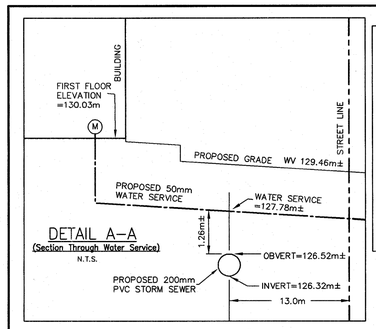
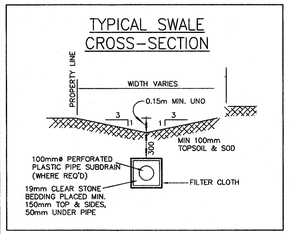
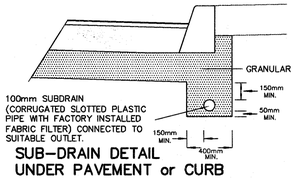



DETAIL A–A
(Section Through Water Service)
N.T.S.




TYPICAL SWALE CROSS–SECTION




SUB–DRAIN DETAIL UNDER PAVEMENT or CURB
N.T.S.

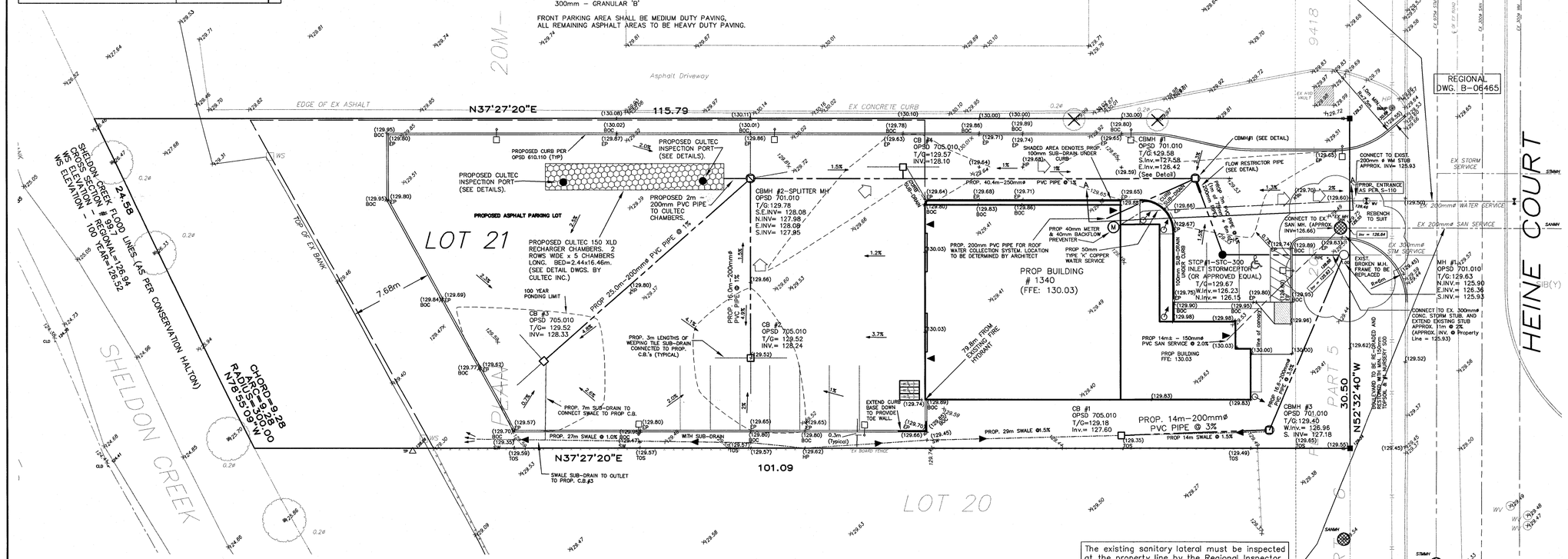
MEDIUM DUTY PAVING:
75mm – HL3 ASPHALT
100mm – GRANULAR 'A'
150mm – GRANULAR 'B'

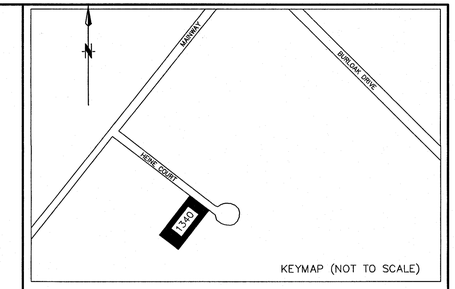
HEAVY DUTY PAVING:
50mm – HL3 ASPHALT
50mm – HL8 ASPHALT
150mm – GRANULAR 'A'
300mm – GRANULAR 'B'

FRONT PARKING AREA SHALL BE MEDIUM DUTY PAVING, ALL REMAINING ASPHALT AREAS TO BE HEAVY DUTY PAVING.

