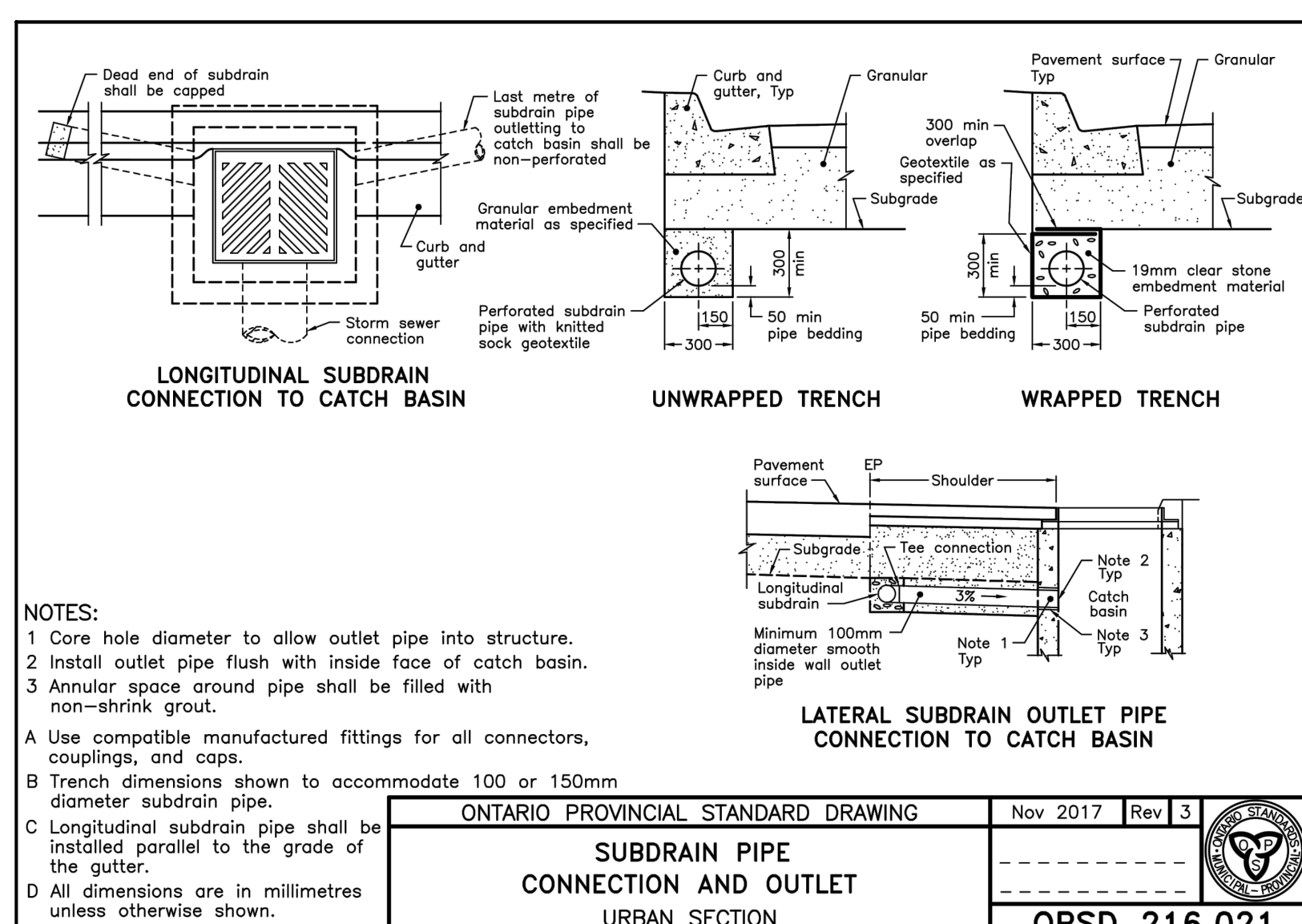
A Detail no. / No. de détail
 B Location drawing no. / sur dessin no.
 C Drawing no. / dessin no.

project / projet: M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA / MONTREAL ROAD CAMPUS

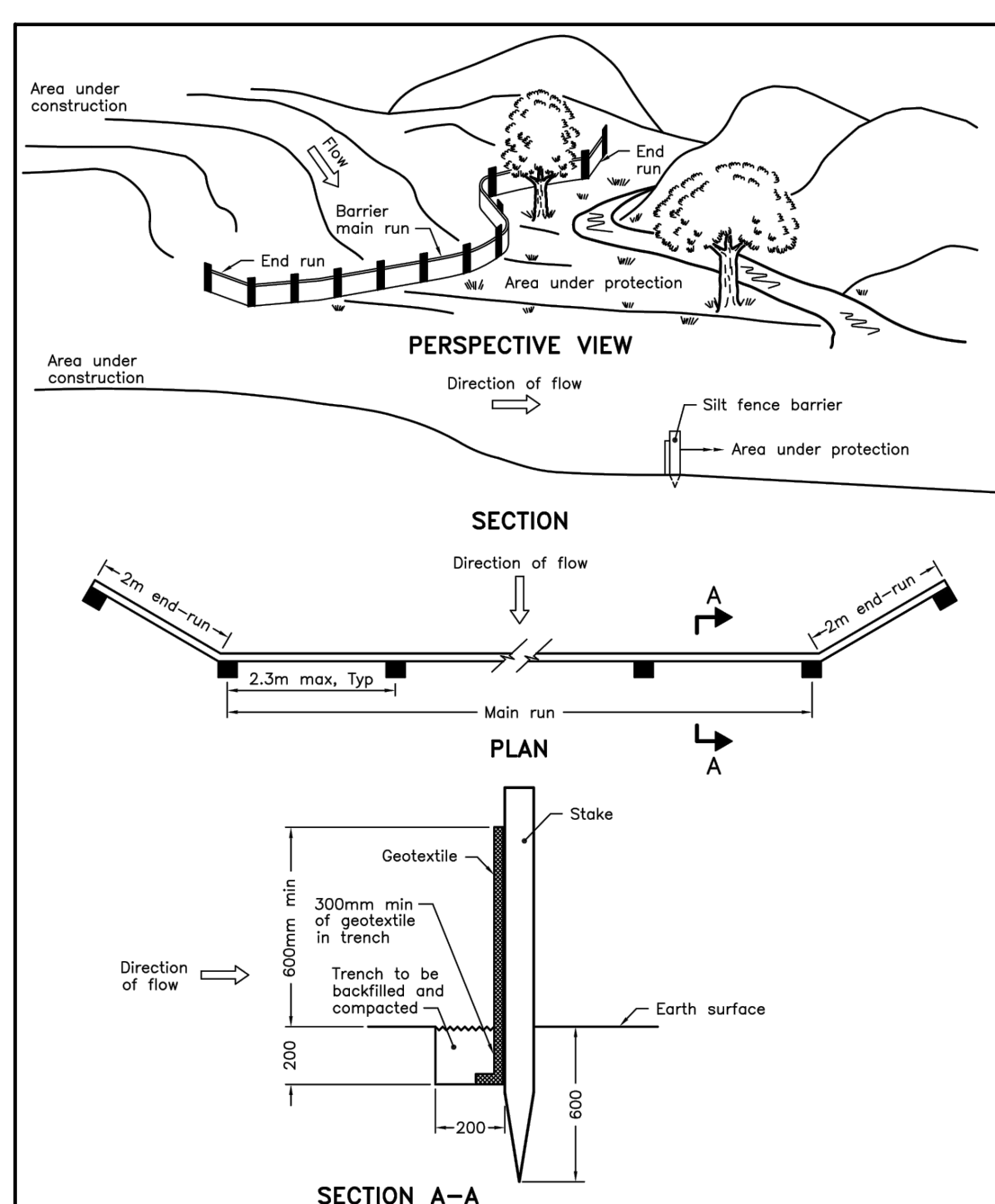
drawing / dessin: DETAILS

designed	conçu	date	date
JX/MH		OCT 2019	
drawn	dessiné	scale	échelle
MH		1:250	
checked	vérifié	sheet	feuille
KW/JX		2 of/ de 13	
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

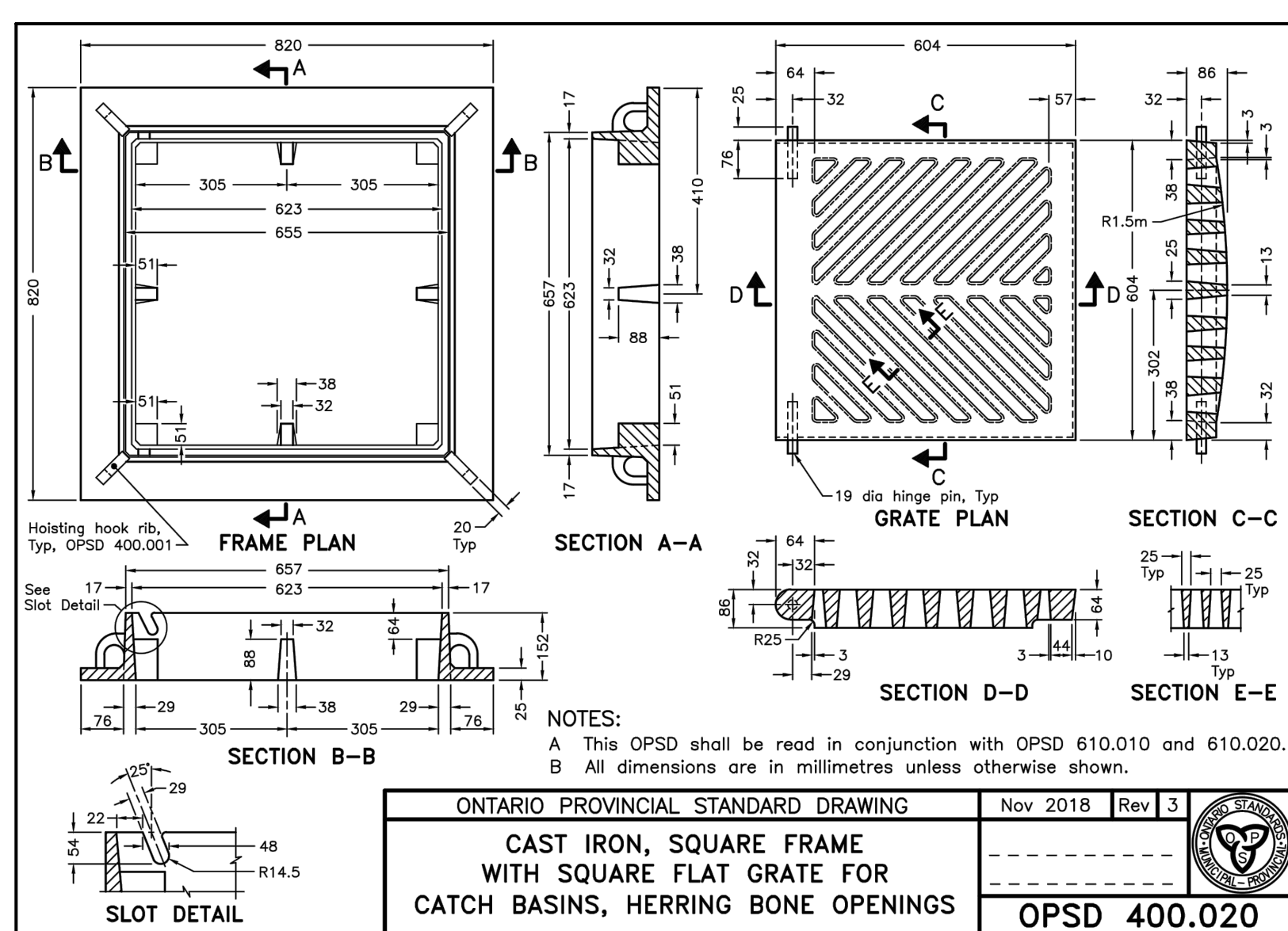
5735-C102



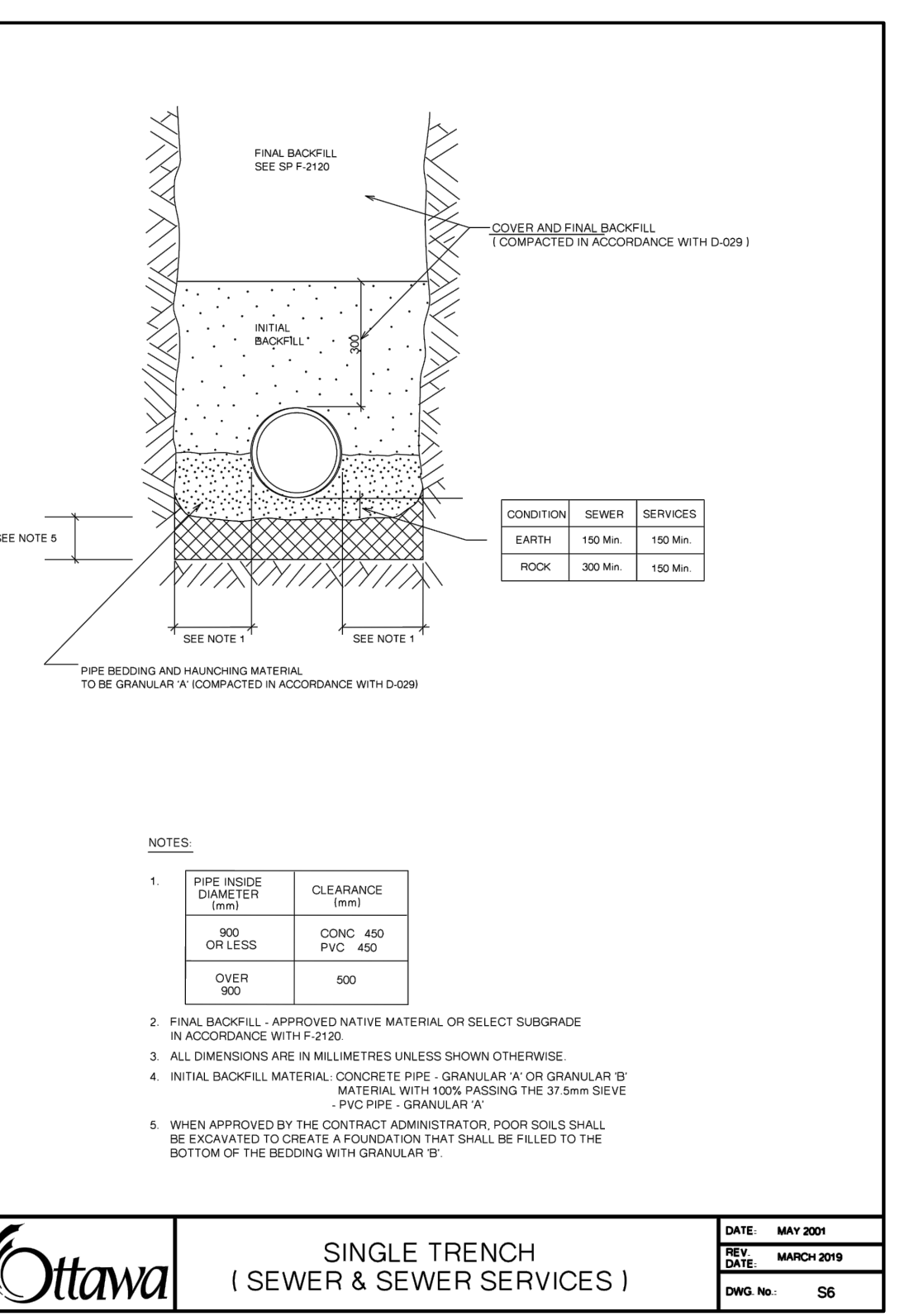
ONTARIO PROVINCIAL STANDARD DRAWING
 SUBDRAIN PIPE CONNECTION AND OUTLET URBAN SECTION
 Nov 2017 Rev 3
 OPSD 216.021



