

LEGEND	
	PROPOSED GRADE AND DIRECTION
	PROPOSED ELEVATION AT HIGH POINT
	PROPOSED ELEVATION AT POINT OF VERTICAL INFLECTION
	PROPOSED ELEVATION AT BEGINNING OF VERTICAL CURVE
	PROPOSED ELEVATION AT END OF VERTICAL CURVE
	PROPOSED VALVE & VALVE BOX LOCATION
	PROPOSED VALVE & VALVE CHAMBER LOCATION
	PROPOSED NOISE BARRIER
	PROPOSED HYDRANT WITH TOP OF FLANGE ELEVATION
	PROPOSED SANITARY MANHOLE
	PROPOSED STORM MANHOLE
	PROPOSED CATCHBASIN
	PROPOSED LANDSCAPE TYPE CATCHBASIN WITH TOP OF GRATE ELEVATION
	PHASE BOUNDARY LINE
	SOD
	STATIC PONDING AREA LIMITS
	SWALE AND TERRACE

- GENERAL NOTES:**
- DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - THE ORIGINAL TOPOGRAPHY AND GROUND ELEVATIONS, SERVICING AND SURVEY INFORMATION SHOWN ON THIS PLAN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF ALL INFORMATION OBTAINED FROM THIS PLAN.
 - CO-ORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
 - BEFORE COMMENCING CONSTRUCTION, PROVIDE PROOF OF COMPREHENSIVE ALL RISK AND OPERATIONAL LIABILITY INSURANCE INCLUDING BLASTING, INSURANCE POLICY TO NAME THE OWNER, ENGINEER AND THE CITY AS CO-INSURED. AMOUNT OF INSURANCE TO BE SPECIFIED BY OWNER'S AGENT.
 - CONNECT TO EXISTING SYSTEMS AS DETAILED, INCLUDING ALL RESTORATION WORK NECESSARY TO REINSTATE SURFACES TO EXISTING CONDITIONS OR BETTER.
 - DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME ALL RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THESE DRAWINGS.
 - OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS BEFORE COMMENCING CONSTRUCTION.
 - RESTORE ALL TRENCHES AND SURFACE FEATURES TO EXISTING CONDITIONS OR BETTER AND TO THE SATISFACTION OF CITY OF OTTAWA AUTHORITIES.
 - ASPHALT RESTORATION SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA DETAIL R-10.
 - THICKNESS OF GRANULAR MATERIAL AND ASPHALT LAYERS TO MATCH EXISTING.
 - BOULEVARDS SHALL BE REINSTATE WITH 100mm OF TOPSOIL, SEED AND MULCH.
 - REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE INSTRUCTED BY ENGINEER.
 - ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
 - ALL FENCING TO BE LOCATED 0.15m INSIDE PROPERTY LINE. REFER TO LANDSCAPING PLAN FOR DETAILS.
 - ASPHALT PATHWAY TO BE CONSTRUCTED PER CITY STANDARD SC.20
 - REFER TO GEOTECHNICAL INVESTIGATION (DATED MARCH 7, 2019), PREPARED BY GEMTEC FOR SUBSURFACE CONDITIONS AND CONSTRUCTION RECOMMENDATIONS.
 - PERFORATED PIPE SUB-DRAINS TO BE PROVIDED AT SUBGRADE LEVEL EXTENDING FROM THE ROADSIDE CATCHBASIN FOR A DISTANCE OF 3.0m. PARALLEL TO THE CURB IN TWO DIRECTIONS.
 - THERE ARE NO GRADE RAISE RESTRICTIONS ON SITE AS PER GEOTECHNICAL INVESTIGATION (DATED MARCH 7, 2019) PREPARED BY GEMTEC.
 - DECOMMISSIONING OF ALL MONITORING WELLS AND DRINKING WATER WELLS SHALL BE CARRIED OUT AND IN ACCORDANCE WITH O.R.G. 903. ANY SEPTIC SYSTEM OR AGRICULTURAL TILES DRAINS SHALL BE DECOMMISSIONED PRIOR TO ISSUANCE OF COMMENCE WORK NOTIFICATION.

