

MARCH 2019



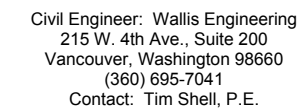
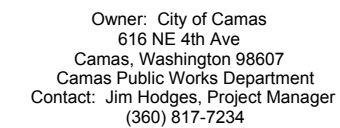
LOCATION MAP

NOT TO SCALE



PROJECT SITE MAP

NOT TO SCALE



FRANCHISE UTILITIES

NW Pipeline
Contact: Jennifer Tackett
Email: jennifer.1.tackett@williams.com
Phone: (360) 608-7220

[illegible]

COVER



PROJECT NO: 1460A DATE: 3/2019

**LACAMAS CREEK
SANITARY SEWER
PUMP STATION
IMPROVEMENTS**



CITY PROJECT NO. S1000

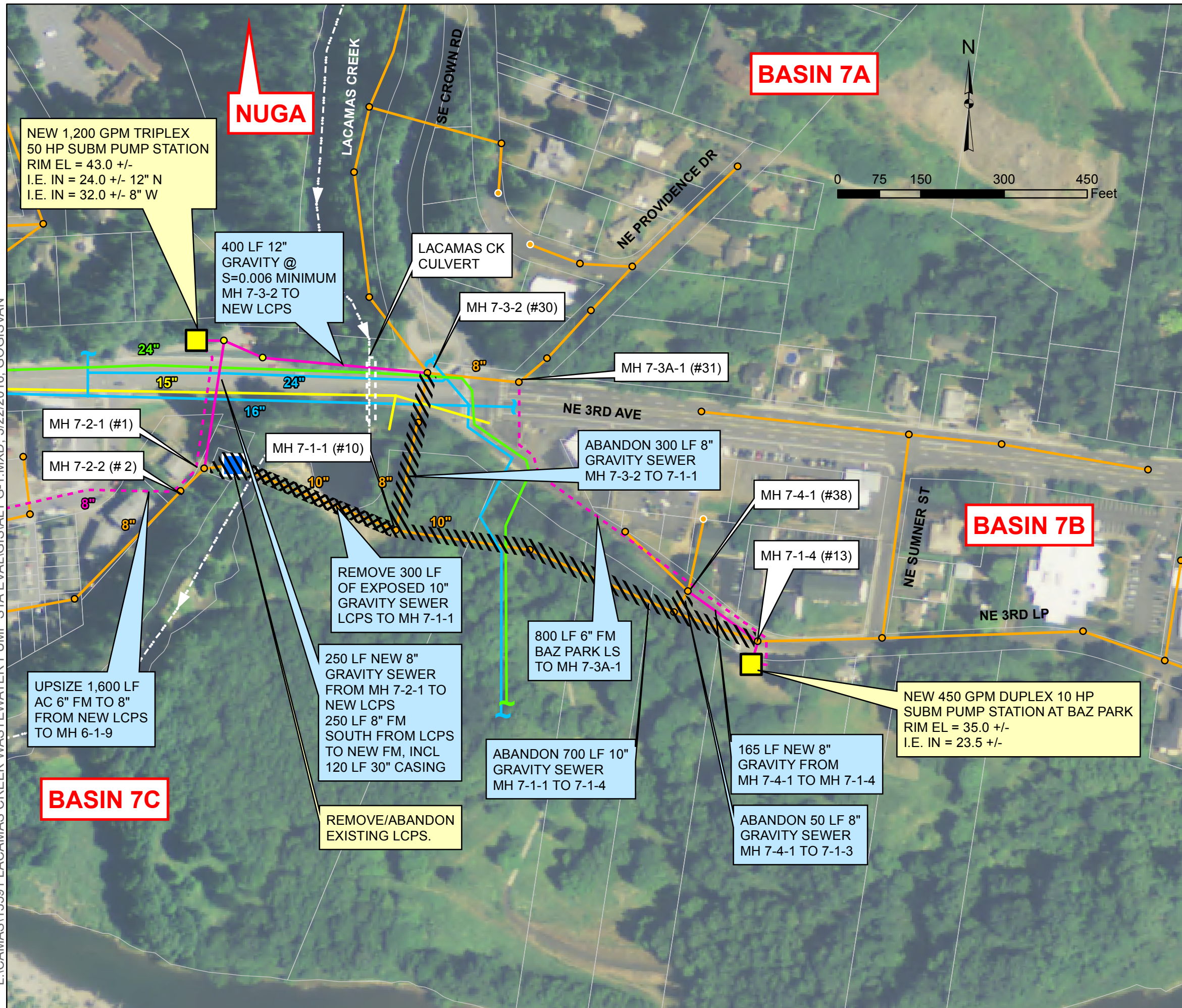
DRAWING NO:

G-001

1 OF 71

PERMIT SET

L:\CAMAS\15591 LACAMAS CREEK WASTEWATER PUMP STA EVAL\GISALT G-1.MXD, 3/22/2016, GOGISVAN



LEGEND

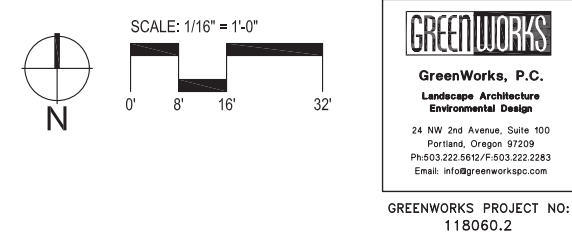
- PARCELS
- EXISTING STRUCTURE
- PIPING MODIFICATIONS
- NEW PUMPING FACILITIES
- ABANDON FACILITIES
- DEMOLISH FACILITIES
- SANITARY SEWER**
 - PROPOSED PUMP STATION SITE
 - PROPOSED MANHOLE
 - EXISTING PUMP STATION
 - EXISTING MANHOLE
 - EXISTING CLEANOUT
 - PROPOSED FORCE MAIN
 - PROPOSED GRAVITY MAIN
 - EXISTING FORCE MAIN
 - EXISTING GRAVITY MAIN
 - EXISTING STEP
- OTHER UTILITIES**
 - EXISTING STORM DRAIN
 - EXISTING WATER

NOTES:

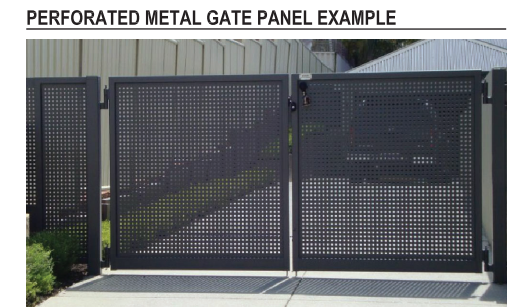
- ELEVATIONS AND LOCATIONS OF FACILITIES ARE APPROXIMATE.
 - GIS LOCATIONS HAVE BEEN ADJUSTED TO CORRESPOND APPROXIMATELY TO FIELD OBSERVATIONS AND ORTHOGRAPHY.
 - ELEVATIONS HAVE BEEN ADJUSTED TO CORRESPOND APPROXIMATELY TO NGVD 29 VERTICAL DATUM
 - MANHOLE NUMBERS FROM 1958 LID 151 PLANS ARE SHOWN IN BRACKETS
 - FEMA BASE FLOOD EL 32 +/- (NGVD29)
 - SEE FIGURE 3 FOR EXISTING FACILITIES
- ORTHO PHOTO SOURCE: 2013 NAIP

CITY OF CAMAS
LACAMAS CREEK WASTEWATER
PUMP STATION EVALUATION
FIGURE 7
MAP OF LACAMAS CREEK PS
FUTURE SITING ALTERNATIVE G-1

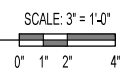
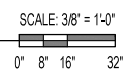
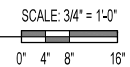
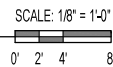

Gray & Osborne, Inc.
CONSULTING ENGINEERS



	ASPHALT PAVING
	CONCRETE PAVING
	GRAVEL SURFACING
	REINFORCED TURF PAVING
	RAIN GARDEN



	LACAMAS CREEK SANITARY SEWER PUMP STATION IMPROVEMENTS	PROJECT NO: 1460A	DATE: 4/2019	PERMIT SET
LACAMAS CREEK TRAILHEAD PARK MASTER PLAN	NO.	REVISION	BY	DATE
ONE INCH AT FULL SCALE. IF NOT ONE INCH ADJUST SCALE ACCORDINGLY		DESIGNED BY: AH		0" 1" SCALE
ONE INCH AT FULL SCALE. IF NOT ONE INCH ADJUST SCALE ACCORDINGLY		SKETCH BY: AH		
ONE INCH AT FULL SCALE. IF NOT ONE INCH ADJUST SCALE ACCORDINGLY		REV:		



1. CONTRACTOR SHALL PROVIDE COMPLETE LOCKING MANUAL SLIDING GATE SYSTEM AT EACH LOCATION INDICATED ON PLANS.
2. PROVIDE SHOP DRAWINGS AND CUT SHEETS FOR APPROVAL BY OWNER'S REPRESENTATIVE. INCLUDE PLAN, SECTION, AND ELEVATION FOR EACH GATE. INCLUDE DETAILS AND ENLARGEMENTS TO DESCRIBE ALL COMPONENTS, WELDS, FASTENERS, COATINGS, AND FOOTINGS. INCLUDE DIMENSIONS OF PERFORATED PANELS AND HOLE PATTERNS. INCLUDE ATTACHMENT OF ADJACENT CHAINLINK FENCE TO GATE POSTS.
3. GATES SHALL BE DURABLE AND SECURE FOR INDUSTRIAL USE IN A PUBLIC SETTING; CONTRACT DOCUMENT DETAILS SHOW DESIGN INTENT, AND THE SIZE, THICKNESS, OR SPACING OF SOME MEMBERS MAY NEED TO BE ADJUSTED FOR ADEQUATE STRENGTH.
4. ALL GATE FRAME AND PANEL COMPONENTS SHALL BE 6061 ALUMINUM, WELDED, PRIMED AND PAINTED BLACK. STEEL GATE POSTS AND CAPS SHALL BE PAINTED BLACK TO MATCH PANELS.

