



OFF-SITE 1-ACRE STORMWATER MANAGEMENT AREA FOR STORM FACILITY TO BE SIMILAR TO FACILITY SHOWN ON SHEET 7 OF 8. 1-ACRE OF AREA IS FEASIBLE TO PROVIDE STORM WATER QUALITY & QUANTITY CONTROL FOR ALL ON-SITE DRAINAGE TO MEET CITY OF CAMAS DESIGN STD'S

UTILITY NOTES:

PUBLIC WATER SYSTEM WILL BE EXTENDED ON-SITE FROM EXISTING WATER LINE WITHIN NE INGLE ROAD. (1) RESIDENTIAL WATER SERVICE WILL BE PROVIDED TO EACH LOT

PUBLIC SANITARY SYSTEM WILL BE EXTENDED ON-SITE FROM EXISTING SANITARY LINE WITHIN NE INGLE ROAD. (1) SANITARY LATERAL SERVICE WILL BE PROVIDED TO EACH LOT

STORM CONSTRUCTION NOTES:

1. ALL TRENCH EXCAVATION AND PIPE INSTALLATION SHALL CONFORM TO THE MOST RECENTLY ADOPTED EDITION OF THE W.S.D.O.T. STANDARD SPECIFICATIONS SECTION 7-08.3(1) AND SECTION 7-08.3(2). ALL EXCESS MATERIAL FROM THE TRENCH EXCAVATION SHALL BE DISPOSED OF ON AN APPROVED SITE.
2. PIPE BEDDING, PIPE ZONE MATERIAL AND TRENCH BACKFILL SHALL BE AN APPROVED GRANULAR MATERIAL OF OTHER WASHED SCREENINGS OR 3/8 INCH MINUS CRUSHED ROCK SAND. BACKFILL IS NOT ALLOWED.
3. TRENCH COMPACTION SHALL BE PER THE MOST RECENTLY ADOPTED EDITION OF THE W.S.D.O.T. STANDARD SPECIFICATIONS SECTION 7-08.3(3). CONTRACTOR TO DETERMINE THE TYPE OF EQUIPMENT AND METHOD TO USE TO ACHIEVE THE REQUIRED COMPACTION. EACH LIFT SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE A.A.S.H.T.O. T-100 TEST METHOD.
4. SETTLEMENT OF THE FINISHED SURFACE WITHIN THE WARRANTY PERIOD SHALL BE CONSIDERED TO BE A RESULT OF IMPROPER COMPACTION AND SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE CITY.
5. ALL STORM PIPE SHALL BE PVC OR N-12 WITH DOUBLE BELLED COUPLINGS WITH O-RING TYPE GASKETS OR APPROVED EQUAL.
6. ALL STORM PIPE LATERALS TO BE A MINIMUM 10 INCHES DIAMETER WITH A MINIMUM SLOPE OF S=0.0100 UNLESS SPECIFIED OTHERWISE IN THE PLANS.
7. ALL MANHOLES LOCATED IN UNIMPROVED EASEMENTS AND RIGHT OF WAYS SHALL BE PROVIDED WITH TAMPER PROOF LIDS AND SHALL BE SET 6 INCHES ABOVE FINISHED GRADE.
8. VIDEO INSPECTION TAPES AND REPORTS MAY BE REQUIRED AT THE CITY'S DISCRETION. MANDREL TESTING MAY BE REQUIRED AT THE CITY'S DISCRETION.

DRAINAGE NOTES:

- 1.) Storm drain system is conceptual only, based on preliminary information. Final design may deviate from the layout shown to better harmonize with actual site conditions.
- 2.) Standard erosion control techniques to be utilized as required (Straw bales/filter fences, inlet protection, etc.) Existing lot vegetation to be left undisturbed as much as possible.
- 3.) All site stormwater runoff will be collected and conveyed to storm-water facilities as shown.
- 4.) Stormwater quality & quantity control facilities to be privately owned and maintained.
- 5.) All roof & low point drains will be directed to storm facilities.

STORMWATER FACILITIES WILL PROVIDE WATER QUALITY & QUANTITY CONTROL AS REQUIRED PER CITY OF CAMAS STANDARD REQUIREMENTS

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STERLING
DESIGN, INC.

