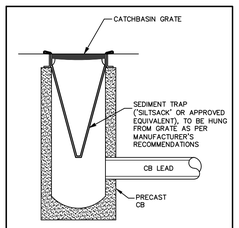
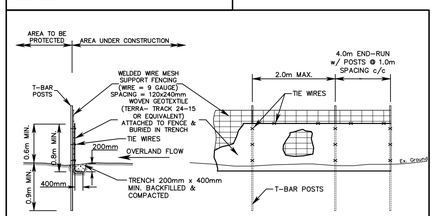
DWG No.: –C101

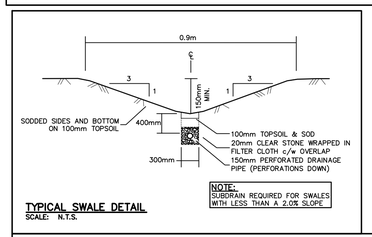
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STREET CATCH BASIN SEDIMENT TRAP
SCALE: N.T.S.

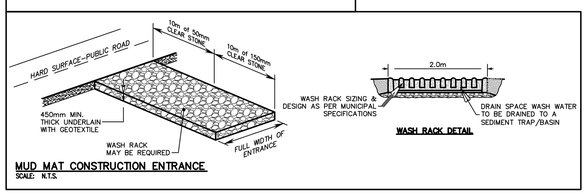


HEAVY-DUTY SILT FENCE (PER OPSD 219.131)
SCALE: N.T.S.



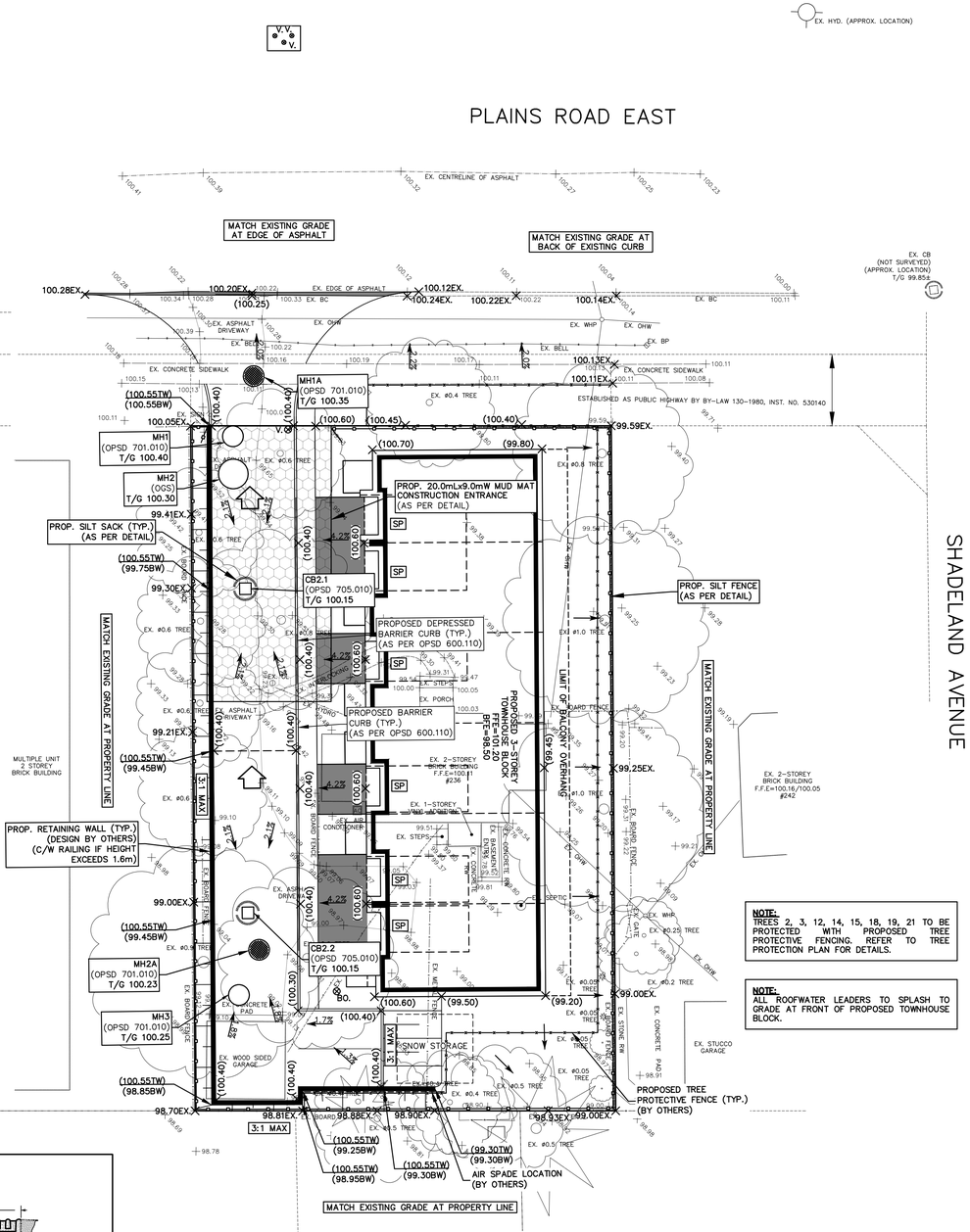
NOTE:
SUBDRAIN REQUIRED FOR SWALES WITH LESS THAN A 2.0% SLOPE

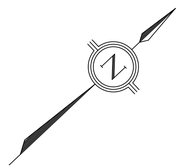
TYPICAL SWALE DETAIL
SCALE: N.T.S.

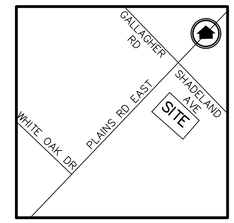


MUD MAT CONSTRUCTION ENTRANCE
SCALE: N.T.S.

WASH RACK DETAIL







KEY MAP
N.T.S.

