

EGR & Associates, Inc.

Engineers, Geologists and Surveyors

2535B Prairie Road Eugene, Oregon 97402 (541) 688-8322 Fax (541) 688-8087



# **Stormwater Management Report**

Fairway Estates PUD Phases 2, 3 and 4

Map and Tax Lot 18-12-15-00-01500

Florence, Oregon

September 22, 2022

**Owner/Applicant** 

Pacific Golf Communities, LLC Roberts Land Company, LLC 4000 Rhododendron Drive Florence, OR 97439

**Engineer/Surveyor** 

EGR & Associates, Inc. 2535B Prairie Road Eugene, Oregon 97402 This page intentionally left blank.

#### **Designer's Certification and Statement**

I hereby certify that this Stormwater Management Report for Fairway Estates PUD Phases 2, 3 and 4 has been prepared by me or under my supervision and meets minimum standards of the City of Florence and normal standards of engineering practice. I hereby acknowledge and agree that the jurisdiction does not and will not assume liability for the sufficiency, suitability, or performance of drainage facilities designed by me.



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# **PROJECT OVERVIEW AND DESCRIPTION**

The project site is approximately 10.33 acres in size and is identified as Tax Lot 1500 on Lane County Assessor Map 18-12-15-00. The site is located north of the Fairway Estates P.U.D. Phase 1 subdivision, east of the Mariners Village P.U.D. subdivision, west of Florence Golf Links, and south of public lands. Access is from the Fairway Estates P.U.D. Phase 1 subdivision private street system that connects to Rhododendron Drive. A vicinity map is included in Appendix A.

The property is inside the City of Florence and is currently zoned Single Family Residential. Proposed development consists of 42 single-family lots to be developed in three phases starting from the terminus of Fairway Estates P.U.D. Phase 1 and extending northward. Two existing private streets in Phase 1 will be extended into and looped through the proposed development. Underground utilities consisting of public wastewater and water lines, franchise utilities, and private stormwater facilities will be installed to serve the development. These utilities are currently stubbed to the south side of the site from the Phase 1 subdivision improvements.

Local groundwater and surface water generally flows from the northeast to southwest towards the Siuslaw River. The tributary watershed upgradient (north) from the site consists predominantly of undeveloped land situated on Lane County, City of Florence and BLM lands. These lands rely solely on groundwater infiltration for stormwater management. Soils within the watershed, including the project site, consists predominantly of Yaquina loamy fine sand.

The project site is currently vacant land overgrown with coastal brush and trees. Topography is generally flat with an approximate gradient of 1- to 2-percent from north to south. Proposed development will include clearing and grading of the site as needed. A preliminary site grading plan is included in Appendix A. The two private streets currently terminated at the south side of the site will be extended through the development and connected on the north side of the site to create a looped street system. The streets will slope at approximate one-half percent grades from a high point on the north side to the terminus of the current streets. Underground utilities will generally be located within the roadway or in an adjacent public utility easement.

## **METHODOLOGY**

### **Existing Conditions**

Groundwater and surface runoff upgradient (northerly) from the site generally flows to the southwest towards Florence Golf Links, the Mariners Village subdivision, and the project site. Stormwater flow typically concentrates at the northwest corner of Florence Golf Links and northeast corner of the Mariners Village subdivision.

At Florence Golf Links, stormwater is routed to the southwest corner of the golf course property where the stormwater is discharged into a stormwater pipe that terminates at the southeast corner of the Fairway Estates subdivision. This stormwater pipe is part of the Fairway Estates P.U.D. Phase 1 stormwater system.

Stormwater collected at the northeast corner of Mariners Village subdivision is piped underneath the development to a large infiltration basin on the south side of the subdivision. During wet years groundwater levels will come to the surface of the surrounding area. This excess surface water flows southerly between the Mariners Village subdivision and the project site and is discharged into the Phase 1 stormwater system.

The Phase 1 stormwater system includes large diameter stormwater pipes (ranging between 36inch and 60-inch diameter) that discharge to a public pipe through a flow control manhole located at the Tournament Drive intersection onto Rhododendron Drive. A public 15-inch diameter pipe installed in Rhododendron Drive from the flow control manhole to just north of 35<sup>th</sup> Street discharges into a ravine that outfalls into the Siuslaw River. The flow control manhole attenuates the rate of discharge from the Fairway Estates on-site system and helps to prevent flows in the ravine from exceeding capacity.

Stormwater management for Phase 1 development consists of stormwater runoff from the roadway being directed into street-side swales. The swales are sized to receive the road and sidewalk runoff only with the intent that the homes address stormwater on site at time of building construction per Florence standards.

No changes to the current stormwater system are proposed as part of this development.

#### Proposed Stormwater Management

The <u>Florence Stormwater Management Design Manual</u>, <u>Revised September 2011</u> (Florence Stormwater Manual) requires treatment and flow control using vegetated surface facilities to the maximum extent feasible with the standard requirement to maintain peak flow rates at their predevelopment levels for up to the 25-year runoff events. In high groundwater areas, such as sites with Yaquina soil type, groundwater is to be addressed per the Florence Stormwater Manual.

The Phase 1 stormwater management approach addresses groundwater by incorporating an under-drain beneath the infiltration facility that is connected into the on-site piped stormwater system. This is an approved method per the Florence Stormwater Manual.

Stormwater management for proposed new phases will continue the same management approach as in Phase 1. This includes vegetated swales installed along one side of on-site streets sized to receive the road and sidewalk runoff for purpose of water quality and infiltration for up to the 25-year runoff events. Homes will address stormwater on site per Florence standards at time of building construction. An under-drain will be installed beneath the vegetated swales. Overflow from street-side stormwater facilities and under-drains will be directed into the on-site piped system.

## ANALYSIS

#### Presumptive Approach Analysis

The Florence Stormwater Manual requires that the Presumptive Approach be used for projects with new or redeveloped impervious area of 0.5 acre or greater, which applies to this project. Presumptive Approach calculations were performed utilizing the City of Eugene <u>Stormwater</u> <u>Surface Filtration/Infiltration Facility Sizing Spreadsheet</u>. This calculator is an Excel-based spreadsheet that is downloadable from the City of Eugene web page. Runoff calculations are based on unit hydrograph method for a 24-hour storm, NRCS Type 1A rainfall distribution.

Design storms for pollution reduction and flood control are based on a water quality rainfall depth of 0.8 inches and 25-year rainfall depth of 5.06 inches, respectively (from Table 4.1 of Florence Stormwater Manual).

The infiltration rate of dune sand is expected to be greater than 10 inches per hour, but the Florence Stormwater Manual limits the infiltration rate to the assumed long term infiltration rate for the growing medium, or 4 inches per hour.

A pre-development curve number (CN) of 73 is selected based on a Hydrologic Soil Group D and brush with greater than 75-pecent coverage. A post-development CN of 98 is selected for impervious surfaces.

For purposes of this preliminary design, each development phase is delineated into drainage catchments served by individual swales located adjacent to lots on one side of the roadway. Catchment areas are illustrated on the Drainage Basin Map included in Appendix A and consists of pavement and walkway surfaces of the private street adjacent to lots. Size of each vegetated swale is controlled by the required storage needed to fully infiltrate collected stormwater for the design storm, so if the facility size meets destination requirements, then it also meets pollution reduction requirements. Facility sizing spreadsheets for each catchment area are included in Appendix B and summarized on the Drainage Basin Map in Appendix A. These facilities manage runoff from the street surfaces only. Homes will address stormwater on site per Florence standards at time of building construction.

### **Conveyance** Pipes

A stormwater conveyance pipe will be extended with street construction. The conveyance pipe will connect into an existing 36-inch diameter storm pipe that currently ends at the street terminus. The stormwater pipe will collect stormwater from street-side swale overflows and facility under-drains and convey the stormwater to the Phase 1 stormwater system. The conveyance pipes are sized to accommodate peak flow based on 25-year overflow from street-side stormwater facilities. Calculation worksheets for pipe sizes are included in Appendix B. Peak flows are based on peak runoff rate calculations given in the facility sizing spreadsheet for

a 25-year design storm, which results in a peak runoff rate of 0.0137 gpm per square foot impervious area. Peak flows and pipe sizes are summarized below.

| Pipe I.D.    | Basins Served  | Impervious<br>Area, s.f. | Peak<br>Runoff, cfs | Pipe Size<br>Required |
|--------------|----------------|--------------------------|---------------------|-----------------------|
| Basin 1 Pipe | Basins 1 and 2 | 43,097                   | 1.32                | 12"                   |
| Basin 2 Pipe | Basin 1        | 19,612                   | 0.60                | 10"                   |
| Basin 3 Pipe | Basin 3        | 38,745                   | 1.18                | 12"                   |

| Table 1  | . Conveyance | e Pipe  | Size | Summary |
|----------|--------------|---------|------|---------|
| I dole l | Conveyanes   | o i ipe | DILU | Summary |

### Escape Route

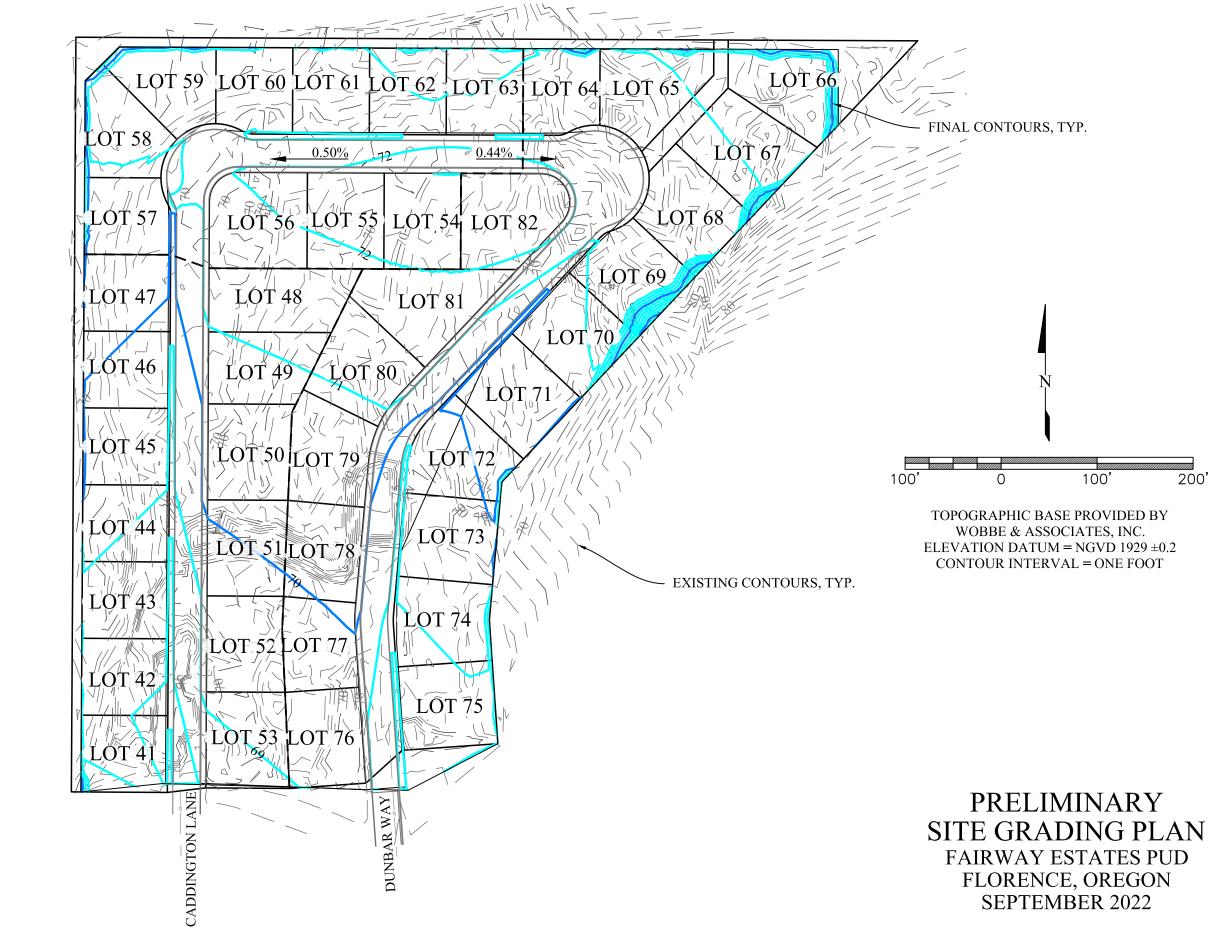
The on-site private stormwater system discharges into a public piped system located in Rhododendron Drive. If the capacity in the public system is exceeded, then stormwater from the subdivision will collect at a low point in the street network on Tournament Drive where a depressed path runs between Lots 28 and 29 to an open space to the south. Stormwater will either temporarily pond in the open space and infiltrate into the ground or at higher levels will discharge to a pre-existing catch basin and 12-inch diameter storm pipe that flows off-site to the south.

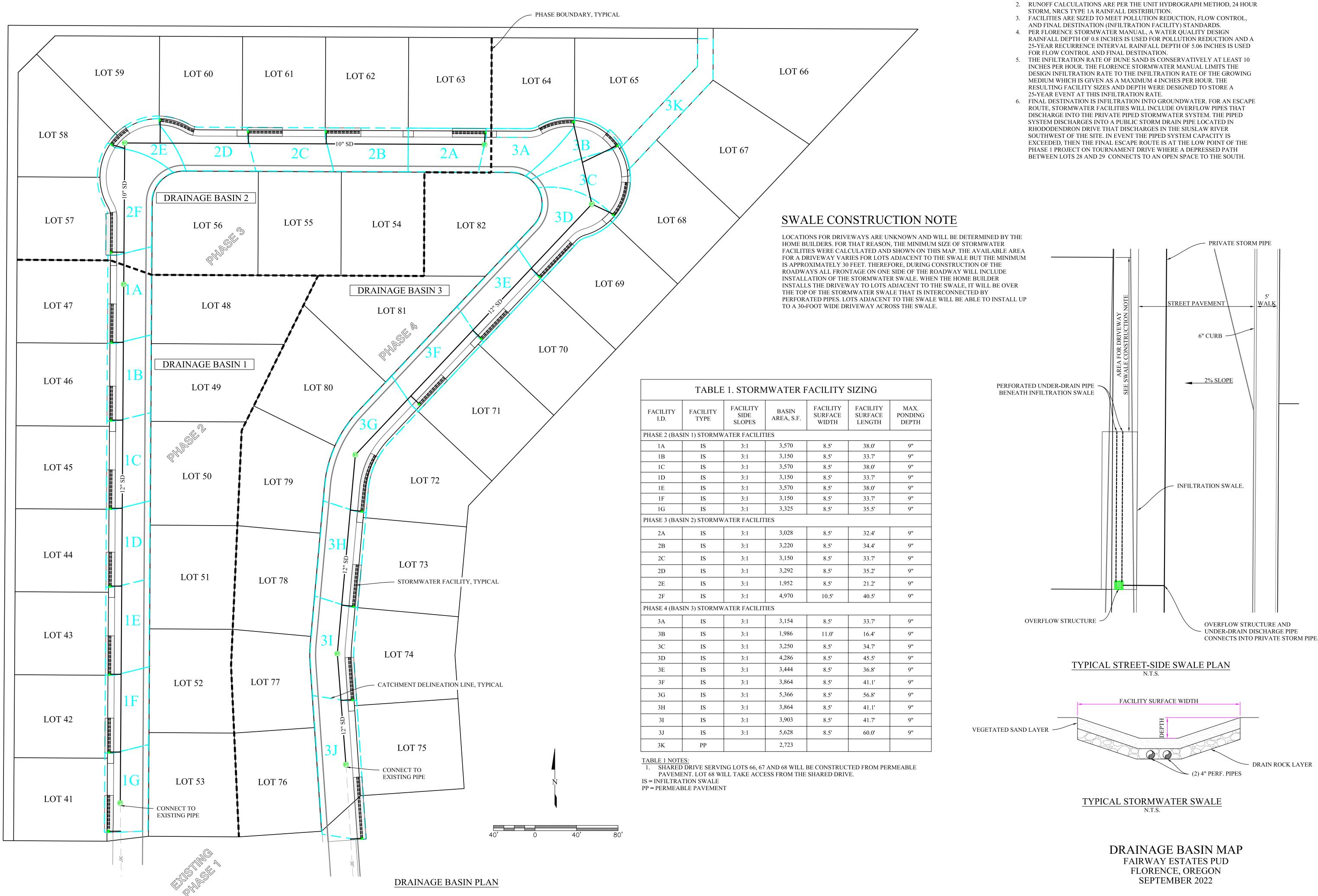
## **ENGINEERING CONCLUSIONS**

- 1. Florence standards require treatment and flow control using vegetated surface facilities to the maximum extent feasible with the standard requirement to maintain peak flow rates at their pre-development levels for up to the 25-year runoff events.
- 2. Site soils are predominantly loamy fine sand that are well suited for infiltration systems. Thus, vegetated infiltration facilities will be used on this site for final destination of stormwater runoff from impervious surfaces.
- 3. Adequate detention storage capacity can be provided using low impact development techniques, such as swales installed adjacent to the street. Surface runoff from pavement and walks will be routed into the street-side facilities. Overflow from these facilities will be directed into the piped stormwater system installed in the street. These facilities will be privately maintained by a homeowner association.
- 4. It is the intent that runoff from roofs will be collected and directed into private individual onsite stormwater facilities sized in accordance with Florence standards when home construction occurs. Individual onsite stormwater facilities will be privately maintained by the homeowner.

# APPENDIX A FIGURES







# STORMWATER FACILITY DESIGN NOTES

- 1. FACILITIES ARE SIZED PER THE PRESUMPTIVE APPROACH.

# APPENDIX B

# SIZING SPREADSHEETS AND CALCULATIONS

| EUGENE                        | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |                     |                                  |                     |                                      |                    |  |
|-------------------------------|---|---------------------|----------------------------------|---------------------|--------------------------------------|--------------------|--|
|                               | Version 2.1   |                     |                                  |                     |                                      |                    |  |
| Project Information           |   |                     |                                  |                     |                                      |                    |  |
| Project Name:                 | Fairway Esta  | ates                |                                  |                     | Date: <u>5/19/20</u>                 | <u>22</u>          |  |
| Project Address:              | <u>18-12-15-00-0</u>  | <u>01500</u>        |                                  |                     | Permit Number: <u>NA</u>             |                    |  |
|                               | Florence, OF  | <u>र</u>            |                                  |                     | Catchment ID: 1A                     |                    |  |
| Designer:                     | Clint Beecro  | ft                  |                                  |                     |                                      |                    |  |
| Company:                      | EGR & Asso  | <u>ciates</u>       |                                  |                     |                                      |                    |  |
|                               |   |                     |                                  |                     |                                      |                    |  |
| Instructions:                 |   |                     |                                  |                     |                                      |                    |  |
| 1. Complete this form for     | r each drainage   | e catchm            | ent in the project site t        | that is to be siz   | ed per the Presumptive App           | proach.            |  |
| 2. Provide a distinctive C    | atchment ID fo  | or each f           | acility coordinated with         | the site basin      | map to correlate the approp          | oriate             |  |
| calculations with the fa      | acility.  |                     |                                  |                     |                                      |                    |  |
| 3. The maximum drainag        |   |                     |                                  |                     |                                      |                    |  |
| 4.For infiltration facilities | in Class A or E   | B soils w           | here no infiltration test        | ing has been p      | erfromed use an infiltration         | rate of 0.5 in/hr. |  |
| For all facilities use a      | maximum soil i  | infiltratio         | n rate of 2.5 in/hr for to       | opsoil/growing I    | nedium.                              |                    |  |
| Design Requirements:          |   |                     |                                  |                     |                                      |                    |  |
| Choose "Yes" from the d       | lropdown boxes  | s below i           | next to the design stan          | dards requirem      | ents for this facility.              |                    |  |
| Pollution Poducti             |   | (00                 |                                  |                     |                                      |                    |  |
| Pollution Reducti             |   | (es                 |                                  |                     |                                      |                    |  |
| Flow Cont                     |   | /es                 |                                  |                     |                                      |                    |  |
| Destinati                     | on (DT) Y   | <mark>(es</mark> */ | An infiltration facility must be | chosen as the facil | ity type to meet destination require | nents              |  |
| Site Data Deat Develor        |   |                     |                                  |                     |                                      |                    |  |
| Site Data-Post Develop        | ment  | _                   |                                  |                     |                                      |                    |  |
| Total Square Footag           | e Impervious  | Area=               | <mark>3570</mark> sqft           | Total               | Square Footage Pervious              | Area= 0 sqft       |  |
| In                            | npervious Are   | a CN=               | 98                               |                     | Pervious Are                         | a CN= 85           |  |
|                               |   | _                   |                                  |                     |                                      |                    |  |
| Total Square Footag           | -   |                     | 3570 sft                         | Time of Co          | ncentration Post Develop             | ment=5 min         |  |
| Wei                           | ghted Average   | e CN=               | 98                               |                     |                                      |                    |  |
| Site Data-Pre Developm        | nent (Dat   | ta in this          | section is only used             | l if Flow Contr     | ol is required)                      |                    |  |
| Pro                           | e-Developmen  | nt CN=              | 73                               | Time of C           | oncentration Pre-Develop             | ment= 10 min       |  |
| Soil Data                     |   |                     | _                                |                     |                                      | -                  |  |
|                               | oil Infiltration  | Rate=               | 10 in/hr (See No                 | nte 4)              | Destination De                       | esign= 5 in/hr     |  |
|                               | oil Infiltration  |                     | 4 in/hr                          |                     | Soil Infiltratio                     | •                  |  |
| _                             |   |                     |                                  |                     |                                      |                    |  |
| Design Storms Used Fo         | or Calculation  | IS                  |                                  |                     |                                      |                    |  |
| Requirement                   | Rainfall De   | epth D              | esign Storm                      |                     |                                      |                    |  |
| Pollution Reduction           | 0.8 inch  | ies V               | Vater Quality                    |                     |                                      |                    |  |
| Flow Control                  | 5.1 inch  | ies F               | lood Control                     |                     |                                      |                    |  |
| Destination                   | 5.1 inch  | ies F               | lood Control                     |                     |                                      |                    |  |
| Facility Data                 |   |                     |                                  |                     |                                      |                    |  |
| -                             | Facility  | Type=               | nfiltration Stormwate            | r Planter           | Facility Surface                     | Area= 323 sqft     |  |
|                               | Surface W   |                     | 8.5 ft                           |                     | Facility Surface Perir               |                    |  |
|                               | Surface Le  |                     | 38 ft                            |                     | Facility Bottom                      |                    |  |
| F                             | acility Side Sl   |                     | 3 to 1                           |                     | Facility Bottom Perir                |                    |  |
|                               | Ponding Dept  | -                   |                                  |                     |                                      |                    |  |
|                               | mwater Facilit  |                     | 9 in                             |                     | Basin Vo                             | lume= 179.0 cf     |  |
| Depth of Grov                 |   | -                   | <mark>2</mark> in                | Ratio of Fa         | acility Area to Impervious           | Area= 0.090        |  |
| 1                             |   |                     |                                  |                     |                                      |                    |  |

