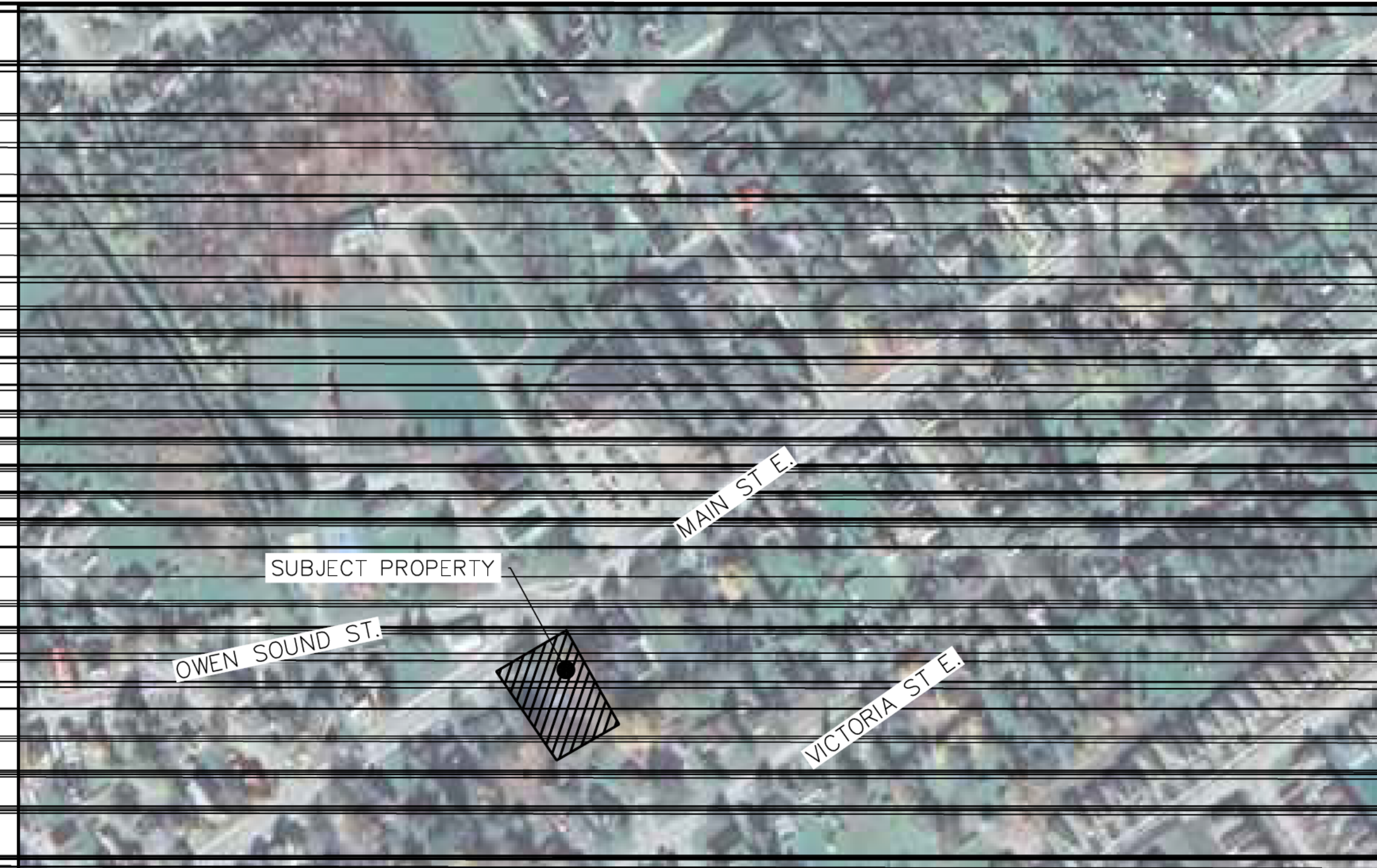


271 MAIN STREET EAST DUNDALK

TOWNSHIP OF SOUTHGATE GREY COUNTY



MUNICIPALITY

TOWNSHIP OF SOUTHGATE
185667 GREY RD 9
DUNDALK, ONTARIO, N0C 1B0

DEVELOPER

COUNTRYSIDE COMMUNITIES INC.
22746 RICHMOND ST N
LONDON, ONTARIO, N5X 4B2

DEVELOPER'S ENGINEER



70 HURON STREET, SUITE 100
COLLINGWOOD, ON, L9Y 4L4
705-446-3510
WWW.CFCROZIER.CA

LANDSCAPE ARCHITECT

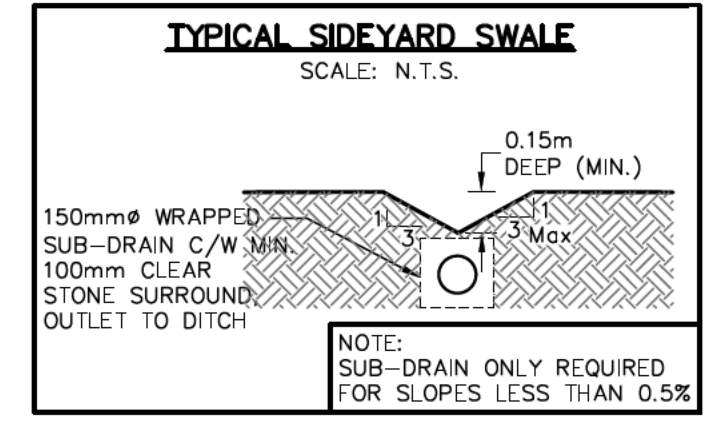
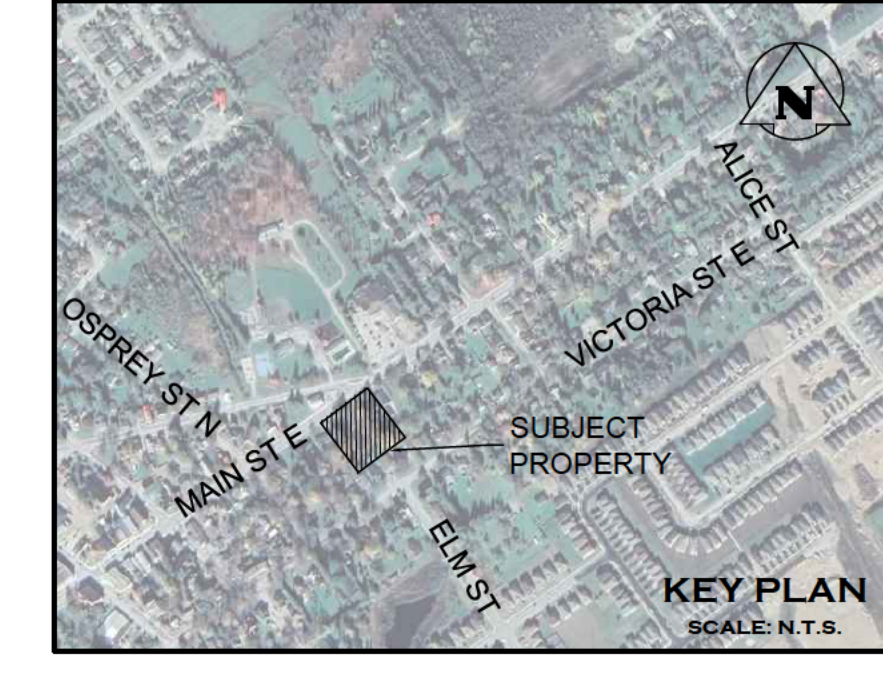
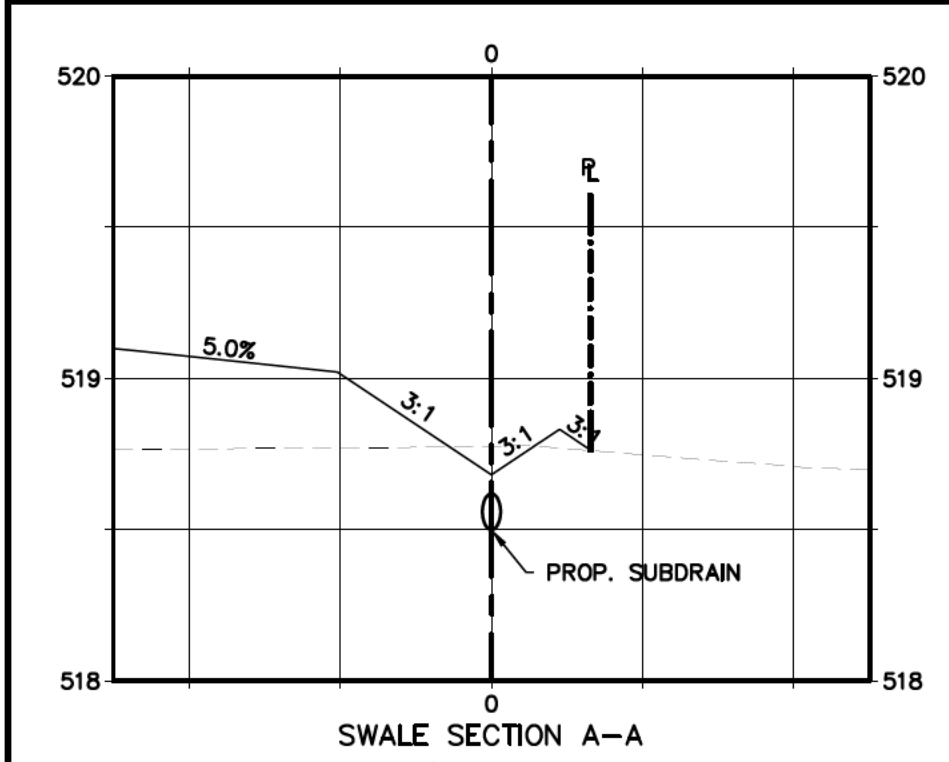


70 HURON STREET, SUITE 100
COLLINGWOOD, ON, L9Y 4L4
705-446-3510
WWW.CFCROZIER.CA

| DRAWING | TITLE |
|---------|---|
| C100 | TITLE PAGE |
| C101 | GRADING PLAN |
| C102A | GENERAL SERVICING PLAN |
| C102B | CONNECTIONS TO EXISTING MAIN ST INFRASTRUCTURE |
| C103 | PRE-DEVELOPMENT DRAINAGE PLAN |
| C104 | POST-DEVELOPMENT DRAINAGE PLAN |
| C105 | EROSION & SEDIMENT CONTROL PLAN |
| C106 | EROSION & SEDIMENT CONTROL PLAN NOTES & DETAILS |
| C107 | CONSTRUCTION NOTES & DETAILS 1 OF 3 |
| C108 | CONSTRUCTION NOTES & DETAILS 2 OF 3 |
| C109 | CONSTRUCTION NOTES & DETAILS 3 OF 3 |

| MA TE, LE EN | |
|----------------------|-----------------------------------|
| EXISTING FEATURE EX. | |
| XXX.X | EX. INT U |
| +XXX.XX | EX. VA E |
| ~ | EX. TEE LINE |
| --- | EX. WATE, U, E |
| --- | EX. IT H |
| --- | EX. WATE-MAIN |
| --- | EX. WATE, E, VI E |
| ⊕ | EX. FLE HY ANT VALVE |
| ⊕ | EX. ANITAY EWE\ MANH LE |
| ⊕ | EX. ANITAY F\ EMAIN |
| ⊕ | EX. ANITAY E, VI E |
| ⊕ | EX. T, M EWE\ MANH LE |
| ⊕ | EX. T, M AT H A IN |
| ⊕ | EX. T, M U LE AT H A IN |
| ⊕ | EX. T, M AT H A IN MANH LE |
| ⊕ | EX. T, M U LE AT H A IN MANH LE |
| ⊕ | EX. A MAIN |
| --- | EX. ELL LINE |
| --- | EX. ELL, E E TAL |
| --- | EX. A LE TELEVI N E E TAL |
| --- | EX. HY, L E |
| --- | EX. LI HT TAN A, |
| --- | EX. I N |
| --- | EX. UIL IN |
| --- | EX. EN HMA-K NUM E, L ATI N |
| --- | EX. SEH LE NUM E, L ATI N |
| PROP E FEATU, E | |
| --- | EX. E, TY LIMIT |
| --- | EX. ELEVATI N |
| --- | EX. ELEVATI N MAT H EX. ELEVATI N |
| --- | EX. IT H, AINA E |
| --- | EX. WALE, L E |
| --- | EX. WATE-MAIN VALVE |
| --- | EX. WATE, E, VI E |
| --- | EX. FLE HY ANT VALVE |
| --- | EX. WATE, VALVE HAM E, |
| --- | EX. WATE, QUALITY TE TIN TATI N |
| --- | EX. ANITAY EWE\ MANH LE |
| --- | EX. ANITAY F\ EMAIN |
| --- | EX. ANITAY E, VI E |
| --- | EX. ANITAY AT HMENT |
| --- | EX. AT HMENT A, EA I |
| --- | EX. A, EA h i |
| --- | EX. ULATI N, I, J, U, |
| --- | EX. T, M EWE\ MANH LE |
| --- | EX. U LE AT H A IN |
| --- | EX. AT H A IN MANH LE |
| --- | EX. U LE AT H A IN MANH LE |
| --- | EX. T, M AT HMENT |
| --- | EX. AT HMENT A, EA I |
| --- | EX. UN FF EFFICIENT |
| --- | EX. AINA E A, EA h i |
| --- | EX. U, UT |
| --- | EX. ANA A T MMUNITY MAIL X |
| --- | EX. TAN F, ME, |
| --- | EX. T, I N |
| --- | EX. NAME I N |
| --- | EX. N, A, KIN I N |
| --- | EX. FEN E |
| --- | EX. UIL IN ENVEL E |
| --- | EX. LI HT UTY I LT FEN E |
| --- | EX. HEAVY UTY I LT FEN E |
| --- | EX. T, AW ALE HE K FL W |
| --- | EX. K HE K AM |
| --- | EX. L E, I MAX. |
| --- | EX. TEE, E ELEVATI N A, EA |
| --- | EX. T, IL T K ILE L ATI N |

PROJECT No: 2514-6796
3RD SUBMISSION SITE PLAN APPLICATION

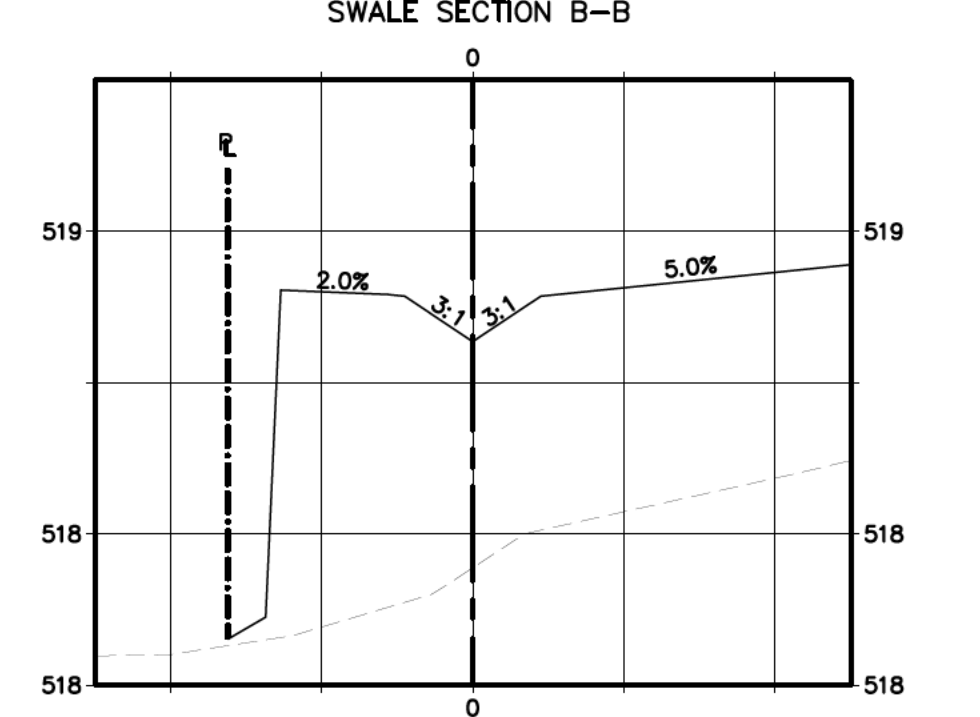
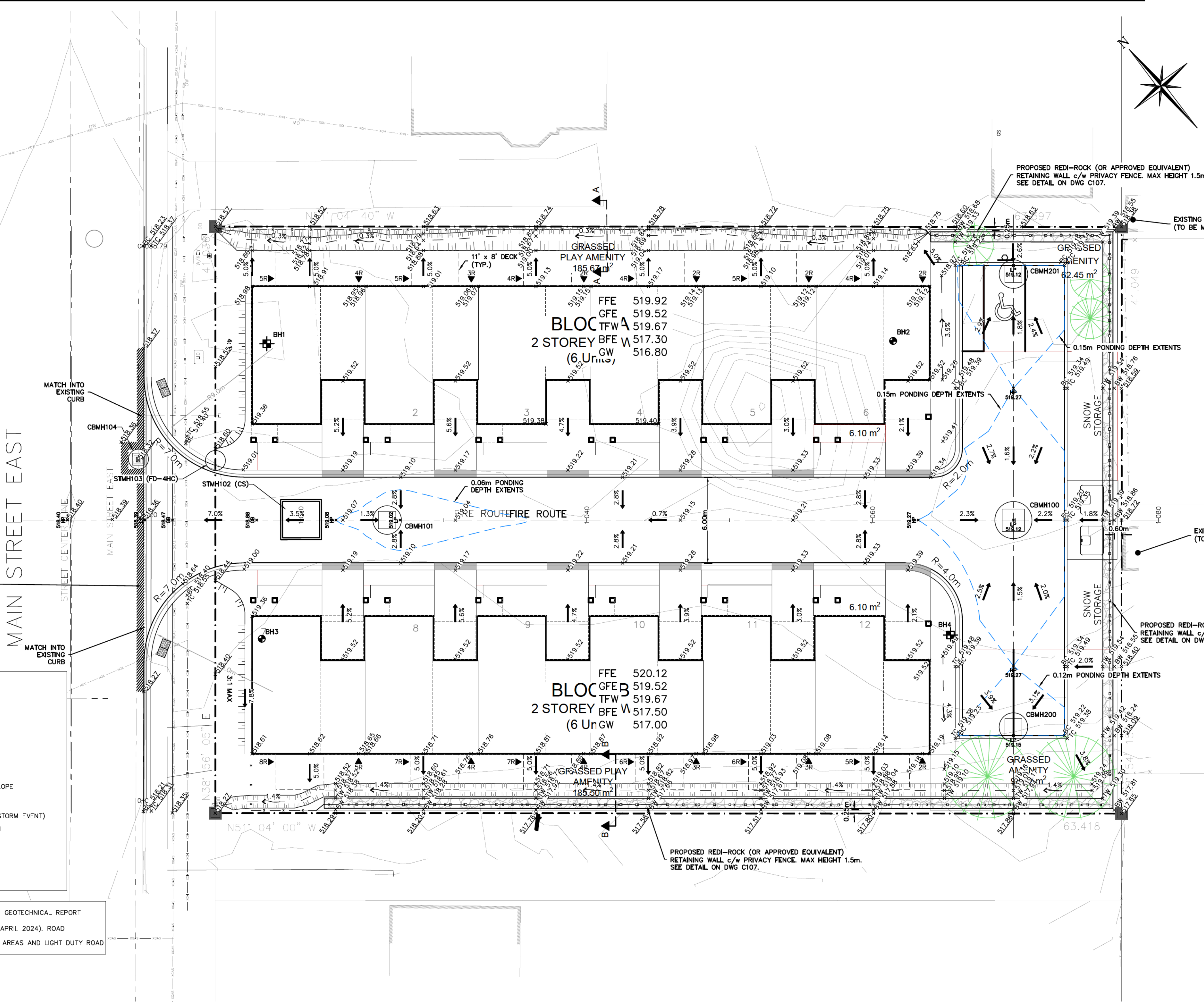