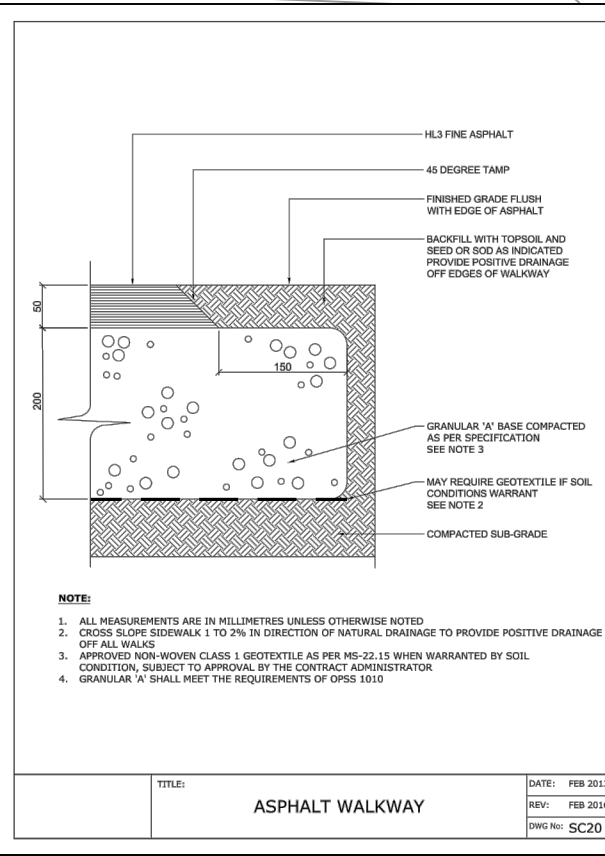
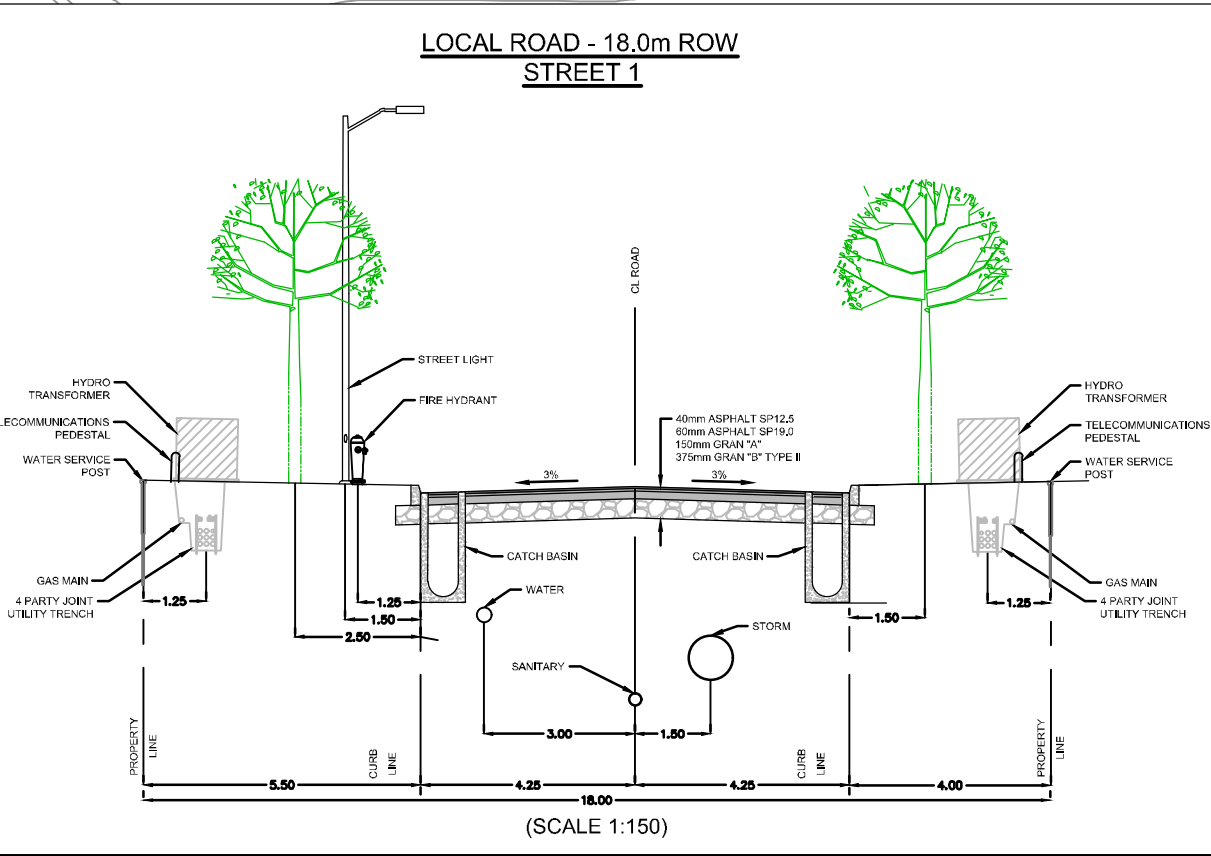
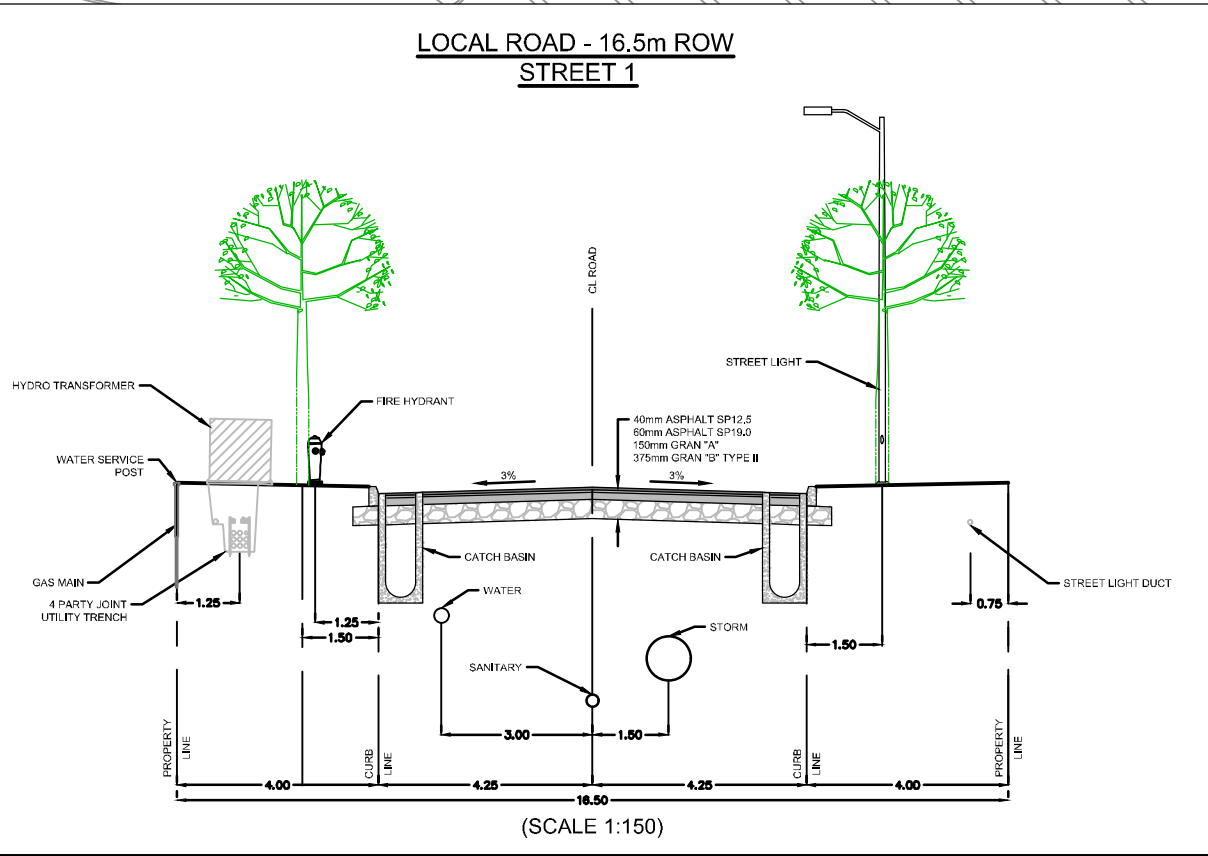
- GRADING AND PAVEMENT NOTES:**
- ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED HARD SURFACE (e. PAVEMENT, CURB, SIDEWALK, ETC.) AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
 - EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE HEAVILY 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.
 - ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUB-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOILS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
 - THE GRANULAR BASE SHOULD BE PLACED IN MAXIMUM 300mm LIFTS AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE PLACED IN MAXIMUM 300mm LIFTS AND COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
 - BUILD ROADWAYS WITH 3% CROSSFALL INCLUDING SUBGRADE AND GRANULAR BASE.
 - 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 GRANULARS.
 - PRIOR TO PLACEMENT OF TOPLIFT, THE CONTRACTOR SHALL ADJUST ALL STRUCTURES TO FINAL GRADE PER CITY OF OTTAWA STANDARDS.
 - MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
 - MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
 - ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
 - ALL CURBS SHALL BE MOUNTABLE CURB UNLESS OTHERWISE NOTED AND CONSTRUCTED PER CITY OF OTTAWA STANDARD (SC1.3).
 - REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.

