

- NOTES:**
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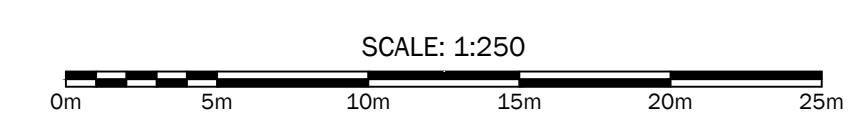
FIRST 10mm RAINFALL TO BE STORED.
 DEVELOPMENT AREA = 11,250²
 REQUIRED STORAGE = 111.25m³

NOTE:
 ADS (OR EQUIVALENT) STORMWATER CHAMBER C/W STORMTECH ISOLATOR ROW TO PROVIDE >80% TSS REMOVAL FROM STORMWATER.

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1	03/13/2024	ISSUED FOR DEVELOPMENT REVIEW - REVISED	EF
No.	MM/DD/YYYY	Revision Description	By

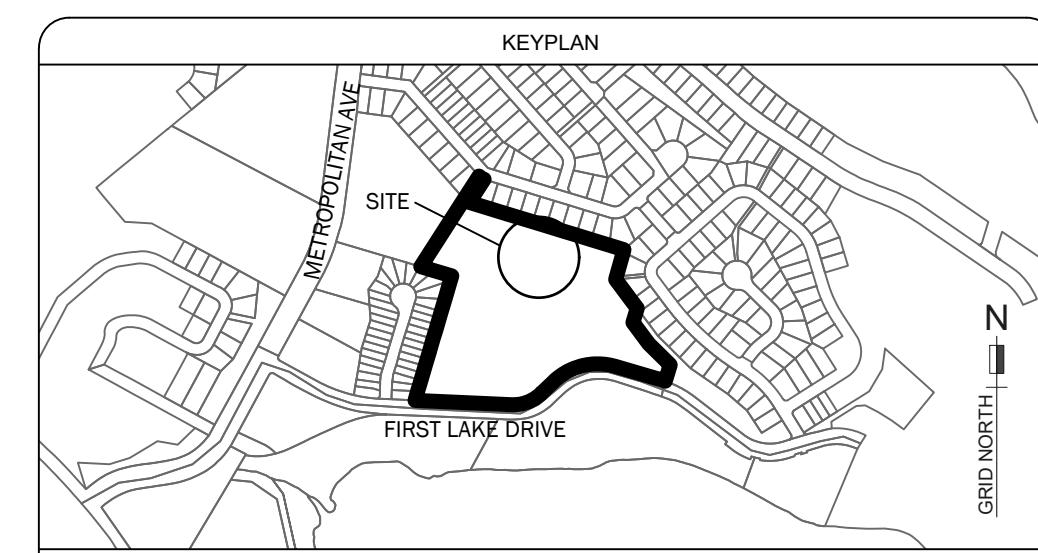
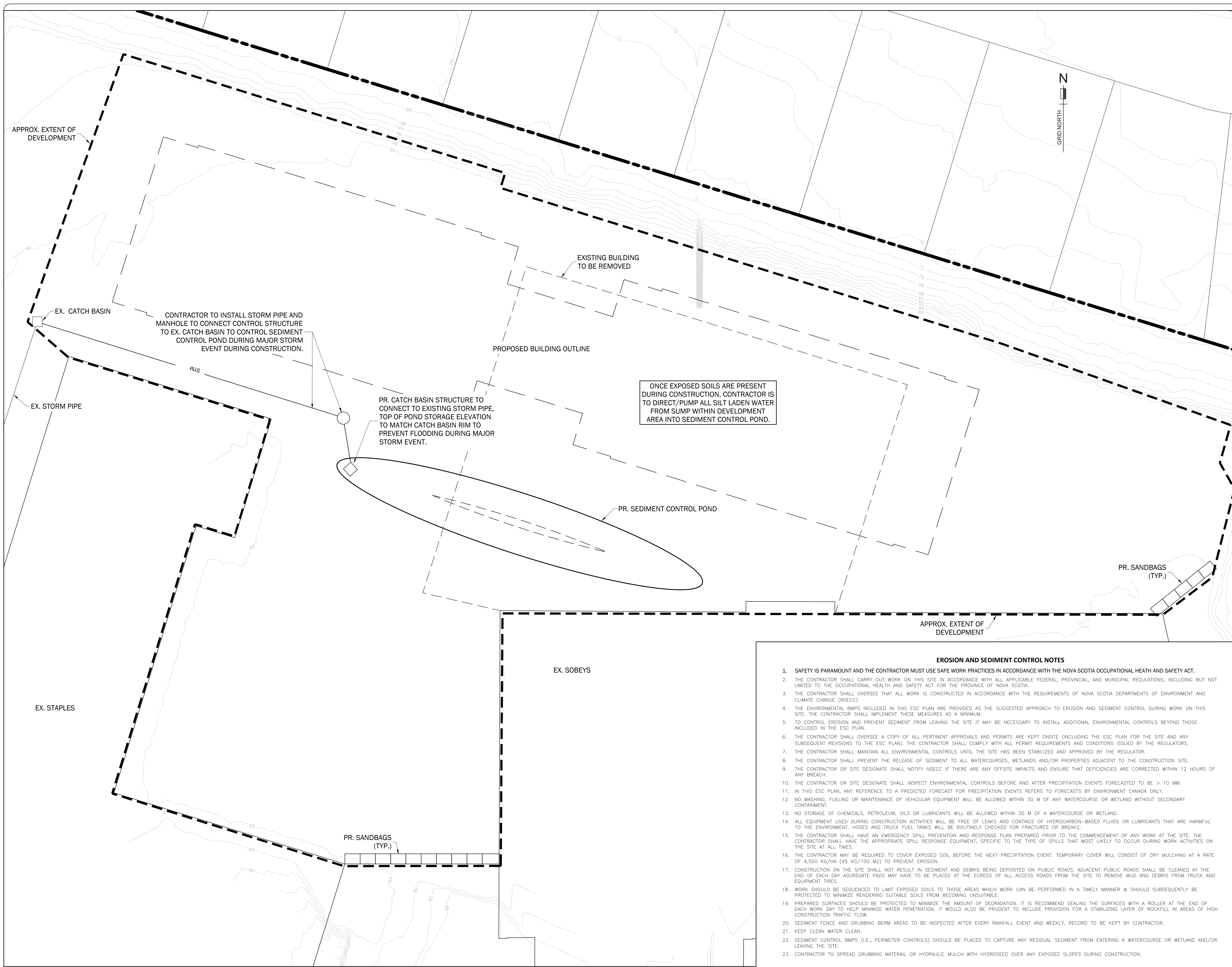


Horizontal	Vertical	Plot
1:250	N/A	ARCH D (24"x36")

Project
70 FIRST LAKE DRIVE
 SACKVILLE, NS
 PID # 00362442

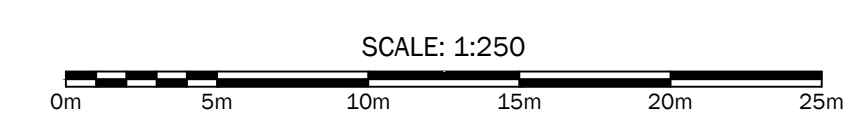
Title
CONCEPTUAL SITE PLAN

Project No.	Drawn	Sheet
240112-96	E.FRY	2 of 2
Ref.	Engineer	Plan No.
	J.PINHEY	
Date	Check	
2024/01/10		C100



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1	01/12/2024	ISSUED FOR DEVELOPMENT REVIEW	EF