LEGEND

- XXX.X EX. CONTOUR
- +XXX.XX EX. GRADE
- +XXX.XX PR. ELEVATION
- +XXX.XX PR. ELEVATION (MATCH EX. ELEVATION)
- X.X% PR. SWALE & YARD SLOPE
- X.X% PR. LANEWAY, DRIVEWAY OR WALKWAY SLOPE
- - - - - PR. PROPERTY LIMITS
- SURFACE PONDING (50 YR AND 100 YR STORM EVENT)
- MONITORING WELLS COMPLETED BY GREEN GEOTECHNICAL ENGINEERING
- ⊕ BOREHOLE COMPLETED BY GREEN GEOTECHNICAL ENGINEERING
- ▨ PROPOSED RETAINING WALL

NOTES:

- GROUNDWATER READINGS COLLECTED JANUARY 2023, REFER TO GREEN GEOTECHNICAL REPORT (APRIL 2024) FOR MORE DETAIL.
- ROAD STRUCTURE REQUIREMENTS PER GREEN GEOTECHNICAL REPORT (APRIL 2024). ROAD STRUCTURE DETAIL CAN BE REFERRED TO ON C107.
- HEAVY DUTY ROAD STRUCTURE TO BE USED FOR FIRE ROUTE TRAFFIC AREAS AND LIGHT DUTY ROAD STRUCTURE TO BE USED FOR VEHICLE PARKING TRAFFIC AREAS.



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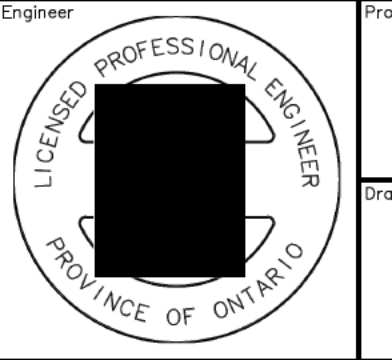
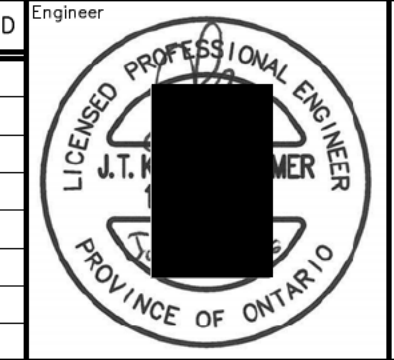
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BENCHMARKS

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| 2 | ISSUED FOR 3RD SUBMISSION SPA | 2026/06/12 |

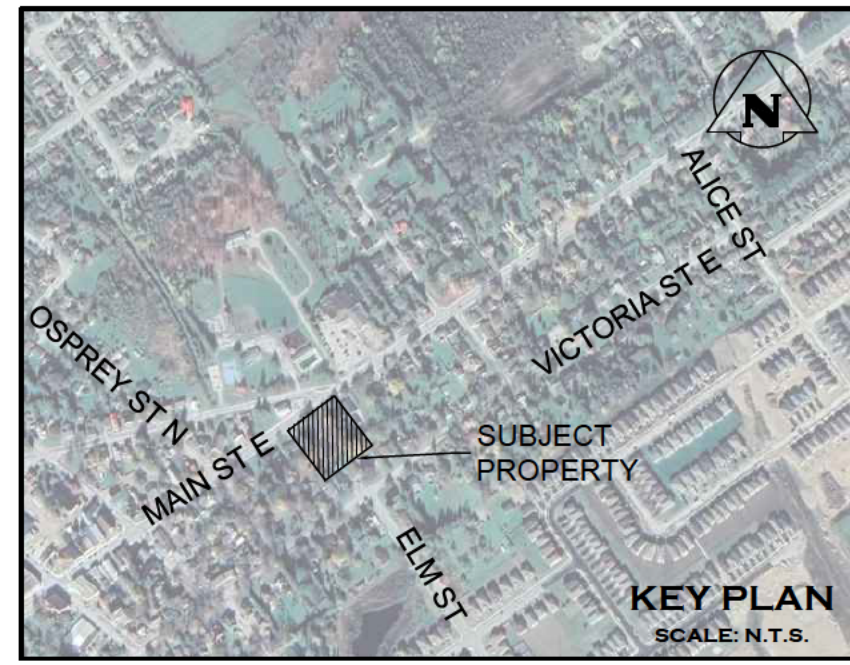
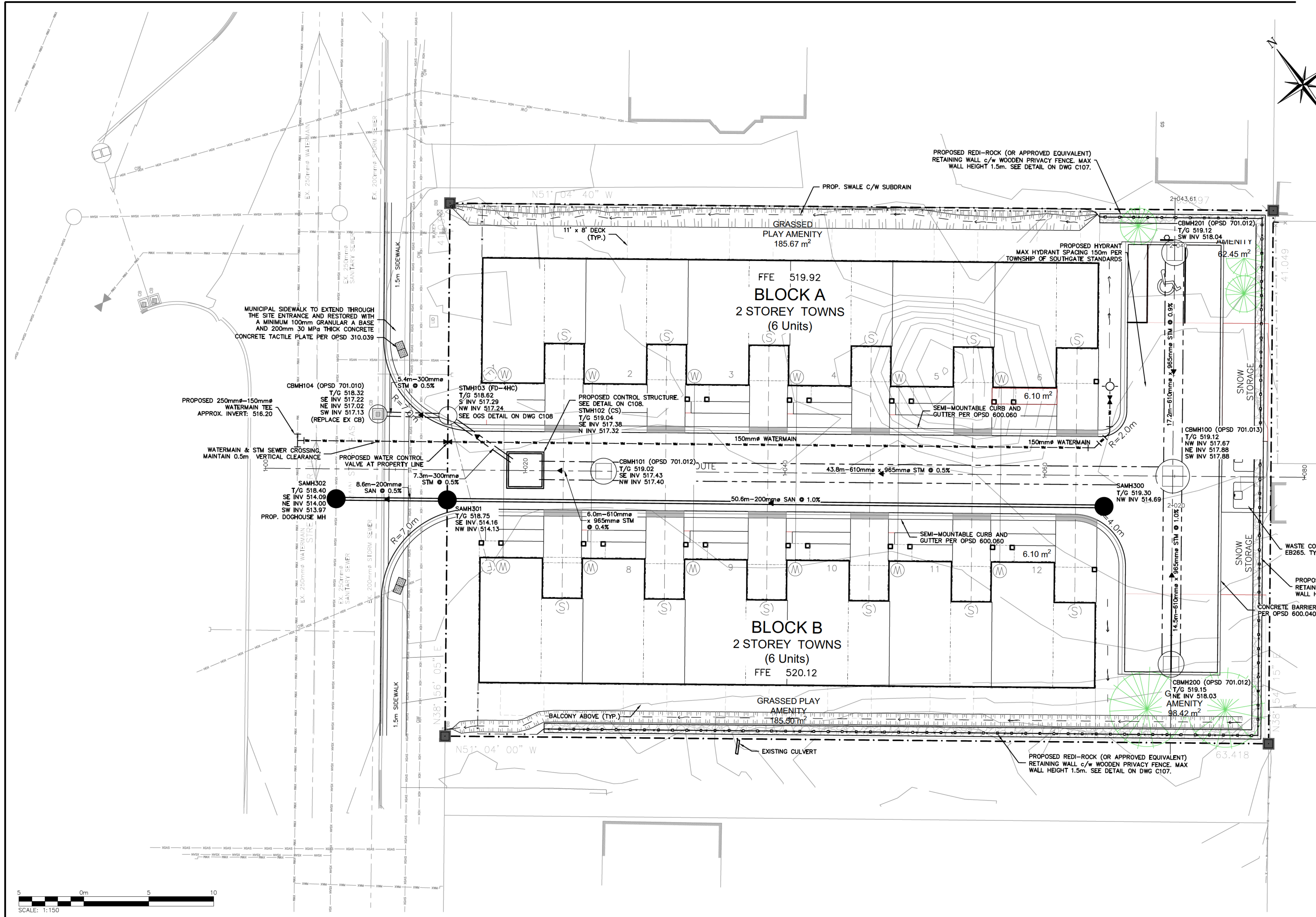


Project: **271 MAIN STREET EAST DUNDALK TOWNSHIP OF SOUTHGATE**

Drawing: **GRADING PLAN**

Drawn By: D.G. Design By: J.L.A./A.M. Project: **2514-6796**

Check By: J.L.A. Check By: A.M./J.K. Drawing: **C101**



LEGEND

EXISTING FEATURES (EX.)

- EX. WATERMAIN
- EX. SANITARY SEWER & MANHOLE
- EX. STORM SEWER & MANHOLE
- EX. STORM CATCH-BASIN
- EX. STORM DOUBLE CATCH-BASIN
- EX. STORM CATCH-BASIN MANHOLE
- EX. STORM DOUBLE CATCH-BASIN MANHOLE
- EX. GAS MAIN

PROPOSED FEATURES (PR.)

- PR. PROPERTY LIMITS
- PR. WATERMAIN & VALVE
- PR. WATER SERVICE
- PR. SANITARY SERVICE
- PR. STORM SERVICE
- PR. FIRE HYDRANT & VALVE
- PR. SANITARY SEWER & MANHOLE
- PR. STORM SEWER & MANHOLE
- PR. CATCH-BASIN MANHOLE
- PR. TACTILE PLATE w/ DROP CURB

WASTE COLLECTION SYSTEM TO BE EARTH BINS MODEL EB265. TYPICAL DETAIL ON DWG C108.

PROPOSED REDI-ROCK (OR APPROVED EQUIVALENT) RETAINING WALL c/w WOODEN PRIVACY FENCE. MAX WALL HEIGHT 1.5m. SEE DETAIL ON DWG C107.

CONCRETE BARRIER CURB PER OPD 600.040

SNOW STORAGE

- NOTES:**
- REFER TO DWG C107 FOR PIPE BEDDING AND INSULATION REQUIREMENTS.
 - AREA ALLOCATED FOR SNOW STORAGE IS APPROXIMATELY 20% OF TOTAL PARKING LOT AND LANEWAY AREA WITHIN THE PROPERTY BOUNDARY. AVAILABLE SNOW STORAGE = 115m².
 - CURB STOPS LOCATIONS SHOWN ON PLAN ARE CONCEPTUAL AND SHALL BE INSTALLED OUTSIDE OF ALL GARAGE AND BUILDING ENVELOPES INCLUDING FOUNDATION DRAINS, SANITARY AND WATER CURB STOPS

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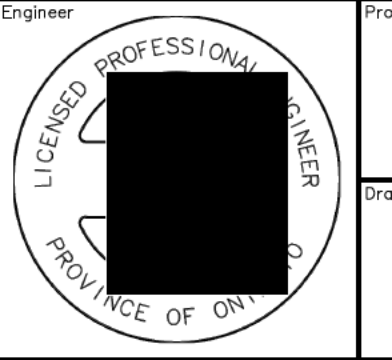
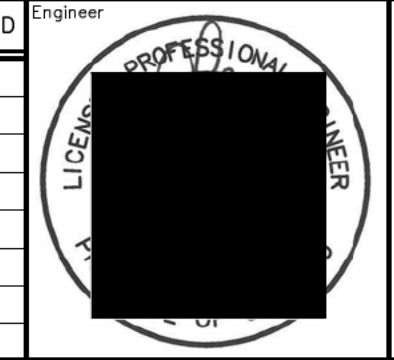
5. DO NOT SCALE DRAWINGS.

BENCHMARKS

SURVEY COMPLETED BY SCHAEFFER DZALDOV PURCELL LIMITED ON NOVEMBER 16TH, 2023. ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE REFERRED TO THE ONTARIO MINISTRY OF NATURAL RESOURCES AND FORESTRY CONTROL NO. 00819688527 HAVING A PUBLISHED ELEVATION OF 515.566 METRES (CGVD28-78)



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271 MAIN STREET EAST DUNDALK
TOWNSHIP OF SOUTHGATE

GENERAL SERVICING PLAN

CROZIER CONSULTING ENGINEERS

Drawn By: D.G. Design By: J.L.A./A.M. Project: 2514-6796
Check By: J.L.A. Check By: A.M./J.K. Drawing: C102A



LEGEND

- XXX.X--- EX. CONTOUR
- +XXX.XX EX. GRADE
- - - - - PR. PROPERTY LIMITS
- - - - - EX. STORM CATCHMENT
- — — — — MUNICIPAL DRAIN
- ➔ MAJOR OVERLAND FLOW DIRECTION
- PRE-X CATCHMENT AREA ID
- XX | X.XX RUNOFF COEFFICIENT
- XX | X.XX DRAINAGE AREA (ha)

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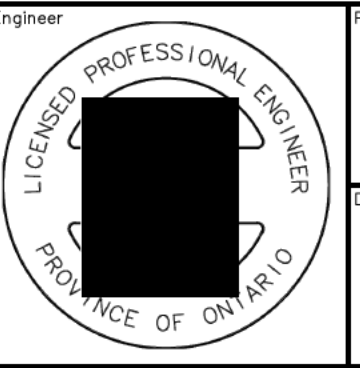
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BENCHMARKS

SURVEY COMPLETED BY SCHAEFFER DZALDOV PURCELL LIMITED ON NOVEMBER 16TH, 2023. ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE REFERRED TO THE ONTARIO MINISTRY OF NATURAL RESOURCES AND FORESTRY CONTROL No. 00819688527 HAVING A PUBLISHED ELEVATION OF 515.566 METRES (CGVD28:78)



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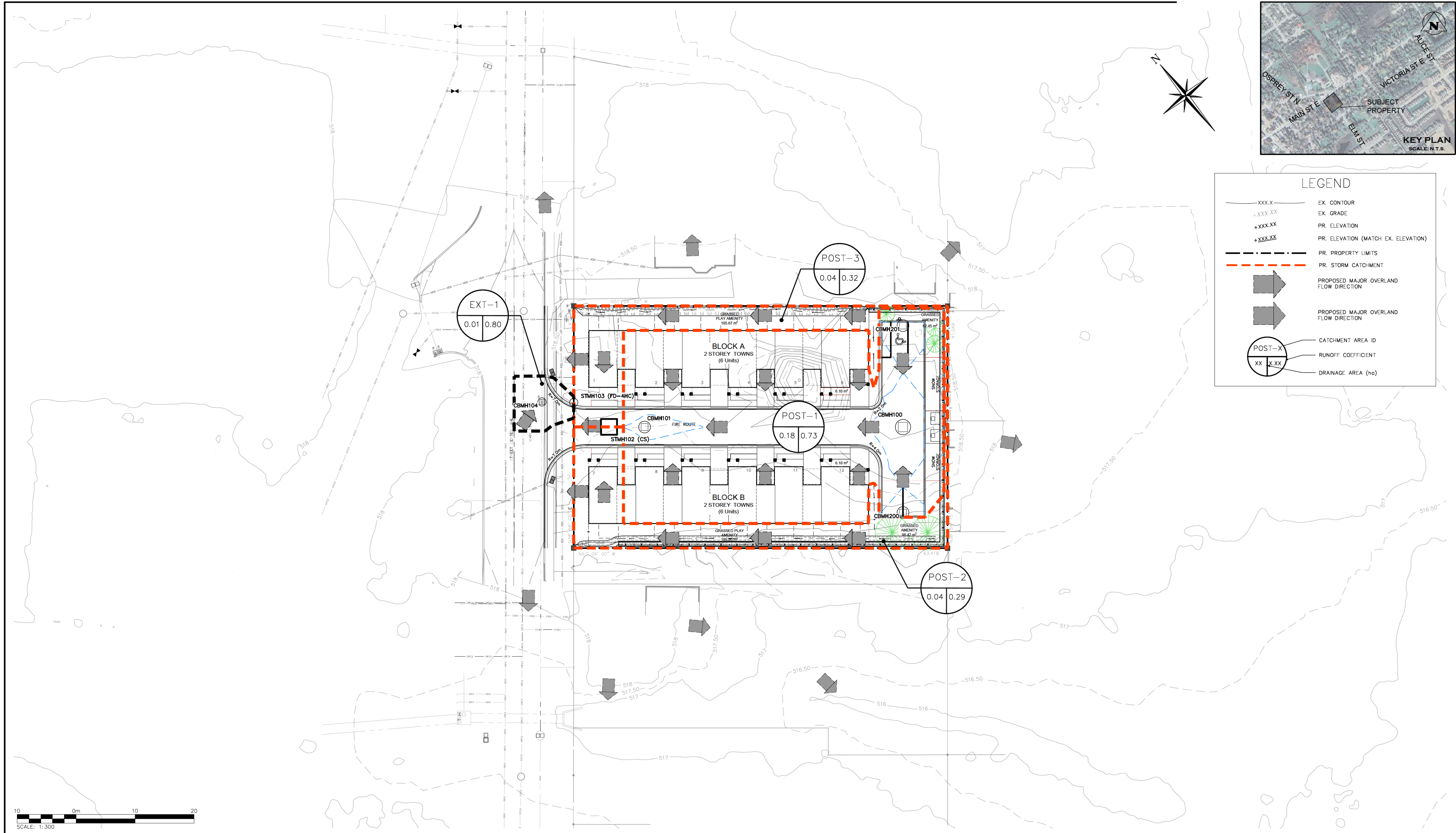


Project: **271 MAIN STREET EAST DUNDALK TOWNSHIP OF SOUTHGATE**

Drawing: **PRE-DEVELOPMENT DRAINAGE PLAN**

Drawn By: D.G. Design By: J.L.A./A.M. Project: **2514-6796**

Check By: J.L.A. Check By: A.M./J.K. Drawing: **C103**



LEGEND

- XXX.X--- EX. CONTOUR
- +XXX.XX EX. GRADE
- +XXX.XX PR. ELEVATION
- +XXX.XX PR. ELEVATION (MATCH EX. ELEVATION)
- - - - - PR. PROPERTY LIMITS
- - - - - PR. STORM CATCHMENT
- ➔ PROPOSED MAJOR OVERLAND FLOW DIRECTION
- ➔ PROPOSED MAJOR OVERLAND FLOW DIRECTION
- POST-X CATCHMENT AREA ID
- XX | X.XX RUNOFF COEFFICIENT
- XX | X.XX DRAINAGE AREA (ha)

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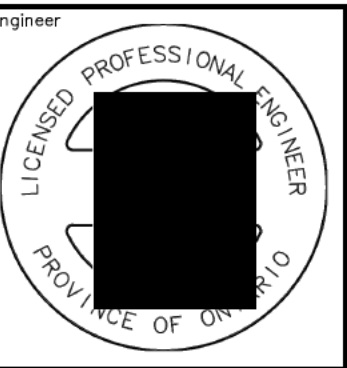
5. DO NOT SCALE DRAWINGS.

