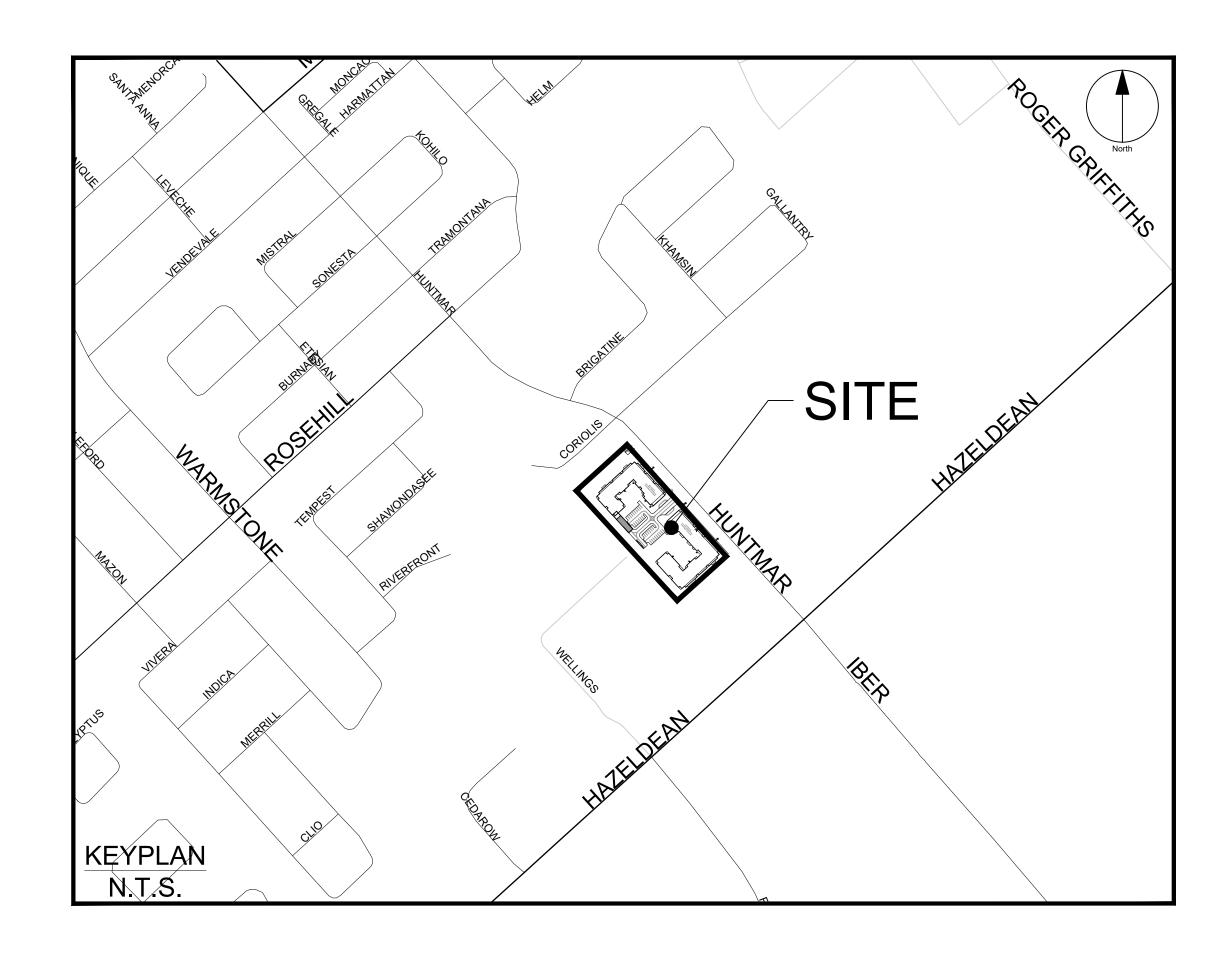
21 HUNTMAR CITY OF OTTAWA



IBI GROUP

400 – 333 Preston Street

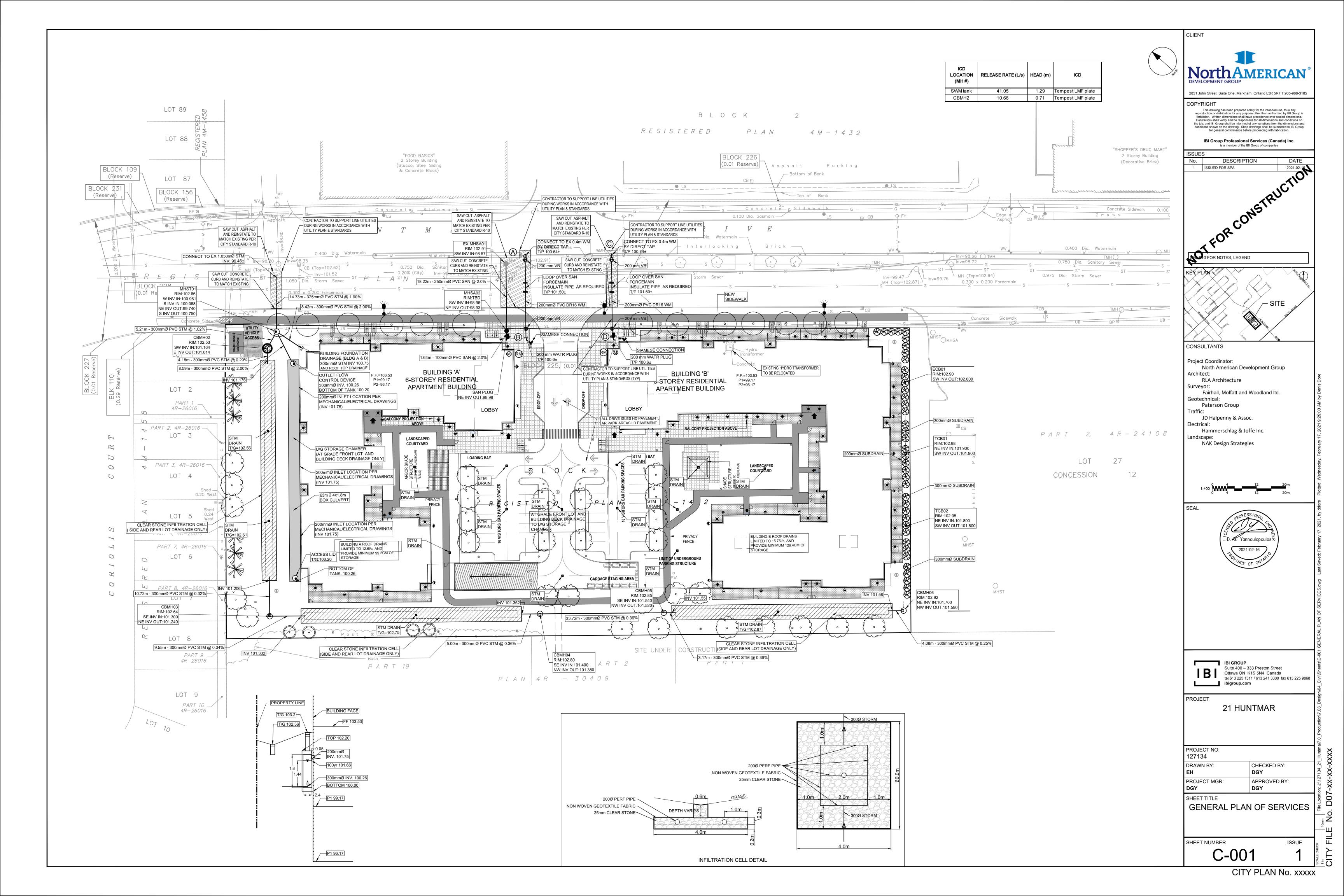
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Sheet List Table				
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000	COVER			
C-001	GENERAL PLAN OF SERVICES			
C-010	NOTES-LEGEND-CB DATA TABLE			
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C-400	SANITARY DRAINAGE PLAN			
C-500	STORM DRAINAGE PLAN			
C-900	EROSION AND SEDIMENTATION CONTROL PLAN			



CONTRACT NO. 127134



PAVEMENT STRUCTURE ** CAR ONLY PARKING AREAS: 50mm WEAR COURSE - HL-3 OR SUPERPAVE 12.5 ASPHALTIC CONCRETE 150mm BASE - OPSS GRANULAR "A" CRUSHED STONE 300mm SUBBASE - OPSS GRANULAR "B" TYPE II SUBGRADE - EITHER FILL, IN SITU SOIL, OR OPSS GRANULAR "B" TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL OR FILL ACCESS LANES AND HEAVY TRUCK PARKING AREAS 40mm WEAR COURSE - HL-3 OR SUPERPAVE 12.5 ASPHALTIC CONCRETE

50mm BINDER COURSE - HL-8 OR SUPERPAVE 19.0 ASPHALTIC CONCRETE

SUBGRADE - EITHER FILL, IN SITU SOIL, OR OPSS GRANULAR "B" TYPE I OR II

** REFER TO GEOTECHNICAL REPORT BY PATERSON GROUP.

150mm BASE - OPSS GRANULAR "A" CRUSHED STONE

MATERIAL PLACED OVER IN SITU SOIL OR FILL

400mm SUBBASE - OPSS GRANULAR "B" TYPE II

LEGEND:

MHSA3A SANITARY MANHOLE STORM

MANHOLE

©CBMH01 CATCHBASIN MANHOLE

SUBDRAIN

₩ VALVE AND VALVE BOX

REMOTE METER

NUMBER OF RISERS

200mmØ SAN SANITARY SEWER

300mmØ STM ___ STORM SEWER

200Ø WATERMAIN WATERMAIN

© CBMH02 CATCHBASIN MANHOLE C/W ICD

REAR YARD "END" CATCHBASIN

©CB01 CATCHBASIN

DRAWING NOTES

1.0 GENERAL

1.1 CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