| Pollution Reduction-Calculation Results   |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.015 cfs   | Peak Facility Overflow Rate= 0.000 cfs                           |
| Total Runoff Volume to Stormwater   |  |
| Facility = 186 cf   | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Pollution Reduction Stan  | idards?  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D  | rawdown Time?  |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.109 cfs   | Peak Facility Overflow Rate= 0.038 cfs                           |
| Total Runoff Volume to Stormwater   |  |
| Facility = 1432 cf  | Total Overflow Volume= 48 cf                                     |
|   | Peak Off-Site Flow Rate  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                          |
| Drawdown Time= 0.2 hours  |  |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.043 cfs<br>Total Runoff Volume = 692 cf         |  |
| Yes Facility Sizing Meets Flow Control Standards?   |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D | ite flow less or equal to Pre-Development Flow?<br>rawdown Time? |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.109 cfs   | Peak Facility Overflow Rate= 0.000 cfs                           |
| Total Runoff Volume to Stormwater<br>Facility = 1432 cf   |  |
| Facility =     1432 cf       Max. Depth of Stormwater in Facility=     8.9 in                     | Total Overflow Volume=0cf  |
| Drawdown Time= 0.2 hours  |  |
|   |  |
| Yes Facility Sizing Meets Destination Standards?  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | rawdown Time?  |
|   |  |

| EUGENE                        | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |                |                                  |                     |                           |                    |             |
|-------------------------------|---|----------------|----------------------------------|---------------------|---------------------------|--------------------|-------------|
|                               | Version 2.1   |                |                                  |                     |                           |                    |             |
| Project Information           |   |                |                                  |                     |                           |                    |             |
| Project Name:                 | Fairway Est   | <u>tates</u>   |                                  |                     | Date:                     | <u>5/19/2022</u>   |             |
| Project Address:              | <u>18-12-15-00</u>  | <u>)-01500</u> |                                  |                     | Permit Number:            | NA                 |             |
|                               | Florence, O   | <u>DR</u>      |                                  |                     | Catchment ID:             | <u>1B</u>          |             |
| Designer:                     | Clint Beecre  | <u>oft</u>     |                                  |                     |                           |                    |             |
| Company:                      | EGR & Asso  | <u>ociates</u> |                                  |                     |                           |                    |             |
|                               |   |                |                                  |                     |                           |                    |             |
| Instructions:                 |   |                |                                  |                     |                           |                    |             |
| 1. Complete this form for     | r each drainag  | ge catchn      | nent in the project site t       | hat is to be siz    | ed per the Presum         | ptive Approach.    |             |
| 2. Provide a distinctive C    | atchment ID   | for each       | facility coordinated with        | the site basin      | map to correlate th       | ne appropriate     |             |
| calculations with the fa      | acility.  |                |                                  |                     |                           |                    |             |
| 3. The maximum drainag        | ge catchment  | to be mo       | deled per the Presump            | tive Approach       | is 1 acre (43,560 S       | F)                 |             |
| 4.For infiltration facilities | in Class A or   | r B soils v    | where no infiltration test       | ing has been p      | erfromed use an in        | filtration rate of | 0.5 in/hr.  |
| For all facilities use a      | maximum soi   | il infiltratio | on rate of 2.5 in/hr for to      | psoil/growing       | medium.                   |                    |             |
| Design Requirements:          | 1   |                |                                  |                     |                           |                    |             |
| Choose "Yes" from the d       | lropdown box  | es below       | next to the design stan          | dards requiren      | nents for this facility   | <i>ų</i> .         |             |
| Dellution Deducti             |   | Vee            |                                  |                     |                           |                    |             |
| Pollution Reducti             |   | Yes            |                                  |                     |                           |                    |             |
| Flow Cont                     | . /   | Yes            |                                  |                     |                           |                    |             |
| Destinati                     | on (DT)   | Yes            | An infiltration facility must be | chosen as the facil | ity type to meet destinat | ion requirements   |             |
|                               |   |                |                                  |                     |                           |                    |             |
| Site Data-Post Develop        | oment   |                |                                  |                     |                           |                    |             |
| Total Square Footag           | e Impervious  | s Area=        | <mark>3150</mark> sqft           | Total               | Square Footage P          | ervious Area=      | 0 sqft      |
|                               | npervious Ar  |                | 98                               |                     |                           | ious Area CN=      | 85          |
|                               | -   |                |                                  |                     |                           | •                  |             |
| Total Square Footag           | e of Drainage   | e Area=        | 3150 sft                         | Time of Co          | ncentration Post          | Development=       | 5 min       |
| Wei                           | ighted Avera  | ge CN=         | 98                               |                     |                           | -                  |             |
| Site Data-Pre Developn        | nent (Da  | ata in thi     | s section is only used           | if Flow Contr       | ol is required)           |                    |             |
|                               | e-Developme   |                | 73                               |                     | oncentration Pre-         | Development        | 10 min      |
|                               | e-Developine  |                | 13                               | Time of C           | oncentration Pre-         | Development-       |             |
| Soil Data                     |   |                |                                  |                     |                           |                    |             |
| Tested S                      | oil Infiltration  | n Rate=        | 10 in/hr (See No                 | te 4)               | Destin                    | nation Design=     | 5 in/hr     |
| Design S                      | oil Infiltration  | n Rate=        | 4 in/hr                          |                     | Soil Ir                   | nfiltration Rate   |             |
| Design Storms Used Fo         | or Calculatio   | ons            |                                  |                     |                           |                    |             |
| Requirement                   | Rainfall D  | Denth          | Design Storm                     |                     |                           |                    |             |
| Pollution Reduction           | 0.8 inc   |                | Water Quality                    |                     |                           |                    |             |
| Flow Control                  | 5.1 inc   |                | Flood Control                    |                     |                           |                    |             |
| Destination                   | 5.1 inc   |                | Flood Control                    |                     |                           |                    |             |
|                               | 0.11110   |                |                                  |                     |                           |                    |             |
| Facility Data                 |   |                |                                  |                     |                           |                    |             |
|                               | -   |                | Infiltration Stormwate           | r Planter           |                           | Surface Area=      | 286.45 sqft |
|                               | Surface   | Width=         | <mark>8.5</mark> ft              |                     | -                         | ce Perimeter=      | 84.4 ft     |
|                               | Surface L   | _ength=        | 33.7 ft                          |                     | Facility                  | Bottom Area=       | 117 sqft    |
|                               | acility Side S  | -              | 3 to 1                           |                     | Facility Botto            | om Perimeter=      | 66 ft       |
|                               | Ponding Dep   |                |                                  |                     |                           |                    |             |
|                               | mwater Facil  | -              | <mark>9</mark> in                |                     |                           | Basin Volume=      | 158.8 cf    |
| Depth of Grov                 | ving Medium   | n (Soil)=      | <mark>2</mark> in                | Ratio of F          | acility Area to Imp       | ervious Area=      | 0.091       |

| Pollution Reduction-Calculation Results   |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.013 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                           |
| Facility = 164 cf   | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Pollution Reduction Stan  | idards?  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D  | rawdown Time?  |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.096 cfs   | Peak Facility Overflow Rate= 0.033 cfs                           |
| Total Runoff Volume to Stormwater<br>Facility = 1263 cf   | Total Overflow Volume= 42 cf                                     |
|   | Peak Off-Site Flow Rate  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                          |
| Drawdown Time= 0.2 hours  |  |
| Pre-Development Runoff Data   |  |
| Peak Flow Rate =     0.038 cfs       Total Runoff Volume =     611 cf                             |  |
|   |  |
| Yes Facility Sizing Meets Flow Control Standards?   |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D | ite flow less or equal to Pre-Development Flow?<br>rawdown Time? |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.096 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                           |
| Facility = 1263 cf  | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 8.9 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Destination Standards?  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | rawdown Time?  |
|   |  |

| EUGENE   | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene   |                          |                             |                 |                           |                                    |              |  |
|--|---|--------------------------|-----------------------------|-----------------|---------------------------|------------------------------------|--------------|--|
|  | Version   | 2.1                      |                             |                 |                           |                                    |              |  |
| Project Information  |   |                          |                             |                 |                           |                                    |              |  |
| Project Name:  | <b>Fairway</b>  | <b>Estates</b>           |                             |                 | Date:                     | 5/19/2022                          |              |  |
| Project Address:   |   | <u>5-00-01500</u>        |                             |                 | Permit Number:            | NA NA                              |              |  |
|  | Florence  |                          |                             |                 | Catchment ID:             | <u>1C</u>                          |              |  |
| Designer:  | Clint Be  |                          |                             |                 |                           |                                    |              |  |
| Company:   | EGR & A   | <u>Associates</u>        |                             |                 |                           |                                    |              |  |
| Instructions   |   |                          |                             |                 |                           |                                    |              |  |
| <ol> <li>Complete this form for</li> <li>Provide a distinctive C<br/>calculations with the fa</li> <li>The maximum drainag</li> <li>For infiltration facilities</li> </ol> | <ol> <li>Instructions:</li> <li>Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.</li> <li>Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.</li> <li>The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)</li> <li>For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.</li> </ol> |                          |                             |                 |                           |                                    |              |  |
| <b>Design Requirements:</b>  |   |                          |                             |                 |                           |                                    |              |  |
| Choose "Yes" from the d  | ropdown   | boxes belov              | v next to the design stan   | dards requiren  | nents for this facility   | y.                                 |              |  |
| Flow Cont  | Pollution Reduction (PR)       Yes         Flow Control (FC)       Yes         Destination (DT)       Yes         *An infiltration facility must be chosen as the facility type to meet destination requirements  |                          |                             |                 |                           |                                    |              |  |
| Site Data-Post Develop   | ment  |                          |                             |                 |                           |                                    |              |  |
| Total Square Footag<br>In  | -   | ious Area=<br>s Area CN= | 3570 sqft<br>98             | Total           | Square Footage P<br>Pervi | ervious Area=<br>ious Area CN=     | 0 sqft<br>85 |  |
| Total Square Footage<br>Wei  |   | nage Area=<br>rerage CN= | 3570 sft<br>98              | Time of Co      | ncentration Post          | Development=                       | 5 min        |  |
| Site Data-Pre Developn   | nent  | (Data in th              | is section is only used     | l if Flow Contr | ol is required)           |                                    |              |  |
|  | e-Develop   | oment CN=                | 73                          | Time of C       | oncentration Pre-         | Development=                       | 10 min       |  |
| Soil Data  |   |                          |                             |                 |                           |                                    |              |  |
|  |   | tion Rate=               | 10 in/hr (See No<br>4 in/hr | ote 4)          |                           | nation Design=<br>nfiltration Rate | 5 in/hr      |  |
| Design Storms Used Fo  | or Calcula  | ations                   |                             |                 |                           |                                    |              |  |
| Requirement  | Rainf   | all Depth                | Design Storm                |                 |                           |                                    |              |  |
| Pollution Reduction  | 1   | inches                   | Water Quality               |                 |                           |                                    |              |  |
| Flow Control   |   | inches                   | Flood Control               |                 |                           |                                    |              |  |
| Destination  |   | inches                   | Flood Control               |                 |                           |                                    |              |  |
| Facility Data  | •   | •                        |                             |                 |                           |                                    |              |  |
|  |   |                          | Infiltration Stormwate      | r Planter       | Facility                  | Surface Area=                      | 323 sqft     |  |
|  |   | ace Width=               | <mark>8.5</mark> ft         |                 | -                         | ce Perimeter=                      | 93 ft        |  |
|  |   | ce Length=               | 38 ft                       |                 | •                         | Bottom Area=                       | 134 sqft     |  |
|  | -   | de Slopes=               | 3 to 1                      |                 | Facility Botto            | om Perimeter=                      | 75 ft        |  |
|  | Ponding   |                          | 9 in                        |                 | 6                         | Basin Volume=                      | 179.0 cf     |  |
| in Stormwater Facility= 9 in Basin Volume= 179.0 cf<br>Depth of Growing Medium (Soil)= 2 in Ratio of Facility Area to Impervious Area= 0.090                               |   |                          |                             |                 |                           |                                    |              |  |

| Pollution Reduction-Calculation Results   |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.015 cfs   | Peak Facility Overflow Rate= 0.000 cfs                           |
| Total Runoff Volume to Stormwater   |  |
| Facility = 186 cf   | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Pollution Reduction Stan  | idards?  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D  | rawdown Time?  |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.109 cfs   | Peak Facility Overflow Rate= 0.038 cfs                           |
| Total Runoff Volume to Stormwater   |  |
| Facility = 1432 cf  | Total Overflow Volume= 48 cf                                     |
|   | Peak Off-Site Flow Rate  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                          |
| Drawdown Time= 0.2 hours  |  |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.043 cfs<br>Total Runoff Volume = 692 cf         |  |
| Yes Facility Sizing Meets Flow Control Standards?   |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D | ite flow less or equal to Pre-Development Flow?<br>rawdown Time? |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.109 cfs   | Peak Facility Overflow Rate= 0.000 cfs                           |
| Total Runoff Volume to Stormwater<br>Facility = 1432 cf   |  |
| Facility =     1432 cf       Max. Depth of Stormwater in Facility=     8.9 in                     | Total Overflow Volume=0cf  |
| Drawdown Time= 0.2 hours  |  |
|   |  |
| Yes Facility Sizing Meets Destination Standards?  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | rawdown Time?  |
|   |  |

| EUGENE                        | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |  |                      |   |                  |  |  |
|-------------------------------|---|--|----------------------|---|------------------|--|--|
|                               | Version 2.1   |  |                      |   |                  |  |  |
| Project Information           |   |  |                      |   |                  |  |  |
| Project Name:                 | Fairway Estates   |  |                      | Date: <u>5/19/2022</u>                  |                  |  |  |
| Project Address:              | <u>18-12-15-00-0150</u>   | <u>)</u>                               |                      | Permit Number: <u>NA</u>                |                  |  |  |
|                               | Florence, OR  |  |                      | Catchment ID: <u>1D</u>                 |                  |  |  |
| Designer:                     | Clint Beecroft  |  |                      |   |                  |  |  |
| Company:                      | EGR & Associate   | <u>s</u>                               |                      |   |                  |  |  |
|                               |   |  |                      |   |                  |  |  |
| Instructions:                 |   |  |                      |   |                  |  |  |
| 1. Complete this form for     | r each drainage cat   | chment in the project site             | that is to be size   | ed per the Presumptive Approa           | ach.             |  |  |
| 2. Provide a distinctive C    | atchment ID for ea  | ch facility coordinated with           | n the site basin     | map to correlate the appropria          | e                |  |  |
| calculations with the fa      | acility.  |  |                      |   |                  |  |  |
| 3. The maximum drainag        | ge catchment to be  | modeled per the Presump                | otive Approach i     | s 1 acre (43,560 SF)                    |                  |  |  |
| 4.For infiltration facilities | in Class A or B soi   | s where no infiltration tes            | ting has been p      | erfromed use an infiltration rate       | ef 0.5 in/hr.    |  |  |
| For all facilities use a      | maximum soil infiltr  | ation rate of 2.5 in/hr for t          | opsoil/growing r     | nedium.                                 |                  |  |  |
| Design Requirements:          |   |  |                      |   |                  |  |  |
| Choose "Yes" from the c       | lropdown boxes bel  | ow next to the design star             | ndards requirem      | ents for this facility.                 |                  |  |  |
| Dollution Doducti             |   |  |                      |   |                  |  |  |
| Pollution Reducti             |   | _                                      |                      |   |                  |  |  |
| Flow Cont                     |   |  |                      |   |                  |  |  |
| Destinati                     | on (DT) Yes   | *An infiltration facility must be      | chosen as the facili | ty type to meet destination requirement | S                |  |  |
|                               |   |  |                      |   |                  |  |  |
| Site Data-Post Develop        | ment  |  |                      |   |                  |  |  |
| Total Square Footag           | e Impervious Area   | = <u>3150</u> sqft                     | Total                | Square Footage Pervious Are             | ea= 0 sqft       |  |  |
| In                            | npervious Area CN   | = 98                                   |                      | Pervious Area C                         | N= 85            |  |  |
|                               |   |  |                      |   |                  |  |  |
| Total Square Footag           | e of Drainage Area  | = 3150 sft                             | Time of Co           | ncentration Post Developme              | nt= 5 min        |  |  |
| Wei                           | ghted Average CN  | = 98                                   |                      |   |                  |  |  |
| Site Data-Pre Developm        | nent (Data in   | this section is only used              | d if Flow Contr      | ol is required)                         |                  |  |  |
| Pr                            | e-Development CN  | = 73                                   | Time of Co           | oncentration Pre-Developme              | <b>nt=10</b> min |  |  |
| Soil Data                     | •   |  |                      | •                                       |                  |  |  |
|                               |   | ······································ |                      |   |                  |  |  |
|                               | oil Infiltration Rate   |  | ote 4)               | Destination Desig                       |                  |  |  |
| Design S                      | oil Infiltration Rate   | = 4 in/hr                              |                      | Soil Infiltration R                     | ate              |  |  |
| Design Storms Used F          | or Calculations   |  |                      |   |                  |  |  |
| Requirement                   | Rainfall Depth  | Design Storm                           | ]                    |   |                  |  |  |
| Pollution Reduction           | 0.8 inches  | Water Quality                          |                      |   |                  |  |  |
| Flow Control                  | 5.1 inches  | Flood Control                          |                      |   |                  |  |  |
| Destination                   | 5.1 inches  | Flood Control                          | 1                    |   |                  |  |  |
| Facility Data                 | • • •   | •                                      | -                    |   |                  |  |  |
|                               | <b>F</b> 104 <b>F</b>   | - Infiltration Of                      | n Diautan            | EWeige (                                | 000.45           |  |  |
|                               |   | = Infiltration Stormwate               | er Planter           | Facility Surface Are                    |                  |  |  |
|                               | Surface Width   |  |                      | Facility Surface Perimet                |                  |  |  |
| -                             | Surface Length  |  |                      | Facility Bottom Are                     |                  |  |  |
|                               | acility Side Slopes   | = <u> </u>                             |                      | Facility Bottom Perimet                 | er= 66 ft        |  |  |
|                               | Ponding Depth<br>mwater Facility=   | 9 in                                   |                      | Basin Volun                             | ne= 158.8 cf     |  |  |
|                               | ving Medium (Soil   |  | Ratio of F           | acility Area to Impervious Are          |                  |  |  |
| Depth of Glov                 | ing meanin (301   |  |                      | and Alea to impervious Ale              | 0.001            |  |  |

| Pollution Reduction-Calculation Results   |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.013 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                           |
| Facility = 164 cf   | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Pollution Reduction Stan  | idards?  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D  | rawdown Time?  |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.096 cfs   | Peak Facility Overflow Rate= 0.033 cfs                           |
| Total Runoff Volume to Stormwater<br>Facility = 1263 cf   | Total Overflow Volume= 42 cf                                     |
|   | Peak Off-Site Flow Rate  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                          |
| Drawdown Time= 0.2 hours  |  |
| Pre-Development Runoff Data   |  |
| Peak Flow Rate =     0.038 cfs       Total Runoff Volume =     611 cf                             |  |
|   |  |
| Yes Facility Sizing Meets Flow Control Standards?   |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D | ite flow less or equal to Pre-Development Flow?<br>rawdown Time? |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.096 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                           |
| Facility = 1263 cf  | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 8.9 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Destination Standards?  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | rawdown Time?  |
|   |  |

