

## C R E U S Engineering

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**PROJECT:** 

## 2229 FOLKESTONE WAY WEST VANCOUVER, BC

**CLIENT:** 



## 2023-10-10 ISSUED FOR REZONING

| DRA | WIN | G L | IST |
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|     |     |     |     |

| KEY PLAN              |
|-----------------------|
| SERVICING PLAN        |
| STORMWATER MANAGEMENT |
| GRADING PLAN          |
|                       |

A the second s SEE DWG SERV FOR SERVICING

**GENERAL NOTES** 

- 1. ALL CONSTRUCTION MUST CONFORM TO THE DISTRICT OF WEST VANCOUVER & MMCD SPECIFICATIONS AND MUST PASS THE ENGINEER'S INSPECTION UPON COMPLETION OF EACH STAGE OF CONSTRUCTION.
- 2. ALL CONSTRUCTION WITHIN THE PROPERTY MUST CONFORM TO THE MUNICIPAL STANDARDS, MASTER
- MUNICIPAL SPECIFICATIONS, CURRENT B.C. BUILDING CODE, & B.C. PLUMBING CODE. 3. THE CONTRACTOR MUST NOTIFY ENGINEER THEN THE DISTRICT OF WEST VANCOUVER, 48 HOURS PRIOR TO STARTING CONSTRUCTION TO ESTABLISH AN INSPECTION SCHEDULE.
- 4. THE CONTRACTOR SHALL ENSURE THAT ALL APPROVALS REQUIRED FOR THE PROPOSED WORK HAVE
- BEEN OBTAINED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. 5. A PRE-CONSTRUCTION MEETING BETWEEN ENGINEER, THE CONTRACTOR, AND DISTRICT OF WEST
- VANCOUVER IS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION. 6. CONTRACTOR TO PROVIDE EMERGENCY CONTACT LIST, INSURANCE AND SURETY DOCUMENTATION AND PROPOSED SCHEDULE OF WORK PRIOR TO PROCEEDING WITH WORKS.
- 7. A PORTION OF THE CONTRACT DOCUMENTS IS INCLUDED BY REFERENCE. COPIES OF THESE DOCUMENTS HAVE BEEN REFERENCED IN THE TENDER PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT CURRENT RELEVANT COPIES OF ALL DRAWINGS AND CONTRACT DOCUMENTS ARE FORWARDED TO SURVEYORS, TESTING AGENCIES, SUBCONTRACTORS, SUPERINTENDENTS, ESTIMATORS, PROJECT MANAGERS, SITE STAFF AND ANY OTHER RELEVANT PARTIES. CONTRACTOR CONFIRMS THEY HAVE REVIEWED SAME PRIOR TO SUBMITTING TENDER.
- 8. THE CONTRACTOR WILL CONSTRUCT ALL WORKS TO THE SATISFACTION OF THE INSPECTORS FROM THE ENGINEER AND THE REGULATORY AUTHORITY. IF APPLICABLE ADDITIONALLY, THE TELUS WORKS UNDER THE DIRECTION AND TO THE SATISFACTION OF THE TELUS INSPECTOR, HYDRO WORKS TO SATISFACTION OF THE BC HYDRO INSPECTOR, TERASEN WORKS TO SATISFACTION OF THE TERASEN INSPECTOR, SHAW WORKS TO SATISFACTION OF THE SHAW INSPECTOR. THE CONTRACTOR WILL FORWARD TO THE ENGINEER CERTIFICATION OF ACCEPTANCE OR APPROVAL FROM THE ABOVE NOTED INSPECTORS ON COMPLETION OF THE WORK. ELECTRICAL WORKS, IF APPLICABLE TO ALSO BE UNDER PERMIT WITH BC ELECTRICAL SAFETY BRANCH WITH A COPY OF PERMIT AND SIGN OFF TO BE FORWARDED TO THE ENGINEER. CONTRACTOR TO GIVE TIMELY NOTICE TO RELEVANT INSPECTOR TO ALLOW FOR INSPECTION ON WORKS AND UPDATE ENGINEER ON SAME.
- 9. THE CONTRACTOR WILL PERFORM AT HIS OWN COST ALL TESTING REQUIRED BY THE REGULATORY AUTHORITY, MMCD AND THE ENGINEER. TESTING SHALL BE DONE BY AN INDEPENDENT SPECIALTY TESTING FIRM. CONTRACTOR TO GIVE ENGINEER NOTICE ON ALL TESTING. COPIES OF TESTS TO BE FORWARDED DIRECTLY BY THE TESTING FIRM TO ENGINEER AND GEOTECHNICAL ENGINEER BY EMAIL.
- 10. SUB-CONTRACTORS SHALL NOT COMMUNICATE WITH THE ENGINEERS OR OWNER DIRECTLY ON ANY CONTRACTUAL OR TECHNICAL ISSUE. THEY SHALL DIRECT THEIR ISSUES TO THE CONTRACTOR DIRECTLY WHOSE RESPONSIBILITY IT TO DEAL WITH THESE ISSUES ON THEIR BEHALF WITH THE ENGINEER. REVIEW AND APPROVAL OF ANY CONTRACTUAL MATTER INCLUDING PROGRESS PAYMENT, CHANGE ORDER, PAYMENT OF HOLDBACK, FINAL PAYMENT, INSURANCE AND WARRANTY, ETC. SHALL DIRECTED TO THE ENGINEER. CONTRACTOR MUST ONLY TAKE DIRECTION FROM THE ENGINEER IN REGARDS TO CHANGES TO DESIGN OR EXTRA WORKS.
- 11. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS OR NOTIFIED TO THE CONTRARY BY THE ENGINEER, THE CONTRACTOR IS THE "PRIME CONTRACTOR" FOR THE PURPOSE OF ALL APPLICABLE LAWS RELATIVE TO OCCUPATIONAL HEALTH AND SAFETY, INCLUDING THE DISCHARGE OF ALL DUTIES OF THE "PRIME CONTRACTOR" UNDER THE WORKERS COMPENSATION ACT (BRITISH COLUMBIA), NOTWITHSTANDING THAT THE ENGINEER, THE OWNER OR AN OTHER CONTRACTOR MAY PROVIDE FROM TIME TO TIME SOME OF THE SERVICES NORMALLY PROVIDED BY SUCH "PRIME CONTRACTOR". IN THIS SECTION "PRIME CONTRACTOR" MEANS THE CONTRACTOR SO DEFINED UNDER THE WORKERS COMPENSATION ACT (BRITISH COLUMBIA).

- AS-CONSTRUCTED DRAWINGS. CONTRACTOR TO CONTACT BC ONE CALL AND PROVIDE COPIES TO ENGINEER AND VERIFY THE LOCATION OF ALL EXISTING SERVICES AND TO NOTIFY ENGINEER OF ANY DISCREPANCIES, CONFLICTS OR OMISSIONS PRIOR TO BEGINNING OF CONSTRUCTION.
- SERVICES DISTURBED ARE TO BE REPLACED TO THE SATISFACTION OF DWV, THE ENGINEER AND/OR APPROPRIATE UTILITY CORPORATION.
- ENGINEER TO PROVIDE A COMPLETE SET OF AS-CONSTRUCTED DRAWINGS INCLUDING CENTERLINE, FOG LINE, EDGE OF ASPHALT, SIGNS, AND ALL APPURTENANCES. SEE SUPPLEMENTAL SPECIFICATION FOR DETAILS.
- ROADWAY SHALL BE KEPT CLEAN AND CLEAR FOR THE DURATION OF CONSTRUCTION AND LEFT IN SAME CONDITION AS PRIOR TO CONSTRUCTION.
- AND AS PER THE TRANSPORTATION ASSOCIATION OF CANDA "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" CONTRACTOR TO SUBMIT PLAN FOR TRAFFIC MANAGEMENT FOR APPROVAL AND RECEIVE SAME PRIOR TO PROCEEDING WITH WORKS.
- DURATION OF THE CONTRACT.
- OBTAINED AND FORWARDED TO ENGINEER. CONTRACTOR TO PROVIDE REQUIRED NOTICES.
- WRITTEN NOTICE OF THE PROPOSED START OF CONSTRUCTION. IF CONSTRUCTION ENTERS ONTO PRIVATE PROPERTY, THE CONTRACTOR OR DEVELOPER'S AGENT WILL REQUIRED WRITTEN AUTHORIZATION FROM THE PRIVATE PROPERTY OWNER.
- DESIGNATED TREE OR WHEN ROOTS ARE ENCOUNTERED, THE CONTRACTOR SHALL CONSULT A CERTIFIED ARBORIST BEFORE PROCEEDING TO PREVENT DAMAGE TO TREES.
- THE STORM DRAINAGE SYSTEM, ROADWAYS OR ADJACENT PROPERTIES DURING THE COURSE OF CONSTRUCTION IN ACCORDANCE WITH DFO/MOELP'S "LAND DEVELOPMENT GUIDELINES FOR THE PROTECTION OF AQUATIC HABITAT".
- AND SPECIFICATIONS.
- CONNECTIONS & CONDITION OF PIPES. A COPY OF THE REPORT IS TO BE FORWARDED TO THE DISTRICT OF WEST VANCOUVER UTILITIES.
- 24. SEE LANDSCAPE DRAWINGS FOR PLANTING DETAILS.
- 25. SEE ELECTRICAL DRAWINGS FOR STREETLIGHTING PLANS.



