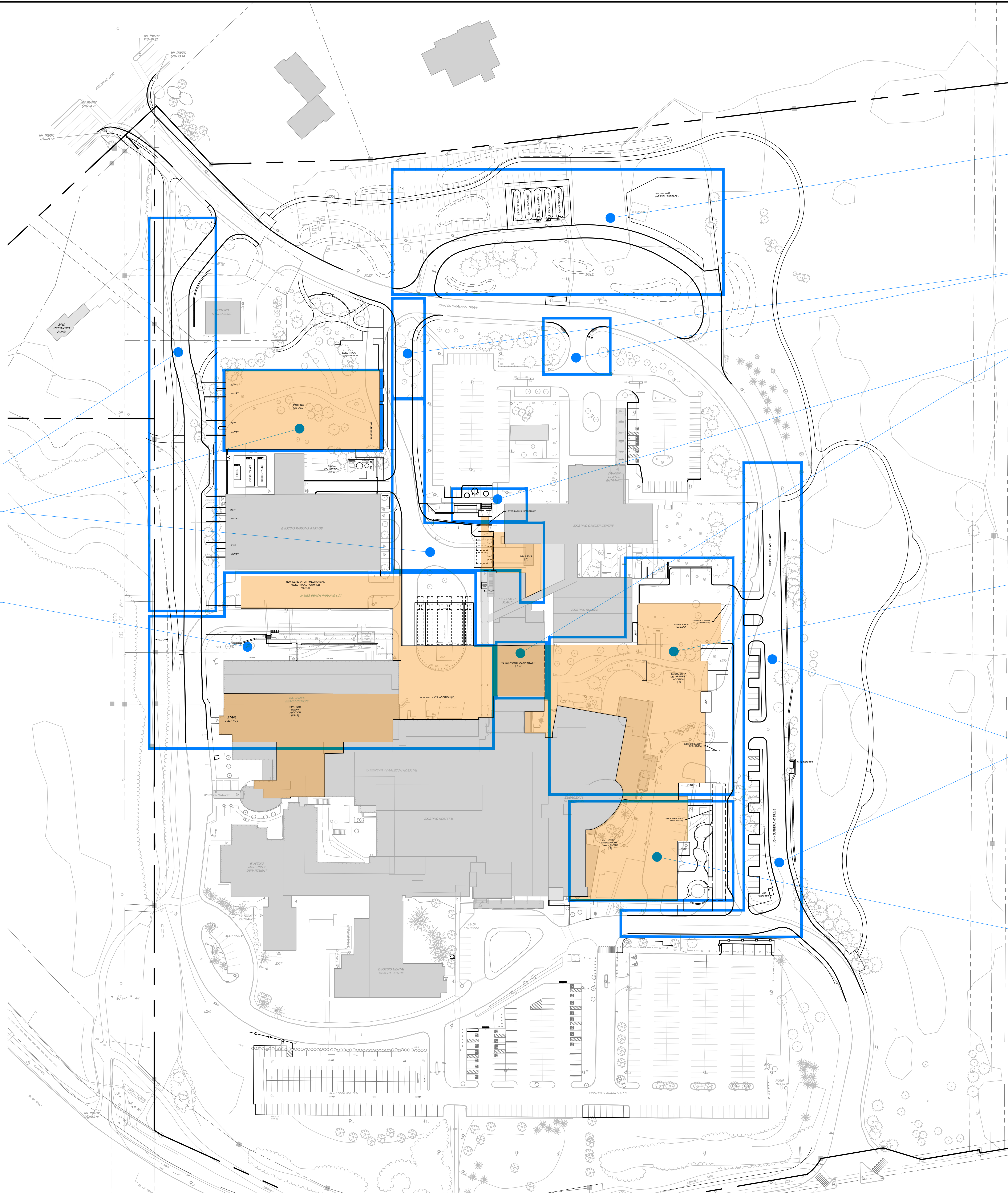




SEE PLAN 123089-GP-PH1a

SEE PLAN 123089-GP-PH1f

SEE PLAN 123089-GP-PH2a

SEE PLAN 123089-GP-PH1b

SEE PLAN 123089-GP-PH1c

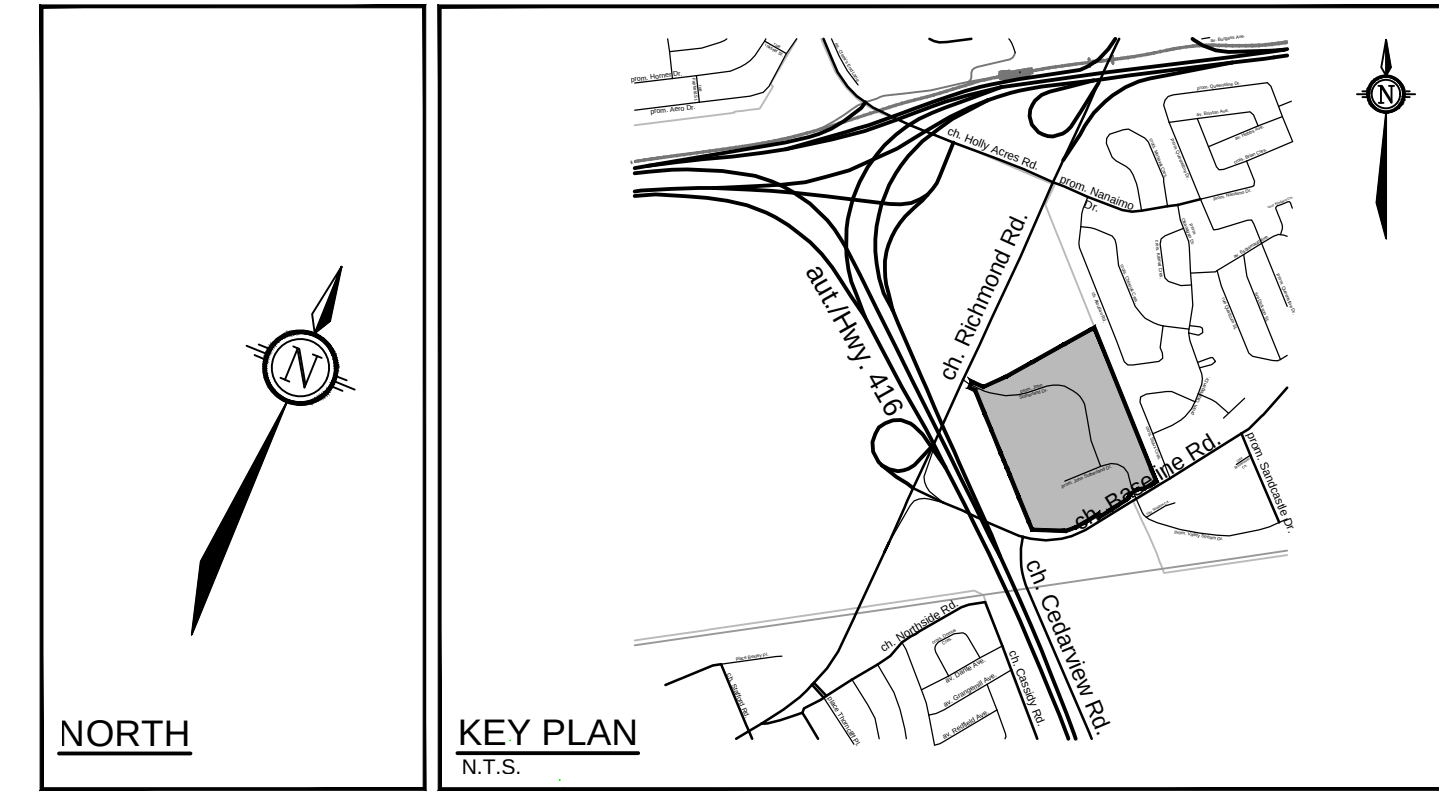
SEE PLAN 123089-GP-PH5a

SEE PLAN 123089-GP-PH4b

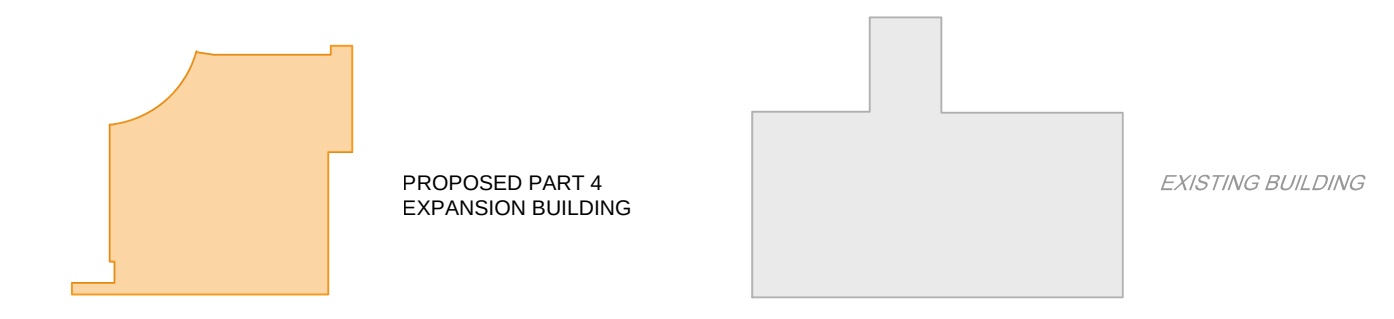
SEE PLANS 123089-GP-PH1d
AND 123089-PH1e

SEE PLAN 123089-GP-PH3/4a

SUGGESTED QCH PART 4 EXPANSION CONSTRUCTION SEQUENCING FOR INFORMATION PURPOSES ONLY



LEGEND

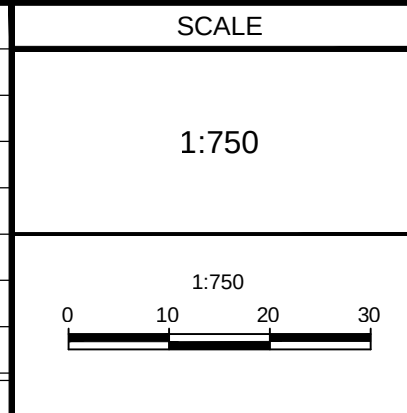


- PURPOSE OF THE SUGGESTED CONSTRUCTION SEQUENCING PLANS:**
1. TO PROVIDE THE QCH AND NCC (AND ULTIMATELY THE CONTRACTOR) GENERAL INFORMATION ON HOW THE MULTIPLE PHASES OF CONSTRUCTION ARE INTERCONNECTED.
 2. TO PROVIDE GENERAL GUIDANCE ON THE CONSTRUCTION SEQUENCING TO MAINTAIN SERVICE TO THE EXISTING HOSPITAL BUILDINGS AND MINIMIZE DISRUPTIONS TO HOSPITAL OPERATIONS.
- 2.a. EARLY IDENTIFICATION OF POTENTIAL CONFLICTS BETWEEN PROPOSED AND EXISTING INFRASTRUCTURE.
- 2.b. CONSTRUCTION OF SEGMENTS OF SEWERS AND WATERMAIN IN EARLIER PHASES TO ACCOMMODATE FUTURE WORKS / DIVERSION OF FLOWS.
- 2.c. REMOVAL OF EXISTING UNDERGROUND INFRASTRUCTURE TO ACCOMMODATE FUTURE PHASES OF CONSTRUCTION.
- 2.d. CONSTRUCTION / REALIGNMENT OF ROADWAYS TO DIVERT TRAFFIC AND ACCOMMODATE FUTURE PHASES OF CONSTRUCTION.

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS,
WATERMANS, SEWERS AND OTHER
UNDERGROUND AND OVERGROUND UTILITIES AND
STRUCTURES IS 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, DETERMINE THE EXACT
LOCATION OF ALL SUCH UTILITIES AND
STRUCTURES AND ASSUME ALL LIABILITY FOR
DAMAGE TO THEM.