1.2 DO NOT SCALE DRAWINGS.

1.8 REFER TO SITE PLAN BY RLA ARCHITECTURE.

1.3 CONTRACTOR TO REPORT ALL DISCOVERIES OF ERRORS, OMISSIONS OR DISCREPANCIES TO THE ARCHITECT OR DESIGN ENGINEER AS APPLICABLE.

- 1.4 USE ONLY THE LATEST REVISED DRAWINGS OR THOSE THAT ARE MARKED "ISSUED FOR CONSTRUCTION".
- 1.5 ALL CONSTRUCTION SHALL COMPLY WITH CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
- 1.6 THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
- 1.7 FOR LEGAL SURVEY INFORMATION REFER TO REGISTERED PLAN FROM FAIRHALL, MOFFATT AND WOODLAND LTD

1.9 CONTRACTOR TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES AS IDENTIFIED IN THE EROSION AND SEDIMENT CONTROL PLAN TO THE SATISFACTION OF THE CITY OF OTTAWA, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.). DURING ALL PHASES OF THE SITE PREPARATION AND CONSTRUCTION THE MEASURES ARE TO BE MAINTAINED TO THE SATISFACTION OF THE ENGINEER AND CITY OF OTTAWA IN ACCORDANCE WITH THE BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL. SHOULD ANY ADDITIONAL MEASURES BE REQUIRED TO ADDRESS FIELD CONDITIONS THEY SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR THE CITY OF OTTAWA. SUCH ADDITIONAL MEASURES MAY INCLUDE BUT NOT BE LIMITED TO INSTALLATION OF SEDIMENT CAPTURE FILTER SOCKS WITHIN MANHOLES AND CATCHBASINS TO PREVENT SEDIMENT FROM ENTERING THE STRUCTURE AND INSTALLATION AND MAINTENANCE

OF A LIGHT DUTY SILT FENCE BARRIER AS REQUIRED. 1.10 ALL IRON WORK ELEVATIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MINOR ADJUSTMENTS AS DETERMINED BY

1.11 ALL CONCRETE CURBS AND SIDEWALKS TO CONFORM TO O.P.S. AND CONSTRUCTED TO CITY STANDARDS. ALL ONSITE CURBS TO BE BARRIER TYPE, WITH DEPRESSIONS AS NOTED.