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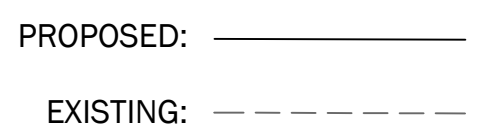
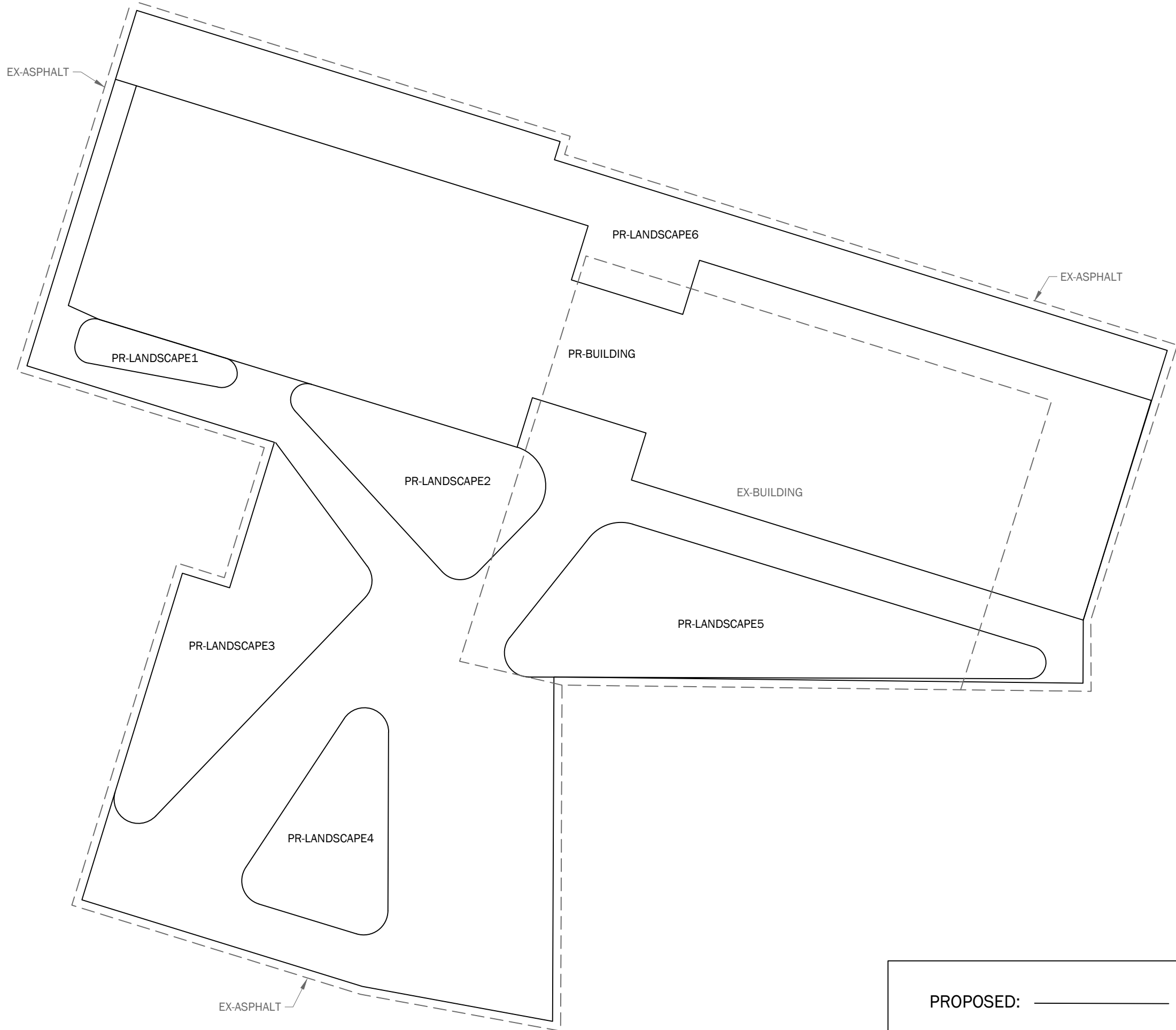
Project
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Title
EROSION & SEDIMENT CONTROL PLAN

Project No.	Drawn	Sheet
240112-96	E.FRY	2 of 3
Ref.	Engineer	Plan No.
	J.PINHEY	C101
Date	Check	
2024/01/10		

- EROSION AND SEDIMENT CONTROL NOTES**
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 2. THE CONTRACTOR SHALL CARRY OUT WORK ON THIS SITE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, PROVINCIAL, AND MUNICIPAL REGULATIONS, INCLUDING BUT NOT LIMITED TO THE OCCUPATIONAL HEALTH AND SAFETY ACT FOR THE PROVINCE OF NOVA SCOTIA.
 3. THE CONTRACTOR SHALL OVERSEE THAT ALL WORK IS CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF NOVA SCOTIA DEPARTMENTS OF ENVIRONMENT AND CLIMATE CHANGE (NSECC).
 4. THE ENVIRONMENTAL BMPS INCLUDED IN THIS ESC PLAN ARE PROVIDED AS THE SUGGESTED APPROACH TO EROSION AND SEDIMENT CONTROL DURING WORK ON THIS SITE. THE CONTRACTOR SHALL IMPLEMENT THESE MEASURES AS A MINIMUM.
 5. TO CONTROL EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE IT MAY BE NECESSARY TO INSTALL ADDITIONAL ENVIRONMENTAL CONTROLS BEYOND THOSE INCLUDED IN THE ESC PLAN.
 6. THE CONTRACTOR SHALL OVERSEE A COPY OF ALL PERTINENT APPROVALS AND PERMITS ARE KEPT ONSITE (INCLUDING THE ESC PLAN FOR THE SITE AND ANY SUBSEQUENT REVISIONS TO THE ESC PLAN). THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS AND CONDITIONS ISSUED BY THE REGULATORS.
 7. THE CONTRACTOR SHALL MAINTAIN ALL ENVIRONMENTAL CONTROLS UNTIL THE SITE HAS BEEN STABILIZED AND APPROVED BY THE REGULATOR.
 8. THE CONTRACTOR SHALL PREVENT THE RELEASE OF SEDIMENT TO ALL WATERCOURSES, WETLANDS AND/OR PROPERTIES ADJACENT TO THE CONSTRUCTION SITE.
 9. THE CONTRACTOR OR SITE DESIGNATE SHALL NOTIFY NSECC IF THERE ARE ANY OFFSITE IMPACTS AND ENSURE THAT DEFICIENCIES ARE CORRECTED WITHIN 12 HOURS OF ANY BREACH.
 10. THE CONTRACTOR OR SITE DESIGNATE SHALL INSPECT ENVIRONMENTAL CONTROLS BEFORE AND AFTER PRECIPITATION EVENTS FORECASTED TO BE > 10 MM.
 11. IN THIS ESC PLAN, ANY REFERENCE TO A PREDICTED FORECAST FOR PRECIPITATION EVENTS REFERS TO FORECASTS BY ENVIRONMENT CANADA ONLY.
 12. NO WASHING, FUELING OR MAINTENANCE OF VEHICULAR EQUIPMENT WILL BE ALLOWED WITHIN 30 M OF ANY WATERCOURSE OR WETLAND WITHOUT SECONDARY CONTAINMENT.
 13. NO STORAGE OF CHEMICALS, PETROLEUM, OILS OR LUBRICANTS WILL BE ALLOWED WITHIN 30 M OF A WATERCOURSE OR WETLAND.
 14. ALL EQUIPMENT USED DURING CONSTRUCTION ACTIVITIES WILL BE FREE OF LEAKS AND COATINGS OF HYDROCARBON-BASED FLUIDS OR LUBRICANTS THAT ARE HARMFUL TO THE ENVIRONMENT. HOSES AND TRUCK FUEL TANKS WILL BE ROUTINELY CHECKED FOR FRACTURES OR BREAKS.
 15. THE CONTRACTOR SHALL HAVE AN EMERGENCY SPILL PREVENTION AND RESPONSE PLAN PREPARED PRIOR TO THE COMMENCEMENT OF ANY WORK AT THE SITE. THE CONTRACTOR SHALL HAVE THE APPROPRIATE SPILL RESPONSE EQUIPMENT, SPECIFIC TO THE TYPE OF SPILLS THAT MOST LIKELY TO OCCUR DURING WORK ACTIVITIES ON THE SITE AT ALL TIMES.
 16. THE CONTRACTOR MAY BE REQUIRED TO COVER EXPOSED SOIL BEFORE THE NEXT PRECIPITATION EVENT. TEMPORARY COVER WILL CONSIST OF DRY MULCHING AT A RATE OF 4,500 KG/HA (45 KG/100 M2) TO PREVENT EROSION.
 17. CONSTRUCTION ON THE SITE SHALL NOT RESULT IN SEDIMENT AND DEBRIS BEING DEPOSITED ON PUBLIC ROADS. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH DAY AGGREGATE PADS MAY HAVE TO BE PLACED AT THE EGRESS OF ALL ACCESS ROADS FROM THE SITE TO REMOVE MUD AND DEBRIS FROM TRUCK AND EQUIPMENT TIRES.
 18. WORK SHOULD BE SEQUENCED TO LIMIT EXPOSED SOILS TO THOSE AREAS WHICH WORK CAN BE PERFORMED IN A TIMELY MANNER & SHOULD SUBSEQUENTLY BE PROTECTED TO MINIMIZE RENDERING SUITABLE SOILS FROM BECOMING UNSUITABLE.
 19. PREPARED SURFACES SHOULD BE PROTECTED TO MINIMIZE THE AMOUNT OF DEGRADATION. IT IS RECOMMEND SEALING THE SURFACES WITH A ROLLER AT THE END OF CONSTRUCTION TRAFFIC FLOW.
 20. SEDIMENT FENCE AND GRUBBING BERM AREAS TO BE INSPECTED AFTER EVERY RAINFALL EVENT AND WEEKLY. RECORD TO BE KEPT BY CONTRACTOR.
 21. KEEP CLEAN WATER CLEAN.
 22. SEDIMENT CONTROL BMPS (I.E., PERIMETER CONTROLS) SHOULD BE PLACED TO CAPTURE ANY RESIDUAL SEDIMENT FROM ENTERING A WATERCOURSE OR WETLAND AND/OR LEAVING THE SITE.
 23. CONTRACTOR TO SPREAD GRUBBING MATERIAL OR HYDRAULIC MULCH WITH HYDROSEED OVER ANY EXPOSED SLOPES DURING CONSTRUCTION.