SURVEY STAKING COORDINATES

PT	DESCRIPTION	NORTHING	EASTING
①	WETWELL	99057.95	1156084.22
②	VALVE VAULT	99079.27	1156067.76
③	VALVE VAULT	99072.19	1156080.84
④	FLOW METER/PIGGING VAULT	99101.27	1156065.87
⑤	FLOW METER/PIGGING VAULT	99095.48	1156054.57
⑥	EQUIPMENT SHELTER	99101.27	1156102.89
⑦	EQUIPMENT SHELTER	99078.74	1156084.23
⑧	EDGE OF PAVEMENT	99045.76	1156102.89
⑨	EDGE OF PAVEMENT	99101.27	1156033.68
⑩	EDGE OF PAVEMENT	99103.27	1156033.68
⑪	BEGINNING OF WALL	99037.85	1156104.89
⑫	END OF WALL	99037.85	1156104.89
⑬	ODOR CONTROL EQUIPMENT PAD	99070.79	1156029.47
⑭	ODOR CONTROL EQUIPMENT PAD	99063.31	1156034.48
⑮	CHEMICAL INJECTION EQUIPMENT PAD	99057.76	1156029.47
⑯	CHEMICAL INJECTION EQUIPMENT PAD	99047.76	1156039.47

KEY NOTES

- ① REPLACE COMMERCIAL DRIVEWAY, SEE CAMAS STANDARD DETAIL ST17, SHEET SD-502

② REMOVABLE BOLLARD (TYP 3) SEE CAMAS STD DETAIL 10 SHEET SD-502

③ REPLACE SIDEWALK AND CURB WITH COMMERCIAL DRIVEWAY WITH FULL HEIGHT CURB