1.12 ALL CONCRETE SHALL BE "NORMAL PORTLAND CEMENT" IN ACCORDANCE WITH O.P.S.S. 1350 AND SHALL ACHIEVE A MINIMUM STRENGTH OF 30MPa AT 28 DAYS.

1.13 ALL CONSTRUCTION TRAFFIC TO ACCESS SITE FROM HUNTMAR DRIVE.

1.14 FOR GEOTECHNICAL REPORT SEE GEOTECHNICAL INVESTIGATION BY PATERSON GROUP.

REPLACE ANY DAMAGED INFRASTRUCTURE OR PROPERTY TO THE SATISFACTION OF THE CITY.

1.15 CONTRACTOR TO PROTECT EXISTING INFRASTRUCTURE AND PROPERTY SUCH AS TREES, PARKING METERS, SIDEWALKS, CURBS, ASPHALT, AND STREET SIGNS FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR TO PAY THE COST TO REINSTATE OR

1.16 THE POSITION OF POLE LINES, CONDUITS, WATERMAIN, SEWERS, AND OTHER UNDERGROUND AND ABOVEGROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK THE CONTRACTOR SHALL INFORM ITSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, SHALL PROTECT ALL UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

1.17 CONTRACTOR TO SUPPLY SUITABLE FILL MATERIAL WHERE REQUIRED TO ROUGH GRADE THE SITE. ALL IMPORTED FILL MATERIAL TO BE CERTIFIED AS ACCEPTABLE BY THE GEOTECHNICAL ENGINEER.

1.18 CONTRACTOR TO HAUL EXCESS MATERIAL OFFSITE AS NECESSARY TO GRADE SITE TO MEET THE PROPOSED GRADES. ALL EXCESS MATERIAL TO BE HAULED OFFSITE AND DISPOSED OF AT AN APPROVED DUMP SITE. SHOULD THE CONTRACTOR DISCOVER ANY HAZARDOUS MATERIAL, CONTRACTOR IS TO NOTIFY ENGINEER. ENGINEER TO DETERMINE APPROPRIATE

1.19 FILL MATERIAL WITHIN THE PARKING LOT AND BUILDING PAD AREAS, AND SUPPORTING BUILDING FOUNDATIONS SHALL BE COMPACTED TO 98% STANDARD MODIFIED PROCTOR DENSITY AND TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER 1.20 ALL COMPACTION METHODS TO BE PERFORMED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER TO INCLUDE BUT NOT BE LIMITED TO THE THICKNESS OF LIFTS, AND COMPACTION EQUIPMENT USED.

1.21 ALL DISTURBED BOULEVARDS TO BE REINSTATED WITH SOD ON 100mm TOPSOIL.

1.22 UTILITY DUCTS TO BE INSTALLED PRIOR TO ROAD BASE CONSTRUCTION.

1.23 CLAY DIKES TO BE INSTALLED WHERE INDICATED ON THE DRAWINGS OR AS APPROVED AND DIRECTED BY THE GEOTECHNICAL ENGINEER ALL IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.

1.24 BACKWATER VALES, PER CITY STANDARDS S14, S14.1 AND S14.2 RE TO BE INSTALLED FOR ALL STORM AND SANITARY SERVICE

FAIRHALL. MOFFATT AND WOODLAND LTD.

SURVEY MONUMENT FOUND

- IRON BAR

- DIAMETER

- BLOCK

MHST - STORM MANHOLE

MHSA - SANITARY MANHOLE WMH - WATER MANHOLE

○ HMH - HYDRO MANHOLE

→ FH - FIRE HYDRANT ☑ TCB - TRAFFIC CONTROL BOX

► WATER VALVE

LS - LAMP STANDARD □ BP - BELL PEDESTAL

o MW - MONITORING WELL

DECIDUOUS TREE

← - GUY WIRE AND ANCHOR

BOREHOLE

BOLLARD

—s —s — s — - SANITARY SEWER -v-v-v-v- - WATERMAIN

- UNDERGROUND BELL - STREET LIGHTING

—c —c — c — - ROGERS CABLE

- EDGE OF TREES

-v-v-v- - TRAFFIC

- SIGN

- CURB — g — g — g — GASMAIN

CP - CONCRETE PIN

□ CB - CATCH BASIN MH - MANHOLE

BLK

- STANDARD IRON BAR - SHORT STANDARD IRON BAR

PIN - PROPERTY IDENTIFIER NUMBER

TOPOGRAPHIC LEGEND

2.1 ALL SANITARY SEWER MAINS TO BE CSA CERTIFIED, BELL AND SPIGOT TYPE. ONLY FACTORY FITTINGS TO BE USED. SEWER TO BE INSTALLED AS PER OSPD 1005.01. SANITARY SEWER MATERIALS TO BE: 250mmØ AND SMALLER - PVC DR 35 2.2 ALL SANITARY MAINTENANCE HOLES TO BE 1.2m DIAMETER AS PER CITY OF OTTAWA STANDARDS COMPLETE WITH BENCHING, RUNGS, FRAME AND COVER, DROP PIPES AND LANDINGS WHERE NEEDED.

2.3 SANITARY MANHOLE COVERS TO BE CITY OF OTTAWA STD. S25 (MOD. OPSD. 401.020). SANITARY MANHOLE COVER TO BE CLOSED COVER TYPE, AS PER CITY STANDARD S24.

2.4 SANITARY SEWER LEAKAGE TEST AND CCTV INSPECTION SHALL BE COMPLETED AS PER CITY SPECIFICATIONS PRIOR TO INSTALLATION OF BASE COURSE ASPHALT.