GRID NORTH



EXISTING PEAK FLOWS EXCEED PROPOSED PEAK FLOWS FOR ALL STORM EVENTS. THIS IS DUE TO THE EXISTING AREA OF ANALYSIS FULLY CONSISTING OF ASPHALT OR BUILDING, BEING IMPERMEABLE. THE PROPOSED DESIGN INCLUDES VARIOUS LANDSCAPED AREAS THAT WILL ALLOW SOME STORAGE AND INFILTRATION, CAUSING THE PEAK FLOW TO LOWER. NO DETENTION STORAGE WILL BE REQUIRED FOR THE REQUIRED FOR THE DEVELOPMENT.

PROPOSED 5-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
PR-BUILDING	0.32	OUT-STORM	98.00	111.15	105.16	0.04191	0 00:05:00
PR-IMPERMEABLE	0.28	OUT-STORM	98.00	111.15	105.16	0.03653	0 00:05:00
PR-LANDSCAPE1	0.01	OUT-STORM	74.00	111.15	47.27	0.00057	0 00:05:00
PR-LANDSCAPE2	0.04	OUT-STORM	74.00	111.15	47.63	0.00255	0 00:05:00
PR-LANDSCAPE3	0.06	OUT-STORM	74.00	111.15	47.65	0.00368	0 00:05:00
PR-LANDSCAPE4	0.03	OUT-STORM	74.00	111.15	47.57	0.00198	0 00:05:00
PR-LANDSCAPE5	0.08	OUT-STORM	74.00	111.15	47.65	0.00481	0 00:05:00
PR-LANDSCAPE6	0.12	OUT-STORM	74.00	111.15	47.68	0.00765	0 00:05:00
TOTAL PROPOSED PEAK FLOW =				0.09968			
TOTAL EXISTING PEAK FLOW =				0.12375			

PROPOSED 10-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
PR-BUILDING	0.32	OUT-STORM	98.00	140.28	134.24	0.05295	0 00:05:00
PR-IMPERMEABLE	0.28	OUT-STORM	98.00	140.28	134.24	0.04616	0 00:05:00
PR-LANDSCAPE1	0.01	OUT-STORM	74.00	140.28	70.10	0.00085	0 00:05:00
PR-LANDSCAPE2	0.04	OUT-STORM	74.00	140.28	70.74	0.00396	0 00:05:00
PR-LANDSCAPE3	0.06	OUT-STORM	74.00	140.28	70.76	0.00566	0 00:05:00
PR-LANDSCAPE4	0.03	OUT-STORM	74.00	140.28	70.69	0.00312	0 00:05:00
PR-LANDSCAPE5	0.08	OUT-STORM	74.00	140.28	70.79	0.00736	0 00:05:00
PR-LANDSCAPE6	0.12	OUT-STORM	74.00	140.28	70.79	0.01161	0 00:05:00
TOTAL PROPOSED PEAK FLOW =				0.13167			
TOTAL EXISTING PEAK FLOW =				0.15659			

PROPOSED 25-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
PR-BUILDING	0.32	OUT-STORM	98.00	177.16	171.09	0.06711	0 00:05:00
PR-IMPERMEABLE	0.28	OUT-STORM	98.00	177.16	171.09	0.05862	0 00:05:00
PR-LANDSCAPE1	0.01	OUT-STORM	74.00	177.16	101.30	0.00142	0 00:05:00
PR-LANDSCAPE2	0.04	OUT-STORM	74.00	177.16	102.01	0.00566	0 00:05:00
PR-LANDSCAPE3	0.06	OUT-STORM	74.00	177.16	102.06	0.00821	0 00:05:00
PR-LANDSCAPE4	0.03	OUT-STORM	74.00	177.16	101.98	0.00453	0 00:05:00
PR-LANDSCAPE5	0.08	OUT-STORM	74.00	177.16	102.08	0.01104	0 00:05:00
PR-LANDSCAPE6	0.12	OUT-STORM	74.00	177.16	102.08	0.01699	0 00:05:00
TOTAL PROPOSED PEAK FLOW =				0.17358			
TOTAL EXISTING PEAK FLOW =				0.19793			

PROPOSED 50-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
PR-BUILDING	0.32	OUT-STORM	98.00	204.70	198.60	0.07759	0 00:05:00
PR-IMPERMEABLE	0.28	OUT-STORM	98.00	204.70	198.60	0.06768	0 00:05:00
PR-LANDSCAPE1	0.01	OUT-STORM	74.00	204.70	125.50	0.00170	0 00:05:00
PR-LANDSCAPE2	0.04	OUT-STORM	74.00	204.70	126.37	0.00708	0 00:05:00
PR-LANDSCAPE3	0.06	OUT-STORM	74.00	204.70	126.42	0.01019	0 00:05:00
PR-LANDSCAPE4	0.03	OUT-STORM	74.00	204.70	126.31	0.00566	0 00:05:00
PR-LANDSCAPE5	0.08	OUT-STORM	74.00	204.70	126.42	0.01359	0 00:05:00
PR-LANDSCAPE6	0.12	OUT-STORM	74.00	204.70	126.44	0.02096	0 00:05:00
TOTAL PROPOSED PEAK FLOW =				0.20445			
TOTAL EXISTING PEAK FLOW =				0.22880			

PROPOSED 100-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
PR-BUILDING	0.32	OUT-STORM	98.00	231.54	225.43	0.08807	0 00:05:00
PR-IMPERMEABLE	0.28	OUT-STORM	98.00	231.54	225.43	0.07674	0 00:05:00
PR-LANDSCAPE1	0.01	OUT-STORM	74.00	231.54	149.76	0.00198	0 00:05:00
PR-LANDSCAPE2	0.04	OUT-STORM	74.00	231.54	150.65	0.00850	0 00:05:00
PR-LANDSCAPE3	0.06	OUT-STORM	74.00	231.54	150.70	0.01218	0 00:05:00
PR-LANDSCAPE4	0.03	OUT-STORM	74.00	231.54	150.62	0.00680	0 00:05:00
PR-LANDSCAPE5	0.08	OUT-STORM	74.00	231.54	150.72	0.01614	0 00:05:00
PR-LANDSCAPE6	0.12	OUT-STORM	74.00	231.54	150.72	0.02520	0 00:05:00
TOTAL PROPOSED PEAK FLOW =				0.23561			
TOTAL EXISTING PEAK FLOW =				0.25582			

EXISTING 5-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
EX-ASPHALT	0.69	OUT-STORM	98.00	111.15	105.16	0.08977	0 00:05:00
EX-BUILDING	0.26	OUT-STORM	98.00	111.15	105.16	0.03398	0 00:05:00
TOTAL EXISTING PEAK FLOW =				0.12375			