PAVEMENT STRUCTURE:

LOCAL ROADS (STREET 1, TIM SHEEHAN PLACE)
16.5m & 18.0 ROW - 8.5m PLATFORM

40mm	ASPHALT SP12.5
60mm	ASPHALT SP19.0
150mm	GRAN "A"
375mm	GRAN "B" TYPE II
625mm	TOTAL DEPTH

LOWEST BUILDING OPENING DESIGN GRADE			
UNIT	FRONT	REAR	
T1	105.44	105.49	
T2	105.44	105.49	
T3	105.44	105.49	
T4	105.44	105.49	
T5	105.70	105.65	
T6	105.70	105.65	
T7	105.70	105.65	
T8	105.70	105.65	
T9	106.03	105.78	
T10	106.03	105.78	
T11	106.03	105.78	
T12	106.03	105.78	
T13	106.02	105.92	
T14	106.21	106.15	
T15	106.21	106.15	
T16	106.20	106.20	
T17	106.20	106.20	
T18	106.15	106.19	
T19	106.15	106.19	
T20	106.15	106.22	
T21	106.15	106.22	
T22	106.30	106.35	
T23	106.30	106.35	
T24	106.30	106.35	
T25	106.30	106.35	
T26	105.90	105.72	
T27	105.90	105.72	
T28	105.90	105.32	
T29	105.90	105.32	
T30	105.36	104.95	
T31	105.36	104.95	
T32	105.36	104.95	
T33	104.71	104.77	
T34	104.71	104.77	
T35	104.71	104.70	
T36	104.71	104.70	
T37	104.90	104.85	
T38	104.90	104.85	
T39	104.90	105.10	
T40	104.90	105.10	
T41	105.74	105.26	
T42	105.74	105.26	
T43	105.74	105.26	
T44	105.74	105.26	
T45	105.88	105.72	
T46	105.88	105.72	
T47	105.88	105.75	



NOISE BARRIER TABLE				
REFERENCE	LOCATION	TYPE	HEIGHT	FINISH
NB1	BLOCK 2A	PRESTIGE OR EQUIVALENT	2.2m	NATURAL

LOT/BLOCK: RIGHT-OF-WAY

2.2m NOISE BARRIER

0.3 m

2 - 6%

TYPICAL NOISE BARRIER OFFSET

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.

SCALE	
1:500	
0 5 10 15 20	

REVISION	
2	ISSUED FOR APPROVAL (2nd SUBMISSION)
1	ISSUED FOR APPROVAL
No.	REVISION

DATE	BY
MAR 12/19	MAB
DEC 7/18	MAB

FOR REVIEW ONLY

DESIGN: LRW

CHECKED: MAB

DRAWN: DTD

CHECKED: MAB

APPROVED: JGR

PROFESSIONAL ENGINEER
L.R. WILSON
10180065
PROVINCE OF ONTARIO

PROFESSIONAL ENGINEER
M.A. BISSETT
2049, 03, 17
PROVINCE OF ONTARIO

CITY OF OTTAWA
FERNBANK CROSSING - PHASE 5

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

GRADING PLAN

PROJECT No.: 108180-19

REV # 2

DRAWING No.: 108180-19-GR