12. LOCATIONS OF EXISTING UNDERGROUND SERVICES HAVE BEEN DETERMINED FROM UTILITY 13. THE CONTRACTOR SHALL USE EXTREME CARE WHEN WORKING NEAR EXISTING SERVICES AND ANY 14. THE CONTRACTOR'S SURVEYOR WILL RECORD AND CERTIFY ALL INFORMATION REQUIRED FOR THE 15. WHEN NO IMPROVEMENTS ARE PROPOSED UNDER THIS CONTRACT, THE EXISTING SECTION(S) OF 16. TRAFFIC CONTROL PER THE MINISTRY OF TRANSPORTATION "TRAFFIC MANUAL FOR WORK ON ROADWAYS" 17. VEHICULAR ACCESS TO EXISTING DWELLINGS TO BE MAINTAINED BY THE CONTRACTOR FOR THE 18. PEDESTRIANS SHALL BE PROTECTED AT ALL TIMES. ANY CLOSURES OF THE SIDEWALK OR LANES TO BE COORDINATED WITH AND APPROVED BY THE ENGINEER AND A PERMIT FROM REGULATROY AUTHORITY 19. RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION OF THIS PROJECT SHALL BE GIVEN 48 HOURS 20. RETAINING DESIGNATED TREES IS OF PRIME IMPORTANCE. WHEN WORKING IN PROXIMITY TO A 21. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THAT NO SILT IS DISCHARGED TO 22. FOR BC HYDRO, TELUS, AND TERASEN INSTALLATION, SEE APPROPRIATE UTILITY COMPANY DRAWINGS 23. UPON COMPLETION OF WORKS, OWNER MUST CONDUCT CCTV TEST TO ENSURE NO CROSS



## LEGAL DESCRIPTION

LOT D; BLOCK 17; DL 783; PLAN 15565 GROUP 1

**BENCHMARK INFORMATION** 

ELEVATIONS ARE METRIC, GEODETIC DATUM, AND DERIVED FROM OLD LEAD PLUG LOCATED 5.47m NORTH OF THE NORTH WEST CORNER OF LOT D EL: 205.08m (672.84')



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- 8. SERVICE CONNECTIONS UP TO 50MM TO PROPERTY LINE TO BE TYPE K ANNEALED COPPER TO ASTM B88M AND SIZED AS SPECIFIED. SERVICE CONNECTIONS C/W WATER METER (50mm SERVICE/38mm METER OR 38mm SERVICE/25mm METER) & CHAMBER TO BE INSTALLED BY DISTRICT OF WEST VANCOUVER CREWS AT THE DEVELOPER'S COST. CONTRACTOR TO ENSURE THE CONNECTION AND METER ARE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND PROVIDE DISTRICT CREWS WITH FINAL GRADES. SERVICE AS PER DWV STD DWG WWV-2A
- . SERVICE CONNECTIONS UPTO 50mm FROM THE PROPERTY LINE TO THE BUILDING TO BE POLYBUTYLENE TO AWWA C902 CLASS 160, POLYETHYLENE TO AWWA C901, PRESSURE CLASS TUBING TO CSA B137.1 OR ENGINEER APPROVED ALTERNATIVE UNLESS SPECIFIED OTHERWISE.
- 10. ALL FITTINGS TO BE DUCTILE IRON TO AWWA C110 OR C153, CEMENT MORTAR LINED TO AWWA C104, TYTON JOINTS TO AWWA C111, WITH CLOSED LUGS.
- 11. SERVICE CONNECTIONS TO BE MARKED WITH A 40mm x 90mm POST PAINTED BLUE AT TERMINATION. SERVICES TO BE TERMINATED 1m BEYOND THE PROPERTY LINE, UNLESS OTHERWISE NOTED.
- 12. DURING CONSTRUCTION AND AT ANY TIME PRIOR TO ACCEPTANCE AND PRESSURIZING OF MAINS, THE CONTRACTOR SHALL PLACE A 0.3m SQUARE 20mm SHEET OF PLYWOOD OVER THE PUMPER NOZZLE OF THE HYDRANT TO INDICATE THE HYDRANT IS NOT IN USE.
- 13. WATERMAIN TO BE CONSTRUCTED A MINIMUM OF 0.5m ABOVE STORM OR SANITARY SEWERS AND MAINTAIN 3.0m HORIZONTAL CLEARANCE. IN AREAS WHERE LESS THAN 0.5m VERTICAL OR 3.0m HORIZONTAL CLEARANCE CAN NOT BE MAINTAINED, ALL JOINTS TO BE HEAT SHRINK WRAPPED OR TAPE WRAPPED AS PER MINISTRY OF HEALTH STANDARDS; ANSI/AWWA C214 (FACTORY APPLIED), ANSI/AWWA C209 (FIELD APPLIED) ANSI/AWWA C217-90 (PETROLATUM TAPE) ALL TO MINISTRY OF HEALTH STANDARDS. WATERMAIN CROSSINGS OF STORM OR SANITARY SEWER TO BE MADE AT MIDPOINT OF PIPE.

21. THRUST BLOCKS AS PER MMCD STD DWG W1. 22. SERVICE CONNECTIONS AS PER MMCD STD DWG W2A. SERVICE

- 23. BLOW OFF AND AIR VALVES AS PER MMCD STD DWGS W6 AND W8.
- 24. PIPE BEDDING TO CONFORM WITH MMCD STANDARDS. SEE MMCD STD. DWG G4 AND BE COMPACTED TO
- 95% MODIFIED PROCTOR PRIOR TO BACKFILLING TRENCH.
- 25. COVERS FOR INSPECTION CHAMBERS, VALVE RISERS AND METER CHAMBERS LOCATED WITHIN DRIVEWAYS SHALL BE SUITABLE FOR TRAVELLED LOADING.
- 26. SITE SERVICING WORKS TO COMMENCE ONLY AFTER OFFSITE SERVICE CONNECTION HAS BEEN INSTALLED & VERIFIED.

- 15. SERVICE CONNECTIONS TO BE MARKED WITH A 40mm x 90mm POST PAINTED RED FOR SANTIARY AND GREEN FOR STORM AT TERMINATION. SERVICES TO BE TERMINATED 1m BEYOND THE PROPERTY LINE, UNLESS OTHERWISE NOTED.

- 16. MIN. COVER FOR SANITARY = 1.5m UNDER TRAVELED AREAS AND 1.0m UNDER NON-TRAVELED AREAS.

10. WHERE SANITARY PIPE GRADE EXCEEDS 15%, PIPE TO BE ANCHORED AS PER MMCD STD. DWG G8.

13. ALL MANHOLES TO BE TO MMCD STD DWG S1, MINIMUM 1050 UNLESS OTHERWISE NOTED.

- 17. SITE SERVICING WORKS TO COMMENCE ONLY AFTER OFFSITE SERVICE CONNECTION HAS BEEN INSTALLED & VERIFIED.

TESTED IN ACCORDANCE WITH ASTM D2412 UNLESS NOTED OTHERWISE).

OR BETTER, TO ASTM F714-85 & ASTM D-1248-84.

6. CATCH BASIN RIMS TO BE SET 25mm BELOW GUTTER LINE ELEVATION.

DOWNSTREAM SEWER OUTLET EXCEPT WHERE NOTED OTHERWISE.

MMCD STD. DWG S7

MMCD STD. DWG S7

STD. DWG S7 AND S8.

PROCTOR PRIOR TO BACKFILLING TRENCH.

REQUIRED.

CONTRACTOR.

WORKS.

SKILIFT ROAD

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LEADS WHEN TESTED IN ACCORDANCE WITH ASTM D3034 & CSA B182.1 (PIPE STIFFNESS (f/y) SHALL BE 314 kPa AT 2.5% DEFLECTION WHEN TESTED IN ACCORDANCE WITH ASTM D2412 UNLESS NOTED OTHERWISE.) OR CONCRETE AND

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- SHALL MEET ASTM C14 CLASS 3 OR IF INDICATED ON DRAWINGS SDR 35 FOR MAIN LINES WHEN TESTED IN ACCORDANCE WITH ASTM D3034 & CSA B182.1 (PIPE STIFFNESS (f/y) SHALL BE 314 kPa AT 2.5% DEFLECTION WHEN