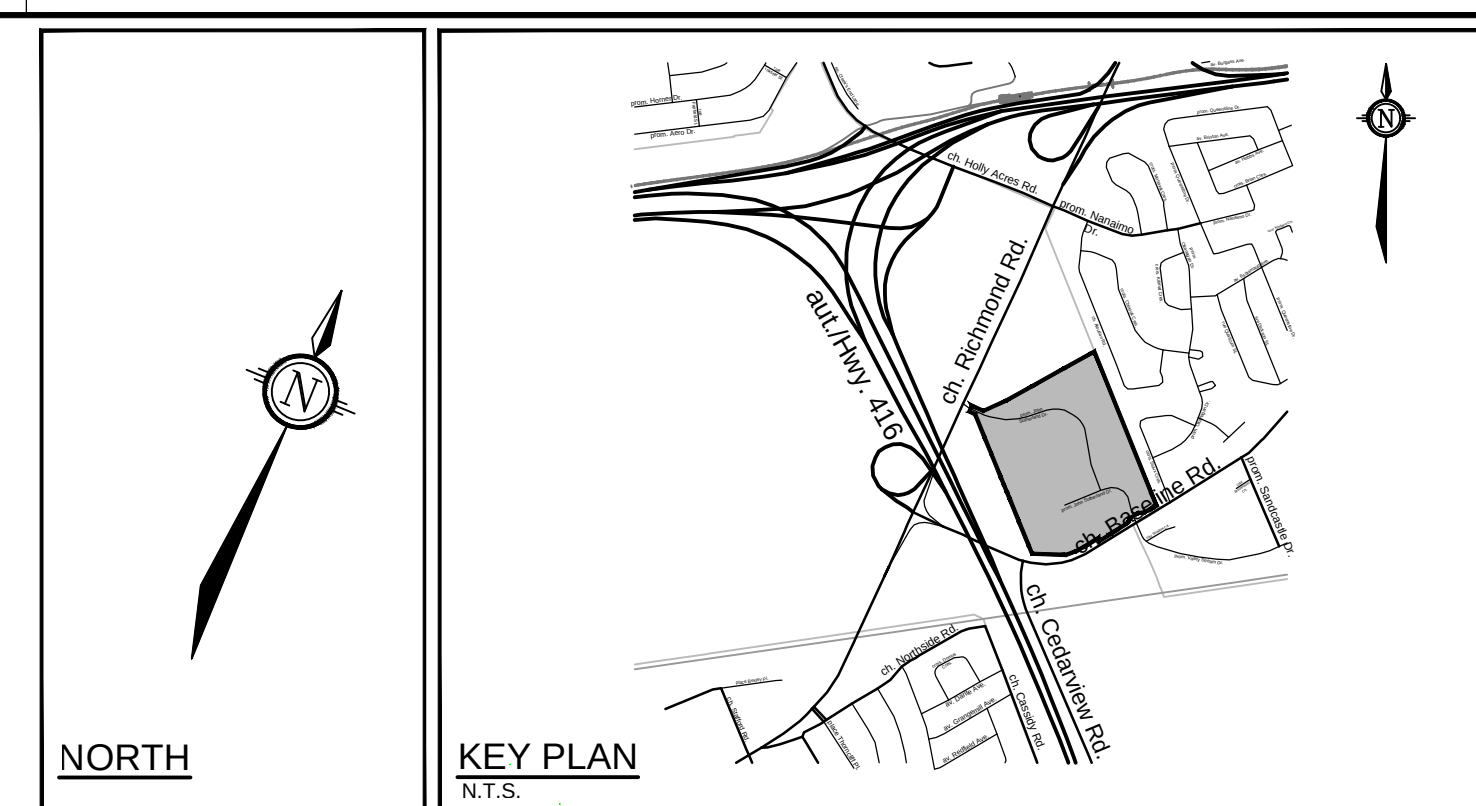
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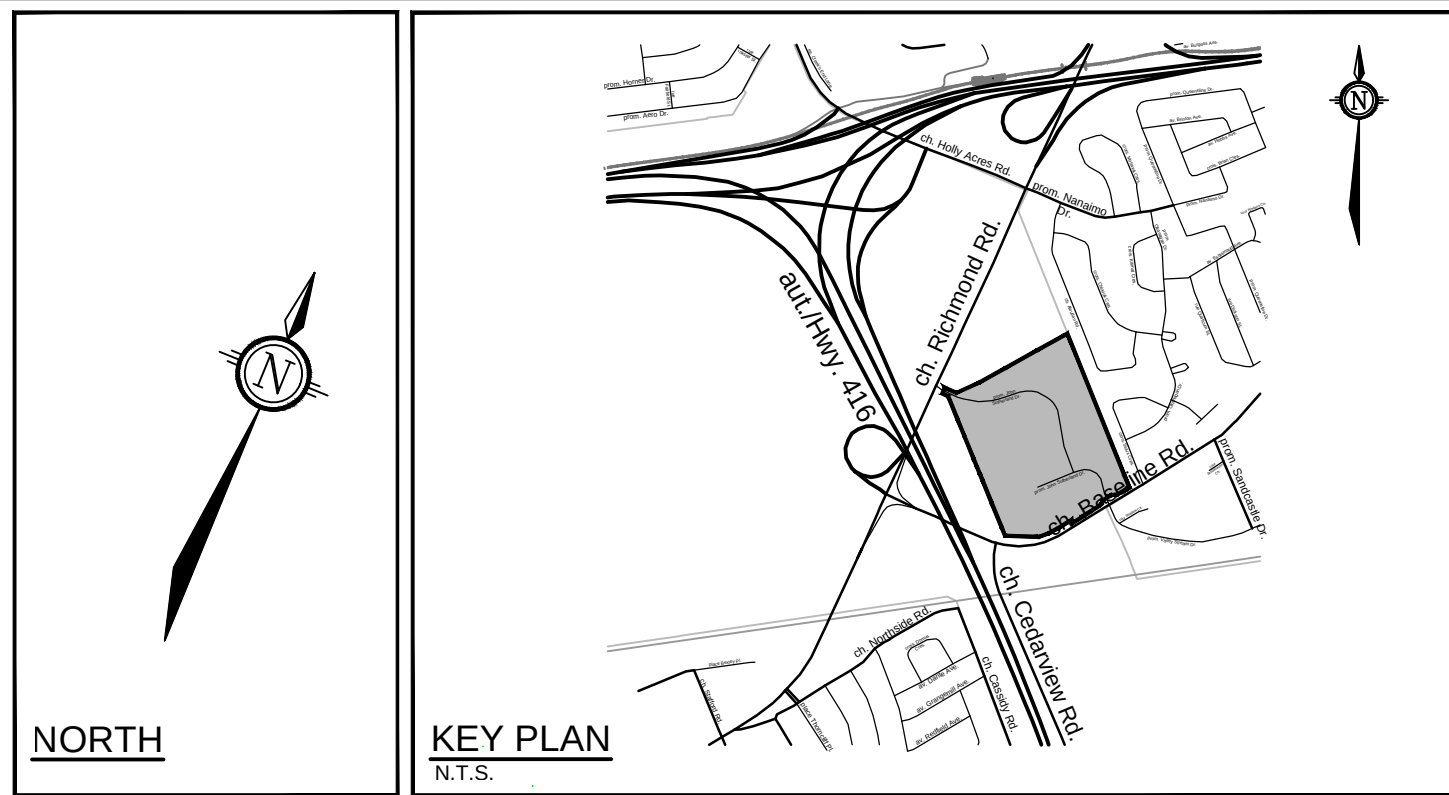
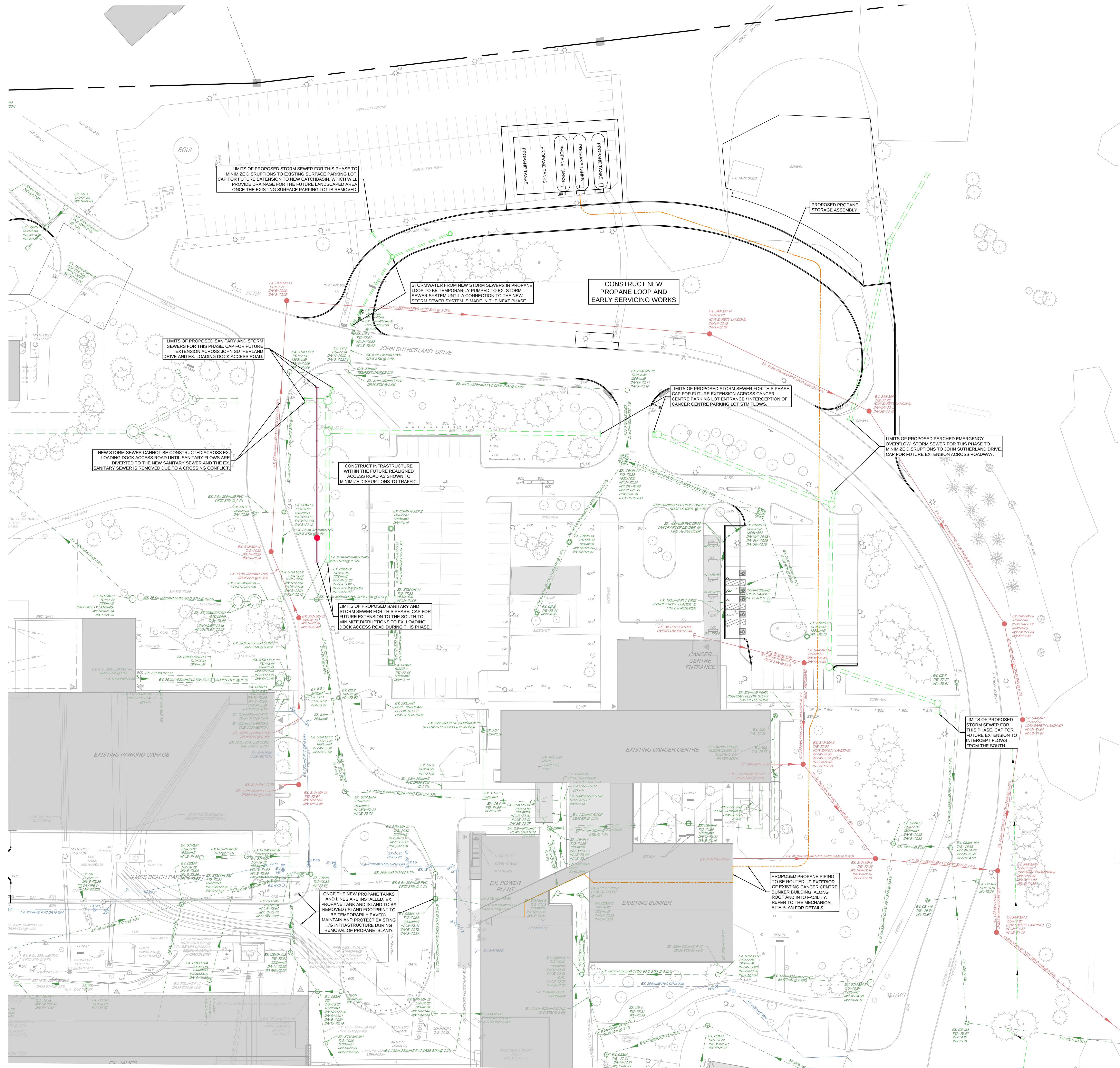
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LOCATION CITY OF OTTAWA QUEENSWAY CARLETON HOSPITAL	PROJECT NO. 123089
DRAWING NAME SUGGESTED PART 4 EXPANSION CONSTRUCTION SEQUENCING LOCATION PLAN	REV #2 REV #2 123089-SEQ-LP



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| | | | | SCALE | | PERSON | | FOR REVIEW ONLY | | 
<small>Corporate Planning & Construction Services Inc.</small>
Suite 200, 240 Michael Coward Drive
Ontario, Canada K4M 1G6
Telephone: (613) 254-5563
Fax: (613) 254-5567
Website: www.novatech-inc.com | | LOCATION
CITY OF OTTAWA
QUEENSWAY CARLETON HOSPITAL | |
| | | | | 1:400 | | DRAWN
CHECKED
APPROVED | | | | DRAWING NAME
SUGGESTED PART 4 EXPANSION
 CONSTRUCTION SEQUENCING | | PROJECT NO.
123089 | |
| 2. REISSUED FOR INFORMATION | | | | SEP 25/09 | | FST | | | | | | REV. BY | |
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123089-SEQ-PH12 | |



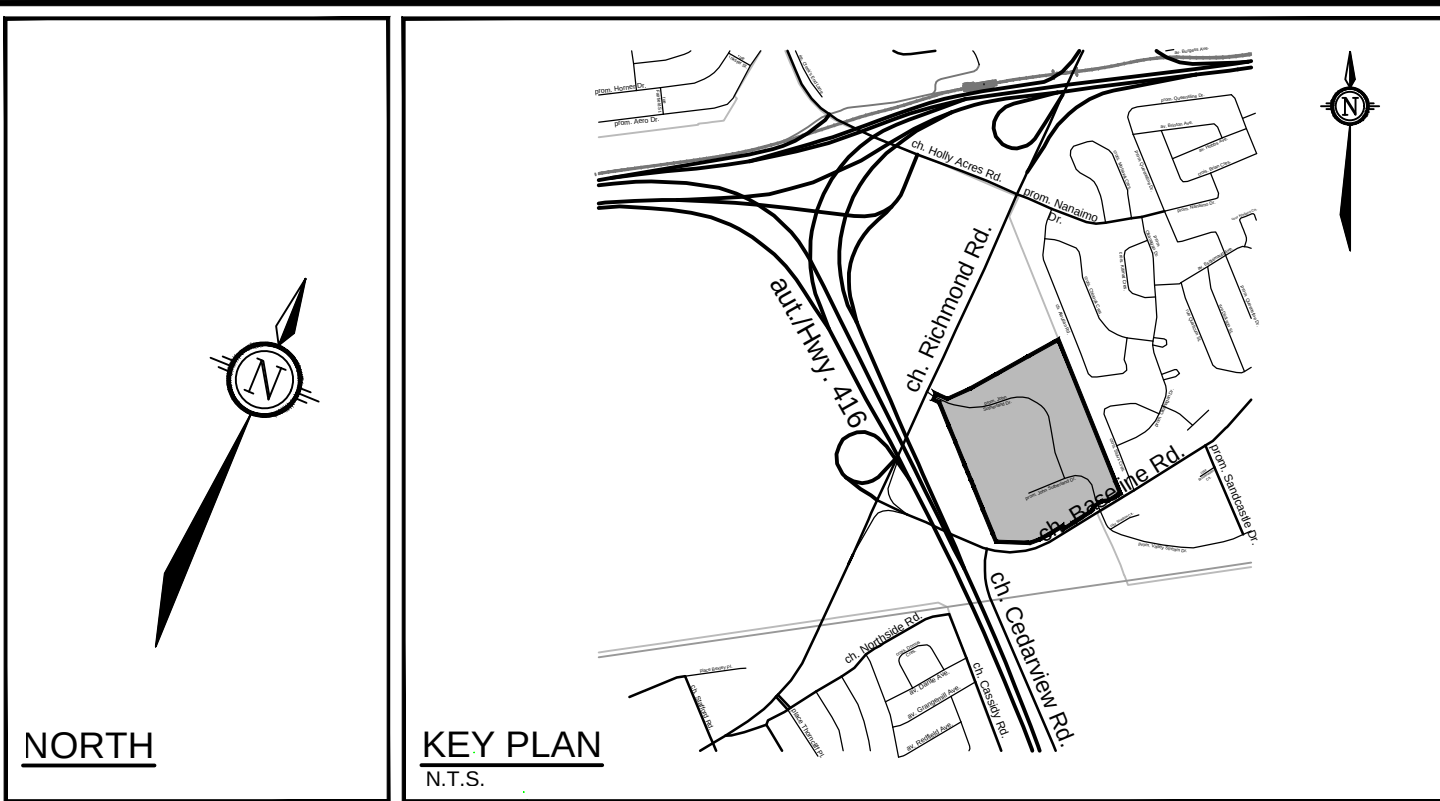
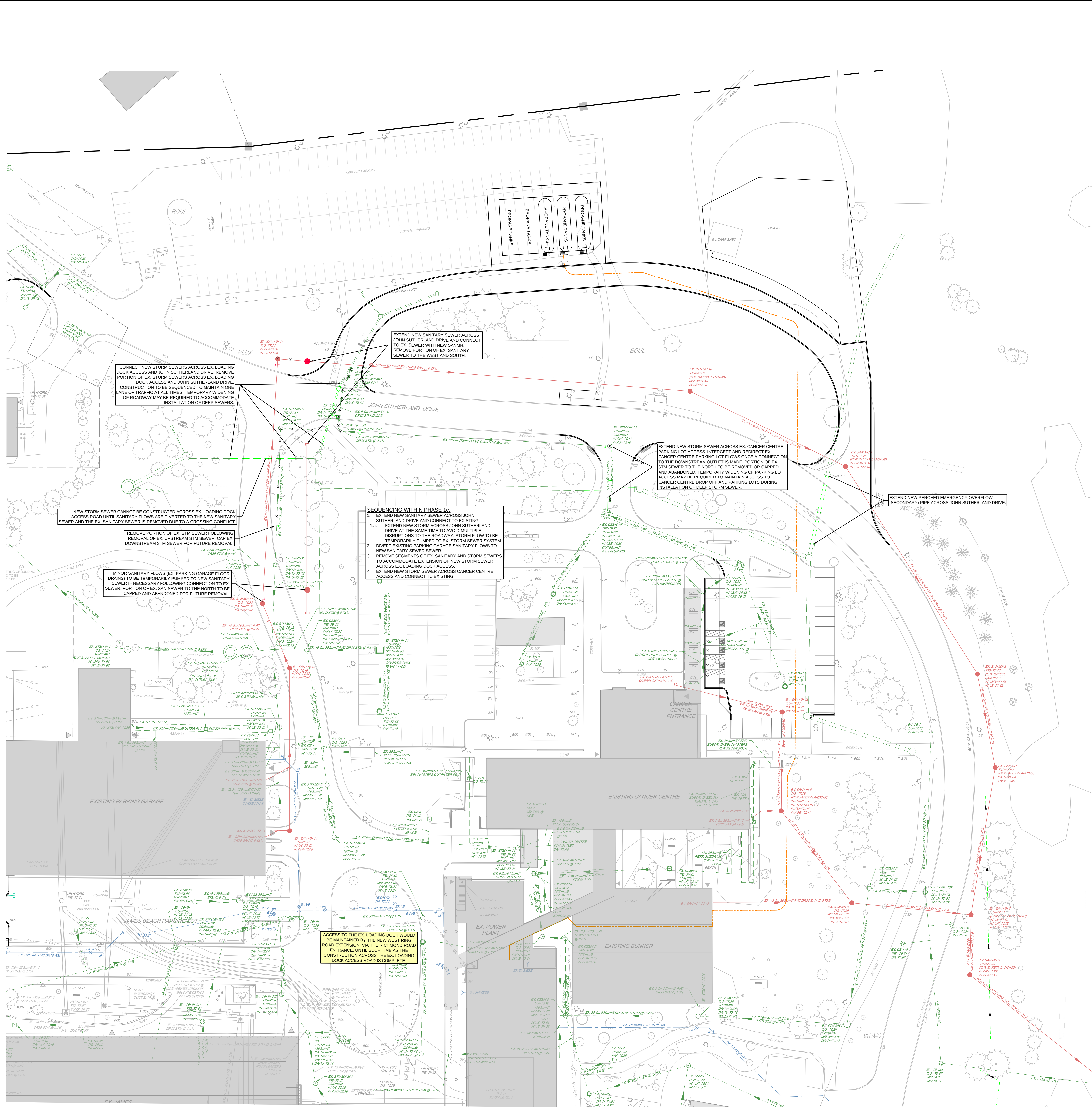
LEGEND	
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EASEMENT BOUNDARY	EXISTING STORM MANHOLE & SEWER WITH DIRECTION OF FLOW
PROPOSED SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW	EXISTING CATCHBASIN AND LEAD
PROPOSED STORM MANHOLE & SEWER WITH DIRECTION OF FLOW	EXISTING LANDSCAPE DRAIN
PROPOSED PERFORATED SUBDRAIN	EXISTING STORM OGS UNIT
PROPOSED CATCHBASIN AND LEAD	EXISTING WATERMAIN / WATER SERVICE
PROPOSED CATCHBASIN MANHOLE	EXISTING VALVE & VALVE BOX
PROPOSED STORM OGS UNIT	EXISTING VEGETATION (TREES)
PROPOSED INLET CONTROL DEVICE	EXISTING HYDRANT CW VALVE & LEAD
PROPOSED WATERMAIN / WATER SERVICE	PROPOSED VALVE & VALVE BOX
PROPOSED VALVE & VALVE BOX	PROPOSED HYDRANT CW VALVE & LEAD
PROPOSED HYDRANT CW VALVE & LEAD	PROPOSED WATERMAIN BEND & THRUST BLOCK
PROPOSED WATERMAIN BEND & THRUST BLOCK	PROPOSED WATERMAIN REDUCER
PROPOSED WATERMAIN REDUCER	PROPOSED FIRE DEPARTMENT CONNECTION
PROPOSED FIRE DEPARTMENT CONNECTION	PROPOSED WATER METER AND REMOTE METER
PROPOSED WATER METER AND REMOTE METER	REMOVALS
REMOVALS	PROPOSED CAP
PROPOSED CAP	SEWER / HYDRANT LEAD CROSSING IDENTIFIER
SEWER / HYDRANT LEAD CROSSING IDENTIFIER	THERMAL INSULATION FOR SHALLOW SEWERS
THERMAL INSULATION FOR SHALLOW SEWERS	PROPOSED PROPANE ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
PROPOSED PROPANE ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)	PROPOSED NATURAL GAS ALIGNMENT (EXACT ALIGNMENT AND DETAILS TO BE ENBRIDGE)
PROPOSED NATURAL GAS ALIGNMENT (EXACT ALIGNMENT AND DETAILS TO BE ENBRIDGE)	PROPOSED ELECTRICAL ALIGNMENT (REFER TO ELEC. PLANS FOR DETAILS)
PROPOSED ELECTRICAL ALIGNMENT (REFER TO ELEC. PLANS FOR DETAILS)	PROPOSED DIESEL ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
PROPOSED DIESEL ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)	
PROPOSED PART 4 EXPANSION BUILDING CONSTRUCTED DURING CURRENT PHASE	EXISTING BUILDING / PART 4 EXPANSION BUILDING CONSTRUCTED DURING PRIOR PHASES