④ TRAFFIC CURB, SEE CAMAS STANDARD DETAIL ST12, SHEET SD-502

⑤ SIDEWALK, SEE CAMAS STANDARD DETAIL ST18, SHEET SD-502

⑥ 4" DEPTH CSTC COMPACTED TO 90% MAX DENSITY OVER COMPACTED SUBGRADE OR FILL

⑦ 20' WIDTH ROLLING GATE WITH PERFORATED STEEL PANEL
- ⑧ REINFORCED TURF. SEE LANDSCAPE PLANS

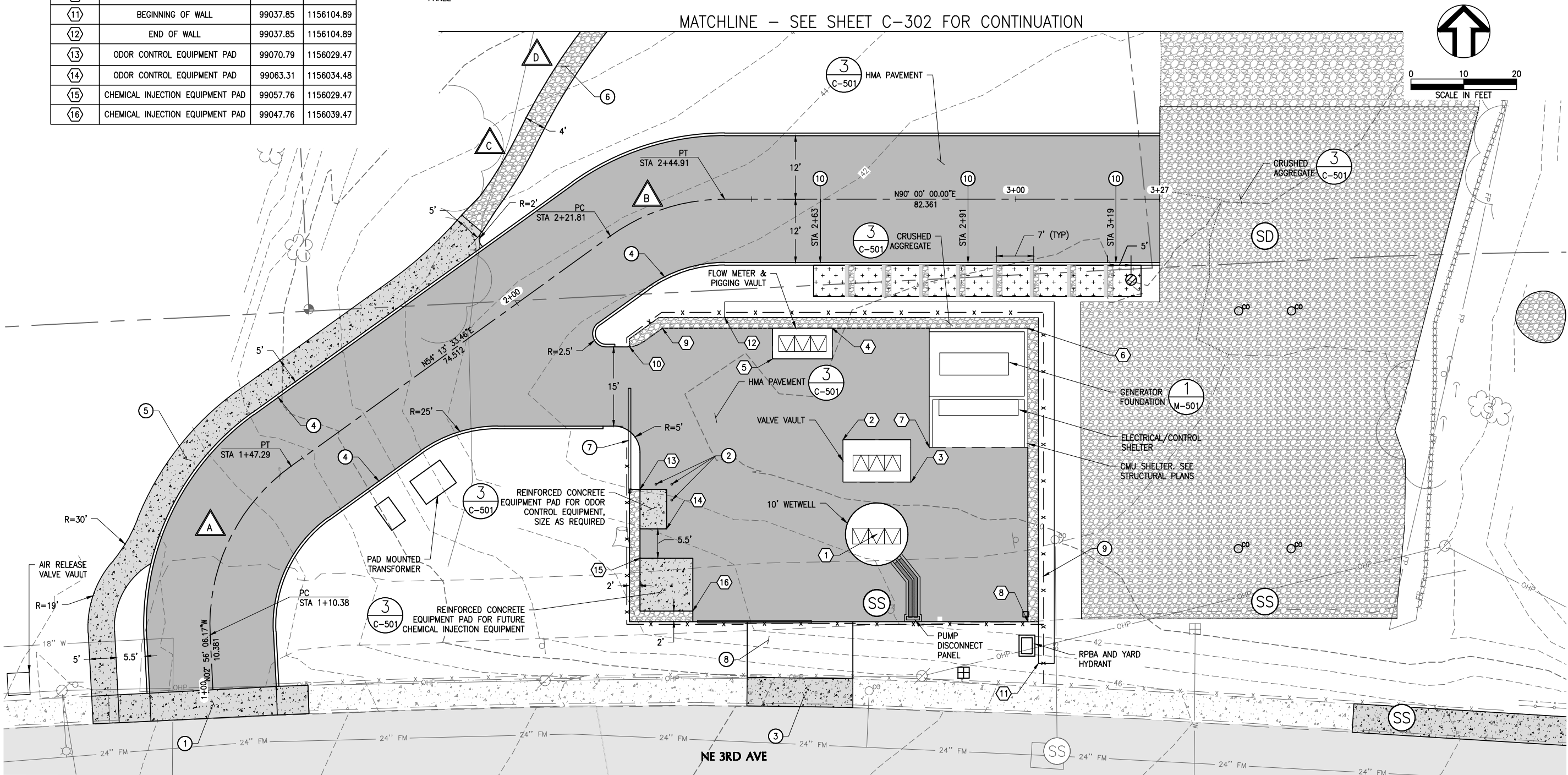
⑨ 6' TALL CHAINLINK FENCE

⑩ CURB CUT. SEE DETAIL, SJEET X.

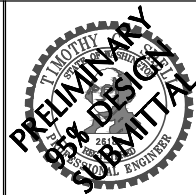
CURVE DATA

CURVE	RADIUS	LENGTH	Δ
A	37.00'	36.91'	57°09'39"
B	37.00'	23.10'	35°46'26"
C	75.5'	13.88'	10°31'50"
D	119.50'	69.38'	35°15'55"

MATCHLINE – SEE SHEET C-302 FOR CONTINUATION



PLAN



NO.	REVISION	BY	DATE

DESIGNED BY: JW/WW

CHECKED BY: CK

DATE: 5/2019

ONE INCH AT FULL SCALE.
IF NOT ONE INCH ADJUST
SCALE ACCORDINGLY

LCPS CIVIL
SITE PLAN

380 695 7041
Vancouver, WA 98602

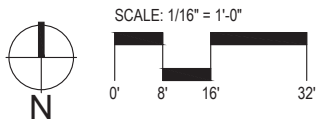
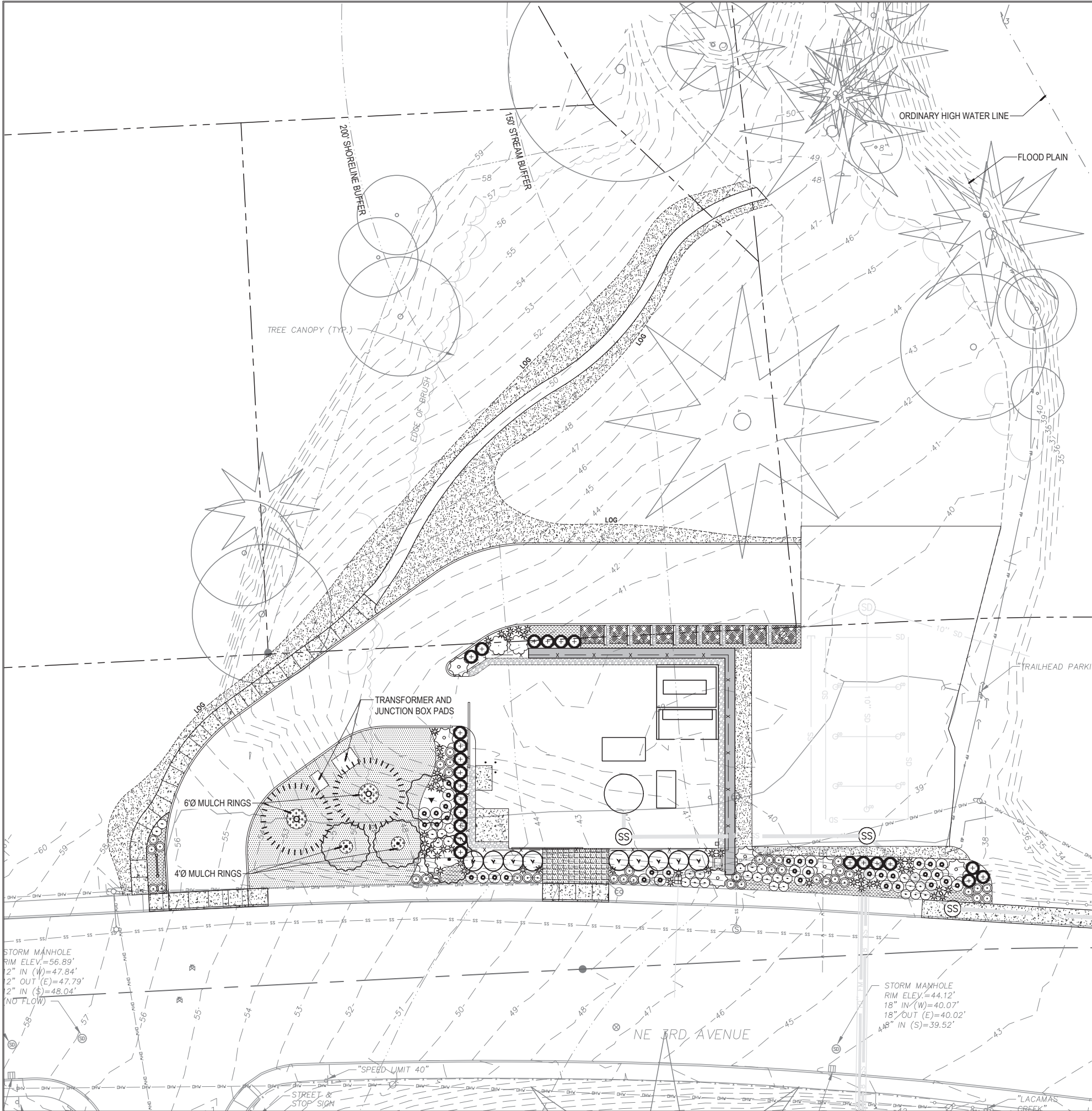
PROJECT NO: 1460A