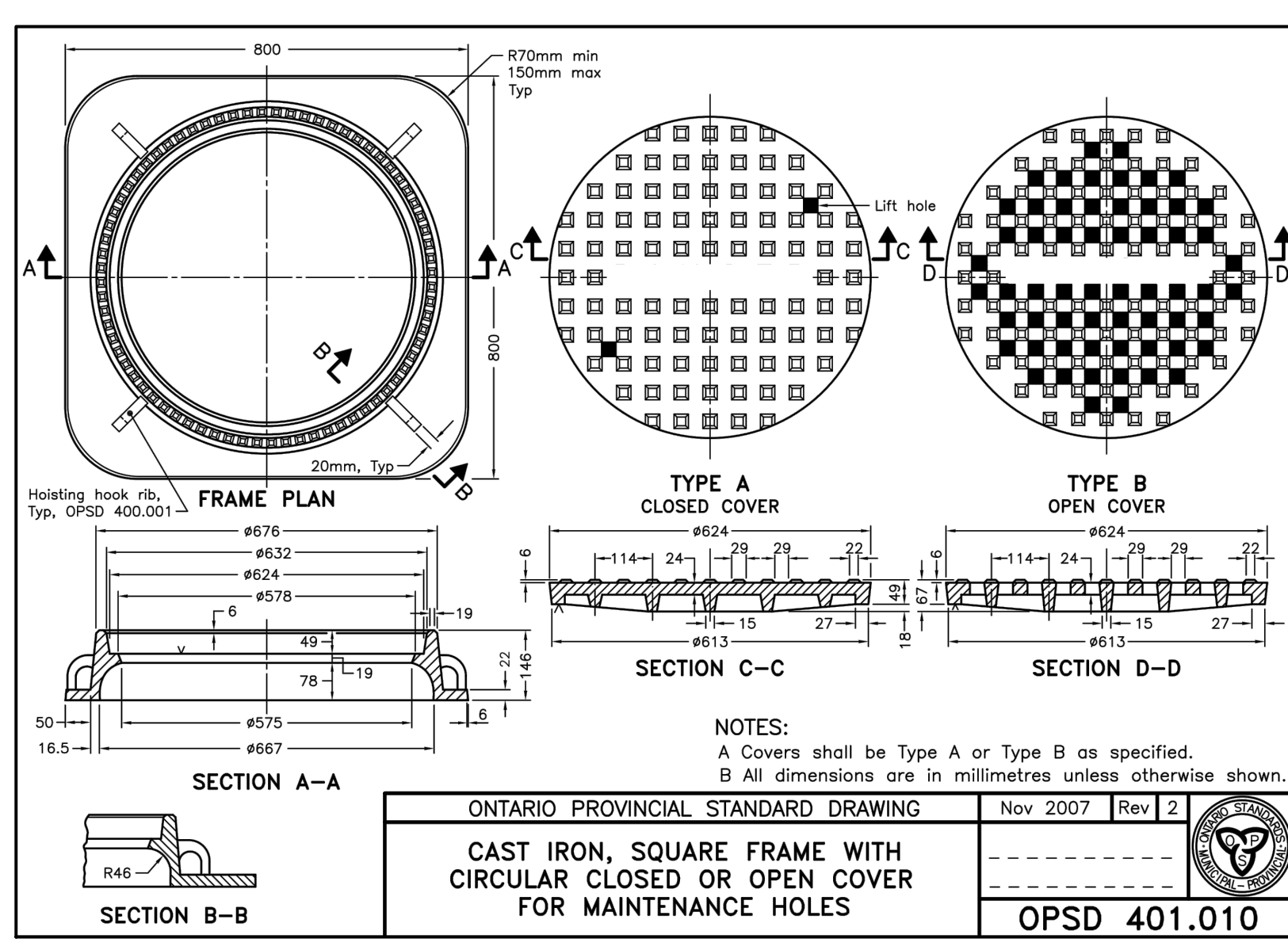
ONTARIO PROVINCIAL STANDARD DRAWING
 LIGHT-DUTY SILT FENCE BARRIER
 Nov 2006 Rev 1
 OPSD 219.110



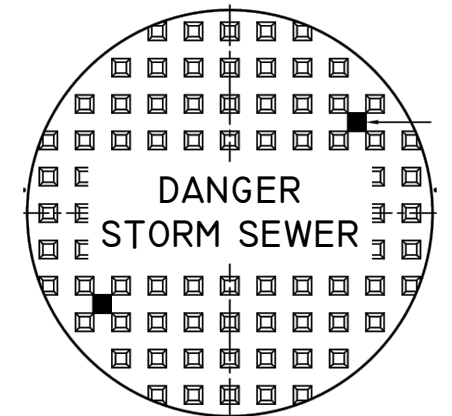
ONTARIO PROVINCIAL STANDARD DRAWING
 CAST IRON, SQUARE FRAME WITH SQUARE FLAT GRATE FOR CATCH BASINS, HERRING BONE OPENINGS
 Nov 2018 Rev 3
 OPSD 400.020



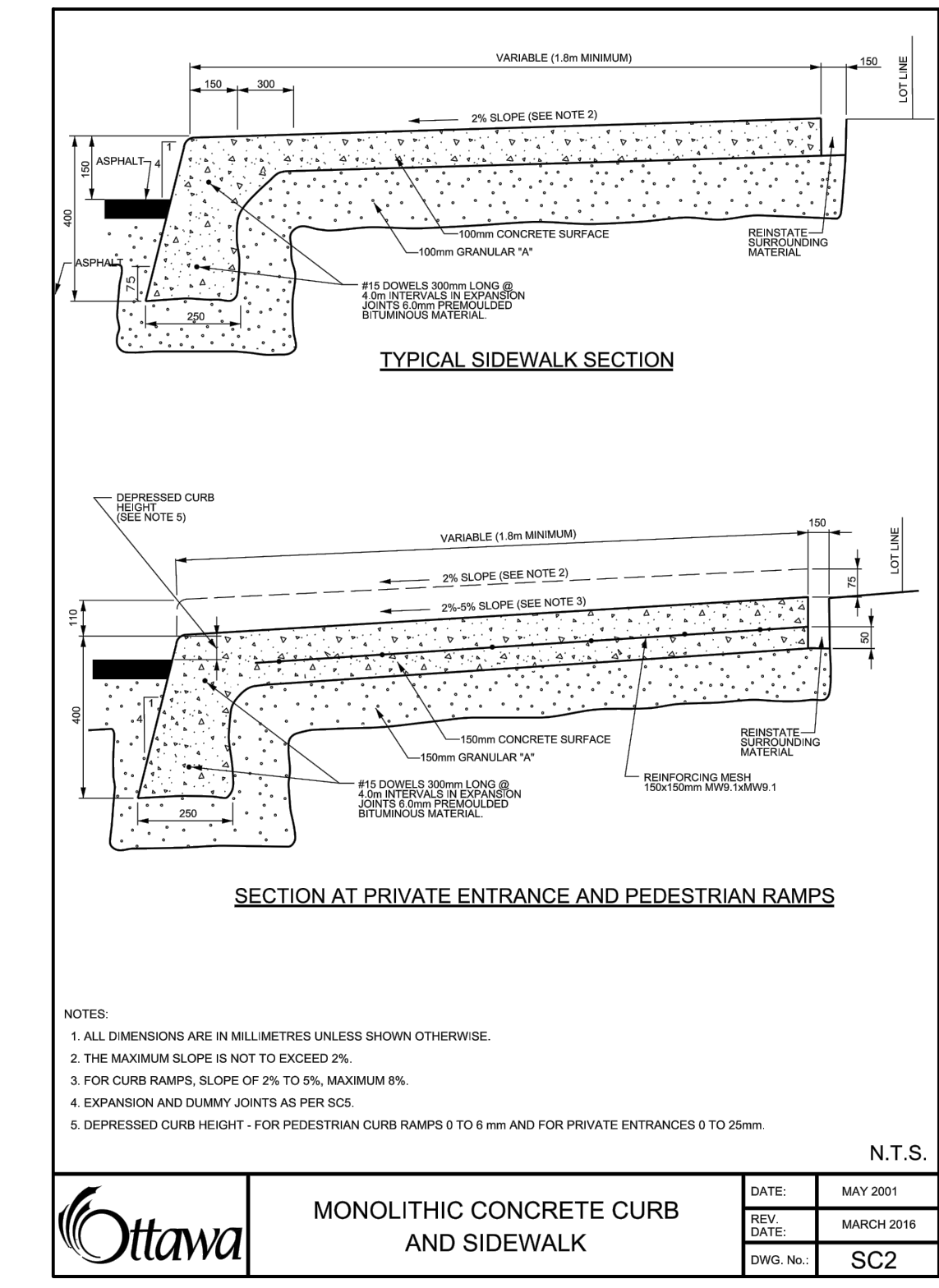
ONTARIO PROVINCIAL STANDARD DRAWING
 SINGLE TRENCH (SEWER & SEWER SERVICES)
 MAY 2001
 MARCH 2019
 OPSD 600.110



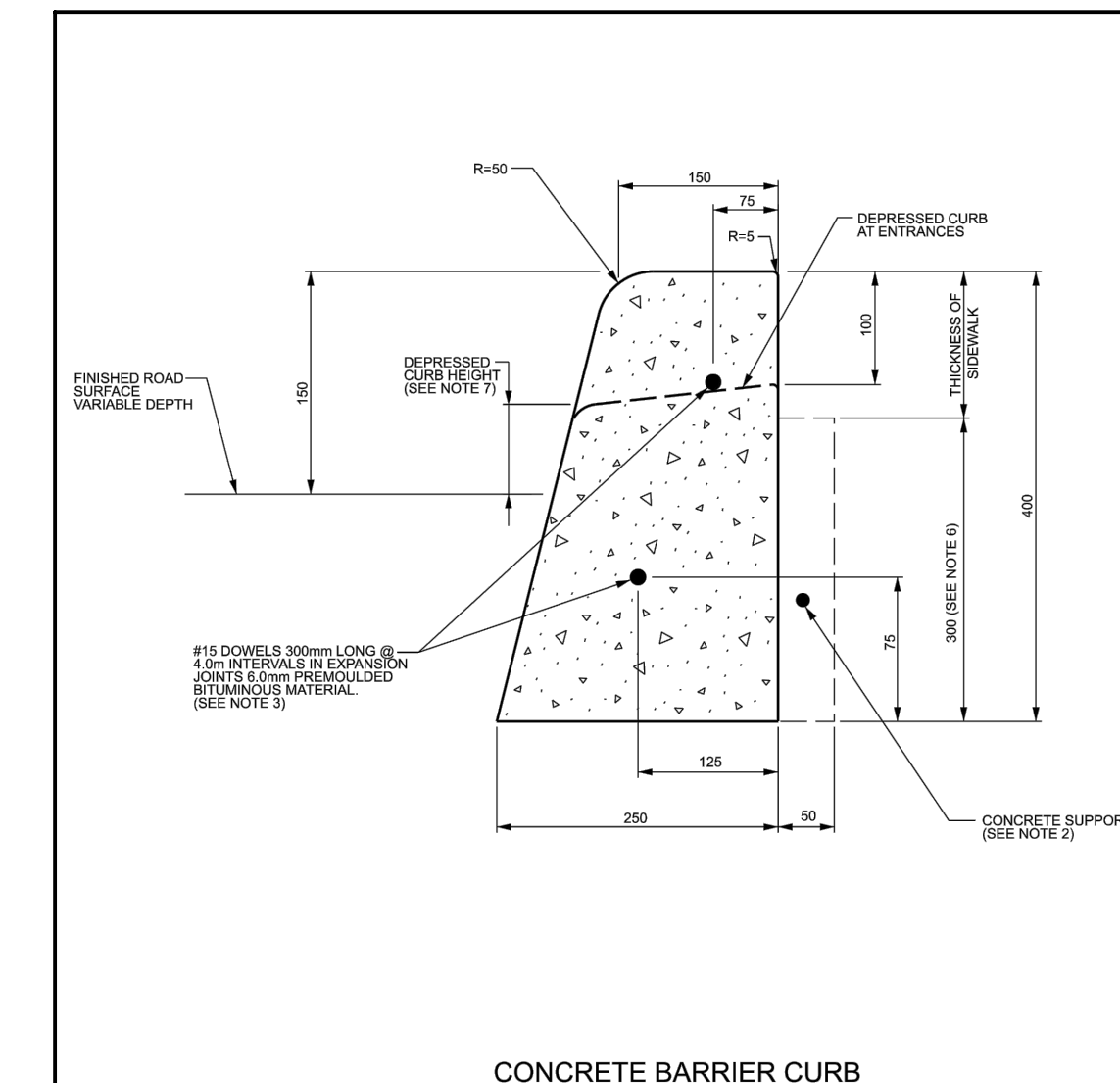
ONTARIO PROVINCIAL STANDARD DRAWING
 CAST IRON, SQUARE FRAME WITH CIRCULAR CLOSED OR OPEN COVER FOR MAINTENANCE HOLES
 Nov 2007 Rev 2
 OPSD 401.010



SPECIFIC MAINTENANCE HOLE COVER LABEL TO BE APPLIED



OTTAWA
 MONOLITHIC CONCRETE CURB AND SIDEWALK
 DATE: MAY 2001
 REV. DATE: MARCH 2018
 DWG. NO.: SC2



CONCRETE BARRIER CURB

- NOTES:
- THE FULL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSED ACCESS CROSSING.
 - A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK.
 - IF AN EXTRUSION CURING MACHINE IS USED, THE EXPANSION JOINTS MATERIAL AND THE #15 DOWELS ARE TO BE PLACED AT THE END OF THE EXTRUSION.
 - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
 - DUMMY JOINTS SHALL BE 25mm DEEP. FRONT, BACK AND TOP OF SECTION AT 4m SPACING OR MATCH JOINTING WHERE SIDEWALK IS ADJACENT.
 - FOR DEPRESSED CURB AT ENTRANCES USE 200.
 - DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 25mm.