- MAIN OBJECTIVES OF PHASE 1b:**
- CONSTRUCT THE NEW PROPANE LOOP AND PIPING, THUS ALLOWING FOR THE REMOVAL OF THE EXISTING PROPANE ISLAND (WITHIN THE LOADING DOCK AREA).
 - THE REMOVAL OF THE EXISTING PROPANE ISLAND IS REQUIRED TO ACCOMMODATE INTERIM TRUCK TURNING MOVEMENTS AND FUTURE CONSTRUCTION WORKS IN THE LOADING DOCK AREA.
 - CONSTRUCT PORTIONS OF THE NEW SANITARY AND STORM SEWERS ON THE EAST SIDE OF THE EXISTING LOADING DOCK ACCESS ROAD TO ACCOMMODATE FUTURE RE-ALIGNMENT OF THE ACCESS ROAD.
 - THE REMOVAL OF THE EXISTING LOADING DOCK ACCESS ROAD IS REQUIRED TO CONSTRUCT THE FUTURE PARKING GARAGE, SUBSTATION, AND UNDERGROUND INFRASTRUCTURE.
 - EXTEND NEW STORM SEWERS ON THE NORTH AND EAST SIDES OF THE EXISTING CANCER CENTRE PARKING LOT TO ACCOMMODATE FUTURE DIVERSION OF STORM FLOWS WHILE MINIMIZING IMPACTS TO HOSPITAL OPERATIONS DURING THE CURRENT PHASE.
- STORM FLOWS MAY NEED TO BE TEMPORARILY PUMPED TO ACCOMMODATE THE REMOVAL OF EXISTING INFRASTRUCTURE AND THE CONSTRUCTION OF NEW INFRASTRUCTURE.
- A MINIMUM OF 1 LANE OF ROADWAY ACCESS (FOR EMERGENCY VEHICLES, BUSES, TRUCKS, ETC.) WILL NEED TO BE MAINTAINED AT ALL TIMES IN THE VICINITY OF THE PROPOSED WORKS.

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS 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, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

REFER TO PLANS 123089-GP1 AND 123089-GP2 FOR DETAILS

				SCALE		DESIGN		FOR REVIEW ONLY				NOVATECH		LOCATION CITY OF OTTAWA QUEENSWAY CARLETON HOSPITAL			
				1:400		KD						NOVATECH Engineers, Planners & Landscape Architects Suite 200, 240 Michael Cowland Drive Ottawa, Ontario, Canada K2M 1P6 Telephone: (613) 254-0643 Facsimile: (613) 254-0887 Website: www.novatech-eng.com		DRAWING NAME		PROJECT NO.	
				CHECKED		FST		SUGGESTED PART 4 EXPANSION CONSTRUCTION SEQUENCING		123089							
				DRAWN				PHASE 1b		REV #2							
				KD				PROPANE LOOP / EARLY SERVICING									
				1:400		CHECKED		FST				DRAWING NO.		123089-SEQ-PH1b			
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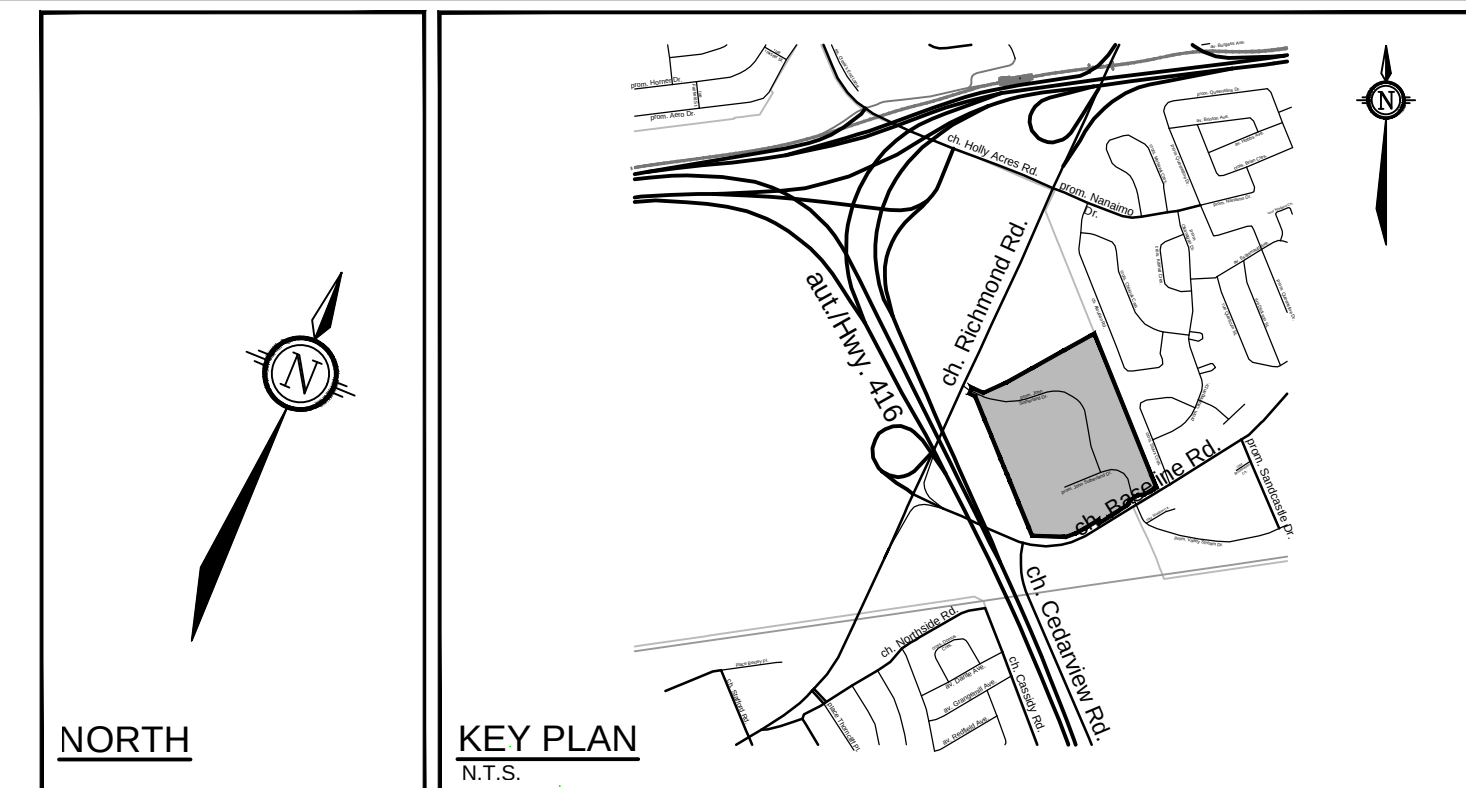
- LEGEND**
- PROPERTY LINE
 - EASEMENT BOUNDARY
 - PROPOSED SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW
 - PROPOSED STORM MANHOLE & SEWER WITH DIRECTION OF FLOW
 - PROPOSED PERFORATED SUBDRAIN
 - PROPOSED CATCHBASIN AND LEAD
 - PROPOSED CATCHBASIN MANHOLE
 - PROPOSED STORM OGS UNIT
 - PROPOSED INLET CATCH BASIN
 - PROPOSED VALVE & VALVE BOX
 - PROPOSED HYDRANT VALVE & LEAD
 - PROPOSED WATERMAIN / WATER SERVICE
 - PROPOSED WATERMAIN BEND & THRUST BLOCK
 - PROPOSED WATERMAIN REDUCER
 - PROPOSED FIRE DEPARTMENT CONNECTION
 - PROPOSED WATER METER AND REMOTE METER
 - REMOVALS
 - PROPOSED CAP
 - PROPOSED DROP PIPE INVERT
 - SEWER / HYDRANT LEAD CROSSING IDENTIFIER
 - THERMAL INSULATION FOR SHALLOW SEWERS
 - PROPOSED PROPANE ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
 - PROPOSED NATURAL GAS ALIGNMENT (EXACT ALIGNMENT AND DETAILS TO BE ENBRIDGE)
 - PROPOSED ELECTRICAL ALIGNMENT (REFER TO ELEC. PLANS FOR DETAILS)
 - PROPOSED ELECTRICAL GROUND CONDUCTOR (REFER TO ELEC. PLANS FOR DETAILS)
 - PROPOSED OXYGEN ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
 - PROPOSED DIESEL ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
 - PROPOSED PART 4 EXPANSION BUILDING CONSTRUCTED DURING CURRENT PHASE
 - POTENTIAL ACCESS/DETOUR ROUTE TO ACCOMMODATE CURRENT PHASE OF CONSTRUCTION (NO HATCH SHOWN IF DETOUR ROUTE IS NOT REQUIRED)
 - EXISTING BUILDING / PART 4 EXPANSION BUILDING CONSTRUCTED DURING PRIOR PHASES
 - EXISTING SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW
 - EXISTING STORM MANHOLE & SEWER WITH DIRECTION OF FLOW
 - EXISTING CATCHBASIN AND LEAD
 - EXISTING STORM OGS UNIT
 - EXISTING LANDSCAPE DRAIN
 - EXISTING WATERMAIN / WATER SERVICE
 - EXISTING VALVE & VALVE BOX
 - EXISTING HYDRANT VALVE & LEAD
 - EXISTING VEGETATION (TREES)
 - EXISTING LIGHT STANDARD
 - EXISTING GAS LINE
 - EXISTING HYDRO UNDERGROUND WIRES
 - EXISTING OVERHEAD WIRES

- MAIN OBJECTIVES OF PHASE 1c:**
1. EXTEND NEW SANITARY SEWER ACROSS JOHN SUTHERLAND DRIVE AND CONNECT TO THE EXISTING SANITARY SEWER. ONCE THE CONNECTION IS COMPLETE, EXISTING SANITARY FLOWS CAN BE DIVERTED TO THE NEW SANITARY SEWER.
 2. EXTEND NEW STORM SEWER ACROSS JOHN SUTHERLAND DRIVE AND EXISTING LOADING DOCK ACCESS ROAD TO BE ABLE TO PROVIDE AN OUTLET FOR THE ROADWAY AND PROPANE LOOP STORM FLOWS.
 - 2.a. THE NEW STORM SEWER CANNOT BE CONSTRUCTED ACROSS THE EXISTING LOADING DOCK ACCESS ROAD UNTIL SANITARY FLOWS ARE DIVERTED TO THE NEW SANITARY SEWER AND THE EXISTING SANITARY SEWER IS REMOVED DUE TO A CROSSING CONFLICT.
 3. EXTEND NEW STORM SEWER ACROSS THE CANCER CENTRE ACCESS. DIVERT EXISTING CANCER CENTRE PARKING LOT FLOWS TO THE NEW STORM SEWER SYSTEM.
 - 3.a. EXISTING CANCER CENTRE PARKING LOT FLOWS CANNOT BE DIVERTED TO THE NEW STORM SEWER UNTIL A CONNECTION TO THE DOWNSTREAM OUTLET IS PROVIDED (I.E., NEW STORM SEWER IS CONSTRUCTED ACROSS EXISTING LOADING DOCK ACCESS ROAD AND IS OPERATIONAL UP TO OUTLET).
- SEWAGE FLOWS MAY NEED TO BE TEMPORARILY PUMPED TO ACCOMMODATE THE REMOVAL OF EXISTING INFRASTRUCTURE AND THE CONSTRUCTION OF NEW INFRASTRUCTURE.
- A MINIMUM OF 1 LANE OF ROADWAY ACCESS (FOR EMERGENCY VEHICLES, BUSES, TRUCKS, ETC.) WILL NEED TO BE MAINTAINED AT ALL TIMES IN THE VICINITY OF THE PROPOSED WORKS.