2.5 ANY SANITARY SEWER WITH LESS THAN 2.0m COVER REQUIRES THERMAL INSULATION AS PER CITY OF OTTAWA STANDARD W22, OR AS APPROVED BY THE ENGINEER.

2.6 CONNECTION TO THE EXISTING SANITARY SEWER TO BE INCLUDED IN THE COST FOR SANITARY SEWER INSTALLATION. THIS INCLUDES REINSTATEMENT OF ROAD CUTS TO CITY STANDARDS.

2.7 ALL SANITARY CONNECTION TO INCLUDE BACKWATER VALVE TYPE 1 PER CITY STANDARD S14.1

3.0 STORM

3.1 ALL STORM SEWERS TO BE CSA CERTIFIED, BELL AND SPIGOT TYPE. ALL STORM SEWERS TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. ONLY FACTORY FITTINGS TO BE USED. STORM SEWER MATERIALS TO BE: 375mmØ AND SMALLER - PVC DR 35 - 450mmØ AND LARGER - 100-D REINFORCED CONCRETE. UNLESS NOTED OTHERWISE

3.2 ALL STORM MAINTENANCE HOLES TO BE SIZED IN ACCORDANCE WITH THE PLANS AND AS PER CITY OF OTTAWA STANDARDS COMPLETE WITH BENCHING, RUNGS, AND FRAME AND COVER.

3.3 STORM MH COVERS TO BE OPEN TYPE, AS PER CITY STANDARD S24, FRAMES TO BE PER CITY OF OTTAWA STD. S25.

3.4 STORM MAINTENANCE HOLES TO BE OPSD, SIZE AS SPECIFIED, TAPER TOP.

CONTRACTOR TO INSTALL FILTER FABRIC UNDER STORM MH COVER UNTIL SODDING IS COMPLETE.

3.5 ALL CATCH BASINS TO BE AS PER OPSD 705.010, FRAME & FISH TYPE GRATE AS PER CITY OF OTTAWA STD. S19.1. 3.6 ANY STORM SEWER WITH LESS THAN 2.0m COVER REQUIRES THERMAL INSULATION AS PER CITY OF OTTAWA STANDARD W22, OR AS APPROVED BY THE ENGINEER.

3.7 CONNECTION TO THE EXISTING STORM SEWER TO BE INCLUDED IN THE COST FOR STORM SEWER INSTALLATION. THIS INCLUDES REINSTATEMENT OF ROAD CUT TO CITY STANDARDS.

3.8 CONTRACTOR TO PROVIDE IPEX-TEMPEST MHF ICD'S SHOP DRAWINGS, OR EQUIVALENT, FOR ENGINEERS REVIEW PRIOR TO ORDERING ICD'S. 3.9 ALL STORM CONNECTION TO INCLUDE FOUNDATION BACKWATER VALVE TYPE 1 PER CITY STANDARD S14.1

3.10 LANDSCAPE SUBDRAIN AND APPURTENANCES TO BE INSTALLED PER CITY OF OTTAWA STANDARDS INCLUDING BUT NOT LIMITED TO S29, S30, S31

MINIMUM COVER OF 2.4m AND INSTALLED PER CITY OF OTTAWA STANDARDS. ALL DOMESTIC WATER SERVICES ARE TO BE 25mm@. 4.2 THRUST BLOCKS TO BE INSTALLED AT ALL BENDS, TEES, AND CAPS ALL AS PER OPSD 1103.01 AND 1103.02.

4.3 CONTRACTOR TO CONDUCT PRESSURE AND LEAKAGE TESTING OF ALL WATERMAINS AND DISINFECT AND CHLORINATE ALL WATERMAINS TO THE SATISFACTION OF M.O.E. AND THE CITY OF OTTAWA.

4.4 TRACER WIRE TO BE INSTALLED ALONG THE FULL LENGTH OF WATERMAIN AND ATTACHED TO EACH MAIN STOP AS PER CITY OF OTTAWA STANDARDS. 4.5 ALL COMPONENTS OF THE WATER DISTRIBUTION SYSTEM SHALL BE CATHODICALLY PROTECTED AS PER CITY OF OTTAWA

4.6 ALL VALVES & VALVE BOXES AND CHAMBERS, HYDRANTS, AND HYDRANT VALVES AND ASSEMBLIES SHALL BE INSTALLED AS

4.7 ANY WATERMAIN WITH LESS THAN 2.4m COVER REQUIRES THERMAL INSULATION AS PER CITY OF OTTAWA STANDARD W22, OR

4.8 CONTRACTOR IS RESPONSIBLE FOR ACQUIRING THE WATER PERMIT FROM THE CITY OF OTTAWA AND PAYMENT OF ANY FEES ASSOCIATED WITH SECURING THE WATER PERMIT. OWNER IS RESPONSIBLE FOR REIMBURSING THE CONTRACTOR FOR THE ACTUAL COST OF ACQUIRING THE WATER PERMIT.

4.9 CONNECTION TO EXISTING WATERMAIN TO BE INCLUDED IN THE COST FOR THE WATERMAIN INSTALLATION. THIS COST INCLUDES REINSTATEMENT OF ROAD CUTS TO CITY STANDARDS.

4.10 ALL WATERMAIN CROSSINGS TO BE COMPLETED AS PER CITY OF OTTAWA STANDARDS W25 AND W25.2

5.0 PARKING LOT AND WORK IN PUBLIC RIGHTS OF WAY

IN THE GEOTECHNICAL REPORT AND SHOWN ON THE PLANS.

AS APPROVED BY THE ENGINEER.

