

Mar 24, 2021 - 9:16am
C:\Users\scott.buckley\BIM_360\WSP_Canada_projects (AMER)\Land_Development_Ontario\Project_Files\20M-00392_Uxbridge_Industrial\NUN\3 - Engineering Drawings\20M-00392 - Uxbridge Industrial - tab:NT1

GENERAL NOTES:

- 1. FOR DIMENSIONS AND DETAILS NOT SHOWN ON THE DRAWINGS, REFER TO THE ARCHITECT'S SITE PLAN. DETAILS WITH PREFIX 'US' ARE TOWN OF UXBRIDGE STANDARD DRAWINGS, THOSE PREFIXED BY 'S' ARE REGION OF DURHAM STANDARD DRAWINGS. ALL OTHER CONSTRUCTION DETAILS NOT REFERRED TO ON THE DRAWINGS, REFERENCE SHALL BE MADE TO THE LATEST DESIGN STANDARDS OF THE TOWN OF UXBRIDGE, REGION OF DURHAM OR ONTARIO PROVINCIAL STANDARDS.
- 2. DIMENSIONS AND ELEVATIONS ARE IN METERS.
- 3. PIPE SIZES ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- 4. ALL DIMENSIONS AND PIPE INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF THERE ARE ANY DISCREPANCIES, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT AND CONSULTANT.
- 5. EXISTING UTILITIES SHOWN ON DRAWINGS ARE FOR REFERENCE PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. GAS, HYDRO, TELEPHONE OR ANY OTHER UTILITIES THAT MAY EXIST ON SITE OR WITHIN THE STREET LINES, MUST BE LOCATED BY ITS OWN UTILITY AUTHORITY AND VERIFIED PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED TO EXISTING UTILITIES DURING CONSTRUCTION.
- 6. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT "OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS".
- 7. TOPSOIL IN FILL AREAS TO BE STRIPPED AND CLEAN FILL TO BE PLACED AND COMPACTED TO 98% STANDARD PROCTOR DRY DENSITY.
- 8. NO ORGANIC MATERIAL SHALL BE USED AS BACKFILL.
- 9. ALL EXISTING PAVEMENT, CURBS, SIDEWALKS, DRIVEWAYS AND BOULEVARD AREAS DISTURBED BY CONSTRUCTION MUST BE RESTORED TO THE SATISFACTION OF THE TOWN OF UXBRIDGE AND/OR REGION OF DURHAM. AREAS TO BE RESTORED WITH A MINIMUM OF 250mm TOPSOIL UNLESS OTHERWISE NOTED.
- 10. CONTRACTOR SHALL DISPOSE OF EXCESS MATERIAL, PIPE, ETC. OFF SITE.
- 11. THE CONTRACTOR SHALL CONTACT THE TOWN OF UXBRIDGE AND THE REGION OF DURHAM TO SCHEDULE A PRE-CONSTRUCTION MEETING A MINIMUM 2 WEEKS PRIOR TO COMMENCEMENT OF THE PROPOSED WORKS.
- 12. BOULEVARDS TO BE GRADED, TOPSOILED 250mm DEPTH AND SODDED BY CONTRACTOR TO THE TOWN'S SATISFACTION.
- 13. A MINIMUM SETBACK OF 1.0M FROM STREET FURNITURE TO PROPOSED DRIVEWAYS AND SIDEWALKS SHALL BE MAINTAINED. ALL EXISTING STREET FURNITURE TO BE RELOCATED BY THE CONTRACTOR TO A SETBACK OF 1.0m. THE COST OF RELOCATION OF ANY UTILITY IS THE RESPONSIBILITY OF THE DEVELOPER/OWNER.
- 14. ALL BARRIER FREE ENTRANCES AND BARRIER FREE PATHS OF TRAVEL MUST COMPLY WITH O.B.C.3.8. AND WITH THE TOWN OF UXBRIDGE ACCESSIBILITY STANDARDS.
- 15. THE CONTRACTOR SHALL SUPPLY ALL ACCESSIBLE PARKING SIGNS AS SET OUT IN THE TOWN OF UXBRIDGE BY-LAWS AND DESIGN CRITERIA.
- 16. ALL EXTERIOR ILLUMINATION TO BE DIRECTED DOWNWARD AS WELL AS INWARD AND DESIGNED TO MAINTAIN ZERO CUTOFF LIGHT DISTRIBUTION AT THE PROPERTY LINE.
- 17. THE CONTRACTOR SHALL CARRY OUT TV CAMERA INSPECTIONS FOR ALL SEWERS INSTALLED UNDER THIS CONTRACT. THE CAMERA CAN EITHER BE PULLED OR SELF-PROPELLED THROUGH THE PIPES. THE EQUIPMENT IS TO HAVE FEATURES TO ENABLE CLOSE EXAMINATION OF FAULTS AND TO VIEW LATERAL CONNECTIONS. THE EQUIPMENT IS TO PROVIDE "MEASURED" LOCATION OF THE CAMERA RELATIVE TO MANHOLES IN ORDER TO LOCATE FAULTS, LATERALS, ETC. ALL DVD'S SHALL BE SUBMITTED DIRECTLY TO THE CONSULTANT ALONG WITH A WRITTEN REPORT OF ANY PROBLEM AREAS.
- 18. THE CONTRACTOR SHALL VERIFY BENCHMARK WITH THE TOWN OF UXBRIDGE PRIOR TO CONSTRUCTION.