- 2. STORM GRAVITY SEWERS TO BE EITHER PVC SDR 28 FOR SERVICE CONNECTIONS AND SDR 35 FOR MAIN LINES AND CB

3. SANITARY FORCEMAINS ARE TO BE PVC TO AWWA C900 CLASS 150 OR HIGH DENSITY POLYETHYLENE SERIES 100 (DR17)

4. STORM SERVICES TO BE MINIMUM SDR28 P.V.C. 150mm MIN C/W INSPECTION CHAMBER AT PROPERTY LINE AS PER

5. SANITARY SERVICES TO BE MINIMUM SDR28 P.V.C. 100mm MIN c/w INSPECTION CHAMBER AT PROPERTY LINE AS PER

7. TESTING OF SEWERS TO BE PERFORMED IN THE PRESENCE OF ENGINEER INSPECTORS. 48 HOURS PRIOR NOTICE

8. ALL SEWERS TO BE T.V. CAMERA INSPECTED. T.V. CAMERA INSPECTION TO BE ARRANGED AND PAID FOR BY THE

9. ALL SEWER SERVICE CONNECTIONS ENTERING MANHOLES TO HAVE INVERT ELEVATION AT CROWN ELEVATION OF

11. MINIMUM GRADE ON SERVICE CONNECTIONS TO BE 2%, UNLESS NOTED OTHERWISE. SERVICE CONNECTIONS AS PER MMCD

12. PIPE BEDDING TO CONFORM WITH MMCD STANDARDS. SEE MMCD STD. DWG G4 AND BE COMPACTED TO 95% MODIFIED

14. EXCAVATION AND PAVEMENT RESTORATION TO BE COMPLETED BY CONTRACTOR PER REGULATORY AUTHORITY

REQUIREMENTS, MMCD STANDARDS AND CONTRACT DOCUMENTS. CONTRACTOR TO GIVE NOTICE PRIOR TO COMPLETING

STORM AND SANITARY NOTES 1. SANITARY GRAVITY SEWERS TO BE PVC SDR 28 FOR SERVICE CONNECTIONS AND SDR 35 FOR MAIN LINES WHEN TESTED IN ACCORDANCE WITH ASTM D3034 & CSA B182.1. PIPE STIFFNESS (f/y) SHALL BE 314 kPg AT 2.5% DEFLECTION WHEN TESTED IN ACCORDANCE WITH ASTM D2412 UNLESS NOTED OTHERWISE.