5.1 CONTRACTOR TO REINSTATE ROAD CUTS PER CITY OF OTTAWA STANDARD R-10.

5.2 THE CONTRACTOR SHALL PREPARE A TRAFFIC MANAGEMENT PLAN FOR REVIEW AND APPROVAL BY THE CITY OF OTTAWA. CONTRACTOR TO MAINTAIN TRAFFIC FLOW DURING THE ENTIRE CONSTRUCTION PERIOD. MAINTENANCE OF ROAD CUTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PROVISION OF FLAGMEN, DETOURS AS NECESSARY, BARRICADES AND SIGNS TO THE FULL SATISFACTION OF THE ENGINEER AND ROAD AUTHORITY SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

5.3 CONTRACTOR TO PREPARE SUBGRADE, INCLUDING PROOFROLLING, TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER PRIOR TO THE COMMENCEMENT OF PLACEMENT OF GRANULAR B MATERIAL.

5.4 FILL TO BE PLACED AND COMPACTED PER THE GEOTECHNICAL REPORT REQUIREMENTS.

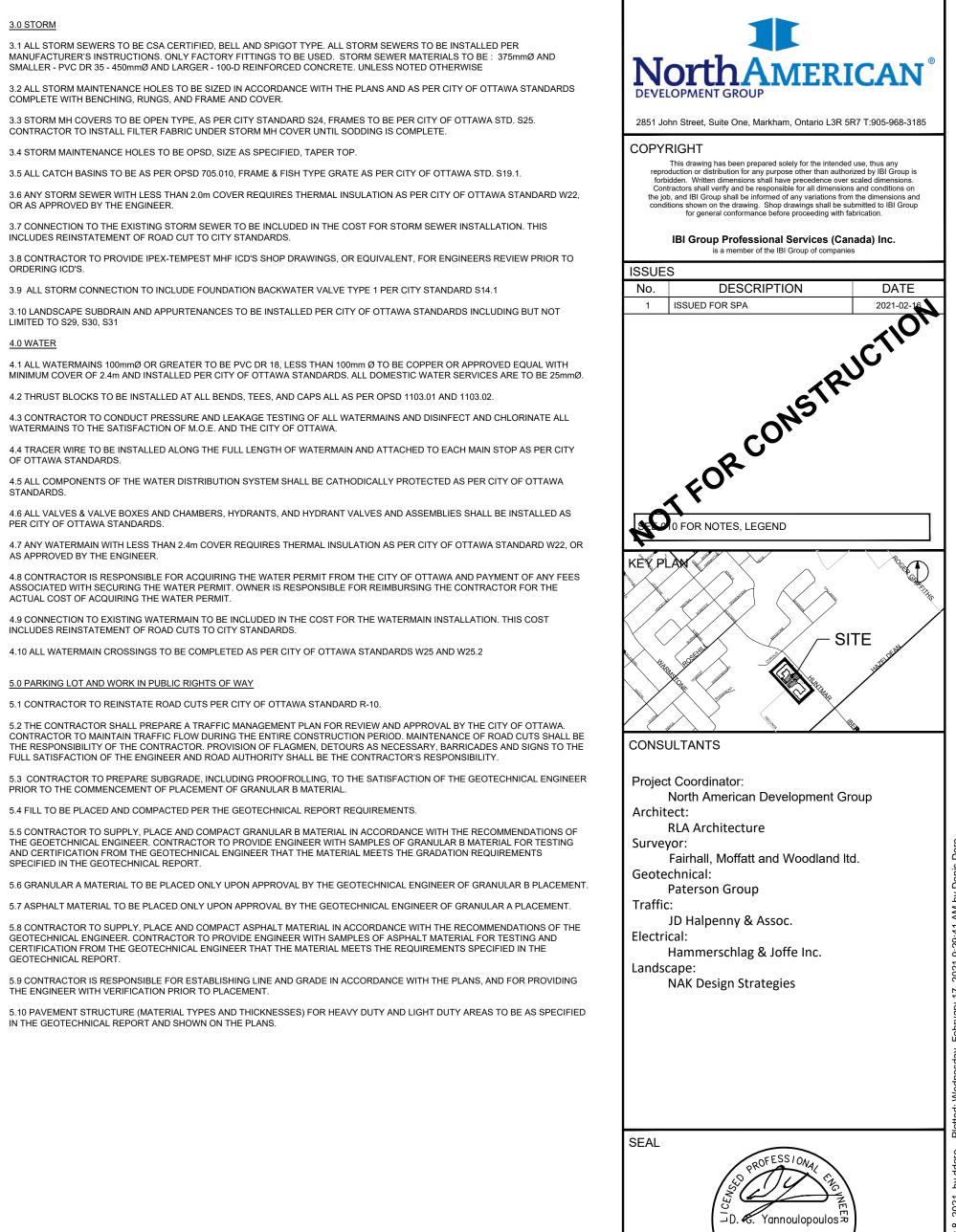
5.5 CONTRACTOR TO SUPPLY, PLACE AND COMPACT GRANULAR B MATERIAL IN ACCORDANCE WITH THE RECOMMENDATIONS OF HE GEOETCHNICAL ENGINEER. CONTRACTOR TO PROVIDE ENGINEER WITH SAMPLES OF GRANULAR B MATERIAL FOR TESTING AND CERTIFICATION FROM THE GEOTECHNICAL ENGINEER THAT THE MATERIAL MEETS THE GRADATION REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.

