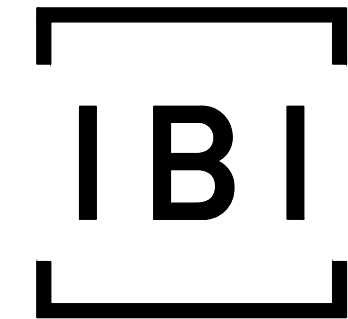




CLARIDGE
H O M E S



IBI GROUP
400 – 333 Preston Street
Ottawa ON K1S 5N4 Canada
tel 613 225 1311 fax 613 225 9868
ibigroup.com



| Sheet List Table | |
|------------------|---|
| Sheet Number | Sheet Title |
| -- | 000 COVER |
| C-001 | GENERAL PLAN OF SERVICES |
| C-010 | GENERAL NOTES, LEGEND AND CB DATA TABLE |
| C-200 | GRADING PLAN |
| C-400 | SANITARY DRAINAGE AREA PLAN |
| C-500 | STORM DRAINAGE AREA PLAN |
| C-600 | PONDING PLAN |
| C-900 | EROSION AND SEDIMENT CONTROL PLAN |

CLARIDGE HOMES ZENS - 4624 SPRATT

CONTRACT NO. 135856

| 135856 - SAN STRUCTURE TABLE | | | | | | |
|------------------------------|-----------|----------------------|--------------------|------------|---------------------|----------------------|
| NAME | RIM ELEV. | INVERT IN | INVERT IN AS-BUILT | INVERT OUT | INVERT OUT AS-BUILT | DESCRIPTION |
| MH100A | 91.43 | | | SW88.788 | | 1200mmØ OPSD-701.010 |
| MH101A | 91.47 | NE88.708 NW88.748 | | SW88.688 | | 1200mmØ OPSD-701.010 |
| MH102A | 91.42 | SE88.684 NE88.644 | | SW88.624 | | 1200mmØ OPSD-701.010 |
| MH103A | 91.51 | NE88.500 NW88.540 | | SW88.480 | | 1200mmØ OPSD-701.010 |
| MH104A | 91.55 | NE88.393 SE88.433 | | SW88.373 | | 1200mmØ OPSD-701.010 |
| MH105A | 91.58 | NE88.278 | | NW88.218 | | 1200mmØ OPSD-701.010 |
| MH106A | 91.54 | SE88.100 | | SW88.040 | | 1200mmØ OPSD-701.010 |
| MH110A | 91.65 | SE88.836 | | W88.776 | | 1200mmØ OPSD-701.010 |
| MH111A | 91.50 | E88.662 E88.702 | | W88.642 | | 1200mmØ OPSD-701.010 |
| MH112A | 91.60 | E88.598 | | W88.568 | | 1200mmØ OPSD-701.010 |
| MH113A | 91.61 | E88.534 | | N88.504 | | 1200mmØ OPSD-701.010 |
| MH114A | 91.56 | S88.461 W88.701 | | N88.641 | | 1200mmØ OPSD-701.010 |
| MH115A | 91.49 | S88.482 | | NW88.462 | | 1200mmØ OPSD-701.010 |
| MH120A | 91.73 | S88.897 | | N88.877 | | 1200mmØ OPSD-701.010 |
| MH121A | 91.82 | | | N88.964 | | 1200mmØ OPSD-701.010 |
| MH123A | 91.86 | | | N88.810 | | 1200mmØ OPSD-701.010 |
| MH130A | 91.55 | | | W89.155 | | 1200mmØ OPSD-701.010 |
| MH131A | 91.59 | E89.049 | | N88.989 | | 1200mmØ OPSD-701.010 |
| MH132A | 91.35 | S88.848 E88.888 | | N88.828 | | 1200mmØ OPSD-701.010 |
| MH133A | 91.44 | S88.733 | | NW88.713 | | 1200mmØ OPSD-701.010 |
| MH140A | 91.83 | | | W89.004 | | 1200mmØ OPSD-701.010 |
| MH150A | 91.64 | S88.894 N88.894 | | E88.834 | | 1200mmØ OPSD-701.010 |
| MH151A | 91.60 | | | N88.996 | | 1200mmØ OPSD-701.010 |
| MH152A | 91.68 | | | S89.016 | | 1200mmØ OPSD-701.010 |
| MH160A | 91.88 | | | SW89.024 | | 1200mmØ OPSD-701.010 |
| MH170A | 91.53 | NE88.933 | | SE88.873 | | 1200mmØ OPSD-701.010 |
| MH180A | 91.47 | | | SE88.658 | | 1200mmØ OPSD-701.010 |

| 135856 - STM STRUCTURE TABLE | | | | | | |
|------------------------------|-----------|----------------------|--------------------|------------|---------------------|--------------------------|
| NAME | RIM ELEV. | INVERT IN | INVERT IN AS-BUILT | INVERT OUT | INVERT OUT AS-BUILT | DESCRIPTION |
| CB3 | 91.25 | | | W89.850 | | 600mmx600mm OPSD-705.010 |
| CBMH9 | 91.35 | | | E87.563 | | 1200mmØ OPSD-701.010 |
| MH100 | 91.32 | | | SW87.502 | | 1200mmØ OPSD-701.010 |
| MH101 | 91.41 | NE87.348 SE87.313 | | SW87.103 | | 1200mmØ OPSD-701.010 |
| MH102 | 91.52 | NE88.999 SE87.039 | | SW86.754 | | 1500mmØ OPSD-701.011 |
| MH103 | 91.61 | NE88.728 | | NW86.668 | | 1500mmØ OPSD-701.011 |
| MH104 | 91.51 | SE86.634 NE86.894 | | SW86.574 | | 1500mmØ OPSD-701.011 |
| MH109 | 91.69 | | | NW87.600 | | 1200mmØ OPSD-701.010 |
| MH110 | 91.65 | SE87.587 | | W87.452 | | 1200mmØ OPSD-701.010 |
| MH111 | 91.58 | E87.356 | | W87.326 | | 1200mmØ OPSD-701.010 |
| MH112 | 91.63 | E87.306 | | N87.276 | | 1200mmØ OPSD-701.010 |
| MH113 | 91.58 | S87.239 W87.429 | | N87.144 | | 1200mmØ OPSD-701.010 |
| MH114 | 91.59 | S87.090 E87.120 | | NW87.060 | | 1200mmØ OPSD-701.010 |
| MH124 | 91.75 | E89.564 | | SW89.150 | | 1200mmØ OPSD-701.010 |
| MH125 | 91.78 | NE89.042 | | SW86.943 | | 1200mmØ OPSD-701.010 |
| MH126 | 91.48 | NE86.931 | | SW86.901 | | 1200mmØ OPSD-701.010 |
| MH127 | 91.55 | | | N87.959 | | 1200mmØ OPSD-701.010 |
| MH128 | 91.52 | S87.889 | | W87.529 | | 1200mmØ OPSD-701.010 |
| MH129 | 91.48 | S87.481 E87.521 | | N87.461 | | 1200mmØ OPSD-701.010 |
| MH130 | 91.48 | | | W87.844 | | 1200mmØ OPSD-701.010 |
| MH131 | 91.61 | E87.759 | | N87.699 | | 1200mmØ OPSD-701.010 |
| MH132 | 91.44 | S87.429 | | NW87.324 | | 1200mmØ OPSD-701.010 |
| MH133 | 91.52 | | | N87.755 | | 1200mmØ OPSD-701.010 |
| MH134 | 91.47 | S87.692 | | W87.132 | | 1200mmØ OPSD-701.010 |
| MH453 | 88.20 | | | | | 1200mmØ OPSD-701.010 |