| EUGENE                          | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |                                  |                        |   |                     |  |
|---------------------------------|---|----------------------------------|------------------------|---|---------------------|--|
|                                 | Version 2.1   |                                  |                        |   |                     |  |
| Project Information             |   |                                  |                        |   |                     |  |
| Project Name:                   | Fairway Estat   | <u>es</u>                        |                        | Date: <u>5/19/2022</u>                    |                     |  |
| Project Address:                | <u>18-12-15-00-01</u>   | <u>1500</u>                      |                        | Permit Number: <u>NA</u>                  |                     |  |
|                                 | Florence, OR  |                                  |                        | Catchment ID: <u>1E</u>                   |                     |  |
| Designer:                       | Clint Beecroft  |                                  |                        |   |                     |  |
| Company:                        | EGR & Assoc   | iates                            |                        |   |                     |  |
| Instructions:                   |   |                                  |                        |   |                     |  |
|                                 | a a a b draina da   | actabment in the project sit     | a that is to be siz    | ad not the Dresumptive Approach           |                     |  |
|                                 | -   |                                  |                        | ed per the Presumptive Approach.          |                     |  |
| calculations with the fa        |   | each fachily coordinated w       | ith the site basin     | map to correlate the appropriate          |                     |  |
|                                 |   | be modeled per the Presum        | antivo Annroach i      | s 1 acro (13 560 SE)                      |                     |  |
|                                 |   |                                  |                        | erfromed use an infiltration rate of 0    | 5 in/br             |  |
|                                 |   | filtration rate of 2.5 in/hr for |                        |   | .5 m/m.             |  |
|                                 |   |                                  | topson/growing i       |   |                     |  |
| Design Requirements:            |   |                                  |                        |   |                     |  |
| Choose "Yes" from the d         | lropdown boxes  | below next to the design sta     | andards requirem       | ents for this facility.                   |                     |  |
| Pollution Reducti               | on (PR) Ye  | es                               |                        |   |                     |  |
| Flow Cont                       |   |                                  |                        |   |                     |  |
| Destinati                       |   |                                  | na ahaaan aa tha faail | ty time to most destinction requirements  |                     |  |
| Destinati                       |   | An initiation facility must t    | be chosen as the facil | ity type to meet destination requirements |                     |  |
| Site Data-Post Develop          | ment  |                                  |                        |   |                     |  |
|                                 |   | 0570                             | Tetel                  |   | 0 auft              |  |
| Total Square Footag             | -   |                                  | lotal                  | Square Footage Pervious Area=             | 0 sqft              |  |
| In                              | npervious Area  | <b>CN=</b> 98                    |                        | Pervious Area CN=                         | 85                  |  |
| Total Square Footag             | o of Drainago A   | <b>rea=</b> 3570 sft             | Time of Co             | ncentration Post Development=             | 5 min               |  |
|                                 | ghted Average   |                                  | Time of Co             |   | Jinin               |  |
|                                 |   |                                  |                        |   |                     |  |
| Site Data-Pre Developn          | nent (Data  | in this section is only use      | ed if Flow Contr       | ol is required)                           |                     |  |
| Pro                             | e-Development   | CN= 73                           | Time of C              | oncentration Pre-Development=             | <mark>10</mark> min |  |
| Soil Data                       |   |                                  |                        |   |                     |  |
| Tested S                        | oil Infiltration F  | Rate= 10 in/hr (See              | Note 4)                | Destination Design=                       | 5 in/hr             |  |
| Design S                        | oil Infiltration F  | Rate= 4 in/hr                    |                        | Soil Infiltration Rate                    |                     |  |
| Design Storms Used Fo           | or Calculations   | ;                                |                        |   |                     |  |
| Boguiromont                     | Poinfall Dor  | th Design Storm                  |                        |   |                     |  |
| Requirement Pollution Reduction | Rainfall Dep<br>0.8 inche   |                                  | -                      |   |                     |  |
| Flow Control                    | 5.1 inche   |                                  | -                      |   |                     |  |
| Destination                     | 5.1 inche   |                                  | -                      |   |                     |  |
|                                 | 0.11110110  |                                  |                        |   |                     |  |
| Facility Data                   |   |                                  |                        |   |                     |  |
|                                 | -   | ype= Infiltration Stormwa        | ter Planter            | Facility Surface Area=                    | 323 sqft            |  |
|                                 | Surface W   |                                  |                        | Facility Surface Perimeter=               | 93 ft               |  |
| _                               | Surface Len   | ·                                |                        | Facility Bottom Area=                     | 134 sqft            |  |
|                                 | acility Side Slo  | -                                |                        | Facility Bottom Perimeter=                | 75 ft               |  |
|                                 | Ponding Depth<br>mwater Facility  |                                  |                        | Basin Volume=                             | 179.0 cf            |  |
|                                 | ving Medium (S  |                                  | Datio of E             | acility Area to Impervious Area=          | 0.090               |  |
| Deptil of Grov                  | ang Meululli (S   | -(IIV)                           |                        |   | 0.030               |  |

| Pollution Reduction-Calculation Results   |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.015 cfs   | Peak Facility Overflow Rate= 0.000 cfs                           |
| Total Runoff Volume to Stormwater   |  |
| Facility = 186 cf   | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Pollution Reduction Stan  | idards?  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D  | rawdown Time?  |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.109 cfs   | Peak Facility Overflow Rate= 0.038 cfs                           |
| Total Runoff Volume to Stormwater   |  |
| Facility = 1432 cf  | Total Overflow Volume= 48 cf                                     |
|   | Peak Off-Site Flow Rate  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                          |
| Drawdown Time= 0.2 hours  |  |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.043 cfs<br>Total Runoff Volume = 692 cf         |  |
| Yes Facility Sizing Meets Flow Control Standards?   |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D | ite flow less or equal to Pre-Development Flow?<br>rawdown Time? |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.109 cfs   | Peak Facility Overflow Rate= 0.000 cfs                           |
| Total Runoff Volume to Stormwater<br>Facility = 1432 cf   |  |
| Facility =     1432 cf       Max. Depth of Stormwater in Facility=     8.9 in                     | Total Overflow Volume=0cf  |
| Drawdown Time= 0.2 hours  |  |
|   |  |
| Yes Facility Sizing Meets Destination Standards?  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | rawdown Time?  |
|   |  |

| EUGENE   | 24 Hou   |  | face Filtration/Infilt<br>NRCS Type 1A Rai       |   |  | adsheet                        |                     |
|--|--|--|--|---|--|--------------------------------|---------------------|
|  | Version  | 2.1  |  |   |  |                                |                     |
| Project Information  |  |  |  |   |  |                                |                     |
| Project Name:  | <b>Fairway</b>   | Estates                                    |  |   | Date:  | <u>5/19/2022</u>               |                     |
| Project Address:   | <u>18-12-15</u>  | <u>5-00-01500</u>                          |  |   | Permit Number:   | <u>NA</u>                      |                     |
|  | Florence   | <u>e, OR</u>                               |  |   | Catchment ID:  | <u>1F</u>                      |                     |
| Designer:  | Clint Be   |  |  |   |  |                                |                     |
| Company:   | EGR & A  | Associates                                 |  |   |  |                                |                     |
| Instructions:  |  |  |  |   |  |                                |                     |
| <ol> <li>Complete this form for</li> <li>Provide a distinctive C<br/>calculations with the fa</li> <li>The maximum drainag</li> <li>For infiltration facilities</li> </ol> | atchment<br>acility.<br>le catchm<br>in Class <i>I</i> | ID for each<br>ent to be m<br>A or B soils | facility coordinated with odeled per the Presump | the site basin<br>tive Approach<br>ing has been p | map to correlate th<br>is 1 acre (43,560 S<br>erfromed use an in | e appropriate<br>F)            | 0.5 in/hr.          |
| Design Requirements:   |  |  |  |   |  |                                |                     |
| Choose "Yes" from the d  | ropdown  | boxes belov                                | v next to the design stan                        | dards requiren                                    | nents for this facility  | /.                             |                     |
| Pollution Reducti<br>Flow Cont<br>Destinati  | rol (FC)   | Yes  | *An infiltration facility must be                | chosen as the facil                               | ity type to meet destinat  | ion requirements               |                     |
| Site Data-Post Develop   | ment   |  |  |   |  |                                |                     |
| Total Square Footag<br>In  | -  | ious Area=<br>s Area CN=                   | <mark>3150</mark> sqft<br>98                     | Total   | Square Footage P<br>Pervi  | ervious Area=<br>ious Area CN= | 0 sqft<br>85        |
| Total Square Footage<br>Wei  |  | nage Area=<br>erage CN=                    | 3150 sft<br>98                                   | Time of Co  | ncentration Post   | Development=                   | <mark>5</mark> min  |
| Site Data-Pre Developm   | nent   | (Data in th                                | is section is only used                          | if Flow Contr                                     | ol is required)  |                                |                     |
|  | e-Develop  | oment CN=                                  | 73   | Time of C   | oncentration Pre-  | Development=                   | 10 min              |
| Soil Data  |  |  |  |   |  |                                |                     |
|  |  | ition Rate=<br>ition Rate=                 | <mark>10</mark> in/hr (See No<br>4 in/hr         | te 4)   |  | ation Design=                  | 5 in/hr             |
| Design Storms Used Fo  | or Calcula   | ations                                     |  |   |  |                                |                     |
| Requirement  | Rainfa   | all Depth                                  | Design Storm                                     |   |  |                                |                     |
| Pollution Reduction  |  | inches                                     | Water Quality                                    |   |  |                                |                     |
| Flow Control   |  | inches                                     | Flood Control                                    |   |  |                                |                     |
| Destination  |  | inches                                     | Flood Control                                    |   |  |                                |                     |
| Facility Data  | •  |  |  |   |  |                                |                     |
| r donity Data  | Fac  | ilite a Tama a m                           | Infiltration Otomourate                          | Diamtan   | <b>Feellit</b>   | C                              | 200 45 - ===        |
|  |  | ace Width=                                 | Infiltration Stormwate<br>8.5 ft                 | rianter   | •  | Surface Area=                  | 286.45 sqft         |
|  |  | ce width=                                  | 33.7 ft  |   | -  | ce Perimeter=<br>Bottom Area=  | 84.4 ft<br>117 sqft |
|  |  | te Slopes=                                 | 3 to 1   |   | •  | om Perimeter=                  | 66 ft               |
|  | Ponding  | •  | 5 10 1   |   |  |                                | 00 11               |
|  | mwater F   |  | <mark>9</mark> in                                |   | E  | Basin Volume=                  | 158.8 cf            |
| Depth of Grow  | ving Medi  | ium (Soil)=                                | <mark>2</mark> in                                | Ratio of F  | acility Area to Imp  | ervious Area=                  | 0.091               |

| Pollution Reduction-Calculation Results   |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.013 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                           |
| Facility = 164 cf   | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Pollution Reduction Stan  | idards?  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D  | rawdown Time?  |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.096 cfs   | Peak Facility Overflow Rate= 0.033 cfs                           |
| Total Runoff Volume to Stormwater<br>Facility = 1263 cf   | Total Overflow Volume= 42 cf                                     |
|   | Peak Off-Site Flow Rate  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                          |
| Drawdown Time= 0.2 hours  |  |
| Pre-Development Runoff Data   |  |
| Peak Flow Rate =     0.038 cfs       Total Runoff Volume =     611 cf                             |  |
|   |  |
| Yes Facility Sizing Meets Flow Control Standards?   |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D | ite flow less or equal to Pre-Development Flow?<br>rawdown Time? |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.096 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                           |
| Facility = 1263 cf  | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 8.9 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Destination Standards?  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | rawdown Time?  |
|   |  |

| EUGENE                        |                          | face Filtration/Infilt<br>NRCS Type 1A Rair |                    |                             | adsheet                                   |             |
|-------------------------------|--------------------------|---|--------------------|-----------------------------|---|-------------|
|                               | Version 2.1              |   |                    |                             |   |             |
| Project Information           |                          |   |                    |                             |   |             |
| Project Name:                 | Fairway Estates          |   |                    | Date:                       | <u>5/19/2022</u>                          |             |
| Project Address:              | <u>18-12-15-00-01500</u> |   |                    | Permit Number:              | <u>NA</u>                                 |             |
|                               | Florence, OR             |   |                    | Catchment ID:               | <u>1G</u>                                 |             |
| Designer:                     | Clint Beecroft           |   |                    |                             |   |             |
| Company:                      | EGR & Associates         |   |                    |                             |   |             |
|                               |                          |   |                    |                             |   |             |
| Instructions:                 |                          |   |                    |                             |   |             |
| 1. Complete this form for     | each drainage catch      | ment in the project site t                  | hat is to be siz   | ed per the Presum           | ptive Approach.                           |             |
| 2. Provide a distinctive C    | atchment ID for each     | facility coordinated with                   | the site basin     | map to correlate th         | e appropriate                             |             |
| calculations with the fa      | acility.                 |   |                    |                             |   |             |
| 3. The maximum drainag        | je catchment to be m     | odeled per the Presumpt                     | tive Approach      | is 1 acre (43,560 Sl        | F)  |             |
| 4.For infiltration facilities | in Class A or B soils    | where no infiltration testi                 | ing has been p     | erfromed use an in          | filtration rate of 0                      | ).5 in/hr.  |
| For all facilities use a      | maximum soil infiltrat   | ion rate of 2.5 in/hr for to                | psoil/growing      | medium.                     |   |             |
| Design Requirements:          |                          |   |                    |                             |   |             |
| Choose "Yes" from the d       | ropdown boxes below      | v next to the design stan                   | dards requiren     | nents for this facility     | <i>.</i>                                  |             |
| Dellution Deducti             |                          | 1   |                    |                             |   |             |
| Pollution Reducti             |                          |   |                    |                             |   |             |
| Flow Cont                     |                          |   |                    |                             |   |             |
| Destinati                     | on (DT) Yes              | *An infiltration facility must be o         | chosen as the faci | lity type to meet destinati | on requirements                           |             |
|                               |                          |   |                    |                             |   |             |
| Site Data-Post Develop        | ment                     |   |                    |                             |   |             |
| Total Square Footag           | e Impervious Area=       | 3325 sqft                                   | Total              | Square Footage P            | ervious Area=                             | 0 sqft      |
|                               | pervious Area CN=        |   |                    |                             | ous Area CN=                              | 85          |
|                               | •                        |   |                    |                             | Le la |             |
| Total Square Footag           | e of Drainage Area=      | 3325 sft                                    | Time of Co         | ncentration Post I          | Development=                              | 5 min       |
| Wei                           | ghted Average CN=        | 98  |                    |                             | -   |             |
| Site Data-Pre Developn        | nent (Data in th         | his section is only used                    | if Flow Cont       | ol is required)             |   |             |
|                               | •                        |   |                    | • •                         |   | 10          |
|                               | e-Development CN=        | 73  | Time of C          | oncentration Pre-I          | Jevelopment=                              | 10 min      |
| Soil Data                     |                          |   |                    |                             |   |             |
| Tested S                      | oil Infiltration Rate=   | 10 in/hr (See No                            | te 4)              | Destin                      | ation Design=                             | 5 in/hr     |
| Design S                      | oil Infiltration Rate=   | 4 in/hr                                     |                    | Soil In                     | filtration Rate                           |             |
| Design Storms Used Fo         | or Calculations          |   |                    |                             |   |             |
| Requirement                   | Rainfall Depth           | Design Storm                                |                    |                             |   |             |
| Pollution Reduction           | 0.8 inches               | Water Quality                               |                    |                             |   |             |
| Flow Control                  | 5.1 inches               | Flood Control                               |                    |                             |   |             |
| Destination                   | 5.1 inches               | Flood Control                               |                    |                             |   |             |
|                               |                          |   |                    |                             |   |             |
| Facility Data                 |                          |   |                    |                             |   |             |
|                               |                          | Infiltration Stormwater                     | r Planter          | -                           | Surface Area=                             | 301.75 sqft |
|                               | Surface Width=           | <mark>8.5</mark> ft                         |                    | -                           | ce Perimeter=                             | 88 ft       |
|                               | Surface Length=          |   |                    | •                           | Bottom Area=                              | 124 sqft    |
|                               | acility Side Slopes=     | 3 to 1                                      |                    | Facility Botto              | om Perimeter=                             | 70 ft       |
|                               | Ponding Depth            |   |                    | _                           |   | 107.0       |
|                               | mwater Facility=         | <mark>9</mark> in                           | D-41 6 -           |                             | asin Volume=                              | 167.3 cf    |
| Depth of Grov                 | ving Medium (Soil)=      | <mark>2</mark> in                           | Ratio of F         | acility Area to Imp         | ervious Area=                             | 0.091       |

| Pollution Reduction-Calculation Results                                       |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.014 cfs                             | Peak Facility Overflow Rate= 0.000 cfs                             |
| Total Runoff Volume to Stormwater   |  |
| Facility =     173 cf       Max. Depth of Stormwater in Facility =     0.0 in | Total Overflow Volume=0cf  |
| Max. Depth of Stormwater in Facility= 0.0 in<br>Drawdown Time= 0.2 hours      |  |
|   |  |
| Yes Facility Sizing Meets Pollution Reduction Star                            | ndards?  |
| YES Meets Requirement of No Facility Flooding?                                |  |
| YES Meets Requirement for Maximum of 18 Hour D                                | Drawdown Time?   |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.102 cfs                             | Peak Facility Overflow Rate= 0.035 cfs                             |
| Total Runoff Volume to Stormwater   |  |
| <b>Facility =</b> 1334 cf   | Total Overflow Volume= 44 cf                                       |
| Max. Depth of Stormwater in Facility= 9.0 in                                  | Peak Off-Site Flow Rate<br>Filtration Facility Underdrain= N\A cfs |
| Drawdown Time= 0.2 hours  |  |
|   |  |
| Pre-Development Runoff Data   |  |
| Peak Flow Rate = 0.040 cfs  |  |
| Total Runoff Volume = 645 cf  |  |
| Yes Facility Sizing Meets Flow Control Standards                              | ?  |
| YES Meets Requirement for Post Development offs                               | site flow less or equal to Pre-Development Flow?                   |
| YES Meets Requirement for Maximum of 18 Hour I                                | · · ·  |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.102 cfs                             | Peak Facility Overflow Rate= 0.000 cfs                             |
| Total Runoff Volume to Stormwater<br>Facility = 1334 cf                       | Total Overflow Volume= 0 cf  |
| Facility =     1334 cf       Max. Depth of Stormwater in Facility=     8.9 in | Total Overflow Volume=0cf  |
| Drawdown Time= 0.2 hours  |  |
|   |  |
| Yes Facility Sizing Meets Destination Standards?                              |  |
| YES Meets Requirement of No Facility Flooding?                                |  |
| YES Meets Requirement for Maximum of 30 hour D                                | vrawdown Time?   |
|   |  |

| EUGENE  |  |                                     |                     |   |            |  |  |
|---|--|-------------------------------------|---------------------|---|------------|--|--|
|   | Version 2.1                                      |                                     |                     |   |            |  |  |
| Project Information   |  |                                     |                     |   |            |  |  |
| Project Name:   | Fairway Estates                                  |                                     |                     | Date: <u>5/19/2022</u>                        |            |  |  |
| Project Address:  | <u>18-12-15-00-01500</u>                         |                                     |                     | Permit Number: <u>NA</u>                      |            |  |  |
|   | Florence, OR                                     |                                     |                     | Catchment ID: <u>2A</u>                       |            |  |  |
| Designer:   | Clint Beecroft                                   |                                     |                     |   |            |  |  |
| Company:  | EGR & Associates                                 |                                     |                     |   |            |  |  |
|   |  |                                     |                     |   |            |  |  |
| Instructions:   |  |                                     |                     |   |            |  |  |
| 1. Complete this form for   | each drainage catch                              | ment in the project site t          | hat is to be siz    | ed per the Presumptive Approach.              |            |  |  |
| 2. Provide a distinctive C  | atchment ID for each                             | facility coordinated with           | the site basin      | map to correlate the appropriate              |            |  |  |
| calculations with the fa  | acility.   |                                     |                     |   |            |  |  |
| 3. The maximum drainag  |  |                                     |                     |   |            |  |  |
| 4.For infiltration facilities   | in Class A or B soils                            | where no infiltration testi         | ing has been p      | erfromed use an infiltration rate of 0        | .5 in/hr.  |  |  |
| For all facilities use a  | maximum soil infiltrat                           | ion rate of 2.5 in/hr for to        | psoil/growing       | medium.                                       |            |  |  |
| Design Requirements:  |  |                                     |                     |   |            |  |  |
| Choose "Yes" from the d   | ropdown boxes belov                              | v next to the design stand          | dards requiren      | nents for this facility.                      |            |  |  |
| Dollution Doducti   |  | l                                   |                     |   |            |  |  |
| Pollution Reducti   |  |                                     |                     |   |            |  |  |
| Flow Cont   |  |                                     |                     |   |            |  |  |
| Destinati   | on (DT) <mark>Yes</mark>                         | *An infiltration facility must be o | chosen as the facil | ity type to meet destination requirements     |            |  |  |
|   |  |                                     |                     |   |            |  |  |
| Site Data-Post Develop  | ment   |                                     |                     |   |            |  |  |
| Total Square Footag   | e Impervious Area=                               | 3028 sqft                           | Total               | Square Footage Pervious Area=                 | 0 sqft     |  |  |
| In  | pervious Area CN=                                | 98                                  |                     | Pervious Area CN=                             | 85         |  |  |
|   |  |                                     |                     |   |            |  |  |
| Total Square Footage of Drainage Area= 3028 sft Time of Concentration Post Development= 5 min |  |                                     |                     |   |            |  |  |
| Wei   | ghted Average CN=                                | 98                                  |                     | _   |            |  |  |
| Site Data-Pre Developm  | nent (Data in th                                 | is section is only used             | if Flow Contr       | ol is required)                               |            |  |  |
| Pro   | e-Development CN=                                | 73                                  | Time of C           | oncentration Pre-Development=                 | 10 min     |  |  |
| Soil Data   | •  |                                     |                     | · •   |            |  |  |
|   | - II In filter tion Date                         |                                     |                     |   |            |  |  |
|   | oil Infiltration Rate=<br>oil Infiltration Rate= | 10 in/hr (See No<br>4 in/hr         | de 4)               | Destination Design=<br>Soil Infiltration Rate | 5 in/hr    |  |  |
|   |  | 4 11/11                             |                     | Son minutation Rate                           |            |  |  |
| Design Storms Used Fo   | or Calculations                                  |                                     |                     |   |            |  |  |
| Requirement   | Rainfall Depth                                   | Design Storm                        |                     |   |            |  |  |
| Pollution Reduction   | 0.8 inches                                       | Water Quality                       |                     |   |            |  |  |
| Flow Control  | 5.1 inches                                       | Flood Control                       |                     |   |            |  |  |
| Destination   | 5.1 inches                                       | Flood Control                       |                     |   |            |  |  |
| Facility Data   |  |                                     |                     |   |            |  |  |
|   | Eacility Type=                                   | Infiltration Stormwater             | r Plantor           | Facility Surface Area=                        | 275.4 sqft |  |  |
|   | Surface Width=                                   | 8.5 ft                              | aillei              | Facility Surface Perimeter=                   | 81.8 ft    |  |  |
|   | Surface Length=                                  | 32.4 ft                             |                     | Facility Bottom Area=                         | 112 sqft   |  |  |
| -   | acility Side Slopes=                             | 3 to 1                              |                     | Facility Bottom Perimeter=                    | 64 ft      |  |  |
|   | Ponding Depth                                    | 3 10 1                              |                     | a acting bottom Fernineter-                   | 0411       |  |  |
|   | mwater Facility=                                 | 9 in                                |                     | Basin Volume=                                 | 152.7 cf   |  |  |
|   | /ing Medium (Soil)=                              | 2 in                                | Ratio of F          | acility Area to Impervious Area=              | 0.091      |  |  |
|   | J  |                                     |                     |   |            |  |  |