5.6 GRANULAR A MATERIAL TO BE PLACED ONLY UPON APPROVAL BY THE GEOTECHNICAL ENGINEER OF GRANULAR B PLACEMENT. 5.7 ASPHALT MATERIAL TO BE PLACED ONLY UPON APPROVAL BY THE GEOTECHNICAL ENGINEER OF GRANULAR A PLACEMENT. 5.8 CONTRACTOR TO SUPPLY, PLACE AND COMPACT ASPHALT MATERIAL IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. CONTRACTOR TO PROVIDE ENGINEER WITH SAMPLES OF ASPHALT MATERIAL FOR TESTING AND CERTIFICATION FROM THE GEOTECHNICAL ENGINEER THAT THE MATERIAL MEETS THE REQUIREMENTS SPECIFIED IN THE

5.9 CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING LINE AND GRADE IN ACCORDANCE WITH THE PLANS, AND FOR PROVIDING

		STOR	M STRUCTURE	TABLE		
NAME	RIM ELEV.	INVERT IN	INVERT IN ASBUILT	INVERT OUT	INVERT OUT ASBUILT	DESCRIPTION
W100.961						
MHST01	102.66	W100.540		99.974		1200Ø OPSD 701.010
		SW 100.088		1		
CBMH02	102.53	101.164		101.014		1200Ø OPSD 701.010
СВМН03	102.64	101.300		101.240		1200Ø OPSD 701.010
СВМН04	102.80	101.400		101.380		1200Ø OPSD 701.010
CBMH05	102.85	101.540		101.520		1200Ø OPSD 701.010
СВМН06	102.92	101.700		101.590		1200Ø OPSD 701.010

WATERMAIN SCHEDULE							
	STATION	DESCRIPTION	FINISHED GRADE	TOP OF WATERMAIN	ASBUILT WATERMAIN		
Α	0+000.00	TEE 400mmX200mm	102.91	100.51			
	0+001.10	VB 200mm	102.90	100.50			
	0+007.32	V-BEND 200mm	102.84	100.44			
	0+007.62	V-BEND 200mm	102.83	101.50			
	0+009.71	V-BEND 200mm	102.81	101.50			
	0+010.01	V-BEND 200mm	102.81	100.41			
	0+019.83	VB 200mm	103.04	100.64			
В	0+022.17	CAP 200mm	103.05	100.65			
С	0+000.00	TEE 400mmX200mm	103.08	100.68			
	0+001.10	VB 200mm	103.13	100.73			
	0+007.32	V-BEND 200mm	103.09	100.69			
	0+007.62	V-BEND 200mm	103.07	101.50			
	0+009.71	V-BEND 200mm	102.96	101.50			
	0+010.01	V-BEND 200mm	102.96	100.56			
	0+019.83	VB 200mm	103.13	100.73			
D	0+022.17	CAP 200mm	103.01	100.61			