LEGEND:

- EXISTING GROUND ELEVATION
- (209.00) PROPOSED GROUND ELEVATION
- 209.00EX PROPOSED ELEVATION TO MATCH EXISTING
- (209.00)TW PROPOSED ELEVATION TO MATCH TOP OF WALL
- 2.0% PROPOSED DIRECTION OF SHEET FLOW
- EXISTING CATCHBASIN
- EXISTING STORM/SANITARY MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED STORM/SANITARY MANHOLE
- PROPOSED SILTATION CONTROL FENCE
- PROPOSED TREE PROTECTION FENCE
- PROPOSED CATCHBASIN SILT SACK
- OVERLAND FLOW ROUTE
- PROPOSED GATE VALVE
- PROPOSED DRAINAGE BREAK LINE
- PROPOSED SWALE

BENCH MARK NOTE:
CITY OF BURLINGTON BENCHMARK NO. 298
ELEVATION=97.915 METRES (CGVD28:78 ADJUSTMENT)
BENCHMARK SET ON CITY PLATE ON SOUTH FACE AT SOUTHEAST CORNER OF GELNVIEW
PUBLIC SCHOOL NO. 143 TOWNSEND AVENUE

NOTES TO CONTRACTOR:

1. INSPECTION
CONTRACTOR IS RESPONSIBLE FOR CONTACTING ENGINEER 48 HRS PRIOR TO COMMENCING WORK TO ARRANGE FOR INSPECTION. ENGINEER TO DETERMINE DEGREE OF INSPECTION AND TESTING REQUIRED FOR CERTIFICATION OF UNDERGROUND SERVICE INSTALLATION AS MANDATED BY ONTARIO BUILDING CODE DIVISION C, PART 1, SECTION 1.2.2, GENERAL REVIEW. FAILURE TO NOTIFY ENGINEER WILL RESULT IN EXTENSIVE POST CONSTRUCTION INSPECTION AT CONTRACTORS EXPENSE.
2. CONFIRMATION OF EXISTING INVERTS
72 HOURS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS TO LOCATE, EXPOSE AND VERIFY INVERTS OF EXISTING UTILITIES AND EXISTING SEWERS AT CONNECTION POINTS. SHOULD THE CONTRACTOR PROCEED WITHOUT COMPLETING THESE LOCATES, EXTRA COSTS RESULTING FROM DELAYS AND STANDBY TIME WILL NOT BE CONSIDERED.

NOTE:
TREES 2, 3, 12, 14, 15, 18, 19, 21 TO BE PROTECTED WITH PROPOSED TREE PROTECTIVE FENCING. REFER TO TREE PROTECTION PLAN FOR DETAILS.

NOTE:
ALL ROOFWATER LEADERS TO SPLASH TO GRADE AT FRONT OF PROPOSED TOWNHOUSE BLOCK.

NO.	DATE	BY	REVISIONS
02	APR 15/24	AS	REVISED AS PER TREE PROTECTION PLAN
01	MAR 28/24	AS	REVISED AS PER CITY AND REGIONAL COMMENTS

NOTES TO CONTRACTOR:

1. CONTRACTORS AND SUBCONTRACTORS SHALL NOT SCALE FROM THIS DRAWING.
2. ANY INCONSISTENCIES AND OMISSIONS FOUND ON THE DRAWINGS MUST BE REPORTED TO THE ENGINEER FOR CLARIFICATION BEFORE COMMENCING THE WORK.
3. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND ELEVATIONS AND REPORT ALL FINDINGS TO THE ENGINEER. ONCE CONSTRUCTION HAS COMMENCED, THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS.
4. THE POSITIONS OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVER-GROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE DRAWINGS. WHERE SHOWN ON THE DRAWING, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM THEMSELVES OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
5. ALL DRAWINGS REMAIN THE PROPERTY OF THE ENGINEER AND SHALL NOT BE REPRODUCED, REUSED, OR REVISED WITHOUT THE WRITTEN CONSENT OF S. LLEWELLYN AND ASSOCIATES LIMITED.

DESIGN	AS	CHK'D	SL	DATE Apr. 12, 24
DRAWN	AS	CHK'D	SL	

SCALE 1:200 (0, 5, 10, 20)

APPROVALS

STAMP

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CONSULTING ENGINEERS
Tel. (905) 631-6978
Website: www.sla.on.ca
email: info@sla.on.ca
3228 South Service Road, Suite #105 East Wing, Burlington, Ont., L7N 3H8