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS 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. DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

REFER TO PLANS 123089-GP1 AND 123089-GP2 FOR DETAILS

				SCALE		FOR REVIEW ONLY		LOCATION CITY OF OTTAWA QUEENSWAY CARLETON HOSPITAL	
				1:400				DRAWING NAME	
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								PROJECT NO. 123089	
								REV. 1	
								REV. 2	
								DRAWING NO. 123089-SEQ-PH1c	
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- | LEGEND | |
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| — | PROPERTY LINE |
| — | EASEMENT BOUNDARY |
| ● | PROPOSED SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW |
| ○ | EXISTING SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW |
| → | PROPOSED CATCHBASIN & LEAD |
| ○ | EXISTING CATCHBASIN & LEAD |
| → | PROPOSED STORM MANHOLE & SEWER WITH DIRECTION OF FLOW |
| ○ | EXISTING CATCHBASIN MANHOLE |
| → | PROPOSED PERFORATED SUBDRAIN |
| ○ | EXISTING STORM OGS UNIT |
| → | PROPOSED CATCHBASIN AND LEAD |
| ○ | EXISTING LANDSCAPE DRAIN |
| → | PROPOSED CATCHBASIN MANHOLE |
| ○ | EXISTING WATERSHED / WATER SERVICE |
| → | PROPOSED STORM OGS UNIT |
| ○ | EXISTING VALVE & VALVE BOX |
| → | PROPOSED INLET CONTROL DEVICE |
| ○ | EXISTING HYDRANT GCS VALVE & LEAD |
| → | PROPOSED WATERMAIN / WATER SERVICE |
| ○ | EXISTING VEGETATION (TREES) |
| → | PROPOSED VALVE & VALVE BOX |
| ○ | EXISTING LIGHT STANDARDS |
| → | PROPOSED HYDRANT GCS VALVE & LEAD |
| ○ | GAS EXISTING GAS LINE |
| → | PROPOSED WATERMAIN BEND & THRUST BLOCK |
| ○ | HUG EXISTING HYDRO UNDERGROUND WIRES |
| → | PROPOSED WATERMAIN REDUCER |
| ○ | OH EXISTING OVERHEAD WIRES |
| → | PROPOSED FIRE DEPARTMENT CONNECTION |
| → | PROPOSED WATER METER AND REMOTE METER |
| → | REMOVALS |
| → | PROPOSED CAP |
| → | PROPOSED DROP PIPE INVERT |
| → | SEWER / HYDRANT LEAD CROSSING IDENTIFIER |
| → | THERMAL INSULATION FOR SHALLOW SEWERS |
| → | PROPOSED PROPANE ALIGNMENT
(PREFER TO MECH. PLANS FOR DETAILS) |
| → | PROPOSED NATURAL GAS ALIGNMENT
(EXACT ALIGNMENT AND DETAILS TBD BY ENRIDGE) |
| → | PROPOSED ELECTRICAL ALIGNMENT
(PREFER TO ELEC. PLANS FOR DETAILS) |
| → | PROPOSED ELECTRICAL GROUND CONDUCTOR |
| → | PROPOSED OXYGEN ALIGNMENT
(PREFER TO MECH. PLANS FOR DETAILS) |
| → | PROPOSED DIESEL ALIGNMENT
(PREFER TO MECH. PLANS FOR DETAILS) |

1. EXTEND NEW SEWERS AND WATERMAIN WITHIN LANDSCAPED AREAS TO MINIMIZE DISRUPTIONS TO TRAFFIC AND SERVICING. CAP NEW SANITARY SEWER AND WATERMAIN FOR FUTURE EXTENSION AND USE (I.E. NOT IN USE AND/OR OPERATIONAL AT END OF PHASE).
2. SIMILARLY, CONSTRUCT A PORTION OF THE REALIGNED JOHN SUTHERLAND DRIVE WITHIN LANDSCAPED AREAS TO MINIMIZE DISRUPTIONS TO TRAFFIC AND SERVICING.
 - 2.a. ONCE A ROADWAY TIE IN IS COMPLETED IN A FUTURE PHASE, TRAFFIC WILL BE REDIRECTED TO THE REALIGNED ROADWAY TO ALLOW FOR FUTURE DEMOLITION OF THE EXISTING ROADWAY.
3. EXTEND NEW STORM SEWERS ACROSS THE EXISTING JOHN SUTHERLAND DRIVE. THE EXTENSION IS REQUIRED BE ABLE TO DIVERT EXISTING AND NEW ROADWAY STORM FLOWS TO THE NEW STORM SEWER.
 - 3.a. ALL EXISTING STORMWATER FLOWS TRIBUTARY TO THE EXISTING STORM SEWER BELOW THE FOOTPRINT OF THE FUTURE INTERIM LOADING DOCK WILL NEED TO BE DIVERTED TO THE NEW STORM SEWER SYSTEM IN FUTURE PHASES.
4. ONCE THE NEW STORM SEWERS ARE INSTALLED ACROSS THE EXISTING JOHN SUTHERLAND DRIVE, A PORTION OF THE EXISTING STORM SEWER SYSTEM CAN BE REMOVED. THIS WILL BE REQUIRED TO ACCOMMODATE THE REDIRECTION OF STORM FLOW FROM THE EXISTING BUNKER TO THE NEW STORM SEWER VIA FUTURE INTERIM PLUMBING.
 - 4.a. INTERIM PLUMBING WILL BE REQUIRED BELOW THE FOOTPRINT OF THE FUTURE EMERGENCY DEPARTMENT ADDITION TO MAINTAIN A STORM OUTLET FOR THE EXISTING EMERGENCY DEPARTMENT. DURING THE FUTURE CONSTRUCTION PHASES, THE ALIGNMENT OF INTERIM PLUMBING WILL NEED TO BE COORDINATED WITH THE ARCHITECT, MECHANICAL, AND STRUCTURAL CONSULTANTS.

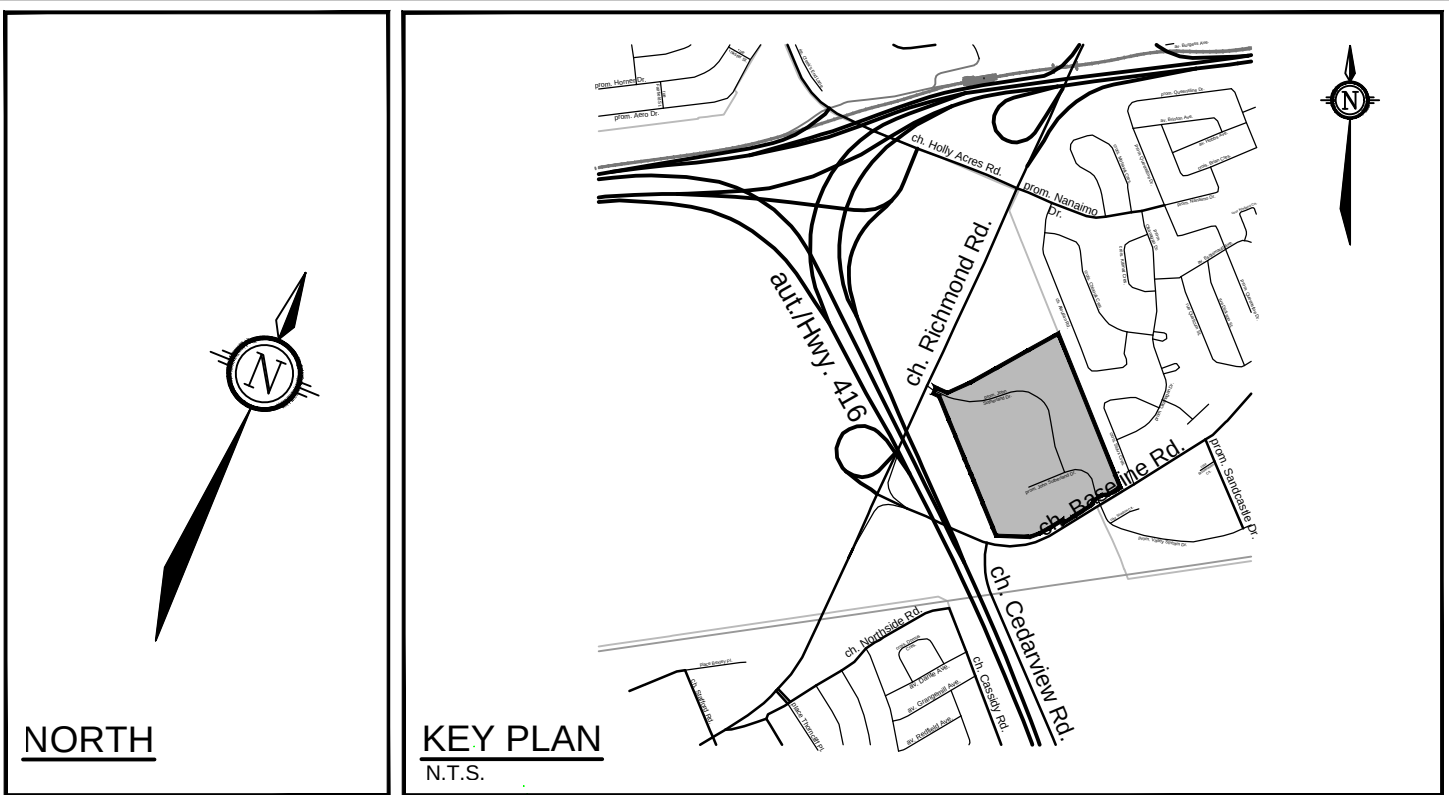
A MINIMUM OF 1 LANE OF ROADWAY ACCESS (FOR EMERGENCY VEHICLES, BUSES, TRUCKS, ETC.) WILL NEED TO BE MAINTAINED AT ALL TIMES IN THE VICINITY OF THE PROPOSED WORKS.

				SCALE	
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2.	REISSUED FOR INFORMATION	SEP 25/26	PST		
1.	ISSUED FOR INFORMATION	NOV 28/25	PST		
No.	REVISION	DATE	BY		

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

DRAWING NAME
SUGGESTED PART 4 EXPANSION
CONSTRUCTION SEQUENCING
PHASE 1d
EARLY SERVICING - EAST

PROJECT No.	123089
REV	REV #
DRAWING No.	123089-SEQ-PH1



LEGEND	
	PROPERTY LINE
	EASEMENT BOUNDARY
	PROPOSED SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW
	PROPOSED STORM MANHOLE & SEWER WITH DIRECTION OF FLOW
	PROPOSED PERFORATED SUBDRAIN
	PROPOSED CATCHBASIN AND LEAD
	EXISTING CATCHBASIN AND LEAD
	EXISTING STORM OGS UNIT
	EXISTING LANDSCAPE DRAIN
	EXISTING WATERMAIN / WATER SERVICE
	EXISTING VALVE & VALVE BOX
	EXISTING HYDRANT CW VALVE & LEAD
	EXISTING VEGETATION (TREES)
	EXISTING LIGHT STANDARD
	EXISTING GAS LINE
	EXISTING HYDRO UNDERGROUND WIRES
	EXISTING OVERHEAD WIRES
	PROPOSED FIRE DEPARTMENT CONNECTION
	PROPOSED WATER METER AND REMOTE METER
	REMOVALS
	PROPOSED CAP
	PROPOSED DROP PIPE INVERT
	SEWER / HYDRANT LEAD CROSSING IDENTIFIER
	THERMAL INSULATION FOR SHALLOW SEWERS
	PROPOSED PROPANE ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
	PROPOSED NATURAL GAS ALIGNMENT (EXACT ALIGNMENT AND DETAILS TO BE ENRIGED)
	PROPOSED ELECTRICAL ALIGNMENT (REFER TO ELEC. PLANS FOR DETAILS)
	PROPOSED ELECTRICAL GROUND CONDUCTOR (REFER TO ELEC. PLANS FOR DETAILS)
	PROPOSED OXYGEN ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
	PROPOSED DIESEL ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
	PROPOSED PART 4 EXPANSION BUILDING CONSTRUCTED DURING CURRENT PHASE
	EXISTING BUILDING / PART 4 EXPANSION BUILDING CONSTRUCTED DURING PRIOR PHASES

MAIN OBJECTIVES OF PHASE 1e:

- REMOVE A PORTION OF THE EXISTING STORM SEWER BETWEEN THE EXISTING BUNKER AND POWER PLANT. THIS IS REQUIRED TO REDIRECT STORM FLOWS FROM THE EXISTING EMERGENCY DEPARTMENT TO THE NEW STORM SEWER VIA FUTURE INTERNAL PLUMBING.
- ALL EXISTING STORMWATER FLOWS TRIBUTARY TO THE EXISTING STORM SEWER BELOW THE FOOTPRINT OF THE FUTURE INTERIM LOADING DOCK WILL NEED TO BE DIVERTED TO THE NEW STORM SEWER SYSTEM IN FUTURE PHASES.
 - INTERNAL PLUMBING WILL BE REQUIRED BELOW THE FOOTPRINT OF THE FUTURE EMERGENCY DEPARTMENT ADDITION TO MAINTAIN A STORM OUTLET FOR THE EXISTING EMERGENCY DEPARTMENT DURING FUTURE CONSTRUCTION PHASES. THE ALIGNMENT OF INTERNAL PLUMBING WILL NEED TO BE COORDINATED WITH THE ARCHITECT, MECHANICAL, AND STRUCTURAL CONSULTANTS.
- EXTEND NEW STORM SEWERS ACROSS THE EXISTING JOHN SUTHERLAND DRIVE AND RING ROAD. THIS IS REQUIRED TO REDIRECT STORM FLOWS FROM THE EXISTING SOUTH PARKING LOT TO THE NEW STORM SEWERS.
- EXTEND NEW WATERMAIN FOR A FUTURE CONNECTION TO THE EXISTING WATERMAIN (I.E. NOT OPERATIONAL AT END OF PHASE).

STORM FLOWS MAY NEED TO BE TEMPORARILY PUMPED TO ACCOMMODATE THE REMOVAL OF EXISTING INFRASTRUCTURE AND THE CONSTRUCTION OF NEW INFRASTRUCTURE.

A MINIMUM OF 1 LANE OF ROADWAY ACCESS (FOR EMERGENCY VEHICLES, BUSES, TRUCKS, ETC.) WILL NEED TO BE MAINTAINED AT ALL TIMES IN THE VICINITY OF THE PROPOSED WORKS.

REFER TO PLANS 123089-GP1 AND 123089-GP2 FOR DETAILS

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS 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, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