BENCHMARKS

SURVEY COMPLETED BY SCHAEFFER DZALDOV PURCELL LIMITED ON NOVEMBER 16TH, 2023. ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE REFERRED TO THE ONTARIO MINISTRY OF NATURAL RESOURCES AND FORESTRY CONTROL No. 00819688527 HAVING A PUBLISHED ELEVATION OF 515.566 METRES (CGVD28:78)



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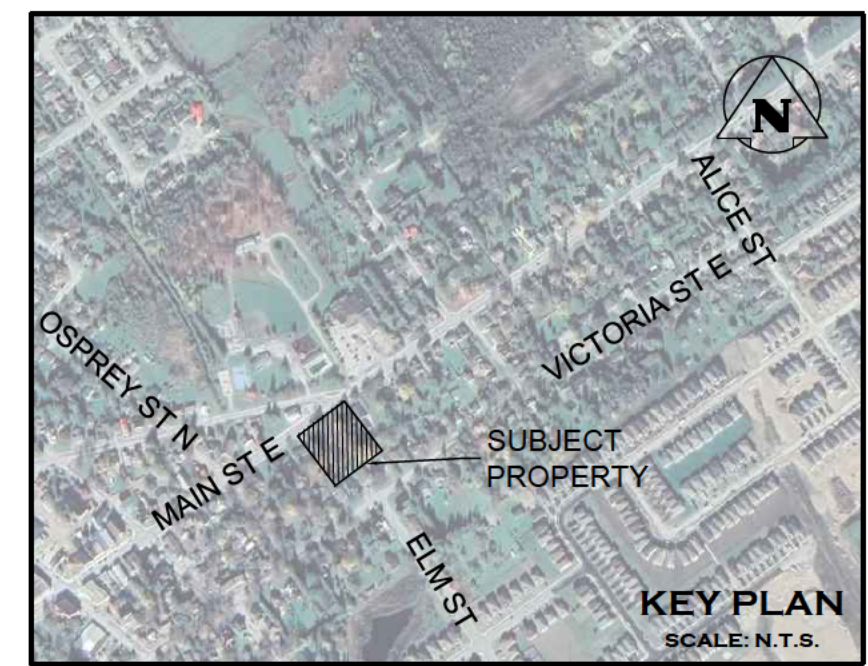
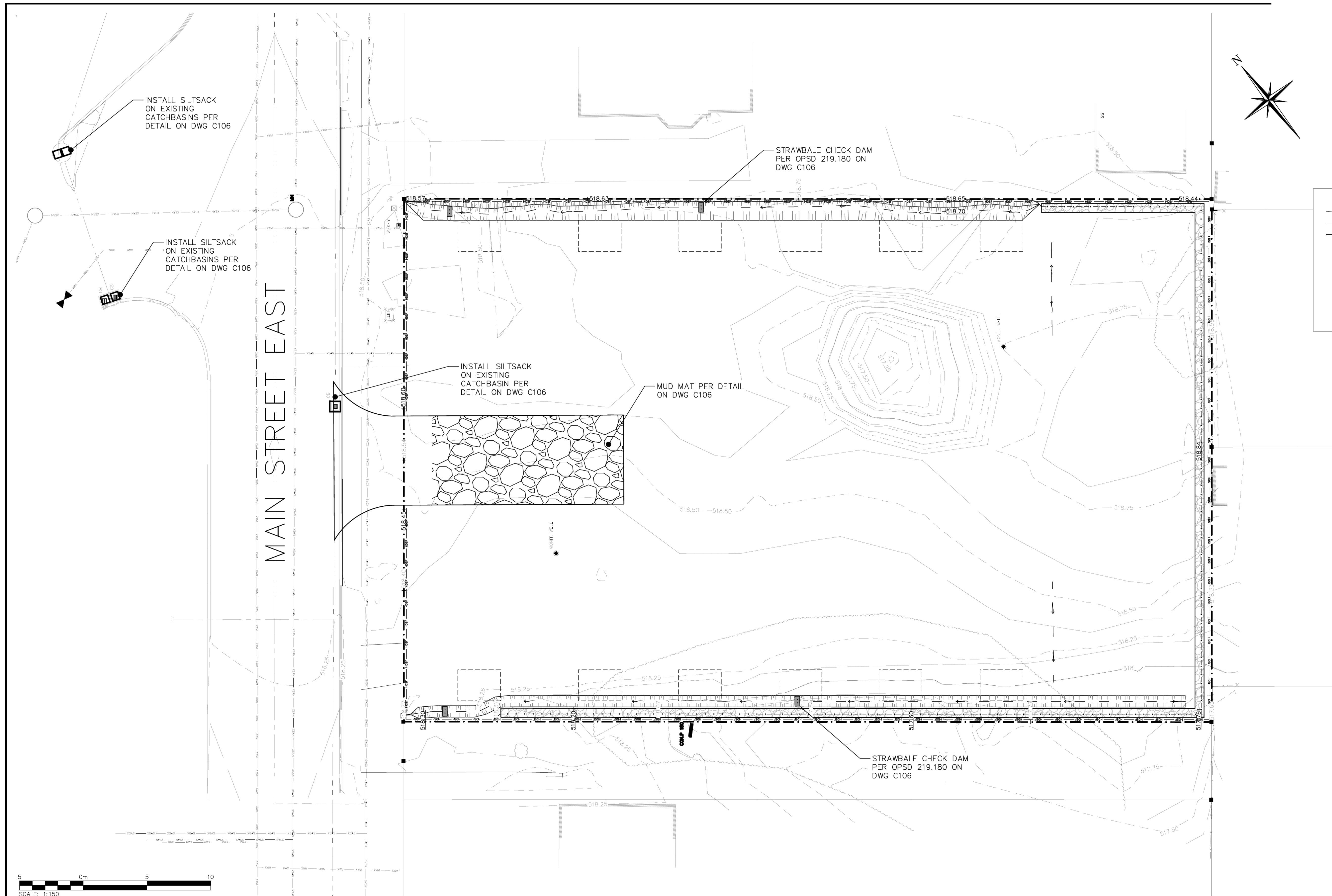
Project: **271 MAIN STREET EAST DUNDALK TOWNSHIP OF SOUTHGATE**

Drawing: **POST-DEVELOPMENT DRAINAGE PLAN**

CROZIER CONSULTING ENGINEERS

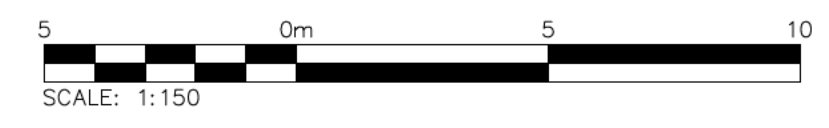
Drawn By: D.G. Design By: J.L.A./A.M. Project: **2514-6796**

Check By: J.L.A. Check By: A.M./J.K. Drawing: **C104**



LEGEND

| | |
|--------------------------|-------------------------------------|
| ---XXX.X--- | EX. CONTOUR |
| --- | PR. SWALE |
| ---HDSF---HDSF---HDSF--- | PR. HEAVY DUTY SILT FENCE |
| --- | PR. STRAW BALE CHECK FLOW |
| --- | PR. SWALE & SLOPE |
| □ | PR. SILT SACK |
| □ | EX. STORM CATCHBASIN |
| □ | EX. STORM DOUBLE CATCHBASIN |
| □ | EX. STORM CATCHBASIN MANHOLE |
| □ | EX. STORM DOUBLE CATCHBASIN MANHOLE |

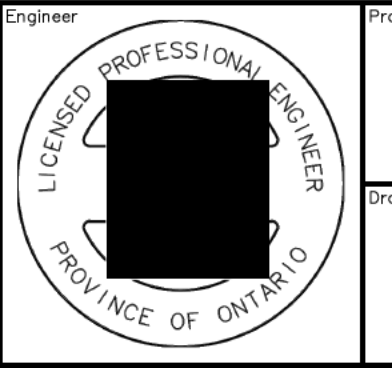
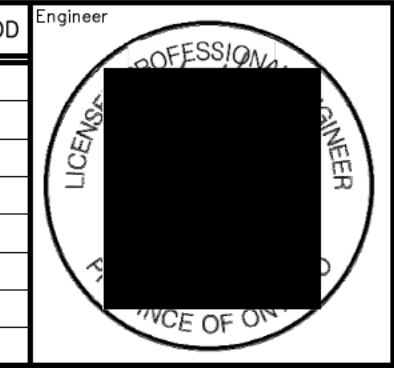


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BENCHMARKS
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Project: **271 MAIN STREET EAST DUNDALK TOWNSHIP OF SOUTHGATE**

Drawing: **EROSION & SEDIMENT CONTROL PLAN**

CROZIER CONSULTING ENGINEERS

Drawn By: D.G. Design By: J.L.A./A.M. Project: **2514-6796**

Check By: J.L.A. Check By: A.M./J.K. Drawing: **C105**

GENERAL NOTES:

1. CONSTRUCTION EQUIPMENT TO USE ACCESS POINT, LOCATED AT MAIN STREET, AS INDICATED ON DRAWING C105. MUD MAT TO BE MAINTAINED AT ACCESS POINT.
2. ALL WORKS SHALL BE COMPLETED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT. THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE "CONSTRUCTOR" AS DEFINED IN THE ACT.
3. ALL SEDIMENT AND EROSION CONTROL FACILITIES AND WORKS ARE TO BE CONSTRUCTED AND IN PLACE TO THE APPROVAL OF THE SITE ENGINEER PRIOR TO ANY GRADING OPERATIONS COMMENCING. TYPICAL WORKS INCLUDE SILT FENCES, INTERCEPTOR SWALES, STRAW BALE CHECK DAMS AND SEDIMENT TRAPS.
4. ALL TEMPORARY TOPSOIL STOCKPILES ARE TO BE PROVIDED WITH THE NECESSARY SEDIMENT AND EROSION CONTROL FEATURES.
5. ALL INTERCEPTOR SWALES ARE TO BE SEEDED TO STABILIZE THEIR BANKS IMMEDIATELY FOLLOWING CONSTRUCTION.
6. REFER TO APPLICATION FORM FOR GRUBBING OF TREES WITHIN LIMITS OF FILL AREA.
7. NO GRADING OF LANDS WILL OCCUR WITHIN SPECIFIED BUFFERS ALONG PROPERTY LINES AND INTERNAL TO SITE.
8. THE LOCATION OF ALL UNDERGROUND AND ABOVEGROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE LOCATION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
9. NON-WOVEN GEOTEXTILE TO BE TERRAFIX 270R OR APPROVED EQUIVALENT

MAINTENANCE & OPERATIONS OF SEDIMENT CONTROLS

SILT FENCE

1. SILT FENCE MUST BE INSPECTED WEEKLY FOR RIPS OR TEARS, BROKEN STAKES, BLOW-OUTS AND ACCUMULATION OF SEDIMENT.
2. SILT FENCE MUST BE INSPECTED FOLLOWING ALL 15MM OR GREATER RAIN STORM EVENT OR AS DIRECTED BY SITE ENGINEER.
3. SEDIMENT MUST BE REMOVED FROM SILT FENCE WHEN ACCUMULATION REACHES 50% OF THE HEIGHT OF THE FENCE.
4. ALL SILT FENCES MUST BE REMOVED ONLY WHEN THE ENTIRE SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.

STRAW BALE / ROCK CHECK DAM

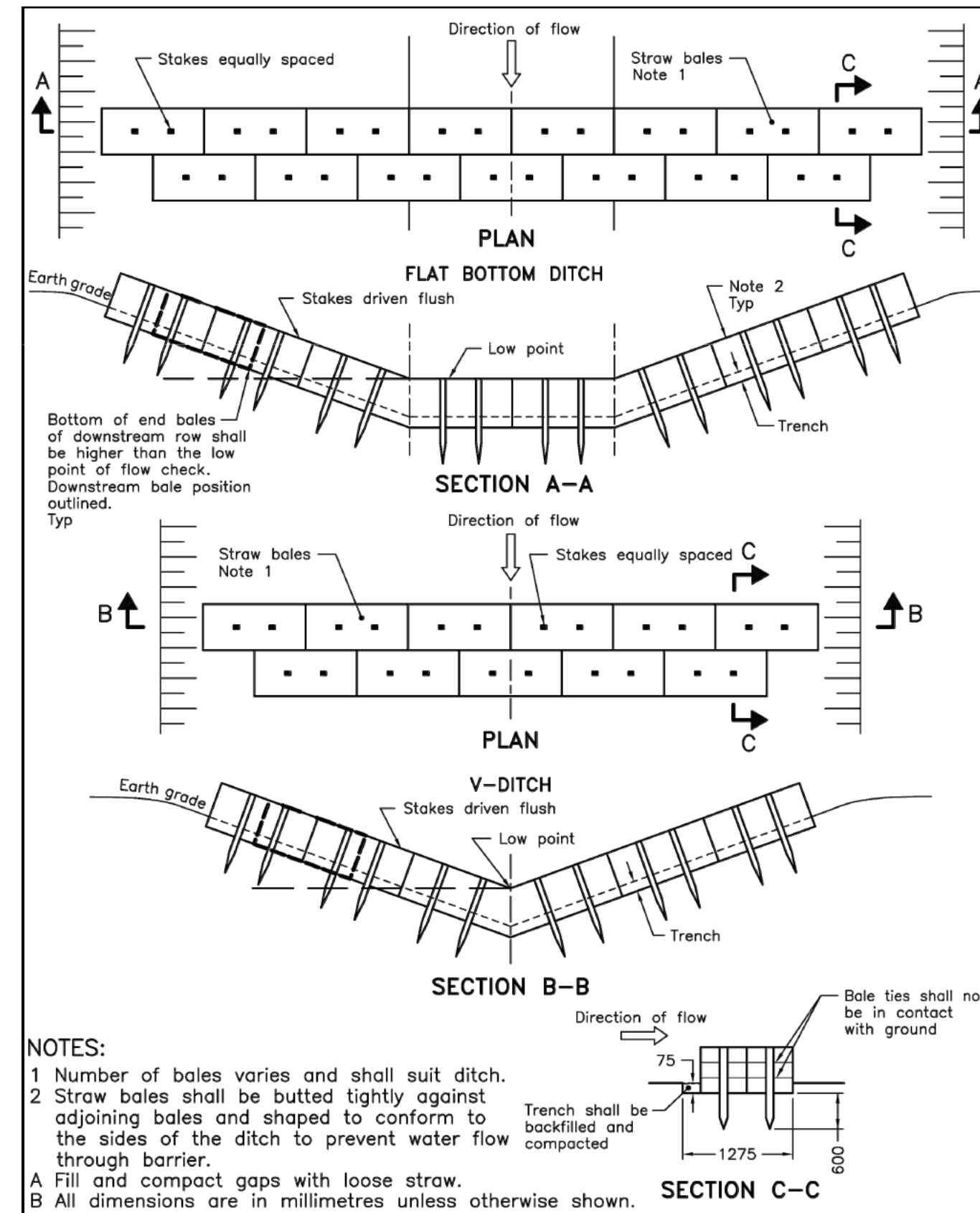
1. REMOVE ACCUMULATED SEDIMENT UP STREAM OF THE CHECK DAM IF GREATER THAN ONE HALF OF DAM HEIGHT.
2. SILT REMOVAL MUST BE UNDERTAKEN WITH CARE TO MINIMIZE DOWN STREAM SEDIMENTATION IN SWALE OR DITCH.
3. STRAW BALE CHECK DAM AND ALL ACCUMULATED SEDIMENT MUST BE REMOVED WITH CARE ONCE THE CONSTRUCTION SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.