DATE: 5/2019

LACAMAS CREEK
SANITARY SEWER
PUMP STATION
IMPROVEMENTS

CITY PROJECT NO. S1000

DRAWING NO:
C-301
26 OF 73



GREENWORKS
GreenWorks, P.C.
Landscape Architecture
Environmental Design
24 NW 2nd Avenue, Suite 100
Portland, Oregon 97209
Ph:503.222.5612/F:503.222.2283
Email: info@greenworkspc.com

GREENWORKS PROJECT NO:
118060.2

NOTE: QUANTITIES LISTED ARE
TOTAL FOR BOTH LACAMAS
AND BAZ PARKS

PLANTING LEGEND

TREES

-
- EXISTING DECIDUOUS TREE TO REMAIN

BOTANICAL NAME	COMMON NAME	SIZE & TYPE	SPACING	QTY.
CORNUS NUTTALLI X FLORIDA	EDDIE'S WHITE WONDER DOGWOOD	2", CAL, B&B	15' O.C.	2
RHAMNUS PURSHIANA	CASCARA	2" CAL, B&B	15' O.C.	4
PSEUDOTSUGA MENZIESII	DOUGLAS FIR	4-6" CAL., B&B	25' O.C.	2

SHRUBS / GROUNDCOVERS

BOTANICAL NAME	COMMON NAME	SIZE & TYPE	SPACING	QTY.
GAULTHERIA SHALLON	SALAL	1 GAL. CONT.	3' O.C.	42
OSMANTHUS DELAVAYI	DELAVAY OSMANTHUS	5 GAL. CONT.	6' O.C.	19
POLYSTICHUM MUNITUM	WESTERN SWORD FERN	1 GAL. CONT.	30" O.C.	79
RIBES SANGUINEUM	RED-FLOWERING CURRANT	5 GAL. CONT.	6' O.C.	11
SPIRAEA BETULIFOLIA	WHITE SPIRAEA	1 GAL. CONT.	3' O.C.	60
SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL. CONT.	42" O.C.	35
VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	5 GAL. CONT.	4' O.C.	25
VIBURNUM TINUS 'COMPACTUM'	SPRING BOUQUET VIBURNUM	5 GAL. CONT.	5' O.C.	11
MAHONIA REPENS	CREeping OREGON GRAPE	1 GAL. CONT.	24" O.C.	142
RAIN GARDEN PLANTING:				
CAREX DENSE	DENSE SEDGE	4" POT	18" O.C.	28
DESCHAMPSIA CAESPITOSA	TUFTED HAIRGRASS	4" POT	12" O.C.	96
IRIS TENAX	OREGON IRIS	4" POT	12" O.C.	64
JUNCUS PATENS	SPREADING RUSH	4" POT	18" O.C.	43

PLANT RAIN GARDEN SPECIES IN RANDOM CLUMPS OF 5-9 PLANTS EACH.

-
- IRRIGATED LAWN

LOG APPROXIMATE LIMIT OF GRADING/SITE DISTURBANCE

NOTE:
SEE L-402 FOR PLANTING NOTES.

NOT FOR
CONSTRUCTION

DATE
BY
REVISION
NO.