ENGINEERING PLAN

GREEN MOUNTAIN
B1 POD

Project:



Scale: AS SHOWN

Project Number: 791

Design/ Drawn: JGS/BC

Drawing Date: OCT. 2018

Sheet 6 of 8 Sheet(s)

- STORMWATER FACILITY CONSTRUCTION NOTES:
- 1) THE STORMWATER DRAINAGE FACILITY SHALL BE OWNED AND MAINTAINED BY THE H.O.A. WITH AN EASEMENT DEDICATED TO THE CITY OF CAMAS FOR ACCESS AND INSPECTION.
 - 2) THE CONTRACTOR SHALL ENSURE THAT ALL EROSION CONTROL MEASURES ARE IN PLACE AND IN WORKING CONDITION PRIOR TO COMMENCEMENT OF DRAINAGE FACILITY CONSTRUCTION.
 - 3) POND GRADING AND SEEDING SHALL OCCUR AS SOON AS POSSIBLE. ONCE SEEDING THE AREA SHALL BE WATERED AS REQUIRED TO GERMINATE AND MAINTAIN A HEALTHY GROWTH OF GRASS.
 - 4) VEGETATION FOR THE FACILITY SHOULD BE A SEED MIX CONSISTING OF:
30% CHATEAU KENTUCKY BLUEGRASS
40% COCHISE TURF, TALL FESCUE TYPE
30% DELAWARE DWARF PERENNIAL RYEGRASS
PREPARE GROUND, SEEDING RATE, FERTILIZER, AND MULCHING AS PER THE MANUFACTURER'S RECOMMENDATIONS.
 - 5) A 6 FOOT HIGH BLACK VINYL-COATED CYCLONE FENCE OR APPROVED EQUAL SHALL BE INSTALLED AROUND THE PERIMETER OF THE DRAINAGE FACILITY AND A STANDARD 16 FOOT WIDE GATE SHALL BE INSTALLED FOR POND ACCESS.

STORMWATER FACILITY STAKING TABLE

POINT	NORTHING	EASTING	ELEV.	POINT	NORTHING	EASTING	ELEV.
PA1	120272.22	2499619.49	188.02	PA47	119919.10	2499749.11	197.86
PA2	120276.55	2499642.04	188.00	PA48	119924.49	2499757.30	197.86
PA3	120263.66	2499661.04	188.00	PA49	119930.83	2499761.60	197.73
PA4	120240.47	2499676.31	188.00	PA50	119938.34	2499760.15	197.41
PA5	120223.84	2499679.14	188.00	PA51	119955.05	2499749.16	196.50
PA6	120198.33	2499676.53	188.00	PA52	119961.65	2499758.18	196.50
PA7	120192.25	2499688.07	192.00	PA53	119944.94	2499770.18	197.41
PA8	120186.83	2499689.95	192.00	PA54	119940.65	2499776.51	197.65
PA9	120172.49	2499684.62	189.00	PA55	119942.09	2499784.03	197.86
PA10	120153.88	2499693.99	189.00	PA56	119945.76	2499789.60	197.86
PA11	120132.91	2499707.92	189.00	PA57	119954.74	2499794.09	197.34
PA12	120098.91	2499746.56	189.00	PA58	119969.54	2499793.15	196.00
PA13	120089.91	2499797.04	189.00	PA59	119987.28	2499757.22	196.00
PA14	120062.89	2499845.65	189.00	PA60	119962.62	2499755.39	196.00
PA15	120007.79	2499843.53	189.00	PA61	119981.18	2499733.32	196.00
PA16	120005.23	2499802.93	189.00	PA62	119977.29	2499730.18	196.00
PA17	120004.47	2499790.95	189.00	PA63	120001.62	2499714.70	196.00
PA18	120001.39	2499742.11	189.00	PA64	119998.85	2499710.54	196.00
PA19	120013.24	2499732.19	189.00	PA65	120098.70	2499650.21	196.00
PA20	120079.45	2499688.21	189.00	PA66	120095.93	2499646.05	196.00
PA21	120145.65	2499644.23	189.00	PA67	120229.59	2499563.26	196.00
PA22	120148.17	2499631.75	192.00	PA68	120228.19	2499558.18	196.00
PA23	120152.34	2499628.98	192.00	PA69	120237.91	2499551.11	196.00
PA24	120168.97	2499632.34	188.00	PA70	120241.58	2499563.73	196.00
PA25	120212.90	2499603.16	188.00	PA71	120250.42	2499579.92	196.00
PA26	120240.76	2499603.73	188.00	PA72	120278.65	2499590.63	196.00
PA27	120249.93	2499603.91	188.00	PA73	120291.59	2499605.25	196.00
PA28	120263.11	2499608.91	188.00	PA74	120295.76	2499602.50	196.00
PA29	120271.54	2499618.45	188.00	PA75	120304.12	2499597.01	197.65
PA30	120292.27	2499606.29	196.00	PA76	120329.41	2499635.42	201.52
PA31	120300.06	2499646.88	196.00	PA77	120354.70	2499673.84	206.58
PA32	120276.86	2499681.09	196.00	PA78	120336.98	2499706.20	210.29
PA33	120253.67	2499696.35	196.00	PA79	120309.85	2499731.20	213.11
PA34	120218.02	2499702.42	196.00	PA80	120286.66	2499746.47	215.03
PA35	120189.13	2499701.73	196.00	PA81	120246.31	2499762.32	215.06
PA36	120162.71	2499713.44	196.00	PA82	120202.99	2499760.51	213.95
PA37	120144.53	2499725.41	196.00	PA83	120186.99	2499763.23	212.46
PA38	120117.75	2499755.86	196.00	PA84	120174.96	2499771.23	211.90
PA39	120109.86	2499795.63	196.00	PA85	120164.74	2499791.93	211.86
PA40	120060.32	2499869.72	196.00	PA86	120155.60	2499848.75	212.34
PA41	119972.16	2499834.77	196.02	PA87	120122.49	2499895.82	213.57
PA42	119970.30	2499805.13	196.00	PA88	120072.11	2499923.63	213.12
PA43	119955.50	2499806.06	197.03	PA89	120014.64	2499926.56	209.51
PA44	119944.29	2499803.79	197.91	PA90	119972.77	2499862.97	198.78
PA45	119935.74	2499796.20	197.92	PA91	119930.91	2499799.38	197.97
PA46	119909.11	2499755.75	197.92				

