

1. THE ORIGINAL, GROUND ELEVATIONS, SERVING, UTILITY, AND SURVEY INFORMATION SHOW ON THIS PLAN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ACCURACY OF ALL INFORMATION OBTAINED FROM THIS PLAN.
2. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE SITE AND ADJACENT WORK AREAS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES, INCLUDING THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, ALL TO THE SATISFACTION OF THE ENGINEER.
3. PRIOR TO CONSTRUCTION START, THE CONTRACTOR SHALL PROVIDE PROOF OF INSURANCE TO THE ENGINEER IN THE AMOUNT AND TYPE OUTLINED IN THE CONTRACT AGREEMENT. THE INSURANCE POLICY SHALL NAME THE OWNER, ENGINEER, AND MUNICIPALITY AS CO-INSURED.
4. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
5. CONFIRM DIMENSIONS AND LAYOUT INFORMATION BEFORE CONSTRUCTION START, AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
6. ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS. DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
7. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS BEFORE CONSTRUCTION START.
8. ALL WORK AND MATERIALS SHALL CONFORM TO THE LATEST MUNICIPAL STANDARDS AND SPECIFICATIONS, AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
9. RESTORE ALL DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER, TO THE SATISFACTION OF THE ENGINEER.
10. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT" AND REGULATIONS FOR CONSTRUCTION PROJECTS. THE GENERAL CONTRACTOR IS DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.
11. CONSTRUCTION SIGNAGE MUST CONFORM TO THE CURRENT MTO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

1. REFER TO SITE PLAN AND ARCHITECTURAL DRAWINGS FOR BUILDING LAYOUT AND DETAILS.
2. REFER TO LANDSCAPE ARCHITECTURE PLANS FOR HARDSCAPE FEATURES AND PLANTING INFORMATION.
3. REFER TO THE SERVICING BRIEF NOVATECH FILE: 12147 REF: R-2025-80 DATED NOVEMBER 5, 2025 FOR SERVICING DESIGN DETAILS.
4. REFER TO GEOTECHNICAL REPORT PG287-1 DATED OCTOBER 3, 2024 PREPARED BY PATERSON CONSULT FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT SHALL REVIEW SITE CONDITIONS

1. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED TO THE SATISFACTION OF THE ENGINEER, THE MUNICIPALITY AND THE CONSERVATION AUTHORITY. THEY ARE TO BE APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION. THESE PRACTICES ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL AND SHOULD INCLUDE AS A MINIMUM THOSE MEASURES INDICATED ON THE PLAN.
2. TO PREVENT SURFACE EROSION FROM ENTERING THE DITCH OR STORM SYSTEM DURING CONSTRUCTION, SILT SACKS WILL BE PLACED UNDER GRATES OF ALL PROPOSED AND EXISTING CATCHBASINS AND STRUCTURES. A LIGHT DUTY SILT FENCE BARRIER WILL ALSO BE INSTALLED IN SELECTED LOCATIONS SHOWN ON THIS PLAN. SACKS WILL BE INSTALLED WITHIN THE OUTLET DITCHES. THESE CONTROL MEASURES WILL REMAIN IN PLACE UNTIL VEGETATION HAS BEEN ESTABLISHED AND CONSTRUCTION COMPLETE.
3. THE SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED WHEN, IN THE OPINION OF THE ENGINEER, THE MEASURES ARE NO LONGER REQUIRED. NO CONTROL MEASURES MAY BE PERMANENTLY REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
4. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY ACCIDENTAL DISCHARGES OF SEDIMENT MATERIAL INTO ANY DITCH OR STORM SEWER SYSTEM. APPROPRIATE RESPONSE MEASURES, INCLUDING ANY REPAIRS TO EXISTING CONTROL MEASURES OR THE IMPLEMENTATION OF ADDITIONAL CONTROL MEASURES, SHALL BE CARRIED OUT BY THE CONTRACTOR WITHOUT DELAY.
5. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
6. THE CONTRACTOR SHALL ENSURE PROPER DUST CONTROL IS PROVIDED WITH THE APPLICATION OF WATER (AND IF REQUIRED, CALCIUM CHLORIDE) DURING DRY PERIODS.