MUD MAT MAINTENANCE

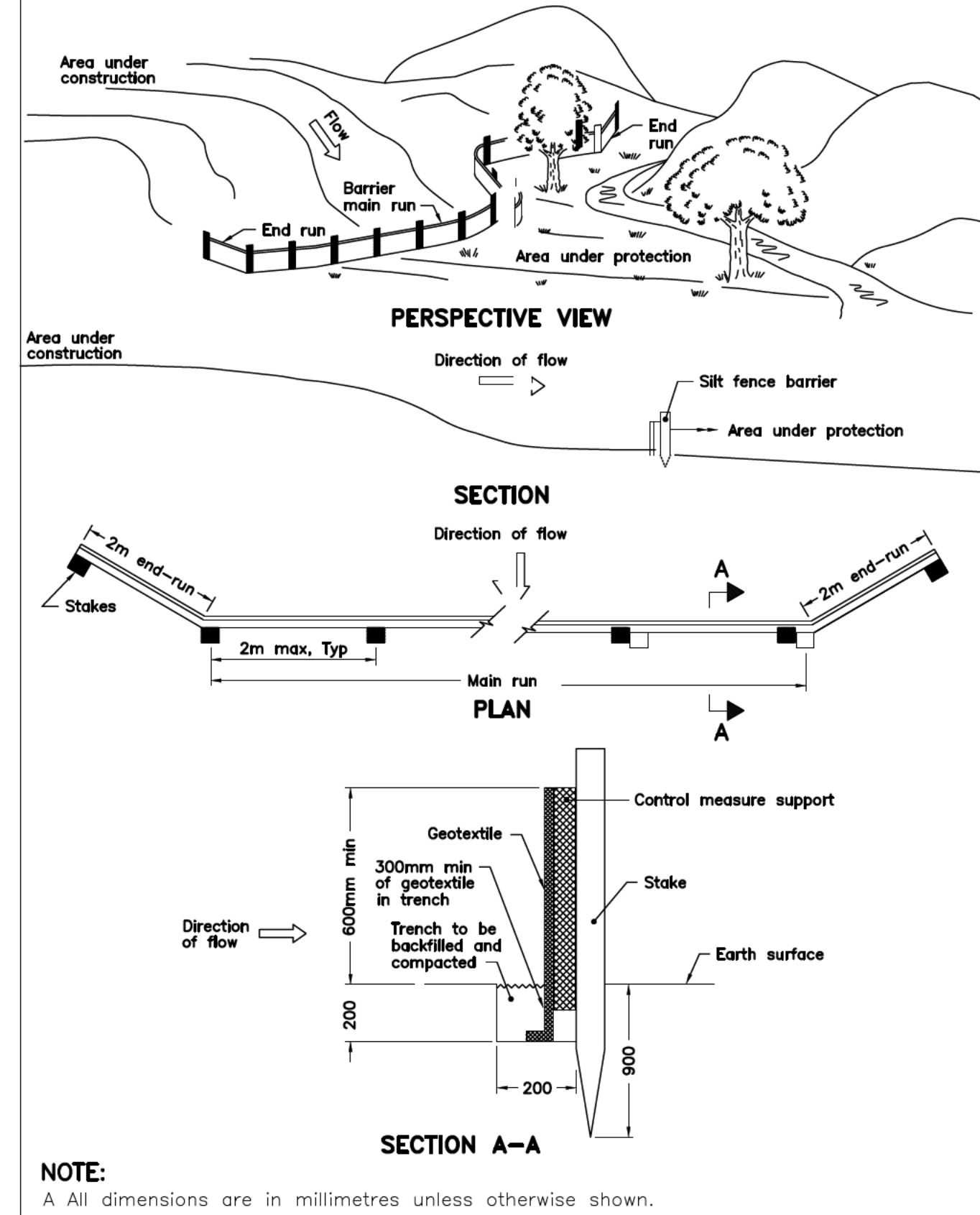
1. INSPECT MUD MAT WEEKLY TO ASSESS CONDITION AND ENSURE OPERATION EFFICIENCY.
2. SUPPLY AND PLACE ADDITIONAL CLEAR STONE AS DIRECTED BY SITE ENGINEER.
3. MAT TO REMAIN IN PLACE UNTIL SITE IS STABILIZED OR AS DIRECTED BY SITE ENGINEER.
4. CONTRACTOR TO COMPLETE REGULAR STREET SWEEPING ON MAIN STREET EAST.

DECOMMISSIONING / RESTORATION

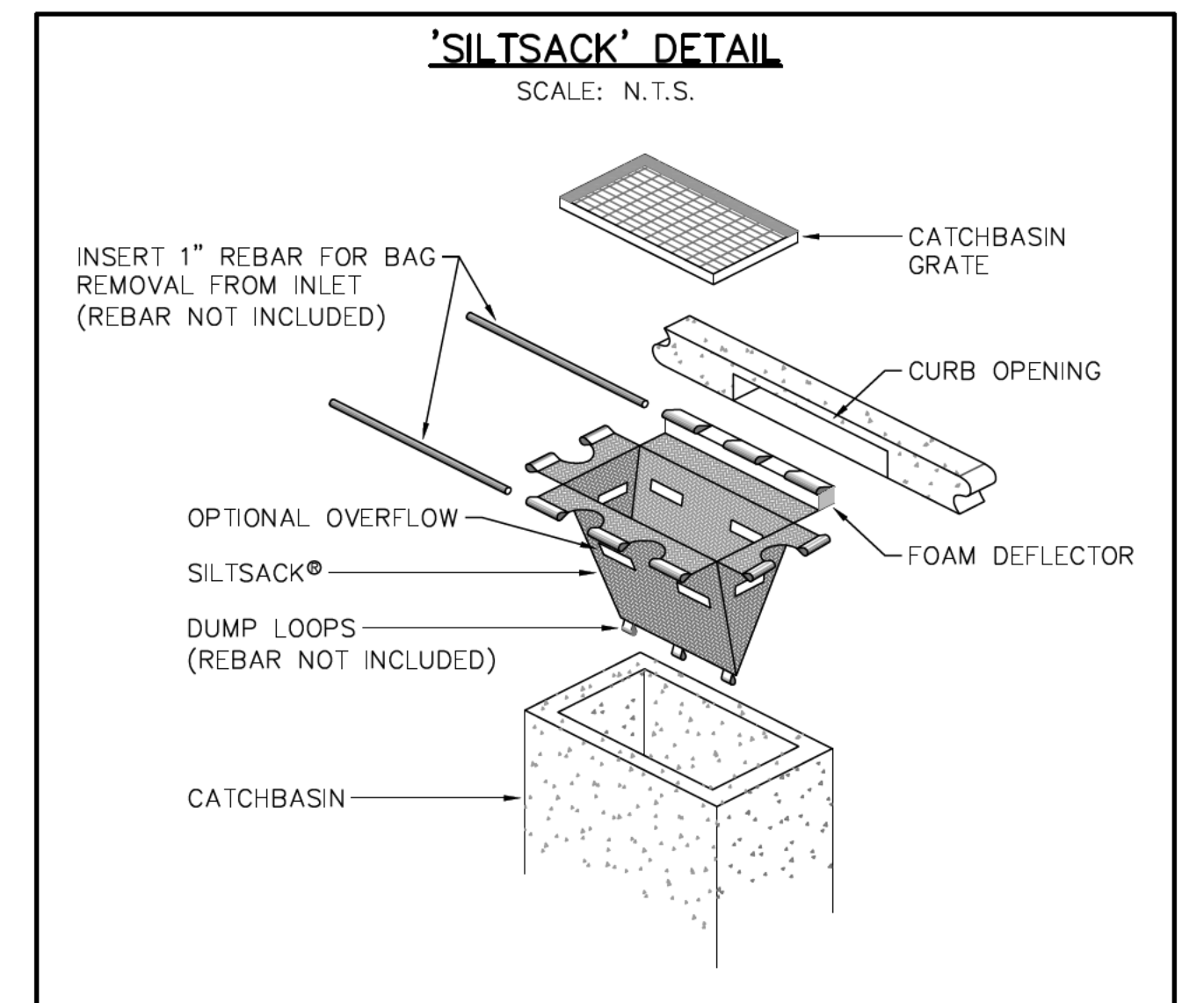
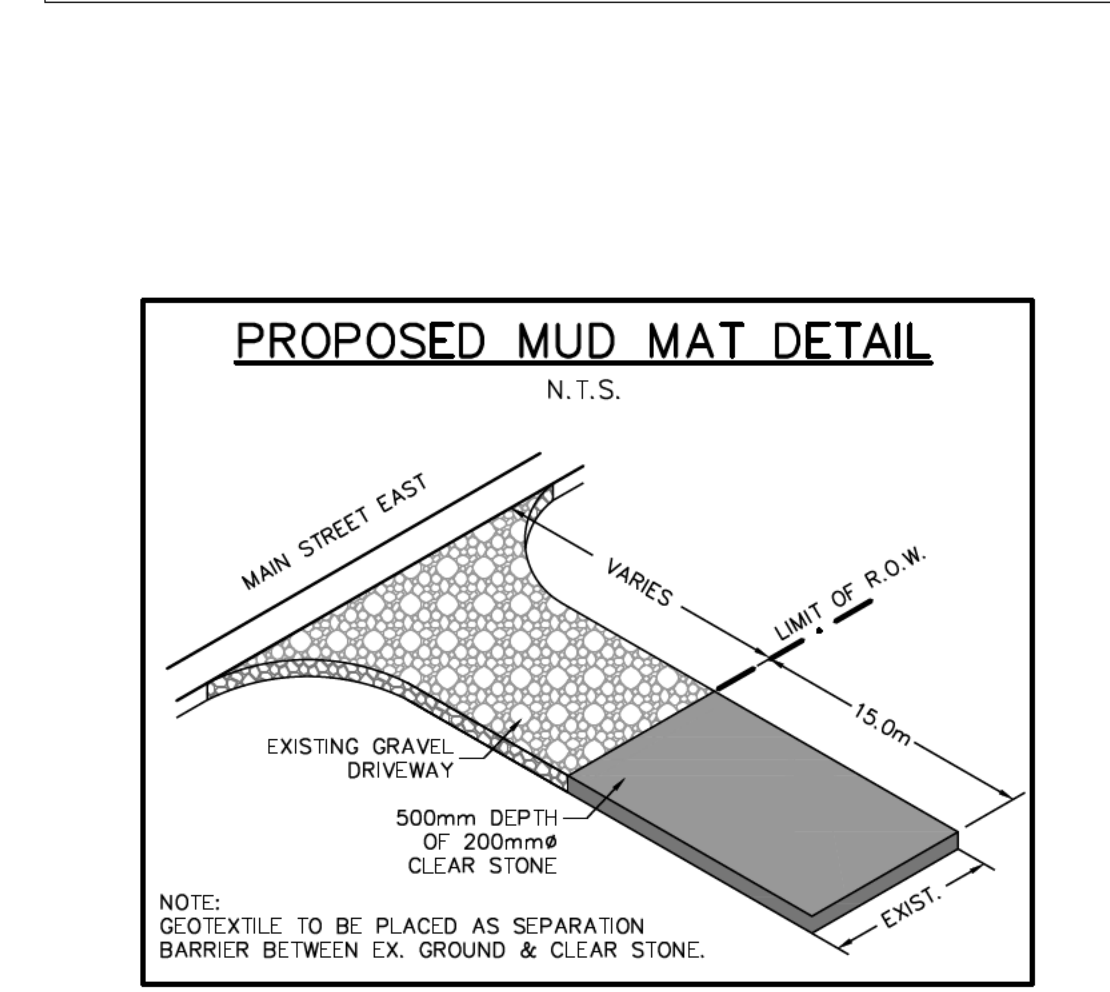
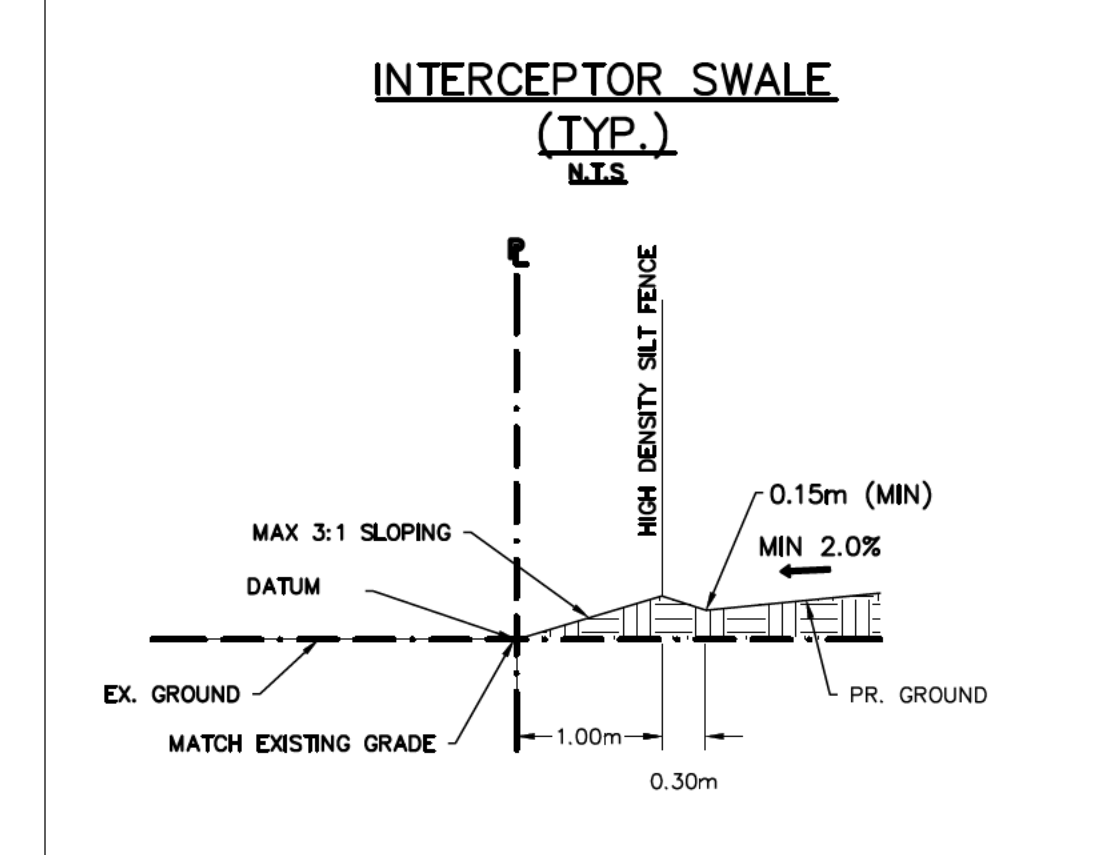
1. FOLLOWING COMPLETION OF CONSTRUCTION AND AS DIRECTED BY SITE ENGINEER, ALL EROSION AND SEDIMENT CONTROL WORKS ARE TO BE REMOVED INCLUDING ANY ACCUMULATED SEDIMENT.
2. ALL WORKS LOCATED ON LANDS OUTSIDE THE PROPOSED DEVELOPMENT AREA ARE TO BE GRADED TO MATCH EXISTING SURROUNDING GROUND AND HYDROSEEDED.
3. ALL SEDIMENT BUILD-UP TO BE REMOVED FROM SEDIMENT BASINS, CUT AREAS AND SEDIMENT BASINS TO BE TREATED WITH 25mm OF TOPSOIL AND HYDROSEEDED AS DIRECTED BY SITE ENGINEER.



| | | | |
|-------------------------------------|----------|-------|---------------------|
| ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2021 | Rev 3 | |
| STRAW BALE FLOW CHECK DAM | | | |
| | | | OPSD 219.180 |



| | | | |
|--------------------------------------|----------|-------|---------------------|
| ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2006 | Rev 1 | |
| HEAVY-DUTY SILT FENCE BARRIER | | | |
| | | | OPSD 219.130 |



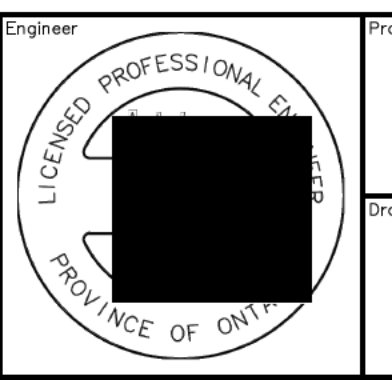
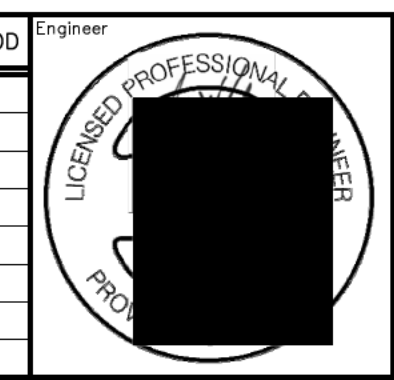
1. THIS DRAWING IS THE EXCLUSIVE PROPERTY OF C.F. CROZIER & ASSOCIATES INC. AND THE MODIFICATION AND/OR REPRODUCTION OF ANY PART OF THIS DRAWING IS STRICTLY PROHIBITED WITHOUT WRITTEN AUTHORIZATION FROM THIS OFFICE.
2. THE DIGITAL FILES CONTAIN INTELLECTUAL AND DIGITAL DATA PROPERTY THAT IS THE EXCLUSIVE PROPERTY OF C.F. CROZIER & ASSOCIATES INC. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LEVELS, AND DATUMS ON SITE AND REPORT ANY DISCREPANCIES OR OMISSIONS TO C.F. CROZIER & ASSOCIATES INC. PRIOR TO CONSTRUCTION.
3. THIS DRAWING IS TO BE READ AND UNDERSTOOD IN CONJUNCTION WITH ALL OTHER PLANS AND DOCUMENTS APPLICABLE TO THIS PROJECT.
4. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
5. DO NOT SCALE DRAWINGS.