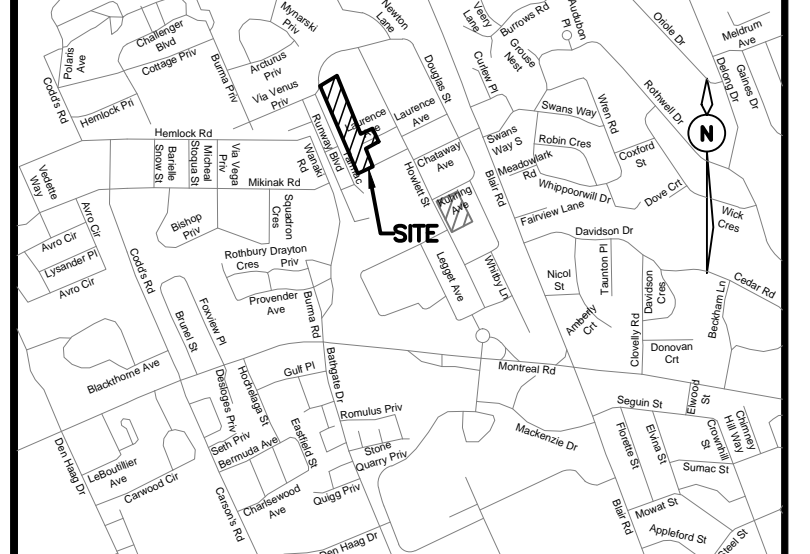
OTTAWA
 CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT (MODIFIED OPSD-600.110)
 DATE: JANUARY 2003
 REV. DATE: MARCH 2019
 DWG. No.: SC1.1

GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573

KEY PLAN PLAN CLÉ



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed	Date imprimé
--------------	--------------

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

A Detail no. No. du détail	A
B Location drawing no. sur dessin no.	B
C Drawing no. dessin no.	C

project
 M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS

drawing
 DETAILS

designed	conçu	date	date
JX/MH		OCT 2019	
drawn	dessiné	scale	échelle
MH		1:250	
checked	vérifié	sheet	feuille
KW/JX		3 of/ de 13	
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

5735-C103

PRECAST CONCRETE MAINTENANCE HOLE 1200mm DIAMETER

OPSD 701.010

NOTES:
 1 This sump is measured from the lowest invert.
 A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.
 B Precast concrete components shall be according to OPSD 701.030, 701.031, or 701.032.
 C Structure exceeding 5.0m in depth shall include safety platform according to OPSD 404.020.
 D Pipe support according to OPSD 708.020.
 E For benching and pipe opening details, see OPSD 701.021.
 F For adjustment unit and frame installation, see OPSD 704.010.
 G All dimensions are nominal.
 H All dimensions are in millimetres unless otherwise shown.

PRECAST CONCRETE MAINTENANCE HOLE 1500mm DIAMETER

OPSD 701.011

NOTES:
 1 For sump detail, see OPSD 701.010.
 A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.
 B Precast concrete components shall be according to OPSD 701.030, 701.031, 701.032, 701.041, 703.011, 703.021, and 706.010.
 C Structures exceeding 5.0m in depth shall include safety platform according to OPSD 404.020 or 404.021.
 D Pipe support shall be according to OPSD 708.020.
 E For benching and pipe opening details, see OPSD 701.021.
 F For adjustment unit and frame installation, see OPSD 704.010.
 G All dimensions are nominal.
 H All dimensions are in millimetres unless otherwise shown.

ASPHALT WALKWAY

DATE: FEB 2013
 REV: FEB 2014
 DWS No: SC20

NOTE:
 1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
 2. CROSS SLOPE SIDEWALK 1 TO 2% IN DIRECTION OF NATURAL DRAINAGE TO PROVIDE POSITIVE DRAINAGE OFF ALL WALKS.
 3. APPROVED NON-WOVEN CLASS 1 GEOTEXTILE AS PER MS-22.15 WHEN WARRANTED BY SOIL CONDITION, SUBJECT TO APPROVAL BY THE CONTRACT ADMINISTRATOR.
 4. GRANULAR 'A' SHALL MEET THE REQUIREMENTS OF OPSS 1010

PRECAST CONCRETE CATCH BASIN 600x600mm

OPSD 705.010

NOTES:
 1 Outlet hole size 525mm diameter maximum, location as required.
 2 200mm diameter knockout to accommodate subdrain. Knockout shall be 60mm deep.
 A Centre reinforcing in base slab and walls ±220mm.
 B Granular backfill shall be placed to a minimum thickness of 300mm all around the catch basin.
 C Frame, grate, and adjustment units shall be installed according to OPSD 704.010.
 D Pipe support shall be according to OPSD 708.020.
 E All dimensions are nominal.
 F All dimensions are in millimetres unless otherwise shown.

PRECAST CONCRETE TWIN INLET CATCH BASIN 600 x 1450mm

OPSD 705.020

NOTES:
 1 Outlet hole size 525mm diameter maximum, location as required.
 2 200mm diameter knockout to accommodate subdrain. Knockout shall be 60mm deep.
 3 Minimum clearance between beam recess and hole for pipe shall be 300mm or minimum clearance can be 150mm with addition of two 15M size rebar on 45 degree diagonal.
 A Centre reinforcing in base slab and walls ±220mm.
 B Granular backfill shall be placed to a minimum thickness of 300mm all around the catch basin.
 C Frame, grate, and adjustment units shall be installed according to OPSD 704.010.
 D Pipe support shall be according to OPSD 708.020.
 E All dimensions are nominal.
 F All dimensions are in millimetres unless otherwise shown.

CATCH BASIN CONNECTION FOR FLEXIBLE MAIN PIPE SEWER

OPSD 708.030

NOTES:
 1 For catch basin connections 300mm in diameter or less, factory made tees shall be used.
 A For catch basin connections greater than 300mm in diameter, maintenance holes shall be used at the main sewer.
 B All dimensions are in millimetres unless otherwise shown.

CATCH BASIN CONNECTION FOR RIGID MAIN PIPE SEWER

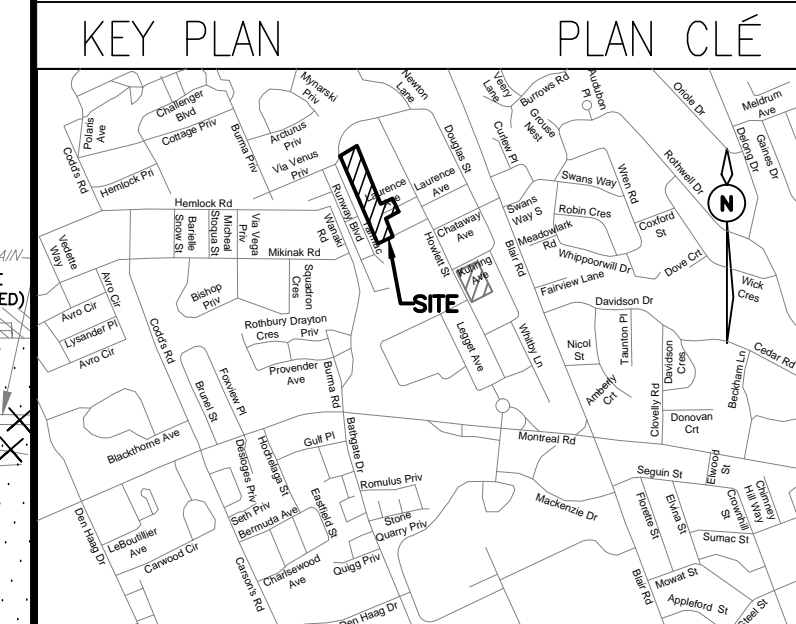
OPSD 708.010

NOTES:
 1 For sewers smaller than 450mm dia, connections shall be made using approved factory made tees. For all other sizes, either factory made tees or approved saddles may be used.
 2 Riser bedding shall have a minimum width of riser pipe outside diameter plus 600mm.
 A Approved cut-in tool shall be used for field installed tees and saddles.
 B Maintenance holes shall be used at the main sewer to connect catch basin connections greater than 300mm.
 C All dimensions are in millimetres unless otherwise shown.

GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed	Date imprimée

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

A	A Detail no. / No. de détail	A
B	B Location drawing no. / sur dessin no.	B
C	C Drawing no. / dessin no.	C

project / projet
 M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA / MONTREAL ROAD CAMPUS

drawing / dessin
 REMOVALS

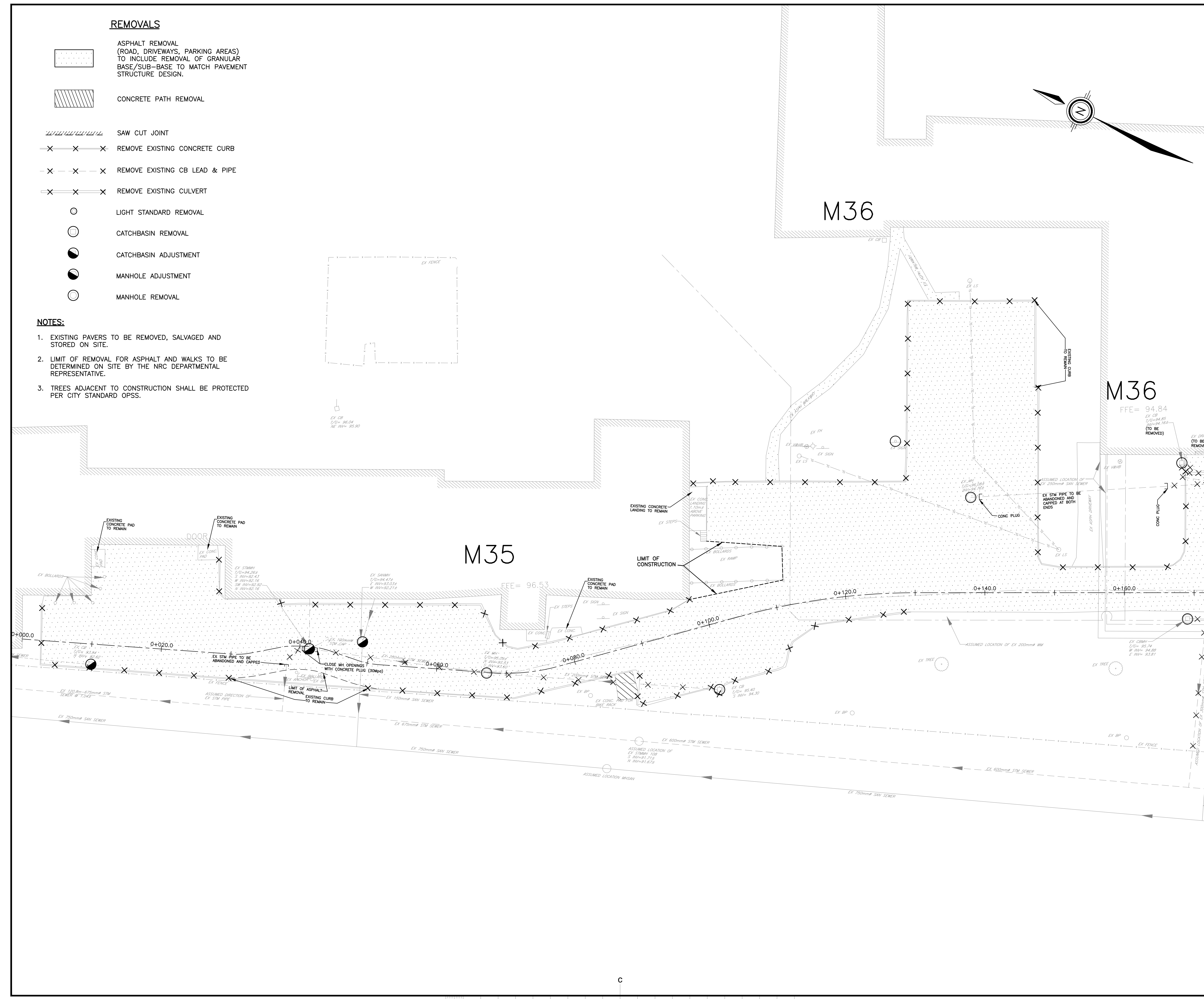
designed / conçu	date	drawn / dessiné	scale / échelle
JX	OCT 2019	MH	1:250
checked / vérifié	sheet / de	of / de	feuille
KW/JX	4	13	
approved / approuvé	W.O.no.	D.T.no.	
KW	-	-	
dwg.no.	dessin no.		
5735-C104			

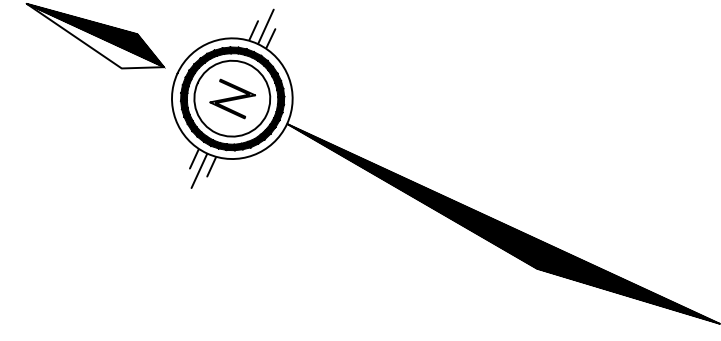
REMOVALS

- ASPHALT REMOVAL (ROAD, DRIVEWAYS, PARKING AREAS) TO INCLUDE REMOVAL OF GRANULAR BASE/SUB-BASE TO MATCH PAVEMENT STRUCTURE DESIGN.
- CONCRETE PATH REMOVAL
- SAW CUT JOINT
- REMOVE EXISTING CONCRETE CURB
- REMOVE EXISTING CB LEAD & PIPE
- REMOVE EXISTING CULVERT
- LIGHT STANDARD REMOVAL
- CATCHBASIN REMOVAL
- CATCHBASIN ADJUSTMENT
- MANHOLE ADJUSTMENT
- MANHOLE REMOVAL

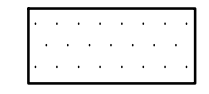

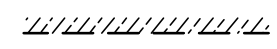








NOTES:

- EXISTING PAVERS TO BE REMOVED, SALVAGED AND STORED ON SITE.
- LIMIT OF REMOVAL FOR ASPHALT AND WALKS TO BE DETERMINED ON SITE BY THE NRC DEPARTMENTAL REPRESENTATIVE.
- TREES ADJACENT TO CONSTRUCTION SHALL BE PROTECTED PER CITY STANDARD OPSS.