Any connection to an existing service previously installed, shall be swabbed, flushed and sampled by the Region at the sole expense of the applicant. Regional By-Law No. 131–10, Section II, C. 14(4).

The existing sanitary lateral must be inspected at the property line by the Regional Inspector, and televised by Regional forces PRIOR to connection. A lateral that does not meet current Regional standards must be disconnected at the main. A revision to the Service Permit, drawing and payment of applicable fees is required.




KEYMAP (NOT TO SCALE)

## LEGEND

| | |
|---|---|
| EX CB | EXISTING CATCHBASIN |
| MH | EXISTING MANHOLE |
| CS | EXISTING CURB STOP |
| (93.75 SW) | PROPOSED SWALE INVERT ELEVATION |
| (93.75) | PROPOSED GROUND ELEVATION<br>EXISTING ELEVATION |
| [93.75] | PROPOSED APRON ELEVATION |
| 4.0% | PROPOSED SURFACE FLOW DIRECTION & GRADE |
| | PROPOSED SWALE |
| | SILT FENCE & LIMIT OF GRADING |
| BOC | DENOTES BACK OF CURB ELEVATION |
| | EXISTING DECIDUOUS TREE TO BE REMOVED |
| | PROPOSED DOWNSPOUT & SPLASHPAD LOCATION |
| | PROPOSED ENTRANCE LOCATION |
| | DENOTES PROPOSED LUMINAIRE |
| | PROPOSED CATCHBASIN |
| | PROPOSED CATCHBASIN MANHOLE |
| | 100 YEAR PONDING LIMIT |
| | DENOTES OVERLAND FLOW ROUTE |

## REGIONAL APPROVAL

REGION DESIGN OF WATER &/OR WASTEWATER SERVICES APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING HALTON REGION STANDARDS & SPECIFICATIONS & LOCATION APPROVAL FROM AREA MUNICIPALITY.

SIGNED: _____ DATED: _____
INFRASTRUCTURE PLANNING & POLICY

THE APPLICANT SHOULD BE AWARE THAT THE APPROVAL OF THE WATER SYSTEM ON PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE LOCAL MUNICIPALITY. REGARDLESS, THE APPLICANT MUST ENSURE THAT THE REGION OF HALTON'S STANDARDS AND SPECIFICATIONS ARE MET. (THE WATER AND WASTEWATER LINEAR DESIGN MANUAL MAY BE OBTAINED FROM THE DATA MANAGEMENT GROUP AT 905–825–6032) FURTHERMORE, ALL WATER QUALITY TESTS MUST BE COMPLETED TO THE REGION OF HALTON'S SATISFACTION, BEFORE THE WATER SUPPLY CAN BE TURNED ON.

## CONVERSION NOTE

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET DIVIDING BY 0.3048.

## UNDERGROUND SERVICES NOTE

UNDERGROUND SERVICES HAVE BEEN DERIVED FROM PLAN MH–23 DATED FEB 12, 1990 OBTAINED FROM THE CITY OF BURLINGTON AND HAVE NOT BEEN VERIFIED IN THE FIELD. THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND ABOVE GROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION AND ELEVATION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED.
BEFORE STARTING WORK, THE CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

## DRAWING NOTE

SURVEY, TOPOGRAPHICAL INFORMATION AND UTILITY LOCATIONS WERE TAKEN FROM PLAN 12294 BLS+TOPO AS PREPARED BY ASHENHURST NOUWENS & ASSOCIATES ON DECEMBER 17, 2012.