DESIGNED BY: AH
DRAWN BY: NGQ
CHECKED BY: RES

ONE INCH
0" 1" 1" 1"
ONE INCH AT FULL SCALE
IF NOT ONE INCH ADJUST
SCALE ACCORDINGLY

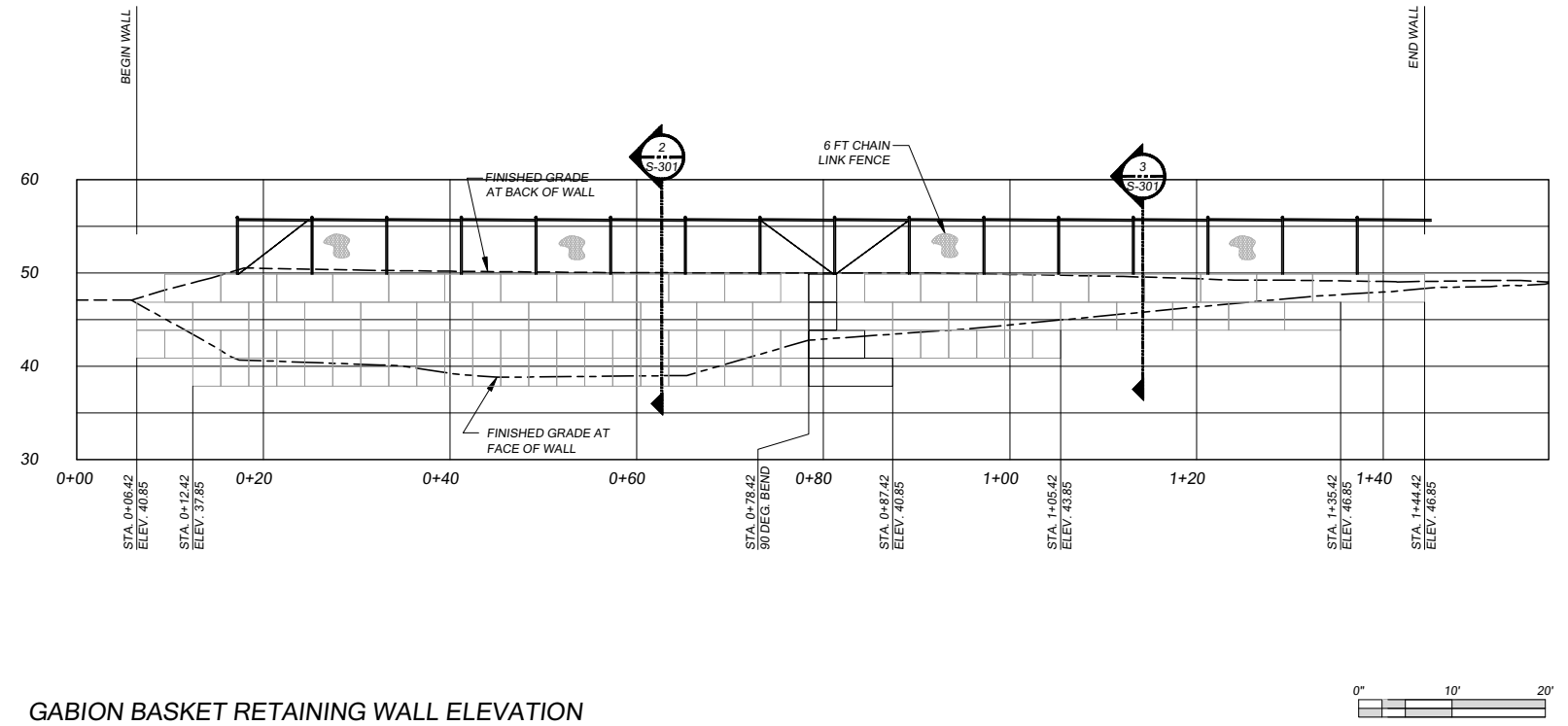
LACAMAS CREEK
SANITARY SEWER
PUMP STATION
IMPROVEMENTS

PROJECT NO:
1460A
DATE:
5/2019

CITY PROJECT NO. S1000

DRAWING NO:
L-302

32 of 72



NUMBER OF CELLS

2
3

1/2" Ø THRU GH BOLT

GABION BLOCK GB2

FENCE

AFTER PLACEMENT OF FENCE POST, FILL ANNULAR SPACE BETWEEN FENCEPOST AND SLEEVE INSERT WITH 3000 PSI FREE FLOWING GROUT

STEEL SLEEVE INSERT AT FENCE POSTS

COMPACTED WALL BACKFILL

6" THICK LEVELING PAD THAT EXTENDS A MINIMUM OF 6" BEYOND THE BASE COURSE OF BASKETS

3 WALL SECTION

SCALE: 3/8"=1'-0"

9/16" Ø HOLE FOR 1/2" Ø BOLT

42" LONG 4" Ø SCHED. 40 PIPE

1/2" RADIUS DRAIN HOLE EA. SIDE OF PIPE

1/2" x 12" x 2'-0"

3 1/4"

5/16" TYP.

NOTE:

1. INSERT SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
2. AFTER GALVANIZING, PAINT TOP HALF OF INSERT BLACK TO MATCH FENCING.

NOTE:

1. INSERT SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
2. AFTER GALVANIZING, PAINT TOP HALF OF INSERT BLACK TO MATCH FENCING.