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|--|---|--|--|--|--|---|---|---|---|---|
| 5  | MP  | Calcula  | atio   | ns   |  |   |   | Civi  | lEngi   | neer  |
| Proje                                      | ect: Salmo  | on House - 2229 Folkes   | tone Way   |  |  |   | File: 21263   |   |   | -   |
| Sect                                       | on: SMP :   | Source Control Calculat  | tions  |  |  |   | By: RJL   |   |   | -   |
| 1)   | Objectives:<br>Infiltrate or rea  | use the first 50mm of rainfa   | all on impervi   | ous surfac   | es and the   | first 72mm  | of rainfall on pervio   | us surfaces   |   | IVES  |
| 2)   | Treat the first   | 35mm of rain in 24 hours   | from all vehic   | le accessi   | ible imperv  | ious surface  | es la   |   |   | BUECT   |
| 3)   | LIMIT RUNOT T   | om the 1:10 Year Storm E   | vent to Pre-L  | Jevelopme  | nt Leveis  |   |   |   |   | 0   |
|  | Site Elevation<br>Correc  | tion Factor  | =  | 100m ·<br>1.45   | - 400m   |   |   |   |   |   |
|  | Soil Description  | on   | =  | Sandy Loa  | am<br>) mm/hr  | ( )   |   |   |   | TEST 8  |
|  | Tank Type   | e  | =  | 25.0   | ) mm/nr  | (Assumed)   |   |   |   | ERCT  |
|  | Tank System<br>Pipe Size  |  | =  | Online<br>150  | ) mm   |   |   |   |   | 4   |
| Pre-D                                      | evelopment Ca   | chment Area  |  |  |  | Area  | C Value   |   |   |   |
| 10 0                                       | Roof Area (Im   | pervious)  |  | =  | 1065   | m <sup>2</sup>  | 1.00  |   |   |   |
|  | Hardscape Ar<br>Landscape Ar  | ea (Impervious)<br>ea (Pervious)   |  | =  | 2274<br>2228   | m <sup>2</sup><br>m <sup>2</sup>  | 0.95<br>0.65  |   |   |   |
|  | Pavers Area (   | Pervious)  |  | =  | 0  | m <sup>2</sup>  | 0.50  |   |   |   |
|  | Natural Wood  | lands (Pervious)   |  | =  | 0  | m <sup>2</sup>  | 0.20  |   |   | REAS  |
|  |   | Total Area   |  | =  | 5567   | m <sup>2</sup>  | 0.84  |   |   | OST A   |
| ' <u>0ST-</u>                              | Roof Area (Im   | atchment Area<br>pervious)   |  | =  | 1535   | n <sup>2</sup>  | 1.00  | % Controlle   | ed  | E & P   |
|  | Hardscape Ar  | ea (Impervious)<br>ea (Impervious) - Travelled   |  | =  | 402  | m <sup>2</sup><br>m <sup>2</sup>  | 0.95  | 100%  |   | d   |
|  | Landscape A   | ea (Pervious)  |  | =  | 1840   | m <sup>2</sup>  | 0.30  | 0%  |   |   |
|  | Green Roof A<br>Natural Wood  | rea (Pervious)<br>Iands (Pervious)   |  | =  | 0  | m <sup>2</sup><br>m <sup>2</sup>  | 0.50  | 100%<br>100%  |   |   |
|  |   | Total  |  | =  | 5567   | m²  | 0.75  |   |   |   |
| olun                                       | netric Capture  | Volume   |  |  |  |   |   |   |   |   |
| Сар  | ture Criteria =   | Infiltrate or reuse the f  | irst 50mm o  | f rainfall (   | on imperv  | vious surfac  | ces and the first 72  | 2mm of  |   |   |
|  | <b>D</b> : 6    0   | raintali on pervious su  | maces  | _  |  |   |   |   |   |   |
|  | Rainfall Cap  | uture Required - Imperv<br>Area  | ious Area  | =  | 50   | mm  |   |   | H   |   |
|  | Imperv  | ous Area   |  | =  | 3727   | m <sup>2</sup>  |   |   | ARGE  |   |
|  | Storag  | je Volume Required<br>ank  |  | =  | 186  | m <sup>3</sup>  |   |   | URET  | MENT  |
|  | % of  | Impervious Directed =  | 100%   |  |  |   |   |   | CAPT  | UIRE  |
|  | Require   | d Volumetric Capture =   | 186  | m <sup>3</sup>   | <b>T</b> 1 0   |   | D . D . O   |   | SUO   | N REO   |
|  | Infiltration  | Infiltration Footprint =<br>Provided (24 hours) =  | 163<br>98  | m <sup>-</sup><br>m <sup>3</sup>   | (Tank Ba   | se + 300mm  | n Drain Rock Side F   | - ill)  | PERVI   | VOIL  |
|  | Volumet   | ic Storage Required =  | 88   | m <sup>3</sup>   |  |   |   |   | Σ   | LTR/  |
| 1  | otal Volumet  | ric Capture Provided =   | 186  | m <sup>3</sup>   |  |   |   |   |   | CIN   |
|  | Pervious Are  | a  |  |  |  |   |   |   | F   | METR  |
|  | Rainfall Cap  | uture Required - Pervio  | us Area  | =  | 72   | mm  |   |   | ARGE  | /OLU  |
|  | Landscape A   | <u>Area</u>  |  |  |  |   |   |   | E   | -   |
|  |   | abe Alea   |  | =  | 1840   | m <sup>2</sup>  |   |   | 4   |   |
|  | Storag  | je Volume Required   |  | =  | 1840<br><b>132</b>   | m <sup>2</sup><br>m <sup>3</sup>  |   |   | APTUR   |   |
|  | Storag<br>Hardso<br>I/P Ra  | ape Area<br>je Volume Required<br>ape Directed to Landscap<br>tio  | е  | =<br>=<br>=  | 1840<br><b>132</b><br>0<br>0   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1  | <2:1 OK   |   | OUS CAPTUR  |   |
|  | Storag<br>Hardso<br>I/P Ra<br>Landso  | ape Volume Required<br>ape Directed to Landscap<br>tio<br>cape Water Holding Capac   | e<br>ity   | =  | 1840<br>132<br>0<br>0.20   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1  | <2:1 OK   |   | ERVIOUS CAPTUR  |   |
|  | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water   | appe Arlea<br>Je Volume Required<br>Jape Directed to Landscap<br>tio<br>Jape Water Holding Capac<br>Im Soil Depth<br>That Falls on Lanscape  | e<br>iity<br>is Capture o  | =<br>=<br>=<br>=<br>=<br>=   | 1840<br>132<br>0<br>0.0<br>0.20<br>0.36<br>red by Lai  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>mdscape  | <2:1 OK   |   | PERVIOUS CAPTUR   |   |
| Vater                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water   | app Alea<br>Je Volume Required<br>Jape Directed to Landscap<br>tio<br>sape Water Holding Capac<br>Im Soil Depth<br>That Falls on Lanscape<br>nent  | e<br>tity<br>is Capture o  | =<br>=<br>=<br>=<br>=<br>d and Stor  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lar   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>ndscape  | <2:1 OK   |   | PERVIOUS CAPTUR   | Ł   |
| Vater                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Water<br>Quality Treatn<br>Criteria =   | appe Volume Required<br>ape Directed to Landscap<br>tio<br>appe Water Holding Capac<br>im Soil Depth<br>That Falls on Lanscape<br>hent<br>: Treat the first 35mm of re   | e<br>iity<br>is Capture o<br>ain in 24 hou   | =<br>=<br>=<br>=<br>d and Stor   | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan   | m <sup>2</sup><br>m <sup>3</sup><br>:1<br>m<br>ndscape  | <2:1 OK   |   | PERVIOUS CAPTUR   | QUALITY   |
| Vater                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea  | appe Volume Required<br>appe Directed to Landscap<br>tio<br>sape Water Holding Capac<br>im Soil Depth<br>That Falls on Lanscape<br>ment<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =   | e<br>isty<br>is Capture o<br>ain in 24 hou<br>1960   | =<br>=<br>=<br>=<br>d and Stor<br>rs fomr all<br>m <sup>2</sup>  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc  | m <sup>2</sup><br>m <sup>3</sup><br>:1<br>m<br>mdscape<br>cessible imp  | <2:1 OK   | 960 m <sup>2</sup>  | PERVIOUS CAPTUR   | ATER QUALITY  |
| Vater                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatn<br>Criteria =<br>Area Trea<br>Area T  | app Area<br>app Olume Required<br>app Directed to Landscap<br>tio<br>cape Water Holding Capac<br>im Soil Depth<br>That Falls on Lanscape<br>nent<br>: Treat the first 35mm of rea<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Deleace Bete   | e<br>iity<br><b>is Capture o</b><br>ain in 24 hou<br>1960<br>0   | =<br>=<br>=<br>d and Stor<br>rs fomr all<br>m <sup>2</sup><br>m <sup>2</sup>   | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lai<br>vehicle-acc<br>To<br>Required  | m <sup>2</sup><br>m <sup>3</sup><br>:1<br>m<br>cessible imp<br>tal Treated<br>d Treatmen  | <2:1 OK<br>Dervious surfaces<br>A Area = 19<br>Int Area = 17  | 960 m <sup>2</sup><br>790 m <sup>2</sup>  | PERVIOUS CAPTUR   | WATER OUALITY   |
| √ater                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area T<br>P-Development<br>Area of Site   | ape Volume Required<br>ape Directed to Landscap<br>tio<br>sape Water Holding Capac<br>im Soil Depth<br>That Falls on Lanscape<br>nent<br>Treat the first 35mm of ra<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate   | e<br>isty<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>=<br>d and Stor<br>rs fomr all<br>m <sup>2</sup><br>=   | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-act<br>To<br>Required<br>5567  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>mdscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup>   | <2:1 OK<br>Dervious surfaces<br>Area = 19<br>Int Area = 17  | 960 m <sup>2</sup><br>90 m <sup>2</sup>   | PERVIOUS CAPTUR   | WATER OUALITY   |
| /ater                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatn<br>Criteria =<br>Area Tree<br>Area Tree<br>Area To<br>P-Development<br>Area of Site<br>Site C Value   | ape Area<br>Je Volume Required<br>Jape Directed to Landscap<br>tio<br>Jape Water Holding Capac<br>Im Soil Depth<br>That Falls on Lanscape<br>That Falls on Lanscape<br>That Falls on Lanscape<br>That Falls on Lanscape<br>Release Rate<br>Release Rate  | e<br>isty<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>d and Stor<br>m <sup>2</sup><br>m <sup>2</sup><br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lai<br>vehicle-acc<br>To<br>Required<br>5567<br>0.84<br>26 13   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>mdscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup>   | <2:1 OK<br>pervious surfaces<br>A Area = 19<br>nt Area = 17   | 960 m <sup>2</sup><br>790 m <sup>2</sup>  | PERVIOUS CAPTUR   | WATER OLIALITY  |
| Vater                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area T<br>e-Development<br>Area of Site<br>Site C Value<br>Max Release<br>Rate p   | ape Volume Required<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>sape Water Holding Capac<br>m Soil Depth<br>That Falls on Lanscape<br>ment<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3   | e<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>d and Stor<br>m <sup>2</sup><br>m <sup>2</sup><br>=<br>=<br>=   | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br>To<br>Required<br>5567<br>0.84<br>26.13   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>mdscape<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>I/s  | <2:1 OK<br>pervious surfaces<br>Area = 19<br>ht Area = 17   | 960 m <sup>2</sup><br>990 m <sup>2</sup>  | PERVIOUS CAPTUR   | WATER OUALITY   |
| h Pre                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area T<br>P-Development<br>Area of Site<br>Site C Value<br>Max Release<br>Release Rate p<br>Max Release   | ape Area<br>Je Volume Required<br>Jape Directed to Landscap<br>tio<br>sape Water Holding Capac<br>m Soil Depth<br>That Falls on Lanscape<br>That Falls on Lanscape<br>That Falls on Lanscape<br>That Falls on Lanscape<br>Second States<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>for Any Site<br>Rate #2  | e<br>isty<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>form all<br>m <sup>2</sup><br>=<br>=<br>=<br>=<br>=<br>=<br>=   | 1840<br>132<br>0<br>0,20<br>0,36<br>red by Lai<br>vehicle-acc<br>To<br>Required<br>5567<br>0,84<br>26,13<br>31.80<br>17,70   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha   | <2:1 OK<br>pervious surfaces<br>Area = 19<br>nt Area = 17   | 960 m <sup>2</sup><br>790 m <sup>2</sup>  | PERVIOUS CAPTUR   | WATER OUALITY   |
| Vater<br>h Pro                             | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area T<br>Development<br>Area of Site<br>Site C Value<br>Max Release<br>Max Release<br>Max Release  | ape Valume Required<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>sape Water Holding Capac<br>m Soil Depth<br>That Falls on Lanscape<br>ment<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite   | e<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>d and Stor<br>m <sup>2</sup><br>m <sup>2</sup><br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lair<br>vehicle-act<br>To<br>Required<br>5567<br>0.84<br>26.13<br>31.80<br>17.70  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>tal Treated<br>d Treated<br>d Treatmen<br>m <sup>2</sup><br>I/s<br>L/s/ha<br>I/s   | <2:1 OK<br>pervious surfaces<br>A Area = 19<br>ht Area = 17   | 960 m <sup>2</sup><br>790 m <sup>2</sup>  | PERVIOUS CAPTUR   | RATE WATER OUALITY  |
| h Pro                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release   | ape Area<br>Je Volume Required<br>ape Directed to Landscap<br>tio<br>cape Water Holding Capac<br>m Soil Depth<br>That Falls on Lanscape<br>hent<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)  | e<br>isty<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>=<br>=<br>=<br>s fomr all<br>m <sup>2</sup><br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lai<br>vehicle-acc<br>To<br>Re quired<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>I/s<br>L/s/ha<br>I/s  | <2:1 OK<br>pervious surfaces<br>Area = 19<br>ht Area = 17   | 960 m <sup>2</sup><br>790 m <sup>2</sup>  | PERVIOUS CAPTUR   | EASE RATE WATER OLIALITY  |
| h Pro                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimo<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area T<br>Development<br>Area of Site<br>Site C Value<br>Max Release<br>Max Release<br>Max Release<br>Se Rate from S<br>Gh Post Dev F<br>Maximum Alla<br>% Difference   | ape Area<br>Je Volume Required<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>Im Soil Depth<br>That Falls on Lanscape<br>Pent<br>Treat the first 35mm of re-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>wed Release Rate<br>[Increase)  | e<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>d and Stor<br>m <sup>2</sup><br>m <sup>2</sup><br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lait<br>vehicle-act<br>To<br>Re quired<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s   | <2:1 OK<br>pervious surfaces<br>Area = 19<br>ht Area = 17<br>(Minimum of Rele<br>Detention Stora  | 960 m <sup>2</sup><br>790 m <sup>2</sup><br>9ase Rate 1 & 4<br>ge Required  | (2 PERVIOUS CAPTUR  | RELEASE RATE WATER OUALITY  |
| h Pro<br>lax F<br>elea                     | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Max Release<br>Max Release<br>Se Rate from S<br>6h Post Dev F<br>Maximum Allo<br>% Difference  | ape Volume Required<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>m Soil Depth<br>That Falls on Lanscape<br>nent<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>owed Release Rate<br>(Increase)<br>e Rate  | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br>To<br>Required<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>l/s<br>>10%  | <2:1 OK<br>pervious surfaces<br>Area = 19<br>at Area = 17<br>(Minimum of Rele<br>Detention Stora  | 960 m²<br>990 m²<br>988e Rate 1 & 3<br>98 Required  | (2)   | RELEASE RATE WATER OUALITY  |
| <u>ax F</u>                                | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Max Release<br>Max Difference<br>Maximum Allo<br>% Difference  | ape Area<br>pe Volume Required<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>im Soil Depth<br>That Falls on Lanscape<br>That Falls on Lanscape<br>That Falls on Lanscape<br>That Falls on Lanscape<br>Release Rate Solution 1<br>Release Rate Main Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>Rate #2<br>Release Rate (No Orifice)<br>owed Release Rate<br>(Increase)<br>e Rate<br>Area<br>C Value   | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>d and Stor<br>m <sup>2</sup><br>m <sup>2</sup><br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lait<br>vehicle-acc<br>To<br>Re quired<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%<br>1840  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treated<br>d Treatmen<br>m <sup>2</sup><br>I/s<br>L/s/ha<br>I/s<br>I/s<br>I/s<br>I/s<br>I/s<br>Na%  | <2:1 OK<br>pervious surfaces<br>Area = 19<br>It Area = 17<br>It Area = 17<br>(Minimum of Rele<br>Detention Stora  | 960 m <sup>2</sup><br>790 m <sup>2</sup><br>wase Rate 1 & 3<br>ge Required  | PERVIOUS CAPTUR   | RELEASE RATE<br>WATER OLIALITY  |