| PIPE INTERFERENCE TABLE | | | |
|-------------------------|-------------------|-----------------------|-----------|
| Crossing No. | PIPE 1 | PIPE 2 | Clearance |
| 1 | WM Bottom 88.750 | Ndring SAN Top 87.393 | 1.366 |
| 2 | WM Bottom 88.717 | Ndring STM Top 88.056 | 0.621 |
| 3 | STM Bottom 88.298 | STM Top 88.773 | 0.523 |
| 4 | WM Bottom 88.300 | STM Top 88.036 | 0.264 |
| 5 | WM Bottom 88.84 | STM Top 87.058 | 1.246 |
| 6 | SAN Bottom 88.848 | STM Top 88.702 | 0.546 |
| 7 | STM Bottom 89.325 | STM Top 88.817 | 0.508 |
| 8 | Bottom 89.343 | STM Top 88.821 | 0.522 |
| 9 | Bottom 89.097 | STM Top 87.874 | 1.123 |
| 10 | Bottom 89.243 | STM Top 88.969 | 0.274 |
| 11 | Bottom 89.107 | STM Top 88.818 | 0.289 |
| 12 | SAN Bottom 89.188 | STM Top 88.650 | 0.538 |
| 13 | SAN Bottom 88.605 | STM Top 88.453 | 0.502 |
| 14 | Bottom 89.245 | STM Top 88.965 | 0.280 |
| 15 | STM Bottom 89.293 | STM Top 88.700 | 0.593 |
| 16 | Bottom 89.284 | STM Top 88.700 | 0.585 |
| 17 | Bottom 89.341 | STM Top 88.841 | 0.500 |
| 18 | Bottom 89.299 | STM Top 88.784 | 0.515 |
| 19 | Bottom 89.250 | STM Top 88.743 | 0.507 |
| 20 | STM Bottom 88.203 | STM Top 88.743 | 0.520 |
| 21 | Bottom 88.198 | STM Top 88.678 | 0.510 |
| 22 | Bottom 88.895 | STM Top 87.660 | 1.205 |
| 23 | Bottom 88.892 | STM Top 87.622 | 1.270 |
| 24 | Bottom 88.911 | STM Top 88.610 | 0.302 |
| 25 | Bottom 88.895 | STM Top 87.699 | 1.407 |
| 26 | Bottom 88.840 | STM Top 88.341 | 0.508 |

| WATERMAIN SCHEDULE | | | | |
|--------------------|-------------|----------------|------------------|--------------------|
| Station | Description | Finished Grade | Top of Watermain | As Built Watermain |
| A | 0+00.00 | TEE | ±91.4 | ±89.98 |
| | 0+02.32 | | | 88.917 |
| | 0+10.02 | 45° BEND | 91.483 | 89.083 |
| | 0+14.46 | VB | 91.572 | 89.172 |
| | 0+19.41 | VAVC | 91.670 | 89.270 |
| | 0+23.68 | 45° BEND | 91.634 | 89.234 |
| | 0+28.89 | 45° BEND | 91.362 | 88.962 |
| | 0+34.79 | 45° BEND | 91.547 | 89.147 |
| | 0+37.29 | 45° BEND | 91.520 | 89.120 |
| | 0+40.79 | 22½° VBEND | 91.545 | 89.028 |
| | 0+46.29 | 22½° VBEND | 91.547 | 88.921 |
| | 0+50.28 | 22½° VBEND | 91.561 | 88.827 |
| | 0+54.82 | 22½° VBEND | 91.563 | 89.046 |
| B | 0+59.27 | TEE | 91.575 | 89.175 |
| | 0+109.14 | VB | 91.518 | 89.118 |
| | 0+114.63 | | 91.518 | 89.263 |
| | 0+120.00 | | 91.511 | 89.111 |
| | 0+127.21 | STM SERV BLK B | 91.500 | 88.758 |
| | 0+132.00 | | 91.463 | 89.053 |
| | 0+141.51 | WM SERV TEE | 91.490 | 89.090 |
| C | 0+146.62 | TEE | 91.495 | 89.095 |
| | 0+156.96 | VB | 91.517 | 89.117 |
| | 0+160.90 | 22½° VBEND | 91.517 | 89.117 |
| | 0+161.75 | 22½° VBEND | 91.517 | 89.471 |
| | 0+163.49 | 22½° VBEND | 91.509 | 89.471 |
| | 0+164.40 | 22½° VBEND | 91.497 | 89.097 |
| | 0+176.57 | HYD TEE | 91.358 | 88.958 |
| | 0+186.62 | SAN SERV BLK C | 91.503 | 88.700 |
| | 0+192.50 | STM SERV BLK C | 91.544 | 88.700 |
| | 0+194.45 | 11½° VBEND | 91.444 | 88.700 |
| | 0+196.69 | VB | 91.379 | 88.700 |
| | 0+204.86 | | 88.850 | 88.850 |
| D | 0+205.61 | TEE | ±91.169 | ±88.85 |
| B | 0+000.00 | TEE | 91.575 | 89.175 |
| | 0+026.69 | VB | 91.455 | 89.065 |
| | 0+011.25 | 11½° BEND | 91.472 | 89.072 |
| | 0+019.00 | | 91.548 | 89.091 |
| | 0+022.35 | WM SERV TEE | 91.499 | 89.099 |
| | 0+032.00 | SAN SERV BLK E | 91.447 | 88.674 |
| | 0+037.25 | | 91.413 | 89.013 |
| | 0+042.00 | SAN SERV BLK H | 91.453 | 88.750 |
| | 0+045.35 | STM SERV BLK H | 91.497 | 88.750 |
| | 0+063.13 | WM SERV TEE | 91.549 | 89.149 |
| | 0+068.89 | 45° BEND | 91.562 | 89.162 |
| | 0+071.29 | HYDRANT TEE | 91.602 | 89.202 |
| | 0+074.54 | 45° BEND | 91.659 | 89.259 |
| | 0+085.90 | SAN SERV BLK H | 91.620 | 88.784 |
| | 0+100.08 | SAN SERV BLK H | 91.593 | 88.830 |
| | 0+102.48 | WM SERV TEE | 91.599 | 89.199 |
| | 0+116.37 | WM SERV TEE | 91.640 | 89.240 |
| | 0+120.86 | VB | 91.658 | 89.258 |
| | 0+123.86 | TEE | 91.661 | 89.261 |
| | 0+127.80 | VB | 91.665 | 89.265 |
| | 0+133.89 | 45° BEND | 91.762 | 89.362 |
| | 0+136.26 | CAP | 91.691 | 89.291 |
| E | 0+000.00 | TEE | 91.661 | 89.261 |
| | 0+012.27 | WM SERV TEE | 91.503 | 89.103 |
| | 0+028.90 | VBEND | 91.366 | 88.968 |
| | 0+029.50 | VBEND | 91.394 | 88.760 |
| | 0+031.80 | VBEND | 91.438 | 88.760 |
| | 0+032.40 | VBEND | 91.453 | 89.043 |
| | 0+040.90 | VBEND | 91.459 | 89.004 |
| | 0+059.86 | VBEND | 91.454 | 88.709 |
| | 0+041.82 | VBEND | 91.433 | 88.709 |
| | 0+042.23 | VBEND | 91.409 | 88.964 |
| | 0+049.82 | WM SERV TEE | 91.351 | 88.933 |
| | 0+066.18 | WM SERV TEE | 91.496 | 89.096 |
| | 0+069.35 | 11½° BEND | 91.439 | 89.039 |
| | 0+072.54 | HYDRANT TEE | 91.373 | 88.974 |
| | 0+074.52 | VBEND | 91.334 | 88.934 |
| | 0+078.28 | 7° DEFLECTION | 91.339 | 89.333 |
| | 0+080.58 | 7° DEFLECTION | 91.406 | 89.333 |
| | 0+082.47 | TEE | 91.495 | 89.095 |

| PIPE INTERFERENCE TABLE | | | |
|-------------------------|-------------------|----------------|-----------|
| Crossing No. | PIPE 1 | PIPE 2 | Clearance |
| 27 | SAN Bottom 89.330 | STM Top 87.799 | 1.531 |
| 28 | SAN Bottom 89.255 | STM Top 87.855 | 1.400 |
| 29 | SAN Bottom 89.257 | STM Top 87.707 | 1.029 |
| 30 | STM Bottom 88.209 | STM Top 87.862 | 1.037 |
| 31 | STM Bottom 88.293 | STM Top 87.855 | 0.428 |
| 32 | STM Bottom 89.041 | SAN Top 88.333 | 0.528 |
| 33 | Bottom 89.254 | STM Top 88.809 | 0.649 |
| 34 | Bottom 89.304 | STM Top 87.904 | 1.399 |
| 35 | Bottom 89.316 | STM Top 89.015 | 0.300 |
| 36 | Bottom 89.207 | STM Top 88.750 | 0.517 |
| 37 | Bottom 89.635 | STM Top 89.370 | 0.265 |
| 38 | Bottom 89.689 | STM Top 89.350 | 1.339 |
| 39 | Bottom 89.240 | STM Top 87.458 | 0.772 |
| 40 | SAN Bottom 89.245 | STM Top 88.036 | 0.759 |
| 41 | Bottom 89.290 | STM Top 88.627 | 0.623 |
| 42 | Bottom 89.336 | STM Top 87.657 | 1.679 |
| 43 | Bottom 89.316 | STM Top 87.680 | 1.636 |
| 44 | Bottom 89.501 | STM Top 87.655 | 0.845 |
| 45 | Bottom 89.224 | STM Top 88.243 | 0.681 |
| 46 | Bottom 88.208 | STM Top 88.513 | 0.296 |
| 47 | Bottom 88.209 | STM Top 87.429 | 0.670 |
| 48 | Bottom 88.290 | STM Top 87.773 | 1.467 |
| 49 | Bottom 88.206 | STM Top 87.619 | 1.389 |
| 50 | Bottom 89.313 | STM Top 87.731 | 1.582 |
| 51 | Bottom 89.063 | STM Top 87.710 | 1.373 |
| 52 | Bottom 89.031 | STM Top 88.725 | 0.307 |