REMOVALS

-  ASPHALT REMOVAL (ROAD, DRIVEWAYS, PARKING AREAS) TO INCLUDE REMOVAL OF GRANULAR BASE/SUB-BASE TO MATCH PAVEMENT STRUCTURE DESIGN.
-  CONCRETE PATH REMOVAL
-  SAW CUT JOINT
-  REMOVE EXISTING CONCRETE CURB
-  REMOVE EXISTING CB LEAD & PIPE
-  REMOVE EXISTING CULVERT
-  LIGHT STANDARD REMOVAL
-  CATCHBASIN REMOVAL
-  CATCHBASIN ADJUSTMENT
-  MANHOLE ADJUSTMENT
-  MANHOLE REMOVAL

NOTES:

1. EXISTING PAVERS TO BE REMOVED, SALVAGED AND STORED ON SITE.
2. LIMIT OF REMOVAL FOR ASPHALT AND WALKS TO BE DETERMINED ON SITE BY THE NRC DEPARTMENTAL REPRESENTATIVE.
3. TREES ADJACENT TO CONSTRUCTION SHALL BE PROTECTED PER CITY STANDARD OPSS.

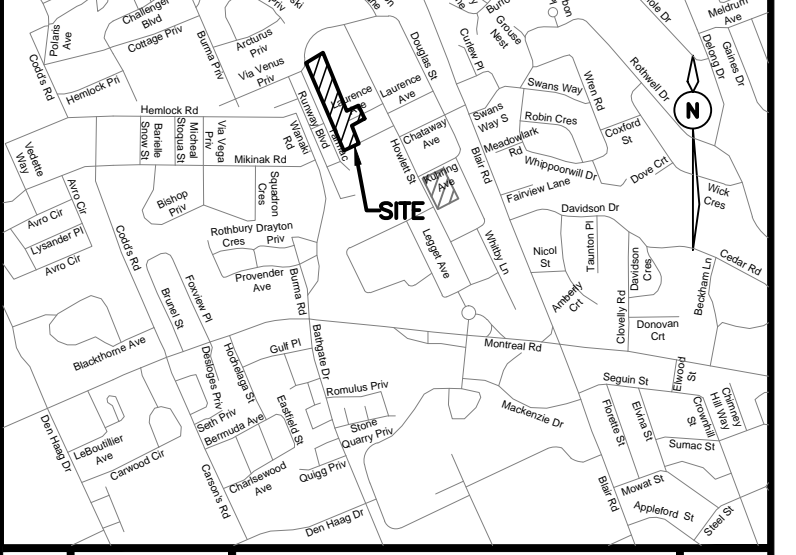


GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573

KEY PLAN / PLAN CLÉ



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed		Date imprimée	

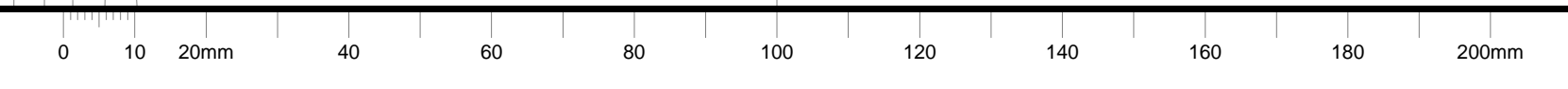
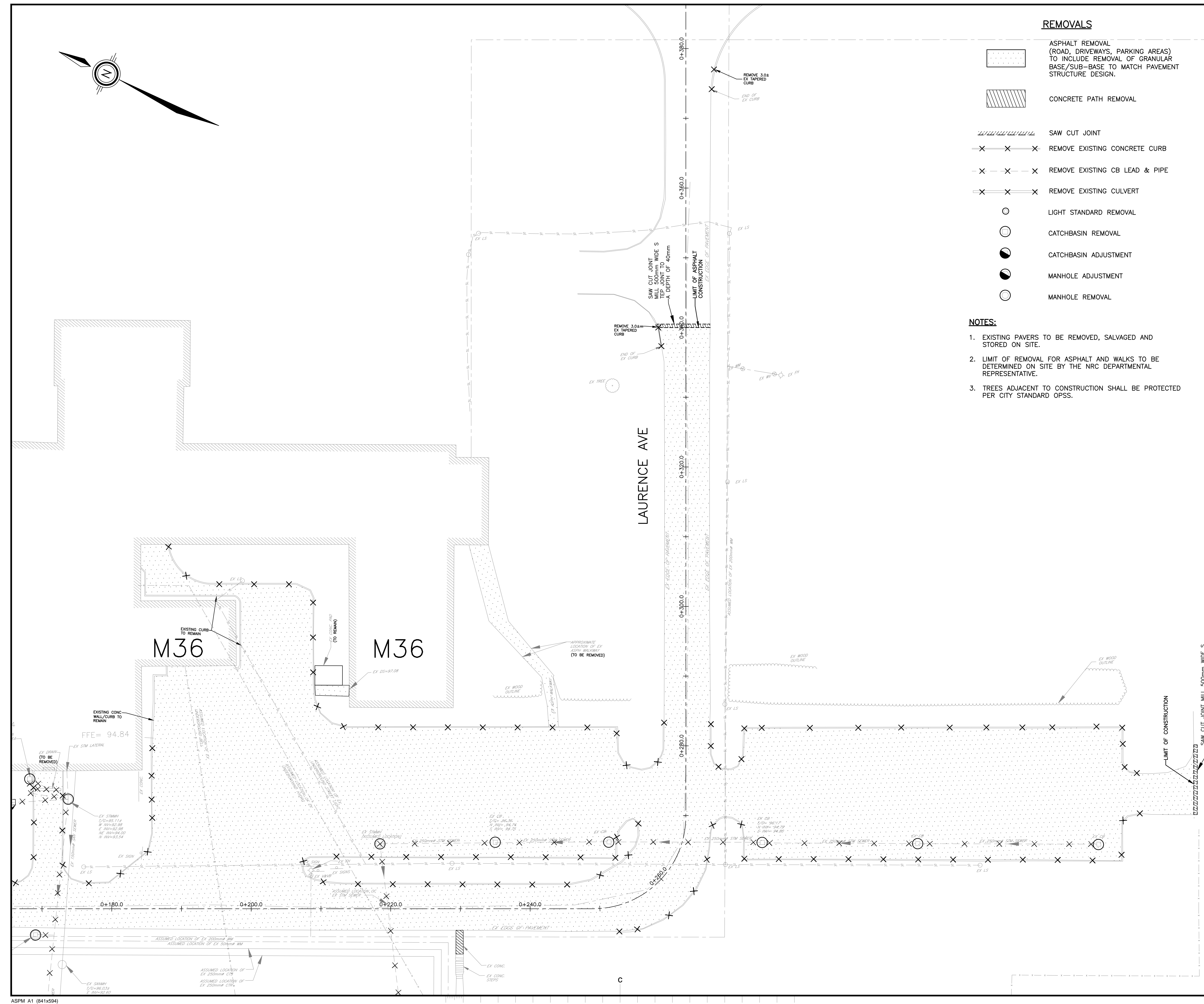
- o Verify all dimensions and site conditions and be responsible for same
- o Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

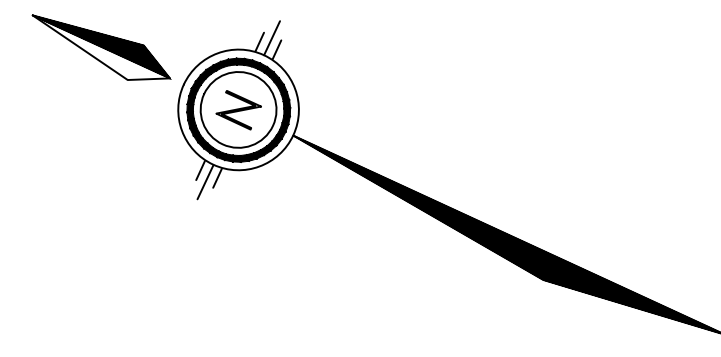
A	A Detail no. / No. de détail	A
B	B Location drawing no. / sur dessin no.	B
C	C Drawing no. / dessin no.	C

project / projet
 M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA / MONTREAL ROAD CAMPUS

drawing / dessin
 REMOVALS

designed / conçu	JX	date / date	OCT 2019
drawn / dessiné	MH	scale / échelle	1:250
checked / vérifié	KW/JX	sheet / feuille	5 of / de 13
approved / approuvé	KW	W.O.no.	-
dwg.no. / dessin no.	5735-C105	D.T.no.	-

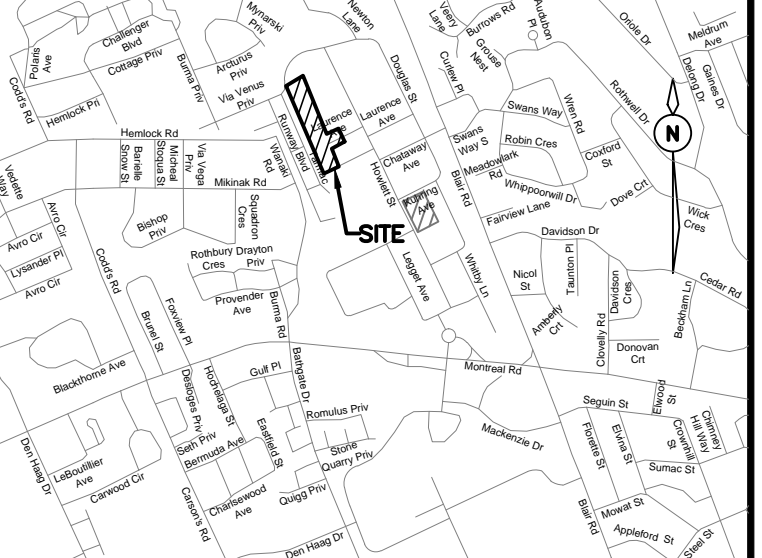




GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR RESTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

KEY PLAN PLAN CLÉ



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed	Date imprimée

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

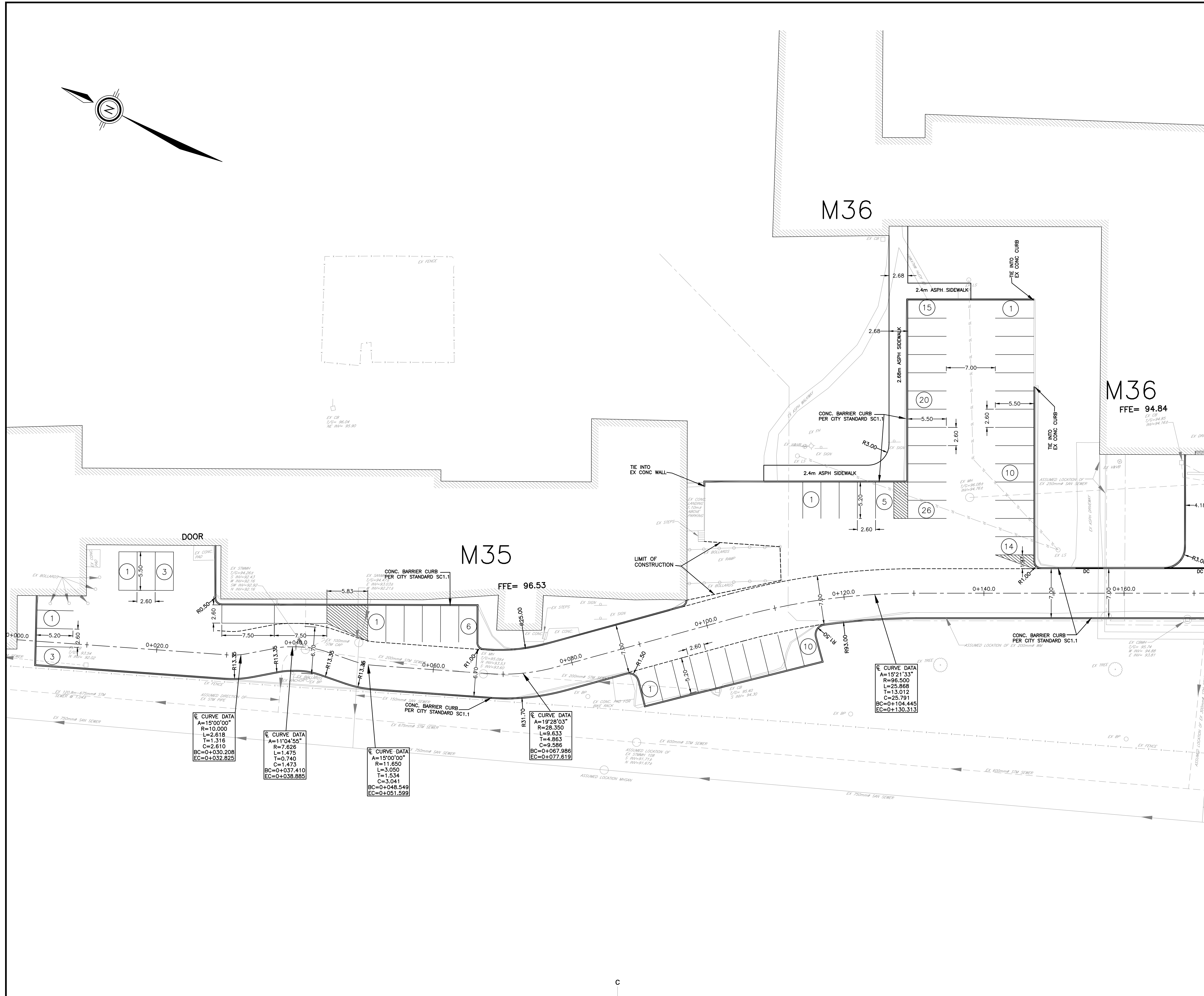
A	A Detail no. No. de détail	A
C	B Location drawing no. sur dessin no.	B
	C Drawing no. dessin no.	C