1. THE CONTRACTOR SHALL PROTECT ALL SURVEY MONUMENTS.
2. REMOVAL OF ALL ABOVE GROUND TRAFFIC PLANT AND STREETLIGHTING TO BE DONE BY OTHERS. CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING STREETLIGHTING, HYDRO POLES AND OVERHEAD LINES DURING CONSTRUCTION.
3. ALL BELL AND HYDRO OTTAWA MAINTENANCE HOLE ADJUSTMENTS SHALL BE PERFORMED BY AN APPROVED CONTRACTOR ONLY.
4. ALL TOPSOIL AND ANY SOFT, WET OR DELETERIOUS MATERIAL SHALL BE REMOVED FROM IMPROVED AREAS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
5. FORESTRY TO BE CONTACTED PRIOR TO ANY SELECTIVE PRUNING OR REMOVALS WITHIN THE AREAS OF TRESS SURROUNDING THE TRANS CANADA TRAIL AND TREES THAT ARE TO REMAIN ARE TO HAVE PROPER TREE PROTECTION FENCING.

**STORM SEWERS:**

1. CONTRACTOR SHALL SUPPLY AND INSTALL ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH CURRENT MUNICIPAL STANDARDS AND SPECIFICATIONS (APPLIES TO STORM AND SANITARY SEWERS).
2. REINFORCED CONCRETE STORM SEWER PIPES SHALL BE IN ACCORDANCE WITH CSA A257.2. NON-REINFORCED CONCRETE STORM SEWER PIPES SHALL BE IN ACCORDANCE WITH CSA A257.1. PIPE SHALL BE JOINTED WITH STANDARD RUBBERIZED GASKETS PER CSA A257.3. LATEST AMENDMENT APPLIES TO ALL OF THE ABOVE ITEMS.
3. STORM SEWER TRENCHING SHALL BE IN ACCORDANCE WITH OTTAWA DETAIL S6 AND S7.
4. PIPE BEDDING, COVER AND BACKFILL TO BE CONSTRUCTED IN ACCORDANCE WITH OPSD 802.010/802.013 FOR FLEXIBLE PIPE, AND 802.031/802.033 FOR RIGID PIPE. PIPE BEDDING SHALL BE CLASS "B", UNLESS OTHERWISE NOTED, AND SHALL CONSIST OF 150mm GRANULAR "A" (300mm IN ROCK) COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
5. PVC STORM SEWERS SHALL BE SDR35 APPROVED PER CSA B182.2 UNLESS OTHERWISE NOTED.
6. STORM MATERIALS TO BE 150mmØ WHITE PVC SDR28 WITH A 1.0% GRADIENT (MIN). CONSTRUCT SERVICES TO WITHIN 1.0m OF THE BUILDING FACE AND CAP, MARK WITH A WOODEN 50mm x 100mm STAKE PAINTED GREEN THAT EXTENDS 1.0m ABOVE GROUND.
7. SERVICE CONNECTIONS TO SEWER MAIN IN ACCORDANCE WITH OTTAWA DETAIL S11 OR S11.1 AS APPROPRIATE.
8. STORM MANHOLE FRAME AND COVER SHALL BE PER OTTAWA DETAIL S24.1 AND S25.
9. CATCH BASINS IN ACCORDANCE WITH OTTAWA DETAIL S1 (CONCRETE GUTTER), S3 (INLET CATCHBASIN), AND OPSD 705.010. FRAME AND GRATE PER OTTAWA DETAIL S19 FOR BOTH ROADWAY AND REAR YARD STRUCTURES.
10. CATCH BASIN LEADS SHALL BE 200mmØ OR 300mmØ WITH A 1.0% (MIN) SLOPE
11. CATCH BASINS AND CBMH STRUCTURES TO HAVE 600mm DEEP SUMPS.
12. CONTRACTOR TO ENSURE CATCH BASINS ARE INSTALLED AT LOW POINT.
13. MINIMUM DIAMETER FOR REAR YARD DRAINAGE PIPE IS 250mm, PER OTTAWA DETAIL S29.
14. ROOF DRAINS SHALL OUTLET TO LANDSCAPED AREAS.
15. CCTV ALL STORM SEWERS 250mm OR GREATER PRIOR TO PLACEMENT OF ASPHALT BASE COURSE.