NO.	REVISION	BT	DATE

ONE INCH



0" 1"

DESIGNED BY: BK

DRAWN BY: BK

NOTED: XX

ONE INCH AT FULL SCALE.
 IF NOT ONE INCH ADJUST
 SCALE ACCORDINGLY

CPS RETAINING WALL PLAN, ELEVATION & DETAILS

wallis
engineering
 215 W 4th Street, Suite 200
 Vancouver, WA 98660
 360.695.7041

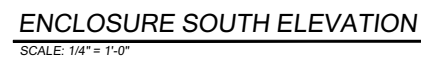
PROJECT NO: 1460A
DATE: 5/2019

LACAMAS CREEK
SANITARY SEWER
PUMP STATION
IMPROVEMENTS

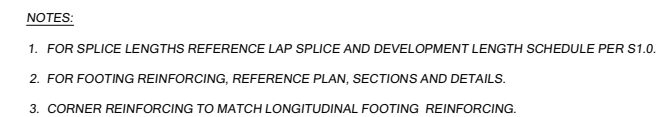
City of Camas
WASHINGTON

CITY PROJECT NO. S1000

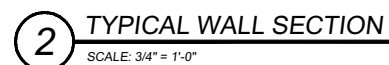
DRAWING NO:
S-301
36 OF 71



- NORTH
MASONRY EQUIPMENT SHELTER CANOPY PLAN
SCALE: 1/4" = 1'-0"



1 TYP CORNER REINF AT CONCRETE FOOTINGS
SCALE: NONE



NO.	REVISION	BY	DATE

ONE INCH = 1"

ONE INCH AT FULL SCALE.
IF NOT ONE INCH ADJUST
SCALE ACCORDINGLY

DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	XX

LCPS EQUIPMENT
SHELTER PLANS &
ELEVATIONS



PROJECT NO: 1460A DATE: 5/2019

LACAMAS CREEK
SANITARY SEWER
PUMP STATION
IMPROVEMENTS

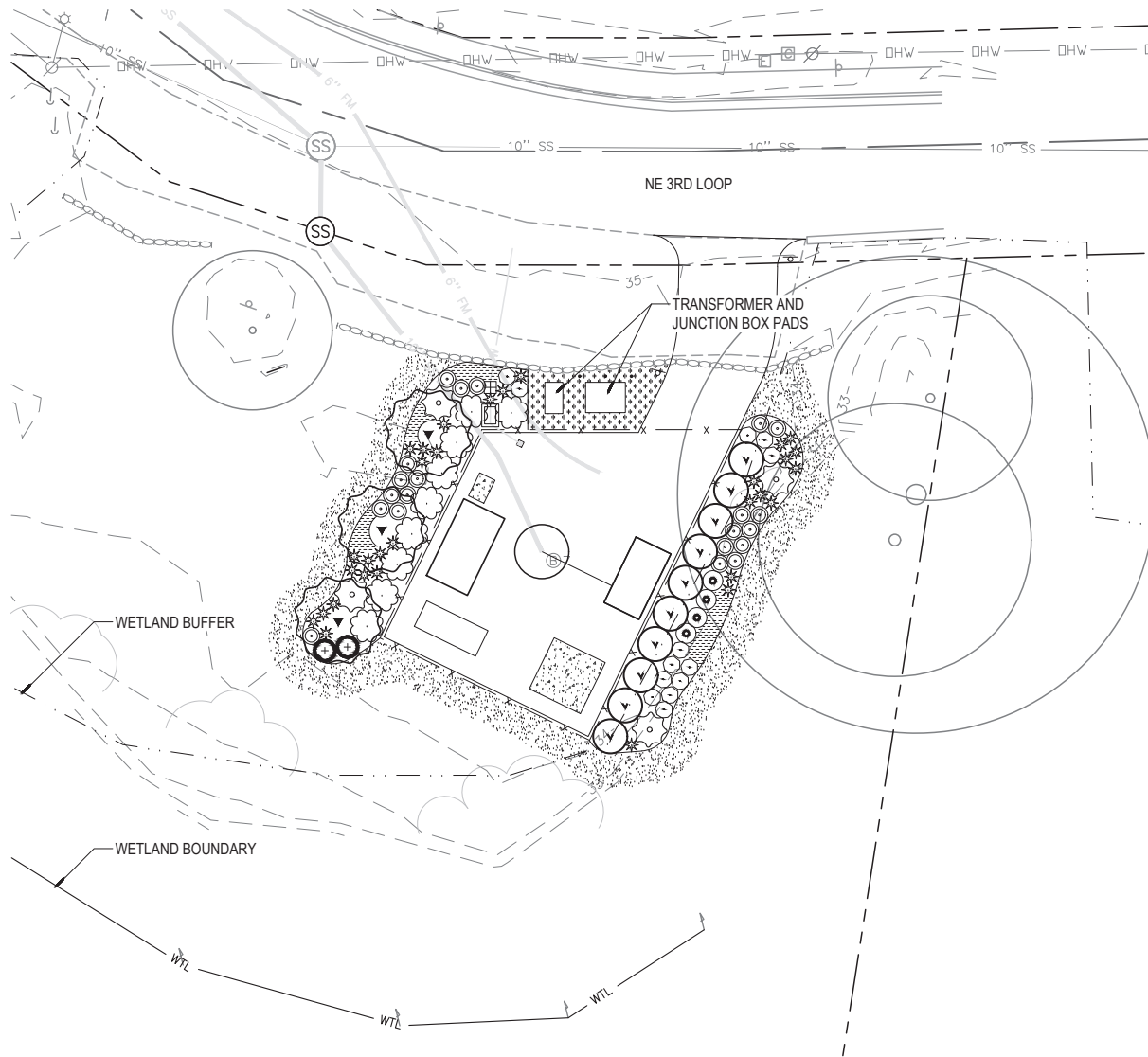


CITY PROJECT NO. S1000

DRAWING NO:

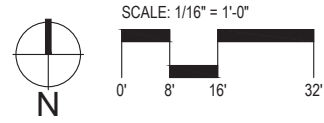
S-302





PLANTING NOTES

1. CONTRACTOR SHALL PROVIDE PLANTING SOIL, SOIL AMENDMENTS, AND MULCH TO THE COMPOSITION AND DEPTHS IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS OF THE CONTRACT DOCUMENTS.
2. WITHIN RAIN GARDEN PLANTING AREA, PROVIDE 18" DEPTH BIORETENTION SOIL MEDIA AND ROCK MULCH.
3. WITHIN SHRUB PLANTING AREAS, PROVIDE 12" DEPTH AMENDED PLANTING SOIL, AND BARK MULCH.
4. ALL PLANTS SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND THE SPECIFICATIONS PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
5. QUANTITIES ARE LISTED FOR THE CONTRACTOR'S CONVENIENCE ONLY. ALL COUNTS MUST BE VERIFIED BY THE CONTRACTOR. IN THE CASE OF A DISCREPANCY BETWEEN THE LEGEND AND THE PLAN, PLANTS INDICATED ON THE PLAN SHALL SUPERCEDE QUANTITIES LISTED IN THE LEGEND.
6. UTILITY LOCATIONS SHOWN ON PLANS MAY DIFFER FROM FIELD CONDITIONS. CONTRACTOR TO FIELD VERIFY ALL UTILITIES BEFORE INSTALLATION. CONFLICTS BETWEEN ANY EXISTING AND PROPOSED UTILITIES ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE IMMEDIATELY.

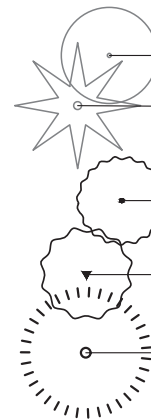


GreenWorks, P.C.
Landscape Architecture
Environmental Design
24 NW 2nd Avenue, Suite 100
Portland, Oregon 97209
Ph: 503.222.5612 / F: 503.222.2281
Email: info@greenworkspc.com

GREENWORKS PROJECT NO:
118060.2

PLANTING LEGEND

TREES



— EXISTING DECIDUOUS TREE TO REMAIN

— EXISTING CONIFER TREE TO REMAIN

BOTANICAL NAME	COMMON NAME	SIZE & TYPE	SPACING	QTY.
CORNUS NUTTALLI X FLORIDA	EDDIE'S WHITE WONDER DOGWOOD	2", CAL, B&B	15' O.C.	2
RHAMNUS PURSHIANA	CASCARA	2" CAL, B&B	15' O.C.	4
PSEUDOTSUGA MENZIESII	DOUGLAS FIR	4-6" CAL., B&B	25' O.C.	2

SHRUBS / GROUNDCOVERS

	BOTANICAL NAME	COMMON NAME	SIZE & TYPE	SPACING	QTY.
	GAULTHERIA SHALLON	SALAL	1 GAL. CONT.	3' O.C.	42
	OSMANTHUS DELAVAYI	DELAVAY OSMANTHUS	5 GAL. CONT.	6' O.C.	19
	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	1 GAL. CONT.	30" O.C.	79
	RIBES SANGUINEUM	RED-FLOWERING CURRANT	5 GAL. CONT.	6' O.C.	11
	SPIRAEA BETULIFOLIA	WHITE SPIRAEA	1 GAL. CONT.	3' O.C.	60
	SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL. CONT.	42" O.C.	35
	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	5 GAL. CONT.	4' O.C.	25
	VIBURNUM TINUS 'COMPACTUM'	SPRING BOUQUET VIBURNUM	5 GAL. CONT.	5' O.C.	11

	MAHONIA REPENS	CREeping OREGON GRAPE	1 GAL. CONT.	24" O.C.	142
	NON-IRRIGATED ROUGH LAWN - SEED AREAS DISTURBED BY CONSTRUCTION				
	BARK MULCH ONLY				

BPPS PLANTING PLAN

wallis
*
engineering
215 W 4th Street, Suite 200
Vancouver, WA 98660
360.695.7041

LACAMAS CREEK
SANITARY SEWER
PUMP STATION
IMPROVEMENTS



CITY PROJECT NO. S1000

DRAWING NO:

L-402

50 OF 72

NOT FOR
CONSTRUCTION