| <u>ax F</u>                                | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max mum Allo<br>% Difference<br>trolled Release<br>Uncontrolled<br>Uncontrolled   | ape Volume Required<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Directed to Landscap<br>tio<br>m Soil Depth<br>That Falls on Lanscape<br>nent<br>That Falls on Lanscape<br>nent<br>That Falls on Lanscape<br>nent<br>Treat the first 35mm of ra<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>owed Release Rate<br>(Increase)<br>e Rate<br>Area<br>C Value<br>Release Rate  | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br><b>To</b><br><b>Required</b><br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s   | <2:1 OK<br>pervious surfaces<br>Area = 19<br>at Area = 17<br>(Minimum of Rele<br>Detention Stora  | 960 m²<br>90 m²<br>983 e Rate 1 & 3<br>98 Required  | (2) PERVIOUS CAPTUR   | RELEASE BATE WATER OLIALITY   |
| <u>ax F</u><br>elea                        | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Max Release<br>Kak Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Difference<br>Max International<br>Max International<br>Max International<br>Max Release<br>Ch Post Dev F<br>Max International<br>Max International<br>M  | ape Area<br>ye Volume Required<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>im Soil Depth<br>That Falls on Lanscape<br>Pent<br>Treat the first 35mm of re<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>owed Release Rate<br>(Increase)<br><u>9 Rate</u><br>Area<br>C Value<br>Release Rate<br><b>e From Site</b>  | e<br>isty<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>=<br>=<br>=<br>m <sup>2</sup><br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=                                      | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lait<br>vehicle-acc<br>To<br>Re quired<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treated<br>d Treated<br>l Treated<br>l S<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s  | <2:1 OK<br>pervious surfaces<br>Area = 19<br>at Area = 17<br>(Minimum of Rele<br>Detention Stora<br>(110% Max Allow   | 960 m <sup>2</sup><br>790 m <sup>2</sup><br>wase Rate 1 & 3<br>ge Required  | PERVIOUS CAPTUR<br>(attack)   | RELEASE RATE WATER OUALITY  |
| <u>ax F</u><br>elea                        | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max Release<br>Se Rate from S<br>6h Post Dev F<br>Max mun Alk<br>% Difference<br>Uncontrolled /<br>Uncontrolled /<br>Uncontrolled A   | ape Volume Required<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Directed to Landscap<br>tio<br>m Soil Depth<br>That Falls on Lanscape<br>nent<br>That Falls on Lanscape<br>nent<br>That Falls on Lanscape<br>nent<br>Treat the first 35mm of rate<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>of Any Site<br>Rate #1<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>owed Release Rate<br>(Increase)<br>Release Rate<br>C Value<br>Release Rate<br>From Site  | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br>To<br>Required<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treated<br>d Treated<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s  | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow)   | 960 m <sup>2</sup><br>190 m <sup>2</sup><br>base Rate 1 & 3<br>ge Required  | PERVIOUS CAPTUR   | IZING RELEASE RATE WATER OUALITY  |
| ax F<br>elea                               | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Tree<br>Area Tree<br>Area Tree<br>Area of Site<br>Site C Value<br>Max Release<br>Max I de Controlled<br>Max I de Controlled<br>Uncontrolled<br>Uncontrolled<br>Controlled<br>Release Rate<br>Max Head<br>Orifice Ø  | ape Volume Required<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>m Soil Depth<br>That Falls on Lanscape<br>hent<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>tie<br>Release Rate (No Orifice)<br>wed Release Rate<br>(Increase)<br>a Rate<br>Area<br>C Value<br>Release Rate<br>a From Site<br>tion Storage)  | e<br>ity<br>is Capture o<br>ain in 24 hou<br>1960<br>0   | =<br>=<br>=<br>=<br>=<br>=<br>s fomr all<br>m <sup>2</sup><br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=                        | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lar<br>vehicle-acc<br><b>To</b><br><b>Re quire</b><br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br><b>19.47</b><br>0.71<br>96   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>m<br>m<br>m   | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow)   | 960 m <sup>2</sup><br>190 m <sup>2</sup><br>9ase Rate 1 & 3<br>ge Required  | PERVIOUS CAPTUR<br>(eta)  | ICE SIZING RELEASE RATE WATER OUALITY   |
| h Pro                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max Release<br>Se Rate from S<br>6h Post Dev F<br>Max Release<br>Max Release<br>Controlled A<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Controlled A<br>Contro                                  | ape Area<br>ye Volume Required<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>um Soil Depth<br>That Falls on Lanscape<br>hent<br>Treat the first 35mm of re-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>wed Release Rate<br>(Increase)<br>a Rate<br>2 Value<br>Release Rate<br>a From Site<br>tion Storage)<br>rifice   | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br>red by Lan<br>7<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.71<br>96<br>16.39   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treated<br>d Treated<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s  | <2:1 OK Dervious surfaces (Area = 19 th Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U  | 960 m <sup>2</sup><br>190 m <sup>2</sup><br>base Rate 1 & 3<br>ge Required<br>red Release Ra  | bervious capture (etc.)   | OBJEICE SIZING RELEASE RATE WATER OUALITY   |
| Vater<br>h Pro<br>lax F<br>elea<br>ncor    | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Tree<br>Area Tree<br>Area Tree<br>Area of Site<br>Site C Value<br>Max Release<br>Max Internet<br>Max Internet<br>Site C Value<br>Max Release<br>Max Release<br>Max Release<br>Max Internet<br>Max Internet<br>Site C Value<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Internet<br>Max Internet<br>Max Internet<br>Controlled A<br>Uncontrolled I<br>Release Rate<br>Max Head<br>Orifice Ø<br>Flow Out of O   | ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Directed to Landscap<br>tio<br>model ape Directed to Landscap<br>tio<br>model ape Vater Holding Capac<br>model ape Vater Holding Capac<br>model ape Vater Holding Capac<br>ape Vater Holding Capac<br>app Vater Holding C | e<br>isty<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>=<br>=<br>=<br>s fomr all<br>m <sup>2</sup><br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=                                       | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br><b>To</b><br><b>Re quire</b><br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br><b>19.47</b><br>0.71<br>96<br>16.39   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>l/s  | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U  | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200   | bervious capture (ate)  | REMELORIFICE SIZING RELEASE RATE WATER QUALITY  |
| h Pro                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Calease Rate p<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max Release<br>Se Rate from S<br>6h Post Dev F<br>Max mum Allo<br>% Difference of<br>Uncontrolled 1<br>Release Rate<br>Sizing (Detem<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage Vir   | ape Volume Required<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>um Soil Depth<br>That Falls on Lanscape<br>enent<br>Treat the first 35mm of re<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>owed Release Rate<br>(Increase)<br>a Rate<br>Prom Site<br>tion Storage)<br>rifice   | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lair<br>vehicle-acc<br>To<br>Required<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.711<br>96<br>16.39<br>4-4   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>ndscape<br>cessible imp<br>tal Treated<br>d Treated<br>d Treated<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s   | <2:1 OK Dervious surfaces I Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR   | 960 m <sup>2</sup><br>790 m <sup>2</sup><br>base Rate 1 & 3<br>ge Required  | (eta) | QUIREMEI ORFICE SIZING RELEASE RATE WATER QUALITY   |
| ax F<br>elea<br>ncor<br>rifice             | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Calease Rate p<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max inum Allo<br>% Difference<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Confice Ø<br>Flow Out of O<br>tion Storage Ve  | ape Volume Required<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>m Soil Depth<br>That Falls on Lanscape<br>hent<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Preated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>wed Release Rate<br>(Increase)<br>a Rate<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>wed Release Rate<br>(Increase)<br>a Rate<br>From Site<br>tion Storage)<br>rifice  | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0<br>0<br>2-HO<br>Detention  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br>To<br>Required<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.71<br>96<br>16.39<br>4-4<br>Detenti  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s  | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR Detention Storae)   | 260 m <sup>2</sup><br>790 m <sup>2</sup><br>200 m <sup></sup>   | bervious capture (ate)  | GE REQUIREMEL OR FICE SIZING RELEASE RATE WATER QUALITY   |
| <u>ax F</u><br>elea<br>ncor                | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Max Release<br>Max Release<br>Bh Post Dev F<br>Maximum Alla<br>% Difference<br>Uncontrolled Uncontrolled<br>Uncontrolled G<br>Release Rate<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage Ver   | ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>m Soil Depth<br>That Falls on Lanscape<br>nent<br>Treat the first 35mm of re<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>owed Release Rate<br>(Increase)<br>a Rate<br>Rate<br>Rate<br>Prom Site<br>tion Storage)<br>rifice<br>1-HOUR<br>Detention Storage<br>(m <sup>3</sup> )   | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup>  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lair<br>vehicle-act<br>To<br>Re quired<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.309<br>19.47<br>0.71<br>96<br>16.39<br>4-4<br>Detenti   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>ha<br>l/s<br>ha<br>how<br>for a for | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR Detention Stora (m <sup>3</sup> )   | 260 m <sup>2</sup><br>790 m <sup>2</sup><br>20 m | (eta) | TORAGE REQUIREME ORIFICE SIZING RELEASE RATE WATER OUALITY  |
| /ater                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Max Release<br>Calease Rate p<br>Max Release<br>Max Release<br>Base Rate from S<br>6h Post Dev F<br>Max imum Allo<br>% Difference for<br>trolled Release<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage V  | ape Volume Required<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>m Soil Depth<br>That Falls on Lanscape<br>hent<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Preated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>wed Release Rate<br>(Increase)<br>a Rate<br>Release Rate<br>C Value<br>Release Rate<br>b From Site<br>tion Storage)<br>rifice<br>Durme<br>1-HOUR<br>Detention Storage<br>(m <sup>3</sup> )<br>42.83  | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6   | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br><b>To</b><br><b>Required</b><br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.71<br>96<br>16.39<br>4.4<br>Detenti  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s  | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR Detention Storag (m <sup>3</sup> ) 27.94  | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200   | bervious capture (ate)  | ON STORAGE REQUIREMED OR FICE SIZING RELEASE RATE WATER QUALITY   |
| ax F<br>elea<br>ncor                       | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Max Release<br>Max Release<br>Controlled<br>Uncontrolled<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage Ve  | ape Area<br>pe Volume Required<br>ape Directed to Landscaptio<br>tio<br>ape Water Holding Capaci<br>m Soil Depth<br>That Falls on Lanscape<br>tent<br>Treat the first 35mm of re<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>tite<br>telease Rate (No Orifice)<br>wed Release Rate<br>(Increase)<br>2 Rate<br>Area<br>2 Value<br>Release Rate<br>5 From Site<br>tion Storage)<br>rifice<br>1-HOUR<br>Detention Storage Vol   | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lar<br>vehicle-acc<br>red by Lar<br>vehicle-acc<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s   | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR Detention Storag (m <sup>3</sup> ) 27.94 7 m <sup>3</sup>                                   | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200   | (eta) | TENTION STORAGE REOUIREMEL ORIFICE SIZING RELEASE BATE WATER OUALITY  |
| /ater<br>ax F<br>elea<br>ncor              | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Max Release<br>Calease Rate p<br>Max Release<br>Max Release<br>Max Release<br>Base Rate from S<br>6h Post Dev F<br>Max inum Allo<br>% Difference<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage Ve   | ape Volume Required<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Directed to Landscap<br>tio<br>model of the second second<br>model of the second second<br>model of the second second<br>model of the second second<br>second second second second<br>model of the second second<br>second second second second second second second<br>second second second second second second second second<br>second second  | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br><b>To</b><br><b>Required</b><br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>4.4</b><br>Detenti  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s  | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR Detention Storag (m <sup>3</sup> ) 27.94 7 m <sup>3</sup>                                   | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200   | bervious capture (ate)  | DETENTION STORAGE REQUIREMED OR FICE SIZING RELEASE RATE WATER QUALITY  |
| /ater<br>ax F<br>elea<br>ncor              | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area Trea<br>Site C Value<br>Site C Value<br>Max Release<br>Max Release<br>Controlled<br>Uncontrolled<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage V   | ape Area<br>pe Volume Required<br>ape Directed to Landscaptio<br>tio<br>ape Water Holding Capac<br>im Soil Depth<br>That Falls on Lanscape<br>tent<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>telease Rate (No Orifice)<br>wed Release Rate<br>(Increase)<br>2 Rate<br>Area<br>C Value<br>Release Rate<br>be From Site<br>tion Storage)<br>rifice<br>1-HOUR<br>Detention Storage Vol-<br>Design Storm   | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lar<br>vehicle-acc<br>To<br>Required<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.71<br>96<br>16.39<br>4.4<br>Detenti<br>7<br>2.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s   | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR Detention Storag (m <sup>3</sup> ) 27.94 7 m <sup>3</sup>                                   | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200   | (eta) | DETENTION STORAGE REDUIREMEL ORIFICE SIZING RELEASE RATE WATER OUALITY  |
| /ater<br>ax F<br>elea<br>ncor<br>rifice    | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max Release<br>Se Rate from S<br>6h Post Dev F<br>Max multic<br>% Difference i<br>trolled Release<br>Uncontrolled 0<br>Uncontrolled 0<br>Uncontrolled 0<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage Ve  | ape Area<br>ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Water Holding Capac<br>im Soil Depth<br>That Falls on Lanscape<br>ent<br>Treat the first 35mm of re-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>wed Release Rate<br>(Increase)<br>a Rate<br>Area<br>C Value<br>Release Rate<br>a From Site<br>tion Storage)<br>rifice<br>Detention Storage<br>(m <sup>3</sup> )<br>42.83<br>Detention Storage Vol-<br>Design Storm  | e<br>ity<br>is Capture of<br>ain in 24 hou<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir<br>=<br>=  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lar<br>vehicle-acc<br>To<br>Required<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.71<br>96<br>16.39<br>4-4<br>Detenti<br>7<br>= =<br>1<br>m<br>8 m  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s  | <2:1 OK   | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200   | (12 between the second se  | SIZE DETENTION STORAGE REQUIREMEL ORIFICE SIZING RELEASE RATE WATER OUALITY   |