| Pollution Reduction-Calculation Results   |   |
|---|---|
| Peak Flow Rate to Stormwater Facility = 0.012 cfs<br>Total Runoff Volume to Stormwater  | Peak Facility Overflow Rate= 0.000 cfs                |
| Facility = 158 cf   | Total Overflow Volume= 0 cf                           |
| Max. Depth of Stormwater in Facility= 0.0 in  |   |
| Drawdown Time= 0.2 hours  |   |
| Yes Facility Sizing Meets Pollution Reduction Sta   | ndards?   |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour  | Drawdown Time?  |
| Flow Control-Calculation Results  |   |
| Peak Flow Rate to Stormwater Facility = 0.093 cfs   | Peak Facility Overflow Rate= 0.032 cfs                |
| Facility = 1214 cf  | Total Overflow Volume= 40 cf                          |
|   | Peak Off-Site Flow Rate                               |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs               |
| Drawdown Time= 0.2 hours  |   |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.037 cfs<br>Total Runoff Volume = 587 cf<br>Yes Facility Sizing Meets Flow Control Standards<br>YES Meets Requirement for Post Development off | ?<br>site flow less or equal to Pre-Development Flow? |
| YES Meets Requirement for Maximum of 18 Hour  | Drawdown Time?  |
| Destination-Calculation Results   |   |
| Peak Flow Rate to Stormwater Facility = 0.093 cfs<br>Total Runoff Volume to Stormwater  | Peak Facility Overflow Rate= 0.000 cfs                |
| Facility = 1214 cf  | Total Overflow Volume= 0 cf                           |
| Max. Depth of Stormwater in Facility= 8.9 in  |   |
| Drawdown Time= 0.2 hours  |   |
| Yes Facility Sizing Meets Destination Standards?  |   |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour  | Drawdown Time?  |
|   |   |

| EUGENE                        |                          | face Filtration/Infilt<br>NRCS Type 1A Rair |                    | ity Sizing Spreadsheet<br>ution           |   |
|-------------------------------|--------------------------|---|--------------------|---|---|
|                               | Version 2.1              |   |                    |   |   |
| Project Information           |                          |   |                    |   |   |
| Project Name:                 | Fairway Estates          |   |                    | Date: <u>5/19/2022</u>                    |   |
| Project Address:              | <u>18-12-15-00-01500</u> |   |                    | Permit Number: <u>NA</u>                  |   |
|                               | Florence, OR             |   |                    | Catchment ID: <u>2B</u>                   |   |
| Designer:                     | Clint Beecroft           |   |                    |   |   |
| Company:                      | EGR & Associates         |   |                    |   |   |
|                               |                          |   |                    |   |   |
| Instructions:                 |                          |   |                    |   |   |
| 1. Complete this form for     | · each drainage catch    | ment in the project site the                | hat is to be siz   | ed per the Presumptive Approach           | ι.  |
| 2. Provide a distinctive C    | atchment ID for each     | facility coordinated with                   | the site basin     | map to correlate the appropriate          |   |
| calculations with the fa      | acility.                 |   |                    |   |   |
| 3. The maximum drainag        | je catchment to be m     | odeled per the Presumpt                     | tive Approach      | s 1 acre (43,560 SF)                      |   |
| 4.For infiltration facilities | in Class A or B soils    | where no infiltration testi                 | ng has been p      | erfromed use an infiltration rate o       | f 0.5 in/hr.                                  |
| For all facilities use a      | maximum soil infiltra    | ion rate of 2.5 in/hr for to                | psoil/growing      | medium.                                   |   |
| Design Requirements:          |                          |   |                    |   |   |
| Choose "Yes" from the d       | ropdown boxes belo       | w next to the design stand                  | dards requiren     | nents for this facility.                  |   |
|                               |                          | 1   |                    |   |   |
| Pollution Reducti             |                          |   |                    |   |   |
| Flow Cont                     |                          |   |                    |   |   |
| Destinati                     | on (DT) Yes              | *An infiltration facility must be o         | chosen as the faci | ity type to meet destination requirements |   |
|                               | -                        | -   |                    |   |   |
| Site Data-Post Develop        | ment                     |   |                    |   |   |
| Total Square Footag           | e Impervious Area=       | 3220 sqft                                   | Total              | Square Footage Pervious Area=             | = 0 sqft                                      |
|                               | pervious Area CN=        |   |                    | Pervious Area CN=                         |   |
|                               |                          |   |                    |   |   |
| Total Square Footag           | e of Drainage Area=      | 3220 sft                                    | Time of Co         | ncentration Post Development=             | = 5 min                                       |
|                               | ghted Average CN=        |   |                    | ·····                                     |   |
| Site Data-Pre Developm        |                          | his section is only used                    | if Flow Contr      | al is required)                           |   |
|                               | •                        |   |                    | · · · · ·                                 |   |
| Pro                           | e-Development CN=        | 73  | Time of C          | oncentration Pre-Development=             | = <u>10</u> min                               |
| Soil Data                     |                          |   |                    |   |   |
| Tested S                      | oil Infiltration Rate=   | 10 in/hr (See Not                           | te 4)              | Destination Design=                       | = 5 in/hr                                     |
| Design S                      | oil Infiltration Rate=   | 4 in/hr                                     |                    | Soil Infiltration Rate                    | <u>,                                     </u> |
| Design Storms Used Fo         | or Calculations          |   |                    |   |   |
| Requirement                   | Rainfall Depth           | Design Storm                                |                    |   |   |
| Pollution Reduction           | 0.8 inches               | Water Quality                               |                    |   |   |
| Flow Control                  | 5.1 inches               | Flood Control                               |                    |   |   |
| Destination                   | 5.1 inches               | Flood Control                               |                    |   |   |
|                               | 0.1                      |   |                    |   |   |
| Facility Data                 |                          |   |                    |   |   |
|                               |                          | Infiltration Stormwater                     | r Planter          | Facility Surface Area=                    |   |
|                               | Surface Width=           | 8.5 ft                                      |                    | Facility Surface Perimeter=               |   |
|                               | Surface Length=          |   |                    | Facility Bottom Area=                     |   |
|                               | acility Side Slopes=     | 3 to 1                                      |                    | Facility Bottom Perimeter=                | = 68 ft                                       |
|                               | Ponding Depth            |   |                    |   |   |
|                               | mwater Facility=         | <mark>9</mark> in                           | <b>-</b>           | Basin Volume=                             |   |
| Depth of Grov                 | ving Medium (Soil)=      | <mark>2</mark> in                           | Ratio of F         | acility Area to Impervious Area=          | 0.091   |

| Pollution Reduction-Calculation Results   |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.013 cfs   | Peak Facility Overflow Rate= 0.000 cfs                             |
| Total Runoff Volume to Stormwater   |  |
| Facility = 168 cf   | Total Overflow Volume= 0 cf  |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Pollution Reduction Sta   | ndards?  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour I  | Drawdown Time?   |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.099 cfs   | Peak Facility Overflow Rate= 0.034 cfs                             |
| Total Runoff Volume to Stormwater   |  |
| Facility = 1291 cf  | Total Overflow Volume= 43 cf                                       |
|   | Peak Off-Site Flow Rate  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                            |
| Drawdown Time= 0.2 hours  |  |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.039 cfs<br>Total Runoff Volume = 625 cf<br>Yes Facility Sizing Meets Flow Control Standards | ?  |
| YES Meets Requirement for Post Development off<br>YES Meets Requirement for Maximum of 18 Hour I  | site flow less or equal to Pre-Development Flow?<br>Drawdown Time? |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.099 cfs   | Peak Facility Overflow Rate= 0.000 cfs                             |
| Total Runoff Volume to Stormwater   |  |
| Facility = 1291 cf  | Total Overflow Volume=0 cf   |
| Max. Depth of Stormwater in Facility= 8.9 in Drawdown Time= 0.2 hours   |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Destination Standards?  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour E  | Drawdown Time?   |
|   |  |

| EUGENE  |                          | face Filtration/Infilt<br>NRCS Type 1A Rai |                     | ty Sizing Spreadsheet<br>ution           |             |
|---|--------------------------|--|---------------------|--|-------------|
|   | Version 2.1              |  |                     |  |             |
| Project Information   |                          |  |                     |  |             |
| Project Name:   | Fairway Estates          |  |                     | Date: <u>5/19/2022</u>                   |             |
| Project Address:  | <u>18-12-15-00-01500</u> |  |                     | Permit Number: <u>NA</u>                 |             |
|   | Florence, OR             |  |                     | Catchment ID: <u>2C</u>                  |             |
| Designer:   | Clint Beecroft           |  |                     |  |             |
| Company:  | EGR & Associates         |  |                     |  |             |
|   |                          |  |                     |  |             |
| Instructions:   |                          |  |                     |  |             |
| 1. Complete this form for   | r each drainage catc     | nment in the project site                  | that is to be siz   | ed per the Presumptive Approach.         |             |
| 2. Provide a distinctive C  | atchment ID for eac      | n facility coordinated with                | n the site basin    | map to correlate the appropriate         |             |
| calculations with the fa  | acility.                 |  |                     |  |             |
| 3. The maximum drainag  | ge catchment to be n     | odeled per the Presump                     | otive Approach i    | s 1 acre (43,560 SF)                     |             |
| 4.For infiltration facilities   | in Class A or B soils    | where no infiltration test                 | ting has been p     | erfromed use an infiltration rate of (   | 0.5 in/hr.  |
| For all facilities use a  | maximum soil infiltra    | tion rate of 2.5 in/hr for to              | opsoil/growing r    | nedium.                                  |             |
| Design Requirements:  |                          |  |                     |  |             |
| Choose "Yes" from the d   | lropdown boxes belo      | w next to the design star                  | ndards requirem     | ents for this facility.                  |             |
| Delletten Dedect  |                          | 1  |                     |  |             |
| Pollution Reducti   |                          |  |                     |  |             |
| Flow Cont   |                          |  |                     |  |             |
| Destinati   | on (DT) Yes              | *An infiltration facility must be          | chosen as the facil | ty type to meet destination requirements |             |
|   |                          |  |                     |  |             |
| Site Data-Post Develop  | ment                     |  |                     |  |             |
| Total Square Footag   | e Impervious Area        | 3150 sqft                                  | Total               | Square Footage Pervious Area=            | 0 sqft      |
|   | npervious Area CN:       |  |                     | Pervious Area CN=                        | 85          |
|   | •                        |  |                     | L  |             |
| Total Square Footage of Drainage Area= 3150 sft Time of Concentration Post Development= 5 min |                          |  |                     |  |             |
|   | Weighted Average CN= 98  |  |                     |  |             |
| Site Data-Pre Developn  | nent (Data in t          | nis section is only used                   | d if Flow Contr     | ol is required)                          |             |
| Dr  | e-Development CN=        | 73   | Time of C           | oncentration Pre-Development=            | 10 min      |
|   | e-Development Cit-       | 15   | Time of Co          |  |             |
| Soil Data   |                          |  |                     |  |             |
| Tested S  | oil Infiltration Rate    | : <u>10</u> in/hr (See No                  | ote 4)              | Destination Design=                      | 5 in/hr     |
| Design S  | oil Infiltration Rate    | · 4 in/hr                                  |                     | Soil Infiltration Rate                   |             |
| Design Storms Used Fo   | or Calculations          |  |                     |  |             |
| Requirement   | Rainfall Depth           | Design Storm                               | ]                   |  |             |
| Pollution Reduction   | 0.8 inches               | Water Quality                              |                     |  |             |
| Flow Control  | 5.1 inches               | Flood Control                              |                     |  |             |
| Destination   | 5.1 inches               | Flood Control                              |                     |  |             |
|   | 0.1 menes                |  |                     |  |             |
| Facility Data   |                          |  |                     |  |             |
|   |                          | Infiltration Stormwate                     | er Planter          | Facility Surface Area=                   | 286.45 sqft |
|   | Surface Width            |  | _                   | Facility Surface Perimeter=              | 84.4 ft     |
|   | Surface Length=          |  |                     | Facility Bottom Area=                    | 117 sqft    |
|   | acility Side Slopes      | 3 to 1                                     |                     | Facility Bottom Perimeter=               | 66 ft       |
|   | Ponding Depth            |  |                     | Ĩ  |             |
|   | mwater Facility=         | <mark>9</mark> in                          | _                   | Basin Volume=                            | 158.8 cf    |
| Depth of Grov   | ving Medium (Soil)=      | in 2 in                                    | Ratio of Fa         | acility Area to Impervious Area=         | 0.091       |

| Pollution Reduction-Calculation Results   |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.013 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                           |
| Facility = 164 cf   | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Pollution Reduction Stan  | idards?  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D  | rawdown Time?  |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.096 cfs   | Peak Facility Overflow Rate= 0.033 cfs                           |
| Total Runoff Volume to Stormwater<br>Facility = 1263 cf   | Total Overflow Volume= 42 cf                                     |
|   | Peak Off-Site Flow Rate  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                          |
| Drawdown Time= 0.2 hours  |  |
| Pre-Development Runoff Data   |  |
| Peak Flow Rate =     0.038 cfs       Total Runoff Volume =     611 cf                             |  |
|   |  |
| Yes Facility Sizing Meets Flow Control Standards?   |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D | ite flow less or equal to Pre-Development Flow?<br>rawdown Time? |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.096 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                           |
| Facility = 1263 cf  | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 8.9 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Destination Standards?  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | rawdown Time?  |
|   |  |

| Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet         24 Hour Storm, NRCS Type 1A Rainfall Distribution         City of Eugene         Version 2.1         Project Information         Project Name:       Fairway Estates         Project Address:       18-12-15-00-01500         Florence, OR       Permit Number:         Designer:       Clint Beecroft         Company:       EGR & Associates  |  |
|--|--|
| Project Information         Project Name:       Fairway Estates         Project Name:       Fairway Estates         Project Address:       18-12-15-00-01500         Project Address:       18-12-15-00-01500         Florence, OR       Catchment ID:         Designer:       Clint Beecroft         Company:       EGR & Associates  |  |
| Project Name:       Fairway Estates       Date:       5/19/2022         Project Address:       18-12-15-00-01500       Permit Number:       NA         Florence, OR       Catchment ID:       2D         Designer:       Clint Beecroft       Catchment ID:       2D         Company:       EGR & Associates       EGR & Associates       EGR & Associates   |  |
| Project Address:       18-12-15-00-01500       Permit Number:       NA         Florence, OR       Catchment ID:       2D         Designer:       Clint Beecroft       2D         Company:       EGR & Associates       EGR & Associates  |  |
| Florence, OR     Catchment ID:       Designer:     Clint Beecroft       Company:     EGR & Associates  |  |
| Designer: <u>Clint Beecroft</u><br>Company: <u>EGR &amp; Associates</u>  |  |
| Company: <u>EGR &amp; Associates</u>   |  |
|  |  |
|  |  |
|  |  |
| Instructions:  |  |
| 1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.  |  |
| 2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate   |  |
| calculations with the facility.  |  |
| 3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)   |  |
| 4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr.   |  |
| For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.   |  |
| Design Requirements:   |  |
| Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.  |  |
|  |  |
| Pollution Reduction (PR) Yes   |  |
| Flow Control (FC) Yes  |  |
| <b>Destination (DT)</b> Yes *An infiltration facility must be chosen as the facility type to meet destination requirements   |  |
|  |  |
| Site Data-Post Development   |  |
| Total Square Footage Impervious Area= 3292 sqft Total Square Footage Pervious Area= 0 sqft   |  |
| Impervious Area CN= 98 Pervious Area CN= 85  |  |
|  |  |
| Total Square Footage of Drainage Area= 3292 sft Time of Concentration Post Development= 5 min  |  |
| Weighted Average CN= 98  |  |
| Site Data-Pre Development (Data in this section is only used if Flow Control is required)  |  |
|  |  |
| Pre-Development CN= 73 Time of Concentration Pre-Development= 10 min   |  |
|  |  |
| Soil Data  |  |
| Soil Data Tested Soil Infiltration Rate= 10 in/hr (See Note 4) Destination Design= 5 in/hr   |  |
|  |  |
| Tested Soil Infiltration Rate= 10 in/hr (See Note 4) Destination Design= 5 in/hr   |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       4 in/hr       Soil Infiltration Rate         Design Storms Used For Calculations       Infiltration Rate       Infiltration Rate   |  |
| Tested Soil Infiltration Rate= 10 in/hr (See Note 4)       Destination Design= 5 in/hr         Design Soil Infiltration Rate= 4 in/hr       Soil Infiltration Rate         Design Storms Used For Calculations       Requirement         Requirement       Rainfall Depth       Design Storm   |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       Design Soil Infiltration Rate=       Dim/hr         Design Storms Used For Calculations         Requirement       Rainfall Depth       Design Storm         Pollution Reduction       0.8 inches       Water Quality   |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Storms Used For Calculations         Requirement       Rainfall Depth       Design Storm         Pollution Reduction       0.8 inches       Water Quality         Flow Control       5.1 inches       Flood Control  |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Storms Used For Calculations         Requirement       Rainfall Depth       Design Storm         Pollution Reduction       0.8 inches       Water Quality         Flow Control       5.1 inches       Flood Control         Destination       5.1 inches       Flood Control   |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Storms Used For Calculations         Requirement       Rainfall Depth       Design Storm         Pollution Reduction       0.8 inches       Water Quality         Flow Control       5.1 inches       Flood Control  |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Storms Used For Calculations         Requirement       Rainfall Depth       Design Storm         Pollution Reduction       0.8 inches       Water Quality         Flow Control       5.1 inches       Flood Control         Destination       5.1 inches       Flood Control   |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Storms Used For Calculations         Requirement       Rainfall Depth       Design Storm         Pollution Reduction       0.8 inches       Water Quality         Flow Control       5.1 inches       Flood Control         Destination       5.1 inches       Flood Control         Destination       5.1 inches       Flood Control         Facility Data         Facility Type=       Infiltration Stormwater Planter       Facility Surface Area=       299.2       sqft         Surface Width=       8.5 ft       Facility Surface Perimeter=       87.4 ft |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Storms Used For Calculations         Requirement       Rainfall Depth       Design Storm         Pollution Reduction       0.8 inches       Water Quality       Elood Control       Destination       5.1 inches       Flood Control         Destination       5.1 inches       Flood Control         Destination       5.1 inches       Flood Control         Destination       5.1 inches       Flood Control         Facility Data         Facility Type=       Infiltration Stormwater Planter       Facility Surface Area=       209.2       sqft           |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Storms Used For Calculations         Requirement       Rainfall Depth       Design Storm         Pollution Reduction       0.8 inches       Water Quality         Flow Control       5.1 inches       Flood Control         Destination       5.1 inches       Flood Control         Facility Data       Facility Type=       Infiltration Stormwater Planter       Facility Surface Area=       299.2 sqft         Surface Width=       8.5 ft       Facility Surface Perimeter=       87.4 ft         Surface Length=       35.2 ft       Facility Bottom Area=       123 sqft         Facility Side Slopes=       3 to 1       Facility Bottom Perimeter=       69 ft    |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Storms Used For Calculations         Requirement       Rainfall Depth       Design Storm         Pollution Reduction       0.8 inches       Water Quality         Flow Control       5.1 inches       Flood Control         Destination       5.1 inches       Flood Control         Facility Data       Facility Type=       Infiltration Stormwater Planter       Facility Surface Area=       299.2 sqft         Surface Width=       8.5 ft       Facility Surface Perimeter=       87.4 ft         Surface Length=       35.2 ft       Facility Bottom Area=       123 sqft         Facility Side Slopes=         Max. Ponding Depth       To 1                        |  |
| Tested Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Soil Infiltration Rate=       10 in/hr (See Note 4)       Destination Design=       5 in/hr         Design Storms Used For Calculations         Requirement       Rainfall Depth       Design Storm         Pollution Reduction       0.8 inches       Water Quality         Flow Control       5.1 inches       Flood Control         Destination       5.1 inches       Flood Control         Facility Data       Facility Type=       Infiltration Stormwater Planter       Facility Surface Area=       299.2 sqft         Surface Width=       8.5 ft       Facility Surface Perimeter=       87.4 ft         Surface Length=       35.2 ft       Facility Bottom Area=       123 sqft         Facility Side Slopes=       3 to 1       Facility Bottom Perimeter=       69 ft    |  |

| Pollution Reduction-Calculation Results  |   |  |  |  |
|--|---|--|--|--|
| Peak Flow Rate to Stormwater Facility = 0.014 cfs<br>Total Runoff Volume to Stormwater   | Peak Facility Overflow Rate= 0.000 cfs                              |  |  |  |
| Facility = 172 cf  | Total Overflow Volume= 0 cf   |  |  |  |
| Max. Depth of Stormwater in Facility= 0.0 in   |   |  |  |  |
| Drawdown Time= 0.2 hours   |   |  |  |  |
| Yes Facility Sizing Meets Pollution Reduction Sta  | ndards?   |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour   | Drawdown Time?  |  |  |  |
| Flow Control-Calculation Results   |   |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.101 cfs<br>Total Runoff Volume to Stormwater   | Peak Facility Overflow Rate=0.034 cfs                               |  |  |  |
| Facility = 1320 cf   | Total Overflow Volume= 44 cf  |  |  |  |
|  | Peak Off-Site Flow Rate   |  |  |  |
| Max. Depth of Stormwater in Facility= 9.0 in   | Filtration Facility Underdrain= N\A cfs                             |  |  |  |
| Drawdown Time= 0.2 hours   |   |  |  |  |
| <u>Pre-Development Runoff Data</u><br>Peak Flow Rate = 0.040 cfs<br>Total Runoff Volume = 639 cf<br>Yes Facility Sizing Meets Flow Control Standards | ?   |  |  |  |
| YES Meets Requirement for Post Development of<br>YES Meets Requirement for Maximum of 18 Hour  | isite flow less or equal to Pre-Development Flow?<br>Drawdown Time? |  |  |  |
| Destination-Calculation Results  |   |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.101 cfs<br>Total Runoff Volume to Stormwater   | Peak Facility Overflow Rate= 0.000 cfs                              |  |  |  |
| Facility = 1320 cf   | Total Overflow Volume= 0 cf   |  |  |  |
| Max. Depth of Stormwater in Facility= 8.9 in   |   |  |  |  |
| Drawdown Time= 0.2 hours   |   |  |  |  |
| Yes Facility Sizing Meets Destination Standards?   |   |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour Drawdown Time?  |   |  |  |  |
|  |   |  |  |  |