CLIENT



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PROJECT 21 HUNTMAR

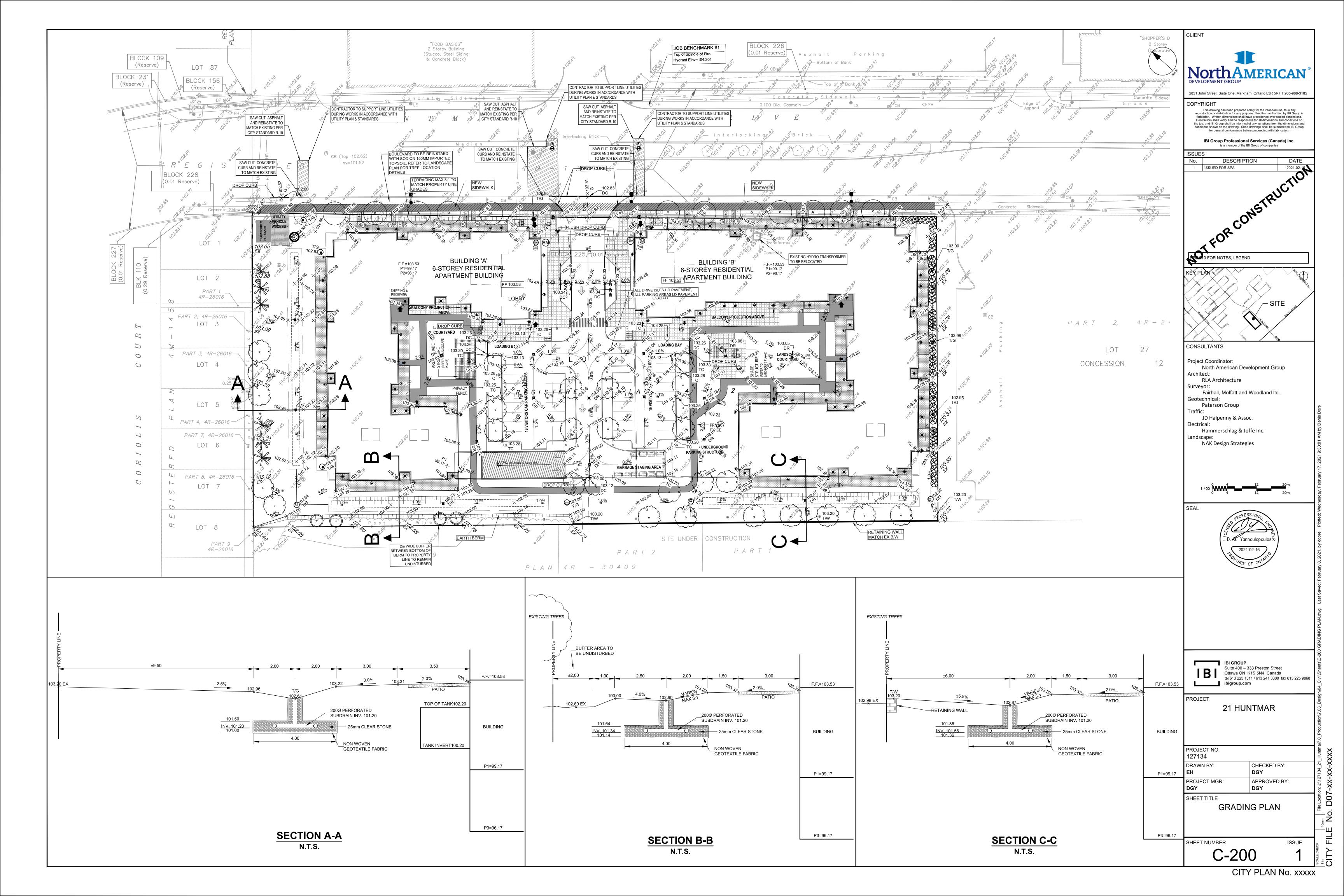
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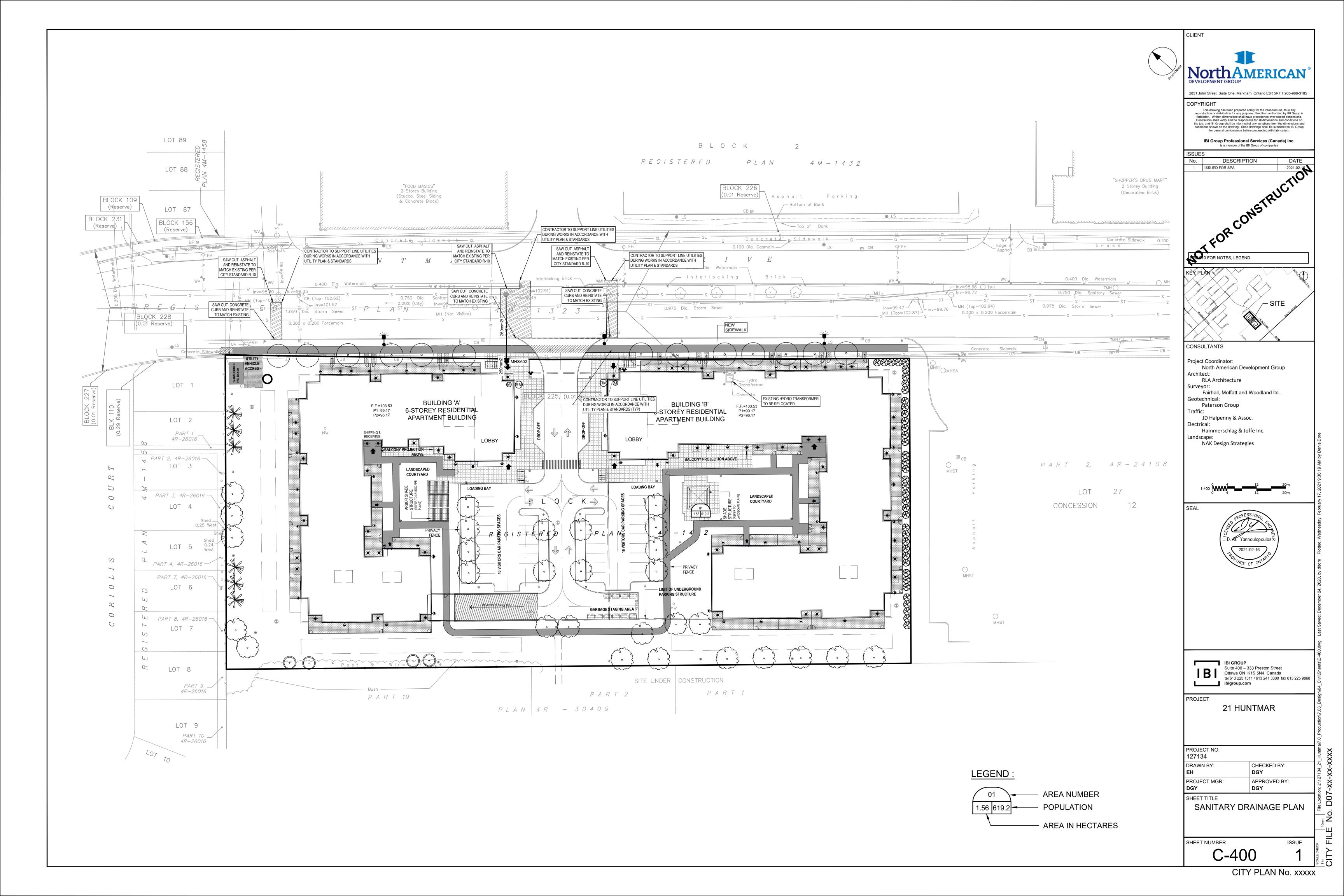
SHEET TITLE GENERAL NOTES, **LEGEND AND TABLES**