EXISTING 10-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
EX-ASPHALT	0.69	OUT-STORM	98.00	140.28	134.24	0.11383	0 00:05:00
EX-BUILDING	0.26	OUT-STORM	98.00	140.28	134.24	0.04276	0 00:05:00
TOTAL EXISTING PEAK FLOW =				0.15659			

EXISTING 25-YEAR STORM SUBBASINS

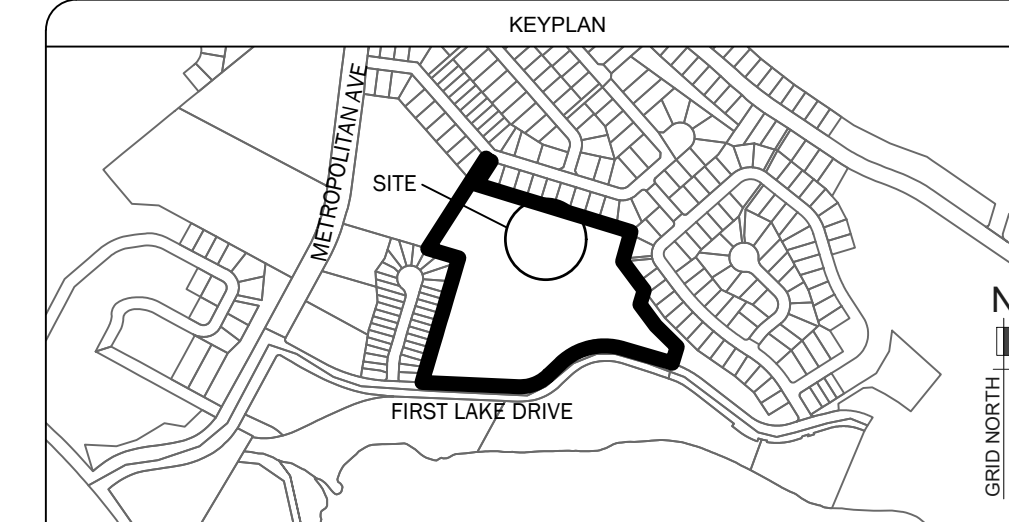
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EX-ASPHALT	0.69	OUT-STORM	98.00	177.16	171.09	0.14413	0 00:05:00
EX-BUILDING	0.26	OUT-STORM	98.00	177.16	171.09	0.05380	0 00:05:00
TOTAL EXISTING PEAK FLOW =				0.19793			

EXISTING 50-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
EX-ASPHALT	0.69	OUT-STORM	98.00	204.70	198.60	0.16650	0 00:05:00
EX-BUILDING	0.26	OUT-STORM	98.00	204.70	198.60	0.06230	0 00:05:00
TOTAL EXISTING PEAK FLOW =				0.22880			

EXISTING 100-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
EX-ASPHALT	0.69	OUT-STORM	98.00	231.54	225.43	0.18859	0 00:05:00
EX-BUILDING	0.26	OUT-STORM	98.00	231.54	225.43	0.07023	0 00:05:00
TOTAL EXISTING PEAK FLOW =				0.25882			



NOTES:

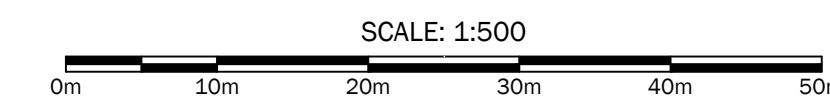
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THE STORM WATER RUNOFF FOR THE 1:5, 1:10, 1:25, 1:50, 1:100 YEAR STORM EVENTS WAS ESTIMATED USING STORM & SANITARY ANALYSIS 2020 (SSA) FROM AUTOCAD CIVIL 3D.

THE STORM WATER CALCULATIONS WERE BASED ON THE SOIL CONSERVATION SERVICE METHOD (SCS TR-55) RUNOFF METHODOLOGY USING THE SYNTHETIC DESIGN STORM EVENT COMMONLY REFERRED TO AS THE CHICAGO STORM. THE RAIN FALL AMOUNTS USED IN THE ANALYSIS & MODELING ARE AS FOLLOWS & WERE OBTAINED FROM ENVIRONMENT CANADA RAIN FALL DATABASE.

- 1:5 = 111.8mm OF RAIN FALL OVER 24HR PERIOD
- 1:10 = 141.1mm OF RAIN FALL OVER 24HR PERIOD
- 1:25 = 178.2mm OF RAIN FALL OVER 24HR PERIOD
- 1:50 = 205.9mm OF RAIN FALL OVER 24HR PERIOD
- 1:100 = 232.9mm OF RAIN FALL OVER 24HR PERIOD

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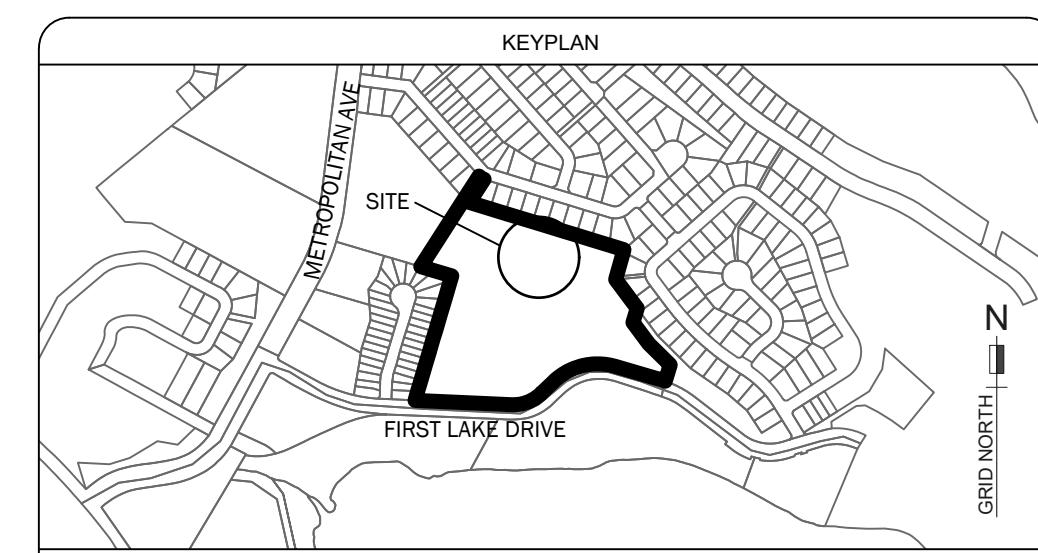
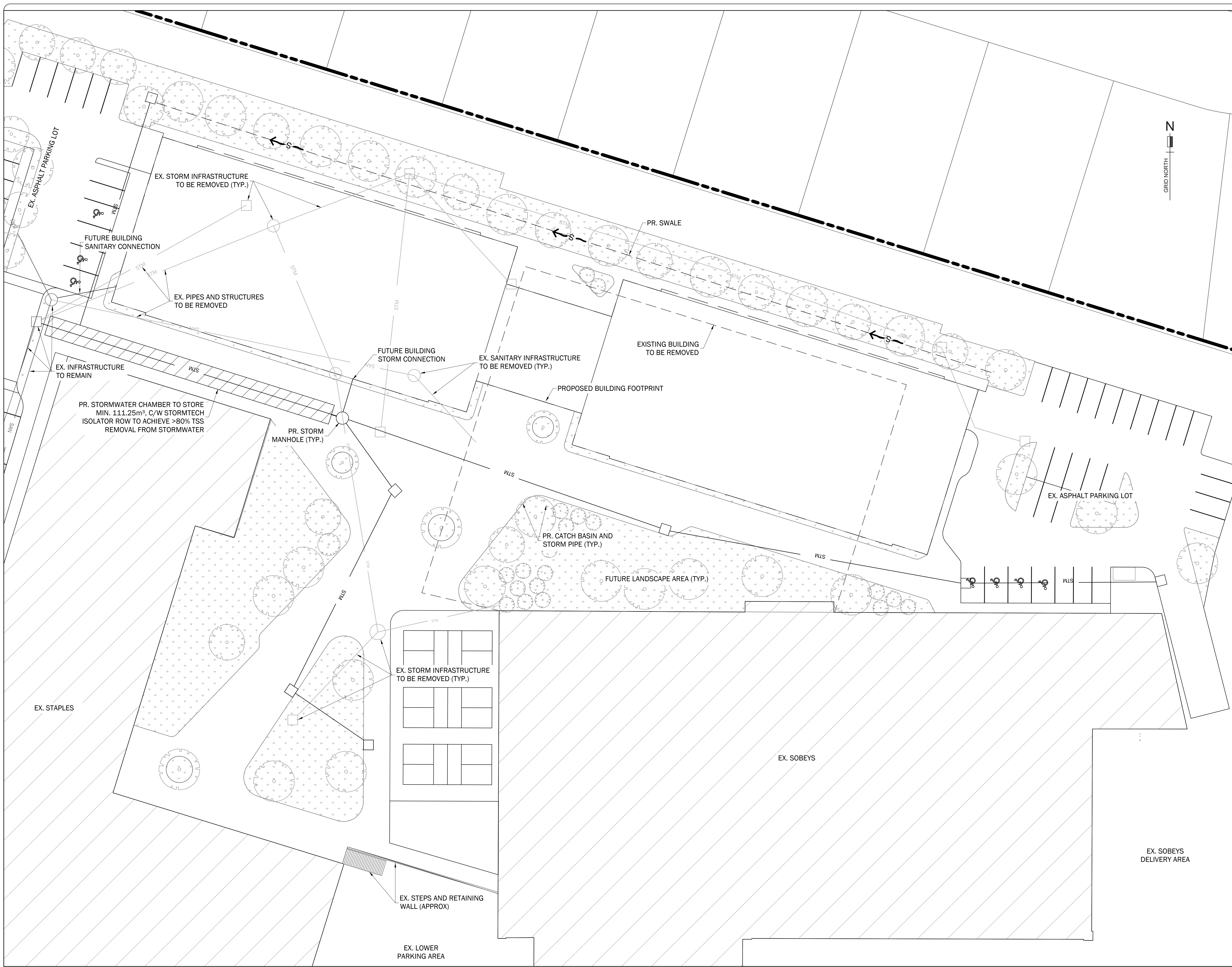