CLIENT
CLARIDGE HOMES
 210 Gladstone Ave. Ottawa, On K0P 0Y6

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| ISSUES | No. | DESCRIPTION | DATE |
|--------|-----|------------------------|------------|
| | 1 | ISSUED FOR CITY REVIEW | 2021-12-15 |

SCALE CHECK
 1:500

SEAL
 LICENSED PROFESSIONAL ENGINEER
 J.D. K. Yarnopoulos
 2021-12-15
 PROVINCE OF ONTARIO

SEAL
 LICENSED PROFESSIONAL ENGINEER
 W. ZHUANG
 100231427
 2021-12-15
 PROVINCE OF ONTARIO

PROJECT
ZENS - 4624 SPRATT

PROJECT NO:
 135856

DRAWN BY:
 D.D.S.G.

PROJECT MGR:
 R.M.

CHECKED BY:
 A.Z.

APPROVED BY:

SHEET TITLE
GENERAL PLAN OF SERVICES

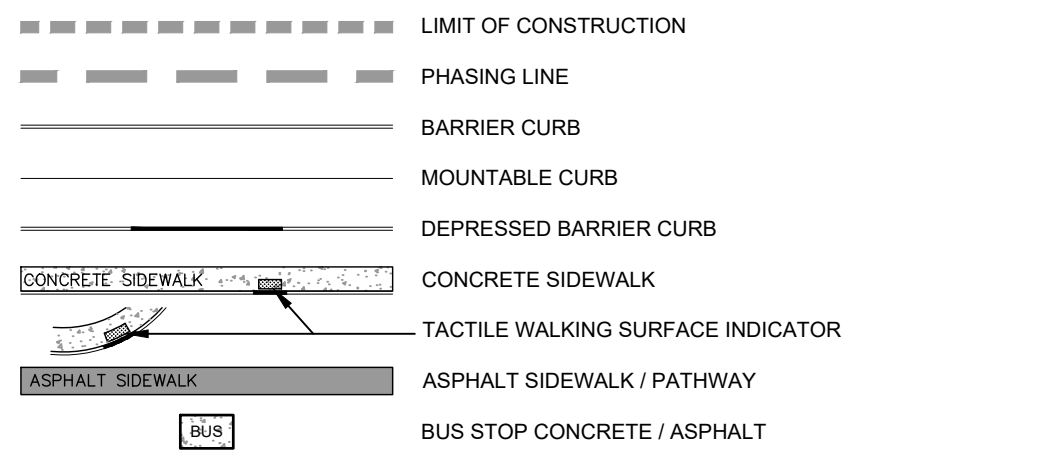
SHEET NUMBER
C-001

ISSUE
1

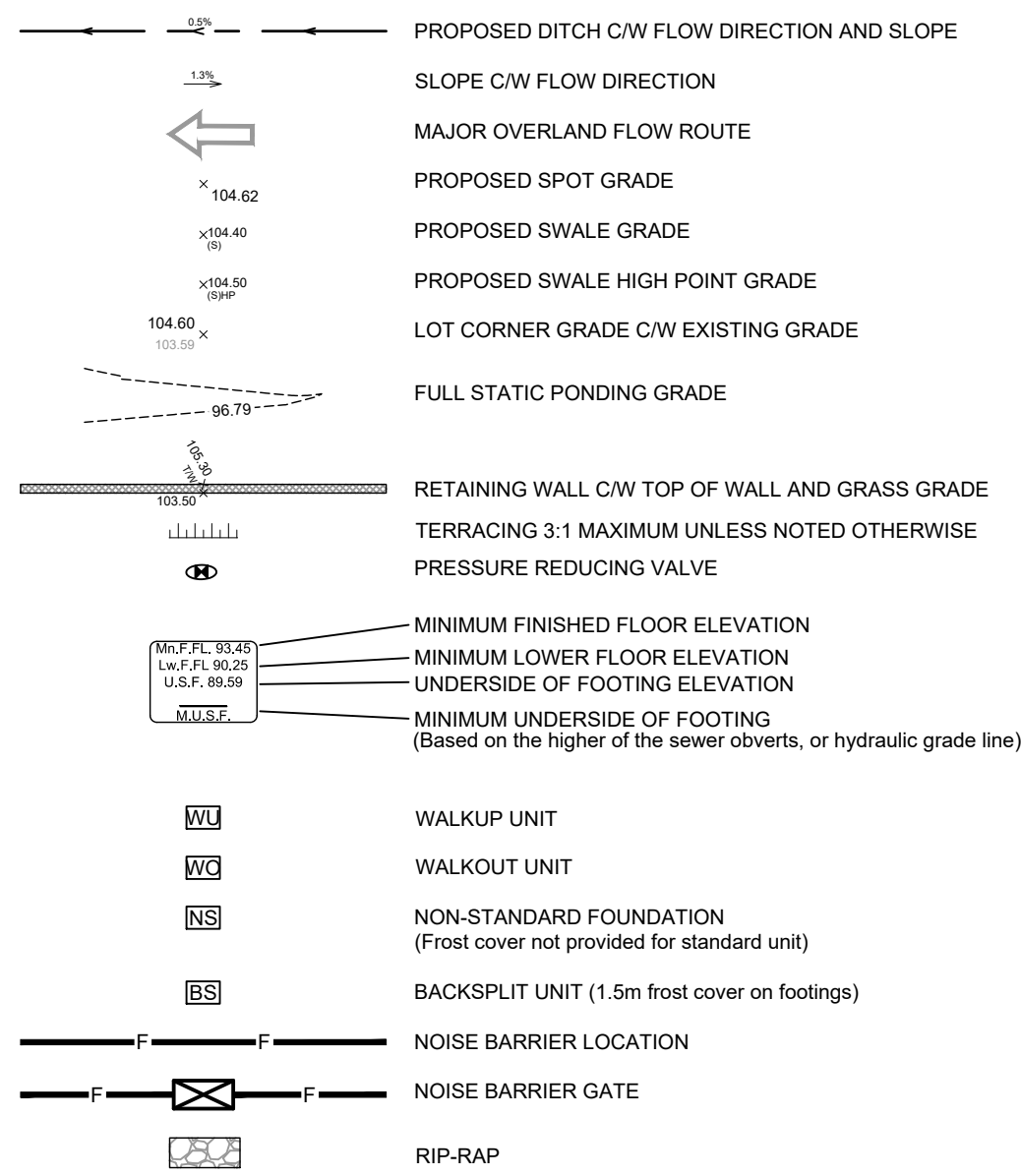
CITY FILE No. D07-xx-xx-xxxx

CITY PLAN No. xxxxx

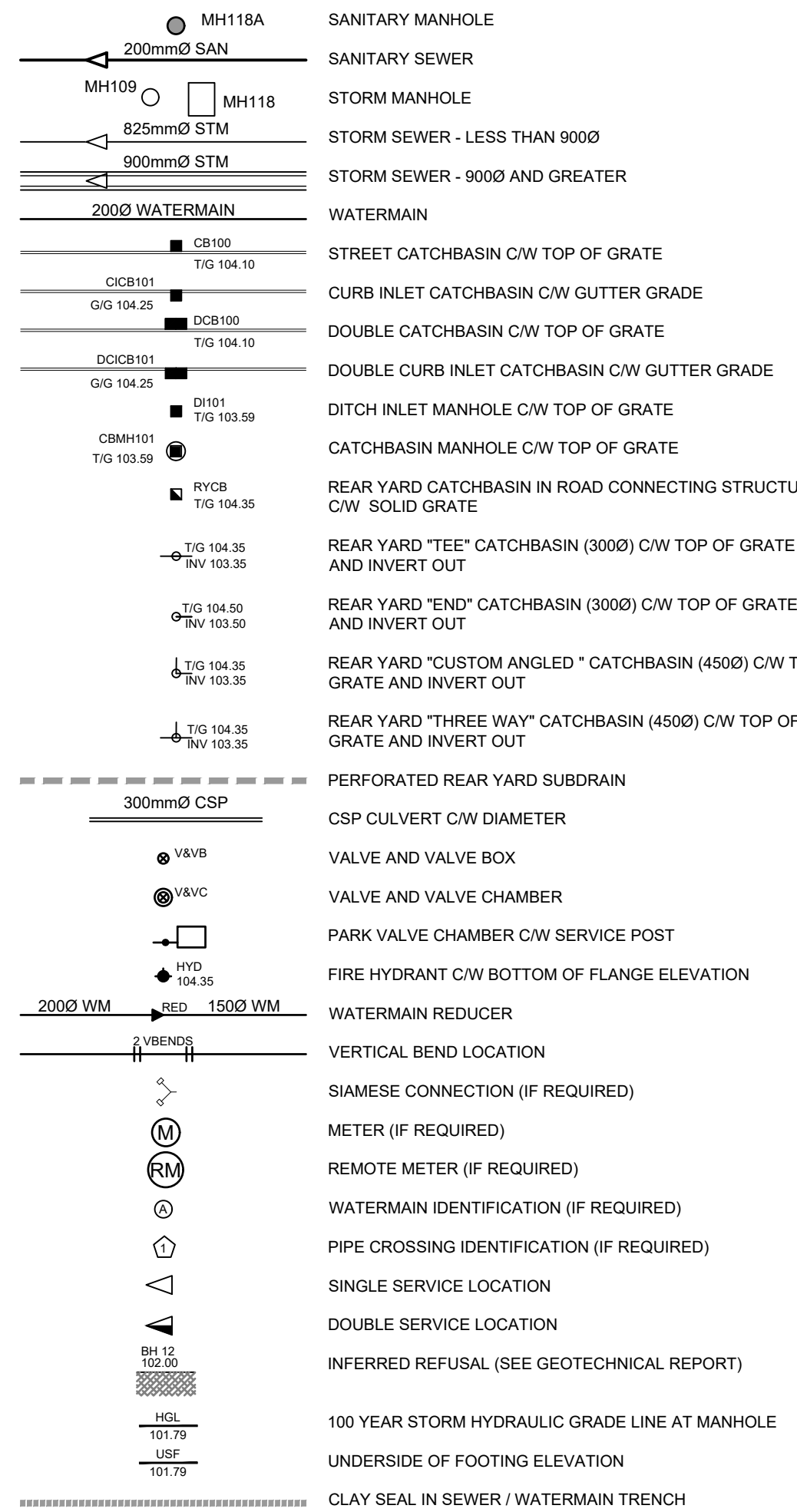
GENERAL LEGEND



GRADING LEGEND



SERVICING LEGEND



NOTES :

- ALL MATERIALS AND CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE CURRENT CITY OF OTTAWA STANDARD DRAWINGS & SPECIFICATIONS OR OPS/DPSS IF CITY DRAWINGS AND SPECIFICATIONS DO NOT APPLY.
- THE POSITION OF UNDERGROUND AND ABOVEGROUND SERVICE UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH SERVICE UTILITIES AND STRUCTURES IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING SERVICES AND UTILITIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL REPORT ALL CONFLICTS, DISCOVERIES OF ERROR AND DISCREPANCIES TO THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT AND ASSUME RESPONSIBILITY FOR ALL UTILITIES WHETHER OR NOT SHOWN ON THESE DRAWINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL LANDS BEYOND THE SITE LIMITS. ANY AREAS BEYOND THE SITE LIMITS, WHICH ARE DISTURBED DURING CONSTRUCTION, SHALL BE REPAIRED AND RESTORED TO ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE ADJACENT LAND OWNER, THE OWNER, THE OWNERS REPRESENTATIVES AND/OR THE AUTHORITY HAVING JURISDICTION AT THE EXPENSE OF THE CONTRACTOR.
- WHERE NECESSARY, THE CONTRACTOR SHALL IMPLEMENT A TRAFFIC MANAGEMENT PLAN TO THE SATISFACTION OF THE CITY OF OTTAWA. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE LATEST VERSION OF THE M.T.O. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. ALL TEMPORARY TRAFFIC CONTROL MEASURES MUST BE REMOVED UPON THE COMPLETION OF THE WORKS.
- SHOULD ANY BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE OWNER TO CONTACT THE HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE MUST BE NOTIFIED IMMEDIATE, AND WORK WITHIN THE AREA SHALL BE CEASED UNTIL FURTHER NOTICE.
- FOR GEOTECHNICAL INFORMATION REFER TO GEOTECHNICAL REPORT NO PG5641-1 PREPARED BY PATERSON GROUP.
- FOR GEOTECHNICAL BENCHMARK AND GEOMETRIC LAYOUT OF STREET AND LOTS, REFER TO TOPOGRAPHICAL SURVEY AND PLAN OF SUBDIVISION PREPARED BY ANNE'S CONSULTING, VOLEBERG LTD. BENCHMARK BASED ON CAN-NET VIRTUAL REFERENCE SYSTEM NETWORK.
- FOR SITE PLAN INFORMATION, REFER TO SITE PLAN PREPARED BY RVA ARCHITECTURE.
- FOR NOISE ATTENUATION PLAN REFER TO N-1 PREPARED BY IBI GROUP.
- THESE DRAWINGS ARE NOT TO BE SCALED OR USED FOR LAYOUT PURPOSES.
- ROADWAY SECTIONS REQUIRING GRADE RAISE TO PROPOSED SUB GRADE LEVEL TO BE FILLED WITH ACCEPTABLE NATIVE SOIL BORROW OR IMPORTED OPSSS SELECTED SUBGRADE MATERIAL IF NATIVE MATERIAL IS DEFICIENT AS PER RECOMMENDATION OF GEOTECHNICAL ENGINEER.
- IN AREAS WHERE EXISTING GROUND IS BELOW THE PROPOSED ELEVATION OF SEWER AND WATERMANS, GRADE RAISING AND FILLING IS TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. AS PER CITY GUIDELINES ALL WATERMANS IN FILL AREAS ARE TO BE TIED WITH RESTRAINING JOINTS AND THRUST BLOCKS.