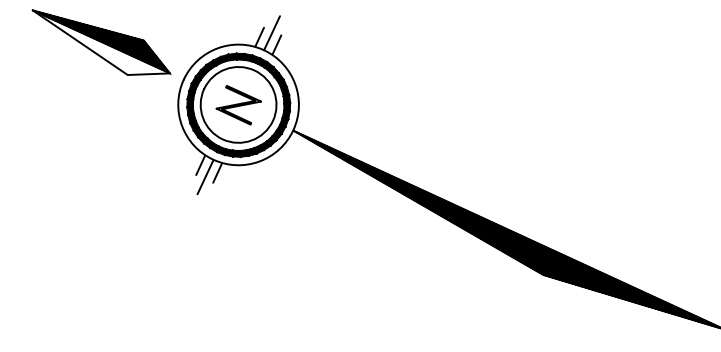
project
 M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS

drawing
 GEOMETRY LAYOUT

designed	conçu	date	date
JX		OCT 2019	
drawn	dessiné	scale	échelle
MH		1:250	
checked	vérifié	sheet	of/de
KW/JX		6	13
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

5735-C106



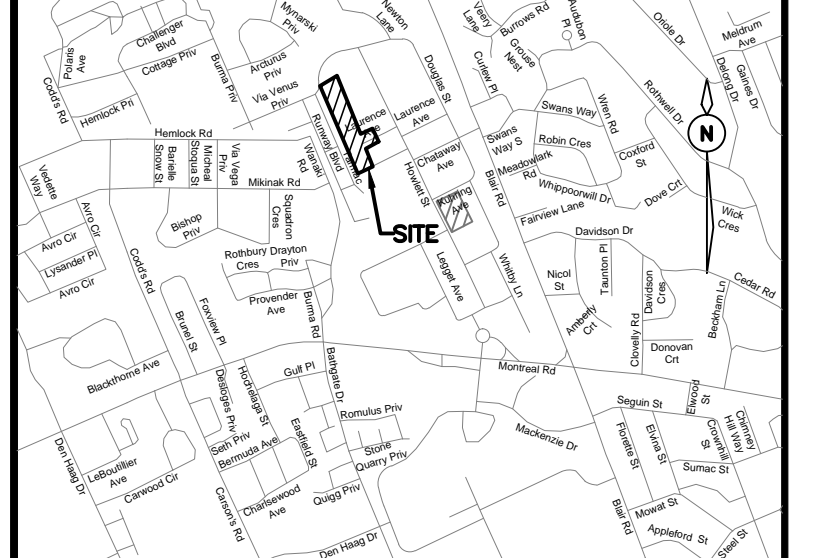


GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573

KEY PLAN / PLAN CLÉ



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed / Date imprimée

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

A	A Detail no. / No. de détail	A
B	B Location drawing no. / sur dessin no.	B
C	C Drawing no. / dessin no.	C

project / projet
 M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION

NATIONAL RESEARCH COUNCIL CANADA / MONTREAL ROAD CAMPUS

drawing / dessin
 GEOMETRY LAYOUT

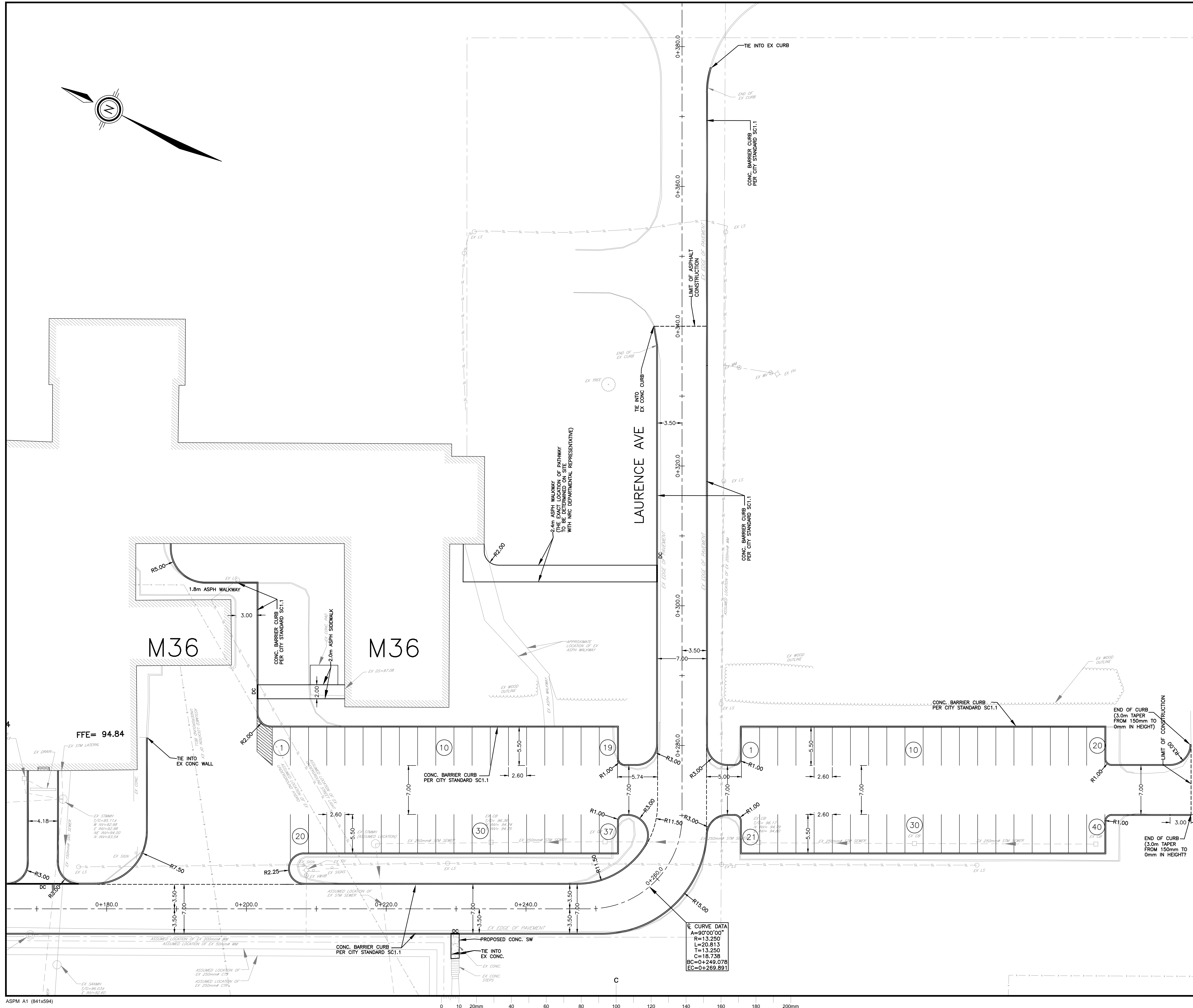
designed / conçu / date / date
 JX / OCT 2019

drawn / dessiné / scale / échelle
 MH / 1:250

checked / vérifié / sheet / feuille
 KW/JX / 7 of / de 13

approved / approuvé / W.O.no. / D.T.no.
 KW / -

dwg.no. / dessin no.
 5735-C107

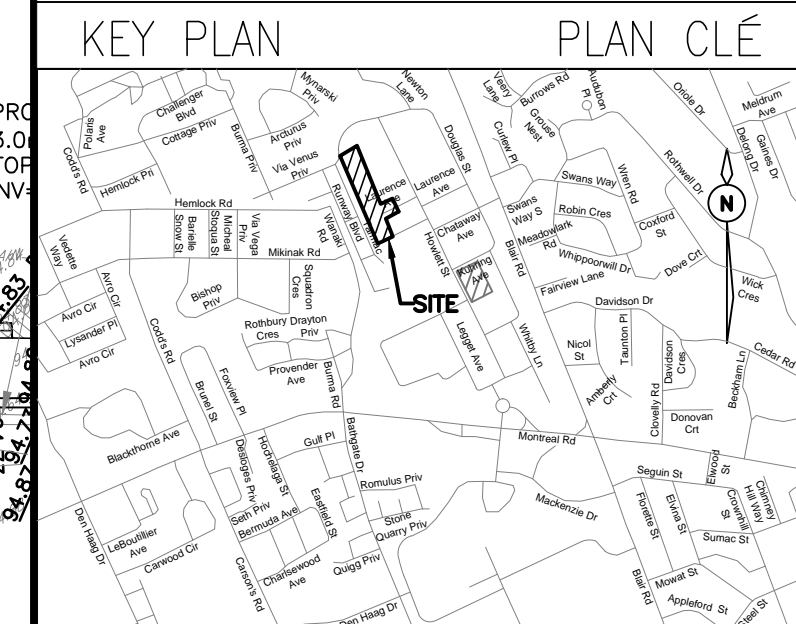




GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

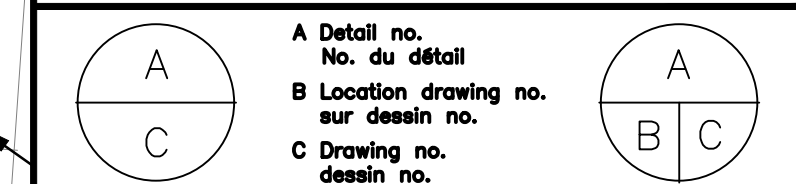
Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed	Date imprimé

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



project: M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS

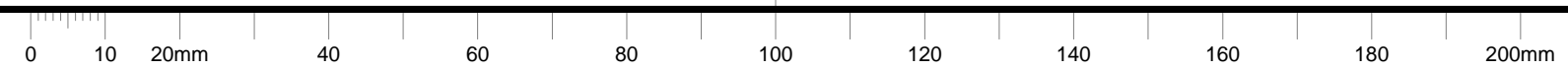
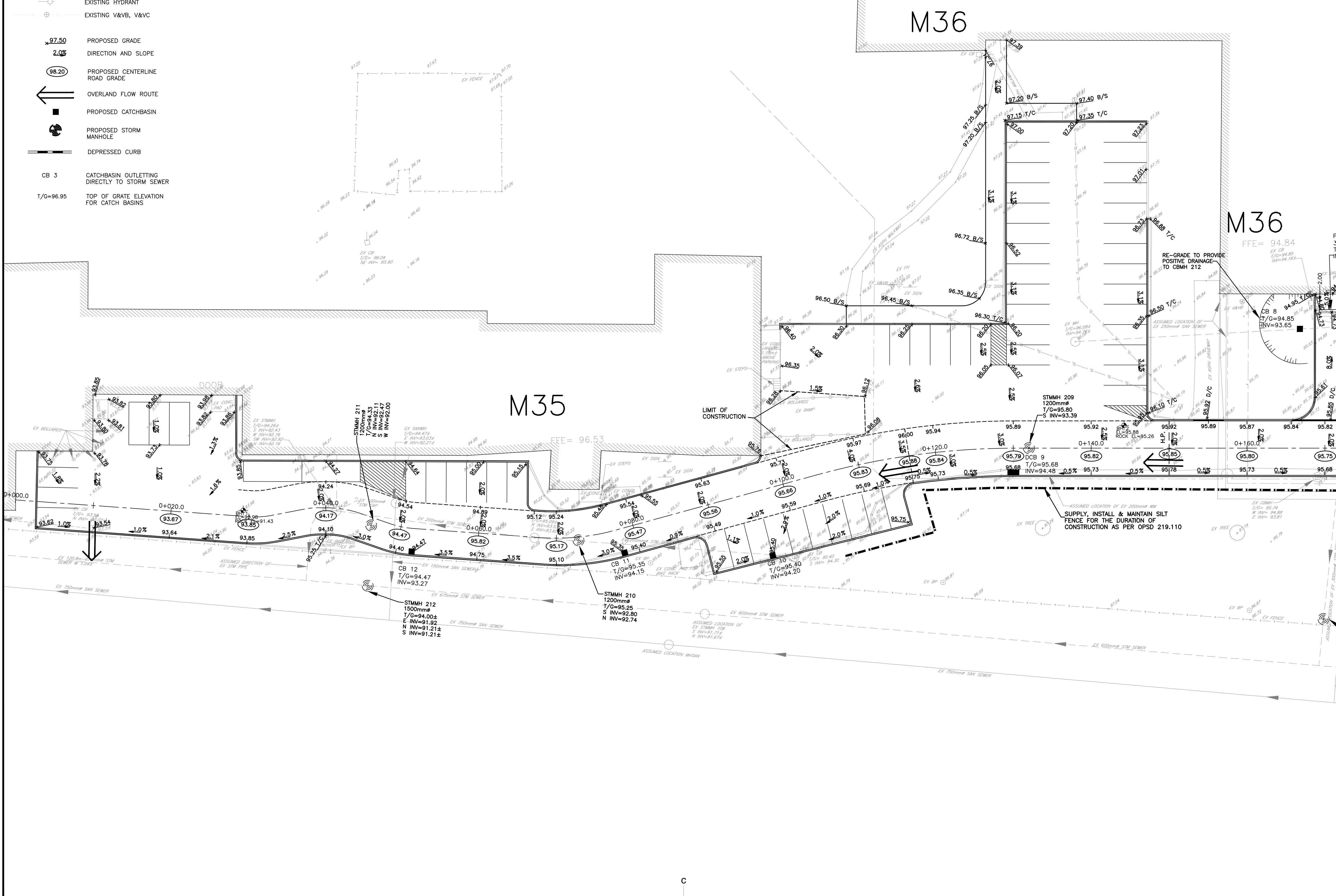
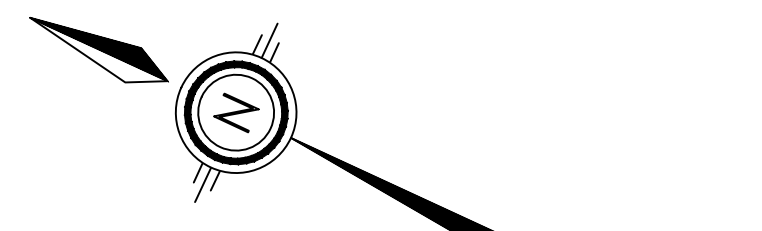
drawing: GRADING PLAN

designed	conçu	date	date
JX		OCT 2019	
drawn	dessiné	scale	échelle
MH		1:250	
checked	vérifié	sheet	of/de
KW/JX		8	13
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		