BENCHMARKS

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| SURVEY COMPLETED BY SCHAEFFER DZALDOV PURCELL LIMITED ON NOVEMBER 16TH, 2023. ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE REFERRED TO THE ONTARIO MINISTRY OF NATURAL RESOURCES AND FORESTRY CONTROL NO. 00819688527 HAVING A PUBLISHED ELEVATION OF 515.966 METRES (CGVD26:78) |
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| No. | ISSUE | DATE: YYYY/MM/DD | Engineer |
|-----|-------------------------------|------------------|----------|
| 0 | ISSUED FOR 1ST SUBMISSION SPA | 2024/04/26 | |
| 1 | ISSUED FOR 2ND SUBMISSION SPA | 2025/06/25 | |
| 2 | ISSUED FOR 3RD SUBMISSION SPA | 2026/06/12 | |



271 MAIN STREET EAST DUNDALK TOWNSHIP OF SOUTHGATE

EROSION & SEDIMENT CONTROL PLAN NOTES & DETAILS

CROZIER CONSULTING ENGINEERS

| | | | | | |
|----------|--------|-----------|-------------|---------|-----------|
| Drawn By | D.G. | Design By | J.L.A./A.M. | Project | 2514-6796 |
| Check By | J.L.A. | Check By | A.M./J.K. | Drawing | C106 |

CONSTRUCTION NOTES:

A) GENERAL - CONSTRUCTION

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH TOWNSHIP OF SOUTHGATE STANDARDS, OPSP AND OPSS. WHERE CONFLICT OCCURS, TOWNSHIP OF SOUTHGATE TO GOVERN.
- TRENCH BACKFILL (OPSP 802.010 & 802.013) TO BE SELECT NATIVE MATERIAL OR IMPORTED SELECT SUBGRADE TO OPSS 1010. BACKFILL TO BE PLACED IN MAXIMUM 200mm THICK LIFTS AND COMPACTED TO 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
- PIPE COVER AND BEDDING TO BE CLASS 'B' COMPOSED OF COMPACTED GRANULAR IF EXTENSIVE DEWATERING IS REQUIRED CLASS 'A'.
- ALL TOPSOIL AND EARTH EXCAVATION TO BE STOCK PILED OR REMOVED TO AN APPROVED SITE AS DIRECTED BY ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETAILED LAYOUT OF THE WORK. THE DEVELOPER'S ENGINEER WILL CONFIRM ALL ELEVATIONS AND QUALIFIED SOILS CONSULTANT ALIGNMENT FOR THE CONTRACTOR.
- ALL PROPERTY BARS TO BE PRESERVED AND REPLACED BY O.L.S. AT CONTRACTOR'S EXPENSE IF REMOVED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR THE SUPPLY OF TEMPORARY WATER AND POWER. DEWATERING TO BE CARRIED OUT IN ACCORDANCE WITH OPSS-517 AND 518 TO MAINTAIN ALL TRENCHES IN A DRY CONDITION.
- CONTRACTOR RESPONSIBLE FOR OBTAINING MECP PERMIT IF REQUIRED.
- ALL ENGINE DRIVEN PUMPS TO BE ADEQUATELY SILENCED, SUITABLE FOR OPERATION IN A RESIDENTIAL DISTRICT. DISTURBED AREAS OUTSIDE THE DEVELOPABLE LANDS TO BE REINSTATED TO PREVIOUS CONDITION OR BETTER.
- THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK AND CO-ORDINATE CONSTRUCTION ACCORDINGLY.
- ALL EXCAVATION MUST BE CARRIED OUT IN FULL COMPLIANCE WITH MOST RECENT GUIDELINES OF OSHA. NATIVE SOILS ARE CLASSIFIED AS TYPE 3 & 4 SOIL AS PER GEOTECHNICAL REPORT (GREEN GEOTECHNICAL LIMITED, FEBRUARY 2024)

B) ROADS

- ALL EXCAVATION SHALL CONFORM TO THE CURRENT ONTARIO PROVINCIAL SPECIFICATION FOR GRADING OPSS 206. THE DEVELOPER A QUALIFIED SOILS CONSULTANT TO CARRY OUT COMPACTION TESTS ON THE COMPLETED SUBGRADE AND SUBSEQUENT LIFTS.
- OF GRANULAR BASE MATERIAL BEFORE PLACEMENT OF NEXT GRANULAR OR ASPHALT LIFT.
- ALL VEGETATION, BOULDERS OVER 150mm ϕ , TOPSOIL AND ORGANIC OR FROST-SUSCEPTIBLE MATERIALS SHALL BE REMOVED FROM THE ROAD BASE TO A DEPTH OF AT LEAST 1.2m BELOW FINISHED GRADE AND REPLACED WITH SUITABLE MATERIAL.
- BOULEVARD MATERIAL TO BE COMPACTED TO A MINIMUM DRY DENSITY OF AT LEAST 95% SPMDD, IN THE ZONE WITHIN 1.0m BELOW THE PAVEMENT SUBGRADE, THE BACKFILL SHOULD BE COMPACTED TO AT LEAST 98% SPMDD WITH THE WATER CONTENT 2% TO 3% DRIER THAN THE OPTIMUM. IN THE LOWER ZONE, A 95% OR GREATER COMPACTION IS ADEQUATE.
- GRANULAR 'A' AND 'B' ROAD BASE TO BE COMPACTED TO 100% OF THE MATERIAL'S RESPECTIVE SPMDD AND PLACED IN MAX. 150mm LIFTS. REFER TO GEOTECHNICAL REPORT FOR FURTHER DETAILS.
- PROPOSED LANEWAY TO BE CONSTRUCTED WITH MINIMUM 450mm GRANULAR 'B' TYPE 1, 150mm GRANULAR 'A', 80mm HL3 BASE COURSE ASPHALT & 50mm HL3 SURFACE COURSE ASPHALT (HEAVY DUTY PAVEMENT STRUCTURE, SEE DETAIL ON THIS DRAWING. BOULEVARD FROM PROPERTY LINE TO THE BACK OF CURB TO BE TREATED WITH A TOPSOIL DEPTH OF 200mm AND SOD. PER RECOMMENDATIONS INCLUDED IN GEOTECH REPORT (GREEN, 2024)/PER TOWNSHIP STANDARDS DATED JUNE, 2022.
- SELECT SUBGRADE MATERIAL OR IMPORTED GRANULAR MATERIAL APPROVED BY THE ENGINEER, COMPACTED TO 98% SPMDD TO BE USED AS FILL IN ALL AREAS WHERE PROPOSED PIPE INVERTS ARE HIGHER THAN EXISTING GRADE OR AS INSTRUCTED BY THE ENGINEER.
- ALL GRANULARS AND ASPHALT MATERIALS AND PLACEMENT TO BE IN ACCORDANCE WITH OPSS 314 AND OPSS 310. JOINTS WITH EXISTING ASPHALT TO BE SAW CUT STRAIGHT WITH MIN. 0.3m LAP JOINT PRIOR TO PLACING NEW ASPHALT AND TACK COAT APPLIED TO EXISTING ASPHALT.
- STOP SIGNS AND STREET SIGNS TO TOWNSHIP STANDARDS.
- REINSTATEMENT OF ALL DISTURBED BOULEVARDS TO INCLUDE REGRADING, 200mm TOPSOIL AND SOD TO OPSS 570 AND 571.
- 100mm ϕ PIPE SUBDRAINS SHALL BE PROVIDED UNDER EDGE OF PAVEMENT ON LOWER (GUTTER) SIDE OF THE ROAD.
- ALL SUBDRAINS TO BE CONSTRUCTED IN ACCORDANCE WITH OPSS 405. SUBDRAIN TO BE INSTALLED IN GRANULAR 'A' TRENCH AND CONNECTED TO EACH CB OR CBMH.
- SUBDRAINS TO BE PERFORATED OTHER THAN THE 2m SECTION IMMEDIATELY UPSTREAM OF ALL STRUCTURES WHICH SHALL BE NON-PERFORATED.
- ALL CONCRETE SIDEWALKS TO BE CONSTRUCTED AS PER OPSP 310.010. ALL SIDEWALK RAMPS SHALL CONFORM WITH OPSP 310.030, 033, 039 AND COMPLETE WITH TACTILE PLATES.

C) SANITARY SEWERS

- ALL SANITARY STRUCTURE LIDS ARE TO BE SELF-LEVELING (EAST JORDAN IRON WORKS -PRODUCT NO. 00302202 OR BIBBY-STE-CROIX)
- M.H.'S TO OPSP - 701.010, 701.030, & 704.010.
- BENCHING TO OPSP - 701.021.
- STEPS TO OPSP 405.010.
- BACKFILL AND EMBEDMENT TO OPSP - 802.010 CLASS 'B', GRANULAR 'A' BEDDING. IF EXTENSIVE DEWATERING IS REQUIRED, A CLASS 'A' BEDDING MAY BE REQUIRED (SUBJECT TO GEOTECHNICAL RECOMMENDATIONS.)
- TRENCH BACKFILL TO BE SELECT NATIVE MATERIAL AS APPROVED BY ENGINEER OR IMPORTED GRANULAR MATERIAL. FRAMES AND COVERS TO OPSP - 401.01 TYPE 'A' (CLOSED COVER).
- SERVICE CONNECTIONS TO OPSP - 1006.020 (125mm), GRANULAR 'A' BEDDING, TERMINATE AT SERVING CORRIDOR LIMITS WITH A TEST FITTING, PLUG AND 2x4 MARKER POST GRANULAR GREEN REFER TO TOWNSHIP STANDARD S3. MINIMUM GRADE TO BE 2.0% SERVICE CONNECTIONS TO TOWNSHIP STD S4.
- RADIUS BENDS TO BE USED ON SANITARY SEWER CONNECTIONS WHERE THE ANGLE OF CONNECTION BETWEEN THE SERVICE AND SEWER EXCEEDS 90°.
- BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
- MANHOLES FRAMES TO BE SET TO BASE COURSE ASPHALT ELEVATION AND RAISED BY ADDING RISER RINGS PRIOR TO PLACING SURFACE COURSE ASPHALT.
- PIPE SUPPORT AT MAINTENANCE HOLES AS PER OPSP 708.020.
- ALL MAINTENANCE HOLES, UNLESS EXPRESSLY IDENTIFIED ARE 1200mm ϕ . SANITARY MANHOLE JOINTS TO BE SEALED WITH "MEL-ROL" AS PER MUNICIPAL STANDARD.
- GENERAL INSTALLATION AND TESTING OF SEWERS AND APPURTENANCES TO BE IN ACCORDANCE WITH OPSS 407, 408, 409 (CCTV), 410, 421 AND ALL SPECIFICATIONS REFERENCED WITHIN THESE SECTIONS.
- SANITARY SEWER - SDR 35 PVC.
- SANITARY SERVICE - SDR 28 PVC - 125mm.
- FROST STRAPS PER OPSP 701.100.
- ALL PIPE JOINTS MUST BE LEAK-PROOF AND /OR ALL JOINTS SHOULD BE WRAPPED IN A WATERPROOF MEMBRANE (SUBJECT TO GEOTECHNICAL RECOMMENDATIONS). ALL MANHOLE JOINTS ARE TO BE SEALED USING MEL-ROL OR RISE-WRAP.

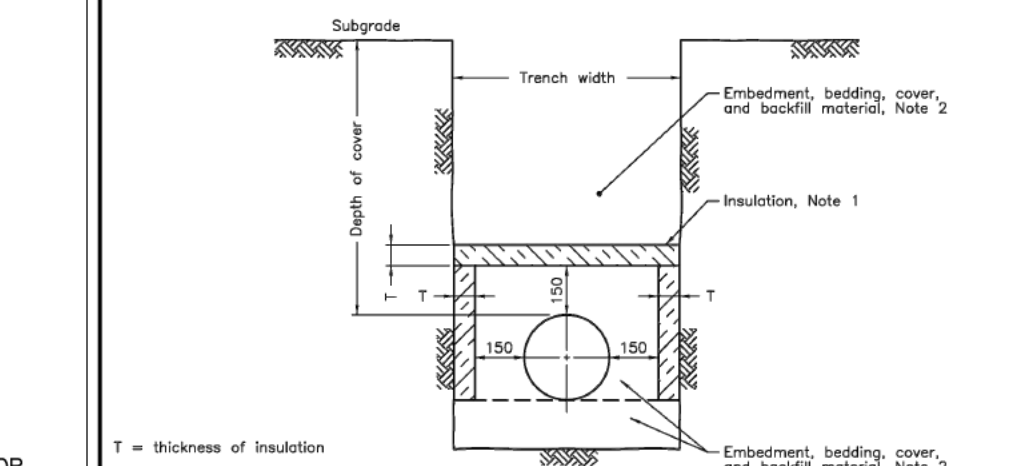
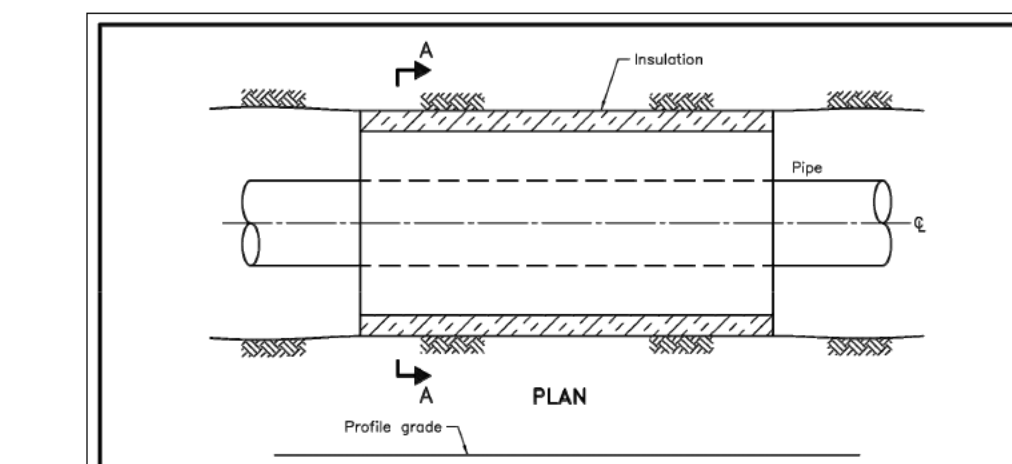
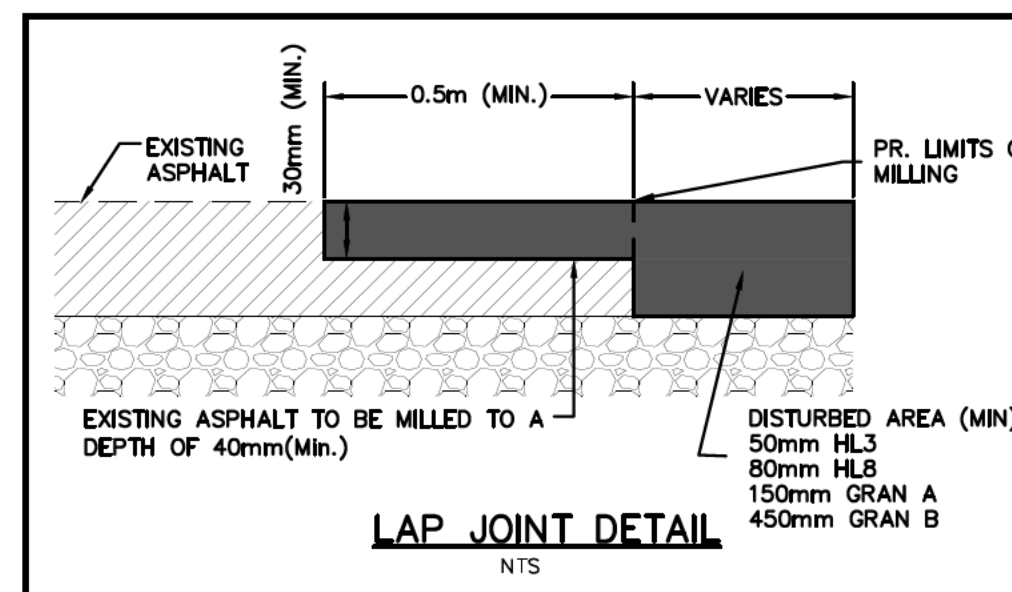
D) WATERMANS

- BACKFILL AND EMBEDMENT TO OPSP - 802.010 CLASS 'B', GRANULAR 'A' EMBEDMENT. REFER TO GENERAL NOTES.
- TRENCH BACKFILL TO BE SELECT NATIVE MATERIAL AS APPROVED BY ENGINEER OR IMPORTED GRANULAR MATERIAL. THRUST BLOCKS TO OPSP - 1103.010 AND 1103.020 WHERE SUITABLE SOILS ARE ENCOUNTERED.
- SERVICE CONNECTIONS TO OPSP - 1104.010, 100mm GRANULAR 'A' EMBEDMENT AND COVER OVER PIPE. TERMINATE AT SERVING CORRIDOR LIMITS C/W CURB STOP AND BOX.
- HYDRANTS AS PER OPSP 1105.010 ARE TO BE EQUIPPED WITH ANCHOR TEE'S & VALVES. DRAIN PLUGS SHALL BE INSTALLED WHERE HIGH WATER TABLE IS ENCOUNTERED. ANCHOR TEE AND VALVE TO BE USED AT HYDRANTS
- BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD)
- MINIMUM COVER ON WATERMAIN AND SERVICES TO BE 2.0m.
- GATE VALVES, BENDS AND HYDRANT LEADS AND FITTINGS TO BE CONNECTED WITH ROLMAC GRIPPER RING RESTRAINING GLANDS. MECHANICAL RESTRAINTS ARE TO BE ONE OF THE FOLLOWING:
 - UNI-FLANGE SERIES 1300 MANUFACTURED BY FORD METER BOX COMPANY INC.
 - MEGALIC SERIES 1100 FOR DUCTILE IRON PIPE
 - MEGALIC SERIES 2000 PV FOR PVC C900 PIPE
 - STARGRIP SERIES 3000 FOR DUCTILE IRON PIPE
 - PVC STARGRIP SERIES 4000 FOR PVC C900 PIPE
- ALL SERVICES TO BE DIRECT TAPPED.
- FOLLOWING TESTING, CONTRACTOR SHALL OPERATE EACH WATER SERVICE TO VERIFY FULL FLOW AND PRESSURE AT THE CURB STOP TO THE SATISFACTION OF THE ENGINEER.
- GENERAL INSTALLATION AND TESTING OF WATERMAIN AND APPURTENANCES TO BE IN ACCORDANCE WITH OPSS 701 AND ALL SPECIFICATIONS REFERENCED WITHIN THESE SECTIONS. COMPLETE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH REQUIREMENTS OF AWWA STANDARD C651-99. REFER TO DETAIL ON DWG 1130 FOR TYPICAL TEMPORARY CONNECTION. ALL WATERMAIN TESTING & CHLORINATION WILL BE CONDUCTED BY THE TOWNSHIP AT CONTRACTOR'S COST. WATERMANS ARE NOT TO BE CONNECTED TO EXISTING WATERMANS UNTIL BACTERIOLOGICAL TESTING HAS BEEN SUCCESSFULLY COMPLETED & CERTIFIED BY CPU. COMPLETE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH REQUIREMENTS OF O. REG. 459/00 &