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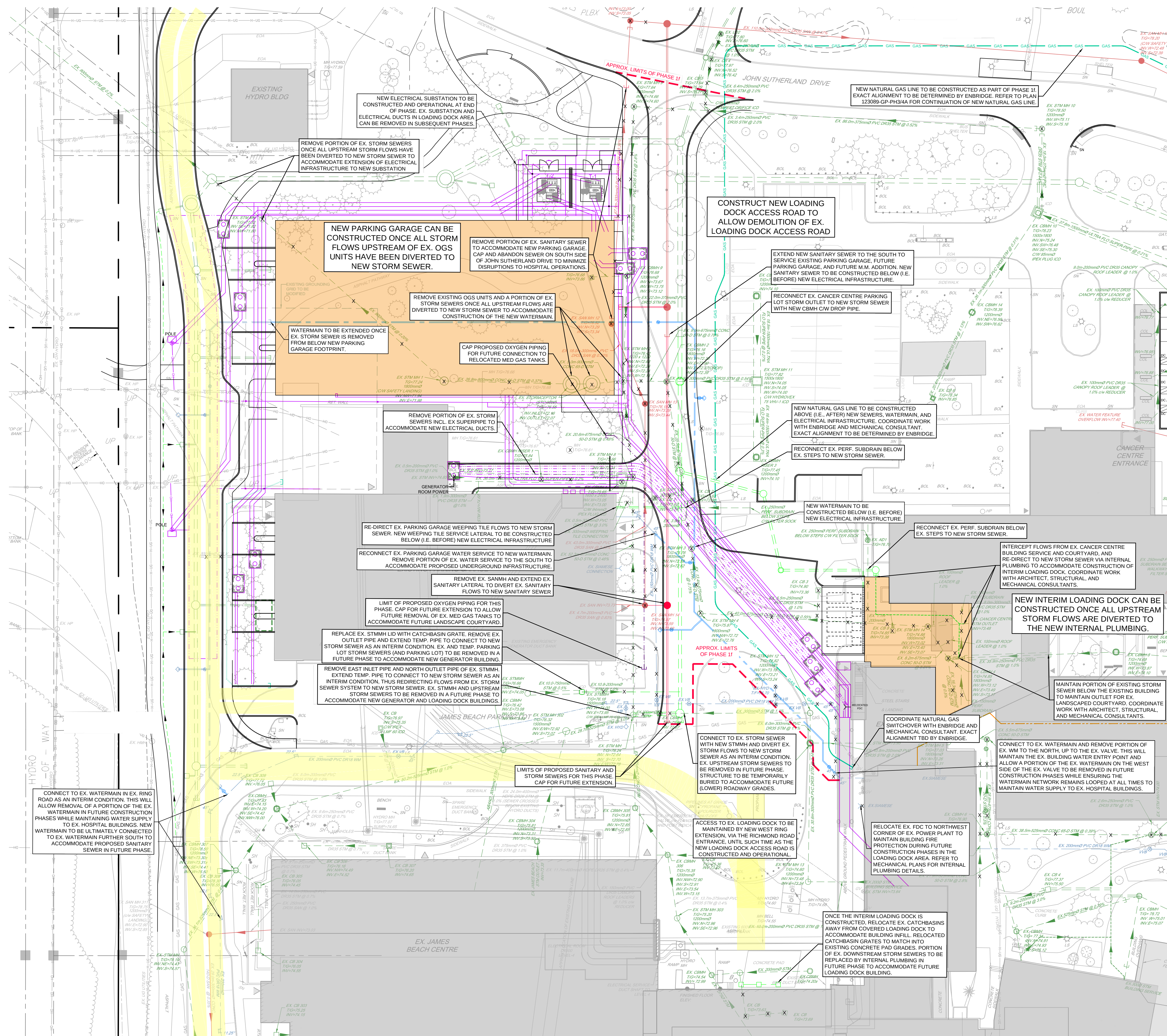
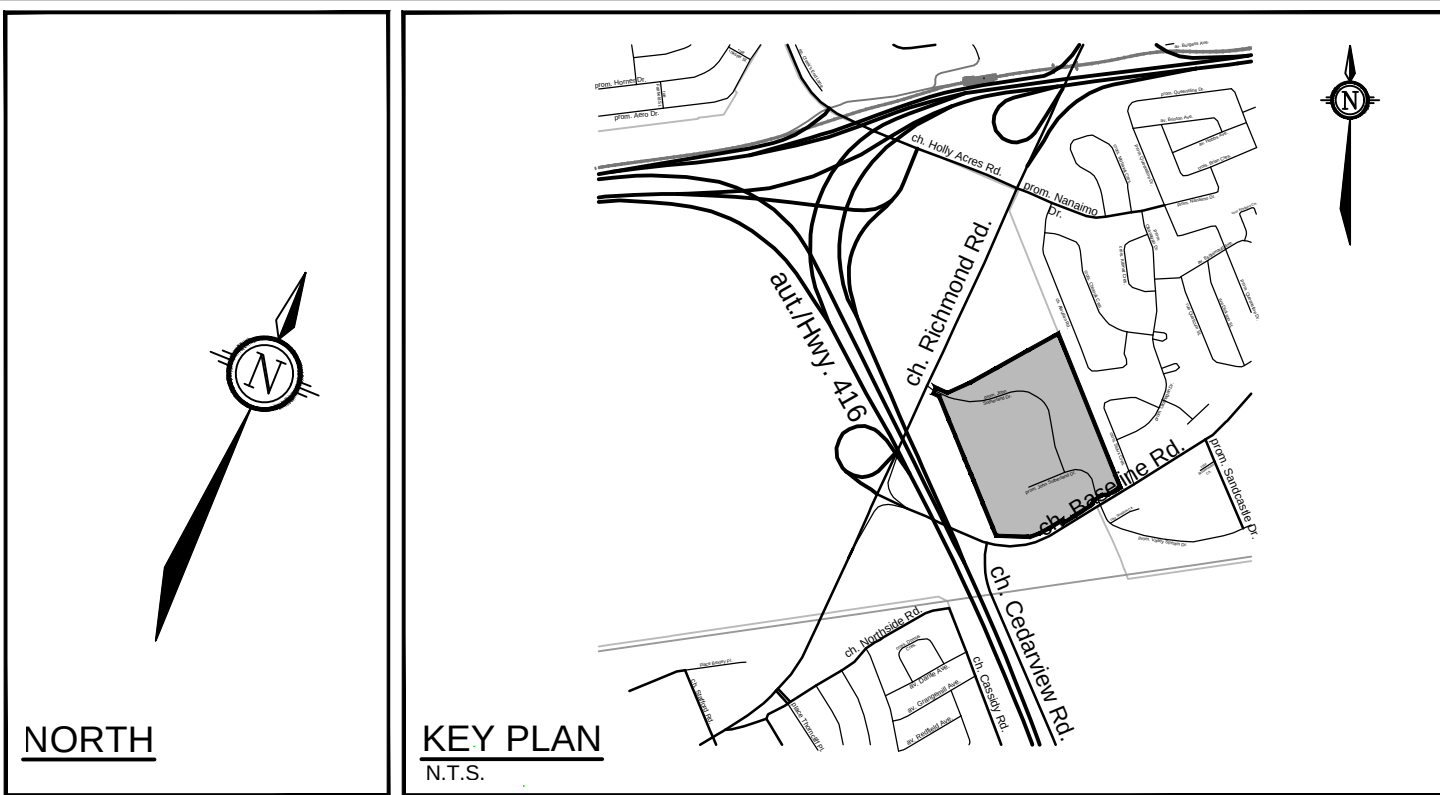
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Website: www.novatech-eng.com

LOCATION
CITY OF OTTAWA
QUEENSWAY CARLETON HOSPITAL

DRAWING NAME
**SUGGESTED PART 4 EXPANSION
CONSTRUCTION SEQUENCING**
PHASE 1e
EARLY SERVICING - EAST

PROJECT NO.
123089
REV.
REV #2
DRAWING NO.
123089-SEQ-PH1e



LEGEND

- PROPERTY LINE
- EASEMENT BOUNDARY
- PROPOSED SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW
- PROPOSED STORM MANHOLE & SEWER WITH DIRECTION OF FLOW
- PROPOSED PERFORATED SUBDRAIN
- PROPOSED CATCHBASIN AND LEAD
- PROPOSED CATCHBASIN MANHOLE
- PROPOSED STORM OGS UNIT
- PROPOSED INLET CONTROL DEVICE
- PROPOSED WATERMAIN / WATER SERVICE
- PROPOSED VALVE & VALVE BOX
- PROPOSED HYDRANT CW VALVE & LEAD
- PROPOSED WATERMAIN BEND & THRUST BLOCK
- PROPOSED WATER METER AND REMOTE METER
- REMOVALS
- PROPOSED CAP
- PROPOSED DROP PIPE INVERT
- SEWER / HYDRANT LEAD CROSSING IDENTIFIER
- THERMAL INSULATION FOR SHALLOW SEWERS
- PROPOSED PROPANE ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
- PROPOSED NATURAL GAS ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
- PROPOSED ELECTRICAL ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
- PROPOSED DIESEL ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
- PROPOSED PART 4 EXPANSION BUILDING CONSTRUCTED DURING CURRENT PHASE
- POTENTIAL ACCESS/TOUR ROUTE TO ACCOMMODATE CURRENT PHASE OF CONSTRUCTION (NO HATCH SHOWN IF DETOUR ROUTE IS NOT REQUIRED)
- EXISTING SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW
- EXISTING STORM MANHOLE & SEWER WITH DIRECTION OF FLOW
- EXISTING CATCHBASIN AND LEAD
- EXISTING CATCHBASIN MANHOLE
- EXISTING STORM OGS UNIT
- EXISTING LANDSCAPE DRAIN
- EXISTING WATERMAIN / WATER SERVICE
- EXISTING VALVE & VALVE BOX
- EXISTING HYDRANT CW VALVE & LEAD
- EXISTING VEGETATION (TREES)
- EXISTING LIGHT STANDARD
- GAS
- HYDRO
- EXISTING HYDRO UNDERGROUND WIRES
- EXISTING OVERHEAD WIRES
- EXISTING BUILDING / PART 4 EXPANSION BUILDING CONSTRUCTED DURING PRIOR PHASES

MAIN OBJECTIVES OF PHASE 1:

- CONSTRUCT THE NEW LOADING DOCK ACCESS ROAD TO ALLOW FOR DEMOLITION OF THE EXISTING ACCESS ROAD.
 - ACCESS TO THE EXISTING LOADING DOCK WILL BE MAINTAINED BY THE EXISTING WEST RING ROAD (VIA BASELINE ROAD), THUS MINIMIZING DISRUPTIONS TO EXISTING HOSPITAL OPERATIONS.
 - CONSTRUCTION WILL BE LIMITED TO THE NORTHERN HALF OF THE LOADING DOCK AREA (I.E., WITHIN THE APPROXIMATE PHASE 1I LIMITS) TO MAINTAIN LOADING DOCK OPERATIONS. ONCE CONSTRUCTION IN THE NORTHERN HALF IS GENERALLY COMPLETE (I.E. END OF CURRENT PHASE), LOADING DOCK OPERATIONS WILL MOVE TO THE INTERIM LOADING DOCK, WHICH WILL BE ACCESSED FROM THE NORTH VIA THE NEW ACCESS ROAD.
 - REMOVE A PORTION OF THE EXISTING STORM SEWERS IN THE LOADING DOCK AREA AND EXTEND NEW STORM SEWERS TO DIVERT STORMWATER FLOWS TO THE NEW STORM SEWER SYSTEM ON THE EAST AND NORTH SIDES OF THE NEW PARKING GARAGE.
 - DIVERT ALL FLOWS FROM AREAS TRIBUTARY TO THE EXISTING STORM SEWER BELOW THE FOOTPRINT OF THE NEW PARKING GARAGE (EXISTING CANCER CENTRE PARKING LOT, JAMES BEACH CENTRE, JAMES BEACH PARKING LOT, MAIN HOSPITAL BUILDING, AND POWER PLANT).
 - ALL EXISTING STORM FLOWS TRIBUTARY TO THE EXISTING STORM SEWER BELOW THE FOOTPRINT OF THE NEW PARKING GARAGE WILL NEED TO BE DIVERTED TO THE NEW STORM SEWER SYSTEM BEFORE THE EXISTING STORM SEWER CAN BE REMOVED.
 - DIVERT ALL FLOWS FROM AREAS TRIBUTARY TO THE EXISTING STORM SEWER BELOW THE FOOTPRINT OF THE INTERIM LOADING DOCK (EXISTING CANCER CENTRE AND COURTYARD) VIA INTERNAL PLUMBING.
 - INTERNAL PLUMBING TO BE USED BELOW THE FOOTPRINT OF THE INTERIM LOADING DOCK TO MAINTAIN A STORM OUTLET FOR EXISTING CANCER CENTRE AND COURTYARD. ALIGNMENT OF INTERNAL PLUMBING TO BE COORDINATED WITH THE ARCHITECT, MECHANICAL, AND STRUCTURAL CONSULTANTS.
 - REMOVE A PORTION OF THE EXISTING SANITARY SEWERS IN THE LOADING DOCK AREA TO ACCOMMODATE NEW UNDERGROUND INFRASTRUCTURE. EXTEND NEW SANITARY SEWERS WITHIN THE LOADING DOCK AREA TO ALLOW FOR DIVERSION OF EXISTING PARKING GARAGE SANITARY FLOWS TO THE NEW SANITARY SEWER SYSTEM, AND TO SERVICE THE NEW PARKING GARAGE, FUTURE LOADING DOCK BUILDING, AND FUTURE GENERATOR BUILDING.
 - EXTEND NEW WATERMAIN BELOW THE FOOTPRINT OF THE NEW PARKING GARAGE, WITHIN LOADING DOCK AREA. CONNECT TO THE EXISTING WATERMAIN IN THE WEST RING ROAD AND CONNECT TO THE WATER ENTRY ROOM TO MAINTAIN A LOOPED WATER SUPPLY TO THE EXISTING HOSPITAL BUILDINGS.
 - WATER SUPPLY TO THE EXISTING HOSPITAL MAY BE TEMPORARILY INTERRUPTED DURING THE SWITCH FROM THE EXISTING WATERMAIN TO THE NEW WATERMAIN; THEREFORE, A TEMPORARY OVERLAND WATER SUPPLY MAY BE REQUIRED AS AN INTERIM CONDITION.
 - CONSTRUCTION OF THE NEW PARKING GARAGE CAN BEGIN ONCE THE EXISTING STORM AND SANITARY SEWERS WITHIN THE BUILDING FOOTPRINT CAN BE REMOVED (I.E., ALL UPSTREAM FLOWS DIVERTED TO NEW SEWERS) AND THE NEW WATERMAIN EXTENSION IS OPERATIONAL.
 - CONSTRUCT NEW SUBSTATION AND EXTEND NEW ELECTRICAL INFRASTRUCTURE WITHIN THE LOADING DOCK AREA. ONCE THE EXISTING HOSPITAL BUILDINGS, ONCE THE NEW ELECTRICAL INFRASTRUCTURE IS OPERATION, THE EXISTING ELECTRICAL INFRASTRUCTURE LOCATED WITHIN THE FOOTPRINT OF THE FUTURE GENERATOR BUILDING CAN BE REMOVED IN A FUTURE PHASE. NOTE THAT THE REMOVAL OF EXISTING ELECTRICAL INFRASTRUCTURE CAN ONLY TAKE PLACE ONCE TRUCKS ARE USING THE INTERIM LOADING DOCK VIA THE NEW NORTH ACCESS ROAD.
 - EXTEND MEDICAL GAS PIPING WITHIN THE LOADING DOCK AREA. CAP FOR A FUTURE EXTENSION TO ACCOMMODATE THE FUTURE RELOCATION OF EXISTING MEDICAL GAS TANKS LOCATED NEAR THE FUTURE GENERATOR BUILDING AND LANDSCAPED COURTYARD.
 - INSTALL NEW NATURAL GAS PIPING FROM EX. GAS MAIN IN BASELINE ROAD TO EX. GAS METER / REGULATOR. ALL NATURAL GAS WORKS TO BE COORDINATED WITH ENBRIDGE AND THE MECHANICAL CONSULTANT. EXACT PIPE ALIGNMENT TO BE DETERMINED BY ENBRIDGE. ONCE THE NEW NATURAL GAS LINE IS OPERATIONAL, THE EX. NATURAL GAS LINE COULD BE REMOVED TO ACCOMMODATE THE FUTURE GENERATOR BUILDING.
 - CONSTRUCTION OF THE NEW INTERIM LOADING DOCK CAN BEGIN ONCE THE EXISTING STORM SEWERS WITHIN THE BUILDING FOOTPRINT CAN BE REMOVED (I.E., ALL UPSTREAM FLOWS DIVERTED TO NEW STORM SEWER).
 - ONCE THE NEW INTERIM LOADING DOCK IS CONSTRUCTED AND THE NEW NORTH LOADING DOCK ACCESS IS OPERATIONAL, THE EXISTING CATCHBASINS WITHIN THE COVERED PORTION OF THE EXISTING LOADING DOCK CAN BE RELOCATED TO ACCOMMODATE BUILDING INFILL.
- SEWAGE FLOWS MAY NEED TO BE TEMPORARILY PUMPED TO ACCOMMODATE THE REMOVAL OF EXISTING INFRASTRUCTURE AND THE CONSTRUCTION OF NEW INFRASTRUCTURE.
- A MINIMUM OF 1 LANE OF ROADWAY ACCESS (FOR EMERGENCY VEHICLES, BUSES, TRUCKS, ETC.) WILL NEED TO BE MAINTAINED AT ALL TIMES IN THE VICINITY OF THE PROPOSED WORKS.