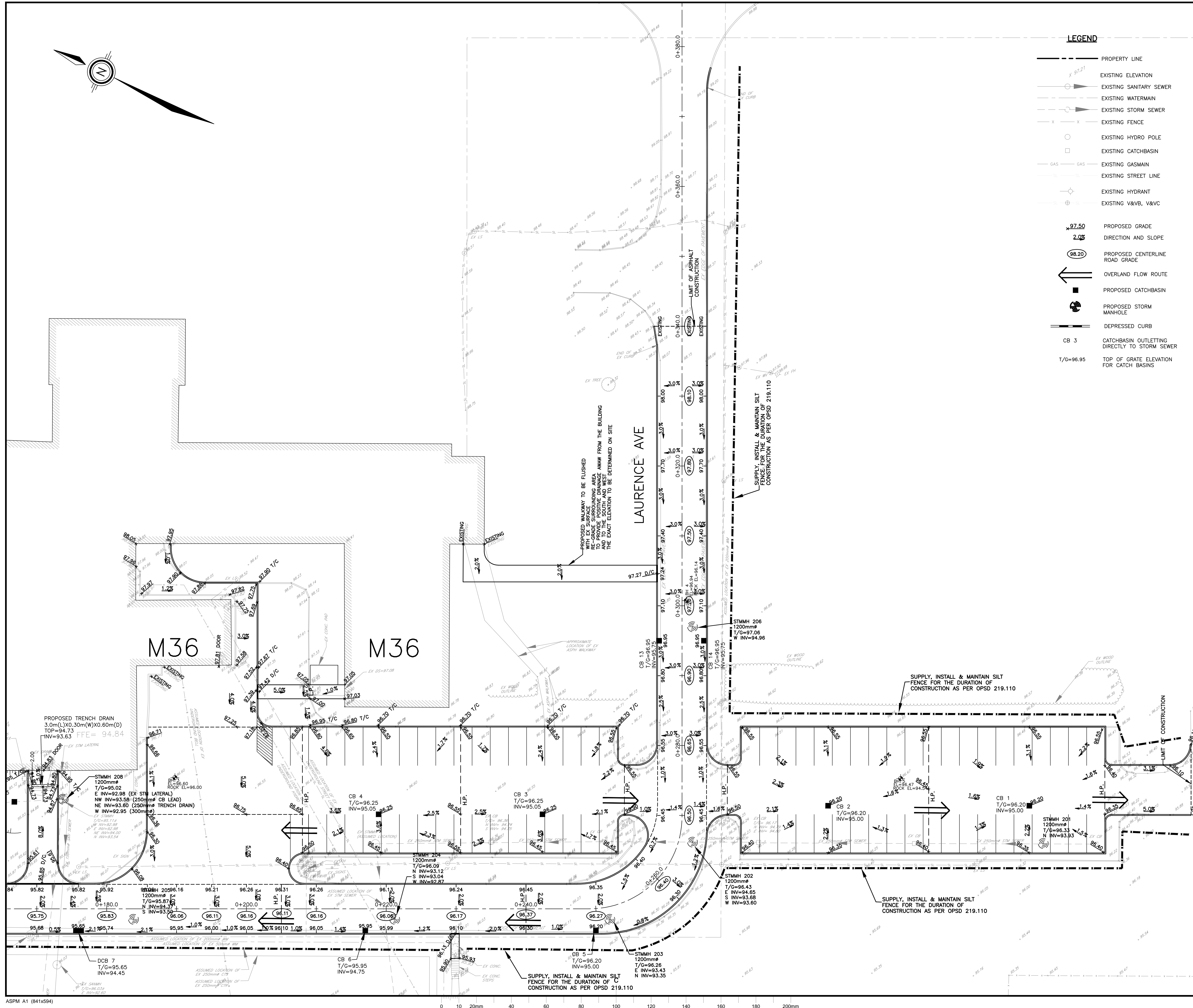
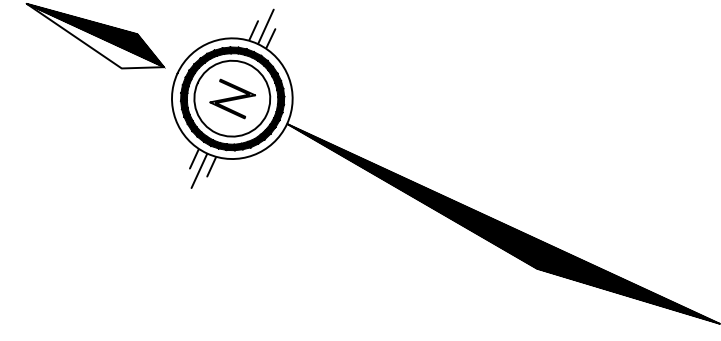
5735-C108

LEGEND

- PROPERTY LINE
- EXISTING ELEVATION
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- EXISTING FENCE
- EXISTING HYDRO POLE
- EXISTING CATCHBASIN
- GAS
- EXISTING GASMAIN
- EXISTING STREET LINE
- EXISTING HYDRANT
- EXISTING V&VB, V&VC
- PROPOSED GRADE
- DIRECTION AND SLOPE
- PROPOSED CENTERLINE ROAD GRADE
- OVERLAND FLOW ROUTE
- PROPOSED CATCHBASIN
- PROPOSED STORM MANHOLE
- DEPRESSED CURB
- CB 3 CATCHBASIN OUTLETTING DIRECTLY TO STORM SEWER
- T/G=96.95 TOP OF GRATE ELEVATION FOR CATCH BASINS

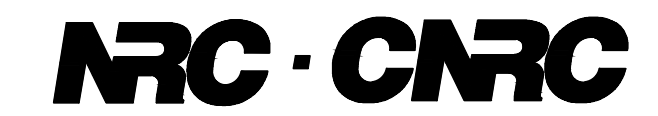


C



LEGEND

- PROPERTY LINE
- x 97.21 EXISTING ELEVATION
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- x x EXISTING FENCE
- EXISTING HYDRO POLE
- EXISTING CATCHBASIN
- GAS
- EXISTING GASMAIN
- EXISTING STREET LINE
- EXISTING HYDRANT
- ⊕ EXISTING V&V, V&VC
- x 97.50 PROPOSED GRADE
- 2.0% DIRECTION AND SLOPE
- 96.20 PROPOSED CENTERLINE ROAD GRADE
- ← OVERLAND FLOW ROUTE
- PROPOSED CATCHBASIN
- ⊕ PROPOSED STORM MANHOLE
- DEPRESSED CURB
- CB 3 CATCHBASIN OUTLETTING DIRECTLY TO STORM SEWER
- T/G=96.95 TOP OF GRATE ELEVATION FOR CATCH BASINS



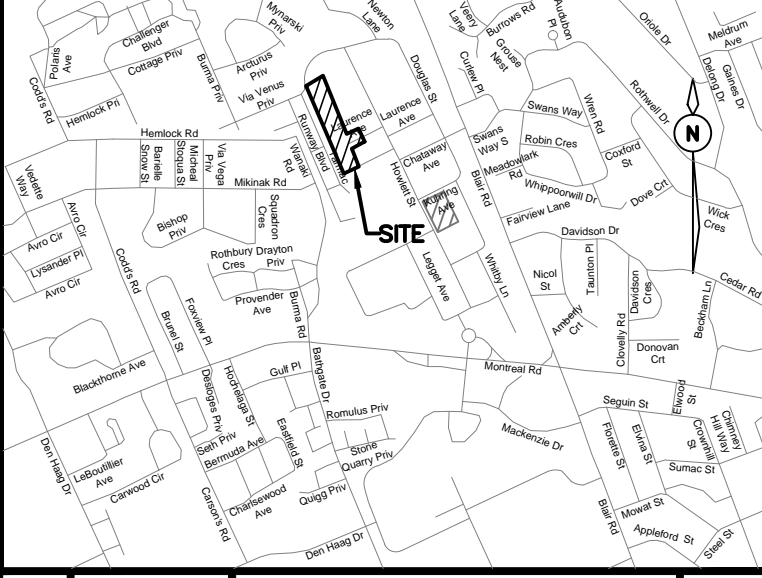
GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.



2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573

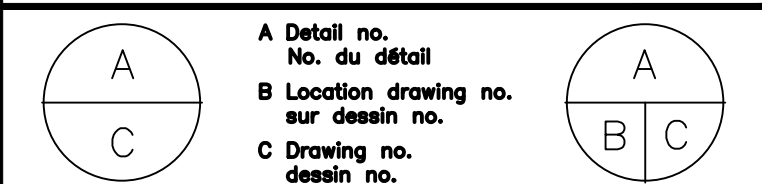
KEY PLAN / PLAN CLÉ



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed / Date imprimée

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



project / projet
 M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION

NATIONAL RESEARCH COUNCIL CANADA / MONTREAL ROAD CAMPUS

drawing / dessin
 GRADING PLAN

designed / conçu	date	drawn / dessiné	scale / échelle
JX	OCT 2019	MH	1:250
checked / vérifié	sheet / feuille	approved / approuvé	W.O.no. / D.T.no.
KW/JX	9 of / de 13	KW	-

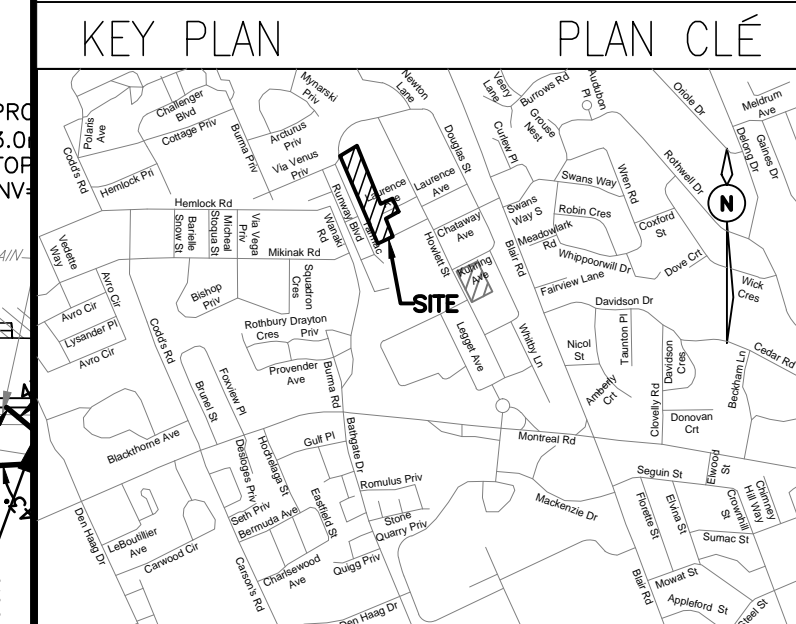
dwg.no. / dessin no.
 5735-C109



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

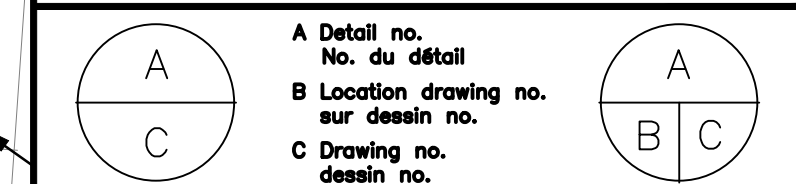
Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed	Date imprimé