- SATISFACTION OF THE TOWNSHIP.
- WATERMAIN - C900 PVC CLASS 235 (OR 18), B 137.3 WITH RING-TITE JOINTS AND TRACER WIRE. TRACER WIRE IS TO BE #12 AWG CLAD STEEL, HIGH STRENGTH WITH MINIMUM 450H B BUREAU OF STANDARDS. HIGH CLAD STEEL OR CODED BLUE. DIRECT BURY WIRE SHOULD HAVE 3-WAY LOCABLE CONNECTORS. ABOVE GROUND TRACER WIRE ACCESS BOXES SHALL BE ATTACHED TO UNDERSIDE OF BOTTOM FLANGE OF FIRE HYDRANTS.
 - SINGLE WATERMAIN SERVICES (25mm ϕ) - COPPER SEAMLESS TYPE 'K' FOR SERVICES LESS THAN OR EQUAL TO 20.0m IN LENGTH. CROSS-LINKED POLYETHYLENE ("MUNICIPLEX" BY REHAU AND "BLUE 904" BY IPEX) FOR SERVICES GREATER THAN 20.0m IN LENGTH.
 - MAIN STOPS ARE TO BE ONE OF THE FOLLOWING:
 - CAMBRIDGE BRASS, BALL STYLE, SERIES 301NL (NO LEAD), AWWA X CB COMPRESSION ASSEMBLY
 - MUELLER CANADA, MUELLER 300, BALL TYPE, NO LEAD, B-2500B, AWWA X MUELLER "CC" COMPRESSION ASSEMBLY
 - FORD METER BOX COMPANY, BALL STYLE, FB-1000-NL, NO LEAD, AWWA X "CC" COMPRESSION ASSEMBLY
 - CURB STOPS TO 203-H3H3, BALL STYLE WITH DRAIN. BLOW OFFS AS PER TOWNSHIP STD W1.
 - CURB STOPS ARE TO BE ONE OF THE FOLLOWING:
 - CAMBRIDGE BRASS, BALL STYLE, SERIES 202NL (NO LEAD), CB COMPRESSION X CB COMPRESSION ASSEMBLY
 - MUELLER CANADA, MUELLER 300, BALL TYPE, NO LEAD, MUELLER "CC" X MUELLER "CC" COMPRESSION ASSEMBLY
 - FORD METER BOX COMPANY, BALL STYLE, B44 SERIES, NO LEAD, "CC" COMPRESSION ASSEMBLY
 - A CURB STOP & EXTENSION SERVICE BOX & MAIN STOP MUST BE INSTALLED ON EACH SERVICE USING COMPRESSION JOINT FITTINGS.
 - ALL CURB STOPS FOR SERVICES WITHIN ASPHALT TO BE LOCATED IN VALVE BOXES INSTALLED FLUSH TO FINISHED GRADE OF ASPHALT. CAP FOR VALVE BOX TO BE MARKED WITH 'W' & PAINTED BLUE.
 - SERVICE BOXES TO BE NUMBER 7, D-1 CLOW OR MUELLER, 24" BLACK ROADS STRAIGHT C/W CAP PAINTED BLUE.
 - ALL SERVICES SHALL BE METERED AS PER TOWNSHIP STD W7. METERS TO BE COMPLETE WITH REMOTE READOUT OR RADIO READ AS DETERMINED BY THE TOWNSHIP.
 - HYDRANTS - CENTURY NUMBER 1, OPEN LEFT (O/L), 2 HOSE, 3/8" PLUMBER PORT, 6" MJ BASE, SELF-DRAINING RED WITH RED STORZ CAP, CANADA VALVE, CENTURY COMPRESSION TYPE VALVE SEALS OR CLOW CANADA BRIGADIER HERITAGE STYLE HYDRANT WITH MCAVITY MESH SHAPE, BOTH WITH STRONG PUMPER CONNECTION.
 - VALVES - RESILIENT SEATED, RSGV MECHANICAL JOINT, OPEN LEFT CLOW OR MUELLER WITH 5-SL-48 SLIDING VALVE BOX C/W CAP PAINTED BLUE. VALVE AND VALVE BOX PER TOWNSHIP STD W2.
 - MECHANICAL JOINT DUCTILE FITTINGS - AWWA/ANSI C153/A21.53.
 - HYDRANTS TO BE INSTALLED C/W HYDRANT MARKER STAKES PER TOWN & CPU STANDARD "FLEX STAKE HYDRANT MARKER MODEL FHY804, 48" LONG, COLOUR YELLOW WITH REFLECTIVE HYDRANT GRAPHIC ON BOTH SIDES". MARKER TO BE POSITIONED ON THE RIGHT PORT AS VIEWED FROM STREET.
 - ALL VALVES TO BE OPERATED BY THE TOWNSHIP (IF REQUIRED). CONTRACTOR TO PROVIDE MIN. 48hr NOTIFICATION FOR REQUEST.
 - HYDRANTS ARE TO BE 1.67m (5'6") LONG. MAKE-UP PIECES, IF REQUIRED, ARE TO BE INSTALLED BELOW THE HYDRANT.
 - ALL WATERMAIN FITTINGS TO BE LEAD FREE.
 - MECHANICAL JOINT RESTRAINTS TO BE USED DURING TRANSITION OF WATERMAIN INSTALLATION IN NATIVE SOILS TO ENGINEERED FILL. MECHANICAL JOINT RESTRAINTS TO BE UNI-FLANGE SERIES 1300, MANUFACTURED BY FORD METER BOX COMPANY INC. OR APPROVED EQUAL. FINAL LIMITS TO BE FIELD DECISION.
 - MECHANICAL JOINTS ARE REQUIRED ON ALL FITTINGS AND BENDS.
 - WATER SAMPLING STATION - THE KUPFERLE FOUNDRY COMPANY ECLIPSE #88 FOR FREEZING CLIMATES ON A PEDESTAL.
 - CATHODIC PROTECTION REQUIRED ON ALL METALLIC FITTING AND PIPE AS PER OPSS 702 & TOWNSHIP STANDARDS
 - THE PVC PIPE INSTALLATION SHALL INCLUDE TRACER WIRE. TRACER WIRE TO BE 12 GAUGE, MULTI-STRAND SHALL BE PLACED ON TOP & ATTACHED IN W/O PLACES ON EACH LENGTH OF PVC WATERMAIN. ALL CONNECTIONS SHALL BE MADE WITH "DRYCON WATERPROOF CONNECTORS" OR APPROVED EQUAL. MUNICIPALITY MUST BE ON SITE DURING ANY TRACER WIRE CONTINUITY TESTING. ABOVE GROUND TRACER WIRE ACCESS BOXES SHALL BE ATTACHED TO UNDERSIDE OF BOTTOM FLANGE OF FIRE HYDRANTS.
 - CLEARANCE BETWEEN WATERMANS AND SEWER TO BE AS PER MOC GUIDELINES. THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE WATER MAIN AND ANY SEWER SHALL BE 2.5m. A MINIMUM VERTICAL SEPARATION OF 0.5m MUST BE MAINTAINED BETWEEN WATER MAIN AND SEWERS. CLEARANCES ARE MEASURED FROM OUTSIDE EDGES OF PIPES.
 - 75mm PVC SLEEVES SHALL BE PROVIDED WHERE CURB-STOPS ARE LOCATED IN DRIVEWAYS.

E) STORM SEWERS

- ALL STORM STRUCTURE MH LIDS ARE TO BE SELF-LEVELING (EAST JORDAN IRON WORKS -PRODUCT NO. 00302202 OR BIBBY-STE-CROIX)
- MH TO OPSP 701.010 AND DCBMH TO OPSP - 701.011, 701.012, 701.013.
- SUMPS - 450mm PIPES AND UNDER REQUIRE 600mm SUMP IN CATCHBASINS AND MAINTENANCE HOLES
- BENCHING - REQUIRED FOR PIPES OVER 450mm DIAMETER.
- STEPS TO OPSP 405.010.
- M.H. FRAMES AND GRATES TO OPSP - 401.01 OPEN COVER.
- DCB'S TO OPSP - 705.030, 705.040 (TYPE A).
- DCBMH FRAMES AND GRATES TO BE OPSP - 400.100, & OPSP-400.110 (SQUARE)
- PIPE SUPPORT AT DCBMH'S TO OPSP - 708.020.
- DCB LEADS MINIMUM 300mm ϕ CONNECTION FOR RIGID & FLEXIBLE MAIN PIPE SEWER AS PER OPSP - 708.010, 708.030.
- PROTECTION DURING CONSTRUCTION TO OPSP - 808.010.
- BACKFILL AND EMBEDMENT TO OPSP - 802.010 (FLEXIBLE PIPE) CLASS 'B', GRANULAR 'A' EMBEDMENT OR OPSP - 802.030, 802.031 AND 802.032 (RIGID PIPE) GRANULAR 'A' EMBEDMENT. REFER TO GENERAL NOTES.
- BACKFILL AND EMBEDMENT MATERIAL TO BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MATERIAL'S SPMDD.
- FROST STRAPS PER OPSP 701.100.
- STORM SEWERS 375mm ϕ OR LESS TO BE PVC DR35. STORM SEWERS 450mm OR MORE TO BE CONCRETE CL-65D UNLESS OTHERWISE NOTED.
- STORM SERVICES TO BE 100mm ϕ PVC DR28 COLORED WHITE, WHERE SHARED STORM SERVICES ARE USED, SERVICE BETWEEN STORM SEWER CONNECTION AND PIPE TO BE 125mm ϕ . MINIMUM SLOPE TO BE 1% AND MINIMUM COVER 1.2m.
- CATCH-BASIN LEADS TO REAR YARD CATCH-BASINS TO BE CONCRETE CL-1000.
- IN-LINE AREA DRAINS (AD) TO BE NYLOPLAST 15" (DWG NO. 7003-110-026).