Horizontal 1:500	Vertical N/A	Plot ARCH D (24"x36")
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Project
70 FIRST LAKE DRIVE
SACKVILLE, NS
PID # 00362442

Title
CONCEPTUAL STORMWATER ANALYSIS

Project No. 240112-96	Drawn E.FRY	Sheet 3 of 3
Ref.	Engineer J.PINHEY	Plan No.
Date 2024/01/10	Check	C102



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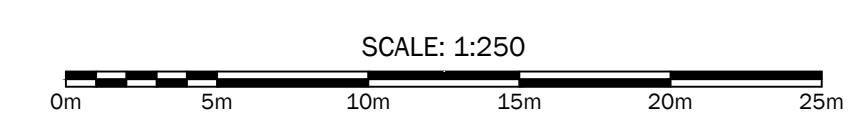
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Seal
Original Signed
 (Professional Engineer Seal of Nova Scotia)



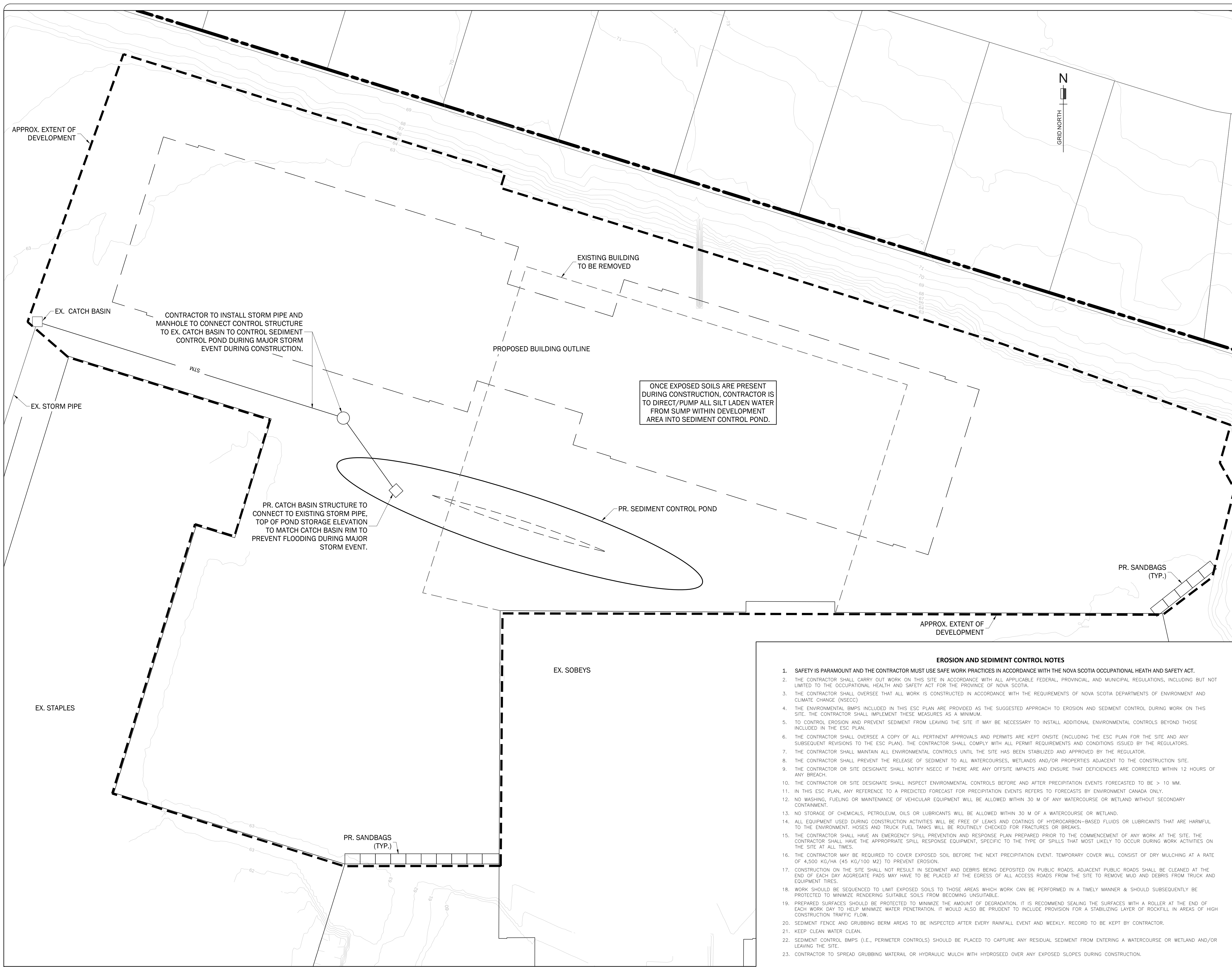
Horizontal	Vertical	Plot
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70 FIRST LAKE DRIVE
 SACKVILLE, NS
 PID # 00362442

Title
CONCEPTUAL SITE PLAN

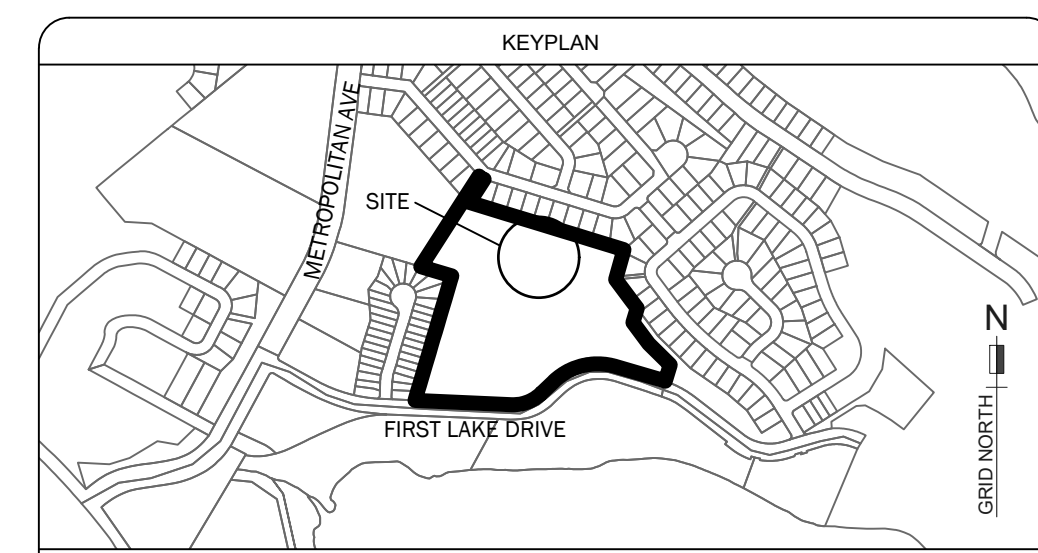
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SHEET REVISED: 20240110 13:44:45 240112-96-2