REFER TO PLANS 123089-GP1 AND 123089-GP2 FOR DETAILS

NOTE:
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REVISION			
NO.	REVISION	DATE	BY
2.	REISSUED FOR INFORMATION	SEP 25/26	FST
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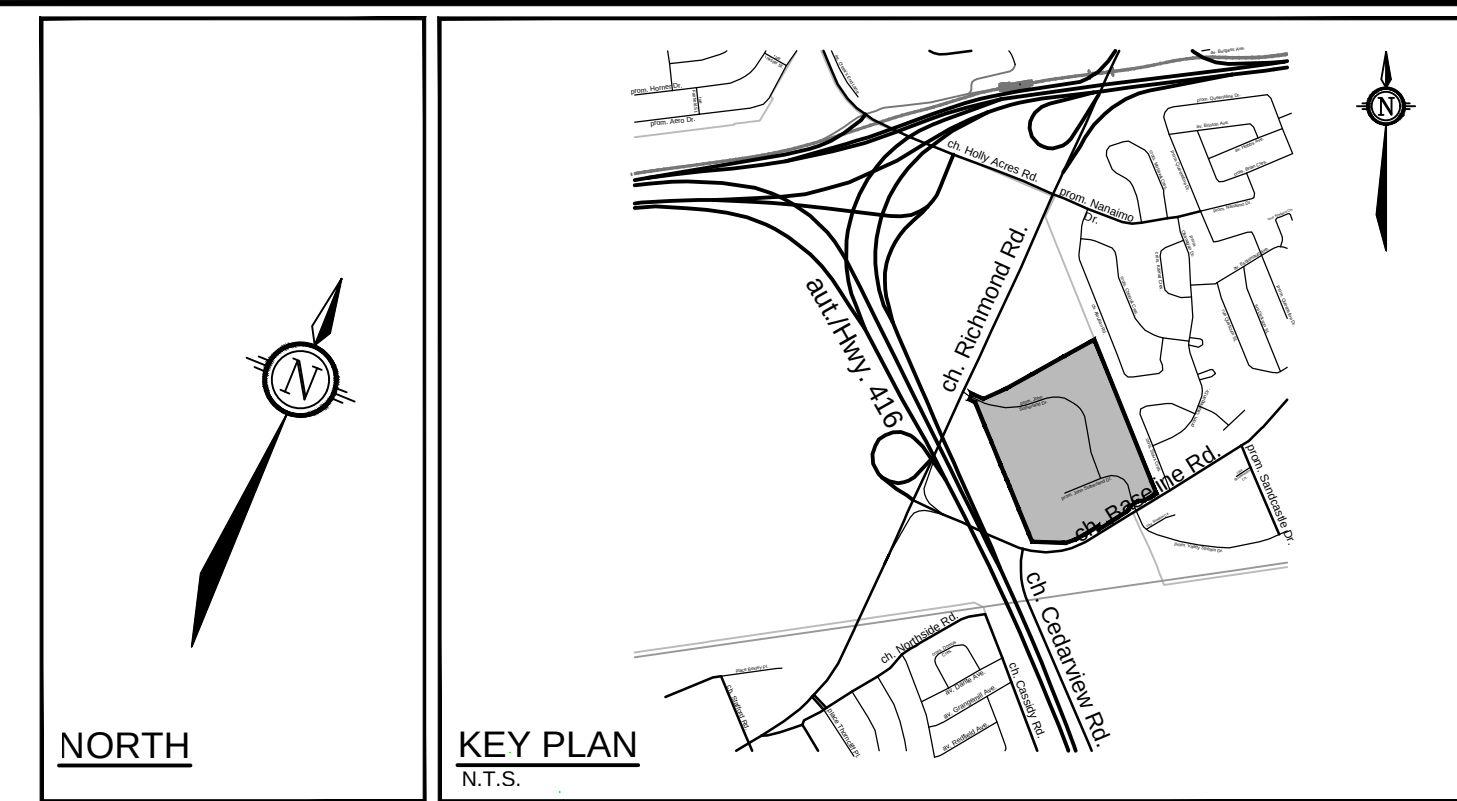
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LOCATION CITY OF OTTAWA QUEENSWAY CARLETON HOSPITAL	PROJECT NO. 123089
DRAWING NAME SUGGESTED PART 4 EXPANSION CONSTRUCTION SEQUENCING PHASE 1I	REV REV #2
NEW LOADING DOCK ACCESS ROAD, INTERIM LOADING DOCK, NEW PARKING GARAGE	DRAWING NO. 123089-SEQ-PH1I



- | LEGEND | | | |
|--------|--|--|--|
| | PROPERTY LINE | | EXISTING SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW |
| | EASEMENT BOUNDARY | | EXISTING STORM MANHOLE & SEWER WITH DIRECTION OF FLOW |
| | PROPOSED SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW | | EXISTING CATCHBASIN & LEAD |
| | PROPOSED STORM MANHOLE & SEWER WITH DIRECTION OF FLOW | | EXISTING CATCHBASIN MANHOLE |
| | PROPOSED REFORMED SUPERMAN | | EXISTING STORM OGS UNIT |
| | PROPOSED CATCHBASIN AND LEAD | | EXISTING LANDSCAPE DRAIN |
| | PROPOSED CATCHBASIN MANHOLE | | EXISTING WATERMAIN / WATER SERVICE |
| | PROPOSED STORM OGS UNIT | | EXISTING VALVE & VALVE BOX |
| | PROPOSED INLET CONTROL DEVICE | | EXISTING HYDRANT CW VALVE & LEAD |
| | PROPOSED WATERMAIN / WATER SERVICE | | EXISTING VEGETATION (TREES) |
| | PROPOSED VALVE & VALVE BOX | | EXISTING LIGHT STANDARD |
| | PROPOSED HYDRANT CW VALVE & LEAD | | EXISTING GAS LINE |
| | PROPOSED WATERMAIN BEND & THRUST BLOCK | | EXISTING HYDRO UNDERGROUND WIRES |
| | PROPOSED WATERMAIN REDUCER | | EXISTING OVERHEAD WIRES |
| | PROPOSED FIRE DEPARTMENT CONNECTION | | |
| | PROPOSED WATER METER AND REMOTE METER | | |
| | REMOVALS | | |
| | PROPOSED CAP | | |
| | PROPOSED DROP PIPE INVERT | | |
| | SEWER / HYDRANT LEAD CROSSING IDENTIFIER | | |
| | THERMAL INSULATION FOR SHALLOW SEWERS | | |
| | PROPOSED PROPAGATE ALIGNMENT (REFERS TO MECH. PLANS FOR DETAILS) | | |
| | PROPOSED NATURAL GAS ALIGNMENT (EXACT ALIGNMENT AND DETAIL TIED BY ENDRIDGE) | | |
| | PROPOSED ELECTRICAL ALIGNMENT (REFERS TO ELEC. PLANS FOR DETAILS) | | |
| | PROPOSED ELECTRICAL GROUND CONDUCTOR (REFERS TO ELEC. PLANS FOR DETAILS) | | |
| | PROPOSED OXYGEN ALIGNMENT (REFERS TO MECH. PLANS FOR DETAILS) | | |
| | PROPOSED DIESEL ALIGNMENT (REFERS TO MECH. PLANS FOR DETAILS) | | |

1. A PORTION OF THE EXISTING RING ROAD ON THE SOUTH SIDE OF THE EXISTING PARKING GARAGE CAN BE CLOSED TO ACCOMMODATE CONSTRUCTION OF THE REMAINDER OF THE NEW WEST RING ROAD EXTENSION.
 - 1.a. ACCESS TO THE NEW GENERATOR BUILDING OF THE LOADING DOCK AREA, INCLUDING THE NEW INTERIM LOADING DOCKS, WILL BE PROVIDED BY THE NEW LOADING DOCK ACCESS ROAD CONSTRUCTED IN THE PREVIOUS PHASE.
 - 1.b. CONSTRUCTION WILL NEED TO BE LIMITED TO THE SOUTHERN PORTION OF THE EXISTING LOADING DOCK AREA AND EXISTING RING ROAD (I.E., WITHIN APPROXIMATE PHASE LIMITS) TO MAINTAIN INTERIM LOADING DOCK OPERATIONS.
2. REMOVE A PORTION OF THE EXISTING STORM SEWERS IN THE EXISTING RING ROAD AND LOADING DOCK AREAS. THIS WILL BE REQUIRED TO EXTEND NEW STORM SEWERS AND DIVERT STORMWATER FLOWS TO THE NEW STORM SEWER SYSTEMS IN THE WEST RING ROAD AND NEW NORTH LOADING DOCK ACCESS ROAD.
 - 2.a. DIVERT FLOWS FROM AREAS TRIBUTARY TO THE EXISTING STORM SEWER BELOW THE FOOTPRINT OF THE FUTURE GENERATOR BUILDING (I.E., EX. RING ROAD, SOUTH PARKING LOT, JAMES BEACH CENTRE) TO ALLOW REMOVAL OF THESE STORM SEWERS.
 - 2.b. DIVERT FLOWS FROM AREAS TRIBUTARY TO THE EXISTING STORM SEWER BELOW THE FOOTPRINT OF THE FUTURE LOADING DOCK (I.E., EXISTING POWER PLANT, MAIN HOSPITAL BUILDING) VIA INTERNAL PLUMBING TO ALLOW REMOVAL OF THESE STORM SEWERS.
3. REMOVE THE TEMPORARY WATERMAIN CONNECTION IN THE WEST RING ROAD AND EXTEND SOUTHWARD TO CONNECT TO THE EXISTING WATERMAIN. RELOCATION OF THE WATERMAIN CONNECTION POINT WILL BE REQUIRED TO ACCOMMODATE THE NEW SANITARY SEWER IN THE WEST RING ROAD.
 - 3.a. WATER SUPPLY TO THE EXISTING HOSPITAL MAY BE TEMPORARILY INTERRUPTED DURING RELOCATION OF THE WATERMAIN CONNECTION POINT. THEREFORE TEMPORARY OVERLAND WATER SUPPLY MAY BE REQUIRED AS AN INTERIM CONDITION.
4. ONCE THE WATERMAIN CONNECTION POINT HAS BEEN RELOCATED, EXTEND NEW SANITARY SEWERS IN THE WEST RING ROAD AND CONNECT TO THE EXISTING SANITARY SEWER IN THE EX. RING ROAD. THIS WILL BE REQUIRED TO PROVIDE A SANITARY OUTLET FOR A FUTURE PART 5 EXPANSION BUILDING.
5. INSTALL NEW MEDICAL GAS TANKS WITHIN THE LOADING DOCK AREA. EXTEND NEW MEDICAL GAS PIPING INTERNALLY AND CONNECT TO THE EX. JAMES BEACH CENTRE TO MAINTAIN SERVICE TO THE HOSPITAL. THIS WILL ALLOW THE EXISTING MEDICAL GAS TANKS TO BE REMOVED, WHICH IS REQUIRED TO ACCOMMODATE THE NEW GENERATOR BUILDING AND LANDSCAPED COURTYARD.
6. CONSTRUCTION OF THE NEW GENERATOR AND LOADING DOCK BUILDINGS CAN BEGIN ONCE THE NEW MEDICAL GAS LINE IS OPERATIONAL AND THE EXISTING STORM SEWERS WITHIN THE RESUBDIVISION BUILDING FOOTPRINTS CAN BE REMOVED (I.E., ALL UPSTREAM FLOWS DIVERTED TO NEW STORM SEWER).

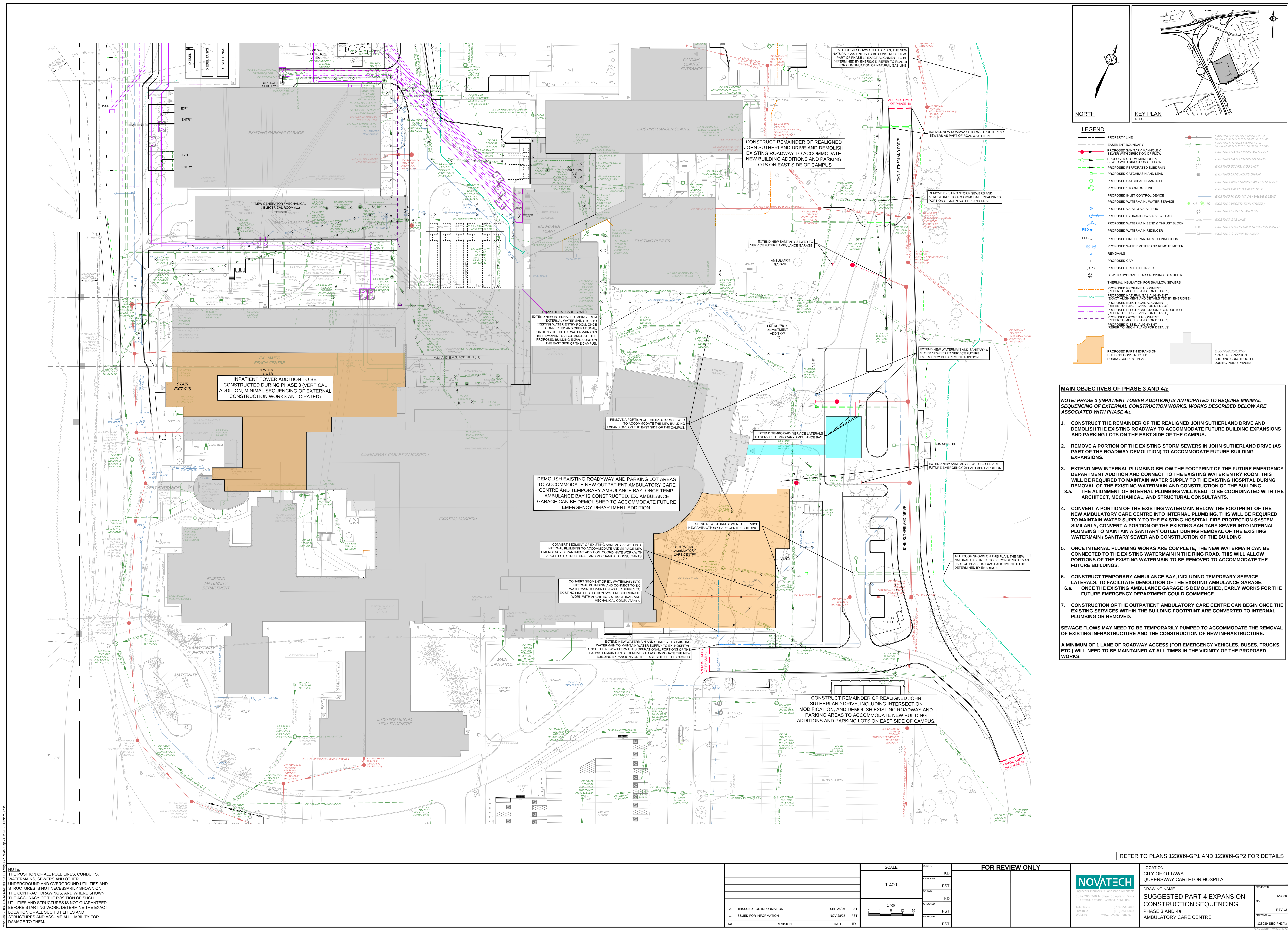
STORM FLOWS MAY NEED TO BE TEMPORARILY PUMPED TO ACCOMMODATE THE REMOVAL OF EXISTING INFRASTRUCTURE AND THE CONSTRUCTION OF NEW INFRASTRUCTURE.

A MINIMUM OF 1 LANE OF ROADWAY ACCESS (FOR EMERGENCY VEHICLES, BUSES, TRUCKS, ETC.) WILL NEED TO BE MAINTAINED AT ALL TIMES IN THE VICINITY OF THE PROPOSED WORKS.