1. SANITARY SEWERS SHALL BE PVC SDR35, IPEX "RING-TITE" (OR EQUIVALENT), PER CSA B182.2.
2. SANITARY SEWER TRENCH PER OTTAWA DETAIL 56 AND S7 WITH A CLASS "B" BEDDING.
3. SANITARY LATERALS TO BE 150mm (6" TERRA FLATS - 12 UNITS) AND 150mm (6" TOWN HOMES), NON-WHITE PVC SDR35, IPEX "RING-TITE" (OR EQUIVALENT) WITH A 10% GRADE REDUCED TO 5% MINIMUM. CONSTRUCT SEWER LATERALS WITHIN 1.0m OF THE BUILDING FACE AND CAP. MARK WITH A WOODEN 50mm x 100mm STAKE WITH RED TAP THAT EXTENDS 1.0m ABOVE THE GROUND. LATERALS IN GENERAL CONFORMANCE WITH DETAIL S11.3, SECTION A-A.
4. BACK WATER VALVES SHALL BE INSTALLED ON ALL SANITARY SERVICES PER OTTAWA DETAIL S14.1 OR S14.2.
5. SANITARY MANHOLE FRAME AND MANHOLES PER OTTAWA DETAIL S24 AND S25.
6. CONTRACTOR TO PERFORM LEAKAGE TEST ON SANITARY SEWER IN ACCORDANCE WITH OPSS 414.16.06, 410.16.07.16.04 AND 407.07.24.
7. CCTV ALL SANITARY SEWERS 200mm OR GREATER PRIOR TO PLACEMENT OF ASPHALT BASE COURSE.

1. PVC WATERMAIN SHALL BE EQUAL TO AWWA C-900 CLASS 150, SDR19 OR APPROVED EQUAL AND SUPPLIED IN ACCORDANCE WITH MATERIAL SPECIFICATION MW-18.1
2. WATERMAIN TRENCH AND BEDDING IN ACCORDANCE WITH OTTAWA DETAIL W17.
3. PVC FITTINGS SHALL BE INSTALLED WITH A TRACER WIRE IN ACCORDANCE WITH OTTAWA DETAIL W36.
4. THE WATER SERVICES SHALL BE 25mmØ PEX (TERRA FLATS - 12 UNITS) AND 19mmØ PEX (TOWN HOMES). WATER SERVICE SHALL BE MARKED WITH A 50mm X 100mm SIGN PAINTED BLUE.
5. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS PER OTTAWA DETAIL W40 AND W42.
6. INSULATION FOR WATERMAIN CROSSING OVER AND BELOW SEWERS IN ACCORDANCE WITH OTTAWA DETAIL W25.2 AND W25 (APPLICABLE IF WATERMAIN COVER IS LESS THAN 2.4M)
7. INSULATE WATER SERVICES PER OTTAWA DETAIL W23, WHEN SEPARATION BETWEEN SERVICE AND MANHOLE IS LESS THAN 1.2m.
8. MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER OR UTILITY IS 0.25m WHEN CROSSING OVER A PIPE (W25.2), AND 0.50m WHEN CROSSING UNDER A PIPE (W25). THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ADEQUATE SUPPORT TO THE EXISTING INFRASTRUCTURE.
9. WATER SERVICES CROSSING SEWERS SHALL BE INSTALLED PER OTTAWA DETAIL W38.

1. ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED HARD SURFACE (ie. PAVEMENT, CURB, SIDEWALK,

2. EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE HEAVILY Y PROOF ROLLED WITH A LARGE (10 TON) VIBRATORY STEEL DRUM ROLLER UNDER DRY CONDITIONS AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
3. ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUB-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOLIDS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
4. THE GRANULAR BASE SHOULD BE PLACED IN MAXIMUM 300mm LIFTS AND COMPACTED TO AT LEAST 86% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. IF AN ADDITIONAL GRANULAR LIFT IS USED BELOW THE STANDARD PAVEMENT SHOULD BE PLACED IN MAXIMUM 300mm LIFTS AND COMPACTED TO AT LEAST 86% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
5. ROADWAY SUBGRADE TO BE INSPECTED BY THE GEOTECHNICAL ENGINEER AT THE TIME OF CONSTRUCTION TO REVIEW IF A WOVEN GEOTEXTILE IS REQUIRED BELOW THE GRANULAR MATERIALS, AND TO CONFIRM THE DEPTH AND COMPACTION OF GRANULAR 'B'.
6. PRIOR TO PLACEMENT OF TOP LIFT, THE CONTRACTOR SHALL ADJUST ALL STRUCTURES TO FINAL GRADE PER CITY OF OTTAWA STANDARDS.
7. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
8. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
9. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
10. ALL CURBS SHALL BE BARRIER CURB UNLESS OTHERWISE NOTED AND CONSTRUCTED PER CITY OF OTTAWA STANDARD (§C1.1).
11. REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.