| EUGENE   | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene   |  |                     |  |                              |  |  |  |
|--|---|--|---------------------|--|------------------------------|--|--|--|
|  | Version 2.1   |  |                     |  |                              |  |  |  |
| Project Information  |   |  |                     |  |                              |  |  |  |
| Project Name:  | Fairway Estates   |  |                     | Date: <u>5/19/2022</u>                               |                              |  |  |  |
| Project Address:   | <u>18-12-15-00-01500</u>  |  |                     | Permit Number: <u>NA</u>                             |                              |  |  |  |
|  | Florence, OR  |  |                     | Catchment ID: <u>2E</u>                              |                              |  |  |  |
| Designer:  | Clint Beecroft  |  |                     |  |                              |  |  |  |
| Company:   | EGR & Associates  |  |                     |  |                              |  |  |  |
| Instructions   |   |  |                     |  |                              |  |  |  |
| <ol> <li>Complete this form for</li> <li>Provide a distinctive C<br/>calculations with the fa</li> <li>The maximum drainag</li> <li>For infiltration facilities</li> </ol> | <ol> <li>Instructions:</li> <li>Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.</li> <li>Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.</li> <li>The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)</li> <li>For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.</li> </ol> |  |                     |  |                              |  |  |  |
| Design Requirements:   |   |  |                     |  |                              |  |  |  |
| Choose "Yes" from the d  | ropdown boxes belov   | v next to the design stan                | dards requirem      | ents for this facility.                              |                              |  |  |  |
| Pollution Reducti<br>Flow Cont<br>Destinati  | rol (FC) Yes  | *An infiltration facility must be        | chosen as the facil | ty type to meet destination requirements             |                              |  |  |  |
| Site Data-Post Develop   | ment  |  |                     |  |                              |  |  |  |
| Total Square Footag<br>In  | e Impervious Area=<br>pervious Area CN=   | <mark>1952</mark> sqft<br>98             | Total               | Square Footage Pervious Area=<br>Pervious Area CN=   | 0 sqft<br>85                 |  |  |  |
| Total Square Footag<br>Wei   | e of Drainage Area=<br>ghted Average CN=  | 1952 sft<br>98                           | Time of Co          | ncentration Post Development=                        | 5 min                        |  |  |  |
| Site Data-Pre Developn   | nent (Data in th  | is section is only used                  | l if Flow Contr     | ol is required)                                      |                              |  |  |  |
|  | e-Development CN=   | 73                                       | Time of C           | oncentration Pre-Development=                        | 10 min                       |  |  |  |
| Soil Data  |   |  |                     |  |                              |  |  |  |
|  | oil Infiltration Rate=<br>oil Infiltration Rate=  | <mark>10</mark> in/hr (See No<br>4 in/hr | ote 4)              | Destination Design=<br>Soil Infiltration Rate        |                              |  |  |  |
| Design Storms Used Fo  | or Calculations   |  |                     |  |                              |  |  |  |
| Poquiromont  | Rainfall Depth  | Dosign Storm                             |                     |  |                              |  |  |  |
| Requirement Pollution Reduction  | 0.8 inches  | Design Storm<br>Water Quality            |                     |  |                              |  |  |  |
| Flow Control   | 5.1 inches  | Flood Control                            |                     |  |                              |  |  |  |
| Destination  | 5.1 inches  | Flood Control                            |                     |  |                              |  |  |  |
| Facility Data  | •   |  |                     |  |                              |  |  |  |
|  | Facility Tra  |  | n Diante i          | Faailite Oranfaare A                                 | 400.0                        |  |  |  |
|  | Facility Type=<br>Surface Width=  | Infiltration Stormwate<br>8.5 ft         | rPlanter            | Facility Surface Area=                               | <u>180.2</u> sqft<br>59.4 ft |  |  |  |
|  | Surface Width=  | 21.2 ft                                  |                     | Facility Surface Perimeter=<br>Facility Bottom Area= |                              |  |  |  |
| F  | acility Side Slopes=  | 3 to 1                                   |                     | Facility Bottom Perimeter=                           |                              |  |  |  |
|  | Ponding Depth   |  |                     | - adding Bottom Formeter-                            |                              |  |  |  |
| in Stor  | mwater Facility=<br>/ing Medium (Soil)=   | <mark>9</mark> in<br>2 in                | Ratio of F          | Basin Volume=<br>acility Area to Impervious Area=    |                              |  |  |  |
| Deptil of Glow   |   | <b></b>                                  |                     | acinty Area to impervious Area-                      | 0.032                        |  |  |  |

| Pollution Reduction-Calculation Results   |   |
|---|---|
| Peak Flow Rate to Stormwater Facility = 0.008 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                            |
| Facility = 102 cf   | Total Overflow Volume= 0 cf                                       |
| Max. Depth of Stormwater in Facility= 0.1 in  |   |
| Drawdown Time= 0.2 hours  |   |
| Yes Facility Sizing Meets Pollution Reduction Star  | ndards?   |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D  | Prawdown Time?  |
| Flow Control-Calculation Results  |   |
| Peak Flow Rate to Stormwater Facility = 0.060 cfs   | Peak Facility Overflow Rate= 0.020 cfs                            |
| Total Runoff Volume to Stormwater   |   |
| Facility = 783 cf   | Total Overflow Volume= 25 cf                                      |
|   | Peak Off-Site Flow Rate   |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                           |
| Drawdown Time= 0.2 hours  |   |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.024 cfs<br>Total Runoff Volume = 379 cf         |   |
| Yes Facility Sizing Meets Flow Control Standards?   | ?   |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D | ite flow less or equal to Pre-Development Flow?<br>Prawdown Time? |
| Destination-Calculation Results   |   |
| Peak Flow Rate to Stormwater Facility = 0.060 cfs   | Peak Facility Overflow Rate= 0.000 cfs                            |
| Total Runoff Volume to Stormwater<br>Facility = 783 cf  | Total Overflow Volume= 0 cf                                       |
| Facility =     783 cf       Max. Depth of Stormwater in Facility=     8.9 in                      | Total Overflow Volume=0cf   |
| Drawdown Time= 0.2 hours  |   |
|   |   |
| Yes Facility Sizing Meets Destination Standards?  |   |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | rawdown Time?   |
|   |   |

| EUGENE  | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |                            |   |                                 |  |                     |                           |
|---|---|----------------------------|---|---------------------------------|--|---------------------|---------------------------|
|   | Version   | 2.1                        |   |                                 |  |                     |                           |
| Project Information   |   |                            |   |                                 |  |                     |                           |
| Project Name:   | <b>Fairway</b>  | Estates                    |   |                                 | Date: <u>5/19</u>                                | /2022               |                           |
| Project Address:  | <u>18-12-15</u>   | <u>5-00-01500</u>          |   |                                 | Permit Number: <u>NA</u>                         |                     |                           |
|   | <b>Florence</b>   | e, OR                      |   |                                 | Catchment ID: 2F                                 |                     |                           |
| Designer:   | Clint Be  | ecroft                     |   |                                 |  |                     |                           |
| Company:  | EGR & A   | Associates                 |   |                                 |  |                     |                           |
|   |   |                            |   |                                 |  |                     |                           |
| Instructions:   |   |                            |   |                                 |  |                     |                           |
| <ol> <li>Complete this form for<br/>2. Provide a distinctive C<br/>calculations with the fa<br/>3. The maximum drainag<br/>4.For infiltration facilities</li> </ol> | atchment<br>acility.<br>je catchm   | ID for each<br>ent to be m | facility coordinated with<br>odeled per the Presump | the site basin<br>tive Approach | map to correlate the app<br>s 1 acre (43,560 SF) | propriate           | n/hr                      |
|   |   |                            | ion rate of 2.5 in/hr for to                        |                                 |  |                     |                           |
|   |   | 30111111111                |   | psoli/growing i                 |  |                     |                           |
| Design Requirements:  |   |                            |   |                                 |  |                     |                           |
| Choose "Yes" from the d   | ropdown   | boxes belov                | v next to the design stan                           | dards requirem                  | ents for this facility.                          |                     |                           |
| Pollution Reducti<br>Flow Cont<br>Destinati   | rol (FC)  | Yes                        | *An infiltration facility must be                   | chosen as the facil             | ity type to meet destination requ                | uirements           |                           |
| Site Data-Post Develop  | ment  |                            |   |                                 |  |                     |                           |
| Total Square Footag<br>In   | -   | ious Area=<br>s Area CN=   | <mark>4970</mark> sqft<br>98                        | Total                           | Square Footage Pervio<br>Pervious /              |                     | <mark>0</mark> sqft<br>85 |
| Total Square Footag<br>Wei  |   | nage Area=<br>erage CN=    | 4970 sft<br>98                                      | Time of Co                      | ncentration Post Devel                           | opment=             | 5 min                     |
| Site Data-Pre Developn  | nent  | (Data in th                | is section is only used                             | l if Flow Contr                 | ol is required)                                  |                     |                           |
|   | e-Develop   | oment CN=                  | 73  | Time of C                       | oncentration Pre-Devel                           | opment=             | 10 min                    |
| Soil Data   |   |                            |   |                                 |  |                     |                           |
|   |   | ition Rate=<br>ition Rate= | <mark>10</mark> in/hr (See No<br>4 in/hr            | ote 4)                          | Destination<br>Soil Infiltra                     |                     | 5 in/hr                   |
| Design Storms Used Fo   | or Calcula  | ations                     |   |                                 |  |                     |                           |
|   |   |                            | Decime Otome  |                                 |  |                     |                           |
| Requirement   |   | all Depth                  | Design Storm  |                                 |  |                     |                           |
| Pollution Reduction   |   | inches                     | Water Quality                                       |                                 |  |                     |                           |
| Flow Control<br>Destination   |   | inches<br>inches           | Flood Control<br>Flood Control                      |                                 |  |                     |                           |
|   | 5.1   | inches                     |   |                                 |  |                     |                           |
| Facility Data   |   |                            |   |                                 |  |                     |                           |
|   | Fac   | ility Type=                | Infiltration Stormwate                              | r Planter                       | Facility Surfa                                   | ce Area=            | 425.25 sqft               |
|   | Surfa   | ce Width=                  | 10.5 ft   |                                 | Facility Surface Pe                              | erimeter=           | 102 ft                    |
|   |   | e Length=                  | <mark>40.5</mark> ft                                |                                 | Facility Botto                                   |                     | 216 sqft                  |
|   | -   | le Slopes=                 | 3 to 1  |                                 | Facility Bottom Pe                               | erimeter=           | 84 ft                     |
|   | Ponding   |                            |   |                                 |  |                     |                           |
| in Stor<br>Depth of Grow  | mwater F<br>ving Medi   | -                          | 9 in<br>2 in  | Ratio of F                      | Basin<br>acility Area to Impervio                | Volume=<br>us Area= | 248.1 cf<br>0.086         |
|   | -   |                            | I   |                                 |  |                     |                           |

| Pollution Reduction-Calculation Results   |  |  |  |  |
|---|--|--|--|--|
| Peak Flow Rate to Stormwater Facility =       0.021         Cfs       Total Runoff Volume to Stormwater       | Peak Facility Overflow Rate= 0.000 cfs                           |  |  |  |
| Facility = 259 cf   | Total Overflow Volume= 0 cf                                      |  |  |  |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |
| Yes Facility Sizing Meets Pollution Reduction Star  | idards?  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D              | rawdown Time?  |  |  |  |
| Flow Control-Calculation Results  |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.152 cfs   | Peak Facility Overflow Rate= 0.049 cfs                           |  |  |  |
| Total Runoff Volume to Stormwater   |  |  |  |  |
| Facility = 1993 cf  | Total Overflow Volume= 70 cf                                     |  |  |  |
|   | Peak Off-Site Flow Rate  |  |  |  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                          |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.060 cfs<br>Total Runoff Volume = 964 cf                     |  |  |  |  |
| Yes Facility Sizing Meets Flow Control Standards?   |  |  |  |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D             | ite flow less or equal to Pre-Development Flow?<br>rawdown Time? |  |  |  |
| Destination-Calculation Results   |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.152 cfs<br>Total Runoff Volume to Stormwater                        | Peak Facility Overflow Rate= 0.000 cfs                           |  |  |  |
| Facility = 1993 cf  | Total Overflow Volume=0 cf                                       |  |  |  |
| Max. Depth of Stormwater in Facility= 8.9 in  |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |
| Yes Facility Sizing Meets Destination Standards?  |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour Drawdown Time? |  |  |  |  |
|   |  |  |  |  |

| EUGENE   | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene   |  |                     |   |                        |  |  |  |
|--|---|--|---------------------|---|------------------------|--|--|--|
|  | Version 2.1   |  |                     |   |                        |  |  |  |
| Project Information  |   |  |                     |   |                        |  |  |  |
| Project Name:  | Fairway Estates   |  |                     | Date: <u>5/19/2022</u>                                |                        |  |  |  |
| Project Address:   | <u>18-12-15-00-01500</u>  |  |                     | Permit Number: <u>NA</u>                              |                        |  |  |  |
|  | Florence, OR  |  |                     | Catchment ID: <u>3A</u>                               |                        |  |  |  |
| Designer:  | Clint Beecroft  |  |                     |   |                        |  |  |  |
| Company:   | EGR & Associates  |  |                     |   |                        |  |  |  |
| Instructions   |   |  |                     |   |                        |  |  |  |
| <ol> <li>Complete this form for</li> <li>Provide a distinctive C<br/>calculations with the fa</li> <li>The maximum drainag</li> <li>For infiltration facilities</li> </ol> | <ol> <li>Instructions:</li> <li>Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.</li> <li>Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.</li> <li>The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)</li> <li>For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.</li> </ol> |  |                     |   |                        |  |  |  |
| Design Requirements:   |   |  |                     |   |                        |  |  |  |
| Choose "Yes" from the d  | ropdown boxes belov   | v next to the design stan                | dards requirem      | ents for this facility.                               |                        |  |  |  |
| Pollution Reducti<br>Flow Cont<br>Destinati  | rol (FC) Yes  | *An infiltration facility must be        | chosen as the facil | ity type to meet destination requirements             |                        |  |  |  |
| Site Data-Post Develop   | ment  |  |                     |   |                        |  |  |  |
| Total Square Footag<br>In  | e Impervious Area=<br>npervious Area CN=  | <mark>3154</mark> sqft<br>98             | Total               | Square Footage Pervious Area=<br>Pervious Area CN=    | 0 sqft<br>85           |  |  |  |
| Total Square Footag<br>Wei   | e of Drainage Area=<br>ghted Average CN=  | 3154 sft<br>98                           | Time of Co          | ncentration Post Development=                         | <mark>5</mark> min     |  |  |  |
| Site Data-Pre Developn   | nent (Data in th  | is section is only used                  | l if Flow Contr     | ol is required)                                       |                        |  |  |  |
|  | e-Development CN=   | 73                                       | Time of C           | oncentration Pre-Development=                         | 10 min                 |  |  |  |
| Soil Data  |   |  |                     |   |                        |  |  |  |
|  | oil Infiltration Rate=<br>oil Infiltration Rate=  | <mark>10</mark> in/hr (See No<br>4 in/hr | ote 4)              | Destination Design=<br>Soil Infiltration Rate         | 5 in/hr                |  |  |  |
| Design Storms Used Fo  | or Calculations   |  |                     |   |                        |  |  |  |
| Requirement  | Rainfall Depth  | Design Storm                             |                     |   |                        |  |  |  |
| Pollution Reduction  | 0.8 inches  | Water Quality                            |                     |   |                        |  |  |  |
| Flow Control   | 5.1 inches  | Flood Control                            |                     |   |                        |  |  |  |
| Destination  | 5.1 inches  | Flood Control                            |                     |   |                        |  |  |  |
| Facility Data  | <u> </u>  |  |                     |   |                        |  |  |  |
|  | Essility Type=  | Infiltration Stormusta                   | r Diantor           | Egoility Surface Area-                                | 286.45 ooff            |  |  |  |
|  | Surface Width=  | Infiltration Stormwate<br>8.5 ft         | rianter             | Facility Surface Area=<br>Facility Surface Perimeter= | 286.45 sqft<br>84.4 ft |  |  |  |
|  | Surface Length=   | 33.7 ft                                  |                     | Facility Bottom Area=                                 | 117 sqft               |  |  |  |
| F  | acility Side Slopes=  | 3 to 1                                   |                     | Facility Bottom Perimeter=                            | 66 ft                  |  |  |  |
|  | Ponding Depth   |  |                     |   |                        |  |  |  |
| in Stor  | mwater Facility=<br>ving Medium (Soil)=   | <mark>9</mark> in<br>2 in                | Ratio of F          | Basin Volume=<br>acility Area to Impervious Area=     | 158.8 cf<br>0.091      |  |  |  |
|  |   |  |                     |   |                        |  |  |  |

| Pollution Reduction-Calculation Results   |   |  |  |  |  |
|---|---|--|--|--|--|
| Peak Flow Rate to Stormwater Facility = 0.013 cfs<br>Total Runoff Volume to Stormwater                        | Peak Facility Overflow Rate= 0.000 cfs                                  |  |  |  |  |
| Facility = 164 cf   | Total Overflow Volume=0 cf  |  |  |  |  |
| Max. Depth of Stormwater in Facility= 0.0 in  |   |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
| Yes Facility Sizing Meets Pollution Reduction St  | tandards?   |  |  |  |  |
| YES Meets Requirement of No Facility Flooding<br>YES Meets Requirement for Maximum of 18 Hou                  |   |  |  |  |  |
| Flow Control-Calculation Results  |   |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.097 cfs   | Peak Facility Overflow Rate= 0.033 cfs                                  |  |  |  |  |
| Total Runoff Volume to Stormwater   |   |  |  |  |  |
| Facility = 1265 cf  | Total Overflow Volume= 42 cf  |  |  |  |  |
|   | Peak Off-Site Flow Rate   |  |  |  |  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                                 |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
| <u>Pre-Development Runoff Data</u><br>Peak Flow Rate = 0.038 cfs<br>Total Runoff Volume = 612 cf              |   |  |  |  |  |
| Yes Facility Sizing Meets Flow Control Standard   | ls?   |  |  |  |  |
| YES Meets Requirement for Post Development of YES Meets Requirement for Maximum of 18 Hou                     | offsite flow less or equal to Pre-Development Flow?<br>r Drawdown Time? |  |  |  |  |
| Destination-Calculation Results   |   |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.097 cfs   | Peak Facility Overflow Rate= 0.000 cfs                                  |  |  |  |  |
| Total Runoff Volume to Stormwater<br>Facility = 1265 cf   | Total Overflow Volume= 0 cf   |  |  |  |  |
| Max. Depth of Stormwater in Facility= 8.9 in  |   |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
| Yes Facility Sizing Meets Destination Standards   | ?   |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour Drawdown Time? |   |  |  |  |  |
|   |   |  |  |  |  |

| EUGENE   | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |   |  |  |  |
|--|---|---|--|--|--|
|  | Version 2.1   |   |  |  |  |
| Project Information  |   |   |  |  |  |
| Project Name:  | Fairway Estate  | <u>es</u>   | Date: <u>5/19/2022</u>   |  |  |
| Project Address:   | <u>18-12-15-00-01</u>   | <u>1500</u>   | Permit Number: <u>NA</u>   |  |  |
|  | Florence, OR  |   | Catchment ID: <u>3B</u>  |  |  |
| Designer:  | Clint Beecroft  |   |  |  |  |
| Company:   | EGR & Associ  | ates  |  |  |  |
|  |   |   |  |  |  |
| Instructions:  |   |   |  |  |  |
| 1. Complete this form for  | r each drainage   | catchment in the project site   | e that is to be sized per the Presumptive Approach.              |  |  |
| 2. Provide a distinctive C   | atchment ID for   | each facility coordinated with  | ith the site basin map to correlate the appropriate              |  |  |
| calculations with the fa   | acility.  |   |  |  |  |
| 3. The maximum drainag   | ge catchment to   | be modeled per the Presum   | nptive Approach is 1 acre (43,560 SF)                            |  |  |
| 4.For infiltration facilities  | in Class A or B   | soils where no infiltration tes   | esting has been perfromed use an infiltration rate of 0.5 in/hr. |  |  |
| For all facilities use a   | maximum soil in   | filtration rate of 2.5 in/hr for  | topsoil/growing medium.  |  |  |
| Design Requirements:   |   |   |  |  |  |
| Choose "Yes" from the c  | lropdown boxes  | below next to the design sta  | andards requirements for this facility.                          |  |  |
|  |   |   |  |  |  |
| Pollution Reducti  |   | es a la companya de la compan |  |  |  |
| Flow Cont  | rol (FC) Ye   | <mark>S </mark>   |  |  |  |
| Destinati  | on (DT) Ye  | S *An infiltration facility must b  | be chosen as the facility type to meet destination requirements  |  |  |
|  |   |   |  |  |  |
| Site Data-Post Develop   | ment  |   |  |  |  |
| Total Square Footag  | e Impervious A  | <b>rea= 1986</b> sqft   | Total Square Footage Pervious Area=0sqft                         |  |  |
| Total Square Footage Impervious Area       1986       sqft       Total Square Footage Pervious Area       0       sqft         Impervious Area CN=       98       Pervious Area CN=       85 |   |   |  |  |  |
|  | ipervious Area  | <b>UN</b> - 30  |  |  |  |
| Total Square Footag  | e of Drainage A   | <b>rea=</b> 1986 sft  | Time of Concentration Post Development= 5 min                    |  |  |
|  | ghted Average   |   |  |  |  |
|  |   |   |  |  |  |
| Site Data-Pre Developn   | nent (Data  | in this section is only use   | ed if Flow Control is required)                                  |  |  |
| Pr   | e-Development   | CN= 73  | Time of Concentration Pre-Development= 10 min                    |  |  |
| Soil Data  |   |   |  |  |  |
| Tested S   | oil Infiltration R  | ate= <u>10</u> in/hr (See N   | Note 4) Destination Design= 5 in/hr                              |  |  |
|  | oil Infiltration R  |   | Soil Infiltration Rate   |  |  |
| Design Storms Used F   |   |   |  |  |  |
|  |   |   |  |  |  |
| Requirement  | Rainfall Dep  | <b>V</b>  |  |  |  |
| Pollution Reduction  | 0.8 inche   |   |  |  |  |
| Flow Control   | 5.1 inche   |   |  |  |  |
| Destination  | 5.1 inche   | s Flood Control   |  |  |  |
| Facility Data  |   |   |  |  |  |
|  | Facility T  | ype= Infiltration Stormwat  | ter Planter Facility Surface Area= 180.4 sqft                    |  |  |
|  | Surface Wi  |   | Facility Surface Perimeter= 54.8 ft                              |  |  |
|  | Surface Len   |   | Facility Bottom Area= 77 sqft                                    |  |  |
| -  | acility Side Slo  | -   | Facility Bottom Perimeter= 37 ft                                 |  |  |
|  | Ponding Depth   |   |  |  |  |
|  | mwater Facility   |   | Basin Volume= 104.3 cf   |  |  |
|  | ving Medium (S  |   | Ratio of Facility Area to Impervious Area 0.091                  |  |  |
| Depth of Glov  |   | ~/  |  |  |  |