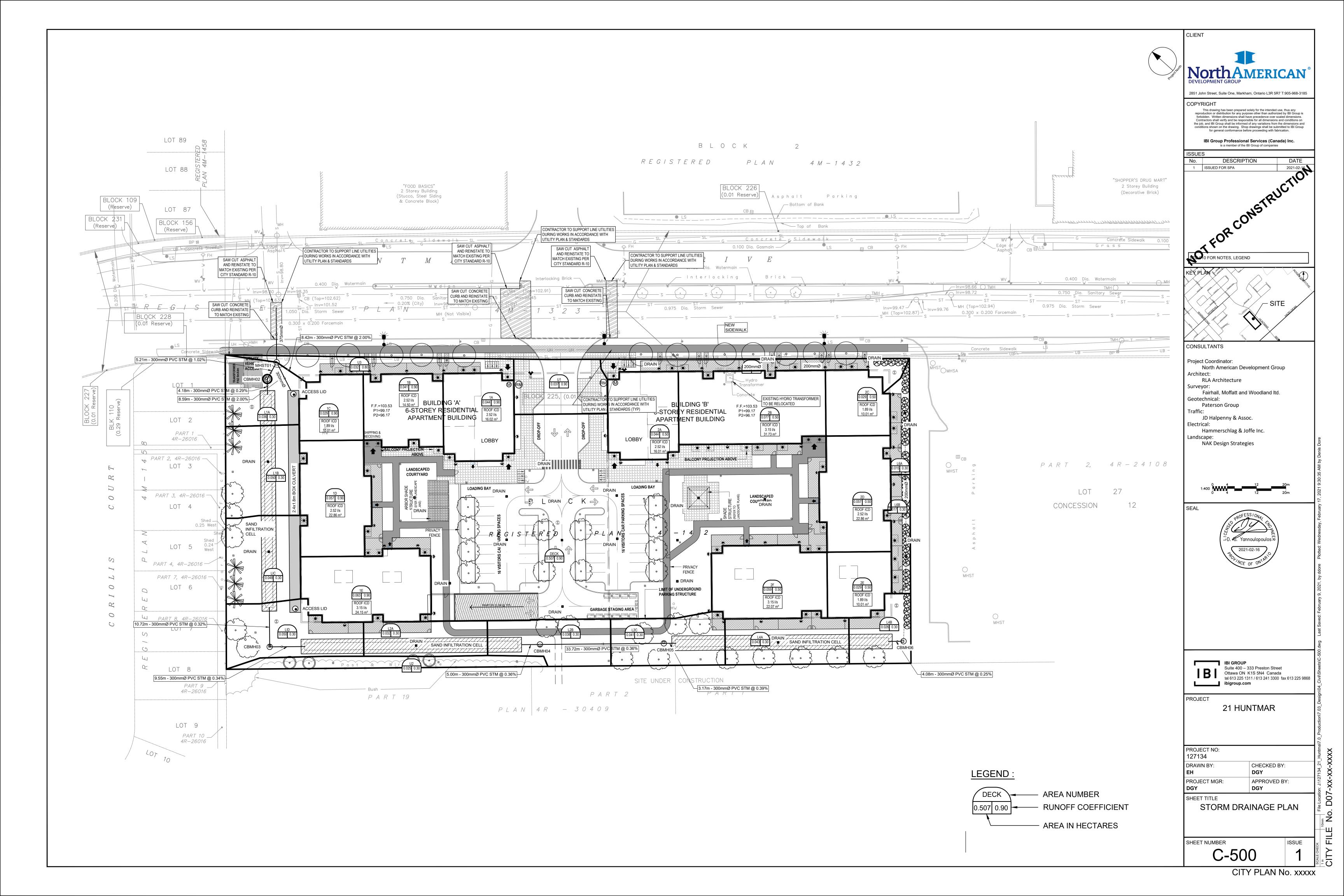
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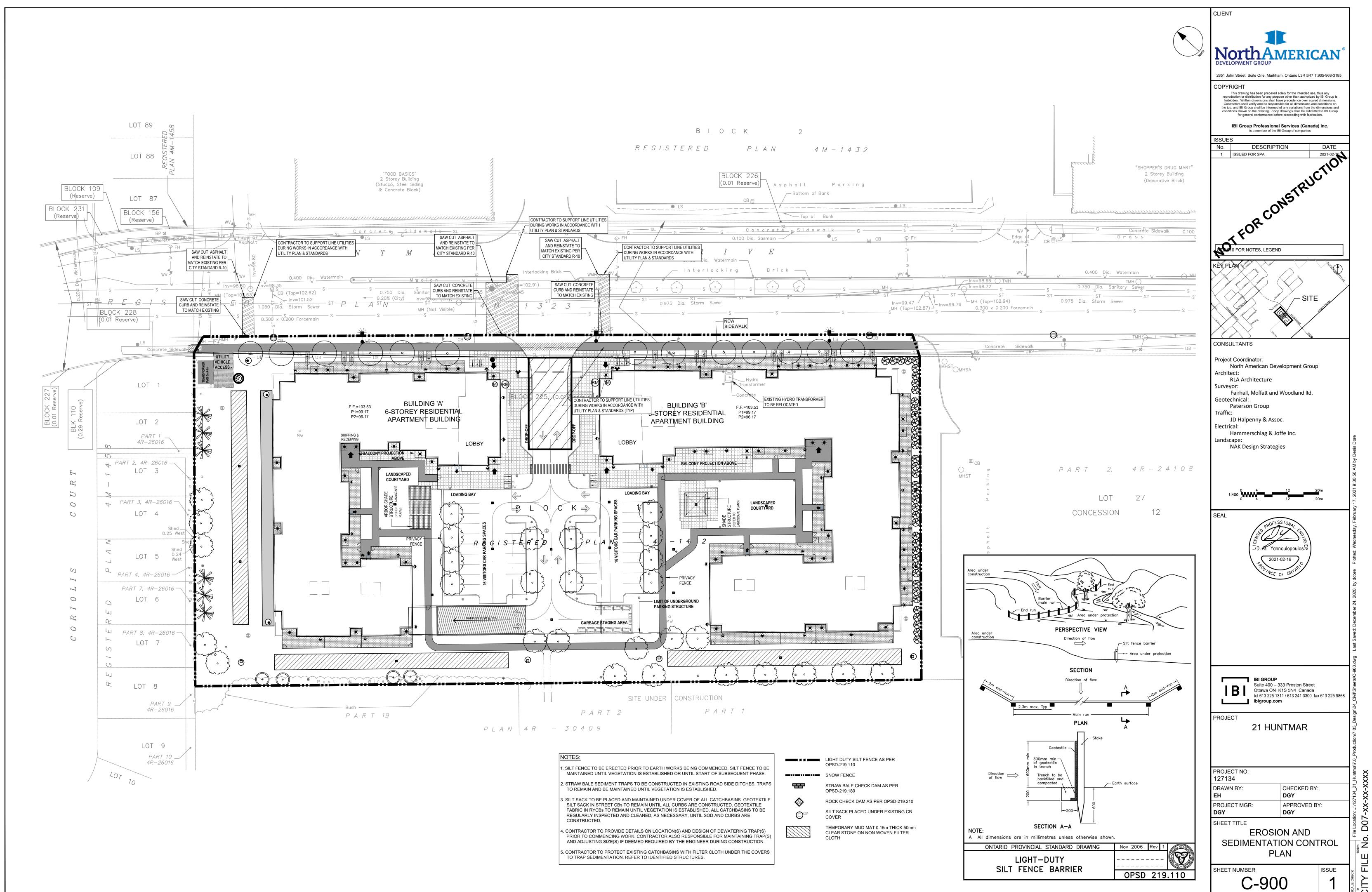
CITY PLAN No. xxxxx

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CITY PLAN No. xxxxx