CLIENT
CORAL GABLE HOMES

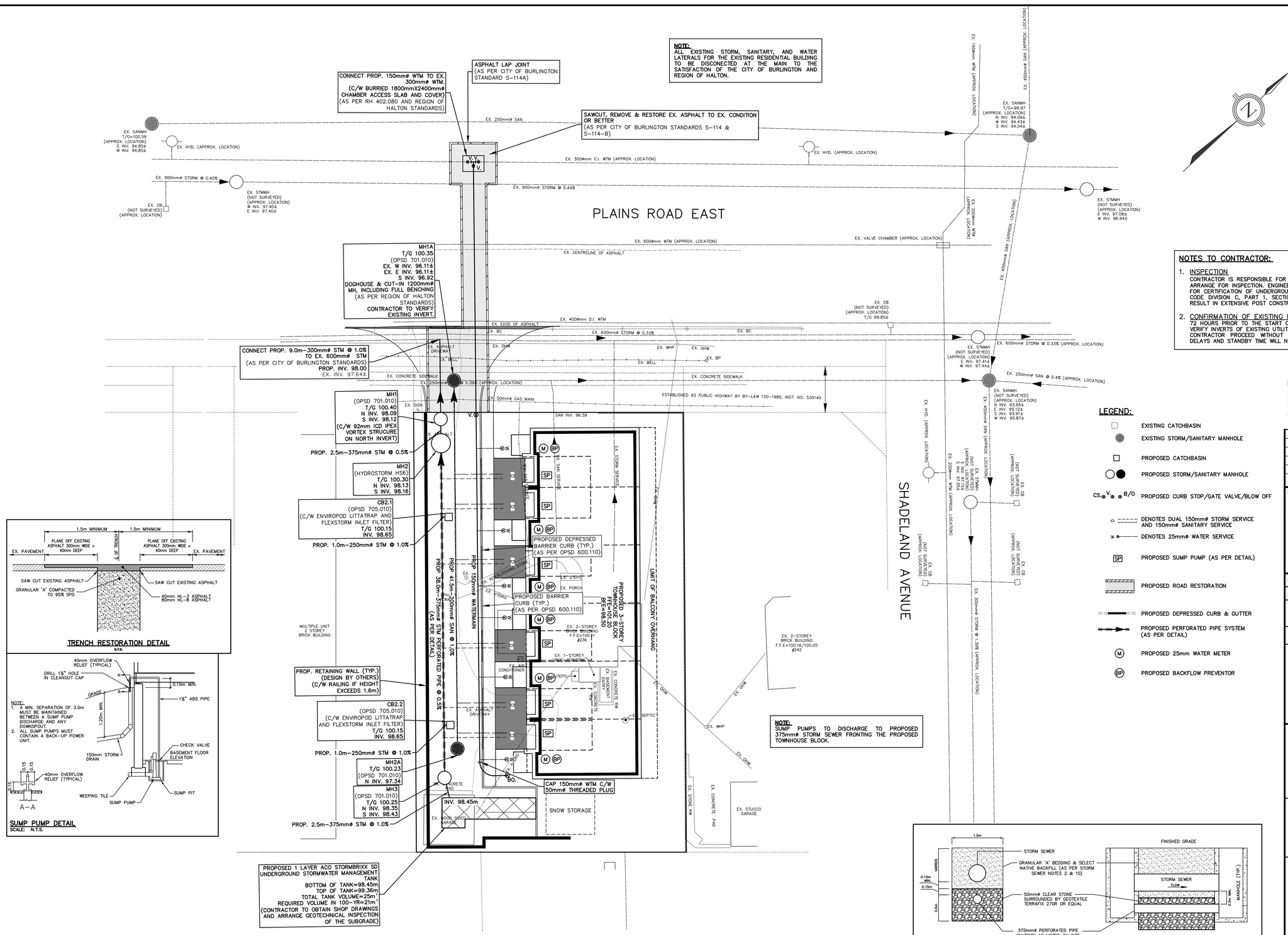
PROJECT NAME
236 PLAINS ROAD EAST
BURLINGTON, ON

TITLE
PRELIMINARY GRADING AND EROSION CONTROL PLAN

PROJECT No. 23057
DRAWING No. C101

DWG No.: –C101

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NOTES TO CONTRACTOR:

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CONTRACTOR IS RESPONSIBLE FOR CONTACTING ENGINEER 48 HRS PRIOR TO COMMENCING WORK TO ARRANGE FOR INSPECTION. ENGINEER TO DETERMINE DEGREE OF INSPECTION AND TESTING REQUIRED FOR CERTIFICATION OF UNDERGROUND SERVICE INSTALLATION AS MANDATED BY ONTARIO BUILDING CODE DIVISION C, PART 1, SECTION 1.2.2, GENERAL REVIEW. FAILURE TO NOTIFY ENGINEER WILL RESULT IN EXTENSIVE POST CONSTRUCTION INSPECTION AT CONTRACTORS EXPENSE.

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BENCH MARK NOTE:

CITY OF BURLINGTON BENCHMARK NO. 298
ELEVATION=97.915 METRES (CGVD28:78 ADJUSTMENT)
BENCHMARK SET ON CITY PLATE ON SOUTH FACE AT SOUTHEAST CORNER OF GELNVIEW
PUBLIC SCHOOL NO. 143 TOWNSEND AVENUE

LEGEND:

- EXISTING CATCHBASIN
- EXISTING STORM/SANITARY MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED STORM/SANITARY MANHOLE
- CS V B/O — PROPOSED CURB STOP/GATE VALVE/BLOW OFF
- DENOTES DUAL 150mmø STORM SERVICE AND 150mmø SANITARY SERVICE
- DENOTES 25mmø WATER SERVICE
- SP — PROPOSED SUMP PUMP (AS PER DETAIL)
- PROPOSED ROAD RESTORATION
- PROPOSED DEPRESSED CURB & GUTTER
- PROPOSED PERFORATED PIPE SYSTEM (AS PER DETAIL)
- M — PROPOSED 25mm WATER METER
- BP — PROPOSED BACKFLOW PREVENTOR

TRENCH RESTORATION DETAIL
N.T.S.

NOTE:
1. A MIN. SEPARATION OF 3.0m MUST BE MAINTAINED BETWEEN A SUMP PUMP DISCHARGE AND ANY DOWNSPOUT.
2. ALL SUMP PUMPS MUST CONTAIN A BACK-UP POWER UNIT.

SUMP PUMP DETAIL
SCALE: N.T.S.

PERFORATED PIPE SYSTEM DETAIL
SCALE: N.T.S.

NO.	DATE	BY	REVISIONS
02	APR 15/24	AS	REVISED AS PER TREE PROTECTION PLAN
01	MAR 28/24	AS	REVISED AS PER CITY AND REGIONAL COMMENTS

NOTES TO CONTRACTOR:
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DESIGN	AS	CHK'D	SL
DRAWN	AS	CHK'D	SL

DATE: Apr. 12, 24

SCALE 1:200 — 0 5 10 20

APPROVALS

STAMP

S. LLEWELLYN & ASSOCIATES LIMITED
CONSULTING ENGINEERS
Tel. (905) 631-6978
Website: www.sla.on.ca
email: info@sla.on.ca
3228 South Service Road, Suite #105 East Wing, Burlington, Ont., L7N 3H8