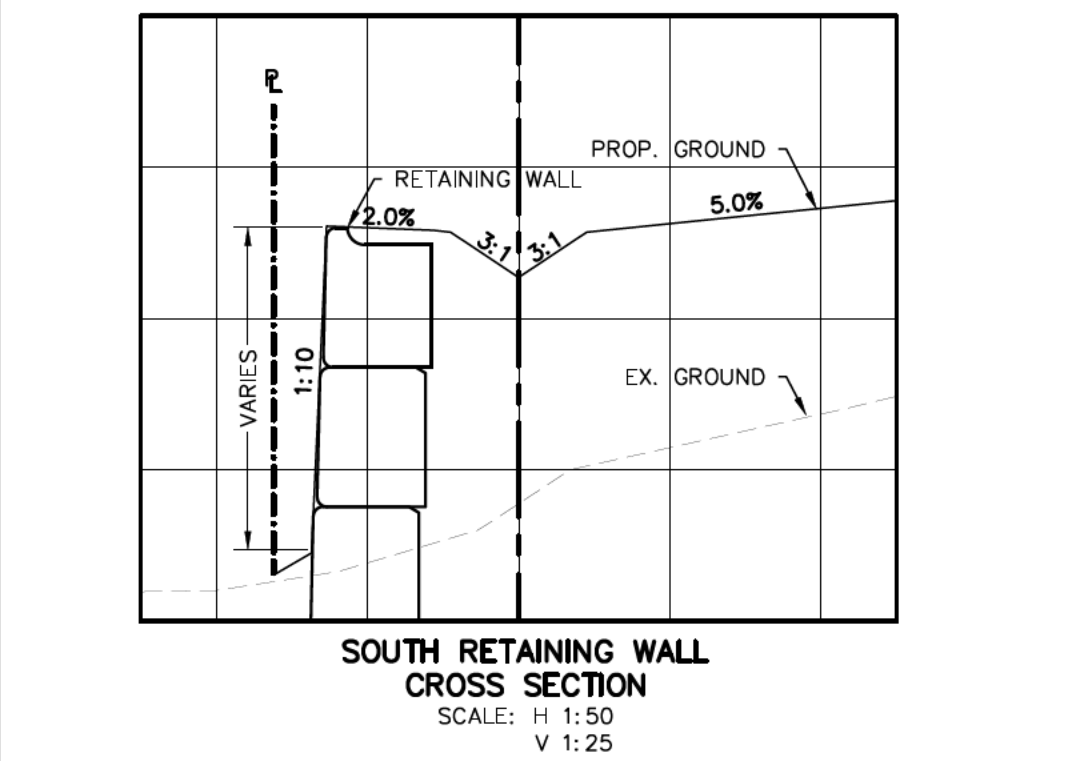
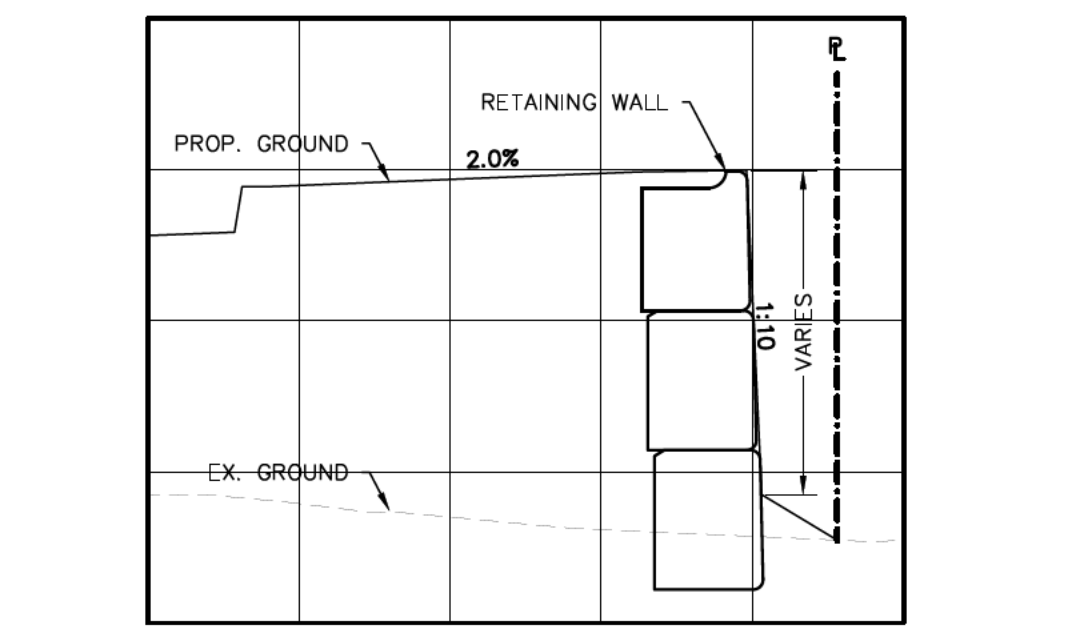
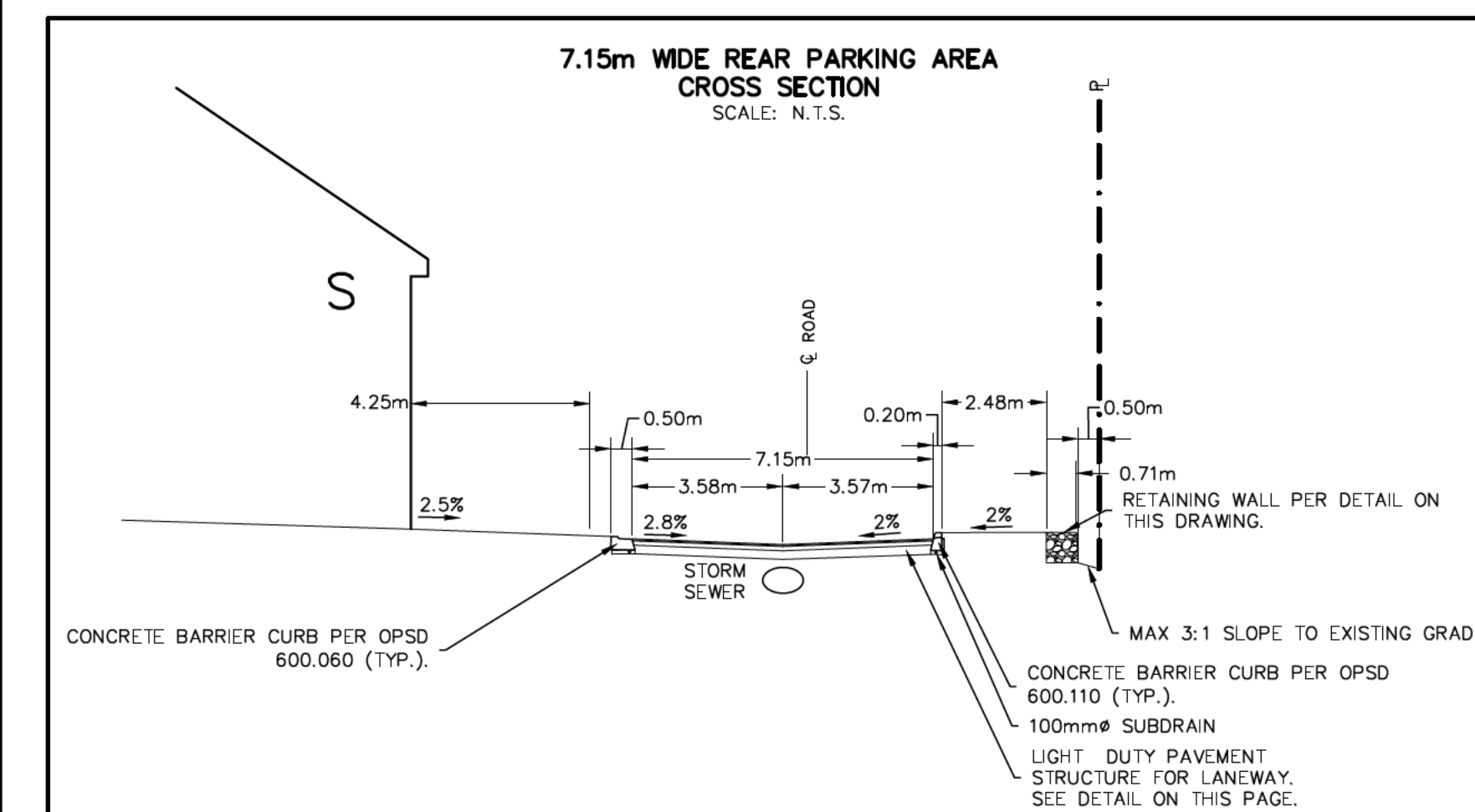
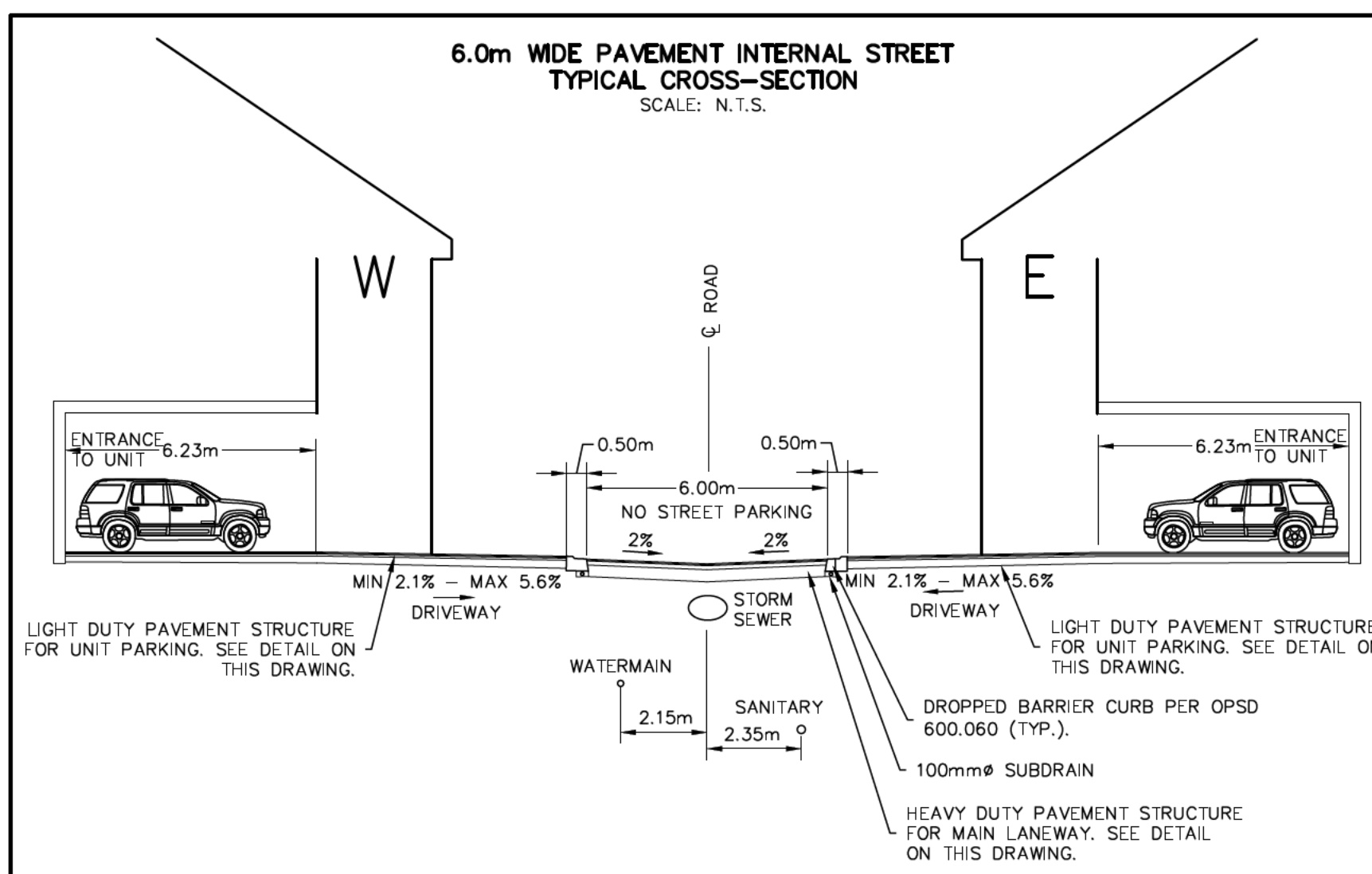
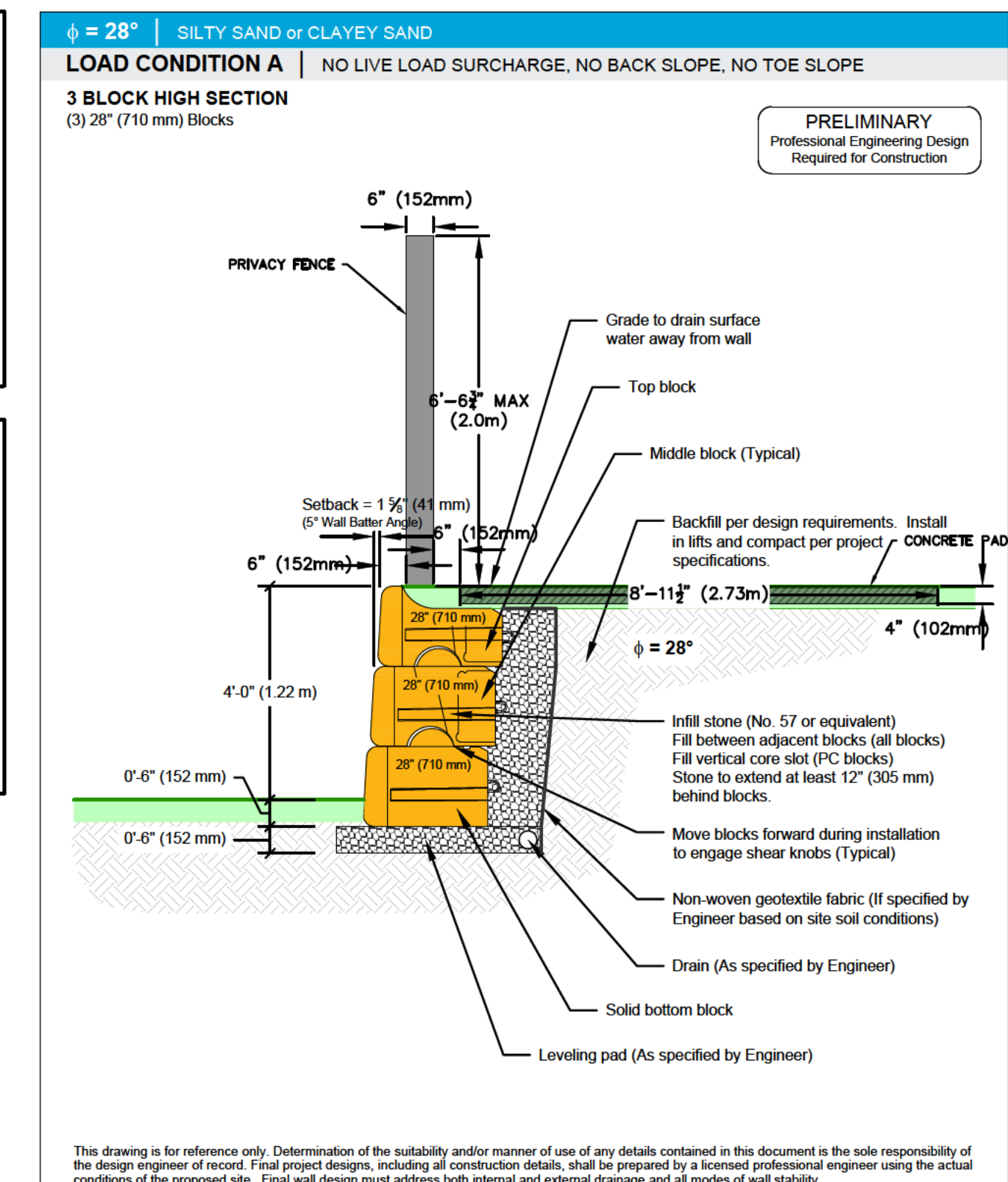
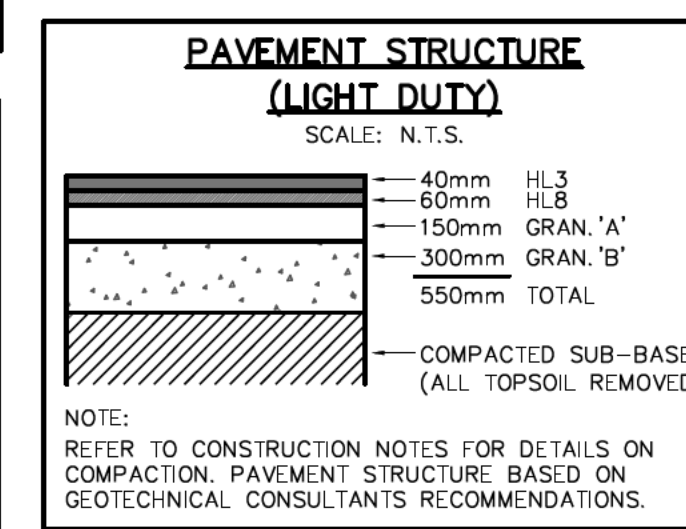
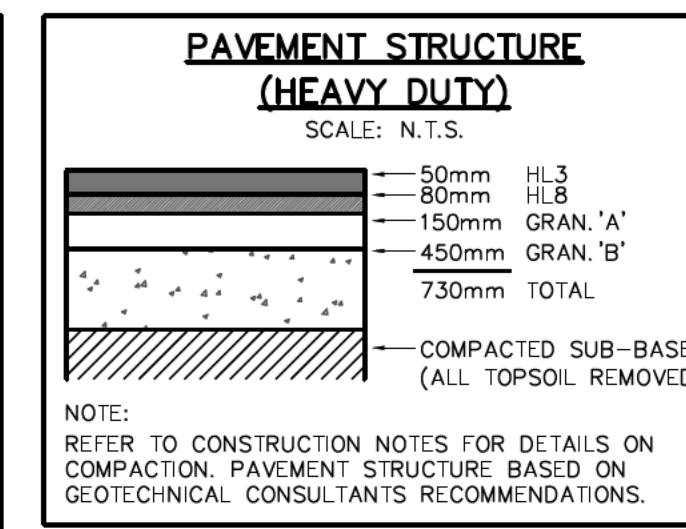
NOTES:

- The insulation material shall be extruded polystyrene according to OPSS 1605 with a minimum compressive strength of 275 kPa.
- Pipe embedment or bedding, cover, and backfill shall be according to:
 - Flexible OPSP 802.010, 802.013, 802.020, and 802.023
 - Rigid - OPSP 802.030, 802.031, 802.032, 802.033, 802.050, 802.051, 802.052, and 802.053.
- A minimum insulation thickness shall be 50mm.
- Details shall be staggered for multiple insulation sheets.
- This OPSP is to be read in conjunction with OPSP 3090.100 and 3090.101.
- All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2020 Rev 1

INSULATION FOR SEWERS AND WATERMANS IN SHALLOW TRENCHES

OPSP 1109.030



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BENCHMARKS

SURVEY COMPLETED BY SCHAEFFER DZALDOV PURCELL LIMITED ON NOVEMBER 16TH, 2023. ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE REFERRED TO THE ONTARIO MUNICIPALITY OF NATURAL RESOURCES AND FORESTRY CONTROL No. 00819688527 HAVING A PUBLISHED ELEVATION OF 515.566 METRES (CGVD28-78)

| No. | ISSUE | DATE: YYYY/MM/DD |
|-----|-------------------------------|------------------|
| 0 | ISSUED FOR 1ST SUBMISSION SPA | 2024/04/26 |
| 1 | ISSUED FOR 2ND SUBMISSION SPA | 2025/06/25 |
| 2 | ISSUED FOR 3RD SUBMISSION SPA | 2026/06/12 |

Town:

Engineer:

Engineer:

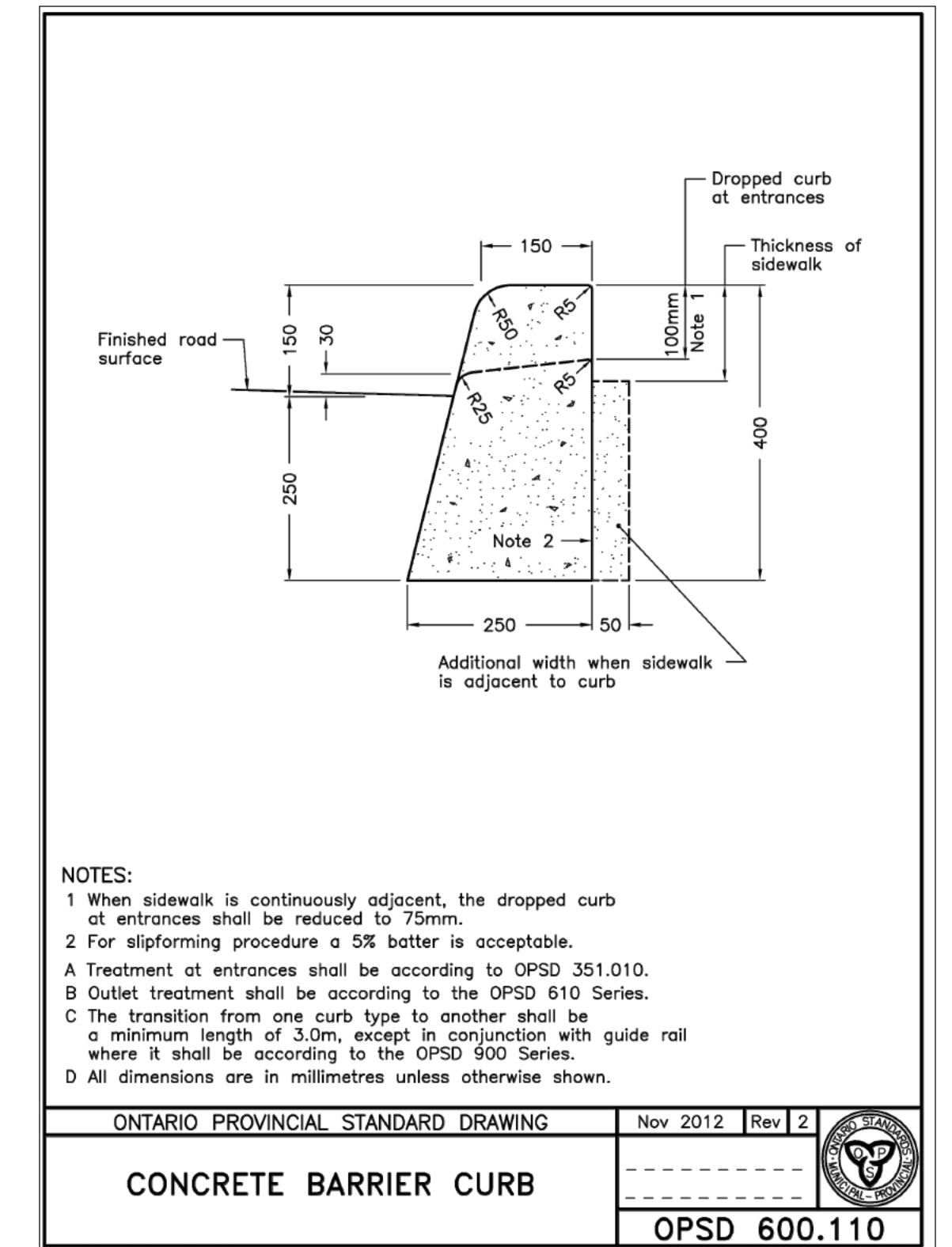
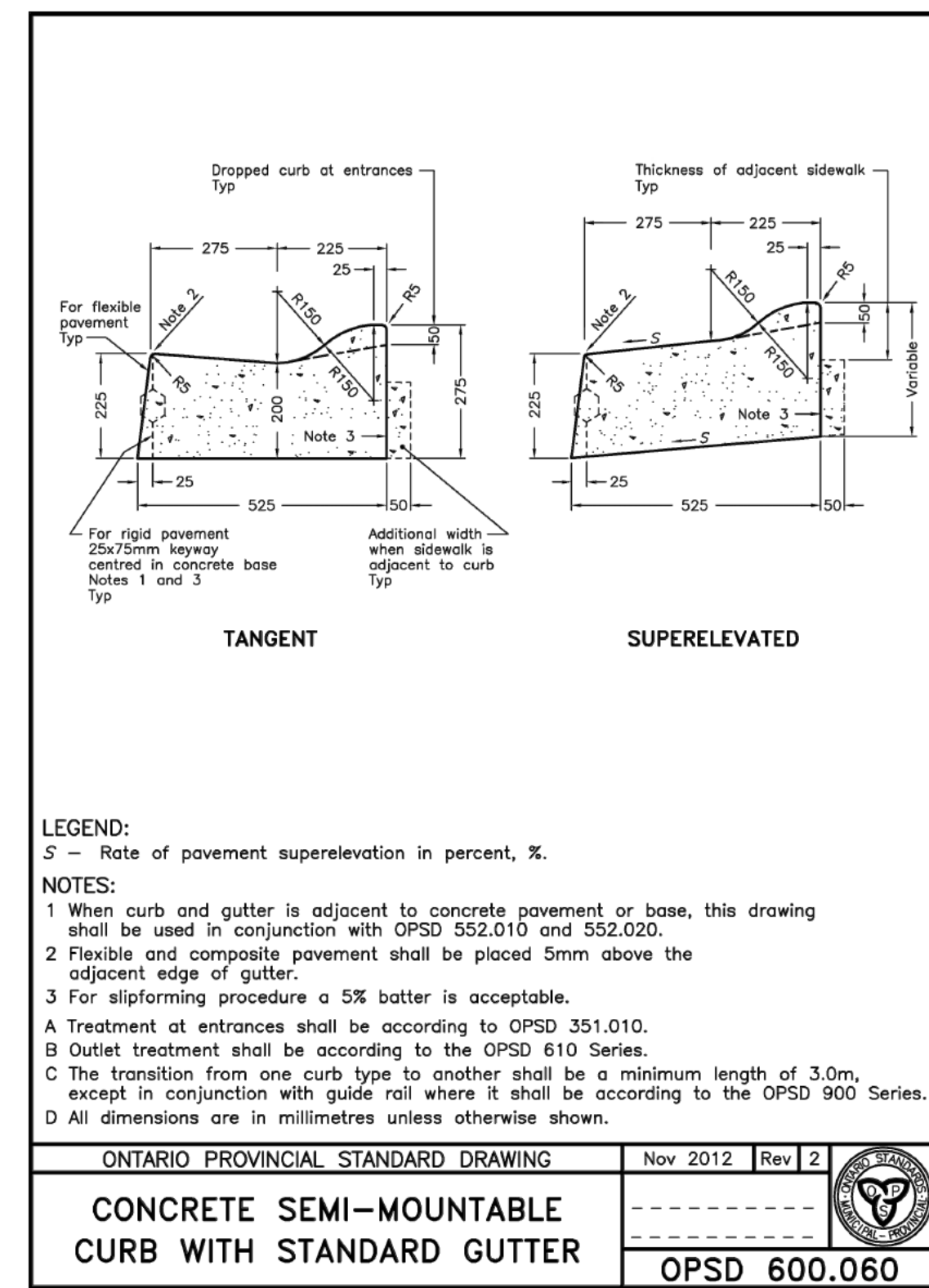
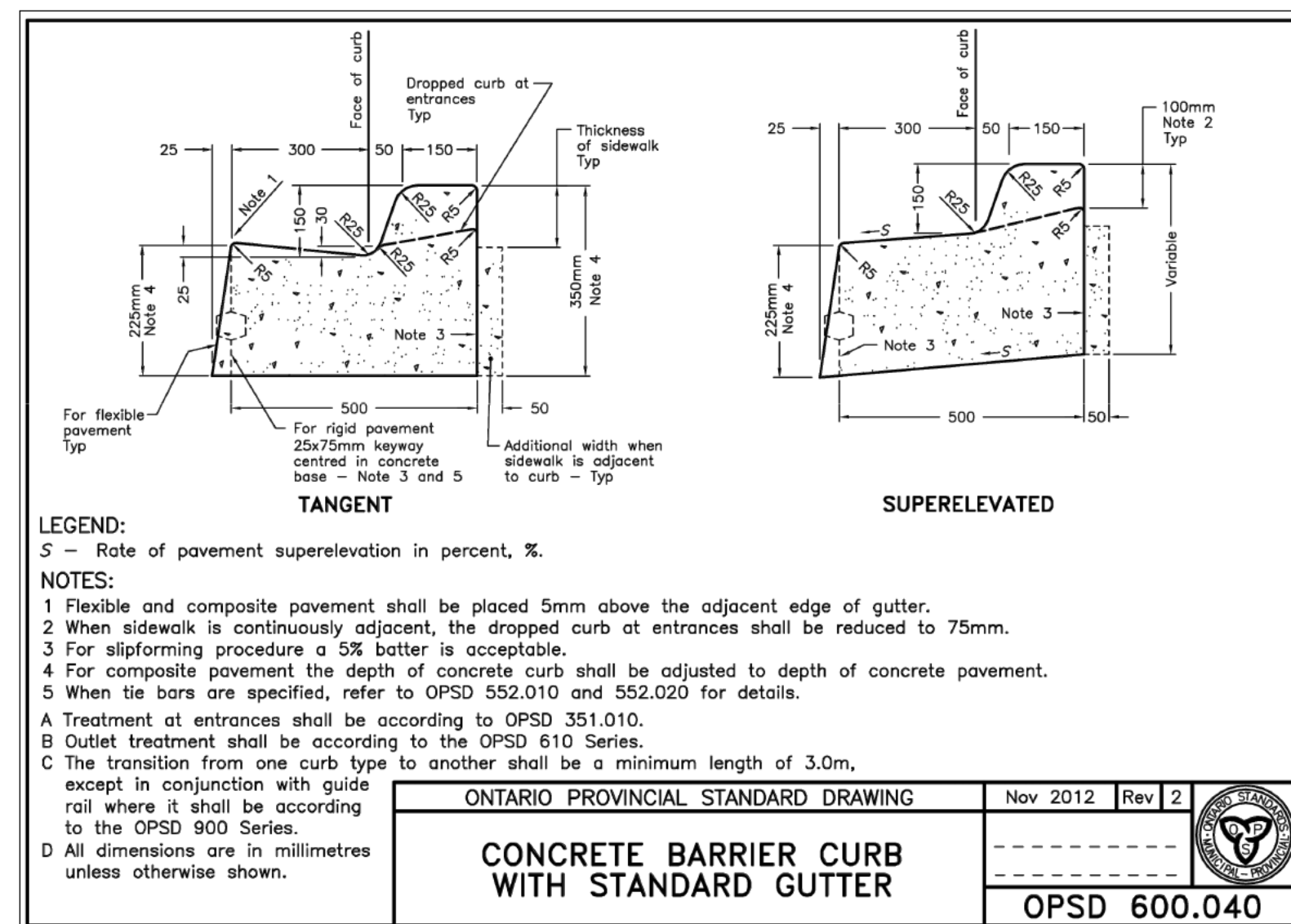
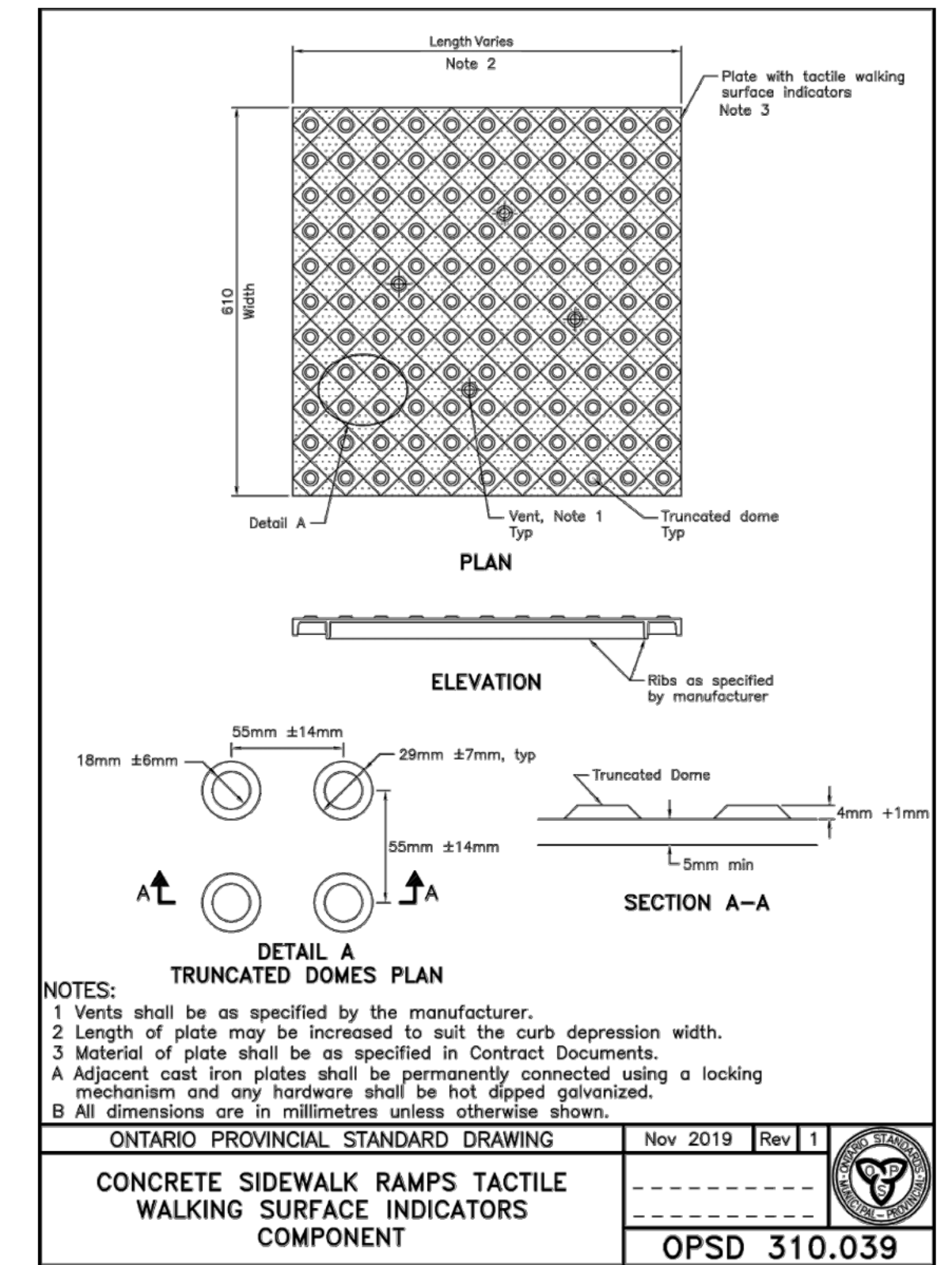
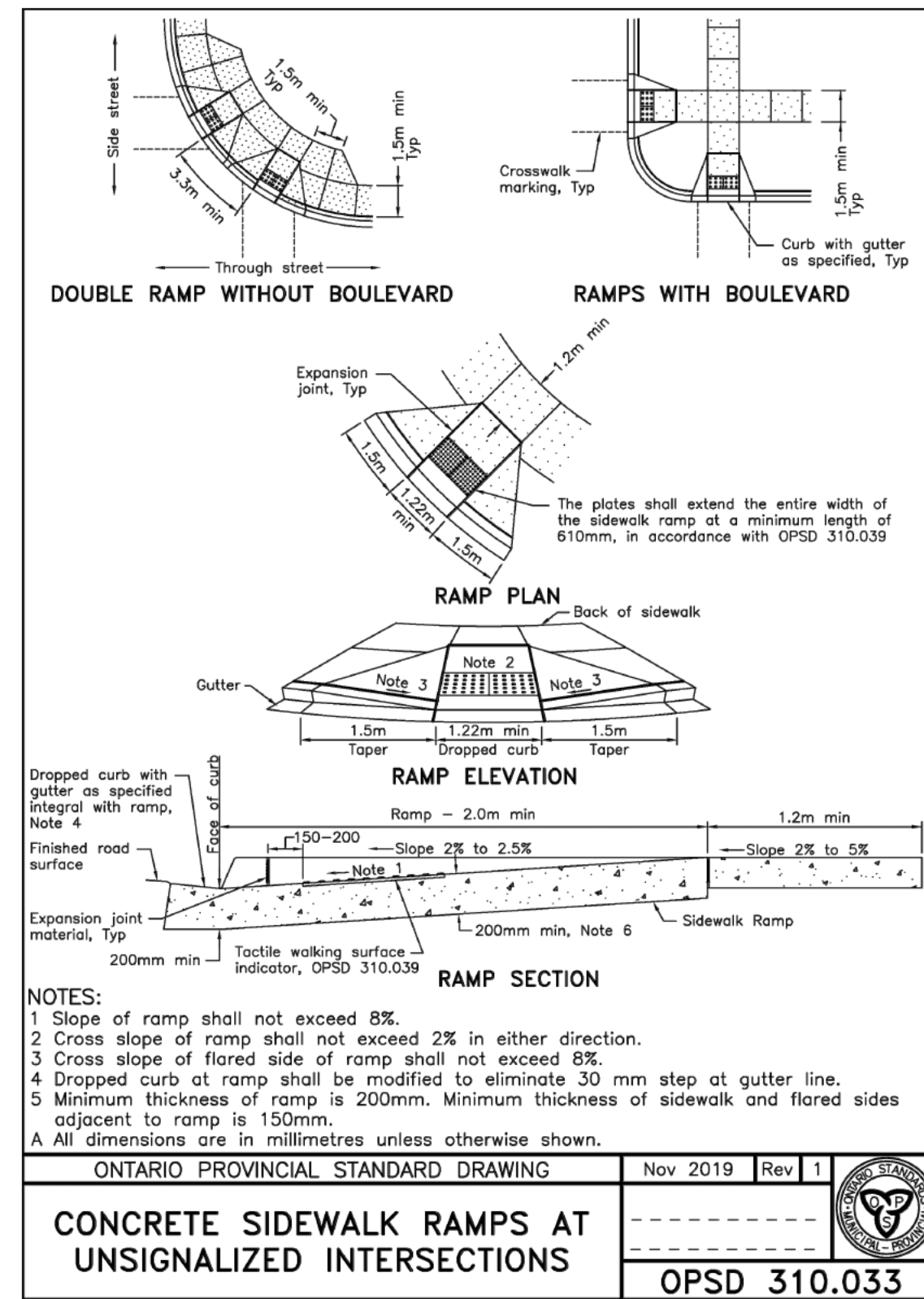
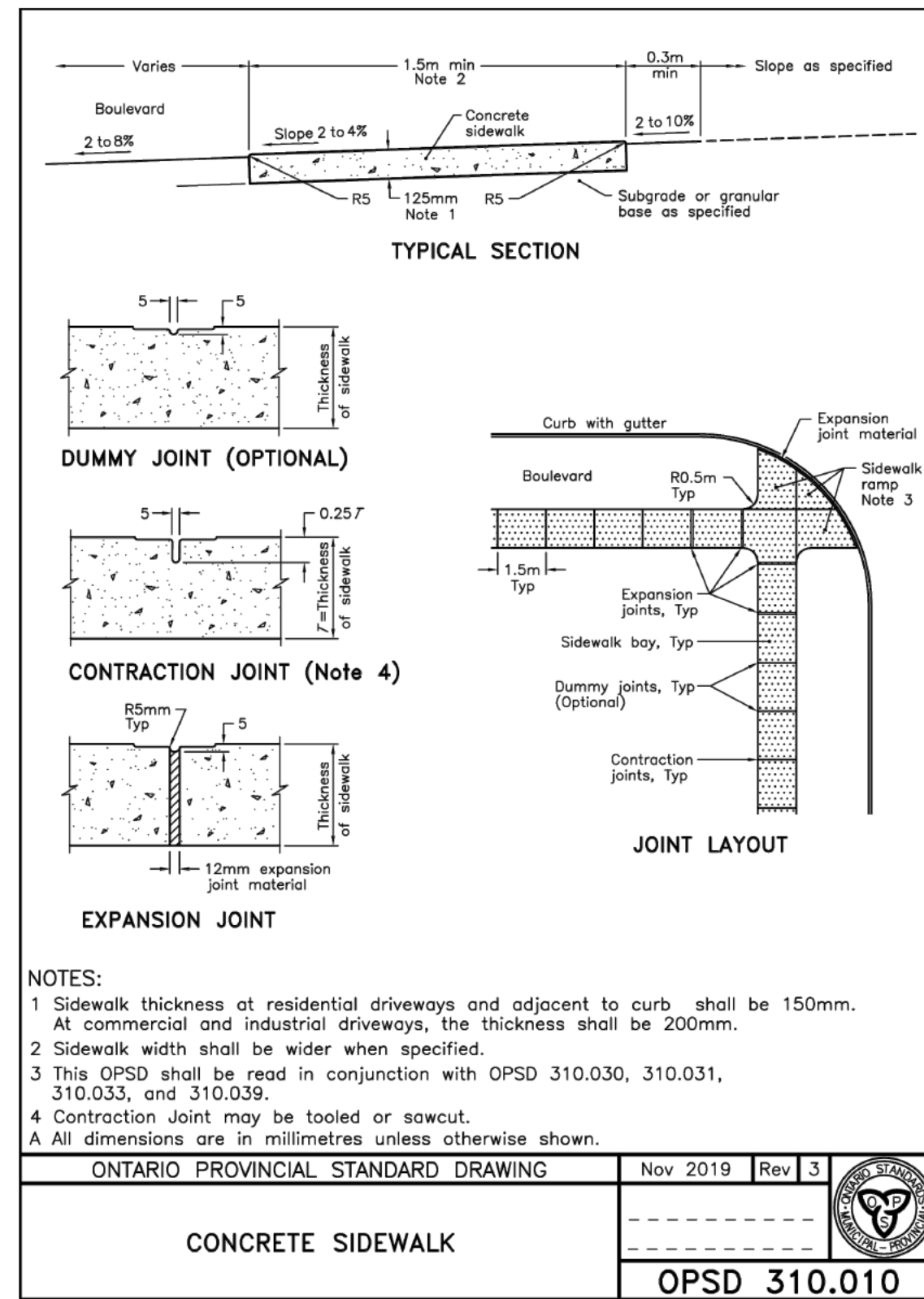
Project: 271 MAIN STREET EAST DUNDALK TOWNSHIP OF SOUTHGATE

Drawing: CONSTRUCTION NOTES & DETAILS (1 OF 3)

CROZIER CONSULTING ENGINEERS

Drawn By: D.G. Design By: J.L.A./A.M. Project: 2514-6796

Check By: J.L.A. Check By: A.M./J.K. Drawing: C107



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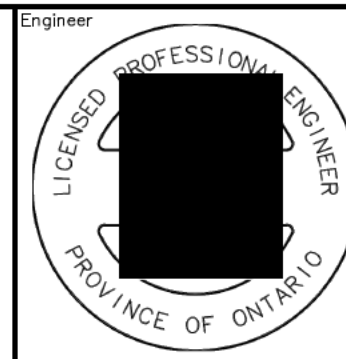
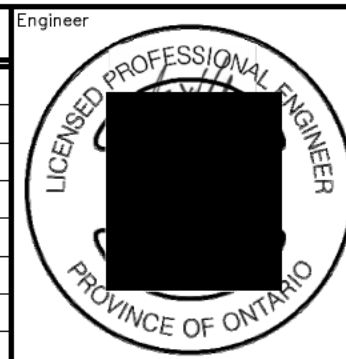
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Project: 271 MAIN STREET EAST DUNDALK TOWNSHIP OF SOUTHGATE

Drawing: CONSTRUCTION NOTES & DETAILS (3 OF 3)

CROZIER CONSULTING ENGINEERS

Drawn By: D.G. Design By: J.L.A./A.M. Project: 2514-6796

Check By: J.L.A. Check By: A.M./J.K. Drawing: C109