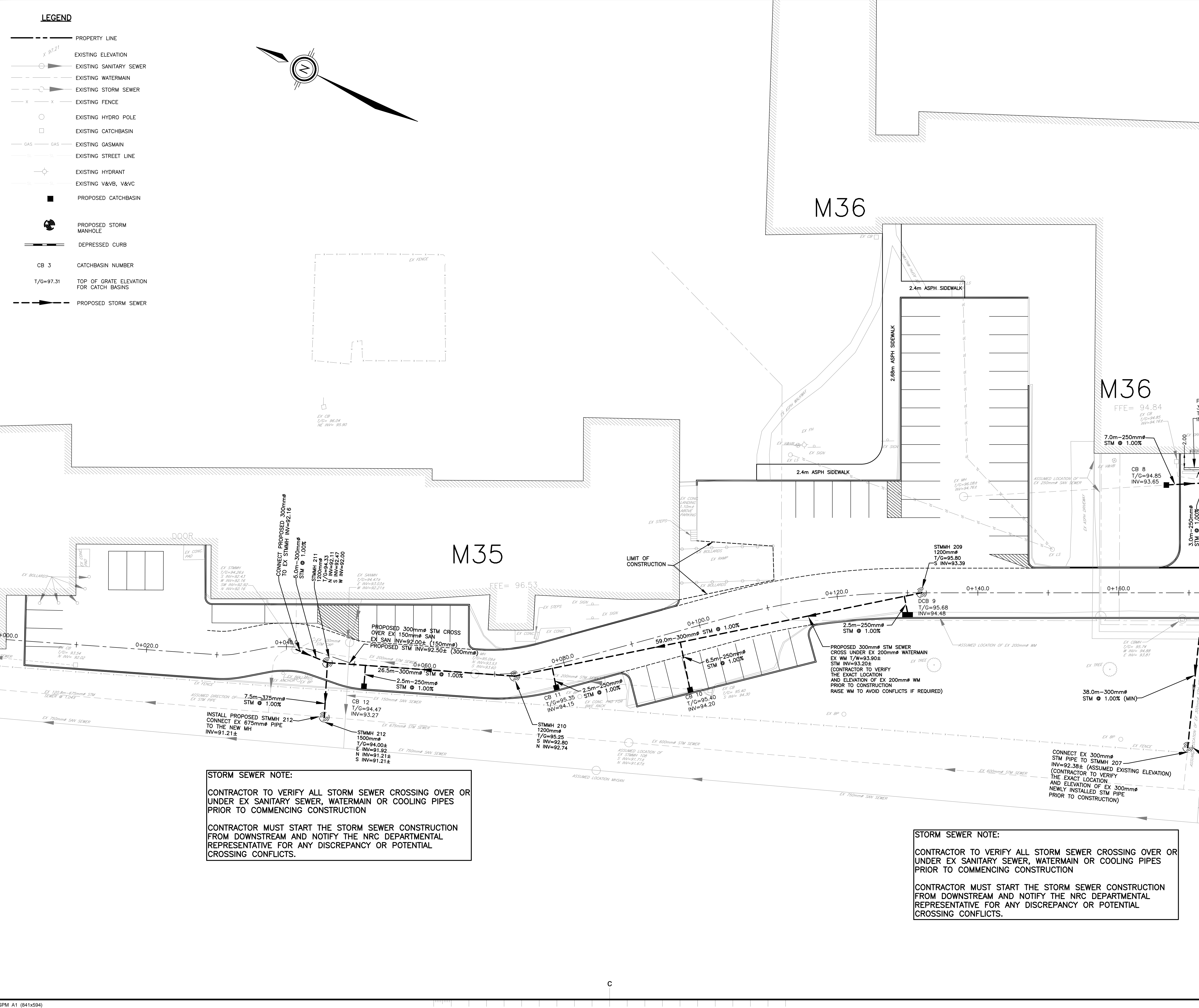
- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



project: M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA
 MONTREAL ROAD CAMPUS

drawing: SERVICING PLAN

designed	conçu	date	date
JX		OCT 2019	
drawn	dessiné	scale	échelle
MH		1:250	
checked	vérifié	sheet	of/de
KW/JX		10	13
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.	5735-C110	



STORM SEWER NOTE:
 CONTRACTOR TO VERIFY ALL STORM SEWER CROSSING OVER OR UNDER EX SANITARY SEWER, WATERMAIN OR COOLING PIPES PRIOR TO COMMENCING CONSTRUCTION
 CONTRACTOR MUST START THE STORM SEWER CONSTRUCTION FROM DOWNSTREAM AND NOTIFY THE NRC DEPARTMENTAL REPRESENTATIVE FOR ANY DISCREPANCY OR POTENTIAL CROSSING CONFLICTS.

STORM SEWER NOTE:
 CONTRACTOR TO VERIFY ALL STORM SEWER CROSSING OVER OR UNDER EX SANITARY SEWER, WATERMAIN OR COOLING PIPES PRIOR TO COMMENCING CONSTRUCTION
 CONTRACTOR MUST START THE STORM SEWER CONSTRUCTION FROM DOWNSTREAM AND NOTIFY THE NRC DEPARTMENTAL REPRESENTATIVE FOR ANY DISCREPANCY OR POTENTIAL CROSSING CONFLICTS.

- LEGEND**
- PROPERTY LINE
 - EXISTING ELEVATION
 - EXISTING SANITARY SEWER
 - EXISTING WATERMAIN
 - EXISTING STORM SEWER
 - EXISTING FENCE
 - EXISTING HYDRO POLE
 - EXISTING CATCHBASIN
 - EXISTING GASMAIN
 - EXISTING STREET LINE
 - EXISTING HYDRANT
 - EXISTING V&VB, V&VC
 - PROPOSED CATCHBASIN
 - PROPOSED STORM MANHOLE
 - DEPRESSED CURB
 - CB 3 CATCHBASIN NUMBER
 - T/G=97.31 TOP OF GRATE ELEVATION FOR CATCH BASINS
 - PROPOSED STORM SEWER

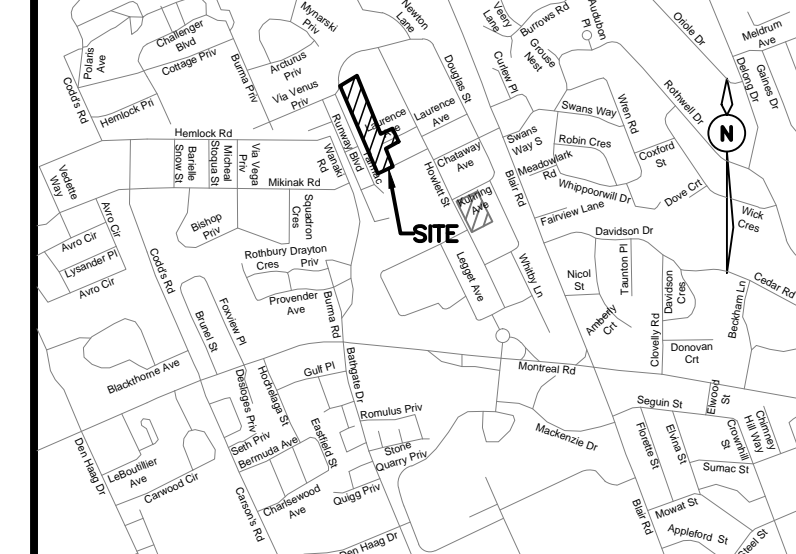


GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573

KEY PLAN / PLAN CLÉ



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed	Date imprimé

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

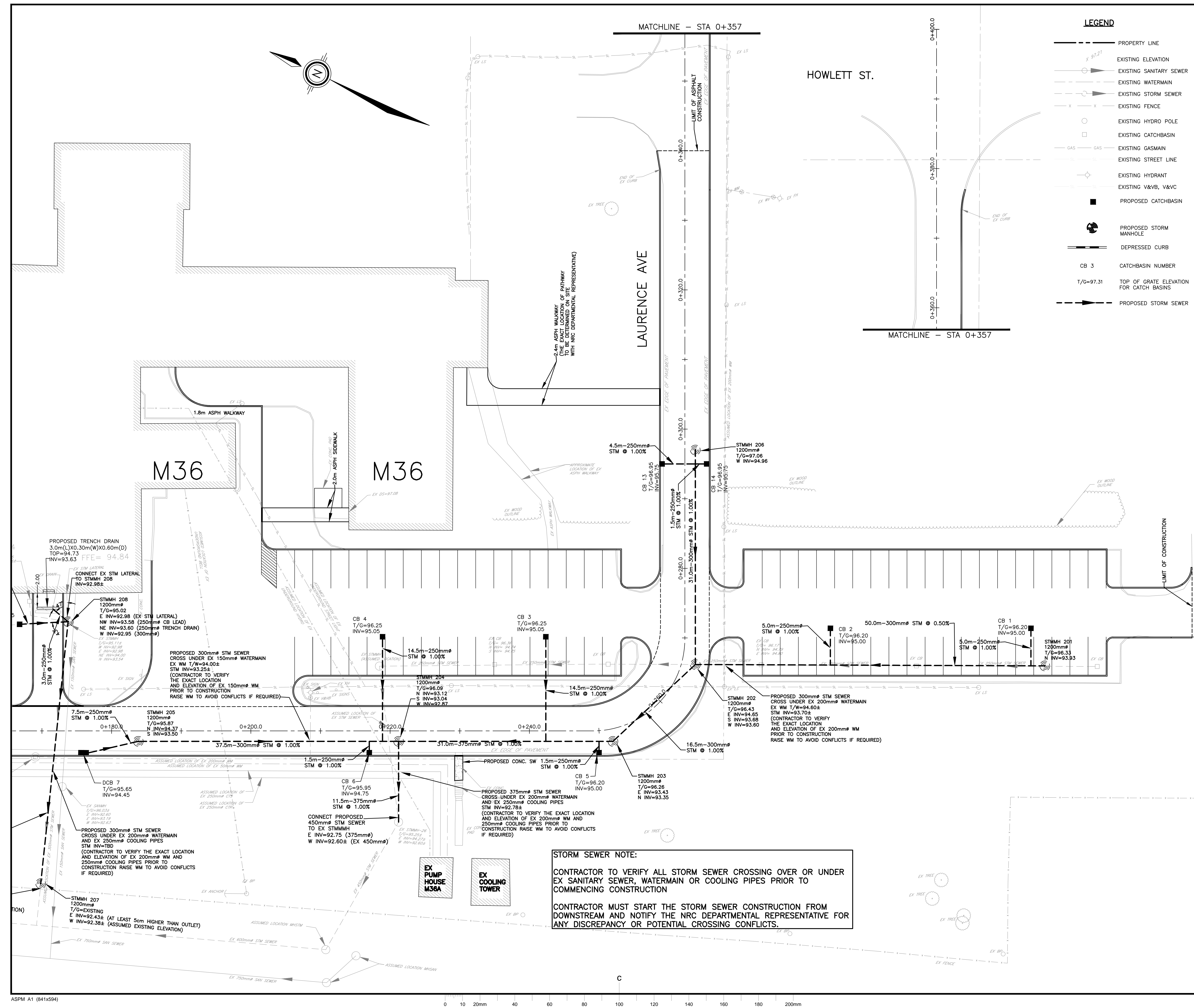
A	A Detail no. / No. de détail	A
B	B Location drawing no. / sur dessin no.	B
C	C Drawing no. / dessin no.	C

project / projet
 M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION

NATIONAL RESEARCH COUNCIL CANADA / MONTREAL ROAD CAMPUS

drawing / dessin
 SITE SERVICING PLAN

designed	conçu	date	date
JX		OCT 2019	
drawn	dessiné	scale	échelle
MH		1:250	
checked	vérifié	sheet	feuille
KW/JX		11 of/ de 13	
approved	approuvé	W.O.no.	D.T.no.
KW		-	
dwg.no.	dessin no.		
5735-C111			



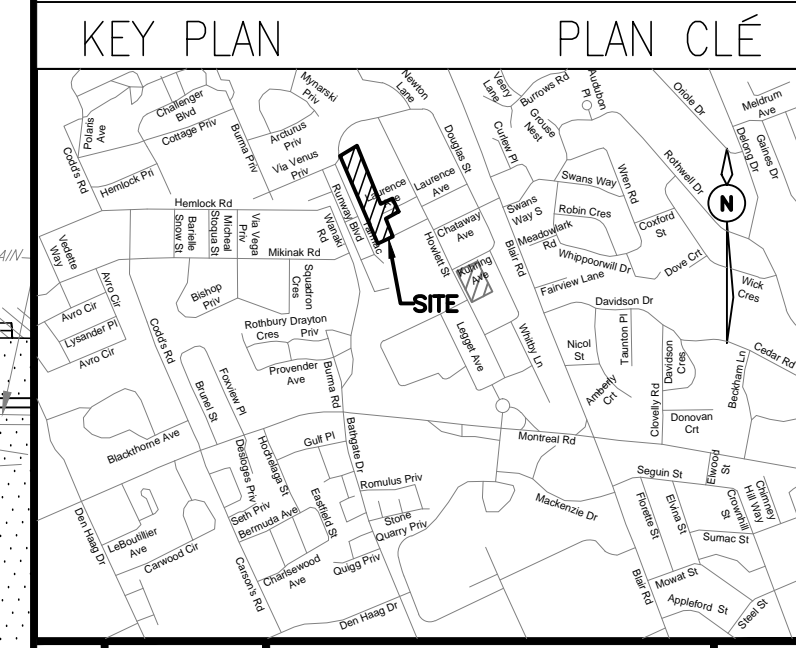
STORM SEWER NOTE:
 CONTRACTOR TO VERIFY ALL STORM SEWER CROSSING OVER OR UNDER EX SANITARY SEWER, WATERMAIN OR COOLING PIPES PRIOR TO COMMENCING CONSTRUCTION
 CONTRACTOR MUST START THE STORM SEWER CONSTRUCTION FROM DOWNSTREAM AND NOTIFY THE NRC DEPARTMENTAL REPRESENTATIVE FOR ANY DISCREPANCY OR POTENTIAL CROSSING CONFLICTS.



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

Ainley GROUP
 2724 Fenton Road
 Ottawa, Ontario
 K1T 3T7
 Telephone: (613) 822-1052
 Fax: (613) 822-1573



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed	Date imprimée
--------------	---------------

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.

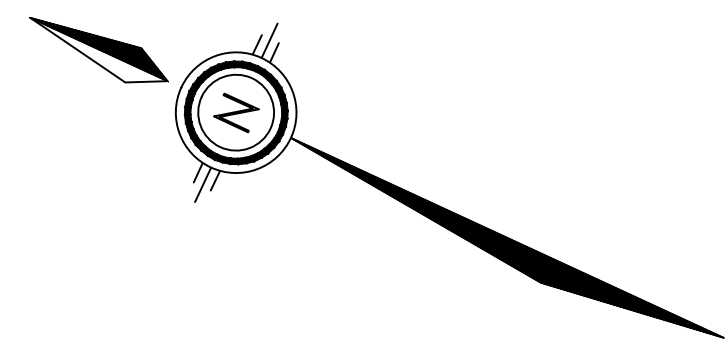
A	A Detail no. / No. de détail	A
B	B Location drawing no. / sur dessin no.	B
C	C Drawing no. / dessin no.	C

project / projet
 M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA / MONTREAL ROAD CAMPUS

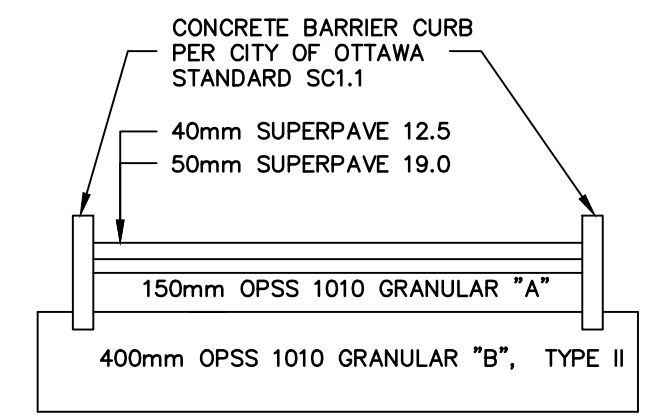
drawing / dessin
 REINSTATEMENTS

designed / conçu	JX	date	OCT 2019
drawn / dessiné	MH	scale / échelle	1:250
checked / vérifié	KW/JX	sheet / feuille	12 of / de 13
approved / approuvé	KW	W.O.no.	-
D.T.no.			