GRADING:

- 1. SUITABILITY & COMPACTION OF FILL MATERIALS TO BE CONFIRMED BY A GEOTECHNICAL CONSULTANT PRIOR TO PLACEMENT OF DRIVEWAY OR PARKING LOT BASE.
- 2. EXPOSED NATURAL SUBGRADE TO BE INSPECTED AND APPROVED BY THE GEOTECHNICAL CONSULTANT AND SUBSEQUENTLY PROOF-ROLLED FOR FILL PLACEMENT. ANY UNSUITABLE SOILS SHOULD BE REMOVED AND REPLACED WITH COMPACTED APPROVED FILL COMPATIBLE WITH THE SUBGRADE CONDITIONS.
- 3. ALL APPROVED FILL TO BE PLACED IN LAYERS NOT EXCEEDING 300mm BEFORE COMPACTION AND TO BE UNIFORMLY COMPACTED TO THE SATISFACTION OF THE GEOTECHNICAL CONSULTANT. THIS OPERATION SHALL BE SUPERVISED BY GEOTECHNICAL PERSONNEL.
- 4. THE FILL SHOULD NOT BE CONSTRUCTED DURING WINTER MONTHS WHEN PERSISTENT OR INTERMITTENT FREEZING TEMPERATURES OCCUR. IF THE FILL AREAS ARE LEFT FOR A PERIOD OF TIME, A SUITABLE SOIL COVER MUST BE PROVIDED TO PREVENT FROST ACTION AND DISTURBANCE.
- 5. THE SELECTED FILL MATERIAL SHOULD BE APPROVED BY THE GEOTECHNICAL CONSULTANT.

STORM SEWERS:

- 1. ALL STORM SEWER MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO CURRENT TOWN OF UXBRIDGE STANDARDS AND SPECIFICATIONS.
- 2. STORM MAINTENANCE HOLE FRAME & GRATE PER OPSD 401.010, TYPE A. CATCHBASIN MANHOLE GRATE PER OPSD 400.020.
- 3. ALL STORM MAINTENANCE HOLES SHALL BE BENCHED. ALL CATCHBASIN MAINTENANCE HOLES DO NOT REQUIRE BENCHING AND A 300mm SUMP IS TO BE PROVIDED.
- 4. PVC SEWER PIPE UP TO AND INCLUDING 600mm DIAMETER SHALL CONFORM TO CSA SPECIFICATIONS B182.2 AND B182.3 AND OPSS 1841 OR LATEST AMENDMENT UNLESS OTHERWISE SPECIFIED.
- 5. REINFORCED CONCRETE PIPE SHALL BE USED FOR PIPES LARGER THAN 450mm DIAMETER AND SHALL CONFORM TO CSA SPECIFICATIONS A257.2 - M1982 OR LATEST AMENDMENT UNLESS OTHERWISE NOTED. MINIMUM STRENGTH SHALL BE CLASS 65-D.
- 6. STORM SEWERS AND C.B. LEADS TO BE FITTED WITH APPROVED RUBBER GASKET JOINTS.
- 7. SINGLE CATCHBASINS TO BE PRECAST AS PER OPSD 705.010. FRAME AND GRATE AS PER OPSD 400.020.
- 8. DOUBLE CATCHBASINS TO BE PRECAST AS PER OPSD 705.020. FRAME AND GRATE AS PER OPSD 400.020.
- 9. CATCHBASIN CONNECTIONS: SINGLE - MIN. 250mm AT MIN. 1.00% DOUBLE - MIN. 300mm AT MIN. 1.00% UNLESS OTHERWISE NOTED.
- 10. CATCHBASIN CONNECTION DETAIL AS PER OPSD 708.01 OR OPSD 708.03
- 11. LATERALS AND LEADS AS PER OPSD 1006.01 OR OPSD 1006.02.
- 12. ALL CATCHBASIN LEADS TO BE CONNECTED USING PREFABRICATED MANUFACTURERS TEES IF THE STORM SEWER IS 450mm AND SMALLER. CONNECTIONS TO STORM SEWERS 525mm AND LARGER MAY BE MADE USING FIELD INSTALLED TEES SUCH AS MORTARED IN BELLS OR STRAP ON SADDLES AND SHALL BE MADE WATERTIGHT.
- 13. BEDDING FOR PVC STORM SEWERS SHALL BE AS PER OPSD 802.010. BEDDING FOR CONCRETE PIPE SHALL BE AS PER OPSD 802.031.
- 14. STORM MAINTENANCE HOLES TO BE PRECAST CONCRETE AS PER OPSD 701.010 TO OPSD 701.015, UNLESS OTHERWISE NOTED.
- 15. INSTALL SUBDRAINS AS SHOWN ON DESIGN DRAWINGS. SUBDRAINS AS PER OPSD 216.021.

SANITARY SEWER:

- 1. ALL SANITARY SEWER MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO CURRENT TOWN OF UXBRIDGE STANDARDS AND SPECIFICATIONS.
- 2. ALL POLYVINYL CHLORIDE PIPE (PVC) UP TO AND INCLUDING 375mm DIAMETER SHALL CONFORM TO CSA SPECIFICATION B182.2 OR LATEST AMENDMENT UNLESS OTHERWISE NOTED. DIMENSION RATIO (DR) SHALL NOT EXCEED 35.
- 3. ALL 1200 DIAMETER PRECAST MAINTENANCE HOLES AS PER OPSD 701.010.
- 4. ALL SANITARY MAINTENANCE HOLES TO HAVE WATERTIGHT COVERS AS PER OPSD 401.030.
- 5. BEDDING FOR SANITARY SEWERS SHALL BE CLASS "P" AS PER S-200.010.
- 6. ALL SANITARY MAINTENANCE HOLES TO BE BENCHED TO THE OVERT.
- 7. FOR DETAILS AND SPECIFICATIONS RELATED TO SITE SANITARY SEPTIC SYSTEM REFER TO ENVIRONMENTAL DRAWINGS.

WATERMAINS:

- 1. ALL WATERMAINS AND WATER SERVICE MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND WITH CURRENT REGION OF DURHAM STANDARDS AND SPECIFICATIONS.
- 2. WATERMAINS UP TO AND INCLUDING 300mm SHALL BE POLYVINYL CHLORIDE (PVC) CONFORMING TO CSA SPECIFICATION B137-3 AND AWWA C900 CLASS 150.
- 3. WATERMAINS MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 0.50m OVER AND 0.50m UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING.
- 4. WATERMAINS AND WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 1.8m MEASURED FROM TOP OF PIPE TO THE FINISHED CENTRE LINE ROAD GRADE.
- 5. GENTLE CURVATURE OF THE WATERMAIN (I.E. WITHOUT FITTINGS) IS TO BE ACHIEVED ONLY BY DEFLECTING THE JOINTS. BENDING OF THE PIPE BARREL SHALL NOT BE PERMITTED ANYWHERE ON THIS PROJECT. CONTRACTOR TO ADHERE TO MANUFACTURER'S SPECIFICATIONS WHEN PERFORMING JOINT DEFLECTION.
- 6. ALL WATER VALVES, FITTINGS, SERVICE CONNECTIONS, TRACER WIRE AND HYDRANTS ARE TO BE CATHODICALLY PROTECTED IN ACCORDANCE WITH REGION OF DURHAM STANDARDS. TRACER WIRE TO BE PROTECTED WITH ONE 5.4kg ZINC ANODE FOR EVERY 1000m OF TRACER WIRE. LOCATION OF TRACER WIRE ANODE TO BE DETERMINED IN THE FIELD.
- 7. HYDRANT TO BE INSTALLED AS PER S-210.010 COMPLETE WITH GATE VALVE, ANCHOR TEE AND APPURTENANCES. HYDRANTS TO BE "STORZ" TYPE PUMPER HYDRANTS.
- 8. RESILIENT SEAT GATE VALVES CONFORMING TO AWWA C-509 SHALL BE USED ON ALL WATERMAINS 300mm DIAMETER AND LESS IN SIZE. VALVE AND VALVE BOX AS PER OPSD 1104.020
- 9. WATERMAIN TRENCH BEDDING SHALL BE CLASS 'p' AS PER S-201.010, UNLESS OTHERWISE DIRECTED BY THE GEOTECHNICAL CONSULTANT.
- 10. WATERMAIN JOINT RESTRAINERS WITH GRANULAR THRUST BLOCKS SHALL BE AS PER S-200.050 AND S-200.060. ALL WATERMAIN CONSTRUCTED IN FILL AREAS TO BE RESTRAINED.
- 11. ALL NEW WATERMAIN AND WATER SERVICES ARE TO BE PRESSURE TESTED, FLUSHED AND CHLORINATED AS A PART OF THIS PROJECT. THE CONTRACTOR IS TO INCLUDE BLOW OFFS, TEST POINT BYPASSES, TEMPORARY HYDRANTS AND ANY OTHER NECESSARY MATERIALS TO PERFORM THESE ACTIVITIES TO THE REGION'S SATISFACTION.
- 12. EXISTING FEATURES MUST BE ADJUSTED TO FINISHED GRADE.
- 13. WATER METER AND BACKFLOW PREVENTER ROOM TO BE CONSTRUCTED PER S-240.041, S-240.020 AND S-240.040. ROOM IS TO BE INSPECTED AND CERTIFIED BY A LICENSED PLUMBER. SHOP DRAWINGS AND STRUCTURAL SUPPORT TO BE PROVIDED BY CONTRACTOR FOR REVIEW AND ACCEPTANCE.

PAVEMENT STRUCTURE:

A GEOTECHNICAL SUBSURFACE INVESTIGATION WAS COMPLETED ON SITE FOR THIS PROJECT BY WSP CANADA INC. MINIMUM PAVEMENT STRUCTURE AS PER GEOTECHNICAL CONSULTANT'S RECOMMENDATION.