CLIENT
CORAL GABLE HOMES

PROJECT NAME
236 PLAINS ROAD EAST
BURLINGTON, ON

TITLE
PRELIMINARY SITE SERVICING PLAN

PROJECT No. 23057

DRAWING No. C102

DWG No.: —C102

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GENERAL NOTES

1. THIS/THESE PLAN(S) IS/ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SEALED BY THE ENGINEER AND INDICATED ISSUED FOR CONSTRUCTION ON THE DRAWING.
2. THIS/THESE PLAN(S) IS/ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF S. LLEWELLYN AND ASSOCIATES LIMITED.
3. INFORMATION REGARDING ANY EXISTING SERVICES AND/OR UTILITIES SHOWN ON THE APPROVED SET OF CONSTRUCTION DRAWINGS ARE FURNISHED AS THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL INTERPRET THIS INFORMATION AS HE SEES FIT WITH THE UNDERSTANDING THAT THE OWNER AND HIS AGENTS DISCLAIM ALL RESPONSIBILITY FOR ITS ACCURACY AND /OR SUFFICIENCY. THE CONTRACTOR SHALL ASSUME LIABILITY FOR ANY DAMAGE TO EXISTING WORKS.
4. EXISTING TOPOGRAPHIC AND LEGAL INFORMATION TAKEN FROM PLANS PREPARED BY MACKAY, MACKAY & PETERS LIMITED, DATED MAY 3, 2023.
5. EXISTING TOPOGRAPHIC INFORMATION TAKEN FROM PLANS PREPARED BY MACKAY, MACKAY & PETERS LIMITED, DATED MAY 3, 2023.
6. EXISTING LEGAL INFORMATION TAKEN FROM PLANS PREPARED BY MACKAY, MACKAY & PETERS LIMITED, DATED MARCH 6, 2024.
7. SITE PLAN INFORMATION TAKEN FROM PLANS PREPARED BY MACKAY, MACKAY & PETERS LIMITED, DATED NOVEMBER 1, 2023.
8. THIS/THESE PLAN(S) TO BE READ IN CONJUNCTION WITH THE FUNCTIONAL SERVICING REPORTS (FSR) REPORT PREPARED BY S. LLEWELLYN AND ASSOCIATES LIMITED, DATED NOVEMBER 2023.
9. THIS (THESE) PLAN(S) TO BE USED FOR SERVICING AND GRADING ONLY, FOR BUILDING LOCATION REFER TO THE SITE PLAN.
10. MUNICIPAL APPROVAL OF THESE DRAWINGS IS FOR MATERIAL AND COMPLIANCE WITH CITY OF BURLINGTON AND PROVINCIAL SPECIFICATIONS AND STANDARDS ONLY. APPROVAL AND INSPECTION OF THE WORKS BY THE CITY OF BURLINGTON AND REGION OF HALTON STAFF DOES NOT CERTIFY THE LINE AND GRADE OF THE WORKS NOR RELIEVE THE CONTRACTOR OF CERTIFICATION OF ALL WORKS BY THE OWNER'S ENGINEER.
11. ALTERNATE MATERIALS MAY BE ACCEPTABLE PROVIDED WRITTEN APPROVAL HAS FIRST BEEN OBTAINED FROM THE CITY OF BURLINGTON, REGION OF HALTON AND THE THE ENGINEER.
12. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE OWNER'S BONDED CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS NORMALLY REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS, BUT NOT LIMITED TO THE FOLLOWING:
    - ROAD CUT PERMITS
    - SEWER PERMITS
    - APPROACH APPROVAL PERMITS
    - RELOCATION OF SERVICES
    - COMMITTEE OF ADJUSTMENT
    - ENCROACHMENT AGREEMENTS
12. PRIOR TO CONSTRUCTION THE CONTRACTOR MUST:
    i. CHECK AND VERIFY ALL DIMENSIONS AND EXISTING ELEVATIONS WHICH INCLUDE BUT ARE NOT LIMITED TO THE BENCHMARK ELEVATIONS, EXISTING SERVICE CONNECTIONS, EXISTING INVERTS AND REPORT FINDING IN WRITING TO THE ENGINEER.
    ii. OBTAIN ALL UTILITY LOCATES AND REQUIRED PERMITS AND LICENSES.
    iii. VERIFY ALL FINISHED FLOOR ELEVATIONS AND BASEMENT FLOOR ELEVATIONS WHICH MAY APPEAR ON THESE PLANS COMPLY WITH THE FINAL ARCHITECTURAL DRAWINGS.
    iv. CONFIRM ALL DRAWINGS USED FOR CONSTRUCTION ARE OF THE MOST RECENT REVISION.
    v. NOTIFY THE ENGINEER OF THE PROPOSED CONSTRUCTION SCHEDULE FOR COORDINATION OF NECESSARY INSPECTIONS.
13. **THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE ENGINEER 48 HOURS PRIOR TO THE COMMENCING SITE WORKS TO ARRANGE FOR INSPECTION. THE ENGINEER SHALL DETERMINE THE EXTENT OF INSPECTION AND TESTING REQUIRED FOR CERTIFICATION OF THE UNDERGROUND SERVICE INSTALLATION AS MANDATED BY THE ONTARIO BUILDING CODE DIVISION C, PART 1, SECTION 1.2.2, GENERAL REVIEW. FAILURE TO MAKE SUITABLE ARRANGEMENTS FOR INSPECTION WILL LEAD TO POST CONSTRUCTION TESTING AND INSPECTION AS DETERMINED BY THE ENGINEER, THE COSTS OF WHICH INCLUDING ANY DELAYS IN CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR. FULL PAYMENT FOR UN-INSPECTED WORKS MAY BE WITHHELD UNTIL THE COMPLETION OF THE POST CONSTRUCTION INSPECTION AND TESTING TO THE SATISFACTION OF THE ENGINEER.**
14. INSPECTION BY THE OWNER'S ENGINEER IS FOR CERTIFICATION AND GENERAL CONFORMANCE PURPOSES AND DOES NOT CERTIFY LINE AND GRADE OR IMPLY AN ASSURANCE OF QUALITY CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THE INSTALLATION OF THE WORKS TO PROPER LINE, GRADE AND QUALITY TO CURRENT INDUSTRY STANDARDS.
15. ANY UTILITY RELOCATIONS AND RESTORATIONS DUE TO THE DEVELOPMENT TO BE UNDERTAKEN AT THE EXPENSE OF THE OWNER/DEVELOPER AND SHALL BE COORDINATED BY THE CONTRACTOR.
16. ALL RESTORATIONS AND RECONSTRUCTIONS SHALL BE TO COMPLETED TO MATCH EXISTING CONDITIONS OR BETTER AND ARE TO BE PERFORMED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF BURLINGTON.
17. SERVICING CONTRACTOR TO MAINTAIN A "CONFINED TRENCH CONDITION" IN ALL SEWER AND WATERMAIN INSTALLATION TRENCHES.
18. THE SITE SERVICING CONTRACTOR SHALL TERMINATE ALL SERVICES 1.0m FROM THE BUILDING FACE.
19. NO BLASTING WILL BE PERMITTED.