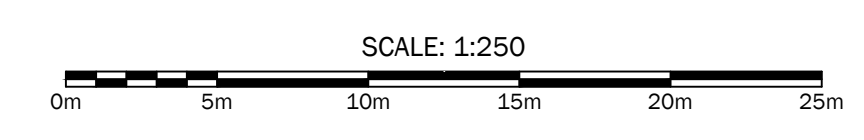
ONCE EXPOSED SOILS ARE PRESENT DURING CONSTRUCTION, CONTRACTOR IS TO DIRECT/PUMP ALL SILT LADEN WATER FROM SUMP WITHIN DEVELOPMENT AREA INTO SEDIMENT CONTROL POND.

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- SAFETY IS PARAMOUNT AND THE CONTRACTOR MUST USE SAFE WORK PRACTICES IN ACCORDANCE WITH THE NOVA SCOTIA OCCUPATIONAL HEALTH AND SAFETY ACT.
 - THE CONTRACTOR SHALL CARRY OUT WORK ON THIS SITE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, PROVINCIAL, AND MUNICIPAL REGULATIONS, INCLUDING BUT NOT LIMITED TO THE OCCUPATIONAL HEALTH AND SAFETY ACT FOR THE PROVINCE OF NOVA SCOTIA.
 - THE CONTRACTOR SHALL OVERSEE THAT ALL WORK IS CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF NOVA SCOTIA DEPARTMENTS OF ENVIRONMENT AND CLIMATE CHANGE (NSECC).
 - THE ENVIRONMENTAL BMPs INCLUDED IN THIS ESC PLAN ARE PROVIDED AS THE SUGGESTED APPROACH TO EROSION AND SEDIMENT CONTROL DURING WORK ON THIS SITE. THE CONTRACTOR SHALL IMPLEMENT THESE MEASURES AS A MINIMUM.
 - TO CONTROL EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE IT MAY BE NECESSARY TO INSTALL ADDITIONAL ENVIRONMENTAL CONTROLS BEYOND THOSE INCLUDED IN THE ESC PLAN.
 - THE CONTRACTOR SHALL OVERSEE A COPY OF ALL PERTINENT APPROVALS AND PERMITS ARE KEPT ONSITE (INCLUDING THE ESC PLAN FOR THE SITE AND ANY SUBSEQUENT REVISIONS TO THE ESC PLAN). THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS AND CONDITIONS ISSUED BY THE REGULATORS.
 - THE CONTRACTOR SHALL MAINTAIN ALL ENVIRONMENTAL CONTROLS UNTIL THE SITE HAS BEEN STABILIZED AND APPROVED BY THE REGULATOR.
 - THE CONTRACTOR SHALL PREVENT THE RELEASE OF SEDIMENT TO ALL WATERCOURSES, WETLANDS AND/OR PROPERTIES ADJACENT TO THE CONSTRUCTION SITE.
 - THE CONTRACTOR OR SITE DESIGNATE SHALL NOTIFY NSECC IF THERE ARE ANY OFFSITE IMPACTS AND ENSURE THAT DEFICIENCIES ARE CORRECTED WITHIN 12 HOURS OF ANY BREACH.
 - THE CONTRACTOR OR SITE DESIGNATE SHALL INSPECT ENVIRONMENTAL CONTROLS BEFORE AND AFTER PRECIPITATION EVENTS FORECASTED TO BE > 10 MM.
 - IN THIS ESC PLAN, ANY REFERENCE TO A PREDICTED FORECAST FOR PRECIPITATION EVENTS REFERS TO FORECASTS BY ENVIRONMENT CANADA ONLY.
 - NO WASHING, FUELING OR MAINTENANCE OF VEHICULAR EQUIPMENT WILL BE ALLOWED WITHIN 30 M OF ANY WATERCOURSE OR WETLAND WITHOUT SECONDARY CONTAINMENT.
 - NO STORAGE OF CHEMICALS, PETROLEUM, OILS OR LUBRICANTS WILL BE ALLOWED WITHIN 30 M OF A WATERCOURSE OR WETLAND.
 - ALL EQUIPMENT USED DURING CONSTRUCTION ACTIVITIES WILL BE FREE OF LEAKS AND COATINGS OF HYDROCARBON-BASED FLUIDS OR LUBRICANTS THAT ARE HARMFUL TO THE ENVIRONMENT. HOSES AND TRUCK FUEL TANKS WILL BE ROUTINELY CHECKED FOR FRACTURES OR BREAKS.
 - THE CONTRACTOR SHALL HAVE AN EMERGENCY SPILL PREVENTION AND RESPONSE PLAN PREPARED PRIOR TO THE COMMENCEMENT OF ANY WORK AT THE SITE. THE CONTRACTOR SHALL HAVE THE APPROPRIATE SPILL RESPONSE EQUIPMENT, SPECIFIC TO THE TYPE OF SPILLS THAT MOST LIKELY TO OCCUR DURING WORK ACTIVITIES ON THE SITE AT ALL TIMES.
 - THE CONTRACTOR MAY BE REQUIRED TO COVER EXPOSED SOIL BEFORE THE NEXT PRECIPITATION EVENT. TEMPORARY COVER WILL CONSIST OF DRY MULCHING AT A RATE OF 4,500 KG/HA (45 KG/100 M²) TO PREVENT EROSION.
 - CONSTRUCTION ON THE SITE SHALL NOT RESULT IN SEDIMENT AND DEBRIS BEING DEPOSITED ON PUBLIC ROADS. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH DAY AGGREGATE PADS MAY HAVE TO BE PLACED AT THE EGRESS OF ALL ACCESS ROADS FROM THE SITE TO REMOVE MUD AND DEBRIS FROM TRUCK AND EQUIPMENT TIRES.
 - WORK SHOULD BE SEQUENCED TO LIMIT EXPOSED SOILS TO THOSE AREAS WHICH WORK CAN BE PERFORMED IN A TIMELY MANNER & SHOULD SUBSEQUENTLY BE PROTECTED TO MINIMIZE RENDERING SUITABLE SOILS FROM BECOMING UNSUITABLE.
 - PREPARED SURFACES SHOULD BE PROTECTED TO MINIMIZE THE AMOUNT OF DEGRADATION. IT IS RECOMMEND SEALING THE SURFACES WITH A ROLLER AT THE END OF CONSTRUCTION TRAFFIC FLOW.
 - SEDIMENT FENCE AND GRUBBING BERM AREAS TO BE INSPECTED AFTER EVERY RAINFALL EVENT AND WEEKLY. RECORD TO BE KEPT BY CONTRACTOR.
 - KEEP CLEAN WATER CLEAN.
 - SEDIMENT CONTROL BMPs (I.E., PERIMETER CONTROLS) SHOULD BE PLACED TO CAPTURE ANY RESIDUAL SEDIMENT FROM ENTERING A WATERCOURSE OR WETLAND AND/OR LEAVING THE SITE.
 - CONTRACTOR TO SPREAD GRUBBING MATERIAL OR HYDRAULIC MULCH WITH HYDROSEED OVER ANY EXPOSED SLOPES DURING CONSTRUCTION.