- THE CONTRACTOR SHALL IMPLEMENT THE EROSION AND SEDIMENT CONTROL PLAN PRIOR TO THE COMMENCEMENT OF ANY SITE CONSTRUCTION. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE ENGINEER OR ANY REGULATORY AGENCY. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL VEGETATION IS ESTABLISH OR UNTIL THE START OF A SUBSEQUENT PHASE.
- CONTRACTORS SHALL BE RESPONSIBLE FOR KEEPING CLEAN ALL ROADS WHICH BECOME COVERED IN DUST, DEBRIS AND/OR MUD AS A RESULT OF ITS CONSTRUCTION OPERATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE SHOULD THE MAXIMUM OPEN TRENCH WIDTH BE EXCEEDED.
- ALL PIPE, CULVERTS, STRUCTURES REFER TO NOMINAL INSIDE DIMENSIONS.
- SHOULD CLAY SEALS BE REQUIRED, THEY SHALL BE INSTALLED AS PER THE RECOMMENDATIONS WITHIN THE GEOTECHNICAL REPORT.
- UNLESS SPECIFICALLY NOTED OTHERWISE, PIPE MATERIALS SHALL BE AS FOLLOWS:
 - WATERMANS TO BE PVC DR18
 - SANITARY SEWER TO BE PVC DR35
 - PERFORATED STORM SEWERS IN REAR YARDS AND LANDSCAPE AREAS TO BE HOPE
 - STORM SEWERS 375MM DIAMETER AND LESS TO BE PVC DR35
 - STORM SEWERS 450MM DIAMETER AND GREATER TO BE CONCRETE, CLASS AS PER OPSD 807.010 OR R77.03, OR HIGHER.
- ALL CONNECTIONS TO EXISTING WATERMANS ARE TO BE COMPLETED BY CITY FORCES. CONTRACTOR IS TO EXCAVATE, BACKFILL, COMPACT AND REINSTATE.
- ANY WATERMAIN WITH LESS THAN 2.4M AND ANY SEWER WITH LESS THAN 2.0M DEPTH OF COVER REQUIRES THERMAL INSULATION AS PER CITY OF OTTAWA STANDARD W22, OR AS APPROVED BY THE ENGINEER.
- ALL STUBBED SEWERS SHALL HAVE PRE-MANUFACTURED CAPS INSTALLED.
- ALL CATCHBASINS SHALL HAVE A 600MM SUMP. ALL CATCHBASIN MANHOLES, AND ALL STORM MANHOLES WITH OUTLETTING PIPE SIZES LESS THAN 900MM, SHALL HAVE A 300MM SUMP.
- ALL SANITARY MANHOLES SHALL BE EQUIPPED WITH A WATERTIGHT COVER.
- ALL LEADS FOR STREET CATCHBASINS AND CURB INLET CATCHBASINS CONNECTED TO MAIN SHALL BE 200MM Ø PVC DR35 @ MIN 2% SLOPE UNLESS NOTED OTHERWISE. ALL LEADS FOR RYCB'S CONNECTED TO MAIN SHALL BE 200MM Ø PVC DR35 @ MIN 1% SLOPE UNLESS NOTED OTHERWISE.
- UNLESS SPECIFICALLY NOTED OTHERWISE, ALL STREET CATCHBASINS SHALL BE INSTALLED WITH TWO - 3.0M MINIMUM SUBDRAINS INSTALLED LONGITUDINALLY, PARALLEL WITH THE CURB. ALL CATCHBASINS IN ASPHALT AREAS, NOT ADJACENT TO A CURB, SHALL BE INSTALLED WITH FOUR - 3.0M MINIMUM SUBDRAINS INSTALLED ORTHOGONALLY.
- INLET CONTROL DEVICES SHALL BE INSTALLED PRIOR TO COMPLETING THE ROAD BASE (GRANULAR A).
- ALL SEWER SERVICE LATERALS WITH MAINLINE CONNECTIONS DEEPER THAN 5.0M REQUIRE A CONTROLLED SETTLEMENT JOINT.
- EACH BUILDING SHALL BE EQUIPPED WITH A SANITARY AND STORM SEWER BACKWATER VALVE AND CLEAN-OUT ON ITS PRIMARY SERVICE, AS PER ONTARIO BUILDING CODE REQUIREMENTS (BY OTHERS).
- THE HGL PROVIDED IS BASED ON HYDRAULIC MODELING COMPLETED USING PCSWMM AND THE 100 YEAR CHICAGO STORM EVENT (CBH10010).
- THE SUBGRADE OF ALL STRUCTURES, PIPE, ROADS, SIDEWALKS, WALKWAYS, AND BUILDINGS SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- TOP COURSE ASPHALT SHALL NOT BE PLACED UNTIL THE FINAL CDTY INSPECTION AND NECESSARY REPAIRS HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA.
- ALL RETAINING WALLS GREATER THAN 1.0M IN HEIGHT SHALL BE DESIGNED BY A QUALIFIED STRUCTURAL ENGINEER.
- ALL RETAINING WALLS GREATER THAN 0.6M IN HEIGHT REQUIRE A GUARD. ANY GUARD ON A RETAINING WALL GREATER THAN 1.0M IN HEIGHT SHALL BE DESIGNED BY THE QUALIFIED STRUCTURAL ENGINEER RESPONSIBLE FOR THE WALL DESIGN.
- UPON COMPLETION OF THE RETAINING WALL, THE CONTRACTOR SHALL REQUEST A PERFORMANCE CERTIFICATE FROM THE QUALIFIED ENGINEER RESPONSIBLE FOR THE WALL DESIGN.