REFER TO PLANS 123089-GP1 AND 123089-GP2 FOR DETAILS

				SCALE		DESIGN		FOR REVIEW ONLY				LOCATION CITY OF OTTAWA QUEENSWAY CARLETON HOSPITAL	
				1:400		KD						PROJECT NO. 12300	
						CHECKED FST						DRAWING NAME	
						DESIGN						SUGGESTED PART 4 EXPANSION CONSTRUCTION SEQUENCING PHASE 2a	
				0 4 8 12 16		KD		 Suite 200, 240 Michael Cowgarden Drive Ottawa, Ontario, Canada K2M 1P6 Telephone: (613) 254-9651 Facsimile: (613) 254-5867 Website: www.novatech-ang.com				DRAWING NO. REV REV	
2	RESUBMITTED FOR INFORMATION	SEP 25/06	FST			CHECKED FST						DIESEL TANKS, NEW GENERATOR ROOM, NEW LOADING DOCK BUILDING	
1	ISSUED FOR INFORMATION	NOV 28/05	FST			DESIGN						123009-SEP-PH	
NO.	REVISION	DATE	BY			HYDROLOGIST FST							

NOTE:
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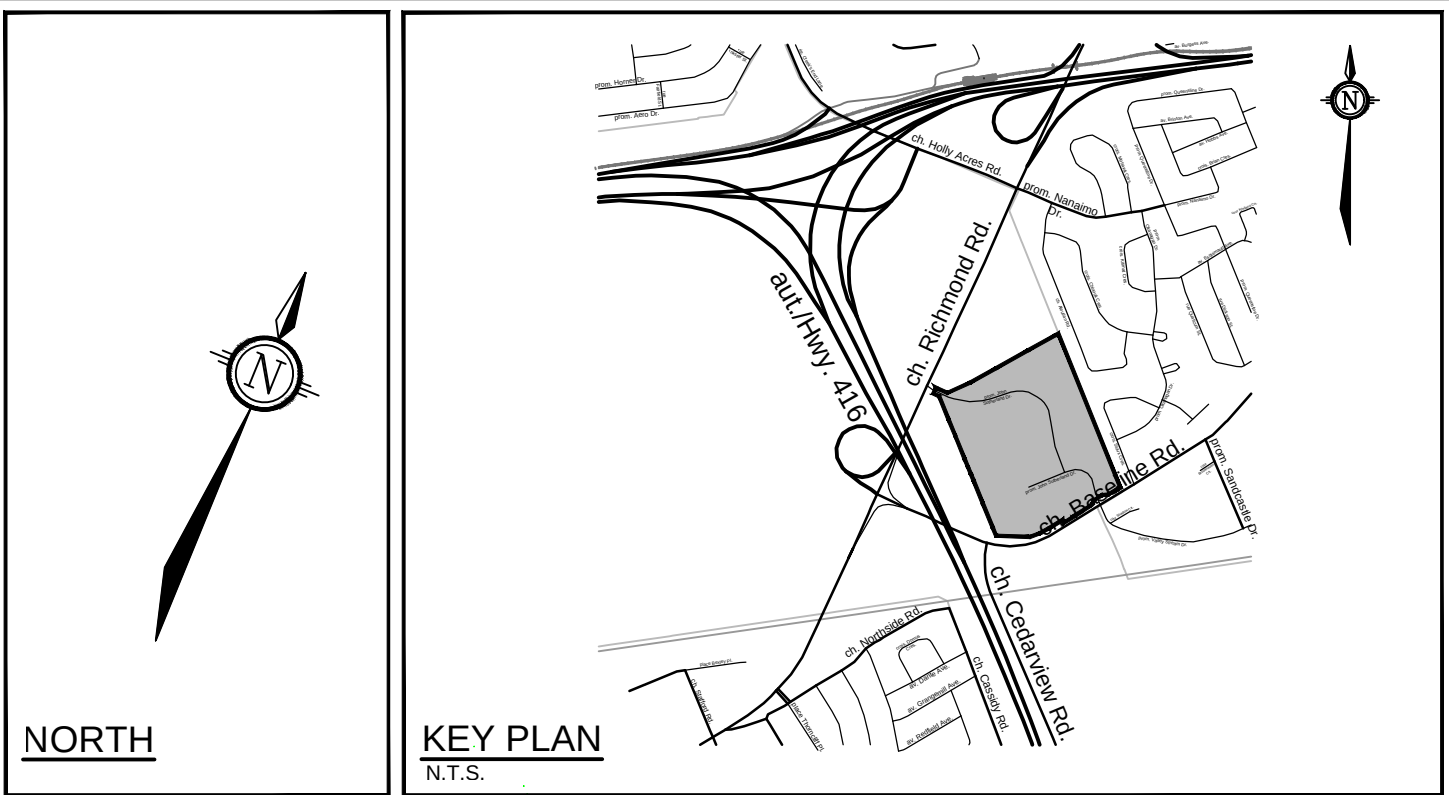
LEGEND

PROPERTY LINE	EXISTING SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW
EASEMENT BOUNDARY	EXISTING STORM MANHOLE & SEWER WITH DIRECTION OF FLOW
PROPOSED SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW	EXISTING CATCHBASIN AND LEAD
PROPOSED STORM MANHOLE & SEWER WITH DIRECTION OF FLOW	EXISTING LANDSCAPE DRAIN
PROPOSED PERFORATED SUBDRAIN	EXISTING STORM OGS UNIT
PROPOSED CATCHBASIN AND LEAD	EXISTING WATERMAIN / WATER SERVICE
PROPOSED STORM OGS UNIT	EXISTING VALVE & VALVE BOX
PROPOSED INLET CONTROL DEVICE	EXISTING HYDRANT C/W VALVE & LEAD
PROPOSED WATERMAIN / WATER SERVICE	EXISTING VEGETATION (TREES)
PROPOSED VALVE & VALVE BOX	EXISTING LIGHT STANDARD
PROPOSED HYDRANT C/W VALVE & LEAD	GAS
PROPOSED WATERMAIN BEND & THRUST BLOCK	EXISTING GAS LINE
PROPOSED WATERMAIN REDUCER	EXISTING HYDRO UNDERGROUND WIRES
PROPOSED FIRE DEPARTMENT CONNECTION	EXISTING OVERHEAD WIRES
PROPOSED WATER METER AND REMOTE METER	
REMOVALS	
PROPOSED CAP	
PROPOSED DROP PIPE INVERT	
SEWER / HYDRANT LEAD CROSSING IDENTIFIER	
THERMAL INSULATION FOR SHALLOW SEWERS	
PROPOSED PROPANE ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)	
PROPOSED NATURAL GAS ALIGNMENT (EXACT ALIGNMENT AND DETAILS TO BE DETERMINED BY ENBRIDGE)	
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PROPOSED OXYGEN ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)	
PROPOSED DIESEL ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)	
PROPOSED PART 4 EXPANSION BUILDING CONSTRUCTED DURING CURRENT PHASE	EXISTING BUILDING / PART 4 EXPANSION BUILDING CONSTRUCTED DURING PRIOR PHASES

- MAIN OBJECTIVES OF PHASE 3 AND 4a:**
- NOTE: PHASE 3 (INPATIENT TOWER ADDITION) IS ANTICIPATED TO REQUIRE MINIMAL SEQUENCING OF EXTERNAL CONSTRUCTION WORKS. WORKS DESCRIBED BELOW ARE ASSOCIATED WITH PHASE 4a.**
1. CONSTRUCT THE REMAINDER OF THE REALIGNED JOHN SUTHERLAND DRIVE AND DEMOLISH THE EXISTING ROADWAY TO ACCOMMODATE FUTURE BUILDING EXPANSIONS AND PARKING LOTS ON THE EAST SIDE OF THE CAMPUS.
 2. REMOVE A PORTION OF THE EXISTING STORM SEWERS IN JOHN SUTHERLAND DRIVE (AS PART OF THE ROADWAY DEMOLITION) TO ACCOMMODATE FUTURE BUILDING EXPANSIONS.
 3. EXTEND NEW INTERNAL PLUMBING BELOW THE FOOTPRINT OF THE FUTURE EMERGENCY DEPARTMENT ADDITION AND CONNECT TO THE EXISTING WATER ENTRY ROOM. THIS WILL BE REQUIRED TO MAINTAIN WATER SUPPLY TO THE EXISTING HOSPITAL DURING REMOVAL OF THE EXISTING WATERMAIN AND CONSTRUCTION OF THE BUILDING.
3.a. THE ALIGNMENT OF INTERNAL PLUMBING WILL NEED TO BE COORDINATED WITH THE ARCHITECT, MECHANICAL, AND STRUCTURAL CONSULTANTS.
 4. CONVERT A PORTION OF THE EXISTING WATERMAIN BELOW THE FOOTPRINT OF THE NEW AMBULATORY CARE CENTRE INTO INTERNAL PLUMBING. THIS WILL BE REQUIRED TO MAINTAIN WATER SUPPLY TO THE EXISTING HOSPITAL FIRE PROTECTION SYSTEM. SIMILARLY, CONVERT A PORTION OF THE EXISTING SANITARY SEWER INTO INTERNAL PLUMBING TO MAINTAIN A SANITARY OUTLET DURING REMOVAL OF THE EXISTING WATERMAIN / SANITARY SEWER AND CONSTRUCTION OF THE BUILDING.
 5. ONCE INTERNAL PLUMBING WORKS ARE COMPLETE, THE NEW WATERMAIN CAN BE CONNECTED TO THE EXISTING WATERMAIN IN THE RING ROAD. THIS WILL ALLOW PORTIONS OF THE EXISTING WATERMAIN TO BE REMOVED TO ACCOMMODATE THE FUTURE BUILDINGS.
 6. CONSTRUCT TEMPORARY AMBULANCE BAY, INCLUDING TEMPORARY SERVICE LATERALS, TO FACILITATE DEMOLITION OF THE EXISTING AMBULANCE GARAGE.
6.a. ONCE THE EXISTING AMBULANCE GARAGE IS DEMOLISHED, EARLY WORKS FOR THE FUTURE EMERGENCY DEPARTMENT COULD COMMENCE.
 7. CONSTRUCTION OF THE OUTPATIENT AMBULATORY CARE CENTRE CAN BEGIN ONCE THE EXISTING SERVICES WITHIN THE BUILDING FOOTPRINT ARE CONVERTED TO INTERNAL PLUMBING OR REMOVED.
- SEWAGE FLOWS MAY NEED TO BE TEMPORARILY PUMPED TO ACCOMMODATE THE REMOVAL OF EXISTING INFRASTRUCTURE AND THE CONSTRUCTION OF NEW INFRASTRUCTURE.
- A MINIMUM OF 1 LANE OF ROADWAY ACCESS (FOR EMERGENCY VEHICLES, BUSES, TRUCKS, ETC.) WILL NEED TO BE MAINTAINED AT ALL TIMES IN THE VICINITY OF THE PROPOSED WORKS.

NOTE:
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2. REISSUED FOR INFORMATION				SEP 29/26	FST	SCALE 1:400 0 4 8 12 16	DESIGN CHECKED DRAWN CHECKED APPROVED	FOR REVIEW ONLY		NOVATECH Engineers, Planners & Landscape Architects Suite 200, 240 Metcalfe Corporate Drive Ottawa, Ontario, Canada K2M 1P6 Telephone: (613) 254-0643 Facsimile: (613) 254-0887 Website: www.novatech-eng.com	LOCATION CITY OF OTTAWA QUEENSWAY CARLETON HOSPITAL	PROJECT No.	123089
1. ISSUED FOR INFORMATION				NOV 28/25	FST			DRAWING NAME	123089-REV #2				
No.				REVISION	DATE			BY	SUGGESTED PART 4 EXPANSION CONSTRUCTION SEQUENCING		REV #2		
									PHASE 3 AND 4a AMBULATORY CARE CENTRE		123089-SEQ-PH3/4a		

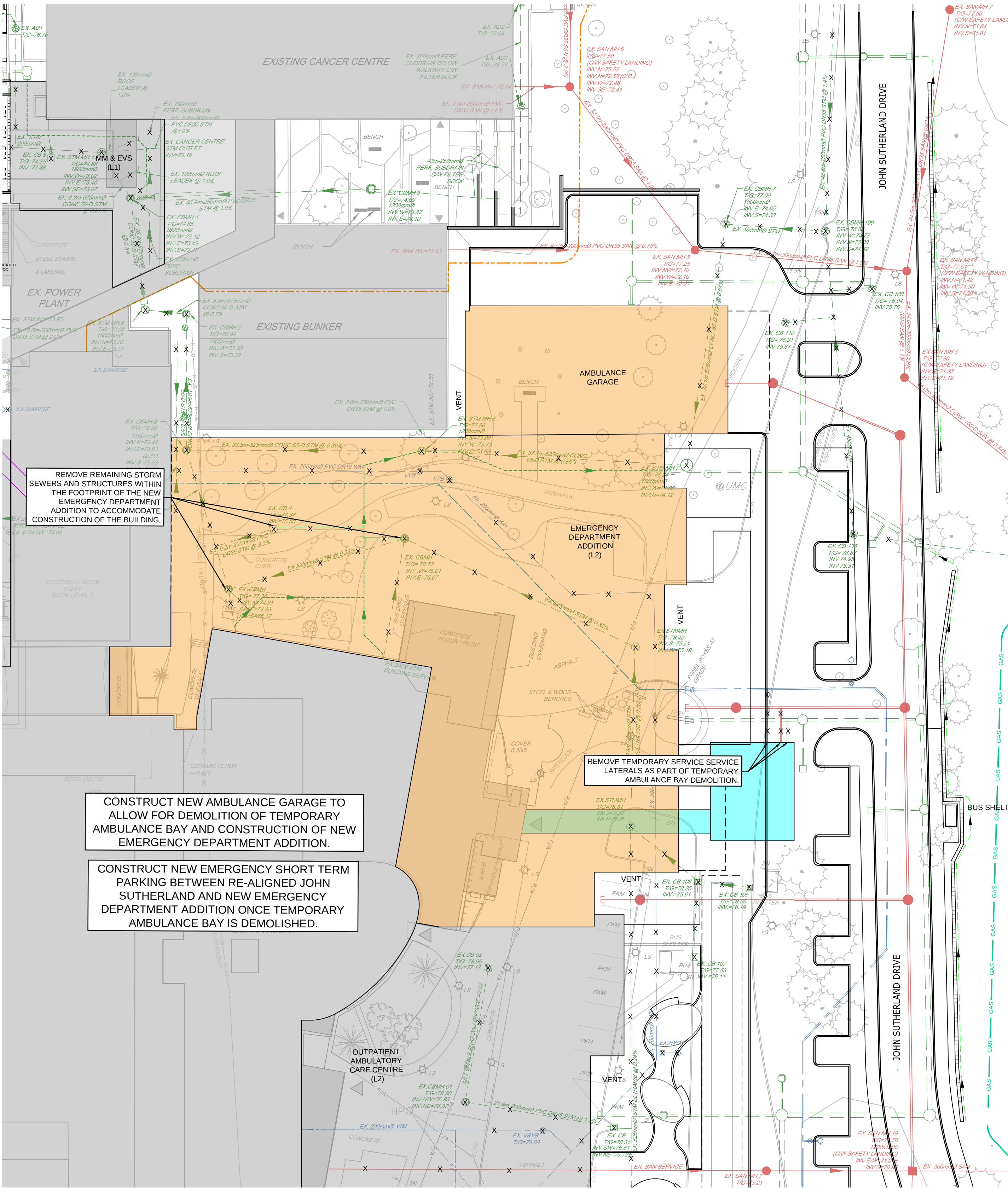


- LEGEND**
- PROPERTY LINE
 - EASEMENT BOUNDARY
 - PROPOSED SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW
 - PROPOSED STORM MANHOLE & SEWER WITH DIRECTION OF FLOW
 - PROPOSED PERFORATED SUBDRAIN
 - PROPOSED CATCHBASIN AND LEAD
 - PROPOSED STORM OGS UNIT
 - PROPOSED INLET CONTROL DEVICE
 - PROPOSED VALVE & VALVE BOX
 - PROPOSED HYDRANT CW VALVE & LEAD
 - PROPOSED WATERMAN / WATER SERVICE
 - PROPOSED WATERMAN BEND & THRUST BLOCK
 - PROPOSED WATERMAN REDUCER
 - PROPOSED FIRE DEPARTMENT CONNECTION
 - PROPOSED WATER METER AND REMOTE METER
 - REMOVALS
 - PROPOSED CAP
 - PROPOSED DROP PIPE INVERT
 - SEWER / HYDRANT LEAD CROSSING IDENTIFIER
 - THERMAL INSULATION FOR SHALLOW SEWERS
 - PROPOSED PROPANE ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
 - PROPOSED NATURAL GAS ALIGNMENT (EXACT ALIGNMENT AND DETAILS TBD BY ENBRIDGE)
 - PROPOSED ELECTRICAL ALIGNMENT (REFER TO ELEC. PLANS FOR DETAILS)
 - PROPOSED ELECTRICAL GROUND CONDUCTOR (REFER TO ELEC. PLANS FOR DETAILS)
 - PROPOSED OXYGEN ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
 - PROPOSED DIESEL ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)
 - EXISTING SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW
 - EXISTING STORM MANHOLE & SEWER WITH DIRECTION OF FLOW
 - EXISTING CATCHBASIN AND LEAD
 - EXISTING STORM OGS UNIT
 - EXISTING LANDSCAPE DRAIN
 - EXISTING WATERMAIN / WATER SERVICE
 - EXISTING VALVE & VALVE BOX
 - EXISTING HYDRANT CW VALVE & LEAD
 - EXISTING VEGETATION (TREES)
 - EXISTING LIGHT STANDARD
 - GAS
 - EXISTING GAS LINE
 - EXISTING HYDRO UNDERGROUND WIRES
 - EXISTING OVERHEAD WIRES
 - PROPOSED PART 4 EXPANSION BUILDING CONSTRUCTED DURING CURRENT PHASE
 - EXISTING BUILDING / PART 4 EXPANSION BUILDING CONSTRUCTED DURING PRIOR PHASES

MAIN OBJECTIVES OF PHASE 4b:

- CONSTRUCT NEW AMBULANCE GARAGE TO ALLOW FOR DEMOLITION OF TEMPORARY AMBULANCE BAY AND CONSTRUCTION OF NEW EMERGENCY DEPARTMENT.
- WITH ALL UPSTREAM STORM FLOWS DIVERTED, THE REMAINING STORM SEWERS UNDER THE FOOTPRINT OF THE NEW EMERGENCY DEPARTMENT CAN BE REMOVED TO ACCOMMODATE CONSTRUCTION OF THE BUILDING.
- ONCE THE TEMPORARY AMBULANCE BAY IS DEMOLISHED, CONSTRUCT NEW EMERGENCY SHORT TERM PARKING BETWEEN RE-ALIGNED JOHN SUTHERLAND DRIVE AND NEW EMERGENCY DEPARTMENT.