| Pollution Reduction-Calculation Results   |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.008 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                             |
| Facility = 104 cf   | Total Overflow Volume= 0 cf  |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Pollution Reduction Star  | ndards?  |
| YES Meets Requirement of No Facility Flooding?  |  |
| YES Meets Requirement for Maximum of 18 Hour D  | Prawdown Time?   |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.061 cfs   | Peak Facility Overflow Rate= 0.014 cfs                             |
| Total Runoff Volume to Stormwater   |  |
| Facility = 797 cf   | Total Overflow Volume= 23 cf                                       |
|   | Peak Off-Site Flow Rate  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                            |
| Drawdown Time= 0.2 hours  |  |
| Pre-Development Runoff DataPeak Flow Rate =0.024 cfsTotal Runoff Volume =385 cf                   |  |
| Yes Facility Sizing Meets Flow Control Standards  | ?  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D | site flow less or equal to Pre-Development Flow?<br>Drawdown Time? |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.061 cfs<br>Total Runoff Volume to Stormwater            | Peak Facility Overflow Rate= 0.000 cfs                             |
| Facility = 797 cf   | Total Overflow Volume= 0 cf  |
| Max. Depth of Stormwater in Facility= 8.7 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Destination Standards?  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | rawdown Time?  |
|   |  |

| EUGENE                          | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |                                   |                     |   |             |
|---------------------------------|---|-----------------------------------|---------------------|---|-------------|
|                                 | Version 2.1   |                                   |                     |   |             |
| Project Information             |   |                                   |                     |   |             |
| Project Name:                   | Fairway Estates   |                                   |                     | Date: <u>5/19/2022</u>                    |             |
| Project Address:                | <u>18-12-15-00-01500</u>  |                                   |                     | Permit Number: <u>NA</u>                  |             |
|                                 | Florence, OR  |                                   |                     | Catchment ID: <u>3C</u>                   |             |
| Designer:                       | Clint Beecroft  |                                   |                     |   |             |
| Company:                        | EGR & Associates  |                                   |                     |   |             |
| Instructions                    |   |                                   |                     |   |             |
| Instructions:                   |   |                                   |                     |   |             |
|                                 | -   |                                   |                     | ed per the Presumptive Approach.          |             |
|                                 |   | facility coordinated with         | i the site basin    | map to correlate the appropriate          |             |
| calculations with the fa        | ,   | adalad nor the Broqump            | tivo Approach i     | a 1 aaro (12 560 SE)                      |             |
| 3. The maximum drainag          |   |                                   |                     | erfromed use an infiltration rate of      | 0.5 ip/br   |
|                                 |   | ion rate of 2.5 in/hr for to      |                     |   | 0.5 m/m.    |
|                                 |   |                                   |                     | nedidin.                                  |             |
| Design Requirements:            |   |                                   |                     |   |             |
| Choose "Yes" from the d         | ropdown boxes belov   | v next to the design stan         | dards requirem      | ents for this facility.                   |             |
| Pollution Reducti               | on (PR) Yes   |                                   |                     |   |             |
| Flow Cont                       |   |                                   |                     |   |             |
|                                 | · · ·   |                                   |                     |   |             |
| Destinati                       |   | *An infiltration facility must be | chosen as the facil | ity type to meet destination requirements |             |
| Site Data-Post Develop          | ment  |                                   |                     |   |             |
|                                 |   | 2050                              |                     |   |             |
| Total Square Footag             | -   | 3250 sqft                         | Total               | Square Footage Pervious Area=             | 0 sqft      |
| In                              | pervious Area CN=   | 98                                |                     | Pervious Area CN=                         | 85          |
| Total Square Footag             | of Drainago Aroa-   | 3250 sft                          | Time of Co          | noontration Boot Dovelopment-             | 5 min       |
| Total Square Footage            | ghted Average CN=   | 98                                | Time of Co          | ncentration Post Development=             | <b>.</b>    |
|                                 |   |                                   |                     |   |             |
| Site Data-Pre Developn          | nent (Data in th  | is section is only used           | l if Flow Contr     | ol is required)                           |             |
| Pre                             | e-Development CN=   | 73                                | Time of C           | oncentration Pre-Development=             | 10 min      |
| Soil Data                       |   |                                   |                     |   |             |
| Tested S                        | oil Infiltration Rate=  | 10 in/hr (See No                  | ote 4)              | Destination Design=                       | 5 in/hr     |
| Design S                        | oil Infiltration Rate=  | 4 in/hr                           |                     | Soil Infiltration Rate                    |             |
| Design Storms Used Fo           | or Calculations   |                                   |                     |   |             |
|                                 |   | Decision Storm                    |                     |   |             |
| Requirement Pollution Reduction | Rainfall Depth<br>0.8 inches  | Design Storm<br>Water Quality     |                     |   |             |
| Flow Control                    | 5.1 inches  | Flood Control                     |                     |   |             |
| Destination                     | 5.1 inches  | Flood Control                     |                     |   |             |
|                                 | 0.1 110100  |                                   |                     |   |             |
| Facility Data                   |   |                                   |                     |   |             |
|                                 |   | Infiltration Stormwate            | r Planter           | Facility Surface Area=                    | 294.95 sqft |
|                                 | Surface Width=  | 8.5 ft                            |                     | Facility Surface Perimeter=               | 86.4 ft     |
|                                 | Surface Length=   | 34.7 ft                           |                     | Facility Bottom Area=                     | 121 sqft    |
|                                 | acility Side Slopes=  | 3 to 1                            |                     | Facility Bottom Perimeter=                | 68 ft       |
|                                 | Ponding Depth   |                                   |                     | Desir Values-                             | 162 E of    |
|                                 | mwater Facility=  | <mark>9</mark> in<br>2 in         | Datis of F          | Basin Volume=                             | 163.5 cf    |
| Depth of Grov                   | /ing Medium (Soil)=   | <mark>2</mark> in                 | Ratio of Fa         | acility Area to Impervious Area=          | 0.091       |

| Pollution Reduction-Calculation Results   |  |
|---|--|
| Peak Flow Rate to Stormwater Facility = 0.013 cfs   | Peak Facility Overflow Rate= 0.000 cfs                           |
| Total Runoff Volume to Stormwater   |  |
| Facility = 169 cf   | Total Overflow Volume= 0 cf                                      |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |
| Drawdown Time= 0.2 hours  |  |
| Yes Facility Sizing Meets Pollution Reduction Star  | ndards?  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D  | vrawdown Time?   |
| Flow Control-Calculation Results  |  |
| Peak Flow Rate to Stormwater Facility = 0.099 cfs   | Peak Facility Overflow Rate= 0.034 cfs                           |
| Total Runoff Volume to Stormwater   |  |
| Facility = 1304 cf  | Total Overflow Volume= 43 cf                                     |
|   | Peak Off-Site Flow Rate  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                          |
| Drawdown Time= 0.2 hours  |  |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.039 cfs<br>Total Runoff Volume = 630 cf         |  |
| Yes Facility Sizing Meets Flow Control Standards?   |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D | ite flow less or equal to Pre-Development Flow?<br>rawdown Time? |
| Destination-Calculation Results   |  |
| Peak Flow Rate to Stormwater Facility = 0.099 cfs   | Peak Facility Overflow Rate= 0.000 cfs                           |
| Total Runoff Volume to Stormwater<br>Facility = 1304 cf   | Total Overflow Volume= 0 cf                                      |
| Facility =     1304 cf       Max. Depth of Stormwater in Facility=     8.9 in                     | Total Overflow Volume=0cf  |
| Drawdown Time= 0.2 hours  |  |
|   |  |
| Yes Facility Sizing Meets Destination Standards?  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | rawdown Time?  |
|   |  |

| EUGENE                        | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |                                   |                    |   |                  |  |  |
|-------------------------------|---|-----------------------------------|--------------------|---|------------------|--|--|
|                               | Version 2.1   |                                   |                    |   |                  |  |  |
| Project Information           |   |                                   |                    |   |                  |  |  |
| Project Name:                 | Fairway Estates   |                                   |                    | Date: <u>5/10/2022</u>                    |                  |  |  |
| Project Address:              | <u>18-12-15-00-01500</u>  |                                   |                    | Permit Number: <u>NA</u>                  |                  |  |  |
|                               | Florence, OR  |                                   |                    | Catchment ID: <u>3D</u>                   |                  |  |  |
| Designer:                     | Clint Beecroft  |                                   |                    |   |                  |  |  |
| Company:                      | EGR & Associates  |                                   |                    |   |                  |  |  |
|                               |   |                                   |                    |   |                  |  |  |
| Instructions:                 |   |                                   |                    |   |                  |  |  |
| 1. Complete this form for     | · each drainage catch   | ment in the project site t        | that is to be siz  | ed per the Presumptive Approac            | h.               |  |  |
| 2. Provide a distinctive C    | atchment ID for each  | facility coordinated with         | the site basin     | map to correlate the appropriate          |                  |  |  |
| calculations with the fa      | acility.  |                                   |                    |   |                  |  |  |
| 3. The maximum drainag        | e catchment to be m   | odeled per the Presump            | tive Approach      | s 1 acre (43,560 SF)                      |                  |  |  |
| 4.For infiltration facilities | in Class A or B soils   | where no infiltration test        | ing has been p     | erfromed use an infiltration rate o       | of 0.5 in/hr.    |  |  |
| For all facilities use a      | maximum soil infiltra   | ion rate of 2.5 in/hr for to      | opsoil/growing     | nedium.                                   |                  |  |  |
| Design Requirements:          |   |                                   |                    |   |                  |  |  |
| Choose "Yes" from the d       | ropdown boxes belo  | v next to the design stan         | dards requiren     | ents for this facility.                   |                  |  |  |
|                               |   | 1                                 |                    |   |                  |  |  |
| Pollution Reducti             |   |                                   |                    |   |                  |  |  |
| Flow Cont                     |   |                                   |                    |   |                  |  |  |
| Destinati                     | on (DT) Yes   | *An infiltration facility must be | chosen as the faci | ity type to meet destination requirements |                  |  |  |
|                               | -   |                                   |                    |   |                  |  |  |
| Site Data-Post Develop        | ment  |                                   |                    |   |                  |  |  |
| Total Square Footag           | Total Square Footage Impervious Area= 4286 sqft Total Square Footage Pervious Area= 0 sqft  |                                   |                    |   |                  |  |  |
|                               | pervious Area CN=   |                                   |                    | Pervious Area CN                          |                  |  |  |
|                               |   |                                   |                    |   |                  |  |  |
| Total Square Footage          | e of Drainage Area=   | 4286 sft                          | Time of Co         | ncentration Post Development              | t= 5 min         |  |  |
|                               | ghted Average CN=   |                                   |                    | ·····                                     |                  |  |  |
| Site Data-Pre Developn        |   | is section is only used           | l if Flow Cont     | ol is required)                           |                  |  |  |
|                               | •   |                                   |                    |   |                  |  |  |
|                               | e-Development CN=   | 73                                | Time of C          | oncentration Pre-Development              | t= <u>10</u> min |  |  |
| Soil Data                     |   |                                   |                    |   |                  |  |  |
| Tested Se                     | oil Infiltration Rate=  | 10 in/hr (See No                  | ote 4)             | Destination Design                        | i=5 in/hr        |  |  |
| Design S                      | oil Infiltration Rate=  | 4 in/hr                           |                    | Soil Infiltration Rat                     | e                |  |  |
| Design Storms Used Fo         | or Calculations   |                                   |                    |   |                  |  |  |
| Requirement                   | Rainfall Depth  | Design Storm                      |                    |   |                  |  |  |
| Pollution Reduction           | 0.8 inches  | Water Quality                     |                    |   |                  |  |  |
| Flow Control                  | 5.1 inches  | Flood Control                     |                    |   |                  |  |  |
| Destination                   | 5.1 inches  | Flood Control                     |                    |   |                  |  |  |
|                               | 0.111101100   |                                   |                    |   |                  |  |  |
| Facility Data                 |   |                                   |                    |   |                  |  |  |
|                               |   | Infiltration Stormwate            | r Planter          | Facility Surface Area                     |                  |  |  |
|                               | Surface Width=  | <mark>8.5</mark> ft               |                    | Facility Surface Perimeter                |                  |  |  |
|                               | Surface Length=   |                                   |                    | Facility Bottom Area                      |                  |  |  |
|                               | acility Side Slopes=  | 3 to 1                            |                    | Facility Bottom Perimeter                 | r= 90 ft         |  |  |
|                               | Ponding Depth   |                                   |                    |   |                  |  |  |
|                               | mwater Facility=  | <mark>9</mark> in                 | <b>B</b> (1) 5 =   | Basin Volume                              |                  |  |  |
| Depth of Grow                 | /ing Medium (Soil)=   | <mark>2</mark> in                 | Ratio of F         | acility Area to Impervious Area           | = 0.090          |  |  |

| Pollution Reduction-Calculation Results   |  |  |  |  |  |
|---|--|--|--|--|--|
| Peak Flow Rate to Stormwater Facility = 0.018 cfs<br>Total Runoff Volume to Stormwater                        | Peak Facility Overflow Rate= 0.000 cfs                             |  |  |  |  |
| Facility = 223 cf   | Total Overflow Volume= 0 cf  |  |  |  |  |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |  |
| Yes Facility Sizing Meets Pollution Reduction Star  | ndards?  |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?  |  |  |  |  |  |
| YES Meets Requirement for Maximum of 18 Hour E  | Drawdown Time?   |  |  |  |  |
| Flow Control-Calculation Results  |  |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.131 cfs   | Peak Facility Overflow Rate= 0.045 cfs                             |  |  |  |  |
| Total Runoff Volume to Stormwater   |  |  |  |  |  |
| <b>Facility =</b> 1719 cf   | Total Overflow Volume= 58 cf                                       |  |  |  |  |
|   | Peak Off-Site Flow Rate  |  |  |  |  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                            |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |  |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.052 cfs<br>Total Runoff Volume = 831 cf                     |  |  |  |  |  |
| Yes Facility Sizing Meets Flow Control Standards  | ?  |  |  |  |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D             | site flow less or equal to Pre-Development Flow?<br>Drawdown Time? |  |  |  |  |
| Destination-Calculation Results   |  |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.131 cfs<br>Total Runoff Volume to Stormwater                        | Peak Facility Overflow Rate= 0.000 cfs                             |  |  |  |  |
| Facility = 1719 cf  | Total Overflow Volume= 0 cf  |  |  |  |  |
| Max. Depth of Stormwater in Facility= 8.9 in  |  |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |  |
| Yes Facility Sizing Meets Destination Standards?  |  |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour Drawdown Time? |  |  |  |  |  |
|   |  |  |  |  |  |

| EUGENE                        | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |                                   |                     |  |                     |  |
|-------------------------------|---|-----------------------------------|---------------------|--|---------------------|--|
|                               | Version 2.1   |                                   |                     |  |                     |  |
| Project Information           |   |                                   |                     |  |                     |  |
| Project Name:                 | Fairway Estates   |                                   |                     | Date: <u>5/19/2022</u>                   |                     |  |
| Project Address:              | <u>18-12-15-00-0150</u>   | <u>0</u>                          |                     | Permit Number: <u>NA</u>                 |                     |  |
|                               | Florence, OR  |                                   |                     | Catchment ID: <u>3E</u>                  |                     |  |
| Designer:                     | Clint Beecroft  |                                   |                     |  |                     |  |
| Company:                      | EGR & Associate   | <u>s</u>                          |                     |  |                     |  |
|                               |   |                                   |                     |  |                     |  |
| Instructions:                 |   |                                   |                     |  |                     |  |
| 1. Complete this form for     | r each drainage cat   | chment in the project site        | that is to be siz   | ed per the Presumptive Approach.         |                     |  |
| 2. Provide a distinctive C    | atchment ID for ea  | ch facility coordinated with      | n the site basin    | map to correlate the appropriate         |                     |  |
| calculations with the fa      | acility.  |                                   |                     |  |                     |  |
| 3. The maximum drainag        | ge catchment to be  | modeled per the Presump           | otive Approach i    | s 1 acre (43,560 SF)                     |                     |  |
| 4.For infiltration facilities | in Class A or B so  | s where no infiltration tes       | ting has been p     | erfromed use an infiltration rate of 0   | .5 in/hr.           |  |
| For all facilities use a      | maximum soil infilt   | ation rate of 2.5 in/hr for t     | opsoil/growing r    | nedium.                                  |                     |  |
| Design Requirements:          |   |                                   |                     |  |                     |  |
| Choose "Yes" from the c       | lropdown boxes be   | ow next to the design star        | ndards requirem     | ents for this facility.                  |                     |  |
| Dellection Deducet            |   | -                                 |                     |  |                     |  |
| Pollution Reducti             |   | _                                 |                     |  |                     |  |
| Flow Cont                     |   |                                   |                     |  |                     |  |
| Destinati                     | on (DT) Yes   | *An infiltration facility must be | chosen as the facil | ty type to meet destination requirements |                     |  |
|                               | -   |                                   |                     |  |                     |  |
| Site Data-Post Develop        | ment  |                                   |                     |  |                     |  |
| Total Square Footag           | e Impervious Area   | <b>= 3444</b> sqft                | Total               | Square Footage Pervious Area=            | 0 sqft              |  |
|                               | npervious Area Cl   |                                   |                     | Pervious Area CN=                        | 85                  |  |
|                               |   |                                   |                     |  |                     |  |
| Total Square Footag           | e of Drainage Area  | = 3444 sft                        | Time of Co          | ncentration Post Development=            | 5 min               |  |
|                               | ghted Average CI  |                                   |                     |  |                     |  |
| Site Data-Pre Developm        |   | this section is only used         | d if Flow Contr     | ol is required)                          |                     |  |
|                               |   |                                   |                     |  |                     |  |
| Pro                           | e-Development Cl  | = <u>73</u>                       | Time of Co          | oncentration Pre-Development=            | <mark>10</mark> min |  |
| Soil Data                     |   |                                   |                     |  |                     |  |
| Tested S                      | oil Infiltration Rate   | = 10 in/hr (See N                 | ote 4)              | Destination Design=                      | 5 in/hr             |  |
| Design S                      | oil Infiltration Rate   | = 4 in/hr                         |                     | Soil Infiltration Rate                   |                     |  |
| Design Storms Used F          | or Calculations   |                                   |                     |  |                     |  |
|                               |   |                                   | 1                   |  |                     |  |
| Requirement                   | Rainfall Depth  | Design Storm                      | -                   |  |                     |  |
| Pollution Reduction           | 0.8 inches  | Water Quality                     | -                   |  |                     |  |
| Flow Control                  | 5.1 inches  | Flood Control                     | -                   |  |                     |  |
| Destination                   | 5.1 inches  | Flood Control                     | J                   |  |                     |  |
| Facility Data                 |   |                                   |                     |  |                     |  |
|                               | Facility Type   | = Infiltration Stormwate          | er Planter          | Facility Surface Area=                   | 312.8 sqft          |  |
|                               | Surface Widtl   |                                   |                     | Facility Surface Perimeter=              | 90.6 ft             |  |
|                               | Surface Length= 36.8 ft Facility Bottom Area= 129 sqft  |                                   |                     |  |                     |  |
| F                             | acility Side Slope  |                                   |                     | Facility Bottom Perimeter=               | 73 ft               |  |
|                               | Ponding Depth   |                                   |                     |  |                     |  |
|                               | mwater Facility=  | 9 in                              |                     | Basin Volume=                            | 173.3 cf            |  |
|                               | ving Medium (Soil   |                                   | Ratio of Fa         | acility Area to Impervious Area=         | 0.091               |  |
|                               | 3   |                                   |                     |  |                     |  |

| Pollution Reduction-Calculation Results   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Peak Flow Rate to Stormwater Facility = 0.014 cfs<br>Total Runoff Volume to Stormwater                        | Peak Facility Overflow Rate= 0.000 cfs                                   |  |  |  |  |  |
| Facility = 180 cf   | Total Overflow Volume= 0 cf  |  |  |  |  |  |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |  |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |  |  |
| Yes Facility Sizing Meets Pollution Reduction S   | standards?   |  |  |  |  |  |
| YES Meets Requirement of No Facility Flooding<br>YES Meets Requirement for Maximum of 18 Hor                  |  |  |  |  |  |  |
| Flow Control-Calculation Results  |  |  |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.105 cfs   | Peak Facility Overflow Rate= 0.036 cfs                                   |  |  |  |  |  |
| Total Runoff Volume to Stormwater<br>Facility = 1381 cf   | Total Overflow Volume= 46 cf   |  |  |  |  |  |
|   | Peak Off-Site Flow Rate  |  |  |  |  |  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                                  |  |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |  |  |
| <u>Pre-Development Runoff Data</u><br>Peak Flow Rate = 0.042 cfs<br>Total Runoff Volume = 668 cf              |  |  |  |  |  |  |
| Yes Facility Sizing Meets Flow Control Standard   | ds ?   |  |  |  |  |  |
| YES Meets Requirement for Maximum of 18 Ho  | offsite flow less or equal to Pre-Development Flow?<br>ur Drawdown Time? |  |  |  |  |  |
| Destination-Calculation Results   |  |  |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.105 cfs   | Peak Facility Overflow Rate= 0.000 cfs                                   |  |  |  |  |  |
| Total Runoff Volume to Stormwater<br>Facility = 1381 cf   | Total Overflow Volume=0 cf   |  |  |  |  |  |
| Max. Depth of Stormwater in Facility= 8.9 in  |  |  |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |  |  |
| Yes Facility Sizing Meets Destination Standards   | s?   |  |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour Drawdown Time? |  |  |  |  |  |  |
|   |  |  |  |  |  |  |