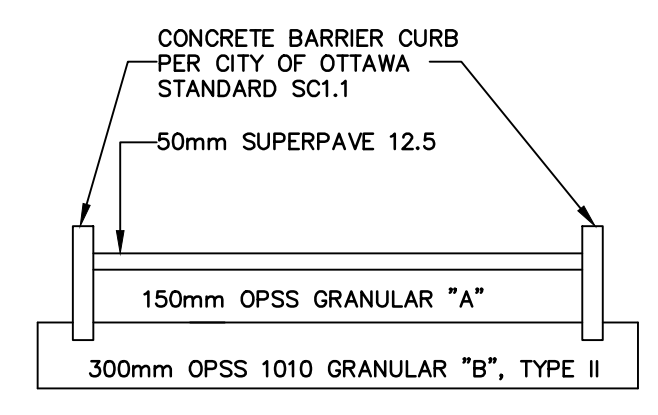
dwg.no. / dessin no.
 5735-C112



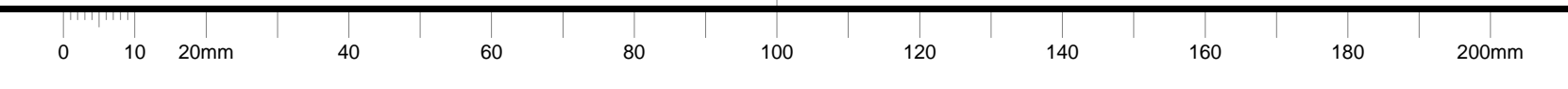
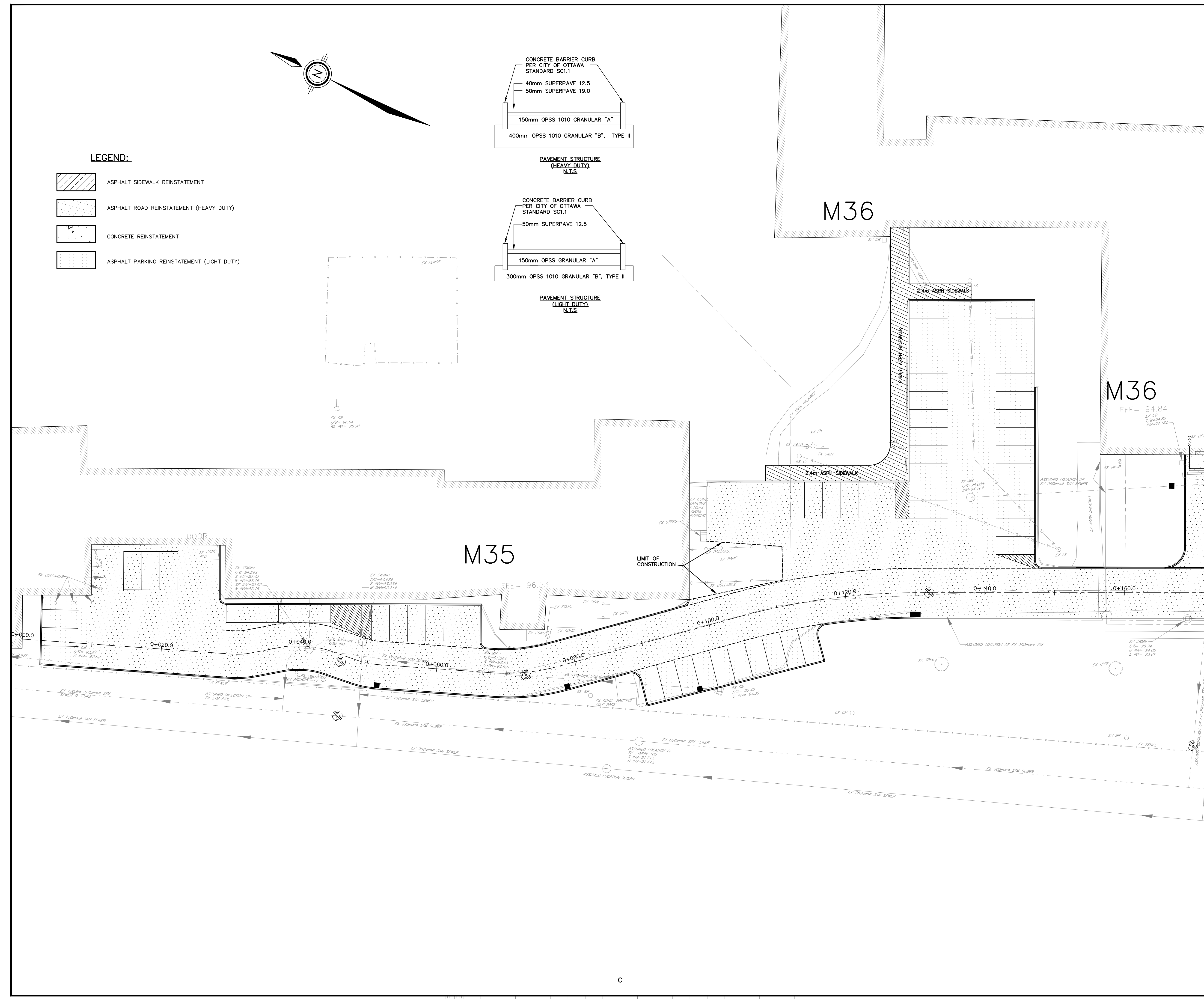
- LEGEND:**
- ASPHALT SIDEWALK REINSTATEMENT
 - ASPHALT ROAD REINSTATEMENT (HEAVY DUTY)
 - CONCRETE REINSTATEMENT
 - ASPHALT PARKING REINSTATEMENT (LIGHT DUTY)

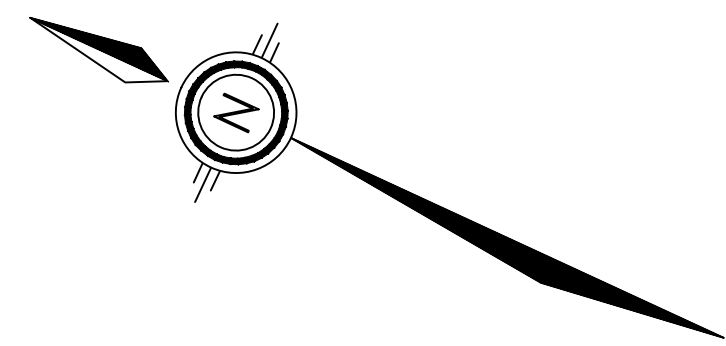


PAVEMENT STRUCTURE (HEAVY DUTY) N.T.S.



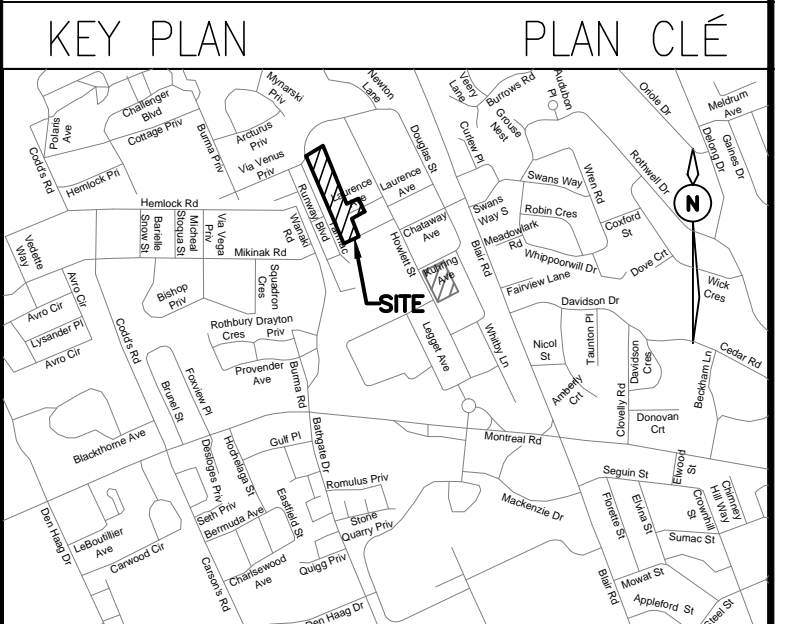
PAVEMENT STRUCTURE (LIGHT DUTY) N.T.S.





GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTORS MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.



No.	Date	Revision	By:
3	15-11-2019	ISSUED FOR TENDER	KW
2	01-11-2019	REVISED PER CLIENT COMMENTS	KW
1	25-10-2019	ISSUED FOR 90% DESIGN SUBMISSION	KW

Date Printed	Date imprimée
--------------	---------------

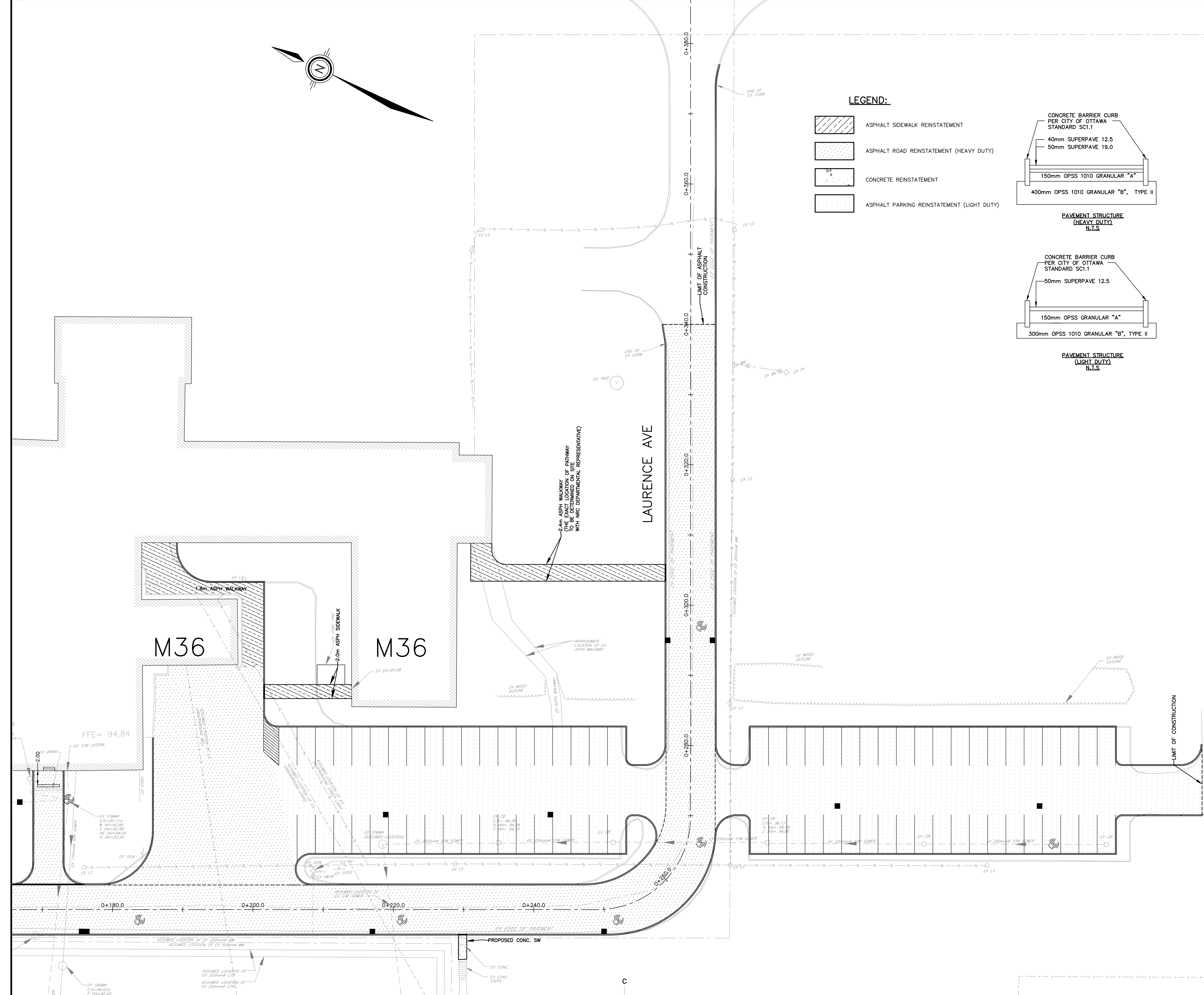
- o Verify all dimensions and site conditions and be responsible for same.
- o Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

A	A Detail no. / No. de détail	A
B	B Location drawing no. / sur dessin no.	B
C	C Drawing no. / dessin no.	C

project / projet
 M-36 PARKING LOT, STORM SEWER AND SERVICE ROAD REHABILITATION
 NATIONAL RESEARCH COUNCIL CANADA / MONTREAL ROAD CAMPUS
 drawing / dessin
 REINSTATEMENTS

designed / conçu	JX	date / date	OCT 2019
drawn / dessiné	MH	scale / échelle	1:250
checked / vérifié	KW/JX	sheet / feuille	13 of / de 13
approved / approuvé	KW	W.O.no. / D.T.no.	-

dwg.no. / dessin no.
 5735-C113



LEGEND:

- ASPHALT SIDEWALK REINSTATEMENT
- ASPHALT ROAD REINSTATEMENT (HEAVY DUTY)
- CONCRETE REINSTATEMENT
- ASPHALT PARKING REINSTATEMENT (LIGHT DUTY)