- NOTES:**
- ALL MEASUREMENTS SHOWN ARE IN METRIC UNITS OF MEASURE.
 - THIS IS NOT A LEGAL BOUNDARY SURVEY. BOUNDARIES SHOWN HERE ARE APPROXIMATE. DERIVED FROM PROPERTY ONLINE MAPPING/PLAN OF SURVEY AND FIELD RECONNAISSANCE BY CIVIL ENGINEERING TECHNICIAN. BOUNDARIES ARE SUBJECT TO A LEGAL FIELD SURVEY BY A LICENSED NSLS, AND A LEGAL SURVEY MAY CAUSE OFFSETS AND BOUNDARIES TO DIFFER FROM WHAT IS SHOWN HEREIN.
 - ALL WORK MUST CONFORM TO HALIFAX WATER AND HALIFAX REGIONAL MUNICIPALITY STANDARDS AND SPECIFICATIONS (LATEST EDITION).

No.	MMDD/YYYY	Revision Description	By
3	04/10/2024	ISSUED FOR DEVELOPMENT REVIEW - REVISED	EF
2	03/13/2024	ISSUED FOR DEVELOPMENT REVIEW - REVISED	EF
1	01/12/2024	ISSUED FOR DEVELOPMENT REVIEW	EF



Horizontal 1:250	Vertical N/A	Plot ARCH D (24"x36")
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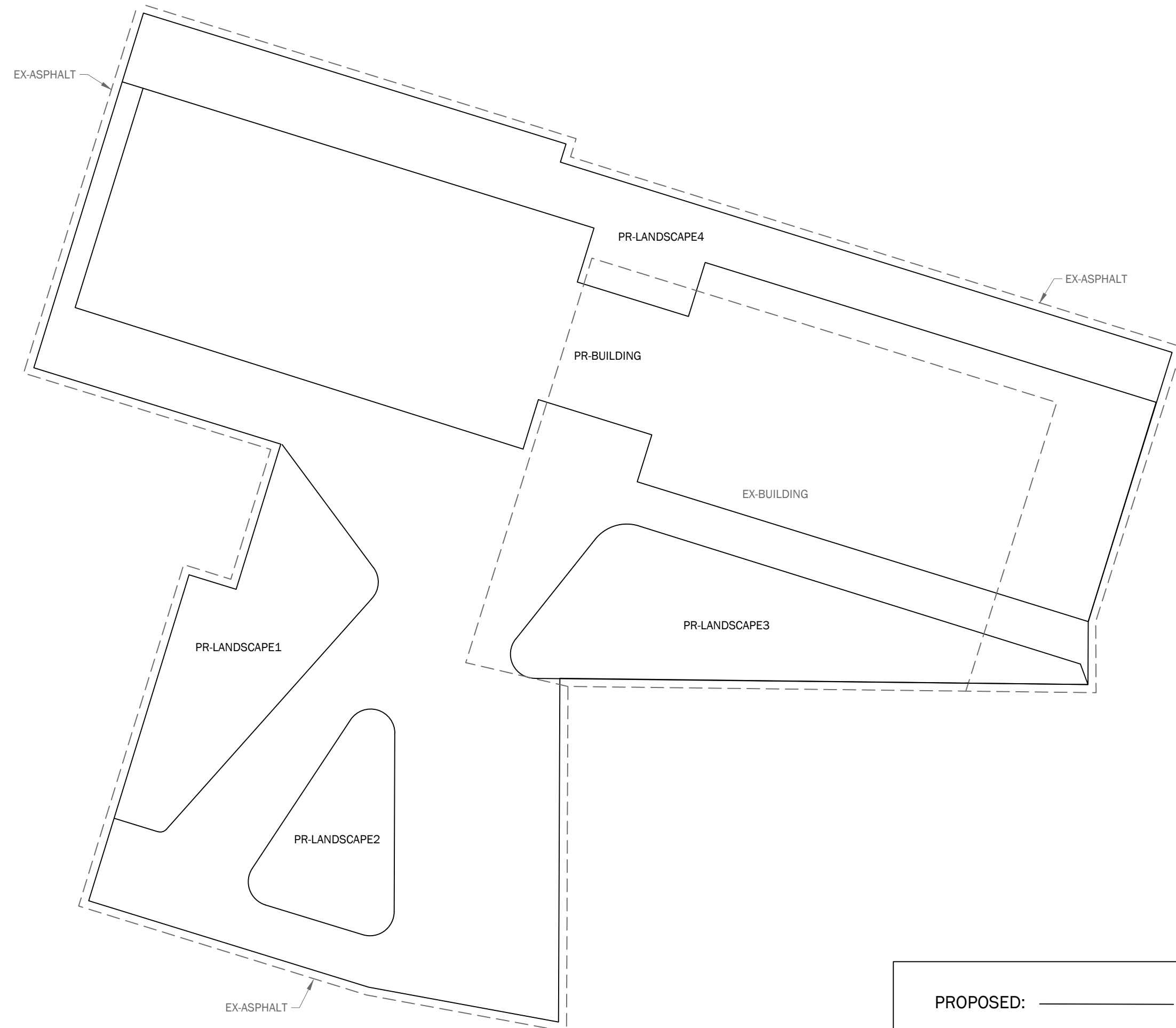
70 FIRST LAKE DRIVE
SACKVILLE, NS
PID # 00362442

EROSION & SEDIMENT CONTROL PLAN

Project No. 240112-96	Drawn E.FRY	Sheet 2 of 3
Ref.	Engineer J.PINHEY	Plan No. C101
Date 2024/01/10	Check	

SHEET PROTECTED FROM RELEASE BY 2024

GRID NORTH



PROPOSED: _____
 EXISTING: - - - - -

EXISTING PEAK FLOWS EXCEED PROPOSED PEAK FLOWS FOR ALL STORM EVENTS. THIS IS DUE TO THE EXISTING AREA OF ANALYSIS FULLY CONSISTING OF ASPHALT OR BUILDING, BEING IMPERMEABLE. THE PROPOSED DESIGN INCLUDES VARIOUS LANDSCAPED AREAS THAT WILL ALLOW SOME STORAGE AND INFILTRATION, CAUSING THE PEAK FLOW TO LOWER. NO DETENTION STORAGE WILL BE REQUIRED FOR THE REQUIRED FOR THE DEVELOPMENT.

PROPOSED 5-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
PR-BUILDING	0.32	OUT-STORM	98.00	111.15	105.16	0.04191	0 00:05:00
PR-IMPERMEABLE	0.34	OUT-STORM	98.00	111.15	105.16	0.04361	0 00:05:00
PR-LANDSCAPE1	0.06	OUT-STORM	74.00	111.15	47.65	0.00368	0 00:05:00
PR-LANDSCAPE2	0.03	OUT-STORM	74.00	111.15	47.57	0.00198	0 00:05:00
PR-LANDSCAPE3	0.08	OUT-STORM	74.00	111.15	47.65	0.00481	0 00:05:00
PR-LANDSCAPE4	0.12	OUT-STORM	74.00	111.15	47.68	0.00765	0 00:05:00
TOTAL PROPOSED PEAK FLOW =				0.10364			
TOTAL EXISTING PEAK FLOW =				0.12357			

PROPOSED 10-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
PR-BUILDING	0.32	OUT-STORM	98.00	140.28	134.24	0.05295	0 00:05:00
PR-IMPERMEABLE	0.34	OUT-STORM	98.00	140.28	134.24	0.05522	0 00:05:00
PR-LANDSCAPE1	0.06	OUT-STORM	74.00	140.28	70.76	0.00566	0 00:05:00
PR-LANDSCAPE2	0.03	OUT-STORM	74.00	140.28	70.69	0.00312	0 00:05:00
PR-LANDSCAPE3	0.08	OUT-STORM	74.00	140.28	70.79	0.00736	0 00:05:00
PR-LANDSCAPE4	0.12	OUT-STORM	74.00	140.28	70.79	0.01161	0 00:05:00
TOTAL PROPOSED PEAK FLOW =				0.13592			
TOTAL EXISTING PEAK FLOW =				0.15659			

PROPOSED 25-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
PR-BUILDING	0.32	OUT-STORM	98.00	177.16	171.09	0.06711	0 00:05:00
PR-IMPERMEABLE	0.34	OUT-STORM	98.00	177.16	171.09	0.06994	0 00:05:00
PR-LANDSCAPE1	0.06	OUT-STORM	74.00	177.16	102.06	0.00821	0 00:05:00
PR-LANDSCAPE2	0.03	OUT-STORM	74.00	177.16	101.98	0.00453	0 00:05:00
PR-LANDSCAPE3	0.08	OUT-STORM	74.00	177.16	102.08	0.01104	0 00:05:00
PR-LANDSCAPE4	0.12	OUT-STORM	74.00	177.16	102.08	0.01699	0 00:05:00
TOTAL PROPOSED PEAK FLOW =				0.17782			
TOTAL EXISTING PEAK FLOW =				0.19793			