CATCHBASIN/CATCHBASIN MANHOLE/DITCH INLET DATA

| STRUCTURE ID | STORM AREA ID | STRUCTURE | FRAME & COVER | ELEVATION | | OUTLET PIPE | | INLET CONTROL DEVICE | | | COMMENTS | | |
|--------------|---------------|--------------|---------------|--------------|--------|-------------|---------------|----------------------|--------------------|-----------------------|-----------------|----------|------------------------|
| | | | | TOP OF GRATE | INVERT | | DIAMETER (mm) | TYPE | 100yr Dynamic HEAD | RESTRICTED FLOW (l/s) | | ICD TYPE | ORIFICE SIZE (mm dia.) |
| | | | | | INLET | OUTLET | | | | | | | |
| CB1 | MH126 | OPSD 705.010 | S19 | 91.30 | | 89.90 | 200 | PVC DR35 | 1.520 | | | | |
| CB2 | MH125 | OPSD 705.010 | S19 | 91.25 | | 89.85 | 200 | PVC DR35 | 1.580 | | | | |
| CB3 | MH124 | OPSD 705.010 | S19 | 91.25 | | 89.85 | 200 | PVC DR35 | 1.580 | | | | |
| CB4 | MH102 | OPSD 705.010 | S19 | 91.30 | | 89.90 | 200 | PVC DR35 | 1.510 | 8.00 | CUSTOM IPEX LMF | | |
| CB5 | MH101 | OPSD 705.010 | S19 | 91.17 | | 89.77 | 200 | PVC DR35 | 1.530 | 8.00 | CUSTOM IPEX LMF | | |
| CB6 | MH100 | OPSD 705.010 | S19 | 91.16 | | 89.76 | 200 | PVC DR35 | 1.450 | 8.00 | CUSTOM IPEX LMF | | |
| CB7 | MH113 | OPSD 705.010 | S19 | 91.25 | | 89.85 | 200 | PVC DR35 | 1.560 | | | | |
| CB8 | CBMH9 | OPSD 705.010 | S19 | 91.33 | | 89.93 | 200 | PVC DR35 | 1.500 | 18.00 | IPEX MHF | 83 | |
| CBMH9 | CBMH9B | OPSD 705.010 | S19 | 91.35 | | 89.95 | 200 | PVC DR35 | 1.590 | 12.00 | CUSTOM IPEX MHF | | |
| CB10 | MH110 | OPSD 705.010 | S19 | 91.35 | | 89.95 | 200 | PVC DR35 | 1.510 | 23.00 | CUSTOM IPEX HF | | |
| CB11 | MH127 | OPSD 705.010 | S19 | 91.20 | | 89.80 | 200 | PVC DR35 | 1.560 | | | | |
| CB12 | MH127B | OPSD 705.010 | S19 | 91.20 | | 89.80 | 200 | PVC DR35 | 1.560 | | | | |
| CB13 | MH130 | OPSD 705.010 | S19 | 91.30 | | 89.90 | 200 | PVC DR35 | 1.550 | 8.00 | CUSTOM IPEX LMF | | |
| CB14 | MH111 | OPSD 705.010 | S19 | 91.35 | | 89.95 | 200 | PVC DR35 | 1.570 | 6.00 | IPEX LMF | | |
| Temp CB | MH109 | OPSD 705.010 | S19 | 91.25 | | 89.85 | 200 | PVC DR35 | 1.600 | 28.00 | IPEX MHF | 102 | |
| CCB7 | MH100C | S31 | S31 | 91.25 | | 89.85 | 200 | PVC DR35 | 1.310 | 10.00 | CUSTOM IPEX MHF | | |
| ECB8 | MH100D | S31 | S31 | 91.25 | | 89.85 | 200 | PVC DR35 | 1.510 | 10.00 | CUSTOM IPEX MHF | | |
| TCB5 | MH109B | S31 | S31 | 91.40 | | 90.00 | 200 | PVC DR35 | 1.590 | 8.00 | CUSTOM IPEX LMF | | |
| MH126 | MH126 | OPSD 705.010 | S25 & S24.1 | 91.48 | | 86.90 | 450 | CONC | 4.844 | 14.00 | CUSTOM IPEX MHF | | |
| MH128 | MH127 | OPSD 705.010 | S25 & S24.1 | 91.52 | | 87.53 | 450 | CONC | 4.156 | 12.00 | CUSTOM IPEX MHF | | |
| MH134 | MH113 | OPSD 705.010 | S25 & S24.1 | 91.47 | | 87.13 | 600 | CONC | 4.678 | 12.00 | CUSTOM IPEX MHF | | |