SEWERS

1. SANITARY AND STORM SEWERS
    A. CONSTRUCTION OF SANITARY & STORM SEWERS & PRIVATE DRAINS SHALL BE IN ACCORDANCE WITH CITY STANDARDS & SPECIFICATIONS (LATEST EDITION) AND MINISTRY OF ENVIRONMENT (MOE) GUIDELINES (LATEST EDITION).
    B. COVER AND BEDDING MATERIAL FOR CONCRETE PIPE SHALL BE GRANULAR 'A' MATERIAL AS PER OPSD 802.030 TO 802.033 AND 802.050 TO 802.053, CLASS 'B' BEDDING.
    C. COVER AND BEDDING MATERIAL FOR PVC PIPE SHALL BE GRANULAR 'A' MATERIAL AS PER OPSD 802.010 TO 802.014.
    D. PVC PIPE WILL REQUIRE SPECIAL CONSTRUCTION PROCEDURES AS PER CITY SPECIFICATIONS.
    E. ALL SEWERS TO BE VIDEO INSPECTED AS PER OPSS 409.
    F. ALL SEWERS TO BE FLUSHED PRIOR TO VIDEO INSPECTION.
    G. MANHOLE FRAMES AND COVERS SHALL BE AS PER OPSD 401.010 (STORM-OPEN) (SANITARY-CLOSED). THE WORDS "STORM" AND "SANITARY" ARE TO BE CAST INTO THEIR RESPECTIVE MANHOLE COVERS.
    H. CATCHBASIN FRAMES AND GRATES SHALL BE AS PER OPSD 400.010 OR 400.020 IN PAVED AREAS AND BEEHIVE GRATES AS PER COB STD. S-176 IN LANDSCAPED AREAS. DITCH INLET GRATES SHALL BE AS PER COB STD. S-173.
    I. ALL REAR LOT CATCHBASINS SHALL BE AS PER OPSD 705.010, AND SUMPLESS WITH NO GOSS TRAPS.
    J. SEWERS 100mm TO 150mm IN DIAMETER SHALL BE PVC PIPE, CSA B182.2, SDR-28.
    K. SANITARY SEWERS 200mm TO 375mm IN DIAMETER SHALL BE PVC PIPE, CSA B182.2, SDR-35.
    L. STORM SEWERS 250mm TO 375mm IN DIAMETER SHALL BE PVC PIPE, CSA B182.2, SDR-35.
    M. STORM SEWERS 450mm IN DIAMETER OR GREATER SHALL BE CONCRETE PIPE, CSA A257.2 (AS SPECIFIED).
    N. ALL PVC STORM SEWERS ARE TO BE TESTED FOR DEFLECTION (MANDREL PASSAGE) AFTER INSTALLATION AS PER OPSS 410. SANITARY SEWERS SHALL BE TESTED FOR DEFLECTION (MANDREL PASSAGE) AND LEAKAGE (LOW AIR PRESSURE METHOD) AS PER OPSS 410. PRIOR TO ASSUMPTION BY THE CITY, PIPE DEFLECTION TESTING SHALL BE REPEATED.
2. PRIVATE DRAINS
    A. PRIVATE DRAINS TO BE 150mmø PVC PIPE, CSA B182.1 M-1983, SDR 28. STORM PIPE SHALL BE WHITE AND SANITARY SHALL BE GREEN. WOOD MARKING AT END OF SANITARY PRIVATE DRAIN SHALL BE PAINTED RED.
    B. PRIVATE DRAIN CONNECTIONS TO BE LOCATED AS PER COB STD. S-185.
    C. 'D' DENOTES DUAL PRIVATE DRAIN CONNECTION (SANITARY & STORM). 'SA' DENOTES SINGLE SANITARY PRIVATE DRAIN. 'ST' DENOTES SINGLE STORM PRIVATE DRAIN.
    D. COVER AND BEDDING MATERIAL FOR PRIVATE DRAINS SHALL BE GRANULAR 'A' INSTALLED AS PER OPSD 802.010 OR 802.013.
    E. MINIMUM FALL FOR PRIVATE DRAINS TO BE 2.0%.
    F. SANITARY PRIVATE DRAINS ARE TO CONTAIN A MIN. COVER OF 2.15m BELOW PROPERTY LINE OR AS DETAILED.
    G. STORM PRIVATE DRAINS ARE TO CONTAIN A MIN. COVER OF 1.50m BELOW PROPERTY LINE OR AS DETAILED.
    H. BUILDING RAINWATER LEADERS SHALL NOT BE CONNECTED TO THE STORM PRIVATE DRAIN BUT SHALL DISCHARGE ONTO THE GROUND SURFACE VIA SPLASH PADS.
    I. SUMP PUMPS WITH CHECK VALVES SHALL BE INSTALLED IN EACH DWELLING TO PUMP THE BUILDING WEEPING TILES TO A STORM PRIVATE DRAIN OR THE GROUND SURFACE. THE SUMP OUTLET PIPE IS TO CONTAIN A 'GOOSENECK' AND SHALL EXTEND A MINIMUM OF 150mm ABOVE THE PROPOSED GRADE AT THE DWELLING (BASEMENT CEILING) PRIOR TO DISCHARGING TO THE STORM PRIVATE DRAIN OR SURFACE.
    J. SUMP PUMP DISCHARGES SHOULD BE SEPARATED BY A MINIMUM OF 1.8m FROM ROOF LEADER/DOWNSPOUTS AND SHOULD NOT DISCHARGE TO A RESIDENTIAL SIDE YARD OF A DWELLING.