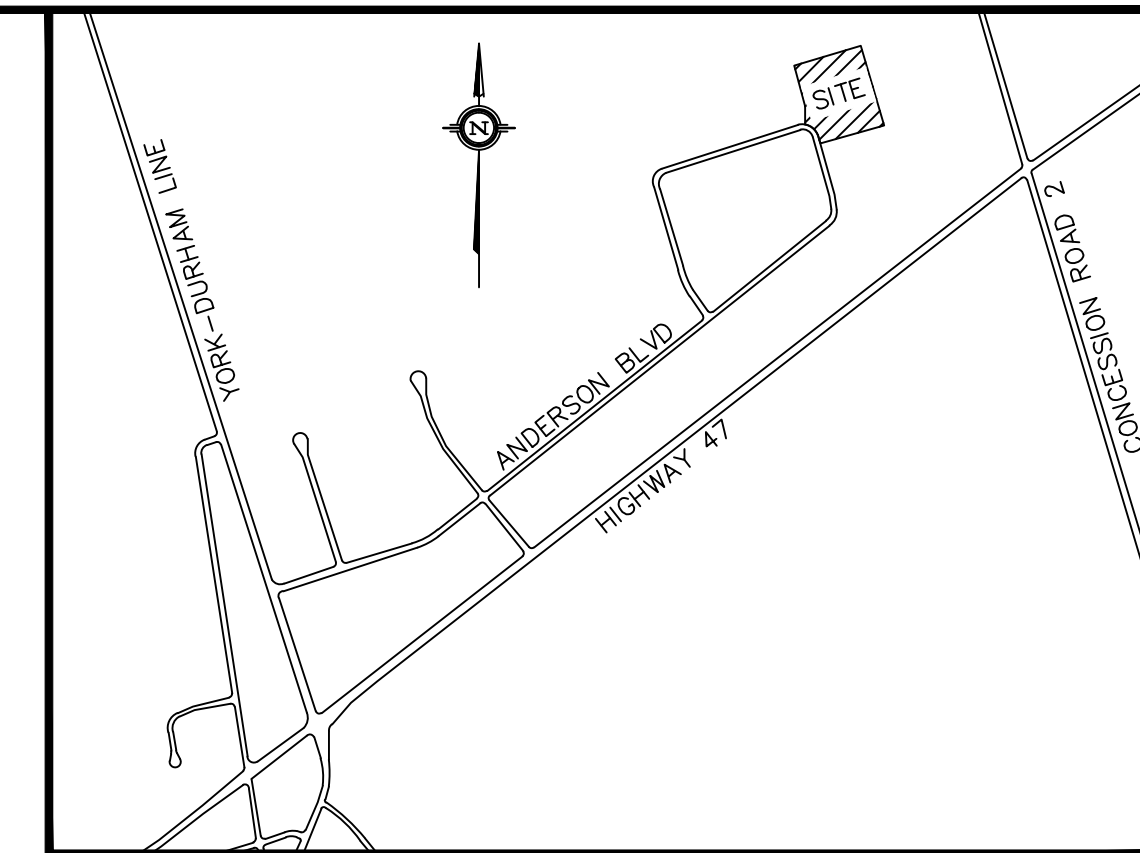
LIGHT-DUTY ASPHALT PAVEMENT (PARKING LOT)

50mm	HL-4 (SP12.5) ASPHALTIC CONCRETE
150mm	GRANULAR A OR 20mm CRUSHER RUN LIMESTONE
300mm	GRANULAR B OR 50mm CRUSHER RUN LIMESTONE
500mm	TOTAL COMPACTED DEPTH

HEAVY-DUTY ASPHALT PAVEMENT (DELIVERY TRUCKS)

40mm	HL-4 (SP12.5) ASPHALTIC CONCRETE
50mm	HL-8 (SP19.0) ASPHALTIC CONCRETE
150mm	GRANULAR A
450mm	GRANULAR B
690mm	TOTAL COMPACTED DEPTH