## CAUTION

THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED, EXCEPT FOR THE PURPOSE INDICATED IN THE TITLE BLOCK.

| No. | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 11 | 18/4/2016 | | AS PER CITY COMMENTS RECEIVED MAR. 31/16 |
| 10 | 17/12/2015 | | AS PER CITY COMMENTS RECEIVED DEC. 17/15 |
| 9 | 9/12/2015 | | AS PER CITY COMMENTS RECEIVED NOV. 23/15 |
| 8 | 01/10/2015 | | AS PER CITY COMMENTS RECEIVED SEPT. 22/15 |
| 7 | 21/09/2015 | | AS PER REGION'S COMMENTS RECEIVED SEPT. 21/15 |
| 6 | 16/09/2015 | | AS PER COMMENTS RECEIVED SEPT. 14/15 |
| 5 | 25/08/2015 | | WATER SERVICE LOCATION REVISED |
| 4 | 19/08/2015 | | AS PER ARCHITECT COMMENTS |
| 3 | 18/08/2015 | | TRANSFORMER + FLOOD LINES ADDED, REV. LUMINAIRES |
| 2 | 06/08/2015 | | AS PER CITY COMMENTS DATED JULY 21, 2015 |
| 1 | 10/06/2015 | | ENTRANCE GRADES + RWL's REVISED |

REVISIONS

MUNICIPAL PLANNING # 535-009-15

Plan Showing
# PROPOSED GRADING & SERVICING
For
## 1340 HEINE COURT
City of Burlington

ASHENHURST NOUWENS & ASSOCIATES INC.
SINCE 1956
Professional Engineers & Ontario Land Surveyors
315 YORK BOULEVARD, SUITE 201, HAMILTON, ONTARIO L8R 3K5
(905) 529–6316 (905) 529–4314 1–800–824–6224
FAX: (905) 529–6651 e–mail: anl@ashenhurstnouwens.com

## BENCHMARK

CITY OF BURLINGTON BENCHMARK No. 241 – ELEVATION = 129.726 metres
PLAQUE ON SOUTH SIDE OF MAINWAY ON EAST FACE OF CONCRETE HEADWALL, 100mm SOUTH OF NORTH FACE AND 20mm FROM TOP OF HEADWALL JUST WEST OF HEINE COURT.

| | | |
|---|---|---|
| DWN BY: FWB | CHK BY: DS | DWG No. 15002-GSP |
| SCALE: 1 : 200 | | |
| DATE: APR 18, 2015 | | |

D. SENFT
APR. 18/2016
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
FOR REVIEW ONLY
NOT FOR CONSTRUCTION

NOTES

GENERAL
1. TOPOGRAPHICAL AND SERVICING INFORMATION OBTAINED FROM DRAWING 12294 BLS+TOPO AS PREPARED BY ASHENHURST NOUWENS & ASSOCIATES ON DECEMBER 17, 2012.
2. ALL DISTURBED GRASSED AREAS MUST BE REINSTATED WITH 150 mm TOPSOIL AND NURSERY SOD PER OPSS 803.
3. ALL RESTORATION MUST BE COMPLETED TO REGION OF HALTON AND CITY OF BURLINGTON STANDARDS.
4. EROSION CONTROL MEASURES AS SHOWN ON DRAWING 15002–ESCP SHALL BE IN PLACE PRIOR TO ANY SITE PREPARATION.
5. ALL CATCH BASINS ADJACENT TO THE SITE SHALL BE PROTECTED WITH SILT SACS PER TYPICAL DETAIL THIS DRAWING.
6. ROOF WATER LEADERS ARE TO BE CONNECTED TO STORM SEWERS. DOWNSPOUTS, AS INDICATED ON PLAN, SHALL OUTLET TO A PERMEABLE SURFACE VIA A CONCRETE SPLASHPAD A MINIMUM OF 0.6m AWAY FROM THE FOUNDATION.
7. CONNECTION TO EXISTING SANITARY AND WATER SERVICES SHALL BE AS PER REGION OF HALTON STANDARDS.

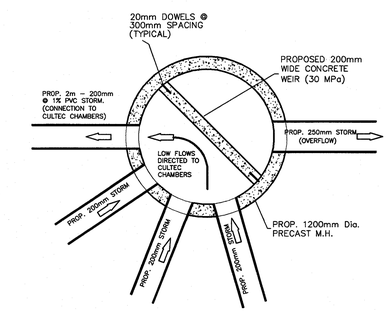
STORM
1. ALL CATCH BASIN FRAMES AND GRATES SHALL BE IN ACCORDANCE WITH OPSD 400.010.
2. STORM SEWER SHALL BE PVC SDR–35 PIPE.
3. MANHOLE FRAMES AND COVERS SHALL BE AS PER OPSD–401.010, CLOSED, STAMPED "DANGER–STORM".
4. CATCH BASINS IN GRASSED AREAS SHALL BE SUMPLESS.