| h Pro                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max Release<br>are Rate from S<br>6h Post Dev F<br>Max inum Allo<br>% Difference<br>trolled Release<br>Uncontrolled I<br>Uncontrolled Post<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage V  | appe Directed to Landscap         ape Directed to Landscap         ape Directed to Landscap         ape Water Holding Capace         m Soil Depth         That Falls on Lanscape         hent         : Treat the first 35mm of rated by Infiltration Tank =         reated by Rain Garden =         Release Rate         Rate #1         er DWV Section 4.3         for Any Site         Rate #2         ite         Release Rate (No Orifice)         owed Release Rate         (Increase)         a Rate         a From Site         tion Storage)         rifice         plume         1-HOUR         Detention Storage (m³)         42.83         Detention Storage Tank Depth         Storage Tank Depth         Storage Tank Length   | e<br>iity<br>is Capture o<br>ain in 24 hou<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir<br>=<br>=  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br>red by Lan<br>vehicle-acc<br>131.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.55<br>1.   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>s>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>s>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>s<br>l/s<br>s<br>10%<br>m <sup>2</sup><br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>l/  | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - L 6-HOUR Detention Storag (m <sup>3</sup> ) 27.94 7 m <sup>3</sup> modules modules modules           | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200   | bervious capture (atte)   | TANK SIZE DETENTION STORAGE REQUIREMEL ORIFICE SIZING RELEASE RATE WATER QUALITY  |
| Vater<br>h Pro<br>elea:<br>ncor<br>nfiltra | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max Information<br>Wax Release<br>Rate from S<br>6h Post Dev F<br>Max Information<br>Max Information<br>Max Information<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage Vertices<br>Storage Storage Vertices<br>Storage Storage Sto   | appe Polume Required         ape Directed to Landscaptio         appe Directed to Landscaptio         appe Valuer Holding Capace         im Soil Depth         That Falls on Lanscape         enent         : Treat the first 35mm of rested by Rain Garden =         Release Rate         Rate #1         er DWV Section 4.3         for Any Site         Rate #2         ite         Release Rate (No Orifice)         owed Release Rate         (Increase)         a Rate         a Prom Site         tion Storage)         rifice         blume         1-HOUR         Detention Storage (m³)         42.83         Detention Storage Vol         Design Storm   | e<br>ity<br>is Capture of<br>ain in 24 hour<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir<br>=<br>=<br>=<br>=<br>=<br>=   | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br>red by Lan<br>vehicle-acc<br>1.0<br>25567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.71<br>96<br>16.39<br>4-4<br>Detenti<br>7<br>= =<br>1.0<br>m<br>m<br>m   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s   | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR Detention Storag (m <sup>3</sup> ) 27.94 7 m <sup>3</sup> modules modules modules           | 960 m <sup>2</sup><br>990 m <sup>2</sup><br>base Rate 1 & 3<br>ge Required<br>red Release Ra<br>Jncontrolled Ra   | bervious capatura (a tech out of the capatura (a tech | TION TANK SIZE DETENTION STORAGE REOUREMELORISIZING RELEASE RATE WATER OUALITY  |
| /ater<br>ax F<br>elea<br>ncor<br>rifice    | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max Release<br>as Rate from S<br>6h Post Dev F<br>Max mum Allo<br>% Difference<br>Uncontrolled A<br>Uncontrolled A<br>Controlled Release<br>Uncontrolled A<br>Sizing (Detem<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage V<br>tion Storage V  | ape Value Required<br>ape Directed to Landscap<br>tio<br>ape Directed to Landscap<br>tio<br>mostil Depth<br>That Falls on Lanscape<br>hent<br>Treat the first 35mm of ra-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DVV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>weed Release Rate<br>(Increase)<br>a Rate<br>Area<br>C Value<br>Release Rate<br>a From Site<br>tion Storage)<br>rifice<br>Detention Storage<br>(m <sup>3</sup> )<br>42.83<br>Detention Storage Tank Depth<br>Storage Tank Depth  | e<br>ity<br>is Capture of<br>ain in 24 hour<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lar<br>vehicle-acc<br><b>To</b><br><b>Required</b><br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br><b>1</b> .80<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .70<br><b>1</b> .80<br><b>1</b> .70<br><b>1</b> .70 | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>>10%<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>s<br>and<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>s<br>l/s<br>l/   | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - L 6-HOUR Detention Storag (m <sup>3</sup> ) 27.94 7 m <sup>3</sup> modules modules modules           | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200   | bervious capture (ate)  | TRATION TANK SIZE DETENTION STORAGE REQUIREMENDATION STORAG |
| vater<br>h Pro<br>elea:<br>ncor<br>rifice  | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Calease Rate p<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max mum Alla<br>% Difference of<br>trolled Release<br>Uncontrolled 1<br>Release Rate<br>Sizing (Detem<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage Value<br>tion Tank   | appe Directed to Landscaptio         appe Directed to Landscaptio         appe Directed to Landscaptio         appe Valuer Holding Capace         im Soil Depth         That Falls on Lanscape         enent         : Treat the first 35mm of rested by Rain Garden =         Reted by Rain Garden =         Release Rate         Rate #1         er DWV Section 4.3         for Any Site         Rate #2         ite         Rate #2         ite         Release Rate (No Orifice)         owed Release Rate         (Increase)         a Rate         a Prom Site         tion Storage)         rifice         olume         1-HOUR         Detention Storage (m³)         42.83         Detention Storage Vol         Design Storm         Storage Tank Depth         Tank Porosity         Tank Storage Volume  | e<br>itty<br>is Capture of<br>ain in 24 hour<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir<br>=<br>=<br>=<br>=<br>=<br>=<br>=   | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lai<br>vehicle-acc<br><b>Required</b><br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>19.47</b><br><b>19.67</b><br><b>19.67</b><br><b>19.67</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.71</b><br><b>10.75</b><br><b>10.75</b><br><b>10.75</b><br><b>10.75</b><br><b>10.75</b><br><b>10.75</b><br><b>10.75</b><br><b>10.</b>   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s   | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR Detention Storag (m <sup>3</sup> ) 27.94 7 m <sup>3</sup> modules modules modules           | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200   | bervious capture (ate)  | INFILTRATION TANK SIZE DETENTION STORAGE REQUIREME OR FICE SIZING RELEASE RATE WATER OUALITY  |
| vater<br>h Pro<br>eleaa<br>ncor<br>rifice  | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Calease Rate p<br>Max Release<br>Rate from S<br>6h Post Dev F<br>Max mum Allo<br>% Difference of<br>trolled Release<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage V<br>tion Storage V<br>Deten  | appe Directed to Landscaptio         ape Directed to Landscaptio         ape Directed to Landscaptio         ape Water Holding Capace         im Soil Depth         That Falls on Lanscape         etent         : Treat the first 35mm of rested by Infiltration Tank =         reated by Rain Garden =         Rate #1         er DWV Section 4.3         for Any Site         Rate #2         ite         Release Rate (No Orifice)         weed Release Rate         Area         2 Value         Release Rate         a From Site         tion Storage)         rifice         Dume         1-HOUR         Detention Storage (m³)         42.83         Detention Storage Tank Depth         Storage Tank Depth         Storage Tank Length         Void Space         tion Storage Volume         Itration Volume Provided   | e<br>ity<br>is Capture of<br>ain in 24 hou<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=   | =<br>=<br>=<br>=<br>a and Stor<br>rs fomr all<br>m <sup>2</sup><br>m <sup>2</sup><br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>= | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lan<br>vehicle-acc<br><b>To</b><br><b>Required</b><br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.71<br>966<br>16.39<br>4-4<br>Detention<br>7<br>=<br>=<br>1<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>3<br>m<br>a<br>m<br>3  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s  | <2:1 OK   | 260 m <sup>2</sup><br>790 m <sup>2</sup><br>200 m <sup></sup>   | 22) ate)  | INFILTRATION TANK SIZE DETENTION STORAGE REQUIREMED ORIFICE SIZING RELEASE RATE WATER QUALITY   |
| h Pro                                      | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Controlled A<br>Bay Difference<br>Uncontrolled A<br>Release Rate<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage Va<br>tion Tank   | appe Directed to Landscaptio         appe Directed to Landscaptio         appe Directed to Landscaptio         appe Valer Holding Capace         m Soil Depth         That Falls on Lanscape         tent         Treat the first 35mm of rested by Rain Garden =         Release Rate         Rate #1         er DWV Section 4.3         for Any Site         Rate #2         ite         Rate #2         ite         Release Rate (No Orifice)         owed Release Rate         (Increase)         a Rate         a Prom Site         tion Storage)         rifice         olume         1-HOUR         Detention Storage (m³)         42.83         Detention Storage Volume         Design Storm         Storage Tank Depth         Tank Porosity         Tank Storage Volume         Itration Volume Provided         rage Volume Provided   | e<br>ity<br>is Capture of<br>ain in 24 hour<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>3<br>3<br>3<br>3<br>4<br>4<br>4<br>4<br>5<br>4<br>5<br>4<br>5<br>4<br>5<br>6<br>6<br>7<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>7<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8 | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lai<br>vehicle-acc<br>red by Lai<br>vehicle-acc<br>10<br>Required<br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>0.71<br>96<br>16.39<br>19.47<br>1.80<br>1.80<br>1.80<br>1.90<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.95<br>1.   | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s   | <2:1 OK Dervious surfaces I Area = 19 of Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR Detention Storag (m <sup>3</sup> ) 27.94 7 m <sup>3</sup> m modules modules modules    | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200 m <sup></sup>   | bervious capture (etc.)   | infiltration tank size Defention storage requiremel orifice sizing Release rate Water QUALITY   |
| Vater<br>h Pro<br>elea<br>ncor<br>rifice   | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area Trea<br>Area of Ste<br>Site C Value<br>Max Release<br>Rate from Si<br>6h Post Dev F<br>Max Release<br>Se Rate from Si<br>6h Post Dev F<br>Max multu<br>% Difference<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Uncontrolled A<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage V<br>tion Storage V<br>Detention Sto<br>Detention Sto  | ape Volume Required<br>ape Directed to Landscap<br>tio<br>ape Vater Holding Capace<br>im Soil Depth<br>That Falls on Lanscape<br>enent<br>Treat the first 35mm of re-<br>ted by Infiltration Tank =<br>reated by Rain Garden =<br>Release Rate<br>Rate #1<br>er DWV Section 4.3<br>for Any Site<br>Rate #2<br>ite<br>Release Rate (No Orifice)<br>wed Release Rate<br>(Increase)<br>a Rate<br>Area<br>2 Value<br>Release Rate<br>a From Site<br>tion Storage)<br>rifice<br>Detention Storage<br>(m <sup>3</sup> )<br>42.83<br>Detention Storage Vol<br>Design Storm<br>Storage Tank Depth<br>Storage Tank Length<br>Void Space<br>tion Storage Tank Depth<br>Storage Volume Provided<br>rage Volume Provided<br>rage Volume Provided<br>rage Volume Provided   | e<br>ity<br>is Capture of<br>ain in 24 hou<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=   | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lar<br>vehicle-acc<br><b>To</b><br><b>Required</b><br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br>19.47<br>0.71<br>969<br>16.39<br>4-1<br>Detention<br>7<br>=<br>=<br>1<br>m<br>3<br>m<br>3<br>182.86<br>182.86<br>182.86  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s   | <2:1 OK   | 260 m <sup>2</sup><br>190 m <sup>2</sup><br>200 m <sup></sup>   | 22) ate)  | VIARY INFILITATION TANK SIZE DETENTION STORAGE REQUIREMEL ORIFICE SIZING RELEASE RATE WATER QUALITY   |
| Vater<br>h Pro<br>lax F<br>selea<br>incor  | Storag<br>Hardso<br>I/P Ra<br>Landso<br>Minimu<br>Water<br>Quality Treatm<br>Criteria =<br>Area Trea<br>Area Trea<br>Area of Site<br>Site C Value<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Max Release<br>Controlled A<br>Bay Difference<br>Uncontrolled A<br>Release Rate<br>Sizing (Deten<br>Max Head<br>Orifice Ø<br>Flow Out of O<br>tion Storage V<br>tion Storage V<br>Detention Sto<br>Detention Sto<br>Detention Sto<br>Control Sto<br>Detention Sto<br>Control Sto<br>Detention Sto<br>Control Sto<br>Co | appe Directed to Landscaptio         appe Directed to Landscaptio         appe Directed to Landscaptio         appe Valer Holding Capace         m Soil Depth         That Falls on Lanscape         tent         Treat the first 35mm of reated by Rain Garden =         Release Rate         Rate #1         er DWV Section 4.3         for Any Site         Rate #2         ite         Velacese Rate (No Orifice)         wed Release Rate         (Increase)         2 Rate         Area         2 Value         Release Rate         e From Site         tion Storage)         rifice         olume         1-HOUR         Detention Storage (m³)         42.83         Detention Storage Voluce         pesign Storm         Storage Tank Depth         Tank Porosity         Tank Storage Volume         Itration Volume Provided         rage Volume Provided         rage Volume Provided  | e<br>ity<br>is Capture of<br>ain in 24 hour<br>1960<br>0<br>2-HO<br>Detention<br>(m <sup>3</sup><br>93.6<br>ume Requir<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | =<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=<br>=  | 1840<br>132<br>0<br>0<br>0.20<br>0.36<br>red by Lai<br>vehicle-acc<br><b>To</b><br><b>Required</b><br>5567<br>0.84<br>26.13<br>31.80<br>17.70<br>23.31<br>17.70<br>24%<br>1840<br>0.30<br>3.09<br><b>19.47</b><br>0.71<br>96<br>16.39<br><b>4</b> -4<br>Detenti<br><b>6</b><br><b>7</b><br><b>7</b><br><b>8</b><br><b>7</b><br><b>1</b><br><b>1</b><br><b>1</b><br><b>1</b><br><b>1</b><br><b>1</b><br><b>1</b><br><b>1</b>  | m <sup>2</sup><br>m <sup>3</sup><br>m <sup>2</sup><br>:1<br>m<br>dscape<br>cessible imp<br>tal Treated<br>d Treatmen<br>m <sup>2</sup><br>l/s<br>L/s/ha<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s<br>l/s   | <2:1 OK Dervious surfaces Area = 19 Area = 17 (Minimum of Rele Detention Stora (110% Max Allow (Release Rate - U 6-HOUR Detention Storac (m <sup>3</sup> ) 27.94 7 m <sup>3</sup> m Modules modules modules Modules | 260 m <sup>2</sup><br>290 m <sup>2</sup><br>200 m <sup></sup>   | bervious capture (ate)  | SUMMARY INFILITATION TANK SIZE DETENTION STORAGE REQUIREMED ON FICE SIZING RELEASE RATE WATER QUALITY   |