EXAMPLE WETPOND DESIGN DEMONSTRATING THAT THE GREEN MOUNTAIN PRD B1 POD WILL BE ABLE TO CONSTRUCT A SIMILAR FACILITY WITHIN 1-ACRE OF OFF-SITE PROPERTY

STORM SEWER NOTES

- AA10 SEE SHEET C4.1
- AA11 STA 64+79.54 (42.15' LT-NE INGLE ROAD) INSTALL: (1) 18" - 45" WYE IE=193.30
- AA12 STA 64+63.17 (54.87' LT-NE INGLE ROAD) INSTALL: 12" STORM SEWER FLOW CONTROL MH. (SEE DETAIL 3, SHEET C6.3)
- AA13 STA 64+58.45 (73.21' LT-NE INGLE ROAD) INSTALL: 24" PIPE OUTLET WITH DEBRIS BARRIER. IE=190.00 (SEE DETAIL 6, SHEET C6.3)
- AA14 STA 64+77.71 (62.64' LT-NE INGLE ROAD) INSTALL: EMERGENCY OVERFLOW DITCH INLET RIM=195.00 IE=193.38 (SEE DETAIL SD6, SHEET C9.8)
- BB1 STA 62+38.45 (67.00' LT-NE INGLE RD) INSTALL: 10" OUTFALL W/ HAND-PLACED RIP RAP. (SEE DETAIL 5, SHEET C6.3)
- CC1 STA 2+02.92 (70.43' RT-NE 92ND AVE.) INSTALL: 12" OUTFALL W/ HAND-PLACED RIP RAP. (SEE DETAIL 5, SHEET C6.3)
- CC1.5 STA 1+92.16 (39.50' RT-NE 92ND AVE.) INSTALL: STD. STORM SEWER MH.
- DD1 STA 2+50.61 (78.71' RT-NE 92ND AVE.) INSTALL: 18" OUTFALL W/ HAND-PLACED RIP RAP. (SEE DETAIL 5, SHEET C6.3)
- DD1.5 STA 2+66.44 (39.50' RT-NE 92ND AVE.) INSTALL: STD. STORM SEWER MH.
- KK1 STA 1+74.86 (125.33' LT-NE 92ND AVE.) INSTALL: 12" OUTFALL W/ HAND-PLACED RIP RAP. (SEE DETAIL 5, SHEET C6.3)

NOTE: THE ENGINEER HAS PERFORMED AN AS-BUILT INSPECTION OF THE FACILITIES AND VERIFIED THAT, AS CONSTRUCTED, THE FACILITIES MEET THE DESIGN CRITERIA PER THE STORM WATER REPORT FOR STORM WATER TREATMENT AND DETENTION REQUIREMENTS OF THE SITE

NOTE: ALL STREET NAME DIRECTIONAL DESIGNATIONS INCLUDED IN THIS PLAN SET ARE TO BE N. RATHER THAN N.E.

ASBUILTS

TRACT "A" STORMWATER FACILITY PLAN AND SECTIONS FOR:
GREEN MOUNTAIN MIXED USE P.R.D.
PHASES 1A & 1B

OLSON LAND SURVEYORS
ENGINEERS
ENGINEERING INC. 222 E. EVERGREEN BLVD., VANCOUVER, WA 98660



3/16/16

CHANGES / REVISIONS

DESCRIPTION:	DATE:
STREET NAMES	6/17/16
STORM SEWER DEPTH	7/22/16
FENCE HEIGHT	8/16/16

DESIGNED: RWP

DRAWN: RWP

CHECKED: PAT

DATE: MARCH 2016

SCALE: H: 1"=30'

V:

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GREEN MOUNTAIN MIXED USE P.R.D.
PHASES 1A & 1B

8938.01.02

SHEET

C6.2