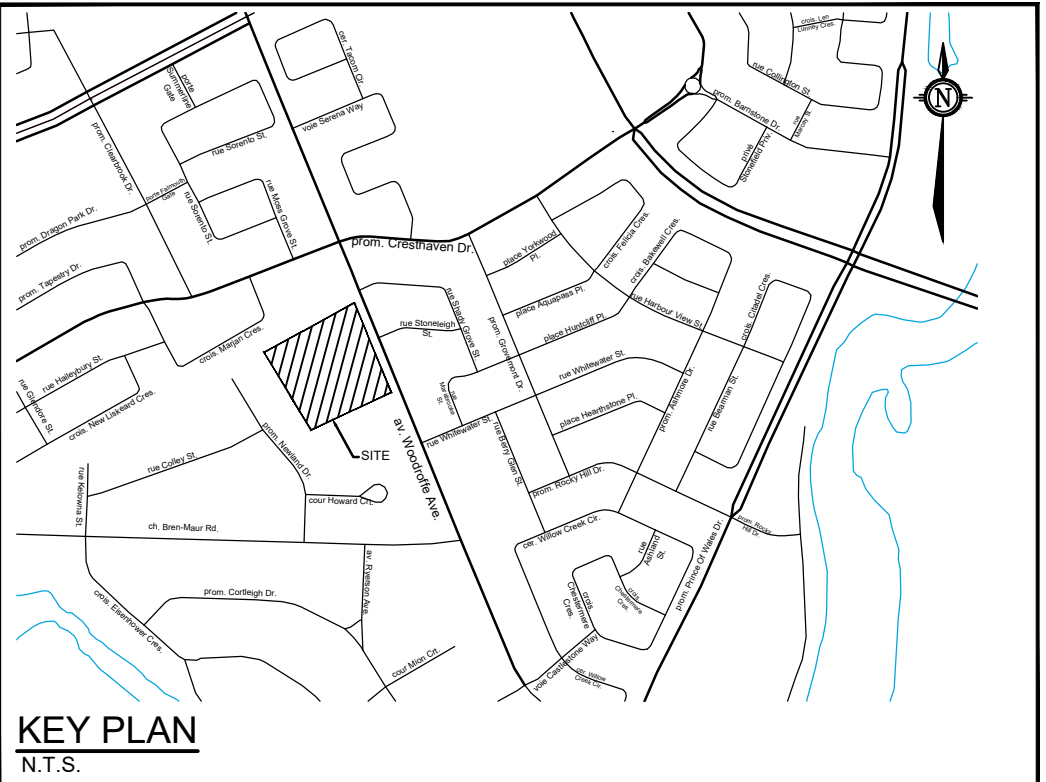
40mm	ASPHALT SP12.5
50mm	ASPHALT SP19.0
150mm	GRAN "A"
<u>450mm</u>	GRAN "B" TYPE II
690mm	TOTAL DEPTH

WATERMAIN TABLE			
Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
7+000.00	103.81	101.41	TEE
7+003.30	103.73	101.33	22.5" H-BEND
7+008.52	103.77	101.37	22.5" H-BEND
7+025.00	104.08	101.68	-
7+027.62	104.04	101.64	CAP

STM MANHOLE TABLE				
MANHOLE ID	Size (mm)	T/G ELEV	INVERT	PIPE DIAMETER (mm)
211	1200x	102.30	E=99.26 W=99.27	E=450 W=450
212	1200x	103.89	E=99.82 S=99.68	E=450 S=450
213	1200x	103.78	S=99.76 N=101.39 SW=99.82	S=450 N=300 SW=375
214	1200x	103.93	E=100.14 SE=101.62	NE=375 SE=300
215	1200x	103.86	N=99.73 SW=99.85 S=101.32	N=450 SW=375 S=300
216	1200x	103.93	NE=100.06 NW=100.12	NE=375 NW=300
217	1200x	103.86	SE=100.16	SE=300