WATERMAINS AND WATER SERVICES

1. WATERMAINS
    A. CONSTRUCTION OF WATERMAINS & PRIVATE SERVICES SHALL BE IN ACCORDANCE WITH CITY STANDARDS & SPECIFICATIONS (LATEST EDITION) AND MINISTRY OF ENVIRONMENT (MOE) GUIDELINES (LATEST EDITION).
    B. TO BE INSTALLED TO A MINIMUM DEPTH OF 1.7m BELOW PROPOSED CENTERLINE ROAD GRADE ON ALL ROADS.
    C. PVC PIPE IN SIZES 100mm THROUGH 300mm SHALL BE CLASS 150 DR18 CONFORMING TO AWWA C900.
    D. TRACER WIRE SHALL BE INSTALLED ON ALL NEW WATERMAIN AND SERVICES GREATER THAN 50mm IN DIAMETRE. A SOLID 10 GAUGE TWU COPPER WIRE SHALL BE INSTALLED ALONG THE TOP OF THE PIPE, STRAPPED TO THE PIPE AT 6m INTERVALS.
    E. MOLDED PVC FITTINGS FOR PIPE SIZES 100mm TO 300mm SHALL CONFORM TO AWWA C900 AND CERTIFIED TO CSA B137.2.
    F. FABRICATED FITTINGS 250mm AND 300mm SHALL BE MANUFACTURED FROM SEGMENTS OF AWWA C900, CLASS 150 (DR18) PVC PIPE, BONDED TOGETHER AND OVER-WRAPPED WITH FIBREGLASS-REINFORCED POLYESTER TO MEET THE REQUIREMENTS OF CSA B137.3.
    G. WHERE METAL FITTINGS ARE TO BE USED ON PVC MAINS SUFFICIENT CATHODIC PROTECTION MUST BE PROVIDED AS PER THE FOLLOWING REQUIREMENTS:
        w. ONE (1) 5.4 kg ZINC ANODE WILL BE PROVIDED FOR EVERY 1000 m TRACER WIRE.
        ii. ONE (1) 5.4 kg ZINC ANODE IS TO BE INSTALLED ON ALL COPPER SERVICE CONNECTIONS, BY MEANS OF A SERVICE GROUND CLAMP, COATED WITH T.C. MASTIC OR WRAPPED WITH SCOTCHFILL ELECTRICAL PUTTY OR APPROVED EQUAL. THE ANODE IS TO BE PLACED AT LEAST 1.0 m AWAY FROM THE WATER SERVICE AND AS DEEP AS THE SERVICE AND WITHIN 1.0 m OF THE CURB STOP.
        iii. ONE (1) 10.8 kg ZINC ANODE IS TO BE INSTALLED ON EACH HYDRANT. IF PVC PIPE IS USED BETWEEN THE HYDRANT TEE OR ANCHOR TEE AND THE HYDRANT BOOT, TWO (2) 10.8 kg ZINC ANODES SHALL BE USED.
        iv. ONE (1) 5.4 kg ZINC ANODE IS TO BE INSTALLED ON EVERY VALVE, AND EVERY METALLIC FITTING CONNECTED TO A PVC WATERMAIN. FITTINGS INCLUDE BENDS, TEES, CROSSES, SLEEVES, REDUCERS, PLUGS, CAPS, JOINT RESTRAINERS AND COUPLINGS.
        v. ONE (1) 14.5 KG MAGNESIUM ANODE IS TO BE CONNECTED TO THE FIRST LENGTH OF AN EXISTING METALLIC WATERMAIN PIPE WHEN CONNECTED TO A NEW PVC WATERMAIN.