ROADWAY STRUCTURE:

LOCAL ROAD - (690mm)

- 40mm - SUPERPAVE 12.5 ASPHALTIC CONCRETE
- 50mm - SUPERPAVE 19.0 ASPHALTIC CONCRETE
- 150mm - OPSS GRANULAR "A" CRUSHED STONE
- 450mm - OPSS GRANULAR "B" TYPE II

PARKING AREAS - (640mm)

- 40mm - SUPERPAVE 12.5 ASPHALTIC CONCRETE
- 50mm - SUPERPAVE 19.0 ASPHALTIC CONCRETE
- 150mm - OPSS GRANULAR "A" CRUSHED STONE
- 300mm - OPSS GRANULAR "B" TYPE II

CLIENT
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SECTION FOR NOTES, LEGEND, CB TABLE, STREET SECTIONS AND DETAILS

CONSULTANTS

SEAL

IBI GROUP
400 - 333 Preston Street
Ottawa ON K1S 5M4 Canada
tel 613 225 1311 fax 613 225 9868
ibigroup.com

PROJECT
ZENS - 4624 SPRATT

PROJECT NO: 135856
DRAWN BY: D.D.S.G.
PROJECT MGR: R.M.
CHECKED BY: A.Z.
APPROVED BY: #####

SHEET TITLE
GENERAL NOTES, LEGEND AND CB DATA TABLE

SHEET NUMBER C-010 **ISSUE** 1



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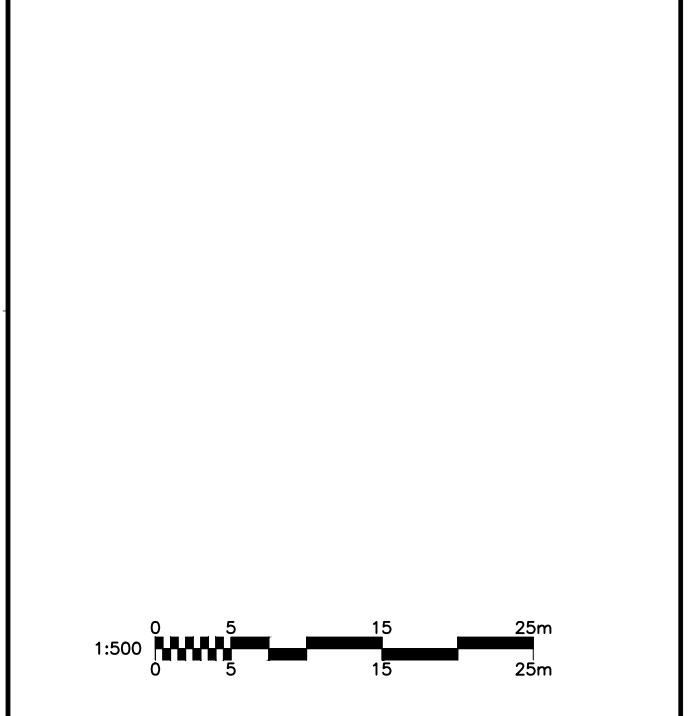
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| | 1 | PREPARED FOR CITY REVIEW | 2021-12-15 |

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FOR NOTES, LEGEND, CB TABLE, STREET SECTIONS AND DETAILS



CONSULTANTS



SEAL

LICENCED PROFESSIONAL ENGINEER
 J.D. K. Yarnopoulos
 2021-12-15
 PROVINCE OF ONTARIO

LICENCED PROFESSIONAL ENGINEER
 W. ZHUANG
 100231427
 2021-12-15
 PROVINCE OF ONTARIO

IBI GROUP
 Suite 400 - 333 Preston Street
 Ottawa ON K1S 5N4 Canada
 Tel: 613 225 1311 / 613 241 3300 Fax: 613 225 9868
 ibigroup.com

PROJECT
ZENS - 4624 SPRATT

PROJECT NO:
 135856

DRAWN BY:
 D.D.S.G.

PROJECT MGR:
 R.M.

CHECKED BY:
 A.Z.

APPROVED BY:

SHEET TITLE
GRADING PLAN

SHEET NUMBER
C-200

ISSUE
1

CITY FILE No. D07-xx-xx-xxxx



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CONSULTANTS

SEAL

LICENSED PROFESSIONAL ENGINEER
 J.D. K. Yarnopoulos
 2021-12-15
 PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
 W. ZHUANG
 100231427
 2021-12-15
 PROVINCE OF ONTARIO

IBI GROUP
 Suite 400 - 333 Preston Street
 Ottawa ON K1S 5N4 Canada
 Tel: 613 225 1311 / 613 241 3300 Fax: 613 225 9868
 ibigroup.com

PROJECT
ZENS - 4624 SPRATT

PROJECT NO: 135856
DRAWN BY: D.D.S.G.
PROJECT MGR: R.M.

CHECKED BY: A.Z.
APPROVED BY: [Signature]

SHEET TITLE
SANITARY DRAINAGE AREA PLAN

SHEET NUMBER C-400 **ISSUE** 1

LEGEND

| | |
|------------|---------------------|
| MH112A | AREA IDENTIFICATION |
| 0.13 6.3 | POPULATION |
| | AREA IN HECTARES |

SCALE CHECK

1:500

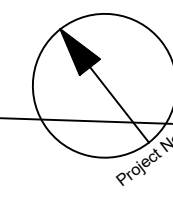
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CITY PLAN No. xxxxx



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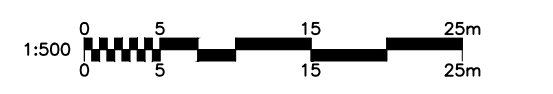

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SEE 010 FOR NOTES, LEGEND, CB TABLE, STREET SECTIONS AND DETAILS



CONSULTANTS

SCALE


SEAL


IBI GROUP
 Suite 400 - 333 Preston Street
 Ottawa ON K1S 5N4 Canada
 Tel: 613 225 1311 / 613 241 3300 Fax: 613 225 9868
 ibigroup.com

PROJECT
ZENS - 4624 SPRATT

PROJECT NO:
 135856
 DRAWN BY:
 D.D.S.G.
 PROJECT MGR:
 R.M.
 CHECKED BY:
 A.Z.
 APPROVED BY:

SHEET TITLE
STORM DRAINAGE AREA PLAN

SHEET NUMBER
C-500
 ISSUE
1

LEGEND

| | |
|--|---------------------------|
| | AREA NUMBER |
| | COEFFICIENT |
| | AREA (ha) |
| | MAJOR OVERLAND FLOW ARROW |

CITY FILE No. D07-xx-xx-xxxx
 SCALE CHECK
 File Location: J:\135856_4624_Spratt\17_0_Production\7_03_Design\04_Civil\Sheet\C-500 STORM DRAINAGE AREA PLAN.dwg Last Saved: December 15, 2021, by ddre Plotted: Wednesday, December 15, 2021, 4:28:50 PM by Denis Dore



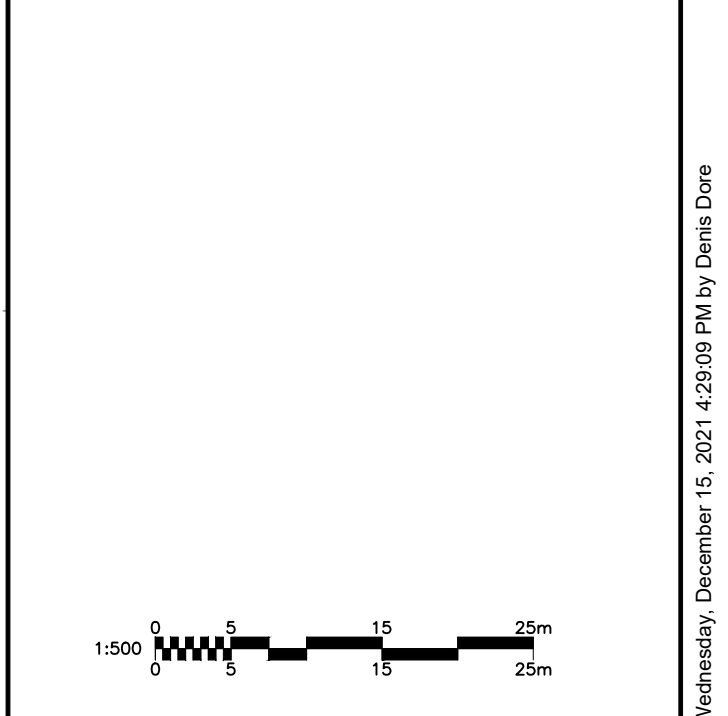
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CONSULTANTS