ICD TABLE				
STRUCTURE ID	ICD TYPE	INVERT (m)	100-YR HEAD (m)	100-YR PEAK FLOW (L/s)
CB1	Tempest LMF	W=101.66	2.17	7.8
CB2	Tempest LMF	N=101.52	2.32	8.0
CB3	Tempest LMF	NW=100.89	2.92	9.0
CB4	Tempest LMF	SE=101.70	2.03	7.5
CB5	Tempest LMF	S=100.60	2.21	7.8
CB6	Tempest LMF	W=101.67	2.04	7.5
CB7	83mm	E=100.61	1.45	19.4
CB8	83mm	E=99.84	1.45	19.4
CB9	83mm	S=100.71	1.43	9.4
CB10	83mm	N=100.71	1.43	9.4
CBMH1	Tempest LMF	SE=100.70	3.00	9.2
CBMH2	Tempest LMF	SE=100.63 N=102.22	3.27	9.5
CBMH3	Tempest LMF	NW=100.27	3.67	11.7
CBMH4	Tempest LMF	SE=100.24	3.71	10.1
CBMH5	Tempest LMF	NW=100.80	3.07	9.3
CBMH6	Tempest LMF	SE=100.55	3.36	9.7
CBMH7	Tempest LMF	NW=101.10	2.67	8.6
CBMH8	Tempest LMF	NW=100.82	2.88	9.0
RY2	83mm	NE=100.37 SE=100.43	1.36	16.8
RY3	83mm	NE=100.42 NW=100.48	1.32	16.6
RY8	Tempest LMF	SE=102.39	1.32	6.0

LOCATION	ELEVATIONS	CLEARANCE
C1	STM INV=99.66 SAN INV=99.27	0.39m
C2	WM INV=101.14 STM OBV=100.17	0.97m
C3	WM INV=101.14 SAN OBV=99.90	1.24m
C4	WM INV=101.10 STM OBV=100.23	0.87m
C5	WM INV=101.14 STM OBV=100.33	0.81m
C6	SAN INV=100.38 STM OBV=100.20	0.18m
C7	STM INV=101.48 SAN OBV=101.22	0.26m
C8	WM INV=102.12 SAN OBV=101.22	
C9	WM INV=102.12 STM OBV=101.87	0.25m
C10	WM INV=101.88 STM OBV=100.27	0.29m
C11	WM INV=101.18 STM OBV=100.83	0.35m
C12	WM INV=101.18 STM OBV=100.83	1.79m
C13	SAN INV=100.80 STM OBV=100.39	0.41m
C14	WM INV=101.07 STM OBV=100.40	0.67m
C15	WM INV=101.05 SAN OBV=100.55	0.50m
C16	WM INV=101.17 SAN OBV=100.61	0.56m
C17	WM INV=101.22 STM OBV=100.50	0.72m
C18	WM INV=101.20 STM OBV=100.66	0.54m
C19	SAN INV=101.05 STM OBV=100.51	0.54m
C20	SAN INV=100.74 STM OBV=100.45	0.29m
C21	WM INV=101.30 STM OBV=100.42	0.88m
C22	WM INV=101.30 SAN OBV=101.02	0.28m
C23	WM INV=100.28 STM OBV=100.58	0.68m
C24	WM INV=101.26 SAN OBV=101.01	0.25m
C25	WM INV=100.67 STM OBV=100.52	0.15m
C26	WM INV=101.28 STM OBV=100.35	0.91m
C27	SAN INV=100.81 STM OBV=100.34	0.47m
C28	WM INV=101.26 SAN OBV=100.95	0.31m
C29	SAN INV=100.46 STM OBV=100.24	0.22m
C30	WM INV=101.23 STM OBV=100.24	0.99m
C31	WM INV=101.23 SAN OBV=100.18	1.15m
C32	WM INV=101.25 SAN OBV=100.90	0.45m
C33	WM INV=101.25 STM OBV=100.26	0.99m
C34	SAN INV=100.45 STM OBV=100.25	0.20m
C35	STM INV=101.43 SAN OBV=101.27	0.16m
C36	WM INV=102.06 STM OBV=101.79	0.27m
C37	WM INV=102.06 SAN OBV=101.23	0.83m
C38	WM INV=97.91 STM OBV=96.81	1.10m
C39	WM INV=97.91 SAN OBV=97.81	0.73m
C40	WM INV=99.51 SAN OBV=97.85	1.66m
C41	WM INV=99.91 STM OBV=99.59	0.32m



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SCALE

AS NOTED

DESIGN

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APPROVED

**FOR REVIEW ONLY**



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NOTES AND TABLES

PROJECT No. \_\_\_\_\_

REV

DRAWING No.

PL 4491 DMS, 1023mm707m