|                            | С  | R                                    | E                 |                   | U                               | S                                 | 5                           |  |
|----------------------------|--|--------------------------------------|-------------------|-------------------|---------------------------------|-----------------------------------|-----------------------------|--|
|                            | Er   | ngil                                 |                   | 96                | eri                             | nç                                | )                           |  |
| С<br>#6<br>РН              | <b>ivil E</b><br>10 EAST TO<br>1: 604-987      | ngineers<br>WER - 221 ESPLA<br>-9070 | S &               | Proj<br>Vest, Nof | ect Ma<br>RTH VANCOU<br>WEBSITE | anage<br>IVER BC, V7<br>: www.cre | <b>ETS</b><br>M3J3<br>us.ca |  |
|                            | PE   | RMIT TO I                            | PRA               | CTICE             | E # 100                         | 1543                              |                             |  |
|                            |  |                                      |                   |                   |                                 | HI WAR                            |                             |  |
|                            |  |                                      |                   |                   |                                 |                                   |                             |  |
| .                          | EOLKESTONE WAY                                 |                                      |                   |                   |                                 |                                   |                             |  |
| -                          |  | M                                    | TF                | ANS-CAN           | IADA HWY                        | ,                                 |                             |  |
| -                          |  |                                      |                   |                   |                                 |                                   |                             |  |
|                            |  |                                      | <u>SITE</u>       | MAP               |                                 |                                   |                             |  |
| Þ                          |  | DRAV                                 | VING              | ELEG              | END                             |                                   |                             |  |
| 1 =                        | GALINE   | EXI                                  | STING             | F                 | PROP.                           | TO E<br>REMO                      | ie<br>/ed                   |  |
| EA<br>WA<br>SA<br>ST       | SEMENT<br>ATERMAIN<br>NITARY<br>ORM            |                                      |                   |                   |                                 |                                   |                             |  |
| TE<br>ST<br>GA             | L<br>REETLIGH<br>S                             | т                                    |                   |                   |                                 |                                   |                             |  |
| FIF                        |  | EXI                                  | STING             | F                 | PROP.                           | TO E<br>REMO                      | BE<br>VED                   |  |
| GA<br>Alf<br>RE<br>INS     | TE VALVE<br>R VALVE<br>DUCER<br>SPECTION       | CHAMBER                              | X 0 0 ₹           |                   |                                 | 0 Z 0                             |                             |  |
| CA<br>CA<br>MA<br>PC<br>ST | TCHBASIN<br>P<br>NHOLE<br>WER POLI<br>REETLIGH | I (STD/SI) S                         | /=<br>}<br>}<br>} | -                 | <b>_</b><br>↓<br>↓<br>↓         |                                   |                             |  |
| ap                         | proved   |                                      |                   |                   |                                 |                                   |                             |  |
|                            |  |                                      |                   |                   |                                 |                                   |                             |  |
| clie                       | ent  |                                      | MG                | БА                |                                 |                                   |                             |  |
|                            |  |                                      |                   |                   |                                 |                                   |                             |  |
| pro                        |  | 2229 FOL<br>WEST V/                  | _KE<br>ANC        | STO<br>COUV       | NE WA<br>′ER, B                 | (Y<br>C                           |                             |  |
| title                      | 9  |                                      |                   |                   |                                 |                                   |                             |  |
| Q                          | STOF   | RMWAT                                | ER                | MAN               | NAGE                            | MEN                               | IT                          |  |
|                            |  |                                      |                   |                   |                                 |                                   |                             |  |
| _                          |  |                                      |                   |                   |                                 |                                   |                             |  |
| ┡                          |  |                                      |                   |                   |                                 |                                   |                             |  |
|                            |  |                                      |                   |                   |                                 |                                   |                             |  |
|                            |  |                                      |                   |                   |                                 |                                   |                             |  |
|                            |  |                                      |                   |                   |                                 |                                   |                             |  |
| 3                          | 23/10/10                                       | ISS                                  | SUED              | FOR REZ           | ZONING                          |                                   | AFG                         |  |
| 2                          | 23/04/11                                       | REVIS                                | ED PE             | R DWV (           | COMMENT                         | S                                 | AFG                         |  |
| 1                          | 22/07/21                                       | ISS                                  | SUED              | FOR REZ           | ZONING                          |                                   | AFG                         |  |
| no.                        | (y/m/d)<br>PYRIGHT RE<br>L TIMES RE            | SERVED. THIS DRAV                    | VING AN           | D DESIGN A        | RE, AND AT<br>OF CREUS          | current<br>rev. #                 | chk'd                       |  |
| en                         | gineer of r                                    | © 2019 CREUS ENG                     | WRITTEN           | IG LTD.           | U UR                            | 3                                 | }                           |  |
| de                         | signed by                                      | FMC<br>AFG                           |                   | h<br>file no.     | or: 1:300                       | vert:                             |                             |  |
| dra                        | awn by   | AFG                                  |                   | drawing           | 212<br>g no.                    | 03                                |                             |  |
| da                         | date 21-07-09                                  |                                      |                   |                   | SM                              | Р                                 |                             |  |