- 1. PAVEMENT DESIGN MUST BE VERIFIED BY A GEOTECHNICAL CONSULTANT PRIOR TO GRADING AND ROAD BASE CONSTRUCTION.
- 2. DURING PAVEMENT CONSTRUCTION, A GEOTECHNICAL CONSULTANT IS TO BE AVAILABLE ON SITE TO INSPECT THE WORK.
- 3. COMPACTION TESTS ARE TO BE CARRIED OUT TO THE SATISFACTION OF THE GEOTECHNICAL CONSULTANT.
- 4. THE GRANULAR SUBBASE AND BASE MATERIALS SHOULD BE UNIFORMLY COMPACTED TO AT LEAST 98 PERCENT OF THEIR STANDARD PROCTOR MAXIMUM DRY DENSITIES. THE ASPHALT MATERIALS SHOULD BE COMPACTED TO AT LEAST 97 PERCENT OF THEIR MARSHALL MAXIMUM RELATIVE DENSITIES, AS MEASURED IN THE FIELD USING A NUCLEAR DENSITY GAUGE.
- 5. EVEN THOUGH THE COMPACTION REQUIREMENTS HAVE BEEN MET, THE SUBGRADE STRENGTH MAY NOT BE ADEQUATE TO SUPPORT HEAVY CONSTRUCTION LOADING ESPECIALLY DURING WET WEATHER OR WHERE BACKFILL MATERIALS MET OF OPTIMUM HAVE BEEN PLACED. IN THIS REGARD, THE DESIGN GRANULAR B SUBBASE THICKNESS MAY NOT BE SUFFICIENT FOR A CONSTRUCTION HAUL ROAD AND ADDITIONAL GRANULAR B (IN THE ORDER OF 300 TO 450 MM) MAY BE REQUIRED. IN ANY EVENT, THE SUBGRADE SHOULD BE PROOFROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING THE GRANULAR B SUBBASE AND ADDITIONAL GRANULAR PLACED, AS REQUIRED, CONSISTENT WITH THE PREVAILING WEATHER CONDITIONS AND ANTICIPATED USE BY CONSTRUCTION TRAFFIC.
- 6. IN ORDER TO PROVIDE ADEQUATE SUBSURFACE DRAINAGE, SHORT (APPROXIMATELY 3m LONG) PERFORATED SUBDRAINS SHOULD BE PROVIDED AT INTERNAL CATCHBASIN LOCATIONS ON ALL FOUR SIDES OF THE CATCHBASINS. SUB DRAINS SHOULD BE A MINIMUM OF 300mm BELOW THE BOTTOM OF THE GRANULAR SUBBASE AND CONNECTED TO THE CATCHBASINS. THE DRAINS SHOULD CONSIST OF 150mm DIAMETER GEOTEXTILE WRAPPED PERFORATED PIPE, SURROUNDED ON ALL SIDES BY AT LEAST 150mm OF 19mm CLEAR STONE.
- 7. ADDITIONAL SUBDRAINS SHALL BE PROVIDED ALONG CURB LINES WHERE ADJOINING GRADES ARE HIGHER TO INTERCEPT WATER ENTERING INTO THE SUBGRADE AND GRANULAR MATERIALS.



KEY PLAN

NTS

LIST OF DRAWINGS

NOTES PLAN	NT1
DETAILS PLAN	DT1
DETAILS PLAN	DT2
DETAILS PLAN	DT3
SITE GRADING PLAN	SG1
SITE SERVICING PLAN	SS1
EROSION & SEDIMENT CONTROL PLAN	ES1
STORM DRAINAGE PLAN	ST1

BENCH MARK:

ELEVATIONS ARE GEODETIC AND ARE REFERRED TO MTD VERTICAL BENCHMARK NUMBER 00819778477 HAVING AN ORTHOMETRIC ELEVATION OF 312.926 METRES. ELEVATIONS ARE REFERENCED TO THE CANADIAN GEODETIC VERTICAL DATUM OF 1928, 1978 ADJUSTMENT (CGVD-1928:1978).

STEEL ROD WITH BRASS CAP ON THE NORTH SIDE OF HIGHWAY No. 47, 7.6 KM EAST OF THE JUNCTION OF HIGHWAY Nos. 47 & 48 AT RINGWOOD, 1.1 KM EAST OF C.N.R. CROSSING, 1.1 KM WEST OF BLOOMINGTON ROAD AND 15.2 M NORTH OF THE CENTRELINE OF HIGHWAY No. 47. LOCATED 9.6 M EAST OF THE CENTRELINE OF THE GRAVEL FARM LANE, 46 CM SOUTH OF THE NORTH RIGHT-OF-WAY FENCE LINE AND 61 CM WEST OF A BLACK AND YELLOW MARKER POST.

REFERENCES table with 1 entry: 26/03/21 ISSUED ZONING BY-LAW AMENDMENT AK

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

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NOTES

DRAWN BY	LOC.	CONST.	CITY	DESIGN BY	SB	CHKD BY	AK	APPD. BY	AK
DATE	JAN 2019			REGION	BY	CHKD BY		APPD. BY	

SCALE: N.T.S.

20M-00392- DWG. No. NT1