SEAL

LICENSED PROFESSIONAL ENGINEER
 J.D. K. Yarnopoulos
 2021-12-15
 PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
 W. ZHUANG
 100231427
 2021-12-15
 PROVINCE OF ONTARIO

IBI GROUP
 Suite 400 - 333 Preston Street
 Ottawa ON K1S 5N4 Canada
 Tel: 613 225 1311 / 613 241 3300 Fax: 613 225 9868
 ibigroup.com

PROJECT
ZENS - 4624 SPRATT

PROJECT NO:
 135856

DRAWN BY:
 D.D.S.G.

CHECKED BY:
 A.Z.

PROJECT MGR:
 R.M.

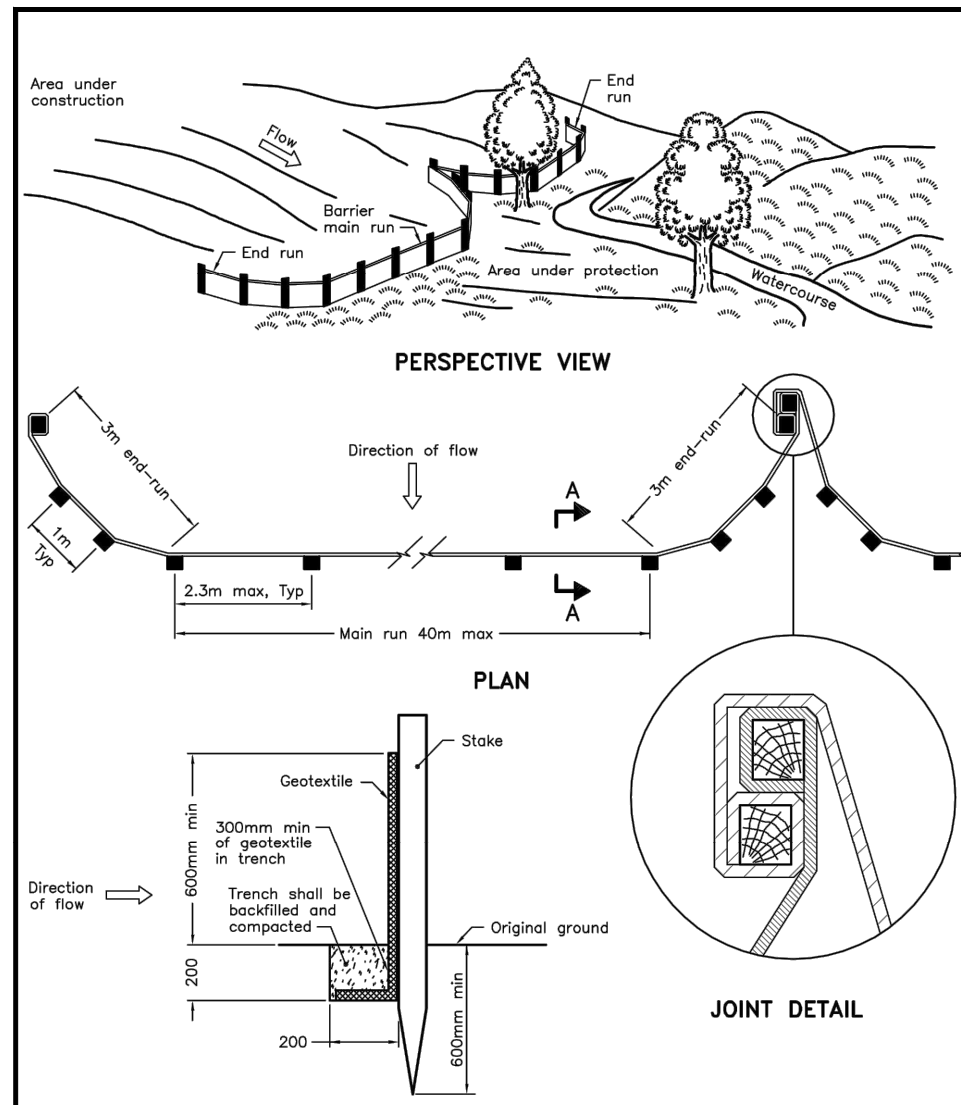
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SHEET TITLE
PONDING PLAN