PROPOSED 50-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
PR-BUILDING	0.32	OUT-STORM	98.00	204.70	198.60	0.07759	0 00:05:00
PR-IMPERMEABLE	0.34	OUT-STORM	98.00	204.70	198.60	0.08070	0 00:05:00
PR-LANDSCAPE1	0.06	OUT-STORM	74.00	204.70	126.42	0.01019	0 00:05:00
PR-LANDSCAPE2	0.03	OUT-STORM	74.00	204.70	126.31	0.00566	0 00:05:00
PR-LANDSCAPE3	0.08	OUT-STORM	74.00	204.70	126.42	0.01359	0 00:05:00
PR-LANDSCAPE4	0.12	OUT-STORM	74.00	204.70	126.44	0.02096	0 00:05:00
TOTAL PROPOSED PEAK FLOW =				0.20869			
TOTAL EXISTING PEAK FLOW =				0.22880			

PROPOSED 100-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
PR-BUILDING	0.32	OUT-STORM	98.00	231.54	225.43	0.08807	0 00:05:00
PR-IMPERMEABLE	0.34	OUT-STORM	98.00	231.54	225.43	0.09146	0 00:05:00
PR-LANDSCAPE1	0.06	OUT-STORM	74.00	231.54	150.70	0.01218	0 00:05:00
PR-LANDSCAPE2	0.03	OUT-STORM	74.00	231.54	150.62	0.00680	0 00:05:00
PR-LANDSCAPE3	0.08	OUT-STORM	74.00	231.54	150.72	0.01614	0 00:05:00
PR-LANDSCAPE4	0.12	OUT-STORM	74.00	231.54	150.72	0.02520	0 00:05:00
TOTAL PROPOSED PEAK FLOW =				0.23985			
TOTAL EXISTING PEAK FLOW =				0.25882			

EXISTING 5-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
EX-ASPHALT	0.69	OUT-STORM	98.00	111.15	105.16	0.08977	0 00:05:00
EX-BUILDING	0.26	OUT-STORM	98.00	111.15	105.16	0.03398	0 00:05:00
TOTAL EXISTING PEAK FLOW =				0.12375			

EXISTING 10-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
EX-ASPHALT	0.69	OUT-STORM	98.00	140.28	134.24	0.11383	0 00:05:00
EX-BUILDING	0.26	OUT-STORM	98.00	140.28	134.24	0.04276	0 00:05:00
TOTAL EXISTING PEAK FLOW =				0.15659			

EXISTING 25-YEAR STORM SUBBASINS

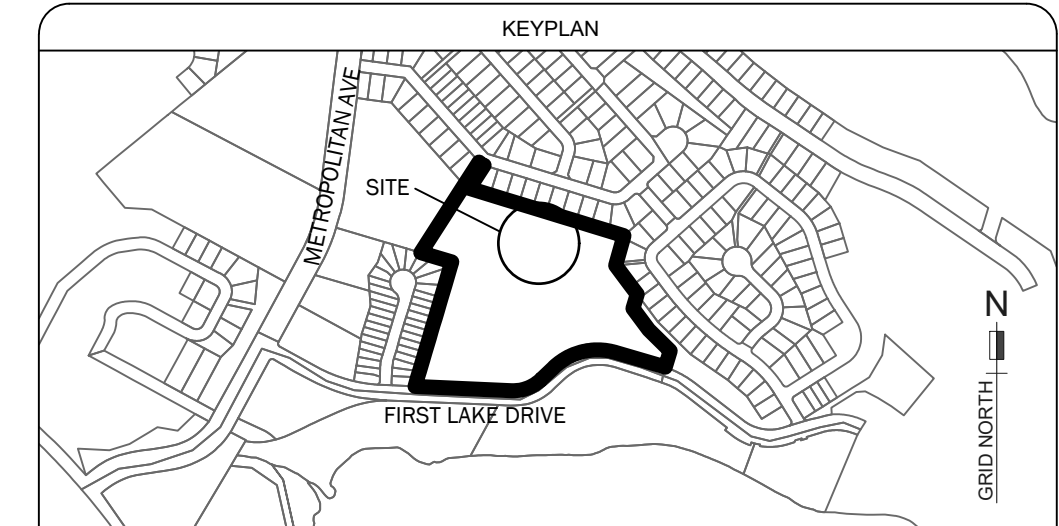
Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
EX-ASPHALT	0.69	OUT-STORM	98.00	177.16	171.09	0.14413	0 00:05:00
EX-BUILDING	0.26	OUT-STORM	98.00	177.16	171.09	0.05380	0 00:05:00
TOTAL EXISTING PEAK FLOW =				0.19793			

EXISTING 50-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
EX-ASPHALT	0.69	OUT-STORM	98.00	204.70	198.60	0.16650	0 00:05:00
EX-BUILDING	0.26	OUT-STORM	98.00	204.70	198.60	0.06230	0 00:05:00
TOTAL EXISTING PEAK FLOW =				0.22880			

EXISTING 100-YEAR STORM SUBBASINS

Element ID	Area (ha)	Drainage Node ID	Weighted Curve Number	Total Precipitation (mm)	Total Runoff (mm)	Peak Runoff (cms)	Time of Concentration (days hh:mm:ss)
EX-ASPHALT	0.69	OUT-STORM	98.00	231.54	225.43	0.18859	0 00:05:00
EX-BUILDING	0.26	OUT-STORM	98.00	231.54	225.43	0.07023	0 00:05:00
TOTAL EXISTING PEAK FLOW =				0.25882			



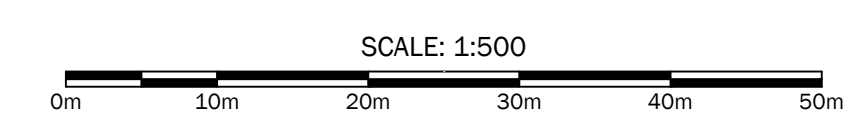
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THE STORM WATER RUNOFF FOR THE 1.5, 1:10, 1:25, 1:50, 1:100 YEAR STORM EVENTS WAS ESTIMATED USING STORM & SANITARY ANALYSIS 2020 (SSA) FROM AUTOCAD CIVIL 3D.

THE STORM WATER CALCULATIONS WERE BASED ON THE SOIL CONSERVATION SERVICE METHOD (SCS TR-55) RUNOFF METHODOLOGY USING THE SYNTHETIC DESIGN STORM EVENT COMMONLY REFERRED TO AS THE CHICAGO STORM. THE RAIN FALL AMOUNTS USED IN THE ANALYSIS & MODELING ARE AS FOLLOWS & WERE OBTAINED FROM ENVIRONMENT CANADA RAIN FALL DATABASE.

1:5 = 111.8mm OF RAIN FALL OVER 24HR PERIOD
 1:10 = 141.1mm OF RAIN FALL OVER 24HR PERIOD
 1:25 = 178.2mm OF RAIN FALL OVER 24HR PERIOD
 1:50 = 205.9mm OF RAIN FALL OVER 24HR PERIOD
 1:100 = 232.9mm OF RAIN FALL OVER 24HR PERIOD

No.	MMDDYYYY	Revision Description	By
3	04/10/2024	ISSUED FOR DEVELOPMENT REVIEW - REVISED SITE	EF
2	03/13/2024	ISSUED FOR DEVELOPMENT REVIEW - REVISED	EF
1	01/12/2024	ISSUED FOR DEVELOPMENT REVIEW	EF



Horizontal 1:500	Vertical N/A	Plot ARCH D (24"x36")
Project 70 FIRST LAKE DRIVE SACKVILLE, NS PID # 00362442		
Title CONCEPTUAL STORMWATER ANALYSIS		
Project No. 240112-96	Drawn E.FRY	Sheet 3 of 3
Ref.	Engineer J.PINHEY	Plan No.
Date 2024/01/10	Check	C102