    ALL SACRIFICIAL ZINC ANODES SHALL CONFORM TO ASTM B-418 TYPE II AND SHALL BE MADE OF HIGH GRADE ELECTROLYTIC ZINC, 99.99 % PURE. FOR ALL ANODES CONNECTED TO NEW PIPE, FITTINGS OR TO EXISTING METALLIC WATERMAINS, A CADWELDER AND CA-15 OR EQUIVALENT CARTRIDGE SHALL BE USED. ALL THERMITE WELD CONNECTIONS TO BE COATED WITH T.C. MASTIC (TAPECOAT OF CANADA), ROYBOND 747 PRIMER AND ROYSTON 'HANDY CAP' OR APPROVED EQUAL.
    H. WATERMAIN SHALL CONTAIN A MINIMUM OF 150mm GRANULAR 'A' BEDDING AND SHALL CONFORM TO OPSS MUNI. 401. BACKFILL SHALL BE 100% SPMDD BENEATH ROADS, SIDEWALKS, CURB AND 95% SPMDD ELSEWHERE AND CONFORM TO OPSS MUNI. 401 GRANULAR 'B' TYPE I OR II OR APPROVED SELECT NATIVE. LOOSE MATERIAL SHALL BE COMPACTED TO 95% SPMDD BEFORE SUBSEQUENT LAYERS ARE PLACED.
    I. WATERMAIN DEFLECTION FOR PVC PIPE
        i. MAXIMUM ALLOWABLE DEFLECTION OF 1.5 DEGREES PER JOINT UP TO 250mm DIAMETER (160mm PER 6.1m PIPE LENGTH) AND 1.2 DEGREES FOR 300mm DIAMETER (128mm PER 6.1m PIPE LENGTH) SHALL NOT BE EXCEEDED.
        ii. ALL JOINTS SHALL BE DEFLECTED AN EQUAL AMOUNT.
    J. MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAINS AND SEWERS AND WATER SERVICES SHALL BE 2.5m. VERTICAL SEPARATION BETWEEN WATERMAINS AND SEWERS WHICH CROSS MUST BE 500mm BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF THE SEWER, WITH THE LENGTH OF WATER PIPE BEING CENTRED AT THE POINT OF CROSSING SUCH THAT JOINTS IN THE WATERMAIN WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER, CROSSING PERPENDICULAR IF POSSIBLE.
    K. ALL EXISTING WATER METERS BEING ABANDONED AS PART OF THE PROPOSED DEVELOPMENT MUST BE REMOVED AND SALVAGED BY THE REGION OF HALTON. THE SERVICING CONTRACTOR SHOULD CONTACT THE PUBLIC WORKS DEPARTMENT AT (905) 825-6000 TO ARRANGE FOR THE WORK.
2. FLUSHING, SWABBING AND TESTING
    A. ALL NEW WATERMAINS ARE TO BE SWABBED IN ACCORDANCE WITH REGION SPECIFICATIONS.
    B. A REDUCED PRESSURE ZONE BACKFLOW PREVENTER (WATTS SERIES 909 OR APPROVED EQUAL) IS REQUIRED ON THE TEMPORARY SUPPLY LINES USED FOR FILLING AND FLUSHING OR SWABBING OF WATERMAINS.
    C. UPON COMPLETION OF INSTALLATION, THE CONTRACTOR SHALL PERFORM A PRESSURE TEST ON THE WATERMAINS AS PER REGION OF HALTON STANDARDS. WATERMAIN IS TO BE TESTED PRIOR TO CONNECTION TO EXISTING WATERMAINS USING TEMPORARY CAPS OR PLUGS. PIPE CLOSURES, WHERE REQUIRED, ARE TO BE SUPPLIED BY THE CONTRACTOR. THE CONTRACTOR WILL ALSO SUPPLY AND INSTALL ALL ADAPTOR PIECES IN ORDER TO CONNECT TO EXISTING WATERMAINS.
3. WATER SERVICES
    A. 'W' DENOTES WATER SERVICE CONNECTION. WATER SERVICE TO BE 25mm DIA. TYPE K' SOFT COPPER OR AS DETAILED.
    B. WATER SERVICES SHALL CONTAIN A MINIMUM OF 150mm GRANULAR 'A' BEDDING AND SHALL CONFORM TO OPSS MUNI. 401.
    C. WATER SERVICES SHALL BE LOCATED 0.5m OFFSET FROM THE LOT LINE AND ON THE OPPOSITE SIDE OF THE SANITARY AND STORM LATERALS.
    D. WATER SERVICES SHALL BE INSTALLED A MINIMUM OF 1.0m BEYOND THE CURB STOP ON PRIVATE PROPERTY.
4. VALVES & VALVE BOXES
    A. ALL VALVE BOXES TO BE SET TO PROPOSED GRADES.
    B. 100mm TO 300mm GATE VALVE & VALVE BOXES AS PER RH-406.020.
    C. TRACER WIRE SHALL BE INSTALLED BETWEEN EACH VALVE AND/OR THE END OF THE NEW WATERMAIN. JOINTS IN THE TRACER WIRE BETWEEN VALVES ARE DISCOURAGED, BUT WHEN NECESSARY, SPLICING MUST BE WATERPROOFED (OPSD 1109.025) OR USE OUTDOOR WATERPROOF ELECTRICAL CONNECTORS AND DONE IN SUCH A WAY TO ENSURE ELECTRICAL CONDUCTIVELY. AT EACH VALVE, A LOOP OF WIRE IS TO BE BROUGHT UP OUTSIDE THE VALVE BOX TO THE TOP OF THE BOX, AS PER RH-406.010.
5. ANCHOR BLOCKS,
    A. FOR 100mm TO 300mm WATERMAINS STANDARD CONCRETE ANCHOR BLOCKS AS PER OPSD 1103.010 AND 1103.020

GRADING NOTES

F. ALONG ADJOINING PROPERTIES GRADE TO MEET EXISTING OR PROPOSED ELEVATIONS WITH SODDED SLOPES (MIN. 3H TO 1V) AND/OR RETAINING WALLS AS SPECIFIED.
G. ALL RETAINING WALLS, WALKWAYS, CURBS, ETC., SHALL BE PLACED A MIN. OF 0.45m OFF THE PROPERTY LINE. ALL WALLS 1.0M OR HIGHER SHALL BE DESIGNED BY A P.ENG.
H. SHOULD A RETAINING WALL BE REQUIRED, THE TOP OF WALL ELEVATIONS SHALL BE SET 150mm ABOVE THE PROPOSED SIDE YARD SWALES.
I. RETAINING WALLS 0.6m IN HEIGHT OR GREATER REQUIRE CONSTRUCTION OF A FENCE OR GUARD RAIL AT THE TOP OF THE REAR OF THE WALL. GUARDS FOR RETAINING WALLS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF EXTERIOR GUARDS AS CONTAINED IN THE ONTARIO BUILDING CODE.
J. TOP OF FOUNDATION WALLS FOR BUILDINGS SHALL BE 150mm (MIN) ABOVE FINISHED GRADE.
K. DRIVEWAY SLOPES SHALL NOT BE LESS THAN 2% AND NOT MORE THAN 5.0% UNLESS OTHERWISE SPECIFIED. REVERSED SLOPED DRIVEWAYS IN NEW DEVELOPMENTS ARE NOT PERMITTED.
L. IF GRADING IS REQUIRED ON LANDS ADJACENT TO THE DEVELOPMENT WHICH ARE NOT OWNED BY THE DEVELOPER, THEN THE DEVELOPER MUST OBTAIN WRITTEN PERMISSION FROM THE ADJACENT PROPERTY OWNER TO ALLOW THE DEVELOPER TO GRADE ON THE ADJACENT LANDS, OTHERWISE RETAINING WALLS MUST BE USED.
M. THE WRITTEN PERMISSION REQUIRED FROM THE ADJACENT LANDOWNER SHALL BE OBTAINED PRIOR TO ENTERING THE LANDS. SHOULD PERMISSION NOT BE OBTAINED OR IS WITHDRAWN PRIOR TO COMMENCING THE WORK, THEN THE DEVELOPER SHALL LIMIT HIS ACTIVITIES TO THE LIMITS OF THE DEVELOPMENT SITE.
N. DRIVEWAY AND DRIVEWAY APPROACHES SHALL BE LOCATED SUCH THAT HYDRO VAULTS AND OTHER STREET FURNITURE ARE A MIN. OF 1.2m FROM THE PROJECTIONS OF THE OUTSIDE GARAGE WALLS.
O. ANY CHANGES IN GRADES AND CATCH BASINS REQUIRE THE APPROVAL OF THE CITY'S MANAGER OF DEVELOPMENT ENGINEERING.