SHEET NUMBER
C-600

ISSUE
1

CITY FILE No. D07-XX-XX-XXXX

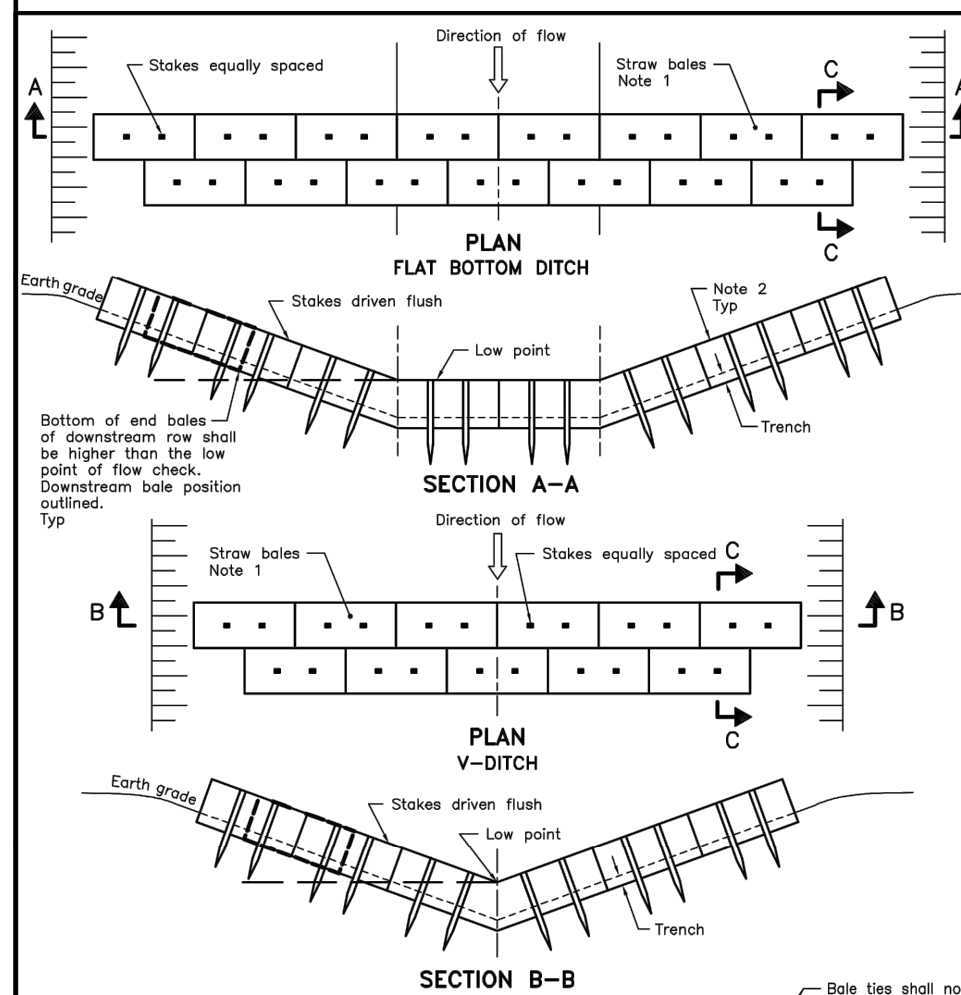


NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 2

LIGHT-DUTY SILT FENCE BARRIER

OPSD 219.110



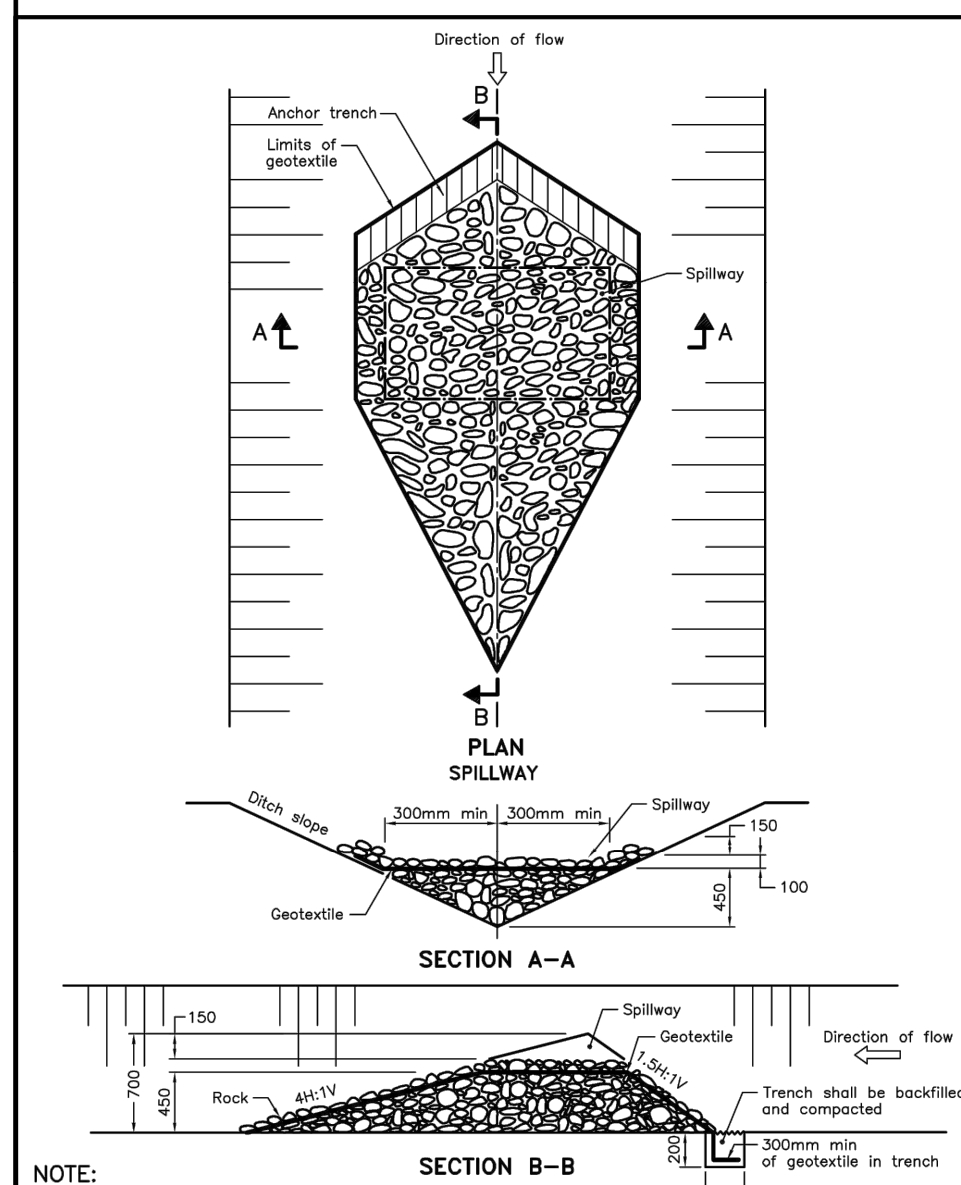
NOTE:
1 Number of bales varies and shall suit ditch.
2 Straw bales shall be butted tightly against adjoining bales and shaped to conform to the sides of the ditch to prevent water flow through barrier.

A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 2

STRAW BALE FLOW CHECK DAM

OPSD 219.180



NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 2

TEMPORARY ROCK FLOW CHECK DAM V-DITCH

OPSD 219.210

NOTES:

1. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
2. SILT FENCE TO BE ERRECTED PRIOR TO EARTH WORKS BEING COMMENCED. SILT FENCE TO BE MAINTAINED UNTIL VEGETATION IS ESTABLISHED OR UNTIL START OF SUBSEQUENT PHASE.
3. SILT SACK TO BE PLACED AND MAINTAINED UNDER COVER OF ALL CATCHBASINS. GEOTEXTILE SILT SACK IN STREET C&S TO REMAIN UNTIL ALL CURBS ARE CONSTRUCTED. GEOTEXTILE FABRIC IN RYCBs TO REMAIN UNTIL VEGETATION IS ESTABLISHED. ALL CATCHBASINS TO BE REGULARLY INSPECTED AND CLEANED, AS NECESSARY, UNTIL SOD AND CURBS ARE CONSTRUCTED.
4. WORKS NOTED ABOVE ARE TO BE INSTALLED, INSPECTED, MAINTAINED AND ULTIMATELY REMOVED BY SERVICING CONTRACTOR.
5. THIS IS A "LIVING DOCUMENT" AND MAY BE MODIFIED IN THE EVENT THE PROPOSED CONTROL MEASURES ARE INSUFFICIENT.
6. SEE DRAWING C-010 FOR ADDITIONAL DETAILS AND NOTES.

LEGEND:

- LIGHT DUTY SILT FENCE AS PER OPSD-219.110
- SNOW FENCE
- STRAW BALE CHECK DAM AS PER OPSD-219.180
- ROCK CHECK DAM AS PER OPSD-219.210
- SILT SACK PLACED UNDER EXISTING CB COVER
- TEMPORARY MUD MAT 0.15m THICK 50mm CLEAR STONE ON NON WOVEN FILTER CLOTH



CLIENT

CLARIDGE HOMES

210 Gladstone Ave. Ottawa, On K0P 0Y6

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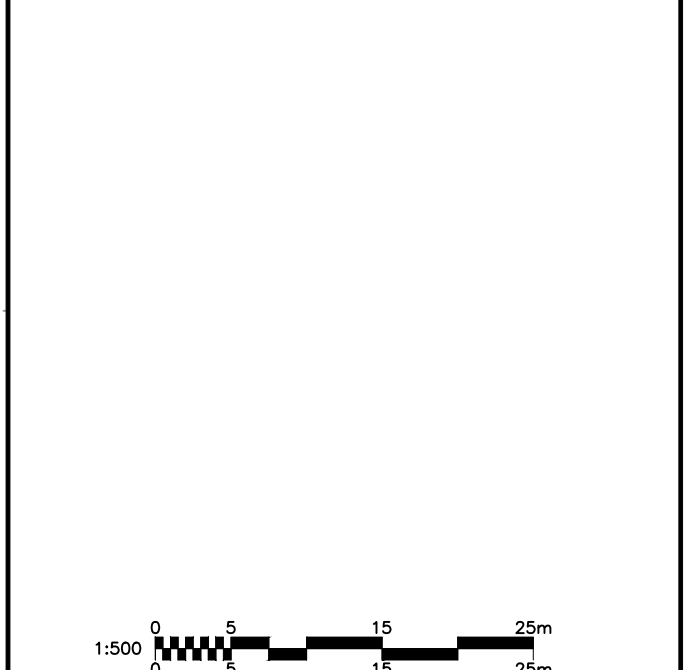
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CONSULTANTS



SEAL

LICENCED PROFESSIONAL ENGINEER
J.D. K. YANNOPOULOS
2021-12-15
PROVINCE OF ONTARIO

LICENCED PROFESSIONAL ENGINEER
W. ZHUANG
100231427
2021-12-15
PROVINCE OF ONTARIO

IBI GROUP
Suite 400 - 333 Preston Street
Ottawa ON K1S 5N4 Canada
Tel: 613 225 1311 / 613 241 3300 Fax: 613 225 9868
ibigroup.com

PROJECT

ZENS - 4624 SPRATT

PROJECT NO:
135856

DRAWN BY:
D.D.S.G.

PROJECT MGR:
R.M.

CHECKED BY:
A.Z.

APPROVED BY:

SHEET TITLE

EROSION AND SEDIMENT CONTROL PLAN

SHEET NUMBER

C-900

ISSUE

1

CITY FILE No. D07-xx-xx-xxxx