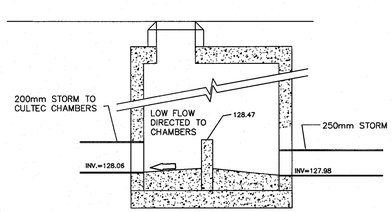
SANITARY
1. PVC PIPE MAY BE USED FOR LATERAL CONNECTIONS.
2. FOR PVC LATERAL CONNECTIONS, PIPE SHALL BE GREEN IN COLOUR AND DR 28 SHALL BE USED. INSTALLATION SHALL BE AS PER OPSD 1006.010 & 1006.020 AS AMENDED AND HALTON REGION STANDARD DRAWINGS RH 302.01 & 302.02.
3. JOINTS AND BEDDING SHALL BE EQUIVALENT TO THE JOINTS AND BEDDING SPECIFIED FOR MAIN LINE SEWER PIPE.

WATER
1. EXISTING WATER SERVICE CONNECTION AND CURB STOP TO BE REUSED FROM PROPERTY LINE TO WATERMAIN WHERE APPROVED BY CITY OF BURLINGTON AND REGION OF HALTON.
2. ALL NEW WATER SERVICES TO BE TYPE 'K' COPPER.
3. ALL WATER SERVICE SHALL BE PROTECTED WITH A MINIMUM 11KG ZINC ANODE INSTALLED IN ACCORDANCE WITH OPSS 442 AND OPSD 1109.010 & 1109.011.
4. ALL SACRIFICIAL ANODES SHALL CONFORM TO ASTM B–418 TYPE II AND SHALL BE MADE OF HIGH GRADE ELECTROLYTIC ZINC, 99.99% PURE.

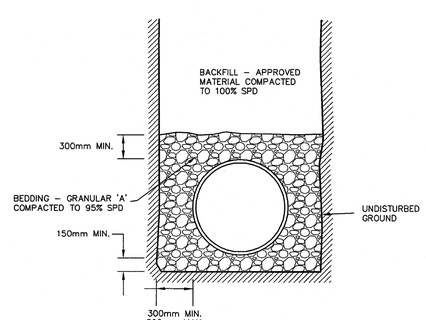
ROADWAYS, DRIVEWAY & SIDEWALKS.
1. PROPOSED ENTRANCE SHALL BE AS PER CITY OF BURLINGTON STANDARD S–110.
2. CONTRACTOR TO CONTACT MR. DOUG CONWAY OF THE CITY OF BURLINGTON (905–815–3338) FOR ENTRANCE PERMIT REQUIREMENTS. CURB CUT TO BE COMPLETED BY CITY–APPROVED CONTRACTOR.
3. SECTIONS OF 3m LONG WEEPING TILE TO BE INSTALLED IN GRANULAR BASE AND CONNECTED TO CATCH BASIN, TO DRAIN SOIL AROUND PROPOSED CATCH BASINS.
4. PROPOSED CONCRETE SIDEWALK, AS PER S–121, TO BE 150mm THICK ON 150mm GRANULAR 'A' BASE. CONTRACTION JOINTS SHALL BE SAWCUT AS PER STANDARD S–121.

NOTE: PRIVATE SEWERS HAVE BEEN DESIGNED IN ACCORDANCE WITH CHAPTER 5 OF MOE PIBS 6879, "Design Guidelines for Sewage Works".

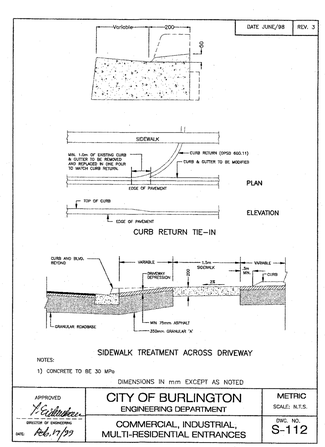


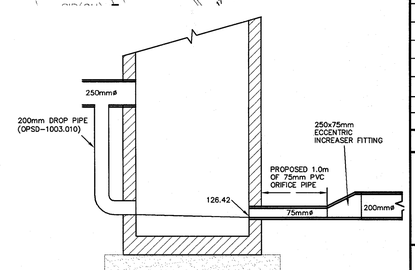




C.B.M.H. #2 – FLOW SPLITTER DETAILS
(N.T.S.)




TYPICAL TRENCH DETAIL
(N.T.S.)




C.B.M.H. #1 – ORIFICE PIPE DETAILS
(N.T.S.)

SP 4623