| EUGENE                        | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |   |                    |  |                     |  |
|-------------------------------|---|---|--------------------|--|---------------------|--|
|                               | Version 2.1   |   |                    |  |                     |  |
| Project Information           |   |   |                    |  |                     |  |
| Project Name:                 | Fairway Estates   |   |                    | Date: <u>5/19/2022</u>                     |                     |  |
| Project Address:              | <u>18-12-15-00-01500</u>  |   |                    | Permit Number: <u>NA</u>                   |                     |  |
|                               | Florence, OR  |   |                    | Catchment ID: <u>3F</u>                    |                     |  |
| Designer:                     | Clint Beecroft  |   |                    |  |                     |  |
| Company:                      | EGR & Associates  |   |                    |  |                     |  |
|                               |   |   |                    |  |                     |  |
| Instructions:                 |   |   |                    |  |                     |  |
| 1. Complete this form for     | each drainage catch   | ment in the project site t              | hat is to be siz   | ed per the Presumptive Approach.           |                     |  |
| 2. Provide a distinctive C    | atchment ID for each  | facility coordinated with               | the site basin     | map to correlate the appropriate           |                     |  |
| calculations with the fa      | acility.  |   |                    |  |                     |  |
| 3. The maximum drainag        |   |   |                    |  |                     |  |
| 4.For infiltration facilities | in Class A or B soils   | where no infiltration testi             | ing has been p     | erfromed use an infiltration rate of (     | 0.5 in/hr.          |  |
| For all facilities use a      | maximum soil infiltrat  | ion rate of 2.5 in/hr for to            | psoil/growing      | medium.                                    |                     |  |
| Design Requirements:          |   |   |                    |  |                     |  |
| Choose "Yes" from the d       | ropdown boxes below   | v next to the design stan               | dards requiren     | nents for this facility.                   |                     |  |
| Bollution Boducti             |   | l i i i i i i i i i i i i i i i i i i i |                    |  |                     |  |
| Pollution Reducti             |   |   |                    |  |                     |  |
| Flow Cont                     |   |   |                    |  |                     |  |
| Destinati                     | on (DT) Yes   | *An infiltration facility must be       | chosen as the faci | lity type to meet destination requirements |                     |  |
|                               |   |   |                    |  |                     |  |
| Site Data-Post Develop        | ment  |   |                    |  |                     |  |
| Total Square Footag           | e Impervious Area=  | 3864 sqft                               | Total              | Square Footage Pervious Area=              | <mark>0</mark> sqft |  |
| In                            | pervious Area CN=   | 98                                      |                    | Pervious Area CN=                          | 85                  |  |
|                               |   |   |                    | -  |                     |  |
| Total Square Footage          | e of Drainage Area=   | 3864 sft                                | Time of Co         | ncentration Post Development=              | <mark>5</mark> min  |  |
| Wei                           | ghted Average CN=   | 98                                      |                    |  |                     |  |
| Site Data-Pre Developn        | nent (Data in th  | is section is only used                 | if Flow Cont       | ol is required)                            |                     |  |
| Pre                           | -Development CN=  | 73                                      | Time of C          | oncentration Pre-Development=              | 10 min              |  |
| Soil Data                     |   |   |                    | •  |                     |  |
|                               | oil Infiltration Rate=  | 10 in/hr (See No                        | te 4)              | Destination Design=                        | 5 in/hr             |  |
|                               | oil Infiltration Rate=  | 4 in/hr                                 |                    | Soil Infiltration Rate                     | 5 11/11             |  |
|                               |   |   |                    |  |                     |  |
| Design Storms Used Fo         | or Calculations   | -                                       |                    |  |                     |  |
| Requirement                   | Rainfall Depth  | Design Storm                            |                    |  |                     |  |
| Pollution Reduction           | 0.8 inches  | Water Quality                           |                    |  |                     |  |
| Flow Control                  | 5.1 inches  | Flood Control                           |                    |  |                     |  |
| Destination                   | 5.1 inches  | Flood Control                           |                    |  |                     |  |
| Facility Data                 |   |   |                    |  |                     |  |
|                               | Facility Type=  | Infiltration Stormwate                  | r Planter          | Facility Surface Area=                     | 349.35 sqft         |  |
|                               | Surface Width=  | 8.5 ft                                  |                    | Facility Surface Perimeter=                | 99.2 ft             |  |
|                               | Surface Length= 41.1 ft Facility Bottom Area= 146 sqft  |   |                    |  |                     |  |
| F                             | acility Side Slopes=  | 3 to 1                                  |                    | Facility Bottom Perimeter=                 | 81 ft               |  |
|                               | Ponding Depth   |   |                    |  |                     |  |
|                               | mwater Facility=  | <mark>9</mark> in                       |                    | Basin Volume=                              | 193.5 cf            |  |
| Depth of Grow                 | /ing Medium (Soil)=   | <mark>2</mark> in                       | Ratio of F         | acility Area to Impervious Area=           | 0.090               |  |
|                               |   | -                                       |                    |  | -                   |  |

| Pollution Reduction-Calculation Results   |   |  |  |  |  |
|---|---|--|--|--|--|
| Peak Flow Rate to Stormwater Facility = 0.016 cfs<br>Total Runoff Volume to Stormwater                        | Peak Facility Overflow Rate= 0.000 cfs                            |  |  |  |  |
| Facility = 201 cf   | Total Overflow Volume= 0 cf                                       |  |  |  |  |
| Max. Depth of Stormwater in Facility= 0.0 in  |   |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
| Yes Facility Sizing Meets Pollution Reduction Star  | ndards?   |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D              | Prawdown Time?  |  |  |  |  |
| Flow Control-Calculation Results  |   |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.118 cfs   | Peak Facility Overflow Rate= 0.041 cfs                            |  |  |  |  |
| Total Runoff Volume to Stormwater   |   |  |  |  |  |
| Facility = 1550 cf  | Total Overflow Volume= 52 cf                                      |  |  |  |  |
|   | Peak Off-Site Flow Rate   |  |  |  |  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                           |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.047 cfs<br>Total Runoff Volume = 749 cf                     |   |  |  |  |  |
| Yes Facility Sizing Meets Flow Control Standards?   | ?   |  |  |  |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D             | ite flow less or equal to Pre-Development Flow?<br>Prawdown Time? |  |  |  |  |
| Destination-Calculation Results   |   |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.118 cfs   | Peak Facility Overflow Rate= 0.000 cfs                            |  |  |  |  |
| Total Runoff Volume to Stormwater<br>Facility = 1550 cf   | Total Overflow Volume= 0 cf                                       |  |  |  |  |
| Facility =     1550 cf       Max. Depth of Stormwater in Facility=     8.9 in                                 | Total Overflow Volume=0cf   |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
|   |   |  |  |  |  |
| Yes Facility Sizing Meets Destination Standards?  |   |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour Drawdown Time? |   |  |  |  |  |
|   |   |  |  |  |  |

| EUGENE   | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |   |                                   |                    |                               |  |            |
|--|---|---|-----------------------------------|--------------------|-------------------------------|--|------------|
|  | Version   | 2.1                                     |                                   |                    |                               |  |            |
| Project Information                                    |   |   |                                   |                    |                               |  |            |
| Project Name:  | <b>Fairway</b>  | Estates                                 |                                   |                    | Date: <mark>5</mark>          | <u>5/19/2022</u>   |            |
| Project Address:                                       | <u>18-12-15</u>   | <u>5-00-01500</u>                       |                                   |                    | Permit Number: <u>N</u>       | <u>AA</u>  |            |
|  | <b>Florence</b>   | e, OR                                   |                                   |                    | Catchment ID: 3               | <u>3G</u>  |            |
| Designer:  | Clint Be  | ecroft                                  |                                   |                    |                               |  |            |
| Company:   | EGR & A   | Associates                              |                                   |                    |                               |  |            |
|  |   |   |                                   |                    |                               |  |            |
| Instructions:  |   |   |                                   |                    |                               |  |            |
| 1. Complete this form for                              | each dra  | inage catch                             | ment in the project site          | that is to be siz  | ed per the Presumpti          | ive Approach.  |            |
| 2. Provide a distinctive C                             | atchment  | ID for each                             | facility coordinated with         | the site basin     | map to correlate the          | appropriate  |            |
| calculations with the fa                               | acility.  |   |                                   |                    |                               |  |            |
| 3. The maximum drainag                                 | je catchm   | ent to be m                             | odeled per the Presump            | tive Approach      | is 1 acre (43,560 SF)         | )  |            |
| 4.For infiltration facilities                          | in Class A  | A or B soils                            | where no infiltration test        | ing has been p     | erfromed use an infill        | tration rate of 0.   | 5 in/hr.   |
| For all facilities use a                               | maximum   | soil infiltrat                          | ion rate of 2.5 in/hr for to      | opsoil/growing     | medium.                       |  |            |
| Design Requirements:                                   |   |   |                                   |                    |                               |  |            |
| Choose "Yes" from the d                                | ropdown l   | boxes belov                             | v next to the design stan         | idards requiren    | nents for this facility.      |  |            |
|  |   |   | 1                                 |                    |                               |  |            |
| Pollution Reducti                                      | . ,   |   |                                   |                    |                               |  |            |
| Flow Cont  | . ,   |   |                                   |                    |                               |  |            |
| Destinati  | on (DT)   | Yes                                     | *An infiltration facility must be | chosen as the faci | lity type to meet destination | n requirements   |            |
|  |   | •                                       |                                   |                    |                               |  |            |
| Site Data-Post Develop                                 | ment  |   |                                   |                    |                               |  |            |
| Total Square Footag                                    | e Impervi   | ious Area=                              | 5366 sqft                         | Total              | Square Footage Per            | rvious Area=   | 0 sqft     |
|  | -   | Area CN=                                | 98                                |                    |                               | us Area CN=  | 85         |
|  | iportioue   | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 00                                |                    |                               |  | 00         |
| Total Square Footage                                   | e of Drain  | nage Area=                              | 5366 sft                          | Time of Co         | ncentration Post De           | evelopment=  | 5 min      |
|  |   | erage CN=                               | 98                                |                    |                               |  |            |
|  | -   | -                                       |                                   | Lif Flow Cont      | ol ic required)               |  |            |
| Site Data-Pre Developn                                 | nent  | (Data in th                             | is section is only used           |                    | oi is required)               |  |            |
| Pre  | e-Develop   | oment CN=                               | 73                                | Time of C          | oncentration Pre-De           | evelopment=  | 10 min     |
| Soil Data  |   |   |                                   |                    |                               |  |            |
| Tested Se  | oil Infiltra  | tion Rate=                              | 10 in/hr (See No                  | ote 4)             | Destinat                      | tion Design=   | 5 in/hr    |
| Design S   | oil Infiltra  | tion Rate=                              | 4 in/hr                           |                    | Soil Infi                     | iltration Rate   |            |
| Design Storms Used Fo                                  | or Calcula  | ations                                  |                                   |                    |                               |  |            |
|  | 1   |   |                                   | 1                  |                               |  |            |
| Requirement  |   | all Depth                               | Design Storm                      |                    |                               |  |            |
| Pollution Reduction                                    |   | inches                                  | Water Quality                     |                    |                               |  |            |
| Flow Control   |   | inches                                  | Flood Control                     |                    |                               |  |            |
| Destination  | 5.1   | inches                                  | Flood Control                     |                    |                               |  |            |
| Facility Data  |   |   |                                   |                    |                               |  |            |
|  | Fac   | ility Type=                             | Infiltration Stormwate            | r Planter          | Facility Su                   | urface Area=   | 482.8 sqft |
|  |   | ce Width=                               | 8.5 ft                            |                    | Facility Surface              |  | 130.6 ft   |
| Surface Length= 56.8 ft Facility Bottom Area= 209 sqft |   |   |                                   |                    |                               |  |            |
| F  |   | le Slopes=                              | 3 to 1                            |                    | Facility Bottom               |  | 113 ft     |
|  | Ponding   | •                                       |                                   |                    | ,                             | -  |            |
|  | mwater F  |   | <mark>9</mark> in                 |                    | Bas                           | sin Volume=  | 267.1 cf   |
| Depth of Grow  |   | -                                       | <mark>2</mark> in                 | Ratio of F         | acility Area to Imper         | rvious Area=   | 0.090      |
| 1  |   |   |                                   |                    |                               | le contra de la co | <b></b>    |

| Pollution Reduction-Calculation Results   |  |  |  |  |  |
|---|--|--|--|--|--|
| Peak Flow Rate to Stormwater Facility = 0.022 cfs<br>Total Runoff Volume to Stormwater                        | Peak Facility Overflow Rate= 0.000 cfs                             |  |  |  |  |
| Facility = 280 cf   | Total Overflow Volume= 0 cf  |  |  |  |  |
| Max. Depth of Stormwater in Facility= 0.0 in  |  |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |  |
| Yes Facility Sizing Meets Pollution Reduction Star  | dards?   |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D              | rawdown Time?  |  |  |  |  |
| Flow Control-Calculation Results  |  |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.164 cfs   | Peak Facility Overflow Rate= 0.056 cfs                             |  |  |  |  |
| Total Runoff Volume to Stormwater   | Tatal Quarter Malana 70 st   |  |  |  |  |
| Facility = 2152 cf  | Total Overflow Volume= 73 cf                                       |  |  |  |  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Peak Off-Site Flow Rate<br>Filtration Facility Underdrain= N\A cfs |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |  |
|   |  |  |  |  |  |
| Pre-Development Runoff Data   |  |  |  |  |  |
| Peak Flow Rate = 0.065 cfs  |  |  |  |  |  |
| Total Runoff Volume = 1041 cf   |  |  |  |  |  |
| Yes Facility Sizing Meets Flow Control Standards?   |  |  |  |  |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D             | ite flow less or equal to Pre-Development Flow?<br>rawdown Time?   |  |  |  |  |
| Destination-Calculation Results   |  |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.164 cfs<br>Total Runoff Volume to Stormwater                        | Peak Facility Overflow Rate= 0.000 cfs                             |  |  |  |  |
| Facility = 2152 cf  | Total Overflow Volume= 0 cf  |  |  |  |  |
| Max. Depth of Stormwater in Facility= 8.9 in  |  |  |  |  |  |
| Drawdown Time= 0.2 hours  |  |  |  |  |  |
| Yes Facility Sizing Meets Destination Standards?  |  |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour Drawdown Time? |  |  |  |  |  |
|   |  |  |  |  |  |

| EUGENE                        | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |                                   |                    |  |                     |  |
|-------------------------------|---|-----------------------------------|--------------------|--|---------------------|--|
|                               | Version 2.1   |                                   |                    |  |                     |  |
| Project Information           |   |                                   |                    |  |                     |  |
| Project Name:                 | Fairway Estates   |                                   |                    | Date: <u>5/19/2022</u>                     |                     |  |
| Project Address:              | 18-12-15-00-01500   |                                   |                    | Permit Number: NA                          |                     |  |
|                               | Florence, OR  |                                   |                    | Catchment ID: <u>3H</u>                    |                     |  |
| Designer:                     | Clint Beecroft  |                                   |                    |  |                     |  |
| Company:                      | EGR & Associates  |                                   |                    |  |                     |  |
|                               |   |                                   |                    |  |                     |  |
| Instructions:                 |   |                                   |                    |  |                     |  |
| 1. Complete this form for     | each drainage catch   | ment in the project site t        | hat is to be siz   | ed per the Presumptive Approach.           |                     |  |
| 2. Provide a distinctive C    | atchment ID for each  | facility coordinated with         | the site basin     | map to correlate the appropriate           |                     |  |
| calculations with the fa      |   |                                   |                    |  |                     |  |
| 3. The maximum drainag        | e catchment to be m   | odeled per the Presump            | tive Approach      | is 1 acre (43,560 SF)                      |                     |  |
| 4.For infiltration facilities | in Class A or B soils   | where no infiltration test        | ing has been p     | erfromed use an infiltration rate of       | 0.5 in/hr.          |  |
| For all facilities use a      | maximum soil infiltrat  | ion rate of 2.5 in/hr for to      | psoil/growing      | medium.                                    |                     |  |
| Design Requirements:          |   |                                   |                    |  |                     |  |
|                               |   |                                   |                    |  |                     |  |
| Choose "Yes" from the d       | ropdown boxes below   | v next to the design stan         | dards requiren     | nents for this facility.                   |                     |  |
| Pollution Reducti             | on (PR) Yes   |                                   |                    |  |                     |  |
| Flow Cont                     |   |                                   |                    |  |                     |  |
|                               | · · ·   |                                   |                    |  |                     |  |
| Destinati                     |   | *An infiltration facility must be | chosen as the faci | lity type to meet destination requirements |                     |  |
| Site Data-Post Develop        | ment  |                                   |                    |  |                     |  |
|                               |   |                                   |                    |  |                     |  |
| Total Square Footag           | -   |                                   | Total              | Square Footage Pervious Area=              | <mark>0</mark> sqft |  |
| In                            | pervious Area CN=   | 98                                |                    | Pervious Area CN=                          | 85                  |  |
|                               |   |                                   |                    |  |                     |  |
| Total Square Footag           | -   |                                   | Time of Co         | ncentration Post Development=              | <mark>5</mark> min  |  |
| Wei                           | ghted Average CN=   | 98                                |                    |  |                     |  |
| Site Data-Pre Developm        | nent (Data in th  | is section is only used           | if Flow Contr      | ol is required)                            |                     |  |
| Pro                           | e-Development CN=   | 73                                | Time of C          | oncentration Pre-Development=              | 10 min              |  |
|                               | bevelopment on  | 10                                |                    |  |                     |  |
| Soil Data                     |   |                                   |                    |  |                     |  |
|                               | oil Infiltration Rate=  |                                   | te 4)              | Destination Design=                        | 5 in/hr             |  |
| Design S                      | oil Infiltration Rate=  | 4 in/hr                           |                    | Soil Infiltration Rate                     |                     |  |
| Design Storms Used Fo         | or Calculations   |                                   |                    |  |                     |  |
| Requirement                   | Rainfall Depth  | Design Storm                      |                    |  |                     |  |
| Pollution Reduction           | 0.8 inches  | Water Quality                     |                    |  |                     |  |
|                               |   |                                   |                    |  |                     |  |
| Flow Control<br>Destination   | 5.1 inches<br>5.1 inches  | Flood Control<br>Flood Control    |                    |  |                     |  |
|                               | 5. I Inches   |                                   |                    |  |                     |  |
| Facility Data                 |   |                                   |                    |  |                     |  |
|                               | Facility Type=  | Infiltration Stormwate            | r Planter          | Facility Surface Area=                     | 349.35 sqft         |  |
|                               | Surface Width=  | <mark>8.5</mark> ft               |                    | Facility Surface Perimeter=                | 99.2 ft             |  |
|                               | Surface Length=   | <mark>41.1</mark> ft              |                    | Facility Bottom Area=                      | 146 sqft            |  |
| F                             | acility Side Slopes=  |                                   |                    | Facility Bottom Perimeter=                 | 81 ft               |  |
|                               | Ponding Depth   |                                   |                    | -  |                     |  |
|                               | mwater Facility=  | <mark>9</mark> in                 |                    | Basin Volume=                              | 193.5 cf            |  |
| Depth of Grov                 | /ing Medium (Soil)=   | <mark>2</mark> in                 | Ratio of F         | acility Area to Impervious Area=           | 0.090               |  |
| L                             |   |                                   |                    |  |                     |  |

| Pollution Reduction-Calculation Results   |   |  |  |  |  |
|---|---|--|--|--|--|
| Peak Flow Rate to Stormwater Facility = 0.016 cfs<br>Total Runoff Volume to Stormwater                        | Peak Facility Overflow Rate= 0.000 cfs                            |  |  |  |  |
| Facility = 201 cf   | Total Overflow Volume= 0 cf                                       |  |  |  |  |
| Max. Depth of Stormwater in Facility= 0.0 in  |   |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
| Yes Facility Sizing Meets Pollution Reduction Star  | ndards?   |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D              | Prawdown Time?  |  |  |  |  |
| Flow Control-Calculation Results  |   |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.118 cfs   | Peak Facility Overflow Rate= 0.041 cfs                            |  |  |  |  |
| Total Runoff Volume to Stormwater   |   |  |  |  |  |
| Facility = 1550 cf  | Total Overflow Volume= 52 cf                                      |  |  |  |  |
|   | Peak Off-Site Flow Rate   |  |  |  |  |
| Max. Depth of Stormwater in Facility= 9.0 in  | Filtration Facility Underdrain= N\A cfs                           |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.047 cfs<br>Total Runoff Volume = 749 cf                     |   |  |  |  |  |
| Yes Facility Sizing Meets Flow Control Standards?   | ?   |  |  |  |  |
| YES Meets Requirement for Post Development offs<br>YES Meets Requirement for Maximum of 18 Hour D             | ite flow less or equal to Pre-Development Flow?<br>Prawdown Time? |  |  |  |  |
| Destination-Calculation Results   |   |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.118 cfs   | Peak Facility Overflow Rate= 0.000 cfs                            |  |  |  |  |
| Total Runoff Volume to Stormwater<br>Facility = 1550 cf   | Total Overflow Volume= 0 cf                                       |  |  |  |  |
| Facility =     1550 cf       Max. Depth of Stormwater in Facility=     8.9 in                                 | Total Overflow Volume=0cf   |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
|   |   |  |  |  |  |
| Yes Facility Sizing Meets Destination Standards?  |   |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour Drawdown Time? |   |  |  |  |  |
|   |   |  |  |  |  |