A MINIMUM OF 1 LANE OF ROADWAY ACCESS (FOR EMERGENCY VEHICLES, BUSES, TRUCKS, ETC.) WILL NEED TO BE MAINTAINED AT ALL TIMES IN THE VICINITY OF THE PROPOSED WORKS.



CONSTRUCT NEW AMBULANCE GARAGE TO ALLOW FOR DEMOLITION OF TEMPORARY AMBULANCE BAY AND CONSTRUCTION OF NEW EMERGENCY DEPARTMENT ADDITION.

CONSTRUCT NEW EMERGENCY SHORT TERM PARKING BETWEEN RE-ALIGNED JOHN SUTHERLAND AND NEW EMERGENCY DEPARTMENT ADDITION ONCE TEMPORARY AMBULANCE BAY IS DEMOLISHED.

REFER TO PLANS 123089-GP1 AND 123089-GP2 FOR DETAILS

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SCALE				DESIGN	
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				APPROVED	FST

FOR REVIEW ONLY	

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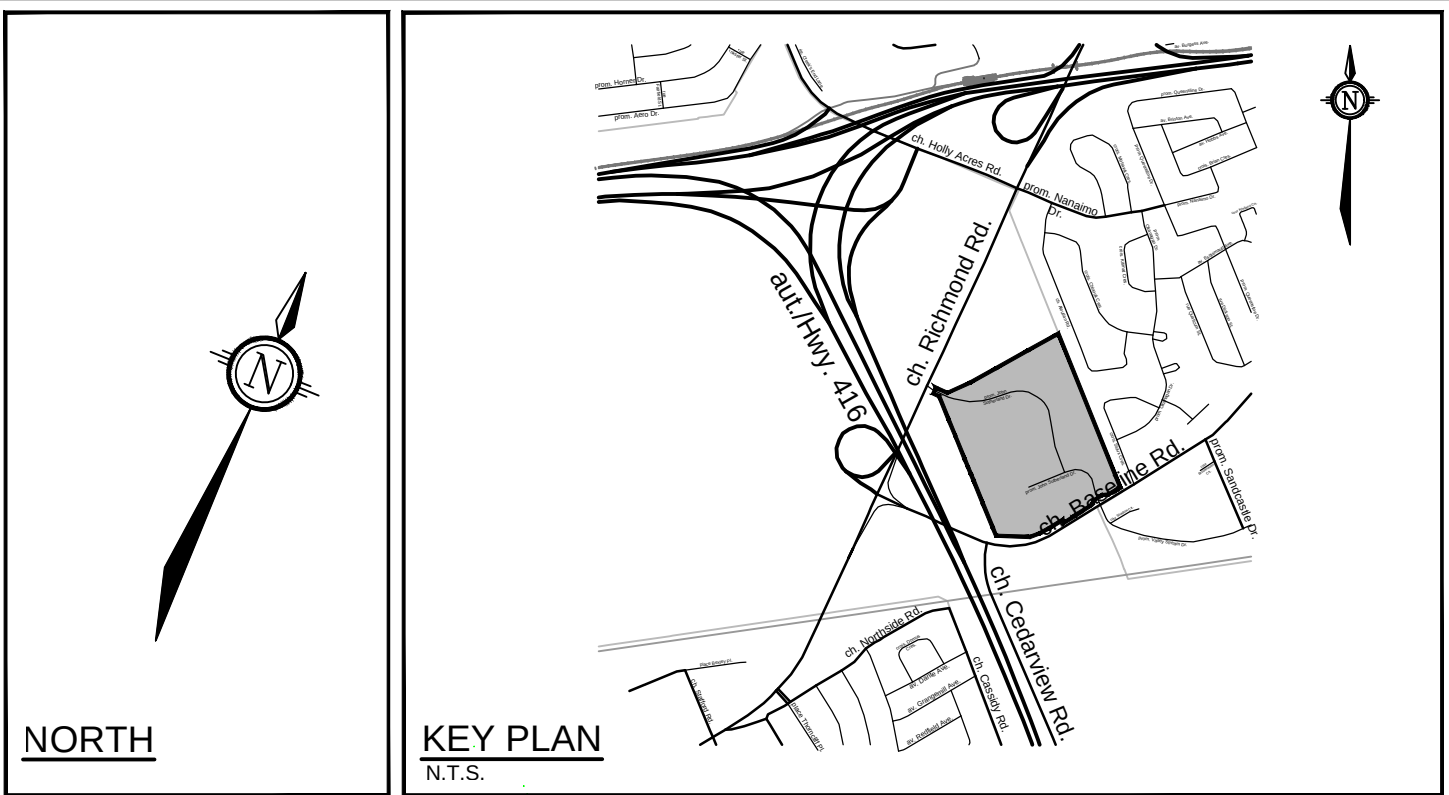
LOCATION
CITY OF OTTAWA
QUEENSWAY CARLETON HOSPITAL

DRAWING NAME
SUGGESTED PART 4 EXPANSION
CONSTRUCTION SEQUENCING
PHASE 4b
EMERGENCY DEPARTMENT ADDITION,
NEW AMBULANCE GARAGE

PROJECT No.
123089

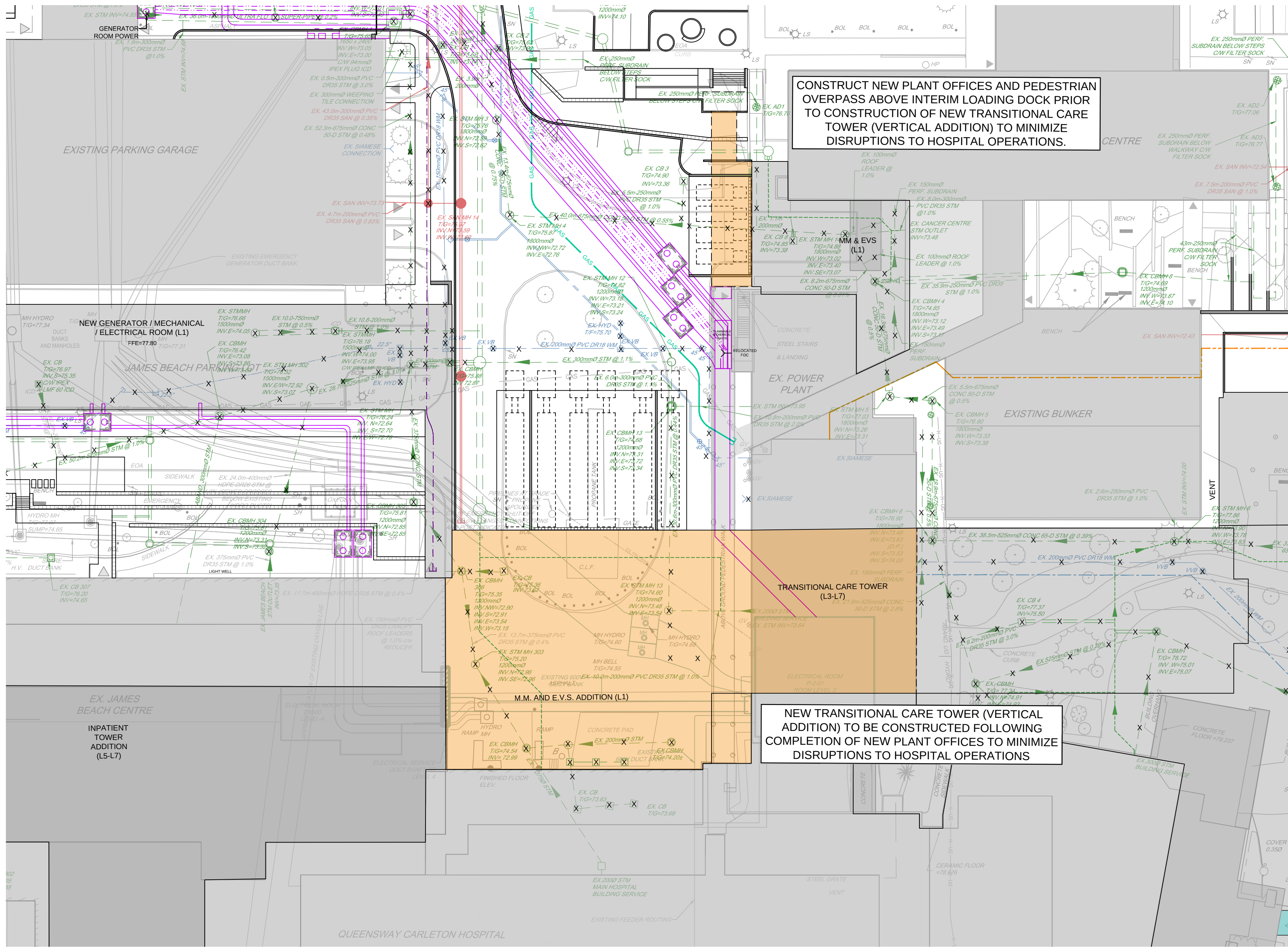
REV.
REV #2

DRAWING No.
123089-SEQ-PH4b



LEGEND

—	PROPERTY LINE	—	EXISTING SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW
- - -	EASEMENT BOUNDARY	—	EXISTING STORM MANHOLE & SEWER WITH DIRECTION OF FLOW
●	PROPOSED SANITARY MANHOLE & SEWER WITH DIRECTION OF FLOW	□	EXISTING CATCHBASIN AND LEAD
○	PROPOSED STORM MANHOLE & SEWER WITH DIRECTION OF FLOW	○	EXISTING STORM OGS UNIT
—	PROPOSED PERFORATED SUBDRAIN	—	EXISTING LANDSCAPE DRAIN
□	PROPOSED CATCHBASIN AND LEAD	—	EXISTING WATERMAIN / WATER SERVICE
○	PROPOSED SANITARY MANHOLE	—	EXISTING VALVE & VALVE BOX
○	PROPOSED STORM OGS UNIT	—	EXISTING HYDRANT CW VALVE & LEAD
—	PROPOSED INLET CONTROL DEVICE	○	EXISTING VEGETATION (TREES)
—	PROPOSED WATERMAIN / WATER SERVICE	—	EXISTING LIGHT STANDARD
○	PROPOSED VALVE & VALVE BOX	—	GAS
—	PROPOSED HYDRANT CW VALVE & LEAD	—	EXISTING GAS LINE
—	PROPOSED WATERMAIN BEND & THRUST BLOCK	—	EXISTING HYDRO UNDERGROUND WIRES
—	PROPOSED WATERMAIN REDUCER	—	EXISTING OVERHEAD WIRES
FDC	PROPOSED FIRE DEPARTMENT CONNECTION		
—	SEWER / HYDRANT LEAD CROSSING IDENTIFIER		
—	PROPOSED WATER METER AND REMOTE METER		
—	REMOVALS		
—	PROPOSED CAP		
(D.P.)	PROPOSED DROP PIPE INVERT		
—	PROPOSED THERMAL INSULATION FOR SHALLOW SEWERS		
—	PROPOSED PROPANE ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)		
—	PROPOSED NATURAL GAS ALIGNMENT (EXACT ALIGNMENT AND DETAILS TO BE ENBRIDGE)		
—	PROPOSED ELECTRICAL ALIGNMENT (REFER TO ELEC. PLANS FOR DETAILS)		
—	PROPOSED ELECTRICAL GROUND CONDUCTOR (REFER TO ELEC. PLANS FOR DETAILS)		
—	PROPOSED OXYGEN ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)		
—	PROPOSED DIESEL ALIGNMENT (REFER TO MECH. PLANS FOR DETAILS)		
—	PROPOSED PART 4 EXPANSION BUILDING CONSTRUCTED DURING CURRENT PHASE	—	EXISTING BUILDING / PART 4 EXPANSION BUILDING CONSTRUCTED DURING PRIOR PHASES



- MAIN OBJECTIVES OF PHASE 5a:**
- NOTE: PHASE 5a (INPATIENT TOWER ADDITION) IS ANTICIPATED TO REQUIRE MINIMAL SEQUENCING OF EXTERNAL CONSTRUCTION WORKS. WORKS DESCRIBED BELOW ARE ASSOCIATED WITH PHASE 4a.**
1. CONSTRUCT NEW PLANT OFFICES AND PEDESTRIAN OVERPASS ABOVE INTERIM LOADING DOCKS PRIOR TO CONSTRUCTION OF NEW TRANSITIONAL CARE TOWER (VERTICAL ADDITION) TO MINIMIZE DISRUPTIONS TO HOSPITAL OPERATIONS.
 2. ONCE CONSTRUCTION OF THE NEW PLANT OFFICES AND PEDESTRIAN OVERPASS IS COMPLETE, CONSTRUCTION OF THE TRANSITIONAL CARE TOWER CAN BE COMPLETED.
- A MINIMUM OF 1 LANE OF ROADWAY ACCESS (FOR EMERGENCY VEHICLES, BUSES, TRUCKS, ETC.) WILL NEED TO BE MAINTAINED AT ALL TIMES IN THE VICINITY OF THE PROPOSED WORKS.**

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						CHECKED				QUEENSWAY CARLETON HOSPITAL	
						DRAWN					
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						FST					
2. REISSUED FOR INFORMATION			SEP 25/26	FST							
1. ISSUED FOR INFORMATION			NOV 28/25	FST							
No.	REVISION	DATE	BY								

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Facsimile (613) 254-0487		REV #2	
Website www.novatech-eng.com		DRAWING No.	
		123089-SEQ-PH5a	

DRAWING NAME	
SUGGESTED PART 4 EXPANSION CONSTRUCTION SEQUENCING PHASE 5a	
NEW PLANT OFFICES, PEDESTRIAN OVERPASS, TRANSITIONAL CARE TOWER	