COMPACTION REQUIREMENTS

UNLESS OTHERWISE NOTED OR DIRECTED BY THE GEOTECHNICAL CONSULTANT, THE FOLLOWING SHALL APPLY:

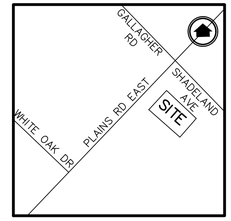
A. ALL BEDDING AND BACKFILL MATERIAL, ROAD SUB-GRADES AND GENERALLY ALL MATERIAL USED FOR LOT GRADING AND FILL SECTIONS, ETC., SHALL BE COMPACTED TO MIN. 98% SPD. ALL MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING 300mm LIFTS.
B. ALL GRANULAR ROAD BASE MATERIALS SHALL BE COMPACTED TO 98% SPD.
C. FOR ALL SEWERS AND WATERMAINS IN FILL SECTIONS, THE COMPACTION SHALL BE CERTIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO LAYING OF PIPE.

SILTATION AND EROSION CONTROL

A. SILTATION CONTROL BARRIERS SHALL BE PLACED AS DETAILED.
B. ALL SILTATION CONTROL MEASURES SHALL BE CLEANED AND MAINTAINED AFTER EACH RAINFALL AS DIRECTED AND TO THE SATISFACTION OF THE CITY OF BURLINGTON AND/OR THE CONSERVATION AUTHORITY.
C. ADDITIONAL SILT CONTROL LOCATIONS MAY BE REQUIRED AS DETERMINED BY THE ENGINEER, THE CITY OF BURLINGTON AND/OR THE CONSERVATION AUTHORITY.
D. ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO DEVELOPMENT AND MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS, UNTIL ALL DISTURBED AREAS HAVE BEEN RE-ESTABLISHED.
E. ALL EROSION AND SEDIMENT CONTROL DEVICES SHOULD BE INSPECTED MINIMUM WEEKLY, AFTER EVERY RAINFALL AND MAINTAINED AND CLEANED AS REQUIRED.
F. THE OWNER IS RESPONSIBLE FOR THE REMOVAL OF ALL MUD AND DEBRIS THAT ARE TRACKED ONTO THE ROADWAYS FROM VEHICLES ENTERING AND LEAVING THE CONSTRUCTION SITE. THE OWNER SHALL, UPON VERBAL AND/OR REQUEST BY THE CITY, IMMEDIATELY PROCEED WITH THE CLEANUP OPERATION AT THEIR EXPENSE. SHOULD THE OWNER FAIL TO MAINTAIN THE ROAD AS DIRECTED, THE CITY WILL HAVE THE CLEANING CARRIED OUT, AND DRAW ON THE SECURITY FOR COSTS AND/OR LAY CHARGES.

SEWER/WATER ABANDONMENT

1. ALL EXISTING UNUSED SEWERS MUST BE PROPERLY ABANDONED BY DISCONNECTING SEWER AT THE MAIN AND GROUTING EITHER END OF THE SEWER WITH A MINIMUM 300mm OF CONCRETE.
2. UNUSED MAINTENANCE HOLES AND CATCHBASINS MUST BE COMPLETELY REMOVED.
3. OPENINGS IN MAINTENANCE HOLES AND CATCHBASINS WHERE SERVICES WERE REMOVED OR ABANDONED MUST BE BRICKED AND PARGED.
4. REMOVE VALVES IN CHAMBERS AND SALVAGE WHERE APPLICABLE.
5. WHEN ABANDONING A WATER SERVICE CONNECTION OR WATERMAIN CONNECTED TO A LIVE MAIN, THE PREFERRED METHOD IS TO REMOVE THE VALVE AND TEE AND INSERT A SLEEVE ON THE WATERMAIN.
6. REMOVE HYDRANTS FOR DISPOSAL OR SALVAGE AT DIRECTION OF THE REGION OF HALTON.
7. ALL ENDS OF THE ABANDONED WATERMAIN ARE TO BE CAPPED AND RESTRAINED BY MECHANICAL MEANS. CONCRETE PLUGGING IS NOT ACCEPTABLE.



KEY MAP
N.T.S.

BENCH MARK NOTE:

CITY OF BURLINGTON BENCHMARK NO. 298
ELEVATION=97.915 METRES (CGVD28:78 ADJUSTMENT)
BENCHMARK SET ON CITY PLATE ON SOUTH FACE AT SOUTHEAST CORNER OF GELNVIEW
PUBLIC SCHOOL NO. 143 TOWNSEND AVENUE

NO.	DATE	BY	REVISIONS
02	APR 15/24	AS	REVISED AS PER TREE PROTECTION PLAN
01	MAR 28/24	AS	REVISED AS PER CITY AND REGIONAL COMMENTS

NOTES TO CONTRACTOR:

1. CONTRACTORS AND SUBCONTRACTORS SHALL NOT SCALE FROM THIS DRAWING.
2. ANY INCONSISTENCIES AND OMISSIONS FOUND ON THE DRAWINGS MUST BE REPORTED TO THE ENGINEER FOR CLARIFICATION BEFORE COMMENCING THE WORK.
3. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND ELEVATIONS AND REPORT ALL FINDINGS TO THE ENGINEER. ONCE CONSTRUCTION HAS COMMENCED, THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS.
4. THE POSITIONS OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVER-GROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE DRAWINGS. WHERE SHOWN ON THE DRAWING, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM THEMSELVES OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
5. ALL DRAWINGS REMAIN THE PROPERTY OF THE ENGINEER AND SHALL NOT BE REPRODUCED, REUSED, OR REVISED WITHOUT THE WRITTEN CONSENT OF S. LLEWELLYN AND ASSOCIATES LIMITED.

DESIGN	AS	CHK'D	SL
DRAWN	AS	CHK'D	SL

DATE: Apr. 12, 24

SCALE 1:200 (0, 5, 10, 20)

APPROVALS

STAMP

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email: info@sla.on.ca
3228 South Service Road, Suite #105 East Wing, Burlington, Ont., L7N 3H8

CLIENT
CORAL GABLE HOMES

PROJECT NAME
236 PLAINS ROAD EAST
BURLINGTON, ON

TITLE
GENERAL NOTES & DETAILS PLAN

PROJECT No.	DRAWING No.
23057	C103