|                           |   |                                   |  |   | -                   |  |
|---------------------------|---|-----------------------------------|--|---|---------------------|--|
| EUGENE                    | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |                                   |  |   |                     |  |
|                           | Version 2.1   |                                   |  |   |                     |  |
| Project Information       |   |                                   |  |   |                     |  |
| Project Name:             | Fairway Estates   |                                   |  | Date: <u>5/19/2022</u>                    |                     |  |
| Project Address:          | 18-12-15-00-01500   |                                   |  | Permit Number: <u>NA</u>                  |                     |  |
|                           | Florence, OR  |                                   |  | Catchment ID: 3                           |                     |  |
| Designer:                 | Clint Beecroft  |                                   |  | _   |                     |  |
| Company:                  | EGR & Associates  |                                   |  |   |                     |  |
|                           |   |                                   |  |   |                     |  |
| Instructions:             |   |                                   |  |   |                     |  |
| 1. Complete this form for | each drainage catch   | ment in the project site t        | that is to be siz                      | ed per the Presumptive Approach.          |                     |  |
|                           | -   |                                   |  | map to correlate the appropriate          |                     |  |
| calculations with the fa  |   | ,                                 |  |   |                     |  |
| 3. The maximum drainag    | ,   | odeled per the Presump            | tive Approach                          | is 1 acre (43.560 SF)                     |                     |  |
|                           |   |                                   |  | perfromed use an infiltration rate of 0.5 | in/hr.              |  |
|                           |   | ion rate of 2.5 in/hr for to      |  |   |                     |  |
|                           |   |                                   | ······································ |   |                     |  |
| Design Requirements:      |   |                                   |  |   |                     |  |
| Choose "Yes" from the d   | ropdown boxes below   | v next to the design stan         | dards requiren                         | nents for this facility.                  |                     |  |
| Dollution Doducti         |   |                                   |  |   |                     |  |
| Pollution Reducti         |   |                                   |  |   |                     |  |
| Flow Cont                 |   |                                   |  |   |                     |  |
| Destinati                 | on (DT) Yes   | *An infiltration facility must be | chosen as the faci                     | ity type to meet destination requirements |                     |  |
|                           |   |                                   |  |   |                     |  |
| Site Data-Post Develop    | ment  |                                   |  |   |                     |  |
| Total Square Footag       | e Impervious Area=  | 3903 sqft                         | Total                                  | Square Footage Pervious Area=             | <mark>0</mark> sqft |  |
|                           | pervious Area CN=   | 98                                |  | Pervious Area CN=                         | 85                  |  |
|                           |   |                                   |  |   |                     |  |
| Total Square Footage      | e of Drainage Area=   | 3903 sft                          | Time of Co                             | ncentration Post Development=             | 5 min               |  |
|                           | ghted Average CN=   | 98                                |  |   |                     |  |
|                           |   |                                   |  | · · · · ·                                 |                     |  |
| Site Data-Pre Developn    | nent (Data in th  | is section is only used           | I if Flow Contr                        | ol is required)                           |                     |  |
| Pre                       | e-Development CN=   | 73                                | Time of C                              | oncentration Pre-Development=             | <mark>10</mark> min |  |
| Soil Data                 |   |                                   |  |   |                     |  |
|                           |   |                                   |  |   |                     |  |
|                           | oil Infiltration Rate=  | 10 in/hr (See No                  | ote 4)                                 | Destination Design=                       | 5 in/hr             |  |
|                           | oil Infiltration Rate=  | 4 in/hr                           |  | Soil Infiltration Rate                    |                     |  |
| Design Storms Used Fo     | or Calculations   |                                   |  |   |                     |  |
| Requirement               | Rainfall Depth  | Design Storm                      |  |   |                     |  |
| Pollution Reduction       | 0.8 inches  | Water Quality                     |  |   |                     |  |
| Flow Control              | 5.1 inches  | Flood Control                     |  |   |                     |  |
| Destination               | 5.1 inches  | Flood Control                     |  |   |                     |  |
|                           | J. I linches  |                                   |  |   |                     |  |
| Facility Data             |   |                                   |  |   |                     |  |
|                           | Facility Type=  | Infiltration Stormwate            | r Planter                              | Facility Surface Area=                    | 354.45 sqft         |  |
|                           | Surface Width=  | <mark>8.5</mark> ft               |  | Facility Surface Perimeter=               | 100.4 ft            |  |
|                           | Surface Length=   | 41.7 ft                           |  | Facility Bottom Area=                     | 149 sqft            |  |
| F                         | acility Side Slopes=  | 3 to 1                            |  | Facility Bottom Perimeter=                | 82 ft               |  |
|                           | Ponding Depth   |                                   |  |   |                     |  |
|                           | mwater Facility=  | <mark>9</mark> in                 |  | Basin Volume=                             | 196.3 cf            |  |
| Depth of Grow             | ving Medium (Soil)=   | <mark>2</mark> in                 | Ratio of F                             | acility Area to Impervious Area=          | 0.091               |  |
|                           |   |                                   |  |   |                     |  |

| Pollution Reduction-Calculation Results   |   |  |  |  |  |
|---|---|--|--|--|--|
| Peak Flow Rate to Stormwater Facility = 0.016 cfs   | Peak Facility Overflow Rate=0.000 cfs           |  |  |  |  |
| Total Runoff Volume to Stormwater<br>Facility = 203 cf  | Total Overflow Volume= 0 cf                     |  |  |  |  |
| Max. Depth of Stormwater in Facility= 0.0 in  |   |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
| Yes Facility Sizing Meets Pollution Reduction Stan  | idards?   |  |  |  |  |
|   |   |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D              | rawdown Time?                                   |  |  |  |  |
| Flow Control-Calculation Results  |   |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.119 cfs   | Peak Facility Overflow Rate= 0.039 cfs          |  |  |  |  |
| Total Runoff Volume to Stormwater   |   |  |  |  |  |
| Facility = 1565 cf  | Total Overflow Volume= 51 cf                    |  |  |  |  |
| Mars Darith of Otomorphic in Facility - 0.0 in  | Peak Off-Site Flow Rate                         |  |  |  |  |
| Max. Depth of Stormwater in Facility= 9.0 in<br>Drawdown Time= 0.2 hours                                      | Filtration Facility Underdrain N\A cfs          |  |  |  |  |
|   |   |  |  |  |  |
| Pre-Development Runoff Data   |   |  |  |  |  |
| Peak Flow Rate = 0.047 cfs  |   |  |  |  |  |
| Total Runoff Volume = 757 cf  |   |  |  |  |  |
| Yes Facility Sizing Meets Flow Control Standards?   |   |  |  |  |  |
|   | ite flow less or equal to Pre-Development Flow? |  |  |  |  |
| YES Meets Requirement for Maximum of 18 Hour D  | rawdown Time?                                   |  |  |  |  |
| Destination-Calculation Results   |   |  |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.119 cfs<br>Total Runoff Volume to Stormwater                        | Peak Facility Overflow Rate= 0.000 cfs          |  |  |  |  |
| Facility = 1565 cf  | Total Overflow Volume= 0 cf                     |  |  |  |  |
| Max. Depth of Stormwater in Facility= 8.9 in  |   |  |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |  |
| Yes Facility Sizing Meets Destination Standards?  |   |  |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour Drawdown Time? |   |  |  |  |  |
|   |   |  |  |  |  |

| EUGENE                    | Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet<br>24 Hour Storm, NRCS Type 1A Rainfall Distribution<br>City of Eugene |                                     |                      |   |                     |  |
|---------------------------|---|-------------------------------------|----------------------|---|---------------------|--|
|                           | Version 2.1   |                                     |                      |   |                     |  |
| Project Information       |   |                                     |                      |   |                     |  |
| Project Name:             | Fairway Estates   |                                     |                      | Date: <u>5/19/2022</u>                  |                     |  |
| Project Address:          | 18-12-15-00-01500   |                                     |                      | Permit Number: NA                       |                     |  |
|                           | Florence, OR  |                                     |                      | Catchment ID: 3J                        |                     |  |
| Designer:                 | Clint Beecroft  |                                     |                      |   |                     |  |
| Company:                  | EGR & Associates  |                                     |                      |   |                     |  |
|                           |   |                                     |                      |   |                     |  |
| Instructions:             |   |                                     |                      |   |                     |  |
| 1. Complete this form for | each drainage catch   | ment in the project site th         | nat is to be size    | d per the Presumptive Approach.         |                     |  |
|                           | -   |                                     |                      | nap to correlate the appropriate        |                     |  |
| calculations with the fa  |   | ,                                   |                      |   |                     |  |
| 3. The maximum drainage   | e catchment to be m   | odeled per the Presumpti            | ve Approach is       | 1 acre (43,560 SF)                      |                     |  |
|                           |   |                                     |                      | rfromed use an infiltration rate of 0.  | 5 in/hr.            |  |
|                           |   | ion rate of 2.5 in/hr for top       |                      |   |                     |  |
| Design Requirements:      |   | '                                   | 0 0                  |   |                     |  |
| Design Requirements.      |   |                                     |                      |   |                     |  |
| Choose "Yes" from the d   | ropdown boxes below   | v next to the design stand          | lards requirem       | ents for this facility.                 |                     |  |
| Pollution Reducti         | on (PR) Yes   | 1                                   |                      |   |                     |  |
|                           |   |                                     |                      |   |                     |  |
| Flow Cont                 |   |                                     |                      |   |                     |  |
| Destinati                 | on (DT) Yes   | *An infiltration facility must be c | hosen as the facilit | y type to meet destination requirements |                     |  |
| Site Date Deat Develor    |   |                                     |                      |   |                     |  |
| Site Data-Post Develop    | ment  |                                     |                      |   |                     |  |
| Total Square Footag       | e Impervious Area=  | 5628 sqft                           | Total S              | quare Footage Pervious Area=            | <mark>0</mark> sqft |  |
| In                        | npervious Area CN=  | 98                                  |                      | Pervious Area CN=                       | 85                  |  |
|                           |   |                                     |                      |   |                     |  |
| Total Square Footag       | e of Drainage Area=   | 5628 sft                            | Time of Cor          | centration Post Development=            | <mark>5</mark> min  |  |
| Wei                       | ghted Average CN=   | 98                                  |                      |   |                     |  |
| Site Data-Pre Develop     | nent (Data in th  | is section is only used             | if Flow Contro       | l is required)                          |                     |  |
| •                         | •   |                                     |                      |   |                     |  |
| Pro                       | e-Development CN=   | 73                                  | Time of Co           | ncentration Pre-Development=            | <mark>10</mark> min |  |
| Soil Data                 |   |                                     |                      |   |                     |  |
|                           | oil Infiltration Rate=  | 10 in/hr (See Note                  | e 4)                 | Destination Design=                     | 5 in/hr             |  |
|                           | oil Infiltration Rate=  |                                     | c +)                 | Soil Infiltration Rate                  | 5 11/11             |  |
|                           |   |                                     |                      |   |                     |  |
| Design Storms Used Fo     | or Calculations   |                                     |                      |   |                     |  |
| Requirement               | Rainfall Depth  | Design Storm                        |                      |   |                     |  |
| Pollution Reduction       | 0.8 inches  | Water Quality                       |                      |   |                     |  |
| Flow Control              | 5.1 inches  | Flood Control                       |                      |   |                     |  |
| Destination               | 5.1 inches  | Flood Control                       |                      |   |                     |  |
| Essility Data             |   |                                     |                      |   |                     |  |
| Facility Data             | _   |                                     |                      |   |                     |  |
|                           |   | Infiltration Stormwater             | Planter              | Facility Surface Area=                  | 510 sqft            |  |
|                           | Surface Width=  |                                     |                      | Facility Surface Perimeter=             | 137 ft              |  |
|                           | Surface Length=   |                                     |                      | Facility Bottom Area=                   | 222 sqft            |  |
|                           | acility Side Slopes=  | 3 to 1                              |                      | Facility Bottom Perimeter=              | 119 ft              |  |
|                           | Ponding Depth   |                                     |                      |   |                     |  |
| in Stor                   | mwater Facility=  | 9 in                                |                      | Basin Volume=                           | 282.1 cf            |  |
|                           | ving Medium (Soil)=   |                                     | <b>— —</b> —         | cility Area to Impervious Area=         | 0.091               |  |

| Pollution Reduction-Calculation Results   |   |  |  |  |
|---|---|--|--|--|
| Peak Flow Rate to Stormwater Facility = 0.023 cfs<br>Total Runoff Volume to Stormwater  | Peak Facility Overflow Rate= 0.000 cfs  |  |  |  |
| Facility = 293 cf   | Total Overflow Volume= 0 cf             |  |  |  |
| Max. Depth of Stormwater in Facility= 0.0 in  |   |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |
| Yes Facility Sizing Meets Pollution Reduction Star  | ndards?                                 |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 18 Hour D  | Drawdown Time?                          |  |  |  |
| Flow Control-Calculation Results  |   |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.172 cfs   | Peak Facility Overflow Rate= 0.052 cfs  |  |  |  |
| Total Runoff Volume to Stormwater   |   |  |  |  |
| <b>Facility =</b> 2257 cf   | Total Overflow Volume= 71 cf            |  |  |  |
| May Danth of Charmyneter in Facility  | Peak Off-Site Flow Rate                 |  |  |  |
| Max. Depth of Stormwater in Facility= 9.0 in<br>Drawdown Time= 0.2 hours  | Filtration Facility Underdrain= N\A cfs |  |  |  |
|   |   |  |  |  |
| Pre-Development Runoff Data<br>Peak Flow Rate = 0.068 cfs<br>Total Runoff Volume = 1092 cf  |   |  |  |  |
| Yes Facility Sizing Meets Flow Control Standards  | ?                                       |  |  |  |
| YES Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?<br>YES Meets Requirement for Maximum of 18 Hour Drawdown Time? |   |  |  |  |
| Destination-Calculation Results   |   |  |  |  |
| Peak Flow Rate to Stormwater Facility = 0.172 cfs<br>Total Runoff Volume to Stormwater  | Peak Facility Overflow Rate= 0.000 cfs  |  |  |  |
| Facility = 2257 cf  | Total Overflow Volume= 0 cf             |  |  |  |
| Max. Depth of Stormwater in Facility= 8.9 in  |   |  |  |  |
| Drawdown Time= 0.2 hours  |   |  |  |  |
| Yes Facility Sizing Meets Destination Standards?  |   |  |  |  |
| YES Meets Requirement of No Facility Flooding?<br>YES Meets Requirement for Maximum of 30 hour D  | Prawdown Time?                          |  |  |  |
|   |   |  |  |  |

|                             | Worksheet fe    | or Basin | 1 Pipe |
|-----------------------------|-----------------|----------|--------|
| Project Description         |                 |          |        |
| Friction Method             | Manning Formula |          |        |
| Solve For                   | Normal Depth    |          |        |
| Input Data                  |                 |          |        |
| Roughness Coefficient       |                 | 0.013    |        |
| Channel Slope               |                 | 0.00500  | ft/ft  |
| Diameter                    |                 | 1.00     | ft     |
| Discharge                   |                 | 1.32     | ft³/s  |
| Results                     |                 |          |        |
| Normal Depth                |                 | 0.51     | ft     |
| Flow Area                   |                 | 0.41     | ft²    |
| Wetted Perimeter            |                 | 1.60     | ft     |
| Hydraulic Radius            |                 | 0.25     | ft     |
| Top Width                   |                 | 1.00     | ft     |
| Critical Depth              |                 | 0.49     | ft     |
| Percent Full                |                 | 51.4     | %      |
| Critical Slope              |                 | 0.00607  | ft/ft  |
| Velocity                    |                 | 3.25     | ft/s   |
| Velocity Head               |                 | 0.16     | ft     |
| Specific Energy             |                 | 0.68     | ft     |
| Froude Number               |                 | 0.90     |        |
| Maximum Discharge           |                 | 2.71     | ft³/s  |
| Discharge Full              |                 | 2.52     | ft³/s  |
| Slope Full                  |                 | 0.00137  | ft/ft  |
| Flow Type                   | SubCritical     |          |        |
| GVF Input Data              |                 |          |        |
| Downstream Depth            |                 | 0.00     | ft     |
| Length                      |                 | 0.00     | ft     |
| Number Of Steps             |                 | 0        |        |
| GVF Output Data             |                 |          |        |
| Upstream Depth              |                 | 0.00     | ft     |
| Profile Description         |                 |          |        |
| Profile Headloss            |                 | 0.00     | ft     |
| Average End Depth Over Rise |                 | 0.00     | %      |
| Normal Depth Over Rise      |                 | 51.41    | %      |
| Downstream Velocity         |                 | Infinity | ft/s   |
|                             |                 |          |        |

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#### Worksheet for Basin 1 Pipe

| GVF Output Data   |          |       |  |
|-------------------|----------|-------|--|
| Upstream Velocity | Infinity | ft/s  |  |
| Normal Depth      | 0.51     | ft    |  |
| Critical Depth    | 0.49     | ft    |  |
| Channel Slope     | 0.00500  | ft/ft |  |
| Critical Slope    | 0.00607  | ft/ft |  |
|                   |          |       |  |

# Messages

Notes

Peak flow based on 25 year overflow from Basins 1 and 2 facilities. Total impervious surface area is 43,097 s.f.. Peak runoff is 0.0137 gpm per square foot, or 1.32 cfs.

|                             | Worksheet for Basir | Pipe  |
|-----------------------------|---------------------|-------|
| Project Description         |                     |       |
| Friction Method             | Manning Formula     |       |
| Solve For                   | Normal Depth        |       |
| Input Data                  |                     |       |
| Roughness Coefficient       | 0.013               |       |
| Channel Slope               | 0.00500             | ft/ft |
| Diameter                    | 0.83                | ft    |
| Discharge                   | 0.60                | ft³/s |
| Results                     |                     |       |
| Normal Depth                | 0.36                | ft    |
| Flow Area                   | 0.23                | ft²   |
| Wetted Perimeter            | 1.19                | ft    |
| Hydraulic Radius            | 0.19                | ft    |
| Top Width                   | 0.82                | ft    |
| Critical Depth              | 0.34                | ft    |
| Percent Full                | 43.4                | %     |
| Critical Slope              | 0.00614             | ft/ft |
| Velocity                    | 2.66                | ft/s  |
| Velocity Head               | 0.11                | ft    |
| Specific Energy             | 0.47                | ft    |
| Froude Number               | 0.90                |       |
| Maximum Discharge           | 1.65                | ft³/s |
| Discharge Full              | 1.53                | ft³/s |
| Slope Full                  | 0.00077             | ft/ft |
| Flow Type                   | SubCritical         |       |
| GVF Input Data              |                     |       |
| Downstream Depth            | 0.00                | ft    |
| Length                      | 0.00                | ft    |
| Number Of Steps             | C                   |       |
| GVF Output Data             |                     |       |
| Upstream Depth              | 0.00                | ft    |
| Profile Description         |                     |       |
| Profile Headloss            | 0.00                | ft    |
| Average End Depth Over Rise | 0.00                | %     |
| Normal Depth Over Rise      | 43.43               | %     |
| Downstream Velocity         | Infinity            | ft/s  |

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# Worksheet for Basin Pipe

| GVF Output Data   |          |       |  |
|-------------------|----------|-------|--|
| Upstream Velocity | Infinity | ft/s  |  |
| Normal Depth      | 0.36     | ft    |  |
| Critical Depth    | 0.34     | ft    |  |
| Channel Slope     | 0.00500  | ft/ft |  |
| Critical Slope    | 0.00614  | ft/ft |  |
|                   |          |       |  |

### Messages

Notes

Peak flow based on 25 year overflow from Basin 2 facilities. Total impervious surface area is 19,612 s.f.. Peak runoff is 0.0137 gpm per square foot, or 0.60 cfs.

|                             | Worksheet fo    | or Basin | Pipe  |
|-----------------------------|-----------------|----------|-------|
| Project Description         |                 |          |       |
| Friction Method             | Manning Formula |          |       |
| Solve For                   | Normal Depth    |          |       |
| Input Data                  |                 |          |       |
| Roughness Coefficient       |                 | 0.013    |       |
| Channel Slope               |                 | 0.00450  | ft/ft |
| Diameter                    |                 | 1.00     | ft    |
| Discharge                   |                 | 1.18     | ft³/s |
| Results                     |                 |          |       |
| Normal Depth                |                 | 0.50     | ft    |
| Flow Area                   |                 | 0.39     | ft²   |
| Wetted Perimeter            |                 | 1.56     | ft    |
| Hydraulic Radius            |                 | 0.25     | ft    |
| Top Width                   |                 | 1.00     | ft    |
| Critical Depth              |                 | 0.46     | ft    |
| Percent Full                |                 | 49.6     | %     |
| Critical Slope              |                 | 0.00594  | ft/ft |
| Velocity                    |                 | 3.03     | ft/s  |
| Velocity Head               |                 | 0.14     | ft    |
| Specific Energy             |                 | 0.64     | ft    |
| Froude Number               |                 | 0.86     |       |
| Maximum Discharge           |                 | 2.57     | ft³/s |
| Discharge Full              |                 | 2.39     | ft³/s |
| Slope Full                  |                 | 0.00110  | ft/ft |
| Flow Type                   | SubCritical     |          |       |
| GVF Input Data              |                 |          |       |
| Downstream Depth            |                 | 0.00     | ft    |
| Length                      |                 | 0.00     | ft    |
| Number Of Steps             |                 | 0        |       |
| GVF Output Data             |                 |          |       |
| Upstream Depth              |                 | 0.00     | ft    |
| Profile Description         |                 |          |       |
| Profile Headloss            |                 | 0.00     | ft    |
| Average End Depth Over Rise |                 | 0.00     | %     |
| Normal Depth Over Rise      |                 | 49.62    | %     |
| Downstream Velocity         |                 | Infinity | ft/s  |

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# Worksheet for Basin Pipe

| GVF Output Data   |          |       |
|-------------------|----------|-------|
| Upstream Velocity | Infinity | ft/s  |
| Normal Depth      | 0.50     | ft    |
| Critical Depth    | 0.46     | ft    |
| Channel Slope     | 0.00450  | ft/ft |
| Critical Slope    | 0.00594  | ft/ft |
|                   |          |       |

# Messages

Notes

Peak flow based on 25 year overflow from Basin 3 facilities. Total impervious surface area is 38,745 s.f.. Peak runoff is 0.0137 gpm per square foot, or 1.18 cfs.