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| Civil Engine<br>#610 EAST TOWER - 221 E<br>PH: 604-987-9070  | ers &<br>splanade v  | Projec<br>vest, north<br>w | vancouve<br>vebsite: w | nage<br>R BC, V7<br>ww.creu | M3J3<br>Is.ca |  |  |
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| FOLK   | ESTONE WA  |                            |                        |                             |               |  |  |
| TAN  | TF   | RANS-CANAD                 | A HWY                  |                             |               |  |  |
|  |  |                            |                        |                             |               |  |  |
|  | <u>SITE</u>  | MAP                        |                        | ļ                           |               |  |  |
| DF   | RAWING   | G LEGEN                    | ND                     |                             |               |  |  |
|  | EXISTING   | PRC                        | )P.                    | TO B<br>REMO\               | E<br>/ED      |  |  |
| LEGAL LINE -<br>EASEMENT -<br>WATERMAIN -<br>SANITARY -  |  | ·                          |                        |                             |               |  |  |
| HYDRO -<br>TEL -<br>STREETLIGHT -<br>GAS   |  |                            |                        |                             |               |  |  |
| GAS -  |  |                            | =                      | TOB                         | E             |  |  |
| FIRE HYDRANT<br>GATE VALVE   |  |                            | DP.                    | REMO                        | /ED           |  |  |
| AIR VALVE<br>REDUCER<br>INSPECTION CHAMBER<br>CATCHBASIN (STD/SI)  |  |                            | ,<br>                  | 0<br>0<br>/¤                |               |  |  |
| MANHOLE<br>POWER POLE<br>STREETLIGHT   | -O-  | C<br>-C<br>-C              | <u>\$1</u><br>≻<br>⊃   |                             | <u>1</u>      |  |  |
| approved   |  |                            |                        |                             |               |  |  |
|  |  |                            |                        |                             |               |  |  |
| client   | MG   | вA                         |                        |                             |               |  |  |
| project  |  |                            |                        |                             |               |  |  |
| 2229 F<br>WEST   | OLKE<br>VANC   | STONE<br>COUVE             | E WAY<br>R, BC         |                             |               |  |  |
| title  |  |                            |                        |                             |               |  |  |
| GRADING PLAN   |  |                            |                        |                             |               |  |  |
|  |  |                            |                        |                             |               |  |  |
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| 3 23/10/10   | ISSUED   |                            | NING                   |                             | AFG           |  |  |
| 2 23/04/11 RI  | EVISED PE  | R DWV COI                  | MMENTS                 |                             | AFG           |  |  |
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